



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

Construction Phase Monthly EM&A Report No.66
(For June 2021)

July 2021

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This Monthly EM&A Report No. 66 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:

A handwritten signature in black ink, appearing to read 'Terence Kong', written in a cursive style.

Terence Kong
Environmental Team Leader (ETL)
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Date

14 July 2021



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By Email

Airport Authority Hong Kong
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Attn: Mr. Lawrence Tsui, Principal Manager, Environmental Compliance

14 July 2021

Dear Sir,

Contract No. 3102
3RS Independent Environmental Checker Consultancy Services

Submission of Monthly EM&A Report No. 66 (June 2021)

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No. 66 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 14 July 2021.

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

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

Yours faithfully,
AECOM Asia Co. Ltd.

Jackel Law
Independent Environmental Checker

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Abbreviations

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

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

Executive Summary

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

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

This is the 66th Construction Phase Monthly EM&A Report for the Project which summarises the monitoring results and audit findings of the EM&A programme during the reporting period from 1 to 30 June 2021.

Key Activities in the Reporting Period

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

EM&A Activities Conducted in the Reporting Period




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

Monitoring Activities	Number of Sessions
1-hour Total Suspended Particulates (TSP) air quality monitoring	30
Noise monitoring	18
Water quality monitoring	13
Vessel line-transect surveys for Chinese White Dolphin (CWD) monitoring	2
Land-based theodolite tracking survey effort for CWD monitoring	2

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

With reference to the requirement as stipulated in Section 6.2.1.3 of the Updated EM&A Manual, the proposed methodology for carrying out the annual sewage flow monitoring for the existing gravity sewer was approved by EPD on 21 June 2021. The annual sewage flow monitoring has been started from June 2021.

Snapshots of EM&A Activities in the Reporting Period

		
Noise Impact Monitoring conducted by ET in Sha Lo Wan	On-site Checking of Barge Waste Disposal Record	Dust Suppression Measure conducted by Contractor

Results of Impact Monitoring

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

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

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

Summary of Upcoming Key Issues

Reclamation Works:

Contract 3206 Main Reclamation Works

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

Airfield Works:

Contract 3301 North Runway Crossover Taxiway

- Cable ducting works; and
- Paving works.

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Cable laying and ducting works;
- Backfilling and reinstatement works; and
- Piling and structure works.

Contract 3303 Third Runway and Associated Works

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

Contract 3305 Airfield Ground Lighting System

- Genset installation; and
- Site establishment.

Contract 3307 Fire Training Facility

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

Third Runway Concourse:**Contract 3403 New Integrated Airport Centres Building and Civil Works**

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

Contract 3405 Third Runway Concourse Foundation and Substructure Works

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

Terminal 2 Expansion:**Contract 3503 Terminal 2 Foundation and Substructure Works**

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

Contract 3508 Terminal 2 Expansion Works

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

Automated People Mover (APM) and Baggage Handling System (BHS):**Contract 3601 New Automated People Mover System (TRC Line)**

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

Contract 3602 Existing APM System Modification Works

- Car modification; and
- Concreting work.

Construction Support (Facilities):**Contract 3721 Construction Support Infrastructure Works**

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

Contract 3722 Construction Support Facilities

- Foundation works;
- Formwork erection;
- Electrical and mechanical installation; and
- Site establishment.

Contract 3723 Construction Support Facilities

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

Airport Support Infrastructure:**Contract 3801 APM and BHS Tunnels on Existing Airport Island**

- Formwork and rebar fixing;
- Backfilling;
- Construction of slab;
- Hanger support and soil nail installation; and
- Demolition works.

Contract 3802 APM and BHS Tunnels and Related Works

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

Construction Support (Services / Licences):**Contract 3901A Concrete Batching Facility**

- Plant operation; and
- Material conveyor belt construction.

Contract 3901B Concrete Batching Facility

- Plant operation; and
- Foundation works for conveyor belt .

Summary Table

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

	Yes	No	Details	Analysis / Recommendation / Remedial Actions
Breach of Limit Level [^]		√	No breach of Limit Level was recorded.	Nil
Breach of Action Level [^]		√	No breach of Action Level was recorded.	Nil
Complaint Received	√		A complaint regarding sand material blown from stockpiling area of 3RS project was received on 21 June 2021.	ET requested the relevant contractors to provide information related to the complaint. Regular site inspections and joint inspection were conducted and no observation related to dust issue was recorded. Besides, inactive and idle stockpiles were observed to be covered and water spraying actions on active stockpiles were conducted and even enhanced. All contractors were reminded to continue implementing their mitigation measures on dust control on stockpiles. The case was considered closed.
			A complaint regarding dust issue at the eastern quay of 3RS project was received on 21 June 2021.	The complaint is under investigation. Findings will be reported in the next Monthly EM&A Report.
			A complaint regarding muddy water from 3RS project was received on 28 June 2021.	The complaint is under investigation. Findings will be reported in the next Monthly EM&A Report.
Notification of any summons and status of prosecutions		√	No notification of summons or prosecution was received.	Nil
Change that affect the EM&A		√	There was no change to the construction works that may affect the EM&A.	Nil

Note:

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

1 Introduction

1.1 Background

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

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

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

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

The summary of construction works programme can be referred to **Section 1.4**.

1.2 Scope of this Report

This is the 66th Construction Phase Monthly EM&A Report for the Project which summarises the key findings of the EM&A programme during the reporting period from 1 to 30 June 2021.

1.3 Project Organisation

The Project’s organisation structure presented in Appendix B of the Construction Phase Monthly EM&A Report No.1 remained unchanged during the reporting period. Contact details of the key personnel presented in Section 1.3 of the Construction Phase Monthly EM&A Report No.64 remained unchanged during the reporting period.

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

1.4 Summary of Construction Works

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

The locations of key construction activities are presented in **Figure 1.1**.

1.5 Summary of EM&A Programme Requirements

The status for all environmental aspects are presented in **Table 1.1**. The EM&A requirements remained unchanged during the reporting period.

Table 1.1: Summary of status for all environmental aspects under the Updated EM&A Manual

Parameters	EM&A Requirements	Status
Air Quality		
Baseline Monitoring	At least 14 consecutive days before commencement of construction work	The baseline air quality monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	At least 3 times every 6 days	On-going
Noise		
Baseline Monitoring	Daily for a period of at least two weeks prior to the commencement of construction works	The baseline noise monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	Weekly	On-going
Water Quality		
General Baseline Water Quality Monitoring for reclamation, water jetting and field joint works	Three days per week, at mid-flood and mid-ebb tides, for at least four weeks prior to the commencement of marine works.	The baseline water quality monitoring result has been reported in Baseline Water Quality Monitoring Report and submitted to EPD under EP Condition 3.4.
General Impact Water Quality Monitoring for reclamation, water jetting and field joint works	Three days per week, at mid-flood and mid-ebb tides.	On-going for reclamation works. General impact water quality monitoring for water jetting works was completed on 23 May 2017.
Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring	At least four weeks	The Initial Intensive DCM Monitoring Report was submitted and approved by EPD in accordance with the Detailed Plan on DCM.
Regular DCM Water Quality Monitoring	Three times per week until completion of DCM works.	Due to the completion of all marine-based DCM works within May 2021, regular DCM monitoring is ceased at all monitoring stations starting from 24 June 2021 and would be resumed if there are marine-based DCM works in the coming future.
Sewerage and Sewage Treatment		
Methodology for carrying out annual sewage flow monitoring for concerned gravity sewer	Methodology to be prepared and submitted to EPD at least one year before commencement of the operation of 3RS	The proposed methodology of the annual sewage flow monitoring was approved by EPD. The annual flow monitoring has been started from June 2021.
Details of the routine H ₂ S monitoring system for the sewerage system of 3RS	Details to be prepared and submitted to EPD at least one year before commencement of the operation of 3RS	The details of the routine H ₂ S monitoring system will be prepared and submitted to

Parameters	EM&A Requirements	Status
		EPD at least one year before commencement of operation of 3RS.
Waste Management		
Waste Monitoring	At least weekly	On-going
Land Contamination		
Supplementary Contamination Assessment Plan (CAP)	At least 3 months before commencement of any soil remediation works.	The Supplementary CAP was submitted and approved by EPD under EP Condition 2.20.
Contamination Assessment Report (CAR) for Golf Course	CAR to be submitted for golf course	The CAR for Golf Course was submitted and accepted by EPD.
Contamination Assessment Reports (CAR) for Terminal 2 Emergency Power Supply Systems	CAR to be submitted for Terminal 2 Emergency Power Supply Systems	The CARs for Terminal 2 Emergency Power Supply Systems were submitted and accepted by EPD.
Terrestrial Ecology		
Pre-construction Egret Survey Plan	Once per month in the breeding season between April and July, prior to the commencement of HDD drilling works.	The Egret Survey Plan was submitted and approved by EPD under EP Condition 2.14.
Ecological Monitoring	Monthly monitoring during the HDD construction works period from August to March.	The terrestrial ecological monitoring at Sheung Sha Chau was completed in January 2019.
Marine Ecology		
Pre-Construction Phase Coral Dive Survey	Prior to marine construction works	The Coral Translocation Plan was submitted and approved by EPD under EP Condition 2.12.
Coral Translocation	-	The coral translocation was completed.
Post-Translocation Coral Monitoring	As per an enhanced monitoring programme based on the Coral Translocation Plan	The post-translocation monitoring programme according to the Coral Translocation Plan was completed in April 2018.
Chinese White Dolphins (CWD)		
Baseline Monitoring	6 months of baseline surveys before the commencement of land formation related construction works. Vessel line transect surveys: Two full surveys per month; Land-based theodolite tracking surveys: Two days per month at the Sha Chau station and two days per month at the Lung Kwu Chau station; and Passive Acoustic Monitoring (PAM): For the whole duration of baseline period.	Baseline CWD results were reported in the CWD Baseline Monitoring Report and submitted to EPD in accordance with EP Condition 3.4.
Impact Monitoring	Vessel line transect surveys: Two full surveys per month; Land-based theodolite tracking surveys: One day per month at the Sha Chau station and one day per month at the Lung Kwu Chau station; and PAM: For the whole duration for land formation related construction works.	On-going
Landscape & Visual		
Landscape & Visual Plan	At least 3 months before the commencement of construction works on the formed land of the Project.	The Landscape & Visual Plan was submitted and approved by EPD under EP Condition 2.18
Baseline Monitoring	One-off survey within the Project site boundary prior to commencement of any construction works	The baseline landscape & visual monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.

Parameters	EM&A Requirements	Status
Impact Monitoring	Weekly	On-going
Environmental Auditing		
Regular site inspection	Weekly	On-going
Marine Mammal Watching Plan (MMWP) implementation measures	Monitor and check	On-going
Dolphin Exclusion Zone (DEZ) Plan implementation measures	Monitor and check	On-going
SkyPier High Speed Ferries (HSF) implementation measures	Monitor and check	On-going
Construction and Associated Vessels Implementation measures	Monitor and check	On-going
Silt Curtain Deployment Plan implementation measures	Monitor and check	On-going
Spill Response Plan implementation measures	Monitor and check	On-going
Complaint Hotline and Email channel	Construction phase	On-going
Environmental Log Book	Construction phase	On-going

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

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

- One skipper training session provided by ET: 9 June 2021; and
- Seventeen environmental management meetings for EM&A review with works contracts: 3, 4, 8, 11, 16, 21, 22, 23, 24, 25, 28 and 30 June 2021.

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

2 Air Quality Monitoring

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

Table 2.1: Locations of Impact Air Quality Monitoring Stations

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

2.1 Action and Limit Levels

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

Table 2.2: Action and Limit Levels of Air Quality Monitoring

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

2.2 Monitoring Equipment

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

Table 2.3: Air Quality Monitoring Equipment

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

2.3 Monitoring Methodology

2.3.1 Measuring Procedure

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

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

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

2.3.2 Maintenance and Calibration

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

2.4 Summary of Monitoring Results

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

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

Table 2.4: Summary of Air Quality Monitoring Results

Monitoring Station	1-hr TSP Concentration Range ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
AR1A	15 - 29	306	500
AR2	19 - 47	298	

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

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

2.5 Conclusion

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

3 Noise Monitoring

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

Table 3.1: Locations of Impact Noise Monitoring Stations

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

Note:

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

3.1 Action and Limit Levels

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

Table 3.2: Action and Limit Levels for Noise Monitoring

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

Note:

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

3.2 Monitoring Equipment

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

Table 3.3: Noise Monitoring Equipment

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

3.3 Monitoring Methodology

3.3.1 Monitoring Procedure

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

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

3.3.2 Maintenance and Calibration

The maintenance and calibration procedures are summarised below:

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

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

3.4 Summary of Monitoring Results

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

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

Table 3.4: Summary of Construction Noise Monitoring Results

Monitoring Station	Noise Level Range, dB(A)	Limit Level, dB(A)
	L_{eq} (30mins)	L_{eq} (30mins)
NM1A ⁽¹⁾⁽³⁾	67 - 73	75
NM4 ⁽¹⁾	62 - 66	70 ⁽²⁾
NM5 ⁽¹⁾⁽³⁾	55 - 65	75
NM6 ⁽¹⁾⁽³⁾	65 - 71	75

Notes:

- (1) +3dB(A) Façade correction included;
- (2) Reduced to 65dB(A) during school examination periods at NM4. School examination took place from 31 May to 4 June; while Basic Competency Assessment took place on 7, 8, 11, 15, 16, and 21 June during this reporting period.
- (3) Some of the noise measurement results were higher than the baseline monitoring levels. In order to reduce the influence of non-Project related noise on the monitoring results, these measurement results were corrected with reference to the baseline monitoring levels.

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

3.5 Conclusion

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

4 Water Quality Monitoring

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

Due to the completion of all marine-based DCM works within May 2021, regular DCM monitoring was ceased at all monitoring stations starting from 24 June 2021 and would be resumed if there are marine-based DCM works in the coming future.

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

Monitoring Station	Description	Coordinates		Parameters
		Easting	Northing	
C1	Control Station	804247	815620	<u>General Parameters</u>
C2	Control Station	806945	825682	DO, pH, Temperature, Salinity, Turbidity, SS
C3 ⁽³⁾	Control Station	817803	822109	
IM1	Impact Station	807132	817949	<u>DCM Parameters</u>
IM2	Impact Station	806166	818163	Total Alkalinity, Heavy Metals ⁽²⁾
IM3	Impact Station	805594	818784	
IM4	Impact Station	804607	819725	
IM5	Impact Station	804867	820735	
IM6	Impact Station	805828	821060	
IM7	Impact Station	806835	821349	
IM8	Impact Station	808140	821830	
IM9	Impact Station	808811	822094	
IM10	Impact Station	809794	822385	
IM11	Impact Station	811460	822057	
IM12	Impact Station	812046	821459	
SR1A ⁽¹⁾	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) Seawater Intake for cooling	812660	819977	<u>General Parameters</u> DO, pH, Temperature, Salinity, Turbidity, SS
SR2 ⁽³⁾	Planned marine park / hard corals at The Brothers / Tai Mo To	814166	821463	<u>General Parameters</u> DO, pH, Temperature, Salinity, Turbidity, SS <u>DCM Parameters</u> Total Alkalinity, Heavy Metals ⁽²⁾⁽⁴⁾

Monitoring Station	Description	Coordinates		Parameters
		Easting	Northing	
SR3	Sha Chau and Lung Kwu Chau Marine Park / fishing and spawning grounds in North Lantau	807571	822147	<u>General Parameters</u> DO, pH, Temperature, Salinity, Turbidity, SS
SR4A	Sha Lo Wan	807810	817189	
SR5A	San Tau Beach SSSI	810696	816593	
SR6A ⁽⁵⁾	Tai Ho Bay, Near Tai Ho Stream SSSI	814739	817963	<u>General Parameters</u> DO, pH, Temperature, Salinity, Turbidity, SS
SR7	Ma Wan Fish Culture Zone (FCZ)	823742	823636	
SR8 ⁽⁶⁾	Seawater Intake for cooling at Hong Kong International Airport (East)	811623	820390	

Notes:

- (1) With the operation of HKBCF, water quality monitoring at SR1A station was commenced on 25 October 2018. To better reflect the water quality in the immediate vicinity of the intake, the monitoring location of SR1A has been shifted closer to the intake starting from 5 January 2019.
- (2) Details of selection criteria for the two heavy metals for regular DCM monitoring refer to the Detailed Plan on Deep Cement Mixing available on the dedicated 3RS website (<http://env.threerunwaysystem.com/en/ep-submissions.html>). DCM specific water quality monitoring parameters (total alkalinity and heavy metals) were only conducted at C1 to C3, SR2, and IM1 to IM12.
- (3) According to the Baseline Water Quality Monitoring Report, C3 station is not adequately representative as a control station of impact/ SR stations during the flood tide. The control reference has been changed from C3 to SR2 from 1 September 2016 onwards.
- (4) Total alkalinity and heavy metals results are collected at SR2 as a control station for regular DCM monitoring.
- (5) As the access to SR6 was obstructed by the construction activities and temporary structures for Tung Chung New Town Extension, the monitoring location has been relocated to SR6A starting from 8 August 2019.
- (6) The monitoring location for SR8 is subject to further changes due to silt curtain arrangements and the progressive relocation of this seawater intake.

4.1 Action and Limit Levels

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

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

Parameters		Action Level (AL)		Limit Level (LL)	
Action and Limit Levels for general water quality monitoring and regular DCM monitoring (excluding SR1A & SR8)					
General Water Quality Monitoring	DO in mg/l (Surface, Middle & Bottom)	Surface and Middle		Surface and Middle	
		4.5mg/l		4.1mg/l	5mg/l for Fish Culture Zone (SR7) only
		Bottom		Bottom	
		3.4mg/l		2.7mg/l	
	Suspended Solids (SS) in mg/l	23	or 120% of upstream control station at the same tide of the same day,	37	or 130% of upstream control station at the same tide of the same day,
	Turbidity in NTU	22.6	whichever is higher	36.1	whichever is higher
Regular DCM Monitoring ⁽⁶⁾	Total Alkalinity in ppm	95		99	
	Representative Heavy Metals for regular DCM monitoring (Chromium) in µg/l	0.2		0.2	
	Representative Heavy Metals for regular DCM monitoring (Nickel) in µg/l	3.2		3.6	
Action and Limit Levels SR1A					
SS (mg/l)		33		42	
Action and Limit Levels SR8					
SS (mg/l)		52		60	

Notes:

- (1) For DO measurement, non-compliance occurs when monitoring result is lower than the limits.
- (2) For parameters other than DO, non-compliance of water quality results when monitoring results is higher than the limits.
- (3) Depth-averaged results are used unless specified otherwise.
- (4) Details of selection criteria for the two heavy metals for regular DCM monitoring refer to the Detailed Plan on Deep Cement Mixing available on the dedicated 3RS website (<http://env.threerunwaysystem.com/en/ep-submissions.html>)
- (5) The Action and Limit Levels for the two representative heavy metals chosen will be the same as that for the intensive DCM monitoring.
- (6) Due to the completion of all marine-based DCM works within May 2021, regular DCM monitoring was ceased at all monitoring stations starting from 24 June 2021 and would be resumed if there are marine-based DCM works in the coming future.

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

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

Note:

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

4.2 Monitoring Equipment

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

Table 4.4: Water Quality Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Multifunctional Meter (measurement of DO, pH, temperature, salinity and turbidity)	YSI 6920V2 (Serial No. 0001C6A7)	22 Apr 2021	Monthly EM&A Report No. 64, Appendix E
	YSI 6920V2 (Serial No. 0001CF6C)	20 May 2021	Monthly EM&A Report No. 65, Appendix D
	YSI ProDSS (Serial No. 18A104824)	18 Jun 2021	Appendix D
	YSI ProDSS (Serial No. 15M100005)	25 Mar 2021 ⁽¹⁾	Monthly EM&A Report No. 63, Appendix E
	YSI ProDSS (Serial No. 16H104234)	22 Apr 2021	Monthly EM&A Report No. 64, Appendix E
	YSI ProDSS (Serial No. 16H104233)	20 May 2021	Monthly EM&A Report No. 65, Appendix D
Digital Titrator (measurement of total alkalinity)	YSI ProDSS (Serial No. 17E100747)	18 Jun 2021	Appendix D
	Titrette Bottle-top Burette, 50ml (Serial No. 10N64701)	24 May 2021	Monthly EM&A Report No. 65, Appendix D

Note:

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

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

Table 4.5: Other Monitoring Equipment

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

4.3 Monitoring Methodology

4.3.1 Measuring Procedure

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

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

4.3.2 Maintenance and Calibration

Calibration of In-situ Instruments

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

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

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

4.3.3 Laboratory Measurement / Analysis

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

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

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

4.4 Summary of Monitoring Results

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

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

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

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

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

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR2	SR3	SR4A	SR5A	SR6A	SR7
01/06/2021																		
03/06/2021																		
05/06/2021	D	D	D	D														
08/06/2021																		
10/06/2021																		
12/06/2021																		
15/06/2021																		
17/06/2021																		
19/06/2021																		
22/06/2021																		
24/06/2021	D	D	D	D								D			D	D	D	D
26/06/2021	D	D	D	D								D	D		D			D
29/06/2021																		
No. of result triggering Action or Limit Level	3	3	3	3	2	2	2	2	1	0	0	2	1	2	2	1	1	2

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	SR6A	SR7
01/06/2021																		
03/06/2021																		
05/06/2021																		
08/06/2021																		
10/06/2021																		
12/06/2021																		
15/06/2021																		
17/06/2021																		
19/06/2021																		
22/06/2021																		
24/06/2021			D															
26/06/2021																		
29/06/2021																		
No. of result triggering Action or Limit Level	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0

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

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR3	SR4A	SR5A	SR6A	SR7
01/06/2021																	
03/06/2021																	
05/06/2021																	
08/06/2021																	
10/06/2021																	
12/06/2021																	
15/06/2021																	
17/06/2021																	
19/06/2021																	
22/06/2021																	
24/06/2021					D	D	D	D	D	D	D	D	D	D			D
26/06/2021					D	D			D	D			D				D
29/06/2021																	
No. of result triggering Action or Limit Level	1	3	3	2	2	2	1	1	2	2	2	2	2	2	1	1	2

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

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12	SR3	SR4A	SR5A	SR6A	SR7
01/06/2021																	
03/06/2021																	
05/06/2021																	
08/06/2021																	
10/06/2021																	
12/06/2021																	
15/06/2021																	
17/06/2021																	
19/06/2021																	
22/06/2021																	
24/06/2021																	
26/06/2021																	
29/06/2021																	
No. of result triggering Action or Limit Level	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1

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

Legend:

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

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

In accordance with Event and Action Plan stipulated in the Manual, EPD, IEC and Contractor were informed when the corresponding Action or Limit Levels were triggered. Repeat measurement was conducted on 6, 25, 27 and 28 June 2021 according to the requirements provided in the Manual. The repeat measurement for flood-tide on 28 June 2021 was cancelled due to Black Rainstorm Signal.

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

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

Date	Marine construction works nearby	Approximate distance from marine construction works	Status of water quality measures (if applicable)	Construction vessels in the vicinity	Turbidity / Silt plume observed near the monitoring station	Action or Limit Level triggered due to Project
05/06/2021	No marine construction works	Not applicable	Not applicable	No	No	No

24/06/2021	No marine construction works	Not applicable	Not applicable	No	No	No
26/06/2021	No marine construction works	Not applicable	Not applicable	No	No	No

The investigations confirmed that there was no marine construction activity during the concerned monitoring days. Records of site inspections carried out by ET were checked and no malpractice of mitigation measures relevant to water quality and site runoff or muddy water discharges from the site or the outfalls of the reclaimed land was observed. It is also noted that inclement weather including heavy rain and hot weather were recorded intermittently in June 2021. The weather phenomenon might contribute to the low DO concentration recorded during the monitoring period which is not atypical under wet season climatic conditions around the Project area.

For DO results recorded in ebb tide at IM1, IM2, IM3 and IM4 on 5 June 2021, some of the results at IM1 and IM2, were found within their corresponding baseline ranges. Heavy rain followed by days of continuous hot weather was observed prior to the monitoring date, which might contribute to the low DO concentrations. In accordance with the Event and Action Plan, repeat measurement was conducted on 6 June 2021 during ebb tide at these monitoring stations, and all results were within their corresponding Action or Limit Levels. As neither silt plume, construction vessel nor site runoff or muddy water discharges from the outfalls of the reclaimed land, was observed in the vicinity when monitoring was undertaken at these monitoring stations, the case was considered unlikely due to the Project.

For the downstream stations with DO Action or Limit Levels triggered on 24 and 26 June 2021, repeat measurement were conducted in accordance with the Event and Action Plan. While most of the repeat measurement results still triggered the Action or Limit Levels, the DO results obtained after 28 June 2021 returned to higher DO levels which were within the corresponding Action and Limit Levels. The results obtained during the regular and repeat monitoring showed that low DO concentrations were also recorded at control stations and other upstream monitoring stations for both tides, which were located upstream and beyond the influence of the Project. This suggested the presence of external sources that might affect DO concentrations around the Project area. Moreover, it was noted that inclement weather including heavy rain and hot weather was observed in the period of 22 to 26 June 2021 and might have contributed to the low DO concentration around the Project Area. As there were no abnormal observations on construction activities during the monitoring, the cases were considered unlikely due to the Project.

4.5 Conclusion

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

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

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

In the meantime, the contractors were reminded to implement and maintain all mitigation measures during weekly site inspection and regular environmental management meetings. These include maintaining mitigation measures properly for reclamation works including marine filling and seawall construction as recommended in the Manual.

5 Waste Management

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

5.1 Action and Limit Levels

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

Table 5.1: Action and Limit Levels for Construction Waste

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

5.2 Waste Management Status

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

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

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

Table 5.2: Construction Waste Statistics

	C&D ⁽¹⁾ Material Stockpiled for Reuse or Recycle (m ³)	C&D Material Reused in the Project (m ³)	C&D Material Reused in other Projects (m ³)	C&D Material Transferred to Public Fill (m ³)	Chemical Waste (kg)	Chemical Waste (l)	General Refuse (tonne)
May 2021 ⁽²⁾⁽³⁾	*18,053	*45,070	1,444	10,377	0	2,800	*1,076
June 2021 ⁽²⁾⁽⁴⁾	11,449	78,947	0	6,448	120	0	1,249

Notes:

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

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

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

5.3 Marine Sediment Management

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

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

6 Chinese White Dolphin Monitoring

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

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

6.1 Action and Limit Levels

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

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

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

Notes: (referring to the baseline monitoring report)

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

6.2 CWD Monitoring Transects and Stations

6.2.1 Small Vessel Line-transect Survey

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

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

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

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

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

6.2.2 Land-based Theodolite Tracking Survey

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

Table 6.3: Land-based Theodolite Survey Station Details

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

6.3 CWD Monitoring Methodology

6.3.1 Small Vessel Line-transect Survey

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

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

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

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

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

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

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

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

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

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

6.3.2 Photo Identification

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

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

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

6.3.3 Land-based Theodolite Tracking Survey

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

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

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

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

6.4 Monitoring Results and Observations

6.4.1 Small Vessel Line-transect Survey

Survey Effort

Within this reporting period, two complete sets of small vessel line-transect surveys were conducted on the 4, 7, 8, 15, 17, 21, 22 and 25 June 2021, covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

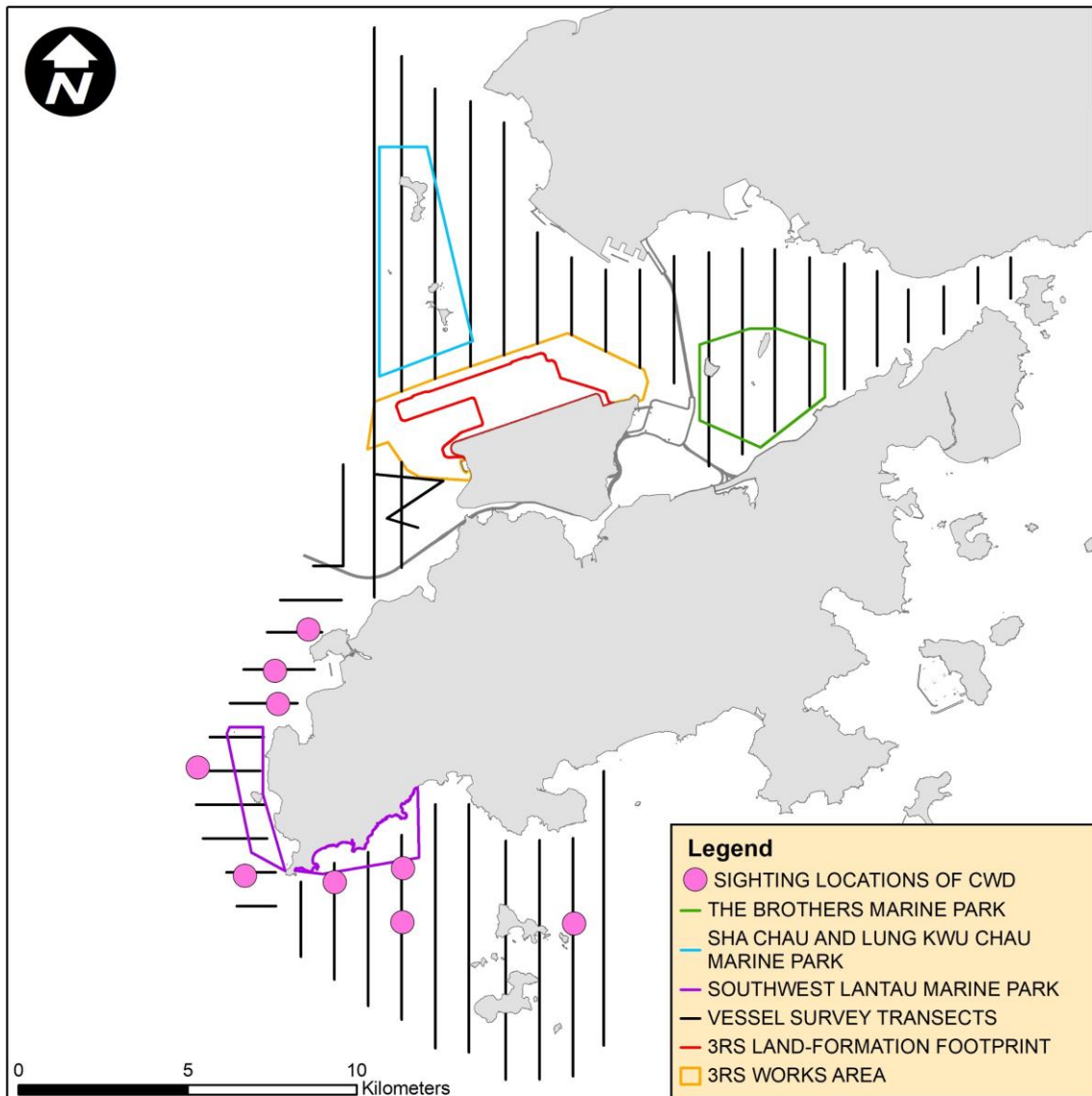
A total of around 441.11 km of survey effort was collected from these surveys and around 71.5% of the survey effort was being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of the survey effort are given in **Appendix C**.

Sighting Distribution

In June 2021, nine sightings with 26 dolphins were sighted. All these sightings are on-effort records under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of cetacean sightings are presented in **Appendix C**.

Distribution of all CWD sightings recorded in June 2021 is illustrated in **Figure 6.3**. There were five CWD sightings in WL, three of them were recorded between Tai O and Yi O while other two CWD sightings were recorded western and southern to the Southwest Lantau Marine Park respectively. In SWL, the majority of the CWD sightings were recorded immediately south to the Southwest Lantau Marine Park while one CWD sighting was recorded at the eastern side of Siu A Chau. No CWD sightings were recorded in neither NEL nor NWL survey areas during the reporting period.

Figure 6.3: Sightings Distribution of Chinese White Dolphins



Remarks: (1) Please note that there are 9 pink circles on the map indicating the sighting locations of CWDs. Some of them were very close to each other and therefore may appear overlapped on this distribution map. (2) Marine park excludes land area and the landward boundary generally follows the high water mark along the coastline.

Encounter Rate

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

Encounter Rate by Number of Dolphin Sightings (STG)

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

Encounter Rate by Number of Dolphins (ANI)

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

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

In June 2021, a total of around 315.19 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 9 on-effort sightings with 26 dolphins were sighted under such condition. Calculation of the encounter rates for the month are shown in **Appendix C**.

For the running quarter of the reporting period (i.e., from April to June 2021), a total of around 1038.41 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 27 on-effort sightings and a total number of 78 dolphins from on-effort sightings were obtained under such condition. Calculation of the running quarterly encounter rates are shown in **Appendix C**.

The STG and ANI of CWD in the whole survey area (i.e. NEL, NWL, AW, WL and SWL) during the month of June 2021 and during the running quarter are presented in **Table 6.4** below and compared with the Action Level. Although the running quarterly encounter rate ANI fall below the Action Level, the Action Level is not triggered as the running quarterly STG remain 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)
June 2021	2.86	8.25
Running Quarter from April to June 2021 ⁽¹⁾	2.60	7.51
Action Level	Running quarterly ⁽¹⁾ STG < 1.86 & ANI < 9.35	

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

Group Size

In June 2021, 9 groups of 26 dolphins in total were sighted, and the average group size of CWDs was 2.89 dolphins per group. Numbers of sightings with small group size (i.e. 1-2 dolphins) and with medium group size (i.e. 3-9 dolphins) were similar. There were no CWD sightings with large group size (i.e. 10 or more dolphins).

Activities and Association with Fishing Boats

One CWD sighting was recorded engaging in feeding activities in June 2021 but no association with operating fishing boats was observed.

Mother-calf Pair

In June 2021, there were four CWD sightings recorded with the presence of mother-and-unspotted juvenile pair. Three of these sightings were recorded in WL and one sighting was recorded in SWL.

6.4.2 Photo Identification

In June 2021, a total number of 13 different CWD individuals were identified for totally 18 times. A summary of photo identification works is presented in **Table 6.5**. Representative photos of these individuals are given in **Appendix C**.

Table 6.5: Summary of Photo Identification

Individual ID	Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area	Individual ID	Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area
NLMM015	08-Jun-21	1	WL	WLMM043	08-Jun-21	3	WL
		2	WL	WLMM065	08-Jun-21	3	WL
	15-Jun-21	1	WL	WLMM114	25-Jun-21	3	SWL
NLMM037	15-Jun-21	1	WL	WLMM131	25-Jun-21	1	SWL
NLMM063	08-Jun-21	2	WL	WLMM156	08-Jun-21	1	WL
SLMM010	08-Jun-21	4	WL	WLMM164	08-Jun-21	1	WL
SLMM012	25-Jun-21	3	SWL		2	WL	
WLMM019	08-Jun-21	1	WL		15-Jun-21	1	WL
		2	WL	WLMM165	08-Jun-21	1	WL

6.4.3 Land-based Theodolite Tracking Survey

Survey Effort

Land-based theodolite tracking surveys were conducted at SC on 16 June 2021 and at LKC on 9 June 2021, with a total of two days of land-based theodolite tracking survey effort accomplished in this reporting period. No CWD groups were tracked during the reporting period. Information of survey effort and CWD groups are presented in **Table 6.6**. Details of the survey effort are presented in **Appendix C**.

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

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

6.5 Progress Update on Passive Acoustic Monitoring

Underwater acoustic monitoring using Passive Acoustic Monitoring (PAM) should be undertaken during land formation related construction works. Both C-POD and F-POD are considered as effective PAM devices in detecting CWD occurrence, and F-POD was the main PAM device deployed where feasible. During this reporting period, the F-POD was remained underwater and positioned at south of Sha Chau Island inside the SCLKCMP (**Figure 6.5**). The F-POD was last deployed on 20 May 2021 and the next re-deployment is scheduled on late-July 2021 to retrieve the data for analysis. Acoustic data would be reviewed to give an indication of CWDs occurrence patterns and anthropogenic noise information. Analysis would involve use of proprietary software for objective automated data analyses and experienced analysts to perform visual validation for assessment of dolphin detection. As the period of data collection and analysis takes about four months, PAM results could not be reported in monthly intervals but report for supplementing the annual CWD monitoring analysis.

6.6 Site Audit for CWD-related Mitigation Measures

During the reporting period, silt curtains were in place by the contractor for marine filling, in which dolphin observers were deployed by contractor in accordance with the MMWP. Overall, 1 to 6 dolphin observation stations and teams of at least two dolphin observers were deployed by the contractors for continuous monitoring of the DEZ for DCM works and seawall construction works in accordance with the DEZ Plan. Trainings for the proposed dolphin observers on the implementation of MMWP and DEZ monitoring were provided by the ET prior to the aforementioned works, with a cumulative total of 704 individuals being trained and the training records kept by the ET. From the contractors' MMWP observation records, no dolphin or other marine mammals were observed within or around the silt curtains. As for DEZ monitoring records, no dolphin or other marine mammals were observed within or around the DEZs in this reporting month. These contractors' records were also audited by the ET during site inspection.

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

6.7 Timing of Reporting CWD Monitoring Results

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

6.8 Summary of CWD Monitoring

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

7 Environmental Site Inspection and Audit

7.1 Environmental Site Inspection

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

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

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

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

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

7.2 Landscape and Visual Mitigation Measures

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

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






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

Table 7.1: Landscape and Visual – Construction Phase Audit Summary

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

Landscape and Visual Mitigation Measures during Construction	Implementation Status	Relevant Contract(s) in the Reporting Period
<p>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</p>	<p>Tree Transplanting Specifications have been provided in the relevant Contract Specifications respectively for implementation by the Contractors under the Project where trees will unavoidably be affected by the construction works.</p> <p>The Contractors were required to submit Method Statements for tree transplanting prior to the transplanting works. Tree inspections were conducted by ET to check the tree transplanting works implemented by the Contractors on site.</p> <p>The Contractors' performance on the implementation of trees maintenance and protection measures on transplanted trees were observed and checked by the ET bi-monthly during the 12-month establishment period after the completion of each batch of transplanting works.</p> <p>Long term management of the transplanted trees were currently monitored by ET annually.</p>	<p>3503, 3508, 3801</p> <p>3802 (To be implemented)</p>
<p>CM 10 – Land formation works shall be followed with advanced hydroseeding around taxiways and runways as soon as practical</p>	<p>To be implemented around taxiways and runways as soon as practicable.</p>	<p>To be implemented</p>

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

		
<p>Erection of site hoardings around works area in unobtrusive colours (CM5)</p>	<p>Avoidance of excessive height and bulk of site buildings (CM6)</p>	<p>Control of night-time lighting by hooding and minimisation of night working period (CM7)</p>
		
<p>General view of Tree Protection Zone for retained tree (CM8)</p>	<p>General view of a transplanted tree (CM9)</p>	

In accordance with the EM&A Manual, all existing trees shall be protected carefully during construction. Trees unavoidably affected by the works shall be transplanted where practical. In this reporting period, the cumulative total number of retained and transplanted trees under the Project were 98 and 19, respectively. Five trees under Contract 3508 were transplanted to their corresponding receptor sites during this reporting period. Details of the retained trees, transplanted trees and to-be-transplanted trees under the Project are summarized in **Table 7.5**. Photos of transplanted trees are presented in

Table 7.7. Locations of newly transplanted trees during the reporting period are presented in **Figure 7.1**.

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

Table 7.3: Monitoring Programme for Landscape and Visual

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

Table 7.4: Event and Action Plan for Landscape and Visual

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

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

Existing				
Contract	Retain (nos.)	Transplanted (nos.)		To-be-transplanted (nos.)
		Establishment Period	Maintenance Period	
3302	9	0	0	0
3503	19	6	3	0
3508 ⁽¹⁾	25	5	0	7
3602	2	0	0	0
3801	43	0	5 ⁽²⁾	0
Sub-total	98	11	8	7
Provisional				
Contract	Retain (nos.)	Transplanted (nos.)		To-be-transplanted (nos.)
3508 ⁽¹⁾	130	0		10
Sub-total	130	0		10
Grand Total	228	19		17

Notes:

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

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

Table 7.7 respectively.

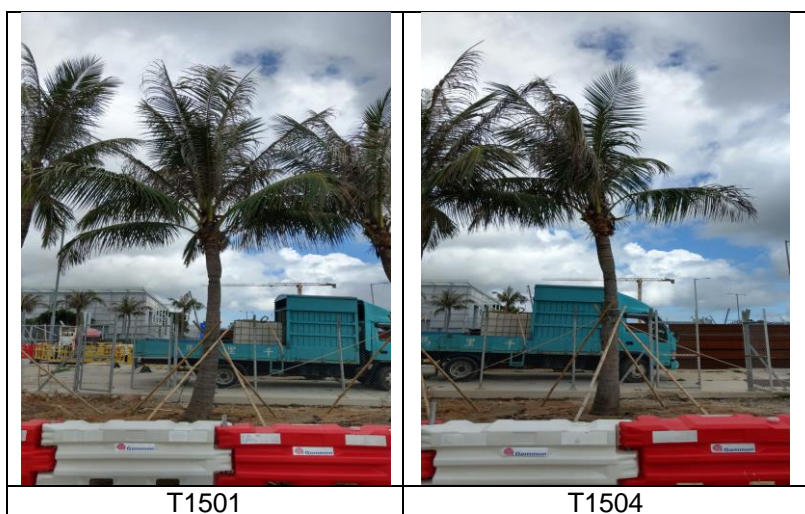
Table 7.6: Summary of the Transplanted Trees Updated in the Reporting Period

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks
CT276	3 May 2018	<u>Establishment period</u> 4 May 2018 – May 2019 <u>Long Term Management period</u> Jun 2019 – May 2028	Contract 3801 Southern Landside Petrol Filling Station	Next inspection will be conducted in February 2022. Photos of the last inspection in February 2021 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.62.
CT1253	4 May 2018	<u>Establishment period</u> 5 May 2018 – May 2019 <u>Long Term Management period</u> Jun 2019 – May 2028	Contract 3801 Southern Landside Petrol Filling Station	
T835	22 Jan 2020	<u>Establishment period</u> 23 Jan 2020 – Jan 2021 <u>Long Term Management period</u> Feb 2021 – Jan 2030	Contract 3503	Next inspection will be conducted in February 2022. Photos of the last inspection in February 2021 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.62.
T836	13 Dec 2019	<u>Establishment period</u> 14 Dec 2020 – Jan 2021 <u>Long Term Management period</u> Feb 2021 – Jan 2030	Contract 3503	
T838	22 Jan 2020	<u>Establishment period</u> 23 Jan 2020 – Jan 2021 <u>Long Term Management period</u> Feb 2021 – Jan 2030	Contract 3503	
T812	21 Dec 2020	<u>Establishment period</u> 22 Dec 2020 – Dec 2021	Contract 3503	Next inspection will be conducted in August 2021. Photos of the last inspection in June 2021 were shown in
T814	20 Dec 2020	<u>Establishment period</u> 21 Dec 2020 – Dec 2021	Contract 3503	Table 7.7.
T815	15 Dec 2020	<u>Establishment period</u> 16 Dec 2020 – Dec 2021	Contract 3503	
T829	18 Dec 2020	<u>Establishment period</u> 19 Dec 2020 – Dec 2021	Contract 3503	
T830	14 Dec 2020	<u>Establishment period</u> 15 Dec 2020 – Dec 2021	Contract 3503	
T831	19 Dec 2020	<u>Establishment period</u> 20 Dec 2020 – Dec 2021	Contract 3503	
T1498	29 June 2021	<u>Establishment period</u> 30 June 2021 – June 2022	Contract 3508	Next inspection will be conducted in July 2021. Photos of the last inspection in June 2021 were shown in
T1499	29 June 2021	<u>Establishment period</u> 30 June 2021 – June 2022	Contract 3508	Table 7.7
T1500	30 June 2021	<u>Establishment period</u> 1 July 2021 – July 2022	Contract 3508	
T1501	30 June 2021	<u>Establishment period</u> 1 July 2021 – July 2022	Contract 3508	
T1504	24 June 2021	<u>Establishment period</u> 25 June 2021 – June 2022	Contract 3508	
CT1194	4 May 2018	<u>Establishment period</u> 5 May 2018 – May 2019	Contract 3801	NA

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks
		<u>Long Term Management period</u> Jun 2019 – May 2028	Southern Landside Petrol Filling Station	Uprooted and collapsed due to Typhoon Higos on 18 August 2020. Tree removal was conducted as recommended by tree specialist of the contractor of Southern Landside Petrol Filling Station.
CT1794	3 May 2018	<u>Establishment period</u> 4 May 2018 – May 2019	Contract 3801	NA
		<u>Long Term Management period</u> Jun 2019 – May 2028	AsiaWorld-Expo	The tree within the land parcel was acquired by the government for construction of emergency hospital to handle COVID19 pandemic at AsiaWorld-Expo. The tree was felled in late 2020.
CT1795	3 May 2018	<u>Establishment period</u> 4 May 2018 – May 2019	Contract 3801	NA
		<u>Long Term Management period</u> Jun 2019 – May 2028	AsiaWorld-Expo	The tree within the land parcel was acquired by the government for construction of emergency hospital to handle COVID19 pandemic at AsiaWorld-Expo. The tree was felled in late 2020.

Table 7.7: Photos of the Existing Transplanted Trees

Under 12-month Establishment Period:		
		
T812	T814	T815
		
T829	T830	T831
Newly Transplanted Trees during the Reporting Period		
		
T1498	T1499	T1500



7.3 Land Contamination Assessment

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

According to the approved supplementary CAP, there are 3 remaining locations where site re-appraisal / additional site investigation are proposed. Based on the latest construction information, which has been presented in Appendix A Implementation Schedule of the approved CARs for T2 EPSS, there is no development programme for these locations at this stage. As such, the status of site re-appraisal/ additional site investigation shall be further updated upon latest development programme is available.

7.4 Audit of SkyPier High Speed Ferries

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

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

The daily movement of all SkyPier HSFs, including those not using the diverted route, in this reporting period (i.e., 2 to 3 daily movements) were within the maximum daily cap of 125 daily movements. Status of compliance with the annual daily average of 99 movements will be further reviewed in the Annual EM&A Report.

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

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

Requirements in the SkyPier Plan	1 to 30 June 2021
Total number of ferry movements recorded and audited for HSF to/from Zhuhai and Macau	0
Use diverted route and enter / leave SCZ through Gate Access Points	0 deviation
Daily Cap for all SkyPier HSFs including those not using diverted route	2 to 3 daily movement (within the maximum daily cap - 125 daily movements)

7.5 Audit of Construction and Associated Vessels

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

ET carried out the following actions during the reporting period:

- One skipper training session was held for contractor' concerned skipper 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.
- Two skipper training sessions were held by contractors' Environmental Officers. Competency tests were subsequently conducted with the trained skippers by ET. The list of all trained skippers was properly recorded and maintained by ET.
- In this reporting period, 1 skipper was trained by ET and 2 skippers were trained by contractors' Environmental Officers. In total, 1787 skippers were trained from August 2016 to June 2021.
- The MSS automatically recorded deviation cases such as speeding, entering no entry zone and not travelling through the designated gate. ET conducted checking to ensure the MSS records deviation cases accurately.
- Deviations such as speeding in the works area, entered no entry zone, and entering from non-designated gates were identified. All the concerned contractors were reminded to comply with the requirements of the MTRMP-CAV during the bi-weekly Construction Traffic Control Centre (CTCC) audit.
- Three-month rolling programmes (one month record and three months forecast) for construction vessel activities were received from the contractors in order to help maintain the number of construction and associated vessels on site to a practicable minimal level.

7.6 Implementation of Dolphin Exclusion Zone

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

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

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

7.7 Status of Submissions under Environmental Permits

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

Table 7.9: Status of Submissions under Environmental Permit

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

7.8 Compliance with Other Statutory Environmental Requirements

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

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

7.9.1 Complaints

For the complaint received on 21 June 2021 regarding sand material being blown from stockpiling area at 3RS construction site area, the case was investigated by ET in accordance with the Manual and the Complaint Management Plan of the Project. The ET recognised the concerned area and identified four related contractors and requested them to provide information regarding

the complaint. Based on the information provided by the contractors, the stockpiling areas are used for loading, unloading and storage of excavated materials and site materials. The contractors replied that they have conducted dust suppression measures including regular water spraying on materials during loading and unloading and regular compaction on stockpile for prolonged storage. A joint ad-hoc inspection by EPD, ET, IEC and AAHK at the concerned area was conducted after receiving the complaint and no observation related to dust issue was recorded. ET conducted subsequent site inspections and observed that their inactive and idle stockpiles had been covered and further enhanced their water spraying actions on the active stockpiles. It is noted that all air quality monitoring results were within the corresponding Action and Limit Levels. Nevertheless, ET reminded the contractors to continue their mitigation measures on dust control on stockpiles and review the dust suppression plan regularly. Hence, the complaint case was considered closed.

A complaint was received on 21 June 2021 regarding dust issue at the eastern quay of the Project. The case was investigated by ET in accordance with the Manual and the Complaint Management Plan of the Project. Findings of investigation will be reported in the next Monthly EM&A Report.

A complaint was received on 28 June 2021 regarding alleged discharge of muddy water from the Project. The case was investigated by ET in accordance with the Manual and the Complaint Management Plan of the Project. Findings of investigation will be reported in the next Monthly EM&A Report.

7.9.2 Notifications of Summons or Status of Prosecution

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

7.9.3 Cumulative Statistics

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

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

8.1 Construction Programme for the Coming Reporting Period

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

Reclamation Works:

Contract 3206 Main Reclamation Works

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

Airfield Works:

Contract 3301 North Runway Crossover Taxiway

- Cable ducting works; and
- Paving works.

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Cable laying and ducting works;
- Backfilling and reinstatement works; and
- Piling and structure works;

Contract 3303 Third Runway and Associated Works

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

Contract 3305 Airfield Ground Lighting System

- Genset installation; and
- Site establishment.

Contract 3307 Fire Training Facility

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

Third Runway Concourse:**Contract 3403 New Integrated Airport Centres Building and Civil Works**

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

Contract 3405 Third Runway Concourse Foundation and Substructure Works

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

Terminal 2 Expansion:**Contract 3503 Terminal 2 Foundation and Substructure Works**

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

Contract 3508 Terminal 2 Expansion Works

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

Automated People Mover (APM) and Baggage Handling System (BHS):**Contract 3601 New Automated People Mover System (TRC Line)**

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

Contract 3602 Existing APM System Modification Works

- Car modification; and
- Concreting work.

Construction Support (Facilities):**Contract 3721 Construction Support Infrastructure Works**

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

Contract 3722 Construction Support Facilities

- Foundation works;
- Formwork erection;
- Electrical and mechanical installation; and
- Site establishment.

Contract 3723 Construction Support Facilities

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

Airport Support Infrastructure:**Contract 3801 APM and BHS Tunnels on Existing Airport Island**

- Formwork and rebar fixing;
- Backfilling;
- Construction of slab;
- Hanger support and soil nail installation; and
- Demolition works.

Contract 3802 APM and BHS Tunnels and Related Works

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

Construction Support (Services / Licenses):**Contract 3901A Concrete Batching Facility**

- Plant operation; and
- Material conveyor belt construction.

Contract 3901B Concrete Batching Facility

- Plant operation; and
- Foundation works for conveyor belt.

8.2 Key Environmental Issues for the Coming Reporting Period

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

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

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

8.3 Monitoring Schedule for the Coming Reporting Period

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

8.4 Review of the Key Assumptions Adopted in the EIA Report

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

9 Conclusion and Recommendation

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

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

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

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

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

On the implementation of the SkyPier Plan, due to the COVID-19 pandemic, all SkyPier HSF services to/from Zhuhai and Macau have been suspended from 25 March 2020 until further notice. No HSF movement between HKIA SkyPier and Zhuhai and Macau was recorded during the reporting period. Therefore, no deviation was recorded in the HSF monitoring in the reporting period. The daily movements of all SkyPier HSFs in the reporting period, including those not using the diverted route, were in the range of 2 to 3 daily movements, which are within the maximum daily cap of 125 daily movements.

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

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

Figures

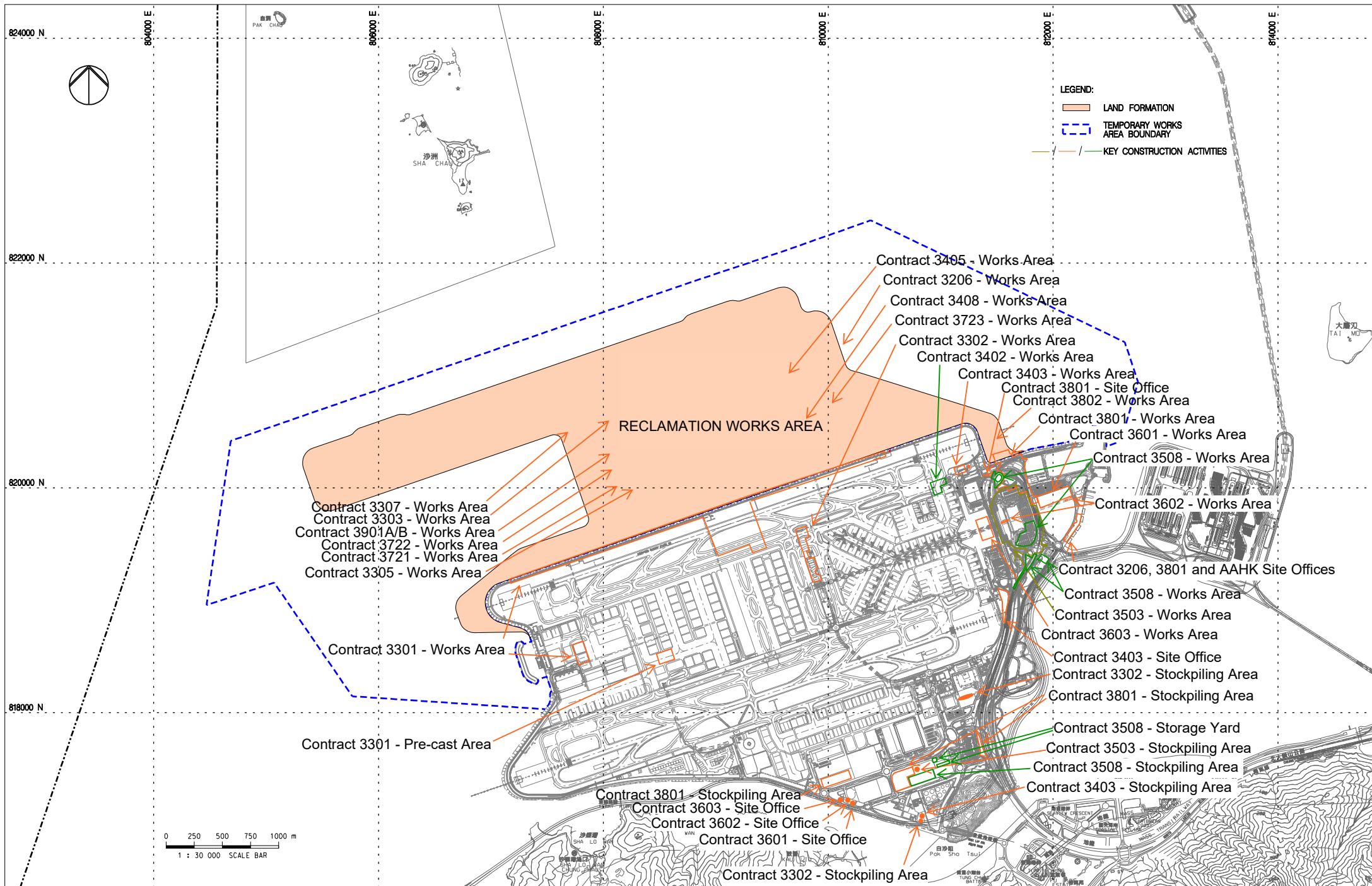


FIGURE 1.1 LOCATIONS OF KEY CONSTRUCTION ACTIVITIES

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



80000 E

80000 E

81000 E

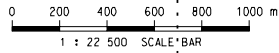
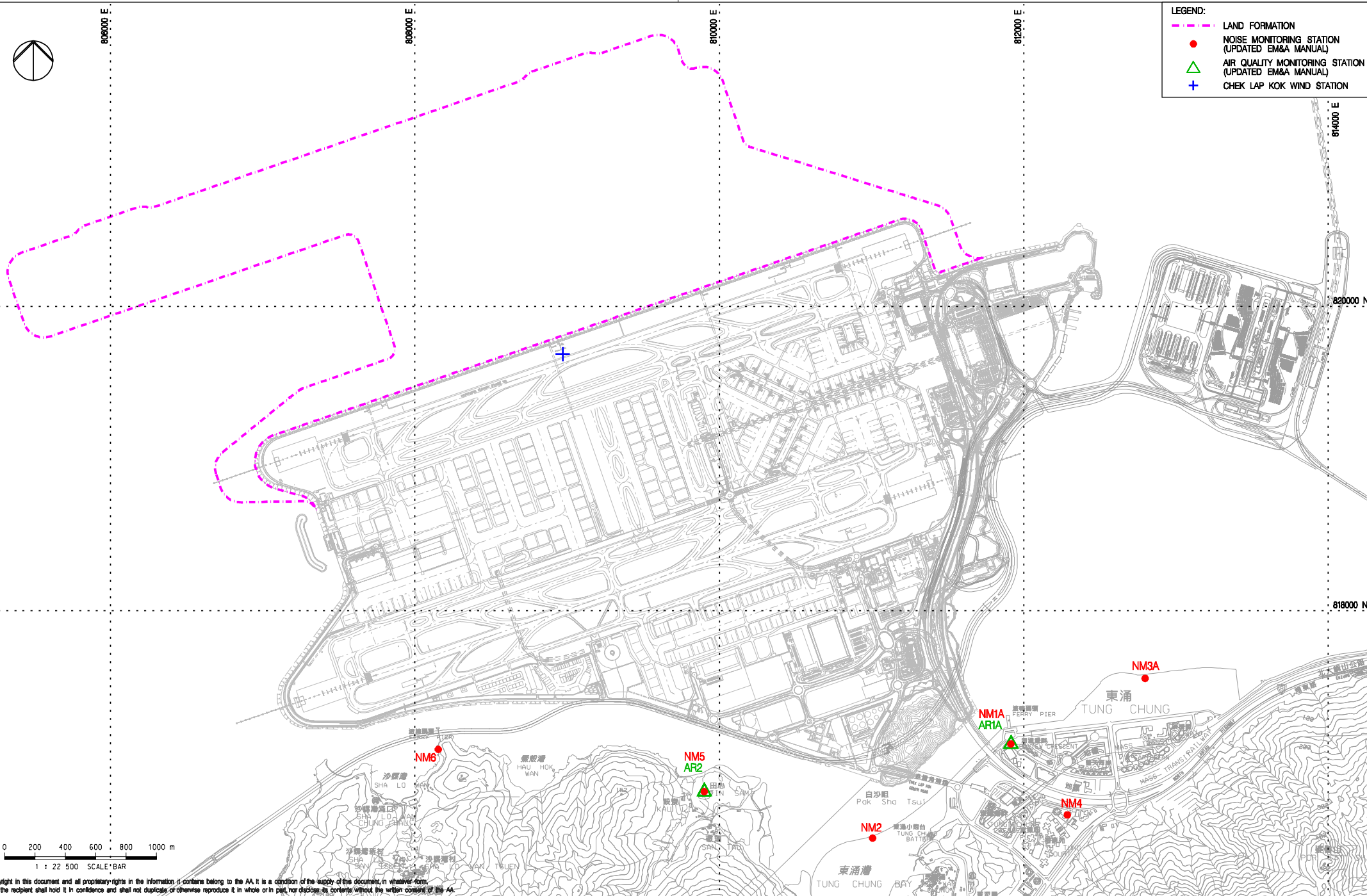
82000 E

84000 E

82000 N

81800 N

- LEGEND:
- - - LAND FORMATION
 - NOISE MONITORING STATION (UPDATED EM&A MANUAL)
 - ▲ AIR QUALITY MONITORING STATION (UPDATED EM&A MANUAL)
 - + CHEK LAP KOK WIND STATION



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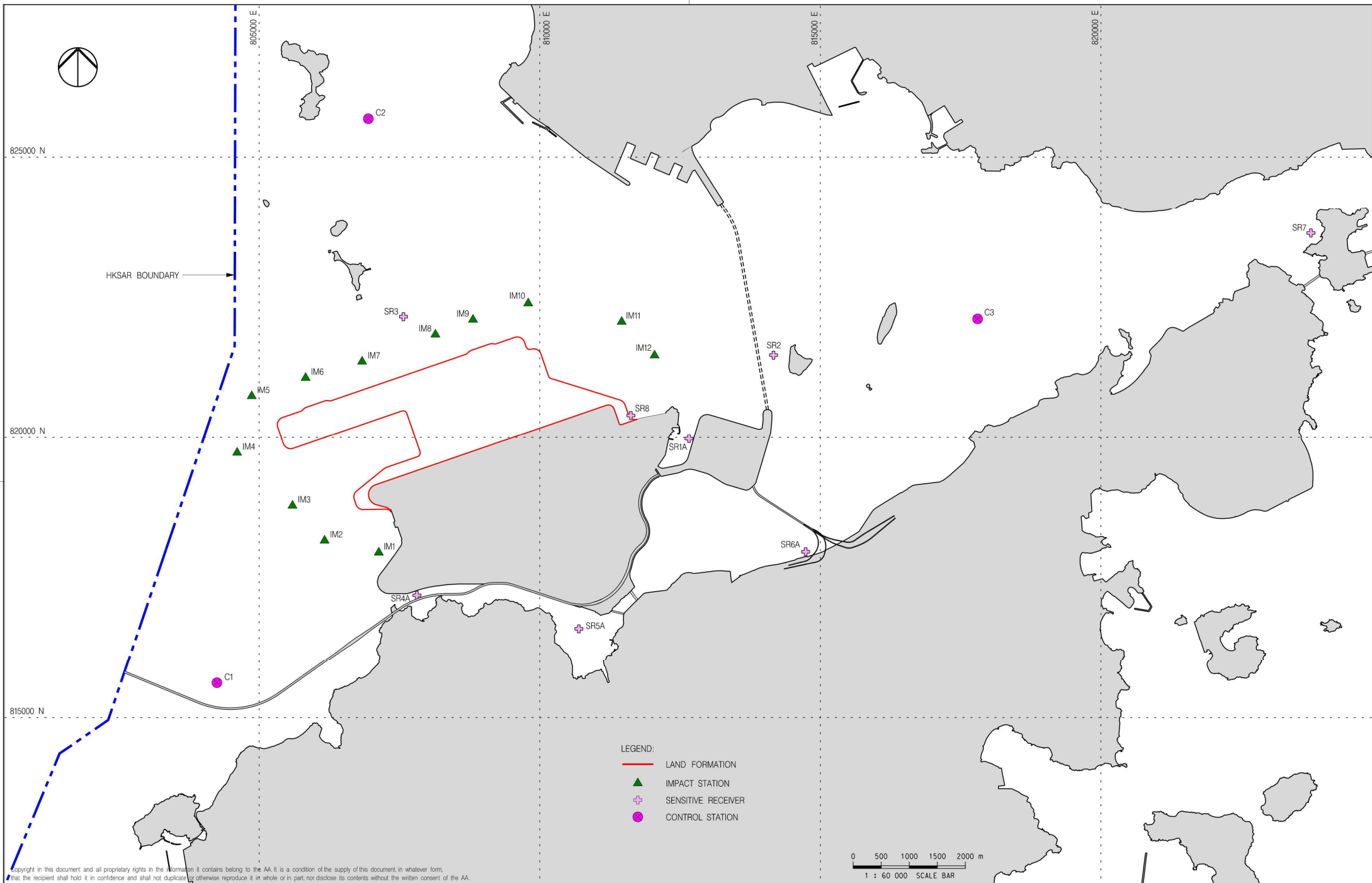
Rev.	Date	Description	Checked
A	06JAN16	FIRST ISSUE	RO
B	28JAN16	GENERAL REVISION	RO
C	11FEB16	GENERAL REVISION	RO
D	29OCT18	GENERAL REVISION	SH



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

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

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM		Scale at A3
Drawing No.	FIGURE 2.1	1 : 22500
Rev.	D	



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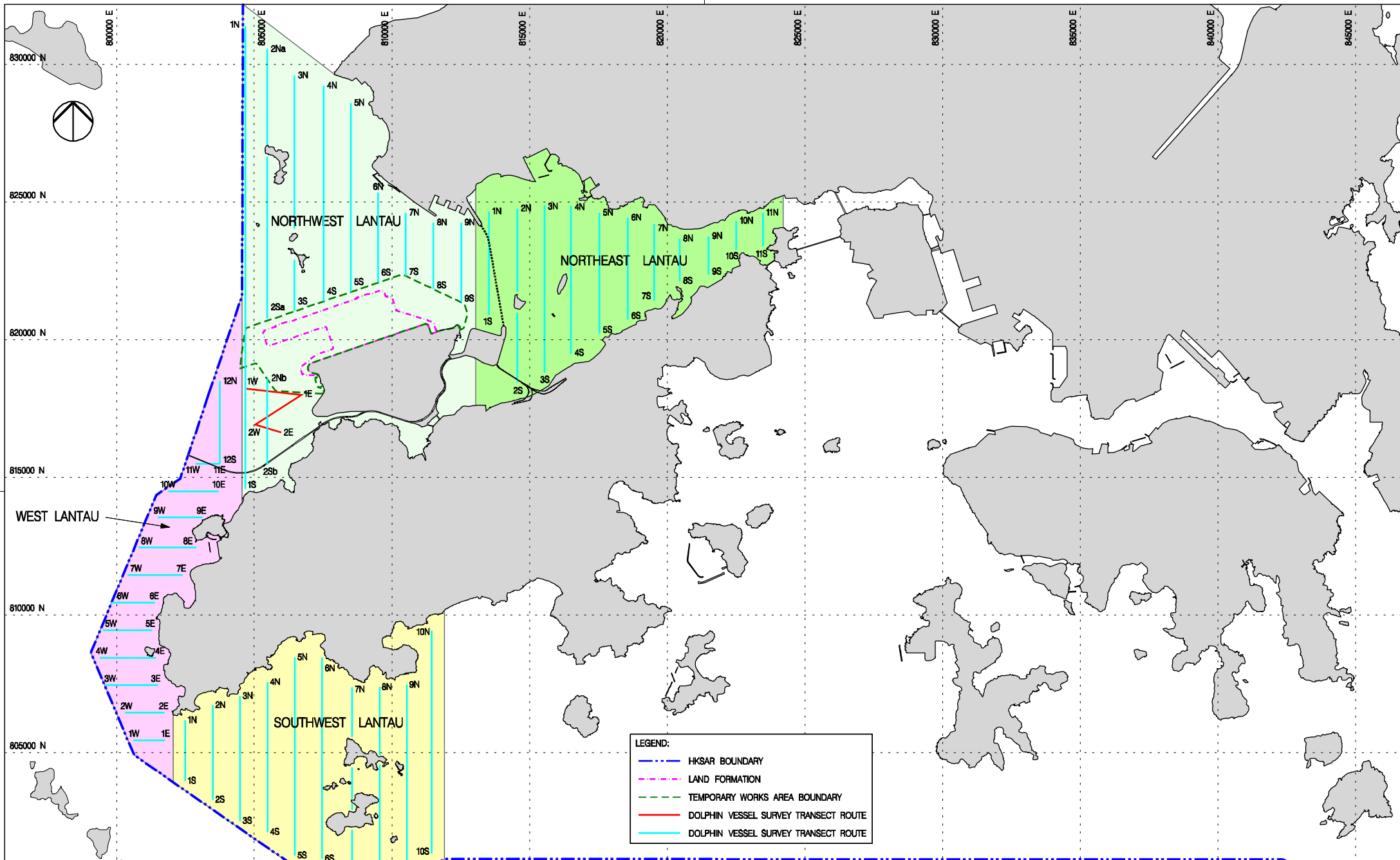
Rev.	Date	Description	Checked
A	21AUG19	FIRST ISSUE	VL



Title
WATER QUALITY MONITORING STATIONS

Consultant's Signatures for Approval		Date
Design	DC	21AUG19
Checkers	DC / TK	21AUG19
Approver	EC	21AUG19

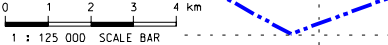
EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM	
Drawing No.	Scale at A3 1 : 60000
FIGURE 4.1	Rev. A



LEGEND:

- HKSAR BOUNDARY
- LAND FORMATION
- 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



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

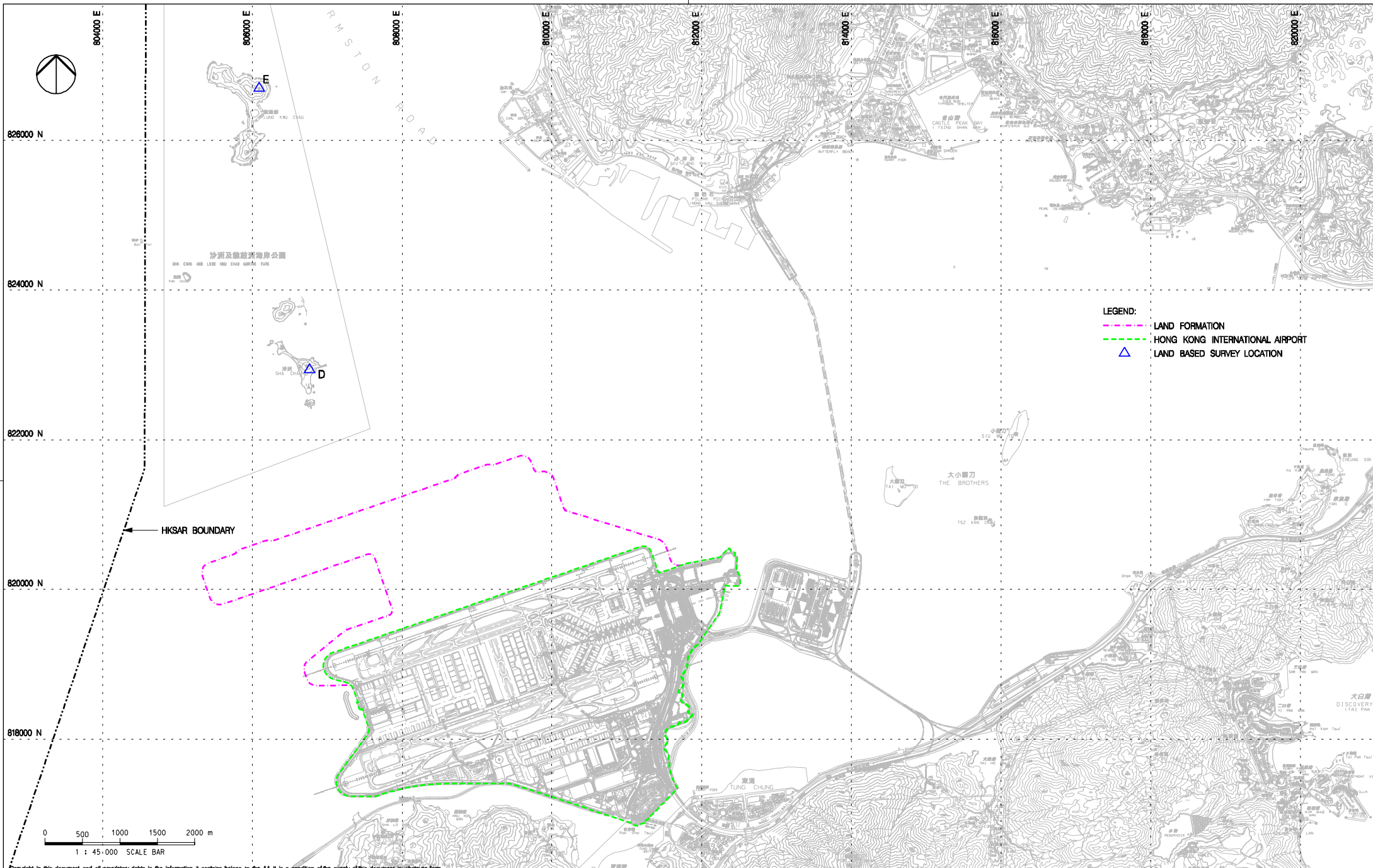


Title
**VESSEL BASED DOLPHIN MONITORING
 TRANSECTS IN CONSTRUCTION,
 POST-CONSTRUCTION AND OPERATION PHASES**

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

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM		Scale at A3
Drawing No.		1 : 125000
Rev.	F	

FIGURE 6.1



- LEGEND:**
- - - LAND FORMATION
 - - - HONG KONG INTERNATIONAL AIRPORT
 - ▲ LAND BASED SURVEY LOCATION

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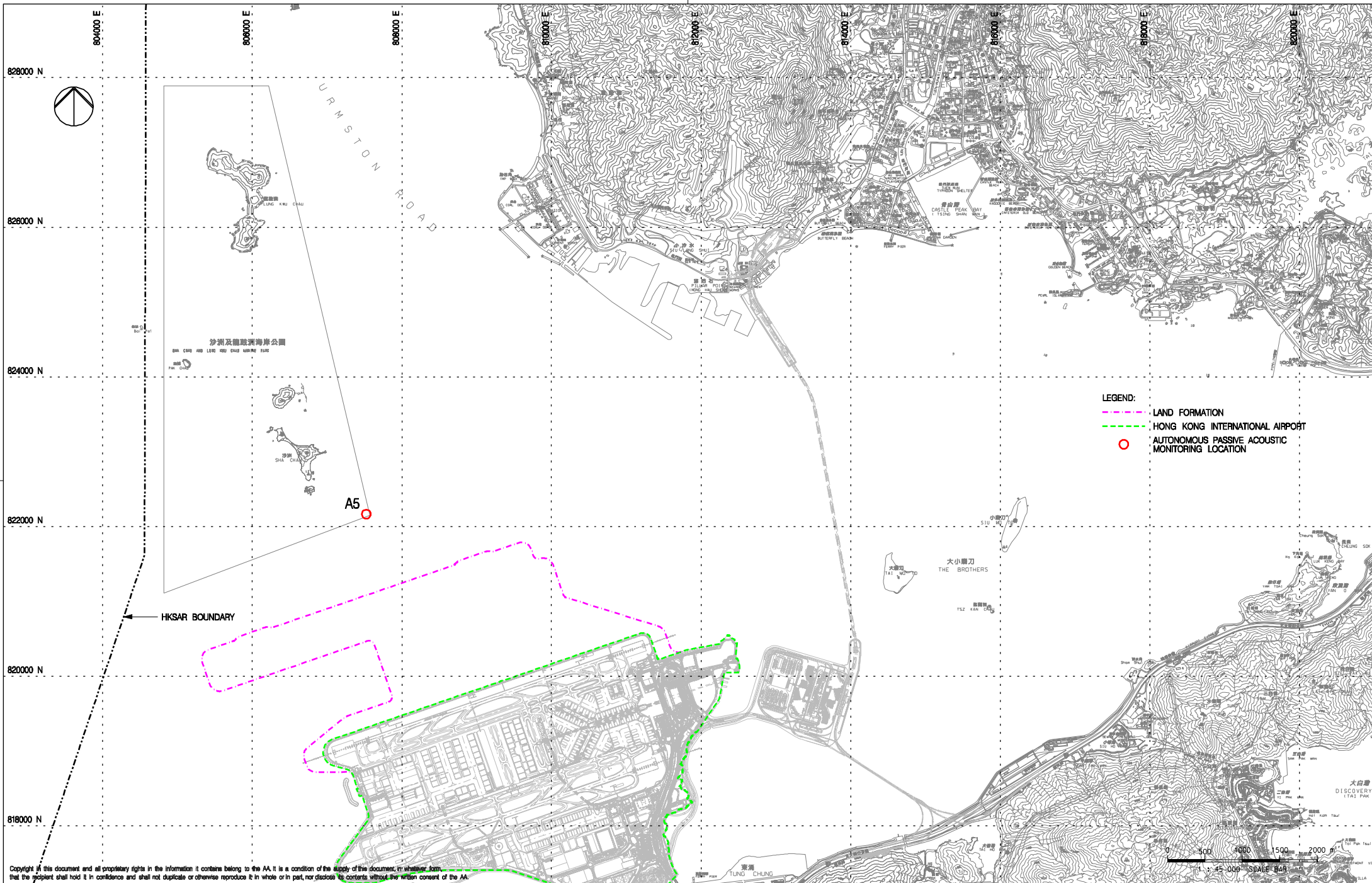
Rev.	Date	Description	Checked
A	02DEC15	FIRST ISSUE	JC
B	06FEB17	GENERAL REVISION	JC
C	29OCT18	GENERAL REVISION	SH



Title
 LAND BASED DOLPHIN MONITORING
 IN BASELINE AND CONSTRUCTION PHASES

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

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM
 Drawing No. **FIGURE 6.2**
 Scale at A3 **1 : 45000**
 Rev. **C**



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Title
LOCATION FOR AUTONOMOUS PASSIVE ACOUSTIC MONITORING

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

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM	
Drawing No.	Scale at A3 1:45000
FIGURE 6.5	Rev. C

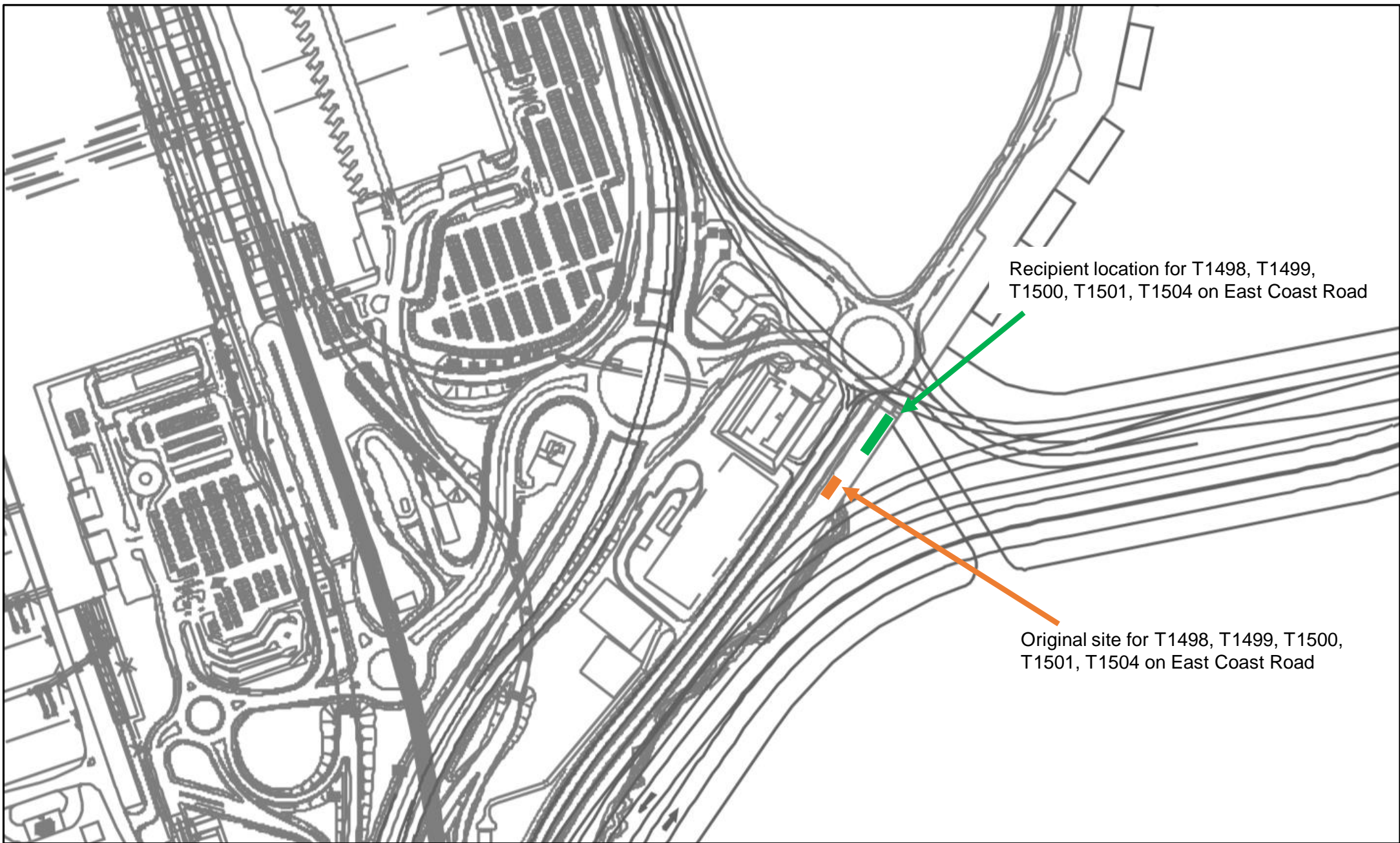


FIGURE 7.1 LOCATIONS OF NEWLY TRANSPLANTED TREES DURING THE REPORTING PERIOD

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

Environmental Mitigation Implementation Schedule (EMIS) for Construction Phase

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
Air Quality Impact – Construction Phase					
5.2.6.2	2.1	-	Dust Control Measures <ul style="list-style-type: none"> 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	-	<ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies. 	Within construction site / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Loading, Unloading or Transfer of Dusty Materials <ul style="list-style-type: none"> ▪ 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	
			Debris Handling <ul style="list-style-type: none"> ▪ 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	
			Transport of Dusty Materials <ul style="list-style-type: none"> ▪ 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	
			Wheel washing <ul style="list-style-type: none"> ▪ 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	
			Use of vehicles <ul style="list-style-type: none"> ▪ 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	
			Site hoarding <ul style="list-style-type: none"> ▪ 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	
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	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ 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. 		
			<p>Other raw materials</p> <ul style="list-style-type: none"> ▪ 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; 	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	<p>I</p>

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ 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. 		
			<p>Loading of materials for batching</p> <ul style="list-style-type: none"> ▪ Concrete truck shall be loaded in such a way as to minimise airborne dust emissions. The following control measures shall be implemented: <ul style="list-style-type: none"> (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	
			<p>Vehicles</p> <ul style="list-style-type: none"> ▪ 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	
			<p>Housekeeping</p> <ul style="list-style-type: none"> ▪ 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	
5.2.6.6	2.1	-	<p>Best Practices for Asphaltic Concrete Plant</p> <p>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:</p> <p>Design of Chimney</p> <ul style="list-style-type: none"> ▪ 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	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ 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. 		
			<p>Cold feed side</p> <ul style="list-style-type: none"> ▪ 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. 	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	
			<p>Hot feed side</p> <ul style="list-style-type: none"> ▪ 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; 	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ 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). 		
			<p>Material transportation</p> <ul style="list-style-type: none"> ▪ 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	
			<p>Control of emissions from bitumen decanting</p> <ul style="list-style-type: none"> ▪ 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 <p>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.</p>	Within Concrete Batching Plant / Duration of the construction phase	
			<p>Liquid fuel</p> <ul style="list-style-type: none"> ▪ 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	
			<p>Housekeeping</p> <ul style="list-style-type: none"> ▪ 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	
5.2.6.7	2.1	-	<p>Best Practices for Rock Crushing Plants</p> <p>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:</p>	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?^
			<p>Crushers</p> <ul style="list-style-type: none"> ▪ 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. 		
			<p>Vibratory screens and grizzlies</p> <ul style="list-style-type: none"> ▪ 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
			<p>Belt conveyors</p> <ul style="list-style-type: none"> ▪ 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?^
			<p>Storage piles and bins</p> <ul style="list-style-type: none"> 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
			<p>Rock drilling equipment</p> <ul style="list-style-type: none"> 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	-	<ul style="list-style-type: none"> Precautionary measures should be established to request barges to move away during typhoons. 	Construction Site / Construction Period	I
Table 6.40	3.2	-	<ul style="list-style-type: none"> 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	-	<ul style="list-style-type: none"> Location of all existing hydrant networks should be clearly identified prior to any construction works. 	Construction Site / Construction Period	I
Noise Impact – Construction Phase					
7.5.6	4.3	-	<p>Good Site Practice</p> <p>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:</p> <ul style="list-style-type: none"> 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?^
			<ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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	<p>Marine Construction Activities</p> <p><u>General Measures to be Applied to All Works Areas</u></p> <ul style="list-style-type: none"> ▪ 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
			<p><u>Specific Measures to be Applied to All Works Areas</u></p> <ul style="list-style-type: none"> ▪ 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
			<ul style="list-style-type: none"> ▪ An advance seawall of at least 200m to be constructed (comprising either rows of contiguous permanent steel cells completed above high tide mark or partially completed seawalls with rock core to high tide mark and filter layer on the inner side) prior to commencement of marine filling activities; 		I
			<ul style="list-style-type: none"> ▪ 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)
			<ul style="list-style-type: none"> ▪ 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?^
			<p><u>Specific Measures to be Applied to Land Formation Activities prior to Commencement of Marine Filling Works</u></p> <ul style="list-style-type: none"> 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	<p>N/A</p> <p>*(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)</p>
			<ul style="list-style-type: none"> 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 		<p>For C7a, I</p> <p>For C8, I</p> <p>*(The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)</p>
			<ul style="list-style-type: none"> The silt curtains and silt screens should be regularly checked and maintained. 		I
			<p><u>Specific Measures to be Applied to Land Formation Activities during Marine Filling Works</u></p> <ul style="list-style-type: none"> 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	<p>I</p> <p>*(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)</p>
			<ul style="list-style-type: none"> Double layer silt curtains to be applied at the south-western opening prior to commencement of marine filling activities; 		<p>N/A</p> <p>*(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)</p>
			<ul style="list-style-type: none"> 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 		<p>N/A</p> <p>*(The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)</p>
			<ul style="list-style-type: none"> The silt curtains and silt screens should be regularly checked and maintained. 		I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<p><u>Specific Measures to be Applied to the Field Joint Excavation Works for the Submarine Cable Diversion</u></p> <ul style="list-style-type: none"> Only closed grabs designed and maintained to avoid spillage shall be used and should seal tightly when operated. Excavated materials shall be disposed at designated marine disposal area in accordance with the Dumping at Sea Ordinance (DASO) permit conditions; and Silt curtains surrounding the closed grab dredger to be deployed as a precautionary measure. 	Within construction site / Duration of the construction phase	N/A
8.8.1.4	5.1	-	<p>Modification of the Existing Seawall</p> <ul style="list-style-type: none"> Silt curtains shall be deployed around the seawall modification activities to completely enclose the active works areas, and care should be taken to avoid splashing of rockfill / rock armour into the surrounding marine environment. For the connecting sections with the existing outfalls, works for these connection areas should be undertaken during the dry season in order that individual drainage culvert cells may be isolated for interconnection works. 	At the existing northern seawall / Duration of the construction phase	I
8.8.1.5	5.1	-	<p>Construction of New Stormwater Outfalls and Modifications to Existing Outfalls</p> <ul style="list-style-type: none"> During operation of the temporary drainage channel, runoff control measures such as bunding or silt fence shall be provided on both sides of the channel to prevent accumulation and release of SS via the temporary channel. Measures should also be taken to minimise the ingress of site drainage into the culvert excavations. 	Within construction site / Duration of the construction phase	I
8.8.1.6 8.8.1.7	5.1	2.27	<p>Piling Activities for Construction of New Runway Approach Lights and HKIAAA Marker Beacons</p> <p>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.</p> <p><u>For construction of the eastern approach lights at the CMPs</u></p> <ul style="list-style-type: none"> 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	I I
8.8.1.8	5.1	-	<p>Construction of Site Runoff and Drainage</p> <p>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:</p> <ul style="list-style-type: none"> 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?^
			<p>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);</p> <hr/> <ul style="list-style-type: none"> ▪ 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; <hr/> <ul style="list-style-type: none"> ▪ 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; <hr/> <ul style="list-style-type: none"> ▪ 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; <hr/> <ul style="list-style-type: none"> ▪ 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 <hr/> <ul style="list-style-type: none"> ▪ 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	-	<p>Sewage Effluent from Construction Workforce</p> <ul style="list-style-type: none"> ▪ 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		<p>General Construction Activities</p> <ul style="list-style-type: none"> ▪ 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?^
			<ul style="list-style-type: none"> 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	<p>Drilling Activities for the Submarine Aviation Fuel Pipelines</p> <p>To prevent potential water quality impacts at Sha Chau, the following measures shall be applied:</p> <ul style="list-style-type: none"> 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
			<p>At the airport island side of the drilling works, the following measures shall be applied for treatment of wastewater:</p> <ul style="list-style-type: none"> 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	-	<p>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:</p> <ul style="list-style-type: none"> 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; 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; 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; 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 	Project Site Area / During design and construction phase	I
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EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> ▪ For the marine sediments expected to be excavated from the piling works of TRC, APM & BHS tunnels, airside tunnels and other facilities on the proposed land formation area, piling work of marine sections of the approach lights and HKIAAA beacons, basement works for some of T2 expansion area and excavation works for the proposed APM depot should be treated and reused on-site as backfilling materials, although required treatment level / detail and the specific re-use mode are under development. 		I
10.5.1.1	7.1	-	<p>The following good site practices should be performed during the construction activities include:</p> <ul style="list-style-type: none"> ▪ 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	-	<p>The following practices should be performed to achieve waste reduction include:</p> <ul style="list-style-type: none"> ▪ 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?^
			<ul style="list-style-type: none"> 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		<ul style="list-style-type: none"> 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	-	<ul style="list-style-type: none"> 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	-	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	-	<p>The following mitigation measures are recommended during excavation and treatment of the sediments:</p> <ul style="list-style-type: none"> 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	I I I I I
10.5.1.18	7.1	-	<p>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</p>	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?^
			<p>followed to minimise potential impacts on water quality during transportation of the sediments requiring Type 1 disposal:</p> <ul style="list-style-type: none"> 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	-	<p>Contractor should register with the EPD as a chemical waste producer and to follow the relevant guidelines. The following measures should be implemented:</p> <ul style="list-style-type: none"> 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	-	<ul style="list-style-type: none"> 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	-	<ul style="list-style-type: none"> The construction contractors will be required to regularly check and clean any refuse trapped or accumulated along the newly constructed seawall. Such refuse will then be stored and disposed of together with the general refuse. 	Project Site Area / Construction Phase	I
Land Contamination – Construction Phase					
11.10.1.2 to 11.10.1.3	8.1	2.32	<p>For areas inaccessible during site reconnaissance survey</p> <ul style="list-style-type: none"> 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
			<ul style="list-style-type: none"> 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?^
			<ul style="list-style-type: none"> ▪ 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. <hr/> <ul style="list-style-type: none"> ▪ 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. 		<p>I *(CAR for golf course and Terminal 2 Emergency Power Supply System Nos.1, 2, 3, 4 and 5)</p> <hr/> <p>N/A</p>
11.8.1.2	8.1	-	<p>If contaminated soil is identified, the following mitigation measures are for the excavation and transportation of contaminated materials (if any):</p> <ul style="list-style-type: none"> ▪ 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	<p>Pre-construction Egretty Survey</p> <ul style="list-style-type: none"> ▪ Conduct ecological survey for Sha Chau egretty to update the latest boundary of the egretty. 	Breeding season (April - July) prior to commencement of	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
				HDD drilling works at HKIA	
12.7.2.3 and 12.7.2.6	9.1	2.30	Avoidance and Minimisation of Direct Impact to Egret <ul style="list-style-type: none"> The daylighting location will avoid direct encroachment to the Sheung Sha Chau egret. The daylighting location and mooring of flat top barge, if required, will be kept away from the egret; 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	
12.7.2.5	9.1	2.30	Preservation of Nesting Vegetation <ul style="list-style-type: none"> 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	
12.7.2.4 and 12.7.2.6	9.1	2.30	Timing the Pipe Connection Works outside Ardeid's Breeding Season <ul style="list-style-type: none"> 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	
12.10.1.1	9.3	-	Ecological Monitoring <ul style="list-style-type: none"> 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	
Marine Ecological Impact – Pre-construction Phase					
13.11.4.1	10.2.2	-	<ul style="list-style-type: none"> Pre-construction phase Coral Dive Survey. 	HKIAAA artificial seawall	
Marine Ecological Impact – Construction Phase					
13.11.1.3 to 13.11.1.6	-	-	Minimisation of Land Formation Area <ul style="list-style-type: none"> 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	
13.11.1.7 to 13.11.1.10	-	2.31	Use of Construction Methods with Minimal Risk/Disturbance <ul style="list-style-type: none"> 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	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> 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; 		
			<ul style="list-style-type: none"> Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; 		
			<ul style="list-style-type: none"> Avoid bored piling during CWD peak calving season (Mar to Jun); 		
			<ul style="list-style-type: none"> Prohibition of underwater percussive piling; and 		
			<ul style="list-style-type: none"> 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. 		
13.11.2.1 to 13.11.2.7	-	-	<p>Mitigation for Indirect Disturbance due to Deterioration of Water Quality</p> <ul style="list-style-type: none"> Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices; 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); Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and <p>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.</p>	All works area during the construction phase	
13.11.1.12	-	-	<p>Strict Enforcement of No-Dumping Policy</p> <ul style="list-style-type: none"> 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-dumping 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	
13.11.1.13	-	-	<p>Good Construction Site Practices</p> <ul style="list-style-type: none"> 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	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
13.11.1.3 to 13.11.1.6	-	-	Minimisation of Land Formation Area <ul style="list-style-type: none"> 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
13.11.5.4 to 13.11.5.13	10.3.1	-	SkyPier High Speed Ferries' Speed Restrictions and Route Diversions <ul style="list-style-type: none"> 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. Other mitigation measures <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> Establishment of a 24 hr Dolphin Exclusion Zone (DEZ) with a 250 m radius around the land formation works areas; A DEZ would also be implemented during ground improvement works (e.g. DCM), water jetting works for submarine cables diversion, open trench dredging at the field joint locations and seawall construction; and A DEZ would also be implemented during bored piling work but as a precautionary measure only. 	Marine waters around land formation works area during construction phase	I
13.11.5.19	10.4	2.31	Acoustic Decoupling of Construction Equipment <ul style="list-style-type: none"> 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	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?^
			<ul style="list-style-type: none"> An oil and hazardous chemical spill response plan is proposed to be established during the construction phase as a precautionary measure so that appropriate actions to prevent or reduce risks to CWDs can be undertaken in the event of an accidental spillage. 		
13.11.5.21 to 13.11.5.23	10.6.1	-	<p>Construction Vessel Speed Limits and Skipper Training</p> <ul style="list-style-type: none"> 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	
Fisheries Impact – Construction Phase					
14.9.1.2 to 14.9.1.5	-	-	<p>Minimisation of Land Formation Area</p> <ul style="list-style-type: none"> 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	
14.9.1.6	-	-	<p>Use of Construction Methods with Minimal Risk/Disturbance</p> <ul style="list-style-type: none"> Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF; 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; Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and 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. 	During construction phase at marine works area	
14.9.1.11	-	-	<p>Strict Enforcement of No-Dumping Policy</p> <ul style="list-style-type: none"> 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-dumping 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	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
14.9.1.12	-		Good Construction Site Practices <ul style="list-style-type: none"> 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	
14.9.1.13 to 14.9.1.18	-		Mitigation for Indirect Disturbance due to Deterioration of Water Quality <ul style="list-style-type: none"> Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices; 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); Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and 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. 	All works area during the construction phase	
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.	
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.	
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.	
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.	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
Table 15.6	12.3	-	CM5 - Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours.	All works areas for duration of works; Upon handover and completion of works. – may be disassembled in phases	I
Table 15.6	12.3	-	CM6 - Avoidance of excessive height and bulk of site buildings and structures.	New passenger concourse, terminal 2 expansion and other proposed airport related buildings and structures under the project; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM7 - Control of night-time lighting by hooding all lights and through minimisation of night working periods.	All works areas for duration of works; Upon handover and completion of works. – may be disassembled in phases	I
Table 15.6	12.3	-	CM8 - All existing trees shall be carefully protected during construction. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in contractor's works areas.	All existing trees to be retained; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM9 - Trees unavoidably affected by the works shall be transplanted where practical. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, if applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme.	All existing trees to be affected by the works; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM10 - Land formation works shall be followed with advanced hydroseeding around taxiways and runways as soon as practical.	All affected existing grass areas around runways and verges/Duration of works;	N/A

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

Notes:

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

“ I ” Implemented where applicable.

“ N/A ” Not applicable to the construction works implemented during the reporting month.

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

Appendix B. Monitoring Schedule

Monitoring Schedule of This Reporting Period

Jun-21

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 Site Inspection NM4, NM6 WQ General & Regular DCM mid-ebb: 17:46 mid-flood: 10:29	2 Site Inspection	3 Site Inspection AR1A, AR2 NM1A, NM5 WQ General & Regular DCM mid-ebb: 8:48 mid-flood: 13:31	4 Site Inspection CWD Survey (Vessel)	5 WQ General & Regular DCM mid-ebb: 10:25 mid-flood: 16:02
6	7 Site Inspection CWD Survey (Vessel)	8 Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 12:05 mid-flood: 5:19	9 Site Inspection CWD Survey (Land-based) AR1A, AR2 NM1A, NM5	10 Site Inspection WQ General & Regular DCM mid-ebb: 13:08 mid-flood: 6:07	11 Site Inspection NM4, NM6	12 WQ General & Regular DCM mid-ebb: 14:16 mid-flood: 7:03
13	14	15 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5 WQ General & Regular DCM mid-ebb: 16:13 mid-flood: 8:50	16 Site Inspection CWD Survey (Land-based)	17 Site Inspection CWD Survey (Vessel) NM4, NM6 WQ General & Regular DCM mid-ebb: 17:50 mid-flood: 10:38	18 Site Inspection	19 WQ General & Regular DCM mid-ebb: 8:20 mid-flood: 13:46
20	21 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	22 Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 10:56 mid-flood: 4:15	23 Site Inspection	24 Site Inspection NM4, NM6 WQ General mid-ebb: 12:34 mid-flood: 5:36	25 Site Inspection CWD Survey (Vessel)	26 AR1A, AR2 WQ General mid-ebb: 14:10 mid-flood: 7:02
27	28 Site Inspection	29 Site Inspection WQ General mid-ebb: 16:30 mid-flood: 9:25	30 Site Inspection NM4, NM6			
Notes: CWD - Chinese White Dolphin Air quality and Noise Monitoring Station WQ - Water Quality DCM - Deep Cement Mixing NM1A/AR1A - Man Tung Road Park NM4 - Ching Chung Hau Po Woon Primary School NM5/AR2 - Village House, Tin Sum NM6 - House No. 1, Sha Lo Wan						

Tentative Monitoring Schedule of Next Reporting Period

Jul-21

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 WQ General mid-ebb: 18:04 mid-flood: 11:27	2 Site Inspection AR1A, AR2 NM1A, NM5	3 WQ General mid-ebb: 8:44 mid-flood: 14:06
4	5 Site Inspection NM4, NM6	6 Site Inspection WQ General mid-ebb: 11:04 mid-flood: 17:50	7	8 Site Inspection AR1A, AR2 NM1A, NM5 WQ General mid-ebb: 12:14 mid-flood: 19:23	9 Site Inspection	10 WQ General mid-ebb: 13:25 mid-flood: 20:38
11	12 Site Inspection CWD Survey (Vessel, Land-based)	13 Site Inspection CWD Survey (Vessel) WQ General mid-ebb: 15:18 mid-flood: 8:10	14 CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	15 Site Inspection NM4, NM6 WQ General mid-ebb: 16:39 mid-flood: 9:44	16 Site Inspection	17 WQ General mid-ebb: 18:19 mid-flood: 11:54
18	19 Site Inspection CWD Survey (Vessel) NM4, NM6	20 Site Inspection CWD Survey (Land-based) AR1A, AR2 NM1A, NM5 WQ General mid-ebb: 9:40 mid-flood: 16:50	21 CWD Survey (Vessel)	22 Site Inspection CWD Survey (Vessel) WQ General mid-ebb: 11:33 mid-flood: 19:02	23 Site Inspection	24 WQ General mid-ebb: 13:12 mid-flood: 20:34
25	26 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	27 Site Inspection NM4, NM6 WQ General mid-ebb: 15:23 mid-flood: 8:29	28 CWD Survey (Vessel)	29 Site Inspection WQ General mid-ebb: 16:36 mid-flood: 10:03	30 Site Inspection	31 WQ General mid-ebb: 17:47 mid-flood: 11:56
Notes: CWD - Chinese White Dolphin Air quality and Noise Monitoring Station WQ - Water Quality NM1A/AR1A - Man Tung Road Park NM4 - Ching Chung Hau Po Woon Primary School NM5/AR2 - Village House, Tin Sum NM6 - House No. 1, Sha Lo Wan						

Appendix C. Monitoring Results

Air Quality Monitoring Results

1-hour TSP Results

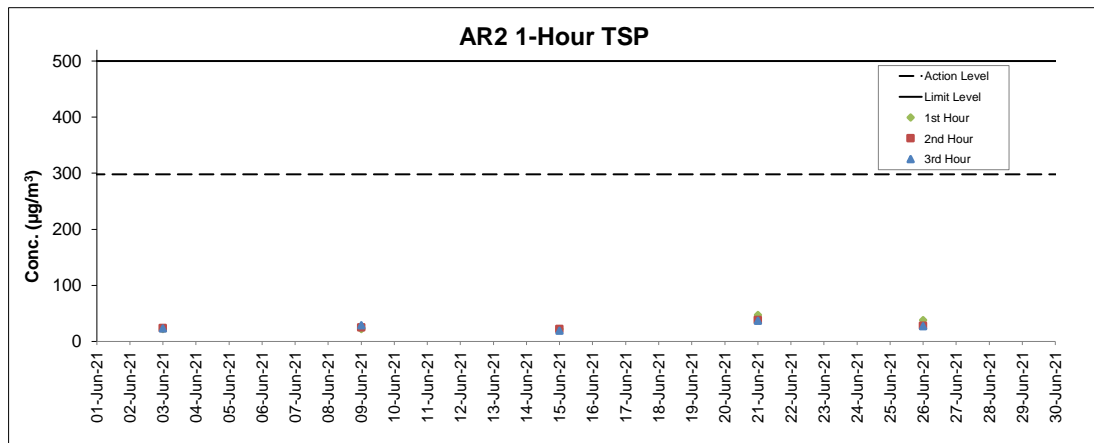
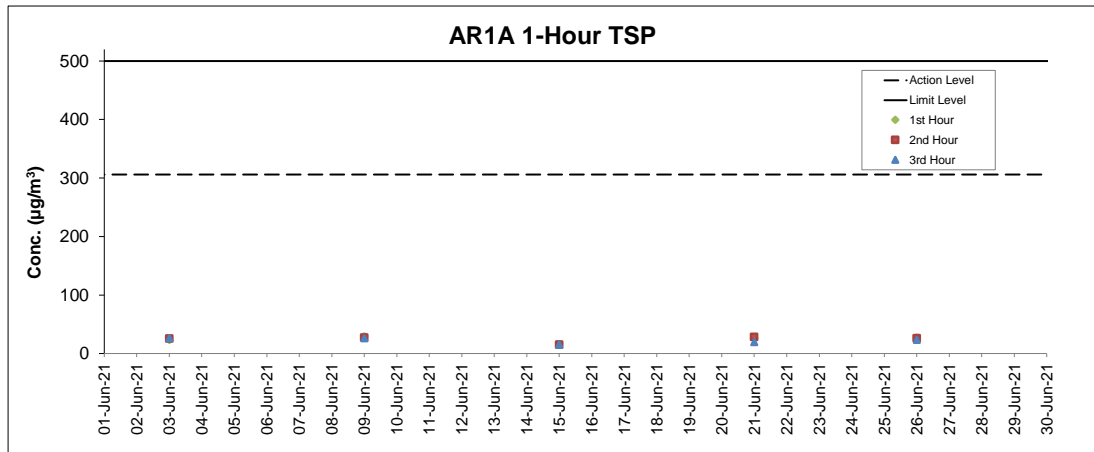
Station: AR1A- Man Tung Road Park

Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
03-Jun-21	13:25	Cloudy	3.9	212	23	306	500
03-Jun-21	14:25	Cloudy	2.8	Variable	25	306	500
03-Jun-21	15:25	Cloudy	3.3	36	26	306	500
09-Jun-21	13:32	Cloudy	1.7	242	29	306	500
09-Jun-21	14:32	Cloudy	1.4	Variable	27	306	500
09-Jun-21	15:32	Cloudy	2.8	90	26	306	500
15-Jun-21	13:55	Cloudy	8.3	227	16	306	500
15-Jun-21	14:55	Cloudy	7.8	226	15	306	500
15-Jun-21	15:55	Cloudy	8.6	226	15	306	500
21-Jun-21	14:05	Cloudy	8.3	233	26	306	500
21-Jun-21	15:05	Cloudy	2.5	216	28	306	500
21-Jun-21	16:05	Cloudy	5.0	215	19	306	500
26-Jun-21	14:30	Cloudy	4.2	208	27	306	500
26-Jun-21	15:30	Cloudy	4.7	213	26	306	500
26-Jun-21	16:30	Cloudy	3.6	233	23	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 ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
03-Jun-21	11:45	Sunny	4.2	144	22	298	500
03-Jun-21	12:45	Sunny	4.4	208	24	298	500
03-Jun-21	13:45	Sunny	3.3	215	23	298	500
09-Jun-21	9:05	Cloudy	3.9	67	22	298	500
09-Jun-21	10:05	Cloudy	3.1	99	25	298	500
09-Jun-21	11:05	Cloudy	5.0	248	29	298	500
15-Jun-21	10:01	Cloudy	5.8	202	22	298	500
15-Jun-21	11:01	Cloudy	5.3	212	22	298	500
15-Jun-21	12:01	Cloudy	3.6	232	19	298	500
21-Jun-21	14:41	Cloudy	5.0	343	47	298	500
21-Jun-21	15:41	Cloudy	6.7	232	38	298	500
21-Jun-21	16:41	Cloudy	3.9	Variable	37	298	500
26-Jun-21	10:50	Cloudy	1.7	79	38	298	500
26-Jun-21	11:50	Cloudy	1.9	266	28	298	500
26-Jun-21	12:50	Cloudy	3.3	175	27	298	500



Notes

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

Noise Monitoring Results

Noise Measurement Results

Station: NM1A- Man Tung Road Park

Date	Weather	Time	Measured L ₁₀ dB(A)	Measured L ₅₀ dB(A)	L _{eq(30mins)} dB(A) ^
03-Jun-21	Cloudy	13:21	74.6	60.5	67*
03-Jun-21	Cloudy	13:26	74.2	59.9	
03-Jun-21	Cloudy	13:31	78.5	62.8	
03-Jun-21	Cloudy	13:36	76.2	60.7	
03-Jun-21	Cloudy	13:41	74.3	61.9	
03-Jun-21	Cloudy	13:46	71.7	54.1	
09-Jun-21	Cloudy	16:33	73.0	65.3	67*
09-Jun-21	Cloudy	16:38	73.1	66.9	
09-Jun-21	Cloudy	16:43	73.2	66.3	
09-Jun-21	Cloudy	16:48	72.0	65.4	
09-Jun-21	Cloudy	16:53	72.4	64.5	
09-Jun-21	Cloudy	16:58	73.9	64.8	
15-Jun-21	Cloudy	14:48	69.8	56.4	67*
15-Jun-21	Cloudy	14:53	72.4	57.9	
15-Jun-21	Cloudy	14:58	74.7	58.0	
15-Jun-21	Cloudy	15:03	74.9	58.3	
15-Jun-21	Cloudy	15:08	71.1	58.3	
15-Jun-21	Cloudy	15:13	74.2	57.9	
21-Jun-21	Sunny	12:42	73.9	55.2	73
21-Jun-21	Sunny	12:47	74.5	55.0	
21-Jun-21	Sunny	12:52	72.8	56.6	
21-Jun-21	Sunny	12:57	74.4	53.8	
21-Jun-21	Sunny	13:02	74.7	54.5	
21-Jun-21	Sunny	13:07	74.8	53.2	

Remarks:

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

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

Noise Measurement Results

Station: NM4- Ching Chung Hau Po Woon Primary School

Date	Weather	Time	Measured L ₁₀ dB(A)	Measured L ₅₀ dB(A)	L _{eq(30mins)} dB(A) ^
01-Jun-21	Cloudy	8:30	61.5	58.5	62
01-Jun-21	Cloudy	8:35	60.5	56.7	
01-Jun-21	Cloudy	8:40	59.8	57.8	
01-Jun-21	Cloudy	8:45	60.8	57.9	
01-Jun-21	Cloudy	8:50	59.9	57.2	
01-Jun-21	Cloudy	8:55	60.3	57.4	
11-Jun-21	Sunny	11:00	NA	NA	NA
11-Jun-21	Sunny	11:05	NA	NA	
11-Jun-21	Sunny	11:10	NA	NA	
11-Jun-21	Sunny	11:15	NA	NA	
11-Jun-21	Sunny	11:20	NA	NA	
11-Jun-21	Sunny	11:25	NA	NA	
17-Jun-21	Cloudy	13:32	59.8	56.4	63
17-Jun-21	Cloudy	13:37	60.5	56.4	
17-Jun-21	Cloudy	13:42	59.7	56.5	
17-Jun-21	Cloudy	13:47	63.8	56.8	
17-Jun-21	Cloudy	13:52	63.4	57.0	
17-Jun-21	Cloudy	13:57	61.8	56.4	
24-Jun-21	Cloudy	12:49	60.4	56.4	62
24-Jun-21	Cloudy	12:54	59.0	56.1	
24-Jun-21	Cloudy	12:59	60.2	55.5	
24-Jun-21	Cloudy	13:04	58.9	55.7	
24-Jun-21	Cloudy	13:09	60.0	55.9	
24-Jun-21	Cloudy	13:14	61.1	56.2	
30-Jun-21	Cloudy	13:50	64.7	57.7	66
30-Jun-21	Cloudy	13:55	63.1	58.6	
30-Jun-21	Cloudy	14:00	62.5	59.3	
30-Jun-21	Cloudy	14:05	63.9	58.9	
30-Jun-21	Cloudy	14:10	64.2	58.7	
30-Jun-21	Cloudy	14:15	65.5	59.7	

Remarks:

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

NA: Abnormal result, which may be caused by malfunction of monitoring equipment, was recorded. The measurement result was discarded after review.

Limit Level at NM4 was reduced to 65 dB(A) during school examination period from 31 May to 4 June 2021; while Basic Competency Assessment took place on 7, 8, 11, 15, 16, and 21 June during this reporting period.

Noise Measurement Results

Station: NM5- Village House, Tin Sum

Date	Weather	Time	Measured L ₁₀ dB(A)	Measured L ₉₀ dB(A)	L _{eq(30mins)} dB(A) ^
03-Jun-21	Sunny	12:00	64.5	59.6	65*
03-Jun-21	Sunny	12:05	64.5	60.4	
03-Jun-21	Sunny	12:10	65.6	61.0	
03-Jun-21	Sunny	12:15	63.2	59.6	
03-Jun-21	Sunny	12:20	66.0	60.8	
03-Jun-21	Sunny	12:25	64.9	59.6	
09-Jun-21	Cloudy	9:18	63.6	55.3	59*
09-Jun-21	Cloudy	9:23	58.9	55.0	
09-Jun-21	Cloudy	9:28	60.5	55.7	
09-Jun-21	Cloudy	9:33	59.5	55.8	
09-Jun-21	Cloudy	9:38	59.6	56.0	
09-Jun-21	Cloudy	9:43	60.1	56.5	
15-Jun-21	Cloudy	11:31	65.9	48.9	62*
15-Jun-21	Cloudy	11:36	59.7	48.6	
15-Jun-21	Cloudy	11:41	61.2	51.0	
15-Jun-21	Cloudy	11:46	63.7	53.1	
15-Jun-21	Cloudy	11:51	64.7	59.4	
15-Jun-21	Cloudy	11:56	61.9	57.6	
21-Jun-21	Cloudy	14:50	53.4	44.9	55
21-Jun-21	Cloudy	14:55	51.5	44.9	
21-Jun-21	Cloudy	15:00	47.6	44.2	
21-Jun-21	Cloudy	15:05	49.1	43.7	
21-Jun-21	Cloudy	15:10	59.2	43.9	
21-Jun-21	Cloudy	15:15	51.9	44.8	

Remarks:

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

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

Noise Measurement Results

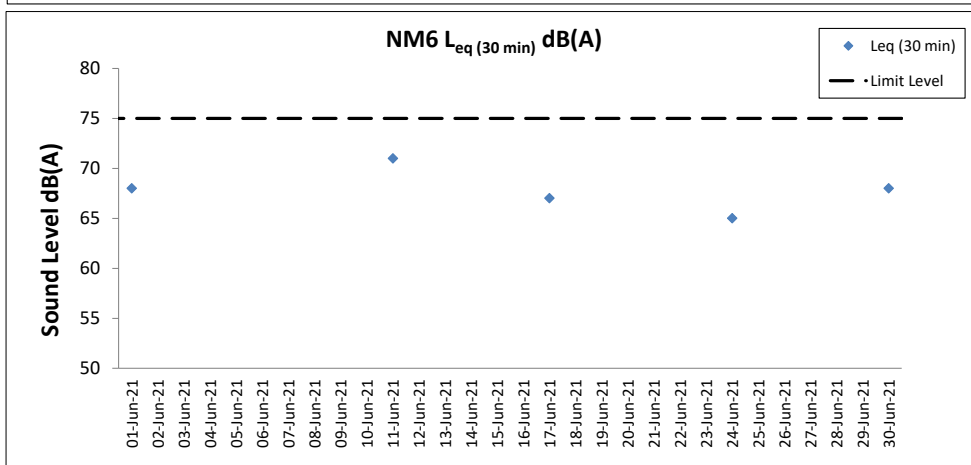
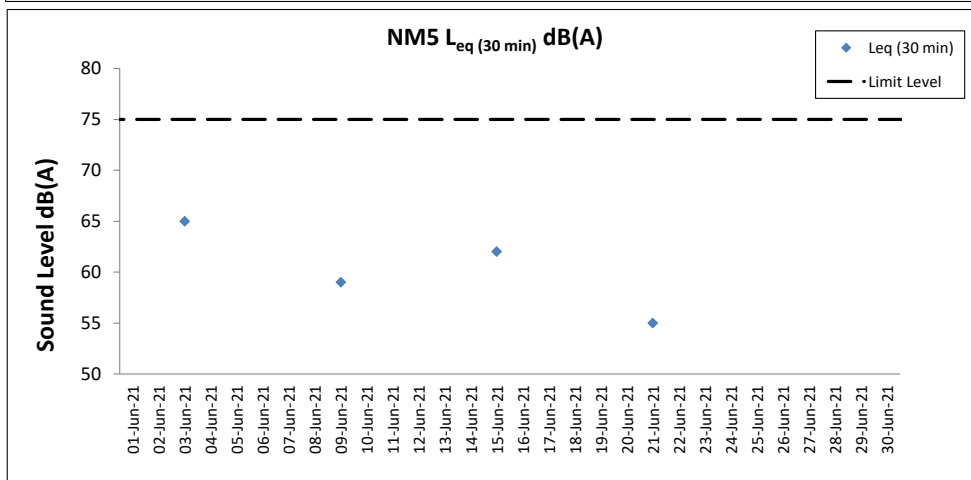
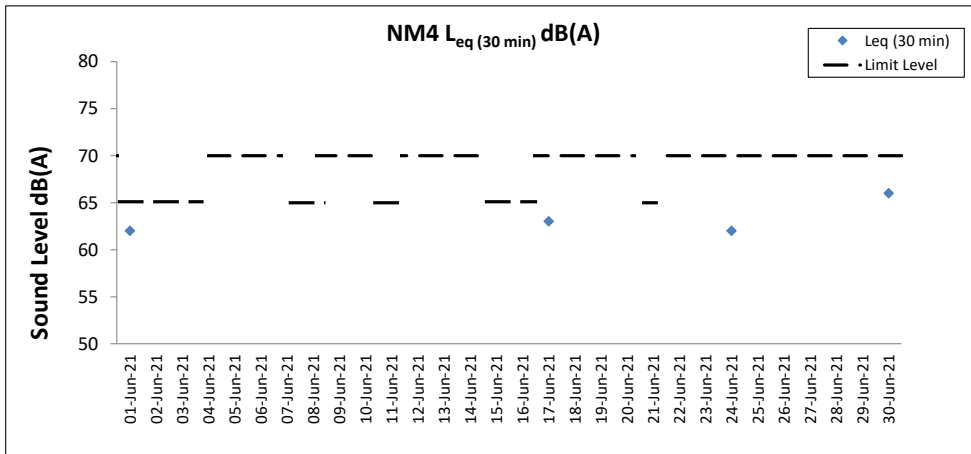
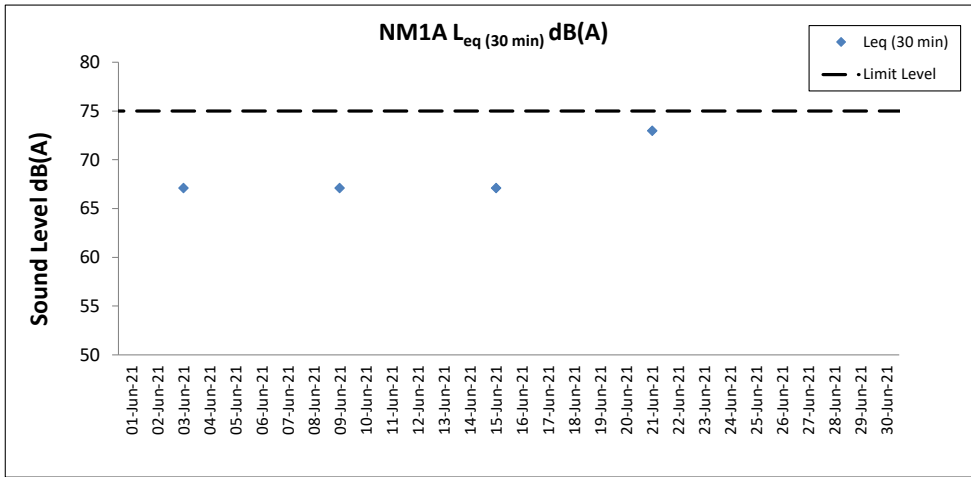
Station: NM6- House No.1 Sha Lo Wan

Date	Weather	Time	Measured L ₁₀ dB(A)	Measured L ₉₀ dB(A)	L _{eq(30mins)} dB(A) ^
01-Jun-21	Cloudy	18:30	68.5	65.4	68*
01-Jun-21	Cloudy	18:35	68.4	65.1	
01-Jun-21	Cloudy	18:40	71.8	65.6	
01-Jun-21	Cloudy	18:45	69.8	65.5	
01-Jun-21	Cloudy	18:50	68.0	65.1	
01-Jun-21	Cloudy	18:55	69.0	65.6	
11-Jun-21	Sunny	9:55	68.9	57.3	71*
11-Jun-21	Sunny	10:00	76.5	59.0	
11-Jun-21	Sunny	10:05	69.3	60.9	
11-Jun-21	Sunny	10:10	79.1	57.9	
11-Jun-21	Sunny	10:15	69.1	56.5	
11-Jun-21	Sunny	10:20	74.2	57.6	
17-Jun-21	Cloudy	15:45	61.7	53.6	67
17-Jun-21	Cloudy	15:50	69.0	55.0	
17-Jun-21	Cloudy	15:55	68.9	57.4	
17-Jun-21	Cloudy	16:00	68.7	57.8	
17-Jun-21	Cloudy	16:05	67.3	57.7	
17-Jun-21	Cloudy	16:10	65.5	57.6	
24-Jun-21	Cloudy	15:40	56.1	45.3	65
24-Jun-21	Cloudy	15:45	62.4	49.8	
24-Jun-21	Cloudy	15:50	59.0	51.3	
24-Jun-21	Cloudy	15:55	55.1	50.7	
24-Jun-21	Cloudy	16:00	56.7	50.8	
24-Jun-21	Cloudy	16:05	59.0	50.8	
30-Jun-21	Cloudy	15:40	60.6	52.7	68
30-Jun-21	Cloudy	15:45	64.1	53.2	
30-Jun-21	Cloudy	15:50	64.2	48.6	
30-Jun-21	Cloudy	15:55	65.4	50.7	
30-Jun-21	Cloudy	16:00	68.7	51.8	
30-Jun-21	Cloudy	16:05	58.2	50.1	

Remarks:

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

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



Notes

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

Water Quality Monitoring Results

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

Water Quality Monitoring Results on 01 June 21 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	Value	DA			
C1	Rainy	Moderate	17:09	8.7	Surface	1.0	0.2	251	28.4	28.4	8.2	8.2	17.4	17.4	96.1	96.1	6.7	6.7	4.9	4.9	4	86	88	815609	804241	<0.2	1.1	<0.2	1.1					
						1.0	0.2	251	28.4	8.2	8.2	17.4	17.4	96.0	96.0	6.7	6.7	4.9	4.9	3	87	87	815609	804241	<0.2	1.1	<0.2	1.1						
						4.4	0.2	263	26.5	26.6	8.2	8.2	25.9	25.8	65.0	65.1	4.5	4.5	13.8	13.8	4	87	88	815609	804241	<0.2	1.0	<0.2	1.0					
					Middle	4.4	0.2	288	26.6	26.6	8.2	8.2	26.8	26.8	65.1	65.1	4.5	4.5	12.8	12.8	3	88	88	815609	804241	<0.2	1.0	<0.2	1.0					
						7.7	0.3	247	26.0	26.0	8.2	8.2	27.1	27.1	63.6	63.7	4.4	4.4	14.8	14.8	3	90	90	815609	804241	<0.2	1.0	<0.2	1.0					
						7.7	0.3	260	26.0	26.0	8.2	8.2	27.1	27.1	63.7	63.7	4.4	4.4	14.3	14.3	2	91	91	815609	804241	<0.2	1.2	<0.2	1.2					
					C2	Rainy	Moderate	16:05	12.8	Surface	1.0	0.0	125	28.2	28.2	8.0	8.0	17.4	17.4	78.7	78.7	5.6	5.6	9.8	9.8	4	87	89	825679	806922	<0.2	1.0	<0.2	1.1
											1.0	0.0	130	28.2	28.2	8.0	8.0	17.4	17.4	78.6	78.6	5.6	5.6	9.9	9.9	3	87	89	825679	806922	<0.2	1.1	<0.2	1.1
											6.4	0.0	144	28.0	28.0	8.0	8.0	18.3	18.3	73.3	72.8	5.2	5.1	10.6	10.6	4	89	89	825679	806922	<0.2	1.2	<0.2	1.2
Middle	6.4	0.0	146	27.9						27.9	8.0	8.0	18.3	18.3	72.3	72.3	5.1	5.1	10.8	10.8	4	89	89	825679	806922	<0.2	1.2	<0.2	1.2					
	11.8	0.0	141	26.7						26.7	8.0	8.0	24.8	24.7	71.2	72.7	5.0	5.0	12.3	12.3	4	92	92	825679	806922	<0.2	1.0	<0.2	1.0					
	11.8	0.1	143	26.9						26.8	8.0	8.0	24.7	24.7	74.1	72.7	5.2	5.2	12.0	12.0	4	92	92	825679	806922	<0.2	1.1	<0.2	1.1					
C3	Rainy	Moderate	18:06	12.1						Surface	1.0	0.0	276	27.9	27.9	8.1	8.1	21.3	21.3	79.3	79.2	5.5	5.5	8.6	8.6	4	86	88	822111	817781	<0.2	1.1	<0.2	1.1
											1.0	0.0	300	27.9	27.9	8.1	8.1	21.3	21.3	79.0	79.2	5.5	5.5	8.8	8.8	3	86	87	822111	817781	<0.2	1.1	<0.2	1.1
											6.1	0.0	252	27.1	27.0	8.1	8.1	22.7	22.8	72.5	72.3	5.1	5.1	9.8	9.8	4	87	87	822111	817781	<0.2	1.2	<0.2	1.2
					Middle	6.1	0.0	274	26.9	26.9	8.1	8.1	22.8	22.8	72.0	72.3	5.1	5.1	9.6	9.6	4	87	87	822111	817781	<0.2	1.3	<0.2	1.3					
						11.1	0.0	112	26.3	26.3	8.1	8.1	27.2	27.2	75.6	75.8	5.2	5.3	11.4	11.4	5	91	91	822111	817781	<0.2	1.3	<0.2	1.3					
						11.1	0.0	119	26.3	26.3	8.1	8.1	27.2	27.2	76.0	75.8	5.3	5.3	11.1	11.1	4	92	92	822111	817781	<0.2	1.2	<0.2	1.2					
					IM1	Rainy	Moderate	17:01	5.4	Surface	1.0	0.3	218	28.6	28.6	8.2	8.2	17.2	17.2	92.6	92.5	6.5	6.5	5.0	5.0	2	87	88	817940	807147	<0.2	1.2	<0.2	1.2
											1.0	0.3	223	28.6	28.6	8.2	8.2	17.2	17.2	92.3	92.5	6.5	6.5	5.3	5.3	10	88	89	817940	807147	<0.2	1.2	<0.2	1.2
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	817940	807147	<0.2	1.3	<0.2	1.3		
	4.4	0.2	226	26.4						26.4	8.2	8.2	25.4	25.4	65.8	66.0	4.6	4.6	12.3	12.3	9	90	89	817940	807147	<0.2	1.3	<0.2	1.3					
	4.4	0.2	241	26.4						26.4	8.2	8.2	25.4	25.4	66.1	66.0	4.6	4.6	12.1	12.1	10	89	89	817940	807147	<0.2	1.4	<0.2	1.4					
IM2	Rainy	Moderate	16:54	7.6						Surface	1.0	0.2	25	28.4	28.4	8.2	8.2	17.3	17.3	89.9	89.8	6.3	6.3	4.5	4.5	6	89	89	818140	806160	<0.2	1.3	<0.2	1.3
											1.0	0.2	25	28.4	28.4	8.2	8.2	17.3	17.3	89.7	89.8	6.3	6.3	4.5	4.5	7	89	89	818140	806160	<0.2	1.1	<0.2	1.1
											3.8	0.1	17	26.6	26.6	8.2	8.2	24.6	24.8	62.3	62.5	4.3	4.3	8.0	8.0	8	90	91	818140	806160	<0.2	1.0	<0.2	1.0
					Middle	3.8	0.1	17	26.6	26.6	8.2	8.2	24.6	24.8	62.7	62.5	4.3	4.3	7.8	7.8	8	91	91	818140	806160	<0.2	1.1	<0.2	1.1					
						6.6	0.2	22	26.3	26.3	8.2	8.2	26.2	26.2	65.9	66.1	4.6	4.6	10.7	10.7	8	91	91	818140	806160	<0.2	1.3	<0.2	1.3					
						6.6	0.2	23	26.3	26.3	8.2	8.2	26.2	26.2	66.3	66.1	4.6	4.6	10.8	10.8	9	91	91	818140	806160	<0.2	1.2	<0.2	1.2					
					IM3	Rainy	Moderate	16:44	7.7	Surface	1.0	0.3	176	28.6	28.6	8.2	8.2	16.7	16.7	97.0	96.9	6.8	6.8	4.8	4.8	7	89	89	818799	805603	<0.2	1.4	<0.2	1.4
											1.0	0.3	176	28.6	28.6	8.2	8.2	16.7	16.7	96.8	96.9	6.8	6.8	4.8	4.8	8	89	89	818799	805603	<0.2	1.3	<0.2	1.3
											3.9	0.2	179	26.7	26.7	8.2	8.2	21.4	21.3	70.2	70.2	5.0	5.0	14.4	14.4	8	90	90	818799	805603	<0.2	1.1	<0.2	1.1
Middle	3.9	0.3	189	26.7						26.7	8.2	8.2	21.3	21.3	70.2	70.2	5.0	5.0	13.7	13.7	7	90	90	818799	805603	<0.2	1.1	<0.2	1.1					
	6.7	0.3	181	26.4						26.4	8.2	8.2	25.7	25.7	62.2	62.5	4.3	4.3	15.6	15.6	7	91	91	818799	805603	<0.2	1.1	<0.2	1.1					
	6.7	0.3	189	26.4						26.4	8.2	8.2	25.7	25.7	62.7	62.5	4.3	4.3	15.4	15.4	6	92	92	818799	805603	<0.2	1.1	<0.2	1.1					
IM4	Rainy	Moderate	16:35	7.4						Surface	1.0	0.3	174	26.9	26.9	8.1	8.1	21.9	21.9	70.6	70.5	5.0	5.0	11.7	11.7	5	87	88	819738	804626	<0.2	1.1	<0.2	1.1
											1.0	0.3	189	26.9	26.9	8.1	8.1	21.9	21.9	70.4	70.5	4.9	4.9	11.1	11.1	6	88	89	819738	804626	<0.2	1.1	<0.2	1.1
											3.7	0.2	175	26.6	26.6	8.1	8.1	24.2	24.2	68.2	68.1	4.8	4.8	11.8	11.8	7	89	90	819738	804626	<0.2	1.0	<0.2	1.0
					Middle	3.7	0.3	176	26.6	26.6	8.1	8.1	24.2	24.2	68.0	68.1	4.7	4.7	11.3	11.3	6	90	91	819738	804626	<0.2	1.0	<0.2	1.0					
						6.4	0.2	183	26.6	26.7	8.1	8.1	24.8	24.8	69.2	69.3	4.8	4.8	13.4	13.4	7	91	91	819738	804626	<0.2	1.0	<0.2	1.0					
						6.4	0.3	183	26.7	26.7	8.1	8.1	24.7	24.8	69.4	69.3	4.8	4.8	13.5	13.5	6	91	91	819738	804626	<0.2	1.1	<0.2	1.1					
					IM5	Rainy	Moderate	16:35	7.6	Surface	1.0	0.2	58	27.0	27.0	8.1	8.1	22.3	22.3	71.9	71.9	5.0	5.0	10.5	10.5	6	88	88	820754	804867	<0.2	1.2	<0.2	1.2
											1.0	0.2	62	27.0	27.0	8.1	8.1	22.3	22.3	71.9	71.9	5.0	5.0	10.4	10.4	5	88	89	820754	804867	<0.2	1.3	<0.2	1.3
											3.8	0.2	63	26.6	26.6	8.2	8.2	24.3	24.3	68.6	68.6	4.8	4.8	12.6	12.6	5	89	89	820754	804867	<0.2	1.2	<0.2	1.2
Middle	3.8	0.2	65	26.6						26.6	8.2	8.2	24.3	24.3	68.6	68.6	4.8	4.8	12.3	12.3	6	89	89	820754	804867	<0.2	1.2	<0.2	1.2					
	6.6	0.2	74	26.6						26.6	8.2	8.2	24.8	24.8	69.2	69.2	4.8	4.8	13.9	13.9	5	91	91	820754	804867	<0.2	1.3	<0.2	1.3					
	6.6	0.2																																

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

Water Quality Monitoring Results on 01 June 21 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	Value	DA		
IM9	Rainy	Moderate	16:37	7.6	Surface	1.0	0.1	77	28.3	28.3	8.0	8.0	17.7	17.7	84.6	84.6	6.0	6.0	8.2	5	86	89	822080	808821	<0.2	1.3	<0.2	1.3					
						1.0	0.1	79	28.3	28.3	8.0	8.0	17.7	17.7	84.5	84.5	6.0	6.0	7.6	4	86	89	822080	808821	<0.2	1.4	<0.2	1.4					
						3.8	0.1	82	28.3	28.3	8.0	8.0	17.8	17.8	82.9	82.9	5.9	5.9	9.1	4	88	89	822080	808821	<0.2	1.4	<0.2	1.4					
					Middle	3.8	0.1	88	28.3	28.3	8.0	8.0	17.8	17.8	82.8	82.8	5.8	5.8	8.8	4	90	89	822080	808821	<0.2	1.1	<0.2	1.1					
						6.6	0.1	72	27.9	28.0	8.0	8.0	19.2	19.5	84.6	85.5	6.0	6.1	10.2	3	90	89	822080	808821	<0.2	1.3	<0.2	1.3					
						6.6	0.1	75	28.1	28.0	8.0	8.0	19.8	19.5	86.4	85.4	6.1	6.1	10.4	4	91	89	822080	808821	<0.2	1.2	<0.2	1.2					
					IM10	Rainy	Moderate	16:44	8.5	Surface	1.0	0.1	67	28.5	28.5	8.0	8.0	16.4	16.4	85.1	84.8	6.0	6.0	8.5	5	85	89	822365	809807	<0.2	1.2	<0.2	1.2
											1.0	0.1	68	28.5	28.5	8.0	8.0	16.4	16.4	84.5	84.5	6.0	5.9	8.5	4	86	89	822365	809807	<0.2	1.2	<0.2	1.2
											4.3	0.1	74	28.1	28.1	8.0	8.0	17.8	17.8	81.0	80.9	5.7	5.7	9.9	4	89	89	822365	809807	<0.2	1.3	<0.2	1.3
Middle	4.3	0.1	79	28.1						28.1	8.0	8.0	17.9	17.8	80.8	80.9	5.7	5.7	10.4	4	90	89	822365	809807	<0.2	1.1	<0.2	1.1					
	7.5	0.1	85	28.1						28.1	8.0	8.0	18.1	18.1	82.2	82.6	5.8	5.9	10.7	4	91	89	822365	809807	<0.2	1.2	<0.2	1.2					
	7.5	0.1	86	28.1						28.1	8.0	8.0	18.1	18.1	83.0	82.6	5.9	5.9	11.4	4	91	89	822365	809807	<0.2	1.1	<0.2	1.1					
IM11	Rainy	Moderate	16:54	9.2						Surface	1.0	0.1	88	28.8	28.7	8.1	8.1	15.5	15.5	89.3	88.6	6.3	6.1	10.4	8	85	88	822069	811446	<0.2	1.2	<0.2	1.2
											1.0	0.1	91	28.7	28.7	8.1	8.1	15.6	15.5	87.8	86.2	6.2	6.1	10.2	9	86	89	822069	811446	<0.2	1.1	<0.2	1.1
											4.6	0.1	93	28.2	28.1	8.0	8.0	17.7	17.7	82.8	82.7	5.9	5.9	10.6	6	89	89	822069	811446	<0.2	1.3	<0.2	1.3
					Middle	4.6	0.1	101	28.1	28.1	8.0	8.0	17.7	17.7	82.6	82.7	5.9	5.9	10.6	5	89	89	822069	811446	<0.2	1.1	<0.2	1.1					
						8.2	0.0	100	28.0	28.0	8.0	8.0	18.5	18.5	84.6	85.3	6.0	6.1	11.6	5	90	89	822069	811446	<0.2	1.1	<0.2	1.1					
						8.2	0.0	107	28.0	28.0	8.0	8.0	18.5	18.5	86.0	85.3	6.1	6.1	11.5	6	90	89	822069	811446	<0.2	1.3	<0.2	1.3					
					IM12	Rainy	Moderate	17:00	9.8	Surface	1.0	0.0	78	28.5	28.5	8.1	8.1	17.2	17.2	85.5	85.2	6.0	6.0	8.7	5	84	87	821462	812030	<0.2	1.1	<0.2	1.1
											1.0	0.1	80	28.5	28.5	8.1	8.1	17.2	17.2	84.9	84.9	6.0	5.8	8.5	4	85	86	821462	812030	<0.2	1.1	<0.2	1.1
											4.9	0.0	94	28.1	28.0	8.0	8.0	18.7	18.7	78.3	78.1	5.5	5.5	9.6	4	86	86	821462	812030	<0.2	1.1	<0.2	1.1
Middle	4.9	0.0	95	28.0						28.0	8.0	8.0	18.8	18.7	77.9	78.1	5.5	5.5	10.3	4	86	86	821462	812030	<0.2	1.1	<0.2	1.1					
	8.8	0.0	103	27.8						27.8	8.0	8.0	19.7	19.7	79.5	79.5	5.6	5.6	11.4	4	91	87	821462	812030	<0.2	1.1	<0.2	1.1					
	8.8	0.0	109	27.8						27.8	8.0	8.0	19.7	19.7	79.5	79.5	5.6	5.6	10.7	4	87	87	821462	812030	<0.2	1.2	<0.2	1.2					
SR1A	Rainy	Moderate	17:32	5.3						Surface	1.0	-	-	28.6	28.6	8.1	8.1	18.4	18.4	86.7	86.7	6.1	6.1	10.8	3	-	-	819977	812660	-	-	-	-
											1.0	-	-	28.6	28.6	8.1	8.1	18.4	18.4	86.6	86.6	6.1	6.1	10.8	2	-	-	819977	812660	-	-	-	-
											2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819977	812660	-	-
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819977	812660	-	-	-	-	-	-	
						4.3	-	-	28.2	28.2	8.1	8.1	18.8	18.8	96.6	96.6	6.8	6.8	10.6	5	-	-	819977	812660	-	-	-	-	-	-			
						4.3	-	-	28.2	28.2	8.1	8.1	18.8	18.8	96.6	96.6	6.8	6.8	10.5	5	-	-	819977	812660	-	-	-	-	-	-			
					SR2	Rainy	Moderate	17:47	4.5	Surface	1.0	0.1	114	28.9	28.9	8.1	8.1	14.9	14.9	91.4	91.3	6.5	6.5	8.7	5	89	90	821458	814189	<0.2	1.2	<0.2	1.2
											1.0	0.1	118	28.9	28.9	8.1	8.1	14.9	14.9	91.1	91.3	6.5	6.5	8.5	5	89	89	821458	814189	<0.2	1.3	<0.2	1.3
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821458	814189	<0.2	1.1
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821458	814189	<0.2	1.1	<0.2	1.1			
	3.5	0.0	137	28.1						28.1	8.0	8.0	18.5	18.6	84.9	87.0	6.0	6.2	9.8	4	91	89	821458	814189	<0.2	1.2	<0.2	1.2					
	3.5	0.0	138	28.1						28.1	8.1	8.0	18.6	18.6	89.0	87.0	6.3	6.2	9.5	4	91	89	821458	814189	<0.2	1.1	<0.2	1.1					
SR3	Rainy	Moderate	16:24	9.8						Surface	1.0	0.0	118	28.4	28.4	8.1	8.1	17.6	17.6	85.4	85.2	6.0	6.0	9.0	4	-	-	822161	807582	-	-	-	-
											1.0	0.0	118	28.4	28.4	8.1	8.1	17.6	17.6	85.0	85.0	6.0	5.7	9.1	4	-	-	822161	807582	-	-	-	-
											4.9	0.0	107	27.8	27.8	8.0	8.0	19.2	19.2	77.1	77.2	5.4	5.4	9.6	4	-	-	822161	807582	-	-	-	-
					Middle	4.9	0.0	114	27.9	27.8	8.0	8.0	19.2	19.2	77.2	77.2	5.5	5.5	9.7	3	-	-	822161	807582	-	-	-	-					
						8.8	0.0	84	27.7	27.7	8.0	8.0	19.8	19.8	77.2	77.5	5.4	5.5	10.5	3	-	-	822161	807582	-	-	-	-					
						8.8	0.0	85	27.7	27.7	8.0	8.0	19.8	19.8	77.7	77.5	5.5	5.5	10.6	3	-	-	822161	807582	-	-	-	-					
					SR4A	Rainy	Moderate	17:30	8.6	Surface	1.0	0.2	197	28.4	28.4	8.1	8.1	17.9	17.9	83.2	83.1	5.8	5.8	7.8	4	-	-	817187	807799	-	-	-	-
											1.0	0.2	197	28.4	28.4	8.1	8.1	17.9	17.9	82.9	83.1	5.8	5.3	8.0	4	-	-	817187	807799	-	-	-	-
											4.3	0.2	205	26.7	26.7	8.1	8.1	21.5	21.5	67.7	67.6	4.8	4.8	14.1	4	-	-	817187	807799	-	-	-	-
Middle	4.3	0.2	215	26.6						26.6	8.1	8.1	21.4	21.5	67.5	67.6	4.8	4.8	14.6	3	-	-	817187	807799	-	-	-	-					
	7.6	0.2	202	26.4						26.4	8.1	8.1	25.5	25.5	62.5	62.6	4.3	4.3	19.4	3	-	-	817187	807799	-	-	-	-					
	7.6	0.2	205	26.4						26.4	8.1	8.1	25.5	25.5	62.6	62.6	4.3	4.3	20.0	4	-	-	817187	807799	-	-	-	-					
SR5A	Rainy	Moderate	17:54	4.5						Surface	1.0	0.0	326	28.6	28.6	8.1	8.1	17.8	17.8	87.0	87.0	6.1	6.1	12.7	2	-	-	816588	810718	-	-	-	-
											1.0	0.0	336	28.6	28.6	8.1	8.1	17.8	17.8	87.0	87.0	6.1	6.1	12.7	3	-	-	816588	810718	-	-	-	-
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	816588	810718	-	-

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

Water Quality Monitoring Results on 01 June 21 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	Value	DA
C1	Cloudy	Moderate	10:42	8.6	Surface	1.0	0.3	335	27.7	8.1	8.1	16.7	16.7	84.6	84.5	6.0	8.8	3	87	88	815611	804254	<0.2	1.3	1.3						
						1.0	0.3	0	27.6	8.1	8.1	16.6	16.7	84.4	84.5	6.0	9.7	2	87	88	<0.2	1.3									
						4.3	0.3	346	26.8	8.1	8.1	23.5	23.6	67.8	67.8	4.7	8.5	4	88	88	<0.2	1.3									
					Middle	4.3	0.3	19	26.7	8.1	8.1	23.7	23.6	67.8	67.8	4.7	8.7	4	88	88	<0.2	1.2									
						7.6	0.3	342	26.5	8.1	8.1	25.0	25.0	69.0	69.1	4.8	8.3	4	90	90	<0.2	1.2									
						7.6	0.3	351	26.5	8.1	8.1	25.1	25.1	69.2	69.2	4.8	8.6	5	90	90	<0.2	1.2									
					Bottom	1.0	0.0	330	28.6	8.1	8.1	12.0	12.0	86.9	86.5	6.3	8.6	3	85	85	<0.2	1.3									
						1.0	0.0	347	28.6	8.1	8.1	12.0	12.0	86.1	86.2	5.9	9.0	4	85	85	<0.2	1.2									
						6.3	0.0	21	28.1	8.0	8.0	17.2	17.2	77.3	77.4	5.5	10.1	4	87	87	<0.2	1.2									
C2	Cloudy	Moderate	11:42	12.6	Surface	1.0	0.0	242	28.2	8.1	8.1	17.1	17.1	78.0	78.0	5.5	7.8	5	85	85	825666	806929	<0.2	1.2	1.2						
						1.0	0.0	242	28.2	8.1	8.1	17.1	17.1	78.0	78.0	5.5	7.8	4	85	85	<0.2	1.2									
						6.3	0.0	21	28.1	8.0	8.0	17.2	17.2	77.4	77.4	5.5	10.1	3	88	88	<0.2	1.2									
					Middle	6.3	0.0	21	28.1	8.0	8.0	17.2	17.2	77.4	77.4	5.5	10.1	3	88	88	<0.2	1.2									
						11.6	0.0	334	28.1	8.0	8.0	18.6	18.6	82.4	83.4	5.8	10.6	4	89	89	<0.2	1.3									
						11.6	0.0	348	28.2	8.0	8.0	17.2	17.2	84.4	84.4	6.0	11.0	3	90	90	<0.2	1.2									
					Bottom	1.0	0.0	242	28.2	8.1	8.1	17.1	17.1	78.0	78.0	5.5	7.8	5	85	85	<0.2	1.2									
						1.0	0.0	246	28.2	8.1	8.1	17.1	17.1	77.9	77.9	5.5	7.8	4	85	85	<0.2	1.2									
						5.9	0.0	223	27.8	8.1	8.1	19.7	19.7	73.5	73.3	5.2	8.8	4	88	88	<0.2	1.2									
C3	Cloudy	Moderate	09:35	11.8	Surface	1.0	0.0	241	27.7	8.1	8.1	19.7	19.7	73.0	73.0	5.2	9.2	5	88	88	822086	817791	<0.2	1.1	1.2						
						5.9	0.0	223	27.8	8.1	8.1	19.7	19.7	73.0	73.0	5.2	9.2	5	88	88	<0.2	1.1									
						10.8	0.0	256	26.7	8.1	8.1	25.3	25.2	73.1	74.3	5.1	10.0	5	90	90	<0.2	1.2									
					Middle	10.8	0.0	241	27.7	8.1	8.1	19.7	19.7	73.0	73.0	5.2	9.2	5	88	88	<0.2	1.1									
						10.8	0.0	276	26.8	8.1	8.1	25.1	25.2	75.5	74.3	5.2	10.3	6	90	90	<0.2	1.2									
						10.8	0.0	276	26.8	8.1	8.1	25.1	25.2	75.5	74.3	5.2	10.3	6	90	90	<0.2	1.2									
					Bottom	1.0	0.2	186	28.0	8.1	8.1	17.9	17.9	86.2	86.2	6.1	4.8	10	88	88	<0.2	1.5									
						1.0	0.2	195	27.9	8.1	8.1	17.9	17.9	86.1	86.1	6.1	5.1	9	87	87	<0.2	1.5									
						4.2	0.2	205	27.2	8.1	8.1	22.1	22.1	72.7	72.8	5.1	7.8	11	86	86	<0.2	1.3									
IM1	Cloudy	Moderate	11:02	5.2	Surface	1.0	0.2	195	27.9	8.1	8.1	17.9	17.9	86.1	86.1	6.1	5.1	9	87	87	817936	807111	<0.2	1.4	1.4						
						1.0	0.2	195	27.9	8.1	8.1	17.9	17.9	86.1	86.1	6.1	5.1	9	87	87	<0.2	1.5									
						4.2	0.2	211	27.2	8.1	8.1	22.1	22.1	72.9	72.8	5.1	7.8	10	86	86	<0.2	1.2									
					Middle	4.2	0.2	211	27.2	8.1	8.1	22.1	22.1	72.9	72.8	5.1	7.8	10	86	86	<0.2	1.2									
						4.2	0.2	205	27.2	8.1	8.1	22.1	22.1	72.7	72.8	5.1	7.8	11	86	86	<0.2	1.3									
						4.2	0.2	211	27.2	8.1	8.1	22.1	22.1	72.9	72.8	5.1	7.8	10	86	86	<0.2	1.2									
					Bottom	1.0	0.2	171	28.0	8.1	8.1	16.3	16.2	88.6	88.6	6.3	5.0	10	86	86	<0.2	1.4									
						1.0	0.2	181	28.0	8.1	8.1	16.2	16.2	88.5	88.5	6.3	5.0	10	87	87	<0.2	1.4									
						3.7	0.1	186	28.0	8.1	8.1	17.8	17.8	80.2	80.2	5.7	6.8	10	88	88	<0.2	1.4									
IM2	Cloudy	Moderate	11:10	7.4	Surface	1.0	0.2	181	28.0	8.1	8.1	17.8	17.8	80.1	80.2	5.7	7.5	11	88	88	818162	806180	<0.2	1.2	1.3						
						1.0	0.2	181	28.0	8.1	8.1	17.8	17.8	80.1	80.2	5.7	7.5	11	88	88	<0.2	1.2									
						3.7	0.1	186	28.0	8.1	8.1	17.8	17.8	80.2	80.2	5.7	6.8	10	88	88	<0.2	1.4									
					Middle	3.7	0.2	202	28.0	8.1	8.1	17.8	17.8	80.1	80.1	5.7	7.5	11	88	88	<0.2	1.2									
						6.4	0.2	183	27.5	8.1	8.1	18.3	18.4	78.3	78.3	5.6	10.2	11	90	90	<0.2	1.2									
						6.4	0.2	198	27.5	8.1	8.1	18.5	18.4	77.0	77.7	5.5	10.4	12	90	90	<0.2	1.2									
					Bottom	1.0	0.3	12	28.0	8.1	8.1	16.7	16.7	84.6	84.6	6.0	5.3	8	86	86	<0.2	3.3									
						1.0	0.3	12	28.0	8.1	8.1	16.7	16.7	84.6	84.6	6.0	5.3	9	86	86	<0.2	3.4									
						3.8	0.2	5	27.8	8.1	8.1	18.8	18.8	77.4	77.4	5.5	8.5	10	87	87	<0.2	1.3									
IM3	Cloudy	Moderate	11:17	7.6	Surface	3.8	0.2	5	27.8	8.1	8.1	18.8	18.8	77.4	77.4	5.5	9.5	9	87	87	818763	805587	<0.2	1.5	2.6						
						3.8	0.2	5	27.7	8.1	8.1	18.8	18.8	77.3	77.3	5.5	9.5	9	87	87	<0.2	1.3									
						6.6	0.2	21	27.1	8.1	8.1	22.3	22.3	71.2	71.3	5.0	7.7	10	90	90	<0.2	3.1									
					Middle	6.6	0.2	21	27.1	8.1	8.1	22.3	22.3	71.2	71.3	5.0	7.7	10	90	90	<0.2	3.1									
						6.6	0.2	22	27.1	8.1	8.1	22.3	22.3	71.3	71.3	5.0	7.8	11	90	90	<0.2	3.0									
						6.6	0.2	22	27.1	8.1	8.1	22.3	22.3	71.3	71.3	5.0	7.8	11	90	90	<0.2	3.0									
					Bottom	1.0	0.2	244	27.9	8.1	8.1	17.1	17.1	82.9	82.8	5.9	5.3	9	85	85	<0.2	1.6									
						1.0	0.2	257	27.9	8.1	8.1	17.2	17.1	82.7	82.7	5.9	5.6	10	86	86	<0.2	1.8									
						4.1	0.2	235	27.6	8.1	8.1	19.1	19.1	74.0	74.8	5.3	9.9	9	88	88	<0.2	1.1									
IM4	Cloudy	Moderate	11:26	8.1	Surface	4.1	0.2	248	27.5	8.1	8.1	19.1	19.1	75.0	74.8	5.3	9.8	8	88	88	819734	804619	<0.2	1.2	1.3						
						4.1	0.2	248	27.5	8.1	8.1	19.1	19.1	74.6	74.6	5.3	9.8	8	88	88	<0.2	1.1									
						7.1	0.2	254	27.2	8.1	8.1	22.0	22.0	72.5	72.6	5.1	12.3	8	90	90	<0.2	1.2									
					Middle	7.1	0.2	254	27.2	8.1	8.1	22.0	22.0	72.5	72.6	5.1	12.3	8	90	90	<0.2	1.2									
						7.1	0.2	269	27.2	8.1	8.1	22.0	22.0	72.6	72.6	5.1	12.8	9	91	91	<0.2	1.1									
						7.1	0.2	269	27.2	8.1	8.1	22.0	22.0	72.6	72.6	5.1	12.8	9	91	91	<0.2	1.2									
					Bottom	1.0	0.3	329	27.9	8.1	8.1	16.4	16.4	86.2	86.1	6.1	5.2	12	86	86	<0.2	2.7									
						1.0	0.3	350	27.9	8.1	8.1	16.4	16.4	86.0	86.0	6.1	5.3	12	87	87	<0.2	2.9									
						3.9	0.3	346	27.7	8.1	8.1	18.5	18.5	78.8	78.7	5.6	12.2	6	87	87	<0.2	2.0									
IM5	Cloudy	Moderate	11:33	7.8	Surface	3.9	0.4	318	27.7	8.1	8.1	18.6	18.5	78.6	78.7	5.6	12.2	7	88	88	820735	804868	<0.2	2.1	2.0						
						3.9	0.4	318	27.7	8.1	8.1	18.6	18.5	78.6	78.7	5.6	12.2	7	88	88	<0.2	2.0									
						6.8	0.3	352	27.6																						

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

Water Quality Monitoring Results on 01 June 21 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	Value	DA						
IM9	Cloudy	Moderate	11:07	7.6	Surface	1.0	0.0	123	28.4	28.4	8.0	8.0	16.5	16.6	78.5	78.3	5.6	5.5	8.1	9.0	4	5	86	89	822117	808801	<0.2	1.3	<0.2	1.2							
						1.0	0.0	123	28.4	8.0	8.0	16.6	16.6	78.0	77.4	5.5	5.5	7.6	8.7	4	5	87	89	<0.2			1.3	<0.2	1.1								
						3.8	0.0	134	28.3	8.0	8.0	17.0	17.0	77.4	77.4	5.5	5.5	8.7	10.3	5	5	87	90	<0.2			1.2	<0.2	1.2								
					Middle	3.8	0.0	141	28.3	8.0	8.0	17.0	17.2	77.4	78.8	5.5	5.6	10.3	10.3	5	5	87	92	<0.2			1.2	<0.2	1.2								
						6.6	0.0	122	28.3	8.0	8.0	17.2	17.2	78.2	78.8	5.5	5.6	10.3	10.3	5	5	87	92	<0.2			1.2	<0.2	1.2								
						6.6	0.0	124	28.3	8.0	8.0	17.2	17.2	79.4	78.8	5.6	5.6	10.3	10.3	6	5	87	92	<0.2			1.2	<0.2	1.2								
					IM10	Cloudy	Moderate	10:59	8.2	Surface	1.0	0.1	278	28.3	28.3	8.0	8.0	16.5	16.6	78.3	77.6	5.6	5.5	7.8			8.8	5	5	85	89	822384	809798	<0.2	1.1	<0.2	1.1
											1.0	0.1	284	28.2	8.0	8.0	16.6	16.6	76.8	74.3	5.5	5.5	8.3	9.0			4	5	85	89	<0.2			1.1	<0.2	1.1	
											4.1	0.1	294	27.8	8.0	8.0	19.8	19.8	74.3	74.3	5.2	5.2	9.0	10.4			5	5	89	90	<0.2			1.1	<0.2	1.1	
Middle	4.1	0.1	302	27.7						8.0	8.0	19.9	19.9	74.2	74.2	5.2	5.2	8.5	9.7	4	4	87	92	<0.2	1.0	<0.2	1.0										
	7.2	0.0	286	27.7						8.0	8.0	20.9	20.9	76.4	77.4	5.4	5.5	9.7	11.1	4	5	88	92	<0.2	1.1	<0.2	1.1										
	7.2	0.0	309	27.7						8.0	8.0	20.8	20.9	78.4	77.4	5.5	5.5	9.5	11.1	5	5	88	92	<0.2	1.1	<0.2	1.1										
IM11	Cloudy	Moderate	10:50	8.9						Surface	1.0	0.1	304	28.2	28.2	8.1	8.1	16.5	16.5	76.7	76.6	5.5	5.5	8.7	10.0	5	5	86	88	822066	811468			<0.2	1.1	<0.2	1.1
											1.0	0.1	323	28.2	8.1	8.1	16.5	16.5	76.4	73.7	5.4	5.5	8.8	9.8	6	5	86	88	<0.2					1.1	<0.2	1.1	
											4.5	0.1	319	27.7	8.0	8.0	19.7	19.7	73.6	73.7	5.2	5.2	10.4	11.1	5	5	88	88	<0.2					1.0	<0.2	1.0	
					Middle	4.5	0.1	342	27.7	8.0	8.0	19.6	19.7	73.7	73.7	5.2	5.2	10.4	11.1	4	5	87	88	<0.2	1.0	<0.2	1.0										
						7.9	0.0	308	27.5	8.0	8.0	21.1	21.1	77.8	77.9	5.5	5.5	11.1	11.1	5	5	88	88	<0.2	1.0	<0.2	1.0										
						7.9	0.0	321	27.5	8.0	8.0	21.1	21.1	78.0	77.9	5.5	5.5	11.1	11.1	4	4	88	88	<0.2	1.1	<0.2	1.1										
					IM12	Cloudy	Moderate	10:42	9.4	Surface	1.0	0.1	310	28.1	28.1	8.0	8.0	18.0	18.0	78.8	78.6	5.6	5.5	7.2	8.1	5	5	86	88			821435	812058	<0.2	1.1	<0.2	1.1
											1.0	0.1	311	28.1	8.0	8.0	18.0	18.0	78.3	74.0	5.5	5.5	7.4	8.3	6	5	86	87	<0.2					1.1	<0.2	1.1	
											4.7	0.1	322	27.7	8.0	8.0	20.1	20.0	74.1	74.0	5.2	5.2	7.6	8.5	5	5	87	90	<0.2					1.1	<0.2	1.1	
Middle	4.7	0.1	353	27.7						8.0	8.0	20.0	20.0	73.9	73.9	5.2	5.2	8.3	8.9	5	5	87	90	<0.2	1.1	<0.2	1.1										
	8.4	0.1	307	27.4						8.0	8.0	21.6	21.6	75.9	76.6	5.3	5.4	8.9	9.1	5	5	87	90	<0.2	1.1	<0.2	1.1										
	8.4	0.1	336	27.5						8.0	8.0	21.6	21.6	77.2	76.6	5.4	5.4	9.1	9.1	4	4	87	90	<0.2	1.1	<0.2	1.2										
SR1A	Cloudy	Moderate	10:17	5.1						Surface	1.0	-	-	28.4	28.4	8.0	8.0	16.8	16.9	80.8	81.4	5.7	5.8	11.0	11.3	6	6	-	-	819979	812664			-	-	-	-
											1.0	-	-	28.4	28.4	8.0	8.0	17.0	16.9	82.0	81.4	5.8	5.8	11.1	11.1	5	5	-	-					-	-		
											2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-			
						4.1	-	-	28.4	28.3	8.0	8.0	16.8	17.0	83.4	85.7	5.9	6.1	11.6	11.5	5	5	-	-	-	-	-	-	-			-	-				
						4.1	-	-	28.3	28.3	8.0	8.0	17.2	17.0	87.9	85.7	6.2	6.1	11.5	11.5	6	6	-	-	-	-	-	-	-			-	-				
					SR2	Cloudy	Moderate	09:56	4.3	Surface	1.0	0.0	101	28.2	28.1	8.0	8.0	16.6	16.6	79.0	79.0	5.6	5.6	8.7	9.4	4	4	87	88			821470	814169	<0.2	1.0	<0.2	0.9
											1.0	0.0	106	28.1	8.0	8.0	16.7	16.6	78.9	79.0	5.6	5.6	9.0	9.0	4	4	86	88	<0.2					0.9	<0.2	0.9	
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-			
	3.3	0.0	94	27.8						8.0	8.0	19.6	19.7	81.7	82.7	5.8	5.9	10.1	10.1	4	4	88	89	<0.2	0.9	<0.2	0.9										
	3.3	0.0	95	27.8						8.0	8.0	19.7	19.7	83.7	82.7	5.9	5.9	9.9	9.9	5	5	88	89	<0.2	0.9	<0.2	0.9										
SR3	Cloudy	Moderate	11:21	9.3						Surface	1.0	0.0	1	28.5	28.5	8.1	8.0	12.4	13.0	84.0	83.9	6.1	6.0	6.9	8.0	5	5	-	-	822123	807555			-	-	-	-
											1.0	0.0	1	28.5	28.5	8.0	8.0	13.6	13.6	83.7	83.9	6.0	7.1	7.1	7.1	5	5	-	-					-	-		
											4.7	0.0	26	28.3	8.0	8.0	16.6	16.6	78.4	78.4	5.6	5.6	7.8	7.7	5	5	-	-	-					-			
					Middle	4.7	0.0	26	28.2	8.0	8.0	16.6	16.6	78.3	78.4	5.6	5.6	7.7	7.7	6	6	-	-	-	-												
						8.3	0.0	74	28.2	8.0	8.0	17.7	17.7	80.1	81.0	5.7	5.8	9.3	9.1	5	5	-	-	-	-												
						8.3	0.0	77	28.2	8.0	8.0	17.7	17.7	81.9	81.0	5.8	5.8	9.1	9.1	6	6	-	-	-	-												
					SR4A	Cloudy	Moderate	10:19	8.4	Surface	1.0	0.2	71	28.1	28.1	8.0	8.0	17.2	17.2	82.4	82.4	5.8	5.8	7.2	8.5	7	7	-	-			817202	807795	-	-	-	-
											1.0	0.2	77	28.1	8.0	8.0	17.2	17.2	82.3	82.4	5.8	5.8	7.4	7.4	9	9	-	-	-					-			
											4.2	0.3	67	27.5	8.1	8.1	19.1	19.7	72.3	72.0	5.1	5.0	8.2	8.5	5	5	-	-	-					-			
Middle	4.2	0.3	68	27.4						8.1	8.1	19.1	19.7	71.7	71.7	5.0	5.0	8.5	8.5	7	7	-	-	-	-												
	7.4	0.2	55	27.1						8.0	8.0	22.6	22.6	70.0	70.2	4.9	4.9	9.8	9.7	8	8	-	-	-	-												
	7.4	0.2	59	27.1						8.0	8.0	22.6	22.6	70.3	70.2	4.9	4.9	9.7	9.7	7	7	-	-	-	-												
SR5A	Cloudy	Moderate	10:00	3.9						Surface	1.0	0.0	260	28.6	28.6	8.1	8.1	19.7	19.7	75.6	75.6	5.3	5.3	8.6	9.9	5	5	-	-	816606	810715			-	-	-	-
											1.0	0.0	272	28.6	8.1	8.1	19.7	19.7	75.6	75.6	5.3	5.3	9.1	9.1	5	5	-	-	-					-			
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-				
						2.9	0.0	246	28.6	8.1	8.1	19.7	19.7	75.5	75.5	5.2	5.2	10.9	11.1	5	5	-	-	-	-												
						2.9	0.0	259	28.6	8.1	8.1	19.7	19.7	75.5	75.5	5.2	5.2	11.1	11.1	6	6	-	-	-	-												
					SR6A	Cloudy	Moderate	09:31	4.1	Surface	1.0	0.0	269	28.5																							

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

Water Quality Monitoring Results on 03 June 21 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	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value
C1	Sunny	Moderate	08:39	8.8	Surface	1.0	0.2	64	28.3	28.3	8.0	8.0	15.9	16.6	81.0	80.9	5.8	4.9	3.0	2	82	86	815622	804246	<0.2	1.3	<0.2	1.3						
						1.0	0.2	65	28.3	8.0	8.0	17.2	80.7	5.7	3.0	3	82																	
						4.4	0.1	67	25.9	8.0	8.0	30.2	57.5	4.0	4.8	4	86																	
					Middle	4.4	0.1	68	25.9	25.9	8.0	8.0	30.2	30.2	57.5	57.5	4.0	4.9	3	87	4	87	4	87	4	87			4	87	4			
						7.8	0.1	67	25.8	25.8	8.0	8.0	30.6	55.2	55.3	3.8	13.8	4	88															
						7.8	0.1	68	25.8	25.8	8.0	8.0	30.6	55.4	55.3	3.8	13.9	3	89															
					C2	Fine	Calm	09:43	11.8	Surface	1.0	0.5	174	29.0	29.0	8.0	8.0	12.3	12.3	73.7	73.4	5.3	4.8	3	85	86			825692	806944	<0.2	1.8	<0.2	1.8
											1.0	0.6	188	29.0	29.0	8.0	8.0	12.2	73.0	5.3	5.6	3	86											
											5.9	0.5	154	27.3	27.3	7.9	7.9	25.6	61.1	61.0	4.2	6.6	4	89										
Middle	5.9	0.5	167	27.3						27.3	7.9	7.9	25.6	60.9	60.9	4.2	6.6	3	89															
	10.8	0.4	157	26.8						26.8	7.9	7.9	29.2	65.7	66.8	4.5	7.4	3	91															
	10.8	0.4	169	26.9						26.9	7.9	7.9	29.1	67.9	66.8	4.6	7.3	4	91															
C3	Fine	Calm	07:37	13.0						Surface	1.0	0.1	74	27.9	27.9	8.0	8.0	21.2	21.2	77.6	77.1	5.4	5.0	3	83	83	822091	817793	<0.2	0.9	<0.2	0.9		
											1.0	0.1	77	27.9	27.9	8.0	8.0	21.3	76.6	5.3	5.0	2	83											
											6.5	0.3	278	26.7	26.7	8.0	8.0	28.1	68.3	68.3	4.7	5.7	2	86										
					Middle	6.5	0.3	302	26.6	26.6	8.0	8.0	28.1	68.3	68.3	4.7	5.8	3	86															
						12.0	0.3	269	25.6	25.6	8.0	8.0	32.3	68.6	69.6	4.7	6.1	4	88															
						12.0	0.3	270	25.7	25.7	8.0	8.0	32.2	70.5	69.6	4.8	6.1	5	88															
					IM1	Sunny	Moderate	09:04	5.1	Surface	1.0	0.0	219	27.0	27.1	8.0	8.0	25.5	25.4	65.1	65.1	4.6	9.1	5	83	83	817950	807154	<0.2	1.2			<0.2	1.2
											1.0	0.0	226	27.1	27.1	8.0	8.0	25.3	65.1	65.1	4.6	9.1	6	83										
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Middle	4.1	0.0	163	26.4						26.4	8.0	8.0	27.9	57.6	57.6	4.0	14.0	4	88															
	4.1	0.0	174	26.4						26.4	8.0	8.0	27.9	57.6	57.6	4.0	14.0	3	88															
	5.8	0.1	153	26.9						26.9	8.0	8.0	25.9	65.0	65.0	4.5	6.1	3	83															
IM2	Sunny	Moderate	09:11	6.8						Surface	1.0	0.1	153	26.9	26.9	8.0	8.0	25.9	25.9	65.0	65.0	4.5	6.1	3	83	83	818182	806146	<0.2	1.1	<0.2	1.1		
											1.0	0.1	160	26.9	26.9	8.0	8.0	25.9	65.0	65.0	4.5	6.1	3	83										
											3.4	0.1	157	26.1	26.1	8.0	8.0	29.1	65.4	65.4	4.5	10.8	3	86										
					Middle	3.4	0.1	171	26.1	26.1	8.0	8.0	29.1	65.4	65.4	4.5	10.7	3	87															
						5.8	0.1	159	26.2	26.2	8.0	8.0	29.1	59.0	59.2	4.1	11.7	3	90															
						5.8	0.2	162	26.2	26.2	8.0	8.0	29.1	59.3	59.2	4.1	11.8	2	91															
					IM3	Sunny	Moderate	09:19	6.9	Surface	1.0	0.2	67	27.9	27.9	8.0	8.0	21.1	21.1	72.5	72.5	5.1	4.4	<2	83	84	818800	805603	<0.2	1.0			<0.2	1.0
											1.0	0.2	73	27.9	27.9	8.0	8.0	21.1	72.4	5.1	4.4	<2	84											
											3.5	0.2	71	26.7	26.7	8.0	8.0	26.9	57.2	57.2	4.0	6.9	3	88										
Middle	3.5	0.2	76	26.7						26.7	8.0	8.0	26.9	57.2	57.2	3.9	7.0	2	88															
	5.9	0.2	62	26.0						26.0	8.0	8.0	29.7	55.3	55.3	3.8	10.5	3	91															
	5.9	0.2	68	26.0						26.0	8.0	8.0	29.7	55.3	55.3	3.8	10.6	4	91															
IM4	Sunny	Moderate	09:29	8.3						Surface	1.0	0.2	124	27.8	27.8	8.0	8.0	21.3	21.3	63.7	63.7	4.5	4.8	2	83	84	819720	804590	<0.2	1.1	<0.2	1.1		
											1.0	0.3	131	27.8	27.8	8.0	8.0	21.3	63.6	4.4	4.8	2	84											
											4.2	0.2	121	26.8	26.8	8.0	8.0	26.5	66.8	66.8	4.6	8.1	4	88										
					Middle	4.2	0.2	130	26.8	26.8	8.0	8.0	26.5	66.8	66.8	4.6	8.1	5	88															
						7.3	0.2	113	26.1	26.1	8.0	8.0	29.4	55.6	55.6	3.8	14.2	<2	90															
						7.3	0.2	115	26.1	26.1	8.0	8.0	29.4	55.6	55.6	3.8	14.4	<2	91															
					IM5	Sunny	Moderate	09:39	7.7	Surface	1.0	0.2	341	28.4	28.4	8.0	8.0	17.2	17.3	74.7	74.7	5.3	3.9	<2	78	82	820737	804884	<0.2	1.0			<0.2	1.0
											1.0	0.2	314	28.4	28.4	8.0	8.0	17.3	74.6	5.3	3.9	<2	82											
											3.9	0.2	344	27.2	27.2	8.0	8.0	24.5	59.7	59.8	4.1	5.5	3	86										
Middle	3.9	0.2	316	27.2						27.2	8.0	8.0	24.4	59.8	59.8	4.1	5.5	2	86															
	6.7	0.2	354	26.7						26.7	8.0	8.0	27.2	54.6	54.7	3.8	11.5	2	91															
	6.7	0.2	326	26.7						26.7	8.0	8.0	27.2	54.7	54.7	3.8	11.5	3	91															
IM6	Sunny	Moderate	09:48	7.1						Surface	1.0	0.2	0	28.2	28.2	8.0	8.1	19.2	19.2	68.7	68.7	4.8	4.4	2	82	83	821042	805841	<0.2	1.0	<0.2	1.0		
											1.0	0.2	0	28.2	28.2	8.1	8.1	19.2	68.7	4.8	4.4	3	83											
											3.6	0.2	0	27.9	27.9	8.1	8.1	20.8	67.3	67.3	4.7	6.7	4	87										
					Middle	3.6	0.2	0	27.9	27.9	8.1	8.1	20.8	67.2	67.3	4.7	6.6	3	87															
						6.1	0.2	1	26.7	26.7	8.0	8.0	27.0	55.2	55.2	3.8	8.5	4	90															
						6.1	0.2	1	26.7	26.7	8.0	8.0	27.0	55.2	55.2	3.8	8.6	5	91															
					IM7	Sunny	Moderate	09:58	8.4	Surface	1.0	0.2	136	28.4	28.4	8.0	8.0	17.5	17.5	71.0	71.1	5.0	3.4	2	82	83	821352	806841	<0.2	1.3			<0.2	1.3
											1.0	0.2	144	28.4	28.4	8.0	8.0	17.5	71.0	5.0	3.4	3	83											
											4.2	0.2	136	27.6	27.6	8.0	8.0	22.0	60.9	60.9	4.2	10.2	3	86										
Middle	4.2	0.2	136	27.6						27.6	8.0	8.0	22.0	60.9	60.9	4.2	10.3	2	86															
	7.4	0.2	132	27.0						27.0	8.1	8.1	26.2	54.5	54.5	3.8	5.6	<2	91															
	7.4	0.2	144	27.0						27.0	8.1	8.1	26.2	54.5	54.5	3.8	5.6	<2	91															
IM8	Fine	Calm	09:18	7.8						Surface	1.0	0.1	172	28.4	28.4	7.9	7.9	16.7	16.3	70.3	69.6	5.0	5.3	3	86	86	821822	808119	<0.2	1.5	<0.2	1.6		
											1.0	0.1	182	28.3	28.3	7.9	7.9	15.9	68.8	4.9	5.1	3	86											
											3.9	0.1	132	27.9	27.9	7.9	7.9	22.2	65.7	65.7	4.6	6.8	3	91										
					Middle	3.9	0.1	136	27.9	27.9	7.9	7.9	22.2	65.7	65.7	4.6	6.8	3	91															
						6.8	0.2	146	27.7	27.7	7.9	7.9	23.6	68.7	68.9	4.7	7.8	3	88															
						6.8	0.2	160	27.7	27.7	7.9	7.9	23.5	69.0	68.9	4.8	7.3	4	92															

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 03 June 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current		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)			
						Speed (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA
						Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA
C1	Sunny	Rough	13:08	8.1	Surface	1.0	0.3	18	29.3	29.3	8.0	8.0	14.0	14.0	90.3	90.1	6.4	5.5	2.7	3	79	86	<0.2	1.4							
						1.0	0.3	18	29.2	29.3	8.0	8.0	14.0	14.0	89.8	89.8	6.4	5.5	2.7	4	79	86	<0.2	1.3							
						4.1	0.3	12	26.9	26.9	8.0	8.0	26.1	26.0	65.0	65.1	4.5	3.9	3.3	4	86	87	<0.2	1.4							
					Middle	4.1	0.3	13	26.9	26.9	8.0	8.0	26.0	26.0	65.1	65.1	4.5	3.9	3.3	5	87	91	<0.2	1.5							
						7.1	0.2	9	26.2	26.2	8.0	8.0	28.9	28.9	57.2	57.2	3.9	3.9	11.4	4	91	91	<0.2	1.4							
						7.1	0.2	9	26.2	26.2	8.0	8.0	28.9	28.9	57.2	57.2	3.9	3.9	11.4	4	91	91	<0.2	1.4							
C2	Fine	Calm	11:48	11.8	Surface	1.0	0.3	137	29.0	29.0	8.0	8.0	13.1	13.1	74.6	72.5	5.3	4.8	5.7	2	88	91	<0.2	1.9							
						1.0	0.3	144	29.0	29.0	8.0	8.0	13.0	13.0	70.4	70.4	5.0	4.8	5.6	3	88	91	<0.2	1.8							
						5.9	0.3	192	27.3	27.3	7.9	7.9	26.1	26.1	64.3	64.4	4.4	4.7	6.2	2	91	91	<0.2	1.9							
					Middle	5.9	0.3	206	27.3	27.3	7.9	7.9	26.1	26.1	64.4	64.4	4.4	4.7	6.3	3	91	94	<0.2	1.8							
						10.8	0.1	181	26.9	27.0	7.9	7.9	27.6	27.9	67.1	68.1	4.6	4.7	7.8	4	94	94	<0.2	1.8							
						10.8	0.1	184	27.0	27.0	7.9	7.9	27.9	27.9	69.3	69.3	4.7	4.7	8.0	5	94	94	<0.2	1.9							
C3	Fine	Calm	13:46	12.0	Surface	1.0	0.2	271	28.5	28.5	8.0	8.0	19.1	19.2	75.3	74.3	5.3	5.0	6.6	<2	87	90	<0.2	1.1							
						1.0	0.2	273	28.4	28.4	8.0	8.0	19.3	19.2	73.2	73.2	5.1	5.0	6.4	3	88	88	<0.2	1.1							
						6.0	0.2	281	27.1	27.1	8.0	8.0	25.8	25.8	69.1	68.9	4.8	4.7	7.7	3	88	88	<0.2	1.2							
					Middle	6.0	0.3	288	27.0	27.0	8.0	8.0	25.9	25.9	68.7	68.7	4.7	4.7	7.5	2	88	88	<0.2	1.1							
						11.0	0.3	287	26.1	26.1	8.0	8.0	32.3	32.3	73.8	74.1	5.0	5.0	8.4	3	93	93	<0.2	1.1							
						11.0	0.3	305	26.1	26.1	8.0	8.0	32.2	32.3	74.3	74.3	5.0	5.0	8.1	3	93	93	<0.2	1.2							
IM1	Sunny	Rough	12:42	4.8	Surface	1.0	0.0	304	29.3	29.3	8.1	8.1	16.8	16.8	87.2	87.2	6.1	6.1	2.9	6	82	87	<0.2	1.5							
						1.0	0.0	309	29.3	29.3	8.1	8.1	16.8	16.8	87.2	87.2	6.1	6.1	2.9	5	83	83	<0.2	1.5							
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	3.8	0.0	37	26.3	26.3	8.1	8.1	28.7	28.7	56.1	56.2	3.9	3.9	15.4	5	91	91	<0.2	1.4							
						3.8	0.0	37	26.3	26.3	8.1	8.1	28.7	28.7	56.2	56.2	3.9	3.9	15.4	6	91	91	<0.2	1.3							
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IM2	Sunny	Rough	12:33	6.8	Surface	1.0	0.2	176	28.5	28.5	8.1	8.1	20.4	20.4	81.1	81.0	5.6	4.8	3.2	4	82	87	<0.2	1.4							
						1.0	0.2	178	28.5	28.5	8.1	8.1	20.4	20.4	80.9	80.9	5.6	4.8	3.2	5	83	87	<0.2	1.3							
						3.4	0.2	175	26.5	26.5	8.1	8.1	27.7	27.7	58.1	58.1	4.0	4.0	7.1	6	87	87	<0.2	1.3							
					Middle	3.4	0.2	176	26.5	26.5	8.0	8.0	27.7	27.7	58.1	58.1	4.0	4.0	7.1	5	87	87	<0.2	1.4							
						5.8	0.2	172	26.2	26.2	8.0	8.0	29.0	29.0	55.9	55.9	3.8	3.8	9.3	6	91	91	<0.2	1.4							
						5.8	0.2	175	26.2	26.2	8.0	8.0	29.0	29.0	55.9	55.9	3.8	3.8	9.3	6	91	91	<0.2	1.2							
IM3	Sunny	Rough	12:23	7.1	Surface	1.0	0.1	196	28.8	28.8	8.0	8.0	20.5	20.4	80.8	80.9	5.6	4.8	3.1	6	83	87	<0.2	1.3							
						1.0	0.1	214	28.8	28.8	8.0	8.0	20.4	20.4	80.9	80.9	5.6	4.8	3.1	3	83	83	<0.2	1.2							
						3.6	0.1	197	26.7	26.8	8.0	8.0	27.0	26.9	58.4	58.5	4.0	4.0	5.2	6	86	86	<0.2	1.4							
					Middle	3.6	0.1	212	26.8	26.8	8.0	8.0	26.9	26.9	58.6	58.6	4.0	4.0	5.2	3	87	87	<0.2	1.4							
						6.1	0.1	191	26.1	26.1	8.0	8.0	29.7	29.7	55.9	56.0	3.8	3.8	3.2	4	91	91	<0.2	1.4							
						6.1	0.1	205	26.2	26.2	8.0	8.0	29.7	29.7	56.1	56.0	3.8	3.8	3.3	5	91	91	<0.2	1.4							
IM4	Sunny	Rough	12:13	7.5	Surface	1.0	0.2	181	29.2	29.2	8.0	8.0	14.8	14.8	85.6	85.6	6.1	4.9	2.8	3	83	87	<0.2	1.4							
						1.0	0.2	182	29.2	29.2	8.0	8.0	14.8	14.8	85.6	85.6	6.0	4.9	2.8	3	83	83	<0.2	1.3							
						3.8	0.2	184	26.5	26.5	8.0	8.0	27.9	27.8	54.2	54.3	3.7	3.7	10.0	3	86	86	<0.2	1.3							
					Middle	3.8	0.2	198	26.5	26.5	8.0	8.0	27.8	27.8	54.3	54.3	3.7	3.7	10.1	3	86	86	<0.2	1.3							
						6.5	0.2	173	26.0	26.0	8.0	8.0	30.0	30.0	54.8	54.9	3.8	3.8	10.9	4	91	91	<0.2	1.3							
						6.5	0.2	178	26.0	26.0	8.0	8.0	30.0	30.0	54.9	54.9	3.8	3.8	11.0	3	91	91	<0.2	1.2							
IM5	Sunny	Rough	12:05	7.8	Surface	1.0	0.2	207	28.7	28.7	8.0	8.0	15.9	15.9	85.9	85.8	6.1	5.4	3.3	5	82	87	<0.2	1.2							
						1.0	0.2	224	28.6	28.6	8.0	8.0	15.9	15.9	85.7	85.7	6.1	5.4	3.2	6	83	83	<0.2	1.3							
						3.9	0.2	203	27.8	27.8	8.0	8.0	21.0	21.0	67.3	67.4	4.7	4.7	6.6	5	87	87	<0.2	1.3							
					Middle	3.9	0.2	206	27.8	27.8	8.0	8.0	20.9	21.0	67.5	67.5	4.7	4.7	6.5	4	88	88	<0.2	1.3							
						6.8	0.2	202	26.8	26.9	8.0	8.1	26.3	26.3	53.7	53.8	3.7	3.7	11.1	4	91	91	<0.2	1.3							
						6.8	0.2	209	26.9	26.9	8.1	8.1	26.3	26.3	53.8	53.8	3.7	3.7	11.0	5	91	91	<0.2	1.2							
IM6	Sunny	Rough	11:56	7.4	Surface	1.0	0.3	341	28.8	28.8	8.0	8.0	15.7	15.7	82.2	82.2	5.8	5.2	2.8	3	82	87	<0.2	1.3							
						1.0	0.3	351	28.8	28.8	8.0	8.0	15.7	15.7	82.2	82.2	5.8	5.2	2.8	3	82	82	<0.2	1.3							
						3.7	0.2	349	28.0	28.0	8.0	8.0	20.9	20.8	64.3	64.4	4.5	4.5	3.9	4	87	87	<0.2	1.2							
					Middle	3.7	0.2	321	28.0	28.0	8.0	8.0	20.8	20.8	64.4	64.4	4.5	4.5	3.9	4	87	87	<0.2	1.3							
						6.4	0.2	347	27.5	27.5	8.0	8.0	23.7	23.7	59.0	59.1	4.1	4.1	9.2	4	90	90	<0.2	1.3							
						6.4	0.2	319	27.5	27.5	8.0	8.0	23.6	23.7	59.1	59.1	4.1	4.1	9.2	4	91	91	<0.2	1.3							
IM7	Sunny	Rough	11:47	8.6	Surface	1.0	0.3	217	28.7	28.7	8.0	8.0	15.5	15.5	81.7	81.7	5.8	5.0	3.0	4	82	87	<0.2	1.3							
						1.0	0.3	236	28.7	28.7	8.0	8.0	15.5	15.5	81.7	81.7	5.8	5.0	3.0	5	83	83	<0.2	1.3							
						4.3	0.3	220	27.6	27.6	8.0	8.0	22.6	22.6	59.1	59.1	4.1	4.1	5.3	5	87	87	<0.2	1.3							
					Middle	4.3	0.3	236	27.6	27.6	8.0	8.0	22.6	22.6	59.1	59.1	4.1	4.1	5.2	4	87	87	<0.2	1.3							
						7.6	0.3	218	26.9	26.9	8.0	8.0	26.3	26.3	52.9	53.0	3.6	3.7	6.0	4	91	91	<0.2	1.3							
						7.6	0.3	220	26.9	26.9	8.0	8.0	26.3	26.3	53.0	53.0	3.7	3.7	6.0	4	91	91	<0.2	1.4							
IM8	Fine	Calm	12:12	8.0	Surface	1.0	0.3	224	28.7	28.7	8.0	8.0	14.4	14.5	75.9	75.6	5.4	5.2	6.8	4	86	89	<0.2	1.7							
						1.0	0.3	239	28.6	28.6	8.0	8.0	14.5	14.5	75.3	75.3	5.4	5.2	6.4	5	86	86	<0.2	1.6							
						4.0	0.3	212	28.1	28.1	7.9	7.9	19.9	19.9	70.4	70.4	4.9	4.9	7.1	5	89	89	<0.2	1.7							
					Middle	4.0	0.3	228	28.1	28.1	7.9	7.9	19.8	19.9	70.3	70.3	4.9	4.9	7.1	4	89	89	<0.2	1.7							
						7.0	0.1	248	27.7	27.7	7.9	7.9	24.6	24.6	75.7	75.7	5.2	5.4	8.2	4	93	93	<0.2	1.7							
						7.0	0.1	258	27.9	27.9	7.9	7.9	24.3	24.5																	

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

Water Quality Monitoring Results on 05 June 21 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	Value	DA
IM9	Fine	Moderate	10:56	7.1	Surface	1.0	0.2	140	28.1	8.2	8.2	14.3	14.3	95.9	95.9	6.9	5.8	4.2	4	85	90	822090	808807	<0.2	1.4	1.2	1.3				
						1.0	0.2	141	28.1	8.2	8.0	14.3	23.0	66.8	66.8	4.7	5.9	4	86	90	<0.2	1.3	1.2	1.3							
						3.6	0.3	145	27.2	8.0	8.0	23.0	23.0	66.8	66.8	4.7	5.9	4	89	90	<0.2	1.4	1.2	1.3							
					Middle	3.6	0.3	149	27.2	8.0	8.0	23.0	23.0	66.8	66.8	4.7	5.9	4	90	90	<0.2	1.4	1.2	1.3							
						6.1	0.1	92	25.8	8.0	8.0	29.9	29.8	55.6	55.7	3.8	11.6	3	94	93	<0.2	1.3	1.3	1.3							
						6.1	0.1	93	25.8	8.0	8.0	29.8	29.8	55.7	55.7	3.8	11.6	2	93	93	<0.2	1.3	1.3	1.3							
					Bottom	6.1	0.1	92	25.8	8.0	8.0	29.9	29.8	55.6	55.7	3.8	11.6	3	94	93	<0.2	1.3	1.3	1.3							
						6.1	0.1	93	25.8	8.0	8.0	29.8	29.8	55.7	55.7	3.8	11.6	2	93	93	<0.2	1.3	1.3	1.3							
						6.1	0.1	93	25.8	8.0	8.0	29.8	29.8	55.7	55.7	3.8	11.6	2	93	93	<0.2	1.3	1.3	1.3							
IM10	Fine	Moderate	10:47	7.9	Surface	1.0	0.3	87	28.0	8.1	8.1	14.9	14.9	92.0	91.9	6.6	5.4	3.7	5	85	89	822391	809812	<0.2	1.3	1.5	1.4				
						1.0	0.4	93	28.0	8.1	8.0	14.9	24.1	91.7	60.9	3.7	5.8	4	85	90	<0.2	1.4	1.4	1.4							
						4.0	0.5	110	27.1	8.0	8.0	24.2	24.1	60.8	60.9	4.2	5.8	5	90	89	<0.2	1.4	1.4	1.4							
					Middle	4.0	0.5	117	27.0	8.0	8.0	24.1	24.1	60.9	60.9	4.2	5.8	4	89	89	<0.2	1.4	1.4	1.4							
						6.9	0.3	98	26.1	8.0	8.0	28.6	28.6	56.0	56.1	3.9	17.2	4	93	93	<0.2	1.3	1.3	1.3							
						6.9	0.3	98	26.1	8.0	8.0	28.6	28.6	56.1	56.1	3.9	17.2	4	93	93	<0.2	1.3	1.3	1.3							
					Bottom	6.9	0.3	98	26.1	8.0	8.0	28.6	28.6	56.0	56.1	3.9	17.2	4	93	93	<0.2	1.3	1.3	1.3							
						6.9	0.3	98	26.1	8.0	8.0	28.6	28.6	56.1	56.1	3.9	17.2	4	93	93	<0.2	1.3	1.3	1.3							
						6.9	0.3	98	26.1	8.0	8.0	28.6	28.6	56.1	56.1	3.9	17.2	4	93	93	<0.2	1.3	1.3	1.3							
IM11	Fine	Moderate	10:34	8.2	Surface	1.0	0.5	75	27.7	8.1	8.1	19.1	19.1	75.0	75.0	5.3	4.6	4.8	4	85	89	822040	811451	<0.2	1.4	1.3	1.4				
						1.0	0.5	79	27.7	8.1	8.0	19.1	25.7	75.0	56.5	4.8	4.8	3	85	89	<0.2	1.3	1.5	1.4							
						4.1	0.5	80	26.8	8.0	8.0	25.7	25.7	56.5	56.5	3.9	6.6	3	89	90	<0.2	1.4	1.5	1.4							
					Middle	4.1	0.5	80	26.8	8.0	8.0	25.7	25.7	56.4	56.4	3.9	6.6	4	89	90	<0.2	1.4	1.5	1.4							
						7.2	0.3	101	26.0	8.0	8.0	28.9	29.0	58.6	58.7	4.0	14.5	4	93	93	<0.2	1.3	1.3	1.3							
						7.2	0.3	107	26.0	8.0	8.0	29.0	29.0	58.8	58.8	4.1	14.8	3	94	94	<0.2	1.2	1.2	1.2							
					Bottom	7.2	0.3	101	26.0	8.0	8.0	28.9	29.0	58.6	58.7	4.0	14.5	4	93	93	<0.2	1.3	1.3	1.3							
						7.2	0.3	107	26.0	8.0	8.0	29.0	29.0	58.8	58.8	4.1	14.8	3	94	94	<0.2	1.2	1.2	1.2							
						7.2	0.3	107	26.0	8.0	8.0	29.0	29.0	58.8	58.8	4.1	14.8	3	94	94	<0.2	1.2	1.2	1.2							
IM12	Fine	Moderate	10:27	9.5	Surface	1.0	0.3	87	28.0	8.1	8.1	13.9	13.9	92.1	92.0	6.7	5.3	4.6	3	85	89	821439	812067	<0.2	1.3	1.4	1.4				
						1.0	0.3	88	28.0	8.1	8.0	13.9	25.6	91.8	56.1	4.6	4.6	3	89	89	<0.2	1.4	1.4	1.4							
						4.8	0.4	86	26.7	8.0	8.0	25.6	25.6	56.1	56.3	3.9	8.2	3	89	89	<0.2	1.4	1.4	1.4							
					Middle	4.8	0.4	86	26.7	8.0	8.0	25.6	25.6	56.4	56.4	3.9	8.0	3	89	89	<0.2	1.4	1.4	1.4							
						8.5	0.2	73	25.3	8.1	8.1	31.4	31.4	61.7	61.8	4.2	8.4	4	94	94	<0.2	1.3	1.3	1.3							
						8.5	0.2	78	25.3	8.1	8.1	31.4	31.4	61.8	61.8	4.3	7.9	5	93	93	<0.2	1.4	1.4	1.4							
					Bottom	8.5	0.2	73	25.3	8.1	8.1	31.4	31.4	61.7	61.8	4.2	8.4	4	94	94	<0.2	1.3	1.3	1.3							
						8.5	0.2	78	25.3	8.1	8.1	31.4	31.4	61.8	61.8	4.3	7.9	5	93	93	<0.2	1.4	1.4	1.4							
						8.5	0.2	78	25.3	8.1	8.1	31.4	31.4	61.8	61.8	4.3	7.9	5	93	93	<0.2	1.4	1.4	1.4							
SR1A	Fine	Moderate	09:55	5.4	Surface	1.0	-	-	28.1	8.1	8.1	14.6	14.6	89.5	89.5	6.4	6.4	3.7	3	-	-	819979	812664	-	-	-	-				
						1.0	-	-	28.1	8.1	8.1	14.6	14.6	89.5	89.5	6.4	3.8	3	-	-	-	-	-	-	-	-					
						2.7	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	-	-	-	-	-	-	-				
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						4.4	-	-	26.5	8.0	8.0	27.1	27.1	65.1	65.2	4.5	5.4	3	-	-	-	-	-	-	-	-	-	-			
						4.4	-	-	26.5	8.0	8.0	27.1	27.1	65.3	65.2	4.5	5.4	4	-	-	-	-	-	-	-	-	-	-			
					Bottom	4.4	-	-	26.5	8.0	8.0	27.1	27.1	65.1	65.2	4.5	5.4	3	-	-	-	-	-	-	-	-	-	-	-		
						4.4	-	-	26.5	8.0	8.0	27.1	27.1	65.3	65.2	4.5	5.4	4	-	-	-	-	-	-	-	-	-	-			
						4.4	-	-	26.5	8.0	8.0	27.1	27.1	65.3	65.2	4.5	5.4	4	-	-	-	-	-	-	-	-	-	-			
SR2	Fine	Moderate	09:39	4.5	Surface	1.0	0.2	54	28.0	8.1	8.1	15.3	15.3	94.8	94.7	6.8	6.8	3.8	4	85	85	821442	814178	<0.2	1.3	1.4	1.4				
						1.0	0.2	57	28.0	8.1	8.1	15.3	15.3	94.6	94.6	6.8	3.8	3	85	85	<0.2	1.4	1.4	1.4							
						-	-	-	-	-	-	-	-	-	-	-	-	6.8	-	-	-	-	-	-	-	-	-				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						3.5	0.2	73	27.0	8.1	8.1	22.7	22.7	73.5	73.4	5.2	4.1	3	90	89	<0.2	1.5	1.5	1.5							
						3.5	0.2	77	26.9	8.1	8.1	22.6	22.6	73.3	73.3	5.2	4.2	3	89	89	<0.2	1.4	1.4	1.4							
					Bottom	3.5	0.2	73	27.0	8.1	8.1	22.7	22.7	73.5	73.4	5.2	4.1	3	90	89	<0.2	1.5	1.5	1.5							
						3.5	0.2	77	26.9	8.1	8.1	22.6	22.6	73.3	73.3	5.2	4.2	3	89	89	<0.2	1.4	1.4	1.4							
						3.5	0.2	77	26.9	8.1	8.1	22.6	22.6	73.3	73.3	5.2	4.2	3	89	89	<0.2	1.4	1.4	1.4							
SR3	Fine	Moderate	11:10	8.8	Surface	1.0	0.3	240	28.2	8.2	8.2	14.4	14.4	97.6	97.5	7.0	5.4	3.7	5	-	-	822164	807561	-	-	-	-				
						1.0	0.3	242	28.2	8.2	8.0	14.4	27.2	97.3	54.0	3.7	3.7	4	-	-	-	-	-	-	-						
						4.4	0.2	244	26.4	8.0	8.0	27.2	27.2	54.0	54.0	3.7	8.6	3	-	-	-	-	-	-							
					Middle	4.4	0.2	253	26.4	8.0	8.0	27.2	27.2	54.0	54.0	3.7	8.5	4	-	-	-	-	-	-							
						7.8	0.1	33	25.6	8.0	8.0	31.1	31.1	54.8	54.9	3.8	17.1	3	-	-	-	-	-	-							
						7.8	0.1	36	25.6	8.0	8.0	31.1	31.1	54.9	54.9	3.8	17.1	4	-	-	-	-	-								
					Bottom	7.8	0.1	33	25.6	8.0	8.0	31.1	31.1	54.8	54.9	3.8	17.1	3	-	-	-	-	-								
						7.8	0.1	36	25.6	8.0	8.0	31.1																			

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

Water Quality Monitoring Results on 05 June 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current		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)					
						Speed (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA
C1	Cloudy	Moderate	15:24	8.5	Surface	1.0	0.3	120	27.6	27.6	8.1	8.1	19.9	19.9	83.6	83.8	5.9	5.9	3.3	3.3	5	5	86	86			<0.2	<0.2	1.1	1.1			
						1.0	0.3	121	27.6	27.6	8.1	8.1	19.9	19.9	83.9	83.9	5.9	5.9	3.2	3.2	5	5	87	87			<0.2	<0.2	1.1	1.1			
					Middle	4.3	0.2	77	26.3	26.3	8.2	8.2	24.8	24.8	66.1	66.1	4.6	4.6	7.8	7.8	6	6	88	88			<0.2	<0.2	1.0	1.0			
						4.3	0.2	80	26.2	26.2	8.2	8.2	24.8	24.8	66.0	66.0	4.6	4.6	7.7	7.7	5	5	89	89			<0.2	<0.2	1.0	1.0			
					Bottom	7.5	0.2	208	26.0	26.0	8.2	8.2	30.4	30.4	57.1	57.1	3.9	3.9	9.2	9.2	6	6	90	90			<0.2	<0.2	1.1	1.1			
						7.5	0.2	209	26.0	26.0	8.2	8.2	31.1	31.1	57.9	57.9	3.9	3.9	10.0	10.0	5	5	91	91			<0.2	<0.2	1.1	1.1			
C2	Fine	Moderate	14:20	10.5	Surface	1.0	0.3	350	27.7	27.7	8.1	8.1	17.5	17.6	80.4	80.3	5.7	5.7	4.5	4.5	5	5	87	87			<0.2	<0.2	1.4	1.4			
						1.0	0.3	322	27.7	27.7	8.1	8.1	17.7	17.7	80.1	80.1	5.7	5.7	4.5	4.5	5	5	87	87			<0.2	<0.2	1.3	1.3			
					Middle	5.3	0.4	28	26.1	26.1	8.0	8.0	28.4	28.4	61.4	61.4	4.2	4.2	4.4	4.4	4	4	90	90			<0.2	<0.2	1.5	1.5			
						5.3	0.4	28	26.1	26.1	8.0	8.0	28.4	28.4	61.4	61.4	4.2	4.2	4.4	4.4	3	3	91	91			<0.2	<0.2	1.5	1.5			
					Bottom	9.5	0.4	346	25.4	25.4	8.1	8.1	31.0	31.0	60.4	60.5	4.2	4.2	13.1	13.1	4	4	94	94			<0.2	<0.2	1.4	1.4			
						9.5	0.4	318	25.4	25.4	8.1	8.1	31.0	31.0	60.6	60.6	4.2	4.2	13.0	13.0	3	3	95	95			<0.2	<0.2	1.5	1.5			
C3	Fine	Moderate	16:30	10.8	Surface	1.0	0.3	241	28.2	28.2	8.2	8.2	17.2	17.2	106.9	106.8	7.6	7.6	3.4	3.4	6	6	87	87			<0.2	<0.2	1.4	1.4			
						1.0	0.3	261	28.2	28.2	8.2	8.2	17.2	17.2	106.7	106.7	7.6	7.6	3.4	3.4	5	5	87	87			<0.2	<0.2	1.4	1.4			
					Middle	5.4	0.4	252	25.7	25.7	8.1	8.1	29.5	29.5	64.3	64.3	4.4	4.4	4.4	4.4	4	4	90	90			<0.2	<0.2	1.4	1.4			
						5.4	0.4	253	25.7	25.7	8.1	8.1	29.6	29.6	64.3	64.3	4.4	4.4	4.4	4.4	5	5	90	90			<0.2	<0.2	1.4	1.4			
					Bottom	9.8	0.4	266	25.2	25.2	8.1	8.1	31.4	31.4	64.2	64.3	4.4	4.4	8.4	8.4	5	5	95	95			<0.2	<0.2	1.5	1.5			
						9.8	0.4	281	25.2	25.2	8.1	8.1	31.4	31.4	64.3	64.3	4.4	4.4	8.4	8.4	4	4	94	94			<0.2	<0.2	1.5	1.5			
IM1	Cloudy	Moderate	15:00	4.2	Surface	1.0	0.1	23	26.0	26.0	8.1	8.1	28.8	28.8	55.2	55.2	3.8	3.8	14.1	14.1	5	5	88	88			<0.2	<0.2	1.2	1.2			
						1.0	0.1	23	26.0	26.0	8.1	8.1	28.9	28.9	55.2	55.2	3.8	3.8	14.7	14.7	5	5	87	87			<0.2	<0.2	1.1	1.1			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	3.2	0.1	29	25.7	25.7	8.1	8.1	31.2	31.2	55.0	55.1	3.8	3.8	14.7	14.7	4	4	90	90			<0.2	<0.2	1.0	1.0			
						3.2	0.1	31	25.7	25.7	8.1	8.1	31.2	31.2	55.2	55.2	3.8	3.8	14.7	14.7	3	3	91	91			<0.2	<0.2	1.1	1.1			
IM2	Cloudy	Moderate	14:53	6.5	Surface	1.0	0.4	7	26.9	26.9	8.1	8.1	26.1	26.1	60.8	60.8	4.2	4.2	4.4	4.4	6	6	86	86			<0.2	<0.2	0.8	0.8			
						1.0	0.4	7	26.9	26.9	8.1	8.1	26.2	26.1	60.8	60.8	4.2	4.2	4.5	4.5	6	6	87	87			<0.2	<0.2	0.9	0.9			
					Middle	3.3	0.3	344	25.6	25.6	8.2	8.2	31.4	31.4	56.3	56.4	3.9	3.9	11.7	11.7	5	5	88	88			<0.2	<0.2	0.8	0.8			
						3.3	0.3	345	25.6	25.6	8.2	8.2	31.4	31.4	56.4	56.4	3.9	3.9	12.1	12.1	4	4	89	89			<0.2	<0.2	0.8	0.8			
					Bottom	5.5	0.3	308	25.6	25.6	8.1	8.1	31.5	31.5	58.1	58.2	4.0	4.0	16.6	16.6	5	5	90	90			<0.2	<0.2	0.9	0.9			
						5.5	0.4	325	25.6	25.6	8.1	8.1	31.5	31.5	58.3	58.2	4.0	4.0	16.2	16.2	4	4	92	92			<0.2	<0.2	0.9	0.9			
IM3	Cloudy	Moderate	14:46	6.6	Surface	1.0	0.1	23	27.3	27.3	8.1	8.1	24.1	24.0	71.3	71.2	4.9	4.9	3.2	3.2	4	4	86	86			<0.2	<0.2	0.8	0.8			
						1.0	0.1	23	27.3	27.3	8.1	8.1	24.0	24.0	71.1	71.1	4.9	4.9	3.3	3.3	3	3	86	86			<0.2	<0.2	0.9	0.9			
					Middle	3.3	0.4	318	25.6	25.6	8.1	8.1	31.1	31.2	55.8	55.8	3.8	3.8	9.5	9.5	3	3	88	88			<0.2	<0.2	0.9	0.9			
						3.3	0.4	328	25.6	25.6	8.1	8.1	31.2	31.2	55.8	55.8	3.8	3.8	9.7	9.7	4	4	89	89			<0.2	<0.2	0.9	0.9			
					Bottom	5.6	0.4	280	25.6	25.6	8.1	8.1	31.5	31.5	56.4	56.5	3.9	3.9	10.9	10.9	3	3	90	90			<0.2	<0.2	0.8	0.8			
						5.6	0.4	286	25.6	25.6	8.1	8.1	31.5	31.5	56.6	56.5	3.9	3.9	10.8	10.8	4	4	90	90			<0.2	<0.2	0.9	0.9			
IM4	Cloudy	Moderate	14:37	7.8	Surface	1.0	0.1	11	28.0	28.0	8.1	8.1	14.4	14.4	89.1	88.9	6.4	6.4	4.7	4.7	5	5	86	86			<0.2	<0.2	0.8	0.8			
						1.0	0.1	11	28.0	28.0	8.1	8.1	14.4	14.4	88.6	88.6	6.4	6.4	4.9	4.9	5	5	88	88			<0.2	<0.2	0.9	0.9			
					Middle	3.9	0.1	16	25.7	25.7	8.1	8.1	30.5	30.5	50.5	50.5	3.5	3.5	8.9	8.9	5	5	90	90			<0.2	<0.2	0.8	0.8			
						3.9	0.1	17	25.7	25.7	8.1	8.1	30.5	30.5	50.5	50.5	3.5	3.5	8.9	8.9	4	4	89	89			<0.2	<0.2	0.8	0.8			
					Bottom	6.8	0.1	15	25.6	25.6	8.1	8.1	30.7	30.7	51.4	51.5	3.5	3.5	16.7	16.7	2	2	90	90			<0.2	<0.2	0.9	0.9			
						6.8	0.1	15	25.6	25.6	8.1	8.1	30.7	30.7	51.5	51.5	3.5	3.5	16.6	16.6	3	3	91	91			<0.2	<0.2	0.8	0.8			
IM5	Cloudy	Moderate	14:30	7.7	Surface	1.0	0.1	312	28.4	28.4	8.2	8.2	14.4	14.4	95.9	95.8	6.9	6.9	2.1	2.1	4	4	87	87			<0.2	<0.2	0.8	0.8			
						1.0	0.1	323	28.4	28.4	8.2	8.2	14.5	14.4	95.7	95.7	6.9	6.9	2.0	2.0	3	3	86	86			<0.2	<0.2	0.9	0.9			
					Middle	3.9	0.2	313	28.2	28.2	8.2	8.2	15.3	15.3	87.0	86.8	6.2	6.2	2.4	2.4	4	4	88	88			<0.2	<0.2	0.8	0.8			
						3.9	0.2	323	28.2	28.2	8.2	8.2	15.3	15.3	86.5	86.5	6.2	6.2	2.5	2.5	3	3	89	89			<0.2	<0.2	0.8	0.8			
					Bottom	6.7	0.1	314	25.9	26.0	8.1	8.1	29.9	29.9	52.9	53.0	3.6	3.6	10.7	10.7	5	5	90	90			<0.2	<0.2	0.8	0.8			
						6.7	0.1	326	26.0	26.0	8.1	8.1	29.9	29.9	53.0	53.0	3.6	3.6	10.7	10.7	5	5	91	91			<0.2	<0.2	0.8	0.8			
IM6	Cloudy	Moderate	14:23	6.8	Surface	1.0	0.5	201	28.1	28.1	8.1	8.1	15.0	15.0	88.8	88.6	6.4	6.4	2.3	2.3	4	4	87	87			<0.2	<0.2	0.8	0.8			
						1.0	0.6	206	28.1	28.1	8.1	8.1	15.0	15.0	88.4	88.4	6.4	6.4	2.3	2.3	3	3	86	86			<0.2	<0.2	0.7	0.7			
					Middle	3.4	0.1	211	27.4	27.4	8.1	8.1	22.3	22.3	61.4	61.4	4.3	4.3	4.5	4.5	3	3	89	89			<0.2	<0.2	0.9	0.9			
						3.4	0.1	220	27.4	27.4	8.1	8.1	22.3	22.3	61.4	61.4	4.3	4.3	4.6	4.6	4	4	89	89			<0.2	<0.2	0.8	0.8			
					Bottom	5.8	0.1	26	25.8	25.9	8.1	8.1	30.2	30.2	53.7	54.1	3.7	3.7	11.0	11.0	2	2	92	92			<0.2	<0.2	0.7	0.7			
						5.8	0.1	26	25.9	25.9	8.1	8.1	30.2	30.2	54																		

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

Water Quality Monitoring Results on 05 June 21 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	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA
IM9	Fine	Moderate	14:51	7.3	Surface	1.0	0.1	179	28.3	28.3	8.1	8.1	16.0	16.0	95.4	95.4	6.8	6.7	4.3	4	87	91	822107	808815	<0.2	1.5	1.6	1.6	1.6						
						1.0	0.1	196	28.3	8.1	8.1	16.0	16.0	95.3	95.3	6.8	6.7	4.3	3	87	91	822107	808815	<0.2	1.6	1.6	1.6	1.6							
						3.7	0.1	250	28.2	8.1	8.1	16.8	16.8	92.7	92.7	6.6	6.7	4.1	4	90	91	822107	808815	<0.2	1.6	1.6	1.6	1.6							
					Middle	3.7	0.1	259	28.2	8.1	8.1	16.8	16.8	92.6	92.6	6.6	6.7	4.1	4	91	91	822107	808815	<0.2	1.5	1.5	1.5	1.5							
						6.3	0.1	282	27.7	8.0	8.0	20.0	20.1	78.4	78.4	5.5	5.5	3.9	4	94	91	822107	808815	<0.2	1.5	1.5	1.5	1.5							
						6.3	0.1	283	27.7	8.0	8.0	20.2	20.1	78.4	78.4	5.5	5.5	4.0	4	95	91	822107	808815	<0.2	1.6	1.6	1.6	1.6							
					IM10	Fine	Moderate	14:59	7.5	Surface	1.0	0.2	125	28.2	28.2	8.1	8.1	17.6	17.6	90.2	90.1	6.4	6.3	4.3	5	87	91	822370	809782	<0.2	1.4	1.4	1.4	1.4	
											1.0	0.3	134	28.2	8.1	8.1	17.6	17.6	90.0	90.0	6.4	6.3	4.3	6	87	91	822370	809782	<0.2	1.5	1.5	1.5	1.5		
											3.8	0.2	113	28.0	8.1	8.1	17.9	17.9	86.2	86.1	6.1	6.3	4.1	5	91	91	822370	809782	<0.2	1.4	1.4	1.4	1.4		
Middle	3.8	0.2	121	27.9						8.1	8.1	17.9	17.9	86.0	86.1	6.1	6.3	4.0	6	91	91	822370	809782	<0.2	1.5	1.5	1.5	1.5							
	6.5	0.0	2	26.2						8.0	8.0	28.0	28.0	54.5	54.7	3.8	3.8	14.3	5	94	91	822370	809782	<0.2	1.9	1.9	1.9	1.9							
	6.5	0.0	2	26.2						8.0	8.0	28.0	28.0	54.8	54.7	3.8	3.8	13.9	5	95	91	822370	809782	<0.2	1.9	1.9	1.9	1.9							
IM11	Fine	Moderate	15:09	8.3						Surface	1.0	0.4	76	28.2	28.2	8.1	8.1	17.7	17.7	89.7	89.7	6.4	5.3	4.0	4	86	91	822041	811481	<0.2	1.9	1.9	1.9	1.9	
											1.0	0.4	79	28.2	8.1	8.1	17.7	17.7	89.6	89.7	6.3	5.3	3.9	4	87	91	822041	811481	<0.2	2.0	2.0	2.0	2.0		
											4.2	0.3	79	26.7	8.0	8.0	26.0	25.9	62.2	62.3	4.3	5.3	5.2	6	91	91	822041	811481	<0.2	1.8	1.8	1.8	1.8		
					Middle	4.2	0.3	79	26.7	8.0	8.0	25.9	25.9	62.4	62.3	4.3	5.3	5.2	6	91	91	822041	811481	<0.2	1.9	1.9	1.9	1.9							
						7.3	0.1	317	26.1	8.0	8.0	28.5	28.4	56.3	56.4	3.9	3.9	10.9	6	94	91	822041	811481	<0.2	2.1	2.1	2.1	2.1							
						7.3	0.1	347	26.1	8.0	8.0	28.4	28.4	56.5	56.4	3.9	3.9	10.6	6	95	91	822041	811481	<0.2	2.0	2.0	2.0	2.0							
					IM12	Fine	Moderate	15:16	7.8	Surface	1.0	0.1	52	28.2	28.2	8.1	8.1	16.9	16.9	93.1	93.1	6.6	5.5	4.2	5	87	91	821449	812030	<0.2	2.0	2.0	2.0	2.0	
											1.0	0.1	52	28.2	8.1	8.1	16.9	16.9	93.0	93.0	6.6	5.5	4.2	4	87	91	821449	812030	<0.2	2.0	2.0	2.0	2.0		
											3.9	0.0	18	26.9	8.0	8.0	24.3	24.3	62.2	62.3	4.3	5.5	5.7	5	91	91	821449	812030	<0.2	1.9	1.9	1.9	1.9		
Middle	3.9	0.0	19	26.9						8.0	8.0	24.3	24.3	62.3	62.3	4.3	5.5	5.7	4	91	91	821449	812030	<0.2	2.0	2.0	2.0	2.0							
	6.8	0.2	300	25.4						8.0	8.0	31.1	31.1	58.7	58.7	4.0	4.0	9.5	4	94	91	821449	812030	<0.2	1.9	1.9	1.9	1.9							
	6.8	0.3	318	25.4						8.0	8.0	31.1	31.1	58.7	58.7	4.0	4.0	9.6	4	95	91	821449	812030	<0.2	1.8	1.8	1.8	1.8							
SR1A	Fine	Moderate	15:53	5.6						Surface	1.0	-	-	28.5	28.5	8.1	8.1	14.9	14.9	110.7	110.6	7.9	7.9	4.0	4	-	-	819974	812657	-	-	-	-	-	
											1.0	-	-	28.5	28.5	8.1	8.1	14.9	14.9	110.4	110.6	7.9	7.9	4.0	3	-	-	819974	812657	-	-	-	-	-	
											2.8	-	-	-	-	-	-	-	-	-	-	-	-	7.9	4	-	-	819974	812657	-	-	-	-	-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	4	-	-	819974	812657	-	-	-	-	-			
						4.6	-	-	27.0	27.0	8.0	8.0	24.6	24.6	65.1	65.2	4.5	4.5	8.7	4	-	-	819974	812657	-	-	-	-	-						
						4.6	-	-	27.0	27.0	8.0	8.0	24.6	24.6	65.3	65.2	4.5	4.5	8.6	4	-	-	819974	812657	-	-	-	-	-						
					SR2	Fine	Moderate	16:08	5.0	Surface	1.0	0.1	352	28.4	28.4	8.2	8.2	15.7	15.7	106.7	106.7	7.6	7.6	3.6	4	87	89	821483	814164	<0.2	1.4	1.4	1.4	1.4	
											1.0	0.1	324	28.4	8.2	8.2	15.7	15.7	106.6	106.7	7.6	7.6	3.6	4	87	89	821483	814164	<0.2	1.5	1.5	1.5	1.5		
											-	-	-	-	-	-	-	-	-	-	-	-	-	7.6	4	-	-	821483	814164	<0.2	1.5	1.5	1.5	1.5	
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	3.7	4	-	-	821483	814164	<0.2	1.5	1.5	1.5	1.5			
	4.0	0.2	339	28.1						8.2	8.2	17.2	17.2	100.1	100.1	7.1	7.1	3.9	4	90	89	821483	814164	<0.2	1.5	1.5	1.5	1.5							
	4.0	0.2	351	28.1						8.2	8.2	17.2	17.2	100.1	100.1	7.1	7.1	3.9	4	90	89	821483	814164	<0.2	1.4	1.4	1.4	1.4							
SR3	Fine	Moderate	14:40	8.8						Surface	1.0	0.5	201	27.9	27.9	8.1	8.1	17.8	17.8	87.6	87.6	6.2	5.7	4.5	3	-	-	822160	807547	-	-	-	-	-	
											1.0	0.5	218	27.9	8.1	8.1	17.8	17.8	87.5	87.6	6.2	5.7	4.5	3	-	-	822160	807547	-	-	-	-	-		
											4.4	0.5	212	27.6	8.0	8.0	20.7	20.6	74.5	74.7	5.2	5.7	4.4	3	-	-	822160	807547	-	-	-	-	-		
					Middle	4.4	0.5	220	27.6	8.0	8.0	20.6	20.6	74.8	74.7	5.3	5.7	4.3	3	-	-	822160	807547	-	-	-	-	-							
						7.8	0.3	227	25.8	8.0	8.0	30.3	30.3	56.4	56.6	3.9	3.9	11.8	3	-	-	822160	807547	-	-	-	-	-							
						7.8	0.3	237	25.8	8.0	8.0	30.2	30.3	56.7	56.6	3.9	3.9	11.7	4	-	-	822160	807547	-	-	-	-	-							
					SR4A	Cloudy	Moderate	15:46	8.5	Surface	1.0	0.5	252	28.1	28.2	8.1	8.1	17.4	17.4	81.2	81.1	5.8	4.6	4.0	2	-	-	817165	807796	-	-	-	-	-	
											1.0	0.6	267	28.2	8.1	8.1	17.4	17.4	81.0	81.1	5.7	4.6	4.2	2	-	-	817165	807796	-	-	-	-	-		
											4.3	0.4	248	25.6	8.2	8.2	31.0	31.0	51.1	51.2	3.5	3.6	9.4	3	-	-	817165	807796	-	-	-	-	-		
Middle	4.3	0.4	271	25.6						8.2	8.2	31.0	31.0	51.3	51.2	3.5	3.6	9.7	2	-	-	817165	807796	-	-	-	-	-							
	7.5	0.1	229	25.6						8.2	8.2	31.1	31.1	52.8	52.9	3.6	3.6	12.8	4	-	-	817165	807796	-	-	-	-	-							
	7.5	0.1	250	25.6						8.2	8.2	31.1	31.1	53.0	52.9	3.6	3.6	12.9	3	-	-	817165	807796	-	-	-	-	-							
SR5A	Cloudy	Moderate	16:06	3.8						Surface	1.0	0.3	306	27.8	27.8	8.2	8.2	17.2	17.2	86.6	86.4	6.2	6.2	7.1	4	-	-	816581	810688	-	-	-	-	-	
											1.0	0.4	319	27.8	8.2	8.2	17.2	17.2	86.1	86.4	6.2	6.2	7.5	4	-	-	816581	810688	-	-	-	-	-		
											-	-	-	-	-	-	-	-	-	-	-	-	-	6.2	4	-	-	816581	810688	-	-	-	-	-	
					Middle	-	-	-																											

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

Water Quality Monitoring Results on 08 June 21 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	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA			
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	
C1	Sunny	Moderate	12:18	7.9	Surface	1.0	0.6	207	27.3	27.3	8.1	8.1	23.4	23.4	119.0	119.0	8.3	7.7	2.5	7.5	13	12	82	87	87	815624	804236	<0.2	1.6	<0.2	1.6					
						1.0	0.6	216	27.3	27.0	8.0	8.1	23.4	24.7	119.0	101.2	8.3	7.0	2.5	4.7	14	12	83	87	87			<0.2	1.6	<0.2	1.6					
						4.0	0.6	199	27.0	27.0	8.0	8.1	24.7	24.7	101.2	101.2	7.0	7.0	4.7	4.7	10	10	87	87	87			<0.2	2.0	<0.2	1.9					
					Middle	4.0	0.7	202	27.0	27.0	8.1	8.1	24.7	24.7	101.2	101.2	7.0	7.0	4.7	4.7	10	10	87	87	87			<0.2	1.9	<0.2	1.7					
						6.9	0.5	220	26.3	26.3	8.1	8.1	28.1	28.1	81.3	81.4	5.6	5.6	15.4	15.4	14	14	90	91	91			<0.2	1.9	<0.2	1.7					
						6.9	0.5	233	26.3	26.3	8.1	8.1	28.1	28.1	81.5	81.5	5.6	5.6	15.4	15.4	10	10	91	91	91			<0.2	1.7	<0.2	1.7					
					C2	Sunny	Calm	13:15	12.6	Surface	1.0	0.6	155	28.4	28.4	8.1	8.1	19.1	18.9	142.3	139.4	10.0	7.6	5.3	6.4	6	7	85	89	89	825695	806968	<0.2	1.3	<0.2	1.4
											1.0	0.7	156	28.3	26.2	8.1	8.1	18.7	27.6	136.5	76.4	9.6	5.3	5.4	6	6	86	89	89			<0.2	1.3	<0.2	1.3	
											6.3	0.3	134	26.2	26.2	8.1	8.1	27.6	27.7	76.4	76.4	5.3	5.3	6.9	7	7	89	89	89			<0.2	1.3	<0.2	1.3	
Middle	6.3	0.4	142	26.2						26.2	8.1	8.1	27.7	27.7	76.3	76.3	5.3	5.3	6.9	7	7	89	89	89			<0.2	1.3	<0.2	1.3						
	11.6	0.2	125	26.2						26.2	8.1	8.1	27.9	27.9	76.6	76.6	5.3	5.3	7.0	7	7	91	91	91			<0.2	1.3	<0.2	1.3						
	11.6	0.2	125	26.2						26.2	8.1	8.1	27.9	27.9	76.9	76.9	5.3	5.3	7.0	8	8	91	91	91			<0.2	1.3	<0.2	1.3						
C3	Sunny	Calm	11:02	12.0						Surface	1.0	0.3	101	27.2	27.2	8.1	8.1	26.1	26.2	132.6	132.4	9.1	8.4	5.1	5.6	8	8	83	86	86	822095	817797	<0.2	0.8	<0.2	0.8
											1.0	0.3	110	27.1	26.5	8.1	8.1	26.3	27.9	132.2	112.4	9.1	7.7	5.1	5.5	7	8	83	86	86			<0.2	0.8	<0.2	0.8
											6.0	0.3	76	26.5	26.5	8.1	8.1	27.8	27.9	112.7	112.4	7.8	7.7	5.6	5.5	8	8	86	86	86			<0.2	0.8	<0.2	0.8
					Middle	6.0	0.3	82	26.4	26.4	8.1	8.1	28.0	27.9	112.1	112.1	7.7	7.7	5.5	5.8	8	8	86	88	88			<0.2	0.6	<0.2	0.6					
						11.0	0.3	51	25.8	25.9	8.1	8.1	29.6	29.4	82.9	83.2	5.7	5.8	6.1	6.1	9	9	88	88	88			<0.2	0.6	<0.2	0.6					
						11.0	0.3	54	25.9	25.9	8.1	8.1	29.3	29.4	83.4	83.4	5.9	5.9	5.9	8	8	88	88	88			<0.2	0.6	<0.2	0.6						
					IM1	Sunny	Moderate	12:42	4.2	Surface	1.0	0.0	46	27.4	27.4	8.0	8.0	24.4	24.4	120.8	120.7	8.3	8.3	5.0	6.0	9	8	82	87	87	817945	807131	<0.2	1.8	<0.2	2.0
											1.0	0.0	49	27.4	27.4	8.0	8.0	24.4	24.4	120.6	120.6	8.3	8.3	5.1	8.3	10	8	83	87	87			<0.2	2.0	<0.2	1.8
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	3.2	0.0	309	26.7						26.7	8.1	8.1	26.5	26.5	79.6	79.7	5.5	5.5	6.9	6.9	4	4	90	91	91			<0.2	1.7	<0.2	1.7					
	3.2	0.0	335	26.7						26.7	8.1	8.1	26.5	26.5	79.8	79.8	5.5	5.5	6.9	6.9	10	10	91	91	91			<0.2	1.7	<0.2	1.7					
IM2	Sunny	Moderate	12:49	6.2						Surface	1.0	0.2	173	27.0	27.0	8.0	8.0	24.7	24.7	94.9	94.9	6.6	5.7	6.2	10.2	10	8	82	87	87	818173	806153	<0.2	1.7	<0.2	1.8
											1.0	0.2	187	27.0	27.0	7.9	8.0	24.7	24.7	94.8	94.8	6.6	6.1	6.1	9	9	83	87	87			<0.2	1.8	<0.2	1.8	
											3.1	0.3	143	26.3	26.3	7.9	8.0	27.4	27.4	69.4	69.5	4.8	4.8	10.9	11.0	5	8	87	87	87			<0.2	1.8	<0.2	1.9
					Middle	3.1	0.3	153	26.3	26.3	8.1	8.1	27.4	27.4	69.5	69.5	4.8	4.8	11.0	11.0	8	8	87	87	87			<0.2	1.9	<0.2	1.9					
						5.2	0.1	25	26.2	26.2	8.1	8.1	27.9	27.9	73.6	73.6	5.1	5.1	13.4	13.5	8	8	91	91	91			<0.2	1.9	<0.2	1.9					
						5.2	0.1	26	26.2	26.2	8.1	8.1	27.9	27.9	73.6	73.6	5.1	5.1	13.5	13.5	9	9	91	91	91			<0.2	2.0	<0.2	2.0					
					IM3	Sunny	Moderate	12:57	6.3	Surface	1.0	0.0	171	28.2	28.2	8.0	8.1	20.6	20.6	167.3	167.2	11.6	9.5	2.7	8.5	12	11	83	87	87	818781	805604	<0.2	2.2	<0.2	2.1
											1.0	0.0	184	28.2	28.2	8.1	8.1	20.6	20.6	167.1	167.2	11.6	2.8	2.8	11	11	83	87	87			<0.2	2.1	<0.2	2.1	
											3.2	0.1	161	27.3	27.3	8.1	8.1	23.7	23.7	106.6	106.6	7.4	7.1	7.1	11	11	87	87	87			<0.2	2.0	<0.2	2.0	
Middle	3.2	0.1	166	27.3						27.3	8.1	8.1	23.6	23.7	106.6	106.6	7.4	7.2	7.2	12	12	87	87	87			<0.2	2.1	<0.2	2.1						
	5.3	0.2	133	26.7						26.7	8.1	8.1	25.7	25.7	76.5	76.6	5.3	5.3	15.7	15.7	10	10	90	91	91			<0.2	1.9	<0.2	1.9					
	5.3	0.2	142	26.7						26.7	8.0	8.1	25.7	25.7	76.6	76.6	5.3	5.3	15.7	15.7	10	10	91	91	91			<0.2	1.9	<0.2	1.9					
IM4	Sunny	Moderate	13:07	7.6						Surface	1.0	0.9	197	27.8	27.8	8.1	8.1	21.9	21.8	138.1	138.0	9.6	7.9	8.8	12.1	16	11	82	87	87	819710	804589	<0.2	1.9	<0.2	1.9
											1.0	0.9	197	27.8	27.8	8.1	8.1	21.8	21.8	137.8	138.0	9.6	8.9	8.9	12	12	83	87	87			<0.2	1.9	<0.2	1.9	
											3.8	0.8	194	26.9	26.9	8.1	8.1	24.8	24.8	88.8	88.8	6.2	6.2	11.4	11.5	10	11	87	87	87			<0.2	1.8	<0.2	1.8
					Middle	3.8	0.8	210	26.9	26.9	8.1	8.1	24.8	24.8	88.7	88.7	6.2	6.2	11.5	11.5	11	11	87	87	87			<0.2	1.9	<0.2	1.9					
						6.6	0.6	189	26.9	27.0	8.1	8.1	24.9	24.9	87.4	87.5	6.1	6.1	16.1	16.1	9	9	90	91	91			<0.2	1.7	<0.2	1.7					
						6.6	0.6	201	27.0	27.0	8.1	8.1	24.9	24.9	87.5	87.5	6.1	6.1	16.1	16.1	9	9	91	91	91			<0.2	1.8	<0.2	1.8					
					IM5	Sunny	Moderate	13:19	7.3	Surface	1.0	1.0	217	29.8	29.8	8.1	8.1	16.5	16.4	204.6	204.4	14.2	10.2	2.9	9.7	10	10	82	87	87	820733	804873	<0.2	1.7	<0.2	1.8
											1.0	1.1	231	29.8	29.8	8.1	8.0	16.4	16.4	204.1	204.1	14.2	2.9	2.9	10	10	83	87	87			<0.2	1.8	<0.2	1.8	
											3.7	0.8	219	26.9	26.9	8.0	8.0	24.9	24.9	89.5	89.5	6.2	6.2	10.6	10.6	11	10	87	88	88			<0.2	1.7	<0.2	1.7
Middle	3.7	0.8	219	26.9						26.9	8.0	8.0	24.9	24.9	89.4	89.4	6.2	6.2	10.6	10.6	10	10	88	88	88			<0.2	1.8	<0.2	1.8					
	6.3	0.6	225	26.9						26.9	8.1	8.																								

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

Water Quality Monitoring Results on 08 June 21 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	Value	DA	Value	DA	Value	DA
IM9	Sunny	Calm	12:39	8.0	Surface	1.0	0.1	89	28.6	8.1	8.1	20.2	20.2	174.5	174.5	12.1	9.9	4.4	6.1	9	9	86	89	822092	808789	<0.2	1.1	<0.2	1.1				
						1.0	0.1	96	28.7	8.1	8.1	20.1	20.1	174.4	174.4	12.1	9.9	4.5	6.1	9	9	86	89	<0.2	1.1	<0.2	1.1						
						4.0	0.1	92	27.0	8.1	8.1	24.0	24.1	109.6	109.6	7.6	6.9	6.5	6.1	10	9	89	91	<0.2	1.1	<0.2	1.1						
					4.0	0.1	99	27.0	8.1	8.1	24.2	24.2	109.5	109.5	7.6	6.9	6.5	6.1	9	9	89	91	<0.2	1.1	<0.2	1.1							
					7.0	0.1	79	26.8	8.2	8.1	25.2	25.2	97.5	98.1	6.8	6.9	7.5	6.1	10	9	91	91	<0.2	1.1	<0.2	1.1							
					7.0	0.1	79	26.8	8.1	8.1	25.2	25.2	97.5	98.7	6.8	6.9	7.6	6.1	9	9	91	91	<0.2	1.1	<0.2	1.1							
IM10	Sunny	Calm	12:32	7.2	Surface	1.0	0.3	79	27.9	8.1	8.1	21.3	21.3	155.5	155.3	10.8	10.0	4.6	5.4	10	9	83	87	822407	809786	<0.2	1.1	<0.2	1.1				
						1.0	0.4	80	27.9	8.1	8.1	21.3	21.3	155.1	155.3	10.8	10.0	4.6	5.4	9	9	83	87	<0.2	1.1	<0.2	1.1						
						3.6	0.3	99	27.3	8.1	8.1	22.6	22.6	130.9	130.3	9.2	6.9	5.5	6.1	9	9	87	88	<0.2	1.1	<0.2	1.1						
					3.6	0.3	102	27.2	8.1	8.1	22.7	22.7	129.7	129.7	9.1	6.9	5.5	6.1	9	9	88	88	<0.2	1.0	<0.2	1.0							
					6.2	0.2	86	26.8	8.2	8.2	24.8	24.8	98.9	99.4	6.9	6.9	6.1	6.1	8	8	90	90	<0.2	1.0	<0.2	1.0							
					6.2	0.2	90	26.8	8.2	8.2	24.8	24.8	99.8	99.4	6.9	6.9	6.1	6.1	8	8	90	90	<0.2	1.1	<0.2	1.1							
IM11	Sunny	Calm	12:19	8.8	Surface	1.0	0.4	87	28.0	8.1	8.1	21.5	21.4	154.9	155.2	10.8	8.8	4.4	5.4	9	9	84	84	822075	811483	<0.2	1.1	<0.2	1.0				
						1.0	0.4	93	28.0	8.1	8.1	21.4	21.4	155.4	155.2	10.8	8.8	4.4	5.4	9	9	84	86	<0.2	1.0	<0.2	0.9						
						4.4	0.3	81	26.8	8.2	8.2	24.7	24.7	96.0	96.0	6.7	6.3	5.5	6.1	10	9	86	85	<0.2	1.0	<0.2	0.9						
					4.4	0.3	83	26.8	8.2	8.2	24.7	24.7	96.0	96.0	6.7	6.3	5.5	6.1	9	9	86	86	<0.2	0.9	<0.2	0.9							
					7.8	0.2	74	26.7	8.2	8.2	25.4	25.4	90.4	90.6	6.3	6.3	6.3	6.2	10	9	86	86	<0.2	0.9	<0.2	0.9							
					7.8	0.2	76	26.7	8.2	8.2	25.4	25.4	90.7	90.6	6.3	6.3	6.2	6.2	9	9	86	86	<0.2	0.9	<0.2	0.9							
IM12	Sunny	Calm	12:11	9.0	Surface	1.0	0.5	101	27.1	8.1	8.1	23.2	23.2	124.8	123.8	8.7	7.4	5.4	6.6	9	9	84	85	821470	812024	<0.2	1.0	<0.2	1.0				
						1.0	0.5	102	27.0	8.1	8.1	23.1	23.1	122.7	123.8	8.6	7.4	5.4	6.6	9	9	84	85	<0.2	1.0	<0.2	1.0						
						4.5	0.4	117	26.7	8.1	8.1	25.6	25.7	88.6	88.3	6.2	6.1	7.0	7.0	8	9	85	85	<0.2	1.0	<0.2	1.0						
					4.5	0.4	117	26.6	8.1	8.1	25.6	25.7	88.0	88.0	6.1	6.1	7.0	7.0	9	9	85	85	<0.2	1.0	<0.2	1.0							
					8.0	0.2	94	26.5	8.1	8.1	26.2	26.2	79.7	79.8	5.5	5.5	7.6	7.6	8	8	88	88	<0.2	0.8	<0.2	0.8							
					8.0	0.2	98	26.5	8.1	8.1	26.2	26.2	79.9	79.9	5.5	5.5	7.6	7.6	8	8	88	88	<0.2	0.9	<0.2	0.9							
SR1A	Sunny	Calm	11:43	4.0	Surface	1.0	-	-	27.5	8.1	8.1	22.6	22.6	131.7	131.5	9.2	9.2	5.1	5.9	10	10	-	-	819974	812656	-	-	-	-				
						1.0	-	-	27.5	8.1	8.1	22.6	22.6	131.3	131.5	9.1	9.2	5.2	5.9	9	9	-	-	-	-	-	-						
						2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					3.0	-	-	27.4	8.1	8.1	22.8	22.8	123.1	123.1	8.6	8.6	6.6	6.6	9	9	-	-	-	-	-	-	-	-	-				
					3.0	-	-	27.4	8.1	8.1	22.8	22.8	123.1	123.1	8.6	8.6	6.6	6.6	10	10	-	-	-	-	-	-	-	-	-				
SR2	Sunny	Calm	11:27	5.0	Surface	1.0	0.5	114	27.1	8.1	8.1	23.4	23.6	124.4	122.9	8.7	8.6	4.4	5.1	9	9	85	84	821453	814158	<0.2	0.8	<0.2	0.9				
						1.0	0.5	118	27.1	8.1	8.1	23.4	23.6	121.4	122.9	8.5	8.6	4.6	5.1	8	9	84	-	<0.2	0.8	<0.2	0.8						
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					4.0	0.3	110	26.9	8.1	8.1	24.6	24.6	102.4	103.0	7.1	7.2	5.7	5.8	9	9	87	87	<0.2	0.8	<0.2	0.8							
					4.0	0.3	112	26.9	8.1	8.1	24.6	24.6	103.5	103.0	7.2	7.2	5.8	5.8	8	8	87	87	<0.2	0.8	<0.2	0.8							
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
SR3	Sunny	Calm	12:50	9.4	Surface	1.0	0.2	135	27.4	8.1	8.1	21.8	21.9	146.1	144.8	10.2	8.3	5.0	5.5	10	9	-	-	822146	807571	-	-	-	-				
						1.0	0.2	140	27.3	8.1	8.1	21.9	21.9	143.4	144.8	10.1	8.3	5.0	5.5	9	9	-	-	-	-	-	-						
						4.7	0.3	127	26.8	8.1	8.1	25.0	25.1	93.8	93.7	6.5	6.5	5.3	5.4	9	9	-	-	-	-	-	-						
					4.7	0.3	135	26.8	8.1	8.1	25.1	25.1	93.6	93.7	6.5	6.5	5.4	5.4	9	9	-	-	-	-	-	-							
					8.4	0.1	152	26.8	8.1	8.1	25.3	25.3	88.1	88.7	6.1	6.2	6.3	6.2	8	8	-	-	-	-	-	-							
					8.4	0.1	152	26.8	8.1	8.1	25.3	25.3	89.2	88.7	6.2	6.2	6.2	6.2	9	9	-	-	-	-	-	-							
SR4A	Sunny	Moderate	11:55	8.2	Surface	1.0	0.1	358	28.4	8.1	8.1	20.0	20.0	153.0	152.9	10.6	8.3	3.6	7.7	19	17	-	-	817171	807789	-	-	-	-				
						1.0	0.1	329	28.4	8.0	8.1	20.0	20.0	152.7	152.9	10.6	8.3	3.6	7.7	19	17	-	-	-	-	-	-						
						4.1	0.1	67	26.8	8.0	8.1	25.8	25.8	85.4	85.4	5.9	5.5	7.0	6.9	11	12	-	-	-	-	-	-						
					4.1	0.1	72	26.8	8.1	8.1	25.8	25.8	85.4	85.4	5.9	5.5	6.9	6.9	11	12	-	-	-	-	-	-							
					7.2	0.1	74	26.7	8.1	8.1	26.4	26.4	79.6	79.6	5.5	5.5	12.7	12.6	12	19	-	-	-	-	-	-							
					7.2	0.1	77	26.7	8.1	8.1	26.4	26.4	79.6	79.6	5.5	5.5	12.6	12.6	19	19	-	-	-	-	-	-							
SR5A	Sunny	Moderate	11:37	3.1	Surface	1.0	0.1	75	28.5	8.1	8.1	21.3	21.3	165.6	165.6	11.4	11.4	5.1	6.8	13	15	-	-	816579	810706	-	-	-	-				
						1.0	0.1	75	28.5	8.0	8.1	21.3	21.3	165.6	165.6	11.4	11.4	5.0	6.8	13	15	-	-	-	-	-	-						
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
					2.1	0.1	356	28.3	8.0	8.1	21.5	21.5	160.0	160.0	11.1	11.1	8.6	11.1	20	13	-	-	-	-	-	-							
					2.1	0.1	328	28.3	8.1	8.1	21.5	21.5	159.9	160.0	11.1	11.1	8.6	11.1	13	13	-	-	-	-	-	-							
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
SR6A	Sunny	Moderate	11:07	4.6	Surface	1.0	0.1	100	28.0	8.1	8.1	24.2	24.2	133.2	133.2	9.1	9.1	5.3	8.2	14	15	-	-										

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

Water Quality Monitoring Results on 08 June 21 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	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA			
						Value	Average		Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	
C1	Sunny	Moderate	18:13	6.9	Surface	1.0	0.3	179	27.8	8.0	8.0	23.1	23.1	129.9	129.9	9.0	7.9	11.2	11.1	12	11	83	83	87	87	815629	804258	<0.2	<0.2	1.7	1.8				
						1.0	0.3	196	27.8	8.0	8.0	23.1	23.1	129.9	129.9	9.0	7.9	11.1	11.1	11	11	83	83	87	87	815629	804258	<0.2	<0.2	1.6	1.7				
					Middle	3.5	0.2	166	27.0	8.1	8.1	24.6	24.6	96.9	96.9	6.7	11.6	11.6	11.6	11	11	87	87	87	87	815629	804258	<0.2	<0.2	1.7	1.7				
						3.5	0.2	176	27.0	8.1	8.1	24.6	24.6	96.8	96.8	6.7	11.6	11.6	11.6	11	11	87	87	87	87	815629	804258	<0.2	<0.2	1.2	1.2				
					Bottom	5.9	0.1	344	26.5	8.1	8.1	26.9	26.9	80.7	80.7	5.6	5.6	5.6	5.6	12	12	90	90	91	91	815629	804258	<0.2	<0.2	1.2	1.2				
						5.9	0.1	348	26.5	8.1	8.1	26.9	26.9	80.7	80.7	5.6	5.6	5.6	5.6	11	11	91	91	91	91	815629	804258	<0.2	<0.2	1.3	1.3				
C2	Sunny	Calm	17:01	12.4	Surface	1.0	0.4	223	28.4	8.1	8.1	16.0	15.9	135.8	136.5	9.7	7.7	4.6	4.6	6	6	88	88	88	88	825694	806951	<0.2	<0.2	1.3	1.3				
						1.0	0.4	237	28.4	8.1	8.1	15.8	15.8	137.1	137.1	9.8	7.7	4.6	4.6	6	6	88	88	88	88	825694	806951	<0.2	<0.2	1.7	1.7				
					Middle	6.2	0.5	252	26.6	8.1	8.1	25.2	25.2	80.6	80.6	5.6	6.4	6.4	6.4	6	6	91	91	91	91	825694	806951	<0.2	<0.2	1.6	1.6				
						6.2	0.5	261	26.6	8.1	8.1	25.2	25.2	80.7	80.7	5.6	6.4	6.4	6.4	6	6	91	91	91	91	825694	806951	<0.2	<0.2	1.6	1.6				
					Bottom	11.4	0.3	293	26.3	8.1	8.1	27.2	27.2	75.7	75.7	5.2	5.3	5.3	5.3	7	7	94	94	94	94	825694	806951	<0.2	<0.2	1.6	1.6				
						11.4	0.3	310	26.4	8.1	8.1	27.3	27.3	76.0	76.0	5.3	5.3	5.3	5.3	8	8	94	94	94	94	825694	806951	<0.2	<0.2	1.6	1.6				
C3	Sunny	Calm	18:49	12.0	Surface	1.0	0.5	170	28.1	8.1	8.1	23.1	23.2	165.0	163.5	11.3	8.9	4.8	4.7	13	12	87	87	88	88	822090	817809	<0.2	<0.2	1.3	1.3				
						1.0	0.5	174	28.1	8.1	8.1	23.2	23.2	161.9	161.9	11.1	8.9	4.7	4.7	10	10	88	88	88	88	822090	817809	<0.2	<0.2	1.3	1.3				
					Middle	6.0	0.2	180	26.5	8.1	8.1	26.5	26.5	94.6	94.6	6.6	6.0	6.0	6.0	10	10	88	88	88	88	822090	817809	<0.2	<0.2	1.2	1.2				
						6.0	0.2	191	26.4	8.1	8.1	26.6	26.6	94.4	94.4	6.5	6.0	6.0	6.0	10	10	88	88	88	88	822090	817809	<0.2	<0.2	1.2	1.2				
					Bottom	11.0	0.1	296	26.1	8.1	8.1	28.4	28.4	86.8	86.8	6.0	6.0	6.0	6.0	11	11	93	93	93	93	822090	817809	<0.2	<0.2	1.3	1.3				
						11.0	0.1	313	26.0	8.1	8.1	28.4	28.4	87.1	87.1	6.0	6.0	6.0	6.0	10	10	93	93	93	93	822090	817809	<0.2	<0.2	1.3	1.3				
IM1	Sunny	Moderate	17:51	3.9	Surface	1.0	0.0	43	28.6	8.1	8.1	22.4	22.4	170.5	170.4	11.7	11.7	3.3	3.3	10	10	84	84	87	87	817934	807150	<0.2	<0.2	2.3	2.4				
						1.0	0.0	45	28.6	8.1	8.1	22.4	22.4	170.3	170.3	11.7	11.7	3.3	3.3	9	9	84	84	87	87	817934	807150	<0.2	<0.2	2.4	2.4				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	2.9	0.1	10	26.6	8.1	8.1	26.9	26.9	75.8	75.8	5.2	5.2	5.2	5.2	7.9	7.9	8	8	90	90	91	91	817934	807150	<0.2	<0.2	2.1	2.0		
						2.9	0.1	10	26.6	8.1	8.1	26.9	26.9	75.9	75.9	5.2	5.2	5.2	5.2	7.9	7.9	9	9	91	91	91	91	817934	807150	<0.2	<0.2	2.0	2.0		
IM2	Sunny	Moderate	17:43	6.1	Surface	1.0	0.2	12	27.7	8.1	8.1	23.9	23.9	135.7	135.3	9.4	7.3	4.7	4.7	9	8	82	83	86	86	818150	806184	<0.2	<0.2	2.0	2.1				
						1.0	0.2	12	27.7	8.1	8.1	23.9	23.9	134.9	134.9	9.3	7.3	4.7	4.7	8	8	83	83	86	86	818150	806184	<0.2	<0.2	2.1	2.1				
					Middle	3.1	0.2	354	26.7	8.1	8.1	26.7	26.7	76.2	76.2	5.3	5.3	5.3	5.3	7.1	7.1	10	10	86	86	86	86	818150	806184	<0.2	<0.2	2.1	2.1		
						3.1	0.2	326	26.7	8.1	8.1	26.7	26.7	76.2	76.2	5.3	5.3	5.3	5.3	7.3	7.3	9	9	86	86	86	86	818150	806184	<0.2	<0.2	2.1	2.1		
					Bottom	5.1	0.1	354	26.3	8.1	8.1	27.5	27.5	71.1	71.1	4.9	4.9	4.9	4.9	10.1	10.1	9	9	91	91	91	91	818150	806184	<0.2	<0.2	2.1	2.1		
						5.1	0.1	326	26.3	8.1	8.1	27.5	27.5	71.1	71.1	4.9	4.9	4.9	4.9	10.0	10.0	9	9	91	91	91	91	818150	806184	<0.2	<0.2	2.2	2.2		
IM3	Sunny	Moderate	17:36	6.2	Surface	1.0	0.1	290	28.0	8.1	8.1	22.9	22.9	169.4	169.8	11.7	8.5	4.9	4.9	10	10	83	83	86	86	818769	805598	<0.2	<0.2	1.9	1.7				
						1.0	0.1	292	28.0	8.1	8.1	22.9	22.9	170.1	170.1	11.7	8.5	4.9	4.9	10	10	83	83	86	86	818769	805598	<0.2	<0.2	1.7	1.7				
					Middle	3.1	0.1	277	26.7	8.1	8.1	26.0	26.0	74.8	74.8	5.2	8.6	8.6	8.6	11	11	86	86	86	86	818769	805598	<0.2	<0.2	2.0	2.0				
						3.1	0.1	297	26.7	8.1	8.1	26.0	26.0	74.8	74.8	5.2	8.5	8.5	8.5	11	11	87	87	87	87	818769	805598	<0.2	<0.2	2.1	2.1				
					Bottom	5.2	0.1	353	26.3	8.1	8.1	27.5	27.5	70.2	70.2	4.9	4.9	4.9	4.9	14.4	14.4	11	11	90	90	90	90	818769	805598	<0.2	<0.2	1.9	1.9		
						5.2	0.1	359	26.3	8.1	8.1	27.5	27.5	70.2	70.2	4.9	4.9	4.9	4.9	14.4	14.4	12	12	90	90	90	90	818769	805598	<0.2	<0.2	1.9	1.9		
IM4	Sunny	Moderate	17:26	7.3	Surface	1.0	0.6	210	27.6	8.1	8.1	22.5	22.5	120.0	119.9	8.3	7.7	13.3	13.3	10	9	82	83	86	86	819738	804599	<0.2	<0.2	1.8	1.8				
						1.0	0.6	230	27.6	8.1	8.1	22.5	22.5	119.7	119.7	8.3	7.7	13.3	13.3	9	9	83	83	86	86	819738	804599	<0.2	<0.2	1.8	1.8				
					Middle	3.7	0.5	210	27.3	8.1	8.1	23.7	23.7	102.8	102.8	7.1	10.5	10.5	10.5	10	10	86	86	86	86	819738	804599	<0.2	<0.2	1.9	1.9				
						3.7	0.5	226	27.3	8.1	8.1	23.7	23.7	102.8	102.8	7.1	10.6	10.6	10.6	10	10	86	86	86	86	819738	804599	<0.2	<0.2	1.9	1.9				
					Bottom	6.3	0.3	230	27.2	8.1	8.1	24.2	24.2	96.3	96.3	6.7	15.2	15.2	15.2	10	10	90	90	91	91	819738	804599	<0.2	<0.2	1.9	1.8				
						6.3	0.3	243	27.2	8.1	8.1	24.2	24.2	96.3	96.3	6.7	15.2	15.2	15.2	11	11	91	91	91	91	819738	804599	<0.2	<0.2	1.8	1.8				
IM5	Sunny	Moderate	17:19	6.8	Surface	1.0	0.9	224	29.0	8.1	8.1	17.9	17.9	167.9	167.9	11.7	11.8	3.0	3.0	9	10	83	83	86	86	820727	804890	<0.2	<0.2	2.1	2.0				
						1.0	1.0	224	29.0	8.1	8.1	17.9	17.9	167.																					

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

Water Quality Monitoring Results on 08 June 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current		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)				
						Speed (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value
IM9	Sunny	Calm	17:26	7.4	Surface	1.0	0.1	3	28.3	28.3	8.1	8.1	19.5	19.4	148.3	148.1	10.4	10.4	6.2	5	87	90	822095	808822	<0.2	1.7	1.7	1.7				
						1.0	0.1	3	28.2	28.2	8.1	8.1	19.3	19.3	147.9	147.9	10.4	10.4	6.2	5	87	91	<0.2	1.7	1.7	1.7						
						3.7	0.1	313	27.7	27.7	8.1	8.1	21.1	21.2	136.8	136.8	9.6	7.7	5	5	91	91	<0.2	1.7	1.7	1.7						
					Middle	3.7	0.1	341	27.7	27.7	8.1	8.1	21.3	21.2	136.7	136.7	9.6	7.8	5	5	91	91	<0.2	1.5	1.5	1.5						
						6.4	0.1	302	27.3	27.3	8.1	8.1	22.6	22.6	110.9	111.1	7.7	7.8	5	5	92	92	<0.2	1.6	1.6	1.6						
						6.4	0.1	313	27.3	27.3	8.1	8.1	22.6	22.6	111.3	111.3	7.8	8.6	5	5	92	92	<0.2	1.7	1.7	1.7						
					Bottom	6.4	0.1	313	27.3	27.3	8.1	8.1	22.6	22.6	110.9	111.1	7.7	7.8	5	5	92	92	<0.2	1.6	1.6	1.6						
						6.4	0.1	313	27.3	27.3	8.1	8.1	22.6	22.6	111.3	111.3	7.8	8.6	5	5	92	92	<0.2	1.7	1.7	1.7						
						6.4	0.1	313	27.3	27.3	8.1	8.1	22.6	22.6	111.3	111.3	7.8	8.6	5	5	92	92	<0.2	1.7	1.7	1.7						
IM10	Sunny	Calm	17:32	7.2	Surface	1.0	0.2	354	27.5	27.5	8.1	8.1	20.9	20.9	125.8	125.2	8.9	4.7	6	6	86	90	822393	809814	<0.2	1.4	1.4	1.5				
						1.0	0.2	326	27.4	27.4	8.1	8.1	21.0	21.0	124.5	124.5	8.8	4.8	6	6	87	91	<0.2	1.4	1.4	1.4						
						3.6	0.3	355	27.3	27.3	8.1	8.1	23.0	23.0	108.0	107.9	7.5	5.0	6	6	91	91	<0.2	1.4	1.4	1.4						
					Middle	3.6	0.3	327	27.3	27.3	8.1	8.1	23.0	23.0	107.7	107.7	7.5	5.1	6	6	91	91	<0.2	1.5	1.5	1.5						
						6.2	0.2	350	27.1	27.1	8.2	8.2	23.5	23.5	100.9	101.8	7.0	6.0	6	6	92	92	<0.2	1.5	1.5	1.5						
						6.2	0.2	322	27.1	27.1	8.2	8.2	23.5	23.5	102.6	102.6	7.2	6.0	6	6	93	93	<0.2	1.5	1.5	1.5						
					Bottom	6.2	0.2	350	27.1	27.1	8.2	8.2	23.5	23.5	100.9	101.8	7.0	6.0	6	6	92	92	<0.2	1.5	1.5	1.5						
						6.2	0.2	322	27.1	27.1	8.2	8.2	23.5	23.5	102.6	102.6	7.2	6.0	6	6	93	93	<0.2	1.5	1.5	1.5						
						6.2	0.2	322	27.1	27.1	8.2	8.2	23.5	23.5	102.6	102.6	7.2	6.0	6	6	93	93	<0.2	1.5	1.5	1.5						
IM11	Sunny	Calm	17:41	8.0	Surface	1.0	0.2	300	28.5	28.5	8.1	8.1	18.7	18.7	155.1	154.9	10.9	4.2	8	8	86	89	822055	811483	<0.2	1.5	1.5	1.5				
						1.0	0.2	307	28.5	28.5	8.1	8.1	18.6	18.7	154.7	154.7	10.8	4.3	7	7	87	90	<0.2	1.5	1.5	1.5						
						4.0	0.3	310	27.4	27.4	8.1	8.1	22.2	22.3	126.1	124.5	8.8	5.7	7	7	90	90	<0.2	1.5	1.5	1.5						
					Middle	4.0	0.3	318	27.3	27.3	8.1	8.1	22.4	22.3	122.9	124.5	8.6	5.7	8	8	90	90	<0.2	1.5	1.5	1.5						
						7.0	0.3	297	27.1	27.1	8.1	8.1	23.9	23.9	100.4	100.5	7.0	6.8	7	7	92	92	<0.2	1.5	1.5	1.5						
						7.0	0.4	322	27.1	27.1	8.1	8.1	23.9	23.9	100.6	100.6	7.0	6.8	7	7	91	91	<0.2	1.5	1.5	1.5						
					Bottom	7.0	0.3	297	27.1	27.1	8.1	8.1	23.9	23.9	100.4	100.5	7.0	6.8	7	7	92	92	<0.2	1.5	1.5	1.5						
						7.0	0.4	322	27.1	27.1	8.1	8.1	23.9	23.9	100.6	100.6	7.0	6.8	7	7	91	91	<0.2	1.5	1.5	1.5						
						7.0	0.4	322	27.1	27.1	8.1	8.1	23.9	23.9	100.6	100.6	7.0	6.8	7	7	91	91	<0.2	1.5	1.5	1.5						
IM12	Sunny	Calm	17:46	9.0	Surface	1.0	0.3	313	27.9	28.0	8.1	8.1	20.6	20.5	154.4	154.9	10.8	5.8	9	9	86	88	821446	812056	<0.2	1.6	1.6	1.5				
						1.0	0.3	336	28.1	28.1	8.1	8.1	20.3	20.5	155.4	154.9	10.9	5.8	10	10	86	87	<0.2	1.5	1.5	1.5						
						4.5	0.4	287	27.2	27.2	8.1	8.1	23.7	23.7	108.1	108.1	7.5	7.7	8	8	87	87	<0.2	1.5	1.5	1.5						
					Middle	4.5	0.4	296	27.2	27.2	8.1	8.1	23.7	23.7	108.1	108.1	7.5	7.7	8	8	87	87	<0.2	1.6	1.6	1.6						
						8.0	0.3	286	27.7	27.7	8.1	8.1	24.0	24.0	105.6	106.0	7.3	8.2	9	9	92	92	<0.2	1.5	1.5	1.5						
						8.0	0.3	300	27.8	27.8	8.1	8.1	23.9	23.9	106.3	106.3	7.3	8.2	8	8	88	88	<0.2	1.5	1.5	1.5						
					Bottom	8.0	0.3	286	27.7	27.7	8.1	8.1	24.0	24.0	105.6	106.0	7.3	8.2	9	9	92	92	<0.2	1.5	1.5	1.5						
						8.0	0.3	300	27.8	27.8	8.1	8.1	23.9	23.9	106.3	106.3	7.3	8.2	8	8	88	88	<0.2	1.5	1.5	1.5						
						8.0	0.3	300	27.8	27.8	8.1	8.1	23.9	23.9	106.3	106.3	7.3	8.2	8	8	88	88	<0.2	1.5	1.5	1.5						
SR1A	Sunny	Calm	18:15	4.2	Surface	1.0	-	-	28.2	28.2	8.1	8.1	20.9	20.9	181.0	181.2	12.6	5.6	13	13	-	-	819979	812658	-	-	-	-				
						1.0	-	-	28.2	28.2	8.1	8.1	21.0	20.9	181.0	181.0	12.6	5.6	12	12	-	-	-	-	-	-	-	-	-	-		
						2.1	-	-	-	-	-	-	-	-	-	-	-	-	12.6	-	5.6	12	-	-	-	-	-	-	-	-	-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						3.2	-	-	28.2	28.2	8.1	8.1	22.1	22.0	159.1	159.0	11.0	5.7	11	11	-	-	-	-	-	-	-	-	-	-	-	
						3.2	-	-	28.2	28.2	8.1	8.1	22.0	22.0	158.8	159.0	11.0	5.7	12	12	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	3.2	-	-	28.2	28.2	8.1	8.1	22.1	22.0	159.1	159.0	11.0	5.7	11	11	-	-	-	-	-	-	-	-	-	-	-	-
						3.2	-	-	28.2	28.2	8.1	8.1	22.0	22.0	158.8	159.0	11.0	5.7	12	12	-	-	-	-	-	-	-	-	-	-	-	-
						3.2	-	-	28.2	28.2	8.1	8.1	22.0	22.0	158.8	159.0	11.0	5.7	12	12	-	-	-	-	-	-	-	-	-	-	-	-
SR2	Sunny	Calm	18:29	4.0	Surface	1.0	0.2	346	29.6	29.6	8.1	8.1	17.7	17.7	200.0	199.6	13.8	5.2	10	10	90	91	821452	814173	<0.2	1.1	1.1	1.2				
						1.0	0.2	355	29.6	29.6	8.1	8.1	17.7	17.7	199.2	199.6	13.8	5.2	10	10	90	90	<0.2	1.2	1.2	1.2						
						-	-	-	-	-	-	-	-	-	-	-	-	-	13.8	-	5.2	10	-	-	-	-	<0.2	1.1	1.1	1.1		
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						3.0	0.0	234	27.9	27.9	8.1	8.1	21.4	21.4	163.8	161.1	11.4	8.1	8	8	92	92	<0.2	1.0	1.0	1.0						
						3.0	0.0	255	27.9	27.9	8.1	8.1	21.4	21.4	158.4	161.1	11.0	8.1	9	9	92	92	<0.2	1.0	1.0	1.0						
					Bottom	3.0	0.0	234	27.9	27.9	8.1	8.1	21.4	21.4	163.8	161.1	11.4	8.1	8	8	92	92	<0.2	1.0	1.0	1.0						
						3.0	0.0	255	27.9	27.9	8.1	8.1	21.4	21.4	158.4	161.1	11.0	8.1	9	9	92	92	<0.2	1.0	1.0	1.0						
						3.0	0.0	255	27.9	27.9	8.1	8.1	21.4	21.4	158.4	161.1	11.0	8.1	9	9	92	92	<0.2	1.0	1.0	1.0						
SR3	Sunny	Calm	17:16	9.0	Surface	1.0	0.2	234	27.5	27.5	8.1	8.1	21.1	21.1	134.2	134.5	9.4	5.0	5	5	-	-	822125	807556	-	-	-	-				
						1.0	0.3	244	27.4	27.4	8.1	8.1	21.2	21.1	134.8	134.5	9.5	5.0	6	6	-	-	-	-	-	-	-	-	-	-		
						4.5	0.3	211	27.1	27.1	8.2	8.2	23.3	23.3	95.7	95.7	6.7	5.8	6	6	-	-	-	-	-	-	-	-	-	-		
					Middle	4.5	0.3	229	27.1	27.1	8.2	8.2	23.3	23.3	95.6	95.7	6.7	5.7	5	5	-	-	-	-	-	-	-	-	-	-	-	
						8.0	0.2	273	27.0	27.0	8.2	8.2	23.7	23.7	91.2	90.8	6.4	6.1	5	5	-	-	-	-	-	-	-	-	-	-	-	
						8.0	0.2	280	27.0	27.0	8.2	8.2	23.7	23.7	90.3	90.8	6.3	6.0	5	5	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	8.0	0.2	273	27.0	27.0	8.2	8.2	23.7	23.7	91.2	90.8	6.4	6.1														

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

Water Quality Monitoring

Water Quality Monitoring Results on 10 June 21 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	Value	DA
								C1	Cloudy	Moderate	14:07	7.1	Surface	1.0	0.6	215	27.6	8.2	8.2	24.8	24.8	84.6	84.7			5.8	5.8	12.0	11.9	6	5
					Middle	3.6	0.5	201	27.3	8.2	8.2	25.6	25.6	84.0	83.8	5.8	5.8	13.7	15.1	6	5	90	91	815625	804246	<0.2	1.1	<0.2	1.1		
					Bottom	6.1	0.4	209	26.6	8.2	8.2	27.9	27.9	71.3	71.5	4.9	4.9	25.1	26.1	9	9	93	93	815625	804246	<0.2	1.0	<0.2	1.0		
						6.1	0.4	226	26.6	8.2	8.2	27.9	27.9	71.6	71.5	4.9	4.9	26.1	26.1	9	9	93	93	815625	804246	<0.2	1.0	<0.2	1.0		
C2	Fine	Moderate	11:26	10.6	Surface	1.0	1.1	180	28.4	8.4	8.4	16.0	15.9	135.8	137.1	9.7	9.8	4.6	4.6	6	6	88	91	825701	806926	<0.2	1.1	<0.2	1.1		
					Middle	5.3	1.1	175	26.6	8.1	8.1	25.2	25.2	80.6	80.7	5.6	5.6	6.4	6.4	5	5	91	91	825701	806926	<0.2	1.0	<0.2	1.0		
					Bottom	9.6	0.5	182	26.3	8.1	8.1	27.2	27.2	75.7	75.9	5.2	5.2	7.8	7.7	5	5	94	94	825701	806926	<0.2	1.1	<0.2	1.1		
						9.6	0.5	190	26.4	8.1	8.1	27.3	27.2	76.0	75.9	5.3	5.3	7.7	7.7	4	4	94	94	825701	806926	<0.2	1.1	<0.2	1.1		
C3	Fine	Calm	13:14	11.2	Surface	1.0	0.3	98	28.1	8.6	8.6	23.1	23.2	165.0	163.5	11.3	11.1	4.8	4.7	5	5	87	90	822107	817819	<0.2	1.0	<0.2	1.1		
					Middle	5.6	0.2	123	26.5	8.2	8.2	26.5	26.6	94.6	94.5	6.6	6.5	5.0	5.0	5	4	88	88	822107	817819	<0.2	1.1	<0.2	1.0		
					Bottom	10.2	0.4	66	26.1	8.1	8.1	28.4	28.4	86.8	87.0	6.0	6.0	6.7	6.6	4	5	93	93	822107	817819	<0.2	1.0	<0.2	1.1		
						10.2	0.5	68	26.0	8.1	8.1	28.4	28.4	87.1	87.0	6.0	6.0	6.6	6.6	5	5	93	93	822107	817819	<0.2	1.1	<0.2	1.1		
IM1	Cloudy	Moderate	14:06	4.2	Surface	1.0	0.0	136	26.9	8.2	8.2	26.9	26.9	74.4	74.4	5.1	5.1	7.2	7.2	5	10	87	90	817939	807145	<0.2	0.7	<0.2	0.7		
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	90	817939	807145	<0.2	-	<0.2	-	
					Bottom	3.2	0.1	123	26.6	8.2	8.2	27.6	27.5	70.6	70.7	4.9	4.9	9.8	9.7	11	11	92	93	817939	807145	<0.2	0.8	<0.2	0.8		
						3.2	0.1	135	26.6	8.2	8.2	27.5	27.5	70.8	70.7	4.9	4.9	9.7	9.7	11	11	93	93	817939	807145	<0.2	0.8	<0.2	0.8		
IM2	Cloudy	Moderate	13:54	6.2	Surface	1.0	0.1	211	27.4	8.2	8.2	26.1	26.1	85.6	85.6	5.9	5.9	4.5	4.4	10	10	86	89	818172	806170	<0.2	0.7	<0.2	0.6		
					Middle	3.1	0.1	136	27.3	8.2	8.2	26.5	26.5	81.6	81.5	5.6	5.6	4.1	4.1	9	8	90	90	818172	806170	<0.2	0.7	<0.2	0.8		
					Bottom	5.2	0.2	98	26.5	8.2	8.2	27.8	27.8	67.8	67.9	4.7	4.7	6.6	6.9	7	8	91	91	818172	806170	<0.2	0.9	<0.2	0.9		
						5.2	0.2	99	26.5	8.2	8.2	27.8	27.8	68.0	67.9	4.7	4.7	6.9	6.9	8	8	91	91	818172	806170	<0.2	0.9	<0.2	0.9		
IM3	Cloudy	Moderate	13:42	6.1	Surface	1.0	0.1	224	27.4	8.2	8.2	26.5	26.5	84.2	84.1	5.8	5.8	3.5	3.8	8	7	85	88	818787	805598	<0.2	0.9	<0.2	1.0		
					Middle	3.1	0.1	175	26.9	8.2	8.2	26.6	26.6	75.0	75.2	5.2	5.2	4.8	5.1	7	8	88	88	818787	805598	<0.2	1.0	<0.2	0.9		
					Bottom	5.1	0.2	140	26.8	8.2	8.2	27.0	27.0	69.8	69.8	4.8	4.8	9.6	9.9	6	7	89	90	818787	805598	<0.2	0.9	<0.2	1.0		
						5.1	0.2	149	26.8	8.2	8.2	27.0	27.0	69.7	69.8	4.8	4.8	9.9	9.9	7	7	90	90	818787	805598	<0.2	1.0	<0.2	1.0		
IM4	Cloudy	Moderate	13:02	7.3	Surface	1.0	1.1	208	28.1	8.2	8.2	22.2	22.2	93.2	93.2	6.4	6.4	8.7	8.8	8	7	86	88	819732	804614	<0.2	0.8	<0.2	0.7		
					Middle	3.7	0.9	204	28.1	8.2	8.2	22.2	22.2	92.7	92.7	6.4	6.4	13.7	13.8	8	8	88	88	819732	804614	<0.2	0.8	<0.2	0.8		
					Bottom	6.3	0.6	191	28.2	8.2	8.2	22.2	22.2	92.1	92.1	6.4	6.4	15.6	15.6	8	8	91	91	819732	804614	<0.2	0.7	<0.2	0.8		
						6.3	0.7	197	28.2	8.2	8.2	22.2	22.2	92.1	92.1	6.4	6.4	15.6	15.6	8	8	91	91	819732	804614	<0.2	0.8	<0.2	0.8		
IM5	Cloudy	Moderate	12:41	6.2	Surface	1.0	1.0	220	27.5	8.2	8.2	23.4	23.4	86.5	86.5	6.0	6.0	9.9	9.8	8	7	87	89	820729	804847	<0.2	0.8	<0.2	0.8		
					Middle	3.1	0.9	215	27.6	8.2	8.2	23.4	23.4	86.5	86.5	6.0	6.0	10.6	10.7	8	9	89	87	820729	804847	<0.2	0.8	<0.2	0.8		
					Bottom	5.2	0.7	206	27.6	8.2	8.2	23.4	23.4	86.5	86.5	6.0	6.0	12.6	12.4	9	8	92	92	820729	804847	<0.2	0.8	<0.2	0.9		
						5.2	0.8	215	27.6	8.2	8.2	23.4	23.4	86.5	86.5	6.0	6.0	12.4	12.4	8	8	92	92	820729	804847	<0.2	0.9	<0.2	0.9		
IM6	Cloudy	Moderate	12:23	6.0	Surface	1.0	1.2	245	27.9	8.2	8.2	22.0	22.0	88.7	88.7	6.2	6.2	8.6	8.8	6	6	89	90	821057	805818	<0.2	0.8	<0.2	0.8		
					Middle	3.0	1.0	246	27.8	8.2	8.2	22.2	22.2	88.6	88.6	6.2	6.2	13.1	13.4	5	5	90	90	821057	805818	<0.2	0.8	<0.2	0.8		
					Bottom	5.0	0.6	242	27.8	8.2	8.2	22.3	22.3	88.3	88.3	6.1	6.1	12.1	12.2	5	5	91	91	821057	805818	<0.2	0.8	<0.2	0.8		
						5.0	0.6	258	27.8	8.2	8.2	22.3	22.3	88.3	88.3	6.1	6.1	12.2	12.2	6	6	91	91	821057	805818	<0.2	0.7	<0.2	0.7		
IM7	Cloudy	Moderate	11:54	7.5	Surface	1.0	1.0	242	28.0	8.2	8.2	21.1	21.1	89.7	89.7	6.2	6.2	3.2	3.2	4	5	87	90	821348	806816	<0.2	0.9	<0.2	0.9		
					Middle	3.8	1.0	242	27.7	8.3	8.3	22.3	22.3	88.8	88.8	6.2	6.2	5.9	5.9	5	4	90	90	821348	806816	<0.2	0.6	<0.2	0.6		
					Bottom	6.5	0.7	248	27.8	8.3	8.3	22.6	22.6	88.9	88.9	6.2	6.2	10.6	10.4	6	7	92	92	821348	806816	<0.2	0.8	<0.2	0.8		
						6.5	0.7	268	27.8	8.3	8.3	22.6	22.6	88.9	88.9	6.2	6.2	10.4	10.4	7	7	92	92	821348	806816	<0.2	0.8	<0.2	0.8		
IM8	Fine	Calm	11:45	7.4	Surface	1.0	0.5	221	28.1	8.6	8.6	20.3	20.3	177.8	177.5	12.4	12.4	4.1	4.1	5	5	86	89	821809	808127	<0.2	1.0	<0.2	1.2		
					Middle	3.7	0.4	226	27.6	8.4	8.3	21.3	21.3	131.1	130.9	9.2	9.1	4.6	4.6	4	4	89	89	821809	808127	<0.2	1.4	<0.2	1.4		
					Bottom	6.4	0.3	249	27.3	8.3	8.3	22.4	22.4	115.5	115.6	8.1	8.1	5.7	5.7	5	5	93	93	821809	808127	<0.2	1.5	<0.2	1.5		
						6.4	0.3	266	27.3	8.3	8.3	22.4	22.4	115.7	115.7	8.1	8.1	5.7	5.7	4	4	93	93	821809	808127						

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

Water Quality Monitoring Results on 10 June 21 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	Value	DA				
IM9	Fine	Calm	11:51	6.8	Surface	1.0	0.4	185	28.3	8.4	8.4	19.5	19.4	148.3	148.1	10.4	3.2	3	87	90	82	82	82	82	822107	808795	<0.2	1.1	1.1	1.1					
						1.0	0.4	202	28.2	8.4	8.4	19.3	19.4	147.9	10.4	3.2	2	87	90	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	
					Middle	3.4	0.3	197	27.7	8.4	8.4	21.1	21.2	136.8	136.8	9.6	3.7	4	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91
						3.4	0.3	201	27.7	8.4	8.4	21.3	21.2	136.7	136.8	9.6	3.8	4	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91
						5.8	0.1	213	27.3	8.3	8.3	22.6	22.6	110.9	111.1	7.7	4.8	5	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92
						5.8	0.1	223	27.3	8.3	8.3	22.6	22.6	111.3	111.3	7.8	4.9	4	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92
IM10	Fine	Calm	11:57	6.0	Surface	1.0	0.6	130	27.5	8.4	8.4	20.9	20.9	125.8	125.2	8.9	4.7	4	86	90	89	89	89	89	822366	809817	<0.2	1.1	1.0	1.0					
						1.0	0.6	136	27.4	8.4	8.4	21.0	20.9	124.5	107.9	8.8	4.7	4	87	91	91	91	91	91	91	91	91	91	91	91	91	91	91		
					Middle	3.0	0.6	118	27.3	8.2	8.2	23.0	23.0	108.0	107.9	7.5	5.0	4	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91
						3.0	0.6	127	27.3	8.2	8.2	23.0	23.0	107.7	107.9	7.5	5.1	3	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91
						5.0	0.5	97	27.1	8.2	8.2	23.5	23.5	100.9	101.8	7.0	6.0	5	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92
						5.0	0.6	105	27.1	8.2	8.2	23.5	23.5	102.6	101.8	7.2	6.0	4	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93
IM11	Fine	Calm	12:06	6.0	Surface	1.0	0.8	123	28.5	8.5	8.5	18.7	18.7	155.1	154.9	10.9	4.2	5	86	89	89	89	89	89	822061	811474	<0.2	1.0	1.0	1.0					
						1.0	0.8	130	28.5	8.5	8.5	18.6	18.7	154.7	10.8	4.3	4	87	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90		
					Middle	3.0	0.7	124	27.4	8.4	8.4	22.2	22.3	126.1	124.5	8.8	5.7	5	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
						3.0	0.7	128	27.3	8.4	8.4	22.4	22.3	122.9	124.5	8.6	5.7	4	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
						5.0	0.5	120	27.1	8.2	8.2	23.9	23.9	100.4	100.5	7.0	6.9	3	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	
						5.0	0.6	120	27.1	8.2	8.2	23.9	23.9	100.6	100.5	7.0	7.0	4	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91
IM12	Fine	Calm	12:11	8.0	Surface	1.0	0.6	115	27.9	8.5	8.6	20.6	20.5	154.4	154.9	10.8	4.2	7	86	87	87	87	87	87	821472	812043	<0.2	1.1	1.0	1.1					
						1.0	0.7	116	28.1	8.6	8.6	20.3	20.5	155.4	10.9	4.2	6	86	87	87	87	87	87	87	87	87	87	87	87	87	87	87			
					Middle	4.0	0.7	121	27.2	8.2	8.2	23.7	23.7	108.1	108.1	7.5	5.7	7	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87
						4.0	0.8	130	27.2	8.2	8.2	23.7	23.7	108.1	108.1	7.5	5.7	6	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87
						7.0	0.4	104	27.7	8.2	8.2	24.0	24.0	105.6	106.0	7.3	6.1	6	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	
						7.0	0.4	109	27.8	8.2	8.2	23.9	24.0	106.3	106.0	7.3	6.2	6	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88
SR1A	Fine	Calm	12:40	4.0	Surface	1.0	-	-	28.2	8.6	8.6	20.9	20.9	181.0	181.2	12.6	5.6	4	-	-	-	-	-	-	819978	812655	-	-	-	-					
						1.0	-	-	28.2	8.6	8.6	21.0	20.9	181.0	181.2	12.6	5.6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.0	-	-	28.2	8.5	8.5	22.1	22.0	159.1	159.0	11.0	5.7	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						3.0	-	-	28.2	8.5	8.5	22.0	22.0	158.8	159.0	11.0	5.7	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
SR2	Fine	Calm	12:54	4.0	Surface	1.0	0.6	107	29.6	8.8	8.8	17.7	17.7	200.0	199.6	13.8	5.4	3	90	91	91	91	91	91	821472	814182	<0.2	1.0	1.0						
						1.0	0.6	112	29.6	8.8	8.8	17.7	17.7	199.2	199.6	13.8	5.3	4	90	90	90	90	90	90	90	90	90	90	90	90	90	90			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.0	0.4	110	27.9	8.5	8.5	21.4	21.4	163.8	161.1	11.4	6.1	4	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92		
						3.0	0.4	110	27.9	8.5	8.5	21.4	21.4	158.4	161.1	11.0	6.2	3	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92		
SR3	Fine	Moderate	11:41	8.2	Surface	1.0	0.8	214	27.5	8.4	8.4	21.2	21.1	134.2	134.5	9.4	4.0	5	-	-	-	-	-	-	822127	807574	-	-	-						
						1.0	0.8	231	27.4	8.5	8.5	21.1	21.1	134.8	134.5	9.5	4.0	4	-	-	-	-	-	-	-	-	-	-	-	-					
					Middle	4.1	0.6	213	27.1	8.2	8.2	23.3	23.3	95.7	95.7	6.7	5.8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						4.1	0.7	232	27.1	8.2	8.2	23.3	23.3	95.6	95.7	6.7	5.7	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						7.2	0.5	238	27.0	8.2	8.2	23.7	23.7	91.2	90.8	6.4	6.1	5	-	-	-	-	-	-	-	-	-	-	-	-	-				
						7.2	0.5	249	27.0	8.2	8.2	23.7	23.7	90.3	90.8	6.3	6.0	5	-	-	-	-	-	-	-	-	-	-	-	-	-				
SR4A	Cloudy	Moderate	14:20	7.8	Surface	1.0	0.2	249	28.2	8.3	8.3	23.9	23.9	101.0	101.0	6.9	11.9	8	-	-	-	-	-	-	817171	807816	-	-	-						
						1.0	0.2	270	28.2	8.3	8.3	23.9	23.9	100.9	101.0	6.9	11.9	7	-	-	-	-	-	-	-	-	-	-							
					Middle	3.9	0.2	243	28.2	8.3	8.3	23.9	23.9	100.5	100.5	6.9	13.4	9	-	-	-	-	-	-	-	-	-	-	-	-					
						3.9	0.2	264	28.2	8.3	8.3	23.9	23.9	100.5	100.5	6.9	13.4	8	-	-	-	-	-	-	-	-	-	-	-						
						6.8	0.2	249	28.2	8.3	8.3	23.9	23.9	98.5	98.5	6.7	15.8	9	-	-	-	-	-	-	-	-	-	-							
						6.8	0.2	263	28.2	8.3	8.3	23.9	23.																						

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

Water Quality Monitoring

Water Quality Monitoring Results on 10 June 21 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	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA		
						Value	Average		Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA
C1	Fine	Moderate	04:48	8.4	Surface	1.0	0.3	169	27.7	27.7	8.2	8.2	24.9	24.9	102.8	102.8	7.0	6.1	1.2	6.8	8	8	86	88	815639	804230	<0.2	1.0	<0.2	1.1				
						1.0	0.3	184	27.7	27.7	8.2	8.2	24.9	24.9	102.7	102.7	7.0	6.1	1.2	6.8	9	8	86	88	<0.2	1.1	<0.2	1.0						
					Middle	4.2	0.2	174	26.5	26.5	8.2	8.2	28.1	28.1	75.9	75.9	5.2	5.2	8.2	6.8	8	8	88	88	86	88	<0.2	0.9	<0.2	0.9				
						4.2	0.2	183	26.5	26.5	8.2	8.2	28.2	28.2	75.8	75.8	5.2	5.2	8.5	6.8	7	8	88	88	86	88	<0.2	0.9	<0.2	0.9				
					Bottom	7.4	0.2	330	26.6	26.6	8.3	8.3	28.3	28.3	77.5	77.5	5.3	5.3	10.8	6.8	8	8	90	90	86	88	86	88	<0.2	1.1	<0.2	1.1		
						7.4	0.2	348	26.6	26.6	8.3	8.3	28.3	28.3	77.8	77.8	5.3	5.3	10.9	6.8	7	8	90	90	86	88	86	88	<0.2	1.1	<0.2	1.1		
C2	Misty	Calm	07:15	10.6	Surface	1.0	1.1	182	28.4	28.4	8.5	8.5	19.1	18.9	142.3	139.4	10.0	7.6	3.4	4.6	4	4	85	86	825661	806930	<0.2	1.0	<0.2	1.0				
						1.0	1.2	196	28.3	28.3	8.5	8.5	18.7	18.6	136.5	136.5	9.6	7.6	3.4	4.6	3	4	86	89	86	89	<0.2	1.0	<0.2	1.0				
					Middle	5.3	1.1	181	26.2	26.2	8.1	8.1	27.6	27.7	76.4	76.4	5.3	5.3	4.9	5.8	4	4	89	89	86	89	<0.2	1.2	<0.2	1.2				
						5.3	1.1	194	26.2	26.2	8.1	8.1	27.7	27.9	76.3	76.3	5.3	5.3	4.9	5.8	3	4	89	89	86	89	<0.2	1.2	<0.2	1.2				
					Bottom	9.6	0.4	186	26.2	26.2	8.1	8.1	27.9	27.9	76.6	76.6	5.3	5.3	5.6	5.8	4	4	91	91	86	89	86	89	<0.2	1.0	<0.2	1.0		
						9.6	0.5	198	26.2	26.2	8.1	8.1	27.9	27.9	76.9	76.9	5.3	5.3	5.6	5.8	3	4	91	91	86	89	86	89	<0.2	1.1	<0.2	1.1		
C3	Misty	Calm	05:02	11.8	Surface	1.0	0.3	312	27.2	27.2	8.4	8.4	26.1	26.2	132.6	132.4	9.1	8.4	3.1	4.6	6	6	83	83	822107	817794	<0.2	1.1	<0.2	1.1				
						1.0	0.3	313	27.1	27.1	8.4	8.4	26.3	27.8	132.2	112.7	9.1	8.4	3.1	4.6	5	6	83	86	86	86	<0.2	1.0	<0.2	1.0				
					Middle	5.9	0.3	294	26.5	26.5	8.3	8.3	27.8	28.0	112.7	112.4	7.8	7.7	4.5	5.8	5	6	86	86	86	86	<0.2	1.1	<0.2	1.1				
						5.9	0.3	320	26.4	26.4	8.3	8.3	28.0	29.4	112.1	112.1	7.7	7.7	4.5	5.8	7	7	86	88	86	88	<0.2	1.0	<0.2	1.0				
					Bottom	10.8	0.3	263	25.8	25.8	8.1	8.1	29.6	29.4	82.9	83.2	5.7	5.8	6.1	5.8	7	7	88	88	86	88	<0.2	1.1	<0.2	1.1				
						10.8	0.3	271	25.9	25.9	8.1	8.1	29.3	29.4	83.4	83.2	5.8	5.8	5.9	5.8	7	7	88	88	86	88	<0.2	1.1	<0.2	1.1				
IM1	Fine	Moderate	04:58	4.5	Surface	1.0	0.0	142	26.8	26.8	8.3	8.3	26.9	26.8	76.7	76.9	5.3	5.3	7.2	8.9	11	11	85	85	817925	807129	<0.2	1.0	<0.2	1.1				
						1.0	0.0	151	26.8	26.8	8.3	8.3	26.8	26.8	77.0	77.0	5.3	5.3	7.0	8.9	10	11	85	85	86	85	<0.2	1.1	<0.2	1.1				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	3.5	0.1	124	26.7	26.7	8.3	8.3	27.0	27.0	74.6	74.8	5.1	5.2	10.8	5.8	9	9	89	89	86	89	86	89	<0.2	1.1	<0.2	1.1		
						3.5	0.1	129	26.7	26.7	8.3	8.3	27.0	27.0	74.9	74.9	5.2	5.2	10.5	5.8	15	9	89	89	86	89	86	89	<0.2	1.1	<0.2	1.1		
IM2	Fine	Moderate	05:07	6.3	Surface	1.0	0.1	29	27.3	27.3	8.3	8.3	26.0	26.0	83.1	83.1	5.7	5.4	3.4	8.5	11	8	85	85	818186	806160	<0.2	1.0	<0.2	1.2				
						1.0	0.1	29	27.3	27.3	8.3	8.3	26.0	26.0	83.0	83.1	5.7	5.4	3.4	8.5	10	8	85	85	86	85	<0.2	1.2	<0.2	1.2				
					Middle	3.2	0.2	33	26.8	26.8	8.3	8.3	26.8	26.8	72.6	72.7	5.0	5.0	10.0	5.8	7	8	87	87	86	87	<0.2	1.0	<0.2	1.1				
						3.2	0.2	33	26.8	26.8	8.3	8.3	26.8	26.8	72.7	72.7	5.0	5.0	10.5	5.8	8	8	87	87	86	87	<0.2	1.1	<0.2	1.1				
					Bottom	5.3	0.1	56	26.7	26.7	8.3	8.3	27.2	27.2	72.2	72.3	5.0	5.0	11.9	5.8	7	7	89	89	86	89	86	89	<0.2	1.1	<0.2	1.1		
						5.3	0.1	57	26.7	26.7	8.3	8.3	27.2	27.2	72.4	72.3	5.0	5.0	12.0	5.8	7	7	89	89	86	89	86	89	<0.2	1.1	<0.2	1.1		
IM3	Fine	Moderate	05:15	6.4	Surface	1.0	0.1	343	27.9	27.9	8.3	8.3	23.1	23.1	93.4	93.5	6.5	6.3	5.6	7.4	9	8	85	86	818790	805612	<0.2	0.8	<0.2	0.9				
						1.0	0.1	344	27.9	27.9	8.3	8.3	23.1	23.1	93.6	93.5	6.5	6.3	5.7	7.4	8	8	86	86	86	86	<0.2	0.9	<0.2	0.9				
					Middle	3.2	0.1	312	27.5	27.5	8.3	8.3	24.1	24.1	86.7	86.7	6.0	6.0	7.7	6.3	8	8	87	87	86	87	<0.2	0.9	<0.2	0.9				
						3.2	0.1	318	27.5	27.5	8.3	8.3	24.1	24.1	86.6	86.6	6.0	6.0	7.7	6.3	9	8	87	87	86	87	<0.2	0.9	<0.2	0.9				
					Bottom	5.4	0.1	315	27.5	27.5	8.3	8.3	24.5	24.5	85.6	85.7	5.9	5.9	8.7	6.3	7	7	90	90	86	90	86	90	<0.2	1.1	<0.2	1.1		
						5.4	0.1	326	27.5	27.5	8.3	8.3	24.5	24.5	85.7	85.7	5.9	5.9	8.9	6.3	8	8	90	90	86	90	86	90	<0.2	1.1	<0.2	1.1		
IM4	Fine	Moderate	05:37	7.6	Surface	1.0	1.1	205	27.8	27.8	8.3	8.3	23.3	23.3	91.1	91.1	6.3	6.2	5.6	8.6	7	8	87	88	819736	804590	<0.2	1.1	<0.2	1.1				
						1.0	1.1	208	27.8	27.8	8.3	8.3	23.3	23.3	91.1	91.1	6.3	6.2	5.4	8.6	8	8	87	88	86	88	<0.2	1.1	<0.2	1.1				
					Middle	3.8	1.0	207	27.6	27.6	8.3	8.3	24.0	24.0	88.2	88.2	6.1	6.1	9.9	6.2	9	8	88	88	86	88	<0.2	1.1	<0.2	1.1				
						3.8	1.1	207	27.6	27.6	8.3	8.3	24.0	24.0	88.2	88.2	6.1	6.1	9.9	6.2	8	8	88	88	86	88	<0.2	1.1	<0.2	1.1				
					Bottom	6.6	0.8	208	27.7	27.7	8.3	8.3	24.1	24.1	88.5	88.6	6.1	6.1	10.3	6.2	10	10	90	90	86	90	86	90	<0.2	1.1	<0.2	1.1		
						6.6	0.8	212	27.7	27.7	8.3	8.3	24.1	24.1	88.6	88.6	6.1	6.1	10.2	6.2	20	10	91	91	86	90	86	90	<0.2	1.0	<0.2	1.0		
IM5	Fine	Moderate	06:02	7.2	Surface	1.0	0.9	228	28.5	28.5	8.2	8.2	21.6	21.6	97.9	97.9	6.7	6.2	6.4	10.6	15	15	87	88	820736	804871	<0.2	1.0	<0.2	1.0				
						1.0	0.9	234	28.5	28.5	8.2	8.2	21.6	21.6	97.8	97.8	6.7	6.2	6.4	10.6	16	15	88	89	86	89	<0.2	1.0	<0.2	1.0				
					Middle	3.6	0.8	229	27.2	27.2	8.2	8.2	24.5	24.5	82.1	82.1	5.7	5.7	11.5	6.2	12	15	89	90	86	89	<0.2	1.0	<0.2	1.0				
						3.6	0.9	248	27.2	27.2	8.2	8.2	24.5	24.5	82.1	82.1	5.7	5.7	11.5	6.2														

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

Water Quality Monitoring Results on 10 June 21 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	Value	DA				
IM9	Misty	Calm	06:39	6.8	Surface	1.0	0.3	185	28.6	28.7	8.6	8.6	20.2	20.2	174.5	174.5	12.1	9.9	5.5	6.2	6	5	86	89	822095	808816	<0.2	1.0	1.0	1.2						
						1.0	0.3	193	28.7	8.6	8.6	20.1	20.1	174.4	174.4	12.1	9.9	5.5	6.2	5	5	86	89	822095	808816	<0.2	1.0	1.0	1.2							
						3.4	0.3	187	27.0	8.3	8.3	24.0	24.1	109.6	109.6	7.6	6.9	6.5	6.9	4	5	89	90	822095	808816	<0.2	1.1	1.0	1.2							
					Middle	3.4	0.3	190	27.0	8.3	8.3	24.2	24.1	109.5	109.5	7.6	6.9	6.5	6.9	5	5	90	91	822095	808816	<0.2	1.0	1.0	1.2							
						5.8	0.0	117	26.8	8.2	8.2	25.2	25.2	97.5	98.1	6.8	6.9	6.6	6.9	5	5	91	91	822095	808816	<0.2	1.5	1.5	1.4							
						5.8	0.0	125	26.8	8.2	8.2	25.2	25.2	98.7	98.7	6.9	6.9	6.6	6.9	4	4	91	91	822095	808816	<0.2	1.4	1.4	1.4							
					IM10	Misty	Calm	06:32	6.6	Surface	1.0	0.6	133	27.9	27.9	8.5	8.5	21.3	21.3	155.5	155.3	10.8	10.0	4.6	5.4	6	6	83	87	822370	809810	<0.2	1.4	1.4	1.2	
											1.0	0.6	140	27.9	8.5	8.5	21.3	21.3	155.1	155.3	10.8	10.0	4.6	5.4	5	6	84	87	822370	809810	<0.2	1.4	1.4	1.2		
											3.3	0.5	132	27.3	8.4	8.4	22.6	22.6	130.9	130.3	9.2	6.9	5.5	5.4	5	6	87	88	822370	809810	<0.2	1.0	1.0	1.2		
Middle	3.3	0.6	141	27.2						8.4	8.4	22.7	22.6	129.7	129.7	9.1	6.9	5.5	5.4	6	6	88	90	822370	809810	<0.2	1.0	1.0	1.2							
	5.6	0.4	112	26.8						8.2	8.2	24.8	24.8	98.9	99.4	6.9	6.9	6.1	6.1	7	7	90	90	822370	809810	<0.2	1.2	1.2	1.1							
	5.6	0.5	115	26.8						8.2	8.2	24.8	24.8	99.8	99.8	6.9	6.9	6.1	6.1	6	6	90	90	822370	809810	<0.2	1.1	1.1	1.1							
IM11	Misty	Calm	06:19	7.0						Surface	1.0	0.4	102	28.0	28.0	8.5	8.5	21.5	21.4	154.9	155.2	10.8	8.8	5.4	6.4	6	5	84	85	822060	811472	<0.2	1.6	1.6	1.4	
											1.0	0.5	109	28.0	8.5	8.5	21.4	21.4	155.4	155.2	10.8	8.8	5.4	6.4	5	5	84	86	822060	811472	<0.2	1.6	1.6	1.4		
											3.5	0.4	96	26.8	8.2	8.2	24.7	24.7	96.0	96.0	6.7	6.3	6.5	6.3	5	5	86	88	822060	811472	<0.2	1.5	1.5	1.4		
					Middle	3.5	0.4	101	26.8	8.2	8.2	24.7	24.7	96.0	96.0	6.7	6.3	6.5	6.3	6	6	86	88	822060	811472	<0.2	1.5	1.5	1.4							
						6.0	0.3	79	26.7	8.2	8.2	25.4	25.4	90.4	90.6	6.3	6.3	7.3	7.2	5	5	86	88	822060	811472	<0.2	1.0	1.0	1.4							
						6.0	0.3	86	26.7	8.2	8.2	25.4	25.4	90.7	90.6	6.3	6.3	7.2	7.2	5	5	86	88	822060	811472	<0.2	1.0	1.0	1.4							
					IM12	Misty	Calm	06:11	8.8	Surface	1.0	0.3	93	27.1	27.1	8.4	8.4	23.2	23.2	124.8	123.8	8.7	7.4	4.4	5.6	6	7	84	85	821479	812033	<0.2	1.2	1.4	1.2	
											1.0	0.3	101	27.0	8.4	8.4	23.1	23.2	122.7	123.8	8.6	7.4	4.4	5.6	7	7	84	85	821479	812033	<0.2	1.4	1.4	1.2		
											4.4	0.4	93	26.7	8.1	8.1	25.6	25.7	88.6	88.3	6.2	6.1	6.0	6.0	7	7	85	85	821479	812033	<0.2	1.1	1.1	1.2		
Middle	4.4	0.4	100	26.6						8.1	8.1	25.8	25.7	88.0	88.0	6.1	6.1	6.0	6.0	6	6	85	85	821479	812033	<0.2	1.0	1.0	1.2							
	7.8	0.3	95	26.5						8.1	8.1	26.2	26.2	79.7	79.8	5.5	5.5	6.5	6.6	8	8	88	88	821479	812033	<0.2	1.1	1.1	1.2							
	7.8	0.3	98	26.5						8.1	8.1	26.2	26.2	79.9	79.9	5.5	5.5	6.6	6.6	7	7	88	88	821479	812033	<0.2	1.1	1.1	1.2							
SR1A	Misty	Calm	05:43	4.0						Surface	1.0	-	-	27.5	27.5	8.4	8.4	22.6	22.6	131.7	131.5	9.2	9.2	5.2	5.9	5	6	-	-	819977	812656	-	-	-	-	
											1.0	-	-	27.5	27.5	8.4	8.4	22.6	22.6	131.3	131.5	9.1	9.2	5.2	5.9	6	6	-	-	819977	812656	-	-	-	-	
											2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-				
						3.0	-	-	27.4	27.4	8.4	8.4	22.8	22.8	123.1	123.1	8.6	8.6	6.6	6.6	6	6	-	-	-	-	-	-	-	-	-	-				
						3.0	-	-	27.4	27.4	8.4	8.4	22.8	22.8	123.1	123.1	8.6	8.6	6.6	6.6	7	7	-	-	-	-	-	-	-	-	-	-				
					SR2	Misty	Calm	05:27	4.6	Surface	1.0	0.1	23	27.1	27.1	8.4	8.4	23.4	23.6	124.4	122.9	8.7	8.6	5.4	5.8	7	6	85	85	821464	814157	<0.2	1.1	1.0	1.1	
											1.0	0.1	24	27.1	8.4	8.4	23.4	23.6	121.4	122.9	8.5	8.6	5.4	5.8	6	6	85	85	821464	814157	<0.2	1.0	1.0	1.1		
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-				
	3.6	0.0	60	26.9						8.2	8.2	24.6	24.6	102.4	103.0	7.1	7.2	6.2	6.2	5	5	87	87	821464	814157	<0.2	1.1	1.1	1.1							
	3.6	0.0	62	26.9						8.3	8.2	24.6	24.6	103.5	103.0	7.2	7.2	6.2	6.2	6	6	87	87	821464	814157	<0.2	1.2	1.2	1.2							
SR3	Misty	Calm	06:50	8.2						Surface	1.0	0.7	184	27.4	27.4	8.5	8.5	21.8	21.9	146.1	144.8	10.2	8.3	5.0	5.5	6	5	-	-	822141	807582	-	-	-	-	
											1.0	0.8	195	27.3	8.5	8.5	21.9	21.9	143.4	144.8	10.1	8.3	5.0	5.5	5	5	-	-	-	-	822141	807582	-	-	-	-
											4.1	0.6	188	26.8	8.2	8.2	25.0	25.1	93.8	93.7	6.5	6.5	5.3	5.3	4	4	-	-	-	-	822141	807582	-	-	-	-
					Middle	4.1	0.6	188	26.8	8.2	8.2	25.1	25.1	93.6	93.7	6.5	6.5	5.4	5.4	5	5	-	-	-	-	-	-	822141	807582	-	-	-	-			
						7.2	0.3	214	26.8	8.1	8.1	25.3	25.3	88.1	88.7	6.1	6.2	6.3	6.3	4	4	-	-	-	-	-	-	822141	807582	-	-	-	-			
						7.2	0.3	219	26.8	8.1	8.1	25.3	25.3	89.2	88.7	6.2	6.2	6.2	6.2	5	5	-	-	-	-	-	-	822141	807582	-	-	-	-			
					SR4A	Fine	Moderate	04:42	9.1	Surface	1.0	0.8	249	27.7	27.7	8.1	8.1	24.4	24.4	96.7	96.7	6.6	6.1	3.2	5.1	17	16	-	-	817199	807809	-	-	-	-	
											1.0	0.9	266	27.7	8.1	8.1	24.4	24.4	96.6	96.7	6.6	6.1	3.2	5.1	17	16	-	-	-	-	817199	807809	-	-	-	-
											4.6	0.8	251	26.8	8.2	8.2	26.4	26.3	79.1	79.2	5.5	5.5	5.0	5.0	15	15	-	-	-	-	817199	807809	-	-	-	-
Middle	4.6	0.8	266	26.9						8.2	8.2	26.3	26.3	79.2	79.2	5.5	5.5	5.0	5.0	15	15	-	-	-	-	-	-	817199	807809	-	-	-	-			
	8.1	0.6	249	26.8						8.3	8.3	26.7	26.7	77.0	77.1	5.3	5.3	7.2	7.2	15	15	-	-	-	-	-	-	817199	807809	-	-	-	-			
	8.1	0.6	250	26.8						8.3	8.3	26.7	26.7	77.2	77.1	5.3	5.3	7.2	7.2	15	15	-	-	-	-	-	-	817199	807809	-	-	-	-			
SR5A	Fine	Calm	04:35	4.6						Surface	1.0	0.1	294	27.7	27.7	8.3	8.3	24.0	24.0	94.1																

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

Water Quality Monitoring

Water Quality Monitoring Results on 12 June 21 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	Value	DA			
C1	Cloudy	Moderate	13:32	8.0	Surface	1.0	0.5	222	27.5	8.2	8.2	27.5	27.5	80.2	80.3	5.4	5.5	4.4	6.6	9	10	87	89	815600	804237	<0.2	1.0	1.0	1.0					
						1.0	0.5	238	27.5	8.2	8.2	27.5	27.5	80.3	80.3	5.4	5.5	4.4	6.6	9	10	86	89	815600	804237	<0.2	1.0	1.0	1.0					
						4.0	0.5	202	27.2	8.2	8.2	29.4	29.4	83.2	82.8	5.6	5.3	4.9	6.6	9	10	88	89	815600	804237	<0.2	0.9	1.0	1.0					
					Middle	4.0	0.5	209	27.2	8.2	8.2	29.5	29.4	82.4	82.8	5.6	5.3	5.0	6.6	10	10	90	91	815600	804237	<0.2	0.9	1.0	1.0					
						7.0	0.3	204	27.2	8.2	8.2	29.6	29.6	78.5	78.5	5.3	5.3	10.8	10.4	10	9	91	91	815600	804237	<0.2	1.0	1.0	1.0					
						7.0	0.3	215	27.2	8.2	8.2	29.6	29.6	78.5	78.5	5.3	5.3	10.4	10.4	9	9	91	91	815600	804237	<0.2	1.0	1.0	1.0					
					C2	Rainy	Calm	12:36	12.0	Surface	1.0	0.5	188	27.5	8.0	8.0	25.5	25.5	84.4	84.4	5.8	5.5	6.8	7.5	7	6	88	91	825667	806952	<0.2	1.1	1.0	1.0
											1.0	0.6	190	27.4	8.0	8.0	25.5	27.8	84.3	80.9	5.8	5.5	6.7	7.5	7	6	88	91	825667	806952	<0.2	1.0	1.0	1.0
											6.0	0.5	172	27.2	8.0	8.0	27.9	27.8	75.8	75.7	5.2	5.1	7.5	7.6	6	5	91	91	825667	806952	<0.2	1.0	1.0	1.0
Middle	6.0	0.5	177	27.2						8.0	8.0	27.8	27.2	75.5	75.5	5.1	5.1	7.6	7.6	5	4	91	94	825667	806952	<0.2	1.0	1.0	1.0					
	11.0	0.4	187	27.2						8.0	8.0	27.5	27.4	74.4	76.4	5.1	5.2	8.3	8.4	4	5	94	94	825667	806952	<0.2	1.0	1.0	1.0					
	11.0	0.4	204	27.2						8.0	8.0	27.4	27.4	78.3	76.4	5.3	5.2	8.4	8.4	5	5	94	94	825667	806952	<0.2	1.1	1.0	1.0					
C3	Rainy	Calm	14:42	11.2						Surface	1.0	0.2	77	27.4	8.1	8.1	27.0	27.0	83.7	83.7	5.7	5.6	6.1	6.9	5	5	87	88	822100	817788	<0.2	1.0	0.9	0.9
											1.0	0.2	84	27.4	8.1	8.1	27.0	27.4	83.6	80.9	5.7	5.5	6.2	6.7	6	5	88	88	822100	817788	<0.2	0.9	0.9	0.9
											5.6	0.2	113	27.2	8.1	8.1	27.4	27.4	81.1	80.9	5.5	5.5	7.1	7.1	5	5	88	88	822100	817788	<0.2	0.9	0.9	0.9
					Middle	5.6	0.2	116	27.1	8.1	8.1	27.5	27.4	80.6	80.6	5.5	5.5	7.1	7.1	5	5	88	88	822100	817788	<0.2	0.9	0.9	0.9					
						10.2	0.1	104	27.3	8.1	8.1	27.6	27.5	78.8	79.0	5.4	5.4	7.4	7.4	5	4	93	93	822100	817788	<0.2	1.0	0.9	0.9					
						10.2	0.1	104	27.3	8.1	8.1	27.4	27.5	79.1	79.0	5.4	5.4	7.4	7.4	4	4	93	93	822100	817788	<0.2	1.0	0.9	0.9					
					IM1	Cloudy	Moderate	13:13	5.5	Surface	1.0	0.1	143	27.3	8.2	8.2	28.1	28.1	75.9	76.0	5.1	5.1	6.8	8.9	10	8	88	89	817929	807148	<0.2	0.9	0.9	1.0
											1.0	0.2	150	27.3	8.2	8.2	28.2	28.1	76.0	76.0	5.1	5.1	7.1	7.1	7	8	88	89	817929	807148	<0.2	0.9	0.9	1.0
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4.5	0.1	126	27.4						8.2	8.2	29.1	29.0	78.1	78.2	5.3	5.3	10.7	10.8	7	8	91	90	817929	807148	<0.2	1.0	1.0	1.0					
	4.5	0.1	126	27.4						8.2	8.2	29.0	29.0	78.3	78.2	5.3	5.3	10.8	10.8	8	8	90	90	817929	807148	<0.2	1.0	1.0	1.0					
IM2	Cloudy	Moderate	13:06	7.2						Surface	1.0	0.3	151	27.3	8.2	8.2	28.5	28.5	80.1	80.0	5.4	5.4	6.6	8.1	10	9	88	89	818164	806153	<0.2	1.0	1.0	1.0
											1.0	0.3	152	27.3	8.2	8.2	28.6	28.5	79.9	79.9	5.4	5.4	6.8	6.8	9	9	88	89	818164	806153	<0.2	1.0	1.0	1.0
											3.6	0.3	137	27.2	8.2	8.2	29.0	29.0	78.9	78.8	5.3	5.3	8.2	8.5	9	8	90	90	818164	806153	<0.2	1.0	1.0	1.0
					Middle	3.6	0.3	150	27.2	8.2	8.2	29.0	29.0	78.7	78.8	5.3	5.3	8.5	8.5	8	8	90	90	818164	806153	<0.2	1.0	1.0	1.0					
						6.2	0.1	136	27.2	8.2	8.2	29.1	29.1	78.2	78.2	5.3	5.3	9.2	9.1	8	8	90	90	818164	806153	<0.2	1.0	1.0	1.0					
						6.2	0.1	143	27.2	8.2	8.2	29.1	29.1	78.2	78.2	5.3	5.3	9.1	9.1	9	9	90	90	818164	806153	<0.2	1.0	1.0	1.0					
					IM3	Cloudy	Moderate	13:00	7.4	Surface	1.0	0.4	169	27.2	8.2	8.2	28.2	28.2	74.5	74.5	5.1	5.1	6.2	7.6	8	8	89	89	818765	805593	<0.2	1.1	1.0	1.0
											1.0	0.5	184	27.2	8.2	8.2	28.2	28.2	74.5	74.5	5.1	5.1	6.3	6.3	8	8	89	89	818765	805593	<0.2	1.1	1.0	1.0
											3.7	0.4	149	27.2	8.2	8.2	28.9	28.9	76.2	76.3	5.2	5.2	8.1	8.1	8	8	89	89	818765	805593	<0.2	1.1	1.1	1.0
Middle	3.7	0.4	160	27.2						8.2	8.2	28.9	28.9	76.3	76.3	5.2	5.2	8.1	8.1	8	8	89	89	818765	805593	<0.2	1.1	1.1	1.0					
	6.4	0.3	134	27.2						8.2	8.2	28.9	28.9	76.8	76.8	5.2	5.2	8.1	8.1	9	9	91	91	818765	805593	<0.2	1.0	1.0	1.0					
	6.4	0.3	141	27.2						8.2	8.2	28.9	28.9	76.8	76.8	5.2	5.2	8.5	8.5	9	9	91	91	818765	805593	<0.2	1.0	0.9	0.9					
IM4	Cloudy	Moderate	12:51	8.5						Surface	1.0	0.8	194	27.4	8.2	8.2	27.2	27.2	77.0	77.0	5.2	5.2	5.0	8.2	7	8	87	87	819739	804613	<0.2	0.9	1.0	1.0
											1.0	0.9	204	27.4	8.2	8.2	27.2	27.2	77.0	77.0	5.2	5.2	5.0	5.0	7	7	87	87	819739	804613	<0.2	1.0	1.0	1.0
											4.3	0.6	179	27.3	8.2	8.2	27.6	27.6	76.5	76.5	5.2	5.2	6.6	6.6	9	9	88	88	819739	804613	<0.2	0.9	1.0	1.0
					Middle	4.3	0.6	179	27.3	8.2	8.2	27.7	27.6	76.4	76.5	5.2	5.2	7.1	7.1	9	9	88	88	819739	804613	<0.2	1.0	1.0	1.0					
						7.5	0.3	161	27.2	8.2	8.2	28.6	28.6	75.9	76.0	5.1	5.1	12.4	12.9	9	9	90	90	819739	804613	<0.2	1.0	1.0	1.0					
						7.5	0.4	168	27.3	8.2	8.2	28.6	28.6	76.0	76.0	5.1	5.1	12.9	12.9	9	9	91	91	819739	804613	<0.2	0.9	1.0	1.0					
					IM5	Cloudy	Moderate	12:44	8.3	Surface	1.0	0.6	207	27.5	8.2	8.2	26.4	26.4	79.9	79.9	5.4	5.3	4.2	7.2	5	6	87	88	820749	804870	<0.2	1.0	1.0	1.0
											1.0	0.6	209	27.5	8.2	8.2	26.4	26.4	79.9	79.9	5.4	5.3	4.2	4.2	5	6	87	88	820749	804870	<0.2	1.0	1.0	1.0
											4.2	0.6	187	27.3	8.2	8.2	27.8	27.9	77.1	77.0	5.2	5.2	6.8	7.1	6	6	88	88	820749	804870	<0.2	0.9	1.0	1.0
Middle	4.2	0.6	187	27.3						8.2	8.2	27.9	27.9	76.9	77.0	5.2	5.2	7.1	7.1	6	6	88	88	820749	804870	<0.2	0.9	1.0	1.0					
	7.3	0.4	189	27.2						8.2	8.2	28.5	28.5	76.8	76.9	5.2	5.2	10.5	10.4	6	6	90	90	820749	804870	<0.2	0.9	1.0	1.0					
	7.3	0.4	205	27.3						8.2	8.2	28.5	28.5	77.0	76.9	5.2	5.2	10.4	10.4	7	7	91	91	820749	804870	<0.2	0.9	1.0	1.0					
IM6																																		

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

Water Quality Monitoring Results on 12 June 21 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	Value	DA		
IM9	Rainy	Calm	13:15	7.6	Surface	1.0	0.4	120	27.7	8.1	8.1	25.6	25.6	87.0	87.0	5.9	5.7	5.0	6.3	8	9	87	90	822107	808791	<0.2	1.0	<0.2	1.0				
						1.0	0.4	131	27.7	8.1	8.1	25.6	25.6	87.0	87.0	5.9	5.7	5.0	6.3	9	9	87	90	822107	808791	<0.2	1.0	<0.2	1.0				
					Middle	3.8	0.2	109	27.4	8.1	8.1	26.5	26.5	80.9	80.7	5.5	5.7	6.1	5.3	6.1	8	9	91	90	822107	808791	<0.2	1.0	<0.2	1.1	1.0		
						3.8	0.2	114	27.4	8.1	8.1	26.5	26.5	80.5	80.7	5.5	5.7	6.1	5.3	6.1	8	9	91	90	822107	808791	<0.2	1.0	<0.2	1.1	1.0		
					Bottom	6.6	0.3	97	27.3	8.1	8.1	27.5	27.4	77.8	77.9	5.3	5.3	7.9	5.3	7.9	10	10	92	92	822107	808791	<0.2	1.0	<0.2	1.0	1.0		
						6.6	0.3	105	27.4	8.1	8.1	27.4	27.4	77.9	77.9	5.3	5.3	7.8	5.3	7.8	10	10	92	92	822107	808791	<0.2	1.0	<0.2	1.0	1.0		
IM10	Rainy	Calm	13:22	7.6	Surface	1.0	0.6	117	27.6	8.1	8.1	25.8	25.8	87.4	87.4	6.0	5.8	5.0	6.1	9	11	86	90	822368	809806	<0.2	1.0	<0.2	1.1	1.1			
						1.0	0.7	124	27.5	8.1	8.1	25.9	25.8	87.3	87.4	6.0	5.8	5.0	6.1	10	11	87	91	822368	809806	<0.2	1.0	<0.2	1.0	1.1			
					Middle	3.8	0.6	109	27.3	8.1	8.1	27.1	27.1	82.6	80.7	5.6	5.6	6.2	5.6	6.2	11	11	91	91	822368	809806	<0.2	1.0	<0.2	1.0	1.1		
						3.8	0.6	113	27.3	8.1	8.1	27.2	27.1	78.8	80.7	5.4	5.6	6.2	5.6	6.2	11	11	91	91	822368	809806	<0.2	1.0	<0.2	1.1	1.1		
					Bottom	6.6	0.5	84	27.8	8.1	8.1	27.1	27.1	80.6	81.1	5.4	5.5	7.2	5.5	7.2	12	11	93	93	822368	809806	<0.2	1.0	<0.2	1.0	1.1		
						6.6	0.5	87	27.8	8.1	8.1	27.1	27.1	81.5	81.1	5.5	5.5	7.1	5.5	7.1	11	11	93	93	822368	809806	<0.2	1.0	<0.2	1.1	1.1		
IM11	Rainy	Calm	13:32	7.4	Surface	1.0	0.5	113	27.5	8.1	8.1	26.0	26.0	84.4	84.3	5.8	5.7	4.5	5.5	9	10	87	90	822076	811452	<0.2	1.0	<0.2	1.0	1.0			
						1.0	0.6	123	27.5	8.1	8.1	26.0	26.0	84.2	84.3	5.8	5.7	4.4	5.5	4.4	5.5	9	10	87	90	822076	811452	<0.2	1.0	<0.2	1.0	1.0	
					Middle	3.7	0.6	111	27.4	8.1	8.1	26.4	26.4	82.0	82.1	5.6	5.6	5.3	5.6	5.3	10	10	90	90	822076	811452	<0.2	1.0	<0.2	1.0	1.0		
						3.7	0.6	111	27.4	8.1	8.1	26.4	26.4	82.1	82.1	5.6	5.6	5.3	5.6	5.3	10	10	90	90	822076	811452	<0.2	1.0	<0.2	1.0	1.0		
					Bottom	6.4	0.5	101	27.6	8.1	8.1	26.4	26.4	82.7	82.9	5.6	5.7	6.8	5.7	6.8	10	10	92	92	822076	811452	<0.2	1.0	<0.2	1.0	1.1		
						6.4	0.5	105	27.6	8.1	8.1	26.3	26.4	83.1	82.9	5.6	5.7	6.8	5.7	6.8	11	10	92	92	822076	811452	<0.2	1.0	<0.2	1.1	1.1		
IM12	Rainy	Calm	13:39	9.4	Surface	1.0	0.5	103	27.4	8.1	8.1	26.3	26.4	85.3	85.0	5.8	5.6	5.9	6.7	8	7	86	87	821448	812038	<0.2	1.0	<0.2	1.0	1.0			
						1.0	0.5	108	27.4	8.1	8.1	26.4	26.4	84.7	85.0	5.8	5.6	5.9	6.7	9	7	86	87	821448	812038	<0.2	1.0	<0.2	1.0	1.0			
					Middle	4.7	0.6	109	27.3	8.1	8.1	26.6	26.6	78.1	78.1	5.3	5.3	6.7	5.3	6.7	9	7	87	87	821448	812038	<0.2	1.0	<0.2	1.1	1.0		
						4.7	0.6	118	27.3	8.1	8.1	26.7	26.6	78.0	78.1	5.3	5.3	6.7	5.3	6.7	8	7	87	87	821448	812038	<0.2	1.0	<0.2	1.1	1.0		
					Bottom	8.4	0.5	98	27.3	8.1	8.1	26.8	26.8	78.9	79.0	5.4	5.4	7.6	5.4	7.6	5	4	88	88	821448	812038	<0.2	1.0	<0.2	1.0	1.0		
						8.4	0.5	106	27.3	8.1	8.1	26.8	27.3	79.1	79.0	5.4	5.4	7.5	5.4	7.5	4	4	88	88	821448	812038	<0.2	1.0	<0.2	1.0	1.0		
SR1A	Rainy	Calm	13:55	4.0	Surface	1.0	-	-	27.7	8.1	8.1	25.6	25.6	86.1	86.2	5.9	5.9	4.4	4.9	6	8	-	-	819974	812663	-	-	-	-	-			
						1.0	-	-	27.7	8.1	8.1	25.6	25.6	86.2	86.2	5.9	5.9	4.4	4.9	4.4	4.9	7	8	-	-	819974	812663	-	-	-	-	-	
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819974	812663	-	-	-	-	-
						2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819974	812663	-	-	-	-	-
					Bottom	3.0	-	-	27.7	8.1	8.1	25.5	25.5	86.6	86.7	5.9	5.9	5.3	5.9	5.3	9	8	-	-	-	-	819974	812663	-	-	-	-	-
						3.0	-	-	27.7	8.1	8.1	25.5	25.5	86.7	86.7	5.9	5.9	5.3	5.9	5.3	10	8	-	-	-	-	819974	812663	-	-	-	-	-
SR2	Rainy	Calm	14:23	4.0	Surface	1.0	0.5	102	27.4	8.1	8.1	26.6	26.6	81.1	81.0	5.5	5.5	6.8	7.4	6	7	90	91	821458	814159	<0.2	1.1	<0.2	1.0	1.1			
						1.0	0.5	111	27.4	8.1	8.1	26.7	26.6	80.8	81.0	5.5	5.5	6.8	7.4	5	7	90	91	821458	814159	<0.2	1.0	<0.2	1.0	1.1			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821458	814159	<0.2	1.1	<0.2	1.0	1.1
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821458	814159	<0.2	1.1	<0.2	1.0	1.1
					Bottom	3.0	0.4	101	27.7	8.1	8.1	26.6	26.6	82.1	82.5	5.6	5.6	7.9	5.6	7.9	8	7	92	92	-	-	821458	814159	<0.2	1.0	<0.2	1.1	1.1
						3.0	0.4	106	27.8	8.1	8.1	26.5	26.6	82.9	82.5	5.6	5.6	8.0	5.6	8.0	8	7	92	92	-	-	821458	814159	<0.2	1.0	<0.2	1.1	1.1
SR3	Rainy	Calm	12:59	9.4	Surface	1.0	0.3	202	27.5	8.1	8.1	25.8	25.8	84.7	84.7	5.8	5.6	5.1	6.3	12	10	-	-	822155	807588	-	-	-	-	-			
						1.0	0.3	210	27.5	8.1	8.1	25.9	25.8	84.6	84.7	5.8	5.6	5.0	6.3	13	10	-	-	-	-	822155	807588	-	-	-	-	-	
					Middle	4.7	0.2	191	27.3	8.1	8.1	26.8	26.7	78.7	78.7	5.4	5.4	6.4	5.4	6.5	9	10	-	-	-	-	822155	807588	-	-	-	-	-
						4.7	0.2	207	27.3	8.1	8.1	26.6	26.7	78.7	78.7	5.4	5.4	6.5	5.4	6.5	9	10	-	-	-	-	822155	807588	-	-	-	-	-
					Bottom	8.4	0.0	94	27.3	8.1	8.1	27.9	27.8	78.5	78.6	5.3	5.3	7.7	5.3	7.7	8	10	-	-	-	-	822155	807588	-	-	-	-	-
						8.4	0.0	97	27.4	8.1	8.1	27.9	27.8	78.7	78.6	5.3	5.3	7.2	5.3	7.2	8	10	-	-	-	-	822155	807588	-	-	-	-	-
SR4A	Cloudy	Moderate	13:58	8.0	Surface	1.0	0.3	245	27.3	8.2	8.2	28.2	28.3	73.1	73.0	5.0	4.9	6.7	7.6	8	10	-	-	817168	807799	-	-	-	-	-			
						1.0	0.3	248	27.3	8.2	8.2	28.3	28.3	72.9	73.0	4.9	4.9	6.8	4.9	6.8	7	10	-	-	-	-	817168	807799	-	-	-	-	
					Middle	4.0	0.2	271	27.1	8.2	8.2	28.9	28.9	71.3	71.3	4.8	4.8	8.0	4.8	8.0	10	10	-	-	-	-	817168	807799	-	-	-	-	-
						4.0	0.2	290	27.1	8.2	8.2	28.9	28.9	71.3	71.3	4.8	4.8	8.0	4.8	8.0	11	10	-	-	-	-							

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

Water Quality Monitoring Results on 12 June 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current		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)			
						Speed (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA
C1	Rainy	Moderate	07:40	8.7	Surface	1.0	0.7	44	27.2	8.2	8.2	28.8	28.9	82.5	82.5	5.6	5.6	4.8	6	86	87	<0.2	0.7	0.7	0.7						
						1.0	0.8	46	27.2	8.2	8.2	28.9	29.9	80.7	80.7	5.4	5.4	5.2	6	86	87	<0.2	0.7	0.7	0.7						
						4.4	0.6	33	27.2	8.2	8.2	29.9	29.9	80.6	80.6	5.4	5.4	9.3	7	87	87	<0.2	0.7	0.7	0.7						
					Middle	4.4	0.6	35	27.2	8.2	8.2	29.9	29.9	82.6	82.6	5.6	5.6	10.9	9	89	89	<0.2	0.6	0.6	0.6						
						7.7	0.5	33	27.1	8.2	8.2	29.9	29.9	82.9	82.9	5.6	5.6	10.7	8	89	89	<0.2	0.6	0.6	0.6						
						7.7	0.5	36	27.1	8.2	8.2	30.0	30.0																		
C2	Rainy	Calm	08:44	13.0	Surface	1.0	0.3	334	27.5	8.1	8.1	24.9	24.9	85.0	85.0	5.8	5.8	6.3	8	85	85	<0.2	1.0	1.0	1.0						
						1.0	0.3	340	27.5	8.1	8.1	24.9	24.9	84.9	84.9	5.8	5.8	6.4	9	86	86	<0.2	1.0	1.0	1.0						
						6.5	0.2	358	27.4	8.1	8.1	25.9	25.9	83.5	83.4	5.7	5.7	7.1	9	89	89	<0.2	0.9	0.9	0.9						
					Middle	6.5	0.3	329	27.3	8.1	8.1	26.0	26.0	83.3	83.3	5.7	5.7	7.3	8	89	89	<0.2	1.0	1.0	1.0						
						12.0	0.3	63	27.6	8.1	8.1	26.0	26.0	78.4	78.5	5.4	5.4	8.2	5	91	91	<0.2	1.0	1.0	1.0						
						12.0	0.3	67	27.7	8.1	8.1	25.9	25.9	78.5	78.5	5.4	5.4	8.1	4	91	91	<0.2	0.9	0.9	0.9						
C3	Rainy	Calm	07:11	13.0	Surface	1.0	0.4	341	27.0	8.0	8.0	25.6	25.7	79.1	79.1	5.5	5.5	4.8	6	83	83	<0.2	1.0	1.0	1.0						
						1.0	0.4	344	26.9	8.0	8.0	25.8	25.7	78.2	78.7	5.4	5.4	4.9	7	83	83	<0.2	0.9	0.9	0.9						
						6.5	0.2	357	26.7	8.0	8.0	27.8	27.8	72.2	72.3	4.9	4.9	5.3	6	86	86	<0.2	0.9	0.9	0.9						
					Middle	6.5	0.2	328	26.7	8.0	8.0	27.9	27.8	72.2	72.3	5.0	5.0	5.4	5	86	86	<0.2	0.9	0.9	0.9						
						12.0	0.2	357	26.8	8.0	8.0	27.6	27.6	73.4	73.5	5.0	5.0	6.2	6	88	88	<0.2	1.0	1.0	1.0						
						12.0	0.2	347	26.8	8.0	8.0	27.6	27.6	73.6	73.6	5.0	5.0	6.3	6	88	88	<0.2	1.0	1.0	1.0						
IM1	Cloudy	Moderate	08:01	5.4	Surface	1.0	0.0	100	27.3	8.1	8.1	27.7	27.7	69.6	69.5	4.7	4.7	12.2	10	84	84	<0.2	0.6	0.6	0.6						
						1.0	0.0	108	27.3	8.1	8.1	27.7	27.7	69.4	69.4	4.7	4.7	12.7	13	84	84	<0.2	0.6	0.6	0.6						
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	4.4	0.1	62	27.2	8.1	8.1	27.9	27.9	69.8	69.9	4.7	4.7	14.6	13	85	85	<0.2	0.6	0.6	0.6						
						4.4	0.1	63	27.2	8.1	8.1	27.9	27.9	69.9	69.9	4.7	4.7	14.5	12	85	85	<0.2	0.6	0.6	0.6						
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM2	Cloudy	Moderate	08:08	7.8	Surface	1.0	0.2	345	27.3	8.2	8.2	27.9	27.9	73.1	73.1	5.0	5.0	9.2	11	85	85	<0.2	0.7	0.7	0.7						
						1.0	0.2	317	27.3	8.2	8.2	28.0	27.9	73.0	73.0	5.0	5.0	9.6	10	85	85	<0.2	0.8	0.8	0.8						
						3.9	0.2	16	27.1	8.2	8.2	29.0	29.0	72.2	72.2	4.9	4.9	13.2	9	87	87	<0.2	0.7	0.7	0.7						
					Middle	3.9	0.2	16	27.1	8.2	8.2	29.0	29.0	72.2	72.2	4.9	4.9	13.3	10	87	87	<0.2	0.7	0.7	0.7						
						6.8	0.2	20	27.1	8.1	8.1	29.1	29.1	72.3	72.3	4.9	4.9	10.1	6	89	89	<0.2	0.8	0.8	0.8						
						6.8	0.2	21	27.1	8.1	8.1	29.1	29.1	72.3	72.3	4.9	4.9	9.9	10	89	89	<0.2	0.8	0.8	0.8						
IM3	Cloudy	Moderate	08:15	7.5	Surface	1.0	0.3	312	27.4	8.2	8.2	27.1	27.2	76.8	76.8	5.2	5.2	5.6	10	84	84	<0.2	0.8	0.8	0.8						
						1.0	0.4	318	27.4	8.2	8.2	27.2	27.2	76.8	76.8	5.2	5.2	5.6	9	84	84	<0.2	0.8	0.8	0.8						
						3.8	0.3	349	27.1	8.2	8.2	28.7	28.8	77.1	77.0	5.2	5.2	8.9	7	86	86	<0.2	0.7	0.7	0.7						
					Middle	3.8	0.4	321	27.1	8.2	8.2	28.8	28.8	76.8	76.8	5.2	5.2	9.5	8	86	86	<0.2	0.7	0.7	0.7						
						6.5	0.3	9	27.1	8.2	8.2	29.2	29.1	73.3	73.4	5.0	5.0	14.3	7	89	89	<0.2	0.7	0.7	0.7						
						6.5	0.3	9	27.1	8.2	8.2	29.1	29.1	73.5	73.5	5.0	5.0	14.7	8	89	89	<0.2	0.6	0.6	0.6						
IM4	Cloudy	Moderate	08:23	8.8	Surface	1.0	0.6	343	27.3	8.2	8.2	27.8	27.9	81.3	81.3	5.5	5.5	3.8	7	85	85	<0.2	0.7	0.7	0.7						
						1.0	0.7	353	27.3	8.2	8.2	27.9	27.9	81.3	81.3	5.5	5.5	3.8	8	85	85	<0.2	0.8	0.8	0.8						
						4.4	0.6	352	27.2	8.2	8.2	28.2	28.2	79.2	79.1	5.4	5.4	4.4	7	87	87	<0.2	0.8	0.8	0.8						
					Middle	4.4	0.6	354	27.2	8.2	8.2	28.2	28.2	79.0	79.0	5.4	5.4	4.5	6	87	87	<0.2	0.8	0.8	0.8						
						7.8	0.5	4	27.2	8.2	8.2	28.2	28.2	79.9	80.0	5.4	5.4	6.2	6	90	90	<0.2	0.8	0.8	0.8						
						7.8	0.5	4	27.3	8.2	8.2	28.2	28.2	80.1	80.1	5.4	5.4	6.2	7	90	90	<0.2	0.7	0.7	0.7						
IM5	Cloudy	Moderate	08:31	8.1	Surface	1.0	0.7	351	27.3	8.2	8.2	27.4	27.4	74.8	74.8	5.1	5.1	7.7	7	86	86	<0.2	0.8	0.8	0.8						
						1.0	0.7	354	27.4	8.2	8.2	27.4	27.4	74.8	74.8	5.1	5.1	7.7	7	86	86	<0.2	0.6	0.6	0.6						
						4.1	0.6	9	27.2	8.2	8.2	28.3	28.3	74.3	74.4	5.0	5.0	10.2	8	87	87	<0.2	0.7	0.7	0.7						
					Middle	4.1	0.6	9	27.2	8.2	8.2	28.3	28.3	74.4	74.4	5.0	5.0	10.0	9	87	87	<0.2	0.7	0.7	0.7						
						7.1	0.4	19	27.2	8.2	8.2	28.4	28.3	74.6	74.7	5.1	5.1	11.6	11	89	89	<0.2	0.7	0.7	0.7						
						7.1	0.4	20	27.2	8.2	8.2	28.3	28.3	74.7	74.7	5.1	5.1	11.9	10	89	89	<0.2	0.6	0.6	0.6						
IM6	Cloudy	Moderate	08:39	8.4	Surface	1.0	0.1	257	27.6	8.1	8.1	24.8	24.8	79.6	79.6	5.5	5.5	4.6	11	86	86	<0.2	0.7	0.7	0.7						
						1.0	0.1	260	27.6	8.1	8.1	24.8	24.8	79.5	79.5	5.5	5.5	4.9	10	86	86	<0.2	0.8	0.8	0.8						
						4.2	0.2	52	27.3	8.1	8.1	27.6	27.6	71.4	71.4	4.9	4.9	7.3	11	87	87	<0.2	0.8	0.8	0.8						
					Middle	4.2	0.2	55	27.3	8.1	8.1	27.7	27.6	71.3	71.3	4.8	4.8	7.9	5	87	87	<0.2	0.7	0.7	0.7						
						7.4	0.3	61	27.4	8.1	8.1	27.8	27.8	71.8	72.0	4.9	4.9	8.5	4	89	89	<0.2	0.8	0.8	0.8						
						7.4	0.3	63	27.5	8.1	8.1	27.8	27.8	72.1	72.1	4.9	4.9	8.8	4	89	89	<0.2	0.8	0.8	0.8						
IM7	Cloudy	Moderate	08:47	7.9	Surface	1.0	0.2	271	27.6	8.2	8.2	24.8	24.8	77.1	77.0	5.3	5.3	4.9	4	87	87	<0.2	0.6	0.6	0.6						
						1.0	0.2	280	27.5	8.2	8.2	24.8	24.8	76.8	76.8	5.3	5.3	5.3	5	87	87	<0.2	0.6	0.6	0.6						
						4.0	0.1	109	27.3	8.2	8.2	27.4	27.4	74.2	74.1	5.0	5.0	8.8	4	88	88	<0.2	0.7	0.7	0.7						
					Middle	4.0	0.1	116	27.3	8.2	8.2	27.5	27.4	74.0	74.0	5.0	5.0	8.9	5	88	88	<0.2	0.7	0.7	0.7						
						6.9	0.2	125	27.3	8.2	8.2	27.9	27.9	74.1	74.2	5.0	5.0	9.7	4	90	90	<0.2	0.8	0.8	0.8						
						6.9	0.2	131	27.3	8.2	8.2	27.9	27.9	74.3	74.3	5.0	5.0	9.6	5	90	90	<0.2	0.8	0.8	0.8						
IM8	Rainy	Calm	08:16	8.6	Surface	1.0	0.2	82	27.5	8.1	8.1	24.9	25.0	82.9	82.7	5.7	5.7	5.5	5	86	86	<0.2	0.9	0.9	0.9						
						1.0	0.2	89	27.5	8.1	8.1	25.0	25.0	82.5	82.5	5.7	5.7	5.6	6	86	86	<0.2	1.0	1.0	1.0						
						4.3	0.2	97	27.1	8.1	8.1	27.3	27.4	74.8	74.8	5.1	5.1	6.9	6	91	91	<0.2	0.9	0.9	0.9						
					Middle	4.3	0.2	101	27.1	8.1	8.1	27.3	27.4	71.0	71.0	4.8	4.8	6.8	5	91	91	<0.2	0.								

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

Water Quality Monitoring Results on 12 June 21 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	Value	DA	Value	DA		
								Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA
IM9	Rainy	Calm	08:10	8.4	Surface	1.0	0.1	28	27.6	8.1	8.1	25.1	25.1	82.4	82.4	5.7	5.7	6	6	86	86	89	822109	808822	<0.2	0.9	0.9	0.9					
						1.0	0.1	28	27.6	8.1	8.1	25.1	25.1	82.3	82.3	5.6	5.6	7	7	86	86	89	822109	808822	<0.2	0.9	0.9	0.9					
						4.2	0.2	31	27.5	8.1	8.1	26.2	26.2	80.1	80.1	5.5	5.5	6	6	89	89	89	822109	808822	<0.2	0.9	0.9	0.9					
					Middle	4.2	0.2	32	27.4	8.1	8.1	26.3	26.2	76.8	76.8	5.2	5.2	6	6	90	90	89	822109	808822	<0.2	0.9	0.9	0.9					
						7.4	0.2	55	27.4	8.1	8.1	26.6	26.5	77.8	77.8	5.3	5.3	7	7	91	91	89	822109	808822	<0.2	0.9	0.9	0.9					
						7.4	0.3	58	27.4	8.1	8.1	26.5	26.5	78.0	78.0	5.3	5.3	4	4	91	91	89	822109	808822	<0.2	0.9	0.9	0.9					
					IM10	Rainy	Calm	08:02	8.0	Surface	1.0	0.5	303	27.5	8.1	8.1	25.7	25.7	87.3	87.0	6.0	6.4	4	4	83	83	87	822367	809788	<0.2	0.9	0.9	0.9
											1.0	0.5	326	27.4	8.1	8.1	25.7	25.7	86.6	86.6	5.9	6.4	5	5	84	84	87	822367	809788	<0.2	0.9	0.9	0.9
											4.0	0.4	305	27.4	8.1	8.1	25.8	25.8	79.2	79.3	5.4	7.1	5	5	87	87	88	822367	809788	<0.2	0.9	0.9	0.9
Middle	4.0	0.4	325	27.4						8.1	8.1	25.9	25.9	79.3	79.3	5.4	7.0	5	5	88	88	89	822367	809788	<0.2	0.9	0.9	0.9					
	7.0	0.3	317	27.2						8.0	8.0	26.0	26.0	81.4	81.4	5.6	8.8	5	5	90	90	89	822367	809788	<0.2	0.9	0.9	0.9					
	7.0	0.3	344	27.1						8.0	8.0	26.0	26.0	81.9	81.9	5.6	8.6	6	6	90	90	89	822367	809788	<0.2	0.9	0.9	0.9					
IM11	Rainy	Calm	07:52	8.2						Surface	1.0	0.7	277	27.3	8.1	8.1	25.9	26.0	86.8	86.7	6.0	6.1	4	4	84	84	85	822066	811441	<0.2	0.9	0.9	0.9
											1.0	0.7	303	27.2	8.1	8.1	26.1	26.0	86.5	86.5	5.9	6.2	5	5	84	84	86	822066	811441	<0.2	0.9	0.9	0.9
											4.1	0.6	281	27.0	8.1	8.1	26.9	27.0	85.1	85.0	5.8	7.0	4	4	86	86	85	822066	811441	<0.2	0.9	0.9	0.9
					Middle	4.1	0.6	286	27.0	8.1	8.1	27.1	27.0	84.8	84.8	5.8	7.0	5	5	86	86	86	822066	811441	<0.2	0.9	0.9	0.9					
						7.2	0.2	259	26.9	8.1	8.1	27.8	27.8	78.4	78.5	5.4	8.1	3	3	86	86	86	822066	811441	<0.2	0.9	0.9	0.9					
						7.2	0.2	271	26.9	8.1	8.1	27.8	27.8	78.5	78.5	5.4	8.0	4	4	86	86	86	822066	811441	<0.2	0.9	0.9	0.9					
					IM12	Rainy	Calm	07:46	10.2	Surface	1.0	0.4	288	27.2	8.1	8.1	26.2	26.3	82.9	82.7	5.7	4.6	5	5	84	84	86	821449	812065	<0.2	0.9	0.9	0.9
											1.0	0.5	300	27.2	8.1	8.1	26.3	26.3	82.4	82.4	5.6	4.6	6	6	84	84	85	821449	812065	<0.2	0.9	0.9	0.9
											5.1	0.3	282	27.1	8.1	8.1	26.6	26.6	80.6	80.6	5.5	5.1	5	5	85	85	85	821449	812065	<0.2	0.9	0.9	0.9
Middle	5.1	0.3	290	27.1						8.1	8.1	26.6	26.6	80.5	80.5	5.5	5.1	4	4	85	85	88	821449	812065	<0.2	0.9	0.9	0.9					
	9.2	0.2	306	27.0						8.1	8.1	26.9	26.9	79.4	79.5	5.4	7.0	4	4	88	88	88	821449	812065	<0.2	0.9	0.9	0.9					
	9.2	0.2	306	27.0						8.1	8.1	26.9	26.9	79.6	79.6	5.5	7.0	4	4	88	88	88	821449	812065	<0.2	0.9	0.9	0.9					
SR1A	Rainy	Calm	07:18	4.0						Surface	1.0	-	-	27.7	8.1	8.1	24.8	24.9	86.2	86.1	5.9	4.8	5	5	-	-	-	819974	812665	-	-	-	-
											1.0	-	-	27.7	8.1	8.1	24.9	24.9	86.0	86.0	5.9	4.9	4	4	-	-	-	819974	812665	-	-	-	-
											2.0	-	-	-	-	-	-	-	-	-	-	-	5.9	-	5	5	-	-	-	819974	812665	-	-
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819974	812665	-	-	-	-	-		
						3.0	-	-	27.7	8.1	8.1	25.0	25.0	87.0	87.3	6.0	6.1	5	5	-	-	-	-	-	819974	812665	-	-	-	-			
						3.0	-	-	27.7	8.1	8.1	24.9	25.0	87.6	87.6	6.0	6.2	6	6	-	-	-	-	-	819974	812665	-	-	-	-			
					SR2	Rainy	Calm	07:12	4.6	Surface	1.0	0.3	344	27.3	8.0	8.0	26.1	26.2	81.1	81.0	5.6	7.5	4	4	85	85	86	821479	814178	<0.2	1.0	1.0	1.0
											1.0	0.3	345	27.3	8.0	8.0	26.3	26.2	80.8	80.8	5.5	7.5	5	5	85	85	86	821479	814178	<0.2	1.0	1.0	1.0
											-	-	-	-	-	-	-	-	-	-	-	-	5.6	-	7.9	7.9	86	821479	814178	<0.2	1.0	1.0	1.0
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821479	814178	<0.2	1.0	1.0	1.0			
	3.6	0.2	304	27.0						8.0	8.0	26.9	27.0	74.3	73.8	5.1	8.3	4	4	87	87	87	821479	814178	<0.2	1.0	1.0	1.0					
	3.6	0.2	314	27.2						8.0	8.0	27.0	27.0	73.3	73.3	5.0	8.3	5	5	87	87	87	821479	814178	<0.2	1.0	1.0	1.0					
SR3	Rainy	Calm	08:22	10.2						Surface	1.0	0.1	69	27.6	8.1	8.1	24.8	24.8	83.8	83.7	5.8	5.7	4	4	-	-	-	822148	807565	-	-	-	-
											1.0	0.1	69	27.5	8.1	8.1	24.9	24.9	83.6	83.6	5.7	5.8	3	3	-	-	-	822148	807565	-	-	-	-
											5.1	0.3	71	27.2	8.1	8.1	25.4	25.4	81.8	81.8	5.6	6.6	6	6	-	-	-	822148	807565	-	-	-	-
					Middle	5.1	0.3	71	27.2	8.1	8.1	25.4	25.4	81.8	81.8	5.6	6.6	5	5	-	-	-	822148	807565	-	-	-	-	-				
						9.2	0.4	55	27.2	8.1	8.1	27.4	27.4	77.4	77.6	5.3	7.2	5	5	-	-	-	822148	807565	-	-	-	-					
						9.2	0.4	57	27.2	8.1	8.1	27.4	27.4	77.8	77.8	5.3	7.2	6	6	-	-	-	822148	807565	-	-	-	-					
					SR4A	Rainy	Moderate	07:17	8.2	Surface	1.0	0.2	77	27.5	8.1	8.1	25.9	25.9	76.8	76.9	5.3	4.5	7	7	-	-	-	817178	807818	-	-	-	-
											1.0	0.2	83	27.5	8.1	8.1	25.9	25.9	76.9	76.9	5.3	4.5	8	8	-	-	-	817178	807818	-	-	-	-
											4.1	0.4	76	27.4	8.1	8.1	27.1	27.1	69.6	69.7	4.7	5.7	6	6	-	-	-	817178	807818	-	-	-	-
Middle	4.1	0.4	76	27.4						8.1	8.1	27.1	27.1	69.7	69.7	4.7	5.3	7	7	-	-	-	817178	807818	-	-	-	-					
	7.2	0.4	70	27.4						8.1	8.1	27.1	27.1	71.8	71.9	4.9	5.6	6	6	-	-	-	817178	807818	-	-	-	-					
	7.2	0.4	73	27.4						8.1	8.1	27.1	27.1	72.0	72.0	4.9	5.5	7	7	-	-	-	817178	807818	-	-	-	-					
SR5A	Rainy	Moderate	06:59	3.7						Surface	1.0	0.0	190	27.8	8.0	8.0	24.9	24.9	80.8	80.8	5.5	5.6	6	6	-	-	-	816588	810696	-	-	-	-
											1.0	0.0	194	27.8	8.0	8.0	24.9	24.9	80.8	80.8	5.5	5.6	7	7	-	-	-	816588	810696	-	-	-	-
											-	-	-	-	-	-	-	-	-	-	-	-	5.5	-	7	7	-	-	-	816588	810696	-	-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	816588	810696	-	-	-	-			
						2.7	0.1	166	27.8	8.0	8.0	24.9</																					

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

Water Quality Monitoring Results on 15 June 21 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	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA							
						Value	Average		Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA					
C1	Cloudy	Moderate	15:39	8.7	Surface	1.0	0.3	206	30.6	30.6	8.1	8.1	22.7	22.7	92.1	92.3	6.1	3.3	6	85	88	88	88	88	88	815624	804248	<0.2	1.5	<0.2	1.5								
						1.0	0.3	221	30.6	30.6	8.1	8.1	22.7	22.7	92.4	92.3	6.1	3.2	5	86	88	88	88	88	88	88	88	88	88	88	88	88	88	88					
						4.4	0.4	228	29.3	29.3	8.2	8.2	27.6	27.6	74.6	74.6	4.9	7.8	6	87	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88				
					Middle	4.4	0.4	230	29.2	29.2	8.2	8.2	27.6	27.6	74.5	74.6	4.9	7.7	6	87	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88			
						7.7	0.4	216	29.0	29.0	8.2	8.2	30.2	30.6	65.6	66.0	4.2	9.2	5	90	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88			
						7.7	0.5	233	29.0	29.0	8.2	8.2	30.9	30.6	66.4	66.0	4.3	10.0	6	91	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88			
					C2	Cloudy	Rough	14:29	12.8	Surface	1.0	0.2	143	28.5	28.5	8.2	8.2	21.1	21.1	84.0	84.0	5.8	3.0	6	82	86	86	86	86	86	825684	806934	<0.2	1.3	<0.2	1.1			
											1.0	0.2	154	28.5	28.5	8.2	8.2	21.1	21.1	84.0	84.0	5.8	3.0	5	82	86	86	86	86	86	86	86	86	86	86	86	86	86	86
											6.4	0.3	147	28.4	28.4	8.2	8.2	21.5	21.5	80.8	80.8	5.6	2.4	7	87	86	86	86	86	86	86	86	86	86	86	86	86	86	86
Middle	6.4	0.3	155	28.4						28.4	8.2	8.2	21.5	21.5	80.8	80.8	5.6	2.4	6	87	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86			
	11.8	0.3	133	28.3						28.3	8.2	8.2	23.5	23.5	75.3	75.3	5.2	3.3	8	90	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86			
	11.8	0.4	145	28.3						28.3	8.3	8.2	23.5	23.5	75.3	75.3	5.2	3.3	9	90	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86			
C3	Cloudy	Rough	16:30	11.6						Surface	1.0	0.1	111	28.2	28.2	8.2	8.2	24.8	24.8	77.5	77.4	5.3	3.9	8	78	85	85	85	85	85	822096	817780	<0.2	1.3	<0.2	1.1			
											1.0	0.2	115	28.2	28.2	8.2	8.2	24.8	24.8	77.3	77.4	5.3	4.0	8	79	85	85	85	85	85	85	85	85	85	85	85	85	85	85
											5.8	0.2	46	28.1	28.1	8.2	8.2	25.4	25.4	74.1	74.1	5.0	4.7	6	87	85	85	85	85	85	85	85	85	85	85	85	85	85	85
					Middle	5.8	0.2	46	28.1	28.1	8.2	8.2	25.4	25.4	74.1	74.1	5.0	4.7	5	87	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85			
						10.6	0.2	69	27.8	27.8	8.2	8.2	26.7	26.7	69.1	69.2	4.7	8.5	6	90	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85				
						10.6	0.2	71	27.8	27.8	8.2	8.2	26.7	26.7	69.3	69.2	4.7	8.6	5	90	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85				
					IM1	Cloudy	Moderate	15:15	5.1	Surface	1.0	0.1	235	29.0	29.0	8.1	8.1	28.6	28.6	78.7	78.6	5.1	5.6	6	87	88	88	88	88	88	817958	807142	<0.2	1.5	<0.2	1.7			
											1.0	0.1	238	29.0	29.0	8.1	8.1	28.7	28.6	78.5	78.6	5.1	5.2	6	86	88	88	88	88	88	88	88	88	88	88	88	88	88	88
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	4.1	0.2	243	28.7						28.7	8.1	8.1	31.0	31.0	63.5	63.6	4.1	7.5	7	89	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88				
	4.1	0.2	249	28.7						28.7	8.1	8.1	31.0	31.0	63.7	63.6	4.1	7.5	7	90	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88			
IM2	Cloudy	Moderate	15:08	7.2						Surface	1.0	0.2	133	29.9	29.9	8.1	8.1	28.9	28.9	79.9	79.8	5.1	4.4	7	85	88	88	88	88	88	818145	806186	<0.2	1.7	<0.2	1.6			
											1.0	0.2	143	29.9	29.9	8.1	8.1	29.0	28.9	79.6	79.8	5.1	4.5	7	87	88	88	88	88	88	88	88	88	88	88	88	88	88	88
											3.6	0.2	129	28.6	28.6	8.1	8.1	31.2	31.2	74.8	74.9	4.9	11.7	6	87	88	88	88	88	88	88	88	88	88	88	88	88	88	88
					Middle	3.6	0.2	135	28.6	28.6	8.1	8.1	31.2	31.2	74.9	74.9	4.9	12.1	5	89	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88			
						6.2	0.0	110	28.6	28.6	8.1	8.1	31.3	31.3	66.6	66.7	4.3	16.6	5	90	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88				
						6.2	0.0	118	28.6	28.6	8.1	8.1	31.3	31.3	66.8	66.7	4.3	16.2	6	92	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88				
					IM3	Cloudy	Moderate	15:01	7.3	Surface	1.0	0.3	6	28.8	28.8	8.1	8.1	26.9	26.8	79.8	79.7	5.3	3.2	6	86	88	88	88	88	88	818190	805598	<0.2	1.4	<0.2	1.4			
											1.0	0.3	6	28.8	28.8	8.1	8.1	26.8	26.8	79.6	79.7	5.3	3.3	5	85	88	88	88	88	88	88	88	88	88	88	88	88	88	
											3.7	0.2	28	30.2	30.2	8.1	8.1	30.9	31.0	64.3	64.3	4.1	9.5	5	87	88	88	88	88	88	88	88	88	88	88	88	88	88	88
Middle	3.7	0.2	28	30.2						30.2	8.1	8.1	30.9	31.0	64.3	64.3	4.1	9.7	6	89	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88				
	6.3	0.1	357	30.1						30.1	8.1	8.1	31.3	31.3	64.9	65.0	4.1	10.9	6	90	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88				
	6.3	0.1	328	30.1						30.1	8.1	8.1	31.3	31.3	65.1	65.0	4.1	10.8	6	90	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88				
IM4	Cloudy	Moderate	14:52	7.9						Surface	1.0	0.4	157	29.5	29.5	8.1	8.1	17.2	17.2	97.6	97.4	6.7	4.7	7	85	88	88	88	88	88	819702	804607	<0.2	1.4	<0.2	1.4			
											1.0	0.4	165	29.5	29.5	8.1	8.1	17.2	17.2	97.1	97.4	6.7	4.9	6	87	88	88	88	88	88	88	88	88	88	88	88	88	88	
											4.0	0.4	161	28.7	28.7	8.1	8.1	30.3	30.3	69.0	69.0	4.5	8.9	7	89	88	88	88	88	88	88	88	88	88	88	88	88	88	88
					Middle	4.0	0.5	168	28.7	28.7	8.1	8.1	30.3	30.3	69.0	69.0	4.5	8.9	6	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88				
						6.9	0.3	189	28.6	28.6	8.1	8.1	30.5	30.5	64.5	65.0	4.2	8.9	6	90	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88				
						6.9	0.4	192	28.6	28.6	8.1	8.1	30.5	30.5	65.4	65.0	4.3	8.9	6	91	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88				
					IM5	Cloudy	Rough	14:45	7.4	Surface	1.0	0.3	197	29.9	29.9	8.1	8.1	20.3	20.3	104.4	104.3	7.0	2.1																

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

Water Quality Monitoring

Water Quality Monitoring Results on 15 June 21 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	Value	DA	
IM9	Cloudy	Rough	15:04	7.7	Surface	1.0	0.4	79	28.8	28.9	8.2	8.2	21.2	21.2	88.8	88.8	6.1	2.7	7	85	88	822114	808804	<0.2	1.3	<0.2	1.3					
						1.0	0.4	86	28.9	8.2	8.2	21.2	21.2	88.8	88.8	6.1	2.7	7	89	88	<0.2	1.1										
						3.9	0.3	111	28.6	8.2	8.2	22.5	22.5	80.7	80.7	5.5	5.8	6	86	88	<0.2	1.3										
					Middle	3.9	0.3	117	28.5	28.6	8.2	8.2	22.6	22.5	80.6	80.7	5.5	5.9	7	87	88	<0.2	1.3									
						6.7	0.1	70	28.4	28.4	8.2	8.2	23.8	23.8	77.0	77.1	5.3	10.8	6	91	88	<0.2	1.2									
						6.7	0.1	73	28.4	28.4	8.2	8.2	23.8	23.8	77.1	77.1	5.3	10.8	7	91	88	<0.2	1.2									
					Bottom	1.0	0.7	104	28.8	28.8	8.2	8.2	21.7	21.7	88.6	88.6	6.1	3.1	4	85	88	<0.2	1.3									
						1.0	0.7	110	28.8	28.8	8.2	8.2	21.7	21.7	88.5	88.6	6.1	3.1	5	85	88	<0.2	1.4									
						3.7	0.8	112	28.8	28.8	8.2	8.2	21.8	21.8	88.0	88.0	6.0	3.4	6	87	88	<0.2	1.3									
Middle	3.7	0.8	114	28.8	28.8	8.2	8.2	21.8	21.8	88.0	88.0	6.0	3.4	5	87	88	<0.2	1.2														
	6.4	0.5	103	28.5	28.5	8.2	8.2	23.2	23.2	79.8	79.9	5.4	10.0	5	90	88	<0.2	1.3														
	6.4	0.5	111	28.5	28.5	8.2	8.2	23.2	23.2	79.9	79.9	5.5	10.0	6	91	88	<0.2	1.3														
IM11	Cloudy	Rough	15:20	8.4	Surface	1.0	0.6	106	28.9	28.9	8.2	8.2	21.4	21.4	90.4	90.4	6.2	2.1	6	85	88	822070	811462	<0.2	1.3	<0.2	1.3					
						1.0	0.7	111	28.9	28.9	8.2	8.2	21.4	21.4	90.4	90.4	6.2	2.1	6	85	88	<0.2	1.3									
						4.2	0.6	116	28.8	28.8	8.2	8.2	22.0	22.0	88.0	88.0	6.0	4.1	5	90	88	<0.2	1.3									
					Middle	4.2	0.7	123	28.8	28.8	8.2	8.2	22.0	22.0	88.0	88.0	6.0	4.1	6	89	88	<0.2	1.3									
						7.4	0.4	127	28.6	28.6	8.2	8.2	22.6	22.6	82.4	82.4	5.6	4.6	4	90	88	<0.2	1.3									
						7.4	0.4	127	28.6	28.6	8.2	8.2	22.6	22.6	82.4	82.4	5.6	4.6	5	91	88	<0.2	1.4									
					Bottom	1.0	0.7	121	29.0	29.0	8.2	8.2	21.0	21.0	90.3	90.3	6.2	1.7	5	84	89	<0.2	1.3									
						1.0	0.7	126	29.0	29.0	8.2	8.2	21.0	21.0	90.3	90.3	6.2	1.7	5	85	89	<0.2	1.3									
						5.0	0.5	119	28.3	28.3	8.1	8.1	23.2	23.2	74.5	74.6	5.1	2.6	6	89	89	<0.2	1.3									
Middle	5.0	0.5	124	28.3	28.3	8.1	8.1	23.2	23.2	74.6	74.6	5.1	2.7	5	89	89	<0.2	1.2														
	8.9	0.2	62	28.2	28.2	8.2	8.2	24.3	24.3	70.9	70.9	4.8	3.6	6	93	89	<0.2	1.3														
	8.9	0.2	63	28.2	28.2	8.2	8.2	24.3	24.3	70.9	70.9	4.8	3.6	5	93	89	<0.2	1.4														
SR1A	Cloudy	Rough	15:56	5.5	Surface	1.0	-	-	28.9	28.9	8.2	8.2	21.5	21.5	89.4	89.4	6.1	2.7	5	-	-	819973	812656	-	-	-	-					
						1.0	-	-	28.9	28.9	8.2	8.2	21.5	21.5	89.3	89.3	6.1	2.6	6	-	-	-	-	-	-							
						2.8	-	-	-	-	-	-	-	-	-	-	-	-	6.1	-	-	-	-	-	-			-				
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-
						4.5	-	-	28.4	28.4	8.1	8.1	23.6	23.6	77.8	77.8	5.3	3.7	7	-	-	-	-	-	-			-	-	-	-	
						4.5	-	-	28.4	28.4	8.1	8.1	23.6	23.6	77.8	77.8	5.3	3.7	7	-	-	-	-	-	-			-	-	-	-	
					Bottom	1.0	0.4	104	28.8	28.8	8.2	8.2	21.9	21.9	87.8	87.8	6.0	3.5	5	83	85	<0.2	1.2									
						1.0	0.4	111	28.8	28.8	8.2	8.2	21.9	21.9	87.7	87.7	6.0	3.5	6	83	85	<0.2	1.3									
						-	-	-	-	-	-	-	-	-	-	-	-	-	6.0	-	-	-	-	-	-			-	-	-	-	
Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
	3.6	0.2	157	28.7	28.7	8.2	8.2	22.2	22.2	85.9	85.9	5.9	4.2	6	87	85	<0.2	1.3														
	3.6	0.2	159	28.7	28.7	8.2	8.2	22.2	22.2	85.8	85.8	5.9	4.2	7	88	85	<0.2	1.3														
SR3	Cloudy	Rough	14:53	8.9	Surface	1.0	0.1	65	28.7	28.7	8.2	8.2	21.6	21.6	85.7	85.7	5.9	2.5	5	-	-	822168	807590	-	-	-	-					
						1.0	0.1	69	28.7	28.7	8.2	8.2	21.6	21.6	85.7	85.7	5.9	2.5	6	-	-	-	-									
						4.5	0.2	183	28.6	28.6	8.2	8.2	22.0	22.0	81.4	81.5	5.6	2.8	6	-	-	-	-									
					Middle	4.5	0.2	197	28.6	28.6	8.2	8.2	22.0	22.0	81.5	81.5	5.6	2.8	6	-	-	-	-									
						7.9	0.0	156	28.4	28.4	8.2	8.2	23.2	23.2	77.3	77.4	5.3	7.7	6	-	-	-	-									
						7.9	0.0	157	28.4	28.4	8.2	8.2	23.2	23.2	77.4	77.4	5.3	7.7	6	-	-	-	-									
					Bottom	1.0	0.2	177	29.6	29.7	8.1	8.1	20.2	20.2	89.7	89.6	6.1	4.0	5	-	-	-	-									
						1.0	0.2	188	29.7	29.7	8.1	8.1	20.2	20.2	89.5	89.5	6.1	4.2	6	-	-	-	-									
						4.3	0.1	186	28.6	28.6	8.1	8.1	30.8	30.8	59.6	59.7	3.9	9.4	5	-	-	-	-									
Middle	4.3	0.1	192	28.6	28.6	8.1	8.1	30.8	30.8	59.8	59.7	3.9	9.7	6	-	-	-	-														
	7.6	0.1	151	28.6	28.6	8.1	8.1	30.9	30.9	61.3	61.4	4.0	12.8	6	-	-	-	-														
	7.6	0.2	158	28.6	28.6	8.1	8.1	30.9	30.9	61.5	61.5	4.0	12.9	7	-	-	-	-														
SR5A	Cloudy	Moderate	16:21	3.5	Surface	1.0	0.1	358	29.3	29.3	8.2	8.2	20.0	20.0	95.1	94.9	6.5	7.1	6	-	-	816584	810718	-	-	-	-					
						1.0	0.1	329	29.3	29.3	8.2	8.2	20.0	20.0	94.6	94.6	6.4	7.5	7	-	-	-	-									
						-	-	-	-	-	-	-	-	-	-	-	-	-	6.5	-	-	-	-									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
						2.5	0.0	13	29.0	29.1	8.1	8.1	25.1	25.1	72.9	74.6	4.9	10.0	6	-	-	-	-									
						2.5	0.0	14	29.1	29.1	8.1	8.1	25.1	25.1	76.3	76.3	5.1	10.0	7	-	-	-	-									
					Bottom	1.0	0.1	68	29.4	29.4	8.2	8.2	19.0	19.0	93.0	92.8	6.4	8.1	6	-	-	-	-									
						1.0	0.1	73	29.3	29.3	8.2	8.2	19.0	19.0	92.6	92.8	6.3	8.4	7	-	-	-	-									
						-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	-	-									
Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-														
	3.2	0.1	49	29.0	29.0	8.1	8.1	26.3	26.3	68.5	68.5	4.5	10.7	5	-	-	-	-														
	3.2	0.1	53	29.0	29.0	8.1	8.1	26.3	26.3	68.5	68.5	4.5	10.3	6	-	-	-	-														
SR7	Cloudy	Rough	16:56	14.8	Surface	1.0	0.0	206	28.8	28.8	8.2	8.2	22.8	22.8	90.5	90.5	6.2	1.2	6	-	-	823620	823746	-	-	-	-					
						1.0	0.0	210	28.8	28.8	8.2	8.2	22.8	22.8	90.5	90.5	6.2	1.2	5	-	-	-	-									
						7.4	0.1	245	28.8	28.8	8.2	8.2	23.0	23.0	88.3	88.2	6.0	1.2	7	-	-	-	-									
					Middle	7.4	0.1	257	28.8	28.8	8.2	8.2	23.0	23.0	88.1	88.2	6.0	1.2	6	-	-	-	-									
						13.8	0.0	199	28.6	28.6	8.2	8.2	23.6	23.6	85.3	85.3	5.8	1.7	6	-	-	-	-									
						13.8	0.0	200	28.6	28.6	8.2	8.2	23.6	23.6	85.3	85.3	5.8	1.7	7													

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

Water Quality Monitoring

Water Quality Monitoring Results on 15 June 21 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	Value	DA		
C1	Cloudy	Moderate	08:56	8.4	Surface	1.0	0.2	45	28.6	28.6	8.1	8.1	22.5	22.5	80.1	79.6	5.5	5.8	2	85	88	88	815598	804235	<0.2	1.4	1.3	1.5						
						1.0	0.2	47	28.6	28.6	8.1	8.1	22.5	22.5	79.1	5.4	5.6	3	86	87	87	88	<0.2	1.4	1.5	1.5								
						4.2	0.1	55	26.7	26.7	8.1	8.1	28.2	28.2	65.1	4.4	7.5	3	87	88	88	88	<0.2	1.4	1.5	1.5								
					Middle	4.2	0.1	60	26.6	26.6	8.1	8.1	28.2	28.2	65.0	4.4	8.4	2	88	89	89	89	<0.2	1.4	1.5	1.5								
						7.4	0.1	62	26.6	26.6	8.1	8.1	29.8	29.8	66.2	4.5	11.7	2	90	90	90	90	<0.2	1.4	1.4	1.4								
						7.4	0.1	65	26.6	26.6	8.1	8.1	29.8	29.8	66.5	4.5	11.9	3	91	91	91	91	<0.2	1.4	1.4	1.6								
					C2	Sunny	Moderate	10:32	12.8	Surface	1.0	0.4	12	28.7	28.7	8.2	8.2	17.0	17.0	92.6	6.5	1.5	4	82	83	83	87	825671	806952	<0.2	1.3	1.2	1.3	
											1.0	0.4	12	28.7	28.7	8.2	8.2	17.0	17.0	92.4	6.5	1.5	5	83	84	84	84	<0.2	1.4	1.2	1.4			
											6.4	0.4	3	28.7	28.7	8.1	8.1	19.3	19.3	84.1	5.9	2.3	4	87	87	87	87	<0.2	1.2	1.2	1.3			
Middle	6.4	0.5	3	28.7						28.7	8.2	8.2	19.3	19.3	84.0	5.9	2.3	5	87	87	87	87	<0.2	1.3	1.3	1.3								
	11.8	0.3	327	28.4						28.4	8.2	8.2	22.7	22.8	77.3	5.3	6.2	4	90	90	90	90	<0.2	1.3	1.3	1.3								
	11.8	0.3	337	28.4						28.4	8.2	8.2	22.8	22.8	77.4	5.3	6.2	3	90	90	90	90	<0.2	1.3	1.3	1.4								
C3	Fine	Moderate	08:18	12.6						Surface	1.0	0.4	274	28.5	28.5	8.1	8.1	21.3	21.3	83.7	5.8	1.1	3	83	83	83	87	822106	817825	<0.2	1.1	1.2	1.3	
											1.0	0.4	300	28.5	28.5	8.1	8.1	21.3	21.3	83.6	5.8	1.1	3	83	83	83	83	<0.2	1.2	1.3	1.3			
											6.3	0.3	256	28.1	28.1	8.1	8.1	24.7	24.7	73.7	5.0	2.1	3	87	87	87	87	<0.2	1.3	1.3	1.3			
					Middle	6.3	0.3	257	28.1	28.1	8.1	8.1	24.8	24.8	73.6	5.0	2.1	2	87	87	87	87	<0.2	1.3	1.3	1.3								
						11.6	0.3	284	27.5	27.5	8.1	8.1	28.0	28.0	68.0	4.6	4.4	2	90	90	90	90	<0.2	1.3	1.3	1.3								
						11.6	0.3	305	27.5	27.5	8.1	8.1	28.0	28.0	68.0	4.6	4.5	2	90	90	90	90	<0.2	1.2	1.2	1.2								
					IM1	Cloudy	Moderate	09:20	5.2	Surface	1.0	0.1	53	29.0	29.0	8.1	8.1	27.5	27.5	74.5	74.3	4.9	4.8	2	88	87	87	89	817929	807125	<0.2	1.6	1.6	1.7
											1.0	0.1	57	28.9	28.9	8.1	8.1	27.5	27.5	74.1	4.9	4.9	2	87	87	87	87	<0.2	1.6	1.6	1.7			
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	4.2	0.1	66	28.6						28.6	8.1	8.1	29.8	29.8	71.8	4.7	6.9	<2	90	90	90	90	<0.2	1.7	1.7	1.7								
	4.2	0.2	69	28.6						28.6	8.1	8.1	29.8	29.8	71.2	4.7	6.8	<2	91	91	91	91	<0.2	1.8	1.8	1.8								
	6.2	0.1	1	28.5						28.5	8.1	8.1	29.2	29.2	61.9	4.1	13.0	<2	89	89	89	89	<0.2	1.6	1.6	1.7								
IM2	Cloudy	Moderate	09:27	7.2						Surface	1.0	0.2	20	28.7	28.7	8.1	8.1	27.9	28.0	76.5	76.5	5.1	6.7	<2	85	86	86	87	818152	806147	<0.2	1.5	1.7	1.7
											1.0	0.3	20	28.7	28.7	8.1	8.1	28.1	28.0	76.5	5.0	6.8	<2	86	86	86	86	<0.2	1.7	1.7	1.7			
											3.6	0.2	355	28.5	28.5	8.1	8.1	29.1	29.1	71.7	4.7	7.0	<2	87	87	87	87	<0.2	1.7	1.7	1.7			
					Middle	3.6	0.2	357	28.5	28.5	8.1	8.1	29.1	29.1	71.7	4.7	7.5	<2	86	86	86	86	<0.2	1.8	1.8	1.8								
						6.2	0.1	1	28.5	28.5	8.1	8.1	29.2	29.2	61.9	4.1	13.0	<2	89	89	89	89	<0.2	1.6	1.6	1.6								
						6.2	0.1	1	28.5	28.5	8.1	8.1	29.2	29.2	61.9	4.1	12.9	<2	89	89	89	89	<0.2	1.7	1.7	1.7								
					IM3	Cloudy	Moderate	09:35	7.3	Surface	1.0	0.1	59	29.3	29.3	8.1	8.1	24.9	24.9	73.0	73.1	4.9	5.3	<2	86	85	85	88	818765	805585	<0.2	1.5	1.6	1.6
											1.0	0.1	61	29.3	29.3	8.1	8.1	24.9	24.9	73.1	4.9	5.3	<2	85	85	85	85	<0.2	1.6	1.6	1.6			
											3.7	0.1	90	28.4	28.4	8.1	8.1	29.2	29.2	63.7	4.2	6.8	<2	88	88	88	88	<0.2	1.5	1.5	1.5			
Middle	3.7	0.2	93	28.4						28.4	8.1	8.1	29.3	29.2	63.7	4.2	7.0	<2	88	88	88	88	<0.2	1.6	1.6	1.6								
	6.3	0.1	113	28.4						28.4	8.1	8.1	29.4	29.4	64.3	4.2	8.7	2	91	91	91	91	<0.2	1.6	1.6	1.6								
	6.3	0.1	121	28.4						28.4	8.1	8.1	29.4	29.4	64.6	4.3	8.9	3	91	91	91	91	<0.2	1.5	1.5	1.5								
IM4	Cloudy	Moderate	09:46	7.8						Surface	1.0	0.6	322	28.8	28.9	8.1	8.1	26.0	25.7	75.9	77.1	5.1	3.8	2	86	85	85	88	819708	804614	<0.2	1.6	1.4	1.6
											1.0	0.6	343	29.0	29.0	8.1	8.1	25.4	25.7	78.3	5.2	4.0	2	85	85	85	85	<0.2	1.6	1.4	1.4			
											3.9	0.5	298	28.4	28.4	8.1	8.1	29.2	29.2	61.5	4.1	10.8	3	87	87	87	87	<0.2	1.5	1.5	1.5			
					Middle	3.9	0.6	327	28.4	28.4	8.1	8.1	29.2	29.2	61.6	4.1	11.1	2	88	88	88	88	<0.2	1.6	1.6	1.6								
						6.8	0.5	286	28.4	28.4	8.1	8.1	29.4	29.4	63.0	4.1	12.5	<2	90	90	90	90	<0.2	1.7	1.7	1.7								
						6.8	0.5	312	28.5	28.5	8.1	8.1	29.4	29.4	63.6	4.2	12.8	<2	90	90	90	90	<0.2	1.7	1.7	1.6								
					IM5	Cloudy	Moderate	09:57	7.9	Surface	1.0	0.7	0	29.5	29.5	8.1	8.1	19.3	19.4	87.8	87.8	6.0	4.5	<2	85	87	87	88	820724	804848	<0.2	1.6	1.6	1.6
											1.0	0.8	0	29.5	29.5	8.1	8.1	19.4	19.4	87.7	6.0	4.1	<2	85	85	85	85	<0.2	1.6	1.6	1.6			
											4.0	0.7	28	28.7	28.7	8.1	8.1	28.3	28.4	61.9	4.1	8.7	2	89	89	89	89	<0.2	1.5	1.5	1.5			
Middle	4.0	0.7	28	28.6						28.6	8.1	8.1	28.4	28.4	62.0	4.1	9.2	3	88	88	88	88	<0.2	1.4	1.4	1.4								
	6.9	0.7	35	28.6						28.6	8.1	8.1	28.8	28.8	63.7	4.2	13.8	2	89	89	89	89	<0.2	1.5	1.5	1.5								
	6.9	0.7	35	28.6						28.6	8.1	8.1	28.8	28.8	63.9	4.2	14.0	3	90	90	90	90	<0.2	1.7	1.7	1.7								
IM6	Cloudy	Rough	10:07	7.5						Surface	1.0	0.1	52	29.5	29.5	8.1	8.1	19.8	20.3	85.8	86.3	5.8	3.8	2	85	85	85	87	821074	805831	<0.2	1.6	1.6	1.6
											1.0	0.1	53	29.5	29.5	8.1	8.1	20.8	20.3	86.7	5.9	4.2	3	85	85	85	85	<0.2	1.6	1.6	1.6			
											3.8	0.2	41	28.9	28.9	8.1	8.1	25.6	25.6	62.7	4.2	8.8	2	87	87	87	87	<0.2	1.5	1.5	1.5			
					Middle	3.8	0.2	44	28.9	28.9	8.1	8.1	25.6	25.6	62.8	4.2	9.5	2	88	88	88	88	<0.2	1.7	1.7	1.7								
						6.5	0.2	29	28.7	28.7	8.1	8.1	28.5	28.5	63.3	4.2	13.6	2	89	89	89	89	<0.2	1.7	1.7	1.7								
						6.5	0.2	30	28.7	28.7	8.1	8.1	28.5	28.5	63.7	4.2	13.6	2	89	89	89	89	<0.2	1.6	1.6	1.6								
					IM7	Cloudy	Rough	10:16																										

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

Water Quality Monitoring Results on 15 June 21 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	Value	DA									
IM9	Sunny	Moderate	10:00	7.9	Surface	1.0	0.0	285	28.8	8.1	8.1	20.5	20.5	82.1	82.1	5.7	2.7	3	83	87	822073	808811	<0.2	1.4	<0.2	1.3	1.3	1.3												
						1.0	0.0	299	28.8	8.1	8.1	20.5	20.5	82.0	82.0	5.7	2.7	3	83				<0.2	1.4																
						4.0	0.2	277	28.4	8.1	8.1	22.6	22.6	74.2	74.2	5.1	8.0	3	87				<0.2	1.3																
					Middle	4.0	0.2	294	28.4	8.1	8.1	22.6	22.6	74.2	74.2	5.1	7.9	3	87				3	87					<0.2	1.3										
						6.9	0.2	260	28.4	8.1	8.1	22.7	22.7	75.5	75.5	5.2	9.8	4	90				<0.2	1.3																
						6.9	0.2	265	28.4	8.1	8.1	22.7	22.7	75.6	75.6	5.2	9.8	4	91				<0.2	1.1																
					IM10	Sunny	Moderate	09:52	7.7	Surface	1.0	0.6	319	28.8	8.1	8.1	19.9	19.9	83.1				83.1	5.8					1.5	3	83	87	822406	809797	<0.2	1.3	<0.2	1.3	1.3	
											1.0	0.6	324	28.8	8.1	8.1	19.9	19.9	83.1				83.1	5.8					1.5	3	83				<0.2	1.3				
											3.9	0.5	307	28.3	8.1	8.1	23.3	23.3	72.9				72.9	5.0					5.4	3	87				<0.2	1.3				
Middle	3.9	0.5	323	28.3						8.1	8.1	23.3	23.3	72.8	72.8	5.0	5.4	3	87	<0.2	1.3																			
	6.7	0.2	297	28.2						8.1	8.1	23.8	23.8	70.6	70.6	4.8	6.2	2	90	<0.2	1.3																			
	6.7	0.2	323	28.2						8.1	8.1	23.8	23.8	70.6	70.6	4.8	6.3	2	91	<0.2	1.3																			
IM11	Sunny	Moderate	09:42	8.6						Surface	1.0	0.4	300	28.5	8.1	8.1	20.5	20.5	82.2	82.2	5.7	2.8	<2	84	87	822070	811449	<0.2	1.4	<0.2	1.4				1.4					
											1.0	0.4	322	28.5	8.1	8.1	20.5	20.5	82.1	82.1	5.7	2.8	<2	83				<0.2	1.4											
											4.3	0.4	305	28.4	8.1	8.1	22.0	22.0	78.2	78.2	5.4	4.4	3	87				<0.2	1.3											
					Middle	4.3	0.5	325	28.4	8.1	8.1	22.0	22.0	78.1	78.1	5.4	4.5	2	87	<0.2	1.3																			
						7.6	0.2	289	28.0	8.1	8.1	25.1	25.1	67.2	67.2	4.6	9.4	4	90	<0.2	1.3																			
						7.6	0.2	293	28.0	8.1	8.1	25.1	25.1	67.2	67.2	4.6	9.4	5	91	<0.2	1.4																			
					IM12	Sunny	Moderate	09:36	7.4	Surface	1.0	0.1	187	28.5	8.1	8.1	21.5	21.5	79.3	79.3	5.5	2.1	2	83				87	821473			812043	<0.2	1.5		<0.2	1.5	1.4		
											1.0	0.1	188	28.4	8.1	8.1	21.5	21.5	79.2	79.2	5.5	2.1	3	83									<0.2	1.5						
											3.7	0.1	221	28.4	8.1	8.1	22.8	22.8	78.1	78.1	5.4	2.3	2	86									<0.2	1.3						
Middle	3.7	0.1	228	28.4						8.1	8.1	22.8	22.8	78.1	78.1	5.4	2.3	2	87	<0.2	1.3																			
	6.4	0.1	183	28.2						8.1	8.1	24.0	24.0	74.6	74.6	5.1	6.3	<2	90	<0.2	1.4																			
	6.4	0.1	199	28.2						8.1	8.1	24.0	24.0	74.5	74.5	5.1	6.4	<2	91	<0.2	1.4																			
SR1A	Fine	Moderate	08:53	4.6						Surface	1.0	-	-	28.8	8.1	8.1	19.7	19.7	83.9	83.9	5.8	1.3	4	-	-	-	819974			812663	-		-	-	-				-	
											1.0	-	-	28.8	8.1	8.1	19.7	19.7	83.9	83.9	5.8	1.3	4	-							<0.2		1.4							
											2.3	-	-	-	-	-	-	-	-	-	-	-	-	-							-		-							-
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																		
						3.6	-	-	28.5	8.0	8.0	21.7	21.7	76.2	76.2	5.2	4.4	2	-	<0.2	1.3																			
						3.6	-	-	28.5	8.0	8.0	21.7	21.7	76.2	76.2	5.2	4.4	3	-	<0.2	1.4																			
					SR2	Fine	Moderate	08:39	4.4	Surface	1.0	0.1	206	28.7	8.1	8.1	19.4	19.4	83.9	83.9	5.8	1.7	3	83				85	821445		814168	<0.2	1.4			<0.2	1.4	1.4		
											1.0	0.1	223	28.7	8.1	8.1	19.4	19.4	83.9	83.9	5.8	1.7	2	83								<0.2	1.4							
											-	-	-	-	-	-	-	-	-	-	-	-	-	-								-	-							-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-																		
	3.4	0.1	204	28.3						8.1	8.1	22.2	22.2	78.0	78.0	5.4	3.0	3	87	<0.2	1.3																			
	3.4	0.1	220	28.3						8.1	8.1	22.3	22.3	77.9	77.9	5.4	3.0	2	87	<0.2	1.4																			
SR3	Sunny	Moderate	10:13	9.6						Surface	1.0	0.1	0	28.6	8.1	8.1	19.5	19.5	86.9	86.9	6.1	2.0	4	-	-	-	822156			807593		-	-	-	-				-	
											1.0	0.1	0	28.6	8.1	8.1	19.5	19.5	86.9	86.9	6.0	2.0	4	-								<0.2	1.4							
											4.8	0.1	23	28.5	8.1	8.1	21.2	21.2	79.5	79.5	5.5	2.2	4	-								<0.2	1.4							
					Middle	4.8	0.1	24	28.5	8.1	8.1	21.3	21.2	79.5	79.5	5.5	2.2	4	-	<0.2	1.4																			
						8.6	0.2	42	28.4	8.1	8.1	22.1	22.1	80.0	80.0	5.5	2.4	3	-	<0.2	1.4																			
						8.6	0.2	45	28.4	8.1	8.1	22.1	22.1	80.0	80.0	5.5	2.4	3	-	<0.2	1.4																			
					SR4A	Cloudy	Moderate	08:37	8.7	Surface	1.0	0.4	100	29.1	8.0	8.0	19.4	19.4	82.3	82.3	5.7	6.0	<2	-				-	-		817185	807786	-			-	-	-		-
											1.0	0.4	101	29.1	8.0	8.0	19.4	19.4	82.2	82.2	5.7	5.8	<2	-									<0.2			1.4				
											4.4	0.3	116	27.0	8.1	8.1	33.9	33.9	70.4	70.4	4.6	10.8	<2	-									<0.2			1.4				
Middle	4.4	0.3	125	27.0						8.1	8.1	33.9	33.9	70.4	70.4	4.6	11.1	<2	-	<0.2	1.4																			
	7.7	0.3	88	27.0						8.0	8.0	34.1	34.1	61.5	61.5	4.0	12.8	<2	-	<0.2	1.4																			
	7.7	0.3	93	27.0						8.0	8.0	34.1	34.1	61.5	61.5	4.0	12.8	<2	-	<0.2	1.4																			
SR5A	Cloudy	Moderate	08:18	3.8						Surface	1.0	0.0	284	29.5	8.1	8.1	18.1	18.1	90.9	90.9	6.3	4.0	4	-	-	-	816586			810680			-	-	-	-			-	
											1.0	0.0	303	29.4	8.1	8.1	18.1	18.1	90.5	90.5	6.2	4.0	3	-									<0.2	1.4						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-									-	-						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																		
						2.8	0.0	301	29.0	7.9	7.9	24.7	24.7	73.0	73.0	4.9	8.3	2	-	<0.2	1.4																			
						2.8	0.0	324	29.0	7.9	7.9	24.7	24.7	73.3	73.2	4.9	8.3	3	-	<0.2	1.4																			
					SR6A	Cloudy	Moderate	07:50	4.5	Surface	1.0	0.1	80	29.4	8.1	8.1	20.4	20.4	80.0	80.1	5.5	4.2	4	-				-	-		817975	814732	-	-			-	-		-
											1.0	0.1	83	29.3	8.1	8.1	20.4	20.4	80.0	80.0	5.5	4.4	3	-									<0.2	1.4						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-									-	-						
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-																		
	3.5	0.1	73	28.5						8.1	8.1	27.9	28.0	69.0	69.0	4.6	9.5	3	-	<0.2	1.4																			
	3.5	0.1	73	28.5						8.1	8.1	27.9	28.0	69.0	69.0	4.6	9.9	2	-	<0.2	1.4																			
SR7	Fine	Moderate	07:44	14.2						Surface	1.0	0.0	206	28.2	8.1	8.1	22.9	22.9	84.0	84.0	5.8	1.6	<2	-	-	-	823641			823730			-	-	-	-			-	
											1.0	0.0	221	28.2	8.1	8.1	22.9	22.9	84.0	84.0	5.8	1.5	<2	-									<0.2	1.4						
											7.1	0.1	245	28.0	8.1	8.1	24.0	24.0	77.2	77.1	5.3	3.3	<2	-									<0.2	1.4						
					Middle	7.1	0.1	267	28.0	8.1	8.1	24.0	24.0	77.0	77.0	5.3	3.4	<2	-	<0.2	1.4																			
						13.2	0.0	199	27.5	8.1	8.1	28.5	28.5	65.6	65.6	4.4	3.1	<2	-	<0.2	1.4																			
						13.2	0.0	215	27.5	8.1	8.1	28.5	28.5	65.6	65.6	4.4	3.1	<2	-	<0.2	1.4																			
					SR8	Fine	Moderate	09:26	5.2	Surface	1.0	-	-	28.6	8.1	8.1	21.3	21.3																						

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

Water Quality Monitoring Results on 17 June 21 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	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA
						Value	Average		Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA
C1	Sunny	Moderate	17:17	8.4	Surface	1.0	0.2	267	29.7	29.7	8.1	8.1	21.3	21.3	125.1	124.7	8.5	7.4	2.5	6.2	5	6	85	88	88	815635	804246	<0.2	2.1	<0.2	1.8	
						1.0	0.2	289	29.6	8.1	8.1	21.3	21.3	124.3	124.7	8.4	7.4	2.5	6.2	6	6	87	88	<0.2				2.1	<0.2	1.8		
						4.2	0.3	255	28.6	8.0	8.0	22.0	22.1	95.7	93.1	6.6	7.4	2.7	6.2	6	6	88	88	<0.2				1.2	<0.2	1.2		
					4.2	0.3	269	28.5	8.0	8.0	22.2	22.1	90.5	93.1	6.2	7.4	3.0	5.0	5	6	88	88	<0.2	1.2				<0.2	1.2			
					7.4	0.1	216	28.2	8.0	8.0	30.4	30.3	73.4	73.5	4.8	4.9	13.5	13.2	5	6	90	90	<0.2	1.9				<0.2	2.0			
					7.4	0.1	227	28.2	8.0	8.0	30.3	30.3	73.6	73.5	4.9	4.9	13.2	13.2	6	6	90	90	<0.2	1.9				<0.2	2.0			
					1.0	0.3	94	30.0	30.0	8.3	8.3	16.4	16.4	121.4	121.4	8.4	7.2	3.5	4.4	3	4	88	91	<0.2				1.3	<0.2	1.2		
					1.0	0.3	98	29.9	29.9	8.3	8.3	16.4	16.4	121.3	121.3	8.4	7.2	3.6	4.4	4	4	88	91	<0.2				1.2	<0.2	1.2		
					6.5	0.1	108	28.6	28.6	8.1	8.1	21.3	21.3	87.5	87.2	6.0	7.2	4.0	6.0	4	4	91	91	<0.2				1.2	<0.2	1.2		
6.5	0.1	117	28.6	28.6	8.1	8.1	21.3	21.3	86.9	87.2	6.0	7.2	4.1	6.0	3	4	91	91	<0.2	1.2	<0.2	1.2										
12.0	0.0	250	28.7	28.7	8.1	8.1	24.1	24.1	79.4	79.9	5.4	5.4	5.6	5.6	5	5	94	94	<0.2	1.2	<0.2	1.2										
12.0	0.0	271	28.8	28.8	8.1	8.1	24.1	24.1	80.3	79.9	5.4	5.4	5.6	5.6	5	5	94	94	<0.2	1.2	<0.2	1.2										
C3	Fine	Calm	18:07	12.4	Surface	1.0	0.4	70	29.8	29.8	8.3	8.3	20.3	20.4	114.5	114.4	7.8	7.2	5.7	6.0	3	4	87	88	90	822087	817820	<0.2	1.2	<0.2	1.2	
						1.0	0.4	74	29.7	29.7	8.3	8.3	20.5	20.4	114.2	114.4	7.8	7.2	5.7	6.0	4	4	88	88				<0.2	1.2	<0.2	1.2	
						6.2	0.3	79	28.4	28.4	8.1	8.1	21.9	21.9	96.1	95.5	6.6	7.2	6.1	6.1	5	4	88	88				<0.2	1.2	<0.2	1.2	
					6.2	0.3	84	28.4	28.4	8.1	8.1	21.9	21.9	94.8	95.5	6.5	7.2	6.1	6.1	4	4	88	88	<0.2				1.3	<0.2	1.3		
					11.4	0.3	56	28.6	28.6	8.1	8.1	27.1	27.0	83.9	86.4	5.6	5.8	6.4	6.4	4	4	93	93	<0.2				1.1	<0.2	1.1		
					11.4	0.3	59	28.6	28.6	8.1	8.1	26.9	27.0	88.8	86.4	5.9	5.8	6.3	6.3	5	5	93	93	<0.2				1.1	<0.2	1.1		
					1.0	0.1	80	29.8	29.8	8.0	8.0	19.7	19.7	126.6	126.5	8.6	8.6	1.0	0.9	2	3	87	88	<0.2				1.6	<0.2	1.6		
					1.0	0.1	81	29.7	29.7	8.0	8.0	19.8	19.7	126.4	126.5	8.6	8.6	0.9	0.9	3	3	88	88	<0.2				1.6	<0.2	1.6		
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-
4.4	0.1	147	29.7	29.7	7.9	7.9	19.8	19.8	119.8	119.9	8.2	8.2	0.9	0.9	3	3	90	90	<0.2	1.8	<0.2	1.7										
4.4	0.1	156	29.8	29.8	7.9	7.9	19.8	19.8	120.0	119.9	8.2	8.2	0.9	0.9	4	4	90	90	<0.2	1.7	<0.2	1.7										
IM2	Sunny	Moderate	16:50	7.2	Surface	1.0	0.2	276	29.8	29.8	8.0	8.0	20.3	20.3	119.8	119.6	8.1	7.5	1.7	5.6	7	6	85	88	88	818168	806189	<0.2	1.6	<0.2	1.8	
						1.0	0.2	301	29.7	29.7	8.0	8.0	20.3	20.3	119.4	119.6	8.1	7.5	1.8	5.6	8	6	84	89				<0.2	1.6	<0.2	1.8	
						3.6	0.0	122	28.9	28.9	7.9	7.9	20.8	20.8	102.1	101.2	7.0	7.5	1.7	5.6	5	6	89	89				<0.2	1.8	<0.2	1.8	
					3.6	0.0	124	28.8	28.8	7.9	7.9	20.8	20.8	100.2	101.2	6.9	7.5	1.5	5.6	6	6	89	89	<0.2				1.8	<0.2	1.8		
					6.2	0.1	141	28.6	28.6	7.9	7.9	26.5	26.4	74.8	74.9	5.0	5.0	13.1	13.6	5	5	90	90	<0.2				1.8	<0.2	1.8		
					6.2	0.1	149	28.6	28.6	7.9	7.9	26.4	26.4	74.9	74.9	5.0	5.0	13.6	13.6	6	6	90	90	<0.2				1.9	<0.2	1.9		
					1.0	0.1	356	29.9	29.9	8.0	8.0	20.4	20.4	123.0	122.9	8.3	7.4	1.5	7.5	4	5	87	87	<0.2				1.1	<0.2	1.2		
					1.0	0.1	328	29.9	29.9	8.0	8.0	20.4	20.4	122.8	122.9	8.3	7.4	1.5	7.5	5	5	87	87	<0.2				1.2	<0.2	1.2		
					3.9	0.0	33	28.9	28.9	7.9	7.9	21.1	21.1	99.3	95.7	6.8	7.4	9.9	9.9	6	5	89	89	<0.2				1.3	<0.2	1.3		
3.9	0.0	35	28.8	28.8	7.9	7.9	21.2	21.1	92.0	95.7	6.3	7.4	9.3	9.3	6	5	90	90	<0.2	1.4	<0.2	1.4										
6.7	0.2	98	28.7	28.7	7.9	7.9	26.0	26.0	79.1	81.1	5.3	5.5	11.1	11.8	6	6	90	90	<0.2	1.4	<0.2	1.4										
6.7	0.2	104	28.7	28.7	7.9	7.9	26.0	26.0	83.1	81.1	5.6	5.5	11.8	11.8	5	5	90	90	<0.2	1.5	<0.2	1.5										
IM4	Sunny	Moderate	16:32	7.8	Surface	1.0	0.4	334	29.9	29.9	8.0	8.0	20.1	20.1	114.9	114.6	7.8	6.4	4.0	9.6	7	6	86	87	89	819726	804590	<0.2	1.9	<0.2	1.8	
						1.0	0.4	357	29.9	29.9	8.0	8.0	20.1	20.1	114.3	114.6	7.8	6.4	4.5	9.6	8	6	87	89				<0.2	1.8	<0.2	1.8	
						3.9	0.2	330	28.5	28.5	8.0	8.0	25.8	25.8	74.7	74.6	5.0	6.4	8.9	9.1	4	5	89	89				<0.2	1.8	<0.2	1.8	
					3.9	0.3	357	28.5	28.5	8.0	8.0	25.8	25.8	74.5	74.6	5.0	6.4	9.1	9.1	5	5	89	89	<0.2				1.8	<0.2	1.8		
					6.8	0.2	107	28.4	28.4	7.9	7.9	27.9	27.9	73.0	73.0	4.9	4.9	15.8	15.3	5	4	90	90	<0.2				1.1	<0.2	1.1		
					6.8	0.2	114	28.4	28.4	7.9	7.9	27.9	27.9	73.0	73.0	4.9	4.9	15.3	15.3	4	4	90	90	<0.2				1.1	<0.2	1.1		
					1.0	0.2	349	29.7	29.7	8.0	7.9	19.9	19.9	116.6	116.2	7.9	7.1	2.6	2.9	3	3	86	85	<0.2				1.8	<0.2	1.8		
					1.0	0.2	321	29.7	29.7	7.9	7.9	19.9	19.9	115.8	116.2	7.9	7.1	2.9	2.9	3	3	85	89	<0.2				1.8	<0.2	1.8		
					4.2	0.1	301	28.9	28.9	7.9	7.9	22.3	22.4	93.9	93.4	6.4	7.1	7.8	8.4	4	4	89	89	<0.2				1.6	<0.2	1.6		
4.2	0.1	304	28.8	28.8	7.9	7.9	22.4	22.4	92.9	93.4	6.3	7.1	8.4	8.4	5	4	89	89	<0.2	1.4	<0.2	1.4										
7.4	0.1	83	28.6	28.6	7.9	7.9	27.0	27.0	76.6	76.8	5.1	5.1	14.0	13.2	4	4	90	90	<0.2	1.7	<0.2	1.7										
7.4	0.2	84	28.6	28.6	7.9	7.9	27.0	27.0	76.9	76.8	5.1	5.1	13.2	13.2	5	5	91	91	<0.2	1.8	<0.2	1.8										
IM6	Sunny	Moderate	16:15	8.1	Surface	1.0	0.2	270	29.6	29.6	7.9	7.9	19.7	19.7	100.3	100.2	6.9	6.5	2.8	7.5	4	5	85	88	88	821064	805829	<0.2	1.5	<0.2	1.6	
						1.0	0.2	273	29.6	29.6	7.9	7.9	19.7	19.7	100.1	100.2	6.8	6.5	3.0	7.5	4	5	86	88				<0.2	1.4	<0.2	1.4	
						4.1	0.2	267	29.0	29.0	7.9	7.9	21.5	21.5	89.1	88.9	6.1	6.5	8.0	8.4	6	5	88	89				<0.2	1.9	<0.2	1.9	
					4.1	0.2	278	28.9	28.9	7.9	7.9	21.6	21.5	88.6	88.9	6.1	6.5	8.4	8.4	5	5	89										

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

Water Quality Monitoring Results on 17 June 21 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	Value	DA						
IM9	Fine	Calm	16:42	7.6	Surface	1.0	0.4	81	29.3	29.3	8.2	8.2	19.6	19.6	108.7	108.3	7.5	6.1	3.5	4.7	3	4	87	90	822072	808795	<0.2	0.9	<0.2	0.9							
						1.0	0.4	82	29.2	29.0	8.2	8.1	19.6	19.6	107.9	108.3	7.4	6.1	3.6	4.7	4	4	87	90			<0.2	0.9									
						3.8	0.3	93	29.0	29.0	8.1	8.1	21.2	21.2	93.5	93.7	6.4	6.1	4.9	5.0	5	4	91	90			<0.2	0.8									
					Middle	3.8	0.3	99	29.0	29.0	8.1	8.1	21.2	21.2	93.8	93.7	6.4	6.1	5.0	6.1	4	4	91	90			<0.2	0.8	<0.2	0.9							
						6.6	0.3	106	29.1	29.1	8.1	8.1	21.3	21.3	88.8	89.2	6.1	6.1	5.7	5.7	5	4	92	90			<0.2	0.9									
						6.6	0.3	114	29.1	29.1	8.1	8.1	21.3	21.3	89.6	89.2	6.1	6.1	5.7	5.7	4	4	92	90			<0.2	0.9									
					IM10	Fine	Calm	16:48	8.6	Surface	1.0	0.6	113	29.4	29.4	8.3	8.3	20.1	20.1	117.7	117.2	8.1	6.9	5.0			5.6	3	3	86	90	822407	809791	<0.2	1.1	<0.2	1.0
											1.0	0.6	117	29.3	28.7	8.3	8.0	20.1	21.2	116.6	117.2	8.0	6.9	5.0			5.6	2	3	87	90			<0.2	0.9		
											4.3	0.6	113	28.7	28.7	8.0	8.0	21.2	21.2	83.0	82.7	5.7	5.7	5.0			5.1	3	3	91	90			<0.2	0.9		
Middle	4.3	0.7	113	28.7						28.7	8.0	8.0	21.1	21.1	82.3	82.7	5.7	5.7	5.1	5.1	2	3	91	90	<0.2	0.9	<0.2	0.9									
	7.6	0.5	112	28.6						28.6	8.0	8.0	23.3	23.3	83.6	84.2	5.7	5.8	6.7	6.6	4	4	93	90	<0.2	0.8											
	7.6	0.5	112	28.6						28.6	8.0	8.0	23.2	23.3	84.8	84.2	5.7	5.8	6.6	6.6	5	4	93	90	<0.2	0.8											
IM11	Fine	Calm	16:58	9.0						Surface	1.0	0.5	116	29.3	29.3	8.2	8.2	19.8	19.9	106.8	106.5	7.3	6.7	4.7	5.2	4	3	87	90	822064	811440			<0.2	0.9	<0.2	0.9
											1.0	0.5	124	29.2	28.6	8.2	8.1	19.9	21.6	106.2	106.5	7.3	6.7	4.7	5.2	3	3	87	90					<0.2	0.9		
											4.5	0.4	129	28.6	28.6	8.1	8.1	21.8	21.7	90.9	90.2	6.2	6.1	5.0	5.0	2	3	90	90					<0.2	0.9		
					Middle	4.5	0.4	139	28.6	28.6	8.1	8.1	21.6	21.7	89.4	90.2	6.1	6.1	5.0	5.0	3	3	90	90	<0.2	0.8	<0.2	0.9									
						8.0	0.2	101	28.7	28.7	8.1	8.1	24.0	23.9	82.0	82.3	5.6	5.6	5.9	6.1	2	3	92	90	<0.2	0.9											
						8.0	0.2	104	28.7	28.7	8.1	8.1	23.9	23.9	82.5	82.3	5.6	5.6	6.1	6.1	3	3	92	90	<0.2	1.0											
					IM12	Fine	Calm	17:05	9.6	Surface	1.0	0.5	121	29.2	29.1	8.2	8.2	19.3	19.3	107.2	106.3	7.4	6.7	4.0	4.7	4	4	86	87			821470	812048	<0.2	0.9	<0.2	0.8
											1.0	0.5	122	29.0	28.7	8.2	8.1	19.4	22.6	105.4	106.3	7.3	6.7	3.9	4.7	4	4	86	87					<0.2	0.8		
											4.8	0.3	121	28.7	28.7	8.1	8.1	22.7	22.6	88.7	88.9	6.1	6.1	4.9	4.9	4	4	87	87					<0.2	0.9		
Middle	4.8	0.3	132	28.7						28.7	8.1	8.1	22.6	22.6	89.1	88.9	6.1	6.1	4.9	4.9	4	4	87	87	<0.2	0.9	<0.2	0.9									
	8.6	0.4	83	28.7						28.7	8.1	8.1	24.2	24.1	87.4	88.2	5.9	6.0	5.3	5.4	4	4	88	88	<0.2	0.8											
	8.6	0.4	87	28.7						28.7	8.1	8.1	24.1	24.1	89.0	88.2	6.0	6.0	5.4	5.4	3	3	88	88	<0.2	0.9											
SR1A	Fine	Calm	17:33	4.0						Surface	1.0	-	-	29.7	29.7	8.2	8.2	20.1	20.1	113.0	112.8	7.7	7.7	3.2	3.3	4	5	-	-	819977	812665			-	-	-	-
											1.0	-	-	29.7	29.7	8.2	8.2	20.2	20.1	112.6	112.8	7.7	7.7	3.2	3.2	5	5	-	-					-	-		
											2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-				
						3.0	-	-	29.3	29.3	8.1	8.1	20.7	20.6	102.7	103.7	7.0	7.1	3.4	3.4	6	5	-	-	-	-	-	-									
						3.0	-	-	29.3	29.3	8.1	8.1	20.6	20.6	104.7	103.7	7.2	7.2	3.4	3.4	5	5	-	-	-	-	-	-									
					SR2	Fine	Calm	17:48	5.0	Surface	1.0	0.4	101	29.7	29.7	8.2	8.2	19.6	19.7	116.6	114.9	8.0	7.9	6.0	6.4	4	4	90	91			821440	814160	<0.2	0.9	<0.2	0.8
											1.0	0.5	103	29.7	29.5	8.2	8.2	19.7	19.9	113.1	114.9	7.7	7.9	6.0	6.0	3	4	90	91					<0.2	0.8		
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
	4.0	0.2	92	29.5						29.5	8.2	8.2	19.9	19.9	112.1	112.1	7.7	7.7	6.8	6.8	5	5	92	92	<0.2	1.0											
	4.0	0.3	95	29.4						29.5	8.2	8.2	19.9	19.9	112.1	112.1	7.7	7.7	6.8	6.8	5	5	92	92	<0.2	0.8											
SR3	Fine	Calm	16:30	9.4						Surface	1.0	0.4	178	29.4	29.4	8.3	8.3	19.3	19.4	113.2	112.2	7.8	7.1	4.0	5.2	4	5	-	-	822125	807583			-	-	-	-
											1.0	0.4	188	29.3	29.0	8.3	8.1	19.3	21.4	111.1	112.2	7.7	7.1	4.0	4.0	4	5	-	-					-	-		
											4.7	0.3	190	29.0	29.0	8.1	8.1	21.4	21.4	96.6	95.2	6.6	6.6	5.3	5.3	6	5	-	-					-	-		
					Middle	4.7	0.3	192	28.9	29.0	8.1	8.1	21.4	21.4	93.8	95.2	6.4	6.4	5.4	5.4	5	5	-	-	-	-	-	-									
						8.4	0.2	131	29.1	29.1	8.1	8.1	25.0	24.9	91.1	92.0	6.1	6.2	6.2	6.2	6	6	-	-	-	-											
						8.4	0.2	134	29.1	29.1	8.1	8.1	24.9	24.9	92.8	92.0	6.2	6.2	6.2	6.2	6	6	-	-	-	-											
					SR4A	Sunny	Moderate	17:38	8.6	Surface	1.0	0.3	110	29.6	29.6	8.0	8.0	20.2	20.2	112.4	112.2	7.7	7.1	2.2	7.4	5	5	-	-			817192	807803	-	-	-	-
											1.0	0.3	115	29.5	29.0	8.0	7.9	20.2	21.0	112.0	112.2	7.6	7.1	2.3	2.3	4	5	-	-					-	-		
											4.3	0.1	104	29.0	29.0	7.9	7.9	21.0	21.0	96.7	96.0	6.6	6.6	7.7	7.7	5	5	-	-					-	-		
Middle	4.3	0.1	106	28.9						29.0	7.9	7.9	21.0	21.0	95.3	96.0	6.5	6.5	8.5	8.5	4	4	-	-	-	-											
	7.6	0.1	79	28.7						28.7	7.9	7.9	26.1	26.1	74.5	74.6	5.0	5.0	11.9	11.9	5	5	-	-	-	-											
	7.6	0.1	81	28.7						28.7	7.9	7.9	26.1	26.1	74.7	74.6	5.0	5.0	11.9	11.9	4	4	-	-	-	-											
SR5A	Sunny	Moderate	17:53	3.8						Surface	1.0	0.0	287	30.1	30.1	7.9	7.9	20.8	20.8	117.0	116.9	7.9	7.9	5.4	5.6	6	6	-	-	816572	810678			-	-	-	-
											1.0	0.0	288	30.0	29.9	7.9	7.9	20.8	20.8	116.8	116.9	7.9	7.9	5.5	5.5	7	7	-	-					-	-		
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
						2.8	0.1	162	29.9	29.9	7.9	7.9	21.0	21.0	116.0	115.9	7.8	7.8	5.8	5.9	6	6	-	-	-	-											
						2.8	0.1	165	29.8	29.9	7.9	7.9	21.0	21.0	115.8	115.9	7.8	7.8	5.9	5.9	5	5	-	-	-	-											
					SR6A	Sunny	Moderate	18:31	4.7	Surface	1.0	0.1	76	29.3	29.3	7.9	7.9	20.5	20.5	96.0	95.9	6.6	6.6	5.9													

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

Water Quality Monitoring

Water Quality Monitoring Results on 17 June 21 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	Value	DA			
C1	Cloudy	Moderate	11:12	8.2	Surface	1.0	0.5	57	29.5	29.5	8.0	8.0	19.8	19.8	105.7	105.5	7.2	7.2	1.9	4	86	87	87	87	87	815622	804227	<0.2	1.6	<0.2	1.3			
						1.0	0.5	58	29.4	8.0	8.0	105.2	105.2	7.2	7.2	2.1	3	85	87	<0.2	1.6	<0.2	1.1											
						4.1	0.2	63	29.0	7.9	7.9	22.2	22.2	84.9	84.9	5.8	5.8	2.5	5	87	87	<0.2	1.2											
					4.1	0.2	66	29.0	7.9	7.9	22.2	22.2	84.9	84.9	5.8	5.8	2.5	5	87	87	<0.2	1.2												
					7.2	0.3	52	28.5	8.0	8.0	27.3	27.3	77.6	77.7	5.2	5.2	7.9	3	88	88	<0.2	1.3												
					7.2	0.3	55	28.5	8.0	8.0	27.3	27.3	77.7	77.7	5.2	5.2	7.9	3	90	90	<0.2	1.2												
C2	Fine	Calm	12:19	12.0	Surface	1.0	0.4	35	29.6	29.6	8.2	8.2	17.0	17.4	109.3	109.2	7.6	7.6	5.8	3	85	86	86	86	89	825679	806952	<0.2	0.9	<0.2	1.0			
						1.0	0.5	37	29.5	8.2	8.2	17.0	17.0	109.1	109.1	7.6	7.6	5.7	4	86	86	<0.2	1.2											
						6.0	0.3	11	28.7	8.1	8.1	21.2	21.2	88.9	88.8	6.1	6.1	6.1	4	89	89	<0.2	1.0											
					6.0	0.3	11	28.7	8.1	8.1	21.2	21.2	88.7	88.7	6.1	6.1	6.1	4	89	89	<0.2	1.2												
					11.0	0.3	356	28.9	29.0	8.1	8.1	23.5	23.4	80.5	80.8	5.4	5.5	6.2	6	91	91	<0.2	1.1											
					11.0	0.3	356	29.1	29.0	8.1	8.1	23.4	23.4	81.1	81.1	5.5	5.5	6.3	6	91	91	<0.2	1.2											
C3	Fine	Calm	10:19	12.0	Surface	1.0	0.3	288	28.9	28.9	8.1	8.1	19.1	19.1	96.6	96.4	6.7	6.7	2.6	4	83	83	83	83	86	822119	817823	<0.2	1.2	<0.2	1.2			
						1.0	0.3	288	28.9	8.1	8.1	19.1	19.1	96.2	96.2	6.7	6.7	2.6	5	86	86	<0.2	1.2											
						6.0	0.4	268	28.2	28.2	8.1	8.1	23.0	23.1	85.5	84.6	5.9	5.9	3.8	4	86	86	<0.2	1.2										
					6.0	0.4	278	28.2	28.2	8.1	8.1	23.1	23.1	83.7	83.7	5.8	5.8	3.8	4	86	86	<0.2	1.2											
					11.0	0.4	283	28.0	28.0	8.1	8.1	27.8	27.8	77.9	78.1	5.2	5.3	4.7	4	88	88	<0.2	1.2											
					11.0	0.4	284	28.0	28.0	8.1	8.1	27.8	27.8	78.3	78.3	5.3	5.3	4.7	3	88	88	<0.2	1.3											
IM1	Cloudy	Moderate	11:30	5.3	Surface	1.0	0.1	305	29.3	29.3	8.0	8.0	19.6	19.6	101.4	101.3	7.0	7.0	2.5	4	85	86	86	86	86	817971	807124	<0.2	1.7	<0.2	1.5			
						1.0	0.1	325	29.3	8.0	8.0	19.6	19.6	101.1	101.1	6.9	6.9	2.6	5	86	86	<0.2	1.7											
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-
					4.3	0.0	208	29.1	29.1	8.0	8.0	21.7	21.7	89.7	89.9	6.1	6.1	4.1	5	88	88	<0.2	1.3											
					4.3	0.0	213	29.1	29.1	8.0	8.0	21.7	21.7	90.1	90.1	6.1	6.1	4.1	4	84	84	<0.2	1.3											
					4.3	0.0	213	29.1	29.1	8.0	8.0	21.7	21.7	90.1	90.1	6.1	6.1	4.1	4	84	84	<0.2	1.3											
IM2	Cloudy	Moderate	11:38	7.2	Surface	1.0	0.2	354	29.4	29.4	7.9	7.9	20.5	20.5	95.1	95.0	6.5	6.5	2.6	4	86	86	86	86	87	818156	806159	<0.2	1.7	<0.2	1.8			
						1.0	0.2	326	29.3	29.3	7.9	7.9	20.6	20.5	94.9	94.9	6.5	6.5	2.6	3	86	86	<0.2	1.8										
						3.6	0.1	315	28.9	28.9	7.9	7.9	21.6	21.6	84.6	84.6	5.8	5.8	5.5	4	87	87	<0.2	2.0										
					3.6	0.1	326	28.9	28.9	7.9	7.9	21.6	21.6	84.5	84.5	5.8	5.8	5.5	3	88	88	<0.2	1.9											
					6.2	0.2	332	28.6	28.6	7.9	7.9	26.0	26.0	77.2	77.2	5.2	5.2	9.8	4	88	88	<0.2	2.2											
					6.2	0.2	346	28.6	28.6	7.9	7.9	26.0	26.0	77.4	77.3	5.2	5.2	9.8	4	89	89	<0.2	2.2											
IM3	Cloudy	Moderate	11:44	7.5	Surface	1.0	0.3	355	29.4	29.4	8.0	8.0	20.2	20.2	100.4	99.3	6.9	6.9	2.8	3	86	85	85	85	88	818802	805583	<0.2	1.5	<0.2	1.5			
						1.0	0.3	327	29.4	29.4	8.0	8.0	20.3	20.3	98.1	98.1	6.7	6.7	3.0	4	85	85	<0.2	1.5										
						3.8	0.3	321	29.0	29.0	8.0	8.0	22.1	22.1	83.1	83.1	5.7	5.7	3.7	3	88	88	<0.2	2.0										
					3.8	0.3	327	29.0	29.0	8.0	8.0	22.1	22.1	83.1	83.1	5.7	5.7	3.7	4	88	88	<0.2	1.9											
					6.5	0.2	315	28.6	28.6	8.0	8.0	26.2	26.2	77.3	77.3	5.2	5.2	13.4	3	89	89	<0.2	2.2											
					6.5	0.2	316	28.6	28.6	8.0	8.0	26.2	26.2	77.6	77.5	5.2	5.2	13.4	4	90	90	<0.2	2.1											
IM4	Cloudy	Moderate	11:55	8.0	Surface	1.0	0.5	6	29.4	29.4	8.1	8.1	19.7	19.7	107.5	107.3	7.4	7.4	2.3	4	85	86	86	86	88	819736	804595	<0.2	2.2	<0.2	2.1			
						1.0	0.5	6	29.4	29.4	8.1	8.1	19.8	19.7	107.1	107.1	7.3	7.3	2.4	4	86	86	<0.2	2.1										
						4.0	0.6	324	28.8	28.8	8.1	8.1	23.8	23.8	82.0	81.9	5.6	5.6	5.1	3	88	88	<0.2	1.9										
					4.0	0.6	335	28.7	28.7	8.1	8.1	23.8	23.8	81.8	81.8	5.5	5.5	5.3	4	88	88	<0.2	1.9											
					7.0	0.3	0	28.6	28.6	8.1	8.1	26.5	26.5	77.6	77.6	5.2	5.2	9.0	4	89	89	<0.2	2.0											
					7.0	0.3	0	28.6	28.6	8.1	8.1	26.5	26.5	77.9	77.8	5.2	5.2	9.1	3	89	89	<0.2	2.2											
IM5	Cloudy	Moderate	12:03	8.2	Surface	1.0	0.6	15	29.6	29.6	8.1	8.1	20.6	20.7	101.9	101.7	6.9	6.9	2.5	3	86	85	85	85	87	820718	804860	<0.2	2.2	<0.2	2.2			
						1.0	0.6	15	29.5	29.5	8.1	8.1	20.7	20.7	101.4	101.4	6.9	6.9	2.6	3	85	85	<0.2	2.2										
						4.1	0.6	12	29.1	29.1	8.1	8.1	21.1	21.2	92.1	92.0	6.3	6.3	13.2	3	87	87	<0.2	2.2										
					4.1	0.7	12	29.0	29.1	8.1	8.1	21.2	21.2	91.9	91.9	6.3	6.3	13.3	2	88	88	<0.2	2.2											
					7.2	0.3	49	28.6	28.6	8.1	8.1	26.9	26.9	76.5	76.7	5.1	5.1	9.6	2	88	88	<0.2	2.1											
					7.2	0.3	50	28.6	28.6	8.1	8.1	26.9	26.9	76.8	76.8	5.1	5.1	9.2	3	89	89	<0.2	2.0											
IM6	Cloudy	Moderate	12:10	8.0	Surface	1.0	0.3	269	29.1	29.1	8.1	8.1	20.5	20.6	104.4	103.8	7.2	7.1	6.0	3	85	85	85	85	87	821067	805820	<0.2	1.6	<0.2	1.6			
						1.0	0.3	288	29.1	29.1	8.1	8.1	20.6	20.6	103.1	103.1	7.1	7.1	6.6	4	85	85	<0.2	1.6										
						4.0	0.1	291	28.6	28.6	8.1	8.1	26.6	26.7	76.8	76.8	5.1	5.1	12.2	2	87	87	<0.2	1.6										
					4.0	0.1	294	28.6	28.6	8.1	8.1	26.7	26.7	76.7	76.8	5.1	5.1	12.4	3	87	87	<0.2	1.5											
					7.0	0.1	32	28.5	28.5	8.1	8.1	27.1	27.1	78.5	78.9	5.2	5.3	13.5	3	87	87	<0.2	1.5											
					7.0	0.1	33	28.5	28.5	8.1	8.1	27.1	27.1	79.2	79.2	5.3	5.3	13.4	2	88	88	<0.2	1.7											
IM7	Cloudy	Moderate	12:19	8.3	Surface	1.0	0.1	251	29.6	29.6	8.0	8.0	19.5	19.5	97.5	97.4	6.7	6.7	2.7	3	86	85	85	85	87	821372	806837	<0.2	1.7	<0.2	1.8			
						1.0	0.1	259	29.6	29.6	8.0	8.0	19.5	19.5	97.2	97.2	6.7	6.7	3.0	3	85	85	<0.2	1.8										
						4.2	0.1	133	29.2	29.2	7.9	7.9	20.1	20.1	88.9	88.5																		

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

Water Quality Monitoring

Water Quality Monitoring Results on 17 June 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current		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)						
						Speed (m/s)	Direction	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA			
						Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	
IM9	Fine	Calm	11:48	7.6	Surface	1.0	0.1	96	29.2	29.2	8.1	8.1	19.0	19.0	97.8	97.2	6.8	6.4	4.2	3	86	89	89	822110	808831	<0.2	1.3	<0.2	1.3					
						1.0	0.1	100	29.1	29.1	8.1	8.1	19.0	19.0	96.6	97.2	6.7	6.4	4.2	4	86	89	89	822110	808831	<0.2	1.3	<0.2	1.3					
						3.8	0.0	323	29.0	29.0	8.1	8.1	20.7	20.7	87.1	87.1	6.0	6.0	5.8	4	89	89	89	822110	808831	<0.2	1.2	<0.2	1.2					
					Middle	3.8	0.0	330	29.0	29.0	8.1	8.1	20.7	20.7	87.1	87.1	6.0	6.0	5.8	3	89	89	89	822110	808831	<0.2	1.3	<0.2	1.3					
						6.6	0.1	315	28.9	28.9	8.0	8.0	21.3	21.3	87.9	88.5	6.0	6.1	6.8	<2	91	91	91	822110	808831	<0.2	1.1	<0.2	1.1					
						6.6	0.1	342	28.9	28.9	8.0	8.0	21.3	21.3	89.0	88.5	6.1	6.1	6.8	<2	91	91	91	822110	808831	<0.2	1.3	<0.2	1.3					
					IM10	Fine	Calm	11:41	8.8	Surface	1.0	0.5	347	28.8	28.8	8.1	8.1	19.1	19.2	94.7	93.3	6.6	6.1	4.3	3	83	87	87	822386	809771	<0.2	1.1	<0.2	1.2
											1.0	0.6	319	28.8	28.8	8.1	8.1	19.2	19.2	91.8	93.2	6.4	6.1	4.4	4	83	88	88	822386	809771	<0.2	1.2	<0.2	1.2
											4.4	0.5	331	28.7	28.7	8.1	8.1	22.6	22.7	83.2	83.2	5.7	5.7	5.8	7	88	88	88	822386	809771	<0.2	1.0	<0.2	1.0
Middle	4.4	0.5	305	28.7						28.7	8.1	8.1	22.7	22.7	83.2	83.2	5.7	5.7	5.8	3	88	88	88	822386	809771	<0.2	1.0	<0.2	1.0					
	7.8	0.4	314	28.8						28.8	8.1	8.1	22.8	22.8	85.1	85.5	5.8	5.8	6.7	3	90	90	90	822386	809771	<0.2	1.0	<0.2	1.0					
	7.8	0.4	341	28.8						28.8	8.1	8.1	22.8	22.8	85.8	85.5	5.8	5.8	6.6	3	90	90	90	822386	809771	<0.2	1.1	<0.2	1.1					
IM11	Fine	Calm	11:30	8.0						Surface	1.0	0.3	318	29.1	29.1	8.1	8.1	18.8	18.8	98.0	97.8	6.8	6.3	5.0	4	84	85	85	822052	811477	<0.2	1.2	<0.2	1.2
											1.0	0.3	319	29.0	29.0	8.1	8.1	18.8	18.8	97.5	97.8	6.8	6.3	5.0	7	84	85	85	822052	811477	<0.2	1.2	<0.2	1.2
											4.0	0.4	314	28.5	28.5	8.1	8.1	21.4	21.4	85.0	84.8	5.9	5.9	5.8	3	85	85	85	822052	811477	<0.2	1.1	<0.2	1.1
					Middle	4.0	0.4	334	28.5	28.5	8.1	8.1	21.4	21.4	84.6	84.8	5.8	5.8	5.8	3	85	85	85	822052	811477	<0.2	1.1	<0.2	1.1					
						7.0	0.3	297	28.7	28.7	8.1	8.1	24.8	24.7	81.7	82.1	5.5	5.6	6.4	3	86	86	86	822052	811477	<0.2	1.0	<0.2	1.0					
						7.0	0.3	305	28.7	28.7	8.1	8.1	24.7	24.7	82.4	82.1	5.5	5.6	6.4	3	86	86	86	822052	811477	<0.2	1.2	<0.2	1.2					
					IM12	Fine	Calm	11:24	9.4	Surface	1.0	0.4	272	29.2	29.2	8.1	8.1	18.3	18.3	100.4	100.3	7.0	6.7	3.6	4	84	85	85	821475	812060	<0.2	1.2	<0.2	1.2
											1.0	0.4	280	29.2	29.2	8.1	8.1	18.3	18.3	100.2	100.3	7.0	6.7	3.5	3	84	85	85	821475	812060	<0.2	1.1	<0.2	1.1
											4.7	0.5	273	28.6	28.6	8.1	8.1	21.2	21.2	92.2	92.1	6.4	6.4	5.2	3	85	85	85	821475	812060	<0.2	1.1	<0.2	1.1
Middle	4.7	0.6	297	28.6						28.6	8.1	8.1	21.1	21.2	91.9	92.1	6.3	6.3	5.2	2	85	85	85	821475	812060	<0.2	1.0	<0.2	1.0					
	8.4	0.1	210	28.5						28.5	8.0	8.0	25.4	25.3	80.9	81.5	5.5	5.5	6.3	2	88	88	88	821475	812060	<0.2	1.1	<0.2	1.1					
	8.4	0.1	219	28.5						28.5	8.0	8.0	25.3	25.3	82.1	81.5	5.5	5.5	6.3	3	89	89	89	821475	812060	<0.2	1.1	<0.2	1.1					
SR1A	Fine	Calm	10:54	4.0						Surface	1.0	-	-	29.4	29.4	8.1	8.1	18.4	18.4	100.3	100.3	6.9	6.9	3.1	2	-	-	-	819973	812663	-	-	-	-
											1.0	-	-	29.4	29.4	8.1	8.1	18.4	18.4	100.2	100.3	6.9	6.9	3.0	3	-	-	-	819973	812663	-	-	-	-
											2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819973	812663	-	-	-
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819973	812663	-	-	-	-				
						3.0	-	-	29.3	29.3	8.1	8.1	18.5	18.5	99.6	99.6	6.9	6.9	3.2	4	-	-	-	819973	812663	-	-	-	-					
						3.0	-	-	29.3	29.3	8.1	8.1	18.6	18.5	99.6	99.6	6.9	6.9	3.2	4	-	-	-	819973	812663	-	-	-	-					
					SR2	Fine	Calm	10:40	4.6	Surface	1.0	0.1	14	29.1	29.1	8.1	8.1	18.9	18.9	97.2	97.1	6.7	6.7	4.9	4	85	85	85	821470	814163	<0.2	1.2	<0.2	1.2
											1.0	0.1	15	29.1	29.1	8.1	8.1	18.9	18.9	97.0	97.1	6.7	6.7	4.8	3	85	85	85	821470	814163	<0.2	1.2	<0.2	1.2
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821470	814163	<0.2	1.2	<0.2
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821470	814163	<0.2	1.2	<0.2	1.2				
	3.6	0.2	354	29.1						29.1	8.1	8.1	22.6	22.5	90.0	90.9	6.1	6.2	5.6	2	87	87	87	821470	814163	<0.2	1.2	<0.2	1.2					
	3.6	0.2	326	29.2						29.2	8.1	8.1	22.5	22.5	91.8	90.9	6.1	6.2	5.6	3	87	87	87	821470	814163	<0.2	1.2	<0.2	1.2					
SR3	Fine	Calm	12:00	9.4						Surface	1.0	0.2	356	29.4	29.4	8.1	8.1	18.3	18.3	106.3	106.2	7.3	7.3	3.7	3	-	-	-	822144	807582	-	-	-	-
											1.0	0.2	356	29.3	29.3	8.1	8.1	18.3	18.3	106.0	106.2	7.3	7.3	3.7	2	-	-	-	822144	807582	-	-	-	-
											4.7	0.2	349	29.0	29.0	8.1	8.1	20.2	20.2	96.8	96.8	6.7	6.7	4.2	2	-	-	-	822144	807582	-	-	-	-
					Middle	4.7	0.2	321	29.0	29.0	8.1	8.1	20.3	20.2	96.8	96.8	6.7	6.7	4.3	3	-	-	-	822144	807582	-	-	-	-					
						8.4	0.2	30	29.0	29.0	8.1	8.1	20.7	20.7	92.0	92.0	6.3	6.3	5.1	<2	-	-	-	822144	807582	-	-	-	-					
						8.4	0.2	30	29.0	29.0	8.1	8.1	20.7	20.7	91.9	92.0	6.3	6.3	5.1	<2	-	-	-	822144	807582	-	-	-	-					
					SR4A	Cloudy	Moderate	10:49	8.4	Surface	1.0	0.2	256	29.5	29.5	7.9	7.9	19.9	19.9	94.8	94.8	6.5	5.9	2.5	2	-	-	-	817200	807811	-	-	-	-
											1.0	0.2	265	29.5	29.5	7.9	7.9	19.9	19.9	94.7	94.8	6.5	5.9	2.5	3	-	-	-	817200	807811	-	-	-	-
											4.2	0.1	277	28.9	28.9	7.9	7.9	24.1	24.1	78.8	78.8	5.3	5.3	6.6	4	-	-	-	817200	807811	-	-	-	-
Middle	4.2	0.1	292	28.9						28.9	7.9	7.9	24.1	24.1	78.7	78.8	5.3	5.3	6.6	5	-	-	-	817200	807811	-	-	-	-					
	7.4	0.1	64	28.6						28.6	7.9	7.9	25.9	25.9	77.3	77.6	5.2	5.2	11.5	4	-	-	-	817200	807811	-	-	-	-					
	7.4	0.1	69	28.7						28.7	7.9	7.9	25.9	25.9	77.8	77.6	5.2	5.2	11.3	5	-	-	-	817200	807811	-	-	-	-					
SR5A	Cloudy	Moderate	10:32	3.9						Surface	1.0	0.1	276	29.2	29.2	7.8	7.8	21.2	21.2	93.3	93.2	6.4	6.4	2.5	3	-	-	-	816587	810672	-	-	-	-
											1.0	0.1	297	29.2	29.2	7.8	7.8	21.3	21.2	93.1	93.2	6.3	6.4	2.6	4	-	-	-	816587	810672	-	-	-	-
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	816587	810672	-	-	-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	816587	810672	-	-	-	-				
						2.9	0.2	305	29.1	29.1	7.8	7.8	21.9	21.9	85.3	85.3	5.8	5.8	3.2	3	-	-	-	816587	810672	-	-	-	-					
						2.9	0.2	314	29.1	29.1	7.8	7.8	21.9	21.9	85.2	85.3	5.8	5.8	3.3	2	-	-	-	816587	810672	-	-	-	-					
					SR6A	Cloudy	Moderate	10:05	4.7	Surface	1.0	0.1	52	29.3	29.3	8.1	8.1	19.4	19.5	89.5	89.4	6.2	6.2	7.6	3	-	-	-	817971	814760	-	-	-	-
											1.0																							

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

Water Quality Monitoring

Water Quality Monitoring Results on 19 June 21 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	Value	DA								
C1	Cloudy	Moderate	08:50	7.8	Surface	1.0	0.4	243	29.6	29.6	8.1	8.1	19.1	19.1	106.2	106.1	7.3	7.3	3.9	3.9	12	12	86	86	88	815629	804252	<0.2	<0.2	1.5	1.5								
						1.0	0.4	255	29.6	8.1	8.1	19.1	19.1	106.0	106.0	7.3	7.3	4.0	4.0	11	11	85	85	<0.2				<0.2	1.6	1.6									
						3.9	0.4	232	29.2	8.0	8.0	21.9	22.0	90.7	90.6	6.2	6.2	4.3	4.3	10	10	87	87	<0.2				<0.2	1.4	1.4									
					Middle	3.9	0.4	234	29.2	8.0	8.0	22.0	22.0	90.5	90.6	6.1	6.1	4.3	4.3	10	10	88	88	<0.2				<0.2	1.3	1.3									
						6.8	0.3	216	28.0	8.0	8.0	29.5	29.5	65.8	66.0	4.4	4.4	9.7	9.7	10	10	91	91	<0.2				<0.2	1.4	1.4									
						6.8	0.3	221	28.0	8.0	8.0	29.5	29.5	66.1	66.1	4.4	4.4	9.3	9.3	9	9	91	91	<0.2				<0.2	1.4	1.4									
					C2	Fine	Rough	09:56	11.6	Surface	1.0	0.5	186	30.2	30.2	8.2	8.2	15.7	15.7	105.7	105.7	7.3	7.3	3.3				3.3	3	3	82	82	87	825705	806956	<0.2	<0.2	1.4	1.4
											1.0	0.5	193	30.2	8.2	8.2	15.7	15.7	105.6	105.6	7.3	7.3	3.3	3.3				2	2	83	83	<0.2				<0.2	1.3	1.3	
											5.8	0.4	173	29.5	8.2	8.2	18.4	18.4	100.5	100.5	6.9	6.9	6.6	6.6				2	2	87	87	<0.2				<0.2	1.4	1.4	
Middle	5.8	0.4	184	29.5						8.2	8.2	18.3	18.3	100.5	100.5	6.9	6.9	6.5	6.5	3	3	87	87	<0.2	<0.2	1.4	1.4												
	10.6	0.2	161	28.9						8.1	8.1	24.1	24.1	83.4	83.4	5.6	5.6	4.1	4.1	3	3	90	90	<0.2	<0.2	1.4	1.4												
	10.6	0.2	162	28.9						8.1	8.1	24.1	24.1	83.4	83.4	5.6	5.6	4.1	4.1	3	3	90	90	<0.2	<0.2	1.5	1.5												
C3	Fine	Rough	07:30	11.9						Surface	1.0	0.3	79	29.3	29.3	8.3	8.3	21.7	21.7	110.0	110.0	7.5	7.5	2.1	2.1	5	5	83	83	87	822086	817784				<0.2	<0.2	1.1	1.1
											1.0	0.3	85	29.3	8.3	8.3	21.7	21.7	109.9	109.9	7.5	7.5	2.2	2.2	4	4	83	83	<0.2							<0.2	1.1	1.1	
											6.0	0.1	83	29.1	8.3	8.3	22.6	22.5	105.4	105.4	7.2	7.2	2.9	2.9	4	4	87	87	<0.2							<0.2	1.2	1.2	
					Middle	6.0	0.1	88	29.1	8.3	8.3	22.5	22.5	105.4	105.4	7.1	7.1	2.8	2.8	4	4	87	87	<0.2	<0.2	1.1	1.1												
						10.9	0.1	358	28.0	8.2	8.2	28.0	28.0	81.6	81.6	5.5	5.5	2.7	2.7	3	3	90	90	<0.2	<0.2	1.1	1.1												
						10.9	0.1	329	28.0	8.2	8.2	28.0	28.0	81.5	81.5	5.5	5.5	2.8	2.8	3	3	90	90	<0.2	<0.2	1.0	1.0												
					IM1	Cloudy	Moderate	09:13	4.5	Surface	1.0	0.0	89	29.7	29.7	8.2	8.2	19.4	19.4	121.0	120.9	8.3	8.3	4.8	4.8	11	11	86	86				88	817947	807143	<0.2	<0.2	1.1	1.1
											1.0	0.0	95	29.7	8.2	8.2	19.4	19.4	120.7	120.7	8.2	8.2	4.8	4.8	10	10	87	87	<0.2							<0.2	1.2	1.2	
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-			
	3.5	0.1	125	29.5						8.1	8.1	21.0	21.0	103.9	104.0	7.1	7.1	7.0	7.0	8	8	89	89	<0.2	<0.2	1.2	1.2												
	3.5	0.1	132	29.5						8.1	8.1	21.0	21.0	104.0	104.0	7.1	7.1	7.0	7.0	9	9	91	91	<0.2	<0.2	1.3	1.3												
IM2	Cloudy	Moderate	09:22	6.5						Surface	1.0	0.2	19	29.6	29.6	8.0	8.0	19.3	19.3	109.5	109.5	7.5	7.5	3.7	3.7	9	9	86	86	88	818164	806144				<0.2	<0.2	1.3	1.3
											1.0	0.2	19	29.6	8.0	8.0	19.3	19.3	109.4	109.4	7.5	7.5	3.7	3.7	10	10	86	86	<0.2							<0.2	1.2	1.2	
											3.3	0.2	100	28.9	8.0	8.0	26.3	26.3	75.7	75.9	5.0	5.0	6.1	6.1	10	10	87	87	<0.2							<0.2	1.3	1.3	
					Middle	3.3	0.2	103	28.9	8.0	8.0	26.3	26.3	75.7	75.9	5.1	5.1	6.0	6.0	11	11	88	88	<0.2	<0.2	1.3	1.3												
						5.5	0.2	71	28.3	7.9	7.9	28.3	28.3	68.1	68.1	4.5	4.5	7.6	7.6	11	11	91	91	<0.2	<0.2	1.2	1.2												
						5.5	0.2	77	28.3	7.9	7.9	28.3	28.3	68.1	68.1	4.5	4.5	7.6	7.6	12	12	91	91	<0.2	<0.2	1.2	1.2												
					IM3	Cloudy	Moderate	09:28	6.8	Surface	1.0	0.3	268	29.6	29.6	8.0	8.0	19.8	19.8	103.9	103.9	7.1	7.1	4.3	4.3	12	12	87	87				89	818804	805596	<0.2	<0.2	1.4	1.4
											1.0	0.3	272	29.6	8.0	8.0	19.8	19.8	103.9	103.9	7.1	7.1	4.4	4.4	12	12	86	86	<0.2							<0.2	1.4	1.4	
											3.4	0.2	242	29.1	7.9	7.9	23.3	23.3	80.1	80.0	5.4	5.4	7.5	7.5	13	13	88	88	<0.2							<0.2	1.2	1.2	
Middle	3.4	0.2	263	29.0						7.9	7.9	23.2	23.3	79.8	80.0	5.4	5.4	7.9	7.9	12	12	88	88	<0.2	<0.2	1.3	1.3												
	5.8	0.1	110	28.4						7.9	7.9	28.5	28.5	68.9	69.0	4.6	4.6	13.4	13.4	14	14	91	91	<0.2	<0.2	1.4	1.4												
	5.8	0.1	117	28.4						7.9	7.9	28.5	28.5	69.1	69.0	4.6	4.6	13.5	13.5	14	14	91	91	<0.2	<0.2	1.3	1.3												
IM4	Cloudy	Rough	09:38	8.4						Surface	1.0	0.6	194	29.6	29.6	8.0	8.0	18.9	18.9	96.6	96.6	6.6	6.6	10.0	10.0	12	12	86	86	88	819705	804610				<0.2	<0.2	1.3	1.3
											1.0	0.6	208	29.6	8.0	8.0	18.9	18.9	96.6	96.6	6.6	6.6	9.0	9.0	11	11	85	85	<0.2							<0.2	1.2	1.2	
											4.2	0.5	191	29.2	7.9	7.9	19.6	19.6	86.4	86.3	6.0	6.0	8.3	8.3	10	10	87	87	<0.2							<0.2	1.3	1.3	
					Middle	4.2	0.6	200	29.1	7.9	7.9	19.6	19.6	86.2	86.3	5.9	5.9	8.3	8.3	9	9	88	88	<0.2	<0.2	1.2	1.2												
						7.4	0.2	148	28.3	7.9	7.9	28.4	28.4	63.3	63.4	4.2	4.2	8.3	8.3	9	9	91	91	<0.2	<0.2	1.2	1.2												
						7.4	0.2	160	28.3	7.9	7.9	28.4	28.4	63.4	63.4	4.2	4.2	8.4	8.4	8	8	91	91	<0.2	<0.2	1.2	1.2												
					IM5	Cloudy	Rough	09:47	7.9	Surface	1.0	0.4	200	29.5	29.5	8.0	8.0	19.3	19.3	98.9	99.0	6.8	6.8	9.8	9.8	8	8	86	86				89	820738	804886	<0.2	<0.2	1.3	1.3
											1.0	0.4	216	29.5	8.0	8.0	19.3	19.3	99.0	99.0	6.8	6.8	10.1	10.1	7	7	87	87	<0.2							<0.2	1.2	1.2	
											4.0	0.5	192	29.5	8.0	8.0	19.5	19.5	94.2	94.2	6.5	6.5	12.7	12.7	9	9	88	88	<0.2							<0.2	1.3	1.3	
Middle	4.0	0.5	210	29.5						8.0	8.0	19.5	19.5	94.1	94.2	6.5	6.5	12.6	12.6	9	9	88	88	<0.2	<0.2	1.3	1.3												
	6.9	0.4	196	29.5						8.0	8.0	19.5	19.5	94.5	94.6	6.5	6.5	12.3	12.3	8	8	91	91	<0.2	<0.2	1.3	1.3												
	6.9	0.4	214	29.4						8.0	8.0	19.5	19.5	94.6	94.6	6.5	6.5	12.0	12.0	9	9	91	91	<0.2	<0.2	1.1	1.1												
IM6	Cloudy	Rough	09:56	7.0						Surface	1.0	0.4	236	29.6	29.6	7.9	7.9	18.4	18.4	97.0	96.9	6.7	6.7	4.5	4.5	7	7	86	86	88	821068	805849				<0.2	<0.2	1.2	1.2
											1.0	0.5	258	29.6	7.9	7.9	18.4	18.4	96.8	96.9	6.7	6.7	4.9	4.9	6	6	85	85	<0.2							<0.2	1.2	1.2	
											3.5	0.4	23																										

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

Water Quality Monitoring Results on 19 June 21 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	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA
						IM9	Fine		Rough	09:22	7.1	Surface	1.0	0.1	140	29.5	29.5	8.2	8.2	18.6	18.6	104.6	104.6	7.2			7.2	4.4	4.4	3	83	87
					Surface	1.0	0.1	144	29.5		8.2		18.6		104.6		7.2		4.4		2	83										
					Surface	3.6	0.3	130	29.4	29.4	8.2	8.2	18.9	18.9	103.1	103.1	7.1	7.1	5.6	5.6	4	87	87	87	822096	808802	<0.2	1.1	<0.2	1.1		
					Surface	3.6	0.3	136	29.4		8.2		18.9		103.1		7.1		5.6		4	87										
					Surface	6.1	0.2	108	29.4	29.4	8.2	8.2	20.2	20.2	98.0	98.1	6.7	6.7	9.1	9.2	5	90	90	91	822096	808802	<0.2	1.1	<0.2	1.1		
					Surface	6.1	0.2	109	29.4		8.2		20.2		98.1		6.7		9.2		4	91										
					Surface	1.0	0.5	130	29.6	29.6	8.2	8.2	18.3	18.3	104.3	104.3	7.2	7.2	3.9	3.9	6	83	87	87	822378	809782	<0.2	1.1	<0.2	1.1		
					Surface	1.0	0.5	141	29.6		8.2		18.3		104.3		7.2		3.9		5	83										
					Surface	3.8	0.6	134	29.3	29.3	8.2	8.2	20.2	20.2	98.0	98.1	6.7	6.7	7.3	7.2	6	87	87	87	822378	809782	<0.2	1.1	<0.2	1.1		
					Surface	3.8	0.6	144	29.3		8.2		20.2		98.1		6.7		7.2		5	87										
					Surface	6.5	0.4	132	29.4	29.4	8.2	8.2	20.3	20.3	96.9	96.9	6.6	6.6	8.7	8.7	3	90	90	91	822378	809782	<0.2	1.3	<0.2	1.3		
					Surface	6.5	0.4	144	29.4		8.2		20.3		96.9		6.6		8.7		4	91										
					Surface	1.0	0.5	114	29.6	29.6	8.2	8.2	17.6	17.6	104.4	104.4	7.2	7.2	3.4	3.4	4	82	86	86	822034	811446	<0.2	0.8	<0.2	0.9		
					Surface	1.0	0.5	118	29.6		8.2		17.6		104.3		7.2		3.4		5	83										
					Surface	4.0	0.5	130	29.3	29.3	8.2	8.2	19.6	19.6	101.0	101.0	6.9	6.9	6.4	6.4	3	86	86	86	822034	811446	<0.2	1.0	<0.2	1.0		
					Surface	4.0	0.5	133	29.3		8.2		19.6		100.9		6.9		6.4		4	86										
					Surface	6.9	0.3	138	29.3	29.3	8.2	8.2	21.3	21.2	92.8	92.9	6.3	6.3	5.4	5.5	3	90	90	90	822034	811446	<0.2	1.1	<0.2	1.1		
					Surface	6.9	0.3	141	29.3		8.2		21.3		92.9		6.3		5.5		2	90										
					Surface	1.0	0.6	132	29.6	29.6	8.2	8.2	17.5	17.5	103.5	103.5	7.2	7.2	3.0	2.9	3	83	83	83	821448	812034	<0.2	1.1	<0.2	1.0		
					Surface	1.0	0.6	140	29.6		8.2		17.5		103.5		7.2		2.9		4	83										
					Surface	4.6	0.6	134	29.4	29.4	8.2	8.2	20.6	20.6	95.5	95.5	6.5	6.5	5.1	5.0	2	87	87	87	821448	812034	<0.2	1.1	<0.2	1.1		
					Surface	4.6	0.6	137	29.4		8.2		20.6		95.5		6.5		5.0		3	87										
					Surface	8.2	0.2	82	29.3	29.3	8.2	8.2	21.2	21.2	92.8	92.8	6.3	6.3	5.6	5.7	2	90	90	90	821448	812034	<0.2	1.1	<0.2	1.1		
					Surface	8.2	0.2	85	29.3		8.2		21.2		92.8		6.3		5.7		3	90										
					Surface	1.0	-	-	29.6	29.6	8.2	8.2	18.5	18.5	104.1	104.1	7.2	7.2	3.2	3.1	3	-	-	-	819976	812657	-	-	-	-		
					Surface	1.0	-	-	29.6		8.2		18.5		104.1		7.2		3.1		4	-	-	-								
					Surface	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
					Surface	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
					Surface	4.4	-	-	29.3	29.4	8.2	8.2	21.4	21.3	100.5	100.7	6.8	6.9	4.0	3.9	3	-	-	-								
					Surface	4.4	-	-	29.4		8.2		21.3		100.8		6.9		3.9		2	-	-	-								
					Surface	1.0	0.3	104	29.6	29.6	8.2	8.2	17.5	17.6	107.0	107.0	7.4	7.4	2.8	2.9	3	82	83	83	821461	814171	<0.2	1.1	<0.2	1.0		
					Surface	1.0	0.4	112	29.6		8.2		17.6		107.0		7.4		2.9		4	83										
					Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
					Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
					Surface	3.4	0.2	78	29.5	29.5	8.2	8.2	19.3	19.3	105.4	105.4	7.2	7.2	3.6	3.7	3	86	87	87	821461	814171	<0.2	1.1	<0.2	1.1		
					Surface	3.4	0.2	82	29.5		8.2		19.3		105.4		7.2		3.7		4	87										
					Surface	1.0	0.1	300	29.7	29.7	8.2	8.2	18.4	18.4	105.6	105.6	7.3	7.3	3.8	3.7	3	-	-	-	822168	807592	-	-	-	-		
					Surface	1.0	0.1	326	29.7		8.2		18.4		105.5		7.3		3.7		4	-	-	-								
					Surface	4.3	0.3	198	29.4	29.4	8.2	8.2	19.3	19.3	103.6	103.6	7.1	7.1	6.5	6.5	3	-	-	-								
					Surface	4.3	0.3	201	29.4		8.2		19.3		103.5		7.1		6.5		4	-	-	-								
					Surface	7.6	0.1	228	29.3	29.3	8.2	8.2	20.7	20.7	93.0	93.1	6.4	6.4	4.7	4.7	4	-	-	-								
					Surface	7.6	0.1	231	29.3		8.2		20.7		93.1		6.4		4.7		5	-	-	-								
					Surface	1.0	0.1	55	29.6	29.6	8.1	8.1	18.9	18.9	110.4	110.4	7.6	7.6	5.0	5.1	12	-	-	-	817171	807797	-	-	-	-		
					Surface	1.0	0.1	58	29.6		8.1		18.9		110.4		7.6		5.1		11	-	-	-								
					Surface	4.6	0.1	51	29.4	29.4	8.0	8.0	19.6	19.6	100.0	99.5	6.9	7.3	7.3	7.3	11	-	-	-								
					Surface	4.6	0.1	55	29.4		8.0		19.7		99.0		6.8		7.3		10	-	-	-								
					Surface	8.2	0.3	61	29.0	29.1	7.9	7.9	25.0	25.0	79.4	79.8	5.3	5.4	8.6	8.9	9	-	-	-								
					Surface	8.2	0.3	63	29.1		7.9		25.0		80.2		5.4		8.9		10	-	-	-								
					Surface	1.0	0.2	102	29.7	29.7	8.1	8.1	19.5	19.5	112.4	112.3	7.7	7.7	4.4	4.4	11	-	-	-	816576	810699	-	-	-	-		
					Surface	1.0	0.2	103	29.7		8.1		19.5		112.1		7.7		4.4		10	-	-	-								
					Surface																											

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

Water Quality Monitoring

Water Quality Monitoring Results on 19 June 21 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	Value	DA	
C1	Sunny	Moderate	13:14	7.0	Surface	1.0	0.2	81	30.2	30.2	8.2	8.2	18.8	18.8	124.4	124.2	8.5	7.7	3.3	5	84	88	815598	804255	<0.2	1.2	<0.2	1.2				
						1.0	0.2	86	30.2	30.2	8.2	8.2	18.8	18.8	124.0	124.0	8.4	7.7	3.2	6	85	88	<0.2	1.2								
						3.5	0.2	106	29.5	29.5	8.1	8.1	19.3	19.3	100.1	100.2	6.9	6.9	8.5	8	87	88	<0.2	1.2								
					3.5	0.2	115	29.4	29.4	8.1	8.1	19.3	19.3	100.2	100.2	6.9	6.9	9.7	7	87	88	<0.2	1.2									
					6.0	0.1	42	28.9	28.9	8.1	8.1	25.4	25.4	84.9	85.6	5.7	5.8	8.2	8	91	88	<0.2	1.2									
					6.0	0.1	44	28.9	28.9	8.1	8.1	25.5	25.4	86.3	86.3	5.8	5.8	8.7	9	91	88	<0.2	1.2									
C2	Sunny	Rough	12:09	11.7	Surface	1.0	0.5	181	30.4	30.4	8.3	8.3	14.7	14.7	110.4	110.4	7.7	7.7	3.3	4	82	87	825700	806947	<0.2	1.5	<0.2	1.5				
						1.0	0.5	188	30.4	30.4	8.3	8.3	14.7	14.7	110.3	110.3	7.7	7.7	3.3	3	82	87	<0.2	1.5								
						5.9	0.2	194	29.5	29.5	8.2	8.2	18.3	18.3	99.0	99.0	6.8	6.8	5.3	3	86	87	<0.2	1.5								
					5.9	0.3	206	29.5	29.5	8.2	8.2	18.3	18.3	99.0	99.0	6.8	6.8	5.3	4	87	87	<0.2	1.5									
					10.7	0.1	134	29.1	29.1	8.2	8.2	22.5	22.5	88.7	88.7	6.0	6.0	4.1	4	91	87	<0.2	1.5									
					10.7	0.1	142	29.1	29.1	8.2	8.2	22.5	22.5	88.7	88.7	6.0	6.0	4.2	5	91	87	<0.2	1.5									
C3	Sunny	Rough	14:22	11.4	Surface	1.0	0.3	293	29.8	29.8	8.3	8.3	19.5	19.5	125.4	125.5	8.6	8.6	3.0	3	83	87	822106	817790	<0.2	1.3	<0.2	1.3				
						1.0	0.3	317	29.8	29.8	8.3	8.3	19.5	19.5	125.5	125.5	8.6	8.6	3.0	4	83	87	<0.2	1.3								
						5.7	0.4	271	29.3	29.3	8.2	8.2	21.8	21.8	103.9	103.9	7.1	7.1	2.8	4	86	87	<0.2	1.3								
					5.7	0.4	280	29.3	29.3	8.2	8.2	21.8	21.8	103.8	103.8	7.0	7.0	2.8	3	87	87	<0.2	1.3									
					10.4	0.2	294	28.2	28.2	8.2	8.2	27.1	27.1	81.4	81.5	5.5	5.5	3.3	4	91	87	<0.2	1.3									
					10.4	0.2	309	28.2	28.2	8.2	8.2	27.1	27.1	81.5	81.5	5.5	5.5	3.4	4	91	87	<0.2	1.3									
IM1	Sunny	Moderate	12:51	4.2	Surface	1.0	0.1	170	29.4	29.4	8.0	8.0	20.6	20.5	104.4	103.0	7.1	7.1	10.2	5	85	88	817927	807143	<0.2	1.3	<0.2	1.3				
						1.0	0.1	180	29.3	29.4	8.0	8.0	20.4	20.5	101.6	101.6	7.0	7.1	10.7	4	86	88	<0.2	1.3								
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-
					3.2	0.1	111	29.3	29.3	8.0	8.0	21.9	21.9	95.0	95.1	6.4	6.5	11.3	5	91	88	<0.2	1.2									
					3.2	0.1	114	29.3	29.3	8.0	8.0	21.9	21.9	95.1	95.1	6.5	6.5	11.8	4	91	88	<0.2	1.2									
					3.2	0.1	114	29.3	29.3	8.0	8.0	21.9	21.9	95.1	95.1	6.5	6.5	11.8	4	91	88	<0.2	1.2									
IM2	Sunny	Moderate	12:44	6.6	Surface	1.0	0.3	4	29.5	29.5	8.1	8.1	19.7	19.7	110.9	110.5	7.6	7.6	8.3	5	85	88	818159	806188	<0.2	1.3	<0.2	1.3				
						1.0	0.4	4	29.4	29.4	8.1	8.1	19.7	19.7	110.1	110.5	7.6	7.6	8.7	6	86	88	<0.2	1.3								
						3.3	0.4	352	28.8	28.8	8.0	8.0	22.2	22.1	90.2	89.0	6.2	6.2	16.7	5	87	88	<0.2	1.3								
					3.3	0.4	324	28.8	28.8	8.0	8.0	22.0	22.1	87.7	87.7	6.0	6.0	17.0	6	87	88	<0.2	1.2									
					5.6	0.2	342	28.8	28.8	8.0	8.0	27.7	27.7	75.1	76.1	5.0	5.1	16.7	5	91	88	<0.2	1.4									
					5.6	0.2	343	28.8	28.8	8.0	8.0	27.7	27.7	77.1	76.1	5.1	5.1	16.3	4	92	88	<0.2	1.4									
IM3	Cloudy	Moderate	12:36	6.8	Surface	1.0	0.3	269	29.8	29.8	8.2	8.2	19.6	19.6	115.5	115.2	7.9	7.9	6.7	5	86	88	818791	805608	<0.2	1.6	<0.2	1.6				
						1.0	0.3	284	29.7	29.7	8.2	8.2	19.6	19.6	114.9	114.9	7.8	7.8	7.0	5	85	88	<0.2	1.6								
						3.4	0.3	293	28.8	28.7	8.1	8.1	20.1	20.3	94.6	91.2	6.5	6.5	13.8	5	87	88	<0.2	1.5								
					3.4	0.3	309	28.6	28.6	8.1	8.1	20.4	20.3	87.8	87.8	6.1	6.1	14.6	5	87	88	<0.2	1.6									
					5.8	0.2	302	28.4	28.4	8.0	8.0	27.7	27.7	70.9	71.0	4.7	4.7	13.6	5	91	88	<0.2	1.6									
					5.8	0.2	327	28.4	28.4	8.0	8.0	27.7	27.7	71.0	71.0	4.7	4.7	14.6	6	91	88	<0.2	1.6									
IM4	Cloudy	Moderate	12:27	7.8	Surface	1.0	0.4	224	29.6	29.6	8.0	8.0	19.5	19.6	93.2	92.9	6.4	6.4	4.7	4	86	88	819748	804591	<0.2	1.3	<0.2	1.3				
						1.0	0.5	242	29.6	29.6	8.0	8.0	19.6	19.6	92.6	92.9	6.3	6.3	5.3	5	86	88	<0.2	1.2								
						3.9	0.4	211	28.7	28.7	8.0	8.0	20.6	20.6	80.6	80.2	5.6	5.6	13.5	4	87	88	<0.2	1.3								
					3.9	0.4	231	28.6	28.6	8.0	8.0	20.6	20.6	79.7	79.7	5.5	5.5	13.6	5	87	88	<0.2	1.4									
					6.8	0.2	296	28.2	28.2	8.0	8.0	28.6	28.6	62.9	63.0	4.2	4.2	14.0	6	90	88	<0.2	1.3									
					6.8	0.2	301	28.2	28.2	8.0	8.0	28.6	28.6	63.1	63.0	4.2	4.2	14.1	5	91	88	<0.2	1.2									
IM5	Cloudy	Moderate	12:18	7.4	Surface	1.0	0.4	245	29.6	29.6	8.1	8.1	19.1	19.1	108.6	108.2	7.4	7.4	8.3	8	86	88	820746	804861	<0.2	1.3	<0.2	1.2				
						1.0	0.4	260	29.6	29.6	8.1	8.1	19.1	19.1	107.7	107.7	7.4	7.4	9.3	7	85	88	<0.2	1.2								
						3.7	0.3	243	29.5	29.5	7.9	7.9	19.5	19.5	88.6	88.4	6.1	6.1	11.1	9	87	88	<0.2	1.1								
					3.7	0.4	257	29.5	29.5	7.9	7.9	19.5	19.5	88.1	88.1	6.0	6.0	11.1	9	87	88	<0.2	1.2									
					6.4	0.2	252	29.5	29.5	7.9	7.9	19.6	19.6	86.7	86.9	5.9	6.0	12.8	10	91	88	<0.2	1.2									
					6.4	0.2	273	29.5	29.5	7.9	7.9	19.6	19.6	87.1	86.9	6.0	6.0	12.5	9	91	88	<0.2	1.1									
IM6	Cloudy	Moderate	12:10	7.4	Surface	1.0	0.3	274	29.9	29.9	8.0	8.0	18.6	18.6	102.6	102.6	7.0	7.0	2.4	7	87	89	821063	805851	<0.2	1.1	<0.2	1.3				
						1.0	0.3	294	29.9	29.9	8.0	8.0	18.7	18.7	102.5	102.6	7.0	7.0	2.5	6	87	89	<0.2	1.1								
						3.7	0.3	239	29.6	29.6	8.0	8.0	19.7	19.7	93.8	93.7	6.4	6.4	5.6	6	87	89	<0.2	1.7								
					3.7	0.3	252	29.6	29.6	8.0	8.0	19.8	19.7	93.5	93.5	6.4	6.4	5.9	6	87	89	<0.2	1.7									
					6.4	0.2	244	29.5	29.5	8.0	8.0	20.1	20.1	92.4	92.4	6.3	6.3	8.6	5	91	88	<0.2	1.1									
					6.4	0.3	253	29.5	29.5	8.0	8.0	20.1	20.1	92.4	92.4	6.3	6.3	8.6	5	92	88	<0.2	1.0									
IM7	Cloudy	Moderate	12:02	8.0	Surface	1.0	0.3	282	29.7	29.7	8.0	8.0	18.9	19.0	100.4	100.3	6.9	6.9	3.7	5	87	88	821331	806819	<0.2	1.4	<0.2	1.5				
						1.0	0.3	307	29.7	29.7	8.0	8.0	19.0	19.0	100.2	100.2	6.9	6.9	4.1	5	87	88	<0.2	1.4								
						4.0	0.3	259	29.5	29.5	8.0	8.0	19.7	19.7	90.9	90.9	6.2	6.2	7.2	5	87	88	<0.2	1.5								

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

Water Quality Monitoring Results on 19 June 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)					
								Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA				
IM9	Sunny	Rough	12:41	6.8	Surface	1.0	0.1	343	29.7	29.7	8.3	8.3	18.2	18.2	111.6	111.6	7.7	7.7	3.7	3	79	86	822115	808796	<0.2	1.4	1.3	1.4					
						1.0	0.1	353	29.7	8.3	8.3	18.2	18.2	111.5	111.5	7.7	7.7	3.7	4	82	86	822115	808796	<0.2	1.3	1.3	1.4						
						3.4	0.1	216	29.6	8.2	8.2	18.5	18.5	107.7	107.7	7.4	7.4	5.6	3	87	86	822115	808796	<0.2	1.3	1.3	1.4						
					Middle	3.4	0.1	219	29.6	8.2	8.2	18.6	18.6	107.7	107.7	7.4	7.4	5.6	4	87	86	822115	808796	<0.2	1.2	1.2	1.3	1.3					
						5.8	0.1	260	29.4	8.2	8.2	19.7	19.7	99.3	99.3	6.8	6.8	6.7	4	90	86	822115	808796	<0.2	1.3	1.3	1.3	1.3					
						5.8	0.1	266	29.4	8.2	8.2	19.7	19.7	99.3	99.3	6.8	6.8	6.7	5	91	86	822115	808796	<0.2	1.3	1.3	1.3	1.3					
					IM10	Sunny	Rough	12:49	7.6	Surface	1.0	0.2	103	29.8	29.8	8.3	8.3	18.0	18.0	111.3	111.3	7.7	7.7	3.7	4	82	86	822361	809810	<0.2	1.3	1.3	1.2
											1.0	0.2	107	29.8	8.3	8.3	18.0	18.0	111.2	111.2	7.6	7.6	3.7	3	83	86	822361	809810	<0.2	1.3	1.3	1.2	
											3.8	0.1	139	29.4	8.2	8.2	19.4	19.4	101.6	101.6	7.0	7.0	6.2	4	87	86	822361	809810	<0.2	1.3	1.3	1.2	
Middle	3.8	0.1	139	29.4						8.2	8.2	19.4	19.4	101.6	101.6	7.0	7.0	6.3	3	87	86	822361	809810	<0.2	1.2	1.2	1.2	1.2					
	6.6	0.0	97	29.4						8.2	8.2	19.6	19.6	97.1	97.1	6.7	6.7	5.9	4	90	86	822361	809810	<0.2	1.1	1.1	1.1	1.1					
	6.6	0.0	98	29.4						8.2	8.2	19.6	19.6	97.1	97.1	6.7	6.7	5.8	3	90	86	822361	809810	<0.2	1.2	1.2	1.2	1.2					
IM11	Sunny	Rough	12:59	7.9						Surface	1.0	0.3	102	29.8	29.8	8.2	8.2	18.4	18.4	109.2	109.2	7.5	7.5	3.5	3	79	86	822075	811461	<0.2	1.2	1.2	1.2
											1.0	0.3	110	29.8	8.2	8.2	18.4	18.4	109.1	109.1	7.5	7.5	3.5	4	82	86	822075	811461	<0.2	1.3	1.3	1.2	
											4.0	0.2	77	29.4	8.2	8.2	19.6	19.6	100.2	100.2	6.9	6.9	5.5	3	86	86	822075	811461	<0.2	1.1	1.1	1.2	
					Middle	4.0	0.2	79	29.4	8.2	8.2	19.6	19.6	100.2	100.2	6.9	6.9	5.6	4	87	86	822075	811461	<0.2	1.2	1.2	1.2	1.2					
						6.9	0.1	18	29.3	8.2	8.2	20.3	20.3	94.3	94.3	6.5	6.5	6.6	3	90	86	822075	811461	<0.2	1.2	1.2	1.2						
						6.9	0.1	18	29.4	8.2	8.2	20.3	20.3	94.3	94.3	6.5	6.5	6.7	4	91	86	822075	811461	<0.2	1.0	1.0	1.0						
					IM12	Sunny	Rough	13:07	9.1	Surface	1.0	0.2	93	29.9	29.9	8.3	8.3	18.4	18.4	120.2	120.2	8.2	8.2	4.2	4	82	86	821471	812065	<0.2	1.2	1.2	1.3
											1.0	0.2	100	29.9	8.3	8.3	18.4	18.4	120.2	120.2	8.2	8.2	4.2	3	83	86	821471	812065	<0.2	1.3	1.3	1.3	
											4.6	0.1	33	29.5	8.2	8.2	20.1	20.1	98.2	98.3	6.7	6.7	3.3	4	87	86	821471	812065	<0.2	1.2	1.2	1.3	
Middle	4.6	0.1	33	29.5						8.2	8.2	20.1	20.1	98.3	98.3	6.7	6.7	3.3	4	87	86	821471	812065	<0.2	1.2	1.2	1.3	1.3					
	8.1	0.3	306	29.2						8.2	8.2	21.6	21.6	88.4	88.3	6.0	6.0	4.8	4	91	86	821471	812065	<0.2	1.2	1.2	1.2						
	8.1	0.3	316	29.2						8.2	8.2	21.7	21.7	88.1	88.1	6.0	6.0	4.8	3	92	86	821471	812065	<0.2	1.2	1.2	1.3						
SR1A	Sunny	Rough	13:42	4.9						Surface	1.0	-	-	29.8	29.8	8.3	8.3	18.8	18.8	118.7	118.7	8.1	8.1	3.2	2	-	-	819975	812663	-	-	-	-
											1.0	-	-	29.8	29.8	8.3	8.3	18.8	18.8	118.7	118.7	8.1	8.1	3.2	3	-	-	819975	812663	-	-	-	-
											2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819975	812663	-	-
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819975	812663	-	-	-	-	-	-	
						3.9	-	-	29.7	29.7	8.3	8.3	19.0	19.0	112.5	112.5	7.7	7.7	3.3	4	-	-	-	-	819975	812663	-	-	-	-			
						3.9	-	-	29.7	29.7	8.3	8.3	19.0	19.0	112.4	112.4	7.7	7.7	3.3	3	-	-	-	-	819975	812663	-	-	-	-			
					SR2	Sunny	Rough	13:58	4.8	Surface	1.0	0.0	220	29.9	29.9	8.3	8.3	18.1	18.1	119.0	119.0	8.2	8.2	3.7	3	82	86	821485	814184	<0.2	1.4	1.4	1.4
											1.0	0.0	240	29.9	8.3	8.3	18.1	18.1	119.0	119.0	8.2	8.2	3.8	2	83	86	821485	814184	<0.2	1.4	1.4	1.4	
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821485	814184	<0.2	1.4
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821485	814184	<0.2	1.4	1.4	1.4	1.4		
	3.8	0.0	117	29.8						8.3	8.3	18.9	18.9	116.4	116.4	8.0	8.0	4.0	3	86	86	821485	814184	<0.2	1.3	1.3	1.3						
	3.8	0.0	123	29.8						8.3	8.3	18.9	18.9	116.3	116.3	8.0	8.0	4.1	3	86	86	821485	814184	<0.2	1.4	1.4	1.4						
SR3	Sunny	Rough	12:29	7.6						Surface	1.0	0.2	236	29.8	29.8	8.3	8.3	18.6	18.6	110.3	110.3	7.6	7.6	3.9	2	-	-	822167	807549	-	-	-	-
											1.0	0.2	241	29.8	8.3	8.3	18.6	18.6	110.3	110.3	7.6	7.6	4.0	3	-	-	822167	807549	-	-	-	-	
											3.8	0.2	216	29.4	8.2	8.2	19.1	19.1	101.6	101.6	7.0	7.0	7.0	4	-	-	822167	807549	-	-	-	-	
					Middle	3.8	0.2	220	29.4	8.2	8.2	19.1	19.1	101.6	101.6	7.0	7.0	7.0	3	-	-	822167	807549	-	-	-	-						
						6.6	0.2	243	29.3	8.2	8.2	20.0	20.0	94.1	94.1	6.5	6.5	6.9	3	-	-	822167	807549	-	-	-	-						
						6.6	0.2	250	29.3	8.2	8.2	20.0	20.0	94.1	94.1	6.5	6.5	6.9	4	-	-	822167	807549	-	-	-	-						
					SR4A	Sunny	Moderate	13:33	8.5	Surface	1.0	0.2	247	29.8	29.8	8.2	8.2	19.5	19.5	120.4	120.4	8.2	8.2	6.1	6	-	-	817209	807807	-	-	-	-
											1.0	0.2	260	29.8	8.3	8.3	19.5	19.5	120.3	120.3	8.2	8.2	6.5	5	-	-	817209	807807	-	-	-	-	
											4.3	0.3	248	29.1	8.1	8.1	20.1	20.1	101.0	99.8	7.0	7.0	8.2	6	-	-	817209	807807	-	-	-	-	
Middle	4.3	0.3	267	29.0						8.1	8.1	20.2	20.1	98.6	99.8	6.8	6.8	8.4	6	-	-	817209	807807	-	-	-	-						
	7.5	0.1	47	29.2						8.1	8.1	26.8	26.7	73.6	74.0	4.9	4.9	10.4	9	-	-	817209	807807	-	-	-	-						
	7.5	0.1	50	29.3						8.1	8.1	26.7	26.7	74.4	74.4	4.9	4.9	10.6	8	-	-	817209	807807	-	-	-	-						
SR5A	Sunny	Moderate	13:51	4.0						Surface	1.0	0.2	310	30.0	30.0	8.2	8.2	20.4	20.4	130.2	130.2	8.8	8.8	5.8	9	-	-	816610	810672	-	-	-	-
											1.0	0.2	339	30.0	8.2	8.2	20.4	20.4	130.1	130.1	8.8	8.8	5.8	8	-	-	816610	810672	-	-	-	-	
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	816610	810672	-	-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	816610	810672	-	-	-	-			
						3.0	0.1	300	29.9	8.2	8.2	20.6	20.6	118.1	118.1	8.0																	

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

Water Quality Monitoring

Water Quality Monitoring Results on 22 June 21 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	Value	DA				
C1	Rainy	Moderate	10:59	8.0	Surface	1.0	2.3	342	28.6	28.6	8.1	8.1	20.5	20.5	79.7	79.6	5.5	5.0	4.0	8	85	88	815624	804229	<0.2	1.3	<0.2	1.3							
						1.0	2.5	315	28.6	8.1	8.1	20.5	20.5	79.4	79.6	5.5	5.0	4.1	7	87	88	<0.2	1.3												
						4.0	2.4	342	28.3	8.1	8.1	23.3	23.3	65.1	64.8	4.5	5.0	5.7	6	88	88	<0.2	1.4												
					Middle	4.0	2.4	315	28.3	8.1	8.1	23.3	23.3	64.4	64.8	4.4	5.0	5.8	7	87	88	<0.2	1.4												
						7.0	2.2	340	26.0	7.9	7.9	31.7	31.6	37.5	38.1	2.6	2.6	15.2	6	91	90	<0.2	1.2												
						7.0	2.4	351	26.0	7.9	7.9	31.6	31.6	38.7	38.7	2.6	2.6	15.3	7	90	90	<0.2	1.1												
					C2	Cloudy	Rough	09:22	10.3	Surface	1.0	1.0	159	29.5	29.5	8.2	8.2	15.9	15.9	95.3	95.3	6.7	5.7	5.1	10	82			86	825687	806950	<0.2	1.3	<0.2	1.4
											1.0	1.0	160	29.5	8.2	8.2	15.9	15.9	95.2	95.3	6.7	5.7	5.1	10	82	86			<0.2	1.2					
											5.2	0.8	157	28.5	8.1	8.1	24.7	24.7	67.5	67.7	4.6	5.0	6.0	10	86	86			<0.2	1.5					
Middle	5.2	0.8	165	28.5						8.1	8.1	24.7	24.7	67.9	67.9	4.6	5.0	6.1	11	87	87	<0.2	1.5												
	9.3	0.3	163	27.9						8.1	8.1	26.3	26.3	63.1	63.1	4.3	4.3	5.6	10	90	90	<0.2	1.4												
	9.3	0.3	169	27.9						8.1	8.1	26.3	26.3	63.1	63.1	4.3	4.3	5.6	11	90	90	<0.2	1.4												
C3	Cloudy	Rough	11:17	10.6						Surface	1.0	0.1	195	28.9	28.9	8.2	8.2	21.5	21.5	92.4	92.4	6.3	6.0	3.9	6	82	86	822121	817802	<0.2	1.3	<0.2	1.3		
											1.0	0.2	199	28.9	8.2	8.2	21.5	21.5	92.4	92.4	6.3	6.0	3.9	5	83	86	<0.2	1.3							
											5.3	0.0	189	28.6	8.2	8.2	23.4	23.4	83.2	83.2	5.7	5.7	4.0	6	86	86	<0.2	1.3							
					Middle	5.3	0.0	202	28.6	8.2	8.2	23.4	23.4	83.2	83.2	5.7	5.7	4.0	5	86	86	<0.2	1.5												
						9.6	0.3	23	28.0	8.1	8.1	25.7	25.7	76.0	76.0	5.2	5.2	7.9	6	90	90	<0.2	1.2												
						9.6	0.3	24	28.0	8.1	8.1	25.7	25.7	76.0	76.0	5.2	5.2	7.9	7	91	91	<0.2	1.2												
					IM1	Rainy	Moderate	11:21	5.1	Surface	1.0	0.0	14	28.4	28.4	8.1	8.1	24.0	24.0	60.7	60.5	5.1	5.1	10.2	5	84	88	817949	807144	<0.2	1.2			<0.2	1.2
											1.0	0.0	14	28.4	8.1	8.1	24.0	24.0	60.3	60.3	5.1	5.1	10.3	6	85	85	<0.2	1.2							
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	4.1	0.1	231	26.4						7.8	7.8	30.6	30.6	41.7	43.9	5.8	6.0	16.4	6	90	90	<0.2	1.1												
	4.1	0.1	252	26.4						7.8	7.8	30.6	30.6	46.1	46.1	6.1	6.0	16.3	5	91	91	<0.2	1.1												
IM2	Rainy	Moderate	11:29	6.8						Surface	1.0	0.9	161	28.7	28.7	8.1	8.1	21.8	21.8	73.8	73.7	5.1	5.4	5.2	5	87	86	818181	806161	<0.2	1.0	<0.2	1.1		
											1.0	0.9	165	28.7	8.1	8.1	21.8	21.8	73.5	73.7	5.0	5.4	5.4	5	86	86	<0.2	1.1							
											3.4	0.8	175	26.7	7.9	7.9	30.0	29.9	38.9	39.1	5.6	5.4	11.0	5	88	89	<0.2	1.2							
					Middle	3.4	0.8	187	26.7	7.9	7.9	29.9	29.9	39.3	39.1	5.7	5.4	11.5	5	89	89	<0.2	1.1												
						5.8	1.1	158	26.0	7.9	7.9	31.6	31.6	36.5	36.8	5.5	5.5	14.0	6	91	91	<0.2	1.1												
						5.8	1.2	170	26.0	7.9	7.9	31.6	31.6	37.1	36.8	5.5	5.5	14.0	5	93	93	<0.2	1.1												
					IM3	Rainy	Moderate	11:36	7.2	Surface	1.0	2.4	6	28.9	28.9	8.2	8.1	20.2	20.2	79.9	79.8	5.5	5.4	5.2	5	87	86	818799	805602	<0.2	1.1			<0.2	1.2
											1.0	2.7	6	28.9	8.1	8.1	20.2	20.2	79.6	79.8	5.5	5.4	5.4	5	86	86	<0.2	1.1							
											3.6	2.6	5	27.9	8.0	8.0	25.4	25.4	48.3	46.7	5.3	5.4	10.5	6	88	89	<0.2	1.3							
Middle	3.6	2.8	5	28.0						8.0	8.0	25.4	25.4	45.0	46.7	5.1	5.4	10.9	5	89	90	<0.2	1.2												
	6.2	2.4	1	26.0						7.9	7.9	31.7	31.7	37.9	38.9	5.6	5.7	12.9	5	91	91	<0.2	1.2												
	6.2	2.5	1	26.0						7.9	7.9	31.7	31.7	39.8	38.9	5.7	5.7	13.0	6	93	93	<0.2	1.1												
IM4	Rainy	Moderate	11:46	7.5						Surface	1.0	2.4	136	28.9	28.9	8.1	8.1	21.2	21.3	77.9	77.8	5.3	5.3	13.9	5	87	87	819744	804613	<0.2	1.0	<0.2	1.1		
											1.0	2.5	137	28.9	8.1	8.1	21.4	21.3	77.6	77.8	5.3	5.2	12.6	5	87	87	<0.2	0.9							
											3.8	2.5	137	28.6	8.1	8.1	22.6	22.7	66.9	66.4	5.1	5.2	16.9	6	89	89	<0.2	1.0							
					Middle	3.8	2.6	150	28.5	8.1	8.1	22.7	22.7	65.8	66.4	5.2	5.2	18.0	5	89	89	<0.2	1.1												
						6.5	2.5	122	26.8	7.9	7.9	27.6	27.8	43.6	43.5	5.0	5.0	18.1	8	90	90	<0.2	1.2												
						6.5	2.6	129	26.7	7.9	7.9	27.9	27.8	43.3	43.5	5.0	5.0	18.3	9	90	90	<0.2	1.1												
					IM5	Rainy	Moderate	11:57	7.2	Surface	1.0	2.1	313	29.1	29.1	8.1	8.1	20.3	20.3	84.6	84.6	5.8	5.8	13.3	9	87	86	820723	804859	<0.2	1.1			<0.2	1.1
											1.0	2.3	317	29.1	8.1	8.1	20.4	20.3	84.5	84.6	5.8	5.8	13.5	13	86	86	<0.2	1.1							
											3.6	1.9	318	29.1	8.1	8.1	20.5	20.5	83.7	83.7	5.7	5.7	15.6	13	88	87	<0.2	1.2							
Middle	3.6	2.0	327	29.1						8.1	8.1	20.5	20.5	83.7	83.7	5.7	5.7	15.3	14	87	87	<0.2	1.1												
	6.2	1.9	319	29.1						8.1	8.1	20.5	20.4	85.0	85.1	5.8	5.8	18.6	13	91	91	<0.2	1.2												
	6.2	1.9	325	29.1						8.1	8.1	20.4	20.4	85.1	85.1	5.8	5.8	18.7	13	91	91	<0.2	1.1												
IM6	Rainy	Moderate	12:09	6.9						Surface	1.0	1.3	355	29.1	29.1	8.1	8.1	19.8	19.8	86.2	86.2	5.9	5.9	13.0	20	86	87	821076	805851	<0.2	1.2	<0.2	1.2		
											1.0	1.4	358	29.1	8.1	8.1	19.8	19.8	86.2	86.2	5.9	5.9	12.6	19	87	88	<0.2	1.3							
											3.5	1.0	6	29.1	8.1	8.1	19.8	19.8	86.0	86.0	5.9	5.9	15.0	18	88	89	<0.2	1.1							
					Middle	3.5	1.1	6	29.1	8.1	8.1	19.8	19.8	86.0	86.0	5.9	5.9	15.5	17	89	91	<0.2	1.1												
						5.9	1.3	16	29.1	8.1	8.1	19.8	19.8	86.4	86.5	6.0	6.0	18.4	17	91	91	<0.2	1.1												
						5.9	1.3	16	29.1	8.1	8.1	19.8	19.8	86.5	86.5	6.0	6.0	18.5	17	91	91	<0.2	1.3												
					IM7	Rainy	Moderate	12:21	7.4	Surface	1.0	1.4	257	29.1	29.1	8.1	8.1	19.3	19.4	88.3	88.2	6.1	6.1	6.5	6	87	86	821333	806855	<0.2	1.4			<0.2	1.2
											1.0	1.5	281	29.1	8.1	8.1	19.4	19.4	88.1	88.2	6.1	6.1	6.8	7	86	89	<0.2	1.3							
											3.7	1.2	258	29.1	8.1	8.1	19.7	19.7	87.6	87.7	6.0	6.0	11.6	7	89	89	<0.2	1.1							
Middle	3.7	1.4	266	29.1						8.1	8.1	19.7	19.7	87.7	87.7	6.0	6.0	11.9	6	89	91	<0.2	1.2												
	6.4	1.6	262	29.1						8.1	8.1	19.7	19.7	88.7	88.9	6.1	6.1	14.6	8	91	91	<0.2	1.2												
	6.4	1.8	278	29.1						8.1	8.1	1																							

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

Water Quality Monitoring Results on 22 June 21 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	Value	DA	
IM9	Cloudy	Rough	09:49	6.5	Surface	1.0	0.3	190	29.3	29.3	8.2	8.2	18.5	18.5	93.4	93.4	6.5	6.4	5.1	5.5	6	5	82	86	86	822096	808822	<0.2	1.5	<0.2	1.3		
						1.0	0.3	193	29.3	8.2	8.1	18.5	19.7	93.4	90.7	6.5	6.2	5.2	5.3	5	5	83	86	86	82	86	<0.2	1.2	<0.2	1.4			
						3.3	0.3	190	29.2	8.1	8.1	19.7	19.7	90.7	90.7	6.2	6.2	5.3	5.3	5	5	86	86	86	82	86	<0.2	1.3	<0.2	1.4			
					Middle	3.3	0.3	206	29.2	8.1	8.1	19.7	19.7	90.7	90.7	6.2	6.2	5.3	5.3	5	5	86	86	86	82	86	<0.2	1.2	<0.2	1.4			
						5.5	0.1	205	29.2	8.1	8.1	20.0	20.0	90.2	90.2	6.2	6.2	5.9	5.9	5	5	90	90	90	82	90	<0.2	1.2	<0.2	1.4			
						5.5	0.1	219	29.2	8.1	8.1	20.0	20.0	90.2	90.2	6.2	6.2	6.0	6.0	4	4	91	91	91	82	91	<0.2	1.2	<0.2	1.4			
					Bottom	5.5	0.1	205	29.2	8.1	8.1	20.0	20.0	90.2	90.2	6.2	6.2	5.9	5.9	5	5	90	90	90	82	90	<0.2	1.2	<0.2	1.4			
						5.5	0.1	219	29.2	8.1	8.1	20.0	20.0	90.2	90.2	6.2	6.2	6.0	6.0	4	4	91	91	91	82	91	<0.2	1.2	<0.2	1.4			
						5.5	0.1	219	29.2	8.1	8.1	20.0	20.0	90.2	90.2	6.2	6.2	6.0	6.0	4	4	91	91	91	82	91	<0.2	1.2	<0.2	1.4			
IM10	Cloudy	Rough	09:56	6.8	Surface	1.0	0.5	125	29.4	29.4	8.2	8.2	17.9	17.9	91.6	91.6	6.3	6.1	4.7	5.6	4	5	83	86	87	822396	809778	<0.2	1.4	<0.2	1.5		
						1.0	0.5	129	29.4	8.2	8.1	18.3	20.7	91.6	86.6	6.3	5.9	4.7	5.5	5	6	83	86	87	82	86	<0.2	1.4	<0.2	1.3			
						3.4	0.4	117	29.1	8.1	8.1	20.8	20.7	86.5	86.6	6.3	5.9	5.5	5.5	7	7	86	87	87	82	86	<0.2	1.3	<0.2	1.4			
					Middle	3.4	0.5	120	29.1	8.1	8.1	20.7	20.7	86.6	86.6	6.3	5.9	5.5	5.5	7	7	87	87	87	82	86	<0.2	1.4	<0.2	1.4			
						5.8	0.3	102	29.1	8.1	8.1	20.9	20.9	87.0	87.1	6.0	6.0	6.5	6.5	7	7	90	90	90	82	90	<0.2	1.7	<0.2	1.6			
						5.8	0.3	107	29.1	8.1	8.1	20.9	20.9	87.1	87.1	6.0	6.0	6.5	6.5	8	8	91	91	91	82	91	<0.2	1.6	<0.2	1.6			
					Bottom	5.8	0.3	102	29.1	8.1	8.1	20.9	20.9	87.0	87.1	6.0	6.0	6.5	6.5	7	7	90	90	90	82	90	<0.2	1.7	<0.2	1.6			
						5.8	0.3	107	29.1	8.1	8.1	20.9	20.9	87.1	87.1	6.0	6.0	6.5	6.5	8	8	91	91	91	82	91	<0.2	1.6	<0.2	1.6			
						5.8	0.3	107	29.1	8.1	8.1	20.9	20.9	87.1	87.1	6.0	6.0	6.5	6.5	8	8	91	91	91	82	91	<0.2	1.6	<0.2	1.6			
IM11	Cloudy	Rough	10:05	7.4	Surface	1.0	0.6	100	29.4	29.4	8.2	8.2	18.3	18.3	94.5	94.5	6.5	6.4	4.8	4.8	4	4	82	83	87	822057	811449	<0.2	1.5	<0.2	1.5		
						1.0	0.6	107	29.4	8.2	8.2	18.3	19.4	94.5	92.2	6.5	6.3	4.8	4.5	4	4	83	87	87	82	86	<0.2	1.5	<0.2	1.3			
						3.7	0.6	84	29.3	8.2	8.2	19.4	19.4	92.2	92.2	6.3	6.3	4.5	4.5	3	3	87	87	87	82	86	<0.2	1.3	<0.2	1.4			
					Middle	3.7	0.6	89	29.3	8.2	8.2	19.4	19.4	92.2	92.2	6.3	6.3	4.5	4.5	4	4	87	87	87	82	86	<0.2	1.4	<0.2	1.4			
						6.4	0.4	92	29.2	8.2	8.2	20.0	20.0	90.6	90.7	6.2	6.2	5.1	5.1	4	4	90	90	90	82	90	<0.2	1.6	<0.2	1.6			
						6.4	0.5	92	29.2	8.2	8.2	20.0	20.0	90.7	90.7	6.2	6.2	5.1	5.1	3	3	90	90	90	82	90	<0.2	1.5	<0.2	1.5			
					Bottom	6.4	0.4	92	29.2	8.2	8.2	20.0	20.0	90.6	90.7	6.2	6.2	5.1	5.1	4	4	90	90	90	82	90	<0.2	1.6	<0.2	1.6			
						6.4	0.5	92	29.2	8.2	8.2	20.0	20.0	90.7	90.7	6.2	6.2	5.1	5.1	3	3	90	90	90	82	90	<0.2	1.5	<0.2	1.5			
						6.4	0.5	92	29.2	8.2	8.2	20.0	20.0	90.7	90.7	6.2	6.2	5.1	5.1	3	3	90	90	90	82	90	<0.2	1.5	<0.2	1.5			
IM12	Cloudy	Rough	10:11	8.5	Surface	1.0	0.4	90	29.3	29.3	8.2	8.2	19.2	19.2	95.2	95.2	6.6	6.5	4.0	5.4	5	4	82	83	86	821465	812041	<0.2	1.2	<0.2	1.4		
						1.0	0.5	96	29.3	8.2	8.2	19.2	19.2	95.1	91.5	6.6	6.3	4.0	5.4	4	4	83	86	87	82	86	<0.2	1.2	<0.2	1.4			
						4.3	0.3	93	29.2	8.2	8.2	19.7	19.7	91.5	91.5	6.3	6.3	5.4	5.4	5	4	86	87	87	82	86	<0.2	1.4	<0.2	1.3			
					Middle	4.3	0.4	96	29.2	8.2	8.2	19.7	19.7	91.5	91.5	6.3	6.3	5.4	5.4	4	4	87	87	87	82	86	<0.2	1.4	<0.2	1.4			
						7.5	0.3	95	28.9	8.1	8.1	21.2	21.2	86.2	86.2	5.9	5.9	6.7	6.7	3	3	90	90	90	82	90	<0.2	1.5	<0.2	1.5			
						7.5	0.3	100	28.9	8.1	8.1	21.2	21.2	86.2	86.2	5.9	5.9	6.7	6.7	3	3	90	90	90	82	90	<0.2	1.6	<0.2	1.6			
					Bottom	7.5	0.3	95	28.9	8.1	8.1	21.2	21.2	86.2	86.2	5.9	5.9	6.7	6.7	3	3	90	90	90	82	90	<0.2	1.5	<0.2	1.5			
						7.5	0.3	100	28.9	8.1	8.1	21.2	21.2	86.2	86.2	5.9	5.9	6.7	6.7	3	3	90	90	90	82	90	<0.2	1.6	<0.2	1.6			
						7.5	0.3	100	28.9	8.1	8.1	21.2	21.2	86.2	86.2	5.9	5.9	6.7	6.7	3	3	90	90	90	82	90	<0.2	1.6	<0.2	1.6			
SR1A	Cloudy	Rough	10:39	4.8	Surface	1.0	-	-	29.3	29.3	8.2	8.2	19.6	19.6	98.9	98.9	6.8	6.8	3.5	6.8	6	5	-	-	-	819978	812658	-	-	-	-		
						1.0	-	-	29.3	8.2	8.2	19.6	19.6	98.9	98.9	6.8	6.8	3.5	6.8	5	5	-	-	-	81	83	-	-	-	-			
						2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						3.8	-	-	29.1	29.1	8.2	8.2	20.0	20.0	96.9	97.0	6.7	6.7	5.0	5.0	6	6	-	-	-	-	-	-	-	-	-	-	
						3.8	-	-	29.1	29.1	8.2	8.2	20.0	20.0	97.0	97.0	6.7	6.7	5.0	5.0	5	5	-	-	-	-	-	-	-	-	-	-	
					Bottom	3.8	-	-	29.1	29.1	8.2	8.2	20.0	20.0	97.0	97.0	6.7	6.7	5.0	5.0	5	5	-	-	-	-	-	-	-	-	-	-	
						3.8	-	-	29.1	29.1	8.2	8.2	20.0	20.0	97.0	97.0	6.7	6.7	5.0	5.0	5	5	-	-	-	-	-	-	-	-	-	-	
						3.8	-	-	29.1	29.1	8.2	8.2	20.0	20.0	97.0	97.0	6.7	6.7	5.0	5.0	5	5	-	-	-	-	-	-	-	-	-		
SR2	Cloudy	Rough	10:54	4.4	Surface	1.0	0.4	100	29.3	29.3	8.2	8.2	19.7	19.7	94.1	94.2	6.5	6.5	4.3	7	7	83	83	83	821444	814177	<0.2	1.4	<0.2	1.3			
						1.0	0.4	100	29.3	8.2	8.2	19.7	19.7	94.2	94.2	6.5	6.5	4.3	4.3	7	7	83	83	83	82	86	<0.2	1.3	<0.2	1.4			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						3.4	0.3	92	29.																								

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

Water Quality Monitoring Results on 22 June 21 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	03:52	8.4	Surface	1.0	2.2	318	28.3	8.0	8.0	23.6	23.6	66.3	66.4	4.5	4.3	9.4	5	86	88	88	88	815602	804249	<0.2	1.2	1.1	1.1				
						1.0	2.4	321	28.3	8.0	8.0	23.6	23.6	66.4	66.4	4.5	4.3	9.8	5	86	88	88	88	815602	804249	<0.2	1.1	1.1	1.1				
					Middle	4.2	2.6	319	28.2	8.0	8.0	24.1	24.1	58.2	58.1	4.0	4.0	14.9	5	87	88	88	88	815602	804249	<0.2	1.0	1.0	1.0				
						4.2	2.8	343	28.2	8.0	8.0	24.1	24.1	57.9	57.9	4.0	4.0	14.8	4	88	88	88	88	815602	804249	<0.2	1.0	1.0	1.0				
					Bottom	7.4	2.7	314	27.1	7.9	7.9	28.9	28.9	42.2	42.5	2.9	2.9	18.8	5	89	89	89	89	815602	804249	<0.2	1.1	1.1	1.1				
						7.4	2.7	345	27.2	7.9	7.9	28.8	28.8	42.8	42.8	2.9	2.9	19.0	5	90	90	90	90	815602	804249	<0.2	1.2	1.2	1.2				
C2	Rainy	Rough	05:40	10.7	Surface	1.0	1.0	155	29.4	8.2	8.2	16.3	16.3	93.8	93.8	6.5	6.1	5.5	9	82	86	86	86	825667	806955	<0.2	1.3	1.3	1.3				
						1.0	1.0	162	29.4	8.2	8.1	16.3	16.3	93.7	93.7	6.5	6.1	5.5	10	83	86	86	86	825667	806955	<0.2	1.3	1.3	1.3				
					Middle	5.4	0.8	163	28.9	8.1	8.1	22.6	22.7	82.1	82.0	5.6	5.6	6.6	6.5	11	86	86	86	86	825667	806955	<0.2	1.6	1.6	1.6			
						5.4	0.8	171	28.9	8.1	8.1	22.6	22.6	81.8	81.8	5.6	5.6	6.6	10	86	86	86	86	825667	806955	<0.2	1.5	1.5	1.5				
					Bottom	9.7	0.1	132	28.1	8.1	8.1	26.0	26.0	70.5	70.6	4.8	4.8	7.4	10	90	90	90	90	825667	806955	<0.2	1.5	1.5	1.5				
						9.7	0.1	141	28.1	8.1	8.1	26.0	26.0	70.7	70.7	4.8	4.8	7.4	11	90	90	90	90	825667	806955	<0.2	1.5	1.5	1.5				
C3	Rainy	Rough	03:25	13.2	Surface	1.0	0.4	283	28.3	8.2	8.2	23.8	23.8	87.7	87.7	6.0	5.9	4.4	4	82	86	86	86	822097	817817	<0.2	1.2	1.2	1.2				
						1.0	0.4	300	28.3	8.2	8.1	23.8	23.8	87.6	87.6	6.0	5.9	4.4	3	82	86	86	86	822097	817817	<0.2	1.1	1.1	1.1				
					Middle	6.6	0.5	271	28.1	8.1	8.1	24.7	24.7	84.1	84.1	5.7	5.7	4.7	4	86	86	86	86	822097	817817	<0.2	1.2	1.2	1.2				
						6.6	0.5	292	28.1	8.1	8.1	24.7	24.7	84.0	84.0	5.7	5.0	4.7	3	87	87	87	87	822097	817817	<0.2	1.4	1.4	1.4				
					Bottom	12.2	0.3	281	27.4	8.1	8.1	27.4	27.4	73.6	73.7	5.0	5.0	3.8	4	90	90	90	90	822097	817817	<0.2	1.4	1.4	1.4				
						12.2	0.4	309	27.4	8.1	8.1	27.4	27.4	73.8	73.8	5.0	5.0	3.9	3	91	91	91	91	822097	817817	<0.2	1.4	1.4	1.4				
IM1	Cloudy	Moderate	03:31	4.4	Surface	1.0	0.0	206	28.0	8.1	8.1	22.5	22.5	74.6	72.4	5.2	5.1	4.0	5	86	88	88	88	817960	807122	<0.2	1.2	1.2	1.2				
						1.0	0.0	208	27.9	8.1	8.1	22.5	22.5	70.1	70.1	5.2	5.1	3.9	5	85	85	85	85	817960	807122	<0.2	1.2	1.2	1.2				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	3.4	0.0	307	27.4	7.9	7.9	28.1	28.0	46.3	47.2	5.1	5.2	9.2	11	90	90	90	90	817960	807122	<0.2	1.3	1.3	1.3				
						3.4	0.0	328	27.4	7.9	7.9	28.0	28.0	48.1	48.1	5.1	5.2	9.1	6	89	89	89	89	817960	807122	<0.2	1.4	1.4	1.4				
IM2	Cloudy	Moderate	03:23	6.5	Surface	1.0	2.3	355	28.4	8.1	8.1	23.1	23.1	68.5	68.4	5.7	5.8	6.3	5	86	88	88	88	818149	806167	<0.2	1.2	1.2	1.2				
						1.0	2.4	327	28.4	8.1	8.1	23.1	23.1	68.3	68.3	5.7	5.8	6.4	6	85	85	85	85	818149	806167	<0.2	1.1	1.1	1.1				
					Middle	3.3	2.3	359	27.4	8.0	8.0	27.5	27.5	43.0	42.2	5.9	5.8	8.4	6	87	87	87	87	818149	806167	<0.2	1.2	1.2	1.2				
						3.3	2.4	330	27.4	8.0	8.0	27.5	27.5	41.3	41.3	5.8	5.8	8.1	6	88	88	88	88	818149	806167	<0.2	1.2	1.2	1.2				
					Bottom	5.5	2.1	359	26.2	7.9	7.9	30.8	30.8	33.8	34.0	5.3	5.3	11.6	7	90	90	90	90	818149	806167	<0.2	1.2	1.2	1.2				
						5.5	2.3	330	26.2	7.9	7.9	30.7	30.8	34.2	34.2	5.3	5.3	11.4	8	90	90	90	90	818149	806167	<0.2	1.2	1.2	1.2				
IM3	Cloudy	Moderate	03:15	6.5	Surface	1.0	2.7	349	28.4	8.1	8.1	22.2	22.2	74.4	74.3	5.1	5.1	6.0	6	85	88	88	88	818765	805607	<0.2	1.2	1.2	1.2				
						1.0	2.7	321	28.3	8.1	8.1	22.2	22.2	74.1	74.1	5.1	5.1	6.0	6	85	85	85	85	818765	805607	<0.2	1.3	1.3	1.3				
					Middle	3.3	2.6	349	27.4	8.0	8.0	25.6	25.6	57.3	57.1	5.0	5.0	8.2	11	87	87	87	87	818765	805607	<0.2	1.2	1.2	1.2				
						3.3	2.8	355	27.3	8.0	8.0	25.7	25.7	56.8	56.8	5.0	5.0	8.5	11	88	88	88	88	818765	805607	<0.2	1.3	1.3	1.3				
					Bottom	5.5	3.0	351	26.8	7.9	7.9	29.5	29.4	45.6	46.2	5.1	5.2	14.6	9	90	90	90	90	818765	805607	<0.2	1.4	1.4	1.4				
						5.5	2.1	323	26.8	7.9	7.9	29.4	29.4	46.7	46.7	5.2	5.2	14.0	8	90	90	90	90	818765	805607	<0.2	1.4	1.4	1.4				
IM4	Cloudy	Moderate	03:06	7.7	Surface	1.0	2.5	295	28.6	8.1	8.1	19.1	19.1	83.3	83.0	5.8	5.4	10.2	5	86	88	88	88	819738	804612	<0.2	1.3	1.3	1.3				
						1.0	2.5	306	28.5	8.1	8.1	19.2	19.1	82.7	82.7	5.8	5.4	10.6	6	85	85	85	85	819738	804612	<0.2	1.2	1.2	1.2				
					Middle	3.9	2.4	303	27.9	8.0	8.0	24.1	24.2	57.0	56.6	5.0	5.0	12.5	10	87	87	87	87	819738	804612	<0.2	1.3	1.3	1.3				
						3.9	2.4	331	27.9	8.0	8.0	24.2	24.2	56.1	56.1	5.0	5.0	12.5	5	82	82	82	82	819738	804612	<0.2	1.2	1.2	1.2				
					Bottom	6.7	2.7	315	26.3	7.9	7.9	30.6	30.7	40.4	40.8	5.7	5.8	11.9	6	90	90	90	90	819738	804612	<0.2	1.1	1.1	1.1				
						6.7	2.8	325	26.3	7.9	7.9	30.7	30.7	41.2	41.2	5.8	5.8	11.7	12	90	90	90	90	819738	804612	<0.2	1.2	1.2	1.2				
IM5	Cloudy	Moderate	02:57	7.1	Surface	1.0	1.2	242	29.1	8.1	8.1	18.9	18.9	87.9	87.9	6.1	6.1	9.2	7	86	86	86	86	820749	804880	<0.2	1.2	1.2	1.2				
						1.0	1.3	245	29.1	8.1	8.1	18.9	18.9	87.9	87.9	6.1	6.1	9.4	6	86	86	86	86	820749	804880	<0.2	1.2	1.2	1.2				
					Middle	3.6	1.1	244	29.1	8.1	8.1	19.0	19.0	87.6	87.7	6.1	6.1	12.1	6	87	87	87	87	820749	804880	<0.2	1.3	1.3	1.3				
						3.6	1.3	265	29.1	8.1	8.1	19.0	19.0	87.7	87.7	6.1	6.1	12.2	7	88	88	88	88	820749	804880	<0.2	1.2	1.2	1.2				
					Bottom	6.1	1.1	242	29.1	8.1	8.1	18.9	18.9	88.6	88.7	6.1	6.1	12.8	8	88	88	88	88	820749	804880	<0.2	1.1	1.1	1.1				
						6.1	1.1	252	29.1	8.1	8.1	18.9	18.9	88.7	88.7	6.1	6.1	13.1	9	89	89	89	89	820749	804880	<0.2	1.1						

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

Water Quality Monitoring Results on 22 June 21 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	Rough	05:05	6.2	Surface	1.0	0.2	180	29.3	8.2	8.2	19.2	19.2	95.6	95.6	6.6	6.6	4.4	6	82	87	822110	808825	<0.2	1.6	<0.2	1.5		
						1.0	0.2	197	29.3	8.2	8.2	19.2	19.2	95.6	95.6	6.6	6.6	4.4	6	83	87	822110	808825	<0.2	1.6				
						3.1	0.2	196	29.2	8.2	8.2	19.5	19.5	93.4	93.4	6.4	6.4	5.7	4	86	87	822110	808825	<0.2	1.4				
					Middle	3.1	0.2	209	29.2	8.2	8.2	19.6	19.6	93.3	93.3	6.4	6.4	5.8	5	87	87	822110	808825	<0.2	1.4				
						5.2	0.2	211	29.2	8.2	8.2	19.7	19.7	92.4	92.4	6.4	6.4	6.8	4	90	87	822110	808825	<0.2	1.5				
						5.2	0.2	211	29.2	8.2	8.2	19.7	19.7	92.4	92.4	6.4	6.4	6.8	5	91	87	822110	808825	<0.2	1.4				
					Bottom	5.2	0.2	211	29.2	8.2	8.2	19.7	19.7	92.4	92.4	6.4	6.4	6.8	5	91	87	822110	808825	<0.2	1.4				
						5.2	0.2	211	29.2	8.2	8.2	19.7	19.7	92.4	92.4	6.4	6.4	6.8	5	91	87	822110	808825	<0.2	1.4				
						5.2	0.2	211	29.2	8.2	8.2	19.7	19.7	92.4	92.4	6.4	6.4	6.8	5	91	87	822110	808825	<0.2	1.4				
IM10	Rainy	Rough	04:57	6.8	Surface	1.0	0.3	162	29.3	8.2	8.2	19.4	19.4	94.9	94.9	6.5	6.5	4.8	5	82	87	822371	809799	<0.2	1.3	<0.2	1.5		
						1.0	0.4	168	29.3	8.2	8.2	19.4	19.4	94.9	94.9	6.5	6.5	4.8	6	83	87	822371	809799	<0.2	1.3				
						3.4	0.3	152	29.3	8.2	8.2	19.7	19.7	93.2	93.2	6.4	6.4	5.2	6	86	87	822371	809799	<0.2	1.5				
					Middle	3.4	0.3	156	29.3	8.2	8.2	19.7	19.7	93.2	93.2	6.4	6.4	5.2	5	87	87	822371	809799	<0.2	1.6				
						5.8	0.1	148	29.2	8.2	8.2	19.9	19.9	91.7	91.7	6.3	6.3	5.6	4	90	87	822371	809799	<0.2	1.5				
						5.8	0.2	151	29.2	8.2	8.2	19.9	19.9	91.8	91.8	6.3	6.3	5.6	4	91	87	822371	809799	<0.2	1.6				
					Bottom	5.8	0.1	148	29.2	8.2	8.2	19.9	19.9	91.7	91.7	6.3	6.3	5.6	4	90	87	822371	809799	<0.2	1.5				
						5.8	0.2	151	29.2	8.2	8.2	19.9	19.9	91.8	91.8	6.3	6.3	5.6	4	91	87	822371	809799	<0.2	1.6				
						5.8	0.2	151	29.2	8.2	8.2	19.9	19.9	91.8	91.8	6.3	6.3	5.6	4	91	87	822371	809799	<0.2	1.6				
IM11	Rainy	Rough	04:45	8.1	Surface	1.0	0.2	138	29.2	8.2	8.2	18.6	18.6	99.2	99.2	6.9	6.9	3.1	5	83	87	822037	811480	<0.2	1.6	<0.2	1.6		
						1.0	0.2	143	29.2	8.2	8.2	18.6	18.6	99.1	99.1	6.9	6.9	3.1	5	83	87	822037	811480	<0.2	1.6				
						4.1	0.2	106	29.2	8.2	8.2	19.8	19.8	91.3	91.3	6.3	6.3	5.7	6	86	87	822037	811480	<0.2	1.3				
					Middle	4.1	0.2	113	29.2	8.2	8.2	19.8	19.8	91.3	91.3	6.3	6.3	5.8	5	86	87	822037	811480	<0.2	1.6				
						7.1	0.1	83	28.8	8.1	8.1	21.9	21.9	83.4	83.4	5.7	5.7	5.3	6	90	87	822037	811480	<0.2	1.7				
						7.1	0.1	83	28.8	8.1	8.1	21.9	21.9	83.6	83.6	5.7	5.7	5.3	5	91	87	822037	811480	<0.2	1.7				
					Bottom	7.1	0.1	83	28.8	8.1	8.1	21.9	21.9	83.4	83.4	5.7	5.7	5.3	6	90	87	822037	811480	<0.2	1.7				
						7.1	0.1	83	28.8	8.1	8.1	21.9	21.9	83.6	83.6	5.7	5.7	5.3	5	91	87	822037	811480	<0.2	1.7				
						7.1	0.1	83	28.8	8.1	8.1	21.9	21.9	83.6	83.6	5.7	5.7	5.3	5	91	87	822037	811480	<0.2	1.7				
IM12	Rainy	Rough	04:38	8.9	Surface	1.0	0.0	162	29.1	8.2	8.2	19.4	19.4	93.7	93.7	6.5	6.5	7.0	5	82	87	821474	812024	<0.2	1.2	<0.2	1.3		
						1.0	0.0	166	29.1	8.2	8.2	19.4	19.4	93.6	93.6	6.5	6.5	7.1	6	83	87	821474	812024	<0.2	1.3				
						4.5	0.1	344	29.1	8.2	8.2	19.4	19.4	91.9	91.9	6.3	6.3	2.6	6	86	87	821474	812024	<0.2	1.4				
					Middle	4.5	0.1	348	29.1	8.2	8.2	19.4	19.4	91.9	91.9	6.3	6.3	2.6	7	87	87	821474	812024	<0.2	1.5				
						7.9	0.2	304	29.0	8.2	8.2	20.0	20.0	89.1	89.1	6.1	6.1	2.3	6	90	87	821474	812024	<0.2	1.3				
						7.9	0.2	332	29.0	8.2	8.2	20.0	20.0	89.2	89.2	6.1	6.1	2.3	7	91	87	821474	812024	<0.2	1.3				
					Bottom	7.9	0.2	304	29.0	8.2	8.2	20.0	20.0	89.1	89.1	6.1	6.1	2.3	6	90	87	821474	812024	<0.2	1.3				
						7.9	0.2	332	29.0	8.2	8.2	20.0	20.0	89.2	89.2	6.1	6.1	2.3	7	91	87	821474	812024	<0.2	1.3				
						7.9	0.2	332	29.0	8.2	8.2	20.0	20.0	89.2	89.2	6.1	6.1	2.3	7	91	87	821474	812024	<0.2	1.3				
SR1A	Rainy	Rough	04:09	4.7	Surface	1.0	-	-	29.1	8.2	8.2	19.7	19.7	94.4	94.4	6.5	6.5	5.4	5	-	-	819975	812664	-	-	-	-		
						1.0	-	-	29.1	8.2	8.2	19.7	19.7	94.4	94.4	6.5	6.5	5.3	6	-	-	819975	812664	-	-				
						2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819975	812664			-	-
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819975	812664			-	-
						3.7	-	-	29.1	8.2	8.2	20.4	20.4	94.0	94.0	6.5	6.5	5.1	5	-	-	-	-	819975	812664			-	-
						3.7	-	-	29.1	8.2	8.2	20.4	20.4	94.0	94.0	6.5	6.5	5.1	4	-	-	-	-	819975	812664			-	-
					Bottom	3.7	-	-	29.1	8.2	8.2	20.4	20.4	94.0	94.0	6.5	6.5	5.1	5	-	-	-	-	819975	812664			-	-
						3.7	-	-	29.1	8.2	8.2	20.4	20.4	94.0	94.0	6.5	6.5	5.1	4	-	-	-	-	819975	812664			-	-
						3.7	-	-	29.1	8.2	8.2	20.4	20.4	94.0	94.0	6.5	6.5	5.1	4	-	-	-	-	819975	812664			-	-
SR2	Rainy	Rough	03:51	3.8	Surface	1.0	0.2	349	29.1	8.2	8.2	19.9	19.9	92.2	92.2	6.3	6.3	5.4	6	83	87	821481	814180	<0.2	1.3	<0.2	1.3		
						1.0	0.2	321	29.1	8.2	8.2	19.9	19.9	92.2	92.2	6.3	6.3	5.5	7	83	87	821481	814180	<0.2	1.2				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821481	814180			<0.2	1.3
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821481	814180			<0.2	1.3
						2.8	0.2	339	29.1	8.2	8.2	20.0	20.0	91.9	91.9	6.3	6.3	6.0	6	90	87	821481	814180	<0.2	1.3				
						2.8	0.2	312	29.1	8.2	8.2	20.0	20.0	91.9	91.9	6.3	6.3	6.0	5	91	87	821481	814180	<0.2	1.3				
					Bottom	2.8	0.2	339	29.1	8.2	8.2	20.0	20.0	91.9	91.9	6.3	6.3	6.0	6	90	87	821481	814180	<0.2	1.3				
						2.8	0.2	312	29.1	8.2	8.2	20.0	20.0	91.9	91.9	6.3	6.3	6.0	5	91	87	821481	814180	<0.2	1.3				
						2.8	0.2	312	29.1	8.2	8.2	20.0	20.0	91.9	91.9	6.3	6.3	6.0	5	91	87	821481	814180	<0.2	1.3				
SR3	Rainy	Rough	05:15	8.6	Surface	1.0	0.5	222	29.2	8.2	8.2	17.2	17.2	95.6	95.6	6.7	6.7	4.6	4	-	-	822155	807586	-	-	-	-		
						1.0	0.5	225	29.2	8.2	8.2	17.2	17.2	95.5	95.5	6.7	6.7	4.6	5	-	-	822155	807586	-	-				
						4.3	0.4	247	29.2	8.2	8.2	20.3	20.2	89.7	89.7	6.2	6.2	6.9	5	-	-	822155	8075						

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

Water Quality Monitoring Results on 24 June 21 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	Value	DA	Value	DA			
																																			Value	DA	Value
C1	Rainy	Moderate	11:49	8.8	Surface	1.0	0.4	135	26.2	26.2	8.0	8.0	28.0	27.9	55.7	55.7	3.9	3.9	4.9	5	-	-	-	-	815622	804259	-	-	-	-							
						1.0	0.5	133	26.1	8.0	8.0	27.9	27.9	55.7	55.7	3.9	3.9	5.4	5	-	-	-	-														
						4.4	0.4	126	25.8	8.0	8.0	31.2	31.3	50.5	50.4	3.5	3.7	7.6	5	-	-	-	-														
					Middle	4.4	0.4	128	25.7	25.8	8.0	8.0	31.4	31.3	50.3	50.4	3.4	3.4	4	4	7.2	5	-	-			-	-									
						7.8	0.5	155	25.7	25.7	8.0	8.0	31.8	31.8	59.0	59.7	4.0	4.1	9.1	5	-	-	-	-													
						7.8	0.5	147	25.7	25.7	8.0	8.0	31.8	31.8	60.3	59.3	4.1	4.1	9.9	4	-	-	-	-													
					C2	Rainy	Calm	10:51	11.9	Surface	1.0	0.4	164	27.5	27.5	7.5	7.5	21.9	22.0	62.6	62.2	4.4	4.4	4.1			6	-	-	-	-	825667	806931	-	-	-	-
											1.0	0.4	173	27.4	27.4	7.5	7.5	22.1	22.1	61.7	61.7	4.3	3.9	4.1			6	-	-	-	-						
											6.0	0.5	166	26.8	26.8	7.4	7.4	27.4	27.5	49.1	48.9	3.4	3.4	5.8			5	-	-	-	-						
Middle	6.0	0.5	169	26.7						26.7	7.4	7.4	27.7	27.7	48.7	48.7	3.3	3.3	5.7	6	-	-	-	-													
	10.9	0.4	150	26.6						26.6	7.4	7.4	28.5	28.5	48.5	48.7	3.3	3.3	6.9	6	-	-	-	-													
	10.9	0.4	154	26.6						26.6	7.4	7.4	28.5	28.5	48.8	48.7	3.3	3.3	7.0	6	-	-	-	-													
C3	Rainy	Calm	12:46	12.4						Surface	1.0	0.2	108	26.9	26.9	7.5	7.5	25.4	25.5	59.3	59.1	4.1	4.1	5.6	5	-	-	-	-	822132	817820			-	-	-	-
											1.0	0.3	110	26.8	26.8	7.5	7.5	25.5	25.5	58.8	58.8	4.1	3.9	4.1	6	-	-	-	-								
											6.2	0.1	80	26.4	26.4	7.5	7.5	28.4	28.5	53.5	53.3	3.7	3.7	6.0	4	-	-	-	-								
					Middle	6.2	0.1	87	26.4	26.4	7.5	7.5	28.6	28.5	53.1	53.3	3.7	3.7	6.0	5	-	-	-	-													
						11.4	0.2	47	26.3	26.3	7.5	7.5	29.3	29.2	57.5	58.4	3.9	4.0	7.7	5	-	-	-	-													
						11.4	0.2	47	26.3	26.3	7.5	7.5	29.2	29.2	59.2	58.4	4.1	4.0	7.9	4	-	-	-	-													
					IM1	Rainy	Moderate	11:31	5.4	Surface	1.0	0.1	110	26.5	26.5	8.0	8.0	27.0	27.0	49.1	48.9	3.4	3.4	7.4	6	-	-	-	-			817945	807151	-	-	-	-
											1.0	0.1	112	26.5	26.5	8.0	8.0	27.0	27.0	48.7	48.7	3.4	3.4	7.7	7	-	-	-	-								
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
	4.4	0.1	123	26.4						26.4	8.0	8.0	29.1	29.1	48.4	48.7	3.3	3.4	9.1	4	-	-	-	-													
	4.4	0.1	132	26.3						26.3	8.0	8.0	29.1	29.1	49.0	48.7	3.4	3.4	9.2	3	-	-	-	-													
IM2	Rainy	Moderate	11:23	7.2						Surface	1.0	0.2	141	26.7	26.7	8.0	8.0	26.0	26.0	58.4	58.5	4.0	4.1	6.5	5	-	-	-	-	818169	806185			-	-	-	-
											1.0	0.2	135	26.7	26.7	8.0	8.0	26.0	26.0	58.5	58.5	4.1	3.8	6.6	5	-	-	-	-								
											3.6	0.1	108	26.1	26.1	8.0	8.0	29.5	29.5	50.9	51.0	3.5	3.5	7.4	5	-	-	-	-								
					Middle	3.6	0.2	109	26.1	26.1	8.0	8.0	29.6	29.5	51.0	51.0	3.5	3.5	7.6	5	-	-	-	-													
						6.2	0.1	99	26.0	26.0	8.0	8.0	30.0	30.0	52.6	52.8	3.6	3.6	17.5	4	-	-	-	-													
						6.2	0.1	97	26.0	26.0	8.0	8.0	30.0	30.0	52.9	52.8	3.6	3.6	17.5	4	-	-	-	-													
					IM3	Rainy	Moderate	11:16	7.2	Surface	1.0	0.2	122	26.7	26.7	8.0	8.0	25.0	25.0	61.7	61.7	4.3	4.3	5.4	6	-	-	-	-			818792	805601	-	-	-	-
											1.0	0.2	125	26.7	26.7	8.0	8.0	25.0	25.0	61.6	61.6	4.3	3.7	5.7	7	-	-	-	-								
											3.6	0.1	131	26.2	26.2	8.0	8.0	29.4	29.5	45.9	46.0	3.1	3.7	10.6	7	-	-	-	-								
Middle	3.6	0.1	134	26.2						26.2	8.0	8.0	29.5	29.5	46.1	46.0	3.2	3.2	10.8	6	-	-	-	-													
	6.2	0.2	144	26.1						26.1	8.0	8.0	29.9	29.9	48.5	48.6	3.3	3.3	13.1	5	-	-	-	-													
	6.2	0.2	142	26.1						26.1	8.0	8.0	29.9	29.9	48.7	48.6	3.3	3.3	13.6	5	-	-	-	-													
IM4	Rainy	Moderate	11:07	7.6						Surface	1.0	0.2	143	26.5	26.5	8.0	8.0	28.2	28.2	48.1	48.1	3.3	3.3	8.2	12	-	-	-	-	819732	804590			-	-	-	-
											1.0	0.3	144	26.5	26.5	8.0	8.0	28.2	28.2	48.1	48.1	3.3	3.3	8.1	11	-	-	-	-								
											3.8	0.3	122	26.5	26.5	8.0	8.0	28.2	28.2	48.2	48.3	3.3	3.3	7.9	10	-	-	-	-								
					Middle	3.8	0.3	132	26.5	26.5	8.0	8.0	28.2	28.2	48.3	48.3	3.3	3.3	7.9	5	-	-	-	-													
						6.6	0.2	156	26.1	26.1	8.0	8.0	29.9	30.0	50.2	50.3	3.4	3.5	10.4	9	-	-	-	-													
						6.6	0.2	165	26.0	26.0	8.0	8.0	30.0	30.0	50.4	50.3	3.5	3.5	10.8	5	-	-	-	-													
					IM5	Rainy	Moderate	11:00	8.3	Surface	1.0	0.2	178	26.5	26.5	8.0	8.0	28.0	28.0	49.0	49.1	3.4	3.4	7.0	5	-	-	-	-			820716	804882	-	-	-	-
											1.0	0.2	177	26.5	26.5	8.0	8.0	28.0	28.0	49.1	49.1	3.4	3.1	7.0	5	-	-	-	-								
											4.2	0.3	181	26.0	26.0	8.0	8.0	30.3	30.4	45.3	45.4	3.1	3.1	10.7	6	-	-	-	-								
Middle	4.2	0.3	183	25.9						25.9	8.0	8.0	30.4	30.4	45.4	45.4	3.1	3.1	11.2	7	-	-	-	-													
	7.3	0.3	180	25.9						25.9	8.0	8.0	30.6	30.6	46.9	47.1	3.2	3.2	13.8	7	-	-	-	-													
	7.3	0.3	179	26.0						26.0	8.0	8.0	30.6	30.6	47.3	47.1	3.2	3.2	13.6	6	-	-	-	-													
IM6	Rainy	Moderate	10:54	8.1						Surface	1.0	0.2	165	27.5	27.5	8.0	8.0	23.4	23.5	66.0	65.9	4.6	4.6	5.4	6	-	-	-	-	821069	805838			-	-	-	-
											1.0	0.2	166	27.5	27.5	8.0	8.0	23.5	23.5	65.8	65.8	4.6	3.9	5.5	5	-	-	-	-								
											4.1	0.3	172	26.3	26.3	8.0	8.0	28.8	28.9	47.3	47.3	3.2	3.2	12.3	6	-	-	-	-								
					Middle	4.1	0.3	175	26.3	26.3	8.0	8.0	28.9	28.9	47.3	47.3	3.2	3.2	12.2	7	-	-	-	-													
						7.1	0.3	181	26.2	26.2	8.0	8.0	29.5	29.5	48.0	48.3	3.3	3.3	14.2	6	-	-	-	-													
						7.1	0.3	177	26.2	26.2	8.0	8.0	29.5	29.5	48.6	48.3	3.3	3.3	14.4	7	-	-	-	-													
					IM7	Rainy	Moderate	10:49	8.4	Surface	1.0	0.3	177	27.6	27.6	8.0	8.0	22.9	22.9	65.9	65.8	4.6	4.6	5.0	6	-	-	-	-			821362	806834	-	-	-	-
											1.0	0.3	175	27.6	27.6	8.0	8.0	22.9	22.9	65.7	65.7	4.6	4.2	5.1	6	-	-	-	-								
											4.2	0.3	168	26.8	26.8	8.0	8.0	25.9	25.8	53.8	54.0	3.7	3.7	7.2	5	-	-	-	-								
Middle	4.2	0.3	166	26.8						26.8	8.0	8.0	25.8	25.8	54.2	54.0	3.8	3.8	7.1	6	-	-	-	-													
	7.4	0.2	167	26.4						26.4	8.0	8.0	28.6	28.6	51.3	51.4	3.5	3.5	10.8	5	-	-	-	-													
	7.4	0.3	154	26.4						26.4	8.0	8.0	28.6	28.6	51.5	51.4	3.5	3.5	10.3	5	-	-	-	-													
IM8	Rainy	Calm	11:15	8.2						Surface	1.0	0.2	157	27.6	27.6	7.5	7.5	20.3	20.4																		

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

Water Quality Monitoring Results on 24 June 21 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	Value	DA	Value	DA	Value	DA			
IM9	Rainy	Calm	11:22	8.0	Surface	1.0	0.3	156	27.8	7.5	7.5	21.6	21.6	75.2	75.1	5.2	5.2	4.7	5.8	6.7	4	-	-	822072	808794	-	-	-	-							
						1.0	0.3	160	27.8	7.5	7.5	21.7	21.6	74.9	74.9	5.2	5.2	4.7	5.9	6.7	5	-	-	-	-	-	-	-	-	-	-					
						4.0	0.4	148	27.3	7.4	7.4	23.2	23.3	62.0	62.0	4.3	4.3	4.7	6.8	6.7	5	-	-	-	-	-	-	-	-	-	-	-				
					Middle	4.0	0.4	150	27.2	7.4	7.4	23.3	23.3	67.8	67.8	4.3	4.3	4.0	4.0	4.0	6.7	6.7	4	-	-	-	-	-	-	-	-	-	-			
						7.0	0.3	89	27.2	7.4	7.4	25.3	25.3	58.1	58.1	4.0	4.0	4.0	7.6	4.0	4	-	-	-	-	-	-	-	-	-	-	-	-			
						7.0	0.3	90	27.2	7.4	7.4	25.3	25.3	58.6	58.6	4.0	4.0	4.0	7.5	4.0	5	-	-	-	-	-	-	-	-	-	-	-	-			
					IM10	Rainy	Calm	11:31	7.8	Surface	1.0	0.8	112	27.8	7.5	7.5	21.7	21.8	73.1	72.9	5.1	5.1	4.8	2.8	3.6	5	-	-	822366	809814	-	-	-	-		
											1.0	0.8	113	27.7	7.5	7.5	21.9	21.8	72.6	72.6	5.1	5.1	4.8	2.7	3.6	6	-	-	-	-	-	-	-	-	-	-
											3.9	0.7	111	27.4	7.5	7.5	22.4	22.5	64.6	63.8	4.5	4.5	4.8	3.7	3.6	6	-	-	-	-	-	-	-	-	-	-
Middle	3.9	0.8	118	27.4						7.5	7.5	22.5	22.5	63.0	63.0	4.4	4.4	4.1	4.4	4.1	3.7	3.6	5	-	-	-	-	-	-	-	-	-	-			
	6.8	0.6	88	27.6						7.5	7.5	24.9	24.8	58.3	59.0	4.0	4.0	4.1	4.4	4.1	5	-	-	-	-	-	-	-	-	-	-	-	-			
	6.8	0.6	94	27.6						7.5	7.5	24.8	24.8	59.6	59.6	4.0	4.0	4.1	4.4	4.1	4	-	-	-	-	-	-	-	-	-	-	-	-			
IM11	Rainy	Calm	11:41	8.6						Surface	1.0	0.8	106	27.8	7.5	7.5	22.0	22.0	72.7	72.4	5.1	5.1	4.7	2.3	3.1	6	-	-	822064	811464	-	-	-	-		
											1.0	0.9	109	27.8	7.5	7.5	22.1	22.0	72.1	72.1	5.0	5.0	4.7	2.2	3.1	7	-	-	-	-	-	-	-	-	-	
											4.3	0.7	103	27.5	7.5	7.5	23.2	23.1	62.6	62.7	4.3	4.3	4.7	3.1	3.1	5	-	-	-	-	-	-	-	-	-	-
					Middle	4.3	0.7	110	27.4	7.5	7.5	23.0	23.1	62.8	62.8	4.4	4.4	4.0	4.0	4.0	3.1	3.1	6	-	-	-	-	-	-	-	-	-	-			
						7.6	0.4	99	27.6	7.5	7.5	24.8	24.8	57.6	58.2	4.0	4.0	4.0	4.0	4.0	5	-	-	-	-	-	-	-	-	-	-	-				
						7.6	0.4	105	27.7	7.5	7.5	24.7	24.8	58.8	58.8	4.0	4.0	4.0	4.1	4.1	5	-	-	-	-	-	-	-	-	-	-	-				
					IM12	Rainy	Calm	11:46	9.6	Surface	1.0	0.9	128	27.5	7.5	7.5	22.4	22.4	66.6	66.3	4.6	4.6	4.2	5.8	6.7	5	-	-	821451	812028	-	-	-	-		
											1.0	0.9	135	27.4	7.5	7.5	22.4	22.4	65.9	65.9	4.6	4.6	4.2	5.8	6.7	6	-	-	-	-	-	-	-	-	-	
											4.8	0.6	124	27.2	7.4	7.4	25.6	25.6	54.8	54.9	3.8	3.8	4.2	6.4	6.4	5	-	-	-	-	-	-	-	-	-	
Middle	4.8	0.6	124	27.2						7.4	7.4	25.6	25.6	55.0	55.0	3.8	3.8	4.2	6.4	6.4	5	-	-	-	-	-	-	-	-	-	-	-				
	8.6	0.5	112	27.1						7.4	7.4	26.0	26.0	58.4	58.9	4.0	4.0	4.1	7.8	7.8	5	-	-	-	-	-	-	-	-	-	-					
	8.6	0.5	113	27.1						7.4	7.4	26.0	26.0	59.3	59.3	4.1	4.1	4.1	7.8	7.8	4	-	-	-	-	-	-	-	-	-	-					
SR1A	Rainy	Calm	12:01	5.6						Surface	1.0	-	-	27.6	7.5	7.5	22.2	22.2	68.8	68.6	4.8	4.8	4.8	4.6	5.2	6	-	-	819971	812659	-	-	-	-		
											1.0	-	-	27.6	7.5	7.5	22.2	22.2	68.4	68.4	4.8	4.8	4.8	4.5	5.2	5	-	-	-	-	-	-	-	-		
											2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						4.6	-	-	27.6	7.5	7.5	25.1	25.0	58.6	59.1	4.0	4.0	4.1	5.8	5.8	6	-	-	-	-	-	-	-	-	-						
						4.6	-	-	27.7	7.5	7.5	25.0	25.0	59.5	59.5	4.1	4.1	4.1	5.8	5.8	5	-	-	-	-	-	-	-	-	-						
					SR2	Rainy	Calm	12:09	4.6	Surface	1.0	0.5	102	27.7	7.5	7.5	22.6	22.7	69.9	69.2	4.9	4.9	4.8	2.4	2.7	5	-	-	821478	814180	-	-	-	-		
											1.0	0.6	108	27.7	7.5	7.5	22.8	22.7	68.5	68.5	4.7	4.7	4.8	2.4	2.4	6	-	-	-	-	-	-	-			
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
	3.6	0.2	93	27.8						7.5	7.5	23.8	23.7	62.7	63.4	4.3	4.3	4.4	3.0	3.0	7	-	-	-	-	-	-	-	-							
	3.6	0.2	96	27.8						7.5	7.5	23.7	23.7	64.1	64.1	4.4	4.4	4.4	3.0	3.0	6	-	-	-	-	-	-	-	-							
SR3	Rainy	Calm	11:06	9.6						Surface	1.0	0.4	212	27.7	7.5	7.5	21.1	21.2	65.0	64.4	4.6	4.6	4.3	5.2	6.6	5	-	-	822143	807567	-	-	-	-		
											1.0	0.4	226	27.6	7.5	7.5	21.2	21.2	63.8	63.8	4.5	4.5	4.3	5.7	5.7	6	-	-	-	-	-	-	-			
											4.8	0.1	244	27.3	7.5	7.5	23.2	23.2	57.8	57.5	4.0	4.0	4.3	6.4	6.4	4	-	-	-	-	-	-	-			
					Middle	4.8	0.1	249	27.2	7.5	7.5	23.2	23.2	57.2	57.2	4.0	4.0	4.3	6.6	6.6	5	-	-	-	-	-	-	-	-							
						8.6	0.2	29	27.1	7.5	7.5	26.2	26.1	51.2	51.4	3.5	3.5	3.5	7.7	7.7	4	-	-	-	-	-	-	-								
						8.6	0.2	31	27.2	7.5	7.5	26.0	26.1	51.5	51.5	3.5	3.5	3.5	7.7	7.7	4	-	-	-	-	-	-	-								
					SR4A	Rainy	Moderate	12:14	8.6	Surface	1.0	0.2	99	26.7	8.0	8.0	25.7	25.7	54.9	54.5	3.8	3.8	3.5	7.5	10.4	3	-	-	817208	807807	-	-	-	-		
											1.0	0.2	102	26.6	8.0	8.0	25.8	25.7	54.1	54.5	3.8	3.8	3.5	7.8	7.8	4	-	-	-	-	-	-				
											4.3	0.4	97	26.4	8.0	8.0	29.0	29.0	46.8	46.9	3.2	3.2	3.9	10.9	10.9	4	-	-	-	-	-	-				
Middle	4.3	0.4	89	26.4						8.0	8.0	29.0	29.0	47.0	47.0	3.2	3.2	3.9	11.2	11.2	5	-	-	-	-	-	-	-								
	7.6	0.4	111	26.4						8.0	8.0	29.1	29.0	55.7	56.2	3.8	3.8	3.9	12.6	12.6	6	-	-	-	-	-	-									
	7.6	0.5	121	26.4						8.0	8.0	29.0	29.0	56.7	56.7	3.9	3.9	3.9	12.6	12.6	7	-	-	-	-	-	-									
SR5A	Rainy	Moderate	12:31	3.6						Surface	1.0	0.2	123	27.3	8.0	8.0	24.3	24.4	63.5	63.5	4.4	4.4	4.4	8.5	9.5	5	-	-	816593	810715	-	-	-	-		
											1.0	0.2	128	27.2	8.0	8.0	24.5	24.4	63.5	63.5	4.4	4.4	4.4	8.9	8.9	5	-	-	-	-	-	-				
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
						2.6	0.2	168	27.1	8.0	8.0	24.9	24.9	64.4	64.7	4.5	4.5	4.5	10.3	10.3	5	-	-	-	-	-	-									
						2.6	0.1	159	27.1	8.0	8.0	24.9	24.9	64.9	64.9	4.5	4.5	4.5	10.5	10.5</																

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

Water Quality Monitoring Results on 24 June 21 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	06:03	8.2	Surface	1.0	0.2	47	26.1	26.1	8.0	8.0	26.1	26.0	57.7	57.4	4.0	4.0	10.8	10.8	7	-	-	-	-	-	-	-	-	-			
						1.0	0.2	46	26.0	8.0	8.0	25.9	26.0	57.1	57.1	4.0	4.0	10.8	10.8	6	-	-	-	-	-	-	-	-	-	-	-	-	
						4.1	0.3	55	25.5	25.5	8.0	8.0	32.0	32.0	41.3	41.3	2.8	2.8	12.9	12.9	6	-	-	-	-	-	-	-	-	-	-	-	-
					4.1	0.3	56	25.5	25.5	8.0	8.0	32.0	32.0	41.2	41.2	2.8	2.8	12.9	12.9	7	-	-	-	-	-	-	-	-	-	-	-	-	
					7.2	0.2	67	25.3	25.3	8.0	8.0	32.7	32.7	40.9	40.9	2.8	2.8	10.0	10.0	7	-	-	-	-	-	-	-	-	-	-	-	-	-
					7.2	0.2	66	25.3	25.3	8.0	8.0	32.7	32.7	40.9	40.9	2.8	2.8	10.1	10.1	7	-	-	-	-	-	-	-	-	-	-	-	-	-
C2	Rainy	Calm	07:18	12.4	Surface	1.0	0.3	20	27.8	27.8	7.5	7.5	20.8	20.8	65.7	65.3	4.6	4.6	6.2	6.2	6	-	-	-	-	-	-	-	-	-			
						1.0	0.3	22	27.7	7.5	7.5	20.8	20.8	64.8	64.8	4.5	4.5	6.0	6.0	6	-	-	-	-	-	-	-	-	-	-	-		
						6.2	0.2	15	27.2	27.2	7.5	7.5	24.7	24.7	52.7	52.6	3.6	3.6	7.4	7.4	5	-	-	-	-	-	-	-	-	-	-	-	
					6.2	0.2	17	27.2	27.2	7.5	7.5	24.7	24.7	52.5	52.4	3.6	3.6	7.4	7.4	5	-	-	-	-	-	-	-	-	-	-	-	-	
					11.4	0.2	78	27.6	27.7	7.5	7.5	26.3	26.3	53.1	53.1	3.6	3.7	8.6	8.6	5	-	-	-	-	-	-	-	-	-	-	-	-	
					11.4	0.2	76	27.8	27.8	7.5	7.5	26.2	26.2	53.8	53.8	3.7	3.7	8.7	8.7	5	-	-	-	-	-	-	-	-	-	-	-	-	-
C3	Rainy	Calm	04:57	12.8	Surface	1.0	0.4	222	26.2	26.2	7.5	7.5	27.9	27.9	52.2	52.1	3.6	3.6	2.4	2.4	4	-	-	-	-	-	-	-	-	-			
						1.0	0.4	239	26.1	26.1	7.5	7.5	27.9	27.9	52.0	52.0	3.6	3.6	2.6	2.6	5	-	-	-	-	-	-	-	-	-	-		
						6.4	0.5	240	25.7	25.7	7.5	7.5	30.8	30.8	46.5	46.5	3.2	3.2	4.3	4.3	4	-	-	-	-	-	-	-	-	-	-		
					6.4	0.6	255	26.7	26.7	7.5	7.5	30.8	30.8	46.9	46.9	3.2	3.2	4.4	4.4	4	-	-	-	-	-	-	-	-	-	-	-		
					11.8	0.2	236	25.9	25.9	7.5	7.5	30.9	30.9	51.8	51.8	3.5	3.6	5.9	5.9	5	-	-	-	-	-	-	-	-	-	-	-		
					11.8	0.2	250	25.9	25.9	7.5	7.5	30.9	30.9	52.6	52.6	3.6	3.6	5.9	5.9	4	-	-	-	-	-	-	-	-	-	-	-	-	
IM1	Cloudy	Moderate	06:25	5.1	Surface	1.0	0.1	57	27.1	27.1	8.0	8.0	23.5	23.5	67.5	67.5	4.7	4.7	4.9	4.9	5	-	-	-	-	-	-	-	-	-			
						1.0	0.1	59	27.1	27.1	8.0	8.0	23.5	23.5	67.4	67.4	4.7	4.7	5.0	5.0	4	-	-	-	-	-	-	-	-	-			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					4.1	0.0	100	26.5	26.5	8.0	8.0	28.3	28.3	51.6	51.6	3.5	3.6	9.0	9.0	4	-	-	-	-	-	-	-	-	-	-			
					4.1	0.0	99	26.5	26.5	8.0	8.0	28.4	28.4	52.4	52.4	3.6	3.6	8.7	8.7	5	-	-	-	-	-	-	-	-	-	-			
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM2	Cloudy	Moderate	06:31	6.9	Surface	1.0	0.2	111	26.8	26.8	8.0	8.0	25.0	25.0	64.7	64.7	4.5	4.5	4.7	4.7	3	-	-	-	-	-	-	-	-				
						1.0	0.2	98	26.8	26.8	8.0	8.0	25.0	25.0	64.7	64.7	4.5	4.5	4.7	4.7	4	-	-	-	-	-	-	-	-				
						3.5	0.2	76	26.3	26.3	8.0	8.0	29.0	29.0	46.4	46.5	3.2	3.2	9.9	9.9	3	-	-	-	-	-	-	-					
					3.5	0.2	77	26.3	26.3	8.0	8.0	29.0	29.0	46.5	46.5	3.2	3.2	9.9	9.9	4	-	-	-	-	-	-	-	-					
					5.9	0.2	81	26.3	26.3	8.0	8.0	29.5	29.5	48.6	48.6	3.3	3.4	15.8	15.8	5	-	-	-	-	-	-	-	-					
					5.9	0.2	88	26.3	26.3	8.0	8.0	29.5	29.5	49.0	49.0	3.4	3.4	15.3	15.3	4	-	-	-	-	-	-	-	-					
IM3	Cloudy	Moderate	06:38	7.2	Surface	1.0	0.2	72	26.7	26.7	8.0	8.0	25.9	25.9	59.1	59.1	4.1	4.1	6.6	6.6	4	-	-	-	-	-	-	-					
						1.0	0.2	75	26.7	26.7	8.0	8.0	25.9	25.9	59.1	59.1	4.1	4.1	6.8	6.8	3	-	-	-	-	-	-						
						3.6	0.2	77	26.5	26.5	8.0	8.0	27.8	27.8	51.8	51.8	3.6	3.6	6.6	6.6	4	-	-	-	-	-							
					3.6	0.3	78	26.5	26.5	8.0	8.0	27.8	27.8	51.7	51.7	3.6	3.6	6.6	6.6	4	-	-	-	-	-								
					6.2	0.2	67	26.3	26.3	8.0	8.0	29.3	29.3	46.9	46.9	3.2	3.2	13.6	13.6	8	-	-	-	-	-								
					6.2	0.2	68	26.3	26.3	8.0	8.0	29.3	29.3	47.1	47.1	3.2	3.2	14.3	14.3	4	-	-	-	-	-								
IM4	Cloudy	Moderate	06:47	7.4	Surface	1.0	0.2	56	26.7	26.7	8.0	8.0	25.8	25.9	62.9	63.0	4.4	4.4	4.1	4.1	3	-	-	-	-	-	-						
						1.0	0.2	55	26.7	26.7	8.0	8.0	25.9	25.9	63.0	63.0	4.4	4.4	4.1	4.1	3	-	-	-	-	-							
						3.7	0.3	57	26.2	26.2	8.0	8.0	29.5	29.5	49.3	49.4	3.4	3.4	9.1	9.1	3	-	-	-	-								
					3.7	0.3	57	26.2	26.2	8.0	8.0	29.5	29.5	49.4	49.4	3.4	3.4	9.2	9.2	3	-	-	-	-									
					6.4	0.3	81	26.1	26.1	8.0	8.0	29.7	29.7	51.4	51.4	3.5	3.6	10.9	10.9	3	-	-	-	-									
					6.4	0.3	76	26.1	26.1	8.0	8.0	29.8	29.7	52.5	52.5	3.6	3.6	11.0	11.0	4	-	-	-	-									
IM5	Cloudy	Moderate	06:54	8.2	Surface	1.0	0.2	74	27.4	27.4	8.0	8.0	22.0	22.0	66.6	66.6	4.7	4.7	4.3	4.3	3	-	-	-	-	-							
						1.0	0.2	67	27.3	27.3	8.0	8.0	22.0	22.0	66.5	66.5	4.7	4.7	4.4	4.4	3	-	-	-	-								
						4.1	0.2	53	26.5	26.5	8.0	8.0	26.8	26.7	54.3	54.3	3.8	3.8	8.7	8.7	3	-	-	-	-								
					4.1	0.2	52	26.5	26.5	8.0	8.0	26.6	26.7	54.2	54.2	3.8	3.8	9.4	9.4	4	-	-	-	-									
					7.2	0.3	54	26.2	26.2	8.0	8.0	29.5	29.5	53.1	53.1	3.6	3.7	13.0	13.0	4	-	-	-	-									
					7.2	0.3	55	26.2	26.2	8.0	8.0	29.5	29.5	54.8	54.8	3.8	3.7	13.6	13.6	3	-	-	-	-									
IM6	Cloudy	Moderate	07:02	7.8	Surface	1.0	0.3	51	27.6	27.6	8.0	8.0	22.5	22.5	64.9	64.8	4.5	4.5	4.8	4.8	3	-	-	-	-	-							
						1.0	0.3	52	27.5	27.5	8.0	8.0	22.5	22.5	64.7	64.7	4.5	4.5	5.0	5.0	3	-	-	-	-								
						3.9	0.3	45	26.6	26.6	8.0	8.0	27.4	27.4	54.2	54.4	3.7	3.8	8.6	8.6	3	-	-	-	-								
					3.9	0.2	44	26.6	26.6	8.0	8.0	27.4	27.4	54.5	54.5	3.8	3.8	8.7	8.7	3	-	-	-	-									
					6.8	0.3	56	26.6	26.6	8.0	8.0	27.7	27.7	57.7	59.9	4.0	4.2	9.7	9.7	5	-	-	-	-									
					6.8	0.3	51	26.6	26.6	8.0	8.0	27.7	27.7	62.1	62.1	4.3	4.2	9.8	9.8	4	-	-	-	-									
IM7	Cloudy	Moderate	07:09	8.1	Surface	1.0	0.3	43	27.8	27.8	8.0	8.0	22.0	21.9	66.2	66.2	4.6	4.6	5.1	5.1	3	-	-	-	-	-							
						1.0	0.2	44</																									

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

Water Quality Monitoring Results on 26 June 21 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	Value	DA			
C1	Rainy	Moderate	13:32	8.4	Surface	1.0	0.4	226	27.3	27.3	8.0	8.0	25.1	25.0	68.5	68.5	4.7	4.0	5	-	-	-	-	815633	804241	-	-	-	-					
						1.0	0.4	240	27.3	27.3	8.0	8.0	25.0	25.0	68.5	68.5	4.7	3.9	5	-	-	-	-											
					Middle	4.2	0.2	185	26.3	26.3	8.0	8.0	29.2	29.2	62.4	62.3	4.3	3.4	6	-	-	-	-			-	-	-	-	-	-	-		
						4.2	0.2	190	26.2	26.3	8.0	8.0	29.3	29.2	62.2	62.3	4.3	3.5	6	-	-	-	-			-	-	-	-	-	-	-	-	
					Bottom	7.4	0.3	206	26.1	26.1	8.0	8.0	29.5	29.5	61.2	61.2	4.2	4.2	10.9	8	-	-	-			-	-	-	-	-	-	-	-	-
						7.4	0.3	206	26.1	26.1	8.0	8.0	29.5	29.5	61.2	61.2	4.2	4.2	10.9	8	-	-	-			-	-	-	-	-	-	-	-	-
C2	Cloudy	Moderate	12:27	11.4	Surface	1.0	0.4	188	27.8	27.8	7.6	7.6	19.8	19.8	66.5	66.5	4.7	4.6	4	-	-	-	-	825696	806945	-	-	-	-					
						1.0	0.4	192	27.8	27.8	7.6	7.6	19.8	19.8	66.4	66.4	4.7	4.7	4	-	-	-	-											
					Middle	5.7	0.2	168	27.4	27.4	7.6	7.6	22.9	22.9	58.8	58.8	4.1	15.2	4	-	-	-	-			-	-	-	-	-	-	-		
						5.7	0.2	170	27.4	27.4	7.6	7.6	22.9	22.9	58.8	58.8	4.1	15.3	4	-	-	-	-			-	-	-	-	-	-	-		
					Bottom	10.4	0.3	191	27.0	27.0	7.6	7.6	25.8	25.8	50.2	50.4	3.5	12.6	5	-	-	-	-			-	-	-	-	-	-	-	-	
						10.4	0.3	201	27.0	27.0	7.6	7.6	25.8	25.8	50.5	50.4	3.5	12.8	5	-	-	-	-			-	-	-	-	-	-	-	-	
C3	Rainy	Moderate	14:27	10.8	Surface	1.0	0.2	111	27.1	27.1	7.6	7.6	24.8	24.8	58.9	58.9	4.1	3.3	3	-	-	-	-	822104	817808	-	-	-	-					
						1.0	0.3	121	27.1	27.1	7.6	7.6	24.8	24.8	58.9	58.9	4.1	3.4	3	-	-	-	-											
					Middle	5.4	0.3	132	27.0	27.0	7.6	7.6	25.4	25.4	56.8	56.8	3.9	3.0	3	-	-	-	-			-	-	-	-	-	-			
						5.4	0.3	133	27.0	27.0	7.6	7.6	25.4	25.4	56.8	56.8	3.9	3.0	3	-	-	-	-			-	-	-	-	-	-			
					Bottom	9.8	0.2	144	26.8	26.8	7.7	7.7	26.5	26.6	52.7	52.7	3.6	5.0	4	-	-	-	-			-	-	-	-	-	-	-		
						9.8	0.2	155	26.7	26.7	7.7	7.7	26.6	26.6	52.6	52.6	3.6	5.5	4	-	-	-	-			-	-	-	-	-	-	-		
IM1	Rainy	Moderate	13:14	5.8	Surface	1.0	0.2	201	27.1	27.1	8.0	8.0	25.6	25.6	56.6	56.6	3.9	6.9	6	-	-	-	-	817969	807129	-	-	-	-					
						1.0	0.2	204	27.0	27.0	8.0	8.0	25.6	25.6	56.6	56.6	3.9	6.9	5	-	-	-	-											
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-			
					Bottom	4.8	0.1	167	26.5	26.5	8.0	8.0	27.8	27.8	57.0	57.1	3.9	11.8	4	-	-	-	-			-	-	-	-	-	-			
						4.8	0.1	173	26.5	26.5	8.0	8.0	27.8	27.8	57.2	57.1	3.9	11.7	3	-	-	-	-			-	-	-	-	-	-			
IM2	Cloudy	Moderate	13:06	7.6	Surface	1.0	0.2	193	26.9	26.9	8.0	8.0	25.9	25.9	57.9	57.9	4.0	5.5	4	-	-	-	-	818155	806186	-	-	-	-					
						1.0	0.2	210	26.9	26.9	8.0	8.0	25.9	25.9	57.9	57.9	4.0	5.6	4	-	-	-	-											
					Middle	3.8	0.2	135	26.3	26.3	8.0	8.0	28.5	28.5	55.4	55.5	3.8	11.0	4	-	-	-	-			-	-	-	-	-				
						3.8	0.2	144	26.3	26.3	8.0	8.0	28.5	28.5	55.5	55.5	3.8	10.9	4	-	-	-	-			-	-	-	-	-				
					Bottom	6.6	0.2	129	26.3	26.3	8.0	8.0	28.7	28.7	56.7	56.8	3.9	16.1	2	-	-	-	-			-	-	-	-	-	-			
						6.6	0.2	134	26.3	26.3	8.0	8.0	28.7	28.7	56.9	56.9	3.9	16.2	2	-	-	-	-			-	-	-	-	-	-			
IM3	Rainy	Moderate	12:59	7.8	Surface	1.0	0.2	186	27.2	27.2	8.0	8.0	24.6	24.7	64.2	64.1	4.4	4.5	4	-	-	-	-	818772	805576	-	-	-	-					
						1.0	0.3	197	27.2	27.2	8.0	8.0	24.7	24.7	64.0	64.1	4.4	4.5	4	-	-	-	-											
					Middle	3.9	0.2	131	26.6	26.6	8.0	8.0	27.0	27.0	61.6	61.5	4.3	5.0	4	-	-	-	-			-	-	-	-					
						3.9	0.2	134	26.6	26.6	8.0	8.0	27.0	27.0	61.4	61.4	4.2	4.9	4	-	-	-	-			-	-	-	-					
					Bottom	6.8	0.2	115	26.3	26.3	8.0	8.0	28.9	28.9	59.0	59.3	4.1	10.8	4	-	-	-	-			-	-	-	-	-				
						6.8	0.2	120	26.3	26.3	8.0	8.0	28.9	28.9	59.5	59.3	4.1	10.8	5	-	-	-	-			-	-	-	-	-				
IM4	Rainy	Moderate	12:50	8.7	Surface	1.0	0.4	202	26.9	26.9	8.0	8.0	25.7	25.7	58.2	58.2	4.0	7.4	5	-	-	-	-	819740	804607	-	-	-	-					
						1.0	0.5	207	26.9	26.9	8.0	8.0	25.7	25.7	58.2	58.2	4.0	7.4	5	-	-	-	-											
					Middle	4.4	0.2	168	26.3	26.3	8.0	8.0	28.5	28.5	55.8	55.8	3.8	8.9	4	-	-	-	-			-	-	-	-					
						4.4	0.2	169	26.3	26.3	8.0	8.0	28.5	28.5	55.8	55.8	3.8	9.4	4	-	-	-	-			-	-	-						
					Bottom	7.7	0.2	127	26.2	26.2	8.0	8.0	29.0	29.0	56.6	56.8	3.9	13.2	3	-	-	-	-			-	-	-	-	-				
						7.7	0.2	133	26.2	26.2	8.0	8.0	29.0	29.0	56.9	56.9	3.9	13.1	3	-	-	-	-			-	-	-	-					
IM5	Cloudy	Moderate	12:42	8.2	Surface	1.0	0.2	234	27.1	27.1	8.0	8.0	24.5	24.5	59.9	60.1	4.2	6.7	3	-	-	-	-	820738	804872	-	-	-	-					
						1.0	0.2	238	27.1	27.1	8.0	8.0	24.4	24.4	60.2	60.1	4.2	6.6	3	-	-	-	-											
					Middle	4.1	0.2	171	26.4	26.4	8.0	8.0	27.9	27.9	56.4	56.5	3.9	11.1	4	-	-	-	-			-	-	-						
						4.1	0.2	171	26.4	26.4	8.0	8.0	27.9	27.9	56.5	56.5	3.9	11.5	3	-	-	-	-			-	-							
					Bottom	7.2	0.1	163	26.4	26.4	8.0	8.0	28.1	28.1	57.8	58.1	4.0	13.0	4	-	-	-	-			-	-	-	-					
						7.2	0.1	167	26.4	26.4	8.0	8.0	28.1	28.1	58.3	58.1	4.0	13.0	4	-	-	-	-			-	-							
IM6	Cloudy	Moderate	12:35	8.4	Surface	1.0	0.3	258	27.2	27.2	8.0	8.0	23.7	23.6	64.5	64.6	4.5	7.8	5	-	-	-	-	821064	805837	-	-	-	-					
						1.0	0.3	279	27.2	27.2	8.0	8.0	23.6	23.6	64.7	64.6	4.5	7.6	5	-	-	-	-											
					Middle	4.2	0.2	204	26.7	26.7	8.0	8.0	26.5	26.5	55.5	55.6	3.8	9.0	4	-	-	-	-			-	-	-						
						4.2	0.2	204	26.7	26.7	8.0	8.0	26.5	26.5	55.6	55.6	3.8	9.0	4	-	-	-	-			-								
					Bottom	7.4	0.1	172	26.6	26.6	8.0	8.0	27.1	27.1	57.0	57.2	3.9	12.0	4	-	-	-	-			-	-	-						
						7.4	0.2	187	26.6	26.6	8.0	8.0	27.1	27.1	57.3	57.2	4.0	12.0	2	-	-	-	-			-								
IM7	Cloudy	Moderate	12:27	8.7	Surface	1.0	0.2	223	27.5	27.5	8.0	8.0	22.3	22.3	62.2	62.2	4.3	7.0	7	-	-	-	-	821365	806855	-	-	-	-					
						1.0	0.2	234	27.5	27.5	8.0	8.0	22.3	22.3	62.1	62.1	4.3	7.1	6	-	-	-	-											
					Middle	4.4	0.1	164	27.0	27.0	8.0	8.0	25.1	25.1	57.8	57.7	4.0	9.4	6	-</														

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

Water Quality Monitoring Results on 26 June 21 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	Value	DA	Value	DA	Value	DA
IM9	Cloudy	Moderate	12:59	7.5	Surface	1.0	0.3	152	28.0	28.0	7.6	7.6	20.7	20.7	69.2	69.2	4.8	4.8	1.2	4	-	-	-	-	822089	808833	-	-	-	-				
						1.0	0.4	165	28.0	7.6	7.6	20.7	20.7	69.2	68.2	4.8	4.8	1.2	4	-	-													
					Middle	3.8	0.3	149	27.5	7.6	7.6	22.9	22.9	57.9	58.0	4.0	4.0	8.8	4	-	-	-	-	-			-							
						3.8	0.4	162	27.5	7.6	7.6	22.9	22.9	58.0	58.0	4.0	4.0	8.5	4	-	-	-	-	-			-							
					Bottom	6.5	0.3	146	27.4	7.6	7.6	23.2	23.2	58.8	58.9	4.1	4.1	13.7	4	-	-	-	-	-			-							
						6.5	0.3	156	27.4	7.6	7.6	23.2	23.2	58.9	58.9	4.1	4.1	13.5	5	-	-	-	-	-			-							
IM10	Cloudy	Moderate	13:07	7.3	Surface	1.0	0.3	149	27.9	27.9	7.6	7.6	20.9	20.9	68.1	68.1	4.8	4.8	1.0	4	-	-	-	-	822398	809808	-	-	-	-				
						1.0	0.3	149	27.9	7.6	7.6	21.0	21.0	68.0	68.0	4.7	4.7	1.1	4	-	-													
					Middle	3.7	0.3	152	27.6	7.6	7.6	22.4	22.4	60.7	60.6	4.2	4.2	2.4	4	-	-	-	-	-			-							
						3.7	0.3	163	27.6	7.6	7.6	22.4	22.4	60.6	60.6	4.2	4.2	2.6	4	-	-	-	-	-			-							
					Bottom	6.3	0.3	144	27.4	7.6	7.6	23.2	23.2	57.8	57.8	4.0	4.0	16.0	4	-	-	-	-	-			-							
						6.3	0.3	155	27.4	7.6	7.6	23.2	23.2	57.8	57.8	4.0	4.0	16.3	4	-	-	-	-	-			-							
IM11	Cloudy	Moderate	13:17	8.9	Surface	1.0	0.3	140	28.1	28.1	7.5	7.5	20.2	20.2	69.5	69.5	4.9	4.9	1.3	4	-	-	-	-	822035	811469	-	-	-	-				
						1.0	0.3	152	28.1	7.5	7.5	20.2	20.2	69.4	69.4	4.8	4.8	1.4	4	-	-													
					Middle	4.5	0.3	138	27.8	7.6	7.6	21.3	21.3	65.0	65.0	4.5	4.5	2.3	4	-	-	-	-	-			-							
						4.5	0.4	146	27.8	7.6	7.6	21.3	21.3	65.0	65.0	4.5	4.5	2.3	4	-	-	-	-	-			-							
					Bottom	7.9	0.3	140	27.3	7.6	7.6	23.8	23.8	57.4	57.5	4.0	4.0	29.1	5	-	-	-	-	-			-							
						7.9	0.3	141	27.3	7.6	7.6	23.8	23.8	57.5	57.5	4.0	4.0	29.2	5	-	-	-	-	-			-							
IM12	Cloudy	Moderate	13:23	8.7	Surface	1.0	0.3	133	28.2	28.2	7.5	7.5	19.9	19.9	71.9	71.9	5.0	5.0	1.3	5	-	-	-	-	821480	812046	-	-	-	-				
						1.0	0.3	138	28.2	7.5	7.5	19.9	19.9	71.9	71.9	5.0	5.0	1.3	5	-	-													
					Middle	4.4	0.2	128	27.3	7.6	7.6	23.9	24.0	54.8	54.7	3.8	3.8	17.1	5	-	-	-	-	-			-							
						4.4	0.2	138	27.3	7.6	7.6	24.0	24.0	54.5	54.5	3.8	3.8	17.5	5	-	-	-	-	-			-							
					Bottom	7.7	0.2	134	27.0	7.6	7.6	25.3	25.3	51.6	51.6	3.6	3.6	24.0	5	-	-	-	-	-			-							
						7.7	0.3	140	27.0	7.6	7.6	25.3	25.3	51.6	51.6	3.6	3.6	24.2	6	-	-	-	-	-			-							
SR1A	Cloudy	Calm	13:53	5.6	Surface	1.0	-	-	27.8	27.8	7.5	7.5	22.0	22.0	62.3	62.3	4.3	4.3	5.0	3	-	-	-	-	819971	812658	-	-	-	-				
						1.0	-	-	27.8	7.5	7.5	22.0	22.0	62.3	62.3	4.3	4.3	4.9	4	-	-													
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-							
						2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-							
					Bottom	4.6	-	-	27.5	27.5	7.5	7.5	23.5	23.5	57.8	57.9	4.0	4.0	4.9	4	-	-	-	-			-							
						4.6	-	-	27.5	7.5	7.5	23.5	23.5	58.0	58.0	4.0	4.0	4.9	4	-	-	-	-	-			-							
SR2	Rainy	Moderate	14:09	4.8	Surface	1.0	0.4	111	27.6	27.6	7.6	7.6	22.2	22.2	62.2	62.3	4.3	4.3	3.6	2	-	-	-	-	821454	814145	-	-	-	-				
						1.0	0.4	121	27.6	7.6	7.6	22.1	22.1	62.4	62.4	4.3	4.3	3.4	2	-	-													
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-							
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-							
					Bottom	3.8	0.3	121	27.3	7.6	7.6	24.1	24.1	55.4	55.5	3.8	3.9	10.0	3	-	-	-	-	-			-							
						3.8	0.3	121	27.3	7.6	7.6	24.1	24.1	55.6	55.6	3.9	3.9	10.1	4	-	-	-	-	-			-							
SR3	Cloudy	Moderate	12:48	9.0	Surface	1.0	0.3	177	27.8	27.8	7.6	7.6	21.7	21.6	61.9	61.9	4.3	4.3	4.4	6	-	-	-	-	822167	807586	-	-	-	-				
						1.0	0.4	177	27.8	7.6	7.6	21.6	21.6	61.9	61.9	4.3	4.3	4.5	6	-	-													
					Middle	4.5	0.4	181	27.5	7.6	7.6	22.9	22.9	57.2	57.1	4.0	4.0	8.6	7	-	-	-	-	-			-							
						4.5	0.4	181	27.5	7.6	7.6	23.0	22.9	57.0	57.0	4.0	4.0	9.0	7	-	-	-	-	-			-							
					Bottom	8.0	0.3	166	27.4	7.6	7.6	23.5	23.5	57.5	57.7	4.0	4.0	12.8	7	-	-	-	-	-			-							
						8.0	0.3	168	27.4	7.6	7.6	23.5	23.5	57.8	57.8	4.0	4.0	12.6	7	-	-	-	-	-			-							
SR4A	Rainy	Moderate	13:52	8.6	Surface	1.0	0.1	57	26.9	26.9	8.0	8.0	26.4	26.4	58.8	58.8	4.1	4.1	7.5	9	-	-	-	-	817189	807813	-	-	-	-				
						1.0	0.1	59	26.9	8.0	8.0	26.4	26.4	58.8	58.8	4.0	4.0	7.8	8	-	-													
					Middle	4.3	0.1	71	26.6	8.0	8.0	27.5	27.5	54.4	54.5	3.7	3.7	11.8	8	-	-	-	-	-			-							
						4.3	0.1	72	26.6	8.0	8.0	27.5	27.5	54.6	54.5	3.8	3.8	11.8	8	-	-	-	-	-			-							
					Bottom	7.6	0.0	120	26.5	8.0	8.0	27.7	27.7	56.4	56.5	3.9	3.9	12.3	8	-	-	-	-	-			-							
						7.6	0.0	124	26.5	8.0	8.0	27.7	27.7	56.6	56.6	3.9	3.9	12.2	7	-	-	-	-	-			-							
SR5A	Rainy	Moderate	14:09	4.8	Surface	1.0	0.0	245	27.5	27.5	8.0	8.0	23.7	23.7	65.5	65.4	4.5	4.5	5.9	8	-	-	-	-	816607	810703	-	-	-	-				
						1.0	0.0	260	27.5	8.0	8.0	23.7	23.7	65.2	65.2	4.5	4.5	6.0	8	-	-													
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-							
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-							
					Bottom	3.8	0.0	54	27.1	8.0	8.0	24.8	24.8	64.0	64.3	4.4	4.5	11.0	4	-	-	-	-	-			-							
						3.8	0.0	55	27.1	8.0	8.0	24.7	24.8	64.5	64.5	4.5	4.5	11.1	4	-	-	-	-	-			-							
SR6A	Rainy	Moderate	14:41	4.7	Surface	1.0	0.0	81	27.6	27.6	8.0	8.0	23.5	23.4	65.8	65.8	4.6	4.6	8.9	6	-	-	-	-	817953	814751	-	-	-	-				
						1.0	0.0	85	27.6	8.0	8.0	23.4	23.4	65.8	65.8	4.6	4.6	8.8	6	-	-													
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-							
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-							
					Bottom	3.7	0.1	335	27.1	8.0	8.0	25.0	25.0	60.2	60.4	4.2	4.2	10.4	9	-	-	-	-	-			-							
						3.7	0.1	347	27.1	8.0	8.0	25.0	25.0	60.5	60.5	4.2	4.2	10.4	9	-	-	-	-	-			-							
SR7	Rainy	Moderate	14:55	14.4	Surface	1.0	0.4	67	27.3	27.3	7.6	7.6	24.2	24.2	61.3	61.3	4.2	4.2	1.0	3	-	-	-	-	823639	823750	-	-	-	-				
						1.0	0.5	72	27.3	7.6	7.6	24.2	24.2	61.3	61.3	4.3	4.3	1.1	3	-	-													
					Middle	7.2	0.4	77	26.6	7.6	7.6	26.6	26.6	56.5</																				

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

Water Quality Monitoring Results on 26 June 21 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	Value	DA		
C1	Rainy	Moderate	07:06	8.8	Surface	1.0	0.5	31	26.5	26.5	8.0	8.0	27.3	27.3	57.4	57.4	4.0	3.7	9.1	7	-	-	-	-	815597	804264	-	-	-	-			
						1.0	0.6	31	26.5	8.0	8.0	27.3	27.3	57.3	57.3	4.0	3.9	9.1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	
						4.4	0.5	34	26.2	26.2	8.0	8.0	28.9	28.9	54.3	54.3	3.7	3.7	15.3	6	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	4.4	0.5	34	26.2	26.2	8.0	8.0	29.0	29.0	54.3	54.3	3.7	3.7	16.0	6	-	-	-	-	-	-	-	-	-	-	-	-	
						7.8	0.5	36	26.1	26.1	8.0	8.0	29.5	29.5	54.2	54.2	3.7	3.7	11.5	5	-	-	-	-	-	-	-	-	-	-	-	-	-
						7.8	0.5	39	26.1	26.1	8.0	8.0	29.5	29.5	54.2	54.2	3.7	3.7	11.5	5	-	-	-	-	-	-	-	-	-	-	-	-	-
C2	Cloudy	Moderate	08:41	11.3	Surface	1.0	0.5	27	27.8	27.8	7.5	7.5	19.5	19.5	69.1	69.0	4.9	4.4	5.4	4	-	-	-	-	825705	806932	-	-	-	-			
						1.0	0.5	28	27.8	27.8	7.5	7.5	19.5	19.5	68.9	68.9	4.9	4.4	5.5	4	-	-	-	-	-	-	-	-	-	-	-	-	
						5.7	0.5	34	27.2	27.2	7.5	7.5	23.9	23.9	56.5	56.5	3.9	3.9	29.0	6	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	5.7	0.5	36	27.2	27.2	7.5	7.5	23.9	23.9	56.4	56.4	3.9	3.9	29.5	6	-	-	-	-	-	-	-	-	-	-	-	-	-
						10.3	0.4	26	27.1	27.1	7.6	7.6	24.5	24.5	54.6	54.6	3.8	3.8	27.7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
						10.3	0.4	27	27.1	27.1	7.6	7.6	24.5	24.5	54.6	54.6	3.8	3.8	28.1	7	-	-	-	-	-	-	-	-	-	-	-	-	-
C3	Rainy	Moderate	05:52	10.9	Surface	1.0	0.4	219	27.5	27.5	7.5	7.5	22.7	22.7	64.0	64.0	4.5	4.0	1.6	6	-	-	-	-	822121	817792	-	-	-	-			
						1.0	0.4	222	27.5	27.5	7.5	7.5	22.7	22.7	63.9	63.9	4.4	4.0	1.7	6	-	-	-	-	-	-	-	-	-	-	-	-	
						5.5	0.5	230	26.5	26.5	7.5	7.5	27.5	27.5	50.3	50.3	3.5	3.2	1.4	5	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	5.5	0.5	230	26.5	26.5	7.5	7.5	27.5	27.5	50.3	50.3	3.5	3.2	1.4	5	-	-	-	-	-	-	-	-	-	-	-	-	-
						9.9	0.5	231	26.0	26.0	7.5	7.5	29.6	29.6	46.6	46.6	3.2	3.2	22.5	5	-	-	-	-	-	-	-	-	-	-	-	-	-
						9.9	0.5	249	26.0	26.0	7.5	7.5	29.6	29.6	46.6	46.6	3.2	3.2	22.7	4	-	-	-	-	-	-	-	-	-	-	-	-	-
IM1	Cloudy	Moderate	07:25	5.6	Surface	1.0	0.0	299	27.2	27.2	8.0	8.0	23.4	23.4	66.6	66.6	4.6	4.6	5.1	5	-	-	-	-	817962	807120	-	-	-	-			
						1.0	0.0	324	27.2	27.2	8.0	8.0	23.4	23.4	66.6	66.6	4.6	4.6	5.7	4	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						4.6	0.1	322	26.9	26.9	8.0	8.0	25.8	25.8	58.6	58.7	4.1	4.1	11.5	7	-	-	-	-	-	-	-	-	-	-	-	-	-
						4.6	0.1	350	26.9	26.9	8.0	8.0	25.7	25.7	58.8	58.8	4.1	4.1	11.4	7	-	-	-	-	-	-	-	-	-	-	-	-	-
IM2	Cloudy	Moderate	07:32	7.8	Surface	1.0	0.3	343	27.1	27.1	8.0	8.0	24.5	24.4	64.5	64.6	4.5	4.2	5.5	8	-	-	-	-	818139	806175	-	-	-	-			
						1.0	0.3	316	27.1	27.1	8.0	8.0	24.4	24.4	64.7	64.7	4.5	4.2	5.4	8	-	-	-	-	-	-	-	-	-	-	-	-	
						3.9	0.3	353	26.6	26.6	8.0	8.0	27.3	27.3	55.0	55.0	3.8	3.8	9.6	7	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	3.9	0.3	325	26.6	26.6	8.0	8.0	27.3	27.3	54.9	54.9	3.8	3.8	9.6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
						6.8	0.2	23	26.5	26.5	8.0	8.0	27.8	27.8	54.8	54.8	3.8	3.8	25.3	6	-	-	-	-	-	-	-	-	-	-	-	-	-
						6.8	0.3	23	26.5	26.5	8.0	8.0	27.8	27.8	54.9	54.9	3.8	3.8	23.1	5	-	-	-	-	-	-	-	-	-	-	-	-	-
IM3	Cloudy	Moderate	07:39	7.9	Surface	1.0	0.4	343	27.1	27.1	8.0	8.0	24.2	24.2	66.5	66.4	4.6	4.4	5.2	6	-	-	-	-	818767	805600	-	-	-	-			
						1.0	0.4	316	27.1	27.1	8.0	8.0	24.2	24.2	66.3	66.3	4.6	4.4	5.2	6	-	-	-	-	-	-	-	-	-	-	-	-	
						4.0	0.4	354	26.8	26.8	8.0	8.0	25.9	25.9	59.0	59.0	4.1	4.1	5.7	6	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	4.0	0.5	326	26.8	26.8	8.0	8.0	25.8	25.8	59.0	59.0	4.1	4.1	5.8	6	-	-	-	-	-	-	-	-	-	-	-	-	-
						6.9	0.2	340	26.5	26.5	8.0	8.0	28.0	28.0	55.3	55.4	3.8	3.8	12.4	7	-	-	-	-	-	-	-	-	-	-	-	-	
						6.9	0.2	352	26.5	26.5	8.0	8.0	28.0	28.0	55.5	55.5	3.8	3.8	12.6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
IM4	Rainy	Moderate	07:48	8.5	Surface	1.0	0.7	335	27.0	27.0	8.0	8.0	24.6	24.6	64.2	64.2	4.5	4.2	5.8	6	-	-	-	-	819733	804590	-	-	-	-			
						1.0	0.7	308	27.0	27.0	8.0	8.0	24.6	24.6	64.1	64.1	4.4	4.2	5.7	6	-	-	-	-	-	-	-	-	-	-	-	-	
						4.3	0.7	346	26.8	26.8	8.0	8.0	25.8	25.8	57.7	57.7	4.0	4.0	6.1	6	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	4.3	0.7	318	26.8	26.8	8.0	8.0	25.8	25.8	57.6	57.6	4.0	4.0	6.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-
						7.5	0.5	355	26.4	26.4	8.0	8.0	28.3	28.3	54.1	54.2	3.7	3.7	16.0	6	-	-	-	-	-	-	-	-	-	-	-	-	-
						7.5	0.5	327	26.4	26.4	8.0	8.0	28.3	28.3	54.3	54.3	3.7	3.7	16.2	6	-	-	-	-	-	-	-	-	-	-	-	-	-
IM5	Rainy	Moderate	07:55	8.2	Surface	1.0	1.0	358	27.3	27.3	8.0	8.0	23.4	23.4	68.1	68.1	4.7	4.3	4.8	5	-	-	-	-	820741	804890	-	-	-	-			
						1.0	1.0	329	27.3	27.3	8.0	8.0	23.4	23.4	68.0	68.0	4.7	4.3	4.8	5	-	-	-	-	-	-	-	-	-	-	-	-	
						4.1	0.9	11	26.8	26.8	8.0	8.0	26.1	26.1	57.0	57.0	3.9	3.9	12.1	5	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	4.1	0.9	11	26.8	26.8	8.0	8.0	26.1	26.1	57.0	57.0	3.9	3.9	12.2	5	-	-	-	-	-	-	-	-	-	-	-	-	-
						7.2	0.5	31	26.7	26.7	8.0	8.0	26.8	26.8	57.3	57.5	4.0	4.0	15.9	6	-	-	-	-	-	-	-	-	-	-	-	-	-
						7.2	0.5	31	26.7	26.7	8.0	8.0	26.8	26.8	57.6	57.6	4.0	4.0	15.9	6	-	-	-	-	-	-	-	-	-	-	-	-	-
IM6	Rainy	Moderate	08:03	7.8	Surface	1.0	0.1	285	27.6	27.6	8.0	8.0	21.1	21.1	65.6	65.4	4.6	4.4	5.1	5	-	-	-	-	821067	805823	-	-	-	-			
						1.0	0.1	305	27.5	27.5	8.0	8.0	21.2	21.2	65.2	65.2	4.6	4.4	5.4	5	-	-	-	-	-	-	-	-	-	-	-	-	
						3.9	0.2	43	27.1	27.1	8.0	8.0	23.6	23.6	60.6	60.6	4.2	4.2	10.7	6	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	3.9	0.2	44	27.1	27.1	8.0	8.0	23.6	23.6	60.6	60.6	4.2	4.2	10.3	6	-	-	-	-	-	-	-	-	-	-	-	-	-
						6.8	0.3	68	26.9	26.9	8.0	8.0	25.9	25.9	56.5	56.6	3.9	3.9	16.3	6	-	-	-	-	-	-	-	-	-	-	-	-	-
						6.8	0.3	68	26.9	26.9	8.0	8.0	25.9	25.9	56.6	56.6	3.9	3.9	16.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-
IM7	Rainy	Moderate	08:13	8.5	Surface	1.0	0.1	241	27.7	27.7	8.0	8.0	20.7	20.8	67.5	67.5	4.7	4.5	5.2	5	-	-	-	-	821369	806856	-	-	-	-			
						1.0	0.1	262	27.7	27.7	8.0	8.0	20.8	20.8	67.4	67.4	4.7	4.5	5.3	5	-	-	-	-	-	-	-	-	-	-	-	-	
						4.3	0.2	156	27.1	27.1	8.0	8.0																					

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

Water Quality Monitoring

Water Quality Monitoring Results on **29 June 21** 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	Value	DA	Value	DA	Value	DA						
C1	Cloudy	Rough	15:42	7.0	Surface	1.0	0.4	220	27.6	27.6	8.1	8.1	22.6	22.5	90.9	91.0	6.3	6.1	2.7	4.5	7	6	-	-	815602	804262	-	-	-	-									
						1.0	0.4	232	27.6	8.1	8.1	22.5	23.6	91.0	85.4	6.3	5.9	2.7	3.1	6	3	-	-	-	-	-	-	-	-	-	-	-							
						3.5	0.3	211	27.2	8.1	8.1	23.7	23.6	85.3	85.4	5.9	5.9	3.1	3.1	6	3	-	-	-	-	-	-	-	-	-	-	-	-						
					Middle	3.5	0.4	217	27.2	8.1	8.1	23.6	26.7	85.4	85.5	5.9	4.6	3.1	3.1	6	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						6.0	0.4	234	26.7	8.0	8.0	25.9	25.9	85.5	65.6	4.5	4.6	3.1	3.1	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						6.0	0.4	248	26.7	8.0	8.0	25.9	25.9	85.7	65.7	4.6	4.6	3.1	3.1	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					C2	Misty	Moderate	14:45	12.4	Surface	1.0	0.3	168	27.5	27.5	7.6	7.6	18.1	18.0	82.1	82.1	5.8	5.4	1.7	3.5	2	3	-	-	825685	806942	-	-	-	-				
											1.0	0.3	170	27.5	7.6	7.6	18.0	20.7	82.0	70.1	5.8	5.0	1.8	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	
											6.2	0.4	167	27.4	7.6	7.6	20.7	20.7	70.1	70.1	5.0	4.9	3.9	3.9	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	6.2	0.4	170	27.4						7.6	7.6	20.7	20.7	70.1	70.1	4.9	4.9	3.9	3.9	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	11.4	0.4	163	27.7						7.6	7.6	23.3	23.3	62.0	62.8	4.3	4.3	4.8	4.8	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	11.4	0.4	178	27.9						7.6	7.6	23.3	23.3	63.6	62.8	4.4	4.4	4.7	4.7	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
C3	Misty	Moderate	17:05	12.0						Surface	1.0	0.1	189	27.3	27.3	7.7	7.7	22.7	22.7	69.8	69.7	4.9	4.8	2.1	3.3	5	5	-	-	822113	817799	-	-	-	-				
											1.0	0.1	201	27.2	7.7	7.7	22.7	23.3	69.5	67.4	4.9	4.8	2.0	3.7	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-
											6.0	0.3	181	26.5	7.7	7.7	23.3	23.3	67.6	67.4	4.8	4.7	3.7	3.7	6	5	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	6.0	0.3	187	26.4	7.7	7.7	23.3	23.3	67.1	67.4	4.7	4.7	3.7	3.7	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						11.0	0.3	185	26.1	7.7	7.7	28.6	28.6	61.4	61.7	4.2	4.3	4.3	4.3	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						11.0	0.3	193	26.1	7.7	7.7	28.6	28.6	61.9	61.7	4.3	4.3	4.3	4.3	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					IM1	Rainy	Rough	15:29	4.8	Surface	1.0	0.1	113	27.5	27.5	8.0	8.0	22.2	22.2	84.0	83.9	5.9	5.9	3.1	4.1	4	5	-	-	817938	807118	-	-	-	-				
											1.0	0.1	114	27.5	8.0	8.0	22.2	22.2	83.8	83.8	5.9	5.9	3.1	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	3.8	0.2	140	27.3						27.3	8.0	8.0	22.7	22.7	80.6	80.7	5.6	5.6	5.0	5.0	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	3.8	0.2	152	27.3						27.3	8.0	8.0	22.7	22.7	80.8	80.8	5.6	5.6	5.1	5.1	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
IM2	Rainy	Rough	15:22	6.2						Surface	1.0	0.2	131	27.3	27.3	8.1	8.1	22.8	22.8	84.0	84.0	5.9	5.8	3.3	5.2	4	4	-	-	818142	806146	-	-	-	-				
											1.0	0.2	133	27.3	8.1	8.1	22.8	23.0	84.0	80.8	5.9	5.6	3.3	4.1	5	4	-	-	-	-	-	-	-	-	-	-	-	-	
											3.1	0.2	133	27.2	8.1	8.1	23.0	23.0	80.7	80.8	5.6	5.6	4.1	4.1	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	3.1	0.2	133	27.2	8.1	8.1	23.0	23.0	80.8	80.8	5.6	5.6	4.1	4.1	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						5.2	0.2	108	27.0	8.0	8.0	23.8	23.8	74.6	74.6	5.2	5.2	8.1	8.1	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						5.2	0.2	110	27.0	8.0	8.0	23.9	23.8	74.6	74.6	5.2	5.2	8.2	8.2	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					IM3	Rainy	Rough	15:16	7.9	Surface	1.0	0.1	162	27.2	27.2	8.0	8.0	23.2	23.2	76.0	76.0	5.3	5.3	5.2	4.3	4	4	-	-	818771	805613	-	-	-	-				
											1.0	0.1	163	27.2	8.0	8.0	23.2	23.3	76.0	74.9	5.3	5.2	5.2	5.3	4	5	-	-	-	-	-	-	-	-	-	-	-	-	
											4.0	0.2	156	27.2	8.0	8.0	23.4	23.3	74.9	74.9	5.2	5.2	5.3	5.3	5	4	-	-	-	-	-	-	-	-	-	-	-	-	
Middle	4.0	0.2	159	27.2						8.0	8.0	23.3	23.3	74.8	74.8	5.2	5.2	5.3	5.3	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	6.9	0.2	176	27.0						8.0	8.0	24.3	24.3	71.1	71.1	4.9	4.9	2.4	2.4	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-					
	6.9	0.2	182	27.0						8.0	8.0	24.3	24.3	71.1	71.1	5.0	5.0	2.4	2.4	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-					
IM4	Rainy	Rough	15:09	7.3						Surface	1.0	0.2	200	27.3	27.3	8.0	8.0	22.7	22.7	77.9	78.0	5.4	5.4	4.3	6.4	6	5	-	-	819729	804617	-	-	-	-				
											1.0	0.2	214	27.3	8.0	8.0	22.7	23.3	78.0	76.6	5.4	5.3	4.3	6.0	5	4	-	-	-	-	-	-	-	-	-	-	-		
											3.7	0.2	199	27.2	8.0	8.0	23.3	23.3	76.6	76.6	5.3	5.3	4	5	4	4	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	3.7	0.2	218	27.2	8.0	8.0	23.3	23.3	76.6	76.6	5.3	5.3	5.9	5.9	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-					
						6.3	0.3	188	27.1	8.0	8.0	23.6	23.6	75.4	75.4	5.3	5.3	9.1	9.1	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-					
						6.3	0.3	191	27.1	8.0	8.0	23.7	23.6	75.3	75.3	5.3	5.3	9.1	9.1	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-					
					IM5	Rainy	Rough	15:01	8.1	Surface	1.0	0.2	221	27.4	27.4	8.0	8.0	22.3	22.3	79.7	79.8	5.6	5.6	4.8	5.7	5	4	-	-	820722	804864	-	-	-	-				
											1.0	0.2	231	27.4	8.0	8.0	22.3	22.6	79.8	79.8	5.6	5.5	4.8	4.0	4	4	-	-	-	-	-	-	-	-	-	-			
											4.1	0.2	208	27.3	8.0	8.0	22.6	22.6	79.0	78.9	5.5	5.5	4.0	3.9	4	4	-	-	-	-	-	-	-	-	-	-	-		
Middle	4.1	0.2	223	27.3						8.0	8.0	22.6	22.6	78.7	78.9	5.5	5.5	3.9	4	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-					
	7.1	0.2	213	26.7						8.0	8.0	25.9	25.9	67.2	67.2	4.7	4.7	8.4	8.4	4	4	-	-	-	-	-	-	-	-	-	-	-	-						
	7.1	0.3	233	26.7						8.0	8.0	25.9	25.9	67.2	67.2	4.7	4.7	8.5	8.5	4	4	-	-	-	-	-	-	-	-	-	-	-	-						
IM6	Rainy	Rough																																					

**Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring**

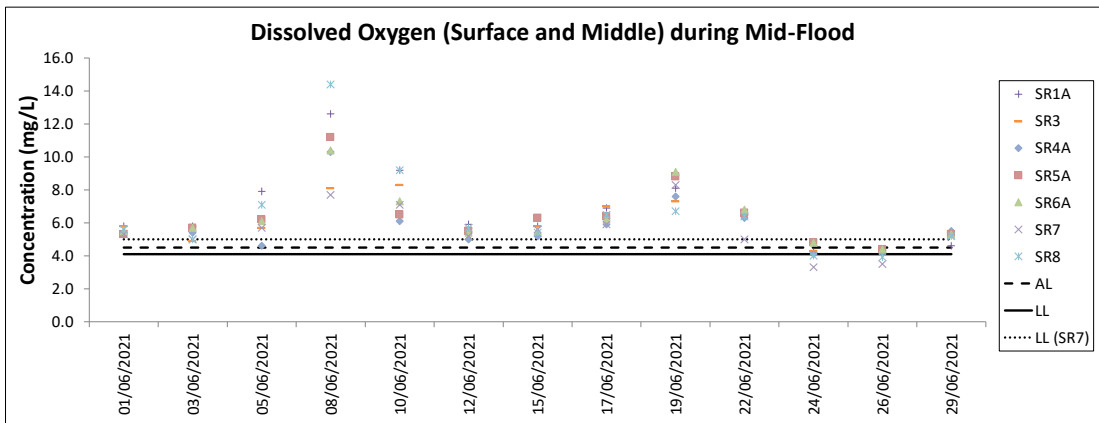
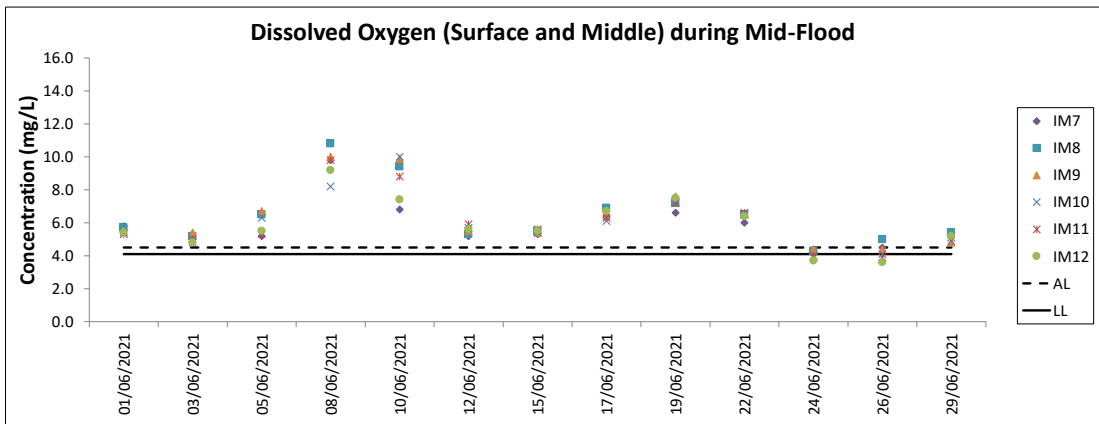
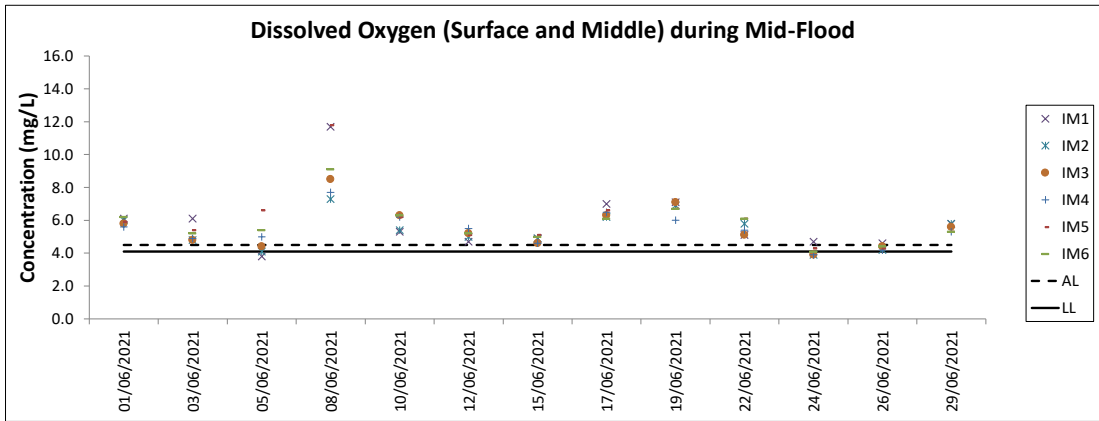
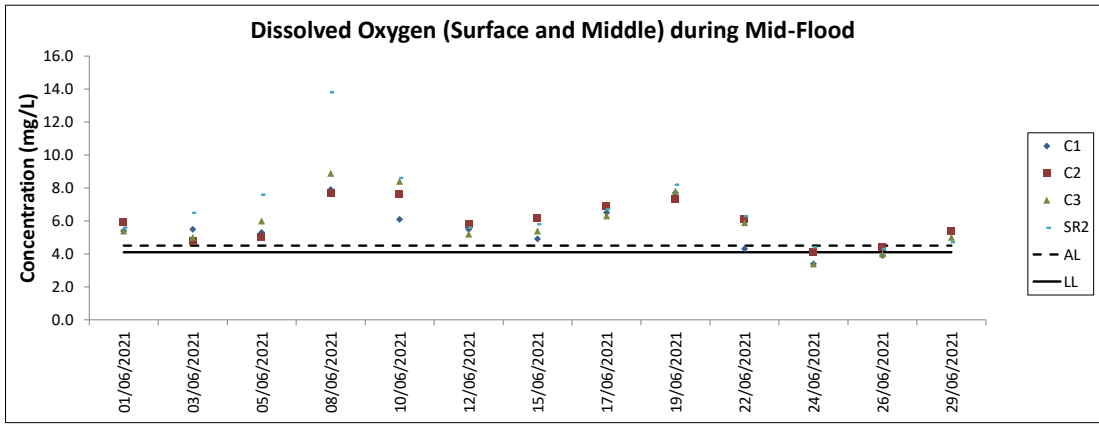
Water Quality Monitoring Results on 29 June 21 during Mid-Ebb Tide

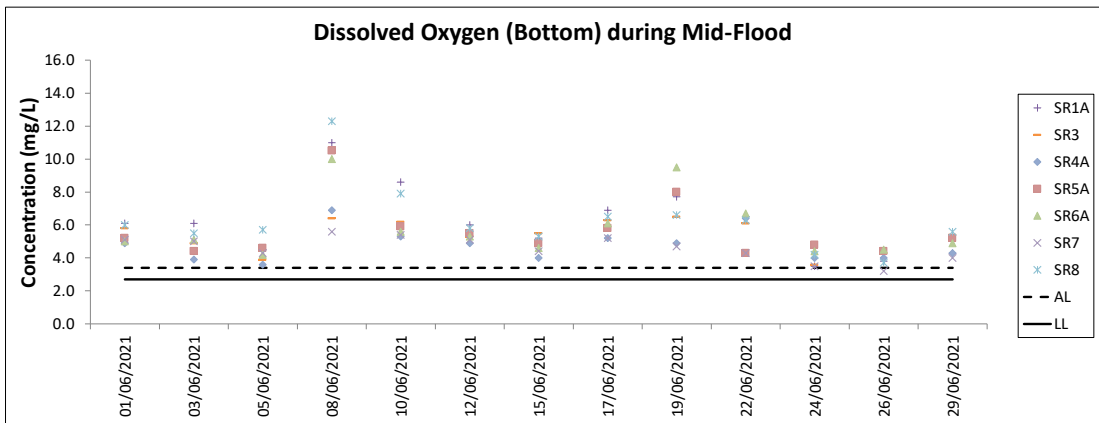
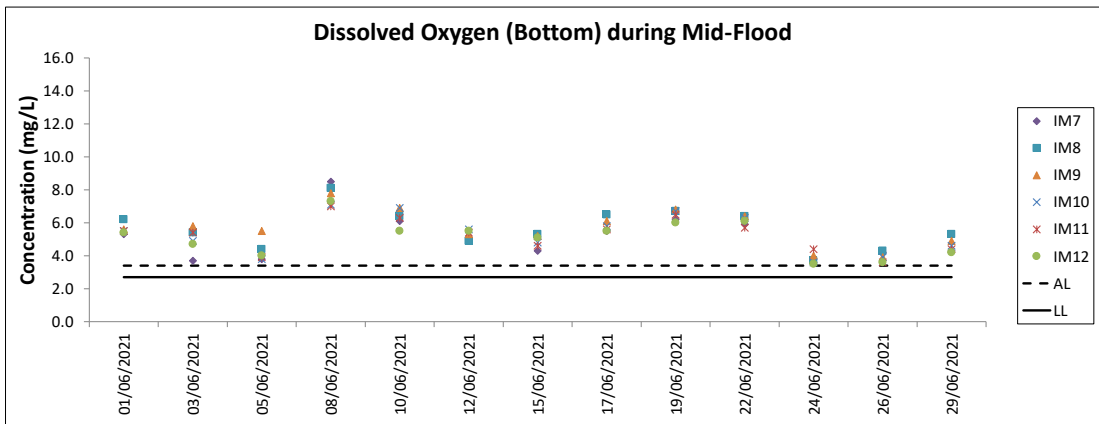
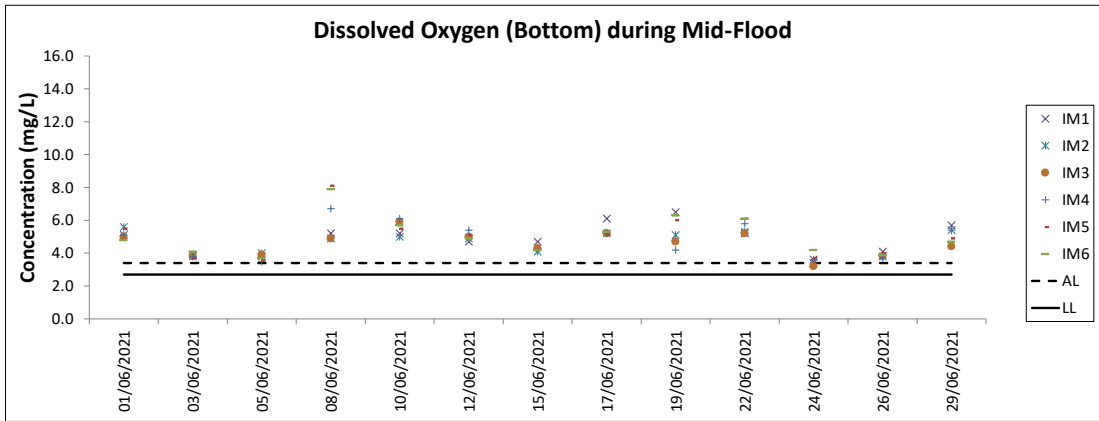
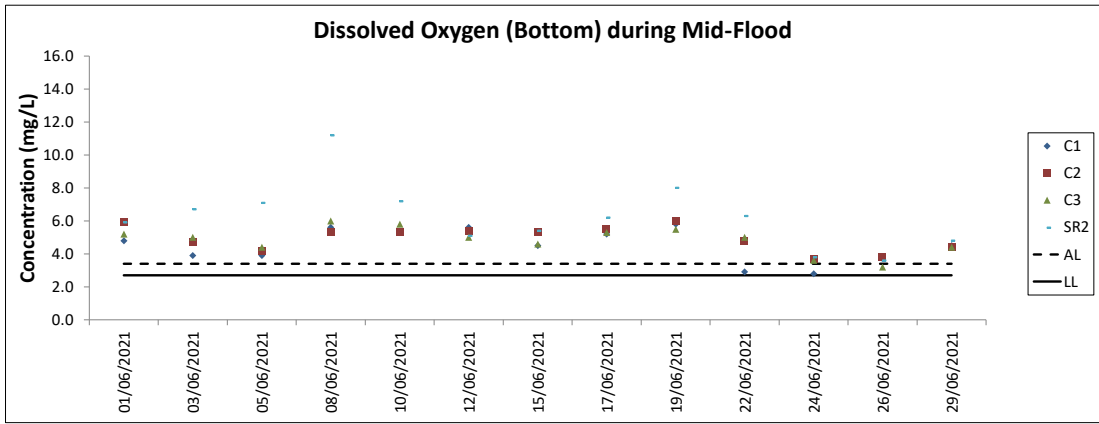
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (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	Value	DA		
IM9	Misty	Moderate	15:14	8.0	Surface	1.0	0.2	219	<u>27.7</u>	7.6	7.6	<u>20.7</u>	20.7	<u>77.3</u>	77.2	5.4	5.2	6.3	4	-	-	-	-	822108	808825	-	-	-	-				
						1.0	0.2	238	<u>27.7</u>	7.6	7.6	<u>20.8</u>	20.7	<u>77.1</u>	77.1	5.4	5.2	6.3	4	-	-	-	-	-	-	-	-	-	-	-	-		
						4.0	0.3	216	<u>27.5</u>	7.6	7.6	<u>21.7</u>	21.7	<u>71.0</u>	71.0	5.0	5.2	7.2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	4.0	0.3	219	<u>27.5</u>	7.6	7.6	<u>21.8</u>	21.7	<u>71.0</u>	71.0	5.0	5.2	7.2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						7.0	0.2	219	<u>27.5</u>	7.6	7.6	<u>22.0</u>	22.0	<u>73.3</u>	73.6	5.1	5.2	8.5	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.0	0.2	229	<u>27.5</u>	7.6	7.6	<u>22.0</u>	22.0	<u>73.8</u>	73.6	5.1	5.2	8.6	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	1.0	0.3	170	<u>27.9</u>	7.6	7.6	<u>20.0</u>	20.0	<u>80.3</u>	80.4	5.6	5.6	1.8	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
						1.0	0.3	173	<u>27.9</u>	7.6	7.6	<u>20.0</u>	20.0	<u>80.5</u>	80.2	5.7	5.6	1.7	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.9	0.3	177	<u>27.7</u>	7.6	7.6	<u>20.0</u>	20.0	<u>80.2</u>	80.2	5.6	5.6	2.5	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
Middle	3.9	0.3	190	<u>27.7</u>	7.6	7.6	<u>20.0</u>	20.0	<u>80.1</u>	80.1	5.6	5.6	2.5	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
	6.8	0.2	165	<u>27.7</u>	7.6	7.6	<u>21.9</u>	21.8	<u>79.4</u>	79.9	5.5	5.6	3.4	2	-	-	-	-	-	-	-	-	-	-	-	-	-						
	6.8	0.2	174	<u>27.8</u>	7.6	7.6	<u>21.8</u>	21.8	<u>80.4</u>	80.4	5.6	5.6	3.5	3	-	-	-	-	-	-	-	-	-	-	-	-	-						
IM11	Misty	Moderate	15:32	8.6	Surface	1.0	0.2	164	<u>27.7</u>	7.6	7.6	<u>20.1</u>	20.1	<u>77.8</u>	77.7	5.5	5.5	4.9	4	-	-	-	-	822079	811442	-	-	-	-				
						1.0	0.3	177	<u>27.6</u>	7.6	7.6	<u>20.1</u>	20.1	<u>77.5</u>	77.4	5.5	5.5	4.9	3	-	-	-	-	-	-	-	-	-	-	-			
						4.3	0.2	166	<u>27.5</u>	7.6	7.6	<u>21.8</u>	21.8	<u>77.4</u>	77.4	5.4	5.5	5.4	4	-	-	-	-	-	-	-	-	-	-	-			
					Middle	4.3	0.2	171	<u>27.6</u>	7.6	7.6	<u>21.8</u>	21.8	<u>77.4</u>	77.4	5.4	5.4	5.4	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.6	0.3	159	<u>27.9</u>	7.6	7.6	<u>21.8</u>	21.7	<u>79.4</u>	80.1	5.5	5.6	6.6	4	-	-	-	-	-	-	-	-	-	-	-	-		
						7.6	0.3	169	<u>28.0</u>	7.6	7.6	<u>21.7</u>	21.7	<u>80.8</u>	80.8	5.6	5.6	6.5	4	-	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	1.0	0.3	158	<u>27.8</u>	7.6	7.6	<u>20.0</u>	20.1	<u>77.2</u>	77.2	5.4	5.2	5.0	4	-	-	-	-	-	-	-	-	-	-	-	-		
						1.0	0.3	159	<u>27.7</u>	7.6	7.6	<u>20.1</u>	20.1	<u>77.1</u>	77.1	5.4	5.2	5.0	4	-	-	-	-	-	-	-	-	-	-	-	-		
						4.8	0.2	160	<u>27.5</u>	7.6	7.6	<u>22.0</u>	22.0	<u>70.5</u>	70.6	4.9	4.9	6.5	4	-	-	-	-	-	-	-	-	-	-	-			
Middle	4.8	0.3	174	<u>27.5</u>	7.6	7.6	<u>22.0</u>	22.0	<u>70.7</u>	70.6	4.9	4.9	6.5	5	-	-	-	-	-	-	-	-	-	-	-	-							
	8.6	0.2	153	<u>27.6</u>	7.6	7.6	<u>21.9</u>	21.9	<u>71.4</u>	71.6	5.0	5.0	7.9	5	-	-	-	-	-	-	-	-	-	-	-								
	8.6	0.3	167	<u>27.6</u>	7.6	7.6	<u>21.9</u>	21.9	<u>71.7</u>	71.7	5.0	5.0	7.9	5	-	-	-	-	-	-	-	-	-	-	-								
SR1A	Misty	Moderate	16:39	5.6	Surface	1.0	-	-	<u>27.8</u>	7.7	7.7	<u>21.6</u>	21.6	<u>70.1</u>	69.8	4.9	4.9	3.8	6	-	-	-	-	819979	812665	-	-	-	-				
						1.0	-	-	<u>27.8</u>	7.7	7.7	<u>21.6</u>	21.6	<u>69.5</u>	69.5	4.8	4.8	3.8	7	-	-	-	-	-	-	-	-	-					
						2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						4.6	-	-	<u>27.9</u>	7.7	7.7	<u>21.5</u>	21.4	<u>68.7</u>	69.3	4.8	4.9	4.1	7	-	-	-	-	-	-	-	-	-	-	-			
						4.6	-	-	<u>27.9</u>	7.7	7.7	<u>21.4</u>	21.4	<u>69.8</u>	69.8	4.9	4.9	4.2	6	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	1.0	0.3	142	<u>27.7</u>	7.7	7.7	<u>21.6</u>	21.7	<u>68.3</u>	68.0	4.8	4.8	3.7	6	-	-	-	-	-	-	-	-	-	-	-			
						1.0	0.3	151	<u>27.7</u>	7.7	7.7	<u>21.7</u>	21.7	<u>67.6</u>	67.6	4.7	4.7	3.6	5	-	-	-	-	-	-	-	-	-	-				
						3.6	0.2	151	<u>27.7</u>	7.7	7.7	<u>21.6</u>	21.5	<u>66.0</u>	66.7	4.6	4.7	4.8	7	-	-	-	-	-	-	-	-	-					
SR2	Misty	Moderate	16:49	4.6	Surface	1.0	0.3	142	<u>27.7</u>	7.7	7.7	<u>21.6</u>	21.7	<u>68.3</u>	68.0	4.8	4.8	3.7	6	-	-	-	-	821481	814168	-	-	-	-				
						1.0	0.3	151	<u>27.7</u>	7.7	7.7	<u>21.7</u>	21.7	<u>67.6</u>	67.6	4.7	4.7	3.6	5	-	-	-	-	-	-	-	-						
						3.6	0.2	151	<u>27.7</u>	7.7	7.7	<u>21.6</u>	21.5	<u>66.0</u>	66.7	4.6	4.7	4.8	7	-	-	-	-	-	-	-	-						
					Middle	3.6	0.2	165	<u>27.9</u>	7.7	7.7	<u>21.4</u>	21.4	<u>67.3</u>	67.3	4.7	4.7	4.8	6	-	-	-	-	-	-	-	-	-					
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					Bottom	1.0	0.3	156	<u>27.8</u>	7.6	7.6	<u>20.3</u>	20.3	<u>76.5</u>	76.6	5.4	5.4	6.3	6	-	-	-	-	-	-	-	-	-					
						1.0	0.3	163	<u>27.8</u>	7.6	7.6	<u>20.4</u>	20.3	<u>76.7</u>	76.6	5.4	5.4	6.4	6	-	-	-	-	-	-	-	-	-					
						4.5	0.2	158	<u>27.5</u>	7.6	7.6	<u>21.5</u>	21.6	<u>76.9</u>	76.6	5.4	5.4	7.3	6	-	-	-	-	-	-	-	-						
Middle	4.5	0.3	162	<u>27.5</u>	7.6	7.6	<u>21.7</u>	21.6	<u>76.2</u>	76.6	5.3	5.3	7.2	6	-	-	-	-	-	-	-	-											
	8.0	0.3	161	<u>27.4</u>	7.6	7.6	<u>22.2</u>	22.2	<u>69.1</u>	69.3	4.8	4.9	8.7	6	-	-	-	-	-	-	-												
	8.0	0.3	166	<u>27.5</u>	7.6	7.6	<u>22.2</u>	22.2	<u>69.5</u>	69.3	4.9	4.9	8.7	5	-	-	-	-	-	-													
SR4A	Cloudy	Rough	15:57	9.3	Surface	1.0	0.4	138	<u>27.5</u>	8.0	8.0	<u>22.5</u>	22.5	<u>84.8</u>	84.8	5.9	5.7	4.3	4	-	-	-	-	817207	807789	-	-	-	-				
						1.0	0.5	140	<u>27.5</u>	8.0	8.0	<u>22.5</u>	22.5	<u>84.7</u>	84.7	5.9	5.7	4.2	4	-	-	-	-	-	-	-							
						4.7	0.4	126	<u>27.3</u>	8.0	8.0	<u>23.2</u>	23.2	<u>77.7</u>	77.7	5.4	5.4	6.6	5	-	-	-	-	-	-								
					Middle	4.7	0.4	127	<u>27.3</u>	8.0	8.0	<u>23.2</u>	23.2	<u>77.7</u>	77.7	5.4	5.4	6.6	6	-	-	-	-	-	-	-							
						8.3	0.3	133	<u>26.7</u>	8.0	8.0	<u>26.0</u>	26.0	<u>62.6</u>	62.6	4.3	4.3	12.4	7	-	-	-	-	-	-								
						8.3	0.3	140	<u>26.7</u>	8.0	8.0	<u>26.0</u>	26.0	<u>62.6</u>	62.6	4.3	4.3	12.4	7	-	-	-	-	-									
					Bottom	1.0	0.3	111	<u>27.7</u>	8.0	8.0	<u>21.2</u>	21.2	<u>80.9</u>	80.8	5.7	5.7	4.3	6	-	-	-	-	-	-								
						1.0	0.3	119	<u>27.7</u>	8.0	8.0	<u>21.2</u>	21.2	<u>80.7</u>	80.7	5.6	5.7	4.4	6	-	-	-	-	-									
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
	-	-	-	-	-</																												

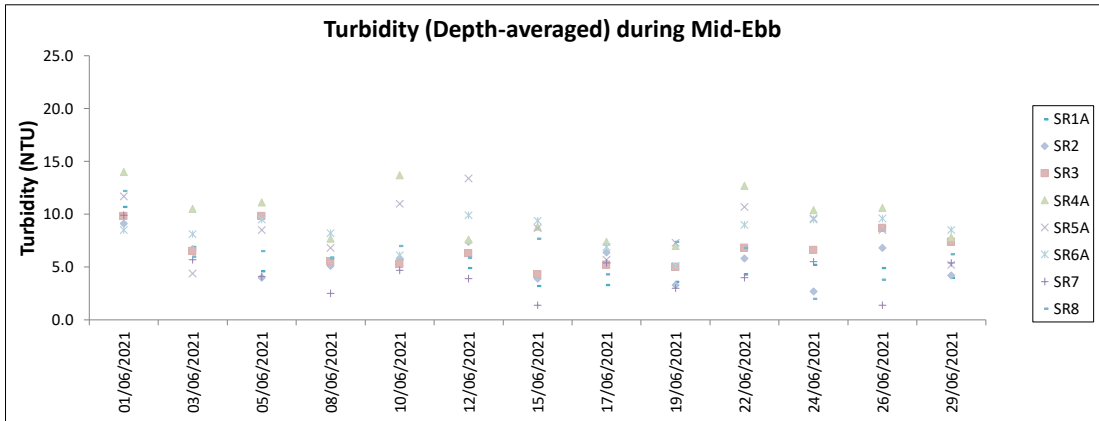
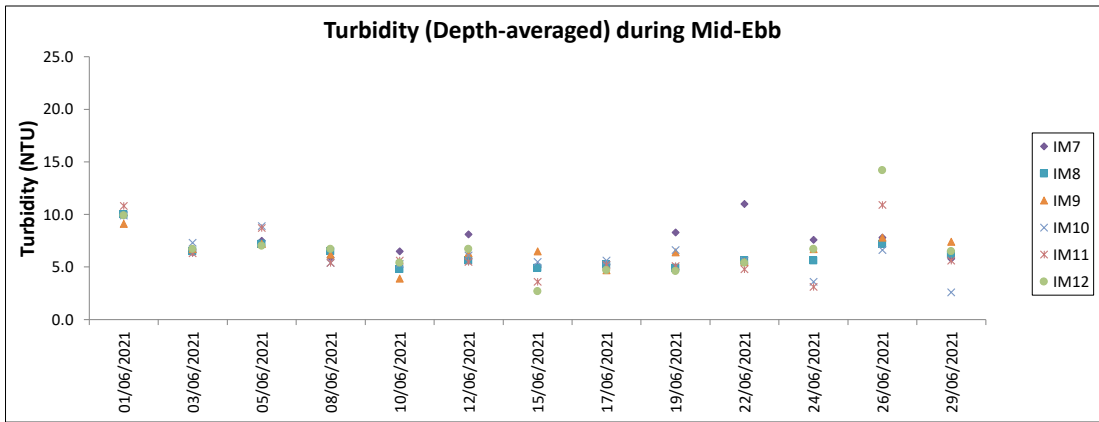
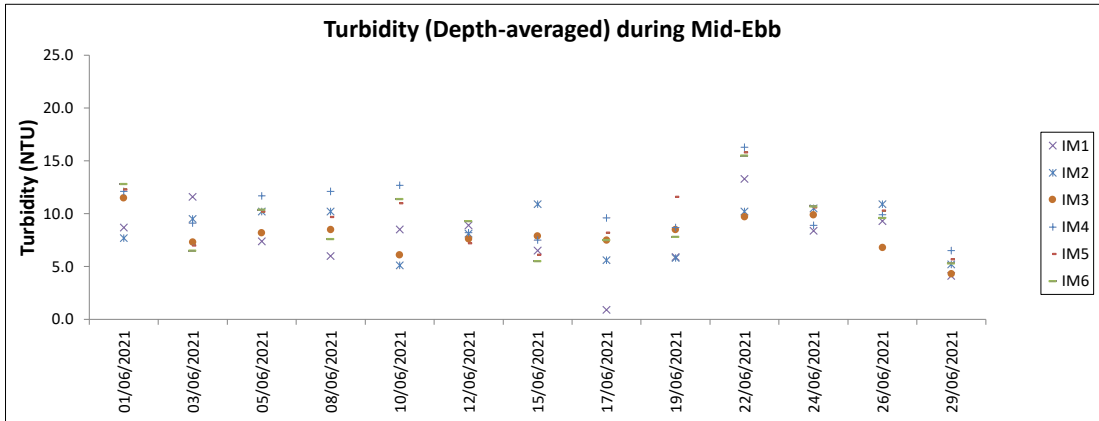
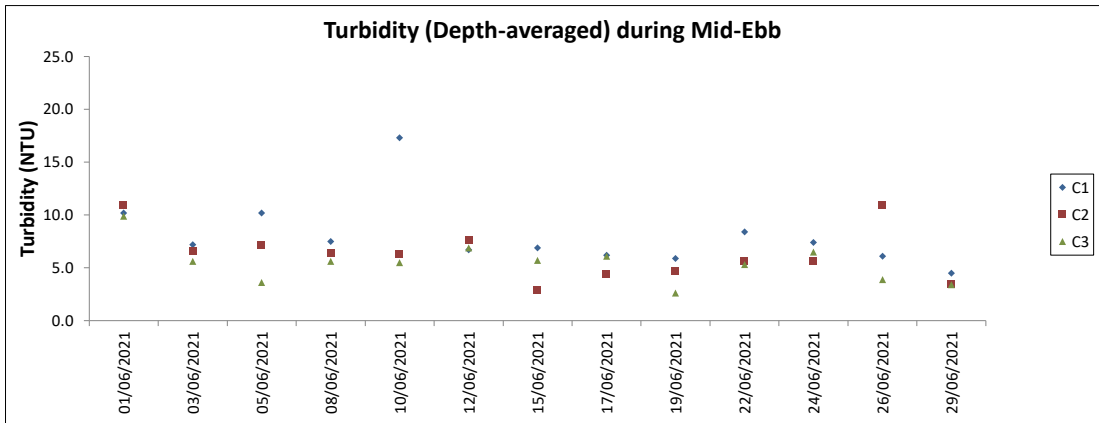
**Expansion of Hong Kong International Airport into a Three-Runway System
Water Quality Monitoring**

Water Quality Monitoring Results on 29 June 21 during Mid-Flood Tide

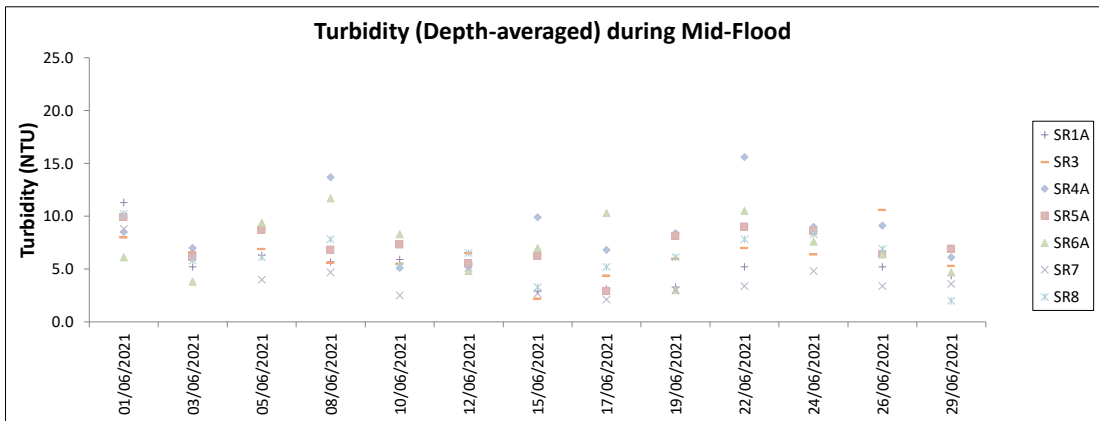
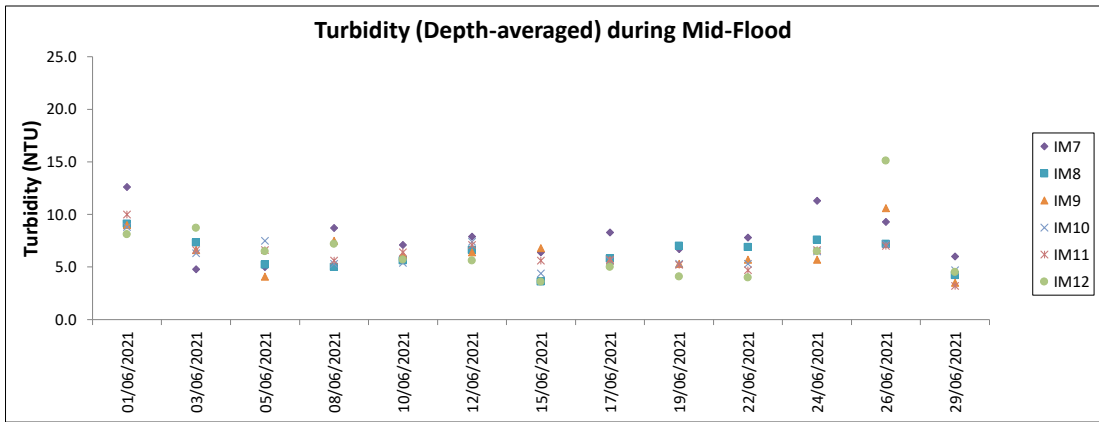
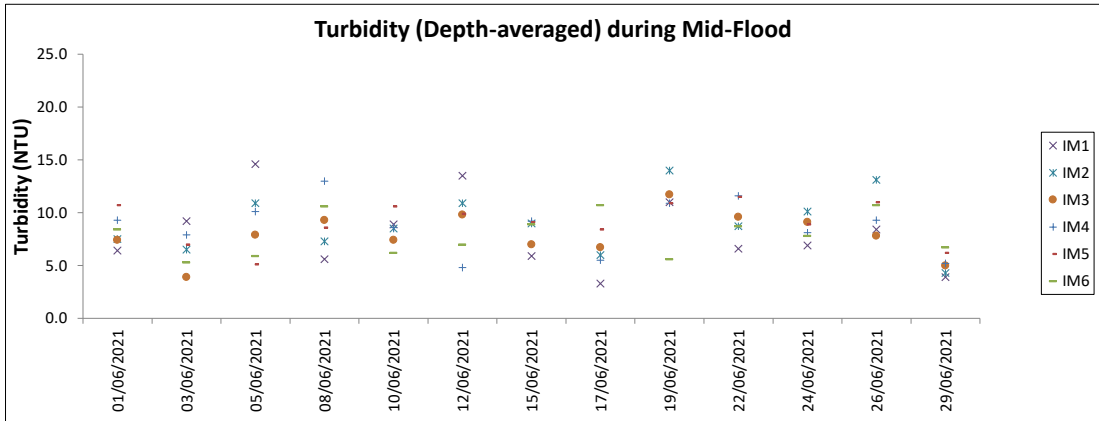
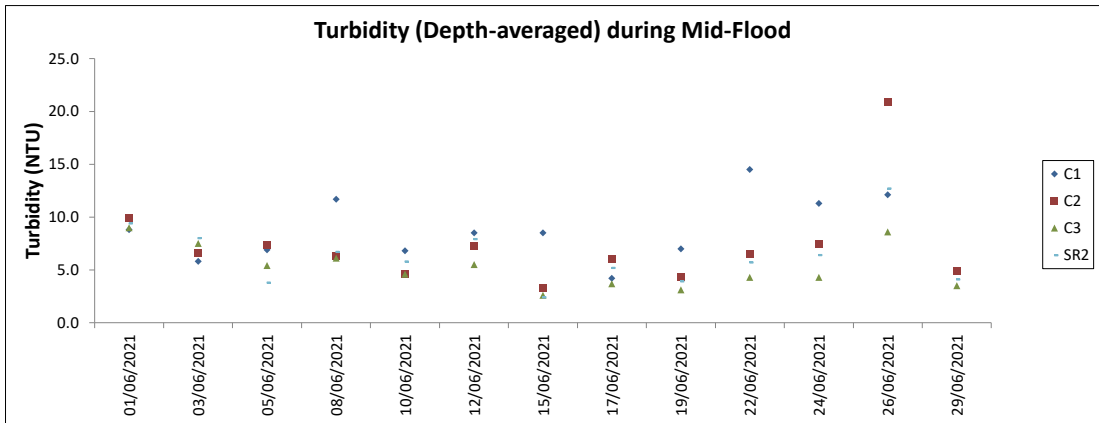
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (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	Value	DA	Value	DA	Value	DA
IM9	Misty	Moderate	10:23	8.2	Surface	1.0	0.2	164	27.8	7.6	7.6	20.0	20.0	69.5	69.2	4.9	4.8	2.9	9	-	-	-	-	822113	808791	-	-	-	-				
						1.0	0.2	164	27.8	7.6	7.6	20.1	20.0	68.9	67.6	4.8	4.8	2.9	8	-	-	-	-	-	-	-	-	-	-	-	-		
						4.1	0.2	165	27.7	7.6	7.6	20.6	20.6	67.4	67.6	4.7	4.8	3.2	11	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.1	0.3	172	27.7	7.6	7.6	20.6	20.6	67.7	67.6	4.8	4.8	3.1	10	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.2	0.2	165	27.7	7.6	7.6	20.7	20.7	70.0	70.2	4.9	4.9	4.5	11	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.2	0.2	167	27.7	7.6	7.6	20.7	20.7	70.4	70.4	4.9	4.9	4.5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	7.2	0.2	165	27.7	7.6	7.6	20.7	20.7	70.0	70.2	4.9	4.9	4.5	11	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.2	0.2	167	27.7	7.6	7.6	20.7	20.7	70.4	70.4	4.9	4.9	4.5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.2	0.2	167	27.7	7.6	7.6	20.7	20.7	70.4	70.4	4.9	4.9	4.5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM10	Misty	Moderate	10:16	8.6	Surface	1.0	0.1	168	27.7	7.6	7.6	18.6	18.6	74.9	74.7	5.3	5.3	3.6	4	-	-	-	-	822393	809770	-	-	-	-				
						1.0	0.1	168	27.6	7.6	7.6	18.6	18.6	74.5	74.5	5.3	5.3	3.6	4	-	-	-	-	-	-	-	-	-	-	-	-		
						4.3	0.2	168	27.3	7.6	7.6	22.7	22.7	63.1	63.3	4.4	4.4	4.8	4	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.3	0.2	170	27.3	7.6	7.6	22.7	22.7	63.4	63.4	4.4	4.4	4.9	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.6	0.2	163	27.6	7.6	7.6	22.9	22.9	66.0	66.4	4.6	4.6	5.6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.6	0.2	166	27.7	7.6	7.6	22.9	22.9	66.8	66.8	4.6	4.6	5.6	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	7.6	0.2	163	27.6	7.6	7.6	22.9	22.9	66.0	66.4	4.6	4.6	5.6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.6	0.2	166	27.7	7.6	7.6	22.9	22.9	66.8	66.8	4.6	4.6	5.6	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.6	0.2	166	27.7	7.6	7.6	22.9	22.9	66.8	66.8	4.6	4.6	5.6	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM11	Misty	Moderate	10:07	8.8	Surface	1.0	0.1	186	27.9	7.6	7.6	18.8	18.8	74.7	74.7	5.3	5.3	2.4	4	-	-	-	-	822048	811461	-	-	-	-				
						1.0	0.1	188	27.8	7.6	7.6	18.8	18.8	74.7	74.7	5.3	5.3	2.3	3	-	-	-	-	-	-	-	-	-	-	-	-		
						4.4	0.2	175	27.5	7.6	7.6	20.4	20.4	68.9	68.9	4.9	4.9	3.1	3	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.4	0.2	177	27.4	7.6	7.6	20.4	20.4	68.8	68.9	4.9	4.9	3.2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.8	0.2	177	26.9	7.6	7.6	24.9	24.9	62.4	62.6	4.3	4.4	4.1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.8	0.2	185	26.9	7.6	7.6	24.9	24.9	62.8	62.8	4.4	4.4	4.0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	7.8	0.2	177	26.9	7.6	7.6	24.9	24.9	62.4	62.6	4.3	4.4	4.1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.8	0.2	185	26.9	7.6	7.6	24.9	24.9	62.8	62.8	4.4	4.4	4.0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.8	0.2	185	26.9	7.6	7.6	24.9	24.9	62.8	62.8	4.4	4.4	4.0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM12	Misty	Moderate	10:01	8.6	Surface	1.0	0.2	172	28.0	7.6	7.6	18.4	18.5	75.8	75.8	5.4	5.4	3.1	3	-	-	-	-	821468	812068	-	-	-	-				
						1.0	0.2	177	27.9	7.6	7.6	18.5	18.5	75.8	75.8	5.4	5.4	3.0	4	-	-	-	-	-	-	-	-	-	-	-	-		
						4.3	0.2	174	27.3	7.6	7.6	20.3	20.3	69.9	69.7	4.9	4.9	4.9	3	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.3	0.2	184	27.2	7.6	7.6	20.3	20.3	69.4	69.4	4.9	4.9	4.8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.6	0.1	152	27.1	7.6	7.6	25.0	25.0	60.0	60.2	4.1	4.2	5.5	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.6	0.2	157	27.3	7.6	7.6	25.0	25.0	60.4	60.4	4.2	4.2	5.5	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	7.6	0.1	152	27.1	7.6	7.6	25.0	25.0	60.0	60.2	4.1	4.2	5.5	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.6	0.2	157	27.3	7.6	7.6	25.0	25.0	60.4	60.4	4.2	4.2	5.5	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.6	0.2	157	27.3	7.6	7.6	25.0	25.0	60.4	60.4	4.2	4.2	5.5	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
SR1A	Misty	Moderate	09:28	4.2	Surface	1.0	-	-	27.5	7.6	7.6	21.2	21.2	64.9	65.0	4.6	4.6	3.9	5	-	-	-	-	819981	812657	-	-	-	-				
						1.0	-	-	27.4	7.6	7.6	21.1	21.1	65.0	65.0	4.6	4.6	4.0	4	-	-	-	-	-	-	-	-	-	-	-	-		
						2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.2	-	-	27.3	7.6	7.6	22.7	22.7	62.0	62.1	4.3	4.3	4.8	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.2	-	-	27.3	7.6	7.6	22.7	22.7	62.1	62.1	4.3	4.3	4.8	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	3.2	-	-	27.3	7.6	7.6	22.7	22.7	62.0	62.1	4.3	4.3	4.8	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.2	-	-	27.3	7.6	7.6	22.7	22.7	62.1	62.1	4.3	4.3	4.8	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.2	-	-	27.3	7.6	7.6	22.7	22.7	62.1	62.1	4.3	4.3	4.8	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
SR2	Misty	Moderate	09:18	4.2	Surface	1.0	0.2	108	27.5	7.6	7.6	20.9	20.9	67.2	67.1	4.7	4.7	3.9	4	-	-	-	-	821469	814169	-	-	-	-				
						1.0	0.2	112	27.4	7.6	7.6	20.9	20.9	67.0	67.0	4.7	4.7	3.9	5	-	-	-	-	-	-	-	-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	3.2	0.1	98	27.7	7.6	7.6	22.2	22.1	68.1	68.5	4.7	4.8	4.2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.2	0.2	101	27.9	7.6	7.6	22.1	22.1	68.8	68.8	4.8	4.8	4.3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.2	0.1	98	27.7	7.6	7.6	22.2	22.1	68.1	68.5	4.7	4.8	4.2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
SR3	Misty	Moderate	10:33	9.8	Surface	1.0	0.2	158	27.9	7.6	7.6	18.9	18.9	76.7	76.5	5.4	5.4	4.1	3	-	-	-	-	822145	807591	-	-	-	-				
						1.0	0.2	173	27.9	7.6	7.6	19.0	19.0	76.2	76.2	5.4	5.4	4.2	4	-	-	-	-	-	-	-	-	-	-	-	-		
						4.9	0.2	159	27.8	7.6	7.6	19.6	19.6	74.8	74.8	5.3	5.3	5.6	5	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.9	0.2	174	27.8	7.6	7.6	19.6	19.6	74.8	74.8	5.3	5.3	5.6	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
						8.8	0.2	155	27.8	7.6	7.6	20.3	20.2	76.2	76.5	5.3	5.4	6.3	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
						8.8	0.2	157	28.0	7.6	7.6	20.2	20.2	76.8	76.8	5.4	5.4	6.2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	8.8	0.2	155	27.8	7.6	7.6	20.3	20.2	76.2	76.5																		



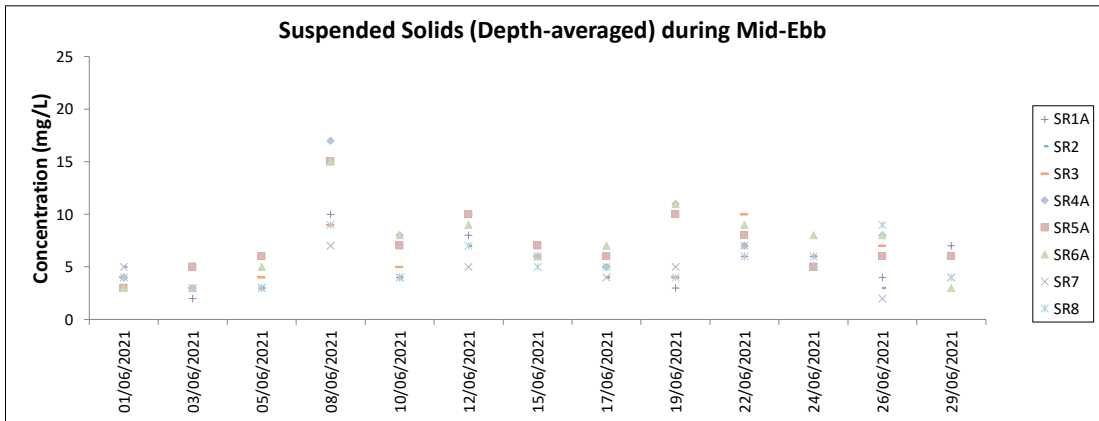
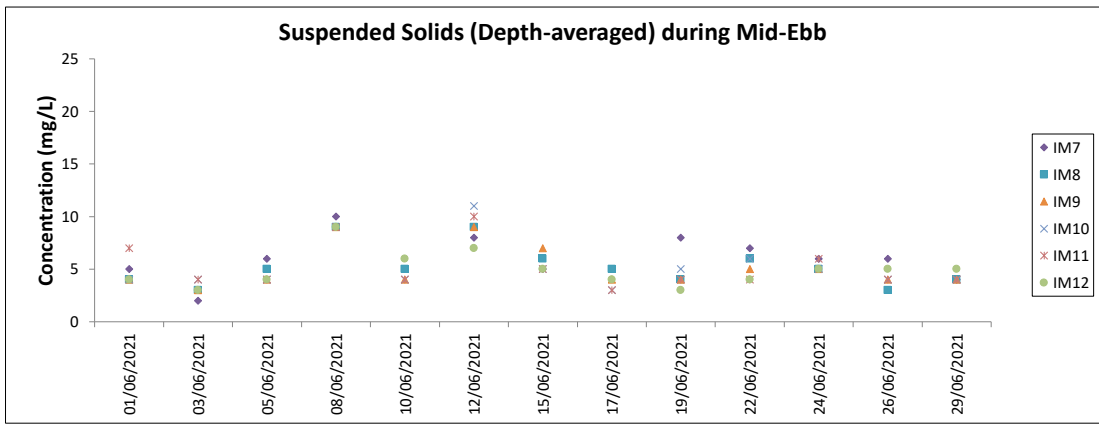
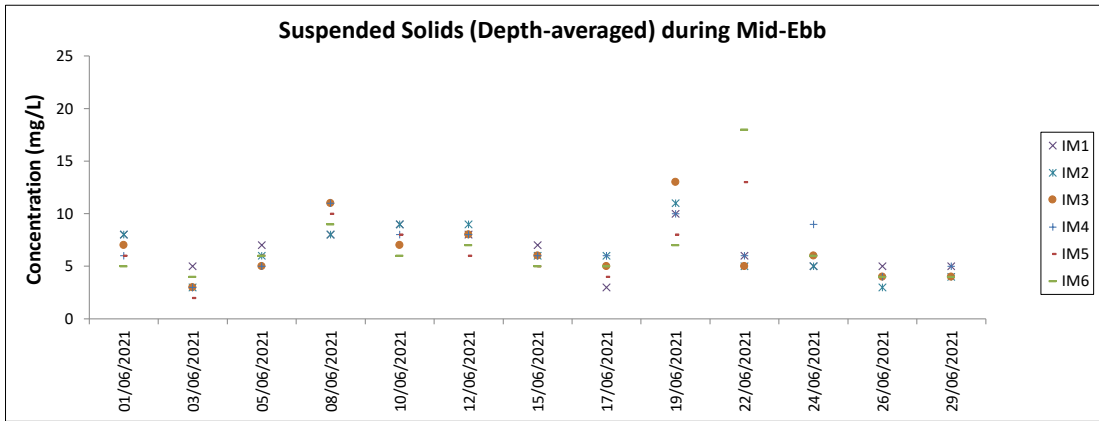
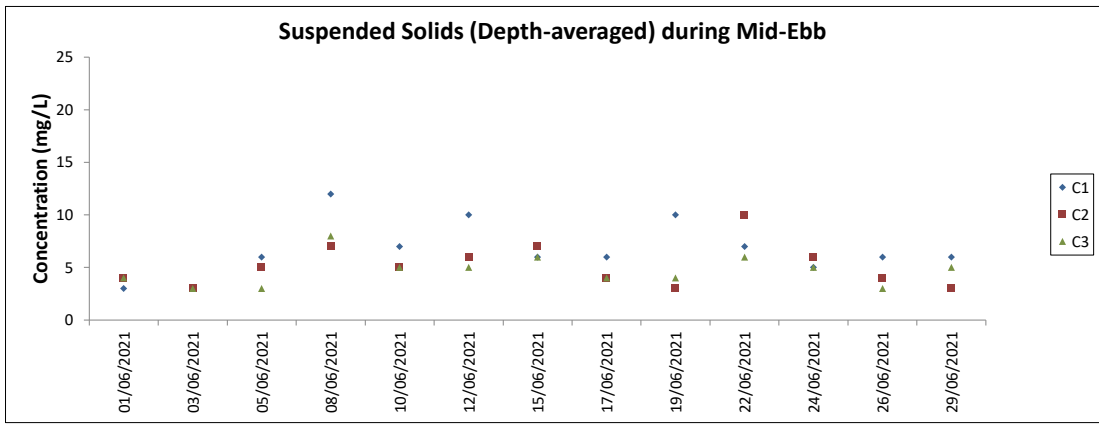




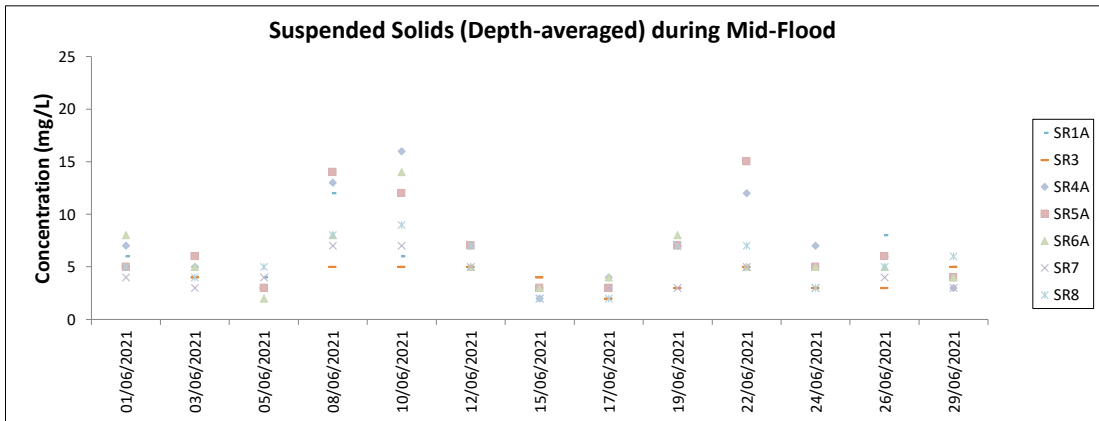
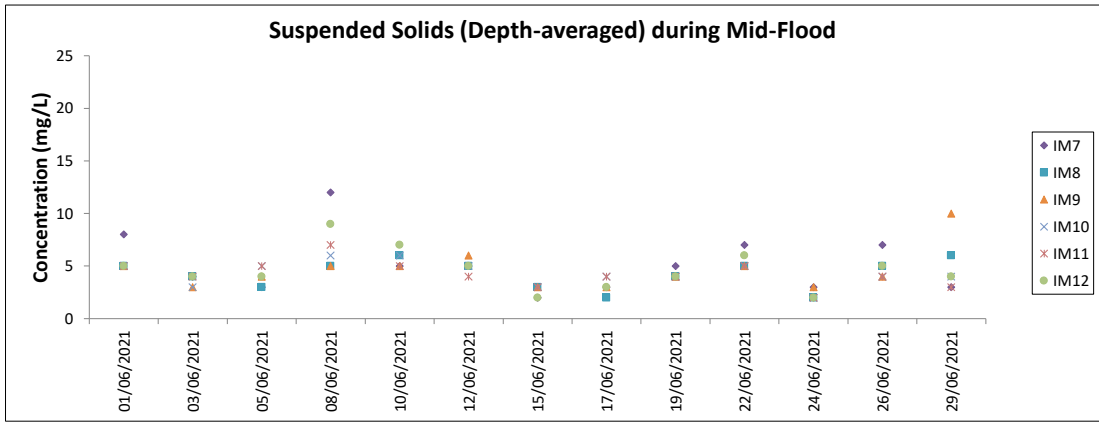
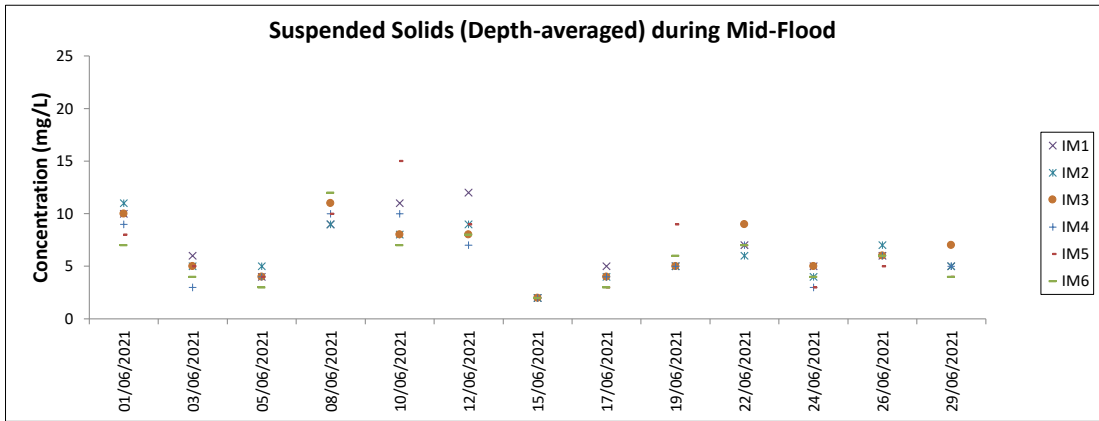
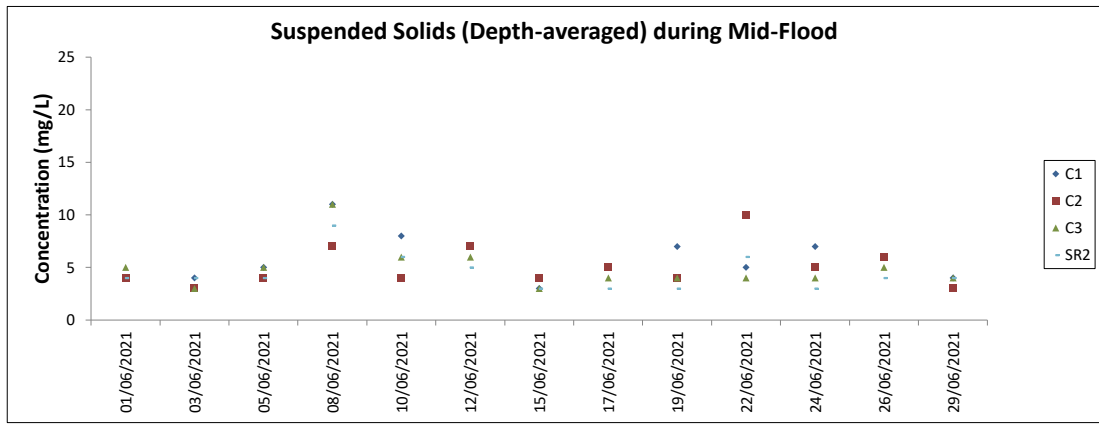
Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.



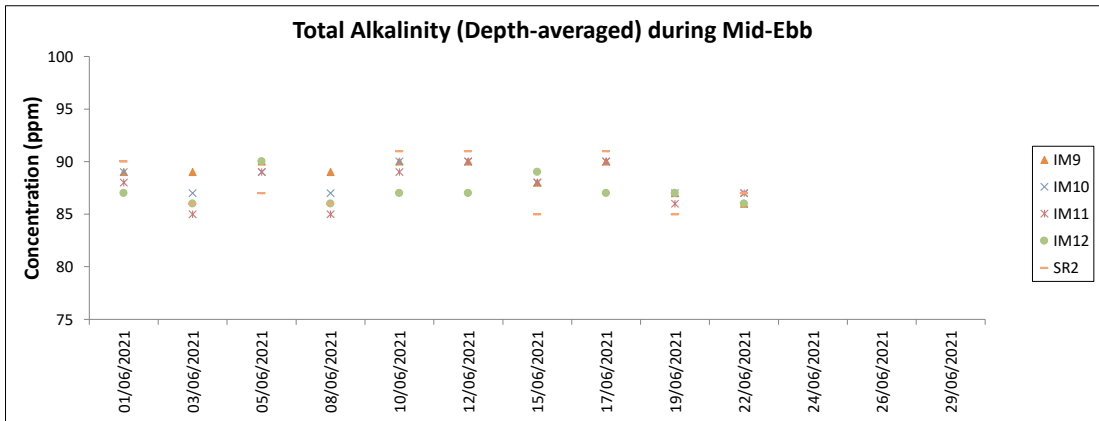
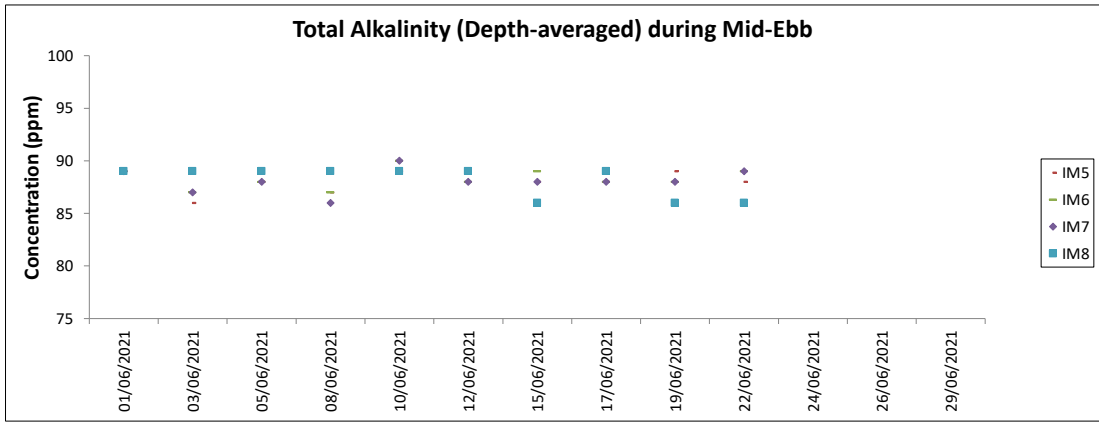
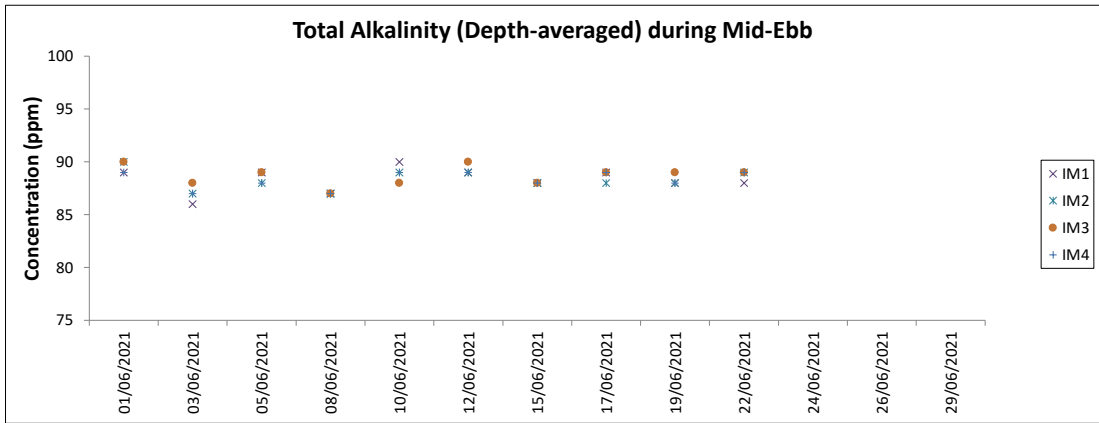
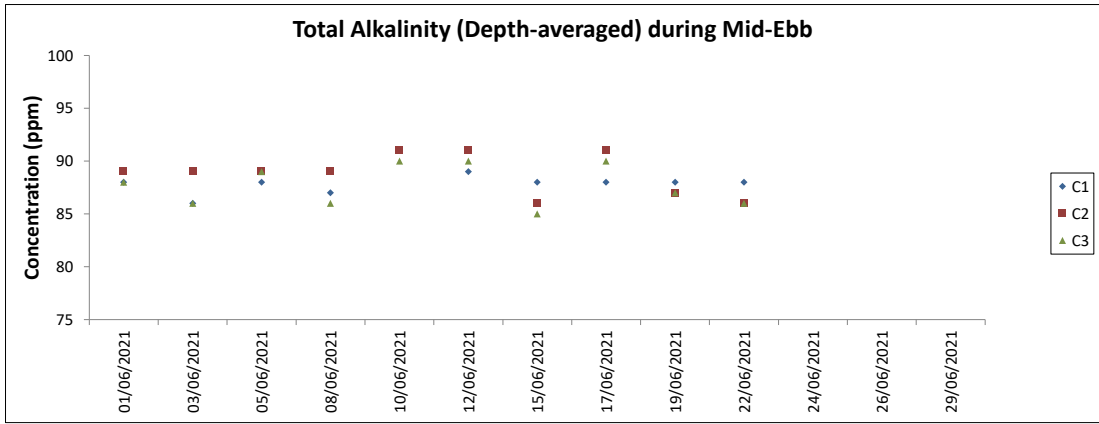
Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.



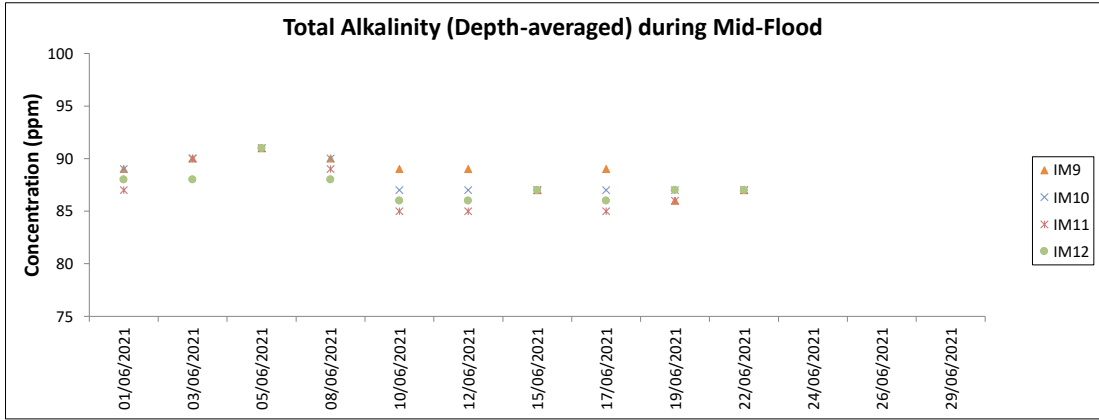
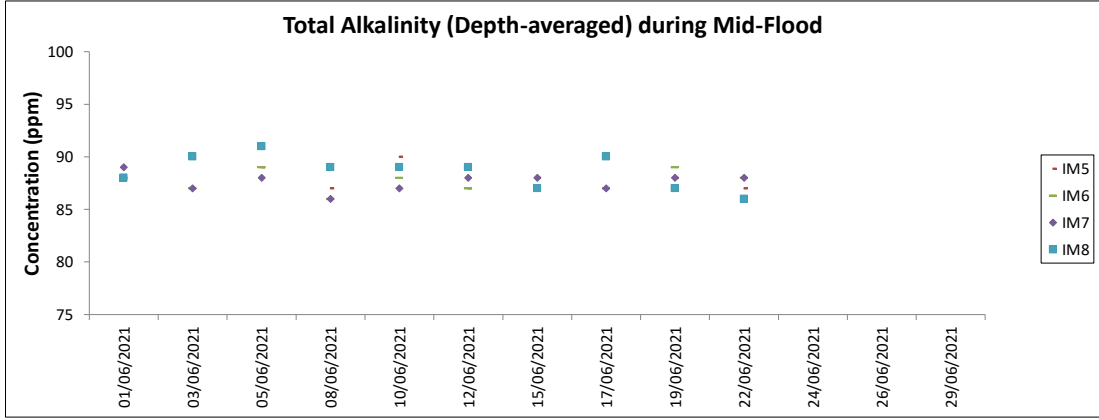
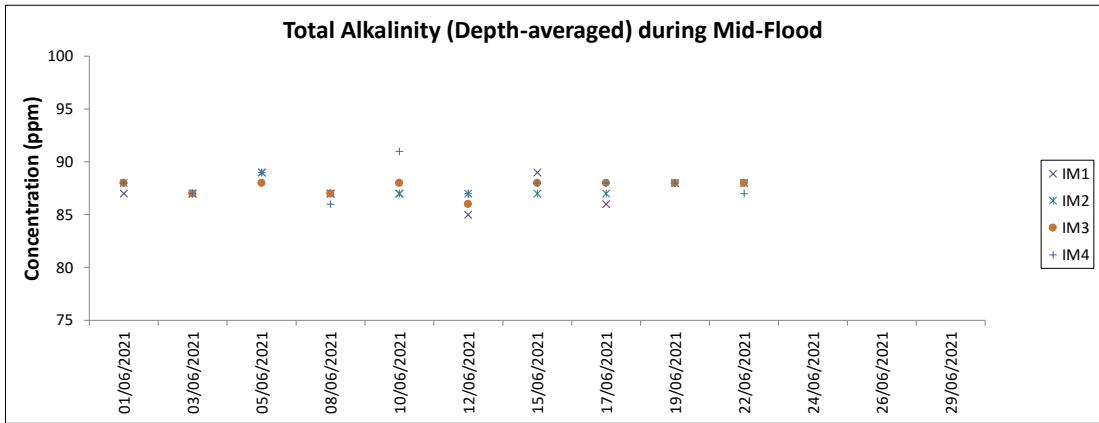
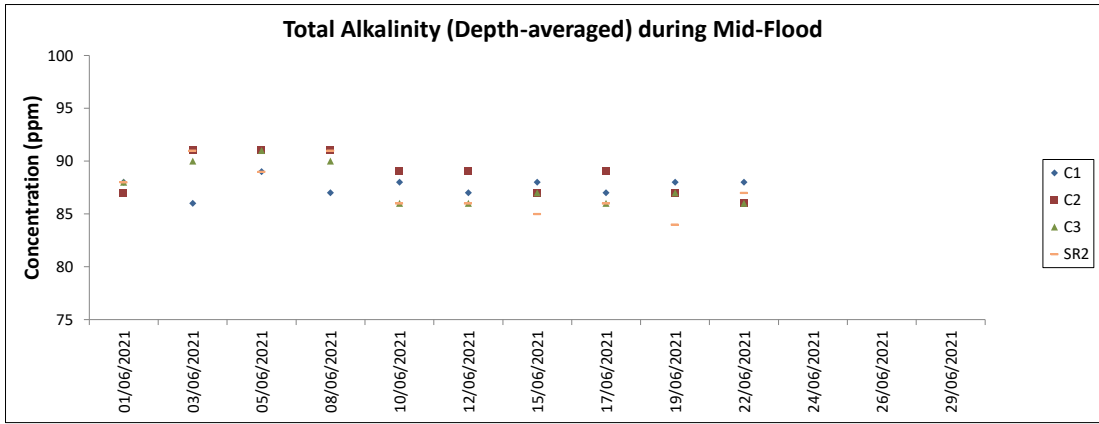
Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.



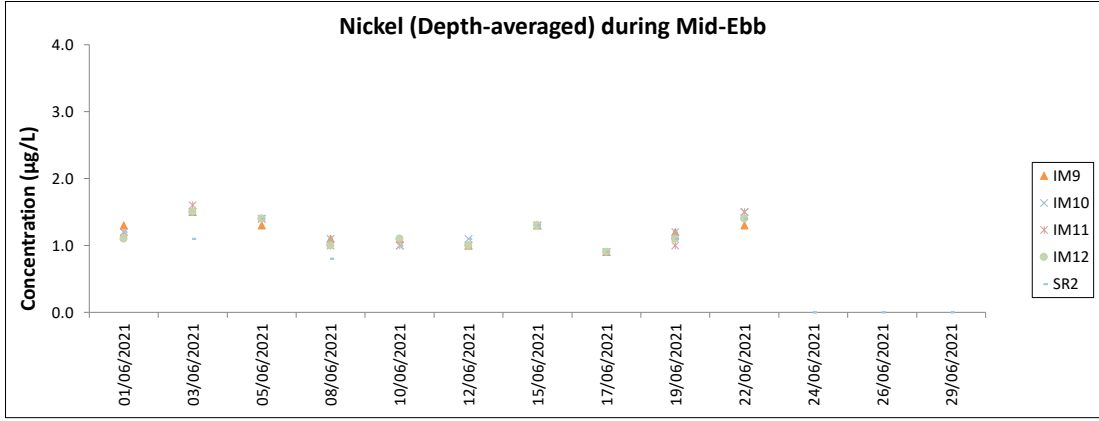
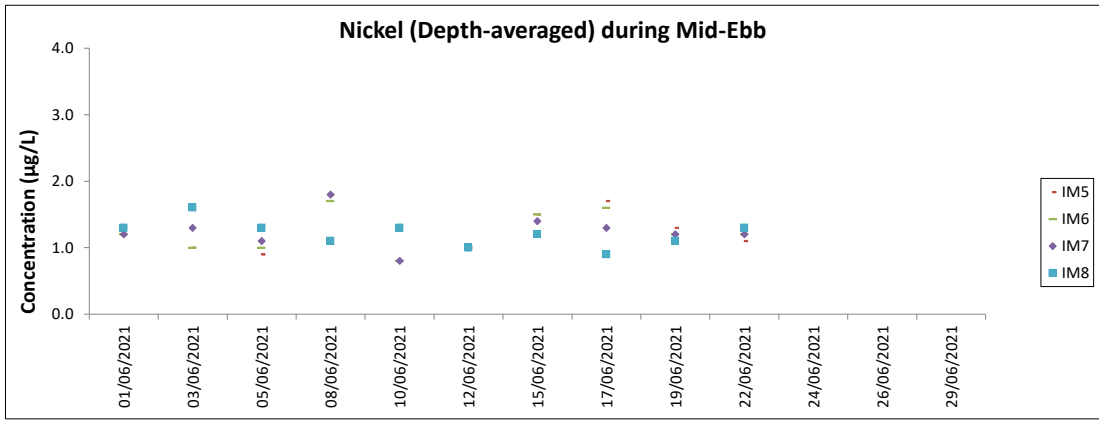
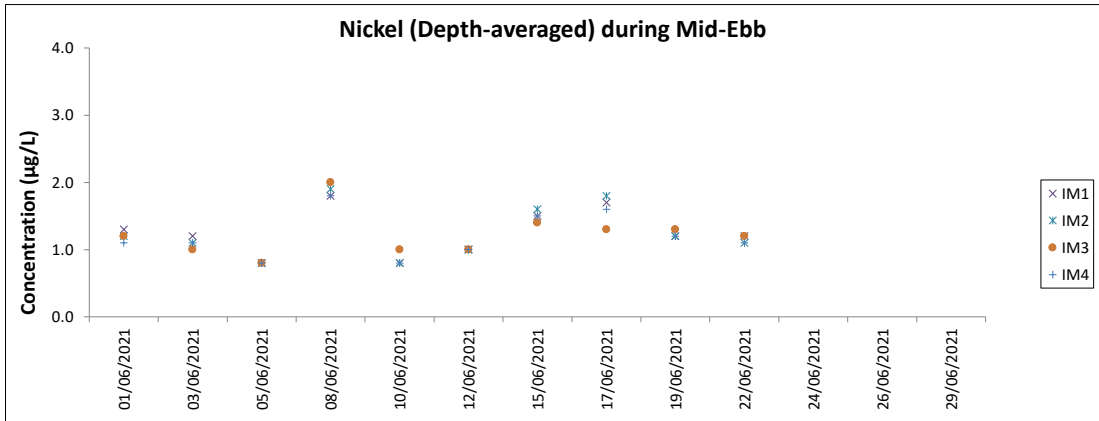
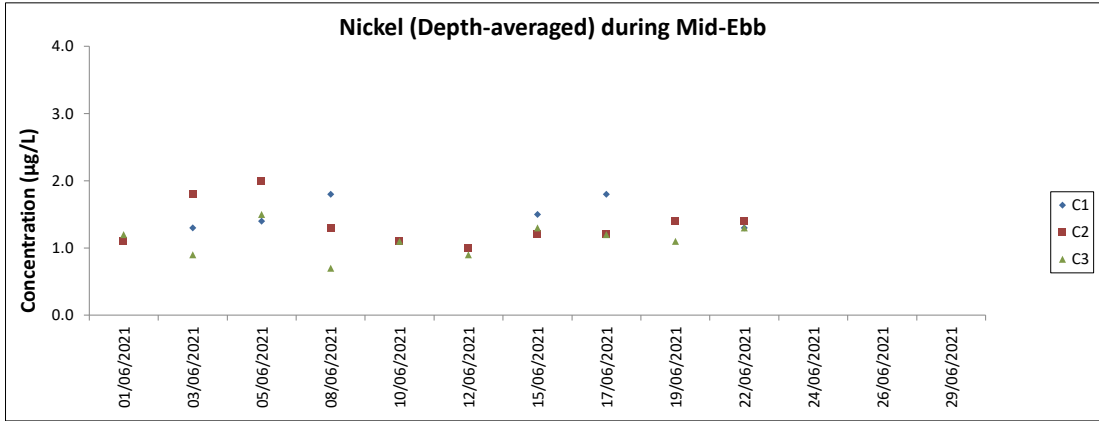
Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.



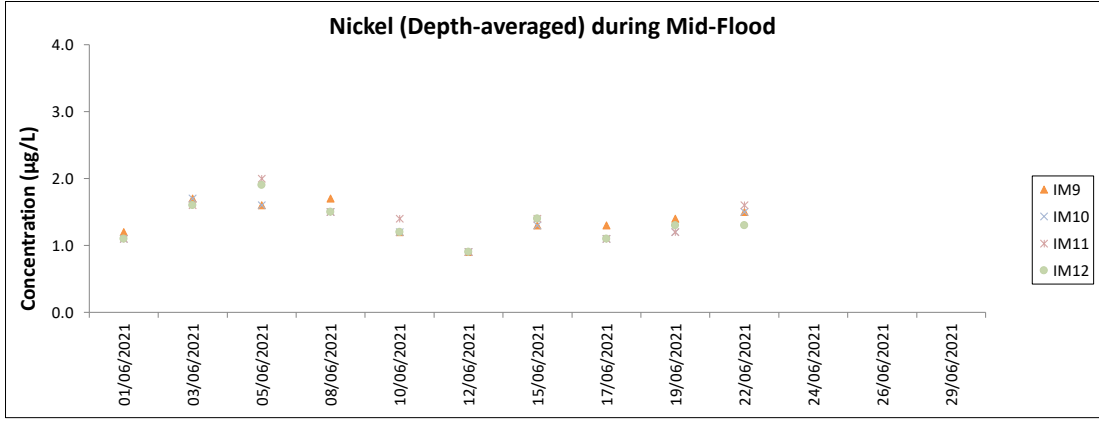
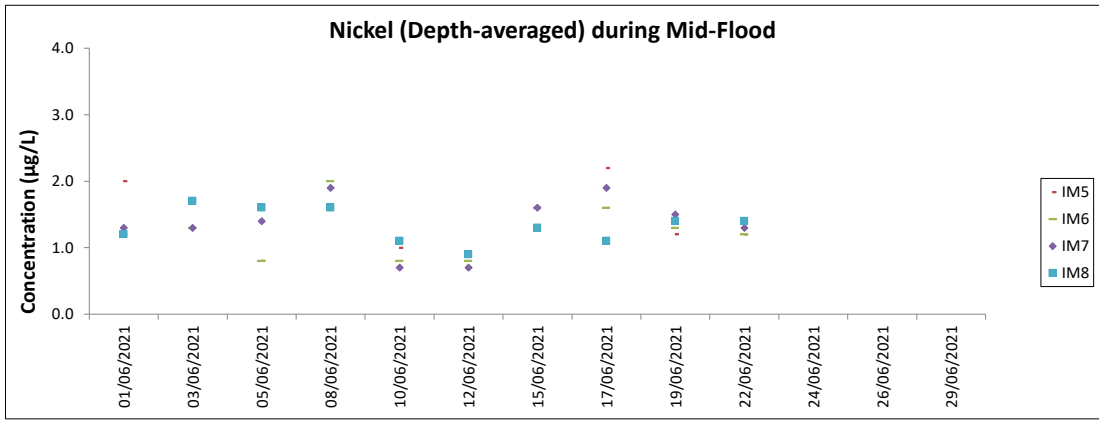
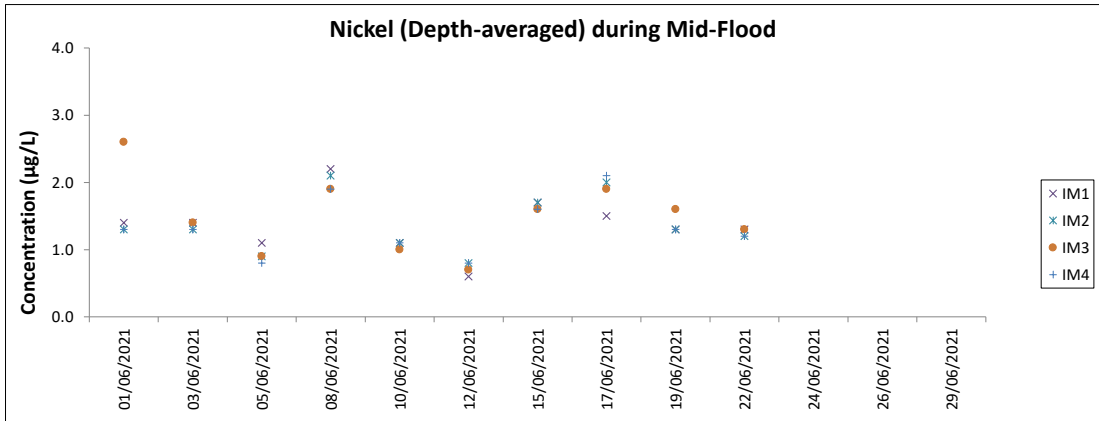
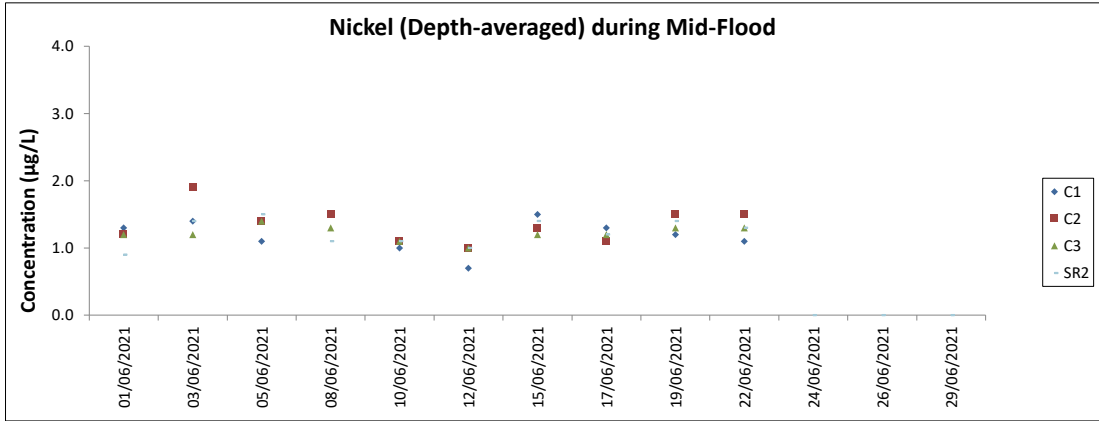
Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.



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



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



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

Chinese White Dolphin Monitoring Results

CWD Small Vessel Line-transect Survey

Survey Effort Data

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
7-Apr-21	NWL	2	5.840	SPRING	32166	3RS ET	P
7-Apr-21	NWL	3	45.160	SPRING	32166	3RS ET	P
7-Apr-21	NWL	4	12.900	SPRING	32166	3RS ET	P
7-Apr-21	NWL	3	8.800	SPRING	32166	3RS ET	S
7-Apr-21	NWL	4	2.600	SPRING	32166	3RS ET	S
12-Apr-21	AW	2	2.950	SPRING	32166	3RS ET	P
12-Apr-21	AW	3	1.920	SPRING	32166	3RS ET	P
12-Apr-21	WL	2	14.085	SPRING	32166	3RS ET	P
12-Apr-21	WL	3	4.941	SPRING	32166	3RS ET	P
12-Apr-21	WL	2	7.213	SPRING	32166	3RS ET	S
12-Apr-21	WL	3	2.029	SPRING	32166	3RS ET	S
12-Apr-21	WL	4	0.970	SPRING	32166	3RS ET	S
13-Apr-21	SWL	1	1.810	SPRING	32166	3RS ET	P
13-Apr-21	SWL	2	43.686	SPRING	32166	3RS ET	P
13-Apr-21	SWL	3	7.090	SPRING	32166	3RS ET	P
13-Apr-21	SWL	2	13.349	SPRING	32166	3RS ET	S
13-Apr-21	SWL	3	2.280	SPRING	32166	3RS ET	S
14-Apr-21	NEL	3	37.080	SPRING	32166	3RS ET	P
14-Apr-21	NEL	3	9.920	SPRING	32166	3RS ET	S
15-Apr-21	NEL	3	29.770	SPRING	32166	3RS ET	P
15-Apr-21	NEL	4	7.400	SPRING	32166	3RS ET	P
15-Apr-21	NEL	3	7.730	SPRING	32166	3RS ET	S
15-Apr-21	NEL	4	2.100	SPRING	32166	3RS ET	S
19-Apr-21	NWL	3	24.300	SPRING	32166	3RS ET	P
19-Apr-21	NWL	4	33.330	SPRING	32166	3RS ET	P
19-Apr-21	NWL	5	6.370	SPRING	32166	3RS ET	P
19-Apr-21	NWL	3	5.900	SPRING	32166	3RS ET	S
19-Apr-21	NWL	4	2.900	SPRING	32166	3RS ET	S
19-Apr-21	NWL	5	3.000	SPRING	32166	3RS ET	S
20-Apr-21	AW	3	4.860	SPRING	32166	3RS ET	P
20-Apr-21	WL	2	1.600	SPRING	32166	3RS ET	P
20-Apr-21	WL	3	18.466	SPRING	32166	3RS ET	P
20-Apr-21	WL	2	1.100	SPRING	32166	3RS ET	S
20-Apr-21	WL	3	9.774	SPRING	32166	3RS ET	S
21-Apr-21	SWL	3	25.980	SPRING	32166	3RS ET	P
21-Apr-21	SWL	4	13.080	SPRING	32166	3RS ET	P
21-Apr-21	SWL	5	15.050	SPRING	32166	3RS ET	P
21-Apr-21	SWL	3	8.070	SPRING	32166	3RS ET	S
21-Apr-21	SWL	4	4.740	SPRING	32166	3RS ET	S
21-Apr-21	SWL	5	3.380	SPRING	32166	3RS ET	S
6-May-21	NEL	3	30.130	SPRING	32166	3RS ET	P
6-May-21	NEL	4	7.170	SPRING	32166	3RS ET	P
6-May-21	NEL	3	10.100	SPRING	32166	3RS ET	S
11-May-21	AW	3	4.870	SPRING	32166	3RS ET	P
11-May-21	WL	3	17.180	SPRING	32166	3RS ET	P
11-May-21	WL	4	3.240	SPRING	32166	3RS ET	P
11-May-21	WL	3	7.890	SPRING	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
11-May-21	WL	4	1.970	SPRING	32166	3RS ET	S
20-May-21	NWL	3	41.600	SPRING	32166	3RS ET	P
20-May-21	NWL	4	22.100	SPRING	32166	3RS ET	P
20-May-21	NWL	3	6.000	SPRING	32166	3RS ET	S
20-May-21	NWL	4	5.400	SPRING	32166	3RS ET	S
21-May-21	NEL	2	0.669	SPRING	32166	3RS ET	P
21-May-21	NEL	3	36.410	SPRING	32166	3RS ET	P
21-May-21	NEL	2	0.941	SPRING	32166	3RS ET	S
21-May-21	NEL	3	8.580	SPRING	32166	3RS ET	S
25-May-21	SWL	1	4.200	SPRING	32166	3RS ET	P
25-May-21	SWL	2	26.979	SPRING	32166	3RS ET	P
25-May-21	SWL	3	20.210	SPRING	32166	3RS ET	P
25-May-21	SWL	4	1.310	SPRING	32166	3RS ET	P
25-May-21	SWL	1	3.900	SPRING	32166	3RS ET	S
25-May-21	SWL	2	5.088	SPRING	32166	3RS ET	S
25-May-21	SWL	3	6.580	SPRING	32166	3RS ET	S
26-May-21	SWL	1	1.240	SPRING	32166	3RS ET	P
26-May-21	SWL	2	18.494	SPRING	32166	3RS ET	P
26-May-21	SWL	3	27.800	SPRING	32166	3RS ET	P
26-May-21	SWL	4	6.000	SPRING	32166	3RS ET	P
26-May-21	SWL	2	3.830	SPRING	32166	3RS ET	S
26-May-21	SWL	3	9.860	SPRING	32166	3RS ET	S
26-May-21	SWL	4	1.330	SPRING	32166	3RS ET	S
27-May-21	NWL	2	8.010	SPRING	32166	3RS ET	P
27-May-21	NWL	3	37.990	SPRING	32166	3RS ET	P
27-May-21	NWL	4	18.800	SPRING	32166	3RS ET	P
27-May-21	NWL	3	8.600	SPRING	32166	3RS ET	S
27-May-21	NWL	4	2.300	SPRING	32166	3RS ET	S
28-May-21	AW	2	4.730	SPRING	32166	3RS ET	P
28-May-21	WL	2	2.400	SPRING	32166	3RS ET	P
28-May-21	WL	3	14.857	SPRING	32166	3RS ET	P
28-May-21	WL	4	2.016	SPRING	32166	3RS ET	P
28-May-21	WL	3	8.377	SPRING	32166	3RS ET	S
28-May-21	WL	4	1.220	SPRING	32166	3RS ET	S
4-Jun-21	NEL	2	15.070	SUMMER	32166	3RS ET	P
4-Jun-21	NEL	3	17.100	SUMMER	32166	3RS ET	P
4-Jun-21	NEL	4	5.200	SUMMER	32166	3RS ET	P
4-Jun-21	NEL	2	4.230	SUMMER	32166	3RS ET	S
4-Jun-21	NEL	3	5.800	SUMMER	32166	3RS ET	S
7-Jun-21	SWL	3	15.180	SUMMER	32166	3RS ET	P
7-Jun-21	SWL	4	32.070	SUMMER	32166	3RS ET	P
7-Jun-21	SWL	5	6.500	SUMMER	32166	3RS ET	P
7-Jun-21	SWL	2	0.800	SUMMER	32166	3RS ET	S
7-Jun-21	SWL	3	0.600	SUMMER	32166	3RS ET	S
7-Jun-21	SWL	4	6.250	SUMMER	32166	3RS ET	S
7-Jun-21	SWL	5	2.800	SUMMER	32166	3RS ET	S
8-Jun-21	AW	2	4.950	SUMMER	32166	3RS ET	P
8-Jun-21	WL	2	8.959	SUMMER	32166	3RS ET	P
8-Jun-21	WL	3	8.488	SUMMER	32166	3RS ET	P

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
8-Jun-21	WL	2	4.800	SUMMER	32166	3RS ET	S
8-Jun-21	WL	3	4.462	SUMMER	32166	3RS ET	S
15-Jun-21	WL	2	0.910	SUMMER	32166	3RS ET	P
15-Jun-21	WL	3	15.750	SUMMER	32166	3RS ET	P
15-Jun-21	WL	4	3.148	SUMMER	32166	3RS ET	P
15-Jun-21	WL	2	1.320	SUMMER	32166	3RS ET	S
15-Jun-21	WL	3	7.130	SUMMER	32166	3RS ET	S
15-Jun-21	WL	4	2.542	SUMMER	32166	3RS ET	S
15-Jun-21	AW	3	4.200	SUMMER	32166	3RS ET	P
17-Jun-21	NWL	3	47.300	SUMMER	32166	3RS ET	P
17-Jun-21	NWL	4	17.300	SUMMER	32166	3RS ET	P
17-Jun-21	NWL	3	8.900	SUMMER	32166	3RS ET	S
17-Jun-21	NWL	4	2.300	SUMMER	32166	3RS ET	S
21-Jun-21	NWL	3	19.300	SUMMER	32166	3RS ET	P
21-Jun-21	NWL	4	42.410	SUMMER	32166	3RS ET	P
21-Jun-21	NWL	3	9.200	SUMMER	32166	3RS ET	S
21-Jun-21	NWL	4	5.400	SUMMER	32166	3RS ET	S
22-Jun-21	NEL	2	22.400	SUMMER	32166	3RS ET	P
22-Jun-21	NEL	3	14.510	SUMMER	32166	3RS ET	P
22-Jun-21	NEL	2	4.100	SUMMER	32166	3RS ET	S
22-Jun-21	NEL	3	6.390	SUMMER	32166	3RS ET	S
25-Jun-21	SWL	2	22.860	SUMMER	32166	3RS ET	P
25-Jun-21	SWL	3	24.890	SUMMER	32166	3RS ET	P
25-Jun-21	SWL	2	11.130	SUMMER	32166	3RS ET	S
25-Jun-21	SWL	3	4.460	SUMMER	32166	3RS ET	S

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

CWD Small Vessel Line-transect Survey

Sighting Data

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
12-Apr-21	1	1047	CWD	2	WL	2	271	ON	3RS ET	22.2501	113.8423	SPRING	NONE	P
12-Apr-21	2	1130	CWD	4	WL	2	335	ON	3RS ET	22.2322	113.8306	SPRING	NONE	P
12-Apr-21	3	1140	CWD	2	WL	2	52	ON	3RS ET	22.2237	113.8375	SPRING	NONE	S
12-Apr-21	4	1206	CWD	7	WL	2	438	ON	3RS ET	22.2143	113.8293	SPRING	NONE	P
13-Apr-21	1	1050	FP	3	SWL	2	222	ON	3RS ET	22.1852	113.9374	SPRING	NONE	P
13-Apr-21	2	1055	FP	4	SWL	2	150	ON	3RS ET	22.1759	113.9373	SPRING	NONE	P
13-Apr-21	3	1100	FP	3	SWL	2	14	ON	3RS ET	22.1700	113.9372	SPRING	NONE	P
13-Apr-21	4	1214	FP	1	SWL	2	419	ON	3RS ET	22.1414	113.9163	SPRING	NONE	S
13-Apr-21	5	1349	FP	3	SWL	2	413	ON	3RS ET	22.1900	113.8887	SPRING	NONE	P
13-Apr-21	6	1450	CWD	3	SWL	3	125	ON	3RS ET	22.1923	113.8691	SPRING	PURSE SEINER	P
13-Apr-21	7	1536	CWD	3	SWL	3	322	ON	3RS ET	22.1893	113.8491	SPRING	PURSE SEINER	P
20-Apr-21	1	1204	CWD	2	WL	3	155	ON	3RS ET	22.1910	113.8417	SPRING	PURSE SEINER	S
21-Apr-21	1	1152	FP	4	SWL	5	132	ON	3RS ET	22.1602	113.9181	SPRING	NONE	P
11-May-21	1	1043	CWD	2	WL	3	74	ON	3RS ET	22.2643	113.8571	SPRING	NONE	S
25-May-21	1	1105	FP	2	SWL	2	16	ON	3RS ET	22.1593	113.9280	SPRING	NONE	P
25-May-21	2	1109	FP	2	SWL	2	17	ON	3RS ET	22.1634	113.9279	SPRING	NONE	P
25-May-21	3	1252	CWD	1	SWL	2	256	ON	3RS ET	22.2042	113.8973	SPRING	NONE	P
25-May-21	4	1438	CWD	6	SWL	3	1	ON	3RS ET	22.1713	113.8681	SPRING	NONE	P
25-May-21	5	1521	CWD	1	SWL	2	129	ON	3RS ET	22.2000	113.8684	SPRING	NONE	P
25-May-21	6	1540	CWD	3	SWL	2	71	ON	3RS ET	22.1914	113.8587	SPRING	NONE	P
25-May-21	7	1610	CWD	3	SWL	2	1	ON	3RS ET	22.1813	113.8594	SPRING	NONE	P
25-May-21	8	1634	CWD	1	SWL	3	461	ON	3RS ET	22.1832	113.8495	SPRING	NONE	P
26-May-21	1	1357	CWD	2	SWL	3	199	ON	3RS ET	22.1911	113.8790	SPRING	NONE	P
26-May-21	2	1437	CWD	3	SWL	3	137	ON	3RS ET	22.1684	113.8685	SPRING	NONE	P
26-May-21	3	1504	CWD	6	SWL	2	631	ON	3RS ET	22.1958	113.8699	SPRING	NONE	P
28-May-21	1	1030	CWD	1	WL	3	651	ON	3RS ET	22.2693	113.8574	SPRING	NONE	P
28-May-21	2	1144	CWD	2	WL	4	240	ON	3RS ET	22.2142	113.8292	SPRING	NONE	P
8-Jun-21	1	1046	CWD	5	WL	2	216	ON	3RS ET	22.2501	113.8418	SUMMER	NONE	P
8-Jun-21	2	1109	CWD	4	WL	2	770	ON	3RS ET	22.2412	113.8427	SUMMER	NONE	P
8-Jun-21	3	1151	CWD	3	WL	3	38	ON	3RS ET	22.2242	113.8198	SUMMER	NONE	S
8-Jun-21	4	1246	CWD	1	WL	3	23	ON	3RS ET	22.1955	113.8333	SUMMER	NONE	P
15-Jun-21	1	1044	CWD	4	WL	3	198	ON	3RS ET	22.2611	113.8514	SUMMER	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
25-Jun-21	1	1119	CWD	1	SWL	2	45	ON	3RS ET	22.1829	113.9277	SUMMER	NONE	P
25-Jun-21	2	1413	CWD	1	SWL	2	1006	ON	3RS ET	22.1976	113.8787	SUMMER	NONE	P
25-Jun-21	3	1429	CWD	5	SWL	3	202	ON	3RS ET	22.1832	113.8785	SUMMER	NONE	P
25-Jun-21	4	1523	CWD	2	SWL	3	816	ON	3RS ET	22.1938	113.8591	SUMMER	NONE	P

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

Notes:

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

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

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

A total of 315.189 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 9 on-effort sightings and total number of 26 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in June 2021 are shown as below:

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

$$STG = \frac{9}{315.189} \times 100 = 2.86$$

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

$$ANI = \frac{26}{315.189} \times 100 = 8.25$$

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

A total of 1038.407 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 27 on-effort sightings and total number of 78 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)









$$STG = \frac{27}{1038.407} \times 100 = 2.60$$

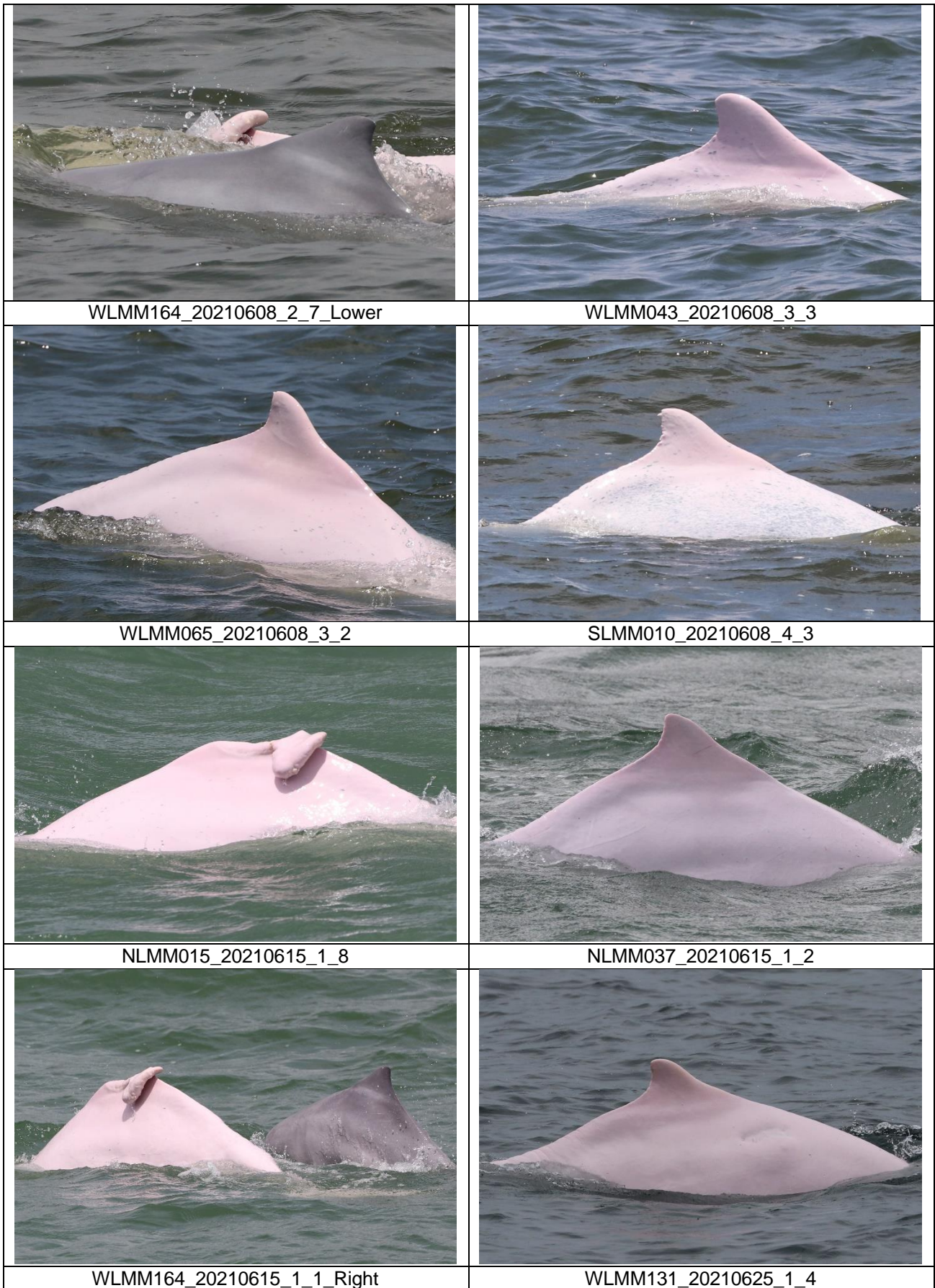
Running Quarterly Encounter Rate by Number of Dolphins (ANI)

$$ANI = \frac{78}{1038.407} \times 100 = 7.51$$

CWD Small Vessel Line-transect Survey

Photo Identification

	
NLMM015_20210608_1_1	WLMM019_20210608_1_3
	
WLMM156_20210608_1_6	WLMM164_20210608_1_2
	
WLMM165_20210608_1_15	NLMM015_20210608_2_2
	
NLMM063_20210608_2_6	WLMM019_20210608_2_2





SLMM012_20210625_3_3



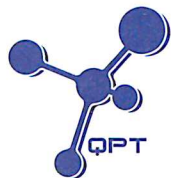
WLMM114_20210625_3_2

CWD Land-based Theodolite Tracking Survey**CWD Groups by Survey Date**

Date	Station	Start Time	End Time	Duration	Beaufort Range	Visibility	No. of Focal Follow Dolphin Groups Tracked	Dolphin Group Size Range
9/Jun/21	Lung Kwu Chau	8:48	14:48	6:00	2	1-2	0	-
16/Jun/21	Sha Chau	10:56	16:56	6:00	3-5	1	0	-

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

Appendix D. Calibration Certificates



專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA060072
Date of Issue : 18 June 2021
Page No. : 1 of 2

PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment : YSI ProDSS (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : 18A104824
Date of Received : Jun 18, 2021
Date of Calibration : Jun 18, 2021
Date of Next Calibration^(a) : Sep 17, 2021

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

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

PART D – CALIBRATION RESULTS^(b,c)

(1) pH at 25°C

Target (pH unit)	Displayed Reading ^(d) (pH Unit)	Tolerance ^(e) (pH Unit)	Results
4.00	4.01	0.01	Satisfactory
7.42	7.43	0.01	Satisfactory
10.01	9.96	-0.05	Satisfactory

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

(2) Temperature


Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
10	10.0	0.0	Satisfactory
25	24.9	-0.1	Satisfactory
40	40.1	0.1	Satisfactory

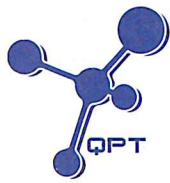
Tolerance limit of temperature should be less than ± 2.0 (°C)

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

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


Lee Chun-ning, Desmond
Senior Chemist



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA060072
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PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.05	0.22	0.17	Satisfactory
3.40	3.44	0.04	Satisfactory
5.03	5.46	0.43	Satisfactory
7.34	7.41	0.07	Satisfactory

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

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading ($\mu\text{S}/\text{cm}$)	Displayed Reading ($\mu\text{S}/\text{cm}$)	Tolerance (%)	Results
0.001	146.9	136.9	-6.81	Satisfactory
0.01	1412	1328.1	-5.94	Satisfactory
0.1	12890	12346.5	-4.22	Satisfactory
0.5	58670	56584	-3.56	Satisfactory
1.0	111900	108843	-2.73	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.93	-0.70	Satisfactory
20	20.10	0.50	Satisfactory
30	29.81	-0.63	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.10	--	Satisfactory
10	9.91	-0.9	Satisfactory
20	19.72	-1.4	Satisfactory
100	96.93	-3.1	Satisfactory
800	796.11	-0.5	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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

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



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QUALITY PRO TEST-CONSULT LIMITED

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA060073
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PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment : YSI ProDSS (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : 17E100747
Date of Received : Jun 18, 2021
Date of Calibration : Jun 18, 2021
Date of Next Calibration^(a) : Sep 17, 2021

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

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

PART D – CALIBRATION RESULTS^(b,c)

(1) pH at 25°C

Target (pH unit)	Displayed Reading ^(d) (pH Unit)	Tolerance ^(e) (pH Unit)	Results
4.00	4.03	0.03	Satisfactory
7.42	7.45	0.03	Satisfactory
10.01	10.03	0.02	Satisfactory

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

(2) Temperature


Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
10	10.0	0.0	Satisfactory
25	24.9	-0.1	Satisfactory
40	40.1	0.1	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

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^(b) The results relate only to the calibrated equipment as received
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^(e) The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted from relevant international standards..


LEE Chun-ning, Desmond
Senior Chemist



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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA060073
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Page No. : 2 of 2

PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.05	0.30	0.25	Satisfactory
3.40	3.52	0.12	Satisfactory
5.03	5.49	0.46	Satisfactory
7.34	7.43	0.09	Satisfactory

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

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading ($\mu\text{S}/\text{cm}$)	Displayed Reading ($\mu\text{S}/\text{cm}$)	Tolerance (%)	Results
0.001	146.9	137.1	-6.67	Satisfactory
0.01	1412	1327.6	-5.98	Satisfactory
0.1	12890	12487.3	-3.12	Satisfactory
0.5	58670	57240	-2.44	Satisfactory
1.0	111900	109546	-2.10	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	10.02	0.20	Satisfactory
20	19.86	-0.70	Satisfactory
30	29.84	-0.53	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.09	--	Satisfactory
10	9.86	-1.4	Satisfactory
20	19.78	-1.1	Satisfactory
100	97.55	-2.5	Satisfactory
800	795.23	-0.6	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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

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



輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C213582

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC21-1109)

Date of Receipt / 收件日期 : 7 June 2021

Description / 儀器名稱 : Sound Level Meter

Manufacturer / 製造商 : Rion

Model No. / 型號 : NL-52

Serial No. / 編號 : 01287679

Supplied By / 委託者 : Mott MacDonald Hong Kong Limited

3/F., International Trade Tower,

348 Kwun Tong Road, Kowloon, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C

Relative Humidity / 相對濕度 : (50 ± 25)%

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration

DATE OF TEST / 測試日期 : 20 June 2021

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.

The results do not exceed manufacturer's specification. (after adjustment)

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
- Fluke Everett Service Center, USA

Tested By
測試

:

H T Wong
Assistant Engineer

Certified By
核證

:

K C Lee
Engineer

Date of Issue

:

21 June 2021

簽發日期

The test equipment used for calibration is traceable to the National 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室所書而批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory

c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 - 校正及檢測實驗室

c/o 香港新界屯門與安里一號四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com



Certificate of Calibration

校正證書

Certificate No. : C213582
證書編號

- 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.
- Self-calibration using the internal standard (After Adjustment) was performed before the test 6.1.1.2 to 6.3.2.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

Equipment ID	Description	Certificate No.
CL280	40 MHz Arbitrary Waveform Generator	C210084
CL281	Multifunction Acoustic Calibrator	AV210017

5. Test procedure : MA101N.

6. Results :

6.1 Sound Pressure Level

6.1.1 Reference Sound Pressure Level

6.1.1.1 Before Adjustment

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L _A	A	Fast	94.00	1	* 95.5	± 1.1

* Out of IEC 61672 Class 1 Spec.

6.1.1.2 After Adjustment

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

6.1.2 Linearity

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

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

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Certificate of Calibration

校正證書

Certificate No. : C213582

證書編號

6.2 Time Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L _A	A	Fast	94.00	1	94.0	Ref.
			Slow				

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L _A	A	Fast	94.00	63 Hz	67.7	-26.2 ± 1.5
					125 Hz	77.8	-16.1 ± 1.5
					250 Hz	85.3	-8.6 ± 1.4
					500 Hz	90.7	-3.2 ± 1.4
					1 kHz	94.0	Ref.
					2 kHz	95.2	+1.2 ± 1.6
					4 kHz	95.0	+1.0 ± 1.6
					8 kHz	92.9	-1.1 (+2.1 ; -3.1)
					16 kHz	86.0	-6.6 (+3.5 ; -17.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L _C	C	Fast	94.00	63 Hz	93.1	-0.8 ± 1.5
					125 Hz	93.8	-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	93.8	-0.2 ± 1.6
					4 kHz	93.2	-0.8 ± 1.6
					8 kHz	91.0	-3.0 (+2.1 ; -3.1)
					16 kHz	84.1	-8.5 (+3.5 ; -17.0)

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Certificate of Calibration

校正證書

Certificate No. : C213582
證書編號

- Remarks : - UUT Microphone Model No. : UC-59 & S/N : 17085
- 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 |
| | 16 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 is traceable to the National 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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Certificate of Calibration 校正證書

Certificate No. : C213581
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC21-1109)

Date of Receipt / 收件日期 : 7 June 2021

Description / 儀器名稱 : Acoustic Calibrator
Manufacturer / 製造商 : Casella
Model No. / 型號 : CEL-120/1
Serial No. / 編號 : 2383737
Supplied By / 委託者 : Mott MacDonald Hong Kong Limited
3/F., International Trade Tower,
348 Kwun Tong Road, Kowloon, Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : $(23 \pm 2)^{\circ}\text{C}$
Line Voltage / 電壓 : ---

Relative Humidity / 相對濕度 : $(50 \pm 25)\%$

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 20 June 2021


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 :

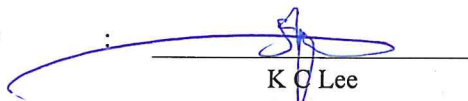
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By
測試



H T Wong
Assistant Engineer

Certified By
核證



K C Lee
Engineer

Date of Issue :
簽發日期

21 June 2021

The test equipment used for calibration is traceable to the National 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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Certificate of Calibration

校正證書

Certificate No. : C213581
證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL130	Universal Counter	C203952
CL281	Multifunction Acoustic Calibrator	AV210017
TST150A	Measuring Amplifier	C201309

- Test procedure : MA100N.

- 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	± 0.25	± 0.2
114 dB, 1 kHz	114.1		

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 ± 5 Hz	± 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 is traceable to the National 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, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 - 校正及檢測實驗室

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E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

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Appendix E. Status of Environmental Permits and Licences

	Description		Permit/ Reference No.	Status	
EIAO	Environmental Permit		EP-489/2014	Approved on 7 Nov 2014	
Contract No.	Description	Location	Permit/ Reference No.	Status	
3206	Notification of Construction Work under APCO	Works area of 3206	409237	Receipt acknowledged by EPD on 25 Oct 2016	
		Works area of 3206 (Area 11)	447899	Receipt acknowledged by EPD on 8 Aug 2019	
	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	
		Works Area of 3206 (Area 11)	WPN 5213-951-Z4035-04	Completion of Registration on 4 Sep 2019	
	Construction Noise Permit (General Works)	Works Area of 3206	GW-RS0187-21	Valid from 24 Mar 2021 to 15 Sep 2021	
		Works Area of 3206 (Area 11)	GW-RS0107-21	Valid from 2 Mar 2021 to 30 Jun 2021	
	Bill Account for disposal	Works area of 3206	A/C 7026398	Approval granted from EPD on 16 Nov 2016	
3301	Notification of Construction Work under APCO	Works area of 3301	415821	Receipt acknowledged by EPD on 19 Apr 2017	
		Registration as Chemical Waste Producer	Works area of 3301	WPN 5213-951-F2718-02	Completion of Registration on 9 Jun 2017
		Discharge License under WPCO	Works area of 3301	WT00029286-2017	Valid from 20 Sep 2017 to 30 Sep 2022
		Bill Account for disposal	Works area of 3301	A/C 7027728	Approval granted from EPD on 8 May 2017
		Construction Noise Permit (General Works)	Works area of 3301	GW-RS0118-21	Valid from 24 Feb 2021 to 21 Aug 2021
Works area of 3301 (Cable ducting works) (Special Case)	GW-RS0188-21		Valid from 29 Mar 2021 to 28 Sep 2021		
3302	Notification of Construction Work under APCO	Works area of 3302	440222	Receipt acknowledged by EPD on 10 Dec 2018	
		Staging area of 3302	2018CES1	Receipt acknowledged by EPD on 21 Dec 2018	
			454882	Receipt acknowledged by EPD on 2 Apr 2020	
	Registration as Chemical Waste Producer	Works area of 3302	5296-951-C4331-01	Completion of Registration on 4 Jan 2019	

Contract No.	Description	Location	Permit/ Reference No.	Status
	Discharge License under WPCO	Works area of 3302	WT00034539-2019	Valid from 11 Mar 2020 to 31 Mar 2025
		Works area of 3302	WT00034541-2019	Valid from 14 Oct 2019 to 31 Oct 2024
	Bill Account for disposal	Works area of 3302	A/C 7032881	Approval granted from EPD on 8 Jan 2019
	Construction Noise Permit (General Works)	Works area of 3302	GW-RS0988-20	Valid from 7 Jan 2021 to 6 July 2021
			GW-RS0987-20	Valid from 7 Jan 2021 to 6 July 2021
			PP-RS0005-21	Valid from 3 May 2021 to 1 Nov 2021
3303	Notification of Construction Work under APCO	Works area of 3303	445611	Receipt acknowledged by EPD on 27 May 2019
	Registration as Chemical Waste Producer	Works area of 3303	5213-951-S4174-01	Completion of Registration on 17 Jun 2019
	Discharge License under WPCO	Works area of 3303	WT00035689-2020	Valid from 11 May 2020 to 31 May 2025
		Works area of 3303	WT00036734-2020	Valid from 1 Dec 2020 to 31 Dec 2025
	Bill Account for disposal	Works area of 3303	A/C 7034272	Approval granted from EPD on 10 Jun 2019
	Construction Noise Permit (General Works)	Works area of 3303 (Existing airport)	GW-RS0286-21	Valid from 16 May 2021 to 15 Nov 2021
			Works area of 3303 (Reclamation area)	GW-RS0285-21
GW-RS0447-21	Valid from 18 Jun 2021 to 17 Dec 2021			
3305	Notification of Construction Work under APCO	Works area of 3305	460857	Receipt acknowledged by EPD on 12 Oct 2020
	Registration as Chemical Waste Producer	Works area of 3305	5213-951-A3024-01	Completion of Registration on 13 Nov 2020
	Bill Account for disposal	Works area of 3305	A/C 7035360	Approval granted from EPD on 9 Oct 2019
3307	Notification of Construction Work under APCO	Works area of 3307	454964	Receipt acknowledged by EPD on 6 Apr 2020
	Registration as Chemical Waste Producer	Works area of 3307	5211-951-P3379-01	Completion of Registration on 8 Jun 2020
	Discharge License under WPCO	Works area of 3307	WT00036926-2020	Valid from 31 Dec 2020 to 31 Dec 2025
	Bill Account for disposal	Works area of 3307	A/C 7037129	Approval granted from EPD on 5 May 2020
	Construction Noise Permit (General Works)	Works area of 3307	GW-RS0033-21	Valid from 7 Feb 2021 to 6 Aug 2021
3402	Notification of Construction Work under APCO	Works area of 3402	464622	Receipt acknowledged by EPD on 18 Feb 2021
	Bill Account for disposal	Works area of 3402	A/C 7032577	Approval granted from EPD on 27 Nov 2018
	Construction Noise Permit (General Works)	Works area of 3402	GW-RS0129-21	Valid from 20 Mar 2021 to 9 Sep 2021

Contract No.	Description	Location	Permit/ Reference No.	Status
3403	Notification of Construction Work under APCO	Works area of 3403	450860	Receipt acknowledged by EPD on 11 Nov 2019
		Works area of 3403 (with Area 17 and Area 15)	453912	Receipt acknowledged by EPD on 3 Mar 2020
	Registration as Chemical Waste Producer	Works area of 3403	WPN 5213-951-S4218-01	Completion of Registration on 9 Jan 2020
	Discharge License under WPCO	Works area of 3403	WT00035841-2020	Valid from 5 Jun 2020 to 30 Jun 2025
	Bill Account for disposal	Works area of 3403	A/C 7035267	Approval granted from EPD on 30 Sep 2019
	Construction Noise Permit (General Works)	Works area of 3403	GW-RS0329-21	Valid from 29 May 2021 to 28 Nov 2021
	Construction Noise Permit (Special Case)	Works area of 3403	GW-RS0338-21	Valid from 1 June 2021 to 30 Nov 2021
3405	Notification of Construction Work under APCO	Works area of 3405	453447	Receipt acknowledged by EPD on 18 Feb 2020
	Registration as Chemical Waste Producer	Works area of 3405	WPN 5218-951-C4431-01	Completion of Registration on 12 Mar 2020
	Discharge License under WPCO	Works area of 3405	WT00037084-2020	Valid from 17 Mar 2021 to 31 Mar 2026
	Bill Account for disposal	Works area of 3405	A/C 7036796	Approval granted from EPD on 20 Mar 2020
	Construction Noise Permit (General Works)	Works area of 3405	GW-RS0339-21	Valid from 15 May 2021 to 12 Nov 2021
3408	Notification of Construction Work under APCO	Works area of 3408	461958	Receipt acknowledged by EPD on 17 Nov 2020
	Registration as Chemical Waste Producer	Works area of 3408	WPN 5218-951-B2621-01	Completion of Registration on 14 Jan 2021
	Bill Account for disposal	Works area of 3408	A/C 7039063	Approval granted from EPD on 2 Dec 2020
	Construction Noise Permit (General Works)	Works area of 3408	GW-RS0224-21	Valid from 11 Apr 2021 to 30 Sep 2021
3503	Notification of Construction Work under APCO	Works area of 3503	459394	Receipt acknowledged by EPD on 28 Aug 2020
		Stockpiling area of 3503	459392	Receipt acknowledged by EPD on 28 Aug 2020
	Registration as Chemical Waste Producer	Works area of 3503	WPN 5113-951-L2845-02	Completion of Registration on 3 Sep 2019
		Stockpiling area of 3503	WPN 5113-951-L2845-04	Completion of Registration on 19 Jun 2020
	Discharge License under WPCO	Works area of 3503	WT00031258-2018	Valid from 6 Aug 2019 to 30 Jun 2023
			WT00036551-2020	Valid from 17 Sep 2020 to 30 Sep 2025
WT00036697-2020			Valid from 2 Nov 2020 to 30 Nov 2025	

Contract No.	Description	Location	Permit/ Reference No.	Status
	Bill Account for disposal	Works area of 3503	A/C 7029665	Approval granted from EPD on 27 Dec 2017
	Construction Noise Permit (General Works)	Works area of 3503	GW-RS0257-21	Superseded by GW-RS0463-21
			GW-RS0463-21	Valid from 20 Jun 2021 to 15 Dec 2021
		Stockpiling area of 3503	GW-RS0215-21	Valid from 19 Apr 2021 to 18 Oct 2021
		Works area of 3503 (Special Case)	GW-RS0450-21	Valid from 18 Jun 2021 to 31 Jul 2021
3508	Notification of Construction Work under APCO	Works area of 3508	459469	Receipt acknowledged by EPD on 4 Sep 2020
	Registration as Chemical Waste Producer	Works area of 3508	WPN-5218-951-G2898-01	Completion of Registration on 28 Sep 2020
	Discharge License under WPCO	Works area of 3508	WT00037209-2020	Valid from 11 Mar 2021 to 31 Mar 2026
			WT00037523-2021	Valid from 1 Apr 2021 to 30 Apr 2026
			WT00037225-2020	Valid from 1 Apr 2021 to 30 Apr 2026
			WT00037549-2021	Valid from 1 Apr 2021 to 30 Apr 2026
	Bill Account for disposal	Works area of 3508	7038224	Approval granted from EPD on 8 Sep 2020
	Construction Noise Permit (General Works)	Works area of 3508	GW-RS0457-21	Valid from 17 Jun 2021 to 14 Dec 2021
		Works area of 3508 (Area 3, Area J, Area K)	GW-RS0281-21	Valid from 1 May 2021 to 28 Oct 2021
		Works area of 3508 (Area 10)	GW-RS0493-21	Valid from 27 Jun 2021 to 24 Dec 2021
		Works area of 3508 (Special Case)	GW-RS0414-21	Valid from 30 May 2021 to 25 Nov 2021
		Works area of 3508 (Special Case)	GW-RS0434-21	Valid from 13 Jun 2021 to 31 Aug 2021
		Works area of 3508 (Special Case)	GW-RS0315-21	Valid from 12 May 2021 to 9 Nov 2021
3601	Notification of Construction Work under APCO	Works area of 3601	451762	Receipt acknowledged by EPD on 10 Dec 2019 May
	Registration as Chemical Waste Producer	Works area of 3601	WPN 7119-951-C4421-01	Completion of Registration on 9 Jan 2020
	Bill Account for disposal	Works area of 3601	A/C 7029991	Approval granted from EPD on 1 Feb 2018
	Construction Noise Permit (General Works)	Works area of 3601	GW-RS0407-21	Valid from 3 June 2021 to 30 Nov 2021

Contract No.	Description	Location	Permit/ Reference No.	Status
3602	Notification of Construction Work under APCO	Works area of 3602	421278	Receipt acknowledged by EPD on 18 Sep 2017
	Registration as Chemical Waste Producer	Works area of 3602	WPN 5296-951-N2673-01	Completion of Registration on 9 Oct 2017
		Site office of 3602	WPN 5296-951-N2673-02	Completion of Registration on 11 Dec 2017
	Bill Account for disposal	Works area of 3602	A/C 7028942	Approval granted from EPD on 6 Oct 2017
	Construction Noise Permit (General Works)	Works area of 3602	GW-RS0186-21	Valid from 31 Mar 2021 to 30 Sep 2021
3603	Registration as Chemical Waste Producer	Site office of 3603	5296-951-S4069-01	Completion of Registration on 22 Jan 2018
		Test Loop Site of 3603	8334-512-S4273-01	Completion of Registration on 17 Sep 2020
	Bill Account for disposal	Works area of 3603	A/C 7030002	Approval granted from EPD on 1 Feb 2018
	Construction Noise Permit (General Works)	Works area of 3603	GW-RS0367-21	Valid from 24 May 2021 to 23 Nov 2021
3721	Notification of Construction Work under APCO	Works area of 3721	448657	Receipt acknowledged by EPD on 02 Sep 2019
	Registration as Chemical Waste Producer	Works area of 3721	WPN 5218-951-C4412-01	Completion of Registration on 9 Dec 2019
	Bill Account for disposal	Works area of 3721	A/C 7035234	Approval granted from EPD on 25 Sep 2019
	Construction Noise Permit (General Works)	Works area of 3721	GW-RS0326-21	Valid from 15 May 2021 to 12 Nov 2021
3722	Notification of Construction Work under APCO	Works area of 3722A	465843	Receipt acknowledged by EPD on 14 Aug 2020
		Works area of 3722B	465845	Receipt acknowledged by EPD on 14 Aug 2020
		Works area of 3722C	465842	Receipt acknowledged by EPD on 14 Aug 2020
		Works area of 3722D	465846	Receipt acknowledged by EPD on 14 Aug 2020
	Registration as Chemical Waste Producer	Works area of 3722A	WPN 5218-951-T3863-01	Completion of Registration on 18 Mar 2020
		Works area of 3722B	WPN 5218-951-T3864-01	Completion of Registration on 18 Mar 2020
		Works area of 3722C	WPN 5218-951-T3862-01	Completion of Registration on 18 Mar 2020
		Works area of 3722D	WPN 5218-951-T3865-01	Completion of Registration on 18 Mar 2020
	Bill Account for disposal	Works area of 3722A	A/C 7036752	Approval granted from EPD on 11 Mar 2020
		Works area of 3722B	A/C 7036966	Approval granted from EPD on 6 Apr 2020
Works area of 3722C		A/C 7036967	Approval granted from EPD on 6 Apr 2020	

Contract No.	Description	Location	Permit/ Reference No.	Status
		Works area of 3722D	A/C 7036795	Approval granted from EPD on 20 Mar 2020
	Construction Noise Permit (General Works)	Works area of 3722A, 3722B, 3722C and 3722D	GW-RS0153-21	Valid from 15 Mar 2021 to 14 Sep 2021
3723	Notification of Construction Work under APCO	3723A	464440	Receipt acknowledged by EPD on 9 Feb 2021
		3723B	464444	Receipt acknowledged by EPD on 9 Feb 2021
	Registration as Chemical Waste Producer	3723A	WPN 5218-951-T3920-01	Completion of Registration on 9 Feb 2021
		3723B	WPN 5218-951-T3921-01	Completion of Registration on 9 Feb 2021
	Discharge License under WPCO	Works area of 3723A & 3723B	/	Application submitted on 15 March 2021
	Bill Account for disposal	Works area of 3723A	A/C 7039755	Approval granted from EPD on 24 Feb 2021
		Works area of 3723B	A/C 7039754	Approval granted from EPD on 24 Feb 2021
Construction Noise Permit (General Works)	Works area of 3723A & 3723B	GW-RS0320-21	Valid from 13 May 2021 to 11 Nov 2021	
3801	Notification of Construction Work under APCO	Works area of 3801	418345	Receipt acknowledged by EPD on 26 Jun 2017
			430372	Receipt acknowledged by EPD on 2 Feb 2018
			435652	Receipt acknowledged by EPD on 16 Jul 2018
			451991	Receipt acknowledged by EPD on 18 Dec 2019
		Stockpiling area of 3801	450940	Receipt acknowledged by EPD on 13 Nov 2019
	Registration as Chemical Waste Producer	Works area of 3801	WPN 5296-951-C1169-53	Completion of Registration on 14 Aug 2018
	Discharge License under WPCO	Works and stockpiling area of 3801	WT00029535-2017	Valid from 24 Nov 2017 to 30 Nov 2022
		Stockpiling area of 3801	WT00037354-2021	Valid from 8 Mar 2021 to 31 Mar 2026
	Bill Account for disposal	Works area of 3801	A/C 7028254	Approval granted from EPD on 3 Jul 2017
	Construction Noise Permit (General Works)	Works area of 3801	GW-RS0245-21	Valid from 28 Apr 2021 to 27 Oct 2021
3802	Notification of Construction Work under APCO	Works area of 3802	458122	Receipt acknowledged by EPD on 14 Jul 2020
	Registration as Chemical Waste Producer	Works area of 3802	WPN 5218-951-G2895-01	Completion of Registration on 28 Aug 2020
	Bill Account for disposal	Works area of 3802	A/C 7037575	Approval granted from EPD on 15 Jun 2020

Contract No.	Description	Location	Permit/ Reference No.	Status
	Construction Noise Permit (General Works)	Works area of 3802	GW-RS0404-21	Valid from 31 May 2021 to 30 Nov 2021
3901A	Notification of Construction Work under APCO	Works area of 3901A	466883	Receipt acknowledged by EPD on 26 Apr 2021
	Specified Process license under APCO	Works area of 3901A	L-3-261(1)	Valid from 14 Sep 2020 to 13 Sep 2024
	Registration as Chemical Waste Producer	Works area of 3901A	WPN 5218-951-K3400-01	Completion of Registration on 17 Jul 2020
	Bill Account for disposal	Works area of 3901A	A/C7037889	Approval granted from EPD on 20 Jul 2020
	Construction Noise Permit (General Works)	Works area of 3901A	GW-RS0095-21	Valid from 19 Feb 2021 to 17 Jul 2021
3901B	Notification of Construction Work under APCO	Works area of 3901B	466885	Receipt acknowledged by EPD on 26 Apr 2021
	Specified Process license under APCO	Works area of 3901B	L-3-262(1)	Valid from 17 Nov 2020 to 16 Nov 2024
	Registration as Chemical Waste Producer	Works area of 3901B	WPN 5218-951-G2880-01	Completion of Registration on 17 Jan 2020
	Bill Account for disposal	Works area of 3901B	A/C 7032417	Approval granted from EPD on 13 Nov 2018
	Construction Noise Permit (General Works)	Works area of 3901B	GW-RS0146-21	Valid from 14 Mar 2021 to 10 Sep 2021

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

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

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

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

Statistics for Complaints, Notifications of Summons and Prosecutions

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Prosecutions
This reporting period	3	0	0
From 28 December 2015 to end of the reporting period	39	1	1