

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

Construction Phase Monthly EM&A Report No.61
(For January 2021)

February 2021

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

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

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This Monthly EM&A Report No. 61 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)
Mott MacDonald Hong Kong Limited

Date

11 February 2021



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

+852 3922 9000 tel
+852 3922 9797 fax

Our Ref : 60440482/C/JCHL210211

By Email

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

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

11 February 2021

Dear Sir,

Contract No. 3102
3RS Independent Environmental Checker Consultancy Services

Submission of Monthly EM&A Report No. 61 (January 2021)

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No. 61 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 11 February 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
BMP	Brothers Marine Park
C&D	Construction and Demolition
CAP	Contamination Assessment Plan
CAR	Contamination Assessment Report
CNP	Construction Noise Permit
CWD	Chinese White Dolphin
DCM	Deep Cement Mixing
DEZ	Dolphin Exclusion Zone
DO	Dissolved Oxygen
EAR	Ecological Acoustic Recorder
EIA	Environmental Impact Assessment
EM&A	Environmental Monitoring & Audit
EP	Environmental Permit
EPD	Environmental Protection Department
ET	Environmental Team
FCZ	Fish Culture Zone
HDD	Horizontal Directional Drilling
HKBCF	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities
HKIA	Hong Kong International Airport
HOKLAS	Hong Kong Laboratory Accreditation Scheme
HSF	High Speed Ferry
HVS	High Volume Sampler
IEC	Independent Environmental Checker
LKC	Lung Kwu Chau
MTCC	Marine Traffic Control Centre
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
SCLKCMP	Sha Chau and Lung Kwu Chau Marine Park
SS	Suspended Solids
SSSI	Site of Special Scientific Interest
STG	Encounter Rate of Number of Dolphin Sightings
SWL	Southwest Lantau
T2	Terminal 2
The Project	The Expansion of Hong Kong International Airport into a Three-Runway System
The SkyPier Plan	Marine Travel Routes and Management Plan for High Speed Ferries of SkyPier
The Manual	The Updated EM&A Manual
TSP	Total Suspended Particulates
WL	West Lantau
WMP	Waste Management Plan

Executive Summary

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

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

This is the 61st Construction Phase Monthly EM&A Report for the Project which summarises the monitoring results and audit findings of the EM&A programme during the reporting period from 1 to 31 January 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.

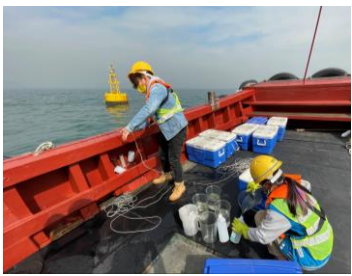


EM&A Activities Conducted in the Reporting Period

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	16
Water quality monitoring	13
Vessel line-transect surveys for Chinese White Dolphin (CWD) monitoring	2
Land-based theodolite tracking survey effort for CWD monitoring	2

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

Snapshots of EM&A Activities in the Reporting Period

		
Impact Water Quality Monitoring conducted by ET	Impact Air Quality Monitoring conducted by ET in Tin Sum Village House	On-site Checking of Dolphin Exclusion Zone (DEZ) Monitoring Log Record Sheet

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 chromium, 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 chromium, one of the testing results triggered the relevant Action Level, and the corresponding investigation was conducted accordingly. The investigation findings concluded that the case was not related to the Project. To conclude, the construction activities in the reporting period did not introduce adverse impact to all water quality sensitive receivers.

Summary of Upcoming Key Issues

Reclamation Works:

Contract 3206 Main Reclamation Works

- Land-based ground improvement works;
- Seawall construction;
- Marine filling; and
- Sorting and reuse of inert waste from other 3RS contracts.

Airfield Works:

Contract 3301 North Runway Crossover Taxiway

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

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Cable laying and ducting works;
- Trench excavation 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; and
- Cable laying and ducting works.

Contract 3307 Fire Training Facility

- Excavation; and
- Drainage works.

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

- Architectural, Builder's Work and Finishing works;
- Temporary work for roof lifting; and
- Underground utilities construction.

Contract 3405 Third Runway Concourse Foundation and Substructure Works

- Plant mobilisation;
- Pre-drilling; and
- Pilling work.

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;
- Temporary road construction;
- Pilling work;
- Pre-drilling; and
- Builders' works.

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

- Concreting work and rebar fixing.

Contract 3602 Existing APM System Modification Works

- Modification works at APM depot; and
- Concreting work.

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

- Excavation and backfilling;
- Laying of drainage pipes and ducts; and
- Road works.

Contract 3722 Construction Support Facilities

- Foundation works;
- Erection of superstructure; and
- Site establishment.

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

- Construction of box culvert, working platform and ventilation ducts;
- Cofferdam for shaft; and
- Site clearance.

Contract 3802 APM and BHS Tunnels and Related Works

- Installation of storm drain pipes;
- Pre-drilling;
- Foundation works; and
- Site establishment.

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

- Installation of plant equipment; and
- Plant operation.

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 dust issue was received on 25 Jan 2021.	The complaint is under investigation. Findings will be reported in the next Monthly EM&A Report.
			A complaint regarding dust issue was received on 25 Jan 2021.	The complaint is under investigation. Findings will be reported in the next Monthly EM&A Report.
			A complaint regarding refuelling was received on 25 Jan 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 updated overall phasing programme of all construction works was presented in Appendix A of the Construction Phase Monthly EM&A Report No. 7 and the contract information was presented in Appendix A of Construction Phase Monthly EM&A Report No. 58.

1.2 Scope of this Report

This is the 61st Construction Phase Monthly EM&A Report for the Project which summarises the key findings of the EM&A programme during the reporting period from 1 to 31 January 2021.

1.3 Project Organisation

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

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

Table 1.1: Contact Information of Key Personnel

Party	Position	Name	Telephone
Project Manager's Representative (Airport Authority Hong Kong)	Principal Manager, Environmental Compliance, Sustainability	Lawrence Tsui	2183 2734
Environmental Team (ET) (Mott MacDonald Hong Kong Limited)	Environmental Team Leader	Terence Kong	2828 5919
	Deputy Environmental Team Leader	Heidi Yu	2828 5704
	Deputy Environmental Team Leader	Daniel Sum	2585 8495
Independent Environmental Checker (IEC) (AECOM Asia Company Limited)	Independent Environmental Checker	Jackel Law	3922 9376
	Deputy Independent Environmental Checker	Roy Man	3922 9141

Reclamation Works:

Party	Position	Name	Telephone
Contract 3206 Main Reclamation Works (ZHEC-CCCC-CDC Joint Venture)	Project Manager	Alan Mong	3763 1352
	Environmental Officer	Kwai Fung Wong	3763 1452

Airfield Works:

Party	Position	Name	Telephone
Contract 3301 North Runway Crossover Taxiway (FJT-CHEC-ZHEC Joint Venture)	Deputy Project Director	Kin Hang Chung	9800 0048
	Environmental Officer	Joe Wong	6182 0351
Contract 3302 Eastern Vehicular Tunnel Advance Works (China Road and Bridge Corporation)	Project Manager	Dickey Yau	5699 4503
	Environmental Officer	Dennis Ho	5645 0563
Contract 3303 Third Runway and Associated Works (SAPR Joint Venture)	Project Manager	Andrew Keung	6277 6628
	Environmental Officer	Max Chin	6447 5707
Contract 3307 Fire Training Facility (Paul Y. Construction Company Limited)	Project Manager	Steven Meredith	6109 1813
	Environmental Officer	Albert Chan	9700 1083

Third Runway Concourse:

Party	Position	Name	Telephone
Contract 3403 New Integrated Airport Centres Building and Civil Works (Sun Fook Kong Construction Limited)	Project Manager	Alice Leung	9220 3162
	Environmental Officer	Alpha Chia	9626 1114
Contract 3405 Third Runway Concourse Foundation and Substructure Works (China Road and Bridge Corporation – Bachy Soletanche Group Limited – LT Sambo Co., Ltd. Joint Venture)	Project Manager	Francis Choi	9423 3469
	Environmental Officer	Jacky Lai	9028 8975

Terminal 2 (T2) Expansion:

Party	Position	Name	Telephone
Contract 3503 Terminal 2 Foundation and Substructure Works (Leighton – Chun Wo Joint Venture)	Project Manager	Eric Wu	3973 1718
	Environmental Officer	Gomez Yuen	9098 7807
Contract 3508 Terminal 2 Expansion Works (Gammon Engineering & Construction Company Limited)	Project Director	Richard Ellis	6201 5637
	Environmental Officer	Gena Tsang	9511 2283

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

Party	Position	Name	Telephone
Contract 3601 New Automated People Mover System (TRC Line) (CRRC Puzhen Bombardier Transportation Systems Limited and CRRC Nanjing Puzhen Co., Ltd. Joint Venture)	Project Manager	Hongdan Wei	158 6180 9450
	Environmental Officer	Jasmine Tso	5968 6926
Contract 3602 Existing APM System Modification Works (Niigata Transys Co., Ltd.)	Project Manager	Kunihiro Tatecho	9755 0351
	Environmental Officer	Yolanda Gao	5399 3509
Contract 3603 3RS Baggage Handling System (VISH Consortium)	Project Manager	K C Ho	9272 9626
	Environmental Officer	Eric Ha	9215 3432

Construction Support (Facilities):

Party	Position	Name	Telephone
Contract 3721 Construction Support Infrastructure Works (China State Construction Engineering (Hong Kong) Ltd.)	Site Agent	Thomas Lui	9011 5340
	Environmental Officer	Xavier Lam	9493 2944
Contract 3722 Western Support Area – Construction Support Facilities (Tapbo Construction Company Limited and Konwo Modular House Limited Joint Venture)	Deputy Project Director	Philip Kong	9049 3161
	Environmental Officer	Sampson Lo	9752 9118

Airport Support Infrastructure:

Party	Position	Name	Telephone
Contract 3801 APM and BHS Tunnels on Existing Airport Island (China State Construction Engineering (Hong Kong) Ltd.)	Project Manager	Tony Wong	9642 8672
	Environmental Officer	Federick Wong	9842 2703
Contract 3802 APM and BHS Tunnels and Related Works (Gammon Engineering & Construction Company Limited)	Project Director	John Adams	6111 6989
	Environmental Officer	Andy Leung	9489 0035

Construction Support (Services / Licences):

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

1.4 Summary of Construction Works

The key activities of the Project carried out in the reporting period included reclamation works and land-based works. Works in the reclamation areas included 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 1.2**. The EM&A requirements remained unchanged during the reporting period and details can be referred to Table 1.2 of the Construction Phase Monthly EM&A Report No. 1.

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

Parameters	Status
Air Quality	
Baseline Monitoring	The baseline air quality monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	On-going
Noise	
Baseline Monitoring	The baseline noise monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	On-going
Water Quality	
General Baseline Water Quality Monitoring for reclamation, water jetting and field joint works	The baseline water quality monitoring result has been reported in Baseline Water Quality Monitoring Report and submitted to EPD under EP Condition 3.4.
General Impact Water Quality Monitoring for reclamation, water jetting and field joint works	On-going
Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring	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	Due to the completion of all marine-based DCM works within December 2020, regular DCM monitoring is ceased at all monitoring stations starting from 14 January 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	The proposed methodology of the annual sewage flow monitoring will be prepared and submitted to EPD at least one year before commencement of operation of 3RS.
Details of the routine H ₂ S monitoring system for the sewerage system of 3RS	The details of the routine H ₂ S monitoring system will be prepared and submitted to EPD at least one year before commencement of operation of 3RS.
Waste Management	
Waste Monitoring	On-going
Land Contamination	
Supplementary Contamination Assessment Plan (CAP)	The Supplementary CAP was submitted to EPD pursuant to EP Condition 2.20.
Contamination Assessment Report (CAR) for Golf Course	The CAR for Golf Course was submitted to EPD.
Contamination Assessment Reports (CAR) for Terminal 2 Emergency Power Supply Systems	The CARs for Terminal 2 Emergency Power Supply System Nos.1 (Volumes 1 and 2), 2, 3, 4 and 5 were submitted to EPD.
Terrestrial Ecology	
Pre-construction Egret Survey Plan	The Egret Survey Plan was submitted and approved by EPD under EP Condition 2.14.
Ecological Monitoring	The terrestrial ecological monitoring at Sheung Sha Chau was completed in January 2019.
Marine Ecology	
Pre-Construction Phase Coral Dive Survey	The Coral Translocation Plan was submitted and approved by EPD under EP Condition 2.12.
Coral Translocation	The coral translocation was completed.

Parameters	Status
Post-Translocation Coral Monitoring	The post-translocation monitoring programme according to the Coral Translocation Plan was completed in April 2018.
Chinese White Dolphins (CWD)	
Vessel Survey, Land-based Theodolite Tracking and Passive Acoustic Monitoring (PAM)	
Baseline Monitoring	Baseline CWD results were reported in the CWD Baseline Monitoring Report and submitted to EPD in accordance with EP Condition 3.4.
Impact Monitoring	On-going
Landscape & Visual	
Landscape & Visual Plan	The Landscape & Visual Plan was submitted to EPD under EP Condition 2.18
Baseline Monitoring	The baseline landscape & visual monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	On-going
Environmental Auditing	
Regular site inspection	On-going
Marine Mammal Watching Plan (MMWP) implementation measures	On-going
Dolphin Exclusion Zone (DEZ) Plan implementation measures	On-going
SkyPier High Speed Ferries (HSF) implementation measures	On-going
Construction and Associated Vessels Implementation measures	On-going
Complaint Hotline and Email channel	On-going
Environmental Log Book	On-going

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

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

- Two skipper training session provided by ET: 6 and 20 January 2021;
- Sixteen environmental management meetings for EM&A review with works contracts: 7, 8, 12, 15, 18, 20, 21, 26, 27, 28 and 29 January 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)	27 May 2020	Monthly EM&A Report No. 57, Appendix D

2.3 Monitoring Methodology

2.3.1 Measuring Procedure

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

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

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

2.3.2 Maintenance and Calibration

The portable direct reading dust meter is calibrated every year against high volume sampler (HVS) to check the validity and accuracy of the results measured by direct reading method. The calibration record of the HVS provided in Appendix E of Construction Phase Monthly EM&A Report No. 58, 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	16 - 78	306	500
AR2	16 - 78	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)	24 Mar 2020	Monthly EM&A Report No. 52, Appendix D
	Rion NL-52 (Serial No. 01287679)	21 Jun 2020	Monthly EM&A Report No. 54, Appendix E
Acoustic Calibrator	Casella CEL-120/1 (Serial No. 2383737)	12 Sep 2020	Monthly EM&A Report No. 57, Appendix D
	Castle GA607 (Serial No. 040162)	4 Jul 2020	Monthly EM&A Report No. 55, Appendix D

3.3 Monitoring Methodology

3.3.1 Monitoring Procedure

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

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

3.3.2 Maintenance and Calibration

The maintenance and calibration procedures are summarised below:

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

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

3.4 Summary of Monitoring Results

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

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

Table 3.4: Summary of Construction Noise Monitoring Results

Monitoring Station	Noise Level Range, dB(A)	Limit Level, dB(A)
	<i>L_{eq}</i> (30mins)	<i>L_{eq}</i> (30mins)
NM1A ⁽¹⁾	64 - 73	75
NM4 ⁽¹⁾	60 - 61	70 ⁽²⁾
NM5 ⁽¹⁾	53 - 67	75
NM6 ⁽¹⁾	62 - 68	75

Notes:

- (1) +3dB(A) Façade correction included;
- (2) Reduced to 65dB(A) during school examination periods at NM4. No school examination took place during this reporting period.

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

3.5 Conclusion

As the construction activities were far away from the monitoring stations, major sources of noise dominating the monitoring stations observed during the construction noise impact monitoring were traffic noise near NM1A and aircraft noise near 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 December 2020, regular DCM monitoring was ceased at all monitoring stations starting from 14 January 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
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	
	Suspended Solids (SS) in mg/l	Bottom		Bottom	
		3.4mg/l		2.7mg/l	
Regular DCM Monitoring ⁽⁶⁾	Turbidity in NTU	23		37	
		or 120% of upstream control station at the same tide of the same day,		or 130% of upstream control station at the same tide of the same day,	
	Total Alkalinity in ppm	95		99	
		whichever is higher		whichever is higher	
Representative Heavy Metals for regular DCM monitoring (Chromium) in µg/l	0.2		0.2		
	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 December 2020, regular DCM monitoring was ceased at all monitoring stations starting from 14 January 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 Oct 2020 ⁽¹⁾	Monthly EM&A Report No. 58, Appendix E
	YSI ProDSS (Serial No. 17E100747)	22 Oct 2020 ⁽¹⁾	Monthly EM&A Report No. 58, Appendix E
	YSI ProDSS (Serial No. 17H105557)	2 Dec 2020	Monthly EM&A Report No. 60, Appendix D
	YSI ProDSS (Serial No. 18A104824)	2 Dec 2020	Monthly EM&A Report No. 60, Appendix D
	YSI ProDSS (Serial No. 15M100005)	18 Jan 2021	Appendix D
	YSI ProDSS (Serial No. 16H104234)	18 Jan 2021	Appendix D
Digital Titrator (measurement of total alkalinity)	Titrette Bottle-top Burette, 50ml (Serial No. 10N64701)	30 Nov 2020	Monthly EM&A Report No. 60, 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 chromium, obtained during the reporting period were within their corresponding Action and Limit Levels. The detailed monitoring results are presented in **Appendix C**.

For chromium, one of the testing results triggered the corresponding Action Level, and investigation was conducted accordingly.

Table 4.7 presents the summary of the chromium compliance status at IM stations during mid-flood for the reporting period.

Table 4.7: Summary of Chromium Compliance Status (Mid-Flood Tide)

	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM10	IM11	IM12
02/01/2021												
05/01/2021												
07/01/2021												
09/01/2021												
12/01/2021												
14/01/2021												
16/01/2021												
19/01/2021												
21/01/2021												
23/01/2021												
26/01/2021												
28/01/2021												
30/01/2021												
No. of result triggering Action or Limit Level	0	0	0	0	0	0	0	0	0	0	1	0

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

Legend:

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

One of the monitoring results triggered the corresponding Action Level on 2 January 2021. In accordance with Event and Action Plan stipulated in the Manual, IEC and Contractor were informed when the corresponding Action Level was triggered.

The case occurred at a monitoring station upstream of the Project during flood tide. Chromium is one of the DCM regular monitoring parameters. However, no DCM work was conducted when monitoring was carried out at this monitoring station. Therefore, the case was 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 one result triggered the corresponding Action Level, and investigation was conducted accordingly.

Based on the investigation findings, the result that triggered the corresponding Action Level was 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. Recycling materials before leaving the site are weighted by a weight bridge and monitored by CCTV system. 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)
January 2021 ⁽²⁾⁽³⁾	10,125	29,692	0	5,780	0	0	1,696

Notes:

- (1) C&D refers to Construction and Demolition.
- (2) Metals, paper and/or plastics were recycled in the reporting period.
- (3) 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 11, 12, 15, 18, 19, 20, 26 and 27 January 2021, covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

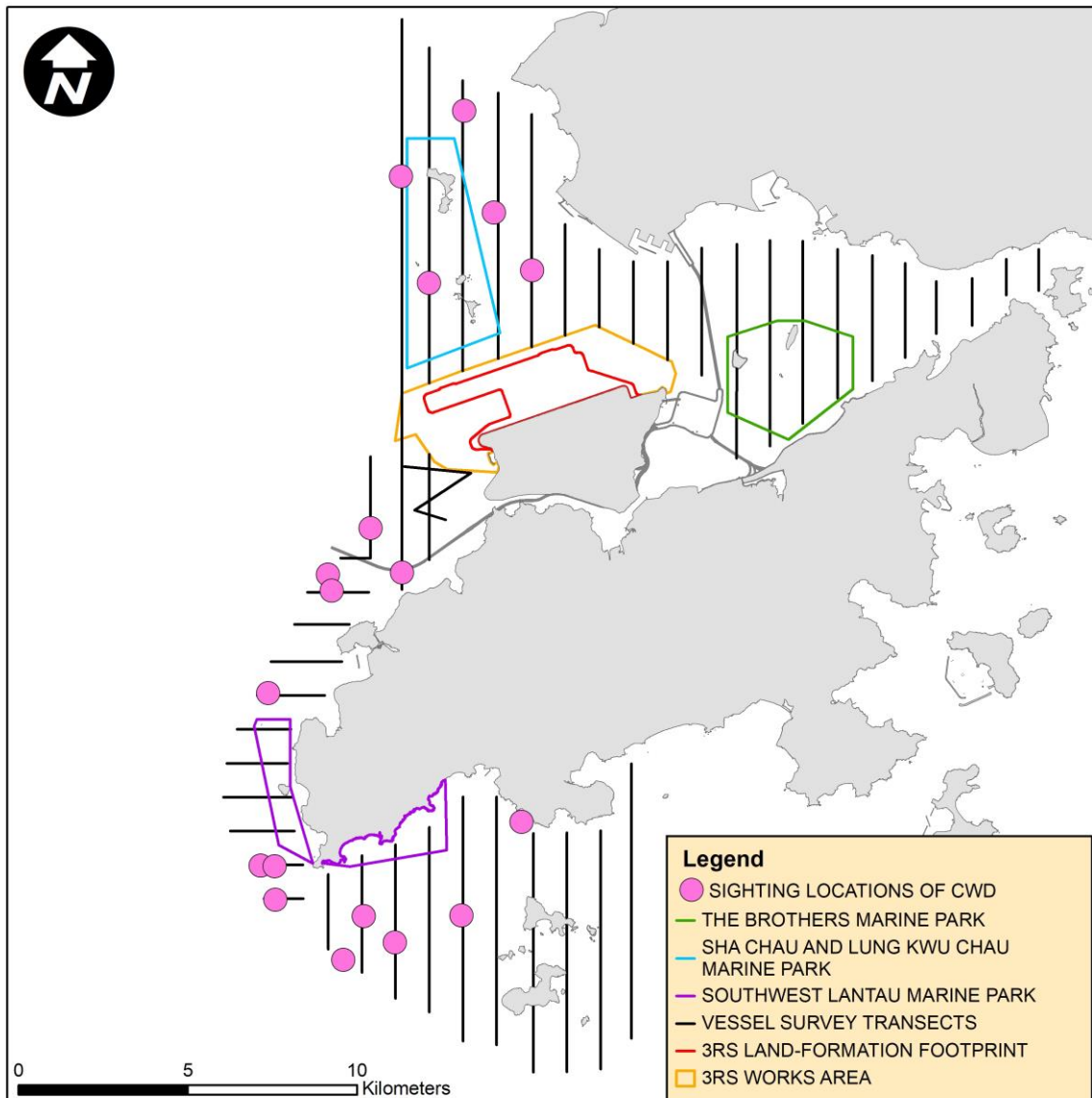
A total of around 441.35km of survey effort was collected from these surveys and around 97.4% of the survey effort was being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of the survey effort are given in **Appendix C**.

Sighting Distribution

In January 2021, 18 sightings with 75 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 January 2021 is illustrated in **Figure 6.3**. In NWL including AW transects, the majority of the sightings was around Sha Chau and Lung Kwu Chau Marine Park. In WL, CWD sightings were clustered at the waters around Tai O and Fan Lau. In SWL, most CWD sightings were recorded at the relatively off-shore waters of the central and western part of the survey area. No sightings of CWD were recorded in NEL.

Figure 6.3: Sightings Distribution of Chinese White Dolphins



Remarks: (1) Please note that there are 18 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 data from December 2020. 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 January 2021, a total of around 429.99 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 18 on-effort sightings with 75 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 November 2020 to January 2021), a total of around 1229.77 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 47 on-effort sightings and a total number of 146 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 January 2021 and during the running quarter are presented in **Table 6.4** below and compared with the Action Level. The running quarterly encounter rates STG and ANI remain above the Action Level, thus the Action Level is not triggered.

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

	Encounter Rate (STG)	Encounter Rate (ANI)
January 2021	4.19	17.44
Running Quarter from November 2020 to January 2021 ⁽¹⁾	3.82	11.87
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 November 2020 to January 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 January 2021, 18 groups of 75 dolphins in total were sighted, and the average group size of CWDs was 4.2 dolphins per group. Sightings with medium group size (i.e. 3-9 dolphins) are dominant. There was one CWD sighting with large group size (i.e. 10 or more dolphins) recorded which was spotted in NWL.

Activities and Association with Fishing Boats

Three sightings of CWDs were recorded engaging in feeding activities in January 2021. One of these sightings was observed in association with operating gillnetter in SWL during the reporting period.

Mother-calf Pair

In January 2021, four CWD sightings were recorded with the presence of mother-and-unspotted juvenile pair(s).

6.4.2 Photo Identification

In January 2021, a total number of 41 different CWD individuals were identified for totally 60 times. A summary of photo identification works is presented in **Table 6.5**. Representative photos of these individuals are given in **Appendix C**.

Table 6.5: Summary of Photo Identification

Individual ID	Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area	Individual ID	Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area
NLMM001	19-Jan-21	1	NWL	SLMM066	26-Jan-21	8	SWL
NLMM009	19-Jan-21	2	NWL	WLMM001	20-Jan-21	1	NWL
		3	NWL		27-Jan-21	1	WL
		4	NWL		3	WL	
NLMM020	20-Jan-21	2	NWL	WLMM006	18-Jan-21	2	WL
NLMM021	19-Jan-21	2	NWL	WLMM008	27-Jan-21	5	WL
		3	NWL	WLMM028	18-Jan-21	2	WL
NLMM023	19-Jan-21	1	NWL	WLMM029	18-Jan-21	2	WL
	20-Jan-21	2	NWL	WLMM040	27-Jan-21	5	WL
NLMM027	19-Jan-21	1	NWL	WLMM052	20-Jan-21	2	NWL
NLMM039	20-Jan-21	2	NWL	WLMM055	27-Jan-21	1	WL
NLMM052	19-Jan-21	1	NWL			3	WL
		20-Jan-21	2	NWL	WLMM067	20-Jan-21	1
NLMM055	19-Jan-21	1	NWL	WLMM071	19-Jan-21	1	NWL
NLMM063	19-Jan-21	1	NWL		20-Jan-21	1	NWL
NLMM075	19-Jan-21	1	NWL	WLMM079	20-Jan-21	1	NWL
NLMM076	20-Jan-21	1	NWL	WLMM107	20-Jan-21	1	NWL
SLMM012	15-Jan-21	2	SWL		27-Jan-21	1	WL
SLMM014	15-Jan-21	3	SWL		3	WL	
SLMM022	27-Jan-21	5	WL	WLMM114	15-Jan-21	2	SWL
SLMM031	18-Jan-21	2	WL		27-Jan-21	5	WL
	26-Jan-21	8	SWL	WLMM131	26-Jan-21	8	SWL
SLMM035	27-Jan-21	5	WL		27-Jan-21	4	WL
SLMM037	15-Jan-21	2	SWL	WLMM136	20-Jan-21	2	NWL
SLMM049	27-Jan-21	5	WL	WLMM141	20-Jan-21	1	NWL
SLMM052	27-Jan-21	5	WL	WLMM147	20-Jan-21	1	NWL
SLMM058	20-Jan-21	1	NWL	WLMM149	20-Jan-21	1	NWL
	27-Jan-21	1	WL		27-Jan-21	1	WL
		3	WL		3	WL	
SLMM060	26-Jan-21	2	SWL				
		7	SWL				

6.4.3 Land-based Theodolite Tracking Survey

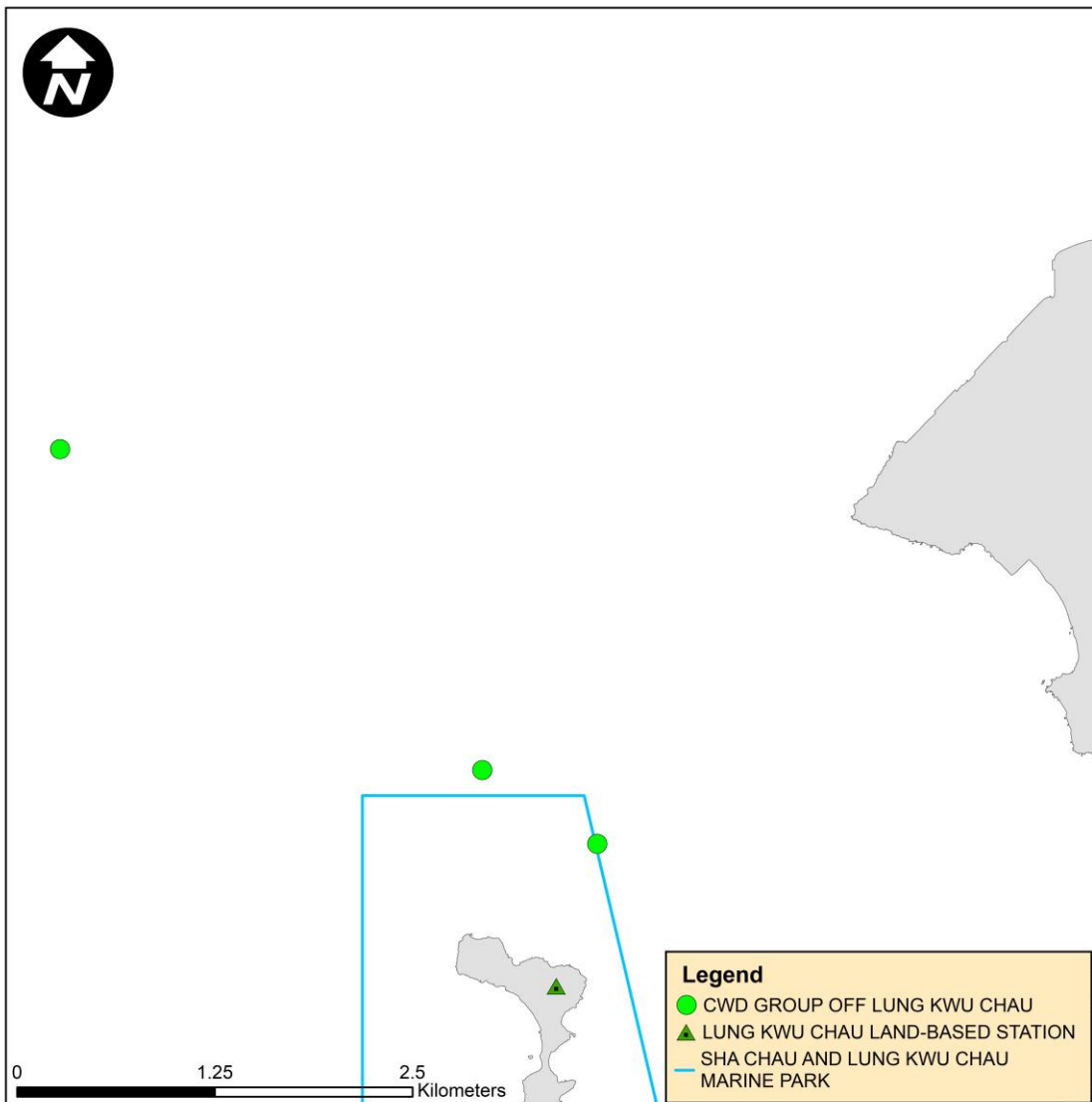
Survey Effort

Land-based theodolite tracking surveys were conducted at LKC on 15 January 2021 and at SC on 27 January 2021, with a total of two days of land-based theodolite tracking survey effort accomplished in this reporting period. Three CWD groups were tracked from Lung Kwu Chau station during the survey. Information of survey effort and CWD groups are presented in **Table 6.6**. Details of the survey effort are presented in **Appendix C**. The first sighting locations of CWD group tracked at LKC station during land-based theodolite tracking survey in January 2021 were depicted in **Figure 6.4**. No CWD group was sighted from SC station in this reporting month.

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

Land-based Station	No. of Survey Sessions	Survey Effort (hh:mm)	No. of CWD Groups Sighted	CWD Group Sighting per Survey Hour
Lung Kwu Chau	1	6:00	3	0.5
Sha Chau	1	6:00	0	0
TOTAL	2	12:00	3	0.25

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



Remark: Marine park excludes land area and the landward boundary generally follows the high water mark along the coastline.

6.5 Progress Update on Passive Acoustic Monitoring

Underwater acoustic monitoring using Passive Acoustic Monitoring (PAM) should be undertaken during land formation related construction works. In this reporting period, the Ecological Acoustic Recorder (EAR) was retrieved on 14 January 2021 for annual data analysis. Acoustic data would be reviewed to give an indication of CWDs occurrence patterns and to obtain anthropogenic noise information simultaneously. To improve the length of deployments, speed of data gathering, and

efficiency in data analysis, the C-POD and its successor the F-POD which can record the click trains of cetaceans automatically has been proposed in replacement of the previous EAR at the same location. The C-POD has also been adopted by the AFCD for data collection on night-time usage of dolphins at the SCLKCMP and the BMP. The F-POD has been deployed on 30 December 2020 and positioned at south of Sha Chau Island inside the SCLKCMP (**Figure 6.5**). Analysis would involve use of proprietary software for objective automated data analyses and experienced analysts to perform visual validation for assessment of dolphin detection. As the period of data collection and analysis takes about four months, PAM results could not be reported in monthly intervals but report for supplementing the annual CWD monitoring analysis.

6.6 Site Audit for CWD-related Mitigation Measures

During the reporting period, silt curtains were in place by the contractor for marine filling and bored piling, in which dolphin observers were deployed by contractor in accordance with the MMWP. Overall, 2 to 4 dolphin observation stations and teams of at least two dolphin observers were deployed by the contractors for continuous monitoring of the DEZ for bored piling and seawall construction 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 703 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 7.2** and **Section 7.3** respectively.

6.7 Timing of Reporting CWD Monitoring Results

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

6.8 Summary of CWD Monitoring

Monitoring of CWD was conducted with two complete sets of small vessel line-transect surveys and 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	Tree Protection Specifications have been provided in the relevant Contract Specifications respectively for implementation by the Contractors under the Project. The Contractors' performance on the implementation of the trees maintenance and protection measures were observed and checked by the ET weekly during construction period.	3302, 3503, 3602, 3801 3508, 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, 3801</p> <p>3508, 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 colors (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 updated cumulative total number of retained and transplanted trees under the Project were 118 and 11, respectively. Details of the retained trees, transplanted trees and to-be-transplanted trees under the Project are summarized in **Table 7.5** and respectively. Photos of transplanted trees are presented in **Table 7.7**.

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

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 the construction 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 the construction 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 if design necessary.	
Non-conformity on one occasion	Identify source. Inform IEC and AAHK / PM. Discuss remedial actions with IEC, AAHK / PM and Contractor.	Check report. Check Contractor's working method. Discuss with ET and Contractor on possible remedial measures.	Notify Contractor. Ensure remedial measures are properly implemented.	Amend working methods to prevent recurrence of non-conformity.

Event Action Level	Action			
	ET	IEC	AAHK / PM	Contractor
	Monitor remedial actions until rectification has been completed.	Advise AAHK / PM on effectiveness of proposed remedial measures. Check implementation of remedial measures.		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 area properly implemented.	Amend working methods to prevent recurrence of non-conformity. Rectify damage and undertake additional action necessary.

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

Existing				
Contract	Retain (nos.)	Transplanted (nos.)		To-be-transplanted (nos.)
		Establishment Period	Maintenance Period	
3302	9	0	0	0
3503	19	9	0	0
3602	2	0	0	0
3801	88	0	5	0
Sub-total	118	9	5	0
Provisional				
Contract	Retain (nos.)	Transplanted (nos.)		To-be-transplanted (nos.)
3508 ⁽¹⁾	155	0		22
Sub-total	155	0		22
Grand Total	273	14		22

Notes:

(1) Actual tree number is subject to confirmation after initial tree survey is conducted by the Contractor.



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	Contract 3801	NA
		<u>Maintenance period</u> Jun 2019 – May 2028	Southern Landside Petrol Filling Station	
CT1253	4 May 2018	<u>Establishment period</u> 5 May 2018 – May 2019	Contract 3801	
		<u>Maintenance period</u> Jun 2019 – May 2028	Southern Landside Petrol Filling Station	
T835	22 Jan 2020	<u>Establishment period</u> 23 Jan 2020 – Jan 2021	Contract 3503	NA
T836	13 Dec 2019	<u>Establishment period</u> 14 Dec 2020 – Jan 2021	Contract 3503	
T838	22 Jan 2020	<u>Establishment period</u> 23 Jan 2020 – Jan 2021	Contract 3503	
T812	21 Dec 2020	<u>Establishment period</u> 22 Dec 2020 – Dec 2021	Contract 3503	
T814	20 Dec 2020	<u>Establishment period</u> 21 Dec 2020 – Dec 2021	Contract 3503	
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	
CT1194	4 May 2018	<u>Establishment period</u> 5 May 2018 – May 2019	Contract 3801	Uprooted and collapsed due to damage by Typhoon Higos on 18 Aug 2020. Tree removal was conducted as recommended by Contractor's tree specialist.
		<u>Maintenance period</u> Jun 2019 – May 2028	Southern Landside Petrol Filling Station	
CT1794	3 May 2018	<u>Establishment period</u> 4 May 2018 – May 2019	Contract 3801	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.
		<u>Maintenance period</u> Jun 2019 – May 2028	AsiaWorld-Expo	
CT1795	3 May 2018	<u>Establishment period</u> 4 May 2018 – May 2019	Contract 3801	The tree within the land parcel was acquired by the government for construction of emergency hospital to handle COVID19 pandemic at AsiaWorld-Expo E. The tree was felled.
		<u>Maintenance period</u> Jun 2019 – May 2028	AsiaWorld-Expo	

Table 7.7: Photos of the Existing Transplanted Trees in the Reporting Period

Under 12-month Establishment Period:		
		
T835	T836	T838
		
T812	T814	T815
		
T829	T830	T831

Under 10-year Long-term Management:	
	
CT276	CT1253

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 System Nos.1 (Volumes 1 and 2), 2, 3, 4 and 5 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 all the CARs and required ET to submit additional photos for sides and bottom of some of sampling points after the removal of pipelines to reaffirm no leakage from the pipelines concerned. Afterwards, the potential land contamination concern of two concerned systems will be closed.

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 January 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 informed by CLP Power, the construction works of the Hong Kong Offshore LNG Terminal Project may affect the route diversion operation of the SkyPier HSFs in Q1 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 31 January 2021
Total number of ferry movements recorded and audited	0
Use diverted route and enter / leave SCZ through Gate Access Points	0 deviation
Daily Cap (including all SkyPier HSFs)	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:

- Two skipper training sessions were held for contractors' concerned skippers of relevant construction vessels to familiarize them with the predefined routes; general education on local cetaceans; guidelines for avoiding adverse water quality impact; the required environmental practices / measures while operating construction and associated vessels under the Project; and guidelines for operating vessels safely in the presence of CWDs. The list of all trained skippers was properly recorded and maintained by ET.
- Five 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, 19 skippers were trained by ET and 6 skippers was trained by contractors' Environmental Officers. In total, 1691 skippers were trained from August 2016 to January 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 MTCC audit.
- Three-month rolling programmes (one month record and three months forecast) for construction vessel activities were received from the contractors in order to help maintain the number of construction and associated vessels on site to a practicable minimal level.

7.6 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 seawall construction and bored piling 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	Accepted / approved by EPD
2.11	Marine Mammal Watching Plan	
2.12	Coral Translocation Plan	
2.13	Fisheries Management Plan	
2.14	Egret Survey Plan	
2.15	Silt Curtain Deployment Plan	
2.16	Spill Response Plan	
2.17	Detailed Plan on Deep Cement Mixing	
2.18	Landscape & Visual Plan	Submitted to EPD
2.19	Waste Management Plan	
2.20	Supplementary Contamination Assessment Plan	Accepted / approved by EPD
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

Two complaints were received on 25 January 2021 regarding dust issue and both were being 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 25 January 2021 regarding refuelling and was being 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;
- Marine filling; and
- Sorting and reuse of inert waste from other 3RS contracts.

Airfield Works:

Contract 3301 North Runway Crossover Taxiway

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

Contract 3302 Eastern Vehicular Tunnel Advance Works

- Cable laying and ducting works;
- Trench excavation 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; and
- Cable laying and ducting works.

Contract 3307 Fire Training Facility

- Excavation; and
- Drainage works.

Third Runway Concourse:

Contract 3403 New Integrated Airport Centres Building and Civil Works

- Architectural, Builder's Work and Finishing works;
- Temporary work for roof lifting; and
- Underground utilities construction.

Contract 3405 Third Runway Concourse Foundation and Substructure Works

- Plant mobilisation;

- Pre-drilling; and
- Piling work.

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;
- Temporary road construction;
- Piling work;
- Pre-drilling; and
- Builders' works.

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

Contract 3601 New Automated People Mover System (TRC Line)

- Concreting work and rebar fixing.

Contract 3602 Existing APM System Modification Works

- Modification works at APM depot; and
- Concreting work.

Construction Support (Facilities):

Contract 3721 Construction Support Infrastructure Works

- Excavation and backfilling; and
- Laying of drainage pipes and ducts; and
- Road works.

Contract 3722 Construction Support Facilities

- Foundation works;
- Erection of superstructure; and
- Site Establishment.

Airport Support Infrastructure:

Contract 3801 APM and BHS Tunnels on Existing Airport Island

- Construction of box culvert, working platform and ventilation ducts;
- Cofferdam for shaft; and
- Site clearance.

Contract 3802 APM and BHS Tunnels and Related Works

- Installation of storm drain pipes;
- Pre-drilling;
- Foundation works; and
- Site establishment.

Construction Support (Services / Licenses):

Contract 3901A/ B Concrete Batching Facility

- Installation of plant equipment; and
- Plant operation.

8.2 Key Environmental Issues for the Coming Reporting Period

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

- Generation of dust from construction works and stockpiles;
- Noise from operating equipment and machinery on-site;
- Generation of site surface runoffs and wastewater from activities on-site;
- Water quality from DCM works and marine filling;
- DEZ monitoring for ground improvement works (DCM works), 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 DCM works, 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 chromium, 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 chromium, one of the testing results triggered the relevant Action Level, and the corresponding investigation was conducted accordingly. The investigation findings concluded that the case was not related to the Project. To conclude, the construction activities in the reporting period did not introduce adverse impact to all water quality sensitive receivers.

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

On the implementation of the SkyPier Plan, 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. Training has been provided for the concerned skippers to facilitate them in familiarising with the requirements of the MTRMP-CAV. Deviations including speeding in the works area, entered no entry zone, and entry from non-designated gates were reviewed by ET. All the concerned captains were reminded by the contractor's MTCC representative to comply with the requirements of the MTRMP-CAV. The ET reminded contractors that all vessels shall avoid entering the no-entry zone, in particular the Brothers Marine Park and the Sha Chau & Lung Kwu Chau Marine Park. Three-month rolling programmes for construction vessel activities, which ensures the proposed vessels are necessary and minimal through good planning, were also received from contractors.

Figures

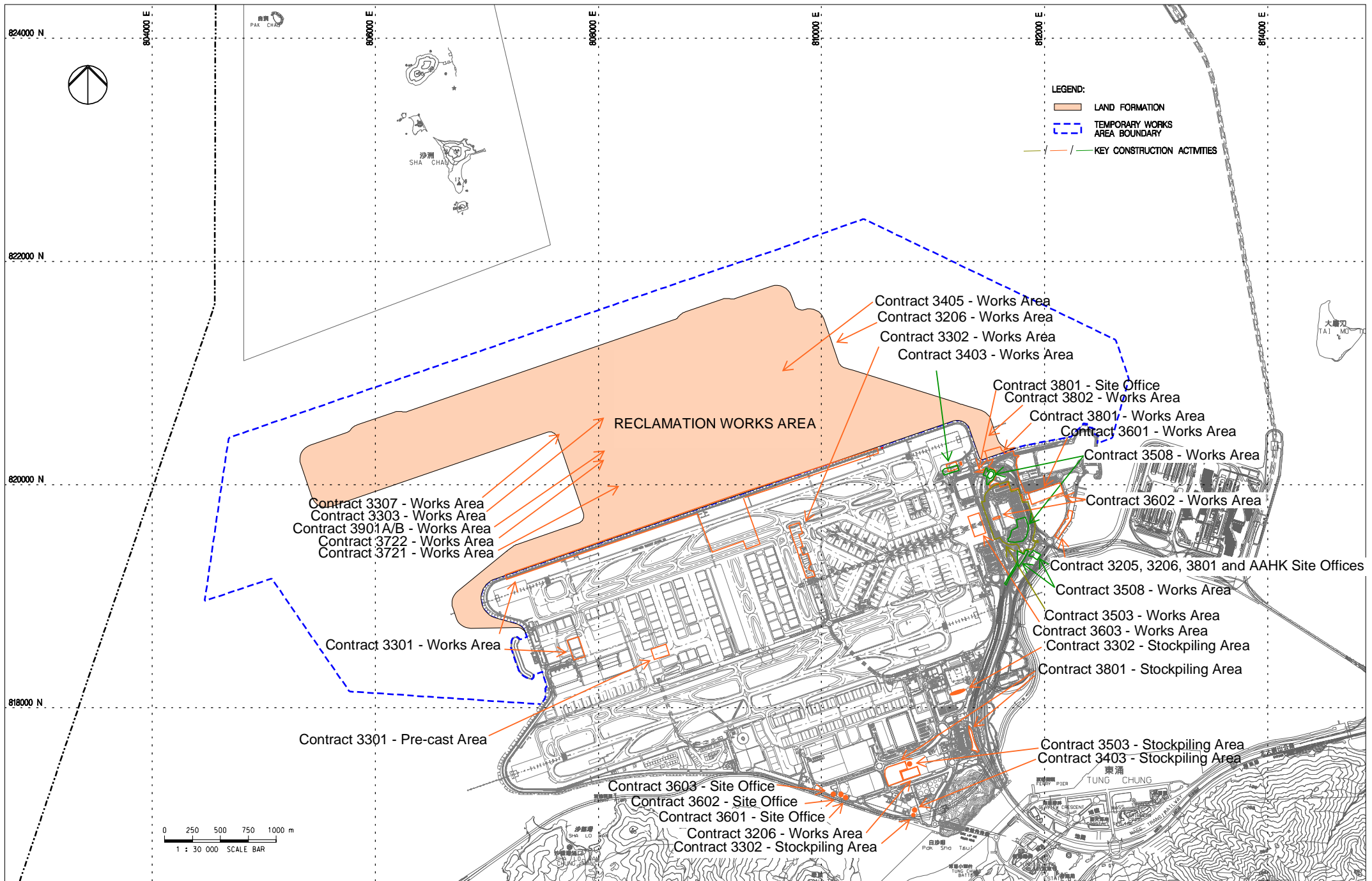


FIGURE 1.1 LOCATIONS OF KEY CONSTRUCTION ACTIVITIES

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

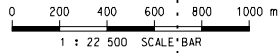
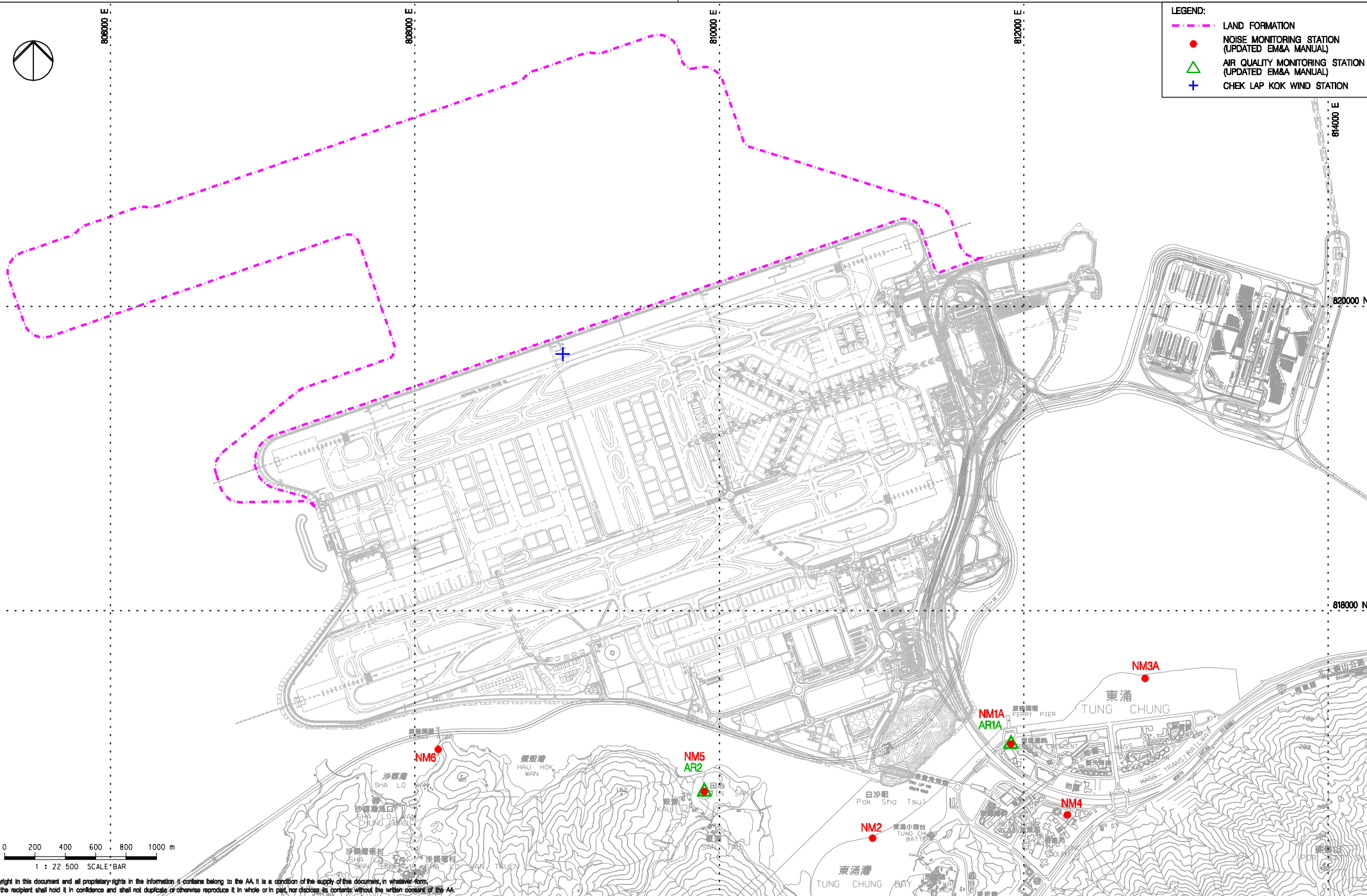
82000 E

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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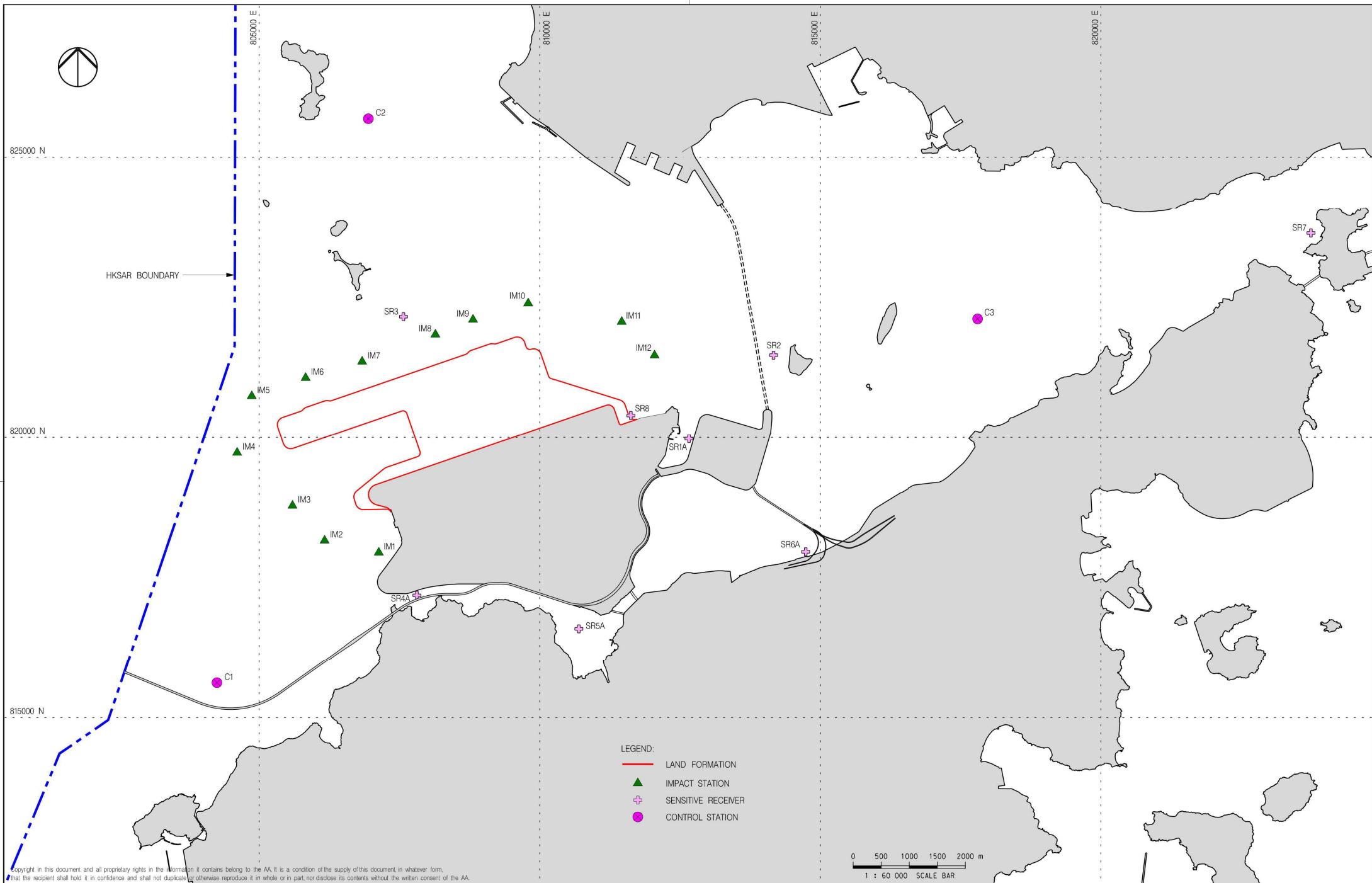
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B	28JAN16	GENERAL REVISION	RO
C	11FEB16	GENERAL REVISION	RO
D	29OCT18	GENERAL REVISION	SH



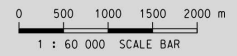
Title
LOCATIONS OF AIR AND NOISE MONITORING STATIONS AND CHEK LAP KOK WIND STATION

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	



- LEGEND:
- LAND FORMATION
 - ▲ IMPACT STATION
 - + SENSITIVE RECEIVER
 - CONTROL STATION



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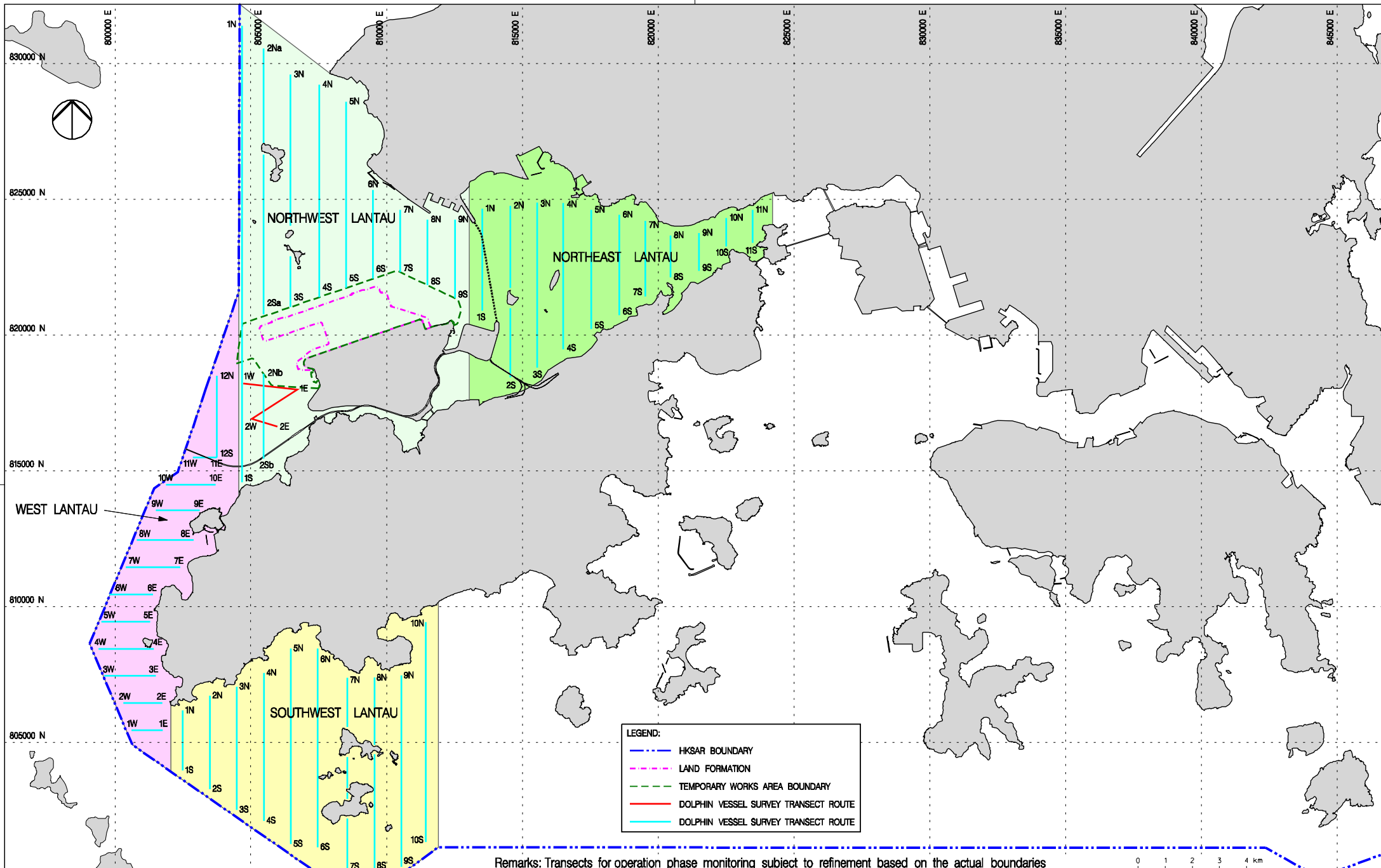
Rev.	Date	Description	Checked
A	21AUG19	FIRST ISSUE	VL



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



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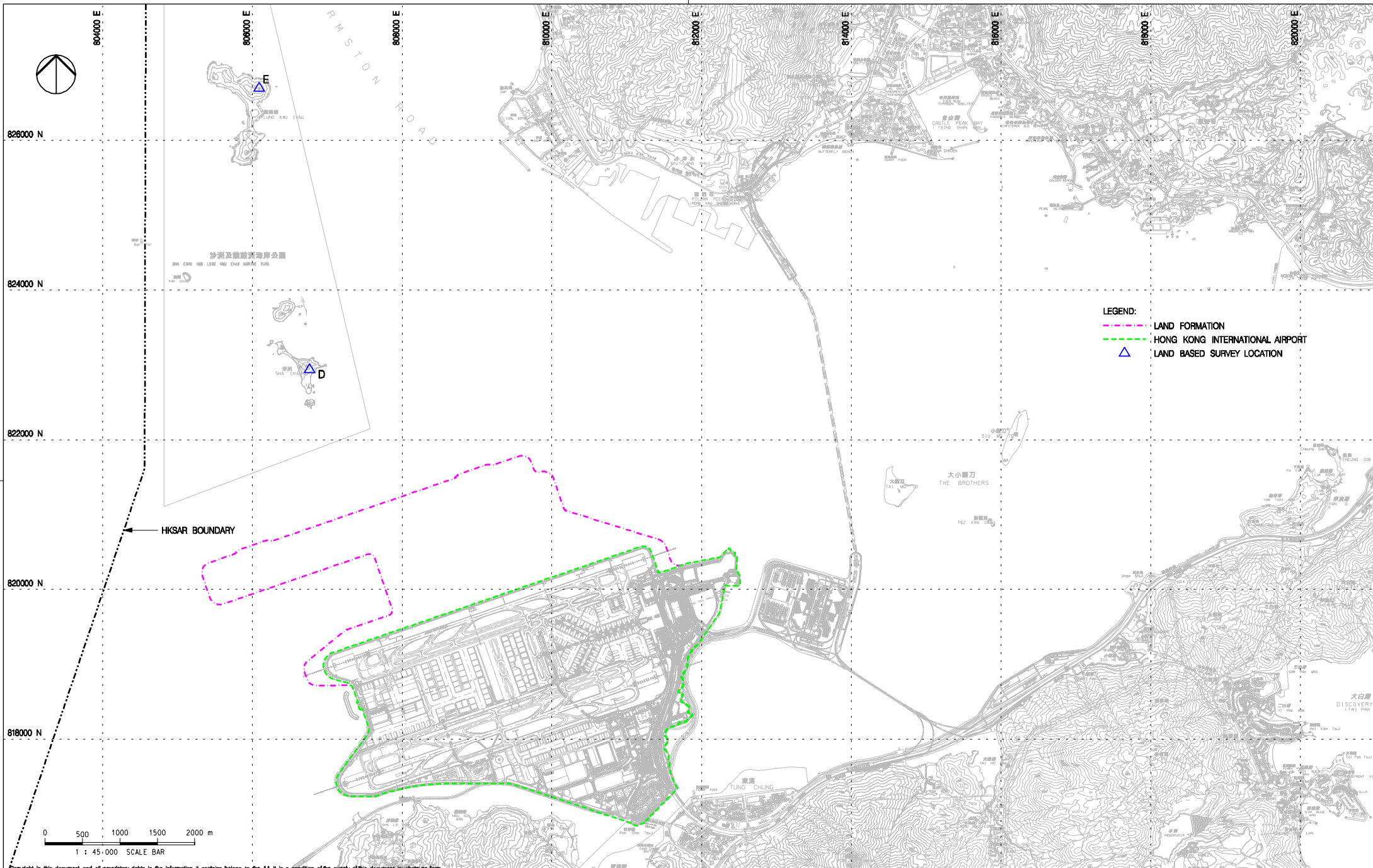
Rev.	Date	Description	Checked
B	27JUL16	GENERAL REVISION	JT
C	06FEB17	GENERAL REVISION	JT
D	01MAR17	GENERAL REVISION	JT
E	29OCT18	GENERAL REVISION	SH
F	04APR19	GENERAL REVISION	SH



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.	FIGURE 6.1	1 : 125000
Rev.	F	



- 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

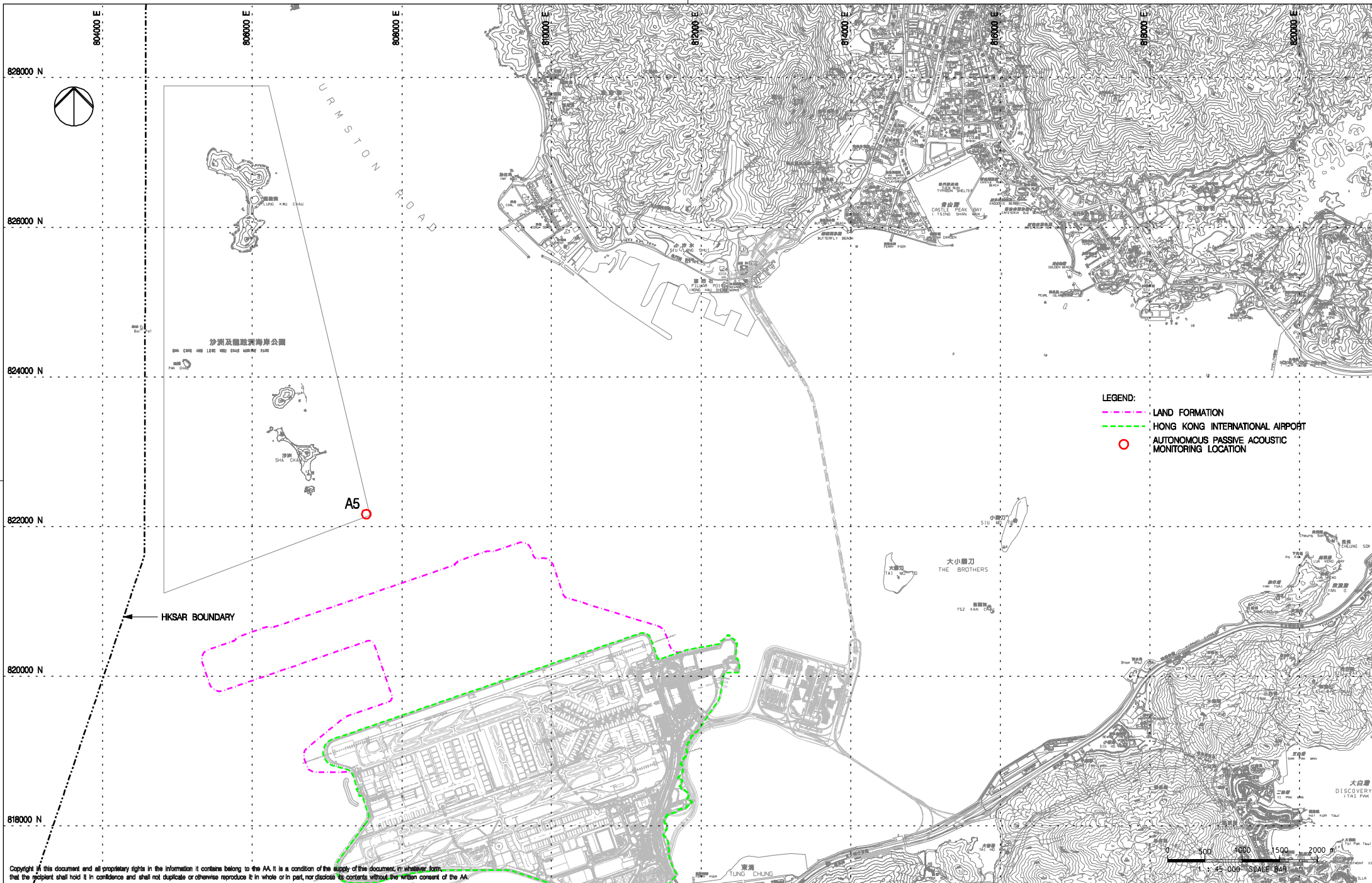
Consultant's Signatures for Approval		Date
Design	JC	29OCT18
Checkers	JC / TK	29OCT18
Approver	EC	29OCT18

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

Drawing No. **FIGURE 6.2**

Scale at A3 **1:45000**

Rev. **C**



- LEGEND:**
- - - LAND FORMATION
 - - - HONG KONG INTERNATIONAL AIRPORT
 - AUTONOMOUS PASSIVE ACOUSTIC MONITORING LOCATION

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Rev.	Date	Description	Checked
A	29AUG17	FIRST ISSUE	JT
B	10OCT17	GENERAL REVISION	PL
C	29OCT18	GENERAL REVISION	SH



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.
FIGURE 6.5
Scale at A3
1 : 45 000
Rev. C

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 seeding 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?^
			<p>Loading, Unloading or Transfer of Dusty Materials</p> <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	I
			<p>Debris Handling</p> <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	I
			<p>Transport of Dusty Materials</p> <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	I
			<p>Wheel washing</p> <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	I
			<p>Use of vehicles</p> <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	I
			<p>Site hoarding</p> <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	I
5.2.6.5	2.1	-	<p>Best Practices for Concrete Batching Plant</p> <p>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:</p> <p>Cement and other dusty materials</p>	Within Concrete Batching Plant / 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?^
			<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	I
			<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	I
			<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	I
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	N/A

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>	N/A
			<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>	N/A

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	N/A
			<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	N/A
			<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	N/A
			<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	N/A
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; ▪ 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 		<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"> ▪ 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	N/A
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	N/A
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> <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; ▪ 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; ▪ 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; ▪ 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 ▪ 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. 		
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	
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	

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
8.8.1.12 8.8.1.13	5.1	2.28	<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. <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. 		I *(CAR for golf course and Terminal 2 Emergency Power Supply System Nos.1, 2, 3, 4 and 5)
			<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. 		N/A
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; 	During construction phase at marine works area	
			<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 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; and 		
			<ul style="list-style-type: none"> 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. 		
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:

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

Jan-21

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2 WQ General & Regular DCM mid-ebb: 15:13 mid-flood: 10:08
3	4 Site Inspection NM4, NM6	5 Site Inspection AR1A, AR2 NM1A, NM5 WQ General & Regular DCM mid-ebb: 17:52 mid-flood: 12:21	6 Site Inspection	7 Site Inspection WQ General & Regular DCM mid-ebb: 6:44 mid-flood: 13:56	8 Site Inspection	9 WQ General & Regular DCM mid-ebb: 9:42 mid-flood: 15:25
10	11 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	12 Site Inspection CWD Survey (Vessel) NM4, NM6 WQ General & Regular DCM mid-ebb: 12:43 mid-flood: 7:28	13 CWD Survey (Vessel)	14 Site Inspection WQ General & Regular DCM mid-ebb: 14:08 mid-flood: 8:56	15 Site Inspection	16 AR1A, AR2 WQ General & Regular DCM mid-ebb: 15:29 mid-flood: 10:13
17	18 Site Inspection CWD Survey (Vessel, Land-baed)	19 Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 17:48 mid-flood: 12:00	20 CWD Survey (Vessel)	21 Site Inspection NM4, NM6 WQ General & Regular DCM mid-ebb: 5:49 mid-flood: 13:13	22 Site Inspection AR1A, AR2 NM1A, NM5	23 WQ General & Regular DCM mid-ebb: 8:25 mid-flood: 14:21
24	25 Site Inspection CWD Survey (Vessel, Land-baed)	26 Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 11:36 mid-flood: 6:47	27	28 Site Inspection AR1A, AR2 NM1A, NM5 WQ General & Regular DCM mid-ebb: 13:00 mid-flood: 7:56	29 Site Inspection NM4, NM6	30 WQ General & Regular DCM mid-ebb: 14:18 mid-flood: 9:03
31		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

Feb-21

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 Site Inspection	2 Site Inspection AR1A, AR2 NM1A, NM5 WQ General & Regular DCM mid-ebb: 16:24 mid-flood: 10:43	3 Site Inspection NM4, NM6	4 Site Inspection WQ General & Regular DCM mid-ebb: 18:21 mid-flood: 12:00	5 Site Inspection CWD Survey (Vessel)	6 AR1A, AR2 WQ General & Regular DCM mid-ebb: 8:02 mid-flood: 13:40
7	8 Site Inspection CWD Survey (Vessel)	9 Site Inspection CWD Survey (Vessel, Land-based) WQ General & Regular DCM mid-ebb: 11:55 mid-flood: 16:43	10 NM4, NM6	11 Site Inspection AR1A, AR2 NM1A, NM5 WQ General & Regular DCM mid-ebb: 13:18 mid-flood: 7:59	12	13 WQ General & Regular DCM mid-ebb: 14:28 mid-flood: 9:02
14	15	16 Site Inspection CWD Survey (Vessel) NM4, NM6 WQ General & Regular DCM mid-ebb: 16:00 mid-flood: 10:07	17 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	18 Site Inspection WQ General & Regular DCM mid-ebb: 17:20 mid-flood: 10:49	19 Site Inspection	20 WQ General & Regular DCM mid-ebb: 19:41 mid-flood: 11:43
21	22 Site Inspection CWD Survey (Vessel, Land-based)	23 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5 WQ General & Regular DCM mid-ebb: 22:54 mid-flood: 10:32	24 CWD Survey (Vessel) NM4, NM6	25 Site Inspection WQ General & Regular DCM mid-ebb: 12:08 mid-flood: 6:57	26 Site Inspection	27 WQ General & Regular DCM mid-ebb: 13:21 mid-flood: 7:55
28						
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						

Appendix C. Monitoring Results

Air Quality Monitoring Results

1-hour TSP Results

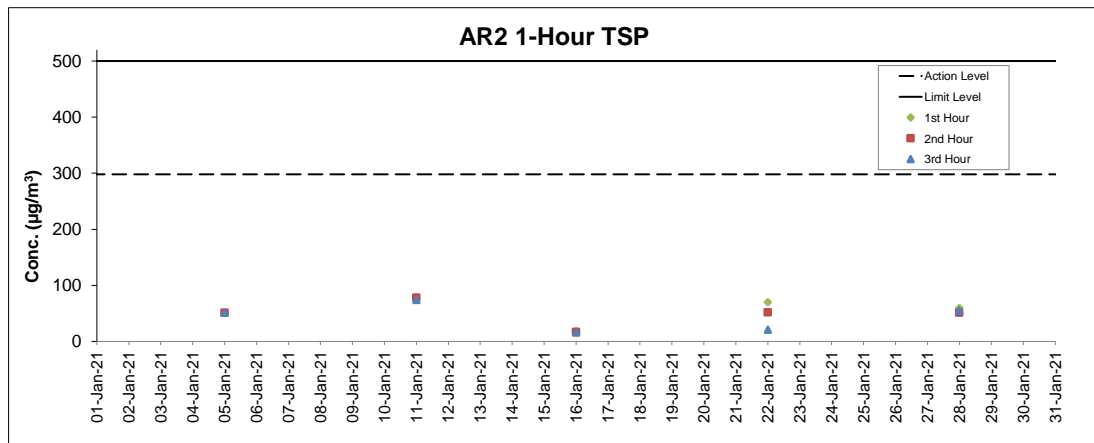
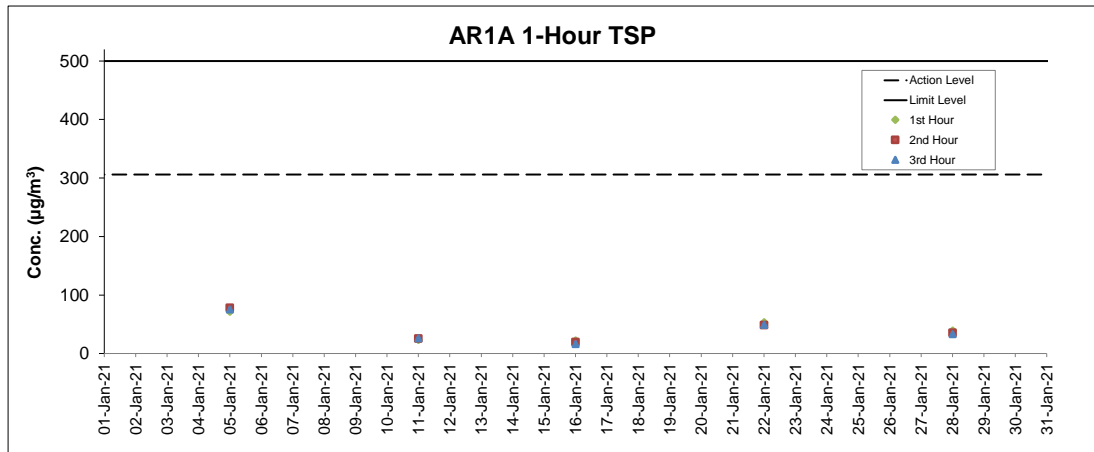
Station: AR1A- Man Tung Road Park

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 ($\mu\text{g}/\text{m}^3$)
5-Jan-21	13:06	Cloudy	4.2	303	71	306	500
5-Jan-21	14:06	Cloudy	4.2	298	78	306	500
5-Jan-21	15:06	Cloudy	3.3	284	75	306	500
11-Jan-21	10:00	Cloudy	6.9	357	23	306	500
11-Jan-21	11:00	Cloudy	5.8	351	25	306	500
11-Jan-21	12:00	Cloudy	6.4	2	26	306	500
16-Jan-21	9:27	Sunny	3.3	65	22	306	500
16-Jan-21	10:27	Sunny	5.3	87	19	306	500
16-Jan-21	11:27	Sunny	5.0	89	16	306	500
22-Jan-21	13:22	Cloudy	4.2	313	53	306	500
22-Jan-21	14:22	Cloudy	1.4	Variable	48	306	500
22-Jan-21	15:22	Cloudy	4.2	274	49	306	500
28-Jan-21	13:31	Cloudy	5.0	303	39	306	500
28-Jan-21	14:31	Cloudy	8.1	313	35	306	500
28-Jan-21	15:31	Cloudy	7.5	314	33	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 ($\mu\text{g}/\text{m}^3$)
5-Jan-21	13:35	Sunny	3.9	307	51	298	500
5-Jan-21	14:35	Sunny	3.3	291	51	298	500
5-Jan-21	15:35	Sunny	3.3	262	51	298	500
11-Jan-21	13:08	Cloudy	6.9	7	77	298	500
11-Jan-21	14:08	Cloudy	7.8	11	78	298	500
11-Jan-21	15:08	Cloudy	6.7	9	74	298	500
16-Jan-21	13:13	Sunny	9.2	94	18	298	500
16-Jan-21	14:13	Sunny	8.9	90	17	298	500
16-Jan-21	15:13	Sunny	9.4	94	16	298	500
22-Jan-21	12:26	Sunny	3.1	297	70	298	500
22-Jan-21	13:26	Sunny	4.4	309	52	298	500
22-Jan-21	14:26	Sunny	1.7	86	21	298	500
28-Jan-21	9:39	Cloudy	1.4	Variable	60	298	500
28-Jan-21	10:39	Cloudy	3.3	55	51	298	500
28-Jan-21	11:39	Cloudy	1.7	356	55	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)
5-Jan-21	Cloudy	13:33	67.3	59.0	68
5-Jan-21	Cloudy	13:38	69.3	58.1	
5-Jan-21	Cloudy	13:43	63.3	57.9	
5-Jan-21	Cloudy	13:48	66.4	59.3	
5-Jan-21	Cloudy	13:53	65.4	61.0	
5-Jan-21	Cloudy	13:58	68.4	59.3	
11-Jan-21	Cloudy	10:29	74.0	55.4	73
11-Jan-21	Cloudy	10:34	72.4	55.7	
11-Jan-21	Cloudy	10:39	72.8	54.9	
11-Jan-21	Cloudy	10:44	74.5	53.5	
11-Jan-21	Cloudy	10:49	72.9	53.2	
11-Jan-21	Cloudy	10:54	73.2	54.6	
22-Jan-21	Cloudy	8:35	67.2	56.0	67
22-Jan-21	Cloudy	8:40	67.0	56.4	
22-Jan-21	Cloudy	8:45	65.3	57.6	
22-Jan-21	Cloudy	8:50	65.3	57.1	
22-Jan-21	Cloudy	8:55	65.2	57.2	
22-Jan-21	Cloudy	9:00	60.2	56.8	
28-Jan-21	Cloudy	13:29	62.3	54.9	64
28-Jan-21	Cloudy	13:34	61.6	54.8	
28-Jan-21	Cloudy	13:39	63.3	54.9	
28-Jan-21	Cloudy	13:44	67.1	58.5	
28-Jan-21	Cloudy	13:49	58.1	51.3	
28-Jan-21	Cloudy	13:54	60.1	52.8	

Remarks:

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

Noise Measurement Results

Station: NM4- Ching Chung Hau Po Woon Primary School

Date	Weather	Time	Measured L ₁₀ dB(A)	Measured L ₅₀ dB(A)	L _{eq(30mins)} dB(A)
4-Jan-21	Cloudy	13:09	60.6	53.2	61
4-Jan-21	Cloudy	13:14	60.9	54.3	
4-Jan-21	Cloudy	13:19	59.0	53.1	
4-Jan-21	Cloudy	13:24	60.2	54.8	
4-Jan-21	Cloudy	13:29	60.0	53.1	
4-Jan-21	Cloudy	13:34	59.7	53.6	
12-Jan-21	Cloudy	13:17	59.1	53.8	60
12-Jan-21	Cloudy	13:22	60.1	53.6	
12-Jan-21	Cloudy	13:27	61.2	53.6	
12-Jan-21	Cloudy	13:32	59.5	53.2	
12-Jan-21	Cloudy	13:37	59.7	53.1	
12-Jan-21	Cloudy	13:42	58.6	51.9	
21-Jan-21	Cloudy	13:08	58.9	48.5	60
21-Jan-21	Cloudy	13:13	55.5	48.3	
21-Jan-21	Cloudy	13:18	56.5	47.4	
21-Jan-21	Cloudy	13:23	53.5	48.5	
21-Jan-21	Cloudy	13:28	55.2	47.9	
21-Jan-21	Cloudy	13:33	59.7	47.4	
29-Jan-21	Sunny	13:15	61.7	55.8	61
29-Jan-21	Sunny	13:20	58.9	54.5	
29-Jan-21	Sunny	13:25	60.9	54.4	
29-Jan-21	Sunny	13:30	59.7	53.8	
29-Jan-21	Sunny	13:35	61.1	54.5	
29-Jan-21	Sunny	13:40	61.3	54.7	

Remarks:

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

Noise Measurement Results

Station: NM5- Village House, Tin Sum

Date	Weather	Time	Measured L ₁₀ dB(A)	Measured L ₅₀ dB(A)	L _{eq(30mins)} dB(A)
5-Jan-21	Sunny	13:35	51.3	43.5	57
5-Jan-21	Sunny	13:40	48.6	44.1	
5-Jan-21	Sunny	13:45	52.0	43.7	
5-Jan-21	Sunny	13:50	51.6	45.1	
5-Jan-21	Sunny	13:55	52.9	44.9	
5-Jan-21	Sunny	14:00	60.0	44.7	
11-Jan-21	Cloudy	13:11	56.3	49.0	67
11-Jan-21	Cloudy	13:16	58.2	49.9	
11-Jan-21	Cloudy	13:21	56.9	49.4	
11-Jan-21	Cloudy	13:26	57.8	46.9	
11-Jan-21	Cloudy	13:31	66.9	48.2	
11-Jan-21	Cloudy	13:36	58.7	48.5	
22-Jan-21	Sunny	12:26	50.6	43.5	53
22-Jan-21	Sunny	12:31	61.4	44.6	
22-Jan-21	Sunny	12:36	47.4	43.7	
22-Jan-21	Sunny	12:41	47.6	44.4	
22-Jan-21	Sunny	12:46	60.4	44.1	
22-Jan-21	Sunny	12:51	46.4	43.5	
28-Jan-21	Cloudy	10:00	54.3	51.0	59
28-Jan-21	Cloudy	10:05	59.3	51.6	
28-Jan-21	Cloudy	10:10	55.9	47.0	
28-Jan-21	Cloudy	10:15	54.7	46.1	
28-Jan-21	Cloudy	10:20	60.8	44.8	
28-Jan-21	Cloudy	10:25	50.5	46.1	

Remarks:

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

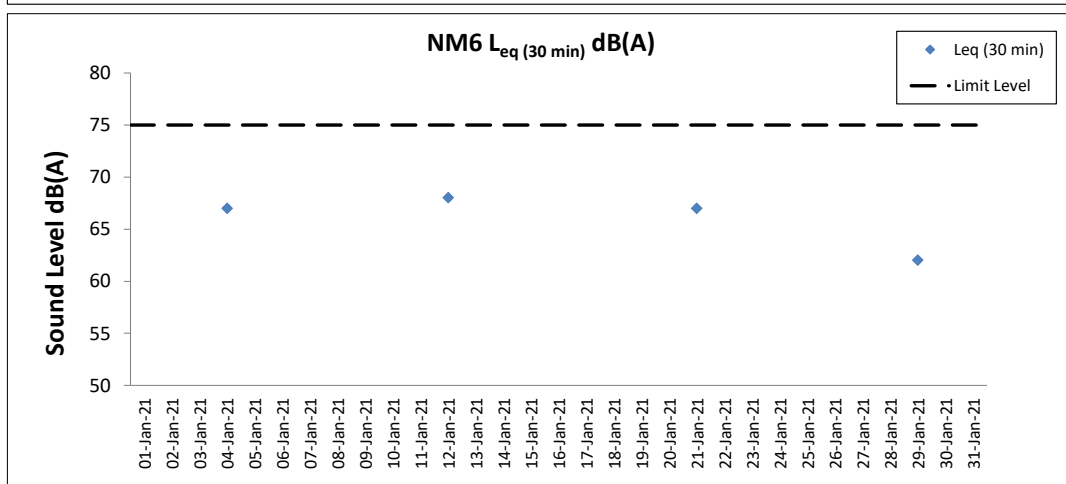
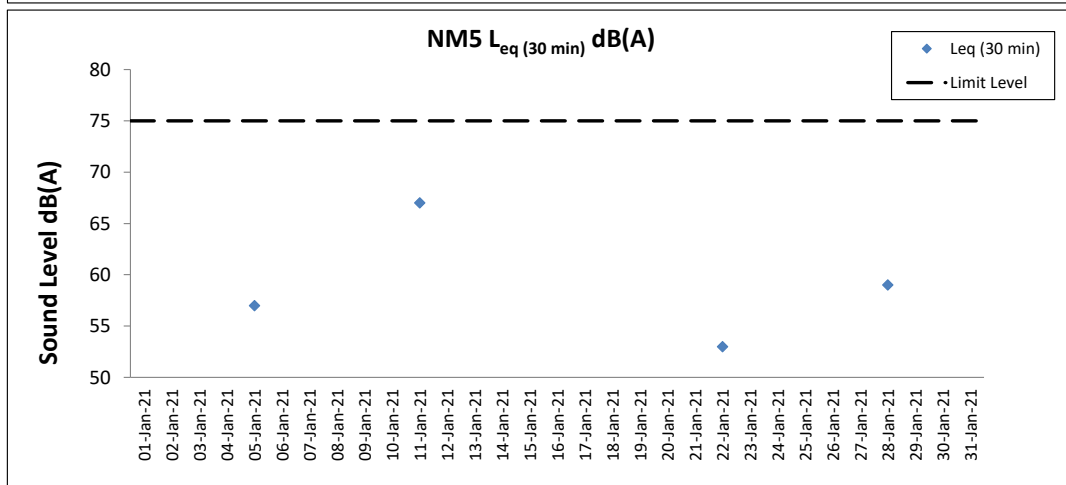
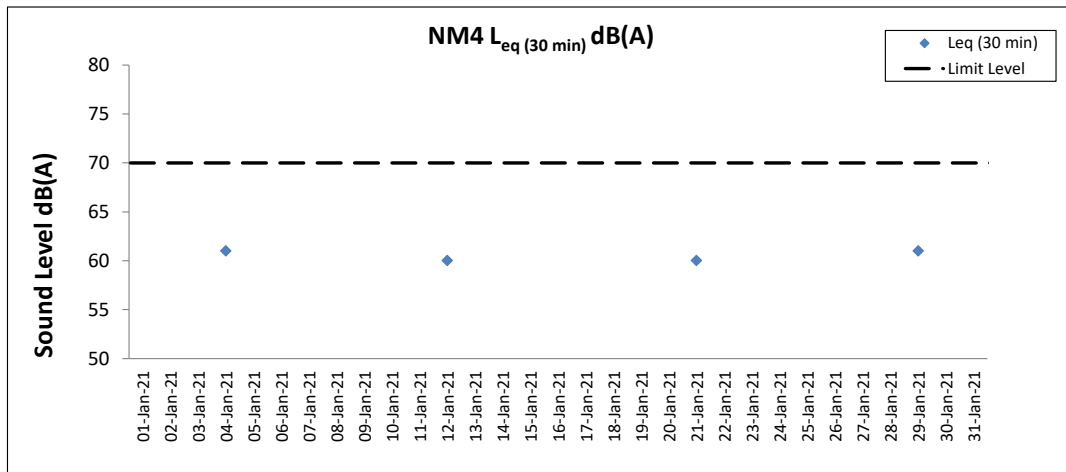
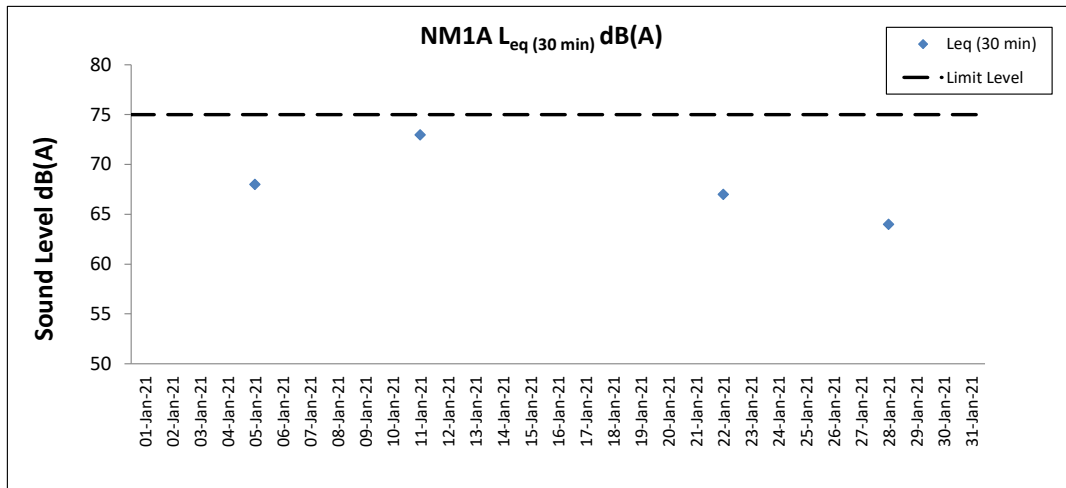
Noise Measurement Results

Station: NM6- House No.1 Sha Lo Wan

Date	Weather	Time	Measured L ₁₀ dB(A)	Measured L ₅₀ dB(A)	L _{eq(30mins)} dB(A)
4-Jan-21	Cloudy	15:46	59.8	54.3	67
4-Jan-21	Cloudy	15:51	59.6	54.3	
4-Jan-21	Cloudy	15:56	66.1	54.1	
4-Jan-21	Cloudy	16:01	70.6	59.6	
4-Jan-21	Cloudy	16:06	69.3	59.6	
4-Jan-21	Cloudy	16:11	65.0	54.7	
12-Jan-21	Cloudy	15:49	68.3	56.9	68
12-Jan-21	Cloudy	15:54	67.1	57.2	
12-Jan-21	Cloudy	15:59	71.0	56.8	
12-Jan-21	Cloudy	16:04	67.9	58.5	
12-Jan-21	Cloudy	16:09	67.8	56.1	
12-Jan-21	Cloudy	16:14	64.6	56.8	
21-Jan-21	Cloudy	15:46	65.4	57.0	67
21-Jan-21	Cloudy	15:51	69.2	61.0	
21-Jan-21	Cloudy	15:56	68.8	57.4	
21-Jan-21	Cloudy	16:01	64.4	54.6	
21-Jan-21	Cloudy	16:06	64.3	55.4	
21-Jan-21	Cloudy	16:11	63.6	55.4	
29-Jan-21	Sunny	15:38	59.5	49.7	62
29-Jan-21	Sunny	15:43	76.0	58.5	
29-Jan-21	Sunny	15:48	71.4	46.5	
29-Jan-21	Sunny	15:53	53.7	43.6	
29-Jan-21	Sunny	15:58	61.4	45.3	
29-Jan-21	Sunny	16:03	64.2	52.2	

Remarks:

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



Notes

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

Water Quality Monitoring Results

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

Water Quality Monitoring Results on 02 January 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	Fine	Moderate	14:38	8.6	Surface	1.0	0.4	296	17.7	17.7	8.1	8.1	31.7	31.7	102.0	102.0	8.0	8.1	15.1	12	87	90	815636	804259	<0.2	0.5	0.5	0.5			
						1.0	0.4	304	17.7	8.1	8.1	31.7	31.7	102.0	102.0	8.0	8.1	15.1	12	88	90	<0.2	0.5	0.5	0.5						
						4.3	0.4	290	17.6	8.1	8.1	31.6	31.6	102.5	102.5	8.1	8.1	16.0	11	91	90	<0.2	0.5	0.5	0.5						
					Middle	4.3	0.4	316	17.6	8.1	8.1	31.6	31.6	102.5	102.5	8.1	8.1	16.0	11	91	90	<0.2	0.5	0.5	0.5						
						7.6	0.3	293	17.6	8.1	8.1	31.6	31.6	105.0	105.0	8.3	8.3	16.8	11	92	90	<0.2	0.5	0.5	0.5						
						7.6	0.3	316	17.6	8.1	8.1	31.6	31.6	105.0	105.0	8.3	8.3	16.8	11	92	90	<0.2	0.5	0.5	0.5						
					Bottom	1.0	0.2	135	16.7	16.7	8.2	8.2	30.3	30.3	99.7	99.7	8.1	8.1	8.1	8	87	89	825702	806938	0.2	1.3	1.3	1.3			
						1.0	0.2	147	16.7	16.6	8.2	8.2	30.3	30.4	99.7	99.2	8.1	8.1	8.1	8	86	89	825702	806938	0.2	1.3	1.3	1.3			
						6.2	0.5	154	16.6	16.6	8.2	8.2	30.4	30.4	99.2	99.2	8.1	8.1	8.7	8	89	89	825702	806938	<0.2	1.2	1.2	1.3			
Middle	6.2	0.5	158	16.6	16.6	8.2	8.2	30.4	30.4	99.2	99.2	8.1	8.1	8.7	8	89	89	825702	806938	<0.2	1.3	1.3	1.3								
	11.3	0.5	144	16.6	16.6	8.2	8.2	30.4	30.4	99.9	99.9	8.1	8.1	8.8	10	91	90	825702	806938	<0.2	1.2	1.2	1.2								
	11.3	0.5	148	16.6	16.6	8.2	8.2	30.4	30.4	99.9	99.9	8.1	8.1	8.9	10	90	90	825702	806938	<0.2	1.2	1.2	1.2								
C2	Fine	Moderate	13:29	12.3	Surface	1.0	0.4	286	17.7	17.7	8.1	8.1	30.4	30.4	95.1	95.1	7.6	7.6	4.6	4	87	89	822086	817793	<0.2	0.6	0.6	0.6			
						1.0	0.4	288	17.7	17.8	8.1	8.1	30.5	30.5	93.4	93.4	7.4	7.4	5.2	5	89	89	822086	817793	<0.2	0.6	0.6	0.6			
						5.9	0.2	257	17.8	17.8	8.1	8.1	30.5	30.5	93.4	93.4	7.4	7.4	5.2	5	89	89	822086	817793	<0.2	0.6	0.6	0.6			
					Middle	5.9	0.2	282	17.8	17.8	8.1	8.1	30.5	30.5	93.4	93.4	7.4	7.4	5.2	5	89	89	822086	817793	<0.2	0.6	0.6	0.6			
						10.8	0.1	120	17.8	17.8	8.1	8.1	30.5	30.5	93.0	93.0	7.4	7.4	5.9	6	91	91	822086	817793	<0.2	0.6	0.6	0.6			
						10.8	0.1	121	17.8	17.8	8.1	8.1	30.5	30.5	93.0	93.0	7.4	7.4	5.9	6	91	91	822086	817793	<0.2	0.6	0.6	0.6			
					Bottom	1.0	0.1	134	17.4	17.4	8.1	8.1	31.3	31.3	105.9	105.9	8.4	8.4	6.9	8	86	87	817956	807134	<0.2	0.7	0.6	0.6			
						1.0	0.1	143	17.4	17.4	8.1	8.1	31.3	31.3	105.9	105.9	8.4	8.4	6.9	8	87	87	817956	807134	<0.2	0.6	0.6	0.6			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	88	817956	807134	<0.2	0.6	0.6	0.6	
Bottom	3.9	0.1	311	17.3	17.3	8.1	8.1	31.3	31.3	107.1	107.1	8.5	8.5	7.0	10	89	90	817956	807134	<0.2	0.6	0.6	0.6								
	3.9	0.1	330	17.3	17.3	8.1	8.1	31.3	31.3	107.1	107.1	8.5	8.5	7.0	10	90	90	817956	807134	<0.2	0.5	0.5	0.5								
	1.0	0.5	273	17.3	17.3	8.1	8.1	31.3	31.3	102.7	102.7	8.2	8.2	9.8	11	89	90	818184	806177	<0.2	0.6	0.6	0.6								
IM1	Fine	Moderate	14:16	4.9	Surface	1.0	0.5	294	17.3	17.3	8.1	8.1	31.3	31.3	102.7	102.7	8.2	8.2	9.8	11	89	90	818184	806177	<0.2	0.6	0.6	0.6			
						1.0	0.5	294	17.3	17.3	8.1	8.1	31.3	31.3	102.7	102.7	8.2	8.2	9.8	11	90	90	818184	806177	<0.2	0.6	0.6	0.6			
						3.4	0.4	275	17.3	17.3	8.1	8.1	31.3	31.3	102.9	102.9	8.2	8.2	9.8	11	90	90	818184	806177	<0.2	0.6	0.6	0.6			
					Middle	3.4	0.4	296	17.3	17.3	8.1	8.1	31.3	31.3	102.9	102.9	8.2	8.2	9.8	11	90	90	818184	806177	<0.2	0.6	0.6	0.6			
						5.8	0.3	272	17.3	17.3	8.1	8.1	31.4	31.4	103.9	103.9	8.3	8.3	9.7	12	91	91	818184	806177	<0.2	0.6	0.6	0.6			
						5.8	0.4	286	17.3	17.3	8.1	8.1	31.4	31.4	103.9	103.9	8.3	8.3	9.7	12	91	91	818184	806177	<0.2	0.6	0.6	0.6			
					Bottom	1.0	0.4	301	17.3	17.3	8.1	8.1	31.3	31.3	102.5	102.5	8.2	8.2	10.5	15	88	88	818778	805597	<0.2	0.5	0.5	0.5			
						1.0	0.4	301	17.3	17.3	8.1	8.1	31.3	31.3	102.5	102.5	8.2	8.2	10.4	14	88	88	818778	805597	<0.2	0.5	0.5	0.5			
						3.6	0.4	292	17.2	17.2	8.1	8.1	31.4	31.4	103.0	103.0	8.2	8.2	11.4	12	90	90	818778	805597	<0.2	0.5	0.5	0.5			
Middle	3.6	0.4	305	17.2	17.2	8.1	8.1	31.4	31.4	103.0	103.0	8.2	8.2	11.4	13	91	91	818778	805597	<0.2	0.5	0.5	0.5								
	6.1	0.3	296	17.2	17.2	8.1	8.1	31.4	31.4	104.9	104.9	8.4	8.4	10.6	10	91	91	818778	805597	<0.2	0.6	0.6	0.6								
	6.1	0.3	305	17.2	17.2	8.1	8.1	31.4	31.4	105.1	105.1	8.4	8.4	10.7	10	91	91	818778	805597	<0.2	0.5	0.5	0.5								
IM2	Fine	Moderate	14:09	6.8	Surface	1.0	0.3	262	17.3	17.3	8.1	8.1	31.3	31.3	101.9	101.9	8.1	8.1	10.9	13	87	87	819725	804623	<0.2	0.5	0.5	0.5			
						1.0	0.3	264	17.3	17.3	8.1	8.1	31.3	31.3	101.8	101.8	8.1	8.1	10.9	13	87	87	819725	804623	<0.2	0.5	0.5	0.5			
						3.8	0.3	255	17.2	17.2	8.1	8.1	31.3	31.3	102.2	102.2	8.2	8.2	11.0	12	89	89	819725	804623	<0.2	0.6	0.6	0.6			
					Middle	3.8	0.3	263	17.2	17.2	8.1	8.1	31.3	31.3	102.2	102.2	8.2	8.2	11.0	12	89	90	819725	804623	<0.2	0.5	0.5	0.5			
						6.5	0.3	252	17.2	17.2	8.1	8.1	31.4	31.4	104.3	104.3	8.3	8.3	11.5	11	91	91	819725	804623	<0.2	0.7	0.7	0.6			
						6.5	0.3	274	17.2	17.2	8.1	8.1	31.4	31.4	104.3	104.3	8.3	8.3	11.5	10	91	91	819725	804623	<0.2	0.6	0.6	0.6			
					Bottom	1.0	0.2	255	17.3	17.3	8.1	8.1	31.4	31.4	101.6	101.6	8.1	8.1	14.1	14	87	87	820753	804885	<0.2	0.6	0.6	0.6			
						1.0	0.2	279	17.3	17.3	8.1	8.1	31.4	31.4	101.6	101.6	8.1	8.1	14.1	13	87	87	820753	804885	<0.2	0.5	0.5	0.5			
						3.7	0.2	247	17.3	17.3	8.1	8.1	31.4	31.4	102.1	102.1	8.1	8.1	15.9	12	90	90	820753	804885	<0.2	0.6	0.6	0.6			
Middle	3.7	0.2	264	17.3	17.3	8.1	8.1	31.4	31.4	102.1	102.1	8.1	8.1	16.0	12	90	90	820753	804885	<0.2	0.6	0.6	0.6								
	6.4	0.2	232	17.2	17.2	8.1	8.1	31.4	31.4	103.1	103.1	8.2	8.2	16.9	11	91	91	820753	804885	<0.2	0.5	0.5	0.5								
	6.4	0.2	232	17.2	17.2	8.1	8.1	31.4	31.4	103.1	103.1	8.2	8.2	16.9	11	92	92	820753	804885	<0.2	0.6	0.6	0.6								
IM3	Fine	Moderate	14:01	7.1	Surface	1.0	0.2	258	17.2	17.2	8.1	8.1	31.3	31.3	102.4	102.4	8.2	8.2	10.3	10	86	86	821052	805838	<0.2	0.6	0.6	0.6			
						1.0	0.2	259	17.2	17.2	8.1	8.1	31.3	31.3	102.4	102.4	8.2	8.2	10.3	10	88	88	821052	805838	<0.2	0.6	0.6	0.6			
						3.7	0.2	258	17.2	17.2	8.1</																				

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

Water Quality Monitoring Results on 02 January 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	Fine	Moderate	13:58	7.2	Surface	1.0	0.3	90	17.1	17.1	8.1	8.1	30.1	30.1	97.5	97.5	7.8	7.5	9	85	88	88	822095	808826	<0.2	0.8	<0.2	0.8								
						1.0	0.3	98	17.1	8.1	8.1	30.1	30.1	97.5	97.5	7.9	7.5	9	85	88	88	822095	808826	<0.2	0.8											
						3.6	0.3	81	17.0	8.1	8.1	30.1	30.1	99.1	99.1	8.0	7.8	9	88	88	88	822095	808826	<0.2	0.7											
					Middle	3.6	0.3	86	17.0	8.1	8.1	30.1	30.1	99.1	99.1	8.0	7.8	9	88	88	88	822095	808826	<0.2	0.6											
						6.2	0.3	79	16.9	8.1	8.0	30.2	30.2	101.1	101.2	8.2	7.7	8	90	90	90	822095	808826	<0.2	0.9											
						6.2	0.3	85	16.9	8.0	8.0	30.2	30.2	101.2	101.2	8.2	7.7	8	90	90	90	822095	808826	<0.2	0.8											
					IM10	Fine	Moderate	14:05	7.6	Surface	1.0	0.2	95	17.2	17.2	8.1	8.1	30.0	30.0	97.2	97.2	7.8	7.6	10	85	88			88	822400	809794	<0.2	0.6	<0.2	0.7	
											1.0	0.2	103	17.2	8.1	8.1	30.0	30.0	97.2	97.2	7.8	7.6	10	84	89	89			822400	809794	<0.2	0.6				
											3.8	0.2	85	17.1	8.1	8.1	30.1	30.1	97.2	97.2	7.8	7.4	8	89	89	89			822400	809794	<0.2	0.8				
Middle	3.8	0.2	90	17.1						8.1	8.1	30.1	30.1	97.2	97.2	7.8	7.4	8	89	89	89	822400	809794	<0.2	0.8											
	6.6	0.2	47	17.0						8.1	8.1	30.1	30.1	97.6	97.6	7.9	6.9	7	90	90	90	822400	809794	<0.2	0.7											
	6.6	0.2	51	17.0						8.1	8.1	30.1	30.1	97.6	97.6	7.9	7.0	7	90	90	90	822400	809794	<0.2	0.6											
IM11	Fine	Moderate	14:16	8.9						Surface	1.0	0.0	73	17.2	17.2	8.1	8.1	30.2	30.2	98.1	98.1	7.9	6.7	4	85	88	88	822035	811445	<0.2	0.6	<0.2	0.6			
											1.0	0.0	73	17.2	8.1	8.1	30.2	30.2	98.1	98.1	7.9	6.7	4	85	88	88	822035	811445	<0.2	0.7						
											4.5	0.0	74	17.1	8.1	8.1	30.2	30.2	98.2	98.3	7.9	7.0	6	88	89	89	822035	811445	<0.2	0.7						
					Middle	4.5	0.0	77	17.1	8.1	8.1	30.2	30.2	98.3	98.3	7.9	6.9	7	89	89	89	822035	811445	<0.2	0.6											
						7.9	0.0	38	17.1	8.2	8.2	30.2	30.2	99.5	99.5	8.0	6.9	8	90	90	90	822035	811445	<0.2	0.6											
						7.9	0.0	38	17.1	8.2	8.2	30.2	30.2	99.5	99.5	8.0	6.9	9	90	90	90	822035	811445	<0.2	0.6											
					IM12	Fine	Moderate	14:23	8.6	Surface	1.0	0.2	132	17.3	17.3	8.1	8.1	30.2	30.2	98.3	98.3	7.9	6.0	6	85	88	88	821474	812055	<0.2	0.6			<0.2	0.7	
											1.0	0.2	142	17.3	8.1	8.1	30.2	30.2	98.3	98.3	7.9	6.0	6	85	88	88	821474	812055	<0.2	0.7						
											4.3	0.1	140	17.2	8.1	8.1	30.2	30.2	97.9	97.9	7.9	6.0	8	88	89	89	821474	812055	<0.2	0.7						
Middle	4.3	0.1	144	17.2						8.1	8.1	30.2	30.2	97.9	97.9	7.9	6.0	7	89	89	89	821474	812055	<0.2	0.7											
	7.6	0.1	160	17.1						8.1	8.1	30.2	30.2	98.4	98.4	7.9	5.8	8	90	90	90	821474	812055	<0.2	0.7											
	7.6	0.1	167	17.1						8.1	8.1	30.2	30.2	98.4	98.4	7.9	5.8	8	90	90	90	821474	812055	<0.2	0.7											
SR1A	Fine	Calm	15:01	5.0						Surface	1.0	-	-	16.9	16.9	8.1	8.1	30.0	30.0	98.9	98.9	8.0	5.3	4	-	-	-	819983	812655	-	-	-	-			
											1.0	-	-	16.9	16.9	8.1	8.1	30.0	30.0	98.9	98.9	8.0	5.3	4	-	-	-	819983	812655	-	-					
											2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819983	812655					-
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819983	812655	-	-								
						4.0	-	-	16.9	16.9	8.1	8.1	30.0	30.0	99.3	99.3	8.0	5.3	6	-	-	-	-	-	819983	812655	-	-								
						4.0	-	-	16.9	16.9	8.1	8.1	30.0	30.0	99.3	99.3	8.0	5.3	6	-	-	-	-	-	819983	812655	-	-								
					SR2	Fine	Moderate	15:18	4.5	Surface	1.0	0.0	132	17.2	17.2	8.1	8.1	30.2	30.2	98.9	98.9	7.9	5.8	8	87	87	88	821441	814182	<0.2	0.7			<0.2	0.7	
											1.0	0.0	137	17.2	8.1	8.1	30.2	30.2	98.9	98.9	7.9	5.8	8	87	87	88	821441	814182	<0.2	0.7						
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821441	814182					<0.2
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821441	814182	<0.2	0.7								
	3.5	0.1	151	17.2						8.1	8.1	30.2	30.2	99.6	99.7	8.0	5.8	7	89	89	89	821441	814182	<0.2	0.7											
	3.5	0.1	161	17.2						8.1	8.1	30.2	30.2	99.7	99.7	8.0	5.8	6	89	89	89	821441	814182	<0.2	0.7											
SR3	Fine	Moderate	13:47	8.7						Surface	1.0	0.3	115	17.1	17.1	8.1	8.1	30.0	30.0	96.7	96.7	7.8	8.0	9	-	-	-	822162	807558	-	-	-	-			
											1.0	0.3	116	17.1	8.1	8.1	30.0	30.0	96.7	96.7	7.8	8.0	9	-	-	-	-	-	822162	807558	-					-
											4.4	0.3	109	17.0	8.1	8.1	30.1	30.1	94.8	94.8	7.6	8.6	8	-	-	-	-	-	822162	807558	-					-
					Middle	4.4	0.3	112	17.0	8.1	8.1	30.1	30.1	94.8	94.8	7.6	8.6	8	-	-	-	-	-	822162	807558	-	-									
						7.7	0.3	83	16.8	8.1	8.1	30.1	30.1	81.8	81.7	6.6	11.5	8	-	-	-	-	-	822162	807558	-	-									
						7.7	0.3	85	16.8	8.1	8.1	30.1	30.1	81.5	81.5	6.6	11.4	8	-	-	-	-	-	822162	807558	-	-									
					SR4A	Fine	Moderate	15:00	9.0	Surface	1.0	0.5	254	17.3	17.3	8.1	8.1	31.4	31.4	103.5	103.5	8.2	10.9	7	-	-	-	817199	807830	-	-			-	-	
											1.0	0.5	269	17.3	8.1	8.1	31.4	31.4	103.5	103.5	8.2	10.9	8	-	-	-	-	-	817199	807830	-					-
											4.5	0.2	250	17.3	8.1	8.1	31.4	31.4	103.1	103.1	8.2	12.5	10	-	-	-	-	-	817199	807830	-					-
Middle	4.5	0.2	270	17.3						8.1	8.1	31.4	31.4	103.1	103.1	8.2	12.5	10	-	-	-	-	-	817199	807830	-	-									
	8.0	0.0	233	17.2						8.1	8.1	31.4	31.4	104.3	104.3	8.3	12.2	12	-	-	-	-	-	817199	807830	-	-									
	8.0	0.0	239	17.2						8.1	8.1	31.4	31.4	104.3	104.3	8.3	12.2	12	-	-	-	-	-	817199	807830	-	-									
SR5A	Fine	Moderate	15:16	3.8						Surface	1.0	0.2	122	17.6	17.6	8.1	8.1	31.0	31.0	106.2	106.2	8.4	10.7	9	-	-	-	816603	810682	-	-	-	-			
											1.0	0.3	126	17.6	8.1	8.1	31.0	31.0	106.2	106.2	8.4	10.7	9	-	-	-	-	-	816603	810682	-					-
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	816603	810682					-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	816603	810682	-	-								
						2.8	0.3	125	17.3	8.1	8.1	31.1	31.1	106.9	106.9	8.5	9.9	12	-	-	-	-	-	816603	810682	-	-									
						2.8	0.3	134	17.3	8.1	8.1	31.1	31.1	106.9	106.9	8.5	9.9	12	-	-	-	-	-	816603	810682	-	-									
					SR6A	Fine	Moderate	15:43	4.7	Surface	1.0	0.1	41	17.6	17.6	8.1	8.1	30.9	30.9	104.3	104.3	8.3	11.6	9	-	-	-	817970	814731	-	-			-	-	
											1.0	0.1	44	17.6	8.1	8.1	30.9	30.9																		

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

Water Quality Monitoring Results on 02 January 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
C1	Fine	Moderate	10:40	8.0	Surface	1.0	0.1	141	17.0	17.0	8.2	8.2	30.4	30.4	100.0	100.0	8.1	8.1	13.0	9	86	89	815632	804243	<0.2	<0.2	0.9	0.8					
						1.0	0.1	141	17.0	17.0	8.2	8.2	30.4	30.4	100.0	100.0	8.0	8.0	13.0	9	86	89	<0.2	<0.2	0.6	0.8							
					Middle	4.0	0.1	109	17.0	17.0	8.2	8.2	30.6	30.6	99.7	99.7	8.0	8.0	13.8	14	89	90	<0.2	<0.2	0.6	0.8							
						4.0	0.1	112	17.0	17.0	8.2	8.2	30.6	30.6	99.7	99.7	8.0	8.0	13.8	14	90	90	<0.2	<0.2	0.6	0.8							
					Bottom	7.0	0.0	41	16.9	16.9	8.1	8.1	30.8	30.8	100.6	100.6	8.1	8.1	20.0	19	90	90	<0.2	<0.2	0.6	0.8							
						7.0	0.0	42	16.9	16.9	8.1	8.1	30.8	30.8	100.6	100.6	8.1	8.1	19.6	18	90	90	<0.2	<0.2	0.6	0.8							
C2	Fine	Moderate	11:45	12.1	Surface	1.0	0.3	350	17.0	17.0	8.1	8.1	29.8	29.8	95.8	95.8	7.7	7.7	7.7	12	87	89	825695	806967	<0.2	<0.2	0.6	0.6					
						1.0	0.3	322	17.0	17.0	8.1	8.1	29.8	29.8	95.8	95.8	7.7	7.7	7.8	12	87	89	<0.2	<0.2	0.6	0.6							
					Middle	6.1	0.4	28	16.9	16.9	8.1	8.1	29.8	29.8	96.1	96.1	7.8	7.8	7.5	11	89	89	<0.2	<0.2	0.6	0.6							
						6.1	0.4	28	16.9	16.9	8.1	8.1	29.8	29.8	96.1	96.1	7.8	7.8	7.8	11	89	89	<0.2	<0.2	0.7	0.6							
					Bottom	11.1	0.4	346	16.8	16.8	8.1	8.1	29.9	29.9	96.2	96.2	7.8	7.8	10.7	10	90	90	<0.2	<0.2	0.6	0.6							
						11.1	0.4	318	16.8	16.8	8.1	8.1	29.9	29.9	96.3	96.3	7.8	7.8	10.5	10	90	90	<0.2	<0.2	0.6	0.6							
C3	Fine	Rough	09:21	11.4	Surface	1.0	0.3	241	17.0	17.0	8.1	8.1	30.3	30.3	96.1	96.1	7.7	7.7	6.7	9	88	90	822116	817815	<0.2	<0.2	0.6	0.8					
						1.0	0.3	256	17.0	17.0	8.1	8.1	30.3	30.3	95.9	95.9	7.7	7.7	6.9	10	90	90	<0.2	<0.2	0.7	0.8							
					Middle	5.7	0.4	252	17.0	17.0	8.1	8.1	30.3	30.3	95.9	95.9	7.7	7.7	6.8	10	90	90	<0.2	<0.2	0.7	0.8							
						5.7	0.4	256	17.0	17.0	8.1	8.1	30.3	30.3	95.9	95.9	7.7	7.7	6.8	10	90	90	<0.2	<0.2	0.7	0.8							
					Bottom	10.4	0.4	266	17.0	17.0	8.1	8.1	30.3	30.3	97.5	97.5	7.9	7.9	9.8	10	92	91	<0.2	<0.2	0.7	0.8							
						10.4	0.4	271	17.0	17.0	8.1	8.1	30.3	30.3	97.8	97.8	7.9	7.9	9.6	10	91	91	<0.2	<0.2	0.7	0.8							
IM1	Fine	Moderate	11:00	4.8	Surface	1.0	0.2	4	17.1	17.2	8.2	8.2	30.7	30.7	101.1	101.1	8.1	8.1	3.9	7	85	88	817966	807112	<0.2	<0.2	1.0	1.2					
						1.0	0.2	4	17.2	17.2	8.2	8.2	30.7	30.7	101.1	101.1	8.1	8.1	4.0	7	86	88	<0.2	<0.2	1.1	1.2							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	3.8	0.1	345	17.1	17.1	8.2	8.2	30.8	30.8	101.1	101.1	8.1	8.1	5.3	8	89	90	<0.2	<0.2	1.3	1.2							
						3.8	0.1	356	17.1	17.1	8.2	8.2	30.8	30.8	101.1	101.1	8.1	8.1	5.3	8	90	90	<0.2	<0.2	1.2	1.2							
IM2	Fine	Moderate	11:08	6.7	Surface	1.0	0.2	136	17.3	17.3	8.2	8.2	30.6	30.6	99.6	99.6	8.0	8.0	10.5	5	86	89	818165	806171	<0.2	<0.2	0.8	0.9					
						1.0	0.2	146	17.3	17.3	8.2	8.2	30.6	30.6	99.6	99.6	8.0	8.0	10.6	5	86	89	<0.2	<0.2	0.8	0.8							
					Middle	3.4	0.2	122	17.2	17.2	8.2	8.2	30.6	30.6	99.5	99.5	8.0	8.0	11.9	6	89	90	<0.2	<0.2	0.3	0.9							
						3.4	0.2	132	17.2	17.2	8.2	8.2	30.6	30.6	99.5	99.5	8.0	8.0	11.0	6	90	90	<0.2	<0.2	0.3	0.9							
					Bottom	5.7	0.1	113	17.2	17.2	8.1	8.1	30.7	30.7	99.8	99.8	8.0	8.0	12.5	7	90	91	<0.2	<0.2	0.9	0.9							
						5.7	0.2	121	17.2	17.2	8.1	8.1	30.7	30.7	99.9	99.9	8.0	8.0	12.5	6	91	91	<0.2	<0.2	0.9	0.9							
IM3	Fine	Moderate	11:16	7.0	Surface	1.0	0.1	137	17.3	17.3	8.1	8.1	30.6	30.6	99.7	99.7	8.0	8.0	12.1	9	87	89	818798	805615	<0.2	<0.2	1.1	1.3					
						1.0	0.2	146	17.3	17.3	8.1	8.1	30.6	30.6	99.7	99.7	8.0	8.0	12.3	9	87	89	<0.2	<0.2	1.2	1.3							
					Middle	3.5	0.2	136	17.1	17.1	8.1	8.1	30.6	30.6	100.1	100.2	8.0	8.0	12.5	12	90	90	<0.2	<0.2	1.4	1.4							
						3.5	0.2	144	17.1	17.1	8.1	8.1	30.6	30.6	100.2	100.2	8.0	8.0	12.3	12	90	90	<0.2	<0.2	1.4	1.4							
					Bottom	6.0	0.2	121	17.1	17.1	8.1	8.1	30.7	30.7	100.7	100.8	8.1	8.1	15.7	14	91	91	<0.2	<0.2	1.3	1.3							
						6.0	0.2	126	17.1	17.1	8.1	8.1	30.7	30.7	100.8	100.8	8.1	8.1	15.4	14	92	92	<0.2	<0.2	1.2	1.2							
IM4	Fine	Moderate	11:25	8.0	Surface	1.0	0.0	62	17.2	17.2	8.1	8.1	30.5	30.5	99.3	99.3	8.0	8.0	12.2	17	87	88	819747	804590	<0.2	<0.2	1.0	1.2					
						1.0	0.0	63	17.2	17.2	8.1	8.1	30.5	30.5	99.3	99.3	8.0	8.0	12.3	17	88	88	<0.2	<0.2	1.1	1.1							
					Middle	4.0	0.1	69	17.1	17.1	8.1	8.1	30.5	30.5	99.4	99.4	8.0	8.0	16.3	16	90	90	<0.2	<0.2	1.2	1.2							
						4.0	0.1	73	17.1	17.1	8.1	8.1	30.5	30.5	99.4	99.4	8.0	8.0	16.4	16	90	90	<0.2	<0.2	1.1	1.1							
					Bottom	7.0	0.1	84	17.1	17.1	8.1	8.1	30.6	30.6	99.9	99.9	8.0	8.0	17.7	15	91	91	<0.2	<0.2	1.3	1.3							
						7.0	0.1	88	17.1	17.1	8.1	8.1	30.6	30.6	99.9	99.9	8.0	8.0	17.8	15	91	91	<0.2	<0.2	1.2	1.2							
IM5	Fine	Moderate	11:32	7.4	Surface	1.0	0.1	107	17.2	17.2	8.1	8.1	30.5	30.5	99.7	99.7	8.0	8.0	15.6	18	86	89	820753	804848	<0.2	<0.2	1.1	1.2					
						1.0	0.1	117	17.2	17.2	8.1	8.1	30.5	30.5	99.7	99.7	8.0	8.0	15.7	18	86	89	<0.2	<0.2	1.1	1.1							
					Middle	3.7	0.0	107	17.1	17.1	8.1	8.1	30.5	30.5	101.1	101.2	8.1	8.1	17.9	16	90	90	<0.2	<0.2	1.1	1.1							
						3.7	0.0	112	17.1	17.1	8.1	8.1	30.5	30.5	101.2	101.2	8.1	8.1	17.9	17	90	90	<0.2	<0.2	1.2	1.2							
					Bottom	6.4	0.1	82	17.1	17.1	8.1	8.1	30.5	30.5	102.5	102.6	8.2	8.2	18.4	14	91	91	<0.2	<0.2	1.3	1.3							
						6.4	0.1	83	17.1	17.1	8.1	8.1	30.5	30.5	102.6	102.6	8.2	8.2	18.5	14	91	91	<0.2	<0.2	1.4	1.4							
IM6	Fine	Moderate	11:39	7.4	Surface	1.0	0.1	196	17.2	17.2	8.2	8.2	30.7	30.7	101.6	101.6	8.1	8.1	4.6	10	86	89	821070	805810	<0.2	<0.2	1.1	1.1					
						1.0	0.1	213	17.2	17.2	8.2	8.2	30.7	30.7	101.6	101.6	8.1	8.1	4.6	10	86	89	<0.2	<0.2	1.1	1.1							
					Middle	3.7	0.1	177	17.2	17.2	8.2	8.2	30.7	30.7	101.7	101.7	8.1	8.1	4.6	9	89	89	<0.2	<0.2	1.2	1.3							
						3.7	0.1	193	17.2	17.2	8.2	8.2	30.7	30.7	101.7	101.7	8.2	8.2	4.6	9	89	89	<0.2	<0.2	1.3	1.3							
					Bottom	6.4	0.1	138	17.0	17.0	8.1	8.1	30.7	30.7	102.0	102.0	8.2	8.2	5.1	7	91	91	<0.2	<0.2	0.9	0.9							
						6.4	0.1	141	17.0	17.0	8.1	8.1	30.7	30.7	102.0	102.0	8.2	8.2	5.5	7	91	91	<0.2	<0.2	0.9	0.9							
IM7	Fine	Moderate	11:50	8.3	Surface	1.0	0.3	237	17.1	17.1	8.2	8.2	30.7	30.7	99.8	99.9	8.1	8.1	9.3	8	88	89	821341	806812	<0.2	<0.2	1.1	1.0					
						1.0	0.4	249	17.1	17.1	8.2	8.2	30.7	30.7	99.9	99.9	8.1	8.1	9.2	8	88	89	<0.2	<0.2	1.0	1.0							
					Middle	4.2	0.2	209	17.1	17.1	8.2	8.2	30.7	30.7	101.1	101.1	8.2	8.2	9.4	8	89	90	<0.2	<0.2	1.0	0.9							
						4.2	0.2	222	17.1	17.1	8.2	8.2	30.7	30.7	101.1	101.1	8.																

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

Water Quality Monitoring Results on 02 January 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
IM9	Fine	Moderate	11:09	6.8	Surface	1.0	0.2	81	16.7	16.7	8.1	8.1	30.2	30.2	97.4	97.4	7.9	7.9	6.6	7.9	8	7	87	88	-	-	<0.2	0.7	0.7	0.6		
						1.0	0.2	88	16.7	16.7	8.1	8.1	30.2	30.2	97.4	97.4	7.9	7.9	6.5	7.9	8	7	86	88	-	-	<0.2	0.7	0.7	0.6		
						3.4	0.2	92	16.6	16.6	8.1	8.1	30.2	30.2	97.3	97.3	7.9	7.9	7.2	7.9	7	7	89	88	-	-	<0.2	0.7	0.7	0.8		
					Middle	3.4	0.2	98	16.6	16.6	8.1	8.1	30.2	30.2	97.3	97.3	7.9	7.9	7.2	7.9	7	7	88	88	-	-	<0.2	0.7	0.7	0.8		
						5.8	0.2	88	16.6	16.6	8.1	8.1	30.2	30.2	98.9	99.1	8.0	8.1	7.2	7.9	7	7	90	88	-	-	<0.2	0.7	0.7	0.8		
						5.8	0.2	92	16.6	16.6	8.1	8.1	30.2	30.2	99.2	99.2	8.1	8.1	7.3	7.9	7	7	90	88	-	-	<0.2	0.7	0.7	0.8		
					Bottom	1.0	0.4	317	16.8	16.8	8.2	8.2	30.2	30.2	97.4	97.4	7.9	7.9	7.9	7.9	10	9	86	88	-	-	<0.2	0.7	0.7	0.8		
						1.0	0.4	328	16.8	16.8	8.2	8.2	30.2	30.2	97.4	97.4	7.9	7.9	7.9	7.9	10	9	87	88	-	-	<0.2	0.7	0.7	0.8		
						3.9	0.4	323	16.7	16.7	8.1	8.1	30.2	30.2	97.4	97.4	7.9	7.9	9.4	9.6	9	9	89	88	-	-	<0.2	0.8	0.8	0.8		
IM10	Fine	Moderate	11:01	7.7	Surface	3.9	0.4	349	16.7	16.7	8.1	8.1	30.2	30.2	97.4	97.4	7.9	7.9	9.6	9.6	9	9	88	88	-	-	<0.2	0.9	0.9	0.8		
						6.7	0.4	318	16.7	16.7	8.2	8.2	30.2	30.2	97.8	97.9	7.9	7.9	11.5	11.4	7	7	89	88	-	-	<0.2	0.8	0.8	0.8		
						6.7	0.4	329	16.7	16.7	8.2	8.2	30.2	30.2	97.9	97.9	7.9	7.9	11.4	11.4	7	7	90	88	-	-	<0.2	0.7	0.7	0.7		
Middle					1.0	0.5	318	16.9	16.9	8.1	8.1	30.3	30.3	97.3	97.3	7.9	7.9	9.6	9.5	9	9	86	88	-	-	0.4	0.7	0.7	0.7			
					1.0	0.5	328	16.9	16.9	8.1	8.1	30.3	30.3	97.3	97.3	7.9	7.9	9.5	9.5	9	9	87	88	-	-	0.3	0.7	0.7	0.7			
					4.2	0.5	317	16.8	16.8	8.1	8.1	30.3	30.3	97.6	97.7	7.9	7.9	10.6	10.5	12	13	88	89	-	-	<0.2	0.7	0.7	0.7			
Bottom					4.2	0.5	327	16.8	16.8	8.1	8.1	30.3	30.3	97.7	97.7	7.9	7.9	10.5	10.5	13	13	89	89	-	-	<0.2	0.7	0.7	0.7			
					7.3	0.4	323	16.8	16.8	8.1	8.1	30.3	30.3	100.4	100.5	8.1	8.1	12.2	12.2	14	13	89	89	-	-	<0.2	0.6	0.6	0.6			
					7.3	0.4	344	16.8	16.8	8.1	8.1	30.3	30.3	100.6	100.6	8.1	8.1	12.2	12.2	13	13	89	89	-	-	<0.2	0.7	0.7	0.7			
IM11	Fine	Moderate	10:50	8.3	Surface	1.0	0.4	288	16.9	16.9	8.2	8.2	30.3	30.3	96.9	96.9	7.8	7.8	11.2	11.3	18	18	87	86	-	-	<0.2	0.6	0.6	0.6		
						1.0	0.5	309	16.9	16.9	8.2	8.2	30.3	30.3	96.9	96.9	7.8	7.8	11.3	11.3	18	18	86	86	-	-	<0.2	0.6	0.6	0.6		
						4.2	0.4	288	16.8	16.8	8.1	8.1	30.3	30.3	97.0	97.0	7.8	7.8	13.7	13.7	16	16	89	89	-	-	<0.2	0.7	0.7	0.6		
					Middle	4.2	0.4	301	16.8	16.8	8.1	8.1	30.3	30.3	97.0	97.0	7.8	7.8	13.7	13.7	16	16	88	89	-	-	<0.2	0.7	0.7	0.6		
						7.4	0.4	294	16.8	16.8	8.2	8.2	30.3	30.3	97.3	97.4	7.9	7.9	14.6	14.6	13	13	91	89	-	-	<0.2	0.6	0.6	0.6		
						7.4	0.4	314	16.8	16.8	8.2	8.2	30.3	30.3	97.4	97.4	7.9	7.9	14.6	14.6	13	13	90	89	-	-	<0.2	0.6	0.6	0.6		
					Bottom	1.0	-	-	16.7	16.7	8.1	8.1	30.1	30.1	95.4	95.4	7.7	7.7	5.5	5.5	9	9	87	87	-	-	-	-	-	-	-	-
						1.0	-	-	16.7	16.7	8.1	8.1	30.1	30.1	95.4	95.4	7.7	7.7	5.5	5.5	8	8	87	87	-	-	-	-	-	-	-	-
						2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IM12	Fine	Moderate	10:45	8.4	Surface	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.7	-	-	16.7	16.7	8.1	8.1	30.1	30.1	96.7	96.8	7.8	7.9	5.9	5.9	6	6	89	89	-	-	-	-	-	-	-	-
					Middle	3.7	-	-	16.7	16.7	8.1	8.1	30.1	30.1	96.9	96.9	7.9	7.9	5.9	5.9	6	6	89	89	-	-	-	-	-	-	-	-
						1.0	0.2	95	16.7	16.7	8.1	8.1	30.3	30.3	97.3	97.3	7.9	7.9	11.6	11.5	17	17	88	88	-	-	<0.2	0.6	0.6	0.5	0.5	0.6
						1.0	0.2	99	16.7	16.7	8.1	8.1	30.3	30.3	97.3	97.3	7.9	7.9	11.5	11.5	17	17	88	88	-	-	<0.2	0.6	0.6	0.5	0.5	0.6
					Bottom	2.8	0.2	102	16.7	16.7	8.2	8.2	30.3	30.3	98.4	98.5	8.0	8.0	14.7	15.0	13	13	91	90	-	-	<0.2	0.5	0.5	0.6	0.6	
						2.8	0.2	104	16.7	16.7	8.2	8.2	30.3	30.3	98.5	98.5	8.0	8.0	15.0	15.0	13	13	90	90	-	-	<0.2	0.6	0.6	0.6	0.6	
						1.0	0.1	51	17.3	17.3	8.1	8.1	30.0	30.0	96.1	96.1	7.7	7.7	8.4	8.4	10	10	87	87	-	-	-	-	-	-	-	-
SR1A	Fine	Moderate	10:05	4.7	Surface	1.0	0.1	53	17.3	17.3	8.1	8.1	30.0	30.0	96.1	96.1	7.7	7.7	8.4	8.4	10	10	87	87	-	-	-	-	-	-		
						4.3	0.1	47	17.1	17.1	8.1	8.1	30.0	30.0	95.5	95.6	7.7	7.7	9.2	9.3	10	10	87	87	-	-	-	-	-	-		
						4.3	0.2	49	17.1	17.1	8.1	8.1	30.0	30.0	95.6	95.6	7.7	7.7	9.3	9.3	10	10	87	87	-	-	-	-	-	-		
					Middle	7.6	0.1	35	17.1	17.1	8.0	8.0	30.0	30.0	97.5	97.6	7.8	7.9	9.6	9.6	8	8	89	89	-	-	-	-	-	-	-	-
						7.6	0.1	36	17.1	17.1	8.0	8.0	30.0	30.0	97.7	97.7	7.9	7.9	9.6	9.6	8	8	89	89	-	-	-	-	-	-	-	-
						1.0	0.1	221	17.0	17.0	8.2	8.2	30.4	30.4	98.4	98.4	7.9	7.9	3.4	3.4	7	7	87	87	-	-	-	-	-	-	-	-
					Bottom	1.0	0.1	234	17.0	17.0	8.2	8.2	30.4	30.4	98.4	98.4	7.9	7.9	3.4	3.4	6	6	87	87	-	-	-	-	-	-	-	-
						4.5	0.2	63	16.9	16.9	8.2	8.2	30.4	30.4	98.4	98.4	7.9	7.9	4.2	4.2	8	8	87	87	-	-	-	-	-	-	-	-
						4.5	0.2	64	16.9	16.9	8.2	8.2	30.4	30.4	98.4	98.4	7.9	7.9	4.2	4.2	8	8	87	87	-	-	-	-	-	-	-	-
SR2	Fine	Moderate	09:46	3.8	Surface	7.9	0.1	69	16.8	16.8	8.1	8.1	30.6	30.6	98.9	98.9	8.0	8.0	4.3	4.3	9	9	87	87	-	-	-	-	-	-		
						7.9	0.1	73	16.8	16.8	8.1	8.1	30.6	30.6	98.9	98.9	8.0	8.0	4.2	4.2	9	9	87	87	-	-	-	-	-	-		
						1.0	0.1	26	17.1	17.1	8.2	8.2	30.3	30.3	98.6	98.6	7.9	7.9	11.2	11.2	9	9	87	87	-	-	-	-	-	-		
					Middle	1.0	0.1	26	17.1	17.1	8.2	8.2	30.3	30.3	98.6	98.6	7.9	7.9	11.2	11.2	9	9	87	87	-	-	-	-	-	-	-	-
						2.2	0.1	34	17.1	17.1	8.2	8.2	30.4	30.4	98.7	98.7	7.9	7.9	11.1	11.5	13	13	87	87	-	-	-	-	-	-	-	-
						2.2	0.1	35	17.0	17.1	8.2	8.2	30.4	30.4	98.7	98.7	7.9	7.9	11.5	11.5	13	13	87	87	-	-	-	-	-	-	-	-
					Bottom	1.0	0.1	201	17.2	17.2	8.1	8.1	30.3	30.3	97.3	97.3	7.8	7.8	4.7	4.7	9	9	87	87	-	-	-	-	-	-	-	-
						1.0	0.1	219	17.2	17.2	8.1	8.1	30.3	30.3	97.3	97.3	7.8	7.8	4.7	4.7	8	8	87	87	-	-	-	-	-	-	-	-
						3.7	0.1	223	17.2	17.2	8.1	8.1	30.3	30.3	97.3	97.3	7.8	7.8	4.6	4.6	10	10	87	87	-	-	-	-	-	-	-	-
SR3	Fine	Moderate	11:23	8.6	Surface	3.7	0.1	240	17.2	17.2	8.1	8.1	30.3	30.3	97.3	97.3	7.8	7.8	4.6	4.6	10	10	87	87	-	-	-	-	-	-		
						1.0	0.0	116	17.6	17.6	8.0																					

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

Water Quality Monitoring Results on 05 January 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
C1	Sunny	Calm	18:01	8.6	Surface	1.0	0.2	42	17.2	17.2	8.1	8.1	29.4	29.4	101.8	101.8	8.2	8.2	6.0	6.0	9	9	84	84			<0.2	1.0						
						1.0	0.2	46	17.2	8.1	8.1	29.4	29.4	101.7	101.7	8.2	8.2	6.1	6.1	9	9	84	84			<0.2	0.9							
						4.3	0.0	108	17.3	8.1	8.1	30.3	30.3	100.7	100.7	8.1	8.1	8.3	8.3	8	8	88	88			<0.2	1.0							
					Middle	4.3	0.0	114	17.3	8.1	8.1	30.3	30.3	100.8	100.8	8.1	8.1	8.3	8.3	8	8	88	88			<0.2	0.9			<0.2	0.9			
						7.6	0.0	140	17.3	8.1	8.1	30.4	30.4	100.7	100.7	8.1	8.1	10.4	10.4	7	7	93	93			<0.2	0.9			<0.2	0.9			
						7.6	0.0	152	17.3	8.1	8.1	30.4	30.4	100.7	100.7	8.1	8.1	10.4	10.4	6	6	93	93			<0.2	0.9			<0.2	0.9			
C2	Fine	Moderate	16:08	11.6	Surface	1.0	0.3	3	17.8	17.8	8.3	8.3	31.5	31.5	103.5	103.5	8.2	8.2	4.2	4.2	7	7	87	87			<0.2	0.8						
						1.0	0.3	3	17.8	8.3	8.3	31.5	31.5	103.5	103.5	8.2	8.2	4.2	4.2	7	7	87	87			<0.2	0.8							
						5.8	0.3	13	17.8	8.3	8.3	31.7	31.7	102.5	102.5	8.1	8.1	5.5	5.5	6	6	89	89			<0.2	0.8			<0.2	0.8			
					Middle	5.8	0.3	13	17.8	8.3	8.3	31.7	31.7	102.5	102.5	8.1	8.1	5.5	5.5	6	6	89	89			<0.2	0.8			<0.2	0.8			
						10.6	0.2	51	17.8	8.3	8.3	31.8	31.8	101.5	101.5	8.0	8.0	5.3	5.3	4	4	93	93			<0.2	1.0			<0.2	1.0			
						10.6	0.2	54	17.8	8.3	8.3	31.8	31.8	101.5	101.5	8.0	8.0	5.3	5.3	4	4	94	94			<0.2	0.9			<0.2	0.9			
C3	Fine	Moderate	18:12	12.6	Surface	1.0	0.3	88	18.0	18.0	8.3	8.3	31.9	31.9	96.6	96.6	7.6	7.6	2.0	2.0	5	5	86	86			<0.2	1.1						
						1.0	0.4	95	18.0	8.3	8.3	31.9	31.9	96.6	96.6	7.6	7.6	2.0	2.0	5	5	86	86			<0.2	1.1							
						6.3	0.3	89	18.1	8.2	8.2	32.0	32.0	96.0	96.0	7.5	7.5	2.3	2.3	5	5	89	89			<0.2	1.0			<0.2	1.0			
					Middle	6.3	0.3	91	18.1	8.2	8.2	32.0	32.0	96.0	96.0	7.5	7.5	2.3	2.3	5	5	89	89			<0.2	1.0			<0.2	1.0			
						11.6	0.2	88	18.1	8.2	8.2	32.1	32.1	96.9	96.9	7.6	7.6	2.2	2.2	5	5	90	90			<0.2	1.0			<0.2	1.0			
						11.6	0.2	95	18.1	8.2	8.2	32.1	32.1	96.9	96.9	7.6	7.6	2.2	2.2	4	4	91	91			<0.2	0.9			<0.2	0.9			
IM1	Sunny	Calm	17:39	5.1	Surface	1.0	0.0	357	17.5	17.5	8.1	8.1	29.5	29.5	106.7	106.7	8.6	8.6	7.6	7.6	5	5	84	84			<0.2	0.9						
						1.0	0.0	328	17.5	8.1	8.1	29.5	29.5	106.7	106.7	8.6	8.6	7.7	7.7	5	5	84	84			<0.2	0.8							
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						4.1	0.0	216	17.3	8.1	8.1	29.6	29.6	106.6	106.6	8.6	8.6	5.4	5.4	6	6	91	91			<0.2	0.9			<0.2	0.9			
						4.1	0.0	218	17.3	8.1	8.1	29.6	29.6	106.6	106.6	8.6	8.6	5.5	5.5	6	6	91	91			<0.2	0.9			<0.2	0.9			
IM2	Sunny	Calm	17:31	7.1	Surface	1.0	0.1	358	17.2	17.2	8.1	8.1	29.6	29.6	102.9	102.9	8.3	8.3	7.4	7.4	5	5	85	85			<0.2	1.0						
						1.0	0.1	329	17.2	8.1	8.1	29.6	29.6	102.9	102.9	8.3	8.3	7.4	7.4	5	5	85	85			<0.2	0.8							
						3.6	0.1	291	17.1	8.1	8.1	29.7	29.7	102.6	102.6	8.3	8.3	8.6	8.6	6	6	89	89			<0.2	0.8			<0.2	0.8			
					Middle	3.6	0.1	316	17.1	8.1	8.1	29.7	29.7	102.6	102.6	8.3	8.3	8.6	8.6	6	6	89	89			<0.2	0.8			<0.2	0.8			
						6.1	0.1	259	17.1	8.1	8.1	29.9	29.9	103.0	103.0	8.3	8.3	7.8	7.8	7	7	92	92			<0.2	0.8			<0.2	0.8			
						6.1	0.1	275	17.1	8.1	8.1	29.9	29.9	103.1	103.1	8.3	8.3	7.8	7.8	7	7	92	92			<0.2	0.8			<0.2	0.8			
IM3	Sunny	Calm	17:25	7.3	Surface	1.0	0.2	23	17.3	17.3	8.1	8.1	29.5	29.5	103.1	103.1	8.3	8.3	6.4	6.4	4	4	85	85			<0.2	1.0						
						1.0	0.2	25	17.3	8.1	8.1	29.5	29.5	103.0	103.0	8.3	8.3	6.4	6.4	4	4	84	84			<0.2	0.9							
						3.7	0.1	36	17.2	8.1	8.1	29.5	29.5	102.6	102.6	8.3	8.3	6.6	6.6	5	5	89	89			<0.2	0.9			<0.2	0.9			
					Middle	3.7	0.1	38	17.2	8.1	8.1	29.5	29.5	102.6	102.6	8.3	8.3	6.6	6.6	5	5	89	89			<0.2	0.9			<0.2	0.9			
						6.3	0.1	297	17.1	8.1	8.1	30.0	30.0	102.1	102.1	8.2	8.2	8.3	8.3	6	6	93	93			<0.2	0.9			<0.2	0.9			
						6.3	0.1	318	17.1	8.1	8.1	30.0	30.0	102.1	102.1	8.2	8.2	8.3	8.3	6	6	93	93			<0.2	1.0			<0.2	1.0			
IM4	Sunny	Calm	17:15	8.2	Surface	1.0	0.2	8	17.1	17.1	8.1	8.1	29.3	29.3	101.6	101.6	8.2	8.2	6.6	6.6	4	4	82	82			<0.2	0.9						
						1.0	0.2	8	17.1	8.1	8.1	29.3	29.3	101.6	101.6	8.2	8.2	6.6	6.6	4	4	82	82			<0.2	0.9							
						4.1	0.1	332	17.0	8.1	8.1	29.7	29.7	100.4	100.4	8.1	8.1	7.2	7.2	5	5	89	89			<0.2	0.9			<0.2	0.9			
					Middle	4.1	0.1	339	17.0	8.1	8.1	29.7	29.7	100.4	100.4	8.1	8.1	7.3	7.3	5	5	89	89			<0.2	0.9			<0.2	0.9			
						7.2	0.1	303	17.0	8.1	8.1	29.9	29.9	100.8	100.8	8.1	8.1	7.7	7.7	5	5	93	93			<0.2	0.9			<0.2	0.9			
						7.2	0.1	330	17.0	8.1	8.1	29.9	29.9	100.8	100.8	8.1	8.1	7.8	7.8	5	5	93	93			<0.2	0.9			<0.2	0.9			
IM5	Sunny	Calm	17:02	7.2	Surface	1.0	0.3	3	17.1	17.1	8.1	8.1	29.7	29.7	101.1	101.1	8.2	8.2	7.9	7.9	5	5	84	84			<0.2	0.8						
						1.0	0.4	3	17.0	8.1	8.1	29.7	29.7	101.0	101.0	8.2	8.2	8.5	8.5	5	5	84	84			<0.2	0.9							
						3.6	0.3	4	17.0	8.1	8.1	29.7	29.7	100.9	100.9	8.1	8.1	8.8	8.8	5	5	88	88			<0.2	0.8			<0.2	0.8			
					Middle	3.6	0.3	4	17.0	8.1	8.1	29.7	29.7	100.9	100.9	8.1	8.1	8.8	8.8	5	5	88	88			<0.2	0.9			<0.2	0.9			
						6.2	0.2	1	17.0	8.1	8.1	29.7	29.7	101.2	101.2	8.2	8.2	9.0	9.0	5	5	93	93			<0.2	0.9			<0.2	0.9			
						6.2	0.3	1	17.0	8.1	8.1	29.7	29.7	101.2	101.2	8.2	8.2	8.9	8.9	6	6													

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

Water Quality Monitoring Results on 05 January 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	16:43	7.0	Surface	1.0	0.2	70	17.7	17.7	8.2	8.2	30.9	30.9	101.7	101.7	8.0	8.0	3.0	3.0	5	86	88	822082	808826	<0.2	0.8	0.9	0.8		
						1.0	0.3	70	17.7	8.2	8.2	30.9	30.9	101.7	101.7	8.0	8.0	3.0	3.0	4	86	88	822082	808826	<0.2	0.8	0.9	0.8			
					Middle	3.5	0.2	56	17.6	17.6	8.2	8.2	31.0	31.0	101.4	101.4	8.0	8.0	2.9	2.9	4	88	87	822082	808826	<0.2	0.9	1.0	0.8		
						3.5	0.2	57	17.6	17.6	8.2	8.2	31.0	31.0	101.4	101.4	8.0	8.0	2.9	2.9	4	87	87	822082	808826	<0.2	1.0	0.8	0.9		
					Bottom	6.0	0.3	43	17.7	17.7	8.2	8.2	31.0	31.0	101.1	101.1	8.0	8.0	3.0	3.0	3	89	90	822082	808826	<0.2	1.0	0.9	0.8		
						6.0	0.3	43	17.7	17.7	8.2	8.2	31.0	31.0	101.1	101.1	8.0	8.0	3.0	3.0	3	90	90	822082	808826	<0.2	0.9	0.8	0.9		
IM10	Fine	Moderate	16:49	8.4	Surface	1.0	0.3	66	17.8	17.8	8.3	8.3	31.0	31.0	103.7	103.7	8.2	8.2	2.4	2.4	3	85	89	822385	809813	<0.2	0.9	0.9	0.8		
						1.0	0.3	69	17.8	17.8	8.3	8.3	31.0	31.0	103.7	103.7	8.2	8.2	2.4	2.4	2	86	89	822385	809813	<0.2	0.9	0.9	0.8		
					Middle	4.2	0.2	62	17.7	17.7	8.3	8.3	31.2	31.2	102.9	102.9	8.1	8.1	2.9	2.9	3	89	90	822385	809813	<0.2	0.8	0.8	0.8		
						4.2	0.2	64	17.7	17.7	8.3	8.3	31.2	31.2	102.9	102.9	8.1	8.1	2.9	2.9	3	89	90	822385	809813	<0.2	0.8	0.8	0.8		
					Bottom	7.4	0.1	46	17.7	17.7	8.3	8.3	31.5	31.5	101.6	101.6	8.0	8.0	2.6	2.6	4	93	92	822385	809813	<0.2	0.8	0.8	0.8		
						7.4	0.1	48	17.7	17.7	8.3	8.3	31.5	31.5	101.6	101.6	8.0	8.0	2.6	2.6	3	92	92	822385	809813	<0.2	0.9	0.8	0.8		
IM11	Fine	Moderate	17:00	7.7	Surface	1.0	0.1	153	17.8	17.8	8.3	8.3	31.6	31.6	103.0	103.0	8.1	8.1	2.3	2.3	3	87	87	822042	811469	<0.2	1.1	1.0	1.0		
						1.0	0.1	162	17.8	17.8	8.3	8.3	31.6	31.6	103.0	103.0	8.1	8.1	2.3	2.3	4	87	90	822042	811469	<0.2	1.1	1.0	1.0		
					Middle	3.9	0.1	92	17.8	17.8	8.3	8.3	31.6	31.6	102.0	102.0	8.0	8.0	2.5	2.5	2	90	89	822042	811469	<0.2	1.0	1.0	1.0		
						3.9	0.1	100	17.8	17.8	8.3	8.3	31.6	31.6	102.0	102.0	8.0	8.0	2.5	2.5	3	89	92	822042	811469	<0.2	1.0	1.0	1.0		
					Bottom	6.7	0.1	87	17.8	17.8	8.3	8.3	31.6	31.6	101.8	101.8	8.0	8.0	2.6	2.6	2	92	90	822042	811469	<0.2	1.0	0.9	1.0		
						6.7	0.1	89	17.8	17.8	8.3	8.3	31.6	31.6	101.8	101.8	8.0	8.0	2.6	2.6	2	90	90	822042	811469	<0.2	0.9	1.0	1.0		
IM12	Fine	Moderate	17:07	8.3	Surface	1.0	0.1	140	17.8	17.8	8.3	8.3	31.6	31.6	103.2	103.2	8.1	8.1	2.9	2.9	4	85	85	821447	812031	<0.2	0.9	1.0	1.0		
						1.0	0.1	147	17.8	17.8	8.3	8.3	31.6	31.6	103.2	103.2	8.1	8.1	2.9	2.9	4	85	86	821447	812031	<0.2	1.0	1.0	1.0		
					Middle	4.2	0.1	151	17.8	17.8	8.3	8.3	31.6	31.6	102.2	102.2	8.0	8.0	2.4	2.4	5	86	88	821447	812031	<0.2	1.0	1.1	1.0		
						4.2	0.1	159	17.8	17.8	8.3	8.3	31.6	31.6	102.2	102.2	8.0	8.0	2.4	2.4	4	88	90	821447	812031	<0.2	1.1	1.0	1.0		
					Bottom	7.3	0.1	139	17.7	17.7	8.3	8.3	31.6	31.6	101.4	101.4	8.0	8.0	2.5	2.5	5	90	90	821447	812031	<0.2	1.0	1.1	1.1		
						7.3	0.1	145	17.7	17.7	8.3	8.3	31.6	31.6	101.4	101.4	8.0	8.0	2.5	2.5	5	90	90	821447	812031	<0.2	1.1	1.0	1.1		
SR1A	Fine	Moderate	17:37	4.9	Surface	1.0	-	-	17.8	17.8	8.3	8.3	31.7	31.7	102.9	102.9	8.1	8.1	2.9	2.9	6	-	-	819980	812663	-	-	-	-		
						1.0	-	-	17.8	17.8	8.3	8.3	31.7	31.7	102.9	102.9	8.1	8.1	2.9	2.9	6	-	-	819980	812663	-	-	-	-		
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819980	812663	-	-	-	-
						2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819980	812663	-	-	-	-
					Bottom	3.9	-	-	17.9	17.9	8.3	8.3	31.8	31.8	102.4	102.4	8.0	8.0	3.1	3.1	5	-	-	-	-	819980	812663	-	-	-	-
						3.9	-	-	17.9	17.9	8.3	8.3	31.8	31.8	102.4	102.4	8.0	8.0	3.1	3.1	5	-	-	-	-	819980	812663	-	-	-	-
SR2	Fine	Moderate	17:51	4.2	Surface	1.0	0.1	59	17.7	17.7	8.3	8.3	31.7	31.7	101.4	101.4	8.0	8.0	2.6	2.6	5	89	88	821484	814149	<0.2	1.0	1.0	1.0		
						1.0	0.1	61	17.7	17.7	8.3	8.3	31.7	31.7	101.4	101.4	8.0	8.0	2.6	2.6	5	88	91	821484	814149	<0.2	1.0	1.0	1.0		
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821484	814149	<0.2	1.0	1.0	1.0
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821484	814149	<0.2	1.0	1.0	1.0
					Bottom	3.2	0.1	68	17.7	17.7	8.3	8.3	31.7	31.7	101.0	101.0	8.0	8.0	2.6	2.6	3	91	90	821484	814149	<0.2	0.8	1.0	1.0		
						3.2	0.1	71	17.7	17.7	8.3	8.3	31.7	31.7	101.0	101.0	8.0	8.0	2.6	2.6	3	90	90	821484	814149	<0.2	1.0	1.0	1.0		
SR3	Fine	Moderate	16:28	8.4	Surface	1.0	0.5	71	17.9	17.9	8.3	8.3	30.9	30.9	103.6	103.5	8.2	8.2	2.8	2.8	5	-	-	822166	807590	-	-	-	-		
						1.0	0.6	73	17.9	17.9	8.3	8.3	30.9	30.9	103.4	103.5	8.2	8.2	2.8	2.8	6	-	-	822166	807590	-	-	-	-		
					Middle	4.2	0.5	64	17.8	17.8	8.3	8.3	31.0	31.0	103.0	103.0	8.1	8.1	3.5	3.5	4	-	-	-	-	822166	807590	-	-	-	-
						4.2	0.5	68	17.8	17.8	8.3	8.3	31.0	31.0	103.0	103.0	8.1	8.1	3.5	3.5	4	-	-	-	-	822166	807590	-	-	-	-
					Bottom	7.4	0.4	69	17.7	17.7	8.3	8.3	31.2	31.2	102.5	102.5	8.1	8.1	4.7	4.7	3	-	-	-	-	822166	807590	-	-	-	-
						7.4	0.5	74	17.7	17.7	8.3	8.3	31.2	31.2	102.5	102.5	8.1	8.1	4.7	4.7	3	-	-	-	-	822166	807590	-	-	-	-
SR4A	Sunny	Calm	18:23	9.2	Surface	1.0	0.3	69	17.3	17.3	8.1	8.1	29.4	29.4	105.4	105.4	8.5	8.5	5.6	5.6	4	-	-	817182	807801	-	-	-	-		
						1.0	0.3	75	17.3	17.3	8.1	8.1	29.4	29.4	105.4	105.4	8.5	8.5	5.6	5.6	5	-	-	817182	807801	-	-	-	-		
					Middle	4.6	0.2	62	17.2	17.2	8.1	8.1	29.6	29.6	103.9	104.0	8.4	8.4	5.7	5.7	5	-	-	-	-	817182	807801	-	-	-	-
						4.6	0.2	67	17.2	17.2	8.1	8.1	29.6	29.6	104.0	104.0	8.4	8.4	5.7	5.7	5	-	-	-	-	817182	807801	-	-	-	-
					Bottom	8.2	0.2	50	17.2	17.2	8.1	8.1	29.6	29.6	103.9	103.9	8.4	8.4	5.9	5.9	5	-	-	-	-	817182	807801	-	-	-	-
						8.2	0.2	53	17.2	17.2	8.1	8.1	29.6	29.6	103.9	103.9	8.4	8.4	5.9	5.9	6	-	-	-	-	817182	807801	-	-	-	-
SR5A	Sunny	Calm	18:39	4.1	Surface	1.0	0.0	45																							

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

Water Quality Monitoring Results on 05 January 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	Calm	12:28	8.2	Surface	1.0	0.3	41	17.0	8.1	8.1	29.3	29.3	100.0	100.0	8.1	8.1	6.9	7	86	89	815629	804260	<0.2	0.7	0.7					
						1.0	0.3	44	17.0	8.1	8.1	29.3	29.3	100.0	100.0	8.1	8.1	6.9	6	86	89	<0.2	0.7								
					Middle	4.1	0.3	35	17.0	8.1	8.1	29.7	29.7	99.2	99.2	8.0	8.0	9.2	6	87	89	<0.2	0.7								
						4.1	0.3	36	17.0	8.1	8.1	29.7	29.7	99.2	99.2	8.0	8.0	9.2	6	87	89	<0.2	0.7								
					Bottom	7.2	0.3	30	17.0	8.1	8.1	29.9	29.9	98.9	98.9	8.0	8.0	9.8	6	93	89	<0.2	0.7								
						7.2	0.3	31	17.0	8.1	8.1	29.9	29.9	98.9	98.9	8.0	8.0	10.8	6	93	89	<0.2	0.7								
C2	Fine	Moderate	13:19	12.0	Surface	1.0	0.2	12	17.8	8.2	8.2	30.8	30.8	100.8	100.8	8.0	8.0	2.7	3	87	89	825658	806955	<0.2	0.8	0.8					
						1.0	0.2	13	17.8	8.2	8.2	30.8	30.8	100.8	100.8	8.0	8.0	2.7	3	86	89	<0.2	0.8								
					Middle	6.0	0.2	23	17.7	8.2	8.2	30.9	30.9	100.6	100.6	8.0	8.0	4.4	4	88	89	<0.2	0.8								
						6.0	0.3	23	17.7	8.2	8.2	30.9	30.9	100.6	100.6	8.0	8.0	4.4	4	89	89	<0.2	0.9								
					Bottom	11.0	0.2	35	17.7	8.2	8.2	31.2	31.2	99.8	99.8	7.9	7.9	6.0	5	91	89	<0.2	0.9								
						11.0	0.2	35	17.7	8.2	8.2	31.2	31.2	99.8	99.8	7.9	7.9	6.0	5	91	89	<0.2	0.8								
C3	Fine	Moderate	11:10	11.4	Surface	1.0	0.3	264	17.6	8.2	8.2	31.5	31.5	100.0	100.0	7.9	7.9	2.7	4	86	89	822090	817816	<0.2	1.0	0.9					
						1.0	0.3	270	17.6	8.2	8.2	31.7	31.7	99.4	99.4	7.9	7.9	4.6	5	91	89	<0.2	0.9								
					Middle	5.7	0.4	271	17.6	8.3	8.3	31.7	31.7	99.4	99.4	7.9	7.9	4.6	5	91	89	<0.2	0.9								
						5.7	0.4	275	17.6	8.3	8.3	31.7	31.7	99.4	99.4	7.9	7.9	4.6	5	91	89	<0.2	0.9								
					Bottom	10.4	0.3	278	17.6	8.3	8.3	31.7	31.7	99.6	99.6	7.9	7.9	6.4	5	93	89	<0.2	1.0								
						10.4	0.3	280	17.6	8.3	8.3	31.7	31.7	99.6	99.6	7.9	7.9	6.4	5	93	89	<0.2	0.9								
IM1	Cloudy	Calm	12:47	4.1	Surface	1.0	0.1	326	17.2	8.1	8.1	30.1	30.1	102.8	102.8	8.3	8.3	6.0	6	85	89	817966	807117	<0.2	0.8	0.9					
						1.0	0.1	341	17.2	8.1	8.1	30.1	30.1	102.8	102.8	8.3	8.3	6.0	6	85	89	<0.2	0.9								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-
					Bottom	3.1	0.1	299	17.2	8.1	8.1	30.1	30.1	102.8	102.8	8.3	8.3	6.1	8	94	89	<0.2	0.8								
						3.1	0.1	324	17.2	8.1	8.1	30.1	30.1	102.8	102.8	8.3	8.3	6.1	8	93	89	<0.2	0.9								
IM2	Cloudy	Calm	12:56	6.8	Surface	1.0	0.3	9	17.1	8.1	8.1	29.3	29.3	101.4	101.4	8.2	8.2	6.7	8	85	89	818182	806148	<0.2	1.0	0.9					
						1.0	0.3	9	17.1	8.1	8.1	29.3	29.3	101.4	101.4	8.2	8.2	6.7	8	85	89	<0.2	0.9								
					Middle	3.4	0.2	351	16.9	8.1	8.1	29.9	29.9	100.5	100.5	8.1	8.1	7.4	7	90	89	<0.2	0.9								
						3.4	0.2	323	16.9	8.1	8.1	29.9	29.9	100.5	100.5	8.1	8.1	7.5	7	89	89	<0.2	0.9								
					Bottom	5.8	0.2	325	16.9	8.1	8.1	30.1	30.1	100.5	100.5	8.1	8.1	7.8	7	93	89	<0.2	0.9								
						5.8	0.2	353	16.9	8.1	8.1	30.1	30.1	100.5	100.5	8.1	8.1	7.7	6	93	89	<0.2	1.0								
IM3	Cloudy	Calm	13:04	7.2	Surface	1.0	0.3	350	17.0	8.1	8.1	29.6	29.6	100.4	100.4	8.1	8.1	7.4	7	86	89	818802	805587	<0.2	1.0	1.0					
						1.0	0.3	322	17.0	8.1	8.1	29.6	29.6	100.3	100.3	8.1	8.1	7.4	7	86	89	<0.2	1.0								
					Middle	3.6	0.3	319	16.9	8.1	8.1	29.9	29.9	99.7	99.7	8.1	8.1	8.9	7	89	89	0.2	1.0								
						3.6	0.3	321	16.9	8.1	8.1	29.9	29.9	99.7	99.7	8.1	8.1	9.0	6	89	89	0.2	1.0								
					Bottom	6.2	0.3	305	16.9	8.1	8.1	29.9	29.9	99.8	99.8	8.1	8.1	9.8	6	92	89	<0.2	0.9								
						6.2	0.3	330	16.9	8.1	8.1	29.9	29.9	99.8	99.8	8.1	8.1	9.8	6	92	89	<0.2	0.9								
IM4	Cloudy	Calm	13:13	8.3	Surface	1.0	0.5	353	17.0	8.1	8.1	29.3	29.3	100.2	100.2	8.1	8.1	7.1	7	86	89	819716	804628	<0.2	0.8	0.9					
						1.0	0.5	325	17.0	8.1	8.1	29.3	29.3	100.2	100.2	8.1	8.1	7.1	7	86	89	<0.2	0.9								
					Middle	4.2	0.4	340	16.9	8.1	8.1	29.9	29.9	99.9	99.9	8.1	8.1	7.5	6	89	89	<0.2	0.8								
						4.2	0.4	313	16.9	8.1	8.1	29.9	29.9	99.9	99.9	8.1	8.1	7.6	6	89	89	<0.2	0.9								
					Bottom	7.3	0.3	337	16.9	8.1	8.1	29.9	29.9	100.0	100.0	8.1	8.1	7.4	6	93	89	<0.2	1.0								
						7.3	0.4	337	16.9	8.1	8.1	29.9	29.9	100.0	100.0	8.1	8.1	7.3	6	93	89	<0.2	0.9								
IM5	Cloudy	Calm	13:20	7.6	Surface	1.0	0.6	12	17.0	8.1	8.1	29.6	29.6	101.1	101.1	8.2	8.2	7.6	6	85	89	820711	804846	<0.2	0.9	0.9					
						1.0	0.6	12	17.0	8.1	8.1	29.6	29.6	101.1	101.1	8.2	8.2	7.6	6	86	89	<0.2	1.0								
					Middle	3.8	0.5	11	17.0	8.1	8.1	29.7	29.7	100.8	100.8	8.1	8.1	8.4	6	88	89	<0.2	0.9								
						3.8	0.6	11	17.0	8.1	8.1	29.7	29.7	100.8	100.8	8.1	8.1	8.5	6	88	89	<0.2	0.9								
					Bottom	6.6	0.4	11	17.0	8.1	8.1	29.8	29.8	101.7	101.7	8.2	8.2	9.4	7	93	89	<0.2	0.9								
						6.6	0.4	11	17.0	8.1	8.1	29.8	29.8	101.7	101.7	8.2	8.2	9.3	7	94	89	<0.2	0.9								
IM6	Cloudy	Calm	13:28	7.3	Surface	1.0	0.1	40	17.2	8.1	8.1	29.5	29.5	101.9	101.9	8.2	8.2	4.8	6	82	88	821051	805807	<0.2	0.9	0.9					
						1.0	0.1	40	17.2	8.1	8.1	29.5	29.5	101.9	101.9	8.2	8.2	4.8	6	83	88	<0.2	0.9								
					Middle	3.7	0.1	67	17.1	8.1	8.1	29.9	29.9	101.8	101.8	8.2	8.2	6.3	6	90	88	<0.2	0.8								
						3.7	0.1	69	17.1	8.1	8.1	29.9	29.9	101.8	101.8	8.2	8.2	6.4	5	89	88	<0.2	0.9								
					Bottom	6.3	0.1	48	17.1	8.1	8.1	30.0	30.0	101.9	101.9	8.2	8.2	6.1	4	91	88	<0.2	0.9								
						6.3	0.1	49	17.1	8.1	8.1	30.0	30.0	101.9	101.9	8.2	8.2	6.1	4	91	88	<0.2	1.0								
IM7	Cloudy	Calm	13:37	8.4	Surface	1.0	0.1	182	17.1	8.1	8.1	29.4	29.4	100.8	100.8	8.2	8.2	5.3	7	85	89	821353	806846	<0.2	0.8	0.9					
						1.0	0.1	188	17.1	8.1	8.1	29.4	29.4	100.8	100.8	8.2	8.2	5.3	7	85	89	<0.2	0.9								
					Middle	4.2	0.1	161	17.1	8.1	8.1	29.5	29.5	101.2	101.2	8.2	8.2	5.9	5	89	89	<0.2	0.9								
						4.2	0.1	173	17.1	8.1	8.1	29.5	29.5	101.2	101.2	8.2	8.2	5.9	5	89	89	<0.2	0.9								
					Bottom	7.4	0.2	142	17.1	8.1	8.1	30.1	30.1	101.6	101.6	8.2	8.2	8.0	3	93	89	<0.2	0.9								
						7.4	0.2	149	17.1	8.1	8.1	30.1	30.1	101.6	101.6	8.2	8.2	8.0	2	93	89	<0.2	0.9								
IM8	Fine	Moderate	12:51																												

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

Water Quality Monitoring Results on 05 January 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	Fine	Moderate	12:45	7.0	Surface	1.0	0.1	142	17.7	17.7	8.3	8.3	31.3	31.3	101.4	101.4	8.0	8.0	3.1	3.1	7	7	86	86	89	822103	808788	<0.2	<0.2	0.9	0.9								
						1.0	0.1	146	17.7	17.7	8.3	8.3	31.3	31.3	101.4	101.4	8.0	8.0	3.1	3.1	7	7	87	87				<0.2	<0.2	0.9	0.9								
						3.5	0.1	152	17.7	17.7	8.3	8.3	31.3	31.3	101.0	101.0	8.0	8.0	3.3	3.3	8	8	90	90				<0.2	<0.2	0.9	0.9								
					Middle	3.5	0.1	160	17.7	17.7	8.3	8.3	31.3	31.3	101.0	101.0	8.0	8.0	3.3	3.3	8	8	90	90				8	8	89	89	<0.2	<0.2	0.9	0.9				
						6.0	0.1	149	17.6	17.6	8.3	8.3	31.3	31.3	100.5	100.5	7.9	7.9	3.5	3.5	8	8	91	91				8	8	89	89	<0.2	<0.2	0.9	0.9				
						6.0	0.1	150	17.6	17.6	8.3	8.3	31.3	31.3	100.5	100.5	7.9	7.9	3.5	3.5	8	8	91	91				8	8	89	89	<0.2	<0.2	0.9	0.9				
					IM10	Fine	Moderate	12:37	7.8	Surface	1.0	0.3	311	17.5	17.5	8.3	8.3	31.5	31.5	101.1	101.1	8.0	8.0	3.7				3.7	10	10	86	86	89	822399	809807	<0.2	<0.2	0.9	0.9
											1.0	0.4	323	17.5	17.5	8.3	8.3	31.5	31.5	101.1	101.1	8.0	8.0	3.7				3.7	10	10	87	87				<0.2	<0.2	0.9	0.9
											3.9	0.3	299	17.5	17.5	8.3	8.3	31.5	31.5	100.8	100.8	8.0	8.0	4.0				4.0	9	9	90	90				<0.2	<0.2	0.9	0.9
Middle	3.9	0.3	300	17.5						17.5	8.3	8.3	31.5	31.5	100.8	100.8	8.0	8.0	4.0	4.0	9	9	90	90	8	8	89	89	<0.2	<0.2	0.9	0.9							
	6.8	0.3	302	17.5						17.5	8.3	8.3	31.5	31.5	100.8	100.8	8.0	8.0	3.8	3.8	8	8	89	89	8	8	89	89	<0.2	<0.2	0.9	0.9							
	6.8	0.3	311	17.5						17.5	8.3	8.3	31.5	31.5	100.8	100.8	8.0	8.0	3.8	3.8	8	8	90	90	8	8	89	89	<0.2	<0.2	0.9	0.9							
IM11	Fine	Moderate	12:27	7.6						Surface	1.0	0.5	288	17.6	17.6	8.3	8.3	31.6	31.6	100.4	100.4	7.9	7.9	6.5	6.5	10	10	86	86	88	822071	811461				<0.2	<0.2	0.8	0.8
											1.0	0.5	289	17.6	17.6	8.3	8.3	31.6	31.6	100.4	100.4	7.9	7.9	6.5	6.5	10	10	86	86							<0.2	<0.2	0.8	0.8
											3.8	0.3	288	17.6	17.6	8.3	8.3	31.7	31.7	99.9	99.9	7.9	7.9	7.3	7.3	8	8	89	89							<0.2	<0.2	0.8	0.8
					Middle	3.8	0.3	311	17.6	17.6	8.3	8.3	31.7	31.7	99.9	99.9	7.9	7.9	7.3	7.3	8	8	89	89	8	8	89	89	<0.2				<0.2	0.9	0.9				
						6.6	0.3	292	17.6	17.6	8.3	8.3	31.7	31.7	100.4	100.4	7.9	7.9	7.9	7.9	8	8	90	90	8	8	89	89	<0.2				<0.2	0.9	0.9				
						6.6	0.3	309	17.6	17.6	8.3	8.3	31.7	31.7	100.4	100.4	7.9	7.9	7.9	7.9	8	8	90	90	8	8	89	89	<0.2				<0.2	0.9	0.9				
					IM12	Fine	Moderate	12:20	8.1	Surface	1.0	0.5	311	17.6	17.6	8.3	8.3	31.6	31.6	101.2	101.2	8.0	8.0	6.9	6.9	9	9	87	87				90	821437	812064	<0.2	<0.2	0.8	0.8
											1.0	0.5	315	17.6	17.6	8.3	8.3	31.6	31.6	101.2	101.2	8.0	8.0	6.9	6.9	9	9	87	87							<0.2	<0.2	0.9	0.9
											4.1	0.5	309	17.6	17.6	8.3	8.3	31.6	31.6	100.9	100.9	8.0	8.0	9.8	9.8	8	8	89	89							<0.2	<0.2	0.8	0.8
Middle	4.1	0.5	316	17.6						17.6	8.3	8.3	31.6	31.6	100.9	100.9	8.0	8.0	9.8	9.8	8	8	90	90	8	8	89	89	<0.2	<0.2	0.8	0.8							
	7.1	0.4	302	17.6						17.6	8.3	8.3	31.6	31.6	100.2	100.2	7.9	7.9	10.6	10.6	6	6	92	92	6	6	89	89	<0.2	<0.2	0.9	0.9							
	7.1	0.4	303	17.6						17.6	8.3	8.3	31.6	31.6	100.2	100.2	7.9	7.9	10.7	10.7	6	6	93	93	6	6	89	89	<0.2	<0.2	0.8	0.8							
SR1A	Fine	Moderate	11:49	5.3						Surface	1.0	-	-	17.8	17.8	8.3	8.3	31.8	31.8	100.7	100.7	7.9	7.9	6.2	6.2	8	8	-	-	-	819976	812660				-	-	-	-
											1.0	-	-	17.8	17.8	8.3	8.3	31.8	31.8	100.7	100.7	7.9	7.9	6.2	6.2	8	8	-	-							-	-	-	-
											2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-			
						4.3	-	-	17.8	17.8	8.3	8.3	31.8	31.8	100.5	100.5	7.9	7.9	8.5	8.5	6	6	-	-	-	-	-	-	-				-	-	-				
						4.3	-	-	17.8	17.8	8.3	8.3	31.8	31.8	100.5	100.5	7.9	7.9	8.5	8.5	6	6	-	-	-	-	-	-	-				-	-	-				
					SR2	Fine	Moderate	11:31	4.4	Surface	1.0	0.0	119	17.6	17.6	8.3	8.3	31.5	31.5	100.9	100.9	8.0	8.0	5.0	5.0	6	6	90	90				91	821474	814187	<0.2	<0.2	0.9	0.9
											1.0	0.0	129	17.6	17.6	8.3	8.3	31.5	31.5	100.9	100.9	8.0	8.0	5.1	5.1	6	6	90	90							<0.2	<0.2	0.8	0.8
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-			
	3.4	0.0	78	17.5						17.5	8.3	8.3	31.5	31.5	100.7	100.7	8.0	8.0	5.6	5.6	5	5	91	91	5	5	89	89	<0.2	<0.2	0.9	0.9							
	3.4	0.0	84	17.5						17.5	8.3	8.3	31.5	31.5	100.7	100.7	8.0	8.0	5.6	5.6	5	5	92	92	5	5	89	89	<0.2	<0.2	0.9	0.9							
SR3	Fine	Moderate	12:57	8.5						Surface	1.0	0.0	68	17.8	17.8	8.2	8.2	30.8	30.8	100.3	100.3	7.9	7.9	2.8	2.8	8	8	-	-	-	822145	807564				-	-	-	-
											1.0	0.0	74	17.8	17.8	8.2	8.2	30.8	30.8	100.3	100.3	7.9	7.9	2.8	2.8	8	8	-	-							-	-		
											4.3	0.1	23	17.6	17.6	8.2	8.2	30.8	30.8	98.9	98.9	7.8	7.8	4.8	4.8	6	6	-	-							-	-		
					Middle	4.3	0.1	24	17.6	17.6	8.2	8.2	30.8	30.8	98.9	98.9	7.8	7.8	4.8	4.8	6	6	-	-	-	-	-	-	-				-	-	-				
						7.5	0.1	42	17.6	17.6	8.2	8.2	30.8	30.8	99.1	99.1	7.9	7.9	8.4	8.4	6	6	-	-	-	-	-	-	-				-	-					
						7.5	0.1	45	17.6	17.6	8.2	8.2	30.8	30.8	99.1	99.1	7.9	7.9	8.4	8.4	6	6	-	-	-	-	-	-	-				-	-					
					SR4A	Cloudy	Calm	12:03	9.1	Surface	1.0	0.1	72	17.1	17.1	8.1	8.1	30.3	30.3	100.4	100.4	8.1	8.1	6.0	6.0	8	8	-	-				-	817196	807820	-	-	-	-
											1.0	0.1	74	17.1	17.1	8.1	8.1	30.3	30.3	100.4	100.4	8.1	8.1	6.0	6.0	8	8	-	-							-	-		
											4.6	0.1	49	17.1	17.1	8.1	8.1	30.3	30.3	100.3	100.3	8.1	8.1	6.0	6.0	7	7	-	-							-	-		
Middle	4.6	0.1	49	17.1						17.1	8.1	8.1	30.3	30.3	100.3	100.3	8.1	8.1	6.0	6.0	7	7	-	-	-	-	-	-	-	-									
	8.1	0.1	44	17.1						17.1	8.1	8.1	30.3	30.3	100.4	100.4	8.1	8.1	5.9	5.9	6	6	-	-	-	-	-	-	-										
	8.1	0.1	46	17.1						17.1	8.1	8.1	30.3	30.3	100.4	100.4	8.1	8.1	5.9	5.9	6	6	-	-	-	-	-	-	-										
SR5A	Cloudy	Calm	11:45	3.1						Surface	1.0	0.0	127	17.2	17.2	8.1	8.1	30.3	30.3	100.6	100.6																		

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

Water Quality Monitoring

Water Quality Monitoring Results on 07 January 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	Cloudy	Calm	07:05	8.3	Surface	1.0	0.2	243	17.6	17.6	7.8	7.8	31.2	31.1	103.9	103.7	8.2	8.2	5.4	5.4	5	5	87	87	91	815599	804228	<0.2	1.0	0.8	0.9				
						1.0	0.2	251	17.6	7.8	7.8	31.1	31.1	103.5	103.8	8.2	8.2	5.4	5.4	5	5	88	88	91	815599	804228	<0.2	0.8	0.8	0.9					
						4.2	0.2	230	17.6	7.8	7.8	31.2	31.2	104.0	103.8	8.2	8.2	5.6	5.6	8	8	90	90	91	815599	804228	<0.2	0.8	0.8	0.9					
					Middle	4.2	0.2	251	17.6	7.8	7.8	31.2	31.2	103.5	103.8	8.2	8.2	5.7	5.7	8	8	90	90	7	7	89	815599	804228	<0.2	0.8	0.8	0.9			
						7.3	0.2	239	17.6	7.8	7.8	31.2	31.2	102.7	103.2	8.1	8.1	5.7	5.7	9	9	94	94	7	7	89	815599	804228	<0.2	0.8	0.8	0.9			
						7.3	0.2	249	17.6	7.8	7.8	31.2	31.2	103.6	103.2	8.2	8.2	5.8	5.8	8	8	94	94	7	7	89	815599	804228	<0.2	0.8	0.8	0.9			
C2	Cloudy	Moderate	08:18	11.7	Surface	1.0	3.1	317	16.9	16.9	8.1	8.1	29.1	29.1	99.0	99.0	8.1	8.1	4.4	4.4	4	4	85	85	89	825700	806950	<0.2	1.1	1.1	1.1				
						1.0	3.2	325	16.9	8.1	8.1	29.1	29.1	99.0	99.0	8.1	8.1	4.4	4.4	5	5	85	85	6	6	89	825700	806950	<0.2	1.1	1.1	1.1			
						5.9	3.1	329	17.0	8.1	8.1	29.3	29.3	98.6	98.6	8.0	8.0	7.9	7.9	5	5	88	88	6	6	89	825700	806950	<0.2	1.1	1.1	1.1			
					Middle	5.9	3.2	331	17.0	8.1	8.1	29.3	29.3	98.6	98.6	8.0	8.0	8.1	8.1	6	6	88	88	6	6	89	825700	806950	<0.2	1.2	1.2	1.1			
						10.7	3.2	333	17.0	8.1	8.0	29.3	29.3	98.6	98.6	8.0	8.0	10.1	10.1	8	8	93	93	7	7	89	825700	806950	<0.2	1.1	1.1	1.1			
						10.7	3.4	335	17.0	8.0	8.0	29.3	29.3	98.6	98.6	8.0	8.0	10.3	10.3	7	7	92	92	7	7	89	825700	806950	<0.2	1.1	1.1	1.1			
C3	Cloudy	Moderate	05:55	12.1	Surface	1.0	0.3	88	17.2	17.2	8.1	8.1	30.1	30.1	96.0	96.0	7.7	7.7	3.7	3.7	4	4	86	86	89	822097	817795	<0.2	0.9	1.0	0.9				
						1.0	0.3	96	17.2	8.1	8.1	30.1	30.1	96.0	96.0	7.7	7.7	3.8	3.8	4	4	87	87	5	5	89	822097	817795	<0.2	0.9	1.0	0.9			
						6.1	0.3	73	17.4	8.1	8.1	30.2	30.2	95.7	95.7	7.7	7.7	4.4	4.4	5	5	87	87	5	5	89	822097	817795	<0.2	0.9	1.0	0.9			
					Middle	6.1	0.3	73	17.4	8.1	8.1	30.2	30.2	95.7	95.7	7.7	7.7	4.5	4.5	4	4	88	88	5	5	89	822097	817795	<0.2	0.9	1.0	0.9			
						11.1	0.2	77	17.4	8.2	8.2	30.2	30.2	96.8	96.9	7.8	7.8	4.5	4.5	5	5	93	93	5	5	89	822097	817795	<0.2	0.8	0.8	0.8			
						11.1	0.3	77	17.3	8.2	8.2	30.2	30.2	96.9	96.9	7.8	7.8	4.5	4.5	5	5	93	93	5	5	89	822097	817795	<0.2	0.8	0.8	0.8			
IM1	Cloudy	Calm	07:20	4.6	Surface	1.0	0.1	200	17.6	17.6	7.8	7.8	31.0	31.0	104.7	104.3	8.3	8.3	2.6	2.6	6	6	88	88	90	817942	807153	<0.2	0.8	0.7	0.8				
						1.0	0.2	206	17.6	7.9	7.8	31.0	31.0	103.8	103.8	8.2	8.2	2.4	2.4	5	5	89	89	6	6	90	817942	807153	<0.2	0.7	0.7	0.8			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						3.6	0.1	205	17.6	7.8	7.8	31.0	31.0	103.3	103.3	8.2	8.2	5.7	5.7	6	6	90	90	6	6	91	817942	807153	<0.2	0.8	0.8	0.8			
						3.6	0.1	225	17.6	7.8	7.8	31.0	31.0	103.3	103.3	8.2	8.2	5.7	5.7	7	7	91	91	7	7	91	817942	807153	<0.2	0.8	0.8	0.8			
IM2	Cloudy	Calm	07:25	6.6	Surface	1.0	0.2	192	17.4	17.4	7.8	7.8	30.8	30.8	104.5	104.5	8.3	8.3	7.0	7.0	8	8	86	86	91	818140	806182	<0.2	0.8	0.8	0.8				
						1.0	0.2	207	17.4	7.8	7.8	30.8	30.8	104.5	104.5	8.3	8.3	7.1	7.1	8	8	87	87	7	7	91	818140	806182	<0.2	0.8	0.8	0.8			
						3.3	0.2	189	17.4	7.8	7.8	30.8	30.8	103.5	103.6	8.2	8.2	7.3	7.3	7	7	92	92	7	7	91	818140	806182	<0.2	0.8	0.8	0.8			
					Middle	3.3	0.2	195	17.4	7.8	7.8	30.8	30.8	103.6	103.6	8.3	8.3	7.5	7.5	8	8	93	93	8	8	91	818140	806182	<0.2	0.8	0.8	0.8			
						5.6	0.2	176	17.4	7.8	7.8	30.8	30.8	103.2	103.4	8.2	8.2	9.7	9.7	6	6	95	95	6	6	91	818140	806182	<0.2	0.9	0.9	0.8			
						5.6	0.2	178	17.4	7.8	7.8	30.8	30.8	103.5	103.4	8.3	8.3	9.7	9.7	6	6	95	95	6	6	91	818140	806182	<0.2	0.8	0.8	0.8			
IM3	Cloudy	Calm	07:40	6.7	Surface	1.0	0.3	166	17.5	17.5	7.8	7.8	30.7	30.7	104.7	104.7	8.3	8.3	3.1	3.1	9	9	86	86	91	818763	805581	<0.2	0.8	0.8	0.8				
						1.0	0.3	174	17.5	7.8	7.8	30.7	30.7	104.6	104.7	8.3	8.3	2.9	2.9	10	10	87	87	9	9	91	818763	805581	<0.2	0.8	0.8	0.8			
						3.4	0.2	160	17.5	7.8	7.8	30.7	30.7	103.8	104.2	8.3	8.3	2.9	2.9	10	10	90	90	9	9	91	818763	805581	<0.2	0.8	0.8	0.8			
					Middle	3.4	0.3	165	17.5	7.8	7.8	30.7	30.7	104.5	104.2	8.3	8.3	3.0	3.0	9	9	91	91	9	9	91	818763	805581	<0.2	0.8	0.8	0.8			
						5.7	0.2	153	17.5	7.8	7.8	30.7	30.7	103.3	102.9	8.2	8.2	4.7	4.7	8	8	95	95	8	8	91	818763	805581	<0.2	0.8	0.8	0.8			
						5.7	0.2	164	17.5	7.8	7.8	30.7	30.7	102.4	102.9	8.2	8.2	4.8	4.8	9	9	95	95	9	9	91	818763	805581	<0.2	0.8	0.8	0.8			
IM4	Cloudy	Calm	07:50	7.9	Surface	1.0	0.6	194	17.4	17.4	7.8	7.8	30.6	30.6	104.8	105.0	8.4	8.4	5.2	5.2	8	8	87	87	91	819741	804602	<0.2	0.8	0.8	0.8				
						1.0	0.6	205	17.4	7.8	7.8	30.6	30.6	105.1	105.0	8.4	8.4	5.3	5.3	7	7	87	87	7	7	91	819741	804602	<0.2	0.8	0.8	0.8			
						4.0	0.5	187	17.4	7.8	7.8	30.6	30.6	104.2	103.7	8.3	8.3	5.8	5.8	7	7	91	91	6	6	91	819741	804602	<0.2	0.8	0.8	0.8			
					Middle	4.0	0.5	191	17.4	7.8	7.8	30.6	30.6	103.1	103.7	8.2	8.2	6.6	6.6	6	6	91	91	6	6	91	819741	804602	<0.2	0.8	0.8	0.8			
						6.9	0.4	198	17.4	7.8	7.8	30.6	30.6	102.7	103.4	8.2	8.2	5.6	5.6	5	5	96	96	5	5	91	819741	804602	<0.2	0.8	0.8	0.8			
						6.9	0.4	208	17.4	7.8	7.8	30.6	30.6	104.0	103.4	8.3	8.3	5.5	5.5	6	6	95	95	6	6	91	819741	804602	<0.2	0.8	0.8	0.8			
IM5	Cloudy	Calm	08:01	7.4	Surface	1.0	0.6	205	17.4	17.4	7.8	7.8	30.5	30.5	102.5	102.7	8.2	8.2	5.2	5.2	5	5	87	87	92	820737	804843	<0.2	0.8	0.8	0.9				
						1.0	0.6	213	17.4	7.8	7.8	30.5	30.5	102.9	102.7	8.2	8.2	5.3	5.3	6	6	88	88	6	6	92									

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

Water Quality Monitoring Results on 07 January 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			
IM9	Cloudy	Moderate	07:42	7.3	Surface	1.0	1.7	226	16.9	16.9	8.1	8.1	29.4	29.4	100.4	100.4	8.1	8.1	4.7	4.7	3	3	88	88	90	822109	808792	<0.2	1.0	<0.2	1.0							
						1.0	1.7	243	16.9	8.1	8.1	29.4	29.4	100.4	100.4	8.1	8.1	4.7	4.7	3	3	88	88	90	822109	808792	<0.2	1.0	<0.2	1.0								
						3.7	1.8	235	16.9	8.1	8.1	29.4	29.4	100.2	100.2	8.1	8.1	4.9	4.9	4	4	89	89	90	822109	808792	<0.2	1.1	<0.2	1.0								
					Middle	3.7	1.9	246	16.9	8.1	8.1	29.4	29.4	100.2	100.2	8.1	8.1	4.9	4.9	5	5	90	90	91	91	90	822109	808792	<0.2	1.0	<0.2	1.0						
						6.3	1.6	237	16.9	8.1	8.1	29.4	29.4	100.1	100.1	8.1	8.1	4.8	4.8	6	6	91	91	92	92	91	822109	808792	<0.2	1.0	<0.2	1.0						
						6.3	1.8	256	16.9	8.1	8.1	29.4	29.4	100.1	100.1	8.1	8.1	4.9	4.9	5	5	92	92	91	91	92	92	822109	808792	<0.2	1.0	<0.2	1.0					
					IM10	Cloudy	Moderate	07:35	7.7	Surface	1.0	1.4	22	16.9	16.9	8.1	8.1	29.4	29.4	100.1	100.1	8.1	8.1	4.9	4.9	6	6	87	87	91	822379	809792	<0.2	0.9	<0.2	0.9		
											1.0	1.6	22	16.9	8.1	8.1	29.4	29.4	100.1	100.1	8.1	8.1	4.9	4.9	6	6	87	87	91	91	91	822379	809792	<0.2	0.9	<0.2	0.9	
											3.9	1.5	13	16.9	8.1	8.1	29.4	29.4	99.9	99.9	8.1	8.1	4.9	4.9	5	5	91	91	92	92	91	822379	809792	<0.2	1.0	<0.2	0.9	
Middle	3.9	1.7	13	16.9						8.1	8.1	29.4	29.4	99.8	99.8	8.1	8.1	5.0	5.0	6	6	92	92	93	93	92	822379	809792	<0.2	0.9	<0.2	0.9						
	6.7	1.7	18	16.9						8.1	8.1	29.4	29.4	99.9	99.9	8.1	8.1	7.2	7.2	5	5	93	93	92	92	93	93	822379	809792	<0.2	1.0	<0.2	1.0					
	6.7	1.7	18	16.9						8.1	8.1	29.4	29.4	99.9	99.9	8.1	8.1	7.4	7.4	5	5	93	93	92	92	93	93	822379	809792	<0.2	1.1	<0.2	1.0					
IM11	Cloudy	Moderate	07:23	8.3						Surface	1.0	1.2	291	16.9	16.9	8.1	8.1	29.5	29.5	100.3	100.3	8.1	8.1	6.2	6.2	8	8	87	87	90	822041	811456	<0.2	0.9	<0.2	0.9		
											1.0	1.3	293	16.9	8.1	8.1	29.5	29.5	100.2	100.2	8.1	8.1	6.2	6.2	8	8	87	87	90	90	90	822041	811456	<0.2	0.9	<0.2	0.9	
											4.2	1.2	286	16.9	8.1	8.1	29.5	29.5	100.0	100.0	8.1	8.1	6.4	6.4	7	7	89	89	92	92	90	822041	811456	<0.2	1.0	<0.2	0.9	
					Middle	4.2	1.2	289	16.9	8.1	8.1	29.5	29.5	100.0	100.0	8.1	8.1	6.5	6.5	8	8	90	90	92	92	90	822041	811456	<0.2	0.9	<0.2	0.9						
						7.3	1.1	299	16.9	8.1	8.1	29.5	29.5	99.9	99.9	8.1	8.1	14.0	14.0	6	6	92	92	92	92	92	92	822041	811456	<0.2	0.9	<0.2	0.9					
						7.3	1.1	319	16.9	8.1	8.1	29.5	29.5	99.9	99.9	8.1	8.1	14.0	14.0	6	6	92	92	92	92	92	92	822041	811456	<0.2	0.9	<0.2	0.9					
					IM12	Cloudy	Moderate	07:15	8.6	Surface	1.0	0.3	120	16.9	16.9	8.1	8.1	29.4	29.4	100.0	100.0	8.1	8.1	5.3	5.3	6	6	87	87	89	821436	812056	<0.2	0.9	<0.2	0.9		
											1.0	0.3	129	16.9	8.1	8.1	29.4	29.4	100.0	100.0	8.1	8.1	5.3	5.3	6	6	87	87	89	89	89	821436	812056	<0.2	0.9	<0.2	0.9	
											4.3	0.3	112	16.9	8.1	8.1	29.4	29.4	99.7	99.7	8.1	8.1	5.7	5.7	6	6	89	89	92	92	89	821436	812056	<0.2	1.0	<0.2	0.9	
Middle	4.3	0.3	113	16.9						8.1	8.1	29.4	29.4	99.7	99.7	8.1	8.1	5.8	5.8	7	7	89	89	92	92	89	821436	812056	<0.2	0.9	<0.2	0.9						
	7.6	0.3	115	16.9						8.1	8.1	29.4	29.4	99.6	99.6	8.1	8.1	5.7	5.7	7	7	92	92	92	92	92	92	821436	812056	<0.2	0.9	<0.2	0.9					
	7.6	0.3	119	16.9						8.1	8.1	29.4	29.4	99.6	99.6	8.1	8.1	5.7	5.7	6	6	92	92	92	92	92	92	821436	812056	<0.2	0.9	<0.2	0.9					
SR1A	Cloudy	Calm	06:38	4.8						Surface	1.0	-	-	17.0	17.0	8.1	8.1	29.7	29.7	99.3	99.3	8.0	8.0	4.8	4.8	6	6	-	-	-	819976	812656	-	-	-	-		
											1.0	-	-	17.0	17.0	8.1	8.1	29.7	29.7	99.2	99.2	8.0	8.0	4.8	4.8	6	6	-	-	-	-	-	819976	812656	-	-	-	-
											2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
						3.8	-	-	17.0	17.0	8.1	8.1	29.8	29.8	99.3	99.3	8.0	8.0	4.6	4.6	8	8	-	-	-	-	-	819976	812656	-	-	-	-					
						3.8	-	-	17.0	17.0	8.1	8.1	29.8	29.8	99.3	99.3	8.0	8.0	4.7	4.7	7	7	-	-	-	-	-	819976	812656	-	-	-	-					
					SR2	Cloudy	Moderate	06:22	4.4	Surface	1.0	0.3	90	17.0	17.0	8.2	8.2	29.8	29.8	100.1	100.1	8.1	8.1	4.4	4.4	6	6	84	84	88	821449	814179	<0.2	0.9	<0.2	0.9		
											1.0	0.4	97	17.0	17.0	8.2	8.2	29.8	29.8	100.1	100.1	8.1	8.1	4.4	4.4	5	5	85	85	88	88	88	821449	814179	<0.2	0.9	<0.2	0.9
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
	3.4	0.3	90	17.0						17.0	8.2	8.2	29.8	29.8	100.0	100.0	8.1	8.1	4.5	4.5	4	4	91	91	91	91	91	821449	814179	<0.2	1.0	<0.2	1.0					
	3.4	0.3	92	17.0						17.0	8.2	8.2	29.8	29.8	100.0	100.0	8.1	8.1	4.5	4.5	4	4	91	91	91	91	91	821449	814179	<0.2	1.0	<0.2	1.0					
SR3	Cloudy	Moderate	07:52	8.8						Surface	1.0	2.9	154	16.8	16.8	8.1	8.1	29.3	29.3	99.9	99.9	8.1	8.1	5.8	5.8	7	7	-	-	-	822162	807559	-	-	-	-		
											1.0	3.0	160	16.8	16.8	8.1	8.1	29.3	29.3	99.9	99.9	8.1	8.1	5.9	5.9	8	8	-	-	-	-	-	822162	807559	-	-	-	-
											4.4	2.8	143	16.8	16.8	8.1	8.1	29.3	29.3	99.8	99.8	8.1	8.1	6.2	6.2	7	7	-	-	-	-	-	822162	807559	-	-	-	-
					Middle	4.4	3.0	154	16.8	16.8	8.1	8.1	29.3	29.3	99.8	99.8	8.1	8.1	6.3	6.3	8	8	-	-	-	-	-	822162	807559	-	-	-	-					
						7.8	2.6	140	16.8	16.8	8.1	8.1	29.3	29.3	99.5	99.5	8.1	8.1	7.9	7.9	6	6	-	-	-	-	-	822162	807559	-	-	-	-					
						7.8	2.7	140	16.8	16.8	8.1	8.1	29.3	29.3	99.5	99.5	8.1	8.1	7.9	7.9	7	7	-	-	-	-	-	822162	807559	-	-	-	-					
					SR4A	Cloudy	Calm	06:35	7.6	Surface	1.0	0.2	65	17.6	17.6	7.8	7.8	31.1	31.1	100.9	100.7	8.0	8.0	3.8	3.8	5	5	-	-	-	817205	807818	-	-	-	-		
											1.0	0.2	67	17.6	17.6	7.8	7.8	31.1	31.1	100.5	100.5	8.0	8.0	3.8	3.8	4	4	-	-	-	-	-	817205	807818	-	-	-	-
											3.8	0.1	58	17.6	17.6	7.8	7.8	31.2	31.2	100.8	103.2	8.0	8.0	4.5	4.5	5	5	-	-	-	-	-	817205	807818	-	-	-	-
Middle	3.8	0.1	59	17.6						17.6	7.8	7.8	31.1	31.2	105.6	103.2	8.4	8.4	4.7	4.7	5	5	-	-	-	-	-	817205	807818	-	-	-	-					
	6.6	0.1	80	17.8						17.8	7.8	7.8	31.3	31.3	100.2	102.7	7.9	7.9	5.9	5.9	6	6	-	-	-	-	-	817205	807818	-	-	-	-					
	6.6	0.1	81	17.8						17.8	7.8	7.8	31.3	31.3	105.1	102.7	8.3	8.3	5.8	5.8	6	6	-	-	-	-	-	817205	807818	-	-	-	-					
SR5A	Cloudy	Calm	06:12	3.2						Surface	1.0	0.2	316	17.6	17.6	7.8	7.8	30.9	30.9	102.9	102.5	8.2	8.2	3.5	3.5	5	5	-	-	-	816577	810705	-	-	-	-		
											1.0	0.2	328	17.6	17.6	7.8	7.8	30.9	30.9	102.0	102.5	8.1	8.2	3.6	3.6	6	6	-	-	-	-	-	816577	810705	-	-		

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

Water Quality Monitoring

Water Quality Monitoring Results on 07 January 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
C1	Cloudy	Calm	13:35	8.4	Surface	1.0	0.4	52	17.7	17.7	8.3	8.3	31.8	31.8	104.6	104.6	8.2	8.2	0.8	8	8	84	84	89	815631	804236	<0.2	0.7	0.7	0.7					
						1.0	0.4	56	17.7	17.7	8.3	8.3	31.8	31.8	104.5	104.5	8.2	8.2	0.8	7	7	86	86	89	815631	804236	<0.2	0.7	0.7	0.7					
						4.2	0.4	50	17.7	17.7	8.3	8.3	31.8	31.8	104.0	103.8	8.2	8.2	1.5	8	8	89	89	89	815631	804236	<0.2	0.7	0.7	0.7					
					4.2	0.4	50	17.7	17.7	8.3	8.3	31.8	31.8	103.5	103.5	8.2	8.2	1.6	7	7	90	90	89	815631	804236	<0.2	0.7	0.7	0.7						
					7.4	0.3	42	17.6	17.6	8.3	8.3	31.8	31.8	103.1	103.2	8.1	8.1	3.1	10	10	93	93	89	815631	804236	<0.2	0.7	0.7	0.7						
					7.4	0.3	45	17.6	17.6	8.3	8.3	31.8	31.8	103.3	103.3	8.1	8.1	3.2	9	9	94	94	89	815631	804236	<0.2	0.7	0.7	0.7						
C2	Cloudy	Moderate	12:12	11.5	Surface	1.0	0.2	203	17.0	17.0	8.1	8.1	28.7	28.7	100.7	100.7	8.2	8.2	3.9	5	5	87	87	89	825675	806963	<0.2	1.3	1.3	1.3					
						1.0	0.2	213	17.0	17.0	8.1	8.1	28.7	28.7	100.7	100.7	8.2	8.2	3.9	5	5	87	87	89	825675	806963	<0.2	1.3	1.3	1.3					
						5.8	0.1	281	17.0	17.0	8.1	8.1	29.4	29.4	99.0	99.0	8.0	8.1	4.3	6	6	89	89	89	825675	806963	<0.2	1.4	1.4	1.3					
					5.8	0.2	282	17.0	17.0	8.1	8.1	29.4	29.4	99.0	99.0	8.0	8.1	4.4	6	6	89	89	89	825675	806963	<0.2	1.3	1.3	1.3						
					10.5	0.2	303	17.0	17.0	8.2	8.2	29.4	29.4	99.7	99.7	8.1	8.1	4.3	8	8	92	92	89	825675	806963	<0.2	1.3	1.3	1.3						
					10.5	0.2	323	17.0	17.0	8.2	8.2	29.4	29.4	99.7	99.7	8.1	8.1	4.3	7	7	92	92	89	825675	806963	<0.2	1.2	1.2	1.2						
C3	Cloudy	Moderate	14:32	12.1	Surface	1.0	0.4	255	17.5	17.5	8.1	8.1	30.3	30.3	95.3	95.3	7.6	7.6	4.8	6	6	89	89	90	822095	817784	<0.2	1.1	1.1	1.1					
						1.0	0.4	260	17.5	17.5	8.1	8.1	30.3	30.3	95.3	95.3	7.6	7.6	4.8	5	5	88	88	88	822095	817784	<0.2	1.1	1.1	1.1					
						6.1	0.4	251	17.5	17.5	8.1	8.1	30.3	30.3	95.3	95.3	7.6	7.6	8.8	6	6	88	88	88	822095	817784	<0.2	0.8	0.8	0.8					
					6.1	0.4	263	17.5	17.5	8.1	8.1	30.3	30.3	95.3	95.3	7.6	7.6	8.9	5	5	88	88	88	822095	817784	<0.2	0.8	0.8	0.8						
					11.1	0.3	258	17.5	17.5	8.1	8.1	30.3	30.3	96.1	96.2	7.7	7.7	9.0	5	5	92	92	89	822095	817784	<0.2	0.7	0.7	0.7						
					11.1	0.3	280	17.5	17.5	8.1	8.1	30.3	30.3	96.2	96.2	7.7	7.7	8.5	4	4	92	92	89	822095	817784	<0.2	0.7	0.7	0.7						
IM1	Cloudy	Calm	13:11	4.7	Surface	1.0	0.1	354	17.8	17.8	8.3	8.3	31.6	31.6	105.7	105.7	8.3	8.3	0.6	7	7	89	89	91	817970	807135	<0.2	0.8	0.8	0.8					
						1.0	0.1	326	17.8	17.8	8.3	8.3	31.6	31.6	105.6	105.6	8.3	8.3	0.6	6	6	89	89	89	817970	807135	<0.2	0.8	0.8	0.8					
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					3.7	0.1	351	17.8	17.8	8.3	8.3	31.6	31.6	106.0	106.1	8.4	8.4	2.0	5	5	92	92	89	817970	807135	<0.2	0.8	0.8	0.8						
					3.7	0.1	323	17.8	17.8	8.3	8.3	31.6	31.6	106.1	106.1	8.4	8.4	2.1	5	5	93	93	89	817970	807135	<0.2	0.8	0.8	0.8						
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
IM2	Cloudy	Calm	13:02	6.8	Surface	1.0	0.3	322	17.7	17.7	8.3	8.3	31.5	31.5	104.3	104.2	8.2	8.2	1.8	6	6	84	84	89	818174	806186	<0.2	0.9	0.9	0.9					
						1.0	0.3	340	17.7	17.7	8.3	8.3	31.5	31.5	104.0	103.9	8.2	8.2	1.8	7	7	85	85	89	818174	806186	<0.2	0.8	0.8	0.8					
						3.4	0.2	323	17.7	17.7	8.3	8.3	31.6	31.6	103.9	103.9	8.2	8.2	4.7	8	8	88	88	89	818174	806186	<0.2	0.8	0.8	0.8					
					3.4	0.3	335	17.7	17.7	8.3	8.3	31.6	31.6	103.8	103.8	8.2	8.2	4.8	8	8	89	89	89	818174	806186	<0.2	0.9	0.9	0.9						
					5.8	0.2	321	17.8	17.8	8.3	8.3	31.6	31.6	103.1	103.2	8.1	8.1	9.0	9	9	92	92	89	818174	806186	<0.2	0.8	0.8	0.8						
					5.8	0.3	333	17.8	17.8	8.3	8.3	31.6	31.6	103.2	103.2	8.1	8.1	8.9	9	9	93	93	89	818174	806186	<0.2	0.8	0.8	0.8						
IM3	Cloudy	Calm	12:54	6.8	Surface	1.0	0.2	17	17.5	17.5	8.3	8.3	31.3	31.3	103.2	103.4	8.2	8.2	3.6	8	8	88	88	91	818785	805578	<0.2	0.9	0.9	0.9					
						1.0	0.3	17	17.5	17.5	8.3	8.3	31.3	31.3	103.6	103.4	8.2	8.2	3.8	9	9	88	88	89	818785	805578	<0.2	0.9	0.9	0.9					
						3.4	0.2	36	17.5	17.5	8.3	8.3	31.3	31.3	103.3	103.4	8.2	8.2	4.6	9	9	92	92	89	818785	805578	<0.2	0.8	0.8	0.8					
					3.4	0.3	37	17.5	17.5	8.3	8.3	31.3	31.3	103.4	103.4	8.2	8.2	4.6	9	9	92	92	89	818785	805578	<0.2	0.9	0.9	0.9						
					5.8	0.3	26	17.5	17.5	8.3	8.3	31.3	31.3	103.0	103.1	8.2	8.2	7.1	10	10	93	93	89	818785	805578	<0.2	0.8	0.8	0.8						
					5.8	0.3	28	17.5	17.5	8.3	8.3	31.3	31.3	103.0	103.1	8.2	8.2	7.1	10	10	94	94	89	818785	805578	<0.2	0.8	0.8	0.8						
IM4	Cloudy	Calm	12:44	7.8	Surface	1.0	0.4	358	17.6	17.6	8.3	8.3	31.2	31.2	105.6	105.6	8.4	8.4	-	5	5	86	86	90	819701	804601	<0.2	0.9	0.9	0.9					
						1.0	0.5	329	17.6	17.6	8.3	8.3	31.2	31.2	105.6	105.6	8.4	8.4	-	6	6	87	87	89	819701	804601	<0.2	0.9	0.9	0.9					
						3.9	0.4	357	17.6	17.6	8.3	8.3	31.3	31.3	105.1	105.2	8.3	8.3	0.1	8	8	90	90	89	819701	804601	<0.2	1.0	1.0	1.0					
					3.9	0.4	328	17.6	17.6	8.3	8.3	31.3	31.3	105.3	105.3	8.3	8.3	0.1	7	7	91	91	89	819701	804601	<0.2	0.9	0.9	0.9						
					6.8	0.4	5	17.5	17.5	8.3	8.3	31.4	31.4	104.7	104.6	8.3	8.3	0.3	8	8	94	94	89	819701	804601	<0.2	0.9	0.9	0.9						
					6.8	0.4	5	17.5	17.5	8.3	8.3	31.4	31.4	104.5	104.5	8.3	8.3	0.3	8	8	93	93	89	819701	804601	<0.2	0.9	0.9	0.9						
IM5	Cloudy	Calm	12:33	7.5	Surface	1.0	0.2	290	17.6	17.6	8.3	8.3	31.4	31.4	105.4	105.4	8.3	8.3	5.7	11	11	85	85	89	820717	804873	<0.2	0.9	0.9	0.9					
						1.0	0.2	291	17.6	17.6	8.3	8.3	31.4	31.4	105.3	105.4	8.3	8.3	5.8	10	10	86	86	89	820717	804873	<0.2	0.9	0.9	0.9					
						3.8	0.1	294	17.6	17.6	8.3	8.3	31.4	31.4	105.4	105.4	8.3	8.3	6.2	12	12	89	89	89	820717	804873	<0.2	0.9	0.9	0.9					
					3.8	0.1	299	17.6	17.6	8.3	8.3	31.4	31.4	105.4	105.4	8.3	8.3	6.2	13	13	90	90	89	820717	804873	<0.2	0.9	0.9	0.9						
					6.5	0.1	234	17.6	17.6	8																									

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

Water Quality Monitoring Results on 07 January 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	12:43	7.0	Surface	1.0	0.2	253	17.0	17.0	8.1	8.1	29.4	29.4	102.5	102.5	8.3	8.3	6.0	6.0	9	87	89	89	822093	808789	<0.2	1.1	<0.2	1.0			
						1.0	0.2	260	17.0	8.1	8.1	29.4	29.4	102.5	102.4	8.3	8.3	6.0	6.0	8	88	89	89	<0.2			1.1	<0.2	1.0				
						3.5	0.3	257	17.0	8.1	8.1	29.4	29.4	102.4	102.4	8.3	8.3	6.3	6.3	7	89	89	89	<0.2			1.1	<0.2	1.0				
					Middle	3.5	0.3	264	17.0	8.1	8.1	29.4	29.4	102.4	102.4	8.3	8.3	6.3	6.3	6	89	89	89	<0.2			1.1	<0.2	1.0				
						6.0	0.2	258	16.9	8.1	8.1	29.4	29.4	102.5	102.5	8.3	8.3	6.2	6.2	6	91	89	89	<0.2			1.0	<0.2	1.0				
						6.0	0.2	274	16.9	8.1	8.1	29.4	29.4	102.5	102.5	8.3	8.3	6.3	6.3	7	92	89	89	<0.2			1.0	<0.2	1.0				
					Bottom	6.0	0.2	258	16.9	8.1	8.1	29.4	29.4	102.5	102.5	8.3	8.3	6.2	6.2	6	91	89	89	<0.2			1.0	<0.2	1.0				
						6.0	0.2	274	16.9	8.1	8.1	29.4	29.4	102.5	102.5	8.3	8.3	6.3	6.3	7	92	89	89	<0.2			1.0	<0.2	1.0				
						6.0	0.2	274	16.9	8.1	8.1	29.4	29.4	102.5	102.5	8.3	8.3	6.3	6.3	7	92	89	89	<0.2			1.0	<0.2	1.0				
IM10	Cloudy	Moderate	12:52	7.6	Surface	1.0	0.5	300	17.0	17.0	8.1	8.1	29.5	29.5	102.7	102.7	8.3	8.3	5.6	5.6	7	88	90	90	822400	809775	<0.2	1.1	<0.2	1.1			
						1.0	0.5	317	17.0	8.1	8.1	29.5	29.5	102.7	102.7	8.3	8.3	5.7	5.7	6	88	89	89	<0.2			1.1	<0.2	1.1				
						3.8	0.5	297	17.0	8.1	8.1	29.5	29.5	102.7	102.7	8.3	8.3	5.5	5.5	7	89	89	89	<0.2			1.0	<0.2	1.0				
					Middle	3.8	0.5	311	17.0	8.1	8.1	29.5	29.5	102.7	102.7	8.3	8.3	5.5	5.5	8	90	89	89	<0.2			1.0	<0.2	1.0				
						6.6	0.4	296	17.0	8.1	8.1	29.5	29.5	104.0	104.0	8.4	8.4	5.6	5.6	8	92	89	89	<0.2			1.1	<0.2	1.1				
						6.6	0.4	306	16.9	8.1	8.1	29.5	29.5	104.0	104.0	8.4	8.4	5.6	5.6	8	93	89	89	<0.2			1.1	<0.2	1.1				
					Bottom	6.6	0.4	296	17.0	8.1	8.1	29.5	29.5	104.0	104.0	8.4	8.4	5.6	5.6	8	92	89	89	<0.2			1.1	<0.2	1.1				
						6.6	0.4	306	16.9	8.1	8.1	29.5	29.5	104.0	104.0	8.4	8.4	5.6	5.6	8	93	89	89	<0.2			1.1	<0.2	1.1				
						6.6	0.4	306	16.9	8.1	8.1	29.5	29.5	104.0	104.0	8.4	8.4	5.6	5.6	8	93	89	89	<0.2			1.1	<0.2	1.1				
IM11	Cloudy	Moderate	13:05	7.3	Surface	1.0	0.5	293	17.1	17.1	8.1	8.1	29.7	29.7	103.0	103.0	8.3	8.3	4.3	4.3	5	88	89	89	822074	811452	<0.2	1.0	<0.2	1.0			
						1.0	0.5	300	17.1	8.1	8.1	29.7	29.7	103.0	103.0	8.3	8.3	4.3	4.3	4	88	89	89	<0.2			1.0	<0.2	1.0				
						3.7	0.5	291	17.1	8.1	8.1	29.7	29.7	102.1	102.1	8.2	8.2	4.9	4.9	6	89	89	89	<0.2			1.0	<0.2	1.0				
					Middle	3.7	0.5	291	17.1	8.1	8.1	29.7	29.7	102.0	102.1	8.2	8.2	5.0	5.0	6	89	89	89	<0.2			1.0	<0.2	0.9				
						6.3	0.4	300	17.1	8.1	8.1	29.7	29.7	102.2	102.3	8.2	8.2	6.8	6.8	7	90	89	89	<0.2			1.0	<0.2	1.0				
						6.3	0.4	319	17.1	8.1	8.1	29.7	29.7	102.3	102.3	8.3	8.3	6.7	6.7	8	91	89	89	<0.2			1.1	<0.2	1.1				
					Bottom	6.3	0.4	300	17.1	8.1	8.1	29.7	29.7	102.2	102.3	8.2	8.2	6.8	6.8	7	90	89	89	<0.2			1.0	<0.2	1.0				
						6.3	0.4	319	17.1	8.1	8.1	29.7	29.7	102.3	102.3	8.3	8.3	6.7	6.7	8	91	89	89	<0.2			1.1	<0.2	1.1				
						6.3	0.4	319	17.1	8.1	8.1	29.7	29.7	102.3	102.3	8.3	8.3	6.7	6.7	8	91	89	89	<0.2			1.1	<0.2	1.1				
IM12	Cloudy	Moderate	13:14	8.9	Surface	1.0	0.4	271	17.1	17.1	8.1	8.1	29.8	29.8	102.2	102.2	8.2	8.2	5.5	5.5	6	88	91	91	821455	812038	<0.2	1.0	<0.2	0.9			
						1.0	0.4	274	17.1	8.1	8.1	29.8	29.8	102.2	102.2	8.2	8.2	5.5	5.5	6	89	89	89	<0.2			1.0	<0.2	0.9				
						4.5	0.4	274	17.1	8.1	8.1	29.8	29.8	102.2	102.2	8.2	8.2	5.5	5.5	7	90	89	89	<0.2			1.0	<0.2	0.8				
					Middle	4.5	0.5	285	17.1	8.1	8.1	29.8	29.8	102.2	102.2	8.2	8.2	5.5	5.5	8	91	89	89	<0.2			1.0	<0.2	0.9				
						7.9	0.4	278	17.1	8.1	8.1	29.8	29.8	102.7	102.8	8.3	8.3	5.8	5.8	8	93	89	89	<0.2			1.0	<0.2	0.9				
						7.9	0.4	283	17.1	8.1	8.1	29.8	29.8	102.8	102.8	8.3	8.3	5.8	5.8	9	92	89	89	<0.2			1.0	<0.2	0.8				
					Bottom	7.9	0.4	278	17.1	8.1	8.1	29.8	29.8	102.7	102.8	8.3	8.3	5.8	5.8	8	93	89	89	<0.2			1.0	<0.2	0.9				
						7.9	0.4	283	17.1	8.1	8.1	29.8	29.8	102.8	102.8	8.3	8.3	5.8	5.8	9	92	89	89	<0.2			1.0	<0.2	0.8				
						7.9	0.4	283	17.1	8.1	8.1	29.8	29.8	102.8	102.8	8.3	8.3	5.8	5.8	9	92	89	89	<0.2			1.0	<0.2	0.8				
SR1A	Cloudy	Calm	13:50	5.2	Surface	1.0	-	-	17.2	17.2	8.1	8.1	29.8	29.8	103.6	103.6	8.3	8.3	4.2	4.2	5	-	-	-	819980	812665	-	-	-	-			
						1.0	-	-	17.2	17.2	8.1	8.1	29.8	29.8	103.6	103.6	8.3	8.3	4.2	4.2	6	-	-	-			-	-	-	-			
						2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-		
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-
						4.2	-	-	17.1	17.1	8.1	8.1	29.8	29.8	103.7	103.8	8.4	8.4	4.2	4.2	7	-	-	-			-	-	-	-	-	-	
						4.2	-	-	17.1	17.1	8.1	8.1	29.8	29.8	103.8	103.8	8.4	8.4	4.2	4.2	7	-	-	-			-	-	-	-	-	-	
					Bottom	4.2	-	-	17.1	17.1	8.1	8.1	29.8	29.8	103.8	103.8	8.4	8.4	4.2	4.2	7	-	-	-			-	-	-	-	-	-	
						4.2	-	-	17.1	17.1	8.1	8.1	29.8	29.8	103.8	103.8	8.4	8.4	4.2	4.2	7	-	-	-			-	-	-	-	-	-	
						4.2	-	-	17.1	17.1	8.1	8.1	29.8	29.8	103.8	103.8	8.4	8.4	4.2	4.2	7	-	-	-			-	-	-	-	-		
SR2	Cloudy	Moderate	14:06	4.2	Surface	1.0	0.1	84	17.2	17.2	8.1	8.1	29.9	29.9	104.4	104.4	8.4	8.4	4.4	4.4	7	89	90	90	821475	814160	<0.2	0.8	<0.2	0.9			
						1.0	0.1	88	17.2	8.1	8.1	29.9	29.9	104.4	104.4	8.4	8.4	4.5	4.5	6	88	89	89	<0.2			0.9	<0.2	0.9				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-		
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-
						3.2	0.1	73	17.2	8.1	8.1	29.9	29.9	104.5	104.5	8.4	8.4	4.9	4.9	4	91	89	89	<0.2			0.9	<0.2	0.8				
						3.2	0.1	75	17.2	8.1	8.1	29.9	29.9	104.5	104.5	8.4	8.4	4.9	4.9	6	91	89	89	<0.2			0.9	<0.2	0.8				
					Bottom	3.2	0.1	73	17.2	8.1	8.1	29.9	29.9	104.5	104.5	8.4	8.4	4.9	4.9	4	91	89	89	<0.2			0.9	<0.2	0.8				
						3.2	0.1	75	17.2	8.1	8.1	29.9	29.9	104.5	104.5	8.4	8.4	4.9	4.9	6	91	89	89	<0.2			0.9	<0.2					

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

Water Quality Monitoring

Water Quality Monitoring Results on 09 January 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	Rough	09:18	8.4	Surface	1.0	0.2	178	15.9	15.9	8.2	8.2	30.7	30.7	100.7	100.7	8.3	8.3	7.6	7.6	8	8	86	86	815617	804269	<0.2	<0.2	0.5	0.5											
						1.0	0.2	178	15.9	8.2	8.2	30.7	30.7	100.7	100.7	8.3	8.3	7.6	7.6	8	8	87	87																		
						4.2	0.2	169	15.9	8.2	8.2	30.7	30.7	100.8	100.8	8.3	8.3	7.5	7.5	10	10	89	89																		
					Middle	4.2	0.2	178	15.9	15.9	8.2	8.2	30.7	30.7	100.8	100.8	8.3	8.3	7.5	7.5	10	10	89	89							89	89									
						7.4	0.1	153	15.9	15.9	8.2	8.2	30.7	30.7	101.5	101.5	8.3	8.3	7.6	7.6	11	11	91	91																	
						7.4	0.1	154	15.9	15.9	8.2	8.2	30.7	30.7	101.6	101.6	8.3	8.3	7.6	7.6	11	11	92	92																	
					C2	Fine	Moderate	11:18	10.8	Surface	1.0	0.2	135	16.8	16.8	8.2	8.2	31.8	31.8	100.1	100.1	8.0	8.0	5.2							5.2	3	3	88	88	825665	806950	<0.2	<0.2	0.8	0.8
											1.0	0.2	138	16.8	8.2	8.2	31.8	31.8	100.1	100.1	8.0	8.0	5.2	5.2							4	4	88	88							
											5.4	0.5	154	16.7	16.7	8.2	8.2	31.8	31.8	99.6	99.6	8.0	8.0	5.3							5.3	5	5	92	92						
Middle	5.4	0.5	160	16.7						16.7	8.2	8.2	31.8	31.8	99.6	99.6	8.0	8.0	5.3	5.3	5	5	92	92																	
	9.8	0.5	144	16.5						16.5	8.2	8.2	31.8	31.8	99.6	99.6	8.0	8.0	5.7	5.7	6	6	96	96																	
	9.8	0.5	146	16.5						16.5	8.2	8.2	31.8	31.8	99.7	99.7	8.0	8.0	5.7	5.7	6	6	95	95																	
C3	Cloudy	Moderate	08:36	12.3						Surface	1.0	0.4	286	17.6	17.6	8.2	8.2	32.5	32.5	100.9	100.9	7.9	7.9	5.4	5.4	7	7	84	84	822092	817820	<0.2	<0.2	0.7	0.7						
											1.0	0.4	295	17.6	17.6	8.2	8.2	32.5	32.5	100.9	100.9	7.9	7.9	5.5	5.5	7	7	84	84												
											6.2	0.2	257	17.6	17.6	8.2	8.2	32.5	32.5	101.0	101.0	7.9	7.9	6.0	6.0	6	6	88	88												
					Middle	6.2	0.2	263	17.6	17.6	8.2	8.2	32.5	32.5	100.9	100.9	7.9	7.9	6.0	6.0	6	6	88	88																	
						11.3	0.1	120	17.6	17.6	8.2	8.2	32.5	32.5	100.7	100.7	7.9	7.9	5.9	5.9	6	6	91	91																	
						11.3	0.1	126	17.6	17.6	8.2	8.2	32.5	32.5	100.6	100.6	7.9	7.9	6.0	6.0	6	6	91	91																	
					IM1	Cloudy	Rough	09:40	4.9	Surface	1.0	0.0	65	15.1	15.1	8.2	8.2	30.2	30.2	100.1	100.1	8.4	8.4	6.6	6.6	9	9	88	88							817972	807150	<0.2	<0.2	0.7	0.7
											1.0	0.0	66	15.1	15.1	8.2	8.2	30.2	30.2	100.1	100.1	8.4	8.4	6.6	6.6	9	9	87	87												
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-												
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-															
	3.9	0.0	49	15.0						15.0	8.2	8.2	30.3	30.3	101.4	101.4	8.5	8.5	7.8	7.8	7	7	90	90																	
	3.9	0.0	51	15.0						15.0	8.2	8.2	30.3	30.3	101.6	101.6	8.5	8.5	7.7	7.7	7	7	89	89																	
IM2	Cloudy	Rough	09:49	6.8						Surface	1.0	0.1	186	15.5	15.5	8.2	8.2	30.4	30.4	100.1	100.1	8.3	8.3	6.9	6.9	10	10	85	85	818186	806149	<0.2	<0.2	0.6	0.6						
											1.0	0.1	189	15.5	15.5	8.2	8.2	30.4	30.4	100.1	100.1	8.3	8.3	6.9	6.9	10	10	85	85												
											3.4	0.1	193	15.5	15.5	8.2	8.2	30.4	30.4	99.7	99.7	8.3	8.3	7.1	7.1	10	10	88	88												
					Middle	3.4	0.1	210	15.5	15.5	8.2	8.2	30.4	30.4	99.7	99.7	8.3	8.3	7.2	7.2	10	10	88	88																	
						5.8	0.1	175	15.5	15.5	8.2	8.2	30.4	30.4	99.6	99.6	8.3	8.3	8.5	8.5	9	9	90	90																	
						5.8	0.1	177	15.5	15.5	8.2	8.2	30.4	30.4	99.6	99.6	8.3	8.3	8.5	8.5	9	9	90	90																	
					IM3	Cloudy	Rough	09:55	7.0	Surface	1.0	0.1	178	15.4	15.4	8.2	8.2	30.4	30.4	100.3	100.3	8.3	8.3	6.1	6.1	6	6	85	85							818785	805607	<0.2	<0.2	0.6	0.6
											1.0	0.1	188	15.4	15.4	8.2	8.2	30.4	30.4	100.3	100.3	8.3	8.3	6.1	6.1	6	6	85	85												
											3.5	0.0	134	15.4	15.4	8.2	8.2	30.4	30.4	100.0	100.0	8.3	8.3	9.0	9.0	8	8	87	87												
Middle	3.5	0.0	146	15.4						15.4	8.2	8.2	30.4	30.4	100.0	100.0	8.3	8.3	9.2	9.2	8	8	88	88																	
	6.0	0.1	156	15.4						15.4	8.1	8.1	30.4	30.4	99.9	99.9	8.3	8.3	7.7	7.7	9	9	90	90																	
	6.0	0.1	163	15.4						15.4	8.1	8.1	30.4	30.4	99.9	99.9	8.3	8.3	7.7	7.7	9	9	90	90																	
IM4	Cloudy	Rough	10:06	8.2						Surface	1.0	0.4	180	15.3	15.3	8.2	8.2	30.4	30.4	100.5	100.5	8.4	8.4	7.1	7.1	10	10	85	85	819726	804630	<0.2	<0.2	0.6	0.6						
											1.0	0.5	192	15.3	15.3	8.2	8.2	30.4	30.4	100.5	100.5	8.4	8.4	7.1	7.1	10	10	85	85												
											4.1	0.3	172	15.3	15.3	8.1	8.1	30.4	30.4	100.2	100.2	8.3	8.3	7.2	7.2	9	9	88	88												
					Middle	4.1	0.4	180	15.3	15.3	8.1	8.1	30.4	30.4	100.2	100.2	8.3	8.3	7.2	7.2	10	10	87	87																	
						7.2	0.4	167	15.3	15.3	8.1	8.1	30.5	30.5	102.3	102.3	8.5	8.5	8.1	8.1	8	8	90	90																	
						7.2	0.5	181	15.3	15.3	8.1	8.1	30.5	30.5	102.4	102.4	8.5	8.5	8.1	8.1	8	8	89	89																	
					IM5	Cloudy	Moderate	10:16	7.5	Surface	1.0	0.3	193	15.3	15.3	8.2	8.2	30.4	30.4	100.0	100.0	8.3	8.3	8.4	8.4	9	9	85	85							820746	804890	<0.2	<0.2	0.6	0.6
											1.0	0.3	210	15.3	15.3	8.2	8.2	30.4	30.4	100.0	100.0	8.3	8.3	8.4	8.4	9	9	85	85												
											3.8	0.3	201	15.3	15.3	8.2	8.2	30.4	30.4	99.8	99.8	8.3	8.3	8.5	8.5	9	9	88	88												
Middle	3.8	0.3	220	15.3						15.3	8.2	8.2	30.4	30.4	99.8	99.8	8.3	8.3	8.5	8.5	9	9	87	87																	
	6.5	0.3	183	15.3						15.3	8.1	8.1	30.4	30.4	99.9	99.9	8.3	8.3	8.9	8.9	10	10	89	89																	
	6.5	0.3	194	15.3						15.3	8.1	8.1	30.4	30.4	100.0	100.0	8.3	8.3	8.9	8.9	10	10	90	90																	
IM6	Cloudy	Moderate	10:26	6.9						Surface	1.0	0.1	208	15.3	15.3	8.2	8.2	30.2	30.2	100.7	100.7	8.4	8.4	5.6	5.6	11	11	85	85	821067	805849	<0.2	<0.2	0.7	0.7						
											1.0	0.1	226	15.3	15.3	8.2	8.2	30.2	30.2	100.7	100.7	8.4	8.4	5.6	5.6	11	11	85	85												
											3.5	0.2	217	15.2	15.2	8.2	8.2	30.2	30.2	100.8	100.8	8.4	8.4	5.7	5.7	9	9	88	88												
					Middle	3.5	0.2	218	15.2	15.2	8.2	8.2	30.2	30.2	100.8	100.8	8.4	8.4	5.7	5.7	9	9	88	88																	
						5.9	0.1	204	15.2	15.2	8.1	8.1	30.2	30.2	102.0	102.0	8.5	8.5	7.6	7.6	6	6	90	90																	
						5.9	0.2	212	15.2	15.2	8.1	8.1	30.2	30.2	102.0	102.0	8.5	8.5	7.6	7.6	6	6	89	89																	
					IM7	Cloudy	Moderate	10:36	8.3	Surface	1.0	0.1	192	15.2	15.2	8.2	8.2	30.3	30.3	100.2	100.2	8.4	8.4	9.5	9.5	5	5	86	86							821339	806858	<0.2	<0.2	0.7	0.7
											1.0	0.1	200	15.2	15.2	8.2	8.2	30.3	30.3	100.2	100.2	8.4	8.4	9.5	9.5	5	5	86	86												
											4.2	0.1	171																												

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

Water Quality Monitoring Results on 09 January 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	10:40	7.1	Surface	1.0	0.2	77	16.5	16.5	8.2	8.2	31.8	31.8	100.9	100.9	8.1	8.1	5.4	5.4	7	7	88	88	93	822103	808792	<0.2	0.8	<0.2	0.8								
						1.0	0.2	84	16.5	8.2	8.2	31.8	31.8	100.9	100.9	8.1	8.1	5.4	5.4	7	7	89	89	<0.2				0.7	<0.2	0.8									
						3.6	0.3	79	16.5	8.2	8.2	31.8	31.8	101.0	101.0	8.1	8.1	5.4	5.4	6	6	93	93	<0.2				0.8	<0.2	0.8									
					Middle	3.6	0.3	79	16.5	8.2	8.2	31.8	31.8	101.2	101.2	8.2	8.2	5.4	5.4	6	6	92	92	6				6	96	96	<0.2	0.8	<0.2	0.8					
						6.1	0.3	118	16.7	8.2	8.2	31.9	31.9	101.5	101.5	8.2	8.2	5.3	5.3	6	6	96	96	6				6	96	96	<0.2	0.8	<0.2	0.8					
						6.1	0.3	124	16.7	8.2	8.2	31.9	31.9	101.5	101.5	8.2	8.2	5.4	5.4	6	6	97	97	6				6	96	96	<0.2	0.8	<0.2	0.8					
					IM10	Fine	Moderate	10:17	8.3	Surface	1.0	0.3	90	16.1	16.1	8.2	8.2	31.7	31.7	101.1	101.1	8.2	8.2	5.7				5.7	4	4	89	89	92	822364	809789	<0.2	0.7	<0.2	0.7
											1.0	0.4	98	16.1	8.2	8.2	31.7	31.7	101.1	101.1	8.2	8.2	5.7	5.7				4	4	88	88	<0.2				0.7	<0.2	0.7	
											4.2	0.3	93	16.1	8.2	8.2	31.7	31.7	101.1	101.1	8.2	8.2	6.2	6.2				6	6	93	93	<0.2				0.6	<0.2	0.8	
Middle	4.2	0.3	98	16.1						8.2	8.2	31.7	31.7	101.2	101.2	8.2	8.2	6.1	6.1	6	6	92	92	6	6	96	96	<0.2	0.7	<0.2	0.8								
	7.3	0.3	101	16.1						8.2	8.2	31.7	31.7	101.0	101.0	8.2	8.2	6.6	6.6	6	6	96	96	6	6	96	96	<0.2	0.8	<0.2	0.8								
	7.3	0.3	105	16.1						8.2	8.2	31.7	31.7	100.9	100.9	8.2	8.2	6.6	6.6	7	7	96	96	6	6	96	96	<0.2	0.8	<0.2	0.8								
IM11	Fine	Moderate	10:05	7.6						Surface	1.0	0.1	157	17.0	17.0	8.2	8.2	32.2	32.2	99.0	99.0	7.9	7.9	5.5	5.5	5	5	89	89	93	822049	811464				<0.2	0.6	<0.2	0.7
											1.0	0.1	164	17.0	8.2	8.2	32.2	32.2	99.0	99.0	7.9	7.9	5.5	5.5	5	5	88	88	<0.2							0.6	<0.2	0.7	
											3.8	0.1	156	17.0	8.2	8.2	32.2	32.2	99.0	99.0	7.9	7.9	5.6	5.6	6	6	93	93	<0.2							0.6	<0.2	0.8	
					Middle	3.8	0.1	158	17.0	8.2	8.2	32.2	32.2	99.0	99.0	7.9	7.9	5.6	5.6	6	6	93	93	6	6	96	96	<0.2	0.7				<0.2	0.7					
						6.6	0.3	159	17.0	8.2	8.2	32.2	32.2	100.0	100.0	8.0	8.0	5.7	5.7	7	7	97	97	6	6	96	96	<0.2	0.7				<0.2	0.7					
						6.6	0.3	174	17.0	8.2	8.2	32.2	32.2	99.9	99.9	8.0	8.0	5.7	5.7	6	6	96	96	6	6	96	96	<0.2	0.7				<0.2	0.7					
					IM12	Fine	Moderate	09:57	9.7	Surface	1.0	0.1	94	17.1	17.1	8.2	8.2	32.2	32.2	98.4	98.4	7.8	7.8	5.2	5.2	7	7	89	89				92	821469	812031	<0.2	0.7	<0.2	0.7
											1.0	0.1	96	17.1	8.2	8.2	32.2	32.2	98.3	98.3	7.8	7.8	5.2	5.2	7	7	88	88	<0.2							0.6	<0.2	0.7	
											4.9	0.0	312	17.1	8.2	8.2	32.2	32.2	97.8	97.8	7.8	7.8	5.6	5.6	6	6	93	93	<0.2							0.6	<0.2	0.7	
Middle	4.9	0.0	341	17.1						8.2	8.2	32.2	32.2	97.9	97.9	7.8	7.8	5.6	5.6	6	6	92	92	6	6	96	96	<0.2	0.6	<0.2	0.7								
	8.7	0.1	47	17.1						8.2	8.2	32.2	32.2	99.5	99.5	7.9	7.9	5.4	5.4	4	4	96	96	4	4	96	96	<0.2	0.7	<0.2	0.7								
	8.7	0.1	50	17.1						8.2	8.2	32.2	32.2	99.3	99.3	7.9	7.9	5.4	5.4	4	4	96	96	4	4	96	96	<0.2	0.7	<0.2	0.7								
SR1A	Fine	Calm	09:18	5.5						Surface	1.0	-	-	15.9	15.9	8.2	8.2	31.8	31.8	97.9	98.0	8.0	8.0	5.2	5.2	6	6	-	-	91	819970	812660				-	-	-	-
											1.0	-	-	15.9	15.9	8.2	8.2	31.8	31.8	98.0	98.0	8.0	8.0	5.2	5.2	6	6	-	-							-	-	-	-
											2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-				
						4.5	-	-	15.9	15.9	8.2	8.2	31.8	31.8	99.3	99.2	8.1	8.1	5.3	5.3	4	4	-	-	-	-	-	-	-				-	-					
						4.5	-	-	15.9	15.9	8.2	8.2	31.8	31.8	99.1	99.1	8.1	8.1	5.4	5.4	4	4	-	-	-	-	-	-	-				-	-					
					SR2	Fine	Moderate	08:59	4.8	Surface	1.0	0.2	348	17.4	17.4	8.2	8.2	32.3	32.3	97.6	97.6	7.7	7.7	5.2	5.2	5	5	89	89				91	821463	814156	<0.2	0.6	<0.2	0.6
											1.0	0.2	320	17.4	8.2	8.2	32.3	32.3	97.6	97.6	7.7	7.7	5.2	5.2	5	5	89	89	<0.2							0.6	<0.2	0.6	
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
	3.8	0.1	347	17.4						8.2	8.2	32.3	32.3	97.6	97.7	7.7	7.7	5.7	5.7	7	7	93	93	6	6	96	96	<0.2	0.6	<0.2	0.6								
	3.8	0.1	354	17.4						8.2	8.2	32.3	32.3	97.7	97.7	7.7	7.7	5.8	5.8	6	6	92	92	6	6	96	96	<0.2	0.6	<0.2	0.6								
SR3	Fine	Moderate	10:54	8.4						Surface	1.0	0.1	172	16.6	16.6	8.2	8.2	31.9	31.9	100.5	100.5	8.1	8.1	5.9	5.9	6	6	-	-	92	822143	807558				-	-	-	-
											1.0	0.1	177	16.6	8.2	8.2	31.9	31.9	100.5	100.5	8.1	8.1	5.9	5.9	6	6	-	-	-							-	-	-	
											4.2	0.1	235	16.4	8.2	8.2	31.9	31.9	100.6	100.6	8.1	8.1	6.3	6.3	6	6	-	-	-							-	-	-	
					Middle	4.2	0.1	257	16.4	8.2	8.2	31.9	31.9	100.5	100.5	8.1	8.1	6.3	6.3	5	5	-	-	-	-	-	-	-	-				-						
						7.4	0.1	86	16.0	8.2	8.2	31.9	31.9	99.8	99.8	8.1	8.1	6.8	6.8	4	4	-	-	-	-	-	-	-	-										
						7.4	0.1	88	16.0	8.2	8.2	31.9	31.9	99.8	99.8	8.1	8.1	6.8	6.8	4	4	-	-	-	-	-	-	-	-										
					SR4A	Cloudy	Calm	08:55	9.1	Surface	1.0	0.1	55	15.2	15.2	8.2	8.2	30.1	30.1	99.3	99.3	8.3	8.3	5.1	5.1	5	5	-	-				91	817177	807805	-	-	-	-
											1.0	0.1	56	15.2	8.2	8.2	30.1	30.1	99.3	99.3	8.3	8.3	5.2	5.2	5	5	-	-	-							-			
											4.6	0.2	69	15.0	8.2	8.2	30.2	30.2	98.9	98.9	8.3	8.3	6.1	6.1	6	6	-	-	-							-			
Middle	4.6	0.2	69	15.0						8.2	8.2	30.2	30.2	98.9	98.9	8.3	8.3	6.1	6.1	6	6	-	-	-	-	-	-												
	8.1	0.1	233	14.9						8.2	8.2	30.3	30.3	98.8	98.8	8.3	8.3	7.2	7.2	6	6	-	-	-	-														
	8.1	0.1	237	14.9						8.2	8.2	30.3	30.3	98.8	98.8	8.3	8.3	7.1	7.1	6	6	-	-	-	-														
SR5A	Cloudy	Calm	08:37	3.7						Surface	1.0	0.0	94	15.1	15.1	8.2	8.2	30.0	30.0	98.2	98.2	8.2	8.2	4.6	4.6	7	7	-	-	91	816573	810709				-	-	-	-
											1.0	0.0	94	15.1	8.2	8.2	30.0	30.0	98.2	98.2	8.2	8.2	4.6	4.6	7	7	-	-	-							-			
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-		
					Middle	-	-	-																															

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

Water Quality Monitoring

Water Quality Monitoring Results on 09 January 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	Rough	14:50	8.2	Surface	1.0	0.4	31	15.9	15.9	8.2	8.2	30.7	30.7	104.5	104.5	8.6	8.6	5.7	5.7	10	10	86	86	89	815641	804249	<0.2	0.5	<0.2	0.5								
						1.0	0.4	32	15.9	15.9	8.2	8.2	30.7	30.7	104.5	104.5	8.6	8.6	5.7	5.7	10	10	86	86				<0.2	0.5	<0.2	0.5								
						4.1	0.4	34	16.0	16.0	8.2	8.2	30.7	30.7	104.4	104.4	8.6	8.6	6.5	6.5	7	7	89	89				<0.2	0.5	<0.2	0.5								
					Middle	4.1	0.4	37	16.0	16.0	8.2	8.2	30.7	30.7	104.4	104.4	8.6	8.6	6.6	6.6	7	7	89	89				<0.2	0.5	<0.2	0.5								
						7.2	0.3	30	16.0	16.0	8.2	8.2	30.7	30.7	105.5	105.5	8.7	8.7	8.8	8.8	6	6	91	91				<0.2	0.4	<0.2	0.4								
						7.2	0.3	31	16.0	16.0	8.2	8.2	30.7	30.7	105.6	105.6	8.7	8.7	8.8	8.8	7	7	92	92				<0.2	0.6	<0.2	0.6								
					C2	Cloudy	Moderate	13:41	10.5	Surface	1.0	0.3	350	16.6	16.6	8.2	8.2	31.9	31.9	100.9	100.9	8.1	8.1	5.4				5.4	8	8	83	83	87	825667	806953	<0.2	0.7	<0.2	0.8
											1.0	0.3	322	16.6	16.6	8.2	8.2	31.9	31.9	100.9	100.9	8.1	8.1	5.4				5.4	8	8	83	83				<0.2	0.8	<0.2	0.8
											5.3	0.4	28	16.6	16.6	8.2	8.2	31.9	31.9	100.3	100.3	8.1	8.1	5.4				5.4	6	6	87	87				<0.2	0.7	<0.2	0.7
Middle	5.3	0.4	29	16.6						16.6	8.2	8.2	31.9	31.9	100.2	100.2	8.1	8.1	5.4	5.4	5	5	87	87	<0.2	0.7	<0.2	0.7											
	9.5	0.4	346	16.6						16.6	8.2	8.2	31.9	31.9	100.4	100.4	8.1	8.1	5.5	5.5	5	5	90	90	<0.2	0.8	<0.2	0.8											
	9.5	0.4	347	16.6						16.6	8.2	8.2	31.9	31.9	100.4	100.4	8.1	8.1	5.5	5.5	5	5	90	90	<0.2	0.8	<0.2	0.8											
C3	Cloudy	Moderate	16:15	11.8						Surface	1.0	0.3	241	17.6	17.6	8.3	8.3	32.5	32.5	105.0	105.0	8.3	8.3	6.3	6.3	6	6	87	87	91	822122	817819				<0.2	0.5	<0.2	0.5
											1.0	0.3	261	17.6	17.6	8.3	8.3	32.5	32.5	104.9	104.9	8.2	8.2	6.4	6.4	6	6	87	87							<0.2	0.5	<0.2	0.5
											5.9	0.4	252	17.6	17.6	8.3	8.3	32.5	32.5	104.2	104.2	8.2	8.2	7.4	7.4	6	6	91	91							<0.2	0.5	<0.2	0.5
					Middle	5.9	0.4	269	17.6	17.6	8.3	8.3	32.5	32.5	104.3	104.3	8.2	8.2	7.5	7.5	6	6	91	91	<0.2	0.6	<0.2	0.6											
						10.8	0.4	266	17.6	17.6	8.3	8.3	32.5	32.5	104.4	104.4	8.2	8.2	8.9	8.9	7	7	94	94	<0.2	0.5	<0.2	0.5											
						10.8	0.4	289	17.6	17.6	8.3	8.3	32.5	32.5	104.2	104.2	8.2	8.2	8.9	8.9	7	7	94	94	<0.2	0.6	<0.2	0.6											
					IM1	Cloudy	Moderate	14:28	5.0	Surface	1.0	0.2	14	15.3	15.3	8.2	8.2	30.4	30.4	103.9	103.9	8.7	8.7	5.5	5.5	6	6	86	86				88	817965	807123	<0.2	0.6	<0.2	0.6
											1.0	0.2	14	15.3	15.3	8.2	8.2	30.4	30.4	103.8	103.8	8.7	8.7	5.6	5.6	7	7	87	87							<0.2	0.6	<0.2	0.6
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							-	-	-	<0.2
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	0.6	<0.2	0.6								
	4.0	0.1	15	15.2						15.2	8.1	8.1	30.4	30.4	103.6	103.6	8.6	8.6	6.0	6.0	5	5	89	89	<0.2	0.6	<0.2	0.6											
	4.0	0.1	16	15.2						15.2	8.1	8.1	30.4	30.4	103.7	103.7	8.7	8.7	6.0	6.0	5	5	89	89	<0.2	0.6	<0.2	0.6											
IM2	Cloudy	Moderate	14:20	6.9						Surface	1.0	0.2	351	15.4	15.4	8.2	8.2	30.3	30.3	106.0	106.0	8.8	8.8	4.9	4.9	5	5	85	85	87	818166	806175				<0.2	0.6	<0.2	0.7
											1.0	0.2	323	15.4	15.4	8.2	8.2	30.3	30.3	105.9	105.9	8.8	8.8	4.9	4.9	5	5	86	86							<0.2	0.7	<0.2	0.7
											3.5	0.2	0	15.5	15.5	8.2	8.2	30.3	30.3	104.9	104.9	8.7	8.7	5.2	5.2	7	7	87	87							<0.2	0.7	<0.2	0.7
					Middle	3.5	0.2	0	15.5	15.5	8.2	8.2	30.3	30.3	104.9	104.9	8.7	8.7	5.2	5.2	7	7	88	88	<0.2	0.6	<0.2	0.6											
						5.9	0.2	13	15.5	15.5	8.1	8.1	30.5	30.5	104.5	104.5	8.7	8.7	6.5	6.5	8	8	89	89	<0.2	0.7	<0.2	0.7											
						5.9	0.2	13	15.5	15.5	8.1	8.1	30.5	30.5	104.6	104.6	8.7	8.7	6.5	6.5	8	8	89	89	<0.2	0.7	<0.2	0.7											
					IM3	Cloudy	Moderate	14:13	7.1	Surface	1.0	0.2	19	15.3	15.3	8.2	8.2	30.3	30.3	103.9	103.9	8.7	8.7	5.7	5.7	7	7	85	85				87	818787	805586	<0.2	0.7	<0.2	0.7
											1.0	0.2	19	15.3	15.3	8.2	8.2	30.3	30.3	103.9	103.9	8.7	8.7	5.7	5.7	7	7	85	85							<0.2	0.7	<0.2	0.7
											3.6	0.1	0	15.3	15.3	8.2	8.2	30.3	30.3	103.4	103.4	8.6	8.6	5.8	5.8	8	8	88	88							<0.2	0.7	<0.2	0.7
Middle	3.6	0.1	0	15.3						15.3	8.2	8.2	30.3	30.3	103.4	103.4	8.6	8.6	5.8	5.8	8	8	87	87	<0.2	0.6	<0.2	0.6											
	6.1	0.1	0	15.3						15.3	8.2	8.2	30.3	30.3	103.2	103.2	8.6	8.6	6.9	6.9	8	8	89	89	<0.2	0.7	<0.2	0.7											
	6.1	0.1	0	15.3						15.3	8.2	8.2	30.3	30.3	103.2	103.2	8.6	8.6	7.1	7.1	9	9	90	90	<0.2	0.6	<0.2	0.6											
IM4	Cloudy	Moderate	14:04	7.4						Surface	1.0	0.3	17	15.3	15.3	8.2	8.2	30.2	30.2	104.4	104.4	8.7	8.7	5.6	5.6	5	5	85	85	87	819728	804588				<0.2	0.7	<0.2	0.7
											1.0	0.3	18	15.3	15.3	8.2	8.2	30.2	30.2	104.4	104.4	8.7	8.7	5.6	5.6	5	5	84	84							<0.2	0.7	<0.2	0.7
											3.7	0.3	18	15.3	15.3	8.2	8.2	30.2	30.2	104.2	104.2	8.7	8.7	5.7	5.7	6	6	87	87							<0.2	0.8	<0.2	0.8
					Middle	3.7	0.3	18	15.3	15.3	8.2	8.2	30.2	30.2	104.2	104.2	8.7	8.7	5.7	5.7	6	6	88	88	<0.2	0.7	<0.2	0.7											
						6.4	0.2	3	15.3	15.3	8.1	8.1	30.2	30.2	106.2	106.2	8.9	8.9	6.4	6.4	7	7	89	89	<0.2	0.7	<0.2	0.7											
						6.4	0.2	3	15.3	15.3	8.1	8.1	30.2	30.2	106.2	106.2	8.9	8.9	6.4	6.4	8	8	89	89	<0.2	0.8	<0.2	0.8											
					IM5	Cloudy	Moderate	13:56	7.5	Surface	1.0	0.3	15	15.3	15.3	8.2	8.2	30.2	30.2	104.8	104.8	8.7	8.7	5.2	5.2	5	5	84	84				87	820727	804871	<0.2	0.8	<0.2	0.8
											1.0	0.3	16	15.3	15.3	8.2	8.2	30.2	30.2	104.8	104.8	8.7	8.7	5.2	5.2	5	5	85	85							<0.2	0.7	<0.2	0.7
											3.8	0.3	8	15.3	15.3	8.2	8.2	30.2	30.2	104.6	104.6	8.7	8.7	5.3	5.3	5	5	87	87							<0.2	0.8	<0.2	0.8
Middle	3.8	0.3	8	15.3						15.3	8.2	8.2	30.2	30.2	104.6	104.6	8.7	8.7	5.4	5.4	6	6	86	86	<0.2	0.8	<0.2	0.8											
	6.5	0.2	29	15.3						15.3	8.2	8.2	30.2	30.2	105.1	105.1	8.8	8.8	5.7	5.7	6	6	89	89	<0.2	0.7	<0.2	0.7											
	6.5	0.2	29	15.3						15.3	8.3	8.3	30.2	30.2	105.2	105.2	8.8	8.8	5.6	5.6	6	6	89	89	<0.2	0.7	<0.2	0.7											
IM6	Cloudy	Moderate	13:47	7.2						Surface	1.0	0.0	336	15.7	15.7	8.2	8.2	30.2	30.2	104.0	104.0	8.6	8.6	4.9	4.9	5	5	84	84	87	821057	805815				<0.2	0.8	<0.2	0.8
											1.0	0.0	358	15.7	15.7	8.2	8.2	30.2	30.2	104.0	104.0	8.6	8.6	4.9	4.9	5	5	85	85							<0.2	0.8	<0.2	0.8
											3.6	0.1	18	15.6	15.6	8.2	8.2	30.2	30.2	103.9	103.9	8.6	8.6	5.5	5.5	6	6	87	87							<0.2	0.8	<0.2	0.8
					Middle	3.6	0.1	19	15.6	15.6	8.2	8.2	30.2	30.2	103.9	103.9	8.6	8.6	5.6	5.6	6	6	87	87	<0.2	0.8	<0.2	0.8											
						6.2	0.1	26	15.5	15.5	8.1	8.1	30.2	30.2	105.7	105.7	8.8	8.8	7.7	7.7	6	6	89	89	<0.2	0.7	<0.2	0.7											
						6.2	0.1	27	15.5	15.5	8.1	8.1	30.2	30.2	105.8	105.8	8.8	8.8																					

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

Water Quality Monitoring

Water Quality Monitoring Results on 12 January 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
C1	Sunny	Moderate	12:12	7.8	Surface	1.0	0.2	200	15.8	15.8	8.4	8.4	32.5	32.5	104.6	104.6	8.5	8.5	3.1	9	86	89	815613	804247	<0.2	0.6	0.7	0.7							
						1.0	0.2	211	15.8	8.4	8.4	32.5	32.5	104.6	104.6	8.5	8.5	3.2	8	86	89	<0.2	0.6	0.7	0.7										
						3.9	0.2	192	15.8	8.4	8.4	32.5	32.5	104.7	104.7	8.5	8.5	3.4	10	90	89	<0.2	0.6	0.7	0.7										
					Middle	3.9	0.2	201	15.8	8.4	8.4	32.5	32.5	104.5	104.6	8.5	8.5	3.6	10	90	89	<0.2	0.6	0.7	0.7										
						6.8	0.2	228	15.8	8.4	8.4	32.5	32.5	106.8	106.8	8.7	8.7	3.1	11	90	89	<0.2	0.6	0.7	0.7										
						6.8	0.2	246	15.8	8.4	8.4	32.5	32.5	106.8	106.8	8.7	8.7	3.1	11	91	89	<0.2	0.6	0.7	0.7										
					C2	Fine	Moderate	10:58	12.0	Surface	1.0	0.3	346	15.5	15.5	8.2	8.2	31.4	31.4	107.7	107.7	8.9	8.9	6.2	10	85	88	825697	806965	<0.2	0.6	0.7	0.7		
											1.0	0.3	353	15.5	8.2	8.2	31.4	31.4	107.7	107.7	8.9	8.9	6.2	10	85	88	88	89	<0.2	0.6	0.7	0.7			
											6.0	0.3	0	15.4	8.2	8.2	31.4	31.4	107.7	107.7	8.9	8.9	5.9	9	88	89	<0.2	0.6	0.7	0.7					
Middle	6.0	0.3	0	15.4						8.2	8.2	31.4	31.4	107.7	107.7	8.9	8.9	5.9	8	89	89	<0.2	0.6	0.7	0.7										
	11.0	0.3	29	15.4						8.2	8.2	31.3	31.3	107.6	107.6	8.9	8.9	5.6	8	90	89	<0.2	0.6	0.7	0.7										
	11.0	0.3	30	15.4						8.2	8.2	31.3	31.3	107.6	107.6	8.9	8.9	5.6	8	90	89	<0.2	0.6	0.7	0.7										
C3	Fine	Moderate	13:01	11.8						Surface	1.0	0.2	91	16.8	16.8	8.2	8.2	31.7	31.7	114.2	114.3	9.2	9.2	2.8	6	84	88	822127	817782	<0.2	0.6	0.7	0.7		
											1.0	0.2	99	16.8	8.2	8.2	31.7	31.7	114.3	114.3	9.2	9.2	2.8	6	85	88	88	89	<0.2	0.6	0.7	0.7			
											5.9	0.2	80	16.8	8.2	8.2	31.8	31.8	114.8	114.9	9.2	9.2	2.6	5	88	89	<0.2	0.6	0.7	0.7					
					Middle	5.9	0.2	81	16.8	8.2	8.2	31.8	31.8	114.9	114.9	9.2	9.2	2.7	4	89	89	<0.2	0.6	0.7	0.7										
						10.8	0.2	77	16.7	8.1	8.1	31.7	31.7	118.6	118.7	9.5	9.5	2.2	3	89	89	<0.2	0.6	0.7	0.7										
						10.8	0.2	79	16.7	8.1	8.1	31.7	31.7	118.8	118.8	9.5	9.5	2.1	3	90	89	<0.2	0.6	0.7	0.7										
					IM1	Sunny	Calm	11:45	4.8	Surface	1.0	0.2	154	16.2	16.2	8.4	8.4	32.5	32.5	104.2	104.2	8.4	8.4	1.8	4	85	87	817944	807137	<0.2	0.7	0.7	0.7		
											1.0	0.2	156	16.2	8.4	8.4	32.5	32.5	104.1	104.1	8.4	8.4	1.8	3	86	87	<0.2	0.7	0.7	0.7					
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	3.8	0.2	181	16.1						8.4	8.4	32.5	32.5	104.2	104.1	8.4	8.4	1.7	5	88	89	<0.2	0.7	0.7	0.7										
	3.8	0.2	181	16.1						8.4	8.4	32.5	32.5	104.0	104.1	8.4	8.4	1.9	5	89	89	<0.2	0.7	0.7	0.7										
IM2	Sunny	Moderate	11:38	7.0						Surface	1.0	0.1	123	16.1	16.1	8.4	8.4	32.5	32.5	104.0	104.1	8.4	8.4	1.5	7	87	88	818141	806164	<0.2	0.8	0.7	0.7		
											1.0	0.1	125	16.1	8.4	8.4	32.5	32.5	104.1	104.1	8.4	8.4	1.5	7	86	88	<0.2	0.7	0.7	0.7					
											3.5	0.1	129	16.0	8.4	8.4	32.5	32.5	104.2	104.3	8.4	8.4	1.4	8	90	90	<0.2	0.7	0.7	0.7					
					Middle	3.5	0.1	136	16.0	8.4	8.4	32.5	32.5	104.3	104.3	8.4	8.4	1.5	8	90	90	<0.2	0.7	0.7	0.7										
						6.0	0.1	213	16.0	8.4	8.4	32.5	32.5	104.9	105.0	8.5	8.5	1.6	9	92	92	<0.2	0.7	0.7	0.7										
						6.0	0.1	224	16.0	8.4	8.4	32.5	32.5	105.1	105.0	8.5	8.5	1.6	9	93	93	<0.2	0.7	0.7	0.7										
					IM3	Sunny	Moderate	11:30	7.3	Surface	1.0	0.1	76	15.6	15.6	8.4	8.4	32.5	32.5	103.4	103.4	8.4	8.4	2.2	6	85	88	818776	805600	<0.2	0.6	0.6	0.6		
											1.0	0.1	80	15.6	8.4	8.4	32.5	32.5	103.3	103.3	8.4	8.4	2.4	6	86	88	<0.2	0.6	0.6	0.6					
											3.7	0.1	42	15.6	8.4	8.4	32.5	32.5	103.0	103.0	8.4	8.4	5.0	6	88	89	<0.2	0.6	0.6	0.6					
Middle	3.7	0.1	42	15.6						8.4	8.4	32.5	32.5	103.0	103.0	8.4	8.4	5.2	6	89	89	<0.2	0.6	0.6	0.6										
	6.3	0.1	254	15.5						8.4	8.4	32.5	32.5	102.6	102.8	8.4	8.4	6.6	7	90	90	<0.2	0.6	0.6	0.6										
	6.3	0.1	278	15.5						8.4	8.4	32.5	32.5	103.0	102.8	8.4	8.4	6.7	7	90	90	<0.2	0.6	0.6	0.6										
IM4	Sunny	Moderate	11:22	7.2						Surface	1.0	0.1	43	15.8	15.8	8.4	8.4	32.4	32.3	105.3	105.2	8.6	8.6	1.6	9	87	88	819734	804630	<0.2	0.6	0.6	0.6		
											1.0	0.1	43	15.8	8.4	8.4	32.3	32.3	105.1	105.1	8.6	8.6	1.6	9	87	88	<0.2	0.6	0.6	0.6					
											3.6	0.0	69	15.8	8.4	8.4	32.3	32.3	105.1	105.1	8.6	8.6	1.3	7	88	89	<0.2	0.6	0.6	0.6					
					Middle	3.6	0.0	71	15.8	8.4	8.4	32.3	32.3	105.1	105.1	8.6	8.6	1.3	7	89	89	<0.2	0.6	0.6	0.6										
						6.2	0.0	70	15.8	8.4	8.4	32.4	32.4	105.3	105.6	8.6	8.6	1.3	6	91	91	<0.2	0.6	0.6	0.6										
						6.2	0.0	74	15.8	8.4	8.4	32.4	32.4	105.8	105.6	8.6	8.6	1.3	6	91	91	<0.2	0.6	0.6	0.6										
					IM5	Sunny	Moderate	11:15	6.9	Surface	1.0	0.2	9	15.8	15.8	8.4	8.4	32.4	32.4	104.4	104.4	8.5	8.5	2.2	10	86	88	820758	804881	<0.2	0.6	0.6	0.6		
											1.0	0.2	9	15.8	8.4	8.4	32.4	32.4	104.4	104.4	8.5	8.5	2.3	10	85	88	<0.2	0.6	0.6	0.6					
											3.5	0.2	10	15.7	8.4	8.4	32.4	32.4	104.1	104.1	8.5	8.5	2.7	9	88	89	<0.2	0.7	0.7	0.7					
Middle	3.5	0.2	10	15.7						8.4	8.4	32.4	32.4	104.1	104.1	8.5	8.5	2.9	9	89	89	<0.2	0.6	0.6	0.6										
	5.9	0.1	21	15.0						8.4	8.4	32.5	32.4	102.9	102.9	8.5	8.5	4.8	9	90	90	<0.2	0.6	0.6	0.6										
	5.9	0.2	22	15.0						8.4	8.4	32.4	32.4	102.9	102.9	8.5	8.5	4.8	9	90	90	<0.2	0.6	0.6	0.6										
IM6	Sunny	Moderate	11:07	7.8						Surface	1.0	0.1	285	15.5	15.5	8.4	8.4	32.4	32.4	102.6	102.7	8.4	8.4	7.7	14	86	87	821066	805836	<0.2	0.6	0.6	0.6		
											1.0	0.1	289	15.5	8.4	8.4	32.4	32.4	102.7	102.7	8.4	8.4	7.4	14	87	88	<0.2	0.6	0.6	0.6					
											3.9	0.2	321	15.4	8.4	8.4	32.4	32.4	102.9	103.1	8.4	8.4	8.4	14	92	91	<0.2	0.8	0.8	0.8					
					Middle	3.9	0.2	340	15.4	8.4	8.4	32.4	32.4	103.3	103.3	8.5	8.5	8.6	14	91	91	<0.2	0.6	0.6	0.6										
						6.8	0.0	300	15.2	8.4	8.4	32.4	32.4	103.4	103.4	8.5	8.5	8.6	12	93	93	<0.2	0.6	0.6	0.6										
						6.8	0.0	309	15.2	8.4	8.4	32.4	32.4	103.4	103.4	8.5	8.5	7.9	12	93	93	<0.2	0.6	0.6	0.6										
					IM7	Sunny	Moderate	10:59	7.2	Surface	1.0	0.3	98	15.8	15.8	8.4	8.4	32.3	32.3	102.4	102.4														

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

Water Quality Monitoring Results on 12 January 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	11:32	7.2	Surface	1.0	0.2	84	15.4	15.4	8.2	8.2	31.5	31.5	109.1	109.1	9.0	9.0	5.9	7	86	87	87	87	87	822102	808790	<0.2	0.6	<0.2	0.6				
						1.0	0.2	85	15.4	8.2	8.2	31.5	31.5	109.1	109.1	9.0	9.0	5.9	8	85	87	87	87	<0.2				0.6	<0.2	0.6					
						3.6	0.2	72	15.6	8.2	8.2	31.2	31.3	110.8	110.8	9.1	9.1	6.7	7	87	87	87	87	<0.2				0.6	<0.2	0.6					
					Middle	3.6	0.2	76	15.6	8.2	8.2	31.3	31.3	110.9	110.9	9.1	9.1	6.7	7	87	87	87	87	<0.2				0.6	<0.2	0.6					
						6.2	0.1	57	15.2	8.2	8.2	31.7	31.7	111.8	111.8	9.3	9.3	6.8	6	89	89	89	89	<0.2				0.6	<0.2	0.6					
						6.2	0.1	62	15.2	8.2	8.2	31.7	31.7	111.8	111.8	9.3	9.3	6.7	6	89	89	89	89	<0.2				0.6	<0.2	0.6					
					Bottom	6.2	0.1	57	15.2	8.2	8.2	31.7	31.7	111.8	111.8	9.3	9.3	6.8	6	89	89	89	89	<0.2				0.6	<0.2	0.6					
						6.2	0.1	62	15.2	8.2	8.2	31.7	31.7	111.8	111.8	9.3	9.3	6.7	6	89	89	89	89	<0.2				0.6	<0.2	0.6					
						6.2	0.1	62	15.2	8.2	8.2	31.7	31.7	111.8	111.8	9.3	9.3	6.7	6	89	89	89	89	<0.2				0.6	<0.2	0.6					
IM10	Fine	Moderate	11:39	7.7	Surface	1.0	0.3	81	15.4	15.4	8.2	8.2	31.6	31.6	109.4	109.4	9.0	9.0	7.4	7	85	87	87	87	87	822372	809786	<0.2	0.6	<0.2	0.6				
						1.0	0.3	83	15.4	8.2	8.2	31.6	31.6	109.4	109.4	9.0	9.0	7.4	7	85	87	87	87	<0.2				0.6	<0.2	0.6					
						3.9	0.1	50	15.4	8.2	8.2	31.3	31.3	109.8	109.8	9.1	9.1	8.2	8	87	87	87	87	<0.2				0.6	<0.2	0.6					
					Middle	3.9	0.1	50	15.4	8.2	8.2	31.3	31.3	109.8	109.8	9.1	9.1	7.9	9	87	87	87	87	<0.2				0.6	<0.2	0.6					
						6.7	0.2	110	15.4	8.1	8.1	31.5	31.5	110.8	110.8	9.1	9.1	4.4	9	90	90	90	90	<0.2				0.6	<0.2	0.6					
						6.7	0.2	111	15.4	8.1	8.1	31.5	31.5	110.8	110.8	9.2	9.2	4.5	9	89	89	89	89	<0.2				0.6	<0.2	0.6					
					Bottom	6.7	0.2	110	15.4	8.1	8.1	31.5	31.5	110.8	110.8	9.1	9.1	4.4	9	90	90	90	90	<0.2				0.6	<0.2	0.6					
						6.7	0.2	111	15.4	8.1	8.1	31.5	31.5	110.8	110.8	9.2	9.2	4.5	9	89	89	89	89	<0.2				0.6	<0.2	0.6					
						6.7	0.2	111	15.4	8.1	8.1	31.5	31.5	110.8	110.8	9.2	9.2	4.5	9	89	89	89	89	<0.2				0.6	<0.2	0.6					
IM11	Fine	Moderate	11:50	7.5	Surface	1.0	0.1	142	15.9	15.9	8.2	8.2	31.5	31.5	109.5	109.5	8.9	8.9	8.4	7	86	87	87	87	87	822043	811467	<0.2	0.6	<0.2	0.6				
						1.0	0.1	152	15.9	8.2	8.2	31.5	31.5	109.5	109.5	8.9	8.9	8.4	7	86	87	87	87	<0.2				0.6	<0.2	0.6					
						3.8	0.0	105	16.0	8.2	8.2	31.6	31.6	109.7	109.7	8.9	8.9	6.7	8	87	87	87	87	<0.2				0.6	<0.2	0.6					
					Middle	3.8	0.0	114	16.0	8.2	8.2	31.6	31.6	109.7	109.7	8.9	8.9	6.7	8	87	87	87	87	<0.2				0.6	<0.2	0.6					
						6.5	0.1	61	16.1	8.2	8.2	31.5	31.5	109.7	109.7	8.9	8.9	4.8	8	89	89	89	89	<0.2				0.6	<0.2	0.6					
						6.5	0.2	62	16.1	8.2	8.2	31.5	31.5	109.7	109.7	8.9	8.9	4.9	8	89	89	89	89	<0.2				0.6	<0.2	0.6					
					Bottom	6.5	0.1	61	16.1	8.2	8.2	31.5	31.5	109.7	109.7	8.9	8.9	4.8	8	89	89	89	89	<0.2				0.6	<0.2	0.6					
						6.5	0.2	62	16.1	8.2	8.2	31.5	31.5	109.7	109.7	8.9	8.9	4.9	8	89	89	89	89	<0.2				0.6	<0.2	0.6					
						6.5	0.2	62	16.1	8.2	8.2	31.5	31.5	109.7	109.7	8.9	8.9	4.9	8	89	89	89	89	<0.2				0.6	<0.2	0.6					
IM12	Fine	Moderate	11:56	8.3	Surface	1.0	0.3	171	16.0	16.0	8.2	8.2	31.6	31.6	109.5	109.5	8.9	8.9	5.5	7	86	87	87	87	87	821443	812033	<0.2	0.6	<0.2	0.6				
						1.0	0.3	171	16.0	8.2	8.2	31.6	31.6	109.5	109.5	8.9	8.9	5.3	7	85	87	87	87	<0.2				0.6	<0.2	0.6					
						4.2	0.1	178	16.1	8.2	8.2	31.6	31.6	109.6	109.6	8.9	8.9	4.4	7	87	87	87	87	<0.2				0.6	<0.2	0.6					
					Middle	4.2	0.1	181	16.1	8.2	8.2	31.6	31.6	109.6	109.6	8.9	8.9	4.4	6	88	88	88	88	<0.2				0.6	<0.2	0.6					
						7.3	0.2	172	16.2	8.2	8.2	31.6	31.5	110.2	110.3	8.9	8.9	4.6	6	89	89	89	89	<0.2				0.6	<0.2	0.6					
						7.3	0.2	185	16.2	8.2	8.2	31.5	31.5	110.4	110.4	9.0	9.0	4.6	6	89	89	89	89	<0.2				0.6	<0.2	0.6					
					Bottom	7.3	0.2	172	16.2	8.2	8.2	31.6	31.5	110.2	110.3	8.9	8.9	4.6	6	89	89	89	89	<0.2				0.6	<0.2	0.6					
						7.3	0.2	185	16.2	8.2	8.2	31.5	31.5	110.4	110.4	9.0	9.0	4.6	6	89	89	89	89	<0.2				0.6	<0.2	0.6					
						7.3	0.2	185	16.2	8.2	8.2	31.5	31.5	110.4	110.4	9.0	9.0	4.6	6	89	89	89	89	<0.2				0.6	<0.2	0.6					
SR1A	Fine	Moderate	12:26	5.2	Surface	1.0	-	-	14.6	14.6	8.1	8.1	31.4	31.4	111.7	111.7	9.4	9.4	3.3	5	-	-	-	-	87	819982	812660	-	-	-	-				
						1.0	-	-	14.6	14.6	8.1	8.1	31.4	31.4	111.7	111.7	9.4	9.4	3.3	5	-	-	-	-				-	-	-	-				
						2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-		
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	-
						4.2	-	-	14.6	14.6	8.1	8.1	31.2	31.2	113.5	113.6	9.5	9.5	4.2	7	-	-	-	-				-	-	-	-	-	-	-	
						4.2	-	-	14.6	14.6	8.1	8.1	31.2	31.2	113.6	113.6	9.5	9.5	4.3	7	-	-	-	-				-	-	-	-	-	-		
					Bottom	4.2	-	-	14.6	14.6	8.1	8.1	31.2	31.2	113.5	113.6	9.5	9.5	4.2	7	-	-	-	-				-	-	-	-	-	-	-	
						4.2	-	-	14.6	14.6	8.1	8.1	31.2	31.2	113.6	113.6	9.5	9.5	4.3	7	-	-	-	-				-	-	-	-	-	-	-	
						4.2	-	-	14.6	14.6	8.1	8.1	31.2	31.2	113.6	113.6	9.5	9.5	4.3	7	-	-	-	-				-	-	-	-	-	-		
SR2	Fine	Moderate	12:38	4.8	Surface	1.0	0.1	52	16.0	16.0	8.1	8.1	31.5	31.5	111.4	111.4	9.1	9.1	5.0	6	88	88	88	88	89	821439	814173	<0.2	0.6	<0.2	0.7				
						1.0	0.1	54	16.0	8.1	8.1	31.5	31.5	111.4	111.4	9.1	9.1	5.0	5	88	88	88	88	<0.2				0.6	<0.2	0.7					
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-		
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	-
						3.8	0.1	49	16.0	8.1	8.1	31.6	31.6	114.1	114.1	9.3	9.3	4.5	6	89	89	89	89	<0.2				0.6	<0.2	0.7					
						3.8	0.1	50	16.0	8.1	8.1	31.7	31.6	114.1	114.1	9.3	9.3	4.6	5	89	89	89	89	<0.2				0.6	<0.2	0.7					
					Bottom	3.8	0.1	49	16.0	8.1	8.1	31.6	31.6	114.1	114.1	9.3	9.3	4.5	6	89	89	89	89	<0.2				0.6	<0.2	0.7					
						3.8	0.1	50	16.0	8.1	8.1	31.7	31.6	114.1	114.1	9.3	9.3	4.6	5	89	89	89	89												

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

Water Quality Monitoring Results on 12 January 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	Fine	Rough	08:15	8.0	Surface	1.0	0.6	43	15.1	15.1	8.4	8.4	32.3	32.3	99.8	99.8	8.2	8.2	1.7	10	85	88	815638	804236	<0.2	0.6	0.5	0.5					
						1.0	0.6	45	15.1	8.4	8.4	32.3	32.3	99.8	99.8	8.2	8.2	1.8	10	86	88	<0.2	0.6	0.5	0.5								
						4.0	0.5	22	15.1	8.4	8.4	32.4	32.4	99.7	99.6	8.2	8.2	3.3	11	89	88	<0.2	0.6	0.5	0.5								
					Middle	4.0	0.5	24	15.1	8.4	8.4	32.4	32.4	99.5	99.6	8.2	8.2	3.4	11	89	88	<0.2	0.6	0.5	0.5								
						7.0	0.4	24	15.2	8.4	8.4	32.4	32.4	99.6	99.6	8.2	8.2	4.7	13	89	88	<0.2	0.6	0.5	0.5								
						7.0	0.4	24	15.2	8.4	8.4	32.4	32.4	99.6	99.6	8.2	8.2	4.6	13	89	88	<0.2	0.6	0.5	0.5								
					C2	Fine	Moderate	09:00	11.6	Surface	1.0	0.4	354	14.8	14.8	8.1	8.1	31.3	31.3	108.5	108.6	9.1	9.1	8.0	16	85	88	825676	806957	<0.2	0.6	0.6	0.6
											1.0	0.4	326	14.8	8.1	8.1	31.3	31.3	108.6	108.9	9.1	9.1	7.9	14	86	88	<0.2	0.6	0.6	0.6			
											5.8	0.3	346	15.5	8.1	8.1	31.1	31.1	108.9	108.9	9.0	9.0	7.4	14	89	88	<0.2	0.6	0.6	0.6			
Middle	5.8	0.3	318	15.5						8.1	8.1	31.1	31.1	108.9	108.9	9.0	9.0	7.5	13	89	88	<0.2	0.6	0.6	0.6								
	10.6	0.3	2	14.2						8.1	8.1	31.3	31.3	107.9	107.9	9.1	9.1	7.4	10	89	88	<0.2	0.6	0.6	0.6								
	10.6	0.3	2	14.2						8.1	8.1	31.3	31.3	107.9	107.9	9.1	9.1	7.3	10	90	88	<0.2	0.6	0.6	0.6								
C3	Fine	Moderate	06:33	11.0						Surface	1.0	0.3	266	15.8	15.8	8.2	8.2	31.0	31.0	100.1	100.1	8.2	8.2	3.5	9	85	88	822107	817821	<0.2	0.6	0.6	0.6
											1.0	0.3	286	15.8	8.2	8.2	31.0	31.0	99.8	99.8	8.2	8.2	6.8	8	89	88	<0.2	0.6	0.6	0.6			
											5.5	0.4	285	15.8	8.2	8.2	31.0	31.0	99.8	99.8	8.2	8.2	6.8	8	89	88	<0.2	0.6	0.6	0.6			
					Middle	5.5	0.4	285	15.8	8.2	8.2	31.0	31.0	99.8	99.8	8.2	8.2	6.8	8	89	88	<0.2	0.6	0.6	0.6								
						10.0	0.3	269	15.8	8.2	8.2	31.0	31.0	100.0	100.1	8.2	8.2	8.0	6	89	88	<0.2	0.6	0.6	0.6								
						10.0	0.3	283	15.8	8.2	8.2	31.0	31.0	100.1	100.1	8.2	8.2	8.0	7	90	88	<0.2	0.6	0.6	0.6								
					IM1	Fine	Calm	08:37	4.6	Surface	1.0	0.1	321	15.8	15.8	8.4	8.4	32.5	32.5	102.5	102.3	8.3	8.3	4.7	8	84	88	817968	807119	<0.2	0.6	0.6	0.6
											1.0	0.1	344	15.8	8.4	8.4	32.5	32.5	102.1	102.1	8.3	8.3	4.8	8	85	88	<0.2	0.6	0.6	0.6			
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	3.6	0.1	310	15.8						15.8	8.4	8.4	32.5	32.5	102.0	102.0	8.3	8.3	5.7	6	89	88	<0.2	0.6	0.6	0.6							
	3.6	0.1	320	15.8						15.8	8.4	8.4	32.5	32.5	101.9	101.9	8.3	8.3	6.1	6	89	88	<0.2	0.6	0.6	0.6							
	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM2	Fine	Moderate	08:42	7.0						Surface	1.0	0.3	20	15.9	15.9	8.4	8.4	32.2	32.2	102.2	102.4	8.3	8.3	4.7	12	83	88	818144	806158	<0.2	0.7	0.7	0.7
											1.0	0.3	21	15.9	15.9	8.4	8.4	32.2	32.2	102.5	102.4	8.3	8.3	5.0	12	83	88	<0.2	0.7	0.7	0.7		
											3.5	0.3	14	15.9	15.8	8.4	8.4	32.2	32.2	102.7	102.7	8.4	8.4	3.8	13	86	88	<0.2	0.6	0.6	0.6		
					Middle	3.5	0.3	14	15.8	15.8	8.4	8.4	32.2	32.2	102.7	102.7	8.4	8.4	3.8	13	87	88	<0.2	0.7	0.7	0.7							
						6.0	0.2	16	15.8	15.8	8.4	8.4	32.2	32.2	103.1	102.9	8.4	8.4	3.8	13	90	88	<0.2	0.7	0.7	0.7							
						6.0	0.2	17	15.8	15.8	8.4	8.4	32.2	32.2	102.7	102.9	8.4	8.4	3.7	14	90	88	<0.2	0.7	0.7	0.7							
					IM3	Fine	Moderate	08:50	7.1	Surface	1.0	0.4	350	15.8	15.8	8.4	8.4	32.2	32.2	102.0	102.2	8.3	8.3	3.3	11	85	88	818781	805585	<0.2	0.8	0.8	0.8
											1.0	0.4	322	15.8	15.8	8.4	8.4	32.2	32.2	102.3	102.3	8.3	8.3	3.3	11	85	88	<0.2	0.8	0.8	0.8		
											3.6	0.5	2	15.9	15.9	8.4	8.4	32.2	32.2	101.8	101.8	8.3	8.3	3.4	11	88	88	<0.2	0.7	0.7	0.7		
Middle	3.6	0.5	2	15.9						15.9	8.4	8.4	32.2	32.2	101.8	101.8	8.3	8.3	3.5	11	88	88	<0.2	0.7	0.7	0.7							
	6.1	0.4	359	15.9						15.9	8.4	8.4	32.2	32.2	101.5	101.4	8.3	8.3	3.7	12	91	88	<0.2	0.7	0.7	0.7							
	6.1	0.4	332	15.9						15.9	8.4	8.4	32.2	32.2	101.3	101.4	8.2	8.3	3.6	12	91	88	<0.2	0.6	0.6	0.6							
IM4	Fine	Moderate	08:55	7.3						Surface	1.0	0.6	11	15.8	15.8	8.4	8.4	32.2	32.2	102.3	102.5	8.3	8.3	3.0	6	85	88	819707	804601	<0.2	0.7	0.7	0.7
											1.0	0.7	11	15.8	15.8	8.4	8.4	32.2	32.2	102.7	102.5	8.4	8.3	3.1	5	85	88	<0.2	0.7	0.7	0.7		
											3.7	0.6	7	15.8	15.8	8.4	8.4	32.2	32.2	101.8	101.9	8.3	8.3	3.5	9	88	88	<0.2	0.7	0.7	0.7		
					Middle	3.7	0.6	7	15.9	15.8	8.4	8.4	32.2	32.2	102.0	101.9	8.3	8.3	3.6	9	89	88	<0.2	0.7	0.7	0.7							
						6.3	0.5	10	15.9	15.9	8.4	8.4	32.2	32.2	101.5	101.5	8.3	8.3	3.9	11	91	88	<0.2	0.7	0.7	0.7							
						6.3	0.5	10	15.9	15.9	8.4	8.4	32.2	32.2	101.4	101.4	8.3	8.3	3.9	11	92	88	<0.2	0.7	0.7	0.7							
					IM5	Fine	Moderate	09:02	7.2	Surface	1.0	0.8	33	15.8	15.8	8.4	8.4	32.2	32.2	102.6	102.7	8.4	8.4	2.8	14	85	88	820740	804856	<0.2	0.7	0.7	0.7
											1.0	0.8	33	15.8	15.8	8.4	8.4	32.2	32.2	102.7	102.7	8.4	8.4	2.8	14	85	88	<0.2	0.7	0.7	0.7		
											3.6	0.8	29	15.8	15.8	8.4	8.4	32.2	32.2	102.2	102.3	8.3	8.4	2.8	11	88	88	<0.2	0.7	0.7	0.7		
Middle	3.6	0.8	31	15.8						15.8	8.4	8.4	32.2	32.2	102.4	102.3	8.3	8.3	3.0	11	88	88	<0.2	0.6	0.6	0.6							
	6.2	0.7	25	15.8						15.8	8.4	8.4	32.2	32.2	102.4	102.4	8.3	8.3	3.1	8	91	88	<0.2	0.7	0.7	0.7							
	6.2	0.7	25	15.8						15.8	8.4	8.4	32.2	32.2	102.3	102.4	8.3	8.3	3.1	8	91	88	<0.2	0.7	0.7	0.7							
IM6	Fine	Moderate	09:07	7.0						Surface	1.0	0.2	43	15.8	15.8	8.4	8.4	32.2	32.2	102.5	102.4	8.3	8.4	2.2	7	84	88	821055	805814	<0.2	0.7	0.7	0.7
											1.0	0.3	46	15.8	15.8	8.4	8.4	32.2	32.2	102.3	102.5	8.4	8.4	2.2	7	85	88	<0.2	0.7	0.7	0.7		
											3.5	0.3	32	15.8	15.8	8.4	8.4	32.2	32.2	102.5	102.5	8.4	8.4	2.2	7	88	88	<0.2	0.7	0.7	0.7		
					Middle	3.5	0.3	33	15.8	15.8	8.4	8.4	32.2	32.2	102.5	102.5	8.4	8.4	2.2	7	88	88	<0.2	0.7	0.7	0.7							
						6.0	0.3	28	15.8	15.8	8.4	8.4	32.2	32.2	103.1	103.3	8.4	8.4	2.1	8	92	88	<0.2	0.7	0.7	0.7							
						6.0	0.3	29	15.8	15.8	8.4	8.4	32.2	32.2	103.4	103.4	8.4	8.4	2.1	8	91	88	<0.2	0.7	0.7	0.7							
					IM7	Fine	Moderate	09:11	7.7	Surface	1.0	0.2																					

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

Water Quality Monitoring Results on 12 January 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	Moderate	08:18	7.2	Surface	1.0	0.3	58	15.3	15.3	8.1	8.1	31.7	31.7	110.4	110.4	9.1	9.1	8.3	8.3	8	8	86	86	-	-	<0.2	0.6	0.6							
						1.0	0.3	61	15.3	15.3	8.1	8.1	31.7	31.7	110.4	110.4	9.1	9.1	8.3	8.3	8	8	86	86	-	-	<0.2	0.6								
						3.6	0.2	42	15.3	15.3	8.1	8.1	31.7	31.7	110.8	110.8	9.1	9.1	8.4	8.4	11	11	88	88	-	-	<0.2	0.6								
					Middle	3.6	0.2	44	15.3	15.3	8.1	8.1	31.7	31.7	110.8	110.8	9.1	9.1	8.4	8.4	11	11	87	87	-	-	<0.2	0.6								
						6.2	0.2	22	15.3	15.3	8.2	8.2	31.7	31.7	101.3	101.3	8.4	8.4	8.0	8.0	12	12	89	89	-	-	<0.2	0.6								
						6.2	0.3	22	15.3	15.3	8.2	8.2	31.7	31.7	101.3	101.3	8.4	8.4	8.0	8.0	12	12	89	89	-	-	<0.2	0.6								
					IM10	Fine	Moderate	08:09	7.0	Surface	1.0	0.6	305	15.3	15.3	8.1	8.1	31.8	31.8	101.5	101.4	8.4	8.4	8.1	8.1	9	9	85		85	-	-	<0.2	0.6		
											1.0	0.7	312	15.3	15.3	8.1	8.1	31.8	31.8	101.3	101.3	8.4	8.4	8.3	8.3	9	9	86		86	-	-	<0.2	0.6		
											3.5	0.6	309	15.3	15.3	8.1	8.1	31.8	31.8	98.0	98.0	8.1	8.1	20.0	20.0	9	9	88		88	-	-	<0.2	0.6		
Middle	3.5	0.6	319	15.3						15.3	8.1	8.1	31.8	31.8	98.0	98.0	8.1	8.1	20.0	20.0	9	9	88	88	-	-	<0.2	0.6								
	6.0	0.4	307	15.3						15.3	8.0	8.0	31.8	31.8	110.0	110.0	9.1	9.1	24.0	24.0	8	8	89	89	-	-	<0.2	0.6								
	6.0	0.4	330	15.3						15.3	8.0	8.0	31.8	31.8	110.0	110.0	9.1	9.1	24.0	24.0	8	8	91	91	-	-	<0.2	0.6								
IM11	Fine	Moderate	07:52	7.0						Surface	1.0	0.3	285	15.2	15.2	8.2	8.2	30.8	30.8	102.4	102.5	8.5	8.5	6.0	6.0	7	7	85	85	-	-	<0.2	0.6			
											1.0	0.3	295	15.2	15.2	8.2	8.2	30.8	30.8	102.5	102.5	8.5	8.5	6.0	6.0	7	7	85	85	-	-	<0.2	0.6			
											3.5	0.4	292	15.2	15.2	8.1	8.1	30.8	30.8	103.6	103.7	8.6	8.6	6.4	6.4	6	6	87	87	-	-	<0.2	0.6			
					Middle	3.5	0.4	315	15.2	15.2	8.1	8.1	30.8	30.8	103.7	103.7	8.6	8.6	6.4	6.4	6	6	87	87	-	-	<0.2	0.6								
						6.0	0.4	286	15.0	15.0	8.2	8.2	30.8	30.8	107.3	107.5	9.0	9.0	5.9	5.9	6	6	89	89	-	-	<0.2	0.6								
						6.0	0.4	299	15.0	15.0	8.2	8.2	30.8	30.8	107.6	107.6	9.0	9.0	5.9	5.9	6	6	89	89	-	-	<0.2	0.6								
					IM12	Fine	Moderate	07:44	8.7	Surface	1.0	0.5	262	15.2	15.2	8.2	8.2	30.9	30.9	100.2	100.2	8.3	8.3	4.5	4.5	13	13	85	85	-	-	<0.2	0.6			
											1.0	0.5	284	15.2	15.2	8.2	8.2	30.9	30.9	100.2	100.2	8.3	8.3	5.1	5.1	13	13	85	85	-	-	<0.2	0.6			
											4.4	0.5	264	15.1	15.1	8.2	8.2	30.9	30.9	99.8	99.8	8.3	8.3	5.7	5.7	11	11	88	88	-	-	<0.2	0.6			
Middle	4.4	0.5	270	15.1						15.1	8.2	8.2	30.9	30.9	99.8	99.8	8.3	8.3	5.4	5.4	11	11	89	89	-	-	<0.2	0.6								
	7.7	0.3	261	15.1						15.1	8.2	8.2	30.9	30.9	99.6	99.6	8.3	8.3	5.3	5.3	7	7	90	90	-	-	<0.2	0.6								
	7.7	0.4	275	15.1						15.1	8.2	8.2	30.9	30.9	99.6	99.6	8.3	8.3	5.9	5.9	7	7	91	91	-	-	<0.2	0.6								
SR1A	Fine	Moderate	07:12	5.3						Surface	1.0	-	-	14.4	14.4	8.1	8.1	30.7	30.7	98.2	98.2	8.3	8.3	5.7	5.7	8	8	-	-	-	-	-	-	-		
											1.0	-	-	14.4	14.4	8.1	8.1	30.7	30.7	98.2	98.2	8.3	8.3	5.8	5.8	8	8	-	-	-	-	-	-	-	-	-
											2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						4.3	-	-	14.4	14.4	8.2	8.2	30.7	30.7	98.3	98.3	8.3	8.3	6.6	6.6	9	9	-	-	-	-	-	-	-	-	-	-				
						4.3	-	-	14.4	14.4	8.2	8.2	30.7	30.7	98.3	98.3	8.3	8.3	7.0	7.0	9	9	-	-	-	-	-	-	-	-	-	-				
					SR2	Fine	Moderate	06:55	4.8	Surface	1.0	0.3	27	15.0	15.0	8.2	8.2	30.9	30.9	99.5	99.5	8.3	8.3	3.2	3.2	10	10	88	88	-	-	<0.2	0.6			
											1.0	0.3	27	15.0	15.0	8.2	8.2	30.9	30.9	99.5	99.5	8.3	8.3	3.2	3.2	10	10	88	88	-	-	<0.2	0.6			
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	3.8	0.2	37	14.9						14.9	8.2	8.2	30.9	30.9	99.3	99.3	8.3	8.3	3.4	3.4	10	10	89	89	-	-	<0.2	0.6								
	3.8	0.2	40	14.9						14.9	8.2	8.2	30.9	30.9	99.3	99.3	8.3	8.3	3.5	3.5	10	10	90	90	-	-	<0.2	0.6								
SR3	Fine	Moderate	08:35	8.4						Surface	1.0	0.1	78	15.7	15.7	8.1	8.1	32.3	32.3	102.1	102.1	8.3	8.3	3.0	3.0	9	9	-	-	-	-	-	-	-		
											1.0	0.1	79	15.7	15.7	8.1	8.1	32.3	32.3	102.1	102.1	8.3	8.3	3.0	3.0	9	9	-	-	-	-	-	-	-	-	-
											4.2	0.1	78	15.7	15.7	8.1	8.1	32.3	32.3	102.2	102.2	8.3	8.3	3.4	3.4	10	10	-	-	-	-	-	-	-	-	-
					Middle	4.2	0.2	83	15.7	15.7	8.1	8.1	32.3	32.3	102.2	102.2	8.3	8.3	3.4	3.4	11	11	-	-	-	-	-	-	-	-	-	-				
						7.4	0.1	66	15.7	15.7	8.1	8.1	32.3	32.3	102.2	102.2	8.3	8.3	3.5	3.5	12	12	-	-	-	-	-	-	-	-	-	-				
						7.4	0.1	68	15.7	15.7	8.1	8.1	32.3	32.3	102.2	102.2	8.3	8.3	3.5	3.5	12	12	-	-	-	-	-	-	-	-	-	-				
					SR4A	Fine	Moderate	07:50	9.0	Surface	1.0	0.1	99	15.3	15.3	8.4	8.4	32.4	32.4	101.3	101.3	8.3	8.3	4.2	4.2	10	10	-	-	-	-	-	-	-		
											1.0	0.1	103	15.3	15.3	8.4	8.4	32.4	32.4	101.3	101.3	8.3	8.3	4.3	4.3	10	10	-	-	-	-	-	-	-	-	-
											4.5	0.1	87	15.4	15.4	8.4	8.4	32.4	32.4	101.1	101.1	8.3	8.3	5.3	5.3	11	11	-	-	-	-	-	-	-	-	-
Middle	4.5	0.1	90	15.4						15.4	8.4	8.4	32.4	32.4	101.1	101.1	8.3	8.3	5.5	5.5	11	11	-	-	-	-	-	-	-	-	-	-				
	8.0	0.1	104	15.4						15.4	8.4	8.4	32.4	32.4	101.3	101.3	8.3	8.3	5.4	5.4	12	12	-	-	-	-	-	-	-	-	-	-				
	8.0	0.1	108	15.4						15.4	8.4	8.4	32.4	32.4	101.6	101.5	8.3	8.3	5.5	5.5	12	12	-	-	-	-	-	-	-	-	-	-				
SR5A	Fine	Calm	07:18	3.5						Surface	1.0	0.2	300	16.4	16.4	8.4	8.4	32.6	32.6	105.2	105.4	8.5	8.5	2.1	2.1	9	9	-	-	-	-	-	-	-		
											1.0	0.2	329	16.4	16.4	8.4	8.4	32.6	32.6	105.5	105.5	8.5	8.5	2.1	2.1	9	9	-	-	-	-	-	-	-	-	-
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						2.5	0.2	294	16.4	16.4	8.4	8.4	32.6	32.6	108.7	109.3	8.7	8.7	3.0	3.0	9	9	-	-	-	-	-	-	-	-	-	-				
						2.5	0.2	322	16.4	16.4	8.4	8.4	32.6	32.6	109.9	109.9	8.8	8.8	3.1	3.1	9	9	-	-	-	-	-	-	-	-	-	-				
					SR6A	Fine	Calm	06:46	4.2	Surface	1.0	0.1	267	16.6	16.6	8.3	8.3	32.6	32.6	103.4	103.4	8.3	8.3	2.2	2.2	11	11	-	-	-	-	-	-	-		
											1.0	0.1	267	16.6	16.6	8.3	8.3	32.6	32.6	103.4	103.4	8.3	8.3	2.2	2.2	11	11	-	-	-	-	-	-	-	-	-
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	3.2	0.1	270	16.6						16.6	8.3	8.3	32.6	32.6	105.2	105.3																				

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

Water Quality Monitoring

Water Quality Monitoring Results on 14 January 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	DA
						C1	Fine	Moderate	13:34	8.2	Surface	1.0	0.1	46	16.8	16.8	8.0	8.0	30.7	30.7	115.4	115.4	9.3	9.4	4.6			4.7	6	7	-	-	815630
					Middle	4.1	0.0	314	15.4	15.4	8.0	8.0	30.8	30.8	115.2	115.2	9.6	9.5	4.7	4.7	7	7	-	-	-	-	-	-	-	-			
					Bottom	7.2	0.0	219	15.1	15.1	8.0	8.0	31.1	31.1	112.7	112.7	9.4	9.4	4.8	4.7	8	7	-	-	-	-	-	-	-	-			
						7.2	0.0	232	15.1	15.1	8.0	8.0	31.1	31.1	112.7	112.7	9.4	9.4	4.7	4.7	7	7	-	-	-	-	-	-	-	-			
C2	Cloudy	Moderate	12:24	12.8	Surface	1.0	0.3	13	15.7	15.7	8.1	8.1	31.6	31.6	108.7	108.6	8.9	8.8	2.4	2.4	7	8	-	-	825663	806963	-	-	-	-			
					Middle	6.4	0.3	21	15.3	15.3	8.1	8.1	32.3	32.3	106.1	106.1	8.7	8.7	4.2	4.3	7	8	-	-	-	-	-	-	-	-			
					Bottom	11.8	0.3	22	15.3	15.3	8.1	8.1	32.3	32.3	105.8	105.9	8.7	8.7	3.6	3.6	9	10	-	-	-	-	-	-	-	-			
						11.8	0.3	23	15.3	15.3	8.1	8.1	32.3	32.3	106.0	106.0	8.7	8.7	3.5	3.5	10	10	-	-	-	-	-	-	-	-			
C3	Cloudy	Moderate	14:23	12.0	Surface	1.0	0.3	94	16.0	16.0	8.1	8.1	32.5	32.5	105.4	105.4	8.5	8.4	2.1	2.1	6	6	-	-	822109	817812	-	-	-	-			
					Middle	6.0	0.3	91	16.2	16.2	8.1	8.1	32.7	32.7	103.3	103.3	8.3	8.3	4.1	4.1	6	7	-	-	-	-	-	-	-	-			
					Bottom	11.0	0.2	89	16.2	16.2	8.1	8.1	32.7	32.7	103.7	103.8	8.4	8.4	3.7	3.6	7	8	-	-	-	-	-	-	-	-			
						11.0	0.3	94	16.2	16.2	8.1	8.1	32.7	32.7	103.8	103.8	8.4	8.4	3.6	3.6	8	8	-	-	-	-	-	-	-	-			
IM1	Fine	Moderate	13:11	4.7	Surface	1.0	0.1	213	15.6	15.6	8.1	8.1	31.2	31.2	118.6	118.6	9.8	9.8	4.2	4.2	11	10	-	-	817937	807125	-	-	-	-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-			
					Bottom	3.7	0.1	225	15.6	15.6	8.1	8.1	31.2	31.2	118.0	118.0	9.7	9.7	4.2	4.2	9	10	-	-	-	-	-	-	-	-			
						3.7	0.1	231	15.6	15.6	8.1	8.1	31.2	31.2	117.9	117.9	9.7	9.7	4.2	4.2	10	10	-	-	-	-	-	-	-	-			
IM2	Fine	Moderate	13:04	6.8	Surface	1.0	0.0	79	15.7	15.7	8.1	8.1	30.6	30.6	118.4	118.4	9.8	9.7	4.6	4.5	10	11	-	-	818147	806170	-	-	-	-			
					Middle	3.4	0.0	159	15.8	15.8	8.1	8.1	30.7	30.7	116.4	116.4	9.6	9.6	4.8	4.8	10	9	-	-	-	-	-	-	-	-			
					Bottom	5.8	0.1	273	15.1	15.1	8.1	8.1	31.3	31.3	113.5	113.5	9.4	9.4	6.0	5.9	9	10	-	-	-	-	-	-	-	-			
						5.8	0.1	273	15.1	15.1	8.1	8.1	31.3	31.3	113.5	113.5	9.4	9.4	5.9	5.9	10	10	-	-	-	-	-	-	-	-			
IM3	Fine	Moderate	12:57	7.0	Surface	1.0	0.1	333	15.7	15.7	8.1	8.1	31.0	31.0	116.2	116.2	9.6	9.6	5.1	5.1	10	9	-	-	818791	805609	-	-	-	-			
					Middle	3.5	0.1	309	15.2	15.2	8.1	8.1	31.0	31.0	115.0	115.0	9.6	9.6	5.7	5.7	10	9	-	-	-	-	-	-	-	-			
					Bottom	6.0	0.1	278	15.1	15.1	8.0	8.0	31.2	31.2	114.2	114.2	9.5	9.5	5.9	5.9	8	9	-	-	-	-	-	-	-	-			
						6.0	0.1	288	15.1	15.1	8.0	8.0	31.2	31.2	114.2	114.2	9.5	9.5	5.9	5.9	9	9	-	-	-	-	-	-	-	-			
IM4	Fine	Moderate	12:47	8.2	Surface	1.0	0.2	8	15.2	15.2	8.0	8.0	31.1	31.1	113.5	113.6	9.4	9.5	5.4	5.4	11	10	-	-	819719	804615	-	-	-	-			
					Middle	4.1	0.1	315	15.1	15.1	8.0	8.0	31.0	31.0	113.6	113.6	9.5	9.5	5.6	5.6	11	10	-	-	-	-	-	-	-	-			
					Bottom	7.2	0.1	325	15.0	15.0	8.0	8.0	31.1	31.1	112.0	112.1	9.3	9.3	6.3	6.4	10	11	-	-	-	-	-	-	-	-			
						7.2	0.1	338	15.0	15.0	8.0	8.0	31.1	31.1	112.1	112.1	9.3	9.3	6.4	6.4	11	11	-	-	-	-	-	-	-	-			
IM5	Fine	Moderate	12:39	7.5	Surface	1.0	0.2	9	15.3	15.3	8.0	8.0	31.2	31.2	113.8	113.9	9.4	9.5	5.2	5.2	10	9	-	-	820736	804850	-	-	-	-			
					Middle	3.8	0.2	356	15.2	15.2	8.0	8.0	31.1	31.1	114.5	114.5	9.5	9.5	5.9	6.0	9	10	-	-	-	-	-	-	-	-			
					Bottom	6.5	0.2	3	15.2	15.2	8.0	8.0	31.1	31.1	113.6	113.6	9.4	9.4	6.6	6.6	8	7	-	-	-	-	-	-	-	-			
						6.5	0.2	3	15.2	15.2	8.0	8.0	31.1	31.1	113.6	113.6	9.4	9.4	6.6	6.6	7	7	-	-	-	-	-	-	-	-			
IM6	Fine	Moderate	12:30	7.4	Surface	1.0	0.1	263	15.3	15.3	8.0	8.0	31.3	31.3	115.5	115.5	9.6	9.6	3.1	3.1	7	6	-	-	821065	805819	-	-	-	-			
					Middle	3.7	0.1	289	15.2	15.2	8.0	8.0	31.2	31.2	114.9	114.9	9.5	9.5	3.2	3.2	8	9	-	-	-	-	-	-	-	-			
					Bottom	6.4	0.0	70	15.8	15.8	8.0	8.0	31.3	31.3	114.4	114.5	9.4	9.4	4.4	4.4	8	9	-	-	-	-	-	-	-	-			
						6.4	0.0	72	15.8	15.8	8.0	8.0	31.3	31.3	114.5	114.5	9.4	9.4	4.4	4.4	9	9	-	-	-	-	-	-	-	-			
IM7	Fine	Moderate	12:24	8.6	Surface	1.0	0.1	123	15.2	15.2	8.0	8.0	31.3	31.3	115.3	115.3	9.6	9.6	3.1	3.1	5	6	-	-	821329	806824	-	-	-	-			
					Middle	4.3	0.1	159	15.1	15.1	8.0	8.0	31.3	31.3	114.4	114.4	9.5	9.5	3.1	3.1	7	7	-	-	-	-	-	-	-	-			
					Bottom	7.6	0.1	177	15.2	15.2	8.0	8.0	31.6	31.6	113.2	113.2	9.4	9.4	3.5	3.5	7	7	-	-	-	-	-	-	-	-			
						7.6	0.1	177	15.2	15.2	8.0	8.0	31.6	31.6	113.1	113.1	9.4	9.4	3.8	3.8	7	7	-	-	-	-	-	-	-	-			
IM8	Cloudy	Moderate	12:46	7.5	Surface	1.0	0.3	63	15.4	15.4	8.1	8.1	32.1	32.1	109.1	109.0	9.0	8.9	2.6	2.6	9	10	-	-	821826	808132	-	-	-	-			
					Middle	3.8	0.3	59	15.2	15.2	8.1	8.1	32.3	32.3	106.9	106.9	8.8	8.8	3.6	3.6	10	9	-	-	-	-	-	-	-	-			
					Bottom	6.5	0.2	55	15.2	15.2	8.1	8.1	32.3	32.3	105.7	105.7	8.7	8.7	3.7	3.7	8	8	-	-	-	-	-	-	-	-			
						6.5	0.2	59	15.2	15.2	8.1	8.1	32.3	32.3	105.7	105.7	8.7	8.7	3.7	3.7	7	7	-	-	-	-	-	-	-	-			

DA: Depth-Averaged

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

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

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

Water Quality Monitoring Results on 14 January 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	12:52	7.3	Surface	1.0	0.2	45	15.9	15.9	8.1	8.1	31.9	31.9	109.8	109.9	8.9	8.9	1.7	8	-	-	-	-	-	-	-	-	-	-					
						1.0	0.2	45	15.9	8.1	8.1	31.9	31.9	109.9	109.9	8.9	8.9	1.7	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	3.7	0.3	64	15.3	15.3	8.1	8.1	32.2	32.2	106.9	106.9	8.8	8.8	2.6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.7	0.3	68	15.3	8.1	8.1	32.2	32.2	106.8	106.8	8.8	8.8	2.6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	6.3	0.3	59	15.1	15.1	8.1	8.1	32.3	32.3	106.2	106.2	8.8	8.8	2.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						6.3	0.3	60	15.1	8.1	8.1	32.3	32.3	106.2	106.2	8.8	8.8	2.2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IM10	Cloudy	Moderate	12:58	7.8	Surface	1.0	0.3	76	15.7	15.7	8.1	8.1	31.9	31.9	107.7	107.7	8.8	8.8	1.9	6	-	-	-	-	-	-	-	-	-	-	-				
						1.0	0.3	79	15.7	8.1	8.1	31.9	31.9	107.7	107.7	8.8	8.8	1.9	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	3.9	0.3	74	15.5	15.5	8.1	8.1	32.0	32.0	106.5	106.6	8.7	8.7	2.1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						3.9	0.3	77	15.5	8.1	8.1	32.0	32.0	106.6	106.6	8.8	8.8	2.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	6.8	0.3	67	15.4	15.4	8.1	8.1	32.2	32.2	106.2	106.1	8.7	8.7	1.7	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						6.8	0.3	69	15.4	8.1	8.1	32.2	32.2	106.0	106.0	8.7	8.7	1.8	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM11	Cloudy	Moderate	13:08	7.8	Surface	1.0	0.2	99	15.4	15.4	8.1	8.1	32.4	32.4	108.4	108.3	8.9	8.9	1.1	7	-	-	-	-	-	-	-	-	-	-	-				
						1.0	0.2	104	15.4	8.1	8.1	32.4	32.4	108.2	108.2	8.9	8.9	1.1	7	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Middle	3.9	0.2	94	15.4	15.4	8.1	8.1	32.4	32.4	107.1	107.1	8.8	8.8	1.1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.9	0.2	98	15.4	8.1	8.1	32.4	32.4	107.0	107.0	8.8	8.8	1.1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	6.8	0.2	82	15.3	15.3	8.1	8.1	32.4	32.4	105.6	105.6	8.7	8.7	1.0	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						6.8	0.2	82	15.3	8.1	8.1	32.4	32.4	105.6	105.6	8.7	8.7	1.0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM12	Cloudy	Moderate	13:16	9.6	Surface	1.0	0.3	98	15.5	15.5	8.1	8.1	32.4	32.4	109.3	109.3	9.0	9.0	1.2	6	-	-	-	-	-	-	-	-	-	-	-				
						1.0	0.3	107	15.5	8.1	8.1	32.4	32.4	109.3	109.3	9.0	9.0	1.2	6	-	-	-	-	-	-	-	-	-	-	-	-				
					Middle	4.8	0.2	107	15.4	15.4	8.1	8.1	32.4	32.4	107.3	107.4	8.8	8.8	1.2	6	-	-	-	-	-	-	-	-	-	-	-	-	-		
						4.8	0.2	113	15.4	8.1	8.1	32.4	32.4	107.4	107.4	8.8	8.8	1.2	7	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	8.6	0.1	122	15.4	15.4	8.1	8.1	32.4	32.4	106.2	106.3	8.7	8.7	1.1	8	-	-	-	-	-	-	-	-	-	-	-	-	-		
						8.6	0.1	122	15.4	8.1	8.1	32.4	32.4	106.3	106.3	8.7	8.7	1.1	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
SR1A	Cloudy	Calm	13:49	5.2	Surface	1.0	-	-	15.6	15.6	8.1	8.1	32.4	32.4	110.1	110.1	9.0	9.0	2.3	3	-	-	-	-	-	-	-	-	-	-					
						1.0	-	-	15.6	8.1	8.1	32.4	32.4	110.1	110.1	9.0	9.0	2.3	4	-	-	-	-	-	-	-	-	-	-						
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	4.2	-	-	15.6	15.6	8.1	8.1	32.4	32.4	108.2	108.2	8.8	8.8	3.7	4	-	-	-	-	-	-	-	-	-	-	-	-			
						4.2	-	-	15.6	8.1	8.1	32.4	32.4	108.2	108.2	8.8	8.8	3.8	5	-	-	-	-	-	-	-	-	-	-	-	-				
SR2	Cloudy	Moderate	14:04	4.1	Surface	1.0	0.2	22	15.5	15.5	8.1	8.1	32.4	32.4	108.6	108.5	8.9	8.9	3.9	7	-	-	-	-	-	-	-	-	-						
						1.0	0.2	24	15.5	8.1	8.1	32.4	32.4	108.4	108.4	8.9	8.9	3.9	6	-	-	-	-	-	-	-	-	-							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Bottom	3.1	0.2	17	15.5	15.5	8.1	8.1	32.4	32.4	107.4	107.4	8.8	8.8	3.8	6	-	-	-	-	-	-	-	-	-	-	-				
						3.1	0.2	18	15.5	8.1	8.1	32.4	32.4	107.4	107.4	8.8	8.8	3.8	5	-	-	-	-	-	-	-	-	-	-	-					
SR3	Cloudy	Moderate	12:41	8.9	Surface	1.0	0.4	127	15.6	15.6	8.1	8.1	31.9	31.9	108.6	108.4	8.9	8.9	2.1	7	-	-	-	-	-	-	-	-							
						1.0	0.5	137	15.6	8.1	8.1	31.9	31.9	108.2	108.4	8.9	8.9	2.2	8	-	-	-	-	-	-	-	-								
					Middle	4.5	0.3	115	15.4	15.4	8.1	8.1	32.0	32.0	107.3	107.3	8.8	8.8	3.7	7	-	-	-	-	-	-	-	-							
						4.5	0.3	124	15.4	8.1	8.1	32.0	32.0	107.3	107.3	8.8	8.8	3.8	8	-	-	-	-	-	-	-	-								
					Bottom	7.9	0.4	93	15.4	15.4	8.1	8.1	32.2	32.2	106.3	106.1	8.7	8.7	4.3	9	-	-	-	-	-	-	-	-							
						7.9	0.4	94	15.4	8.1	8.1	32.1	32.1	105.9	105.9	8.7	8.7	4.1	10	-	-	-	-	-	-	-	-								
SR4A	Fine	Calm	13:57	9.1	Surface	1.0	0.3	81	15.7	15.7	8.0	8.0	31.1	31.1	119.9	119.9	9.9	9.9	3.8	6	-	-	-	-	-	-	-								
						1.0	0.3	82	15.7	8.0	8.0	31.1	31.1	119.9	119.9	9.9	9.9	3.8	7	-	-	-	-	-	-	-									
					Middle	4.6	0.3	73	15.9	15.9	8.0	8.0	31.1	31.1	117.2	117.3	9.6	9.6	3.9	6	-	-	-	-	-	-	-								
						4.6	0.3	73	15.9	8.0	8.0	31.1	31.1	117.3	117.3	9.6	9.6	3.9	7	-	-	-	-	-	-	-									
					Bottom	8.1	0.2	58	15.6	15.6	8.0	8.0	31.2	31.2	118.5	118.5	9.8	9.8	4.0	6	-	-	-	-	-	-	-								
						8.1	0.2	62	15.6	8.1	8.1	31.2	31.2	118.5	118.5	9.8	9.8	4.0	6	-	-	-	-	-	-	-									
SR5A	Fine	Calm	14:13	3.2	Surface	1.0	0.0	277	15.7	15.7	8.1	8.1	31.4	31.4	131.7	131.7	10.8	10.8	3.5	7	-	-	-	-	-	-									
						1.0	0.0	285	15.7	8.1	8.1	31.4	31.4	131.7	131.7	10.8	10.8	3.5	8	-	-	-	-	-	-										
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
					Bottom	2.2	0.2	311	15.6	15.6	8.1	8.1	31.4	31.4	128.6	128.6	10.6	10.6	3.5	8	-	-	-	-	-	-									
						2.2	0.2	323	15.6	8.1	8.1	31.4	31.4	128.5																					

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

Water Quality Monitoring Results on 14 January 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	09:15	7.6	Surface	1.0	0.5	41	14.6	14.6	8.0	8.0	30.6	30.6	111.5	111.5	9.4	9.4	7.9	7.9	12	-	-	-	-	-	-	-	-	-				
						1.0	0.5	41	14.6	8.0	8.0	30.6	30.6	111.5	111.5	9.4	9.4	7.9	7.9	11	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	3.8	0.4	34	14.7	14.7	8.0	8.0	30.6	30.6	112.0	112.0	9.4	9.4	8.3	8.3	9	9	-	-	-	-	-	-	-	-	-	-	-	
						3.8	0.5	34	14.7	14.7	8.0	8.0	30.6	30.6	111.9	111.9	9.4	9.4	8.3	8.3	8	8	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	6.6	0.4	26	14.7	14.7	8.0	8.0	30.8	30.8	110.8	110.8	9.3	9.3	10.3	10.3	7	7	-	-	-	-	-	-	-	-	-	-	-	-
						6.6	0.4	28	14.7	14.7	8.0	8.0	30.8	30.8	110.7	110.7	9.3	9.3	10.3	10.3	8	8	-	-	-	-	-	-	-	-	-	-	-	-
C2	Cloudy	Moderate	09:44	11.5	Surface	1.0	0.3	356	15.5	15.5	8.1	8.1	31.3	31.3	104.6	104.6	8.6	8.6	2.5	2.5	7	-	-	-	-	-	-	-	-	-				
						1.0	0.4	328	15.5	15.5	8.1	8.1	31.6	31.6	104.6	104.6	8.6	8.6	2.5	2.5	6	6	-	-	-	-	-	-	-	-	-	-		
					Middle	5.8	0.4	17	15.4	15.4	8.1	8.1	31.6	31.6	103.9	103.9	8.6	8.6	5.0	5.0	7	7	-	-	-	-	-	-	-	-	-	-	-	-
						5.8	0.4	16	15.4	15.4	8.1	8.1	31.6	31.6	103.9	103.9	8.6	8.6	5.1	5.1	6	6	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	10.5	0.3	52	15.4	15.4	8.1	8.1	31.9	31.8	103.8	103.8	8.5	8.5	6.0	6.0	7	7	-	-	-	-	-	-	-	-	-	-	-	-
						10.5	0.4	52	15.4	15.4	8.1	8.1	31.8	31.8	103.8	103.8	8.5	8.5	5.9	5.9	6	6	-	-	-	-	-	-	-	-	-	-	-	-
C3	Cloudy	Moderate	07:39	10.5	Surface	1.0	0.5	287	15.3	15.3	8.1	8.1	32.3	32.3	104.8	104.8	8.6	8.6	4.3	4.3	9	-	-	-	-	-	-	-	-	-	-			
						1.0	0.5	289	15.4	15.4	8.1	8.1	32.3	32.3	104.4	104.4	8.6	8.6	7.5	7.5	10	10	-	-	-	-	-	-	-	-	-	-	-	
					Middle	5.3	0.6	314	15.4	15.4	8.1	8.1	32.3	32.3	104.3	104.3	8.6	8.6	8.1	8.1	9	9	-	-	-	-	-	-	-	-	-	-	-	-
						9.5	0.4	292	15.4	15.4	8.1	8.1	32.3	32.3	104.2	104.2	8.6	8.6	14.5	14.5	9	9	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	9.5	0.4	320	15.4	15.4	8.1	8.1	32.3	32.3	104.2	104.2	8.6	8.6	14.7	14.7	10	10	-	-	-	-	-	-	-	-	-	-	-	-
						9.5	0.4	320	15.4	15.4	8.1	8.1	32.3	32.3	104.2	104.2	8.6	8.6	14.7	14.7	10	10	-	-	-	-	-	-	-	-	-	-	-	-
IM1	Fine	Moderate	09:36	4.7	Surface	1.0	0.0	310	15.0	15.0	8.0	8.0	31.4	31.4	112.8	112.8	9.4	9.4	3.5	3.5	8	-	-	-	-	-	-	-	-	-				
						1.0	0.0	324	15.0	15.0	8.0	8.0	31.4	31.4	112.8	112.8	9.4	9.4	3.5	3.5	9	9	-	-	-	-	-	-	-	-	-	-		
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	3.7	0.0	327	14.9	14.9	8.0	8.0	31.4	31.3	111.8	111.8	9.3	9.3	3.3	3.3	14	14	-	-	-	-	-	-	-	-	-	-	-	-
						3.7	0.0	356	14.9	14.9	8.0	8.0	31.3	31.3	111.8	111.8	9.3	9.3	3.3	3.3	13	13	-	-	-	-	-	-	-	-	-	-	-	-
IM2	Fine	Moderate	09:44	6.6	Surface	1.0	0.3	8	15.0	15.0	8.0	8.0	31.2	31.2	110.7	110.7	9.2	9.2	9.4	9.4	15	-	-	-	-	-	-	-	-	-				
						1.0	0.3	8	15.0	15.0	8.0	8.0	31.2	31.2	110.7	110.7	9.2	9.2	9.4	9.4	16	16	-	-	-	-	-	-	-	-	-			
					Middle	3.3	0.3	2	15.0	15.0	8.0	8.0	31.3	31.3	111.5	111.5	9.3	9.3	9.6	9.6	14	14	-	-	-	-	-	-	-	-	-	-	-	
						3.3	0.3	2	15.0	15.0	8.0	8.0	31.3	31.3	111.4	111.4	9.3	9.3	9.7	9.7	13	13	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	5.6	0.3	5	15.0	15.0	8.0	8.0	31.2	31.2	110.6	110.6	9.2	9.2	11.8	11.8	8	8	-	-	-	-	-	-	-	-	-	-	-	
						5.6	0.3	5	15.0	15.0	8.0	8.0	31.2	31.2	110.6	110.6	9.2	9.2	12.1	12.1	7	7	-	-	-	-	-	-	-	-	-	-	-	
IM3	Fine	Moderate	09:52	6.8	Surface	1.0	0.4	342	14.9	14.9	8.1	8.1	31.2	31.2	111.6	111.6	9.3	9.3	9.4	9.4	16	-	-	-	-	-	-	-	-					
						1.0	0.4	352	14.9	14.9	8.1	8.1	31.2	31.2	111.6	111.6	9.3	9.3	9.0	9.0	17	17	-	-	-	-	-	-	-	-				
					Middle	3.4	0.3	345	15.0	15.0	8.0	8.0	31.2	31.2	113.0	113.0	9.4	9.4	9.8	9.8	16	16	-	-	-	-	-	-	-	-	-	-		
						3.4	0.3	317	15.0	15.0	8.0	8.0	31.2	31.2	112.9	112.9	9.4	9.4	9.7	9.7	16	16	-	-	-	-	-	-	-	-	-			
					Bottom	5.8	0.3	338	15.0	15.0	8.0	8.0	31.2	31.2	112.1	112.1	9.3	9.3	10.0	10.0	16	16	-	-	-	-	-	-	-	-	-	-		
						5.8	0.3	311	15.0	15.0	8.0	8.0	31.2	31.2	112.1	112.1	9.3	9.3	10.1	10.1	15	15	-	-	-	-	-	-	-	-	-			
IM4	Fine	Moderate	10:01	7.9	Surface	1.0	0.6	348	15.0	15.0	8.0	8.0	31.2	31.2	111.8	111.9	9.3	9.3	6.7	6.7	13	-	-	-	-	-	-	-	-					
						1.0	0.6	320	15.0	15.0	8.0	8.0	31.2	31.2	111.9	111.9	9.3	9.3	6.8	6.8	14	14	-	-	-	-	-	-	-					
					Middle	4.0	0.5	348	15.1	15.1	8.0	8.0	31.2	31.2	112.7	112.7	9.4	9.4	7.9	7.9	14	14	-	-	-	-	-	-	-	-				
						4.0	0.5	320	15.1	15.1	8.0	8.0	31.2	31.2	112.6	112.6	9.4	9.4	7.6	7.6	15	15	-	-	-	-	-	-	-					
					Bottom	6.9	0.4	344	15.1	15.1	8.0	8.0	31.2	31.2	111.9	111.9	9.3	9.3	8.1	8.1	16	16	-	-	-	-	-	-	-	-				
						6.9	0.4	316	15.1	15.1	8.0	8.0	31.2	31.2	111.9	111.9	9.3	9.3	7.9	7.9	17	17	-	-	-	-	-	-	-					
IM5	Fine	Moderate	10:09	7.1	Surface	1.0	0.7	13	15.0	15.0	8.0	8.0	31.3	31.3	110.9	110.9	9.2	9.2	6.7	6.7	16	-	-	-	-	-	-	-						
						1.0	0.8	13	15.0	15.0	8.0	8.0	31.3	31.3	110.9	110.9	9.2	9.2	6.5	6.5	16	16	-	-	-	-	-	-						
					Middle	3.6	0.7	16	15.0	15.0	8.0	8.0	31.3	31.3	111.8	111.8	9.3	9.3	8.1	8.1	14	14	-	-	-	-	-	-						
						3.6	0.7	16	15.0	15.0	8.0	8.0	31.3	31.3	111.8	111.8	9.3	9.3	8.2	8.2	13	13	-	-	-	-	-	-						
					Bottom	6.1	0.6	17	15.0	15.0	8.0	8.0	31.3	31.3	111.3	111.3	9.3	9.3	7.0	7.0	13	13	-	-	-	-	-	-						
						6.1	0.6	17	15.0	15.0	8.0	8.0	31.3	31.3	111.3	111.3	9.3	9.3	7.1	7.1	12	12	-	-	-	-	-	-						
IM6	Fine	Moderate	10:17	7.0	Surface	1.0	0.1	21	15.0	15.0	8.0	8.0	31.3	31.3	112.3	112.3	9.3	9.3	3.5	3.5	12	-	-	-	-	-	-							
						1.0	0.1	21	15.0	15.0	8.0	8.0	31.3	31.3	112.2	112.2	9.3	9.3	3.5	3.5														

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

Water Quality Monitoring

Water Quality Monitoring Results on 14 January 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		
IM9	Cloudy	Moderate	09:12	6.8	Surface	1.0	0.2	239	15.3	15.3	8.1	8.1	32.2	32.2	103.9	103.8	8.5	8.5	4.1	4.1	11	11	-	-	822117	808810	-	-	-	-			
						1.0	0.2	258	15.3	15.3	8.1	8.1	32.2	32.2	103.7	103.5	8.5	8.5	4.1	4.1	11	11	-	-									
					Middle	3.4	0.1	243	15.3	15.3	8.1	8.1	32.2	32.2	103.5	103.5	8.5	8.5	4.9	4.9	13	13	-	-									
						3.4	0.1	253	15.3	15.3	8.1	8.1	32.2	32.2	103.5	103.5	8.5	8.5	5.0	5.0	12	12	-	-									
					Bottom	5.8	0.1	227	15.3	15.3	8.1	8.1	32.2	32.2	103.9	103.9	8.6	8.6	4.5	4.5	13	13	-	-									
						5.8	0.1	248	15.3	15.3	8.1	8.1	32.2	32.2	103.8	103.8	8.5	8.5	4.5	4.5	12	12	-	-									
IM10	Cloudy	Moderate	09:05	6.8	Surface	1.0	0.5	325	15.3	15.3	8.1	8.1	32.2	32.2	105.3	105.1	8.7	8.7	4.6	4.6	12	12	-	-	822406	809815	-	-	-	-			
						1.0	0.5	338	15.3	15.3	8.1	8.1	32.2	32.2	104.9	104.9	8.6	8.6	4.8	4.8	11	11	-	-									
					Middle	3.4	0.4	322	15.2	15.2	8.1	8.1	32.2	32.2	104.7	104.7	8.6	8.6	5.7	5.7	12	12	-	-									
						3.4	0.5	328	15.2	15.2	8.1	8.1	32.2	32.2	104.7	104.7	8.6	8.6	5.7	5.7	11	11	-	-									
					Bottom	5.8	0.4	318	15.2	15.2	8.1	8.1	32.2	32.2	104.2	104.2	8.6	8.6	7.2	7.2	12	12	-	-									
						5.8	0.4	347	15.2	15.2	8.1	8.1	32.2	32.2	104.2	104.2	8.6	8.6	7.4	7.4	13	13	-	-									
IM11	Cloudy	Moderate	08:55	7.3	Surface	1.0	0.5	276	15.3	15.3	8.1	8.1	32.3	32.3	104.8	104.7	8.6	8.6	6.2	6.2	17	17	-	-	822060	811440	-	-	-	-			
						1.0	0.6	291	15.3	15.3	8.1	8.1	32.3	32.3	104.6	104.6	8.6	8.6	6.3	6.3	17	17	-	-									
					Middle	3.7	0.5	279	15.2	15.2	8.1	8.1	32.3	32.3	104.4	104.4	8.6	8.6	7.6	7.6	15	15	-	-									
						3.7	0.6	298	15.2	15.2	8.1	8.1	32.3	32.3	104.3	104.3	8.6	8.6	7.8	7.8	14	14	-	-									
					Bottom	6.3	0.4	287	15.2	15.2	8.1	8.1	32.3	32.3	103.7	103.8	8.5	8.5	7.0	7.0	15	15	-	-									
						6.3	0.4	306	15.2	15.2	8.1	8.1	32.3	32.3	103.9	103.9	8.6	8.6	7.0	7.0	14	14	-	-									
IM12	Cloudy	Moderate	08:50	7.4	Surface	1.0	0.6	298	15.3	15.3	8.1	8.1	32.4	32.4	104.5	104.5	8.6	8.6	7.4	7.4	16	16	-	-	821472	812065	-	-	-	-			
						1.0	0.6	317	15.3	15.3	8.1	8.1	32.4	32.4	104.5	104.5	8.6	8.6	7.2	7.2	17	17	-	-									
					Middle	3.7	0.5	304	15.3	15.3	8.1	8.1	32.3	32.3	104.1	104.2	8.6	8.6	11.8	11.8	18	18	-	-									
						3.7	0.6	310	15.3	15.3	8.1	8.1	32.3	32.3	104.2	104.2	8.6	8.6	11.8	11.8	19	19	-	-									
					Bottom	6.4	0.5	297	15.3	15.3	8.1	8.1	32.3	32.3	103.8	103.9	8.5	8.5	18.7	18.7	20	20	-	-									
						6.4	0.5	306	15.3	15.3	8.1	8.1	32.3	32.3	103.9	103.9	8.5	8.5	18.5	18.5	20	20	-	-									
SR1A	Cloudy	Calm	08:14	4.3	Surface	1.0	-	-	15.2	15.2	8.1	8.1	32.4	32.4	103.8	103.8	8.6	8.6	1.0	1.0	7	7	-	-	819976	812659	-	-	-	-			
						1.0	-	-	15.2	15.2	8.1	8.1	32.4	32.4	103.8	103.8	8.6	8.6	1.1	1.1	6	6	-	-									
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-
						2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	
					Bottom	3.3	-	-	15.2	15.2	8.1	8.1	32.4	32.4	102.7	102.8	8.5	8.5	2.5	2.5	5	5	-	-									
						3.3	-	-	15.2	15.2	8.1	8.1	32.4	32.4	102.8	102.8	8.5	8.5	2.5	2.5	5	5	-	-									
SR2	Cloudy	Moderate	07:58	4.0	Surface	1.0	0.1	43	15.2	15.2	8.1	8.1	32.3	32.3	104.2	104.2	8.6	8.6	12.4	12.4	23	23	-	-	821476	814145	-	-	-	-			
						1.0	0.1	46	15.2	15.2	8.1	8.1	32.3	32.3	104.2	104.2	8.6	8.6	12.5	12.5	22	22	-	-									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-		
					Bottom	3.0	0.1	42	15.2	15.2	8.1	8.1	32.3	32.3	103.6	103.6	8.5	8.5	14.6	14.6	22	22	-	-									
						3.0	0.1	44	15.2	15.2	8.1	8.1	32.3	32.3	103.5	103.5	8.5	8.5	14.9	14.9	21	21	-	-									
SR3	Cloudy	Moderate	09:25	8.5	Surface	1.0	0.1	358	15.5	15.5	8.1	8.1	31.3	31.3	104.9	104.8	8.7	8.7	2.2	2.2	9	9	-	-	822170	807586	-	-	-	-			
						1.0	0.1	329	15.5	15.5	8.1	8.1	31.4	31.4	104.7	104.7	8.6	8.6	2.3	2.3	8	8	-	-									
					Middle	4.3	0.1	353	15.5	15.5	8.1	8.1	31.7	31.7	103.9	103.9	8.5	8.5	3.0	3.0	7	7	-	-									
						4.3	0.1	325	15.5	15.5	8.1	8.1	31.7	31.7	103.8	103.8	8.5	8.5	3.1	3.1	8	8	-	-									
					Bottom	7.5	0.2	8	15.5	15.5	8.1	8.1	31.7	31.7	103.7	103.8	8.5	8.5	3.3	3.3	8	8	-	-									
						7.5	0.2	8	15.5	15.5	8.1	8.1	31.7	31.7	103.8	103.8	8.5	8.5	3.4	3.4	7	7	-	-									
SR4A	Cloudy	Calm	08:50	8.9	Surface	1.0	0.2	70	14.9	14.9	8.0	8.0	31.3	31.3	111.5	111.5	9.3	9.3	2.5	2.5	7	7	-	-	817184	807814	-	-	-	-			
						1.0	0.2	71	14.9	14.9	8.0	8.0	31.3	31.3	111.5	111.5	9.3	9.3	2.5	2.5	7	7	-	-									
					Middle	4.5	0.2	61	14.9	14.9	8.0	8.0	31.4	31.4	112.1	112.1	9.3	9.3	2.7	2.7	5	5	-	-									
						4.5	0.2	63	14.9	14.9	8.0	8.0	31.4	31.4	112.1	112.1	9.3	9.3	2.8	2.8	5	5	-	-									
					Bottom	7.9	0.2	60	14.7	14.7	8.0	8.0	31.4	31.4	110.9	110.9	9.3	9.3	3.0	3.0	5	5	-	-									
						7.9	0.2	64	14.7	14.7	8.0	8.0	31.4	31.4	110.8	110.8	9.3	9.3	3.0	3.0	5	5	-	-									
SR5A	Cloudy	Calm	08:31	3.1	Surface	1.0	0.4	241	14.9	14.9	8.0	8.0	31.4	31.4	112.5	112.5	9.4	9.4	2.8	2.8	6	6	-	-	816609	810676	-	-	-	-			
						1.0	0.4	258	14.8	14.8	8.0	8.0	31.4	31.4	112.5	112.5	9.4	9.4	2.9	2.9	7	7	-	-									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-			
					Bottom	2.1	0.3	260	14.8	14.8	8.0	8.0	31.4	31.4	111.7	111.7	9.3	9.3	3.5	3.5	7	7	-	-									
						2.1	0.3	270	14.8	14.8	8.0	8.0	31.4	31.4	111.7	111.7	9.3	9.3	3.5	3.5	6	6	-	-									
SR6A	Cloudy	Calm	08:00	3.7	Surface	1.0	0.0	253	15.4	15.4	8.1	8.1	31.5	31.5	112.6	112.6	9.3	9.3	3.2	3.2	9	9	-	-	817982	814731	-	-	-	-			
						1.0	0.0	266	15.4	15.4	8.1	8.1	31.5	31.5	112.5	112.5	9.3	9.3	3.3	3.3	9	9	-	-									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-				
					Bottom	2.7	0.1	149	15.4	15.4	8.0	8.0	31.5	31.5	111.7	111.7	9.																

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

Water Quality Monitoring Results on 16 January 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	
C1	Sunny	Moderate	15:11	8.9	Surface	1.0	0.1	277	16.3	16.3	8.1	8.1	30.5	30.5	118.7	118.7	9.7	9.7	6.8	7	-	-	-	-	815606	804256	-	-	-	-				
						1.0	0.1	295	16.3	16.3	8.1	8.1	30.5	30.5	118.7	118.7	9.7	9.7	7.0	7	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.5	0.1	88	16.2	16.2	8.1	8.1	30.5	30.5	118.4	118.3	9.7	9.7	5.4	11	-	-	-	-	-	-	-	-	-	-	-	-	-	
						4.5	0.1	95	16.2	16.2	8.1	8.1	30.5	30.5	118.2	118.2	9.7	9.7	5.4	11	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	7.9	0.1	193	16.7	16.7	8.1	8.1	30.6	30.6	118.2	118.2	9.6	9.6	4.9	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						7.9	0.1	211	16.7	16.7	8.1	8.1	30.6	30.6	118.1	118.1	9.5	9.5	4.9	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2	Cloudy	Rough	13:45	12.1	Surface	1.0	0.2	135	16.1	16.1	8.1	8.1	30.9	30.9	118.0	118.0	9.6	9.6	3.3	7	-	-	-	-	825674	806937	-	-	-	-				
						1.0	0.2	139	16.1	16.1	8.1	8.1	30.9	30.9	118.0	118.0	9.6	9.6	3.3	8	-	-	-	-	-	-	-	-	-	-	-			
					Middle	6.1	0.5	154	16.0	16.0	8.1	8.1	31.4	31.4	115.6	115.6	9.4	9.4	4.1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
						6.1	0.5	168	16.0	16.0	8.1	8.1	31.4	31.4	115.6	115.6	9.4	9.4	4.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	11.1	0.5	144	16.0	16.0	8.1	8.1	31.7	31.7	114.7	114.7	9.3	9.3	4.2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						11.1	0.5	154	16.0	16.0	8.1	8.1	31.7	31.7	114.7	114.7	9.3	9.3	4.2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3	Cloudy	Rough	15:53	11.6	Surface	1.0	0.4	286	16.2	16.2	8.1	8.1	32.1	32.1	111.8	111.8	9.0	9.0	2.8	6	-	-	-	-	822124	817797	-	-	-	-				
						1.0	0.4	296	16.2	16.2	8.1	8.1	32.1	32.1	111.8	111.8	9.0	9.0	2.8	7	-	-	-	-	-	-	-	-	-	-	-			
					Middle	5.8	0.2	257	16.1	16.1	8.1	8.1	32.2	32.2	109.6	109.6	8.9	8.9	2.9	7	-	-	-	-	-	-	-	-	-	-	-	-	-	
						5.8	0.2	282	16.1	16.1	8.1	8.1	32.2	32.2	109.6	109.6	8.9	8.9	2.9	6	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	10.6	0.1	120	16.1	16.1	8.1	8.1	32.3	32.3	110.1	110.1	8.9	8.9	2.9	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						10.6	0.1	124	16.1	16.1	8.1	8.1	32.3	32.3	110.1	110.1	8.9	8.9	2.9	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IM1	Sunny	Moderate	14:51	4.8	Surface	1.0	0.1	237	16.5	16.5	8.1	8.1	31.0	31.0	120.6	120.6	9.8	9.8	4.5	9	-	-	-	-	817935	807125	-	-	-	-				
						1.0	0.1	241	16.5	16.5	8.1	8.1	31.0	31.0	120.6	120.6	9.8	9.8	4.5	9	-	-	-	-	-	-	-	-	-	-	-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	3.8	0.0	235	16.5	16.5	8.1	8.1	31.0	31.0	120.8	120.8	9.8	9.8	4.5	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						3.8	0.0	243	16.5	16.5	8.1	8.1	31.0	31.0	120.7	120.7	9.8	9.8	4.5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IM2	Sunny	Moderate	14:42	6.7	Surface	1.0	0.1	356	16.2	16.2	8.0	8.0	30.8	30.8	118.1	118.1	9.6	9.6	7.5	9	-	-	-	-	818184	806164	-	-	-	-				
						1.0	0.1	328	16.2	16.2	8.0	8.0	30.8	30.8	118.1	118.1	9.6	9.6	7.4	8	-	-	-	-	-	-	-	-	-	-	-			
					Middle	3.4	0.1	36	16.2	16.2	8.0	8.0	30.8	30.8	117.5	117.5	9.6	9.6	6.7	10	-	-	-	-	-	-	-	-	-	-	-	-		
						3.4	0.1	38	16.2	16.2	8.0	8.0	30.8	30.8	117.4	117.4	9.6	9.6	6.8	9	-	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	5.7	0.1	74	16.3	16.3	8.0	8.0	30.8	30.8	117.9	117.8	9.6	9.6	6.9	12	-	-	-	-	-	-	-	-	-	-	-	-	-	
						5.7	0.1	77	16.3	16.3	8.0	8.0	30.8	30.8	117.7	117.7	9.6	9.6	6.9	11	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM3	Sunny	Moderate	14:34	6.9	Surface	1.0	0.1	340	16.4	16.4	8.1	8.1	30.7	30.7	117.9	117.9	9.6	9.6	5.2	8	-	-	-	-	818764	805581	-	-	-	-				
						1.0	0.1	313	16.4	16.4	8.1	8.1	30.7	30.7	117.9	117.9	9.6	9.6	5.2	7	-	-	-	-	-	-	-	-	-	-				
					Middle	3.5	0.0	60	16.2	16.2	8.1	8.1	30.7	30.7	118.2	118.2	9.6	9.6	5.4	11	-	-	-	-	-	-	-	-	-	-	-			
						3.5	0.0	60	16.2	16.2	8.1	8.1	30.7	30.7	118.1	118.1	9.6	9.6	5.4	11	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	5.9	0.0	70	16.4	16.4	8.0	8.0	30.7	30.7	116.9	116.9	9.5	9.5	10.1	10	-	-	-	-	-	-	-	-	-	-	-	-		
						5.9	0.0	75	16.4	16.4	8.0	8.0	30.7	30.7	116.8	116.8	9.5	9.5	10.3	11	-	-	-	-	-	-	-	-	-	-	-	-		
IM4	Sunny	Moderate	14:23	8.0	Surface	1.0	0.1	343	16.4	16.4	8.1	8.1	30.6	30.6	118.2	118.2	9.6	9.6	6.9	8	-	-	-	-	819733	804596	-	-	-	-				
						1.0	0.2	344	16.4	16.4	8.1	8.1	30.6	30.6	118.1	118.1	9.6	9.6	6.9	8	-	-	-	-	-	-	-	-	-	-				
					Middle	4.0	0.1	332	16.2	16.2	8.1	8.1	30.4	30.4	117.5	117.5	9.6	9.6	6.1	8	-	-	-	-	-	-	-	-	-	-	-			
						4.0	0.1	349	16.2	16.2	8.1	8.1	30.4	30.4	117.4	117.4	9.6	9.6	6.1	9	-	-	-	-	-	-	-	-	-	-				
					Bottom	7.0	0.1	324	16.5	16.5	8.1	8.1	30.7	30.7	116.5	116.5	9.5	9.5	11.2	14	-	-	-	-	-	-	-	-	-	-	-			
						7.0	0.1	351	16.5	16.5	8.1	8.1	30.7	30.7	116.4	116.4	9.4	9.4	11.0	13	-	-	-	-	-	-	-	-	-	-				
IM5	Sunny	Moderate	14:11	7.4	Surface	1.0	0.2	12	16.1	16.1	8.0	8.0	30.9	30.9	117.4	117.4	9.6	9.6	5.7	10	-	-	-	-	820732	804875	-	-	-	-				
						1.0	0.2	12	16.1	16.1	8.0	8.0	30.9	30.9	117.4	117.4	9.6	9.6	5.6	11	-	-	-	-	-	-	-	-						
					Middle	3.7	0.2	356	16.2	16.2	8.0	8.0	30.8	30.8	117.1	117.1	9.6	9.6	6.0	11	-	-	-	-	-	-	-	-	-					
						3.7	0.2	328	16.2	16.2	8.0	8.0	30.8	30.8	117.0	117.0	9.5	9.5	6.0	12	-	-	-	-	-	-	-	-						
					Bottom	6.4	0.2	335	16.1	16.1	8.0	8.0	30.8	30.8	115.0	115.0	9.4	9.4	6.4	12	-	-	-	-	-	-	-	-	-					
						6.4	0.2	354	16.1	16.1	8.0	8.0	30.8	30.8	114.9	114.9	9.4	9.4	6.3	11	-	-	-	-	-	-	-	-	-					
IM6	Sunny	Moderate	14:03	8.3	Surface	1.0	0.1	286	16.2	16.2	8.1	8.1	30.7	30.7	119.8	119.8	9.8	9.8	3.8	7	-	-	-	-	821038	805828	-	-	-	-				
						1.0	0.1	296	16.2	16.2	8.1	8.1	30.7	30.7	119.8	119.8	9.8	9.8	3.8	7	-													

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

Water Quality Monitoring

Water Quality Monitoring Results on 16 January 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
C1	Fine	Moderate	10:33	8.7	Surface	1.0	0.6	40	16.0	16.0	8.1	8.1	29.7	29.7	120.0	120.0	9.9	9.9	5.0	7	-	-	-	-	-	-	-	-	-	-				
						1.0	0.6	40	16.0	16.0	8.1	8.1	29.7	29.7	119.9	119.9	9.9	9.9	5.0	6	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.4	0.6	42	16.2	16.2	8.1	8.1	29.8	29.8	118.7	118.7	9.7	9.7	5.0	7	-	-	-	-	-	-	-	-	-	-	-	-	-	
						4.4	0.6	45	16.2	16.2	8.1	8.1	29.8	29.8	118.6	118.6	9.7	9.7	5.0	8	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	7.7	0.4	38	16.5	16.5	8.1	8.1	30.7	30.7	116.8	116.8	9.5	9.5	13.0	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						7.7	0.4	38	16.5	16.5	8.1	8.1	30.7	30.7	116.7	116.7	9.5	9.5	13.0	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2	Fine	Moderate	11:40	11.6	Surface	1.0	0.3	350	16.0	16.0	8.1	8.1	30.7	30.7	113.6	113.6	9.3	9.3	4.5	7	-	-	-	-	-	-	-	-	-	-				
						1.0	0.3	322	16.0	16.0	8.1	8.1	30.7	30.7	113.6	113.6	9.3	9.3	4.5	6	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	5.8	0.4	28	15.8	15.8	8.1	8.1	31.2	31.2	110.3	110.3	9.0	9.0	8.3	7	-	-	-	-	-	-	-	-	-	-	-	-	-	
						5.8	0.4	30	15.8	15.8	8.1	8.1	31.2	31.2	110.3	110.3	9.0	9.0	8.3	7	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	10.6	0.4	346	15.8	15.8	8.1	8.1	31.4	31.4	109.3	109.3	9.0	9.0	12.8	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						10.6	0.5	318	15.8	15.8	8.1	8.1	31.4	31.4	109.3	109.3	9.0	9.0	12.8	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3	Fine	Moderate	09:21	10.6	Surface	1.0	0.3	241	15.9	15.9	8.1	8.1	31.8	31.8	112.3	112.3	9.2	9.2	3.5	13	-	-	-	-	-	-	-	-	-	-				
						1.0	0.3	251	15.8	15.8	8.1	8.1	31.8	31.8	112.3	112.3	9.2	9.2	3.5	12	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	5.3	0.4	252	15.8	15.8	8.1	8.1	31.9	31.9	110.6	110.6	9.0	9.0	5.7	13	-	-	-	-	-	-	-	-	-	-	-	-	-	
						5.3	0.4	262	15.8	15.8	8.1	8.1	31.9	31.9	110.6	110.6	9.0	9.0	5.7	12	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	9.6	0.4	266	15.8	15.8	8.0	8.0	31.9	31.9	109.6	109.6	8.9	8.9	12.4	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						9.6	0.4	285	15.8	15.8	8.0	8.0	31.9	31.9	109.6	109.6	8.9	8.9	12.4	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IM1	Sunny	Moderate	10:54	4.7	Surface	1.0	0.1	316	16.5	16.5	8.1	8.1	31.0	31.0	117.9	117.9	9.6	9.6	3.6	5	-	-	-	-	-	-	-	-	-	-				
						1.0	0.1	328	16.5	16.5	8.1	8.1	31.0	31.0	117.7	117.7	9.5	9.5	3.6	4	-	-	-	-	-	-	-	-	-	-	-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	3.7	0.1	316	16.8	16.8	8.1	8.1	31.1	31.1	117.3	117.3	9.4	9.4	6.8	6	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.7	0.1	331	16.8	16.8	8.1	8.1	31.0	31.0	117.1	117.1	9.4	9.4	6.6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM2	Sunny	Moderate	11:02	6.7	Surface	1.0	0.2	12	16.0	16.0	8.1	8.1	30.8	30.8	115.8	115.8	9.5	9.5	6.7	9	-	-	-	-	-	-	-	-	-					
						1.0	0.2	13	16.0	16.0	8.1	8.1	30.8	30.8	115.8	115.8	9.5	9.5	6.7	9	-	-	-	-	-	-	-	-	-	-				
					Middle	3.4	0.2	9	15.9	15.9	8.1	8.1	30.9	30.9	115.1	115.1	9.4	9.4	6.7	11	-	-	-	-	-	-	-	-	-	-	-	-		
						3.4	0.2	9	15.9	15.9	8.1	8.1	30.9	30.9	115.0	115.0	9.4	9.4	6.6	11	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	5.7	0.2	356	16.2	16.2	8.1	8.1	30.9	30.9	113.9	113.9	9.3	9.3	7.0	10	-	-	-	-	-	-	-	-	-	-	-	-		
						5.7	0.2	328	16.2	16.2	8.1	8.1	30.9	30.9	113.7	113.7	9.3	9.3	7.1	11	-	-	-	-	-	-	-	-	-	-	-	-		
IM3	Sunny	Moderate	11:10	7.0	Surface	1.0	0.3	347	16.0	16.0	8.0	8.0	30.8	30.8	116.0	116.0	9.5	9.5	10.4	8	-	-	-	-	-	-	-	-	-					
						1.0	0.3	319	16.0	16.0	8.0	8.0	30.8	30.8	116.0	116.0	9.5	9.5	10.4	9	-	-	-	-	-	-	-	-	-					
					Middle	3.5	0.3	343	16.0	16.0	8.0	8.0	30.8	30.8	116.1	116.1	9.5	9.5	17.6	8	-	-	-	-	-	-	-	-	-	-	-			
						3.5	0.3	316	16.0	16.0	8.0	8.0	30.8	30.8	116.0	116.0	9.5	9.5	17.8	9	-	-	-	-	-	-	-	-	-	-				
					Bottom	6.0	0.3	338	16.1	16.1	8.0	8.0	30.8	30.8	115.4	115.4	9.4	9.4	14.9	9	-	-	-	-	-	-	-	-	-	-	-			
						6.0	0.3	344	16.1	16.1	8.0	8.0	30.8	30.8	115.3	115.3	9.4	9.4	14.8	8	-	-	-	-	-	-	-	-	-	-				
IM4	Sunny	Moderate	11:22	7.8	Surface	1.0	1.7	45	15.9	15.9	8.0	8.0	30.7	30.7	115.3	115.3	9.5	9.5	6.5	9	-	-	-	-	-	-	-	-						
						1.0	1.8	49	15.9	15.9	8.0	8.0	30.7	30.7	115.2	115.2	9.5	9.5	6.4	8	-	-	-	-	-	-	-	-						
					Middle	3.9	1.9	43	15.9	15.9	8.0	8.0	30.7	30.7	114.7	114.7	9.4	9.4	6.6	9	-	-	-	-	-	-	-	-	-					
						3.9	2.0	43	15.9	15.9	8.0	8.0	30.7	30.7	114.7	114.7	9.4	9.4	6.6	8	-	-	-	-	-	-	-	-	-					
					Bottom	6.8	1.7	48	16.0	16.0	8.0	8.0	30.7	30.7	114.6	114.6	9.4	9.4	9.8	9	-	-	-	-	-	-	-	-	-					
						6.8	1.8	51	16.0	16.0	8.0	8.0	30.7	30.7	114.5	114.5	9.4	9.4	9.7	9	-	-	-	-	-	-	-	-	-					
IM5	Sunny	Moderate	11:30	7.3	Surface	1.0	1.4	106	16.0	16.0	8.0	8.0	30.8	30.8	116.7	116.7	9.6	9.6	6.2	9	-	-	-	-	-	-	-							
						1.0	1.5	109	16.0	16.0	8.0	8.0	30.8	30.8	116.6	116.6	9.6	9.6	6.2	10	-	-	-	-	-	-	-							
					Middle	3.7	1.5	103	16.1	16.1	8.0	8.0	30.7	30.7	116.2	116.2	9.5	9.5	6.6	10	-	-	-	-	-	-	-	-						
						3.7	1.6	109	16.1	16.1	8.0	8.0	30.7	30.7	116.1	116.1	9.5	9.5	6.6	9	-	-	-	-	-	-	-	-						
					Bottom	6.3	1.4	103	16.1	16.1	8.0	8.0	30.7	30.7	116.5	116.5	9.5	9.5	10.9	9	-	-	-	-	-	-	-	-	-					
						6.3	1.6	108	16.1	16.1	8.0	8.0	30.7	30.7	116.4	116.4	9.5	9.5	10.8	10	-	-	-	-	-	-	-	-						
IM6	Sunny	Moderate	11:39	7.2	Surface	1.0	1.8	108	16.0	16.0	8.1	8.1	30.6	30.6	118.6	118.6	9.7	9.7	4.4	6	-	-	-	-	-	-	-							
						1.0	2.0	117	16.0	16.0	8.1	8.1	30.6	30.6	118.5	118.5	9.7	9.7	4.3	7	-	-	-	-	-	-								
					Middle	3.6	2.1	108	16.0	16.0	8.0	8.0	30.6	30.6	118.4	118.4	9.7	9.7	4.6	6	-	-	-	-	-	-	-							
						3.6	2.2	113	16.0	16.0	8.0	8.0	30.6	30.6																				

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

Water Quality Monitoring Results on 16 January 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	Fine	Moderate	11:07	7.0	Surface	1.0	0.1	116	15.8	15.8	8.1	8.1	31.1	31.1	113.2	113.2	9.3	9.2	3.3	6	-	-	-	-	-	-	-	-	-	-				
						1.0	0.1	126	15.8	8.1	8.1	31.1	31.1	113.2	113.2	9.3	9.2	3.3	7	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	3.5	0.1	123	15.8	8.1	8.1	31.1	31.1	111.4	111.4	9.1	9.1	3.2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.5	0.1	124	15.8	8.1	8.1	31.1	31.1	111.4	111.4	9.1	9.1	3.2	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	6.0	0.1	103	15.8	8.1	8.1	31.1	31.1	110.0	110.0	9.0	9.0	3.6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						6.0	0.1	106	15.8	8.1	8.1	31.1	31.1	110.0	110.0	9.0	9.0	3.6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IM10	Fine	Moderate	11:00	7.6	Surface	1.0	0.4	326	15.8	15.8	8.1	8.1	31.7	31.7	111.8	111.8	9.1	9.1	4.3	6	-	-	-	-	-	-	-	-	-	-				
						1.0	0.4	327	15.8	8.1	8.1	31.7	31.7	111.8	111.8	9.1	9.1	4.3	5	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	3.8	0.4	333	15.8	8.1	8.1	31.7	31.7	110.6	110.6	9.0	9.0	4.5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.8	0.4	345	15.8	8.1	8.1	31.7	31.7	110.6	110.6	9.0	9.0	4.5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	6.6	0.4	330	15.8	8.1	8.1	31.7	31.7	109.2	109.2	8.9	8.9	5.0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						6.6	0.4	333	15.8	8.1	8.1	31.7	31.7	109.2	109.2	8.9	8.9	5.0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IM11	Fine	Moderate	10:49	7.5	Surface	1.0	0.5	305	15.8	15.8	8.1	8.1	31.6	31.6	112.9	112.9	9.2	9.2	4.4	6	-	-	-	-	-	-	-	-	-	-				
						1.0	0.5	318	15.8	8.1	8.1	31.6	31.6	112.9	112.9	9.2	9.2	4.4	5	-	-	-	-	-	-	-	-	-	-	-	-			
					Middle	3.8	0.4	310	15.8	8.1	8.1	31.7	31.7	111.4	111.4	9.1	9.1	5.6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.8	0.5	340	15.8	8.1	8.1	31.7	31.7	111.4	111.4	9.1	9.1	5.6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	6.5	0.3	320	15.8	8.1	8.1	31.8	31.8	110.0	110.0	9.0	9.0	6.4	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						6.5	0.3	336	15.8	8.1	8.1	31.8	31.8	109.9	109.9	9.0	9.0	6.5	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM12	Fine	Moderate	10:43	8.0	Surface	1.0	0.5	297	15.8	15.8	8.1	8.1	31.8	31.8	111.4	111.4	9.1	9.1	4.9	6	-	-	-	-	-	-	-	-	-	-				
						1.0	0.5	308	15.8	8.1	8.1	31.8	31.8	111.4	111.4	9.1	9.1	5.0	6	-	-	-	-	-	-	-	-	-	-	-	-			
					Middle	4.0	0.4	300	15.8	8.1	8.1	31.9	31.9	110.7	110.7	9.0	9.0	6.0	6	-	-	-	-	-	-	-	-	-	-	-	-	-		
						4.0	0.4	302	15.8	8.1	8.1	31.9	31.9	110.7	110.7	9.0	9.0	6.0	6	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	7.0	0.3	286	15.8	8.1	8.1	31.9	31.9	109.8	109.8	9.0	9.0	8.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.0	0.4	293	15.8	8.1	8.1	31.9	31.9	109.8	109.8	9.0	9.0	8.1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SR1A	Fine	Moderate	10:04	5.2	Surface	1.0	-	-	15.9	15.9	8.1	8.1	32.0	32.0	110.1	110.1	9.0	9.0	4.9	5	-	-	-	-	-	-	-	-	-	-				
						1.0	-	-	15.9	15.9	8.1	8.1	32.0	32.0	110.1	110.1	9.0	9.0	4.9	6	-	-	-	-	-	-	-	-	-	-	-			
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	4.2	-	-	15.9	15.9	8.1	8.1	31.9	31.9	107.5	107.5	8.8	8.8	5.1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
						4.2	-	-	15.9	15.9	8.1	8.1	31.9	31.9	107.5	107.5	8.8	8.8	5.1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
SR2	Fine	Moderate	09:47	4.7	Surface	1.0	0.2	89	15.7	15.7	8.1	8.1	31.8	31.8	110.3	110.3	9.0	9.0	6.3	6	-	-	-	-	-	-	-	-	-					
						1.0	0.2	94	15.7	15.7	8.1	8.1	31.8	31.8	110.3	110.3	9.0	9.0	6.3	7	-	-	-	-	-	-	-	-	-	-				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	3.7	0.1	99	15.7	15.7	8.1	8.1	31.8	31.8	109.3	109.3	8.9	8.9	6.6	5	-	-	-	-	-	-	-	-	-	-	-	-		
						3.7	0.1	107	15.7	15.7	8.1	8.1	31.8	31.8	109.3	109.3	8.9	8.9	6.6	6	-	-	-	-	-	-	-	-	-	-	-	-		
SR3	Fine	Moderate	11:21	8.4	Surface	1.0	0.1	63	15.8	15.8	8.1	8.1	30.9	30.9	111.6	111.6	9.2	9.2	4.1	5	-	-	-	-	-	-	-	-	-					
						1.0	0.1	66	15.8	15.8	8.1	8.1	30.9	30.9	111.6	111.6	9.2	9.2	4.1	6	-	-	-	-	-	-	-	-	-	-				
					Middle	4.2	0.1	56	15.8	15.8	8.1	8.1	30.9	30.9	110.2	110.2	9.1	9.1	4.7	5	-	-	-	-	-	-	-	-	-	-	-			
						4.2	0.1	61	15.8	15.8	8.1	8.1	30.9	30.9	110.2	110.2	9.1	9.1	4.7	6	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	7.4	0.1	50	15.8	15.8	8.1	8.1	30.9	30.9	109.0	109.0	9.0	9.0	5.9	7	-	-	-	-	-	-	-	-	-	-	-			
						7.4	0.1	53	15.8	15.8	8.1	8.1	30.9	30.9	108.9	108.9	9.0	9.0	6.0	6	-	-	-	-	-	-	-	-	-	-	-			
SR4A	Fine	Calm	10:04	7.6	Surface	1.0	0.5	71	16.0	16.0	8.1	8.1	31.1	31.1	116.9	116.9	9.6	9.6	8.8	6	-	-	-	-	-	-	-	-						
						1.0	0.5	74	16.0	16.0	8.1	8.1	31.1	31.1	116.9	116.9	9.6	9.6	8.8	5	-	-	-	-	-	-	-	-	-					
					Middle	3.8	0.5	75	16.3	16.3	8.1	8.1	31.1	31.1	116.9	116.9	9.5	9.5	5.4	5	-	-	-	-	-	-	-	-	-	-				
						3.8	0.5	78	16.3	16.3	8.1	8.1	31.1	31.1	116.8	116.8	9.5	9.5	5.4	6	-	-	-	-	-	-	-	-	-					
					Bottom	6.6	0.3	65	16.5	16.5	8.1	8.1	31.1	31.1	116.7	116.6	9.4	9.4	7.1	7	-	-	-	-	-	-	-	-	-	-				
						6.6	0.4	65	16.5	16.5	8.1	8.1	31.1	31.1	116.5	116.5	9.4	9.4	7.0	6	-	-	-	-	-	-	-	-	-					
SR5A	Fine	Calm	09:39	4.1	Surface	1.0	0.1	111	16.5	16.5	8.1	8.1	31.1	31.1	118.7	118.8	9.6	9.6	3.6	6	-	-	-	-	-	-	-	-						
						1.0	0.1	120	16.5	16.5	8.1	8.1	31.1	31.1	118.8	118.8	9.6	9.6	3.6	5	-	-	-	-	-	-	-	-						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Bottom	3.1	0.1	126																										

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

Water Quality Monitoring Results on 19 January 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	17:03	8.2	Surface	1.0	0.0	219	15.9	15.9	8.2	8.2	31.5	31.5	117.9			117.9	9.6	9.6	8.6	6	-
					Surface	1.0	0.0	232	15.9	15.9	8.2	8.2	31.5	31.5	117.9	117.9	9.6	9.6	8.7	7	-	-			-	-	-	-			
					Surface	4.1	0.0	200	15.9	15.9	8.2	8.2	32.1	32.1	117.7	117.7	9.6	9.6	2.9	7	-	-			-	-	-	-			
					Middle	4.1	0.0	217	15.9	15.9	8.2	8.2	32.1	32.1	117.7	117.7	9.6	9.6	2.9	7	-	-			-	-	-	-			
					Middle	7.2	0.0	237	15.9	15.9	8.2	8.2	31.6	31.6	116.4	116.3	9.5	9.5	3.3	7	-	-			-	-	-	-			
					Bottom	7.2	0.0	257	15.9	15.9	8.2	8.2	31.6	31.6	116.2	116.3	9.5	9.5	3.3	8	-	-			-	-	-	-			
C2	Cloudy	Moderate	16:04	12.2	Surface	1.0	0.1	27	16.2	16.2	8.2	8.2	31.4	31.4	125.0	124.9	10.2	10.2	0.9	8	-	-	825688	806959	-	-	-	-			
					Surface	1.0	0.1	28	16.2	16.2	8.2	8.2	31.4	31.4	124.7	124.9	10.1	10.1	1.0	8	-	-			-	-	-	-			
					Middle	6.1	0.1	65	16.1	16.1	8.2	8.2	31.8	31.8	120.9	120.7	9.8	9.8	1.5	8	-	-			-	-	-	-			
					Middle	6.1	0.1	67	16.1	16.1	8.2	8.2	31.8	31.8	120.5	120.7	9.8	9.8	1.4	7	-	-			-	-	-	-			
					Bottom	11.2	0.2	72	16.1	16.1	8.2	8.2	32.0	32.0	118.8	118.8	9.6	9.6	3.6	7	-	-			-	-	-	-			
					Bottom	11.2	0.2	73	16.1	16.1	8.2	8.2	32.0	32.0	118.8	118.8	9.6	9.6	3.7	8	-	-			-	-	-	-			
C3	Cloudy	Moderate	18:07	12.2	Surface	1.0	0.3	55	16.3	16.3	8.2	8.2	32.2	32.2	114.9	114.8	9.3	9.3	2.1	5	-	-	822092	817810	-	-	-	-			
					Surface	1.0	0.3	55	16.3	16.3	8.2	8.2	32.2	32.2	114.7	114.8	9.3	9.3	2.2	4	-	-			-	-	-	-			
					Middle	6.1	0.3	68	16.2	16.2	8.1	8.1	32.3	32.3	107.2	107.2	8.7	8.7	4.7	6	-	-			-	-	-	-			
					Middle	6.1	0.3	68	16.2	16.2	8.1	8.1	32.3	32.3	107.2	107.2	8.7	8.7	4.8	5	-	-			-	-	-	-			
					Bottom	11.2	0.2	72	16.3	16.3	8.1	8.1	32.5	32.5	106.7	106.6	8.6	8.6	5.2	6	-	-			-	-	-	-			
					Bottom	11.2	0.2	78	16.3	16.3	8.1	8.1	32.5	32.5	106.5	106.6	8.6	8.6	5.3	6	-	-			-	-	-	-			
IM1	Cloudy	Moderate	16:42	5.0	Surface	1.0	0.1	188	15.9	15.9	8.2	8.2	31.5	31.5	122.8	122.7	10.0	10.0	1.9	6	-	-	817937	807121	-	-	-	-			
					Surface	1.0	0.1	188	15.9	15.9	8.2	8.2	31.5	31.5	122.6	122.7	10.0	10.0	1.9	5	-	-			-	-	-	-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-			
					Bottom	4.0	0.1	186	15.9	15.9	8.2	8.2	31.5	31.5	122.4	120.1	10.0	9.8	2.0	6	-	-			-	-	-	-			
					Bottom	4.0	0.1	186	15.9	15.9	8.2	8.2	31.4	31.5	117.8	117.8	9.8	9.8	2.1	6	-	-			-	-	-	-			
IM2	Cloudy	Moderate	16:35	7.0	Surface	1.0	0.0	101	15.8	15.8	8.2	8.2	31.6	31.6	120.0	120.0	9.8	9.8	2.9	6	-	-	818165	806148	-	-	-	-			
					Surface	1.0	0.0	101	15.8	15.8	8.2	8.2	31.6	31.6	119.9	119.9	9.8	9.8	2.9	6	-	-			-	-	-	-			
					Middle	3.5	0.0	337	15.8	15.8	8.2	8.2	31.5	31.5	119.4	119.4	9.8	9.8	2.7	7	-	-			-	-	-	-			
					Middle	3.5	0.0	310	15.8	15.8	8.2	8.2	31.5	31.5	119.3	119.3	9.8	9.8	2.7	7	-	-			-	-	-	-			
					Bottom	6.0	0.0	183	15.9	15.9	8.2	8.2	31.4	31.4	118.2	118.1	9.7	9.7	3.0	7	-	-			-	-	-	-			
					Bottom	6.0	0.0	184	15.9	15.9	8.2	8.2	31.4	31.4	117.9	118.1	9.6	9.7	3.0	8	-	-			-	-	-	-			
IM3	Cloudy	Moderate	16:28	7.2	Surface	1.0	0.1	37	15.8	15.8	8.2	8.2	31.4	31.4	120.8	120.8	9.9	9.9	2.2	6	-	-	818781	805607	-	-	-	-			
					Surface	1.0	0.1	39	15.8	15.8	8.2	8.2	31.4	31.4	120.8	120.8	9.9	9.9	2.2	7	-	-			-	-	-	-			
					Middle	3.6	0.1	44	15.9	15.9	8.2	8.2	31.5	31.5	118.9	118.9	9.7	9.7	4.3	8	-	-			-	-	-	-			
					Middle	3.6	0.1	48	15.9	15.9	8.2	8.2	31.5	31.5	118.8	118.9	9.7	9.7	4.5	9	-	-			-	-	-	-			
					Bottom	6.2	0.1	12	15.9	16.0	8.2	8.2	31.5	31.5	117.9	117.9	9.6	9.6	5.3	9	-	-			-	-	-	-			
					Bottom	6.2	0.1	12	16.0	16.0	8.2	8.2	31.5	31.5	117.8	117.9	9.6	9.6	5.5	8	-	-			-	-	-	-			
IM4	Cloudy	Moderate	16:19	8.4	Surface	1.0	0.1	351	15.9	15.9	8.2	8.2	31.5	31.5	120.0	120.0	9.8	9.8	4.3	6	-	-	819725	804625	-	-	-	-			
					Surface	1.0	0.1	323	15.9	15.9	8.2	8.2	31.5	31.5	120.0	120.0	9.8	9.8	4.4	5	-	-			-	-	-	-			
					Middle	4.2	0.1	332	15.8	15.8	8.2	8.2	31.1	31.1	118.4	118.4	9.7	9.7	2.4	6	-	-			-	-	-	-			
					Middle	4.2	0.1	346	15.8	15.8	8.2	8.2	31.1	31.1	118.3	118.4	9.7	9.7	2.5	7	-	-			-	-	-	-			
					Bottom	7.4	0.0	336	15.8	15.9	8.2	8.2	30.9	30.9	117.3	117.2	9.6	9.6	5.2	6	-	-			-	-	-	-			
					Bottom	7.4	0.0	344	15.9	15.9	8.2	8.2	30.9	30.9	117.1	117.2	9.6	9.6	5.1	7	-	-			-	-	-	-			
IM5	Cloudy	Moderate	16:11	7.7	Surface	1.0	0.1	358	15.9	15.9	8.2	8.2	30.7	30.7	121.0	121.1	10.0	10.0	2.5	6	-	-	820741	804852	-	-	-	-			
					Surface	1.0	0.1	329	15.9	15.9	8.2	8.2	30.7	30.7	121.0	121.0	9.9	9.9	2.5	7	-	-			-	-	-	-			
					Middle	3.9	0.1	343	15.9	15.9	8.2	8.2	30.7	30.7	120.8	119.7	9.9	9.9	2.2	6	-	-			-	-	-	-			
					Middle	3.9	0.1	316	15.9	15.9	8.2	8.2	30.8	30.7	118.6	119.7	9.7	9.7	2.1	7	-	-			-	-	-	-			
					Bottom	6.7	0.1	9	15.9	15.9	8.2	8.2	30.8	30.9	118.4	117.4	9.7	9.7	2.1	7	-	-			-	-	-	-			
					Bottom	6.7	0.2	9	15.9	15.9	8.2	8.2	30.9	30.9	116.4	117.4	9.5	9.5	2.2	7	-	-			-	-	-	-			
IM6	Cloudy	Moderate	16:07	7.6	Surface	1.0	0.1	219	16.1	16.1	8.2	8.2	30.5	30.5	125.5	125.4	10.3	10.3	2.1	6	-	-	821072	805843	-	-	-	-			
					Surface	1.0	0.1	230	16.1	16.1	8.2	8.2	30.5	30.5	125.3	125.4	10.3	10.3	2.1	6	-	-			-	-	-	-			
					Middle	3.8	0.0	253	16.1	16.1	8.2	8.2	30.6	30.6	123.1	123.0	10.1	10.1	2.4	6	-	-			-	-	-	-			
					Middle	3.8	0.0	255	16.1																						

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

Water Quality Monitoring Results on 19 January 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	16:33	7.6	Surface	1.0	0.2	81	16.1	16.1	8.2	8.2	31.4	31.4	123.9	123.8	10.1	10.1	1.1	1.1	9	-	-	-	-	-	-	-	-	-			
						1.0	0.3	81	16.1	16.1	8.2	8.2	31.4	31.4	123.6	123.6	10.1	10.1	1.1	1.1	10	-	-	-	-	-	-	-	-	-	-	-	
					Middle	3.8	0.2	71	16.1	16.1	8.2	8.2	31.4	31.4	120.6	120.4	9.8	9.8	3.0	3.0	8	-	-	-	-	-	-	-	-	-	-	-	-
						3.8	0.3	75	16.1	16.1	8.2	8.2	31.4	31.4	120.1	120.1	9.8	9.8	3.1	3.1	7	-	-	-	-	-	-	-	-	-	-	-	-
						6.6	0.2	86	16.0	16.0	8.2	8.2	32.0	32.0	115.1	114.9	9.4	9.4	4.1	4.1	7	-	-	-	-	-	-	-	-	-	-	-	-
						6.6	0.2	87	16.0	16.0	8.2	8.2	32.0	32.0	114.6	114.6	9.3	9.3	4.2	4.2	8	-	-	-	-	-	-	-	-	-	-	-	-
IM10	Cloudy	Moderate	16:47	8.6	Surface	1.0	0.3	85	16.0	16.0	8.2	8.2	31.5	31.5	119.8	119.7	9.8	9.8	1.3	1.3	8	-	-	-	-	-	-	-	-	-			
						1.0	0.3	88	16.0	16.0	8.2	8.2	31.5	31.5	119.6	119.6	9.8	9.8	1.3	1.3	7	-	-	-	-	-	-	-	-	-	-		
					Middle	4.3	0.2	94	15.9	15.9	8.2	8.2	31.6	31.6	116.2	116.2	9.5	9.5	2.5	2.5	8	-	-	-	-	-	-	-	-	-	-	-	-
						4.3	0.2	97	15.9	15.9	8.2	8.2	31.6	31.6	116.2	116.2	9.5	9.5	2.5	2.5	7	-	-	-	-	-	-	-	-	-	-	-	-
						7.6	0.2	88	15.9	15.9	8.2	8.2	31.7	31.7	112.9	112.8	9.2	9.2	3.5	3.5	8	-	-	-	-	-	-	-	-	-	-	-	
						7.6	0.2	94	15.9	15.9	8.2	8.2	31.7	31.7	112.7	112.7	9.2	9.2	3.6	3.6	9	-	-	-	-	-	-	-	-	-	-	-	
IM11	Cloudy	Moderate	16:57	8.8	Surface	1.0	0.2	114	16.2	16.2	8.2	8.2	31.9	31.9	120.2	119.9	9.7	9.7	1.7	1.7	7	-	-	-	-	-	-	-	-				
						1.0	0.2	123	16.2	16.2	8.2	8.2	31.9	31.9	119.5	119.5	9.7	9.7	1.7	1.7	7	-	-	-	-	-	-	-	-	-			
					Middle	4.4	0.2	121	16.1	16.1	8.2	8.2	31.9	31.9	117.8	117.8	9.6	9.6	3.9	3.9	6	-	-	-	-	-	-	-	-	-	-	-	
						4.4	0.2	126	16.1	16.1	8.2	8.2	31.9	31.9	117.7	117.7	9.6	9.6	3.9	3.9	5	-	-	-	-	-	-	-	-	-	-	-	
						7.8	0.1	144	16.0	16.0	8.2	8.2	32.0	32.0	114.4	114.4	9.3	9.3	4.6	4.6	5	-	-	-	-	-	-	-	-	-	-		
						7.8	0.1	153	16.0	16.0	8.2	8.2	32.0	32.0	114.3	114.3	9.3	9.3	4.6	4.6	5	-	-	-	-	-	-	-	-	-	-		
IM12	Cloudy	Moderate	17:02	9.4	Surface	1.0	0.1	143	16.2	16.2	8.2	8.2	31.9	31.9	120.1	119.8	9.7	9.7	1.7	1.7	5	-	-	-	-	-	-	-	-				
						1.0	0.2	151	16.2	16.2	8.2	8.2	31.9	31.9	119.5	119.5	9.7	9.7	1.7	1.7	6	-	-	-	-	-	-	-	-				
					Middle	4.7	0.1	146	16.1	16.1	8.2	8.2	31.9	31.9	117.2	117.2	9.5	9.5	3.6	3.6	6	-	-	-	-	-	-	-	-	-			
						4.7	0.1	158	16.1	16.1	8.2	8.2	32.0	32.0	117.2	117.2	9.5	9.5	3.7	3.7	6	-	-	-	-	-	-	-	-	-			
						8.4	0.1	135	16.1	16.1	8.2	8.2	32.0	32.0	113.6	113.5	9.2	9.2	4.6	4.6	6	-	-	-	-	-	-	-	-				
						8.4	0.1	141	16.1	16.1	8.2	8.2	32.0	32.0	113.4	113.4	9.2	9.2	4.7	4.7	6	-	-	-	-	-	-	-	-				
SR1A	Cloudy	Calm	17:35	4.5	Surface	1.0	-	-	16.1	16.1	8.2	8.2	31.9	31.9	121.6	121.4	9.9	9.8	3.5	3.6	7	-	-	-	-	-	-	-					
						1.0	-	-	16.1	16.1	8.2	8.2	31.9	31.9	121.2	121.2	9.8	9.8	3.6	3.6	8	-	-	-	-	-	-	-					
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						3.5	-	-	16.1	16.1	8.2	8.2	31.9	31.9	119.1	119.0	9.7	9.7	4.4	4.4	5	-	-	-	-	-	-	-					
						3.5	-	-	16.1	16.1	8.2	8.2	31.9	31.9	118.8	118.8	9.6	9.6	4.4	4.4	5	-	-	-	-	-	-	-					
SR2	Cloudy	Calm	17:48	5.0	Surface	1.0	0.2	34	16.1	16.1	8.2	8.2	31.9	31.9	118.6	118.6	9.6	9.6	5.5	5.5	6	-	-	-	-	-	-						
						1.0	0.2	36	16.1	16.1	8.2	8.2	31.9	31.9	118.5	118.5	9.6	9.6	5.5	5.5	5	-	-	-	-	-	-						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
						4.0	0.2	38	16.1	16.1	8.2	8.2	31.9	31.9	114.3	114.3	9.3	9.3	5.6	5.6	6	-	-	-	-	-	-						
						4.0	0.2	39	16.1	16.1	8.2	8.2	31.9	31.9	114.3	114.3	9.3	9.3	5.6	5.6	6	-	-	-	-	-	-						
SR3	Cloudy	Moderate	16:23	9.2	Surface	1.0	0.2	179	16.1	16.1	8.2	8.2	31.2	31.2	122.3	122.2	10.0	10.0	1.2	1.3	8	-	-	-	-	-							
						1.0	0.2	188	16.1	16.1	8.2	8.2	31.2	31.2	122.1	122.1	10.0	10.0	1.3	1.3	7	-	-	-	-	-							
					Middle	4.6	0.2	180	15.9	15.9	8.2	8.2	31.4	31.4	120.5	120.4	9.8	9.8	2.0	2.0	5	-	-	-	-	-	-						
						4.6	0.2	188	15.9	15.9	8.2	8.2	31.4	31.4	120.3	120.3	9.8	9.8	2.0	2.0	6	-	-	-	-	-	-						
						8.2	0.2	127	16.0	16.0	8.2	8.2	31.9	31.9	117.6	117.4	9.6	9.6	2.2	2.2	6	-	-	-	-	-							
						8.2	0.2	136	16.0	16.0	8.2	8.2	31.9	31.9	117.2	117.2	9.5	9.5	2.3	2.3	6	-	-	-	-	-							
SR4A	Cloudy	Moderate	17:26	8.6	Surface	1.0	0.2	67	15.8	15.8	8.2	8.2	31.7	31.7	121.0	121.0	9.9	9.9	4.7	4.7	7	-	-	-	-	-							
						1.0	0.2	67	15.8	15.8	8.2	8.2	31.7	31.7	120.9	120.9	9.9	9.9	5.1	5.1	6	-	-	-	-								
					Middle	4.3	0.2	70	15.8	15.8	8.2	8.2	31.7	31.7	119.5	119.4	9.8	9.8	5.9	5.8	8	-	-	-	-	-							
						4.3	0.2	74	15.8	15.8	8.2	8.2	31.7	31.7	119.3	119.3	9.8	9.8	5.8	5.8	7	-	-	-	-								
						7.6	0.1	72	15.8	15.8	8.2	8.2	31.7	31.7	117.5	117.4	9.6	9.6	3.5	3.5	8	-	-	-	-								
						7.6	0.2	73	15.8	15.8	8.2	8.2	31.6	31.7	117.2	117.2	9.6	9.6	3.7	3.7	7	-	-	-	-								
SR5A	Cloudy	Moderate	17:42	3.2	Surface	1.0	0.1	270	16.0	16.0	8.2	8.2	31.3	31.3	123.7	123.8	10.1	10.1	2.4	2.4	5	-	-	-	-								
						1.0	0.1	280	16.0	16.0	8.2	8.2	31.3	31.3	123.9	123.9	10.1	10.1	2.4	2.4	6	-	-	-	-								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
						2.2	0.2	315	16.0	16.0	8.2	8.2	31.3	31.3	123.9	123.9	10.1	10.1	1.8	1.8	4	-	-	-	-								
						2.2	0.2	342	16.0	16.0	8.2	8.2	31.3	31.3	123.8	123.8	10.1	10.1	1.8	1.8	5	-	-	-	-								
SR6A	Cloudy	Moderate	18:23	4.5	Surface	1.0	0.1	139	15.9	15.9	8.2	8.2	31.2	31.2	121.6	121.6	10.0	10.0	6.5	6.2	13	-	-	-	-								
						1.0	0.1	145	15.8	15.8	8.2	8.2	31.2	31.2	121.6	121.6	10.0	10.0	6.2	6.2	12	-	-	-	-								
					Middle	-	-																										

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

Water Quality Monitoring

Water Quality Monitoring Results on 19 January 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
C1	Cloudy	Moderate	12:10	8.0	Surface	1.0	0.4	35	16.8	16.8	8.1	8.1	31.5	31.5	117.3	117.4	9.4	9.4	3.6	9	-	-	-	-	-	-	-	-	-	-				
						1.0	0.4	37	16.8	8.1	8.1	31.6	31.5	117.4	117.4	9.4	9.4	3.5	9	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.0	0.4	34	15.8	15.8	8.1	8.1	31.7	31.7	114.6	114.6	9.4	9.4	3.9	14	-	-	-	-	-	-	-	-	-	-	-	-	-	
						4.0	0.4	36	15.8	15.8	8.1	8.1	31.7	31.7	114.6	114.6	9.4	9.4	3.8	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	7.0	0.4	35	17.2	17.2	8.1	8.1	31.4	31.4	115.1	115.0	9.2	9.2	2.7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						7.0	0.5	36	17.2	17.2	8.1	8.1	31.4	31.4	114.8	114.8	9.2	9.2	2.5	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C2	Sunny	Moderate	12:42	12.0	Surface	1.0	0.2	352	16.0	16.0	8.2	8.2	30.9	30.9	119.5	119.5	9.8	9.8	0.9	7	-	-	-	-	-	-	-	-	-	-				
						1.0	0.3	324	16.0	16.0	8.2	8.2	30.9	30.9	119.3	119.3	9.8	9.8	1.0	6	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	6.0	0.3	358	15.8	15.8	8.2	8.2	31.1	31.1	115.0	114.8	9.4	9.4	1.9	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						6.0	0.3	329	15.8	15.8	8.2	8.2	31.1	31.1	114.6	114.6	9.4	9.4	2.0	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	11.0	0.3	347	15.8	15.8	8.2	8.2	31.3	31.3	113.4	113.4	9.3	9.3	3.2	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						11.0	0.3	319	15.8	15.8	8.2	8.2	31.3	31.3	113.3	113.3	9.3	9.3	3.1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3	Sunny	Moderate	10:48	12.0	Surface	1.0	0.5	269	16.1	16.1	8.2	8.2	32.0	32.0	111.4	111.2	9.0	8.9	0.6	5	-	-	-	-	-	-	-	-	-	-	-			
						1.0	0.5	269	16.1	16.1	8.2	8.2	32.0	32.0	111.0	111.0	9.0	8.9	0.6	4	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	6.0	0.5	270	16.0	16.0	8.1	8.1	32.1	32.1	108.5	108.5	8.8	8.8	1.8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	
						6.0	0.5	288	16.0	16.0	8.1	8.1	32.1	32.1	108.5	108.5	8.8	8.8	1.8	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	11.0	0.4	269	16.0	16.0	8.1	8.1	32.1	32.1	107.8	107.8	8.8	8.8	2.8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						11.0	0.5	293	16.0	16.0	8.1	8.1	32.1	32.1	107.7	107.7	8.7	8.7	2.8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IM1	Cloudy	Moderate	12:31	4.9	Surface	1.0	0.1	331	16.1	16.1	8.1	8.1	31.5	31.5	116.8	116.7	9.5	9.5	4.3	6	-	-	-	-	-	-	-	-	-	-				
						1.0	0.1	349	16.1	16.1	8.1	8.1	31.5	31.5	116.6	116.6	9.5	9.5	4.4	7	-	-	-	-	-	-	-	-	-	-	-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	3.9	0.1	5	15.8	15.8	8.1	8.1	31.8	31.9	115.9	115.9	9.5	9.5	3.7	9	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.9	0.1	5	15.7	15.8	8.1	8.1	31.9	31.9	115.8	115.8	9.5	9.5	3.5	9	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM2	Cloudy	Moderate	12:38	6.9	Surface	1.0	0.3	354	16.0	16.0	8.2	8.2	31.4	31.4	118.7	118.7	9.7	9.7	2.6	5	-	-	-	-	-	-	-	-	-	-				
						1.0	0.3	326	16.0	16.0	8.2	8.2	31.4	31.4	118.7	118.7	9.7	9.7	2.6	4	-	-	-	-	-	-	-	-	-	-	-			
					Middle	3.5	0.2	349	16.0	16.0	8.1	8.1	31.2	31.2	117.6	117.6	9.6	9.6	2.7	8	-	-	-	-	-	-	-	-	-	-	-	-		
						3.5	0.2	321	16.0	16.0	8.1	8.1	31.2	31.2	117.5	117.5	9.6	9.6	2.7	8	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	5.9	0.2	341	16.1	16.1	8.1	8.1	31.5	31.5	116.6	116.5	9.5	9.5	3.0	8	-	-	-	-	-	-	-	-	-	-	-	-		
						5.9	0.2	341	16.1	16.1	8.1	8.1	31.5	31.5	116.4	116.5	9.5	9.5	3.0	7	-	-	-	-	-	-	-	-	-	-	-			
IM3	Cloudy	Moderate	12:45	7.2	Surface	1.0	0.3	347	16.0	16.0	8.2	8.2	31.2	31.2	119.1	119.1	9.7	9.7	2.2	5	-	-	-	-	-	-	-	-	-					
						1.0	0.3	319	16.0	16.0	8.2	8.2	31.2	31.2	119.1	119.1	9.7	9.7	2.2	5	-	-	-	-	-	-	-	-	-					
					Middle	3.6	0.3	336	16.0	16.0	8.1	8.1	31.2	31.2	117.1	117.1	9.6	9.6	2.3	8	-	-	-	-	-	-	-	-	-	-				
						3.6	0.3	348	16.0	16.0	8.1	8.1	31.2	31.2	117.0	117.0	9.6	9.6	2.3	7	-	-	-	-	-	-	-	-	-					
					Bottom	6.2	0.2	344	16.0	16.0	8.1	8.1	31.1	31.1	116.3	116.3	9.5	9.5	2.2	7	-	-	-	-	-	-	-	-	-	-				
						6.2	0.2	344	16.0	16.0	8.1	8.1	31.2	31.1	116.3	116.3	9.5	9.5	2.2	8	-	-	-	-	-	-	-	-	-					
IM4	Cloudy	Moderate	12:55	8.2	Surface	1.0	0.4	356	15.8	15.8	8.2	8.2	30.9	30.9	119.2	119.2	9.8	9.8	2.5	7	-	-	-	-	-	-	-	-						
						1.0	0.4	328	15.8	15.8	8.2	8.2	30.9	30.9	119.2	119.2	9.8	9.8	2.6	8	-	-	-	-	-	-	-	-						
					Middle	4.1	0.3	353	15.8	15.8	8.2	8.2	30.9	30.9	118.5	118.5	9.7	9.7	4.5	7	-	-	-	-	-	-	-	-						
						4.1	0.3	325	15.8	15.8	8.2	8.2	30.9	30.9	118.4	118.4	9.7	9.7	4.5	8	-	-	-	-	-	-	-	-						
					Bottom	7.2	0.3	357	15.8	15.8	8.1	8.1	30.9	30.9	117.4	117.4	9.6	9.6	2.4	4	-	-	-	-	-	-	-	-	-					
						7.2	0.3	328	15.8	15.8	8.1	8.1	30.9	30.9	117.3	117.3	9.6	9.6	2.4	4	-	-	-	-	-	-	-	-						
IM5	Cloudy	Moderate	13:02	7.6	Surface	1.0	0.6	6	15.8	15.8	8.2	8.2	31.0	31.0	119.7	119.7	9.8	9.8	2.8	8	-	-	-	-	-	-	-							
						1.0	0.7	6	15.8	15.8	8.2	8.2	31.0	31.0	119.7	119.7	9.8	9.8	2.8	8	-	-	-	-	-	-	-							
					Middle	3.8	0.6	1	15.8	15.9	8.2	8.2	31.0	31.0	119.6	119.5	9.8	9.8	2.8	6	-	-	-	-	-	-	-							
						3.8	0.7	1	16.0	15.9	8.2	8.2	31.0	31.0	119.3	119.3	9.8	9.8	2.8	7	-	-	-	-	-	-	-							
					Bottom	6.6	0.5	12	15.9	15.8	8.1	8.1	31.0	31.0	119.2	118.6	9.8	9.8	2.8	6	-	-	-	-	-	-	-							
						6.6	0.5	12	15.7	15.8	8.1	8.1	31.0	31.0	117.9	117.9	9.8	9.8	2.8	7	-	-	-	-	-	-								
IM6	Cloudy	Moderate	13:10	7.3	Surface	1.0	0.1	304	16.2	16.2	8.2	8.2	30.5	30.5	122.5	122.5	10.0	10.0	7.0	7	-	-	-	-	-	-								
						1.0	0.1	318	16.2	16.2	8.2	8.2	30.5	30.5	122.4	122.4	10.0	10.0	7.5	6	-	-	-	-	-									
					Middle	3.7	0.1	4	16.3	16.3	8.1	8.1	30.9	30.9	118.8	118.6	9.7	9.7	3.3	6	-	-	-	-	-									
						3.7	0.2	4	16.3	16.3	8.1	8.1	30.9	30.9	118.4	118.4	9.6	9.6	3.1	7	-	-	-	-										

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

Water Quality Monitoring Results on 21 January 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	
C1	Cloudy	Moderate	05:31	7.8	Surface	1.0	0.4	231	16.2	16.2	8.3	8.3	32.5	32.5	113.0	113.0	9.1	9.1	1.6	1.6	6	6	-	-	-	-	-	-	-	-			
						1.0	0.4	238	16.2	8.3	8.3	32.5	32.5	112.9	112.9	9.1	9.1	1.6	1.6	6	6	-	-	-	-	-	-	-	-	-	-	-	
					Middle	3.9	0.1	222	16.2	8.3	8.3	32.5	32.5	110.8	110.8	8.9	8.9	1.7	1.7	3	3	-	-	-	-	-	-	-	-	-	-	-	-
						3.9	0.2	222	16.2	8.3	8.3	32.5	32.5	110.8	110.8	8.9	8.9	1.8	1.8	4	4	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	6.8	0.1	215	16.3	8.3	8.3	32.5	32.5	111.2	111.2	9.0	9.0	2.0	2.0	3	3	-	-	-	-	-	-	-	-	-	-	-	-
						6.8	0.1	220	16.3	8.3	8.3	32.5	32.5	111.1	111.1	9.0	9.0	2.0	2.0	4	4	-	-	-	-	-	-	-	-	-	-	-	-
C2	Cloudy	Moderate	07:15	11.4	Surface	1.0	0.3	161	16.2	16.2	8.2	8.2	30.6	30.6	121.5	121.6	9.9	9.9	2.6	2.6	2	2	-	-	-	-	-	-	-	-			
						1.0	0.4	167	16.2	8.2	8.2	30.6	30.6	121.7	121.7	9.9	9.9	2.5	2.5	3	3	-	-	-	-	-	-	-	-	-	-		
					Middle	5.7	0.2	172	16.2	8.2	8.2	31.8	31.8	119.6	119.5	9.7	9.7	3.0	3.0	4	4	-	-	-	-	-	-	-	-	-	-	-	-
						5.7	0.2	185	16.2	8.2	8.2	31.8	31.8	119.3	119.3	9.7	9.7	3.0	3.0	3	3	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	10.4	0.1	154	16.2	8.2	8.2	32.2	32.2	120.4	120.4	9.7	9.7	3.4	3.4	3	3	-	-	-	-	-	-	-	-	-	-	-	-
						10.4	0.2	162	16.2	8.2	8.2	32.2	32.2	120.4	120.4	9.7	9.7	3.4	3.4	3	3	-	-	-	-	-	-	-	-	-	-	-	-
C3	Cloudy	Moderate	05:12	11.8	Surface	1.0	0.2	82	16.3	16.3	8.2	8.1	32.0	32.0	111.6	111.6	9.0	9.0	2.8	2.8	5	5	-	-	-	-	-	-	-	-			
						1.0	0.2	85	16.3	8.1	8.1	32.0	32.0	111.5	111.5	9.0	9.0	2.9	2.9	6	6	-	-	-	-	-	-	-	-	-	-		
					Middle	5.9	0.1	89	16.3	8.1	8.1	32.2	32.2	109.9	109.9	8.9	8.9	3.6	3.6	5	5	-	-	-	-	-	-	-	-	-	-	-	
						5.9	0.1	94	16.3	8.1	8.1	32.2	32.2	109.9	109.9	8.9	8.9	3.7	3.7	5	5	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	10.8	0.1	115	16.3	8.1	8.1	32.2	32.2	109.4	109.4	8.8	8.8	4.3	4.3	2	2	-	-	-	-	-	-	-	-	-	-	-	
						10.8	0.1	126	16.3	8.1	8.1	32.2	32.2	109.4	109.4	8.8	8.8	4.5	4.5	3	3	-	-	-	-	-	-	-	-	-	-	-	
IM1	Cloudy	Moderate	05:53	5.8	Surface	1.0	0.1	188	16.2	16.2	8.3	8.3	32.4	32.4	115.5	115.5	9.3	9.3	1.6	1.6	3	3	-	-	-	-	-	-	-	-			
						1.0	0.1	188	16.2	8.3	8.3	32.4	32.4	115.4	115.4	9.3	9.3	1.6	1.6	2	2	-	-	-	-	-	-	-	-	-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	4.8	0.1	210	16.2	8.3	8.3	32.4	32.4	113.8	113.8	9.2	9.2	1.5	1.5	4	4	-	-	-	-	-	-	-	-	-	-	-	
						4.8	0.1	215	16.2	8.4	8.4	32.4	32.4	113.7	113.7	9.2	9.2	1.5	1.5	5	5	-	-	-	-	-	-	-	-	-	-	-	
IM2	Cloudy	Moderate	05:59	6.6	Surface	1.0	0.1	212	16.4	16.4	8.3	8.3	32.1	32.1	113.4	113.4	9.1	9.1	1.8	1.8	5	5	-	-	-	-	-	-	-				
						1.0	0.1	213	16.4	8.3	8.3	32.1	32.1	113.4	113.4	9.2	9.2	1.8	1.8	4	4	-	-	-	-	-	-	-	-				
					Middle	3.3	0.2	165	16.1	16.1	8.3	8.3	32.1	32.1	116.5	116.5	9.4	9.4	2.3	2.3	4	4	-	-	-	-	-	-	-	-			
						3.3	0.2	171	16.1	16.1	8.3	8.3	32.1	32.1	116.4	116.4	9.4	9.4	2.3	2.3	5	5	-	-	-	-	-	-	-	-			
					Bottom	5.6	0.1	170	16.1	16.1	8.3	8.3	32.1	32.1	114.2	114.2	9.3	9.3	3.3	3.3	6	6	-	-	-	-	-	-	-	-			
						5.6	0.1	179	16.1	16.1	8.3	8.3	32.1	32.1	114.2	114.2	9.3	9.3	3.3	3.3	6	6	-	-	-	-	-	-	-	-			
IM3	Cloudy	Moderate	06:06	6.6	Surface	1.0	1.2	324	16.3	16.3	8.3	8.3	32.1	32.1	113.3	113.3	9.1	9.1	1.5	1.5	4	4	-	-	-	-	-	-					
						1.0	1.3	339	16.3	8.3	8.3	32.1	32.1	113.3	113.3	9.1	9.1	1.5	1.5	4	4	-	-	-	-	-	-	-					
					Middle	3.3	1.0	317	16.1	16.1	8.3	8.3	32.1	32.1	117.0	117.0	9.5	9.5	2.4	2.4	3	3	-	-	-	-	-	-	-				
						3.3	1.0	327	16.1	16.1	8.3	8.3	32.1	32.1	117.0	117.0	9.5	9.5	2.4	2.4	4	4	-	-	-	-	-	-	-				
					Bottom	5.6	1.1	311	16.1	16.1	8.3	8.3	32.1	32.1	113.9	113.9	9.2	9.2	2.9	2.9	3	3	-	-	-	-	-	-	-				
						5.6	1.2	340	16.1	16.1	8.3	8.3	32.1	32.1	113.8	113.8	9.2	9.2	2.8	2.8	3	3	-	-	-	-	-	-	-				
IM4	Cloudy	Moderate	06:15	8.3	Surface	1.0	0.5	186	16.1	16.1	8.3	8.3	31.6	31.6	118.9	118.9	9.7	9.7	1.4	1.4	4	4	-	-	-	-	-	-					
						1.0	0.5	203	16.1	8.3	8.3	31.6	31.6	118.8	118.8	9.7	9.7	1.4	1.4	3	3	-	-	-	-	-	-						
					Middle	4.2	0.3	174	16.2	16.2	8.3	8.3	31.6	31.6	115.7	115.7	9.4	9.4	1.9	1.9	4	4	-	-	-	-	-	-					
						4.2	0.3	178	16.2	16.2	8.3	8.3	31.6	31.6	115.7	115.7	9.4	9.4	1.9	1.9	3	3	-	-	-	-	-	-					
					Bottom	7.3	0.2	152	16.1	16.1	8.3	8.3	31.7	31.7	116.2	116.2	9.5	9.5	2.4	2.4	3	3	-	-	-	-	-	-					
						7.3	0.2	165	16.1	16.1	8.3	8.3	31.7	31.7	116.1	116.1	9.4	9.4	2.4	2.4	3	3	-	-	-	-	-						
IM5	Cloudy	Moderate	06:24	9.2	Surface	1.0	0.4	198	16.4	16.4	8.3	8.3	31.0	31.0	117.4	117.4	9.5	9.5	1.9	1.9	5	5	-	-	-	-	-						
						1.0	0.4	206	16.4	8.3	8.3	31.0	31.0	117.4	117.4	9.5	9.5	1.9	1.9	5	5	-	-	-	-	-							
					Middle	4.6	0.3	200	16.2	16.2	8.3	8.3	31.0	31.0	122.1	122.1	10.0	10.0	2.3	2.3	4	4	-	-	-	-	-						
						4.6	0.3	217	16.2	16.2	8.3	8.3	31.0	31.0	122.0	122.0	9.9	9.9	2.3	2.3	4	4	-	-	-	-	-						
					Bottom	8.2	0.2	216	16.1	16.1	8.4	8.4	31.0	31.0	119.6	119.6	9.8	9.8	2.6	2.6	4	4	-	-	-	-	-						
						8.2	0.3	230	16.1	16.1	8.4	8.4	31.0	31.0	119.5	119.5	9.7	9.7	2.6	2.6	4	4	-	-	-	-	-						
IM6	Cloudy	Moderate	06:33	7.1	Surface	1.0	0.8	45	16.4	16.4	8.3	8.3	31.2	31.2	115.6	115.7	9.4	9.4	1.8	1.8	5	5	-	-	-	-	-						
						1.0	0.8	47	16.4	8.3	8.3	31.2	31.2	115.7	115.7	9.4	9.4	1.8	1.8	5	5	-	-	-	-	-							
					Middle	3.6	1.0	23	16.1	16.1	8.3	8.3	31.3	31.3	119.6	119.6	9.7	9.7	2.4	2.4	4	4	-	-	-	-	-						
						3.6	1.0	23	16.1	16.1	8.3	8.3	31.3	31.3	119.6	119.6	9.7	9.7	2.4	2.4	4	4	-	-	-	-	-						
					Bottom	6.1	0.9	37	16.1	16.1	8.4	8.4	31.3	31																			

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

Water Quality Monitoring

Water Quality Monitoring Results on 21 January 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	Moderate	06:54	7.4	Surface	1.0	0.2	143	16.3	16.3	8.2	8.2	30.8	30.8	118.8	118.8	9.7	9.6	2.4	2	-	-	-	-	822111	808800	-	-	-	-							
						1.0	0.2	156	16.3	16.3	8.2	8.2	30.8	30.8	118.8	118.8	9.7	9.6	2.5	3	-	-	-	-													
						3.7	0.2	124	16.3	16.3	8.2	8.2	31.1	31.0	115.3	115.3	9.4	9.6	2.8	3	-	-	-	-													
					Middle	3.7	0.2	131	16.3	16.3	8.2	8.2	31.0	31.0	115.2	115.3	9.4	9.4	2.8	3	-	-	-	-													
						6.4	0.2	98	16.3	16.3	8.2	8.2	31.4	31.4	109.7	109.5	8.9	8.9	3.8	3	-	-	-	-													
						6.4	0.2	103	16.3	16.3	8.2	8.2	31.4	31.4	109.3	109.5	8.9	8.9	3.8	3	-	-	-	-													
					IM10	Cloudy	Moderate	06:47	7.8	Surface	1.0	0.3	153	16.3	16.3	8.2	8.2	31.3	31.3	120.0	120.0	9.7	9.6	2.6			3	-	-	-	-	822401	809805	-	-	-	-
											1.0	0.3	165	16.3	16.3	8.2	8.2	31.3	31.3	119.9	119.9	9.7	9.6	2.6			3	-	-	-	-						
											3.9	0.3	128	16.3	16.3	8.2	8.2	31.3	31.3	116.5	116.5	9.5	9.6	2.6			3	-	-	-	-						
Middle	3.9	0.3	134	16.3						16.3	8.2	8.2	31.3	31.3	116.4	116.4	9.5	9.5	2.6	4	-	-	-	-													
	6.8	0.2	136	16.2						16.2	8.2	8.2	31.6	31.6	111.4	111.4	9.0	9.0	2.9	5	-	-	-	-													
	6.8	0.2	144	16.2						16.2	8.2	8.2	31.6	31.6	111.3	111.3	9.0	9.0	2.9	4	-	-	-	-													
IM11	Cloudy	Moderate	06:37	8.2						Surface	1.0	0.2	98	16.3	16.3	8.2	8.2	31.3	31.3	118.3	118.4	9.6	9.5	2.9	3	-	-	-	-	822076	811450			-	-	-	-
											1.0	0.2	99	16.3	16.3	8.2	8.2	31.3	31.3	118.4	118.4	9.6	9.5	2.9	4	-	-	-	-								
											4.1	0.2	100	16.2	16.2	8.2	8.2	31.5	31.5	115.9	116.0	9.4	9.4	3.3	3	-	-	-	-								
					Middle	4.1	0.2	105	16.2	16.2	8.2	8.2	31.5	31.5	116.0	116.0	9.4	9.4	3.4	4	-	-	-	-													
						7.2	0.2	87	16.2	16.2	8.2	8.2	31.6	31.6	112.4	112.4	9.1	9.1	4.8	3	-	-	-	-													
						7.2	0.2	87	16.2	16.2	8.2	8.2	31.6	31.6	112.3	112.3	9.1	9.1	4.9	4	-	-	-	-													
					IM12	Cloudy	Moderate	06:30	8.5	Surface	1.0	0.2	114	16.2	16.2	8.2	8.2	31.3	31.3	120.1	120.0	9.8	9.7	2.3	4	-	-	-	-			821439	812032	-	-	-	-
											1.0	0.2	114	16.2	16.2	8.2	8.2	31.3	31.3	119.9	119.9	9.7	9.7	2.3	4	-	-	-	-								
											4.3	0.1	108	16.2	16.2	8.2	8.2	31.7	31.7	118.0	118.0	9.6	9.6	2.5	4	-	-	-	-								
Middle	4.3	0.1	115	16.2						16.2	8.2	8.2	31.7	31.7	117.9	117.9	9.6	9.6	2.5	4	-	-	-	-													
	7.5	0.1	110	16.2						16.2	8.2	8.2	31.7	31.7	115.4	113.5	9.4	9.2	2.8	4	-	-	-	-													
	7.5	0.1	120	16.2						16.2	8.2	8.2	31.7	31.7	111.6	111.6	9.0	9.0	2.8	5	-	-	-	-													
SR1A	Cloudy	Calm	05:51	4.8						Surface	1.0	-	-	16.3	16.3	8.2	8.2	31.7	31.7	114.2	113.9	9.2	9.2	2.5	3	-	-	-	-	819978	812664			-	-	-	-
											1.0	-	-	16.3	16.3	8.2	8.2	31.7	31.7	113.6	113.9	9.2	9.2	2.5	2	-	-	-	-								
											2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-													
						3.8	-	-	16.3	16.3	8.2	8.2	31.7	31.7	111.3	110.8	9.0	9.0	2.4	3	-	-	-	-													
						3.8	-	-	16.3	16.3	8.2	8.2	31.8	31.7	110.3	110.8	8.9	9.0	2.5	4	-	-	-	-													
					SR2	Cloudy	Moderate	05:34	4.2	Surface	1.0	0.2	80	16.2	16.2	8.2	8.2	31.7	31.7	115.6	115.5	9.4	9.4	3.0	3	-	-	-	-			821468	814154	-	-	-	-
											1.0	0.2	83	16.2	16.2	8.2	8.2	31.7	31.7	115.3	115.5	9.3	9.3	3.0	2	-	-	-	-								
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-													
	3.2	0.2	75	16.2						16.2	8.2	8.2	31.7	31.7	111.6	111.6	9.0	9.0	3.5	3	-	-	-	-													
	3.2	0.2	79	16.2						16.2	8.2	8.2	31.7	31.7	111.5	111.6	9.0	9.0	3.5	2	-	-	-	-													
SR3	Cloudy	Moderate	07:04	8.6						Surface	1.0	0.2	192	16.2	16.2	8.2	8.2	30.6	30.6	119.6	119.6	9.8	9.6	2.8	3	-	-	-	-	822163	807558			-	-	-	-
											1.0	0.3	199	16.2	16.2	8.2	8.2	30.6	30.6	119.5	119.6	9.7	9.6	2.8	4	-	-	-	-								
											4.3	0.1	156	16.2	16.2	8.2	8.2	31.6	31.6	117.2	117.1	9.5	9.5	3.5	3	-	-	-	-								
					Middle	4.3	0.1	164	16.2	16.2	8.2	8.2	31.6	31.6	117.0	117.1	9.5	9.5	3.6	3	-	-	-	-													
						7.6	0.1	58	16.2	16.2	8.2	8.2	32.2	32.2	114.1	114.0	9.2	9.2	8.2	2	-	-	-	-													
						7.6	0.1	59	16.2	16.2	8.2	8.2	32.2	32.2	113.9	114.0	9.2	9.2	9.3	3	-	-	-	-													
					SR4A	Cloudy	Calm	05:11	7.2	Surface	1.0	0.2	87	16.4	16.4	8.3	8.3	32.4	32.4	111.9	111.9	9.0	9.0	1.7	4	-	-	-	-			817178	807797	-	-	-	-
											1.0	0.2	91	16.4	16.4	8.3	8.3	32.4	32.4	111.9	111.9	9.0	9.0	1.7	5	-	-	-	-								
											3.6	0.1	59	16.4	16.4	8.3	8.3	32.5	32.5	111.0	111.0	8.9	8.9	2.0	4	-	-	-	-								
Middle	3.6	0.1	61	16.4						16.4	8.3	8.3	32.5	32.5	110.9	111.0	8.9	8.9	2.0	3	-	-	-	-													
	6.2	0.1	97	16.4						16.4	8.3	8.3	32.5	32.5	110.7	110.7	8.9	8.9	2.6	3	-	-	-	-													
	6.2	0.1	103	16.4						16.4	8.3	8.3	32.5	32.5	110.7	110.7	8.9	8.9	2.5	3	-	-	-	-													
SR5A	Cloudy	Calm	04:54	4.9						Surface	1.0	0.0	171	16.3	16.3	8.3	8.3	32.1	32.1	113.9	113.9	9.2	9.2	1.8	3	-	-	-	-	816603	810717			-	-	-	-
											1.0	0.0	175	16.3	16.3	8.3	8.3	32.1	32.1	113.8	113.8	9.2	9.2	1.8	3	-	-	-	-								
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-													
						3.9	0.0	84	16.3	16.3	8.3	8.3	32.3	32.3	112.0	112.0	9.0	9.0	2.0	5	-	-	-	-													
						3.9	0.0	85	16.3	16.3	8.3	8.3	32.3	32.3	112.0	112.0	9.0	9.0	2.0	5	-	-	-	-													
					SR6A	Cloudy	Calm	04:24	4.1	Surface	1.0	0.0	256	16.6	16.6	8.3	8.3	31.8	31.8	119.5	119.6	9.6	9.6	3.3	8	-	-	-	-			817985	814754	-	-	-	-
											1.0	0.0	281	16.5	16.5	8.3	8.3	31.8	31.8	119.6	119.6	9.6	9.6	3.3	9	-	-	-	-								
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-													
	3.1	0.0	278	16.4						16.4	8.3	8.3	31.9	31.9	119.2	119.2	9.6	9.6	3.7	6	-	-	-	-													
	3.1	0.0	287	16.4						16.4	8.3	8.3	31.9	31.9	119.1	119.2	9.6	9.6	3.7	6	-	-	-	-													
SR7	Cloudy	Moderate	04:38	15.8						Surface	1.0	0.2	60	16.4	16.4	8.1	8.1	32.3	32.3	110.6	110.7	8.9	8.8	2.0	3	-	-	-	-	823648	823735			-	-	-	-
											1.0	0.3	65	16.4	16.4	8.1	8.1	32.3	32.3	110.7																	

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

Water Quality Monitoring

Water Quality Monitoring Results on 21 January 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
C1	Cloudy	Moderate	12:49	8.6	Surface	1.0	0.4	39	16.5	16.5	8.4	8.4	31.7	31.7	124.7	124.7	10.1	9.9	1.2	3	-	-	-	-	815604	804237	-	-	-	-			
						1.0	0.4	41	16.5	8.4	8.4	31.7	31.7	124.7	124.7	10.1	9.9	1.2	3	-	-	-	-										
					Middle	4.3	0.3	34	16.4	16.4	8.4	8.4	31.9	31.9	120.1	120.1	9.7	9.7	1.6	4	-	-	-	-									
						4.3	0.4	35	16.4	16.4	8.4	8.4	31.9	31.9	120.1	120.1	9.7	9.7	1.6	3	-	-	-	-									
					Bottom	7.6	0.3	42	16.4	16.4	8.4	8.4	32.3	32.3	116.5	116.5	9.4	9.4	2.1	2	-	-	-	-									
						7.6	0.3	42	16.4	16.4	8.4	8.4	32.3	32.3	116.4	116.4	9.4	9.4	2.1	3	-	-	-	-									
C2	Cloudy	Moderate	11:30	11.6	Surface	1.0	0.1	167	16.4	16.4	8.2	8.2	29.9	29.9	120.8	120.8	9.9	9.6	3.2	3	-	-	-	-	825660	806936	-	-	-	-			
						1.0	0.1	176	16.4	16.2	8.2	8.2	29.9	29.9	120.7	120.7	9.9	9.6	3.4	4	-	-	-	-									
					Middle	5.8	0.1	285	16.2	16.2	8.2	8.2	31.2	31.2	113.7	113.8	9.2	9.2	5.1	2	-	-	-	-									
						5.8	0.1	311	16.2	16.2	8.2	8.2	31.2	31.2	113.8	113.8	9.3	9.1	5.2	3	-	-	-	-									
					Bottom	10.6	0.2	324	16.2	16.2	8.1	8.1	31.6	31.6	112.7	112.6	9.1	9.1	7.4	3	-	-	-	-									
						10.6	0.2	336	16.2	16.2	8.1	8.1	31.6	31.6	112.4	112.4	9.1	9.1	7.7	2	-	-	-	-									
C3	Cloudy	Moderate	13:53	12.2	Surface	1.0	0.4	253	16.7	16.7	8.2	8.2	32.1	32.1	116.0	116.0	9.3	9.1	1.7	3	-	-	-	-	822101	817775	-	-	-	-			
						1.0	0.4	258	16.7	16.4	8.2	8.2	32.1	32.1	115.9	115.9	9.3	9.1	1.7	2	-	-	-	-									
					Middle	6.1	0.3	255	16.4	16.4	8.1	8.1	32.3	32.3	110.2	110.2	8.9	8.9	2.0	2	-	-	-	-									
						6.1	0.3	270	16.4	16.4	8.1	8.1	32.3	32.3	110.1	110.1	8.9	8.9	2.1	2	-	-	-	-									
					Bottom	11.2	0.2	251	16.4	16.4	8.1	8.1	32.3	32.3	108.2	108.2	8.7	8.7	2.8	2	-	-	-	-									
						11.2	0.3	265	16.4	16.4	8.1	8.1	32.3	32.3	108.2	108.2	8.7	8.7	2.8	2	-	-	-	-									
IM1	Cloudy	Moderate	12:24	4.7	Surface	1.0	0.1	18	16.6	16.6	8.4	8.4	32.4	32.4	120.1	120.1	9.6	9.6	1.4	2	-	-	-	-	817936	807139	-	-	-	-			
						1.0	0.1	18	16.6	16.6	8.4	8.4	32.4	32.4	120.1	120.1	9.6	9.6	1.5	2	-	-	-	-									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-
					Bottom	3.7	0.1	14	16.5	16.5	8.4	8.4	32.5	32.5	117.0	117.0	9.4	9.4	2.3	2	-	-	-	-									
						3.7	0.1	14	16.5	16.5	8.4	8.4	32.5	32.5	116.9	116.9	9.4	9.4	2.3	2	-	-	-	-									
IM2	Cloudy	Moderate	12:16	6.7	Surface	1.0	0.3	357	17.5	17.5	8.4	8.4	31.7	31.7	120.0	120.1	9.5	9.8	1.6	2	-	-	-	-	818149	806173	-	-	-	-			
						1.0	0.3	328	17.5	16.4	8.4	8.4	31.7	31.7	120.1	120.1	9.5	9.8	1.6	2	-	-	-	-									
					Middle	3.4	0.2	343	16.4	16.4	8.4	8.4	31.9	31.9	123.9	123.9	10.0	10.0	2.0	2	-	-	-	-									
						3.4	0.2	316	16.4	16.4	8.4	8.4	31.9	31.9	123.8	123.9	10.0	10.0	2.0	3	-	-	-	-									
					Bottom	5.7	0.2	326	16.3	16.3	8.4	8.4	32.3	32.3	119.5	119.5	9.6	9.6	2.7	3	-	-	-	-									
						5.7	0.2	354	16.3	16.3	8.4	8.4	32.3	32.3	119.5	119.5	9.6	9.6	2.7	3	-	-	-	-									
IM3	Cloudy	Moderate	12:08	6.9	Surface	1.0	0.3	345	17.5	17.5	8.3	8.3	31.8	31.8	118.1	118.1	9.3	9.6	1.4	3	-	-	-	-	818794	805616	-	-	-	-			
						1.0	0.3	347	17.5	17.3	8.3	8.3	31.8	31.8	118.1	118.1	9.3	9.6	1.4	3	-	-	-	-									
					Middle	3.5	0.3	336	17.3	17.3	8.4	8.4	31.8	31.8	123.6	123.7	9.8	9.8	2.0	3	-	-	-	-									
						3.5	0.3	309	17.3	16.2	8.4	8.4	31.8	31.8	123.7	123.7	9.8	9.8	2.0	2	-	-	-	-									
					Bottom	5.9	0.2	334	16.2	16.2	8.4	8.4	32.0	32.0	121.7	121.6	9.8	9.8	2.7	3	-	-	-	-									
						5.9	0.3	344	16.2	16.2	8.4	8.4	32.0	32.0	121.4	121.4	9.8	9.8	2.6	2	-	-	-	-									
IM4	Cloudy	Moderate	11:58	8.0	Surface	1.0	0.5	5	16.8	16.8	8.3	8.3	31.6	31.6	118.5	118.5	9.5	9.8	1.6	3	-	-	-	-	819715	804616	-	-	-	-			
						1.0	0.5	5	16.8	16.8	8.3	8.3	31.6	31.6	118.5	118.5	9.5	9.8	1.6	4	-	-	-	-									
					Middle	4.0	0.4	353	16.2	16.2	8.4	8.4	31.7	31.7	122.9	122.9	10.0	10.0	2.4	4	-	-	-	-									
						4.0	0.4	325	16.2	16.2	8.4	8.4	31.7	31.7	122.8	122.8	10.0	10.0	2.4	3	-	-	-	-									
					Bottom	7.0	0.4	345	16.2	16.2	8.4	8.4	31.7	31.7	119.6	119.6	9.7	9.7	2.8	3	-	-	-	-									
						7.0	0.4	353	16.2	16.2	8.4	8.4	31.7	31.7	119.5	119.5	9.7	9.7	2.8	3	-	-	-	-									
IM5	Cloudy	Moderate	11:48	7.3	Surface	1.0	0.5	359	16.7	16.7	8.3	8.3	31.8	31.8	117.7	117.8	9.4	9.6	1.8	4	-	-	-	-	820727	804867	-	-	-	-			
						1.0	0.5	330	16.7	16.3	8.3	8.3	31.8	31.8	117.8	117.8	9.5	9.6	1.8	4	-	-	-	-									
					Middle	3.7	0.5	3	16.3	16.3	8.4	8.4	32.0	32.0	121.7	121.7	9.8	9.8	2.6	4	-	-	-	-									
						3.7	0.5	3	16.3	16.3	8.4	8.4	32.0	32.0	121.6	121.6	9.8	9.8	2.6	4	-	-	-	-									
					Bottom	6.3	0.3	4	16.3	16.3	8.4	8.4	32.0	32.0	119.5	119.4	9.7	9.7	3.2	4	-	-	-	-									
						6.3	0.3	4	16.3	16.3	8.4	8.4	32.0	32.0	119.3	119.3	9.6	9.6	3.2	3	-	-	-	-									
IM6	Cloudy	Moderate	11:40	7.1	Surface	1.0	0.2	303	16.6	16.6	8.3	8.3	30.8	30.8	118.7	118.7	9.6	9.8	2.4	2	-	-	-	-	821046	805814	-	-	-	-			
						1.0	0.2	324	16.6	16.2	8.3	8.3	30.8	30.8	118.7	118.7	9.6	9.8	2.4	3	-	-	-	-									
					Middle	3.6	0.1	314	16.2	16.2	8.4	8.4	30.8	30.8	123.4	123.4	10.0	10.0	1.9	3	-	-	-	-									
						3.6	0.2	333	16.2	16.2	8.4	8.4	30.8	30.8	123.3	123.3	10.0	10.0	1.9	4	-	-	-	-									
					Bottom	6.1	0.1	347	16.2	16.2	8.4	8.4	30.9	30.9	119.4	119.4	9.7	9.7	1.7	3	-	-	-	-									
						6.1	0.1	319	16.2	16.2	8.4	8.4	30.9	30.9	119.3	119.3	9.7	9.7	1.7	4	-	-	-	-									
IM7	Cloudy	Moderate	11:31	8.4	Surface	1.0	0.2	227	16.4	16.4	8.4	8.4	30.5	30.5	123.8	123.8	10.1	10.0	1.5	3	-	-	-	-	821352	806828	-	-	-	-			
						1.0	0.3	232	16.4	16.4	8.4	8.4	30.5	30.5	123.7	123.7	10.1	10.0	1.4	2	-	-	-	-									
					Middle	4.2	0.2	247	16.4	16.4	8.3	8.3	30.6	30.6	121.7	121.7	9.9	9.9	1.6	2	-	-	-	-									
						4.2	0.2	271	16.4	16.4	8.3	8.3	30.6	30.6	121.7	121.7	9.9	9.9	1.6	3	-	-	-	-									
					Bottom	7.4	0.2	276	16.4	16.4	8.4	8.4	30.6	30.6	119.2	119.1	9.7	9.7	2.2	2	-	-	-	-									
						7.4	0.2	277	16.4	16.4	8																						

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

Water Quality Monitoring

Water Quality Monitoring Results on 23 January 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	Fine	Moderate	08:45	8.4	Surface	1.0	0.2	188	17.1	17.1	8.2	8.2	27.8	27.9	123.6	123.5	10.1	9.6	2.3	3.0	3	-	-	-	-	-	-	-	-	-					
						1.0	0.2	195	17.0	17.0	8.2	8.2	27.9	27.9	123.3	123.3	10.1	9.6	2.5	3.0	3	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.2	0.1	199	16.7	16.7	8.2	8.2	31.2	31.2	111.7	111.5	9.0	9.0	3.3	3.0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
						4.2	0.1	213	16.7	16.7	8.2	8.2	31.2	31.2	111.2	111.5	9.0	9.0	3.3	3.0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	7.4	0.1	255	16.7	16.7	8.2	8.2	31.2	31.2	109.1	109.1	8.8	8.8	3.3	8.8	3.3	3.0	4	-	-	-	-	-	-	-	-	-	-	-	-
						7.4	0.1	260	16.7	16.7	8.2	8.2	31.1	31.1	109.0	109.1	8.8	8.8	3.4	8.8	3.4	3.0	3	-	-	-	-	-	-	-	-	-	-	-	-
C2	Fine	Moderate	09:44	10.8	Surface	1.0	0.2	135	17.0	17.0	8.2	8.2	29.3	29.3	125.1	125.1	10.1	10.1	1.4	1.6	4	-	-	-	-	-	-	-	-	-	-				
						1.0	0.2	141	17.0	17.0	8.2	8.2	29.3	29.3	125.1	125.1	10.1	10.1	1.4	1.6	5	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	5.4	0.5	154	17.0	17.0	8.2	8.2	31.2	31.2	124.7	124.7	10.0	10.0	1.3	10.1	1.3	1.6	5	-	-	-	-	-	-	-	-	-	-	-	-
						5.4	0.5	159	17.0	17.0	8.2	8.2	31.2	31.2	124.6	124.6	10.0	10.0	1.3	10.1	1.3	1.6	4	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	9.8	0.5	144	16.8	16.8	8.2	8.2	31.7	31.7	120.5	120.5	9.7	9.7	2.0	9.7	2.0	1.6	4	-	-	-	-	-	-	-	-	-	-	-	-
						9.8	0.5	148	16.8	16.8	8.2	8.2	31.7	31.7	120.5	120.5	9.7	9.7	2.1	9.7	2.1	1.6	5	-	-	-	-	-	-	-	-	-	-	-	-
C3	Fine	Moderate	07:24	11.8	Surface	1.0	0.4	286	16.9	16.9	8.2	8.2	31.4	31.4	118.4	118.3	9.5	9.4	1.2	1.2	5	-	-	-	-	-	-	-	-	-	-				
						1.0	0.4	300	16.9	16.9	8.2	8.2	31.4	31.4	118.2	118.3	9.5	9.4	1.2	9.4	1.2	1.2	4	-	-	-	-	-	-	-	-	-	-		
					Middle	5.9	0.2	257	16.8	16.8	8.1	8.1	31.9	31.9	114.6	114.6	9.2	9.2	1.1	9.4	1.1	1.2	5	-	-	-	-	-	-	-	-	-	-	-	
						5.9	0.2	277	16.8	16.8	8.1	8.1	31.9	31.9	114.6	114.6	9.2	9.2	1.1	9.4	1.1	1.2	4	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	10.8	0.1	120	16.7	16.7	8.1	8.1	32.2	32.2	109.2	109.1	8.7	8.7	1.3	8.7	1.3	1.2	6	-	-	-	-	-	-	-	-	-	-	-	
						10.8	0.1	130	16.7	16.7	8.1	8.1	32.2	32.2	109.0	109.1	8.7	8.7	1.3	8.7	1.3	1.2	5	-	-	-	-	-	-	-	-	-	-	-	
IM1	Fine	Moderate	09:08	4.6	Surface	1.0	0.0	157	17.2	17.3	8.3	8.3	28.9	28.9	125.5	125.4	10.1	10.1	2.1	10.1	2.2	4.2	5	-	-	-	-	-	-	-	-				
						1.0	0.0	165	17.3	17.3	8.3	8.3	29.0	29.0	125.2	125.4	10.1	10.1	2.2	10.1	2.2	4.2	4	-	-	-	-	-	-	-	-	-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	
					Bottom	3.6	0.1	169	17.3	17.3	8.3	8.3	29.8	29.9	122.4	122.4	9.8	9.8	6.1	9.8	6.1	4.2	4	-	-	-	-	-	-	-	-	-	-		
						3.6	0.1	182	17.3	17.3	8.3	8.3	29.9	29.9	122.3	122.4	9.8	9.8	6.4	9.8	6.4	4.2	5	-	-	-	-	-	-	-	-	-	-	-	
IM2	Fine	Moderate	09:16	6.4	Surface	1.0	0.1	194	17.1	17.1	8.3	8.3	29.5	29.5	126.3	126.3	10.2	10.1	2.2	10.1	2.2	5.7	4	-	-	-	-	-	-	-					
						1.0	0.1	207	17.1	17.1	8.3	8.3	29.5	29.5	126.3	126.3	10.2	10.1	2.2	10.1	2.2	5.7	3	-	-	-	-	-	-	-	-				
					Middle	3.2	0.1	224	17.2	17.2	8.3	8.3	30.6	30.6	124.2	124.1	10.0	10.0	9.3	10.1	9.3	5.7	3	-	-	-	-	-	-	-	-	-			
						3.2	0.1	237	17.2	17.2	8.3	8.3	30.6	30.6	124.0	124.1	9.9	9.9	9.9	10.0	9.9	5.7	2	-	-	-	-	-	-	-	-				
					Bottom	5.4	0.1	200	17.2	17.2	8.3	8.3	30.8	30.8	122.9	122.8	9.8	9.8	5.3	9.8	5.3	5.7	2	-	-	-	-	-	-	-	-	-			
						5.4	0.1	207	17.2	17.2	8.3	8.3	30.8	30.8	122.6	122.8	9.8	9.8	5.7	9.8	5.7	5.7	3	-	-	-	-	-	-	-	-				
IM3	Fine	Moderate	09:29	6.8	Surface	1.0	0.0	326	17.1	17.1	8.3	8.3	30.2	30.3	126.9	126.9	10.2	10.1	2.6	10.1	2.6	3.0	4	-	-	-	-	-	-						
						1.0	0.0	339	17.1	17.1	8.3	8.3	30.4	30.3	126.8	126.9	10.2	10.1	2.6	10.1	2.6	3.0	3	-	-	-	-	-	-						
					Middle	3.4	0.0	237	17.0	17.0	8.3	8.3	30.7	30.8	125.5	125.3	10.1	10.1	2.7	10.1	2.7	3.0	3	-	-	-	-	-	-	-					
						3.4	0.0	255	17.0	17.0	8.3	8.3	30.8	30.8	125.0	125.3	10.0	10.0	2.8	10.0	2.8	3.0	3	-	-	-	-	-	-						
					Bottom	5.8	0.0	51	17.0	17.0	8.3	8.3	30.9	30.9	123.8	123.6	9.9	9.9	3.8	9.9	3.8	3.0	4	-	-	-	-	-	-						
						5.8	0.0	51	17.0	17.0	8.3	8.3	30.9	30.9	123.4	123.6	9.9	9.9	3.9	9.9	3.9	3.0	4	-	-	-	-	-							
IM4	Fine	Moderate	09:40	7.5	Surface	1.0	0.2	190	17.1	17.1	8.3	8.3	29.1	29.2	125.5	125.3	10.1	10.0	2.7	10.0	2.9	3.2	3	-	-	-	-	-							
						1.0	0.2	201	17.1	17.1	8.3	8.3	29.4	29.2	125.1	125.3	10.1	10.0	2.9	10.0	2.9	3.2	2	-	-	-	-								
					Middle	3.8	0.1	185	16.9	16.9	8.3	8.3	30.6	30.7	122.2	121.9	9.8	9.8	3.7	9.8	3.7	3.2	4	-	-	-	-								
						3.8	0.1	199	16.9	16.9	8.3	8.3	30.7	30.7	121.6	121.9	9.8	9.8	3.7	9.8	3.7	3.2	5	-	-	-	-								
					Bottom	6.5	0.1	169	16.9	16.9	8.3	8.3	30.9	30.9	120.3	120.3	9.7	9.7	3.3	9.7	3.3	3.2	4	-	-	-	-								
						6.5	0.1	171	16.9	16.9	8.3	8.3	30.9	30.9	120.2	120.3	9.7	9.7	3.2	9.7	3.2	3.2	5	-	-	-	-								
IM5	Fine	Moderate	09:48	6.6	Surface	1.0	0.3	235	17.1	17.1	8.3	8.3	27.8	27.8	124.8	124.8	10.2	10.0	2.3	10.0	2.3	3.3	4	-	-	-	-								
						1.0	0.3	242	17.1	17.1	8.3	8.3	27.8	27.8	124.8	124.8	10.2	10.0	2.3	10.0	2.3	3.3	4	-	-	-	-								
					Middle	3.3	0.2	226	17.0	17.0	8.3	8.3	30.3	30.4	122.0	121.9	9.8	9.8	3.1	9.8	3.1	3.3	4	-	-	-	-								
						3.3	0.2	229	17.0	17.0	8.3	8.3	30.4	30.4	121.7	121.9	9.8	9.8	3.1	9.8	3.1	3.3	5	-	-	-	-								
					Bottom	5.6	0.1	177	17.0	17.0	8.3	8.3	30.8	30.8	120.2	120.0	9.7	9.7	4.1	9.7	4.1	3.3	5	-	-	-	-								
						5.6	0.1	189	17.0	17.0	8.3	8.3	30.8	30.8	119.8	120.0	9.6	9.6	4.3	9.6	4.3	3.3	5	-	-	-	-								
IM6	Fine	Moderate	09:57	6.8	Surface	1.0	0.2	243	17.2	17.2	8.3	8.3	27.9	28.0	124.1	124.2	10.1	10.1	2.2	10.1	2.2	2.4	7	-	-	-	-								
						1.0	0.2	254																											

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

Water Quality Monitoring Results on 23 January 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	13:17	7.0	Surface	1.0	0.1	295	17.5	17.5	8.2	8.2	29.2	29.2	128.1	128.1	10.3	10.3	1.4	1.4	3	-	-	-	-	-	-	-	-	-	-				
						1.0	0.1	295	17.5	8.2	8.2	29.2	29.2	128.1	128.1	10.3	10.3	1.5	1.5	3	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	3.5	0.2	262	17.3	17.3	8.2	8.2	30.0	30.0	124.9	124.8	10.0	10.0	1.7	1.7	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						3.5	0.2	281	17.3	17.3	8.2	8.2	30.0	30.0	124.7	124.7	10.0	10.0	1.8	1.8	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						6.0	0.1	303	17.1	17.1	8.2	8.2	31.3	31.3	126.6	126.8	10.1	10.1	1.6	1.6	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						6.0	0.1	328	17.1	17.1	8.2	8.2	31.3	31.3	127.0	127.0	10.1	10.1	1.5	1.5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IM10	Sunny	Moderate	13:25	8.1	Surface	1.0	0.2	319	17.4	17.4	8.2	8.2	29.9	29.9	127.0	126.9	10.2	10.2	1.3	1.3	2	-	-	-	-	-	-	-	-	-	-	-			
						1.0	0.2	339	17.4	17.4	8.2	8.2	29.9	29.9	126.8	126.8	10.2	10.2	1.3	1.3	3	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.1	0.3	315	17.3	17.3	8.2	8.2	30.6	30.5	124.1	124.2	9.9	9.9	1.5	1.5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						4.1	0.3	331	17.3	17.3	8.2	8.2	30.5	30.5	124.2	124.2	9.9	9.9	1.5	1.5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						7.1	0.2	299	17.2	17.2	8.2	8.2	31.5	31.5	119.5	119.4	9.5	9.5	2.0	2.0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.1	0.2	309	17.2	17.2	8.2	8.2	31.5	31.5	119.3	119.3	9.5	9.5	2.1	2.1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM11	Sunny	Moderate	13:36	7.9	Surface	1.0	0.3	319	17.6	17.6	8.2	8.2	29.9	29.9	127.8	127.9	10.2	10.2	1.4	1.4	6	-	-	-	-	-	-	-	-	-	-	-			
						1.0	0.3	349	17.6	17.6	8.2	8.2	29.9	29.9	127.9	127.9	10.2	10.2	1.5	1.5	6	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.0	0.3	297	17.3	17.3	8.2	8.2	30.6	30.6	125.7	125.7	10.1	10.1	1.3	1.3	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						4.0	0.3	301	17.3	17.3	8.2	8.2	30.6	30.6	125.7	125.7	10.1	10.1	1.3	1.3	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
						6.9	0.2	295	17.0	17.0	8.2	8.2	31.6	31.6	118.4	118.4	9.5	9.5	2.1	2.1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
						6.9	0.2	320	17.0	17.0	8.2	8.2	31.6	31.6	118.3	118.3	9.5	9.5	2.1	2.1	4	-	-	-	-	-	-	-	-	-	-	-	-		
IM12	Sunny	Moderate	13:44	8.8	Surface	1.0	0.3	305	17.9	17.9	8.2	8.2	29.5	29.5	126.5	126.5	10.1	10.1	1.2	1.2	2	-	-	-	-	-	-	-	-	-	-	-			
						1.0	0.3	329	17.9	17.9	8.2	8.2	29.5	29.5	126.4	126.4	10.1	10.1	1.2	1.2	3	-	-	-	-	-	-	-	-	-	-	-			
					Middle	4.4	0.3	299	16.9	16.9	8.2	8.2	31.7	31.7	118.5	118.6	9.5	9.5	1.5	1.5	2	-	-	-	-	-	-	-	-	-	-	-	-	-	
						4.4	0.3	326	16.9	16.9	8.2	8.2	31.7	31.7	118.6	118.6	9.5	9.5	1.6	1.6	3	-	-	-	-	-	-	-	-	-	-	-	-		
						7.8	0.3	314	16.8	16.8	8.2	8.2	31.8	31.8	116.4	116.5	9.3	9.3	3.1	3.1	3	-	-	-	-	-	-	-	-	-	-	-			
						7.8	0.3	336	16.8	16.8	8.2	8.2	31.8	31.8	116.5	116.5	9.3	9.3	3.1	3.1	3	-	-	-	-	-	-	-	-	-	-	-			
SR1A	Sunny	Moderate	14:20	5.4	Surface	1.0	-	-	17.8	17.8	8.2	8.2	29.5	29.5	126.1	126.1	10.0	10.0	1.2	1.2	4	-	-	-	-	-	-	-	-	-	-	-			
						1.0	-	-	17.8	17.8	8.2	8.2	29.5	29.5	126.1	126.1	10.0	10.0	1.2	1.2	3	-	-	-	-	-	-	-	-	-	-				
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						4.4	-	-	17.7	17.7	8.2	8.2	31.0	30.9	122.1	122.1	9.7	9.7	1.6	1.6	4	-	-	-	-	-	-	-	-	-	-	-			
						4.4	-	-	17.7	17.7	8.2	8.2	30.9	30.9	122.0	122.0	9.7	9.7	1.6	1.6	3	-	-	-	-	-	-	-	-	-	-				
SR2	Sunny	Moderate	14:37	4.8	Surface	1.0	0.1	77	17.7	17.7	8.2	8.2	30.6	30.6	125.8	125.9	10.0	10.0	1.1	1.1	3	-	-	-	-	-	-	-	-	-	-				
						1.0	0.1	81	17.7	17.7	8.2	8.2	30.6	30.6	125.9	125.9	10.0	10.0	1.1	1.1	2	-	-	-	-	-	-	-	-						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						3.8	0.1	93	17.2	17.2	8.2	8.2	31.3	31.3	123.5	123.4	9.9	9.9	1.4	1.4	2	-	-	-	-	-	-	-	-	-					
						3.8	0.1	96	17.2	17.2	8.2	8.2	31.3	31.3	123.3	123.3	9.8	9.8	1.4	1.4	2	-	-	-	-	-	-	-	-	-					
SR3	Sunny	Moderate	13:00	8.8	Surface	1.0	0.1	291	17.6	17.6	8.2	8.2	29.4	29.4	127.0	127.1	10.2	10.2	1.2	1.2	3	-	-	-	-	-	-	-	-	-	-				
						1.0	0.1	292	17.6	17.6	8.2	8.2	29.4	29.4	127.1	127.1	10.2	10.2	1.2	1.2	2	-	-	-	-	-	-	-	-						
					Middle	4.4	0.1	259	17.2	17.2	8.2	8.2	29.7	29.7	126.7	126.8	10.2	10.2	1.4	1.4	3	-	-	-	-	-	-	-	-	-	-				
						4.4	0.1	276	17.2	17.2	8.2	8.2	29.7	29.7	126.9	126.9	10.2	10.2	1.4	1.4	2	-	-	-	-	-	-	-	-						
						7.8	0.0	228	17.1	17.1	8.2	8.2	31.7	31.7	124.8	124.8	10.0	10.0	2.0	2.0	3	-	-	-	-	-	-	-							
						7.8	0.0	228	17.1	17.1	8.2	8.2	31.7	31.7	124.8	124.8	10.0	10.0	2.0	2.0	4	-	-	-	-	-	-								
SR4A	Sunny	Moderate	14:07	8.4	Surface	1.0	0.1	115	18.0	18.0	8.4	8.4	30.1	30.1	125.4	125.4	9.9	9.9	2.1	2.1	4	-	-	-	-	-	-	-	-						
						1.0	0.1	123	17.9	17.9	8.4	8.4	30.1	30.1	125.4	125.4	9.9	9.9	2.2	2.2	3	-	-	-	-	-	-								
					Middle	4.2	0.0	54	17.7	17.7	8.4	8.4	30.6	30.6	124.0	124.1	9.9	9.9	2.2	2.2	3	-	-	-	-	-	-	-							
						4.2	0.0	54	17.7	17.7	8.4	8.4	30.6	30.6	124.0	124.0	9.8	9.8	2.2	2.2	2	-	-	-	-	-	-								
						7.4	0.1	75	17.6	17.6	8.4	8.4	30.7	30.7	122.4	122.3	9.7	9.7	2.2	2.2	2	-	-	-	-	-									
						7.4	0.1	79	17.6	17.6	8.4	8.4	30.7	30.7	122.2	122.3	9.7	9.7	2.3	2.3	3	-	-	-	-										
SR5A	Sunny	Moderate	14:24	3.1	Surface	1.0	0.0	172	18.3	18.3	8.3	8.3	30.8	30.8	123.1	123.0	9.6	9.6	4.6	4.6	2	-	-	-	-	-	-	-							
						1.0	0.0	173	18.3	18.3	8.3	8.3	30.8	30.8	122.8	122.8	9.6	9.6	4.7	4.7	3	-	-	-	-	-									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
						-	-	-	-	-</																									

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

Water Quality Monitoring

Water Quality Monitoring Results on 26 January 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	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA
C1	Fine	Moderate	11:43	8.0	Surface	1.0	0.1	204	17.6	17.6	8.2	8.2	31.5	31.5	120.1	120.2	9.5	9.4	2.4	2.7	4	4	-	-	815609	804267	-	-	-	-			
						1.0	0.1	219	17.6	8.2	8.1	31.5	31.7	120.2	117.3	9.5	9.3	2.5	2.9	5	4	-	-										
					Middle	4.0	0.1	226	17.5	8.1	8.1	31.7	31.7	117.3	117.3	9.3	9.3	2.9	2.9	4	4	-	-										
						4.0	0.1	243	17.5	8.1	8.1	31.7	31.7	117.3	117.3	9.3	9.3	2.9	2.9	4	4	-	-										
					Bottom	7.0	0.0	187	17.5	8.1	8.1	31.9	31.9	111.3	111.2	8.8	8.8	2.6	2.6	4	4	-	-										
						7.0	0.0	205	17.5	8.1	8.1	31.9	31.9	111.3	111.1	8.8	8.8	2.6	2.6	3	3	-	-										
C2	Sunny	Moderate	10:05	12.2	Surface	1.0	0.2	83	17.7	17.7	8.3	8.3	27.9	28.0	120.1	120.1	9.7	9.5	1.5	4.0	4	4	-	-	825678	806965	-	-	-	-			
						1.0	0.2	85	17.7	17.5	8.3	8.3	28.0	28.9	120.0	114.2	1.6	4.6	3	4	-	-											
					Middle	6.1	0.2	71	17.5	17.5	8.3	8.3	28.8	29.0	114.2	114.1	9.2	9.2	4.8	4.8	4	4	-	-									
						6.1	0.2	76	17.5	17.5	8.3	8.3	29.0	30.1	114.1	108.0	9.2	8.6	4.8	5.6	3	4	-	-									
					Bottom	11.2	0.1	43	17.5	17.5	8.3	8.3	30.1	30.1	108.0	107.9	8.6	8.6	5.6	5.8	4	5	-	-									
						11.2	0.1	46	17.5	17.5	8.3	8.3	30.1	30.1	108.0	107.9	8.6	8.6	5.6	5.8	4	5	-	-									
C3	Sunny	Moderate	12:01	12.2	Surface	1.0	0.3	88	17.6	17.6	8.4	8.4	30.3	30.3	114.0	114.0	9.1	8.9	1.3	2.2	5	5	-	-	822127	817821	-	-	-	-			
						1.0	0.3	89	17.6	17.4	8.4	8.3	30.3	30.4	113.9	109.3	1.3	9.7	5	5	-	-											
					Middle	6.1	0.2	82	17.4	17.4	8.3	8.3	30.4	30.4	109.6	109.3	8.7	8.7	2.1	2.1	5	5	-	-									
						6.1	0.3	85	17.4	17.4	8.3	8.3	30.4	30.7	109.0	107.1	8.7	8.5	2.1	3.2	5	3	-	-									
					Bottom	11.2	0.1	69	17.3	17.4	8.3	8.3	30.7	30.7	106.9	107.3	8.5	8.6	3.2	3.4	3	4	-	-									
						11.2	0.1	74	17.4	17.4	8.3	8.3	30.7	30.7	107.3	107.3	8.5	8.6	3.4	3.4	4	4	-	-									
IM1	Fine	Moderate	11:20	4.7	Surface	1.0	0.1	173	17.8	17.8	8.2	8.2	31.5	31.5	119.6	119.6	9.4	9.4	2.5	2.3	3	4	-	-	817925	807147	-	-	-	-			
						1.0	0.1	180	17.8	17.8	8.2	8.2	31.5	31.5	119.5	119.6	9.4	9.4	2.5	2.5	4	4	-	-									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-
					Bottom	3.7	0.1	212	17.7	17.7	8.1	8.1	31.7	31.7	111.0	110.9	8.7	8.7	2.1	2.1	3	4	-	-									
						3.7	0.1	214	17.7	17.7	8.1	8.1	31.7	31.7	110.8	110.8	8.7	8.7	2.1	2.1	4	4	-	-									
IM2	Fine	Moderate	11:11	6.8	Surface	1.0	0.1	202	17.6	17.6	8.2	8.2	31.7	31.7	121.1	121.1	9.6	9.5	2.3	2.8	4	4	-	-	818183	806146	-	-	-	-			
						1.0	0.1	218	17.6	17.5	8.2	8.1	31.7	32.0	121.0	118.1	2.3	9.6	5	4	-	-											
					Middle	3.4	0.1	270	17.5	17.5	8.1	8.1	32.0	32.0	118.1	118.1	9.3	9.3	2.6	2.6	4	4	-	-									
						3.4	0.1	277	17.5	17.5	8.1	8.1	32.0	32.2	118.0	115.5	9.3	9.1	2.6	3.4	5	4	-	-									
					Bottom	5.8	0.1	266	17.6	17.6	8.1	8.1	32.2	32.2	115.9	115.7	9.1	9.1	3.4	3.5	4	4	-	-									
						5.8	0.1	282	17.6	17.6	8.1	8.1	32.2	32.2	115.5	115.5	9.1	9.1	3.5	3.5	4	4	-	-									
IM3	Fine	Moderate	11:04	6.9	Surface	1.0	0.0	97	17.6	17.6	8.2	8.2	31.6	31.6	121.3	121.3	9.6	9.4	2.4	2.7	4	4	-	-	818763	805573	-	-	-	-			
						1.0	0.0	97	17.6	17.6	8.2	8.2	31.6	31.6	121.2	121.3	9.6	9.6	2.4	2.4	4	4	-	-									
					Middle	3.5	0.1	216	17.5	17.5	8.1	8.1	32.0	32.0	116.6	116.6	9.2	9.2	2.7	2.7	4	4	-	-									
						3.5	0.1	223	17.5	17.5	8.1	8.1	32.0	32.0	116.5	116.5	9.2	9.2	2.7	2.7	4	4	-	-									
					Bottom	5.9	0.1	228	17.5	17.5	8.1	8.1	32.1	32.1	111.8	111.8	8.8	8.8	3.0	3.0	5	5	-	-									
						5.9	0.1	245	17.5	17.5	8.1	8.1	32.1	32.1	111.8	111.8	8.8	8.8	2.9	2.9	4	4	-	-									
IM4	Fine	Moderate	10:27	8.2	Surface	1.0	0.1	33	17.7	17.7	8.2	8.2	31.1	31.1	121.4	121.4	9.6	9.4	2.4	2.8	5	4	-	-	819743	804615	-	-	-	-			
						1.0	0.1	36	17.7	17.6	8.2	8.1	31.1	31.7	121.4	116.4	2.3	9.6	4	4	-	-											
					Middle	4.1	0.1	305	17.6	17.6	8.1	8.1	31.7	31.7	116.4	116.3	9.2	9.2	2.9	2.9	4	4	-	-									
						4.1	0.1	323	17.6	17.6	8.1	8.1	31.7	31.9	116.2	109.5	9.2	8.6	2.9	3.1	5	3	-	-									
					Bottom	7.2	0.1	257	17.5	17.5	8.1	8.1	31.9	31.9	109.6	109.5	8.6	8.6	3.1	3.1	3	3	-	-									
						7.2	0.1	277	17.5	17.5	8.1	8.1	31.9	31.9	109.3	109.3	8.6	8.6	3.1	3.1	3	3	-	-									
IM5	Fine	Moderate	10:19	7.4	Surface	1.0	0.2	10	17.6	17.6	8.2	8.2	31.2	31.2	120.2	120.3	9.5	9.5	2.9	3.4	3	3	-	-	820755	804884	-	-	-	-			
						1.0	0.2	10	17.6	17.6	8.2	8.2	31.2	31.9	120.3	119.2	2.9	9.5	2	4.6	3	4	-	-									
					Middle	3.7	0.2	346	17.6	17.6	8.2	8.2	31.9	31.9	119.2	119.2	9.4	9.4	4.7	4.7	3	4	-	-									
						3.7	0.2	318	17.6	17.6	8.2	8.1	31.9	32.0	119.1	116.2	9.4	9.2	4.7	2.7	4	4	-	-									
					Bottom	6.4	0.2	342	17.6	17.6	8.1	8.1	32.0	32.0	116.2	116.2	9.2	9.2	2.7	2.7	4	3	-	-									
						6.4	0.2	344	17.6	17.6	8.1	8.1	32.0	32.0	116.2	116.2	9.2	9.2	2.7	2.7	3	3	-	-									
IM6	Fine	Moderate	10:10	7.3	Surface	1.0	0.0	179	17.7	17.7	8.2	8.2	29.8	29.8	119.0	119.0	9.5	9.4	1.9	2.7	4	3	-	-	821037	805844	-	-	-	-			
						1.0	0.0	184	17.7	17.6	8.2	8.1	29.8	31.3	118.9	117.0	1.9	9.3	3	3	-	-											
					Middle	3.7	0.1	151	17.6	17.6	8.1	8.1	31.3	31.3	117.1	116.8	3.0	2.9	3	3	-	-											
						3.7	0.1	164	17.6	17.6	8.1	8.1	31.3	31.8	117.0	111.8	2.9	8.8	3	3	-	-											
					Bottom	6.3	0.1	70	17.6	17.6	8.1	8.1	31.8	31.8	111.8	111.8	8.8	8.8	3.2	3.2	3	3	-	-									
						6.3	0.1	71	17.6	17.6	8.1	8.1	31.8	31.8	111.8	111.8	8.8	8.8	3.2	3.2	3	3	-	-									
IM7	Fine	Moderate	10:06	8.1	Surface	1.0	0.1	188	17.8	17.8	8.1	8.1	29.4	29.4	118.0	118.0	9.4	9.3	1.7	2.3	3	3	-	-	821352	806836	-	-	-	-			
						1.0	0.1	198	17.8	17.6	8.1	8.1	29.4	31.2	117.9	115.5	1.7	9.4	2	2.6	2	3	-	-									
					Middle	4.1	0.1	127	17.6	17.6	8.1	8.1	31.2	31.2	115.5	115.5	9.1	9.1	2.6	2.6	2	4	-	-									
						4.1	0.1	137	17.6	17.6	8.1	8.1	31.2	31.7	115.5	111.9	9.1	8.8	2.6	2.6	3	4	-	-									
					Bottom	7.1	0.1	144	17.6	17.6	8.1	8.1	31.7	31.7	111.9	111.9	8																

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

Water Quality Monitoring Results on 26 January 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	Moderate	10:33	7.2	Surface	1.0	0.3	46	17.9	8.3	8.3	28.3	28.4	117.2	117.1	9.4	9.3	1.1	1.1	3	-	-	-	822077	808816	-	-	-	-				
						1.0	0.3	46	17.9	8.3	8.3	28.4	28.4	116.9	114.1	9.4	9.3	1.1	1.1	3	-	-	-	-	-	-	-	-	-	-			
					Middle	3.6	0.3	36	17.7	8.3	8.3	28.8	28.8	114.3	114.1	9.2	9.1	3.5	3.0	3	-	-	-	-	-	-	-	-	-	-	-		
						3.6	0.3	39	17.7	8.3	8.3	28.8	28.8	113.8	114.1	9.1	9.1	3.5	3.0	3	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	6.2	0.2	59	17.7	8.3	8.3	29.0	29.0	111.1	110.9	8.9	8.9	4.4	8.9	4.4	2	-	-	-	-	-	-	-	-	-	-	-	
						6.2	0.2	61	17.7	8.3	8.3	29.0	29.0	110.6	110.9	8.9	8.9	4.3	8.9	4.3	3	-	-	-	-	-	-	-	-	-	-	-	
IM10	Sunny	Moderate	10:39	7.6	Surface	1.0	0.3	73	17.8	8.3	8.3	28.7	28.7	115.7	115.5	9.3	9.1	1.0	1.0	4	-	-	-	822405	809776	-	-	-	-				
						1.0	0.3	78	17.8	8.3	8.3	28.7	28.7	115.2	110.7	9.2	9.1	1.0	9.1	3	-	-	-	-	-	-	-	-	-	-			
					Middle	3.8	0.2	88	17.7	8.3	8.3	29.4	29.4	110.9	110.7	8.9	8.9	2.2	2.6	3	-	-	-	-	-	-	-	-	-	-	-		
						3.8	0.2	96	17.7	8.3	8.3	29.5	29.5	110.5	110.7	8.8	8.8	2.2	2.6	4	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	6.6	0.1	94	17.8	8.3	8.3	29.9	29.9	108.9	108.9	8.7	8.7	4.6	8.7	4.6	4	-	-	-	-	-	-	-	-	-	-	-	
						6.6	0.1	94	17.8	8.3	8.3	29.9	29.9	108.8	108.9	8.7	8.7	4.5	8.7	4.5	4	-	-	-	-	-	-	-	-	-	-	-	
IM11	Sunny	Moderate	10:49	8.0	Surface	1.0	0.1	86	17.7	8.3	8.3	29.9	29.9	114.8	114.7	9.1	9.1	1.2	1.1	5	-	-	-	822037	811464	-	-	-	-				
						1.0	0.1	90	17.7	8.3	8.3	30.0	30.0	114.6	113.1	9.0	9.1	1.1	9.1	4	-	-	-	-	-	-	-	-	-	-			
					Middle	4.0	0.1	83	17.7	8.3	8.3	30.0	30.0	113.2	113.1	9.0	9.0	2.2	2.2	4	-	-	-	-	-	-	-	-	-	-	-		
						4.0	0.1	91	17.7	8.3	8.3	30.0	30.0	113.0	113.1	9.0	9.0	2.1	2.2	3	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	7.0	0.1	101	17.7	8.3	8.3	30.1	30.0	111.8	111.7	8.9	8.9	3.3	8.9	3.3	3	-	-	-	-	-	-	-	-	-	-	-	
						7.0	0.1	108	17.7	8.3	8.3	30.0	30.0	111.6	111.7	8.9	8.9	3.4	8.9	3.4	4	-	-	-	-	-	-	-	-	-	-	-	
IM12	Sunny	Moderate	10:54	9.1	Surface	1.0	0.1	116	17.7	8.3	8.3	30.0	30.0	116.3	116.3	9.3	9.3	1.0	1.1	6	-	-	-	821454	812049	-	-	-	-				
						1.0	0.1	124	17.7	8.3	8.3	30.0	30.0	116.2	115.2	9.3	9.3	1.1	9.3	5	-	-	-	-	-	-	-	-	-				
					Middle	4.6	0.1	151	17.7	8.3	8.3	30.1	30.1	115.3	115.2	9.2	9.2	3.8	9.2	3.8	5	-	-	-	-	-	-	-	-	-			
						4.6	0.1	158	17.7	8.3	8.3	30.1	30.1	115.1	114.1	9.2	9.1	3.8	9.1	3.8	5	-	-	-	-	-	-	-	-	-			
					Bottom	8.1	0.1	97	17.7	8.3	8.3	30.1	30.1	114.2	114.1	9.1	9.1	4.8	9.1	4.8	5	-	-	-	-	-	-	-	-	-	-		
						8.1	0.1	103	17.7	8.3	8.3	30.1	30.1	114.0	114.1	9.1	9.1	4.8	9.1	4.8	5	-	-	-	-	-	-	-	-	-	-		
SR1A	Sunny	Calm	11:30	5.2	Surface	1.0	-	-	17.8	8.3	8.3	30.0	30.0	111.6	111.6	8.9	8.9	2.2	2.4	4	-	-	-	819982	812659	-	-	-	-				
						1.0	-	-	17.8	8.3	8.3	30.0	30.0	111.6	111.6	8.9	8.9	2.4	8.9	2.4	4	-	-	-	-	-	-	-	-				
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	4.2	-	-	17.8	8.3	8.3	30.1	30.1	109.7	109.5	8.7	8.7	2.9	8.7	2.9	4	-	-	-	-	-	-	-	-	-	-		
						4.2	-	-	17.8	8.3	8.3	30.1	30.1	109.3	109.5	8.7	8.7	2.9	8.7	2.9	5	-	-	-	-	-	-	-	-	-	-		
SR2	Sunny	Calm	11:43	4.6	Surface	1.0	0.1	81	17.8	8.3	8.3	30.0	30.0	114.7	114.6	9.1	9.1	2.0	2.3	5	-	-	-	821444	814170	-	-	-	-				
						1.0	0.1	82	17.8	8.3	8.3	30.0	30.0	114.5	114.6	9.1	9.1	2.3	9.1	2.3	6	-	-	-	-	-	-	-					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	3.6	0.1	80	17.8	8.3	8.3	30.0	30.0	113.3	113.2	9.0	9.0	4.1	9.0	4.1	5	-	-	-	-	-	-	-	-	-			
						3.6	0.1	83	17.8	8.3	8.3	30.0	30.0	113.1	113.2	9.0	9.0	4.2	9.0	4.2	6	-	-	-	-	-	-	-	-	-			
SR3	Sunny	Moderate	10:28	8.7	Surface	1.0	0.1	144	17.8	8.3	8.3	28.5	28.5	118.6	118.6	9.5	9.5	1.2	1.2	6	-	-	-	822148	807570	-	-	-	-				
						1.0	0.1	149	17.8	8.3	8.3	28.6	28.6	118.5	118.6	9.5	9.5	1.2	9.5	1.2	6	-	-	-	-	-	-	-					
					Middle	4.4	0.1	145	17.7	8.3	8.3	28.8	28.8	118.0	118.0	9.5	9.5	4.4	9.5	4.4	4	-	-	-	-	-	-	-	-				
						4.4	0.1	155	17.7	8.3	8.3	28.8	28.8	117.9	118.0	9.5	9.5	4.4	9.5	4.4	4	-	-	-	-	-	-	-	-				
					Bottom	7.7	0.2	123	17.6	8.3	8.3	30.0	30.0	116.7	116.7	9.3	9.3	5.7	9.3	5.7	3	-	-	-	-	-	-	-	-				
						7.7	0.2	132	17.6	8.3	8.3	30.0	30.0	116.7	116.7	9.3	9.3	5.5	9.3	5.5	4	-	-	-	-	-	-	-	-				
SR4A	Fine	Calm	12:05	9.1	Surface	1.0	0.2	74	17.9	8.2	8.2	31.4	31.4	123.1	123.1	9.7	9.6	2.5	2.5	5	-	-	-	817201	807791	-	-	-	-				
						1.0	0.2	74	17.9	8.2	8.2	31.4	31.4	123.1	123.1	9.7	9.6	2.5	9.6	2.5	5	-	-	-	-	-	-	-					
					Middle	4.6	0.2	62	17.6	8.2	8.2	32.0	32.0	120.7	120.6	9.5	9.5	2.4	9.5	2.4	4	-	-	-	-	-	-	-					
						4.6	0.2	62	17.6	8.2	8.2	32.0	32.0	120.5	120.6	9.5	9.5	2.4	9.5	2.4	3	-	-	-	-	-	-	-					
					Bottom	8.1	0.2	70	17.6	8.2	8.2	32.0	32.0	119.5	119.5	9.4	9.4	2.1	9.4	2.1	3	-	-	-	-	-	-	-					
						8.1	0.2	75	17.6	8.2	8.2	32.0	32.0	119.4	119.5	9.4	9.4	2.1	9.4	2.1	2	-	-	-	-	-	-	-					
SR5A	Fine	Calm	12:21	3.3	Surface	1.0	0.1	231	18.1	8.2	8.2	32.0	32.0	118.1	118.1	9.2	9.2	3.6	3.6	5	-	-	-	816593	810673	-	-	-	-				
						1.0	0.1	232	18.1	8.2	8.2	32.0	32.0	118.0	118.1	9.2	9.2	3.6	9.2	3.6	4	-	-	-	-	-	-						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					Bottom	2.3	0.1	195	18.0	8.1	8.1	32.1	32.1	110.2	110.1	8.6	8.6	3.6	8.6	3.6	3	-	-	-	-	-	-	-					
						2.3	0.1	210	18.0	8.1	8.1	32.1	32.1	109.9																			

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

Water Quality Monitoring

Water Quality Monitoring Results on 28 January 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	12:30	7.9	Surface	1.0	0.0	223	17.8	17.8	8.3	8.3	30.7	30.8	121.7	121.5	9.6	9.3	2.0	2.3	7	6	-	-	-	-	-	-	-	-				
						1.0	0.0	240	17.7	8.3	8.3	30.8	31.3	121.3	114.1	9.6	9.1	2.0	2.6	6	5	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.0	0.1	80	17.5	17.5	8.3	8.3	31.3	31.3	114.1	114.1	9.1	9.0	2.6	2.6	5	6	-	-	-	-	-	-	-	-	-	-	-	
						4.0	0.1	80	17.5	17.5	8.3	8.3	31.3	31.3	114.0	114.3	9.1	9.1	2.6	2.6	5	6	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	6.9	0.1	190	17.5	17.5	8.2	8.2	31.3	31.3	114.2	114.3	9.1	9.1	2.5	2.4	5	5	-	-	-	-	-	-	-	-	-	-	-	-
						6.9	0.1	197	17.5	17.5	8.2	8.2	31.3	31.3	114.3	114.3	9.1	9.1	2.4	2.4	5	5	-	-	-	-	-	-	-	-	-	-	-	-
C2	Fine	Moderate	11:16	11.6	Surface	1.0	0.1	255	18.2	18.2	8.4	8.4	27.7	27.7	127.1	127.0	10.2	9.9	1.3	2.2	5	5	-	-	-	-	-	-	-	-				
						1.0	0.1	274	18.2	18.2	8.4	8.4	27.7	27.7	126.9	120.1	10.1	10.1	1.3	2.2	6	5	-	-	-	-	-	-	-	-	-	-		
					Middle	5.8	0.3	51	18.0	18.0	8.3	8.3	28.7	28.8	120.3	120.1	9.6	9.5	2.3	2.3	5	5	-	-	-	-	-	-	-	-	-	-	-	
						5.8	0.3	51	18.0	18.0	8.3	8.3	28.8	28.8	119.9	117.1	9.5	9.3	2.3	2.3	6	5	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	10.6	0.4	66	18.0	18.0	8.3	8.3	29.5	29.5	117.2	117.1	9.3	9.3	3.1	3.0	5	5	-	-	-	-	-	-	-	-	-	-	-	
						10.6	0.4	68	18.0	18.0	8.3	8.3	29.5	29.5	117.0	117.0	9.3	9.3	3.0	3.0	5	5	-	-	-	-	-	-	-	-	-	-	-	
C3	Fine	Moderate	13:23	12.4	Surface	1.0	0.4	69	18.5	18.5	8.3	8.3	29.6	29.6	119.5	119.6	9.4	9.3	1.1	1.2	7	6	-	-	-	-	-	-	-	-				
						1.0	0.4	71	18.4	18.4	8.3	8.3	29.6	29.6	119.6	114.4	9.4	9.1	1.2	1.3	6	6	-	-	-	-	-	-	-	-	-			
					Middle	6.2	0.4	75	18.0	18.0	8.3	8.3	29.8	29.8	114.4	114.4	9.1	9.1	1.3	1.3	6	6	-	-	-	-	-	-	-	-	-	-		
						6.2	0.4	80	18.0	18.0	8.3	8.3	29.8	29.8	114.3	114.3	9.1	9.1	1.3	1.3	7	6	-	-	-	-	-	-	-	-	-	-		
					Bottom	11.4	0.3	63	17.7	17.7	8.2	8.2	30.3	30.3	107.9	108.0	8.6	8.6	1.2	1.2	6	6	-	-	-	-	-	-	-	-	-	-		
						11.4	0.3	69	17.7	17.7	8.2	8.2	30.3	30.3	108.0	108.0	8.6	8.6	1.2	1.2	6	6	-	-	-	-	-	-	-	-	-	-		
IM1	Cloudy	Moderate	12:09	4.6	Surface	1.0	0.1	213	18.1	18.1	8.3	8.3	30.9	30.9	120.8	120.7	9.5	9.5	1.5	1.5	6	5	-	-	-	-	-	-	-					
						1.0	0.1	219	18.0	18.0	8.3	8.3	30.9	30.9	120.6	120.6	9.5	9.5	1.5	1.5	5	5	-	-	-	-	-	-	-					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Bottom	3.6	0.1	224	17.9	17.9	8.3	8.3	31.0	31.0	118.5	118.4	9.3	9.3	2.8	2.6	5	4	-	-	-	-	-	-	-	-				
						3.6	0.1	241	17.9	17.9	8.3	8.3	31.0	31.0	118.2	118.2	9.3	9.3	2.6	2.6	4	4	-	-	-	-	-	-	-	-				
IM2	Cloudy	Moderate	12:00	6.8	Surface	1.0	0.1	53	17.9	17.9	8.3	8.3	30.6	30.6	122.0	121.9	9.6	9.6	2.4	2.4	6	5	-	-	-	-	-	-						
						1.0	0.1	57	17.9	17.9	8.3	8.3	30.6	30.6	121.8	121.2	9.6	9.6	2.4	2.4	5	6	-	-	-	-	-	-						
					Middle	3.4	0.1	90	17.9	17.9	8.3	8.3	30.5	30.6	121.2	121.2	9.6	9.6	2.5	2.3	6	7	-	-	-	-	-	-	-					
						3.4	0.1	96	17.9	17.9	8.3	8.3	30.6	30.6	121.1	113.9	9.6	9.0	2.3	2.7	7	8	-	-	-	-	-	-						
					Bottom	5.8	0.1	105	17.8	17.8	8.3	8.3	30.7	30.7	114.1	113.9	9.0	9.0	2.7	2.9	8	8	-	-	-	-	-	-	-					
						5.8	0.1	109	17.8	17.8	8.3	8.3	30.7	30.7	113.7	113.7	9.0	9.0	2.9	2.9	8	8	-	-	-	-	-	-						
IM3	Cloudy	Moderate	11:53	7.0	Surface	1.0	0.1	54	17.9	17.9	8.3	8.3	30.6	30.6	121.9	121.8	9.6	9.6	2.4	2.5	7	8	-	-	-	-	-							
						1.0	0.1	55	17.9	17.9	8.3	8.3	30.6	30.6	121.7	120.7	9.6	9.5	2.5	2.5	8	7	-	-	-	-	-							
					Middle	3.5	0.0	326	17.8	17.8	8.3	8.3	30.6	30.6	120.7	120.7	9.6	9.5	2.5	2.5	7	7	-	-	-	-	-							
						3.5	0.0	348	17.8	17.8	8.3	8.3	30.6	30.6	120.6	117.6	9.5	9.3	2.5	2.6	7	5	-	-	-	-	-							
					Bottom	6.0	0.0	246	17.8	17.8	8.3	8.3	30.6	30.6	117.8	117.6	9.3	9.3	2.8	2.6	5	6	-	-	-	-	-							
						6.0	0.0	249	17.8	17.8	8.3	8.3	30.6	30.6	117.4	117.4	9.3	9.3	2.6	2.6	6	6	-	-	-	-	-							
IM4	Cloudy	Moderate	11:43	8.1	Surface	1.0	0.1	343	17.9	17.9	8.3	8.3	30.6	30.6	122.2	122.2	9.7	9.7	2.0	2.2	6	7	-	-	-	-	-							
						1.0	0.1	316	17.8	17.8	8.3	8.3	30.6	30.6	122.1	120.9	9.7	9.6	2.2	2.3	7	7	-	-	-	-	-							
					Middle	4.1	0.1	12	17.7	17.7	8.3	8.3	30.6	30.6	120.9	120.8	9.6	9.6	2.3	2.3	7	7	-	-	-	-	-							
						4.1	0.2	12	17.7	17.7	8.3	8.3	30.6	30.6	120.7	119.2	9.6	9.4	2.3	2.3	7	7	-	-	-	-	-							
					Bottom	7.1	0.1	353	17.7	17.7	8.3	8.3	30.6	30.6	119.2	119.1	9.4	9.4	2.3	2.3	7	7	-	-	-	-	-							
						7.1	0.1	325	17.7	17.7	8.3	8.3	30.6	30.6	119.0	119.0	9.4	9.4	2.3	2.3	7	7	-	-	-	-	-							
IM5	Cloudy	Moderate	11:35	7.5	Surface	1.0	0.3	7	18.0	18.0	8.3	8.3	30.5	30.5	122.3	122.2	9.7	9.5	2.5	2.5	4	4	-	-	-	-	-							
						1.0	0.3	7	18.0	18.0	8.3	8.3	30.5	30.5	122.0	119.4	9.6	9.4	2.5	2.7	4	5	-	-	-	-								
					Middle	3.8	0.2	11	17.9	17.9	8.3	8.3	30.5	30.5	119.4	119.3	9.4	9.4	2.7	2.7	4	5	-	-	-	-								
						3.8	0.2	11	17.9	17.9	8.3	8.3	30.5	30.5	119.2	116.8	9.4	9.3	2.7	2.3	5	6	-	-	-	-								
					Bottom	6.5	0.1	12	17.9	17.9	8.3	8.3	30.5	30.5	117.0	116.8	9.3	9.3	2.3	2.3	6	7	-	-	-	-								
						6.5	0.2	12	17.9	17.9	8.3	8.3	30.5	30.5	116.5	116.5	9.2	9.2	2.3	2.3	7	7	-	-	-	-								
IM6	Cloudy	Moderate	11:27	7.3	Surface	1.0	0.1	295	17.9	17.9	8.3	8.3	29.4	29.5	121.1	120.9	9.6	9.5	0.1	0.1	6	5	-	-	-	-								
						1.0	0.1	303	17.9	17.9	8.3	8.3	29.5	29.5	120.7	118.2	9.6	9.4	0.1	0.8	5	6	-	-	-	-								
					Middle	3.7	0.1	61	17.9	17.9	8.3	8.3	30.3	30.3	118.3	118.2	9.4	9.3	0.9	0.9	6	5	-	-	-	-								
						3.7	0.1	66	17.9	17.9	8.3	8.3	30.3	30.3	118.1	116.3	9.3	9.2	0.9	1.0	6	9	-	-	-	-								
					Bottom	6.3	0.0	107	17.9	17.9	8.3	8.3	30.4	30.4	116.6	116.3	9.2	9.2	1.0	0.9	9	9	-	-	-	-								
						6.3																												

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

Water Quality Monitoring Results on 28 January 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	Fine	Moderate	11:43	7.4	Surface	1.0	0.3	72	18.1	18.1	8.3	8.3	27.9	27.9	121.8	121.8	9.8	9.6	1.4	1.4	3	4	-	-	822115	808830	-	-	-	-			
						1.0	0.3	76	18.0	18.0	8.3	8.3	27.9	27.9	121.7	121.7	9.7	9.6	1.4	1.4	4	4	-	-									
					Middle	3.7	0.3	84	18.0	18.0	8.3	8.3	28.8	28.8	119.4	119.3	9.5	9.5	1.8	1.8	4	4	-	-									
						3.7	0.3	87	18.0	18.0	8.3	8.3	28.9	28.9	119.1	119.3	9.5	9.5	1.9	1.9	4	4	-	-									
					Bottom	6.4	0.3	88	18.0	18.0	8.3	8.3	29.2	29.2	115.9	115.8	9.2	9.2	2.3	2.3	4	4	-	-									
						6.4	0.3	89	18.0	18.0	8.3	8.3	29.2	29.2	115.7	115.8	9.2	9.2	2.3	2.3	4	4	-	-									
IM10	Fine	Moderate	11:50	7.0	Surface	1.0	0.5	72	18.2	18.2	8.3	8.3	27.6	27.6	123.7	123.6	9.9	9.9	1.0	1.0	5	4	-	-	822389	809813	-	-	-	-			
						1.0	0.5	73	18.2	18.2	8.3	8.3	27.6	27.6	123.5	123.6	9.9	9.9	1.0	1.0	4	4	-	-									
					Middle	3.5	0.4	75	18.0	18.0	8.3	8.3	28.1	28.1	118.7	118.6	9.5	9.5	1.3	1.3	3	4	-	-									
						3.5	0.4	78	18.0	18.0	8.3	8.3	28.1	28.1	118.4	118.6	9.5	9.5	1.4	1.4	4	4	-	-									
					Bottom	6.0	0.1	94	18.1	18.1	8.3	8.3	29.2	29.2	116.6	116.5	9.2	9.2	1.4	1.4	4	4	-	-									
						6.0	0.1	102	18.1	18.1	8.3	8.3	29.2	29.2	116.4	116.5	9.2	9.2	1.4	1.4	3	3	-	-									
IM11	Fine	Moderate	12:01	8.9	Surface	1.0	0.2	120	18.1	18.1	8.3	8.3	29.4	29.4	118.2	118.1	9.4	9.4	1.5	1.4	3	4	-	-	822061	811474	-	-	-	-			
						1.0	0.2	123	18.1	18.1	8.3	8.3	29.4	29.4	118.0	118.1	9.4	9.4	1.4	1.4	2	4	-	-									
					Middle	4.5	0.2	115	18.1	18.1	8.3	8.3	29.4	29.4	117.0	117.0	9.3	9.3	1.3	1.3	4	4	-	-									
						4.5	0.2	116	18.1	18.1	8.3	8.3	29.4	29.4	116.9	117.0	9.3	9.3	1.3	1.3	3	4	-	-									
					Bottom	7.9	0.2	104	18.1	18.1	8.3	8.3	29.4	29.4	114.6	114.5	9.1	9.1	1.3	1.3	5	4	-	-									
						7.9	0.2	108	18.1	18.1	8.3	8.3	29.4	29.4	114.4	114.5	9.1	9.1	1.4	1.4	5	4	-	-									
IM12	Fine	Moderate	12:08	9.3	Surface	1.0	0.1	92	18.4	18.4	8.3	8.3	29.4	29.4	121.2	121.2	9.6	9.6	1.4	1.4	7	6	-	-	821473	812061	-	-	-	-			
						1.0	0.2	101	18.4	18.4	8.3	8.3	29.4	29.4	121.1	121.1	9.6	9.6	1.4	1.4	6	5	-	-									
					Middle	4.7	0.1	127	18.2	18.2	8.3	8.3	29.4	29.4	119.8	119.8	9.5	9.5	1.3	1.3	4	4	-	-									
						4.7	0.1	128	18.2	18.2	8.3	8.3	29.4	29.4	119.8	119.8	9.5	9.5	1.3	1.3	4	4	-	-									
					Bottom	8.3	0.1	109	18.1	18.1	8.3	8.3	29.4	29.4	117.4	117.3	9.3	9.3	1.3	1.3	4	4	-	-									
						8.3	0.2	113	18.1	18.1	8.3	8.3	29.4	29.4	117.2	117.3	9.3	9.3	1.3	1.3	4	4	-	-									
SR1A	Fine	Calm	12:46	4.8	Surface	1.0	-	-	18.4	18.4	8.3	8.3	29.3	29.3	117.1	116.9	9.2	9.2	1.7	1.7	3	3	-	-	819977	812659	-	-	-	-			
						1.0	-	-	18.4	18.4	8.3	8.3	29.4	29.4	116.7	116.9	9.2	9.2	1.7	1.7	3	3	-	-									
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	
						2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-		
					Bottom	3.8	-	-	18.3	18.3	8.3	8.3	29.5	29.5	114.3	114.2	9.0	9.0	1.9	1.9	3	3	-	-									
						3.8	-	-	18.3	18.3	8.3	8.3	29.5	29.5	114.1	114.2	9.0	9.0	1.9	1.9	3	3	-	-									
SR2	Fine	Moderate	13:03	4.5	Surface	1.0	0.2	76	18.2	18.2	8.3	8.3	29.4	29.4	121.0	121.1	9.6	9.6	1.4	1.4	4	3	-	-	821443	814185	-	-	-	-			
						1.0	0.2	79	18.2	18.2	8.3	8.3	29.4	29.4	121.0	121.1	9.6	9.6	1.4	1.4	3	3	-	-									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-		
					Bottom	3.5	0.2	82	18.2	18.2	8.3	8.3	29.4	29.4	121.5	121.5	9.6	9.6	1.6	1.6	3	3	-	-									
						3.5	0.2	89	18.2	18.2	8.3	8.3	29.4	29.4	121.4	121.5	9.6	9.6	1.7	1.7	2	2	-	-									
SR3	Fine	Moderate	11:32	9.1	Surface	1.0	0.0	209	18.1	18.1	8.3	8.3	27.8	27.9	123.5	123.5	9.9	9.9	1.3	1.3	4	4	-	-	822139	807593	-	-	-	-			
						1.0	0.0	215	18.1	18.1	8.3	8.3	27.9	27.9	123.5	123.5	9.9	9.9	1.3	1.3	4	4	-	-									
					Middle	4.6	0.1	103	18.1	18.1	8.3	8.3	28.4	28.5	121.3	121.2	9.7	9.7	2.2	2.2	4	4	-	-									
						4.6	0.1	105	18.1	18.1	8.3	8.3	28.5	28.5	121.0	121.2	9.6	9.6	2.3	2.3	4	4	-	-									
					Bottom	8.1	0.2	89	18.0	18.0	8.3	8.3	29.3	29.3	117.7	117.6	9.4	9.4	3.6	3.6	3	3	-	-									
						8.1	0.3	89	18.0	18.0	8.3	8.3	29.3	29.3	117.5	117.6	9.3	9.3	3.6	3.6	3	3	-	-									
SR4A	Cloudy	Moderate	12:53	9.3	Surface	1.0	0.2	84	18.0	18.0	8.3	8.3	30.5	30.5	122.3	122.2	9.7	9.6	2.3	2.3	8	8	-	-	817182	807815	-	-	-	-			
						1.0	0.2	84	17.9	17.9	8.3	8.3	30.6	30.6	122.0	122.0	9.6	9.6	2.3	2.3	8	8	-	-									
					Middle	4.7	0.2	71	17.9	17.9	8.3	8.3	30.6	30.6	120.5	120.5	9.5	9.5	2.0	2.0	7	7	-	-									
						4.7	0.2	74	17.9	17.9	8.3	8.3	30.6	30.6	120.4	120.5	9.5	9.5	2.0	2.0	7	7	-	-									
					Bottom	8.3	0.2	70	17.8	17.8	8.3	8.3	30.6	30.6	118.4	118.4	9.4	9.4	2.0	2.0	5	5	-	-									
						8.3	0.2	74	17.8	17.8	8.3	8.3	30.6	30.6	118.3	118.4	9.4	9.4	1.9	1.9	6	6	-	-									
SR5A	Cloudy	Calm	13:09	3.2	Surface	1.0	0.0	342	18.9	18.9	8.3	8.3	30.9	30.9	121.8	121.7	9.4	9.4	1.4	1.4	4	5	-	-	816601	810693	-	-	-	-			
						1.0	0.0	315	18.9	18.9	8.3	8.3	30.9	30.9	121.6	121.7	9.4	9.4	1.4	1.4	5	5	-	-									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-			
					Bottom	2.2	0.1	89	18.9	18.9	8.3	8.3	30.8	30.8	120.4	120.3	9.3	9.3	1.2	1.2	4	4	-	-									
						2.2	0.1	90	18.9	18.9	8.3	8.3	30.8	30.8	120.2	120.3	9.3	9.3	1.3	1.3	5	5	-	-									
SR6A	Cloudy	Calm	13:39	4.2	Surface	1.0	0.0	204	18.3	18.3	8.4	8.4	30.7	30.7	120.5	120.5	9.4	9.4	1.3	1.3	7	7	-	-	817979	814740	-	-	-	-			
						1.0	0.0	223	18.3	18.3	8.4	8.4	30.7	30.7	120.4	120.5	9.4	9.4	1.3	1.3	7	7	-	-									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-				
					Bottom	3.2	0.0	250	18.2	18.2	8.4	8.4	30.8	30.8	119.5	119.5	9.4	9.4	1.2	1.2	6	6	-	-									
						3.2	0.0	270	18.2	18.2	8.4	8.4	30.8	30.8	119.																		

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

Water Quality Monitoring

Water Quality Monitoring Results on 28 January 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	Value
C1	Cloudy	Calm	08:32	7.8	Surface	1.0	0.4	52	17.7	8.4	8.4	30.5	30.5	118.1	117.9	9.4	9.3	3.2	6	-	-	-	-	-	-	-	-	-	-	-	-					
						1.0	0.4	54	17.7	8.4	8.4	30.6	30.6	117.7	117.9	9.3	9.3	3.4	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	3.9	0.4	40	17.6	8.4	8.4	30.9	30.9	116.3	116.2	9.2	9.2	5.6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.9	0.4	41	17.6	8.4	8.4	30.9	30.9	116.1	116.1	9.2	9.2	5.5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	6.8	0.3	26	17.6	8.4	8.4	31.0	31.0	115.4	115.4	9.2	9.2	8.8	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						6.8	0.3	27	17.6	8.4	8.4	31.0	31.0	115.4	115.4	9.1	9.1	8.9	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
C2	Cloudy	Moderate	09:29	11.8	Surface	1.0	0.3	358	18.0	8.3	8.3	27.7	27.7	121.9	121.8	9.8	9.6	1.5	3	-	-	-	-	-	-	-	-	-	-	-	-	-				
						1.0	0.3	329	18.0	8.3	8.3	27.7	27.7	121.7	121.7	9.8	9.6	1.5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	5.9	0.3	359	17.9	8.3	8.3	27.9	28.0	118.3	118.1	9.5	9.5	1.7	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						5.9	0.3	330	17.9	8.3	8.3	28.0	28.0	117.8	117.8	9.4	9.1	1.8	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	10.8	0.2	33	17.9	8.3	8.3	28.8	28.8	114.4	114.4	9.1	9.1	3.3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						10.8	0.2	33	17.9	8.3	8.3	28.8	28.8	114.4	114.4	9.1	9.1	3.4	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3	Cloudy	Moderate	07:17	10.7	Surface	1.0	0.5	286	18.0	8.3	8.3	29.4	29.4	114.7	114.9	9.1	9.0	1.6	4	-	-	-	-	-	-	-	-	-	-	-	-	-				
						1.0	0.5	291	18.0	8.3	8.3	29.4	29.4	114.7	114.9	9.1	9.1	1.6	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	5.4	0.5	288	18.0	8.2	8.2	29.7	29.7	112.6	112.6	8.9	8.9	2.2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						5.4	0.5	288	17.9	8.2	8.2	29.7	29.7	112.5	112.5	8.9	8.9	2.5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	9.7	0.4	285	17.9	8.2	8.2	29.8	29.8	110.9	110.8	8.8	8.8	7.0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						9.7	0.4	294	17.9	8.2	8.2	29.8	29.8	110.7	110.7	8.8	8.8	7.5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IM1	Cloudy	Calm	08:52	4.6	Surface	1.0	0.1	1	17.7	8.3	8.3	30.9	30.9	115.5	115.4	9.1	9.1	0.5	4	-	-	-	-	-	-	-	-	-	-	-	-	-				
						1.0	0.1	1	17.7	8.3	8.3	30.9	30.9	115.3	115.3	9.1	9.1	0.6	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	3.6	0.1	5	17.7	8.4	8.4	30.9	30.9	113.8	113.8	9.0	9.0	1.1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.6	0.2	5	17.7	8.4	8.4	30.9	30.9	113.7	113.7	9.0	9.0	1.1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IM2	Cloudy	Moderate	09:00	6.5	Surface	1.0	0.2	11	17.9	8.3	8.3	30.4	30.4	119.0	119.0	9.4	9.4	5.2	9	-	-	-	-	-	-	-	-	-	-	-	-	-				
						1.0	0.2	11	17.9	8.3	8.3	30.4	30.4	118.9	118.9	9.4	9.4	5.2	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	3.3	0.2	3	17.9	8.3	8.3	30.4	30.4	118.1	118.0	9.3	9.3	5.9	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.3	0.2	3	17.9	8.3	8.3	30.4	30.4	117.9	117.9	9.3	9.3	6.0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	5.5	0.1	343	17.9	8.3	8.3	30.5	30.5	116.7	116.7	9.2	9.2	5.9	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						5.5	0.1	316	17.9	8.3	8.3	30.5	30.5	116.6	116.6	9.2	9.2	6.0	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM3	Cloudy	Moderate	09:07	6.8	Surface	1.0	0.2	350	17.8	8.3	8.3	30.4	30.4	118.5	118.5	9.4	9.4	4.6	5	-	-	-	-	-	-	-	-	-	-	-	-	-				
						1.0	0.2	352	17.8	8.3	8.3	30.4	30.4	118.4	118.4	9.4	9.4	4.6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Middle	3.4	0.2	355	17.8	8.3	8.3	30.4	30.4	117.4	117.3	9.3	9.3	5.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.4	0.2	327	17.8	8.3	8.3	30.4	30.4	117.2	117.2	9.3	9.3	5.2	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Bottom	5.8	0.2	339	17.8	8.3	8.3	30.4	30.4	116.0	116.0	9.2	9.2	5.6	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						5.8	0.2	312	17.8	8.3	8.3	30.4	30.4	115.9	115.9	9.2	9.2	5.5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM4	Cloudy	Moderate	09:16	8.0	Surface	1.0	0.4	353	17.8	8.3	8.3	30.3	30.3	116.8	116.8	9.3	9.3	3.4	6	-	-	-	-	-	-	-	-	-	-	-	-	-				
						1.0	0.4	325	17.8	8.3	8.3	30.3	30.3	116.8	116.8	9.3	9.3	3.4	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Middle	4.0	0.4	354	17.8	8.3	8.3	30.3	30.3	116.2	116.2	9.2	9.2	3.7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						4.0	0.4	326	17.8	8.3	8.3	30.3	30.3	116.1	116.1	9.2	9.2	3.7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	7.0	0.3	352	17.8	8.3	8.3	30.3	30.3	115.4	115.3	9.2	9.2	4.4	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						7.0	0.4	324	17.8	8.3	8.3	30.3	30.3	115.2	115.2	9.1	9.1	4.6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
IM5	Cloudy	Moderate	09:23	7.3	Surface	1.0	0.6	14	17.8	8.3	8.3	30.5	30.5	117.8	117.8	9.3	9.3	3.7	9	-	-	-	-	-	-	-	-	-	-	-	-					
						1.0	0.7	14	17.8	8.3	8.3	30.5	30.5	117.7	117.7	9.3	9.3	3.8	9	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Middle	3.7	0.6	15	17.8	8.3	8.3	30.5	30.5	116.7	116.6	9.2	9.2	7.5	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						3.7	0.6	15	17.8	8.3	8.3	30.5	30.5	116.5	116.5	9.2	9.2	7.7	9	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Bottom	6.3	0.5	17	17.8	8.3	8.3	30.5	30.5	115.7	115.7	9.2	9.2	9.3	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						6.3	0.5	17	17.8	8.3	8.3	30.5	30.5	115.6	115.6	9.2	9.2	9.6	7	-	-	-	-	-	-	-	-	-	-	-	-	-				
IM6	Cloudy	Moderate	09:31																																	

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

Water Quality Monitoring

Water Quality Monitoring Results on 28 January 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	08:57	7.2	Surface	1.0	0.0	223	18.0	18.0	8.3	8.3	28.3	28.3	117.4	117.4	9.4	9.4	1.7	1.7	6	-	-	-	-	-	-	-	-	-				
						1.0	0.0	228	18.0	8.3	8.3	28.3	28.3	117.3	117.3	9.4	9.4	1.7	1.7	6	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	3.6	0.0	312	18.0	8.3	8.3	28.4	28.4	116.7	116.7	9.3	9.3	1.7	1.7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.6	0.0	330	18.0	8.3	8.3	28.4	28.4	116.6	116.6	9.3	9.3	1.7	1.7	6	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	6.2	0.1	285	18.0	8.3	8.3	28.5	28.5	115.2	115.2	9.2	9.2	1.5	1.5	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						6.2	0.1	309	18.0	8.3	8.3	28.5	28.5	115.1	115.1	9.2	9.2	1.6	1.6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IM10	Cloudy	Moderate	08:50	7.4	Surface	1.0	0.4	322	18.1	18.1	8.3	8.3	29.0	29.0	117.9	117.9	9.4	9.4	2.1	2.1	7	-	-	-	-	-	-	-	-	-				
						1.0	0.4	343	18.1	8.3	8.3	29.0	29.0	117.9	117.9	9.4	9.4	2.1	2.1	6	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	3.7	0.4	322	18.0	8.3	8.3	29.0	29.0	116.8	116.8	9.3	9.3	2.4	2.4	6	-	-	-	-	-	-	-	-	-	-	-	-	-	
						3.7	0.4	335	18.0	8.3	8.3	29.0	29.0	116.8	116.8	9.3	9.3	2.3	2.3	6	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	6.4	0.4	333	18.0	8.3	8.3	29.0	29.0	115.6	115.6	9.2	9.2	3.1	3.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	
						6.4	0.4	355	18.0	8.3	8.3	29.0	29.0	115.5	115.5	9.2	9.2	3.1	3.1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	
IM11	Cloudy	Moderate	08:40	7.5	Surface	1.0	0.6	311	18.1	18.1	8.3	8.3	29.4	29.4	116.4	116.4	9.2	9.2	1.9	1.9	6	-	-	-	-	-	-	-	-	-				
						1.0	0.6	326	18.1	8.3	8.3	29.4	29.4	116.3	116.3	9.2	9.2	1.9	1.9	5	-	-	-	-	-	-	-	-	-	-	-			
					Middle	3.8	0.5	316	18.1	8.3	8.3	29.5	29.5	115.1	115.1	9.1	9.1	2.0	2.0	6	-	-	-	-	-	-	-	-	-	-	-	-		
						3.8	0.5	325	18.1	8.3	8.3	29.5	29.5	115.0	115.0	9.1	9.1	2.0	2.0	5	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	6.5	0.4	319	18.1	8.3	8.3	29.5	29.5	113.1	113.0	9.0	9.0	2.2	2.2	5	-	-	-	-	-	-	-	-	-	-	-	-		
						6.5	0.4	337	18.1	8.3	8.3	29.5	29.5	112.9	112.9	8.9	8.9	2.2	2.2	6	-	-	-	-	-	-	-	-	-	-	-	-		
IM12	Cloudy	Moderate	08:34	9.1	Surface	1.0	0.5	312	18.1	18.1	8.3	8.3	29.4	29.4	117.2	117.2	9.3	9.3	2.2	2.2	5	-	-	-	-	-	-	-	-					
						1.0	0.5	316	18.1	8.3	8.3	29.4	29.4	117.2	117.2	9.3	9.3	2.2	2.2	6	-	-	-	-	-	-	-	-	-					
					Middle	4.6	0.5	315	18.1	8.3	8.3	29.4	29.4	116.4	116.4	9.2	9.2	3.6	3.6	5	-	-	-	-	-	-	-	-	-	-				
						4.6	0.5	334	18.1	8.3	8.3	29.4	29.4	116.3	116.3	9.2	9.2	3.4	3.4	6	-	-	-	-	-	-	-	-	-					
					Bottom	8.1	0.4	308	18.0	8.3	8.3	29.4	29.4	114.9	114.9	9.1	9.1	4.4	4.4	7	-	-	-	-	-	-	-	-	-	-				
						8.1	0.4	334	18.0	8.3	8.3	29.4	29.4	114.8	114.8	9.1	9.1	4.3	4.3	6	-	-	-	-	-	-	-	-	-	-				
SR1A	Cloudy	Calm	07:55	4.7	Surface	1.0	-	-	18.1	18.1	8.3	8.3	29.3	29.3	111.0	110.9	8.8	8.8	1.2	1.2	6	-	-	-	-	-	-	-	-					
						1.0	-	-	18.1	8.3	8.3	29.3	29.3	110.8	110.8	8.8	8.8	1.2	1.2	7	-	-	-	-	-	-	-	-						
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
					Bottom	3.7	-	-	18.1	8.3	8.3	29.5	29.5	109.0	109.0	8.6	8.6	1.3	1.3	4	-	-	-	-	-	-	-	-	-	-				
						3.7	-	-	18.0	8.3	8.3	29.5	29.5	108.9	108.9	8.6	8.6	1.3	1.3	5	-	-	-	-	-	-	-	-	-					
SR2	Cloudy	Moderate	07:38	4.3	Surface	1.0	0.2	171	18.0	18.1	8.3	8.3	29.4	29.4	115.9	115.9	9.2	9.2	2.4	2.4	5	-	-	-	-	-	-	-						
						1.0	0.3	177	18.1	8.3	8.3	29.4	29.4	115.8	115.8	9.2	9.2	2.3	2.3	6	-	-	-	-	-	-	-							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
					Bottom	3.3	0.2	178	18.1	8.3	8.3	29.5	29.5	114.1	114.1	9.1	9.1	2.8	2.8	6	-	-	-	-	-	-	-	-	-					
						3.3	0.2	183	18.1	8.3	8.3	29.5	29.5	114.0	114.0	9.0	9.0	2.8	2.8	6	-	-	-	-	-	-	-	-						
SR3	Cloudy	Moderate	09:09	8.9	Surface	1.0	0.1	346	18.1	18.1	8.3	8.3	27.7	27.7	122.7	122.7	9.8	9.8	1.4	1.4	4	-	-	-	-	-	-							
						1.0	0.1	358	18.1	8.3	8.3	27.7	27.7	122.6	122.6	9.8	9.8	1.4	1.4	3	-	-	-	-	-	-								
					Middle	4.5	0.1	42	18.0	8.3	8.3	27.8	27.8	120.7	120.7	9.7	9.7	1.5	1.5	5	-	-	-	-	-	-	-							
						4.5	0.1	43	18.0	8.3	8.3	27.8	27.8	120.6	120.6	9.7	9.7	1.5	1.5	6	-	-	-	-	-	-								
					Bottom	7.9	0.1	51	18.0	8.3	8.3	27.8	27.8	117.8	117.6	9.4	9.4	1.5	1.5	5	-	-	-	-	-	-	-							
						7.9	0.1	54	18.0	8.3	8.3	27.8	27.8	117.4	117.4	9.4	9.4	1.5	1.5	6	-	-	-	-	-	-								
SR4A	Cloudy	Calm	08:09	8.9	Surface	1.0	0.2	69	18.2	18.2	8.3	8.3	30.8	30.8	112.6	112.6	8.8	8.8	0.2	0.2	4	-	-	-	-	-								
						1.0	0.2	73	18.2	8.3	8.3	30.8	30.8	112.6	112.6	8.8	8.8	0.2	0.2	5	-	-	-	-	-									
					Middle	4.5	0.1	82	18.2	8.3	8.3	30.8	30.8	112.2	112.2	8.8	8.8	0.2	0.2	5	-	-	-	-	-									
						4.5	0.1	83	18.2	8.3	8.3	30.8	30.8	112.1	112.1	8.8	8.8	0.2	0.2	4	-	-	-	-										
					Bottom	7.9	0.1	52	18.2	8.3	8.3	30.8	30.8	111.7	111.7	8.8	8.8	0.2	0.2	5	-	-	-	-										
						7.9	0.1	55	18.2	8.3	8.3	30.8	30.8	111.7	111.7	8.8	8.8	0.2	0.2	5	-	-	-	-										
SR5A	Cloudy	Calm	07:50	3.1	Surface	1.0	0.1	264	18.2	18.2	8.3	8.3	30.9	30.9	110.0	110.0	8.6	8.6	0.4	0.4	4	-	-	-	-	-								
						1.0	0.1	284	18.2	8.3	8.3	30.9	30.9	109.9	109.9	8.6	8.6	0.4	0.4	3	-	-	-	-										
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
					Bottom	2.1	0.1	281	18.1	8.3	8.3	30.9	30.9	109.2	109.2	8.6	8.6	3.6	3.6	6	-	-	-	-										
						2.1	0.1	285	18.1	8.3	8.3	30.9	30.9	109.1	109.1	8.6	8.6	4.0	4.0	5	-	-	-	-										
SR6A	Cloudy	Calm	07:21	4.1	Surface	1.0	0.0	274	17.8	17.8	8.3	8.3	31.0	31.0	110.8	110.8	8.8	8.8	1.0	1.0	7	-	-	-	-	-								
						1.0	0.0																											

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

Water Quality Monitoring

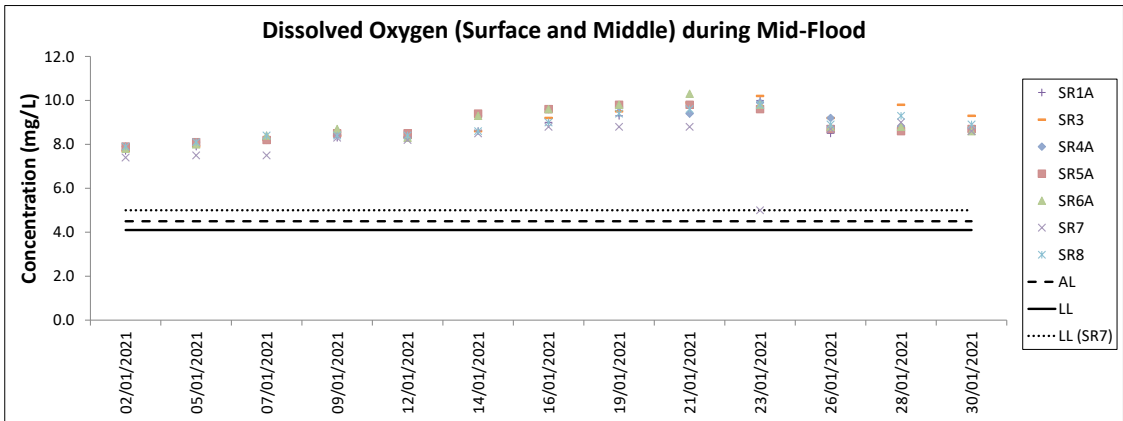
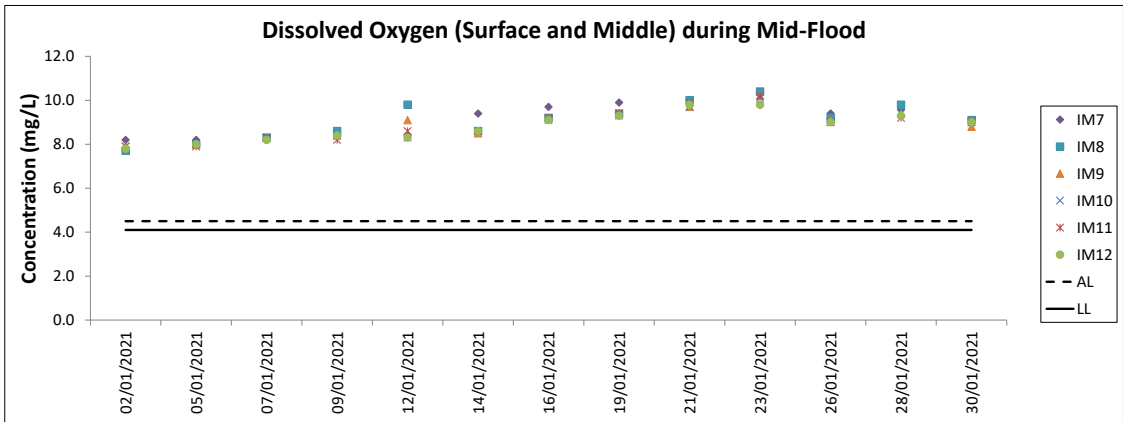
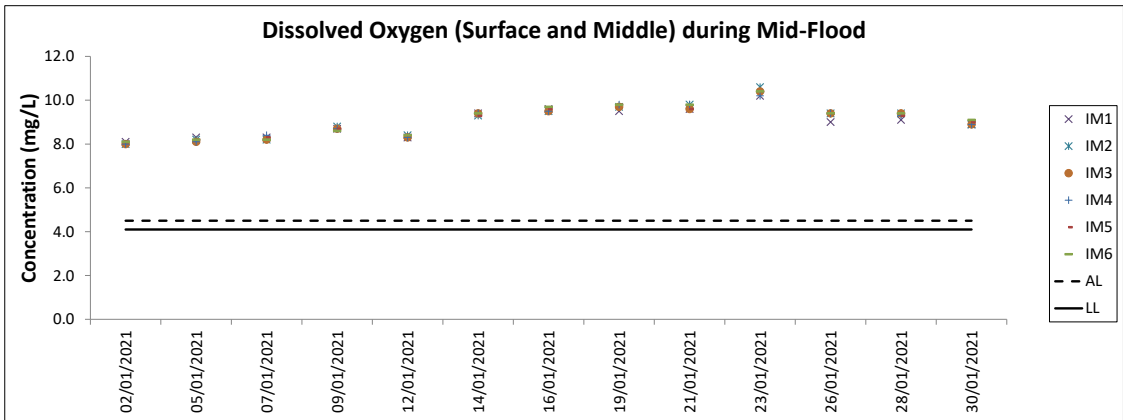
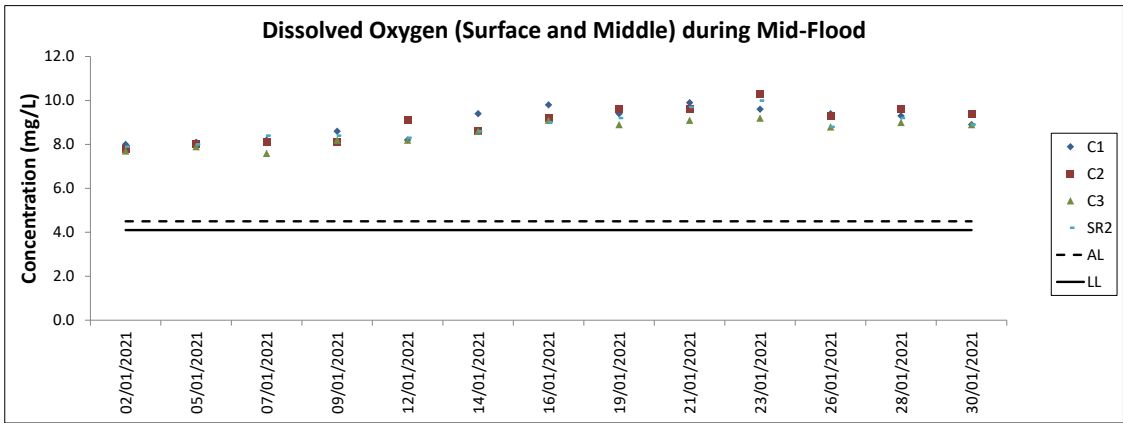
Water Quality Monitoring Results on 30 January 21 during Mid-Ebb Tide

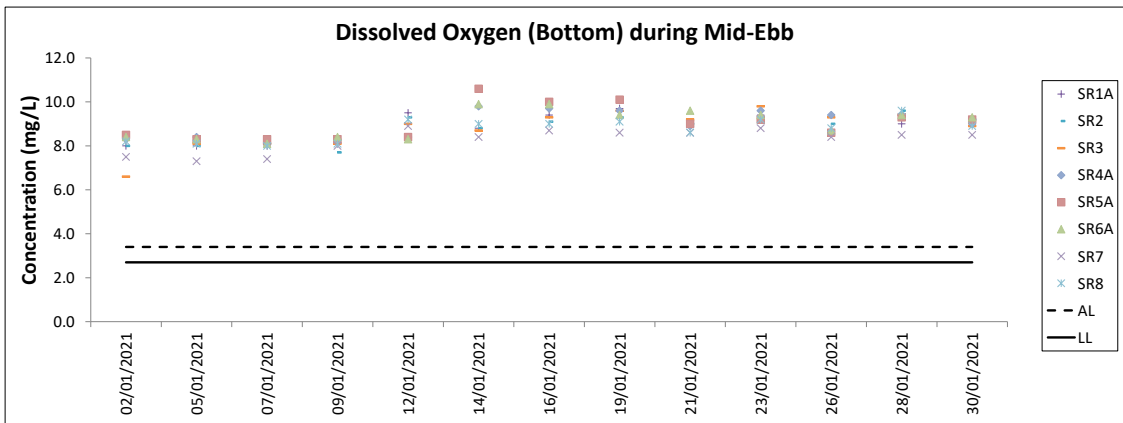
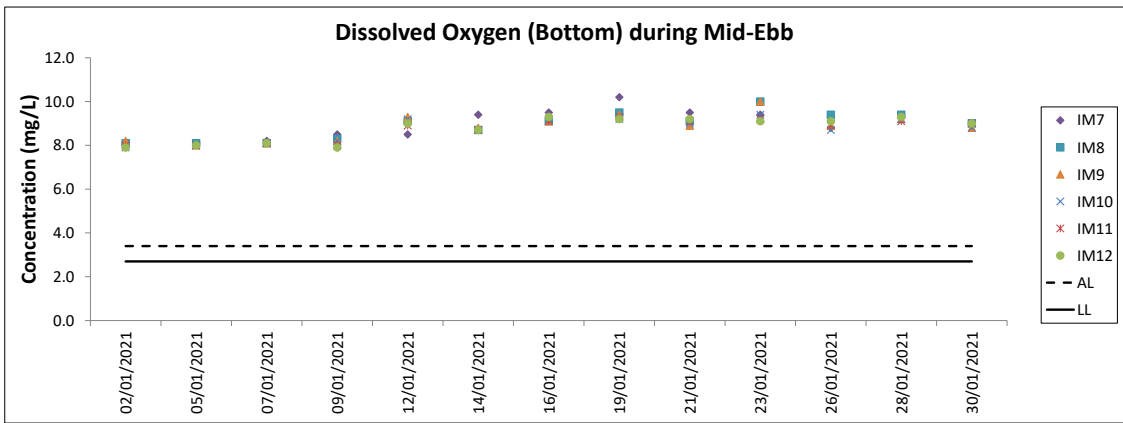
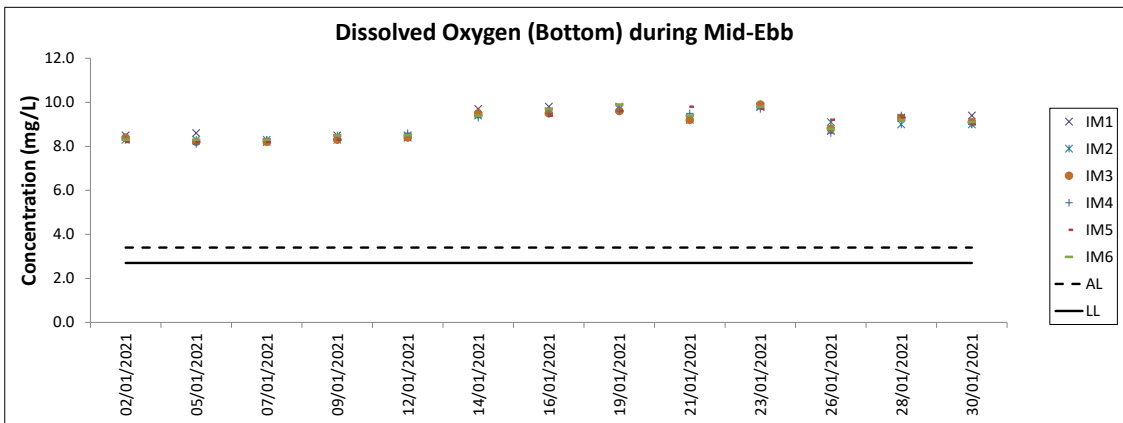
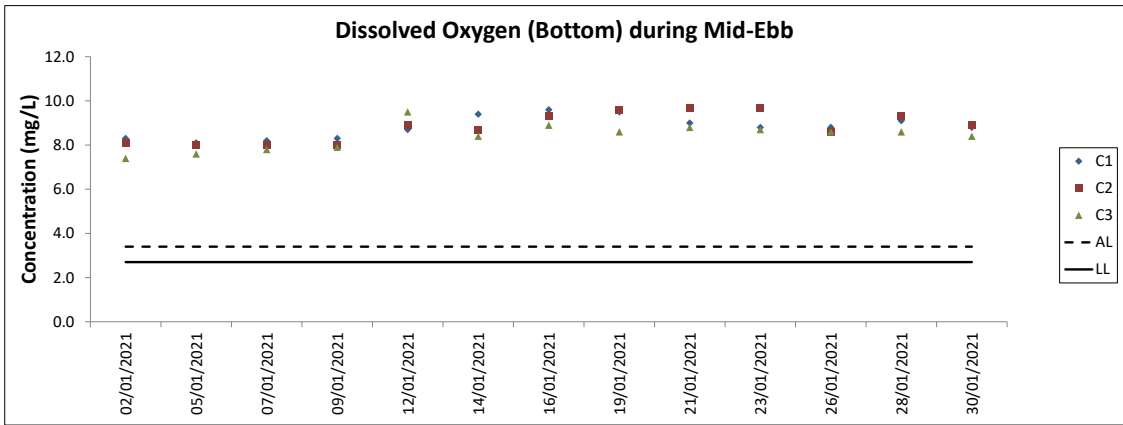
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)		Current Direction		Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK 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	DA
						C1	Fine	Moderate	13:42	8.7	Surface	1.0	0.2	139	17.8	17.8	8.3	8.3	32.1	32.1	118.9	118.7	9.3	9.3	3.5			3.5	6	6	-	-	815631
					Surface	1.0	0.2	148	17.8	17.8	8.3	8.3	32.1	32.1	118.5	118.7	9.3	9.3	3.4	3.4	5	5	-	-			-	-	-	-			
					Surface	4.4	0.2	162	17.6	17.6	8.3	8.3	32.3	32.3	115.7	115.7	9.1	9.1	3.4	3.4	6	6	-	-			-	-	-	-			
					Surface	4.4	0.2	178	17.6	17.6	8.3	8.3	32.3	32.3	115.7	115.7	9.1	9.1	3.5	3.5	5	5	-	-			-	-	-	-			
					Surface	7.7	0.2	188	17.4	17.4	8.3	8.3	32.5	32.5	112.0	112.1	8.8	8.8	4.8	4.8	7	7	-	-			-	-	-	-			
					Surface	7.7	0.2	192	17.4	17.4	8.3	8.3	32.5	32.5	112.2	112.2	8.8	8.8	5.1	5.1	6	6	-	-			-	-	-	-			
C2	Cloudy	Moderate	12:35	12.5	Surface	1.0	0.2	135	18.2	18.2	8.3	8.3	28.7	28.7	121.1	121.1	9.6	9.6	0.4	0.4	4	4	-	-	825697	806968	-	-	-	-			
					Surface	1.0	0.2	147	18.2	18.2	8.3	8.3	28.7	28.7	121.0	121.0	9.6	9.6	0.4	0.4	5	5	-	-			-	-	-	-			
					Surface	6.3	0.5	154	17.9	17.9	8.3	8.3	29.3	29.3	114.9	114.7	9.1	9.1	2.0	2.0	4	4	-	-			-	-	-	-			
					Surface	6.3	0.5	160	17.9	17.9	8.3	8.3	29.4	29.4	114.4	114.4	9.1	9.1	2.2	2.2	4	4	-	-			-	-	-	-			
					Surface	11.5	0.5	144	17.8	17.8	8.3	8.3	29.7	29.7	112.2	112.2	8.9	8.9	2.6	2.6	3	3	-	-			-	-	-	-			
					Surface	11.5	0.5	154	17.8	17.8	8.3	8.3	29.7	29.7	112.1	112.1	8.9	8.9	2.6	2.6	3	3	-	-			-	-	-	-			
C3	Cloudy	Moderate	14:31	12.5	Surface	1.0	0.4	286	18.1	18.1	8.3	8.3	29.8	29.8	120.3	120.3	9.5	9.5	0.5	0.5	4	4	-	-	822105	817800	-	-	-	-			
					Surface	1.0	0.4	298	18.1	18.1	8.3	8.3	29.8	29.8	120.3	120.3	9.5	9.5	0.5	0.5	3	3	-	-			-	-	-	-			
					Surface	6.3	0.2	257	17.7	17.7	8.2	8.2	30.4	30.4	105.8	105.8	8.4	8.4	0.6	0.6	3	3	-	-			-	-	-	-			
					Surface	6.3	0.2	262	17.7	17.7	8.2	8.2	30.4	30.4	105.7	105.7	8.4	8.4	0.6	0.6	4	4	-	-			-	-	-	-			
					Surface	11.5	0.1	120	17.7	17.7	8.2	8.2	30.4	30.4	105.5	105.6	8.4	8.4	1.8	1.8	5	5	-	-			-	-	-	-			
					Surface	11.5	0.1	122	17.7	17.7	8.2	8.2	30.4	30.4	105.6	105.6	8.4	8.4	1.8	1.8	6	6	-	-			-	-	-	-			
IM1	Fine	Moderate	13:21	5.2	Surface	1.0	0.1	162	17.8	17.8	8.4	8.4	31.2	31.2	119.0	119.2	9.4	9.4	3.8	3.8	8	8	-	-	817960	807114	-	-	-	-			
					Surface	1.0	0.1	168	17.8	17.8	8.4	8.4	31.2	31.2	119.3	119.3	9.4	9.4	3.8	3.8	7	7	-	-			-	-	-	-			
					Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-			
					Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-			
					Surface	4.2	0.1	219	17.8	17.8	8.4	8.4	31.6	31.6	119.8	119.7	9.4	9.4	4.3	4.3	6	6	-	-			-	-	-	-			
					Surface	4.2	0.1	236	17.8	17.8	8.4	8.4	31.5	31.5	119.6	119.6	9.4	9.4	4.3	4.3	6	6	-	-			-	-	-	-			
IM2	Fine	Moderate	13:13	7.1	Surface	1.0	0.1	184	17.9	17.9	8.4	8.4	31.2	31.3	117.7	117.7	9.3	9.3	4.7	4.7	6	6	-	-	818146	806182	-	-	-	-			
					Surface	1.0	0.1	193	17.9	17.9	8.4	8.4	31.3	31.3	117.7	117.7	9.3	9.3	4.7	4.7	7	7	-	-			-	-	-	-			
					Surface	3.6	0.1	165	17.7	17.7	8.4	8.4	31.5	31.5	116.7	116.7	9.2	9.2	4.1	4.1	6	6	-	-			-	-	-	-			
					Surface	3.6	0.1	175	17.7	17.7	8.4	8.4	31.5	31.5	116.6	116.6	9.2	9.2	4.1	4.1	5	5	-	-			-	-	-	-			
					Surface	6.1	0.1	154	17.6	17.6	8.4	8.4	31.6	31.6	114.4	114.4	9.0	9.0	4.2	4.2	5	5	-	-			-	-	-	-			
					Surface	6.1	0.1	157	17.6	17.6	8.4	8.4	31.6	31.6	114.4	114.4	9.0	9.0	4.2	4.2	6	6	-	-			-	-	-	-			
IM3	Fine	Moderate	13:06	7.3	Surface	1.0	0.1	50	17.9	17.9	8.4	8.4	31.3	31.3	118.7	118.7	9.3	9.3	4.5	4.5	6	6	-	-	818789	805596	-	-	-	-			
					Surface	1.0	0.1	50	17.9	17.9	8.4	8.4	31.3	31.3	118.7	118.7	9.3	9.3	4.4	4.4	6	6	-	-			-	-	-	-			
					Surface	3.7	0.1	69	17.8	17.8	8.4	8.4	31.3	31.3	118.2	118.2	9.3	9.3	4.4	4.4	7	7	-	-			-	-	-	-			
					Surface	3.7	0.1	75	17.8	17.8	8.4	8.4	31.3	31.3	118.1	118.1	9.3	9.3	4.5	4.5	6	6	-	-			-	-	-	-			
					Surface	6.3	0.1	253	17.6	17.6	8.4	8.4	31.7	31.7	115.7	115.8	9.1	9.1	3.9	3.9	9	9	-	-			-	-	-	-			
					Surface	6.3	0.1	276	17.6	17.6	8.4	8.4	31.7	31.7	115.8	115.8	9.1	9.1	4.0	4.0	8	8	-	-			-	-	-	-			
IM4	Fine	Moderate	12:56	8.5	Surface	1.0	0.1	12	17.8	17.8	8.4	8.4	31.3	31.3	120.0	119.9	9.5	9.5	4.7	4.7	8	8	-	-	819742	804606	-	-	-	-			
					Surface	1.0	0.1	13	17.8	17.8	8.4	8.4	31.3	31.3	119.7	119.7	9.4	9.4	4.7	4.7	7	7	-	-			-	-	-	-			
					Surface	4.3	0.1	307	17.7	17.7	8.3	8.3	31.6	31.6	115.7	115.7	9.1	9.1	4.3	4.3	7	7	-	-			-	-	-	-			
					Surface	4.3	0.1	337	17.6	17.6	8.4	8.4	31.6	31.6	115.6	115.6	9.1	9.1	4.3	4.3	6	6	-	-			-	-	-	-			
					Surface	7.5	0.1	297	17.6	17.6	8.4	8.4	31.8	31.8	114.6	114.6	9.0	9.0	4.0	4.0	5	5	-	-			-	-	-	-			
					Surface	7.5	0.1	315	17.6	17.6	8.4	8.4	31.8	31.8	114.6	114.6	9.0	9.0	4.1	4.1	6	6	-	-			-	-	-	-			
IM5	Fine	Moderate	12:48	8.0	Surface	1.0	0.2	14	17.6	17.6	8.3	8.3	31.5	31.5	114.5	114.5	9.1	9.1	4.3	4.3	3	3	-	-	820723	804879	-	-	-	-			
					Surface	1.0	0.2	14	17.6	17.6	8.3	8.3	31.5	31.5	114.5	114.5	9.1	9.1	4.3	4.3	2	2	-	-			-	-	-	-			
					Surface	4.0	0.2	18	17.6	17.6	8.4	8.4	31.6	31.6	114.5	114.5	9.0	9.0	4.5	4.5	4	4	-	-			-	-	-	-			
					Surface	4.0	0.2	19	17.6	17.6	8.4	8.4	31.6	31.6	114.5	114.5	9.0	9.0	4.6	4.6	4	4	-	-			-	-	-	-			
					Surface	7.0	0.2	31	17.6	17.6	8.4	8.4	31.6	31.6	113.9	113.9	9.0	9.0	5.0	5.0	5	5	-	-			-	-	-	-			
					Surface	7.0	0.2	34	17.6	17.6	8.4	8.4	31.6	31.6	113.9	113.9	9.0	9.0	5.0	5.0	5	5	-	-									

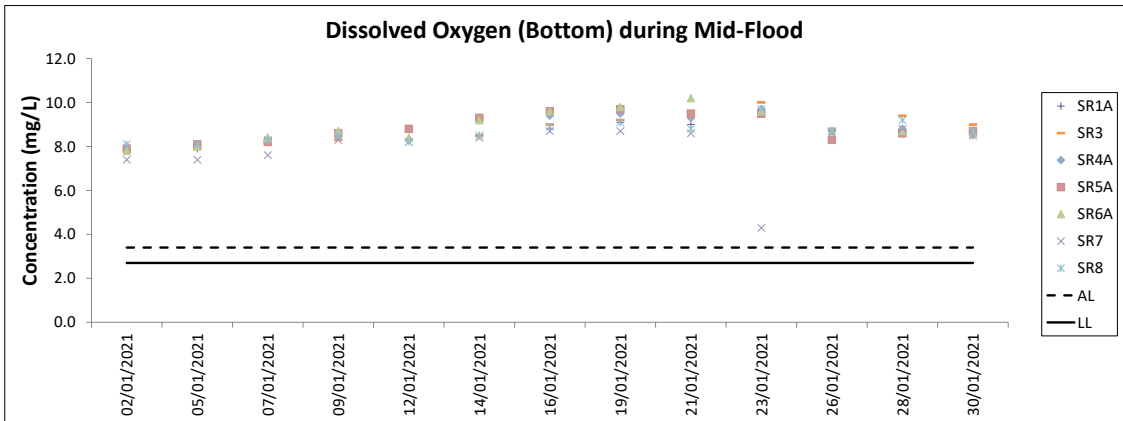
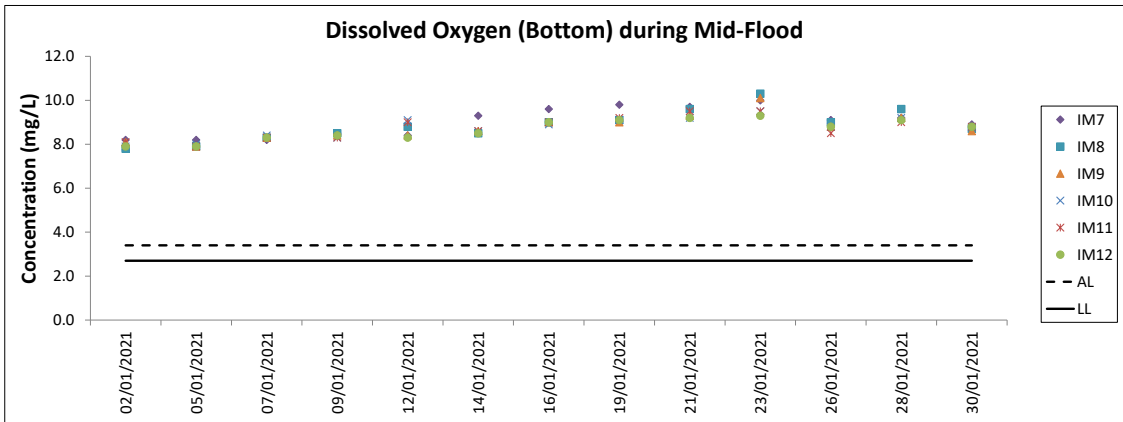
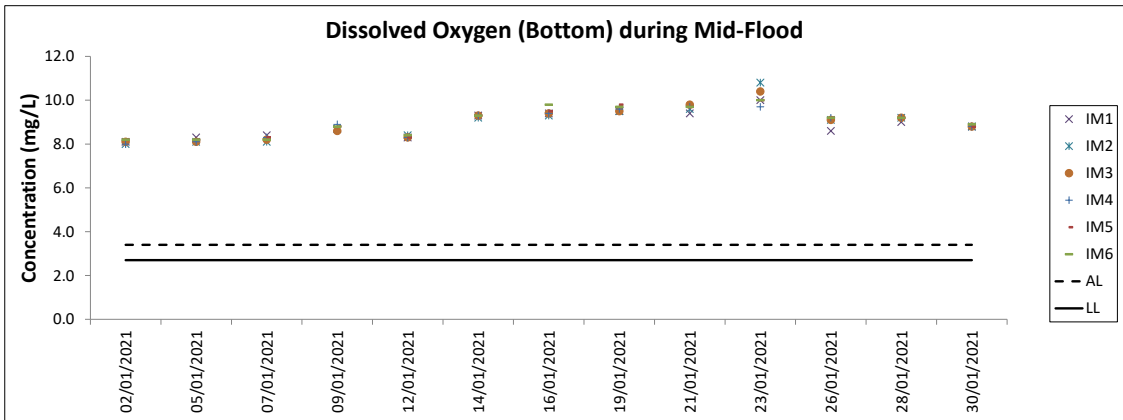
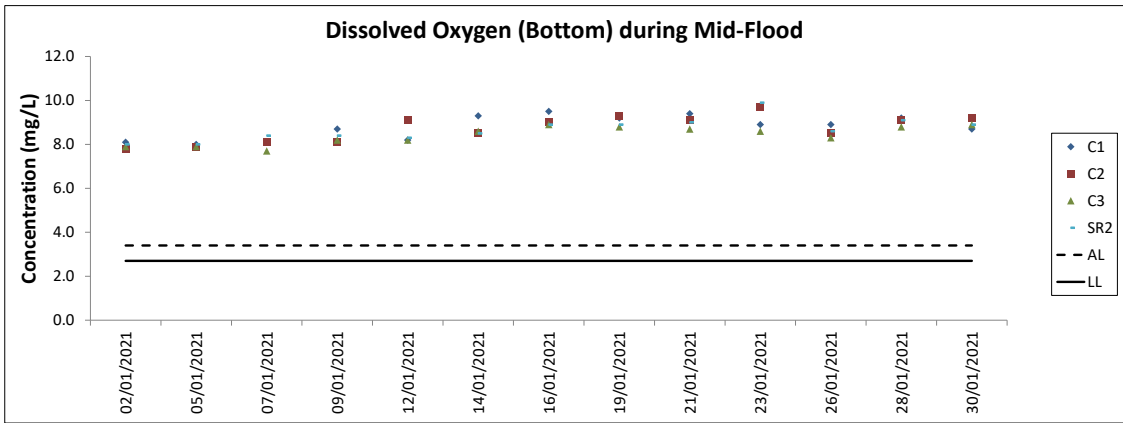
Expansion of Hong Kong International Airport into a Three-Runway System
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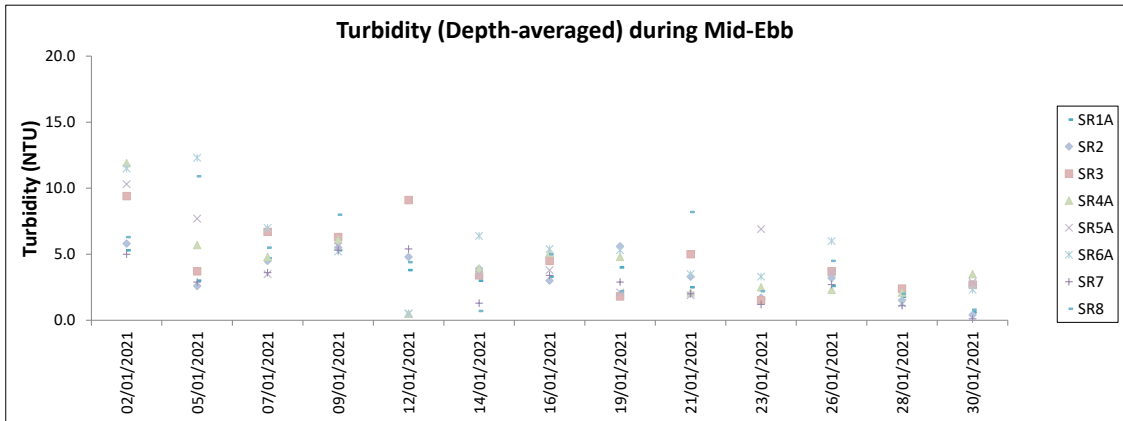
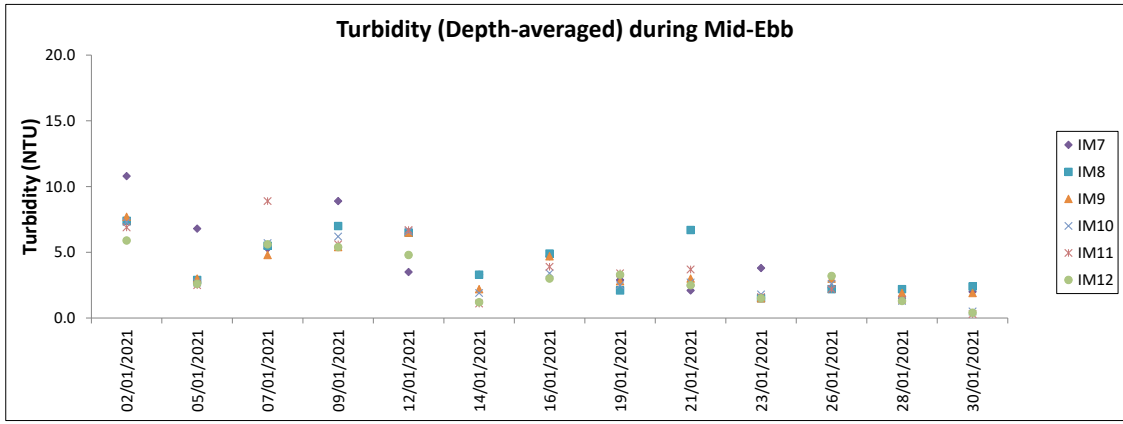
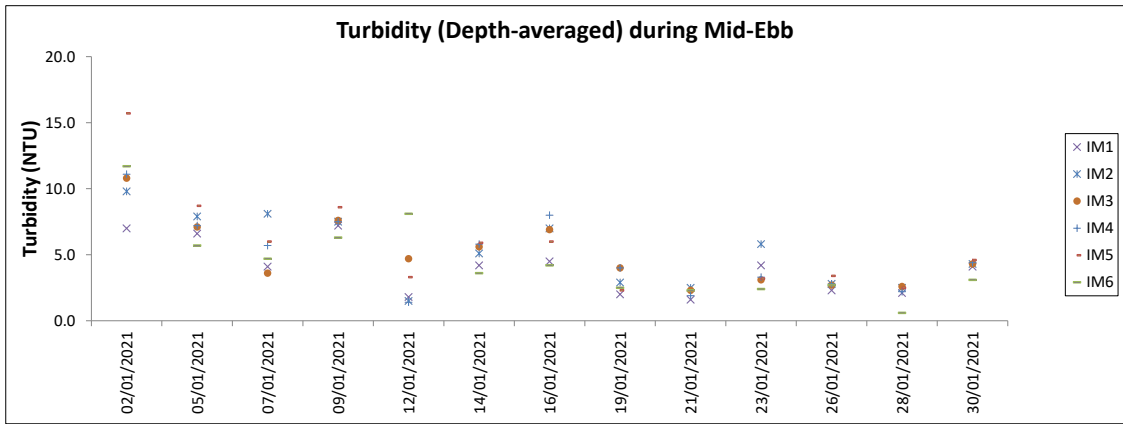
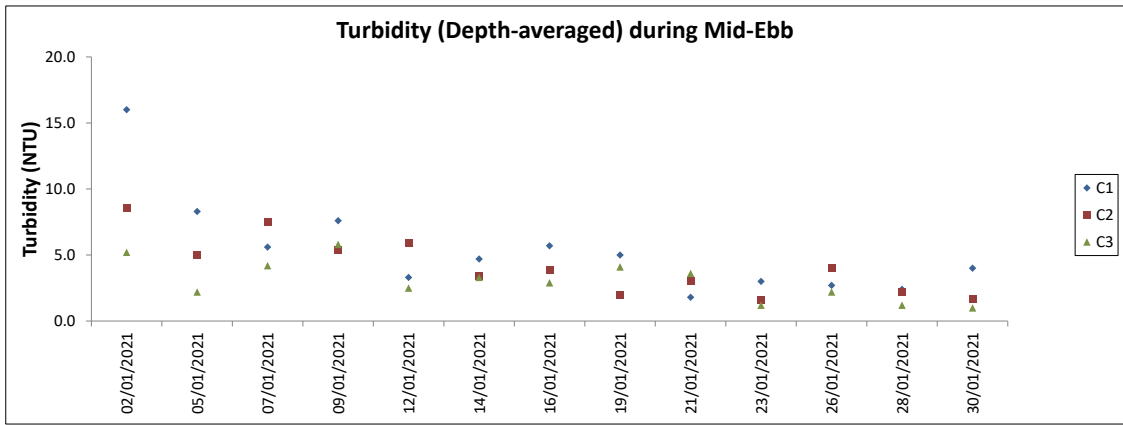
Water Quality Monitoring Results on 30 January 21 during Mid-Flood Tide

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	Cloudy	Moderate	09:31	7.3	Surface	1.0	0.2	333	17.7	17.7	8.3	8.3	29.3	29.3	109.9	109.9	8.8	8.8	0.9	0.9	6	-	-	-	822076	808811	-	-	-	-							
						1.0	0.2	346	17.7	8.3	8.3	29.3	29.3	109.9	109.9	8.8	8.8	0.9	0.9	5	-	-	-	-													
						3.7	0.2	330	17.7	8.3	8.3	29.3	29.3	109.2	109.2	8.7	8.7	1.0	1.0	4	-	-	-	-													
					Middle	3.7	0.2	351	17.7	17.7	8.3	8.3	29.3	29.3	109.1	109.1	8.7	8.7	0.9	0.9	5	-	-	-			-										
						6.3	0.1	323	17.7	17.7	8.3	8.3	29.3	29.3	107.6	107.6	8.6	8.6	1.0	1.0	4	-	-	-			-										
						6.3	0.1	330	17.7	17.7	8.3	8.3	29.3	29.3	107.4	107.4	8.6	8.6	1.1	1.1	3	-	-	-			-										
					IM10	Cloudy	Moderate	09:24	7.1	Surface	1.0	0.5	302	17.7	17.7	8.3	8.3	29.3	29.3	112.1	112.1	9.0	9.0	2.1			2.1	5	-	-	-	822361	809784	-	-	-	-
											1.0	0.5	331	17.7	17.7	8.3	8.3	29.3	29.3	112.0	112.0	9.0	9.0	2.0			2.0	4	-	-	-			-			
											3.6	0.4	301	17.7	17.7	8.3	8.3	29.3	29.3	111.4	111.4	8.9	8.9	2.0			2.0	4	-	-	-			-			
Middle	3.6	0.5	326	17.7						17.7	8.3	8.3	29.3	29.3	111.3	111.3	8.9	8.9	2.1	2.1	5	-	-	-	-												
	6.1	0.4	306	17.7						17.7	8.3	8.3	29.3	29.3	110.2	110.2	8.8	8.8	2.3	2.3	3	-	-	-	-												
	6.1	0.5	313	17.7						17.7	8.3	8.3	29.3	29.3	110.0	110.0	8.8	8.8	2.3	2.3	4	-	-	-	-												
IM11	Cloudy	Moderate	09:15	8.1						Surface	1.0	0.4	281	17.7	17.7	8.3	8.3	29.5	29.5	112.4	112.4	9.0	9.0	1.0	1.0	4	-	-	-	822037	811471			-	-	-	-
											1.0	0.4	304	17.7	17.7	8.3	8.3	29.5	29.5	112.4	112.4	9.0	9.0	1.1	1.1	4	-	-	-					-			
											4.1	0.4	285	17.6	17.6	8.3	8.3	29.5	29.5	111.8	111.8	8.9	8.9	0.8	0.8	3	-	-	-					-			
					Middle	4.1	0.4	307	17.6	17.6	8.3	8.3	29.5	29.5	111.7	111.7	8.9	8.9	0.8	0.8	4	-	-	-	-												
						7.1	0.4	282	17.6	17.6	8.3	8.3	29.5	29.5	110.7	110.7	8.8	8.8	0.8	0.8	3	-	-	-	-												
						7.1	0.4	300	17.6	17.6	8.3	8.3	29.5	29.5	110.5	110.5	8.8	8.8	0.9	0.9	4	-	-	-	-												
					IM12	Cloudy	Moderate	09:09	8.8	Surface	1.0	0.5	268	17.7	17.7	8.3	8.3	29.5	29.5	112.2	112.2	9.0	9.0	1.3	1.3	6	-	-	-			821442	812048	-	-	-	-
											1.0	0.5	274	17.7	17.7	8.3	8.3	29.5	29.5	112.1	112.1	9.0	9.0	1.3	1.3	6	-	-	-					-			
											4.4	0.4	271	17.7	17.7	8.3	8.3	29.5	29.5	111.4	111.4	8.9	8.9	2.9	2.9	6	-	-	-					-			
Middle	4.4	0.5	271	17.7						17.7	8.3	8.3	29.5	29.5	111.3	111.3	8.9	8.9	3.0	3.0	5	-	-	-	-												
	7.8	0.4	274	17.7						17.7	8.3	8.3	29.5	29.5	110.2	110.2	8.8	8.8	5.5	5.5	5	-	-	-	-												
	7.8	0.4	300	17.7						17.7	8.3	8.3	29.5	29.5	110.0	110.0	8.8	8.8	5.2	5.2	5	-	-	-	-												
SR1A	Cloudy	Calm	08:37	4.9						Surface	1.0	-	-	17.8	17.8	8.3	8.3	29.4	29.4	107.4	107.4	8.6	8.6	0.4	0.4	6	-	-	-	819981	812654			-	-	-	-
											1.0	-	-	17.8	17.8	8.3	8.3	29.4	29.4	107.4	107.4	8.6	8.6	0.5	0.5	5	-	-	-					-			
											2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-													
						3.9	-	-	17.7	17.7	8.3	8.3	29.5	29.5	106.6	106.6	8.5	8.5	5.4	5.4	6	-	-	-	-												
						3.9	-	-	17.7	17.7	8.3	8.3	29.5	29.5	106.5	106.5	8.5	8.5	6.1	6.1	5	-	-	-	-												
					SR2	Cloudy	Moderate	08:23	4.1	Surface	1.0	0.1	3	17.6	17.6	8.3	8.3	29.6	29.6	111.5	111.5	8.9	8.9	1.8	1.8	6	-	-	-			821442	814158	-	-	-	-
											1.0	0.1	3	17.6	17.6	8.3	8.3	29.6	29.6	111.4	111.4	8.9	8.9	1.9	1.9	5	-	-	-					-			
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-													
	3.1	0.1	11	17.6						17.6	8.3	8.3	29.6	29.6	110.9	110.9	8.9	8.9	1.7	1.7	5	-	-	-	-												
	3.1	0.1	11	17.6						17.6	8.3	8.3	29.6	29.6	110.7	110.7	8.9	8.9	1.8	1.8	6	-	-	-	-												
SR3	Cloudy	Moderate	09:42	8.9						Surface	1.0	0.0	156	17.9	17.9	8.3	8.3	28.5	28.5	116.9	116.9	9.4	9.4	1.1	1.1	4	-	-	-	822169	807553			-	-	-	-
											1.0	0.0	165	17.9	17.9	8.3	8.3	28.5	28.5	116.8	116.8	9.4	9.4	1.2	1.2	5	-	-	-					-			
											4.5	0.0	326	17.9	17.9	8.3	8.3	28.5	28.5	114.5	114.5	9.2	9.2	1.8	1.8	5	-	-	-					-			
					Middle	4.5	0.0	331	17.9	17.9	8.3	8.3	28.5	28.5	114.2	114.2	9.1	9.1	1.9	1.9	6	-	-	-	-												
						7.9	0.1	29	17.8	17.8	8.3	8.3	28.6	28.6	111.8	111.8	9.0	9.0	4.1	4.1	7	-	-	-	-												
						7.9	0.1	29	17.7	17.7	8.3	8.3	28.6	28.6	111.6	111.6	9.0	9.0	4.2	4.2	7	-	-	-	-												
					SR4A	Fine	Calm	09:08	9.1	Surface	1.0	0.2	79	17.6	17.6	8.3	8.3	31.0	31.0	109.3	109.3	8.7	8.7	1.1	1.1	4	-	-	-			817207	807792	-	-	-	-
											1.0	0.2	86	17.6	17.6	8.3	8.3	31.0	31.0	109.3	109.3	8.7	8.7	1.1	1.1	5	-	-	-					-			
											4.6	0.2	81	17.5	17.5	8.3	8.3	31.3	31.3	109.6	109.6	8.7	8.7	1.2	1.2	4	-	-	-					-			
Middle	4.6	0.2	83	17.5						17.5	8.3	8.3	31.3	31.3	109.6	109.6	8.7	8.7	1.3	1.3	4	-	-	-	-												
	8.1	0.2	79	17.4						17.4	8.3	8.3	31.5	31.5	108.8	108.8	8.6	8.6	1.7	1.7	4	-	-	-	-												
	8.1	0.2	80	17.4						17.4	8.3	8.3	31.5	31.5	108.8	108.8	8.6	8.6	1.7	1.7	3	-	-	-	-												
SR5A	Fine	Calm	08:44	3.3						Surface	1.0	0.1	245	17.6	17.6	8.3	8.3	30.9	30.9	109.2	109.2	8.7	8.7	1.2	1.2	3	-	-	-	816573	810684			-	-	-	-
											1.0	0.1	249	17.6	17.6	8.3	8.3	30.9	30.9	109.2	109.2	8.7	8.7	1.3	1.3	3	-	-	-					-			
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-													
						2.3	0.0	241	17.6	17.6	8.3	8.3	30.8	30.8	109.1	109.1	8.7	8.7	2.7	2.7	4	-	-	-	-												
						2.3	0.0	253	17.6	17.6	8.3	8.3	30.8	30.8	109.1	109.1	8.7	8.7	2.9	2.9	5	-	-	-	-												
					SR6A	Fine	Calm	08:17	4.2	Surface	1.0	0.1	251	17.5	17.5	8.3	8.3	30.9	30.9	108.7	108.7	8.6	8.6	0.7	0.7	2	-	-	-			817984	814722	-	-	-	-
											1.0	0.1	272	17.5	17.5	8.3	8.3	30.9	30.9	108.6	108.6	8.6	8.6	0.8	0.8	3	-	-	-					-			
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-													
	3.2	0.1	251	17.6						17.6	8.3	8.3	31.0	31.0	108.2	108.2	8.6	8.6	1.8	1.8	4	-	-	-	-												
	3.2	0.1	257	17.6						17.6	8.3	8.3	31.0	31.0	108.1	108.1	8.6	8.6	2.0	2.0	3	-	-	-	-												
SR7	Cloudy	Moderate	07:34	16.2						Surface	1.0	0.0	116	17.8	17.8	8.2	8.2	30.0	3																		

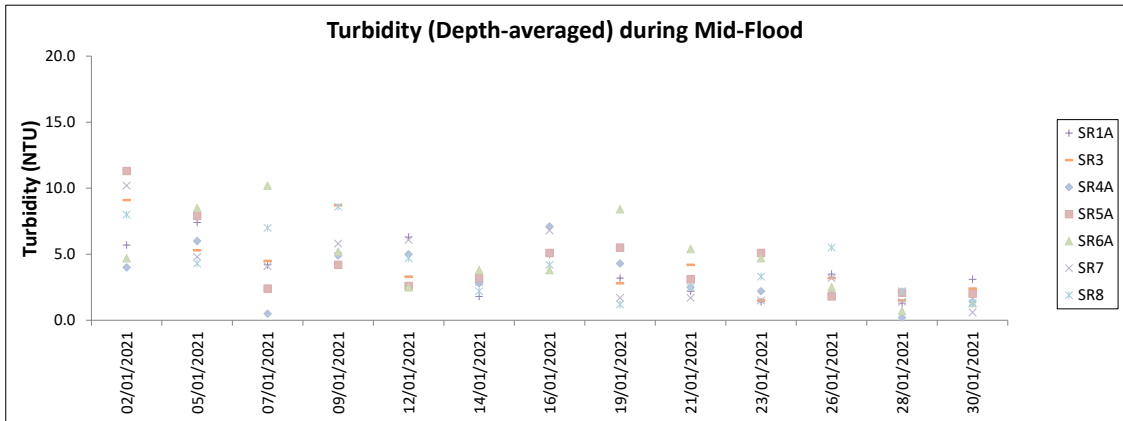
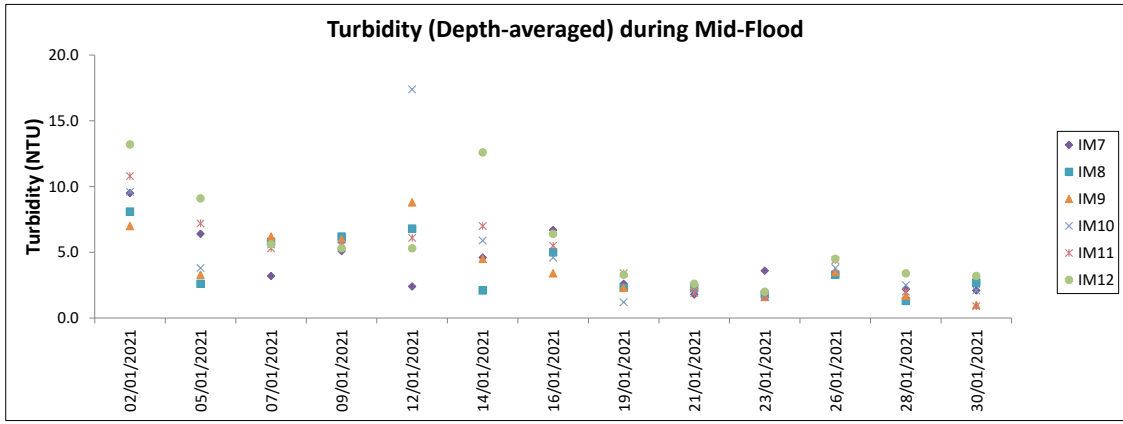
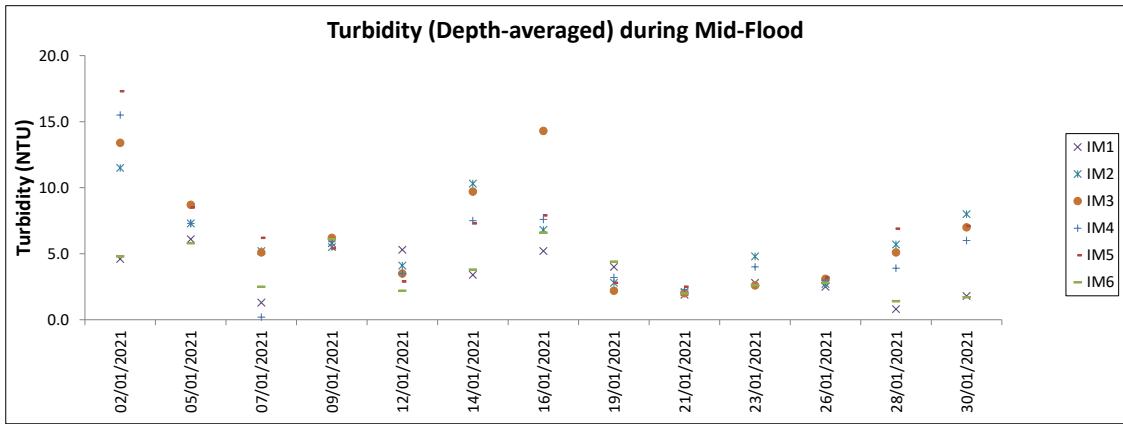
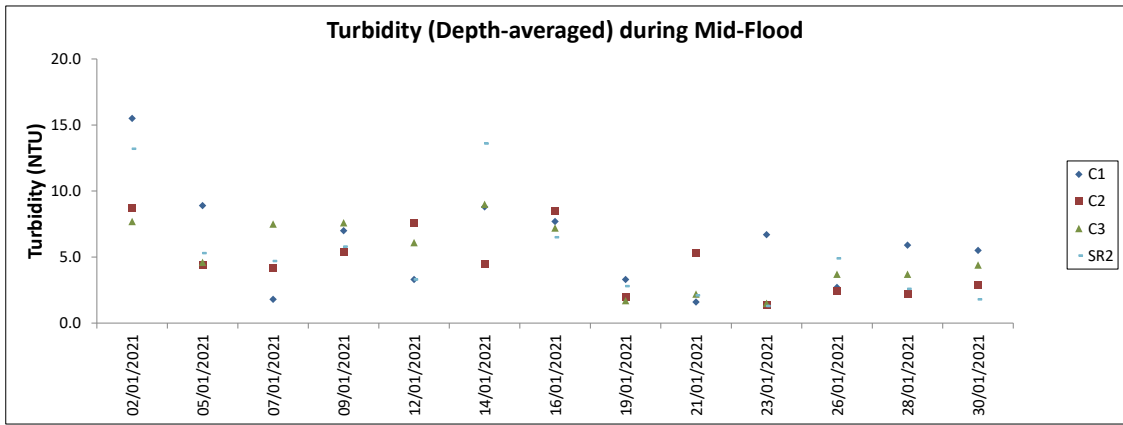




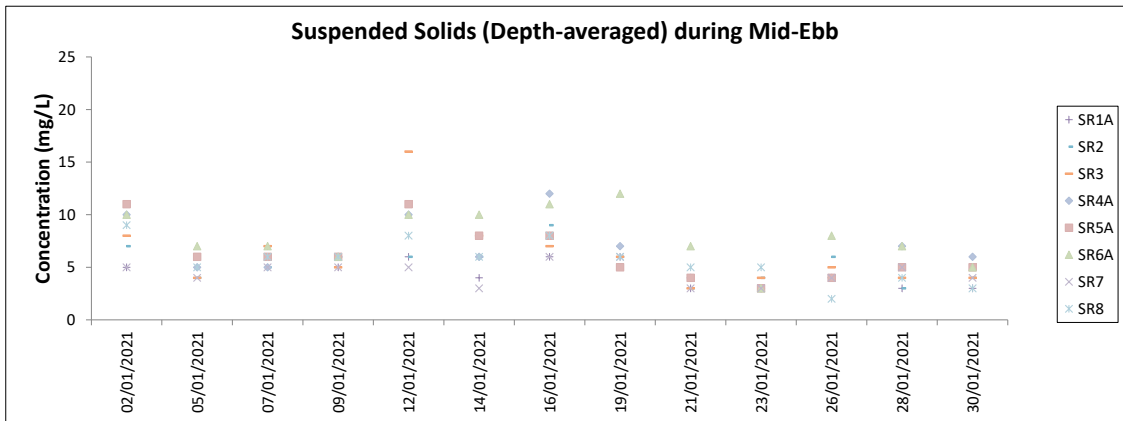
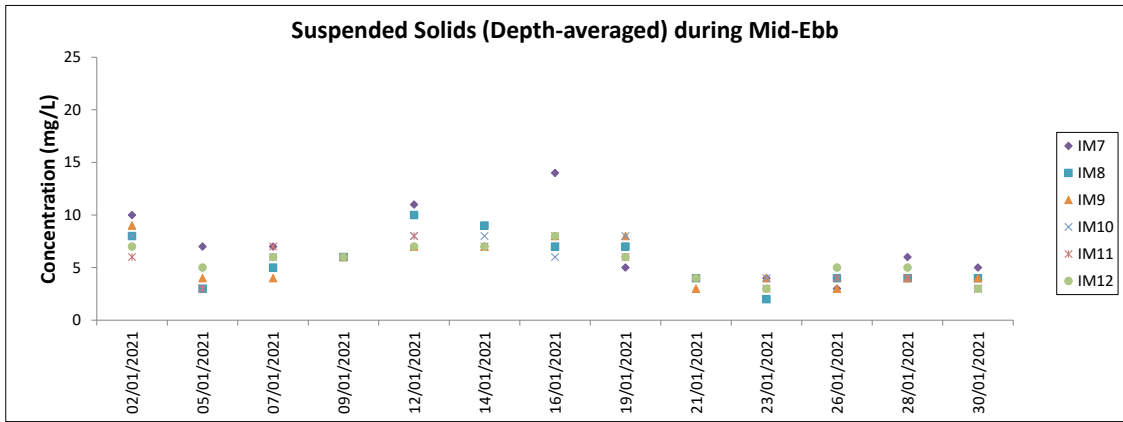
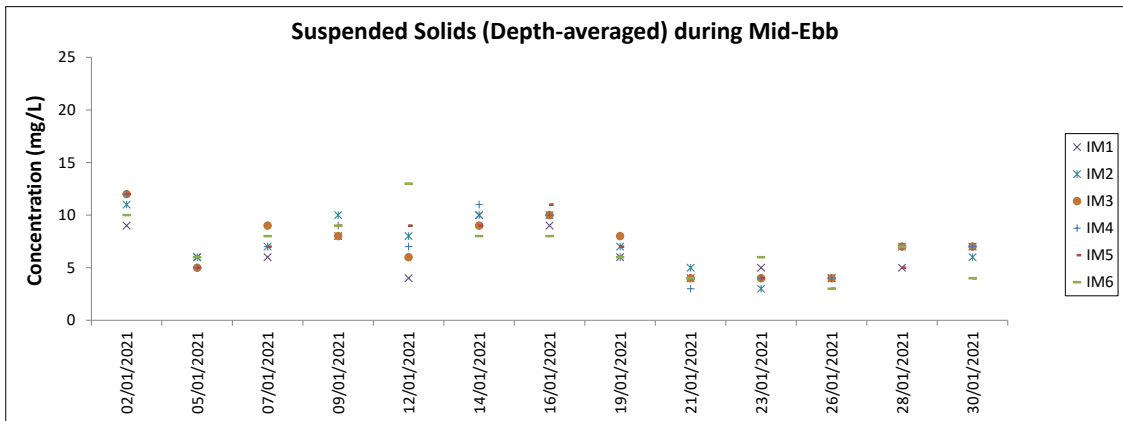
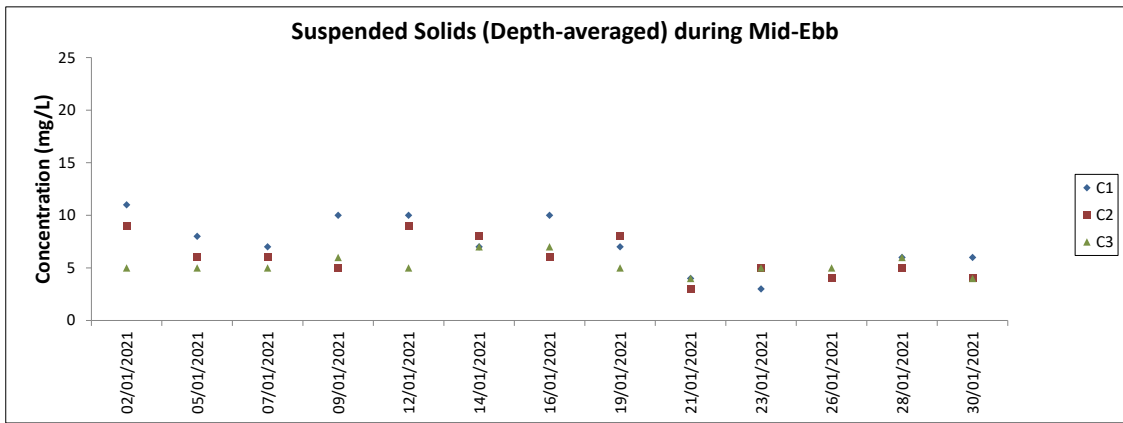




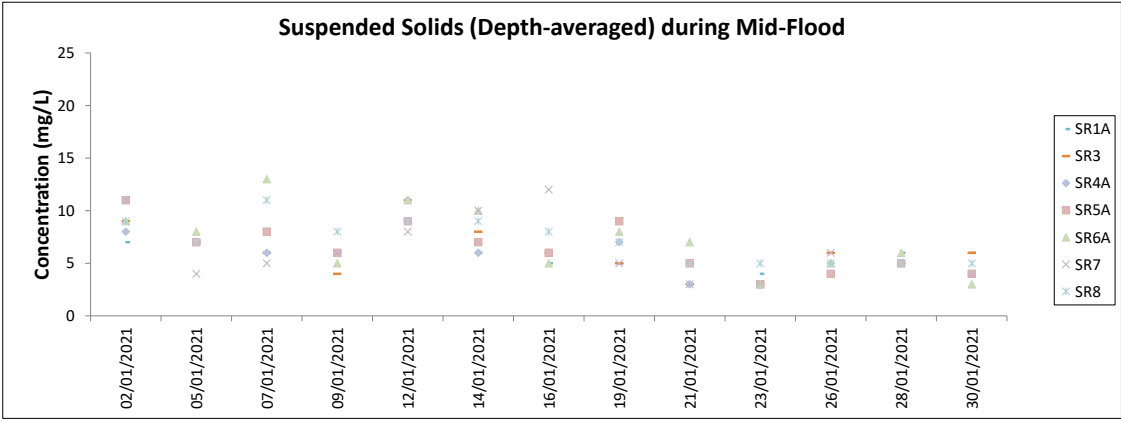
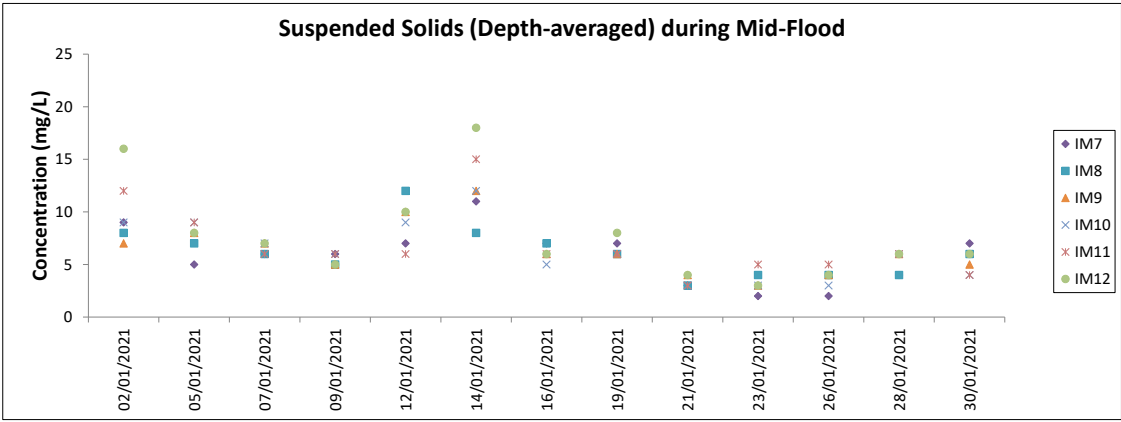
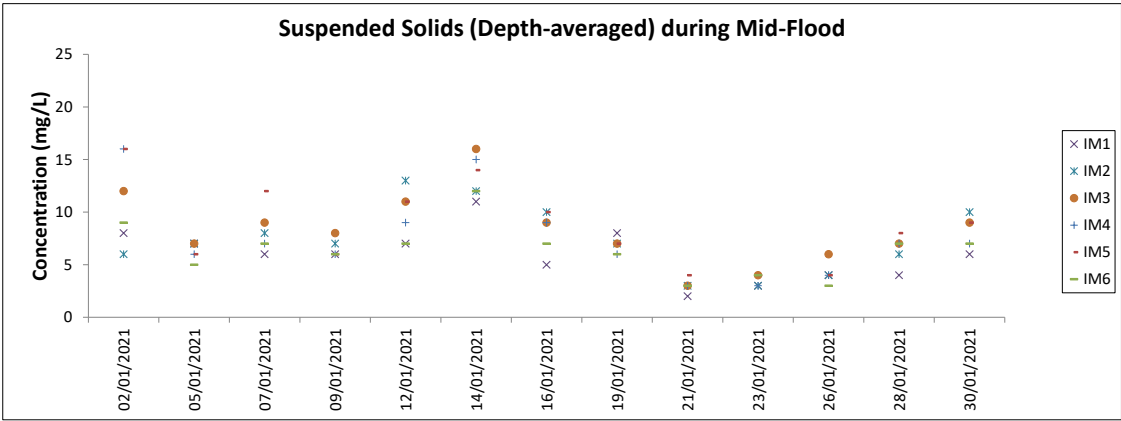
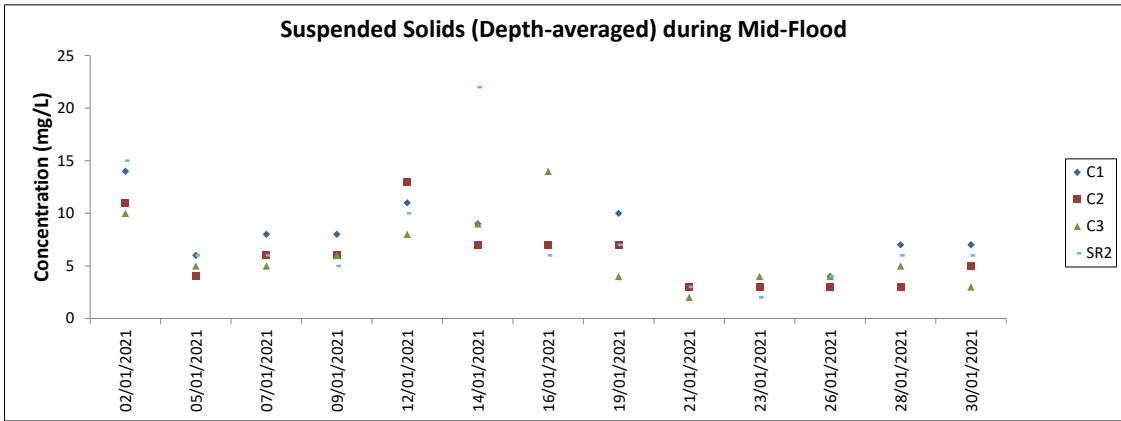
Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.



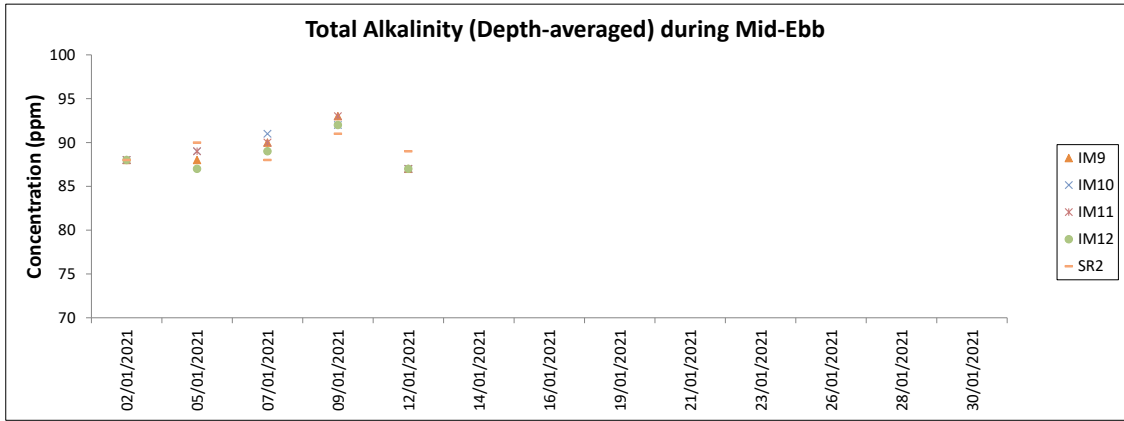
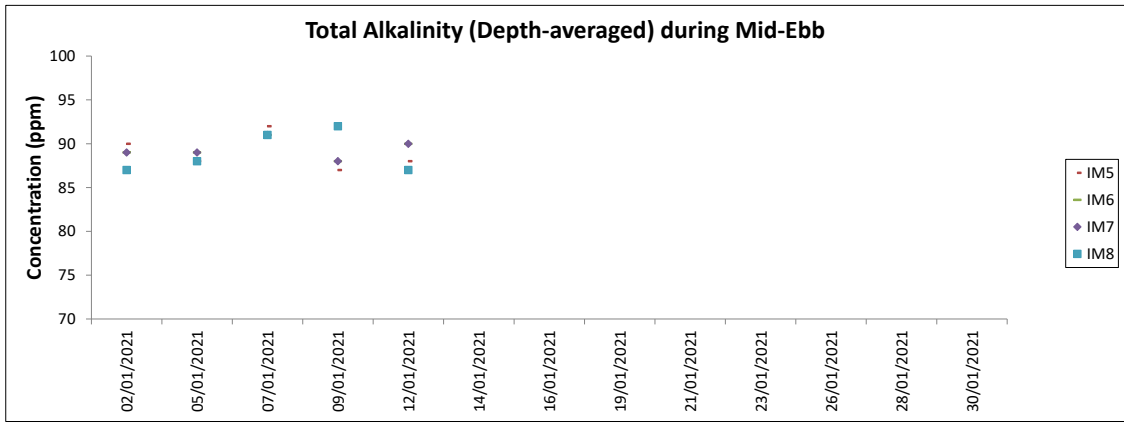
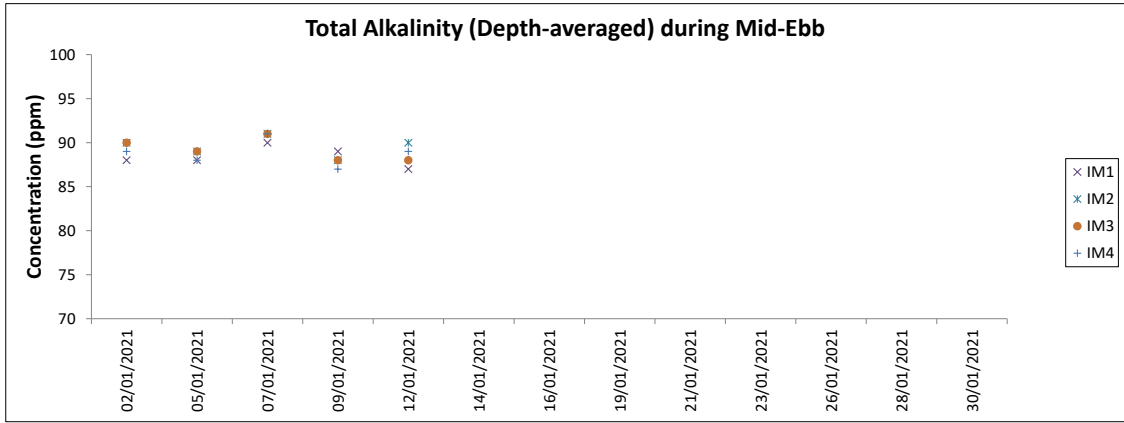
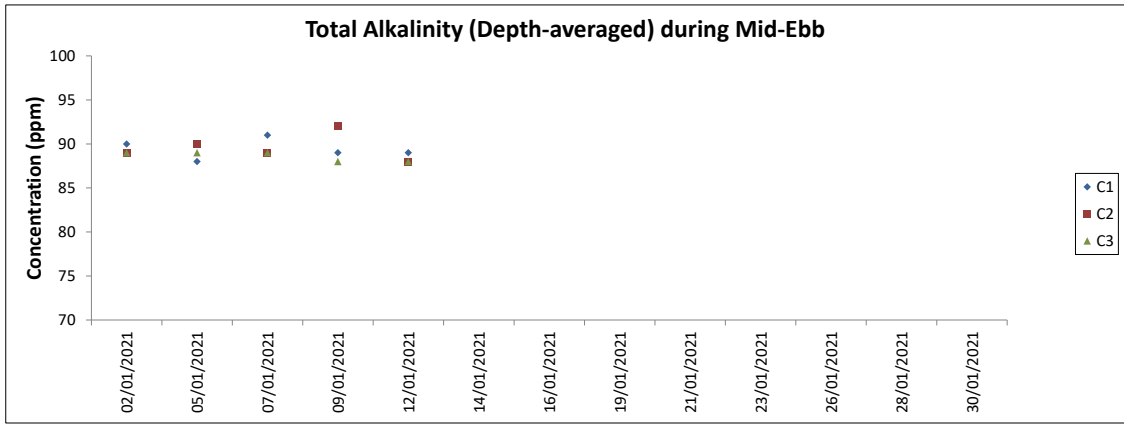
Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.



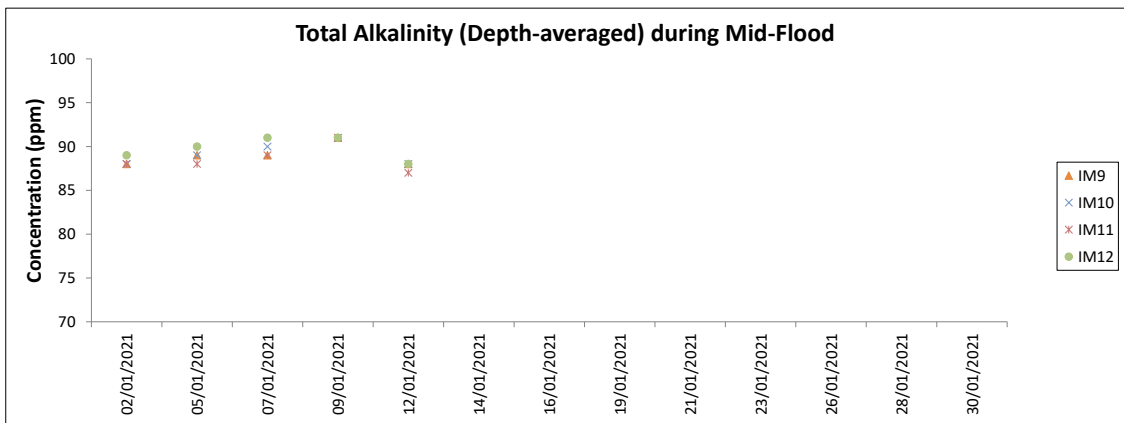
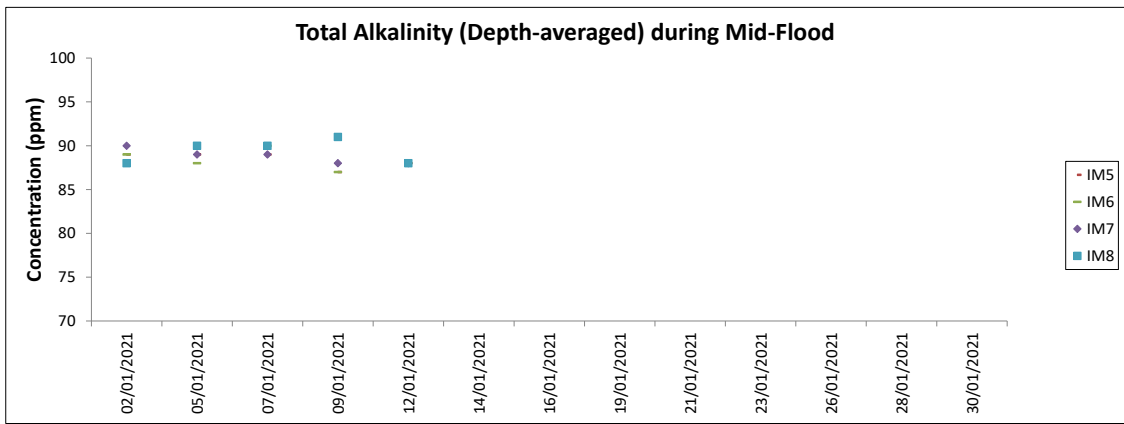
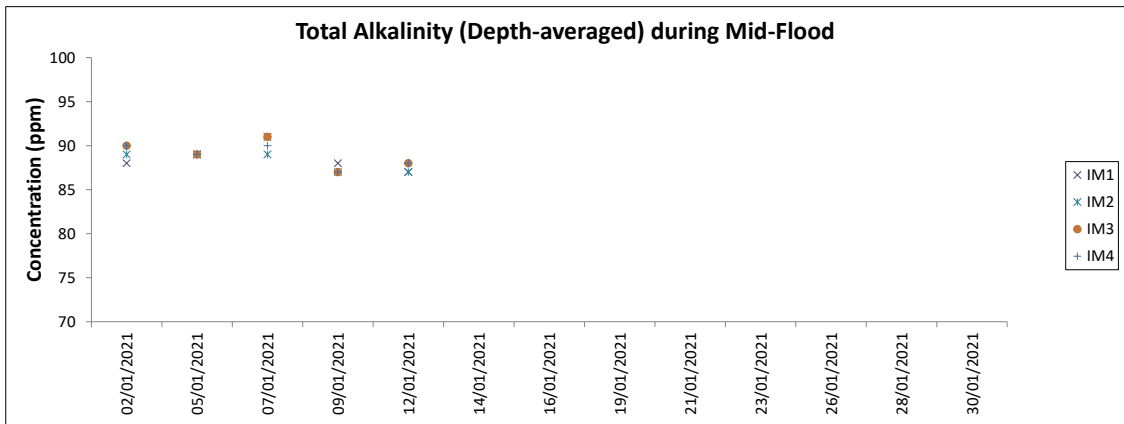
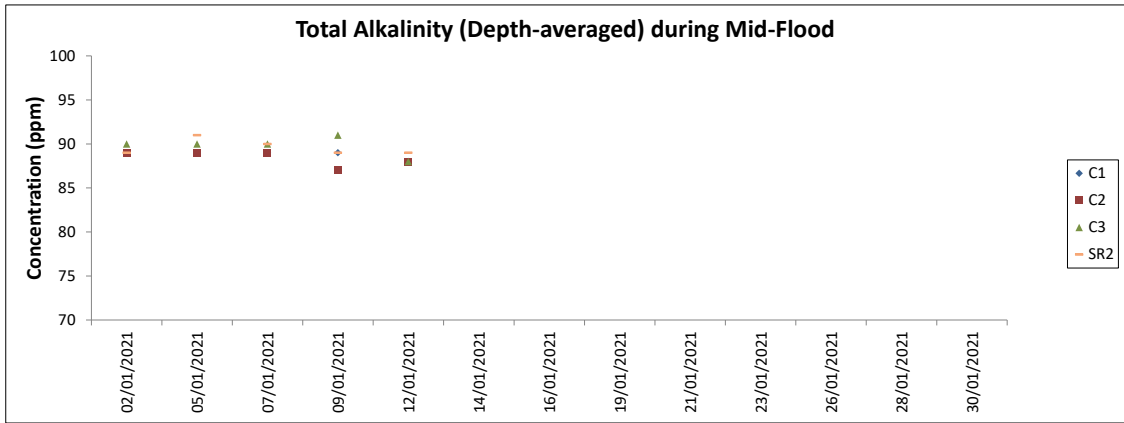
Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.



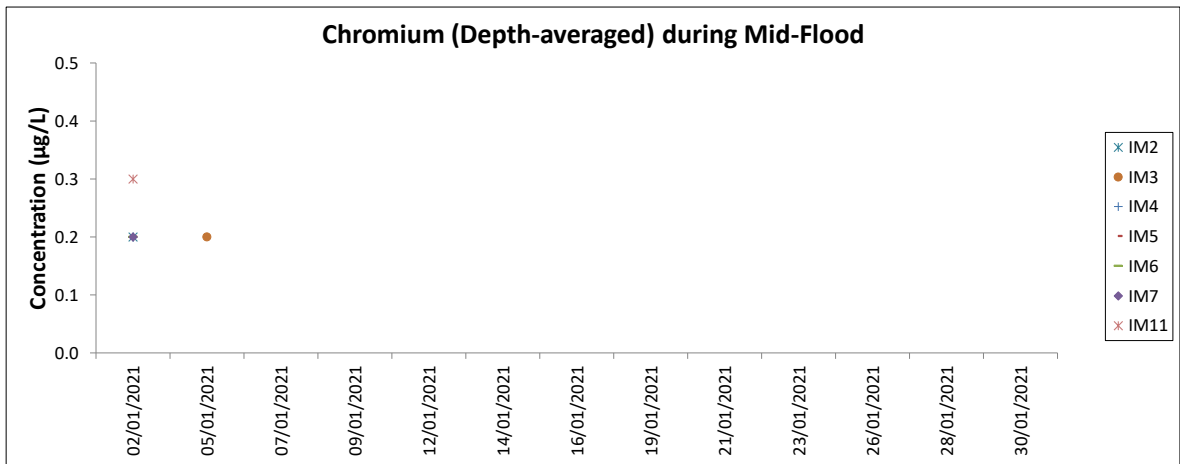
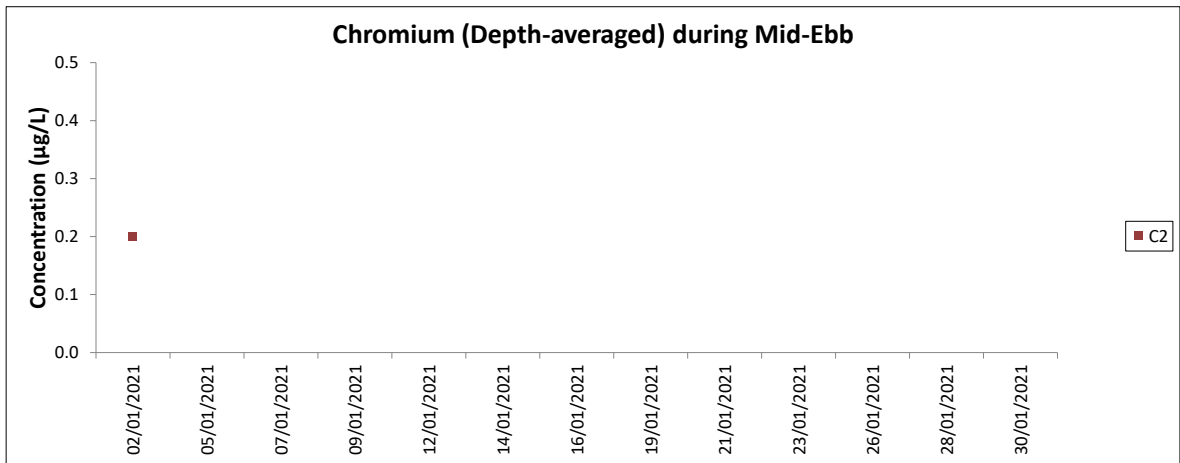
Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.



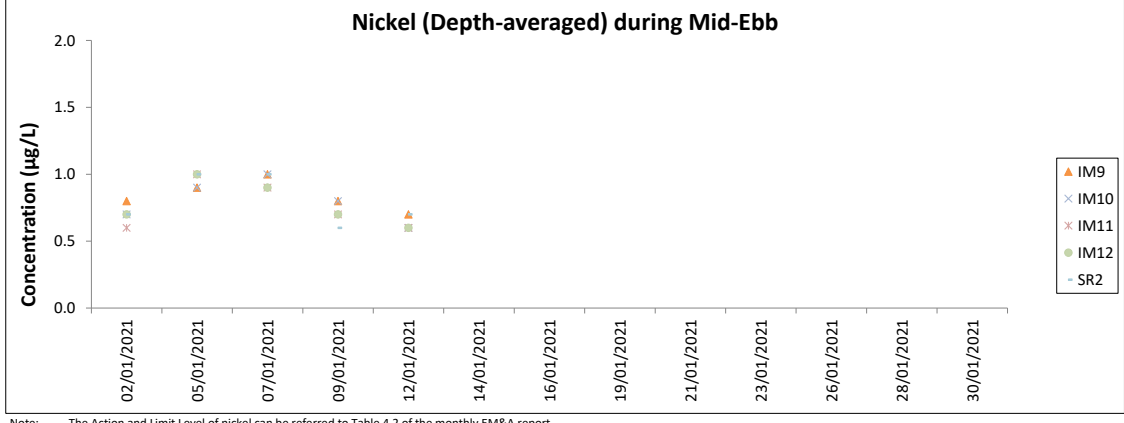
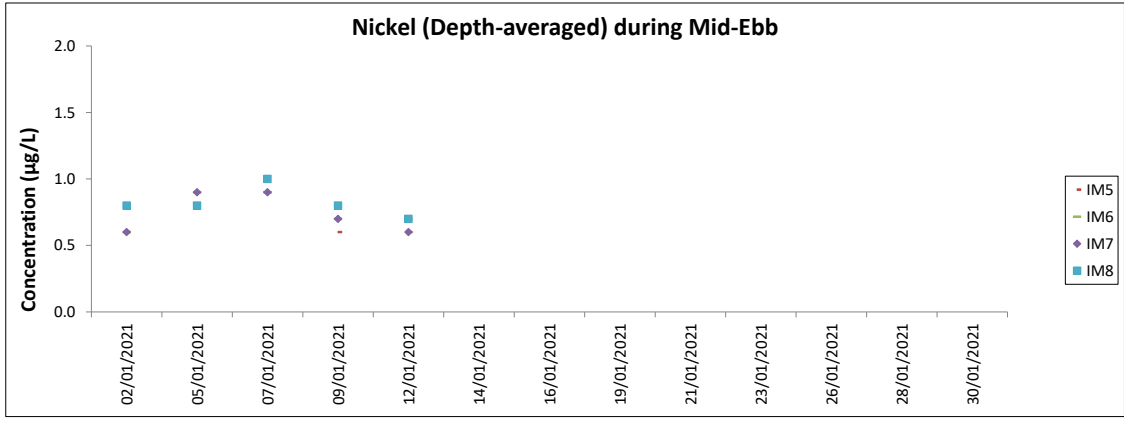
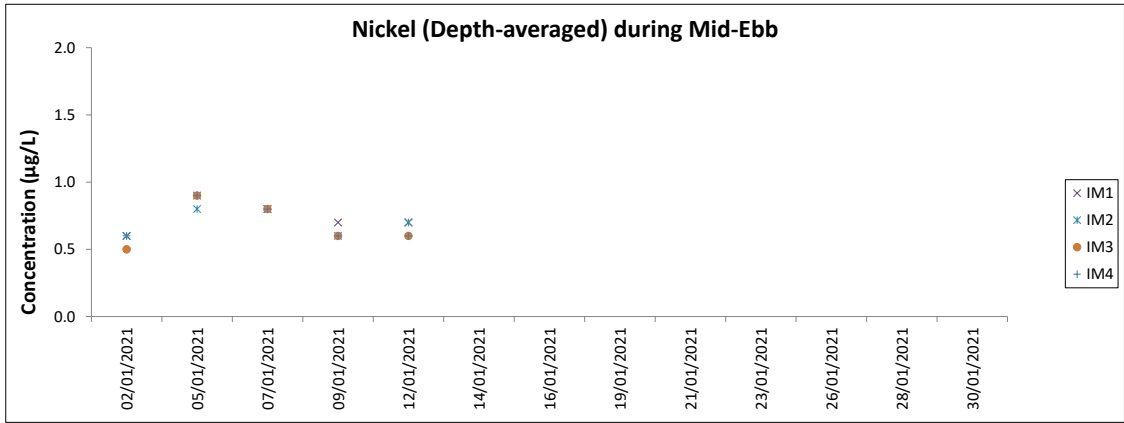
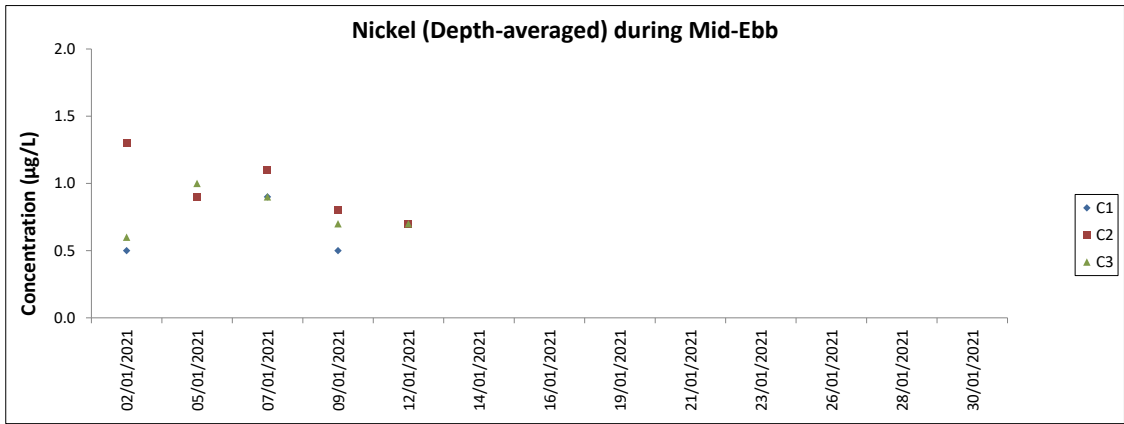
Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.



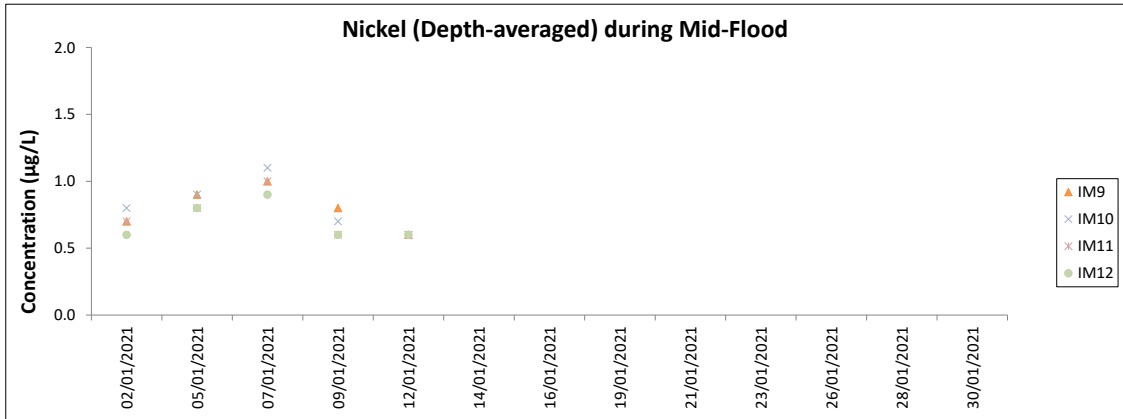
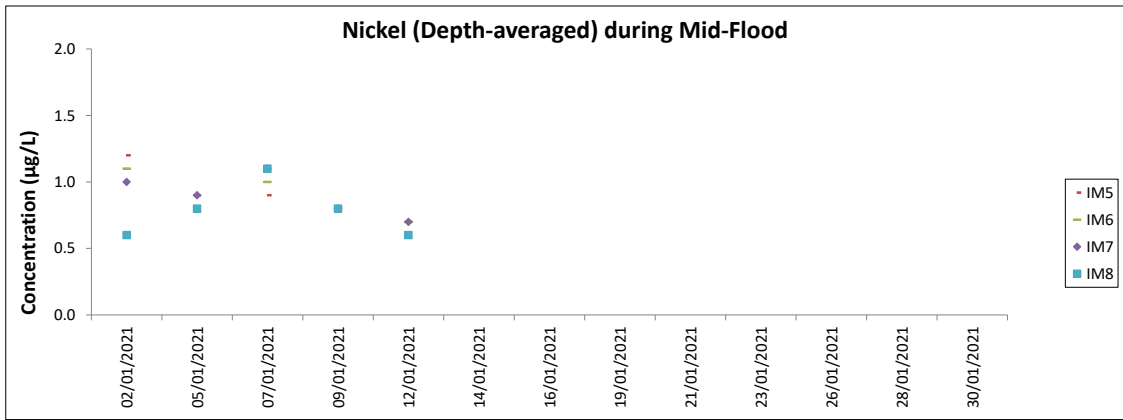
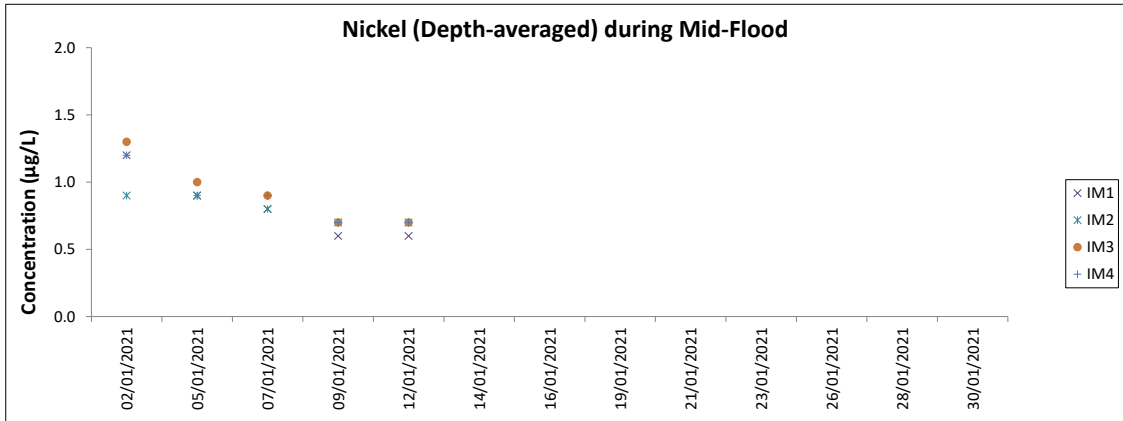
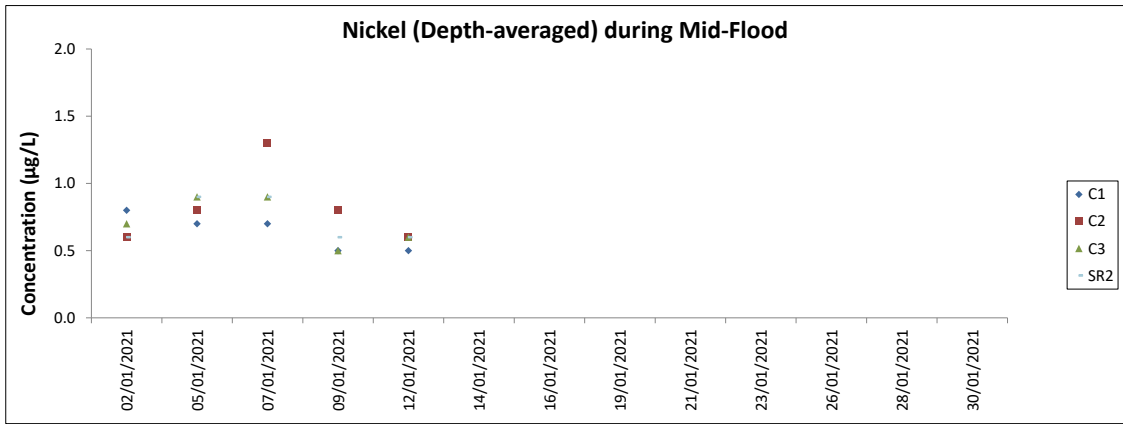
Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.



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



Note: The Action and Limit Level of nickel can be referred to Table 4.2 of the monthly EM&A report.
 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
5-Nov-20	NWL	2	6.540	AUTUMN	32166	3RS ET	P
5-Nov-20	NWL	3	53.550	AUTUMN	32166	3RS ET	P
5-Nov-20	NWL	4	3.300	AUTUMN	32166	3RS ET	P
5-Nov-20	NWL	2	3.910	AUTUMN	32166	3RS ET	S
5-Nov-20	NWL	3	7.300	AUTUMN	32166	3RS ET	S
6-Nov-20	AW	2	4.960	AUTUMN	32166	3RS ET	P
6-Nov-20	WL	2	9.750	AUTUMN	32166	3RS ET	P
6-Nov-20	WL	3	7.819	AUTUMN	32166	3RS ET	P
6-Nov-20	WL	2	3.905	AUTUMN	32166	3RS ET	S
6-Nov-20	WL	3	3.314	AUTUMN	32166	3RS ET	S
9-Nov-20	NEL	2	34.800	AUTUMN	32166	3RS ET	P
9-Nov-20	NEL	3	1.900	AUTUMN	32166	3RS ET	P
9-Nov-20	NEL	2	9.700	AUTUMN	32166	3RS ET	S
9-Nov-20	NEL	3	0.900	AUTUMN	32166	3RS ET	S
10-Nov-20	NEL	2	36.140	AUTUMN	32166	3RS ET	P
10-Nov-20	NEL	2	11.160	AUTUMN	32166	3RS ET	S
16-Nov-20	AW	2	2.550	AUTUMN	32166	3RS ET	P
16-Nov-20	AW	3	1.170	AUTUMN	32166	3RS ET	P
16-Nov-20	WL	2	5.427	AUTUMN	32166	3RS ET	P
16-Nov-20	WL	3	13.386	AUTUMN	32166	3RS ET	P
16-Nov-20	WL	2	3.583	AUTUMN	32166	3RS ET	S
16-Nov-20	WL	3	5.244	AUTUMN	32166	3RS ET	S
17-Nov-20	NWL	2	2.430	AUTUMN	32166	3RS ET	P
17-Nov-20	NWL	3	45.790	AUTUMN	32166	3RS ET	P
17-Nov-20	NWL	4	12.370	AUTUMN	32166	3RS ET	P
17-Nov-20	NWL	5	2.900	AUTUMN	32166	3RS ET	P
17-Nov-20	NWL	3	8.480	AUTUMN	32166	3RS ET	S
17-Nov-20	NWL	4	3.130	AUTUMN	32166	3RS ET	S
18-Nov-20	SWL	2	19.300	AUTUMN	32166	3RS ET	P
18-Nov-20	SWL	3	35.530	AUTUMN	32166	3RS ET	P
18-Nov-20	SWL	2	6.800	AUTUMN	32166	3RS ET	S
18-Nov-20	SWL	3	9.070	AUTUMN	32166	3RS ET	S
19-Nov-20	SWL	1	1.480	AUTUMN	32166	3RS ET	P
19-Nov-20	SWL	2	52.830	AUTUMN	32166	3RS ET	P
19-Nov-20	SWL	2	15.390	AUTUMN	32166	3RS ET	S
4-Dec-20	NEL	2	1.000	WINTER	32166	3RS ET	P
4-Dec-20	NEL	3	30.450	WINTER	32166	3RS ET	P
4-Dec-20	NEL	4	6.100	WINTER	32166	3RS ET	P
4-Dec-20	NEL	2	1.000	WINTER	32166	3RS ET	S
4-Dec-20	NEL	3	8.450	WINTER	32166	3RS ET	S
9-Dec-20	SWL	2	22.072	WINTER	32166	3RS ET	P
9-Dec-20	SWL	3	32.643	WINTER	32166	3RS ET	P
9-Dec-20	SWL	2	8.280	WINTER	32166	3RS ET	S
9-Dec-20	SWL	3	6.717	WINTER	32166	3RS ET	S
10-Dec-20	SWL	2	40.788	WINTER	32166	3RS ET	P
10-Dec-20	SWL	3	11.922	WINTER	32166	3RS ET	P
10-Dec-20	SWL	2	13.112	WINTER	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
10-Dec-20	SWL	3	2.693	WINTER	32166	3RS ET	S
11-Dec-20	AW	1	4.850	WINTER	32166	3RS ET	P
11-Dec-20	WL	1	4.680	WINTER	32166	3RS ET	P
11-Dec-20	WL	2	10.655	WINTER	32166	3RS ET	P
11-Dec-20	WL	3	4.566	WINTER	32166	3RS ET	P
11-Dec-20	WL	1	1.310	WINTER	32166	3RS ET	S
11-Dec-20	WL	2	6.879	WINTER	32166	3RS ET	S
11-Dec-20	WL	3	2.210	WINTER	32166	3RS ET	S
15-Dec-20	NEL	2	8.700	WINTER	32166	3RS ET	P
15-Dec-20	NEL	3	28.460	WINTER	32166	3RS ET	P
15-Dec-20	NEL	2	3.900	WINTER	32166	3RS ET	S
15-Dec-20	NEL	3	5.940	WINTER	32166	3RS ET	S
16-Dec-20	AW	3	4.550	WINTER	32166	3RS ET	P
16-Dec-20	WL	3	13.920	WINTER	32166	3RS ET	P
16-Dec-20	WL	4	2.060	WINTER	32166	3RS ET	P
16-Dec-20	WL	5	0.400	WINTER	32166	3RS ET	P
16-Dec-20	WL	3	11.710	WINTER	32166	3RS ET	S
16-Dec-20	WL	4	1.180	WINTER	32166	3RS ET	S
18-Dec-20	NWL	2	3.100	WINTER	32166	3RS ET	P
18-Dec-20	NWL	3	39.720	WINTER	32166	3RS ET	P
18-Dec-20	NWL	4	19.680	WINTER	32166	3RS ET	P
18-Dec-20	NWL	2	0.200	WINTER	32166	3RS ET	S
18-Dec-20	NWL	3	10.900	WINTER	32166	3RS ET	S
18-Dec-20	NWL	4	1.600	WINTER	32166	3RS ET	S
21-Dec-20	NWL	3	23.100	WINTER	32166	3RS ET	P
21-Dec-20	NWL	4	40.400	WINTER	32166	3RS ET	P
21-Dec-20	NWL	2	1.000	WINTER	32166	3RS ET	S
21-Dec-20	NWL	3	6.200	WINTER	32166	3RS ET	S
21-Dec-20	NWL	4	4.300	WINTER	32166	3RS ET	S
11-Jan-21	NEL	2	6.200	WINTER	32166	3RS ET	P
11-Jan-21	NEL	3	24.380	WINTER	32166	3RS ET	P
11-Jan-21	NEL	4	6.900	WINTER	32166	3RS ET	P
11-Jan-21	NEL	2	1.900	WINTER	32166	3RS ET	S
11-Jan-21	NEL	3	7.320	WINTER	32166	3RS ET	S
11-Jan-21	NEL	4	0.500	WINTER	32166	3RS ET	S
12-Jan-21	NEL	2	8.900	WINTER	32166	3RS ET	P
12-Jan-21	NEL	3	28.460	WINTER	32166	3RS ET	P
12-Jan-21	NEL	2	2.600	WINTER	32166	3RS ET	S
12-Jan-21	NEL	3	7.040	WINTER	32166	3RS ET	S
15-Jan-21	SWL	2	12.333	WINTER	32166	3RS ET	P
15-Jan-21	SWL	3	36.540	WINTER	32166	3RS ET	P
15-Jan-21	SWL	4	0.687	WINTER	32166	3RS ET	P
15-Jan-21	SWL	2	4.680	WINTER	32166	3RS ET	S
15-Jan-21	SWL	3	11.610	WINTER	32166	3RS ET	S
18-Jan-21	AW	3	4.810	WINTER	32166	3RS ET	P
18-Jan-21	WL	3	18.290	WINTER	32166	3RS ET	P
18-Jan-21	WL	4	1.470	WINTER	32166	3RS ET	P
18-Jan-21	WL	3	9.240	WINTER	32166	3RS ET	S
18-Jan-21	WL	4	1.200	WINTER	32166	3RS ET	S

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
19-Jan-21	NWL	2	40.189	WINTER	32166	3RS ET	P
19-Jan-21	NWL	3	21.431	WINTER	32166	3RS ET	P
19-Jan-21	NWL	2	8.240	WINTER	32166	3RS ET	S
19-Jan-21	NWL	3	2.750	WINTER	32166	3RS ET	S
19-Jan-21	NWL	4	0.600	WINTER	32166	3RS ET	S
20-Jan-21	NWL	2	60.280	WINTER	32166	3RS ET	P
20-Jan-21	NWL	3	1.830	WINTER	32166	3RS ET	P
20-Jan-21	NWL	2	11.100	WINTER	32166	3RS ET	S
20-Jan-21	NWL	3	0.490	WINTER	32166	3RS ET	S
26-Jan-21	SWL	2	52.857	WINTER	32166	3RS ET	P
26-Jan-21	SWL	2	13.957	WINTER	32166	3RS ET	S
27-Jan-21	AW	2	4.600	WINTER	32166	3RS ET	P
27-Jan-21	WL	2	12.824	WINTER	32166	3RS ET	P
27-Jan-21	WL	3	4.560	WINTER	32166	3RS ET	P
27-Jan-21	WL	2	7.273	WINTER	32166	3RS ET	S
27-Jan-21	WL	3	3.305	WINTER	32166	3RS ET	S

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

CWD Small Vessel Line-transect Survey

Sighting Data

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
5-Nov-20	1	1044	CWD	1	NWL	3	112	ON	3RS ET	22.2740	113.8757	AUTUMN	NONE	S
6-Nov-20	1	1018	CWD	5	WL	2	821	ON	3RS ET	22.2759	113.8504	AUTUMN	NONE	S
6-Nov-20	2	1341	CWD	3	WL	3	206	ON	3RS ET	22.2506	113.8463	AUTUMN	NONE	P
6-Nov-20	3	1400	CWD	4	WL	2	236	ON	3RS ET	22.2414	113.8416	AUTUMN	NONE	P
6-Nov-20	4	1429	CWD	4	WL	3	246	ON	3RS ET	22.2321	113.8358	AUTUMN	NONE	P
6-Nov-20	5	1443	CWD	5	WL	2	216	ON	3RS ET	22.2236	113.8373	AUTUMN	NONE	S
6-Nov-20	6	1513	CWD	4	WL	2	500	ON	3RS ET	22.2042	113.8219	AUTUMN	NONE	S
16-Nov-20	1	0940	CWD	2	AW	2	475	ON	3RS ET	22.2971	113.8842	AUTUMN	GILLNETTER	P
16-Nov-20	2	1040	CWD	1	WL	3	800	ON	3RS ET	22.2740	113.8482	AUTUMN	NONE	S
16-Nov-20	3	1059	CWD	4	WL	3	14	ON	3RS ET	22.2607	113.8480	AUTUMN	NONE	P
16-Nov-20	4	1210	CWD	3	WL	3	232	ON	3RS ET	22.2139	113.8226	AUTUMN	NONE	P
16-Nov-20	5	1249	CWD	1	WL	2	285	ON	3RS ET	22.2055	113.8336	AUTUMN	NONE	P
16-Nov-20	6	1317	CWD	3	WL	2	608	ON	3RS ET	22.1901	113.8421	AUTUMN	NONE	S
17-Nov-20	1	1034	CWD	1	NWL	4	24	ON	3RS ET	22.2723	113.8701	AUTUMN	NONE	P
19-Nov-20	1	1202	FP	2	SWL	2	62	ON	3RS ET	22.1621	113.9184	AUTUMN	NONE	P
19-Nov-20	2	1514	CWD	4	SWL	2	71	ON	3RS ET	22.1883	113.8491	AUTUMN	NONE	P
9-Dec-20	1	1117	CWD	1	SWL	2	111	ON	3RS ET	22.1828	113.9277	WINTER	NONE	P
9-Dec-20	2	1159	CWD	1	SWL	2	59	ON	3RS ET	22.1730	113.9191	WINTER	NONE	P
9-Dec-20	3	1211	CWD	1	SWL	2	21	ON	3RS ET	22.1702	113.9188	WINTER	NONE	P
9-Dec-20	4	1224	FP	2	SWL	3	22	ON	3RS ET	22.1562	113.9183	WINTER	NONE	P
9-Dec-20	5	1247	CWD	2	SWL	2	148	ON	3RS ET	22.1623	113.8987	WINTER	NONE	S
9-Dec-20	6	1351	CWD	1	SWL	3	7	ON	3RS ET	22.1487	113.8958	WINTER	NONE	S
9-Dec-20	7	1516	CWD	3	SWL	3	389	ON	3RS ET	22.2007	113.8678	WINTER	NONE	P
10-Dec-20	1	1107	FP	1	SWL	2	3	ON	3RS ET	22.1645	113.9276	WINTER	NONE	P
10-Dec-20	2	1156	FP	1	SWL	2	54	ON	3RS ET	22.1473	113.9180	WINTER	NONE	P
10-Dec-20	3	1307	FP	1	SWL	2	51	ON	3RS ET	22.1548	113.8975	WINTER	NONE	P
10-Dec-20	4	1430	CWD	2	SWL	3	53	ON	3RS ET	22.1921	113.8679	WINTER	NONE	P
10-Dec-20	5	1448	CWD	1	SWL	3	122	ON	3RS ET	22.1991	113.8600	WINTER	NONE	S
10-Dec-20	6	1459	CWD	1	SWL	3	449	ON	3RS ET	22.1951	113.8589	WINTER	NONE	P
10-Dec-20	7	1535	CWD	4	SWL	3	805	ON	3RS ET	22.1905	113.8490	WINTER	NONE	P
11-Dec-20	1	1129	CWD	1	WL	2	109	ON	3RS ET	22.2229	113.8213	WINTER	NONE	P
11-Dec-20	2	1146	CWD	2	WL	2	133	ON	3RS ET	22.2149	113.8312	WINTER	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
16-Dec-20	1	0940	CWD	2	AW	3	19	ON	3RS ET	22.2937	113.8775	WINTER	NONE	P
16-Dec-20	2	1039	CWD	4	WL	3	493	ON	3RS ET	22.2687	113.8538	WINTER	NONE	P
16-Dec-20	3	1139	CWD	1	WL	3	8	ON	3RS ET	22.2323	113.8307	WINTER	NONE	P
15-Jan-21	1	1154	FP	2	SWL	3	19	ON	3RS ET	22.1678	113.9182	WINTER	NONE	P
15-Jan-21	2	1335	CWD	3	SWL	3	789	ON	3RS ET	22.183	113.8875	WINTER	NONE	P
15-Jan-21	3	1443	CWD	1	SWL	2	652	ON	3RS ET	22.1758	113.8685	WINTER	NONE	P
18-Jan-21	1	1116	CWD	3	WL	3	336	ON	3RS ET	22.2421	113.8321	WINTER	NONE	P
18-Jan-21	2	1246	CWD	6	WL	3	45	ON	3RS ET	22.1871	113.8342	WINTER	NONE	P
19-Jan-21	1	0948	CWD	9	NWL	3	1196	ON	3RS ET	22.3799	113.8698	WINTER	NONE	P
19-Jan-21	2	1217	CWD	2	NWL	3	278	ON	3RS ET	22.3974	113.8879	WINTER	NONE	P
19-Jan-21	3	1325	CWD	2	NWL	2	57	ON	3RS ET	22.3703	113.8964	WINTER	NONE	P
19-Jan-21	4	1412	CWD	3	NWL	2	299	ON	3RS ET	22.3549	113.9074	WINTER	NONE	P
20-Jan-21	1	1031	CWD	12	NWL	2	212	ON	3RS ET	22.2743	113.8703	WINTER	NONE	P
20-Jan-21	2	1149	CWD	7	NWL	3	88	ON	3RS ET	22.3515	113.8779	WINTER	NONE	P
26-Jan-21	1	1216	FP	5	SWL	2	17	ON	3RS ET	22.1549	113.9073	WINTER	NONE	S
26-Jan-21	2	1251	CWD	1	SWL	2	38	ON	3RS ET	22.2080	113.9047	WINTER	GILLNETTER	S
26-Jan-21	3	1327	FP	3	SWL	2	346	ON	3RS ET	22.1617	113.8975	WINTER	NONE	P
26-Jan-21	4	1330	FP	2	SWL	2	59	ON	3RS ET	22.1577	113.8978	WINTER	NONE	P
26-Jan-21	5	1339	FP	1	SWL	2	22	ON	3RS ET	22.1496	113.8918	WINTER	NONE	S
26-Jan-21	6	1348	FP	1	SWL	2	34	ON	3RS ET	22.1644	113.8884	WINTER	NONE	P
26-Jan-21	7	1512	CWD	1	SWL	2	396	ON	3RS ET	22.1828	113.8596	WINTER	NONE	P
26-Jan-21	8	1531	CWD	4	SWL	2	725	ON	3RS ET	22.1711	113.8537	WINTER	NONE	S
27-Jan-21	1	1009	CWD	5	WL	2	127	ON	3RS ET	22.2861	113.8613	WINTER	NONE	P
27-Jan-21	2	1029	CWD	3	WL	2	470	ON	3RS ET	22.2737	113.8491	WINTER	NONE	S
27-Jan-21	3	1038	CWD	5	WL	2	79	ON	3RS ET	22.2694	113.8502	WINTER	NONE	P
27-Jan-21	4	1208	CWD	1	WL	2	258	ON	3RS ET	22.1962	113.8300	WINTER	NONE	P
27-Jan-21	5	1221	CWD	7	WL	2	45	ON	3RS ET	22.1960	113.8340	WINTER	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 429.989 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 18 on-effort sightings and total number of 75 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in January 2021 are shown as below:

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

$$STG = \frac{18}{429.989} \times 100 = 4.19$$

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

$$ANI = \frac{75}{429.989} \times 100 = 17.44$$

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

A total of 1229.774 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 47 on-effort sightings and total number of 146 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)









$$STG = \frac{47}{1229.774} \times 100 = 3.82$$

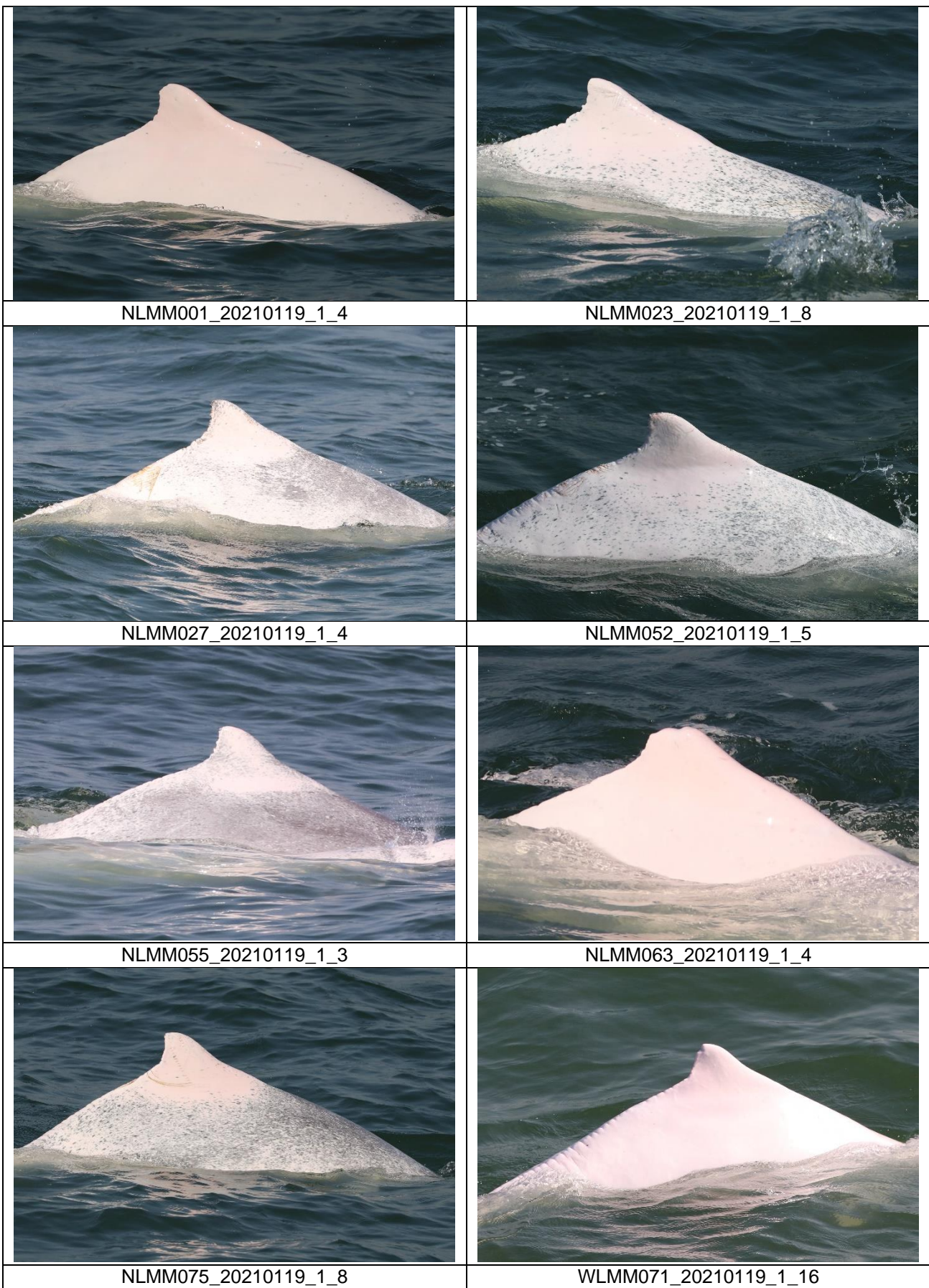
Running Quarterly Encounter Rate by Number of Dolphins (ANI)









$$ANI = \frac{146}{1229.774} \times 100 = 11.87$$





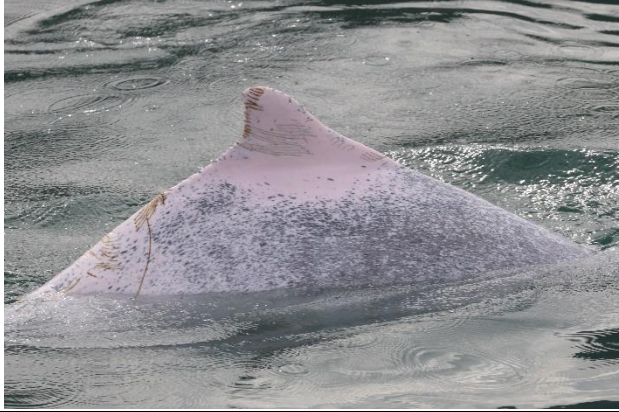



CWD Small Vessel Line-transect Survey









Photo Identification

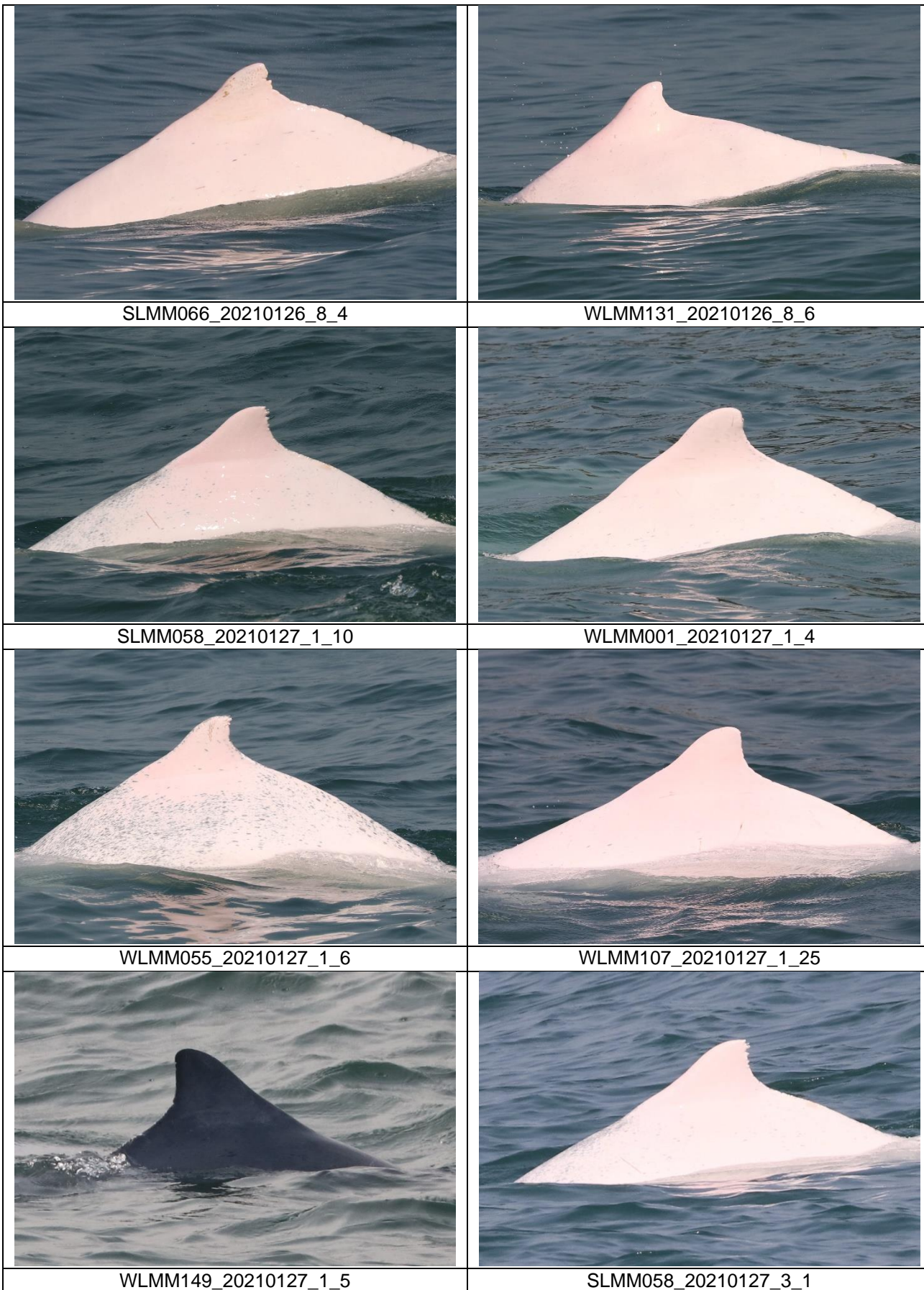
	
SLMM012_20210115_2_4	SLMM037_20210115_2_5
	
WLMM114_20210115_2_9	SLMM014_20210115_3_4
	
SLMM031_20210118_2_5	WLMM006_20210118_2_10
	
WLMM028_20210118_2_2	WLMM029_20210118_2_7

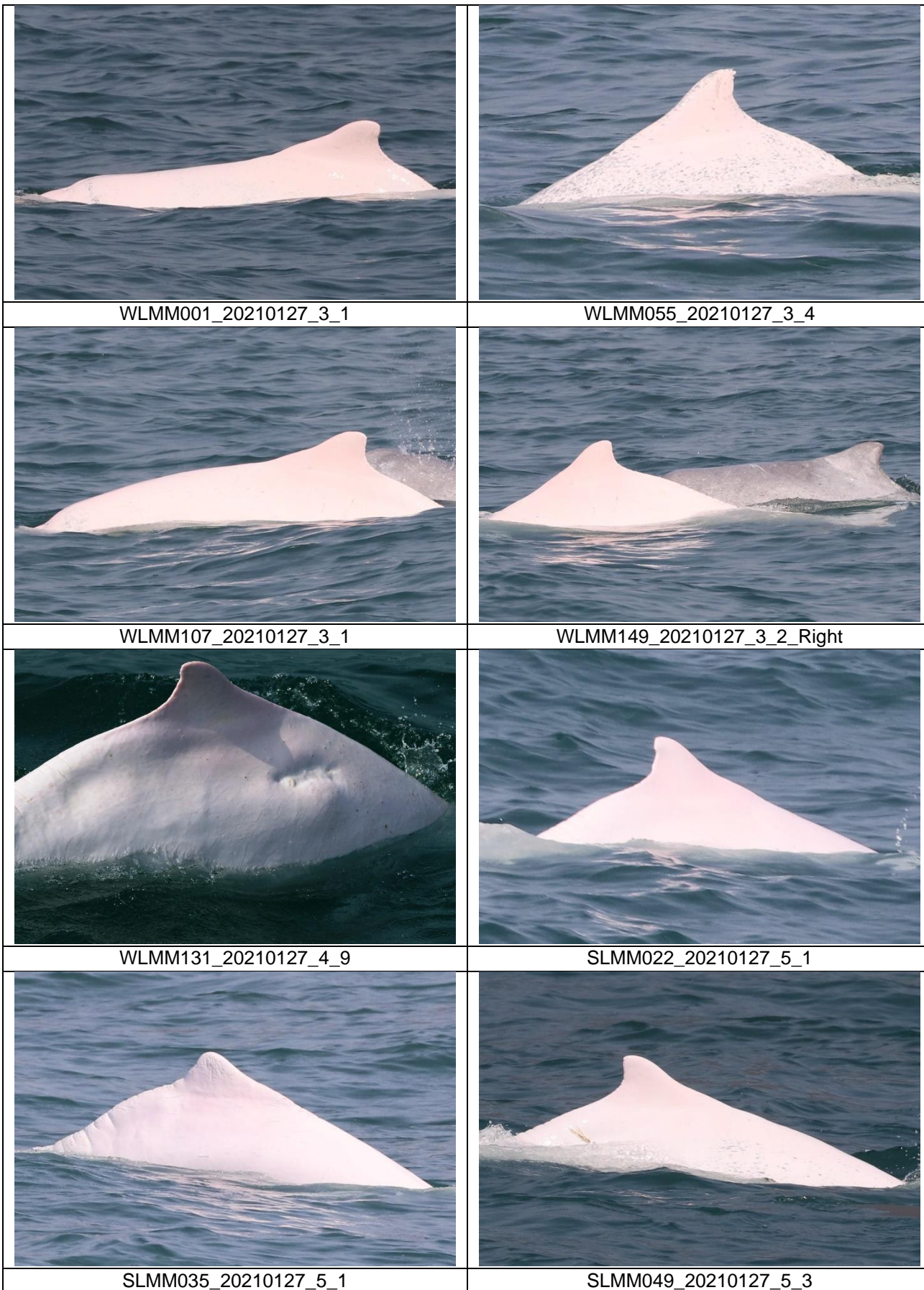


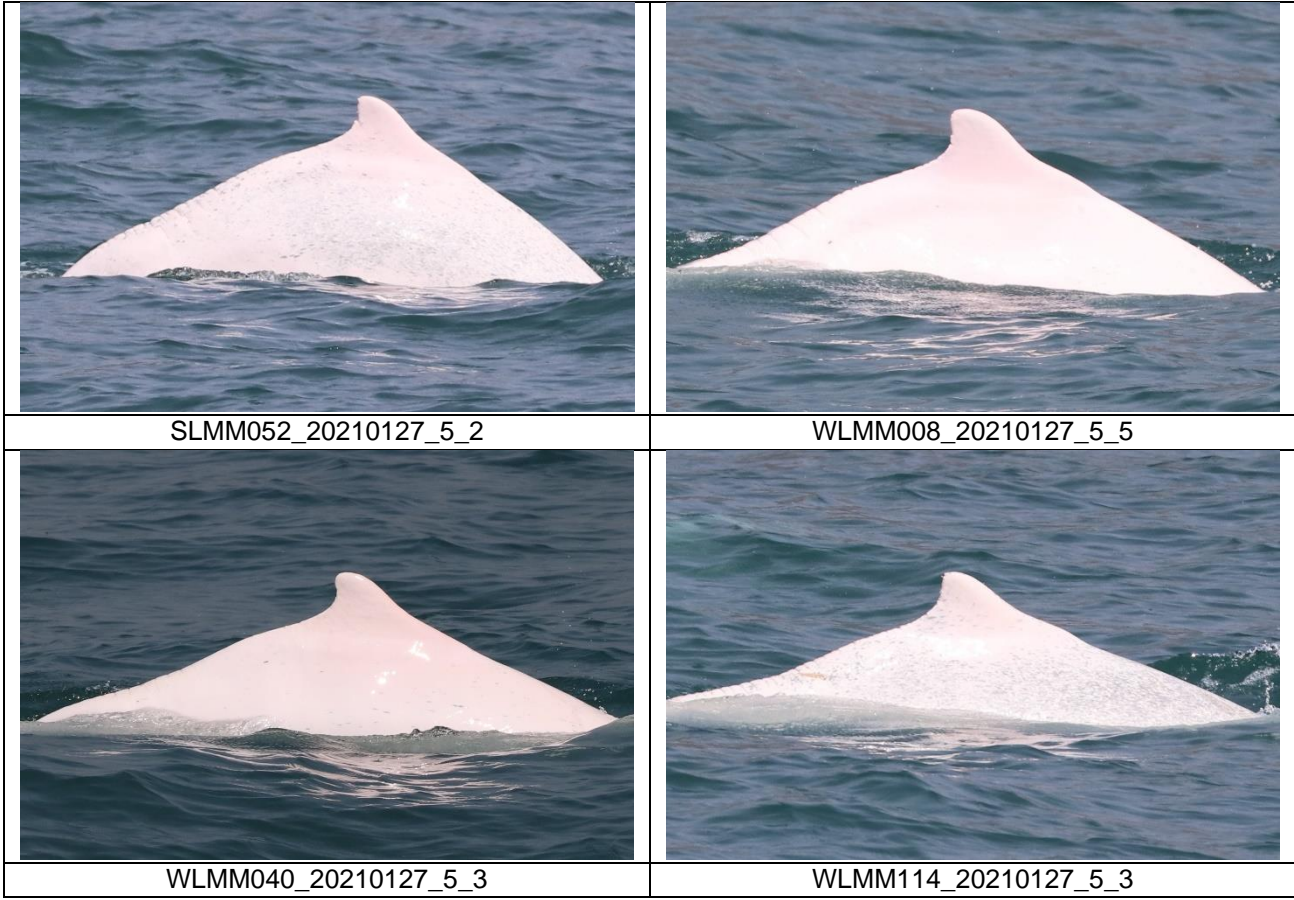
	
NLMM009_20210119_2_11	NLMM021_20210119_2_2
	
NLMM009_20210119_3_1	NLMM021_20210119_3_5
	
NLMM009_20210119_4_3	NLMM076_20210120_1_10
	
SLMM058_20210120_1_2	WLMM001_20210120_1_2

	
WLMM067_20210120_1_4	WLMM071_20210120_1_3
	
WLMM079_20210120_1_8	WLMM107_20210120_1_10
	
WLMM141_20210120_1_6	WLMM147_20210120_1_2
	
WLMM149_20210120_1_13	NLMM020_20210120_2_4

	
NLMM023_20210120_2_8	NLMM039_20210120_2_12
	
NLMM052_20210120_2_3	WLMM052_20210120_2_20
	
WLMM136_20210120_2_6	SLMM060_20210126_2_12
	
SLMM060_20210126_7_10	SLMM031_20210126_8_5







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
15/Jan/21	Lung Kwu Chau	9:02	15:02	6:00	2	2-3	3	2-3
27/Jan/21	Sha Chau	10:59	16:59	6:00	2	3	0	0

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

Appendix D. Calibration Certificates



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA010040
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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 : 15M100005
Date of Received : Jan 18, 2021
Date of Calibration : Jan 18, 2021
Date of Next Calibration^(a) : Apr 17, 2021

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

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

PART D – CALIBRATION RESULTS^(b,c)

(1) pH at 25°C

Target (pH unit)	Displayed Reading ^(d) (pH Unit)	Tolerance ^(e) (pH Unit)	Results
4.00	4.04	0.04	Satisfactory
7.42	7.43	0.01	Satisfactory
10.01	9.91	-0.10	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
15	15.0	0.0	Satisfactory
30	29.9	-0.1	Satisfactory
40	41.0	1.0	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

- ^(a) The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted 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

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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
1.37	1.42	0.05	Satisfactory
4.90	4.91	0.01	Satisfactory
6.88	6.90	0.02	Satisfactory
8.58	8.78	0.20	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	149.5	1.77	Satisfactory
0.01	1412	1387	-1.77	Satisfactory
0.1	12890	12927	0.29	Satisfactory
0.5	58670	57334	-2.28	Satisfactory
1.0	111900	112918	0.91	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	10.03	0.30	Satisfactory
20	20.11	0.55	Satisfactory
30	31.15	3.83	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.05	--	Satisfactory
10	10.09	0.9	Satisfactory
20	21.04	5.2	Satisfactory
100	104.68	4.7	Satisfactory
800	806.11	0.8	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.



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

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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 : 16H104234
Date of Received : Jan 18, 2021
Date of Calibration : Jan 18, 2021
Date of Next Calibration^(a) : Apr 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	4.11	0.11	Satisfactory
7.42	7.42	0.00	Satisfactory
10.01	10.09	0.08	Satisfactory

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

(2) Temperature


Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
15	15.0	0.0	Satisfactory
30	29.9	-0.1	Satisfactory
40	41.0	1.0	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

- ^(a) The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted 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.
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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



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

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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
1.37	1.43	0.06	Satisfactory
4.90	4.93	0.03	Satisfactory
6.88	6.91	0.03	Satisfactory
8.58	8.77	0.19	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	148.7	1.23	Satisfactory
0.01	1412	1325	-6.16	Satisfactory
0.1	12890	12810	-0.62	Satisfactory
0.5	58670	59884	2.07	Satisfactory
1.0	111900	112830	0.83	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	10.05	0.50	Satisfactory
20	20.03	0.15	Satisfactory
30	31.13	3.77	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.04	--	Satisfactory
10	10.12	1.2	Satisfactory
20	20.89	4.5	Satisfactory
100	103.42	3.4	Satisfactory
800	798.71	-0.2	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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

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

Appendix E. Status of Environmental Permits and Licences

	Description		Permit/ Reference No.	Status	
EIAO	Environmental Permit		EP-489/2014	Approved on 7 Nov 2014	
Contract No.	Description	Location	Permit/ Reference No.	Status	
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-RS0971-20	Valid from 23 Dec 2020 to 20 Jun 2021	
		Works Area of 3206 (Area 11)	GW-RS0621-20	Valid from 6 Sep 2020 to 1 Mar 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-RS0740-20	Valid from 12 Oct 2020 to 11 Apr 2021	
Construction Noise Permit (Special Case)		Works area of 3301 (Cable ducting works)	GW-RS0617-20	Valid from 14 Sep 2020 to 13 Mar 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-RS0438-20	Superseded by GW-RS0988-20	
			GW-RS0988-20	Valid from 7 Jan 2021 to 6 July 2021	
			GW-RS0447-20	Superseded by GW-RS0987-20	
			GW-RS0987-20	Valid from 7 Jan 2020 to 6 July 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-RS0825-20	Valid from 16 Nov 2020 to 15 May 2021	
			GW-RS0915-20	Superseded by GW-RS0015-21	
			GW-RS0015-21	Valid from 14 Jan 2021 to 3 Jul 2021	
			Works area of 3303 (Reclamation area)	GW-RS0015-21	Valid from 14 Jan 2021 to 3 Jul 2021
			Works area of 3303 (South East Quay)	GW-RS0655-20	Valid from 16 Sep 2020 to 6 Mar 2021
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-RS0532-20	Valid from 9 Aug 2020 to 6 Feb 2021	
3403	Notification of Construction Work under APCO	Works area of 3403	450860	Receipt acknowledged by EPD on 11 Nov 2019	
	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	

Contract No.	Description	Location	Permit/ Reference No.	Status
	Construction Noise Permit (General Works)	Works area of 3403	GW-RS0822-20	Valid from 29 Nov 2020 to 28 May 2021
	Construction Noise Permit (Special Case)	Works area of 3403	GW-RS0635-20	Valid from 18 Sep 2020 to 17 Mar 2021
GW-RS0989-20			Superseded by GW-RS0010-21	
GW-RS0010-21			Valid from 15 Jan 2021 to 31 May 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
	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-RS0769-20	Superseded by GW-RS0013-21
			GW-RS0013-21	Valid from 16 Jan 2021 to 7 Jul 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 8 Jan 2018
	Discharge License under WPCO	Works area of 3503	WT00031258-2018	Valid from 7 Jun 2018 to 30 Jun 2023
			WT00036551-2020	Valid from 17 Sep 2020 to 30 Sep 2025
			WT00036697-2020	Valid from 2 Nov 2020 to 30 Nov 2025
	Bill Account for disposal	Works area of 3503	A/C 7029665	Approval granted from EPD on 27 Dec 2017
	Construction Noise Permit (General Works)	Works area of 3503	GW-RS0789-20	Valid from 24 Oct 2020 to 15 Apr 2021
			Stockpiling area of 3503	GW-RS0870-20
		Works area of 3503 (Special Case)	GW-RS0442-20	Superseded by GW-RS0997-20
			GW-RS0997-20	Valid from 1 Jan 2021 to 28 Feb 2021
			GW-RS0869-20	Valid from 25 Nov 2020 to 31 Jan 2021
		GW-RS0871-20	Valid from 1 Dec 2020 to 31 Jan 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
	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-RS0882-20	Valid from 26 Nov 2020 to 23 May 2021
		Works area of 3508(Area 3)	GW-RS0802-20	Valid from 27 Oct 2020 to 23 Apr 2021
		Works area of 3508	GW-RS0884-20	Valid from 27 Nov 2020 to 25 May 2021

Contract No.	Description	Location	Permit/ Reference No.	Status
3601	Notification of Construction Work under APCO	Works area of 3601	451765	Receipt acknowledged by EPD on 10 Dec 2019
	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
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-RS0692-20	Valid from 1 Oct 2020 to 30 Mar 2021	
3603	Notification of Construction Work under APCO	Site office of 3603	433604	Receipt acknowledged by EPD on 16 May 2018
	Bill Account for disposal	Works area of 3603	A/C 7030002	Approval granted from EPD on 1 Feb 2018
	Construction Noise Permit (General Works)	Works area of 3603	GW-RS0681-20	Valid from 6 Oct 2020 to 5 Apr 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 705234	Approval granted from EPD on 25 Sep 2019
	Construction Noise Permit (General Works)	Works area of 3721	GW-RS0916-20	Valid from 5 Dec 2020 to 3 Jun 2021
3722	Notification of Construction Work under APCO	Works area of 3722A	453195	Receipt acknowledged by EPD on 11 Feb 2020
		Works area of 3722B	453671	Receipt acknowledged by EPD on 25 Feb 2020
		Works area of 3722C	453673	Receipt acknowledged by EPD on 25 Feb 2020
		Works area of 3722D	453675	Receipt acknowledged by EPD on 25 Feb 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

Contract No.	Description	Location	Permit/ Reference No.	Status
3801	Bill Account for disposal	Works area of 3722A	A/C 7036752	Approval granted from EPD on 11 Mar 2020
		Works area of 3722B	A/C 7036966	Approval granted from EPD on 6 Apr 2020
		Works area of 3722C	A/C 7036967	Approval granted from EPD on 6 Apr 2020
		Works area of 3722D	A/C 7036795	Approval granted from EPD on 20 Mar 2020
	Construction Noise Permit (General Works)	Works area of 3722A, 3722B, 3722C and 3722D	GW-RS0677-20	Valid from 18 Sep 2020 to 14 Mar 2021
	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	
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-RS0826-20	Valid from 31 Oct 2020 to 27 Apr 2021	
Construction Noise Permit (Special case)	Works area of 3801	GW-RS0633-20	Valid from 10 Sep 2020 to 3 Mar 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
	Construction Noise Permit (General Works)	Works area of 3802	GW-RS0972-20	Valid from 23 Dec 2020 to 22 Jun 2021
3901A	Notification of Construction Work under APCO	Works area of 3901A	456240	Receipt acknowledged by EPD on 18 May 2020
	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

Contract No.	Description	Location	Permit/ Reference No.	Status
	Bill Account for disposal	Works area of 3901A	7037889	Approval granted from EPD on 20 Jul 2020
	Construction Noise Permit (General Works)	Works area of 3901A	GW-RS0850-20	Valid from 25 Nov 2020 to 24 May 2021
3901B	Notification of Construction Work under APCO	Works area of 3901B	452168	Receipt acknowledged by EPD on 23 Dec 2019
	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-RS0658-20	Valid from 18 Sep 2020 to 13 Mar 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	30	1	1