



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

Construction Phase Monthly EM&A Report No.62  
(For February 2021)

March 2021

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Airport Authority Hong Kong

**This Monthly EM&A Report No. 62 has been reviewed and certified by**

**the Environmental Team Leader (ETL) in accordance with**

**Condition 3.5 of Environmental Permit No. EP-489/2014.**

**Certified by:**



---

Terence Kong  
Environmental Team Leader (ETL)  
Mott MacDonald Hong Kong Limited

**Date**

12 March 2021



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**By Email**

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

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

12 March 2021

Dear Sir,

**Contract No. 3102**  
**3RS Independent Environmental Checker Consultancy Services**

**Submission of Monthly EM&A Report No. 62 (February 2021)**

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No. 62 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 12 March 2021.

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

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

Yours faithfully,  
AECOM Asia Co. Ltd.

Jackel Law  
Independent Environmental Checker



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# Abbreviations

3RS	Three-Runway System
AAHK	Airport Authority Hong Kong
AECOM	AECOM Asia Company Limited
AFCD	Agriculture, Fisheries and Conservation Department
AIS	Automatic Information System
ANI	Encounter Rate of Number of Dolphins
APM	Automated People Mover
AW	Airport West
BHS	Baggage Handling System
C&D	Construction and Demolition
CAP	Contamination Assessment Plan
CAR	Contamination Assessment Report
CWD	Chinese White Dolphin
DCM	Deep Cement Mixing
DEZ	Dolphin Exclusion Zone
DO	Dissolved Oxygen
EIA	Environmental Impact Assessment
EM&A	Environmental Monitoring & Audit
EP	Environmental Permit
EPD	Environmental Protection Department
ET	Environmental Team
FCZ	Fish Culture Zone
HKBCF	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities
HKIA	Hong Kong International Airport
HOKLAS	Hong Kong Laboratory Accreditation Scheme
HSF	High Speed Ferry
HVS	High Volume Sampler
IEC	Independent Environmental Checker
LKC	Lung Kwu Chau
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 62<sup>nd</sup> 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 28 February 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 deep cement mixing (DCM) works, marine filling, seawall and facilities construction, together with runway and associated works such as bored piling for approach lights. 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:

<b>Monitoring Activities</b>	<b>Number of Sessions</b>
1-hour Total Suspended Particulates (TSP) air quality monitoring	30
Noise monitoring	16
Water quality monitoring	12
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**

		
<p>Noise Impact Monitoring conducted by ET in Man Tung Road Park</p>	<p>Silt Curtain deployed by Contractor for Piling Activities</p>	<p>Chemical Spill Drill conducted by Contractor</p>

### **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, water quality, construction waste, and CWD did not trigger the corresponding Action and Limit Levels in the reporting period.

### **Summary of Upcoming Key Issues**

#### **Reclamation Works:**

##### **Contract 3206 Main Reclamation Works**

- DCM 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**

- Land-based ground improvement works;
- Construction of asphalt plant;
- Footing and utilities work;
- Piling work; and
- Cable laying and ducting works.

**Contract 3307 Fire Training Facility**

- Excavation; and
- Drainage works.

**Third Runway Concourse:****Contract 3402 New Integrated Airport Centres Enabling Works**

- Pavement resurfacing works; and
- Aeronautical Ground Lighting (AGL) cable works.

**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 road work; and
- Piling and structure works.

**Contract 3508 Terminal 2 Expansion Works**

- Excavation and footing 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;
- 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 working platform and ventilation building;
- Box culvert connection works;
- Cofferdam for shaft; and
- Site clearance.

##### **Contract 3802 APM and BHS Tunnels and Related Works**

- Foundation works; and
- Ducting works.

#### **Construction Support (Services / Licences):**

##### **Contract 3901A Concrete Batching Facility**

- Plant construction.

##### **Contract 3901B Concrete Batching Facility**

- 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 <sup>^</sup>		√	No breach of Limit Level was recorded.	Nil
Breach of Action Level <sup>^</sup>		√	No breach of Action Level was recorded.	Nil
Complaint Received	√		In the previous reporting period, three complaints were received including two complaints regarding dust issue received on 25 January 2021, and one complaint regarding refuelling received on 25 January 2021.	For the first complaint received on 25 January 2021 regarding dust issue, ET requested the relevant contractor to provide information related to the complaint. During a joint <i>ad-hoc</i> inspection, dust emission from the vehicular movements was observed but was rectified as observed in the subsequent inspection. All contractors were reminded to properly and adequately implement dust suppression measures to prevent air pollution on site. The case was considered closed.  For the second complaint received on 25 January 2021 regarding dust issue, ET requested the relevant contractors to provide information related to the complaint. During regular site inspections, no dust issue was observed at the alleged area. In view of the information provided by the contractors and findings from ET's inspections and investigation, the case might be due to operation at a cement mixing barge, and the potential contractor related to the case was reminded to provide mitigation measures to prevent any recurrence. ET requested the contractor to continue implementing and strengthening their environmental mitigation measures on construction dust control to prevent any recurrence. The case was considered closed.

Yes	No	Details	Analysis / Recommendation / Remedial Actions
			For the complaint received on 25 January 2021 regarding refuelling, ET requested the relevant contractors to provide information related to the complaint. Regular site inspections and night-time ad-hoc inspections were also conducted by ET during which no occurrence regarding fuel spillage onto sea surface was observed. ET also conducted an investigation on the reclaimed land, in particular the alleged area, during which no refuelling activities and environmental malpractice leading to fuel spillage onto seawater was observed. All contractors were reminded to continue with their current proper practice in handling of fuel to prevent spillage. The case was considered closed.
		A complaint regarding dust issue at the North Eastern Quay of 3RS project was received on 1 February 2021.	The complaint is under investigation. Findings will be reported in the next Monthly EM&A Report.
		A complaint regarding improper fuelling operation at 3RS project area was received on 2 February 2021.	The complaint is under investigation. Findings will be reported in the next Monthly EM&A Report.
		A complaint regarding improper fuelling operation and high sulphur content fuel at 3RS project area was received on 3 February 2021.	ET requested the relevant contractors to provide information related to the complaint. Regular site inspections and night-time <i>ad-hoc</i> inspections were also conducted by ET during which no occurrence regarding fuel spillage onto sea surface was observed. Furthermore, no environmental malpractice on the handling of fuel was observed at the alleged area. All contractors were reminded to properly handle fuel on site and implement their respective contract-specific spill response plan. The case was considered closed.
		A complaint regarding soil/muddy water from vehicles of 3RS Project was received on 9 February 2021.	ET requested the relevant contractors to provide information related to the complaint. A joint <i>ad-hoc</i> inspection was conducted at the landing site where no dust related issue was observed. Besides, no observation related to dust issue was recorded during regular site inspections at the loading sites. All contractors was reminded to strictly conduct suppressing measures and maintain good housekeeping at all times. The case was considered closed.
	√	No notification of summons or prosecution was received.	Nil
	√	There was no change to the construction works that may affect the EM&A.	Nil

Note:

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

# 1 Introduction

## 1.1 Background

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

Airport Authority Hong Kong (AAHK) commissioned Mott MacDonald Hong Kong Limited (MMHK) to undertake the role of Environmental Team (ET) for carrying out the Environmental Monitoring & Audit (EM&A) works during the construction phase of the Project in accordance with the Updated EM&A Manual (the Manual) submitted under EP Condition 3.1<sup>1</sup>. 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 62<sup>nd</sup> 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 28 February 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**.

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<sup>1</sup> 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) (GRRC Puzhen Bombardier Transportation Systems Limited and CRRC Nanjing Puzhen Co., Ltd. Joint Venture)	Project Manager	Hongdan Wei	158 6180 9450
	Environmental Officer	P L Wong	9143 2185
Contract 3602 Existing APM System Modification Works (Niigata Transys Co., Ltd.)	Project Manager	Kunihiko 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 DCM works, marine filling, seawall and facilities construction, together with runway and associated works such as bored piling for approach lights. 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**. **Figure 1.2** presents the latest layout of enhanced silt curtain deployed and a section of enhanced silt curtain phased out in this reporting period. In accordance with the Silt Curtain Deployment Plan, when a certain section of seawalls were partially completed with rock core to high tide mark and filter layer on



the inner side, and an overlapping length of at least 150m for seawall and enhanced silt curtain was maintained, the enhanced silt curtain would be phased out.

### 1.5 Summary of EM&A Programme Requirements

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

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

Parameters	Status
<b>Air Quality</b>	
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
<b>Noise</b>	
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
<b>Water Quality</b>	
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.
<b>Sewerage and Sewage Treatment</b>	
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 <sub>2</sub> S monitoring system for the sewerage system of 3RS	The details of the routine H <sub>2</sub> S monitoring system will be prepared and submitted to EPD at least one year before commencement of operation of 3RS.
<b>Waste Management</b>	
Waste Monitoring	On-going
<b>Land Contamination</b>	
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.
<b>Terrestrial Ecology</b>	
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.

Parameters	Status
<b>Marine Ecology</b>	
Pre-Construction Phase Coral Dive Survey	The Coral Translocation Plan was submitted and approved by EPD under EP Condition 2.12.
Coral Translocation	The coral translocation was completed.
Post-Translocation Coral Monitoring	The post-translocation monitoring programme according to the Coral Translocation Plan was completed in April 2018.
<b>Chinese White Dolphins (CWD)</b>	
<b>Vessel Survey, Land-based Theodolite Tracking and Passive Acoustic Monitoring (PAM)</b>	
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
<b>Landscape &amp; Visual</b>	
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
<b>Environmental Auditing</b>	
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:

- One skipper training session provided by ET: 17 February 2021;
- Two environmental briefings on EP and EM&A requirements of the Project provided by ET: 3 and 18 February 2021; and
- Seventeen environmental management meetings for EM&A review with works contracts: 4, 5, 9, 17, 18, 23, 24, and 25 February 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	7 - 80	306	500
AR2	9 - 59	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 <sup>(1)</sup>	Tung Chung West Development	To be determined
NM3A <sup>(2)</sup>	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) <sup>(1)</sup>

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)
	Leq (30mins)	Leq (30mins)
NM1A <sup>(1)</sup>	68 - 73	75
NM4 <sup>(1)</sup>	59 - 61	70 <sup>(2)</sup>
NM5 <sup>(1)</sup>	52 - 62	75
NM6 <sup>(1)</sup>	66 - 67	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.

In view of the construction programme for marine-based DCM works, regular DCM monitoring, which was ceased since 14 January 2021, was resumed at all monitoring stations starting from 2 February 2021.

**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 <sup>(3)</sup>	Control Station	817803	822109	
IM1	Impact Station	807132	817949	<u>DCM Parameters</u>
IM2	Impact Station	806166	818163	Total Alkalinity, Heavy Metals <sup>(2)</sup>
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 <sup>(1)</sup>	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 <sup>(3)</sup>	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 <sup>(2)(4)</sup>



Monitoring Station	Description	Coordinates		Parameters
SR3	Sha Chau and Lung Kwu Chau Marine Park / fishing and spawning grounds in North Lantau	807571	822147	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS
SR4A	Sha Lo Wan	807810	817189	
SR5A	San Tau Beach SSSI	810696	816593	
SR6A <sup>(5)</sup>	Tai Ho Bay, Near Tai Ho Stream SSSI	814739	817963	General Parameters DO, pH, Temperature, Salinity, Turbidity, SS
SR7	Ma Wan Fish Culture Zone (FCZ)	823742	823636	
SR8 <sup>(6)</sup>	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)	
<b>Action and Limit Levels for general water quality monitoring and regular DCM monitoring (excluding SR1A &amp; SR8)</b>					
General Water Quality Monitoring	DO in mg/l (Surface, Middle & Bottom)	Surface and Middle		Surface and Middle	
		4.5mg/l		4.1mg/l	5mg/l for Fish Culture Zone (SR7) only
		Bottom		Bottom	
		3.4mg/l		2.7mg/l	
	Suspended Solids (SS) in mg/l	23	or 120% of upstream control station at the same tide of the same day,	37	or 130% of upstream control station at the same tide of the same day,
	Turbidity in NTU	22.6	whichever is higher	36.1	whichever is higher
Regular DCM Monitoring <sup>(6)</sup>	Total Alkalinity in ppm	95		99	
	Representative Heavy Metals for regular DCM monitoring (Chromium) in µg/l	0.2		0.2	
	Representative Heavy Metals for regular DCM monitoring (Nickel) in µg/l	3.2		3.6	
<b>Action and Limit Levels SR1A</b>					
	SS (mg/l)	33		42	
<b>Action and Limit Levels SR8</b>					
	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) In view of the construction programme for marine-based DCM works, regular DCM monitoring was ceased from 14 January 2021 and resumed from 2 February 2021 at all monitoring stations.

**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
<b>Flood Tide</b>	
C1	IM1, IM2, IM3, IM4, IM5, IM6, IM7, IM8, SR3
SR2 <sup>(1)</sup>	IM7, IM8, IM9, IM10, IM11, IM12, SR1A, SR3, SR4A, SR5A, SR6A, SR8
<b>Ebb Tide</b>	
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)	3 Feb 2021	<b>Appendix D</b>
	YSI ProDSS (Serial No. 17H105557)	3 Feb 2021	<b>Appendix D</b>
	YSI ProDSS (Serial No. 18A104824)	25 Feb 2021	<b>Appendix D</b>
	YSI ProDSS (Serial No. 15M100005)	18 Jan 2021	Monthly EM&A Report No. 61, Appendix D
	YSI ProDSS (Serial No. 16H104234)	18 Jan 2021	Monthly EM&A Report No. 61, Appendix D
	YSI ProDSS (Serial No. 16H104233)	25 Feb 2021	<b>Appendix D</b>
Digital Titrator (measurement of total alkalinity)	Titrette Bottle-top Burette, 50ml (Serial No. 10N64701)	26 Feb 2021	<b>Appendix D</b>

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 22<sup>nd</sup> 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
<b>Heavy Metals</b>			
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 (i.e. DO, turbidity, SS, total alkalinity, chromium, and nickel) obtained during the reporting period were within their corresponding Action and Limit Levels. The detailed monitoring results are presented in **Appendix C**.

#### 4.5 Conclusion

During the reporting period, all monitoring results were within their corresponding Action and Limit Levels. Nevertheless, as part of the EM&A programme, the construction methods and mitigation measures for water quality will continue to be monitored and opportunities for further enhancement will continue to be explored and implemented where possible, to strive for better protection of water quality and the marine environment.

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

## 5 Waste Management

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

### 5.1 Action and Limit Levels

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

**Table 5.1: Action and Limit Levels for Construction Waste**

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

### 5.2 Waste Management Status

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

Recommendations made included provision and maintenance of proper chemical waste storage area, as well as handling, segregation, and regular disposal of general refuse. The contractors 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 <sup>(1)</sup> Material Stockpiled for Reuse or Recycle (m <sup>3</sup> )	C&D Material Reused in the Project (m <sup>3</sup> )	C&D Material Reused in other Projects (m <sup>3</sup> )	C&D Material Transferred to Public Fill (m <sup>3</sup> )	Chemical Waste (kg)	Chemical Waste (l)	General Refuse (tonne)
January 2021 <sup>(2)(3)</sup>	10,125	*39,724	0	5,780	0	0	1,696
February 2021 <sup>(2)(4)</sup>	15,002	224,678	0	3,083	0	600	1,209

## Notes:

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

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 <sup>(3)</sup>	Running quarterly <sup>(1)</sup> STG < 1.86 & ANI < 9.35
Limit Level <sup>(3)</sup>	Two consecutive running quarterly <sup>(2)</sup> (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
<b>NEL</b>					
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
<b>NWL</b>					
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
<b>AW</b>					
1W	804733	818205	2W	805045	816912
1E	806708	818017	2E	805960	816633
<b>WL</b>					
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			
<b>SWL</b>					
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 5, 8, 9, 16, 17, 22, 23 and 24 February 2021, covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

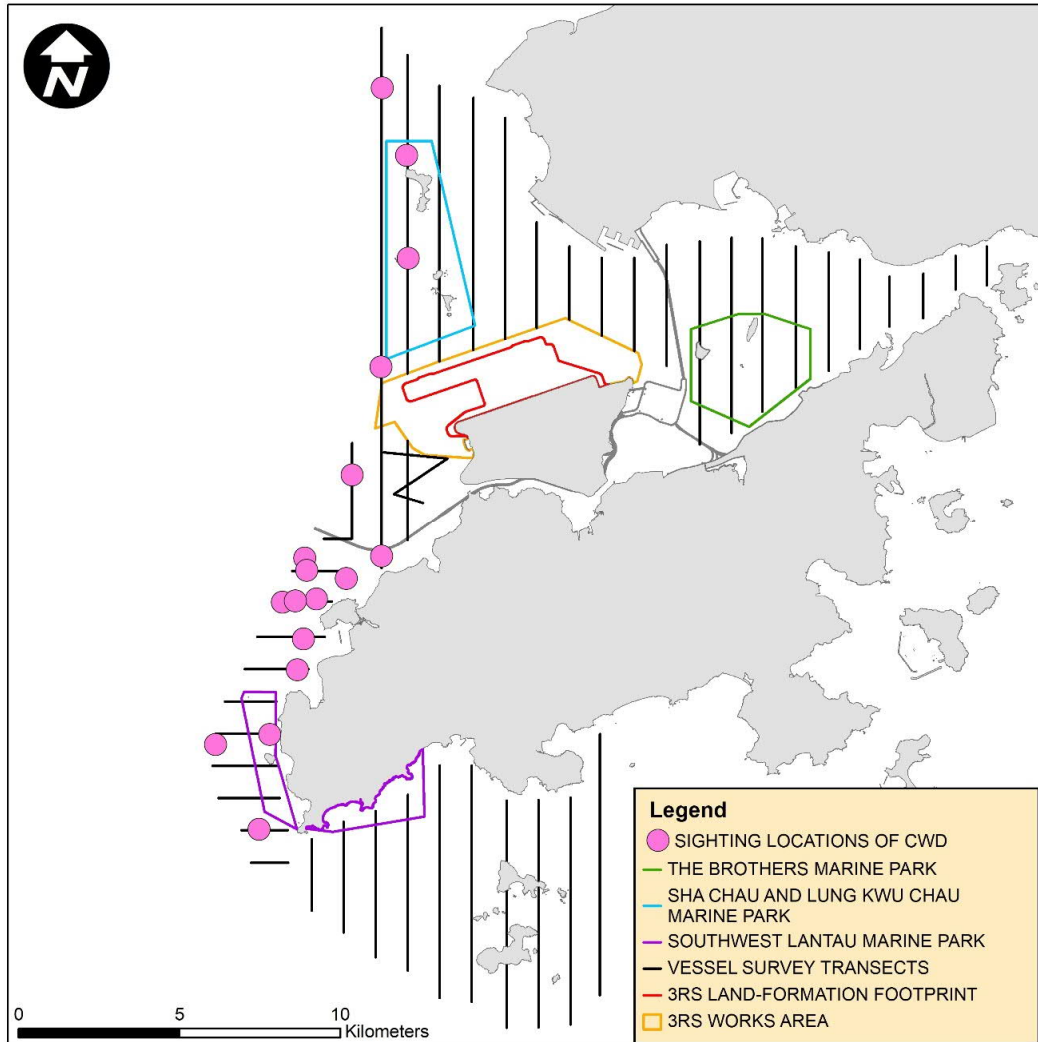
A total of around 445.64 km of survey effort was collected from these surveys and around 91.6% of the survey effort was being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of the survey effort are given in **Appendix C**.

#### Sighting Distribution

In February 2021, 17 sightings with 65 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 February 2021 is illustrated in **Figure 6.3**. In NWL including AW transects, all CWD sightings distributed at the westernmost part of the survey area, with some of these sightings located within or in close vicinity to Sha Chau and Lung Kwu Chau Marine Park. In WL, the majority of the CWD sightings were clustered at the waters around Tai O and Yi O, with a few sightings scattered at waters around Peaked Hill and Fan Lau. No sightings of CWD were recorded in NEL and SWL.

**Figure 6.3: Sightings Distribution of Chinese White Dolphins**



Remarks: (1) Please note that there are 17 pink circles on the map indicating the sighting locations of CWDs. Some of them were very close to each other and therefore may appear overlapped on this distribution map. (2) Marine park excludes land area and the landward boundary generally follows the high water mark along the coastline.

**Encounter Rate**

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

**Encounter Rate by Number of Dolphin Sightings (STG)**

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

#### Encounter Rate by Number of Dolphins (ANI)

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

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

In February 2021, a total of around 408.03 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 17 on-effort sightings with 65 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 December 2020 to February 2021), a total of around 1213.70 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 50 on-effort sightings and a total number of 167 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 February 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)
February 2021	4.17	15.93
Running Quarter from December 2020 to February 2021 <sup>(1)</sup>	4.12	13.76
Action Level	Running quarterly <sup>(1)</sup> 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 December 2020 to February 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 February 2021, 17 groups of 65 dolphins in total were sighted, and the average group size of CWDs was 3.8 dolphins per group. Sightings with small group size (i.e. 1-2 dolphins) are dominant. There were two CWD sightings with large group size (i.e. 10 or more dolphins) recorded and both these two sightings were located in NWL.

#### **Activities and Association with Fishing Boats**

Four sightings of CWDs were recorded engaging in feeding activities in February 2021. Two of these sightings were observed in association with operating gillnetter in WL during the reporting period.

#### **Mother-calf Pair**

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

### 6.4.2 Photo Identification

In February 2021, a total number of 45 different CWD individuals were identified for totally 52 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
NLMM023	17-Feb-21	1	NWL	WLMM006	16-Feb-21	3	WL
NLMM052	17-Feb-21	1	NWL	WLMM013	08-Feb-21	1	NWL
NLMM058	08-Feb-21	1	NWL	WLMM028	16-Feb-21	4	WL
NLMM060	16-Feb-21	1	WL	WLMM029	16-Feb-21	3	WL
NLMM076	05-Feb-21	4	WL	WLMM030	08-Feb-21	1	NWL
		5	WL	WLMM039	16-Feb-21	2	WL
NLMM077	08-Feb-21	1	NWL	WLMM047	05-Feb-21	4	WL
NLMM078	08-Feb-21	3	NWL			5	WL
NLMM079	08-Feb-21	3	NWL	WLMM051	08-Feb-21	1	NWL
NLMM080	08-Feb-21	3	NWL	WLMM052	08-Feb-21	1	NWL
NLMM081	08-Feb-21	3	NWL	WLMM056	16-Feb-21	3	WL
SLMM007	05-Feb-21	4	WL	WLMM064	08-Feb-21	3	NWL
		5	WL	WLMM065	08-Feb-21	2	NWL
SLMM010	05-Feb-21	6	WL	WLMM071	08-Feb-21	3	NWL
SLMM014	05-Feb-21	7	WL		16-Feb-21	1	WL
		16-Feb-21	3	WL	WLMM083	08-Feb-21	1
SLMM023	16-Feb-21	3	WL	WLMM086	08-Feb-21	1	NWL
SLMM027	16-Feb-21	5	WL	WLMM090	08-Feb-21	3	NWL
SLMM029	05-Feb-21	2	WL	WLMM097	08-Feb-21	1	NWL
SLMM037	16-Feb-21	3	WL	WLMM107	16-Feb-21	2	WL
SLMM055	08-Feb-21	3	NWL	WLMM114	16-Feb-21	3	WL
SLMM071	08-Feb-21	3	NWL	WLMM118	16-Feb-21	4	WL
SLMM073	05-Feb-21	4	WL	WLMM131	05-Feb-21	2	WL
		5	WL	WLMM136	08-Feb-21	1	NWL
WLMM001	05-Feb-21	4	WL	WLMM138	08-Feb-21	1	NWL
		5	WL	WLMM149	16-Feb-21	2	WL

### 6.4.3 Land-based Theodolite Tracking Survey

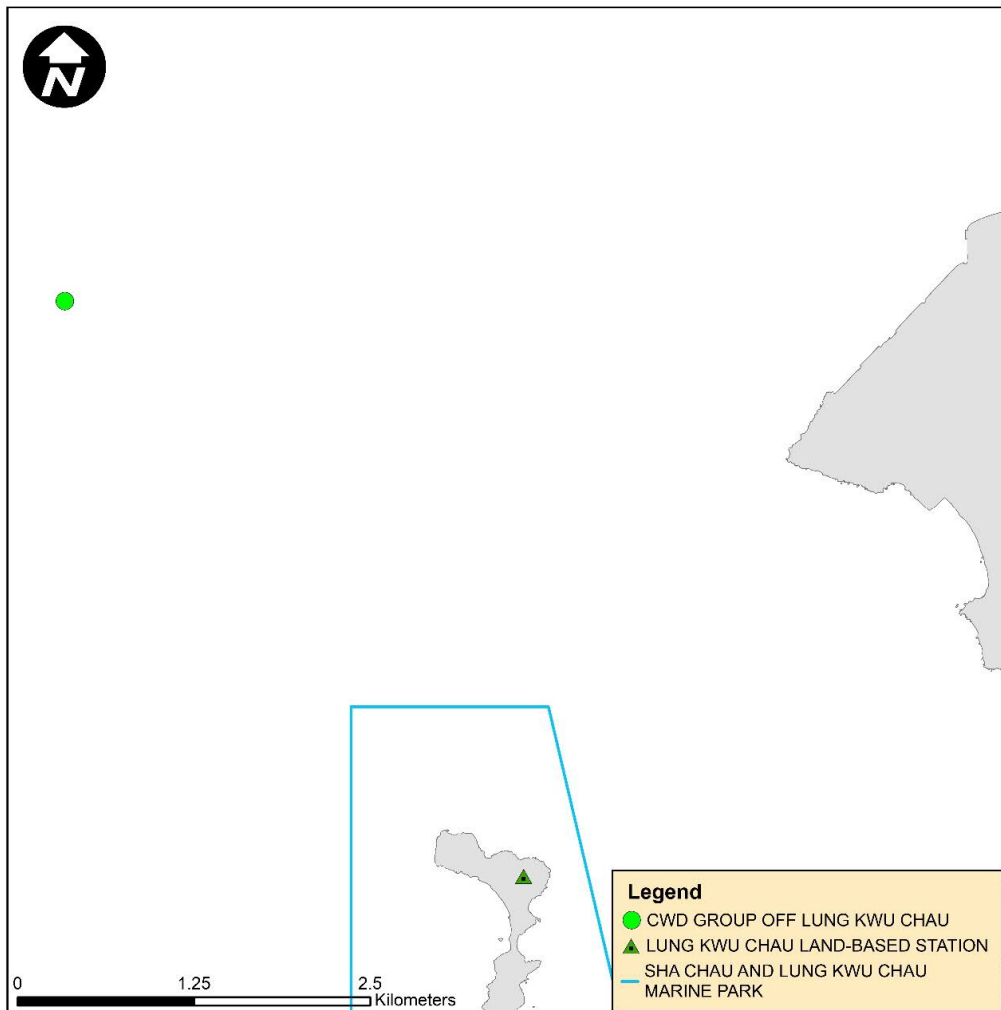
#### **Survey Effort**

Land-based theodolite tracking surveys were conducted at LKC on 24 February 2021 and at SC on 26 February 2021, with a total of two days of land-based theodolite tracking survey effort accomplished in this reporting period. One 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 location of CWD group tracked at LKC station during land-based theodolite tracking survey in February 2021 was 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	1	0.17
Sha Chau	1	6:00	0	0
<b>TOTAL</b>	<b>2</b>	<b>12:00</b>	<b>1</b>	<b>0.08</b>

**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 F-POD was retrieved on 25 February 2021 and subsequently redeployed and positioned at south of Sha Chau Island inside the SCLKCMP (Figure 6.5). The PAM deployment is generally for 6 weeks prior to data retrieval for analysis. Acoustic data would be reviewed to give an indication of CWDs occurrence

patterns and anthropogenic noise information. Analysis would involve use of proprietary software for objective automated data analyses and experienced analysts to perform visual validation for assessment of dolphin detection. As the period of data collection and analysis takes about four months, PAM results could not be reported in monthly intervals but report for supplementing the annual CWD monitoring analysis.

## 6.6 Site Audit for CWD-related Mitigation Measures

During the reporting period, silt curtains were in place by the contractor for marine filling and bored piling, in which dolphin observers were deployed by contractor in accordance with the MMWP. Overall, 2 to 5 dolphin observation stations and teams of at least two dolphin observers were deployed by the contractors for continuous monitoring of the DEZ for DCM works, 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.




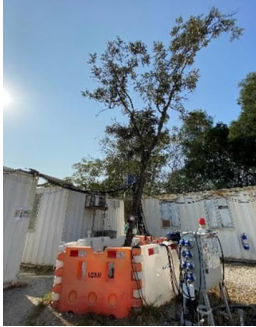

The implementation status of the environmental protection measures are summarized below in **Table 7.1**. Examples of landscape and visual mitigation measures are shown in **Table 7.2**. The monitoring programme for detailed design, construction, establishment works and long term management (10 years) 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.	3302, 3503, 3602, 3801
	The Contractors' performance on the implementation of the trees maintenance and protection measures were observed and checked by the ET weekly during construction period.	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 119 and 11, respectively. One tree is updated to 'retain' under Contract 3801 during the reporting period. Three trees under Contract 3503 transitioned from establishment period to long term management period during the reporting period and managed by Contract 3503 currently. Details of the retained trees, transplanted trees and to-be-transplanted trees under the Project are summarized in **Table 7.5**. Photos of transplanted trees are presented in **Table 7.7**.

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 each batch of transplanting works.	Report on Contractor's compliance, by ET	Counter signature of report by IEC	Every two months
Long Term Management (10 year)	Monitoring of the long-term management of the planting works in the period up to 10 years after completion each batch of transplanting works.	Report on Compliance by ET or Maintenance Agency as appropriate	Counter signature of report by Management Agency	Annually

**Table 7.4: Event and Action Plan for Landscape and Visual**

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

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

Existing				
Contract	Retain (nos.)	Transplanted (nos.)		To-be-transplanted (nos.)
		Establishment Period	Maintenance Period	
3302	9	0	0	0
3503	19	6	3	0
3602	2	0	0	0
3801	89	0	5	0
Sub-total	119	6	8	0
Provisional				
Contract	Retain (nos.)	Transplanted (nos.)		To-be-transplanted (nos.)
3508 <sup>(1)</sup>	155	0		22
Sub-total	155	0		22
<b>Grand Total</b>	<b>274</b>	<b>14</b>		<b>22</b>

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.





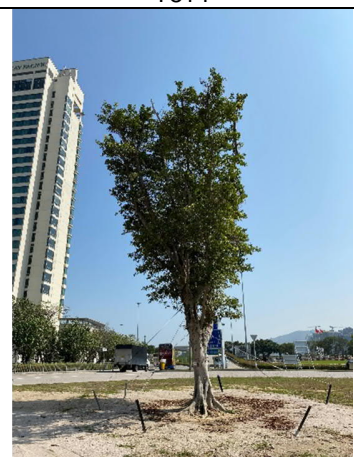

**Table 7.6: Summary of the Transplanted Trees Updated in the Reporting Period**

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>Long Term Management 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>Long Term Management 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
		<u>Long Term Management period</u> Feb 2021 – Jan 2030		
T836	13 Dec 2019	<u>Establishment period</u> 14 Dec 2020 – Jan 2021	Contract 3503	
		<u>Long Term Management period</u> Feb 2021 – Jan 2030		
T838	22 Jan 2020	<u>Establishment period</u> 23 Jan 2020 – Jan 2021	Contract 3503	
		<u>Long Term Management period</u> Feb 2021 – Jan 2030		
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	NA
		<u>Long Term Management period</u> Jun 2019 – May 2028	Southern Landside Petrol Filling Station	Uprooted and collapsed due to Typhoon Higos on 18 August 2020. Tree removal was conducted as recommended by tree specialist of the contractor of Southern Landside Petrol Filling Station.
CT1794	3 May 2018	<u>Establishment period</u> 4 May 2018 – May 2019	Contract 3801	NA
		<u>Long Term Management period</u> Jun 2019 – May 2028	AsiaWorld-Expo	The tree within the land parcel was acquired by the government for construction of emergency hospital to handle COVID19 pandemic at AsiaWorld-Expo. The tree was felled in late 2020.



Tree ID	Transplant Date	Management Stage	Management Agency	Remarks
CT1795	3 May 2018	<u>Establishment period</u> 4 May 2018 – May 2019	Contract 3801	NA
		<u>Long Term Management period</u> Jun 2019 – May 2028	AsiaWorld-Expo	The tree within the land parcel was acquired by the government for construction of emergency hospital to handle COVID19 pandemic at AsiaWorld-Expo. The tree was felled in late 2020.

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

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



### 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 February 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., 1 to 3 daily movements) were within the maximum daily cap of 125 daily movements. Status of compliance with the annual daily average of 99 movements will be further reviewed in the Annual EM&A Report.

As updated by CLP Power, the construction works of the Hong Kong Offshore LNG Terminal Project may affect the route diversion operation of the SkyPier HSFs from Q2 to Q4 2021. The captains were informed on the issue and ET will continue to closely monitor the implementation of the SkyPier Plan in the period.

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

Requirements in the SkyPier Plan	1 to 28 February 2021
Total number of ferry movements recorded and audited for HSF to/from Zhuhai and Macau	0
Use diverted route and enter / leave SCZ through Gate Access Points	0 deviation
Daily Cap for all SkyPier HSFs including those not using diverted route	1 to 3 daily movement (within the maximum daily cap - 125 daily movements)

## 7.5 Audit of Construction and Associated Vessels

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

ET carried out the following actions during the reporting period:

- One skipper training session was held for 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.
- Two skipper training sessions were held by contractors' Environmental Officers. Competency tests were subsequently conducted with the trained skippers by ET. The list of all trained skippers was properly recorded and maintained by ET.
- Based on the updated record, 3 skippers were trained by ET and 11 skippers were trained by contractors' Environmental Officers in the previous period. In this reporting period, 6 skippers were trained by ET and 3 skippers was trained by contractors' Environmental Officers. In total, 1689 skippers were trained from August 2016 to February 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 DCM works, 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	Accepted / approved by EPD
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

#### **Complaints received in the previous reporting period**

As reported in the previous Monthly EM&A Report, three complaints were received in the previous reporting period, including:

- Two complaints regarding dust issue received on 25 January 2021; and
- A complaint regarding refuelling received on 25 January 2021.

The cases were investigated by ET in accordance with the Manual and the Complaint Management Plan of the Project. The findings of investigation are presented below.

#### **First complaint regarding dust issue received on 25 January 2021**

With the photo provided by the complainant, ET identified the related 3RS contractor and requested the contractor to provide more information regarding the complaint. According to the information provided by the contractor, the alleged area was under their management, yet the trucks in the photo were not operated by them. Water bowsers and manual water spraying were arranged within the alleged area. During a joint *ad-hoc* inspection of EPD, ET, AAHK and IEC on 25 January 2021, dust emission from the vehicular movements was observed and the contractor was advised to conduct water spraying at the alleged area. The issue was rectified as observed in the subsequent joint environmental site inspection on 1 February 2021, and the contractor was advised again to provide effective dust suppression measures on-site.

It was noted that all air quality monitoring results of the Project in January 2021 were within the corresponding Action and Limit Levels at all monitoring stations. Nevertheless, the ET requested the contractor to provide their environmental mitigation measures for dust suppression and water spraying records for checking. The ET also reminded all contractors to properly and adequately implement dust suppression measures to prevent air pollution on site. ET and IEC would continue to monitor the related contractor's environmental mitigation measures for dust suppression during the environmental site inspections. Hence, the complaint case was considered closed.

#### **Second complaint regarding dust issue received on 25 January 2021**

The ET identified the two related 3RS contractors and requested the contractors to provide more information regarding the complaint. Cement mixing activities were carried out at the alleged area and the condition of the filter for cement mixer and generator were unsatisfactory as reported by one of the contractors. The contractor reported that follow-up actions had been taken accordingly and would continue to conduct checking and maintenance of the cement mixing barge and keep procedural checklist as good practice. On the other hand, the other contractor had no works carried out at the alleged area during the alleged period and water spraying as set out in the contractor's dust control management plan was implemented along main haul road. Based on ET's regular site inspections in January 2021, no dust issue was observed at the alleged area.

In view of the information provided by the contractors and findings from ET's inspections and investigation, the case might be due to operation at a cement mixing barge, and the potential contractor related to the case was reminded to provide mitigation measures to prevent any recurrence. It was noted that all air quality monitoring results of the Project in January 2021 were within the corresponding Action and Limit Levels at all monitoring stations. Nevertheless, the ET requested the contractor to continue implementing and strengthening their environmental mitigation measures on construction dust control to prevent any recurrence. ET and IEC will continue to conduct inspections to ensure all similar cement mixing barges are maintaining good housekeeping and continue to monitor the Project's air quality monitoring results. Hence, the complaint case was considered closed.

#### Complaint regarding refuelling received on 25 January 2021

It was mentioned that the refuelling activities were observed at the shore of central northern area of the newly reclaimed land, where the ET identified the related 3RS contractors and requested the contractors to provide more information regarding the complaint. According to the information provided by the contractors, no fuel spillage incident was recorded in January 2021 which is in line with the ET's checking of fuel spillage incident record. The contractors also reported no refuelling activities were carried out at the alleged area. Based on ET's regular site inspections and night-time *ad-hoc* inspections in January and early February 2021, no occurrence regarding fuel spillage onto sea surface was observed. In addition, an investigation on the reclaimed land, in particular the alleged area, was conducted on 26 January 2021 during which no refuelling activities and environmental malpractice leading to fuel spillage onto seawater was observed.

It was noted that all water quality monitoring results of the Project from 1 to 23 January 2021 were within the corresponding Action and Limit Levels, except one case of chromium exceedance at IM11 on 2 January 2021 which was considered not due to the Project based on investigation findings. Nevertheless, the ET will continue to remind the related contractors and all other contractors to properly handle fuel, including storage, refuelling and implement their respective contract-specific spill response plan involving the conducting of regular spill drills and trainings, and to provide sufficient spills kits on site to prevent fuel spillage. ET and IEC would continue to monitor the Project's water quality, inspect contractors' fuel spillage records and conduct site inspections to check contractors' environmental practices and compliances. Hence, the complaint case was considered closed.

#### Complaints received in this reporting period

Four complaints were received in this reporting period, including:

- A complaint regarding dust issue at the North Eastern Quay of the Project received on 1 February 2021;
- A complaint regarding improper fuelling operation at the Project area received on 2 February 2021;
- A complaint regarding improper fuelling operation and high sulphur content fuel at the Project area received on 3 February 2021; and
- A complaint regarding soil/muddy water from vehicles of the Project received on 9 February 2021.

The cases were investigated by ET in accordance with the Manual and the Complaint Management Plan of the Project. The findings of investigation are presented below.

#### Complaint regarding dust issue received on 1 February 2021

The case is under investigation and findings of the investigation will be reported in the next Monthly EM&A Report.

#### Complaint regarding improper fuelling operation received on 2 February 2021

The case is under investigation and findings of the investigation will be reported in the next Monthly EM&A Report.

#### Complaint regarding improper fuelling operation and high sulphur content fuel received on 3 February 2021

No detail of the case such as date, time and name of the barge was provided in the complaint. It was mentioned that the improper fuelling operation and high sulphur content fuel were observed at the shore of central northern area of the newly reclaimed land, where the ET identified the related 3RS contractors and requested the contractors to provide more information regarding the complaint. All the contractors replied and provided relevant fuel purchasing records to prove that they had purchased Ultra Low Sulphur Diesel (ULSD) or equivalent such as EURO V which is in line with the ET's checking of their fuel purchasing records since October 2020. Based on ET's regular site inspections and night-time *ad-hoc* inspections in January 2021 and up to 10 February 2021, no occurrence regarding fuel spillage onto sea surface was observed. Furthermore, no environmental malpractice on the handling of fuel was observed at the alleged area.

In view of the information provided by the contractors and findings from ET's inspections and investigation, there was no evidence indicating the use of high sulphur content fuel at the project area. Nevertheless, the ET will continue to remind all contractors to properly handle fuel on site and implement their respective contract-specific spill response plan. ET and IEC would continue to check contractors' fuel purchasing records and conduct site inspections to check contractors' environmental practices and compliances. Hence, the complaint case was considered closed.

#### Complaint regarding soil/muddy water from vehicles of the Project received on 9 February 2021

No detail of the case such as date, time, name of the barge and type of vehicles was provided in the complaint. The ET identified the related 3RS contractors and requested the contractors to provide more information regarding the complaint. According to the information provided by the contractors, all vehicles were fully enclosed or covered with impervious sheeting with the wheel washed before leaving site area. During a joint *ad-hoc* inspection of ET, AAHK and IEC on 17 February 2021, no soil or muddy water at the alleged area was observed. However, it was observed that the landing site was an open area shared with other non-Project related vehicles. Besides, no observation related to dust issue was recorded during ET's regular site inspection at the loading sites on the airport island used by the related contractors.

Although the landing site could be used by the public and other contractors not under the Project, the contractors under the Project who used the area in January 2021 were reminded to continue and strengthen their environmental mitigation measure for dust suppression, as well as to continue implementing good housekeeping practices during the entire periods of their operations at the alleged area. ET and IEC would check the training records of frontline staff for the related contractors with regards to the handling of dusty materials and reminded all contractors to strictly conduct suppression measures and maintain good housekeeping at all times. Hence, the complaint case was considered closed.

### 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**

- DCM 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**

- Land-based ground improvement works;
- Construction of asphalt plant;
- Footing and utilities work;
- Piling work; and
- Cable laying and ducting works.

##### **Contract 3307 Fire Training Facility**

- Excavation; and
- Drainage works.

#### **Third Runway Concourse:**

##### **Contract 3402 New Integrated Airport Centres Enabling Works**

- Pavement resurfacing works; and
- AGL cable works.

##### **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;
- 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**

- Foundation works; and
- Ducting works.

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

- Plant construction.

**Contract 3901B Concrete Batching Facility**

- 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) and seawall construction;
- 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 such as bored piling for approach lights. 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, water quality, construction waste, and CWD did not trigger the corresponding Action and Limit Levels during the reporting period.

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 1 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

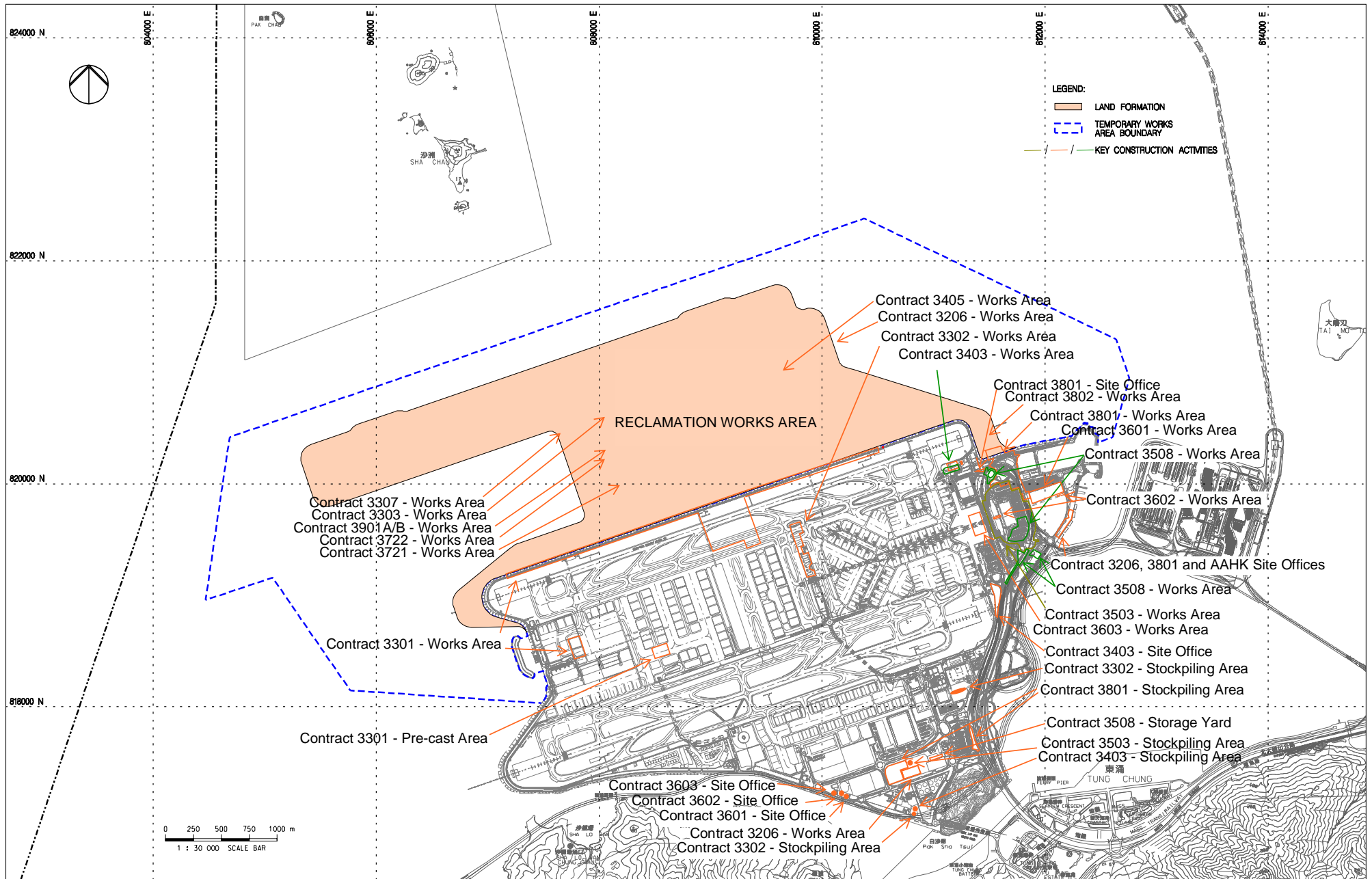
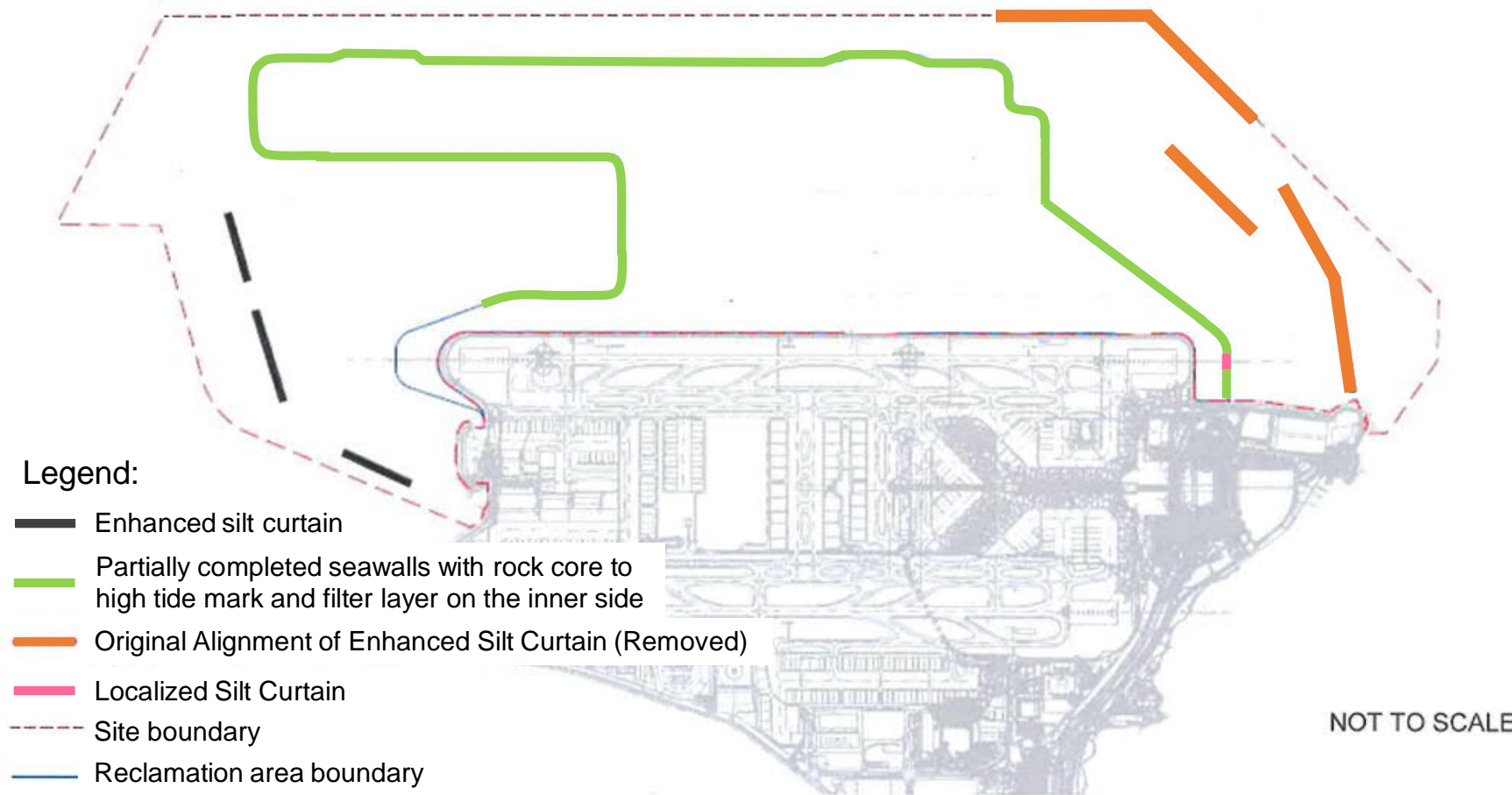


FIGURE 1.1 LOCATIONS OF KEY CONSTRUCTION ACTIVITIES

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

Figure 1.2

**Latest Layout of the Enhanced Silt Curtain**





80000 E

80000 E

81000 E

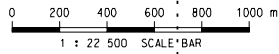
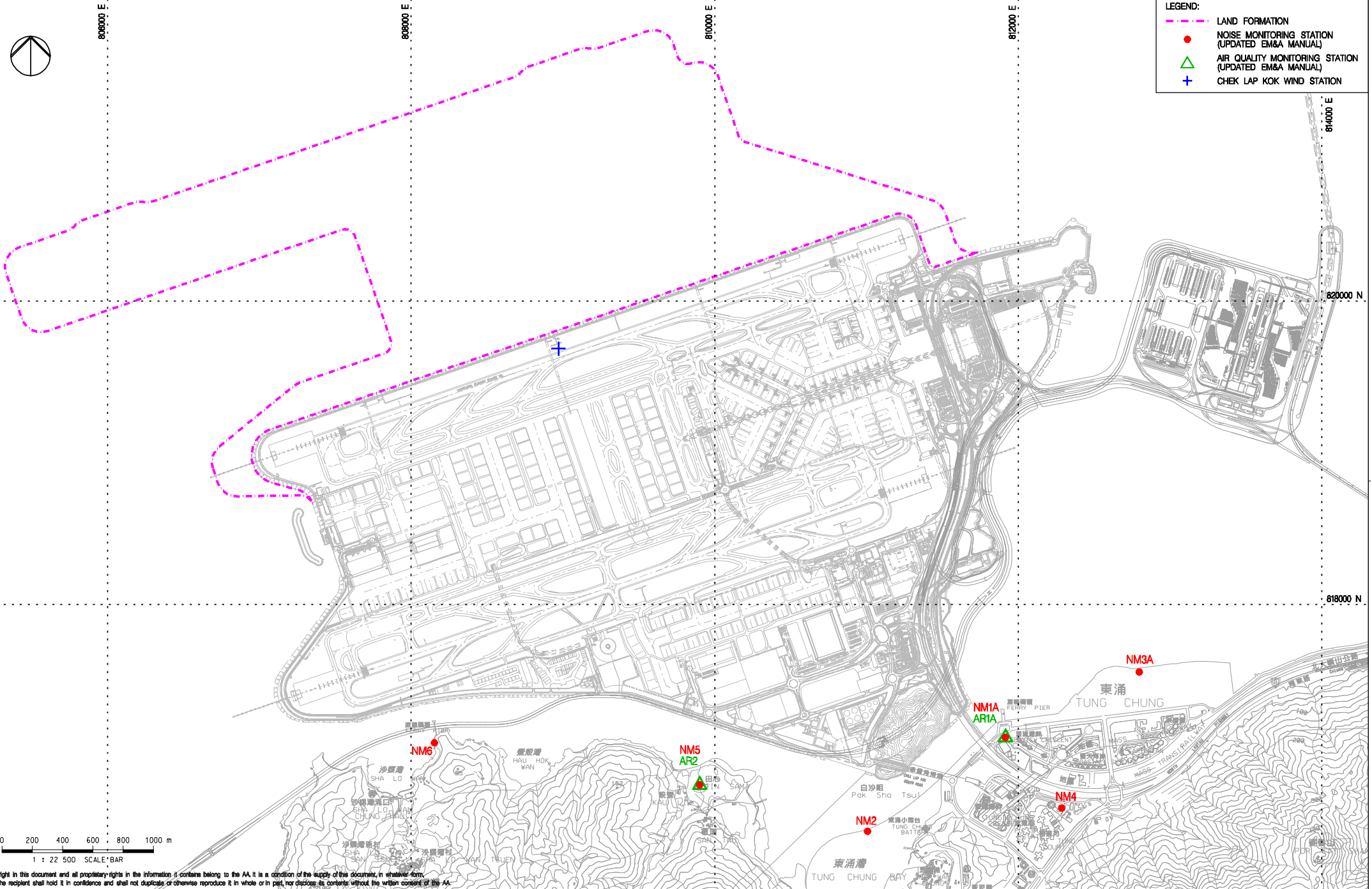
82000 E

84000 E

82000 N

81800 N

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



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

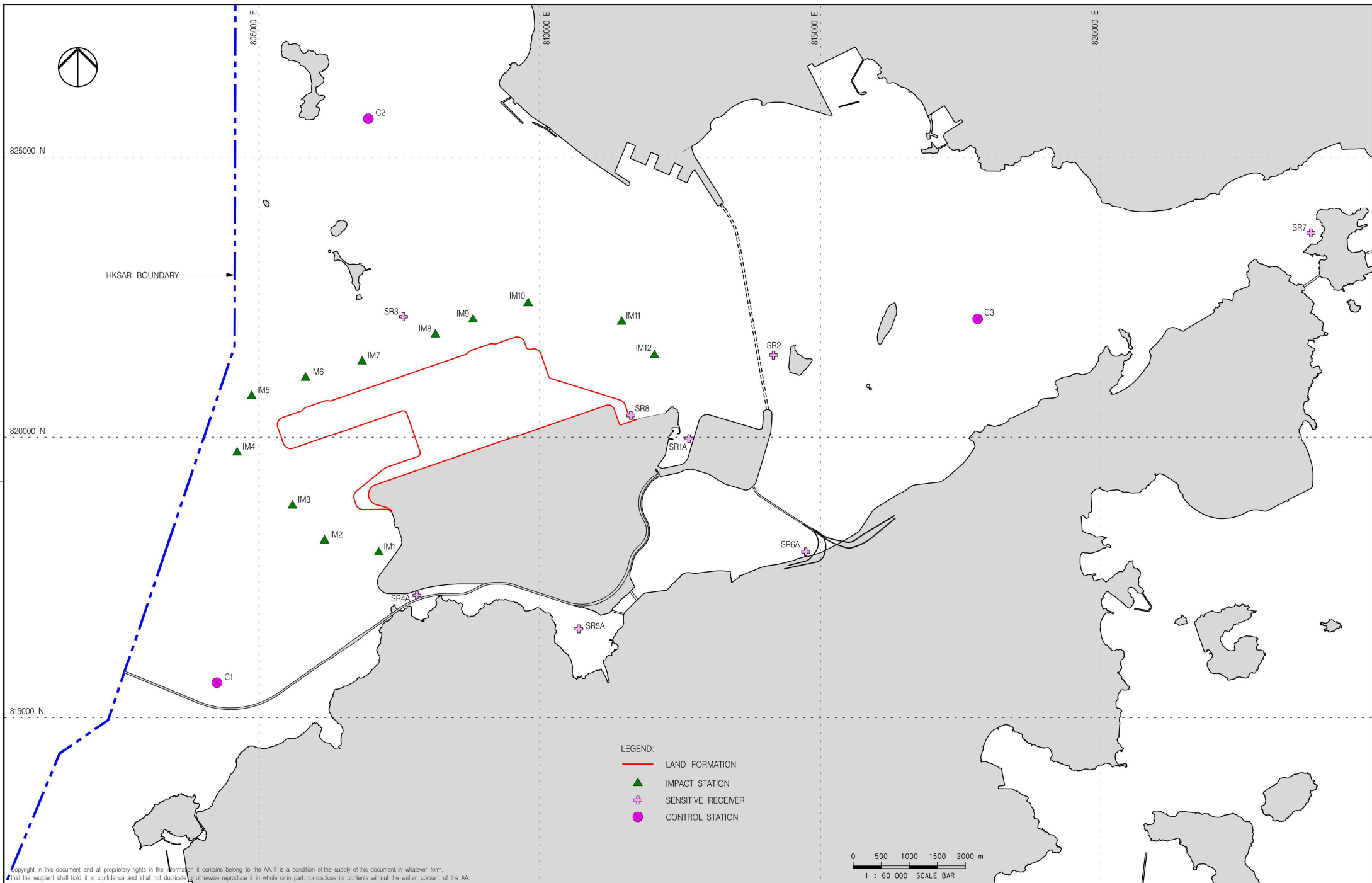


Title  
LOCATIONS OF AIR AND NOISE MONITORING STATIONS AND CHEK LAP KOK WIND STATION

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

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





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A	21AUG19	FIRST ISSUE	VL

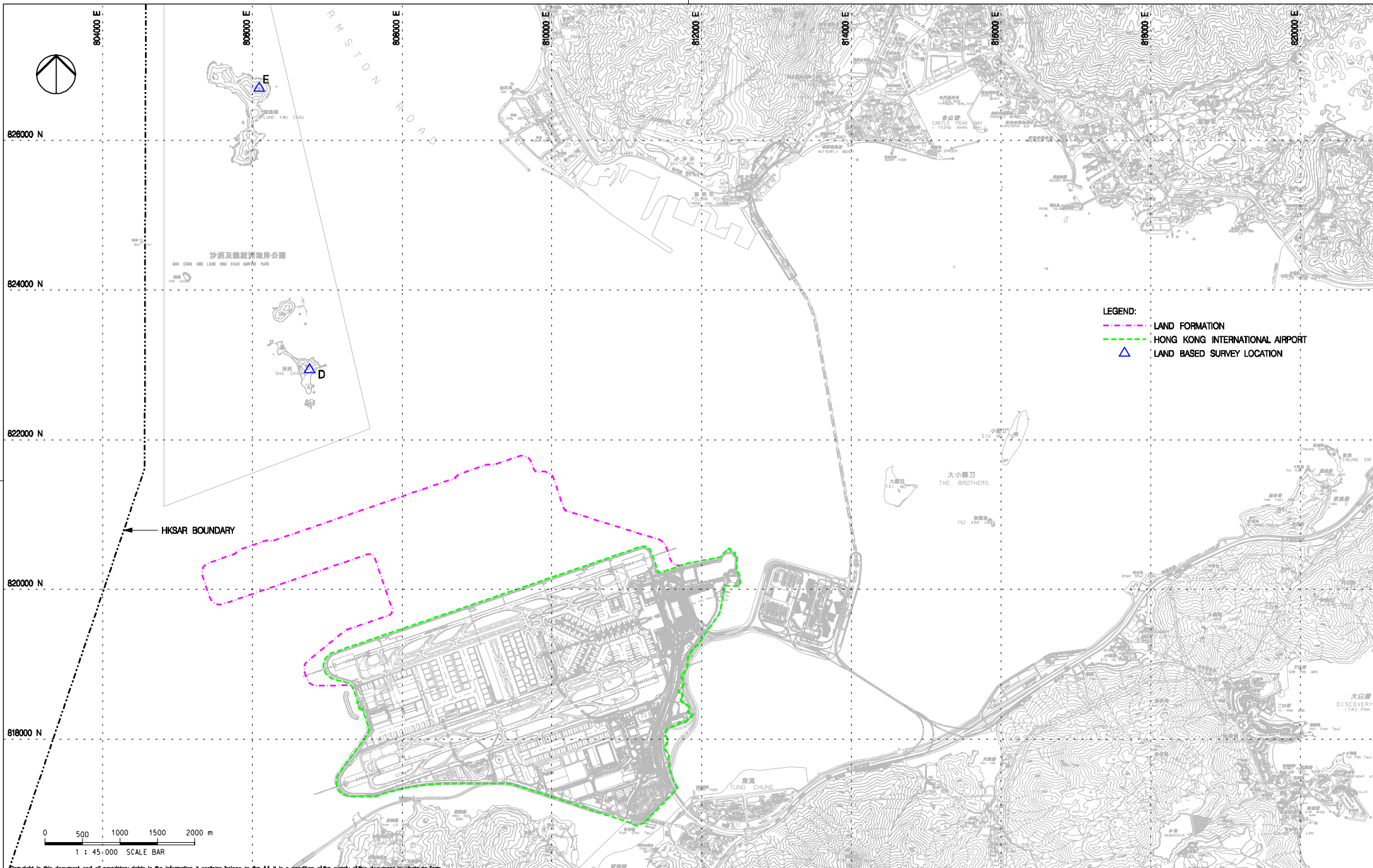


Title  
**WATER QUALITY MONITORING STATIONS**

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
<b>FIGURE 4.1</b>	
Rev.	A





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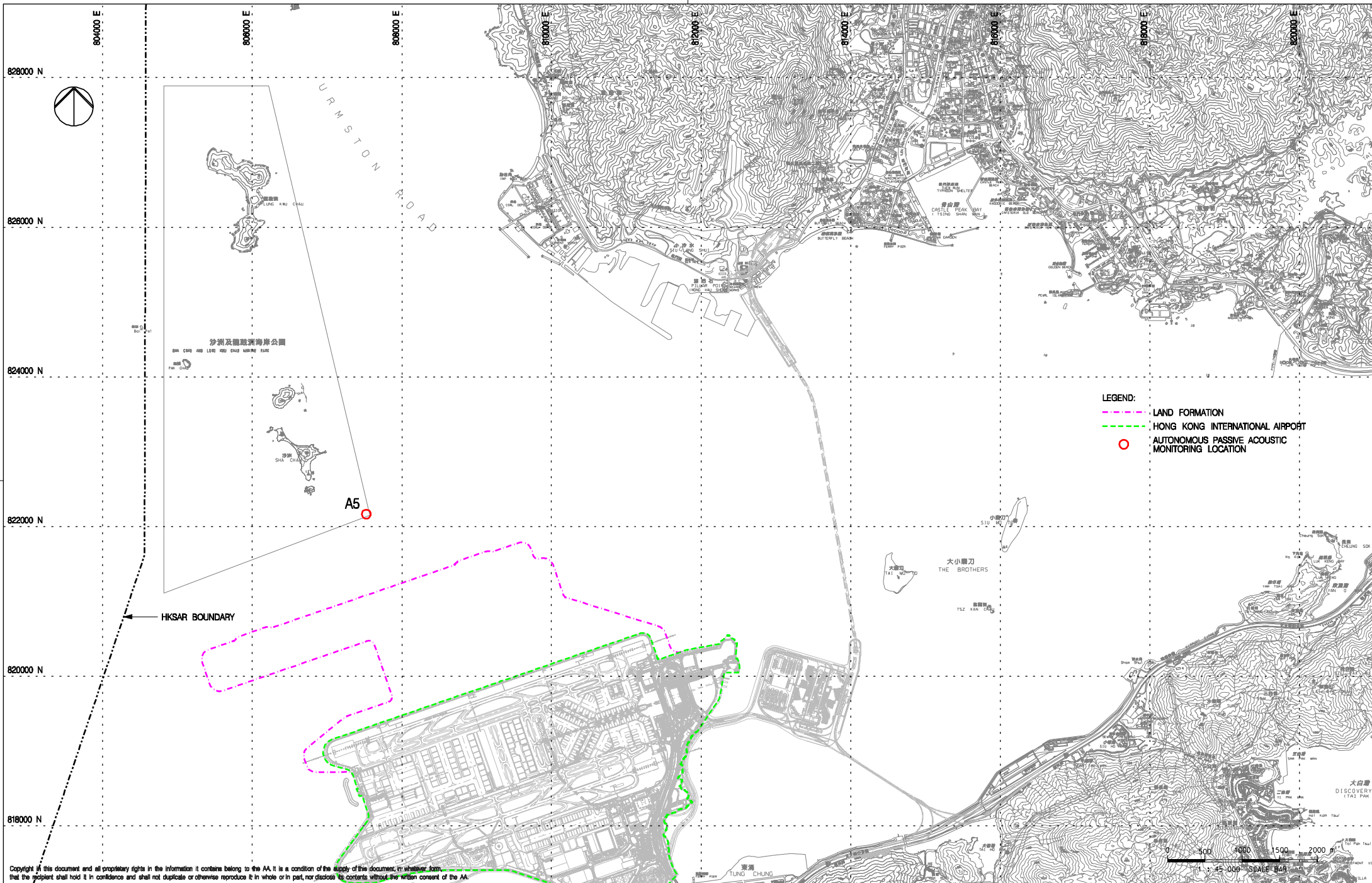


Title  
**LAND BASED DOLPHIN MONITORING  
 IN BASELINE AND CONSTRUCTION PHASES**

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  
1:45000  
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?^
<b>Air Quality Impact – Construction Phase</b>					
5.2.6.2	2.1	-	<b>Dust Control Measures</b> <ul style="list-style-type: none"> <li>Water spraying for 12 times a day or once every two hours for 24-hour working at all active works area.</li> </ul>	Within construction site / Duration of the construction phase	I
5.2.6.3	2.1	-	<ul style="list-style-type: none"> <li>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.</li> </ul>	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"> <li>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.</li> </ul>	Within construction site / Duration of the construction phase	I
			Disturbed Parts of the Roads <ul style="list-style-type: none"> <li>Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or</li> <li>Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet.</li> </ul>	Within construction site / Duration of the construction phase	I
			Exposed Earth <ul style="list-style-type: none"> <li>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.</li> </ul>	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"> <li>All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p>Debris Handling</p> <ul style="list-style-type: none"> <li>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</li> <li>Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p>Transport of Dusty Materials</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p>Wheel washing</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p>Use of vehicles</p> <ul style="list-style-type: none"> <li>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;</li> <li>Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels; and</li> <li>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.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p>Site hoarding</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	Within construction site / Duration of the construction phase	I
5.2.6.5	2.1	-	<p><b>Best Practices for Concrete Batching Plant</b></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"> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ Vents of all silos shall be fitted with fabric filtering system to meet the required emission limit;</li> <li>▪ Vents of cement/PFA weighing scale shall be fitted with fabric filtering system to meet the required emission limit; and</li> <li>▪ Seating of pressure relief valves of all silos shall be checked, and the valves re-seated if necessary, before each delivery.</li> </ul>		
			<p>Other raw materials</p> <ul style="list-style-type: none"> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ All conveyor transfer points shall be totally enclosed. Openings for the passage of conveyors shall be fitted with adequate flexible seals;</li> <li>▪ Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface;</li> <li>▪ 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;</li> <li>▪ 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;</li> </ul>	<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"> <li>The stockpile shall be enclosed at least on top and three sides and with flexible curtain to cover the entrance side;</li> <li>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</li> <li>The opening between the storage bin and weighing scale of the materials shall be fully enclosed.</li> </ul>		
			<p>Loading of materials for batching</p> <ul style="list-style-type: none"> <li>Concrete truck shall be loaded in such a way as to minimise airborne dust emissions. The following control measures shall be implemented:                             <ol style="list-style-type: none"> <li>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</li> <li>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.</li> </ol> </li> <li>The loading bay shall be totally enclosed during the loading process.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	I
			<p>Vehicles</p> <ul style="list-style-type: none"> <li>All practicable measures shall be taken to prevent or minimize the dust emission caused by vehicle movement; and</li> <li>All access and route roads within the premises shall be paved and adequately wetted.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	I
			<p>Housekeeping</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	I
5.2.6.6	2.1	-	<p><b>Best Practices for Asphaltic Concrete Plant</b></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"> <li>The chimney shall not be less than 3 metres plus the building height or 8 metres above ground level, whichever is the greater;</li> <li>The efflux velocity of gases from the main chimney shall not be less than 12 m/s at full load condition;</li> </ul>	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"> <li>▪ The flue gas exit temperature shall not be less than the acid dew point; and</li> <li>▪ Release of the chimney shall be directed vertically upwards and not be restricted or deflected.</li> </ul>		
			<p>Cold feed side</p> <ul style="list-style-type: none"> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ All conveyor transfer points shall be totally enclosed. Openings for the passages of conveyors shall be fitted with adequate flexible seals; and</li> <li>▪ All materials returned from dust collection system shall be transferred in enclosed system and shall be stored inside bins or enclosures.</li> </ul>	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	N/A
			<p>Hot feed side</p> <ul style="list-style-type: none"> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ Chutes for carrying hot material shall be rigid and preferably fitted with abrasion resistant plate inside. They shall be inspected daily for leakages;</li> </ul>	<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"> <li>▪ 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</li> <li>▪ 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).</li> </ul>		
			<p>Material transportation</p> <ul style="list-style-type: none"> <li>▪ 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;</li> <li>▪ 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</li> <li>▪ Haul roads inside the Works shall be adequately wetted with water and/or chemical suppressants by water trucks or water sprayers.</li> </ul>	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"> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ Proper chimney for the discharge of bitumen fumes shall be provided at high level;</li> <li>▪ The emission of bitumen fumes shall not exceed the required emission limit; and</li> </ul> <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"> <li>▪ 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.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A
			<p>Housekeeping</p> <ul style="list-style-type: none"> <li>▪ 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.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A
5.2.6.7	2.1	-	<p><b>Best Practices for Rock Crushing Plants</b></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"> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ Water sprayers shall be installed and operated in strategic locations at the feeding inlet of crushers; and</li> <li>▪ 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.</li> </ul>		
			<p>Vibratory screens and grizzlies</p> <ul style="list-style-type: none"> <li>▪ 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</li> <li>▪ All grizzlies shall be enclosed on top and 3 sides and sufficient water sprayers shall be installed at their feeding and outlet areas.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A
			<p>Belt conveyors</p> <ul style="list-style-type: none"> <li>▪ 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;</li> <li>▪ 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</li> <li>▪ 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.</li> </ul>	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"> <li>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.</li> <li>The surface of all surge piles and stockpiles of blasted rocks or aggregates shall be kept sufficiently wet by water spraying wherever practicable;</li> <li>All open stockpiles for aggregates of size in excess of 5 mm shall be kept sufficiently wet by water spraying where practicable; or</li> <li>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.</li> <li>Scattered piles gathered beneath belt conveyors, inside and around enclosures shall be cleared regularly.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A
			<p>Rock drilling equipment</p> <ul style="list-style-type: none"> <li>Appropriate dust control equipment such as a dust extraction and collection system shall be used during rock drilling activities.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A
<b>Hazard to Human Life – Construction Phase</b>					
Table 6.40	3.2	-	<ul style="list-style-type: none"> <li>Precautionary measures should be established to request barges to move away during typhoons.</li> </ul>	Construction Site / Construction Period	I
Table 6.40	3.2	-	<ul style="list-style-type: none"> <li>An appropriate marine traffic management system should be established to minimize risk of ship collision.</li> </ul>	Construction Site / Construction Period	I
Table 6.40	3.2	-	<ul style="list-style-type: none"> <li>Location of all existing hydrant networks should be clearly identified prior to any construction works.</li> </ul>	Construction Site / Construction Period	I
<b>Noise Impact – Construction Phase</b>					
7.5.6	4.3	-	<p><b>Good Site Practice</b></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"> <li>only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works;</li> <li>machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum;</li> </ul>	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"> <li>plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs;</li> <li>mobile plant should be sited as far away from NSRs as possible; and</li> <li>material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> </ul>		
7.5.6	4.3	-	<b>Adoption of QPME</b> <ul style="list-style-type: none"> <li>QPME should be adopted as far as applicable.</li> </ul>	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	<b>Use of Movable Noise Barriers</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	<b>Use of Noise Enclosure/ Acoustic Shed</b> <ul style="list-style-type: none"> <li>Noise enclosure or acoustic shed should be used to cover stationary PME such as air compressor and generator.</li> </ul>	Within the Project site / During construction phase / Prior to commencement of operation	I
<b>Water Quality Impact – Construction Phase</b>					

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><b>Marine Construction Activities</b></p> <p><u>General Measures to be Applied to All Works Areas</u></p> <ul style="list-style-type: none"> <li>▪ Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation;</li> <li>▪ Use of Lean Material Overboard (LMOB) systems shall be prohibited;</li> <li>▪ Excess materials shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessels are moved;</li> <li>▪ Plants should not be operated with leaking pipes and any pipe leakages shall be repaired quickly;</li> <li>▪ Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action;</li> <li>▪ 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;</li> <li>▪ 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</li> <li>▪ 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.</li> </ul>	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"> <li>▪ The daily maximum production rates shall not exceed those assumed in the water quality assessment in the EIA report;</li> <li>▪ 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;</li> </ul>	Within construction site / Duration of the construction phase	I
			<ul style="list-style-type: none"> <li>▪ 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;</li> <li>▪ Closed grab dredger shall be used to excavate marine sediment;</li> <li>▪ Silt curtains surrounding the closed grab dredger shall be deployed in accordance with the Silt Curtain Deployment Plan; and</li> </ul>		<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"> <li>▪ The Silt Curtain Deployment Plan shall be implemented.</li> </ul>		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"> <li>▪ 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;</li> </ul>	<p>Within construction site / Duration of the construction phase</p>	<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"> <li>▪ 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</li> </ul>		<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"> <li>▪ The silt curtains and silt screens should be regularly checked and maintained.</li> </ul>		<p>I</p>
			<p><u>Specific Measures to be Applied to Land Formation Activities during Marine Filling Works</u></p> <ul style="list-style-type: none"> <li>▪ 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;</li> </ul>	<p>Within construction site / Duration of the construction phase</p>	<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"> <li>▪ Double layer silt curtains to be applied at the south-western opening prior to commencement of marine filling activities;</li> </ul>		<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"> <li>▪ 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</li> </ul>		<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"> <li>▪ The silt curtains and silt screens should be regularly checked and maintained.</li> </ul>		<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?^
			<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"> <li>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</li> <li>Silt curtains surrounding the closed grab dredger to be deployed as a precautionary measure.</li> </ul>	Within construction site / Duration of the construction phase	N/A
8.8.1.4	5.1	-	<p><b>Modification of the Existing Seawall</b></p> <ul style="list-style-type: none"> <li>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.</li> </ul>	At the existing northern seawall / Duration of the construction phase	N/A
8.8.1.5	5.1	-	<p><b>Construction of New Stormwater Outfalls and Modifications to Existing Outfalls</b></p> <ul style="list-style-type: none"> <li>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.</li> </ul>	Within construction site / Duration of the construction phase	N/A
8.8.1.6 8.8.1.7	5.1	2.27	<p><b>Piling Activities for Construction of New Runway Approach Lights and HKIAAA Marker Beacons</b></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"> <li>Ground improvement via DCM using a close-spaced layout shall be completed prior to commencement of piling works;</li> <li>Steel casings shall be installed to enclose the excavation area prior to commencement of excavation;</li> <li>The excavated materials shall be removed using a closed grab within the steel casings;</li> <li>No discharge of the cement mixed materials into the marine environment will be allowed; and</li> <li>Excavated materials shall be treated and reused on-site.</li> </ul>	Within construction site / Duration of the construction phase	I  I
8.8.1.8	5.1	-	<p><b>Construction of Site Runoff and Drainage</b></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"> <li>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</li> </ul>	Within construction site / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<p>drainage system should be undertaken by the Contractors prior to the commencement of construction (for works areas located on the existing Airport island) or as soon as the new land is completed (for works areas located on the new landform);</p> <hr/> <ul style="list-style-type: none"> <li>▪ 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;</li> </ul> <hr/> <ul style="list-style-type: none"> <li>▪ 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;</li> </ul> <hr/> <ul style="list-style-type: none"> <li>▪ 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;</li> </ul> <hr/> <ul style="list-style-type: none"> <li>▪ 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</li> </ul> <hr/> <ul style="list-style-type: none"> <li>▪ 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.</li> </ul>		I
8.8.1.9	5.1	-	<p><b>Sewage Effluent from Construction Workforce</b></p> <ul style="list-style-type: none"> <li>▪ 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.</li> </ul>	Within construction site / During construction phase	I
8.8.1.10 8.8.1.11	5.1		<p><b>General Construction Activities</b></p> <ul style="list-style-type: none"> <li>▪ 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</li> </ul>	Within construction site / During construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<ul style="list-style-type: none"> <li>▪ 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.</li> </ul>		
8.8.1.12 8.8.1.13	5.1	2.28	<p><b>Drilling Activities for the Submarine Aviation Fuel Pipelines</b></p> <p>To prevent potential water quality impacts at Sha Chau, the following measures shall be applied:</p> <ul style="list-style-type: none"> <li>▪ A 'zero-discharge' policy shall be applied for all activities to be conducted at Sha Chau;</li> <li>▪ No bulk storage of chemicals shall be permitted; and</li> <li>▪ 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.</li> </ul>	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"> <li>▪ 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</li> <li>▪ 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.</li> </ul>	Within construction site / During construction phase	I
<b>Waste Management Implication – Construction Phase</b>					
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"> <li>▪ 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&amp;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&amp;D materials;</li> <li>▪ Priority should be given to collect and reuse suitable inert C&amp;D materials generated from other concurrent projects and the Government's PFRF as fill materials for the proposed land formation works;</li> <li>▪ 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;</li> <li>▪ 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</li> </ul>	Project Site Area / During design and construction phase	I
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					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"> <li>For the marine sediments expected to be excavated from the piling works of TRC, APM &amp; 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.</li> </ul>		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"> <li>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;</li> <li>Training of site personnel in proper waste management and chemical waste handling procedures;</li> <li>Provision of sufficient waste disposal points and regular collection for disposal;</li> <li>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;</li> <li>Stockpiles of C&amp;D materials should be kept wet or covered by impervious sheets to avoid wind-blown dust;</li> <li>All dusty materials including C&amp;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;</li> <li>C&amp;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;</li> <li>The speed of the trucks including dump trucks carrying C&amp;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</li> <li>To avoid or minimise dust emission during transport of C&amp;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.</li> </ul>	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"> <li>Use of steel or aluminium formworks and falseworks for temporary works as far as practicable;</li> <li>Adoption of repetitive design to allow reuse of formworks as far as practicable;</li> <li>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;</li> </ul>	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"> <li>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;</li> <li>Any unused chemicals or those with remaining functional capacity should be collected for reused as far as practicable;</li> <li>Proper storage and site practices to minimise the potential for damage or contamination of construction materials; and</li> <li>Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.</li> </ul>		
10.5.1.5	7.1		<ul style="list-style-type: none"> <li>Inert and non-inert C&amp;D materials should be handled and stored separately to avoid mixing the two types of materials.</li> </ul>	Project Site Area / Construction Phase	I
10.5.1.5	7.1	-	<ul style="list-style-type: none"> <li>Any recyclable materials should be segregated from the non-inert C&amp;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.</li> </ul>	Project Site Area / Construction Phase	I
10.5.1.6	7.1	-	<ul style="list-style-type: none"> <li>A trip-ticket system promulgated shall be developed in order to monitor the off-site delivery of surplus inert C&amp;D materials that could not be reused on-site for the proposed land formation work at the PFRF and to control fly tipping.</li> </ul>	Project Site Area / Construction Phase	I
10.5.1.6	7.1	2.32	<ul style="list-style-type: none"> <li>The Contractor should prepare and implement a Waste Management Plan detailing various waste arising and waste management practices.</li> </ul>	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"> <li>On-site remediation should be carried out in an enclosed area in order to minimise odour/dust emissions;</li> <li>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;</li> <li>All practical measures, including but not limited to speed control for vehicles, should be taken to minimise dust emission;</li> <li>Good housekeeping should be maintained at all times at the sediment treatment facility and storage area;</li> <li>Treated and untreated sediment should be clearly separated and stored separately; and</li> <li>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.</li> </ul>	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"> <li>Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material;</li> <li>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</li> <li>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.</li> </ul>		
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"> <li>Good quality containers compatible with the chemical wastes should be used;</li> <li>Incompatible chemicals should be stored separately;</li> <li>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</li> <li>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.</li> </ul>	Project Site Area / Construction Phase	I
10.5.1.20	7.1	-	<ul style="list-style-type: none"> <li>General refuse should be stored in enclosed bins or compaction units separated from inert C&amp;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.</li> </ul>	Project Site Area / Construction Phase	I
10.5.1.21	7.1	-	<ul style="list-style-type: none"> <li>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.</li> </ul>	Project Site Area / Construction Phase	I
<b>Land Contamination – Construction Phase</b>					
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"> <li>Further site reconnaissance would be conducted once the areas are accessible in order to identify any land contamination concern for the areas.</li> </ul>	Project Site Area inaccessible during site reconnaissance / Prior to Construction Phase	I
			<ul style="list-style-type: none"> <li>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.</li> </ul>		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"> <li>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.</li> </ul>		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"> <li>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.</li> </ul>		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"> <li>To minimize the incidents of construction workers coming in contact with any contaminated materials, bulk earth-moving excavation equipment should be employed;</li> <li>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;</li> <li>Stockpiling of contaminated excavated materials on site should be avoided as far as possible;</li> <li>The use of any contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out;</li> <li>Vehicles containing any excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater;</li> <li>Truck bodies and tailgates should be sealed to prevent any discharge;</li> <li>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;</li> <li>Speed control for trucks carrying contaminated materials should be exercised. 8km/h is the recommended speed limit;</li> <li>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</li> <li>Maintain records of waste generation and disposal quantities and disposal arrangements.</li> </ul>	Project Site Area / Construction Phase	N/A
<b>Terrestrial Ecological – Construction Phase</b>					
12.10.1.1	9.2	2.14	<p><b>Pre-construction Egretty Survey</b></p> <ul style="list-style-type: none"> <li>Conduct ecological survey for Sha Chau egretty to update the latest boundary of the egretty.</li> </ul>	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	<b>Avoidance and Minimisation of Direct Impact to Egret</b> <ul style="list-style-type: none"> <li>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;</li> <li>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</li> <li>The containment pit at the daylighting location shall be covered or camouflaged.</li> </ul>	During construction phase at Sheung Sha Chau Island	
12.7.2.5	9.1	2.30	<b>Preservation of Nesting Vegetation</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	During construction phase at Sheung Sha Chau Island	
12.7.2.4 and 12.7.2.6	9.1	2.30	<b>Timing the Pipe Connection Works outside Ardeid's Breeding Season</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	During construction phase at Sheung Sha Chau Island	
12.10.1.1	9.3	-	<b>Ecological Monitoring</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	at Sheung Sha Chau Island	
<b>Marine Ecological Impact – Pre-construction Phase</b>					
13.11.4.1	10.2.2	-	<ul style="list-style-type: none"> <li>Pre-construction phase Coral Dive Survey.</li> </ul>	HKIAAA artificial seawall	
<b>Marine Ecological Impact – Construction Phase</b>					
13.11.1.3 to 13.11.1.6	-	-	<b>Minimisation of Land Formation Area</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	Land formation footprint / during detailed design phase to completion of construction	
13.11.1.7 to 13.11.1.10	-	2.31	<b>Use of Construction Methods with Minimal Risk/Disturbance</b> <ul style="list-style-type: none"> <li>Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF;</li> </ul>	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"> <li>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;</li> </ul>		
			<ul style="list-style-type: none"> <li>Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway;</li> </ul>		
			<ul style="list-style-type: none"> <li>Avoid bored piling during CWD peak calving season (Mar to Jun);</li> </ul>		
			<ul style="list-style-type: none"> <li>Prohibition of underwater percussive piling; and</li> </ul>		
			<ul style="list-style-type: none"> <li>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.</li> </ul>		
13.11.2.1 to 13.11.2.7	-	-	<p><b>Mitigation for Indirect Disturbance due to Deterioration of Water Quality</b></p> <ul style="list-style-type: none"> <li>Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices;</li> <li>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);</li> <li>Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and</li> </ul> <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><b>Strict Enforcement of No-Dumping Policy</b></p> <ul style="list-style-type: none"> <li>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;</li> <li>Mandatory educational programme of the no-dumping policy be made available to all construction site personnel for all project-related works;</li> <li>Fines for infractions should be implemented; and</li> <li>Unscheduled, on-site audits shall be implemented.</li> </ul>	All works area during the construction phase	
13.11.1.13	-	-	<p><b>Good Construction Site Practices</b></p> <ul style="list-style-type: none"> <li>Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines;</li> <li>Keep the number of working or stationary vessels present on-site to the minimum anytime; and</li> <li>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.</li> </ul>	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	-	-	<b>Minimisation of Land Formation Area</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	Land formation footprint / during detailed design phase to completion of construction	I
13.11.5.4 to 13.11.5.13	10.3.1	-	<b>SkyPier High Speed Ferries' Speed Restrictions and Route Diversions</b> <ul style="list-style-type: none"> <li>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 <b>Drawing No. MCL/P132/EIA/13-023</b> 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&amp;A data and taking reference to changes in total SkyPier HSF numbers; and</li> <li>A maximum of 10 knots will be enforced through the designated SCLKC Marine Park area at all times.</li> </ul> <b>Other mitigation measures</b> <ul style="list-style-type: none"> <li>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</li> <li>The effectiveness of the CWD mitigation measures after implementation of initial six month SkyPier HSF diversion and speed restriction will be reviewed.</li> </ul>	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	<b>Dolphin Exclusion Zone</b> <ul style="list-style-type: none"> <li>Establishment of a 24 hr Dolphin Exclusion Zone (DEZ) with a 250 m radius around the land formation works areas;</li> <li>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</li> <li>A DEZ would also be implemented during bored piling work but as a precautionary measure only.</li> </ul>	Marine waters around land formation works area during construction phase	I
13.11.5.19	10.4	2.31	<b>Acoustic Decoupling of Construction Equipment</b> <ul style="list-style-type: none"> <li>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</li> <li>Specific acoustic decoupling measures shall be specified during the detailed design of the project for use during the land formation works.</li> </ul>	Around coastal works area during construction phase	I
13.11.5.20	10.6.1	2.29	<b>Spill Response Plan</b>	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"> <li>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.</li> </ul>		
13.11.5.21 to 13.11.5.23	10.6.1	-	<p><b>Construction Vessel Speed Limits and Skipper Training</b></p> <ul style="list-style-type: none"> <li>A speed limit of 10 knots should be strictly observed for construction vessels at areas with the highest CWD densities; and</li> <li>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.</li> </ul>	All areas north and west of Lantau Island during construction phase	
<b>Fisheries Impact – Construction Phase</b>					
14.9.1.2 to 14.9.1.5	-	-	<p><b>Minimisation of Land Formation Area</b></p> <ul style="list-style-type: none"> <li>Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for fisheries resources.</li> </ul>	Land formation footprint / during detailed design phase to completion of construction	
14.9.1.6	-	-	<p><b>Use of Construction Methods with Minimal Risk/Disturbance</b></p> <ul style="list-style-type: none"> <li>Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF;</li> <li>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;</li> <li>Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and</li> <li>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.</li> </ul>	During construction phase at marine works area	
14.9.1.11	-	-	<p><b>Strict Enforcement of No-Dumping Policy</b></p> <ul style="list-style-type: none"> <li>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;</li> <li>Mandatory educational programme of the no-dumping policy be made available to all construction site personnel for all project-related works;</li> <li>Fines for infractions should be implemented; and</li> <li>Unscheduled, on-site audits shall be implemented.</li> </ul>	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	-		<b>Good Construction Site Practices</b> <ul style="list-style-type: none"> <li>Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines;</li> <li>Keep the number of working or stationary vessels present on-site to the minimum anytime; and</li> <li>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.</li> </ul>	All works area during the construction phase	
14.9.1.13 to 14.9.1.18	-		<b>Mitigation for Indirect Disturbance due to Deterioration of Water Quality</b> <ul style="list-style-type: none"> <li>Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices;</li> <li>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);</li> <li>Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and</li> <li>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.</li> </ul>	All works area during the construction phase	
<b>Landscape and Visual Impact – Construction Phase</b>					
Table 15.6	12.3	-	<b>CM1</b> - 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	-	<b>CM2</b> - 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	-	<b>CM3</b> - 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	-	<b>CM4</b> - 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	-	<b>CM5</b> - 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	-	<b>CM6</b> - 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	-	<b>CM7</b> - 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	-	<b>CM8</b> - 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	-	<b>CM9</b> - 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	-	<b>CM10</b> - 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.	
			<b>Cultural Heritage Impact – Construction Phase</b>		
			Not applicable.		
			<b>Health Impact – Aircraft Emissions</b>		
			Not applicable.		
			<b>Health Impact – Aircraft Noise</b>		
			Not applicable.		

Notes:

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

“ I ” Implemented where applicable.

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

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

## **Appendix B. Monitoring Schedule**

# **Monitoring Schedule of This Reporting Period**

# Feb-21

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

# Mar-21

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	<b>1</b> Site Inspection  AR1A, AR2 NM1A, NM5	<b>2</b> Site Inspection  NM4, NM6  WQ General & Regular DCM mid-ebb: 15:10 mid-flood: 9:18	<b>3</b> Site Inspection  CWD Survey (Vessel)	<b>4</b> Site Inspection  WQ General & Regular DCM mid-ebb: 16:41 mid-flood: 10:19	<b>5</b> Site Inspection	<b>6</b>  AR1A, AR2  WQ General & Regular DCM mid-ebb: 18:51 mid-flood: 11:36
<b>7</b>	<b>8</b> Site Inspection  CWD Survey (Vessel)	<b>9</b> Site Inspection  CWD Survey (Vessel)  WQ General & Regular DCM mid-ebb: 11:07 mid-flood: 15:42	<b>10</b>  NM4, NM6	<b>11</b> Site Inspection  WQ General & Regular DCM mid-ebb: 12:30 mid-flood: 7:00	<b>12</b> Site Inspection  AR1A, AR2 NM1A, NM5	<b>13</b>  WQ General & Regular DCM mid-ebb: 13:33 mid-flood: 7:54
<b>14</b>	<b>15</b> Site Inspection  CWD Survey (Vessel, Land-based)	<b>16</b> Site Inspection  CWD Survey (Vessel)  WQ General & Regular DCM mid-ebb: 14:52 mid-flood: 8:48	<b>17</b>  CWD Survey (Vessel, Land-based)	<b>18</b> Site Inspection  AR1A, AR2 NM1A, NM5  WQ General & Regular DCM mid-ebb: 15:54 mid-flood: 9:25	<b>19</b> Site Inspection  NM4, NM6	<b>20</b>  WQ General & Regular DCM mid-ebb: 17:17 mid-flood: 10:01
<b>21</b>	<b>22</b> Site Inspection	<b>23</b> Site Inspection  CWD Survey (Vessel)  NM4, NM6  WQ General & Regular DCM mid-ebb: 21:09 mid-flood: 8:36	<b>24</b>  CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	<b>25</b> Site Inspection  CWD Survey (Land-based)  WQ General & Regular DCM mid-ebb: 11:12 mid-flood: 16:10	<b>26</b> Site Inspection	<b>27</b>  WQ General & Regular DCM mid-ebb: 12:22 mid-flood: 17:59
<b>28</b>	<b>29</b> Site Inspection  AR1A, AR2 NM1A, NM5	<b>30</b> Site Inspection  CWD Survey (Land-based)  WQ General & Regular DCM mid-ebb: 14:07 mid-flood: 8:03	<b>31</b>  NM4, NM6			
<b>Notes:</b> 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**

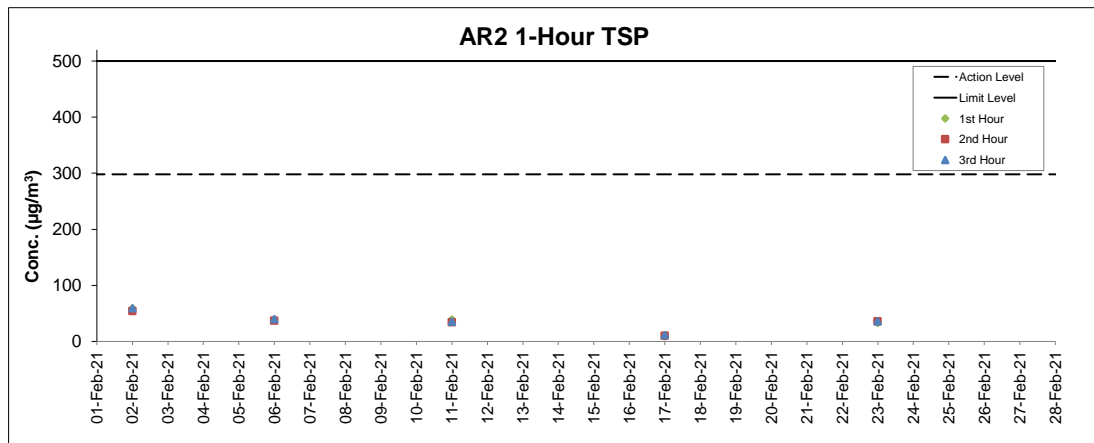
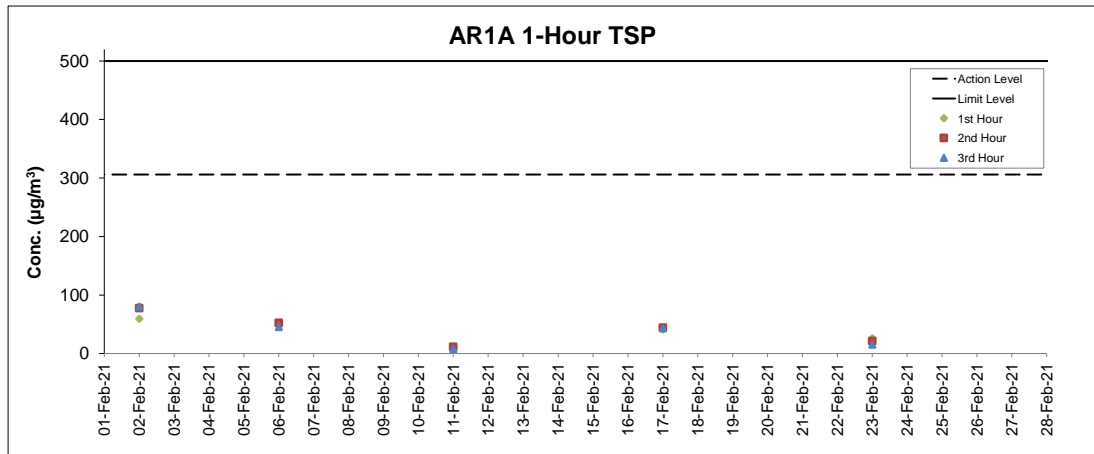
**Station: AR1A- Man Tung Road Park**

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 ( $\mu\text{g}/\text{m}^3$ )
02-Feb-21	13:07	Sunny	3.3	261	59	306	500
02-Feb-21	14:07	Sunny	3.1	257	77	306	500
02-Feb-21	15:07	Sunny	2.2	251	80	306	500
06-Feb-21	13:05	Cloudy	3.3	255	47	306	500
06-Feb-21	14:05	Cloudy	3.3	261	52	306	500
06-Feb-21	15:05	Cloudy	3.1	261	45	306	500
11-Feb-21	8:50	Cloudy	3.3	340	10	306	500
11-Feb-21	9:50	Cloudy	3.3	347	11	306	500
11-Feb-21	10:50	Cloudy	3.1	342	7	306	500
17-Feb-21	13:20	Cloudy	2.2	Variable	41	306	500
17-Feb-21	14:20	Cloudy	4.2	293	44	306	500
17-Feb-21	15:20	Cloudy	4.2	297	43	306	500
23-Feb-21	12:48	Sunny	4.7	256	26	306	500
23-Feb-21	13:48	Sunny	4.4	261	21	306	500
23-Feb-21	14:48	Sunny	2.5	313	15	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 ( $\mu\text{g}/\text{m}^3$ )
02-Feb-21	13:22	Cloudy	3.3	256	59	298	500
02-Feb-21	14:22	Cloudy	3.1	254	54	298	500
02-Feb-21	15:22	Cloudy	2.5	260	59	298	500
06-Feb-21	9:34	Cloudy	1.9	313	39	298	500
06-Feb-21	10:34	Cloudy	2.2	263	37	298	500
06-Feb-21	11:34	Cloudy	3.3	267	40	298	500
11-Feb-21	9:10	Cloudy	2.8	342	39	298	500
11-Feb-21	10:10	Cloudy	3.3	327	34	298	500
11-Feb-21	11:10	Cloudy	3.1	350	35	298	500
17-Feb-21	13:40	Sunny	3.3	337	9	298	500
17-Feb-21	14:40	Sunny	4.4	295	10	298	500
17-Feb-21	15:40	Sunny	3.6	293	11	298	500
23-Feb-21	13:02	Sunny	5.0	269	33	298	500
23-Feb-21	14:02	Sunny	3.9	268	36	298	500
23-Feb-21	15:02	Sunny	2.8	40	36	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 <sub>eq(30mins)</sub> dB(A)
			L <sub>10</sub> dB(A)	L <sub>50</sub> dB(A)	
02-Feb-21	Cloudy	11:25	72.6	55.8	72
02-Feb-21	Cloudy	11:30	72.4	55.0	
02-Feb-21	Cloudy	11:35	70.5	52.6	
02-Feb-21	Cloudy	11:40	72.0	55.3	
02-Feb-21	Cloudy	11:45	71.3	52.3	
02-Feb-21	Cloudy	11:50	73.2	55.8	
10-Feb-21	Cloudy	16:44	70.6	54.6	69
10-Feb-21	Cloudy	16:49	68.2	54.8	
10-Feb-21	Cloudy	16:54	67.4	54.8	
10-Feb-21	Cloudy	16:59	70.5	55.2	
10-Feb-21	Cloudy	17:04	73.3	59.7	
10-Feb-21	Cloudy	17:09	67.9	54.8	
17-Feb-21	Cloudy	11:34	74.6	51.8	73
17-Feb-21	Cloudy	11:39	74.9	50.0	
17-Feb-21	Cloudy	11:44	73.8	49.6	
17-Feb-21	Cloudy	11:49	72.3	51.8	
17-Feb-21	Cloudy	11:54	74.5	49.8	
17-Feb-21	Cloudy	11:59	73.5	50.5	
23-Feb-21	Sunny	11:39	70.1	62.0	68
23-Feb-21	Sunny	11:44	70.0	63.2	
23-Feb-21	Sunny	11:49	66.1	55.4	
23-Feb-21	Sunny	11:54	62.1	55.8	
23-Feb-21	Sunny	11:59	62.1	56.0	
23-Feb-21	Sunny	12:04	58.2	52.7	

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 <sub>eq(30mins)</sub> dB(A)
			L <sub>10</sub> dB(A)	L <sub>50</sub> dB(A)	
03-Feb-21	Cloudy	13:08	59.8	50.1	61
03-Feb-21	Cloudy	13:13	58.8	52.0	
03-Feb-21	Cloudy	13:18	56.0	48.2	
03-Feb-21	Cloudy	13:23	57.7	48.7	
03-Feb-21	Cloudy	13:28	57.5	46.8	
03-Feb-21	Cloudy	13:33	57.3	48.7	
10-Feb-21	Cloudy	13:40	63.3	55.4	61
10-Feb-21	Cloudy	13:45	61.3	54.8	
10-Feb-21	Cloudy	13:50	58.9	55.2	
10-Feb-21	Cloudy	13:55	58.9	54.4	
10-Feb-21	Cloudy	14:00	59.5	55.5	
10-Feb-21	Cloudy	14:05	60.9	55.9	
16-Feb-21	Cloudy	13:40	59.2	52.4	61
16-Feb-21	Cloudy	13:45	56.5	51.7	
16-Feb-21	Cloudy	13:50	58.6	53.0	
16-Feb-21	Cloudy	13:55	57.5	52.3	
16-Feb-21	Cloudy	14:00	63.5	52.7	
16-Feb-21	Cloudy	14:05	59.5	55.5	
24-Feb-21	Sunny	13:15	57.4	51.9	59
24-Feb-21	Sunny	13:20	57.3	52.3	
24-Feb-21	Sunny	13:25	57.8	52.9	
24-Feb-21	Sunny	13:30	55.7	51.6	
24-Feb-21	Sunny	13:35	59.2	51.8	
24-Feb-21	Sunny	13:40	56.7	52.6	

Remarks:

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

### Noise Measurement Results

#### Station: NM5- Village House, Tin Sum

Date	Weather	Time	Measured L <sub>10</sub> dB(A)	Measured L <sub>50</sub> dB(A)	L <sub>eq(30mins)</sub> dB(A)
02-Feb-21	Cloudy	14:01	58.8	49.8	57
02-Feb-21	Cloudy	14:06	57.8	49.4	
02-Feb-21	Cloudy	14:11	58.2	50.0	
02-Feb-21	Cloudy	14:16	62.2	45.1	
02-Feb-21	Cloudy	14:21	64.2	45.9	
02-Feb-21	Cloudy	14:26	61.2	42.1	57
11-Feb-21	Cloudy	9:15	61.6	49.9	
11-Feb-21	Cloudy	9:20	61.1	48.5	
11-Feb-21	Cloudy	9:25	59.5	47.7	
11-Feb-21	Cloudy	9:30	61.3	49.7	
11-Feb-21	Cloudy	9:35	61.4	50.1	52
11-Feb-21	Cloudy	9:40	64.2	51.2	
17-Feb-21	Sunny	13:57	53.5	45.3	
17-Feb-21	Sunny	14:02	50.3	44.8	
17-Feb-21	Sunny	14:07	50.9	44.7	
17-Feb-21	Sunny	14:12	48.4	45.2	
17-Feb-21	Sunny	14:17	48.5	45.1	62
17-Feb-21	Sunny	14:22	53.5	45.5	
23-Feb-21	Sunny	13:38	58.2	50.8	
23-Feb-21	Sunny	13:43	55.2	51.4	
23-Feb-21	Sunny	13:48	55.6	51.1	
23-Feb-21	Sunny	13:53	68.3	52.2	
23-Feb-21	Sunny	13:58	67.5	54.2	
23-Feb-21	Sunny	14:03	63.5	46.9	

Remarks:

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

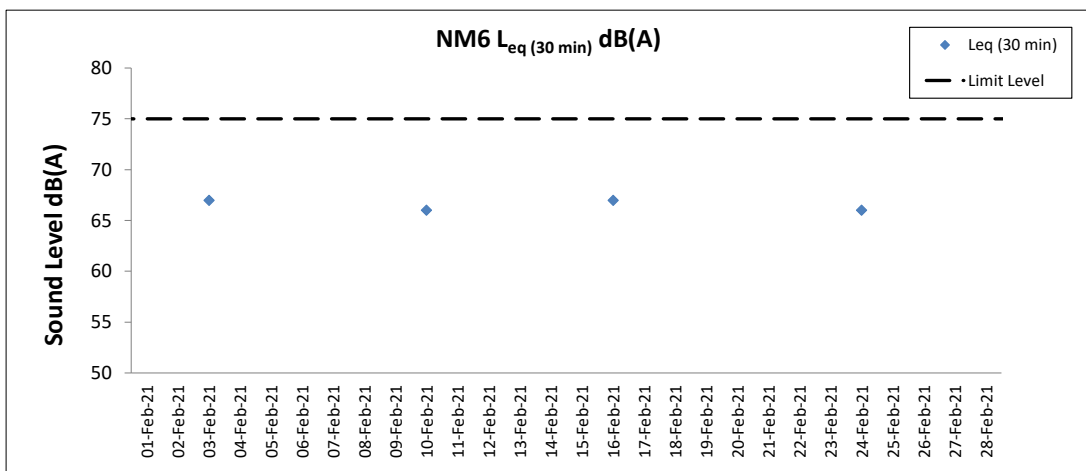
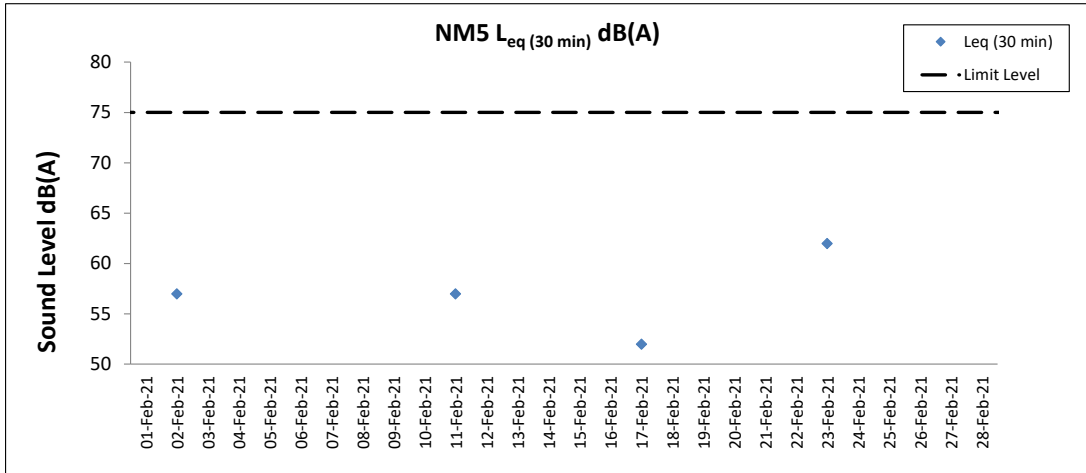
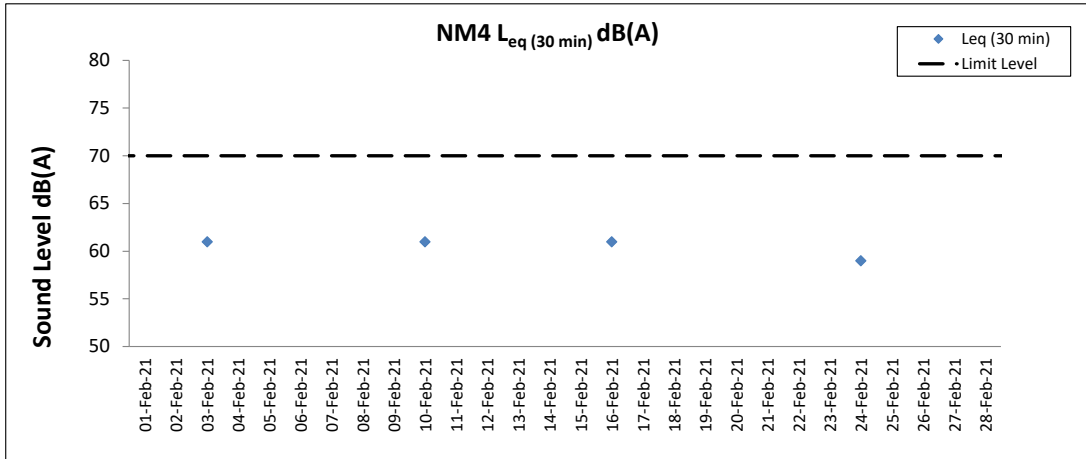
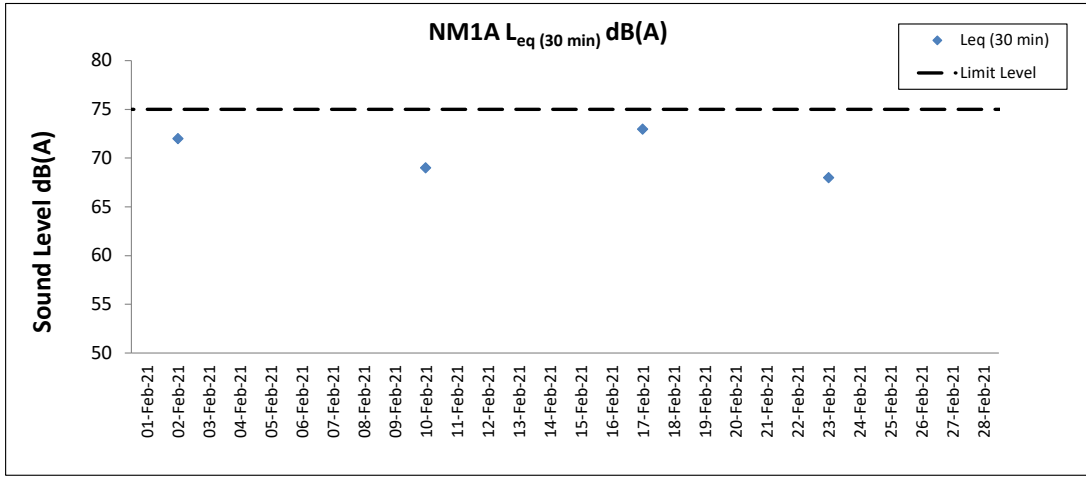
### Noise Measurement Results

#### Station: NM6- House No.1 Sha Lo Wan

Date	Weather	Time	Measured L <sub>10</sub> dB(A)	Measured L <sub>50</sub> dB(A)	L <sub>eq(30mins)</sub> dB(A)
03-Feb-21	Cloudy	15:44	64.7	52.1	67
03-Feb-21	Cloudy	15:49	63.1	51.6	
03-Feb-21	Cloudy	15:54	60.9	50.2	
03-Feb-21	Cloudy	15:59	68.0	51.4	
03-Feb-21	Cloudy	16:04	64.1	49.7	
03-Feb-21	Cloudy	16:09	63.8	51.6	66
10-Feb-21	Cloudy	15:51	69.9	55.2	
10-Feb-21	Cloudy	15:56	69.5	53.4	
10-Feb-21	Cloudy	16:01	68.8	52.8	
10-Feb-21	Cloudy	16:06	68.3	51.6	
10-Feb-21	Cloudy	16:11	68.5	53.2	67
10-Feb-21	Cloudy	16:16	69.4	52.5	
16-Feb-21	Cloudy	15:44	66.0	50.4	
16-Feb-21	Cloudy	15:49	68.4	50.3	
16-Feb-21	Cloudy	15:54	68.8	54.4	
16-Feb-21	Cloudy	15:59	64.6	48.6	66
16-Feb-21	Cloudy	16:04	68.8	49.2	
16-Feb-21	Cloudy	16:09	67.9	52.9	
24-Feb-21	Sunny	15:45	63.8	53.2	
24-Feb-21	Sunny	15:50	59.9	51.7	
24-Feb-21	Sunny	15:55	62.3	51.0	
24-Feb-21	Sunny	16:00	71.1	55.9	
24-Feb-21	Sunny	16:05	65.1	52.9	
24-Feb-21	Sunny	16:10	63.9	50.9	

Remarks:

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



Notes

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

## **Water Quality Monitoring Results**



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

Water Quality Monitoring

Water Quality Monitoring Results on 02 February 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	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value
C1	Sunny	Moderate	15:57	8.2	Surface	1.0	0.2	221	18.5	18.5	8.1	8.1	31.4	31.4	125.5	125.5	9.8	9.8	2.7	2.7	3.5	3.5	4	4	89	92	815617	804233	<0.2	1.0	0.9	0.9		
						1.0	0.2	224	18.4	8.1	8.1	31.4	31.4	125.5	124.4	9.8	9.7	2.7	2.6	3	3	89	93	89	93	<0.2	1.0	0.9	0.9					
						4.1	0.2	217	18.2	8.1	8.1	31.6	31.5	124.3	124.4	9.7	9.7	2.7	2.6	3	3	93	93	93	93	<0.2	1.0	0.9	0.9					
					Middle	4.1	0.2	217	18.3	8.1	8.1	31.5	31.5	124.4	124.4	9.7	9.7	2.6	2.6	3	3	93	93	93	93	<0.2	1.0	0.9	0.9					
						7.2	0.2	194	18.0	8.1	8.1	32.6	32.6	116.1	116.3	9.0	9.1	5.3	5.2	5	5	94	94	94	94	<0.2	1.0	0.9	0.9					
						7.2	0.2	195	18.0	8.1	8.1	32.6	32.6	116.4	116.4	9.1	9.1	5.2	5.2	6	6	94	94	94	94	<0.2	1.0	0.9	0.9					
					Bottom	7.2	0.2	195	18.0	8.1	8.1	32.6	32.6	116.4	116.3	9.0	9.1	5.3	5.2	5	5	94	94	94	94	<0.2	1.0	0.9	0.9					
						7.2	0.2	195	18.0	8.1	8.1	32.6	32.6	116.4	116.3	9.0	9.1	5.3	5.2	5	5	94	94	94	94	<0.2	1.0	0.9	0.9					
						7.2	0.2	195	18.0	8.1	8.1	32.6	32.6	116.4	116.3	9.0	9.1	5.3	5.2	5	5	94	94	94	94	<0.2	1.0	0.9	0.9					
C2	Sunny	Moderate	14:39	11.9	Surface	1.0	0.3	74	18.8	18.8	8.4	8.4	28.4	28.5	122.3	122.2	9.6	9.6	1.5	1.5	3.4	3.4	4	4	87	89	825674	806956	<0.2	1.5	1.5	1.5		
						1.0	0.3	79	18.8	8.4	8.4	28.5	28.5	122.0	120.7	9.6	9.5	1.5	1.5	3	3	88	89	88	89	<0.2	1.5	1.5	1.5					
						6.0	0.3	77	18.7	8.4	8.4	28.8	28.8	120.8	120.7	9.5	9.5	3.7	3.8	4	4	89	90	89	90	<0.2	1.4	1.4	1.4					
					Middle	6.0	0.3	79	18.7	8.4	8.4	28.8	28.8	120.6	120.6	9.5	9.5	3.8	3.8	3	3	90	90	90	90	<0.2	1.4	1.4	1.4					
						10.9	0.4	92	18.7	8.4	8.4	28.8	28.8	119.7	119.7	9.4	9.4	5.0	5.1	4	4	90	90	90	90	<0.2	1.5	1.5	1.5					
						10.9	0.4	92	18.7	8.4	8.4	28.8	28.8	119.7	119.7	9.4	9.4	5.1	5.1	3	3	91	91	91	91	<0.2	1.5	1.5	1.5					
					Bottom	10.9	0.4	92	18.7	8.4	8.4	28.8	28.8	119.7	119.7	9.4	9.4	5.0	5.1	4	4	90	90	90	90	<0.2	1.5	1.5	1.5					
						10.9	0.4	92	18.7	8.4	8.4	28.8	28.8	119.7	119.7	9.4	9.4	5.1	5.1	3	3	91	91	91	91	<0.2	1.5	1.5	1.5					
						10.9	0.4	92	18.7	8.4	8.4	28.8	28.8	119.7	119.7	9.4	9.4	5.1	5.1	3	3	91	91	91	91	<0.2	1.5	1.5	1.5					
C3	Sunny	Calm	16:26	11.9	Surface	1.0	0.4	63	18.6	18.6	8.3	8.3	29.5	29.5	119.5	119.2	9.4	9.4	2.4	2.5	3.8	3.8	5	5	87	90	822120	817802	<0.2	1.4	1.4	1.4		
						1.0	0.4	68	18.6	8.3	8.3	29.5	29.7	118.8	115.9	9.3	9.1	2.5	2.5	3	3	87	90	87	91	<0.2	1.4	1.4	1.4					
						6.0	0.3	75	18.5	8.3	8.3	29.7	29.7	116.1	115.9	9.1	9.1	4.4	4.4	4	4	90	91	90	91	<0.2	1.4	1.4	1.4					
					Middle	6.0	0.3	75	18.5	8.3	8.3	29.7	29.7	116.1	115.9	9.1	9.1	4.4	4.4	4	4	90	91	90	91	<0.2	1.4	1.4	1.4					
						10.9	0.3	85	18.4	8.3	8.3	30.0	30.0	112.4	112.4	8.8	8.8	4.5	4.6	2	2	91	91	91	91	<0.2	1.5	1.5	1.5					
						10.9	0.4	87	18.4	8.3	8.3	30.0	30.0	112.4	112.4	8.8	8.8	4.6	4.6	3	3	92	92	92	92	<0.2	1.4	1.4	1.4					
					Bottom	10.9	0.3	85	18.4	8.3	8.3	30.0	30.0	112.4	112.4	8.8	8.8	4.5	4.6	2	2	91	91	91	91	<0.2	1.5	1.5	1.5					
						10.9	0.4	87	18.4	8.3	8.3	30.0	30.0	112.4	112.4	8.8	8.8	4.6	4.6	3	3	92	92	92	92	<0.2	1.4	1.4	1.4					
						10.9	0.4	87	18.4	8.3	8.3	30.0	30.0	112.4	112.4	8.8	8.8	4.6	4.6	3	3	92	92	92	92	<0.2	1.4	1.4	1.4					
IM1	Sunny	Moderate	15:36	5.1	Surface	1.0	0.1	178	18.9	18.9	8.2	8.2	31.1	31.1	123.3	123.2	9.5	9.5	3.3	3.4	3.5	3.5	4	4	87	89	817927	807115	<0.2	0.9	0.9	0.9		
						1.0	0.1	184	18.9	8.2	8.2	31.1	31.1	123.0	123.0	9.5	9.5	3.4	3.4	4	4	88	89	88	89	<0.2	0.9	0.9	0.9					
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						4.1	0.1	191	18.8	8.2	8.2	31.2	31.2	120.0	119.9	9.3	9.3	3.7	3.5	3	3	91	91	91	91	<0.2	0.9	0.9	0.9					
						4.1	0.1	209	18.9	8.2	8.2	31.2	31.2	119.7	119.9	9.3	9.3	3.5	3.5	3	3	91	91	91	91	<0.2	0.9	0.9	0.9					
					Bottom	4.1	0.1	191	18.8	8.2	8.2	31.2	31.2	120.0	119.9	9.3	9.3	3.7	3.5	3	3	91	91	91	91	<0.2	0.9	0.9	0.9					
						4.1	0.1	209	18.9	8.2	8.2	31.2	31.2	119.7	119.9	9.3	9.3	3.5	3.5	3	3	91	91	91	91	<0.2	0.9	0.9	0.9					
						4.1	0.1	209	18.9	8.2	8.2	31.2	31.2	119.7	119.9	9.3	9.3	3.5	3.5	3	3	91	91	91	91	<0.2	0.9	0.9	0.9					
IM2	Sunny	Moderate	15:27	6.8	Surface	1.0	0.1	177	18.4	18.4	8.2	8.2	31.1	31.1	120.8	120.8	9.4	9.4	2.8	2.8	2.6	2.6	4	4	87	88	818145	806159	<0.2	1.0	0.9	0.9		
						1.0	0.1	188	18.4	8.2	8.2	31.2	31.1	120.7	119.9	9.4	9.4	2.8	2.5	4	4	87	89	87	89	<0.2	1.0	0.9	0.9					
						3.4	0.1	183	18.4	8.2	8.2	31.2	31.2	120.0	119.8	9.4	9.3	2.5	2.5	6	5	89	89	89	89	<0.2	0.9	0.9	0.9					
					Middle	3.4	0.1	186	18.4	8.2	8.2	31.2	31.2	119.8	119.8	9.3	9.3	2.5	2.5	5	5	89	89	89	89	<0.2	0.9	0.9	0.9					
						5.8	0.1	236	18.4	8.2	8.2	31.2	31.2	118.2	118.1	9.2	9.2	2.4	2.5	7	7	89	89	89	89	<0.2	0.9	0.9	0.9					
						5.8	0.1	249	18.4	8.2	8.2	31.2	31.2	118.0	118.0	9.2	9.2	2.5	2.5	8	8	89	89	89	89	<0.2	0.9	0.9	0.9					
					Bottom	5.8	0.1	236	18.4	8.2	8.2	31.2	31.2	118.2	118.1	9.2	9.2	2.4	2.5	7	7	89	89	89	89	<0.2	0.9	0.9	0.9					
						5.8	0.1	249	18.4	8.2	8.2	31.2	31.2	118.0	118.0	9.2	9.2	2.5	2.5	8	8	89	89	89	89	<0.2	0.9	0.9	0.9					
						5.8	0.1	249	18.4	8.2	8.2	31.2	31.2	118.0	118.0	9.2	9.2	2.5	2.5	8	8	89	89	89	89	<0.2	0.9	0.9	0.9					
IM3	Sunny	Moderate	15:15	7.0	Surface	1.0	0.1	184	18.5	18.5	8.2	8.2	31.1	31.1	120.6	120.5	9.4	9.4	3.4	3.4	3.5	3.5	4	5	87	88	818770	805589	<0.2	0.9	1.0	1.0		
						1.0	0.1	199	18.5	8.2	8.2	31.1	31.1	120.3	118.0	9.4	9.3	3.4	3.5	5	4	85	88	85	89	<0.2	1.0	1.0	1.0					
						3.5	0.1	144	18.3	8.2	8.2	31.2	31.2	118.1	118.0	9.2	9.2	3.4	3.5	5	4	88	89	88	89	<0.2	0.9	1.0	1.0					
					Middle	3.5	0.1	155	18.3	8.2	8.2	31.2	31.2	117.8	118.0	9.2	9.2	3.5																

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

Water Quality Monitoring Results on 02 February 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	Sunny	Moderate	15:04	7.5	Surface	1.0	0.1	75	19.0	19.0	8.3	8.3	28.1	28.2	123.6	123.6	9.7	9.7	2.2	3	85	85	88	88	822092	808832	<0.2	1.5	<0.2	1.4				
						1.0	0.2	79	19.0	8.3	8.3	28.2	28.2	123.5	123.5	9.7	9.7	2.1	4	85	85	88	88	822092	808832	<0.2	1.5	<0.2	1.4					
					Middle	3.8	0.2	57	18.8	8.3	8.3	28.6	28.7	122.1	121.9	9.6	9.6	3.0	2	89	89	88	88	822092	808832	<0.2	1.6	<0.2	1.5	<0.2	1.5			
						3.8	0.2	62	18.8	8.3	8.3	28.7	28.7	121.7	121.7	9.6	9.6	3.0	2	89	89	88	88	822092	808832	<0.2	1.5	<0.2	1.4	<0.2	1.4			
					Bottom	6.5	0.1	92	18.7	8.3	8.3	29.2	29.2	120.1	120.0	9.4	9.4	4.8	2	90	90	88	88	822092	808832	<0.2	1.3	<0.2	1.4	<0.2	1.4			
						6.5	0.1	93	18.7	8.3	8.3	29.2	29.2	119.9	119.9	9.4	9.4	4.8	2	90	90	88	88	822092	808832	<0.2	1.4	<0.2	1.4	<0.2	1.4			
IM10	Sunny	Moderate	15:10	7.2	Surface	1.0	0.6	93	18.9	18.9	8.3	8.3	28.6	28.6	122.0	121.9	9.6	9.6	2.3	2	86	86	88	88	822371	809792	<0.2	1.5	<0.2	1.5	<0.2	1.5		
						1.0	0.6	95	18.9	8.3	8.3	28.6	28.6	121.7	121.7	9.5	9.5	2.3	3	86	86	88	88	822371	809792	<0.2	1.5	<0.2	1.4	<0.2	1.4			
					Middle	3.6	0.6	88	18.8	8.3	8.3	28.9	28.9	120.2	120.0	9.4	9.4	4.7	3	88	88	88	88	822371	809792	<0.2	1.4	<0.2	1.4	<0.2	1.4			
						3.6	0.6	89	18.7	8.3	8.3	29.0	29.0	119.8	119.8	9.4	9.4	4.8	2	89	89	88	88	822371	809792	<0.2	1.4	<0.2	1.4	<0.2	1.4			
					Bottom	6.2	0.6	85	18.7	8.3	8.3	29.1	29.1	118.3	118.2	9.3	9.3	5.4	2	90	90	88	88	822371	809792	<0.2	1.6	<0.2	1.6	<0.2	1.6			
						6.2	0.6	85	18.7	8.3	8.3	29.1	29.1	118.0	118.0	9.3	9.3	5.4	2	90	90	88	88	822371	809792	<0.2	1.6	<0.2	1.6	<0.2	1.6			
IM11	Sunny	Moderate	15:20	8.0	Surface	1.0	0.5	115	18.8	18.8	8.3	8.3	28.5	28.6	120.7	120.6	9.5	9.5	2.6	<2	83	83	89	89	822041	811445	<0.2	1.6	<0.2	1.5	<0.2	1.5		
						1.0	0.5	119	18.7	8.3	8.3	28.6	28.6	121.7	121.7	9.5	9.5	2.3	3	86	86	88	88	822041	811445	<0.2	1.5	<0.2	1.5	<0.2	1.5			
					Middle	4.0	0.4	95	18.7	8.3	8.3	28.9	29.0	119.5	119.4	9.4	9.4	4.4	<2	90	90	88	88	822041	811445	<0.2	1.6	<0.2	1.6	<0.2	1.6			
						4.0	0.4	98	18.7	8.3	8.3	29.0	29.0	119.2	119.2	9.4	9.4	4.3	<2	90	90	88	88	822041	811445	<0.2	1.6	<0.2	1.6	<0.2	1.6			
					Bottom	7.0	0.4	94	18.7	8.3	8.3	29.1	29.1	117.9	117.7	9.3	9.3	5.2	3	92	92	88	88	822041	811445	<0.2	1.5	<0.2	1.5	<0.2	1.5			
						7.0	0.4	99	18.7	8.3	8.3	29.1	29.1	117.5	117.5	9.2	9.2	5.4	2	93	93	88	88	822041	811445	<0.2	1.4	<0.2	1.4	<0.2	1.4			
IM12	Sunny	Moderate	15:25	9.8	Surface	1.0	0.4	139	18.9	18.9	8.3	8.3	28.5	28.6	122.6	122.5	9.6	9.6	2.4	2	84	85	88	88	821453	812059	<0.2	1.3	<0.2	1.4	<0.2	1.4		
						1.0	0.4	152	18.8	8.3	8.3	28.6	28.6	122.3	122.3	9.6	9.6	2.5	2	85	85	88	88	821453	812059	<0.2	1.4	<0.2	1.4	<0.2	1.4			
					Middle	4.9	0.4	142	18.6	8.3	8.3	29.2	29.2	119.7	119.6	9.4	9.4	3.2	3	86	86	88	88	821453	812059	<0.2	1.6	<0.2	1.6	<0.2	1.6			
						4.9	0.4	151	18.6	8.3	8.3	29.2	29.2	119.4	119.4	9.4	9.4	3.2	2	89	89	88	88	821453	812059	<0.2	1.6	<0.2	1.6	<0.2	1.6			
					Bottom	8.8	0.3	125	18.6	8.3	8.3	29.2	29.2	118.5	118.5	9.3	9.3	4.4	3	92	92	88	88	821453	812059	<0.2	1.5	<0.2	1.5	<0.2	1.5			
						8.8	0.3	137	18.7	8.3	8.3	29.2	29.2	118.4	118.4	9.3	9.3	4.5	3	93	93	88	88	821453	812059	<0.2	1.5	<0.2	1.5	<0.2	1.5			
SR1A	Sunny	Calm	15:55	4.9	Surface	1.0	-	-	18.9	18.9	8.3	8.3	29.2	29.2	120.6	120.5	9.4	9.4	3.2	2	-	-	-	-	819981	812653	-	-	-	-	-	-		
						1.0	-	-	18.9	18.9	8.3	8.3	29.2	29.2	120.4	120.4	9.4	9.4	3.2	3	-	-	-	-	819981	812653	-	-	-	-	-	-		
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819981	812653	-	-	-	-	-	-
						2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819981	812653	-	-	-	-	-	-
					Bottom	3.9	-	-	18.8	18.8	8.3	8.3	29.2	29.2	119.3	119.1	9.3	9.3	4.2	4	-	-	-	-	-	-	819981	812653	-	-	-	-	-	-
						3.9	-	-	18.8	18.8	8.3	8.3	29.2	29.2	118.9	118.9	9.3	9.3	4.2	4	-	-	-	-	-	-	819981	812653	-	-	-	-	-	-
SR2	Sunny	Calm	16:09	4.4	Surface	1.0	0.4	65	19.0	19.0	8.3	8.3	28.4	28.4	122.1	122.1	9.6	9.6	2.3	3	85	85	87	87	821484	814159	<0.2	1.7	<0.2	1.8	<0.2	1.8		
						1.0	0.4	67	19.0	8.3	8.3	28.4	28.4	122.0	122.0	9.6	9.6	2.4	2	85	85	87	87	821484	814159	<0.2	1.7	<0.2	1.8	<0.2	1.8			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821484	814159	<0.2	1.7	<0.2	1.7	<0.2	1.7
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821484	814159	<0.2	1.7	<0.2	1.7	<0.2	1.7
					Bottom	3.4	0.4	74	18.9	19.0	8.3	8.3	28.7	28.7	119.9	119.6	9.4	9.4	4.4	2	89	89	87	87	821484	814159	<0.2	1.6	<0.2	1.6	<0.2	1.6		
						3.4	0.4	76	19.0	19.0	8.3	8.3	28.7	28.7	119.2	119.2	9.4	9.4	4.5	3	89	89	87	87	821484	814159	<0.2	1.5	<0.2	1.5	<0.2	1.5		
SR3	Sunny	Calm	14:54	9.1	Surface	1.0	0.2	119	18.9	18.9	8.3	8.3	28.3	28.4	123.2	123.1	9.7	9.7	2.2	2	-	-	-	-	822148	807571	-	-	-	-	-			
						1.0	0.2	121	18.8	8.3	8.3	28.3	28.4	123.0	123.1	9.7	9.7	2.2	3	-	-	-	-	822148	807571	-	-	-	-	-				
					Middle	4.6	0.2	131	18.7	18.7	8.3	8.3	28.8	28.8	121.7	121.7	9.6	9.6	4.7	3	-	-	-	-	822148	807571	-	-	-	-	-			
						4.6	0.2	140	18.7	18.7	8.4	8.4	28.8	28.8	121.6	121.6	9.6	9.6	4.9	2	-	-	-	-	822148	807571	-	-	-	-	-			
					Bottom	8.1	0.2	87	18.7	18.7	8.4	8.4	29.2	29.2	120.7	120.7	9.5	9.5	5.5	3	-	-	-	-	822148	807571	-	-	-	-	-			
						8.1	0.2	94	18.7	18.7	8.4	8.4	29.2	29.2	120.6	120.6	9.5	9.5	5.4	4	-	-	-	-	822148	807571	-	-	-	-	-			
SR4A	Sunny	Moderate	16:23	8.4	Surface	1.0	0.2	65	18.7	18.7	8.2	8.2	31.1	31.1	123.1	123.0	9.6	9.6	2.8	4	-	-	-	-	817197	807797	-	-	-	-	-			
						1.0	0.2	67	18.6	8.2	8.2	31.1	31.1	122.9	122.9	9.6	9.6	2.9	4	-	-	-	-	817197	807797	-	-	-	-	-				
					Middle	4.2	0.1	57	18.5	18.5	8.2	8.2	31.1	31.1	121.6	121.5	9.5	9.5	2.8	4	-	-	-	-	817197	807797	-	-	-	-	-			
						4.2	0.1	60	18.5	18.5																								

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

Water Quality Monitoring Results on 02 February 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	
C1	Sunny	Moderate	11:06	8.0	Surface	1.0	0.5	38	18.1	18.1	8.1	8.1	31.1	31.2	115.8	115.7	9.1	9.1	9.0	55	85	87	815630	804227	<0.2	0.9	<0.2	1.0				
						1.0	0.5	39	18.1	8.1	8.1	31.2	31.2	115.5	115.7	9.1	9.1	9.4	54	85	87	<0.2	0.9	<0.2	1.0							
					Middle	4.0	0.5	39	18.0	8.1	8.1	31.5	31.5	114.6	114.6	9.0	9.0	7.6	7	88	87	<0.2	1.0	<0.2	1.0							
						4.0	0.5	42	18.0	8.1	8.1	31.5	31.5	114.6	114.6	9.0	9.0	7.3	7	88	87	<0.2	1.0	<0.2	1.0							
					Bottom	7.0	0.5	40	18.0	8.1	8.1	31.6	31.6	113.5	113.5	8.9	8.9	8.1	6	89	87	<0.2	1.0	<0.2	1.0							
						7.0	0.5	43	18.0	8.1	8.1	31.6	31.6	113.4	113.4	8.9	8.9	8.6	6	89	87	<0.2	1.0	<0.2	1.0							
C2	Sunny	Moderate	11:41	12.0	Surface	1.0	0.4	338	18.6	18.6	8.3	8.3	27.7	27.7	121.8	121.7	9.7	9.7	1.9	2	85	88	825664	806945	0.2	1.7	0.2	1.7				
						1.0	0.4	342	18.6	8.3	8.3	27.7	27.7	121.6	121.6	9.6	9.6	2.0	3	85	88	0.2	1.7	0.2	1.7							
					Middle	6.0	0.4	345	18.6	8.3	8.3	27.8	27.8	120.2	120.1	9.5	9.5	4.1	2	88	88	<0.2	1.2	<0.2	1.2							
						6.0	0.4	353	18.6	8.3	8.3	27.8	27.8	120.0	120.0	9.5	9.5	4.3	2	88	88	<0.2	1.2	<0.2	1.2							
					Bottom	11.0	0.4	19	18.5	8.3	8.3	28.2	28.2	117.1	117.0	9.3	9.3	5.5	<2	89	89	<0.2	1.2	<0.2	1.2							
						11.0	0.4	20	18.5	8.3	8.3	28.2	28.2	116.9	116.9	9.3	9.3	5.4	<2	90	89	<0.2	1.2	<0.2	1.2							
C3	Sunny	Calm	09:40	11.2	Surface	1.0	0.5	256	18.5	18.5	8.3	8.3	29.2	29.2	117.0	117.0	9.2	9.2	1.1	3	87	89	822117	817792	<0.2	1.2	<0.2	1.3				
						1.0	0.5	259	18.5	8.3	8.3	29.4	29.4	114.6	114.6	9.0	9.0	1.2	4	90	89	<0.2	1.3	<0.2	1.3							
					Middle	5.6	0.6	264	18.4	8.3	8.3	29.4	29.4	114.5	114.6	9.0	9.0	1.2	4	90	89	<0.2	1.2	<0.2	1.2							
						5.6	0.6	283	18.4	8.3	8.3	29.4	29.4	113.3	113.3	8.9	8.9	2.9	4	91	89	<0.2	1.2	<0.2	1.2							
					Bottom	10.2	0.4	261	18.4	8.3	8.3	29.4	29.4	113.2	113.2	8.9	8.9	3.0	4	91	89	<0.2	1.2	<0.2	1.2							
						10.2	0.5	271	18.4	8.3	8.3	29.4	29.4	113.2	113.2	8.9	8.9	3.0	4	91	89	<0.2	1.2	<0.2	1.2							
IM1	Sunny	Moderate	11:26	5.4	Surface	1.0	0.2	353	18.5	18.5	8.1	8.1	31.3	31.3	118.6	118.6	9.2	9.2	3.3	2	84	86	817952	807118	<0.2	0.8	<0.2	0.6				
						1.0	0.2	325	18.5	8.1	8.1	31.3	31.3	118.5	118.5	9.2	9.2	3.5	3	85	86	<0.2	0.6	<0.2	0.6							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	4.4	0.1	337	18.5	8.1	8.1	31.4	31.4	117.7	117.7	9.2	9.2	3.9	6	88	88	<0.2	0.6	<0.2	0.6							
						4.4	0.1	310	18.5	8.1	8.1	31.4	31.4	117.6	117.6	9.2	9.2	3.8	5	88	88	<0.2	0.6	<0.2	0.6							
IM2	Sunny	Moderate	11:36	6.9	Surface	1.0	0.2	2	18.3	18.3	8.1	8.1	31.1	31.1	117.0	117.0	9.1	9.1	4.7	8	85	88	818176	806182	<0.2	0.7	<0.2	0.8				
						1.0	0.3	2	18.3	8.1	8.1	31.1	31.1	116.9	116.9	9.1	9.1	5.0	7	85	88	<0.2	0.8	<0.2	0.8							
					Middle	3.5	0.2	3	18.3	8.1	8.1	31.1	31.1	116.3	116.2	9.1	9.1	5.6	9	88	88	<0.2	0.8	<0.2	0.8							
						3.5	0.2	3	18.3	8.1	8.1	31.1	31.1	116.1	116.1	9.1	9.1	5.7	8	89	89	<0.2	0.6	<0.2	0.6							
					Bottom	5.9	0.2	353	18.3	8.1	8.1	31.1	31.1	114.9	114.9	9.0	9.0	5.1	9	89	89	<0.2	0.7	<0.2	0.7							
						5.9	0.2	325	18.3	8.1	8.1	31.1	31.1	114.8	114.8	9.0	9.0	5.0	10	90	89	<0.2	0.9	<0.2	0.9							
IM3	Sunny	Moderate	11:45	7.1	Surface	1.0	0.3	345	18.3	18.3	8.2	8.2	31.0	31.0	116.4	116.4	9.1	9.1	5.2	10	85	88	818782	805581	<0.2	1.1	<0.2	1.0				
						1.0	0.3	317	18.3	8.2	8.2	31.0	31.0	116.3	116.3	9.1	9.1	5.2	10	86	88	<0.2	1.0	<0.2	1.0							
					Middle	3.6	0.3	343	18.3	8.2	8.2	31.0	31.0	115.9	115.9	9.1	9.1	5.5	10	88	88	<0.2	0.9	<0.2	0.9							
						3.6	0.3	316	18.3	8.2	8.2	31.0	31.0	115.8	115.8	9.1	9.1	5.6	9	89	89	<0.2	0.9	<0.2	0.9							
					Bottom	6.1	0.2	335	18.2	8.2	8.2	31.0	31.0	114.2	114.1	8.9	8.9	6.6	8	90	89	<0.2	0.9	<0.2	0.9							
						6.1	0.3	308	18.2	8.2	8.2	31.0	31.0	114.0	114.0	8.9	8.9	6.5	9	90	89	<0.2	0.9	<0.2	0.9							
IM4	Sunny	Moderate	11:55	7.0	Surface	1.0	0.6	359	18.2	18.2	8.2	8.2	30.7	30.7	117.7	117.7	9.2	9.2	4.9	4	86	86	819745	804611	<0.2	1.0	<0.2	1.0				
						1.0	0.6	330	18.2	8.2	8.2	30.7	30.7	117.7	117.7	9.2	9.2	4.9	5	86	86	<0.2	1.0	<0.2	1.0							
					Middle	3.5	0.5	358	18.2	8.2	8.2	30.7	30.7	117.4	117.4	9.2	9.2	4.8	6	89	89	<0.2	1.0	<0.2	1.0							
						3.5	0.6	329	18.2	8.2	8.2	30.7	30.7	117.4	117.4	9.2	9.2	4.8	5	89	89	<0.2	1.0	<0.2	1.0							
					Bottom	6.0	0.4	1	18.3	8.2	8.2	30.7	30.7	115.2	115.2	9.0	9.0	4.9	9	89	89	<0.2	1.0	<0.2	1.0							
						6.0	0.4	1	18.3	8.2	8.2	30.7	30.7	115.1	115.1	9.0	9.0	4.8	8	90	89	<0.2	1.0	<0.2	1.0							
IM5	Sunny	Moderate	12:03	7.2	Surface	1.0	0.8	20	18.3	18.3	8.2	8.2	30.8	30.8	116.5	116.5	9.1	9.1	4.9	6	84	85	820740	804848	0.2	1.1	0.2	1.1				
						1.0	0.8	21	18.3	8.2	8.2	30.8	30.8	116.4	116.4	9.1	9.1	4.9	6	85	85	0.2	1.1	0.2	1.1							
					Middle	3.6	0.8	21	18.3	8.2	8.2	30.8	30.8	115.7	115.6	9.1	9.1	5.5	6	88	88	<0.2	1.0	<0.2	1.0							
						3.6	0.8	22	18.3	8.2	8.2	30.8	30.8	115.5	115.5	9.0	9.0	5.6	7	89	89	<0.2	1.1	<0.2	1.1							
					Bottom	6.2	0.6	16	18.3	8.2	8.2	30.8	30.8	114.6	114.6	9.0	9.0	5.7	8	89	89	<0.2	1.0	<0.2	1.0							
						6.2	0.7	16	18.3	8.2	8.2	30.8	30.8	114.6	114.6	9.0	9.0	5.6	7	90	89	<0.2	0.9	<0.2	0.9							
IM6	Sunny	Moderate	12:12	7.4	Surface	1.0	0.1	17	18.6	18.6	8.2	8.2	30.0	30.0	119.0	119.0	9.3	9.3	2.3	4	86	86	821070	805818	<0.2	1.0	<0.2	1.0				
						1.0	0.2	17	18.6	8.2	8.2	30.1	30.1	118.9	118.9	9.3	9.3	2.5	4	86	86	<0.2	1.0	<0.2	1.0							
					Middle	3.7	0.2	35	18.5	8.2	8.2	30.7	30.8	117.6	117.5	9.2	9.2	3.6	5	89	89	<0.2	0.9	<0.2	0.9							
						3.7	0.2	38	18.5	8.2	8.2	30.8	30.8	117.3	117.3	9.2	9.2	3.7	6	89	89	<0.2	0.9	<0.2	0.9							
					Bottom	6.4	0.3	50	18.5	8.2	8.2	31.0	31.0	116.5	116.5	9.1	9.1	4.1	6	91	89	<0.2	0.9	<0.2	0.9							
						6.4	0.3	53	18.5	8.2	8.2	31.0	31.0	116.4	116.4	9.1	9.1	3.8	6	91	89	<0.2	0.9	<0.2	0.9							
IM7	Sunny	Moderate	12:22	8.6	Surface	1.0	0.0	133	18.6	18.6	8.2	8.2	29.7																			

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

Water Quality Monitoring

Water Quality Monitoring Results on 02 February 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	11:12	7.2	Surface	1.0	0.2	28	18.7	18.7	8.3	8.3	28.3	28.3	117.9	117.8	9.3	9.3	3.0	3.0	3	86	89	89	822092	808787	<0.2	1.4	<0.2	1.4		
						1.0	0.2	30	18.7	18.6	8.3	8.3	28.3	28.3	117.7	116.3	9.3	9.3	3.0	3.0	2	86	89	89	822092	808787	<0.2	1.4	<0.2	1.4		
					Middle	3.6	0.1	358	18.6	18.6	8.3	8.3	28.5	28.5	116.4	116.3	9.2	9.2	4.6	4.6	2	89	89	89	822092	808787	<0.2	1.4	<0.2	1.4		
						3.6	0.1	329	18.6	18.6	8.3	8.3	28.5	28.5	116.1	116.3	9.2	9.2	4.7	4.7	3	89	89	89	822092	808787	<0.2	1.4	<0.2	1.4		
					Bottom	6.2	0.1	358	18.6	18.6	8.3	8.3	28.5	28.5	114.6	114.5	9.0	9.0	5.3	5.3	5	92	93	93	822092	808787	<0.2	1.3	<0.2	1.4		
						6.2	0.1	329	18.6	18.6	8.3	8.3	28.5	28.5	114.4	114.5	9.0	9.0	5.3	5.3	4	93	93	93	822092	808787	<0.2	1.3	<0.2	1.4		
IM10	Sunny	Moderate	11:06	8.0	Surface	1.0	0.5	302	18.5	18.5	8.3	8.3	29.0	29.0	117.2	117.2	9.2	9.2	2.5	2.5	7	83	85	89	822375	809805	<0.2	1.4	<0.2	1.3		
						1.0	0.6	327	18.5	18.5	8.3	8.3	29.0	29.0	117.1	116.6	9.2	9.2	2.6	2.6	7	85	90	90	822375	809805	<0.2	1.3	<0.2	1.4		
					Middle	4.0	0.6	300	18.5	18.5	8.3	8.3	29.0	29.0	116.6	116.6	9.2	9.2	3.1	3.1	5	90	90	90	822375	809805	<0.2	1.4	<0.2	1.4		
						4.0	0.6	328	18.5	18.5	8.3	8.3	29.0	29.0	116.5	116.5	9.2	9.2	3.2	3.2	6	90	92	92	822375	809805	<0.2	1.5	<0.2	1.3		
					Bottom	7.0	0.5	305	18.5	18.5	8.3	8.3	28.9	28.9	116.1	116.1	9.2	9.2	4.2	4.2	4	92	93	93	822375	809805	<0.2	1.3	<0.2	1.3		
						7.0	0.5	332	18.5	18.5	8.3	8.3	28.9	28.9	116.0	116.1	9.1	9.1	4.4	4.4	3	93	93	93	822375	809805	<0.2	1.3	<0.2	1.3		
IM11	Sunny	Moderate	10:56	8.2	Surface	1.0	0.6	292	18.6	18.6	8.3	8.3	29.2	29.2	118.2	118.2	9.3	9.3	3.0	3.0	2	85	85	89	822049	811476	<0.2	1.1	<0.2	1.1		
						1.0	0.7	297	18.6	18.5	8.3	8.3	29.2	29.2	118.1	117.3	9.3	9.3	3.2	3.2	3	85	89	89	822049	811476	<0.2	1.1	<0.2	1.1		
					Middle	4.1	0.5	302	18.5	18.5	8.3	8.3	29.3	29.3	117.3	117.3	9.2	9.2	4.4	4.4	6	89	89	89	822049	811476	<0.2	1.3	<0.2	1.3		
						4.1	0.5	302	18.5	18.5	8.3	8.3	29.3	29.3	117.2	117.3	9.2	9.2	4.5	4.5	5	89	90	90	822049	811476	<0.2	1.3	<0.2	1.3		
					Bottom	7.2	0.5	302	18.5	18.5	8.3	8.3	29.3	29.3	117.0	117.0	9.2	9.2	4.8	4.8	7	90	91	91	822049	811476	<0.2	1.3	<0.2	1.1		
						7.2	0.6	329	18.5	18.5	8.3	8.3	29.3	29.3	117.0	117.0	9.2	9.2	4.9	4.9	6	91	91	91	822049	811476	<0.2	1.1	<0.2	1.1		
IM12	Sunny	Moderate	10:50	8.8	Surface	1.0	0.6	271	18.4	18.4	8.3	8.3	29.2	29.2	117.0	117.0	9.2	9.2	3.1	3.1	9	84	85	88	821444	812044	<0.2	1.2	<0.2	1.1		
						1.0	0.6	295	18.4	18.4	8.3	8.3	29.2	29.2	117.0	116.5	9.2	9.2	3.0	3.0	10	85	88	89	821444	812044	<0.2	1.1	<0.2	1.1		
					Middle	4.4	0.6	267	18.4	18.4	8.3	8.3	29.2	29.2	116.5	116.5	9.2	9.2	4.8	4.8	9	88	89	89	821444	812044	<0.2	1.2	<0.2	1.1		
						4.4	0.6	291	18.4	18.4	8.3	8.3	29.2	29.2	116.4	116.5	9.2	9.2	4.8	4.8	8	89	90	90	821444	812044	<0.2	1.1	<0.2	1.0		
					Bottom	7.8	0.7	264	18.5	18.5	8.3	8.3	29.2	29.2	115.3	115.2	9.1	9.1	5.3	5.3	6	90	90	90	821444	812044	<0.2	1.0	<0.2	1.2		
						7.8	0.7	270	18.5	18.5	8.3	8.3	29.2	29.2	115.0	115.0	9.1	9.1	5.3	5.3	6	90	90	90	821444	812044	<0.2	1.2	<0.2	1.2		
SR1A	Sunny	Calm	10:17	4.5	Surface	1.0	-	-	18.6	18.6	8.3	8.3	29.3	29.3	116.5	116.4	9.2	9.2	1.3	1.3	4	-	-	-	819982	812660	-	-	-	-		
						1.0	-	-	18.6	18.6	8.3	8.3	29.3	29.3	116.3	116.3	9.2	9.2	1.2	1.2	4	-	-	-	819982	812660	-	-	-	-		
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819982	812660	-	-	-	-
						2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819982	812660	-	-	-	-
					Bottom	3.5	-	-	18.6	18.6	8.3	8.3	29.2	29.2	114.7	114.5	9.0	9.0	5.8	5.8	7	-	-	-	-	-	819982	812660	-	-	-	-
						3.5	-	-	18.6	18.6	8.3	8.3	29.2	29.2	114.2	114.5	9.0	9.0	5.9	5.9	6	-	-	-	-	-	819982	812660	-	-	-	-
SR2	Sunny	Calm	10:02	4.3	Surface	1.0	0.2	329	18.4	18.4	8.3	8.3	29.2	29.2	116.9	116.9	9.2	9.2	2.2	2.2	4	86	86	88	821445	814181	<0.2	1.3	<0.2	1.2		
						1.0	0.2	337	18.4	18.4	8.3	8.3	29.2	29.2	116.8	116.9	9.2	9.2	2.1	2.1	5	86	86	88	821445	814181	<0.2	1.2	<0.2	1.2		
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821445	814181	<0.2	1.1	<0.2	1.1
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821445	814181	<0.2	1.1	<0.2	1.1
					Bottom	3.3	0.1	324	18.4	18.4	8.3	8.3	29.2	29.2	116.1	116.1	9.2	9.2	3.2	3.2	3	90	90	90	90	821445	814181	<0.2	1.1	<0.2	1.1	
						3.3	0.1	347	18.4	18.4	8.3	8.3	29.2	29.2	116.0	116.1	9.2	9.2	3.1	3.1	3	90	90	90	90	821445	814181	<0.2	1.1	<0.2	1.1	
SR3	Sunny	Moderate	11:24	8.9	Surface	1.0	0.1	324	18.7	18.7	8.3	8.3	27.6	27.6	121.1	121.0	9.6	9.6	2.3	2.3	3	-	-	-	822158	807562	-	-	-	-		
						1.0	0.1	324	18.7	18.5	8.3	8.3	27.6	27.7	120.9	118.4	9.6	9.5	2.3	2.3	2	-	-	-	-	822158	807562	-	-	-	-	
					Middle	4.5	0.1	337	18.5	18.5	8.3	8.3	27.7	27.7	118.6	118.4	9.4	9.4	4.3	4.3	2	-	-	-	-	822158	807562	-	-	-	-	
						4.5	0.1	310	18.5	18.5	8.3	8.3	27.7	27.7	118.2	118.4	9.4	9.4	4.5	4.5	2	-	-	-	-	822158	807562	-	-	-	-	
					Bottom	7.9	0.2	44	18.5	18.5	8.3	8.3	27.7	27.7	117.1	117.0	9.3	9.3	5.6	5.6	<2	-	-	-	-	-	822158	807562	-	-	-	-
						7.9	0.2	45	18.5	18.5	8.3	8.3	27.7	27.7	116.9	117.0	9.3	9.3	5.7	5.7	<2	-	-	-	-	-	822158	807562	-	-	-	-
SR4A	Sunny	Moderate	10:36	9.0	Surface	1.0	0.3	71	18.4	18.4	8.1	8.1	31.3	31.3	117.1	117.1	9.1	9.1	2.6	2.6	4	-	-	-	817175	807810	-	-	-	-		
						1.0	0.3	71	18.4	18.4	8.1	8.1	31.3	31.3	117.1	116.8	9.1	9.1	2.6	2.6	5	-	-	-	-	817175	807810	-	-	-	-	
					Middle	4.5	0.3	72	18.4	18.4	8.1	8.1	31.3	31.3	116.8	116.8	9.1	9.1	2.6	2.6	6	-	-	-	-	817175	807810	-	-	-	-	
						4.5	0.4	74	18.4	18.4	8.1	8.1	31.3	31.3	116.7	116.8	9.1	9.1	2.6	2.6	6	-	-	-	-	817175	807810	-	-	-	-	
					Bottom	8.0	0.3	75	18.4	18.4	8.1	8.1	31.3																			

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

Water Quality Monitoring Results on 04 February 21 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)		Current Direction		Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)				
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value
C1	Sunny	Moderate	17:46	8.2	Surface	1.0	0.2	223	18.8	18.8	8.4	8.4	32.0	32.0	125.6	125.7	9.7	9.7	2.9	2.9	4.2	3	86	88	815640	804244	<0.2	0.8	<0.2	0.8				
						1.0	0.2	229	18.8	8.4	8.4	32.0	32.0	125.8	124.4	9.7	9.7	2.9	2.9	4.2	3	86	88	<0.2			0.8							
					4.1	0.2	213	18.4	8.4	8.4	32.7	32.8	124.6	124.4	9.6	9.6	4.4	4.4	2	2	88	88	<0.2	0.8										
					4.1	0.2	228	18.4	8.4	8.4	32.8	32.8	124.2	124.4	9.6	9.6	4.5	4.5	3	3	89	89	<0.2	0.8										
					7.2	0.2	190	18.3	8.3	8.3	33.1	33.1	116.3	116.1	9.0	9.0	5.3	5.3	4	4	90	90	<0.2	0.8										
					7.2	0.2	200	18.3	8.3	8.3	33.1	33.1	115.9	116.1	9.0	9.0	5.3	5.3	5	5	91	91	<0.2	0.9										
C2	Fine	Moderate	16:37	12.5	Surface	1.0	0.3	80	19.1	19.1	8.3	8.3	27.7	27.7	121.2	121.2	9.5	9.5	1.8	1.8	2.4	2	87	89	825658	806946	<0.2	1.6	<0.2	1.5				
						1.0	0.3	81	19.1	19.0	8.3	8.3	27.7	27.7	121.2	122.7	9.5	9.5	1.8	1.8	2	2	86	89			<0.2	1.5						
					6.3	0.3	78	19.0	19.0	8.4	8.4	28.7	28.7	122.7	122.7	9.6	9.6	2.2	2.2	3	3	89	89	<0.2			1.4							
					6.3	0.3	79	19.0	19.0	8.4	8.4	28.7	28.7	122.7	122.6	9.6	9.6	2.2	2.2	2	2	89	91	<0.2			1.4							
					11.5	0.4	99	18.7	18.8	8.4	8.4	29.7	29.6	122.6	122.6	9.6	9.6	3.3	3.1	2	2	91	91	<0.2			1.4							
					11.5	0.4	105	18.8	18.8	8.4	8.4	29.6	29.6	122.6	122.6	9.6	9.6	3.1	3.1	3	3	91	91	<0.2			1.5							
C3	Fine	Moderate	18:42	11.8	Surface	1.0	0.4	77	18.7	18.7	8.3	8.3	29.5	29.5	117.9	117.8	9.2	9.2	1.7	1.7	1.9	3	88	90	822107	817804	<0.2	1.3	<0.2	1.2				
						1.0	0.4	78	18.7	18.5	8.3	8.3	29.5	30.0	117.7	110.4	9.2	9.5	1.8	1.8	4	4	88	90			<0.2	1.2						
					5.9	0.4	92	18.5	18.5	8.3	8.3	30.0	30.0	110.7	110.4	8.7	8.6	1.8	1.8	4	4	90	90	<0.2			1.0							
					5.9	0.4	92	18.5	18.5	8.3	8.3	30.0	30.0	110.1	110.4	8.6	8.5	1.8	1.8	3	3	90	92	<0.2			0.9							
					10.8	0.3	111	18.3	18.3	8.3	8.3	30.3	30.3	108.0	108.0	8.5	8.5	2.1	2.1	5	5	92	93	<0.2			0.9							
					10.8	0.3	111	18.3	18.3	8.3	8.3	30.3	30.3	108.0	108.0	8.5	8.5	2.1	2.1	4	4	93	93	<0.2			0.9							
IM1	Sunny	Calm	17:25	5.0	Surface	1.0	0.1	189	18.7	18.7	8.4	8.4	31.7	31.7	125.7	125.7	9.7	9.7	2.9	2.9	3.7	4	86	87	817965	807128	<0.2	0.8	<0.2	0.8				
						1.0	0.1	199	18.7	18.7	8.4	8.4	31.7	31.7	125.6	125.6	9.7	9.7	2.9	2.9	4	4	87	87			<0.2	0.8						
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-
					4.0	0.1	182	18.6	18.6	8.4	8.4	31.9	31.9	122.7	122.5	9.5	9.5	4.5	4.5	4	4	91	92	<0.2			0.7							
					4.0	0.1	187	18.6	18.6	8.4	8.4	31.9	31.9	122.3	122.5	9.5	9.5	4.5	4.5	4	4	92	92	<0.2			0.8							
IM2	Sunny	Moderate	17:18	6.9	Surface	1.0	0.1	169	18.4	18.4	8.4	8.4	31.9	31.9	125.3	125.3	9.7	9.7	4.1	4.1	4.8	5	88	89	818157	806161	<0.2	0.7	<0.2	0.6				
						1.0	0.1	181	18.4	18.4	8.4	8.4	32.0	31.9	125.2	123.0	9.7	9.6	4.1	4.1	4	4	89	90			<0.2	0.6						
					3.5	0.1	180	18.4	18.4	8.4	8.4	32.2	32.2	123.2	123.0	9.5	9.5	4.3	4.3	5	5	90	91	<0.2			0.7							
					3.5	0.1	181	18.4	18.4	8.4	8.4	32.2	32.2	122.8	123.0	9.5	9.5	4.4	4.4	4	4	91	93	<0.2			0.8							
					5.9	0.1	241	18.4	18.4	8.4	8.4	32.3	32.3	120.6	120.4	9.3	9.3	5.9	5.9	5	5	93	93	<0.2			0.7							
					5.9	0.1	247	18.4	18.4	8.4	8.4	32.3	32.3	120.2	120.4	9.3	9.3	6.0	6.0	6	6	93	93	<0.2			0.7							
IM3	Sunny	Moderate	17:11	7.1	Surface	1.0	0.1	172	18.4	18.4	8.4	8.4	32.0	32.0	124.1	124.1	9.6	9.6	2.4	2.4	3.9	4	88	88	818766	805572	<0.2	0.6	<0.2	0.7				
						1.0	0.1	185	18.4	18.4	8.4	8.4	32.1	32.0	124.1	123.5	9.6	9.6	2.4	2.4	3	3	88	90			<0.2	0.7						
					3.6	0.1	153	18.4	18.4	8.4	8.4	32.2	32.2	123.5	123.5	9.6	9.6	4.1	4.1	4	4	90	91	<0.2			0.7							
					3.6	0.1	166	18.4	18.4	8.4	8.4	32.2	32.2	123.4	123.5	9.6	9.6	4.2	4.2	3	3	91	92	<0.2			0.7							
					6.1	0.1	159	18.3	18.3	8.4	8.4	32.4	32.4	119.6	119.5	9.3	9.3	5.0	5.0	4	4	92	93	<0.2			0.7							
					6.1	0.1	174	18.3	18.3	8.4	8.4	32.4	32.4	119.4	119.5	9.3	9.3	5.0	5.0	5	5	93	93	<0.2			0.7							
IM4	Sunny	Moderate	17:02	8.3	Surface	1.0	0.1	225	18.5	18.5	8.4	8.4	32.2	32.2	122.6	122.5	9.5	9.5	2.7	2.7	4.0	3	85	86	819718	804616	<0.2	0.6	<0.2	0.7				
						1.0	0.2	244	18.5	18.5	8.4	8.4	32.2	32.2	122.4	121.9	9.5	9.5	2.7	2.7	4	4	86	88			<0.2	0.7						
					4.2	0.1	198	18.4	18.4	8.4	8.3	32.3	32.3	121.9	121.9	9.4	9.4	4.7	4.7	4	4	88	88	<0.2			0.8							
					4.2	0.1	205	18.4	18.4	8.3	8.3	32.3	32.3	121.9	120.9	9.4	9.4	4.7	4.7	5	5	88	91	<0.2			0.7							
					7.3	0.1	203	18.4	18.4	8.3	8.3	32.3	32.3	120.9	120.9	9.4	9.4	4.8	4.8	4	4	91	90	<0.2			0.7							
					7.3	0.1	215	18.4	18.4	8.3	8.3	32.3	32.3	120.9	120.9	9.4	9.4	4.5	4.5	4	4	90	90	<0.2			0.8							
IM5	Sunny	Moderate	16:52	6.9	Surface	1.0	0.2	256	18.4	18.4	8.4	8.4	32.0	32.0	121.4	121.3	9.4	9.4	1.2	1.2	3.8	5	85	86	820736	804845	<0.2	0.7	<0.2	0.7				
						1.0	0.2	281	18.4	18.4	8.4	8.4	32.0	32.0	121.2	120.5	9.4	9.4	1.2	1.2	6	6	86	88			<0.2	0.7						
					3.5	0.1	299	18.4	18.4	8.4	8.4	32.0	32.0	120.5	120.5	9.4	9.4	4.4	4.4	5	5	86	88	<0.2			0.7							
					3.5	0.1	327	18.4	18.4	8.4	8.4	32.0	32.0	120.4	118.9	9.3	9.2	4.6	4.6	4	4	88	89	<0.2			0.7							
					5.9	0.0	275	18.4	18.4	8.4	8.4	32.0	32.0	118.9	118.8	9.2	9.2	5.5	5.5	4	4	89	90	<0.2			0.7							
					5.9	0.0	295	18.4	18.4	8.4	8.4	32.0	32.0	118.6	118.6	9.2	9.2	5.6	5.6	4	4	90	90	<0.2			0.7							
IM6	Sunny	Moderate	16:43	7.4	Surface	1.0	0.2	231	18.7	18.7	8.4	8.4	30.3	30.4	124.0	124.0	9.7	9.7	1.9	1.9	3.9	3	89	87	821064	805838	<0.2	1.3	<0.2	1.3				
						1.0	0.2	236	18.7	18.7	8.4	8.4	30.5	30.4	123.9	123.1	9.6	9.6	1.9	1.9	3	3	87	89			<0.2	1.3						
					3.7	0.1	236	18.6	18.6	8.4	8.4	31.4	31.4	123.1	123.1	9.6	9.6	4.4	4.4	4	4	89	90	<0.2			1.3							
					3.7	0.1	254	18.6	18.6	8.4	8.4	31.4	31.4	123.1	120.2	9.6	9.3	4.6	4.6	5	5	90	92	<0.2			1.3							
					6.4	0.1	221	18.5	18.5	8.4	8.4	31.7	31.6	120.2	120.1	9.3	9.3	5.4	5.4	5														

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

Water Quality Monitoring Results on 04 February 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	16:57	7.0	Surface	1.0	0.2	77	18.9	18.9	8.4	8.4	28.1	28.1	121.0	121.2	9.5	9.5	2.0	3	86	89	89	822086	808832	<0.2	1.4	<0.2	1.3						
						1.0	0.2	82	18.9	8.4	8.4	28.1	28.1	121.4	124.9	9.5	9.8	2.0	3	87	89	89	89	89	89	89	<0.2	1.3	<0.2	1.3					
						3.5	0.2	56	18.9	8.4	8.4	29.0	29.0	125.0	124.8	9.8	9.8	2.1	3	89	90	91	91	91	91	91	<0.2	1.4	<0.2	1.4					
					Middle	3.5	0.2	59	18.8	8.4	8.4	29.0	29.0	124.8	124.9	9.8	9.8	2.1	3	89	90	91	91	91	91	91	91	91	91	<0.2	1.4	<0.2	1.3		
						6.0	0.1	104	18.7	8.4	8.4	29.8	29.8	122.5	122.5	9.6	9.6	2.8	2	91	91	91	91	91	91	91	91	91	<0.2	1.4	<0.2	1.3			
						6.0	0.1	112	18.7	8.4	8.4	29.8	29.8	122.4	122.5	9.6	9.6	2.8	2	91	91	91	91	91	91	91	91	91	<0.2	1.4	<0.2	1.3			
					IM10	Fine	Moderate	17:04	7.9	Surface	1.0	0.6	98	18.9	18.9	8.3	8.3	28.3	28.4	117.5	117.4	9.2	9.2	1.8	<2	86	89	89	822389	809796	<0.2	1.3	<0.2	1.3	
											1.0	0.6	99	18.9	8.3	8.3	28.4	28.4	117.3	116.2	9.2	9.1	1.8	<2	87	89	89	89	89	89	89	<0.2	1.3	<0.2	1.3
											4.0	0.6	85	18.8	8.3	8.3	28.5	28.5	116.2	116.2	9.1	9.1	1.9	2	89	89	91	91	91	91	91	<0.2	1.3	<0.2	1.3
Middle	4.0	0.6	85	18.8						8.3	8.3	28.5	28.5	116.2	116.2	9.1	9.1	1.9	2	89	89	91	91	91	91	91	91	91	<0.2	1.4	<0.2	1.4			
	6.9	0.6	98	18.8						8.3	8.3	28.5	28.5	115.7	115.7	9.1	9.1	1.9	2	91	91	91	91	91	91	91	91	<0.2	1.4	<0.2	1.4				
	6.9	0.6	102	18.8						8.3	8.3	28.5	28.5	115.7	115.7	9.1	9.1	1.9	2	91	91	91	91	91	91	91	91	91	<0.2	1.4	<0.2	1.4			
IM11	Fine	Moderate	17:14	7.8						Surface	1.0	0.5	110	19.1	19.1	8.3	8.3	28.4	28.4	118.6	118.5	9.3	9.2	1.9	2	88	89	89	822072	811465	<0.2	1.3	<0.2	1.4	
											1.0	0.5	111	19.1	8.3	8.3	28.4	28.4	118.3	117.3	9.2	9.2	1.8	2	87	89	89	89	89	89	89	<0.2	1.4	<0.2	1.4
											3.9	0.4	87	18.8	8.3	8.3	29.0	29.0	115.2	115.1	9.0	9.0	1.9	3	90	89	91	91	91	91	91	0.2	1.5	0.2	1.5
					Middle	3.9	0.5	94	18.8	8.3	8.3	29.0	29.0	114.9	114.9	9.0	9.0	1.9	2	89	89	91	91	91	91	91	91	91	<0.2	1.4	<0.2	1.4			
						6.8	0.4	90	18.7	8.3	8.3	29.3	29.3	111.8	111.8	8.8	8.8	2.0	3	91	91	91	91	91	91	91	91	<0.2	1.4	<0.2	1.4				
						6.8	0.4	90	18.7	8.3	8.3	29.3	29.3	111.7	111.7	8.8	8.8	2.0	3	91	91	91	91	91	91	91	91	<0.2	1.6	<0.2	1.6				
					IM12	Fine	Moderate	17:20	9.6	Surface	1.0	0.4	141	18.9	18.9	8.3	8.3	29.1	29.1	116.3	116.3	9.1	9.1	1.7	3	87	86	89	821459	812050	<0.2	1.5	<0.2	1.5	
											1.0	0.4	148	18.9	8.3	8.3	29.1	29.1	116.3	115.6	9.1	9.1	1.8	3	86	89	89	89	89	89	89	<0.2	1.4	<0.2	1.4
											4.8	0.4	156	18.8	8.3	8.3	29.1	29.1	115.6	115.6	9.1	9.1	1.8	3	89	90	91	91	91	91	91	<0.2	1.3	<0.2	1.3
Middle	4.8	0.4	166	18.7						8.3	8.3	29.1	29.1	115.6	115.0	9.1	9.0	1.7	3	90	91	91	91	91	91	91	91	91	<0.2	1.4	<0.2	1.4			
	8.6	0.3	122	18.7						8.3	8.3	29.2	29.2	115.0	115.0	9.0	9.0	3.1	<2	91	91	91	91	91	91	91	<0.2	1.3	<0.2	1.3					
	8.6	0.3	122	18.8						8.3	8.3	29.2	29.2	114.9	114.9	9.0	9.0	3.2	<2	92	91	91	91	91	91	91	<0.2	1.4	<0.2	1.4					
SR1A	Fine	Calm	18:02	4.7						Surface	1.0	-	-	18.9	18.9	8.3	8.3	29.1	29.1	114.4	114.4	9.0	9.0	2.1	3	-	-	-	819982	812656	-	-	-	-	-
											1.0	-	-	18.9	18.9	8.3	8.3	29.1	29.1	114.3	114.3	9.0	9.0	2.2	3	-	-	-	-	-	-	-	-	-	-
											2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						3.7	-	-	18.9	18.9	8.4	8.4	29.1	29.1	113.2	113.2	8.9	8.9	2.6	4	-	-	-	-	-	-	-	-	-	-	-				
						3.7	-	-	18.9	18.9	8.4	8.4	29.1	29.1	113.1	113.1	8.9	8.9	2.7	4	-	-	-	-	-	-	-	-	-	-	-				
					SR2	Fine	Moderate	18:21	5.0	Surface	1.0	0.1	69	18.8	18.8	8.3	8.3	29.1	29.1	114.6	114.7	9.0	9.0	2.1	3	89	88	90	821448	814180	<0.2	1.3	<0.2	1.3	
											1.0	0.1	75	18.8	8.3	8.3	29.1	29.1	114.7	114.7	9.0	9.0	2.1	4	88	89	90	90	90	90	90	<0.2	1.3	<0.2	1.3
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	4.0	0.2	99	18.6						8.3	8.3	29.6	29.6	112.8	112.8	8.9	8.9	1.8	3	91	91	91	91	91	91	91	91	91	<0.2	1.1	<0.2	1.1			
	4.0	0.3	107	18.6						8.3	8.3	29.6	29.6	112.7	112.7	8.9	8.9	1.9	3	91	91	91	91	91	91	91	91	<0.2	1.0	<0.2	1.0				
SR3	Fine	Moderate	16:45	9.9						Surface	1.0	0.3	117	19.1	19.1	8.4	8.4	27.8	27.8	123.7	123.8	9.7	9.7	1.8	2	-	-	-	822128	807553	-	-	-	-	
											1.0	0.3	120	19.1	8.4	8.4	27.8	27.8	123.8	124.5	9.7	9.7	1.8	3	-	-	-	-	-	-	-	-	-	-	
											5.0	0.2	124	19.1	8.4	8.4	28.3	28.3	124.5	124.5	9.7	9.7	2.1	3	-	-	-	-	-	-	-	-	-	-	
					Middle	5.0	0.2	130	19.1	8.4	8.4	28.3	28.3	124.4	124.4	9.7	9.7	2.1	3	-	-	-	-	-	-	-	-	-	-	-					
						8.9	0.2	98	18.7	8.4	8.4	30.0	30.0	121.2	121.1	9.5	9.5	3.1	3	-	-	-	-	-	-	-	-	-	-						
						8.9	0.2	98	18.7	8.4	8.4	30.0	30.0	121.0	121.0	9.4	9.4	3.1	3	-	-	-	-	-	-	-	-	-							
					SR4A	Fine	Calm	18:07	9.1	Surface	1.0	0.3	56	18.7	18.7	8.4	8.4	31.9	31.9	129.9	130.0	10.0	10.0	2.6	3	-	-	-	817172	807791	-	-	-	-	
											1.0	0.3	57	18.7	8.4	8.4	31.9	31.9	130.0	129.5	10.0	10.0	2.7	3	-	-	-	-	-	-	-	-	-		
											4.6	0.3	63	18.6	8.4	8.4	32.0	32.0	129.6	129.5	10.0	10.0	4.6	3	-	-	-	-	-	-	-	-			
Middle	4.6	0.3	66	18.6						8.4	8.4	32.0	32.0	129.3	129.3	10.0	10.0	4.7	3	-	-	-	-	-	-	-	-	-							
	8.1	0.3	67	18.6						8.4	8.4	32.0	32.0	124.6	124.2	9.6	9.6	5.8	3	-	-	-	-	-	-	-	-								
	8.1	0.3	67	18.6						8.4	8.4	32.0	32.0	123.8	124.2	9.6	9.6	6.0	3	-	-	-	-	-	-	-	-								
SR5A	Fine	Calm	18:24	4.0						Surface	1.0	0.0	3	19.2	19.2	8.3	8.3	31.4	31.4	118.4	118.6	9.1	9.1	1.6	6	-	-	-	816608	810686	-	-	-	-	
											1.0	0.0	3	19.1	19.1	8.3	8.3	31.4	31.4	118.8	118.8	9.1	9.1	1.6	6	-	-	-							

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

Water Quality Monitoring

Water Quality Monitoring Results on 04 February 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)							
								Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA				
C1	Sunny	Moderate	12:01	8.6	Surface	1.0	0.4	38	18.2	18.2	8.3	8.3	32.3	32.3	117.0	116.9	9.1	9.1	2.0	4	87	87					<0.2	0.6							
						1.0	0.4	41	18.2	18.2	8.3	8.3	32.3	32.3	116.8	116.9	9.1	9.1	2.1	4	88	88					<0.2	0.7							
						4.3	0.4	38	18.1	18.1	8.3	8.3	32.5	32.5	115.1	115.0	9.0	9.0	3.9	5	91	91					<0.2	0.7							
					Middle	4.3	0.4	40	18.1	18.1	8.3	8.3	32.5	32.5	114.9	114.9	8.9	8.9	4.0	6	91	91					<0.2	0.7							
						7.6	0.4	35	18.1	18.1	8.3	8.3	32.6	32.6	114.0	113.9	8.9	8.9	5.8	5	92	92					<0.2	0.6							
						7.6	0.4	35	18.1	18.1	8.3	8.3	32.6	32.6	113.8	113.8	8.9	8.9	5.9	6	92	92					<0.2	0.7							
					C2	Fine	Moderate	13:10	12.4	Surface	1.0	0.4	12	19.2	19.2	8.4	8.4	27.3	27.3	119.5	119.4	9.4	9.4	1.8	2	87	87					<0.2	1.0		
											1.0	0.4	12	19.1	19.1	8.4	8.4	27.4	27.4	119.2	119.2	9.4	9.4	1.8	2	86	86					<0.2	1.0		
											6.2	0.4	30	18.8	18.8	8.3	8.3	28.3	28.3	116.1	116.1	9.1	9.1	2.3	2	89	89					<0.2	1.6		
Middle	6.2	0.4	31	18.8						18.8	8.3	8.3	28.3	28.3	116.1	116.1	9.1	9.1	2.3	2	89	89					<0.2	1.7							
	11.4	0.3	37	18.8						18.8	8.4	8.4	28.4	28.4	114.5	114.5	9.0	9.0	2.6	2	90	90					<0.2	1.6							
	11.4	0.3	37	18.8						18.8	8.4	8.4	28.4	28.4	114.5	114.5	9.0	9.0	2.5	2	91	91					<0.2	1.6							
C3	Fine	Moderate	10:46	11.1						Surface	1.0	0.5	257	18.7	18.7	8.3	8.3	29.1	29.1	111.4	111.3	8.7	8.7	1.7	2	88	88					<0.2	1.2		
											1.0	0.5	280	18.5	18.5	8.3	8.3	29.3	29.3	111.1	111.1	8.7	8.7	1.7	3	87	87					<0.2	1.2		
											5.6	0.5	259	18.5	18.5	8.3	8.3	29.3	29.3	108.2	108.2	8.5	8.5	1.7	2	91	91					<0.2	1.3		
					Middle	5.6	0.5	279	18.5	18.5	8.3	8.3	29.3	29.3	108.1	108.1	8.5	8.5	1.7	2	91	91					<0.2	1.3							
						10.1	0.4	264	18.4	18.4	8.3	8.3	29.7	29.7	106.2	106.2	8.4	8.4	2.2	<2	93	93					<0.2	1.3							
						10.1	0.4	289	18.5	18.5	8.3	8.3	29.7	29.7	106.2	106.2	8.4	8.4	2.2	<2	93	93					<0.2	1.2							
					IM1	Sunny	Calm	12:20	5.2	Surface	1.0	0.2	7	18.6	18.6	8.3	8.3	31.4	31.4	117.0	117.1	9.1	9.1	3.7	2	85	85					<0.2	1.0		
											1.0	0.2	7	18.6	18.6	8.3	8.3	31.4	31.4	117.2	117.2	9.1	9.1	3.7	3	86	86					<0.2	1.1		
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	4.2	0.1	330	18.4						18.4	8.4	8.4	32.0	32.0	118.4	118.1	9.2	9.2	5.3	2	90	90					<0.2	1.0							
	4.2	0.1	340	18.4						18.4	8.4	8.4	32.0	32.0	117.7	117.7	9.1	9.1	5.3	2	90	90					<0.2	1.0							
	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
IM2	Sunny	Moderate	12:28	7.0						Surface	1.0	0.3	18	18.4	18.4	8.4	8.4	31.7	31.7	124.2	124.5	9.7	9.7	3.5	6	85	85					<0.2	0.9		
											1.0	0.4	18	18.4	18.4	8.4	8.4	31.8	31.7	124.7	124.7	9.7	9.7	3.6	5	86	86					<0.2	0.8		
											3.5	0.3	342	18.3	18.3	8.4	8.4	32.1	32.1	125.5	125.5	9.8	9.8	4.0	7	88	88					<0.2	0.9		
					Middle	3.5	0.3	345	18.3	18.3	8.4	8.4	32.1	32.1	125.4	125.4	9.8	9.8	4.1	6	89	89					<0.2	0.8							
						6.0	0.2	326	18.2	18.2	8.4	8.4	32.2	32.2	123.3	123.2	9.6	9.6	5.7	6	90	90					<0.2	0.9							
						6.0	0.2	338	18.2	18.2	8.4	8.4	32.2	32.2	123.0	123.2	9.6	9.6	5.8	6	91	91					<0.2	0.9							
					IM3	Sunny	Moderate	12:36	7.2	Surface	1.0	0.4	346	18.3	18.3	8.4	8.4	31.8	31.8	121.2	121.3	9.4	9.4	2.3	5	85	85					<0.2	0.9		
											1.0	0.4	351	18.3	18.3	8.4	8.4	31.9	31.8	121.3	121.0	9.4	9.4	2.4	6	86	86					<0.2	1.0		
											3.6	0.3	340	18.2	18.2	8.4	8.4	31.9	31.9	121.0	121.0	9.4	9.4	4.0	6	89	89					<0.2	1.0		
Middle	3.6	0.3	352	18.2						18.2	8.4	8.4	31.9	31.9	120.9	120.9	9.4	9.4	4.1	6	89	89					<0.2	0.9							
	6.2	0.3	304	18.2						18.2	8.4	8.4	32.0	32.0	118.9	118.8	9.3	9.3	5.2	6	90	90					<0.2	0.9							
	6.2	0.3	305	18.2						18.2	8.4	8.4	32.0	32.0	118.7	118.8	9.2	9.3	5.2	6	90	90					<0.2	1.0							
IM4	Sunny	Moderate	12:46	8.6						Surface	1.0	0.6	3	18.3	18.3	8.4	8.4	31.5	31.6	116.2	116.2	9.1	9.1	2.3	4	88	88					<0.2	1.1		
											1.0	0.6	3	18.3	18.3	8.4	8.4	31.6	31.6	116.1	116.1	9.1	9.1	2.3	4	88	88					<0.2	1.1		
											4.3	0.6	352	18.2	18.2	8.4	8.4	31.7	31.7	115.5	115.5	9.0	9.0	4.6	4	90	90					<0.2	1.0		
					Middle	4.3	0.6	353	18.2	18.2	8.4	8.4	31.7	31.7	115.4	115.4	9.0	9.0	4.6	5	91	91					<0.2	0.9							
						7.6	0.5	349	18.2	18.2	8.4	8.4	31.7	31.7	114.1	113.9	8.9	8.9	5.4	7	91	91					<0.2	1.1							
						7.6	0.5	321	18.2	18.2	8.4	8.4	31.7	31.7	113.7	113.7	8.9	8.9	5.5	6	91	91					<0.2	1.2							
					IM5	Sunny	Moderate	12:55	7.0	Surface	1.0	0.8	19	18.3	18.3	8.4	8.4	31.6	31.6	118.2	118.2	9.2	9.2	2.6	8	86	86					<0.2	1.0		
											1.0	0.8	19	18.3	18.3	8.4	8.4	31.6	31.6	118.1	118.1	9.2	9.2	2.7	8	86	86					<0.2	0.8		
											3.5	0.7	18	18.3	18.3	8.4	8.4	31.7	31.7	116.6	116.6	9.1	9.1	4.4	7	89	89					<0.2	1.0		
Middle	3.5	0.8	18	18.3						18.3	8.4	8.4	31.7	31.7	116.5	116.5	9.1	9.1	4.6	6	90	90					<0.2	0.9							
	6.0	0.6	21	18.3						18.3	8.4	8.4	31.7	31.7	115.6	115.4	9.0	9.0	5.2	6	91	91					<0.2	1.5							
	6.0	0.6	21	18.3						18.3	8.4	8.4	31.7	31.7	115.1	115.1	9.0	9.0	5.2	6	91	91					<0.2	1.5							
IM6	Sunny	Moderate	13:02	7.6						Surface	1.0	0.1	278	18.8	18.8	8.4	8.4	29.5	29.6	118.7	118.7	9.3	9.3	1.8	4	86	86					<0.2	1.6		
											1.0	0.1	293	18.8	18.8	8.4	8.4	29.7	29.7	118.6	118.6	9.3	9.3	1.9	3	86	86					<0.2	1.6		
											3.8	0.2	79	18.6	18.6	8.4	8.4	30.6	30.7	117.8	117.7	9.2	9.3	4.3	5	89	89					<0.2	1.6		
					Middle	3.8	0.2	83	18.6	18.6	8.4	8.4	30.7	30.7	117.																				

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

Water Quality Monitoring Results on 04 February 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	12:31	7.1	Surface	1.0	0.1	97	18.8	18.8	8.3	8.3	28.5	28.5	113.1	113.2	8.9	8.9	2.3	2.3	6	6	86	86	89	822085	808797	<0.2	1.2	<0.2	1.1				
						1.0	0.1	102	18.8	8.3	8.3	28.5	28.5	113.2	113.2	8.9	8.9	2.3	2.3	5	5	86	86	<0.2				1.1							
					Middle	3.6	0.1	35	18.7	8.3	8.3	28.5	28.5	113.1	113.2	8.9	8.9	2.3	2.3	5	5	89	89	<0.2				1.2	<0.2	1.1					
						3.6	0.1	35	18.7	8.3	8.3	28.5	28.5	113.2	113.2	8.9	8.9	2.3	2.3	4	4	89	89	<0.2				1.1	<0.2	1.1					
					Bottom	6.1	0.1	12	18.7	8.3	8.3	28.5	28.5	112.9	112.9	8.9	8.9	2.3	2.3	4	4	91	91	<0.2				1.3	<0.2	1.1					
						6.1	0.1	12	18.7	8.3	8.3	28.5	28.5	112.9	112.9	8.9	8.9	2.3	2.3	5	5	91	91	<0.2				1.1	<0.2	1.1					
IM10	Fine	Moderate	12:24	8.3	Surface	1.0	0.5	294	18.8	18.8	8.3	8.3	28.7	28.7	113.8	113.8	9.0	9.0	2.5	2.5	4	4	86	86	89	822405	809787	<0.2	1.3	<0.2	1.1				
						1.0	0.6	297	18.8	8.3	8.3	28.7	28.7	113.8	113.8	9.0	9.0	2.5	2.5	3	3	86	86	<0.2				1.1							
					Middle	4.2	0.5	293	18.7	8.3	8.3	28.7	28.7	113.4	113.4	8.9	8.9	2.6	2.6	5	5	89	89	<0.2				1.2	<0.2	1.3					
						4.2	0.5	297	18.7	8.3	8.3	28.7	28.7	113.4	113.4	8.9	8.9	2.6	2.6	5	5	90	90	<0.2				1.2	<0.2	1.3					
					Bottom	7.3	0.4	293	18.8	8.4	8.4	28.6	28.6	112.0	112.0	8.8	8.8	2.6	2.6	5	5	92	92	<0.2				1.2	<0.2	1.1					
						7.3	0.4	306	18.8	8.4	8.4	28.6	28.6	111.9	111.9	8.8	8.8	2.5	2.5	6	6	91	91	<0.2				1.1	<0.2	1.1					
IM11	Fine	Moderate	12:13	8.0	Surface	1.0	0.5	295	18.7	18.7	8.3	8.3	29.1	29.1	113.0	113.0	8.9	8.9	2.3	2.3	6	6	87	87	89	822069	811451	<0.2	1.1	<0.2	1.2				
						1.0	0.5	301	18.7	8.3	8.3	29.1	29.1	113.0	113.0	8.9	8.9	2.3	2.3	7	7	86	86	<0.2				1.2							
					Middle	4.0	0.4	282	18.7	8.3	8.3	29.1	29.1	112.8	112.8	8.9	8.9	2.4	2.4	5	5	90	90	<0.2				1.0	<0.2	1.1					
						4.0	0.4	292	18.7	8.3	8.3	29.1	29.1	112.8	112.8	8.9	8.9	2.4	2.4	6	6	90	90	<0.2				1.1	<0.2	1.1					
					Bottom	7.0	0.4	280	18.7	8.3	8.3	29.1	29.1	111.9	111.9	8.8	8.8	2.3	2.3	5	5	91	91	<0.2				1.1	<0.2	1.1					
						7.0	0.4	299	18.7	8.3	8.3	29.1	29.1	111.8	111.8	8.8	8.8	2.2	2.2	5	5	91	91	<0.2				1.1	<0.2	1.1					
IM12	Fine	Moderate	12:07	8.6	Surface	1.0	0.6	277	18.6	18.6	8.3	8.3	29.1	29.1	111.7	111.7	8.8	8.8	2.5	2.5	4	4	87	87	90	821461	812038	<0.2	1.1	<0.2	1.1				
						1.0	0.6	277	18.6	8.3	8.3	29.1	29.1	111.6	111.6	8.8	8.8	2.4	2.4	5	5	87	87	<0.2				1.1							
					Middle	4.3	0.6	279	18.6	8.3	8.3	29.1	29.1	111.4	111.4	8.8	8.8	2.7	2.7	5	5	90	90	<0.2				1.1	<0.2	1.1					
						4.3	0.6	282	18.6	8.3	8.3	29.1	29.1	111.4	111.4	8.8	8.8	2.8	2.8	5	5	90	90	<0.2				1.1	<0.2	1.1					
					Bottom	7.6	0.5	280	18.6	8.3	8.3	29.1	29.1	111.0	111.0	8.7	8.7	3.1	3.1	8	8	92	92	<0.2				1.1	<0.2	1.1					
						7.6	0.5	290	18.6	8.3	8.3	29.1	29.1	111.0	111.0	8.7	8.7	3.1	3.1	7	7	93	93	<0.2				1.1	<0.2	1.1					
SR1A	Fine	Calm	11:24	5.0	Surface	1.0	-	-	18.7	18.7	8.3	8.3	29.1	29.1	107.0	107.0	8.4	8.4	1.9	1.9	5	5	-	-	89	819973	812656	-	-	-	-				
						1.0	-	-	18.7	18.7	8.3	8.3	29.1	29.1	107.0	107.0	8.4	8.4	2.0	2.0	4	4	-	-				-	-						
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	-
						2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	-
					Bottom	4.0	-	-	18.7	18.7	8.3	8.3	29.1	29.1	106.8	106.8	8.4	8.4	1.9	1.9	6	6	-	-				-	-	-	-	-	-	-	-
						4.0	-	-	18.7	18.7	8.3	8.3	29.1	29.1	106.8	106.8	8.4	8.4	1.9	1.9	6	6	-	-				-	-	-	-	-	-	-	-
SR2	Fine	Moderate	11:07	4.6	Surface	1.0	0.2	354	18.6	18.6	8.3	8.3	29.1	29.1	111.4	111.4	8.8	8.8	2.7	2.7	6	6	89	89	90	821456	814176	<0.2	1.0	<0.2	1.1				
						1.0	0.2	326	18.6	8.3	8.3	29.1	29.1	111.4	111.4	8.8	8.8	2.6	2.6	5	5	89	89	<0.2				1.1	<0.2	1.1					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	-
					Bottom	3.6	0.2	357	18.6	18.6	8.3	8.3	29.1	29.1	111.2	111.2	8.8	8.8	2.5	2.5	3	3	91	91				<0.2	1.1	<0.2	1.1				
						3.6	0.2	328	18.6	18.6	8.3	8.3	29.1	29.1	111.2	111.2	8.8	8.8	2.5	2.5	4	4	91	91				<0.2	1.0	<0.2	1.0				
SR3	Fine	Moderate	12:50	9.7	Surface	1.0	0.0	51	18.9	18.9	8.4	8.4	27.6	27.6	120.5	120.3	9.5	9.5	1.8	1.8	4	4	-	-	89	822167	807567	-	-	-	-				
						1.0	0.0	54	18.9	18.9	8.4	8.4	27.6	27.6	120.1	120.3	9.5	9.5	1.8	1.8	5	5	-	-				-	-						
					Middle	4.9	0.1	38	18.8	18.8	8.3	8.3	28.1	28.1	116.5	116.5	9.2	9.2	2.0	2.0	3	3	-	-				-	-	-	-	-	-		
						4.9	0.1	38	18.8	18.8	8.3	8.3	28.1	28.1	116.4	116.5	9.2	9.2	1.9	1.9	4	4	-	-				-	-	-	-	-			
					Bottom	8.7	0.1	33	18.8	18.8	8.4	8.4	28.2	28.2	114.6	114.6	9.0	9.0	3.1	3.1	3	3	-	-				-	-	-	-	-	-		
						8.7	0.1	34	18.8	18.8	8.4	8.4	28.2	28.2	114.6	114.6	9.0	9.0	3.1	3.1	2	2	-	-				-	-	-	-	-			
SR4A	Sunny	Calm	11:36	9.2	Surface	1.0	0.0	300	18.4	18.4	8.3	8.3	31.7	31.7	111.8	111.8	8.7	8.7	2.1	2.1	4	4	-	-	89	817172	807795	-	-	-	-				
						1.0	0.0	309	18.4	18.4	8.3	8.3	31.7	31.7	111.8	111.8	8.7	8.7	2.3	2.3	5	5	-	-				-	-						
					Middle	4.6	0.0	68	18.4	18.4	8.3	8.3	31.7	31.7	111.7	111.7	8.7	8.7	4.6	4.6	4	4	-	-				-	-	-	-				
						4.6	0.0	68	18.4	18.4	8.3	8.3	31.7	31.7	111.7	111.7	8.7	8.7	4.6	4.6	4	4	-	-				-	-	-	-				
					Bottom	8.2	0.0	358	18.3	18.3	8.3	8.3	31.7	31.7	111.0	110.9	8.6	8.6	5.6	5.6	6	6	-	-				-	-	-	-				
						8.2	0.0	329	18.3	18.3	8.3	8.3	31.7	31.7	110.8	110.8	8.6	8.6	5.7	5.7	5	5	-	-				-	-	-	-				
SR5A	Sunny	Calm	11:18	3.8	Surface	1.0	0.2	301	18.5	18.5	8.3	8.3	31.3	31.3	107.2	107.3	8.3	8.3	2.6	2.6	5	5	-	-	89	816577	810695	-	-	-	-				
						1.0	0.2	322	18.5	18.5	8.3	8.3	31.3	31.3	107.3	107.3	8.3	8.3	2.6	2.6	5	5	-	-				-	-						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-			
					Bottom	2.8	0.2</																												



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

Water Quality Monitoring Results on 06 February 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	Sunny	Moderate	08:22	8.2	Surface	1.0	0.2	217	18.1	18.2	8.3	8.3	31.8	31.8	120.4			120.4	9.4	5.0	5.0	5.0	<2
					Middle	4.1	0.2	212	18.6	18.6	8.3	8.3	32.4	32.4	122.7	122.7	9.5	5.6	5.6	3	3	88	89	92			<0.2	0.9	<0.2	0.9	
					Bottom	7.2	0.2	207	18.5	18.5	8.3	8.3	32.5	32.5	119.2	119.2	9.2	6.2	6.2	4	4	92	93	93			<0.2	0.9	<0.2	0.9	
					Surface	1.0	0.2	135	19.0	19.0	8.3	8.3	27.6	27.6	123.2	123.2	9.7	2.4	2.4	3	3	85	86	87			<0.2	1.7	<0.2	1.7	
					Middle	5.8	0.5	154	19.0	19.0	8.3	8.3	28.8	28.8	115.3	115.3	9.0	2.0	2.0	2	2	87	86	89			<0.2	1.6	<0.2	1.7	
					Bottom	10.5	0.5	144	18.8	18.8	8.2	8.2	29.2	29.2	108.8	108.8	8.5	3.0	3.0	2	2	89	89	89			<0.2	1.2	<0.2	1.2	
					Surface	1.0	0.4	286	18.6	18.6	8.3	8.3	29.3	29.3	112.2	112.2	8.8	1.7	1.7	3	3	86	86	88			<0.2	1.1	<0.2	1.0	
					Middle	5.8	0.2	257	18.7	18.7	8.2	8.2	29.8	29.8	110.6	110.6	8.7	1.8	1.8	3	3	88	88	91			<0.2	1.2	<0.2	1.1	
					Bottom	10.5	0.1	120	18.6	18.6	8.2	8.2	29.9	29.9	108.5	108.5	8.5	1.8	1.8	2	2	91	90	90			<0.2	1.0	<0.2	1.0	
					Surface	1.0	0.1	196	18.5	18.5	8.3	8.3	31.8	31.8	122.8	122.8	9.5	5.6	5.6	<2	<2	89	89	92			<0.2	0.9	<0.2	0.9	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			<0.2	-	<0.2	-	
					Bottom	3.2	0.1	212	18.5	18.5	8.3	8.3	31.9	31.9	121.0	121.1	9.4	5.4	5.4	2	2	92	93	93			<0.2	0.9	<0.2	0.9	
					Surface	1.0	0.1	168	18.4	18.4	8.3	8.3	31.2	31.2	122.6	122.6	9.6	5.0	5.0	<2	<2	85	86	89			<0.2	1.0	<0.2	1.0	
					Middle	3.1	0.1	170	18.6	18.6	8.3	8.3	32.0	32.0	125.7	125.7	9.7	5.1	5.1	2	2	89	90	90			<0.2	1.0	<0.2	0.9	
					Bottom	5.2	0.1	142	18.6	18.6	8.3	8.3	32.2	32.2	123.3	123.3	9.5	5.6	5.6	3	3	92	93	93			<0.2	1.0	<0.2	0.9	
					Surface	1.0	0.2	145	18.7	18.7	8.3	8.3	31.7	31.7	126.6	126.6	9.8	5.2	5.2	3	3	86	87	90			<0.2	1.0	<0.2	1.0	
					Middle	3.3	0.1	143	18.6	18.6	8.3	8.3	32.0	32.0	125.3	125.3	9.7	6.0	6.0	<2	<2	90	91	91			<0.2	0.9	<0.2	0.9	
					Bottom	5.5	0.1	182	18.7	18.7	8.3	8.3	32.2	32.2	121.2	121.2	9.3	5.9	5.9	<2	<2	94	93	93			<0.2	0.9	<0.2	0.9	
					Surface	1.0	0.4	178	18.8	18.8	8.3	8.3	30.2	30.2	125.9	125.9	9.8	5.0	5.0	<2	<2	88	88	92			<0.2	1.3	<0.2	1.4	
					Middle	3.8	0.2	158	18.7	18.7	8.3	8.3	31.9	31.9	121.5	121.5	9.4	6.4	6.4	<2	<2	92	92	93			<0.2	1.3	<0.2	1.2	
					Bottom	6.6	0.1	137	18.7	18.7	8.3	8.3	32.0	32.0	119.6	119.6	9.2	7.1	7.0	<2	<2	93	94	94			<0.2	1.3	<0.2	1.3	
					Surface	1.0	0.3	193	19.0	19.0	8.3	8.3	29.2	29.3	129.0	128.8	10.1	4.7	4.7	8	8	87	87	88			<0.2	1.5	<0.2	1.5	
					Middle	3.6	0.3	201	18.8	18.8	8.3	8.3	29.8	29.8	125.7	125.7	9.8	4.8	4.9	3	3	88	88	91			<0.2	1.5	<0.2	1.5	
					Bottom	6.2	0.3	183	18.7	18.7	8.3	8.3	31.7	31.7	121.6	121.6	9.4	6.1	6.0	<2	<2	91	91	91			<0.2	1.5	<0.2	1.6	
					Surface	1.0	0.1	208	19.0	19.0	8.3	8.3	29.1	29.1	126.5	126.5	9.9	4.6	4.7	5	5	87	86	89			<0.2	1.6	<0.2	1.6	
					Middle	3.5	0.2	217	18.8	18.8	8.3	8.3	29.9	29.9	123.4	123.4	9.6	5.0	5.1	5	5	89	90	90			<0.2	1.5	<0.2	1.5	
					Bottom	6.0	0.1	204	18.7	18.7	8.3	8.3	31.5	31.5	121.5	121.5	9.4	5.7	5.7	3	3	92	94	94			<0.2	1.5	<0.2	1.4	
					Surface	1.0	0.1	192	19.0	19.0	8.3	8.3	29.2	29.2	128.4	128.4	10.0	4.7	4.7	3	3	84	86	89			<0.2	1.5	<0.2	1.5	
					Middle	4.0	0.1	171	18.9	18.9	8.3	8.3	29.6	29.6	124.4	124.4	9.7	5.1	5.1	3	3	89	90	90			<0.2	1.6	<0.2	1.6	
					Bottom	6.9	0.1	179	18.7	18.7	8.3	8.3	31.3	31.3	120.1	120.1	9.3	6.3	5.7	<2	<2	93	94	94			<0.2	1.6	<0.2	1.6	
					Surface	1.0	0.1	165	19.0	19.0	8.4	8.4	27.5	27.5	125.3	125.2	9.9	2.1	2.1	3	3	85	86	87			<0.2	1.5	<0.2	1.3	
					Middle	3.7	0.0	130	19.0	19.0	8.3	8.3	28.2	28.2	122.3	122.2	9.6	2.4	2.5	3	3	87	87	89			<0.2	1.4	<0.2	1.4	
					Bottom	6.3	0.1	116	19.0	19.0	8.3	8.3	28.8	28.8	119.6	119.6	9.4	3.0	3.0	4	4	89	89	89			<0.2	1.5	<0.2	1.5	

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

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

Water Quality Monitoring Results on 06 February 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	09:03	6.8	Surface	1.0	0.2	127	19.0	19.0	8.4	8.4	27.5	27.5	125.2	125.2	9.9	9.8	2.0	3.1	<2	3	86	87	822074	808817	<0.2	1.4	<0.2	1.4			
						1.0	0.2	131	19.0	19.1	8.4	8.3	27.5	28.0	125.2	123.3	9.9	9.8	2.0	3.1	<2	3	86	87			<0.2	1.4	<0.2	1.4			
					Middle	3.4	0.1	120	19.1	19.1	8.3	8.3	28.0	28.0	123.3	123.2	9.7	9.3	3.2	3.1	2	4	87	89	87	89	822074	808817	<0.2	1.4	<0.2	1.4	
						3.4	0.2	126	19.1	19.1	8.3	8.3	28.0	28.2	123.0	119.1	9.6	9.3	3.4	3.1	2	4	87	89	87	89	822074	808817	<0.2	1.4	<0.2	1.4	
					Bottom	5.8	0.2	98	19.1	19.1	8.3	8.3	28.2	28.2	119.1	119.1	9.3	9.3	4.1	4.0	4	4	89	89	89	89	822074	808817	<0.2	1.4	<0.2	1.4	
						5.8	0.2	99	19.1	19.1	8.3	8.3	28.2	28.2	119.0	119.0	9.3	9.3	4.0	4.0	4	4	89	89	89	89	822074	808817	<0.2	1.4	<0.2	1.4	
IM10	Fine	Moderate	08:55	6.9	Surface	1.0	0.3	129	19.1	19.1	8.3	8.3	28.0	28.0	123.4	123.4	9.7	9.7	3.4	3.0	2	4	86	87	822369	809816	<0.2	1.4	<0.2	1.4			
						1.0	0.4	134	19.1	19.1	8.3	8.3	28.0	28.1	123.4	122.5	9.7	9.6	3.5	3.0	3	4	86	87			<0.2	1.4	<0.2	1.4			
					Middle	3.5	0.3	123	19.1	19.1	8.3	8.3	28.1	28.1	122.5	122.5	9.6	9.6	3.2	3.0	3	4	87	86	87	86	822369	809816	<0.2	1.4	<0.2	1.4	
						3.5	0.3	126	19.1	19.1	8.3	8.3	28.1	28.1	122.4	120.2	9.6	9.4	3.0	2.5	4	5	86	89	86	89	822369	809816	<0.2	1.4	<0.2	1.4	
					Bottom	5.9	0.3	116	19.1	19.1	8.3	8.3	28.1	28.1	120.3	120.2	9.4	9.4	2.5	2.5	5	4	89	90	89	90	822369	809816	<0.2	1.4	<0.2	1.4	
						5.9	0.3	122	19.1	19.1	8.3	8.3	28.1	28.1	120.1	120.1	9.4	9.4	2.5	2.5	4	4	89	90	89	90	822369	809816	<0.2	1.4	<0.2	1.4	
IM11	Fine	Moderate	08:40	8.0	Surface	1.0	0.5	118	19.1	19.1	8.4	8.4	27.7	27.7	127.0	127.0	10.0	9.8	1.8	1.9	2	4	86	86	822052	811445	<0.2	1.5	<0.2	1.5			
						1.0	0.5	125	19.1	19.0	8.4	8.3	27.7	28.0	126.9	122.8	10.0	9.7	1.8	1.8	2	4	86	87			<0.2	1.5	<0.2	1.5			
					Middle	4.0	0.4	119	19.0	19.0	8.3	8.3	28.0	28.0	122.8	122.7	9.7	9.6	1.8	1.8	4	4	87	89	87	89	822052	811445	<0.2	1.5	<0.2	1.5	
						4.0	0.5	130	19.0	19.0	8.3	8.3	28.0	29.2	122.7	112.5	9.6	8.8	1.8	2.2	4	5	87	89	87	89	822052	811445	<0.2	1.5	<0.2	1.5	
					Bottom	7.0	0.1	104	18.9	18.9	8.3	8.3	29.2	29.2	112.5	112.5	8.8	8.8	2.2	2.2	5	4	89	89	89	89	822052	811445	<0.2	1.6	<0.2	1.4	
						7.0	0.1	113	18.9	18.9	8.3	8.3	29.2	29.2	112.5	112.5	8.8	8.8	2.2	2.2	4	4	89	89	89	89	822052	811445	<0.2	1.6	<0.2	1.4	
IM12	Fine	Moderate	08:31	8.8	Surface	1.0	0.4	88	18.9	18.9	8.3	8.3	28.2	28.2	120.3	120.2	9.5	9.1	1.9	2.1	4	3	86	85	821469	812052	<0.2	1.6	<0.2	1.6			
						1.0	0.4	90	18.9	19.0	8.3	8.3	28.3	29.1	120.1	112.1	9.4	8.8	2.0	2.2	4	3	85	87			<0.2	1.6	<0.2	1.6			
					Middle	4.4	0.2	84	19.0	19.0	8.3	8.3	29.1	29.1	112.1	111.9	8.8	8.7	2.2	2.1	3	3	87	87	87	87	821469	812052	<0.2	1.7	<0.2	1.6	
						4.4	0.2	91	19.0	19.0	8.3	8.3	29.1	29.4	111.9	109.2	8.7	8.5	2.1	2.2	3	2	87	90	87	90	821469	812052	<0.2	1.7	<0.2	1.6	
					Bottom	7.8	0.1	91	18.8	18.8	8.2	8.2	29.5	29.4	109.2	109.3	8.5	8.6	2.2	2.2	2	2	90	89	90	89	821469	812052	<0.2	1.5	<0.2	1.7	
						7.8	0.1	96	18.8	18.8	8.2	8.2	29.5	29.4	109.3	109.3	8.6	8.6	2.2	2.2	2	2	89	89	89	89	821469	812052	<0.2	1.7	<0.2	1.7	
SR1A	Cloudy	Calm	07:44	4.7	Surface	1.0	-	-	18.8	18.8	8.3	8.3	28.9	28.9	110.2	110.1	8.6	8.6	2.1	2.2	4	4	-	-	819975	812659	-	-	-	-			
						1.0	-	-	18.8	18.8	8.3	8.3	28.9	28.9	110.0	110.0	8.6	8.6	2.2	2.2	4	4	-	-	-	-	819975	812659	-	-	-	-	
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2	4	4	-	-	-	-	-	-	-
						2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2	4	4	-	-	-	-	-	-
					Bottom	3.7	-	-	18.9	18.9	8.3	8.3	29.2	29.2	103.8	103.8	8.1	8.1	2.2	2.2	3	3	-	-	-	-	-	-	-	-	-	-	-
						3.7	-	-	18.8	18.8	8.3	8.3	29.1	29.1	103.7	103.7	8.1	8.1	2.2	2.2	3	3	-	-	-	-	-	-	-	-	-	-	-
SR2	Cloudy	Moderate	07:25	4.0	Surface	1.0	0.2	19	18.8	18.8	8.2	8.2	29.2	29.2	111.9	111.8	8.8	8.8	2.2	2.2	3	2	85	85	821455	814161	<0.2	1.1	<0.2	1.1			
						1.0	0.2	20	18.8	18.8	8.2	8.2	29.2	29.2	111.7	111.7	8.7	8.7	2.2	2.2	2	2	85	85			<0.2	1.1	<0.2	1.1			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2	3	3	87	821455	814161	<0.2	1.1	<0.2	1.1
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	2.2	3	3	87	821455	814161	<0.2	1.1	<0.2
					Bottom	3.0	0.2	17	18.7	18.7	8.2	8.2	29.2	29.2	109.9	109.9	8.6	8.6	2.3	2.3	4	4	89	89	89	89	821455	814161	<0.2	1.1	<0.2	1.1	
						3.0	0.2	18	18.7	18.7	8.2	8.2	29.2	29.2	109.8	109.8	8.6	8.6	2.2	2.2	3	3	89	89	89	89	821455	814161	<0.2	1.1	<0.2	1.1	
SR3	Fine	Moderate	09:17	8.3	Surface	1.0	0.3	183	19.0	19.0	8.3	8.3	27.6	27.6	123.9	123.8	9.8	9.6	1.9	2.4	<2	2	-	-	822166	807565	-	-	-	-			
						1.0	0.3	192	19.0	19.0	8.3	8.3	27.6	28.1	123.6	120.4	9.7	9.4	2.0	2.3	<2	2	-	-			-	-	-	-			
					Middle	4.2	0.1	208	19.0	19.0	8.3	8.3	28.1	28.1	120.4	120.4	9.4	9.4	2.2	2.2	2	2	-	-	-	-	822166	807565	-	-	-	-	
						4.2	0.1	221	19.0	19.0	8.3	8.3	28.2	29.5	120.3	118.4	9.4	9.3	2.2	3.0	2	3	-	-	-	-	822166	807565	-	-	-	-	
					Bottom	7.3	0.1	20	18.9	18.9	8.3	8.3	29.5	29.5	118.4	118.4	9.3	9.3	3.0	3.1	3	2	-	-	-	-	822166	807565	-	-	-	-	
						7.3	0.1	20	18.9	18.9	8.3	8.3	29.5	29.5	118.3	118.3	9.2	9.2	3.1	3.1	2	2	-	-	-	-	822166	807565	-	-	-	-	
SR4A	Sunny	Calm	08:00	7.5	Surface	1.0	0.1	62	18.5	18.5	8.3	8.3	32.1	32.1	120.6	120.6	9.3	9.3	5.3	5.6	3	3	-	-	817171	807802	-	-	-	-			
						1.0	0.1	66	18.5	18.5	8.3	8.3	32.1	32.3	120.6	121.0	9.3	9.3	5.3	5.8	4	3	-	-	-	-	817171	807802	-	-	-	-	
					Middle	3.8	0.1	37	18.6	18.6	8.3	8.3	32.3	32.3	121.0	120.9	9.3	9.3	5.7	5.8	2	2	-	-	-	-	817171	807802	-	-	-	-	
						3.8	0.1	40	18.6	18.6	8.3	8.3	32.3	32.3	120.9</																		

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

Water Quality Monitoring Results on 06 February 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	Sunny	Moderate	13:10	8.5	Surface	1.0	0.3	31	19.0	19.0	8.3	8.3	31.6	31.6	124.7	124.8	9.6	9.6	4.8	4.8	2	2	86	86	91	815611	804236	<0.2	<0.2	1.1	0.9				
						1.0	0.3	33	18.9	18.7	8.3	8.3	31.6	31.6	124.9	124.9	9.6	9.6	4.8	4.8	2	2	87	87	<0.2	<0.2	1.8	0.8							
					Middle	4.3	0.3	34	18.7	18.7	8.3	8.3	32.2	32.2	126.7	126.4	9.8	9.7	5.3	5.2	2	2	92	93	<0.2	<0.2	1.9	0.9							
						4.3	0.3	34	18.7	18.7	8.3	8.3	32.2	32.2	126.4	126.4	9.7	9.5	5.2	5.0	2	2	93	95	<0.2	<0.2	1.8	0.8							
					Bottom	7.5	0.4	30	18.6	18.6	8.3	8.3	32.4	32.4	122.9	122.9	9.5	9.5	10.4	10.4	3	3	95	95	<0.2	<0.2	1.8	0.8							
						7.5	0.4	32	18.6	18.6	8.3	8.3	32.4	32.4	122.8	122.8	9.5	9.5	11.4	11.4	3	3	95	95	<0.2	<0.2	1.8	0.8							
C2	Fine	Moderate	11:55	11.2	Surface	1.0	0.3	350	19.2	19.2	8.4	8.4	26.2	26.2	140.5	140.1	11.1	11.1	1.9	1.9	3	3	85	85	88	825705	806950	<0.2	<0.2	2.0	1.8				
						1.0	0.3	322	19.2	19.0	8.4	8.3	26.2	26.2	139.7	139.7	11.1	11.1	1.9	1.8	4	3	86	89	<0.2	<0.2	1.8	1.8							
					Middle	5.6	0.4	28	19.0	19.0	8.3	8.3	28.6	28.6	117.3	117.3	9.2	9.2	1.8	1.8	3	3	88	88	<0.2	<0.2	1.9	1.9							
						5.6	0.4	29	19.0	19.0	8.3	8.3	28.6	28.6	117.2	117.2	9.2	8.7	1.8	2.9	3	3	88	91	<0.2	<0.2	1.8	1.8							
					Bottom	10.2	0.4	346	19.0	19.0	8.2	8.2	28.9	28.9	111.9	112.0	8.7	8.8	2.9	2.9	3	3	91	91	<0.2	<0.2	1.8	1.8							
						10.2	0.5	347	19.0	19.0	8.2	8.2	28.9	28.9	112.1	112.1	8.8	8.8	2.8	2.8	2	2	91	91	<0.2	<0.2	1.7	1.7							
C3	Fine	Moderate	14:27	12.7	Surface	1.0	0.3	241	19.1	19.1	8.3	8.3	29.4	29.4	121.5	121.8	9.5	9.5	1.7	1.7	2	2	86	86	89	822115	817798	<0.2	<0.2	1.0	1.0				
						1.0	0.3	244	19.1	19.1	8.3	8.3	29.4	29.4	121.5	121.5	9.4	9.4	1.7	1.7	2	2	87	87	<0.2	<0.2	1.0	1.0							
					Middle	6.4	0.4	252	18.5	18.5	8.3	8.3	30.3	30.3	109.6	109.6	8.6	8.6	2.0	2.0	<2	<2	89	89	<0.2	<0.2	1.0	1.0							
						6.4	0.4	261	18.5	18.5	8.3	8.3	30.3	30.3	109.6	109.6	8.6	8.6	1.9	1.9	<2	<2	89	89	<0.2	<0.2	1.0	1.0							
					Bottom	11.7	0.4	266	18.6	18.6	8.3	8.3	30.3	30.3	107.9	108.0	8.4	8.4	2.3	2.3	2	2	91	91	<0.2	<0.2	1.1	1.1							
						11.7	0.4	273	18.6	18.6	8.3	8.3	30.3	30.3	108.0	108.0	8.4	8.4	2.3	2.3	<2	<2	92	92	<0.2	<0.2	1.0	1.0							
IM1	Sunny	Moderate	12:47	4.8	Surface	1.0	0.2	10	19.0	19.0	8.3	8.3	31.5	31.4	122.8	122.9	9.5	9.5	4.9	4.9	<2	<2	88	88	90	817968	807119	<0.2	<0.2	0.9	0.9				
						1.0	0.2	10	19.0	19.0	8.3	8.3	31.4	31.4	123.0	123.0	9.5	9.5	4.9	4.9	5.6	5.6	<2	<2	89	89	<0.2	<0.2	0.8	0.8					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	3.8	0.1	14	18.7	18.7	8.3	8.3	32.1	32.1	125.6	125.6	9.7	9.7	6.3	6.3	<2	<2	90	90	<0.2	<0.2	1.0	1.0							
						3.8	0.1	15	18.7	18.7	8.3	8.3	32.1	32.1	125.6	125.6	9.7	9.7	6.4	6.4	<2	<2	91	91	<0.2	<0.2	0.9	0.9							
IM2	Sunny	Moderate	12:38	6.7	Surface	1.0	0.2	5	19.1	19.1	8.3	8.3	31.7	31.7	135.9	136.1	10.4	10.4	5.0	5.0	<2	<2	87	87	92	818180	806142	<0.2	<0.2	0.9	0.9				
						1.0	0.2	5	19.1	19.1	8.3	8.3	31.7	31.7	136.3	136.3	10.5	10.5	5.1	5.1	<2	<2	88	88	<0.2	<0.2	0.9	0.9							
					Middle	3.4	0.2	2	18.7	18.7	8.3	8.3	32.1	32.1	135.7	135.7	10.5	10.5	5.6	5.6	<2	<2	92	92	<0.2	<0.2	0.9	0.9							
						3.4	0.3	2	18.7	18.7	8.3	8.3	32.1	32.1	135.7	135.7	10.5	10.5	5.5	5.5	<2	<2	92	92	<0.2	<0.2	0.9	0.9							
					Bottom	5.7	0.2	353	18.7	18.7	8.3	8.3	32.3	32.3	130.6	130.6	10.1	10.1	8.4	8.4	<2	<2	95	95	<0.2	<0.2	0.9	0.9							
						5.7	0.2	325	18.7	18.7	8.3	8.3	32.3	32.3	130.5	130.6	10.0	10.0	8.4	8.4	<2	<2	95	95	<0.2	<0.2	0.8	0.8							
IM3	Sunny	Moderate	12:30	6.9	Surface	1.0	0.2	333	18.9	18.9	8.3	8.3	31.8	31.8	134.2	134.3	10.3	10.3	5.0	5.0	<2	<2	87	87	91	818773	805599	<0.2	<0.2	0.8	0.8				
						1.0	0.2	349	18.9	18.9	8.3	8.3	31.8	31.8	134.3	134.3	10.3	10.3	5.0	5.0	<2	<2	87	87	<0.2	<0.2	0.8	0.8							
					Middle	3.5	0.2	346	18.7	18.7	8.3	8.3	32.1	32.1	134.5	134.5	10.4	10.4	4.9	4.9	<2	<2	91	91	<0.2	<0.2	0.9	0.9							
						3.5	0.2	356	18.7	18.7	8.3	8.3	32.1	32.1	134.5	134.5	10.4	10.4	4.9	4.9	<2	<2	91	91	<0.2	<0.2	0.9	0.9							
					Bottom	5.9	0.2	351	18.7	18.7	8.3	8.3	32.2	32.2	129.1	129.1	10.0	10.0	6.1	6.1	<2	<2	96	96	<0.2	<0.2	0.9	0.9							
						5.9	0.2	323	18.7	18.7	8.3	8.3	32.2	32.2	129.0	129.1	9.9	9.9	6.3	6.3	<2	<2	95	95	<0.2	<0.2	0.8	0.8							
IM4	Sunny	Moderate	12:19	7.5	Surface	1.0	0.3	356	18.9	18.9	8.3	8.3	31.3	31.3	126.4	126.4	9.8	9.8	5.0	5.0	2	2	86	86	91	819707	804602	<0.2	<0.2	1.2	1.2				
						1.0	0.3	328	18.9	18.9	8.3	8.3	31.2	31.3	126.4	126.4	9.8	9.8	5.0	5.0	3	3	87	87	<0.2	<0.2	1.1	1.1							
					Middle	3.8	0.3	1	18.7	18.7	8.3	8.3	31.8	31.7	127.2	127.2	9.8	9.8	5.1	5.1	2	2	90	90	<0.2	<0.2	1.1	1.1							
						3.8	0.3	1	18.7	18.7	8.3	8.3	31.7	31.7	127.2	127.2	9.8	9.8	5.1	5.1	2	2	91	91	<0.2	<0.2	1.1	1.1							
					Bottom	6.5	0.3	1	18.6	18.6	8.3	8.3	32.1	32.1	124.6	124.6	9.6	9.6	5.7	5.7	<2	<2	95	95	<0.2	<0.2	1.1	1.1							
						6.5	0.3	1	18.6	18.6	8.3	8.3	32.1	32.1	124.6	124.6	9.6	9.6	5.8	5.8	<2	<2	95	95	<0.2	<0.2	1.1	1.1							
IM5	Sunny	Moderate	12:09	7.2	Surface	1.0	0.2	338	18.8	18.9	8.3	8.3	30.7	30.7	126.3	126.3	9.8	9.8	5.1	5.1	<2	<2	88	88	91	820736	804865	<0.2	<0.2	1.6	1.6				
						1.0	0.3	359	18.9	18.9	8.3	8.3	30.7	30.7	126.2	126.2	9.8	9.8	5.1	5.1	<2	<2	89	89	<0.2	<0.2	1.6	1.6							
					Middle	3.6	0.3	354	18.8	18.8	8.3	8.3	31.6	31.6	123.6	123.5	9.5	9.5	5.6	5.6	<2	<2	92	92	<0.2	<0.2	1.5	1.5							
						3.6	0.3	326	18.8	18.8	8.3	8.3	31.6	31.6	123.4	123.5	9.5	9.5	5.7	5.7	<2	<2	92	92	<0.2	<0.2	1.5	1.5							
					Bottom	6.2	0.3	359	18.8	18.8	8.3	8.3	31.8	31.8	121.9	121.8	9.4	9.4	6.2	6.2	2	2	93	93	<0.2	<0.2	1.5	1.5							
						6.2	0.3	330	18.8	18.8	8.3	8.3	31.8	31.8	121.7	121.7	9.4	9.4	6.1	6.1	2	2	93	93	<0.2	<0.2	1.5	1.5							
IM6	Sunny	Moderate	12:01	6.9	Surface	1.0	0.2	277	19.2	19.2	8.3	8.3	29.0	29.0	128.6	128.6	10.0	10.0	4.5	4.5	<2	<2	86	86	91	821058	805826	<0.2	<0.2	1.6	1.6				
						1.0	0.2	294	19.2	19.2	8.3	8.3	29.0	29.0	128.5	128.5	10.0	10.0	4.4	4.4	<2	<2	87	87	<0.2	<0.2	1.6	1.6							
					Middle	3.5	0.1	300	18.9	18.9	8.3	8.3	29.5	29.5	127.3	127.3	9.9	9.9	4.6	4.6	<2	<2	92	92	<0.2	<0.2	1.7	1.7							
						3.5	0.1	314	18.9	18.9	8.3	8.3	29.5	29.5	127.2	127.3	9.9	9.9	4.6	4.6	<2	<2	93	93	<0.2	<0.2	1.6	1.6							
					Bottom	5.9	0.1	62	18.7	18.7	8.3	8.3	31.4	31.4	124.5	124.6	9.6	9.6	5.1	5.1	<2	<2	94	94	<0.2	<0.2	1.7	1.7							
						5.9	0.1	64																											

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

Water Quality Monitoring Results on 06 February 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	Fine	Moderate	12:29	6.9	Surface	1.0	0.2	312	19.6	19.6	8.5	8.4	27.7	27.7	145.1	145.0	11.3	2.1	3	86	89	822094	808822	<0.2	1.6	1.6	1.6						
						1.0	0.2	320	19.6	8.4	8.4	27.7	27.7	144.9	11.3	2.1	3	86	89	822094	808822	<0.2	1.6	1.6	1.6								
						3.5	0.2	306	19.3	8.4	8.4	27.7	27.7	131.0	10.3	2.0	4	88	89	822094	808822	<0.2	1.6	1.6	1.6								
					Middle	3.5	0.2	308	19.3	8.4	8.4	27.7	27.7	131.0	10.3	2.0	4	89	89	822094	808822	<0.2	1.6	1.6	1.6								
						5.9	0.2	302	19.2	8.4	8.4	28.0	28.0	121.9	9.5	1.9	5	91	91	822094	808822	<0.2	1.5	1.5	1.5								
						5.9	0.2	320	19.2	8.4	8.4	28.0	28.0	121.9	9.5	1.9	5	91	91	822094	808822	<0.2	1.5	1.5	1.5								
					IM10	Fine	Moderate	12:37	7.9	Surface	1.0	0.4	311	19.4	19.4	8.4	8.4	27.9	27.9	127.4	127.4	9.9	2.0	2	86	89	822397	809798	<0.2	1.6	1.6	1.6	
											1.0	0.4	333	19.4	8.4	8.4	27.9	27.9	127.4	9.9	2.0	2	85	89	822397	809798	<0.2	1.5	1.5	1.5			
											4.0	0.4	308	19.1	8.3	8.3	28.3	28.3	121.8	9.5	2.3	2	89	89	822397	809798	<0.2	1.4	1.4	1.4			
Middle	4.0	0.4	327	19.1						8.3	8.3	28.3	28.3	121.7	9.5	2.3	2	89	89	822397	809798	<0.2	1.6	1.6	1.6								
	6.9	0.3	300	19.1						8.3	8.3	28.5	28.5	115.8	9.1	2.6	2	91	91	822397	809798	<0.2	1.6	1.6	1.6								
	6.9	0.3	313	19.1						8.3	8.3	28.5	28.5	115.7	9.0	2.7	2	91	91	822397	809798	<0.2	1.6	1.6	1.6								
IM11	Fine	Moderate	12:49	7.6						Surface	1.0	0.4	283	19.5	19.5	8.4	8.4	28.2	28.2	136.4	136.4	10.6	1.9	2	87	89	822058	811446	<0.2	1.4	1.4	1.4	
											1.0	0.4	284	19.5	8.4	8.4	28.2	28.2	136.3	10.6	1.9	2	86	89	822058	811446	<0.2	1.3	1.3	1.3			
											3.8	0.4	286	19.2	8.4	8.4	28.3	28.3	129.5	10.1	1.8	4	89	89	822058	811446	<0.2	1.3	1.3	1.3			
					Middle	3.8	0.4	303	19.2	8.4	8.4	28.3	28.3	129.3	10.1	1.9	4	89	89	822058	811446	<0.2	1.4	1.4	1.4								
						6.6	0.5	287	19.0	8.4	8.4	28.8	28.8	119.2	9.3	2.2	6	91	91	822058	811446	<0.2	1.4	1.4	1.4								
						6.6	0.6	314	19.1	8.4	8.4	28.8	28.8	119.2	9.3	2.1	6	91	91	822058	811446	<0.2	1.5	1.5	1.5								
					IM12	Fine	Moderate	12:57	8.9	Surface	1.0	0.4	295	19.7	19.7	8.4	8.4	28.1	28.1	129.3	129.3	10.0	1.8	4	85	88	821482	812054	<0.2	1.7	1.7	1.7	
											1.0	0.4	315	19.7	8.4	8.4	28.1	28.1	129.3	10.0	1.8	3	86	88	821482	812054	<0.2	1.7	1.7	1.7			
											4.5	0.4	297	19.1	8.4	8.4	28.4	28.4	124.3	9.7	1.8	3	88	88	821482	812054	<0.2	1.4	1.4	1.4			
Middle	4.5	0.5	300	19.1						8.4	8.4	28.4	28.4	124.2	9.7	1.8	3	88	88	821482	812054	<0.2	1.5	1.5	1.5								
	7.9	0.3	296	19.0						8.4	8.4	29.0	29.0	116.8	9.1	2.7	2	90	90	821482	812054	<0.2	1.4	1.4	1.4								
	7.9	0.3	302	19.0						8.4	8.4	29.0	29.0	116.8	9.1	2.7	2	91	91	821482	812054	<0.2	1.4	1.4	1.4								
SR1A	Fine	Calm	13:42	4.5						Surface	1.0	-	-	19.7	19.7	8.4	8.4	27.8	27.8	125.4	125.4	9.7	1.7	<2	-	-	819981	812661	-	-	-	-	
											1.0	-	-	19.7	19.7	8.4	8.4	27.8	27.8	125.3	9.7	1.7	<2	-	-	-	-	819981	812661	-	-	-	-
											2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819981	812661	-	-	-
					Middle	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819981	812661	-	-	-	-				
						3.5	-	-	19.4	19.4	8.4	8.4	28.6	28.6	118.0	9.2	2.1	<2	-	-	-	-	-	819981	812661	-	-	-	-				
						3.5	-	-	19.4	19.4	8.4	8.4	28.6	28.6	117.8	9.2	2.1	<2	-	-	-	-	-	819981	812661	-	-	-	-				
					SR2	Fine	Moderate	14:00	4.4	Surface	1.0	0.2	107	19.0	19.0	8.4	8.4	29.3	29.3	122.3	122.3	9.5	2.1	4	87	88	821439	814179	<0.2	1.1	1.1	1.1	
											1.0	0.2	110	19.0	8.4	8.4	29.3	29.3	122.3	9.5	2.2	4	87	88	821439	814179	<0.2	1.1	1.1	1.1			
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821439	814179	<0.2	1.1	1.1
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	821439	814179	<0.2	1.1	1.1	1.1				
	3.4	0.1	94	19.1						8.4	8.4	29.3	29.3	121.1	121.1	9.4	2.1	3	89	89	821439	814179	<0.2	1.1	1.1	1.1							
	3.4	0.1	94	19.1						8.4	8.4	29.3	29.3	121.0	9.4	2.1	3	89	89	821439	814179	<0.2	1.2	1.2	1.2								
SR3	Fine	Moderate	12:17	8.4						Surface	1.0	0.1	222	19.3	19.3	8.4	8.4	27.6	27.6	136.6	136.6	10.7	1.9	<2	-	-	822150	807562	-	-	-	-	
											1.0	0.1	225	19.3	8.4	8.4	27.6	27.6	136.5	10.7	1.9	<2	-	-	-	-	822150	807562	-	-	-	-	
											4.2	0.1	237	19.0	8.3	8.3	28.0	28.0	125.0	124.9	9.8	1.8	2	-	-	-	-	822150	807562	-	-	-	-
					Middle	4.2	0.1	256	19.0	8.3	8.3	28.0	28.0	124.7	9.8	1.8	<2	-	-	-	-	-	822150	807562	-	-	-	-					
						7.4	0.2	261	19.1	8.3	8.3	28.3	28.3	121.6	121.6	9.5	2.1	4	-	-	-	-	822150	807562	-	-	-	-					
						7.4	0.2	281	19.1	8.3	8.3	28.3	28.3	121.6	121.6	9.5	2.1	4	-	-	-	-	822150	807562	-	-	-	-					
					SR4A	Sunny	Calm	13:31	8.3	Surface	1.0	0.1	148	19.1	19.1	8.3	8.3	32.0	32.0	121.0	121.1	9.3	5.2	2	-	-	817174	807818	-	-	-	-	
											1.0	0.1	159	19.1	8.3	8.3	32.0	32.0	121.1	9.3	5.2	2	-	-	-	-	817174	807818	-	-	-	-	
											4.2	0.1	69	18.8	8.3	8.3	32.1	32.1	121.1	121.1	9.3	5.1	4	-	-	-	-	817174	807818	-	-	-	-
Middle	4.2	0.1	72	18.8						8.3	8.3	32.1	32.1	121.0	9.3	5.1	3	-	-	-	-	-	817174	807818	-	-	-	-					
	7.3	0.1	73	18.7						8.3	8.3	32.1	32.1	120.0	9.3	5.0	4	-	-	-	-	-	817174	807818	-	-	-	-					
	7.3	0.1	76	18.7						8.3	8.3	32.1	32.1	119.9	9.2	5.0	3	-	-	-	-	-	817174	807818	-	-	-	-					
SR5A	Sunny	Calm	13:48	3.6						Surface	1.0	0.1	319	19.3	19.3	8.2	8.2	31.4	31.4	109.6	109.6	8.4	6.2	<2	-	-	816573	810710	-	-	-	-	
											1.0	0.1	336	19.3	8.2	8.2	31.4	31.4	109.6	8.4	6.2	<2	-	-	-	-	816573	810710	-	-	-	-	
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	816573	810710	-	-	-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	816573	810710	-	-	-	-				
						2.6	0.1	330	19.2	8.3	8.3	31.5	31.5	111.7	111.6	8.6	6.5	2	-	-	-	-	816573	810710	-	-	-	-					
						2.6	0.1	331	19.2	8.3	8.3	31.5	31.5	111.5	111.6	8.5	6.5	2	-	-	-	-	816573	810710	-	-	-	-					
					SR6A	Sunny	Calm	14:18	4.1	Surface	1.0	0.1	249	19.3	19.3	8.3	8.3	30.5	30.5	123.5	123.5	9.5	6.9	3	-	-	817985	814751	-	-	-	-	
											1.0	0.1	254	19.3	8.3	8.3	30.6	30.6	123.4	9.5	6.8	2	-	-	-	-	817985	814751	-	-	-	-	

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

Water Quality Monitoring

Water Quality Monitoring Results on 09 February 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	12:26	8.1	Surface	1.0	0.2	247	18.8	18.8	8.4	8.4	31.8	31.9	121.0	120.8	9.3	9.3	1.2	1.3	5	4	86	86	88	815621	804233	<0.2	<0.2	0.7	0.8												
						1.0	0.2	261	18.7	8.4	8.4	31.9	32.0	120.6	118.5	9.3	9.3	4	4	86	88																						
						4.1	0.1	214	18.7	8.4	8.4	32.2	32.2	118.6	118.5	9.1	9.1	4	4	88	88																						
					Middle	4.1	0.1	216	18.6	8.4	8.4	32.3	32.2	118.4	118.5	9.1	9.1	4.8	5	88	90	4	4	88								90											
						7.1	0.0	168	18.5	8.4	8.4	32.9	32.9	112.5	112.4	8.7	8.7	5.7	4	90	90	4	4	90								90											
						7.1	0.0	178	18.5	8.4	8.4	32.9	32.9	112.3	112.3	8.7	8.7	5.7	3	90	90																						
					C2	Cloudy	Rough	13:04	11.4	Surface	1.0	0.3	165	19.4	19.4	8.2	8.2	28.6	28.6	125.2	125.0	9.7	9.7	5.3								5.3	6	5	87	88	90	825687	806938	<0.2	<0.2	0.7	0.7
											1.0	0.3	173	19.4	8.2	8.2	28.7	28.6	124.8	115.0	9.7	9.7	5.3	5								88	89										
											5.7	0.2	175	19.2	8.2	8.2	29.3	29.3	115.1	114.9	8.9	8.9	5.7	4								89	90										
Middle	5.7	0.2	191	19.2						8.2	8.2	29.3	29.3	114.9	113.7	8.9	8.8	6.4	4	90	91	4	4	90	92																		
	10.4	0.2	160	19.2						8.1	8.1	29.3	29.3	113.7	113.6	8.8	8.8	6.6	4	91	92																						
	10.4	0.2	170	19.2						8.1	8.1	29.3	29.3	113.6	113.6	8.8	8.8	6.5	4	92	92																						
C3	Cloudy	Moderate	10:49	11.7						Surface	1.0	0.1	307	18.9	18.9	8.1	8.1	30.3	30.3	112.9	112.8	8.8	8.8	5.0	4.9	4	3	79	84	88	822119	817799	<0.2	<0.2	0.6	0.6							
											1.0	0.1	329	18.8	8.1	8.1	30.3	30.3	112.6	110.3	8.8	8.8	4.9	3	84	89																	
											5.9	0.0	85	18.8	8.1	8.1	30.4	30.4	110.3	110.2	8.6	8.6	8.5	3	89	89																	
					Middle	5.9	0.0	91	18.8	8.1	8.1	30.4	30.4	110.2	109.6	8.6	8.5	8.5	3	89	93	4	3	89	94																		
						10.7	0.1	81	18.8	8.1	8.1	30.4	30.4	109.6	109.6	8.5	8.5	9.9	2	93	94																						
						10.7	0.1	84	18.8	8.1	8.1	30.4	30.4	109.5	109.5	8.5	8.5	9.4	3	94	94																						
					IM1	Cloudy	Calm	12:53	5.0	Surface	1.0	0.1	186	18.9	18.9	8.4	8.4	31.3	31.3	118.3	118.1	9.1	9.1	1.6	1.7	4	3	85	85								87	817926	807124	<0.2	<0.2	0.8	0.9
											1.0	0.1	195	18.9	8.4	8.4	31.3	31.3	117.9	117.9	9.1	9.1	1.7	3	85	85																	
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-														
Middle	4.0	0.1	152	18.9						8.4	8.4	31.4	31.4	111.8	111.7	8.6	8.6	2.6	4	89	89																						
	4.0	0.1	163	18.9						8.4	8.4	31.3	31.4	111.6	111.6	8.6	8.6	2.5	4	89	89																						
	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-																		
IM2	Cloudy	Moderate	13:00	7.0						Surface	1.0	0.1	168	18.9	18.9	8.4	8.4	31.5	31.5	119.1	119.0	9.2	9.2	1.9	2.0	6	6	85	86	87	818148	806159	<0.2	<0.2	0.8	0.8							
											1.0	0.1	169	18.9	8.4	8.4	31.5	31.5	118.9	116.6	9.2	9.1	2.0	6	86	87																	
											3.5	0.2	131	18.8	8.4	8.4	31.7	31.7	116.9	116.6	9.0	9.0	3.4	5	87	87																	
					Middle	3.5	0.2	135	18.8	8.4	8.4	31.8	31.7	116.3	111.7	9.0	8.6	3.7	5	87	90	4	5	87	89																		
						6.0	0.2	127	18.7	8.4	8.4	32.0	31.9	111.7	111.6	8.6	8.6	3.8	5	90	89																						
						6.0	0.2	136	18.8	8.4	8.4	31.9	31.9	111.4	111.4	8.6	8.6	3.5	4	89	89																						
					IM3	Cloudy	Moderate	13:06	7.1	Surface	1.0	0.1	198	18.9	18.9	8.4	8.4	31.4	31.4	120.2	120.0	9.3	9.2	1.9	2.0	6	7	85	86								88	818793	805616	<0.2	<0.2	0.8	0.8
											1.0	0.1	216	18.9	8.4	8.4	31.4	31.4	119.7	118.1	9.2	9.1	2.0	7	86	87																	
											3.6	0.1	152	18.8	8.4	8.4	31.8	31.8	118.3	118.1	9.1	9.1	4.4	6	88	87																	
Middle	3.6	0.1	165	18.8						8.4	8.4	31.8	31.8	117.9	116.4	9.1	9.0	4.6	6	87	90	4	6	87	90																		
	6.1	0.1	116	18.7						8.4	8.4	31.9	31.9	116.8	116.4	9.0	9.0	5.9	4	90	90																						
	6.1	0.1	124	18.7						8.4	8.4	31.9	31.9	116.0	116.0	9.0	9.0	5.6	5	90	90																						
IM4	Cloudy	Moderate	13:15	8.4						Surface	1.0	0.3	183	19.0	19.0	8.4	8.4	30.9	30.9	120.7	120.7	9.3	9.3	2.0	2.3	4	4	87	99	91	819713	804606	<0.2	<0.2	0.7	0.8							
											1.0	0.3	185	19.0	8.4	8.4	30.9	30.9	120.6	119.2	9.3	9.3	2.3	4	99	88																	
											4.2	0.3	170	19.0	8.4	8.4	31.1	31.2	119.4	119.2	9.2	9.2	6.0	4	88	88																	
					Middle	4.2	0.3	186	18.9	8.4	8.4	31.2	31.2	118.9	117.0	9.2	9.0	6.0	4	88	90	4	4	88	91																		
						7.4	0.2	153	18.8	8.4	8.4	31.6	31.6	117.2	117.1	9.0	9.0	6.6	4	90	91																						
						7.4	0.2	164	18.8	8.4	8.4	31.6	31.6	117.0	117.0	9.0	9.0	6.6	3	91	91																						
					IM5	Cloudy	Moderate	13:23	7.7	Surface	1.0	0.2	226	19.1	19.1	8.5	8.5	30.9	30.9	122.4	122.3	9.4	9.4	2.1	2.2	4	5	87	88								90	820711	804883	<0.2	<0.2	0.9	1.0
											1.0	0.2	242	19.0	8.5	8.5	30.9	30.9	122.2	121.1	9.4	9.4	2.2	5	88	89																	
											3.9	0.2	225	19.0	8.4	8.4	31.2	31.2	121.2	121.1	9.3	9.3	5.2	4	89	90																	
Middle	3.9	0.2	235	19.0						8.4	8.4	31.2	31.2	120.9	118.7	9.3	9.2	5.5	4	90	92	4	5	90	92																		
	6.7	0.2	183	18.9						8.4	8.4	31.5	31.5	118.7	118.7	9.2	9.1	6.9	5	92	92																						
	6.7	0.2	187	18.9						8.4	8.4	31.5	31.5	118.6	118.6	9.2	9.1	6.8	5	92	92																						
IM6	Cloudy	Moderate	13:29	7.3						Surface	1.0	0.2	249	19.1	19.1	8.4	8.4	30.8	30.8	121.3	121.2	9.4	9.3	5.5	5.5	3	3	85	86	88	821040	805819	<0.2	<0.2	0.8	0.8							
											1.0	0.2	273	19.1	8.4	8.4	30.9	30.8	121.1	119.6	9.3	9.2	5.5	3	86	89																	
											3.7	0.1	222	19.0	8.4	8.4	31.3	31.3	119.9	119.8	9.2	9.2	6.3	4	88	89																	
					Middle	3.7	0.1	231	19.0	8.4	8.4	31.4	31.3	119.6	118.4	9.2	9.1	6.4	4	89	90	4	4	89	90																		
						6.3	0.2	157	18.9	8.4	8.4	31.5	31.5	118.5	118.4	9.1	9.1	6.5	4	90	90																						
						6.3	0.2	170	18.9	8.4	8.4	31.5	31.5	118.3	118.3	9.1	9.1	6.5	4	90	90																						
					IM7	Cloudy	Moderate	13:34	8.6	Surface	1.0	0.1	267	19.2	19.2	8.5	8.5	30.5	30.5	122.5	122.5	9.5	9.4	5.2	5.4	6	5	85	84								87	821366	806820	<0.2	<0.2	0.8	0.8
											1.0	0.1	270	19.2	8.5	8.5	30.5	30.5	122.4	121.1	9.4	9.4	5.4	6	84	87																	
											4.3	0.0	153	19.1	8.5	8.4	30.9	31.0	121.2	120.9	9.3	9.3	6.5	6	87	86																	
Middle	4.3	0.0	159	19.1						8.4	8.4	31.0	31.0	120.9	120.0	9.3	9.2	6.6	6	86	89	4	6	86	89																		
	7.6	0.1	142	19.0						8.4	8.4	31.2	31.2	120.0	119.9	9.2	9.2	6.8	7	89	89																						
	7.6	0.1	153	19.0						8.4	8.4	31.2	31.2	119.9	119.9	9.2	9.2	6.8	6	89	89																						
IM8	Cloudy	Moderate	12:38	7.9						Surface	1.0	0.1	209	19.4	19.4	8.2	8.2																										

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

Water Quality Monitoring Results on 09 February 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	12:32	7.2	Surface	1.0	0.3	90	19.4	8.2	8.2	28.5	28.5	121.8	121.7			9.5	9.5	5.4	5.4	5	5
					Middle	1.0	0.3	91	19.4	8.2	8.2	28.6	28.6	121.6	120.8	9.5	9.4	5.4	5.9	6	5	86	88			<0.2	0.6	<0.2	0.6		
						3.6	0.3	80	19.4	8.2	8.2	28.7	28.7	120.7	120.8	9.4	9.4	5.9	6.1	5	5	88	89			<0.2	0.6	<0.2	0.6		
						3.6	0.3	87	19.3	8.2	8.2	28.8	28.8	120.8	114.8	8.9	8.9	6.1	7.1	5	5	89	92			<0.2	0.6	<0.2	0.6		
					Bottom	6.2	0.2	73	19.3	8.2	8.2	29.1	29.1	114.8	114.7	8.9	8.9	7.1	7.2	5	4	92	92			<0.2	0.6	<0.2	0.6		
						6.2	0.3	77	19.3	8.2	8.2	29.1	29.1	114.5	114.5	8.9	8.9	7.2	7.2	4	4	92	92			<0.2	0.6	<0.2	0.6		
IM10	Cloudy	Moderate	12:25	6.5	Surface	1.0	0.4	117	19.4	8.2	8.2	28.6	28.4	118.4	121.0	9.2	9.2	5.5	5.2	4	5	86	87	822403	809812	<0.2	0.6	<0.2	0.6		
					Middle	1.0	0.4	119	19.4	8.2	8.2	28.2	28.8	123.5	119.3	9.6	9.3	5.2	6.3	5	5	87	88			<0.2	0.6	<0.2	0.6		
						3.3	0.4	115	19.4	8.2	8.2	28.7	28.8	119.4	119.3	9.3	9.3	6.3	6.4	5	5	88	89			<0.2	0.6	<0.2	0.6		
						3.3	0.4	116	19.3	8.2	8.2	28.8	29.0	119.1	117.6	9.3	9.1	6.4	6.9	5	5	89	92			<0.2	0.6	<0.2	0.5		
					Bottom	5.5	0.3	101	19.3	8.2	8.2	29.0	29.0	117.7	117.6	9.1	9.1	6.9	6.9	5	6	92	93			<0.2	0.6	<0.2	0.6		
						5.5	0.3	108	19.3	8.2	8.2	29.0	29.0	117.4	117.4	9.1	9.1	6.9	6.9	6	6	93	93			<0.2	0.6	<0.2	0.6		
IM11	Cloudy	Moderate	12:12	7.8	Surface	1.0	0.6	123	19.4	8.2	8.2	28.8	28.8	117.3	117.1	9.1	9.1	5.4	5.4	4	5	85	85	822059	811456	<0.2	0.6	<0.2	0.6		
					Middle	1.0	0.6	128	19.3	8.2	8.2	28.2	29.2	116.9	115.6	9.1	9.0	5.4	5.2	4	4	85	91			<0.2	0.6	<0.2	0.6		
						3.9	0.5	125	19.3	8.2	8.2	29.2	29.2	115.7	115.6	9.0	9.0	5.2	5.2	4	5	91	91			<0.2	0.6	<0.2	0.6		
						3.9	0.5	132	19.3	8.2	8.2	29.2	29.2	115.5	114.5	9.0	8.9	5.2	5.7	5	5	91	93			<0.2	0.6	<0.2	0.6		
					Bottom	6.8	0.3	137	19.2	8.2	8.2	29.3	29.2	114.6	114.5	8.9	8.9	5.3	5.7	5	5	93	94			<0.2	0.6	<0.2	0.6		
						6.8	0.3	143	19.2	8.2	8.2	29.2	29.2	114.4	114.4	8.9	8.9	5.7	5.7	5	5	94	94			<0.2	0.6	<0.2	0.6		
IM12	Cloudy	Moderate	12:04	9.2	Surface	1.0	0.5	119	19.5	8.2	8.2	28.2	28.2	124.1	124.1	9.7	9.7	5.1	5.1	5	6	85	86	821445	812023	<0.2	0.6	<0.2	0.6		
					Middle	1.0	0.6	122	19.4	8.2	8.2	28.2	28.2	124.0	124.0	9.6	9.6	5.1	5.2	6	6	86	89			<0.2	0.6	<0.2	0.6		
						4.6	0.4	113	19.3	8.2	8.2	29.1	29.1	116.7	116.4	9.1	9.0	5.2	5.2	6	6	89	89			<0.2	0.6	<0.2	0.6		
						4.6	0.4	115	19.3	8.2	8.2	29.1	29.1	116.1	113.6	9.0	8.8	5.2	5.2	6	7	89	91			<0.2	0.6	<0.2	0.5		
					Bottom	8.2	0.2	108	19.2	8.2	8.2	29.3	29.3	113.7	113.5	8.8	8.8	5.2	5.2	6	7	91	91			<0.2	0.6	<0.2	0.6		
						8.2	0.2	113	19.2	8.2	8.2	29.3	29.3	113.5	113.5	8.8	8.8	5.2	5.2	7	7	91	91			<0.2	0.6	<0.2	0.6		
SR1A	Cloudy	Moderate	11:30	5.1	Surface	1.0	-	-	19.3	8.1	8.1	29.2	29.2	109.1	109.3	8.5	8.5	5.6	5.5	5	4	-	-	819976	812662	-	-	-	-		
					Middle	1.0	-	-	19.3	8.1	8.1	29.2	29.2	109.5	109.3	8.5	8.5	5.5	5.5	4	4	-	-			-	-	-	-		
						2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-		
						2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-		
					Bottom	4.1	-	-	19.2	8.1	8.1	29.3	29.3	109.4	109.3	8.5	8.5	6.4	6.4	6	6	-	-			-	-	-	-		
						4.1	-	-	19.2	8.1	8.1	29.3	29.3	109.1	109.3	8.5	8.5	6.4	6.4	5	5	-	-			-	-	-	-		
SR2	Cloudy	Moderate	11:14	4.1	Surface	1.0	0.2	52	19.2	8.2	8.2	29.3	29.3	117.1	117.1	9.1	9.1	5.2	5.2	5	4	88	88	821471	814168	<0.2	0.6	<0.2	0.5		
					Middle	1.0	0.2	55	19.2	8.2	8.2	29.3	29.3	117.1	117.1	9.1	9.1	5.2	5.2	4	4	-	-			<0.2	0.6	<0.2	0.5		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			<0.2	0.6	<0.2	0.6		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			<0.2	0.6	<0.2	0.6		
					Bottom	3.1	0.2	40	19.2	8.2	8.2	29.3	29.3	116.5	116.5	9.0	9.0	5.2	5.2	6	4	90	91			<0.2	0.6	<0.2	0.6		
						3.1	0.2	41	19.2	8.2	8.2	29.3	29.3	116.4	116.4	9.0	9.0	5.2	5.2	4	4	91	91			<0.2	0.6	<0.2	0.6		
SR3	Cloudy	Rough	12:44	8.7	Surface	1.0	0.2	196	19.4	8.2	8.2	28.6	28.6	120.7	120.6	9.4	9.3	5.1	5.1	5	6	-	-	822161	807557	-	-	-	-		
					Middle	1.0	0.2	211	19.4	8.2	8.2	28.7	28.8	120.5	119.1	9.4	9.3	5.1	5.4	6	4	-	-			-	-	-	-		
						4.4	0.1	136	19.4	8.2	8.2	28.8	28.8	119.7	119.1	9.3	9.2	5.4	5.6	4	5	-	-			-	-	-	-		
						4.4	0.1	146	19.4	8.2	8.2	28.9	28.9	118.4	118.4	9.2	9.2	5.6	5.6	5	4	-	-			-	-	-	-		
					Bottom	7.7	0.1	44	19.4	8.2	8.2	28.9	28.9	118.2	118.1	9.2	9.2	5.6	5.6	4	5	-	-			-	-	-	-		
						7.7	0.1	47	19.3	8.2	8.2	28.9	28.9	117.9	117.9	9.2	9.2	5.6	5.6	5	5	-	-			-	-	-	-		
SR4A	Cloudy	Calm	12:05	9.1	Surface	1.0	0.2	76	18.9	8.5	8.5	31.2	31.2	117.0	116.8	9.0	9.0	5.2	5.3	4	4	-	-	817192	807828	-	-	-	-		
					Middle	1.0	0.2	79	18.9	8.5	8.5	31.2	31.3	116.5	114.8	9.0	8.9	5.3	5.3	4	5	-	-			-	-	-	-		
						4.6	0.2	85	18.8	8.5	8.5	31.3	31.3	114.9	114.8	8.9	8.9	5.1	5.3	5	6	-	-			-	-	-	-		
						4.6	0.3	90	18.8	8.5	8.5	31.3	31.4	114.7	112.6	8.9	8.7	5.3	6.8	5	6	-	-			-	-	-	-		
					Bottom	8.1	0.3	71	18.8	8.5	8.5	31.4	31.4	112.7	112.6	8.7	8.7	6.8	6.7	6	6	-	-			-	-	-	-		
						8.1	0.3	73	18.8	8.5	8.5	31.4	31.4	112.4	112.4	8.7	8.7	6.7	6.7	6	6	-	-			-	-	-	-		
SR5A	Cloudy	Calm	11:01	3.3	Surface	1.0	0.1	330	19.3																						

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

Water Quality Monitoring Results on 09 February 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)						
								Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA			
C1	Cloudy	Moderate	16:00	9.1	Surface	1.0	0.2	44	18.8	8.4	8.4	31.8	31.8	120.7	120.6	9.3	9.3	2.4	2.7	6	6	89	91	815601	804232	0.3	1.1	3.3	2.7					
						1.0	0.3	45	18.8	8.4	8.4	31.8	31.8	120.5	120.6	9.3	9.3	2.7	2.7	6	6	88	89	0.3	0.3	4.8	4.0							
						4.6	0.3	49	18.5	8.4	8.4	33.1	33.1	111.9	112.0	8.6	8.6	4.4	4.4	5	5	90	90	0.3	0.3	4.0	4.0							
					Middle	4.6	0.4	49	18.5	8.4	8.4	33.1	33.1	112.0	112.0	8.6	8.6	4.4	4.4	6	6	90	90	0.3	0.3	4.0	4.0	1.6	1.6					
						8.1	0.3	45	18.5	8.4	8.4	32.9	32.9	113.1	113.2	8.7	8.7	5.0	5.0	5	5	93	93	<0.2	<0.2	1.6	1.6							
						8.1	0.3	46	18.5	8.4	8.4	32.9	32.9	113.2	113.2	8.7	8.7	5.0	5.0	4	4	93	93	<0.2	<0.2	1.4	1.4							
					C2	Cloudy	Rough	14:58	11.4	Surface	1.0	0.1	227	19.5	8.3	8.3	27.8	27.8	129.8	129.7	10.1	10.1	5.6	5.6	5	5	86	90	825666	806930	<0.2	0.6	0.6	0.6
											1.0	0.1	248	19.5	8.3	8.3	27.8	27.8	129.5	129.5	10.1	10.1	5.5	5.5	4	4	87	87	<0.2	0.6	0.6	0.6		
											5.7	0.1	203	19.5	8.2	8.2	28.2	28.2	126.7	126.6	9.9	9.9	5.4	5.4	4	4	90	90	<0.2	0.6	0.6	0.6		
Middle	5.7	0.1	223	19.4						8.2	8.2	28.3	28.2	126.4	126.4	9.8	9.8	5.4	5.4	4	4	90	90	<0.2	0.6	0.6	0.6							
	10.4	0.2	27	19.3						8.2	8.2	28.9	29.0	119.4	119.3	9.3	9.3	5.4	5.4	5	5	92	92	<0.2	0.6	0.6	0.6							
	10.4	0.2	28	19.3						8.2	8.2	29.0	29.0	119.2	119.2	9.3	9.3	5.3	5.3	6	6	92	92	<0.2	0.6	0.6	0.6							
C3	Cloudy	Moderate	17:16	11.3						Surface	1.0	0.4	277	19.0	8.1	8.1	30.0	30.1	120.5	120.5	9.4	9.4	4.8	4.8	7	7	86	89	822114	817826	<0.2	0.5	0.6	0.5
											1.0	0.4	259	19.0	8.1	8.1	30.1	30.3	114.2	114.2	9.9	9.9	4.7	4.7	6	6	88	88	<0.2	0.6	0.6	0.6		
											5.7	0.4	269	18.9	8.1	8.1	30.3	30.3	114.1	114.2	8.9	8.9	4.8	4.8	6	6	89	89	<0.2	0.5	0.5	0.5		
					Middle	5.7	0.4	295	18.9	8.1	8.1	30.3	30.3	114.1	114.2	8.9	8.9	4.8	4.8	6	6	89	89	<0.2	0.5	0.5	0.5							
						10.3	0.2	288	18.7	8.1	8.1	30.6	30.6	107.9	108.0	8.4	8.4	4.9	4.9	4	4	93	93	<0.2	0.5	0.5	0.5							
						10.3	0.2	307	18.7	8.1	8.1	30.6	30.6	108.0	108.0	8.4	8.4	4.9	4.9	5	5	93	93	<0.2	0.5	0.5	0.5							
					IM1	Cloudy	Calm	15:40	5.3	Surface	1.0	0.1	305	18.9	8.4	8.4	31.4	31.5	118.6	118.4	9.1	9.1	2.8	2.9	3	3	87	90	817947	807129	<0.2	1.1	1.1	1.2
											1.0	0.1	321	18.9	8.4	8.4	31.5	31.5	118.1	118.1	9.1	9.1	2.9	2.9	4	4	87	87	<0.2	1.1	1.1	1.2		
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	4.3	0.1	39	18.7						8.4	8.4	32.0	32.0	116.0	115.9	8.9	8.9	4.8	4.8	4	4	92	92	<0.2	1.3	1.3	1.4							
	4.3	0.1	39	18.7						8.4	8.4	32.0	32.0	115.8	115.8	8.9	8.9	4.6	4.6	5	5	93	93	<0.2	1.4	1.4	1.4							
	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
IM2	Cloudy	Moderate	15:33	7.6						Surface	1.0	0.1	300	18.9	8.4	8.4	31.4	31.5	120.6	120.5	9.3	9.3	2.3	2.4	8	7	86	89	818158	806183	<0.2	1.0	1.1	1.1
											1.0	0.1	319	18.9	8.4	8.4	31.5	31.5	120.4	120.4	9.3	9.3	2.4	2.4	7	7	87	87	<0.2	1.1	1.1	1.1		
											3.8	0.1	324	18.7	8.4	8.4	31.9	31.9	118.9	118.5	9.2	9.2	2.7	2.7	5	5	90	90	<0.2	1.1	1.1	1.1		
					Middle	3.8	0.1	328	18.7	8.4	8.4	32.0	31.9	118.0	118.0	9.1	9.1	2.6	2.6	6	6	90	90	<0.2	1.0	1.0	1.1							
						6.6	0.3	37	18.7	8.4	8.4	32.2	32.1	112.8	112.6	8.7	8.7	5.3	5.3	4	4	91	91	<0.2	1.0	1.0	1.0							
						6.6	0.3	39	18.7	8.4	8.4	32.0	32.1	112.3	112.6	8.7	8.7	5.6	5.6	5	5	91	91	<0.2	1.1	1.1	1.1							
					IM3	Cloudy	Moderate	15:26	7.3	Surface	1.0	0.1	316	18.9	8.4	8.4	31.4	31.4	120.8	120.7	9.3	9.3	1.6	1.6	5	4	85	88	818785	805614	<0.2	0.6	0.6	0.8
											1.0	0.1	343	18.9	8.4	8.4	31.4	31.4	120.6	120.6	9.3	9.3	1.6	1.6	4	4	85	85	<0.2	0.6	0.6	0.8		
											3.7	0.2	345	18.8	8.4	8.4	31.5	31.6	119.9	119.7	9.3	9.3	2.7	2.7	3	3	88	88	<0.2	1.0	1.0	1.0		
Middle	3.7	0.2	317	18.8						8.4	8.4	31.6	31.6	119.5	119.5	9.2	9.2	2.8	2.8	3	3	88	88	<0.2	0.8	0.8	0.8							
	6.3	0.2	36	18.7						8.4	8.4	32.0	31.9	114.0	113.7	8.8	8.8	5.1	5.1	3	3	89	89	<0.2	0.9	0.9	0.9							
	6.3	0.2	37	18.7						8.4	8.4	31.9	31.9	113.4	113.4	8.8	8.8	5.2	5.2	3	3	90	90	<0.2	0.9	0.9	0.9							
IM4	Cloudy	Moderate	15:17	8.5						Surface	1.0	0.1	333	18.9	8.4	8.4	31.3	31.4	119.4	119.3	9.2	9.2	3.4	3.6	4	5	86	89	819702	804589	<0.2	0.9	0.9	0.9
											1.0	0.1	334	18.9	8.4	8.4	31.4	31.4	119.2	119.2	9.2	9.2	3.6	3.6	5	5	87	87	<0.2	0.9	0.9	0.9		
											4.3	0.2	26	18.8	8.4	8.4	31.7	31.7	118.4	118.3	9.1	9.1	5.3	5.3	3	3	88	88	<0.2	0.8	0.8	0.9		
					Middle	4.3	0.2	28	18.8	8.4	8.4	31.7	31.7	118.2	118.2	9.1	9.1	5.4	5.4	4	4	88	88	<0.2	0.9	0.9	0.9							
						7.5	0.2	23	18.8	8.4	8.4	31.7	31.7	112.7	112.5	8.7	8.7	4.5	4.5	3	3	91	91	<0.2	0.8	0.8	1.0							
						7.5	0.2	24	18.8	8.4	8.4	31.7	31.7	112.2	112.2	8.7	8.7	4.6	4.6	4	4	91	91	<0.2	1.0	1.0	1.0							
					IM5	Cloudy	Moderate	15:10	7.9	Surface	1.0	0.1	346	19.0	8.5	8.5	31.1	31.1	120.5	120.5	9.3	9.3	1.8	1.9	3	4	87	90	820757	804870	<0.2	0.8	0.9	0.9
											1.0	0.2	349	19.0	8.4	8.4	31.1	31.1	120.5	120.5	9.3	9.3	1.9	1.9	4	4	88	88	<0.2	0.9	0.9	0.9		
											4.0	0.1	338	19.0	8.4	8.4	31.2	31.3	120.1	120.0	9.3	9.3	3.8	3.8	3	3	89	89	<0.2	0.9	0.9	0.9		
Middle	4.0	0.1	347	19.0						8.4	8.4	31.3	31.3	119.9	119.9	9.2	9.2	3.9	3.9	3	3	90	90	<0.2	0.9	0.9	0.9							
	6.9	0.1	23	18.9						8.4	8.4	31.5	31.5	118.3	118.3	9.1	9.1	4.3	4.3	4	4	92	92	<0.2	0.9	0.9	0.9							
	6.9	0.1	24	18.9						8.4	8.4	31.5	31.5	118.2	118.2	9.1	9.1	4.3	4.3	3	3	91	91	<0.2	0.9	0.9	0.9							
IM6	Cloudy	Moderate	15:03	7.5						Surface	1.0	0.0	269	19.0	8.5	8.5	31.1	31.1	120.4	120.2	9.3	9.2	3.5	3.6	4	4	89	90	821052	805818	<0.2	0.8	0.8	0.7
											1.0	0.0	295	19.0	8.5	8.5	31.1	31.1	119.9	119.9	9.2	9.2	3.6	3.6	4	4	89	89	<0.2	0.8	0.8	0.8		
											3.8	0.0	10	19.0	8.5	8.5	31.3	31.3	118.8	118.7	9.2	9.2	5.8	5.8	4	4	90	90	<0.2	0.6	0.6	0.6		
					Middle	3.8	0.0	10	19.0	8.5	8.5	31.3	31.3	118.6	118.6	9.1	9.1	5.8	5.8	3	3	90	90	<0.2	0.6	0.6	0.6							
						6.5	0.1	155	19.0	8																								

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

Water Quality Monitoring Results on 09 February 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	15:31	7.2	Surface	1.0	0.2	241	19.3	19.3	8.2	8.2	28.7	28.7	121.0	120.9	9.4	9.4	5.4	5.4	2	86	89	822079	808800	<0.2	0.7	<0.2	0.5							
						1.0	0.3	259	19.3	8.2	8.2	28.7	28.7	120.7	119.7	9.4	9.4	5.4	5.4	2	87	89	822079	808800	<0.2	0.5	<0.2	0.6								
						3.6	0.2	238	19.3	8.2	8.2	28.8	28.8	119.8	119.7	9.3	9.3	5.3	5.3	3	88	89	822079	808800	<0.2	0.6	<0.2	0.6								
					Middle	3.6	0.3	244	19.3	8.2	8.2	28.8	28.8	119.5	119.7	9.3	9.3	5.3	5.3	3	88	89	822079	808800	<0.2	0.6	<0.2	0.6								
						6.2	0.1	223	19.3	8.2	8.2	29.0	29.0	116.4	116.0	9.0	9.0	5.4	5.4	3	92	93	822079	808800	<0.2	0.6	<0.2	0.6								
						6.2	0.1	241	19.3	8.2	8.2	29.0	29.0	115.6	116.0	9.0	9.0	5.5	5.4	4	93	93	822079	808800	<0.2	0.6	<0.2	0.6								
					IM10	Cloudy	Moderate	15:38	8.1	Surface	1.0	0.4	299	19.3	19.3	8.2	8.2	28.9	28.9	116.8	116.7	9.1	9.1	5.2	5.2	3	84	89	822368	809793	<0.2	0.6	<0.2	0.6		
											1.0	0.4	318	19.3	8.2	8.2	28.9	28.9	116.5	113.8	9.0	9.0	5.2	5.2	4	85	89	822368	809793	<0.2	0.6	<0.2	0.6			
											4.1	0.3	296	19.3	8.2	8.2	29.0	29.0	113.9	113.8	8.8	8.8	5.2	5.2	2	89	90	822368	809793	<0.2	0.6	<0.2	0.6			
Middle	4.1	0.3	307	19.3						8.2	8.2	29.0	29.0	113.6	113.8	8.8	8.8	5.2	5.2	3	89	90	822368	809793	<0.2	0.6	<0.2	0.6								
	7.1	0.3	300	19.3						8.2	8.2	29.0	29.0	111.3	111.2	8.6	8.6	5.3	5.3	2	93	94	822368	809793	<0.2	0.6	<0.2	0.6								
	7.1	0.3	312	19.3						8.2	8.2	29.0	29.0	111.0	111.2	8.6	8.6	5.3	5.3	2	94	94	822368	809793	<0.2	0.6	<0.2	0.5								
IM11	Cloudy	Moderate	15:52	7.9						Surface	1.0	0.4	291	19.3	19.3	8.2	8.2	29.0	29.0	116.6	116.5	9.1	9.1	5.1	5.1	3	88	89	822055	811436	<0.2	0.5	<0.2	0.4		
											1.0	0.4	307	19.3	8.2	8.2	29.0	29.0	116.4	115.4	9.0	9.0	5.1	5.1	3	88	89	822055	811436	<0.2	0.4	<0.2	0.6			
											4.0	0.3	291	19.3	8.2	8.2	29.1	29.1	115.5	115.4	9.0	9.0	5.1	5.1	3	89	89	822055	811436	<0.2	0.6	<0.2	0.6			
					Middle	4.0	0.4	307	19.3	8.2	8.2	29.1	29.1	115.3	115.4	9.0	9.0	5.2	5.2	4	89	92	822055	811436	<0.2	0.6	<0.2	0.6								
						6.9	0.3	287	19.3	8.2	8.2	29.2	29.2	114.0	113.8	8.9	8.9	5.1	5.1	3	92	93	822055	811436	<0.2	0.5	<0.2	0.7								
						6.9	0.3	302	19.3	8.2	8.2	29.2	29.2	113.6	113.8	8.8	8.8	5.1	5.1	4	93	93	822055	811436	<0.2	0.6	<0.2	0.6								
					IM12	Cloudy	Moderate	16:01	9.1	Surface	1.0	0.4	269	19.3	19.3	8.2	8.2	28.9	28.9	119.5	119.3	9.3	9.3	5.1	5.1	3	87	89	821445	812050	<0.2	0.6	<0.2	0.6		
											1.0	0.4	278	19.3	8.2	8.2	28.9	28.9	119.1	119.3	9.3	9.3	5.1	5.1	3	88	89	821445	812050	<0.2	0.6	<0.2	0.6			
											4.6	0.3	277	19.3	8.2	8.2	29.2	29.2	116.6	116.6	9.1	9.1	5.9	5.9	3	89	90	821445	812050	<0.2	0.7	<0.2	0.5			
Middle	4.6	0.3	289	19.3						8.2	8.2	29.2	29.2	116.5	116.6	9.0	9.0	6.3	6.3	4	89	92	821445	812050	<0.2	0.6	<0.2	0.6								
	8.1	0.3	272	19.3						8.2	8.2	29.3	29.3	115.7	115.6	9.0	9.0	8.0	8.0	4	92	93	821445	812050	<0.2	0.5	<0.2	0.6								
	8.1	0.3	285	19.3						8.2	8.2	29.3	29.3	115.5	115.6	9.0	9.0	8.5	8.5	4	93	93	821445	812050	<0.2	0.6	<0.2	0.6								
SR1A	Cloudy	Moderate	16:35	5.2						Surface	1.0	-	-	19.3	19.3	8.1	8.1	29.2	29.2	108.2	108.1	8.4	8.4	5.2	5.2	3	-	-	819978	812654	-	-	-	-		
											1.0	-	-	19.3	19.3	8.1	8.1	29.2	29.2	108.0	108.0	8.4	8.4	5.2	5.2	4	-	-	819978	812654	-	-	-	-		
											2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819978	812654	-	-	-	-					
						4.2	-	-	19.2	19.2	8.1	8.1	29.2	29.2	106.6	106.5	8.3	8.3	5.2	5.2	3	-	-	-	-	819978	812654	-	-	-	-					
						4.2	-	-	19.2	19.2	8.1	8.1	29.2	29.2	106.3	106.3	8.3	8.3	5.3	5.3	3	-	-	-	-	819978	812654	-	-	-	-					
					SR2	Cloudy	Moderate	16:51	4.3	Surface	1.0	0.0	51	19.2	19.2	8.2	8.2	29.3	29.3	117.1	116.9	9.1	9.1	5.1	5.1	3	89	89	821462	814174	<0.2	0.5	<0.2	0.6		
											1.0	0.0	53	19.2	19.2	8.2	8.2	29.3	29.3	116.7	116.9	9.1	9.1	5.1	5.1	3	89	89	821462	814174	<0.2	0.6	<0.2	0.6		
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821462	814174	<0.2	0.6	<0.2	0.6
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821462	814174	<0.2	0.6	<0.2	0.6					
	3.3	0.0	48	19.2						19.2	8.2	8.2	29.3	29.3	113.5	113.3	8.8	8.8	11.1	11.1	4	92	92	821462	814174	<0.2	0.6	<0.2	0.6							
	3.3	0.0	52	19.2						19.2	8.2	8.2	29.3	29.3	113.1	113.3	8.8	8.8	11.7	11.7	3	92	92	821462	814174	<0.2	0.6	<0.2	0.6							
SR3	Cloudy	Rough	15:17	8.4						Surface	1.0	0.2	272	19.3	19.3	8.2	8.2	28.8	28.8	121.3	121.2	9.4	9.4	5.3	5.3	4	-	-	822148	807563	-	-	-	-		
											1.0	0.2	284	19.3	8.2	8.2	28.9	28.9	121.1	119.9	9.4	9.4	5.4	5.4	4	-	-	-	-	822148	807563	-	-	-	-	
											4.2	0.1	298	19.3	8.2	8.2	29.1	29.2	120.0	119.9	9.3	9.3	5.6	5.6	5	-	-	-	-	822148	807563	-	-	-	-	
					Middle	4.2	0.1	303	19.3	8.2	8.2	29.2	29.2	119.8	119.9	9.3	9.3	5.6	5.6	4	-	-	-	-	822148	807563	-	-	-	-						
						7.4	0.1	359	19.2	19.2	8.2	8.2	29.2	29.2	118.3	117.9	9.2	9.2	5.8	5.8	5	-	-	-	-	822148	807563	-	-	-	-					
						7.4	0.1	330	19.2	19.2	8.2	8.2	29.2	29.2	117.5	117.9	9.1	9.1	5.8	5.8	5	-	-	-	-	822148	807563	-	-	-	-					
					SR4A	Cloudy	Calm	16:22	9.0	Surface	1.0	0.1	219	18.9	18.9	8.4	8.4	31.2	31.2	114.8	114.6	8.9	8.9	3.4	3.4	3	-	-	817186	807802	-	-	-	-		
											1.0	0.1	228	18.9	18.9	8.4	8.4	31.2	31.2	114.4	114.6	8.8	8.8	3.6	3.6	3	-	-	-	-	817186	807802	-	-	-	-
											4.5	0.1	233	18.9	18.9	8.4	8.4	31.4	31.4	112.1	111.9	8.7	8.7	6.2	6.2	3	-	-	-	-	817186	807802	-	-	-	-
Middle	4.5	0.1	234	18.8						18.8	8.4	8.4	31.4	31.4	111.7	111.9	8.6	8.6	6.4	6.4	2	-	-	-	-	817186	807802	-	-	-	-					
	8.0	0.1	136	18.8						18.8	8.4	8.4	31.5	31.5	111.3	111.3	8.6	8.6	7.7	7.7	2	-	-	-	-	817186	807802	-	-	-	-					
	8.0	0.1	141	18.8						18.8	8.4	8.4	31.5	31.5	111.3	111.3	8.6	8.6	7.8	7.8	2	-	-	-	-	817186	807802	-	-	-	-					
SR5A	Cloudy	Calm	16:39	4.0						Surface	1.0	0.0	157	19.0	19.0	8.4	8.4	31.1	31.1	111.9	111.7	8.6	8.6	4.7	4.7	5	-	-	816578	810698	-	-	-	-		



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

Water Quality Monitoring

Water Quality Monitoring Results on 11 February 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	Moderate	12:46	8.3	Surface	1.0	0.2	208	18.5	18.5	8.5	8.5	30.6	30.6	111.3	111.2	8.7	8.3	2.9	3	85	88	85	88	88	88	815633	804264	<0.2	0.8	<0.2	0.8			
						1.0	0.2	213	18.5	8.5	8.5	30.6	30.6	111.0	111.2	8.7	8.3	2.9	4	86	86	86	86	<0.2	0.8	<0.2			0.8						
						4.2	0.0	200	18.3	8.4	8.4	31.7	31.8	100.3	100.2	7.8	8.1	3.4	4	88	88	88	88	<0.2	0.9	<0.2			0.9						
					4.2	0.0	204	18.3	8.4	8.4	31.8	31.8	100.0	100.2	7.8	8.1	3.5	4	89	89	89	89	<0.2	0.8	<0.2	0.8									
					7.3	0.0	165	18.2	8.4	8.4	33.1	33.1	97.8	97.9	7.6	8.1	4.7	4	91	91	91	91	<0.2	0.8	<0.2	0.8									
					7.3	0.0	170	18.2	8.4	8.4	33.1	33.1	97.9	97.9	7.6	8.1	4.6	4	91	91	91	91	<0.2	0.9	<0.2	0.9									
C2	Cloudy	Moderate	11:33	11.8	Surface	1.0	0.2	315	19.0	19.0	8.4	8.4	28.3	28.3	109.7	109.7	8.6	8.5	3.6	4	86	89	86	89	89	89	825678	806930	<0.2	0.6	<0.2	0.8			
						1.0	0.2	330	19.0	8.4	8.4	28.3	28.3	109.6	109.6	8.6	8.5	3.6	4	86	86	86	86	<0.2	0.8	<0.2			0.8						
						5.9	0.3	17	18.7	8.4	8.4	29.0	29.0	105.5	105.3	8.3	8.1	4.5	4	89	89	89	89	<0.2	0.8	<0.2			0.8						
					5.9	0.3	17	18.7	8.4	8.4	29.1	29.1	105.1	105.1	8.3	8.1	4.5	4	90	90	90	90	<0.2	0.7	<0.2	0.7									
					10.8	0.4	28	18.6	8.4	8.4	29.5	29.4	103.7	103.7	8.1	8.1	5.0	6	92	92	92	92	<0.2	0.9	<0.2	0.9									
					10.8	0.5	29	18.6	8.4	8.4	29.4	29.4	103.6	103.6	8.1	8.1	5.0	6	92	92	92	92	<0.2	0.7	<0.2	0.7									
C3	Cloudy	Moderate	13:45	11.6	Surface	1.0	0.4	79	18.7	18.7	8.3	8.3	30.1	30.1	106.8	106.8	8.3	8.2	2.9	4	86	89	86	89	89	89	822119	817825	<0.2	0.6	<0.2	0.7			
						1.0	0.4	86	18.7	8.3	8.3	30.1	30.1	106.7	106.8	8.3	8.2	2.9	4	86	86	86	86	<0.2	0.6	<0.2			0.6						
						5.8	0.3	67	18.7	8.3	8.3	30.2	30.2	104.0	103.9	8.1	8.1	9.2	4	89	89	89	89	<0.2	0.7	<0.2			0.7						
					5.8	0.4	70	18.7	8.3	8.3	30.2	30.2	103.7	103.9	8.1	8.1	9.2	3	90	90	90	90	<0.2	0.8	<0.2	0.8									
					10.6	0.3	57	18.7	8.3	8.3	30.4	30.4	103.0	103.0	8.0	8.0	3.7	3	91	91	91	91	<0.2	0.6	<0.2	0.6									
					10.6	0.3	57	18.7	8.3	8.3	30.4	30.4	102.9	102.9	8.0	8.0	3.3	3	92	92	92	92	<0.2	0.6	<0.2	0.6									
IM1	Cloudy	Moderate	12:24	5.0	Surface	1.0	0.0	112	18.4	18.4	8.4	8.4	31.5	31.5	108.7	108.3	8.5	8.5	3.9	5	86	85	86	85	85	85	817937	807115	<0.2	0.7	<0.2	0.7			
						1.0	0.0	117	18.4	8.4	8.4	31.5	31.5	107.9	107.9	8.4	8.5	3.9	5	85	85	85	85	<0.2	0.7	<0.2			0.7						
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-
					4.0	0.0	77	18.3	8.4	8.4	31.6	31.6	102.8	102.9	8.0	8.0	3.8	4	89	89	89	89	<0.2	0.7	<0.2	0.7									
					4.0	0.0	78	18.3	8.4	8.4	31.6	31.6	102.9	102.9	8.0	8.0	3.8	4	89	89	89	89	<0.2	0.7	<0.2	0.7									
					4.0	0.0	77	18.3	8.4	8.4	31.6	31.6	102.8	102.9	8.0	8.0	3.8	4	89	89	89	89	<0.2	0.7	<0.2	0.7									
IM2	Cloudy	Moderate	12:16	6.9	Surface	1.0	0.1	105	18.4	18.4	8.4	8.4	30.9	30.9	108.5	108.5	8.5	8.2	3.4	5	84	85	84	85	85	85	818182	806173	<0.2	0.8	<0.2	0.8			
						1.0	0.1	113	18.4	8.4	8.4	30.9	30.9	108.5	108.5	8.5	8.2	3.4	5	85	85	85	85	<0.2	0.8	<0.2			0.8						
						3.5	0.1	278	18.4	8.4	8.4	31.6	31.6	101.5	101.4	7.9	8.1	4.2	5	87	87	87	87	<0.2	0.8	<0.2			0.8						
					3.5	0.1	303	18.3	8.4	8.4	31.6	31.6	101.2	101.2	7.9	8.1	4.2	5	87	87	87	87	<0.2	0.8	<0.2	0.8									
					5.9	0.1	250	18.3	8.4	8.4	31.9	31.9	100.6	100.7	7.8	7.9	5.0	5	91	91	91	91	<0.2	0.9	<0.2	0.9									
					5.9	0.1	253	18.3	8.4	8.4	31.9	31.9	100.8	100.7	7.9	7.9	4.8	4	91	91	91	91	<0.2	0.8	<0.2	0.8									
IM3	Cloudy	Moderate	12:09	7.1	Surface	1.0	0.1	31	18.4	18.4	8.4	8.4	30.9	30.9	108.9	108.9	8.5	8.3	3.2	4	85	85	85	85	85	85	818794	805613	<0.2	0.8	<0.2	0.7			
						1.0	0.1	31	18.4	8.4	8.4	30.9	30.9	108.8	108.9	8.5	8.3	3.2	4	85	85	85	85	<0.2	0.7	<0.2			0.7						
						3.6	0.1	324	18.4	8.4	8.4	31.2	31.2	104.5	104.5	8.2	8.1	4.0	4	87	87	87	87	<0.2	0.6	<0.2			0.6						
					3.6	0.1	355	18.4	8.4	8.4	31.2	31.2	104.4	104.4	8.1	8.1	4.0	4	88	88	88	88	<0.2	0.6	<0.2	0.6									
					6.1	0.2	271	18.2	8.4	8.4	32.0	32.0	98.7	98.8	7.7	7.7	4.5	4	90	90	90	90	<0.2	0.7	<0.2	0.7									
					6.1	0.2	283	18.2	8.4	8.4	32.0	32.0	98.9	98.8	7.7	7.7	4.4	3	91	91	91	91	<0.2	0.8	<0.2	0.8									
IM4	Cloudy	Moderate	11:58	8.3	Surface	1.0	0.2	7	18.4	18.4	8.4	8.4	31.2	31.2	105.6	105.4	8.2	8.1	3.3	3	84	85	84	85	85	85	819730	804596	<0.2	0.8	<0.2	0.8			
						1.0	0.2	7	18.4	8.4	8.4	31.2	31.2	105.2	105.4	8.2	8.1	3.4	4	85	85	85	85	<0.2	0.8	<0.2			0.8						
						4.2	0.1	322	18.3	8.4	8.4	31.5	31.5	101.3	101.2	7.9	7.9	3.8	4	86	86	86	86	<0.2	0.8	<0.2			0.8						
					4.2	0.1	338	18.3	8.4	8.4	31.5	31.5	101.0	101.2	7.9	7.9	3.9	4	87	87	87	87	<0.2	0.8	<0.2	0.8									
					7.3	0.1	302	18.3	8.4	8.4	31.9	31.9	100.1	100.3	7.8	7.8	4.4	6	90	90	90	90	<0.2	0.8	<0.2	0.8									
					7.3	0.1	306	18.3	8.4	8.4	31.9	31.9	100.4	100.3	7.8	7.8	4.4	5	90	90	90	90	<0.2	0.8	<0.2	0.8									
IM5	Cloudy	Moderate	11:49	7.7	Surface	1.0	0.3	17	18.4	18.4	8.4	8.4	31.3	31.3	106.5	106.5	8.3	8.1	3.5	3	85	85	85	85	85	85	820744	804850	<0.2	0.8	<0.2	0.7			
						1.0	0.3	17	18.4	8.4	8.4	31.3	31.3	106.4	106.5	8.3	8.1	3.5	2	85	85	85	85	<0.2	0.8	<0.2			0.8						
						3.9	0.3	3	18.4	8.4	8.4	31.5	31.5	101.4	101.3	7.9	7.9	3.7	2	87	87	87	87	<0.2	0.7	<0.2			0.7						
					3.9	0.3	3	18.4	8.4	8.4	31.5	31.5	101.2	101.3	7.9	7.9	3.8	2	88	88	88	88	<0.2	0.8	<0.2	0.8									
					6.7	0.2	9	18.3	8.4	8.4	31.8	31.8	99.5	99.5	7.7	7.7	4.0	2	91	91	91	91	<0.2	1.2	<0.2	1.2									
					6.7	0.2	9	18.3	8.4	8.4	31.8	31.8	99.5	99.5	7.7	7.7	4.0	<2	90	90	90	90	<0.2	1.1	<0.2	1.1									
IM6	Cloudy	Moderate	11:41	7.3	Surface	1.0	0.1	281	18.7	18.7	8.4	8.4	30.3	30.3	109.0	108.9	8.5	8.3	1.4	3	84	84	84	84	84	84	821083	805816	<0.2	1.0	<0.2	1.2			
						1.0	0.1	301	18.7	8.4	8.4	30.3	30.3	108.8	108.9	8.5	8.3	1.4	3	84	84	84	84	<											

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

Water Quality Monitoring Results on 11 February 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	12:06	6.9	Surface	1.0	0.3	65	18.9	18.9	8.4	8.4	28.3	28.3	107.7	107.5	8.5	8.5	3.5	3.5	<2	85	88	822107	808830	<0.2	0.8	<0.2	0.8						
						1.0	0.3	67	18.9	8.4	8.4	28.3	28.3	107.3	107.5	8.4	8.4	3.6	3.6	<2	85	88	822107	808830	<0.2	0.8	<0.2	0.8							
						3.5	0.4	62	18.6	8.3	8.3	29.5	29.5	103.0	103.0	8.1	8.1	4.7	4.7	<2	89	88	822107	808830	<0.2	0.7	<0.2	0.7							
					Middle	3.5	0.4	66	18.6	8.3	8.3	29.5	29.5	102.9	103.0	8.1	8.1	4.7	4.7	2	2	2	91	88	822107	808830	<0.2	0.7	<0.2	0.8					
						5.9	0.2	53	18.5	8.3	8.3	29.7	29.7	101.9	101.9	8.0	8.0	4.8	4.8	2	2	2	91	88	822107	808830	<0.2	0.8	<0.2	0.8					
						5.9	0.3	55	18.5	8.3	8.3	29.7	29.7	101.8	101.8	8.0	8.0	4.9	4.9	2	2	2	91	88	822107	808830	<0.2	0.8	<0.2	0.8					
					IM10	Cloudy	Moderate	12:13	7.4	Surface	1.0	0.4	85	18.9	18.9	8.4	8.3	28.4	28.7	105.2	103.7	8.3	8.3	3.4	3.4	<2	85	89	822376	809776	<0.2	0.7	<0.2	0.7	
											1.0	0.4	90	18.8	8.3	8.3	28.9	29.1	102.2	102.2	8.0	8.0	3.2	3.2	<2	89	89	822376	809776	<0.2	0.7	<0.2	0.7		
											3.7	0.4	81	18.8	8.3	8.3	28.9	29.1	102.2	102.2	8.0	8.0	3.2	3.2	<2	89	89	822376	809776	<0.2	0.7	<0.2	0.7		
Middle	3.7	0.4	86	18.7						8.3	8.3	29.2	29.2	102.2	102.2	8.0	8.0	3.5	3.5	<2	89	89	822376	809776	<0.2	0.7	<0.2	0.7							
	6.4	0.3	80	18.6						8.3	8.3	29.4	29.4	102.3	102.3	8.0	8.0	3.5	3.5	2	2	2	95	89	822376	809776	<0.2	0.7	<0.2	0.7					
	6.4	0.4	80	18.6						8.3	8.3	29.3	29.4	102.3	102.3	8.0	8.0	3.5	3.5	2	2	2	91	89	822376	809776	<0.2	0.7	<0.2	0.7					
IM11	Cloudy	Moderate	12:26	7.8						Surface	1.0	0.2	115	18.7	18.7	8.3	8.3	29.6	29.6	105.6	105.6	8.3	8.3	3.3	3.3	<2	83	88	822047	811462	<0.2	0.6	<0.2	0.6	
											1.0	0.2	125	18.7	8.3	8.3	29.6	29.6	105.6	105.6	8.3	8.3	3.3	3.3	<2	84	88	822047	811462	<0.2	0.6	<0.2	0.6		
											3.9	0.2	105	18.7	8.3	8.3	29.6	29.6	104.9	104.9	8.2	8.2	3.3	3.3	<2	90	88	822047	811462	<0.2	0.7	<0.2	0.7		
					Middle	3.9	0.3	107	18.7	8.3	8.3	29.6	29.6	104.8	104.8	8.2	8.2	3.3	3.3	<2	91	88	822047	811462	<0.2	0.7	<0.2	0.7							
						6.8	0.2	99	18.6	8.3	8.3	29.6	29.6	103.7	103.7	8.1	8.1	3.2	3.2	2	2	2	91	88	822047	811462	<0.2	0.8	<0.2	0.8					
						6.8	0.2	104	18.6	8.3	8.3	29.6	29.6	103.7	103.7	8.1	8.1	3.2	3.2	2	2	2	91	88	822047	811462	<0.2	0.7	<0.2	0.7					
					IM12	Cloudy	Moderate	12:32	8.4	Surface	1.0	0.2	121	18.7	18.7	8.3	8.3	29.6	29.6	106.8	106.8	8.4	8.4	3.3	3.3	<2	85	88	821445	812039	<0.2	0.8	<0.2	0.9	
											1.0	0.2	124	18.7	8.3	8.3	29.6	29.6	106.7	106.7	8.4	8.4	3.3	3.3	<2	85	88	821445	812039	<0.2	0.9	<0.2	0.9		
											4.2	0.2	111	18.7	8.3	8.3	29.6	29.6	104.7	104.7	8.2	8.2	3.2	3.2	<2	86	88	821445	812039	<0.2	0.8	<0.2	0.8		
Middle	4.2	0.2	117	18.7						8.3	8.3	29.6	29.6	104.7	104.7	8.2	8.2	3.2	3.2	<2	89	88	821445	812039	<0.2	0.9	<0.2	0.8							
	7.4	0.2	104	18.7						8.3	8.3	29.6	29.6	103.9	103.8	8.1	8.1	3.1	3.1	<2	92	88	821445	812039	<0.2	0.8	<0.2	0.8							
	7.4	0.2	108	18.7						8.3	8.3	29.6	29.6	103.7	103.7	8.1	8.1	3.2	3.2	<2	92	88	821445	812039	<0.2	0.7	<0.2	0.7							
SR1A	Cloudy	Moderate	13:08	5.1						Surface	1.0	-	-	18.6	18.6	8.3	8.3	29.3	29.3	99.0	99.0	7.8	7.8	3.3	3.3	4	-	-	819972	812656	-	-	-	-	
											1.0	-	-	18.6	18.6	8.3	8.3	29.3	29.3	99.0	99.0	7.8	7.8	3.3	3.3	4	-	-	819972	812656	-	-	-	-	
											2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819972	812656	-	-	-
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819972	812656	-	-	-	-				
						4.1	-	-	18.6	18.6	8.3	8.3	29.4	29.4	99.3	99.3	7.8	7.8	9.5	9.5	4	-	-	-	-	819972	812656	-	-	-	-				
						4.1	-	-	18.6	18.6	8.3	8.3	29.4	29.4	99.3	99.3	7.8	7.8	9.8	9.8	4	-	-	-	-	819972	812656	-	-	-	-				
					SR2	Cloudy	Moderate	13:24	4.3	Surface	1.0	0.2	86	18.7	18.7	8.3	8.3	29.7	29.7	105.3	105.2	8.2	8.2	3.6	3.6	3	89	91	821455	814153	<0.2	0.7	<0.2	0.7	
											1.0	0.2	94	18.7	8.3	8.3	29.7	29.7	105.1	105.2	8.2	8.2	3.6	3.6	2	89	91	821455	814153	<0.2	0.7	<0.2	0.7		
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821455	814153	<0.2	0.8	<0.2
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821455	814153	<0.2	0.8	<0.2	0.8				
	3.3	0.2	88	18.7						8.3	8.3	29.7	29.7	104.2	104.2	8.2	8.2	3.7	3.7	3	92	91	821455	814153	<0.2	0.8	<0.2	0.8							
	3.3	0.2	93	18.7						8.3	8.3	29.7	29.7	104.2	104.2	8.2	8.2	3.7	3.7	4	92	91	821455	814153	<0.2	0.8	<0.2	0.8							
SR3	Cloudy	Moderate	11:54	8.6						Surface	1.0	0.3	146	18.9	18.9	8.4	8.4	28.2	28.3	110.3	110.1	8.7	8.7	3.7	3.7	4	-	-	822129	807589	-	-	-	-	
											1.0	0.4	158	18.9	8.4	8.4	28.4	28.4	109.9	109.9	8.6	8.6	4.1	4.1	5	-	-	-	-	822129	807589	-	-	-	-
											4.3	0.3	112	18.7	8.3	8.3	29.3	29.3	103.9	103.8	8.2	8.2	5.3	5.3	3	-	-	-	-	822129	807589	-	-	-	-
					Middle	4.3	0.3	123	18.6	8.3	8.3	29.4	29.3	103.6	103.8	8.1	8.1	5.5	5.5	2	-	-	-	-	822129	807589	-	-	-	-					
						7.6	0.4	86	18.6	8.3	8.3	29.4	29.4	103.2	103.2	8.1	8.1	5.9	5.9	2	-	-	-	-	822129	807589	-	-	-	-					
						7.6	0.4	92	18.6	8.3	8.3	29.3	29.4	103.2	103.2	8.1	8.1	6.0	6.0	2	-	-	-	-	822129	807589	-	-	-	-					
					SR4A	Cloudy	Calm	13:09	9.1	Surface	1.0	0.3	82	18.5	18.5	8.5	8.5	30.9	30.9	112.6	112.5	8.8	8.8	3.4	3.4	6	-	-	817192	807798	-	-	-	-	
											1.0	0.3	85	18.4	8.5	8.5	31.0	30.9	112.4	112.4	8.8	8.8	3.4	3.4	6	-	-	-	-	817192	807798	-	-	-	-
											4.6	0.2	75	18.4	8.4	8.4	31.4	31.4	105.2	105.2	8.2	8.2	3.9	3.9	5	-	-	-	-	817192	807798	-	-	-	-
Middle	4.6	0.2	76	18.4						8.4	8.4	31.4	31.4	105.1	105.2	8.2	8.2	3.9	3.9	5	-	-	-	-	817192	807798	-	-	-	-					
	8.1	0.2	75	18.3						8.5	8.5	31.5	31.5	104.5	104.6	8.1	8.1	3.8	3.8	4	-	-	-	-	817192	807798	-	-	-	-					
	8.1	0.2	78	18.4						8.5	8.5	31.4	31.5	104.6	104.6	8.2	8.2	3.7	3.7	4	-	-	-	-	817192	807798	-	-	-	-					
SR5A	Cloudy	Calm	13:26	3.4						Surface	1.0	0.0	232	18.4	18.4	8.4	8.4	31.2	31.2	97.9	98.0	7.6	7.6	2.1	2.1	3	-	-	816597	810687	-	-	-</		

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

Water Quality Monitoring

Water Quality Monitoring Results on 11 February 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)						
								Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA			
C1	Cloudy	Moderate	08:26	7.8	Surface	1.0	0.4	39	18.4	18.4	8.5	8.5	30.4	30.4	104.9	104.9	8.2	8.2	4.3	4.3	3	3	85	85	815639	804229	<0.2	0.9	<0.2	0.9				
						1.0	0.4	39	18.4	8.5	8.5	30.4	30.4	104.8	104.8	8.2	8.1	4.3	4.5	3	3	85	85	<0.2			0.9	<0.2	0.9					
					Middle	3.9	0.4	31	18.4	8.4	8.4	30.9	30.9	102.7	102.7	8.0	8.0	3.9	4.0	4	4	88	88	<0.2			0.9	<0.2	0.9					
						3.9	0.4	33	18.4	8.4	8.4	30.9	30.9	102.7	102.7	8.0	8.0	4.0	4.0	4	4	88	88	<0.2			0.8	<0.2	0.8					
					Bottom	6.8	0.3	26	18.3	8.5	8.5	31.5	31.5	100.8	100.8	7.9	7.9	5.5	5.5	5	5	91	91	<0.2			0.9	<0.2	0.9					
						6.8	0.3	27	18.3	8.5	8.5	31.5	31.5	100.8	100.8	7.9	7.9	5.2	4.4	4	4	91	91	<0.2			0.9	<0.2	0.9					
C2	Cloudy	Moderate	09:39	11.8	Surface	1.0	0.3	352	19.0	19.0	8.4	8.4	27.9	27.9	109.3	109.2	8.6	8.6	3.7	3.7	3	3	85	85	825673	806933	<0.2	0.8	<0.2	0.9				
						1.0	0.4	324	19.0	8.4	8.4	27.9	27.9	109.0	109.0	8.6	8.5	3.8	3.8	3	3	86	86	<0.2			0.9	<0.2	1.1					
					Middle	5.9	0.5	16	18.9	8.4	8.4	28.5	28.5	106.3	106.3	8.3	8.3	5.6	5.6	2	2	88	88	<0.2			1.1	<0.2	1.1					
						5.9	0.5	16	18.9	8.4	8.4	28.5	28.5	106.2	106.2	8.3	8.3	5.8	5.8	3	3	89	89	<0.2			1.1	<0.2	1.1					
					Bottom	10.8	0.3	9	18.9	8.4	8.4	28.6	28.6	105.9	105.9	8.3	8.3	6.0	6.0	3	3	91	91	<0.2			1.1	<0.2	1.1					
						10.8	0.3	9	18.9	8.4	8.4	28.6	28.6	105.8	105.8	8.3	8.3	6.0	6.0	2	2	92	92	<0.2			1.1	<0.2	1.1					
C3	Cloudy	Moderate	07:16	11.9	Surface	1.0	0.6	288	18.7	18.7	8.3	8.3	29.9	29.9	102.7	102.7	8.0	8.0	4.4	4.4	2	2	86	86	822107	817817	<0.2	1.1	<0.2	1.1				
						1.0	0.6	291	18.7	8.3	8.3	29.9	29.9	102.6	102.6	8.0	8.0	4.4	4.4	2	2	86	86	<0.2			1.0	<0.2	1.0					
					Middle	6.0	0.5	286	18.7	8.3	8.3	30.1	30.1	101.9	101.9	8.0	8.0	5.5	5.5	3	3	90	90	<0.2			1.1	<0.2	1.1					
						6.0	0.5	295	18.7	8.3	8.3	30.1	30.1	101.8	101.8	8.0	8.0	5.6	5.6	4	4	89	89	<0.2			1.0	<0.2	1.0					
					Bottom	10.9	0.3	289	18.6	8.3	8.3	30.1	30.1	101.0	101.0	7.9	7.9	5.3	5.3	4	4	91	91	<0.2			1.0	<0.2	1.0					
						10.9	0.3	296	18.6	8.3	8.3	30.1	30.1	100.9	100.9	7.9	7.9	5.5	5.5	4	4	92	92	<0.2			1.1	<0.2	1.1					
IM1	Cloudy	Moderate	08:46	4.7	Surface	1.0	0.1	5	18.3	18.3	8.4	8.4	31.4	31.4	101.4	101.3	7.9	7.9	5.2	5.2	7	7	85	85	817940	807136	<0.2	1.1	<0.2	1.1				
						1.0	0.1	5	18.3	8.4	8.4	31.4	31.4	101.1	101.1	7.9	7.9	5.1	5.1	8	8	86	86	<0.2			1.1	<0.2	1.1					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-
					Bottom	3.7	0.1	356	18.2	8.4	8.4	31.9	31.9	98.2	98.2	7.7	7.7	2.7	2.7	7	7	89	89	<0.2			1.0	<0.2	1.0					
						3.7	0.1	328	18.2	8.4	8.4	31.9	31.9	98.2	98.2	7.7	7.7	2.8	2.8	7	7	90	90	<0.2			0.9	<0.2	0.9					
IM2	Cloudy	Moderate	08:55	6.7	Surface	1.0	0.3	12	18.4	18.4	8.4	8.4	31.3	31.3	102.4	102.3	8.0	8.0	4.9	4.9	7	7	84	84	818144	806145	<0.2	1.0	<0.2	0.9				
						1.0	0.3	12	18.4	8.4	8.4	31.3	31.3	102.2	102.2	8.0	8.0	5.0	5.0	6	6	85	85	<0.2			0.9	<0.2	0.9					
					Middle	3.4	0.3	359	18.4	8.4	8.4	31.5	31.5	100.2	100.2	7.8	7.8	5.5	5.5	7	7	86	86	<0.2			0.9	<0.2	0.9					
						3.4	0.3	330	18.4	8.4	8.4	31.5	31.5	100.1	100.1	7.8	7.8	5.5	5.5	8	8	87	87	<0.2			0.9	<0.2	0.9					
					Bottom	5.7	0.2	327	18.2	8.4	8.4	32.1	32.1	98.3	98.3	7.6	7.6	5.9	5.9	9	9	90	90	<0.2			0.9	<0.2	0.9					
						5.7	0.2	333	18.2	8.4	8.4	32.2	32.1	98.2	98.2	7.6	7.6	6.0	6.0	10	10	91	91	<0.2			0.9	<0.2	0.9					
IM3	Cloudy	Moderate	09:03	7.0	Surface	1.0	0.3	358	18.5	18.5	8.4	8.4	31.2	31.2	102.8	102.7	8.0	8.0	5.2	5.2	7	7	84	84	818786	805580	<0.2	0.9	<0.2	0.8				
						1.0	0.4	329	18.5	8.4	8.4	31.2	31.2	102.6	102.6	8.1	8.1	5.2	5.2	7	7	85	85	<0.2			0.8	<0.2	0.8					
					Middle	3.5	0.3	337	18.4	8.4	8.4	31.5	31.5	100.5	100.5	7.8	7.8	5.8	5.8	7	7	87	87	<0.2			0.8	<0.2	0.7					
						3.5	0.3	348	18.4	8.4	8.4	31.5	31.5	100.5	100.5	7.8	7.8	5.9	5.9	8	8	87	87	<0.2			0.8	<0.2	0.7					
					Bottom	6.0	0.3	317	18.2	8.4	8.4	32.2	32.2	98.5	98.5	7.7	7.7	5.6	5.6	7	7	90	90	<0.2			0.7	<0.2	0.7					
						6.0	0.3	342	18.2	8.4	8.4	32.2	32.2	98.4	98.4	7.7	7.7	5.5	5.5	8	8	90	90	<0.2			0.8	<0.2	0.8					
IM4	Cloudy	Moderate	09:13	8.2	Surface	1.0	0.5	356	18.5	18.5	8.4	8.4	31.0	31.0	103.6	103.6	8.1	8.1	4.2	4.2	9	9	84	84	819716	804609	<0.2	0.9	<0.2	0.9				
						1.0	0.5	328	18.5	8.4	8.4	31.0	31.0	103.5	103.5	8.1	8.1	4.3	4.3	10	10	84	84	<0.2			0.9	<0.2	0.9					
					Middle	4.1	0.4	0	18.5	8.4	8.4	31.2	31.2	102.2	102.2	8.0	8.0	4.6	4.6	9	9	88	88	<0.2			0.9	<0.2	0.9					
						4.1	0.4	0	18.5	8.4	8.4	31.2	31.2	102.2	102.2	8.0	8.0	4.7	4.7	8	8	88	88	<0.2			1.0	<0.2	1.0					
					Bottom	7.2	0.4	3	18.4	8.4	8.4	31.3	31.3	101.2	101.2	7.9	7.9	5.6	5.6	9	9	91	91	<0.2			0.9	<0.2	0.8					
						7.2	0.5	3	18.4	8.4	8.4	31.3	31.3	101.2	101.2	7.9	7.9	5.5	5.5	8	8	91	91	<0.2			0.8	<0.2	0.8					
IM5	Cloudy	Moderate	09:22	7.4	Surface	1.0	0.7	9	18.5	18.5	8.4	8.4	31.0	31.0	102.6	102.6	8.0	8.0	3.9	3.9	7	7	84	84	820721	804846	<0.2	0.9	<0.2	0.9				
						1.0	0.8	9	18.5	8.4	8.4	31.0	31.0	102.5	102.5	8.0	8.0	4.0	4.0	7	7	84	84	<0.2			0.9	<0.2	0.9					
					Middle	3.7	0.7	12	18.4	8.4	8.4	31.5	31.5	100.3	100.3	7.8	7.8	4.5	4.5	7	7	86	86	<0.2			0.9	<0.2	0.9					
						3.7	0.7	12	18.4	8.4	8.4	31.5	31.5	100.2	100.2	7.8	7.8	4.6	4.6	8	8	86	86	<0.2			1.0	<0.2	1.0					
					Bottom	6.4	0.5	17	18.3	8.5	8.5	31.7	31.7	99.0	99.0	7.7	7.7	5.2	5.2	8	8	90	90	<0.2			0.8	<0.2	0.8					
						6.4	0.6	18	18.3	8.5	8.5	31.7	31.7	99.0	99.0	7.7	7.7	5.1	5.1	9	9	90	90	<0.2			0.9	<0.2	0.9					
IM6	Cloudy	Moderate	09:30	7.3	Surface	1.0	0.1	23	18.7	18.7	8.4	8.4	30.1	30.2	107.6	107.5	8.4	8.4	1.6	1.6	5	5	84	84	821073	805847	<0.2	1.0	<0.2	1.0				
						1.0	0.1	25	18.6	8.4	8.4	30.2	30.2	107.3	107.3	8.4	8.2	1.7	1.7	6	6	84	84	<0.2			1.0	<0.2	1.0					
					Middle	3.7	0.1	43	18.5	8.4	8.4	30.8	30.8	1																				

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

Water Quality Monitoring Results on 11 February 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	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA		
IM9	Cloudy	Moderate	08:59	6.9	Surface	1.0	0.2	72	18.8	18.8	8.4	8.4	28.3	28.3	106.6	106.4	8.4	8.4	3.7	4	85	89	89	89	822098	808805	<0.2	0.8	<0.2	0.8				
						1.0	0.3	78	18.8	8.4	8.4	28.3	28.3	106.2	106.4	8.4	8.4	3.9	4	86	86	89	89	89	89	89	89	<0.2	0.8	<0.2	0.8			
					Middle	3.5	0.2	67	18.8	8.3	8.3	28.6	28.6	103.7	103.7	8.2	8.2	4.8	4	89	89	89	89	89	89	89	89	<0.2	0.8	<0.2	0.8			
						3.5	0.2	72	18.8	8.3	8.3	28.6	28.6	103.7	103.7	8.2	8.2	4.8	4	89	89	89	89	89	89	89	89	<0.2	0.8	<0.2	0.8			
					Bottom	5.9	0.1	87	18.7	8.3	8.3	28.8	28.8	103.3	103.3	8.1	8.1	3.5	6	92	92	93	93	93	93	93	93	93	93	<0.2	0.8	<0.2	0.8	
						5.9	0.1	89	18.7	8.3	8.3	28.8	28.8	103.2	103.2	8.1	8.1	3.5	6	93	93	93	93	93	93	93	93	93	93	<0.2	0.8	<0.2	0.8	
IM10	Cloudy	Moderate	08:52	7.0	Surface	1.0	0.5	335	18.7	18.7	8.3	8.3	29.2	29.2	102.5	102.5	8.0	8.0	3.8	6	86	86	89	89	89	89	822361	809777	<0.2	0.8	<0.2	0.8		
						1.0	0.5	338	18.7	8.3	8.3	29.2	29.2	102.5	102.5	8.0	8.0	3.8	6	87	87	89	89	89	89	89	89	<0.2	0.8	<0.2	0.8			
					Middle	3.5	0.4	331	18.7	8.3	8.3	29.3	29.3	102.2	102.2	8.0	8.0	4.1	5	89	89	89	89	89	89	89	89	<0.2	0.8	<0.2	0.8			
						3.5	0.4	331	18.7	8.3	8.3	29.3	29.3	102.2	102.2	8.0	8.0	4.2	6	89	89	89	89	89	89	89	89	<0.2	0.8	<0.2	0.8			
					Bottom	6.0	0.3	327	18.6	8.3	8.3	29.4	29.4	102.1	102.1	8.0	8.0	4.2	5	91	91	92	92	92	92	92	92	92	92	<0.2	0.8	<0.2	0.8	
						6.0	0.4	332	18.6	8.3	8.3	29.4	29.4	102.2	102.2	8.0	8.0	4.3	5	92	92	92	92	92	92	92	92	92	92	<0.2	0.8	<0.2	0.8	
IM11	Cloudy	Moderate	08:42	7.6	Surface	1.0	0.5	314	18.6	18.6	8.3	8.3	29.6	29.6	103.9	103.9	8.1	8.1	4.0	5	86	86	89	89	89	89	822076	811457	<0.2	0.8	<0.2	0.8		
						1.0	0.5	333	18.6	8.3	8.3	29.6	29.6	103.8	103.8	8.1	8.1	4.0	4	86	86	89	89	89	89	89	89	<0.2	0.8	<0.2	0.8			
					Middle	3.8	0.4	318	18.6	8.3	8.3	29.6	29.6	103.4	103.4	8.1	8.1	4.5	4	89	89	89	89	89	89	89	89	<0.2	0.8	<0.2	0.8			
						3.8	0.4	343	18.6	8.3	8.3	29.6	29.6	103.4	103.4	8.1	8.1	4.6	4	89	89	89	89	89	89	89	89	<0.2	0.8	<0.2	0.8			
					Bottom	6.6	0.4	318	18.6	8.3	8.3	29.6	29.6	103.3	103.3	8.1	8.1	5.2	4	90	90	90	90	90	90	90	90	90	90	<0.2	0.8	<0.2	0.8	
						6.6	0.4	345	18.5	8.3	8.3	29.6	29.6	103.3	103.3	8.1	8.1	5.2	4	90	90	90	90	90	90	90	90	90	90	<0.2	0.8	<0.2	0.8	
IM12	Cloudy	Moderate	08:36	8.7	Surface	1.0	0.4	282	18.6	18.6	8.3	8.3	29.6	29.6	103.5	103.5	8.1	8.1	5.1	4	85	85	89	89	89	89	821477	812054	<0.2	0.8	<0.2	0.8		
						1.0	0.5	284	18.6	8.3	8.3	29.6	29.6	103.5	103.5	8.1	8.1	5.2	4	86	86	89	89	89	89	89	89	<0.2	0.8	<0.2	0.8			
					Middle	4.4	0.5	274	18.6	8.3	8.3	29.6	29.6	103.3	103.3	8.1	8.1	6.9	3	89	89	89	89	89	89	89	89	<0.2	0.8	<0.2	0.8			
						4.4	0.5	277	18.6	8.3	8.3	29.6	29.6	103.3	103.3	8.1	8.1	7.0	3	90	90	90	90	90	90	90	90	<0.2	0.8	<0.2	0.8			
					Bottom	7.7	0.4	279	18.6	8.3	8.3	29.7	29.7	103.1	103.1	8.1	8.1	9.1	<2	92	92	93	93	93	93	93	93	93	93	<0.2	0.8	<0.2	0.8	
						7.7	0.4	291	18.6	8.3	8.3	29.7	29.7	103.1	103.1	8.1	8.1	8.9	3	93	93	93	93	93	93	93	93	93	93	<0.2	0.8	<0.2	0.8	
SR1A	Cloudy	Moderate	07:59	4.9	Surface	1.0	-	-	18.6	18.6	8.3	8.3	29.3	29.3	97.2	97.1	7.6	7.6	3.1	4	-	-	-	-	-	-	819975	812660	-	-	-	-		
						1.0	-	-	18.6	18.6	8.3	8.3	29.3	29.3	97.0	97.0	7.6	7.6	3.1	4	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	3.9	-	-	18.6	18.6	8.3	8.3	29.3	29.3	96.3	96.2	7.6	7.6	3.1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						3.9	-	-	18.6	18.6	8.3	8.3	29.3	29.3	96.1	96.1	7.6	7.6	3.2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SR2	Cloudy	Moderate	07:38	4.0	Surface	1.0	0.2	114	18.6	18.6	8.3	8.3	29.6	29.6	101.9	101.9	8.0	8.0	6.3	4	88	88	89	89	89	89	821470	814149	<0.2	0.9	<0.2	1.0		
						1.0	0.2	120	18.6	8.3	8.3	29.6	29.6	101.8	101.8	8.0	8.0	6.6	4	89	89	89	89	89	89	89	89	<0.2	0.9	<0.2	1.0			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	3.0	0.1	105	18.6	8.3	8.3	29.6	29.6	101.3	101.3	8.0	8.0	6.5	6	90	90	90	90	90	90	90	90	90	90	<0.2	0.9	<0.2	0.9	
						3.0	0.1	106	18.5	8.3	8.3	29.6	29.6	101.2	101.2	8.0	8.0	6.2	5	91	91	91	91	91	91	91	91	91	91	<0.2	0.9	<0.2	0.9	
SR3	Cloudy	Moderate	09:17	8.4	Surface	1.0	0.1	48	19.0	19.0	8.4	8.4	28.0	28.0	106.8	106.7	8.4	8.4	3.6	4	-	-	-	-	-	-	-	-	-	-	-			
						1.0	0.1	52	19.0	8.4	8.4	28.0	28.0	106.6	106.6	8.4	8.4	3.5	4	-	-	-	-	-	-	-	-	-	-	-	-	-		
					Middle	4.2	0.1	45	18.9	8.4	8.4	28.1	28.1	104.8	104.8	8.2	8.2	4.0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						4.2	0.2	46	18.9	8.4	8.4	28.1	28.1	104.8	104.8	8.2	8.2	4.0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Bottom	7.4	0.1	51	18.9	8.4	8.4	28.2	28.2	104.5	104.5	8.2	8.2	4.1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						7.4	0.1	54	18.9	8.4	8.4	28.2	28.2	104.5	104.5	8.2	8.2	4.1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SR4A	Cloudy	Calm	08:01	8.8	Surface	1.0	0.2	70	18.3	18.3	8.4	8.4	31.1	31.1	94.1	94.1	7.4	7.4	1.4	5	-	-	-	-	-	-	-	-	-	-				
						1.0	0.2	74	18.3	8.4	8.4	31.1	31.1	94.1	94.1	7.4	7.4	1.4	4	-	-	-	-	-	-	-	-	-	-	-	-			
					Middle	4.4	0.3	64	18.1	8.4	8.4	32.2	32.2	95.9	95.9	7.5	7.5	2.6	4	-	-	-	-	-	-	-	-	-	-	-	-	-		
						4.4	0.4	67	18.1	8.4	8.4	32.2	32.2	95.9	95.9	7.5	7.5	2.6	4	-	-	-	-	-	-	-	-	-	-	-	-			
					Bottom	7.8	0.3	63	18.1	8.4	8.4	32.3	32.3	95.4	95.4	7.4	7.4	2.5	3	-	-	-	-	-										

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

Water Quality Monitoring Results on 13 February 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	Cloudy	Moderate	13:50	8.6	Surface	1.0	0.2	243	16.5	16.5	8.2	8.2	30.7	30.7	120.5	120.3	9.8	9.8	1.2	1.2	<2	<2	88	90	815626	804261	<0.2	0.9	<0.2	0.9				
						1.0	0.2	251	16.4	16.4	8.2	8.2	30.7	30.7	120.1	118.0	9.8	9.8	1.3	1.3	<2	<2	87	89	815626	804261	<0.2	0.9	<0.2	0.9				
						4.3	0.2	230	16.4	16.4	8.2	8.2	31.0	31.1	118.1	118.0	9.6	9.6	4.6	4.8	<2	<2	89	92	815626	804261	<0.2	1.0	<0.2	0.9				
					Middle	4.3	0.2	251	16.3	16.3	8.2	8.2	31.1	31.1	117.9	118.0	9.6	9.6	4.8	4.8	<2	<2	89	92	815626	804261	<0.2	0.9	<0.2	0.9				
						7.6	0.2	239	16.2	16.2	8.2	8.2	31.8	31.8	112.0	111.9	9.1	9.1	5.7	5.7	<2	<2	92	93	815626	804261	<0.2	0.9	<0.2	0.9				
						7.6	0.2	249	16.2	16.2	8.2	8.2	31.8	31.8	111.8	111.9	9.1	9.1	5.7	5.7	<2	<2	93	93	815626	804261	<0.2	0.9	<0.2	0.9				
C2	Cloudy	Moderate	12:45	12.3	Surface	1.0	3.1	317	19.3	19.3	8.4	8.4	28.1	28.1	109.9	109.9	8.6	8.6	0.8	0.8	3	3	85	87	825678	806932	<0.2	1.0	<0.2	0.9				
						1.0	3.2	325	19.3	19.3	8.4	8.4	28.1	28.1	109.8	105.5	8.6	8.6	0.8	0.8	4	4	85	86	825678	806932	<0.2	0.9	<0.2	0.9				
						6.2	3.1	329	19.1	19.1	8.4	8.4	28.6	28.6	105.7	105.5	8.3	8.3	1.7	1.7	3	3	86	87	825678	806932	<0.2	1.0	<0.2	0.9				
					Middle	6.2	3.2	331	19.1	19.1	8.4	8.4	28.7	28.7	105.3	103.9	8.2	8.2	1.7	1.7	3	3	87	90	825678	806932	<0.2	0.9	<0.2	0.9				
						11.3	3.2	333	19.0	19.0	8.4	8.4	29.2	29.2	103.9	103.9	8.1	8.1	2.2	2.2	3	3	90	90	825678	806932	<0.2	0.9	<0.2	0.9				
						11.3	3.4	335	19.0	19.0	8.4	8.4	29.2	29.2	103.8	103.9	8.1	8.1	2.2	2.2	3	3	90	90	825678	806932	<0.2	0.9	<0.2	0.9				
C3	Cloudy	Moderate	14:57	12.0	Surface	1.0	0.3	88	18.8	18.8	8.3	8.3	30.2	30.2	107.0	107.0	8.3	8.3	0.1	0.1	4	4	90	90	822121	817790	<0.2	0.9	<0.2	0.8				
						1.0	0.3	96	18.8	18.8	8.3	8.3	30.2	30.2	106.9	104.1	8.3	8.3	0.1	0.1	4	4	90	89	822121	817790	<0.2	0.9	<0.2	0.9				
						6.0	0.3	73	18.7	18.7	8.3	8.3	30.4	30.4	104.2	104.1	8.1	8.1	6.5	6.5	3	3	89	90	822121	817790	<0.2	1.0	<0.2	0.9				
					Middle	6.0	0.3	73	18.7	18.7	8.3	8.3	30.4	30.4	103.9	103.2	8.1	8.1	6.5	6.5	3	3	90	93	822121	817790	<0.2	0.9	<0.2	0.9				
						11.0	0.2	77	19.0	19.0	8.3	8.3	29.8	29.8	103.2	103.2	8.0	8.0	0.5	0.5	3	3	93	93	822121	817790	<0.2	0.9	<0.2	1.0				
						11.0	0.3	77	19.0	19.0	8.3	8.3	29.8	29.8	103.1	103.2	8.0	8.0	0.5	0.5	3	3	93	93	822121	817790	<0.2	0.9	<0.2	1.0				
IM1	Cloudy	Moderate	13:30	5.6	Surface	1.0	0.1	200	16.6	16.6	8.2	8.2	30.1	30.1	117.8	117.6	9.6	9.6	1.6	1.7	<2	<2	86	86	817946	807111	<0.2	0.9	<0.2	1.0				
						1.0	0.2	206	16.6	16.6	8.2	8.2	30.1	30.1	117.4	117.4	9.6	9.6	1.7	1.7	<2	<2	86	-	817946	807111	<0.2	0.9	<0.2	1.0				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						4.6	0.1	205	16.6	16.6	8.2	8.2	30.2	30.2	111.3	111.2	9.1	9.1	2.6	2.5	<2	<2	91	92	817946	807111	<0.2	0.8	<0.2	0.9				
						4.6	0.1	225	16.6	16.6	8.2	8.2	30.2	30.2	111.1	111.2	9.0	9.0	2.5	2.5	<2	<2	92	92	817946	807111	<0.2	0.9	<0.2	0.9				
IM2	Cloudy	Moderate	13:23	7.1	Surface	1.0	0.2	192	16.6	16.6	8.2	8.2	30.3	30.3	118.6	118.5	9.6	9.6	1.9	2.0	<2	<2	87	87	818142	806155	<0.2	0.9	<0.2	0.9				
						1.0	0.2	207	16.6	16.6	8.2	8.2	30.4	30.3	118.4	116.1	9.6	9.6	2.0	2.0	<2	<2	87	91	818142	806155	<0.2	1.0	<0.2	0.9				
						3.6	0.2	189	16.5	16.5	8.2	8.2	30.5	30.6	116.4	116.1	9.5	9.5	3.4	3.7	<2	<2	91	91	818142	806155	<0.2	0.9	<0.2	1.0				
					Middle	3.6	0.2	195	16.5	16.5	8.2	8.2	30.6	30.6	115.8	111.1	9.4	9.1	3.7	3.8	<2	<2	91	92	818142	806155	<0.2	0.9	<0.2	1.0				
						6.1	0.2	176	16.4	16.4	8.2	8.2	30.8	30.8	111.2	111.1	9.1	9.1	3.8	3.5	<2	<2	92	92	818142	806155	<0.2	1.0	<0.2	1.0				
						6.1	0.2	178	16.5	16.5	8.2	8.2	30.7	30.8	110.9	111.1	9.0	9.1	3.5	3.5	<2	<2	92	92	818142	806155	<0.2	1.0	<0.2	1.0				
IM3	Cloudy	Moderate	13:16	8.0	Surface	1.0	0.3	166	16.6	16.6	8.2	8.2	30.2	30.2	119.7	119.5	9.7	9.7	1.9	2.0	<2	<2	85	86	818801	805570	<0.2	0.8	<0.2	0.9				
						1.0	0.3	174	16.6	16.6	8.2	8.2	30.3	30.2	119.2	117.6	9.7	9.6	2.0	2.0	<2	<2	86	89	818801	805570	<0.2	0.9	<0.2	0.9				
						4.0	0.2	160	16.5	16.5	8.2	8.2	30.6	30.6	117.8	117.6	9.6	9.6	4.4	4.6	3	3	89	89	818801	805570	<0.2	0.9	<0.2	0.9				
					Middle	4.0	0.3	165	16.5	16.5	8.2	8.2	30.6	30.6	117.4	115.9	9.5	9.5	4.6	5.9	2	3	89	90	818801	805570	<0.2	0.9	<0.2	0.9				
						7.0	0.2	153	16.4	16.4	8.2	8.2	30.7	30.7	116.3	115.9	9.5	9.5	5.9	5.6	3	3	90	90	818801	805570	<0.2	0.8	<0.2	0.9				
						7.0	0.2	164	16.4	16.4	8.2	8.2	30.7	30.7	115.5	115.9	9.4	9.5	5.6	5.6	3	3	90	90	818801	805570	<0.2	0.9	<0.2	0.9				
IM4	Cloudy	Moderate	13:06	7.7	Surface	1.0	0.6	194	16.7	16.7	8.2	8.2	29.7	29.7	120.2	120.2	9.8	9.8	2.0	2.3	<2	<2	87	87	819725	804605	<0.2	1.0	<0.2	1.0				
						1.0	0.6	205	16.7	16.7	8.2	8.2	29.8	29.7	120.1	118.7	9.8	9.7	2.3	6.0	<2	<2	87	88	819725	804605	<0.2	1.0	<0.2	1.0				
						3.9	0.5	187	16.7	16.7	8.2	8.2	29.9	30.0	118.9	118.7	9.7	9.6	6.0	6.0	<2	<2	88	89	819725	804605	<0.2	1.0	<0.2	1.0				
					Middle	3.9	0.5	191	16.6	16.6	8.2	8.2	30.1	30.0	118.4	118.7	9.6	9.6	6.0	6.6	<2	<2	89	92	819725	804605	<0.2	1.0	<0.2	1.1				
						6.7	0.4	198	16.5	16.5	8.2	8.2	30.5	30.5	116.7	116.6	9.5	9.5	6.6	6.6	2	2	92	92	819725	804605	<0.2	1.1	<0.2	1.0				
						6.7	0.4	208	16.5	16.5	8.2	8.2	30.5	30.5	116.5	116.6	9.5	9.5	6.6	6.6	2	2	92	92	819725	804605	<0.2	1.0	<0.2	1.0				
IM5	Cloudy	Moderate	13:00	7.4	Surface	1.0	0.6	205	16.8	16.8	8.3	8.3	29.7	29.7	121.9	121.8	9.9	9.9	2.1	2.2	<2	<2	88	89	820730	804887	<0.2	0.9	<0.2	1.0				
						1.0	0.6	213	16.7	16.7	8.3	8.3	29.7	29.7	121.7	120.6	9.9	9.9	2.2	5.5	<2	<2	89	90	820730	804887	<0.2	1.0	<0.2	1.0				
						3.7	0.6	200	16.7	16.7	8.2	8.2	30.0	30.0	120.7	120.4	9.8	9.8	5.2	5.5	<2	<2	90	91	820730	804887	<0.2	1.0	<0.2					

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

Water Quality Monitoring Results on 13 February 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	13:18	7.6	Surface	1.0	1.7	226	19.1	19.1	8.4	8.4	28.5	28.5	107.9	107.7	8.4	8.4	0.7	7	85	85	87	87	822077	808814	<0.2	1.0	<0.2	0.9		
						1.0	1.7	243	19.1	8.4	8.4	28.5	28.5	107.5	107.7	8.4	8.4	0.8	7	85	85	87	87	822077	808814	<0.2	1.0	<0.2	0.9			
					Middle	3.8	1.8	235	19.0	19.0	8.3	8.3	29.2	29.2	103.2	103.2	8.0	8.0	1.9	6	87	87	87	87	822077	808814	<0.2	1.0	<0.2	0.9		
						3.8	1.9	246	19.0	19.0	8.3	8.3	29.2	29.2	103.1	103.2	8.0	8.0	2.0	6	87	87	87	87	822077	808814	<0.2	1.0	<0.2	0.9		
					Bottom	6.6	1.6	237	18.9	18.9	8.3	8.3	29.3	29.4	102.1	102.1	8.0	8.0	2.0	6	89	89	89	89	822077	808814	<0.2	1.0	<0.2	0.9		
						6.6	1.8	256	18.9	18.9	8.3	8.3	29.4	29.4	102.0	102.0	8.0	8.0	2.1	6	89	89	89	89	822077	808814	<0.2	1.0	<0.2	0.9		
IM10	Cloudy	Moderate	13:26	7.5	Surface	1.0	1.4	22	19.1	19.1	8.4	8.3	28.7	28.8	105.4	103.9	8.2	8.2	0.5	7	88	88	91	91	822369	809783	<0.2	1.1	<0.2	1.1		
						1.0	1.6	22	19.1	19.1	8.3	8.3	28.9	29.0	102.4	102.4	8.0	8.0	0.5	7	89	89	90	90	822369	809783	<0.2	1.1	<0.2	1.1		
					Middle	3.8	1.5	13	19.1	19.1	8.3	8.3	29.0	29.0	102.4	102.4	8.0	8.0	0.5	6	90	90	90	90	822369	809783	<0.2	1.1	<0.2	1.1		
						3.8	1.7	13	19.0	19.0	8.3	8.3	29.1	29.1	102.4	102.4	8.0	8.0	0.5	6	90	90	90	90	822369	809783	<0.2	1.1	<0.2	1.1		
					Bottom	6.5	1.7	18	19.0	19.0	8.3	8.3	29.2	29.2	102.5	102.6	8.0	8.0	0.8	6	93	93	93	93	822369	809783	<0.2	1.0	<0.2	1.0		
						6.5	1.7	18	19.0	19.0	8.3	8.3	29.3	29.2	102.6	102.6	8.0	8.0	0.8	5	93	93	93	93	822369	809783	<0.2	1.0	<0.2	1.0		
IM11	Cloudy	Moderate	13:39	8.7	Surface	1.0	1.2	291	19.0	19.0	8.3	8.3	29.3	29.3	105.8	105.8	8.2	8.2	0.5	5	88	88	90	90	822070	811472	<0.2	0.9	<0.2	1.0		
						1.0	1.3	293	19.0	19.0	8.3	8.3	29.3	29.3	105.8	105.8	8.0	8.0	0.5	7	89	89	90	90	822070	811472	<0.2	1.0	<0.2	1.0		
					Middle	4.4	1.2	286	19.0	19.0	8.3	8.3	29.3	29.3	105.1	105.1	8.2	8.2	0.5	6	90	90	90	90	822070	811472	<0.2	1.0	<0.2	1.0		
						4.4	1.2	289	19.0	19.0	8.3	8.3	29.3	29.3	105.0	105.1	8.2	8.2	0.5	6	90	90	90	90	822070	811472	<0.2	1.0	<0.2	1.0		
					Bottom	7.7	1.1	299	19.0	19.0	8.3	8.3	29.4	29.4	103.9	103.9	8.1	8.1	0.4	7	91	91	91	91	822070	811472	<0.2	1.1	<0.2	1.1		
						7.7	1.1	319	19.0	19.0	8.3	8.3	29.4	29.4	103.9	103.9	8.1	8.1	0.4	8	91	91	91	91	822070	811472	<0.2	1.0	<0.2	1.0		
IM12	Cloudy	Moderate	13:44	9.6	Surface	1.0	0.3	120	19.0	19.0	8.3	8.3	29.3	29.3	107.0	107.0	8.3	8.3	0.5	9	89	89	92	92	821462	812067	<0.2	0.9	<0.2	1.0		
						1.0	0.3	129	19.0	19.0	8.3	8.3	29.3	29.3	106.9	106.9	8.3	8.3	0.5	9	90	90	91	91	821462	812067	<0.2	1.0	<0.2	1.0		
					Middle	4.8	0.3	112	19.0	19.0	8.3	8.3	29.4	29.4	104.9	104.9	8.2	8.2	0.4	8	91	91	92	92	821462	812067	<0.2	0.9	<0.2	1.0		
						4.8	0.3	113	19.0	19.0	8.3	8.3	29.4	29.4	104.9	104.9	8.2	8.2	0.4	7	92	92	92	92	821462	812067	<0.2	1.1	<0.2	1.1		
					Bottom	8.6	0.3	115	19.0	19.0	8.3	8.3	29.5	29.5	104.1	104.0	8.1	8.1	0.4	7	94	94	94	94	821462	812067	<0.2	1.1	<0.2	1.2		
						8.6	0.3	119	19.0	19.0	8.3	8.3	29.5	29.5	103.9	103.9	8.1	8.1	0.4	7	94	94	94	94	821462	812067	<0.2	1.1	<0.2	1.2		
SR1A	Cloudy	Calm	14:17	4.3	Surface	1.0	-	-	19.0	19.0	8.3	8.3	29.3	29.3	99.2	99.4	7.7	7.8	0.5	4	-	-	-	-	819981	812657	-	-	-	-		
						1.0	-	-	18.9	19.0	8.3	8.3	29.3	29.3	99.5	99.4	7.8	7.8	0.5	4	-	-	-	-	819981	812657	-	-	-	-		
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819981	812657	-	-	-	-
						2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819981	812657	-	-	-	-
					Bottom	3.3	-	-	18.9	19.0	8.3	8.3	29.3	29.2	99.5	99.2	7.8	7.8	0.6	3	-	-	-	-	-	-	819981	812657	-	-	-	-
						3.3	-	-	19.0	19.0	8.3	8.3	29.0	29.2	98.9	99.2	7.7	7.7	0.6	4	-	-	-	-	-	-	819981	812657	-	-	-	-
SR2	Cloudy	Calm	14:36	4.7	Surface	1.0	0.3	90	19.0	19.0	8.3	8.3	29.5	29.5	105.5	105.4	8.2	8.2	0.8	4	90	90	91	91	821477	814189	<0.2	0.9	<0.2	0.9		
						1.0	0.4	97	19.0	19.0	8.3	8.3	29.5	29.5	105.3	105.4	8.2	8.2	0.8	4	90	90	91	91	821477	814189	<0.2	0.9	<0.2	0.9		
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821477	814189	<0.2	1.0	<0.2	1.0
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821477	814189	<0.2	1.0	<0.2	1.0
					Bottom	3.7	0.3	90	19.0	19.0	8.3	8.3	29.5	29.4	104.4	104.4	8.1	8.1	0.9	5	92	92	92	92	821477	814189	<0.2	1.0	<0.2	1.0		
						3.7	0.3	92	19.0	19.0	8.3	8.3	29.4	29.4	104.3	104.4	8.1	8.1	0.9	5	92	92	92	92	821477	814189	<0.2	1.0	<0.2	1.0		
SR3	Cloudy	Moderate	13:06	9.0	Surface	1.0	2.9	154	19.1	19.1	8.4	8.4	28.5	28.6	110.5	110.3	8.6	8.6	0.9	3	-	-	-	-	822166	807560	-	-	-	-		
						1.0	3.0	160	19.1	19.1	8.4	8.4	28.6	28.6	110.1	110.3	8.6	8.6	0.9	4	-	-	-	-	822166	807560	-	-	-	-		
					Middle	4.5	2.8	143	19.0	19.0	8.3	8.3	29.2	29.2	104.1	104.0	8.1	8.1	2.6	3	-	-	-	-	-	822166	807560	-	-	-	-	
						4.5	3.0	154	19.0	19.0	8.3	8.3	29.3	29.2	103.8	104.0	8.1	8.1	2.7	3	-	-	-	-	-	822166	807560	-	-	-	-	
					Bottom	8.0	2.6	140	18.9	18.9	8.3	8.3	29.3	29.3	103.4	103.4	8.1	8.1	3.1	2	-	-	-	-	-	-	822166	807560	-	-	-	-
						8.0	2.7	140	18.9	18.9	8.3	8.3	29.3	29.3	103.4	103.4	8.1	8.1	3.2	2	-	-	-	-	-	-	822166	807560	-	-	-	-
SR4A	Cloudy	Moderate	14:12	8.5	Surface	1.0	0.2	65	16.6	16.6	8.3	8.3	30.0	30.0	116.5	116.3	9.5	9.5	5.2	<2	-	-	-	-	817212	807827	-	-	-	-		
						1.0	0.2	67	16.6	16.6	8.3	8.3	30.0	30.0	116.0	116.3	9.5	9.5	5.3	<2	-	-	-	-	817212	807827	-	-	-	-		
					Middle	4.3	0.1	58	16.5	16.5	8.3	8.3	30.2	30.2	114.2	114.3	9.3	9.3	5.1	<2	-	-	-	-	-	817212	807827	-	-	-	-	
						4.3	0.1	59	16.5	16.5	8.3	8.3	30.2	30.2	114.2	114.3	9.3	9.3	5.3	<2	-	-	-	-	-	817212	807827	-	-	-	-	
					Bottom	7.5	0.1	80	16.5	16.5	8.3	8.3	30.2	30.2	112.2	112.1	9.2	9.2	6.8	<2	-	-	-	-	-	-	817212	807827	-	-	-	-

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

Water Quality Monitoring

Water Quality Monitoring Results on 13 February 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)						
								Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA			
C1	Cloudy	Moderate	09:15	8.8	Surface	1.0	0.7	42	18.5	18.5	8.2	8.2	30.7	30.7	120.2	120.1	9.4	9.4	2.4	2.7	<2	<2	87	87	89	815600	804248	<0.2	<0.2	0.9	1.0			
						1.0	0.7	43	18.5	8.2	8.2	30.7	30.7	120.0	120.0	9.4	9.4	2.7	2.7	<2	<2	87	87	89	815600	804248	<0.2	<0.2	1.0	1.0				
					Middle	4.4	0.6	34	18.2	18.2	8.2	8.2	31.9	31.9	111.4	111.5	8.7	8.7	4.4	4.4	3	3	3	3	88	89	89	815600	804248	<0.2	<0.2	1.0	1.0	
						4.4	0.7	35	18.2	18.2	8.2	8.2	31.9	31.9	111.5	111.5	8.7	8.7	4.4	4.4	3	3	3	3	88	89	89	815600	804248	<0.2	<0.2	1.0	1.0	
					Bottom	7.8	0.6	40	18.2	18.2	8.2	8.2	31.7	31.7	112.6	112.7	8.8	8.8	5.0	5.0	4	4	4	4	91	91	91	815600	804248	<0.2	<0.2	0.9	0.9	
						7.8	0.7	40	18.2	18.2	8.2	8.2	31.7	31.7	112.7	112.7	8.8	8.8	5.0	5.0	4	4	4	4	91	91	91	815600	804248	<0.2	<0.2	0.9	0.9	
C2	Cloudy	Moderate	10:25	12.2	Surface	1.0	0.6	11	19.2	19.2	8.4	8.4	28.2	28.2	109.5	109.4	8.6	8.6	1.0	1.0	5	5	85	85	89	825662	806938	<0.2	<0.2	1.0	1.0			
						1.0	0.6	11	19.2	19.2	8.4	8.4	28.3	28.3	109.2	109.2	8.5	8.5	1.0	1.0	5	5	85	85	88	825662	806938	<0.2	<0.2	0.9	0.9			
					Middle	6.1	0.5	8	19.1	19.1	8.4	8.4	28.9	28.9	106.5	106.5	8.3	8.3	2.9	2.9	5	5	5	5	88	88	88	825662	806938	<0.2	<0.2	1.0	1.0	
						6.1	0.6	8	19.1	19.1	8.4	8.4	28.9	28.9	106.4	106.4	8.3	8.3	3.0	3.0	5	5	5	5	88	88	88	825662	806938	<0.2	<0.2	0.9	0.9	
					Bottom	11.2	0.3	351	19.1	19.1	8.4	8.4	29.0	29.0	106.1	106.1	8.3	8.3	3.3	3.3	3	3	3	3	93	93	93	825662	806938	<0.2	<0.2	1.1	1.1	
						11.2	0.4	323	19.1	19.1	8.4	8.4	29.0	29.0	106.0	106.0	8.3	8.3	3.2	3.2	4	4	4	4	92	92	92	825662	806938	<0.2	<0.2	1.1	1.1	
C3	Cloudy	Moderate	08:01	11.6	Surface	1.0	0.7	264	18.8	18.8	8.3	8.3	30.1	30.1	102.9	102.9	8.0	8.0	1.7	1.7	4	4	89	89	87	822131	817790	<0.2	<0.2	1.0	1.0			
						1.0	0.7	265	18.8	18.8	8.3	8.3	30.3	30.3	102.1	102.1	7.9	7.9	2.7	2.7	4	4	85	85	85	822131	817790	<0.2	<0.2	1.0	1.0			
					Middle	5.8	0.8	265	18.8	18.8	8.3	8.3	30.3	30.3	102.1	102.1	7.9	7.9	2.7	2.7	3	3	3	3	85	85	85	822131	817790	<0.2	<0.2	1.1	1.1	
						5.8	0.9	281	18.8	18.8	8.3	8.3	30.3	30.3	102.0	102.0	7.9	7.9	2.5	2.5	3	3	3	3	87	87	87	822131	817790	<0.2	<0.2	1.0	1.0	
					Bottom	10.6	0.5	269	18.7	18.7	8.3	8.3	30.3	30.3	101.2	101.2	7.9	7.9	2.8	2.8	3	3	3	3	87	87	87	822131	817790	<0.2	<0.2	1.0	1.0	
						10.6	0.6	293	18.7	18.7	8.3	8.3	30.3	30.3	101.1	101.1	7.9	7.9	2.8	2.8	3	3	3	3	87	87	87	822131	817790	<0.2	<0.2	1.0	1.0	
IM1	Cloudy	Moderate	09:43	5.5	Surface	1.0	0.3	10	18.6	18.6	8.2	8.2	30.3	30.3	118.1	117.9	9.2	9.2	2.8	2.9	<2	<2	86	86	88	817956	807116	<0.2	<0.2	1.0	1.0			
						1.0	0.3	10	18.6	18.6	8.2	8.2	30.4	30.4	117.6	117.6	9.2	9.2	2.9	2.9	<2	<2	85	85	88	817956	807116	<0.2	<0.2	0.9	0.9			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	4.5	0.2	5	18.4	18.4	8.2	8.2	30.8	30.8	115.5	115.4	9.0	9.0	4.8	4.6	<2	<2	90	90	90	90	90	817956	807116	<0.2	<0.2	1.1	1.1	
						4.5	0.2	5	18.4	18.4	8.2	8.2	30.8	30.8	115.3	115.3	9.0	9.0	4.6	4.6	<2	<2	90	90	90	90	90	817956	807116	<0.2	<0.2	1.1	1.1	
IM2	Cloudy	Moderate	09:50	7.3	Surface	1.0	0.4	0	18.6	18.6	8.2	8.2	30.3	30.3	120.1	120.0	9.4	9.4	2.3	2.4	3	2	86	86	88	818163	806156	<0.2	<0.2	1.2	1.1			
						1.0	0.4	0	18.6	18.6	8.2	8.2	30.3	30.3	119.9	119.9	9.4	9.4	2.4	2.4	2	2	86	86	88	818163	806156	<0.2	<0.2	1.1	1.1			
					Middle	3.7	0.4	8	18.4	18.4	8.2	8.2	30.7	30.8	118.4	118.0	9.3	9.3	2.7	2.6	2	2	2	2	88	88	88	818163	806156	<0.2	<0.2	0.9	0.9	
						3.7	0.4	8	18.4	18.4	8.2	8.2	30.8	30.8	117.5	117.5	9.2	9.2	2.6	2.6	2	2	2	2	88	88	88	818163	806156	<0.2	<0.2	0.9	0.9	
					Bottom	6.3	0.3	358	18.4	18.4	8.2	8.2	31.0	30.9	112.3	112.1	8.8	8.8	5.3	5.6	<2	<2	90	90	90	90	90	818163	806156	<0.2	<0.2	0.9	0.9	
						6.3	0.3	329	18.4	18.4	8.2	8.2	30.9	30.9	111.8	111.8	8.7	8.7	5.6	5.6	<2	<2	90	90	90	90	90	818163	806156	<0.2	<0.2	0.9	0.9	
IM3	Cloudy	Moderate	09:56	7.9	Surface	1.0	0.4	340	18.6	18.6	8.2	8.2	30.2	30.2	120.3	120.2	9.4	9.4	1.6	1.6	<2	<2	85	85	88	818802	805612	<0.2	<0.2	1.1	1.0			
						1.0	0.4	340	18.6	18.6	8.2	8.2	30.3	30.4	120.1	119.2	9.4	9.3	2.7	2.7	<2	<2	88	88	88	818802	805612	<0.2	<0.2	1.0	1.0			
					Middle	4.0	0.4	335	18.5	18.5	8.2	8.2	30.4	30.4	119.4	119.0	9.3	9.3	3.0	3.0	<2	<2	87	87	87	818802	805612	<0.2	<0.2	1.1	1.1			
						4.0	0.4	344	18.5	18.5	8.2	8.2	30.5	30.8	119.0	119.0	9.3	9.3	3.0	3.0	<2	<2	87	87	87	818802	805612	<0.2	<0.2	1.1	1.1			
					Bottom	6.9	0.4	339	18.4	18.4	8.2	8.2	30.8	30.8	113.5	113.2	8.9	8.9	5.1	5.2	<2	<2	90	90	90	90	90	818802	805612	<0.2	<0.2	0.9	0.9	
						6.9	0.4	312	18.4	18.4	8.2	8.2	30.7	30.8	112.9	112.9	8.8	8.8	5.2	5.2	<2	<2	91	91	91	91	91	818802	805612	<0.2	<0.2	0.9	0.9	
IM4	Cloudy	Moderate	10:05	7.8	Surface	1.0	0.9	344	18.6	18.6	8.2	8.2	30.2	30.2	118.9	118.8	9.3	9.3	3.4	3.6	<2	<2	89	100	92	819719	804589	<0.2	<0.2	0.9	0.9			
						1.0	1.0	359	18.6	18.6	8.2	8.2	30.2	30.2	118.7	118.7	9.3	9.3	3.6	3.6	<2	<2	89	89	89	819719	804589	<0.2	<0.2	1.0	1.0			
					Middle	3.9	0.7	342	18.5	18.5	8.2	8.2	30.5	30.5	117.9	117.8	9.2	9.2	5.3	5.4	<2	<2	89	89	89	819719	804589	<0.2	<0.2	0.8	0.8			
						3.9	0.8	315	18.5	18.5	8.2	8.2	30.5	30.5	117.7	117.7	9.2	9.2	5.4	5.4	<2	<2	89	89	89	819719	804589	<0.2	<0.2	1.0	1.0			
					Bottom	6.8	0.6	335	18.5	18.5	8.2	8.2	30.5	30.5	112.2	112.0	8.8	8.8	4.5	4.6	<2	<2	92	92	92	92	92	819719	804589	<0.2	<0.2	0.9	0.9	
						6.8	0.6	343	18.5	18.5	8.2	8.2	30.5	30.5	111.7	111.7	8.7	8.7	4.6	4.6	<2	<2	92	92	92	92	92	819719	804589	<0.2	<0.2	1.0	1.0	
IM5	Cloudy	Moderate	10:13	7.5	Surface	1.0	0.9	10	18.7	18.7	8.3	8.2	29.9	29.9	120.0																			





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

Water Quality Monitoring Results on 16 February 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			
C1	Fine	Moderate	15:25	8.2	Surface	1.0	0.2	180	19.3	19.3	8.2	8.2	32.0	32.0	114.6	114.5	8.8	8.8	1.7	1.7	3	3	86	86	89	815602	804231	<0.2	1.3	<0.2	1.2					
						1.0	0.2	189	19.2	19.0	8.2	8.2	32.0	32.0	114.4	114.4	8.7	8.7	1.9	1.9	3	3	86	86	89	815602	804231	<0.2	1.2	<0.2	0.9					
						4.1	0.3	230	19.0	19.0	8.2	8.2	32.9	32.9	107.2	107.2	8.2	8.2	2.6	2.6	3	3	88	88	89	815602	804231	<0.2	0.9	<0.2	1.0					
					Middle	4.1	0.3	249	19.0	19.0	8.2	8.2	32.9	32.9	107.4	107.3	8.2	8.2	2.6	2.6	3	3	89	89	91	815602	804231	<0.2	0.9	<0.2	0.9					
						7.2	0.3	228	18.9	18.9	8.2	8.2	33.2	33.2	101.8	101.8	7.8	7.8	3.2	3.2	3	3	91	91	91	815602	804231	<0.2	1.0	<0.2	0.9					
						7.2	0.3	239	18.9	18.9	8.2	8.2	33.2	33.2	101.8	101.8	7.8	7.8	3.1	3.1	4	4	91	91	91	815602	804231	<0.2	0.9	<0.2	0.9					
					C2	Fine	Moderate	14:16	11.4	Surface	1.0	0.0	208	20.2	20.2	8.4	8.4	27.3	27.4	119.3	119.3	9.2	9.2	3.1	3.1	3	3	87	87	90	825670	806962	<0.2	1.5	<0.2	1.4
											1.0	0.0	228	20.1	20.1	8.4	8.4	27.4	27.4	119.3	119.3	9.2	9.2	3.2	3.2	4	4	87	87	89	825670	806962	<0.2	1.4	<0.2	1.5
											5.7	0.2	117	19.6	19.6	8.4	8.4	28.4	28.5	112.6	112.4	8.7	8.7	5.5	5.5	4	4	89	89	90	825670	806962	<0.2	1.5	<0.2	1.6
Middle	5.7	0.3	119	19.6						19.6	8.4	8.4	28.5	28.5	112.2	112.2	8.7	8.7	5.8	5.8	4	4	90	90	92	825670	806962	<0.2	1.6	<0.2	1.6					
	10.4	0.3	82	19.6						19.6	8.4	8.4	29.1	29.1	110.6	110.6	8.5	8.5	6.0	6.0	4	4	92	92	92	825670	806962	<0.2	1.6	<0.2	1.6					
	10.4	0.3	84	19.6						19.6	8.4	8.4	29.1	29.1	110.5	110.5	8.5	8.5	5.8	5.8	4	4	92	92	92	825670	806962	<0.2	1.6	<0.2	1.6					
C3	Fine	Moderate	16:22	11.9						Surface	1.0	0.4	57	19.7	19.7	8.3	8.3	29.4	29.5	113.4	113.2	8.7	8.7	3.2	3.2	4	4	86	86	89	822128	817795	<0.2	1.2	<0.2	1.0
											1.0	0.4	60	19.6	19.6	8.3	8.3	29.5	29.5	113.0	113.0	8.7	8.7	3.2	3.2	5	5	87	87	90	822128	817795	<0.2	1.0	<0.2	1.2
											6.0	0.3	79	19.4	19.4	8.3	8.3	29.7	29.7	104.9	104.9	8.1	8.1	3.4	3.4	4	4	91	91	91	822128	817795	<0.2	1.2	<0.2	1.2
					Middle	6.0	0.3	84	19.4	19.4	8.3	8.3	29.7	29.7	104.8	104.8	8.1	8.1	3.3	3.3	3	3	91	91	91	822128	817795	<0.2	1.2	<0.2	1.0					
						10.9	0.2	86	19.2	19.2	8.3	8.3	30.3	30.3	98.6	98.7	7.6	7.6	3.4	3.4	3	3	91	91	91	822128	817795	<0.2	1.0	<0.2	1.1					
						10.9	0.2	88	19.2	19.2	8.3	8.3	30.3	30.3	98.7	98.7	7.6	7.6	3.4	3.4	4	4	91	91	91	822128	817795	<0.2	1.1	<0.2	1.1					
					IM1	Fine	Moderate	15:05	5.0	Surface	1.0	0.1	184	20.2	20.2	8.3	8.3	31.1	31.1	119.4	119.5	9.0	9.0	1.5	1.5	7	7	86	86	87	817936	807145	<0.2	1.0	<0.2	1.1
											1.0	0.1	202	20.2	20.2	8.3	8.3	31.1	31.1	119.6	119.6	9.0	9.0	1.6	1.6	6	6	86	86	-	817936	807145	<0.2	1.1	<0.2	1.1
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	4.0	0.1	178	19.4						19.4	8.3	8.3	31.4	31.4	119.9	120.2	9.2	9.2	2.9	2.9	3	3	89	89	88	817936	807145	<0.2	1.2	<0.2	1.2					
	4.0	0.1	194	19.5						19.5	8.3	8.3	31.4	31.4	120.4	120.4	9.2	9.2	2.8	2.8	4	4	88	88	88	817936	807145	<0.2	1.2	<0.2	1.2					
IM2	Fine	Moderate	14:57	7.0						Surface	1.0	0.1	210	20.1	20.1	8.2	8.2	31.3	31.3	111.1	111.1	8.4	8.4	2.5	2.5	2	2	85	85	88	818177	806185	<0.2	1.5	<0.2	1.3
											1.0	0.1	226	20.0	20.0	8.2	8.2	31.3	31.3	111.1	111.1	8.4	8.4	2.6	2.6	3	3	85	85	87	818177	806185	<0.2	1.5	<0.2	1.0
											3.5	0.1	186	19.1	19.1	8.2	8.2	31.9	31.9	105.6	105.6	8.1	8.1	3.1	3.1	4	4	87	87	88	818177	806185	<0.2	1.0	<0.2	1.3
					Middle	3.5	0.1	192	19.1	19.1	8.2	8.2	31.9	31.9	105.5	105.5	8.1	8.1	3.0	3.0	4	4	88	88	90	818177	806185	<0.2	1.2	<0.2	1.3					
						6.0	0.1	101	19.0	19.0	8.2	8.2	32.7	32.7	102.7	102.8	7.9	7.9	4.6	4.6	5	5	90	90	90	818177	806185	<0.2	1.3	<0.2	1.3					
						6.0	0.1	105	19.0	19.0	8.2	8.2	32.7	32.7	102.8	102.8	7.9	7.9	4.6	4.6	4	4	90	90	90	818177	806185	<0.2	1.3	<0.2	1.3					
					IM3	Fine	Moderate	14:50	7.3	Surface	1.0	0.1	204	19.3	19.3	8.2	8.2	31.7	31.7	107.7	107.7	8.2	8.2	4.1	4.1	4	4	85	85	87	818801	805571	<0.2	1.3	<0.2	1.2
											1.0	0.1	217	19.3	19.3	8.2	8.2	31.7	31.7	107.7	107.7	8.2	8.2	4.0	4.0	3	3	85	85	87	818801	805571	<0.2	1.2	<0.2	1.3
											3.7	0.1	65	19.4	19.4	8.2	8.2	32.5	32.5	105.7	105.7	8.0	8.0	3.1	3.1	3	3	87	87	88	818801	805571	<0.2	1.3	<0.2	1.3
Middle	3.7	0.1	71	19.5						19.5	8.2	8.2	32.5	32.5	105.7	105.7	8.0	8.0	3.0	3.0	3	3	88	88	90	818801	805571	<0.2	1.3	<0.2	1.3					
	6.3	0.1	115	19.0						19.0	8.2	8.2	32.6	32.6	102.8	102.8	7.9	7.9	4.5	4.5	3	3	90	90	89	818801	805571	<0.2	1.4	<0.2	1.4					
	6.3	0.1	125	19.0						19.0	8.2	8.2	32.6	32.6	102.8	102.8	7.9	7.9	4.7	4.7	3	3	89	89	89	818801	805571	<0.2	1.4	<0.2	1.4					
IM4	Fine	Moderate	14:38	8.4						Surface	1.0	0.1	230	19.6	19.7	8.2	8.2	31.7	31.6	108.8	108.8	8.3	8.3	3.2	3.2	3	3	84	84	87	819738	804621	<0.2	1.2	<0.2	1.3
											1.0	0.1	236	19.7	19.7	8.2	8.2	31.6	31.6	108.8	108.8	8.3	8.3	3.2	3.2	3	3	85	85	87	819738	804621	<0.2	1.3	<0.2	1.4
											4.2	0.0	200	19.2	19.2	8.2	8.2	32.3	32.3	104.5	104.4	8.0	8.0	3.4	3.4	4	4	87	87	88	819738	804621	<0.2	1.4	<0.2	1.4
					Middle	4.2	0.0	216	19.2	19.2	8.2	8.2	32.3	32.3	104.3	104.3	8.0	8.0	3.5	3.5	4	4	88	88	90	819738	804621	<0.2	1.4	<0.2	1.5					
						7.4	0.1	161	19.1	19.1	8.2	8.2	32.4	32.4	103.6	103.6	7.9	7.9	3.9	3.9	4	4	90	90	90	819738	804621	<0.2	1.5	<0.2	1.5					
						7.4	0.1	166	19.1	19.1	8.3	8.3	32.4	32.4	103.6	103.6	7.9	7.9	3.8	3.8	4	4	90	90	90	819738	804621	<0.2	1.5	<0.2	1.5					
					IM5	Fine	Moderate	14:30	7.8	Surface	1.0	0.1	251	19.7	19.7	8.3	8.2	29.8	29.8	119.7	119.6	9.2	9.2	1.0	1.0	2	2	84	84	85	820712	804879	<0.2	1.5	<0.2	1.6
											1.0	0.1	259	19.7	19.7	8.2	8.2	29.8	29.8	119.5	119.5	9.2	9.2	1.0	1.0	3	3	85	85	87	820712	804879	<0.2	1.6	<0.2	1.5
											3.9	0.1	341	19.1	19.1	8.2	8.2	31.9	31.9	105.7	105.7	8.1	8.1	2.0	2.0	4	4	87	87	88	820712	804879	<0.2	1.5	<0.2	1.5
Middle	3.9	0.1	314	19.1						19.1	8.2	8.2	31.9	31.9	105.6	105.6	8.1	8.1	1.9	1.9	4	4	88	88	90	820712	804879	<0.2	1.5	<0.2	1.5					
	6.8	0.1	86	19.1						19.1	8.3	8.3	32.1	32.1	104.5	104.5	8.0	8.0	2.5	2.5	4	4	90	90	90	820712	804879	<0.2	1.4	<0.2	1.5					
	6.8	0.1	93	19.1						19.1	8.3	8.3	32.1	32.1	104.5	104.5	8.0	8.0	2.5	2.5	4	4	90	90	90	820712	804879	<0.2	1.5	<0.2	1.5					
IM6	Fine	Moderate	14:22	7.6						Surface	1.0	0.1	221	20.1	20.1	8.2	8.2	29.1	29.1	118.5	118.4	9.1	9.1	0.7	0.7	2	2	85	85	87	821063</					

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

Water Quality Monitoring Results on 16 February 21 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)		Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)					
						Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA		
						Value	Average		Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA
IM9	Fine	Moderate	14:46	7.0	Surface	1.0	0.4	75	20.3	20.3	8.4	8.4	27.7	27.7	120.4	120.4	9.3	9.3	2.8	2.8	3	3	86	86	89	822072	808809	<0.2	1.6	<0.2	1.5			
						8.4	0.4	76	20.3	20.3	8.4	8.4	27.7	27.7	120.4	120.4	9.3	9.3	2.8	2.8	2	2	86	86	89	822072	808809	<0.2	1.4	<0.2	1.4			
					Middle	3.5	0.4	78	19.9	19.9	8.4	8.4	28.2	28.2	118.8	118.8	9.2	9.2	3.8	3.8	3	3	90	90	89	822072	808809	<0.2	1.4	<0.2	1.4			
						8.4	0.4	78	19.9	19.9	8.4	8.4	28.2	28.2	118.8	118.8	9.2	9.2	3.8	3.8	3	3	90	90	89	822072	808809	<0.2	1.4	<0.2	1.4			
					Bottom	6.0	0.3	62	19.6	19.6	8.4	8.4	29.2	29.2	111.9	111.9	8.6	8.6	5.3	5.3	4	4	92	92	89	822072	808809	<0.2	1.3	<0.2	1.3			
						8.4	0.4	66	19.6	19.6	8.4	8.4	29.2	29.2	111.9	111.9	8.6	8.6	5.3	5.3	4	4	92	92	89	822072	808809	<0.2	1.3	<0.2	1.3			
IM10	Fine	Moderate	14:54	7.6	Surface	1.0	0.6	121	20.2	20.2	8.4	8.4	27.6	27.6	118.2	118.2	9.1	9.1	3.0	3.0	2	2	86	86	90	822381	809801	<0.2	1.4	<0.2	1.5			
						8.4	0.6	129	20.2	20.2	8.4	8.4	27.6	27.6	118.2	118.2	9.1	9.1	3.2	3.2	3	3	86	86	90	822381	809801	<0.2	1.5	<0.2	1.5			
					Middle	3.8	0.5	118	19.7	19.7	8.4	8.4	28.4	28.5	111.7	111.5	8.6	8.6	5.0	5.0	2	2	89	89	90	822381	809801	<0.2	1.5	<0.2	1.5			
						8.4	0.5	125	19.7	19.7	8.4	8.4	28.5	28.5	111.3	111.3	8.6	8.6	4.9	4.9	2	2	90	90	89	822381	809801	<0.2	1.5	<0.2	1.5			
					Bottom	6.6	0.3	104	19.6	19.6	8.3	8.3	28.9	28.9	109.4	109.4	8.5	8.5	5.1	5.1	2	2	95	95	89	822381	809801	<0.2	1.5	<0.2	1.5			
						8.3	0.4	106	19.6	19.6	8.3	8.3	28.9	28.9	109.4	109.4	8.5	8.5	5.1	5.1	2	2	92	92	89	822381	809801	<0.2	1.6	<0.2	1.6			
IM11	Fine	Moderate	15:07	7.8	Surface	1.0	0.7	117	20.2	20.2	8.4	8.4	27.5	27.5	118.3	118.3	9.1	9.1	2.7	2.7	2	2	85	84	89	822062	811473	<0.2	1.2	<0.2	1.2			
						8.4	0.7	119	20.2	20.2	8.4	8.4	27.5	27.5	118.2	118.2	9.1	9.1	3.2	3.2	3	3	86	86	89	822062	811473	<0.2	1.2	<0.2	1.2			
					Middle	3.9	0.5	120	19.7	19.7	8.4	8.4	28.3	28.3	114.5	114.3	8.9	8.9	3.4	3.4	3	3	91	91	89	822062	811473	<0.2	1.3	<0.2	1.3			
						8.4	0.6	130	19.7	19.7	8.4	8.4	28.3	28.3	114.1	114.1	8.8	8.8	3.3	3.3	4	4	91	91	89	822062	811473	<0.2	1.2	<0.2	1.2			
					Bottom	6.8	0.4	118	19.5	19.5	8.3	8.3	29.2	29.2	104.6	104.7	8.1	8.1	3.1	3.1	4	4	92	92	89	822062	811473	<0.2	1.6	<0.2	1.6			
						8.3	0.4	127	19.5	19.5	8.3	8.3	29.2	29.2	104.7	104.7	8.1	8.1	3.1	3.1	4	4	92	92	89	822062	811473	<0.2	1.6	<0.2	1.6			
IM12	Fine	Moderate	15:14	8.9	Surface	1.0	0.6	115	19.9	19.9	8.4	8.4	27.9	28.0	117.5	116.9	9.1	9.1	3.1	3.1	4	5	85	86	88	821450	812068	<0.2	1.4	<0.2	1.3			
						8.4	0.6	118	19.9	19.9	8.4	8.4	28.1	28.0	116.3	116.3	9.0	9.0	3.2	3.2	5	5	87	87	88	821450	812068	<0.2	1.2	<0.2	1.2			
					Middle	4.5	0.4	109	19.7	19.7	8.4	8.3	28.7	28.7	112.7	112.5	8.7	8.7	3.2	3.2	3	3	87	87	88	821450	812068	<0.2	1.2	<0.2	1.2			
						8.3	0.5	114	19.7	19.7	8.3	8.3	28.7	28.7	112.3	112.3	8.7	8.7	3.1	3.1	4	4	90	90	88	821450	812068	<0.2	1.2	<0.2	1.2			
					Bottom	7.9	0.2	114	19.5	19.5	8.3	8.3	29.0	29.0	104.7	104.7	8.1	8.1	3.5	3.5	5	5	91	91	88	821450	812068	<0.2	1.3	<0.2	1.3			
						8.3	0.2	124	19.5	19.5	8.3	8.3	29.1	29.0	104.7	104.7	8.1	8.1	3.6	3.6	5	5	91	91	88	821450	812068	<0.2	1.3	<0.2	1.3			
SR1A	Fine	Moderate	15:49	5.5	Surface	1.0	-	-	19.9	19.9	8.4	8.4	28.8	28.8	114.2	114.1	8.8	8.8	3.7	3.7	5	6	-	-	-	819977	812664	-	-	-	-			
						8.4	-	-	19.8	19.8	8.4	8.4	28.8	28.8	113.9	114.1	8.8	8.8	3.7	3.7	6	6	-	-	-	-	-	819977	812664	-	-	-	-	
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819977	812664	-	-	-	-
						2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819977	812664	-	-	-
					Bottom	4.5	-	-	19.8	19.8	8.4	8.4	28.8	28.8	108.7	108.6	8.4	8.4	6.0	6.0	4	4	-	-	-	-	-	-	819977	812664	-	-	-	-
						8.4	-	-	19.8	19.8	8.4	8.4	28.8	28.8	108.5	108.6	8.4	8.4	6.2	6.2	3	3	-	-	-	-	-	-	-	819977	812664	-	-	-
SR2	Fine	Moderate	16:03	4.3	Surface	1.0	0.5	88	20.2	20.2	8.4	8.4	27.8	27.8	118.6	118.6	9.1	9.1	2.7	2.7	2	2	90	90	91	821460	814156	<0.2	1.2	<0.2	1.2			
						8.4	0.5	95	20.2	20.2	8.4	8.4	27.8	27.8	118.5	118.5	9.1	9.1	2.7	2.7	2	2	90	90	91	821460	814156	<0.2	1.2	<0.2	1.2			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821460	814156	<0.2	1.4	<0.2	1.4
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821460	814156	<0.2	1.4	<0.2	1.4
					Bottom	3.3	0.3	83	19.8	19.8	8.4	8.4	28.7	28.7	112.4	112.1	8.7	8.7	5.8	5.8	4	4	91	91	91	821460	814156	<0.2	1.4	<0.2	1.4			
						8.4	0.3	85	19.8	19.8	8.4	8.4	28.7	28.7	111.8	111.8	8.6	8.6	6.0	6.0	3	3	91	91	91	821460	814156	<0.2	1.4	<0.2	1.4			
SR3	Fine	Moderate	14:35	9.1	Surface	1.0	0.2	117	20.0	20.0	8.4	8.4	27.7	27.7	117.6	117.6	9.1	9.1	3.1	3.1	3	2	-	-	-	822152	807587	-	-	-	-			
						8.4	0.2	128	20.0	20.0	8.4	8.4	27.8	27.7	117.5	117.6	9.1	9.1	3.2	3.2	2	2	-	-	-	-	-	822152	807587	-	-	-	-	
					Middle	4.6	0.2	96	19.7	19.7	8.4	8.4	28.6	28.7	110.7	110.6	8.6	8.6	4.8	4.8	3	3	-	-	-	-	-	822152	807587	-	-	-	-	
						8.4	0.2	98	19.7	19.7	8.4	8.4	28.7	28.7	110.5	110.5	8.5	8.5	4.9	4.9	3	3	-	-	-	-	-	822152	807587	-	-	-	-	
					Bottom	8.1	0.2	60	19.7	19.7	8.4	8.4	29.3	29.3	109.6	109.6	8.4	8.4	6.4	6.4	3	3	-	-	-	-	-	822152	807587	-	-	-	-	
						8.4	0.2	64	19.7	19.7	8.4	8.4	29.3	29.3	109.6	109.6	8.4	8.4	6.3	6.3	3	3	-	-	-	-	-	822152	807587	-	-	-	-	
SR4A	Fine	Calm	15:47	9.2	Surface	1.0	0.2	75	19.6	19.6	8.2	8.2	31.2	31.3	116.5	116.3	8.9	8.9	4.1	4.1	3	2	-	-	-	817188	807799	-	-	-	-			
						8.2	0.2	78	19.5	19.6	8.2	8.2	31.3	31.3	116.0	116.0	8.9	8.9	4.3	4.3	2	2	-	-	-	-	-	817188	807799	-	-	-	-	
					Middle	4.6	0.2	59	19.2	19.2	8.2	8.2	31.5	31.6	105.8	105.6	8.1	8.1	5.6	5.6	3	3	-	-	-	-	-	817188	807799	-	-	-	-	
						8.2	0.2	62	19.2	19.2	8.2	8.2	31.6	31.6	105.4	105.4	8.1	8.1	5.6	5.6	3	3	-	-	-	-	-	817188	807799	-	-	-	-	
					Bottom	8.2	0.3	73	19.0	19.0	8.2	8.2	32.1	32.1	102.8	102.8	7.9	7.9	6.3	6.3	4	4	-	-	-	-	-	817188	807799	-	-	-	-	
						8.2	0.3	75	19.0	19.0	8.2	8.2	32.1	32.1	102.8	102.8	7.9	7.9	6.3	6.3	4	4	-	-	-	-	-	817188	807799	-	-	-	-	
SR5A	Fine	Calm	16:04	3.4	Surface	1.0	0.1	244	20.5	20.5	8.3	8.3	31.0	31.0	117.7	117.7	8.9	8.9	3.7	3.7	6	6	-	-	-	816593	810717	-	-	-	-			
						8.3	0.1	259	20.4	20.4	8.3	8.3	31.0	31.0	117.6	117.6	8.9	8.9	3.6	3.6	6	6	-	-	-	-	-							

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

Water Quality Monitoring Results on 16 February 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	Fine	Moderate	10:40	8.3	Surface	1.0	0.4	40	18.9	18.9	8.1	8.1	32.6	32.6	102.5	102.5	7.9	7.9	8.4	3	85	88	88	88	815596	804251	<0.2	<0.2	0.9	0.9				
						1.0	0.4	40	18.9	18.9	8.1	8.1	32.6	32.6	102.4	102.4	7.9	7.9	8.3	4	86	88	88	88	815596	804251	<0.2	<0.2	0.9	0.9				
					Middle	4.2	0.4	26	18.8	18.8	8.1	8.1	32.6	32.6	101.4	101.4	7.8	7.8	9.8	5	88	89	89	89	815596	804251	<0.2	<0.2	1.0	0.9				
						4.2	0.5	26	18.8	18.8	8.1	8.1	32.6	32.6	101.4	101.4	7.8	7.8	9.6	5	89	91	91	91	815596	804251	<0.2	<0.2	0.9	0.9				
					Bottom	7.3	0.4	28	18.8	18.8	8.2	8.2	32.7	32.7	100.2	100.2	7.7	7.7	11.7	7	91	91	91	91	815596	804251	<0.2	<0.2	0.9	0.9				
						7.3	0.4	28	18.8	18.8	8.2	8.2	32.7	32.7	100.2	100.2	7.7	7.7	11.4	7	91	91	91	91	815596	804251	<0.2	<0.2	0.9	0.9				
C2	Fine	Moderate	11:37	11.9	Surface	1.0	0.3	41	19.6	19.6	8.4	8.4	27.2	27.2	112.8	112.8	8.8	8.8	3.5	3	86	86	86	86	825670	806925	<0.2	<0.2	1.7	1.6				
						1.0	0.3	44	19.6	19.6	8.4	8.4	27.2	27.2	112.5	112.5	8.8	8.8	3.4	3	86	86	86	86	825670	806925	<0.2	<0.2	1.7	1.5				
					Middle	6.0	0.3	2	19.6	19.6	8.4	8.4	27.5	27.5	110.5	110.5	8.6	8.6	3.4	4	89	90	90	90	825670	806925	<0.2	<0.2	1.5	1.6				
						6.0	0.3	2	19.6	19.6	8.4	8.4	27.5	27.5	110.1	110.1	8.6	8.6	3.6	5	90	92	92	92	825670	806925	<0.2	<0.2	1.6	1.6				
					Bottom	10.9	0.3	333	19.6	19.6	8.4	8.4	28.0	28.0	108.1	108.1	8.4	8.4	4.1	7	92	92	92	92	825670	806925	<0.2	<0.2	1.6	1.6				
						10.9	0.3	333	19.6	19.6	8.4	8.4	28.0	28.0	108.1	108.1	8.4	8.4	4.1	7	92	92	92	92	825670	806925	<0.2	<0.2	1.6	1.6				
C3	Fine	Moderate	09:18	11.4	Surface	1.0	0.6	265	19.4	19.4	8.3	8.3	29.1	29.1	107.0	107.0	8.3	8.3	3.1	3	87	87	87	87	822085	817788	<0.2	<0.2	1.3	1.3				
						1.0	0.6	279	19.4	19.4	8.3	8.3	29.2	29.2	106.9	106.9	8.3	8.3	3.2	3	87	87	87	87	822085	817788	<0.2	<0.2	1.3	1.3				
					Middle	5.7	0.5	260	19.3	19.3	8.3	8.3	29.8	29.8	102.0	102.0	7.9	7.9	3.7	4	91	91	91	91	822085	817788	<0.2	<0.2	1.3	1.3				
						5.7	0.5	279	19.3	19.3	8.3	8.3	29.8	29.8	101.9	101.9	7.9	7.9	3.8	3	90	92	92	92	822085	817788	<0.2	<0.2	1.3	1.3				
					Bottom	10.4	0.4	259	19.3	19.3	8.3	8.3	29.8	29.8	101.0	101.0	7.8	7.8	9.1	5	92	92	92	92	822085	817788	<0.2	<0.2	1.2	1.3				
						10.4	0.4	268	19.3	19.3	8.3	8.3	29.8	29.8	101.0	101.0	7.8	7.8	9.1	5	92	92	92	92	822085	817788	<0.2	<0.2	1.2	1.3				
IM1	Fine	Moderate	10:59	5.0	Surface	1.0	0.1	341	19.3	19.3	8.2	8.1	31.8	31.8	105.0	105.0	8.0	8.0	3.4	5	86	86	86	86	817956	807152	<0.2	<0.2	0.9	0.9				
						1.0	0.1	314	19.3	19.3	8.1	8.1	31.8	31.8	105.0	105.0	8.0	8.0	3.4	5	86	86	86	86	817956	807152	<0.2	<0.2	0.9	0.9				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	4.0	0.1	298	18.9	18.9	8.1	8.1	32.1	32.1	103.7	103.7	8.0	8.0	5.6	4	89	89	89	89	817956	807152	<0.2	<0.2	0.9	0.9				
						4.0	0.1	305	18.9	18.9	8.1	8.1	32.1	32.1	103.7	103.7	8.0	8.0	5.2	4	90	90	90	90	817956	807152	<0.2	<0.2	0.9	0.9				
IM2	Fine	Moderate	11:07	7.1	Surface	1.0	0.3	19	19.4	19.4	8.2	8.2	31.0	30.9	110.9	110.9	8.5	8.5	4.3	4	85	85	85	85	818152	806162	<0.2	<0.2	0.8	0.9				
						1.0	0.3	19	19.4	19.4	8.2	8.2	30.9	30.9	110.8	110.8	8.5	8.5	4.2	4	85	85	85	85	818152	806162	<0.2	<0.2	0.8	0.8				
					Middle	3.6	0.3	357	19.1	19.1	8.2	8.2	31.6	31.6	103.9	103.9	8.0	8.0	5.9	5	87	87	87	87	818152	806162	<0.2	<0.2	0.9	0.9				
						3.6	0.3	328	19.1	19.1	8.2	8.2	31.6	31.6	103.8	103.8	8.0	8.0	5.9	5	87	87	87	87	818152	806162	<0.2	<0.2	0.9	0.9				
					Bottom	6.1	0.2	328	19.0	19.0	8.2	8.2	31.8	31.8	102.8	102.8	7.9	7.9	7.1	7	90	90	90	90	818152	806162	<0.2	<0.2	0.9	0.9				
						6.1	0.2	349	19.0	19.0	8.2	8.2	31.8	31.8	102.7	102.7	7.9	7.9	7.2	6	90	90	90	90	818152	806162	<0.2	<0.2	0.9	0.9				
IM3	Fine	Moderate	11:14	7.2	Surface	1.0	0.3	346	19.5	19.5	8.2	8.2	31.1	31.1	108.5	108.5	8.3	8.3	4.7	4	84	84	84	84	818768	805574	<0.2	<0.2	0.9	0.9				
						1.0	0.4	318	19.5	19.5	8.2	8.2	31.1	31.1	108.4	108.4	8.3	8.3	4.7	5	85	85	85	85	818768	805574	<0.2	<0.2	1.0	1.0				
					Middle	3.6	0.3	332	19.0	19.0	8.2	8.2	31.6	31.7	102.7	102.6	7.9	7.9	5.5	5	87	87	87	87	818768	805574	<0.2	<0.2	1.0	1.0				
						3.6	0.3	343	19.0	19.0	8.2	8.2	31.7	31.7	102.5	102.5	7.9	7.9	5.6	5	87	87	87	87	818768	805574	<0.2	<0.2	1.0	1.0				
					Bottom	6.2	0.2	314	19.0	19.0	8.2	8.2	32.0	31.9	101.7	101.7	7.8	7.8	6.7	6	89	89	89	89	818768	805574	<0.2	<0.2	0.9	0.9				
						6.2	0.3	337	19.0	19.0	8.2	8.2	31.9	31.9	101.7	101.7	7.8	7.8	6.7	6	89	89	89	89	818768	805574	<0.2	<0.2	0.8	0.9				
IM4	Fine	Moderate	11:24	8.4	Surface	1.0	0.5	350	19.2	19.2	8.2	8.2	31.3	31.3	106.7	106.7	8.2	8.2	6.2	7	85	85	85	85	819718	804623	<0.2	<0.2	0.9	0.9				
						1.0	0.5	322	19.2	19.2	8.2	8.2	31.3	31.3	106.7	106.7	8.2	8.2	6.3	8	85	85	85	85	819718	804623	<0.2	<0.2	0.9	0.9				
					Middle	4.2	0.4	358	19.1	19.1	8.2	8.2	31.6	31.6	104.6	104.6	8.0	8.0	6.7	7	86	86	86	86	819718	804623	<0.2	<0.2	1.0	0.9				
						4.2	0.4	329	19.1	19.1	8.2	8.2	31.6	31.6	104.6	104.6	8.0	8.0	6.8	7	87	87	87	87	819718	804623	<0.2	<0.2	0.9	0.9				
					Bottom	7.4	0.4	4	19.0	19.0	8.2	8.2	31.6	31.6	103.5	103.5	8.0	8.0	7.2	5	89	89	89	89	819718	804623	<0.2	<0.2	0.8	0.9				
						7.4	0.4	4	19.0	19.0	8.2	8.2	31.6	31.6	103.4	103.4	8.0	8.0	7.4	6	89	89	89	89	819718	804623	<0.2	<0.2	0.9	0.9				
IM5	Fine	Moderate	11:31	7.7	Surface	1.0	0.8	16	19.4	19.4	8.2	8.2	31.1	31.1	108.1	108.1	8.3	8.3	5.4	4	84	84	84	84	820731	804858	<0.2	<0.2	0.9	0.9				
						1.0	0.8	17	19.3	19.3	8.2	8.2	31.1	31.1	108.0	108.0	8.3	8.3	5.2	5	85	85	85	85	820731	804858	<0.2	<0.2	0.9	0.9				
					Middle	3.9	0.7	22	19.2	19.2	8.2	8.2	31.2	31.2	106.4	106.4	8.2	8.2	5.9	6	86	86	86	86	820731	804858	<0.2	<0.2	0.9	0.9				
						3.9	0.7	22	19.2	19.2	8.2	8.2	31.2	31.2	106.3	106.3																		



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

Water Quality Monitoring Results on 18 February 21 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)		Current Direction		Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)		Coordinate HK Grid (Easting)		Chromium (µg/L)		Nickel (µg/L)			
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA
C1	Cloudy	Calm	16:45	8.6	Surface	1.0	0.2	121	19.8	19.8	8.3	8.3	30.1	30.1	112.0	112.0	8.6	8.6	0.4	0.4	6	6	89	89	815607	804251	<0.2	0.9	<0.2	0.9					
						1.0	0.2	129	19.8	8.3	8.3	30.1	30.1	112.0	112.0	8.6	8.6	0.4	0.4	6	6	89	89	815607	804251	<0.2	0.9	<0.2	0.9						
					Middle	4.3	0.2	111	19.5	19.5	8.3	8.3	31.4	31.4	110.9	110.9	8.5	8.5	1.8	1.8	6	6	90	90	815607	804251	<0.2	0.9	<0.2	0.9					
						4.3	0.2	112	19.4	19.4	8.3	8.3	31.4	31.4	110.8	110.8	8.5	8.5	1.8	1.8	7	7	90	90	815607	804251	<0.2	0.9	<0.2	0.9					
					Bottom	7.6	0.2	104	19.4	19.4	8.3	8.3	31.6	31.6	106.7	106.9	8.2	8.2	3.8	3.8	7	7	91	91	815607	804251	<0.2	0.8	<0.2	0.8					
						7.6	0.2	110	19.4	19.4	8.3	8.3	31.6	31.6	107.1	107.1	8.2	8.2	3.3	3.3	7	7	92	92	815607	804251	<0.2	0.7	<0.2	0.7					
C2	Fine	Moderate	15:35	13.0	Surface	1.0	0.1	21	20.3	20.3	8.3	8.3	29.8	29.8	117.4	117.2	8.9	8.9	2.3	2.3	6	6	84	84	825664	806964	<0.2	1.2	<0.2	1.3					
						1.0	0.1	22	20.3	20.3	8.3	8.3	29.8	29.8	117.0	117.0	8.9	8.9	2.3	2.3	5	5	84	84	825664	806964	<0.2	1.3	<0.2	1.3					
					Middle	6.5	0.1	78	19.9	19.9	8.2	8.2	30.8	30.8	111.7	111.8	8.5	8.5	4.4	4.4	7	7	87	87	825664	806964	<0.2	1.3	<0.2	1.3					
						6.5	0.1	84	19.9	19.9	8.2	8.2	30.8	30.8	111.9	111.9	8.5	8.5	4.4	4.4	6	6	87	87	825664	806964	<0.2	1.2	<0.2	1.2					
					Bottom	12.0	0.2	70	19.9	19.9	8.2	8.2	30.8	30.8	111.3	111.4	8.5	8.5	4.9	4.9	7	7	90	90	825664	806964	<0.2	1.2	<0.2	1.2					
						12.0	0.3	76	19.9	19.9	8.2	8.2	30.8	30.8	111.4	111.4	8.5	8.5	4.9	4.9	6	6	90	90	825664	806964	<0.2	1.2	<0.2	1.2					
C3	Fine	Moderate	17:45	12.5	Surface	1.0	0.3	56	19.8	19.8	8.3	8.3	30.8	30.8	111.3	111.3	8.5	8.5	1.7	1.7	4	4	85	85	822113	817785	<0.2	1.2	<0.2	1.1					
						1.0	0.3	56	19.8	19.8	8.3	8.3	30.8	30.8	111.2	111.2	8.5	8.5	1.7	1.7	5	5	86	86	822113	817785	<0.2	1.1	<0.2	1.1					
					Middle	6.3	0.3	69	19.5	19.5	8.2	8.2	31.8	31.8	103.6	103.7	7.9	7.9	2.0	2.0	5	5	89	89	822113	817785	<0.2	1.2	<0.2	1.1					
						6.3	0.3	74	19.5	19.5	8.2	8.2	31.8	31.8	103.7	103.7	7.9	7.9	2.0	2.0	4	4	89	89	822113	817785	<0.2	1.2	<0.2	1.1					
					Bottom	11.5	0.2	77	19.5	19.5	8.2	8.2	31.9	31.9	103.4	103.4	7.9	7.9	2.0	2.0	5	5	91	91	822113	817785	<0.2	1.0	<0.2	1.0					
						11.5	0.2	79	19.5	19.5	8.2	8.2	31.9	31.9	103.4	103.4	7.9	7.9	2.1	2.1	4	4	91	91	822113	817785	<0.2	1.0	<0.2	1.0					
IM1	Cloudy	Calm	16:24	5.2	Surface	1.0	0.2	115	19.8	19.8	8.3	8.3	30.0	30.0	109.0	108.7	8.3	8.3	4.5	4.5	4	4	89	89	817925	807138	<0.2	0.8	<0.2	0.8					
						1.0	0.2	123	19.8	19.8	8.3	8.3	30.0	30.0	108.4	108.4	8.3	8.3	4.6	4.6	3	3	89	89	817925	807138	<0.2	0.8	<0.2	0.8					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	817925	807138	<0.2	-	<0.2	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	817925	807138	<0.2	-	<0.2	-	
					Bottom	4.2	0.2	99	19.7	19.7	8.3	8.3	30.2	30.1	103.2	103.3	7.9	7.9	13.2	13.2	5	5	92	92	817925	807138	<0.2	0.8	<0.2	0.8					
						4.2	0.2	105	19.7	19.7	8.3	8.3	30.1	30.1	103.4	103.4	7.9	7.9	14.5	14.5	5	5	91	91	817925	807138	<0.2	0.7	<0.2	0.7					
IM2	Cloudy	Calm	16:17	7.2	Surface	1.0	0.4	85	19.9	19.9	8.3	8.3	30.6	30.6	111.8	111.8	8.5	8.5	1.1	1.1	5	5	89	89	818176	806157	<0.2	0.8	<0.2	0.8					
						1.0	0.4	87	19.9	19.9	8.3	8.3	30.6	30.6	111.7	111.7	8.5	8.5	1.2	1.2	6	6	89	89	818176	806157	<0.2	0.8	<0.2	0.8					
					Middle	3.6	0.4	81	19.9	19.9	8.3	8.3	30.6	30.6	111.1	111.1	8.5	8.5	1.0	1.0	6	6	90	90	818176	806157	<0.2	0.8	<0.2	0.8					
						3.6	0.4	85	19.8	19.8	8.3	8.3	30.6	30.6	111.0	111.0	8.5	8.5	1.0	1.0	6	6	91	91	818176	806157	<0.2	0.8	<0.2	0.8					
					Bottom	6.2	0.3	80	19.7	19.7	8.3	8.3	30.7	30.7	109.6	109.6	8.4	8.4	1.3	1.3	7	7	91	91	818176	806157	<0.2	0.8	<0.2	0.8					
						6.2	0.4	80	19.7	19.7	8.3	8.3	30.7	30.7	109.6	109.6	8.4	8.4	1.3	1.3	6	6	91	91	818176	806157	<0.2	0.8	<0.2	0.8					
IM3	Cloudy	Calm	16:10	7.4	Surface	1.0	0.3	65	19.9	19.9	8.3	8.3	30.5	30.5	110.7	110.7	8.4	8.4	1.0	1.0	5	5	89	89	818763	805596	<0.2	1.0	<0.2	1.0					
						1.0	0.3	67	19.9	19.9	8.3	8.3	30.5	30.5	110.6	110.6	8.4	8.4	0.9	0.9	6	6	89	89	818763	805596	<0.2	1.0	<0.2	1.0					
					Middle	3.7	0.4	62	19.8	19.8	8.3	8.3	30.6	30.6	109.7	109.7	8.4	8.4	1.1	1.1	6	6	90	90	818763	805596	<0.2	0.9	<0.2	0.9					
						3.7	0.4	63	19.8	19.8	8.3	8.3	30.6	30.6	109.6	109.6	8.4	8.4	1.0	1.0	7	7	90	90	818763	805596	<0.2	0.8	<0.2	0.8					
					Bottom	6.4	0.2	53	19.5	19.5	8.3	8.3	31.0	31.0	105.9	106.0	8.1	8.1	2.5	2.5	6	6	91	91	818763	805596	<0.2	0.8	<0.2	0.8					
						6.4	0.2	56	19.5	19.5	8.3	8.3	31.0	31.0	106.0	106.0	8.1	8.1	2.5	2.5	7	7	92	92	818763	805596	<0.2	0.8	<0.2	0.8					
IM4	Cloudy	Calm	16:00	8.2	Surface	1.0	0.1	55	19.9	19.9	8.3	8.3	30.5	30.5	111.2	111.1	8.5	8.5	1.1	1.1	6	6	87	87	819718	804606	<0.2	1.0	<0.2	1.0					
						1.0	0.1	58	19.9	19.9	8.3	8.3	30.5	30.5	111.0	111.0	8.5	8.5	1.1	1.1	5	5	88	88	819718	804606	<0.2	1.0	<0.2	1.0					
					Middle	4.1	0.3	62	19.8	19.8	8.3	8.3	30.6	30.6	110.6	110.5	8.4	8.4	1.3	1.3	5	5	89	89	819718	804606	<0.2	0.9	<0.2	0.9					
						4.1	0.3	65	19.8	19.8	8.3	8.3	30.6	30.6	110.4	110.4	8.4	8.4	1.4	1.4	6	6	89	89	819718	804606	<0.2	1.0	<0.2	1.0					
					Bottom	7.2	0.2	55	19.7	19.8	8.3	8.3	30.7	30.7	109.6	109.7	8.4	8.4	1.7	1.7	5	5	91	91	819718	804606	<0.2	1.0	<0.2	1.0					
						7.2	0.2	56	19.8	19.8	8.3	8.3	30.7	30.7	109.8	109.8	8.4	8.4	1.7	1.7	5	5	91	91	819718	804606	<0.2	0.9	<0.2	0.9					
IM5	Cloudy	Calm	15:51	8.0	Surface	1.0	0.3	146	20.0	20.0	8.3	8.3	29.4	29.5	113.3	113.3	8.7	8.7	0.9	0.9	3	3	87	87	820737	804868	<0.2	1.1	<0.2	1.1					
						1.0	0.3	159	20.0	20.0	8.3	8.3	29.6	29.6	113.2	113.2	8.6	8.6	0.9	0.9	4	4	88	88	820737	804868	<0.2	1.2	<0.2	1.2					
					Middle	4.0	0.3	112	19.7	19.7	8.3	8.3	30.6	30.6	105.6	105.3	8.1	8.1	3.3	3.3	4	4	89	89	820737	804868	<0.2	1.2	<0.2	1.2					

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

Water Quality Monitoring Results on 18 February 21 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)		Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)						
						Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA			
IM9	Fine	Moderate	16:06	8.0	Surface	1.0	0.2	76	20.3	20.3	8.3	8.3	29.7	29.7	120.2	120.2	8.1	8.1	2.0	7	84	87	822117	808806	<0.2	1.2	1.2	1.3							
						1.0	0.2	80	20.3	8.3	8.3	29.7	29.7	120.2	120.2	8.1	8.1	2.0	6	84	87	822117	808806	<0.2	1.3	1.2	1.3								
						4.0	0.2	70	20.0	8.3	8.3	30.6	30.6	114.5	114.4	8.7	8.9	2.7	7	88	87	822117	808806	<0.2	1.3	1.2	1.3								
					Middle	4.0	0.2	74	20.0	8.3	8.3	30.6	30.6	114.3	114.3	8.7	8.9	2.7	6	87	87	822117	808806	<0.2	1.2	1.2	1.2	1.2							
						7.0	0.2	88	19.8	8.2	8.2	31.3	31.3	112.0	112.0	8.5	8.5	3.8	6	90	87	822117	808806	<0.2	1.2	1.2	1.2								
						7.0	0.2	92	19.8	8.2	8.2	31.3	31.3	112.0	112.0	8.5	8.5	3.8	5	90	87	822117	808806	<0.2	1.1	1.2	1.1								
					IM10	Fine	Moderate	16:13	8.6	Surface	1.0	0.3	90	20.1	20.1	8.3	8.3	29.9	29.9	115.8	115.7	8.8	8.8	2.6	5	84	87	822400	809798	<0.2	1.2	1.2	1.3		
											1.0	0.3	94	20.1	8.3	8.3	29.9	29.9	115.6	115.6	8.8	8.8	2.6	5	84	87	822400	809798	<0.2	1.3	1.2	1.3			
											4.3	0.2	96	19.8	8.2	8.2	30.9	30.9	112.0	112.1	8.5	8.7	3.7	4	88	87	822400	809798	<0.2	1.2	1.2	1.3			
Middle	4.3	0.2	103	19.8						8.2	8.2	30.9	30.9	112.1	112.1	8.5	8.5	3.8	5	89	87	822400	809798	<0.2	1.3	1.2	1.3								
	7.6	0.2	81	19.8						8.2	8.2	31.1	31.1	111.2	111.3	8.5	8.5	4.2	5	89	87	822400	809798	<0.2	1.2	1.2	1.2								
	7.6	0.2	88	19.8						8.2	8.2	31.1	31.1	111.3	111.3	8.5	8.5	4.2	4	90	87	822400	809798	<0.2	1.2	1.2	1.2								
IM11	Fine	Moderate	16:23	9.0						Surface	1.0	0.2	123	19.9	19.9	8.3	8.3	29.8	29.8	110.1	110.1	8.4	8.4	1.9	4	85	88	822073	811474	<0.2	1.2	1.2	1.2		
											1.0	0.2	127	19.9	8.3	8.3	29.8	29.8	110.0	110.0	8.4	8.3	1.9	4	85	88	822073	811474	<0.2	1.2	1.2	1.2			
											4.5	0.2	117	19.8	8.2	8.2	30.2	30.2	105.6	105.8	8.1	8.1	2.0	4	88	88	822073	811474	<0.2	1.2	1.2	1.2			
					Middle	4.5	0.2	122	19.8	8.2	8.2	30.2	30.2	105.9	105.8	8.1	8.1	2.0	5	89	88	822073	811474	<0.2	1.2	1.2	1.2								
						8.0	0.1	146	19.7	8.2	8.2	30.9	30.9	104.4	104.4	8.0	8.0	2.1	4	90	88	822073	811474	<0.2	1.3	1.2	1.3								
						8.0	0.2	153	19.7	8.2	8.2	30.9	30.9	104.3	104.3	8.0	8.0	2.0	4	90	88	822073	811474	<0.2	1.2	1.2	1.2								
					IM12	Fine	Moderate	16:29	9.7	Surface	1.0	0.2	151	19.9	19.9	8.3	8.3	29.8	29.8	111.8	111.8	8.6	8.6	1.9	5	85	88	821456	812043	<0.2	1.2	1.2	1.2		
											1.0	0.2	164	19.9	8.3	8.3	29.8	29.8	111.8	111.8	8.6	8.4	1.9	4	85	88	821456	812043	<0.2	1.2	1.2	1.2			
											4.9	0.1	143	19.9	8.3	8.2	30.3	30.3	106.8	106.7	8.1	8.4	2.4	4	89	88	821456	812043	<0.2	1.2	1.2	1.2			
Middle	4.9	0.1	157	19.9						8.2	8.2	30.3	30.3	106.6	106.7	8.1	8.1	2.4	5	88	88	821456	812043	<0.2	1.2	1.2	1.2								
	8.7	0.1	132	19.6						8.2	8.2	31.4	31.4	102.2	102.2	7.8	7.8	2.5	3	90	88	821456	812043	<0.2	1.2	1.2	1.2								
	8.7	0.1	132	19.6						8.2	8.2	31.4	31.4	102.2	102.2	7.8	7.8	2.5	4	90	88	821456	812043	<0.2	1.2	1.2	1.3								
SR1A	Fine	Calm	17:10	5.3						Surface	1.0	-	-	20.2	20.2	8.3	8.3	30.3	30.3	108.9	108.9	8.3	8.3	2.2	4	-	-	819979	812662	-	-	-	-		
											1.0	-	-	20.2	20.2	8.3	8.3	30.3	30.3	108.8	108.8	8.2	8.3	2.2	4	-	-	-	-	819979	812662	-	-	-	-
											2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						4.3	-	-	19.8	19.8	8.2	8.2	30.6	30.6	106.0	106.1	8.1	8.1	2.5	4	-	-	-	-	-	-	-	-	-	-	-				
						4.3	-	-	19.8	19.8	8.2	8.2	30.6	30.6	106.1	106.1	8.1	8.1	2.5	4	-	-	-	-	-	-	-	-	-	-	-				
					SR2	Fine	Moderate	17:26	4.9	Surface	1.0	0.2	46	19.9	19.9	8.3	8.3	30.0	30.0	115.4	115.4	8.8	8.8	2.3	6	87	88	821474	814145	<0.2	1.1	1.1	1.1		
											1.0	0.2	47	19.9	8.3	8.3	30.0	30.0	115.3	115.3	8.8	8.8	2.3	5	87	88	821474	814145	<0.2	1.1	1.1	1.1			
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	3.9	0.2	37	19.9						8.3	8.3	30.3	30.3	112.5	112.5	8.6	8.6	4.4	5	89	88	821474	814145	<0.2	1.2	1.2	1.2								
	3.9	0.2	38	19.9						8.3	8.3	30.3	30.3	112.5	112.5	8.6	8.6	4.5	5	89	88	821474	814145	<0.2	1.1	1.2	1.1								
SR3	Fine	Moderate	15:54	9.5						Surface	1.0	0.2	184	20.1	20.1	8.3	8.3	29.7	29.7	121.8	121.7	9.3	9.3	1.9	4	-	-	822136	807574	-	-	-	-		
											1.0	0.2	188	20.1	8.3	8.3	29.7	29.7	121.5	121.5	9.3	9.0	2.0	5	-	-	-	-	822136	807574	-	-	-	-	
											4.8	0.2	178	19.9	8.3	8.3	30.1	30.1	114.8	114.7	8.8	8.8	2.5	5	-	-	-	-	822136	807574	-	-	-	-	
					Middle	4.8	0.2	188	19.9	8.3	8.3	30.1	30.1	114.5	114.7	8.7	8.7	2.5	5	-	-	-	-	822136	807574	-	-	-	-						
						8.5	0.2	135	19.9	8.2	8.2	31.3	31.3	111.9	111.9	8.5	8.5	3.8	5	-	-	-	-	822136	807574	-	-	-	-						
						8.5	0.2	136	19.9	8.2	8.2	31.3	31.3	111.9	111.9	8.5	8.5	3.8	5	-	-	-	-	822136	807574	-	-	-	-						
					SR4A	Cloudy	Calm	17:08	8.2	Surface	1.0	0.2	86	19.8	19.8	8.3	8.3	30.2	30.2	106.3	106.2	8.1	8.1	3.2	5	-	-	817176	807830	-	-	-	-		
											1.0	0.2	91	19.7	8.3	8.3	30.2	30.2	106.1	106.2	8.1	8.1	3.3	6	-	-	-	-	817176	807830	-	-	-	-	
											4.1	0.2	82	19.5	8.3	8.3	30.5	30.5	105.0	104.9	8.0	8.0	3.7	6	-	-	-	-	817176	807830	-	-	-	-	
Middle	4.1	0.2	85	19.5						8.3	8.3	30.5	30.5	104.8	104.9	8.0	8.0	3.6	5	-	-	-	-	817176	807830	-	-	-	-						
	7.2	0.2	88	19.5						8.2	8.2	30.5	30.5	104.5	104.5	8.0	8.0	3.6	7	-	-	-	-	817176	807830	-	-	-	-						
	7.2	0.2	93	19.5						8.2	8.2	30.5	30.5	104.4	104.5	8.0	8.0	3.7	8	-	-	-	-	817176	807830	-	-	-	-						
SR5A	Cloudy	Calm	17:24	3.2						Surface	1.0	0.4	79	20.3	20.3	8.3	8.3	29.5	29.5	107.5	107.0	8.2	8.2	2.0	5	-	-	816607	810682	-	-	-	-		
											1.0	0.4	86	20.2	8.3	8.3	29.6	29.6	106.5	107.0	8.1	8.2	1.8	6	-	-	-	-	816607	810682	-	-	-	-	
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
						2.2	0.3	57	20.2	8.3	8.3	29.6	29.6	105.8	105.7																				

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

Water Quality Monitoring

Water Quality Monitoring Results on 18 February 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)				
								Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	
C1	Cloudy	Moderate	11:21	8.4	Surface	1.0	0.4	282	19.4	19.4	8.3	8.3	30.6	30.7	106.8	106.7	8.2	8.0	3.1	5.2	5	88	89	815642	804266	<0.2	<0.2	0.8	0.8			
						1.0	0.5	308	19.4	19.4	8.3	8.3	30.8	30.7	106.6	106.7	8.2	8.0	3.2	5.2	4	88	89			<0.2	<0.2	0.7	0.8			
						4.2	0.5	274	19.2	19.2	8.2	8.2	31.6	31.6	100.8	100.7	7.7	7.7	5.4	5.4	4	89	89			<0.2	<0.2	0.8	0.8			
					4.2	0.5	284	19.2	19.2	8.2	8.2	31.6	31.6	100.7	100.7	7.7	7.7	5.4	5.4	5	89	89			<0.2	<0.2	0.8	0.8				
					7.4	0.4	279	19.2	19.2	8.2	8.2	31.6	31.6	100.4	100.4	7.7	7.7	6.9	7.0	6	90	90			<0.2	<0.2	0.7	0.7				
					7.4	0.4	281	19.2	19.2	8.2	8.2	31.6	31.6	100.4	100.4	7.7	7.7	7.0	7.0	6	91	91			<0.2	<0.2	1.1	1.1				
C2	Fine	Moderate	12:31	12.8	Surface	1.0	0.3	350	20.3	20.3	8.3	8.3	29.4	29.4	117.2	117.2	8.9	8.7	1.9	3.0	4	83	84	825688	806954	<0.2	<0.2	1.1	1.3			
						1.0	0.3	359	20.3	19.7	8.3	8.3	29.4	29.8	117.1	109.8	8.9	8.4	1.9	3.0	4	84	87			<0.2	<0.2	1.3	1.3			
						6.4	0.3	342	19.7	19.7	8.3	8.3	29.8	29.8	109.8	109.7	8.4	8.4	3.5	5	5	87	87			<0.2	<0.2	1.4	1.4			
					6.4	0.3	345	19.7	19.7	8.3	8.3	29.8	29.9	109.6	109.2	8.4	8.4	3.5	5	5	87	90			<0.2	<0.2	1.3	1.3				
					11.8	0.3	344	19.7	19.7	8.3	8.3	29.9	29.9	109.2	109.2	8.4	8.4	3.7	5	5	90	90			<0.2	<0.2	1.3	1.3				
					11.8	0.3	316	19.7	19.7	8.3	8.3	29.9	29.9	109.2	109.2	8.4	8.4	3.7	5	5	90	90			<0.2	<0.2	1.4	1.4				
C3	Fine	Moderate	10:18	12.4	Surface	1.0	0.5	265	19.6	19.6	8.2	8.2	30.6	30.6	104.1	104.1	8.0	7.8	1.8	2.5	4	85	85	822104	817781	<0.2	<0.2	1.9	1.7			
						1.0	0.5	278	19.6	19.5	8.2	8.2	30.6	31.3	104.1	99.1	8.0	7.6	1.8	2.5	5	85	88			<0.2	<0.2	2.0	1.8			
						6.2	0.5	267	19.5	19.5	8.2	8.2	31.3	31.3	99.1	99.2	7.6	7.6	2.3	4	4	88	88			<0.2	<0.2	1.8	1.8			
					6.2	0.5	267	19.5	19.5	8.2	8.2	31.3	31.3	99.2	99.2	7.6	7.6	2.4	4	4	88	91			<0.2	<0.2	1.3	1.3				
					11.4	0.4	275	19.4	19.4	8.2	8.1	31.9	31.9	98.9	98.9	7.5	7.5	3.6	4	4	91	91			<0.2	<0.2	1.3	1.3				
					11.4	0.5	292	19.4	19.4	8.1	8.1	31.9	31.9	98.9	98.9	7.5	7.5	3.2	5	5	91	91			<0.2	<0.2	1.3	1.3				
IM1	Cloudy	Moderate	11:41	5.1	Surface	1.0	0.5	314	19.8	19.8	8.3	8.3	29.9	29.9	105.0	104.8	8.0	8.0	2.4	4.5	3	86	86	817937	807121	<0.2	<0.2	0.9	0.9			
						1.0	0.5	319	19.7	19.8	8.3	8.3	29.9	29.9	104.6	104.6	8.0	8.0	2.5	4.5	3	86	86			<0.2	<0.2	0.9	0.9			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					4.1	0.4	314	19.6	19.6	8.3	8.3	30.0	30.0	103.2	103.2	7.9	7.9	6.6	3	3	87	87			<0.2	<0.2	0.9	0.9				
					4.1	0.4	324	19.6	19.6	8.3	8.3	30.1	30.1	103.2	103.2	7.9	7.9	6.7	3	3	87	87			<0.2	<0.2	0.9	0.9				
					4.1	0.4	324	19.6	19.6	8.3	8.3	30.1	30.1	103.2	103.2	7.9	7.9	6.7	3	3	87	87			<0.2	<0.2	0.9	0.9				
IM2	Cloudy	Moderate	11:48	7.0	Surface	1.0	0.5	335	19.7	19.7	8.3	8.3	29.9	29.9	109.2	109.2	8.4	8.3	1.3	4.2	4	87	87	818149	806178	<0.2	<0.2	0.9	0.9			
						1.0	0.5	346	19.7	19.7	8.3	8.3	29.9	29.9	109.2	109.2	8.4	8.3	1.3	4.2	4	87	87			<0.2	<0.2	0.9	0.9			
						3.5	0.4	331	19.5	19.5	8.3	8.3	30.3	30.3	106.4	106.4	8.2	8.2	5.4	3	3	89	89			<0.2	<0.2	0.9	0.9			
					3.5	0.4	347	19.5	19.5	8.3	8.3	30.3	30.3	106.3	106.3	8.2	8.2	5.5	3	3	89	89			<0.2	<0.2	0.9	0.9				
					6.0	0.3	327	19.5	19.5	8.3	8.3	30.3	30.3	106.0	106.0	8.1	8.1	5.8	3	3	91	91			<0.2	<0.2	1.0	1.0				
					6.0	0.4	329	19.5	19.5	8.3	8.3	30.3	30.3	105.9	105.9	8.1	8.1	5.7	2	2	91	91			<0.2	<0.2	0.9	0.9				
IM3	Cloudy	Moderate	11:55	7.2	Surface	1.0	0.2	72	19.6	19.6	8.3	8.3	30.0	30.1	107.4	107.2	8.2	8.2	2.2	3.6	2	85	85	818774	805617	<0.2	<0.2	0.9	0.9			
						1.0	0.3	78	19.6	19.6	8.3	8.3	30.1	30.2	107.0	105.9	8.2	8.1	2.5	3	3	86	87			<0.2	<0.2	0.9	0.9			
						3.6	0.2	67	19.5	19.5	8.3	8.3	30.2	30.2	105.9	105.9	8.1	8.1	4.0	3	3	87	87			<0.2	<0.2	0.8	0.8			
					3.6	0.2	68	19.5	19.5	8.3	8.3	30.2	30.2	105.8	105.8	8.1	8.1	4.0	3	3	88	88			<0.2	<0.2	0.8	0.8				
					6.2	0.1	87	19.5	19.5	8.3	8.3	30.2	30.2	105.2	105.2	8.1	8.1	4.5	3	3	91	91			<0.2	<0.2	0.8	0.8				
					6.2	0.1	90	19.4	19.5	8.3	8.3	30.2	30.2	105.1	105.1	8.1	8.1	4.2	4	4	91	91			<0.2	<0.2	0.9	0.9				
IM4	Cloudy	Moderate	12:05	8.4	Surface	1.0	0.1	95	19.5	19.5	8.3	8.3	30.2	30.2	106.7	106.6	8.2	8.2	2.4	3.5	3	86	87	819718	804630	<0.2	<0.2	0.9	0.9			
						1.0	0.1	98	19.5	19.5	8.3	8.3	30.2	30.2	106.4	106.6	8.2	8.1	2.7	3	3	87	87			<0.2	<0.2	0.9	0.9			
						4.2	0.1	84	19.4	19.4	8.3	8.3	30.3	30.3	105.5	105.5	8.1	8.1	3.9	4	4	89	89			<0.2	<0.2	0.8	0.8			
					4.2	0.2	91	19.4	19.4	8.3	8.3	30.3	30.3	105.4	105.4	8.1	8.1	4.0	3	3	89	89			<0.2	<0.2	0.9	0.9				
					7.4	0.1	52	19.4	19.4	8.3	8.3	30.3	30.3	105.1	105.1	8.1	8.1	4.0	4	4	91	91			<0.2	<0.2	0.9	0.9				
					7.4	0.1	55	19.4	19.4	8.3	8.3	30.3	30.3	105.1	105.1	8.1	8.1	4.0	3	3	92	92			<0.2	<0.2	0.9	0.9				
IM5	Cloudy	Moderate	12:12	7.6	Surface	1.0	0.6	11	19.7	19.7	8.3	8.3	30.0	30.0	108.3	108.2	8.3	8.3	2.3	4.2	4	87	87	820743	804882	<0.2	<0.2	0.9	0.9			
						1.0	0.7	11	19.6	19.6	8.3	8.3	30.0	30.0	108.0	108.0	8.3	8.3	2.6	3	3	87	87			<0.2	<0.2	0.9	0.9			
						3.8	0.6	4	19.6	19.6	8.3	8.3	30.1	30.1	107.3	107.2	8.2	8.2	3.7	4	4	88	88			<0.2	<0.2	0.8	0.8			
					3.8	0.7	4	19.6	19.6	8.3	8.3	30.1	30.1	107.1	107.2	8.2	8.2	4.1	3	3	89	89			<0.2	<0.2	0.8	0.8				
					6.6	0.5	17	19.6	19.6	8.3	8.3	30.2	30.2	106.7	106.7	8.2	8.2	6.3	5	5	90	90			<0.2	<0.2	0.9	0.9				
					6.6	0.5	17	19.6	19.6	8.3	8.3	30.2	30.2	106.7	106.7	8.2	8.2	6.3	4	4	91	91			<0.2	<0.2	0.9	0.9				
IM6	Cloudy	Moderate	12:19	7.6	Surface	1.0	0.1	300	19.8	19.8	8.3	8.3	28.9	28.9	110.0	109.8	8.5	8.3	1.3	2.7	4	87	88	821082	805837	<0.2	<0.2	0.9	0.9			
						1.0	0.1	323	19.8	19.8	8.3	8.3	29.0	29.5	109.6	106.7	8.4															

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

Water Quality Monitoring Results on 18 February 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	12:02	7.5	Surface	1.0	0.1	126	19.9	19.9	8.3	8.3	29.8	29.8	108.2	108.3	8.3	8.3	2.4	2.4	2	2	83	86	822071	808794	<0.2	1.2	<0.2	1.2							
						1.0	0.1	131	19.9	8.3	8.3	29.8	29.8	108.3	108.3	8.3	8.3	2.4	2.4	3	3	83	86	822071	808794	<0.2	1.2	<0.2	1.2								
						3.8	0.1	150	19.9	8.3	8.3	29.8	29.8	106.6	106.6	8.2	8.2	2.6	2.6	2	2	86	87	822071	808794	<0.2	1.2	<0.2	1.2								
					Middle	3.8	0.1	160	19.8	19.8	8.3	8.3	29.8	29.8	106.6	106.6	8.2	8.2	2.7	2.7	2	2	87	2	86	86	822071	808794	<0.2	1.2	<0.2	1.2					
						6.5	0.1	149	19.8	19.8	8.3	8.3	29.8	29.8	106.5	106.5	8.2	8.2	3.4	3.4	2	2	90	2	86	86	822071	808794	<0.2	1.2	<0.2	1.2					
						6.5	0.1	155	19.8	19.8	8.3	8.3	29.8	29.8	106.5	106.5	8.2	8.2	3.4	3.4	2	2	89	2	86	86	822071	808794	<0.2	1.2	<0.2	1.2					
					IM10	Fine	Moderate	11:55	7.9	Surface	1.0	0.4	325	20.0	20.0	8.3	8.3	29.9	29.9	110.6	110.5	8.4	8.4	2.4	2.4	4	4	84	84	822392	809776	<0.2	1.2	<0.2	1.1		
											1.0	0.5	327	20.0	20.0	8.3	8.3	29.9	29.9	110.4	110.4	8.4	8.4	2.4	2.4	3	3	84	3	84	87	822392	809776	<0.2	1.2	<0.2	1.2
											4.0	0.5	342	19.9	19.9	8.3	8.3	30.0	30.0	107.9	108.0	8.2	8.2	3.2	3.2	3	3	87	3	84	87	822392	809776	<0.2	1.2	<0.2	1.2
Middle	4.0	0.5	353	19.9						19.9	8.3	8.3	30.0	30.0	108.1	108.1	8.3	8.3	3.2	3.2	4	4	87	4	87	3	84	87	822392	809776	<0.2	1.2	<0.2	1.2			
	6.9	0.4	338	19.8						19.8	8.2	8.2	30.0	30.0	106.5	106.5	8.1	8.1	3.3	3.3	3	3	90	3	84	90	822392	809776	<0.2	1.2	<0.2	1.2					
	6.9	0.4	345	19.8						19.8	8.2	8.2	30.0	30.0	106.4	106.4	8.1	8.1	3.4	3.4	3	3	90	3	84	90	822392	809776	<0.2	1.2	<0.2	1.3					
IM11	Fine	Moderate	11:43	8.5						Surface	1.0	0.6	317	19.7	19.7	8.2	8.2	30.3	30.3	107.1	107.1	8.2	8.2	2.1	2.1	3	3	84	84	822047	811474	<0.2	1.2	<0.2	1.0		
											1.0	0.6	333	19.7	19.7	8.2	8.2	30.3	30.3	107.0	107.0	8.2	8.2	2.1	2.1	3	3	84	3	84	88	822047	811474	<0.2	1.2	<0.2	1.1
											4.3	0.6	328	19.7	19.7	8.2	8.2	30.3	30.3	104.9	104.9	8.0	8.0	2.2	2.2	3	3	88	3	84	87	822047	811474	<0.2	1.2	<0.2	1.1
					Middle	4.3	0.6	355	19.7	19.7	8.2	8.2	30.3	30.3	104.9	104.9	8.0	8.0	2.2	2.2	4	4	87	4	88	3	84	87	822047	811474	<0.2	1.2	<0.2	1.1			
						7.5	0.5	311	19.7	19.7	8.2	8.2	30.6	30.6	104.3	104.3	8.0	8.0	2.3	2.3	4	4	90	4	84	90	822047	811474	<0.2	1.2	<0.2	1.2					
						7.5	0.5	317	19.7	19.7	8.2	8.2	30.6	30.6	104.2	104.2	8.0	8.0	2.3	2.3	3	3	90	3	84	90	822047	811474	<0.2	1.2	<0.2	1.2					
					IM12	Fine	Moderate	11:38	9.4	Surface	1.0	0.4	287	19.9	19.9	8.2	8.2	30.3	30.3	108.3	108.3	8.3	8.3	2.1	2.1	3	3	84	84	821448	812068	<0.2	1.2	<0.2	1.2		
											1.0	0.4	303	19.9	19.9	8.2	8.2	30.3	30.3	108.2	108.2	8.3	8.3	2.1	2.1	3	3	84	3	84	88	821448	812068	<0.2	1.2	<0.2	1.1
											4.7	0.4	290	19.8	19.8	8.2	8.2	30.4	30.4	106.8	106.8	8.2	8.2	2.6	2.6	3	3	88	3	84	87	821448	812068	<0.2	1.2	<0.2	1.1
Middle	4.7	0.4	306	19.8						19.8	8.2	8.2	30.4	30.4	106.7	106.8	8.1	8.1	2.7	2.7	3	3	87	3	84	87	821448	812068	<0.2	1.2	<0.2	1.1					
	8.4	0.4	281	19.7						19.7	8.2	8.2	30.5	30.5	105.7	105.8	8.1	8.1	4.2	4.2	5	5	90	5	84	90	821448	812068	<0.2	1.2	<0.2	1.1					
	8.4	0.4	287	19.7						19.7	8.2	8.2	30.5	30.5	105.9	105.9	8.1	8.1	4.2	4.2	4	4	90	4	84	90	821448	812068	<0.2	1.2	<0.2	1.1					
SR1A	Fine	Calm	10:57	5.1						Surface	1.0	-	-	19.9	19.9	8.2	8.2	30.1	30.1	102.7	102.8	7.8	7.8	2.5	2.5	3	3	-	-	819980	812665	-	-	-	-		
											1.0	-	-	19.9	19.9	8.2	8.2	30.1	30.1	102.8	102.8	7.8	7.8	2.5	2.5	3	3	-	-	-	-	819980	812665	-	-	-	-
											2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						4.1	-	-	19.8	19.8	8.2	8.2	30.1	30.1	103.2	103.3	7.9	7.9	2.6	2.6	2	2	-	-	-	-	-	-	-	-	-	-	-				
						4.1	-	-	19.8	19.8	8.2	8.2	30.1	30.1	103.3	103.3	7.9	7.9	2.7	2.7	3	3	-	-	-	-	-	-	-	-	-	-	-				
					SR2	Fine	Moderate	10:40	4.7	Surface	1.0	0.2	231	19.7	19.7	8.2	8.2	30.3	30.3	107.2	107.3	8.2	8.2	3.5	3.5	2	2	86	86	821467	814171	<0.2	1.1	<0.2	1.1		
											1.0	0.2	237	19.7	19.7	8.2	8.2	30.3	30.3	107.3	107.3	8.2	8.2	3.4	3.4	3	3	86	3	86	86	821467	814171	<0.2	1.1	<0.2	1.1
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	3.7	0.2	246	19.7						19.7	8.2	8.2	30.3	30.3	107.0	107.0	8.2	8.2	3.9	3.9	4	4	89	4	89	4	86	89	821467	814171	<0.2	1.1	<0.2	1.1			
	3.7	0.2	262	19.7						19.7	8.2	8.2	30.3	30.3	106.9	107.0	8.2	8.2	3.9	3.9	4	4	89	4	89	4	86	89	821467	814171	<0.2	1.1	<0.2	1.1			
SR3	Fine	Moderate	12:14	9.3						Surface	1.0	0.1	76	20.0	20.0	8.3	8.3	29.6	29.6	114.0	114.0	8.7	8.7	2.0	2.0	3	3	-	-	822132	807580	-	-	-	-		
											1.0	0.1	80	20.0	20.0	8.3	8.3	29.6	29.6	114.0	114.0	8.7	8.7	2.0	2.0	2	2	-	-	-	-	822132	807580	-	-	-	-
											4.7	0.1	54	19.8	19.8	8.3	8.3	29.7	29.7	109.6	109.7	8.4	8.4	2.1	2.1	3	3	-	-	-	-	822132	807580	-	-	-	-
					Middle	4.7	0.1	55	19.8	19.8	8.3	8.3	29.7	29.7	109.8	109.7	8.4	8.4	2.1	2.1	4	4	-	-	-	-	822132	807580	-	-	-	-					
						8.3	0.2	32	19.8	19.8	8.3	8.3	29.8	29.8	108.3	108.3	8.3	8.3	3.0	3.0	3	3	-	-	-	-	822132	807580	-	-	-	-					
						8.3	0.2	32	19.8	19.8	8.3	8.3	29.8	29.8	108.3	108.3	8.3	8.3	3.0	3.0	4	4	-	-	-	-	822132	807580	-	-	-	-					
					SR4A	Cloudy	Moderate	10:58	8.1	Surface	1.0	0.2	114	19.7	19.7	8.3	8.3	29.5	29.5	100.2	100.3	7.7	7.7	1.8	1.8	5	5	-	-	817166	807826	-	-	-	-		
											1.0	0.2	115	19.7	19.7	8.3	8.3	29.5	29.5	100.4	100.3	7.7	7.7	1.8	1.8	5	5	-	-	-	-	817166	807826	-	-	-	-
											4.1	0.1	108	19.7	19.7	8.3	8.3	29.5	29.5	100.5	100.5	7.7	7.7	1.7	1.7	4	4	-	-	-	-	817166	807826	-	-	-	-
Middle	4.1	0.2	110	19.7						19.7	8.3	8.3	29.5	29.5	100.5	100.5	7.7	7.7	1.7																		



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

Water Quality Monitoring

Water Quality Monitoring Results on 20 February 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	Calm	19:13	8.0	Surface	1.0	0.2	188	19.9	19.9	8.3	8.3	30.3	30.4	120.8	121.0	9.2	8.8	0.7	1.2	<2	2	87	88	815608	804268	<0.2	1.4	<0.2	1.3						
						1.0	0.2	199	19.8	8.3	8.3	30.5	31.3	121.1	110.9	9.2	8.5	0.7	1.1	<2	2	85	88	<0.2			1.5									
						4.0	0.1	199	19.5	8.3	8.3	31.3	31.3	110.9	110.7	8.5	8.4	1.2	2	2	87	88	<0.2	1.4												
					Middle	4.0	0.1	207	19.5	8.3	8.3	31.3	31.5	110.4	108.0	8.4	8.3	1.2	2	2	87	89	<0.2	1.4												
						7.0	0.1	255	19.5	8.3	8.3	31.5	31.5	108.0	108.1	8.2	8.3	1.9	2	2	87	89	<0.2	1.4												
						7.0	0.1	270	19.5	8.3	8.3	31.5	31.5	108.2	108.2	8.3	8.3	1.9	2	2	87	89	<0.2	1.4												
					Bottom	7.0	0.1	270	19.5	8.3	8.3	31.5	31.5	108.2	108.2	8.3	8.3	1.9	2	2	87	89	<0.2	1.4												
						7.0	0.1	270	19.5	8.3	8.3	31.5	31.5	108.2	108.2	8.3	8.3	1.9	2	2	87	89	<0.2	1.4												
						7.0	0.1	270	19.5	8.3	8.3	31.5	31.5	108.2	108.2	8.3	8.3	1.9	2	2	87	89	<0.2	1.4												
C2	Cloudy	Moderate	17:58	12.0	Surface	1.0	0.2	135	20.0	20.0	8.3	8.3	29.1	29.2	118.5	118.2	9.1	8.5	1.3	1.8	3	4	85	88	825673	806965	<0.2	2.0	<0.2	2.0						
						1.0	0.2	142	20.0	8.3	8.3	29.3	29.2	117.9	102.7	9.0	8.5	1.3	1.8	3	4	85	88	<0.2			2.0									
						6.0	0.5	154	19.7	8.2	8.2	30.6	30.6	102.8	102.7	7.9	7.8	1.8	4	4	88	88	<0.2	2.2												
					Middle	6.0	0.5	166	19.7	8.2	8.2	30.7	30.6	102.6	102.6	7.8	7.8	1.9	4	4	88	88	<0.2	2.1												
						11.0	0.5	144	19.5	8.2	8.2	31.2	31.2	99.1	99.5	7.6	7.6	2.3	4	4	91	91	<0.2	2.1												
						11.0	0.5	154	19.6	8.2	8.2	31.2	31.2	99.8	99.5	7.6	7.6	2.2	4	4	92	92	<0.2	2.1												
					Bottom	11.0	0.5	144	19.5	8.2	8.2	31.2	31.2	99.1	99.5	7.6	7.6	2.3	4	4	91	91	<0.2	2.1												
						11.0	0.5	154	19.6	8.2	8.2	31.2	31.2	99.8	99.5	7.6	7.6	2.2	4	4	92	92	<0.2	2.1												
						11.0	0.5	154	19.6	8.2	8.2	31.2	31.2	99.8	99.5	7.6	7.6	2.2	4	4	92	92	<0.2	2.1												
C3	Cloudy	Moderate	19:44	11.8	Surface	1.0	0.4	286	19.7	19.7	8.1	8.1	31.5	31.5	111.7	111.4	8.5	8.0	1.4	2.2	3	3	84	88	822092	817796	<0.2	2.0	<0.2	2.2						
						1.0	0.4	302	19.6	8.1	8.1	31.5	31.5	111.1	98.6	8.5	8.0	1.4	2	3	84	88	<0.2	2.0												
						5.9	0.2	257	19.4	8.1	8.1	32.1	32.1	98.7	98.6	7.5	7.5	2.6	3	3	87	88	<0.2	2.0												
					Middle	5.9	0.2	265	19.4	8.1	8.1	32.1	32.1	98.5	98.6	7.5	7.5	2.7	3	3	88	88	<0.2	2.1												
						10.8	0.1	120	19.4	8.1	8.1	32.2	32.2	98.4	100.2	7.5	7.7	2.7	3	3	92	92	<0.2	2.1												
						10.8	0.1	124	19.4	8.1	8.1	32.2	32.2	102.0	100.2	7.8	7.8	2.5	4	4	93	93	<0.2	2.1												
					Bottom	10.8	0.1	120	19.4	8.1	8.1	32.2	32.2	98.4	100.2	7.5	7.7	2.7	3	3	92	92	<0.2	2.1												
						10.8	0.1	124	19.4	8.1	8.1	32.2	32.2	102.0	100.2	7.8	7.8	2.5	4	4	93	93	<0.2	2.1												
						10.8	0.1	124	19.4	8.1	8.1	32.2	32.2	102.0	100.2	7.8	7.8	2.5	4	4	93	93	<0.2	2.1												
IM1	Cloudy	Calm	18:51	4.2	Surface	1.0	0.0	157	20.3	20.3	8.3	8.3	29.4	29.4	114.3	114.2	8.7	8.7	0.1	0.2	2	2	87	88	817962	807110	<0.2	1.8	<0.2	1.8						
						1.0	0.0	159	20.3	8.3	8.3	29.4	29.4	114.1	114.2	8.7	8.7	0.1	0.2	2	2	88	88	<0.2			1.8									
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-	-	-
					Bottom	3.2	0.1	169	20.4	20.4	8.3	8.3	29.5	29.5	112.3	112.2	8.5	8.5	0.3	0.3	2	2	2	2			90	90	<0.2	1.7	<0.2	1.8				
						3.2	0.1	183	20.4	20.4	8.3	8.3	29.5	29.5	112.1	112.2	8.5	8.5	0.3	0.3	2	2	2	2			90	90	<0.2	1.7	<0.2	1.8				
						3.2	0.1	183	20.4	20.4	8.3	8.3	29.5	29.5	112.1	112.2	8.5	8.5	0.3	0.3	2	2	2	2			90	90	<0.2	1.7	<0.2	1.8				
IM2	Cloudy	Calm	18:45	6.6	Surface	1.0	0.1	194	20.1	20.1	8.3	8.3	29.5	29.5	117.6	117.5	9.0	8.9	0.2	1.8	2	3	86	87	818166	806158	<0.2	1.6	<0.2	1.6						
						1.0	0.1	208	20.1	8.3	8.3	29.5	29.5	117.4	117.5	9.0	8.9	0.2	1.8	2	3	87	89	<0.2			1.6									
						3.3	0.1	224	20.1	8.3	8.3	29.6	29.6	116.3	116.2	8.9	8.8	0.4	3	3	90	89	<0.2	1.6												
					Middle	3.3	0.1	237	20.1	8.3	8.3	29.6	29.6	116.0	116.2	8.8	8.8	0.4	3	3	89	89	<0.2	1.6												
						5.6	0.1	200	19.8	8.3	8.3	30.4	30.4	103.5	103.9	7.9	8.0	4.9	3	3	90	90	<0.2	1.6												
						5.6	0.1	202	19.8	8.3	8.3	30.4	30.4	104.3	103.9	7.9	8.0	4.6	3	3	90	90	<0.2	1.6												
					Bottom	5.6	0.1	200	19.8	8.3	8.3	30.4	30.4	103.5	103.9	7.9	8.0	4.9	3	3	90	90	<0.2	1.6												
						5.6	0.1	202	19.8	8.3	8.3	30.4	30.4	104.3	103.9	7.9	8.0	4.6	3	3	90	90	<0.2	1.6												
						5.6	0.1	202	19.8	8.3	8.3	30.4	30.4	104.3	103.9	7.9	8.0	4.6	3	3	90	90	<0.2	1.6												
IM3	Cloudy	Calm	18:37	7.2	Surface	1.0	0.0	326	20.0	20.0	8.3	8.3	29.8	29.8	114.4	114.2	8.7	8.7	0.5	1.4	3	3	86	85	818800	805613	<0.2	1.6	<0.2	1.6						
						1.0	0.0	326	20.0	8.3	8.3	29.8	29.8	113.9	112.8	8.6	8.6	1.0	3	3	87	88	<0.2	1.6												
						3.6	0.0	237	19.9	8.3	8.3	30.0	30.0	112.9	112.8	8.6	8.6	1.0	3	3	87	88	<0.2	1.6												
					Middle	3.6	0.0	243	19.9	8.3	8.3	30.1	30.0	112.7	112.8	8.6	8.6	1.0	3	3	88	88	<0.2	1.6												
						6.2	0.0	51	19.8	8.3	8.3	30.4	30.4	105.6	105.7	8.1	8.1	2.8	2	2	90	90	<0.2	1.6												
						6.2	0.0	52	19.8	8.3	8.3	30.4	30.4	105.7	105.7	8.1	8.1	2.7	2	2	90	90	<0.2	1.6												
					Bottom	6.2	0.0	51	19.8	8.3	8.3	30.4	30.4	105.6	105.7	8.1	8.1	2.8	2	2	90	90	<0.2	1.6												
						6.2	0.0	52	19.8	8.3	8.3	30.4	30.4	105.7	105.7	8.1	8.1	2.7	2	2	90	90	<0.2	1.6												
						6.2	0.0	52	19.8	8.3	8.3	30.4	30.4	105.7	105.7	8.1	8.1	2.7	2	2	90	90	<0.2	1.6												
IM4	Cloudy	Calm	18:27	8.2	Surface	1.0	0.2	190	20.0	20.0	8.3	8.3	29.9	29.9	121.3	121.3	9.2	9.1	0.5	1.3	2	3	86	86	819734	804605	<0.2	1.5	<0.2	1.5						
						1.0	0.2	207	20.0	8.3	8.3	29.9	29.9	121.2	117.0	9.2	8.9	0.5	1.1	3	2	86	89	<0.2			1.4									
						4.1	0.1	185	19.9	8.3	8.3	30.1	30.1	117.4	117.2	9.0	8.9	1.1	2	2	88	89	<0.2	1.5												
					Middle	4.1	0.1																													

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

Water Quality Monitoring Results on 20 February 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	18:26	7.0	Surface	1.0	0.1	214	20.2	20.2	8.2	8.2	28.1	28.1	122.8	122.7	9.4	8.9	2.2	2.9	3	3	84	88	822071	808818	<0.2	2.1	<0.2	2.2			
						1.0	0.1	228	20.1	20.1	8.2	8.2	28.1	28.1	122.6	122.7	9.4	8.9	2.3	2.9	2	3	84	88	822071	808818	<0.2	2.1	<0.2	2.2			
					Middle	3.5	0.1	290	19.8	19.8	8.2	8.1	30.6	30.7	111.2	110.3	8.5	8.1	3.1	2.9	2	3	87	88	822071	808818	<0.2	2.1	<0.2	2.1	2.2		
						3.5	0.1	296	19.8	19.8	8.1	8.1	30.8	30.7	109.4	110.3	8.3	8.1	3.1	2.9	3	3	87	88	822071	808818	<0.2	2.1	<0.2	2.1	2.2		
					Bottom	6.0	0.1	358	19.7	19.7	8.1	8.1	31.3	31.3	105.8	105.9	8.0	8.1	3.4	7.7	3	4	91	92	822071	808818	<0.2	2.1	<0.2	2.1	2.1		
						6.0	0.1	329	19.7	19.7	8.1	8.1	31.3	31.3	106.0	105.9	8.1	8.1	3.5	7.7	4	4	92	92	822071	808818	<0.2	2.1	<0.2	2.1	2.1		
IM10	Cloudy	Moderate	18:32	7.2	Surface	1.0	0.2	59	20.1	20.1	8.3	8.3	28.1	28.1	116.9	116.7	9.0	8.4	2.0	2.3	2	3	83	87	822368	809811	<0.2	2.1	<0.2	2.2			
						1.0	0.2	59	20.0	20.0	8.3	8.3	28.1	28.1	116.4	116.7	9.0	8.4	2.1	2.3	2	3	84	88	822368	809811	<0.2	2.1	<0.2	2.1			
					Middle	3.6	0.1	77	19.7	19.7	8.1	8.1	30.3	30.3	101.6	101.6	7.8	7.7	2.5	2.3	2	3	88	88	822368	809811	<0.2	2.1	<0.2	2.0	2.1		
						3.6	0.1	82	19.7	19.7	8.1	8.1	30.3	30.3	101.5	101.6	7.8	7.7	2.5	2.3	3	3	88	88	822368	809811	<0.2	2.0	<0.2	2.0	2.1		
					Bottom	6.2	0.1	124	19.7	19.7	8.1	8.1	30.7	30.7	101.3	101.4	7.7	7.7	2.5	7.7	4	4	91	90	822368	809811	<0.2	2.1	<0.2	2.1	2.1		
						6.2	0.1	125	19.7	19.7	8.1	8.1	30.7	30.7	101.5	101.4	7.7	7.7	2.5	7.7	4	4	90	90	822368	809811	<0.2	2.1	<0.2	2.1	2.1		
IM11	Cloudy	Moderate	18:40	8.2	Surface	1.0	0.2	95	20.1	20.1	8.2	8.2	29.2	29.3	121.1	121.0	9.3	8.7	2.0	2.0	2	2	81	87	822072	811449	<0.2	2.1	<0.2	2.0			
						1.0	0.2	96	20.1	20.1	8.2	8.2	29.3	29.3	120.8	121.0	9.2	8.7	2.1	2.0	2	2	82	89	822072	811449	<0.2	2.1	<0.2	2.0			
					Middle	4.1	0.1	11	19.6	19.6	8.2	8.2	30.7	30.8	107.3	107.1	8.2	8.1	2.1	2.0	2	2	89	89	822072	811449	<0.2	2.1	<0.2	2.0	2.1		
						4.1	0.1	11	19.6	19.6	8.2	8.2	30.8	30.8	106.8	107.1	8.2	8.1	2.1	2.0	3	2	89	91	822072	811449	<0.2	2.0	<0.2	2.1	2.1		
					Bottom	7.2	0.1	314	19.5	19.5	8.1	8.1	31.1	31.1	95.8	95.8	7.3	7.3	2.0	7.3	3	3	91	92	822072	811449	<0.2	2.1	<0.2	2.1	2.1		
						7.2	0.1	340	19.5	19.5	8.1	8.1	31.1	31.1	95.8	95.8	7.3	7.3	2.0	7.3	2	3	92	92	822072	811449	<0.2	2.1	<0.2	2.1	2.1		
IM12	Cloudy	Moderate	18:45	9.1	Surface	1.0	0.2	95	20.2	20.2	8.3	8.3	29.6	29.6	124.3	124.2	9.5	8.9	1.8	4.3	<2	2	83	87	821451	812054	<0.2	2.1	<0.2	1.9			
						1.0	0.2	103	20.2	20.2	8.3	8.3	29.6	29.6	124.1	124.2	9.4	8.9	1.9	4.3	<2	2	83	87	821451	812054	<0.2	2.0	<0.2	1.8			
					Middle	4.6	0.1	9	19.7	19.7	8.1	8.1	31.0	31.0	109.7	109.2	8.4	8.3	5.1	7.9	2	2	84	91	821451	812054	<0.2	1.9	<0.2	1.8	1.9		
						4.6	0.1	9	19.7	19.7	8.1	8.1	31.0	31.0	108.7	109.2	8.3	8.3	5.3	7.9	2	2	87	91	821451	812054	<0.2	1.9	<0.2	1.8	1.8		
					Bottom	8.1	0.1	129	19.6	19.6	8.1	8.1	31.0	31.0	103.6	103.6	7.9	7.9	5.6	7.9	2	3	91	92	821451	812054	<0.2	1.9	<0.2	1.8	1.8		
						8.1	0.1	137	19.6	19.6	8.1	8.1	31.0	31.0	103.6	103.6	7.9	7.9	6.0	7.9	3	3	92	92	821451	812054	<0.2	1.8	<0.2	1.8	1.8		
SR1A	Cloudy	Moderate	19:15	5.2	Surface	1.0	-	-	19.9	19.9	8.1	8.1	30.6	30.6	109.3	108.5	8.3	8.3	2.3	2.5	3	3	-	-	819978	812660	-	-	-	-			
						1.0	-	-	19.8	19.8	8.1	8.1	30.6	30.6	107.6	108.5	8.2	8.3	2.4	2.5	4	3	-	-	819978	812660	-	-	-	-			
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	4.2	-	-	19.7	19.7	8.1	8.1	30.9	30.9	103.1	103.1	7.9	7.9	2.7	7.9	3	3	-	-	-	-	-	-	-	-	-	-	-
						4.2	-	-	19.7	19.7	8.1	8.1	30.9	30.9	103.1	103.1	7.9	7.9	2.7	7.9	3	3	-	-	-	-	-	-	-	-	-	-	-
SR2	Cloudy	Moderate	19:27	4.7	Surface	1.0	0.1	16	19.7	19.7	8.2	8.2	31.0	31.0	110.7	108.6	8.4	8.3	1.8	1.7	4	4	87	89	821451	814187	<0.2	2.1	<0.2	1.9			
						1.0	0.1	16	19.7	19.7	8.2	8.2	31.0	31.0	106.5	108.6	8.1	8.3	1.8	1.7	4	4	89	90	821451	814187	<0.2	2.0	<0.2	2.0			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Bottom	3.7	0.1	339	19.6	19.6	8.2	8.2	31.1	31.1	105.7	105.5	8.1	8.1	1.8	8.1	3	3	90	91	821451	814187	<0.2	2.3	<0.2	2.2	2.3		
						3.7	0.1	348	19.5	19.6	8.2	8.2	31.2	31.1	105.3	105.5	8.0	8.1	1.6	8.1	3	3	91	91	821451	814187	<0.2	2.2	<0.2	2.2	2.2		
SR3	Cloudy	Moderate	18:16	8.8	Surface	1.0	0.0	246	20.0	20.0	8.3	8.3	29.4	29.5	124.5	124.0	9.5	8.8	2.2	3.2	4	4	-	-	822137	807559	-	-	-	-			
						1.0	0.0	246	20.0	20.0	8.3	8.3	29.6	29.5	123.5	124.0	9.4	8.8	2.4	3.2	4	4	-	-	822137	807559	-	-	-	-			
					Middle	4.4	0.1	194	19.8	19.8	8.2	8.2	30.9	30.9	108.2	108.1	8.2	8.1	3.0	3.1	4	4	-	-	-	-	822137	807559	-	-	-	-	
						4.4	0.1	198	19.7	19.8	8.2	8.2	31.0	30.9	108.0	108.1	8.2	8.1	3.3	3.1	3	4	-	-	-	-	822137	807559	-	-	-	-	
					Bottom	7.8	0.1	258	19.9	19.9	8.2	8.2	31.6	31.6	106.9	106.9	8.1	8.1	4.4	8.1	4	4	-	-	-	-	822137	807559	-	-	-	-	
						7.8	0.1	269	19.9	19.9	8.2	8.2	31.6	31.6	106.8	106.9	8.1	8.1	4.1	8.1	4	4	-	-	-	-	822137	807559	-	-	-	-	
SR4A	Cloudy	Calm	19:32	8.6	Surface	1.0	0.1	161	20.3	20.3	8.3	8.3	29.5	29.5	113.7	113.7	8.6	8.6	0.8	1.4	3	3	-	-	817165	807794	-	-	-	-			
						1.0	0.1	169	20.3	20.3	8.3	8.3	29.5	29.5	113.6	113.7	8.6	8.6	0.9	1.4	3	3	-	-	817165	807794	-	-	-	-			
					Middle	4.3	0.1	186	20.2	20.2	8.3	8.3	29.7	29.7	112.0	112.0	8.5	8.5	1.5	1.4	3	3	-	-	-	-	817165	807794	-	-	-	-	
						4.3	0.1	191	20.1	20.2	8.3	8.3	29.8	29.7	111.9	112.0	8.5	8.5	1.6	1.4	3	3	-	-	-	-	817165	807794	-	-	-	-	
					Bottom	7.6	0.1	184	20.0	20.0																							

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

Water Quality Monitoring Results on 20 February 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	11:50	7.8	Surface	1.0	0.3	39	19.8	19.8	8.3	8.3	29.6	29.7	111.3	111.2	8.5	8.5	0.1	0.1	<2	<2	86	85	87	815634	804253	<0.2	<0.2	1.3	1.2					
						1.0	0.4	39	19.7	19.6	8.3	8.3	29.8	29.8	111.0	111.0	8.5	8.5	0.1	0.1	<2	<2	85	87				<0.2	<0.2	1.2	1.3					
					Middle	3.9	0.3	31	19.6	19.6	8.2	8.2	30.6	30.7	110.0	109.9	8.4	8.4	1.5	1.6	2	3	2	2				86	89	<0.2	<0.2	1.4	1.4			
						3.9	0.3	31	19.6	19.5	8.2	8.2	30.8	31.3	109.9	104.6	8.4	8.0	1.6	3.6	3	3	2	2				86	89	<0.2	<0.2	1.3	1.3			
					Bottom	6.8	0.3	31	19.5	19.5	8.2	8.2	31.3	31.3	104.6	104.6	8.0	8.0	3.6	3.5	2	2	2	2				89	89	<0.2	<0.2	1.3	1.3			
						6.8	0.3	32	19.5	19.5	8.2	8.2	31.3	31.3	104.6	104.6	8.0	8.0	3.5	2	2	2	2	2				89	89	<0.2	<0.2	1.3	1.3			
C2	Sunny	Moderate	13:11	11.2	Surface	1.0	0.3	350	20.1	20.1	8.3	8.3	28.4	28.4	126.7	126.9	9.7	9.7	1.8	1.8	<2	<2	85	86	89	825676	806952	<0.2	<0.2	2.2	2.3					
						1.0	0.3	322	20.1	19.8	8.3	8.3	28.4	28.4	127.0	127.0	9.8	9.8	1.8	1.8	<2	<2	86	89				<0.2	<0.2	2.2	2.3					
					Middle	5.6	0.4	28	19.8	19.8	8.3	8.3	29.9	30.0	123.7	123.0	9.5	9.4	2.4	2.2	2	2	2	2				89	93	<0.2	<0.2	2.3	2.4			
						5.6	0.4	29	19.8	19.7	8.3	8.1	30.1	30.2	122.3	107.7	9.4	8.2	2.2	2.0	2	3	2	2				89	93	<0.2	<0.2	2.3	2.4			
					Bottom	10.2	0.4	346	19.7	19.7	8.1	8.1	30.3	30.2	107.5	107.7	8.2	8.3	2.0	2.0	3	3	3	3				84	84	<0.2	<0.2	2.2	2.2			
						10.2	0.4	318	19.7	19.7	8.1	8.1	30.2	30.2	107.9	107.9	8.3	8.3	2.0	2.0	3	3	3	3				84	84	<0.2	<0.2	2.2	2.2			
C3	Sunny	Moderate	10:38	11.8	Surface	1.0	0.3	241	19.7	19.7	8.2	8.2	30.8	30.8	107.5	107.4	8.2	8.2	1.3	1.3	<2	<2	85	85	88	822089	817791	<0.2	<0.2	2.3	2.3					
						1.0	0.3	244	19.7	19.4	8.2	8.1	30.8	31.5	107.3	99.0	8.2	7.6	1.5	1.5	2	2	2	2				89	89	<0.2	<0.2	2.3	2.1			
					Middle	5.9	0.4	252	19.4	19.4	8.1	8.1	31.5	31.5	99.0	99.0	7.5	7.5	1.5	1.5	2	2	2	2				89	91	<0.2	<0.2	2.1	2.1			
						5.9	0.4	260	19.4	19.5	8.1	8.1	31.5	31.8	98.9	99.4	7.5	7.6	1.5	2.3	2	3	2	2				89	91	<0.2	<0.2	2.1	2.1			
					Bottom	10.8	0.4	266	19.5	19.5	8.1	8.1	31.8	31.8	99.3	99.4	7.6	7.6	2.3	2.3	3	3	3	3				91	91	<0.2	<0.2	2.1	2.2			
						10.8	0.4	286	19.5	19.5	8.1	8.1	31.8	31.8	99.5	99.4	7.6	7.6	2.3	2.3	3	3	3	3				91	91	<0.2	<0.2	2.2	2.2			
IM1	Cloudy	Calm	12:09	4.6	Surface	1.0	0.1	9	19.8	19.8	8.3	8.3	30.0	30.0	106.2	106.1	8.1	8.1	0.3	0.3	4	4	87	87	88	817954	807109	<0.2	<0.2	1.2	1.2					
						1.0	0.1	9	19.8	19.8	8.3	8.3	30.0	30.0	106.0	106.0	8.1	8.1	0.3	0.3	3	3	3	3				87	87	<0.2	<0.2	1.2	1.2			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-	-	-	-	-
					Bottom	3.6	0.0	340	19.7	19.7	8.2	8.2	30.4	30.4	103.7	103.7	7.9	7.9	2.0	2.0	4	4	4	4				89	89	<0.2	<0.2	1.2	1.2			
						3.6	0.0	350	19.7	19.7	8.2	8.2	30.4	30.4	103.6	103.6	7.9	7.9	1.9	1.9	3	3	3	3				89	89	<0.2	<0.2	1.2	1.2			
IM2	Cloudy	Calm	12:18	6.8	Surface	1.0	0.4	7	19.8	19.8	8.3	8.3	30.2	30.2	111.4	111.1	8.5	8.5	0.5	0.5	6	6	85	85	87	818175	806184	<0.2	<0.2	1.4	1.3					
						1.0	0.4	7	19.7	19.6	8.3	8.3	30.2	30.2	110.8	108.3	8.5	8.3	0.5	0.5	5	5	5	5				86	87	<0.2	<0.2	1.3	1.3			
					Middle	3.4	0.3	344	19.6	19.6	8.3	8.3	30.4	30.4	108.3	108.1	8.3	8.3	3.0	3.1	6	6	6	6				87	86	<0.2	<0.2	1.2	1.3			
						3.4	0.3	316	19.6	19.6	8.3	8.3	30.4	30.4	107.8	107.8	8.3	8.3	3.1	3.1	6	6	6	6				86	89	<0.2	<0.2	1.3	1.3			
					Bottom	5.8	0.3	308	19.6	19.6	8.3	8.3	30.4	30.4	107.1	107.2	8.2	8.2	4.2	4.2	5	5	5	5				89	89	<0.2	<0.2	1.2	1.2			
						5.8	0.4	315	19.6	19.6	8.3	8.3	30.4	30.4	107.2	107.2	8.2	8.2	4.2	4.2	6	6	6	6				89	89	<0.2	<0.2	1.2	1.2			
IM3	Cloudy	Calm	12:24	7.0	Surface	1.0	0.3	354	19.2	19.2	8.3	8.3	29.9	29.9	113.7	113.6	8.8	8.8	0.1	0.1	3	3	86	86	88	818786	805592	<0.2	<0.2	1.0	1.2					
						1.0	0.3	358	19.2	19.5	8.3	8.3	29.9	29.9	113.4	109.0	8.8	8.4	0.1	0.1	4	4	4	4				86	88	<0.2	<0.2	1.2	1.2			
					Middle	3.5	0.2	337	19.5	19.5	8.3	8.3	30.4	30.4	109.1	109.0	8.4	8.4	4.4	4.9	5	5	5	5				88	88	<0.2	<0.2	1.2	1.2			
						3.5	0.2	310	19.5	19.5	8.3	8.3	30.4	30.4	108.8	108.2	8.4	8.3	4.9	5.2	5	5	5	5				88	89	<0.2	<0.2	1.2	1.3			
					Bottom	6.0	0.2	331	19.5	19.5	8.3	8.3	30.4	30.4	108.2	108.2	8.3	8.3	5.2	5.0	5	5	5	5				89	90	<0.2	<0.2	1.3	1.4			
						6.0	0.2	345	19.5	19.5	8.3	8.3	30.4	30.4	108.2	108.2	8.3	8.3	5.0	5.0	5	5	5	5				89	90	<0.2	<0.2	1.3	1.4			
IM4	Cloudy	Calm	12:34	8.4	Surface	1.0	0.2	345	19.7	19.8	8.3	8.3	29.9	29.9	113.3	113.1	8.7	8.7	2.1	2.0	5	4	85	85	88	819712	804587	<0.2	<0.2	0.9	0.9					
						1.0	0.3	317	19.8	19.7	8.3	8.3	29.9	29.9	112.9	109.3	8.7	8.4	2.0	2.1	4	4	4	4				85	87	<0.2	<0.2	0.9	0.9			
					Middle	4.2	0.2	321	19.7	19.7	8.3	8.3	30.5	30.5	109.4	109.3	8.4	8.3	2.1	2.3	4	5	4	4				87	88	<0.2	<0.2	1.0	1.0			
						4.2	0.2	323	19.7	19.7	8.3	8.3	30.5	30.5	109.1	108.6	8.3	8.3	2.3	2.7	5	3	4	4				88	90	<0.2	<0.2	0.9	0.8			
					Bottom	7.4	0.2	335	19.7	19.7	8.3	8.3	30.5	30.5	108.6	108.6	8.3	8.3	2.7	2.5	3	4	3	3				89	90	<0.2	<0.2	0.8	0.9			
						7.4	0.2	356	19.7	19.7	8.3	8.3	30.5	30.5	108.6	108.6	8.3	8.3	2.5	2.5	4	4	4	4				89	90	<0.2	<0.2	0.9	0.9			
IM5	Cloudy	Calm	12:42	7.6	Surface	1.0	0.4	358	19.9	19.9	8.3	8.3	30.2	30.2	112.0	111.9	8.5	8.5	1.3	1.4	4	3	86	85	87	820715	804851	<0.2	<0.2	1.1	1.1					
						1.0	0.5	329	19.9	19.7	8.3	8.3	30.3	30.4	111.8	111.2	8.5	8.5	1.4	2.3	3	4	3	3				85	87	<0.2	<0.2	1.1	1.0			
					Middle	3.8	0.3	345	19.7	19.7	8.3	8.3	30.4	30.4	111.2	111.2	8.5	8.5	2.3	2.4	4	3	4	3				87	88	<0.2	<0.2	1.0	1.0			
						3.8	0.3	317	19.7	19.7	8.3	8.3	30.4	30.4	111.1	109.3	8.5	8.4	2.4	4.2	3	2	3	3				88	89	<0.2	<0.2	1.1	0.9			
					Bottom	6.6	0.3	343	19.7	19.7	8.3	8.3	30.4	30.4	109.3																					



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

Water Quality Monitoring

Water Quality Monitoring Results on 23 February 21 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)		Current Direction		Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)					
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	22:22	8.3	Surface	1.0	0.1	200	20.7	20.7	8.3	8.3	29.2	29.2	112.5	112.4	8.5	8.5	2.1	2.1	2	2	85	85	88	88	815606	804243	<0.2	1.1	<0.2	1.1			
						1.0	0.1	215	20.7	20.7	8.3	8.3	29.2	29.2	112.2	112.4	8.5	8.5	2.1	2.1	2	2	85	85	88	88			<0.2	1.2	<0.2	1.2			
						4.2	0.1	222	19.8	19.8	8.3	8.3	30.8	30.8	105.6	105.6	8.0	8.0	2.6	2.6	2	2	88	88	91	91			<0.2	1.2	<0.2	1.3			
					4.2	0.1	236	19.8	19.8	8.3	8.3	30.8	30.8	105.6	105.6	8.0	8.0	2.6	2.6	2	2	88	88	91	91	<0.2			1.2	<0.2	1.3				
					7.3	0.0	190	19.6	19.6	8.3	8.3	31.2	31.2	100.1	100.1	7.6	7.6	4.0	4.0	2	2	88	88	91	91	<0.2			1.2	<0.2	1.3				
					7.3	0.0	204	19.6	19.6	8.3	8.3	31.2	31.2	100.0	100.0	7.6	7.6	3.7	3.7	2	2	88	88	91	91	<0.2			1.2	<0.2	1.3				
C2	Fine	Moderate	21:30	11.5	Surface	1.0	0.2	85	20.7	20.7	8.3	8.3	26.7	26.7	122.9	122.5	9.4	9.4	2.1	2.1	10	10	86	86	89	89	825675	806962	<0.2	2.0	<0.2	2.2			
						1.0	0.2	92	20.7	20.7	8.3	8.3	26.8	26.7	122.0	122.5	9.4	9.4	2.3	2.3	8	8	89	89	<0.2	2.0			<0.2	2.0					
						5.8	0.2	78	19.9	19.9	8.2	8.2	30.6	30.7	103.6	102.7	7.9	7.9	2.3	2.3	8	8	90	90	<0.2	2.0			<0.2	2.2					
					5.8	0.2	82	19.9	19.9	8.2	8.2	30.7	30.6	101.8	98.4	7.7	7.5	2.3	2.2	8	8	91	91	<0.2	2.0	<0.2			2.2						
					10.5	0.1	46	19.9	19.9	8.2	8.2	30.7	30.6	98.2	98.4	7.5	7.5	2.2	2.2	7	7	91	91	<0.2	2.2	<0.2			2.1						
					10.5	0.1	46	19.9	19.9	8.2	8.2	30.5	30.6	98.6	98.4	7.5	7.5	2.2	2.2	7	7	91	91	<0.2	2.2	<0.2			2.1						
C3	Fine	Moderate	23:24	11.0	Surface	1.0	0.3	94	20.9	20.9	8.2	8.2	28.8	28.8	111.9	111.3	8.4	8.4	1.5	1.5	4	4	88	88	90	90	822117	817789	<0.2	2.4	<0.2	2.5			
						1.0	0.3	101	20.9	20.9	8.2	8.2	28.8	28.8	110.7	111.3	8.4	8.4	1.6	1.6	5	5	88	88	<0.2	2.2			<0.2	2.2					
						5.5	0.2	85	19.5	19.5	8.1	8.1	32.6	32.6	95.0	95.0	7.2	7.2	2.1	2.1	4	4	91	91	<0.2	2.2			<0.2	2.1					
					5.5	0.2	88	19.5	19.5	8.1	8.1	32.6	32.6	94.9	95.0	7.2	7.2	2.1	2.1	4	4	92	92	<0.2	2.1	<0.2			2.1						
					10.0	0.1	74	19.6	19.6	8.1	8.1	32.5	32.5	95.6	95.8	7.2	7.2	2.4	2.4	5	5	91	91	<0.2	2.2	<0.2			2.2						
					10.0	0.1	79	19.6	19.6	8.1	8.1	32.5	32.5	95.9	95.8	7.2	7.2	2.4	2.4	5	5	90	90	<0.2	2.1	<0.2			2.1						
IM1	Cloudy	Moderate	22:01	5.0	Surface	1.0	0.1	179	21.7	21.7	8.4	8.4	27.9	27.9	117.3	117.2	8.8	8.8	2.1	2.1	<2	<2	85	85	87	87	817932	807112	<0.2	1.2	<0.2	1.2			
						1.0	0.1	191	21.7	21.7	8.4	8.4	27.9	27.9	117.1	117.1	8.8	8.8	2.1	2.1	<2	<2	86	86	<0.2	1.2			<0.2	1.2					
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-
					4.0	0.1	224	20.3	20.3	8.3	8.3	29.5	29.5	104.1	104.1	7.9	7.9	4.6	4.6	4	4	88	88	<0.2	1.1	<0.2			1.1						
					4.0	0.1	241	20.3	20.3	8.3	8.3	29.5	29.5	104.1	104.1	7.9	7.9	4.8	4.8	5	5	88	88	<0.2	1.1	<0.2			1.1						
					4.0	0.1	241	20.3	20.3	8.3	8.3	29.5	29.5	104.1	104.1	7.9	7.9	4.8	4.8	5	5	88	88	<0.2	1.1	<0.2			1.1						
IM2	Cloudy	Moderate	21:53	6.9	Surface	1.0	0.1	205	21.3	21.3	8.4	8.4	28.4	28.4	120.1	121.7	9.0	9.0	2.0	2.0	3	3	84	84	86	86	818155	806177	<0.2	1.2	<0.2	1.1			
						1.0	0.1	219	21.2	21.2	8.4	8.4	28.4	28.4	123.3	123.3	9.3	9.3	2.0	2.0	2	2	83	83	<0.2	1.1			<0.2	1.1					
						3.5	0.1	287	20.4	20.4	8.4	8.4	29.1	29.1	121.3	121.1	9.2	9.2	2.5	2.5	3	3	86	86	<0.2	1.3			<0.2	1.3					
					3.5	0.1	308	20.3	20.3	8.4	8.4	29.2	29.1	120.9	121.1	9.2	9.2	2.6	2.6	2	2	85	85	<0.2	1.2	<0.2			1.2						
					5.9	0.1	260	20.1	20.1	8.3	8.3	29.9	29.9	111.9	111.9	8.5	8.5	4.1	4.1	3	3	88	88	<0.2	1.1	<0.2			1.1						
					5.9	0.1	275	20.1	20.1	8.3	8.3	29.9	29.9	111.8	111.9	8.5	8.5	3.9	3.9	3	3	89	89	<0.2	1.1	<0.2			1.1						
IM3	Cloudy	Moderate	21:44	7.0	Surface	1.0	0.0	91	21.6	21.6	8.3	8.3	27.8	27.8	117.8	118.0	8.8	8.8	1.4	1.4	5	5	84	84	86	86	818794	805600	<0.2	1.2	<0.2	1.2			
						1.0	0.0	94	21.6	21.6	8.3	8.3	27.8	27.8	118.2	118.0	8.9	8.9	1.4	1.4	4	4	83	83	<0.2	1.2			<0.2	1.2					
						3.5	0.1	211	20.5	20.5	8.4	8.4	28.9	28.9	118.1	118.1	9.0	9.0	1.7	1.7	3	3	85	85	<0.2	1.2			<0.2	1.2					
					3.5	0.1	217	20.5	20.5	8.4	8.4	28.9	28.9	118.1	118.1	9.0	9.0	1.7	1.7	3	3	86	86	<0.2	1.2	<0.2			1.2						
					6.0	0.1	237	20.1	20.1	8.3	8.3	30.0	30.0	112.0	112.0	8.5	8.5	2.3	2.3	2	2	89	89	<0.2	1.1	<0.2			1.1						
					6.0	0.1	239	20.1	20.1	8.3	8.3	30.0	30.0	111.9	112.0	8.5	8.5	2.3	2.3	2	2	88	88	<0.2	1.2	<0.2			1.2						
IM4	Cloudy	Moderate	21:34	8.2	Surface	1.0	0.1	34	21.1	21.1	8.3	8.3	27.9	27.9	116.4	116.5	8.8	8.8	1.2	1.2	3	3	83	83	84	84	819722	804607	<0.2	1.6	<0.2	1.6			
						1.0	0.1	35	21.2	21.2	8.3	8.3	27.8	27.9	116.6	116.5	8.8	8.8	1.2	1.2	3	3	84	84	<0.2	1.6			<0.2	1.6					
						4.1	0.1	298	20.3	20.3	8.3	8.3	29.5	29.5	116.5	116.3	8.9	8.9	2.3	2.3	<2	<2	86	86	<0.2	1.3			<0.2	1.3					
					4.1	0.1	307	20.3	20.3	8.3	8.3	29.5	29.5	116.0	116.3	8.8	8.8	2.2	2.2	<2	<2	86	86	<0.2	1.3	<0.2			1.3						
					7.2	0.1	241	20.0	20.0	8.3	8.3	30.4	30.4	104.9	105.0	8.0	8.0	5.7	5.7	<2	<2	88	88	<0.2	1.4	<0.2			1.4						
					7.2	0.1	252	20.0	20.0	8.3	8.3	30.4	30.4	105.0	105.0	8.0	8.0	5.8	5.8	<2	<2	89	89	<0.2	1.2	<0.2			1.2						
IM5	Cloudy	Moderate	21:25	7.1	Surface	1.0	0.2	13	20.7	20.7	8.3	8.3	28.4	28.4	115.3	115.2	8.8	8.8	2.2	2.2	3	3	83	83	84	84	820719	804889	<0.2	1.4	<0.2	1.5			
						1.0	0.2	13	20.6	20.6	8.3	8.3	28.4	28.4	115.1	115.2	8.7	8.7	2.3	2.3	3	3	84	84	<0.2	1.4			<0.2	1.5					
						3.6	0.2	354	20.4	20.4	8.3	8.3	29.2	29.2	106.9	106.9	8.1	8.1	3.2	3.2	2	2	86	86	<0.2	1.4			<0.2	1.4					
					3.6	0.2	326	20.4	20.4	8.3	8.3	29.2	29.2	106.8	106.9	8.1	8.1	3.3	3.3	3	3	86	86	<0.2	1.5	<0.2			1.5						
					6.1	0.2	332	20.4	20.4	8.3	8.3	29.3	29.3	105.7	105.7	8.0	8.0	3.9	3.9	3	3	89	89	<0.2	1.4	<0.2			1.4						
					6.1	0.2	353	20.4	20.4	8.3	8.3	29.3	29.3	105.7	105.7	8.0	8.0	3.8	3.8	3	3	89	89	<0.2	1.4	<0.2			1.4						

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

Water Quality Monitoring Results on 23 February 21 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)		Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)						
						Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA			
						Value	Average		Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	
IM9	Fine	Moderate	21:58	7.4	Surface	1.0	0.3	45	22.2	22.3	8.3	8.3	25.1	25.1	126.5	126.4	9.5	8.6	1.7	7	87	89	822070	808825	<0.2	2.2	<0.2	2.3							
						1.0	0.3	45	22.3	22.3	8.3	8.3	25.1	25.1	126.3	126.3	9.5	8.6	1.8	8	86	89	822070	808825	<0.2	2.3	<0.2	2.3							
						3.7	0.3	47	20.4	20.4	8.1	8.1	28.9	28.9	100.7	100.6	7.7	7.7	2.4	6	90	89	822070	808825	<0.2	2.3	<0.2	2.3							
					Middle	3.7	0.3	47	20.4	20.4	8.1	8.1	29.0	28.9	100.5	100.6	7.7	7.7	2.6	6	90	89	822070	808825	<0.2	2.4	<0.2	2.4							
						6.4	0.2	69	20.3	20.3	8.1	8.1	29.3	29.3	100.5	100.6	7.6	7.7	3.0	6	91	89	822070	808825	<0.2	2.2	<0.2	2.2							
						6.4	0.2	69	20.3	20.3	8.1	8.1	29.3	29.3	100.6	100.6	7.7	7.7	3.0	6	90	89	822070	808825	<0.2	2.2	<0.2	2.2							
					IM10	Fine	Moderate	22:04	7.4	Surface	1.0	0.3	77	21.6	21.6	8.2	8.2	26.1	26.1	118.7	118.7	9.0	8.3	1.8	4	87	89	822401	809815	<0.2	2.2	<0.2	2.2		
											1.0	0.3	82	21.6	21.6	8.2	8.2	26.1	26.1	118.6	118.6	9.0	8.3	1.8	4	87	89	822401	809815	<0.2	2.2	<0.2	2.2		
											3.7	0.2	93	20.4	20.4	8.1	8.1	29.2	29.2	99.8	99.7	7.6	7.6	2.3	5	90	89	822401	809815	<0.2	2.5	<0.2	2.3		
Middle	3.7	0.2	101	20.4						20.4	8.1	8.1	29.2	29.2	99.5	99.7	7.6	7.6	2.3	4	90	89	822401	809815	<0.2	2.4	<0.2	2.4							
	6.4	0.1	91	20.1						20.1	8.1	8.1	30.0	30.0	95.1	95.1	7.2	7.2	2.5	8	91	89	822401	809815	<0.2	2.4	<0.2	2.4							
	6.4	0.1	99	20.1						20.1	8.1	8.1	30.0	30.0	95.1	95.1	7.2	7.2	2.5	8	91	89	822401	809815	<0.2	2.3	<0.2	2.3							
IM11	Fine	Moderate	22:15	7.5						Surface	1.0	0.1	90	21.0	21.0	8.2	8.2	27.1	27.1	114.4	114.3	8.7	8.3	1.6	5	89	90	822055	811438	<0.2	2.3	<0.2	2.2		
											1.0	0.1	98	20.9	20.9	8.2	8.2	27.1	27.1	114.2	114.2	8.7	8.3	1.7	4	88	90	822055	811438	<0.2	2.2	<0.2	2.2		
											3.8	0.1	82	20.1	20.1	8.1	8.1	30.0	30.1	102.9	102.6	7.8	7.8	3.0	5	91	89	822055	811438	<0.2	2.3	<0.2	2.3		
					Middle	3.8	0.1	89	20.1	20.1	8.1	8.1	30.2	30.1	102.3	102.6	7.8	7.8	3.1	6	91	89	822055	811438	<0.2	2.3	<0.2	2.3							
						6.5	0.1	109	19.9	19.9	8.1	8.1	30.9	30.9	94.6	94.7	7.2	7.2	4.0	7	91	89	822055	811438	<0.2	2.2	<0.2	2.2							
						6.5	0.1	111	20.0	20.0	8.1	8.1	30.9	30.9	94.7	94.7	7.2	7.2	4.0	6	92	89	822055	811438	<0.2	2.2	<0.2	2.2							
					IM12	Fine	Moderate	22:22	8.6	Surface	1.0	0.1	111	20.4	20.4	8.2	8.2	27.8	27.8	112.8	112.4	8.7	8.2	2.2	3	86	89	821466	812024	<0.2	2.2	<0.2	2.2		
											1.0	0.1	117	20.3	20.3	8.2	8.2	27.9	27.8	112.0	112.4	8.6	8.2	2.6	2	86	89	821466	812024	<0.2	2.2	<0.2	2.2		
											4.3	0.1	143	19.9	19.9	8.1	8.1	30.8	30.8	102.4	102.0	7.8	7.7	3.3	3	90	89	821466	812024	<0.2	2.3	<0.2	2.3		
Middle	4.3	0.1	145	19.9						19.9	8.1	8.1	30.8	30.8	101.6	102.0	7.7	7.7	3.3	4	91	89	821466	812024	<0.2	2.3	<0.2	2.3							
	7.6	0.1	96	19.8						19.8	8.1	8.1	30.9	30.9	100.8	101.0	7.7	7.7	3.4	3	91	89	821466	812024	<0.2	2.4	<0.2	2.4							
	7.6	0.1	97	19.8						19.8	8.1	8.1	30.9	30.9	101.1	101.0	7.7	7.7	3.2	4	91	89	821466	812024	<0.2	2.5	<0.2	2.5							
SR1A	Fine	Moderate	22:51	5.2						Surface	1.0	-	-	21.1	21.1	8.2	8.2	26.4	26.4	116.5	116.3	8.9	8.9	2.7	4	-	-	819980	812655	-	-	-	-		
											1.0	-	-	21.0	21.0	8.2	8.2	26.5	26.4	116.0	116.3	8.9	8.9	2.8	3	-	-	-	-	819980	812655	-	-	-	-
											2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						4.2	-	-	20.7	20.7	8.2	8.2	28.7	28.6	106.0	106.1	8.0	8.0	3.3	3	-	-	-	-	-	-	-	-	-	-	-				
						4.2	-	-	20.7	20.7	8.2	8.2	28.6	28.6	106.1	106.1	8.0	8.0	3.3	3	-	-	-	-	-	-	-	-	-	-	-				
					SR2	Fine	Moderate	23:04	4.6	Surface	1.0	0.1	87	21.3	21.3	8.2	8.2	27.3	27.3	112.9	112.6	8.5	8.5	3.1	4	86	88	821443	814187	<0.2	2.2	<0.2	2.2		
											1.0	0.1	90	21.3	21.3	8.2	8.2	27.3	27.3	112.2	112.6	8.5	8.5	3.2	3	87	88	821443	814187	<0.2	2.2	<0.2	2.2		
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	3.6	0.1	92	19.9						19.9	8.1	8.1	31.3	31.3	97.0	96.9	7.4	7.4	5.5	4	90	88	821443	814187	<0.2	2.2	<0.2	2.2							
	3.6	0.1	94	19.9						19.9	8.1	8.1	31.4	31.3	96.7	96.9	7.3	7.4	5.8	3	90	88	821443	814187	<0.2	2.3	<0.2	2.3							
SR3	Fine	Moderate	21:49	8.8						Surface	1.0	0.1	156	20.9	20.9	8.3	8.3	26.9	26.9	126.4	126.1	9.6	9.0	2.0	8	-	-	822167	807562	-	-	-	-		
											1.0	0.1	170	20.9	20.9	8.3	8.3	26.9	26.9	125.8	126.1	9.6	9.0	2.0	7	-	-	-	-	822167	807562	-	-	-	-
											4.4	0.1	142	20.3	20.3	8.2	8.2	29.5	29.5	109.1	109.0	8.3	8.3	2.5	8	-	-	-	-	822167	807562	-	-	-	-
					Middle	4.4	0.1	145	20.3	20.3	8.2	8.2	29.6	29.5	108.9	109.0	8.3	8.3	2.5	7	-	-	-	-	822167	807562	-	-	-	-					
						7.8	0.2	122	20.3	20.3	8.2	8.2	29.9	29.9	107.8	107.8	8.2	8.2	2.9	11	-	-	-	-	822167	807562	-	-	-	-					
						7.8	0.2	133	20.3	20.3	8.2	8.2	29.9	29.9	107.7	107.8	8.2	8.2	2.9	12	-	-	-	-	822167	807562	-	-	-	-					
					SR4A	Cloudy	Calm	22:44	9.4	Surface	1.0	0.2	77	20.8	20.8	8.3	8.3	28.5	28.6	115.3	115.0	8.7	8.3	3.4	<2	-	-	817177	807801	-	-	-	-		
											1.0	0.2	84	20.7	20.7	8.3	8.3	28.7	28.6	114.6	115.0	8.7	8.3	3.5	<2	-	-	-	-	817177	807801	-	-	-	-
											4.7	0.2	69	20.3	20.3	8.3	8.3	29.1	29.1	104.4	104.4	8.0	8.0	3.7	2	-	-	-	-	817177	807801	-	-	-	-
Middle	4.7	0.2	75	20.3						20.3	8.3	8.3	29.1	29.1	104.3	104.4	7.9	7.9	3.7	3	-	-	-	-	817177	807801	-	-	-	-					
	8.4	0.2	72	20.2						20.2	8.3	8.3	29.4	29.4	101.2	101.2	7.7	7.7	4.4	5	-	-	-	-	817177	807801	-	-	-	-					
	8.4	0.2	78	20.2						20.2	8.3	8.3	29.4	29.4	101.2	101.2	7.7	7.7	4.4	4	-	-	-	-	817177	807801	-	-	-	-					
SR5A	Cloudy	Calm	23:01	3.6						Surface	1.0	0.1	224	21.6	21.6	8.3	8.3	27.9	27.9	112.6	112.6	8.4	8.4	2.4	2	-	-	816603	810702	-	-	-	-		
											1.0	0.1	230	21.6	21.6	8.3	8.3	27.9	27.9	112.6	112.6	8.4	8.4	2.4	3	-	-	-	-	816603	810702	-	-	-	-
											-	-																							







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

Water Quality Monitoring Results on 25 February 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	Rough	11:38	8.0	Surface	1.0	0.1	133	20.3	20.3	8.3	8.3	29.9	29.9	103.4	103.2	7.8	7.7	4.0	3	87	89	815621	804230	<0.2	0.9	<0.2	0.9							
						1.0	0.1	142	20.3	8.3	8.3	30.0	30.0	102.9	100.9	7.8	7.7	4.2	4	87	89														
						4.0	0.1	145	20.1	8.3	8.3	30.7	30.7	100.9	100.9	7.6	7.6	5.9	4	90	89														
					Middle	4.0	0.1	146	20.1	8.3	8.3	30.7	30.7	100.9	100.9	7.6	7.6	5.9	4	89	89														
						7.0	0.1	184	20.1	8.3	8.3	30.9	30.9	100.1	100.1	7.6	7.6	6.8	6	91	89														
						7.0	0.1	194	20.1	8.3	8.3	30.9	30.9	100.1	100.1	7.6	7.6	6.8	6	92	89														
					C2	Cloudy	Moderate	10:25	11.9	Surface	1.0	0.1	203	20.4	20.4	8.1	8.1	28.4	28.4	100.8	100.8	7.7	7.7	3.3	9	88			91	825673	806935	<0.2	1.5	<0.2	1.9
											1.0	0.1	218	20.4	8.1	8.1	28.4	28.4	100.8	100.8	7.7	7.7	3.3	9	88	91									
											6.0	0.1	179	20.3	8.1	8.1	28.9	28.9	99.5	99.5	7.6	7.5	3.5	6	91	91									
Middle	6.0	0.1	180	20.3						8.1	8.1	28.9	28.9	99.5	99.5	7.6	7.5	3.5	6	91	91														
	10.9	0.3	77	20.2						8.1	8.1	30.4	30.4	98.5	98.5	7.5	7.5	9.8	5	93	93														
	10.9	0.3	79	20.2						8.1	8.1	30.4	30.4	98.5	98.5	7.5	7.5	9.7	5	94	94														
C3	Cloudy	Moderate	13:01	12.6						Surface	1.0	0.3	59	20.2	20.2	8.0	8.0	31.2	31.2	98.5	98.5	7.4	7.2	2.1	8	85	89	822102	817795	<0.2	1.2	<0.2	1.2		
											1.0	0.3	63	20.2	8.0	8.0	31.3	31.2	98.5	98.5	7.4	7.2	2.1	7	85	89									
											6.3	0.2	91	19.9	8.0	8.0	32.0	32.0	92.5	92.5	7.0	7.0	3.0	6	88	89									
					Middle	6.3	0.2	96	19.9	8.0	8.0	32.0	32.0	92.5	92.5	7.0	7.0	3.4	6	88	89														
						11.6	0.2	97	19.9	8.0	8.0	32.1	32.1	92.7	92.8	7.0	7.0	6.2	5	93	93														
						11.6	0.2	103	19.9	8.0	8.0	32.1	32.1	92.8	92.8	7.0	7.0	6.7	6	93	93														
					IM1	Cloudy	Moderate	11:16	4.9	Surface	1.0	0.0	57	20.2	20.2	8.3	8.3	29.8	29.9	101.1	100.9	7.7	7.7	3.5	6	87	88	817971	807113	<0.2	0.9			<0.2	1.0
											1.0	0.0	59	20.2	8.3	8.3	29.9	29.9	100.7	100.7	7.7	7.7	3.5	5	87	88									
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	3.9	0.1	96	20.1						20.1	8.3	8.3	30.2	30.2	98.4	98.5	7.5	7.5	3.5	4	89	89													
	3.9	0.1	99	20.1						20.1	8.3	8.3	30.1	30.2	98.6	98.6	7.5	7.5	3.6	5	89	89													
IM2	Cloudy	Moderate	11:08	6.9						Surface	1.0	0.0	256	20.2	20.2	8.3	8.3	30.0	30.0	101.9	101.9	7.7	7.7	4.5	4	85	88	818176	806179	<0.2	1.3	<0.2	1.1		
											1.0	0.0	276	20.2	20.2	8.3	8.3	30.1	30.0	101.8	101.8	7.7	7.7	4.6	5	85	88								
											3.5	0.1	64	20.1	20.1	8.3	8.3	30.2	30.2	101.0	101.0	7.7	7.7	5.2	5	88	88								
					Middle	3.5	0.1	66	20.1	20.1	8.3	8.3	30.2	30.2	100.9	100.9	7.7	7.7	5.2	6	88	88													
						5.9	0.1	80	20.1	20.1	8.3	8.3	30.3	30.3	100.2	100.2	7.6	7.6	7.6	6	90	89													
						5.9	0.1	86	20.1	20.1	8.3	8.3	30.3	30.3	100.2	100.2	7.6	7.6	7.5	7	89	89													
					IM3	Cloudy	Moderate	11:00	7.1	Surface	1.0	0.1	267	20.1	20.1	8.3	8.3	30.1	30.1	102.2	102.2	7.8	7.8	3.9	7	85	88	818784	805594	<0.2	1.1			<0.2	1.1
											1.0	0.1	278	20.1	20.1	8.3	8.3	30.1	30.1	102.2	102.2	7.8	7.8	4.0	7	85	88								
											3.6	0.0	340	20.1	20.1	8.3	8.3	30.2	30.2	101.6	101.6	7.7	7.7	4.1	5	88	88								
Middle	3.6	0.0	313	20.1						20.1	8.3	8.3	30.2	30.2	101.6	101.6	7.7	7.7	4.2	6	88	88													
	6.1	0.1	22	20.1						20.1	8.3	8.3	30.3	30.3	100.9	100.9	7.7	7.7	5.3	4	90	89													
	6.1	0.1	22	20.1						20.1	8.3	8.3	30.3	30.3	100.9	100.9	7.7	7.7	5.2	5	90	89													
IM4	Cloudy	Rough	10:49	8.2						Surface	1.0	0.1	347	20.2	20.2	8.3	8.3	30.2	30.2	103.2	103.2	7.8	7.8	3.8	7	85	88	819739	804609	<0.2	1.3	<0.2	1.3		
											1.0	0.1	319	20.2	20.2	8.3	8.3	30.2	30.2	103.1	103.1	7.8	7.8	3.9	7	85	88								
											4.1	0.1	332	20.1	20.1	8.3	8.3	30.3	30.3	101.4	101.4	7.7	7.7	4.4	6	88	88								
					Middle	4.1	0.1	347	20.1	20.1	8.3	8.3	30.3	30.3	101.4	101.4	7.7	7.7	4.4	7	88	88													
						7.2	0.1	334	20.1	20.1	8.3	8.3	30.3	30.3	100.9	100.9	7.7	7.7	5.0	5	89	89													
						7.2	0.1	339	20.1	20.1	8.3	8.3	30.3	30.3	100.9	100.9	7.7	7.7	5.0	6	90	89													
					IM5	Cloudy	Moderate	10:39	7.5	Surface	1.0	0.2	354	20.2	20.2	8.3	8.3	29.9	29.9	101.3	101.3	7.7	7.7	4.8	6	85	88	820758	804858	<0.2	1.3			<0.2	1.3
											1.0	0.2	326	20.2	20.2	8.3	8.3	29.9	29.9	101.2	101.2	7.7	7.7	4.8	5	85	88								
											3.8	0.2	356	20.1	20.1	8.3	8.3	30.0	30.0	100.6	100.6	7.7	7.7	4.9	6	88	88								
Middle	3.8	0.2	328	20.1						20.1	8.3	8.3	30.0	30.0	100.6	100.6	7.6	7.6	4.9	5	88	88													
	6.5	0.2	31	20.1						20.1	8.3	8.3	30.1	30.1	99.7	99.7	7.6	7.6	5.0	8	89	89													
	6.5	0.2	33	20.1						20.1	8.3	8.3	30.1	30.1	99.7	99.7	7.6	7.6	5.0	7	89	89													
IM6	Cloudy	Moderate	10:32	7.4						Surface	1.0	0.1	233	20.4	20.4	8.3	8.3	28.0	28.0	101.1	101.1	7.7	7.7	3.9	4	85	88	821067	805834	<0.2	1.3	<0.2	1.4		
											1.0	0.1	242	20.4	20.4	8.3	8.3	28.0	28.0	101.0	101.0	7.7	7.7	4.0	5	85	88								
											3.7	0.1	67	20.3	20.3	8.3	8.3	28.8	28.8	99.7	99.7	7.6	7.6	5.4	5	88	88								
					Middle	3.7	0.1	70	20.3	20.3	8.3	8.3	28.8	28.8	99.6	99.6	7.6	7.6	5.4	6	88	88													
						6.4	0.2	79	20.2	20.2	8.2	8.2	29.8	29.8	98.5	98.5	7.5	7.5	6.3	7	89	89													
						6.4	0.2	84	20.2	20.2	8.2	8.2	29.8	29.8	98.5	98.5	7.5	7.5	6.3	7	89	89													
					IM7	Cloudy	Moderate	10:26	8.5	Surface	1.0	0.1	259	20.4	20.4	8.3	8.3	27.8	27.8	100.7	100.7	7.7	7.7	3.5	6	85	88	821371	806832	<0.2	1.3			<0.2	1.3
											1.0	0.1	271	20.4	20.4	8.3	8.3	27.8	27.8	100.6	100.6	7.7	7.7	3.7	5	85	88								
											4.3	0.2	105	20.3	20.3	8.3	8.3	28.7	28.7	99.6	99.6	7.6	7.6	5.1	6	88	88								
Middle	4.3	0.2	111	20.3						20.3	8.3	8.3	28.7	28.7	99.6	99.6	7.6	7.6	5.3	5	88	88													
	7.5	0.1	113	20.2						20.2	8.2	8.2	29.4	29.4	98.5	98.5	7.5	7.5	6.9	6	90	89													
	7.5	0.2	119	20.2						20.2	8.2	8.2	29.4	29.4	98.5	98.5	7.5	7.5	6.9	6	90	89													
IM8	Cloudy	Moderate	10:51	7.8						Surface	1.0	0.1	84	20.4	20.4	8.1	8.1	29.0	29.0	100.8	100.8	7.7	7.7	3.2	3	85	88	821851	808119	<0.2	1.6	<0.2	1.7		
											1.0	0.1	85	20.4	20.4	8.1	8.1	29.0	29.0	100.7	100.7	7.7	7.7	3.2	3	86									



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

Water Quality Monitoring

Water Quality Monitoring Results on 25 February 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)									
								Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA						
C1	Rainy	Rough	07:00	8.4	Surface	1.0	0.5	38	20.1	20.1	8.3	8.3	30.6	30.6	102.1	102.1	7.7	7.7	6.5	8	86	86	89	89	815600	804226	<0.2	0.7	<0.2	0.8							
						1.0	0.5	41	20.1	20.1	8.3	8.3	30.6	30.6	102.0	102.0	7.7	7.7	6.9	7	86	86	89	89			<0.2	0.7	<0.2	0.7							
						4.2	0.4	34	20.0	20.0	8.3	8.3	30.7	30.7	101.6	101.6	7.7	7.7	7.0	8	89	89	89	89			<0.2	0.7	<0.2	0.7							
					Middle	4.2	0.4	37	20.0	20.0	8.3	8.3	30.7	30.7	101.5	101.5	7.7	7.7	7.3	7	89	89	89	89			<0.2	0.7	<0.2	0.7							
						7.4	0.3	32	20.0	20.0	8.2	8.2	30.9	30.9	100.8	100.8	7.6	7.6	8.2	6	91	91	89	89			<0.2	0.7	<0.2	0.7							
						7.4	0.3	32	20.0	20.0	8.2	8.2	30.9	30.9	100.7	100.7	7.6	7.6	8.3	7	92	92	89	89			<0.2	0.7	<0.2	0.7							
					C2	Rainy	Moderate	08:36	11.8	Surface	1.0	0.3	360	20.4	20.4	8.1	8.1	28.3	28.3	99.8	99.8	7.6	7.6	4.0			8	87	87	88	88	825679	806925	<0.2	1.5	<0.2	1.6
											1.0	0.3	331	20.4	20.4	8.1	8.1	28.3	28.3	99.7	99.7	7.6	7.6	4.0			7	88	88	88	88			<0.2	1.5	<0.2	1.6
											5.9	0.3	342	20.4	20.4	8.1	8.1	28.4	28.4	98.0	97.9	7.5	7.5	4.6			8	90	90	88	88			<0.2	1.5	<0.2	1.6
Middle	5.9	0.3	315	20.4						20.4	8.1	8.1	28.4	28.4	97.8	97.5	7.5	7.5	4.8	7	91	91	88	88	<0.2	1.6	<0.2	1.4									
	10.8	0.2	37	20.0						20.1	8.0	8.0	30.8	30.8	91.4	91.5	6.9	6.9	7.4	7	92	92	88	88	<0.2	1.4	<0.2	1.4									
	10.8	0.2	39	20.1						20.1	8.0	8.0	30.8	30.8	91.5	91.5	6.9	6.9	7.0	8	92	92	88	88	<0.2	1.4	<0.2	1.4									
C3	Cloudy	Moderate	06:34	11.3						Surface	1.0	0.7	269	20.1	20.1	8.1	8.1	31.0	31.0	96.8	96.7	7.3	7.3	2.2	4	84	84	88	88	822096	817817			<0.2	1.6	<0.2	1.6
											1.0	0.7	272	20.0	20.0	8.1	8.1	31.5	31.5	94.6	94.6	7.1	7.1	2.8	3	88	88	88	88					<0.2	1.5	<0.2	1.6
											5.7	0.6	282	20.0	20.0	8.1	8.1	31.5	31.5	94.5	94.5	7.1	7.1	6.0	2	88	88	88	88					<0.2	1.6	<0.2	1.6
					Middle	5.7	0.6	282	20.0	20.0	8.1	8.1	31.5	31.5	94.5	94.5	7.1	7.1	6.0	2	88	88	88	88	<0.2	1.7	<0.2	1.7									
						10.3	0.4	271	20.0	20.0	8.1	8.1	31.6	31.6	94.2	94.2	7.1	7.1	8.6	2	90	90	88	88	<0.2	1.8	<0.2	1.8									
						10.3	0.4	294	20.0	20.0	8.1	8.1	31.6	31.6	94.2	94.2	7.1	7.1	7.7	3	90	90	88	88	<0.2	1.8	<0.2	1.8									
					IM1	Rainy	Moderate	07:20	4.6	Surface	1.0	0.2	5	20.1	20.1	8.3	8.3	29.9	29.9	99.4	99.4	7.6	7.6	4.5	5	86	86	88	88			817938	807153	<0.2	1.0	<0.2	0.9
											1.0	0.2	5	20.1	20.1	8.3	8.3	29.9	29.9	99.3	99.3	7.6	7.6	4.3	5	86	86	88	88					<0.2	0.9	<0.2	0.9
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-
Middle	3.6	0.1	11	20.0						20.0	8.2	8.2	30.2	30.2	97.0	97.0	7.4	7.4	3.2	5	90	90	88	88	<0.2	0.7	<0.2	0.8									
	3.6	0.2	11	20.0						20.0	8.2	8.2	30.2	30.2	97.0	97.0	7.4	7.4	3.4	6	90	90	88	88	<0.2	0.8	<0.2	0.8									
	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-		
IM2	Rainy	Moderate	07:27	6.6						Surface	1.0	0.2	14	20.2	20.2	8.3	8.3	29.9	29.9	101.2	101.2	7.7	7.7	5.2	4	85	85	88	88	818174	806153			<0.2	0.9	<0.2	0.9
											1.0	0.2	15	20.2	20.2	8.3	8.3	29.9	29.9	101.1	101.1	7.7	7.7	5.2	5	84	84	88	88					<0.2	0.9	<0.2	0.9
											3.3	0.2	6	20.2	20.2	8.3	8.3	29.9	29.9	100.5	100.4	7.6	7.6	6.4	6	88	88	88	88					<0.2	0.9	<0.2	0.9
					Middle	3.3	0.2	6	20.2	20.2	8.3	8.3	29.9	29.9	100.3	100.3	7.6	7.6	6.6	6	87	87	88	88	<0.2	1.0	<0.2	0.9									
						5.6	0.1	354	20.0	20.0	8.3	8.3	30.3	30.3	99.1	99.1	7.5	7.5	7.8	6	90	90	88	88	<0.2	0.8	<0.2	0.8									
						5.6	0.1	326	20.0	20.0	8.3	8.3	30.3	30.3	99.1	99.1	7.5	7.5	8.0	6	89	89	88	88	<0.2	1.0	<0.2	1.0									
					IM3	Rainy	Moderate	07:36	6.9	Surface	1.0	0.2	365	20.2	20.2	8.3	8.3	29.9	29.9	101.7	101.7	7.7	7.7	4.9	6	85	85	88	88			818801	805602	<0.2	0.9	<0.2	0.9
											1.0	0.3	336	20.2	20.2	8.3	8.3	29.9	29.9	101.7	101.7	7.7	7.7	4.9	6	84	84	88	88					<0.2	0.9	<0.2	0.9
											3.5	0.2	354	20.2	20.2	8.3	8.3	30.0	30.0	101.3	101.3	7.7	7.7	5.8	5	88	88	88	88					<0.2	0.8	<0.2	0.8
Middle	3.5	0.2	326	20.2						20.2	8.3	8.3	30.0	30.0	101.3	101.3	7.7	7.7	5.9	6	88	88	88	88	<0.2	0.8	<0.2	0.8									
	5.9	0.2	333	20.2						20.2	8.3	8.3	30.1	30.1	100.9	100.9	7.7	7.7	8.5	6	89	89	88	88	<0.2	0.8	<0.2	0.8									
	5.9	0.2	343	20.2						20.2	8.3	8.3	30.1	30.1	100.8	100.8	7.7	7.7	8.3	5	89	89	88	88	<0.2	0.8	<0.2	0.8									
IM4	Rainy	Rough	07:46	8.2						Surface	1.0	0.4	356	20.1	20.1	8.3	8.3	30.2	30.2	101.2	101.2	7.7	7.7	5.3	6	84	84	88	88	819717	804610			<0.2	0.7	<0.2	0.8
											1.0	0.4	328	20.1	20.1	8.3	8.3	30.2	30.2	101.2	101.2	7.7	7.7	5.3	6	84	84	88	88					<0.2	0.8	<0.2	0.7
											4.1	0.4	342	20.1	20.1	8.3	8.3	30.3	30.3	100.8	100.8	7.7	7.7	6.0	5	88	88	88	88					<0.2	0.7	<0.2	0.8
					Middle	4.1	0.4	344	20.1	20.1	8.3	8.3	30.3	30.3	100.8	100.8	7.7	7.7	6.1	6	87	87	88	88	<0.2	0.7	<0.2	0.8									
						7.2	0.4	360	20.1	20.1	8.3	8.3	30.3	30.3	100.5	100.5	7.6	7.6	6.5	6	89	89	88	88	<0.2	0.7	<0.2	0.7									
						7.2	0.4	331	20.1	20.1	8.3	8.3	30.3	30.3	100.5	100.5	7.6	7.6	6.4	5	90	90	88	88	<0.2	0.7	<0.2	0.7									
					IM5	Rainy	Rough	07:54	7.5	Surface	1.0	0.6	15	20.2	20.2	8.3	8.3	29.7	29.7	101.3	101.3	7.7	7.7	6.5	7	84	84	88	88			820744	804869	<0.2	0.8	<0.2	1.0
											1.0	0.7	16	20.2	20.2	8.3	8.3	29.7	29.7	101.3	101.3	7.7	7.7	6.5	6	84	84	88	88					<0.2	1.0	<0.2	1.0
											3.8	0.6	22	20.2	20.2	8.2	8.2	29.8	29.8	99.6	99.6	7.6	7.6	7.6	6	88	88	88	88					<0.2	0.9	<0.2	0.9
Middle	3.8	0.6	23	20.2						20.2	8.2	8.2	29.8	29.8	99.6	99.6	7.6	7.6	7.7	7	88	88	88	88	<0.2	0.9	<0.2	0.9									
	6.5	0.5	18	20.2						20.2	8.2	8.2	29.9	29.9	99.0	99.0	7.5	7.5	8.7	7	89	89	88	88	<0.2	0.9	<0.2	0.9									
	6.5	0.5	19	20.2						20.2	8.2	8.2	29.9	29.9	99.0	99.0	7.5	7.5	8.5	8	89	89	88	88	<0.2	0.9	<0.2	0.9									
IM6	Rainy	Rough	08:03	7.3						Surface	1.0	0.1	78	20.4	20.4	8.3	8.3	28.1	28.1	100.1	100.0	7.7	7.7	3.6	5	83	83	88	88	821072	805824			<0.2	1.2	<0.2	1.2
											1.0																										

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

Water Quality Monitoring Results on 25 February 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	Rainy	Moderate	08:06	7.4	Surface	1.0	0.2	311	20.5	20.5	8.1	8.1	28.6	28.6	100.4	100.4	7.6	7.6	2.9	4	88	91	822101	808822	<0.2	1.6	<0.2	1.6					
						1.0	0.2	313	20.5	8.1	8.1	28.6	28.6	100.3	100.3	7.6	7.6	2.9	4	88	91	<0.2	1.6	<0.2	1.6								
						3.7	0.1	347	20.5	8.1	8.1	28.9	29.0	97.6	97.4	7.4	7.4	3.4	3	91	91	<0.2	1.6	<0.2	1.6								
					Middle	3.7	0.1	319	20.4	8.1	8.1	29.0	29.0	97.4	97.4	7.4	7.4	3.5	2	91	91	<0.2	1.6	<0.2	1.6								
						6.4	0.1	356	20.4	8.0	8.0	29.2	29.2	97.3	97.4	7.4	7.4	4.3	3	92	91	<0.2	1.6	<0.2	1.6								
						6.4	0.1	328	20.4	8.0	8.0	29.2	29.2	97.5	97.4	7.4	7.4	4.3	2	93	91	<0.2	1.6	<0.2	1.6								
					IM10	Rainy	Moderate	07:59	7.6	Surface	1.0	0.4	324	20.3	20.3	8.1	8.1	30.0	30.0	97.9	97.9	7.4	7.4	3.0	5	87	91	822392	809772	<0.2	1.7	<0.2	1.7
											1.0	0.5	330	20.3	8.1	8.1	30.1	30.0	97.9	97.9	7.4	7.4	3.0	4	88	91	<0.2	1.7	<0.2	1.7			
											3.8	0.3	315	20.2	8.0	8.0	30.3	30.3	97.2	97.2	7.4	7.4	3.4	3	91	91	<0.2	1.7	<0.2	1.7			
Middle	3.8	0.4	338	20.2						8.0	8.0	30.3	30.3	97.2	97.2	7.4	7.4	3.4	4	91	91	<0.2	1.6	<0.2	1.6								
	6.6	0.3	310	20.2						8.0	8.0	30.3	30.3	97.0	97.0	7.4	7.4	3.5	3	93	91	<0.2	1.6	<0.2	1.6								
	6.6	0.3	315	20.2						8.0	8.0	30.3	30.3	97.0	97.0	7.4	7.4	3.5	3	94	91	<0.2	1.6	<0.2	1.6								
IM11	Rainy	Moderate	07:49	7.8						Surface	1.0	0.3	287	20.2	20.2	8.1	8.1	30.5	30.5	96.9	96.9	7.3	7.3	3.7	4	84	88	822064	811483	<0.2	1.6	<0.2	1.6
											1.0	0.3	306	20.2	8.1	8.1	30.5	30.5	96.8	96.8	7.3	7.3	3.8	4	85	88	<0.2	1.6	<0.2	1.6			
											3.9	0.3	311	20.2	8.1	8.1	30.6	30.6	95.5	95.5	7.2	7.2	4.7	4	88	88	<0.2	1.6	<0.2	1.6			
					Middle	3.9	0.3	315	20.2	8.1	8.1	30.6	30.6	95.5	95.5	7.2	7.2	4.7	4	88	88	<0.2	1.6	<0.2	1.6								
						6.8	0.2	303	20.2	8.0	8.0	30.7	30.7	95.3	95.3	7.2	7.2	5.0	4	89	88	<0.2	1.5	<0.2	1.5								
						6.8	0.2	308	20.2	8.0	8.0	30.7	30.7	95.3	95.3	7.2	7.2	5.0	3	88	88	<0.2	1.6	<0.2	1.6								
					IM12	Rainy	Moderate	07:43	8.7	Surface	1.0	0.3	280	20.2	20.2	8.1	8.0	30.5	30.5	97.2	97.2	7.4	7.4	3.1	4	84	88	821460	812053	<0.2	1.5	<0.2	1.5
											1.0	0.3	287	20.2	8.0	8.0	30.5	30.5	97.1	97.1	7.4	7.4	3.2	3	84	88	<0.2	1.5	<0.2	1.5			
											4.4	0.3	274	20.2	8.0	8.0	30.6	30.6	96.7	96.7	7.3	7.3	5.5	4	87	88	<0.2	1.6	<0.2	1.6			
Middle	4.4	0.3	283	20.2						8.0	8.0	30.7	30.6	96.7	96.7	7.3	7.3	5.8	3	88	88	<0.2	1.6	<0.2	1.6								
	7.7	0.2	294	20.1						8.0	8.0	30.7	30.7	96.6	96.6	7.3	7.3	7.4	2	91	91	<0.2	1.5	<0.2	1.5								
	7.7	0.2	310	20.1						8.0	8.0	30.7	30.7	96.6	96.6	7.3	7.3	7.5	3	91	91	<0.2	1.5	<0.2	1.5								
SR1A	Cloudy	Calm	07:11	4.3						Surface	1.0	-	-	20.2	20.2	8.1	8.1	30.0	30.1	91.5	91.6	7.0	7.0	2.2	2	-	-	819971	812660	-	-	-	-
											1.0	-	-	20.2	20.2	8.1	8.1	30.1	30.1	91.5	91.5	6.9	7.0	2.2	2	-	-	-	-	-	-		
											2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						3.3	-	-	20.2	20.2	8.1	8.1	30.2	30.2	91.7	91.8	7.0	7.0	2.4	3	-	-	-	-	-	-	-	-	-				
						3.3	-	-	20.2	20.2	8.1	8.1	30.2	30.2	91.8	91.8	7.0	7.0	2.4	2	-	-	-	-	-	-	-	-	-				
					SR2	Cloudy	Moderate	06:55	4.5	Surface	1.0	0.3	330	20.2	20.2	8.1	8.1	30.6	30.6	97.2	97.2	7.4	7.4	3.8	3	87	88	821443	814158	<0.2	1.6	<0.2	1.6
											1.0	0.3	304	20.2	8.1	8.1	30.6	30.6	97.2	97.2	7.4	7.4	3.9	2	87	88	<0.2	1.5	<0.2	1.5			
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	3.5	0.2	334	20.2						8.1	8.1	30.6	30.6	97.0	97.0	7.4	7.4	4.1	3	89	89	<0.2	1.6	<0.2	1.6								
	3.5	0.2	344	20.2						8.1	8.1	30.6	30.6	97.0	97.0	7.3	7.4	4.1	4	89	89	<0.2	1.6	<0.2	1.6								
SR3	Rainy	Moderate	08:17	9.1						Surface	1.0	0.1	359	20.5	20.5	8.1	8.1	28.4	28.4	99.9	99.9	7.6	7.6	3.4	4	-	-	822143	807587	-	-	-	-
											1.0	0.1	330	20.5	8.1	8.1	28.4	28.4	99.8	99.8	7.6	7.6	3.5	5	-	-	-	-	-	-			
											4.6	0.1	350	20.5	8.1	8.1	28.6	28.6	99.4	99.4	7.6	7.6	4.1	4	-	-	-	-	-	-			
					Middle	4.6	0.1	357	20.5	8.1	8.1	28.6	28.6	99.4	99.4	7.6	7.6	4.0	4	-	-	-	-	-	-	-	-						
						8.1	0.2	83	20.2	8.1	8.1	30.7	30.7	97.6	97.7	7.4	7.4	9.4	4	-	-	-	-	-	-								
						8.1	0.2	87	20.2	8.1	8.1	30.7	30.7	97.7	97.7	7.4	7.4	9.2	3	-	-	-	-	-	-								
					SR4A	Cloudy	Calm	06:34	9.0	Surface	1.0	0.4	74	20.1	20.1	8.2	8.2	29.7	29.6	98.1	98.1	7.5	7.5	4.9	9	-	-	817200	807790	-	-	-	-
											1.0	0.4	74	20.1	8.2	8.2	29.6	29.6	98.1	98.1	7.5	7.6	4.8	8	-	-	-	-	-	-			
											4.5	0.4	78	20.0	8.2	8.2	30.1	30.1	99.2	99.2	7.6	7.6	5.4	8	-	-	-	-	-	-			
Middle	4.5	0.4	84	20.0						8.2	8.2	30.1	30.1	99.2	99.2	7.6	7.6	5.2	8	-	-	-	-	-	-	-							
	8.0	0.4	70	20.0						8.2	8.2	30.3	30.3	98.6	98.6	7.5	7.5	6.3	7	-	-	-	-	-	-								
	8.0	0.4	76	20.0						8.2	8.2	30.3	30.3	98.6	98.6	7.5	7.5	6.3	8	-	-	-	-	-	-								
SR5A	Cloudy	Calm	06:14	3.2						Surface	1.0	0.1	106	20.5	20.5	8.2	8.2	28.8	28.8	92.3	92.3	7.0	7.0	3.3	9	-	-	816612	810679	-	-	-	-
											1.0	0.1	112	20.5	8.2	8.2	28.8	28.8	92.3	92.3	7.0	7.0	3.3	8	-	-	-	-	-	-			
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
						2.2	0.1	109	20.5	8.2	8.2	28.8	28.8	92.3	92.3	7.0	7.0	3.8	9	-	-	-	-	-	-								
						2.2	0.1	111	20.5	8.2	8.2	28.8	28.8	92.3	92.3	7.0	7.0	3.9	5	-	-	-	-	-	-								
					SR6A	Cloudy	Calm	05:43	4.1	Surface	1.0	0.0	213	20.3	20.3	8.2	8.2	28.9	28.9	92.2	92.2	7.0	7.0	5.0	5	-	-	817978	814760	-	-	-	-
											1.0	0.0	229	20.3	8.2	8.2	28.9	28.9	92.2	92.2	7.0	7.0	4.8	6	-	-	-	-	-	-			
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
	3.1	0.0	248	20.2						8.2	8.2	29.2	29.2	90.2	90.1	6.9	6.9	3.7	5	-	-												

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

Water Quality Monitoring

Water Quality Monitoring Results on 27 February 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	Misty	Moderate	12:42	8.4	Surface	1.0	0.5	35	20.5	20.5	8.2	8.2	27.8	27.9	99.9	99.8	7.6	7.6	3.1	5	86	89	89	815630	804263	<0.2	1.4	1.4	1.3					
						1.0	0.5	35	20.5	8.2	8.2	27.9	27.9	99.7	99.7	7.6	7.6	3.1	4	85	89	89	815630	804263	<0.2	1.4	1.4	1.3						
						4.2	0.5	35	20.2	8.2	8.2	30.2	30.3	97.2	97.1	7.4	7.4	5.0	5	89	89	89	815630	804263	<0.2	1.3	1.3	1.3						
					Middle	4.2	0.5	35	20.2	8.2	8.2	30.4	30.4	96.9	97.3	7.3	7.3	4.9	6	89	89	89	815630	804263	<0.2	1.4	1.4	1.3						
						7.4	0.4	34	20.2	8.1	8.1	30.9	30.8	97.0	97.2	7.3	7.3	7.3	6	91	89	89	815630	804263	<0.2	1.2	1.2	1.2						
						7.4	0.4	35	20.2	8.1	8.1	30.8	30.8	97.3	97.2	7.4	7.4	6.9	7	92	89	89	815630	804263	<0.2	1.2	1.2	1.2						
					C2	Cloudy	Moderate	11:37	11.8	Surface	1.0	0.2	135	20.5	20.5	8.1	8.1	29.1	29.1	89.6	89.6	6.8	6.8	10.0	10	87	90	90	825659	806961	<0.2	1.5	1.4	1.4
											1.0	0.2	140	20.5	8.1	8.1	29.1	29.1	89.5	88.0	6.8	6.8	10.1	9	87	89	89	825659	806961	<0.2	1.4	1.4	1.4	
											5.9	0.5	154	20.5	8.1	8.1	29.3	29.3	88.1	88.0	6.7	6.7	10.8	10	89	90	90	825659	806961	<0.2	1.4	1.4	1.4	
Middle	5.9	0.5	165	20.5						8.2	8.2	29.3	29.4	87.9	86.2	6.7	6.7	10.6	11	90	92	92	825659	806961	<0.2	1.4	1.4	1.4						
	10.8	0.5	144	20.5						8.2	8.2	29.4	29.4	86.4	86.2	6.5	6.5	9.9	14	92	92	92	825659	806961	<0.2	1.4	1.4	1.4						
	10.8	0.5	153	20.5						8.2	8.2	29.4	29.4	86.0	86.2	6.5	6.5	9.8	15	92	92	92	825659	806961	<0.2	1.5	1.5	1.5						
C3	Cloudy	Moderate	13:39	11.8						Surface	1.0	0.4	286	20.3	20.3	8.0	8.0	30.7	30.7	85.1	85.0	6.4	6.4	3.2	7	84	88	88	822108	817788	<0.2	1.1	1.1	1.1
											1.0	0.4	300	20.3	8.0	8.0	30.8	30.7	84.9	81.2	6.4	6.1	3.2	6	84	87	87	822108	817788	<0.2	1.1	1.1	1.1	
											5.9	0.2	257	20.2	8.0	8.0	31.5	31.5	81.2	81.2	6.1	6.1	5.0	4	87	88	88	822108	817788	<0.2	1.2	1.2	1.2	
					Middle	5.9	0.2	261	20.2	8.0	8.0	31.5	31.5	81.1	81.1	6.1	6.1	5.3	4	88	91	91	822108	817788	<0.2	1.2	1.2	1.2						
						10.8	0.1	120	20.1	8.0	8.0	31.6	31.6	75.4	75.2	5.7	5.7	6.4	4	91	92	92	822108	817788	<0.2	1.2	1.2	1.2						
						10.8	0.1	128	20.1	8.0	8.0	31.6	31.6	74.9	75.2	5.6	5.6	6.4	3	92	92	92	822108	817788	<0.2	1.1	1.1	1.1						
					IM1	Misty	Moderate	12:21	5.0	Surface	1.0	0.2	7	20.6	20.6	8.2	8.2	28.6	28.6	98.6	98.3	7.5	7.5	4.3	7	86	88	88	817964	807109	<0.2	1.4	1.4	1.4
											1.0	0.2	7	20.6	20.6	8.2	8.2	28.7	28.6	98.0	98.3	7.5	7.5	4.1	7	87	88	88	817964	807109	<0.2	1.4	1.4	1.4
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	817964	807109	<0.2	1.4	1.4	1.4	
	4.0	0.2	344	20.6						20.6	8.2	8.2	28.7	28.7	98.5	98.6	7.5	7.5	4.8	6	90	89	89	817964	807109	<0.2	1.5	1.5	1.5					
	4.0	0.2	316	20.6						20.6	8.2	8.2	28.7	28.7	98.7	98.6	7.5	7.5	4.9	7	89	89	89	817964	807109	<0.2	1.5	1.5	1.5					
IM2	Misty	Moderate	12:14	6.8						Surface	1.0	0.1	199	20.6	20.6	8.2	8.2	28.3	28.3	97.9	97.8	7.5	7.5	4.8	6	85	88	88	818172	806152	<0.2	1.5	1.5	1.5
											1.0	0.1	205	20.6	8.2	8.2	28.4	28.3	97.7	97.8	7.4	7.4	5.0	7	85	88	88	818172	806152	<0.2	1.5	1.5	1.5	
											3.4	0.2	161	20.7	20.7	8.2	8.2	28.5	28.5	97.3	97.3	7.4	7.4	5.6	6	88	89	89	818172	806152	<0.2	1.5	1.5	1.5
					Middle	3.4	0.2	171	20.7	20.7	8.2	8.2	28.5	28.5	97.2	97.4	7.4	7.4	6.1	5	89	90	90	818172	806152	<0.2	1.4	1.4	1.4					
						5.8	0.2	114	20.6	20.6	8.2	8.2	28.8	28.8	96.5	96.6	7.3	7.3	8.8	5	90	90	90	818172	806152	<0.2	1.5	1.5	1.5					
						5.8	0.2	119	20.6	20.6	8.2	8.2	28.8	28.8	96.6	96.6	7.3	7.3	9.2	6	90	90	90	818172	806152	<0.2	1.4	1.4	1.4					
					IM3	Misty	Calm	12:07	7.0	Surface	1.0	0.1	345	20.6	20.6	8.2	8.2	28.2	28.2	98.7	98.6	7.5	7.5	3.8	5	85	88	88	818777	805577	<0.2	1.4	1.4	1.4
											1.0	0.1	348	20.6	20.6	8.2	8.2	28.3	28.2	98.5	98.6	7.5	7.5	4.2	5	85	88	88	818777	805577	<0.2	1.3	1.3	1.3
											3.5	0.1	81	20.6	20.6	8.2	8.2	28.5	28.5	97.6	97.6	7.4	7.4	5.9	5	88	89	89	818777	805577	<0.2	1.3	1.3	1.3
Middle	3.5	0.1	87	20.6						20.6	8.2	8.2	28.5	28.5	97.5	97.4	7.4	7.4	5.8	6	89	90	90	818777	805577	<0.2	1.3	1.3	1.3					
	6.0	0.3	106	20.6						20.6	8.2	8.2	28.8	28.7	97.1	97.3	7.4	7.4	7.4	6	90	91	91	818777	805577	<0.2	1.3	1.3	1.3					
	6.0	0.3	115	20.6						20.6	8.2	8.2	28.7	28.7	97.4	97.3	7.4	7.4	7.1	7	91	91	91	818777	805577	<0.2	1.3	1.3	1.3					
IM4	Misty	Calm	11:58	8.4						Surface	1.0	0.3	21	20.6	20.6	8.2	8.2	28.5	28.5	97.7	97.6	7.4	7.4	4.8	5	84	88	88	819705	804586	<0.2	1.2	1.2	1.2
											1.0	0.3	22	20.6	20.6	8.2	8.2	28.5	28.5	97.5	97.6	7.4	7.4	5.1	5	85	88	88	819705	804586	<0.2	1.3	1.3	1.3
											4.2	0.3	10	20.6	20.6	8.2	8.2	28.6	28.6	97.2	97.2	7.4	7.4	6.2	6	88	89	89	819705	804586	<0.2	1.3	1.3	1.3
					Middle	4.2	0.3	10	20.6	20.6	8.2	8.2	28.6	28.6	97.1	97.2	7.4	7.4	6.4	6	88	90	90	819705	804586	<0.2	1.3	1.3	1.3					
						7.4	0.2	3	20.5	20.5	8.2	8.2	28.8	28.8	96.9	96.9	7.4	7.4	10.0	6	90	90	90	819705	804586	<0.2	1.2	1.2	1.2					
						7.4	0.2	3	20.5	20.5	8.2	8.2	28.8	28.8	96.9	96.9	7.4	7.4	9.8	6	90	90	90	819705	804586	<0.2	1.2	1.2	1.2					
					IM5	Misty	Moderate	11:49	6.8	Surface	1.0	0.7	216	20.6	20.6	8.2	8.2	28.5	28.5	98.2	98.2	7.5	7.5	6.1	9	85	88	88	820715	804874	<0.2	1.3	1.4	1.4
											1.0	0.8	216	20.6	20.6	8.2	8.2	28.5	28.5	98.2	98.2	7.5	7.5	6.1	8	85	88	88	820715	804874	<0.2	1.4	1.4	1.4
											3.4	0.7	201	20.6	20.6	8.2	8.2	28.5	28.5	98.1	98.1	7.5	7.5	6.1	9	88	88	88	820715	804874	<0.2	1.4	1.4	1.4
Middle	3.4	0.7	204	20.6						20.6	8.2	8.2	28.5	28.5	98.1	98.1	7.5	7.5	6.1	10	88	90	90	820715	804874	<0.2	1.4	1.4	1.4					
	5.8	0.4	183	20.6						20.6	8.2	8.2	28.6	28.6	98.1	98.2	7.5	7.5	7.6	10	90	90	90	820715	804874	<0.2	1.4	1.4	1.4					
	5.8	0.4	197	20.6						20.6	8.2	8.2	28.6	28.6	98.2	98.2	7.5	7.5	7.7	11	90	90	90	820715	804874	<0.2	1.4	1.4	1.4					
IM6	Misty	Calm	11:42	7.4						Surface	1.0	0.6																						

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

Water Quality Monitoring Results on 27 February 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	12:07	7.7	Surface	1.0	0.5	72	20.5	20.5	8.1	8.1	29.1	29.1	90.7	90.6	6.9	6.8	6.2	13	11	86	89	822109	808822	<0.2	1.3	1.4	1.4					
						1.0	0.5	73	20.5	8.1	8.1	29.1	29.1	90.5	89.2	6.9	6.8	6.6	13	11	86	89	<0.2	1.3	1.4	1.4								
						3.9	0.5	71	20.5	8.1	8.1	29.7	29.7	89.3	89.2	6.8	6.7	9.4	13	11	89	90	<0.2	1.3	1.4	1.4								
					Middle	3.9	0.5	73	20.5	8.1	8.1	29.7	29.7	89.1	89.2	6.7	6.6	9.0	6	6	90	90	<0.2	1.3	1.4	1.4								
						6.7	0.4	54	20.5	8.1	8.1	29.7	29.7	87.7	87.6	6.6	6.6	9.1	6	6	90	90	<0.2	1.3	1.4	1.4								
						6.7	0.4	56	20.5	8.1	8.1	29.7	29.7	87.4	87.6	6.6	6.6	9.0	6	6	90	90	<0.2	1.3	1.4	1.4								
					IM10	Cloudy	Moderate	12:14	7.8	Surface	1.0	0.5	99	20.5	20.5	8.1	8.1	29.1	29.2	88.3	88.2	6.7	6.7	6.7	9	11	85	89	822381	809810	<0.2	1.3	1.3	1.4
											1.0	0.5	104	20.5	8.1	8.1	29.2	29.2	88.1	85.5	6.7	6.9	9	9	9	86	89	<0.2	1.3	1.3	1.4			
											3.9	0.4	107	20.5	8.0	8.0	29.6	29.6	85.6	85.5	6.5	6.5	8.7	11	11	89	90	<0.2	1.3	1.3	1.4			
Middle	3.9	0.4	115	20.5						8.0	8.0	29.6	29.6	85.3	85.5	6.5	6.5	8.7	12	11	90	91	<0.2	1.3	1.4	1.4								
	6.8	0.3	111	20.5						8.0	8.0	29.6	29.6	80.6	80.4	6.1	6.1	8.1	11	11	91	91	<0.2	1.3	1.4	1.4								
	6.8	0.3	118	20.5						8.0	8.0	29.6	29.6	80.1	80.4	6.1	6.1	8.2	12	11	91	91	<0.2	1.3	1.4	1.4								
IM11	Cloudy	Moderate	12:24	8.6						Surface	1.0	0.3	133	20.5	20.5	8.0	8.0	29.9	29.9	87.7	87.6	6.6	6.6	3.9	7	7	83	89	822077	811449	<0.2	1.3	1.3	1.3
											1.0	0.3	135	20.5	8.0	8.0	29.9	29.9	87.5	83.5	6.6	6.9	9	9	9	84	90	<0.2	1.3	1.3	1.3			
											4.3	0.3	131	20.5	8.0	8.0	30.0	30.0	83.6	83.5	6.3	6.3	4.5	7	7	90	91	<0.2	1.3	1.3	1.3			
					Middle	4.3	0.3	143	20.5	8.0	8.0	30.1	30.0	83.3	83.5	6.3	6.3	4.5	8	8	91	92	<0.2	1.3	1.3	1.3								
						7.6	0.2	142	20.4	8.0	8.0	30.2	30.2	76.1	75.9	5.8	5.8	4.7	6	6	92	96	<0.2	1.3	1.3	1.3								
						7.6	0.2	147	20.4	8.0	8.0	30.1	30.2	75.6	75.9	5.7	5.8	4.7	7	7	96	96	<0.2	1.3	1.3	1.3								
					IM12	Cloudy	Moderate	12:31	8.9	Surface	1.0	0.3	119	20.5	20.5	8.1	8.1	29.9	29.9	87.7	87.6	6.6	6.6	3.4	8	8	85	88	821472	812022	<0.2	1.3	1.3	1.3
											1.0	0.3	124	20.5	8.1	8.1	29.9	29.9	87.5	84.1	6.6	6.9	3.4	7	7	85	86	<0.2	1.3	1.3	1.3			
											4.5	0.3	122	20.4	8.0	8.0	30.2	30.2	84.2	84.1	6.4	6.3	3.7	7	8	86	89	<0.2	1.3	1.3	1.3			
Middle	4.5	0.3	131	20.4						8.0	8.0	30.2	30.2	83.9	84.1	6.3	6.3	3.8	8	8	89	91	<0.2	1.3	1.3	1.3								
	7.9	0.3	128	20.4						8.0	8.0	30.5	30.5	82.2	82.0	6.2	6.2	4.1	8	8	91	91	<0.2	1.3	1.3	1.3								
	7.9	0.3	130	20.4						8.0	8.0	30.5	30.5	81.8	82.0	6.2	6.2	4.0	7	7	91	91	<0.2	1.3	1.3	1.3								
SR1A	Cloudy	Moderate	13:05	5.3						Surface	1.0	-	-	20.5	20.5	8.0	8.0	29.9	29.9	84.0	84.0	6.3	6.3	5.6	4	4	-	-	819982	812654	-	-	-	-
											1.0	-	-	20.5	20.5	8.0	8.0	29.9	29.9	84.0	84.0	6.3	6.3	5.6	4	4	-	-	-	-	-	-	-	-
											2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						4.3	-	-	20.5	20.5	8.0	8.0	29.9	29.9	82.5	82.5	6.2	6.2	9.4	4	4	-	-	-	-	-	-	-	-	-	-			
						4.3	-	-	20.5	20.5	8.0	8.0	29.9	29.9	82.4	82.5	6.2	6.2	9.1	4	4	-	-	-	-	-	-	-	-	-	-			
					SR2	Cloudy	Moderate	13:19	4.2	Surface	1.0	0.4	83	20.4	20.4	8.0	8.0	30.1	30.1	86.2	86.2	6.5	6.5	4.0	5	5	89	91	821458	814186	<0.2	1.2	1.1	1.1
											1.0	0.4	89	20.4	20.4	8.0	8.0	30.1	30.1	86.1	86.2	6.5	6.5	4.0	5	5	90	91	<0.2	1.2	1.1	1.1		
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	3.2	0.3	94	20.4						20.4	8.0	8.0	30.1	30.1	77.7	77.5	5.9	5.9	3.9	7	7	91	92	<0.2	1.2	1.1	1.1							
	3.2	0.4	100	20.4						20.4	8.0	8.0	30.1	30.1	77.2	77.5	5.8	5.9	3.9	7	7	92	92	<0.2	1.2	1.1	1.1							
SR3	Cloudy	Moderate	11:54	8.8						Surface	1.0	0.3	143	20.6	20.6	8.1	8.1	28.6	28.6	88.8	88.8	6.7	6.7	4.6	6	6	-	-	822161	807548	-	-	-	-
											1.0	0.3	154	20.6	20.6	8.1	8.1	28.7	28.6	88.7	87.4	6.7	6.7	4.6	7	7	-	-	-	-	-	-	-	-
											4.4	0.2	135	20.6	20.6	8.1	8.1	28.9	28.9	87.4	87.4	6.6	6.6	7.1	6	6	-	-	-	-	-	-	-	-
					Middle	4.4	0.2	146	20.6	20.6	8.1	8.1	29.0	28.9	87.3	87.4	6.6	6.6	7.6	7	7	-	-	-	-	-	-	-	-	-				
						7.8	0.3	85	20.5	20.5	8.1	8.0	29.4	29.4	84.1	83.6	6.4	6.4	14.7	8	8	-	-	-	-	-	-	-	-					
						7.8	0.3	87	20.5	20.5	8.0	8.0	29.4	29.4	83.0	83.6	6.3	6.4	13.1	7	7	-	-	-	-	-	-	-	-					
					SR4A	Misty	Calm	13:04	9.0	Surface	1.0	0.3	68	20.6	20.6	8.2	8.2	28.3	28.4	98.4	98.2	7.5	7.5	4.8	8	8	-	-	817170	807812	-	-	-	-
											1.0	0.3	73	20.6	20.6	8.2	8.2	28.4	28.4	98.0	98.2	7.5	7.5	5.0	9	9	-	-	-	-	-	-	-	
											4.5	0.3	68	20.6	20.6	8.2	8.2	28.4	28.5	97.4	97.4	7.4	7.4	5.7	8	8	-	-	-	-	-	-	-	
Middle	4.5	0.4	72	20.6						20.6	8.2	8.2	28.5	28.5	97.3	97.4	7.4	7.4	5.7	8	8	-	-	-	-	-	-	-	-					
	8.0	0.3	72	20.6						20.6	8.1	8.1	28.5	28.5	97.9	98.0	7.5	7.5	5.6	8	8	-	-	-	-	-	-	-						
	8.0	0.3	73	20.6						20.6	8.1	8.1	28.5	28.5	98.1	98.0	7.5	7.5	5.6	7	7	-	-	-	-	-	-	-						
SR5A	Misty	Calm	13:21	3.4						Surface	1.0	0.0	310	20.7	20.7	8.1	8.1	28.6	28.6	85.7	85.8	6.5	6.5	5.7	5	5	-	-	816597	810717	-	-	-	-
											1.0	0.0	319	20.7	20.7	8.1	8.1	28.6	28.6	85.8	85.8	6.5	6.5	5.7	5	5	-	-	-	-	-	-	-	
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
						2.4	0.0	355	20.6	20.6	8.1	8.1	28.6	28.6	86.9	87.1	6.6	6.6	6.0	6	6	-	-	-	-	-	-	-						
						2.4	0.0	327	20.6	20.6	8.1	8.1	28.7	28.6	87.2	87.1	6.6	6.6	6.1	7	7	-	-	-	-	-	-	-						
					SR6A	Misty	Calm	13:48	4.0	Surface	1.0	0.0	207	20.5	20.5	8.2	8.2	28.0	28.0	92.7	92.8	7.1	7.1	5.2	6	6	-							

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

Water Quality Monitoring

Water Quality Monitoring Results on 27 February 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	Misty	Moderate	08:34	8.4	Surface	1.0	0.2	225	20.6	20.6	8.2	8.2	28.0	28.0	98.2	98.2	7.5	5.8	11	85	89	815619	804259	<0.2	1.3	1.4					
						1.0	0.2	233	20.6	8.2	8.2	28.0	28.0	98.2	98.2	7.5	6.1	10	86	89	<0.2	1.2									
						4.2	0.1	138	20.6	8.2	8.2	28.4	28.4	98.1	98.1	7.5	9.5	10	89	89	<0.2	1.2									
					4.2	0.1	142	20.6	8.2	8.2	28.4	28.4	98.1	98.1	7.5	9.5	11	89	89	<0.2	1.2										
					7.4	0.1	182	20.6	8.2	8.2	28.7	28.7	98.0	98.0	7.4	10.3	10	91	89	<0.2	1.8										
					7.4	0.1	186	20.6	8.2	8.2	28.7	28.7	98.0	98.0	7.4	10.1	10	92	89	<0.2	1.7										
C2	Cloudy	Moderate	09:20	11.8	Surface	1.0	0.3	350	20.6	20.6	8.0	8.0	28.3	28.3	86.2	86.2	6.6	4.8	5	86	89	825691	806967	<0.2	1.3	1.4					
						1.0	0.3	322	20.6	8.0	8.0	28.3	28.3	86.0	86.0	6.5	4.8	4	87	89	<0.2	1.4									
						5.9	0.4	28	20.5	8.0	8.0	28.7	28.7	83.0	83.1	6.3	7.9	5	89	89	<0.2	1.5									
					5.9	0.4	28	20.5	8.0	8.0	28.7	28.7	83.0	83.0	6.3	8.3	6	90	89	<0.2	1.4										
					10.8	0.4	346	20.5	8.0	8.0	28.7	28.7	75.1	74.8	5.7	8.8	6	91	89	<0.2	1.5										
					10.8	0.5	318	20.5	8.0	8.0	28.7	28.7	74.5	74.5	5.7	8.9	7	92	89	<0.2	1.3										
C3	Rainy	Moderate	07:11	12.1	Surface	1.0	0.6	242	20.7	20.7	8.1	8.1	29.5	29.5	85.6	85.6	6.5	5.2	2	85	89	822120	817818	<0.2	1.1	1.1					
						1.0	0.6	266	20.7	8.1	8.1	29.7	29.7	85.5	85.5	6.5	5.4	3	86	89	<0.2	1.0									
						6.1	0.7	246	20.7	8.1	8.1	29.7	29.7	83.8	83.8	6.3	6.5	2	90	89	<0.2	1.0									
					6.1	0.8	247	20.7	8.1	8.1	29.7	29.7	83.8	83.8	6.3	6.8	3	89	89	<0.2	1.1										
					11.1	0.5	252	20.7	8.0	8.0	29.7	29.7	77.9	77.8	5.9	7.5	3	91	89	<0.2	1.1										
					11.1	0.5	254	20.7	8.0	8.0	29.7	29.7	77.6	77.6	5.9	8.1	3	92	89	<0.2	1.2										
IM1	Misty	Calm	08:53	5.0	Surface	1.0	0.2	4	20.6	20.6	8.2	8.2	28.6	28.6	98.0	98.0	7.5	5.0	5	87	89	817959	807117	<0.2	1.4	1.4					
						1.0	0.2	4	20.6	8.2	8.2	28.6	28.6	97.9	97.9	7.4	4.8	6	86	89	<0.2	1.4									
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-		
					4.0	0.1	345	20.5	8.1	8.1	28.9	28.9	97.5	97.6	7.4	4.7	4	90	89	<0.2	1.3										
					4.0	0.1	355	20.5	8.1	8.1	28.9	28.9	97.6	97.6	7.4	4.4	5	91	89	<0.2	1.3										
					-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-			
IM2	Misty	Calm	09:01	6.8	Surface	1.0	0.1	113	20.7	20.7	8.2	8.2	28.4	28.4	97.6	97.6	7.4	8.8	11	85	88	818169	806161	<0.2	1.3	1.4					
						1.0	0.1	119	20.7	8.2	8.2	28.5	28.5	97.6	97.4	7.4	9.0	12	85	88	<0.2	1.3									
						3.4	0.1	144	20.7	8.2	8.2	28.5	28.5	97.4	97.4	7.4	11.4	11	88	88	<0.2	1.4									
					3.4	0.1	153	20.7	8.2	8.2	28.6	28.6	97.4	97.4	7.4	11.8	10	88	88	<0.2	1.4										
					5.8	0.1	199	20.7	8.1	8.1	28.6	28.6	97.3	97.3	7.4	13.6	11	91	88	<0.2	1.5										
					5.8	0.1	200	20.7	8.1	8.1	28.6	28.6	97.3	97.3	7.4	13.9	10	91	88	<0.2	1.5										
IM3	Misty	Moderate	09:07	7.0	Surface	1.0	0.1	54	20.7	20.7	8.2	8.2	28.3	28.3	97.0	97.0	7.4	11.6	13	85	88	818777	805574	<0.2	1.6	1.6					
						1.0	0.1	57	20.7	8.2	8.2	28.3	28.3	97.0	97.0	7.4	12.0	14	85	88	<0.2	1.5									
						3.5	0.0	113	20.7	8.2	8.2	28.3	28.3	96.7	96.7	7.4	14.8	14	87	88	<0.2	1.6									
					3.5	0.0	122	20.7	8.2	8.2	28.3	28.3	96.7	96.7	7.4	14.5	13	88	88	<0.2	1.5										
					6.0	0.0	183	20.7	8.2	8.2	28.3	28.3	96.7	96.7	7.3	16.4	13	90	88	<0.2	1.5										
					6.0	0.0	198	20.7	8.2	8.2	28.3	28.3	96.7	96.7	7.3	16.0	12	91	88	<0.2	1.6										
IM4	Misty	Moderate	09:16	8.2	Surface	1.0	0.1	294	20.7	20.7	8.2	8.2	28.4	28.4	97.2	97.2	7.4	18.6	19	84	88	819702	804615	<0.2	1.3	1.3					
						1.0	0.1	308	20.7	8.2	8.2	28.4	28.4	97.2	97.1	7.4	19.1	19	85	88	<0.2	1.4									
						4.1	0.0	120	20.7	8.2	8.2	28.4	28.4	97.1	97.1	7.4	20.3	19	88	88	<0.2	1.3									
					4.1	0.0	120	20.7	8.2	8.2	28.4	28.4	97.1	97.1	7.4	20.5	20	87	88	<0.2	1.2										
					7.2	0.0	140	20.6	8.2	8.2	28.5	28.5	97.0	97.0	7.4	21.8	21	91	88	<0.2	1.3										
					7.2	0.0	143	20.6	8.2	8.2	28.5	28.5	97.0	97.0	7.4	21.9	21	90	88	<0.2	1.4										
IM5	Misty	Moderate	09:23	7.6	Surface	1.0	0.2	355	20.7	20.7	8.2	8.2	28.2	28.2	96.6	96.6	7.4	12.6	18	85	87	820718	804862	<0.2	1.4	1.4					
						1.0	0.2	327	20.7	8.2	8.2	28.2	28.2	96.6	96.6	7.3	12.8	17	84	88	<0.2	1.3									
						3.8	0.2	349	20.7	8.2	8.2	28.2	28.2	96.6	96.6	7.3	12.6	17	88	88	<0.2	1.4									
					3.8	0.2	321	20.7	8.2	8.2	28.2	28.2	96.6	96.6	7.3	12.4	18	87	88	<0.2	1.5										
					6.6	0.1	12	20.6	8.1	8.1	28.3	28.3	96.4	96.5	7.3	14.8	17	90	88	<0.2	1.3										
					6.6	0.2	12	20.6	8.1	8.1	28.3	28.3	96.5	96.5	7.3	14.8	17	90	88	<0.2	1.4										
IM6	Misty	Moderate	09:31	7.0	Surface	1.0	0.1	322	20.7	20.7	8.2	8.2	27.7	27.7	95.8	95.8	7.3	3.0	5	85	88	821052	805843	<0.2	1.6	1.6					
						1.0	0.1	334	20.7	8.2	8.2	27.7	27.7	95.8	95.7	7.3	3.0	5	84	88	<0.2	1.6									
						3.5	0.1	322	20.7	8.2	8.2	27.9	28.1	95.8	95.7	7.3	3.3	5	88	88	<0.2	1.4									
					3.5	0.1	326	20.7	8.2	8.2	28.3	28.1	95.5	95.5	7.3	3.4	5	88	88	<0.2	1.6										
					6.0	0.1	320	20.7	8.2	8.2	28.7	28.6	95.5	95.6	7.3	4.6	6	90	88	<0.2	1.6										
					6.0	0.1	324	20.6	8.2	8.2	28.6	28.6	95.6	95.6	7.3	4.5	5	90	88	<0.2	1.5										
IM7	Misty	Moderate	09:37	8.6	Surface	1.0	0.1	269	20.6	20.7	8.2	8.2	28.5	28.5	96.8	96.8	7.4	9.2	12	85	88	821347	806825	<0.2	1.3	1.3					
						1.0	0.1	283	20.7	8.2	8.2	28.5	28.5	96.8	96.5	7.4	9.7	12	85	88	<0.2	1.3									
						4.3	0.1	262	20.7	8.2	8.2	28.5	28.5	96.5	96.5	7.3	11.4	14	88	88	<0.2	1.4									
					4.3	0.1	284	20.6	8.2	8.2	28.5	28.5	96.5	96.5	7.3	11.3	13	88	88	<0.2	1.4										
					7.6	0.1	244	20.6	8.2	8.2	28.6	28.6	96.4	96.5	7.3	11.6	15	91	88	<0.2	1.3										
					7.6	0.1	244	20.6	8.2	8.2	28.6	28.6	96.5	96.5	7.3	12.0	16	90	88	<0.2	1.3										
IM8	Cloudy	Moderate	08:55	7.7	Surface	1.0	0.2	240	20.7	20.7	8.0	8.0	28.0	28.0	87.5	87.4	6.7	4.2	4	86	89	821849	808131	<0.2	1.4	1.3					
						1.0	0.2	252	20.7	8.0	8.0	28.1	28.1	87.3	87.3	6.7	4.3	3	87	89	<0.2	1.4									
						3.9	0.1	46	20.7	8.0	8.0	28.1	28.1	82.7	82.6	6.3	7.0	4	91	89	<0.2	1.2									
					3.9	0.1	48	20.7	8.0	8.0	28.1	28.1	82.5	82.6	6.3																

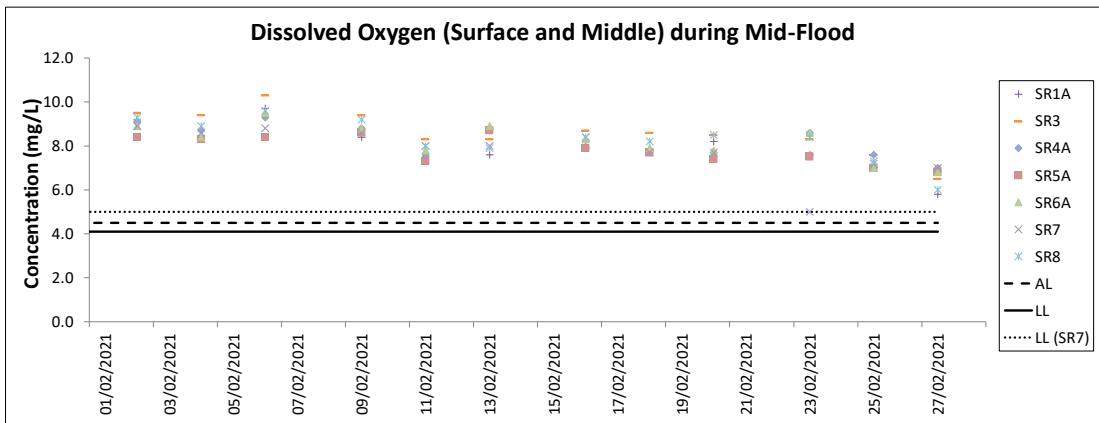
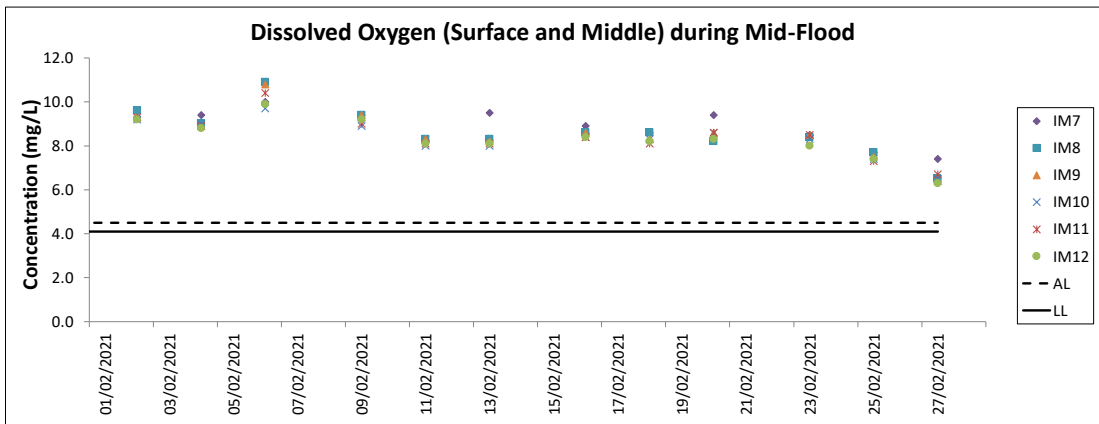
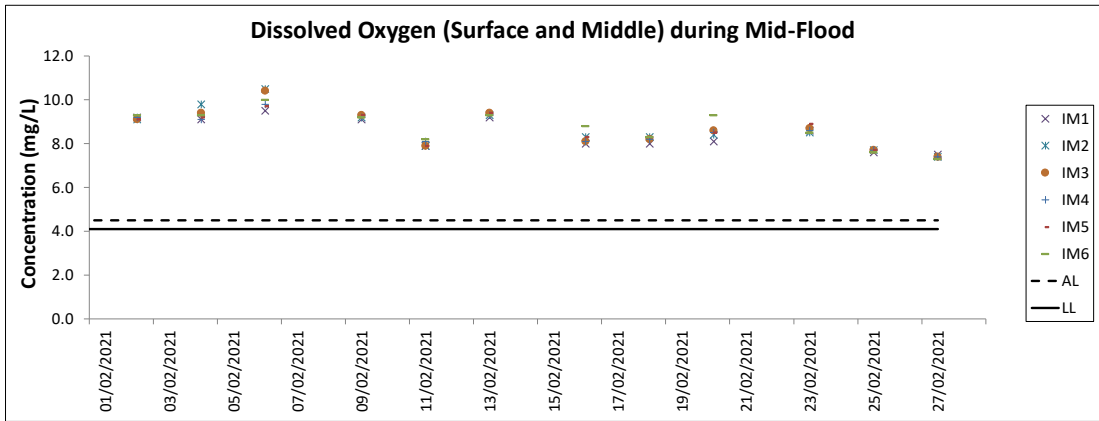
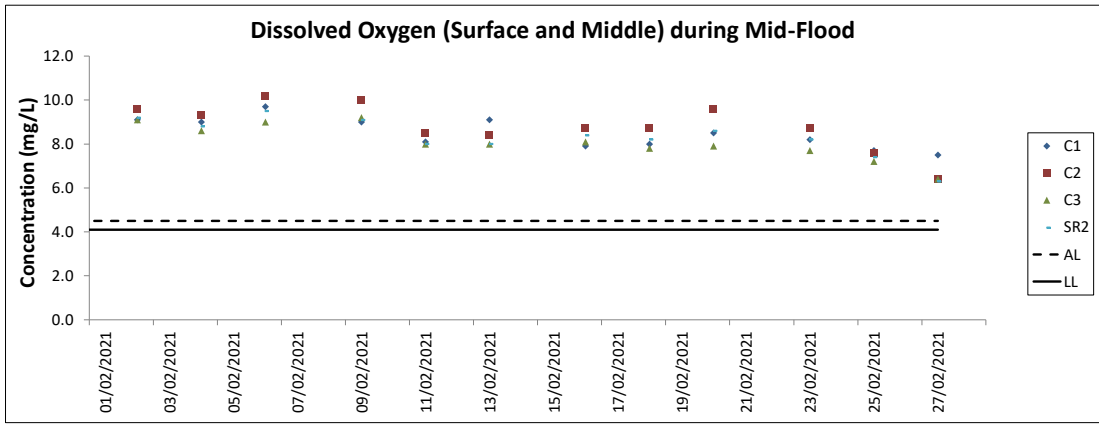
Expansion of Hong Kong International Airport into a Three-Runway System  
Water Quality Monitoring

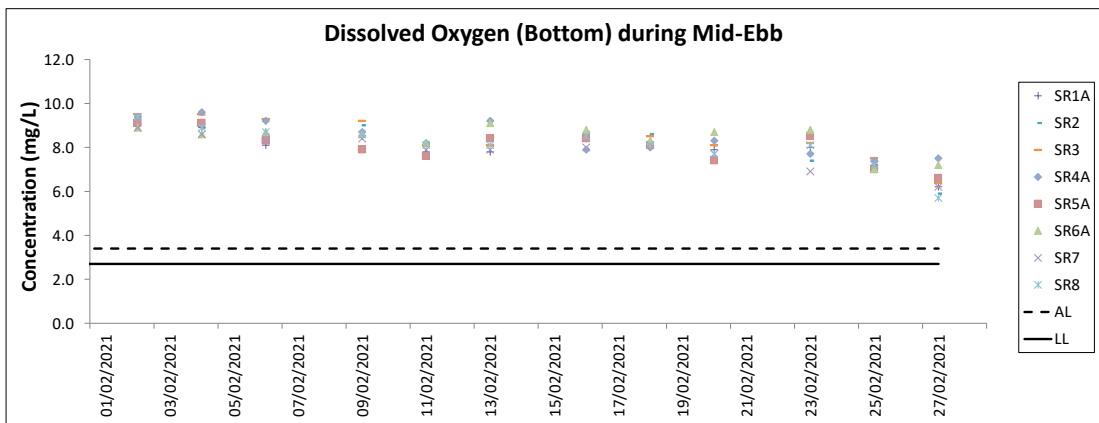
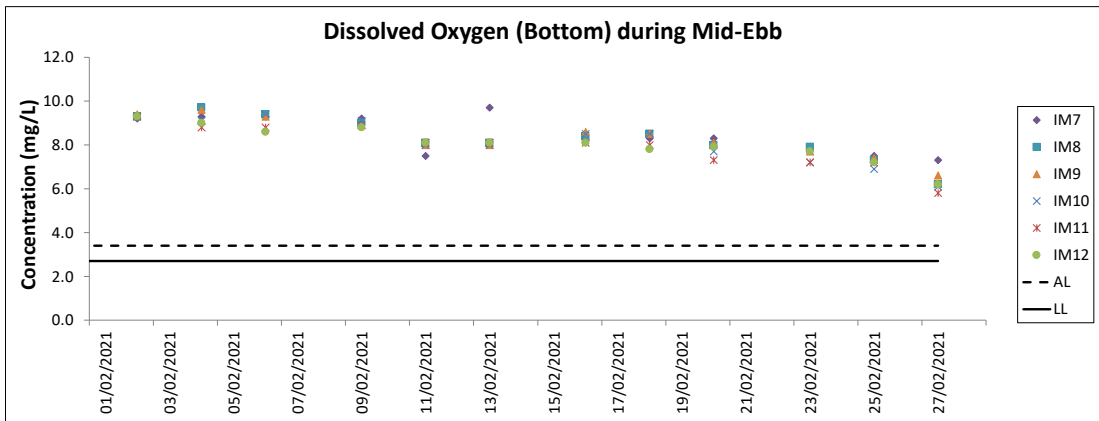
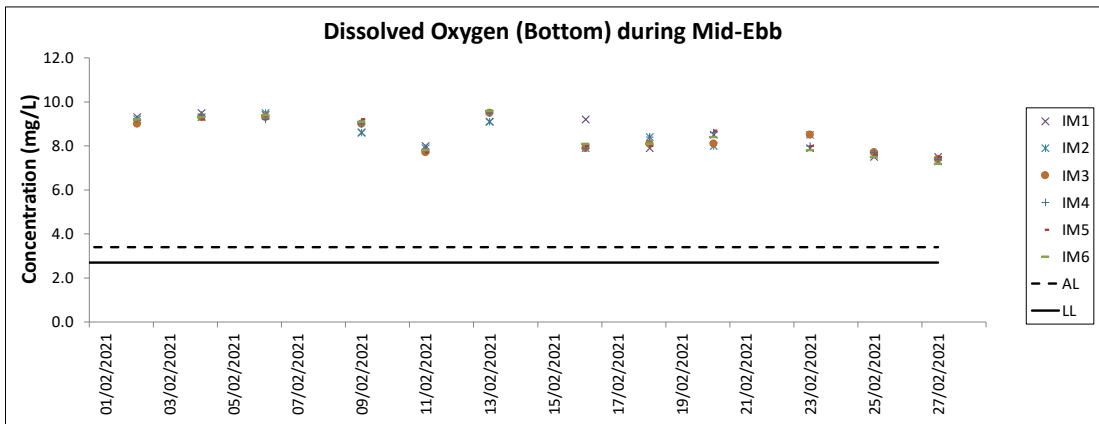
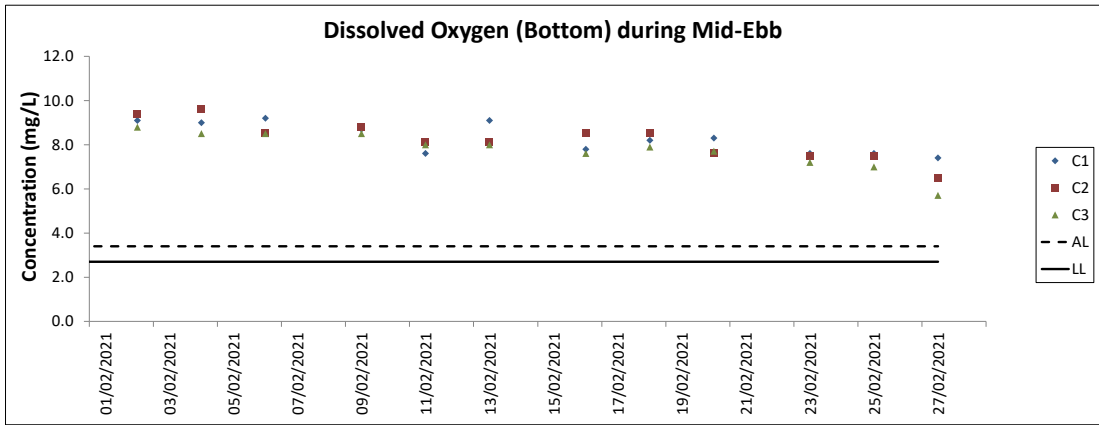
Water Quality Monitoring Results on 27 February 21 during Mid-Flood Tide

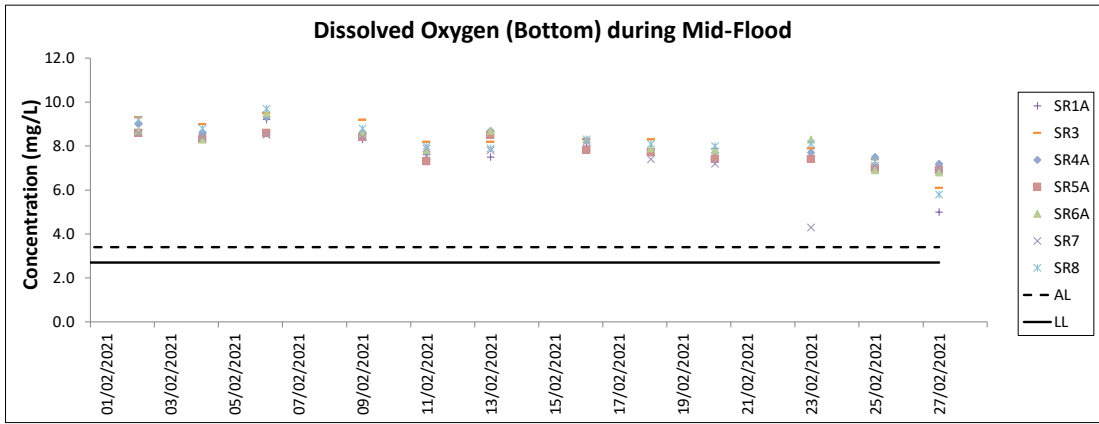
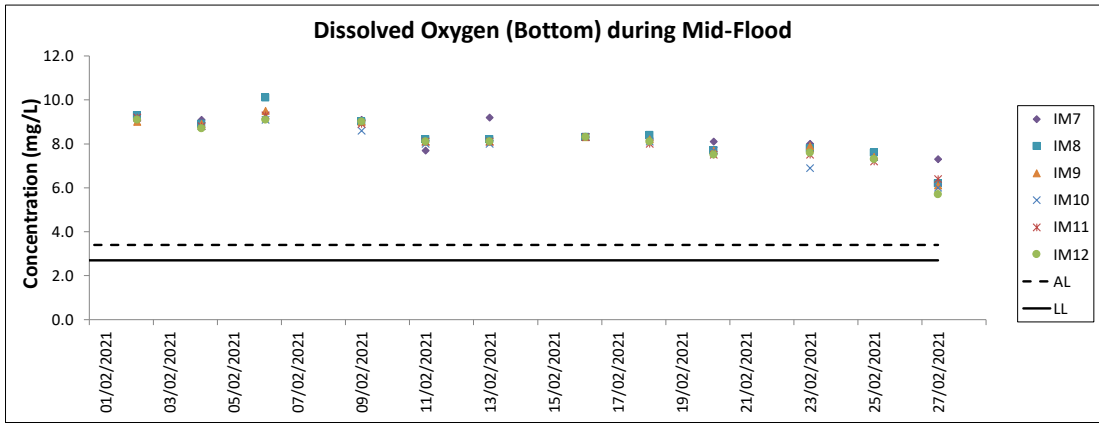
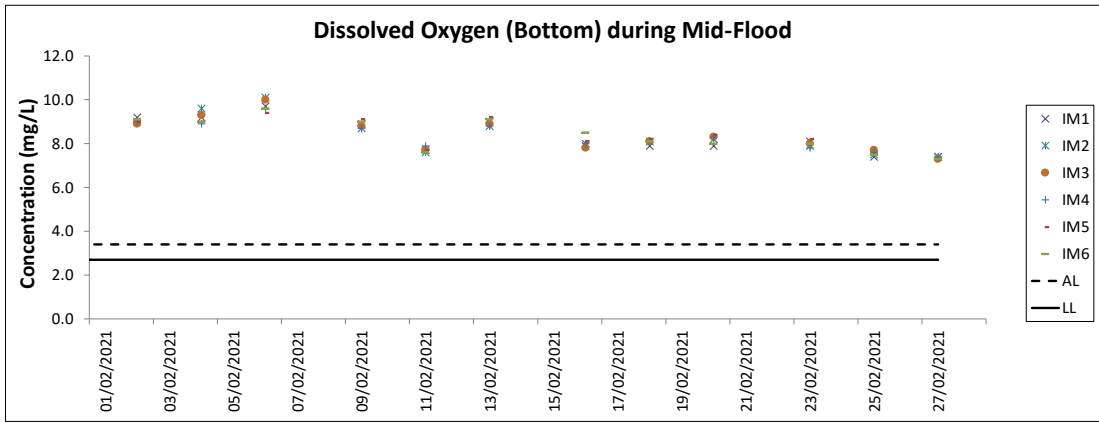
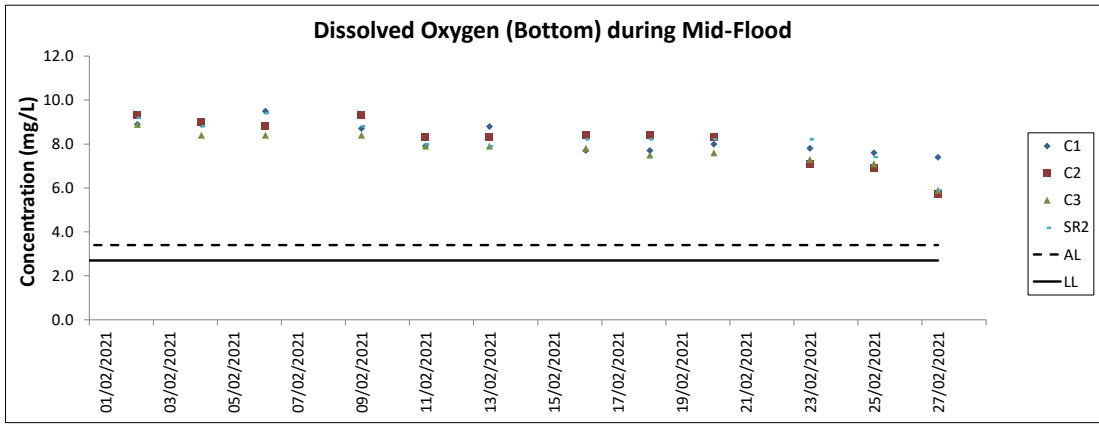
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (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	08:49	6.8	Surface	1.0	0.3	49	20.7	20.7	8.0	8.0	28.3	28.3	85.5	85.4	6.5	6.4	4.3	3	86	89	89	822089	808788	<0.2	1.2	<0.2	1.2					
						1.0	0.3	49	20.7	8.0	8.0	28.3	28.3	85.3	85.4	6.5	6.4	4.4	3	86	89	89	822089	808788	<0.2	1.2	<0.2	1.2						
						3.4	0.3	72	20.7	8.0	8.0	28.7	28.7	82.3	82.2	6.2	6.1	6.1	4	89	90	90	822089	808788	<0.2	1.3	<0.2	1.3						
					Middle	3.4	0.3	73	20.7	8.0	8.0	28.7	28.7	82.1	82.2	6.2	6.3	3	90	90	90	822089	808788	<0.2	1.2	<0.2	1.2							
						5.8	0.2	66	20.7	8.0	8.0	28.8	28.8	81.0	80.9	6.1	6.1	7.6	4	90	90	90	822089	808788	<0.2	1.2	<0.2	1.2						
						5.8	0.2	70	20.7	8.0	8.0	28.8	28.8	80.8	80.9	6.1	6.1	7.7	3	91	91	91	822089	808788	<0.2	1.3	<0.2	1.3						
					IM10	Cloudy	Moderate	08:41	7.8	Surface	1.0	0.4	336	20.7	20.7	8.0	8.0	29.2	29.3	86.6	82.7	6.6	6.5	4.5	5	85	89	89	822388	809812	<0.2	1.2	<0.2	1.2
											1.0	0.5	356	20.7	8.0	8.0	29.4	29.4	78.7	85.0	6.4	6.4	5.0	5	86	89	89	822388	809812	<0.2	1.2	<0.2	1.2	
											3.9	0.4	327	20.7	8.0	8.0	29.4	29.4	85.1	85.0	6.4	6.4	5.7	6	89	90	90	822388	809812	<0.2	1.2	<0.2	1.2	
Middle	3.9	0.4	348	20.7						8.0	8.0	29.4	29.4	84.8	85.0	6.4	6.4	6.0	5	89	90	90	822388	809812	<0.2	1.2	<0.2	1.2						
	6.8	0.3	323	20.7						8.0	8.0	29.4	29.4	79.1	78.9	6.0	6.0	6.6	5	92	92	92	822388	809812	<0.2	1.2	<0.2	1.2						
	6.8	0.4	346	20.7						8.0	8.0	29.4	29.4	78.7	78.9	6.0	6.0	6.4	5	92	92	92	822388	809812	<0.2	1.4	<0.2	1.4						
IM11	Cloudy	Moderate	08:31	6.8						Surface	1.0	0.3	337	20.6	20.6	8.1	8.1	29.6	29.6	89.0	89.0	6.7	6.7	10.8	5	86	89	88	822065	811479	<0.2	1.3	<0.2	1.3
											1.0	0.3	356	20.6	8.1	8.1	29.6	29.6	78.7	87.0	6.7	6.7	11.0	5	86	89	89	822065	811479	<0.2	1.3	<0.2	1.3	
											3.4	0.3	340	20.6	8.0	8.0	29.6	29.6	87.1	87.0	6.6	6.6	10.8	5	89	90	90	822065	811479	<0.2	1.2	<0.2	1.2	
					Middle	3.4	0.4	313	20.6	8.0	8.0	29.6	29.6	86.9	87.0	6.6	6.6	11.8	6	89	90	90	822065	811479	<0.2	1.3	<0.2	1.3						
						5.8	0.3	337	20.6	8.0	8.0	29.6	29.6	85.6	83.8	6.5	6.4	13.9	6	90	90	90	822065	811479	<0.2	1.2	<0.2	1.2						
						5.8	0.3	310	20.6	8.0	8.0	29.6	29.6	82.0	83.8	6.2	6.2	14.3	5	90	90	90	822065	811479	<0.2	1.3	<0.2	1.3						
					IM12	Cloudy	Moderate	08:24	9.4	Surface	1.0	0.4	290	20.6	20.6	8.0	8.0	29.8	29.8	86.7	86.7	6.5	6.5	7.0	4	85	89	89	821446	812024	<0.2	1.5	<0.2	1.4
											1.0	0.5	314	20.6	8.0	8.0	29.8	29.8	78.7	86.7	6.5	6.5	7.1	5	86	89	89	821446	812024	<0.2	1.4	<0.2	1.4	
											4.7	0.4	277	20.6	8.0	8.0	29.8	29.8	82.4	81.7	6.2	6.1	8.1	5	89	90	90	821446	812024	<0.2	1.3	<0.2	1.3	
Middle	4.7	0.4	279	20.6						8.0	8.0	29.8	29.8	81.0	81.7	6.1	6.1	8.4	4	89	90	90	821446	812024	<0.2	1.3	<0.2	1.3						
	8.4	0.3	276	20.6						8.0	8.0	29.8	29.8	75.9	75.6	5.7	5.7	10.3	3	92	92	92	821446	812024	<0.2	1.4	<0.2	1.4						
	8.4	0.4	294	20.6						8.0	8.0	29.8	29.8	75.2	75.6	5.7	5.7	10.2	4	92	92	92	821446	812024	<0.2	1.3	<0.2	1.3						
SR1A	Cloudy	Moderate	07:52	5.1						Surface	1.0	-	-	20.6	20.6	8.0	8.0	29.6	29.6	77.0	76.8	5.8	5.8	3.3	3	-	-	-	819972	812665	-	-	-	-
											1.0	-	-	20.6	20.6	8.0	8.0	29.6	29.6	76.6	76.8	5.8	5.8	3.4	2	-	-	-	819972	812665	-	-	-	-
											2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819972	812665	-	-
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819972	812665	-	-	-	-	-		
						4.1	-	-	20.6	20.6	8.0	8.0	29.8	29.8	66.5	66.3	5.0	5.0	4.2	3	-	-	-	-	-	819972	812665	-	-	-	-			
						4.1	-	-	20.6	20.6	8.0	8.0	29.8	29.8	66.0	66.3	5.0	5.0	4.2	2	-	-	-	-	-	819972	812665	-	-	-	-			
					SR2	Cloudy	Moderate	07:35	4.1	Surface	1.0	0.1	56	20.6	20.6	8.1	8.1	29.6	29.6	83.9	83.8	6.3	6.3	8.5	3	88	89	90	821449	814174	<0.2	1.1	<0.2	1.1
											1.0	0.1	59	20.6	8.1	8.1	29.6	29.6	83.7	83.8	6.3	6.3	8.8	3	89	90	90	821449	814174	<0.2	1.2	<0.2	1.2	
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821449	814174	<0.2	1.1
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821449	814174	<0.2	1.1	<0.2	1.1			
	3.1	0.1	63	20.6						8.1	8.1	29.6	29.6	78.4	78.3	5.9	5.9	10.5	2	90	90	90	821449	814174	<0.2	1.1	<0.2	1.1						
	3.1	0.1	66	20.6						8.1	8.1	29.6	29.6	78.1	78.3	5.9	5.9	10.6	2	91	91	91	821449	814174	<0.2	1.1	<0.2	1.1						
SR3	Cloudy	Moderate	09:01	8.7						Surface	1.0	0.1	1	20.7	20.7	8.0	8.0	28.0	28.0	86.5	86.4	6.6	6.6	4.8	8	-	-	-	822147	807549	-	-	-	-
											1.0	0.1	1	20.7	8.0	8.0	28.0	28.0	86.3	86.4	6.6	6.6	4.9	7	-	-	-	822147	807549	-	-	-	-	
											4.4	0.1	11	20.7	8.0	8.0	28.1	28.1	82.6	82.5	6.3	6.3	6.3	7	-	-	-	822147	807549	-	-	-	-	
					Middle	4.4	0.1	11	20.7	8.0	8.0	28.1	28.1	82.4	82.5	6.3	6.3	6.3	6	-	-	-	822147	807549	-	-	-	-						
						7.7	0.3	62	20.7	8.0	8.0	28.1	28.1	80.1	80.0	6.1	6.1	11.2	4	-	-	-	822147	807549	-	-	-	-						
						7.7	0.3	65	20.7	8.0	8.0	28.1	28.1	79.9	80.0	6.1	6.1	10.4	5	-	-	-	822147	807549	-	-	-	-						
					SR4A	Rainy	Calm	08:08	8.2	Surface	1.0	0.4	77	20.8	20.8	8.2	8.2	28.7	28.7	89.8	89.9	6.8	6.8	3.2	4	-	-	-	817186	807812	-	-	-	-
											1.0	0.4	81	20.8	8.2	8.2	28.7	28.7	89.9	89.9	6.8	6.8	3.1	5	-	-	-	817186	807812	-	-	-	-	
											4.1	0.3	63	20.7	8.2	8.2	28.8	28.8	94.1	94.3	7.1	7.1	4.9	5	-	-	-	817186	807812	-	-	-	-	
Middle	4.1	0.4	64	20.7						8.2	8.2	28.8	28.8	94.4	94.3	7.2	7.2	5.1	4	-	-	-	817186	807812	-	-	-	-						
	7.2	0.3	59	20.7						8.2	8.2	28.9	28.9	94.6	94.7	7.2	7.2	5.4	4	-	-	-	817186	807812	-	-	-	-						
	7.2	0.3	61	20.7						8.2	8.2	28.9	28.9	94.7	94.7	7.2	7.2	5.2	4	-	-	-	817186	807812	-	-	-	-						
SR5A	Rainy	Calm	07:49	4.0						Surface	1.0	0.1	338	20.7	20.7	8.1	8.1	28.7	28.7	90.0	90.1	6.8	6.8	5.0	5	-	-	-	816569	810684	-	-	-	-
											1.0	0.1	347	20.7	8.1	8.1	28.7	28.7	90.2	90.2	6.8	6.8	5.1	5	-	-	-	816569	810684	-	-	-	-	
											-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	816569	810684	-	-
					Middle																													

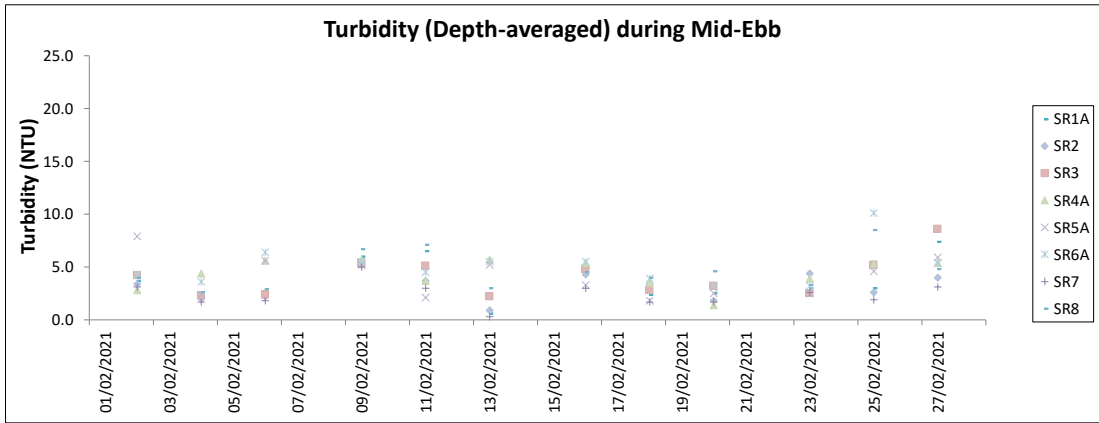
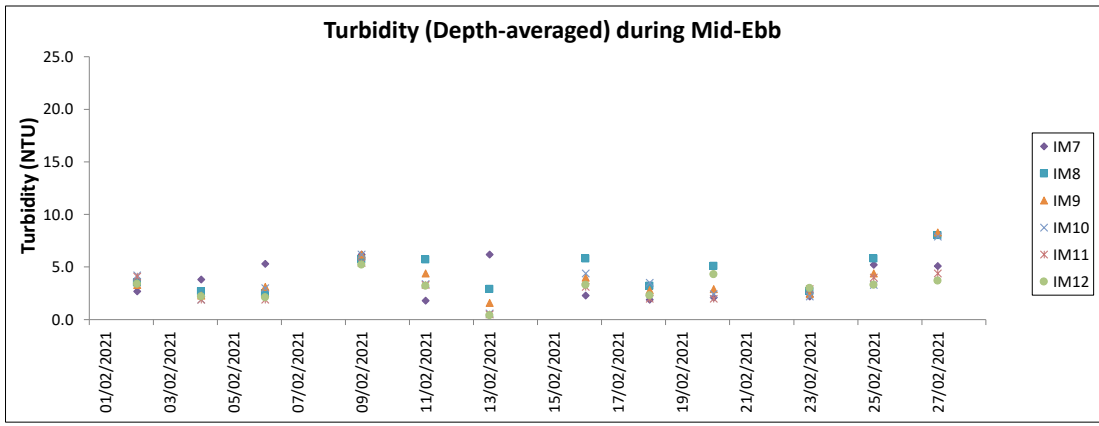
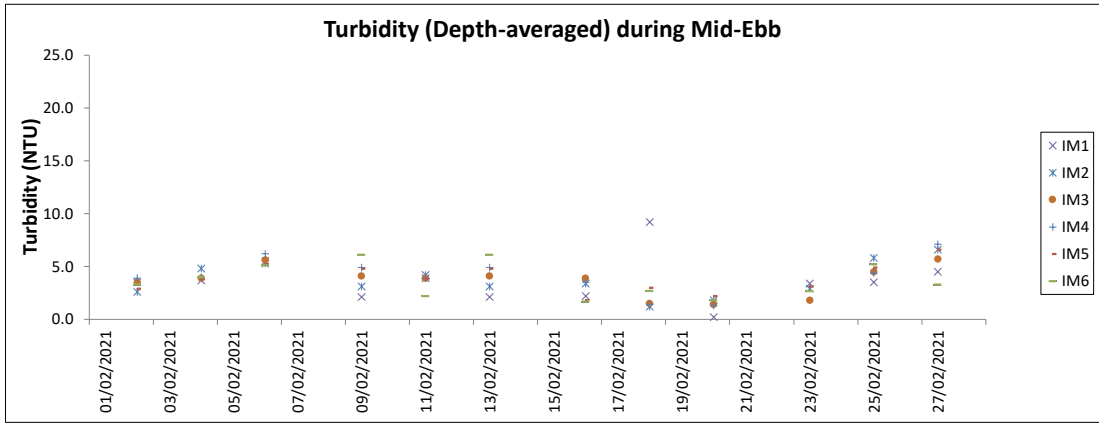
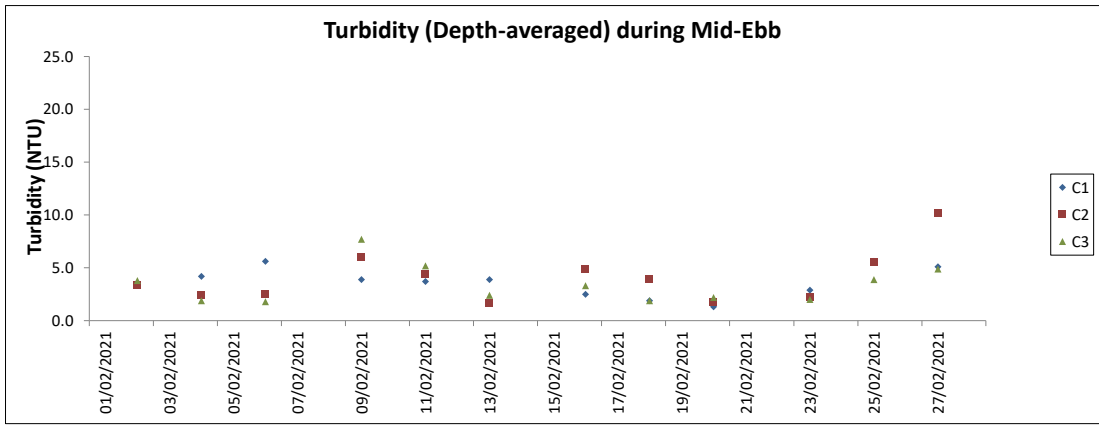




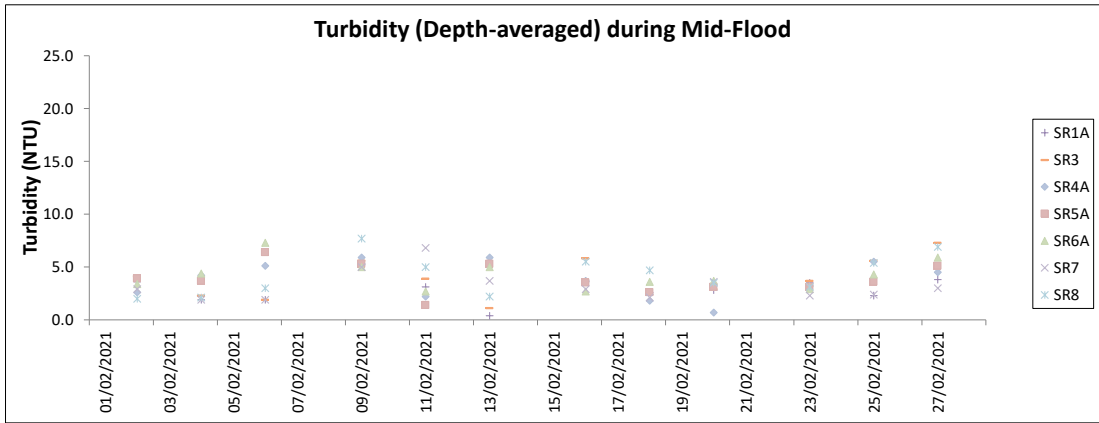
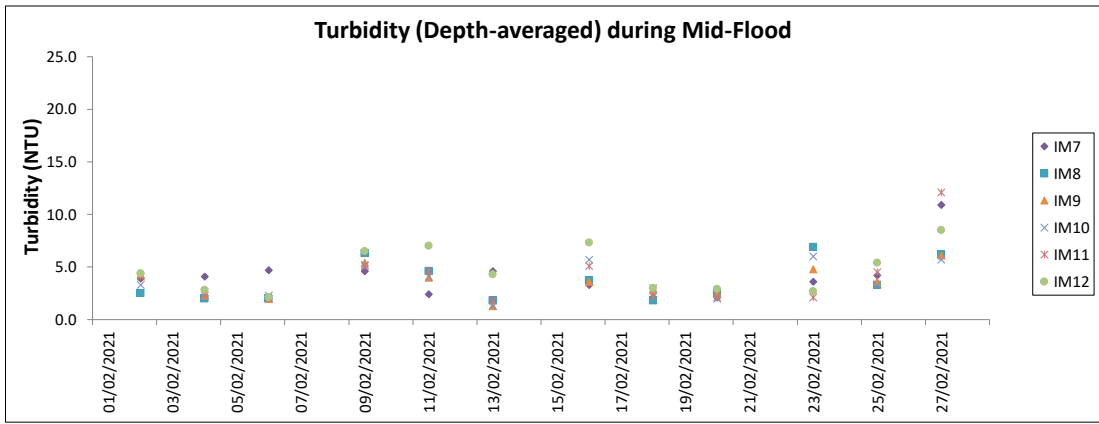
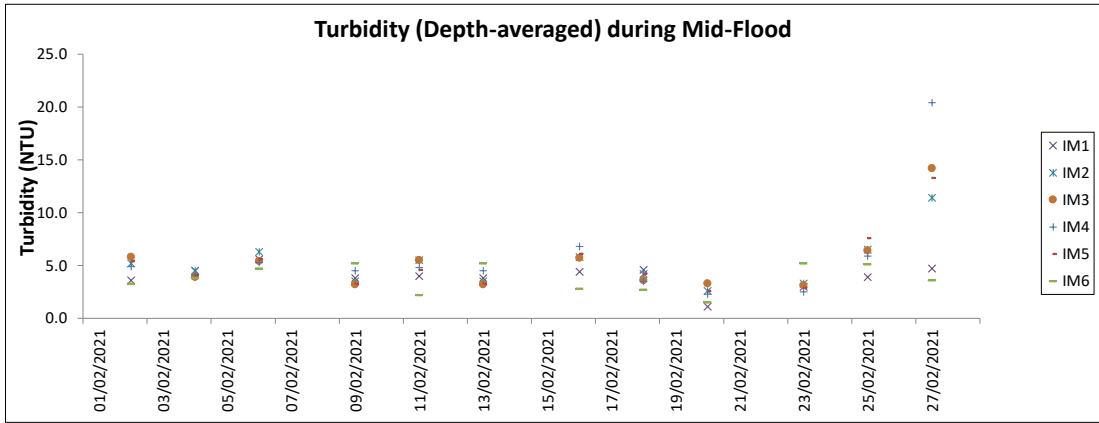
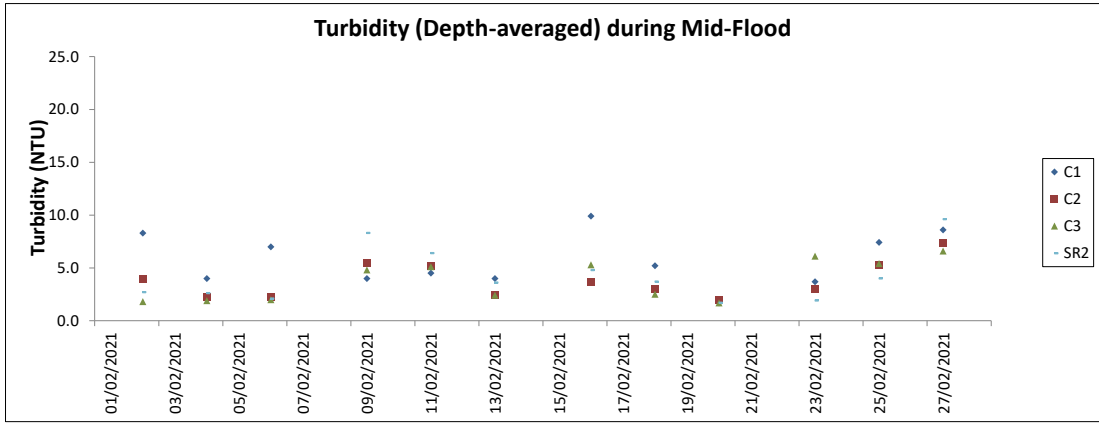




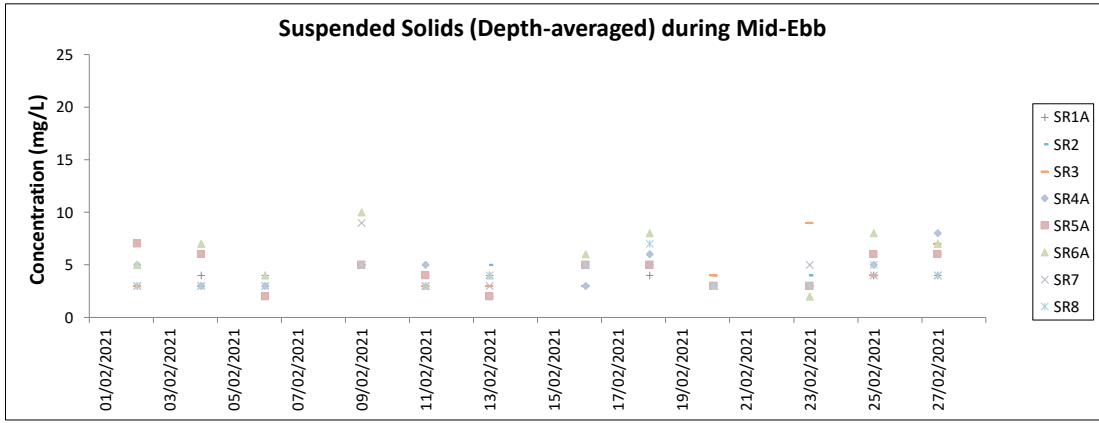
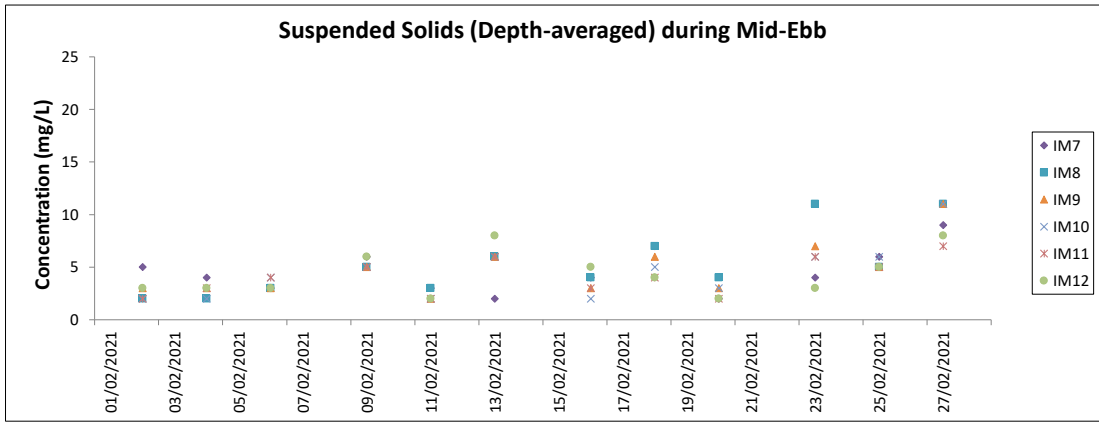
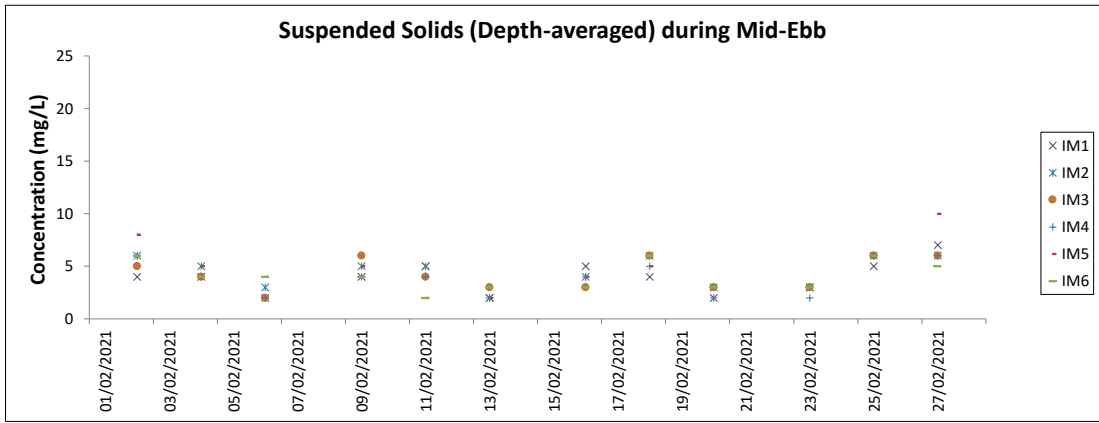
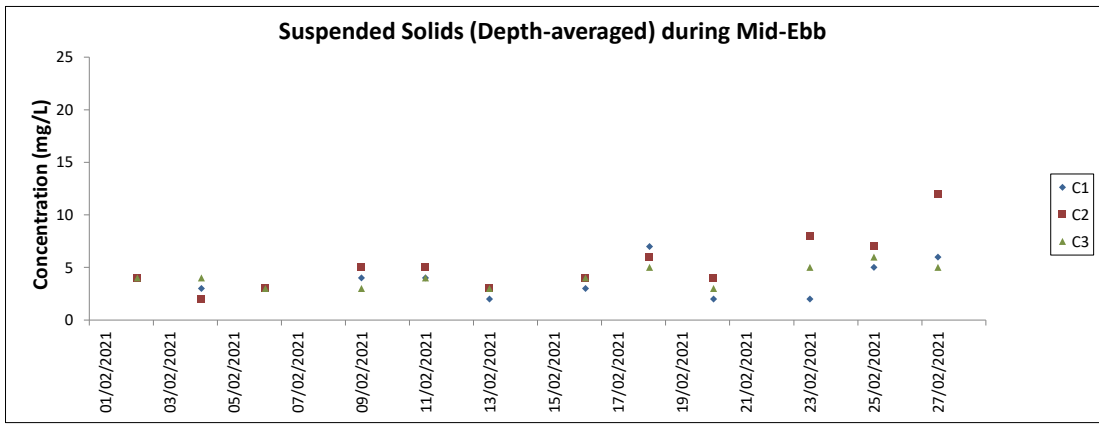




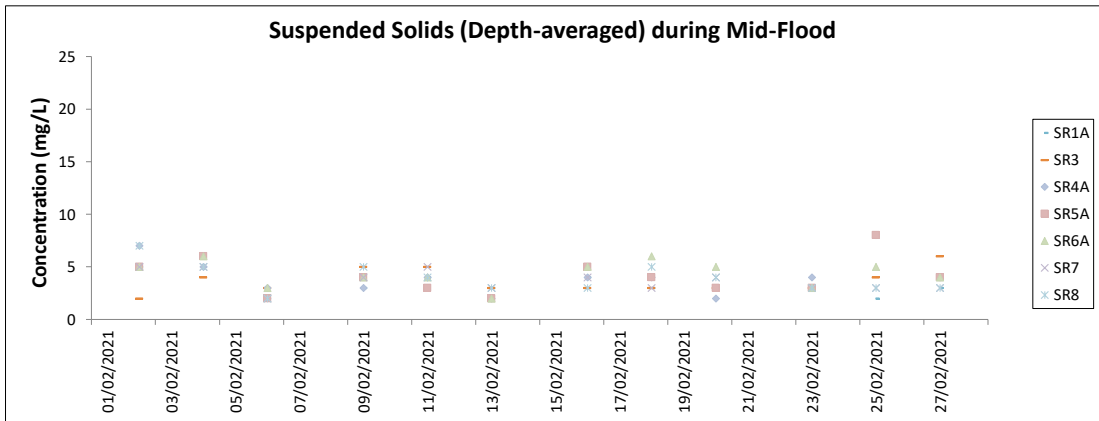
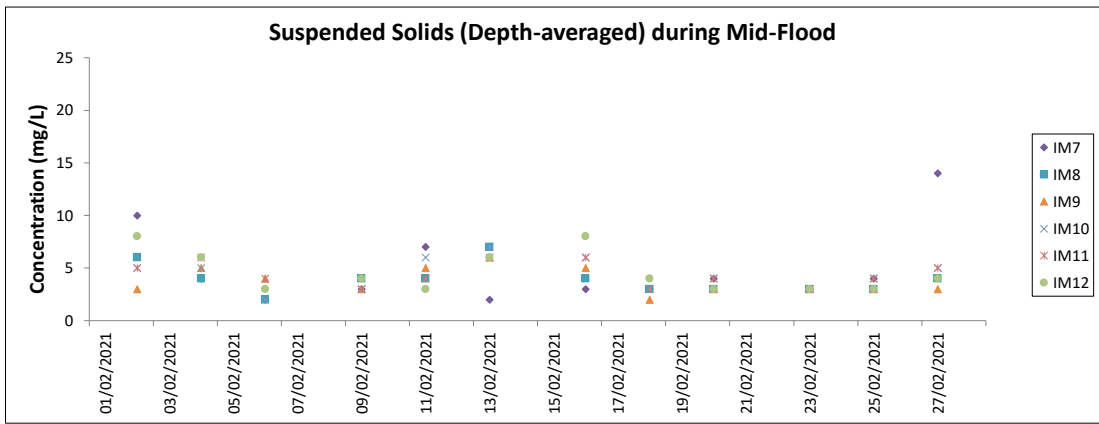
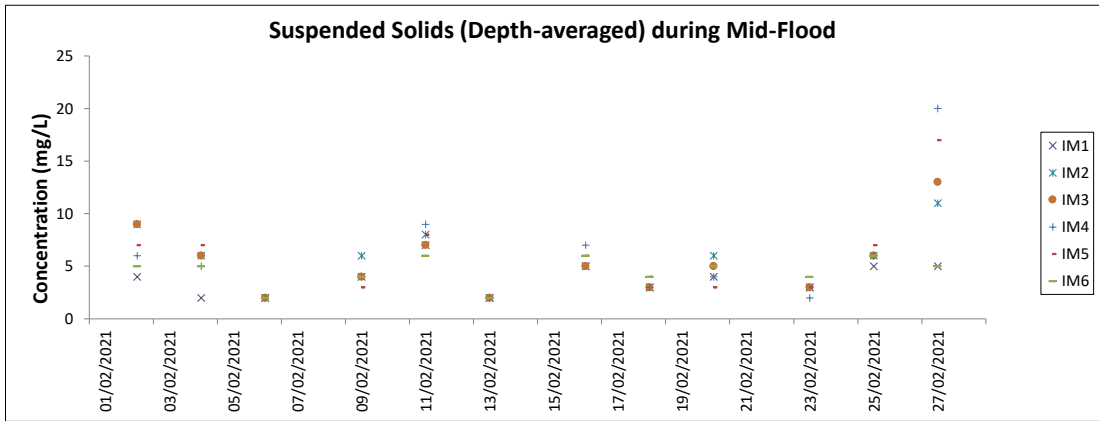
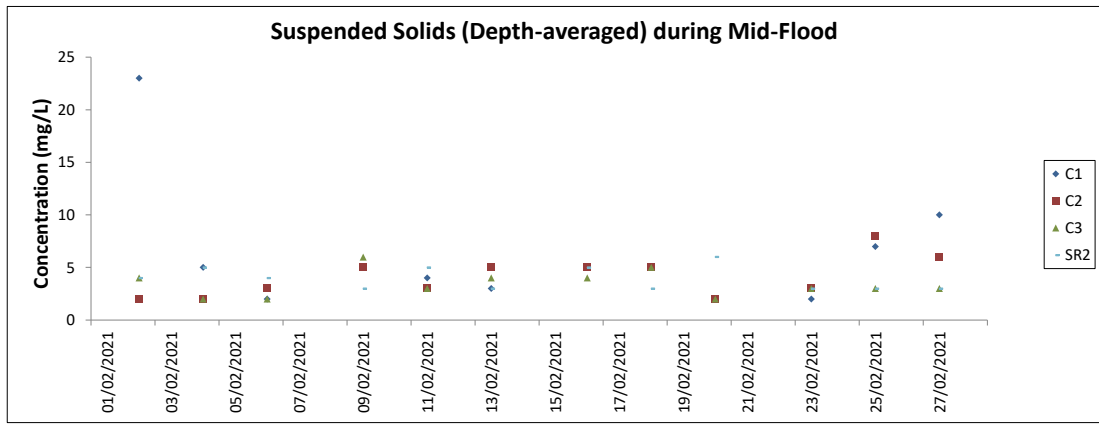
Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.



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

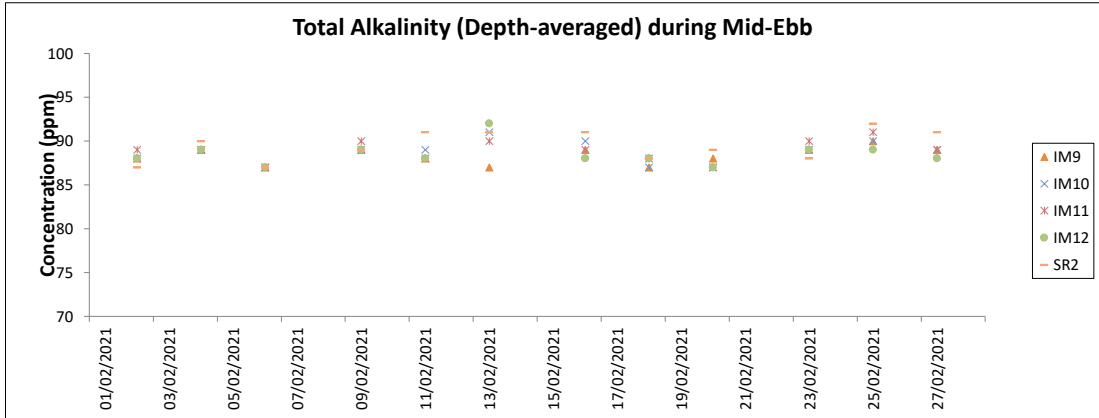
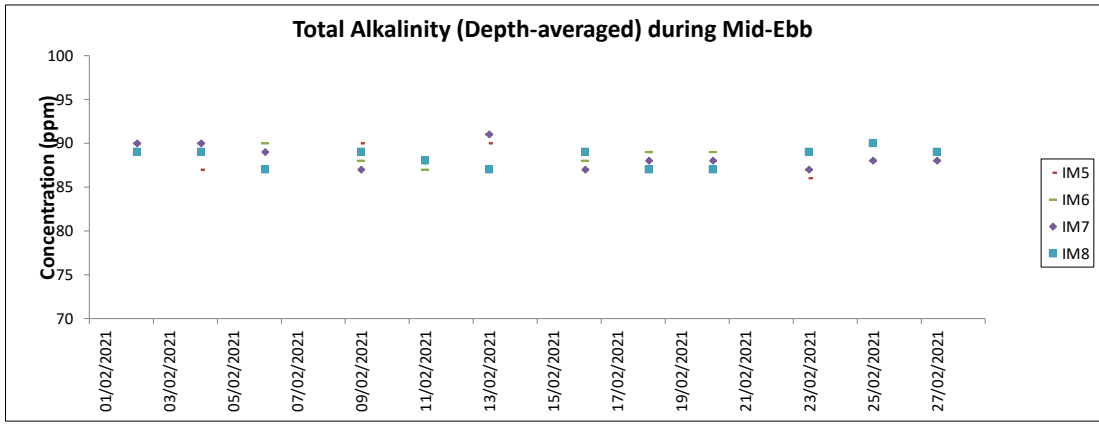
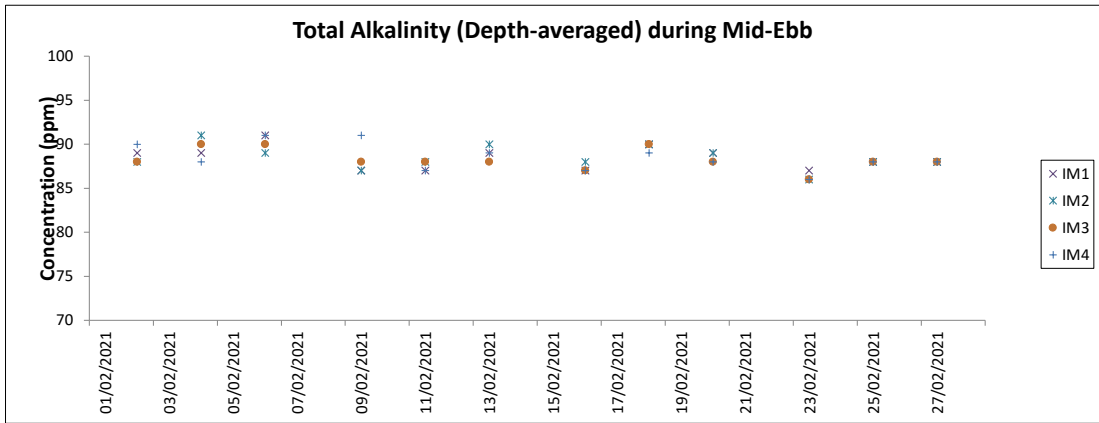
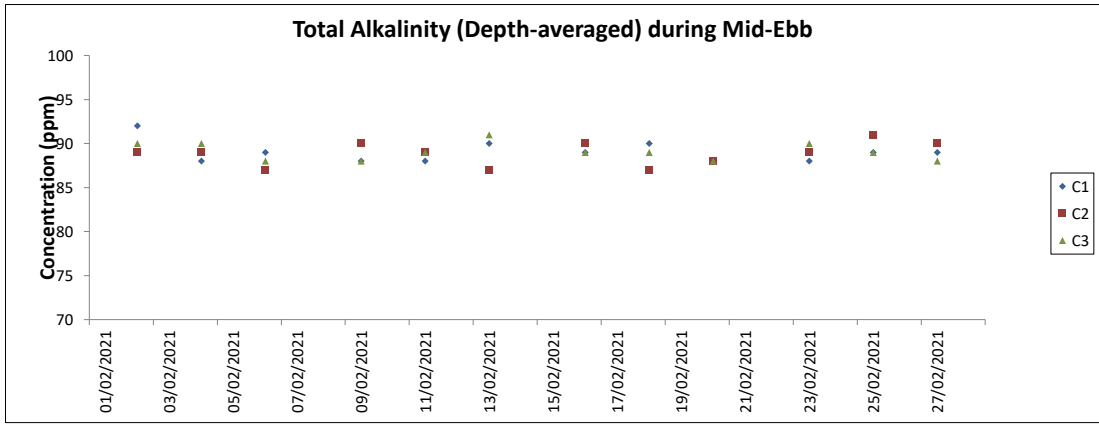


Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.

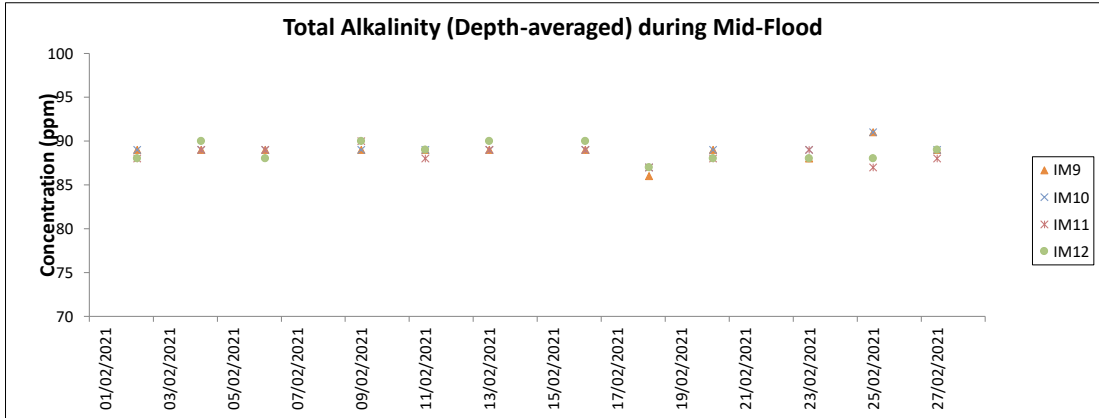
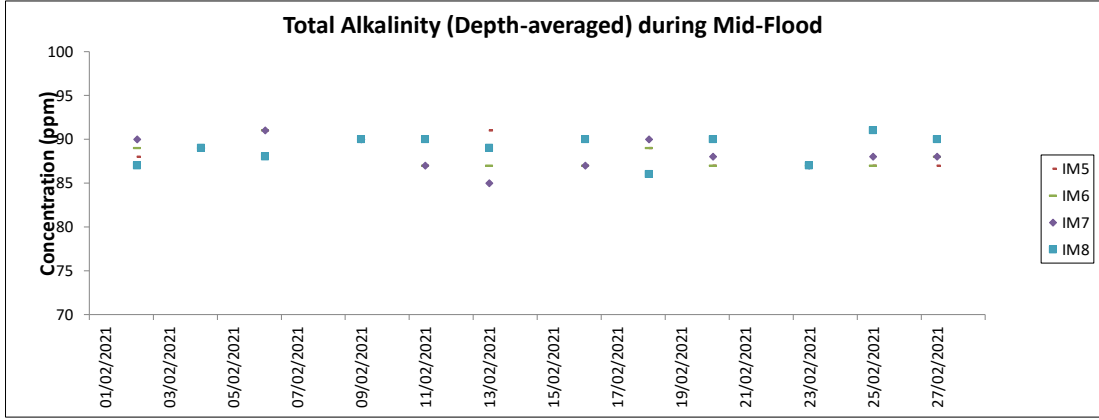
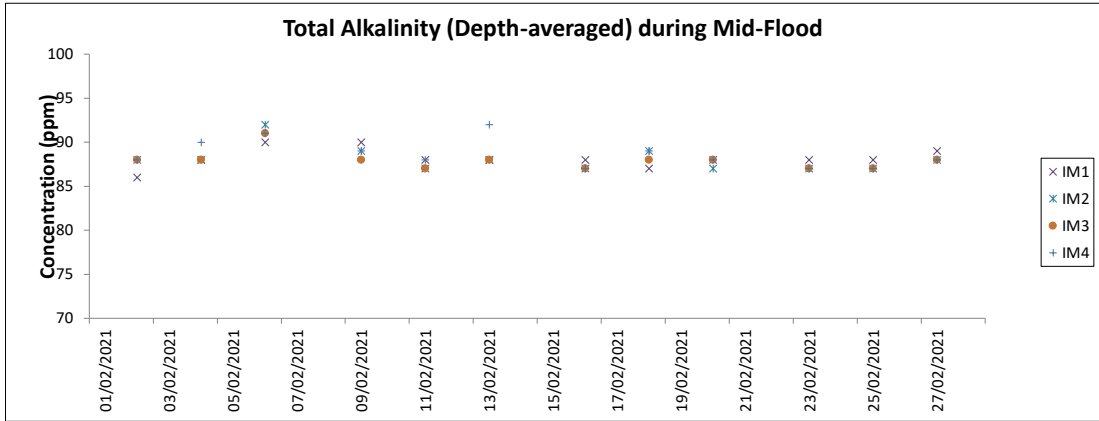
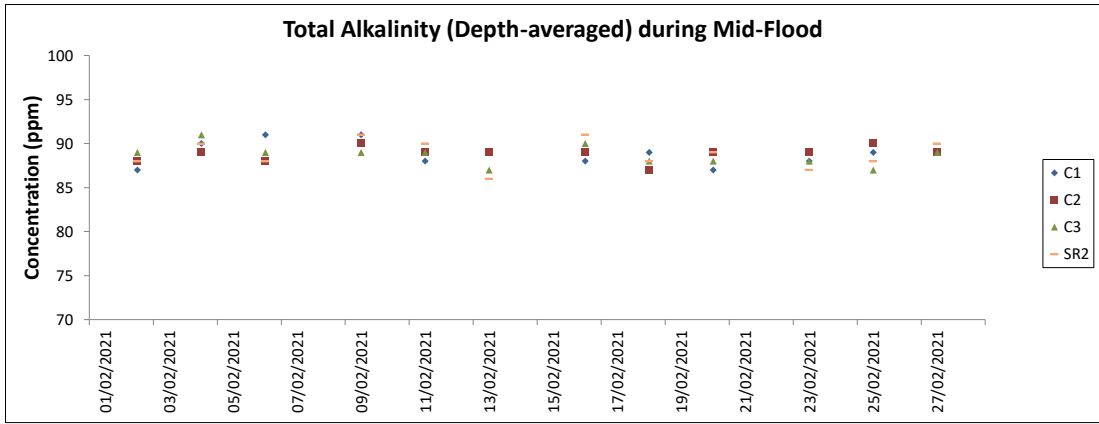


Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.

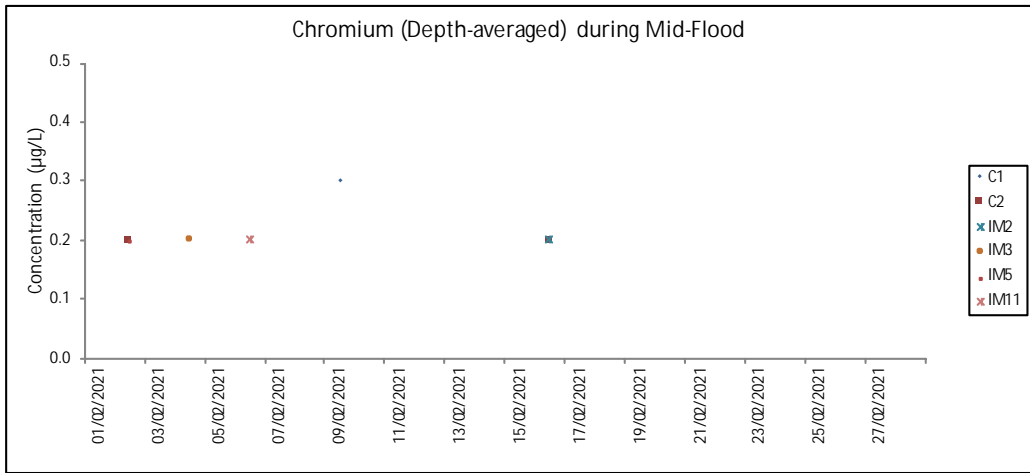
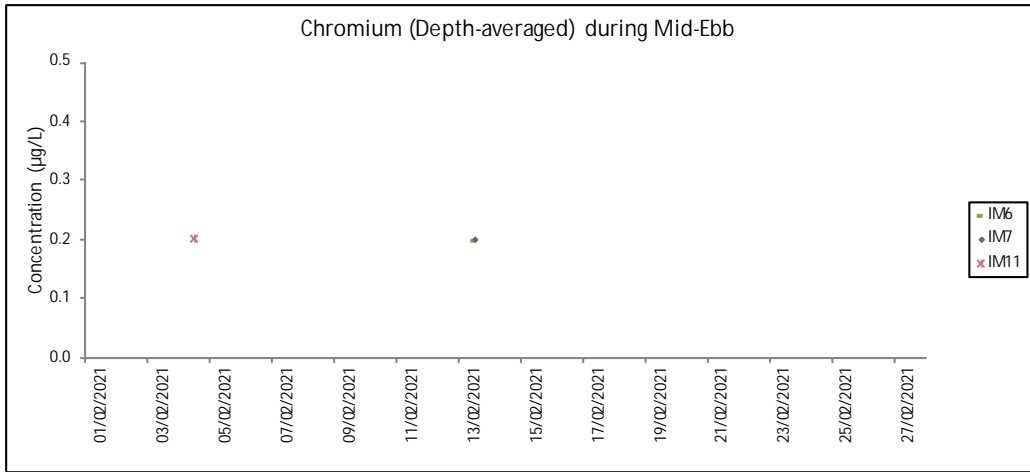




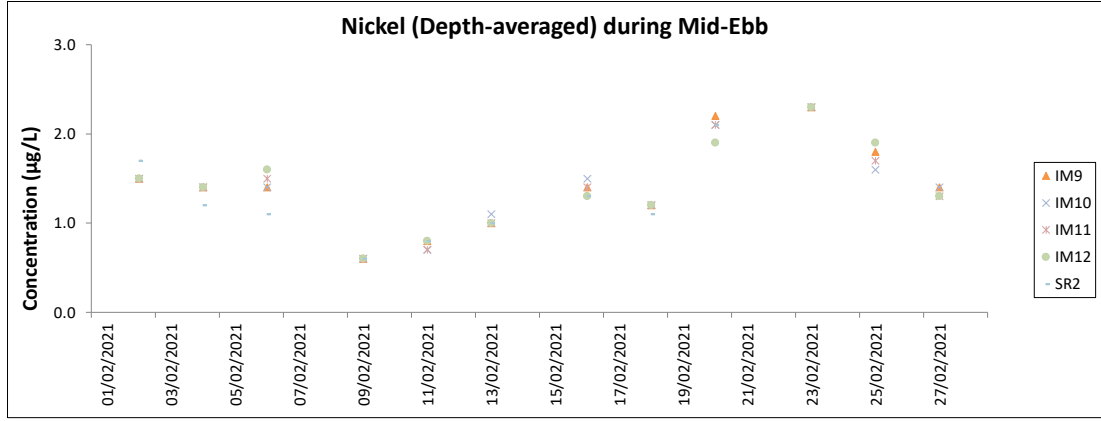
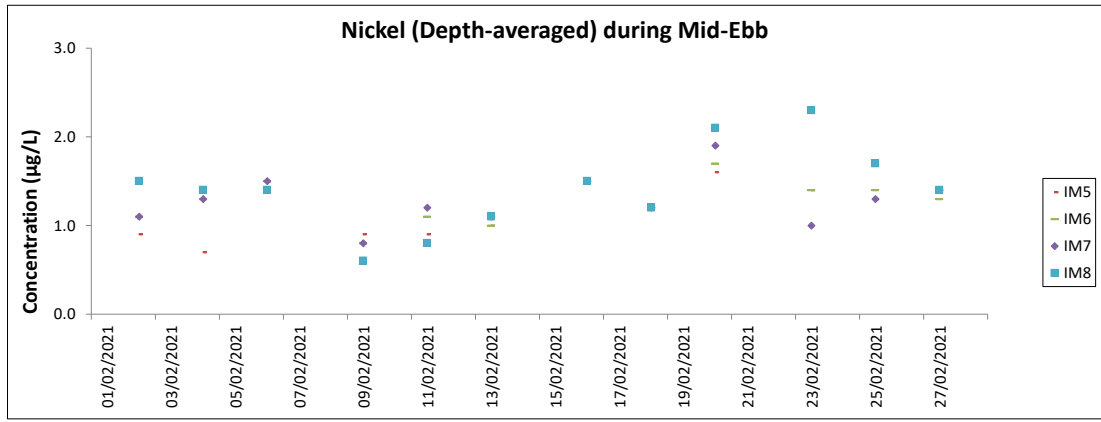
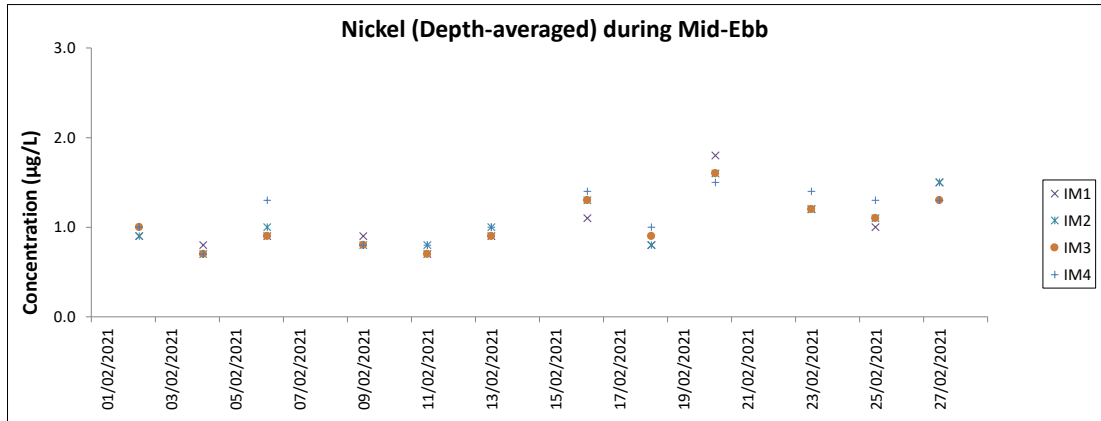
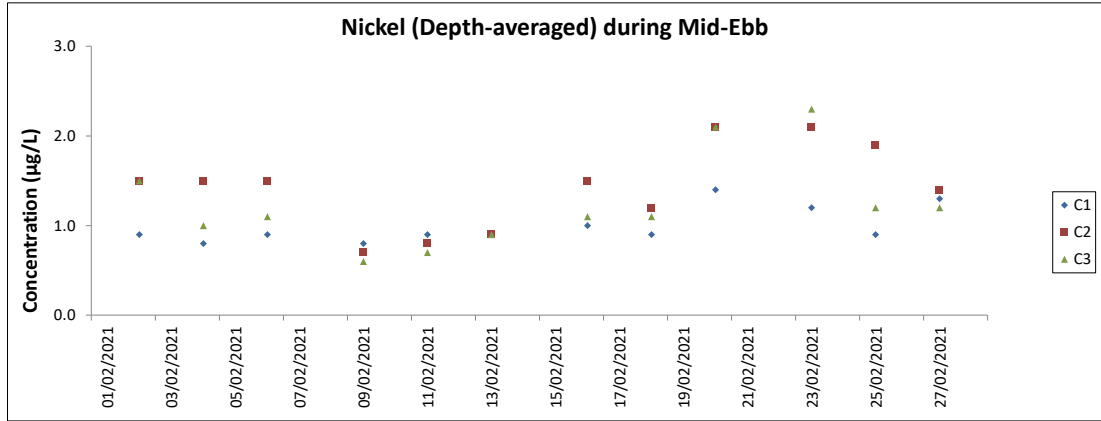
Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.



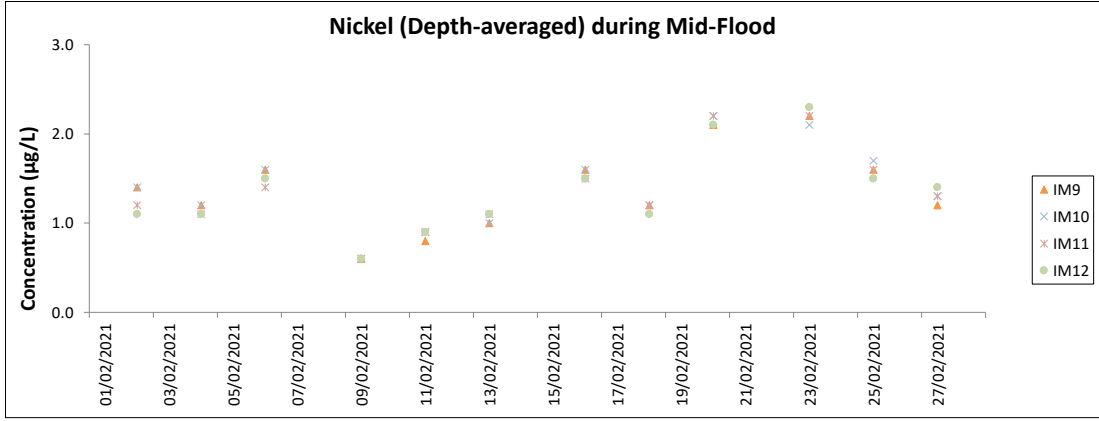
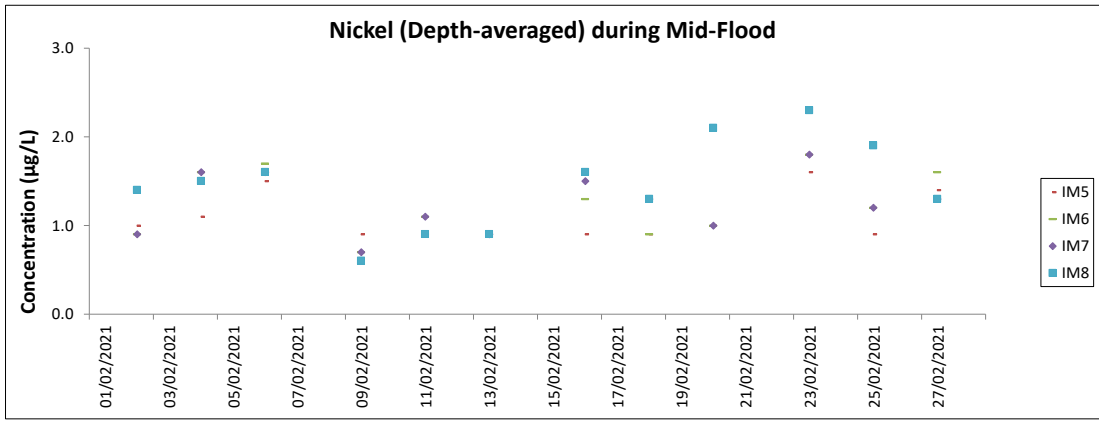
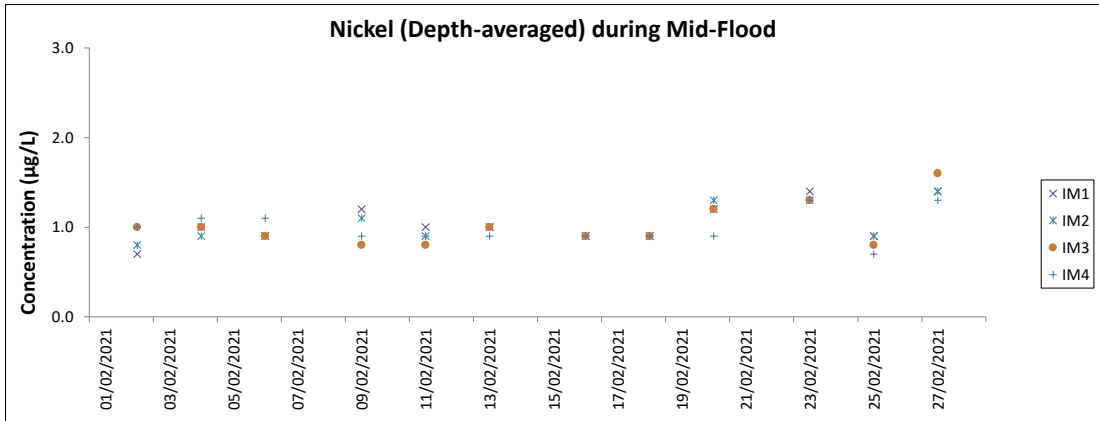
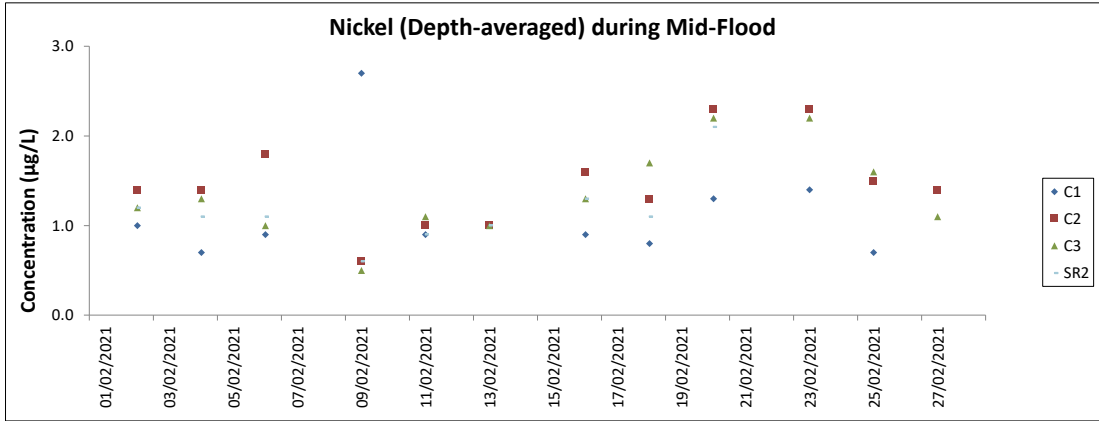
Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.



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
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
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

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/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
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
5-Feb-21	AW	3	4.670	WINTER	32166	3RS ET	P
5-Feb-21	WL	2	10.448	WINTER	32166	3RS ET	P
5-Feb-21	WL	3	6.690	WINTER	32166	3RS ET	P
5-Feb-21	WL	2	7.922	WINTER	32166	3RS ET	S
5-Feb-21	WL	3	2.180	WINTER	32166	3RS ET	S
8-Feb-21	NWL	2	3.780	WINTER	32166	3RS ET	P
8-Feb-21	NWL	3	24.720	WINTER	32166	3RS ET	P
8-Feb-21	NWL	4	30.770	WINTER	32166	3RS ET	P
8-Feb-21	NWL	2	4.170	WINTER	32166	3RS ET	S
8-Feb-21	NWL	3	1.900	WINTER	32166	3RS ET	S
8-Feb-21	NWL	4	5.440	WINTER	32166	3RS ET	S
9-Feb-21	NEL	2	2.900	WINTER	32166	3RS ET	P
9-Feb-21	NEL	3	32.690	WINTER	32166	3RS ET	P
9-Feb-21	NEL	4	1.400	WINTER	32166	3RS ET	P
9-Feb-21	NEL	3	10.310	WINTER	32166	3RS ET	S
16-Feb-21	AW	3	4.800	WINTER	32166	3RS ET	P
16-Feb-21	WL	2	10.372	WINTER	32166	3RS ET	P
16-Feb-21	WL	3	9.920	WINTER	32166	3RS ET	P
16-Feb-21	WL	2	6.548	WINTER	32166	3RS ET	S



DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
16-Feb-21	WL	3	3.027	WINTER	32166	3RS ET	S
17-Feb-21	NWL	2	8.500	WINTER	32166	3RS ET	P
17-Feb-21	NWL	3	54.950	WINTER	32166	3RS ET	P
17-Feb-21	NWL	2	2.000	WINTER	32166	3RS ET	S
17-Feb-21	NWL	3	8.950	WINTER	32166	3RS ET	S
22-Feb-21	SWL	1	11.870	WINTER	32166	3RS ET	P
22-Feb-21	SWL	2	41.274	WINTER	32166	3RS ET	P
22-Feb-21	SWL	1	3.184	WINTER	32166	3RS ET	S
22-Feb-21	SWL	2	12.507	WINTER	32166	3RS ET	S
23-Feb-21	SWL	2	52.641	WINTER	32166	3RS ET	P
23-Feb-21	SWL	3	2.000	WINTER	32166	3RS ET	P
23-Feb-21	SWL	2	15.510	WINTER	32166	3RS ET	S
24-Feb-21	NEL	2	1.950	WINTER	32166	3RS ET	P
24-Feb-21	NEL	3	35.420	WINTER	32166	3RS ET	P
24-Feb-21	NEL	2	2.960	WINTER	32166	3RS ET	S
24-Feb-21	NEL	3	7.270	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
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
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

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/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
5-Feb-21	1	1025	CWD	2	WL	2	374	ON	3RS ET	22.2726	113.8471	WINTER	NONE	S
5-Feb-21	2	1031	CWD	4	WL	2	22	ON	3RS ET	22.2692	113.8477	WINTER	GILLNETTER	P
5-Feb-21	3	1056	CWD	2	WL	2	817	ON	3RS ET	22.2612	113.8506	WINTER	NONE	P
5-Feb-21	4	1102	CWD	6	WL	2	424	ON	3RS ET	22.2602	113.8404	WINTER	NONE	P
5-Feb-21	5	1134	CWD	5	WL	2	698	ON	3RS ET	22.2413	113.8449	WINTER	NONE	P
5-Feb-21	6	1201	CWD	1	WL	2	130	ON	3RS ET	22.2232	113.8366	WINTER	NONE	P
5-Feb-21	7	1245	CWD	1	WL	3	231	ON	3RS ET	22.1967	113.8335	WINTER	NONE	P
8-Feb-21	1	1003	CWD	12	NWL	3	513	ON	3RS ET	22.4049	113.8702	WINTER	NONE	P
8-Feb-21	2	1102	CWD	1	NWL	3	779	ON	3RS ET	22.3266	113.8699	WINTER	NONE	P
8-Feb-21	3	1133	CWD	10	NWL	2	893	ON	3RS ET	22.2732	113.8703	WINTER	NONE	P
8-Feb-21	4	1254	CWD	1	NWL	3	18	ON	3RS ET	22.3571	113.8781	WINTER	NONE	P
16-Feb-21	1	1001	CWD	3	WL	3	698	ON	3RS ET	22.2962	113.8613	WINTER	NONE	P
16-Feb-21	2	1038	CWD	3	WL	3	175	ON	3RS ET	22.2669	113.8596	WINTER	NONE	S
16-Feb-21	3	1058	CWD	9	WL	3	510	ON	3RS ET	22.2606	113.8443	WINTER	GILLNETTER	P
16-Feb-21	4	1135	CWD	2	WL	3	275	ON	3RS ET	22.2500	113.8467	WINTER	NONE	P
16-Feb-21	5	1219	CWD	1	WL	2	35	ON	3RS ET	22.2203	113.8203	WINTER	NONE	S
17-Feb-21	1	1130	CWD	2	NWL	3	6	ON	3RS ET	22.3859	113.8775	WINTER	NONE	P
22-Feb-21	1	1043	FP	8	SWL	1	288	ON	3RS ET	22.1749	113.9366	WINTER	NONE	P
22-Feb-21	2	1051	FP	3	SWL	1	72	ON	3RS ET	22.1625	113.9363	WINTER	NONE	P
22-Feb-21	3	1058	FP	1	SWL	1	9	ON	3RS ET	22.1494	113.9355	WINTER	NONE	S
22-Feb-21	4	1101	FP	8	SWL	1	89	ON	3RS ET	22.1471	113.9322	WINTER	NONE	S
22-Feb-21	5	1108	FP	1	SWL	1	55	ON	3RS ET	22.1477	113.9275	WINTER	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
22-Feb-21	6	1115	FP	1	SWL	1	16	ON	3RS ET	22.1572	113.9274	WINTER	NONE	P
22-Feb-21	7	1308	FP	5	SWL	2	599	ON	3RS ET	22.1761	113.8972	WINTER	NONE	P
22-Feb-21	8	1314	FP	2	SWL	2	67	ON	3RS ET	22.1663	113.8972	WINTER	NONE	P
22-Feb-21	9	1320	FP	6	SWL	2	113	ON	3RS ET	22.1568	113.8974	WINTER	NONE	P
22-Feb-21	10	1330	FP	2	SWL	2	1	ON	3RS ET	22.1518	113.8876	WINTER	NONE	P
22-Feb-21	11	1339	FP	3	SWL	2	161	ON	3RS ET	22.1696	113.8878	WINTER	NONE	P
22-Feb-21	12	1405	FP	1	SWL	2	471	ON	3RS ET	22.2064	113.8785	WINTER	NONE	S
22-Feb-21	13	1410	FP	4	SWL	2	64	ON	3RS ET	22.1979	113.8982	WINTER	NONE	P
22-Feb-21	14	1442	FP	5	SWL	2	513	ON	3RS ET	22.1793	113.8686	WINTER	NONE	P
22-Feb-21	15	1446	FP	3	SWL	2	199	ON	3RS ET	22.1848	113.8687	WINTER	NONE	P
22-Feb-21	16	1449	FP	5	SWL	2	672	ON	3RS ET	22.1891	113.8684	WINTER	NONE	P
22-Feb-21	17	1456	FP	1	SWL	2	61	ON	3RS ET	22.1966	113.8685	WINTER	NONE	P
22-Feb-21	18	1508	FP	3	SWL	2	360	ON	3RS ET	22.1849	113.8590	WINTER	NONE	P
23-Feb-21	1	1042	FP	2	SWL	2	310	ON	3RS ET	22.1774	113.9358	WINTER	NONE	P
23-Feb-21	2	1304	FP	3	SWL	2	62	ON	3RS ET	22.1668	113.89727	WINTER	NONE	P
23-Feb-21	3	1310	FP	7	SWL	2	285	ON	3RS ET	22.1643	113.8972	WINTER	NONE	P
23-Feb-21	4	1314	FP	3	SWL	2	18	ON	3RS ET	22.1587	113.8975	WINTER	NONE	P
23-Feb-21	5	1430	FP	3	SWL	2	63	ON	3RS ET	22.1743	113.8688	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 408.033 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 17 on-effort sightings and total number of 65 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in February 2021 are shown as below:

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

$$STG = \frac{17}{408.033} \times 100 = 4.17$$

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

$$ANI = \frac{65}{408.033} \times 100 = 15.93$$

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

A total of 1213.699 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 50 on-effort sightings and total number of 167 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)









$$STG = \frac{50}{1213.699} \times 100 = 4.12$$

Running Quarterly Encounter Rate by Number of Dolphins (ANI)

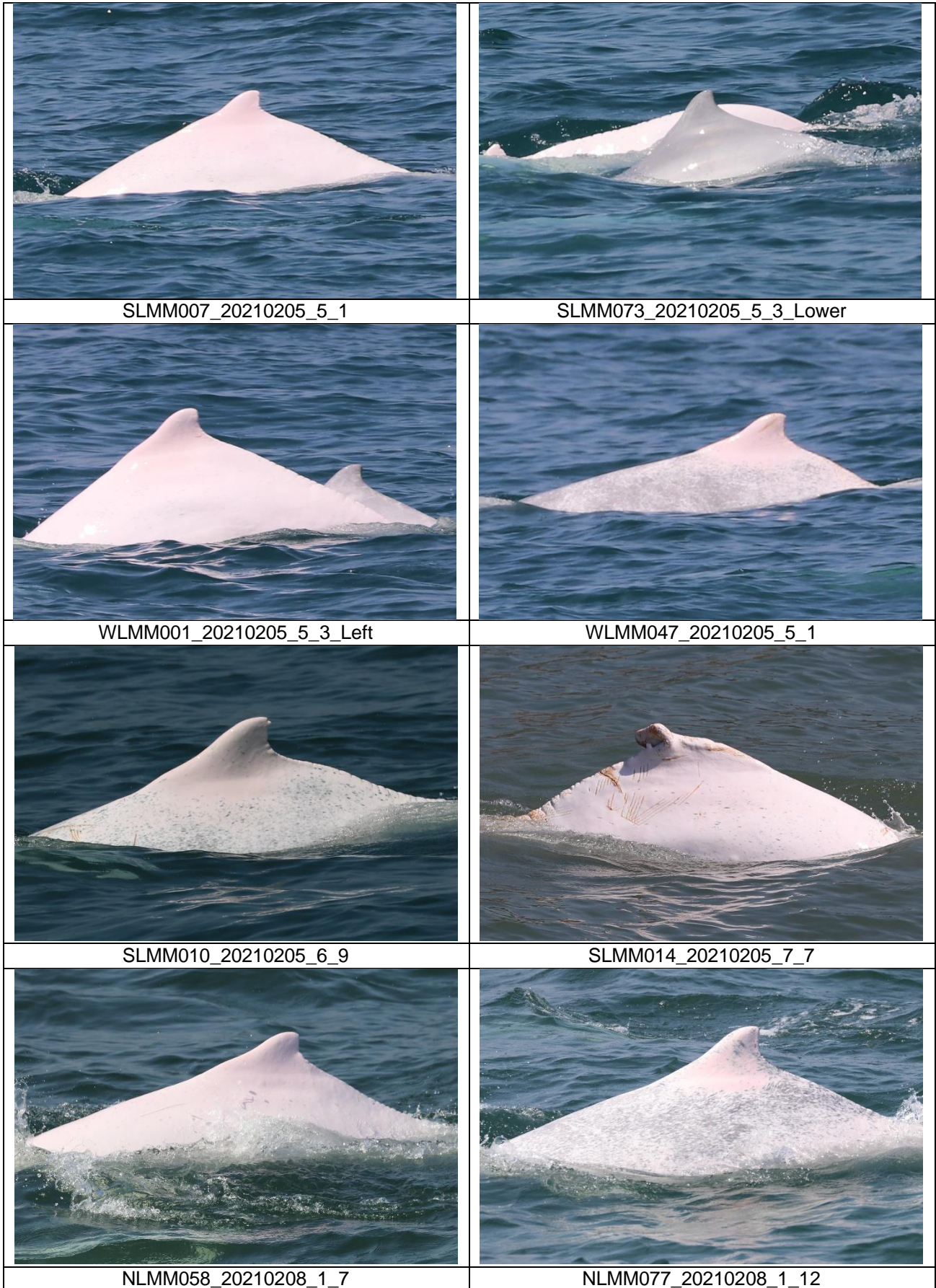
$$ANI = \frac{167}{1213.699} \times 100 = 13.76$$

CWD Small Vessel Line-transect Survey

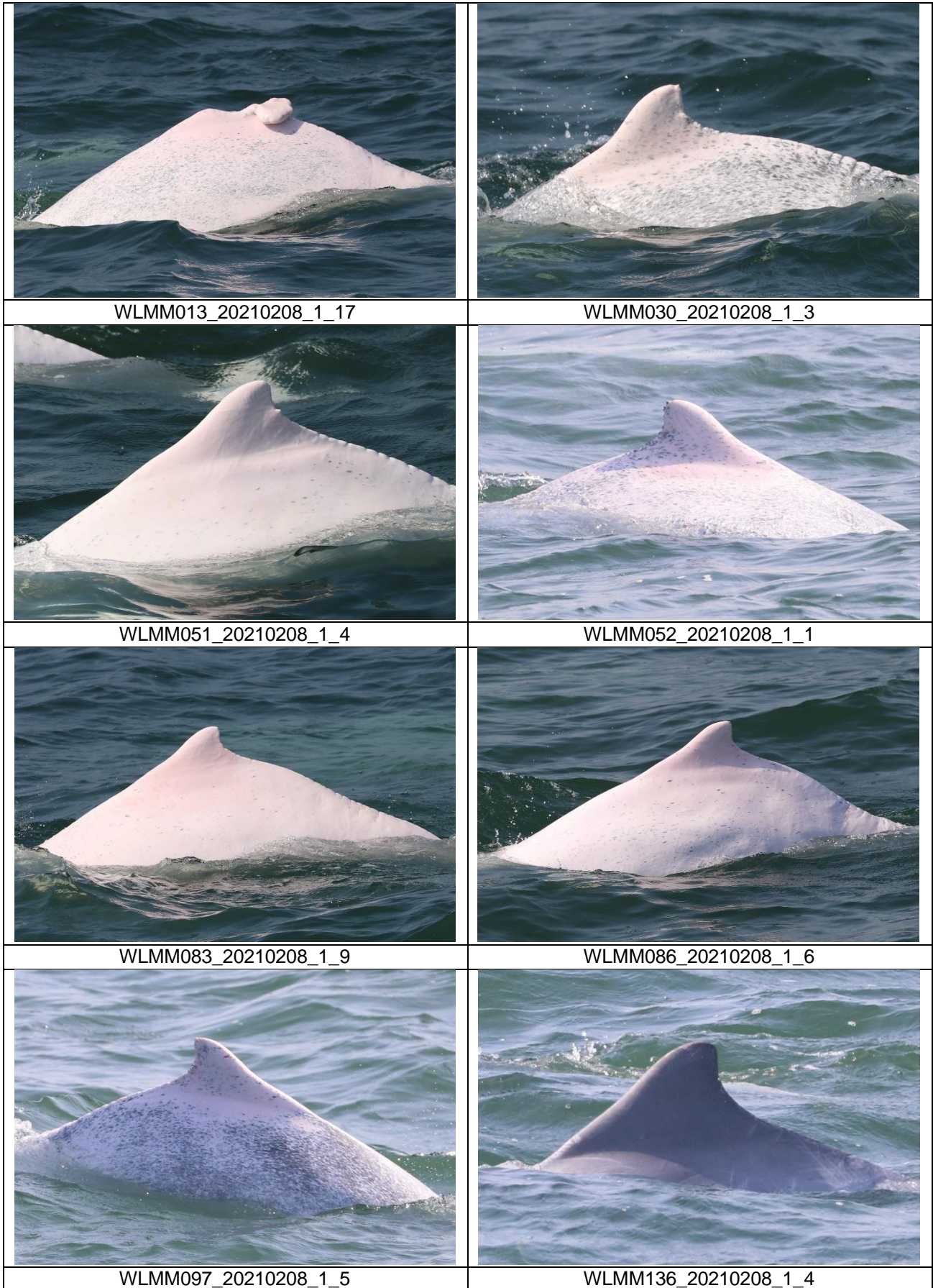
Photo Identification

	
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NLMM076_20210205_4_2_Lower	SLMM007_20210205_4_12_Upper
	
SLMM073_20210205_4_4_Lower	WLMM001_20210205_4_9
	
WLMM047_20210205_4_1	NLMM076_20210205_5_2_Upper













WLMM138\_20210208\_1\_3



WLMM065\_20210208\_2\_10



NLMM078\_20210208\_3\_2



NLMM079\_20210208\_3\_5



NLMM080\_20210208\_3\_8



NLMM081\_20210208\_3\_12

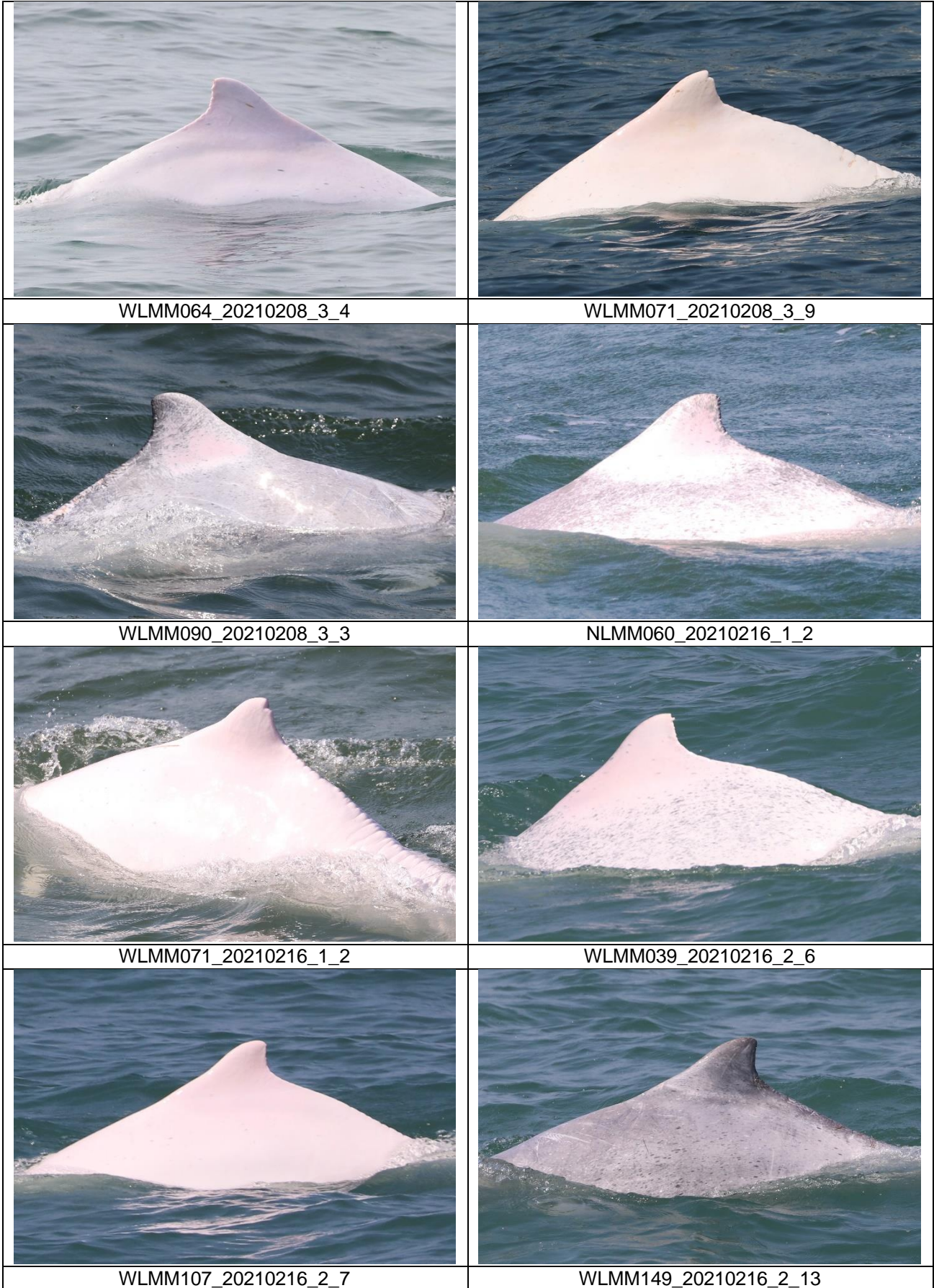


SLMM055\_20210208\_3\_9

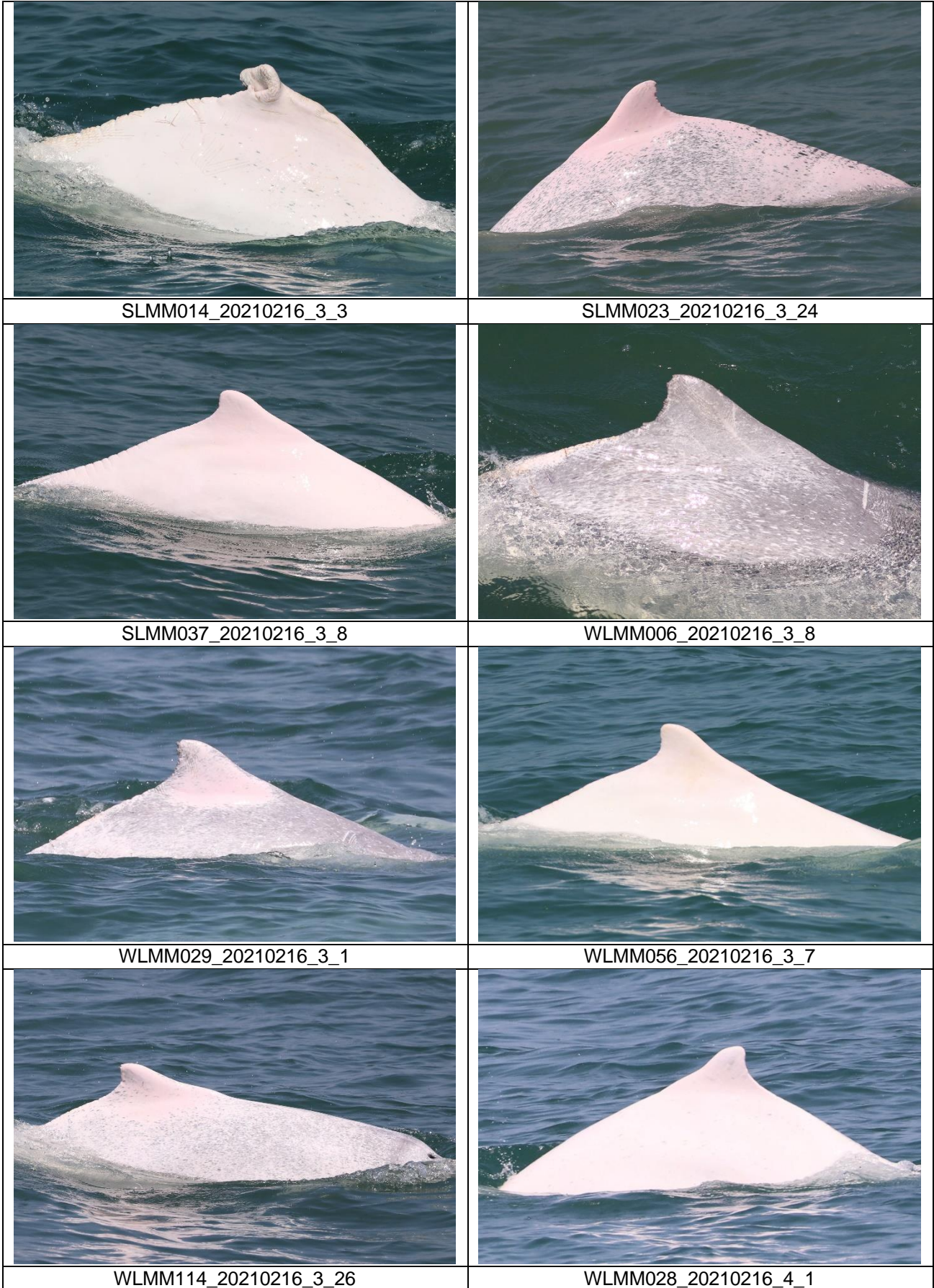


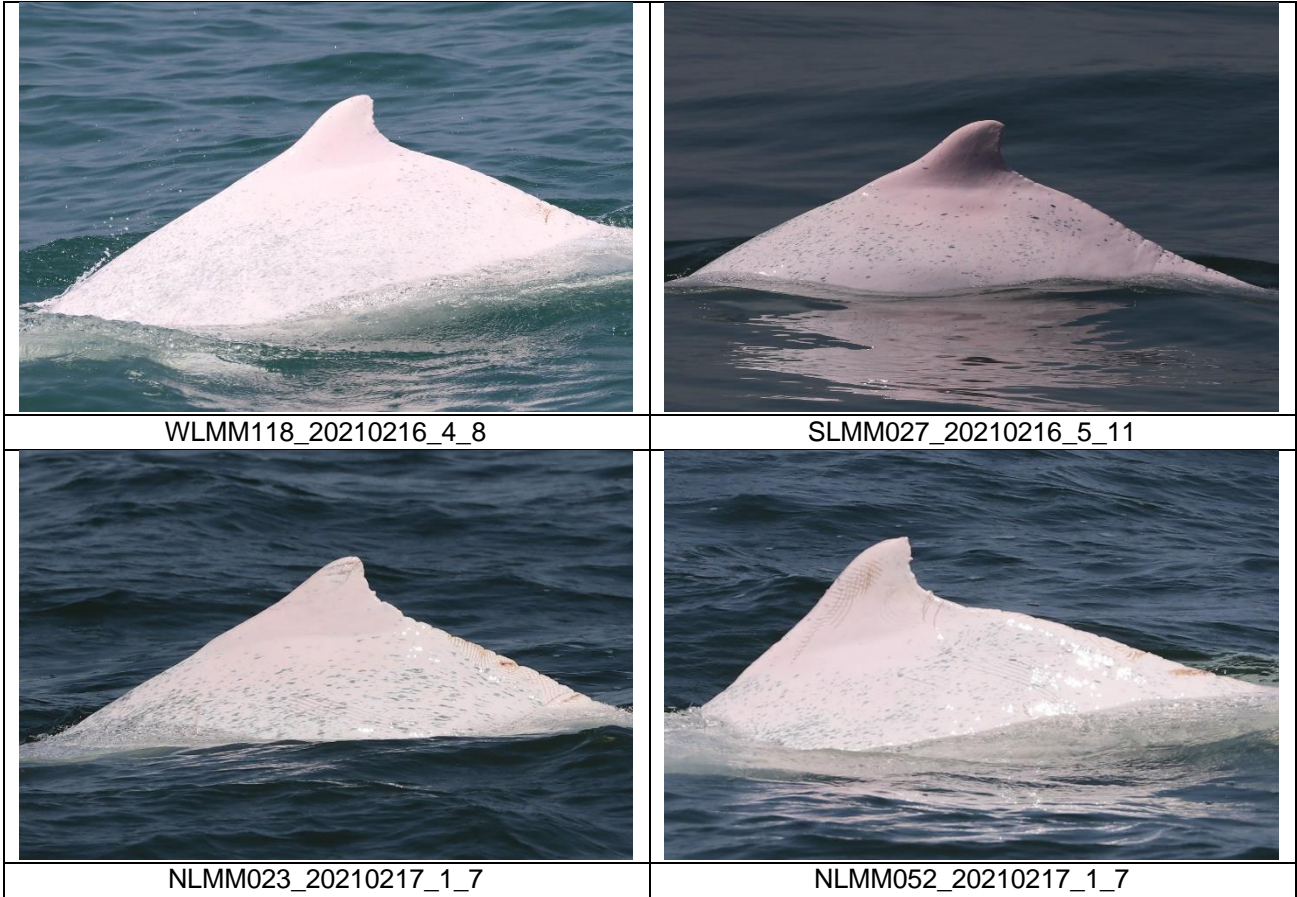
SLMM071\_20210208\_3\_1











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

<b>Date</b>	<b>Station</b>	<b>Start Time</b>	<b>End Time</b>	<b>Duration</b>	<b>Beaufort Range</b>	<b>Visibility</b>	<b>No. of Focal Follow Dolphin Groups Tracked</b>	<b>Dolphin Group Size Range</b>
24/Feb/21	Lung Kwu Chau	8:50	14:50	6:00	2-3	1	1	2
26/Feb/21	Sha Chau	10:44	16:44	6:00	2	2	0	-

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

## **Appendix D. Calibration Certificates**





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

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong  
Email: info@qualityprotest.com; Website: www.qualityprotest.com  
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## CALIBRATION REPORT

Test Report No. : BA030013  
Date of Issue : 26 February 2021  
Page No. : 1 of 2

### PART A – CUSTOMER INFORMATION

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

### PART B – SAMPLE INFORMATION

Description of Samples : Titrette® bottle-top burette, 50mL  
Brand Name : BRAND  
Model Number : 1224B90  
Serial Number : 10N64701  
Date of Received : Feb 25, 2021  
Date of Calibration : Feb 26, 2021  
Date of Next Calibration<sup>(a)</sup> : May 25, 2021

### PART C – CALIBRATION REQUESTED


<u>Parameter</u> <sup>(b)</sup>	<u>Reference Method</u>
Accuracy Test	In-house Method (Gravimetric Method)

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

<sup>(a)</sup> The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted from relevant international standards.

<sup>(b)</sup> All chemical and microbiological tests were performed at unit 10-5/F and unit 10-14/F respectively of the company address stated above.

  
LEE Chun-ning Desmond  
Senior Chemist



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

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

## CALIBRATION REPORT

Test Report No. : BA030013  
Date of Issue : 26 February 2021  
Page No. : 2 of 2

### PART D – RESULT<sup>(c),(d)</sup>

Water temperature: 24.0°C

Environmental conditions of the calibration:

Relative humidity: 64%

Z-Factor: 1.0133

Nominal volume: 3.0ml

Trial	Range: (1-4)	Range: (16-19)	Range: (23-26)	Range: (34-37)	Range: (42-45)
1	2.9865	2.9961	2.9787	3.0361	3.0184
2	2.9890	2.9796	2.9899	3.0193	3.0298
3	2.9875	2.9841	2.9886	3.0239	3.0285
4	2.9875	2.9800	2.9815	3.0198	3.0213
5	2.9865	2.9892	2.9939	3.0291	3.0338
6	2.9846	2.9819	2.9852	3.0217	3.0250
7	2.9830	2.9950	2.9841	3.0350	3.0239
8	2.9769	2.9719	2.9807	3.0115	3.0205
9	2.9812	2.9846	2.9827	3.0244	3.0225
10	2.9865	2.9847	2.9852	3.0245	3.0250
Average (g)	2.9849	2.9847	2.9851	3.0245	3.0249
Standard deviation	0.0036	0.0073	0.0046	0.0000	0.0000
Converted volume (mL)	3.0247	3.0245	3.0249	3.0227	3.0261
Error (%)	0.8246	0.8175	0.8290	0.7577	0.8696
RSD (%)	0.1204	0.2406	0.1530	0.1518	0.1512

### Acceptance Criteria<sup>(e)</sup>

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

~ END OF REPORT ~

#### Remark(s): -

<sup>(c)</sup> The results relate only to the tested sample as received

<sup>(d)</sup> The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

<sup>(e)</sup> The "acceptance criteria" is applicable for similar equipment used by QPT or quoted from relevant international standards.





## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA030005  
Date of Issue : 01 March 2021  
Page No. : 1 of 2

### PART A – CUSTOMER INFORMATION

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

### PART B – DESCRIPTION

Name of Equipment : YSI ProDSS (Multi-Parameters)  
Manufacturer : YSI (a xylem brand)  
Serial Number : 16H104233  
Date of Received : Feb 25, 2021  
Date of Calibration : Feb 25, 2021  
Date of Next Calibration<sup>(a)</sup> : May 24, 2021

### PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

<u>Parameter</u>	<u>Reference Method</u>
pH at 25°C	APHA 21e 4500-H <sup>+</sup> 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<sup>(b,c)</sup>

#### (1) pH at 25°C

Target (pH unit)	Displayed Reading <sup>(d)</sup> (pH Unit)	Tolerance <sup>(e)</sup> (pH Unit)	Results
4.00	4.03	0.03	Satisfactory
7.42	7.44	0.02	Satisfactory
10.01	9.90	-0.11	Satisfactory

Tolerance of pH should be less than  $\pm 0.20$  (pH unit)

#### (2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
10	10.0	0.0	Satisfactory
21	20.7	-0.3	Satisfactory
41	40.9	-0.1	Satisfactory

Tolerance limit of temperature should be less than  $\pm 2.0$  (°C)

~ CONTINUED ON NEXT PAGE ~

#### Remark(s): -

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

  
LEE Chun-ning, Desmond  
Senior Chemist



## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA030005  
Date of Issue : 01 March 2021  
Page No. : 2 of 2

### PART D – CALIBRATION RESULTS (Cont'd)

#### (3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.21	0.01	-0.20	Satisfactory
4.55	4.56	0.01	Satisfactory
6.42	6.21	-0.21	Satisfactory
8.78	8.49	-0.29	Satisfactory

Tolerance limit of dissolved oxygen should be less than  $\pm 0.50$  (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	146.6	-0.20	Satisfactory
0.01	1412	1440	1.98	Satisfactory
0.1	12890	12717	-1.34	Satisfactory
0.5	58670	58394	-0.47	Satisfactory
1.0	111900	112033	0.12	Satisfactory

Tolerance limit of conductivity should be less than  $\pm 10.0$  (%)

#### (5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.91	-0.90	Satisfactory
20	19.63	-1.85	Satisfactory
30	30.20	0.67	Satisfactory

Tolerance limit of salinity should be less than  $\pm 10.0$  (%)

#### (6) Turbidity

Expected Reading (NTU)	Displayed Reading <sup>(f)</sup> (NTU)	Tolerance <sup>(g)</sup> (%)	Results
0	0.16	--	Satisfactory
10	10.19	1.9	Satisfactory
20	20.36	1.8	Satisfactory
100	99.78	-0.2	Satisfactory
800	798.12	-0.2	Satisfactory

Tolerance limit of turbidity should be less than  $\pm 10.0$  (%)

~ END OF REPORT ~

#### Remark(s): -

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

<sup>(g)</sup> 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.



## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA020021  
Date of Issue : 03 February 2021  
Page No. : 1 of 2

### PART A – CUSTOMER INFORMATION

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

### PART B – DESCRIPTION

Name of Equipment : YSI ProDSS (Multi-Parameters)  
Manufacturer : YSI (a xylem brand)  
Serial Number : 17H105557  
Date of Received : Feb 03, 2021  
Date of Calibration : Feb 03, 2021  
Date of Next Calibration<sup>(a)</sup> : May 02, 2021

### PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter	Reference Method
pH at 25°C	APHA 21e 4500-H <sup>+</sup> 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<sup>(b,c)</sup>

#### (1) pH at 25°C

Target (pH unit)	Displayed Reading <sup>(d)</sup> (pH Unit)	Tolerance <sup>(e)</sup> (pH Unit)	Results
4.00	4.02	0.02	Satisfactory
7.42	7.44	0.02	Satisfactory
10.01	9.98	-0.03	Satisfactory

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

#### (2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
10	10.0	0.0	Satisfactory
20	20.1	0.1	Satisfactory
40	40.1	0.1	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

#### Remark(s): -

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

  
LEE Chun-ning, Desmond  
Senior Chemist





## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA020021  
Date of Issue : 03 February 2021  
Page No. : 2 of 2

### PART D – CALIBRATION RESULTS (Cont'd)

#### (3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.65	0.28	-0.37	Satisfactory
2.38	2.62	0.24	Satisfactory
4.04	4.10	0.06	Satisfactory
7.28	7.40	0.12	Satisfactory

Tolerance limit of dissolved oxygen should be less than  $\pm 0.50$  (mg/L)

#### (4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading ( $\mu\text{S/cm}$ )	Displayed Reading ( $\mu\text{S/cm}$ )	Tolerance (%)	Results
0.001	146.9	139.0	-5.38	Satisfactory
0.01	1412	1337	-5.31	Satisfactory
0.1	12890	12811	-0.61	Satisfactory
0.5	58670	57988	-1.16	Satisfactory
1.0	111900	111419	-0.43	Satisfactory

Tolerance limit of conductivity should be less than  $\pm 10.0$  (%)

#### (5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.92	-0.80	Satisfactory
20	20.13	0.65	Satisfactory
30	30.30	1.00	Satisfactory

Tolerance limit of salinity should be less than  $\pm 10.0$  (%)

#### (6) Turbidity

Expected Reading (NTU)	Displayed Reading <sup>(f)</sup> (NTU)	Tolerance <sup>(g)</sup> (%)	Results
0	0.08	--	Satisfactory
10	9.92	-0.8	Satisfactory
20	19.81	-1.0	Satisfactory
100	99.2	-0.8	Satisfactory
800	796.3	-0.5	Satisfactory

Tolerance limit of turbidity should be less than  $\pm 10.0$  (%)

~ END OF REPORT ~

**Remark(s): -**

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

<sup>(g)</sup> 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  
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## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA030006  
Date of Issue : 01 March 2021  
Page No. : 1 of 2

### PART A – CUSTOMER INFORMATION

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

### PART B – DESCRIPTION

Name of Equipment : YSI ProDSS (Multi-Parameters)  
Manufacturer : YSI (a xylem brand)  
Serial Number : 18A104824  
Date of Received : Feb 25, 2021  
Date of Calibration : Feb 25, 2021  
Date of Next Calibration<sup>(a)</sup> : May 24, 2021

### PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

<u>Parameter</u>	<u>Reference Method</u>
pH at 25°C	APHA 21e 4500-H <sup>+</sup> 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<sup>(b,c)</sup>

#### (1) pH at 25°C

Target (pH unit)	Displayed Reading <sup>(d)</sup> (pH Unit)	Tolerance <sup>(e)</sup> (pH Unit)	Results
4.00	4.02	0.02	Satisfactory
7.42	7.45	0.03	Satisfactory
10.01	10.09	0.08	Satisfactory

Tolerance of pH should be less than  $\pm 0.20$  (pH unit)

#### (2) Temperature


Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
10	10.0	0.0	Satisfactory
21	20.4	-0.6	Satisfactory
41	40.9	-0.1	Satisfactory

Tolerance limit of temperature should be less than  $\pm 2.0$  (°C)

~ CONTINUED ON NEXT PAGE ~

#### Remark(s): -

- <sup>(a)</sup> The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted from relevant international standards.  
<sup>(b)</sup> The results relate only to the calibrated equipment as received  
<sup>(c)</sup> The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.  
<sup>(d)</sup> "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.  
<sup>(e)</sup> 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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Date of Issue : 01 March 2021  
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### PART D – CALIBRATION RESULTS (Cont'd)

#### (3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.21	0.01	-0.20	Satisfactory
4.55	6.21	1.66	Satisfactory
6.42	4.56	-1.86	Satisfactory
8.78	8.49	-0.29	Satisfactory

Tolerance limit of dissolved oxygen should be less than  $\pm 0.50$  (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	146.7	-0.14	Satisfactory
0.01	1412	1436	1.70	Satisfactory
0.1	12890	12699	-1.48	Satisfactory
0.5	58670	58421	-0.42	Satisfactory
1.0	111900	111486	-0.37	Satisfactory

Tolerance limit of conductivity should be less than  $\pm 10.0$  (%)

#### (5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.88	-1.20	Satisfactory
20	19.84	-0.80	Satisfactory
30	30.52	1.73	Satisfactory

Tolerance limit of salinity should be less than  $\pm 10.0$  (%)

#### (6) Turbidity

Expected Reading (NTU)	Displayed Reading <sup>(f)</sup> (NTU)	Tolerance <sup>(g)</sup> (%)	Results
0	0.11	--	Satisfactory
10	10.23	2.3	Satisfactory
20	20.45	2.3	Satisfactory
100	102.38	2.4	Satisfactory
800	798.46	-0.2	Satisfactory

Tolerance limit of turbidity should be less than  $\pm 10.0$  (%)

~ END OF REPORT ~

#### Remark(s): -

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

<sup>(g)</sup> 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.





## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA020020  
Date of Issue : 03 February 2021  
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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 6920V2 (Multi-Parameters)  
Manufacturer : YSI (a xylem brand)  
Serial Number : 0001C6A7  
Date of Received : Feb 03, 2021  
Date of Calibration : Feb 03, 2021  
Date of Next Calibration<sup>(a)</sup> : May 02, 2021

### PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter	Reference Method
pH at 25°C	APHA 21e 4500-H <sup>+</sup> 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<sup>(b,c)</sup>

#### (1) pH at 25°C

Target (pH unit)	Displayed Reading <sup>(d)</sup> (pH Unit)	Tolerance <sup>(e)</sup> (pH Unit)	Results
4.00	4.03	0.03	Satisfactory
7.42	7.45	0.03	Satisfactory
10.01	10.01	0.00	Satisfactory

Tolerance of pH should be less than  $\pm 0.20$  (pH unit)

#### (2) Temperature


Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
10	10.03	0.03	Satisfactory
20	20.08	0.08	Satisfactory
40	39.89	-0.11	Satisfactory

Tolerance limit of temperature should be less than  $\pm 2.0$  (°C)

~ CONTINUED ON NEXT PAGE ~

#### Remark(s): -

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

  
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## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA020020  
Date of Issue : 03 February 2021  
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### PART D – CALIBRATION RESULTS (Cont'd)

#### (3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.65	0.40	-0.25	Satisfactory
2.38	2.71	0.33	Satisfactory
4.04	4.20	0.16	Satisfactory
7.28	7.52	0.24	Satisfactory

Tolerance limit of dissolved oxygen should be less than  $\pm 0.50$  (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	153.1	4.22	Satisfactory
0.01	1412	1324	-6.23	Satisfactory
0.1	12890	12836	-0.42	Satisfactory
0.5	58670	58301	-0.63	Satisfactory
1.0	111900	111527	-0.33	Satisfactory

Tolerance limit of conductivity should be less than  $\pm 10.0$  (%)

#### (5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.94	-0.60	Satisfactory
20	20.16	0.80	Satisfactory
30	30.28	0.93	Satisfactory

Tolerance limit of salinity should be less than  $\pm 10.0$  (%)

#### (6) Turbidity

Expected Reading (NTU)	Displayed Reading <sup>(f)</sup> (NTU)	Tolerance <sup>(g)</sup> (%)	Results
0	0.0	--	Satisfactory
10	9.9	-1.0	Satisfactory
20	19.8	-1.0	Satisfactory
100	98.7	-1.3	Satisfactory
800	797.2	-0.3	Satisfactory

Tolerance limit of turbidity should be less than  $\pm 10.0$  (%)

~ END OF REPORT ~

**Remark(s): -**

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

<sup>(g)</sup> 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	Superseded by GW-RS0055-21
			GW-RS0055-21	Valid from 3 Feb 2021 to 30 Jun 2021
	Bill Account for disposal	Works Area of 3206 (Area 11)	GW-RS0621-20	Valid from 6 Sep 2020 to 1 Mar 2021
			A/C 7026398	Approval granted from EPD on 16 Nov 2016
	3301	Notification of Construction Work under APCO	Works area of 3301	415821
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	Superseded by GW-RS0118-21
			GW-RS0118-21	Valid from 24 Feb 2021 to 21 Aug 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
	Staging area of 3302		2018CES1	Receipt acknowledged by EPD on 21 Dec 2018
			454882	Receipt acknowledged by EPD on 2 Apr 2020
	Registration as Chemical Waste Producer	Works area of 3302	5296-951-C4331-01	Completion of Registration on 4 Jan 2019

Contract No.	Description	Location	Permit/ Reference No.	Status
	Discharge License under WPCO	Works area of 3302	WT00034539-2019	Valid from 11 Mar 2020 to 31 Mar 2025
		Works area of 3302	WT00034541-2019	Valid from 14 Oct 2019 to 31 Oct 2024
	Bill Account for disposal	Works area of 3302	A/C 7032881	Approval granted from EPD on 8 Jan 2019
	Construction Noise Permit (General Works)	Works area of 3302	GW-RS0988-20	Valid from 7 Jan 2021 to 6 July 2021
			GW-RS0987-20	Valid from 7 Jan 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-RS0015-21	Valid from 14 Jan 2021 to 3 Jul 2021
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	Superseded by GW-RS0033-21
GW-RS0033-21			Valid from 7 Feb 2021 to 6 Aug 2021	
3402	Notification of Construction Work under APCO	Works area of 3402	464622	Receipt acknowledged by EPD on 18 Feb 2021
	Bill Account for disposal	Works area of 3402	A/C 7032577	Approval granted from EPD on 27 Nov 2018
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

Contract No.	Description	Location	Permit/ Reference No.	Status
	Bill Account for disposal	Works area of 3403	A/C 7035267	Approval granted from EPD on 30 Sep 2019
	Construction Noise Permit (General Works)	Works area of 3403	GW-RS0822-20	Valid from 29 Nov 2020 to 28 May 2021
	Construction Noise Permit (Special Case)	Works area of 3403	GW-RS0635-20 GW-RS0010-21	Valid from 18 Sep 2020 to 17 Mar 2021 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-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 6 Aug 2019 to 30 Jun 2023
			WT00036551-2020	Valid from 17 Sep 2020 to 30 Sep 2025
			WT00036697-2020	Valid from 2 Nov 2020 to 30 Nov 2025
	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	Superseded by GW-RS0054-21
			GW-RS0054-21	Valid from 8 Feb 2021 to 31 Jul 2021
		Stockpiling area of 3503	GW-RS0870-20	Valid from 25 Nov 2020 to 30 Apr 2021
	Works area of 3503 (Special Case)	GW-RS0997-20	Valid from 1 Jan 2021 to 28 Feb 2021	
		GW-RS0093-21	Valid from 8 Feb 2021 to 31 Mar 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
		Works area of 3508 (Special Case)	GW-RS0088-21	Valid from 23 Feb 2021 to 15 Apr 2021
3601	Notification of Construction Work under APCO	Works area of 3601	451762	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
	Registration as Chemical Waste Producer	Site office of 3603	5296-951-S4069-01	Completion of Registration on 22 Jan 2018
	Bill Account for disposal	Works area of 3603	A/C 7030002	Approval granted from EPD on 1 Feb 2018
	Construction Noise Permit (General Works)	Works area of 3603	GW-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 7035234	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	458870	Receipt acknowledged by EPD on 14 Aug 2020
		Works area of 3722B	458868	Receipt acknowledged by EPD on 14 Aug 2020
		Works area of 3722C	458865	Receipt acknowledged by EPD on 14 Aug 2020
		Works area of 3722D	458866	Receipt acknowledged by EPD on 14 Aug 2020
		Works area of 3722A	WPN 5218-951-T3863-01	Completion of Registration on 18 Mar 2020

Contract No.	Description	Location	Permit/ Reference No.	Status
	Registration as Chemical Waste Producer	Works area of 3722B	WPN 5218-951-T3864-01	Completion of Registration on 18 Mar 2020
		Works area of 3722C	WPN 5218-951-T3862-01	Completion of Registration on 18 Mar 2020
		Works area of 3722D	WPN 5218-951-T3865-01	Completion of Registration on 18 Mar 2020
	Bill Account for disposal	Works area of 3722A	A/C 7036752	Approval granted from EPD on 11 Mar 2020
		Works area of 3722B	A/C 7036966	Approval granted from EPD on 6 Apr 2020
		Works area of 3722C	A/C 7036967	Approval granted from EPD on 6 Apr 2020
		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
3801	Notification of Construction Work under APCO	Works area of 3801	418345	Receipt acknowledged by EPD on 26 Jun 2017
			430372	Receipt acknowledged by EPD on 2 Feb 2018
			435652	Receipt acknowledged by EPD on 16 Jul 2018
			451991	Receipt acknowledged by EPD on 18 Dec 2019
		Stockpiling area of 3801	450940	Receipt acknowledged by EPD on 13 Nov 2019
	Registration as Chemical Waste Producer	Works area of 3801	WPN 5296-951-C1169-53	Completion of Registration on 14 Aug 2018
	Discharge License under WPCO	Works and stockpiling area of 3801	WT00029535-2017	Valid from 24 Nov 2017 to 30 Nov 2022
	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	Superseded by GW-RS0053-21
GW-RS0053-21			Valid from 4 Feb 2021 to 31 Jul 2021	
3901A	Notification of Construction Work under APCO	Works area of 3901A	456240	Receipt acknowledged by EPD on 18 May 2020

Contract No.	Description	Location	Permit/ Reference No.	Status
3901A	Specified Process license under APCO	Works area of 3901A	L-3-261(1)	Valid from 14 Sep 2020 to 13 Sep 2024
	Registration as Chemical Waste Producer	Works area of 3901A	WPN 5218-951-K3400-01	Completion of Registration on 17 Jul 2020
	Bill Account for disposal	Works area of 3901A	7037889	Approval granted from EPD on 20 Jul 2020
	Construction Noise Permit (General Works)	Works area of 3901A	GW-RS0850-20	Superseded by GW-RS0095-21
			GW-RS0095-21	Valid from 19 Feb 2021 to 17 Jul 2021
3901B	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	4	0	0
From 28 December 2015 to end of the reporting period	34	1	1