



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

Construction Phase Monthly EM&A Report No.63
(For March 2021)

April 2021

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This Monthly EM&A Report No. 63 has been reviewed and certified by

the Environmental Team Leader (ETL) in accordance with

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

Certified by:

A handwritten signature in black ink, appearing to read 'Terence Kong', is positioned above a horizontal line.

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

Date

14 April 2021



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By Email

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

14 April 2021

Dear Sir,

Contract No. 3102
3RS Independent Environmental Checker Consultancy Services

Submission of Monthly EM&A Report No. 63 (March 2021)

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No. 63 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 14 April 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 63rd Construction Phase Monthly EM&A Report for the Project which summarises the monitoring results and audit findings of the EM&A programme during the reporting period from 1 to 31 March 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. Land-based works on existing airport island involved mainly airfield works, foundation and substructure work for Terminal 2 expansion, modification and tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS), and preparation work for utilities, with activities include site establishment, site office construction, road and drainage works, cable ducting, demolition, piling, and excavation works.

EM&A Activities Conducted in the Reporting Period

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

Monitoring Activities	Number of Sessions
1-hour Total Suspended Particulates (TSP) air quality monitoring	36
Noise monitoring	20
Water quality monitoring	13
Vessel line-transect surveys for Chinese White Dolphin (CWD) monitoring	2
Land-based theodolite tracking survey effort for CWD monitoring	2

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

Snapshots of EM&A Activities in the Reporting Period

		
Land-Based Theodolite Tracking Survey for CWD at Lung Kwu Chau	Inspection of Wastewater Treatment Facility maintained by Contractor	Dust Suppression Measure conducted by Contractor

Results of Impact Monitoring

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

Monitoring results of construction dust, construction noise, 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;
- Operation of asphalt plant;
- Footing and utilities work; and
- Cable laying and ducting works.

Contract 3307 Fire Training Facility

- Excavation; and
- Drainage works.

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

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

Contract 3405 Third Runway Concourse Foundation and Substructure Works

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

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

- T2 re-configuration;
- Excavation works;
- Utilities 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

- 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.

Contract 3723 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 operation.

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 [^]	✓		No breach of Limit Level was recorded.	Nil
Breach of Action Level [^]	✓		No breach of Action Level was recorded.	Nil
Complaint Received	✓		No construction activities-related complaint was received during the reporting period. In the previous reporting period, in total four complaints were received of which two complaints regarding dust issue and improper fuelling operation received on 1 and 2 February respectively were under investigation. Findings of the regular site inspections, dust investigations were reported in this report.	Nil For the complaint received on 1 February 2021 regarding dust issue, ET requested the relevant contractors to provide information related to the complaint. During regular site inspections, dust emissions were observed in the alleged area from cement mixing activities and general dust control management on site, and were rectified by the Contractors afterwards. The Contractors implemented water spraying according to their dust control management plans. 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 complaint received on 2 February 2021 regarding improper fuelling operation, ET requested the relevant contractors to provide information related to the complaint. Regular site inspections and ad-hoc inspections were also conducted by ET during which no occurrence regarding fuel spillage onto sea surface was observed. Furthermore,

Yes	No	Details	Analysis / Recommendation / Remedial Actions
			no environmental malpractice leading to fuel spillage onto seawater was observed at the alleged area. All contractors were reminded to properly handle fuel on site and implement their respective contractor-specific spill response plan including spill drills trainings and provision of sufficient spills kits. The case was considered closed.
Notification of any summons and status of prosecutions	√	No notification of summons or prosecution was received.	Nil
Change that affect the EM&A	√	There was no change to the construction works that may affect the EM&A.	Nil

Note:

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

1 Introduction

1.1 Background

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

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

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

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

The updated overall phasing programme of all construction works was presented in Appendix A of the Construction Phase Monthly EM&A Report No. 7 and the contract information was presented in **Appendix A**.

1.2 Scope of this Report

This is the 63rd Construction Phase Monthly EM&A Report for the Project which summarises the key findings of the EM&A programme during the reporting period from 1 to 31 March 2021.

1.3 Project Organisation

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

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

Table 1.1: Contact Information of Key Personnel

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

Reclamation Works:

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

Airfield Works:

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

Third Runway Concourse:

Party	Position	Name	Telephone
Contract 3402 New Integrated Airport Centres Enabling Works (Wing Hing Construction Co., Ltd.)	Contract Manager	Michael Kan	9206 0550
	Environmental Officer	Lisa He	5374 3418
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
Contract 3408 Third Runway Concourse and Apron Works (Beijing Urban Construction Group Company Limited and Chevalier (Construction) Company Limited Joint Venture)	Assistant Project Manager	Qian Zhang	5377 7976
	Environmental Officer	Malcolm Leung	7073 7559

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) (CRRRC Puzhen Bombardier Transportation Systems Limited and CRRRC 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	Kunihiro Tatecho	9755 0351
	Environmental Officer	Carrie Kwan	9276 0551
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
Contract 3723 Eastern Support Area – Construction Support Facilities (Tapbo Construction Company Limited and Konwo Modular House Ltd. Joint Venture.)	Deputy Project Director	Philip Kong	9049 3161
	Environmental Officer	Sampson Lo	9752 9118
Contract 3728 Minor Site Works (Shun Yuen Construction Company Limited)	Contract Manager	C K Liu	9194 8739
	Environmental Officer	K F Li	9086 1793

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	Kingsley Chiang	9424 8437
	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	Phoebe Ng	9869 1105

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. 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.

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.

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

Parameters	EM&A Requirements	Status
Air Quality		
Baseline Monitoring	At least 14 consecutive days before commencement of construction work	The baseline air quality monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	At least 3 times every 6 days	On-going
Noise		
Baseline Monitoring	Daily for a period of at least two weeks prior to the commencement of construction works	The baseline noise monitoring result has been reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	Weekly	On-going
Water Quality		
General Baseline Water Quality Monitoring for reclamation, water jetting and field joint works	Three days per week, at mid-flood and mid-ebb tides, for at least four weeks prior to the commencement of marine works.	The baseline water quality monitoring result has been reported in Baseline Water Quality Monitoring Report and submitted to EPD under EP Condition 3.4.
General Impact Water Quality Monitoring for reclamation, water jetting and field joint works	Three days per week, at mid-flood and mid-ebb tides.	On-going for reclamation works. General impact water quality monitoring for water jetting works was completed on 23 May 2017.
Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring	At least four weeks	The Initial Intensive DCM Monitoring Report was submitted and approved by EPD in accordance with the Detailed Plan on DCM.
Regular DCM Water Quality Monitoring	Three times per week until completion of DCM works.	On-going
Sewerage and Sewage Treatment		
Methodology for carrying out annual sewage flow monitoring for concerned gravity sewer	Methodology to be prepared and submitted to EPD at least one year before commencement of the operation of 3RS	The proposed methodology of the annual sewage flow monitoring was submitted to EPD.
Details of the routine H ₂ S monitoring system for the sewerage system of 3RS	Details to be prepared and submitted to EPD at least one year before commencement of the operation of 3RS	The details of the routine H ₂ S monitoring system will be prepared and submitted to EPD at least one year before commencement of operation of 3RS.
Waste Management		
Waste Monitoring	At least weekly	On-going
Land Contamination		
Supplementary Contamination Assessment Plan (CAP)	At least 3 months before commencement of any soil remediation works.	The Supplementary CAP was submitted to EPD pursuant to EP Condition 2.20.

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

Parameters	EM&A Requirements	Status
Dolphin Exclusion Zone (DEZ) Plan implementation measures	Monitor and check	On-going
SkyPier High Speed Ferries (HSF) implementation measures	Monitor and check	On-going
Construction and Associated Vessels Implementation measures	Monitor and check	On-going
Complaint Hotline and Email channel	Construction phase	On-going
Environmental Log Book	Construction phase	On-going

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

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

- Four skipper training sessions provided by ET: 3, 17, 19 and 31 March 2021;
- One environmental briefing on EP and EM&A requirements of the Project provided by ET: 18 March 2021; and
- Seventeen environmental management meetings for EM&A review with works contracts: 4, 5, 9, 15, 17, 23, 24, 25, 26 and 30 March 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 B**.

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 C**.

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

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	11 - 92	306	500
AR2	28 - 115	298	

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

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

2.5 Conclusion

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

3 Noise Monitoring

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

Table 3.1: Locations of Impact Noise Monitoring Stations

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

Note:

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

3.1 Action and Limit Levels

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

Table 3.2: Action and Limit Levels for Noise Monitoring

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

Note:

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

3.2 Monitoring Equipment

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

Table 3.3: Noise Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Integrated Sound Level Meter	Rion NL-52 (Serial No. 00998505)	20 Mar 2021	Appendix E
	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)	20 Mar 2021	Appendix E

3.3 Monitoring Methodology

3.3.1 Monitoring Procedure

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

- 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.
- Façade measurements were made at the monitoring station NM3A.
- Parameters such as frequency weighting, time weighting and measurement time were set.
- 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.
- 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.
- Noise measurement results were corrected with reference to the baseline monitoring levels.
- 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:

- The microphone head of the sound level meter was cleaned with soft cloth at regular intervals.
- 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 C**.

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

Table 3.4: Summary of Construction Noise Monitoring Results

Monitoring Station	Noise Level Range, dB(A)	Limit Level, dB(A)
	<i>Leq (30mins)</i>	<i>Leq (30mins)</i>
NM1A ⁽¹⁾	64 - 71	75
NM4 ⁽¹⁾	61 - 65	70 ⁽²⁾
NM5 ⁽¹⁾	54 - 65	75
NM6 ⁽¹⁾	64 - 68	75

Notes:

- (1) +3dB(A) Façade correction included;
- (2) Reduced to 65dB(A) during school examination periods at NM4. School examination took place from 18 to 24 March 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.

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

Monitoring Station	Description	Coordinates		Parameters
		Easting	Northing	
C1	Control Station	804247	815620	<u>General Parameters</u>
C2	Control Station	806945	825682	DO, pH, Temperature, Salinity, Turbidity, SS
C3 ⁽³⁾	Control Station	817803	822109	
IM1	Impact Station	807132	817949	<u>DCM Parameters</u>
IM2	Impact Station	806166	818163	Total Alkalinity, Heavy Metals ⁽²⁾
IM3	Impact Station	805594	818784	
IM4	Impact Station	804607	819725	
IM5	Impact Station	804867	820735	
IM6	Impact Station	805828	821060	
IM7	Impact Station	806835	821349	
IM8	Impact Station	808140	821830	
IM9	Impact Station	808811	822094	
IM10	Impact Station	809794	822385	
IM11	Impact Station	811460	822057	
IM12	Impact Station	812046	821459	
SR1A ⁽¹⁾	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) Seawater Intake for cooling	812660	819977	<u>General Parameters</u> DO, pH, Temperature, Salinity, Turbidity, SS
SR2 ⁽³⁾	Planned marine park / hard corals at The Brothers / Tai Mo To	814166	821463	<u>General Parameters</u> DO, pH, Temperature, Salinity, Turbidity, SS <u>DCM Parameters</u> Total Alkalinity, Heavy Metals ⁽²⁾⁽⁴⁾
SR3	Sha Chau and Lung Kwu Chau Marine Park / fishing and spawning grounds in North Lantau	807571	822147	<u>General Parameters</u> DO, pH, Temperature, Salinity, Turbidity, SS
SR4A	Sha Lo Wan	807810	817189	

Monitoring Station	Description	Coordinates		Parameters
SR5A	San Tau Beach SSSI	810696	816593	<u>General Parameters</u> DO, pH, Temperature, Salinity, Turbidity, SS
SR6A ⁽⁵⁾	Tai Ho Bay, Near Tai Ho Stream SSSI	814739	817963	
SR7	Ma Wan Fish Culture Zone (FCZ)	823742	823636	
SR8 ⁽⁶⁾	Seawater Intake for cooling at Hong Kong International Airport (East)	811623	820390	

Notes:

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

4.1 Action and Limit Levels

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

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

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

Notes:

- (1) For DO measurement, non-compliance occurs when monitoring result is lower than the limits.
- (2) For parameters other than DO, non-compliance of water quality results when monitoring results is higher than the limits.
- (3) Depth-averaged results are used unless specified otherwise.
- (4) Details of selection criteria for the two heavy metals for regular DCM monitoring refer to the Detailed Plan on Deep Cement Mixing available on the dedicated 3RS website (<http://env.threerunwaysystem.com/en/ep-submissions.html>)
- (5) The Action and Limit Levels for the two representative heavy metals chosen will be the same as that for the intensive DCM monitoring.

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

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

Note:

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

4.2 Monitoring Equipment

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

Table 4.4: Water Quality Monitoring Equipment

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Multifunctional Meter (measurement of DO, pH, temperature, salinity and turbidity)	YSI 6920V2 (Serial No. 0001C6A7)	3 Feb 2021	Monthly EM&A Report No. 62, Appendix D
	YSI ProDSS (Serial No. 17H105557)	3 Feb 2021	Monthly EM&A Report No. 62, Appendix D
	YSI ProDSS (Serial No. 18A104824)	25 Feb 2021	Monthly EM&A Report No. 62, Appendix D
	YSI ProDSS (Serial No. 15M100005)	25 Mar 2021	Appendix E
	YSI ProDSS (Serial No. 16H104234)	18 Jan 2021	Monthly EM&A Report No. 61, Appendix D
	YSI ProDSS (Serial No. 16H104233)	25 Feb 2021	Monthly EM&A Report No. 62, Appendix D
	YSI ProDSS (Serial No. 17E100747)	25 Mar 2021	Appendix E
Digital Titrator (measurement of total alkalinity)	Titrette Bottle-top Burette, 50ml (Serial No. 10N64701)	26 Feb 2021	Monthly EM&A Report No. 62, Appendix D

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

Table 4.5: Other Monitoring Equipment

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

4.3 Monitoring Methodology

4.3.1 Measuring Procedure

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

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

4.3.2 Maintenance and Calibration

Calibration of In-situ Instruments

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

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

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

4.3.3 Laboratory Measurement / Analysis

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

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

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

4.4 Summary of Monitoring Results

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

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 D**.

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 B**.

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

Table 5.2: Construction Waste Statistics

	C&D ⁽¹⁾ Material Stockpiled for Reuse or Recycle (m ³)	C&D Material Reused in the Project (m ³)	C&D Material Reused in other Projects (m ³)	C&D Material Transferred to Public Fill (m ³)	Chemical Waste (kg)	Chemical Waste (l)	General Refuse (tonne)
February 2021 ⁽²⁾⁽³⁾	*15,015	*34,734	0	3,083	0	600	1,209
March 2021 ⁽²⁾⁽⁴⁾	10,028	44,052	0	7,984	1400	62,640	1,838

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 ⁽³⁾	Running quarterly ⁽¹⁾ STG < 1.86 & ANI < 9.35
Limit Level ⁽³⁾	Two consecutive running quarterly ⁽²⁾ (3-month) STG < 1.86 & ANI < 9.35

Notes: (referring to the baseline monitoring report)

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

6.2 CWD Monitoring Transects and Stations

6.2.1 Small Vessel Line-transect Survey

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

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

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

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

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

6.2.2 Land-based Theodolite Tracking Survey

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

Table 6.3: Land-based Theodolite Survey Station Details

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

6.3 CWD Monitoring Methodology

6.3.1 Small Vessel Line-transect Survey

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

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

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

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

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

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

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

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

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

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

6.3.2 Photo Identification

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

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

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

6.3.3 Land-based Theodolite Tracking Survey

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

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

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

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

6.4 Monitoring Results and Observations

6.4.1 Small Vessel Line-transect Survey

Survey Effort

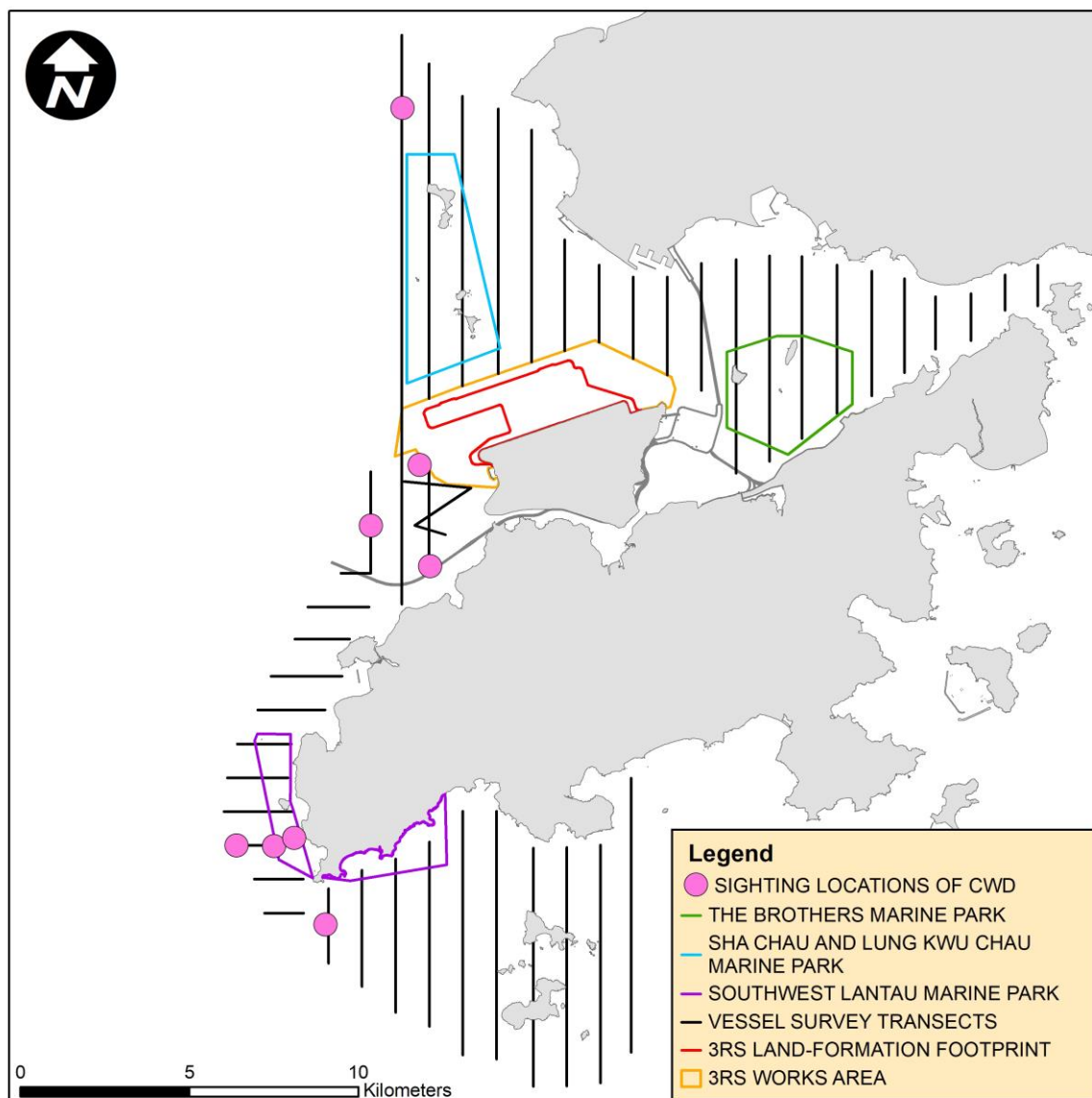
Within this reporting period, two complete sets of small vessel line-transect surveys were conducted on the 3, 8, 9, 10, 12, 15, 16 and 17 March 2021, covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

A total of around 451.00km of survey effort was collected from these surveys and around 90.2% 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 D**.

Sighting Distribution

In March 2021, 8 sightings with 18 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 D**.

Distribution of all CWD sightings recorded in March 2021 is illustrated in **Figure 6.3**. In NWL including AW transects, one CWD sighting was recorded at the north of Sha Chau Lung Kwu Chau Marine Park while another two sightings were located at the southwestern part of the survey area and another one was sighted in close vicinity of the 3RS Works Area. In WL, all three CWD sightings were clustered at the waters between Peaked Hill and Fan Lau. Two of these three sightings were located within or in close vicinity of the Southwest Lantau Marine Park. In SWL, the only CWD sighting was located in the westernmost side of the survey area.

Figure 6.3: Sightings Distribution of Chinese White Dolphins

Remarks: (1) Please note that there are 8 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 March 2021, a total of around 406.79 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 8 on-effort sightings with 18 dolphins were sighted under such condition. Calculation of the encounter rates for the month are shown in **Appendix D**.

For the running quarter of the reporting period (i.e., from January to March 2021), a total of around 1244.82 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 43 on-effort sightings and a total number of 158 dolphins from on-effort sightings were obtained under such condition. Calculation of the running quarterly encounter rates are shown in **Appendix D**.

The STG and ANI of CWD in the whole survey area (i.e. NEL, NWL, AW, WL and SWL) during the month of March 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)
March 2021	1.97	4.42
Running Quarter from January to March 2021 ⁽¹⁾	3.45	12.69
Action Level	Running quarterly ⁽¹⁾ STG < 1.86 & ANI < 9.35	

Note: (1) Running quarterly encounter rates STG & ANI were calculated from data collected in the reporting period and the two preceding survey months, i.e. the data from January to March 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 March 2021, 8 groups of 18 dolphins in total were sighted, and the average group size of CWDs was 2.25 dolphins per group. Sightings with small group size (i.e. 1-2 dolphins) were dominant. There were no CWD sightings with large group size (i.e. 10 or more dolphins).

Activities and Association with Fishing Boats

There were no sightings of CWDs were recorded engaging in feeding activities in March 2021.

Mother-calf Pair

In March 2021, there were no CWD sightings recorded with the presence of mother-and-calf pair(s).

6.4.2 Photo Identification

In March 2021, a total number of 12 different CWD individuals were identified for totally 15 times. A summary of photo identification works is presented in **Table 6.5**. Representative photos of these individuals are given in **Appendix D**.

Table 6.5: Summary of Photo Identification

Individual ID	Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area	Individual ID	Date of Sighting (dd-mmm-yy)	Sighting Group No.	Area
SLMM012	09-Mar-21	1	WL	SLMM037	15-Mar-21	2	WL
	15-Mar-21	2	WL	SLMM060	17-Mar-21	14	SWL
SLMM014	09-Mar-21	1	WL	SLMM071	16-Mar-21	2	NWL
	15-Mar-21	3	WL	WLMM043	15-Mar-21	1	WL
SLMM025	09-Mar-21	1	WL	WLMM054	16-Mar-21	1	NWL
SLMM030	16-Mar-21	2	NWL	WLMM056	09-Mar-21	1	WL
SLMM031	15-Mar-21	2	WL		15-Mar-21	2	WL
SLMM035	15-Mar-21	2	WL				

6.4.3 Land-based Theodolite Tracking Survey

Survey Effort

Land-based theodolite tracking surveys were conducted at LKC on 25 March 2021 and at SC on 29 March 2021, with a total of two days of land-based theodolite tracking survey effort accomplished in this reporting period. No CWD groups were tracked from neither Lung Kwu Chau nor Sha 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 D**.

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

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

6.5 Progress Update on Passive Acoustic Monitoring

Underwater acoustic monitoring using Passive Acoustic Monitoring (PAM) should be undertaken during land formation related construction works. In this reporting period, the F-POD was retrieved on 08 March 2021 and was subsequently deployed and positioned at south of Sha Chau Island inside the SCLKCMP (**Figure 6.5**). The PAM deployment period is generally 7 weeks, thus the next re-deployment is scheduled on mid-May 2021 to retrieve the data for analysis. Acoustic data would be reviewed to give an indication of CWDs occurrence patterns and anthropogenic noise information. Analysis would involve use of proprietary software for objective automated data analyses and experienced analysts to perform visual validation for assessment of dolphin detection. As the period of data collection and analysis takes about four months, PAM results could not be reported in monthly intervals but report for supplementing the annual CWD monitoring analysis.

6.6 Site Audit for CWD-related Mitigation Measures

During the reporting period, silt curtains were in place by the contractor for marine filling, in which dolphin observers were deployed by contractor in accordance with the MMWP. Overall, 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 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 C**. 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 B**.

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 B**) 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, 3508, 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.	3802 (To be implemented)

Landscape and Visual Mitigation Measures during Construction	Implementation Status	Relevant Contract(s) in the Reporting Period
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	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. 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. 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. Long term management of the transplanted trees were currently monitored by ET annually.	3503, 3801 3508, 3802 (To be implemented)
CM 10 – Land formation works shall be followed with advanced hydroseeding around taxiways and runways as soon as practical	To be implemented around taxiways and runways as soon as practicable.	To be implemented

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

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

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 140 and 14, respectively. Compared to the last reporting period, Contract 3508 commenced the maintenance of 21 retained trees and 12 to-be-transplanted trees during the reporting period. Details of the retained trees, transplanted trees and to-be-transplanted trees under the Project are summarized in **Table 7.5**. Photos of transplanted trees are presented in **Table 7.7**.

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

Table 7.3: Monitoring Programme for Landscape and Visual

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

Table 7.4: Event and Action Plan for Landscape and Visual

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

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

Existing				
Contract	Retain (nos.)	Transplanted (nos.)		To-be-transplanted (nos.)
		Establishment Period	Maintenance Period	
3302	9	0	0	0
3503	19	6	3	0
3508 ⁽¹⁾	21	0	0	12
3602	2	0	0	0
3801	89	0	5	0
Sub-total	140	6	8	12
Provisional				
Contract	Retain (nos.)	Transplanted (nos.)		To-be-transplanted (nos.)
3508 ⁽¹⁾	134	0		10
Sub-total	134	0		10
Grand Total	274	14		22

Notes:

- (1) As some of the site areas have been handed over to Contract 3508, Contractor of Contract 3508 is currently managing some of the trees. Existing trees to be managed by Contract 3508 is subject to change after initial tree surveys for each batch of site areas have been conducted by the Contractor.

Summary of the updated transplanted trees and photos are presented in **Table 7.6** and **Table 7.7** respectively.

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

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks
CT276	3 May 2018	<u>Establishment period</u> 4 May 2018 – May 2019 <u>Long Term Management period</u> Jun 2019 – May 2028	Contract 3801 Southern Landside Petrol Filling Station	Next inspection will be conducted in February 2022. Photos of the last inspection in February 2021 were shown in Table 7.7 .
CT1253	4 May 2018	<u>Establishment period</u> 5 May 2018 – May 2019 <u>Long Term Management period</u> Jun 2019 – May 2028	Contract 3801 Southern Landside Petrol Filling Station	
T835	22 Jan 2020	<u>Establishment period</u> 23 Jan 2020 – Jan 2021 <u>Long Term Management period</u> Feb 2021 – Jan 2030	Contract 3503	Next inspection will be conducted in February 2022. Photos of the last inspection in February 2021 were shown in Table 7.7 .
T836	13 Dec 2019	<u>Establishment period</u> 14 Dec 2020 – Jan 2021 <u>Long Term Management period</u> Feb 2021 – Jan 2030	Contract 3503	
T838	22 Jan 2020	<u>Establishment period</u> 23 Jan 2020 – Jan 2021 <u>Long Term Management period</u> Feb 2021 – Jan 2030	Contract 3503	
T812	21 Dec 2020	<u>Establishment period</u> 22 Dec 2020 – Dec 2021	Contract 3503	Next inspection will be conducted in April 2021. Photos of the last inspection in March 2021 were shown in Table 7.7 .
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 <u>Long Term Management period</u> Jun 2019 – May 2028	Contract 3801 Southern Landside Petrol Filling Station	NA 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.

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks
CT1794	3 May 2018	<u>Establishment period</u> 4 May 2018 – May 2019	Contract 3801	NA
		<u>Long Term Management period</u> Jun 2019 – May 2028	AsiaWorld-Expo	The tree within the land parcel was acquired by the government for construction of emergency hospital to handle COVID19 pandemic at AsiaWorld-Expo. The tree was felled in late 2020.
CT1795	3 May 2018	<u>Establishment period</u> 4 May 2018 – May 2019	Contract 3801	NA
		<u>Long Term Management period</u> Jun 2019 – May 2028	AsiaWorld-Expo	The tree within the land parcel was acquired by the government for construction of emergency hospital to handle COVID19 pandemic at AsiaWorld-Expo. The tree was felled in late 2020.

Table 7.7: Photos of the Existing Transplanted Trees

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

Under 10-year Long-term Management:		
		
CT276	CT1253	T835
		
T836	T838	

7.3 Land Contamination Assessment

The Supplementary CAP was submitted to EPD pursuant to EP Condition 2.20. The CARs for Golf Course and T2 Emergency Power Supply Systems 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 underground fuel pipelines to reaffirm no leakage from the pipelines concerned. All the additional photos have been submitted to EPD and no leakage was found after the removal of underground fuel pipelines.

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 March 2021. Key audit findings for the SkyPier HSFs travelling to/from Zhuhai and Macau against the requirements of the SkyPier Plan during the reporting period are summarised in **Table 7.8**.

The daily movement of all SkyPier HSFs, including those not using the diverted route, in this reporting period (i.e., 2 to 4 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 31 March 2021
Total number of ferry movements recorded and audited for HSF to/from Zhuhai and Macau	0
Use diverted route and enter / leave SCZ through Gate Access Points	0 deviation
Daily Cap for all SkyPier HSFs including those not using diverted route	2 to 4 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:

- Four skipper training sessions were held for contractors' concerned skippers of relevant construction vessels to familiarize them with the predefined routes; general education on local cetaceans; guidelines for avoiding adverse water quality impact; the required environmental practices / measures while operating construction and associated vessels under the Project; and guidelines for operating vessels safely in the presence of CWDs. The list of all trained skippers was properly recorded and maintained by ET.
- Seven skipper training sessions were held by contractors' Environmental Officers. Competency tests were subsequently conducted with the trained skippers by ET. The list of all trained skippers was properly recorded and maintained by ET.
- In this reporting period, 14 skippers were trained by ET and 21 skippers were trained by contractors' Environmental Officers. In total, 1724 skippers were trained from August 2016 to March 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 and seawall construction according to their Method Statement for DEZ Monitoring that followed the specifications and requirements of the DEZ Plan.

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

7.7 Status of Submissions under Environmental Permits

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

Table 7.9: Status of Submissions under Environmental Permit

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

7.8 Compliance with Other Statutory Environmental Requirements

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

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, four complaints were received in the previous reporting period, of which the complaints received on 1 and 2 February were under investigation, 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;

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

With the photos provided by the complainant, ET identified three related 3RS contractors and requested the contractors to provide more information regarding the complaint. According to the information received, one contractor carried out cement mixing activities with regular cleaning carried out and all valves closed properly. The other contractor was responsible for the management of the area and water spraying was implemented along the area as set out in the contractor's dust control management plan. The third 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 the haul road. In January and early February 2021, dust emission was observed during ET's regular site inspection at site area of two of the aforementioned contracts for which the contractors had rectified by covering dust collectors properly during cement mixing works and implementing adequate water spraying. In view of the information provided by the contractors and findings from ET's inspections and investigation, the case might be due to loose pipe connections during cement delivery as well as general dust control management on site. ET reminded the contractor who carried out cement mixing works to enhance mitigation measures to prevent dust issues, and the other two contractors to continue implementing and strengthening the dust suppression measures in site areas under their management.

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. The ET 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.

Complaint regarding improper fuelling operation received on 2 February 2021

No detail of the case such as date and time was provided in the complaint. With the photos 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, no fuel spillage incident was recorded in January 2021 which was in line with the ET's checking of fuel spillage incident records. Based on ET's regular site inspections and ad-hoc inspections in January and early February 2021, no occurrence regarding fuel spillage onto sea surface was observed. Furthermore, no environmental malpractice leading to fuel spillage onto seawater was observed.

The environmental monitoring results for water quality in January and early February 2020 were checked, where all the results were within the corresponding Action and Limit Levels except one case of chromium exceedance on 2 January 2021. Based on the investigation on the exceedances, the cases were considered not due to the Project. In view of the information provided by the contractor and findings from ET's inspections and investigation, there was no evidence indicating fuel operation leading to marine pollution at project area. Nevertheless, the ET reminded all contractors to properly handle fuel, including storage, refuelling and implement their respective contractor-specific spill response plan involving the conducting of regular spill drills and trainings, and to provide sufficient spills kits on site and 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

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

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 G**.

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

8.1 Construction Programme for the Coming Reporting Period

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

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;
- Operation of asphalt plant;
- Footing and utilities work; and
- Cable laying and ducting works.

Contract 3307 Fire Training Facility

- Excavation; and
- Drainage works.

Third Runway Concourse:

Contract 3403 New Integrated Airport Centres Building and Civil Works

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

Contract 3405 Third Runway Concourse Foundation and Substructure Works

- Plant mobilisation;

- Pre-drilling; and
- Piling work.

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

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

Contract 3508 Terminal 2 Expansion Works

- Excavation and footing construction;
- 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

- 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.

Contract 3723 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 / Licenses):**Contract 3901A Concrete Batching Facility**

- Plant operation.

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 C**.

8.4 Review of the Key Assumptions Adopted in the EIA Report

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

9 Conclusion and Recommendation

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

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

Monitoring results of construction dust, construction noise, 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 2 to 4 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

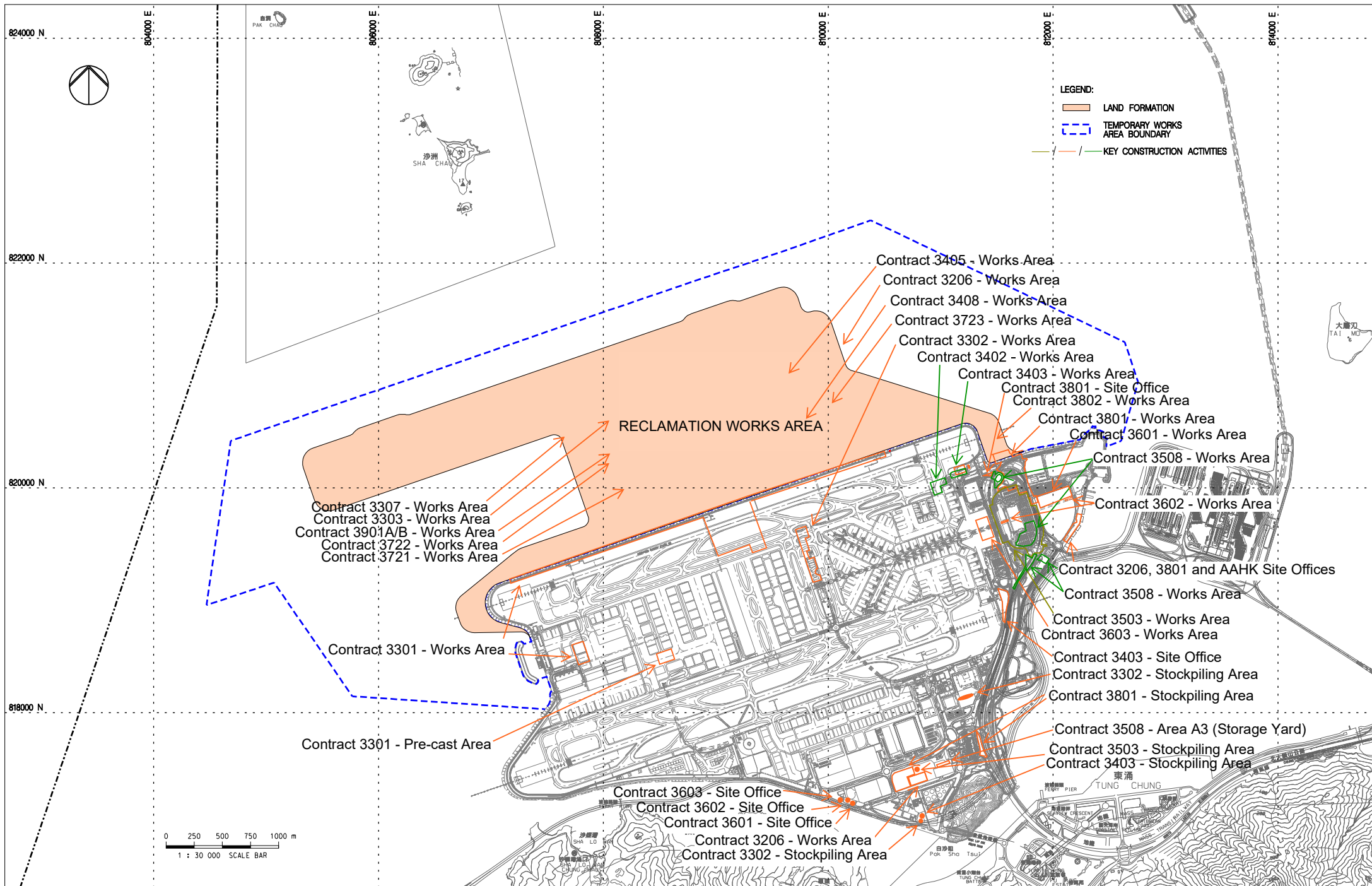
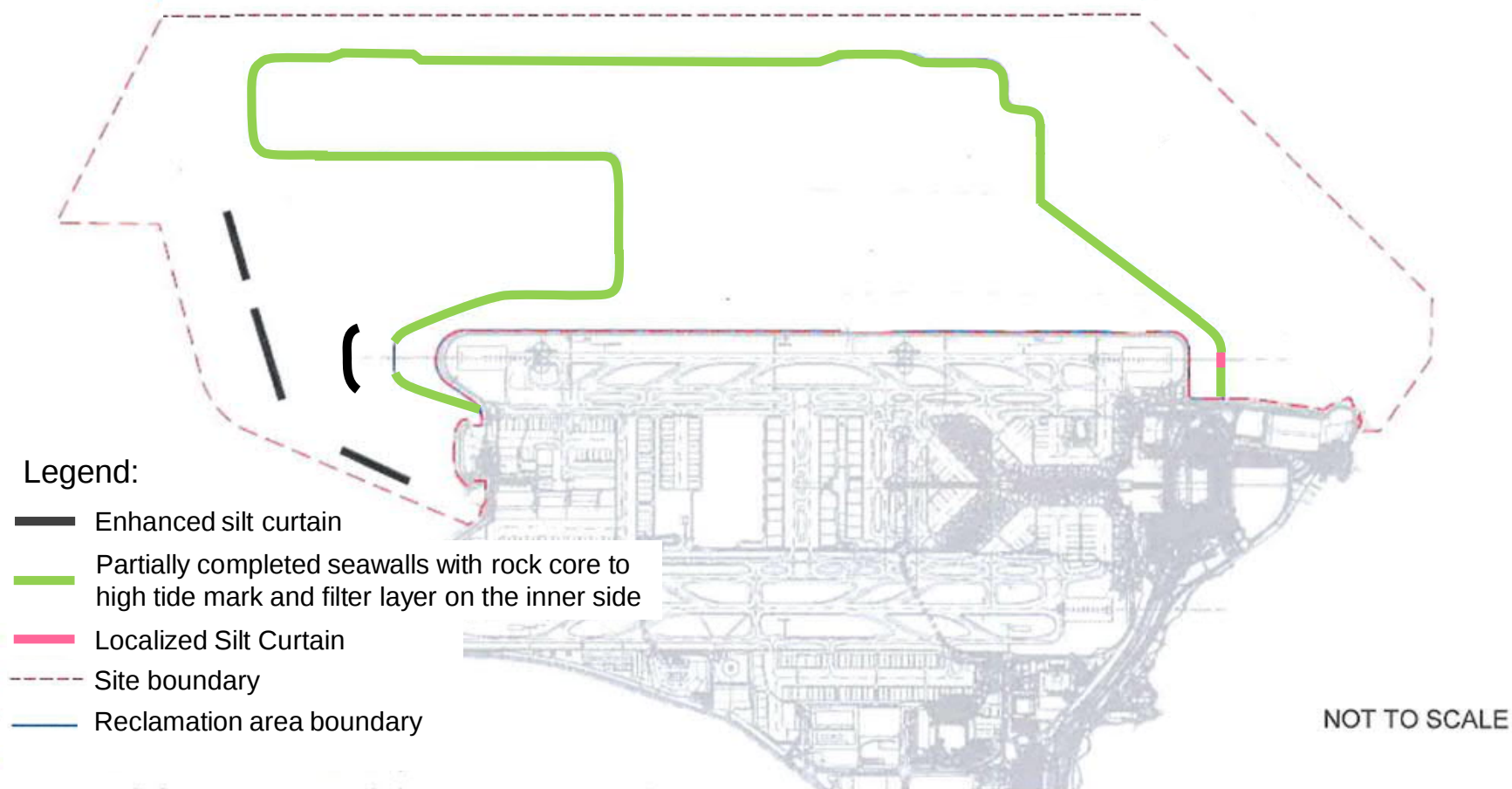


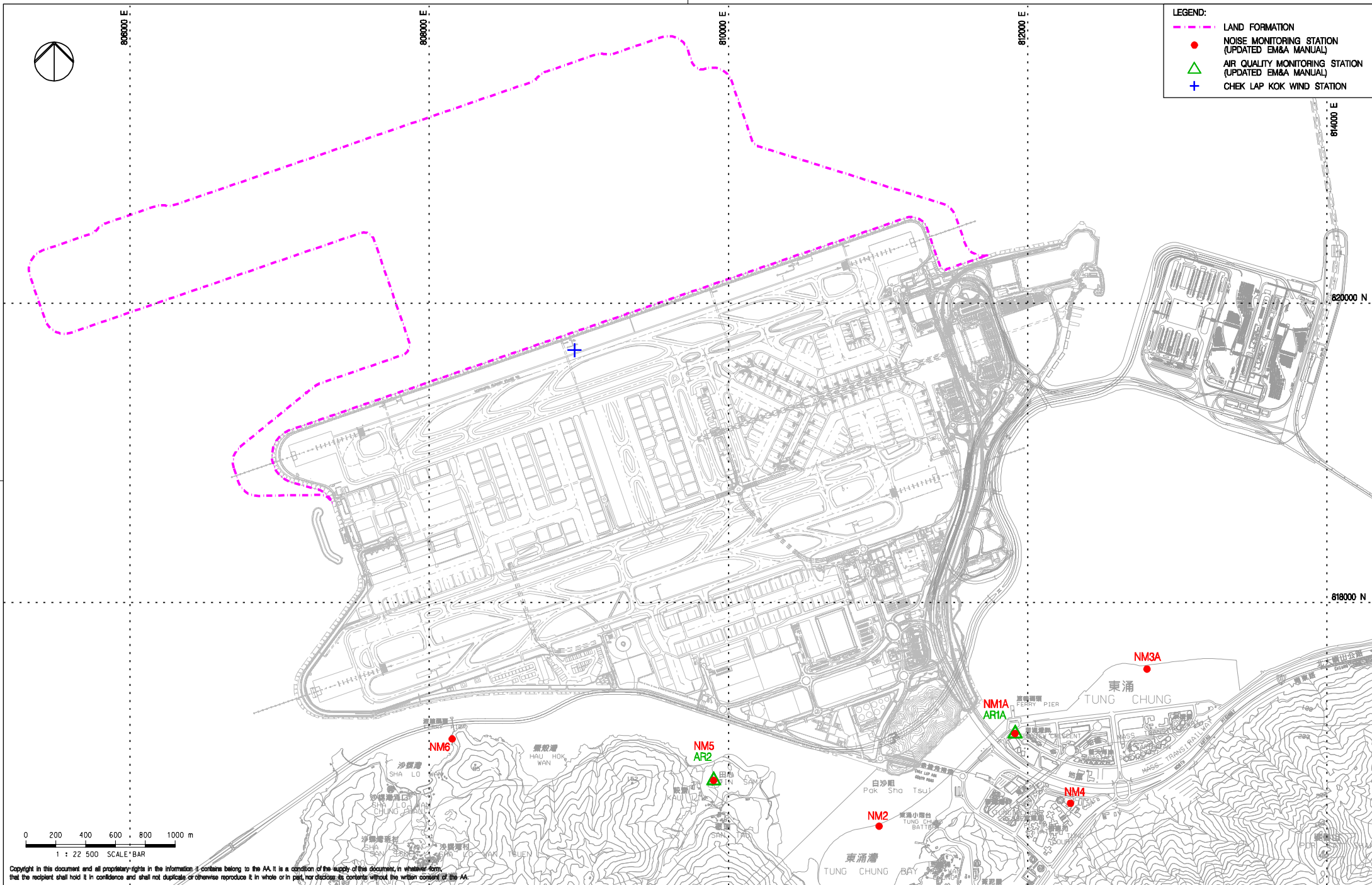
FIGURE 1.1 LOCATIONS OF KEY CONSTRUCTION ACTIVITIES

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





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



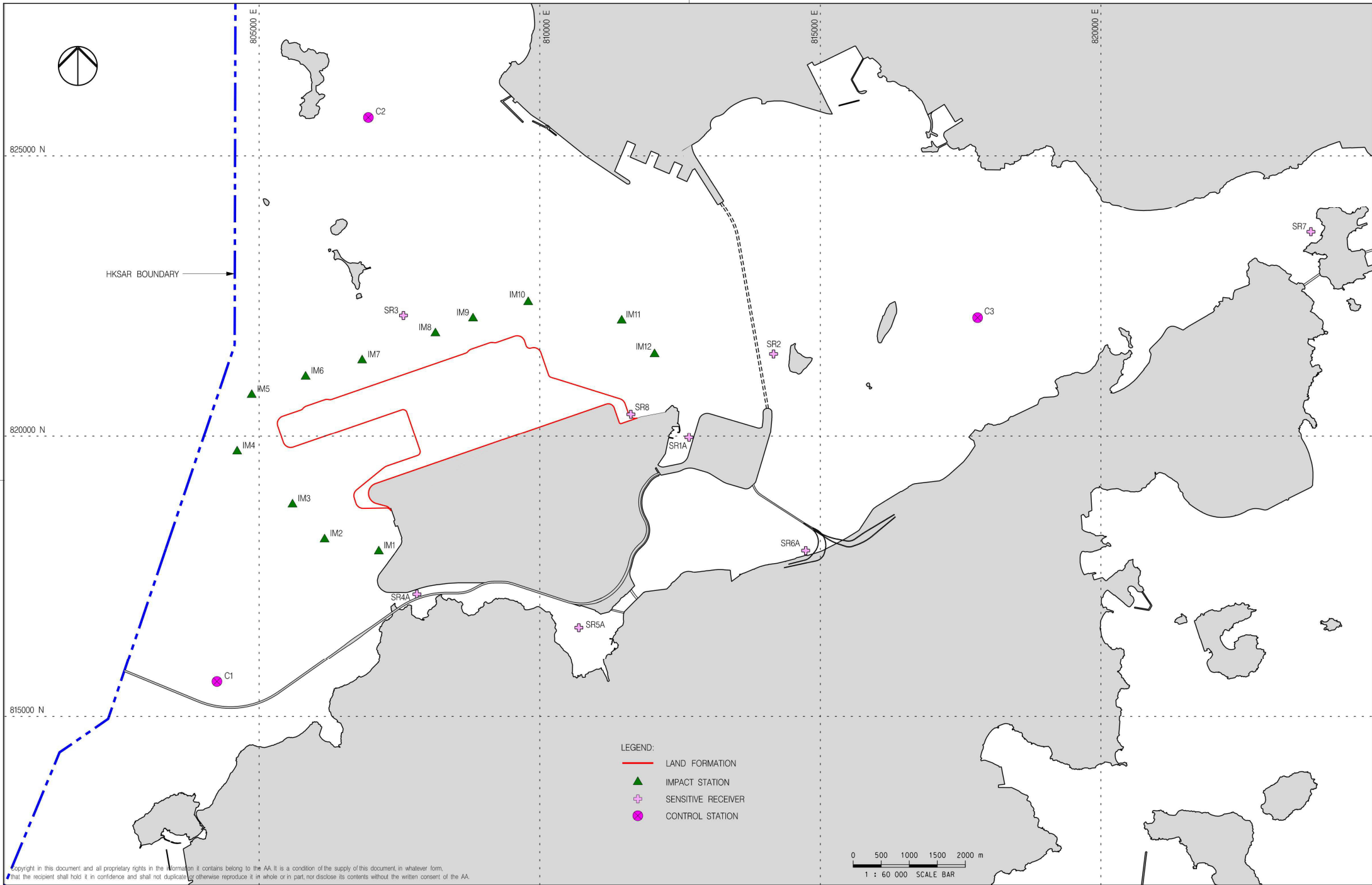
HONG KONG
INTERNATIONAL
AIRPORT
Airport Authority 香港國際機場管理局
1994-2018



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

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

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



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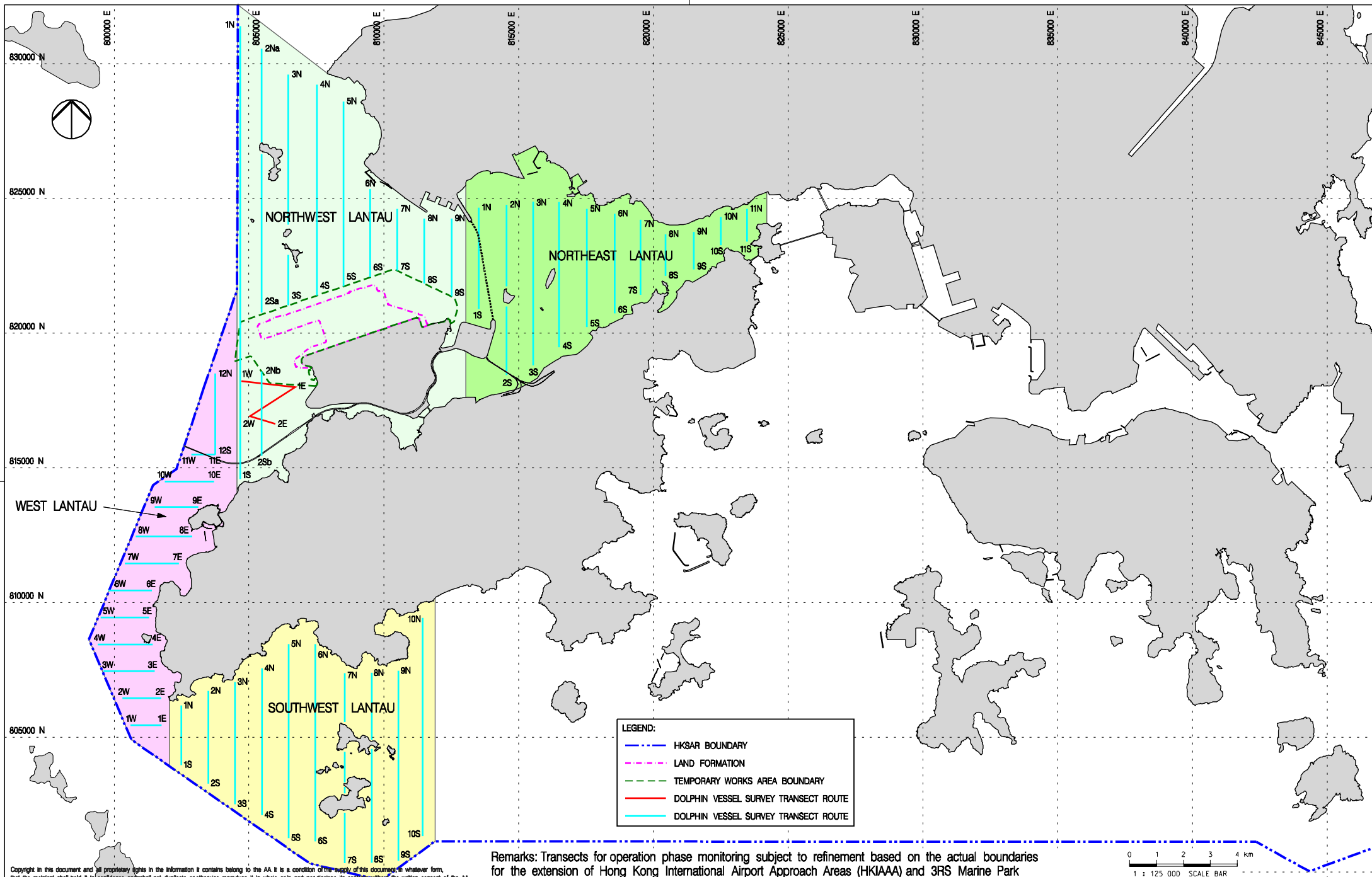
Rev.	Date	Description	Checked
A	21AUG19	FIRST ISSUE	VL



Title
WATER QUALITY MONITORING STATIONS

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

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



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Remarks: Transects for operation phase monitoring subject to refinement based on the actual boundaries for the extension of Hong Kong International Airport Approach Areas (HKIAAA) and 3RS Marine Park

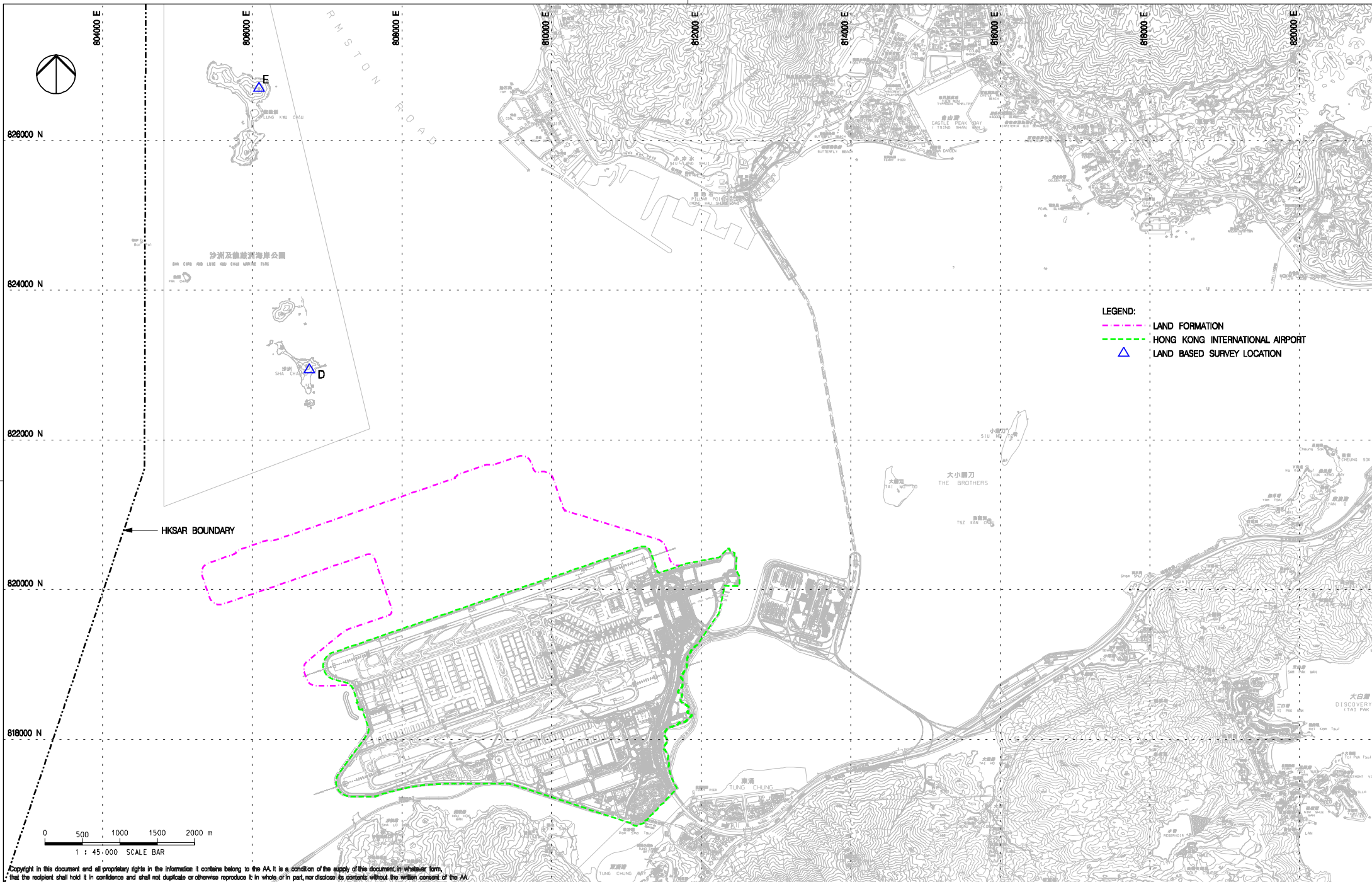
Rev.	Date	Description	Checked
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C	06FEB17	GENERAL REVISION	JT
D	01MAR17	GENERAL REVISION	JT
E	29OCT18	GENERAL REVISION	SH
F	04APR19	GENERAL REVISION	SH



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

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

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM		Scale at A3 1 : 125000
Drawing No.	FIGURE 6.1	Rev. F



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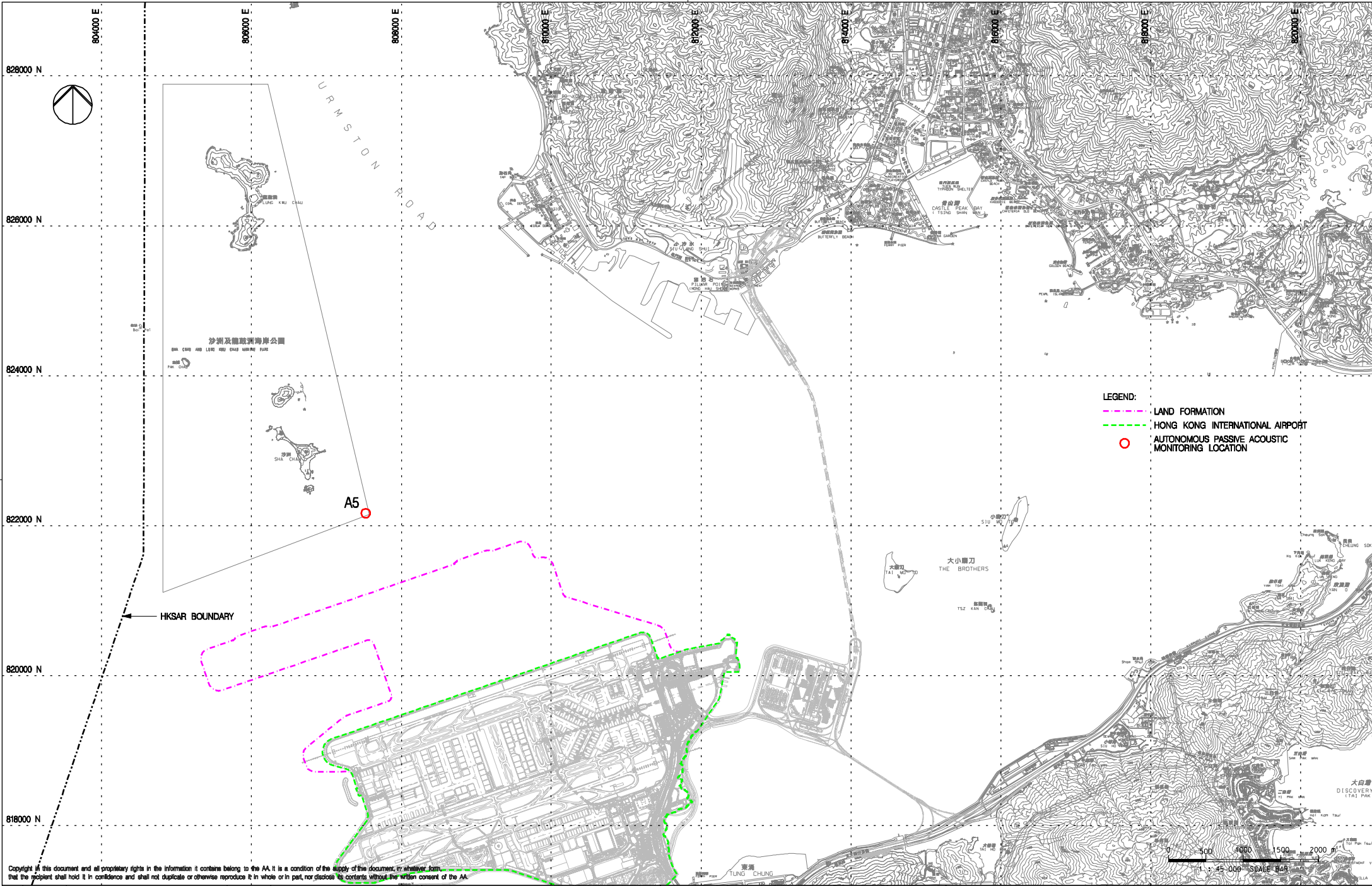
Rev.	Date	Description	Checked
A	02DEC15	FIRST ISSUE	JC
B	06FEB17	GENERAL REVISION	JC
C	29OCT18	GENERAL REVISION	SH



Title
LAND BASED DOLPHIN MONITORING
IN BASELINE AND CONSTRUCTION PHASES

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

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



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A	29AUG17	FIRST ISSUE	JT
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C	29OCT18	GENERAL REVISION	SH



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. Contract Description

Contract Description

Contract No.	Contract Title	Contractor	Key Construction Activities
3206	Reclamation Contract	Zhen Hua Engineering Company Ltd.-China Communications Construction Company Ltd.-CCCC Dredging (Group) Company Ltd. Joint Venture	The works covered by the Contract 3206 comprise the formation of approximately 650 hectares of land north of the existing airport island for the project, the major construction activities including without limitation the following • Geotechnical and ground improvement works; • Seawall construction; • Marine and land filling works; and • Civil works.
3301	North Runway Crossover Taxiway	Fujita Corporation-China Harbour Engineering Company Ltd.-Zhen Hua Engineering Company Ltd. Joint Venture	The works covered by the Contract 3301 comprise the construction of a new dual taxiway across the existing north runway and utility services and cable ducting systems. The major construction activities include without limitation the following: • Construction of a new dual taxiway; • Cable ducting works; • Extension of existing portable water supply system; and • All associated works.
3302	Eastern Vehicular Tunnel Advance Works	China Road and Bridge Corporation	The works covered by the Contract 3302 comprise the design and construction of the first section of the new Eastern Vehicular Tunnel and a Road Tunnel Plant Building. The major construction activities include without limitation the following: • Foundation and structural works; • Cast-in / Underground electrical & mechanical works and utility services; and • All associated testing and commissioning works.
3303	Third Runway and Associated Works	Sinohydro Corporation Limited, Powerchina Airport Construction Company Limited, Paul Y. Construction Company Limited, and Rock-One	The works covered by the Contract 3303 comprise all elements of permanent works and temporary works required for the completion, commissioning and operation of the new North Runway and existing South Runway following the closure of the existing North Runway. The major construction activities include without limitation the following: • New runway, taxiways, and associated works;

Contract No.	Contract Title	Contractor	Key Construction Activities
		Engineering Company Limited Joint Venture	• Infrastructure works; • Construction of ancillary buildings and facilities; • Set up of various airport systems; and • All associated testing and commissioning works.
3307	Fire Training Facility	Paul Y. Construction Company Limited	The works covered by the Contract 3307 comprise the construction of a Fire Training Facility on the new reclamation area to replace the existing facility at the Airport Island. The major construction activities include without limitation the following: • Building services works; • Civil works; and • All associated testing and temporary works.
3402	New Integrated Airport Centers Enabling Works	Wing Hing Construction Co., Ltd.	The works covered by the Contract 3402 comprise the enabling works for the new Integrated Airport Centers. The major construction activities include without limitation the following: • Site clearance and demolition; • Building services works; • Utilities diversion and installation works; • Roadworks including associated facilities; and • All associated testing and commissioning works.
3403	New Integrated Airport Centres – Building and Civil Works	Sun Fook Kong Construction Limited	The works covered by the Contract 3403 comprise the construction of a new Integrated Airport Centre (IAC) and a number of ancillary facilities and Additions and Alteration (A&A) works for converting the existing IAC into a back-up IAC, including without limitation the following: • Site clearance and demolition; • Building structure and envelope; • Building Services and Airport Systems; and • Utilities division and installations.

Contract No.	Contract Title	Contractor	Key Construction Activities
3405	Third Runway Concourse Foundation and Substructure Works	China Road and Bridge Corporation - Bachy Soletanche Group Limited - LT Sambo Co., Ltd. Joint Venture	The works covered by the Contract 3405 comprise without limitation the following: • Piled foundation works; • Basement and tunnel structure works; • Associated internal reinforced concrete structures; • Backfilling and compaction of works area; and • Associated testing and temporary works.
3408	Third Runway Concourse and Apron Works	Beijing Urban Construction Group Company Limited and Chevalier (Construction) Company Limited Joint Venture	The works covered by the Contract 3408 comprise the design and construction of the Third Runway Concourse (TRC), the TRC Apron, two cross-field taxiways, Ancillary Buildings, specific section of the Eastern Vehicular Tunnel (EVT), and the associated infrastructure, testing, and commissioning works.
3503	Terminal 2 Foundation and Substructure Works	Leighton - Chun Wo Joint Venture	The works covered by the Contract 3503 comprise the foundations for the new T2 terminal, two annex buildings and associated viaducts, construction of the new T2 basement and south annex building structures, diaphragm walls, utility services and other advance works. The major construction activities include without limitation the following: • Re-configuration and demolition of existing utilities and structures; • Pile foundations for the expanded T2 Terminal Building, South Annex Building, and North Annex Building; • Construction of new South Annex Building; • Diversion and provisions of utilities; and • All associated testing and commissioning works.
3508	Terminal 2 Expansion Works	Gammon Engineering and Construction Co., Ltd	The works covered by the Contract 3508 comprise the construction of T2, North Annex Building (NAB) and South Annex Building (SAB) with interconnecting bridges, landside transport infrastructure including viaducts and at grade roads, underground utility services, one sewage pumping station with the associated electrical building, footbridges, external works and modification works to existing facilities. The major construction activities include without limitation the following:

Contract No.	Contract Title	Contractor	Key Construction Activities
			• Superstructure, interior landscaping, building services and airport system of T2, NAB, SAB and associated footbridges; • Additions and Alteration (A&A) works of the existing Airport World Trade Centre (AWTC); • Modification of the existing APM and BHS tunnels; • External works and road networks around T2; and • Utilities.
3601	New Automated People Mover System (TRC Line)	CRRC Puzhen Bombardier Transportation Systems Limited and CRRC Nanjing Puzhen Co., Ltd. Joint Venture	The works covered by the Contract 3601 comprise the initial phase of the Automated People Mover (APM) system connecting the Third Runway Concourse (TRC) and the APM Interchange Station in the modified T2, and extension of the new APM system into the new APM Depot east of T2. The major construction activities include without limitation the following: • New 3-guideway APM system between TRC and T2; • Extension of the TRC Line into the new APM Depot; • APM associated sub-systems (communications, signalling, etc.) • Associated civil works; and • All associated testing, commissioning works.
3602	Existing APM System Modification Works	Niigata Transys Co., Ltd.	The works covered by the Contract 3602 comprise the detailed design, supply, manufacture, fabrication, implementation, testing and commissioning of the following modification works of the existing APM systems: • Modification of existing APM depot and APM cars; • Modification of existing T1 & T2 tunnels; and • Preparation of new APM depot.
3603	3RS Baggage Handling System	Vanderlande Industries Hong Kong Limited and Shun Hing Systems Integration Company Limited	The works covered by the Contract 3603 comprise the design, supply, manufacture, delivery, installation, testing and commissioning of the high-speed baggage handling system.
3721	Construction Support Infrastructure Works	China State Construction Engineering (Hong Kong) Limited	The works covered by the Contract 3721 comprise the construction of the infrastructure works and building facilities on the reclaimed land formation. The major construction activities include without limitation the following: • Project site road;

Contract No.	Contract Title	Contractor	Key Construction Activities
			• Utilities; • Cargo loading quays; and • Security fencing and hoarding.
3722	Western Support Area – Construction Support Facilities	Tapbo Construction Company Limited and Konwo Modular House Limited Joint Venture	The works covered by the Contract 3722 comprise the design and construction of support facilities, including site office, Canteen, Safety Induction Centre and Medical Centre, Material Testing Laboratories and Typhoon Shelter, Vehicle Maintenance Facility and Fuel Storage Facility. The major construction activities include without limitation the following: • Construction of support facilities; • Foundation and structural works; and • Building services works.
3723	Eastern Support Area – Construction Support Facilities	Tapbo Construction Company Limited and Konwo Modular House Ltd. Joint Venture	The works covered by the Contract 3723 comprise the design and construction of support facilities, including site office, sewage treatment facility, canteen, and centralised power supply building. The major construction activities include without limitation the following: • Construction of support facilities; • Foundation, structural and superstructure works; • Sewage pipe network and connection works; and • Building services works.
3728	Minor Site Works	Shun Yuen Construction Company Limited	The works to be executed by the Contract 3728 comprise minor works within the Airside and Landside areas of the existing airport island to support the Project.
3801	APM and BHS Tunnels on Existing Airport Island	China State Construction Engineering (Hong Kong) Limited	The works covered by the Contract 3801 comprise the construction of the APM and Baggage Handling System (BHS) tunnels on existing airport island. The major construction activities include without limitation the following: • Construction of APM and BHS tunnels; • Construction of ventilation building and associated infrastructure; and • Construction, testing and commissioning of sewerage pumping station; and • Civil and structural engineering works.
3802	APM and BHS Tunnels and Related Works	Gammon Construction Limited	The works covered by the Contract 3802 comprise the construction of the APM and BHS tunnels on existing airport island. The major construction activities include without limitation the following:

Contract No.	Contract Title	Contractor	Key Construction Activities
			• Construction of APM/ BHS Tunnels; • Construction of ancillary buildings/ facilities; • Building services and airport systems; • Infrastructure Works; • Underground utilities and services; and • All associated testing and commissioning works.
3901A	Concrete Batching Facility	K. Wah Concrete Company Limited	The works covered by the Contract 3901A comprise the establishment, operation and maintenance of a concrete batching facility at the Project Site and the supply of concrete products. The major construction activities include without limitation the following: • Supply of all equipment for the installation of the Facility to the Site; and • Supply of all raw materials required for the production of ready mixed concrete products and the continual operation of the Facility.
3901B	Concrete Batching Facility	Gammon Construction Limited	The works covered by the Contract 3901B comprise the establishment, operation and maintenance of a concrete batching facility at the Project Site and the supply of concrete products. The major construction activities include without limitation the following: • Supply of all equipment for the installation of the Facility to the Site; and • Supply of all raw materials required for the production of ready mixed concrete products and the continual operation of the Facility.

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

Environmental Mitigation Implementation Schedule (EMIS) for Construction Phase

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
Air Quality Impact – Construction Phase					
5.2.6.2	2.1	-	Dust Control Measures Water spraying for 12 times a day or once every two hours for 24-hour working at all active works area.	Within construction site / Duration of the construction phase	I
5.2.6.3	2.1	-	Covering of at least 80% of the stockpiling area by impervious sheets. Water spraying of all dusty materials immediately prior to any loading transfer operation so as to keep the dusty material wet during material handling.	Within construction site / Duration of the construction phase	I
5.2.6.4	2.1	-	Dust control practices as stipulated in the Air Pollution Control (Construction Dust) Regulation should be adopted. These practices include: Good Site Management Good site management is important to help reducing potential air quality impact down to an acceptable level. As a general guide, the Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning.	Within construction site / Duration of the construction phase	I
			Disturbed Parts of the Roads - Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or - Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet.	Within construction site / Duration of the construction phase	I
			Exposed Earth Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies.	Within construction site / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Loading, Unloading or Transfer of Dusty Materials All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet.	Within construction site / Duration of the construction phase	I
			Debris Handling - Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides; and - Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped.	Within construction site / Duration of the construction phase	I
			Transport of Dusty Materials Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards.	Within construction site / Duration of the construction phase	I
			Wheel washing Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels.	Within construction site / Duration of the construction phase	I
			Use of vehicles - The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site; - Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels; and - Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.	Within construction site / Duration of the construction phase	I
			Site hoarding Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.	Within construction site / Duration of the construction phase	I
5.2.6.5	2.1	-	Best Practices for Concrete Batching Plant The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2 as well as in the future Specified Process licence should be adopted. The best practices are recommended to be applied to both the land based and floating concrete batching plants. Best practices include: Cement and other dusty materials	Within Concrete Batching Plant / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			- The loading, unloading, handling, transfer or storage of cement, pulverised fuel ash (PFA) and/or other equally dusty materials shall be carried in a totally enclosed system acceptable to EPD. All dust-laden air or waste gas generated by the process operations shall be properly extracted and vented to fabric filtering system to meet the required emission limit; - Cement, PFA and/or other equally dusty materials shall be stored in storage silo fitted with audible high level alarms to warn of over-filling. The high-level alarm indicators shall be interlocked with the material filling line such that in the event of the silo approaching an overfilling condition, an audible alarm will operate, and after 1 minute or less the material filling line will be closed; - Vents of all silos shall be fitted with fabric filtering system to meet the required emission limit; - Vents of cement/PFA weighing scale shall be fitted with fabric filtering system to meet the required emission limit; and - Seating of pressure relief valves of all silos shall be checked, and the valves re-seated if necessary, before each delivery.		
			Other raw materials - The loading, unloading, handling, transfer or storage of other raw materials which may generate airborne dust emissions such as crushed rock, sand, stone aggregate, shall be carried out in such a manner to prevent or minimize dust emissions; - The materials shall be adequately wetted prior to and during the loading, unloading and handling operations. Manual or automatic water spraying system shall be provided at all unloading areas, stock piles and material discharge points; - All receiving hoppers for unloading relevant materials shall be enclosed on three sides up to 3 m above the unloading point. In no case shall these hoppers be used as the material storage devices; - The belt conveyor for handling materials shall be enclosed on top and two sides with a metal board at the bottom to eliminate any dust emission due to wind-whipping effect. Other type of enclosure will also be accepted by EPD if it can be demonstrated that the proposed enclosure can achieve same performance; - All conveyor transfer points shall be totally enclosed. Openings for the passage of conveyors shall be fitted with adequate flexible seals; - Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface; - Conveyors discharged to stockpiles of relevant materials shall be arranged to minimize free fall as far as practicable. All free falling transfer points from conveyors to stockpiles shall be enclosed with chute(s) and water sprayed; - Aggregates with a nominal size less than or equal to 5 mm should be stored in totally enclosed structure such as storage bin and should not be handled in open area. Where there is sufficient buffer area surrounding the concrete batching plant, ground stockpiling may be used;	Within Concrete Batching Plant / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			- The stockpile shall be enclosed at least on top and three sides and with flexible curtain to cover the entrance side; - Aggregates with a nominal size greater than 5 mm should preferably be stored in a totally enclosed structure. If open stockpiling is used, the stockpile shall be enclosed on three sides with the enclosure wall sufficiently higher than the top of the stockpile to prevent wind whipping; and - The opening between the storage bin and weighing scale of the materials shall be fully enclosed.		
			Loading of materials for batching - Concrete truck shall be loaded in such a way as to minimise airborne dust emissions. The following control measures shall be implemented: - 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 - If truck mixing batching or other types of batching method is used, effective dust control measures acceptable to EPD shall be adopted. The dust control measures must have been demonstrated to EPD that they are capable to collect and vent all dust-laden air generated by the material loading/mixing to dust arrestment plant to meet the required emission limit. - The loading bay shall be totally enclosed during the loading process.	Within Concrete Batching Plant / Duration of the construction phase	I
			Vehicles - All practicable measures shall be taken to prevent or minimize the dust emission caused by vehicle movement; and - All access and route roads within the premises shall be paved and adequately wetted.	Within Concrete Batching Plant / Duration of the construction phase	I
			Housekeeping A high standard of housekeeping shall be maintained. All spillages or deposits of materials on ground, support structures or roofs shall be cleaned up promptly by a cleaning method acceptable to EPD. Any dumping of materials at open area shall be prohibited.	Within Concrete Batching Plant / Duration of the construction phase	I
5.2.6.6	2.1	-	Best Practices for Asphaltic Concrete Plant The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Tar and Bitumen Works (Asphaltic Concrete Plant) BPM 15 (94) as well as in the future Specified Process licence should be adopted. These include: Design of Chimney - The chimney shall not be less than 3 metres plus the building height or 8 metres above ground level, whichever is the greater; - The efflux velocity of gases from the main chimney shall not be less than 12 m/s at full load condition;	Within Concrete Batching Plant / Duration of the construction phase	N/A

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			- The flue gas exit temperature shall not be less than the acid dew point; and - Release of the chimney shall be directed vertically upwards and not be restricted or deflected.		
			Cold feed side - The aggregates with a nominal size less than or equal to 5 mm shall be stored in totally enclosed structure such as storage bin and shall not be handled in open area; - Where there is sufficient buffer area surrounding the plant, ground stockpiling may be used. The stockpile shall be enclosed at least on top and three sides and with flexible curtain to cover the entrance side. If these aggregates are stored above the feeding hopper, they shall be enclosed at least on top and three sides and be wetted on the surface to prevent wind-whipping; - The aggregates with a nominal size greater than 5 mm should preferably be stored in totally enclosed structure. Aggregates stockpile that is above the feeding hopper shall be enclosed at least on top and three sides. If open stockpiling is used, the stockpiles shall be enclosed on three sides with the enclosure wall sufficiently higher than the top of the stockpile to prevent wind whipping; - Belt conveyors shall be enclosed on top and two sides and provided with a metal board at the bottom to eliminate any dust emission due to the wind-whipping effect. Other type of enclosure will also be accepted by EPD if it can be demonstrated that the proposed enclosure can be achieve the same performance; - Scrapers shall be provided at the turning points of all belt conveyors inside the chute of the transfer points to remove dust adhered to the belt surface; - All conveyor transfer points shall be totally enclosed. Openings for the passages of conveyors shall be fitted with adequate flexible seals; and - All materials returned from dust collection system shall be transferred in enclosed system and shall be stored inside bins or enclosures.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			Hot feed side - The inlet and outlet of the rotary dryer shall be enclosed and ducted to a dust extraction and collection system such as a fabric filter. The particulate and gaseous concentration at the exhaust outlet of the dust collector shall not exceed the required limiting values; - The bucket elevator shall be totally enclosed and the air be extracted and ducted to a dust collection system to meet the required particulates limiting value; - All vibratory screens shall be totally enclosed and dust tight with close-fitted access inspection opening. Gaskets shall be installed to seal off any cracks and edges of any inspection openings; - Chutes for carrying hot material shall be rigid and preferably fitted with abrasion resistant plate inside. They shall be inspected daily for leakages;	Within Concrete Batching Plant / Duration of the construction phase	N/A

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			- All hot bins shall be totally enclosed and dust tight with close-fitted access inspection opening. Gaskets shall be installed to seal off any cracks and edges of any inspection openings. The air shall be extracted and ducted to a dust collection system to meet the required particulates limiting value; and - Appropriate control measures shall be adopted in order to meet the required bitumen emission limit as well as the ambient odour level (2 odour units).		
			Material transportation - The loading, unloading, handling, transfer or storage of other raw materials which may generate airborne dust emissions such as crushed rocks, sands, stone aggregates, reject fines, shall be carried out in such a manner as to minimize dust emissions; - Roadways from the entrance of the plant to the product loading points and/or any other working areas where there are regular movements of vehicles shall be paved or hard surfaced; and - Haul roads inside the Works shall be adequately wetted with water and/or chemical suppressants by water trucks or water sprayers.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			Control of emissions from bitumen decanting - The heating temperature of the particular bitumen type and grade shall not exceed the corresponding temperature limit of the same type listed in Appendix 1 of the Guidance Note; - Tamper-free high temperature cut-off device shall be provided to shut off the fuel supply or electricity in case the upper limit for bitumen temperature is reached; - Proper chimney for the discharge of bitumen fumes shall be provided at high level; - The emission of bitumen fumes shall not exceed the required emission limit; and The air-to-fuel ratio shall be properly controlled to allow complete combustion of the fuel. The fuel burners, if any, shall be maintained properly and free from carbon deposits in the burner nozzles.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			Liquid fuel The receipt, handling and storage of liquid fuel shall be carried out so as to prevent the release of emissions of organic vapours and/or other noxious and offensive emissions to the air.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			Housekeeping A high standard of housekeeping shall be maintained. Waste material, spillage and scattered piles gathered beneath belt conveyors, inside and around enclosures shall be cleared frequently. The minimum clearing frequency is on a weekly basis.	Within Concrete Batching Plant / Duration of the construction phase	N/A
5.2.6.7	2.1	-	Best Practices for Rock Crushing Plants The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Mineral Works (Stone Crushing Plant) BPM 11/1 (95) as well as in the future Specified Process licence should be adopted. These include:	Within Concrete Batching Plant / Duration of the construction phase	N/A

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Crushers ▪ The outlet of all primary crushers, and both inlet and outlet of all secondary and tertiary crushers, if not installed inside a reasonably dust tight housing, shall be enclosed and ducted to a dust extraction and collection system such as a fabric filter; ▪ The inlet hopper of the primary crushers shall be enclosed on top and 3 sides to contain the emissions during dumping of rocks from trucks. The rock while still on the trucks shall be wetted before dumping; ▪ Water sprayers shall be installed and operated in strategic locations at the feeding inlet of crushers; and ▪ Crusher enclosures shall be rigid and be fitted with self-closing doors and close-fitting entrances and exits. Where conveyors pass through the crusher enclosures, flexible covers shall be installed at entries and exits of the conveyors to the enclosure.		
			Vibratory screens and grizzlies ▪ All vibratory screens shall be totally enclosed in a housing. Screenhouses shall be rigid and reasonably dust tight with self-closing doors or close-fitted entrances and exits for access. Where conveyors pass through the screenhouse, flexible covers shall be installed at entries and exits of the conveyors to the housing. Where containment of dust within the screenhouse structure is not successful then a dust extraction and collection system shall be provided; and ▪ All grizzlies shall be enclosed on top and 3 sides and sufficient water sprayers shall be installed at their feeding and outlet areas.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			Belt conveyors ▪ Except for those conveyors which are placed within a totally enclosed structure such as a screenhouse or those erected at the ground level, all conveyors shall be totally enclosed with windshield on top and 2 sides; ▪ Effective belt scraper such as the pre-cleaner blades made by hard wearing materials and provided with pneumatic tensioner, or equivalent device, shall be installed at the head pulley of designated conveyor as required to dislodge fine dust particles that may adhere to the belt surface and to reduce carry-back of fine materials on the return belt. Bottom plates shall also be provided for the conveyor unless it has been demonstrated that the corresponding belt scraper is effective and well maintained to prevent falling material from the return belt; and ▪ Except for those transfer points which are placed within a totally enclosed structure such as a screenhouse, all transfer points to and from conveyors shall be enclosed. Where containment of dust within the enclosure is not successful, then water sprayers shall be provided. Openings for any enclosed structure for the passage of conveyors shall be fitted with flexible seals.	Within Concrete Batching Plant / Duration of the construction phase	N/A

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Storage piles and bins - Where practicable, free falling transfer points from conveyors to stockpiles shall be fitted with flexible curtains or be enclosed with chutes designed to minimize the drop height. Water sprays shall also be used where required. - The surface of all surge piles and stockpiles of blasted rocks or aggregates shall be kept sufficiently wet by water spraying wherever practicable; - All open stockpiles for aggregates of size in excess of 5 mm shall be kept sufficiently wet by water spraying where practicable; or - The stockpiles of aggregates 5 mm in size or less shall be enclosed on 3 sides or suitably located to minimize wind-whipping. Save for fluctuations in stock or production, the average stockpile shall stay within the enclosure walls and in no case the height of the stockpile shall exceed twice the height of the enclosure walls. - Scattered piles gathered beneath belt conveyors, inside and around enclosures shall be cleared regularly.	Within Concrete Batching Plant / Duration of the construction phase	N/A
			Rock drilling equipment Appropriate dust control equipment such as a dust extraction and collection system shall be used during rock drilling activities.	Within Concrete Batching Plant / Duration of the construction phase	N/A
Hazard to Human Life – Construction Phase					
Table 6.40	3.2	-	Precautionary measures should be established to request barges to move away during typhoons.	Construction Site / Construction Period	I
Table 6.40	3.2	-	An appropriate marine traffic management system should be established to minimize risk of ship collision.	Construction Site / Construction Period	I
Table 6.40	3.2	-	Location of all existing hydrant networks should be clearly identified prior to any construction works.	Construction Site / Construction Period	I
Noise Impact – Construction Phase					
7.5.6	4.3	-	Good Site Practice Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction: - only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works; - machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum;	Within the Project site / During construction phase / Prior to commencement of operation	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			▪ plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs; ▪ mobile plant should be sited as far away from NSRs as possible; and ▪ material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities.		
7.5.6	4.3	-	Adoption of QPME ▪ QPME should be adopted as far as applicable.	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	Use of Movable Noise Barriers ▪ Movable noise barriers should be placed along the active works area and mobile plants to block the direct line of sight between PME and the NSRs.	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	Use of Noise Enclosure/ Acoustic Shed ▪ Noise enclosure or acoustic shed should be used to cover stationary PME such as air compressor and generator.	Within the Project site / During construction phase / Prior to commencement of operation	I
Water Quality Impact – Construction Phase					

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
8.8.1.2 and 8.8.1.3	5.1	2.26	Marine Construction Activities <u>General Measures to be Applied to All Works Areas</u> ▪ Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation; ▪ Use of Lean Material Overboard (LMOB) systems shall be prohibited; ▪ Excess materials shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessels are moved; ▪ Plants should not be operated with leaking pipes and any pipe leakages shall be repaired quickly; ▪ Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action; ▪ All vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; ▪ The works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site; and ▪ For ground improvement activities including DCM, the wash water from cleaning of the drilling shaft should be appropriately treated before discharge. The Contractor should ensure the waste water meets the WPCO/TM requirements before discharge. No direct discharge of contaminated water is permitted.	Within construction site / Duration of the construction phase	I
			<u>Specific Measures to be Applied to All Works Areas</u> ▪ The daily maximum production rates shall not exceed those assumed in the water quality assessment in the EIA report; ▪ A maximum of 10 % fines content to be adopted for sand blanket and 20 % fines content for marine filling below +2.5 mPD prior to substantial completion of seawall (until end of Year 2017) shall be specified in the works contract document;	Within construction site / Duration of the construction phase	I
			▪ An advance seawall of at least 200m to be constructed (comprising either rows of contiguous permanent steel cells completed above high tide mark or partially completed seawalls with rock core to high tide mark and filter layer on the inner side) prior to commencement of marine filling activities;		I
			▪ Closed grab dredger shall be used to excavate marine sediment; ▪ Silt curtains surrounding the closed grab dredger shall be deployed in accordance with the Silt Curtain Deployment Plan; and		N/A *(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			▪ The Silt Curtain Deployment Plan shall be implemented.		I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<u>Specific Measures to be Applied to Land Formation Activities prior to Commencement of Marine Filling Works</u> Double layer 'Type III' silt curtains to be applied around the active eastern works areas prior to commencement of sand blanket laying activities. The silt curtains shall be configured to minimise SS release during ebb tides. A silt curtain efficiency test shall be conducted to validate the performance of the silt curtains;	Within construction site / Duration of the construction phase	N/A *(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			Double layer silt curtains to enclose WSRs C7a and silt screens installed at the intake points for both WSR C7a and C8 prior to commencement of construction; and		For C7a, I For C8, I *(The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)
			The silt curtains and silt screens should be regularly checked and maintained.		I
			<u>Specific Measures to be Applied to Land Formation Activities during Marine Filling Works</u> Double layer 'Type II' or 'Type III' silt curtains to be applied around the eastern openings between partially completed seawalls prior to commencement of marine filling activities. The silt curtains shall be configured to minimise SS release during ebb tides;	Within construction site / Duration of the construction phase	I *(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			Double layer silt curtains to be applied at the south-western opening prior to commencement of marine filling activities;		N/A *(The arrangement of silt curtain has been modified. The details can be referred to Silt Curtain Deployment Plan)
			Double layer silt curtain to enclose WSR C7a and silt screens installed at the intake points for both WSR C7a and C8 prior to commencement of marine filling activities; and		N/A *(The requirement of silt curtain / screen has been modified. The details can be referred to Silt Curtain Deployment Plan)
			The silt curtains and silt screens should be regularly checked and maintained.		I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<u>Specific Measures to be Applied to the Field Joint Excavation Works for the Submarine Cable Diversion</u> - Only closed grabs designed and maintained to avoid spillage shall be used and should seal tightly when operated. Excavated materials shall be disposed at designated marine disposal area in accordance with the Dumping at Sea Ordinance (DASO) permit conditions; and - Silt curtains surrounding the closed grab dredger to be deployed as a precautionary measure.	Within construction site / Duration of the construction phase	N/A
8.8.1.4	5.1	-	Modification of the Existing Seawall Silt curtains shall be deployed around the seawall modification activities to completely enclose the active works areas, and care should be taken to avoid splashing of rockfill / rock armour into the surrounding marine environment. For the connecting sections with the existing outfalls, works for these connection areas should be undertaken during the dry season in order that individual drainage culvert cells may be isolated for interconnection works.	At the existing northern seawall / Duration of the construction phase	N/A
8.8.1.5	5.1	-	Construction of New Stormwater Outfalls and Modifications to Existing Outfalls During operation of the temporary drainage channel, runoff control measures such as bunding or silt fence shall be provided on both sides of the channel to prevent accumulation and release of SS via the temporary channel. Measures should also be taken to minimise the ingress of site drainage into the culvert excavations.	Within construction site / Duration of the construction phase	N/A
8.8.1.6 8.8.1.7	5.1	2.27	Piling Activities for Construction of New Runway Approach Lights and HKIAAA Marker Beacons Silt curtains shall be deployed around the piling activities to completely enclose the piling works and care should be taken to avoid spillage of excavated materials into the surrounding marine environment. <u>For construction of the eastern approach lights at the CMPs</u> - Ground improvement via DCM using a close-spaced layout shall be completed prior to commencement of piling works; - Steel casings shall be installed to enclose the excavation area prior to commencement of excavation; - The excavated materials shall be removed using a closed grab within the steel casings; - No discharge of the cement mixed materials into the marine environment will be allowed; and - Excavated materials shall be treated and reused on-site.	Within construction site / Duration of the construction phase	I I
8.8.1.8	5.1	-	Construction of Site Runoff and Drainage The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended: Install perimeter cut-off drains to direct off-site water around the site and implement internal drainage, erosion and sedimentation control facilities. Channels, earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site	Within construction site / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			drainage system should be undertaken by the Contractors prior to the commencement of construction (for works areas located on the existing Airport island) or as soon as the new land is completed (for works areas located on the new landform); - Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM-DSS standards under the WPCO. The design of efficient silt removal facilities should make reference to the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the Contractors prior to the commencement of construction; - All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly; - Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities; - In the event that contaminated groundwater is identified at excavation areas, this should be treated on-site using a suitable wastewater treatment process. The effluent should be treated according to the requirements of the TM-DSS standards under the WPCO prior to discharge to foul sewers or collected for proper disposal off-site. No direct discharge of contaminated groundwater is permitted; and - All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exits. Wash-water should have sand and silt settled out and removed regularly to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. All washwater should be treated according to the requirements of the TM-DSS standards under the WPCO prior to discharge.		I
8.8.1.9	5.1	-	Sewage Effluent from Construction Workforce Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	Within construction site / During construction phase	I
8.8.1.10 8.8.1.11	5.1		General Construction Activities Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby storm water drain. Stockpiles of cement and other construction materials should be kept covered when not being used; and	Within construction site / During construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
8.8.1.12 8.8.1.13	5.1	2.28	▪ 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. Drilling Activities for the Submarine Aviation Fuel Pipelines To prevent potential water quality impacts at Sha Chau, the following measures shall be applied: ▪ A 'zero-discharge' policy shall be applied for all activities to be conducted at Sha Chau; ▪ No bulk storage of chemicals shall be permitted; and ▪ A containment pit shall be constructed around the drill holes. This containment pit shall be lined with impermeable lining and bunded on the outside to prevent inflow from off-site areas. At the airport island side of the drilling works, the following measures shall be applied for treatment of wastewater: ▪ During pipe cleaning, appropriate desilting or sedimentation device should be provided on site for treatment before discharge. The Contractor should ensure discharge water from the sedimentation tank meet the WPCO/TM requirements before discharge; and ▪ Drilling fluid used in drilling activities should be reconditioned and reused as far as possible. Temporary enclosed storage locations should be provided on-site for any unused chemicals that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries.	Within construction site / During construction phase	I
Waste Management Implication – Construction Phase					
10.5.1.1	7.1	-	Opportunities to minimise waste generation and maximise the reuse of waste materials generated by the project have been incorporated where possible into the planning, design and construction stages, and the following measures have been recommended: ▪ The relevant construction methods (particularly for the tunnel works) and construction programme have been carefully planned and developed to minimise the extent of excavation and to maximise the on-site reuse of inert C&D materials generated by the project as far as practicable. Temporary stockpiling areas will also be provided to facilitate on-site reuse of inert C&D materials; ▪ Priority should be given to collect and reuse suitable inert C&D materials generated from other concurrent projects and the Government's PFRF as fill materials for the proposed land formation works; ▪ Only non-dredged ground improvement methods should be adopted in order to completely avoid the need for dredging and disposal of marine sediment for the proposed land formation work; ▪ Excavation work for constructing the APM tunnels, BHS tunnels and airside tunnels will not be down to the CMPs beneath the fill materials in order to avoid excavating any sediments; and	Project Site Area / During design and construction phase	I
					I
					I
					I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			For the marine sediments expected to be excavated from the piling works of TRC, APM & BHS tunnels, airside tunnels and other facilities on the proposed land formation area, piling work of marine sections of the approach lights and HKIAAA beacons, basement works for some of T2 expansion area and excavation works for the proposed APM depot should be treated and reused on-site as backfilling materials, although required treatment level / detail and the specific re-use mode are under development.		I
10.5.1.1	7.1	-	The following good site practices should be performed during the construction activities include: - Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; - Training of site personnel in proper waste management and chemical waste handling procedures; - Provision of sufficient waste disposal points and regular collection for disposal; - Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks by tarpaulin/ similar material or by transporting wastes in enclosed containers. The cover should be extended over the edges of the sides and tailboards; - Stockpiles of C&D materials should be kept wet or covered by impervious sheets to avoid wind-blown dust; - All dusty materials including C&D materials should be sprayed with water immediately prior to any loading transfer operation so as to keep the dusty material wet during material handling at the barging points/ stockpile areas; - C&D materials to be delivered to and from the project site by barges or by trucks should be kept wet or covered to avoid wind-blown dust; - The speed of the trucks including dump trucks carrying C&D or waste materials within the site should be controlled to about 10 km/hour in order to reduce the adverse dust impact and secure the safe movement around the site; and - To avoid or minimise dust emission during transport of C&D or waste materials within the site, each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials. Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet.	Project Site Area / Construction Phase	I
10.5.1.3	7.1	-	The following practices should be performed to achieve waste reduction include: - Use of steel or aluminium formworks and falseworks for temporary works as far as practicable; - Adoption of repetitive design to allow reuse of formworks as far as practicable; - Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal;	Project Site Area / Construction Phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			- Encourage collection of aluminium cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force; - Any unused chemicals or those with remaining functional capacity should be collected for reused as far as practicable; - Proper storage and site practices to minimise the potential for damage or contamination of construction materials; and - Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.		
10.5.1.5	7.1		Inert and non-inert C&D materials should be handled and stored separately to avoid mixing the two types of materials.	Project Site Area / Construction Phase	I
10.5.1.5	7.1	-	Any recyclable materials should be segregated from the non-inert C&D materials for collection by reputable licensed recyclers whereas the non-recyclable waste materials should be disposed of at the designated landfill site by a reputable licensed waste collector.	Project Site Area / Construction Phase	I
10.5.1.6	7.1	-	A trip-ticket system promulgated shall be developed in order to monitor the off-site delivery of surplus inert C&D materials that could not be reused on-site for the proposed land formation work at the PFRF and to control fly tipping.	Project Site Area / Construction Phase	I
10.5.1.6	7.1	2.32	The Contractor should prepare and implement a Waste Management Plan detailing various waste arising and waste management practices.	Construction Phase	I
10.5.1.16	7.1	-	The following mitigation measures are recommended during excavation and treatment of the sediments: On-site remediation should be carried out in an enclosed area in order to minimise odour/dust emissions;	Project Site Area / Construction Phase	I
			The loading, unloading, handling, transfer or storage of treated and untreated sediment should be carried out in such a manner to prevent or minimise dust emissions;		I
			All practical measures, including but not limited to speed control for vehicles, should be taken to minimise dust emission;		I
			Good housekeeping should be maintained at all times at the sediment treatment facility and storage area;		I
			Treated and untreated sediment should be clearly separated and stored separately; and		I
			Surface runoff from the enclosed area should be properly collected and stored separately, and then properly treated to levels in compliance with the relevant effluent standards as required by the Water Pollution Control Ordinance before final discharge.		I
10.5.1.18	7.1	-	The marine sediments to be removed from the cable field joint area would be disposed of at the designated disposal sites to be allocated by the MFC. The following mitigation measures should be strictly	Project Site Area / Construction Phase	N/A

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			followed to minimise potential impacts on water quality during transportation of the sediments requiring Type 1 disposal: - Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material; - Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by EPD; and - Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation.		
10.5.1.19	7.1	-	Contractor should register with the EPD as a chemical waste producer and to follow the relevant guidelines. The following measures should be implemented: - Good quality containers compatible with the chemical wastes should be used; - Incompatible chemicals should be stored separately; - Appropriate labels must be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc.; and - The contractor will use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Project Site Area / Construction Phase	I
10.5.1.20	7.1	-	General refuse should be stored in enclosed bins or compaction units separated from inert C&D material. A reputable waste collector should be employed by the contractor to remove general refuse from the site for disposal at designated landfill sites. An enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.	Project Site Area / Construction Phase	I
10.5.1.21	7.1	-	The construction contractors will be required to regularly check and clean any refuse trapped or accumulated along the newly constructed seawall. Such refuse will then be stored and disposed of together with the general refuse.	Project Site Area / Construction Phase	I
Land Contamination – Construction Phase					
11.10.1.2 to 11.10.1.3	8.1	2.32	For areas inaccessible during site reconnaissance survey Further site reconnaissance would be conducted once the areas are accessible in order to identify any land contamination concern for the areas.	Project Site Area inaccessible during site reconnaissance / Prior to Construction Phase	I
			Subject to further site reconnaissance findings, a supplementary Contamination Assessment Plan (CAP) for additional site investigation (SI) (if necessary) may be prepared and submitted to EPD for endorsement prior to the commencement of SI at these areas.		I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			After completion of SI, the Contamination Assessment Report (CAR) will be prepared and submitted to EPD for approval prior to start of the proposed construction works at the golf course, the underground and above-ground fuel storage tank areas, emergency power generation units, airside petrol filling station and fuel tank room.		I *(CAR for golf course and Terminal 2 Emergency Power Supply System Nos.1, 2, 3, 4 and 5)
			Should remediation be required, Remediation Action Plan (RAP) and Remediation Report (RR) will be prepared for EPD's approval prior to commencement of the proposed remediation and any construction works respectively.		N/A
11.8.1.2	8.1	-	If contaminated soil is identified, the following mitigation measures are for the excavation and transportation of contaminated materials (if any): - To minimize the incidents of construction workers coming in contact with any contaminated materials, bulk earth-moving excavation equipment should be employed; - Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when working directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site; - Stockpiling of contaminated excavated materials on site should be avoided as far as possible; - The use of any contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out; - Vehicles containing any excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater; - Truck bodies and tailgates should be sealed to prevent any discharge; - Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping; - Speed control for trucks carrying contaminated materials should be exercised. 8km/h is the recommended speed limit; - Strictly observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap 354) and obtain all necessary permits where required; and - Maintain records of waste generation and disposal quantities and disposal arrangements.	Project Site Area / Construction Phase	N/A
Terrestrial Ecological – Construction Phase					
12.10.1.1	9.2	2.14	Pre-construction Egretty Survey Conduct ecological survey for Sha Chau egretty to update the latest boundary of the egretty.	Breeding season (April - July) prior to commencement of	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
				HDD drilling works at HKIA	
12.7.2.3 and 12.7.2.6	9.1	2.30	Avoidance and Minimisation of Direct Impact to Egret - The daylighting location will avoid direct encroachment to the Sheung Sha Chau egret. The daylighting location and mooring of flat top barge, if required, will be kept away from the egret; - In any event, controls such as demarcation of construction site boundary and confining the lighting within the site will be practised to minimise disturbance to off-site habitat at Sheung Sha Chau Island; and - The containment pit at the daylighting location shall be covered or camouflaged.	During construction phase at Sheung Sha Chau Island	I
12.7.2.5	9.1	2.30	Preservation of Nesting Vegetation The proposed daylighting location and the arrangement of connecting pipeline will avoid the need of tree cutting, therefore the trees that are used by ardeids for nesting will be preserved.	During construction phase at Sheung Sha Chau Island	I
12.7.2.4 and 12.7.2.6	9.1	2.30	Timing the Pipe Connection Works outside Ardeid's Breeding Season All HDD and related construction works on Sheung Sha Chau Island will be scheduled outside the ardeids' breeding season (between April and July). No night-time construction work will be allowed on Sheung Sha Chau Island during all seasons.	During construction phase at Sheung Sha Chau Island	I
12.10.1.1	9.3	-	Ecological Monitoring During the HDD construction works period from August to March, ecological monitoring will be undertaken monthly at the HDD daylighting location on Sheung Sha Chau Island to identify and evaluate any impacts with appropriate actions taken as required to address and minimise any adverse impact found.	at Sheung Sha Chau Island	I
Marine Ecological Impact – Pre-construction Phase					
13.11.4.1	10.2.2	-	Pre-construction phase Coral Dive Survey.	HKIAAA artificial seawall	I
Marine Ecological Impact – Construction Phase					
13.11.1.3 to 13.11.1.6	-	-	Minimisation of Land Formation Area Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for marine resources, especially the CWD population.	Land formation footprint / during detailed design phase to completion of construction	I
13.11.1.7 to 13.11.1.10	-	2.31	Use of Construction Methods with Minimal Risk/Disturbance Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF;	During construction phase at marine works area	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			Use of Deep Cement Mixing (DCM) method instead of conventional seabed dredging for the land formation works to reduce the risk of negative impacts through the elevation of suspended solids and contaminants on CWDs, fisheries and the marine environment;		I
			Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway;		I
			Avoid bored piling during CWD peak calving season (Mar to Jun);		I
			Prohibition of underwater percussive piling; and		I
			Use of horizontal directional drilling (HDD) method and water jetting methods for placement of submarine cables and pipelines to minimise the disturbance to the CWDs and other marine ecological resources.		I
13.11.2.1 to 13.11.2.7	-	-	Mitigation for Indirect Disturbance due to Deterioration of Water Quality Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices;	All works area during the construction phase	I
			Alternative construction methods including use of non-dredge methods for ground improvement (e.g. Deep Cement Mixing (DCM), prefabricated vertical drains (PVD), sand compaction piles, steel cells, stone columns and vertical sand drains);		I
			Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and		I
			Use of horizontal directional drilling (HDD) method and water jetting methods for placement of undersea cables and pipelines to minimise the disturbance to the CWDs and other marine ecological resources.		I
13.11.1.12	-	-	Strict Enforcement of No-Dumping Policy - A policy prohibiting dumping of wastes, chemicals, oil, trash, plastic, or any other substance that would potentially be harmful to dolphins and/or their habitat in the work area; - Mandatory educational programme of the no-dumping policy be made available to all construction site personnel for all project-related works; - Fines for infractions should be implemented; and - Unscheduled, on-site audits shall be implemented.	All works area during the construction phase	I
13.11.1.13	-	-	Good Construction Site Practices - Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines; - Keep the number of working or stationary vessels present on-site to the minimum anytime; and - Unscheduled, on-site audits for all good site practice restrictions should be conducted, and fines or penalties sufficient to be an effective deterrent need to be levied against violators.	All works area during the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
13.11.1.3 to 13.11.1.6	-	-	Minimisation of Land Formation Area Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for marine resources, especially the CWD population.	Land formation footprint / during detailed design phase to completion of construction	I
13.11.5.4 to 13.11.5.13	10.3.1	-	SkyPier High Speed Ferries' Speed Restrictions and Route Diversions - SkyPier HSFs operating to / from Zhuhai and Macau would divert north of SCLKC Marine Park with a 15 knot speed limit to apply for the part-journeys that cross high CWD abundance grid squares as indicatively shown in Drawing No. MCL/P132/EIA/13-023 of the EIA Report. Both the alignment of the northerly route and the portion of routings to be subject to the speed limit of 15 knots shall be finalised prior to commencement of construction based on the future review of up-to-date CWD abundance and EM&A data and taking reference to changes in total SkyPier HSF numbers; and - A maximum of 10 knots will be enforced through the designated SCLKC Marine Park area at all times.	Area between the footprint and SCLKC Marine Park during construction phase	I
			Other mitigation measures - The ET will audit various parameters including actual daily numbers of HSFs, compliance with the 15-knot speed limit in the speed control zone and diversion compliance for SkyPier HSFs operating to / from Zhuhai and Macau; and - The effectiveness of the CWD mitigation measures after implementation of initial six month SkyPier HSF diversion and speed restriction will be reviewed.	Area between the footprint and SCLKC Marine Park during construction phase	I
13.11.5.14 to 13.11.5.18	10.3.1	2.31	Dolphin Exclusion Zone Establishment of a 24 hr Dolphin Exclusion Zone (DEZ) with a 250 m radius around the land formation works areas;	Marine waters around land formation works area during construction phase	I
			A DEZ would also be implemented during ground improvement works (e.g. DCM), water jetting works for submarine cables diversion, open trench dredging at the field joint locations and seawall construction; and		I
			A DEZ would also be implemented during bored piling work but as a precautionary measure only.		I
13.11.5.19	10.4	2.31	Acoustic Decoupling of Construction Equipment - Air compressors and other noisy equipment that must be mounted on steel barges should be acoustically-decoupled to the greatest extent feasible, for instance by using rubber or air-filled tyres; and - Specific acoustic decoupling measures shall be specified during the detailed design of the project for use during the land formation works.	Around coastal works area during construction phase	I
13.11.5.20	10.6.1	2.29	Spill Response Plan	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?^
			An oil and hazardous chemical spill response plan is proposed to be established during the construction phase as a precautionary measure so that appropriate actions to prevent or reduce risks to CWDs can be undertaken in the event of an accidental spillage.		
13.11.5.21 to 13.11.5.23	10.6.1	-	Construction Vessel Speed Limits and Skipper Training - A speed limit of 10 knots should be strictly observed for construction vessels at areas with the highest CWD densities; and - Vessels traversing through the work areas should be required to use predefined and regular routes (which would presumably become known to resident dolphins) to reduce disturbance to cetaceans due to vessel movements. Specific marine routes shall be specified by the Contractor prior to construction commencing.	All areas north and west of Lantau Island during construction phase	I
Fisheries Impact – Construction Phase					
14.9.1.2 to 14.9.1.5	-		Minimisation of Land Formation Area Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for fisheries resources.	Land formation footprint / during detailed design phase to completion of construction	I
14.9.1.6	-	-	Use of Construction Methods with Minimal Risk/Disturbance Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF;	During construction phase at marine works area	I
			Use of Deep Cement Mixing (DCM) method instead of conventional seabed dredging for the land formation works to reduce the risk of negative impacts through the elevation of suspended solids and contaminants on fisheries and the marine environment;		I
			Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and		I
			Use of horizontal directional drilling (HDD) method and water jetting methods for placement of undersea cables and pipelines to minimise the disturbance to fisheries resources.		I
14.9.1.11	-		Strict Enforcement of No-Dumping Policy - A policy prohibiting dumping of wastes, chemicals, oil, trash, plastic, or any other substance that would potentially be harmful to dolphins and/or their habitat in the work area; - Mandatory educational programme of the no-dumping policy be made available to all construction site personnel for all project-related works; - Fines for infractions should be implemented; and - Unscheduled, on-site audits shall be implemented.	All works area during the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
14.9.1.12	-		Good Construction Site Practices - Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines; - Keep the number of working or stationary vessels present on-site to the minimum anytime; and - Unscheduled, on-site audits for all good site practice restrictions should be conducted, and fines or penalties sufficient to be an effective deterrent need to be levied against violators.	All works area during the construction phase	I
14.9.1.13 to 14.9.1.18	-		Mitigation for Indirect Disturbance due to Deterioration of Water Quality Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices;	All works area during the construction phase	I
			Alternative construction methods including use of non-dredge methods for ground improvement (e.g. Deep Cement Mixing (DCM), prefabricated vertical drains (PVD), sand compaction piles, steel cells, stone columns and vertical sand drains);		I
			Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and		I
			Use of horizontal directional drilling (HDD) method and water jetting methods for placement of undersea cables and pipelines to minimise the disturbance to fisheries resources.		I
Landscape and Visual Impact – Construction Phase					
Table 15.6	12.3	-	CM1 - The construction area and contractor's temporary works areas should be minimised to avoid impacts on adjacent landscape.	All works areas for duration of works; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM2 - Reduction of construction period to practical minimum.	All works areas for duration of works; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM3 - Phasing of the construction stage to reduce visual impacts during the construction phase.	All works areas for duration of works; Upon handover and completion of works.	I
Table 15.6	12.3	-	CM4 - Construction traffic (land and sea) including construction plants, construction vessels and barges should be kept to a practical minimum.	All works areas for duration of works; Upon handover and completion of works.	I

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

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

Notes:

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

“ I ” Implemented where applicable.

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

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

Appendix C. Monitoring Schedule

**Monitoring Schedule of
This Reporting Period**

Mar-21

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 Site Inspection AR1A, AR2 NM1A, NM5	2 Site Inspection NM4, NM6 WQ General & Regular DCM mid-ebb: 15:10 mid-flood: 09:18	3 Site Inspection CWD Survey (Vessel)	4 Site Inspection WQ General & Regular DCM mid-ebb: 16:41 mid-flood: 10:19	5 Site Inspection	6 AR1A, AR2 WQ General & Regular DCM mid-ebb: 18:51 mid-flood: 11:36
7	8 Site Inspection CWD Survey (Vessel)	9 Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 11:07 mid-flood: 15:42	10 Site Inspection CWD Survey (Vessel) NM4, NM6	11 Site Inspection WQ General & Regular DCM mid-ebb: 12:30 mid-flood: 07:00	12 CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	13 WQ General & Regular DCM mid-ebb: 13:33 mid-flood: 07:54
14	15 Site Inspection CWD Survey (Vessel)	16 Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 14:52 mid-flood: 08:48	17 CWD Survey (Vessel)	18 Site Inspection AR1A, AR2 NM1A, NM5 WQ General & Regular DCM mid-ebb: 15:54 mid-flood: 09:25	19 Site Inspection NM4, NM6	20 WQ General & Regular DCM mid-ebb: 17:17 mid-flood: 10:01
21	22 Site Inspection	23 Site Inspection NM4, NM6 WQ General & Regular DCM mid-ebb: 21:09 mid-flood: 08:36	24 AR1A, AR2 NM1A, NM5	25 Site Inspection CWD Survey (Land-based) WQ General & Regular DCM mid-ebb: 11:12 mid-flood: 16:10	26 Site Inspection	27 WQ General & Regular DCM mid-ebb: 12:22 mid-flood: 17:59
28	29 Site Inspection CWD Survey (Land-based) AR1A, AR2 NM1A, NM5	30 Site Inspection WQ General & Regular DCM mid-ebb: 14:07 mid-flood: 08:03	31 Site Inspection NM4, NM6			
		Notes: CWD - Chinese White Dolphin Air quality and Noise Monitoring Station WQ - Water Quality DCM - Deep Cement Mixing NM1A/AR1A - Man Tung Road Park NM4 - Ching Chung Hau Po Woon Primary School NM5/AR2 - Village House, Tin Sum NM6 - House No. 1, Sha Lo Wan				

Tentative Monitoring Schedule of Next Reporting Period

Apr-21

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 Site Inspection AR1A, AR2 WQ General & Regular DCM mid-ebb: 15:33 mid-flood: 9:04	2	3 WQ General & Regular DCM mid-ebb: 17:19 mid-flood: 10:12
4	5	6 WQ General & Regular DCM mid-ebb: 21:26 mid-flood: 8:51	7 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	8 Site Inspection CWD Survey (Vessel) NM4, NM6 WQ General & Regular DCM mid-ebb: 11:37 mid-flood: 16:43	9 Site Inspection	10 WQ General & Regular DCM mid-ebb: 12:38 mid-flood: 6:45
11	12 Site Inspection CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	13 Site Inspection CWD Survey (Vessel) NM4, NM6 WQ General & Regular DCM mid-ebb: 13:55 mid-flood: 7:39	14 CWD Survey (Vessel, Land-based)	15 Site Inspection WQ General & Regular DCM mid-ebb: 14:53 mid-flood: 8:17	16 Site Inspection	17 AR1A, AR2 WQ General & Regular DCM mid-ebb: 16:00 mid-flood: 8:55
18	19 Site Inspection CWD Survey (Vessel)	20 Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 18:41 mid-flood: 6:04	21 CWD Survey (Land-based) NM4, NM6	22 Site Inspection CWD Survey (Vessel) WQ General & Regular DCM mid-ebb: 9:59 mid-flood: 14:36	23 Site Inspection AR1A, AR2 NM1A, NM5	24 WQ General & Regular DCM mid-ebb: 11:18 mid-flood: 16:55
25	26 Site Inspection	27 Site Inspection WQ General & Regular DCM mid-ebb: 13:06 mid-flood: 6:49	28	29 Site Inspection AR1A, AR2 NM1A, NM5 WQ General & Regular DCM mid-ebb: 14:32 mid-flood: 7:54	30 Site Inspection NM4, NM6	
		Notes: CWD - Chinese White Dolphin Air quality and Noise Monitoring Station WQ - Water Quality DCM - Deep Cement Mixing NM1A/AR1A - Man Tung Road Park NM4 - Ching Chung Hau Po Woon Primary School NM5/AR2 - Village House, Tin Sum NM6 - House No. 1, Sha Lo Wan				

Appendix D. Monitoring Results

Air Quality Monitoring Results

1-hour TSP Results

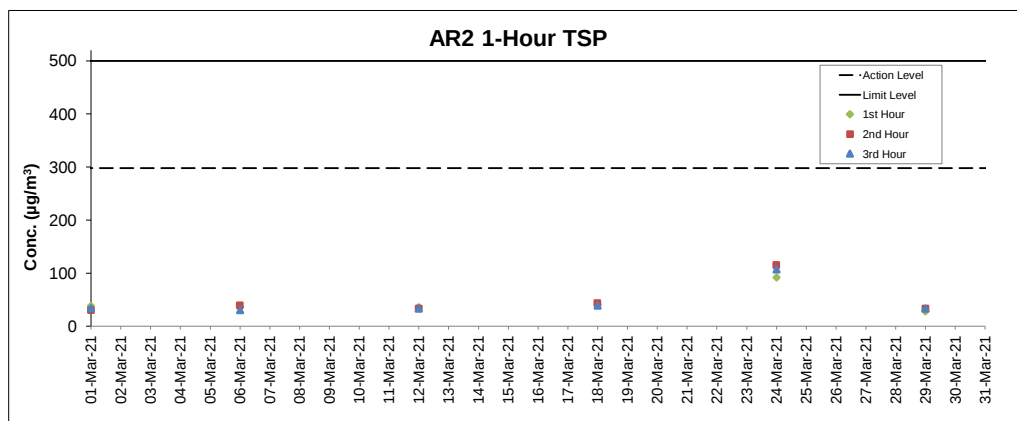
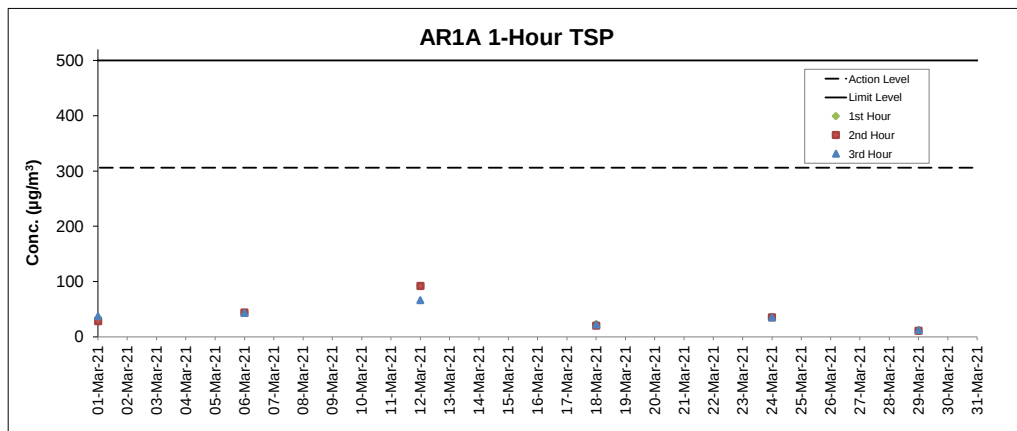
Station: AR1A- Man Tung Road Park

Date	Time	Weather	Wind Speed (m/s)	Wind Direction (deg)	1-hr TSP ($\mu\text{g}/\text{m}^3$)	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
1-Mar-21	13:09	Cloudy	2.5	256	34	306	500
1-Mar-21	14:09	Cloudy	2.8	255	28	306	500
1-Mar-21	15:09	Cloudy	3.9	268	37	306	500
6-Mar-21	13:13	Cloudy	6.7	138	44	306	500
6-Mar-21	14:13	Cloudy	5.3	146	44	306	500
6-Mar-21	15:13	Cloudy	4.7	49	43	306	500
12-Mar-21	13:31	Cloudy	3.9	247	92	306	500
12-Mar-21	14:31	Cloudy	2.8	264	92	306	500
12-Mar-21	15:31	Cloudy	3.1	236	66	306	500
18-Mar-21	13:26	Cloudy	7.2	93	23	306	500
18-Mar-21	14:26	Cloudy	6.7	70	20	306	500
18-Mar-21	15:26	Cloudy	5.8	52	22	306	500
24-Mar-21	13:46	Cloudy	3.9	276	36	306	500
24-Mar-21	14:46	Cloudy	2.8	265	35	306	500
24-Mar-21	15:46	Cloudy	2.2	258	35	306	500
29-Mar-21	13:17	Cloudy	8.3	226	11	306	500
29-Mar-21	14:17	Cloudy	7.8	228	11	306	500
29-Mar-21	15:17	Cloudy	6.1	209	12	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 ($\mu\text{g}/\text{m}^3$)
1-Mar-21	14:04	Cloudy	2.8	248	38	298	500
1-Mar-21	15:04	Cloudy	3.3	264	30	298	500
1-Mar-21	16:04	Cloudy	3.3	266	34	298	500
6-Mar-21	9:32	Cloudy	6.7	88	36	298	500
6-Mar-21	10:32	Cloudy	7.5	66	39	298	500
6-Mar-21	11:32	Cloudy	7.5	71	30	298	500
12-Mar-21	14:09	Cloudy	3.3	241	36	298	500
12-Mar-21	15:09	Cloudy	3.3	237	33	298	500
12-Mar-21	16:09	Cloudy	2.8	243	33	298	500
18-Mar-21	13:40	Cloudy	7.2	86	41	298	500
18-Mar-21	14:40	Cloudy	6.7	68	43	298	500
18-Mar-21	15:40	Cloudy	5.3	65	39	298	500
24-Mar-21	14:16	Cloudy	2.2	300	92	298	500
24-Mar-21	15:16	Cloudy	4.2	265	115	298	500
24-Mar-21	16:16	Cloudy	3.1	281	107	298	500
29-Mar-21	14:05	Cloudy	7.8	226	28	298	500
29-Mar-21	15:05	Cloudy	6.7	200	33	298	500
29-Mar-21	16:05	Cloudy	5.3	214	33	298	500



Notes

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

Noise Monitoring Results

Noise Measurement Results

Station: NM1A- Man Tung Road Park

Date	Weather	Time	Measured L ₁₀ dB(A)	Measured L ₅₀ dB(A)	L _{eq} (30mins) dB(A)
01-Mar-21	Cloudy	15:20	71.9	49.8	71
01-Mar-21	Cloudy	15:25	72.7	51.1	
01-Mar-21	Cloudy	15:30	68.3	49.3	
01-Mar-21	Cloudy	15:35	72.2	48.9	
01-Mar-21	Cloudy	15:40	70.9	50.3	
01-Mar-21	Cloudy	15:45	71.9	50.6	
12-Mar-21	Cloudy	17:33	63.4	56.7	66
12-Mar-21	Cloudy	17:38	65.1	57.3	
12-Mar-21	Cloudy	17:43	64.9	60.1	
12-Mar-21	Cloudy	17:48	67.6	57.6	
12-Mar-21	Cloudy	17:53	67.2	56.7	
12-Mar-21	Cloudy	17:58	68.1	50.2	
18-Mar-21	Cloudy	17:15	68.7	57.4	64
18-Mar-21	Cloudy	17:20	65.6	56.9	
18-Mar-21	Cloudy	17:25	62.1	55.0	
18-Mar-21	Cloudy	17:30	61.9	54.8	
18-Mar-21	Cloudy	17:35	62.0	54.6	
18-Mar-21	Cloudy	17:40	63.6	55.2	
24-Mar-21	Cloudy	12:46	75.8	54.5	67
24-Mar-21	Cloudy	12:51	75.4	53.1	
24-Mar-21	Cloudy	12:56	73.8	52.7	
24-Mar-21	Cloudy	13:01	74.9	51.0	
24-Mar-21	Cloudy	13:06	75.6	51.0	
24-Mar-21	Cloudy	13:11	75.1	53.1	
29-Mar-21	Cloudy	11:51	65.3	55.1	65
29-Mar-21	Cloudy	11:56	69.1	52.6	
29-Mar-21	Cloudy	12:01	57.1	51.7	
29-Mar-21	Cloudy	12:06	60.2	49.3	
29-Mar-21	Cloudy	12:11	55.9	50.5	
29-Mar-21	Cloudy	12:16	60.4	52.3	

Remarks:

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

Noise Measurement Results

Station: NM4- Ching Chung Hau Po Woon Primary School

Date	Weather	Time	Measured L ₁₀ dB(A)	Measured L ₅₀ dB(A)	L _{eq} (30mins) dB(A)
02-Mar-21	Cloudy	12:57	60.1	56.0	63
02-Mar-21	Cloudy	13:02	61.1	57.1	
02-Mar-21	Cloudy	13:07	62.0	57.4	
02-Mar-21	Cloudy	13:12	62.3	57.5	
02-Mar-21	Cloudy	13:17	63.1	58.0	
02-Mar-21	Cloudy	13:22	62.1	58.0	
10-Mar-21	Cloudy	13:19	66.6	62.2	65
10-Mar-21	Cloudy	13:24	65.1	58.8	
10-Mar-21	Cloudy	13:29	63.2	58.0	
10-Mar-21	Cloudy	13:34	63.4	57.4	
10-Mar-21	Cloudy	13:39	62.0	56.7	
10-Mar-21	Cloudy	13:44	64.9	57.6	
19-Mar-21	Cloudy	12:37	60.8	55.0	61
19-Mar-21	Cloudy	12:42	61.6	56.1	
19-Mar-21	Cloudy	12:47	60.0	55.9	
19-Mar-21	Cloudy	12:52	60.9	55.6	
19-Mar-21	Cloudy	12:57	60.1	55.0	
19-Mar-21	Cloudy	13:02	60.0	55.3	
23-Mar-21	Cloudy	12:16	64.1	55.8	63
23-Mar-21	Cloudy	12:21	64.9	54.7	
23-Mar-21	Cloudy	12:26	59.5	54.7	
23-Mar-21	Cloudy	12:31	61.4	54.9	
23-Mar-21	Cloudy	12:36	66.6	55.6	
23-Mar-21	Cloudy	12:41	61.1	56.2	
31-Mar-21	Cloudy	13:16	60.9	57.2	62
31-Mar-21	Cloudy	13:21	61.3	57.5	
31-Mar-21	Cloudy	13:26	61.0	56.3	
31-Mar-21	Cloudy	13:31	60.0	55.6	
31-Mar-21	Cloudy	13:36	60.9	55.5	
31-Mar-21	Cloudy	13:41	60.3	55.4	

Remarks:

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

Noise Measurement Results

Station: NM5- Village House, Tin Sum

Date	Weather	Time	Measured L ₁₀ dB(A)	Measured L ₅₀ dB(A)	L _{eq(30mins)} dB(A)
01-Mar-21	Cloudy	14:30	55.4	53.0	59
01-Mar-21	Cloudy	14:35	54.7	52.9	
01-Mar-21	Cloudy	14:40	55.2	52.9	
01-Mar-21	Cloudy	14:45	54.8	53.0	
01-Mar-21	Cloudy	14:50	56.1	53.3	
01-Mar-21	Cloudy	14:55	63.4	49.2	
12-Mar-21	Cloudy	14:23	64.0	56.7	61
12-Mar-21	Cloudy	14:28	61.8	56.0	
12-Mar-21	Cloudy	14:33	60.2	54.7	
12-Mar-21	Cloudy	14:38	61.7	55.9	
12-Mar-21	Cloudy	14:43	61.7	56.6	
12-Mar-21	Cloudy	14:48	61.5	55.2	
18-Mar-21	Cloudy	14:04	52.4	47.1	54
18-Mar-21	Cloudy	14:09	55.1	43.8	
18-Mar-21	Cloudy	14:14	53.3	43.6	
18-Mar-21	Cloudy	14:19	50.9	45.9	
18-Mar-21	Cloudy	14:24	54.3	46.7	
18-Mar-21	Cloudy	14:29	52.6	45.1	
24-Mar-21	Cloudy	14:34	57.0	46.5	56
24-Mar-21	Cloudy	14:39	54.3	46.9	
24-Mar-21	Cloudy	14:44	55.9	46.0	
24-Mar-21	Cloudy	14:49	56.0	46.9	
24-Mar-21	Cloudy	14:54	55.6	46.8	
24-Mar-21	Cloudy	14:59	54.7	46.8	
29-Mar-21	Cloudy	14:23	62.2	53.1	65
29-Mar-21	Cloudy	14:28	63.2	53.7	
29-Mar-21	Cloudy	14:33	66.1	58.1	
29-Mar-21	Cloudy	14:38	66.7	54.4	
29-Mar-21	Cloudy	14:43	67.4	59.2	
29-Mar-21	Cloudy	14:48	66.2	52.9	

Remarks:

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

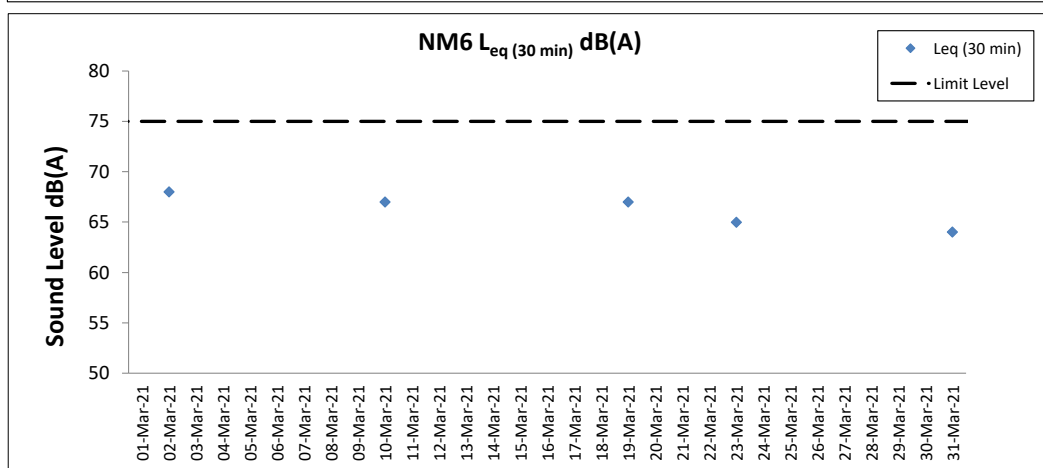
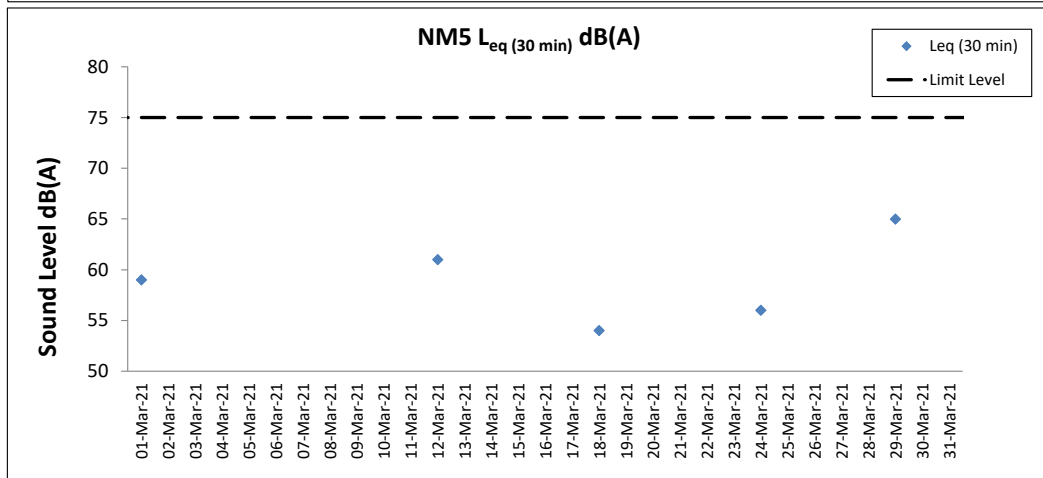
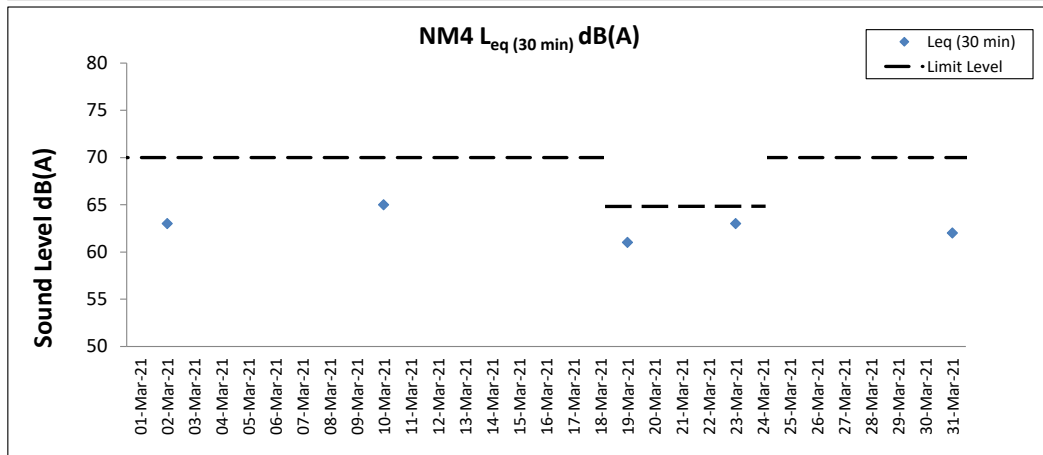
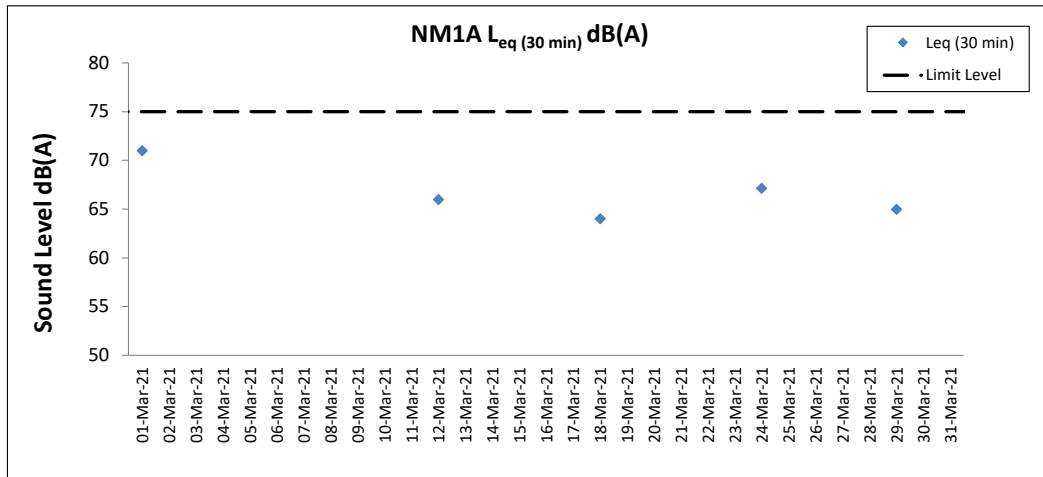
Noise Measurement Results

Station: NM6- House No.1 Sha Lo Wan

Date	Weather	Time	Measured L ₁₀ dB(A)	Measured L ₅₀ dB(A)	L _{eq(30mins)} dB(A)
02-Mar-21	Cloudy	15:50	69.6	54.1	68
02-Mar-21	Cloudy	15:55	68.4	53.7	
02-Mar-21	Cloudy	16:00	69.2	53.5	
02-Mar-21	Cloudy	16:05	70.1	53.8	
02-Mar-21	Cloudy	16:10	69.3	54.1	
02-Mar-21	Cloudy	16:15	69.7	54.2	
10-Mar-21	Cloudy	15:43	66.1	52.8	67
10-Mar-21	Cloudy	15:48	66.4	54.9	
10-Mar-21	Cloudy	15:53	68.4	56.5	
10-Mar-21	Cloudy	15:58	67.2	56.5	
10-Mar-21	Cloudy	16:03	68.3	56.6	
10-Mar-21	Cloudy	16:08	65.9	51.5	
19-Mar-21	Cloudy	15:46	69.0	52.8	67
19-Mar-21	Cloudy	15:51	70.1	51.2	
19-Mar-21	Cloudy	15:56	64.5	49.1	
19-Mar-21	Cloudy	16:01	68.7	50.9	
19-Mar-21	Cloudy	16:06	66.6	49.8	
19-Mar-21	Cloudy	16:11	65.5	49.2	
23-Mar-21	Cloudy	15:45	66.9	55.3	65
23-Mar-21	Cloudy	15:50	66.1	57.5	
23-Mar-21	Cloudy	15:55	64.5	57.2	
23-Mar-21	Cloudy	16:00	62.9	57.2	
23-Mar-21	Cloudy	16:05	65.6	57.7	
23-Mar-21	Cloudy	16:10	62.8	57.1	
31-Mar-21	Cloudy	15:46	63.8	51.6	64
31-Mar-21	Cloudy	15:51	67.5	54.2	
31-Mar-21	Cloudy	15:56	67.5	53.6	
31-Mar-21	Cloudy	16:01	63.6	53.8	
31-Mar-21	Cloudy	16:06	59.7	53.6	
31-Mar-21	Cloudy	16:11	59.2	53.2	

Remarks:

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



Notes

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

Water Quality Monitoring Results

Water Quality Monitoring

Water Quality Monitoring Results on **02 March 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 Gnd (Northing)	Coordinate HK Gnd (Easting)	Chromium (µg/L)		Nickel (µg/L)							
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA	Value	DA
C1	Cloudy	Moderate	14:35	8.2	Surface	1.0	0.2	228	20.7	20.7	8.2	8.2	29.9	29.9	95.9	95.9	7.2	7.2	3.8	7.2	9	11	87	89	815639	804268	<0.2	1.2	1.1	1.2						
						1.0	0.2	230	20.7	8.2	8.2	29.9	29.9	95.9	95.9	7.2	7.2	3.8	7.2	10	11	86	88													
					Middle	4.1	0.2	218	20.5	20.5	8.2	8.2	30.2	30.3	94.2	94.0	7.1	7.1	6.1	6.4	11	10	88	90							<0.2	1.2	1.1	1.2		
						4.1	0.2	239	20.5	20.5	8.2	8.2	30.5	30.7	93.7	93.5	7.1	7.1	6.4	7.3	10	11	89	91							<0.2	1.2	1.1	1.2		
					Bottom	7.2	0.2	231	20.4	20.4	8.2	8.2	30.8	30.7	93.3	93.5	7.0	7.1	7.3	7.3	13	12	91	90							<0.2	1.1	1.1	1.1		
						7.2	0.2	237	20.4	20.4	8.2	8.2	30.6	30.7	93.6	93.5	7.1	7.1	7.3	7.3	12	12	90	92							<0.2	1.1	1.1	1.1		
C2	Cloudy	Rough	13:29	12.5	Surface	1.0	0.4	108	20.9	20.9	8.0	8.0	29.5	29.6	89.6	89.6	6.7	6.7	6.9	10.4	10	10	87	90	825699	806933	<0.2	1.3	1.4	1.3						
						1.0	0.4	108	20.8	8.0	8.0	29.6	29.6	89.5	89.6	6.7	6.7	7.1	7.1	9	9	87	88													
					Middle	6.3	0.3	125	20.6	20.6	8.0	8.0	30.5	30.5	88.8	88.8	6.7	6.7	11.9	12.2	10	10	90	90							<0.2	1.2	1.2	1.2		
						6.3	0.4	135	20.5	20.5	8.0	8.0	30.6	30.7	88.8	88.7	6.7	6.7	11.9	12.2	9	11	90	92							<0.2	1.2	1.3	1.5		
					Bottom	11.5	0.3	122	20.5	20.5	8.0	8.0	30.7	30.7	88.7	88.7	6.7	6.7	12.1	12.0	11	12	92	93							<0.2	1.5	1.3	1.3		
						11.5	0.3	123	20.5	20.5	8.0	8.0	30.7	30.7	88.7	88.7	6.7	6.7	12.0	12.0	12	12	93	92							<0.2	1.3	1.4	1.4		
C3	Cloudy	Rough	15:32	11.6	Surface	1.0	0.5	40	20.6	20.6	8.0	8.0	31.4	31.4	84.1	84.0	6.3	6.3	4.6	4.6	7	7	86	89	822091	817781	<0.2	1.4	1.4	1.3						
						1.0	0.5	41	20.6	8.0	8.0	31.4	31.4	83.9	83.6	6.3	6.3	4.5	4.4	6	7	87	88													
					Middle	5.8	0.3	58	20.5	20.5	8.0	8.0	31.7	31.7	83.6	83.6	6.3	6.3	4.4	4.4	7	7	88	89							<0.2	1.2	1.2	1.2		
						5.8	0.4	62	20.5	20.5	8.0	8.0	31.7	31.7	83.6	83.6	6.3	6.3	4.4	4.4	7	7	88	89							<0.2	1.2	1.4	1.4		
					Bottom	10.6	0.2	62	20.5	20.5	8.0	8.0	31.8	31.8	85.2	85.5	6.4	6.4	4.9	4.8	8	8	92	92							<0.2	1.4	1.4	1.4		
						10.6	0.3	67	20.5	20.5	8.0	8.0	31.8	31.8	85.7	85.6	6.4																			

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 02 March 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
IM9	Cloudy	Rough	14:01	7.5	Surface	1.0	0.5	132	20.8	20.8	8.0	8.0	29.7	29.7	89.1	89.1	6.7	6.7	7.2	12.0	10	11	86	89	822096	808805	<0.2	<0.2	1.5	1.3
						1.0	0.5	142	20.8		8.0		29.8		89.1		6.7		7.5		10		86				<0.2	<0.2	1.5	
					Middle	3.8	0.5	104	20.7	20.7	8.0	8.0	30.2	30.3	89.3	89.3	6.7	6.7	11.7	12.0	12	11	88	89			<0.2	<0.2	1.2	
						3.8	0.5	107	20.7		8.0		30.3		89.3		6.7		12.3		11		90				<0.2	<0.2	1.5	
					Bottom	6.5	0.4	75	20.6	20.6	8.0	8.0	30.9	30.9	89.2	89.2	6.7	6.7	16.6	12.0	12	11	91	89			<0.2	<0.2	1.2	
						6.5	0.4	75	20.6		8.0		30.9		89.2		6.7		16.6		11		91				<0.2	<0.2	1.3	
					Surface	1.0	0.6	132	20.9	20.9	8.0	8.0	29.9	29.9	90.3	90.3	6.8	6.8	7.8	10.0	12	11	85	89	822407	809783	<0.2	<0.2	1.4	1.3
						1.0	0.7	134	20.9		8.0		29.9		90.2		6.8		8.0		12		86				<0.2	<0.2	1.3	
IM10	Cloudy	Rough	14:09	7.6	Middle	3.8	0.5	113	20.7	20.7	8.0	8.0	30.4	30.4	89.4	89.4	6.7	6.8	10.7	10.0	10	11	90	89			<0.2	<0.2	1.4	1.3
						3.8	0.5	113	20.7		8.0		30.4		89.4		6.7		11.1		11		90				<0.2	<0.2	1.4	
					Bottom	6.6	0.4	110	20.7	20.7	8.0	8.0	30.5	30.5	90.0	90.1	6.8	6.8	11.1	10.0	10	11	91	89			<0.2	<0.2	1.2	
						6.6	0.4	113	20.7		8.0		30.5		90.1		6.8		11.3		9		91				<0.2	<0.2	1.3	
					Surface	1.0	0.6	127	20.8	20.8	8.0	8.0	30.1	30.2	88.2	88.1	6.6	6.6	5.8	6.3	9	9	86	89	822070	811476	<0.2	<0.2	1.3	1.3
						1.0	0.6	139	20.8		8.0		30.2		88.0		6.6		5.8		9		87				<0.2	<0.2	1.2	
					Middle	3.9	0.4	129	20.7	20.7	8.0	8.0	30.7	30.7	87.0	87.0	6.5	6.6	6.1	6.3	9	9	89	89			<0.2	<0.2	1.6	
						3.9	0.4	129	20.7		8.0		30.7		86.9		6.5		6.2		8		91				<0.2	<0.2	1.5	
IM11	Cloudy	Rough	14:19	7.8	Bottom	6.8	0.3	128	20.6	20.6	8.0	8.0	30.8	30.8	87.1	87.2	6.5	6.5	6.8	6.3	8	9	92	89			<0.2	<0.2	1.2	
						6.8	0.3	139	20.6		8.0		30.8		87.3		6.5		6.9		9		91				<0.2	<0.2	1.2	
					Surface	1.0	0.5	115	20.9	20.9	8.0	8.0	30.0	30.0	88.8	88.8	6.7	6.6	5.3	5.7	8	9	85	88	821443	812027	<0.2	<0.2	1.2	1.3
						1.0	0.5	118	20.9		8.0		30.0		88.8		6.7		5.3		8		85				<0.2	<0.2	1.1	
					Middle	4.4	0.3	111	20.8	20.8	8.0	8.0	30.7	30.7	87.1	87.0	6.5	6.6	5.5	5.7	8	9	86	88			<0.2	<0.2	1.3	
						4.4	0.3	113	20.8		8.0		30.7		86.9		6.5		5.6		9		89				<0.2	<0.2	1.4	
					Bottom	7.8	0.2	102	20.7	20.7	8.0	8.0	30.8	30.8	86.2	86.3	6.5	6.5	6.4	6.4	10	9	91	88			<0.2	<0.2	1.4	
						7.8	0.2	108	20.7		8.0		30.8		86.3		6.5		6.4		11		91				<0.2	<0.2	1.5	
SR1A	Cloudy	Moderate	14:57	5.4	Surface	1.0	-	-	20.9	20.9	8.0	8.0	30.7	30.7	88.6	88.6	6.6	6.6	6.5	6.9	5	6	-	-	819983	812654	-	-	-	-
						1.0	-	-	20.9		8.0		30.7		88.6		6.6		6.7		6		-	-			-	-	-	-
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	6.9	6	6	-	-			-	-	-	-
						2.7	-	-	-		-		-		-		-		-		6		-	-			-	-	-	-
					Bottom	4.4	-	-	20.9	20.9	8.0	8.0	30.7	30.7	89.7	89.8	6.7	6.7	7.1	6.9	6	6	-	-			-	-	-	-
						4.4	-	-	20.9		8.0		30.7		89.8		6.7		7.2		7		-	-			-	-	-	-
					Surface	1.0	0.5	114	20.8	20.8	8.0	8.0	30.6	30.6	89.4	89.5	6.7	6.7	5.4	5.6	6	5	89	91	821443	814156	<0.2	<0.2	1.3	1.4
						1.0	0.5	118	20.8		8.0		30.7		89.5		6.7		5.4		6		91				<0.2	<0.2	1.4	
SR2	Cloudy	Rough	15:12	4.7	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.6	5	5	91	821443	814156	<0.2	<0.2	1.3	1.4	
						-	-	-	-		-		-		-		-		-		5		-	-			<0.2	<0.2	1.3	
					Bottom	3.7	0.2	106	20.8	20.8	8.0	8.0	30.7	30.7	90.4	90.6	6.8	6.8	5.7	5.8	4	5	92	92			<0.2	<0.2	1.5	
						3.7	0.3	114	20.8		8.0		30.7		90.7		6.8		5.8		5		92				<0.2	<0.2	1.3	
					Surface	1.0	0.3	110	20.7	20.7	8.0	8.0	30.0	30.0	88.7	88.8	6.7	6.7	8.9	14.3	11	10	-	-	822153	807563	-	-	-	-
						1.0	0.3	112	20.7		8.0		30.0		88.8		6.7		9.4		10		-	-			-	-	-	-
					Middle	4.4	0.1	63	20.6	20.6	8.0	8.0	30.5	30.5	89.5	89.5	6.7	6.7	15.1	14.9	9	10	-	-			-	-	-	-
						4.4	0.1	67	20.6		8.0		30.5		89.5		6.7		15.2		10		-	-			-	-	-	-
SR3	Cloudy	Rough	13:51	8.8	Bottom	7.8	0.2	30	20.6	20.6	8.0	8.0	30.7	30.7	89.6	89.6	6.7	6.7	18.7	14.3	9	10	-	-			-	-	-	-
						7.8	0.2	32	20.6		8.0		30.7		89.5		6.7		18.5		9		-	-			-	-	-	-
					Surface	1.0	0.2	77	20.9	20.9	8.1	8.1	29.4	29.4	94.7	94.4	7.1	7.0	6.6	9.2	9	8	-	-	817198	807818	-	-	-	-
						1.0	0.2	83	20.9		8.1		29.5		94.1		7.1		7.2		8		-	-			-	-	-	-
					Middle	4.7	0.2	58	20.7	20.7	8.1	8.1	29.8	29.8	92.2	92.2	6.9	6.9	10.2	9.2	8	8	-	-			-	-	-	-
						4.7	0.2	60	20.7		8.1		29.8		92.2		6.9		10.1		9		-	-			-	-	-	-
					Bottom	8.4	0.2	100	20.7	20.7	8.1	8.1	29.8	29.8	91.0	91.1	6.9	6.9	10.6	9.2	7	8	-	-			-	-	-	-
						8.4	0.2	106	20.7		8.1		29.8		91.1		6.9		10.9		6		-	-						

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

Water Quality Monitoring

Water Quality Monitoring Results on 02 March 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)	
C1	Cloudy	Moderate	09:49	8.4	Surface	1.0	0.8	93	20.5	20.5	8.2	8.2	29.6	29.6	92.1	92.1	7.0	7.0	19.5	19.5	12	12	86	86	815611	804251	<0.2	0.8	0.8	
						1.0	0.8	93	20.5	20.5	8.2	8.2	29.6	29.6	92.1	92.1	7.0	7.0	19.6	19.6	17	17	87	87						
					Middle	4.2	0.3	34	20.5	20.5	8.1	8.1	29.9	29.9	92.3	92.3	7.0	7.0	20.1	20.1	16	16	88	88						
						4.2	0.3	34	20.5	20.5	8.1	8.1	30.0	30.0	92.3	92.3	7.0	7.0	20.3	20.3	16	16	89	89						
					Bottom	7.4	0.1	97	20.5	20.5	8.1	8.1	30.2	30.2	92.4	92.4	7.0	7.0	20.4	20.4	6	6	90	90						
						7.4	0.1	98	20.5	20.5	8.1	8.1	30.2	30.2	92.4	92.4	7.0	7.0	20.8	20.8	31	31	91	91						
						1.0	0.4	344	20.7	20.7	7.9	7.9	28.8	28.8	86.4	86.4	6.6	6.6	6.8	6.8	6	6	85	85						
						1.0	0.4	350	20.7	20.7	7.9	7.9	28.9	28.9	86.3	86.3	6.5	6.5	7.1	7.1	6	6	86	86						
C2	Cloudy	Rough	10:42	12.0	Surface	1.0	0.6	11	20.5	20.5	7.9	7.9	29.4	29.4	85.2	85.2	6.5	6.5	10.9	10.9	6	6	88	88	825688	806946	<0.2	1.3	1.3	
						6.0	0.6	11	20.5	20.5	7.9	7.9	29.4	29.4	85.1	85.1	6.5	6.5	10.6	10.6	7	7	89	89						
					Middle	11.0	0.5	9	20.5	20.5	7.9	7.9	29.5	29.5	83.9	83.9	6.4	6.4	19.1	19.1	8	8	91	91						
						11.0	0.5	9	20.5	20.5	7.9	7.9	29.5	29.5	83.9	83.9	6.4	6.4	21.3	21.3	9	9	91	91						
					Bottom	1.0	0.7	233	20.6	20.6	8.0	8.0	30.7	30.7	84.3	84.3	6.3	6.3	5.5	5.5	5	5	85	85						
						1.0	0.7	237	20.6	20.6	8.0	8.0	31.0	31.0	84.1	84.1	6.3	6.3	6.0	6.0	6	6	84	84						
						5.5	0.6	236	20.5	20.5	8.0	8.0	31.0	31.0	82.8	82.8	6.2	6.2	12.8	12.8	6	6	87	87						
						5.5	0.7	242	20.5	20.5	8.0	8.0	31.0	31.0	82.8	82.8	6.2	6.2	12.5	12.5	6	6	87	87						
C3	Fine	Moderate	08:34	11.0	Surface	1.0	0.7	233	20.6	20.6	8.0	8.0	30.7	30.7	84.3	84.3	6.3	6.3	5.5	5.5	5	5	85	85	822118	817814	<0.2	1.2	1.3	
						1.0	0.7	237	20.6	20.6	8.0	8.0	31.0	31.0	84.1	84.1	6.3	6.3	6.0	6.0	6	6	84	84						
					Middle	5.5	0.6	236	20.5	20.5	8.0	8.0	31.0	31.0	82.8	82.8	6.2	6.2	12.8	12.8	6	6	87	87						
						5.5	0.7	242	20.5	20.5	8.0	8.0	31.0	31.0	82.8	82.8	6.2	6.2	12.5	12.5	6	6	87	87						
					Bottom	10.0	0.5	244	20.5	20.5	8.0	8.0	31.0	31.0	81.5	81.5	6.1	6.1	13.7	13.7	5	5	89	89						
						10.0	0.5	256	20.5	20.5	8.0	8.0	31.0	31.0	81.4	81.4	6.1	6.1	13.7	13.7	6	6	89	89						
						1.0	0.0	22	20.6	20.6	8.1	8.1	30.0	30.0	92.1	92.2	7.0	7.0	17.8	17.8	7	7	86	86						
						1.0	0.0	23	20.6	20.6	8.1	8.1	30.0	30.0	92.2	92.2	7.0	7.0	18.1	18.1	7	7	88	88						
IM1	Cloudy	Moderate	10:08	5.0	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	817935	807118	<0.2	0.8	0.8	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
					Bottom	4.0	0.1	0	20.5	20.5	8.1	8.1	30.2	30.2	92.6	92.7	7.0	7.0	19.0	19.0	8	8	89	89						
						4.0	0.1	0	20.5	20.5	8.1	8.1	30.2	30.2	92.8	92.7	7.0	7.0	18.4	18.4	7	7	89	89						
						1.0	0.4	355	20.6	20.6	8.1	8.1	29.6	29.6	91.1	91.1	6.9	6.9	20.2	20.2	8	8	87	87						
						1.0	0.4	327	20.6	20.6	8.1	8.1	29.6	29.6	91.1	91.1	6.9	6.9	20.5	20.5	7	7	86	86						
IM2	Cloudy	Moderate	10:18	7.0	Surface	3.5	0.3	353	20.5	20.5	8.1	8.1	29.6	29.6	90.6	90.6	6.9	6.9	20.8	20.8	8	8	88	88	818154	806169	<0.2	0.9	0.8	
						3.5	0.4	325	20.5	20.5	8.1	8.1	29.6	29.6	90.6	90.6	6.9	6.9	20.9	20.9	8	8	88	88						
					Middle	6.0	0.3	346	20.5	20.5	8.1	8.1	29.6	29.6	90.7	90.8	6.9	6.9	20.9	20.9	9	9	90	90						
						6.0	0.3	318	20.5	20.5	8.1	8.1	29.6	29.6	90.8	90.8	6.9	6.9	20.4	20.4	9	9	91	91						
					Bottom	1.0	0.3	341	20.6	20.6	8.1	8.1	29.4	29.4	90.6	90.6	6.9	6.9	18.0	18.0	12	12	86	86						
						1.0	0.4	314	20.6	20.6	8.1	8.1	29.4	29.4	90.6	90.6	6.9	6.9	19.0	19.0	11	11	87	87						
						3.6	0.5	342	20.5	20.5	8.1	8.1	29.4	29.4	90.3	90.3	6.8	6.8	19.2	19.2	14	14	88	88						
						3.6	0.5	354	20.5	20.5	8.1	8.1	29.4	29.4	90.3	90.3	6.8	6.8	19.3	19.3	22	22	90	90						
IM3	Cloudy	Moderate	10:24	7.2	Surface	6.2	0.3	340	20.5	20.5																				

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

Water Quality Monitoring

Water Quality Monitoring Results on 02 March 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)	
IM9	Cloudy	Rough	10:09	7.1	Surface	1.0	0.3	31	20.6	20.6	7.9	7.9	29.3	29.4	84.3	84.3	6.4	6.4	8.0	7.6	8	8	85	88	822086	808834	<0.2	1.2	1.3	
						1.0	0.3	32	20.6		7.9		29.4		84.3		6.4	6.4	7.9		7		86							
					Middle	3.6	0.3	28	20.6	20.6	7.9	7.9	29.6	29.7	84.2	84.2	6.4	6.4	7.2		7		89	88						
						3.6	0.3	29	20.6		7.9		29.7		84.2		6.4	6.4	7.0		8		89							
					Bottom	6.1	0.2	39	20.6	20.6	7.9	7.9	29.8	29.8	83.3	83.3	6.3	6.3	7.8		7		90							
						6.1	0.2	42	20.6		7.9		29.8		83.2		6.3	6.3	7.9		8		91							
						1.0	0.6	327	20.6	20.6	8.0	8.0	30.4	30.5	84.6	84.6	6.4	6.4	10.4		7		85	89						
						1.0	0.7	354	20.6		8.0		30.5		84.5		6.4	6.4	10.8		8		86							
IM10	Fine	Moderate	10:01	7.4	Surface	3.7	0.6	330	20.5	20.5	8.0	8.0	30.6	30.6	83.6	83.6	6.3	6.3	13.1	12.4	8	8	89	89	822384	809805	<0.2	1.4	1.3	
						3.7	0.6	304	20.5		8.0		30.6		83.5		6.3	6.3	13.0		9		89							
					Middle	6.4	0.5	327	20.5	20.5	7.9	7.9	30.7	30.7	82.9	82.9	6.2	6.2	13.9		8		91							
						6.4	0.5	352	20.5		7.9		30.7		82.9		6.2	6.2	13.4		9		92							
					Bottom	1.0	0.7	258	20.6	20.6	8.0	8.0	30.6	30.6	85.8	85.8	6.5	6.5	11.9		7		85	87						
						1.0	0.7	276	20.6		8.0		30.5		85.8		6.4	6.4	12.3		6		86							
						3.9	0.6	267	20.5	20.5	8.0	8.0	30.8	30.8	84.9	84.9	6.4	6.4	16.6		5	6	87	87						
						3.9	0.6	288	20.5		8.0		30.8		84.8		6.4	6.4	16.9		6		87							
IM11	Fine	Moderate	09:51	7.8	Surface	6.8	0.5	269	20.5	20.5	8.0	8.0	30.8	30.8	84.1	84.0	6.3	6.3	13.7	14.1	5		88	87	822064	811477	<0.2	1.6	1.5	
						6.8	0.5	283	20.5		8.0		30.8		83.9		6.3	6.3	13.0		5		87							
					Middle	1.0	0.7	319	20.5	20.5	8.0	8.0	30.9	30.9	86.4	86.4	6.5	6.5	15.4		4		86	86						
						1.0	0.7	347	20.5		8.0		30.9		86.4		6.5	6.5	15.3		4		86							
					Bottom	4.1	0.6	315	20.5	20.5	8.0	8.0	30.9	30.9	85.7	85.7	6.4	6.4	16.1		5	6	86	88						
						4.1	0.7	335	20.5		8.0		30.9		85.6		6.4	6.4	16.1		6		88							
					Bottom	7.1	0.6	313	20.5	20.5	8.0	8.0	30.9	30.9	84.6	84.6	6.4	6.4	16.5		6		90							
						7.1	0.6	330	20.5		8.0		30.9		84.5		6.3	6.3	16.5		7		90							
SR1A	Fine	Moderate	09:10	5.1	Surface	1.0	-	-	20.5	20.5	8.0	8.0	30.7	30.7	79.6	79.5	6.0	6.0	4.9		6	-	-	-	819982	812654	-	-	-	
						1.0	-	-	20.5		8.0		30.7		79.4		6.0	6.0	5.0		5	-	-	-						
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	4.9	-	6	-	-						
						2.6	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-							
					Bottom	4.1	-	-	20.1	20.1	8.0	8.0	31.0	31.0	78.7	78.6	6.0	6.0	4.8		7	-	-	-						
						4.1	-	-	20.0		8.0		31.0		78.4		5.9	6.0	4.8		6	-	-	-						
						1.0	0.2	122	20.5	20.5	7.9	7.9	30.8	30.8	83.2	83.1	6.3	6.3	13.4		7		86	87						
						1.0	0.2	132	20.5		7.9		30.8		83.0		6.2	6.2	13.5		6		87							
SR2	Fine	Moderate	08:54	3.6	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	15.9	-	7	7	86	87	821459	814174	<0.2	1.5	1.5	
						-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-							
						-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-							
					Bottom	2.6	0.2	124	20.5	20.5	7.9	7.9	30.8	30.8	81.3	81.2	6.1	6.1	18.6		8		88							
						2.6	0.2	127	20.5		7.9		30.8		81.0		6.1	6.1	18.1		7		88							
					Surface	1.0	0.5	69	20.6	20.6	7.9	7.9	28.9	28.9	84.7	84.7	6.4	6.4	7.5		6	-	-	-						
						1.0	0.5	69	20.6		7.9		28.9		84.6		6.4	6.4	7.6		5	-	-	-						
SR3	Cloudy	Rough	10:22	8.6	Middle	4.3	0.3	78	20.6	20.6	7.9	7.9	28.9	28.9	83.0	83.0	6.3	6.3	13.7	11.3	7	7	-	-	822130	807590	-	-	-	
						4.3	0.3	79	20.6		7.9		28.9		82.9		6.3	6.3	12.9		8		-	-						
					Bottom	7.6	0.3	74	20.6	20.6	7.9	7.9	28.9	28.9	82.5	82.5	6.3	6.3	13.0		7		-	-						
						7.6	0.3	79	20.6		7.9		28.9		82.5		6.3	6.3	13.1		8		-	-						
					Surface	1.0	0.2	68	20.7	20.7	8.1	8.1	29.9	29.9	84.2	84.2	6.3	6.3	7.4		9	-	-	-						
						1.0	0.2	71	20.7		8.1		29.9		84.2		6.3	6.3	7.4		9	-	-	-						

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

Water Quality Monitoring

Water Quality Monitoring Results on 04 March 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)	
C1	Rainy	Rough	16:06	8.1	Surface	1.0	0.3	207	20.4	20.4	8.1	8.1	33.6	33.6	95.4	95.4	7.1	6.1	7.0	7	8	84	88	815628	804262	<0.2	<0.2	0.5	0.5	
						1.0	0.3	217	20.4		8.1		33.6		95.3		7.1	6.1		8		84				<0.2	<0.2	0.4		
					Middle	4.1	0.3	213	20.4	20.4	8.1	8.1	33.6	33.6	95.0	95.0	7.0	6.7	7.0	8	8	88	88	815628	804262	<0.2	<0.2	0.4	0.5	
						4.1	0.3	222	20.4		8.1		33.6		94.9		7.0	6.7		7		89				<0.2	<0.2	0.5		
					Bottom	7.1	0.2	216	20.4	20.4	8.1	8.1	33.6	33.6	95.0	95.0	7.0	8.2	7.0	8	8	91	88	815628	804262	<0.2	<0.2	0.5	0.5	
						7.1	0.3	235	20.4		8.1		33.6		95.0		7.0	8.2		7		91				<0.2	<0.2	0.4		
C2	Rainy	Moderate	15:00	11.9	Surface	1.0	0.3	126	20.6	20.6	8.1	8.1	28.7	28.7	85.5	85.6	6.5	5.8	6.5	7	8	88	91	825663	806936	<0.2	<0.2	1.0	1.0	
						1.0	0.3	135	20.6		8.1		28.8		85.6		6.5	6.1		8		88				<0.2	<0.2	1.0		
					Middle	6.0	0.2	124	20.6	20.6	8.1	8.1	29.2	29.2	85.0	85.0	6.4	6.8	6.5	7	8	91	91	825663	806936	<0.2	<0.2	0.9	1.0	
						6.0	0.3	124	20.6		8.1		29.2		84.9		6.4	6.8		8		91				<0.2	<0.2	1.0		
					Bottom	10.9	0.3	116	20.6	20.6	8.1	8.1	29.4	29.4	84.3	84.3	6.4	11.8	6.4	7	8	93	93	825663	806936	<0.2	<0.2	1.2	1.1	
						10.9	0.3	116	20.6		8.1		29.4		84.3		6.4	11.9		8		94				<0.2	<0.2	1.1		
C3	Rainy	Moderate	17:10	12.1	Surface	1.0	0.3	100	20.5	20.5	8.1	8.1	29.8	29.8	84.7	84.7	6.4	8.3	6.3	6	6	86	87	822093	817793	<0.2	<0.2	0.8	0.8	
						1.0	0.3	102	20.5		8.1		29.8		84.7		6.4	8.7		7		87				<0.2	<0.2	0.8		
					Middle	6.1	0.3	112	20.5	20.5	8.2	8.2	30.1	30.1	82.3	82.3	6.2	5.5	6.3	7	6	88	89	822093	817793	<0.2	<0.2	0.7	0.8	
						6.1	0.3	121	20.5		8.2		30.2		82.2		6.2	5.8		6		89				<0.2	<0.2	0.7		
					Bottom	11.1	0.2	124	20.5	20.5	8.2	8.2	30.5	30.4	82.6	82.7	6.2	8.1	6.2	5	6	93	93	822093	817793	<0.2	<0.2	0.8	0.8	
						11.1	0.3	129	20.5		8.2		30.4		82.8		6.2	8.0		6		93				<0.2	<0.2	0.8		
IM1	Rainy	Moderate	15:44	5.3	Surface	1.0	0.1	197	20.3	20.3	8.1	8.1	32.6	32.6	93.9	94.0	7.0	5.4	7.0	6	6	86	86	817934	807113	<0.2	<0.2	0.7	0.6	
						1.0	0.1	207	20.3		8.1		32.6		94.0		7.0	5.4		5		86				<0.2	<0.2	0.6		
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	817934	807113	<0.2	<0.2	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	817934	807113	<0.2	<0.2	-	-
					Bottom	4.3	0.1	194	20.3	20.3	8.1	8.1	32.8	32.8	93.1	93.2	6.9	8.2	7.0	6	6	89	89	817934	807113	<0.2	<0.2	0.6	0.6	
						4.3	0.1	203	20.3		8.1		32.8		93.3		7.0	8.3		6		89				<0.2	<0.2	0.6		
IM2	Rainy	Moderate	15:37	7.1	Surface	1.0	0.1	189	20.3	20.3	8.1	8.1	32.6	32.6	94.1	94.1	7.0	5.2	7.0	6	6	86	85	818183	806147	<0.2	<0.2	0.6	0.6	
						1.0	0.2	203	20.3		8.1		32.6		94.1		7.0	5.3		5		85				<0.2	<0.2	0.6		
					Middle	3.6	0.1	128	20.4	20.4	8.1	8.1	33.4	33.4	95.0	95.0	7.1	7.0	7.0	5	6	88	88	818183	806147	<0.2	<0.2	0.5	0.6	
						3.6	0.1	135	20.4		8.1		33.4		95.0		7.0	7.0		6		88				<0.2	<0.2	0.6		
					Bottom	6.1	0.1	115	20.4	20.4	8.1	8.1	33.6	33.6	95.5	95.6	7.1	9.5	7.1	6	6	90	90	818183	806147	<0.2	<0.2	0.5	0.5	
						6.1	0.1	125	20.4		8.1		33.6		95.6		7.1	9.5		6		90				<0.2	<0.2	0.5		
IM3	Rainy	Moderate	15:30	7.3	Surface	1.0	0.2	189	20.2	20.2	8.1	8.1	32.5	32.5	95.2	95.2	7.1	5.0	7.1	5	6	85	85	818779	805599	<0.2	<0.2	0.7	0.9	
						1.0	0.2	204	20.2		8.1		32.5		95.2		7.1	5.0		5		85				<0.2	<0.2	0.9		
					Middle	3.7	0.0	312	20.3	20.3	8.1	8.1	32.9	32.9	94.8	94.8	7.1	6.7	7.1	6	6	87	88	818779	805599	<0.2	<0.2	0.9	0.8	
						3.7	0.0	341	20.3		8.1		32.9		94.8		7.1	6.7		7		88				<0.2	<0.2	0.9		
					Bottom	6.3	0.1	207	20.4	20.4	8.0	8.0	33.4	33.4	96.7	96.8	7.2	7.6	7.2	7	6	89	90	818779	805599	<0.2	<0.2	0.7	0.7	
						6.3	0.1	209	20.4		8.0		33.4		96.8		7.2	7.4		7		90				<0.2	<0.2	0.7		
IM4	Rainy	Rough	15:19	8.7	Surface	1.0	0.3	204	20.4	20.4	8.0	8.0	31.5	31.5	92.3	92.3	6.9	5.2	7.0	6	6	85	85	819708	804618	<0.2	<0.2	1.0	1.0	
						1.0	0.4	209	20.4		8.0		31.5		92.3		6.9	5.2		7		85				<0.2	<0.2	1.0		
					Middle	4.4	0.1	160	20.3	20.3	8.1	8.1	32.8	32.8	93.9	93.9	7.0	7.2	7.0	6	6	87	88	819708	804618	<0.2	<0.2	0.9	0.9	
						4.4	0.1	161	20.3		8.1		32.8		93.9		7.0	7.3		6		88				<0.2	<0.2	0.9		
					Bottom	7.7	0.1	150	20.4	20.4	8.1	8.1	33.2	33.2	94.0	94.1	7.0	8.1	7.0	5	6	89	90	819708	804618	<0.2	<0.2	0.9	0.8	
						7.7	0.1	150	20.4		8.1		33.2		94.2		7.0	8.1		4		90				<0.2	<0.2	0.8		
IM5	Rainy	Moderate	15:11	8.1	Surface	1.0	0.2	224	20.4	20.4	8.0	8.0	31.0	31.0	92.9	92.9	7.0	5.7	7.0	8	7	84	85	820719	804885	<0.2	<0.2	0.7	0.8	
						1.0	0.2	226	20.4		8.0		31.0		92.9		7.0	5.8		7		85				<0.2	<0.2	0.8		
					Middle	4.1	0.2	179	20.3	20.3	8.1	8.1	32.6	32.6	93.4	93.4	7.0	8.6	7.0	6	7	87	87	820719	804885	<0.2	<0.2	0.9	0.9	
						4.1	0.2	179	20.3		8.1		32.6		93.4		7.0	8.5		7		87				<0.2	<0.2	0.9		
					Bottom	7.1	0.2	173	20.3	20.3	8.1	8.1	32.8	32.8	93.8	93.9	7.0	9.2	7.0	7										

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

Water Quality Monitoring

Water Quality Monitoring Results on 04 March 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)	
IM9	Rainy	Moderate	15:32	7.3	Surface	1.0	0.3	145	20.6	20.6	8.1	8.1	29.1	29.1	87.8	87.9	6.7	6.8	3.7	6.8	5	5	87	90	822075	808789	<0.2	<0.2	1.2	1.2
						1.0	0.3	147	20.5		8.1		29.2		88.0		6.7		4.0		4		87				<0.2	<0.2	1.2	
					Middle	3.7	0.4	106	20.4	20.4	8.2	8.2	29.9	29.9	89.4	89.5	6.8	6.8	7.2	6.8	4	5	89	90			<0.2	<0.2	1.2	
						3.7	0.4	108	20.4		8.2		30.0	29.9	89.5		6.8		7.6		5		91				<0.2	<0.2	1.2	
					Bottom	6.3	0.3	91	20.3	20.3	8.2	8.2	30.4	30.4	89.7	89.7	6.8	6.8	9.4	6.8	5		92				<0.2	<0.2	1.2	
						6.3	0.3	94	20.3		8.2		30.4	30.4	89.7		6.8		9.3		4		92				<0.2	<0.2	1.1	
IM10	Rainy	Moderate	15:40	7.5	Surface	1.0	0.6	103	20.6	20.6	8.1	8.1	28.9	28.9	87.0	87.0	6.6	6.6	2.5	6.6	9	8	86	90	822377	809802	<0.2	<0.2	1.2	1.0
						1.0	0.6	110	20.6		8.1		28.9		87.0		6.6		2.6		10		87				<0.2	<0.2	1.1	
					Middle	3.8	0.5	94	20.5	20.5	8.1	8.1	29.4	29.4	87.6	87.7	6.6	6.6	6.1	6.6	8	8	91	90			<0.2	<0.2	0.9	
						3.8	0.5	98	20.5		8.1		29.4		87.7		6.6		6.0		7		91				<0.2	<0.2	0.9	
					Bottom	6.5	0.4	86	20.4	20.4	8.1	8.1	29.9	29.9	88.2	88.3	6.7	6.7	9.9	6.7	7		92				<0.2	<0.2	0.9	
						6.5	0.4	92	20.4		8.1		30.0	29.9	88.3		6.7		10.1		7		92				<0.2	<0.2	0.9	
IM11	Rainy	Moderate	15:50	7.3	Surface	1.0	0.6	155	20.5	20.5	8.1	8.1	29.2	29.2	85.7	85.7	6.5	6.5	4.9	6.5	7	8	86	90	822056	811446	<0.2	<0.2	0.9	0.9
						1.0	0.6	155	20.5		8.1		29.2		85.7		6.5		4.8		8		87				<0.2	<0.2	0.9	
					Middle	3.7	0.5	154	20.5	20.5	8.1	8.1	29.3	29.3	85.6	85.7	6.5	6.5	7.8	6.5	8	8	90	90			<0.2	<0.2	0.9	
						3.7	0.5	160	20.5		8.1		29.3		85.7		6.5		7.7		9		92				<0.2	<0.2	0.9	
					Bottom	6.3	0.4	159	20.4	20.4	8.1	8.1	29.4	29.4	86.5	86.6	6.6	6.6	10.9	6.6	8		93				<0.2	<0.2	0.9	
						6.3	0.4	161	20.4		8.1		29.4	29.4	86.7		6.6		11.1		8		91				<0.2	<0.2	0.8	
IM12	Rainy	Moderate	15:57	9.6	Surface	1.0	0.5	92	20.5	20.5	8.1	8.1	29.1	29.1	86.8	86.8	6.6	6.6	6.4	6.6	7	8	86	89	821469	812062	<0.2	<0.2	1.1	1.0
						1.0	0.6	92	20.5		8.1		29.1		86.8		6.6		6.7		7		86				<0.2	<0.2	1.0	
					Middle	4.8	0.5	88	20.5	20.5	8.1	8.1	29.3	29.3	87.0	87.0	6.6	6.6	11.2	6.6	8	8	87	89			<0.2	<0.2	0.9	
						4.8	0.5	89	20.5		8.1		29.3		87.0		6.6		11.4		8		90				<0.2	<0.2	0.9	
					Bottom	8.6	0.4	81	20.5	20.5	8.1	8.1	29.4	29.4	87.5	87.6	6.6	6.6	13.0	6.6	8		92				<0.2	<0.2	0.9	
						8.6	0.4	84	20.5		8.1		29.4	29.4	87.7		6.7		12.7		9		92				<0.2	<0.2	0.9	
SR1A	Rainy	Moderate	16:31	5.6	Surface	1.0	-	-	20.5	20.5	8.2	8.2	29.4	29.4	84.1	84.1	6.4	6.4	3.6	6.4	6	-	-	-	819982	812655	-	-	-	-
						1.0	-	-	20.5		8.2		29.4		84.1		6.4		3.6		7		-	-			-	-	-	-
					Middle	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	-	-			-	-	-	-
						2.8	-	-	-		-		-		-		-		-	-	-	-	-	-			-	-	-	-
					Bottom	4.6	-	-	20.5	20.5	8.2	8.2	29.5	29.5	86.4	86.5	6.5	6.5	6.0	6.6	5	6	-	-			-	-	-	-
						4.6	-	-	20.5		8.2		29.5		86.6		6.6		5.9		6		-	-			-	-	-	-
SR2	Rainy	Moderate	16:47	3.3	Surface	1.0	0.4	96	20.5	20.5	8.1	8.1	29.4	29.4	84.7	84.7	6.4	6.4	5.1	6.4	6	7	90	92	821465	814183	<0.2	<0.2	0.9	0.9
						1.0	0.4	99	20.5		8.1		29.4		84.7		6.4		5.2		7		91				<0.2	<0.2	1.0	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	-	-			-	-	-	-
						-	-	-	-		-		-		-		-		-	-	-	-	-	-			-	-	-	-
					Bottom	2.3	0.3	91	20.5	20.5	8.1	8.1	29.4	29.4	85.0	85.1	6.4	6.5	5.4	6.5	7	7	92	93			<0.2	<0.2	0.9	0.9
						2.3	0.3	93	20.5		8.1		29.4	29.4	85.1		6.5		5.4		7		93				<0.2	<0.2	0.9	
SR3	Rainy	Moderate	15:19	9.6	Surface	1.0	0.1	174	20.6	20.6	8.1	8.1	29.0	29.0	86.5	86.5	6.6	6.6	4.7	6.7	5	-	-	-	822153	807585	-	-	-	-
						1.0	0.2	179	20.6		8.1		29.0		86.5		6.6		4.8		5		-	-			-	-	-	-
					Middle	4.8	0.1	158	20.4	20.4	8.2	8.2	29.6	29.7	89.2	89.4	6.8	6.8	7.6	6.8	6	6	-	-			-	-	-	-
						4.8	0.1	159	20.4		8.2		29.8		89.5		6.8		8.3		6		-	-			-	-	-	-
					Bottom	8.6	0.2	83	20.3	20.3	8.2	8.2	30.7	30.6	90.2	90.2	6.8	6.8	13.7	6.8	7	-	-	-			-	-	-	-
						8.6	0.2	89	20.3		8.2		30.6		90.1		6.8		14.0		6		-	-			-	-	-	-
SR4A	Rainy	Calm	16:30	9.4	Surface	1.0	0.2	79	20.3	20.3	8.1	8.1	32.7	32.7	91.9	92.0	6.9	6.9	6.0	6.9	10	-	-	-	817165	807811	-	-	-	-
						1.0	0.2	82	20.3		8.1		32.7		92.1		6.9		6.1		9		-	-			-	-	-	-
					Middle	4.7	0.1	54	20.3	20.3	8.1	8.1	32.9	32.9	91.2	91.2	6.8	6.8	7.2	6.9	9	9	-	-			-	-	-	-
						4.7	0.1	54	20.3		8.1		32.9		91.2		6.8		7.2		8		-	-			-	-	-	-
					Bottom	8.4	0.1	73	20.3	20.3	8.1	8.1	33.0	33.0	91.6	91.6	6.8	6.8	9.8	6.8	9	-	-	-			-	-	-	-
						8.4	0.2	77	20.3		8.1		33.0		91.6		6.8		9.9		8		-	-			-	-	-	-
SR5A	Rainy	Calm	16:47	3.2	Surface	1.0	0.1	333																						

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

Water Quality Monitoring

Water Quality Monitoring Results on 04 March 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	10:53	8.6	Surface	1.0	0.6	34	20.4	20.4	8.1	8.1	33.2	33.2	95.3	95.4	7.1	7.1	7.2	7.1	5	5	85	88	815599	804259	<0.2	1.1	0.9							
						1.0	0.6	36	20.4		8.1	8.1	33.2		95.4		7.1	7.1	7.3		5		84													
					Middle	4.3	0.6	37	20.4	20.4	8.1	8.1	33.2	33.2	95.0	95.1	7.1	7.1	8.6	8.6	5	5	88	88												
						4.3	0.6	38	20.4		8.1	8.1	33.2		95.1		7.1	7.1	8.8		6		88													
					Bottom	7.6	0.5	41	20.4	20.4	8.1	8.1	33.3	33.3	94.5	94.6	7.0	7.0	9.3	9.3	6	6	90	90												
						7.6	0.5	42	20.4		8.1	8.1	33.3		94.6		7.0	7.0	9.4		5		91													
C2	Rainy	Moderate	11:49	12.4	Surface	1.0	0.3	18	20.7	20.7	8.1	8.1	27.9	28.0	84.6	84.7	6.4	6.5	5.7	5.9	11	11	85	86	825673	806930	<0.2	1.3	1.2							
						1.0	0.4	18	20.7		8.1	8.1	28.0		84.7		6.5	6.5	5.9		11		86													
					Middle	6.2	0.4	44	20.6	20.6	8.1	8.1	28.1	28.1	84.8	84.8	6.5	6.5	6.9	7.0	9	9	89	89												
						6.2	0.4	45	20.6		8.1	8.1	28.2		84.8		6.5	6.5	7.0		9		89													
					Bottom	11.4	0.3	62	20.6	20.6	8.1	8.1	28.5	28.5	84.8	84.9	6.5	6.5	9.5	9.5	7	7	91	91												
						11.4	0.4	64	20.6		8.1	8.1	28.5		84.9		6.5	6.5	9.5		8		92													
C3	Rainy	Moderate	09:38	12.9	Surface	1.0	0.6	236	20.5	20.5	8.1	8.1	29.6	29.6	84.6	84.6	6.4	6.4	2.7	2.7	15	14	83	83	822090	817826	<0.2	0.6	0.5							
						1.0	0.7	259	20.5		8.1	8.1	29.6		84.6		6.4	6.4	2.7		14		83													
					Middle	6.5	0.6	238	20.5	20.5	8.1	8.1	30.1	30.1	82.0	82.0	6.2	6.2	8.4	8.4	13	13	86	86												
						6.5	0.7	256	20.5		8.1	8.1	30.1		82.0		6.2	6.2	8.4		13		86													
					Bottom	11.9	0.5	238	20.5	20.5	8.2	8.2	30.3	30.3	82.0	82.1	6.2	6.2	11.7	11.8	11	10	88	88												
						11.9	0.5	238	20.5		8.2	8.2	30.3		82.1		6.2	6.2	11.8		10		88													
IM1	Rainy	Moderate	11:13	5.5	Surface	1.0	0.2	17	20.3	20.3	8.1	8.1	32.8	32.8	93.0	93.0	6.9	6.9	6.7	6.7	7	7	85	85	817939	807143	<0.2	0.9	0.9							
						1.0	0.3	17	20.3		8.1	8.1	32.8		92.9		6.9	6.9	6.7		7		85													
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						-	-	-	-	-	-	-
					Bottom	4.5	0.2	17	20.3	20.3	8.0	8.0	32.9	32.9	94.4	94.5	7.0	7.0	8.8	8.8	6	6	89	88												
						4.5	0.3	17	20.3		8.0	8.0	32.9		94.5		7.0	7.0	8.8		6		88													
IM2	Rainy	Moderate	11:20	7.3	Surface	1.0	0.3	358	20.3	20.3	8.1	8.1	32.2	32.2	94.5	94.5	7.1	7.1	7.5	7.5	15	15	83	84	818180	806148	<0.2	0.8	0.8							
						1.0	0.3	329	20.3		8.1	8.1	32.2		94.4		7.1	7.1	7.5		15		84													
					Middle	3.7	0.3	0	20.3	20.3	8.1	8.1	32.5	32.5	93.4	93.5	7.0	7.0	8.2	8.2	16	16	87	87												
						3.7	0.3	0	20.3		8.1	8.1	32.5		93.5		7.0	7.0	8.2		16		87													
					Bottom	6.3	0.2	350	20.3	20.3	8.0	8.0	32.5	32.5	94.5	94.6	7.1	7.1	9.5	9.5	12	13	89	90												
						6.3	0.2	322	20.3		8.0	8.0	32.5		94.6		7.1	7.1	9.4		13		90													
IM3	Rainy	Moderate	11:28	7.6	Surface	1.0	0.4	342	20.3	20.3	8.1	8.1	32.1	32.1	94.4	94.4	7.1	7.1	8.1	8.1	23	22	84	83	818786	805617	<0.2	0.8	0.9							
						1.0	0.5	350	20.3		8.1	8.1	32.1		94.3		7.1	7.1	8.1		22		83													
					Middle	3.8	0.4	333	20.3	20.3	8.1	8.1	32.5	32.5	93.3	93.3	7.0	7.0	10.1	10.1	23	22	86	87												
						3.8	0.4	346	20.3		8.1	8.1	32.5		93.2		7.0	7.0	10.2		22		87													
					Bottom	6.6	0.3	332	20.3	20.3	8.1	8.1	32.6	32.6	94.4	94.5	7.1	7.1	11.7	11.6	23	23	89	90												
						6.6	0.3	346	20.3		8.1	8.1	32.6		94.5		7.1	7.1	11.6		23		90													
IM4	Rainy	Rough	11:38	8.8	Surface	1.0	0.6	359	20.3	20.3	8.1	8.1	32.5	32.5	93.8	93.8	7.0	7.0	6.4	6.5	13	14	84	84	819707	804595	<0.2	0.9	0.9							
						1.0	0.6	330	20.3		8.1	8.1	32.5		93.8		7.0	7.0	6.5		14		84													
					Middle	4.4	0.6	358	20.3	20.3	8.1	8.1	32.5	32.5	93.4	93.4	7.0	7.0	7.6	7.8	17	17	87	87												
						4.4	0.6	329	20.3		8.1	8.1	32.5		93.3		7.0	7.0			17		87													
					Bottom	7.8	0.5	354	20.3	20.3	8.1	8.1	32.5	32.5	93.4	93.5	7.0	7.0	8.8	8.7	15	14	89	89												
						7.8	0.5	326	20.3		8.1	8.1	32.5		93.6		7.0	7.0			14		89													
IM5	Rainy	Moderate	11:46	8.0	Surface	1.0	0.9	12	20.3	20.3	8.1	8.1	32.2	32.2	94.3	94.4	7.1	7.1	8.8	8.9	8	9	83	84	820732	804855	<0.2	1.0	1.0							
						1.0	0.9	13	20.3		8.1	8.1	32.2		94.4		7.1	7.1	8.9		9		84													
					Middle	4.0	0.9	16	20.3	20.3	8.1	8.1	32.3	32.3	94.1	94.1	7.0	7.0	9.9	10.0	9	8	86	86												
						4.0	0.9	16	20.3		8.1	8.1	32.3		94.1		7.0	7.0			8		86													
					Bottom	7.0	0.7	15	20.3	20.3	8.1	8.1	32.3	32.3	94.2	94.2	7.0	7.0	11.7	11.7	7	7	89	88												
						7.0	0.7	15	20.3		8.1	8.1	32.3		94.1		7.0	7.0			7		88													
IM6	Rainy	Moderate	11:53	7.8	Surface	1.0	0.0	339	20.5	20.5	8.0	8.0	30.6	30.6	90.7	90.6	6.8	6.8	6.4	6.5	7	8	82	83	821081	805819	<0.2	1.2	1.0							
						1.0	0.0	352	20.5		8.0	8.0	30.6		90.6		6.8	6.8	6.5		8		83													
					Middle	3.9	0.1	61	20.5	20.5	8.0	8.0	31.0	31.0	92.0	92.0	6.9	6.9	7.8	7.8	6	6	86	86												
						3.9	0.1	65	20.5		8.0	8.0	31.0		91.9		6.9	6.9			6		86													
					Bottom	6.8	0.2	63	20.3	20.3	8.0	8.0	31.9	31.9	91.9	91.9	6.9	6.9	9.4	9.3	7	6	88	88												
						6.8	0.2	67	20.3		8.0	8.0	31.9		91.9		6.9	6.9			6		88													
IM7	Rainy	Moderate	12:01	8.9	Surface	1.0	0.1	279	20.7	20.7	8.0	8.0	29.5	29.5	88.5	88.6	6.7	6.7	4.9	4.9	6	6	83	86	821345	806829	<0.2	1.1	1.1							
						1.0	0.1	297	20.7		8.0	8.0	29.5		88.6		6.7	6.7	4.9		6		83													
					Middle	4.5	0.2	136	20.6	20.6	8.0	8.0	30.3	30.3	89.7	89.8	6.8	6.8	6.2	6.3	7	6	86	86												
						4.5	0.2	139	20.6		8.0	8.0	30.3		89.8		6.8	6.8			6		86													
					Bottom	7.9	0.3	105	20.3	20.3	8.0	8.0	32.1	32.1	90.2	90.2	6.8	6.7	7.9	7.9	6	7	89	90												
						7.9	0.3	115	20.3		8.0	8.0	32.1		90.2		6.7	6.7			7		90													
IM8	Rainy	Moderate	11:23	8.3	Surface	1.0	0.2	88	20.6	20.6	8.1	8.1	28.7	28.7	86.1	86.1	6.5	6.5	3.3	3.3	11	12	86	86	821823	808132	<0.2	1.0	1.0							
						1.0	0.2	89	20.6		8.1	8.1	28.7		86.1		6.5	6.5	3.3		12		86													
					Middle	4.2	0.2	95	20.6	20.6	8.1	8.1	28.7	28.7	86.2	86.2	6.5	6.5	3.8	3.8	12	19	91	90												
						4.2	0.2	104	20.6		8.1	8.1	28.8		86.2		6.5	6.5	3.8		19		91													
					Bottom	7.3	0.2	134	20.5	20.5	8.1	8.1	28.9	28.9	86.6	86.7	6.6	6.6	4.2	4.3	6	5	92	92												
						7.3	0.2	137	20.5		8.1	8.1	28.9		86.8		6.6	6.6			5		92													

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

Water Quality Monitoring

Water Quality Monitoring Results on 04 March 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)	
IM9	Rainy	Moderate	11:15	7.8	Surface	1.0	0.3	37	20.5	20.5	8.1	8.1	29.0	29.0	86.6	86.7	6.6	6.6	4.2	5.6	11	11	86	89	822095	808806	<0.2	<0.2	0.7	0.6
						1.0	0.3	39	20.5		8.1		29.0		86.7		6.6	6.6	4.2		11		86				<0.2	<0.2	0.6	
						3.9	0.2	31	20.5	20.5	8.1	8.1	29.0	29.0	86.8	86.9	6.6	6.6	4.0		12	11	89	89			<0.2	<0.2	0.7	0.8
					Middle	3.9	0.2	31	20.5		8.1				86.9		6.6	6.6	4.0		12		90				<0.2	<0.2	0.5	
						6.8	0.1	54	20.4	20.4	8.1	8.1	29.1	29.1	87.8	87.9	6.7	6.7	8.5		11		90				<0.2	<0.2	0.7	0.7
						6.8	0.1	56	20.4		8.1				87.9		6.7	6.7	8.5		10		91				<0.2	<0.2	0.7	
					Bottom	1.0	0.5	283	20.5	20.5	8.1	8.1	29.2	29.2	86.8	86.8	6.6	6.6	6.4		13		83				<0.2	<0.2	0.7	0.6
						1.0	0.5	288	20.5		8.1		29.2	29.2	86.8		6.6	6.6	6.4		13		84				<0.2	<0.2	0.6	
						4.2	0.5	282	20.5	20.5	8.1	8.1	29.2	29.2	86.9	86.9	6.6	6.6	6.6		11	10	87	87	822372	809810	<0.2	<0.2	0.6	0.6
IM10	Rainy	Moderate	11:08	8.4	Surface	4.2	0.5	288	20.5		8.1		29.2	29.2	86.9		6.6	6.6	6.7		11		88				<0.2	<0.2	0.6	
						4.2	0.5	288	20.5	20.5	8.1	8.1	29.2	29.2	86.9	86.9	6.6	6.6	6.7		7		90				<0.2	<0.2	0.6	0.6
						7.4	0.4	278	20.5	20.5	8.1	8.1	29.3	29.3	87.4	87.5	6.6	6.6	7.3		6		90				<0.2	<0.2	0.6	
					Middle	7.4	0.4	280	20.5		8.1				87.6		6.7	6.7	7.2		6		90				<0.2	<0.2	0.6	
						1.0	0.5	338	20.5	20.5	8.1	8.1	29.6	29.6	84.6	84.6	6.4	6.4	11.2		10		84				<0.2	<0.2	0.6	0.5
						1.0	0.5	352	20.5		8.1		29.6	29.6	84.6		6.4	6.4	11.1		9		84				<0.2	<0.2	0.5	
						4.3	0.5	337	20.5	20.5	8.1	8.1	29.6	29.6	84.6	84.6	6.4	6.4	12.3		9	9	86	85	822048	811470	<0.2	<0.2	0.6	0.6
						4.3	0.5	359	20.5		8.1				84.6		6.4	6.4	12.3		8		85				<0.2	<0.2	0.6	
						7.6	0.4	340	20.5	20.5	8.1	8.1	29.6	29.6	85.1	85.2	6.4	6.5	14.7		8		87				<0.2	<0.2	0.6	0.5
IM11	Cloudy	Moderate	10:58	8.6	Surface	7.6	0.4	313	20.5		8.1		29.6	29.6	85.3		6.5	6.5	14.5		9		86				<0.2	<0.2	0.5	
						1.0	0.7	266	20.5	20.5	8.1	8.1	29.6	29.6	85.1	85.1	6.4	6.4	8.8		8		84				<0.2	<0.2	0.6	0.5
						1.0	0.7	272	20.5		8.1		29.6	29.6	85.1		6.4	6.4	8.8		9		85				<0.2	<0.2	0.5	
					Middle	4.8	0.7	266	20.5	20.5	8.1	8.1	29.6	29.6	85.0	85.0	6.4	6.4	12.3		8	10	85	86	821475	812027	<0.2	<0.2	0.5	0.6
						4.8	0.7	288	20.5		8.1				85.0		6.4	6.4	12.6		9		86				<0.2	<0.2	0.6	
						8.5	0.5	263	20.5	20.5	8.1	8.1	29.6	29.6	85.2	85.3	6.5	6.5	14.2		13		88				<0.2	<0.2	0.6	0.6
						8.5	0.6	278	20.5		8.1				85.3		6.5	6.5	14.9		12		89				<0.2	<0.2	0.6	
					Bottom	1.0	-	-	20.5	20.5	8.1	8.1	29.4	29.4	84.1	84.1	6.4	6.4	2.9		9		-				<0.2	<0.2	0.5	-
						1.0	-	-	20.5		8.1		29.5	29.5	84.0		6.4	6.4	2.9		10		-				<0.2	<0.2	0.6	-
						2.8	-	-	-	-	-	-	-	-	-	-	-	-	-		-	9	-	-			-	-	-	
SR1A	Rainy	Moderate	10:14	5.6	Surface	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-		-		-				-	-	-	-
						2.8	-	-	-	-	-	-	-	-	-	-	-	-	-		-		-				-	-	-	-
						4.6	-	-	20.4	20.4	8.1	8.1	29.5	29.5	84.2	84.3	6.4	6.4	3.0		8		-				-	-	-	-
					Middle	4.6	-	-	20.4		8.1		29.5	29.5	84.4		6.4	6.4	3.0		9		-				-	-	-	-
						1.0	0.2	220	20.5	20.5	8.1	8.1	29.6	29.6	84.8	84.8	6.4	6.4	9.1		7		85				<0.2	<0.2	0.5	0.6
						1.0	0.2	228	20.5		8.1		29.6	29.6	84.8		6.4	6.4	9.3		6		85				<0.2	<0.2	0.6	0.5
						-	-	-	-	-	-	-	-	-	-	-	-	-	-		-		-			<0.2	<0.2	0.5		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-		-		-			<0.2	<0.2	0.5		
						3.9	0.2	219	20.5	20.5	8.1	8.1	29.6	29.6	85.1	85.2	6.4	6.5	10.2		5		86				<0.2	<0.2	0.5	0.5
SR2	Rainy	Moderate	09:58	4.9	Surface	3.9	0.2	223	20.5		8.1		29.6	29.6	85.2		6.5	6.5	10.2		4		87				<0.2	<0.2	0.5	
						1.0	0.1	36	20.7	20.7	8.1	8.1	28.2	28.2	85.7	85.7	6.5	6.5	4.1		6		-				-	-	-	-
						1.0	0.1	38	20.7		8.1		28.2		85.6		6.5	6.5	4.4		5		-				-	-	-	-
					Middle	4.9	0.1	11	20.7	20.7	8.1	8.1	28.5	28.5	85.4	85.5	6.5	6.5	5.9		6		-				-	-	-	-
						4.9	0.1	11	20.7		8.1		28.5		85.5		6.5	6.5	6.1		5		-				-	-	-	-
						8.7	0.1	323	20.6	20.6	8.1	8.1	28.7	28.7	86.1	86.2	6.5	6.6	8.8		5		-				-	-	-	-
						8.7	0.1	329	20.6		8.1		28.7		86.2		6.6	6.6	9.0		4		-				-	-	-	-
					Bottom	1.0	0.1	70	20.3	20.3	8.0	8.0	31.9	31.9	86.6	86.6	6.5	6.5	7.3		16		-				-	-	-	-
						1.0	0.1	75	20.3		8.0		31.9		86.6		6.5	6.5	7.3		16		-				-	-	-	-
						4.8	0.2	63	20.3	20.3	8.0	8.0	32.0	32.0	86.8	86.8	6.5	6.5	8.0		16		-				-	-	-	-
SR4A	Rainy	Calm	10:29	9.5	Surface	4.8	0.2	64	20.3		8.0		32.0	32.0	86.8		6.5	6.5	8.1		12		-				-	-	-	-
						8.5	0.2	71	20.3	20.3	8.0	8.0	32.0	32.0	87.8	87.9	6.6	6.6	8.2		6		-				-	-	-	-
						8.5	0.2	74	20.3		8.0		32.0		87.9															

Water Quality Monitoring

Water Quality Monitoring Results on 06 March 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 (µg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA
C1	Misty	Calm	18:20	8.6	Surface	1.0	0.2	221	20.8	20.8	8.2	8.2	30.7	30.7	95.3	95.2	7.1	7.1	1.9	7	7	86	86	88	815628	804224	<0.2	0.9	0.9					
						1.0	0.2	224	20.7	8.2	8.2	30.7	30.7	95.0	95.0	7.1	7.1	2.0	7	7	86	86	88											
					Middle	4.3	0.2	217	20.6	20.6	8.2	8.2	31.0	31.0	93.2	93.1	7.0	7.0	3.6	7	7	87	87	88										
						4.3	0.2	238	20.6	20.6	8.2	8.2	31.1	31.0	92.9	93.1	7.0	7.0	3.8	6	7	88	88	89										
					Bottom	7.6	0.2	194	20.6	20.6	8.2	8.2	31.4	31.4	90.9	90.7	6.8	6.8	8.8	6	6	89	89	90										
						7.6	0.2	200	20.6	20.6	8.2	8.2	31.4	31.4	90.4	90.7	6.8	6.8	8.8	6	6	89	89	90										
C2	Rainy	Moderate	17:07	12.6	Surface	1.0	0.3	74	20.9	20.9	7.9	7.9	30.2	30.2	87.7	87.7	6.6	6.6	3.4	7	7	84	83	87	825674	806956	<0.2	1.3	1.2					
						1.0	0.3	74	20.9	7.9	7.9	30.2	30.2	87.6	87.7	6.6	6.6	3.4	7	7	86	86	88											
					Middle	6.3	0.3	77	20.8	20.8	7.9	7.9	30.5	30.5	86.3	86.3	6.5	6.5	4.2	6	7	88	88	89										
						6.3	0.3	83	20.8	20.8	7.9	7.9	30.5	30.5	86.2	86.3	6.5	6.5	4.2	7	7	88	88	89										
					Bottom	11.6	0.4	92	20.4	20.4	7.9	7.9	31.4	31.4	78.6	78.6	5.9	5.9	5.9	6	6	91	91	92										
						11.6	0.4	99	20.4	20.4	7.9	7.9	31.4	31.4	78.6	78.6	5.9	5.9	5.9	6	6	90	90	91										
C3	Rainy	Moderate	19:02	12.9	Surface	1.0	0.4	63	20.5	20.5	7.9	7.9	31.9	31.9	81.5	81.4	6.1	6.1	2.8	7	7	85	85	89	822117	817798	<0.2	0.8	0.9					
						1.0	0.4	63	20.5	7.9	7.9	31.9	31.9	81.3	81.3	6.1	6.1	2.9	7	7	86	86	89											
					Middle	6.5	0.3	75	20.3	20.3	8.0	8.0	32.4	32.4	78.9	78.9	5.9	5.9	3.5	7	7	89	89	90										
						6.5	0.3	75	20.3	20.3	8.0	8.0	32.4	32.4	78.8	78.9	5.9	5.9	3.5	6	6	89	89	90										
					Bottom	11.9	0.3	85	20.3	20.3	8.0	8.0	32.8	32.8	78.9	78.9	5.9	5.9	3.5	6	6	92	92	93										
						11.9	0.4	87	20.3	20.3	8.0	8.0	32.8	32.8	78.9	78.9	5.9	5.9	3.5	7	7	92	92	93										
IM1	Misty	Calm	17:59	5.0	Surface	1.0	0.1	178	20.9	20.9	8.2	8.2	31.0	31.0	90.7	90.6	6.8	6.8	12.2	4	4	85	85	87	817964	807121	<0.2	0.8	0.8					
						1.0	0.1	190	20.9	8.2	8.2	31.0	31.0	90.5	90.6	6.7	6.8	12.3	5	5	85	85	87											
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-			
						4.0	0.1	191	20.9	8.2	8.2	31.0	31.0	90.5	90.8	6.8	6.8	13.1	6	6	89	89	90											
					Bottom	4.0	0.1	204	20.9	20.9	8.2	8.2	31.0	31.0	91.1	90.8	6.8	6.8	13.0	6	6	89	89	90										
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-			
IM2	Misty	Calm	17:51	7.0	Surface	1.0	0.1	177	20.9	20.9	8.2	8.2	30.7	30.7	95.4	95.4	7.1	7.1	1.7	7	7	86	86	88	818143	806161	<0.2	0.8	0.8					
						1.0	0.1	188	20.9	20.9	8.2	8.2	30.7	30.7	95.3	95.4	7.1	7.1	2.0	7	7	86	86	88										
					Middle	3.5	0.1	183	20.9	20.9	8.2	8.2	31.2	31.2	93.5	93.5	7.0	7.0	4.4	6	6	89	89	90										
						3.5	0.1	191	20.8	20.9	8.2	8.2	31.2	31.2	93.4	93.5	7.0	7.0	4.5	5	5	89	89	90										
					Bottom	6.0	0.1	236	20.8	20.8	8.2	8.2	31.3	31.3	92.8	92.8	6.9	6.9	4.5	5	5	87	87	88										
						6.0	0.1	249	20.8	20.8	8.2	8.2	31.3	31.3	93.5	93.2	7.0	7.0	4.7	5	5	87	87	88										
IM3	Misty	Calm	17:45	7.2	Surface	1.0	0.1	184	20.9	20.9	8.2	8.2	30.5	30.5	95.8	95.8	7.2	7.2	1.7	4	4	87	87	88	818770	805606	<0.2	0.7	0.8					
						1.0	0.1	198	20.9	20.9	8.2	8.2	30.5	30.5	95.7	95.7	7.1	7.1	1.8	5	5	87	87	88										
					Middle	3.6	0.1	144	20.9	20.9	8.2	8.2	30.9	30.9	94.7	94.6	7.1	7.1	2.8	6	6	88	88	89										
						3.6	0.1	149	20.9	20.9	8.2	8.2	30.9	30.9	94.5	94.6	7.0	7.0	2.9	6	6	88	88	89										
					Bottom	6.2	0.1	150	20.8	20.8	8.2	8.2	31.3	31.3	93.1	93.2	6.9	6.9	6.5	6	6	89	89	90										
						6.2	0.1	160	20.8	20.8	8.2	8.2	31.3	31.3	93.2	93.2	6.9	6.9	6.4	6	6	89	89	90										
IM4	Misty	Calm	17:36	8.4	Surface	1.0	0.1	214	21.0	21.0	8.2	8.2	30.2	30.2	96.0	96.0	7.2	7.2	2.4	6	6	86	86	88	819748	804608	<0.2	0.7	0.7					
						1.0	0.2	222	21.0	8.2	8.2	30.2	30.2	95.9	96.0	7.2	7.1	2.5	6	6	86	86	88											
					Middle	4.2	0.1	197	20.9	20.9	8.2	8.2	30.9	30.9	94.2	94.2	7.0	7.0	4.2	6	6	88	88	89										
						4.2	0.1	210	20.9	20.9	8.2	8.2	30.9	30.9	94.2	94.2	7.0	7.0	4.3	6	6	89	89	90										
					Bottom	7.4	0.1	198	20.9	20.9	8.2	8.2	30.7	30.7	94.4	94.4	7.1	7.1	4.6	6	6	90	90	91										
						7.4	0.1	200	20.9	20.9	8.2	8.2	30.7	30.7	94.4	94.4	7.1	7.1	4.6	6	6	90	90	91										
IM5	Misty	Calm	17:28	7.8	Surface	1.0	0.2	263	21.0	21.0	8.2	8.2	30.0	30.1	92.5	92.6	6.9	6.9	2.9	7	7	84	85	87	820713	804865	<0.2	0.8	0.7					
						1.0	0.2	288	21.0	8.2	8.2	30.1	30.1	92.7	92.6	6.9	6.9	2.9	8	8	85	85	87											
					Middle	3.9	0.1	295	20.9	20.9	8.2	8.2	30.5	30.5	93.2	93.2	7.0	7.0	3.1	7	7	89	89	90										
						3.9	0.2	296	20.9	20.9	8.2	8.2	30.6	30.5	93.2	93.2	7.0	7.0	3.3	7	7	89	89	90										
					Bottom	6.8	0.0	268	20.8	20.8	8.2	8.2	31.1	31.1	92.9	92.9	6.9	6.9	4.1	7	7	90	90	91										
						6.8	0.0	277	20.8	20.8	8.2	8.2	31.1	31.1	92.9	92.9	6.9	6.9	4.1	7	7	90	90	91										
IM6	Misty	Calm	17:21	8.0	Surface	1.0	0.2	241	20.8	20.8	8.1	8.1	29.6	29.7	90.0	90.0	6.8	6.8	3.6	7	7	85	86	87	821058	805809	<0.2	0.6	0.8					
						1.0	0.2	254	20.8	8.1	8.1	29.8	29.8	89.9	90.0	6.8	6.8	3.8	7	7	86	86	87											
					Middle	4.0	0.1	223	20.7	20.7	8.1	8.1	30.6	30.6	89.4	89.4	6.7	6.7	4.8	7	7	87	87	88										
						4.0	0.1	232	20.7	20.6	8.1	8.1	30.6	30.8	89.4	89.6	6.7	6.8	4.8	7	7	87	87	88										
					Bottom	7.0	0.1	226	20.6	20.6	8.1	8.1	30.8	30.8	88.5	88.6	6.6	6.7	6.0	8	8	89	89	90										
						7.0	0.1	246	20.6	20.6	8.1	8.1	30.8	30.8	88.6	88.6	6.7	6.7	6.0	8	8	89	89	90										
IM7	Misty	Calm	17:11	8.8	Surface	1.0	0.1	229	21.0	21.0	8.1	8.1	28.9	28.9	90.1	90.2	6.8	6.8	2.2	8	8	85	85	87	821346	806817	<0.2	0.8	0.9					
						1.0	0.1	234	21.0	8.1	8.1	28.9	28.9	90.1	90.2	6.8	6.8	2.2	8	8	85	85	87											
					Middle	4.4	0.1	167	20.7	20.7	8.1	8.1	30.7	30.7	90.2	90.2	6.8	6.8	7.5	7	7	88	88	89										
						4.4	0.1	176	20.7	20.7	8.1	8.1	30.7	30.7	90.1	90.2	6.8	6.8	7.5	7	7	88	88	89										
					Bottom	7.8	0.1	176	20.7	20.7	8.1	8.1	30.8	30.8	90.0	90.0	6.7	6.7	7.6	6	6	89	89	90										
						7.8	0.1	179	20.7	20.7	8.1	8.1	30.8	30.8	90.0	90.0	6.7	6.7	7.7	7	7	89	89	90										
IM8	Rainy	Moderate	17:28	8.1	Surface	1.0	0.3	105	20.8	20.8	7.9	7.9	30.7	30.7	89.2	89.3	6.7	6.7	4.1	5	5	85	84	87	821841	808152	<0.2	1.0	1.0					
						1.0	0.3	114	20.8	7.9	7.9	30.7	30.7	89.3	89.3	6.7	6.7	4.1	4	4	84	84	87											
					Middle	4.1	0.3	86	20.6	20.6	8.0	8.0	31.7	31.7	89.4	89.4	6.7	6.7	6.1	5	5	89	89	90										
						4.1	0.3	90	20.6	20.6	8.0	8.0	31.7	31.7	89.4	89.4	6.7	6.7	6.2	6	6	89	89	90										
					Bottom	7.1	0.3	64	20.5	20.5	8.0	8.0	32.4	32.4	88.5	88.5	6.6	6.6	7.9	6	6	90	90	91										
						7.1	0.3	64	20.5	20.5	8.0	8.0	32.4	32.4	88.4	88.5	6.6	6.6	7.9	7	7	91	91	92										

DA: Depth-Averaged

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

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

Water Quality Monitoring

Water Quality Monitoring Results on **06 March 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
IM9	Cloudy	Moderate	17:33	7.8	Surface	1.0	0.1	75	20.8	20.8	7.9	7.9	30.4	30.4	87.9	87.9	6.6	6.6	3.7	5	85	84	0.2	1.0	822089	808791	0.2	0.2	0.9	1.1
						1.0	0.2	77	20.8	7.9	7.9	30.4	30.4	87.9	87.9	6.6	6.6	3.7	6	84	84	0.2	0.9							
					Middle	3.9	0.2	57	20.6	20.6	8.0	8.0	31.7	31.7	88.3	88.3	6.6	6.6	7.0	7	88	89	<0.2	1.1						
						3.9	0.2	60	20.6	8.0	8.0	31.8	31.8	88.3	88.3	6.6	6.6	7.2	6	89	90	<0.2	1.1							
					Bottom	6.8	0.1	92	20.5	20.5	8.0	8.0	32.2	32.2	87.4	87.4	6.5	6.5	8.2	7	91	91	<0.2	1.1						
						6.8	0.1	95	20.5	8.0	8.0	32.2	32.2	87.4	87.4	6.5	6.5	8.3	8	91	91	<0.2	1.1							
IM10	Cloudy	Moderate	17:40	7.4	Surface	1.0	0.6	93	20.7	20.7	8.0	8.0	30.5	30.5	84.3	84.2	6.3	6.3	4.3	7	84	84	0.2	1.1	822397	809786	0.2	0.2	1.1	1.0
						1.0	0.6	93	20.7	8.0	8.0	30.6	30.6	84.1	84.2	6.3	6.3	4.6	7	84	89	<0.2	1.0							
					Middle	3.7	0.6	88	20.5	20.5	7.9	7.9	31.0	31.0	82.3	82.3	6.2	6.2	7.0	8	89	90	<0.2	1.0						
						3.7	0.6	91	20.5	7.9	7.9	31.0	31.0	82.3	82.3	6.2	6.2	6.8	8	90	91	<0.2	1.0							
					Bottom	6.4	0.6	85	20.5	20.5	8.0	8.0	31.2	31.2	81.3	81.3	6.1	6.1	8.0	8	91	91	<0.2	0.9						
						6.4	0.6	91	20.5	8.0	8.0	31.2	31.2	81.3	81.3	6.1	6.1	8.1	8	91	91	<0.2	0.9							
IM11	Cloudy	Moderate	17:50	8.7	Surface	1.0	0.5	115	20.7	20.7	7.9	7.9	30.4	30.4	85.3	85.2	6.4	6.4	3.9	6	85	84	<0.2	0.9	822059	811479	<0.2	<0.2	1.0	1.0
						1.0	0.6	122	20.7	7.9	7.9	30.4	30.4	85.1	85.2	6.4	6.4	4.0	7	84	89	<0.2	1.0							
					Middle	4.4	0.4	95	20.6	20.6	8.0	8.0	30.9	30.9	82.7	82.5	6.2	6.2	4.8	7	89	90	<0.2	0.8						
						4.4	0.5	103	20.5	8.0	8.0	31.0	31.0	82.3	82.5	6.2	6.2	5.0	7	89	91	<0.2	1.0							
					Bottom	7.7	0.4	94	20.5	20.5	8.0	8.0	31.2	31.2	80.7	80.7	6.1	6.1	6.9	9	91	91	<0.2	1.0						
						7.7	0.4	100	20.5	8.0	8.0	31.2	31.2	80.6	80.7	6.0	6.1	7.3	8	91	91	<0.2	1.0							
IM12	Cloudy	Moderate	17:55	10.0	Surface	1.0	0.4	139	20.5	20.5	7.9	7.9	31.3	31.3	82.4	82.4	6.2	6.2	4.6	5	84	84	<0.2	0.9	821477	812026	<0.2	<0.2	1.0	1.0
						1.0	0.4	143	20.5	7.9	7.9	31.3	31.3	82.4	82.4	6.2	6.2	4.6	6	84	88	0.2	0.9							
					Middle	5.0	0.4	142																						

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 March 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)	
C1	Fine	Calm	11:52	8.6	Surface	1.0	0.4	28	20.7	20.7	8.2	8.2	31.1	31.1	93.7	93.7	7.0	6.9	4.2	4.9	4	7	84	87	815609	804270	<0.2	<0.2	0.7	0.7
						1.0	0.5	29	20.7		8.2		31.1		93.6		7.0		4.1		6		85				<0.2	<0.2	0.8	
					Middle	4.3	0.5	40	20.6	20.6	8.2	8.2	31.5	31.5	91.6	91.6	6.9	6.9	5.1		7	7	88	87			<0.2	<0.2	0.7	
						4.3	0.5	42	20.5		8.2		31.6		91.5		6.8		5.4		6		88				<0.2	<0.2	0.7	
					Bottom	7.6	0.4	38	20.6	20.6	8.2	8.2	31.6	31.6	92.0	92.1	6.9	6.9	5.4		9	7	88	87			<0.2	<0.2	0.5	
						7.6	0.5	38	20.6		8.2		31.6		92.2		6.9		5.5		9		89				<0.2	<0.2	0.6	
						1.0	0.4	338	20.8	20.8	7.9	7.9	30.0	30.0	87.5	87.5	6.6	6.5	3.1		6	7	84	87			<0.2	<0.2	1.2	
						1.0	0.4	311	20.8		7.9		30.0		87.5		6.6		3.0		6		84				<0.2	<0.2	1.1	
C2	Rainy	Moderate	12:20	12.4	Surface	6.2	0.4	345	20.8	20.8	7.9	7.9	30.2	30.2	84.6	84.5	6.4	6.4	3.4	5.1	7	7	87	87	825658	806948	<0.2	<0.2	1.2	1.1
						6.2	0.4	317	20.7		7.9		30.2		84.4		6.3		3.5		7		87				<0.2	<0.2	1.2	
					Middle	11.4	0.4	19	20.5	20.5	8.0	8.0	30.4	30.4	81.3	81.3	6.1	6.1	8.8		7	7	90	87			<0.2	<0.2	0.8	
						11.4	0.4	19	20.5		8.0		30.4		81.3		6.1		9.0		8		90				<0.2	<0.2	0.9	
					Bottom	1.0	0.5	256	20.4	20.4	7.9	7.9	31.4	31.4	83.7	83.7	6.3	6.2	2.7		6	6	85	88	822086	817819	<0.2	<0.2	0.8	0.9
						1.0	0.5	265	20.4		7.9		31.4		83.6		6.3		2.7		6		84				<0.2	<0.2	0.8	
						6.1	0.5	264	20.3	20.3	7.9	7.9	31.6	31.6	81.2	81.2	6.1	6.1	2.8		6	6	88	88			<0.2	<0.2	0.9	
						6.1	0.6	277	20.3		7.9		31.6		81.1		6.1		2.8		7		88				<0.2	<0.2	0.8	
C3	Misty	Moderate	10:19	12.1	Surface	11.1	0.4	261	20.3	20.3	8.0	8.0	32.1	32.1	79.4	79.4	5.9	5.9	3.9		7	7	91	88			<0.2	<0.2	0.8	0.9
						11.1	0.5	268	20.3		8.0		32.1		79.4		5.9		3.7		6		91				<0.2	<0.2	1.0	
					Middle	1.0	0.2	353	20.6	20.6	8.1	8.1	31.1	31.1	89.5	89.5	6.7	6.7	7.5		4	5	83	85	817925	807120	<0.2	<0.2	0.7	0.8
						1.0	0.2	325	20.6		8.1		31.1		89.5		6.7		7.5		3		84				<0.2	<0.2	0.7	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85			<0.2	<0.2	-	
						4.2	0.1	337	20.7	20.7	8.1	8.1	31.1	31.1	89.7	90.0	6.7	6.8	7.7		5	5	88	88			<0.2	<0.2	0.8	
						4.2	0.1	339	20.7		8.1		31.1		90.3		6.8		7.7		7		86				<0.2	<0.2	0.9	
						1.0	0.3	356	20.9	20.9	8.2	8.2	30.9	30.9	94.0	93.9	7.0	6.9	1.6		4	4	84	88	818174	806162	<0.2	<0.2	0.8	0.8
IM2	Fine	Calm	12:21	7.2	Surface	1.0	0.3	328	20.9	20.9	8.2	8.2	30.9	30.9	93.8	93.8	7.0	6.9	1.7		5	5	87	88			<0.2	<0.2	0.8	
						3.6	0.3	353	20.6	20.6	8.2	8.2	31.2	31.2	91.2	91.1	6.8	6.8	6.3	6.2	4	4	88	88			<0.2	<0.2	0.7	
					Middle	3.6	0.3	325	20.6		8.2		31.3	31.2	91.0	91.1	6.8	6.8	6.1		4	4	88	88			<0.2	<0.2	0.8	
						6.2	0.2	346	20.6	20.6	8.2	8.2	31.3	31.3	91.0	91.1	6.8	6.8	10.9		4	4	89	89			<0.2	<0.2	0.8	
					Bottom	6.2	0.3	318	20.6	20.6	8.2	8.2	31.3	31.3	91.1	91.1	6.8	6.8	10.8		3	3	89	89			<0.2	<0.2	0.8	
						1.0	0.3	343	20.8	20.8	8.2	8.2	30.9	30.9	93.6	93.5	7.0	7.0	2.1		2	5	85	87	818802	805585	<0.2	<0.2	0.7	0.8
						1.0	0.3	316	20.8		8.2		30.9		93.4		7.0		2.1		3		85				<0.2	<0.2	0.7	
						3.7	0.3	340	20.7	20.7	8.2	8.2	30.9	30.9	92.6	92.5	6.9	6.9	3.1	3.0	5	5	87	87			<0.2	<0.2	0.8	
IM3	Fine	Calm	12:28	7.4	Surface	3.7	0.4	348	20.7	20.7	8.2	8.2	30.9	30.9	92.3	92.5	6.9	6.9	3.2		6	6	88	88			<0.2	<0.2	0.9	
						6.4	0.3	329	20.6	20.6	8.2	8.2	31.2	31.2	90.8	90.9	6.8	6.8	3.9		6	6	90	89			<0.2	<0.2	0.8	
					Middle	6.4	0.3	343	20.6	20.6	8.2	8.2	31.2	31.2	90.9	90.9	6.8	6.8	3.8		6	6	89	89			<0.2	<0.2	0.8	
						1.0	0.6	344	20.8	20.8	8.2	8.2	30.4	30.4	93.9	93.8	7.0	6.9	6.4		5	5	83	88	819742	804593	<0.2	<0.2	0.8	0.8
					Bottom	1.0	0.6	351	20.8		8.2		30.5		93.7		7.0		6.9		5		88				<0.2	<0.2	0.7	
						4.3	0.5	354	20.5	20.5	8.2	8.2	31.1	31.1	91.1	91.1	6.8	6.8	7.6	7.5	4	4	88	87			<0.2	<0.2	0.8	
						4.3	0.5	359	20.5		8.2		31.1		91.1		6.8		8.0		4		88				<0.2	<0.2	0.8	
						7.6	0.4	1	20.5	20.5	8.2	8.2	31.1	31.1	90.9	90.9	6.8	6.8	8.1		4	4	89	85			<0.2	<0.2	0.8	
IM4	Fine	Calm	12:37	8.6	Surface	7.6	0.4	1	20.5	20.5	8.2	8.2	31.1	31.1	90.9	90.9	6.8	6.8	8.1		4	4	89	85			<0.2	<0.2	0.8	
						7.6	0.4	1	20.5		8.2		31.1		90.9		6.8		8.1		3		85				<0.2	<0.2	0.8	
					Middle	1.0	0.6	24	20.6	20.6	8.2	8.2	30.9	30.9	91.7	91.7	6.9	6.9	6.9		9	7	83	86	820734	804856	<0.2	<0.2	0.7	0.8
						1.0	0.6	24	20.6		8.2		30.9		91.7		6.9		7.1		8		83				<0.2	<0.2	0.7	
					Bottom	4.0	0.6	22	20.6	20.6	8.2	8.2	30.9	30.9	91.6	91.6	6.9	6.9	7.6	7.5	8	7	87	87			<0.2	<0.2	0.9	
						4.0	0.6	23	20.6		8.2		30.9		91.6		6.9		7.8		7		87				<0.2	<0.2	0.8	
						7.0	0.6	15	20.7	20.7	8.2	8.2	30.9	30.9	91.5	91.5	6.9	6.9	8.0		5	5	89	89			<0.2	<0.2	0.8	

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

Water Quality Monitoring

Water Quality Monitoring Results on 06 March 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	11:51	7.7	Surface	1.0	0.5	263	20.7	20.7	7.9	7.9	30.3	30.3	86.2	86.2	6.5	5.3	6.5	5.3	7		84	87	822103	808822	<0.2	1.1	1.2			
						1.0	0.5	281	20.7		7.9		30.3		86.2		6.5	5.3	6		83		<0.2	1.0								
					Middle	3.9	0.3	264	20.6	20.6	7.9	7.9	30.3	30.3	85.3	85.3	6.4	6.5	6.7	7	87	86					<0.2	1.4				
						3.9	0.4	281	20.6		7.9		30.3		85.3		6.4	6.6	7	7	86			<0.2			1.4					
					Bottom	6.7	0.3	256	20.6	20.6	8.0	8.0	30.3	30.3	84.0	84.0	6.3	8.2	6.3	8.2	7	90	90					<0.2		1.2		
						6.7	0.4	263	20.6		8.0		30.3		84.0		6.3	8.2		7	90			<0.2			1.0					
IM10	Misty	Moderate	11:44	9.1	Surface	1.0	0.6	289	20.7	20.7	7.9	7.9	30.5	30.5	85.5	85.5	6.4	3.7	6.3	3.8	7		84	87	822388	809775	<0.2	1.1	1.1			
						1.0	0.6	312	20.7		7.9		30.5		85.4		6.4	3.6	6		84		<0.2	1.0								
					Middle	4.6	0.5	288	20.5	20.5	7.9	7.9	30.6	30.6	83.1	83.1	6.3	5.4	5.5	5.5	6	87	86					<0.2		1.1		
						4.6	0.6	304	20.5		7.9		30.6		83.0		6.2	5.5	5	6	86			<0.2			1.1					
					Bottom	8.1	0.4	286	20.5	20.5	8.0	8.0	30.7	30.7	81.8	81.8	6.2	7.3	6.2	7.3	5	89	90					<0.2		1.1		
						8.1	0.4	294	20.5		8.0		30.7		81.8		6.2	7.3		5	90			<0.2			1.1					
IM11	Misty	Moderate	11:34	8.5	Surface	1.0	0.6	287	20.4	20.4	7.9	7.9	31.1	31.1	83.4	83.4	6.3	5.4	6.3	5.4	3		83	86	822042	811473	<0.2	1.1	1.1			
						1.0	0.6	309	20.4		7.9		31.1		83.3		6.3	5.4	4		84		<0.2	1.0								
					Middle	4.3	0.5	299	20.4	20.4	7.9	7.9	31.1	31.1	82.4	82.4	6.2	6.2	6.4	6.2	4	86	87					<0.2		1.1		
						4.3	0.5	309	20.4		7.9		31.1		82.4		6.2	6.2		4	87			<0.2			1.2					
					Bottom	7.5	0.4	297	20.4	20.4	8.0	8.0	31.1	31.1	81.3	81.3	6.1	7.7	6.1	7.7	4	89	89					<0.2		1.0		
						7.5	0.4	311	20.4		8.0		31.1		81.2		6.1	7.7		4	89			<0.2			1.1					
IM12	Misty	Moderate	11:28	9.8	Surface	1.0	0.5	285	20.5	20.5	7.9	7.9	31.0	31.0	84.6	84.6	6.4	3.4	6.3	3.4	4		84	87	821482	812065	<0.2	1.2	1.0			
						1.0	0.5	291	20.5		7.9		31.0		84.5		6.3	3.4	3		83		<0.2	1.2								
					Middle	4.9	0.4	283	20.4	20.4	7.9	7.9	31.1	31.1	82.3	82.3	6.2	4.8	5.0	5	87	90					<0.2	0.9				
						4.9	0.5	291	20.4		7.9		31.1		82.2		6.2	5.0	4	87			<0.2	1.0								
					Bottom	8.8	0.4	283	20.4	20.4	8.0	8.0	31.1	31.1	81.3	81.3	6.1	6.7	6.1	6.7	6	90	90					<0.2		0.9		
						8.8	0.4	293	20.4		8.0		31.1		81.2		6.1	6.8		6	90			<0.2			0.7					
SR1A	Misty	Calm	10:53	4.7	Surface	1.0	-	-	20.5	20.5	7.9	7.9	31.1	31.1	81.7	81.7	6.1	4.0	6.1	4.0	6		-	-	819975	812657	-	-	-			
						1.0	-	-	20.5		7.9		31.1		81.6		6.1	4.0	5		-		-	-								
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-	-	6.1	-	-	4.2	-	-			-			-	-	-
						2.4	-	-	-		-		-		-		-	-		-	-	-	-	-			-			-	-	
					Bottom	3.7	-	-	20.4	20.4	8.0	8.0	31.1	31.1	80.8	80.8	6.1	4.5	6.1	4.5	6	-	-				-	-		-	-	-
						3.7	-	-	20.4		8.0		31.1		80.8		6.1	4.5		6	-	-					-	-		-	-	
SR2	Misty	Moderate	10:39	3.5	Surface	1.0	0.2	328	20.5	20.5	7.9	7.9	31.1	31.1	83.2	83.2	6.2	4.4	6.2	4.4	4		86	86	821451	814144	<0.2	0.7	0.7			
						1.0	0.2	350	20.5		7.9		31.1		83.1		6.2	4.4	6		86		<0.2	0.8								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.5	-	6				-	-			<0.2	-
						-	-	-	-		-		-		-		-	-		-	-	-	-	-			-			<0.2	-	
					Bottom	2.5	0.1	320	20.4	20.4	8.0	8.0	31.1	31.1	81.9	81.9	6.2	4.7	6.2	4.7	7	89	88					<0.2		0.7		
						2.5	0.1	323	20.4		8.0		31.1		81.8		6.1	4.6		8	88			<0.2			0.7					
SR3	Rainy	Moderate	12:02	9.4	Surface	1.0	0.2	320	20.6	20.6	7.9	7.9	30.2	30.2	84.5	84.5	6.4	4.5	6.4	4.6	7		-	-	822169	807582	-	-	-			
						1.0	0.2	333	20.6		7.9		30.2		84.5		6.4	4.6	8		-		-	-								
					Middle	4.7	0.1	318	20.6	20.6	7.9	7.9	30.3	30.3	83.5	83.5	6.3	4.8	5.3	4.8	6	-	-					-		-	-	
						4.7	0.2	318	20.6		7.9		30.3		83.4		6.3	4.8		6	-	-					-	-		-		
					Bottom	8.4	0.1	4	20.4	20.4	8.0	8.0	31.6	31.6	81.5	81.5	6.1	6.6	6.1	6.6	6	-	-					-		-	-	
						8.4	0.1	4	20.4		8.0		31.6		81.5		6.1	6.6		6	-	-					-	-		-		
SR4A	Fine	Calm	11:28	9.4	Surface	1.0	0.1	235	20.8	20.8	8.1	8.1	30.8	30.8	89.4	89.3	6.7	3.2	6.7	3.2	4		-	-	817196	807833	-	-	-			
						1.0	0.1	253	20.7		8.1		30.8		89.2		6.7	3.2	4		-		-	-								
					Middle	4.7	0.0	291	20.6	20.6	8.1	8.1	30.9	30.9	88.3	88.3	6.6	3.8	6.6	3.9	4	-	-					-		-	-	
						4.7	0.0	291	20.6		8.1		30.9		88.2		6.6	3.9		4	-	-					-	-		-		
					Bottom	8.4	0.0	192	20.6	20.6	8.1	8.1	31.0	30.9	88.6	88.7	6.6	3.9	6.7	3.9	6	-	-					-		-	-	
						8.4	0.0	209	20.6		8.1		30.9		88.7		6.7	3.9		7	-	-					-	-		-		
SR5A	Fine	Calm	11:12	3.6	Surface	1.0	0.2	288	20.7	20.7	8.1	8.1	30.1	30.1	84.5	84.5	6.4	5.6	6.4	5.7	3		-	-	816573	810683	-	-	-			
						1.0	0.2	299	20.7		8.1		30.1		84.5		6.4	5.7	3		-		-	-								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	6.3	-	-			-			-	-	-
						-	-	-	-		-		-		-		-	-		-	-	-	-	-			-			-	-	
					Bottom	2.6	0.1	301	20.7	20.7	8.0	8.0	30.2	30.2	84.9	85.0	6.4	7.0	6.4	6.9	4	-	-					-		-	-	
SR6A	Misty	Calm	10:45	4.2	Surface	1.0	0.0	298	20.7	20.7	8.1	8.1	29.6	29.6	82.7	82.8	6.2	7.7	6.2	7.9	5		-	-	817944	814736	-	-	-			
						1.0	0.0	301	20.7		8.1		29.6		82.8		6.2	7.9	5		-		-	-								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.5	-	5				-	-			-	-
						-	-	-	-		-		-		-		-	-		-	-	-	-	-			-			-	-	
					Bottom	3.2	0.0	264	20.7	20.7	8.1	8.1	29.5	29.5	83.0	83.0	6.3	9.1	6.3	9.1	5	-	-					-		-	-	
						3.2	0.0	268	20.7		8.1		29.5		83.0		6.3	9.3		5	-	-					-	-		-		
SR7	Misty	Moderate	09:53	16.4	Surface	1.0	0.4	22	20.4	20.4	7.9	7.9	31.8	31.8	83.7	83.7	6.3	2.3	6.3	2.3	3		-	-	823615	823743	-	-	-			
						1.0	0.5	22	20.4		7.9		31.8		83.7		6.3	2.3	3		-		-	-								
					Middle	8.2	0.3	44	20.3	20.3	7.9	7.9	32.1	32.1	80.5	80.5	6.0	2.8	6.0	2.8	3	-	-					-		-	-	
						8.2	0.4	46	20.3		7.9		32.1		80.5		6.0	2.8		3	-	-					-	-		-		
					Bottom	15.4	0.3	64	20.3	20.3	7.9	7.9	32.4	32.4	80.0	80.0	6.0	2.9	6.0	2.9	3	-	-					-		-	-	
						15.4	0.3	68	20.3		7.9		32.4		80.0		6.0	3.0		3	-	-					-	-		-		
SR8	Misty	Moderate	11:19	4.8	Surface	1.0	-	-	21.0	21.0	8.0	8.0	30.4	30.4	87.9	87.9	6.6	5.2	6.6	5.2	8		-	-	820399	811644	-	-	-			
						1.0	-	-	20.9		8.0		30.4		87.8		6.6	5.2	9		-		-	-								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	6.6	-	-	5.3	-	7				-		-	-	-
						-	-	-	-		-		-		-		-	-		-	-	-	-	-			-	-		-		
					Bottom	3.8	-	-	20.8	20.8	8.0	8.0	30.4	30.4	86.3	86.3	6.5	5.4	6.5	5.4	5	-	-					-		-	-	

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

Water Quality Monitoring

Water Quality Monitoring Results on 09 March 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		Value		Value		Value		Value		Value		Value		Value				Value											
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA						
C1	Cloudy	Rough	11:24	8.3	Surface	1.0	0.0	70	20.5	20.5	8.2	8.2	30.8	30.8	93.3	93.2	7.0		3.4		6		88		89	815628	804226	<0.2	0.7									
						1.0	0.0	75	20.5		8.2		30.8		93.0		7.0		3.7		6		87															
					Middle	4.2	0.1	146	20.4	20.4	8.2	8.2	31.3	31.3	91.9	91.9	6.9		6.2		8	7	89															
						4.2	0.1	153	20.4		8.2		31.3		91.9		6.9		6.5		7		89															
					Bottom	7.3	0.1	172	20.4	20.4	8.2	8.1	31.4	31.4	91.8	91.9	6.9	6.9	9.4		7		90															
						7.3	0.1	176	20.4		8.1		31.4		91.9		6.9	6.9	9.6		8		92															
C2	Cloudy	Calm	12:33	12.0	Surface	1.0	0.3	170	20.8	20.8	7.9	7.9	28.5	28.6	87.7	87.6	6.6		3.6		7		87		89	825702	806955	<0.2	0.6									
						1.0	0.3	179	20.8		7.9		28.6		87.5		6.6	6.4	3.9		6		87															
					Middle	6.0	0.2	177	20.6	20.6	7.9	7.9	31.4	31.4	82.1	82.0	6.1		4.0		7	7	88															
						6.0	0.2	193	20.6		7.9		31.4		81.8		6.1		4.0		6		89															
					Bottom	11.0	0.2	167	20.5	20.5	7.9	7.9	32.0	32.0	82.2	82.4	6.1	6.2	6.3		7		91															
						11.0	0.2	173	20.5		7.9		32.0		82.6		6.2	6.2	6.3		7		91															
C3	Cloudy	Moderate	10:28	12.2	Surface	1.0	0.1	28	20.3	20.3	7.9	7.9	33.0	33.0	81.3	81.3	6.1		2.4		6		86		88	822117	817790	<0.2	1.6									
						1.0	0.1	30	20.3		7.9		33.0		81.2		6.0	6.0	2.4	3.1	5	6	86															
					Middle	6.1	0.1	44	20.3	20.3	7.9	7.9	33.0	33.0	80.2	80.2	6.0		3.0		5		88															
						6.1	0.1	47	20.3		7.9		33.0		80.2		6.0		3.2		5		88															
					Bottom	11.2	0.1	68	20.3	20.3	7.9	7.9	33.0	33.0	80.7	80.8	6.0	6.0	4.1		5		90															
						11.2	0.2	71	20.3	20.3	7.9	7.9	33.0	33.0	80.8	80.8	6.0	6.0	3.8		6		90															
IM1	Cloudy	Calm	11:47	5.1	Surface	1.0	0.1	168	20.8	20.8	8.1	8.1	31.0	31.0	92.1	92.1	6.9	5.4	8		88		88	817948	807141	<0.2	0.6											
						1.0	0.1	175	20.7	20.8	8.1	8.1	31.0	31.0	92.0	92.1	6.9	6.9	5.6		7							87										
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						-	-	-	-	-	88	817948	807141	<0.2	0.6	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						-	-	-	-	-						-
					Bottom	4.1	0.1	140	20.5	20.5	8.1	8.1	31.2	31.2	90.0	90.0	6.8	6.8	10.2		6							89										
						4.1	0.1	140	20.5	20.5	8.1	8.1	31.2	31.2	90.0	90.0	6.8	6.8	10.6		6							89										
IM2	Cloudy	Moderate	11:54	6.8	Surface	1.0	0.1	207	20.7	20.7	8.2	8.2	31.1	31.1	93.8	93.8	7.0		4.5		7		88		89	818147	806167	<0.2	0.6									
						1.0	0.1	220	20.6	20.7	8.2		31.1		93.7		7.0	7.0	4.8		8		87															
					Middle	3.4	0.0	133	20.5	20.5	8.2	8.2	31.4	31.4	92.7	92.7	7.0		8.6		7		89															
						3.4	0.0	137	20.5		8.2		31.4		92.7		6.9	6.9	8.9	8.3	8	8	89															
					Bottom	5.8	0.1	129	20.5	20.5	8.2	8.2	31.4	31.4	93.0	93.2	7.0	7.0	11.4		9		91															
						5.8	0.1	133	20.5	20.5	8.2	8.2	31.4	31.4	93.3	93.2	7.0	7.0	11.7		9		91															
IM3	Cloudy	Moderate	12:02	7.0	Surface	1.0	0.1	174	20.6	20.6	8.2	8.2	31.2	31.2	93.2	93.1	7.0		7.2		7		87		88	818771	805605	<0.2	0.9									
						1.0	0.1	175	20.6	20.6	8.2		31.2		93.0		7.0	7.0	7.8		6		86															
					Middle	3.5	0.1	171	20.5	20.5	8.1	8.1	31.3	31.3	92.1	92.1	6.9	7.0	11.4		7		87															
						3.5	0.1	183	20.5		8.1		31.3		92.0		6.9	6.9	12.0	11.0	8	7	88															
					Bottom	6.0	0.1	115	20.4	20.4	8.1	8.1	31.4	31.4	91.7	91.7	6.9	6.9	13.6		8		90															
						6.0	0.1	121	20.4	20.4	8.1	8.1	31.4	31.4	91.7	91.7	6.9	6.9	14.2		8		91															
IM4	Cloudy	Moderate	12:11	8.1	Surface	1.0	0.1	212	20.6	20.6	8.1	8.1	30.8	30.8	92.6	92.6	7.0		6.1		8		86		89	819708	804601	<0.2	1.0									
						1.0	0.2	227	20.6	20.6	8.1		30.8		92.6		7.0	7.0	6.0		8		87															
					Middle	4.1	0.1	193	20.5	20.5	8.1	8.1	30.9	30.9	92.6	92.6	6.9	7.0	6.3		8		89															
						4.1	0.1	203	20.5		8.1		30.9		92.5		6.9	6.9	6.0		8		89															
					Bottom	7.1	0.1	141	20.6	20.6	8.1	8.1	31.1	31.0	93.0	93.2	7.0	7.0	15.6		7		91															
						7.1	0.1	154	20.6		8.1		31.0		93.3		7.0	7.0	15.4		6		91															
IM5	Cloudy	Moderate	12:19	7.2	Surface	1.0	0.1	233	20.7	20.7	8.1	8.1	30.3	30.4	93.1	93.1	7.0		3.8		4		86		90	820733	804880	<0.2	1.1									
						1.0	0.1	238	20.7		8.1		30.4		93.0		7.0	7.0	3.8		5		87															
					Middle	3.6	0.1	175	20.6	20.6	8.1	8.1	31.0	31.0	92.5	92.5	6.9	7.0	4.5		6	5	91															
						3.6	0.1	189	20.6		8.1		31.0		92.5		6.9	6.9	4.5		5		91															
					Bottom	6.2	0.1	5	20.7	20.7	8.1	8.1	31.0	31.0	92.9	93.1	7.0	7.0	4.8		6		92															
						6.2	0.1	5	20.7		8.1		31.0		93.2		7.0	7.0	4.8		5		92															
IM6	Cloudy	Moderate	12:28	7.6	Surface	1.0	0.1	204	20.8	20.8	8.1	8.1	29.8	29.9	92.4	92.4	7.0		4.9		6		86		90	821076	805843	<0.2	1.2									
						1.0	0.1	209	20.7		8.1		29.9		92.4		7.0	7.0	4.9		5		87															
					Middle	3.8	0.1	191	20.6	20.6	8.1	8.1	31.0	31.0	91.9	91.9	6.9		6.3	6.1	5	5	90															
						3.8	0.1	208	20.6		8.1		31.0		91.9		6.9	6.9	6.3		5		92															
					Bottom	6.6	0.1	154	20.8	20.9	8.1	8.1	30.9	30.8	91.6	91.6	6.8	6.8	7.1		4		93															
						6.6	0.1	164	20.8		8.1		30.8		91.6		6.8	6.8	7.1		5		93															
IM7	Cloudy	Moderate	12:34	8.1	Surface	1.0	0.1	210	20.8	20.8	8.1	8.1	29.4	29.5	90.2	90.2	6.8		5.6		6		86		89	821369	806831	<0.2	1.1									
						1.0	0.1	224	20.8	20.8	8.1		29.6		90.2		6.8	6.8	6.4		6		86															
					Middle	4.1	0.1	106	20.6	20.6	8.1	8.1	30.6	30.6	90.4	90.4	6.8		8.9		5	5	87															
						4.1	0.1	107	20.6		8.1		30.6		90.4		6.8	6.8	8.4		5		90															
					Bottom	7.1	0.1	46	21.0	21.1	8.1	8.1	30.3	30.3	90.2	90.2	6.7	6.7	4.1		5		92															
						7.1	0.1	46	21.1		8.1		30.3		90.2		6.7	6.7	4.1		5		92															
IM8	Cloudy	Calm	12:12	7.7	Surface	1.0	0.1	137	21.1	21.1	7.9	7.9	29.5	29.5	88.2	88.1	6.6		4.1		5		87		89	821809	808146	<0.2	1.4									
						1.0	0.1	141	21.0		7.9		29.6		87.9		6.6	6.6	4.1		4		87															
					Middle	3.9	0.2	88	20.5	20.5	7.9	7.9	31.1	31.2	86.7	86.9	6.5		4.9	5.5	5	4	88															
						3.9	0.2	91	20.5		7.9		31.2		87.0		6.5	6.5	5.4		4		89															
					Bottom	6.7	0.2	28	20.3	20.3	7.9	7.9	32.4	32.4	87.5	87.5	6.5	6.5	7.2		4		91															
						6.7	0.2	28	20.3		7.9		32.4		87.5		6.5	6.5	7.2		3		91															

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

Water Quality Monitoring

Water Quality Monitoring Results on 09 March 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)	
IM9	Cloudy	Calm	12:07	7.5	Surface	1.0	0.1	106	20.9	20.9	7.9	7.9	30.0	30.0	87.4	87.6	6.6	6.6	4.4	4.8	5	6	87	89	822098	808823	<0.2	1.4		
						1.0	0.1	114	20.9	20.9	7.9	7.9	30.0	30.0	87.7	87.6	6.6	6.6	4.5	4.8	6	6	87	89						
					Middle	3.8	0.1	93	20.5	20.5	7.9	7.9	31.3	31.3	87.1	87.1	6.5	6.5	4.4	4.8	6	6	89	89						
						3.8	0.1	98	20.5	20.5	7.9	7.9	31.4	31.3	87.1	87.1	6.5	6.5	4.5	4.8	6	6	89	89						
					Bottom	6.5	0.1	78	20.3	20.3	7.9	7.9	32.1	32.1	87.0	87.1	6.5	6.5	5.5	4.8	5	5	92	92						
						6.5	0.1	84	20.3	20.3	7.9	7.9	32.1	32.1	87.1	87.1	6.5	6.5	5.6	4.8	5	5	92	92						
IM10	Cloudy	Moderate	12:00	7.3	Surface	1.0	0.3	82	20.7	20.7	7.9	7.9	30.5	30.6	85.1	85.0	6.4	6.4	4.2	6.1	6	7	87	89	822383	809816	<0.2	1.4		
						1.0	0.3	84	20.7	20.7	7.9	7.9	30.8	30.6	84.9	84.9	6.4	6.4	4.4	6.1	7	6	87	89						
					Middle	3.7	0.3	91	20.4	20.4	7.9	7.9	31.7	31.7	84.3	84.4	6.3	6.3	5.7	6.1	6	5	89	89						
						3.7	0.3	91	20.4	20.4	7.9	7.9	31.7	31.7	84.4	84.4	6.3	6.3	6.0	6.1	5	5	89	89						
					Bottom	6.3	0.2	80	20.4	20.4	7.9	7.9	31.8	31.8	84.9	84.9	6.4	6.4	8.1	6.1	5	5	91	91						
						6.3	0.2	81	20.4	20.4	7.9	7.9	31.8	31.8	84.9	84.9	6.4	6.4	8.0	6.1	6	6	91	91						
IM11	Cloudy	Calm	11:48	8.1	Surface	1.0	0.4	75	21.0	21.0	7.9	7.9	29.7	29.8	86.8	86.4	6.5	6.5	3.8	4.9	7	6	85	87	822039	811455	<0.2	1.4		
						1.0	0.4	75	20.9	20.9	7.9	7.9	29.9	29.8	85.9	85.9	6.4	6.4	4.0	4.9	6	5	87	88						
					Middle	4.1	0.2	79	20.4	20.4	7.9	7.9	32.0	32.0	82.4	82.3	6.2	6.2	3.9	4.9	6	5	88	87						
						4.1	0.3	82	20.4	20.4	7.9	7.9	32.0	32.0	82.2	82.3	6.2	6.2	4.0	4.9	5	5	87	87						
					Bottom	7.1	0.2	79	20.4	20.4	7.9	7.9	32.1	32.1	82.7	82.9	6.2	6.2	7.0	4.9	6	6	91	91						
						7.1	0.2	79	20.4	20.4	7.9	7.9	32.1	32.1	83.0	82.9	6.2	6.2	7.0	4.9	6	6	91	91						
IM12	Cloudy	Calm	11:41	9.6	Surface	1.0	0.3	91	20.6	20.6	7.9	7.9	31.0	31.0	85.3	85.2	6.4	6.4	4.2	4.4	8	8	86	87	821450	812053	<0.2	0.8		
						1.0	0.3	99	20.6	20.6	7.9	7.9	31.0	31.0	85.1	85.2	6.4	6.4	4.1	4.4	8	8	87	89						
					Middle	4.8	0.2	88	20.4	20.4	7.9	7.9	32.1	32.1	82.8	82.7	6.2	6.2	4.0	4.4	12	11	89	89						
						4.8	0.2	90	20.4	20.4	7.9	7.9	32.1	32.1	82.6	82.7	6.2	6.2	4.2	4.4	11	11	89	89						
					Bottom	8.6	0.1	67	20.4	20.4	7.9	7.9	32.1	32.1	82.9	83.1	6.2	6.2	4.8	4.4	2	2	91	90						
						8.6	0.2	73	20.4	20.4	7.9	7.9	32.1	32.1	83.2	83.1	6.2	6.2	4.8	4.4	4	4	90	90						
SR1A	Cloudy	Calm	11:09	5.2	Surface	1.0	-	-	20.4	20.4	7.9	7.9	31.9	31.9	82.0	82.1	6.1	6.1	4.1	5.8	5	5	-	-	819973	812658	-	-		
						1.0	-	-	20.4	20.4	7.9	7.9	31.9	31.9	82.1	82.1	6.1	6.1	4.2	5.8	5	5	-	-						
					Middle	2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	5.8	-	-	-	-						
						2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	5.8	-	-	-	-						
					Bottom	4.2	-	-	20.4	20.4	7.9	7.9	32.0	32.0	82.2	82.3	6.1	6.2	7.6	5.8	5	5	-	-						
						4.2	-	-	20.4	20.4	7.9	7.9	32.0	32.0	82.3	82.3	6.2	6.2	7.3	5.8	6	6	-	-						
SR2	Cloudy	Calm	10:51	4.8	Surface	1.0	0.1	62	20.5	20.5	7.9	7.9	32.1	32.1	84.1	84.1	6.3	6.3	3.5	3.3	4	3	86	87	821467	814169	<0.2	0.8		
						1.0	0.1	67	20.5	20.5	7.9	7.9	32.1	32.1	84.1	84.1	6.3	6.3	3.5	3.3	3	3	87	87						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3	-	-	-	-						
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3	-	-	-	-						
					Bottom	3.8	0.1	47	20.5	20.5	7.9	7.9	32.1	32.1	84.7	84.9	6.3	6.3	3.2	3.3	5	4	89	90						
						3.8	0.1	51	20.5	20.5	7.9	7.9	32.1	32.1	85.0	84.9	6.3	6.3	3.1	3.3	4	4	90	90						
SR3	Cloudy	Calm	12:17	9.4	Surface	1.0	0.2	152	21.0	21.0	7.9	7.9	29.9	30.1	87.1	87.0	6.5	6.5	4.1	6.2	5	4	-	-	822162	807561	-	-		
						1.0	0.2	157	20.9	20.9	7.9	7.9	30.3	30.1	86.8	87.0	6.5	6.5	4.2	6.2	4	4	-	-						
					Middle	4.7	0.2	145	20.5	20.5	7.9	7.9	31.5	31.6	87.2	87.3	6.5	6.5	5.5	6.2	5	4	-	-						
						4.7	0.2	155	20.5	20.5	7.9	7.9	31.6	31.6	87.4	87.3	6.5	6.5	5.8	6.2	4	4	-	-						
					Bottom	8.4	0.1	180	20.4	20.4	7.9	7.9	32.1	32.1	88.2	88.2	6.6	6.6	8.6	6.2	6	5	-	-						
						8.4	0.1	184	20.4	20.4	7.9	7.9	32.1	32.1	88.2	88.2	6.6	6.6	8.7	6.2	5	5	-	-						
SR4A	Cloudy	Moderate	11:03	9.1	Surface	1.0	0.2	74	20.6	20.6	8.1	8.1	30.9	30.9	91.9	91.9	6.9	6.9	5.5	7.3	9	8	-	-	817206	807793	-	-		

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

Water Quality Monitoring

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

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA
C1	Cloudy	Moderate	15:05	8.4	Surface	1.0	0.3	50	20.8	20.8	8.1	8.1	30.9	30.9	94.0	93.9	7.1		4.2		4		86		815638	804238	<0.2		0.8	
						1.0	0.3	51	20.7		8.1		30.9		93.7		7.1		4.3		4		87				<0.2		0.8	
					Middle	4.2	0.3	55	20.6	20.6	8.1	8.1	31.2	31.3	91.9	91.8	6.9	7.0	5.9	7.1	4	4	88	88			<0.2		0.9	
						4.2	0.4	58	20.6		8.1		31.3		91.6		6.9		6.1		3		87				<0.2		0.8	
					Bottom	7.4	0.3	42	20.6	20.6	8.1	8.1	31.7	31.6	89.6	89.4	6.8		11.1		4		90				<0.2		0.8	
						7.4	0.3	46	20.6		8.1		31.6		89.1		6.7		11.1		5		90				<0.2		0.8	
						1.0	0.1	221	21.1	21.1	7.9	7.9	28.6	28.7	91.8	91.8	6.9		3.6		4		84				<0.2		1.5	
						1.0	0.1	234	21.1		7.9		28.7		91.7		6.9		3.6		4		84				<0.2		1.4	
C2	Cloudy	Moderate	13:58	11.9	Surface	6.0	0.1	214	20.4	20.4	8.0	8.0	31.8	31.9	88.6	88.5	6.6	6.8	4.6	4.4	6	6	88	88	825663	806931	<0.2	<0.2	1.6	1.6
						6.0	0.1	228	20.4		8.0		31.9		88.4		6.6		4.5		7		88				<0.2		1.8	
					Middle	10.9	0.2	34	20.4	20.4	8.0	8.0	32.1	32.1	88.2	88.2	6.6	6.6	5.2		7		92				<0.2		1.6	
						10.9	0.2	35	20.4		8.0		32.1		88.2		6.6		5.0		6		92				<0.2		1.7	
					Bottom	1.0	0.4	286	20.3	20.3	7.9	7.9	33.2	33.2	82.4	82.4	6.1		1.9		2		86				<0.2		1.8	
						1.0	0.4	292	20.3		7.9		33.2		82.4		6.1	6.1	1.9	1.9	3	3	88	88			<0.2	<0.2	1.8	1.8
						6.0	0.4	271	20.3	20.3	7.9	7.9	33.3	33.3	82.4	82.4	6.1		1.9		3		88				<0.2		1.7	
						6.0	0.4	291	20.3		7.9		33.3		82.3		6.1		1.9		3		88				<0.2		1.7	
C3	Cloudy	Moderate	16:03	12.0	Surface	11.0	0.2	294	20.3	20.3	7.9	7.9	33.3	33.2	82.4	82.5	6.1	6.1	1.9		4		90		822128	817788	<0.2	<0.2	1.8	1.8
						11.0	0.2	295	20.3		7.9		33.2		82.5		6.1		1.9		4		90				<0.2		1.8	
					Middle	1.0	0.1	300	20.9	20.9	8.1	8.1	31.6	31.6	89.4	89.3	6.7		14.5		4		88				<0.2		0.7	
						1.0	0.1	311	20.9		8.1		31.6		89.2		6.7		14.6		5		89				<0.2		0.7	
					Bottom	4.4	0.1	45	20.9	20.9	8.1	8.1	31.6	31.6	89.2	89.5	6.7	6.7	15.4	14.9	5	5	91	90			<0.2		0.8	
						4.4	0.1	49	20.9		8.1		31.6		89.8		6.7		15.3		6		92				<0.2		0.8	
					Bottom	1.0	0.1	316	20.9	20.9	8.1	8.1	31.3	31.3	94.1	94.1	7.1		4.0		4		86				<0.2		0.8	
						1.0	0.1	337	20.9		8.1		31.3		94.0		7.1		4.3		4		86				<0.2		1.0	
IM1	Cloudy	Moderate	14:44	5.4	Surface	3.8	0.1	322	20.9	20.9	8.1	8.1	31.8	31.8	92.2	92.2	6.9	7.0	6.7	5.9	7	5	87	88	818156	806157	<0.2	0.2	0.8	0.9
						3.8	0.1	341	20.8		8.1		31.8		92.1		6.9		6.8		5		88				<0.2		0.8	
					Middle	6.6	0.3	38	20.8	20.8	8.1	8.1	31.9	31.8	91.5	91.9	6.9	6.9	6.8		5		90				<0.2		0.9	
						6.6	0.3	38	20.8		8.1		31.8		92.2		6.9		7.0		6		90				<0.2		0.9	
					Bottom	1.0	0.1	325	20.9	20.9	8.1	8.1	31.0	31.0	94.5	94.5	7.1		4.0		4		86				<0.2		1.0	
						1.0	0.1	342	20.9		8.1		31.1		94.4		7.1		4.1		4		85				<0.2		0.9	
						3.4	0.2	344	20.9	20.9	8.1	8.1	31.5	31.5	93.4	93.3	7.0	7.1	5.1	6.0	5	4	88	88			<0.2	<0.2	0.8	0.9
						3.4	0.2	348	20.9		8.1		31.5		93.2		7.0		5.2		4		90				<0.2		0.8	
IM2	Cloudy	Moderate	14:36	7.6	Surface	5.8	0.2	45	20.8	20.8	8.1	8.1	31.9	31.8	91.8	91.9	6.9	6.9	8.8		5		91		818768	805617	<0.2	<0.2	0.8	0.9
						5.8	0.2	46	20.8		8.1		31.8		91.9		6.9		8.7		4		89				<0.2		0.8	
					Middle	1.0	0.1	325	21.0	21.0	8.1	8.1	30.8	30.8	94.7	94.7	7.1		4.7		4		85				<0.2		0.6	
						1.0	0.1	356	21.0		8.1		30.8		94.6		7.1		4.8		3		85				<0.2		0.7	
					Bottom	3.7	0.2	23	20.9	20.9	8.1	8.1	31.5	31.5	92.9	92.9	7.0	7.1	6.5	6.0	4	4	88	88			<0.2	<0.2	0.7	0.7
						3.7	0.2	24	20.9		8.1		31.5		92.9		7.0		6.6		4		89				<0.2		0.7	
					Bottom	6.3	0.2	39	20.9	20.9	8.1	8.1	31.3	31.3	93.1	93.1	7.0	7.0	6.9		4		90				<0.2		0.6	
						6.3	0.2	42	20.9		8.1		31.3		93.1		7.0		6.9		3		90				<0.2		0.7	
IM3	Cloudy	Moderate	14:13	7.2	Surface	1.0	0.1	341	21.0	21.0	8.1	8.1	30.6	30.6	94.0	94.1	7.1		5.2		4		85		820738	804843	<0.2		0.9	
						1.0	0.1	349	21.0		8.1		30.7		94.2		7.1		5.2		5		85				<0.2		0.9	
					Middle	3.6	0.1	347	20.9	20.9	8.1	8.1	31.0	31.1	94.7	94.7	7.1	7.1	5.4	5.7	5	5	87	88			<0.2	<0.2	0.9	0.9
						3.6	0.1	319	20.9		8.1		31.0		94.7		7.1		5.6		5		89				<0.2		0.9	
					Bottom	6.2	0.1	32	20.8	20.8	8.1	8.1	31.7	31.7	94.4	94.4	7.1	7.1	6.4		4		90				<0.2		0.9	
						6.2	0.1	33	20.8		8.1		31.7		94.4		7.1		6.4		5		90				<0.2		0.9	
					Surface	1.0	0.0																							

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IM9	Cloudy	Moderate	14:28	7.2	Surface	1.0	0.3	236	20.3	20.3	7.9	7.9	33.3	33.3	82.4	82.4	6.1	6.2	2.0	2.0	4	85	88	88	822107	808795	<0.2	1.8	1.9	
						1.0	0.3	256	20.3	20.3	7.9	7.9	33.3	33.3	82.4	82.4	6.1	6.2	2.0	2.0	3	85	88	88						
					Middle	3.6	0.2	246	20.2	20.2	7.9	7.9	33.3	33.3	82.6	82.7	6.2	6.2	2.0	2.0	3	88	89	89						
						3.6	0.3	252	20.2	20.2	7.9	7.9	33.3	33.3	82.7	82.7	6.2	6.2	2.0	2.0	3	89	89	89						
					Bottom	6.2	0.1	221	20.3	20.3	7.9	7.9	33.3	33.3	82.6	82.6	6.1	6.1	1.9	1.9	4	89	90	90						
						6.2	0.1	239	20.3	20.3	7.9	7.9	33.3	33.3	82.6	82.6	6.1	6.1	1.9	1.9	3	90	90	90						
						1.0	0.4	287	20.3	20.3	7.9	7.9	33.3	33.3	82.7	82.7	6.2	6.2	1.9	1.9	3	87	86	86						
						1.0	0.4	300	20.3	20.3	7.9	7.9	33.3	33.3	82.6	82.6	6.1	6.1	1.9	1.9	2	86	90	90						
IM10	Cloudy	Moderate	14:35	7.0	Surface	1.0	0.4	287	20.3	20.3	7.9	7.9	33.3	33.3	82.7	82.7	6.2	6.2	1.9	1.9	3	87	86	86	822381	809810	<0.2	1.7	1.8	
						1.0	0.4	300	20.3	20.3	7.9	7.9	33.3	33.3	82.6	82.6	6.1	6.1	1.9	1.9	2	86	90	90						
					Middle	3.5	0.3	291	20.3	20.3	7.9	7.9	33.3	33.3	82.6	82.6	6.1	6.1	2.0	2.0	3	90	90	90						
						3.5	0.3	319	20.3	20.3	7.9	7.9	33.3	33.3	82.6	82.6	6.1	6.1	2.0	2.0	3	90	92	92						
					Bottom	6.0	0.3	304	20.2	20.3	7.9	7.9	33.3	33.3	82.5	82.6	6.1	6.1	1.9	1.9	3	92	93	93						
						6.0	0.3	319	20.2	20.3	7.9	7.9	33.3	33.3	82.5	82.6	6.1	6.1	1.9	1.9	3	92	93	93						
						1.0	0.4	288	20.3	20.3	7.9	7.9	33.3	33.3	82.5	82.5	6.1	6.1	1.8	1.9	4	86	87	87						
						1.0	0.4	289	20.3	20.3	7.9	7.9	33.3	33.3	82.5	82.5	6.1	6.1	1.9	1.9	4	87	91	91						
IM11	Cloudy	Moderate	14:45	8.0	Surface	1.0	0.4	288	20.3	20.3	7.9	7.9	33.3	33.3	82.5	82.5	6.1	6.1	1.8	1.9	4	86	87	87	822078	811451	<0.2	1.8	1.8	
						1.0	0.4	289	20.3	20.3	7.9	7.9	33.3	33.3	82.5	82.5	6.1	6.1	1.9	1.9	4	87	91	91						
					Middle	4.0	0.4	275	20.3	20.3	7.9	7.9	33.3	33.3	82.3	82.3	6.1	6.1	1.9	1.9	4	91	90	90						
						4.0	0.4	284	20.3	20.3	7.9	7.9	33.3	33.3	82.3	82.3	6.1	6.1	1.9	1.9	4	90	92	92						
					Bottom	7.0	0.3	279	20.3	20.3	7.9	7.9	33.3	33.3	82.2	82.2	6.1	6.1	1.9	1.9	5	92	93	93						
						7.0	0.3	292	20.3	20.3	7.9	7.9	33.3	33.3	82.2	82.2	6.1	6.1	2.0	2.0	3	93	93	93						
						1.0	0.4	273	20.3	20.3	7.9	7.9	33.2	33.2	82.6	82.6	6.1	6.1	1.8	1.9	3	86	87	87						
						1.0	0.4	276	20.3	20.3	7.9	7.9	33.2	33.2	82.6	82.6	6.1	6.1	1.9	1.9	4	87	92	92						
IM12	Cloudy	Moderate	14:52	9.2	Surface	1.0	0.4	273	20.3	20.3	7.9	7.9	33.2	33.2	82.6	82.6	6.1	6.1	1.8	1.9	3	86	87	87	821459	812048	<0.2	2.0	1.9	
						1.0	0.4	276	20.3	20.3	7.9	7.9	33.2	33.2	82.6	82.6	6.1	6.1	1.9	1.9	4	87	92	92						
					Middle	4.6	0.3	285	20.2	20.2	7.9	7.9	33.3	33.3	81.9	82.0	6.1	6.1	2.0	2.0	4	92	91	91						
						4.6	0.3	309	20.2	20.2	7.9	7.9	33.3	33.3	82.1	82.1	6.1	6.1	2.0	2.0	4	91	93	93						
					Bottom	8.2	0.3	265	20.3	20.3	7.9	7.9	33.3	33.3	82.4	82.5	6.1	6.1	1.9	1.9	5	93	93	93						
						8.2	0.3	266	20.3	20.3	7.9	7.9	33.3	33.3	82.5	82.5	6.1	6.1	1.9	1.9	4	93	93	93						
						1.0	-	-	20.3	20.3	7.9	7.9	33.3	33.3	83.0	83.0	6.2	6.2	1.9	1.9	3	-	-	-						
						1.0	-	-	20.3	20.3	7.9	7.9	33.3	33.3	83.0	83.0	6.2	6.2	1.9	1.9	3	-	-	-						
SR1A	Cloudy	Calm	15:25	4.1	Surface	1.0	-	-	20.3	20.3	7.9	7.9	33.3	33.3	83.0	83.0	6.2	6.2	1.9	1.9	3	-	-	-	819971	812656	-	-	-	
						1.0	-	-	20.3	20.3	7.9	7.9	33.3	33.3	83.0	83.0	6.2	6.2	1.9	1.9	3	-	-	-						
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
						2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
					Bottom	3.1	-	-	20.3	20.3	7.9	7.9	33.3	33.3	82.9	82.9	6.2	6.2	1.9	1.9	3	-	-	-						
						3.1	-	-	20.3	20.3	7.9	7.9	33.3	33.3	82.8	82.8	6.2	6.2	1.9	1.9	2	-	-	-						
						1.0	0.0	56	20.3	20.3	7.9	7.9	33.2	33.2	82.8	82.8	6.2	6.2	1.8	1.8	4	85	84	84						
						1.0	0.0	59	20.3	20.3	7.9	7.9	33.2	33.2	82.8	82.8	6.2	6.2	1.8	1.8	3	84	89	89						
SR2	Cloudy	Calm	15:45	4.8	Surface	1.0	0.0	56	20.3	20.3	7.9	7.9	33.2	33.2	82.8	82.8	6.2	6.2	1.8	1.8	4	85	84	84	821468	814165	<0.2	1.8	1.8	
						1.0	0.0	59	20.3	20.3	7.9	7.9	33.2	33.2	82.8	82.8	6.2	6.2	1.8	1.8	3	84	89	89						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							

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

Water Quality Monitoring

Water Quality Monitoring Results on 11 March 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)	
C1	Fine	Calm	11:51	8.8	Surface	1.0	0.1	269	20.8	20.7	8.2	8.2	30.9	31.1	96.2	95.4	7.2	7.1	3.6	6.9	8	7	87	88	815633	804232	<0.2	0.9	0.9	
						1.0	0.1	291	20.5		8.2		31.2		94.5	94.5	7.1	7.1	3.7		9	8	87	87						
					Middle	4.4	0.1	113	20.3	20.3	8.2	8.2	31.6	31.6	93.2	93.2	7.0	7.0	6.6		6	7	87	88						
						4.4	0.1	117	20.3		8.2		31.6	31.6	93.2	93.2	7.0	7.0	6.7		7	6	87	88						
					Bottom	7.8	0.0	137	20.3	20.3	8.2	8.2	31.7	31.7	93.5	93.6	7.0	7.0	10.4		7	7	89	89						
						7.8	0.0	147	20.3	20.3	8.2	8.2	31.7	31.7	93.7	93.7	7.0	7.0	10.3		6	6	89	89						
					Surface	1.0	0.1	136	21.0	21.0	7.9	7.9	29.1	29.1	89.2	89.2	6.7	6.7	5.1		7	8	83	83						
						1.0	0.1	143	21.0		7.9		29.1	29.1	89.2	89.2	6.7	6.7	5.1		8	8	83	87						
C2	Fine	Moderate	10:46	12.1	Surface	6.1	0.2	119	20.7	20.7	7.9	7.9	30.4	30.4	89.5	89.5	6.7	6.7	5.7	6.2	8	8	87	87	825679	806922	<0.2	1.2	0.9	
						6.1	0.2	129	20.7		7.9		30.4	30.4	89.5	89.5	6.7	6.7	5.7		7	7	87	87						
					Middle	11.1	0.2	149	20.6	20.6	8.0	8.0	31.2	31.2	90.7	90.7	6.8	6.8	7.9		9	9	90	90						
						11.1	0.2	153	20.6		8.0		31.2	31.2	90.7	90.7	6.8	6.8	7.8		9	9	89	89						
					Surface	1.0	0.4	34	21.0	21.0	7.9	7.9	32.2	32.2	86.8	86.8	6.4	6.4	3.6		5	5	84	85						
						1.0	0.4	37	20.9		7.9		32.2	32.2	86.7	86.7	6.4	6.4	3.7		5	5	85	88						
					Middle	6.0	0.2	39	20.4	20.4	7.9	7.9	32.7	32.7	83.1	83.1	6.2	6.2	4.3	4.0	5	5	88	88						
						6.0	0.2	41	20.4		7.9		32.7	32.7	83.0	83.0	6.2	6.2	4.2		5	5	88	88						
C3	Fine	Moderate	13:36	12.0	Surface	1.0	0.4	34	21.0	21.0	7.9	7.9	32.2	32.2	86.8	86.8	6.4	6.4	3.6		5	5	84	85	822095	817826	<0.2	0.8	0.8	
						1.0	0.4	37	20.9		7.9		32.2	32.2	86.7	86.7	6.4	6.4	3.7		5	5	85	88						
					Middle	6.0	0.2	39	20.4	20.4	7.9	7.9	32.7	32.7	83.1	83.1	6.2	6.2	4.3		5	5	88	88						
						6.0	0.2	41	20.4		7.9		32.7	32.7	83.0	83.0	6.2	6.2	4.2		5	5	88	88						
					Bottom	11.0	0.2	84	20.3	20.3	8.0	8.0	33.1	33.1	82.4	82.5	6.1	6.1	4.1		6	6	91	90						
						11.0	0.2	88	20.3		8.0		33.1	33.1	82.5	82.5	6.1	6.1	4.1		7	7	90	89						
					Surface	1.0	0.1	126	20.6	20.6	8.2	8.2	30.7	30.7	94.3	94.2	7.1	7.1	5.6		7	6	85	85	817941	807112	<0.2	0.9	0.9	
						1.0	0.1	135	20.6		8.2		30.7	30.7	94.1	94.1	7.1	7.1	5.5		6	6	85	85						
IM1	Fine	Calm	11:31	5.0	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	7.1		-	-	-	-						
						-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	87						
					Bottom	4.0	0.0	125	20.5	20.5	8.1	8.1	30.8	30.8	94.3	94.4	7.1	7.1	20.5		8	8	89	89						
						4.0	0.0	128	20.5		8.1		30.8	30.8	94.5	94.5	7.1	7.1	20.4		7	7	89	89						
					Surface	1.0	0.1	188	20.7	20.7	8.2	8.2	30.7	30.7	94.6	94.6	7.1	7.1	6.4		8	8	86	86	818166	806174	<0.2	0.9	0.8	
						1.0	0.1	201	20.7		8.2		30.8	30.7	94.5	94.5	7.1	7.1	6.5		8	8	86	89						
					Middle	3.5	0.1	134	20.4	20.4	8.2	8.2	31.2	31.2	92.9	92.8	7.0	7.0	11.6	10.7	8	8	89	89						
						3.5	0.1	142	20.4		8.2		31.2	31.2	92.7	92.7	7.0	7.0	11.6		7	7	89	89						
					Bottom	6.0	0.2	95	20.3	20.4	8.2	8.2	31.4	31.3	92.5	92.6	7.0	7.0	14.1		7	7	87	87						
						6.0	0.2	100	20.4		8.2		31.3	31.3	92.6	92.6	7.0	7.0	14.0		8	8	87	87						
IM3	Fine	Calm	11:17	7.2	Surface	1.0	0.1	273	20.7	20.7	8.2	8.2	30.8	30.8	95.1	95.1	7.1	7.1	6.0		4	6	87	88	818789	805604	<0.2	0.8	0.8	
						1.0	0.1	282	20.7		8.2		30.8	30.8	95.1	95.1	7.1	7.1	6.0		6	6	88	88						
					Middle	3.6	0.0	29	20.4	20.4	8.2	8.2	31.2	31.2	93.1	93.1	7.0	7.0	10.6	9.7	4	8	89	89						
						3.6	0.0	30	20.4		8.2		31.3	31.2	93.1	93.1	7.0	7.0	10.5		8	8	89	89						
					Bottom	6.2	0.1	51	20.3	20.3	8.2	8.2	31.3	31.3	93.0	93.0	7.0	7.0	12.6		7	7	89	89						
						6.2	0.1	53	20.3		8.2		31.3	31.3	93.0	93.0	7.0	7.0	12.6		6	6	90	90						
					Surface	1.0	0.1	303	20.7	20.7	8.2	8.2	30.8	30.8	94.9	94														

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

Water Quality Monitoring

Water Quality Monitoring Results on 11 March 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)	
IM9	Fine	Moderate	12:01	7.3	Surface	1.0	0.4	112	21.0	21.0	7.9	7.9	29.9	29.9	90.7	90.7	6.8	6.8	5.4	7	84	87	822092	808820	<0.2	1.2	<0.2	1.3		
						1.0	0.4	117	21.0		7.9		29.9		90.7		6.8	6.8	5.3	7	83				<0.2	1.3				
					Middle	3.7	0.3	112	20.8	20.8	7.9	7.9	30.4	30.4	90.9	91.0	6.8	6.8	6.5	8	88	87			<0.2	1.3				
						3.7	0.3	115	20.8		7.9		30.4		91.0		6.8	6.6	6.6	7	88				<0.2	1.3				
					Bottom	6.3	0.2	107	20.5	20.5	7.9	7.9	31.5	31.5	90.6	90.6	6.8	6.8	7.6	7	90	87			<0.2	1.2				
						6.3	0.2	111	20.5		7.9		31.5		90.6		6.8	7.3	8	7	90				<0.2	1.3				
IM10	Fine	Moderate	12:08	7.7	Surface	1.0	0.5	131	21.2	21.2	7.9	7.9	29.8	29.8	90.3	90.3	6.7	6.7	5.0	9	84	88	822382	809771	<0.2	1.2	<0.2	1.2		
						1.0	0.5	142	21.2		7.9		29.8		90.3		6.7	5.0	9	9	83				<0.2	1.2				
					Middle	3.9	0.5	130	20.8	20.8	8.0	8.0	30.3	30.3	89.1	89.1	6.7	6.7	4.9	6	89	88			<0.2	1.3				
						3.9	0.6	137	20.8		8.0		30.4		89.0		6.7	5.0	6	6	89				<0.2	1.2				
					Bottom	6.7	0.4	126	20.5	20.5	8.0	8.0	31.6	31.6	89.3	89.4	6.7	6.6	6	6	90	88			<0.2	1.2				
						6.7	0.4	129	20.5		8.0		31.6		89.4		6.7	6.7	5	5	90				<0.2	1.2				
IM11	Fine	Moderate	12:19	8.4	Surface	1.0	0.6	76	21.2	21.2	7.9	7.9	29.8	29.8	90.4	90.4	6.8	6.8	4.8	5	84	87	822070	811441	<0.2	1.2	<0.2	1.2		
						1.0	0.6	80	21.2		7.9		29.8		90.4		6.8	4.8	4	4	83				<0.2	1.3				
					Middle	4.2	0.4	76	20.6	20.6	8.0	8.0	31.4	31.4	88.2	88.2	6.6	6.6	4.7	5	88	87			<0.2	1.2				
						4.2	0.5	81	20.6		8.0		31.4		88.1		6.6	4.7	5	5	89				<0.2	1.3				
					Bottom	7.4	0.3	71	20.6	20.6	8.0	8.0	31.9	31.9	88.5	88.6	6.6	6.6	5.3	6	90	87			<0.2	1.1				
						7.4	0.3	76	20.6		8.0		31.9		88.6		6.6	5.3	6	6	90				<0.2	1.1				
IM12	Fine	Moderate	12:26	9.2	Surface	1.0	0.5	74	21.1	21.1	7.9	7.9	30.0	30.0	90.3	90.3	6.7	6.7	5.0	5	83	87	821469	812034	<0.2	1.1	<0.2	1.2		
						1.0	0.5	76	21.1		7.9		30.0		90.3		6.7	5.0	6	6	84				<0.2	1.2				
					Middle	4.6	0.4	70	20.8	20.8	8.0	8.0	31.1	31.1	89.2	89.2	6.7	6.7	4.6	6	87	87			<0.2	1.1				
						4.6	0.4	76	20.8		8.0		31.1		89.2		6.7	4.6	6	6	88				<0.2	1.2				
					Bottom	8.2	0.2	66	20.6	20.6	8.0	8.0	31.8	31.8	89.4	89.4	6.7	6.7	5.3	7	89	87			<0.2	1.2				
						8.2	0.2	69	20.6		8.0		31.8		89.4		6.7	5.3	7	7	90				<0.2	1.3				
SR1A	Fine	Calm	13:00	4.4	Surface	1.0	-	-	20.6	20.6	7.9	7.9	31.9	31.9	88.7	88.7	6.6	6.6	6.0	7	-	-	819971	812653	-	-	-	-		
						1.0	-	-	20.6		7.9		31.9		88.7		6.6	6.0	6	6	-	-			-	-				
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-			
						2.2	-	-	-		-		-		-		-	-	-	-	-	-	-			-	-			
					Bottom	3.4	-	-	20.6	20.6	7.9	7.9	31.9	31.9	89.6	89.6	6.7	6.7	6.5	7	-	-	-		-	-	-			
						3.4	-	-	20.6		7.9		31.9		89.6		6.7	6.5	7	7	-	-	-		-	-	-			
SR2	Fine	Moderate	13:17	4.2	Surface	1.0	0.4	109	21.2	21.2	8.0	8.0	30.2	30.3	91.5	91.4	6.8	6.8	4.2	5	86	87	821459	814149	<0.2	1.1	<0.2	1.2		
						1.0	0.4	113	21.2		8.0		30.3		91.3		6.8	4.1	5	5	86				<0.2	1.3				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-			
						-	-	-	-		-		-		-		-	-	-	-	-	-	-			-	-			
					Bottom	3.2	0.3	93	20.8	20.8	8.0	8.0	31.8	31.8	90.5	90.5	6.7	6.7	4.4	4	88	87			<0.2	1.2				
						3.2	0.3	96	20.8		8.0		31.8		90.5		6.7	4.4	3	3	88				<0.2	1.2				
SR3	Fine	Moderate	11:49	9.2	Surface	1.0	0.1	131	21.0	21.0	7.9	7.9	29.4	29.4	89.0	89.0	6.7	6.7	4.9	6	-	-	822135	807547	-	-	-	-		
						1.0	0.1	137	21.0		7.9		29.4		88.9		6.7	4.9	6	6	-	-			-	-				
					Middle	4.6	0.2	123	20.7	20.7	8.0	8.0	30.4	30.4	90.7	90.8	6.8	6.8	5.4	6	-	-	-		-	-	-			
						4.6	0.2	134	20.7		8.0		30.5		90.9		6.8	5.4	6	6	-	-	-		-	-	-			
					Bottom	8.2	0.2	68	20.6	20.6	8.0	8.0	31.6	31.6	91.6	91.6	6.8	6.8	6.5	7	-	-	-		-	-	-			
						8.2	0.2	68	20.6		8.0		31.6		91.5		6.8	6.4	6	6	-	-	-		-	-	-			
SR4A	Fine	Calm	12:15	8.4	Surface	1.0	0.3	69	20.6	20.6	8.1	8.1	30.7	30.7	93.0	93.0	7.0	7.0	7.2	5	-	-	817196	807786	-	-	-	-		
						1.0	0.3	74	20.5		8.1		30.8		92.9		7.0	7.2	5	5	-	-			-	-				
					Middle	4.2	0.2	68	20.5	20.5	8.1	8.1	30.8	30.8	92.8	92.8	7.0	7.0	8.8	5	-	-	-		-	-	-			
						4.2	0.2	74	20.5		8.1		30.8		92.8		7.0	8.9	4	4	-	-	-		-	-	-			
					Bottom	7.4	0.2	60	20.6	20.6	8.1	8.1	30.8	30.8	93.2	93.3	7.0	7.0	10.6	4	-	-	-		-	-	-			
						7.4	0.2	62	20.6		8.1		30.8		93.4		7.0	10.7	5	5	-	-	-		-	-	-			
SR5A	Fine	Calm	12:32	3.6	Surface	1.0	0.1	312	21.2	21.2	8.1	8.1	30.4	30.4	91.9	91.9	6.8	6.8	6.7	4	-	-	816603							

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

Water Quality Monitoring

Water Quality Monitoring Results on 11 March 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)	
C1	Misty	Calm	07:27	8.4	Surface	1.0	0.5	49	20.2	20.2	8.2	8.2	31.7	31.7	93.0	93.0	7.0	7.0	2.8	7	8	85	87	815616	804256	<0.2	<0.2	0.8	0.8	
						1.0	0.5	51	20.2		8.2		31.7		92.9		7.0		3.0	7		85				<0.2	<0.2	0.8	0.8	
					Middle	4.2	0.5	43	20.2	20.2	8.1	8.1	31.8	31.8	91.9	91.9	6.9	6.9	3.5	9	8	87	87			<0.2	<0.2	0.9	0.9	
						4.2	0.5	43	20.2		8.1		31.8		91.8		6.9		3.4	8		88				<0.2	<0.2	0.9	0.9	
					Bottom	7.4	0.5	44	20.2	20.2	8.1	8.1	31.8	31.8	91.3	91.3	6.9	6.9	4.4	8	8	88	88			<0.2	<0.2	0.8	0.8	
						7.4	0.5	47	20.2		8.1		31.8		91.2		6.9		5.0	9		89				<0.2	<0.2	0.8	0.8	
C2	Cloudy	Moderate	08:30	12.3	Surface	1.0	0.3	350	20.9	20.9	7.9	7.9	28.6	28.6	85.6	85.6	6.5	6.5	5.5	7	7	84	87	825697	806942	<0.2	<0.2	1.4	1.6	
						1.0	0.3	322	20.9		7.9		28.6		85.6		6.5		5.4	7		83				<0.2	<0.2	1.4	1.6	
					Middle	6.2	0.5	12	20.8	20.8	7.9	7.9	29.5	29.5	82.5	82.5	6.2	6.2	6.6	7	7	87	87			<0.2	<0.2	1.5	1.6	
						6.2	0.5	12	20.8		7.9		29.5		82.4		6.2		6.6	7		87				<0.2	<0.2	1.5	1.6	
					Bottom	11.3	0.3	10	20.6	20.6	7.9	7.9	31.8	31.8	80.8	80.9	6.0	6.0	7.2	7	7	90	89			<0.2	<0.2	0.8	0.8	
						11.3	0.3	10	20.6		7.9		31.8		80.9		6.0		7.3	8		89				<0.2	<0.2	0.8	0.8	
C3	Cloudy	Moderate	06:22	11.4	Surface	1.0	0.5	236	20.5	20.5	7.9	7.9	32.1	32.1	84.7	84.7	6.3	6.3	3.2	5	5	84	87	822090	817786	<0.2	<0.2	0.9	0.8	
						1.0	0.5	243	20.5		7.9		32.1		84.6		6.3		3.2	5		84				<0.2	<0.2	0.9	0.8	
					Middle	5.7	0.4	236	20.5	20.5	7.9	7.9	32.4	32.4	83.0	83.0	6.2	6.2	4.2	4	4	88	87			<0.2	<0.2	0.9	0.8	
						5.7	0.5	257	20.5		7.9		32.4		82.9		6.2		4.4	5		87				<0.2	<0.2	0.8	0.8	
					Bottom	10.4	0.4	237	20.4	20.4	8.0	8.0	32.7	32.7	82.4	82.4	6.1	6.1	6.5	4	4	90	89			<0.2	<0.2	0.7	0.8	
						10.4	0.4	239	20.4		8.0		32.7		82.4		6.1		6.4	5		90				<0.2	<0.2	0.8	0.8	
IM1	Misty	Calm	07:47	5.2	Surface	1.0	0.1	6	20.4	20.4	8.1	8.1	30.7	30.7	93.4	93.4	7.0	7.0	6.2	9	9	83	85	817967	807135	<0.2	<0.2	0.9	0.9	
						1.0	0.1	6	20.4		8.1		30.8		93.3		7.0		6.1	9		84				<0.2	<0.2	1.0	1.0	
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85			<0.2	<0.2	-	-
						-	-	-	-		-		-		-		-		-	-	-	-				<0.2	<0.2	-	-	
					Bottom	4.2	0.1	342	20.4	20.4	8.1	8.1	30.9	30.9	94.1	94.2	7.1	7.1	6.7	9	9	86	87			<0.2	<0.2	0.8	0.8	
						4.2	0.1	354	20.3		8.1		30.9		94.3		7.1		6.6	10		87				<0.2	<0.2	0.8	0.8	
IM2	Misty	Calm	07:54	7.0	Surface	1.0	0.3	16	20.5	20.5	8.1	8.1	30.6	30.6	92.6	92.6	7.0	7.0	8.6	7	7	84	87	818158	806162	<0.2	<0.2	0.8	0.8	
						1.0	0.4	17	20.5		8.1		30.6		92.5		7.0		8.8	7		85				<0.2	<0.2	0.8	0.8	
					Middle	3.5	0.3	359	20.5	20.5	8.1	8.1	30.6	30.6	92.1	92.1	6.9	6.9	9.7	7	8	88	87			<0.2	<0.2	0.9	0.9	
						3.5	0.3	332	20.5		8.1		30.6		92.1		6.9		9.6	8		88				<0.2	<0.2	0.9	0.9	
					Bottom	6.0	0.2	322	20.5	20.5	8.1	8.1	30.5	30.5	91.6	91.6	6.9	6.9	10.6	9	9	89	89			<0.2	<0.2	0.9	0.9	
						6.0	0.2	328	20.5		8.1		30.5		91.6		6.9		10.6	8		89				<0.2	<0.2	1.0	1.0	
IM3	Fine	Calm	08:00	7.2	Surface	1.0	0.3	342	20.6	20.6	8.1	8.1	30.5	30.5	93.3	93.3	7.0	7.0	8.7	11	11	85	87	818763	805604	<0.2	<0.2	1.1	1.2	
						1.0	0.4	350	20.5		8.1		30.5		93.3		7.0		8.7	12		85				<0.2	<0.2	1.2	1.2	
					Middle	3.6	0.3	331	20.5	20.5	8.1	8.1	30.5	30.5	93.0	93.0	7.0	7.0	9.6	4	4	87	87			<0.2	<0.2	0.9	0.9	
						3.6	0.3	344	20.5		8.1		30.5		93.0		7.0		9.6	3		88				<0.2	<0.2	0.8	0.8	
					Bottom	6.2	0.3	324	20.5	20.5	8.1	8.1	30.5	30.5	92.7	92.8	7.0	7.0	10.9	4	4	90	89			<0.2	<0.2	0.9	0.9	
						6.2	0.3	350	20.5		8.1		30.5		92.8		7.0		10.8	3		89				<0.2	<0.2	0.8	0.8	
IM4	Fine	Calm	08:09	8.2	Surface	1.0	0.5	352	20.6	20.6	8.1	8.1	30.5	30.5	93.9	93.9	7.1	7.1	7.0	5	5	83	87	819744	804613	<0.2	<0.2	0.9	0.9	
						1.0	0.5	324	20.6		8.1		30.5		93.9		7.1		7.1	5		84				<0.2	<0.2	0.9	0.9	
					Middle	4.1	0.4	1	20.5	20.5	8.1	8.1	30.6	30.6	93.7	93.7	7.0	7.0	8.9	5	5	84	87			<0.2	<0.2	0.9	0.9	
						4.1	0.5	1	20.5		8.1		30.6		93.6		7.0		8.9	6		89				<0.2	<0.2	0.9	0.9	
					Bottom	7.2	0.4	7	20.5	20.5	8.1	8.1	30.6	30.6	93.5	93.7	7.0	7.1	9.4	6	6	90	89			<0.2	<0.2	0.8	0.8	
						7.2	0.4	7	20.5		8.1		30.6		93.9		7.1		9.7	5		89				<0.2	<0.2	0.9	0.9	
IM5	Fine	Calm	08:16	7.8	Surface	1.0	0.7	15	20.6	20.6	8.1	8.1	30.3	30.3	93.3	93.3	7.0	7.0	8.3	8	7	83	87	820723	804854	<0.2	<0.2	0.9	0.9	
						1.0	0.8	16	20.6		8.1		30.3		93.2		7.0		8.2	7		83				<0.2	<0.2	0.9	0.9	
					Middle	3.9	0.7	19	20.6	20.6	8.1	8.1	30.3	30.3	93.2	93.2	7.0	7.0	9.3	7	7	89	87			<0.2	<0.2	0.9	0.9	
						3.9	0.7	19	20.6		8.1		30.3		93.2		7.0		9.2	8		89				<0.2	<0.2	0.9	0.9	
					Bottom	6.8	0.5	25	20.6	20.6	8.1	8.1	30.3	30.3	94.2	94.4	7.1	7.1	10.3	6	6	89	89			<0.2	<0.2	0.9	0.9	
						6.8	0.5	26	20.6		8.1		30.4																	

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

Water Quality Monitoring

Water Quality Monitoring Results on 11 March 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)	
IM9	Cloudy	Moderate	07:58	7.4	Surface	1.0	0.2	319	20.7	20.7	7.9	7.9	29.8	29.8	88.0	88.1	6.6	6.6	5.4	5.4	8	8	84	87	822085	808792	<0.2	0.9	1.0	
						1.0	0.2	328	20.7	20.7	7.9	7.9	29.8	29.8	88.1	88.1	6.6	6.6	5.4	5.4	7	7	83	87						
					Middle	3.7	0.1	339	20.7	20.7	8.0	8.0	30.2	30.2	88.3	88.3	6.6	6.6	5.0	5.0	7	7	87	86						
						3.7	0.1	349	20.7	20.7	8.0	8.0	30.3	30.3	88.3	88.3	6.6	6.6	5.0	5.0	6	6	86	89						
					Bottom	6.4	0.1	340	20.7	20.7	8.0	8.0	30.5	30.5	88.5	88.6	6.6	6.6	5.8	5.8	7	7	89	90						
						6.4	0.1	313	20.7	20.7	8.0	8.0	30.5	30.5	88.6	88.6	6.6	6.6	5.8	5.8	6	6	90	89						
IM10	Cloudy	Moderate	07:51	8.3	Surface	1.0	0.5	279	20.5	20.5	7.9	7.9	31.5	31.5	88.6	88.6	6.6	6.6	4.5	4.5	7	7	83	84	822388	809790	<0.2	0.9	1.0	
						1.0	0.5	284	20.5	20.5	7.9	7.9	31.5	31.5	88.6	88.6	6.6	6.6	4.5	4.5	7	7	84	87						
					Middle	4.2	0.5	277	20.5	20.5	7.9	7.9	31.5	31.5	88.3	88.3	6.6	6.6	5.1	5.1	7	7	87	86						
						4.2	0.5	288	20.5	20.5	7.9	7.9	31.5	31.5	88.3	88.3	6.6	6.6	5.2	5.2	8	8	86	89						
					Bottom	7.3	0.5	265	20.5	20.5	8.0	8.0	31.5	31.5	88.0	88.0	6.6	6.6	6.0	6.0	10	10	89	89						
						7.3	0.5	265	20.5	20.5	8.0	8.0	31.5	31.5	88.0	88.0	6.6	6.6	6.1	6.1	9	9	89	89						
IM11	Cloudy	Moderate	07:41	7.5	Surface	1.0	0.4	326	20.5	20.5	7.9	7.9	31.7	31.7	86.7	86.7	6.5	6.5	6.9	6.9	10	10	83	84	822042	811478	<0.2	0.9	0.9	
						1.0	0.4	327	20.5	20.5	7.9	7.9	31.7	31.7	86.6	86.6	6.5	6.5	6.9	6.9	11	11	84	86						
					Middle	3.8	0.3	337	20.5	20.5	7.9	7.9	31.8	31.8	86.2	86.2	6.4	6.4	7.9	7.9	11	11	86	87						
						3.8	0.4	310	20.5	20.5	7.9	7.9	31.8	31.8	86.2	86.2	6.4	6.4	7.9	7.9	11	11	87	89						
					Bottom	6.5	0.2	354	20.5	20.5	8.0	8.0	31.9	31.9	86.0	86.0	6.4	6.4	7.9	7.9	12	12	89	89						
						6.5	0.3	326	20.5	20.5	8.0	8.0	31.9	31.9	86.0	86.0	6.4	6.4	7.9	7.9	11	11	89	89						
IM12	Cloudy	Moderate	07:34	8.9	Surface	1.0	0.5	277	20.5	20.5	7.9	7.9	32.0	32.0	86.3	86.3	6.4	6.4	5.8	5.8	8	8	83	83	821436	812051	<0.2	0.9	0.9	
						1.0	0.6	294	20.5	20.5	7.9	7.9	32.0	32.0	86.3	86.3	6.4	6.4	5.9	5.9	9	9	83	87						
					Middle	4.5	0.5	277	20.5	20.5	7.9	7.9	32.0	32.0	86.2	86.2	6.4	6.4	6.2	6.2	9	9	87	86						
						4.5	0.5	294	20.5	20.5	7.9	7.9	32.0	32.0	86.2	86.2	6.4	6.4	6.1	6.1	8	8	86	90						
					Bottom	7.9	0.4	272	20.5	20.5	8.0	8.0	32.0	32.0	86.8	86.8	6.5	6.5	7.7	7.7	8	8	90	89						
						7.9	0.4	294	20.5	20.5	8.0	8.0	32.0	32.0	86.8	86.8	6.5	6.5	7.6	7.6	7	7	89	89						
SR1A	Cloudy	Calm	06:58	4.8	Surface	1.0	-	-	20.4	20.4	8.0	8.0	31.6	31.6	86.7	86.7	6.5	6.5	3.1	3.1	4	4	-	-	819977	812662	-	-	-	
						1.0	-	-	20.4	20.4	8.0	8.0	31.6	31.6	86.6	86.6	6.5	6.5	3.1	3.1	4	4	-	-						
					Middle	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
						2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
					Bottom	3.8	-	-	20.4	20.4	8.0	8.0	31.7	31.7	86.6	86.7	6.5	6.5	3.6	3.6	4	4	-	-						
						3.8	-	-	20.4	20.4	8.0	8.0	31.7	31.7	86.7	86.7	6.5	6.5	3.6	3.6	5	5	-	-						
SR2	Cloudy	Moderate	06:43	4.4	Surface	1.0	0.1	240	20.5	20.5	7.9	7.9	31.8	31.8	86.7	86.7	6.5	6.5	7.5	7.4	9	10	85	85	821460	814183	<0.2	0.9	0.8	
						1.0	0.1	251	20.5	20.5	7.9	7.9	31.8	31.8	86.7	86.7	6.5	6.5	7.4	7.4	10	10	85	85						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
					Bottom	3.4	0.1	238	20.5	20.5	8.0	8.0	31.8	31.8	86.8	86.9	6.5	6.5	7.9	7.9	9	9	88	87						
						3.4	0.1	249	20.5	20.5	8.0	8.0	31.8	31.8	86.9	86.9	6.5	6.5	7.9	7.9	9	9	87	87						
SR3	Cloudy	Moderate	08:11	9.3	Surface	1.0	0.0	248	20.8	20.8	7.9	7.9	29.3	29.3	86.7	86.7	6.5	6.5	5.9	5.9	8	8	-	-	822167	807553	-	-	-	
						1.0	0.0	267	20.8	20.8	7.9	7.9	29.3	29.3	86.6	86.6	6.5	6.5	5.9	5.9	8	8	-	-						
					Middle	4.7	0.1	286	20.8	20.8	7.9	7.9	29.5	29.5	85.9	85.9	6.5	6.5	6.6	6.6	7	7	-	-						
						4.7	0.1	290	20.8	20.8	7.9	7.9	29.5	29.5	85.9	85.9	6.5	6.5	6.7	6.7	8	8	-	-						
					Bottom	8.3	0.1	16	20.8	20.8	7.9	7.9	29.6	29.6	86.1	86.1	6.5	6.5	7.9	7.9	6	6	-	-						
						8.3	0.1	16	20.8	20.8	7.9	7.9	29.6	29.6	86.1	86.1	6.5	6.5	7.6	7.6	7	7	-	-						
SR4A	Misty	Calm	07:04	9.2	Surface	1.0	0.3	77	20.4	20.4	8.1	8.1	30.8	30.8	91.3	9														

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

Water Quality Monitoring

Water Quality Monitoring Results on 13 March 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)	
C1	Fine	Moderate	12:54	8.5	Surface	1.0	0.1	217	21.2	21.2	8.2	8.2	29.9	29.9	96.1	96.1	7.2	7.2	3.6	3.6	13	13	86	86	815624	804253	<0.2	1.1		
						1.0	0.1	220	21.2	21.2	8.2	8.2	30.0	30.0	96.0	96.0	7.2	7.2	3.6	3.6	13	13	85	85						
					Middle	4.3	0.1	150	20.9	20.9	8.2	8.2	30.7	30.7	94.1	94.1	7.0	7.0	7.7	7.7	10	10	87	87						
						4.3	0.1	150	20.9	20.9	8.2	8.2	30.8	30.7	94.0	94.1	7.0	7.0	7.7	7.7	6	6	88	88						
					Bottom	7.5	0.2	222	20.8	20.8	8.1	8.1	31.3	31.3	93.2	93.3	6.9	6.9	13.2	13.2	7	7	90	90						
						7.5	0.2	228	20.8	20.8	8.1	8.1	31.3	31.3	93.3	93.3	7.0	7.0	13.7	13.7	6	6	90	90						
C2	Fine	Moderate	11:49	12.0	Surface	1.0	0.2	315	21.6	21.6	7.9	7.9	28.8	28.8	90.6	90.6	6.8	6.8	7.6	7.6	10	10	84	84	825669	806939	<0.2	1.9		
						1.0	0.2	344	21.6	21.6	7.9	7.9	28.8	28.8	90.6	90.6	6.8	6.8	7.6	7.6	9	9	83	83						
					Middle	6.0	0.3	17	21.5	21.5	7.9	7.9	29.6	29.7	90.6	90.6	6.7	6.7	8.4	8.4	9	9	86	86						
						6.0	0.3	17	21.5	21.5	7.9	7.9	29.7	29.7	90.6	90.6	6.7	6.7	8.5	8.5	8	8	86	86						
					Bottom	11.0	0.4	28	21.5	21.5	7.9	7.9	30.2	30.2	90.6	90.6	6.7	6.7	9.3	9.3	9	9	89	89						
						11.0	0.5	30	21.5	21.5	7.9	7.9	30.2	30.2	90.6	90.6	6.7	6.7	9.5	9.5	8	8	89	89						
C3	Fine	Moderate	14:58	12.2	Surface	1.0	0.4	79	21.5	21.5	7.9	7.9	31.1	31.1	88.1	88.0	6.5	6.5	4.4	4.4	6	6	85	85	822097	817788	<0.2	0.9		
						1.0	0.4	80	21.5	21.5	7.9	7.9	31.1	31.1	87.9	88.0	6.5	6.5	4.5	4.5	6	6	85	85						
					Middle	6.1	0.3	67	21.1	21.1	7.9	7.9	31.6	31.6	86.0	86.0	6.4	6.4	5.2	5.2	8	8	87	87						
						6.1	0.4	67	21.1	21.1	7.9	7.9	31.6	31.6	86.0	86.0	6.4	6.4	5.1	5.1	6	6	87	87						
					Bottom	11.2	0.3	57	20.9	20.9	7.9	7.9	32.2	32.2	85.3	85.4	6.3	6.3	5.2	5.2	9	9	90	90						
						11.2	0.3	57	20.9	20.9	7.9	7.9	32.2	32.2	85.4	85.4	6.3	6.3	5.3	5.3	8	8	90	90						
IM1	Fine	Moderate	12:34	5.3	Surface	1.0	0.2	193	21.7	21.7	8.1	8.1	29.5	29.5	93.8	93.8	7.0	7.0	18.9	18.9	20	20	86	86	817948	807127	<0.2	1.1		
						1.0	0.2	202	21.7	21.7	8.1	8.1	29.5	29.5	93.7	93.8	7.0	7.0	19.0	19.0	21	21	86	86						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
					Bottom	4.3	0.1	192	21.6	21.6	8.1	8.1	29.5	29.5	93.0	93.0	6.9	6.9	19.7	19.7	23	23	89	89						
						4.3	0.1	204	21.6	21.6	8.1	8.1	29.5	29.5	93.0	93.0	6.9	6.9	19.7	19.7	23	23	89	89						
IM2	Fine	Moderate	12:26	6.8	Surface	1.0	0.1	213	21.4	21.4	8.1	8.1	29.7	29.7	93.5	93.5	7.0	7.0	6.5	6.5	10	10	87	87	818161	806186	<0.2	1.2		
						1.0	0.1	214	21.4	21.4	8.1	8.1	29.7	29.7	93.5	93.5	7.0	7.0	6.5	6.5	9	9	86	86						
					Middle	3.4	0.1	159	21.1	21.1	8.1	8.1	30.1	30.1	92.6	92.6	6.9	6.9	8.1	8.1	8	8	88	88						
						3.4	0.1	172	21.1	21.1	8.1	8.1	30.1	30.1	92.6	92.6	6.9	6.9	8.2	8.2	9	9	89	89						
					Bottom	5.8	0.1	101	21.0	21.0	8.1	8.1	30.4	30.4	92.0	92.0	6.9	6.9	10.5	10.5	8	8	90	90						
						5.8	0.1	106	21.0	21.0	8.1	8.1	30.4	30.4	92.0	92.0	6.9	6.9	10.5	10.5	8	8	90	90						
IM3	Fine	Moderate	12:18	7.1	Surface	1.0	0.1	222	21.7	21.7	8.1	8.1	29.3	29.3	94.6	94.6	7.0	7.0	6.0	6.0	8	8	86	86	818769	805605	<0.2	1.1		
						1.0	0.1	243	21.7	21.7	8.1	8.1	29.4	29.4	94.5	94.6	7.0	7.0	6.1	6.1	8	8	86	86						
					Middle	3.6	0.1	64	21.2	21.2	8.1	8.1	29.8	29.9	93.4	93.4	7.0	7.0	9.8	9.8	9	9	88	88						
						3.6	0.1	70	21.2	21.2	8.1	8.1	29.9	29.9	93.3	93.4	7.0	7.0	10.1	10.1	9	9	87	87						
					Bottom	6.1	0.1	105	21.0	21.0	8.1	8.1	30.5	30.5	91.9	91.9	6.9	6.9	14.7	14.7	9	9	90	90						
						6.1	0.2	115	21.0	21.0	8.1	8.1	30.5	30.5	91.9	91.9	6.9	6.9	15.2	15.2	9	9	90	90						
IM4	Fine	Moderate	12:08	8.4	Surface	1.0	0.2	281	21.5	21.5	8.1	8.1	29.6	29.6	93.8	93.8	7.0	7.0	6.8	6.8	6	6	87	87	819737	804618	<0.2	1.4		
						1.0	0.2	302	21.4	21.4	8.1	8.1	29.7	29.7	93.7	93.8	7.0	7.0	6.8	6.8	6	6	87	87						
					Middle	4.2	0.0	104	21.0	21.0	8.1	8.1	30.3	30.3	91.9	91.9	6.9	6.9	8.6	8.6	7	7	88	88						
						4.2	0.0	108	21.0	21.0	8.1	8.1	30.3	30.3	91.9	91.9	6.9	6.9	8.7	8.7	6	6	87	87						
					Bottom	7.4	0.1	73	21.0	21.0	8.1	8.1	30.4	30.4	91.3	91.3	6.8	6.8	14.4	14.4	7	7	91	91						
						7.4	0.1	73	21.0	21.0	8.1	8.1	30.4	30.4	91.3	91.3	6.8	6.8	14.4	14.4	8	8	90	90						
IM5	Fine	Moderate	12:01	7.8	Surface	1.0	0.1	308	21.6	21.6	8.1	8.1	28.5	28.5	93.7	93.7	7.0	7.0	7.7	7.7	10	10	85	85	820725	804876	<0.2	1.6		
						1.0	0.1	320	21.6	21.6	8.1	8.1	28.6	28.5	93.6	93.7	7.0	7.0	7.8	7.8	9	9	85	85						
					Middle	3.9	0.1	12	21.4																					

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

Water Quality Monitoring

Water Quality Monitoring Results on 13 March 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)	
IM9	Fine	Moderate	12:22	7.6	Surface	1.0	0.2	77	21.8	21.8	7.9	7.9	28.4	28.4	91.7	91.7	6.8	6.8	6.0	11	83	86	822109	808818	<0.2	2.2	2.2			
						1.0	0.2	77	21.8	21.8	7.9	7.9	28.4	28.4	91.7	91.7	6.8	6.8	6.0	10	83	86	822109	808818	<0.2	2.2	2.2			
						3.8	0.3	73	21.5	21.5	7.9	7.9	29.8	29.8	91.1	91.1	6.8	6.8	7.6	9	85	86	822109	808818	<0.2	2.3	2.3			
					Middle	3.8	0.4	79	21.5	21.5	7.9	7.9	29.8	29.8	91.1	91.1	6.8	6.8	7.6	10	86	86	822109	808818	<0.2	2.2	2.2			
						6.6	0.4	69	21.4	21.4	8.0	8.0	30.4	30.4	91.5	91.5	6.8	6.8	9.4	7	88	88	822109	808818	<0.2	2.2	2.2			
						6.6	0.4	74	21.4	21.4	8.0	8.0	30.4	30.4	91.5	91.5	6.8	6.8	9.6	9	88	88	822109	808818	<0.2	2.2	2.2			
					Bottom	6.6	0.4	74	21.4	21.4	8.0	8.0	30.4	30.4	91.5	91.5	6.8	6.8	9.6	9	88	88	822109	808818	<0.2	2.2	2.2			
						1.0	0.4	86	21.8	21.8	7.9	7.9	28.2	28.2	91.7	91.7	6.8	6.8	5.5	12	83	86	822380	809799	<0.2	2.5	2.5			
						1.0	0.4	88	21.8	21.8	7.9	7.9	28.2	28.2	91.7	91.7	6.8	6.8	5.5	12	83	86	822380	809799	<0.2	2.5	2.5			
IM10	Fine	Moderate	12:30	7.4	Surface	3.7	0.4	103	21.5	21.5	7.9	7.9	29.8	29.8	90.4	90.4	6.7	6.7	7.0	13	86	86	822380	809799	<0.2	2.6	2.6			
						3.7	0.5	107	21.5	21.5	7.9	7.9	29.8	29.8	90.3	90.3	6.7	6.7	6.9	14	87	87	822380	809799	<0.2	2.6	2.6			
						6.4	0.4	109	21.5	21.5	8.0	8.0	30.3	30.3	91.5	91.5	6.8	6.8	9.1	15	89	89	822380	809799	<0.2	2.7	2.7			
					Middle	6.4	0.4	111	21.5	21.5	8.0	8.0	30.3	30.3	91.6	91.6	6.8	6.8	9.2	14	88	88	822380	809799	<0.2	2.7	2.7			
						1.0	0.4	106	22.0	22.0	7.9	7.9	28.5	28.5	92.2	92.2	6.8	6.8	5.2	15	83	86	822034	811455	<0.2	2.2	2.2			
						1.0	0.5	113	22.0	22.0	7.9	7.9	28.5	28.5	92.1	92.1	6.8	6.8	5.2	14	83	86	822034	811455	<0.2	2.3	2.3			
						4.1	0.6	93	21.4	21.4	7.9	7.9	30.4	30.4	88.9	88.9	6.6	6.6	6.9	12	86	86	822034	811455	<0.2	2.2	2.2			
						4.1	0.7	98	21.4	21.4	7.9	7.9	30.4	30.4	88.9	88.9	6.6	6.6	6.9	13	87	87	822034	811455	<0.2	2.2	2.2			
					Bottom	7.1	0.4	95	21.3	21.3	8.0	8.0	30.8	30.8	88.5	88.5	6.6	6.6	8.0	13	88	88	822034	811455	<0.2	2.7	2.7			
IM11	Fine	Moderate	13:34	8.1		7.1	0.4	99	21.3	21.3	8.0	8.0	30.3	30.3	88.6	88.6	6.6	6.6	7.8	12	89	89	822034	811455	<0.2	2.9	2.9			
						1.0	0.5	110	21.9	21.9	7.9	7.9	28.7	28.7	91.6	91.6	6.8	6.8	5.6	15	83	86	821470	812066	<0.2	3.1	3.1			
						1.0	0.5	118	21.9	21.9	7.9	7.9	28.7	28.7	91.4	91.4	6.8	6.8	5.7	12	83	86	821470	812066	<0.2	3.2	3.2			
						4.7	0.5	95	21.4	21.4	7.9	7.9	30.3	30.3	88.2	88.2	6.5	6.5	7.1	19	86	86	821470	812066	<0.2	3.2	3.2			
						4.7	0.5	95	21.4	21.4	7.9	7.9	30.3	30.3	88.3	88.3	6.6	6.6	7.1	15	87	87	821470	812066	<0.2	3.3	3.3			
						8.3	0.4	79	21.3	21.3	7.9	7.9	30.6	30.6	88.0	88.0	6.5	6.5	7.8	15	88	88	821470	812066	<0.2	3.1	3.1			
						8.3	0.4	80	21.3	21.3	7.9	7.9	30.6	30.6	88.1	88.1	6.5	6.5	7.7	3	89	89	821470	812066	<0.2	3.2	3.2			
						1.0	-	-	21.7	21.7	8.0	8.0	30.5	30.5	89.0	89.0	6.6	6.6	5.4	4	-	-	819982	812662	-	-	-			
						1.0	-	-	21.7	21.7	8.0	8.0	30.6	30.6	89.0	89.0	6.6	6.6	5.4	4	-	-	819982	812662	-	-	-			
SR1A	Fine	Moderate	14:20	5.0		2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819982	812662	-	-	-			
						2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819982	812662	-	-	-			
						4.0	-	-	21.5	21.5	8.0	8.0	30.7	30.7	91.2	91.2	6.7	6.7	5.7	5	-	-	819982	812662	-	-	-			
						4.0	-	-	21.5	21.5	8.0	8.0	30.7	30.7	91.4	91.4	6.7	6.7	5.9	5	-	-	819982	812662	-	-	-			
						1.0	0.3	107	21.7	21.7	7.9	7.9	29.5	29.5	90.1	90.1	6.7	6.7	5.8	13	84	85	821454	814175	<0.2	1.3	1.3			
						1.0	0.3	109	21.7	21.7	7.9	7.9	29.6	29.6	89.9	89.9	6.7	6.7	5.9	15	85	85	821454	814175	<0.2	1.3	1.3			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821454	814175	<0.2	1.4	1.4			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821454	814175	<0.2	1.3	1.3			
						3.6	0.2	98	21.4	21.4	7.9	7.9	30.5	30.5	89.1	89.1	6.6	6.6	6.8	17	87	87	821454	814175	<0.2	1.4	1.4			
SR2	Fine	Moderate	14:37	4.6		3.6	0.3	101	21.4	21.4	7.9	7.9	30.5	30.5	89.3	89.3	6.6	6.6	6.7	19	87	87	821454	814175	<0.2	1.3	1.3			
						1.0	0.3	172	21.7	21.7	7.9	7.9	28.0	28.0	89.5	89.5	6.7	6.7	5.0	6	-	-	822142	807569	-	-	-			
						1.0	0.3	184	21.7	21.7	7.9	7.9	28.0	28.0	89.5	89.5	6.7	6.7	5.0	7	-	-	822142	807569	-	-	-			
						4.8	0.2	167	21.5	21.5	7.9	7.9	29.2	29.2	89.9	89.9	6.7	6.7	5.9	7	-	-	822142	807569	-	-	-			
						4.8	0.2	168	21.5	21.5	7.9	7.9	29.2	29.2	90.0	90.0	6.7	6.7	6.0	7	-	-	822142	807569	-	-	-			
						8.5	0.2	134	21.4	21.4	8.0	8.0	30.4	30.4	91.2	91.2	6.8	6.8	7.1	8	-	-	822142	807569	-	-	-			
						8.5	0.2	140	21.4	21.4	8.0	8.0	30.4	30.4	91.2	91.2	6.8	6.8	7.3	8	-	-	822142	807569	-	-	-			
						1.0	0.3	70	21.7	21.7	8.1	8.1	29.1	29.1	92.7	92.7	6.9	6.9	7.1	9	-	-	817171	807817	-	-	-			
						1.0	0.3	70	21.7	21.7	8.1	8.1	29.1	29.1	92.6	92.6	6.9	6.9	7.2	10	-	-	817171	807817	-	-	-			
SR4A	Fine	Moderate	13:16	8.7		4.4	0.2	62	21.6	21.6	8.1	8.1	29.3	29.3	91.4	91.4	6.8	6.8	8.2	9	-	-	817171	807817	-	-	-			
						4.4	0.2	66	21.6	21.6	8.1	8.1	29.3	29.3	91.4	91.4	6.8	6.8	8.2	8	-	-	817171	807817	-	-	-			
						7.7	0.2	73	21.6	21.6	8.1	8.1	29.3	29.3	91.6	91.6	6.8	6.8	9.1	8	-	-	817171	807817	-	-	-			

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

Water Quality Monitoring

Water Quality Monitoring Results on 13 March 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)	
C1	Fine	Moderate	08:19	8.7	Surface	1.0	0.5	45	21.3	21.3	8.1	8.1	29.1	29.1	93.3	93.3	7.0	7.0	4.6	7.0	8	85	87	815628	804269	<0.2	<0.2	1.1	1.2	
						1.0	0.6	45	21.3		8.1		29.1		93.3		7.0		4.6		8	85		<0.2	<0.2	1.2				
					Middle	4.4	0.4	40	20.7	20.7	8.1	8.1	31.1	31.1	92.6	92.6	6.9	6.9	13.6	11.2	8	88	87	<0.2	<0.2	1.2				
						4.4	0.4	43	20.7		8.1		31.1		92.6		6.9		13.5		9	88		<0.2	<0.2	1.1				
					Bottom	7.7	0.5	49	20.7	20.7	8.1	8.1	31.4	31.4	92.2	92.2	6.9	6.9	15.6	6.9	9	89	87	<0.2	<0.2	1.2				
						7.7	0.5	52	20.7		8.1		31.4		92.1		6.9		15.3		10	89		<0.2	<0.2	1.1				
C2	Cloudy	Moderate	09:30	12.4	Surface	1.0	0.3	352	21.6	21.6	7.9	7.9	27.2	27.2	89.2	89.2	6.7	6.7	5.9	7.1	8	84	87	825685	806943	<0.2	<0.2	2.3	2.2	
						1.0	0.4	324	21.6		7.9		27.2		89.2		6.7		5.9		9	84		<0.2	<0.2	2.3				
					Middle	6.2	0.5	16	21.5	21.5	7.9	7.9	27.7	27.7	87.7	87.7	6.6	6.6	7.2	7.1	10	87	87	<0.2	<0.2	2.1				
						6.2	0.5	16	21.5		7.9		27.7		87.7		6.6		7.1		9	87		<0.2	<0.2	2.1				
					Bottom	11.4	0.3	9	21.2	21.2	7.9	7.9	30.2	30.2	85.1	85.1	6.3	6.3	8.2	6.4	10	89	87	<0.2	<0.2	2.1				
						11.4	0.3	9	21.2		7.9		30.1		85.3		6.4		8.2		10	89		<0.2	<0.2	2.1				
C3	Cloudy	Moderate	07:08	12.1	Surface	1.0	0.6	288	21.2	21.2	7.9	7.9	30.8	30.8	86.7	86.6	6.4	6.4	4.3	6.0	5	84	87	822094	817826	<0.2	<0.2	1.4	1.4	
						1.0	0.6	316	21.2		7.9		30.9		86.5		6.4		4.3		5	84		<0.2	<0.2	1.4				
					Middle	6.1	0.5	286	21.1	21.1	7.9	7.9	31.5	31.5	85.2	85.2	6.3	6.3	5.8	6.3	4	87	87	<0.2	<0.2	1.4				
						6.1	0.5	312	21.0		7.9		31.5		85.2		6.3		5.8		4	87		<0.2	<0.2	1.4				
					Bottom	11.1	0.3	289	21.0	21.0	7.9	7.9	31.8	31.8	85.2	85.2	6.3	6.3	7.8	6.3	4	90	89	<0.2	<0.2	1.3				
						11.1	0.3	290	21.0		7.9		31.8		85.2		6.3		7.8		4	89		<0.2	<0.2	1.3				
IM1	Fine	Moderate	08:43	5.1	Surface	1.0	0.1	5	21.5	21.5	8.0	8.0	29.6	29.6	91.8	91.8	6.8	6.8	6.4	6.6	10	86	88	817958	807120	<0.2	<0.2	1.1	1.1	
						1.0	0.1	5	21.5		8.0		29.6		91.7		6.8		6.5		10	86		<0.2	<0.2	1.0				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	88	<0.2	<0.2	1.1			
						-	-	-	-		-		-		-		-		-		-	-		<0.2	<0.2	1.1				
					Bottom	4.1	0.1	356	21.5	21.5	8.0	8.0	29.6	29.6	91.7	92.1	6.8	6.8	6.7	6.9	9	89	89	<0.2	<0.2	1.1				
						4.1	0.1	328	21.5		8.0		29.7		92.4		6.9		6.8		9	89		<0.2	<0.2	1.0				
IM2	Fine	Moderate	08:51	7.0	Surface	1.0	0.3	12	21.6	21.6	8.1	8.1	29.1	29.1	92.4	92.4	6.9	6.9	10.4	12.4	8	85	88	818183	806181	<0.2	<0.2	1.1	1.1	
						1.0	0.3	12	21.6		8.1		29.1		92.3		6.9		10.6		7	85		<0.2	<0.2	1.0				
					Middle	3.5	0.3	359	21.6	21.6	8.1	8.1	29.1	29.1	92.4	92.5	6.9	6.9	11.3	9	9	89	88	<0.2	<0.2	1.0				
						3.5	0.3	330	21.6		8.1		29.1		92.5		6.9		11.6		10	87		<0.2	<0.2	1.2				
					Bottom	6.0	0.2	327	21.6	21.6	8.1	8.1	29.2	29.2	92.2	92.2	6.9	6.9	15.1	6.9	11	89	89	<0.2	<0.2	1.1				
						6.0	0.2	352	21.6		8.1		29.2		92.2		6.9		15.7		11	90		<0.2	<0.2	1.1				
IM3	Fine	Moderate	08:59	7.2	Surface	1.0	0.3	358	21.6	21.6	8.1	8.1	29.2	29.3	93.9	93.7	7.0	7.0	9.5	14.0	11	86	88	818761	805580	<0.2	<0.2	1.1	1.0	
						1.0	0.4	329	21.5		8.1		29.3		93.5		7.0		9.6		11	86		<0.2	<0.2	1.1				
					Middle	3.6	0.3	337	21.5	21.5	8.1	8.1	29.4	29.4	93.4	93.2	7.0	7.0	16.0	14	14	88	88	<0.2	<0.2	1.0				
						3.6	0.3	352	21.5		8.1		29.5		92.9		6.9		15.8		13	88		<0.2	<0.2	0.9				
					Bottom	6.2	0.3	317	21.4	21.4	8.1	8.1	29.6	29.6	92.2	92.1	6.9	6.9	16.4	6.9	16	89	89	<0.2	<0.2	0.9				
						6.2	0.3	333	21.4		8.1		29.6		92.0		6.9		16.6		16	90		<0.2	<0.2	1.0				
IM4	Fine	Moderate	09:08	7.8	Surface	1.0	0.5	356	21.4	21.4	8.1	8.1	29.5	29.5	93.3	93.3	7.0	7.0	13.5	15.5	20	85	85	819731	804629	<0.2	<0.2	0.9	0.9	
						1.0	0.5	328	21.4		8.1		29.5		93.3		7.0		13.6		21	85		<0.2	<0.2	1.0				
					Middle	3.9	0.4	0	21.4	21.4	8.1	8.1	29.6	29.6	92.8	92.8	6.9	6.9	13.4	15.5	17	88	89	<0.2	<0.2	0.9				
						3.9	0.5	0	21.4		8.1		29.6		92.8		6.9		13.6		17	89		<0.2	<0.2	0.8				
					Bottom	6.8	0.4	3	21.4	21.4	8.1	8.1	29.6	29.6	92.4	92.4	6.9	6.9	19.9	6.9	16	90	90	<0.2	<0.2	1.0				
						6.8	0.4	3	21.4		8.1		29.6		92.4		6.9		19.0		15	91		<0.2	<0.2	1.0				
IM5	Fine	Moderate	09:15	7.6	Surface	1.0	0.7	9	21.5	21.5	8.1	8.1	29.3	29.3	93.6	93.6	7.0	7.0	17.7	18.0	9	85	85	820736	804859	<0.2	<0.2	1.6	1.5	
						1.0	0.8	9	21.5		8.1		29.3		93.5		7.0		17.8		9	85		<0.2	<0.2	1.5				
					Middle	3.8	0.7	12	21.5	21.5	8.1	8.1	29.3	29.3	93.3	93.3	6.9	6.9	18.0	18.0	7	89	89	<0.2	<0.2	1.6				
						3.8	0.7	12	21.5		8.1		29.3		93.3		6.9		18.0		6	90		<0.2	<0.2	1.5				
					Bottom	6.6	0.5	17	21.5	21.5	8.1	8.1																		

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

Water Quality Monitoring

Water Quality Monitoring Results on 13 March 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)	
IM9	Cloudy	Moderate	08:54	7.5	Surface	1.0	0.3	36	21.5	21.5	7.8	7.8	27.8	27.8	88.8	88.9	6.7	6.7	5.4	8	84	86	822115	808804	<0.2	<0.2	1.9	1.9		
						1.0	0.3	37	21.5		7.8		27.8		88.9		6.7	6.7	5.4	8	83				<0.2	<0.2	1.9			
						3.8	0.1	65	21.5	21.5	7.9	7.9	28.3	28.3	88.8	88.8	6.6	6.6	6.7	8	87	86			<0.2	<0.2	1.8	1.8		
					Middle	3.8	0.2	65	21.5		7.9		28.3		88.8		6.6	6.6	6.9	8	86				<0.2	<0.2	1.9	1.9		
						6.5	0.2	90	21.5	21.5	7.9	7.9	28.5	28.5	89.0	89.1	6.7	6.7	7.3	7	89	88			<0.2	<0.2	2.0	2.0		
						6.5	0.2	92	21.5		7.9		28.5		89.1		6.7	6.7	7.3	7	89				<0.2	<0.2	1.9	1.9		
					Bottom	1.0	0.6	297	21.5	21.5	7.9	7.9	29.7	29.7	90.0	90.0	6.7	6.6	6.6	7	84	86			<0.2	<0.2	1.6	1.6		
						1.0	0.6	304	21.5		7.9		29.7		90.0		6.7	6.7	6.7	7	84				<0.2	<0.2	1.6	1.6		
						4.3	0.5	292	21.5	21.5	7.9	7.9	30.3	30.3	88.9	88.9	6.6	6.6	9.4	7	87	86			<0.2	<0.2	1.6	1.6		
IM10	Cloudy	Moderate	08:46	8.6	Surface	4.3	0.6	310	21.5	21.5	7.9	7.9	30.3	30.3	88.9	88.9	6.6	6.6	9.5	7	86	88	822369	809773	<0.2	<0.2	1.8	1.8		
						7.6	0.5	295	21.5	21.5	7.9	7.9	30.4	30.4	88.8	88.8	6.6	6.6	10.5	9	88	88			<0.2	<0.2	1.6	1.6		
						7.6	0.5	309	21.5		7.9		30.4		88.8		6.6	6.6	10.5	8	89				<0.2	<0.2	1.6	1.6		
					Middle	1.0	0.5	274	21.4	21.4	7.9	7.9	30.2	30.2	88.3	88.3	6.6	6.6	8.6	7	83	86			<0.2	<0.2	1.4	1.4		
						1.0	0.5	286	21.4		7.9		30.2		88.3		6.5	6.5	8.6	7	84				<0.2	<0.2	1.5	1.5		
						4.2	0.4	283	21.4	21.4	7.9	7.9	30.3	30.3	88.2	88.2	6.5	6.5	9.9	6	86	86			<0.2	<0.2	1.6	1.6		
						4.2	0.4	284	21.4		7.9		30.3		88.2		6.5	6.5	9.9	7	87				<0.2	<0.2	1.5	1.5		
					Bottom	7.3	0.4	275	21.4	21.4	7.9	7.9	30.3	30.3	88.5	88.6	6.6	6.6	10.3	5	88	88			<0.2	<0.2	1.5	1.5		
						7.3	0.4	299	21.4		7.9		30.3		88.6		6.6	6.6	10.3	6	88				<0.2	<0.2	1.6	1.6		
IM11	Cloudy	Moderate	08:37	8.3	Surface	1.0	0.6	268	21.4	21.4	7.9	7.9	30.5	30.5	88.3	88.3	6.5	6.5	10.7	8	84	86			<0.2	<0.2	1.2	1.2		
						1.0	0.7	278	21.4		7.9		30.5		88.3		6.5	6.5	10.7	8	83				<0.2	<0.2	1.2	1.2		
						4.7	0.6	268	21.4	21.4	7.9	7.9	30.5	30.5	88.3	88.3	6.5	6.5	12.2	8	87	86			<0.2	<0.2	1.4	1.4		
					Middle	4.7	0.6	285	21.4		7.9		30.5		88.3		6.5	6.5	12.3	8	86				<0.2	<0.2	1.3	1.3		
						8.4	0.5	262	21.4	21.4	7.9	7.9	30.6	30.6	89.3	89.4	6.6	6.6	13.2	6	89	88			<0.2	<0.2	1.4	1.4		
						8.4	0.5	281	21.4		7.9		30.6		89.5		6.6	6.6	13.4	7	88				<0.2	<0.2	1.4	1.4		
					Bottom	1.0	-	-	21.5	21.5	7.9	7.9	29.9	29.9	88.8	88.8	6.6	6.6	3.5	6	-	-			<0.2	<0.2	1.3	1.3		
						1.0	-	-	21.5		7.9		29.9		88.8		6.6	6.6	3.5	6	-	-			<0.2	<0.2	1.4	1.4		
						2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			<0.2	<0.2	1.5	1.5		
SR1A	Cloudy	Moderate	07:46	5.0	Surface	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			<0.2	<0.2	1.4	1.4		
						2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			<0.2	<0.2	1.5	1.5		
						4.0	-	-	21.5	21.5	7.9	7.9	30.4	30.4	88.3	88.4	6.5	6.5	3.6	3	-	-			<0.2	<0.2	1.4	1.4		
					Middle	4.0	-	-	21.5		7.9		30.4		88.4		6.5	6.5	3.6	4	-	-			<0.2	<0.2	1.5	1.5		
						1.0	0.1	249	21.4	21.4	7.9	7.9	30.2	30.2	89.4	89.5	6.6	6.6	11.4	7	84	85			<0.2	<0.2	1.3	1.3		
						1.0	0.1	259	21.4		7.9		30.2		89.5		6.6	6.6	11.6	8	85				<0.2	<0.2	1.4	1.4		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			<0.2	<0.2	1.4	1.4			
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			<0.2	<0.2	1.5	1.5			
						3.5	0.1	234	21.4	21.4	8.0	8.0	30.2	30.2	91.2	91.2	6.8	6.8	12.4	6	88	88			<0.2	<0.2	1.4	1.4		
SR2	Cloudy	Moderate	07:29	4.5		3.5	0.1	255	21.4		8.0		30.2		91.2		6.8	6.8	12.5	5	88				<0.2	<0.2	1.5	1.5		
				Surface	1.0	0.0	231	21.6	21.6	7.8	7.8	27.0	27.0	88.7	88.7	6.7	6.7	5.0	8	-	-			<0.2	<0.2	1.3	1.3			
					1.0	0.0	233	21.6		7.8		27.0		88.7		6.7	6.7	5.1	8	-	-			<0.2	<0.2	1.4	1.4			
					4.6	0.1	46	21.5	21.5	7.8	7.8	28.0	28.0	87.0	87.1	6.5	6.5	6.1	8	-	-			<0.2	<0.2	1.4	1.4			
				Middle	4.6	0.1	46	21.5		7.8		28.0		87.1		6.5	6.5	6.2	7	-	-			<0.2	<0.2	1.5	1.5			
					8.2	0.2	53	21.5	21.5	7.9	7.9	30.0	30.0	90.3	90.3	6.7	6.7	7.7	7	-	-			<0.2	<0.2	1.4	1.4			
					8.2	0.2	54	21.5		7.9		30.0		90.3		6.7	6.7	7.5	6	-	-			<0.2	<0.2	1.5	1.5			
				Bottom	1.0	0.6	74	21.5	21.5	8.0	8.0	29.2	29.2	92.2	92.2	6.9	6.9	11.6	12	-	-			<0.2	<0.2	1.3	1.3			
					1.0	0.6	77	21.5		8.0		29.2		92.2		6.9	6.9	11.7	11	-	-			<0.2	<0.2	1.4	1.4			
					4.4	0.5	72	21.5	21.5	8.0	8.0	29.2	29.2	92.1	92.1	6.9	6.9	12.8	14	-	-			<0.2	<0.2	1.5	1.5			
SR3	Cloudy	Moderate	09:08		9.2		4.4	0.5	77	21.5		8.0		29.2		92.1		6.9	6.9	12.9	15	-	-			<0.2	<0.2	1.6	1.6	
							7.8	0.4	69	21.5	21.5	8.0	8.0	29.2	29.2	92.1	92.1	6.9	6.9	13.3	15	-	-			<0.2	<0.2	1.6	1.6	
							7.8	0.4	73	21.5		8.0		29.2		92.1		6.9	6.9	13.2	15	-	-			<0.2	<0.2	1.6	1.6	
				Surface	1.0	0.1	148	21.6	21.6	8.0	8.0	29.5	29.5	87.9	88.0	6.5	6.5	11.0	4	-	-			<0.2						

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

Water Quality Monitoring

Water Quality Monitoring Results on 16 March 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)	
C1	Misty	Calm	14:09	8.0	Surface	1.0	0.2	187	22.0	22.0	8.2	8.2	29.5	29.5	103.1	103.0	7.6	7.3	2.3	6.1	7	8	86	88	815628	804253	<0.2	1.1	1.1	
						1.0	0.2	197	22.0		8.2	2.2	29.5		102.9		7.6	2.3	6		6		85							
					Middle	4.0	0.3	221	21.6	21.6	8.2	8.2	30.7	30.7	94.2	94.1	6.9	6.9	5.6	6.1	6	8	87	88						
						4.0	0.3	242	21.6		8.2		30.7		94.0		6.9	5.6	12		12		88							
					Bottom	7.0	0.3	236	21.6	21.6	8.2	8.2	30.9	30.9	93.9	94.0	6.9	6.9	10.3	6.9	9		90	90						
						7.0	0.3	250	21.6		8.2		30.9		94.1		6.9	10.3	8		8		90							
C2	Cloudy	Moderate	13:07	12.6	Surface	1.0	0.3	157	22.3	22.3	7.9	7.9	28.5	28.5	90.3	90.3	6.7	6.6	5.8	7.8	8	7	87	87	825685	806928	<0.2	1.9	1.8	
						1.0	0.3	168	22.3		7.9		28.5		90.3		6.7	5.8	7		7		87							
					Middle	6.3	0.2	153	21.9	21.9	7.9	7.9	29.9	29.9	88.4	88.3	6.5	6.5	7.9	7.8	7	7	89	89						
						6.3	0.3	156	21.9		7.9		30.0		88.2		6.5	7.9	7		7		89							
					Bottom	11.6	0.5	142	21.6	21.6	7.9	7.9	30.8	30.8	84.8	84.8	6.3	6.3	9.9	6.3	6		91	91						
						11.6	0.5	145	21.6		7.9		30.8		84.8		6.3	9.3	7		7		91							
C3	Cloudy	Moderate	15:05	12.0	Surface	1.0	0.6	95	22.0	22.0	7.9	7.9	30.4	30.4	86.8	86.7	6.4	6.3	5.4	7.6	13	13	87	88	822129	817817	<0.2	1.0	1.0	
						1.0	0.6	96	22.0		7.9		30.4		86.6		6.4	5.6	7		7		88							
					Middle	6.0	0.4	97	21.5	21.5	7.9	7.9	31.3	31.3	83.8	83.8	6.2	6.2	8.1	7.6	14	14	90	90						
						6.0	0.5	102	21.5		7.9		31.3		83.8		6.2	7.9	15		15		88							
					Bottom	11.0	0.2	115	21.4	21.4	7.9	7.9	31.8	31.8	83.2	83.2	6.1	6.1	9.1	6.1	15		93	93						
						11.0	0.2	117	21.4		7.9		31.8		83.2		6.1	9.2	15		15		93							
IM1	Misty	Calm	13:49	4.8	Surface	1.0	0.2	192	22.4	22.4	8.2	8.1	29.5	29.5	98.0	97.8	7.2	7.2	10.2	13.1	9	7	86	86	817960	807133	<0.2	0.8	1.0	
						1.0	0.2	197	22.3		8.1	-	29.5		97.6		7.2	10.2	-		9		86							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	88					
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
					Bottom	3.8	0.3	205	22.3	22.3	8.1	8.1	29.4	29.4	92.3	92.4	6.8	6.8	15.8	6.8	5		89	89						
						3.8	0.3	210	22.3		8.1		29.4		92.5		6.8	15.9	6		6		89							
IM2	Misty	Calm	13:43	7.0	Surface	1.0	0.1	223	22.3	22.3	8.1	8.1	29.7	29.7	94.0	94.0	6.9	6.9	5.5	8.7	9	9	87	86	818169	806159	<0.2	1.1	1.0	
						1.0	0.1	237	22.2		8.2		29.7		93.9		6.9	5.5	8		8		86							
					Middle	3.5	0.1	190	22.0	22.0	8.2	8.2	29.9	30.0	94.3	94.4	6.9	6.9	8.8	8.7	9	9	88	88						
						3.5	0.1	208	22.0		8.2		30.0		94.5		6.9	8.8	10		10		88							
					Bottom	6.0	0.1	104	21.9	21.9	8.2	8.2	30.5	30.5	94.7	94.7	7.0	7.0	11.7	7.0	9		90	90						
						6.0	0.1	110	21.9		8.2		30.5		94.7		7.0	11.7	10		10		90							
IM3	Misty	Calm	13:37	6.8	Surface	1.0	0.1	132	22.3	22.3	8.2	8.2	30.0	30.0	96.9	97.0	7.1	7.1	4.9	6.6	8	8	86	86	818764	805606	<0.2	0.9	0.9	
						1.0	0.1	134	22.2		8.2		30.1		97.0		7.1	5.0	8		8		86							
					Middle	3.4	0.1	126	22.2	22.2	8.2	8.2	30.1	30.2	96.9	97.0	7.1	7.1	5.0	6.6	10	10	88	88						
						3.4	0.1	126	22.2		8.2		30.2		97.0		7.1	5.1	11		11		87							
					Bottom	5.8	0.1	81	21.8	21.8	8.2	8.2	30.5	30.5	94.4	94.4	6.9	6.9	9.9	6.9	12		90	90						
						5.8	0.1	87	21.8		8.2		30.5		94.4		6.9	10.0	12		12		90							
IM4	Misty	Calm	13:28	8.2	Surface	1.0	0.2	212	22.2	22.2	8.1	8.1	28.9	28.9	92.7	92.7	6.8	6.9	3.5	6.4	9	7	87	87	819729	804613	<0.2	0.8	0.9	
						1.0	0.2	217	22.2		8.1		28.9		92.7		6.8	3.5	9		9		87							
					Middle	4.1	0.1	195	22.1	22.1	8.2	8.2	29.9	29.9	94.2	94.1	6.9	6.9	7.5	6.4	7	7	88	87						
						4.1	0.1	210	22.0		8.2		29.9		94.0		6.9	7.6	6		6		87							
					Bottom	7.2	0.1	166	21.9	21.9	8.2	8.2	30.4	30.4	93.3	93.4	6.9	6.9	8.1	6.9	6		91	91						
						7.2	0.1	171	21.9		8.2		30.4		93.4		6.9	8.												

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

Water Quality Monitoring

Water Quality Monitoring Results on 16 March 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)	
IM9	Cloudy	Moderate	13:31	7.7	Surface	1.0	0.4	117	22.8	22.8	7.9	7.9	28.0	28.0	94.0	94.0	6.9	6.8	3.8	7	87	89	822101	808787	<0.2	1.6	1.7	1.7		
						1.0	0.5	128	22.8		7.9		28.0		94.0		6.9	3.8	7	86					<0.2	1.7				
						3.9	0.4	126	22.0		7.9	7.9	29.9		91.4		6.7	5.5	7	89					<0.2	1.6				
					Middle	3.9	0.4	127	22.0	22.0	7.9	7.9	30.0	30.0	91.4	91.4	6.7	5.2	7	89	7	89	89	822101	808787	<0.2	1.7	1.7	1.7	
						6.7	0.4	82	21.9	21.9	7.9	7.9	30.9	30.9	91.7	91.7	6.7	6.5	8	91	8	91	89	822101	808787	<0.2	1.8	1.8	1.8	
						6.7	0.4	82	21.9	21.9	7.9	7.9	30.9	30.9	91.7	91.7	6.7	6.6	8	91	8	91	89	822101	808787	<0.2	1.7	1.7	1.7	
					Bottom	1.0	0.5	137	22.1	22.1	7.9	7.9	29.2	29.3	89.8	89.8	6.6	6.3	7	88	8	88	89	822101	808787	<0.2	1.8	1.8	1.8	
						1.0	0.5	148	22.0		7.9	7.9	29.3		89.8		6.6	6.9	6	86	6	86	89	822101	808787	<0.2	1.7	1.7	1.7	
						3.7	0.5	134	22.0	22.0	7.9	7.9	30.0	30.0	90.2	90.3	6.6	7.8	8	89	8	89	89	822101	808787	<0.2	1.8	1.8	1.8	
IM10	Cloudy	Moderate	13:38	7.4	Surface	3.7	0.6	138	22.0	22.0	7.9	7.9	30.0	30.0	90.3	90.3	6.6	7.0	9	89	9	89	89	822377	809779	<0.2	1.7	1.7	1.7	
						6.4	0.5	123	21.9	21.9	7.9	7.9	30.6	30.6	90.5	90.5	6.6	8.2	8	92	8	92	89	822377	809779	<0.2	1.7	1.7	1.7	
						6.4	0.5	126	21.9	21.9	7.9	7.9	30.6	30.6	90.5	90.5	6.6	8.0	9	91	9	91	89	822377	809779	<0.2	1.8	1.8	1.8	
					Middle	1.0	0.5	116	22.6	22.6	7.9	7.9	28.7	28.7	92.3	92.2	6.8	5.0	8	87	8	87	89	822072	811436	<0.2	1.6	1.6	1.6	
						1.0	0.6	118	22.5		7.9	7.9	28.7	28.7	92.1		6.8	5.1	8	87	8	87	89	822072	811436	<0.2	1.7	1.7	1.7	
						4.3	0.5	117	21.9	21.9	7.9	7.9	29.9	29.9	87.9	87.9	6.5	7.7	7	89	7	89	89	822072	811436	<0.2	1.7	1.7	1.7	
					Bottom	4.3	0.5	123	21.9	21.9	7.9	7.9	29.9	29.9	87.8	87.9	6.5	7.2	8	90	8	90	89	822072	811436	<0.2	1.7	1.7	1.7	
						7.6	0.4	136	21.9	21.9	7.9	7.9	30.1	30.1	88.9	89.1	6.5	9.1	7	90	7	90	89	822072	811436	<0.2	1.6	1.6	1.6	
						7.6	0.4	136	21.9	21.9	7.9	7.9	30.1	30.1	89.3	89.1	6.6	9.1	8	92	8	92	89	822072	811436	<0.2	1.7	1.7	1.7	
IM11	Cloudy	Moderate	13:48	8.6	Surface	1.0	0.6	139	22.2	22.2	7.9	7.9	29.2	29.2	91.2	91.1	6.7	6.8	8	87	8	87	90	821469	812029	<0.2	1.7	1.7	1.7	
						1.0	0.7	141	22.2		7.9	7.9	29.2	29.2	91.0		6.7	7.0	8	88	8	88	90	821469	812029	<0.2	1.6	1.6	1.6	
						4.9	0.4	127	21.9	21.9	7.9	7.9	30.0	30.0	87.0	87.0	6.4	8.4	11	89	11	89	90	821469	812029	<0.2	1.7	1.7	1.7	
					Middle	4.9	0.4	136	21.9	21.9	7.9	7.9	30.0	30.0	86.9	87.0	6.4	8.4	10	90	10	90	90	821469	812029	<0.2	1.6	1.6	1.6	
						8.8	0.2	115	21.8	21.8	7.9	7.9	30.2	30.2	86.5	86.5	6.4	9.5	7	92	7	92	90	821469	812029	<0.2	1.6	1.6	1.6	
						8.8	0.2	125	21.8	21.8	7.9	7.9	30.2	30.2	86.5	86.5	6.4	9.6	7	93	7	93	90	821469	812029	<0.2	1.7	1.7	1.7	
					Bottom	1.0	-	-	22.4	22.4	7.9	7.9	29.7	29.7	90.1	90.1	6.6	5.3	8	-	8	-	89	821469	812029	<0.2	1.7	1.7	1.7	
						1.0	-	-	22.4		7.9	7.9	29.7	29.7	90.1		6.6	5.3	9	-	9	-	88	821469	812029	<0.2	1.6	1.6	1.6	
						2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	821469	812029	<0.2	1.7	1.7	1.7	
SR1A	Cloudy	Moderate	14:29	4.3	Surface	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819970	812661	-	-	-	-	
						2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819970	812661	-	-	-	-	
						3.3	-	-	22.4	22.4	7.9	7.9	29.8	29.8	90.1	90.1	6.6	5.2	9	-	9	-	89	819970	812661	-	-	-	-	
					Middle	3.3	-	-	22.4		7.9	7.9	29.8	29.8	90.1		6.6	5.2	8	-	8	-	88	819970	812661	-	-	-	-	
						3.3	-	-	22.4		7.9	7.9	29.8	29.8	90.1		6.6	5.2	9	-	9	-	89	819970	812661	-	-	-	-	
						3.3	-	-	22.4		7.9	7.9	29.8	29.8	90.1		6.6	5.2	8	-	8	-	88	819970	812661	-	-	-	-	
					Bottom	1.0	0.4	79	22.0	22.0	7.9	7.9	29.9	29.9	88.3	88.3	6.5	6.7	8	89	8	89	90	821481	814187	<0.2	1.2	1.2	1.2	
						1.0	0.4	81	22.0		7.9	7.9	29.9	29.9	88.3		6.5	6.8	8	88	8	88	90	821481	814187	<0.2	1.2	1.2	1.2	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	821481	814187	<0.2	1.4	1.4	1.4	
SR2	Cloudy	Moderate	14:45	4.5	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821481	814187	<0.2	1.3	1.3	1.3	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821481	814187	<0.2	1.2	1.2	1.2	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821481	814187	<0.2	1.4	1.4	1.4	
					Middle	3.5	0.4	75	22.0	22.0	7.9	7.9	30.0	30.0	89.0	89.1	6.5	7.8	8	92	8	92	90	821481	814187	<0.2	1.2	1.2	1.2	
						3.5	0.4	81	22.0		7.9	7.9	30.0	30.0	89.2		6.6	7.7	9	92	9	92	90	821481	814187	<0.2	1.2	1.2	1.2	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821481	814187	<0.2	1.4	1.4	1.4	
					Bottom	1.0	0.1	183	22.4	22.4	7.9	7.9	28.6	28.6	90.5	90.5	6.7	5.3	9	-	9	-	89	821481	814187	<0.2	1.2	1.2	1.2	
						1.0	0.1	184	22.3		7.9	7.9	28.7	28.7	90.5		6.7	5.3	10	-	10	-	88	821481	814187	<0.2	1.2	1.2	1.2	
						4.9	0.2	116	21.9	21.9	7.9	7.9	29.9	29.9	90.1	90.3	6.6	7.9	9	-	9	-	89	821481	814187	<0.2	1.2	1.2	1.2	
SR3	Cloudy	Moderate	13:20	9.7	Surface	4.9	0.2	121	21.9	21.9	7.9	7.9	29.9	29.9	90.4	90.3	6.7	7.3	9	-	9	-	89	821481	814187	<0.2	1.2	1.2	1.2	
						4.9	0.2	121	21.9	21.9	7.9	7.9	29.9	29.9	90.4	90.3														

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

Water Quality Monitoring

Water Quality Monitoring Results on 16 March 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)	
C1	Misty	Calm	09:05	8.4	Surface	1.0	0.5	27	21.7	21.7	8.1	8.1	30.0	30.0	93.5	93.4	6.9	6.9	8.3	6.9	12	10	85	87	815623	804238	<0.2	<0.2	0.9	0.9
						1.0	0.5	28	21.7	21.7	8.1	8.1	30.1	30.1	93.3	93.4	6.9	6.9	8.5	6.9	11	10	85	87			<0.2	<0.2	0.9	0.9
					Middle	4.2	0.5	40	21.6	21.6	8.1	8.1	30.6	30.6	92.6	92.7	6.8	6.8	9.6	6.8	11	10	86	87			<0.2	<0.2	0.9	0.9
						4.2	0.6	41	21.6	21.6	8.1	8.1	30.6	30.6	92.7	92.7	6.8	6.8	9.6	6.8	12	10	87	89			<0.2	<0.2	1.0	0.9
					Bottom	7.4	0.5	27	21.5	21.5	8.1	8.1	30.6	30.6	94.1	94.2	6.9	6.9	10.3	6.9	5	5	89	91			<0.2	<0.2	0.9	0.9
						7.4	0.5	28	21.5	21.5	8.1	8.1	30.6	30.6	94.3	94.3	7.0	7.0	10.3	7.0	10	10	89	91			<0.2	<0.2	0.9	0.9
C2	Cloudy	Moderate	10:09	12.6	Surface	1.0	0.4	358	22.1	22.1	7.8	7.8	27.6	27.6	87.7	87.7	6.5	6.5	5.3	6.5	4	6	88	89	825685	806940	<0.2	<0.2	1.6	1.8
						1.0	0.4	329	22.0	22.0	7.8	7.8	27.6	27.6	87.6	87.6	6.5	6.5	5.6	6.5	4	6	87	89			<0.2	<0.2	1.6	1.8
					Middle	6.3	0.4	2	21.9	21.9	7.8	7.8	28.1	28.1	87.0	87.0	6.5	6.5	6.0	6.5	4	6	89	91			<0.2	<0.2	1.8	1.9
						6.3	0.4	2	21.9	21.9	7.8	7.8	28.1	28.1	87.0	87.0	6.5	6.5	6.1	6.5	4	6	89	91			<0.2	<0.2	1.8	1.9
					Bottom	11.6	0.3	18	21.8	21.8	7.8	7.8	28.4	28.4	87.1	87.1	6.5	6.5	8.0	6.5	5	5	91	91			<0.2	<0.2	1.9	1.9
						11.6	0.3	19	21.8	21.8	7.8	7.8	28.4	28.4	87.1	87.1	6.5	6.5	8.0	6.5	6	6	91	91			<0.2	<0.2	1.9	1.9
C3	Cloudy	Moderate	08:01	11.2	Surface	1.0	0.6	296	21.8	21.8	7.8	7.8	30.3	30.3	96.5	96.5	6.4	6.4	3.9	6.4	4	5	85	86	822102	817788	<0.2	<0.2	1.4	1.3
						1.0	0.6	304	21.8	21.8	7.8	7.8	30.3	30.3	96.3	96.3	6.4	6.4	3.9	6.4	3	5	86	87			<0.2	<0.2	1.2	1.4
					Middle	5.6	0.6	290	21.5	21.5	7.8	7.8	31.1	31.1	94.8	94.8	6.2	6.2	5.9	6.2	5	5	88	89			<0.2	<0.2	1.2	1.2
						5.6	0.7	295	21.5	21.5	7.8	7.8	31.1	31.1	94.6	94.6	6.2	6.2	5.9	6.2	5	5	88	89			<0.2	<0.2	1.2	1.2
					Bottom	10.2	0.5	293	21.5	21.5	7.8	7.8	31.4	31.4	93.8	93.8	6.2	6.2	6.2	6.2	6	6	89	90			<0.2	<0.2	1.2	1.2
						10.2	0.5	313	21.5	21.5	7.8	7.8	31.4	31.4	93.8	93.8	6.2	6.2	6.2	6.2	5	5	90	90			<0.2	<0.2	1.2	1.2
IM1	Misty	Calm	09:23	5.0	Surface	1.0	0.2	23	22.0	22.0	8.0	8.0	29.7	29.7	91.6	91.4	6.7	6.7	7.4	6.7	7	7	86	87	817942	807141	<0.2	<0.2	1.2	1.1
						1.0	0.2	23	22.0	22.0	8.0	8.0	29.7	29.7	91.2	91.2	6.7	6.7	7.4	6.7	6	7	87	87			<0.2	<0.2	1.1	1.1
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			<0.2	<0.2	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2		<0.2	-	-		
					Bottom	4.0	0.1	308	22.0	22.0	8.0	8.0	29.6	29.6	90.3	90.4	6.7	6.7	10.5	6.7	8	7	89	89		<0.2	<0.2	1.0	1.2	
						4.0	0.1	334	21.9	21.9	8.0	8.0	29.6	29.6	90.4	90.4	6.7	6.7	10.5	6.7	8	7	89	89		<0.2	<0.2	1.2	1.2	
IM2	Misty	Calm	09:30	7.0	Surface	1.0	0.4	15	21.9	21.9	8.1	8.1	29.5	29.5	92.6	92.6	6.8	6.8	9.2	6.8	8	7	85	85	818146	806164	<0.2	<0.2	1.0	1.1
						1.0	0.4	15	21.9	21.9	8.1	8.1	29.6	29.5	92.6	92.6	6.8	6.8	9.1	6.8	5	7	85	88			<0.2	<0.2	1.1	1.1
					Middle	3.5	0.3	358	21.9	21.9	8.1	8.1	29.6	29.6	92.4	92.4	6.8	6.8	9.4	6.8	7	7	88	87			<0.2	<0.2	1.1	1.1
						3.5	0.3	329	21.9	21.9	8.1	8.1	29.6	29.6	92.3	92.3	6.8	6.8	9.4	6.8	6	7	87	89			<0.2	<0.2	1.0	1.1
					Bottom	6.0	0.2	341	21.9	21.9	8.0	8.0	29.6	29.6	93.2	93.2	6.9	6.9	10.1	6.9	6	7	89	90			<0.2	<0.2	1.1	1.1
						6.0	0.2	314	21.9	21.9	8.0	8.0	29.5	29.6	93.7	93.5	6.9	6.9	10.0	6.9	7	7	87	87			<0.2	<0.2	1.2	1.2
IM3	Misty	Calm	09:37	7.2	Surface	1.0	0.4	327	21.9	22.0	8.1	8.1	29.4	29.4	92.7	92.7	6.8	6.8	8.0	6.8	6	7	85	86	818802	805567	<0.2	<0.2	1.1	1.1
						1.0	0.4	359	22.0	22.0	8.1	8.1	29.3	29.4	92.7	92.7	6.8	6.8	8.0	6.8	7	7	86	86			<0.2	<0.2	1.0	1.0
					Middle	3.6	0.4	335	21.9	21.9	8.1	8.1	29.5	29.5	91.6	91.6	6.8	6.8	10.2	6.8	6	7	88	89			<0.2	<0.2	1.2	1.2
						3.6	0.4	357	21.9	21.9	8.1	8.1	29.5	29.5	91.6	91.6	6.8	6.8	10.2	6.8	7	7	89	90			<0.2	<0.2	1.2	1.2
					Bottom	6.2	0.3	314	21.9	21.9	8.1	8.0	29.4	29.4	91.3	91.3	6.8	6.8	12.7	6.8	8	7	90	91			<0.2	<0.2	1.1	1.1
						6.2	0.3	320	21.9	21.9	8.0	8.0	29.4	29.4	91.3	91.3	6.8	6.8	12.6	6.8	7	7	91	91			<0.2	<0.2	1.1	1.1
IM4	Misty	Calm	09:45	8.4	Surface	1.0	0.7	4	21.8	21.8	8.1	8.1	29.5	29.5	91.9	91.9	6.8	6.8	11.0	6.8	6	8	85	85	819719	804606	<0.2	<0.2	1.1	1.1
						1.0	0.7	4	21.8	21.8	8.1	8.1	29.5	29.5	91.9	91.9	6.8	6.8	10.9	6.8	7	8	85	88			<0.2	<0.2	1.1	1.1
					Middle	4.2	0.7	6	21.8	21.8	8.1	8.1	29.5	29.5	91.8	91.8	6.8	6.8	13.4	6.8	7	8	88	88			<0.2	<0.2	1.1	1.1
						4.2	0.7	6	21.8	21.8	8.1	8.1	29.5	29.5	91.8	91.8	6.8	6.8	13.4	6.8	8	8	88	91			<0.2	<0.2	1.1	1.1
					Bottom	7.4	0.5	9	21.8	21.8	8.1	8.1	29.6	29.6	91.9	91.9	6.8	6.8	18.7	6.8	8	8	91	91			<0.2	<0.2	1.1	1.1
						7.4	0.6	9	21.8	21.8	8.1	8.1	29.6	29.6	91.9	91.9	6.8	6.8	18.7	6.8	9	8	91	91			<0.2	<0.2	1.1	1.1
IM5																														

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

Water Quality Monitoring

Water Quality Monitoring Results on 16 March 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)	
IM9	Cloudy	Moderate	09:36	7.6	Surface	1.0	0.1	116	21.9	21.9	7.9	7.9	29.1	29.1	88.3	88.3	6.5	6.5	7.7	6	87	90	822071	808795	<0.2		1.3	1.4		
						1.0	0.1	126	21.9		7.9		29.1		88.2		6.5		8.0	7	88				<0.2		1.3			
					Middle	3.8	0.1	217	21.9	21.9	7.9	7.9	29.2	29.2	88.1	88.1	6.5	6.5	11.2	8	89	90			<0.2		1.5			
						3.8	0.1	218	21.9		7.9		29.2		88.1		6.5		11.4	7	90				<0.2		1.3			
					Bottom	6.6	0.1	143	21.9	21.9	7.9	7.9	29.2	29.2	88.3	88.4	6.5	6.5	12.0	7	92	93			<0.2		1.4			
						6.6	0.1	155	21.9		7.9		29.2		88.4		6.5		12.1	8	93				<0.2		1.5			
IM10	Cloudy	Moderate	09:29	8.2	Surface	1.0	0.6	327	21.9	21.9	7.9	7.9	29.6	29.6	88.5	88.5	6.5	6.5	9.8	10	87	90	822375	809799	<0.2		1.4	1.4		
						1.0	0.7	357	21.9		7.9		29.6		88.5		6.5		9.9	11	87				<0.2		1.4			
					Middle	4.1	0.6	333	21.9	21.9	7.9	7.9	29.6	29.6	88.5	88.5	6.5	6.5	10.3	11	89	90			<0.2		1.3	1.4		
						4.1	0.6	335	21.9		7.9		29.6		88.4		6.5		10.5	10	90				<0.2		1.3			
					Bottom	7.2	0.5	329	21.9	21.9	7.9	7.9	29.6	29.6	88.5	88.5	6.5	6.5	12.3	12	92	92			<0.2		1.4			
						7.2	0.5	350	21.9		7.9		29.6		88.5		6.5		12.5	11	92				<0.2		1.2			
IM11	Cloudy	Moderate	09:20	8.2	Surface	1.0	0.6	273	21.8	21.8	7.9	7.9	29.9	29.9	87.7	87.7	6.5	6.5	9.1	19	86	88	822070	811466	<0.2		1.3	1.4		
						1.0	0.6	296	21.8		7.9		29.9		87.7		6.5		9.1	18	87				<0.2		1.4			
					Middle	4.1	0.5	275	21.8	21.8	7.9	7.9	29.9	29.9	87.5	87.5	6.5	6.5	12.4	18	88	88			<0.2		1.3	1.4		
						4.1	0.6	294	21.8		7.9		29.9		87.5		6.5		13.7	17	88				<0.2		1.3			
					Bottom	7.2	0.5	283	21.8	21.8	7.9	7.9	30.0	30.0	87.7	87.8	6.5	6.5	14.9	18	90	91			<0.2		1.5			
						7.2	0.5	286	21.8		7.9		30.0		87.8		6.5		13.6	17	91				<0.2		1.3			
IM12	Cloudy	Moderate	09:13	9.5	Surface	1.0	0.7	260	21.8	21.8	7.9	7.9	29.9	29.9	88.0	88.0	6.5	6.5	7.9	9	86	88	821460	812022	<0.2		1.4	1.3		
						1.0	0.7	262	21.8		7.9		29.9		88.0		6.5		7.9	10	88				<0.2		1.3			
					Middle	4.8	0.8	262	21.8	21.8	7.9	7.9	30.2	30.2	87.3	87.3	6.4	6.4	9.4	10	89	90			<0.2		1.3	1.3		
						4.8	0.8	265	21.8		7.9		30.2		87.3		6.4		9.7	10	90				<0.2		1.3			
					Bottom	8.5	0.6	257	21.8	21.8	7.9	7.9	30.2	30.2	87.4	87.4	6.4	6.4	10.8	11	91	91			<0.2		1.4			
						8.5	0.7	257	21.8		7.9		30.2		87.4		6.4		10.8	11	91				<0.2		1.3			
SR1A	Cloudy	Moderate	08:38	4.4	Surface	1.0	-	-	21.9	21.9	7.9	7.9	30.0	30.0	88.3	88.3	6.5	6.5	3.9	4	-	-	819976	812654	-	-	-	-		
						1.0	-	-	21.9		7.9		30.0		88.3		6.5		4.0	3	-	-			-	-	-	-		
					Middle	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-			-	-	-		
						2.2	-	-	-		-		-		-		-	-	-	-	-	-			-	-	-			
					Bottom	3.4	-	-	21.9	21.9	7.8	7.8	30.1	30.1	89.6	89.8	6.6	6.6	4.4	4	-	-			-	-	-	-		
						3.4	-	-	21.9		7.8		30.0		89.9		6.6		4.3	5	-	-			-	-	-	-		
SR2	Cloudy	Moderate	08:21	4.8	Surface	1.0	0.4	38	21.7	21.7	7.9	7.9	30.1	30.1	87.8	87.8	6.5	6.5	9.9	12	86	86	821473	814178	<0.2		1.3	1.4		
						1.0	0.4	41	21.7		7.9		30.2		87.8		6.5		9.9	13	86				<0.2		1.4			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	88		<0.2		-	1.3		
						-	-	-	-		-		-		-		-	-	-	-	-	-			<0.2		-			
					Bottom	3.8	0.2	35	21.7	21.7	7.9	7.9	30.2	30.2	88.0	88.1	6.5	6.5	9.6	17	89	89			<0.2		1.2			
						3.8	0.3	36	21.7		7.9		30.2		88.2		6.5		9.7	17	89				<0.2		1.2			
SR3	Cloudy	Moderate	09:49	9.3	Surface	1.0	0.0	34	22.2	22.2	7.8	7.8	27.8	27.8	89.9	89.7	6.7	6.6	4.1	6	-	-	822129	807563	-	-	-	-		
						1.0	0.0	37	22.1		7.8		27.8		89.5		6.7		4.3	5	-	-			-	-	-	-		
					Middle	4.7	0.0	316	21.9	21.9	7.8	7.8	28.1	28.1	87.6	87.6	6.5	6.5	6.8	5	-	-			-	-	-	-		
						4.7	0.0	336	21.9		7.8		28.1		87.6		6.5		7.0	6	-	-			-	-	-	-		
					Bottom	8.3	0.1	348	22.0	22.0	7.8	7.8	28.2	28.2	87.9	88.0	6.5	6.5	7.8	8	-	-			-	-	-	-		
						8.3	0.1	320	22.0		7.8		28.2		88.0		6.5		7.8	9	-	-			-	-	-	-		
SR4A	Misty	Calm	08:42	9.0	Surface	1.0	0.0	78	22.1	22.1	8.1	8.1	29.7	29.7	89.2	89.2	6.6	6.5	6.5	10	-	-	817183	807829	-	-	-	-		
						1.0	0.0	83	22.1		8.1		29.7		89.1		6.5		6.5	9	-	-			-	-	-	-		
					Middle	4.5	0.1	80	22.1	22.1	8.0	8.0	29.7	29.7	88.7	88.7	6.5	6.5	7.5	10	-	-			-	-	-	-		
						4.5	0.1	80	22.1		8.0		29.7		88.7		6.5		7.6	10	-	-			-	-	-	-		
					Bottom	8.0	0.1	98	22.1	22.1	8.0	8.0	29.7	29.7	88.5	88.9	6.5	6.6	8.9	9	-	-			-	-	-	-		
						8.0	0.2	101	22.1		8.0		29.8		89.2		6.6		8.9	9	-	-			-	-	-	-		
SR5A	Misty	Calm	08:25	3.6	Surface	1.0	0.2	280	22.1	22.1	8.0	8.0	29.2	29.2	87.6	87.6	6.5	6.5	6.6	7	-	-	816593	810680	-	-	-	-		
						1.0	0.2	280	22.1		8.0		29.2		87.6		6.5		6.6	8	-	-			-	-	-	-		
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-			-	-	-		
						-	-	-	-		-		-		-		-	-	-	-</										

Water Quality Monitoring

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

Water Quality Monitoring Results - 20 March 2024																																			
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 (µg/L)		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	Misty	Moderate	15:19	8.8	Surface	1.0	0.3	213	23.2	23.1	8.1	8.1	30.8	30.8	104.1	104.0	7.5	7.4	7.3	4.4	7	6	87	87					<0.2	1.3	1.4				
						1.0	0.3	228	23.1																					<0.2		1.4			
					Middle	4.4	0.2	203	22.4	22.4	8.1	8.1	32.0	32.0	98.8	98.8	7.1	7.1	6.1	6.2	7	7	88	88	88	88	815637	804235				<0.2	1.3		
						4.4	0.2	218	22.4																								<0.2	1.4	
					Bottom	7.8	0.2	191	22.0	22.0	8.1	8.0	33.1	33.1	94.0	94.1	6.8	6.8	10.5	10.3	7	8	89	89										<0.2	1.3
						7.8	0.2	200	22.0																									<0.2	1.4
C2	Cloudy	Moderate	14:10	12.5	Surface	1.0	0.3	183	23.2	23.2	8.1	8.1	25.6	25.6	91.1	91.1	6.7	6.7	6.5	3.0	7	7	88	89					<0.2	1.7	1.7				
						1.0	0.3	186	23.2																							<0.2	1.8		
					Middle	6.3	0.2	174	22.3	22.3	8.2	8.2	28.7	28.6	84.0	84.0	6.2	6.2	5.4	5.4	7	7	90	90	91	91	825684	806952				<0.2	1.6		
						6.3	0.2	189	22.3																								<0.2	1.8	
					Bottom	11.5	0.3	191	22.2	22.2	8.2	8.2	29.0	29.0	83.8	83.8	6.2	6.2	7.6	7.3	7	6	93	93										<0.2	1.6
						11.5	0.3	201	22.2																									<0.2	1.6
C3	Cloudy	Moderate	16:20	12.2	Surface	1.0	0.5	41	22.8	22.8	8.2	8.2	28.3	28.3	89.3	89.2	6.5	6.5	6.3	2.3	7	7	89	90					<0.2	1.5	1.5				
						1.0	0.5	41	22.8																							<0.2	1.5		
					Middle	6.1	0.2	27	22.2	22.2	8.2	8.2	29.7	29.7	83.8	83.8	6.1	6.1	4.0	4.0	8	8	89	89	90	90	822130	817824				<0.2	1.4		
						6.1	0.2	29	22.2																								<0.2	1.5	
					Bottom	11.2	0.1	57	22.2	22.2	8.2	8.2	29.8	29.8	84.1	84.1	6.2	6.2	3.3	3.2	8	8	92	92										<0.2	1.5
						11.2	0.1	58	22.2																									<0.2	1.5
IM1	Misty	Moderate	14:58	5.0	Surface	1.0	0.1	190	22.7	22.7	8.0	8.0	30.6	30.6	95.7	95.6	7.7	7.7	6.9	7.8	7	6	85	85					<0.2	1.					

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 18 March 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)	
IM9	Cloudy	Moderate	14:40	7.7	Surface	1.0	0.2	114	23.2	23.2	8.2	8.2	26.4	26.4	95.6	95.6	7.0	7.0	2.2	2.2	4	88	90	822116	808816	<0.2	1.5			
						1.0	0.2	119	23.2		8.2	8.2	26.4		95.5	7.0	2.2	2.2	5	89	90					<0.2	1.5			
					Middle	3.9	0.2	88	22.8		8.2	8.2	27.9	27.9	92.5	92.6	6.8	6.8	7.3	6	90	90	822116	808816	<0.2	1.6				
						3.9	0.2	88	22.8		8.2	8.2	27.9	27.9	92.6	92.6	6.8	6.8	7.4	7	90	90			<0.2	1.5				
					Bottom	6.7	0.2	69	22.8		8.2	8.2	28.4	28.4	93.9	93.9	6.9	6.9	9.5	7	92	93	90	822116	808816	<0.2	1.5			
						6.7	0.2	70	22.8		8.2	8.2	28.4	28.4	93.8	93.8	6.9	6.9	9.6	7	93	93	90	822116	808816	<0.2	1.6			
						6.7	0.2	70	22.8		8.2	8.2	28.4	28.4	93.8	93.8	6.9	6.9	9.6	7	93	93	90	822116	808816	<0.2	1.6			
IM10	Cloudy	Moderate	14:48	7.5	Surface	1.0	0.5	103	22.8	22.8	8.2	8.2	27.4	27.4	89.4	89.4	6.6	6.6	3.3	6	89	91	822375	809807	<0.2	1.6				
						1.0	0.5	103	22.8		8.2	8.2	27.4	27.4	89.4	89.4	6.6	6.6	3.3	7	89	90			<0.2	1.6				
					Middle	3.8	0.5	101	22.5	22.5	8.2	8.2	28.3	28.2	84.5	84.5	6.2	6.2	9.1	7	90	90	822375	809807	<0.2	1.6				
						3.8	0.5	102	22.5		8.2	8.2	28.2	28.2	84.4	84.4	6.2	6.2	9.2	7	90	90			<0.2	1.6				
					Bottom	6.5	0.4	96	22.6	22.6	8.2	8.2	28.2	28.2	84.7	84.8	6.2	6.2	10.9	7	93	93	91	822375	809807	<0.2	1.5			
						6.5	0.5	99	22.6		8.2	8.2	28.2	28.2	84.9	84.9	6.2	6.2	10.6	7	93	93	91	822375	809807	<0.2	1.6			
						6.5	0.5	99	22.6		8.2	8.2	28.2	28.2	84.9	84.9	6.2	6.2	10.6	7	93	93	91	822375	809807	<0.2	1.6			
IM11	Cloudy	Moderate	14:59	9.3	Surface	1.0	0.6	113	23.3	23.3	8.1	8.1	26.6	26.6	96.8	96.8	7.1	7.1	2.3	6	88	90	822055	811436	<0.2	1.5				
						1.0	0.7	113	23.2		8.1	8.1	26.7	26.6	96.7	96.8	7.1	7.1	2.4	6	89	90			<0.2	1.5				
					Middle	4.7	0.6	108	22.8	22.8	8.1	8.1	27.4	27.4	90.2	90.3	6.6	6.6	3.1	6	90	90	822055	811436	<0.2	1.5				
						4.7	0.6	116	22.8		8.1	8.1	27.4	27.4	90.3	90.3	6.6	6.6	3.1	6	90	90			<0.2	1.5				
					Bottom	8.3	0.3	74	22.5	22.5	8.2	8.2	28.4	28.4	86.1	86.1	6.3	6.3	7.7	6	91	91	90	822055	811436	<0.2	1.6			
						8.3	0.3	79	22.5		8.2	8.2	28.4	28.4	86.1	86.1	6.3	6.3	7.6	7	91	91	90	822055	811436	<0.2	1.6			
						8.3	0.3	79	22.5		8.2	8.2	28.4	28.4	86.1	86.1	6.3	6.3	7.6	7	91	91	90	822055	811436	<0.2	1.6			
IM12	Cloudy	Moderate	15:05	9.5	Surface	1.0	0.6	109	23.2	23.2	8.2	8.2	26.5	26.6	93.5	93.5	6.9	6.9	2.9	5	89	91	821457	812042	<0.2	1.6				
						1.0	0.6	118	23.1		8.2	8.2	26.6	26.6	93.5	93.5	6.9	6.9	3.0	5	89	91			<0.2	1.6				
					Middle	4.8	0.5	108	22.6	22.6	8.2	8.2	28.0	28.0	85.7	85.7	6.3	6.3	7.6	6	91	91	821457	812042	<0.2	1.6				
						4.8	0.5	108	22.6		8.2	8.2	28.0	28.0	85.6	85.6	6.3	6.3	7.9	7	91	91			<0.2	1.6				
					Bottom	8.5	0.3	80	22.6	22.6	8.2	8.2	28.1	28.1	85.6	85.7	6.3	6.3	11.9	6	93	93	91	821457	812042	<0.2	1.6			
						8.5	0.3	82	22.6		8.2	8.2	28.1	28.1	85.8	85.8	6.3	6.3	11.7	7	93	93	91	821457	812042	<0.2	1.7			
						8.5	0.3	82	22.6		8.2	8.2	28.1	28.1	85.8	85.8	6.3	6.3	11.7	7	93	93	91	821457	812042	<0.2	1.7			
SR1A	Cloudy	Calm	15:42	5.0	Surface	1.0	-	-	23.2	23.2	8.2	8.2	27.2	27.2	92.3	92.3	6.8	6.8	2.9	6	-	-	819979	812660	-	-				
						1.0	-	-	23.2		8.2	8.2	27.2	27.2	92.2	92.2	6.7	6.7	3.0	5	-	-			-	-				
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	819979	812660	-	-				
						2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-				
					Bottom	4.0	-	-	22.9	22.9	8.2	8.2	27.8	27.8	88.0	88.1	6.4	6.4	6.8	5	-	-	819979	812660	-	-				
						4.0	-	-	22.9		8.2	8.2	27.8	27.8	88.2	88.2	6.5	6.5	6.9	4	-	-			-	-				
						4.0	-	-	22.9		8.2	8.2	27.8	27.8	88.2	88.2	6.5	6.5	6.9	4	-	-			-	-				
SR2	Cloudy	Moderate	15:59	3.7	Surface	1.0	0.5	71	23.2	23.2	8.2	8.2	27.0	27.0	95.5	95.6	7.0	7.0	2.4	7	89	90	821477	814147	<0.2	1.5				
						1.0	0.5	74	23.2		8.2	8.2	27.0	27.0	95.7	95.7	7.0	7.0	2.3	6	89	90			<0.2	1.4				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	821477	814147	<0.2	1.5				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			<0.2	1.5				
					Bottom	2.7	0.3	74	22.9	22.9	8.2	8.2	27.6	27.6	90.7	90.7	6.6	6.6	4.9	6	91	92	90	821477	814147	<0.2	1.5			
						2.7	0.3	79	22.9		8.2	8.2	27.6	27.6	90.6	90.6	6.6	6.6	4.9	6	92	92			<0.2	1.6				
						2.7	0.3	79	22.9		8.2	8.2	27.6	27.6	90.6	90.6	6.6	6.6	4.9	6	92	92			<0.2	1.6				
SR3	Cloudy	Moderate	14:27	9.6	Surface	1.0	0.2	205	23.2	23.2	8.2	8.2	26.3	26.3	94.6	94.6	7.0	7.0	2.6	8	-	-	822129	807568	-	-				
						1.0	0.2	219	23.2		8.2	8.2	26.3	26.3	94.6	94.6	7.0	7.0	2.7	7	-	-			-	-				
					Middle	4.8	0.3	193	22.7	22.7	8.2	8.2	27.5	27.5	90.8	91.0	6.7	6.7	6.2	6	-	-	822129	807568	-	-				
						4.8	0.3	202	22.7		8.2	8.2	27.5	27.5	91.2	91.2	6.7	6.7	6.5	6	-	-			-	-				
					Bottom	8.6	0.1	184	22.8	22.8	8.3	8.3	28.4	28.4	93.7	93.7	6.9	6.9	10.2	5	-	-	822129	807568	-	-				
						8.6	0.1	185	22.8		8.3	8.3	28.4	28.4	93.7	93.7	6.9	6.9	10.6	6	-	-			-	-				
						8.6	0.1	185	22.8		8.3	8.3	28.4	28.4	93.7	93.7	6.9	6.9	10.6	6	-	-			-	-				
SR4A	Misty	Moderate	15:41	9.0	Surface	1.0	0.2	63	23.1	23.1	8.0	8.0	30.7	30.7	96.9	96.9	7.0	7.0	5.7	6	-	-	817209	807823	-	-				
						1.0	0.2	64	23.1		8.0	8.0	30.7	30.																

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

Water Quality Monitoring

Water Quality Monitoring Results on 18 March 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)	
C1	Misty	Moderate	10:08	9.0	Surface	1.0	0.7	55	22.4	22.4	8.0	8.0	30.7	30.7	96.9	97.0	7.0	5.3	7.0	5	85	87	815612	804237	<0.2	1.4	1.4	1.4		
						1.0	0.8	58	22.5		8.0		30.7		97.0	7.0	5.3	5	85	88	87	815612	804237	<0.2	1.4	1.4	1.4			
					Middle	4.5	0.8	55	22.1	22.1	8.0	8.0	32.1	32.1	96.0	96.0	7.0	16.1	7.0	5	88	87	815612	804237	<0.2	1.4	1.4	1.4		
						4.5	0.8	59	22.1		8.0		32.1		95.9	6.9	16.6	5	88	88	87	815612	804237	<0.2	1.4	1.4	1.4			
					Bottom	8.0	0.6	50	22.0	22.0	8.0	8.0	32.9	32.9	95.0	95.2	6.9	18.3	6.9	4	88	89	815612	804237	<0.2	1.4	1.4	1.4		
						8.0	0.7	53	22.0		8.0		32.9		95.4	6.9	18.5	5	89	89	89	815612	804237	<0.2	1.4	1.4	1.4			
C2	Cloudy	Moderate	10:33	12.6	Surface	1.0	0.5	327	23.0	23.0	8.1	8.1	25.9	25.9	95.0	95.0	7.0	1.4	7.0	7	86	86	825690	806939	<0.2	1.7	1.7	1.6		
						1.0	0.5	335	23.0		8.1		25.9		94.9	7.0	1.5	8	86	86	86	825690	806939	<0.2	1.7	1.7	1.6			
					Middle	6.3	0.4	324	22.8	22.8	8.1	8.1	26.6	26.5	89.1	89.1	6.6	4.2	6.8	5	89	89	825690	806939	<0.2	1.7	1.7	1.6		
						6.3	0.4	330	22.8		8.1		26.5		89.1	6.6	3.9	5	89	89	89	825690	806939	<0.2	1.7	1.7	1.6			
					Bottom	11.6	0.3	313	22.7	22.7	8.1	8.1	26.9	26.9	86.9	86.9	6.4	12.9	6.4	5	93	93	825690	806939	<0.2	1.3	1.3	1.3		
						11.6	0.3	341	22.7		8.1		26.9		86.9	6.4	12.4	4	93	93	93	825690	806939	<0.2	1.4	1.4	1.4			
C3	Cloudy	Moderate	08:27	11.8	Surface	1.0	0.4	293	22.7	22.7	8.1	8.1	27.5	27.5	88.4	88.4	6.5	1.9	6.4	6	87	87	822119	817821	<0.2	1.5	1.5	1.6		
						1.0	0.5	294	22.7		8.1		27.5		88.4	6.5	1.9	5	87	87	87	822119	817821	<0.2	1.5	1.5	1.6			
					Middle	5.9	0.5	285	22.2	22.2	8.1	8.1	29.1	29.1	84.6	84.6	6.2	1.9	4.4	5	88	88	822119	817821	<0.2	1.6	1.6	1.6		
						5.9	0.6	301	22.2		8.1		29.1		84.6	6.2	1.9	5	88	88	88	822119	817821	<0.2	1.6	1.6	1.6			
					Bottom	10.8	0.5	293	22.2	22.2	8.1	8.1	29.5	29.5	83.9	84.0	6.2	9.6	6.2	4	94	94	822119	817821	<0.2	1.6	1.6	1.6		
						10.8	0.5	304	22.2		8.1		29.5		84.0	6.2	9.6	4	94	94	94	822119	817821	<0.2	1.6	1.6	1.6			
IM1	Misty	Calm	10:28	5.2	Surface	1.0	0.1	25	22.9	22.9	8.0	8.0	30.2	30.2	98.4	98.4	7.1	6.0	7.1	5	83	83	817969	807154	<0.2	1.3	1.3	1.3		
						1.0	0.1	27	22.9		8.0		30.2		98.4	7.1	6.1	6	84	6	84	817969	807154	<0.2	1.3	1.3	1.3			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85	817969	807154	<0.2	1.3	1.3	1.3		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85	817969	807154	<0.2	1.3	1.3	1.3		
					Bottom	4.2	0.2	34	22.8	22.8	8.0	8.0	30.3	30.3	95.5	95.5	6.9	7.2	6.9	6	86	86	817969	807154	<0.2	1.3	1.3	1.3		
						4.2	0.2	36	22.8		8.0		30.3		95.4	6.9	7.1	7	87	7	87	817969	807154	<0.2	1.4	1.4	1.4			
IM2	Misty	Calm	10:35	7.2	Surface	1.0	0.3	22	22.8	22.7	8.0	8.0	29.8	29.9	97.9	97.5	7.1	7.4	7.1	3	84	84	818145	806161	<0.2	1.4	1.4	1.4		
						1.0	0.4	22	22.7		8.0		29.8		97.1	7.0	7.3	4	84	4	84	818145	806161	<0.2	1.5	1.5	1.5			
					Middle	3.6	0.3	26	22.5	22.5	8.0	8.0	30.9	30.9	95.9	95.7	7.0	11.3	7.0	4	88	88	818145	806161	<0.2	1.5	1.5	1.5		
						3.6	0.3	26	22.5		8.0		30.9		95.4	6.9	11.6	4	88	4	88	818145	806161	<0.2	1.4	1.4	1.4			
					Bottom	6.2	0.2	7	22.4	22.4	8.0	8.0	31.0	31.0	95.1	95.1	6.9	19.0	6.9	5	89	89	818145	806161	<0.2	1.4	1.4	1.4		
						6.2	0.2	7	22.4		8.0		31.0		95.1	6.9	19.1	5	89	5	89	818145	806161	<0.2	1.4	1.4	1.4			
IM3	Misty	Moderate	10:42	7.4	Surface	1.0	0.3	4	22.8	22.7	8.0	8.0	29.7	29.7	97.6	97.6	7.1	7.8	7.1	4	85	85	818784	805594	<0.2	1.4	1.4	1.3		
						1.0	0.3	4	22.7		8.0		29.7		97.5	7.1	7.9	4	85	4	85	818784	805594	<0.2	1.4	1.4	1.3			
					Middle	3.7	0.3	0	22.3	22.3	8.0	8.0	31.2	31.2	94.8	94.8	6.9	14.7	7.0	4	87	87	818784	805594	<0.2	1.3	1.3	1.3		
						3.7	0.4	0	22.3		8.0		31.2		94.8	6.9	14.3	4	87	4	87	818784	805594	<0.2	1.3	1.3	1.3			
					Bottom	6.4	0.3	1	22.3	22.3	8.0	8.0	31.2	31.2	94.5	94.3	6.9	17.1	6.9	4	90	90	818784	805594	<0.2	1.3	1.3	1.3		
						6.4	0.3	1	22.3		8.0		31.2		94.0	6.8	17.3	6	90	6	90	818784	805594	<0.2	1.2	1.2	1.2			
IM4	Misty	Moderate	10:50	8.8	Surface	1.0	0.6	329	22.7	22.7	8.0	8.0	29.8	29.8	97.7	97.6	7.1	8.1	7.1	5	83	83	819721	804624	<0.2	1.4	1.4	1.4		
						1.0	0.6	336	22.7		8.0		29.8		97.4	7.1	8.2	4	84	4	84	819721	804624	<0.2	1.4	1.4	1.4			
					Middle	4.4	0.5	346	22.2	22.2	8.0	8.0	31.4	31.4	94.2	94.1	6.8	16.9	7.0	5	84	84	819721	804624	<0.2	1.3	1.3	1.3		
						4.4	0.5	318	22.2		8.0		31.4		94.0	6.8	16.8	5	89	5	89	819721	804624	<0.2	1.5	1.5	1.5			
					Bottom	7.8	0.4	357	22.2	22.2	8.0	8.0	31.5	31.5	94.2	94.1	6.8	18.6	6.8	6	90	90	819721	804624	<0.2	1.3	1.3	1.3		
						7.8	0.5	358	22.2		8.0		31.5		93.9	6.8	18.4	5	90	5	90	819721	804624	<0.2	1.3	1.3	1.3			
IM5	Misty	Moderate	10:57	7.6	Surface	1.0	0.8	352	22.8	22.8	8.0	8.0	29.9	29.9	98.9	98.9	7.2	8.3	7.1	7	83	83	820716	804848	<0.2	1.4	1.4	1.4		
						1.0	0.9	324	22.8		8.0		29.9		98.8	7.2	8.4	8	83	8	83	820716	804848	<0.2	1.4	1.4	1.4			
					Middle	3.8	0.7	358	22.5	22.5	8.0	8.0	30.4	30.4	96.4	96.4	7.0	11.0	7.1	8	89	89	820716	804848	<0.2	1.4	1.4	1.4		
						3.8	0.7	329	22.5		8.0		30.4		96.3	7.0	11.2	9	89	9	89	820716	804848	<0.2	1.3	1.3	1.3			
					Bottom	6.6	0.6	3	22.5																					

Water Quality Monitoring

Water Quality Monitoring Results on 18 March 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 Gnd (Northing)	Coordinate HK Gnd (Easting)	Chromium (µg/L)		Nickel (µg/L)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA	Value	DA	Value	DA
IM9	Cloudy	Moderate	10:01	7.5	Surface	1.0	0.0	242	22.9	22.9	8.3	8.3	26.4	26.4	89.5	89.5	6.6	6.6	5.9	15	88	90	-	-	<0.2	1.7								
						1.0	0.0	262	22.9	22.9	8.3	8.3	26.4	26.4	89.5	89.5	6.6	6.6	6.1	15	89	90	<0.2	1.6										
					Middle	3.8	0.0	76	22.9	22.9	8.3	8.3	26.5	26.5	88.6	88.6	6.5	6.5	9.8	14	90	90	<0.2	1.6										
						3.8	0.0	77	22.9	22.9	8.3	8.3	26.5	26.5	88.6	88.6	6.5	6.5	9.7	13	90	90	<0.2	1.6										
					Bottom	6.5	0.0	102	22.9	22.9	8.3	8.3	26.6	26.6	88.1	88.1	6.5	6.5	11.3	12	92	92	<0.2	1.4										
						6.5	0.0	107	22.9	22.9	8.3	8.3	26.6	26.6	88.1	88.1	6.5	6.5	11.4	11	92	92	<0.2	1.4										
IM10	Cloudy	Moderate	09:54	9.0	Surface	1.0	0.8	280	22.9	22.9	8.1	8.1	26.5	26.5	91.3	91.2	6.7	6.7	2.2	11	87	91	-	-	<0.2	1.4								
						1.0	0.8	297	22.9	22.9	8.1	8.1	26.5	26.5	91.0	91.0	6.7	6.7	2.2	10	88	90	<0.2	1.5										
					Middle	4.5	0.6	280	22.8	22.8	8.1	8.1	27.2	27.2	87.8	87.8	6.5	6.5	9.2	8	92	92	<0.2	1.5										
						4.5	0.7	292	22.8	22.8	8.1	8.1	27.2	27.2	87.8	87.8	6.5	6.5	9.3	8	92	92	<0.2	1.4										
					Bottom	8.0	0.5	279	22.8	22.8	8.1	8.1	27.3	27.3	87.1	87.2	6.4	6.4	15.1	6	93	93	<0.2	1.5										
						8.0	0.5	286	22.8	22.8	8.1	8.1	27.3	27.3	87.2	87.2	6.4	6.4	14.9	7	93	93	<0.2	1.3										
IM11	Cloudy	Moderate	09:45	8.6	Surface	1.0	0.8	283	22.7	22.7	8.1	8.1	27.4	27.4	88.4	88.4	6.5	6.5	3.1	12	87	90	-	-	<0.2	1.4								
						1.0	0.8	309	22.7	22.7	8.1	8.1	27.4	27.4	88.3	88.4	6.5	6.5	3.1	12	87	90	<0.2	1.4										
					Middle	4.3	0.6	289	22.6	22.6	8.1	8.1	27.8	27.8	86.4	86.4	6.4	6.4	10.0	8	90	90	<0.2	1.4										
						4.3	0.6	294	22.6	22.6	8.1	8.1	27.8	27.8	86.3	86.4	6.4	6.4	10.0	7	90	90	<0.2	1.5										
					Bottom	7.6	0.4	292	22.5	22.5	8.1	8.1	27.9	27.9	85.8	85.8	6.3	6.3	17.5	7	92	92	<0.2	1.5										
						7.6	0.4	318	22.5	22.5	8.1	8.1	27.9	27.9	85.8	85.8	6.3	6.3	17.2	6	93	93	<0.2	1.5										
IM12	Cloudy	Moderate	09:38	9.3	Surface	1.0	0.7	266	22.6	22.6	8.1	8.1	27.9	27.9	87.9	87.9	6.5	6.5	8.3	11	88	90	-	-	<0.2	1.3								
						1.0	0.7	273	22.6	22.6	8.1	8.1	27.9	27.9	87.9	87.9	6.5	6.5	8.3	13	88	90	<0.2	1.3										
					Middle	4.7	0.7	267	22.6	2																								

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 20 March 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)	
C1	Sunny	Moderate	16:38	8.6	Surface	1.0	0.2	188	24.4	24.4	8.0	8.0	27.3	27.3	107.9	107.9	7.7	7.7	2.5	4	84	89	815643	804261	<0.2	1.7	<0.2	1.7		
						1.0	0.2	203	24.4		8.0		27.3		107.8		7.7	2.6	3	85										
					Middle	4.3	0.1	199	22.8	22.8	8.1	8.1	32.4	32.4	99.8	99.9	7.1	3.7	3	90	3	89								
						4.3	0.1	216	22.8		8.1		32.4		99.9		7.1	3.7	3	89										
					Bottom	7.6	0.1	255	22.6	22.6	8.0	8.0	33.0	33.0	94.9	94.9	6.8	9.3	2	93	2	93								
						7.6	0.1	275	22.6		8.0		33.0		94.9		6.8	9.4	3	93	3	92								
C2	Fine	Moderate	15:33	12.3	Surface	1.0	0.2	135	24.5	24.5	7.9	7.9	26.2	26.3	102.7	102.6	7.4	4.0	2	85	89	825659	806937	<0.2	2.2	<0.2	2.1			
						1.0	0.2	142	24.5		7.9		26.4		102.4		7.4	4.0	3	87										
					Middle	6.2	0.5	154	22.8	22.8	7.9	7.9	28.9	29.0	92.6	92.5	6.8	6.7	3	89	3	90								
						6.2	0.5	157	22.7		7.9		29.1		92.4		6.7	7.0	3	90										
					Bottom	11.3	0.5	144	22.5	22.5	7.9	7.9	29.9	29.9	87.0	87.0	6.3	10.3	3	92	3	92								
						11.3	0.5	152	22.5		7.9		29.9		87.0		6.3	10.4	3	92	3	92								
C3	Fine	Moderate	17:35	11.9	Surface	1.0	0.4	286	23.5	23.5	7.9	7.9	29.0	29.0	100.2	100.2	7.2	3.1	7	85	88	822125	817784	<0.2	1.9	<0.2	1.9			
						1.0	0.4	297	23.5		7.9		29.0		100.1		7.2	3.1	7	86										
					Middle	6.0	0.2	257	22.9	22.9	7.9	7.9	29.8	29.8	92.3	92.2	6.7	7.8	6	87	5	90								
						6.0	0.2	259	22.8		7.9		29.8		92.1		6.7	8.1	3	88										
					Bottom	10.9	0.1	120	22.6	22.6	7.9	7.9	30.3	30.3	89.0	88.9	6.5	6.3	4	91	3	92								
						10.9	0.1	125	22.6		7.9		30.3		88.8		6.4	6.6	3	92	3	92								
IM1	Sunny	Moderate	16:18	5.2	Surface	1.0	0.0	157	24.9	24.8	8.0	8.0	27.6	27.6	107.0	106.8	7.6	3.3	3	87	90	817947	807117	<0.2	1.8	<0.2	1.8			
						1.0	0.0	166	24.8		8.0		27.6		106.5		7.6	3.5	2	87										
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	90							
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
					Bottom	4.2	0.1	169	23.1	23.1	8.0	8.0	30.9	30.9	93.0	93.1	6.7	8.6	4	92	3	93								
						4.2	0.1	177	23.1		8.0		30.9		93.1		6.7	8.6	3	93	3	93								
IM2	Sunny	Moderate	16:10	6.9	Surface	1.0	0.1	194	24.4	24.4	8.0	8.0	28.0	28.0	107.3	107.3	7.6	2.7	2	86	90	818182	806145	<0.2	1.8	<0.2	1.7			
						1.0	0.1	205	24.4		8.0		28.0		107.2		7.6	2.7	3	87										
					Middle	3.5	0.1	224	23.2	23.2	8.0	8.0	30.5	30.5	98.3	98.3	7.1	4.7	3	90	3	90								
						3.5	0.1	232	23.2		8.0		30.5		98.2		7.0	4.7	3	90										
					Bottom	5.9	0.1	200	22.7	22.7	8.0	8.0	32.4	32.4	97.7	97.8	7.0	6.6	2	94	3	94								
						5.9	0.1	206	22.7		8.0		32.4		97.8		7.0	6.6	3	94	3	94								
IM3	Sunny	Moderate	16:04	7.3	Surface	1.0	0.0	326	24.2	24.1	8.0	8.0	28.6	28.6	105.5	105.5	7.5	2.8	3	85	89	818772	805592	<0.2	1.6	<0.2	1.7			
						1.0	0.0	333	24.1		8.0		28.6		105.5		7.5	2.8	3	86										
					Middle	3.7	0.0	237	23.4	23.4	8.0	8.0	30.1	30.1	101.1	101.1	7.2	4.1	3	89	3	89								
						3.7	0.0	258	23.4		8.0		30.1		101.1		7.2	4.1	3	89										
					Bottom	6.3	0.0	51	22.8	22.8	8.0	8.0	32.1	32.1	97.0	97.0	6.9	6.6	4	94	3	94								
						6.3	0.0	54	22.8		8.0		32.1		97.0		6.9	6.6	3	93	3	93								
IM4	Sunny	Moderate	15:55	7.6	Surface	1.0	0.2	190	23.6	23.6	8.0	8.0	29.2	29.2	100.7	100.8	7.2	2.8	2	84	89	819739	804604	<0.2	1.5	<0.2	1.6			
						1.0	0.2	204	23.6		8.0		29.2		100.8		7.2	2.8	3	85										
					Middle	3.8	0.1	185	23.4	23.4	8.0	8.0	30.0	30.0	98.3	98.3	7.1	4.6	3	89	3	89								
						3.8	0.1	185	23.4		8.0		30.0		98.3		7.1	4.6	3	89										
					Bottom	6.6	0.1	169	23.0	23.0	8.0	8.0	31.2	31.2	97.3	97.3	7.0	6.4	3	94	3	94								
						6.6	0.1	172	23.0		8.0		31.2		97.3		7.0	6.4	3	93	3	93								
IM5	Sunny	Moderate	15:47	7.4	Surface	1.0	0.3	235	23.6	23.6	8.0	8.0	29.0	29.0	102.0	102.0	7.3	3.7	4	86	90	820751	804854	<0.2	1.8	<0.2	1.8			
						1.0	0.3	243	23.6		8.0		29.0		101.9		7.3	3.7	3	87										
					Middle	3.7	0.2	226	23.2	23.2	8.0	8.0	30.4	30.4	97.3	97.3	7.0	4.6	3	90	4	91								
						3.7	0.2	232	23.2		8.0		30.4		97.2		7.0	4.6	4	91										
					Bottom	6.4	0.1	177	23.0	23.0	8.0	8.0	31.1	31.1	95.7	95.7	6.9	5.2	4	91	4	91								
						6.4	0.1	182	23.0		8.0		31.1		95.6		6.9	5.2	4	92	4	92								

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

Water Quality Monitoring

Water Quality Monitoring Results on 20 March 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)	
IM9	Fine	Moderate	16:04	7.8	Surface	1.0	0.2	134	23.5	23.5	7.9	7.9	27.3	27.3	100.4	100.4	7.3	4.0	7.1	4.0	3	86	89	822090	808800	<0.2	<0.2	1.8	1.8	
						1.0	0.2	134	23.5		7.9		27.3		100.4		7.3	4.0		3	86					<0.2	<0.2	1.7		
					Middle	3.9	0.2	151	23.1	23.1	7.9	7.9	28.8	28.8	94.4	94.4	6.8	6.4	6.1	6.8	3	88				<0.2	<0.2	1.8		
						3.9	0.2	165	23.1		7.9		28.8		94.4		6.8	6.8		3	90					<0.2	<0.2	1.7		
					Bottom	6.8	0.1	104	23.2	23.2	7.9	7.9	29.0	29.0	93.5	93.4	6.8	7.7	6.8	7.7	2	90				<0.2	<0.2	1.8		
						6.8	0.1	113	23.2		7.9		29.0		93.2		6.7	7.7		3	91					<0.2	<0.2	2.0		
IM10	Fine	Moderate	16:11	7.6	Surface	1.0	0.5	136	23.7	23.7	7.9	7.9	28.0	28.1	106.4	106.2	7.7	4.5	7.3	4.7	2	85	89	822389	809793	0.2	0.2	1.8	1.7	
						1.0	0.5	141	23.6		7.9		28.1		106.0		7.7	4.7		3	86					0.2	0.2	1.7		
					Middle	3.8	0.4	140	23.0	23.0	7.9	7.9	28.8	28.8	96.0	95.7	7.0	6.6	6.5	6.6	4	89				<0.2	<0.2	1.7		
						3.8	0.5	145	23.0		7.9		28.8		95.3		6.9	6.8		3	90					<0.2	<0.2	1.7		
					Bottom	6.6	0.3	134	22.9	22.9	7.9	7.9	28.9	28.9	88.8	88.8	6.5	8.0	6.5	8.0	3	91				<0.2	<0.2	1.8		
						6.6	0.3	134	22.9		7.9		28.9		88.8		6.5	8.3		4	91					<0.2	<0.2	1.7		
IM11	Fine	Moderate	16:22	8.0	Surface	1.0	0.7	137	24.2	24.2	7.9	7.9	27.2	27.2	109.2	109.2	7.8	3.4	7.5	3.6	2	85	89	822040	811456	<0.2	<0.2	1.8	1.8	
						1.0	0.8	140	24.1		7.9		27.2		109.1		7.8	3.6		3	86					<0.2	<0.2	1.7		
					Middle	4.0	0.7	143	23.3	23.3	7.9	7.9	28.1	28.1	100.1	99.9	7.3	5.8	7.0	6.1	2	89				<0.2	<0.2	1.6		
						4.0	0.7	155	23.2		7.9		28.2		99.7		7.2	6.1		3	90					<0.2	<0.2	1.7		
					Bottom	7.0	0.4	130	23.1	23.1	7.9	7.9	28.4	28.5	90.5	90.4	6.6	7.6	6.6	7.6	4	92				<0.2	<0.2	1.8		
						7.0	0.5	131	23.0		7.9		28.5		90.2		6.6	8.3		3	90					<0.2	<0.2	1.8		
IM12	Fine	Moderate	16:28	8.4	Surface	1.0	0.7	109	24.5	24.5	7.9	7.9	27.0	27.0	103.0	102.7	7.4	5.1	7.0	5.5	4	84	88	821443	812049	<0.2	<0.2	1.9	1.9	
						1.0	0.7	115	24.5		7.9		27.1		102.3		7.3	5.5		5	85					<0.2	<0.2	1.9		
					Middle	4.2	0.6	109	22.9	22.9	7.9	7.9	28.7	28.8	91.5	91.3	6.7	7.7	7.0	8.2	4	86				<0.2	<0.2	2.0		
						4.2	0.7	116	22.9		7.9		28.8		91.1		6.6	8.2		4	89					<0.2	<0.2	1.8		
					Bottom	7.4	0.4	74	22.8	22.8	7.9	7.9	29.1	29.1	86.9	86.9	6.3	9.9	6.3	10.0	4	91				<0.2	<0.2	1.8		
						7.4	0.5	74	22.8		7.9		29.1		86.9		6.3	10.0		3	90					<0.2	<0.2	1.8		
SR1A	Fine	Moderate	16:58	5.4	Surface	1.0	-	-	23.4	23.4	7.9	7.9	28.2	28.3	97.1	96.8	7.0	6.9	7.0	7.4	5	-	-	819975	812662	-	-	-	-	
						1.0	-	-	23.3		7.9		28.4		96.4		7.0	7.4		4	-	-	-			-	-	-	-	
					Middle	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	
						2.7	-	-	-		-		-		-		-	-	-	-	-	-	-	-		-	-	-	-	
					Bottom	4.4	-	-	23.0	23.0	7.9	7.9	29.1	29.1	86.5	86.5	6.3	9.9	6.3	10.1	3	-	-	-		-	-	-	-	
						4.4	-	-	23.0		7.9		29.1		86.5		6.3	10.1		3	-	-	-	-		-	-	-	-	
SR2	Fine	Moderate	17:14	4.4	Surface	1.0	0.1	16	24.1	24.2	8.0	8.0	26.6	26.6	109.9	110.2	7.9	3.0	7.9	3.1	2	89	90	821450	814175	<0.2	<0.2	2.1	2.0	
						1.0	0.1	16	24.2		8.0		26.6		110.4		7.9	3.1		2	90					<0.2	<0.2	2.0		
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90		<0.2	<0.2	-	-	
						-	-	-	-		-		-		-		-	-	-	-	-	-	-			<0.2	<0.2	-	-	
					Bottom	3.4	0.1	339	23.4	23.4	7.9	7.9	28.0	28.0	95.1	95.1	6.9	4.5	6.9	4.5	<2	91				<0.2	<0.2	1.6	1.7	
						3.4	0.1	312	23.4		7.9		28.0		95.0		6.9	4.5		<2	91					<0.2	<0.2	1.7		
SR3	Fine	Moderate	15:52	8.6	Surface	1.0	0.0	206	23.4	23.4	7.9	7.9	27.4	27.4	99.0	99.2	7.2	4.2	7.1	4.3	3	-	-	822142	807572	-	-	-	-	
						1.0	0.0	208	23.4		7.9		27.5		99.4		7.2	4.3		4	-	-	-			-	-	-	-	
					Middle	4.3	0.1	225	23.1	23.1	7.9	7.9	28.5	28.5	94.9	94.9	6.9	7.2	6.9	7.2	4	-	-			-	-	-	-	
						4.3	0.1	231	23.1		7.9		28.5		94.9		6.9	7.2		3	-	-	-			-	-	-	-	
					Bottom	7.6	0.1	282	23.2	23.2	7.9	7.9	28.8	28.8	94.2	94.1	6.8	9.1	6.8	9.1	3	-	-			-	-	-	-	
						7.6	0.1	290	23.2		7.9		28.8		94.0		6.8	9.1		2	-	-	-			-	-	-	-	
SR4A	Sunny	Calm	17:01	8.6	Surface	1.0	0.1	161	24.3	24.3	8.0	8.0	28.7	28.7	104.0	104.0	7.4	4.3	7.1	4.3	4	-	-	817192	807791	-	-	-	-	
						1.0	0.1	174	24.3		8.0		28.7		104.0		7.4	4.3		5	-	-	-			-	-	-	-	
					Middle	4.3	0.1	186	23.0	23.0	8.0	8.0	31.2	31.2	95.5	95.5	6.8	5.4	6.7	5.4	6	-	-			-	-	-	-	
						4.3	0.1	202	23.0		8.0		31.2		95.4		6.8	5.4		5	-	-	-			-	-	-	-	
					Bottom	7.6	0.1	184	22.8	22.8	8.0	8.0	32.0	32.0	93.6	93.6	6.7	6.4	6.7	6.4	6	-	-			-	-	-	-	
						7.6	0.1	185	22.8		8.0		32.0		93.6		6.7	6.4		5	-	-	-			-	-	-	-	
SR5A	Sunny	Calm	17:19	4.1	Surface	1.0	0.1	124	24.2	24.2	8.0	8.0	29.5	29.5	100.4	100.4	7.													

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

Water Quality Monitoring

Water Quality Monitoring Results on 20 March 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)	
C1	Sunny	Moderate	09:56	8.6	Surface	1.0	0.3	32	23.3	23.3	8.0	8.0	28.4	28.4	98.9	98.9	7.2	7.2	3.0	3.0	3	3	86	90	815624	804260	<0.2	<0.2	1.8	1.7
						1.0	0.3	32	23.3	23.3	8.0	8.0	28.4	28.4	98.9	98.9	7.2	7.2	3.0	3.0	4	4	87	90			<0.2	<0.2	1.6	1.6
					Middle	4.3	0.3	40	22.6	22.6	8.0	8.0	32.3	32.3	96.0	96.1	6.9	6.9	6.4	6.4	3	3	90	90			<0.2	<0.2	1.6	1.7
						4.3	0.3	42	22.6	22.6	8.0	8.0	32.3	32.3	96.1	96.1	6.9	6.9	6.5	6.5	3	3	90	93			<0.2	<0.2	1.8	1.8
					Bottom	7.6	0.4	42	22.5	22.5	8.0	8.0	33.0	33.0	95.3	95.2	6.8	6.8	15.5	15.5	3	3	93	93			<0.2	<0.2	1.8	1.8
						7.6	0.4	45	22.5	22.5	8.0	8.0	33.0	33.0	95.1	95.1	6.8	6.8	15.5	15.5	2	2	93	93			<0.2	<0.2	1.8	1.8
C2	Fine	Moderate	11:11	12.2	Surface	1.0	0.3	350	23.3	23.3	7.9	7.9	26.0	25.9	98.2	98.2	7.2	7.2	3.8	3.8	3	3	86	86	825702	806944	<0.2	<0.2	2.0	2.0
						1.0	0.3	355	23.3	23.3	7.9	7.9	25.7	25.7	98.2	98.2	7.2	7.2	4.0	4.0	2	2	87	87			<0.2	<0.2	1.9	1.9
					Middle	6.1	0.4	28	22.8	22.8	7.9	7.9	28.5	28.6	89.6	89.5	6.5	6.5	6.8	6.8	3	3	89	89			<0.2	<0.2	2.0	2.0
						6.1	0.4	29	22.8	22.8	7.9	7.9	28.6	28.6	89.4	89.4	6.5	6.5	6.9	6.9	2	2	90	90			<0.2	<0.2	2.0	2.0
					Bottom	11.2	0.4	346	22.7	22.7	7.9	7.9	29.1	29.1	88.7	88.8	6.5	6.5	13.1	13.1	2	2	92	92			<0.2	<0.2	2.0	2.0
						11.2	0.4	318	22.7	22.7	7.9	7.9	29.1	29.1	88.8	88.8	6.5	6.5	13.2	13.2	3	3	92	92			<0.2	<0.2	1.9	1.9
C3	Fine	Moderate	08:55	10.8	Surface	1.0	0.3	241	23.0	23.0	7.9	7.9	28.1	28.1	96.7	96.7	7.1	7.1	3.6	3.6	2	2	85	85	822114	817803	<0.2	<0.2	1.6	1.6
						1.0	0.3	254	23.0	23.0	7.9	7.9	28.1	28.1	96.6	96.6	7.1	7.1	3.8	3.8	2	2	85	85			<0.2	<0.2	1.6	1.6
					Middle	5.4	0.4	252	22.7	22.7	7.9	7.9	29.0	29.0	94.4	94.4	6.9	6.9	2.8	2.8	2	2	88	88			<0.2	<0.2	1.7	1.7
						5.4	0.4	273	22.7	22.7	7.9	7.9	29.0	29.0	94.4	94.4	6.9	6.9	2.7	2.7	3	3	87	87			<0.2	<0.2	1.6	1.6
					Bottom	9.8	0.4	266	22.4	22.4	7.9	7.9	30.2	30.2	87.3	87.3	6.4	6.4	8.1	8.1	4	4	89	89			<0.2	<0.2	1.6	1.6
						9.8	0.4	266	22.4	22.4	7.9	7.9	30.2	30.2	87.3	87.3	6.4	6.4	8.3	8.3	3	3	90	90			<0.2	<0.2	1.6	1.6
IM1	Sunny	Moderate	10:22	5.2	Surface	1.0	0.1	9	23.4	23.4	8.0	8.0	27.7	27.7	99.6	99.6	7.2	7.2	2.8	2.8	2	2	88	88	817944	807136	<0.2	<0.2	1.7	1.7
						1.0	0.1	9	23.4	23.4	8.0	8.0	27.7	27.7	99.6	99.6	7.2	7.2	2.8	2.8	3	3	88	88			<0.2	<0.2	1.5	1.5
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			<0.2	<0.2	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2		<0.2	-	-		
					Bottom	4.2	0.0	340	23.1	23.1	8.0	8.0	30.7	30.7	92.9	92.9	6.7	6.7	4.7	4.7	4	4	94	94		<0.2	<0.2	1.7	1.7	
						4.2	0.0	313	23.1	23.1	8.0	8.0	30.7	30.7	93.0	93.0	6.7	6.7	4.7	4.7	4	4	94	94		<0.2	<0.2	1.7	1.7	
IM2	Sunny	Moderate	10:34	7.1	Surface	1.0	0.4	7	23.9	23.9	8.0	8.0	28.0	28.0	100.6	100.6	7.2	7.2	2.6	2.6	4	4	88	88	818155	806186	<0.2	<0.2	1.9	1.9
						1.0	0.4	7	23.9	23.9	8.0	8.0	28.0	28.0	100.5	100.5	7.2	7.2	2.6	2.6	4	4	89	89			<0.2	<0.2	1.8	1.8
					Middle	3.6	0.3	344	23.3	23.3	8.0	8.0	29.9	29.9	96.5	96.5	6.9	6.9	4.7	4.7	5	5	92	92			<0.2	<0.2	1.6	1.6
						3.6	0.3	348	23.3	23.3	8.0	8.0	29.9	29.9	96.4	96.4	6.9	6.9	4.7	4.7	4	4	92	92			<0.2	<0.2	1.6	1.6
					Bottom	6.1	0.3	308	23.1	23.1	8.0	8.0	30.6	30.6	92.8	92.8	6.7	6.7	10.6	10.6	5	5	94	94			<0.2	<0.2	1.6	1.6
						6.1	0.4	334	23.1	23.1	8.0	8.0	30.6	30.6	92.9	92.9	6.7	6.7	10.7	10.7	4	4	93	93			<0.2	<0.2	1.7	1.7
IM3	Sunny	Moderate	10:43	7.4	Surface	1.0	0.3	354	23.7	23.7	8.0	8.0	28.6	28.6	100.7	100.7	7.2	7.2	2.8	2.8	5	5	89	89	818767	805609	<0.2	<0.2	1.6	1.6
						1.0	0.3	354	23.7	23.7	8.0	8.0	28.6	28.6	100.7	100.7	7.2	7.2	2.8	2.8	4	4	88	88			<0.2	<0.2	1.7	1.7
					Middle	3.7	0.2	337	23.2	23.2	8.0	8.0	30.2	30.2	97.0	97.0	7.0	7.0	4.5	4.5	5	5	91	91			<0.2	<0.2	1.8	1.8
						3.7	0.2	358	23.2	23.2	8.0	8.0	30.2	30.2	97.0	97.0	7.0	7.0	4.5	4.5	4	4	92	92			<0.2	<0.2	1.7	1.7
					Bottom	6.4	0.2	331	23.1	23.1	8.0	8.0	30.8	30.8	94.1	94.1	6.8	6.8	10.0	10.0	3	3	94	94			<0.2	<0.2	1.7	1.7
						6.4	0.2	306	23.1	23.1	8.0	8.0	30.8	30.8	94.1	94.1	6.8	6.8	10.0	10.0	2	2	95	95			<0.2	<0.2	1.5	1.5
IM4	Sunny	Moderate	10:56	8.5	Surface	1.0	0.2	345	23.8	23.8	8.0	8.0	28.1	28.1	99.1	99.2	7.1	7.1	2.8	2.8	2	2	88	88	819721	804620	<0.2	<0.2	1.7	1.7
						1.0	0.3	353	23.8	23.8	8.0	8.0	28.1	28.1	99.3	99.3	7.1	7.1	2.8	2.8	3	3	88	88			<0.2	<0.2	1.9	1.9
					Middle	4.3	0.2	321	23.1	23.1	8.0	8.0	30.6	30.6	95.6	95.7	6.9	6.9	6.2	6.2	2	2	92	92			<0.2	<0.2	1.7	1.7
						4.3	0.2	342	23.1	23.1	8.0	8.0	30.6	30.6	95.7	95.7	6.9	6.9	6.1	6.1	3	3	91	91			<0.2	<0.2	1.7	1.7
					Bottom	7.5	0.2	335	23.1	23.1	8.0	8.0	30.6	30.6	95.0	95.0	6.8	6.8	7.5	7.5	3	3	94	94			<0.2	<0.2	1.6	1.6
						7.5	0.2	308	23.1	23.1	8.0	8.0	30.6	30.6	95.0	95.0	6.8	6.8	7.5	7.5	4	4	95	95			<0.2	<0.2	1.7	1.7
IM5																														

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

Water Quality Monitoring

Water Quality Monitoring Results on 20 March 21 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA			Value	DA	Value	DA		
IM9	Fine	Moderate	10:36	7.7	Surface	1.0	0.2	261	23.3	23.3	7.9	7.9	27.4	27.4	92.0	91.9	6.7	6.7	4.7	5.2	3	4	87	90	822077	808818	<0.2	<0.2	1.8	1.7	
						1.0	0.2	261	23.2	23.2	7.9	7.9	27.5	27.5	91.8	91.8	6.7	6.7	4.8	5.2	4	4	88	90	822077	808818	<0.2	<0.2	1.6	1.7	
					Middle	3.9	0.2	278	23.2	23.2	7.9	7.9	27.6	27.6	90.8	90.8	6.6	6.6	5.2	5.2	4	4	91	90	822077	808818	<0.2	<0.2	1.6	1.7	
						3.9	0.2	290	23.2	23.2	7.9	7.9	27.6	27.6	90.7	90.7	6.6	6.6	5.2	5.2	5	4	91	90	822077	808818	<0.2	<0.2	1.5	1.7	
					Bottom	6.7	0.2	269	23.2	23.2	7.9	7.9	27.6	27.6	89.4	89.4	6.5	6.5	5.8	5.8	4	4	92	90	822077	808818	<0.2	<0.2	1.6	1.7	
						6.7	0.2	281	23.2	23.2	7.9	7.9	27.6	27.6	89.3	89.3	6.5	6.5	5.8	5.8	5	4	93	90	822077	808818	<0.2	<0.2	1.8	1.7	
					Surface	1.0	0.5	317	23.4	23.4	7.9	7.9	26.9	27.0	98.4	98.4	7.2	7.2	3.8	4.0	4	4	85	89	822367	809779	<0.2	<0.2	1.6	1.7	
						1.0	0.6	344	23.3	23.3	7.9	7.9	27.0	27.0	98.3	98.3	7.2	7.2	4.0	4.0	5	4	86	89	822367	809779	<0.2	<0.2	1.6	1.7	
IM10	Fine	Moderate	10:27	7.6	Surface	3.8	0.4	320	23.0	23.0	7.9	7.9	28.0	28.0	90.0	89.9	6.6	6.6	8.1	8.4	4	4	89	89	822367	809779	<0.2	<0.2	1.9	1.7	
						3.8	0.4	324	23.0	23.0	7.9	7.9	28.1	28.1	89.8	89.8	6.6	6.6	8.4	8.4	5	4	90	89	822367	809779	<0.2	<0.2	1.8	1.7	
					Middle	6.6	0.3	317	23.0	23.0	7.9	7.9	28.2	28.2	88.3	88.3	6.4	6.4	11.5	11.7	3	4	92	89	822367	809779	<0.2	<0.2	1.8	1.7	
						6.6	0.3	340	23.0	23.0	7.9	7.9	28.2	28.2	88.3	88.3	6.4	6.4	11.7	11.7	3	4	92	89	822367	809779	<0.2	<0.2	1.6	1.7	
					Surface	1.0	0.8	303	23.2	23.2	7.9	7.9	27.7	27.7	94.5	94.5	6.9	6.9	4.2	4.3	4	4	85	87	822061	811441	<0.2	<0.2	1.5	1.5	
						1.0	0.8	322	23.2	23.2	7.9	7.9	27.7	27.7	94.4	94.4	6.9	6.9	4.3	4.3	4	4	86	87	822061	811441	<0.2	<0.2	1.3	1.5	
					Middle	4.3	0.6	295	22.8	22.8	7.9	7.9	28.7	28.7	91.8	91.6	6.7	6.7	8.2	8.5	4	4	87	88	822061	811441	<0.2	<0.2	1.6	1.5	
						4.3	0.6	302	22.8	22.8	7.9	7.9	28.8	28.7	91.4	91.6	6.7	6.7	8.5	8.5	3	4	87	88	822061	811441	<0.2	<0.2	1.5	1.5	
IM11	Fine	Moderate	10:16	8.5	Surface	7.5	0.5	299	22.7	22.7	7.9	7.9	29.2	29.2	87.2	87.2	6.4	6.4	9.7	9.7	4	4	88	88	822061	811441	<0.2	<0.2	1.4	1.6	
						7.5	0.5	301	22.7	22.7	7.9	7.9	29.2	29.2	87.2	87.2	6.4	6.4	9.7	9.7	3	4	88	88	822061	811441	<0.2	<0.2	1.6	1.6	
					Middle	1.0	0.3	295	23.2	23.2	7.9	7.9	27.7	27.7	99.0	99.0	7.2	7.2	5.7	6.3	3	4	86	86	821478	812048	<0.2	<0.2	1.6	1.7	
						1.0	0.4	301	23.1	23.1	7.9	7.9	27.8	27.7	98.9	99.0	7.2	7.2	6.3	6.3	4	4	86	86	821478	812048	<0.2	<0.2	1.7	1.7	
					Bottom	4.6	0.4	292	22.9	22.9	7.9	7.9	28.7	28.7	90.5	90.5	6.6	6.6	11.4	11.4	3	4	87	88	821478	812048	<0.2	<0.2	1.7	1.7	
						4.6	0.4	313	22.9	22.9	7.9	7.9	28.7	28.7	90.5	90.5	6.6	6.6	11.4	11.4	3	4	88	90	821478	812048	<0.2	<0.2	1.6	1.7	
					Surface	8.2	0.4	312	22.8	22.8	7.9	7.9	28.8	28.8	90.0	90.0	6.6	6.6	11.6	11.6	4	4	90	90	821478	812048	<0.2	<0.2	1.7	1.6	
						8.2	0.4	328	22.8	22.8	7.9	7.9	28.8	28.8	90.0	90.0	6.6	6.6	11.6	11.6	4	4	90	90	821478	812048	<0.2	<0.2	1.6	1.6	
SR1A	Fine	Moderate	09:35	5.0	Surface	1.0	-	-	23.2	23.2	7.9	7.9	27.6	27.7	96.1	96.0	7.0	7.0	5.8	6.2	4	4	-	-	819976	812663	-	-	-	-	
						1.0	-	-	23.2	23.2	7.9	7.9	27.7	27.7	95.9	96.0	7.0	7.0	6.2	6.2	3	4	-	-	819976	812663	-	-	-	-	
					Middle	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	819976	812663	-	-	-	-
						2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	819976	812663	-	-	-	-	
					Bottom	4.0	-	-	23.1	23.1	7.9	7.9	28.2	28.2	90.3	90.3	6.6	6.6	7.7	7.7	5	4	-	-	819976	812663	-	-	-	-	
						4.0	-	-	23.1	23.1	7.9	7.9	28.2	28.2	90.3	90.3	6.6	6.6	7.7	7.7	4	4	-	-	819976	812663	-	-	-	-	
					Surface	1.0	0.1	294	23.2	23.2	7.9	7.9	27.4	27.5	96.4	96.4	7.0	7.0	3.7	3.7	4	5	86	87	821458	814176	<0.2	<0.2	1.7	1.7	
						1.0	0.1	298	23.2	23.2	7.9	7.9	27.5	27.5	96.4	96.4	7.0	7.0	3.7	3.7	5	5	87	88	821458	814176	<0.2	<0.2	1.7	1.7	
SR2	Fine	Moderate	09:18	4.3	Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	88	821458	814176	<0.2	<0.2	1.6	1.6	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	88	821458	814176	<0.2	<0.2	1.6	1.6	
					Bottom	3.3	0.2	314	23.0	23.0	7.9	7.9	28.2	28.2	91.7	91.7	6.7	6.7	4.7	4.6	5	4	88	89	821458	814176	<0.2	<0.2	1.6	1.6	
						3.3	0.2	321	23.0	23.0	7.9	7.9	28.2	28.2	91.6	91.7	6.7	6.7	4.6	4.6	4	4	89	89	821458	814176	<0.2	<0.2	1.6	1.6	
					Surface	1.0	0.2	261	23.6	23.6	7.9	7.9	25.8	25.9	99.5	99.5	7.3	7.3	3.3	3.4	4	5	-	-	822165	807585	-	-	-	-	
						1.0	0.2	277	23.5	23.5	7.9	7.9	25.8	25.9	99.5	99.5	7.3	7.3	3.4	3.4	5	4	-	-	822165	807585	-	-	-	-	
					Middle	4.3	0.2	256	23.2	23.2	7.9	7.9	26.5	26.5	94.3	94.3	6.9	6.9	4.3	4.5	4	5	-	-	822165	807585	-	-	-	-	
						4.3	0.2	266	23.2	23.2	7.9	7.9	26.5	26.5	94.2	94.3	6.9	6.9	4.5	4.5	5	4	-	-	822165	807585	-	-	-	-	
SR3	Fine	Moderate	10:50	8.6	Surface	7.6	0.1	63	23.1	23.1	7.9	7.9	28.6	28.6	92.4	92.3	6.7	6.7	7.0	7.2	3	4	-	-	822165	807585	-	-	-	-	
						7.6	0.1	66	23.1	23.1	7.9	7.9	28.6	28.6	92.2	92.3	6.7	6.7	7.2	7.2	4	4	-	-	822165	807585	-	-	-	-	
					Middle	1.0	0.1	242	23.3	23.3	8.0	8.0	28.9	28.9	96.1	96.1	6.9	6													

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

Water Quality Monitoring

Water Quality Monitoring Results on 23 March 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)	
C1	Cloudy	Moderate	20:37	0.0	Surface	1.0	0.1	201	22.3	22.3	8.3	8.3	32.6	32.6	99.5	99.5	7.2	7.1	1.3	6	87	88	88	815600	804230	<0.2	0.6	0.7		
						1.0	0.1	216	22.3		8.3		32.6		99.4		7.2		1.3	6	87									
					Middle	4.4	0.1	213	22.5	22.5	8.2	8.2	32.8	32.8	96.9	96.9	6.9	6.9	2.4	6	88	88								
						4.4	0.1	216	22.5		8.2		32.8		96.9		6.9		2.4	7	87									
					Bottom	7.7	0.0	198	22.4	22.4	8.2	8.2	32.8	32.8	96.5	96.6	6.9	6.9	3.4	7	89	89								
						7.7	0.0	209	22.4		8.2		32.8		96.6		6.9		3.5	6	89									
						1.0	0.2	89	21.9	21.9	8.1	8.1	31.0	31.1	97.6	97.5	7.1	7.1	2.9	7	88	88								
						1.0	0.2	93	21.9		8.1		31.1		97.3		7.1		2.9	6	88									
C2	Misty	Calm	19:30	0.0	Surface	6.0	0.2	84	22.2	22.2	8.1	8.1	31.7	31.8	97.4	97.5	7.1	7.1	4.6	6	90	91	91	825674	806942	<0.2	1.1	1.1		
						6.0	0.2	86	22.2		8.1		31.8		97.6		7.1		4.9	6	91									
					Middle	11.0	0.1	42	22.2	22.2	8.1	8.1	32.4	32.4	99.2	99.3	7.2	7.2	8.0	5	93	93								
						11.0	0.1	45	22.2		8.1		32.4		99.3		7.2		8.0	6	93									
					Bottom	1.0	0.3	99	22.0	22.1	8.1	8.1	33.0	33.1	99.8	99.8	7.2	7.1	1.6	6	85	85								
						1.0	0.3	101	22.1		8.1		33.1		97.7		7.0		1.7	6	85									
						6.1	0.2	80	22.1	22.1	8.1	8.1	33.2	33.2	97.2	97.2	7.0	7.1	2.0	5	88	89								
						6.1	0.3	81	22.1		8.1		33.2		97.2		7.0		2.0	6	89									
C3	Misty	Calm	21:34	0.0	Surface	11.2	0.1	69	22.1	22.1	8.1	8.1	33.2	33.2	97.4	97.5	7.0	7.0	3.7	6	93	93	89	822107	817826	<0.2	0.8	0.7		
						11.2	0.1	74	22.1		8.1		33.2		97.5		7.0		3.8	5	93									
					Middle	1.0	0.1	185	22.1	22.1	8.2	8.2	31.9	31.9	99.6	99.6	7.2	7.2	1.4	8	85	85								
						1.0	0.1	192	22.1		8.2		31.9		99.6		7.2		1.4	8	85									
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
					Bottom	4.0	0.1	215	22.4	22.4	8.2	8.2	32.1	32.1	96.4	96.4	7.0	7.0	1.8	6	89	89								
						4.0	0.1	233	22.4		8.2		32.1		96.4		6.9		1.9	6	89									
IM2	Cloudy	Moderate	20:08	0.0	Surface	1.0	0.1	201	22.3	22.3	8.2	8.2	32.1	32.1	98.3	98.3	7.1	7.1	1.8	6	86	86	87	818165	806165	<0.2	0.7	0.6		
						1.0	0.1	211	22.3		8.2		32.1		98.2		7.1		1.8	6	86									
					Middle	3.5	0.1	294	22.4	22.4	8.2	8.2	32.3	32.3	97.2	97.2	7.0	7.1	1.9	7	89	89								
						3.5	0.1	305	22.4		8.2		32.3		97.1		7.0		1.9	6	89									
					Bottom	6.0	0.1	266	22.8	22.8	8.2	8.2	32.8	32.8	95.5	95.6	6.8	6.8	2.5	7	87	87								
						6.0	0.1	291	22.8		8.2		32.8		95.6		6.8		2.6	7	87									
					Surface	1.0	0.0	99	22.1	22.1	8.2	8.2	32.0	32.0	98.8	98.8	7.2	7.2	1.5	5	88	88								
						1.0	0.0	105	22.1		8.2		32.0		98.8		7.2		1.4	6	88									
IM3	Cloudy	Moderate	20:01	0.0	Middle	3.6	0.1	206	22.2	22.2	8.2	8.2	32.2	32.2	97.7	97.7	7.1	7.2	1.6	7	89	89	89	818795	805571	<0.2	0.6	0.7		
						3.6	0.1	208	22.2		8.2		32.2		97.6		7.1		1.7	7	89									
					Bottom	6.2	0.1	234	22.7	22.7	8.2	8.2	32.7	32.7	95.7	95.8	6.8	6.8	2.0	7	89	89								
						6.2	0.1	252	22.7		8.2		32.7		95.8		6.8		2.0	8	89									
					Surface	1.0	0.1	47	22.2	22.2	8.2	8.2	32.0	32.0	98.5	98.4	7.1	7.1	1.4	4	86	86								
						1.0	0.1	49	22.2		8.2		32.0		98.3		7.1		1.4	5	86									
					Middle	4.2	0.1	304	22.5	22.5	8.2	8.2	32.4	32.4	96.8	96.7	7.0	7.0	2.4	5	89	89								
						4.2	0.1	310	22.5		8.2		32.4		96.6		6.9		2.5	4	89									
IM4	Cloudy	Moderate	19:52	0.0	Bottom	7.3	0.1	243	22.5	22.5	8.2	8.2	32.6	32.6	96.4	96.5	6.9	6.9	4.0	8	90	90	88	819742	804596	<0.2	0.6	0.7		
						7.3	0.1	253	22.5		8.2		32.6		96.5		6.9		4.0	7	90									
					Surface	1.0	0.2	12	22.3	22.3	8.2	8.2	32.1	32.1	96.6	96.5	7.0	7.0	2.2	7	84	84								
						1.0	0.2	12	22.3		8.2		32.1		96.4		7.0		2.3	7	84									
					Middle	4.4	0.2	342	22.5	22.5	8.2	8.2	32.3	32.3	94.9	94.9	6.8	6.8	2.5	6	88	88								
						4.4	0.2	354	22.5		8.2		32.3		94.8															

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

Water Quality Monitoring

Water Quality Monitoring Results on 23 March 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)	
IM9	Misty	Calm	20:01	0.0	Surface	1.0	0.3	46	21.8	21.8	8.0	8.0	31.0	31.0	97.6	97.6	7.2	7.1	3.4	4	87	90	90	822084	808831	<0.2	1.1	<0.2	1.1	
						1.0	0.3	50	21.8		8.0		31.0		97.5	7.1	3.4	5	87	5	87	90				<0.2				
					Middle	3.6	0.3	58	22.0	22.0	8.0	8.0	31.5	31.6	97.2	97.3	7.1	7.1	3.9	5	90	91	90			<0.2				
						3.6	0.4	63	22.0		8.0		31.7		97.3	7.1	3.9	5	91	5	91	92	90			<0.2				
					Bottom	6.2	0.2	76	22.1	22.1	8.1	8.1	32.1	32.1	99.1	99.3	7.2	7.2	5.0	5	91	91	91			<0.2				
						6.2	0.3	79	22.1		8.1		32.1		99.4	7.2	5.1	5	91	5	91	92	90			<0.2				
IM10	Misty	Calm	20:08	0.0	Surface	1.0	0.3	81	21.8	21.8	8.0	8.0	31.0	31.0	96.4	96.2	7.1	7.1	2.8	5	86	90	90	822400	809792	<0.2	1.0	<0.2	1.0	
						1.0	0.3	87	21.8		8.0		31.1		96.0	7.0	2.7	4	87	5	87	91	90			<0.2				
					Middle	3.5	0.2	90	21.9	21.9	8.0	8.0	31.5	31.5	94.5	94.5	6.9	6.9	3.0	4	91	92	90			<0.2				
						3.5	0.2	91	21.9		8.0		31.5		94.5	6.9	3.0	5	91	5	91	92	90			<0.2				
					Bottom	6.0	0.1	94	21.8	21.8	8.0	8.0	31.5	31.5	94.9	94.9	6.9	6.9	3.0	6	92	92	92			<0.2				
						6.0	0.1	95	21.8		8.0		31.5		94.9	6.9	3.0	5	92	5	92	92	90			<0.2				
IM11	Misty	Calm	20:19	0.0	Surface	1.0	0.1	85	21.7	21.7	8.1	8.1	31.3	31.3	97.7	97.6	7.2	7.2	2.4	5	84	90	90	822035	811464	<0.2	1.0	<0.2	1.0	
						1.0	0.1	91	21.7		8.1		31.3		97.5	7.2	2.4	4	84	5	84	88	90			<0.2				
					Middle	4.4	0.1	80	22.0	22.0	8.0	8.0	32.4	32.4	95.1	95.1	6.9	6.9	2.3	4	88	93	89			<0.2				
						4.4	0.1	83	22.0		8.0		32.4		95.0	6.9	2.3	3	88	5	88	93	89			<0.2				
					Bottom	7.8	0.1	114	22.0	22.0	8.0	8.0	32.6	32.6	94.9	95.0	6.9	6.9	2.9	3	93	97	90			<0.2				
						7.8	0.1	123	22.0		8.0		32.6		95.0	6.9	3.0	3	97	5	97	97	90			<0.2				
IM12	Misty	Calm	20:26	0.0	Surface	1.0	0.1	112	21.7	21.9	8.0	8.0	31.6	31.8	95.7	94.7	7.0	7.0	2.3	3	86	90	89	821436	812056	<0.2	1.0	<0.2	0.9	
						1.0	0.1	114	22.0		8.0		32.1		93.6	6.8	2.3	2	86	5	86	87	89			<0.2				
					Middle	4.5	0.1	156	22.0	22.0	8.0	8.0	32.2	32.2	93.7	93.7	6.8	6.8	2.7	4	87	90	89			<0.2				
						4.5	0.1	169	22.0		8.0		32.2		93.7	6.8	2.7	5	90	5	90	92	89			<0.2				
					Bottom	8.0	0.1	100	22.1	22.1	8.0	8.0	32.6	32.6	96.4	96.6	7.0	7.0	8.1	5	92	92	90			<0.2				
						8.0	0.1	101	22.1		8.0		32.6		96.7	7.0	8.0	6	92	5	92	92	90			<0.2				
SR1A	Misty	Calm	20:58	0.0	Surface	1.0	-	-	21.7	21.7	8.0	8.0	30.8	30.8	90.4	90.5	6.6	6.6	3.7	7	-	90	-	819973	812658	-	-	-	-	
						1.0	-	-	21.7		8.0		30.9		90.5	6.6	3.7	6	-	6	-	90	-			-				
					Middle	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	91	-		-				
						2.0	-	-	-		-		-		-	-	-	-	-	-	-	-	-		-					
					Bottom	3.0	-	-	21.8	21.8	8.0	8.0	30.9	30.9	91.7	92.0	6.7	6.8	3.7	5	-	92	-			-				
						3.0	-	-	21.8		8.0		30.9		92.2	6.8	3.8	5	-	5	-	92	-			-				
SR2	Misty	Calm	21:12	0.0	Surface	1.0	0.1	88	21.9	22.0	8.0	8.0	32.1	32.2	97.3	97.1	7.1	7.0	2.6	3	90	90	91	821457	814149	<0.2	1.0	<0.2	0.9	
						1.0	0.1	94	22.0		8.0		32.2		96.9	7.1	2.6	4	-	4	-	90	-			<0.2				
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	91	-		-				
						-	-	-	-		-		-		-	-	-	-	-	-	-	-	-		-					
					Bottom	4.2	0.1	94	22.1	22.1	8.0	8.0	32.6	32.6	99.1	99.4	7.2	7.2	2.6	4	92	92	90			<0.2				
						4.2	0.1	95	22.0		8.0		32.6		99.6	7.2	2.6	5	92	5	92	92	90			<0.2				
SR3	Misty	Calm	19:52	0.0	Surface	1.0	0.1	161	21.9	21.9	8.1	8.1	31.0	31.1	97.9	97.9	7.2	7.2	2.9	4	-	-	-	822130	807554	-	-	-	-	
						1.0	0.1	175	21.9		8.1		31.1		97.8	7.2	2.8	5	-	5	-	-	-			-				
					Middle	4.5	0.1	144	22.0	22.0	8.1	8.1	31.9	32.0	98.3	98.4	7.1	7.1	4.1	5	-	-	-			-				
						4.5	0.1	149	22.0		8.1		32.0		98.4	7.1	4.2	5	-	5	-	-	-			-				
					Bottom	8.0	0.2	136	22.1	22.1	8.1	8.1	32.5	32.5	99.1	99.2	7.2	7.2	5.6	4	-	-	-			-				
						8.0	0.2	144	22.0		8.1		32.5		99.2	7.2	5.6	5	-	5	-	-	-			-				
SR4A	Cloudy	Moderate	20:58	0.0	Surface	1.0	0.2	79	22.1	22.1	8.2	8.2	31.7	31.7	97.2	97.1	7.1	7.0	1.6	6	-	-	-	817205	807791	-	-	-	-	
						1.0	0.2	86	22.1		8.2		31.7		97.0	7.0	1.6	6	-	6	-	-	-			-				
					Middle	4.5	0.2	71	22.6	22.6	8.2	8.2	32.2	32.2	94.6	94.6	6.8	6.8	3.3	5	-	-	-			-				
						4.5	0.2	76	22.6		8.2		32.2		94.5	6.8	3.3	4	-	4	-	-	-			-				
					Bottom	8.0	0.2	82	22.6	22.6	8.2	8.2	32.4	32.4	93.5	93.6	6.7	6.7	4.9	4	-	-	-			-				
						8.0	0.2	84	22.6		8.2		32.																	

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

Water Quality Monitoring

Water Quality Monitoring Results on 23 March 21 during Mid-Flood Tide

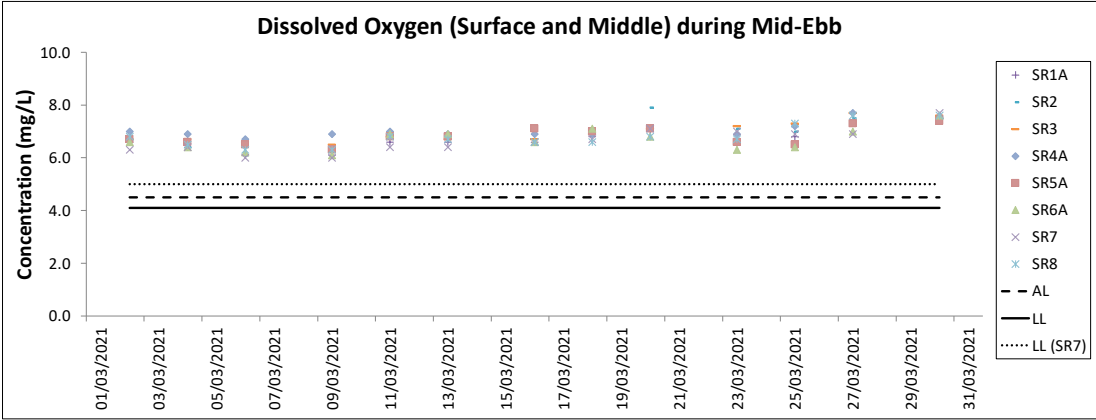
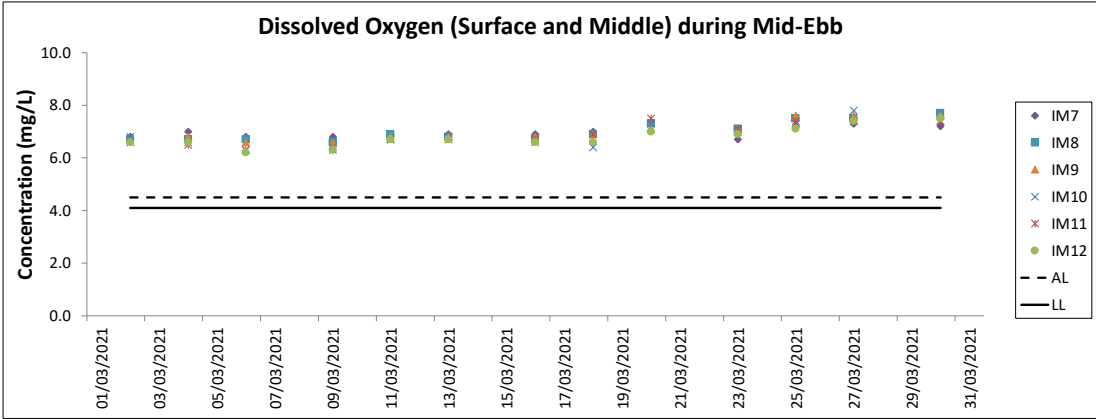
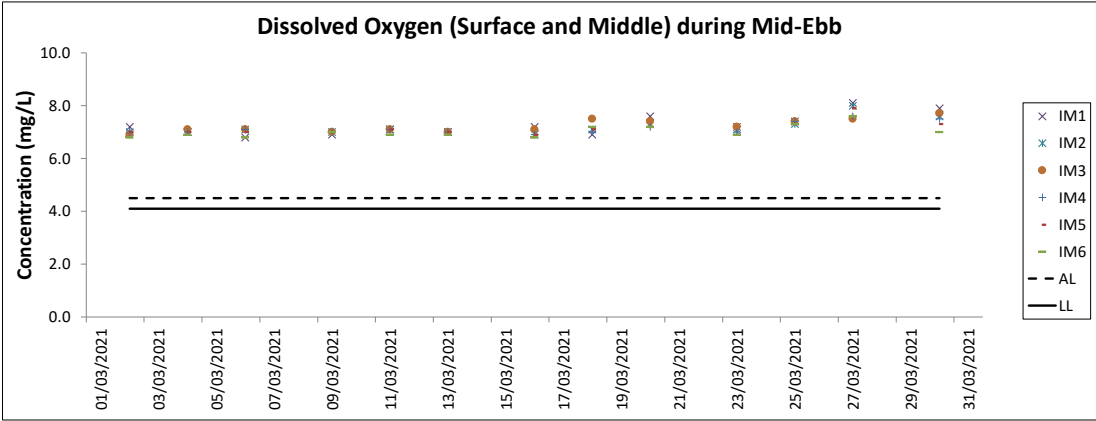
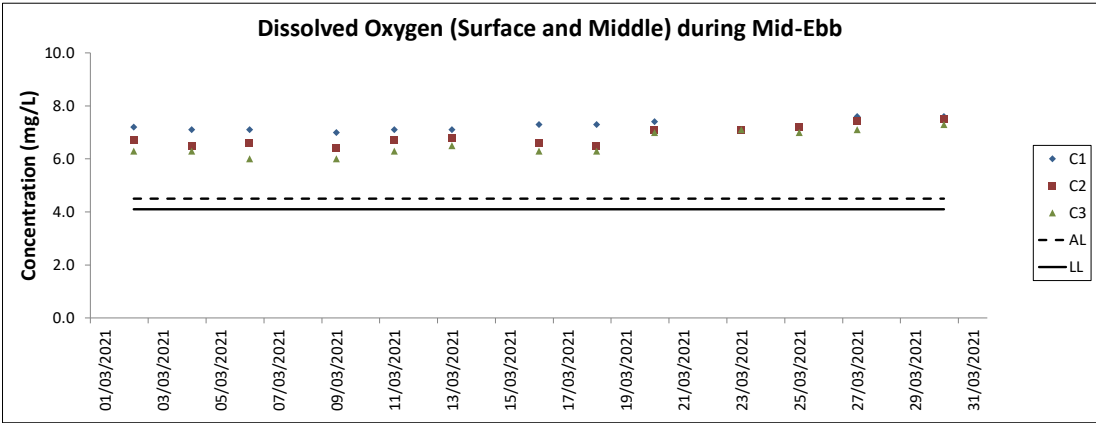
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
C1	Cloudy	Moderate	09:02	0.0	Surface	1.0	0.1	72	22.5	22.5	8.2	8.2	32.8	32.8	96.6	96.6	6.9	6.9	3.0	3.0	5	85	87	815598	804239	<0.2	<0.2	0.7	0.6	
						1.0	0.1	72	22.5		8.2	32.8	32.8	96.6	96.6	6.9	6.9	3.0	3.0	6	85	87			<0.2	<0.2	0.6	0.6		
					Middle	4.5	0.1	61	22.5	22.5	8.2	8.2	32.8	32.8	96.5	96.5	6.9	6.9	3.3	3.3	5	88	87			<0.2	<0.2	0.6	0.6	
						4.5	0.1	62	22.5		8.2	32.8	32.8	96.5	96.5	6.9	6.9	3.3	3.3	6	87	88			<0.2	<0.2	0.7	0.6		
					Bottom	8.0	0.1	18	22.4	22.4	8.2	8.2	32.8	32.8	96.4	96.4	6.9	6.9	3.3	3.3	5	88	89			<0.2	<0.2	0.6	0.6	
						8.0	0.1	18	22.4		8.2	32.8	32.8	96.4	96.4	6.9	6.9	3.3	3.3	5	89					<0.2	<0.2	0.6	0.6	
C2	Misty	Moderate	10:01	0.0	Surface	1.0	0.1	156	22.1	22.1	8.0	8.0	31.5	31.6	93.6	93.5	6.8	6.8	3.5	3.5	6	87	87	825676	806967	<0.2	<0.2	1.1	1.1	
						1.0	0.1	170	22.1		8.0	31.6	31.6	93.4	93.4	6.8	6.8	3.6	3.6	6	88	88			<0.2	<0.2	1.1	1.1		
					Middle	6.0	0.1	276	22.3	22.3	8.0	8.0	32.4	32.4	92.0	92.0	6.6	6.6	5.1	5.1	5	90	90			<0.2	<0.2	1.2	1.0	
						6.0	0.1	293	22.3		8.0	32.4	32.4	91.9	91.9	6.6	6.6	5.0	5.0	6	91	91			<0.2	<0.2	1.2	1.0		
					Bottom	11.0	0.0	99	22.2	22.2	8.0	8.0	32.5	32.5	92.1	92.2	6.6	6.6	13.4	13.4	5	93	93			<0.2	<0.2	1.1	1.1	
						11.0	0.0	101	22.2		8.0	32.5	32.5	92.2	92.2	6.7	6.7	13.4	13.4	5	93					<0.2	<0.2	0.9	0.9	
C3	Misty	Moderate	07:50	0.0	Surface	1.0	0.0	115	21.8	21.8	8.1	8.1	32.7	32.7	97.0	97.0	7.0	7.0	1.7	1.7	3	84	84	822100	817781	<0.2	<0.2	1.0	0.8	
						1.0	0.0	122	21.8		8.1	32.7	32.7	96.9	96.9	7.0	7.0	1.7	1.7	3	85	85			<0.2	<0.2	1.0	0.8		
					Middle	6.0	0.1	91	22.1	22.1	8.1	8.1	33.1	33.1	96.5	96.5	7.0	7.0	2.9	2.9	3	89	89			<0.2	<0.2	0.7	0.7	
						6.0	0.1	95	22.1		8.1	33.1	33.1	96.5	96.5	7.0	7.0	2.9	2.9	3	89	89			<0.2	<0.2	0.7	0.7		
					Bottom	11.0	0.1	162	22.1	22.1	8.1	8.0	33.1	33.1	96.9	97.0	7.0	7.0	3.3	3.3	3	91	91			<0.2	<0.2	0.8	0.7	
						11.0	0.1	167	22.1		8.0	33.1	33.1	97.0	97.0	7.0	7.0	3.3	3.3	4	91					<0.2	<0.2	0.7	0.7	
IM1	Cloudy	Moderate	09:24	0.0	Surface	1.0	0.1	79	22.0	22.0	8.2	8.2	31.9	31.9	95.4	95.4	6.9	6.9	1.6	1.6	6	84	84	817941	807130	<0.2	<0.2	0.6	0.7	
						1.0	0.1	81	22.0		8.2	31.9	31.9	95.3	95.3	6.9	6.9	1.7	1.7	7	84	84			<0.2	<0.2	0.7	0.7		
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85			<0.2	<0.2	0.6	0.6	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			<0.2	<0.2	0.7	0.6		
					Bottom	4.0	0.0	140	22.4	22.4	8.2	8.2	32.3	32.3	91.5	91.6	6.6	6.6	2.5	2.5	6	87	87			<0.2	<0.2	0.6	0.6	
						4.0	0.0	149	22.4		8.2	32.3	32.3	91.7	91.7	6.6	6.6	2.6	2.6	5	86	86			<0.2	<0.2	0.6	0.6		
IM2	Cloudy	Moderate	09:32	0.0	Surface	1.0	0.0	323	21.8	21.8	8.2	8.2	31.7	31.7	96.4	96.4	7.0	7.0	1.6	1.6	6	84	84	818150	806148	<0.2	<0.2	0.6	0.5	
						1.0	0.0	343	21.8		8.2	31.7	31.7	96.3	96.3	7.0	7.0	1.6	1.6	5	84	84			<0.2	<0.2	0.5	0.5		
					Middle	3.5	0.1	356	22.3	22.3	8.2	8.2	32.1	32.1	95.0	95.0	6.9	6.9	2.4	2.4	6	88	88			0.2	0.2	0.6	0.6	
						3.5	0.1	328	22.3		8.2	32.2	32.1	94.9	94.9	6.8	6.8	2.5	2.5	5	88	88			0.2	0.2	0.4	0.4		
					Bottom	5.9	0.1	39	22.5	22.5	8.2	8.2	32.4	32.4	95.7	95.8	6.9	6.9	3.1	3.1	4	89	89			<0.2	<0.2	0.5	0.5	
						5.9	0.1	40	22.5		8.2	32.4	32.4	95.9	95.9	6.9	6.9	3.2	3.2	3	89	89			<0.2	<0.2	0.5	0.5		
IM3	Cloudy	Moderate	09:39	0.0	Surface	1.0	0.1	246	21.9	21.9	8.2	8.2	31.8	31.8	96.2	96.2	7.0	7.0	1.7	1.7	5	84	84	818770	805576	<0.2	<0.2	0.3	0.4	
						1.0	0.1	269	21.9		8.2	31.8	31.8	96.2	96.2	7.0	7.0	1.7	1.7	4	85	85			<0.2	<0.2	0.4	0.4		
					Middle	3.7	0.0	49	22.2	22.2	8.2	8.2	32.0	32.0	94.3	94.2	6.8	6.8	2.3	2.3	5	87	87			<0.2	<0.2	0.4	0.4	
						3.7	0.0	51	22.2		8.2	32.0	32.0	94.1	94.1	6.8	6.8	2.5	2.5	5	88	88			<0.2	<0.2	0.4	0.4		
					Bottom	6.3	0.1	17	22.6	22.6	8.2	8.2	32.4	32.4	93.9	94.0	6.7	6.7	3.3	3.3	6	89	89			<0.2	<0.2	0.5	0.5	
						6.3	0.1	18	22.6		8.2	32.4	32.4	94.0	94.0	6.7	6.7	3.3	3.3	5	90	90			<0.2	<0.2	0.3	0.3		
IM4	Cloudy	Moderate	09:49	0.0	Surface	1.0	0.1	325	22.0	22.0	8.2	8.2	31.5	31.5	94.8	94.8	6.9	6.9	1.7	1.7	6	83	83	819702	804589	<0.2	<0.2	0.5	0.3	
						1.0	0.1	333	22.0		8.2	31.5	31.5	94.8	94.8	6.9	6.9	1.7	1.7	6	84	84			<0.2	<0.2	0.3	0.3		
					Middle	4.3	0.1	357	22.6	22.6	8.2	8.2	32.2	32.2	95.2	95.2	6.8	6.8	1.7	1.7	5	84	84			0.2	0.2	0.4	0.4	
						4.3	0.1	328	22.6		8.2	32.2	32.2	95.2	95.2	6.8	6.8	1.8	1.8	6	89	89			0.2	0.2	0.3	0.3		
					Bottom	7.6	0.1	26	22.6	22.6	8.2	8.2	32.4	32.4	94.7	94.8	6.8	6.8	2.3	2.3	6	90	90			<0.2	<0.2	0.4	0.5	
						7.6	0.1	26	22.6		8.2	32.4	32.4	94.8	94.8	6.8	6.8	2.3	2.3	7	90	90			<0.2	<0.2	0.5	0.5		
IM5	Cloudy	Moderate	09:57	0.0	Surface	1.0	0.1	357	22.0	22.0	8.2	8.2	31.0	31.0	93.1	93.1	6.8	6.8	1.6	1.6	5	83	83	820716	804849	<0.2	<0.2	0.4	0.4	
						1.0	0.1	328	22.0		8.2	31.0	31.0	93.0	93.0	6.8	6.8	1.6	1.6	6	83	83			<0.2	<0.2	0.4	0.4		
					Middle	3.9	0.1	15	22.4	22.4	8.2	8.2	31.9	31.9	93.0	93.0	6.7	6.7	2.4	2.4	5	89	89			<0.2	<0.2	0.3	0.3	
						3.9	0.1	15	22.4		8.2	31.9	31.9	92.9	92.9	6.7	6.7	2.4	2.4	6										

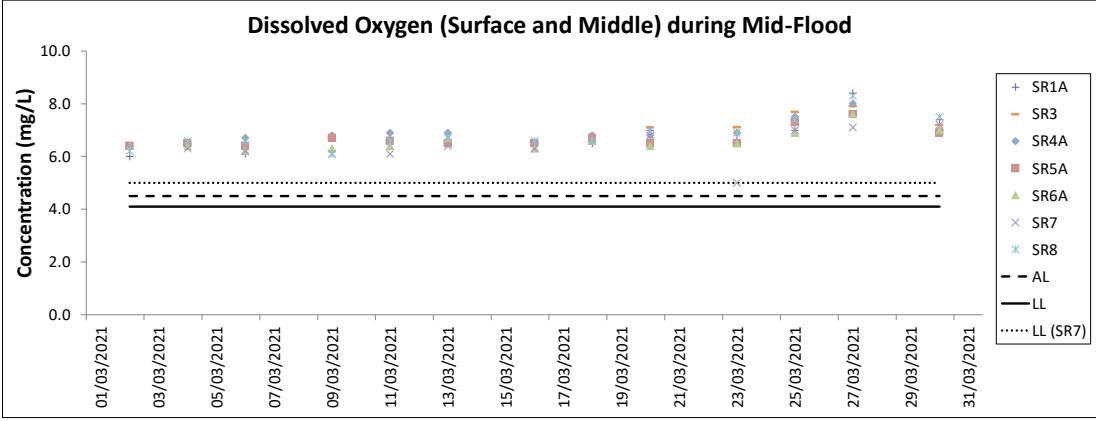
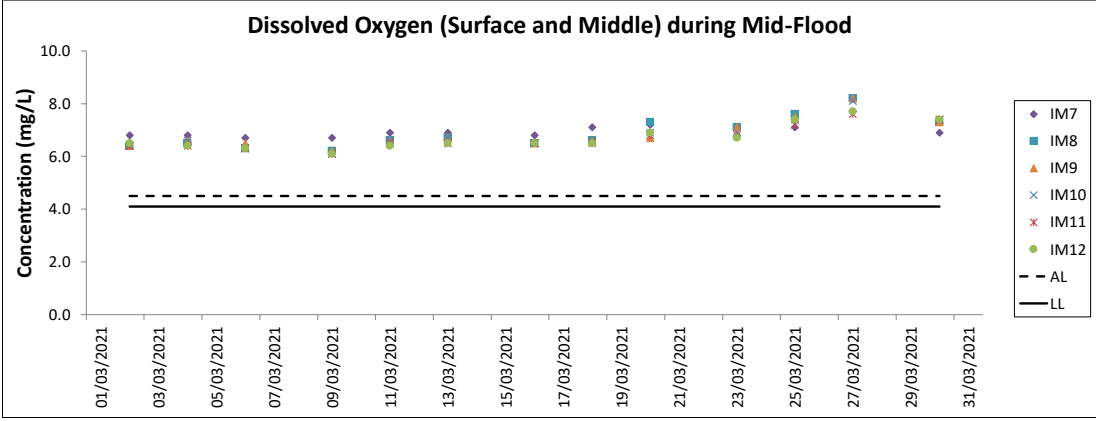
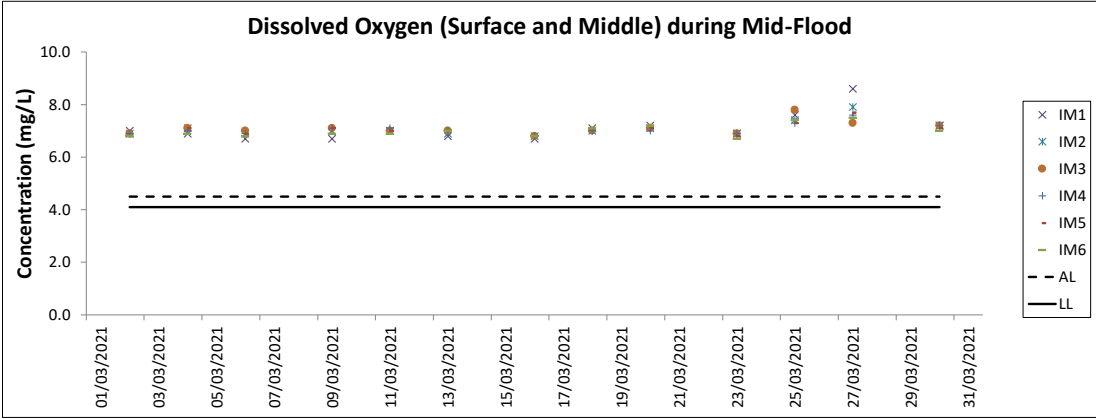
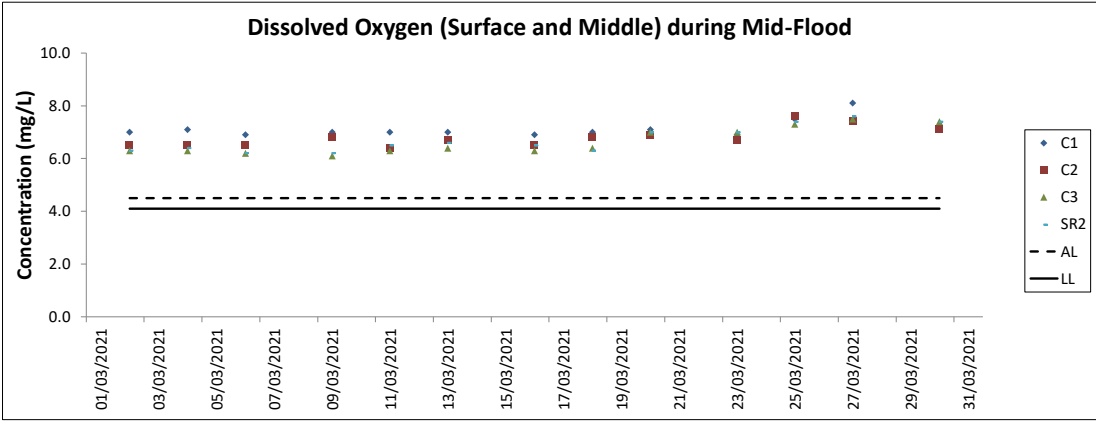
Expansion of Hong Kong International Airport into a Three-Runway System

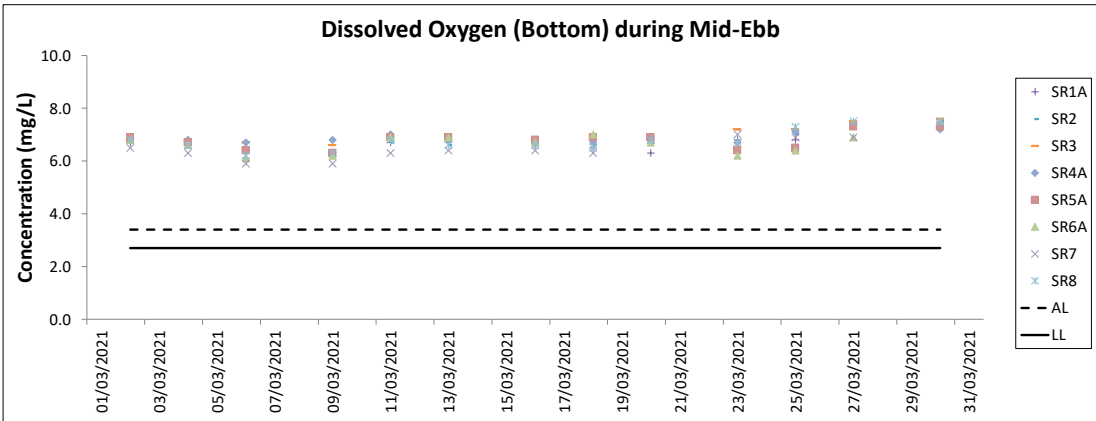
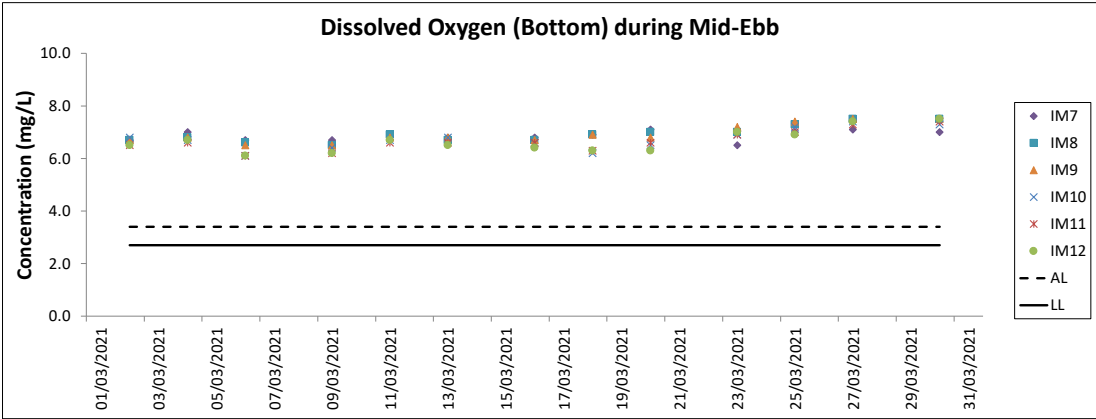
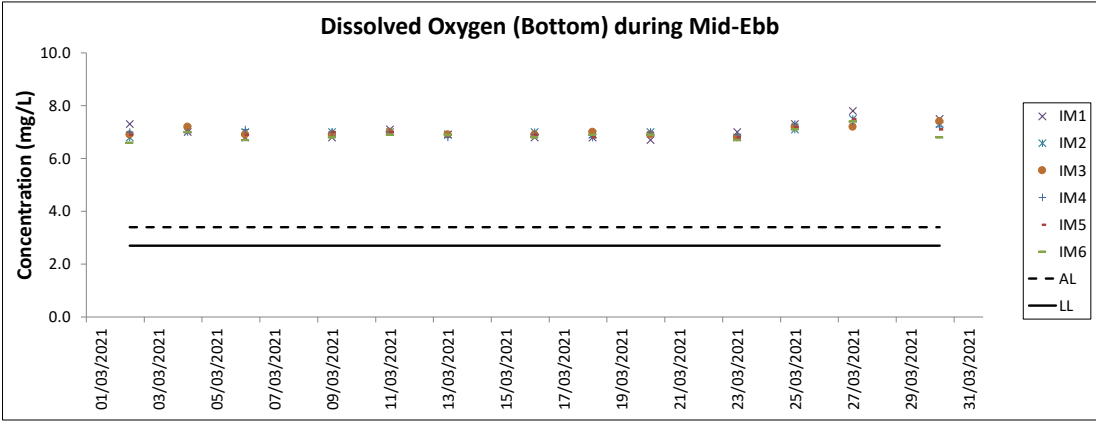
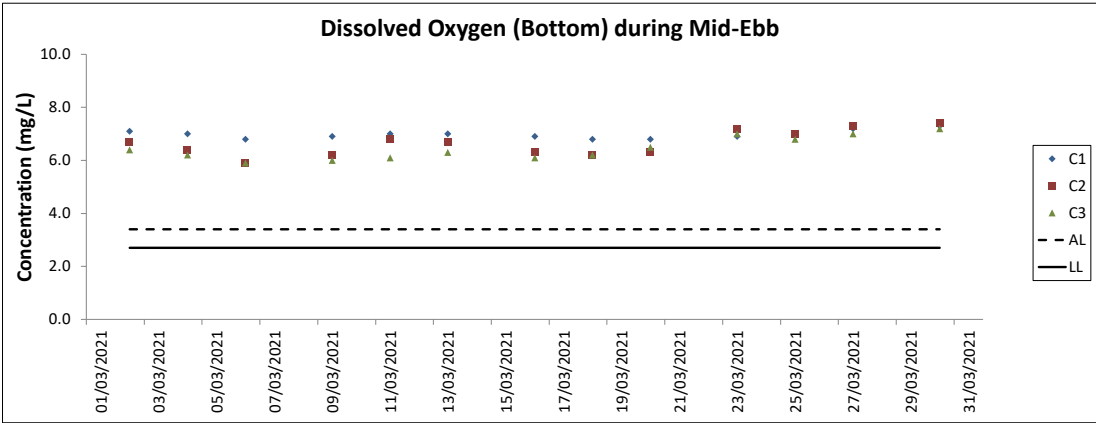
Water Quality Monitoring

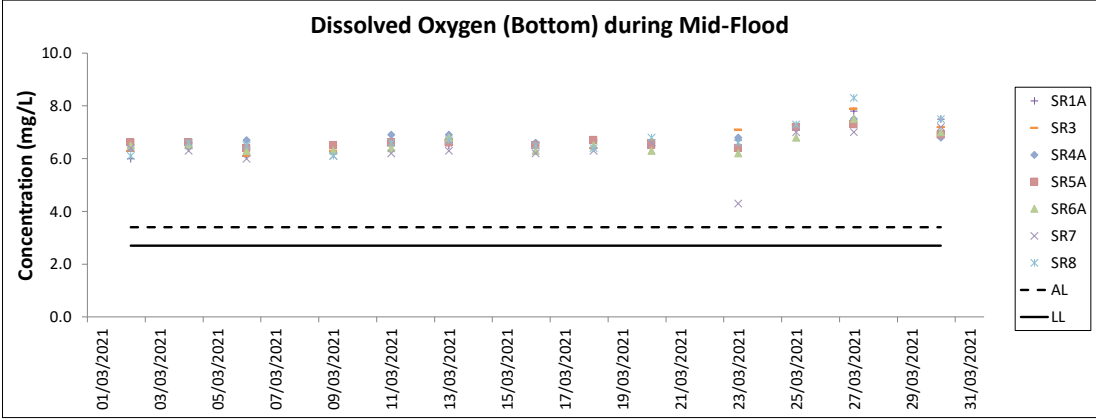
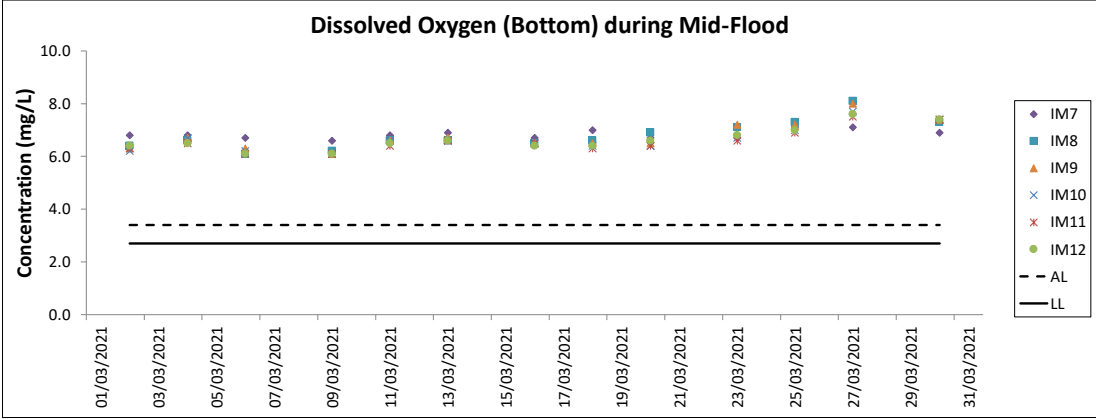
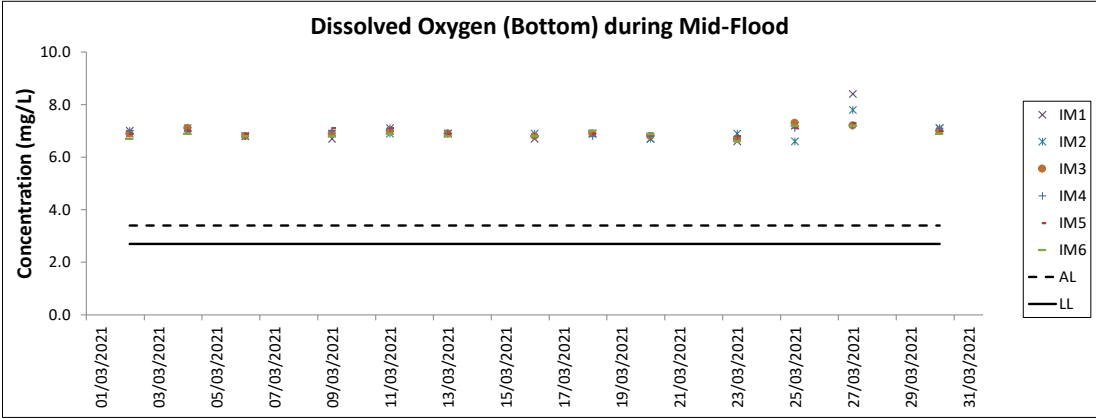
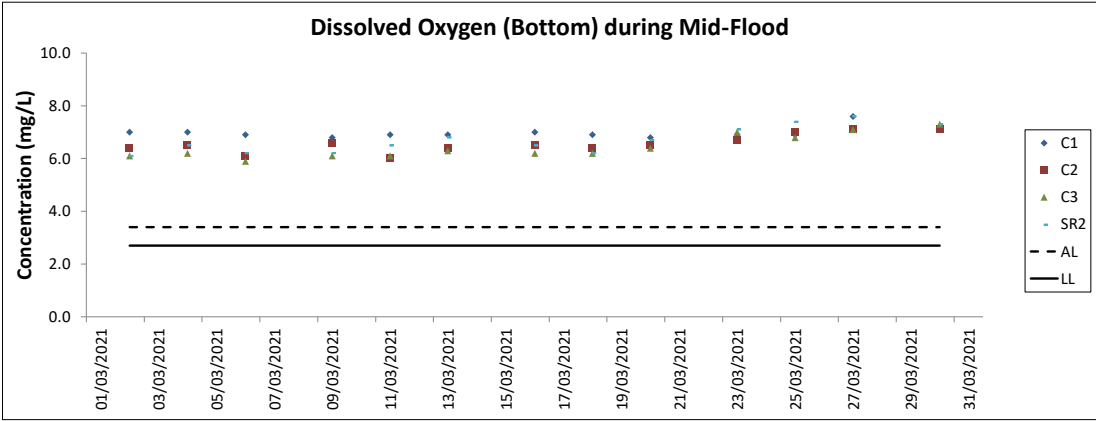
Water Quality Monitoring Results on 23 March 21 during Mid-Flood Tide

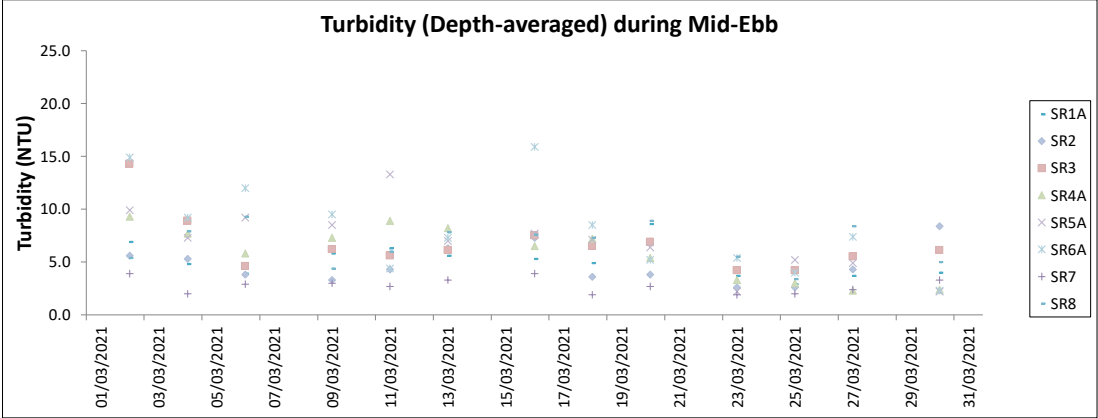
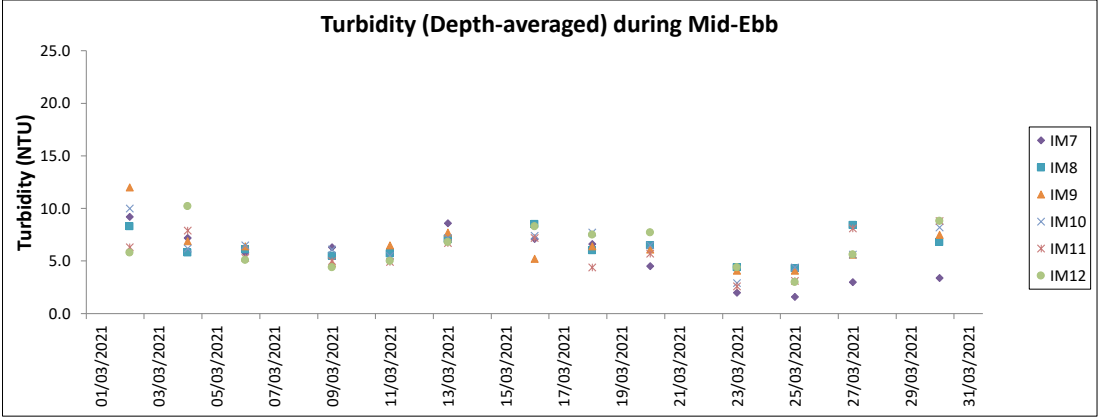
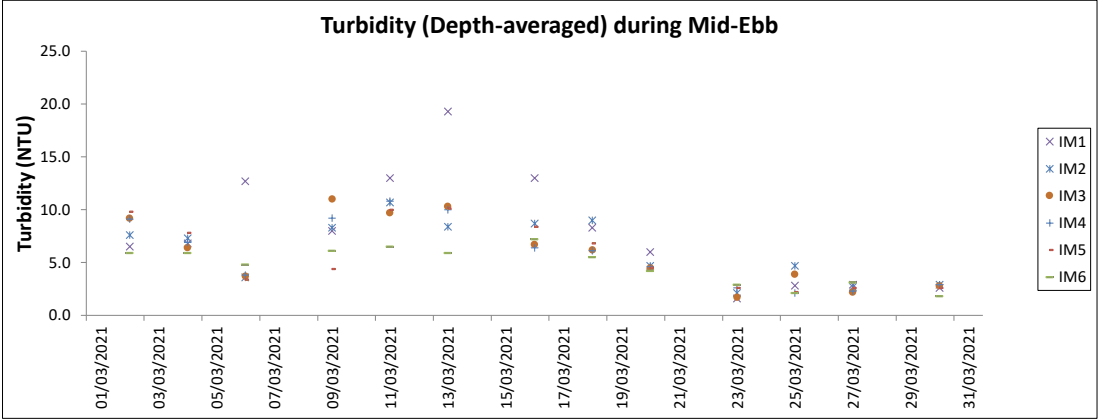
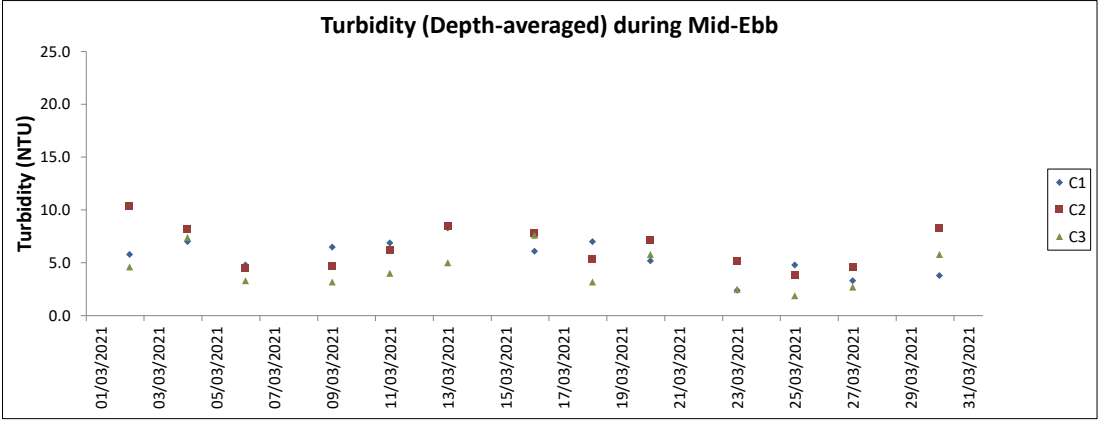
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Total Alkalinity (ppm)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	Chromium (µg/L)		Nickel (µg/L)	
IM9	Misty	Moderate	09:29	0.0	Surface	1.0	0.1	61	21.9	21.9	8.0	8.0	30.8	30.8	96.1	96.1	7.0	7.0	3.3	7	7	87	90	822094	808827	<0.2	0.8	0.9		
						1.0	0.1	64	21.9		8.0		30.9	30.9	96.0	96.0	7.0	7.0	3.3	7	87	87								
					Middle	3.7	0.2	74	21.9	21.9	8.0	8.0	30.9	30.9	96.3	96.3	7.1	7.1	3.5	6	90	90								
						3.7	0.2	80	21.9		8.0		30.9	30.9	96.3	96.3	7.1	7.1	3.5	6	91	91								
					Bottom	6.4	0.1	63	22.1	22.1	8.0	8.0	32.0	32.0	98.7	99.0	7.2	7.2	7.4	6	92	92								
						6.4	0.1	65	22.1		8.0		32.0	32.0	99.2	99.2	7.2	7.2	7.4	6	92	92								
IM10	Misty	Moderate	09:21	0.0	Surface	1.0	0.2	93	21.9	21.9	8.0	8.0	30.8	30.8	95.3	95.2	7.0	7.0	2.8	6	86	86	822390	809775	<0.2	0.8	0.9			
						1.0	0.3	98	21.9		8.0		30.8	30.8	95.0	95.0	7.0	7.0	2.9	6	87	87								
					Middle	3.6	0.3	102	21.9	22.0	8.0	8.0	31.0	31.0	93.5	93.4	6.8	6.8	3.0	6	90	90								
						3.6	0.3	106	22.0		8.0		31.1	31.1	93.2	93.2	6.8	6.8	3.0	5	91	91								
					Bottom	6.2	0.2	119	22.1	22.1	8.0	8.0	31.8	31.9	92.5	92.6	6.7	6.7	3.4	4	93	93								
						6.2	0.2	125	22.1		8.0		31.9	31.9	92.7	92.7	6.7	6.7	3.5	4	93	93								
IM11	Misty	Moderate	09:09	0.0	Surface	1.0	0.2	112	21.8	21.8	8.0	8.0	31.4	31.5	93.4	93.4	6.8	6.8	2.8	6	85	85	822058	811448	<0.2	0.8	1.0			
						1.0	0.2	116	21.8		8.0		31.5	31.5	93.3	93.3	6.8	6.8	2.9	5	85	85								
					Middle	4.5	0.1	159	22.0	22.0	8.0	8.0	31.9	32.0	91.8	91.8	6.7	6.7	3.5	6	89	89								
						4.5	0.1	159	22.0		8.0		32.0	32.0	91.7	91.7	6.7	6.7	3.5	5	89	89								
					Bottom	8.0	0.0	219	22.1	22.1	8.0	8.0	32.5	32.5	91.6	91.7	6.6	6.6	4.9	5	90	90								
						8.0	0.0	223	22.1		8.0		32.5	32.5	91.7	91.7	6.6	6.6	4.9	4	90	90								
IM12	Misty	Moderate	09:02	0.0	Surface	1.0	0.2	124	21.9	22.0	8.0	8.0	31.9	32.0	92.2	92.1	6.7	6.7	3.7	6	85	85	821464	812051	<0.2	0.8	1.0			
						1.0	0.2	131	22.0		8.0		32.1	32.1	92.0	92.0	6.7	6.7	3.7	5	85	85								
					Middle	4.6	0.1	103	22.1	22.1	8.0	8.0	32.3	32.3	92.2	92.2	6.7	6.7	4.0	6	89	89								
						4.6	0.1	106	22.1		8.0		32.3	32.3	92.2	92.2	6.7	6.7	4.0	5	89	89								
					Bottom	8.2	0.1	50	22.0	22.0	8.0	8.0	32.3	32.3	93.0	93.1	6.7	6.8	4.2	6	91	91								
						8.2	0.1	50	22.0		8.0		32.3	32.3	93.2	93.2	6.8	6.8	4.3	6	92	92								
SR1A	Misty	Moderate	08:30	0.0	Surface	1.0	-	-	21.7	21.7	8.0	8.0	30.1	30.1	89.4	89.6	6.6	6.6	2.8	4	-	-	819979	812658	-	-	-			
						1.0	-	-	21.7		8.0		30.1	30.1	89.7	89.7	6.6	6.6	2.7	4	-	-								
					Middle	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
						2.1	-	-	-		-		-	-	-	-	-	-	-	-	-	-								
					Bottom	3.2	-	-	22.0	22.0	8.0	8.0	31.6	31.6	91.5	91.6	6.7	6.7	3.1	5	-	-								
						3.2	-	-	22.0		8.0		31.6	31.6	91.7	91.7	6.7	6.7	3.1	6	-	-								
SR2	Misty	Moderate	08:13	0.0	Surface	1.0	0.1	344	21.6	21.7	8.0	8.0	31.2	31.4	94.8	94.8	7.0	7.0	2.3	6	87	87	821461	814176	<0.2	0.8	0.8			
						1.0	0.2	316	21.8		8.0		31.2	31.2	94.7	94.7	6.9	6.9	2.3	6	88	88								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
						-	-	-	-		-		-	-	-	-	-	-	-	-	-	-								
					Bottom	4.0	0.1	320	21.9	21.9	8.0	8.0	31.8	31.8	96.3	96.6	7.0	7.1	2.3	5	89	89								
						4.0	0.2	342	21.8		8.0		31.8	31.8	96.8	96.8	7.1	7.1	2.3	4	90	90								
SR3	Misty	Moderate	09:41	0.0	Surface	1.0	0.1	220	21.8	21.8	8.0	8.0	30.7	30.7	96.2	96.2	7.1	7.1	3.0	4	-	-	822139	807571	-	-	-			
						1.0	0.1	222	21.8		8.0		30.7	30.7	96.2	96.2	7.1	7.1	2.9	5	-	-								
					Middle	4.6	0.1	155	21.8	22.0	8.0	8.0	30.7	30.6	96.3	96.9	7.1	7.1	3.2	5	-	-								
						4.6	0.1	170	22.1		8.0		30.5	30.5	97.5	97.5	7.1	7.1	3.2	4	-	-								
					Bottom	8.2	0.2	97	22.2	22.2	8.0	8.0	32.4	32.4	98.3	98.5	7.1	7.1	14.2	7	-	-								
						8.2	0.2	102	22.2		8.0		32.4	32.4	98.7	98.7	7.1	7.1	14.3	6	-	-								
SR4A	Cloudy	Moderate	08:39	0.0	Surface	1.0	0.1	91	22.0	22.0	8.2	8.2	31.6	31.6	94.0	94.0	6.8	6.8	2.0	6	-	-	817188	807806	-	-	-			
						1.0	0.2	91	22.0		8.2		31.6	31.6	94.0	94.0	6.8	6.8	2.0	6	-	-								
					Middle	4.0	0.2	86	22.1	22.1	8.2																			



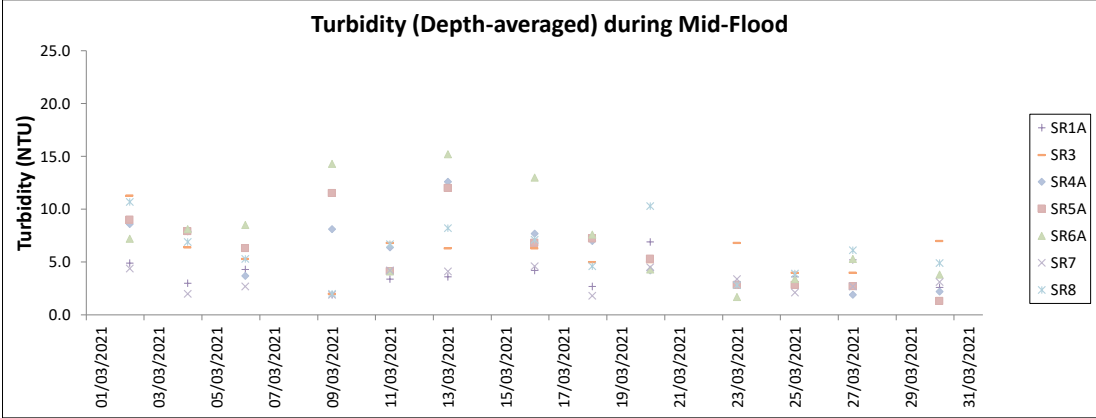
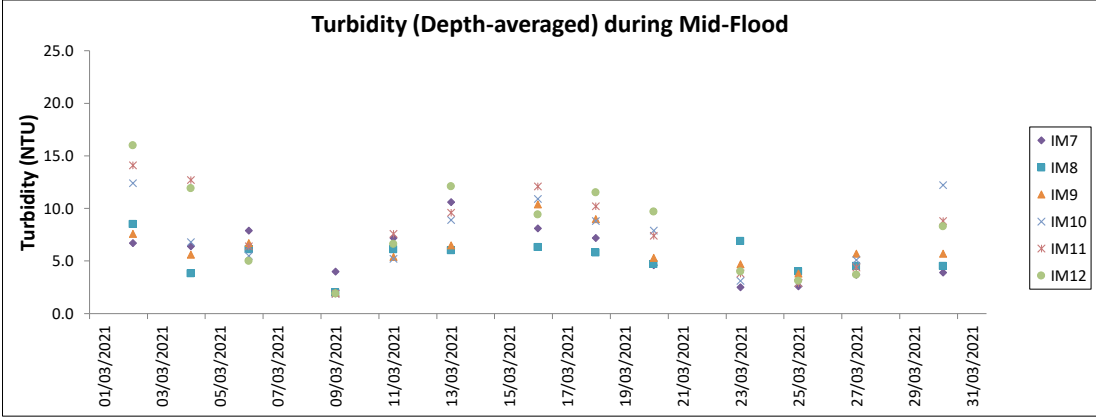
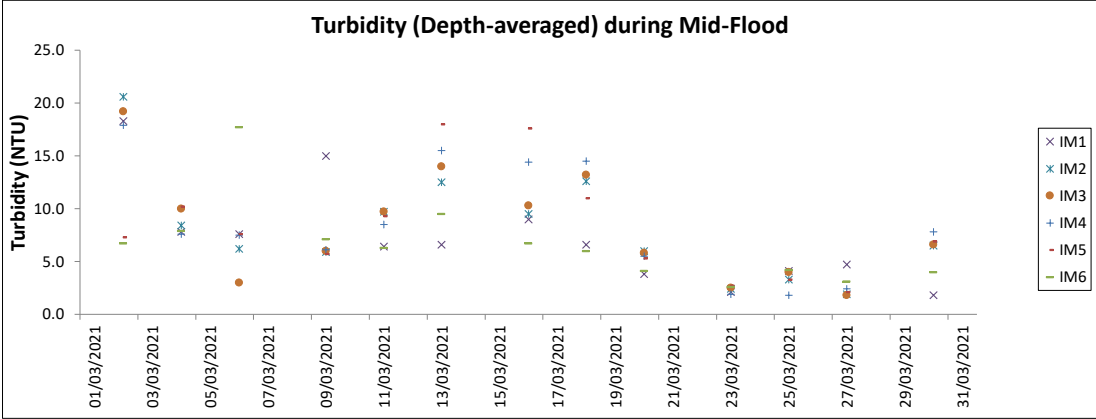
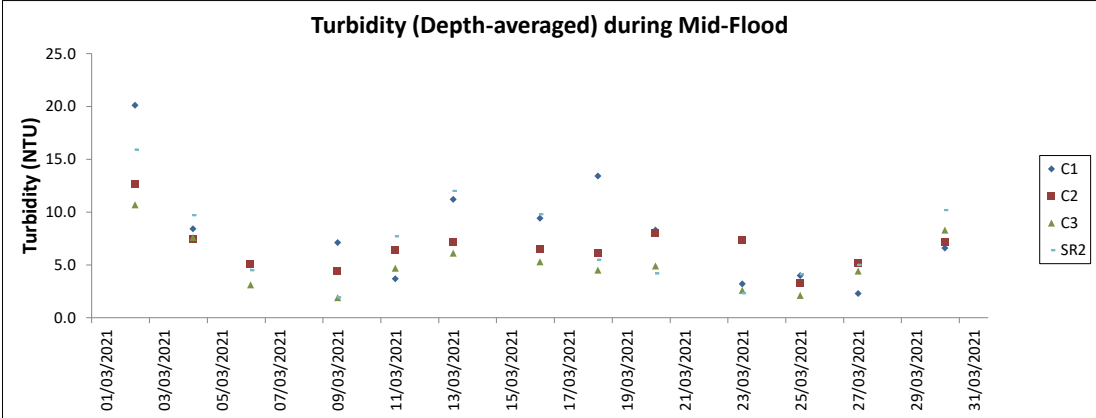




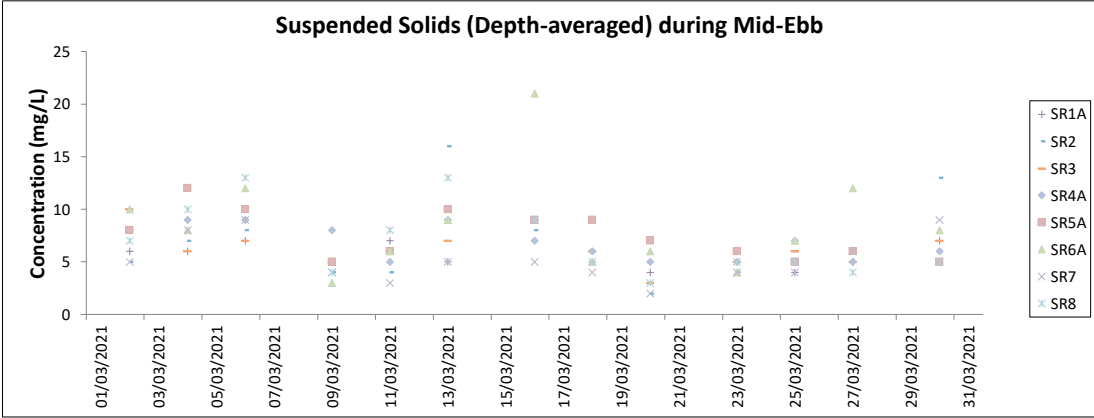
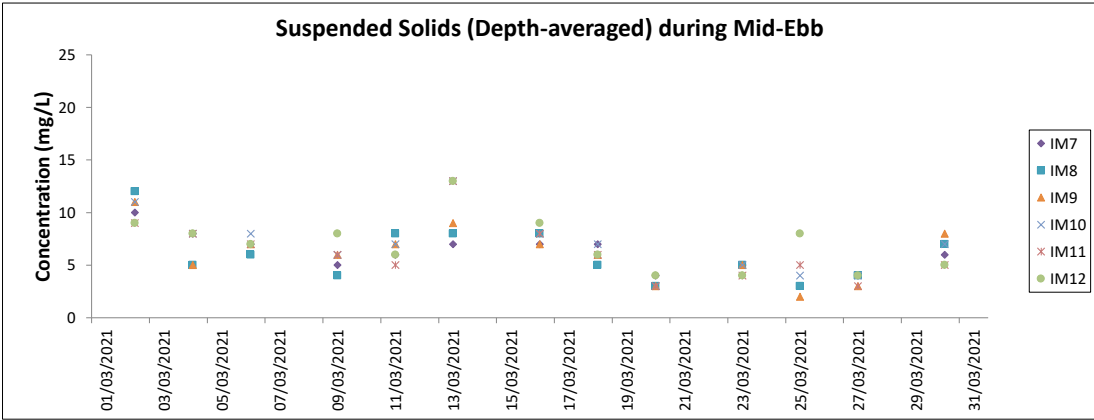
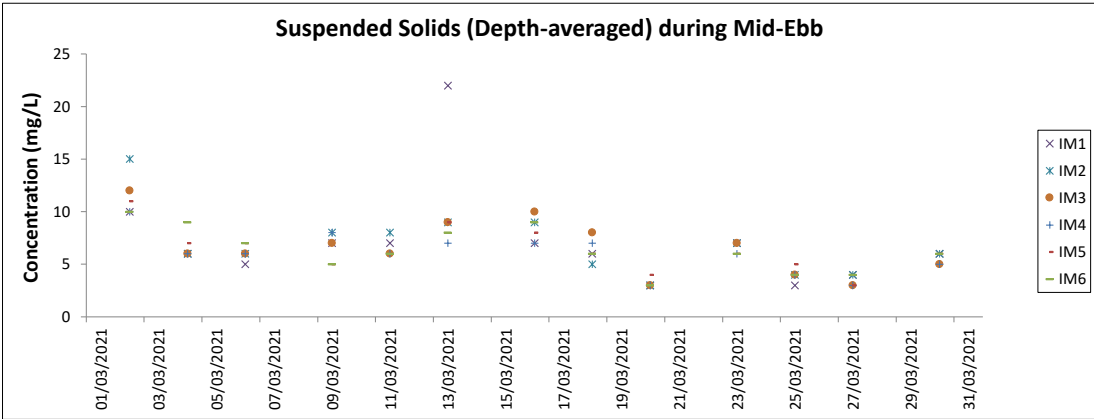
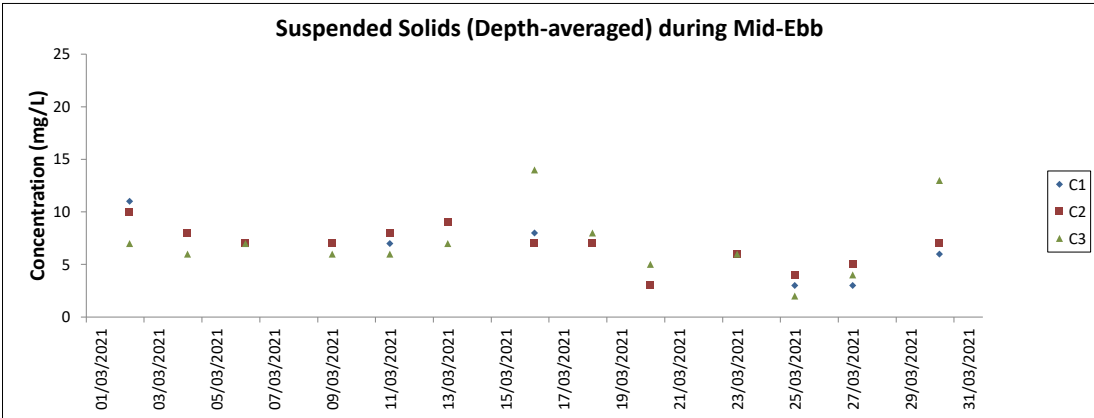




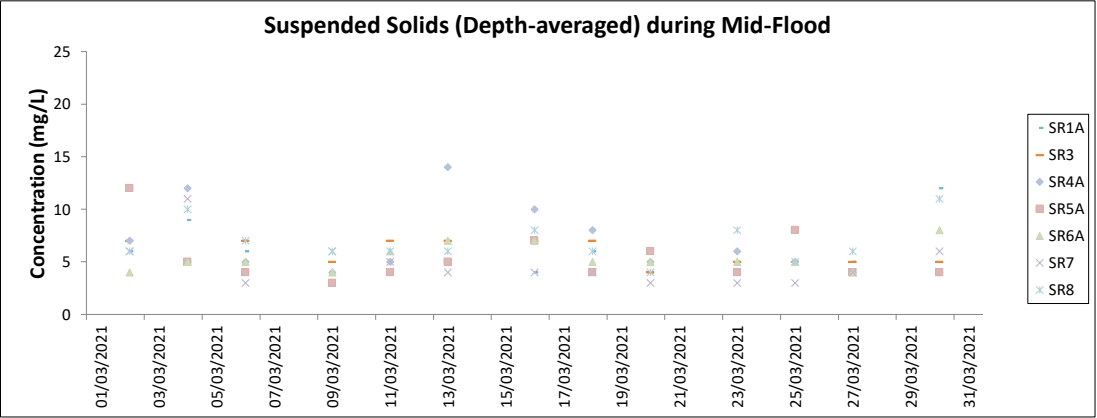
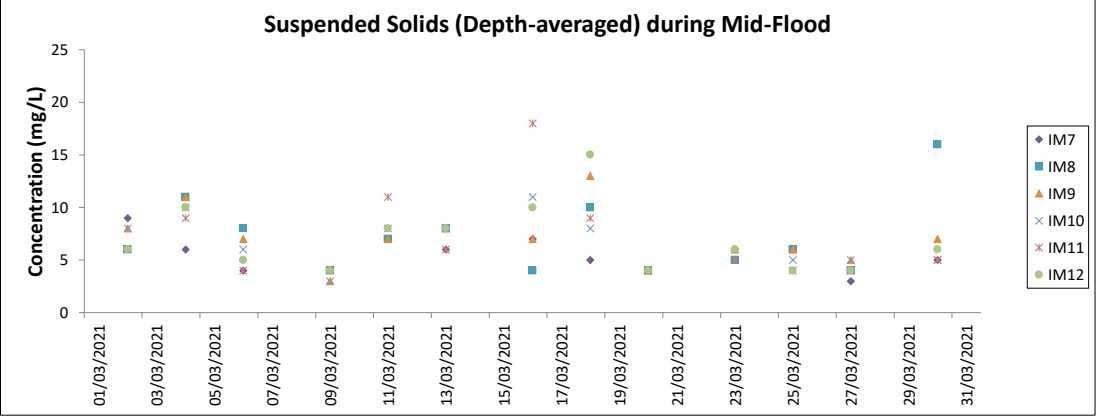
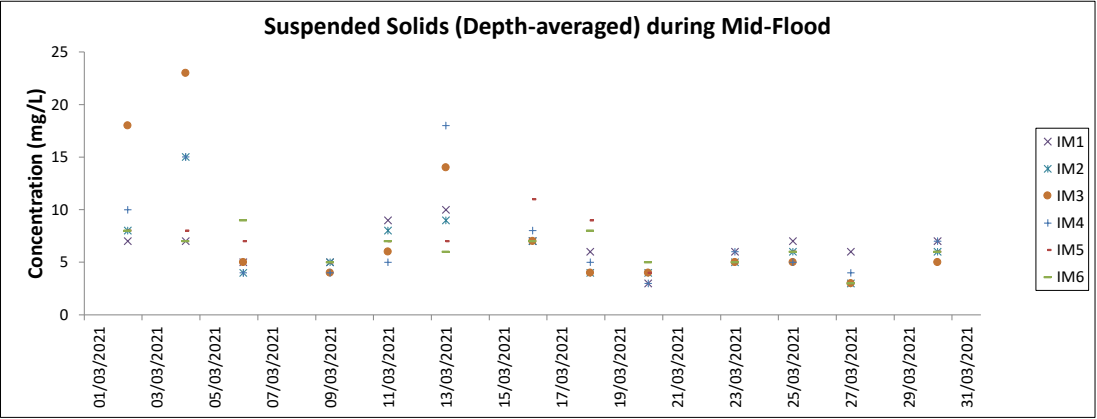
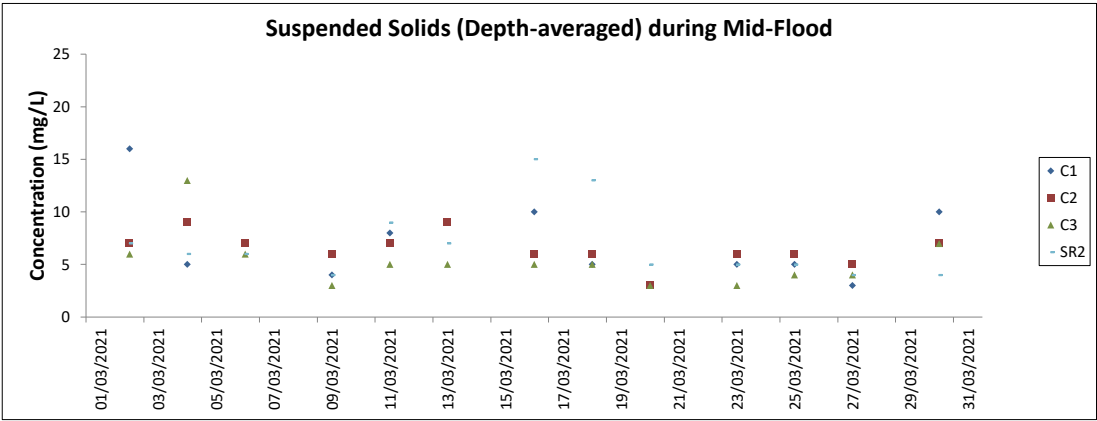
Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.



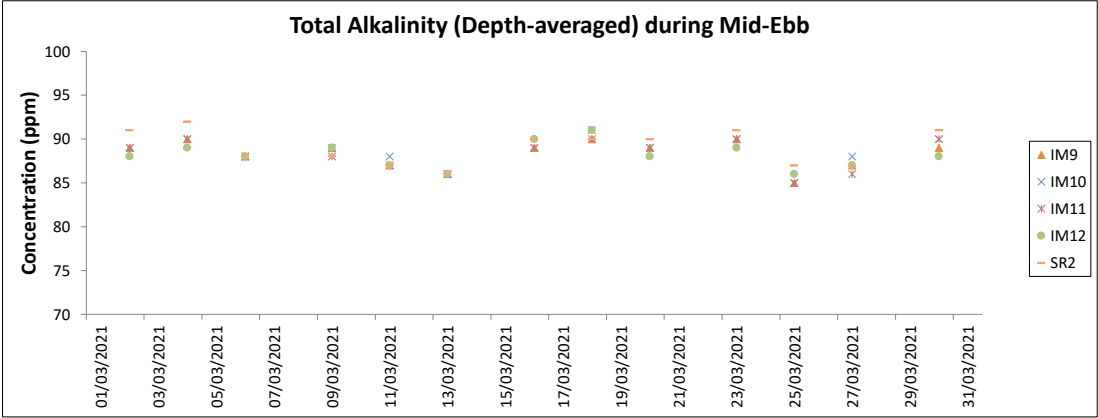
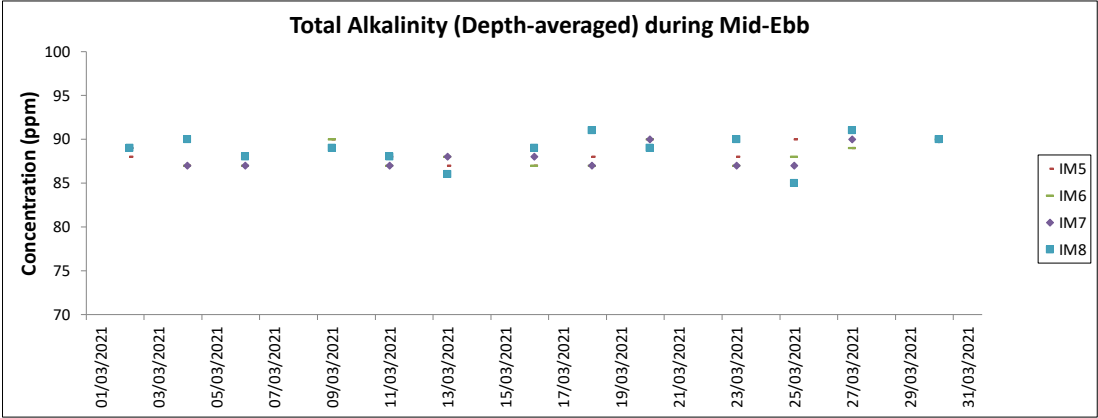
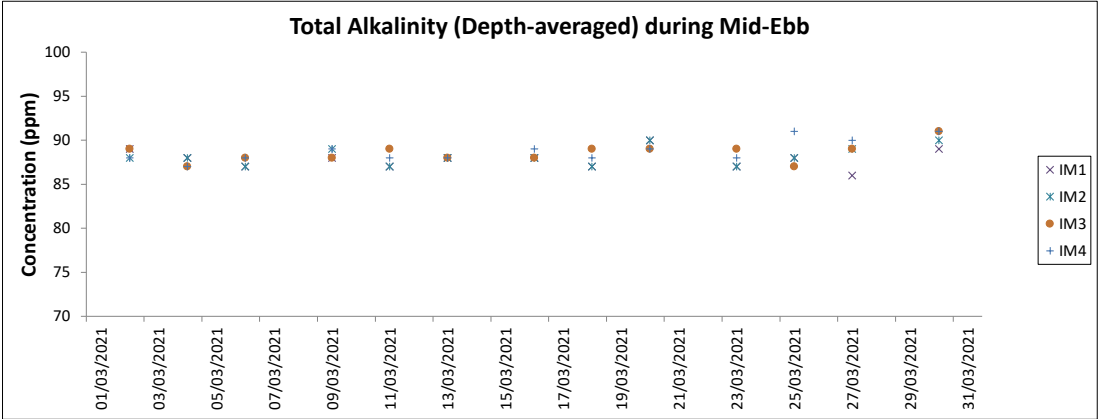
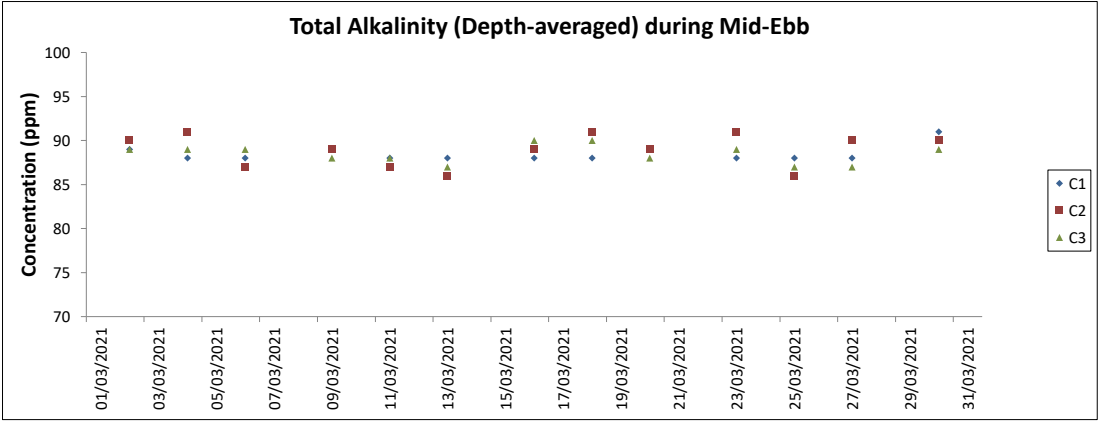
Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.



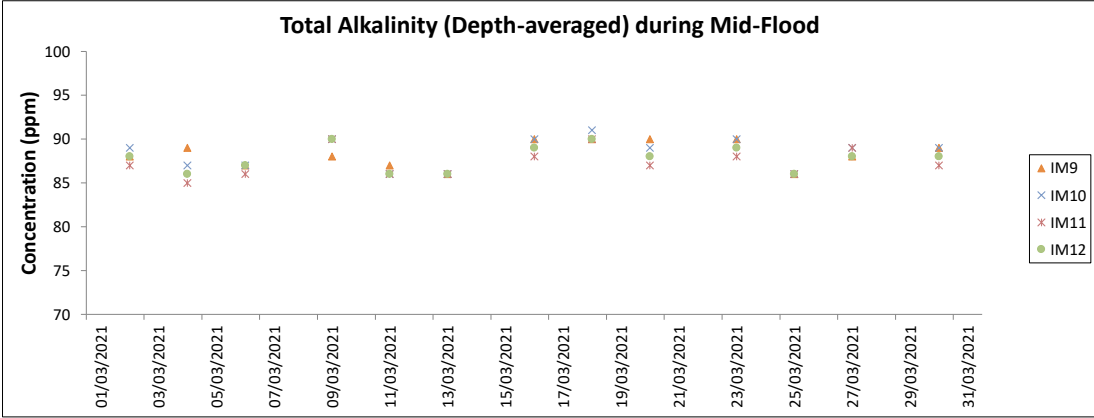
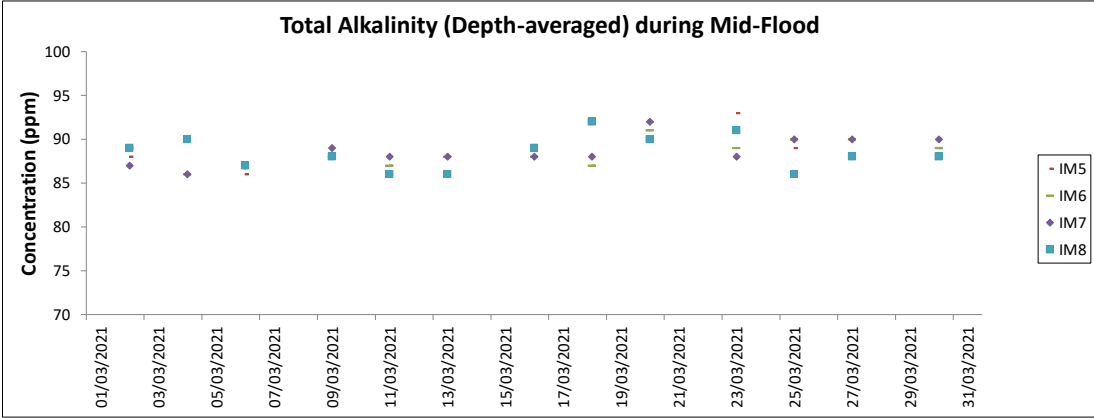
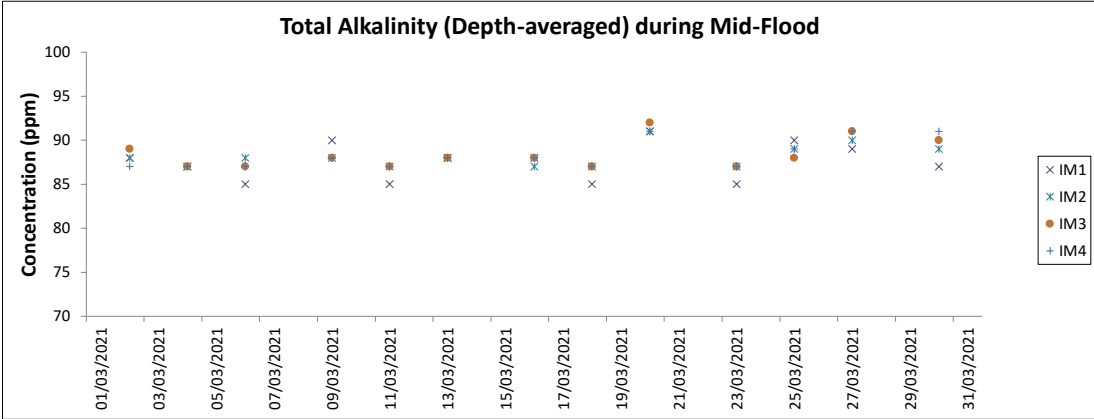
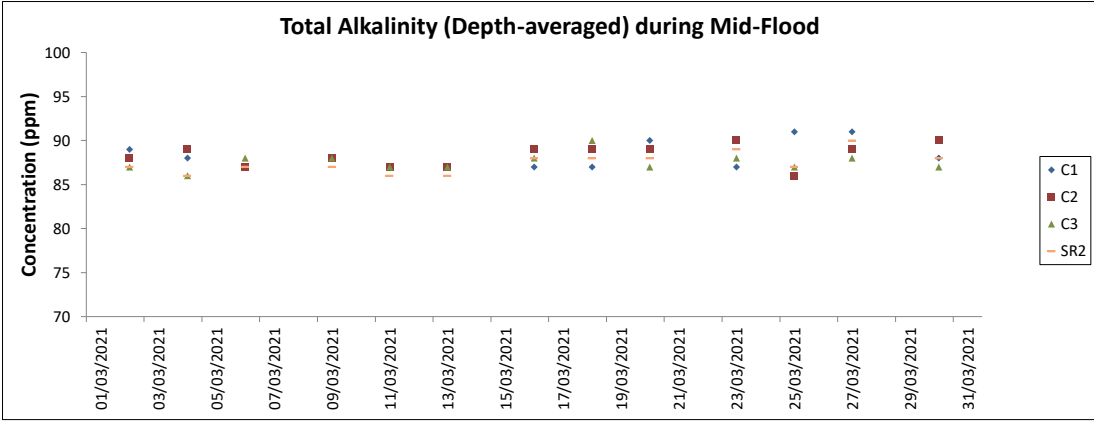
Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.



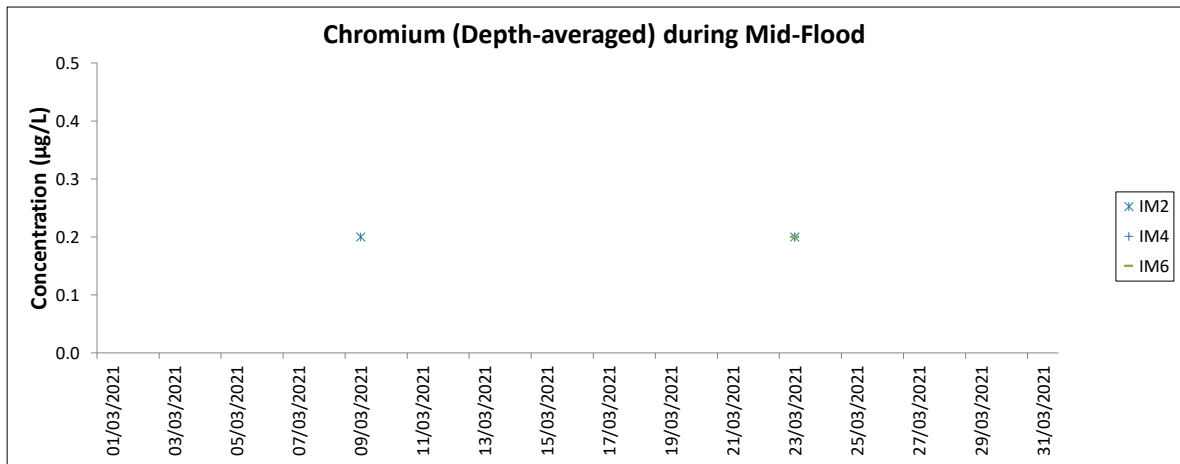
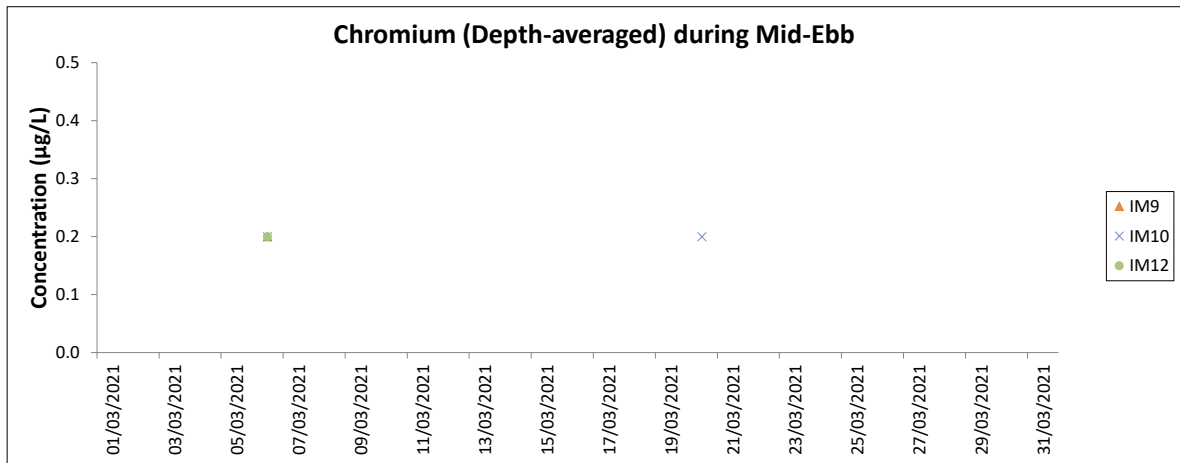
Note: The Action and Limit Level of suspended solids can be referred to Table 4.2 of the monthly EM&A report.



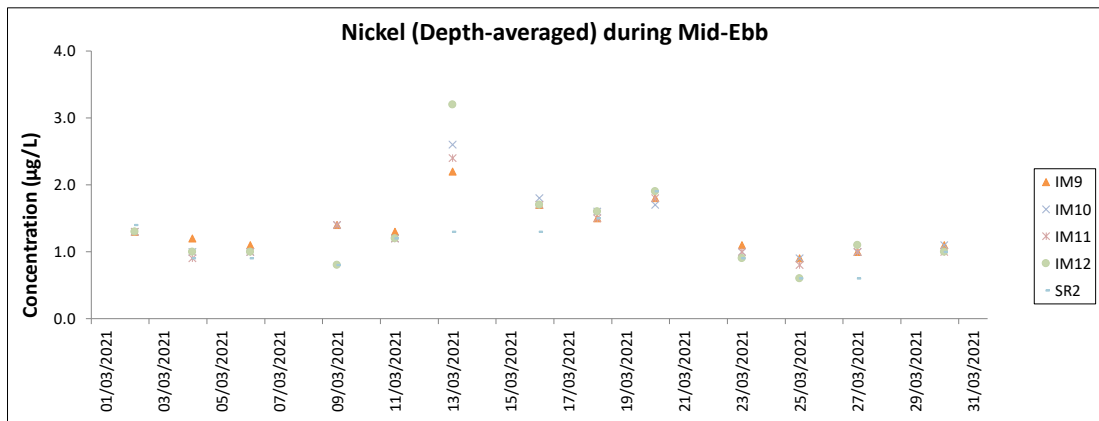
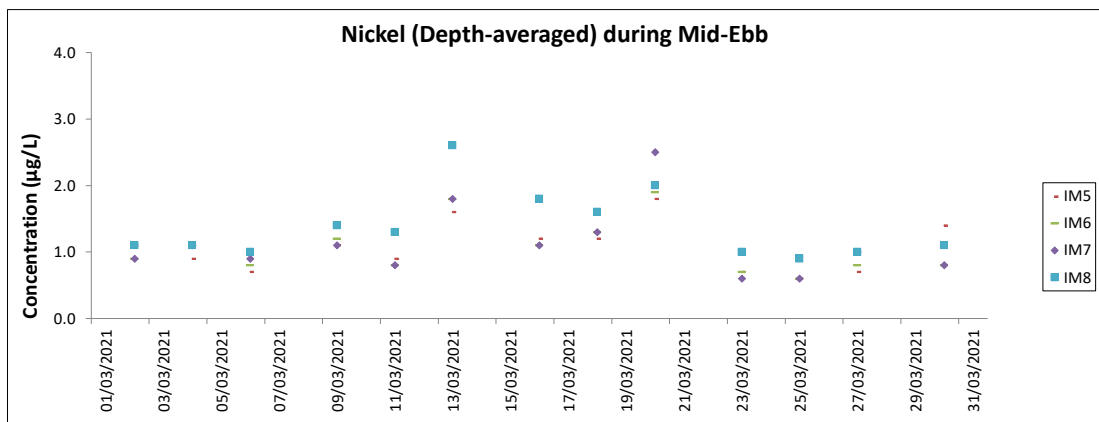
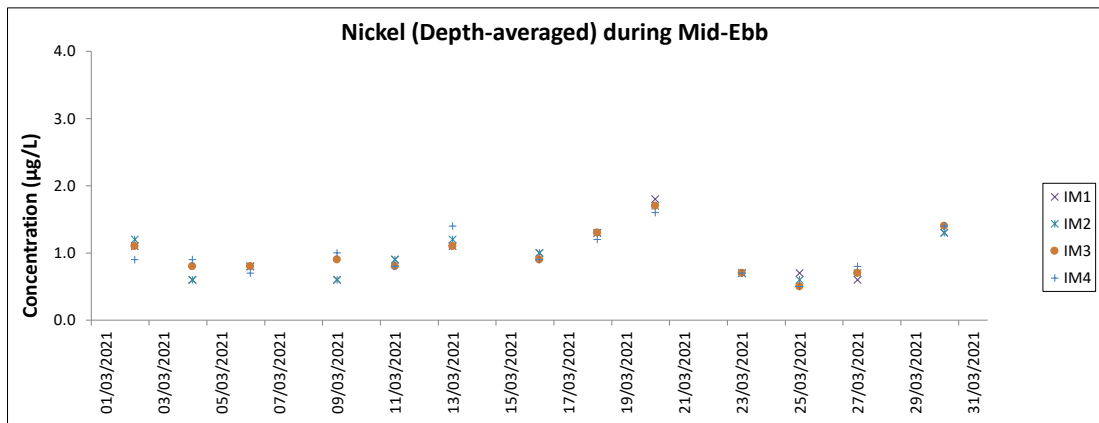
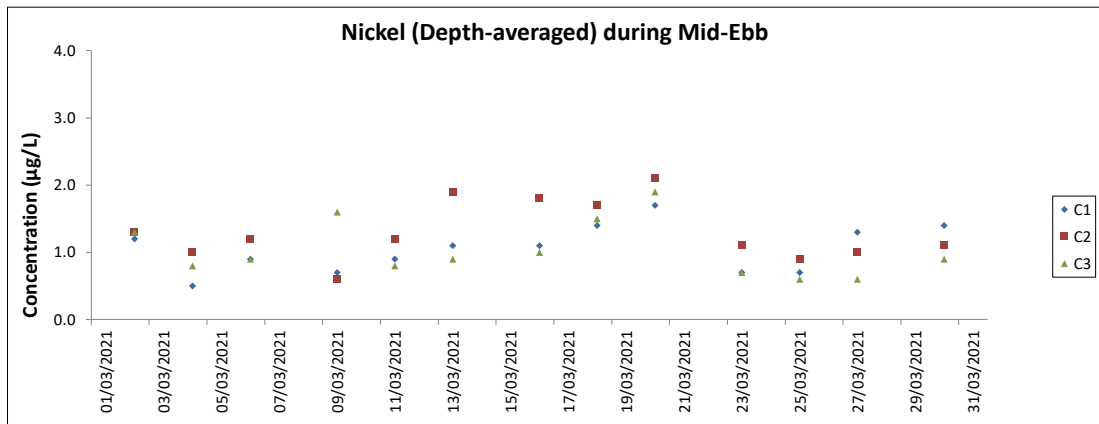
Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.



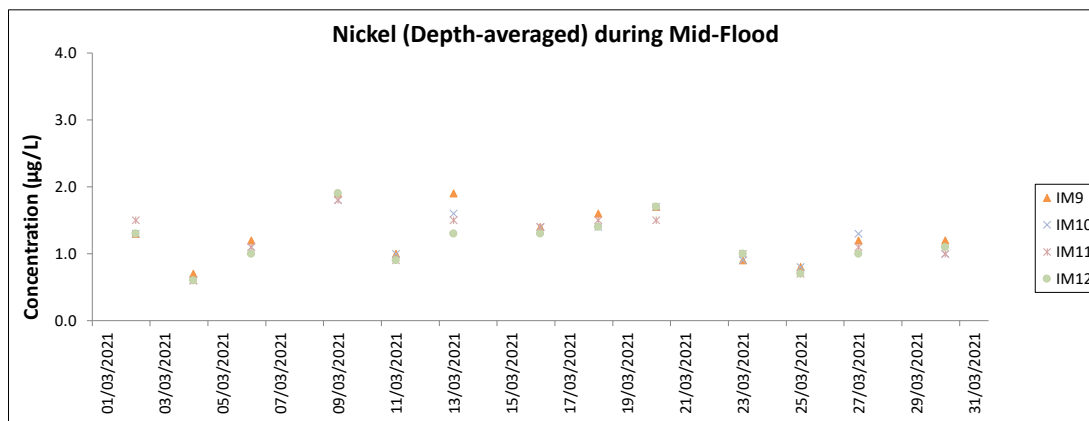
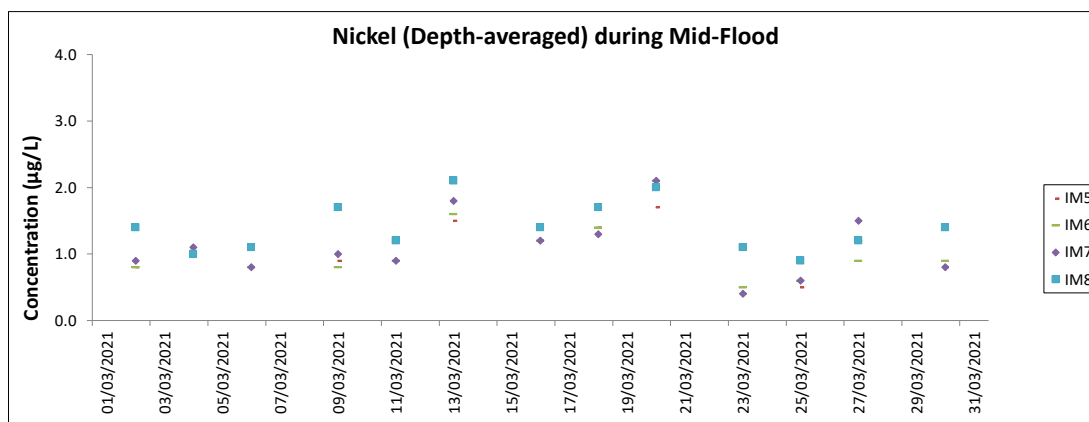
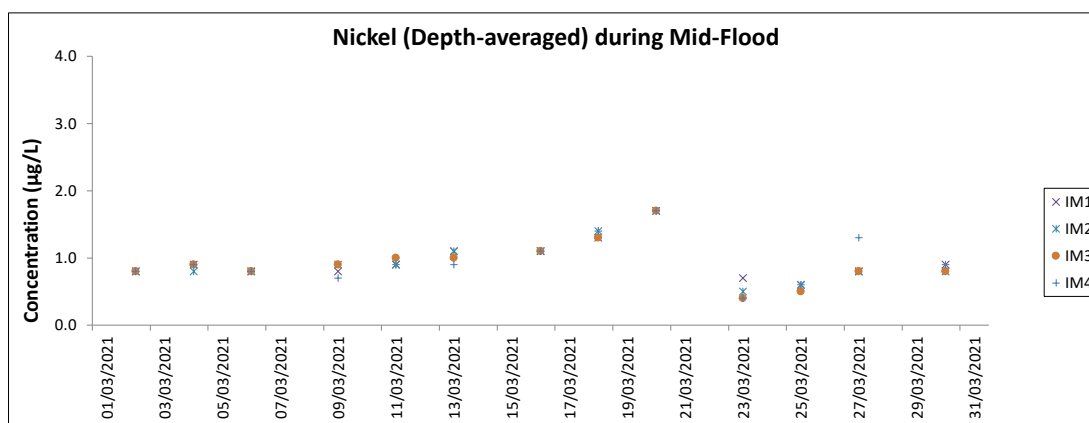
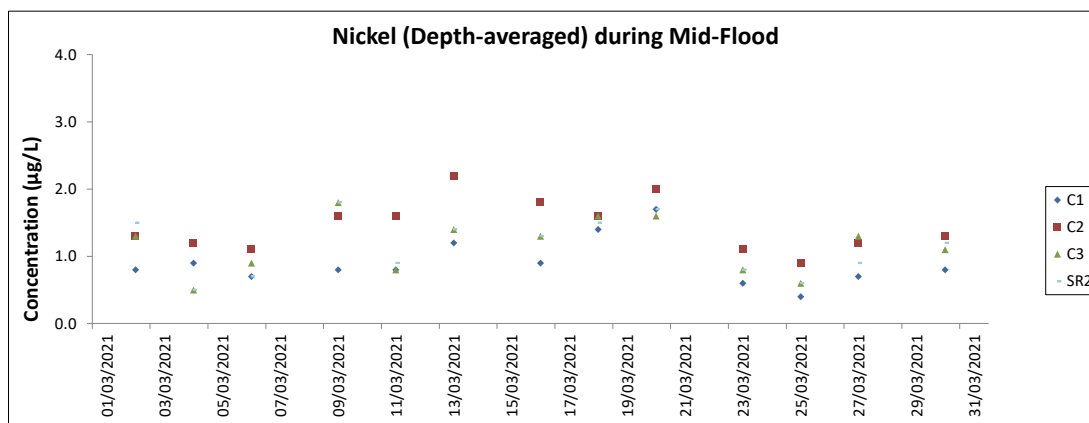
Note: The Action and Limit Level of total alkalinity can be referred to Table 4.2 of the monthly EM&A report.



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
11-Jan-21	NEL	2	6.200	WINTER	32166	3RS ET	P
11-Jan-21	NEL	3	24.380	WINTER	32166	3RS ET	P
11-Jan-21	NEL	4	6.900	WINTER	32166	3RS ET	P
11-Jan-21	NEL	2	1.900	WINTER	32166	3RS ET	S
11-Jan-21	NEL	3	7.320	WINTER	32166	3RS ET	S
11-Jan-21	NEL	4	0.500	WINTER	32166	3RS ET	S
12-Jan-21	NEL	2	8.900	WINTER	32166	3RS ET	P
12-Jan-21	NEL	3	28.460	WINTER	32166	3RS ET	P
12-Jan-21	NEL	2	2.600	WINTER	32166	3RS ET	S
12-Jan-21	NEL	3	7.040	WINTER	32166	3RS ET	S
15-Jan-21	SWL	2	12.333	WINTER	32166	3RS ET	P
15-Jan-21	SWL	3	36.540	WINTER	32166	3RS ET	P
15-Jan-21	SWL	4	0.687	WINTER	32166	3RS ET	P
15-Jan-21	SWL	2	4.680	WINTER	32166	3RS ET	S
15-Jan-21	SWL	3	11.610	WINTER	32166	3RS ET	S
18-Jan-21	AW	3	4.810	WINTER	32166	3RS ET	P
18-Jan-21	WL	3	18.290	WINTER	32166	3RS ET	P
18-Jan-21	WL	4	1.470	WINTER	32166	3RS ET	P
18-Jan-21	WL	3	9.240	WINTER	32166	3RS ET	S
18-Jan-21	WL	4	1.200	WINTER	32166	3RS ET	S
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

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/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
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
3-Mar-21	NEL	3	37.340	SPRING	32166	3RS ET	P
3-Mar-21	NEL	3	9.760	SPRING	32166	3RS ET	S
8-Mar-21	NWL	2	1.100	SPRING	32166	3RS ET	P
8-Mar-21	NWL	3	35.740	SPRING	32166	3RS ET	P
8-Mar-21	NWL	4	26.780	SPRING	32166	3RS ET	P
8-Mar-21	NWL	2	2.300	SPRING	32166	3RS ET	S
8-Mar-21	NWL	3	5.000	SPRING	32166	3RS ET	S
8-Mar-21	NWL	4	3.900	SPRING	32166	3RS ET	S
9-Mar-21	AW	3	4.720	SPRING	32166	3RS ET	P
9-Mar-21	WL	2	9.720	SPRING	32166	3RS ET	P
9-Mar-21	WL	3	10.360	SPRING	32166	3RS ET	P
9-Mar-21	WL	2	6.740	SPRING	32166	3RS ET	S
9-Mar-21	WL	3	4.630	SPRING	32166	3RS ET	S
10-Mar-21	NEL	2	1.100	SPRING	32166	3RS ET	P
10-Mar-21	NEL	3	25.400	SPRING	32166	3RS ET	P
10-Mar-21	NEL	4	10.430	SPRING	32166	3RS ET	P
10-Mar-21	NEL	3	7.070	SPRING	32166	3RS ET	S
10-Mar-21	NEL	4	3.100	SPRING	32166	3RS ET	S
12-Mar-21	SWL	1	3.850	SPRING	32166	3RS ET	P
12-Mar-21	SWL	2	49.702	SPRING	32166	3RS ET	P
12-Mar-21	SWL	3	0.900	SPRING	32166	3RS ET	P
12-Mar-21	SWL	2	14.678	SPRING	32166	3RS ET	S
12-Mar-21	SWL	3	1.100	SPRING	32166	3RS ET	S
15-Mar-21	AW	2	1.910	SPRING	32166	3RS ET	P
15-Mar-21	AW	3	2.740	SPRING	32166	3RS ET	P

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
15-Mar-21	WL	2	16.658	SPRING	32166	3RS ET	P
15-Mar-21	WL	3	3.340	SPRING	32166	3RS ET	P
15-Mar-21	WL	2	9.742	SPRING	32166	3RS ET	S
16-Mar-21	NWL	2	58.960	SPRING	32166	3RS ET	P
16-Mar-21	NWL	3	3.860	SPRING	32166	3RS ET	P
16-Mar-21	NWL	2	8.700	SPRING	32166	3RS ET	S
16-Mar-21	NWL	3	1.900	SPRING	32166	3RS ET	S
17-Mar-21	SWL	2	49.752	SPRING	32166	3RS ET	P
17-Mar-21	SWL	3	2.340	SPRING	32166	3RS ET	P
17-Mar-21	SWL	2	15.682	SPRING	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
15-Jan-21	1	1154	FP	2	SWL	3	19	ON	3RS ET	22.1678	113.9182	WINTER	NONE	P
15-Jan-21	2	1335	CWD	3	SWL	3	789	ON	3RS ET	22.183	113.8875	WINTER	NONE	P
15-Jan-21	3	1443	CWD	1	SWL	2	652	ON	3RS ET	22.1758	113.8685	WINTER	NONE	P
18-Jan-21	1	1116	CWD	3	WL	3	336	ON	3RS ET	22.2421	113.8321	WINTER	NONE	P
18-Jan-21	2	1246	CWD	6	WL	3	45	ON	3RS ET	22.1871	113.8342	WINTER	NONE	P
19-Jan-21	1	0948	CWD	9	NWL	3	1196	ON	3RS ET	22.3799	113.8698	WINTER	NONE	P
19-Jan-21	2	1217	CWD	2	NWL	3	278	ON	3RS ET	22.3974	113.8879	WINTER	NONE	P
19-Jan-21	3	1325	CWD	2	NWL	2	57	ON	3RS ET	22.3703	113.8964	WINTER	NONE	P
19-Jan-21	4	1412	CWD	3	NWL	2	299	ON	3RS ET	22.3549	113.9074	WINTER	NONE	P
20-Jan-21	1	1031	CWD	12	NWL	2	212	ON	3RS ET	22.2743	113.8703	WINTER	NONE	P
20-Jan-21	2	1149	CWD	7	NWL	3	88	ON	3RS ET	22.3515	113.8779	WINTER	NONE	P
26-Jan-21	1	1216	FP	5	SWL	2	17	ON	3RS ET	22.1549	113.9073	WINTER	NONE	S
26-Jan-21	2	1251	CWD	1	SWL	2	38	ON	3RS ET	22.2080	113.9047	WINTER	GILLNETTER	S
26-Jan-21	3	1327	FP	3	SWL	2	346	ON	3RS ET	22.1617	113.8975	WINTER	NONE	P
26-Jan-21	4	1330	FP	2	SWL	2	59	ON	3RS ET	22.1577	113.8978	WINTER	NONE	P
26-Jan-21	5	1339	FP	1	SWL	2	22	ON	3RS ET	22.1496	113.8918	WINTER	NONE	S
26-Jan-21	6	1348	FP	1	SWL	2	34	ON	3RS ET	22.1644	113.8884	WINTER	NONE	P
26-Jan-21	7	1512	CWD	1	SWL	2	396	ON	3RS ET	22.1828	113.8596	WINTER	NONE	P
26-Jan-21	8	1531	CWD	4	SWL	2	725	ON	3RS ET	22.1711	113.8537	WINTER	NONE	S
27-Jan-21	1	1009	CWD	5	WL	2	127	ON	3RS ET	22.2861	113.8613	WINTER	NONE	P
27-Jan-21	2	1029	CWD	3	WL	2	470	ON	3RS ET	22.2737	113.8491	WINTER	NONE	S
27-Jan-21	3	1038	CWD	5	WL	2	79	ON	3RS ET	22.2694	113.8502	WINTER	NONE	P
27-Jan-21	4	1208	CWD	1	WL	2	258	ON	3RS ET	22.1962	113.8300	WINTER	NONE	P
27-Jan-21	5	1221	CWD	7	WL	2	45	ON	3RS ET	22.1960	113.8340	WINTER	NONE	P
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

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
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
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
8-Mar-21	1	0939	CWD	1	NWL	3	150	ON	3RS ET	22.4023	113.8702	SPRING	NONE	P

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
9-Mar-21	1	1145	CWD	4	WL	3	41	ON	3RS ET	22.2052	113.8337	SPRING	NONE	P
12-Mar-21	1	1051	FP	8	SWL	1	49	ON	3RS ET	22.1885	113.9365	SPRING	NONE	P
12-Mar-21	2	1105	FP	3	SWL	2	25	ON	3RS ET	22.1730	113.9361	SPRING	NONE	P
12-Mar-21	3	1114	FP	2	SWL	2	41	ON	3RS ET	22.1572	113.9366	SPRING	NONE	P
12-Mar-21	4	1145	FP	2	SWL	2	17	ON	3RS ET	22.1934	113.9270	SPRING	NONE	P
15-Mar-21	1	1010	CWD	1	WL	3	71	ON	3RS ET	22.2908	113.8613	SPRING	NONE	P
15-Mar-21	2	1146	CWD	7	WL	2	434	ON	3RS ET	22.2074	113.8395	SPRING	NONE	S
15-Mar-21	3	1217	CWD	1	WL	2	404	ON	3RS ET	22.2054	113.8230	SPRING	NONE	P
16-Mar-21	1	1039	CWD	1	NWL	2	915	ON	3RS ET	22.2800	113.8784	SPRING	NONE	P
16-Mar-21	2	1105	CWD	2	NWL	2	223	ON	3RS ET	22.3070	113.8753	SPRING	NONE	S
17-Mar-21	1	1038	FP	3	SWL	2	200	ON	3RS ET	22.2012	113.9359	SPRING	NONE	P
17-Mar-21	2	1046	FP	7	SWL	2	315	ON	3RS ET	22.1876	113.9360	SPRING	NONE	P
17-Mar-21	3	1054	FP	8	SWL	2	9	ON	3RS ET	22.1763	113.9359	SPRING	NONE	P
17-Mar-21	4	1107	FP	2	SWL	2	2	ON	3RS ET	22.1491	113.9344	SPRING	NONE	S
17-Mar-21	5	1216	FP	2	SWL	2	58	ON	3RS ET	22.1411	113.9089	SPRING	NONE	S
17-Mar-21	6	1223	FP	4	SWL	2	211	ON	3RS ET	22.1526	113.9079	SPRING	NONE	P
17-Mar-21	7	1228	FP	2	SWL	2	13	ON	3RS ET	22.1556	113.9019	SPRING	NONE	S
17-Mar-21	8	1319	FP	4	SWL	2	184	ON	3RS ET	22.1728	113.8968	SPRING	NONE	P
17-Mar-21	9	1327	FP	3	SWL	2	72	ON	3RS ET	22.1582	113.8974	SPRING	NONE	P
17-Mar-21	10	1340	FP	2	SWL	2	186	ON	3RS ET	22.1579	113.8881	SPRING	NONE	P
17-Mar-21	11	1420	FP	3	SWL	3	67	ON	3RS ET	22.1856	113.8779	SPRING	NONE	P
17-Mar-21	12	1431	FP	1	SWL	2	122	ON	3RS ET	22.1630	113.8785	SPRING	NONE	P
17-Mar-21	13	1451	FP	1	SWL	2	11	ON	3RS ET	22.1891	113.8686	SPRING	NONE	P
17-Mar-21	14	1524	CWD	1	SWL	2	86	ON	3RS ET	22.1843	113.8486	SPRING	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 406.794 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 8 on-effort sightings and total number of 18 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in March 2021 are shown as below:

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

$$STG = \frac{8}{406.794} \times 100 = 1.97$$

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

$$ANI = \frac{18}{406.794} \times 100 = 4.42$$

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

A total of 1244.816 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 43 on-effort sightings and total number of 158 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)

$$STG = \frac{43}{1244.816} \times 100 = 3.45$$

Running Quarterly Encounter Rate by Number of Dolphins (ANI)

$$ANI = \frac{158}{1244.816} \times 100 = 12.69$$

CWD Small Vessel Line-transect Survey

Photo Identification

	
SLMM012_20210309_1_9	SLMM014_20210309_1_3
	
SLMM025_20210309_1_11	WLMM056_20210309_1_15
	
WLMM043_20210315_1_7	SLMM012_20210315_2_10
	
SLMM031_20210315_2_11	SLMM035_20210315_2_7

	
SLMM037_20210315_2_6	WLMM056_20210315_2_13
	
SLMM014_20210315_3_2	WLMM054_20210316_1_3
	
SLMM030_20210316_2_5	SLMM071_20210316_2_10
	
SLMM060_20210317_14_2	

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

Date	Station	Start Time	End Time	Duration	Beaufort Range	Visibility	No. of Focal Follow Dolphin Groups Tracked	Dolphin Group Size Range
25/Mar/21	Lung Kwu Chau	8:50	14:50	6:00	3	2-3	0	-
29/Mar/21	Sha Chau	10:51	16:51	6:00	3	1	0	-

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

Appendix E. Calibration Certificates



Certificate of Calibration 校正證書

Certificate No. : C211667
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC21-0458)

Date of Receipt / 收件日期 : 4 March 2021

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

TEST CONDITIONS / 測試條件

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

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

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 20 March 2021

TEST RESULTS / 測試結果

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

The test equipment used for calibration are traceable to National Standards via :

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

Tested By
測試


H T Wong
Assistant Engineer

Certified By
核證


K C Lee
Engineer

Date of Issue
簽發日期

22 March 2021

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室書面批准。

Certificate of Calibration

校正證書

Certificate No. : C211667
證書編號

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

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

- Test procedure : MA100N.

- Results :

5.1 Sound Level Accuracy

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

5.2 Frequency Accuracy

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

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

Note :

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

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

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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c/o 香港新界屯門興安里一號四樓

Tel/電話: (852) 2927 2606 Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

Certificate of Calibration

校正證書

Certificate No. : C211668

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC21-0458)

Date of Receipt / 收件日期 : 4 March 2021

Description / 儀器名稱 : Sound Level Meter
Manufacturer / 製造商 : Rion
Model No. / 型號 : NL-52
Serial No. / 編號 : 00998505
Supplied By / 委託者 : Mott MacDonald Hong Kong Limited
3/F., International Trade Tower,
348 Kwun Tong Road, Kowloon, Hong Kong

TEST CONDITIONS / 測試條件

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

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

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 20 March 2021

TEST RESULTS / 測試結果

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

The test equipment used for calibration are traceable to National Standards via :

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

Tested By

:



測試

H T Wong
Assistant Engineer

Certified By

:



核證

K C Lee
Engineer

Date of Issue

:

22 March 2021

簽發日期

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Certificate of Calibration

校正證書

Certificate No. : C211668
證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- Self-calibration was performed before the test.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

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

- Test procedure : MA101N.

- Results :

- Sound Pressure Level

- Reference Sound Pressure Level

UUT Setting				Applied Value		UUT Reading	IEC 61672 Class 1 Spec.
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	(dB)	(dB)
30 - 130	L _A	A	Fast	94.00	1	93.9	± 1.1

- Linearity

UUT Setting				Applied Value		UUT Reading
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	(dB)
30 - 130	L _A	A	Fast	94.00	1	93.9 (Ref.)
				104.00		103.9
				114.00		113.9

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

- Time Weighting

UUT Setting				Applied Value		UUT Reading	IEC 61672 Class 1 Spec.
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)	(dB)	(dB)
30 - 130	L _A	A	Fast	94.00	1	93.9	Ref.
			Slow			93.9	± 0.3

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Certificate of Calibration

校正證書

Certificate No. : C211668
證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L _A	A	Fast	94.00	63 Hz	67.6	-26.2 ± 1.5
					125 Hz	77.7	-16.1 ± 1.5
					250 Hz	85.2	-8.6 ± 1.4
					500 Hz	90.7	-3.2 ± 1.4
					1 kHz	93.9	Ref.
					2 kHz	95.1	+1.2 ± 1.6
					4 kHz	94.9	+1.0 ± 1.6
					8 kHz	92.9	-1.1 (+2.1 ; -3.1)
					12.5 kHz	89.5	-4.3 (+3.0 ; -6.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L _C	C	Fast	94.00	63 Hz	93.0	-0.8 ± 1.5
					125 Hz	93.7	-0.2 ± 1.5
					250 Hz	93.9	0.0 ± 1.4
					500 Hz	93.9	0.0 ± 1.4
					1 kHz	93.9	Ref.
					2 kHz	93.7	-0.2 ± 1.6
					4 kHz	93.1	-0.8 ± 1.6
					8 kHz	91.0	-3.0 (+2.1 ; -3.1)
					12.5 kHz	87.5	-6.2 (+3.0 ; -6.0)

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Certificate of Calibration

校正證書

Certificate No. : C211668
證書編號

Remarks : - UUT Microphone Model No. : UC-59 & S/N : 16104

- Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value :

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

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

Note :

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

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

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Email: info@qualityprotest.com; Website: www.qualityprotest.com

Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No. : BA030094
Date of Issue : 26 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 : 15M100005
Date of Received : Mar 25, 2021
Date of Calibration : Mar 25, 2021
Date of Next Calibration^(a) : Jun 24, 2021

PART C – REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

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

PART D – CALIBRATION RESULTS^(b,c)

(1) pH at 25°C

Target (pH unit)	Displayed Reading ^(d) (pH Unit)	Tolerance ^(e) (pH Unit)	Results
4.00	4.02	0.02	Satisfactory
7.42	7.38	-0.04	Satisfactory
10.01	10.30	0.29	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	10.4	0.4	Satisfactory
20	20.1	0.1	Satisfactory
48	48.3	0.3	Satisfactory

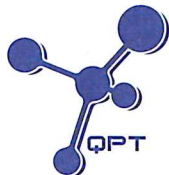
Tolerance limit of temperature should be less than ± 2.0 (°C)

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

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

LEE Chun-ning, Desmond
Senior Chemist



專業化驗有限公司

QUALITY PRO TEST-CONSULT LIMITED

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

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PART D – CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.36	0.28	-0.08	Satisfactory
2.81	2.58	-0.23	Satisfactory
5.45	5.72	0.27	Satisfactory
8.40	8.64	0.24	Satisfactory

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

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading ($\mu\text{S/cm}$)	Displayed Reading ($\mu\text{S/cm}$)	Tolerance (%)	Results
0.001	146.9	152.1	3.54	Satisfactory
0.01	1412	1278	-9.49	Satisfactory
0.1	12890	12810	-0.62	Satisfactory
0.5	58670	59234	0.96	Satisfactory
1.0	111900	114225	2.08	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.8	-2.00	Satisfactory
20	20.5	2.50	Satisfactory
30	29.8	-0.67	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ⁽¹⁾ (NTU)	Tolerance ⁽²⁾ (%)	Results
0	0.05	--	Satisfactory
10	9.8	-1.6	Satisfactory
20	18.9	-5.7	Satisfactory
100	96.4	-3.6	Satisfactory
800	822	2.8	Satisfactory

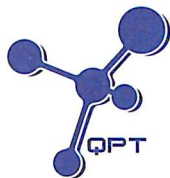
Tolerance limit of turbidity should be less than ± 10.0 (%)

~ END OF REPORT ~

Remark(s): -

⁽¹⁾ "Displayed Reading" presents the figures shown on item under calibration/ checking regardless of equipment precision or significant figures.

⁽²⁾ 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

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PART A – CUSTOMER INFORMATION

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

PART B – DESCRIPTION

Name of Equipment : YSI ProDSS (Multi-Parameters)
Manufacturer : YSI (a xylem brand)
Serial Number : 17E100747
Date of Received : Mar 25, 2021
Date of Calibration : Mar 25, 2021
Date of Next Calibration^(a) : Jun 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 ⁺ B
Dissolved Oxygen	APHA 21e 4500-O G
Conductivity at 25°C	APHA 21e 2510 B
Salinity	APHA 21e 2520 B
Turbidity	APHA 21e 2130 B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

PART D – CALIBRATION RESULTS^(b,c)

(1) pH at 25°C

Target (pH unit)	Displayed Reading ^(d) (pH Unit)	Tolerance ^(e) (pH Unit)	Results
4.00	4.02	0.02	Satisfactory
7.42	7.45	0.03	Satisfactory
10.01	9.98	-0.03	Satisfactory

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

(2) Temperature

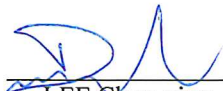
Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
10	9.9	-0.1	Satisfactory
20	20.2	0.2	Satisfactory
48	48.4	0.4	Satisfactory

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

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

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


LEE Chun-ning, Desmond
Senior Chemist



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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
0.36	0.32	-0.04	Satisfactory
2.81	2.54	-0.27	Satisfactory
5.45	5.78	0.33	Satisfactory
8.40	8.78	0.38	Satisfactory

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

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading ($\mu\text{S/cm}$)	Displayed Reading ($\mu\text{S/cm}$)	Tolerance (%)	Results
0.001	146.9	135.8	-7.56	Satisfactory
0.01	1412	1326.4	-6.06	Satisfactory
0.1	12890	12224.6	-5.16	Satisfactory
0.5	58670	56572	-3.58	Satisfactory
1.0	111900	108792	-2.78	Satisfactory

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

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.9	-1.00	Satisfactory
20	20.2	1.00	Satisfactory
30	30.3	1.00	Satisfactory

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

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.02	--	Satisfactory
10	9.84	-1.6	Satisfactory
20	20.26	1.3	Satisfactory
100	108.2	8.2	Satisfactory
800	796	-0.5	Satisfactory

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

~ END OF REPORT ~

Remark(s): -

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

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

Appendix F. Status of Environmental Permits and Licences

	Description		Permit/ Reference No.	Status
EIAO	Environmental Permit		EP-489/2014	Approved on 7 Nov 2014

Contract No.	Description	Location	Permit/ Reference No.	Status
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-RS0055-21	Superseded by GW-RS0187-21
			GW-RS0187-21	Valid from 24 Mar 2021 to 15 Sep 2021
		Works Area of 3206 (Area 11)	GW-RS0621-20	Valid from 6 Sep 2020 to 1 Mar 2021
			GW-RS0107-21	Valid from 2 Mar 2021 to 30 Jun 2021
	Bill Account for disposal	Works area of 3206	A/C 7026398	Approval granted from EPD on 16 Nov 2016
3301	Notification of Construction Work under APCO	Works area of 3301	415821	Receipt acknowledged by EPD on 19 Apr 2017
	Registration as Chemical Waste Producer	Works area of 3301	WPN 5213-951-F2718-02	Completion of Registration on 9 Jun 2017
	Discharge License under WPCO	Works area of 3301	WT00029286-2017	Valid from 20 Sep 2017 to 30 Sep 2022
	Bill Account for disposal	Works area of 3301	A/C 7027728	Approval granted from EPD on 8 May 2017
	Construction Noise Permit (General Works)	Works area of 3301	GW-RS0118-21	Valid from 24 Feb 2021 to 21 Aug 2021
		Works area of 3301 (Cable ducting works) (Special Case)	GW-RS0617-20	Valid from 14 Sep 2020 to 13 Mar 2021
			GW-RS0188-21	Valid from 29 Mar 2021 to 28 Sep 2021
3302	Notification of Construction Work under APCO	Works area of 3302	440222	Receipt acknowledged by EPD on 10 Dec 2018
		Staging area of 3302	2018CES1	Receipt acknowledged by EPD on 21 Dec 2018
			454882	Receipt acknowledged by EPD on 2 Apr 2020

Contract No.	Description	Location	Permit/ Reference No.	Status
	Registration as Chemical Waste Producer	Works area of 3302	5296-951-C4331-01	Completion of Registration on 4 Jan 2019
	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
		Works area of 3303 (Reclamation area)	GW-RS0015-21	Superseded by GW-RS0194-21
		Works area of 3303 (South East Quay)	GW-RS0194-21	Valid from 24 Mar 2021 to 22 Sep 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-RS0033-21	Valid from 7 Feb 2021 to 6 Aug 2021
3402	Notification of Construction Work under APCO	Works area of 3402	464622	Receipt acknowledged by EPD on 18 Feb 2021
	Bill Account for disposal	Works area of 3402	A/C 7032577	Approval granted from EPD on 27 Nov 2018
	Construction Noise Permit (General Works)	Works area of 3402	GW-RS0129-21	Valid from 20 Mar 2021 to 9 Sep 2021
3403	Notification of Construction Work under APCO	Works area of 3403	450860	Receipt acknowledged by EPD on 11 Nov 2019

Contract No.	Description	Location	Permit/ Reference No.	Status
	Registration as Chemical Waste Producer	Works area of 3403	WPN 5213-951-S4218-01	Completion of Registration on 9 Jan 2020
	Discharge License under WPCO	Works area of 3403	WT00035841-2020	Valid from 5 Jun 2020 to 30 Jun 2025
	Bill Account for disposal	Works area of 3403	A/C 7035267	Approval granted from EPD on 30 Sep 2019
	Construction Noise Permit (General Works)	Works area of 3403	GW-RS0822-20	Valid from 29 Nov 2020 to 28 May 2021
	Construction Noise Permit (Special Case)	Works area of 3403	GW-RS0635-20	Valid from 18 Sep 2020 to 17 Mar 2021
3405			GW-RS0010-21	Valid from 15 Jan 2021 to 31 May 2021
	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
3408	Notification of Construction Work under APCO	Works area of 3408	461958	Receipt acknowledged by EPD on 17 Nov 2020
	Registration as Chemical Waste Producer	Works area of 3408	WPN 5218-951-B2621-01	Completion of Registration on 14 Jan 2021
	Bill Account for disposal	Works area of 3408	A/C 7039063	Approval granted from EPD on 2 Dec 2020
3503	Notification of Construction Work under APCO	Works area of 3503	459394	Receipt acknowledged by EPD on 28 Aug 2020
		Stockpiling area of 3503	459392	Receipt acknowledged by EPD on 28 Aug 2020
	Registration as Chemical Waste Producer	Works area of 3503	WPN 5113-951-L2845-02	Completion of Registration on 3 Sep 2019
		Stockpiling area of 3503	WPN 5113-951-L2845-04	Completion of Registration on 19 Jun 2020
	Discharge License under WPCO	Works area of 3503	WT00031258-2018	Valid from 6 Aug 2019 to 30 Jun 2023
			WT00036551-2020	Valid from 17 Sep 2020 to 30 Sep 2025
			WT00036697-2020	Valid from 2 Nov 2020 to 30 Nov 2025
	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-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-RS0093-21	Valid from 8 Feb 2021 to 31 Mar 2021

Contract No.	Description	Location	Permit/ Reference No.	Status
3508	Notification of Construction Work under APCO	Works area of 3508	459469	Receipt acknowledged by EPD on 4 Sep 2020
	Registration as Chemical Waste Producer	Works area of 3508	WPN-5218-951-G2898-01	Completion of Registration on 28 Sep 2020
	Discharge License under WPCO	Works area of 3508	WT00037209-2020	Valid from 11 Mar 2021 to 31 Mar 2026
	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	Superseded by GW-RS0158-21
			GW-RS0158-21	Valid from 15 Mar 2021 to 11 Sep 2021
		Works area of 3508(Area 3)	GW-RS0802-20	Valid from 27 Oct 2020 to 23 Apr 2021
		Works area of 3508 (Special Case)	GW-RS0884-20	Valid from 27 Nov 2020 to 25 May 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
			GW-RS0186-21	Valid from 31 Mar 2021 to 30 Sep 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	Superseded by GW-RS0190-21
			GW-RS0190-21	Valid from 26 Mar 2021 to 22 Sep 2021
3721	Notification of Construction Work under APCO	Works area of 3721	448657	Receipt acknowledged by EPD on 02 Sep 2019

Contract No.	Description	Location	Permit/ Reference No.	Status
3722	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
	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
	Registration as Chemical Waste Producer	Works area of 3722A	WPN 5218-951-T3863-01	Completion of Registration on 18 Mar 2020
		Works area of 3722B	WPN 5218-951-T3864-01	Completion of Registration on 18 Mar 2020
		Works area of 3722C	WPN 5218-951-T3862-01	Completion of Registration on 18 Mar 2020
		Works area of 3722D	WPN 5218-951-T3865-01	Completion of Registration on 18 Mar 2020
	Bill Account for disposal	Works area of 3722A	A/C 7036752	Approval granted from EPD on 11 Mar 2020
		Works area of 3722B	A/C 7036966	Approval granted from EPD on 6 Apr 2020
		Works area of 3722C	A/C 7036967	Approval granted from EPD on 6 Apr 2020
		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
			GW-RS0153-21	Valid from 15 Mar 2021 to 14 Sep 2021
3723	Notification of Construction Work under APCO	3723A	464440	Receipt acknowledged by EPD on 9 Feb 2021
		3723B	464444	Receipt acknowledged by EPD on 9 Feb 2021
	Registration as Chemical Waste Producer	3723A	WPN 5218-951-T3920-01	Completion of Registration on 9 Feb 2021
		3723B	WPN 5218-951-T3921-01	Completion of Registration on 9 Feb 2021
	Discharge License under WPCO	Works area of 3723A & 3723B	/	Application submitted on 15 March 2021
	Bill Account for disposal	Works area of 3723A	A/C 7039755	Approval granted from EPD on 24 Feb 2021
		Works area of 3723B	A/C 7039754	Approval granted from EPD on 24 Feb 2021
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

Contract No.	Description	Location	Permit/ Reference No.	Status
		Stockpiling area of 3801	435652	Receipt acknowledged by EPD on 16 Jul 2018
			451991	Receipt acknowledged by EPD on 18 Dec 2019
			450940	Receipt acknowledged by EPD on 13 Nov 2019
	Registration as Chemical Waste Producer	Works area of 3801	WPN 5296-951-C1169-53	Completion of Registration on 14 Aug 2018
	Discharge License under WPCO	Works and stockpiling area of 3801	WT00029535-2017	Valid from 24 Nov 2017 to 30 Nov 2022
		Stockpiling area of 3801	WT00037354-2021	Valid from 8 Mar 2021 to 31 Mar 2026
	Bill Account for disposal	Works area of 3801	A/C 7028254	Approval granted from EPD on 3 Jul 2017
	Construction Noise Permit (General Works)	Works area of 3801	GW-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-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
	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-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
			GW-RS0146-21	Valid from 14 Mar 2021 to 10 Sep 2021

Appendix G. 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	0	0	0
From 28 December 2015 to end of the reporting period	34	1	1