Service Contract No. WD/03/2023 Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development - Environmental Team

4th Monthly Environmental Monitoring and Audit (EM&A) Report (February 2025)

Revision: 4

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Independent Environmental Checker for Hung Shui Kiu / Ha Tsuen New Development Area Second Phase Development – Investigation

4th Monthly Environmental Monitoring and Audit (EM&A) Report (February 2025)

14 March 2025

BY EMAIL

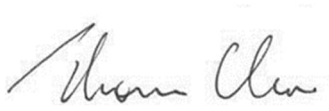
Dear Sir,

We refer to email of 13 March 2025 attaching the 4th Monthly Environmental Monitoring and Audit (EM&A) Report (February 2025) prepared by the Environmental Team (ET) of the captioned.

We would like to inform you that we have no adverse comment on the captioned submission. Therefore, we write to verify the captioned submission in accordance with the requirement stipulated in Section 15.1.1 of the Updated Environmental Monitoring and Audit Manual.

Should you have any queries, please contact the undersigned at 2828 5967.

Yours faithfully,
For and on behalf of the
MOTT MACDONALD HONG KONG LIMITED



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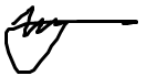
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Executive Summary

A1. This is the 4th Monthly Environment Monitoring and Audit (EM&A) Report for Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development (the Project). This report was prepared by Aurecon Hong Kong Limited (Aurecon) under Service Contract No. WD/03/2023 Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development - Environmental Team (hereinafter called the "Service Contract"). This report documents the findings of EM&A works at Contract No. YL/2023/01 (hereinafter called the "Contract 1") and Contract No. YL/2023/02 (hereinafter called the "Contract 2") under the Project during the reporting period from 1 to 28 February 2025.

A2. The construction phase EM&A programme started on 1 November 2024.

Key Construction Works in the Reporting Period

A3. A summary of construction activities undertaken during the reporting period is presented below:

Contract 1

- Caring Visit;
- Tree Survey;
- Site Appraisal;
- Underground Utility Detection;
- Ground Investigation Works;
- Utilities Laying Works;
- Construction of CLC Footing.

Contract 2

- Tree Felling;
- Ground Investigation;
- Earthworks;
- Piezometer / Standpipe Installation;
- Site Clearance and Tree Felling at part E;
- Preparation of TTA for pipe laying.

Environmental Monitoring and Audit Programme

A4. The monthly EM&A programme was undertaken by the ET in accordance with the Updated EM&A Manual (Apr 2022). A summary of the monitoring and audit activities during the reporting period is presented in **Table A1**.

Table A1 Summary of EM&A activities in the Reporting Period

EM&A Activities	Date
Air Quality Monitoring	1, 3, 6, 8, 12, 14, 18, 20, 24 and 26 February 2025
Noise Monitoring	5, 11, 21 and 27 February 2025
Water Quality Monitoring	1, 3, 5, 8, 10, 12, 14, 17, 20, 22, 24, 26 and 28 February 2025

Weekly Environmental Site Inspection (Contract 1)	7, 14, 21 and 28 February 2025
Weekly Environmental Site Inspection (Contract 2)	7, 14, 21 and 28 February 2025

Breaches of Action and Limit Levels

A5. Summary of the environmental exceedances of the reporting period is tabulated in **Table A2**.

Table A2 Summary of Exceedances in the Reporting Period

Environmental Monitoring	Parameter	No. of Exceedances AL	No. of Exceedances LL	Total No. of Exceedances	No. of Non-project Related Exceedances AL	No. of Non-project Related Exceedances LL	Total No. of Non-project Related Exceedances	No. of Exceedances Related to the Project AL	No. of Exceedances Related to the Project LL	Total No. of Exceedances Related to the Project
Air Quality	1-hour TSP	0	0	0	0	0	0	0	0	0
Noise	$L_{eq(30mins)}$	0	0	0	0	0	0	0	0	0
Water Quality	DO	0	0	0	0	0	0	0	0	0
	Turbidity	0	0	0	0	0	0	0	0	0
	SS	0	0	0	0	0	0	0	0	0
	pH	0	0	0	0	0	0	0	0	0

Air Quality

A6. No Action Level or Limit Level exceedance was recorded for air quality monitoring in the reporting period.

Noise

A7. No Action Level or Limit Level exceedance was recorded for construction noise monitoring in the reporting period.

Water Quality

A8. All water quality monitoring was conducted as scheduled in the reporting period. No Action or Limit Level exceedance was recorded during impact water quality monitoring in the reporting period.

Complaint Log

A9. No environmental complaint was received in the reporting period.

Notification of Summons and Successful Prosecutions

A10. No notification of summons or successful prosecutions was received in the reporting period.

Reporting Changes

A11. There was no reporting change in the reporting period.

Future Key Issues

A12. The major site activities for the next reporting period are summarized below:

Contract 1

- Caring Visit;
- Tree Survey;
- Site Appraisal;
- Underground Utility Detection;
- Ground Investigation Works;
- Realign of Bar Fencing;
- Demolition Works;
- Utilities Laying Works;
- Construction of CLC Footing.

Contract 2

- Tree Felling;
- Ground Investigation Works;
- Earthworks;
- Piezometer / Standpipe Installation;
- Site Clearance and Tree Felling at part E;
- Site Office Setup;
- Pipe laying.

1 Introduction

1.1 Project Background

1.1.1 The development area of HSK/HT NDA is about 441 hectares (ha), and is located at the north-western part of the New Territories, midway between the Tuen Mun and Tin Shui Wai New Towns. The HSK/HT NDA will provide associated engineering infrastructure and supply land for subsequent development of public and private housing, community facilities, commercial and industrial premises, the Green Transit Corridor (comprising the Smart and Green Mass Transit System , footpaths and cycle tracks) and other uses, and for construction of the proposed infrastructure works such as district distributor roads, local roads, revitalisation of existing channels, sewerage (including pumping stations), drainage (including pumping stations), water supply, landscaping, electrical and mechanical (E&M), and associated works.

1.1.2 HSK/HT NDA is being implemented in three phases, viz. First Phase development, Second Phase development and Remaining Phase development. The Civil Engineering and Development Department (CEDD) commences construction works for the Second Phase development of HSK/HT NDA progressively from 2024.

1.1.3 Aurecon was commissioned by CEDD to provide EM&A services for the works contracts in relation to the Project pursuant to the requirements as specified in relevant EP, the Updated EM&A Manual (Apr 2022) and the approved EIA Report for the Project to discharge the duties of the ET for the Project, including the baseline monitoring works for various monitoring parameters (e.g. AQM, CNM, WQM, etc.).

1.1.4 This is the 4th Monthly EM&A Report summarizing the key findings of the construction phase EM&A programme at Contract 1 and Contract 2 from 1 to 28 February 2025 (the reporting period) and is submitted to fulfil the requirements in Condition 3.3 of the EPs (i.e. EP-531/2017, EP-530/2017, EP-529/2017, EP-528/2017 & EP-527/2017) and Section 15.3 of the Updated EM&A Manual (Apr 2022) of the Project.

1.2 Project Organisation

1.2.1 Parties with different levels of involvement in the Project organisation are summarized in **Table 1.1**.

Table 1.1 Parties Involved in Project Organisation

Parties	Organization / Company	
Project Proponent	Civil Engineering and Development Department (CEDD)	
Supervisor / Engineer's Representative (ER)	Ove Arup & Partners Hong Kong Limited	
Contractor	Contract No. YL/2023/01 (Contract 1)	Sang Hing – Kuly Joint Venture (SKJV)
	Contract No. YL/2023/02 (Contract 2)	Chun Wo - Build king - Yee Hop Joint Venture (CWBKYH JV)
Environmental Team (ET)	Aurecon Hong Kong Limited	
Independent Environmental Checker (IEC)	Mott MacDonald Hong Kong Limited	

1.2.2 The key personnel contact names and numbers are summarized in **Appendix 1.2**.

1.3 Construction Works Programme and Construction Works Area

1.3.1 The construction phase EM&A programme commenced on 1 November 2024. The construction works programme, and the construction works area of the Project are shown in **Appendix 1.1** and **Figure 1.1** respectively. A summary of construction activities undertaken at Contract 1 and Contract 2 during this reporting period is presented below, and in **Figure 1.2 and Figure 1.3** respectively:

Contract 1

- Caring Visit;
- Tree Survey;
- Site Appraisal;
- Underground Utility Detection;
- Ground Investigation Works;
- Utilities Laying Works;
- Construction of CLC Footing.

Contract 2

- Tree Felling;
- Ground Investigation;
- Earthworks;
- Piezometer / Standpipe Installation;
- Site Clearance and Tree Felling at part E;
- Preparation of TTA for pipe laying.

1.4 Summary of Environmental Status

1.4.1 A summary of the relevant permits, licences, and/or notifications on environmental protection for the work contracts that are involved in this reporting period is presented in **Table 1.2** and **Table 1.3** respectively.

Table 1.2 Status of Environmental License, Notifications and Permits for Contract 1

Permit / License Name/No.	Valid Period		Status
	From	To	
Environmental Permit			
EP-527/2017	21/02/2017	N/A	Valid
EP-528/2017	21/02/2017	N/A	Valid
EP-529/2017	21/02/2017	N/A	Valid
EP-530/2017	21/02/2017	N/A	Valid

Permit / License Name/No.	Valid Period		Status
	From	To	
Notification pursuant to Air Pollution Control (Construction Dust) Regulation			
N/A	N/A	N/A	Under application
Billing Account for Disposal of Construction Waste			
7051388	24/06/2024	N/A	Valid
Registration of Chemical Waste Producer			
5111-515-S4596-01	05/02/2025	N/A	Valid
Effluent Discharge License under Water Pollution Control Ordinance			
N/A	N/A	N/A	Under application (Part T, Part E4, Part F)
Construction Noise Permit (CNP)			
GW-RN0075-25	03/02/2025	02/04/2025	Valid (Demolition of Existing Gantry at Part T)

Table 1.3 Status of Environmental License, Notifications and Permits for Contract 2

Permit / License Name/No.	Valid Period		Status
	From	To	
Notification pursuant to Air Pollution Control (Construction Dust) Regulation			
Notification that notifiable works are anticipated to commence (Area A) (EPD Ref. number: 10005847)	13/06/2024	N/A	Valid
Notification that notifiable works are anticipated to commence (Area B) (EPD Ref. number: 10006337)	26/06/2024	N/A	Valid
Notification that notifiable works are anticipated to commence (Area C) (EPD Ref. number: 10006331)	26/06/2024	N/A	Valid
Notification that notifiable works are anticipated to commence (Area D) (EPD Ref. number: 10006336)	26/06/2024	N/A	Valid
Billing Account for Disposal of Construction Waste			
7051428	26/06/2024	N/A	Valid
Account for Registration of Chemical Waste Producer			
WPN: 5213519C498001	13/08/2024	N/A	Valid
Effluent Discharge License under Water Pollution Control Ordinance			
N/A	N/A	N/A	Under application (Site Area B)
Construction Noise Permit (CNP)			
N/A	N/A	N/A	N/A

2 Air Quality Monitoring

2.1 Monitoring Requirement

2.1.1 In accordance with the Updated EM&A Manual (Apr 2022), the ET shall carry out impact monitoring during the construction phase of the Project. 1-hour Total Suspended Particulates (TSP) should be conducted at a frequency of at least three times in every six days when the highest dust impact occurs.

2.2 Monitoring Location

2.2.1 According to the Updated EM&A Manual (Apr 2022), the designated locations for impact air quality monitoring in related to the works contracts in the reporting period are listed in **Table 2.1** and their locations are shown in **Figure 2.1**.

Table 2.1 Summary of Impact Air Quality Monitoring Stations in related to the works contracts in the reporting period

Station(s)	EIA ID	Monitoring Location
AM1	A204	Kam Cheong Garden
AM2	A208	Oaklands Court
AM3	A209	Ling Liang Church Primary School
AM4	A310	Tin Ha Road Playground
AM5	A415	Tin Sum Tsuen
AM6	A410	Galore Garden
AM7	A414	Shek Po Tusen
AM8a(1) (2)	A813	Block J, Tin Shing Court
AM10	A802	Kiu Tau Wai
AM11	A703	Sha Chau Lei Tsuen
AM12	A704	Ha Tsuen Shi
AM14	A601	Tseung Kong Wai
AM22	P240	Planned Village Resite at Site 4-20
AM24	P1501	Planned Port Back-up, Storage and Workshop at Site 3-8
AM25a	-	San Wai Sewage Treatment Works

Notes:
(1) AM8a is the alternative noise monitoring stations proposed to replace AM8.
(2) As the Owners' Corporation for Tin Shing Court refused to grant the permission to access to carry out the set-up of monitoring equipment at the proposed location for subsequent impact monitoring period, a new location, which is at a short distance from the original location (25m), has been then identified and submitted through the proposal of the alternative monitoring location for the impact monitoring. Agreement has been obtained from IEC upon proposal of the alternative monitoring location for the impact monitoring at AM8a.

2.2.2 In accordance with the Table A2.4 in Appendix A of the Updated EM&A Manual (Apr 2022), impact air quality monitoring will be carried out at monitoring stations AM22, AM24 and AM25a after the occupation of the planned port back-up, storage and workshop, and the planned village resite.

2.2.3 As confirmed with ER, the planned port back-up, storages and workshops at Site 3-8, Site 3-14 and the planned village resite Site 4-20 are not constructed yet. Thus, the impact air quality monitoring will be carried out at AM22, AM24 and AM25a after the construction and occupation of these planned port back-up, storages and workshops, and the planned village resite. No air quality monitoring of the mentioned stations was carried out in this reporting period.

2.3 Monitoring Parameter and Frequency and Duration

2.3.1 In accordance to the requirements for placement of equipment, as set out in Section 4.7.1 of the Updated EM&A Manual (Apr 2022) of the Project, the monitoring parameter, frequency and duration of impact air quality monitoring are listed in **Table 2.2**.

Table 2.2 Parameters measured in the Impact Air Quality Monitoring

Parameter	Frequency	Duration
1-hour TSP	3 times for every 6 days	Throughout the construction phase

2.3.2 Monitoring location, time and weather conditions and any special phenomena or work underway nearby are recorded during the impact monitoring.

2.4 Monitoring Equipment

2.4.1 Upon approval of the IEC, 1-hour TSP levels can be measured by direct reading method with using handheld dust meter, which is capable of producing comparable results as that by the high-volume sampling method, to indicate short event impacts.

2.4.2 The proposed use of handheld dust meter was submitted to the IEC and agreement was obtained from the IEC in accordance with Section 4.5.5 of the Updated EM&A Manual (Apr 2022).

2.4.3 **Table 2.3** summarizes the equipment used in the air quality monitoring programme. Copies of the calibration certificates of multi-parameter air quality monitoring system are shown in **Appendix 2.1**.

Table 2.3 Air Quality Monitoring Equipment

Equipment	Manufacturer	Model	Quantity	Serial No.
Direct Reading Dust Meter	Sibata	LD-5R	6	467356 467357 467358 467359 467360 467361

2.5 Monitoring Methodology

2.5.1 The 1-hr TSP was sampled by drawing air into the portable dust monitor where particular concentrations were measured instantaneously with an in-built silicon detector sensing light scattered by the particulates in the sampled air. Continuous TSP levels were indicated and logged by a built-in data logger compatible with Windows based program to facilitate data collection, analysis and reporting.

2.5.2 The measuring procedures of the 1-hour dust meter was undertaken in accordance with the Manufacturer's Instruction Manual as follows:

- Placed the 1-hour dust meter at least 1.5m above ground;
- Set POWER to "ON" and make sure that the battery level was not flashed or in low level;
- Pulled the air sampling inlet cover up;
- Pushed the knob at MEASURE position;
- Set time/mode setting to [BG] by pushing the time setting switch. Then, started the background measurement by pushing the start/stop switch once. It took 6 sec. to complete the background measurement;
- Turned knob to SENSI. ADJ position and pressed in;
- Pushed Start/Stop switch once;
- Gently returned knob to the MEASURE position;
- Pushed the time setting switch to change the time setting display to [LOG] at the bottom left of the liquid crystal display;
- Removed the cap and started measurement; and
- Information such as sampling date, time, count value and site condition were recorded during the monitoring period

2.6 Maintenance/Calibration

2.6.1 The following maintenance/calibration was required for the direct dust meters:

2.6.2 Check and calibrate the dust meter by high volume sampler (HVS) to check the validity and accuracy of the results measured by direct reading method. Calibration of dust meter should be carried out every twelve months throughout all stages of the air quality monitoring. The calibration certificates of the monitoring equipment are presented in **Appendix 2.1**.

2.6.3 The correlation coefficient was checked to establish the correlation relationship between the handheld dust meter and HVS. The correlation factor was determined by comparing the results of HVS and handheld dust meter.

2.6.4 Checking is made prior to air quality monitoring commencing to ensure all equipment is in good working condition with necessary power supply. Zero count test were conducted before and after each monitoring event.

2.7 Action and Limit Level for Air Quality Monitoring

2.7.1 The baseline monitoring results formed the basis for determining the air quality criteria for the impact monitoring. The ET shall compare the impact monitoring results with air quality criteria set up for 1-hour TSP. Based on the baseline dust monitoring data and the derivation criteria specified above, the Action/Limit Levels are presented in **Table 2.5**.

Table 2.5 Action and Limit Levels for Air Quality Monitoring

Monitoring Station	Action Level (µg/m3)	Limit Level (µg/m3)
AM1	266	500
AM2	271	
AM3	273	
AM4	268	
AM5	272	
AM6	271	
AM7	282	
AM8a	267	
AM10	271	
AM11	276	
AM12	273	
AM14	280	
AM22	274	
AM24(1)	290	
AM25a(1)	300	

Note:
(1) The Action Level of AM24 an AM25a was determined in the baseline monitoring under the baseline air quality monitoring of HSK/HT NDA Stage 1 Works in December 2021.

2.8 Results and Observations

2.8.1 All air quality monitoring was conducted as scheduled in the reporting period. The air quality monitoring schedule for this reporting period is shown in **Appendix 1.4**.

2.8.2 The air quality monitoring results in related to the works contracts in the reporting period are summarized in **Table 2.6**. No Action or Limit levels exceedance was recorded in the reporting period. Details of the results and graphical presentation are shown in **Appendix 2.2**.

Table 2.6 Summary of Air Quality Monitoring Results in related to the works contracts in the reporting period

Monitoring Station	Averaged Measured Value (μg/m^3)	Minimum Measured Value (μg/m^3)	Maximum Measured Value (μg/m^3)	Action Level (μg/m^3)	Limit Level, (μg/m^3)
AM1	24	7	42	266	500
AM2	28	10	65	271	
AM3	24	5	43	273	
AM4	31	7	74	268	
AM5	28	10	58	272	
AM6	34	11	75	271	
AM7	22	10	31	282	
AM8a	23	11	35	267	
AM10	24	12	37	271	
AM11	25	4	49	276	
AM12	29	4	61	273	
AM14	24	4	45	280	

2.8.3 The major dust source at AM1, AM3, AM6, AM7, AM8a and AM11 included vehicle emission and dust from traffic. At AM2 and AM14, major dust sources included vehicle emission observed nearby. No other sources dust emission was observed at AM4, AM5, AM10, AM12 during air quality monitoring.

2.8.4 Weather condition of the whole baseline monitoring period varied from sunny to rainy. Wind data during the period of baseline monitoring from the Hong Kong Observatory Lau Fau Shan Wind Station (22.46889N, 113.98361E), which is located about 1.25 km from the nearest site boundary of Contract 6. The weather information during the reporting period is summarized in **Appendix 2.3**.

2.9 Event and Action Plan

2.9.1 Should any non-compliance of the criteria occur, action in accordance with the Event and Action Plan in **Appendix 2.4** shall be followed. Investigation of the exceedances of environmental quality performance limits should be conducted, and the ET will immediately notify the IEC and EPD, as appropriate. The notification should be followed up with advice to the IEC and EPD on the results of the investigation, proposed actions and success of the action taken, with any necessary follow-up proposals.

3 Construction Noise Monitoring

3.1 Monitoring Requirements

3.1.1 In accordance with the Updated EM&A Manual (Apr 2022), the ET shall carry out impact monitoring during the construction phase of the Project in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}) to monitor the construction noise arising from the construction activities. The regular monitoring frequency for each monitoring station was on a weekly basis and one set of measurements between 0700 and 1900 hours on normal weekdays shall be conducted.

3.2 Monitoring Locations

3.2.1 According to the Updated EM&A Manual (Apr 2022), the monitoring designated locations for construction noise monitoring in related to the works contracts in the reporting period are listed in **Table 3.1** and shown in **Figure 3.1**.

Table 3.1 Construction Noise Monitoring Stations near in related to the works contracts in the reporting period

Monitoeing Station	EIA ID	Location	Nature of Uses	Type of Measurement
CM1(2)	ETCW02	No. 739, Oaklands Court	Residential	Free-Field
CM2 (2)	ESFW01	No. 332, Chung Uk Tsuen	Residential	Free-Field
CM3 (2)	ESFW02	Village house, Nai Wai	Residential	Free-Field
CM4a (1) (2)		Village Representative Building at Chung Uk Tsuen	Residential	Free-Field
CM10	ETSW11	YLPMSAA Tang Siu Tong Secondary School	Educational Institution	Façade
CM13	ESLUT01	No. 46A San Lee Uk Tsuen	Residential	Façade
CM14 (2)		No. 62, San Lee Uk Tsuen	Residential	Free Field
CM15a (1) (2)		Block 15, Bellevue Court	Residential	Free Field
CM16	E52505	Hung Yan House, Hung Fuk Estate	Residential	Façade
CM18 (2)	ESPT06	No. 201, Shek Po Tsuen	Residential	Free Field
CM20 (2)	ESCL03	No. 45, Sha Chau Lei Tsuen	Residential	Free-Field
CM28 (2)	42001	Planned Residential Development in Site 4-20	Residential	Free-Field
CM29 (2)	42251	Planned Residential Development in Site 4-22	Residential	Free-Field
CM31(2)	52408	Planned Residential Development in Site 5-24	Residential	Free-Field
CM32 (2)	52151	Planned School in Site 5-21	Educational Institution	Free-Field

Notes:

(1) Alternative noise monitoring stations to replace the original noise monitoring stations in accordance with the Proposal of Alternative Monitoring Locations approved by EPD.

(2) For Free Field measurement, +3 dB(A) should be added to the measured results.

3.2.2 As confirmed with ER, the planned residential development at Site 4-20, Site 5-22 and Site 5-24, and the planned school at Site 5-21 are not constructed yet. Thus, the impact noise monitoring will be carried out at monitoring stations CM28, CM29, CM31 and CM32 after the construction and occupation of these planned residential development and the planned school. No noise monitoring of the mentioned stations was carried out in this reporting period.

3.3 Noise Monitoring Parameter, Frequency and Duration

3.3.1 Construction noise level was measured by the ET and measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). $L_{eq(30mins)}$ used as the monitoring parameter for the construction noise monitoring.

3.3.2 As supplementary information for data auditing, statistical results such as L_{10} and L_{90} were also obtained for reference.

3.3.3 **Table 3.2** summarizes the monitoring parameters, duration, and frequency of construction noise monitoring.

Table 3.2 Construction Noise Monitoring Parameter, Frequency and Duration

Monitoring Station	Parameter	Frequency and Duration
CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20	$L_{eq(30mins)}$, L_{10} and L_{90}	Once every week throughout the construction phase

3.4 Monitoring Equipment, Methodology and QA / QC Procedure

3.4.1 As referred to the technical memorandum issued under the Noise Control Ordinance (NCO), sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications were used for carrying out the construction noise monitoring.

3.4.2 Noise measurements were not made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed was checked with a portable wind speed meter capable of measuring the wind speed in m/s.

3.4.3 Sufficient numbers of noise measuring equipment and associated instrumentation were prepared by the ET. All the equipment and associated instrumentation were clearly labelled.

3.4.4 The monitoring procedures are as follows:

- For façade measurement, the monitoring station was set at a point 1 m from the exterior of the sensitive receivers building façade and set at a position 1.2 m above the ground. For free-field measurement, the monitoring station was set at a position 1.2 m above the ground.
- The battery condition was checked to ensure good functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the interval were set as follows:

- Frequency weighting: A
- Time weighting: Fast
- Interval: 30 minutes ($L_{eq(30mins)}$)

- Prior to and after each noise measurement, the meter was calibrated using an acoustic calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement is more than 1.0 dB, the measurement was considered invalid and repeat of noise measurement will be required after re-calibration or repair of the equipment.
- At the end of the monitoring period, the values of L_{eq}, L_{10} and L_{90} were recorded. In addition, noise sources were recorded on a standard record sheet.

3.4.5 **Table 3.3** summarizes the noise monitoring equipment used during the construction noise monitoring. Calibration certificates for the impact noise monitoring equipment are attached in **Appendix 3.1**.

Table 3.3 Construction Noise Monitoring Equipment

Equipment	Manufacturer	Model	No. of Equipment	Serial No.
Sound Level Meter	SVANTEK	971	1	C119577
Sound Level Meter	Rion	NL-53	1	01130785
Acoustic Calibrator	Rion	NC-75	1	34724245

3.5 Maintenance and Calibration

3.5.1 Maintenance and calibration procedures are as follows:

- The microphone head of the sound level meter and calibrator were regularly cleaned with a soft cloth; and
- The sound level meter and acoustic calibrator were calibrated annually; and
- The accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency immediately prior to and following each noise measurement. Measurements were accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0 dB.

3.6 Action and Limit Levels

3.6.1 The Action and Limit levels were established in accordance with the Updated EM&A Manual (Apr 2022). **Table 3.4** presents the Action and Limit Levels for construction noise. Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan presented in **Appendix 3.3** shall be carried out.

Table 3.4 Action and Limit Levels for Construction Noise Monitoring

Time Period	Action	Limit Level
07:00 – 19:00 on normal weekdays	When one or more documented complaints are received	75 dB(A)(1)

Notes:
(1) Between 07:00 and 19:00, construction noise limit for school during normal term time is 70 dB(A) and 65 dB(A) during examination period.

3.7 Results and Observations

3.7.1 All air quality monitoring was conducted as scheduled in the reporting period. The air quality monitoring schedule for this reporting period is shown in **Appendix 1.4**.

3.7.2 No Action or Limit levels exceedance was recorded in the reporting period. Details of the results and graphical presentation are shown in **Appendix 3.2**. The construction noise monitoring results are summarized in **Table 3.5**.

Table 3.5 Summary of Construction Noise Monitoring Results in related to the works contracts in the reporting period

Date	Measured Noise Level: $L_{eq(30min)}$, dB(A)	Measured Noise Level with façade correction: $L_{eq(30min)}$, dB(A) [1]	Baseline Level, dB(A)	Construction Noise Level: $L_{eq(30min)}$, dB(A) [3]
CM1 [1]				
05/02/2025	55.2	58.2	58.7	58.2 measured level ≤ baseline level
11/02/2025	53.9	56.9	58.7	56.9 measured level ≤ baseline level
21/02/2025	54.0	57.0	58.7	57.0 measured level ≤ baseline level
27/02/2025	57.9	60.9	58.7	56.8
CM2 [1]				
05/02/2025	70.4	73.4	64.2	72.8
11/02/2025	70.3	73.3	64.2	72.7
21/02/2025	70.3	73.3	64.2	72.7
27/02/2025	71.2	74.2	64.2	73.8
CM3 [1]				
05/02/2025	63.7	66.7	71.5	66.7 measured level ≤ baseline level
11/02/2025	64.6	67.6	71.5	67.6 measured level ≤ baseline level
21/02/2025	64.4	67.4	71.5	67.4 measured level ≤ baseline level
27/02/2025	67.5	70.5	71.5	70.5 measured level ≤ baseline level
CM4a [1]				
05/02/2025	63.7	66.7	75.0	66.7 measured level ≤ baseline level
11/02/2025	63.9	66.9	75.0	66.9 measured level ≤ baseline level
21/02/2025	67.2	70.2	75.0	70.2 measured level ≤ baseline level
27/02/2025	63.1	66.1	75.0	66.1 measured level ≤ baseline level
CM10 [2]				
05/02/2025	57.4	N/A	60.9	57.4 measured level ≤ baseline level
11/02/2025	60.5	N/A	60.9	60.5 measured level ≤ baseline level
21/02/2025	57.1	N/A	60.9	57.1 measured level ≤ baseline level
27/02/2025	56.8	N/A	60.9	56.8 measured level ≤ baseline level

Date	Measured Noise Level: $L_{eq(30min)}$, dB(A)	Measured Noise Level with façade correction: $L_{eq(30min)}$, dB(A) (1)	Baseline Level, dB(A)	Construction Noise Level: $L_{eq(30min)}$, dB(A) (3)
CM13				
05/02/2025	51.2	N/A	54.4	51.2 measured level ≤ baseline level
11/02/2025	53.8	N/A	54.4	53.8 measured level ≤ baseline level
21/02/2025	50.7	N/A	54.4	50.7 measured level ≤ baseline level
27/02/2025	51.4	N/A	54.4	51.4 measured level ≤ baseline level
CM14 (1)				
05/02/2025	55.4	58.4	47.4	58.0
11/02/2025	58.7	61.7	47.4	61.6
21/02/2025	56.6	59.6	47.4	59.3
27/02/2025	55.5	58.5	47.4	58.1
CM15a (1)				
05/02/2025	68.0	71.0	64.7	69.9
11/02/2025	68.2	71.2	64.7	70.1
21/02/2025	67.7	70.7	64.7	69.4
27/02/2025	68.9	71.9	64.7	70.9
CM16				
05/02/2025	59.3	N/A	71.9	59.3 measured level ≤ baseline level
11/02/2025	57.9	N/A	71.9	57.9 measured level ≤ baseline level
21/02/2025	61.1	N/A	71.9	61.1 measured level ≤ baseline level
27/02/2025	61.7	N/A	71.9	61.7 measured level ≤ baseline level
CM18 (1)				
05/02/2025	62.5	65.5	56.6	64.9
11/02/2025	65.2	68.2	56.6	67.8
21/02/2025	64.2	67.2	56.6	66.8
27/02/2025	64.0	67.0	56.6	66.6
CM20 (1)				
05/02/2025	53.7	56.7	57.8	56.7 measured level ≤ baseline level
11/02/2025	56.0	59.0	57.8	52.8
21/02/2025	49.1	52.1	57.8	52.1 measured level ≤ baseline level
27/02/2025	55.3	58.3	57.8	48.2

Note:
(1) For Free Field measurement, +3 dB(A) was added to the measured results.
(2) Between 07:00 and 19:00, construction noise limit for school during normal term time is 70 dB(A) and 65 dB(A) during examination period.
(3) The measured noise level was corrected with the corresponding baseline noise level erasing any non-project related noise from the background (e.g. traffic noise, etc.) recorded during the monitoring periods.

3.7.3 During the construction noise monitoring period, road traffic noise may potentially affect the results obtained from CM1, CM2, CM3, CM4a, CM10, CM13 CM14, CM15a CM16, CM18 and CM20.

3.8 Event and Action Plan

3.8.1 Should non-compliance of the noise monitoring criteria occur, actions in accordance with the Event and Action Plan in **Appendix 3.3** shall be carried out.

4 Water Quality

4.1 Monitoring Requirement

4.1.1 In accordance with the Updated EM&A Manual (Apr 2022), impact water quality monitoring should be carried out three days per week at all designated monitoring stations during the construction period. The interval between two sets of monitoring should not be less than 36 hours.

4.1.2 Replicate *in-situ* measurements of dissolved oxygen (DO), temperature, turbidity, pH, and suspended solids (SS) for each independent sampling event shall be collected to ensure a robust statistically interpretable database.

4.2 Monitoring Location

4.2.1 Impact water quality monitoring in related to the works contracts in the reporting period was conducted at 12 monitoring stations which is summarized in **Table 4.1**. The location of water quality monitoring stations is shown in **Figure 4.1**.

Table 4.1 Summary of Impact Water Quality Monitoring Stations in related to the works contracts in the reporting period

Fresh Water System	Monitoring Station ID	Coordinates (HK Grid)		Description (1)
		Easting	Northing	
TSW Main Channel and its tributaries	U2	816240	834009	U
	U5a (2)	816212	832138	U
	U6a (2)	817666	832421	U
	TS1	816815	832297	G
	TS2a (2)	817278	833493	G
	TSR1a (2)	817786	834125	G
	HT	816866	834314	G
	LUTa (2)	817547	834717	G
	D2a (2)	817483	835855	I
Tuen Mun River	D3	816437	831500	I
Upstream / Tributaries of Shan Pui River (3)	D5a (2)	819054	832288	I
	D6a (2)	818934	832032	I

Notes:
(1) G: Gradient Station; I: Impact Station; U: Upstream Station.
(2) U5a, U6a, TS2a, TSR1a, LUTa, D2a, D5a and D6a are the alternative water quality monitoring stations to replace U5, U6, TS2, TSR1, LUT, D2, D5 and D6, respectively, in accordance with the agreed Proposal of Alternative Monitoring Locations.
(3) The original monitoring station (i.e. U7) had been cancelled owing to the location was on a steep slope within densely vegetated area in which no water flowing through in wet season in accordance with the Proposal of Alternative Monitoring Locations.

4.3 Monitoring Parameter and Frequency

4.3.1 The monitoring parameters, frequency and duration of impact water quality monitoring are listed in **Table 4.2**.

Table 4.2 Parameters measured in the Impact Water Quality Monitoring

Parameter	Frequency	Duration
Dissolved oxygen (DO), temperature, turbidity, pH, stream water depth and suspended solids (SS)	3 days in a week	Throughout the construction phase

4.3.2 Monitoring location and position, time, sampling depth, weather conditions and any special phenomena or work underway nearby are recorded during the impact monitoring.

4.4 Sampling Depths & Replication

4.4.1 During impact water quality monitoring, each station was sampled. Due to a shallow water depth (less than 3 m) with low flow rates in rivers, all the monitoring would be located at mid-depth level.

4.4.2 Duplicate water samples were collected at each sampling depth for laboratory measurement of SS. Samples were stored in high density polythene bottles, packed in ice (cooled to 4 °C without being frozen), and delivered to the laboratory on the same day of collection for analysis.

4.5 Monitoring Equipment

4.5.1 The measurement of DO, temperature, turbidity, pH and stream water depth were undertaken *in-situ*. *In-situ* monitoring instruments in compliance with the specifications listed under Section 6.8 of the Updated EM&A Manual (Apr 2022) were adopted to undertake the water quality monitoring for the Project. Water quality monitoring equipment with the following specifications shall be supplied and maintained by the ET.

<u>Dissolved Oxygen and Temperature Measuring Equipment</u>

4.5.2 The instrument for measuring dissolved oxygen and temperature should be portable and weatherproof complete with cable, sensor, and use DC power source. The equipment was capable of measuring:

- A dissolved oxygen level in the range of 0 – 50 mg/L and 0 – 500% saturation; and
- The temperature within -5 – 50 °C.

4.5.3 It should have a membrane electrode with automatic temperature compensation connected with a cable. Sufficient stocks of spare electrodes and cables should be available for replacement where necessary (e.g. YSI ProDSS (multi-parameters) or an approved similar instrument).

pH

4.5.4 pH meter (e.g. YSI ProDSS (multi-parameters) or equivalent) should be used to measure pH value of water samples *in-situ*. It should be readable in a range of 0 to 14. Standard buffer solutions of at least pH 7 to pH 10 shall be used for calibration of the instrument before and after use.

Turbidity Measurement Equipment

4.5.5 The instrument should be a portable, weatherproof turbidity-measuring instrument with a comprehensive operation manual. The equipment should use a DC power source. It should have a photoelectric sensor capable of measuring turbidity between 0 – 4000 NTU and be equipped with a cable (e.g. YSI ProDSS (multi-parameters) or an approved similar instrument).

Suspended Solids

4.5.6 A water sampler should comprise a transparent PVC cylinder, with a capacity of not less than 2 litres, and should be effectively sealed with latex cups at both ends. The sampler should have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth (e.g. Wildco 2.2L Water Sampler or an approved similar instrument).

4.5.7 Water samples for suspended solids measurement shall be collected in high density polythene bottles, packed in ice (chilled to 4 °C without being frozen), and delivered to the laboratory as soon as possible after collection.

Water Depth Detector

4.5.8 A portable, battery-operated echo sounder should be used for determining water depth at each designated monitoring station.

4.5.9 For shallow water (less than 1 m deep), a portable water depth ruler in a range 0 – 7m should be used to measure water depth.

Monitoring Position Equipment

4.5.10 A hand-held or boat-fixed digital Global Positioning System (GPS) or other equivalent instrument of similar accuracy shall be provided and used during water quality monitoring to ensure the water sampling locations are correct during water quality monitoring work.

Water Sampling Equipment

4.5.11 A transparent PVC or glass cylinder, which has a volume of not less than 2 litres and can be sealed at both ends with cups, should be equipped with a positive latching system. During the water sampling, a messenger is released to trigger the closure of the water sampler at suitable water depth.

4.5.12 For sampling location with shallow water depth, plastic bucket would be used instead.

Calibration of *In-situ* Instruments

4.5.13 All *in-situ* monitoring instruments should be checked, calibrated and certified by a laboratory accredited under HOKLAS or another international accreditation scheme before use, and subsequently re-calibrated at 3-monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter should be carried out before measurement at each monitoring location.

Back-up Equipment

4.5.14 Sufficient stocks of spare parts should be maintained for replacements when necessary. Backup monitoring equipment shall also be made available so that monitoring can proceed uninterruptedly even when some equipment is under maintenance, calibration, etc.

4.5.15 **Table 4.3** summarizes the equipment used in the water quality monitoring programme. Copies of the calibration certificates of multi-parameter water quality monitoring system are shown in **Appendix 4.1**.

Table 4.3 Water Quality Monitoring Equipment

Equipment	Model	Quantity	Serial No.	Parameter	Range	Accuracy
Water Sampler	Wildco 2.2L Water Sampler with messenger or plastic bucket (used in shallow water depth)	1	N/A	N/A	N/A	N/A
Multi-functional Water Quality Meter	YSI ProDSS (multi-parameters)	1	22D100436	Dissolved Oxygen (DO)	0 to 500%	• 0 to 200%: ±1% of reading • 200 to 500%: ±8% of reading
					0 to 50 mg/L	• 0 to 20 mg/L: ±0.1 mg/L or 1% of reading, whichever is greater • 20 to 50 mg/L: ±8% of reading
				Temperature	-5 to 50 °C	±0.2 °C

Equipment	Model	Quantity	Serial No.	Parameter	Range	Accuracy
				pH	0 to 14 pH units	±0.2 pH units
				Turbidity	0 to 4000 NTU	• 0 to 999 NTU: 0.3 NTU or ±2% of reading, whichever is greater • 1000 to 4000 NTU: ±5% of reading
Water Depth Ruler	鼎峯 0708	1	NA*	Water depth	0 – 7 m (Used for water depth less than 1 m)	±0.01 m
Positioning Equipment	Garmin (GPSmap 78s)	1	1WL223754	Positioning	N/A	GPS: ±1m

4.6 Monitoring Methodology

4.6.1 Water samples were collected at an appropriate water depth using a sealable transparent PVC or glass cylinder. For locations with shallow water depth, a plastic bucket was used as an alternative. Usually, water was then transferred to the sample bottles until they were filled to the top with no remaining air space before the lid was securely screwed on.

4.6.2 Multi-functional water quality meters were checked, calibrated and certified by Quality Pro Test-Consult Limited (HOKLAS reg no. 259) before use, and would be subsequently re-calibrated at 3-monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter should be carried out before measurement at each monitoring location. Sufficient stocks of spare parts should be maintained for replacements when necessary. Backup monitoring equipment should also be made available so that monitoring can proceed uninterrupted even when some equipment is under maintenance, calibration, etc.

4.6.3 Water samples for suspended solids measurement were collected in high density polythene bottles, packed in ice (chilled to 4 °C being frozen), and delivered to the laboratory as soon as possible after collection.

4.6.4 Water sampling equipment deployed during the monitoring programme was decontaminated by manual washing and rinsed with clean distilled water after each sampling location.

4.6.5 All sampling bottles were labelled with the sample ID (including the indication of sampling station), laboratory number and sampling date. Water samples were dispatched to the testing laboratory for analysis as soon as possible after the sampling. All samples were stored in a cool box and kept at less than 4 °C but without frozen. All water samples were handled under chain of custody protocols and relinquished to the laboratory representatives at locations specified by the laboratory. The laboratory determination works started within 24 hours after collection of water samples.

Laboratory Analytical Methods

4.6.6 Analysis of SS was carried out by a HOKLAS accredited laboratory (Acumen Laboratory and Testing Limited). At least two replicate samples from each independent sampling event were collected for the SS measurement. Sufficient water samples (about 3,000 mL) were collected at the monitoring stations for carrying out the laboratory SS determination. The analytical method for suspended solids is presented in **Table 4.4**.

Table 4.4 Method for Laboratory Analysis for Water Samples

Parameters	Analytical Method	Detection Limit
Suspended Solid (SS)	APHA 2540D (1)	1 mg/L

Note:
(1) APHA American Public Health Association Standard Methods for the Examination of Water and Wastewater.

4.7 QA/QC Requirements

Decontamination Procedures

4.7.1 Water sampling equipment used during the course of the monitoring process was decontaminated by manual washing and rinsed with distilled water after each sampling event. All of the disposable components/ accessories were discarded after sampling.

Sampling Management and Supervision

4.7.2 All sampling bottles were labelled with the sample ID numbers (including the sampling station), and sampling date. Water samples were dispatched to the testing laboratory for analysis as soon as possible. All the collected samples were stored in a cool box to keep the temperature less than 4 as possible after the sampling. All samples were stored in a cool box and kept at less than 4 °C but without frozen. All water samples were handled under chain of custody protocols and relinquished to the laboratory representatives at locations specified by the laboratory.

Quality Control Measures for Sample Testing

4.7.3 Quality control of laboratory analysis of water samples was performed by Acumen Laboratory and Testing Limited for every batch of 20 samples:

- A minimum of 1 laboratory method blank was analyzed;
- A minimum of 1 sample duplicate was analyzed; and
- A minimum of 1 sample matrix spike was analyzed.

4.8 Action and Limit Level for Water Quality Monitoring

4.8.1 The criteria of action and limit levels for water quality monitoring are defined in **Table 4.5**.

Table 4.5 Action and Limit Levels for Water Quality

Parameters	Action Level	Limit Level
DO in mg/L	< 5%-ile of baseline data	< 4 mg/L or < 1%-ile of baseline data
SS in mg/L	> 95%-ile of baseline data	> 99%-ile of baseline data
Turbidity in NTU	> 95%-ile of baseline data	> 99%-ile of baseline data
pH	Beyond the range 6.6 to 8.4	Beyond the range of 6.5 to 8.5

Notes:
(1) For DO, non-compliance of the water quality limit occurs when monitoring result is lower than the limit.
(2) For SS and turbidity, non-compliance of the water quality limit occurs when monitoring result is higher than the limit.
(3) All the figures given in the table are used for reference only and the EPD may amend the figures whenever it is considered necessary.

4.8.2 Based on the criteria listed in **Table 4.5**, the action and limit levels for water quality are determined in **Table 4.6**.

Table 4.6 Action and Limit Levels of Water Quality

Fresh Water System	Monitoring Station ID	Parameters	Action	Limit
TSW Main Channel and its tributaries	D2a	DO in mg/L	5.4	4 (1)
		SS in mg/L	14.0	15.6
		Turbidity in NTU	11.6	11.7
		pH	Less than 6.6 or greater than 8.4	Less than 6.5 or greater than 8.5
Tuen Mun River	D3	DO in mg/L	4.9	4 (2)
		SS in mg/L	59.4	67.4
		Turbidity in NTU	10.8	11.1
		pH	Less than 6.6 or greater than 8.4	Less than 6.5 or greater than 8.5
Upstream / Tributaries of Shan Pui River (4)	D5a	DO in mg/L	5.2	4 (3)
		SS in mg/L	27.5	264.3
		Turbidity in NTU	19.3	19.4
		pH	Less than 6.6 or greater than 8.4	Less than 6.5 or greater than 8.5
	D6a	DO in mg/L	6.9	4 (4)
		SS in mg/L	16.3	18.3
		Turbidity in NTU	14.8	14.9
		pH	Less than 6.6 or greater than 8.4	Less than 6.5 or greater than 8.5

Notes:
(1) The 1%-ile of baseline DO data at D2a is 5.4 mg/L, which is higher than 4 mg/L. Thus, DO concentration of 4 mg/L, which is in line with the Water Quality Objectives, is adopted as the limit level.
(2) The 1%-ile of baseline DO data at D3 is 4.8 mg/L, which is higher than 4 mg/L. Thus, DO concentration of 4 mg/L, which is in line with the Water Quality Objectives, is adopted as the limit level.
(3) The 1%-ile of baseline DO data at D5a is 5.1 mg/L, which is higher than 4 mg/L. Thus, DO concentration of 4 mg/L, which is in line with the Water Quality Objectives, is adopted as the limit level.
(4) The 1%-ile of baseline DO data at D6a is 6.9 mg/L, which is higher than 4 mg/L. Thus, DO concentration of 4 mg/L, which is in line with the Water Quality Objectives, is adopted as the limit level.

4.9 Results and Observations

4.9.1 All water quality monitoring was conducted as scheduled in the reporting period. The water quality monitoring schedule for this reporting period is shown in **Appendix 1.4**. The monitoring results and graphical presentation of water quality monitoring at the monitoring stations are shown in **Appendix 4.2**.

4.9.2 All water quality monitoring was conducted as scheduled in the reporting period. No Action or Limit Level exceedance was recorded during impact water quality monitoring in the reporting period. Summary of exceedance records are shown in **Table 4.7**.

Table 4.7 Summary of Exceedance Records of Water Quality Monitoring in related to the works contracts in the reporting period

Parameter	No. of exceedances		Total No. exceedances	No. of non-project related exceedances		Total No. of non-project related exceedances	No. of exceedance related to the Project		Total No. of exceedance related to the Project
	AL	LL		AL	LL		AL	LL	
Dissolved Oxygen	0	0	0	0	0	0	0	0	0
Turbidity	0	0	0	0	0	0	0	0	0
Suspended Solids	0	0	0	0	0	0	0	0	0
pH	0	0	0	0	0	0	0	0	0

4.10 Event and Action Plan

4.10.1 Should any non-compliance of the criteria occur, action in accordance with the Event and Action Plan in **Appendix 4.4** shall be followed. Investigation of the exceedances of environmental quality performance limits should be conducted, and the ET will immediately notify the IEC and EPD, as appropriate. The notification should be followed up with advice to the IEC and EPD on the results of the investigation, proposed actions and success of the action taken, with any necessary follow-up proposals.

5 Waste Management

5.1.1 Waste generated from the Project include inert construction and demolition (C&D) materials and non-inert C&D wastes in the reporting period. The summarized amount of waste generated by the construction works in related to the works contracts in the reporting period is shown in **Table 5.1** respectively. The cumulative waste flow table of the Project was presented in in **Appendix 5.1**.

Table 5.1 Summary of Waste Generated by the Construction Works in related to the Works Contracts in the Reporting Period

Month	Total Quantity Generated	Actual Quantalities of Inert C&D Materials Generated Monthly					Actual Quantities of C&D Wastes Generated Monthly				
		Hard Rock and Lage Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Carboard Packing	Plastics	Chemical Waste	Others e.g., general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
December 2024	11.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.65
January 2025 (1)	0.48	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.04
February 2025	1.51	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.01

Notes:
(1) As the amount of Inert C&D Materials that were reused in other Projects by Contract 2 in January 2025 have been updated, the total quantity of waste generated by Contract 1 and Contract 2 in January 2025 have been updated accordingly.

5.1.2 Sorting of construction and demolition (C&D) materials was carried out on site. Sufficient numbers of receptacles were provided for general refuse collection and sorting. Excavated inert C&D materials were reused to minimize the disposal of C&D waste to public fill.

5.1.3 The Contractor is advised to minimize the wastes generated through recycling or reusing. All applicable mitigation measures stipulated in the Updated EM&A Manual (Apr 2022) and waste management plans will be fully implemented.

6 Ecology

6.1 Audit Requirements

6.1.1 With reference to the approved EIA Report, all sites of conservation importance are either located outside the proposed development area or retained in situ under the "Green Belt" ("GB") zoning, except a small strip of "CA" comprising of 0.1 ha would be affected under the construction of slip road under DP12.Mitigation measures recommended in the EIA Report as the audit requirements including, preservation of existing bat species, installation of decorative screen hoarding and management of construction activities and facilities are summarized in **Appendix 1.3**.

6.2 Results and Observations

6.2.1 As the reporting period does not fall in the breeding season (i.e. between March and August) of the ardeids, no site inspection on ecological impact was carried out at Sites 3-32, 3-33, 3-37, 3-39 and 3-40.

6.2.2 During the reporting period, bat roost survey for precautionary check were carried out for the works contracts. In the reporting period, bat roost survey for Contract 2 was carried out on 5, 17, 24 and 28 February 2025. The details of the bat roost survey at Contract 2 during the reporting period are summarized in **Table 6.1**.

Table 6.1 Schedule for Bat Roost Survey at Contract 2 during the Reporting Period

Survey Date	Findings observed during the survey
5-Feb-25	No bat roost was identified.
17-Feb-25	No bat roost was identified.
24-Feb-25	No bat roost was identified.
28-Feb-25	No bat roost was identified.

6.2.3 The schedule of the upcoming bat roost survey at Contract 2 in the next reporting period are summarized in **Table 6.2**.

Table 6.2 Upcoming Schedule for Bat Roost Survey at Contract 2 in the Next Reporting Period

	Survey Date (1)
1st Survey	7-Mar-25
2nd Survey	21-Mar-25

Notes:
(1) The schedule may be updated depends on tell-felling progress or adverse weather condition.

7 Landscape and Visual

7.1 Audit Requirements

7.1.1 According to the Updated EM&A Manual (Apr 2022), site audits should be undertaken at least once every two weeks during the construction period, by a Registered Landscape Architect (RLA). Particularly, to check that the proposed landscape and visual mitigation measures are properly implemented and maintained as per their intended objectives. Mitigation measures recommended in the EIA Report as the audit requirements including, preservation of existing vegetation, transplanting of affected trees, compensatory tree planting, control of night-time lighting glare, erection of decorative screen hoarding and management of construction activities and facilities are summarized in **Appendix 1.3**.

7.2 Results and Observations

7.2.1 Bi-weekly landscape and visual site audits at Contract 1 were carried out by a Registered Landscape Architect (RLA) on 14 and 28 February 2025. Bi-weekly landscape and visual site audits at Contract 2 were carried out by a Registered Landscape Architect (RLA) on 14 and 28 February 2025. The Contractor was recommended to provide regular maintenance check for trees, as tree defects were observed for Trees T301, T742 and T744 at Contract 2 on 28 February 2025.

7.3 Event and Action Plan

7.3.1 Should any non-compliance of the criteria occur, action in accordance with the Event and Action Plan in **Appendix 7.1** shall be followed.

8 Environmental Site Inspection and Audit

8.1 Implementation Status of Environmental Mitigation Measures

8.1.1 Site inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures under the Contract. In the reporting period, site inspections at Contract 1 were carried out on 7, 14, 21 and 28 February 2025. Site inspections at Contract 2 were carried out on 7, 14, 21 and 28 February 2025.

8.1.2 Environmental deficiencies were observed during weekly site inspection. Key observations during the site inspections at Contract 1 and during the reporting period are summarized in **Table 8.1**.

Table 8.1 Site Observations at Contract 1 during the reporting period

Date	Kay Observations/ Reminders	Follow-up Action
7 February 2025	Reminder: 1. The NRMM label should be properly displayed on PME.	Nil
14 February 2025	Observation: 1. Environmenatl permits and liscenses should be displayed at site entrance. 2. Breaker head should be placed on impervious sheeting to prevent oil leakage.	Rectified Measure(s) for Observation: 1. Environmental permits and licenses had been displayed at site entrance. 2. Breaker head had been placed on impervious sheeting.
21 February 2025	Reminder: 1. NRMM label should be replaced at Part T. 2. The Contractor was reminded to pay more attention on surface runoff. 3. Dusty materials should be properly covered when not in use at Part H. Observation: 1. Valid CNP should be provided at site entrance at Part T. 2. Chemical containers should be removed or provided with proper drip tray at Part H.	Rectified Measure(s) for Observation: 1. CNP had been provided at the site entrance at Part T. 2. Chemical containers had been removed.
28 February 2025	Reminder: 1. Decoloured NRMM label should be replaced at Part T.	Nil

8.1.3 Environmental deficiencies were observed during weekly site inspection. Key observations during the site inspections at Contract 2 and during the reporting period are summarized in **Table 8.2**.

Table 8.2 Site Observations at Contract 2 during the reporting period

Date	Kay Observations/ Reminders	Follow-up Action
7 February 2025	No major environmental deficiency was observed during the site inspection.	Nil
14 February 2025	No major environmental deficiency was observed during the site inspection.	Nil
21 February 2025	No major environmental deficiency was observed during the site inspection.	Nil
28 February 2025	Reminder: 1. The contractor was reminded to review the condition of the retained trees.	Nil

8.1.4 According to the EIA Study Report, Environmental Permit, contract documents and Updated EM&A Manual (Apr 2022), the mitigation measures detailed in the documents should be implemented as much as practical during the reporting period. An updated Implementation Status of Environmental Mitigation Measures (EMIS) is provided in **Appendix 1.3**.

9 Summary of Monitoring Exceedance, Complaints, Notification of Summons and Prosecutions

9.1 Summary of Exceedance

9.1.1 No Action Level or Limit Level exceedance was recorded for air quality monitoring in the reporting period.

9.1.2 No Action Level or Limit Level exceedance was recorded for construction noise monitoring in the reporting period.

9.1.3 All water quality monitoring was conducted as scheduled in the reporting period. No Action or Limit Level exceedance was recorded during impact water quality monitoring in the reporting period.

9.2 Summary of Environmental Non-Compliance

9.2.1 No environmental non-compliance was recorded in the reporting period.

9.3 Summary of Environmental Complaint

9.3.1 No environmental complaint was received in the reporting period. The Cumulative Complaint Log is presented in **Appendix 9.1**.

9.4 Summary of Environmental Summon and Successful Prosecution

9.4.1 There was no successful environmental prosecution or notification of summons received since the Project commencement. The Cumulative Log for environmental summon and successful prosecution is presented in **Appendix 9.1**.

10 Future Key Issues

10.1 Works and Potential Environmental Issues in the next Reporting Period

10.1.1 The Impact Monitoring Schedule for the Project for the next reporting period is presented in **Appendix 10.1**.

10.1.2 Works to be undertaken in the next reporting period are summarized below, and in **Figure 1.2 and Figure 1.3** respectively:

Contract 1

- Caring Visit;
- Tree Survey;
- Site Appraisal;
- Underground Utility Detection;
- Ground Investigation Works;
- Realign of Bar Fencing;
- Demolition Works;
- Utilities Laying Works;
- Construction of CLC Footing.

Contract 2

- Tree Felling;
- Ground Investigation Works;
- Earthworks;
- Piezometer / Standpipe Installation;
- Site Clearance and Tree Felling at part E;
- Site Office Setup;
- Pipe laying.

10.1.3 Potential environmental impacts arising from the above construction activities are mainly associated with construction noise impact, water quality impact, ecological impact, waste management, and landscape and visual.

10.2 Recommendation

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

Dust

- Regular watering to reduce dust emissions from exposed site surface;
- Stockpile of dusty materials shall be covered entirely by impervious sheeting;
- Provide vehicles washing facilities at all site exits to wash away any dusty materials from vehicle body;
- NRMM Labels should be displayed on the applicable equipment on site by the Contractor;
- Provision of water sprinklers along the haul road for dust suppression.

Noise

- Only well-maintained plant should be operated on-site, and plant should be maintained regularly during the construction programme; and
- Quality Powered Mechanical Equipment (QPME) should be adopted as far as possible.

Water Quality

- No effluent discharge would be allowed before acquired the effluent discharge license;
- Surface run-off from construction sites should be discharged into dedicated discharge point via adequately designed sand/ silt removal facilities;
- Channels/ earth bunds/ sandbags barriers should be provided on site to properly direct stormwater to silt removal facilities;
- Silt removal facilities, channels and manholes should be maintained, and the deposited silt and grit should be removed regularly;
- Open stockpiles of construction materials on sites should be covered with tarpaulin or similar fabric during rainstorms; and
- Perimeter channels should be provided on site boundaries where necessary to intercept stormwater run-off from outside the site so that it will not wash across the site.

Waste Management

- Provision of sufficient waste disposal points and regular collection of waste;
- Regular cleaning and maintenance programme for drainage system; and
- Chemical containers shall be stored with drip tray underneath.

Landscape and Visual

- Construction activities shall be carefully designed to minimize impact on existing retained trees

10.2.2 The tentative schedule of regular air quality, construction noise and water quality monitoring in the next reporting period is presented in **Appendix 10.1**. The regular impact air quality, noise and water quality monitoring will be conducted at the same monitoring locations in the next reporting period.

11 Conclusions

11.1 Conclusion

11.1.1 This 4th Monthly EM&A Report presents the EM&A works at Contract 1 and Contract 2 under the Project during the reporting period from 1 to 28 February 2025 in accordance with the Updated EM&A Manual (Apr 2022).

11.1.2 No Action Level or Limit Level exceedance was recorded for air quality monitoring in the reporting period.

11.1.3 All water quality monitoring was conducted as scheduled in the reporting period. No Action or Limit Level exceedance was recorded during impact water quality monitoring in the reporting period.

11.1.4 Environmental site inspections were conducted at Contract 1 on 7, 14, 21 and 28 February 2025. Environmental site inspections were conducted at Contract 2 out on 7, 14, 21 and 28 February 2025.

11.1.5 No environmental complaint was received in the reporting period.

11.1.6 No notification of summons and prosecution was received in the reporting period.

11.1.7 The ET will keep track on the construction works to confirm compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

11.1.8 No change to the EM&A programme was made in this reporting period.

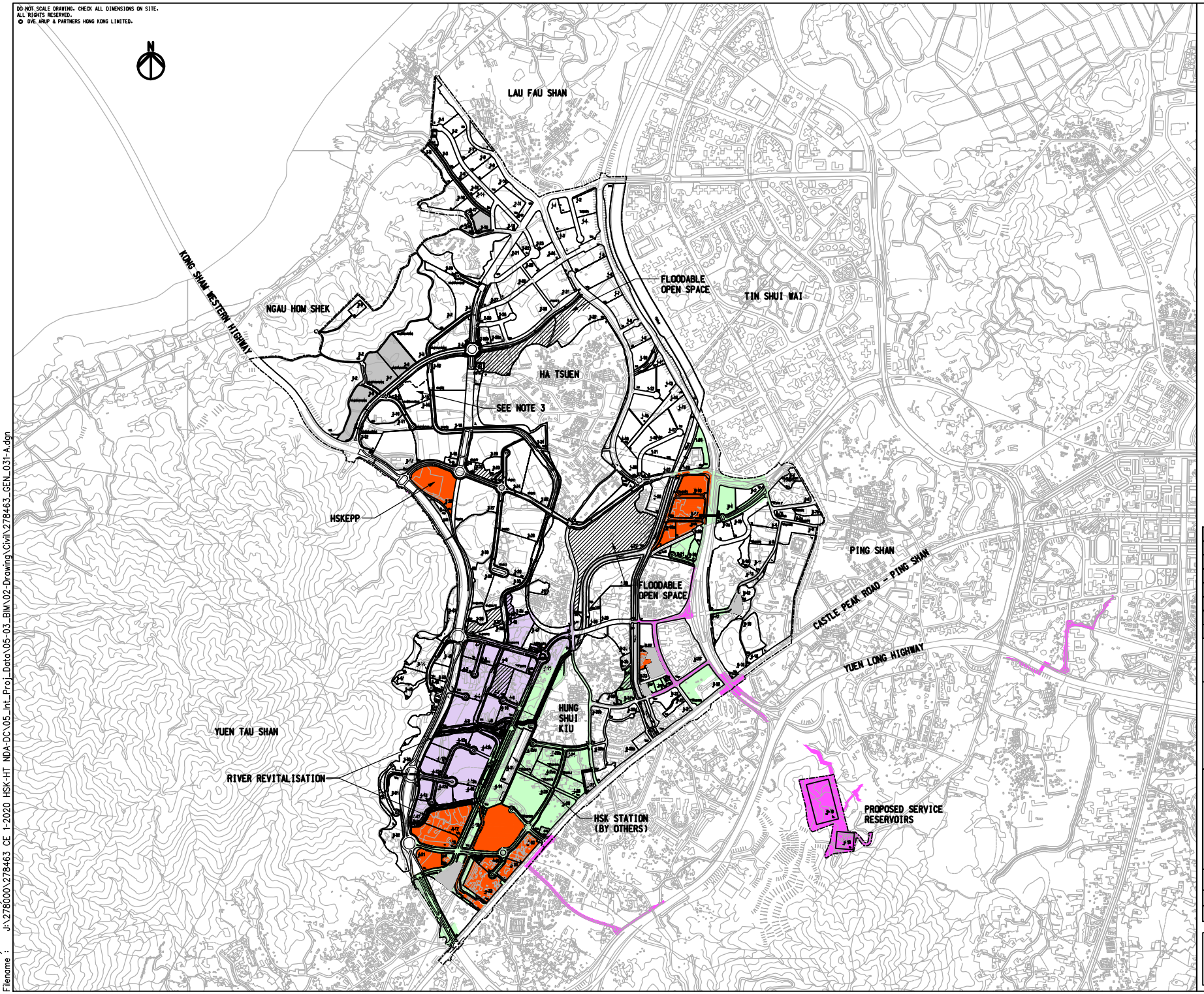
11.2 Comments/ Recommendations

11.2.1 The proposed mitigation measures were properly implemented and were considered effective and efficient in pollution control.

Figures

Figure 1.1 General Site Location Plan

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- CONTRACT PACKAGE 1
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- CONTRACT PACKAGE 3
- CONTRACT PACKAGE 4
- STAGE 1 WORKS / ADVANCE WORKS PHASE 1 & 2 (BY OTHERS)

NOTES

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Project Title

Agreement No. CE 1/2020 (CE)
Hung Shui Kiu / Ha Tsuen
New Development Area Package A
Works for Second Phase Development
- Design and Construction

Drawing title

HSK / HT NDA
SECOND PHASE DEVELOPMENT
OVERALL INFRASTRUCTURE
LAYOUT PLAN

Drawing no.	Rev.
278463/GEN/031	G

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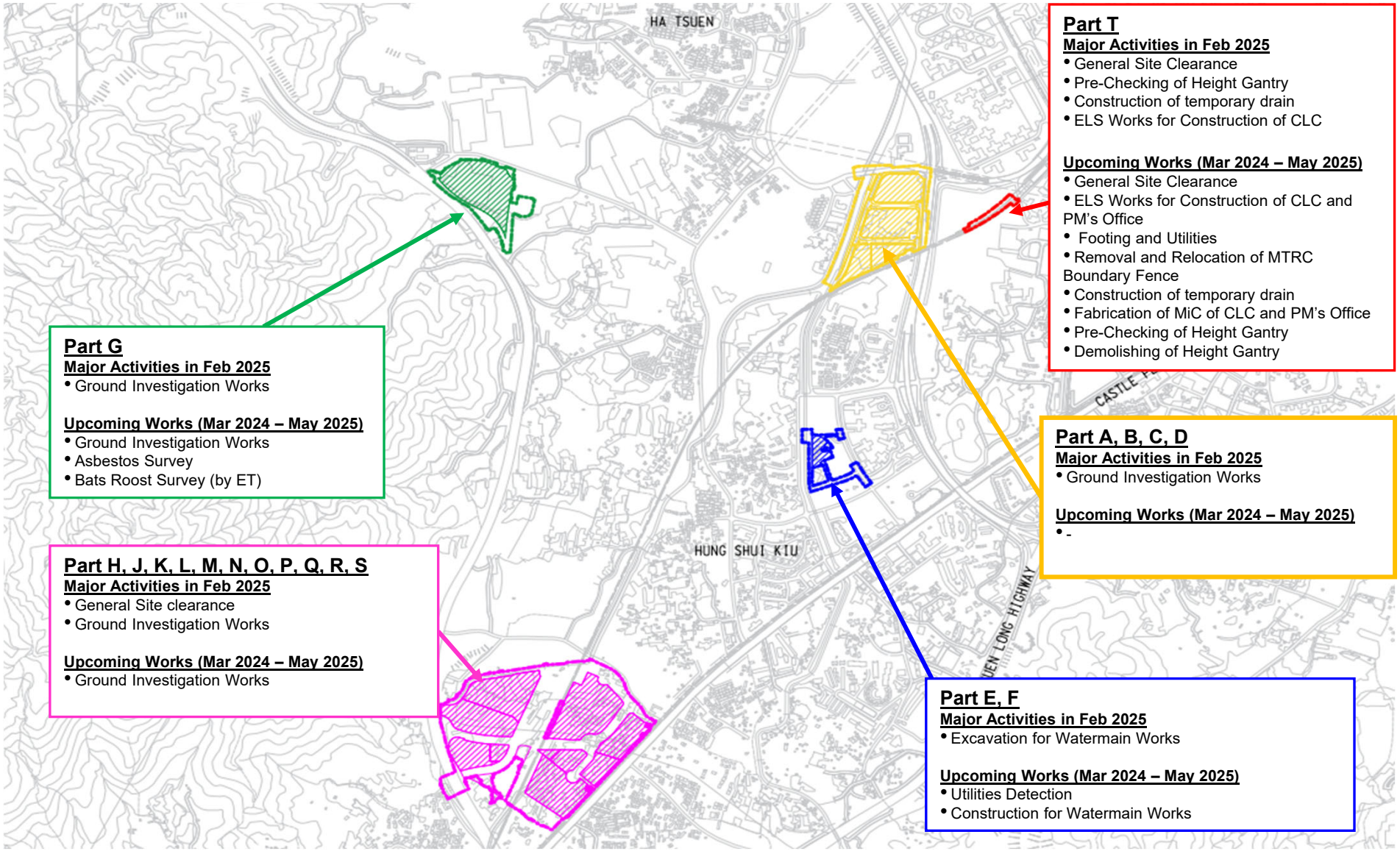
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Figure 1.2 Annotated Site Drawing Presenting the Construction Activities Conducted at Contract 1 in the Reporting Period

Contract No. YL/2023/01

Hung Shui Kiu / Ha Tsuen New Development Area Second Phase Development – Contract 1 -
Site Formation and Engineering Infrastructure Works



Part T

Major Activities in Feb 2025

- General Site Clearance
- Pre-Checking of Height Gantry
- Construction of temporary drain
- ELS Works for Construction of CLC

Upcoming Works (Mar 2024 – May 2025)

- General Site Clearance
- ELS Works for Construction of CLC and PM's Office
- Footing and Utilities
- Removal and Relocation of MTRC Boundary Fence
- Construction of temporary drain
- Fabrication of MiC of CLC and PM's Office
- Pre-Checking of Height Gantry
- Demolishing of Height Gantry

Part G

Major Activities in Feb 2025

- Ground Investigation Works

Upcoming Works (Mar 2024 – May 2025)

- Ground Investigation Works
- Asbestos Survey
- Bats Roost Survey (by ET)

Part A, B, C, D

Major Activities in Feb 2025

- Ground Investigation Works

Upcoming Works (Mar 2024 – May 2025)

- -

Part H, J, K, L, M, N, O, P, Q, R, S

Major Activities in Feb 2025

- General Site clearance
- Ground Investigation Works

Upcoming Works (Mar 2024 – May 2025)

- Ground Investigation Works

Part E, F

Major Activities in Feb 2025

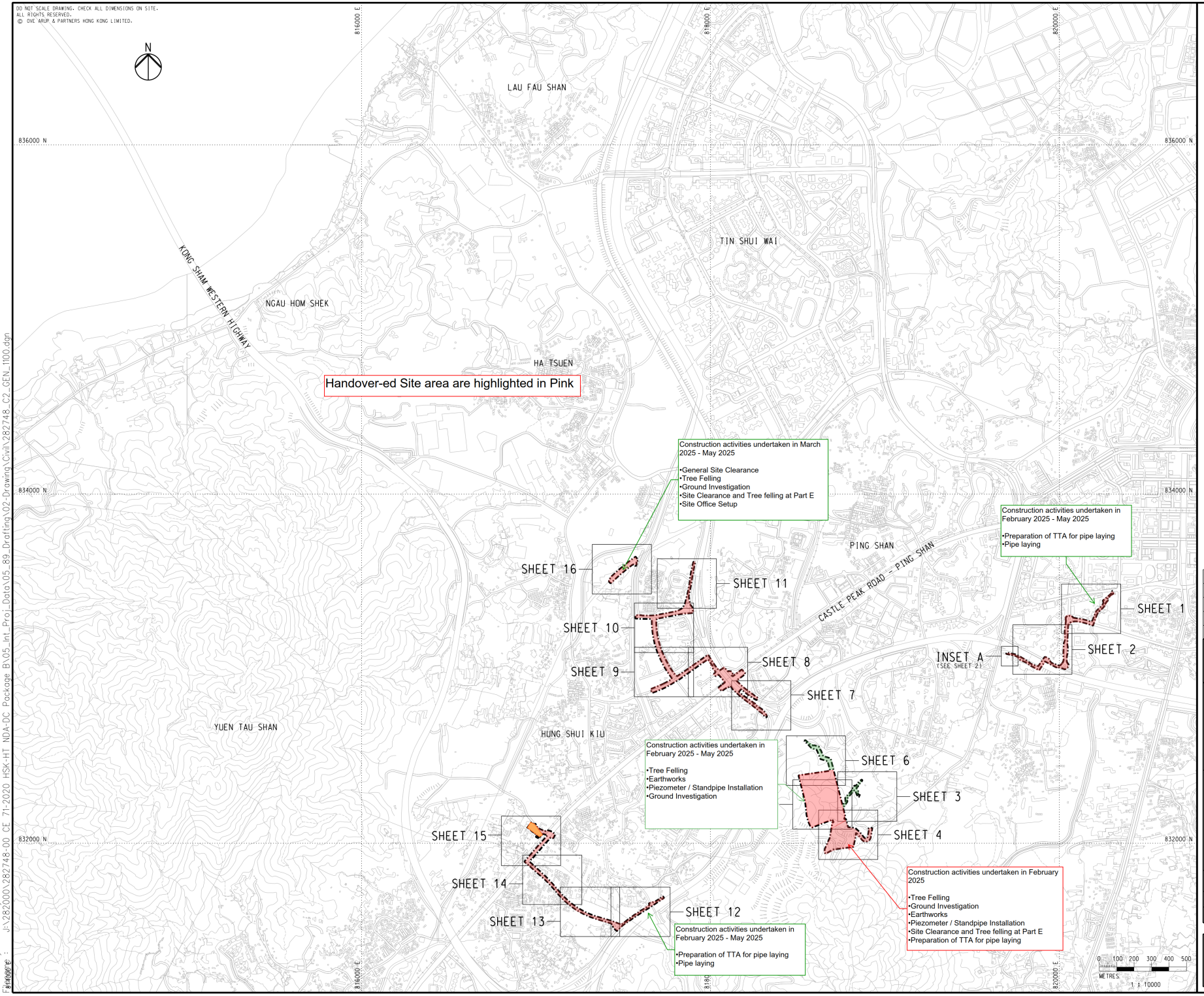
- Excavation for Watermain Works

Upcoming Works (Mar 2024 – May 2025)

- Utilities Detection
- Construction for Watermain Works

Figure 1.3 Annotated Site Drawing Presenting the Construction Activities Conducted at Contract 2 in the Reporting Period

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Contract No. YL/2023/02
Hung Shui Kiu/Ha Tsuen
New Development Area
Second Phase Development - Contract 2 -
Fresh Water Service Reservoir and
Associated Mainlaying Works

Drawing title

OVERALL LAYOUT PLAN

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282748/C2/GEN/1100	00

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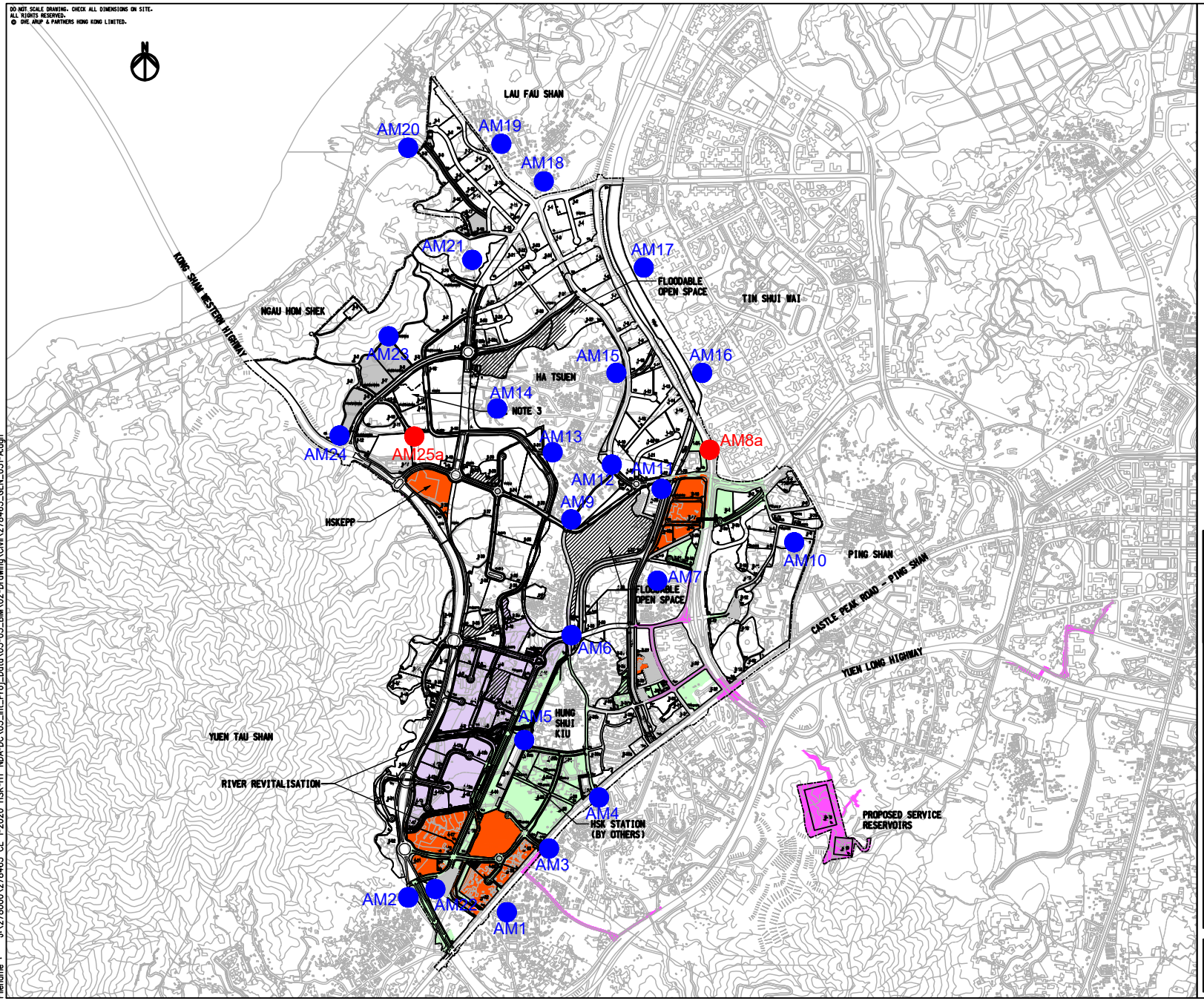
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Figure 2.1 Impact Air Quality Monitoring Locations

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- Designated Monitoring Location
- Alternative Monitoring Location

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Hung Shui Kiu / Ha Tsuen
New Development Area Package A
Works for Second Phase Development
- Design and Construction

Drawing title

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SECOND PHASE DEVELOPMENT
OVERALL INFRASTRUCTURE
LAYOUT PLAN

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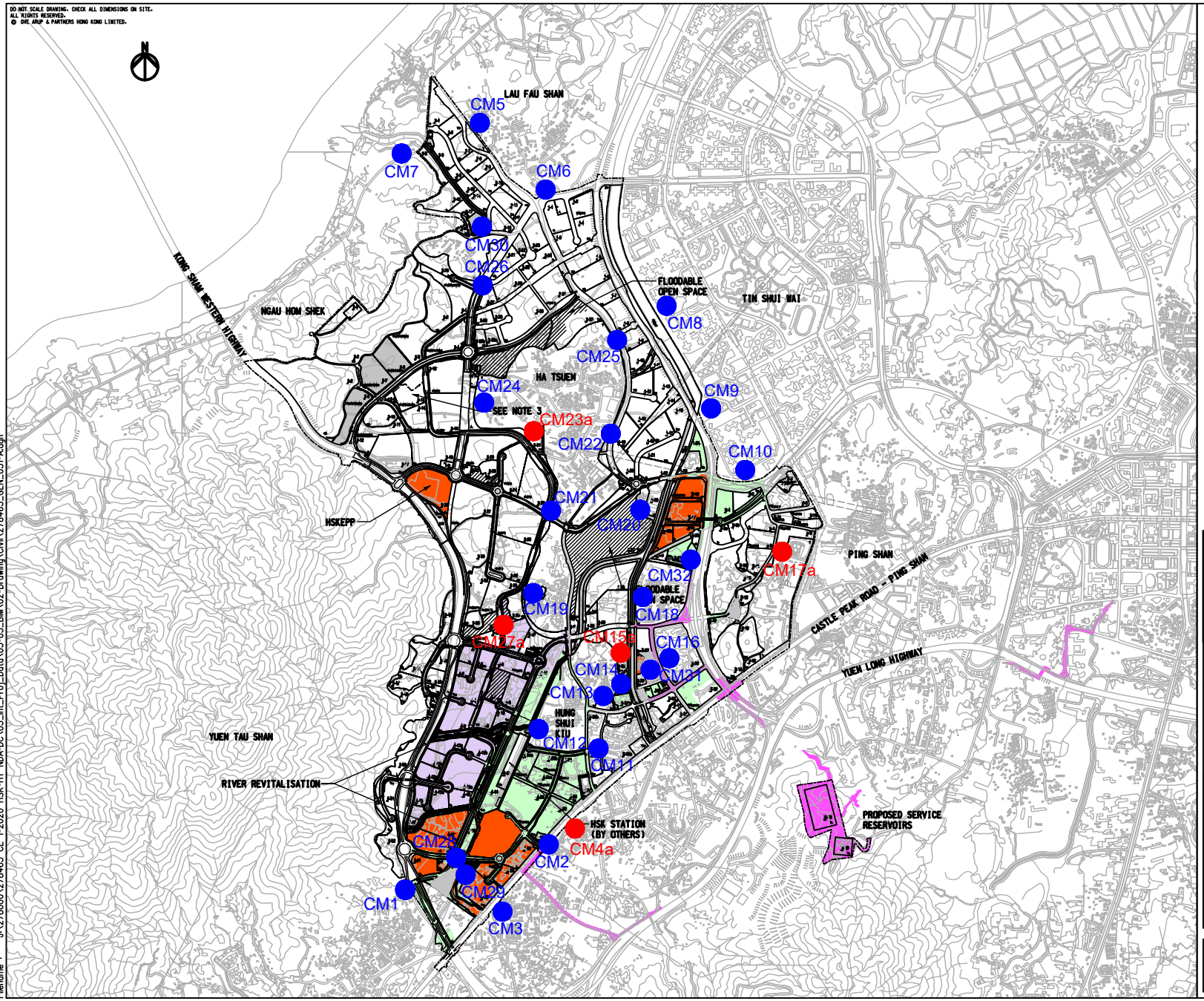
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Figure 3.1 Impact Noise Monitoring Locations



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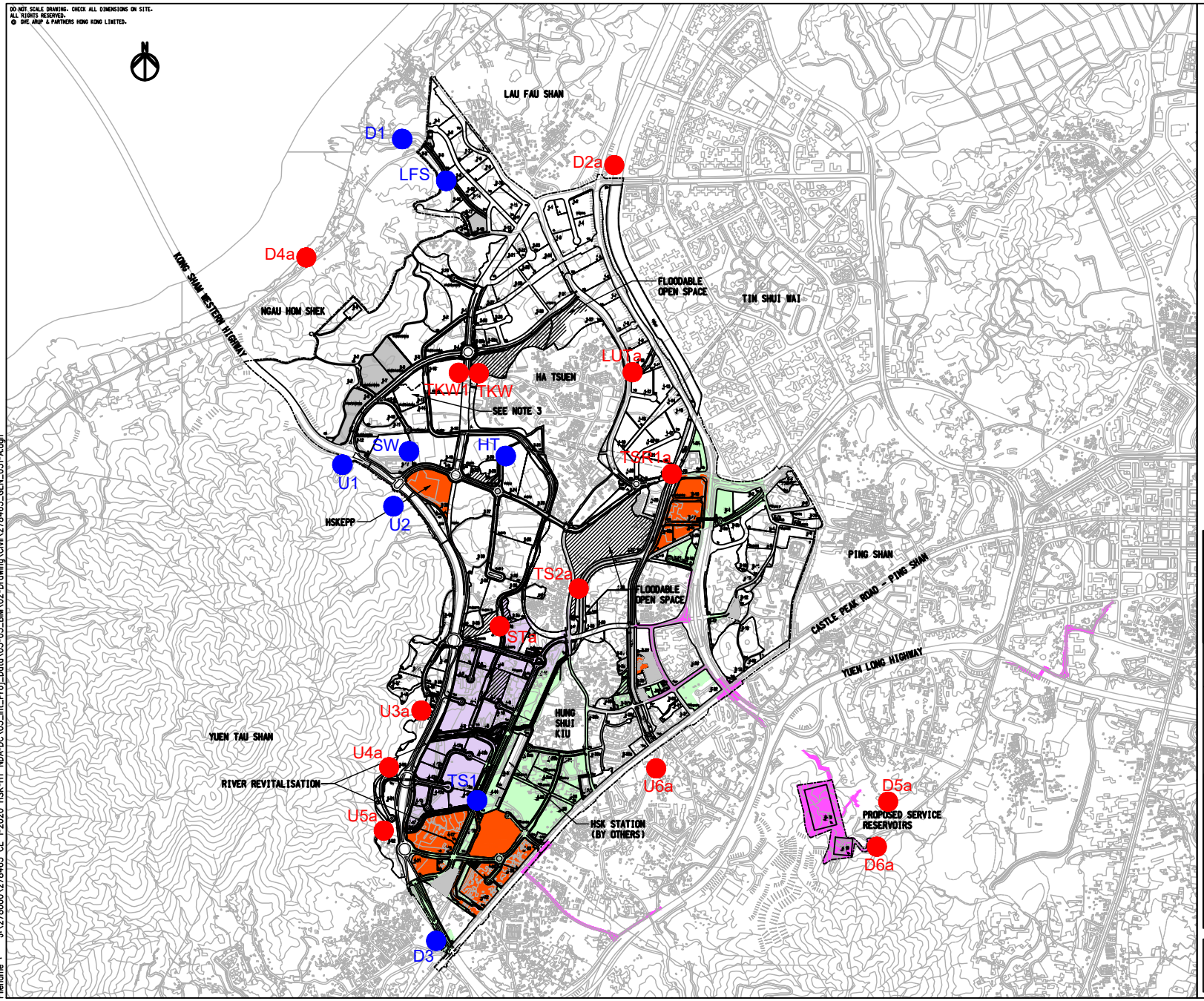
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Figure 4.1 Impact Water Quality Monitoring Locations

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Agreement No. CE 1/2020 (CE)
Hung Shui Kiu / Ha Tsuen
New Development Area Package A
Works for Second Phase Development
- Design and Construction

Drawing title

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SECOND PHASE DEVELOPMENT
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Appendices

Appendix 1.1 Construction Programme

Construction Programme for Contract 1

Contract No. YL/2023/01
Hung Shui Kiu / Ha Tsuen New Development Area Second Phase Development -
Contract 1 - Site Formation and Engineering Infrastructure Works

Construction works programme

Items	Construction Activities	2025			
		Feb	Mar	Apr	May
1	Caring Visit				
2	Tree Survey				
3	Site Appraisal				
4	UU Detection				
5	GI works				
6	Utilities Laying Works				
7	Realign of Bar Fencing				
8	Demolition Works				
9	Construction of CLC & PM's Office Footing				
10	Demolition of Existing Height Restriction Gantry and Footing at Part T				

Construction Programme for Contract 2

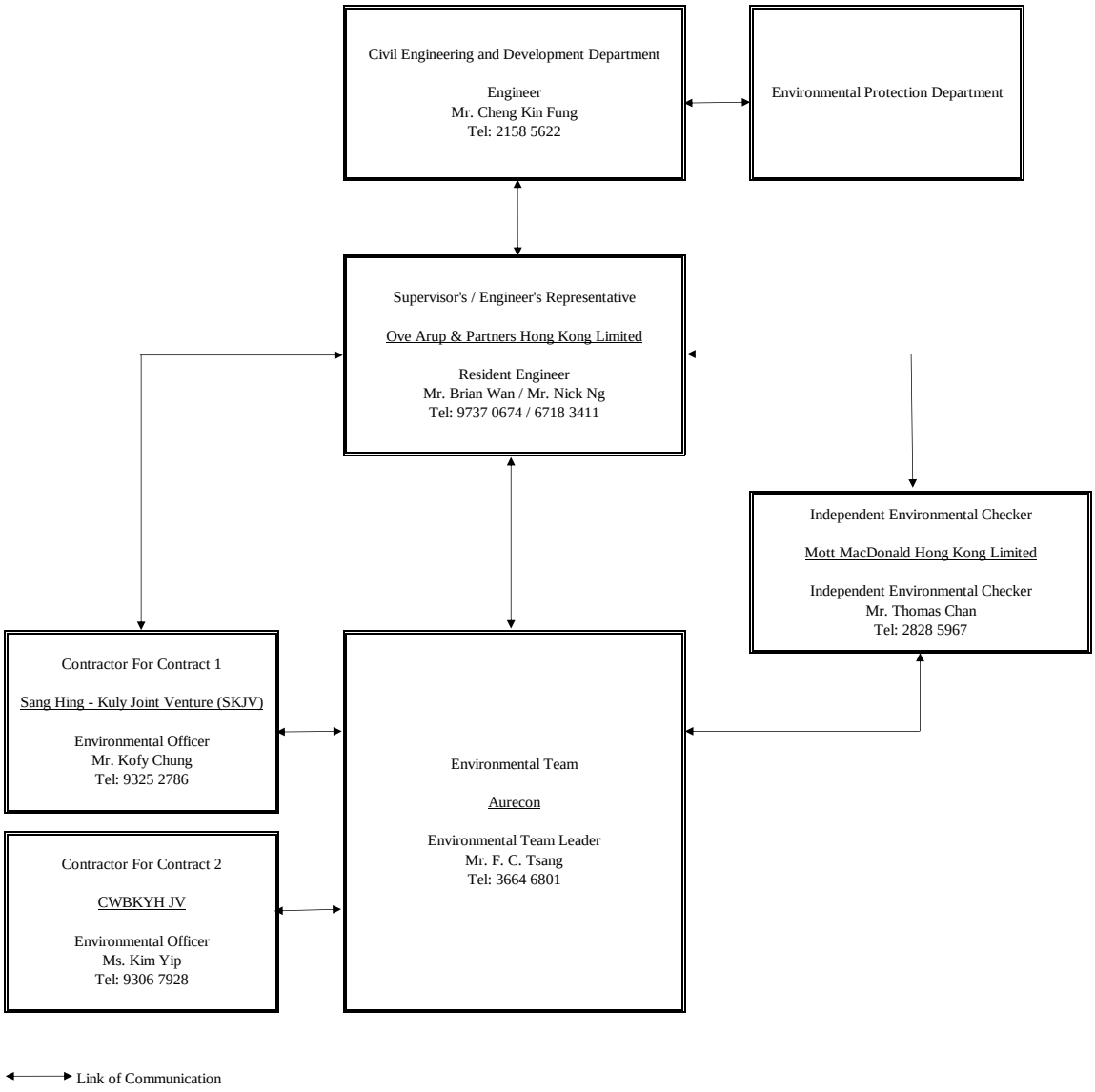
Contract No.: YL/2023/02
Project: Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development –
Contract 2 - Fresh Water Service Reservoir and Associated Mainlaying Works

Construction works programme

	Construction Activities	2025			
		Feb	Mar	Apr	May
1	Tree Felling				
2	Ground Investigation				
3	Earthworks				
4	Piezometer / Standpipe Installation				
5	Site Clearance and Tree felling at Part E				
6	Preparation of TTA for pipe laying				
7	Site Office Setup				
8	Pipe laying				

Appendix 1.2 Project Organization Chart

Project Organization Chart



Appendix 1.3 Implementation Status of Environmental Mitigation Measure

Environmental Mitigation Implementation Schedule (EMIS)

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
Air Quality						
S4.10	Watering once per hour on active works areas, exposed areas and unpaved haul roads to reduce dust emission	To minimize the dust impact	Contractor	Construction Phase	• Air Pollution Control Ordinance (APCO) • To control the dust impact to meet HKAQO and TM-EIAO criteria	Implemented
	The active construction works area should be reduced to one-third of monthly average work of the respective Work Contract so as to alleviate adverse dust impact.					N/A
	When there are open excavation and spoil handling works, hoarding of 3m high should be provided along the construction site boundary adjacent to the non-construction areas such as residential, educational institutes or recreation area in use so as to minimize the dust impact.					N/A
	Dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation and good site practices: • Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather. • Use of frequent watering for particularly dusty construction areas and areas close to Air Sensitive Receivers (ASRs). • Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines. • Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs. • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations. • Establishment and use of vehicle wheel and body washing facilities at the exit points of the site. • Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading area of barging point, and use of water sprinklers at the loading				• Air Pollution Control (Construction Dust) Ordinance (APCO) • To control the dust impact to meet HKAQO and TM-EIAO criteria	Implemented

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods. • Provision of not less than 2.4m high hoarding from ground level along site boundary where adjoins a road, streets or other accessible to the public except for a site entrance or exit. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period. • Imposition of speed controls for vehicles on site haul roads. • Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs. • Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides.					
Construction Noise						
S5.13	Use of quiet plant which should be made reference to the Powered Mechanical Equipment (PME) listed in the Technical Memorandum or the Quality Powered Mechanical Equipment (QPME) / other commonly used PME listed in Environmental Protection Department (EPD) web pages as far as possible which includes the Sound Power Level (SWLs) for specific quiet PME.	Reduce the noise levels of plant items	Contractor	Construction Phase	EIAO-TM	Implemented
S5.13	Install movable noise barrier and enclosures. The movable noise barrier can provide 5 dB(A) noise reduction for mobile plant and 10 dB(A) noise reduction for static plant. The barrier material shall have a surface mass of not less than 14 kg/m2. The enclosures can provide 15 dB(A) noise reduction.	Screen the noisy plant items to be used at all construction sites				N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S5.13	Proper workfront management and proper grouping of PME during construction activities operated at the critical work areas.	Reduce the construction noise impact				N/A
S5.13	Maintain the recommended minimum separation between the schools and the critical works areas during examination periods.					N/A
S5.13	<u>Good Site Management Practices</u> • only well-maintained plant should be operated on-site, and plant should be serviced regularly during the construction programme; • machines and plant (such as trucks and cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs • silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works • mobile plant should be sited as far away from NSRs as possible and practicable; and • material stockpiles, site offices and other structures should be effectively utilized, where practicable, to screen noise from on-site construction activities.	Control construction airborne noise				Implemented
S5.13	Liaison with the school representative(s) to obtain the examination schedule so as to avoid noisy construction activities during school examination period.					Implemented
S5.13	Set up a liaison group among CEDD, relevant government departments, contractors of the Works contracts, etc. during construction phase of the Project to ensure proper implementation of mitigation measures.					N/A
Water Quality						

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S6.11	Surface run-off from construction sites should be discharged into stormwater drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sedimentation basins. Channels/earth bunds/sandbag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels should be provided on site boundaries where necessary to intercept stormwater run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	To minimise impact from construction site run-off	Contractor	Construction Phase	• Water Pollution Control Ordinance (WPCO), Technical Memorandum on EIA Ordinance (EIAO-TM), ProPECC PN 1/94, • Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS)	Implemented
S6.11	Silt removal facilities, channels and manholes should be maintained, and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to prevent local flooding. Any practical options for the diversion and re-alignment of drainage should comply with both engineering and environmental requirements in order to provide adequate hydraulic capacity of all drains.					N/A
S6.11	Construction works should be programmed to minimise soil excavation works in rainy seasons (April to September). If excavation in soil cannot be avoided in these months or at any time of year when rainstorms are likely, for the purpose of preventing soil erosion, temporary exposed slope surfaces should be covered e.g. by tarpaulin, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g., along the crest / edge of excavation) to prevent stormwater run-off from washing across exposed soil surfaces. Arrangements should always be in place in such a way that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm.					Implemented
S6.11	Earthworks final surfaces should be well compacted, and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary.					N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S6.11	Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into stormwater drains via silt removal facilities.					N/A
S6.11	Open stockpiles of construction materials (e.g., aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms.					N/A
S6.11	Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent stormwater run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.					Implemented
S6.11	Good site practices should be adopted to remove rubbish and litter from construction sites so as to prevent the rubbish and litter from spreading from the site area. It is recommended to clean the construction sites on a regular basis.					Implemented
S6.11	Water used in ground boring and drilling for site investigation or rock / soil anchoring should as far as practicable be re-circulated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into stormwater drains via silt removal facilities.	To minimise impact from boring and drilling water				Implemented
S6.11	All vehicles and plants should be cleaned before they leave a construction site to minimise the deposition of earth, mud, debris on roads. A wheel washing bay should be provided at every site exit if practicable and wash-water should have sand and silt settled out or removed before discharging into stormwater drains. The section of construction road between the wheel washing bay and the public road should be paved with backfall to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	To minimise impact from wheel washing water				Implemented

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S6.11	Acidic wastewater generated from acid cleaning, etching, pickling and similar activities should be neutralised to within the pH range of 6 to 10 before discharging into foul sewers.	To minimise impact from acidic wastewater				N/A
S6.11	There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the run-off and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS.	To minimise impact from effluent discharges				N/A
S6.11	Beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence. The beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO licence.	To minimise impact from effluent discharges				N/A
S6.11	To minimise the potential water quality impacts from the construction works located near any inland watercourses, the practices outlined in ETWB TC (Works) No. 5/2005 “Protection of natural streams/rivers from adverse impacts arising from construction works” should be adopted where applicable: • Impermeable sheet piles and cofferdams should be used as required to divert water flow from the construction works area so that all the construction works would be undertaken within a dry zone and physically separated from the watercourses.	To minimise impact from construction works near watercourses			• WPCO, EIAO-TM, ETWB TC9Works) No. 5/2005	Implemented

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	• The proposed works should preferably be carried out within the dry season where the flow in the stormwater culvert/water channel/stream is low. • The use of less or smaller construction plants may be specified in works areas close to the inland water bodies. • Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from any watercourses during carrying out of the construction works. • Stockpiling of construction materials and dusty materials should be covered and located away from any watercourses. • Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby water receivers. • Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the watercourses, where practicable. • Mitigation measures to control site run-off from entering the nearby water environment should be implemented to minimise water quality impacts. Surface channels should be provided along the edge of the waterfront within the work sites to intercept the run-off. • Construction effluent, site run-off and sewage should be properly collected and/or treated. • Any temporary works site inside the stormwater watercourses should be temporarily isolated, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props to prevent adverse impact on the stormwater quality. • Proper shoring may need to be erected in order to prevent soil/mud from slipping into the inland water bodies.					

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S6.11	The key water quality measure for protection of the revitalised drainage channel water is to avoid polluted site run-off from reaching the revitalised drainage channel water. Relevant mitigation measures should follow the practices outlined in ETWB TC (Works) No. 5/2005 "Protection of natural streams / rivers from adverse impacts arising from construction works" as listed below: • Impermeable sheet piles and cofferdams should be used as required to divert water flow from the construction works area so that all the construction works would be undertaken within a dry zone and physically separated from the revitalised drainage channel water. • The proposed works should preferably be carried out within the dry season where the flow in the revitalised drainage channel is low. • The use of less or smaller construction plants may be specified in works areas close to the revitalised drainage channel. • Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction materials should be located well away from the revitalised drainage channel during carrying out of the construction works. • Stockpiling of construction materials and dusty materials should be covered and located away from the revitalised drainage channel water. • Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby revitalised drainage channel. • Construction activities, which generate large amount of wastewater, should be carried out a distance away from the revitalised drainage channel, where practicable. • Mitigation measures to control site run-off from entering the nearby revitalised drainage channel should be implemented to minimise water quality impacts. Surface channels should be provided along the edge of the	To minimise impact from revitalisation and greening of Drainage Channel Banks				Implemented

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	revitalised drainage channel within the work sites to intercept the run-off. • Construction effluent, site run-off and sewage should be properly collected and/or treated. • Any temporary works site inside the revitalised drainage channel should be temporarily isolated, such as by placing of sandbags or silt curtains with lead edge at bottom and properly supported props to prevent adverse impact on the revitalised drainage channel water. Proper shoring may need to be erected in order to prevent soil / mud from slipping into the revitalised drainage channel.					
S6.11	The construction method and sequence of the proposed construction in watercourses / concrete flood storage pond for works sites of DP12 should be carefully designed so that all the construction works including any excavation and pilling operations would be undertaken within a dry zone and physically separated from the watercourses downstream.	To minimise impact from construction in watercourses / concrete flood storage pond			WPCO, EIAO-TM	N/A
S6.11	Impermeable sheet pile walls or cofferdam walls or steel casing should be installed to fully enclose the construction works area (including all the excavation and piling works) in the watercourse / pond prior to the commencement of any works in watercourse / pond. Dewatering of the construction works area or diversion of water flow should be undertaken before the construction works to avoid water flow in the construction works area. Silt removal facilities should be used to clarify the effluent generated from the dewatering operation before discharging back to the watercourse / drainage system.	To minimise impact from construction in watercourses / concrete flood storage pond			WPCO, EIAO-TM, TM-DSS	N/A
S6.11	Any construction works including excavation and pilling activities should be undertaken in a dry zone surrounded by the impermeable sheet pile walls or cofferdam walls or steel casing. Silt curtains should also be deployed around the construction works area inside the watercourse, where practicable, as a second layer of protection to further minimise sediment and contaminant release. All wastewater generated from the pilling activities should be regarded as	To minimise impact from construction in watercourses / concrete flood storage pond			WPCO, EIAO-TM	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	part of the construction site effluent, which should be properly collected and treated as appropriate to meet the standards stipulated in the TM-DSS before disposal. It is recommended that the construction works in watercourses / pond should be undertaken in dry seasons, where practicable, when the water flow is low.					
S6.11	Construction works for removal and diversion of watercourses should be undertaken within a dry zone. Where necessary, cofferdams or similar impermeable sheet pile walls should be used to isolate the works areas from the neighbouring waters.	To minimise impact from removal and diversion of watercourse			WPCO, EIAO-TM	N/A
S6.11	Construction works at watercourse should be undertaken only after flow diversion or dewatering operation is fully completed to avoid water flow in the works area. Dewatering of watercourse should be performed by diverting the water flow to new or temporary drainage. Where necessary, cofferdams or similar impermeable sheet pile walls should be used to isolate the works areas from neighbouring waters. The permanent or temporary drainage for carrying the diverted flow from existing watercourse to be removed should be constructed and completed before dewatering of that existing watercourse. Construction of all the proposed permanent and temporary drainage should be undertaken in a dry zone prior to receiving any water flow.				WPCO, EIAO-TM, TM-DSS	N/A
S6.11	The Contractor should provide a dry zone for all the construction works to be undertaken in watercourses and stormwater drainage following the tentative works sequence as described above or using other approved methods as appropriate to suit the works condition. The flow diversion works should be conducted in dry season, where possible, when the flow in the watercourse is low. The wastewater and ingress water from the site should be properly treated to comply with the WPCO and the TM-DSS before discharge.				WPCO, EIAO-TM, TM-DSS	N/A
S6.11	The site practices outlined in the ProPECC PN 1/94 “Construction Site Drainage” and ETWB TC (Works) No. 5/2005 “Protection of natural streams/rivers from adverse impacts arising from construction works” should be adopted				WPCO, EIAO-TM, ProPECC PN 1/94,	Implemented

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	for the proposed demolition or diversion of watercourses where applicable.				ETWB TC (Works) No. 5/2005	
S6.11	Construction works at the existing ponds / wet areas should be conducted only after dewatering of these ponds / wet areas is fully completed. The drained water generated from the dewatering of these ponds / wet areas to be removed should be temporarily stored in appropriate storage tanks or containers for reuse on-site as far as possible. Any surplus drained water should be tankered away for proper disposal at STW in a controlled manner.	To minimise impact from removal of ponds / wet areas			WPCO, EIAO-TM	N/A
S6.11	It is recommended to drain only one pond at a time to minimise the potential water quality impact. Dewatering works at ponds / wet areas should be conducted within dry season to minimise the quantity of drained water. No direct discharge of drained water to the stormwater drainage system or marine water should be allowed.					N/A
S6.11	Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation, should be observed and complied with for control of chemical wastes.	To minimise impact from accidental spillage			WPCO, Waste Disposal Ordinance (WDO), Waste Disposal (Chemical Waste) (General) Regulation, EIAO-TM	Implemented
S6.11	Any service workshop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.				WPCO, WDO, Waste Disposal (Chemical Waste) (General) Regulation, EIAO-TM	N/A
S6.11	Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal					N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: • Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. • Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. • Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.					
S6.11	No discharge of sewage to the stormwater system and marine water will be allowed. Adequate and sufficient portable chemical toilets should be provided in the works areas to handle sewage from construction workforce. A licensed waste collector should be employed to clean and maintain the chemical toilets on a regular basis.	To minimise impact from workforce sewage effluent			WPCO, EIAO-TM, TM-DSS	Implemented
S6.11	Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the surrounding environment. Regular environmental audit of the construction site should be conducted to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site.				WPCO, EIAO-TM	N/A
S6.11	Any excavated contaminated material and exposed contaminated surface should be properly housed and covered to avoid generation of contaminated run-off. Open stockpiling of contaminated materials should not be allowed. Any contaminated run-off or wastewater generated from the land decontamination processes should be properly collected and diverted to wastewater treatment facilities (WTF). The WTF shall deploy suitable treatment processes (e.g. oil interceptor / activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances (such as total petroleum hydrocarbon) to an undetectable range. All treated effluent from the wastewater treatment system shall meet the requirements as stated in	To minimise impact from contaminated site run-off and wastewater from land decontamination			WPCO, EIAO-TM, TM-DSS	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	TM-DSS and should be either discharged into the foul sewers or tankered away for proper disposal.					
S6.11	No direct discharge of groundwater from contaminated areas should be adopted. Prior to any excavation works within the potentially contaminated areas, the baseline groundwater quality in these areas should be reviewed based on the past relevant site investigation data and any additional groundwater quality measurements to be performed with reference to Guidance Note for Contaminated Land Assessment and Remediation and the review results should be submitted to EPD for examination. If the review results indicated that the groundwater to be generated from the excavation works would be contaminated, this contaminated groundwater should be either properly treated or properly recharged into the ground in compliance with the requirements of the TM-DSS. If wastewater treatment is to be deployed for treating the contaminated groundwater, the wastewater treatment unit shall deploy suitable treatment processes (e.g. oil interceptor / activated carbon) to reduce the pollution level to an acceptable standard and remove any prohibited substances (such as total petroleum hydrocarbon) to an undetectable range. All treated effluent from the wastewater treatment plant shall meet the requirements as stated in the TM-DSS and should be either discharged into the foul sewers or tankered away for proper disposal.	To minimise impact from groundwater from contaminated areas			WPCO, TM-DSS, Guidance Note for Contaminated Land Assessment and Remediation	N/A
S6.11	If deployment of wastewater treatment is not feasible for handling the contaminated groundwater, groundwater recharging wells should be installed as appropriate for recharging the contaminated groundwater back into the ground. The recharging wells should be selected at places where the groundwater quality will not be affected by the recharge operation as indicated in section 2.3 of the TM-DSS. The baseline groundwater quality should be determined prior to the selection of the recharge wells and submit a working plan to EPD for agreement. Pollution levels of groundwater to be recharged shall not be higher than pollutant levels of	To minimise impact from groundwater from contaminated areas			WPCO, EIAO-TM, TM-DSS	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	ambient groundwater at the recharge well. Groundwater monitoring wells should be installed near the recharge points to monitor the effectiveness of the recharge wells and to ensure that no likelihood of increase of groundwater level and transfer of pollutants beyond the site boundary. Prior to recharge, free products should be removed as necessary by installing the petrol interceptor. The Contractor should apply for a discharge licence under the WPCO through the Regional Office of EPD for groundwater recharge operation or discharge of treated groundwater.					
S6.11	The following measures should be implemented by the Contractors to minimise the chance of emergency construction site discharge (due to failure of treatment facilities such as sand traps, silt traps, sedimentation basins, oil interceptors etc.): • Provide spare or standby treatment facilities of suitable capacities for emergency replacement in case damage or defect or malfunctioning of the duty treatment facilities is observed. • Conduct daily integrity checking of the construction site drainage and treatment facilities to inspect malfunctions, in particular before, during and after a storm event. • Carry out regular maintenance or desilting works to maintain effectiveness of the construction site drainage and treatment facilities in particular before, during and after a storm event.	To minimise impact from construction site discharges			WPCO, EIAO-TM, TM-DSS	N/A
S6.11	An Emergency Response Plan (ERP) should be developed to minimise the potential impact from construction site discharges under failure of treatment facilities during emergency situations or inclement weather. The ERP should give the emergency contacts to mobilise retention facilities and stakeholders to be notified as well as the details of the proposed construction site drainage system and the design and operation of duty and standby treatment facilities. The ERP should also provide the procedures and guidelines for routine integrity checking and maintenance of the drainage	To minimise impact from construction site discharges				Implemented

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	system and treatment facilities as well as the emergency response and rectification procedures to restore normal operation of the treatment facilities in case of treatment failure during emergency situation or inclement weather. The Best Management Practices (BMPs) in controlling water pollution arising from the construction activities and an event and action plan with action and limit levels for water quality monitoring should be included in the ERP. The ERP should be submitted to the EPD for approval before commencement of the construction works.					
S6.11	Construction of the Project would involve diversion of the existing twin 800 mm diameter rising mains along Tin Ying Road. New sewerage facilities for receiving the diverted sewage flow from the existing rising mains should be constructed prior to the commencement of any demolition and construction works at the existing rising mains. All sewage flow running in the existing rising mains along Tin Ying Road should be diverted to the new sewerage system prior to any demolition and construction works at the existing rising mains. No discharge of sewage flow to the environment should be allowed during the sewerage diversion works.	To minimise impact from sewerage diversion works			WPCO, EIAO-TM	N/A
S6.11	All excavated materials generated from removal and diversion of watercourses, removal and construction works in ponds and wet areas as well as the proposed bridge pier construction works in watercourses should be collected and handled in compliance with the Waste Disposal Ordinance. Excavated sediment, if any, generated from the excavation activities in watercourses, ponds and wet areas should be tested and classified in accordance with the ETWB TCW No. 34/2002 for determining the disposal arrangement for the sediment. No direct disposal of the construction wastes or excavated materials into the stormwater drainage system and marine water should be allowed.	To manage the disposal of sediment			Waste Disposal Ordinance, ETWB TCW No. 34/2002	N/A
Waste Management						

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S8.2	<u>Good Site Practice</u> The following good site practices are recommended during the construction phase: • Nomination of an approved person, such as a site manager, to be responsible for the implementation of good site practices, • Training of site personnel in proper waste management and chemical handling procedures. • Provision of sufficient waste disposal points and regular collection of waste. • Appropriate measures to minimize windblown litter and dust during handing, transportation and disposal of waste; and • Preparation of a WMP in accordance with the ETWB TCW No. 19/2005 Environmental Management on Construction Sites and submitted it to the Engineer for approval.	Minimise waste generation during construction	Contractor	Construction Phase	Waste Disposal Ordinance, Public Cleansing and Prevention of Nuisances Regulation (Cap. 132BK)	Implemented
S8.2	<u>Waste Reduction Measures</u> Waste reduction is best achieved by proper planning and design at the planning and design phases, as well as by ensuring the implementation of good site practices. The following recommendations are proposed to achieve waste reduction: • Segregation and storage of different types of waste in different containers or skips or stockpiles to enhance reuse or recycling of materials and their proper disposal. • Adopt proper storage and site practices to minimize the potential for damage to, and contamination of, construction materials; • Plan the delivery and stock of construction materials carefully to minimise the amount of waste generated; • Sort out demolition debris and excavated materials from demolition works to recover reusable / recyclable portions (i.e. soil, rock, broken concrete, etc.); • Maximize the use of reusable steel formwork to reduce the amount of C&D materials;				Waste Disposal Ordinance	Implemented

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	• Minimize over ordering concrete, mortars and cement grout by doing careful check before ordering; and • Adopt pre-cast construction method instead of cast-in-situ method for construction of concrete structures as far as possible.					
S8.2	<u>Storage of Waste</u> Storage of materials on site may induce adverse environmental impacts if not properly managed. The following recommendations should be implemented to minimise the impacts: • Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimising the potential of pollution; • Maintain and clean storage areas routinely; • Stockpiling area should be provided with covers and water spraying system to prevent materials from being wind-blown or washed away; and • Different locations should be designated to stockpile each material to enhance reuse.	Minimise waste impacts during storage of waste			Waste Disposal Ordinance	Implemented
S8.2	<u>Collection and Transportation of Waste</u> Waste hauler with appropriate permits should be employed by the Contractor for the collection and transportation of waste from works areas to respective disposal outlets. The following recommendation should be implemented to minimise the impacts: • Remove waste in timely manner; • Employ the trucks with cover or enclosed containers for waste transportation; • Obtain relevant waste disposal permits from the appropriate authorities; and • Dispose of waste at licensed waste disposal facilities.	Minimise waste impacts during collection and transportation of waste			Waste Disposal Ordinance	Implemented
S8.2	<u>Construction and Demolition (C&D) Materials</u> Wherever practicable, C&D materials should be segregated from other waste to avoid contamination and ensure acceptability at the public filling areas or reclamation sites. The following mitigation measures should be implemented in handling the C&D materials:	Minimise waste impacts from C&D materials			Waste Disposal Ordinance, Land (Miscellaneous Provisions) Ordinance, Waste Disposal (Charges	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	• Adopt "selective demolition" technique to demolish the existing structure and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible; • Maintain the stockpile areas and reuse excavated fill material for backfilling; • Carry out on-site sorting to recover the inert C&D materials and reusable and recyclable materials prior to disposal off-site; • Make provisions in the contract documents to allow and promote the use of recycled aggregates where appropriate; and • Implement a trip-ticket system for each works contract in accordance with DEVB TC(W) No. 6/2010 Trip-ticket System for Disposal of Construction and Demolition Material to ensure that the disposal of C&D materials are properly documented and verified. The Contractor should be responsible for devising a system to work for on-site sorting of C&D materials. It is recommended that the system should include the identification of the source of generation, estimated quantity of waste generated, arrangement for on-site sorting and/or collection, designated stockpiling areas, frequency of collection by recycling contractors and frequency of removal off-site.				for Disposal of Construction Waste) Regulation (Cap. 354N)	
S8.2	<u>Asbestos Containing Materials</u> Due to the potential large amount of asbestos containing materials during the site clearance stage, asbestos investigation is required. However, as asbestos investigation will involve a large number of buildings and most premises will involve private access, which cannot be obtained at this stage, it is considered that an asbestos specialist shall be employed by the responsible parties during the construction stage to investigate this issue. Sufficient and reasonable lead time shall be allowed for preparation, vetting and implementation of Asbestos Investigation Report and Asbestos Abatement Plan in	Control the asbestos containing materials and ensure proper storage, handling and disposal			Code of Practice on Handling, Transportation and Disposal of Asbestos Waste ProPECC PN 2/97 Handling of Asbestos Containing Materials in Buildings	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	accordance with Air Pollution Control Ordinance before commencement of any demolition or site clearance work. Some key precautionary measures related to the handling and disposal of asbestos are listed as following: • Adoption of protection, such as full containment, mini containment, or segregation of work area; • Provision of decontamination facilities for cleaning of workings, equipment and bagged waste before leaving the work area; • Adoption of engineering control techniques to prevent fibre release from work area, such as use of negative pressure equipment with high efficiency particulate air (HEPA) filters to control air flow between the work area and the outside environment; • Wetting of asbestos containing materials before and during disturbance, minimising the breakage and dropping of asbestos containing materials, and packing of debris and waste immediately after it is produced; • Cleaning of work area by wet wiping and vacuuming with HEPA-filtered vacuum cleaner; • Coating on any surfaces previously in contact with or contained by asbestos with a sealant; • Proper bagging, safe storage and disposal of asbestos and asbestos-contaminated waste; • Pre-treatment of all effluent from the work area before discharged; and • Air monitoring strategy to check the leakage and clearance of the work area during and after the asbestos work.					
S8.2	<u>Chemical Waste</u> For those processes which generated chemical waste, it may be possible to find alternatives to eliminate the use of chemicals, to reduce the generation quantities or to select a chemical type of less impact on environment, health and safety as far as possible. If chemical waste is produced at the construction site, the Contractor will be required to register with the EPD as a	Control the chemical waste and ensure proper storage, handling and disposal.			Waste Disposal (Chemical Waste) General) Regulation, Code of Practice on the Packaging, Labelling and	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	chemical waste producer. Chemical waste should be stored in appropriate containers and collected by a licensed chemical waste contractor. Chemical waste (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while chemical waste that cannot be recycled should be disposed of at either the CWTC, or another licensed facility.				Storage of Chemical Waste	
S8.2	General Refuse General refuse should be stored in enclosed bins separately from construction and chemical waste. Recycling bins should also be placed to encourage recycling. Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean. A reputable waste collector should be employed to remove general refuse on a daily basis. It is expected that such arrangements would minimise potential environmental impacts.	Minimise production of general refuse and avoid odour, pest and litter impacts			Waste Disposal Ordinance	Implemented
	Excavated Sediment Since the amount of excavated sediment generated from the inland water removal / diversion works is expected to be small, all excavated sediment will be treated and reused on-site as backfilling materials for the Project. This approach avoids the need for off-site disposal that may result in impacts on the marine environment. In addition, all construction works near the watercourses should be undertaken within a dry zone and during dry season to avoid adverse impacts to the environment. The excavated sediment, if stockpiled on site, should be stored in enclosed containers and transported to the on-site treatment facilities as soon as practicable to minimise any potential odour impacts.	Proper handling of excavated sediment			Waste Disposal Ordinance	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	Contaminated Soil It is considered unlikely that contaminated land issues, if any subject to site investigation, would be a concern during either the construction or the operational of the proposed development as remediation on contaminated area would be carried out prior to construction. However, as a precaution, it is recommended that standard good site practices should be implemented during the construction phase to minimise any potential exposure to contaminated soils or groundwater.	Proper handling of contaminated soil			Practice Guide for Investigation and Remediation of Contaminated Land	N/A
Land Contamination						
-	Identified Potentially Contaminated Sites Prior to development of these sites, the Project Proponent should appoint a consultant to re-appraise these sites to update the corresponding findings and sampling and testing requirements presented in the Contamination Assessment Plan (CAP). Supplementary CAP(s), incorporating the findings of the site re-appraisal and the updated sampling and testing strategy, should be prepared and submitted to EPD for approval prior to conducting any site investigation (SI) works. SI works should then be carried out according to the supplementary CAP(s). Contamination Assessment Report (CAR(s)) and, if contaminated soil and/or groundwater identified, Remediation Action Plan (RAP(s)) should be prepared and submitted to EPD for approval.	Identify the presence, nature and extent of contamination and formulate the necessary remedial actions	CEDD/ Detailed Design Consultant / Contractor	After the land is resumed and handed over to the Project Proponent and prior to commencement of any remediation / construction works.	EIAO-TM, Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management, Guidance Notes for Contaminated Land Assessment and Remediation; and Practice Guide for Investigation and Remediation of Contaminated Land	Implemented
-	Remaining Non-Contaminated Sites After the sites are handed over to the Project Proponent for development, the Project Proponent should appoint a consultant to revisit these sites to assess the latest land uses and site conditions. If any of these sites are found to have potential land contamination issues, the Project Proponents					Implemented

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	appointed consultant should prepare and submit supplementary CAP(s) to EPD for approval prior to conducting any SI works. SI works should then be carried out according to the supplementary CAP(s). CAR(s) and, if contaminated soil and/or groundwater identified, RAP(s) should be prepared and submitted to EPD for approval					
-	Any contaminated soil and groundwater should be treated according to EPD's approved RAP(s) and RR(s) should be submitted to EPD for agreement after completion of the remediation works.	Remediate any contaminated soil and groundwater and demonstrate that the remediation works are adequate and is carried out in accordance with EPD's approved RAP(s).	Contractor	After the land is resumed and handed over to the PP and prior to commencement of any construction works.		N/A
Ecology						
S10.2.4	Scheduling the site formation and construction works at Sites 3-32, 3-33, 3-37, 3-39 and 3-40 outside the breeding season of ardeids	Minimise disturbance impacts to breeding ardeids in San Sang San Tsuen egretry	CEDD / Contractor	Construction phase	TM-EIAO	N/A
S10.2.5	Provision of screening (e.g., hoarding) at adjacent habitats within CA at northwest of San Sang San Tsuen.	Disturbance impacts (e.g. noise/vibration, visual) to adjacent habitats within the CA				N/A
S10.2.6	Hoarding around "Green Belt" zoning to mitigate construction disturbance impacts to the Crested Serpent Eagle habitat.	Minimise construction disturbance impacts to the Crested Serpent Eagle habitat				N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S10.2.7	Carefully design the construction methods and sequence of the proposed pier in the watercourses so that all piling and excavation works would be done within dry zone and physically separated from the watercourse downstream	Minimise potential water quality impacts to the habitats of the main channel and waterbird species				N/A
S10.2.8	An ecologist with relevant experience should be consulted before the clearance of any bat roost.	Ensure no bat roost would be damaged due to the proposed development				Implemented
S10.2.10	Provision of hoarding for proper delineation of works boundary.	Minimise construction disturbance impacts to existing mitigation ponds				N/A
S10.2.11	General dust and noise control measures.	Mitigate disturbance impacts to the surrounding habitats and associated wildlife				Implemented
S10.2.12	Night-time lighting control.	Minimise glare disturbance to wildlife				N/A
S10.2.13 – S10.2.15	Good site practices during the construction phase to avoid any pollution entering any nearby watercourses.	Minimise water quality impacts to nearby water bodies				Implemented
Fisheries						

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
S.13.4.8	Follow the mitigation measures proposed in the water quality assessment for construction and operational phase.	To protect fisheries resources from potential indirect impacts arising from deterioration of water quality	Contractor	Construction phase	EIA, contractual requirements	Implemented
Landscape and Visual						
CM1	<u>Minimised construction area and contractor's temporary works areas</u> The construction area and contractor's temporary works areas should be minimised. General Good Practice Measures - For areas unavoidably disturbed by the Project on a short-term basis e.g., works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to	Minimise impacts on adjacent landscape	Government/ Developer/ Detailed Design Consultant/ Contractor	Prior to construction, construction stages. This should be implemented as soon as the areas become available, to achieve early establishment	-	Implemented
CM2	<u>Stripping and storing of topsoil</u> Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical. The Contract Specification shall include storage and reuse of topsoil as appropriate. On potentially contaminated sites (as per Section 8) where investigation results indicate soil contamination is present, the use of contaminated soils for planting is to be avoided where appropriate.	Minimise the loss of existing topsoil and reduce the need to provide imported material		Detailed design, construction stages	-	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
CM3	Protection of existing trees Tree Protection & Preservation – Exiting trees to be retained within the Project site should 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. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees			ETWB Technical Circular Works (TCW) No. 29/2004 and 3/2006	Implemented
CM4	Transplantation of existing trees where practical Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the Project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC 2/2004 and 3/2006 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.	Transplant Trees where suitable for transplantation		Prior to Construction, Construction Phase & Maintenance in Operation Phase	ETWB TCW 3/2006 and 2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	Implemented
CM5	Control of night-time lighting Control of night-time lighting and glare by hooding all lights.	Minimise impact of night-time lighting and glare	Government/ Developer/ Contractor	Construction stage	-	Implemented

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	Construction day and night-time lighting should be controlled to minimise glare impact to adjacent VSRs during the construction phase.					
CM6	Construction of decorative hoarding around construction works Erection of decorative mesh screens or construction hoardings around works areas in visually unobtrusive colours screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publicly accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used.	To screen undesirable views of the works site.	Contractor	Construction stage	-	Implemented
CM7	Reduction of construction period to practical minimum Reduction of construction period to practical minimum	Minimise length of exposure to construction works	Government/ Developer/ Detailed Design Consultant/ Contractor	Construction stage	-	Implemented
CM8	Prevention of run-off Limitation of / Ensuring no run-off into surrounding landscape and prohibit run-off from entering adjacent water bodies and waterways.	Minimise / limit impacts on surrounding landscape and adjacent water sea areas		Construction stage	Guidelines for this include ETWB Technical Circular (Works) No. 5/2005 Protection of natural streams/rivers from adverse impacts arising from construction works; Building Department (BD) Practice Note for Authorized Persons and Registered Structural Engineers 295: Protection of natural	Implemented

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
					streams/rivers from adverse impacts arising from construction works	
CM9	Phasing of construction stage Phasing of the construction stage to reduce visual impacts.	Minimise visual impacts during the construction phase		Construction stage	-	Implemented
CM10	Advance screen planting Advance screen planting of fast-growing tree and shrub species to noise barriers and hoardings. Trees shall be capable of reaching a height >10m within 10 years.	Minimise length of exposure without long term mitigation measures		Detailed design, construction stages	ETWB TCW 3/2006 and 2/2004	N/A
CM11	Minimise disturbance footprints To minimise landscape and visual impacts, the footprint and elevation of such elements should be optimised to reduce topographical/ landform changes, as well as reduce land take and interference with natural terrain. Where there is a need to significantly cut into the existing landform, retaining walls should be considered as well as cut slopes, to minimise landform changes and land resumption, while also considering visual amenity. Earthworks and engineered slopes should be designed to be a visually interesting landform, compatible with the surrounding landscape and to mimic the natural contouring and terrain e.g. introduction and continuation of natural features such as spurs and ridges where appropriate, to support assimilation with the hillside setting.	Reduce topographical changes and minimize land resumption		Detailed design, construction stages	GEO Publication No. 1/2011, Technical Guidelines on Landscape Treatment on Slopes	N/A
CM12	Protection of existing water courses For all the natural rivers and streams inside the development area, consideration of protection measures should be made to minimise any impacts from the construction works. Avoid affecting Watercourses – In the detailed design, consideration should be made of watercourses, to minimise any impacts e.g. at new bridge crossings, viaducts, road alignment etc. Guidelines stated should be followed.	Avoid direct impacts to watercourses	Detailed Design Consultant/ Contractor	Detailed design, construction stages	Guidelines for this include ETWB Technical Circular (Works) No. 5/2005 Protection of natural streams/rivers from adverse	Implemented

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	Bridges and box culverts should also be used to minimise the necessity of watercourse modification and protect the watercourses where necessary.				impacts arising from construction works; Building Department (BD) Practice Note for Authorized Persons and Registered Structural Engineers 295: Protection of natural streams/rivers from adverse impacts arising from construction works	
CM13	Hydroseeding on modified slopes Hydroseeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedlings and/ or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Government/ Developer/ Detailed Design Consultant/ Contractor	Prior to Construction, Construction Phase & Maintenance in Operation Phase	GEO publication (1999) – Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes	N/A
CM14	Integrate Open Space Network with existing nullah conditions For watercourses affected during construction, measures should be sought to minimise the impact with respect to the existing nullah conditions, existing shrubs and trees along the banks.	Minimise / limit impacts on surrounding landscape and			ETWB TCW No. 5/2005 – Protection of natural streams/rivers	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
	Where natural streams are unavoidably affected along some of their length, they can be diverted to avoid the proposed new developments and retain the integrity of the whole stream. Detailed design of any stream diversion should follow the Guidelines in ETWB Technical Circular (Works) No. 5/2005 (Protection of natural streams/rivers from adverse impacts arising from construction works) and appropriate construction methods should be used.	adjacent water sea areas			from adverse impacts arising from construction works; DSD Practice Note No.1/2005, Guidelines on Environmental Considerations for River Channel Design	
Cultural Heritage Impact						
S13.1.1	The archaeological impact arising from the construction works should be assessed when the detailed design of the works is available. Preservation in situ is the top priority to safeguard the archaeological remains in the impacted area by amending the layout plans of the construction works. However, if the works cannot avoid disturbance to the archaeological deposit, depending on degree of direct impact, the following mitigation measures should be considered, such as archaeological surveys, archaeological watching brief, preservation by record and relocation of archaeological remains. The scope and programme of the archaeological fieldwork would be agreed with AMO.	Minimise impact to archaeology in SAIs	Contractor	Prior to construction phase commencement	Environmental Impact Assessment Ordinance EIAO (Cap.499) and Technical Memorandum (EIAO-TM) Guidance Note on Assessment of Impact on Sites of Culture Heritage in Environmental Impact Assessment Studies (GCH-EIA) Antiquities and Monuments Ordinance (A&MO) Hong Kong Planning Standards and	N/A

EM&A Ref.	Mitigation Measures	Objective of the recommended measure & main concerns to address	Implement Agent	Implementation Timing	Requirements and / or Standards to be Achieved	Implementation status
					Guidelines (HKPSG) Guidelines for Cultural Heritage Impact Assessment (GCHIA)	
S13.1.2	Further archaeological survey is required to be conducted at APA 1 and APA 2 to ascertain the extent of any archaeological remains within the APAs if any construction works will be carried out. Based on the findings of the survey, mitigation measures could be proposed, such as preservation in situ, preservation by record, or relocation of archaeological remains, in prior agreement with the AMO. Direct impact arising from the proposed development within APA 3 should be avoided as far as possible.	Minimise impact to archaeology in APAs.			EIAO-TM GCH-EIA A&MO HKPSG GCHIA	N/A
S13.1.5	Preservation by record (including cartographic and photographic record) prior to any construction works would be required for the directly impacted built heritage.	Minimise impact to built heritage			EIAO-TM GCH-EIA HKPSG GCHIA	N/A
-	A Conservation Management Plan should be proposed to implement future maintenance and management of the cultural heritage.	Maximise the public education, heritage and cultural tourism related opportunities in this area as heritage attractions.	CEDD		EIAO-TM GCH-EIA A&MO HKPSG GCHIA	N/A

Appendix 1.4 Impact Monitoring Schedule of the Reporting Month

Service Contract No. WD/03/2023 Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development - Environmental Team (Version 1.0)

February 2025

Sun	Mon	Tue	Wed	Thur	Fri	Sat
						1 Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6
2	**3** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**4**	**5** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20	**6** Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**7**	**8** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14
9	**10** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**11** Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20	**12** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**13**	**14** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**15**
16	**17** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**18** Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**19**	**20** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**21** Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20	**22** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a
23	**24** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**25**	**26** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**27** Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20	**28** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	

Remarks:
1. The schedule may be changed due to unforeseen circumstances (e.g. adverse weather, etc.).
2. Impact air quality monitoring at AM22, AM24 and AM25a will be carried out when the planned sensitive receivers are commissioned.
3. Impact noise monitoring at CM28, CM29, CM31 and CM32 will be carried out when the planned sensitive receivers are commissioned.
4. Impact water quality monitoring at U2 and HT will be carried out by the Environmental Team appointed under Hung Shui Kiu/Ha Tsuen New Development Area Stage 1 Works, and the corresponding water quality monitoring data at these stations will be shared with this Project (i.e. Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development).

Contract	Water Quality Monitoring Station *																					
	U1	U2	U3a	U4a	U5a	U6a	TS1	TS2a	TSR1a	STa	SW	HT	LUTa	D2a	LFS	D1	D3	TKW	TKW1	D4a	U7	D5a	D6a
Contract 1		✓			✓	✓	✓	✓	✓			✓	✓	✓			✓						
Contract 2						✓			✓					✓			✓					✓	✓
Contract 3			✓	✓	✓	✓	✓	✓	✓	✓				✓			✓						
Contract 4			✓	✓	✓		✓	✓	✓	✓				✓									
Contract 5	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Contract 6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓				
Contract 7	TO BE CONFIRMED																						
* Monitoring stations at which inland waters runs into the major water systems, including their tributaries, passing through the site boundary of works contract(s), potentially causing water quality impacts as a result of water bodies contamination, will be considered being the representative monitoring stations for the corresponding works contract(s) as the rationale for determination of contract involvement in terms of environmental monitoring.																							

Contract	Air Quality Monitoring Station *																					
	AM1	AM2	AM3	AM4	AM5	AM6	AM7	AM8a	AM9	AM10	AM11	AM12	AM13	AM14	AM15	AM16	AM17	AM21	AM22	AM23	AM24	AM25a
Contract 1	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓					✓		✓	✓
Contract 2	✓		✓	✓	✓	✓	✓				✓								✓			
Contract 3	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓				✓			✓			
Contract 4		✓	✓	✓	✓	✓													✓			
Contract 5		✓											✓	✓	✓		✓	✓	✓	✓	✓	✓
Contract 6					✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓		✓	✓	✓
Contract 7	TO BE CONFIRMED																					
* Monitoring stations that are specifically within the 500m buffer area projected from the site boundary of works contract(s) will be considered being the representative monitoring stations for the corresponding works contract(s) as the rationale for determination of contract involvement in terms of environmental monitoring.																						

Contract	Construction Noise Monitoring Station *																										
	CM1	CM2	CM3	CM4a	CM9	CM10	CM11	CM12	CM13	CM14	CM15a	CM16	CM17a	CM18	CM19	CM20	CM21	CM22	CM23a	CM24	CM25	CM26	CM27a	CM28	CM29	CM30	CM31	CM32
Contract 1	✓	✓	✓	✓		✓			✓	✓	✓	✓		✓		✓								✓	✓		✓	✓
Contract 2		✓	✓	✓					✓	✓	✓	✓		✓											✓		✓	✓
Contract 3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓							✓	✓	✓		✓	✓
Contract 4								✓							✓								✓	✓				
Contract 5	✓																			✓	✓	✓	✓	✓	✓	✓		
Contract 6														✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓		✓
Contract 7	TO BE CONFIRMED																											
* Monitoring stations that are specifically within the 300m buffer area projected from the site boundary of works contract(s) will be considered being the representative monitoring stations for the corresponding works contract(s) as the rationale for determination of contract involvement in terms of environmental monitoring.																												

Appendix 2.1 Calibration Certificates of Impact Air Quality Monitoring Equipment

Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Information of Calibrated Equipement

Verification Test Date:	**17-Aug-24**	to	**18-Aug-24**	Next Verification Test Date:	**17-Aug-25**
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	467356				
Our Report Refrence No.:	RPT-24-HVS-0080				
Calibration Location:	Man Cheong Building				

Standard Equipment Information

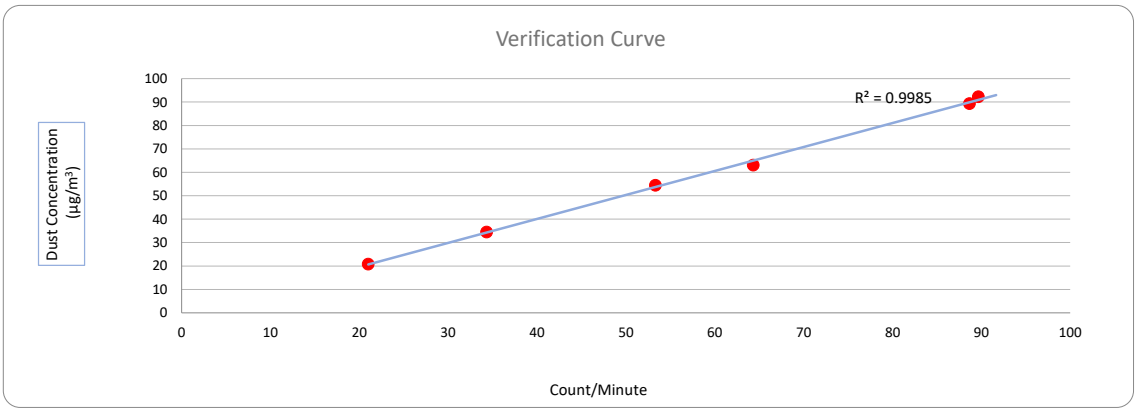
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1050	3465
Last Calibration Date:	17-Aug-24	16-Jan-24
Next Calibration Date:	30-Aug-24	15-Jan-25

Equipement Vertification Result

Verification Test No.	Date	Duration			Results from Calibrated Equipement		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (µg/m^3) y-axis
1	17/08/2024	11832.91	11835.91	180.00	16140	90	92
2	17/08/2024	11835.91	11838.91	180.00	9600	53	54
3	17/08/2024	11838.91	11841.91	180.00	15960	89	89
4	18/07/2024	11841.94	11844.94	180.00	6180	34	34
5	18/07/2024	11844.94	11847.94	180.00	3780	21	21
6	18/07/2024	11847.94	11850.94	180.00	11580	64	63

Linear Regression of y on x

Slope, K factor:	**1.0232**	Intercept:	**-0.8300**	*Correlation Coefficient,R:	**0.9992**
Verification Test Result:	Strong Correlation, Results were accepted.			* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.	



Operated By: Andy Li — Project Technician, Environmental — Date: 23-08-2024

Checked By: Tandy Tse — Senior Consultant, Environmental — Date: 23-08-2024

Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Information of Calibrated Equipement

Verification Test Date:	**17-Aug-24**	to	**18-Aug-24**	Next Verification Test Date:	**17-Aug-25**
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	467357				
Our Report Refrence No.:	RPT-24-HVS-0081				
Calibration Location:	Man Cheong Building				

Standard Equipment Information

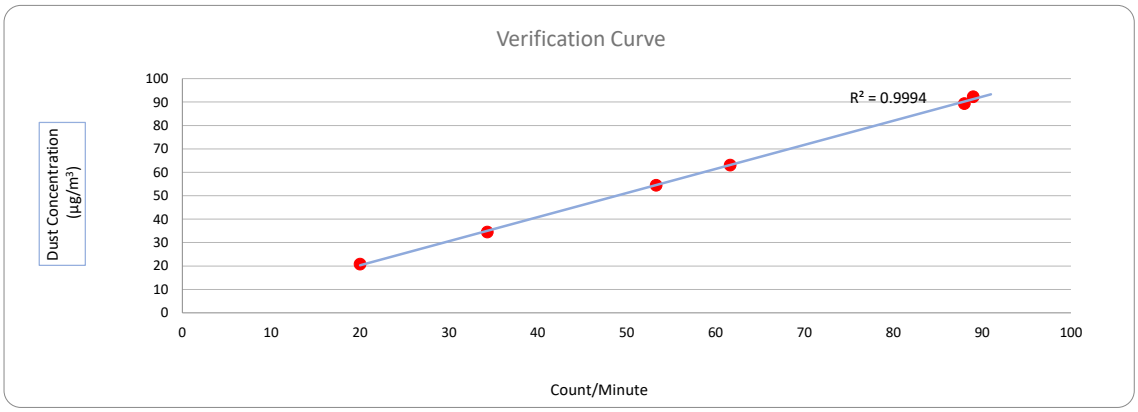
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1050	3465
Last Calibration Date:	17-Aug-24	16-Jan-24
Next Calibration Date:	30-Aug-24	15-Jan-25

Equipement Vertification Result

Verification Test No.	Date	Duration			Results from Calibrated Equipement		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (µg/m^3) y-axis
1	17/08/2024	11832.91	11835.91	180.00	16020	89	92
2	17/08/2024	11835.91	11838.91	180.00	9600	53	54
3	17/08/2024	11838.91	11841.91	180.00	15840	88	89
4	18/07/2024	11841.94	11844.94	180.00	6180	34	34
5	18/07/2024	11844.94	11847.94	180.00	3600	20	21
6	18/07/2024	11847.94	11850.94	180.00	11100	62	63

Linear Regression of y on x

Slope, K factor:	**1.0280**	Intercept:	**-0.2511**	*Correlation Coefficient,R:	**0.9997**
Verification Test Result:	Strong Correlation, Results were accepted.			* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.	



Operated By: Andy Li — Project Technician, Environmental — Date: 23-08-2024

Checked By: Tandy Tse — Senior Consultant, Environmental — Date: 23-08-2024

Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Information of Calibrated Equipement

Verification Test Date:	**17-Aug-24**	to	**18-Aug-24**	Next Verification Test Date:	**17-Aug-25**
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	467358				
Our Report Refrence No.:	RPT-24-HVS-0082				
Calibration Location:	Man Cheong Building				

Standard Equipment Information

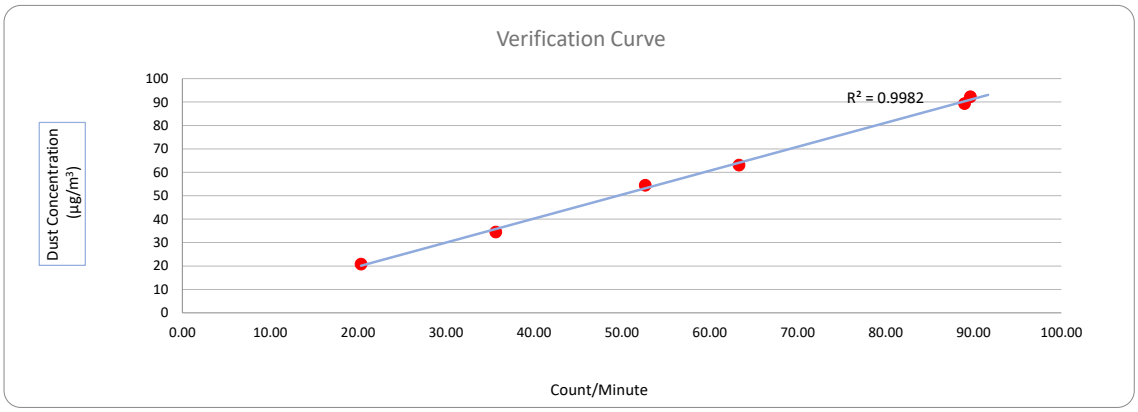
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1050	3465
Last Calibration Date:	17-Aug-24	16-Jan-24
Next Calibration Date:	30-Aug-24	15-Jan-25

Equipement Vertification Result

Verification Test No.	Date	Duration			Results from Calibrated Equipement		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (µg/m^3) y-axis
1	17/08/2024	11832.91	11835.91	180.00	16140	89.67	92
2	17/08/2024	11835.91	11838.91	180.00	9480	52.67	54
3	17/08/2024	11838.91	11841.91	180.00	16020	89.00	89
4	18/07/2024	11841.94	11844.94	180.00	6420	35.67	34
5	18/07/2024	11844.94	11847.94	180.00	3660	20.33	21
6	18/07/2024	11847.94	11850.94	180.00	11400	63.33	63

Linear Regression of y on x

Slope, K factor:	**1.0225**	Intercept:	**-0.6726**	*Correlation Coefficient,R:	**0.9991**
Verification Test Result:	Strong Correlation, Results were accepted.			* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.	



Operated By: Andy Li — Project Technician, Environmental — Date: 23-08-2024

Checked By: Tandy Tse — Senior Consultant, Environmental — Date: 23-08-2024

Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Information of Calibrated Equipement

Verification Test Date:	**17-Aug-24**	to	**18-Aug-24**	Next Verification Test Date:	**17-Aug-25**
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	467359				
Our Report Refrence No.:	RPT-24-HVS-0083				
Calibration Location:	Man Cheong Building				

Standard Equipment Information

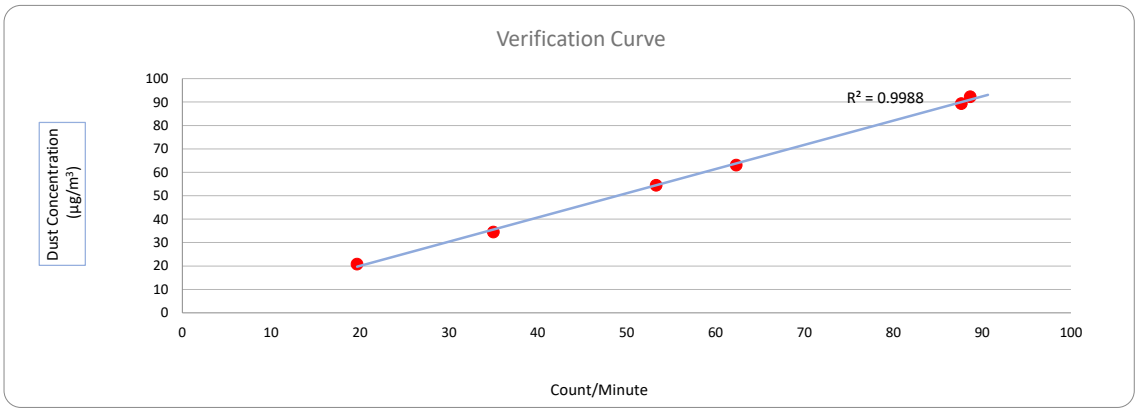
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1050	3465
Last Calibration Date:	17-Aug-24	16-Jan-24
Next Calibration Date:	30-Aug-24	15-Jan-25

Equipement Vertification Result

Verification Test No.	Date	Duration			Results from Calibrated Equipement		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (μg/m^3) y-axis
1	17/08/2024	11832.91	11835.91	180.00	15960	89	92
2	17/08/2024	11835.91	11838.91	180.00	9600	53	54
3	17/08/2024	11838.91	11841.91	180.00	15780	88	89
4	18/07/2024	11841.94	11844.94	180.00	6300	35	34
5	18/07/2024	11844.94	11847.94	180.00	3540	20	21
6	18/07/2024	11847.94	11850.94	180.00	11220	62	63

Linear Regression of y on x

Slope, K factor:	**1.0331**	Intercept:	**-0.6022**	*Correlation Coefficient,R:	**0.9994**
Verification Test Result:	Strong Correlation, Results were accepted.			* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.	



Operated By: Andy Li — Project Technician, Environmental — Date: 23-08-2024

Checked By: Tandy Tse — Senior Consultant, Environmental — Date: 23-08-2024

Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Information of Calibrated Equipement

Verification Test Date:	**17-Aug-24**	to	**18-Aug-24**	Next Verification Test Date:	**17-Aug-25**
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	467360				
Our Report Refrence No.:	RPT-24-HVS-0084				
Calibration Location:	Man Cheong Building				

Standard Equipment Information

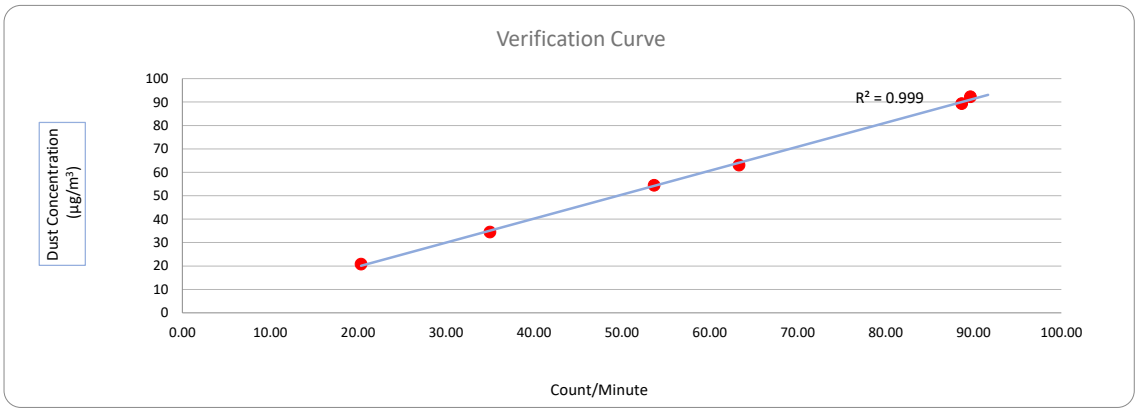
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1050	3465
Last Calibration Date:	17-Aug-24	16-Jan-24
Next Calibration Date:	30-Aug-24	15-Jan-25

Equipement Vertification Result

Verification Test No.	Date	Duration			Results from Calibrated Equipement		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (μg/m^3) y-axis
1	17/08/2024	11832.91	11835.91	180.00	16140	89.67	92
2	17/08/2024	11835.91	11838.91	180.00	9660	53.67	54
3	17/08/2024	11838.91	11841.91	180.00	15960	88.67	89
4	18/07/2024	11841.94	11844.94	180.00	6300	35.00	34
5	18/07/2024	11844.94	11847.94	180.00	3660	20.33	21
6	18/07/2024	11847.94	11850.94	180.00	11400	63.33	63

Linear Regression of y on x

Slope, K factor:	**1.0229**	Intercept:	**-0.6982**	*Correlation Coefficient,R:	**0.9995**
Verification Test Result:	Strong Correlation, Results were accepted.			* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.	



Operated By: Andy Li — Date: 23-08-2024
Project Technician, Environmental

Checked By: Tandy Tse — Date: 23-08-2024
Senior Consultant, Environmental

Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Information of Calibrated Equipement

Verification Test Date:	**17-Aug-24**	to	**18-Aug-24**	Next Verification Test Date:	**17-Aug-25**
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	467361				
Our Report Refrence No.:	RPT-24-HVS-0085				
Calibration Location:	Man Cheong Building				

Standard Equipment Information

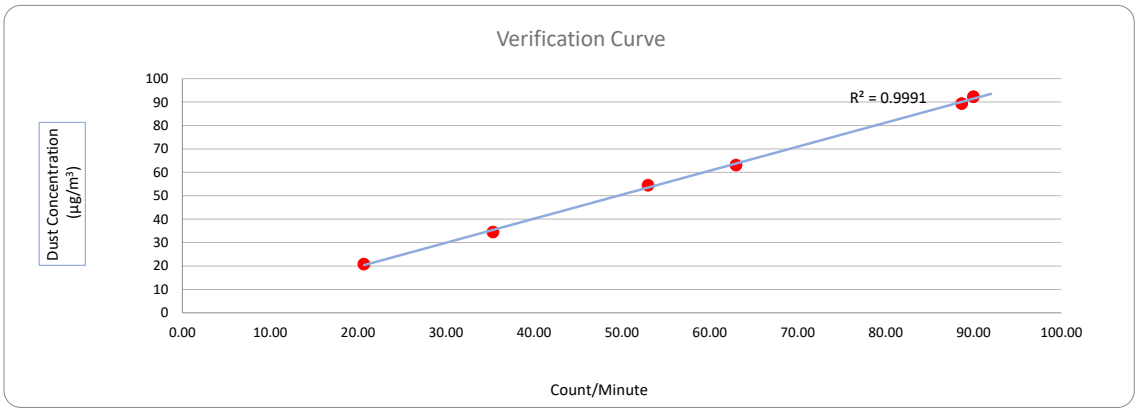
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1050	3465
Last Calibration Date:	17-Aug-24	16-Jan-24
Next Calibration Date:	30-Aug-24	15-Jan-25

Equipement Vertification Result

Verification Test No.	Date	Duration			Results from Calibrated Equipement		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (μg/m^3) y-axis
1	17/08/2024	11832.91	11835.91	180.00	16200	90.00	92
2	17/08/2024	11835.91	11838.91	180.00	9540	53.00	54
3	17/08/2024	11838.91	11841.91	180.00	15960	88.67	89
4	18/07/2024	11841.94	11844.94	180.00	6360	35.33	34
5	18/07/2024	11844.94	11847.94	180.00	3720	20.67	21
6	18/07/2024	11847.94	11850.94	180.00	11340	63.00	63

Linear Regression of y on x

Slope, K factor:	**1.0251**	Intercept:	**-0.8237**	*Correlation Coefficient,R:	**0.9996**
Verification Test Result:	Strong Correlation, Results were accepted.			* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.	



Operated By: Andy Li — Project Technician, Environmental — Date: 23-08-2024

Checked By: Tandy Tse — Senior Consultant, Environmental — Date: 23-08-2024

Appendix 2.2 Impact Air Quality Monitoring Data

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM1

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
01/02/2025	Cloudy	13:45	14:45	15:45	7	7	7	7
06/02/2025	Cloudy	14:33	15:33	16:33	15	15	13	14
12/02/2025	Rain	10:11	11:11	12:11	27	32	36	32
18/02/2025	Cloudy	10:27	11:27	12:27	42	40	40	41
24/02/2025	Cloudy	14:10	15:10	16:10	24	24	27	25

TSP-1hr		
Average	Max.	Min.
24	42	7

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM2

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
01/02/2025	Cloudy	13:54	14:54	15:54	13	14	10	12
06/02/2025	Cloudy	14:49	15:49	16:49	15	14	15	15
12/02/2025	Rain	10:28	11:28	12:28	65	28	21	38
18/02/2025	Cloudy	10:52	11:52	12:52	51	52	45	49
24/02/2025	Cloudy	14:21	15:21	16:21	26	25	27	26

TSP-1hr		
Average	Max.	Min.
28	65	10

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM3

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
01/02/2025	Cloudy	14:10	15:10	16:10	8	7	5	7
06/02/2025	Cloudy	15:04	16:04	17:04	15	14	15	15
12/02/2025	Rain	10:51	11:51	12:51	30	22	19	24
18/02/2025	Cloudy	11:08	12:08	13:08	40	43	40	41
24/02/2025	Cloudy	14:35	15:35	16:35	32	27	42	34

TSP-1hr		
Average	Max.	Min.
24	43	5

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM4

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
01/02/2025	Cloudy	14:24	15:24	16:24	7	8	7	7
06/02/2025	Cloudy	13:37	14:37	15:37	16	13	19	16
12/02/2025	Rain	10:33	11:33	12:33	27	35	36	33
18/02/2025	Cloudy	10:14	11:14	12:14	71	72	74	72
24/02/2025	Cloudy	14:56	15:56	16:56	26	25	25	25

TSP-1hr		
Average	Max.	Min.
31	74	7

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM5

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
01/02/2025	Cloudy	14:44	15:44	16:44	10	11	11	11
06/02/2025	Cloudy	13:57	14:57	15:57	20	15	13	16
12/02/2025	Rain	10:48	11:48	12:48	27	27	31	28
18/02/2025	Cloudy	10:33	11:33	12:33	56	57	58	57
24/02/2025	Cloudy	14:44	15:44	16:44	32	31	27	30

TSP-1hr		
Average	Max.	Min.
28	58	10

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM6

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
01/02/2025	Cloudy	14:49	15:49	16:49	15	13	11	13
06/02/2025	Cloudy	14:11	15:11	16:11	20	20	18	19
12/02/2025	Rain	10:59	11:59	12:59	35	32	34	34
18/02/2025	Cloudy	10:53	11:53	12:53	68	69	75	71
24/02/2025	Cloudy	14:37	15:37	16:37	43	26	24	31

TSP-1hr		
Average	Max.	Min.
34	75	11

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM7

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
03/02/2025	Cloudy	15:03	16:03	17:03	10	11	11	11
08/02/2025	Cloudy	13:37	14:37	15:37	19	19	19	19
14/02/2025	Cloudy	10:11	11:11	12:11	29	31	25	28
20/02/2025	Cloudy	10:00	11:00	12:00	20	22	18	20
26/02/2025	Cloudy	13:57	14:57	15:57	29	30	31	30

TSP-1hr		
Average	Max.	Min.
22	31	10

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM8a

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
03/02/2025	Cloudy	15:24	16:24	17:24	12	12	11	12
08/02/2025	Cloudy	13:49	14:49	15:49	18	18	20	19
14/02/2025	Cloudy	10:25	11:25	12:25	31	32	30	31
20/02/2025	Cloudy	10:18	11:18	12:18	31	27	25	28
26/02/2025	Cloudy	14:15	15:15	16:15	35	26	23	28

TSP-1hr		
Average	Max.	Min.
23	35	11

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM10

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
03/02/2025	Cloudy	15:36	16:36	17:36	12	14	15	14
08/02/2025	Cloudy	13:49	14:49	15:49	19	21	22	21
14/02/2025	Cloudy	10:25	11:25	12:25	32	32	27	30
20/02/2025	Cloudy	10:39	11:39	12:39	23	20	16	20
26/02/2025	Cloudy	14:31	15:31	16:31	37	35	36	36

TSP-1hr		
Average	Max.	Min.
24	37	12

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM11

Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
03/02/2025	Cloudy	16:12	17:12	18:12	5	4	4	4
08/02/2025	Cloudy	15:01	16:01	17:01	24	22	21	22
14/02/2025	Cloudy	9:30	10:30	11:30	28	28	25	27
20/02/2025	Cloudy	9:47	10:47	11:47	27	28	28	28
26/02/2025	Cloudy	13:42	14:42	15:42	49	42	43	45

TSP-1hr		
Average	Max.	Min.
25	49	4

Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM12

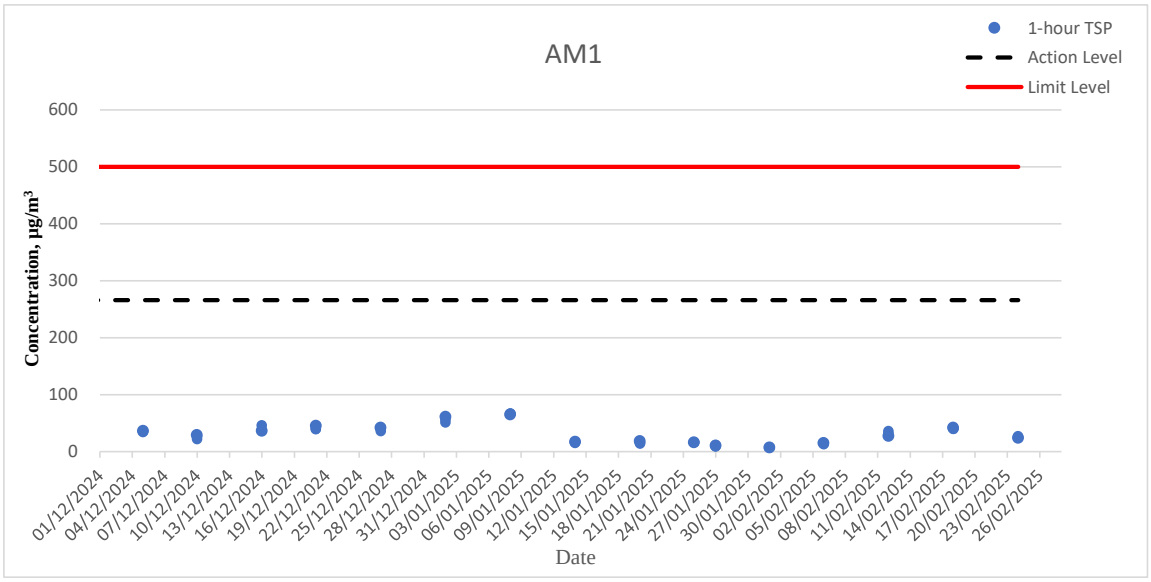
Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
03/02/2025	Cloudy	15:25	16:25	17:25	8	4	4	5
08/02/2025	Cloudy	15:13	16:13	17:13	27	27	27	27
14/02/2025	Cloudy	9:42	10:42	11:42	33	32	21	29
20/02/2025	Cloudy	10:01	11:01	12:01	28	28	25	27
26/02/2025	Cloudy	13:53	14:53	15:53	58	57	61	59

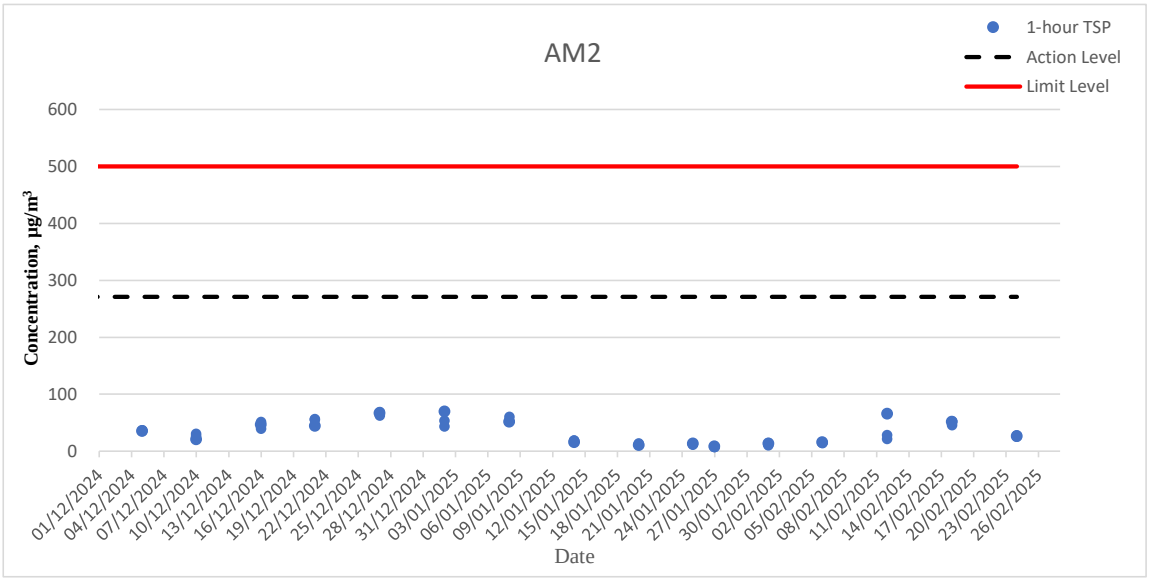
TSP-1hr		
Average	Max.	Min.
29	61	4

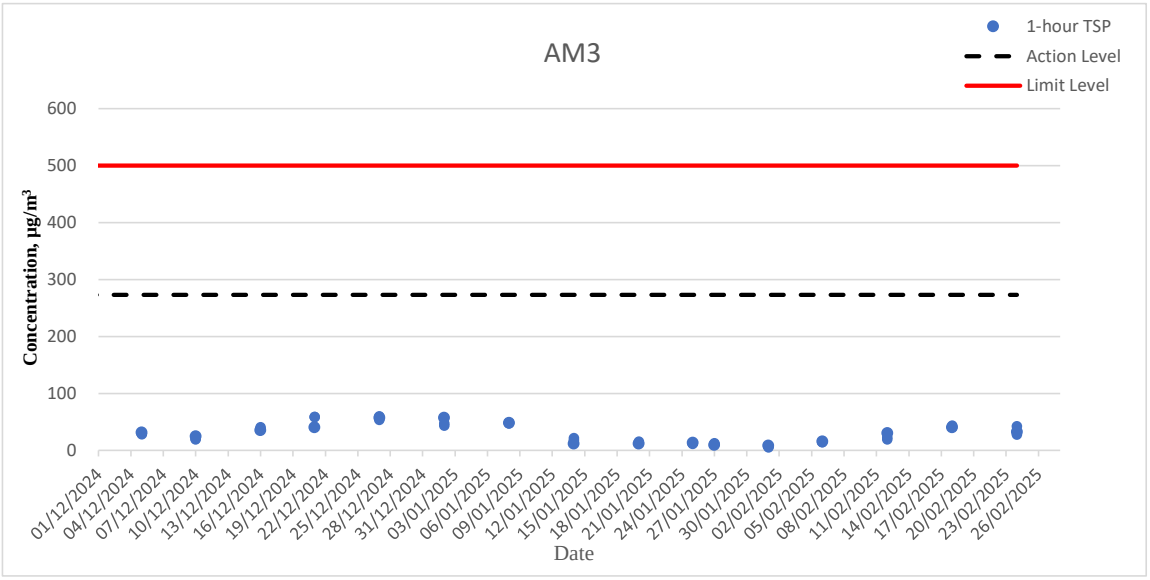
Summary of 1-hour Total Suspended Particulates ("1-hour TSP") Concentration (μg/m³) at Location AM14

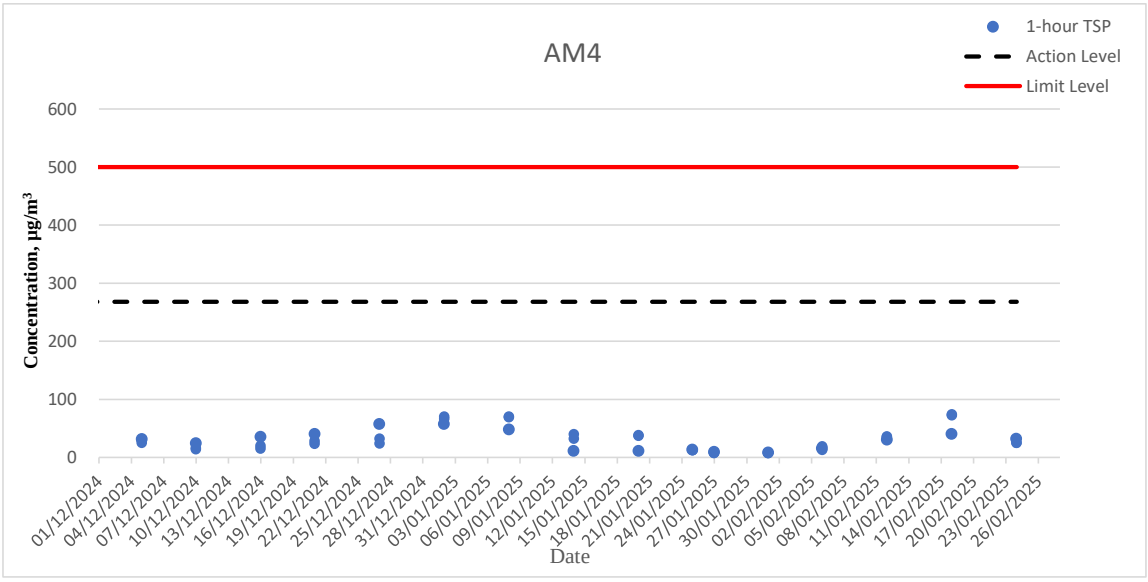
Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average
					μg/m³	μg/m³	μg/m³	μg/m³
03/02/2025	Cloudy	16:33	17:33	18:33	4	5	7	5
08/02/2025	Cloudy	15:44	16:44	17:44	23	21	20	21
14/02/2025	Cloudy	9:59	10:59	11:59	29	25	27	27
20/02/2025	Cloudy	10:13	11:13	12:13	25	20	19	21
26/02/2025	Cloudy	14:25	15:25	16:25	45	44	44	44

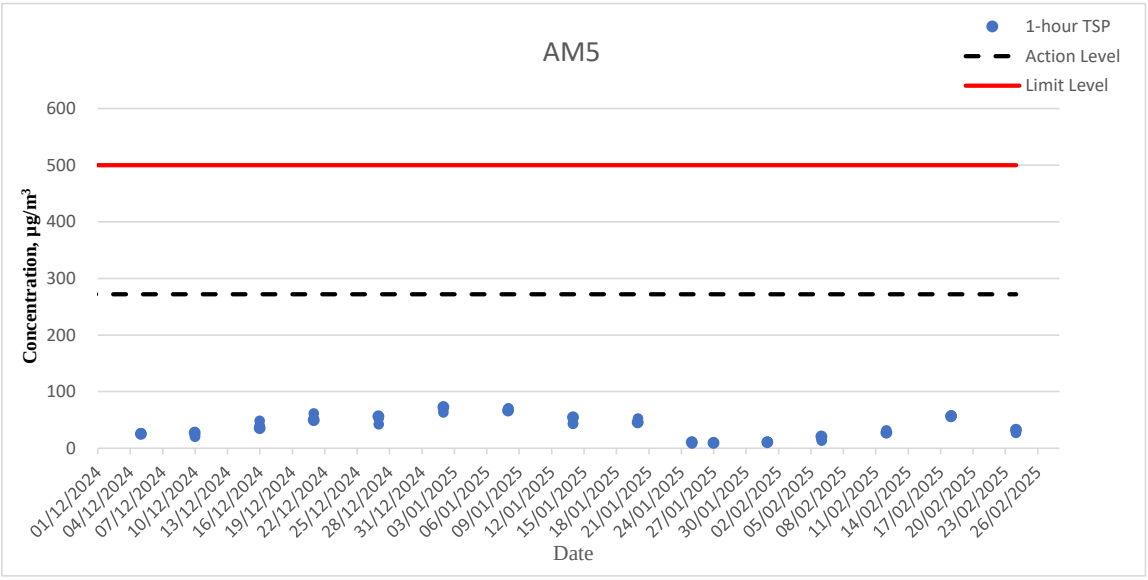
TSP-1hr		
Average	Max.	Min.
24	45	4

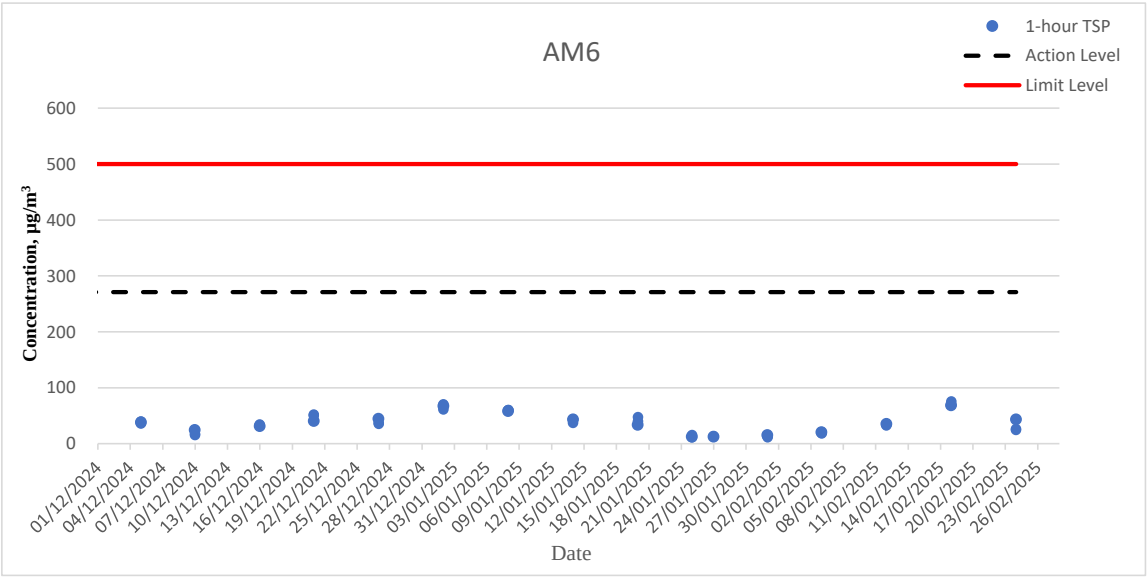

AM1
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/12/2024
04/12/2024
07/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
28/12/2024
31/12/2024
03/01/2025
06/01/2025
09/01/2025
12/01/2025
15/01/2025
18/01/2025
21/01/2025
24/01/2025
27/01/2025
30/01/2025
02/02/2025
05/02/2025
08/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date

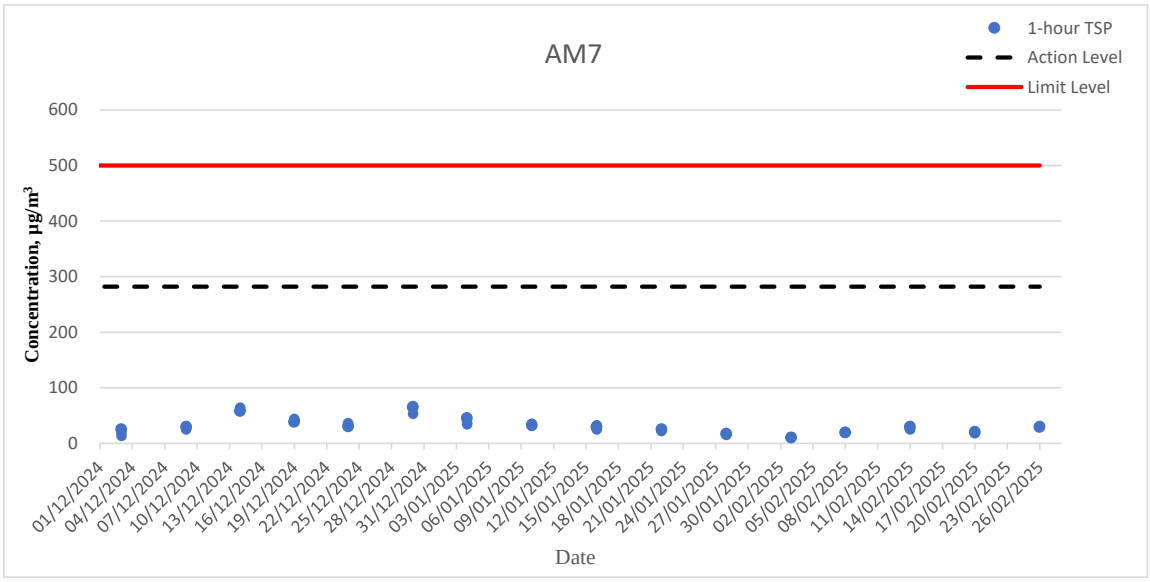

AM2
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/12/2024
04/12/2024
07/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
28/12/2024
31/12/2024
03/01/2025
06/01/2025
09/01/2025
12/01/2025
15/01/2025
18/01/2025
21/01/2025
24/01/2025
27/01/2025
30/01/2025
02/02/2025
05/02/2025
08/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date

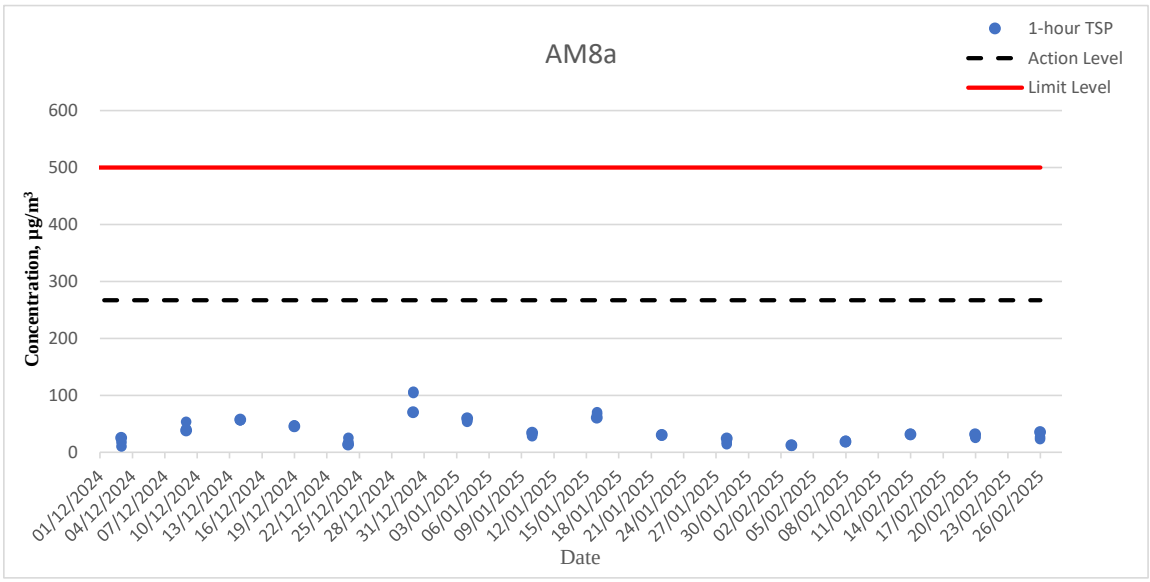

AM3
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/12/2024
04/12/2024
07/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
28/12/2024
31/12/2024
03/01/2025
06/01/2025
09/01/2025
12/01/2025
15/01/2025
18/01/2025
21/01/2025
24/01/2025
27/01/2025
30/01/2025
02/02/2025
05/02/2025
08/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date

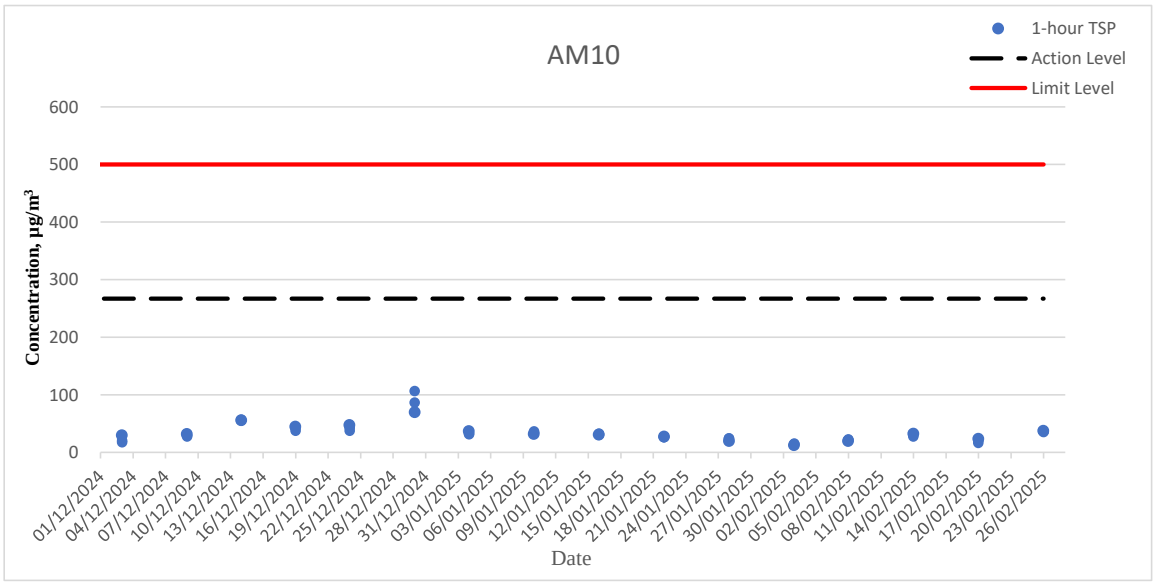

AM4
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/12/2024
04/12/2024
07/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
28/12/2024
31/12/2024
03/01/2025
06/01/2025
09/01/2025
12/01/2025
15/01/2025
18/01/2025
21/01/2025
24/01/2025
27/01/2025
30/01/2025
02/02/2025
05/02/2025
08/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date

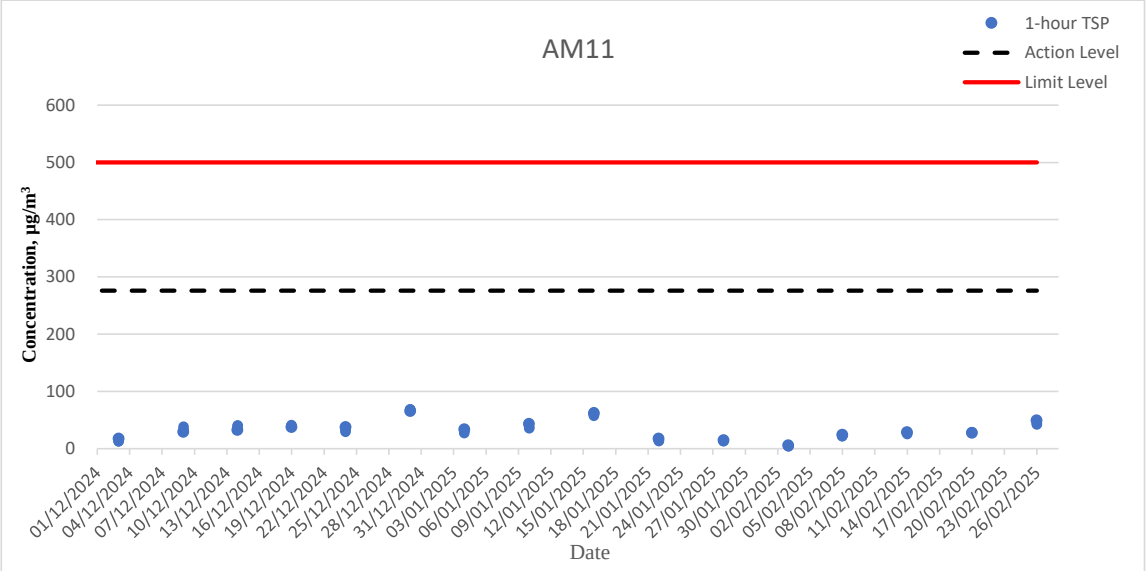

AM5
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/12/2024
04/12/2024
07/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
28/12/2024
31/12/2024
03/01/2025
06/01/2025
09/01/2025
12/01/2025
15/01/2025
18/01/2025
21/01/2025
24/01/2025
27/01/2025
30/01/2025
02/02/2025
05/02/2025
08/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date

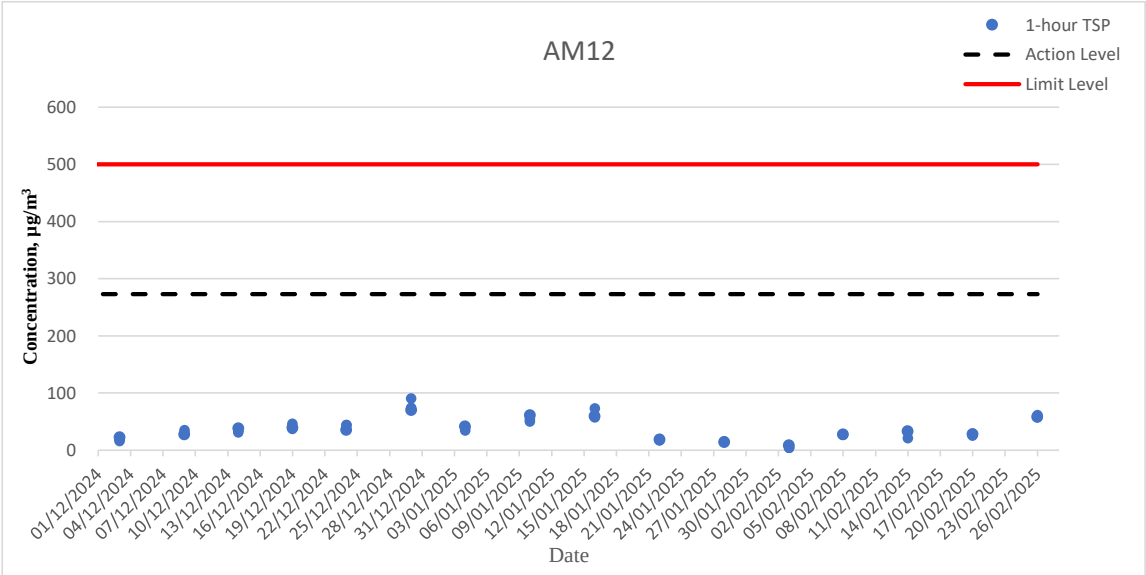

AM6
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/12/2024
04/12/2024
07/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
28/12/2024
31/12/2024
03/01/2025
06/01/2025
09/01/2025
12/01/2025
15/01/2025
18/01/2025
21/01/2025
24/01/2025
27/01/2025
30/01/2025
02/02/2025
05/02/2025
08/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date

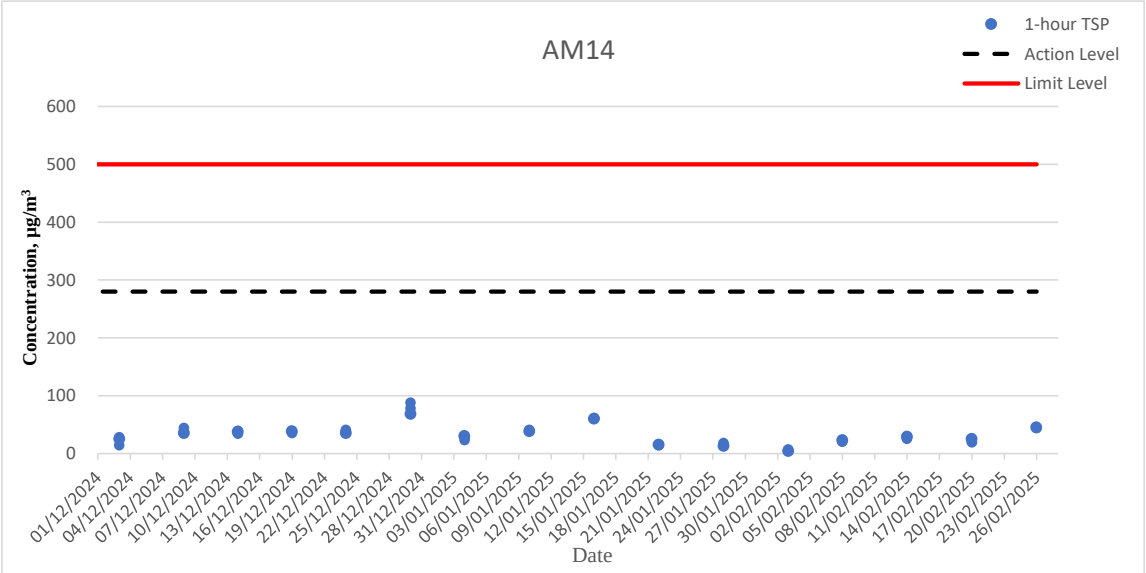

AM7
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/12/2024
04/12/2024
07/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
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18/01/2025
21/01/2025
24/01/2025
27/01/2025
30/01/2025
02/02/2025
05/02/2025
08/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date


AM8a
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/12/2024
04/12/2024
07/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
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24/01/2025
27/01/2025
30/01/2025
02/02/2025
05/02/2025
08/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date


AM10
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/12/2024
04/12/2024
07/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
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24/01/2025
27/01/2025
30/01/2025
02/02/2025
05/02/2025
08/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date


AM11
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/12/2024
04/12/2024
07/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
28/12/2024
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02/02/2025
05/02/2025
08/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date

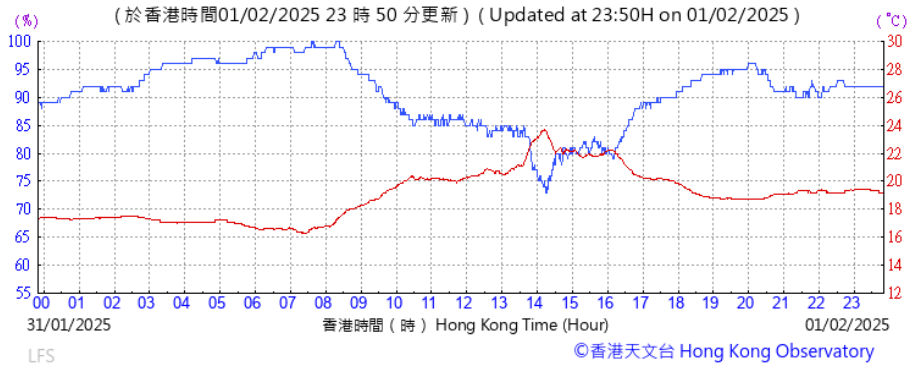

AM12
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/12/2024
04/12/2024
07/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
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24/01/2025
27/01/2025
30/01/2025
02/02/2025
05/02/2025
08/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date


AM14
1-hour TSP
Action Level
Limit Level
Concentration, µg/m³
600
500
400
300
200
100
0
01/12/2024
04/12/2024
07/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
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05/02/2025
08/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date

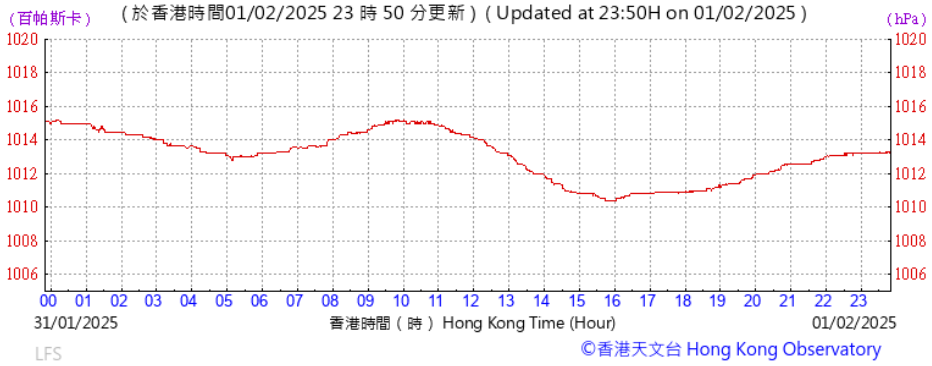
Appendix 2.3 Weather Information during the Reporting Period

01 February 2025

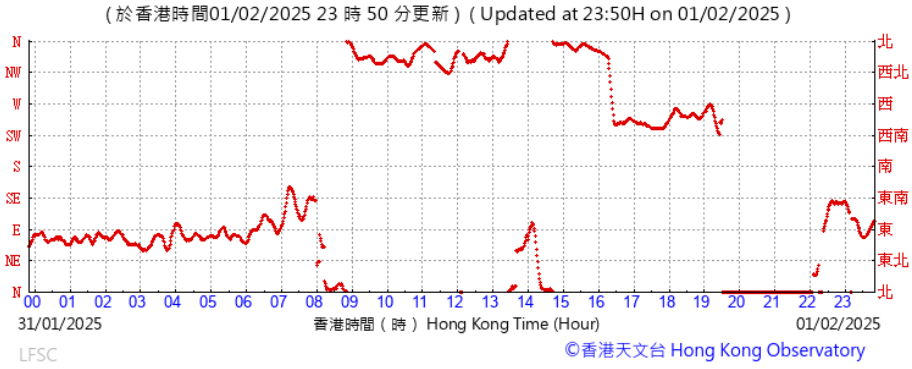
Temperature/humidity:



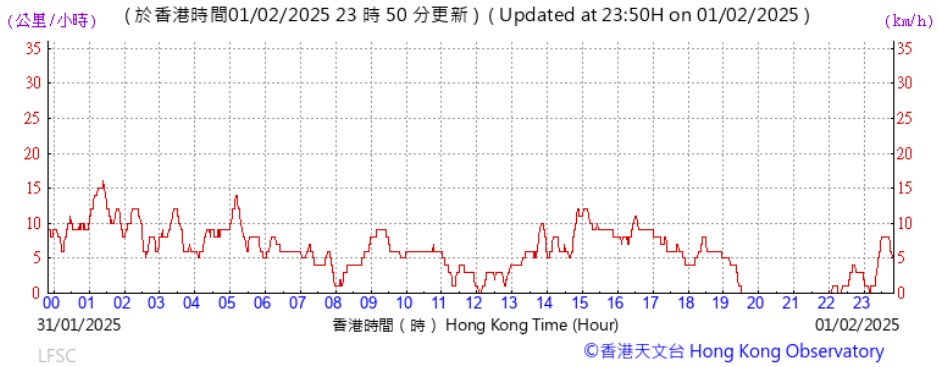
Pressure:



Wind Direction:

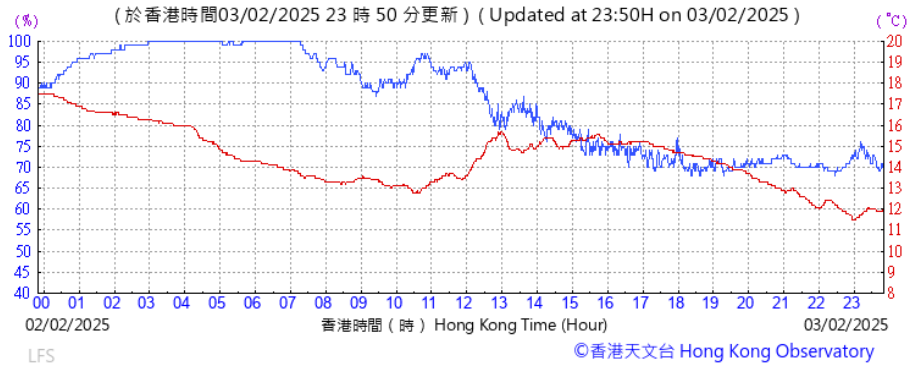


Wind Speed:

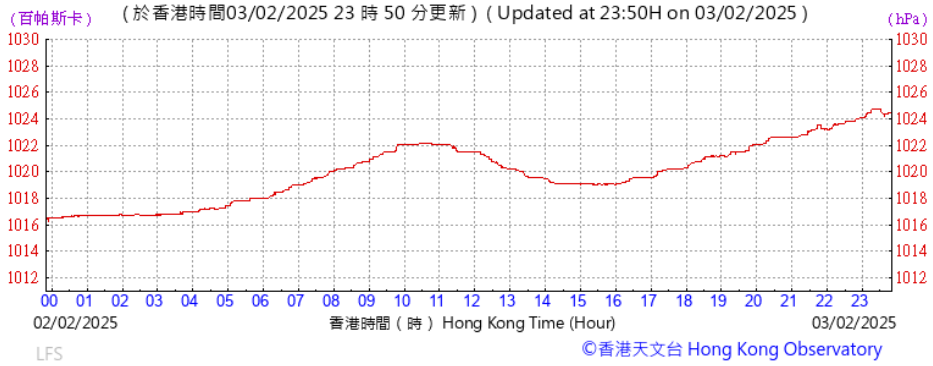


03 February 2025

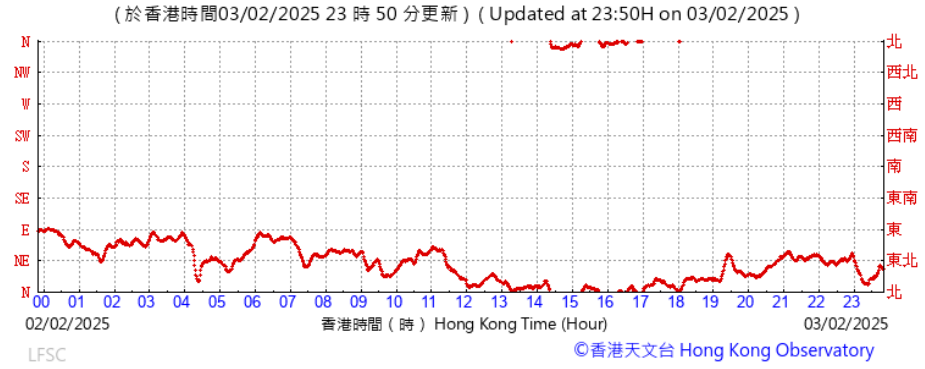
Temperature/humidity:



Pressure:



Wind Direction:

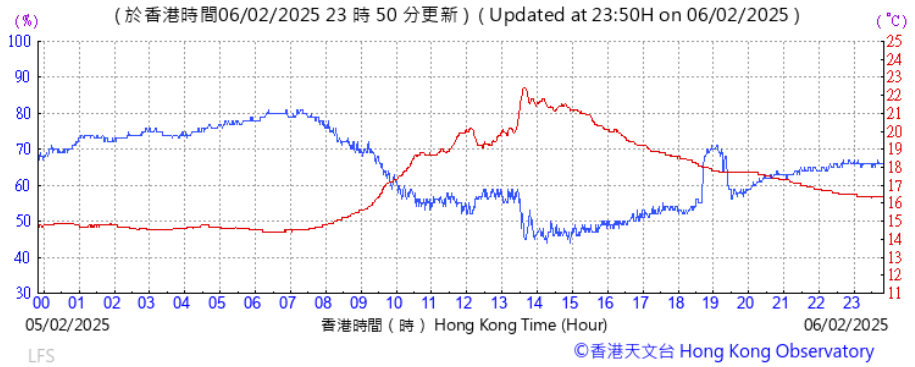


Wind Speed：

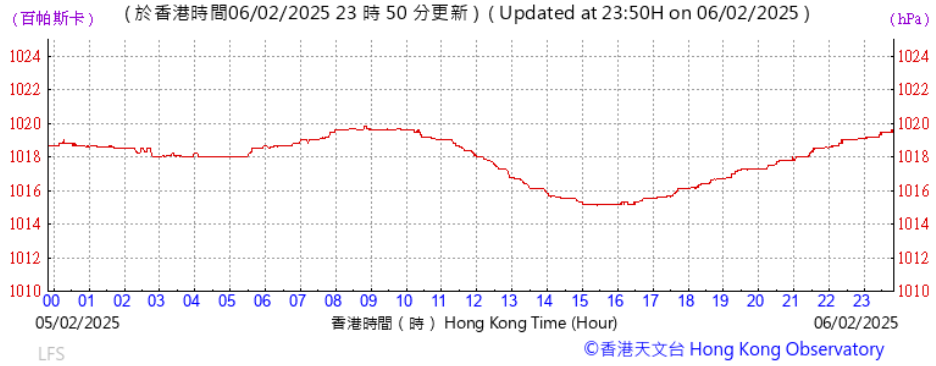


06 February 2025

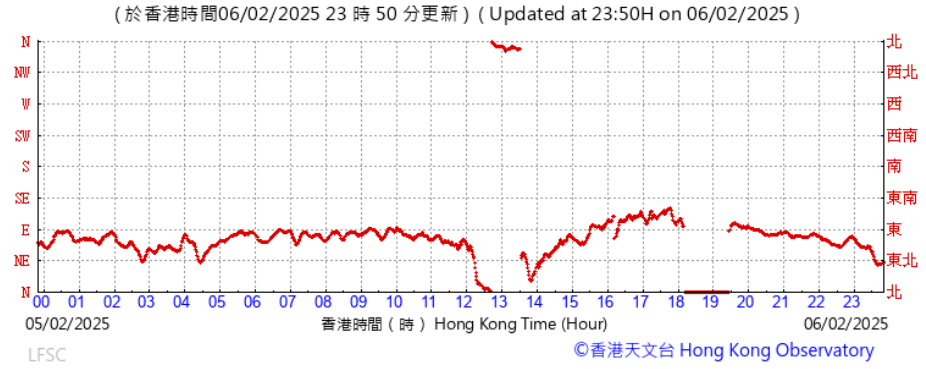
Temperature/humidity:



Pressure:



Wind Direction:

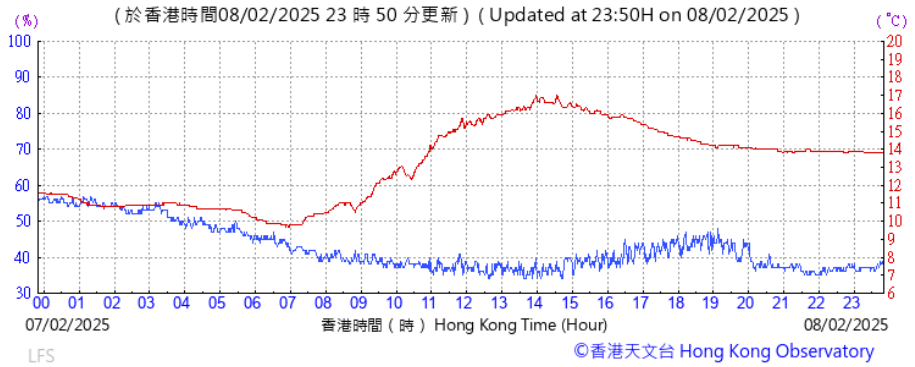


Wind Speed：

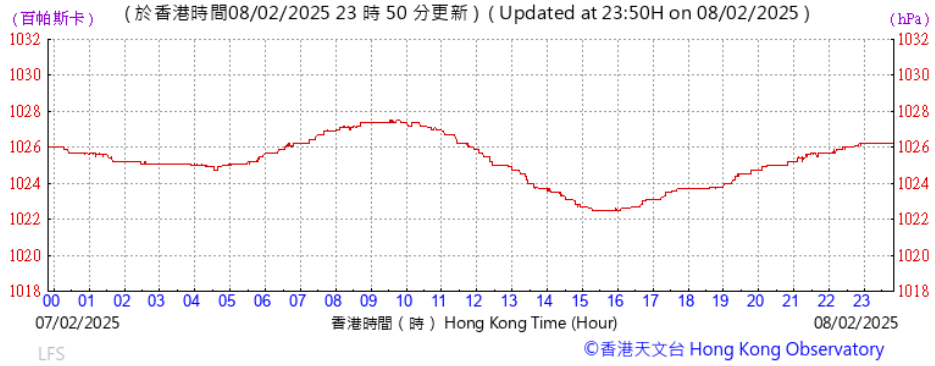


08 February 2025

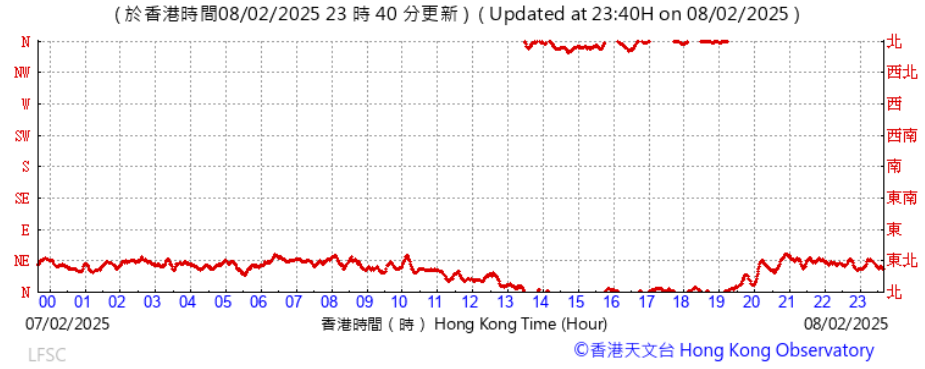
Temperature/humidity:



Pressure:



Wind Direction:



Wind Speed：

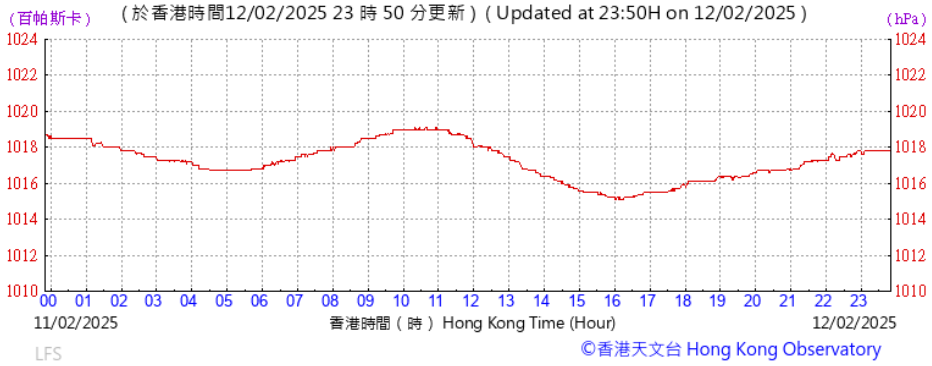


12 February 2025

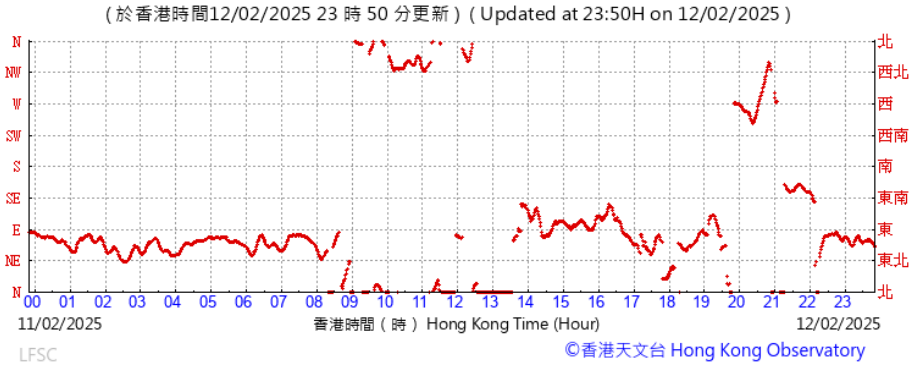
Temperature/humidity:



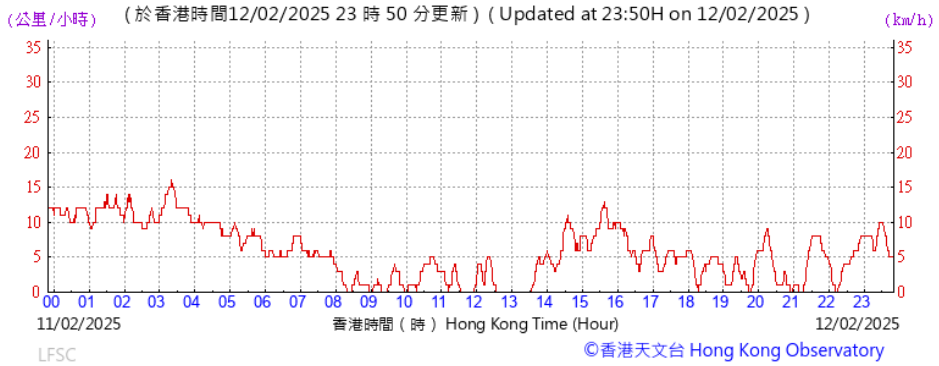
Pressure:



Wind Direction:

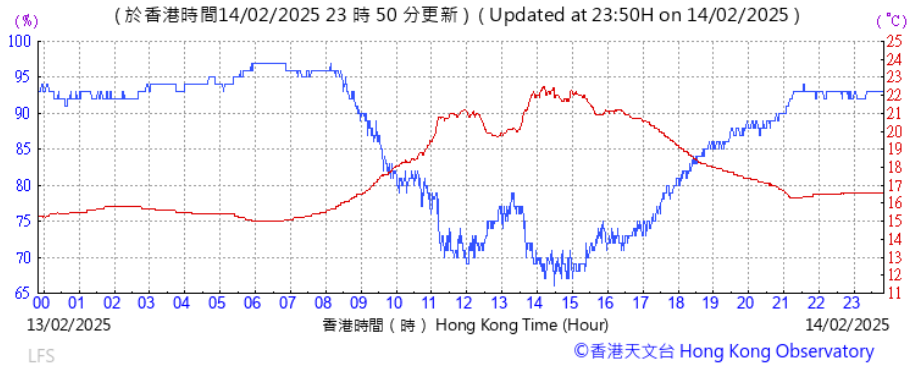


Wind Speed：

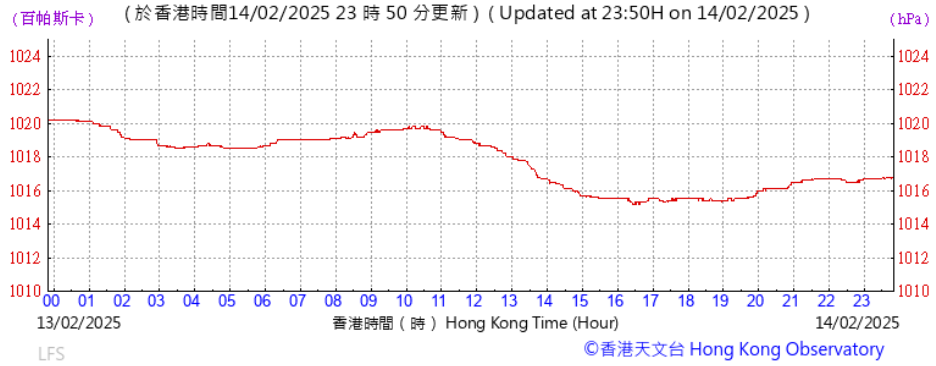


14 February 2025

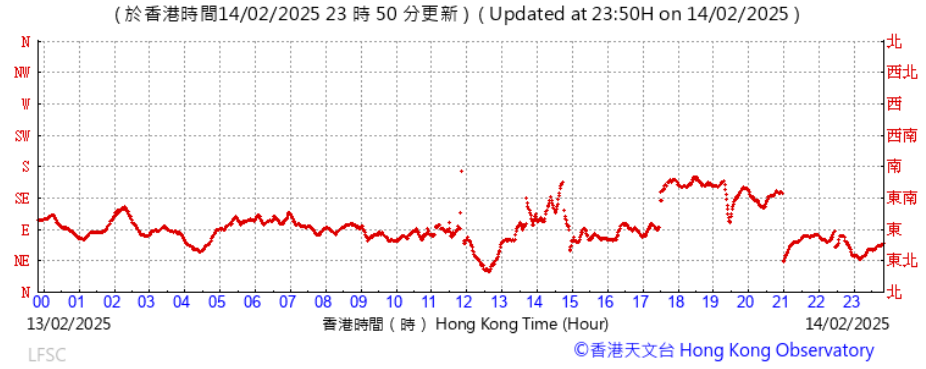
Temperature/humidity:



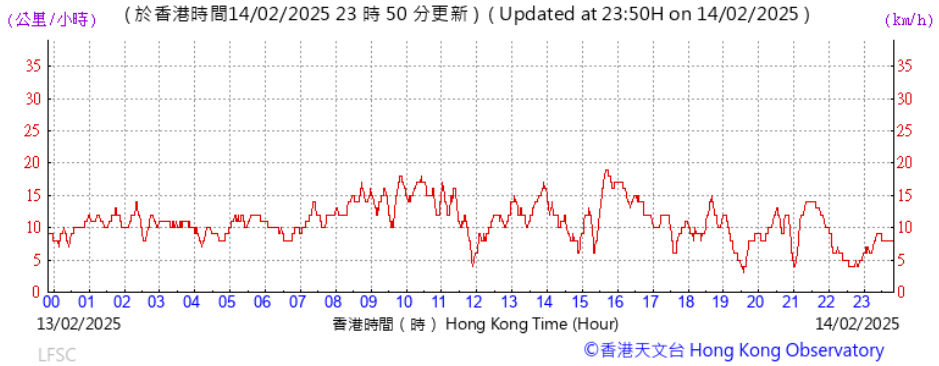
Pressure:



Wind Direction:

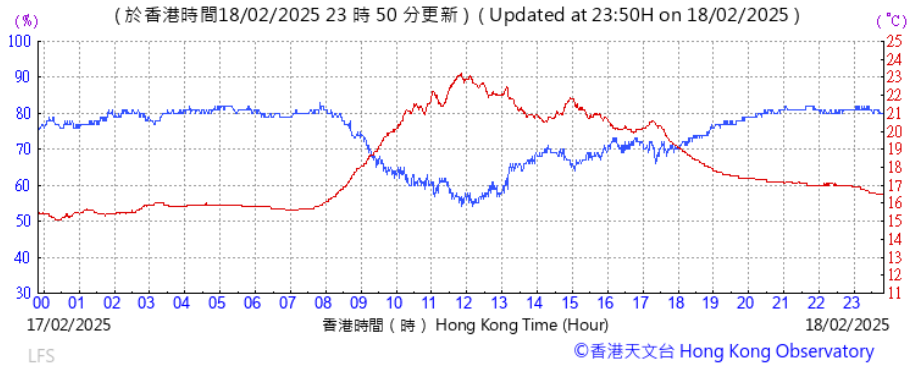


Wind Speed：

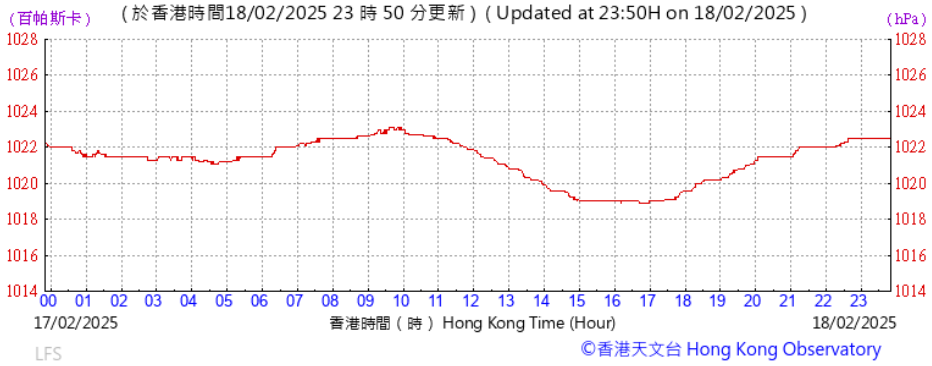


18 February 2025

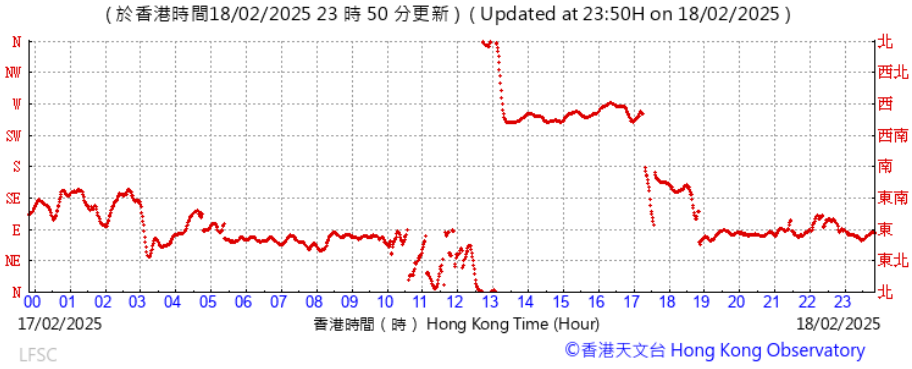
Temperature/humidity:



Pressure:



Wind Direction:

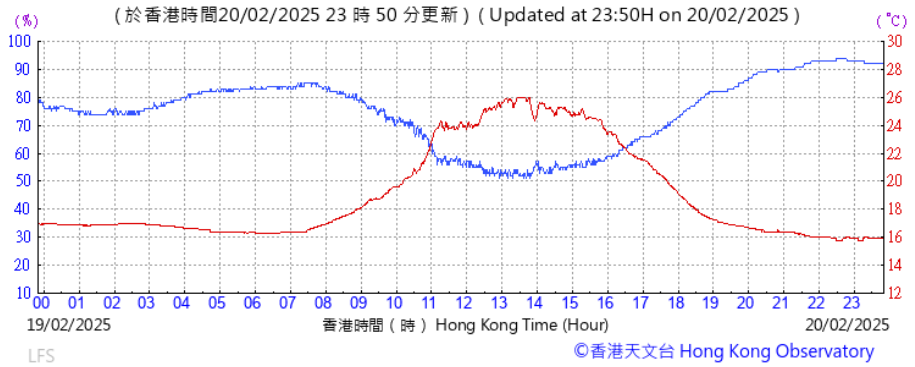


Wind Speed：

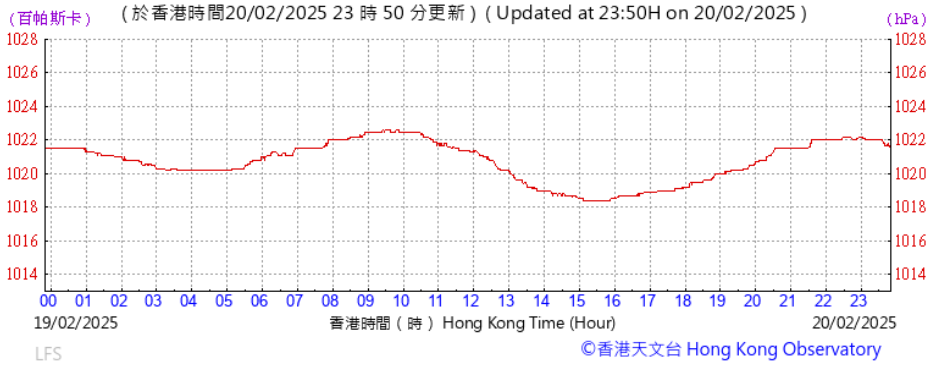


20 February 2025

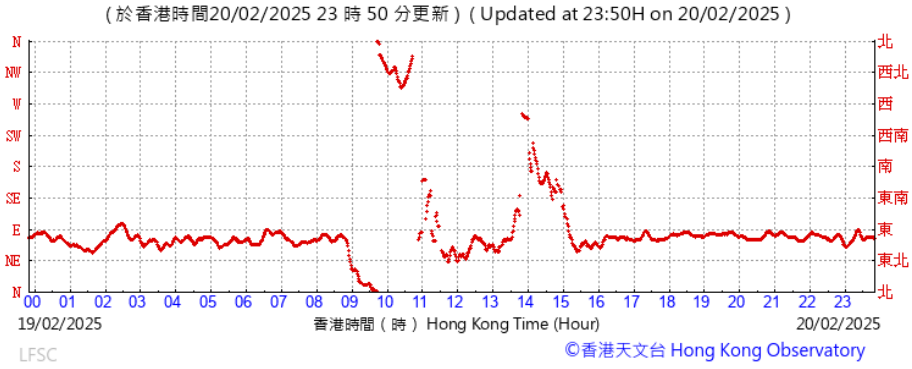
Temperature/humidity:



Pressure:



Wind Direction:

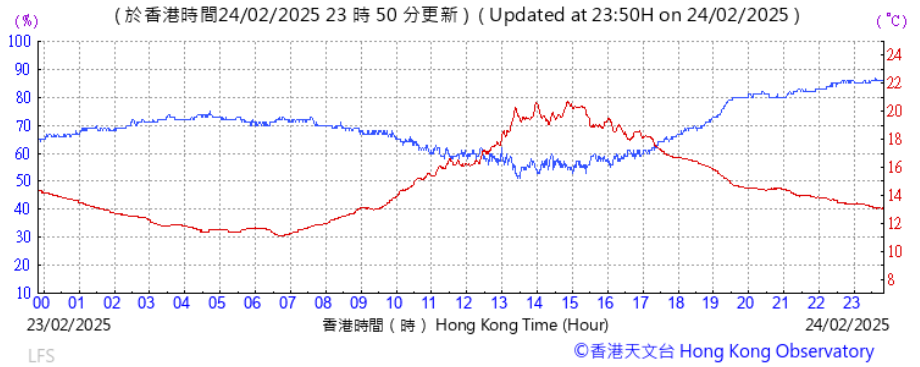


Wind Speed：

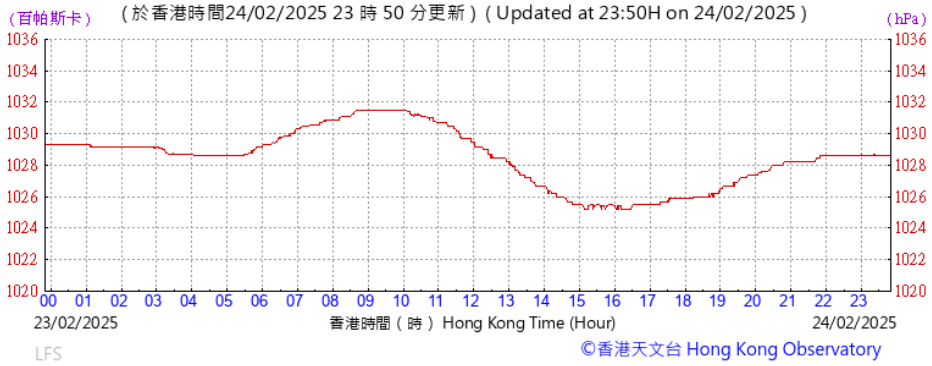


24 February 2025

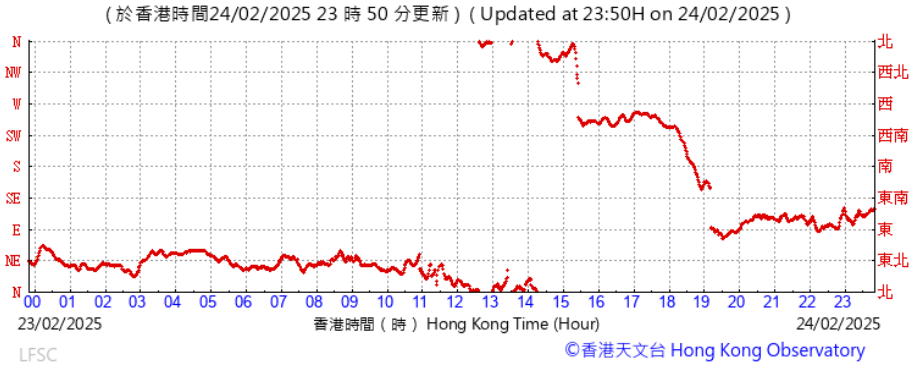
Temperature/humidity:



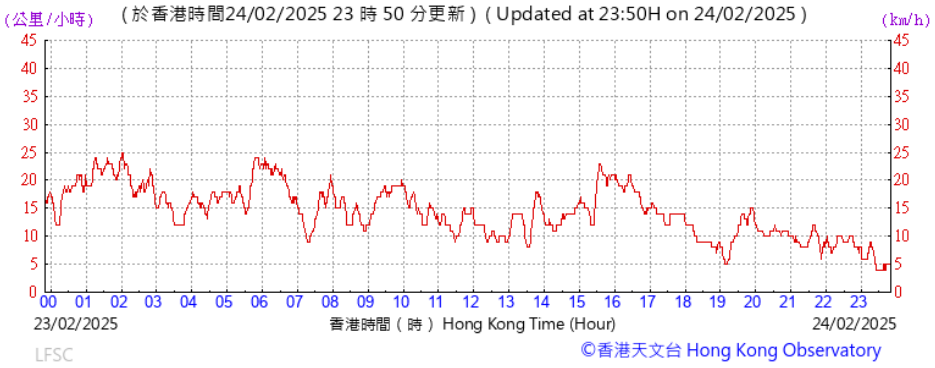
Pressure:



Wind Direction:

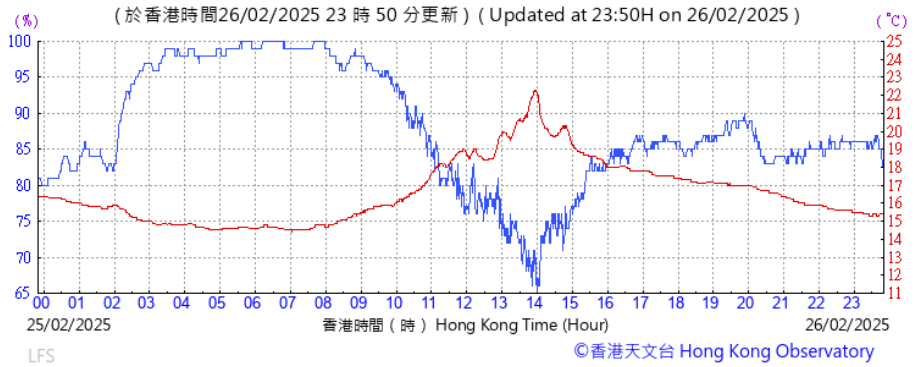


Wind Speed：



26 February 2025

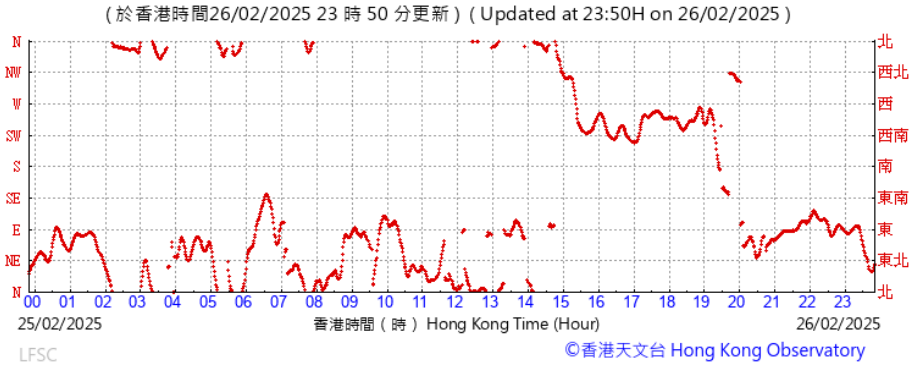
Temperature/humidity:



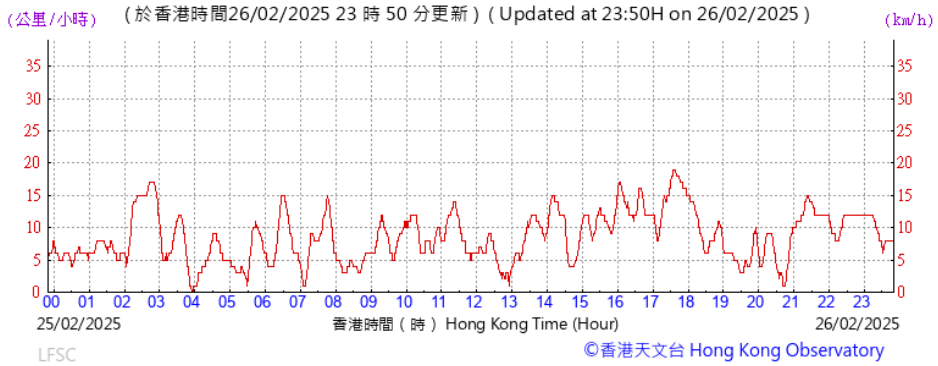
Pressure:



Wind Direction:



Wind Speed：



Appendix 2.4 Event and Action Plan for Air Quality

Event and Action Plan for Air Quality

Event	Action			
	ET	IEC	ER	Contractor
Action level being exceeded by one sampling	1. Identify source, investigate the causes of complaint and propose remedial measures; 2. Inform Contractor, IEC and ER; 3. Repeat measurement to confirm finding; and 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; and 3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures.	1. Notify Contractor.	1. Identify source(s), investigate the causes of exceedance and propose remedial measures; 2. Implement remedial measures; and 3. Amend working methods agreed with the ER as appropriate.
Action level being exceeded by two or more consecutive sampling	1. Identify source; 2. Inform Contractor, IEC and ER; 3. Advise the Contractor and ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with Contractor, IEC and ER; and 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented by the Contractor; and 4. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Identify source and investigate the causes of exceedance; 2. Submit proposals for remedial measures to the ER with a copy to ET and IEC within three working days of notification; 3. Implement the agreed proposals; and 4. Amend proposal as appropriate.

Limit level being exceeded by one sampling	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform Contractor, IEC, ER, and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; and 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; and 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to ER with a copy to ET and IEC within three working days of notification; 4. Implement the agreed proposals; and 5. Amend proposal if appropriate.

Limit level being exceeded by two or more consecutive sampling	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by the ET; 2. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 3. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 4. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 3. Supervise the implementation of remedial measures; and 4. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to the ER with a copy to the IEC and ET within three working days of notification; 4. Implement the agreed proposals; 5. Revise and resubmit proposals if problem still not under control; and 6. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Appendix 3.1 Calibration Certificates of Impact Noise Monitoring Equipment

Certificate of Calibration

for

Description:	***Sound Level Meter***
Manufacturer:	***SVANTEK***
Type No.:	***971 (Serial No.: C119577)***
Microphone:	***ACO 7052E (Serial No.: 93026)***
Preamplifier:	***SV 18 (Serial No.:103880)***

Submitted by:

Customer:	*Aurecon Hong Kong Limited*
Address:	*Unit 1608, 16/F, Tower B,Manulife Financial Centre,*
	223-231 Wai Yip Street,
	Kwun Tong,Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

☑ **Within (31.5Hz – 4kHz)**
☐ **Outside**

the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 23 October 2024

Date of calibration: 24 October 2024

Date of NEXT calibration: 23 October 2025

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: 24 October 2024

ACOUSTICS AND AIR TESTING LABORATORY CO. LTD. (A+A)*L

Certificate No.: APJ23-155-CC004

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

1. *Calibration Precaution:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

- The results presented are the mean of 3 measurements at each calibration point.

2. *Calibration Conditions:*

Air Temperature:	25.6 **°C**
Air Pressure:	1006 **hPa**
Relative Humidity:	51.8 **%**

3. *Calibration Equipment:*

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS

4. *Calibration Results*

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
25-125.2	dBA SPL	Fast	94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
25-125.2	dBA SPL	Fast	94	1000	94.0	Ref
			104		104.0	±0.3
			114		114.0	±0.3

Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
25-125.2	dBA SPL	Fast	94	1000	94.0	Ref
		Slow			94.0	±0.3

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Frequency Response

Linear Response

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
25-125.2	dB SPL	Fast	94	31.5	94.3	±2.0
				63	94.2	±1.5
				125	94.1	±1.5
				250	94.1	±1.4
				500	94.1	±1.4
				1000	94.0	Ref
				2000	93.7	±1.6
				4000	93.2	±1.6

A-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
25-125.2	dBA SPL	Fast	94	31.5	55.0	-39.4 ±2.0
				63	68.1	-26.2 ±1.5
				125	78.1	-16.1 ±1.5
				250	85.5	-8.6 ±1.4
				500	90.8	-3.2 ±1.4
				1000	94.0	Ref
				2000	94.9	+1.2 ±1.6
				4000	94.3	+1.0 ±1.6

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
25-125.2	dBC SPL	Fast	94	31.5	91.4	-3.0 ±2.0
				63	93.4	-0.8 ±1.5
				125	94.0	-0.2 ±1.5
				250	94.1	-0.0 ±1.4
				500	94.1	-0.0 ±1.4
				1000	94.0	Ref
				2000	93.6	-0.2 ±1.6
				4000	92.5	-0.8 ±1.6

ACOUSTICS AND AIR TESTING LABORATORY CO. LTD. (A+A)*L

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

5. *Calibration Results Applied*

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.10
	63 Hz	± 0.05
	125 Hz	± 0.05
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:
The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

RION CO., LTD.

3-20-41 Higashimotomachi Kokubunji Tokyo 185-8533
Phone:042(359)7888, Facsimile:042(359)7442

Certificate of Calibration

Name : **Class 1 Sound Level Meter**

Model : **NL-53** **S/No.** : **01130785**

Date of Calibration : **March, 04, 2024**

We hereby certify that the above product was tested and calibrated according to the prescribed Rion procedures, and that it fulfills specification requirements.
The measuring equipment and reference devices used for testing and calibrating this unit are managed under the Rion traceability system and are traceable according to official Japanese standards and official standards of countries belonging to the International Committee of Weights and Measures.

RION CO., LTD.

J. Kawamura

Manager, Quality Control Department

Certificate of Calibration

for

Description:	***Sound Level Calibrator***
Manufacturer:	***RION***
Type No.:	***NC-75***
Serial No.:	***34724245***

Submitted by:

Customer:	*Aurecon Hong Kong Limited*
Address:	*Unit 1608, 16/F, Tower B, Manulife Financial Centre,*
	223-231 Wai Yip Street, Kwun Tong,
	Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

☑ **Within**
☐ **Outside**

the allowable tolerance.

The test equipments used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 22 July 2024

Date of calibration: 24 July 2024

Date of NEXT calibration: 23 July 2025

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: **24 July 2024**

Certificate No.: APJ23-154-CC003

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

1. *Calibration Precautions:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

2. *Calibration Specifications:*

Calibration check

3. *Calibration Conditions:*

Air Temperature:	23.4 °C
Air Pressure:	1005 hPa
Relative Humidity:	56.7 %

4. *Calibration Equipment:*

Test Equipment	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS
Sound Level Meter	RION NA-28	30721812	AV230128	HOKLAS

5. *Calibration Results*

5.1 Sound Pressure Level

Nominal value dB	Accept lower level dB	Accept upper level dB	Measured value dB
94.0	93.6	94.4	94.0

Note:
The values given in this certification only related to the values measured at the time of the calibration.

ACOUSTICS AND AIR TESTING LABORATORY CO. LTD. (A+A)*L

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Appendix 3.2 Impact Noise Monitoring Data

Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Noise Monitoring Result

aurecon

Noise Level Results at CM1

Date	Time		Weather	Leq-5min, dB(A)						Leq-30min, dB(A)	Leq-30min with free-field correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)
				Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)				
05/02/2025	11:47	12:17	Sunny	55.5	59.1	54.4	53.7	49.2	53.2	55.2	58.2	58.7	measured level ≤ baseline level
11/02/2025	10:02	10:32	Fine	53.4	53.8	54.7	54.6	52.4	54.2	53.9	56.9	58.7	measured level ≤ baseline level
21/02/2025	11:43	12:13	Sunny	54.3	54.6	53.8	52.7	54.3	54.2	54.0	57.0	58.7	measured level ≤ baseline level
27/02/2025	10:30	11:00	Sunny	60.8	59.8	57.6	56.3	54.3	53.8	57.9	60.9	58.7	56.8
												Average Construction Noise Level	57.2

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
60.9	56.9

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L90
L90	52.4	54.5	46.6	46.2	46.7	47.6	50.3
	51.4	49.2	50.8	48.6	50.8	48.3	50.0
	51.3	50.8	51.3	50.2	50.7	50.3	50.8
	52.0	51.9	51.0	50.6	50.4	49.8	51.0

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L10
L10	57.4	59.1	56.5	53.7	50.5	56.3	56.3
	56.3	56.8	56.7	58.1	57.6	58.0	57.3
	57.6	58.2	57.6	58.4	56.9	57.8	57.8
	63.2	62.7	61.0	58.9	56.2	55.9	60.5

Noise Level Results at CM2

Date	Time		Weather	Leq-5min, dB(A)						Leq-30min, dB(A)	Leq-30min with free-field correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)
				Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)				
05/02/2025	12:53	13:23	Sunny	70.6	70.4	69.8	70.0	71.8	69.3	70.4	73.4	64.2	72.8
11/02/2025	11:19	11:49	Fine	70.2	70.3	70.6	70.2	69.8	70.4	70.3	73.3	64.2	72.7
21/02/2025	13:04	13:34	Sunny	70.3	70.2	71	70.6	69.7	69.8	70.3	73.3	64.2	72.7
27/02/2025	12:00	12:30	Sunny	71.0	71.4	72.1	71.6	69.2	71.6	71.2	74.2	64.2	73.8
												Average Construction Noise Level	73.0

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
74.2	73.3

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L90
L90	60.2	58.6	58	54.5	56.3	53.5	57.4
	59.5	58.4	58.3	57.9	59.3	60.8	59.1
	60.3	61.8	60.7	60.3	59.5	61.1	60.7
	61.1	61.1	60.5	61.8	61.8	61.6	61.3

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L10
L10	74	73.6	73.0	72.9	75.6	71.9	73.7
	73.1	73.4	74.6	74.6	73.1	73.8	73.8
	73.5	74.6	73.4	73.8	72.6	73.4	73.6
	74.7	74.7	75.5	74.6	72.0	73.7	74.3

Noise Level Results at CM3

Date	Time		Weather	Leq-5min, dB(A)						Leq-30min, dB(A)	Leq-30min with free-field correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)
				Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)				
05/02/2025	12:27	12:57	Sunny	62.4	64.0	64.2	63.8	64.2	63.6	63.7	66.7	71.5	measured level ≤ baseline level
11/02/2025	10:37	11:07	Fine	64.7	64.6	64.1	65.3	64.3	64.7	64.6	67.6	71.5	measured level ≤ baseline level
21/02/2025	13:36	14:06	Sunny	64.3	63.7	63.8	64.6	64.8	65.2	64.4	67.4	71.5	measured level ≤ baseline level
27/02/2025	11:05	11:35	Sunny	68.3	67.4	66.2	67.5	68.5	66.5	67.5	70.5	71.5	measured level ≤ baseline level
												Average Construction Noise Level	68.1

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
70.5	66.7

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L90
L90	50.1	49.2	47.8	50.5	49.3	50.1	49.6
	49.6	49.4	48.3	49.6	50.7	49.2	49.5
	50.7	50.4	50.7	51.4	51.3	51.6	51.0
	51.9	48.4	51.6	53.7	51.8	52.8	52.0

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L10
L10	66.1	67.4	68.3	67.6	66.9	67.8	67.4
	68.4	67.5	67.2	67.7	68.6	68.7	68.1
	68.8	68.0	67.8	67.4	68.4	68.7	68.2
	70.8	71.4	69.6	70.1	69.8	69.3	70.2

Noise Level Results at CM4a

Date	Time		Weather	Leq-5min, dB(A)						Leq-30min, dB(A)	Leq-30min with free-field correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)
				Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)				
05/02/2025	13:33	14:03	Sunny	63.3	62.5	62.8	65.0	63.7	64.2	63.7	66.7	75.0	measured level ≤ baseline level
11/02/2025	11:59	12:29	Fine	64.2	63.7	63.5	63.4	64.5	64.2	63.9	66.9	75.0	measured level ≤ baseline level
21/02/2025	14:41	15:11	Sunny	67.4	68.3	67.5	65.1	65.7	68.1	67.2	70.2	75.0	measured level ≤ baseline level
27/02/2025	13:00	13:30	Sunny	62.1	63.4	63	63.6	63.3	62.8	63.1	66.1	75.0	measured level ≤ baseline level
												Average Construction Noise Level	67.5

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
70.2	66.1

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L90
L90	48.2	50.6	49.8	53.9	54.2	56.7	53.2
	52.1	52.7	52.4	53.2	54.2	53.4	53.1
	56.4	56.7	55.4	54.3	55.7	55.6	55.7
	53.1	53.6	51.2	51.5	53.7	52.9	52.8

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L10
L10	67.1	65.6	66.6	68.0	67.6	67.7	67.2
	69.4	68.7	68.3	68.4	67.5	68.3	68.5
	70.6	71.2	71.6	70.4	70.6	71.5	71.0
	65.8	67.3	66.6	67.1	66.6	66.6	66.7

Noise Level Results at CM10

Date	Time		Weather	Leq-5min, dB(A)						Leq-30min, dB(A)	Leq-30min with free-field correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)
				Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)				
05/02/2025	14:12	14:42	Sunny	57.3	56.7	58.2	58.0	56.8	57.1	57.4	-	60.9	measured level ≤ baseline level
11/02/2025	10:25	10:55	Fine	60.3	60.5	61.3	61.3	59.9	59.0	60.5	-	60.9	measured level ≤ baseline level
21/02/2025	11:00	11:30	Sunny	55.8	58.4	56.6	55.9	58.8	55.9	57.1	-	60.9	measured level ≤ baseline level
27/02/2025	9:02	9:32	Sunny	57.2	56.2	56.2	57.1	56.8	56.9	56.8	-	60.9	measured level ≤ baseline level
												Average Construction Noise Level	57.9

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
60.5	56.8

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L90
L90	54.1	56	57.4	56.7	55.3	55.4	55.9
	55.6	56.1	54.6	54.6	55.3	54.7	55.2
	52.7	55.2	54.7	52.8	53.6	53.6	53.9
	54.2	53.7	53.6	54.2	54.0	53.4	53.9

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L10
L10	60.6	59.8	57.8	60.4	61.7	60.5	60.3
	63	62.7	63.2	63.2	62.1	62.2	62.8
	57.3	60.5	57.8	57.6	57.4	57.5	58.2
	61.2	62.8	61.2	62.6	63.4	62.7	62.4

Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Noise Monitoring Result

aurecon

Noise Level Results at CM13

Date	Time	Weather	Leq-5min, dB(A)						Leq-30min, dB(A)	Leq-30min with free-field correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)
			Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)				
05/02/2025	14:59 - 15:29	Sunny	51.2	50.9	50.8	51.8	50.9	51.5	51.2	-	54.4	measured level ≤ baseline level
11/02/2025	14:19 - 14:49	Fine	51.6	50.4	50.7	49.6	59.2	51.5	53.8	-	54.4	measured level ≤ baseline level
21/02/2025	15:00 - 15:30	Sunny	50.8	48.8	48.1	47.7	52.0	53.7	50.7	-	54.4	measured level ≤ baseline level
27/02/2025	9:54 - 10:24	Sunny	51.2	51.6	51.3	51.0	51.5	51.6	51.4	-	54.4	measured level ≤ baseline level
											Average Construction Noise Level	51.8

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
53.8	50.7

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L90
L90	43.6	45.5	44.6	43.8	45.8	42.9	44.5
	44.9	45.1	45.0	44.2	45.6	45.4	45.1
	45.2	44.3	43.7	43.8	44.9	50.1	46.0
	44.6	44.5	44.5	44.5	44.3	44.8	44.5

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L10
L10	54.6	53.4	53.8	54.9	55.2	54.1	54.4
	54.4	53.4	53.8	52.3	58.8	54.0	55.0
	53.6	51.7	51.0	50.1	56.4	56.3	53.9
	54.2	53.7	54.6	53.2	54.2	54.6	54.1

Noise Level Results at CM14

Date	Time	Weather	Leq-5min, dB(A)						Leq-30min, dB(A)	Leq-30min with free-field correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)
			Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)				
05/02/2025	15:33 - 16:03	Sunny	56.4	55.6	55.4	55.3	54.3	55.1	55.4	58.4	47.4	58.0
11/02/2025	13:37 - 14:07	Fine	61.9	62.1	54.3	53.5	57.7	53.3	58.7	61.7	47.4	61.6
21/02/2025	14:25 - 14:55	Sunny	54.9	54.6	54.6	55.5	61.0	54.0	56.6	59.6	47.4	59.3
27/02/2025	10:27 - 10:57	Sunny	54.3	55.7	56.7	55.1	55.8	54.7	55.5	58.5	47.4	58.1
											Average Construction Noise Level	59.3

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
61.7	58.4

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L90
L90	47.2	46	46.3	46.7	47.2	45.1	46.5
	48.4	44.9	46.3	46.0	45.6	44.8	46.2
	45.1	46.5	46.3	48.2	47.9	46.1	46.8
	48.2	47.6	47.9	48.3	46.1	46.7	47.5

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L10
L10	59.3	58.4	60.3	60.1	61.7	60.5	60.2
	62.7	58.6	57.8	56.2	61.2	57.1	59.6
	58.5	58.2	57.5	58.6	59.8	57.5	58.4
	60.2	59.1	59.4	60.4	60.6	60.3	60.0

Noise Level Results at CM15a

Date	Time	Weather	Leq-5min, dB(A)						Leq-30min, dB(A)	Leq-30min with free-field correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)
			Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)				
05/02/2025	16:04 - 16:34	Sunny	68.0	67.4	67.8	68.0	68.7	67.2	68.0	71.0	64.7	69.9
11/02/2025	12:59 - 13:29	Fine	69.3	67.6	67.8	68.0	66.8	69.1	68.2	71.2	64.7	70.1
21/02/2025	13:50 - 14:20	Sunny	69.5	66.6	67.5	67.9	67.3	66.7	67.7	70.7	64.7	69.4
27/02/2025	11:03 - 11:33	Sunny	69.3	68.2	67.8	69.6	69.4	68.5	68.9	71.9	64.7	70.9
											Average Construction Noise Level	70.1

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
71.9	70.7

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L90
L90	46.4	44.6	45.7	44.3	44.5	46.3	45.4
	45.2	46.3	44.3	45.5	47.4	49.1	46.6
	50.7	48.5	50.2	49.8	49.6	50.1	49.9
	46.2	44.8	45.7	46.3	46.7	45.2	45.9

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L10
L10	74.0	73.3	72.9	73.5	72.1	72.2	73.1
	73.3	72.0	71.4	72.3	71.4	72.7	72.2
	74.1	70.2	72.2	71.4	72.2	70.3	71.9
	74.4	72.6	71.6	73.5	72.6	73.3	73.1

Noise Level Results at CM16

Date	Time	Weather	Leq-5min, dB(A)						Leq-30min, dB(A)	Leq-30min with free-field correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)
			Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)				
05/02/2025	14:23 - 14:53	Sunny	60.8	60.2	57.7	59.6	59.3	57.3	59.3	-	71.9	measured level ≤ baseline level
11/02/2025	13:40 - 14:10	Fine	57.2	58.5	58.4	57.5	57.4	58.0	57.9	-	71.9	measured level ≤ baseline level
21/02/2025	15:16 - 15:46	Sunny	60.6	59.7	61.4	61.8	60.7	61.8	61.1	-	71.9	measured level ≤ baseline level
27/02/2025	14:30 - 15:00	Sunny	62.6	61.5	63	62.1	59.8	60.4	61.7	-	71.9	measured level ≤ baseline level
											Average Construction Noise Level	60.0

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
61.7	57.9

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L90
L90	55.8	55.2	55.3	55.1	55.8	54.9	55.4
	54.6	54.7	53.6	53.6	55.3	54.7	54.5
	56.2	56.7	55.4	57.8	57.1	57.6	56.9
	56.7	57.4	57.0	56.3	55.1	56.1	56.5

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L10
L10	63.2	62.9	59.5	61.9	61.5	59.4	61.6
	66.1	65.2	64.8	65.8	65.1	64.7	65.3
	65.2	64.7	64.2	63.2	63.7	64.8	64.4
	65.5	64.3	66.3	64.4	63.1	63.4	64.6

Noise Level Results at CM18

Date	Time	Weather	Leq-5min, dB(A)						Leq-30min, dB(A)	Leq-30min with free-field correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)
			Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)				
05/02/2025	15:36 - 16:06	Sunny	62.0	62.3	62.4	62.4	62.5	63.1	62.5	65.5	56.6	64.9
11/02/2025	12:18 - 12:48	Fine	64.8	67.7	64.1	65.7	62.4	64.4	65.2	68.2	56.6	67.8
21/02/2025	13:15 - 13:45	Sunny	65.2	65.4	63.2	62.7	64.8	63.0	64.2	67.2	56.6	66.8
27/02/2025	13:20 - 13:50	Sunny	63.1	65.1	64.6	63.7	62.9	64.3	64.0	67.0	56.6	66.6
											Average Construction Noise Level	66.5

Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
68.2	65.5

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L90
L90	44.3	42.6	43.8	43.7	44.6	44.9	44.0
	46.3	45.1	46.1	48	47.1	45.9	46.5
	45.5	45.1	51.5	43.3	43.6	43.6	46.6
	44.8	43.7	43.8	44.6	44.2	43.7	44.2

	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L10
L10	64.8	65.8	66.8	68.4	67.6	66.2	66.8
	65.1	65.0	66.5	65.1	62.0	64.3	64.9
	67.7	62.7	65.1	65.5	66.5	64.7	66.6
	68.0	67.5	67.6	68.1	67.4	68.3	67.8

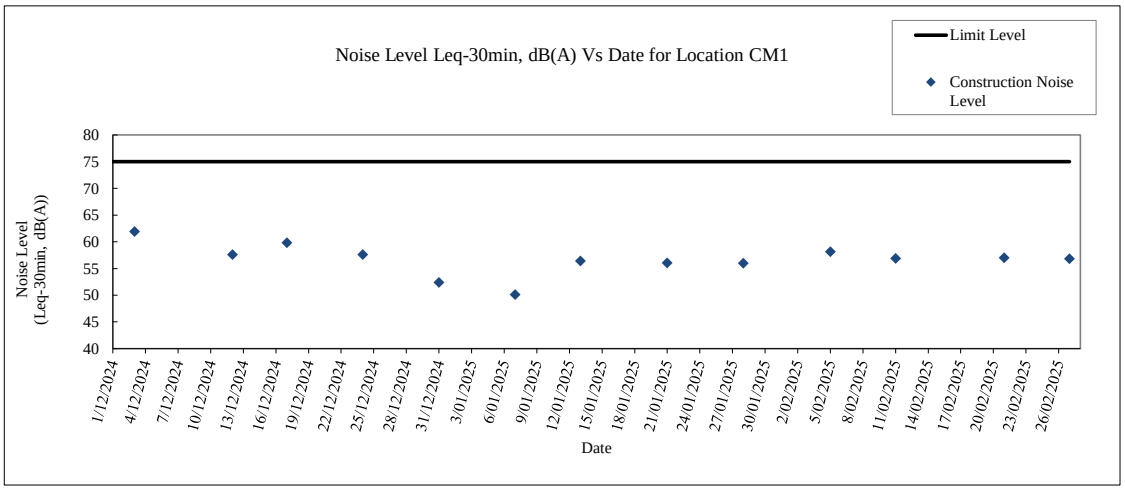
Noise Level Results at CM20

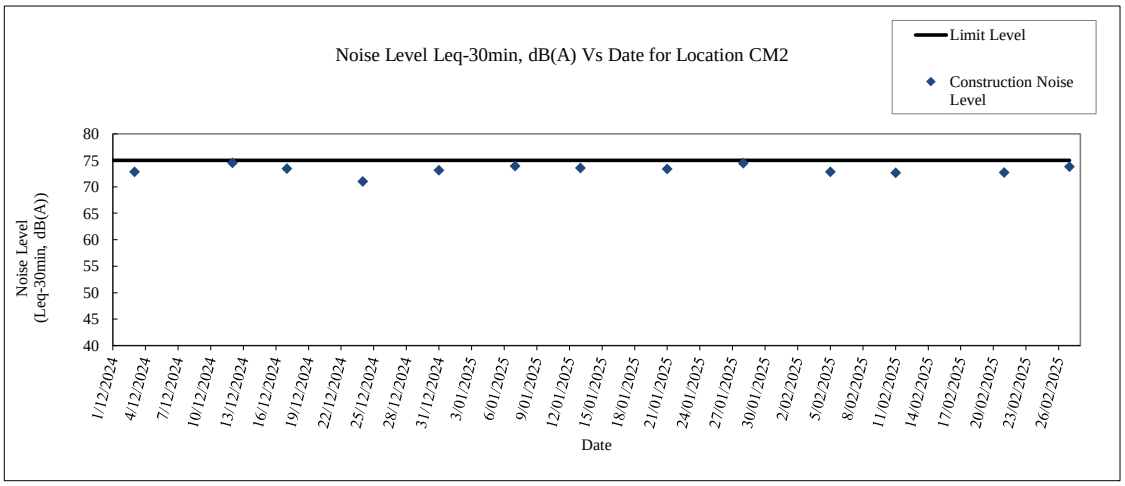
Date	Time	Weather	Leq-5min, dB(A)						Leq-30min, dB(A)	Leq-30min with free-field correction, dB(A)	Baseline Level, dB(A)	Constrcution Noise Level, Leq-30min, dB(A)
			Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)				
05/02/2025	16:21 - 16:51	Sunny	53.4	53.5	53.4	53.9	54.6	53.4	53.7	56.7	57.8	measured level ≤ baseline level
11/02/2025	11:40 - 12:10	Fine	63.5	47.3	44.9	42.3	44.4	43.1	56.0	59.0	57.8	52.8
21/02/2025	12:40 - 13:10	Sunny	49.6	48.4	48.4	50.5	48.2	48.8	49.1	52.1	57.8	measured level ≤ baseline level
27/02/2025	14:31 - 15:01	Sunny	54.2	56.7	54.2	54.7	55.0	56.1	55.3	58.3	57.8	48.2
											Average Construction Noise Level	52.5

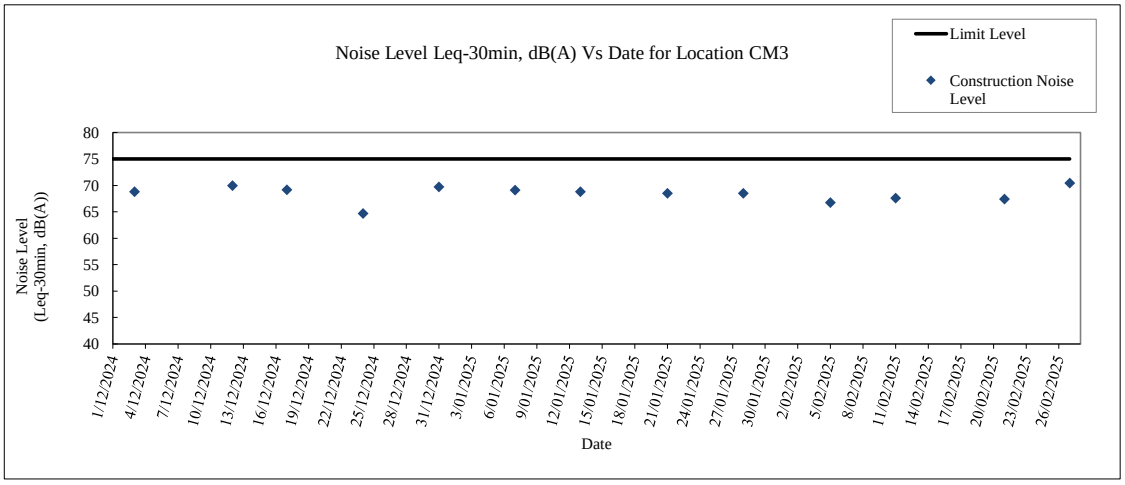
Maximum Leq-30min, dB(A)	Minimum Leq-30min, dB(A)
59.0	52.1

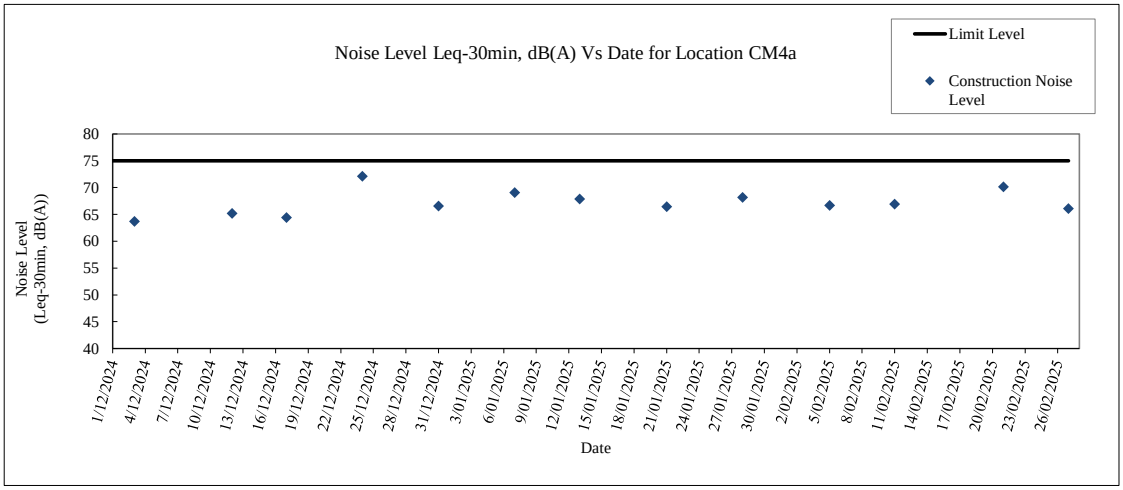
	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L90
L90	45	47.2	43.6	43.7	44	44.5	44.9
	44.8	42	41.3	40.2	40.7	40.4	41.9
	47.6	44.3	43.0	45.4	43.1	47.0	45.4
	45.0	46.2	44.6	44.7	45.6	46.2	45.4

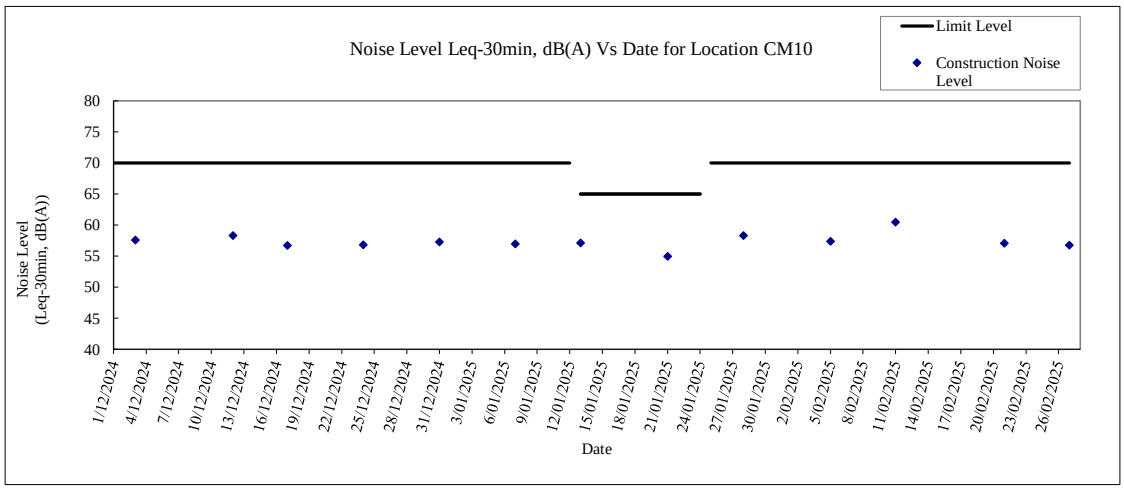
	Reading (1)	Reading (2)	Reading (3)	Reading (4)	Reading (5)	Reading (6)	Average L10
L10	57.6	58.1	58.1	54.3	57.3	57.8	57.4
	67.9	48.4	47.1	43.5	45.9	44.8	60.3
	51.1	50.5	48.4	50.0	49.3	50.3	50.0
	57.6	59.2	58.2	57.4	58.9	58.4	58.3


Noise Level Leq-30min, dB(A) Vs Date for Location CM1
Limit Level
Construction Noise Level
Noise Level (Leq-30min, dB(A))
80
75
70
65
60
55
50
45
40
1/12/2024
4/12/2024
7/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
28/12/2024
31/12/2024
3/01/2025
6/01/2025
9/01/2025
12/01/2025
15/01/2025
18/01/2025
21/01/2025
24/01/2025
27/01/2025
30/01/2025
2/02/2025
5/02/2025
8/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date


Noise Level Leq-30min, dB(A) Vs Date for Location CM2
Limit Level
Construction Noise Level
Noise Level (Leq-30min, dB(A))
80
75
70
65
60
55
50
45
40
1/12/2024
4/12/2024
7/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
28/12/2024
31/12/2024
3/01/2025
6/01/2025
9/01/2025
12/01/2025
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5/02/2025
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23/02/2025
26/02/2025
Date

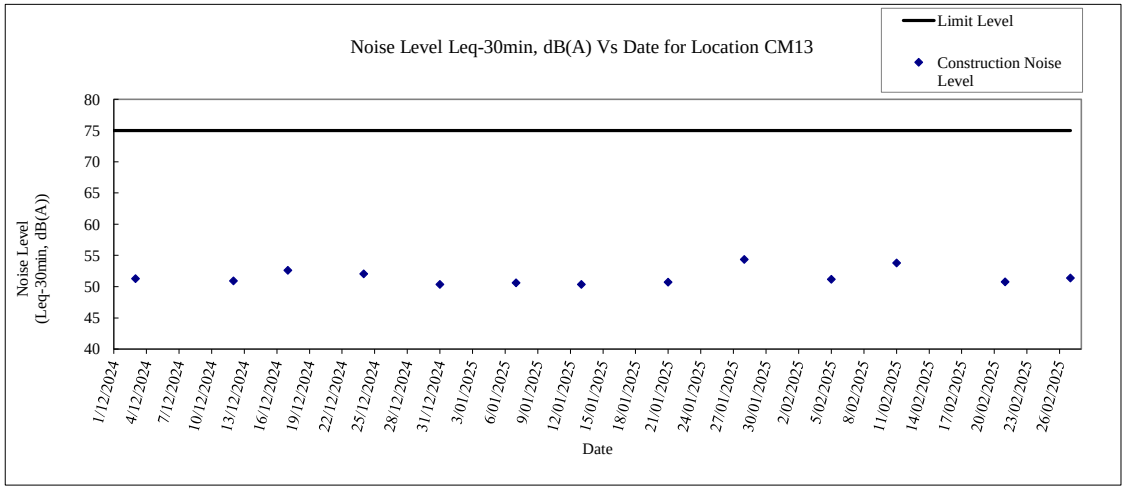

Noise Level Leq-30min, dB(A) Vs Date for Location CM3
Limit Level
Construction Noise Level
Noise Level (Leq-30min, dB(A))
80
75
70
65
60
55
50
45
40
1/12/2024
4/12/2024
7/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
28/12/2024
31/12/2024
3/01/2025
6/01/2025
9/01/2025
12/01/2025
15/01/2025
18/01/2025
21/01/2025
24/01/2025
27/01/2025
30/01/2025
2/02/2025
5/02/2025
8/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date

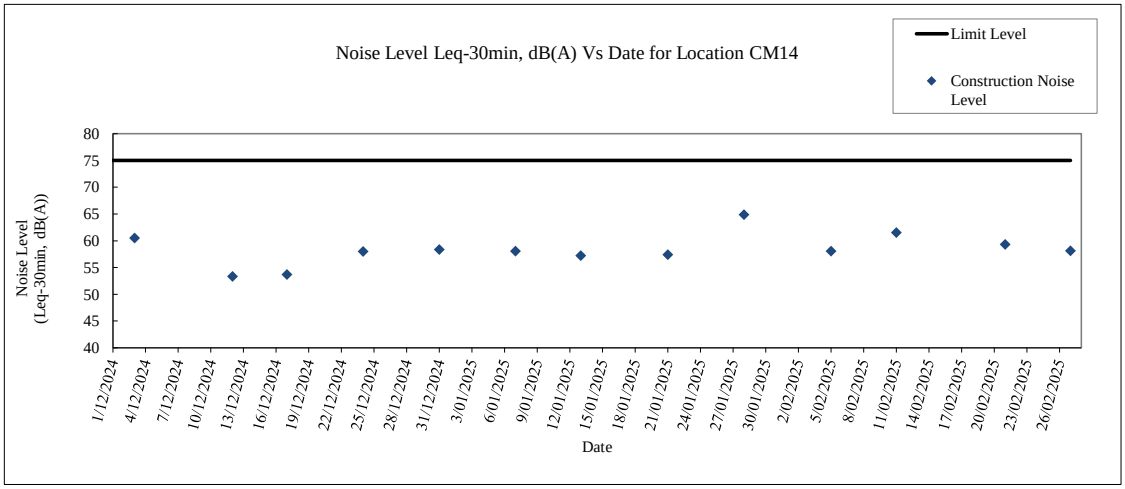


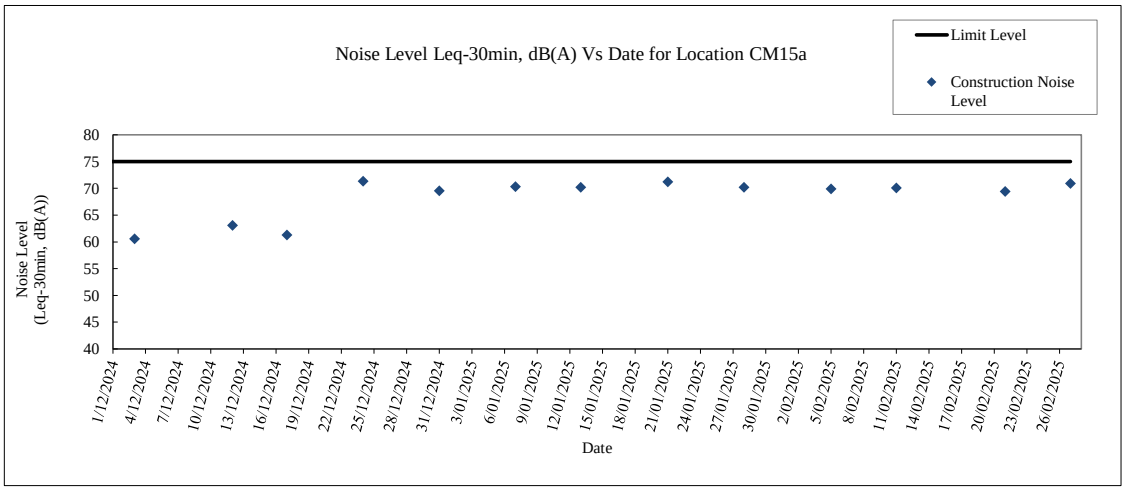


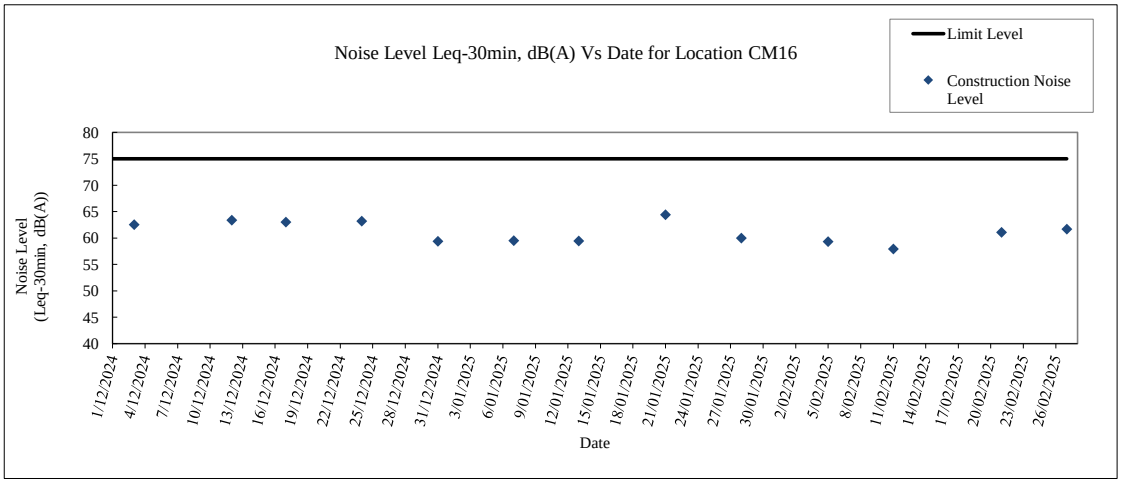
Note:

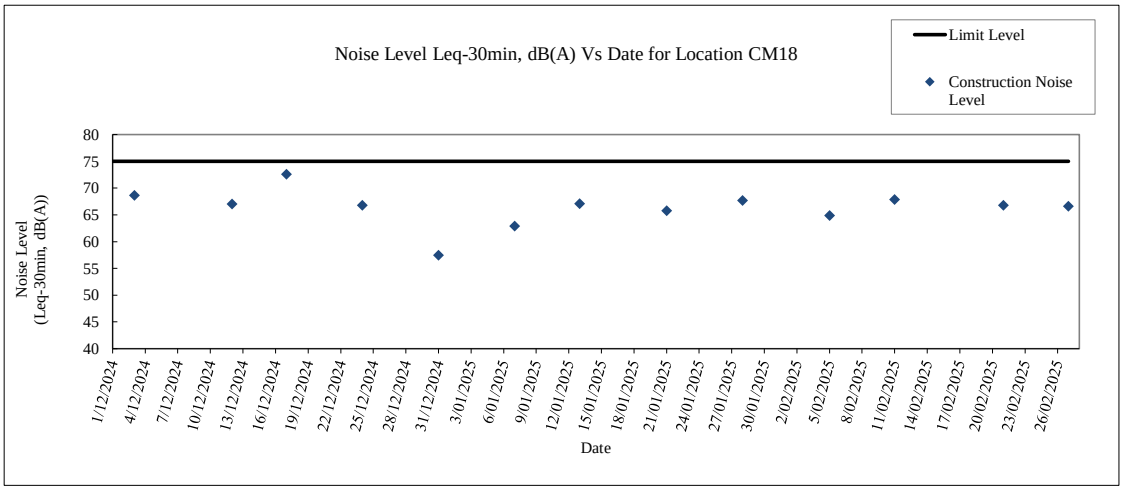
As two of the monitoring dates (13 January 2025 and 21 January 2025) fell within the exam period of the school, the limit level of noise monitoring of these two monitoring dates was set to be 65 dB(A), while the limit level of noise monitoring of the other monitoirng dates were remained as 70 dB(A).

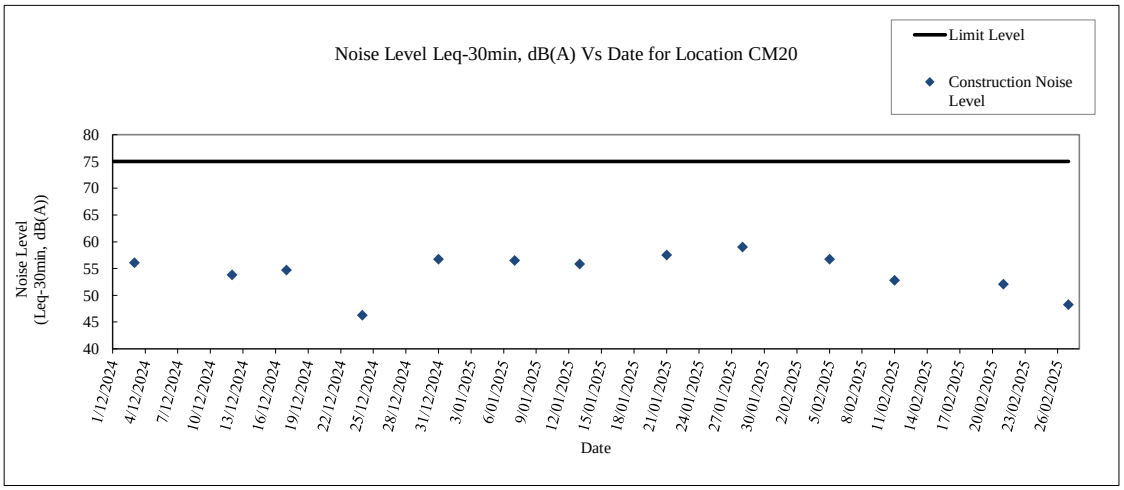



Noise Level Leq-30min, dB(A) Vs Date for Location CM14
Limit Level
Construction Noise Level
Noise Level (Leq-30min, dB(A))
80
75
70
65
60
55
50
45
40
1/12/2024
4/12/2024
7/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
28/12/2024
31/12/2024
3/01/2025
6/01/2025
9/01/2025
12/01/2025
15/01/2025
18/01/2025
21/01/2025
24/01/2025
27/01/2025
30/01/2025
2/02/2025
5/02/2025
8/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date


Noise Level Leq-30min, dB(A) Vs Date for Location CM15a
Limit Level
Construction Noise Level
Noise Level (Leq-30min, dB(A))
80
75
70
65
60
55
50
45
40
1/12/2024
4/12/2024
7/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
28/12/2024
31/12/2024
3/01/2025
6/01/2025
9/01/2025
12/01/2025
15/01/2025
18/01/2025
21/01/2025
24/01/2025
27/01/2025
30/01/2025
2/02/2025
5/02/2025
8/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date


Noise Level Leq-30min, dB(A) Vs Date for Location CM16
Limit Level
Construction Noise Level
Noise Level (Leq-30min, dB(A))
80
75
70
65
60
55
50
45
40
1/12/2024
4/12/2024
7/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
28/12/2024
31/12/2024
3/01/2025
6/01/2025
9/01/2025
12/01/2025
15/01/2025
18/01/2025
21/01/2025
24/01/2025
27/01/2025
30/01/2025
2/02/2025
5/02/2025
8/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date


Noise Level Leq-30min, dB(A) Vs Date for Location CM18
Limit Level
Construction Noise Level
Noise Level (Leq-30min, dB(A))
80
75
70
65
60
55
50
45
40
1/12/2024
4/12/2024
7/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
28/12/2024
31/12/2024
3/01/2025
6/01/2025
9/01/2025
12/01/2025
15/01/2025
18/01/2025
21/01/2025
24/01/2025
27/01/2025
30/01/2025
2/02/2025
5/02/2025
8/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date


Noise Level Leq-30min, dB(A) Vs Date for Location CM20
Limit Level
Construction Noise Level
Noise Level (Leq-30min, dB(A))
80
75
70
65
60
55
50
45
40
1/12/2024
4/12/2024
7/12/2024
10/12/2024
13/12/2024
16/12/2024
19/12/2024
22/12/2024
25/12/2024
28/12/2024
31/12/2024
3/01/2025
6/01/2025
9/01/2025
12/01/2025
15/01/2025
18/01/2025
21/01/2025
24/01/2025
27/01/2025
30/01/2025
2/02/2025
5/02/2025
8/02/2025
11/02/2025
14/02/2025
17/02/2025
20/02/2025
23/02/2025
26/02/2025
Date

Appendix 3.3 Event and Action Plan for Noise

Event and Action Plan for Noise

Action Level	1. Notify IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; and 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; and 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; and 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to IEC ; and 2. Implement noise mitigation proposals.
Limit Level	1. Identify source; 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures properly implemented; and 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit further proposal if problem still not under control; and 5. Stop the relevant portion of works as determined by ER, until the exceedance is abated.

Appendix 4.1 Calibration Certificates of Impact Water Quality Monitoring Equipment

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 5/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BE010185
Date of Issue : 13 January 2025

PART A - CUSTOMER INFORMATION

Acuity Sustainability Consulting Limited
Unit E, 12/F, Ford Glory Plaza 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong

PART B - SAMPLE INFORMATION

Name of Equipment :	YSI ProDSS (Multi-Parameters)
Manufacturer :	YSI
Serial Number :	22D100436
Date of Received :	07 January 2025
Date of Calibration :	09 January 2025
Date of Next Calibration :	08 April 2025
Request No. :	D-BE010185

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	Reference Method
pH value	APHA 21e 4500-H^+ B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 23e 4500-O G (Membrane Electrode Method)
Turbidity	APHA 21e 2130 B (Nephelometric Method)

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.13	0.13	Satisfactory
7.42	7.54	0.12	Satisfactory
10.01	10.10	0.09	Satisfactory

Tolerance of pH value should be less than ± 0.2 (pH unit)

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
17.0	17.2	0.2	Satisfactory
21.5	21.4	-0.1	Satisfactory
32.0	31.8	-0.2	Satisfactory

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

(3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.70	-3.00	Satisfactory
20	19.88	-0.60	Satisfactory
30	30.35	1.17	Satisfactory

Tolerance of Salinity should be less than ± 10.0 (%)

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED SIGNATORY:

FUNG Yuen-ching
Laboratory Manager

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

Test Report No. : R-BE010185
Date of Issue : 13 January 2025

(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
8.55	8.48	-0.07	Satisfactory
5.48	5.08	-0.40	Satisfactory
3.01	2.89	-0.12	Satisfactory
0.70	0.21	-0.49	Satisfactory

Tolerance of Dissolved oxygen should be less than ± 0.5 (mg/L)

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance [a]	Result
0	0.19	--	Satisfactory
10	10.89	8.9	Satisfactory
20	19.48	-2.6	Satisfactory
100	94.42	-5.6	Satisfactory
800	728.89	-8.9	Satisfactory

Tolerance of Turbidity should be less than ± 10.0 (%)

[a] For 0 NTU, Display Reading should be less than 1 NTU

Remark(s)

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

--- END OF REPORT ---

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Appendix 4.2 Impact Water Quality Monitoring Data

Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Water Quality Monitoring Location : U2

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 February 2025	10:43	Cloudy	Middle	0.05	21.0	21.0	7.8	7.8	8.6	8.6	96.7	96.7	11.9	11.8	10.0	9.4
					20.9		7.8		8.6		96.6		11.8		8.7	
03 February 2025	09:35	Cloudy	Middle	0.05	18.6	18.6	7.2	7.2	8.5	8.5	91.0	91.0	5.0	5.0	12.0	9.9
					18.6		7.2		8.5		91.0		5.0		7.8	
05 February 2025	09:52	Sunny	Middle	0.09	18.3	18.3	7.4	7.3	8.8	8.8	92.6	92.7	4.4	4.4	<1.0	<1.0
					18.3		7.3		8.7		92.8		4.4		<1.0	
08 February 2025	09:36	Cloudy	Middle	0.10	16.8	16.8	7.4	7.4	9.3	9.3	96.1	96.0	5.2	5.2	1.2	1.1
					16.8		7.4		9.3		95.9		5.1		1.0	
10 February 2025	08:20	Fine	Middle	0.08	17.9	17.9	7.4	7.4	9.3	9.2	97.7	97.5	9.8	9.8	2.8	2.9
					17.9		7.4		9.2		97.3		9.8		2.9	
12 February 2025	09:00	Rain	Middle	0.10	19.8	19.8	7.8	7.8	8.7	8.7	95.6	95.6	12.2	12.2	7.0	7.1
					19.8		7.8		8.7		95.6		12.2		7.1	
14 February 2025	09:00	Cloudy	Middle	0.10	20.0	20.0	8.2	8.2	8.8	8.8	96.3	96.3	4.4	4.4	1.2	1.2
					20.0		8.2		8.8		96.3		4.3		1.1	
17 February 2025	09:35	Cloudy	Middle	0.10	20.8	20.8	7.1	7.1	8.8	8.8	98.4	98.3	3.3	3.3	7.9	9.0
					20.8		7.1		8.8		98.1		3.3		10.0	
20 February 2025	09:02	Cloudy	Middle	0.10	21.1	21.1	6.7	6.7	8.4	8.4	94.1	93.9	3.6	3.6	<1.0	1.0
					21.1		6.7		8.3		93.6		3.6		<1.0	
22 February 2025	14:39	Cloudy	Middle	0.10	19.2	19.2	7.4	7.4	7.4	7.4	81.1	80.5	6.1	6.1	2.0	2.3
					19.2		7.4		7.3		79.8		6.1		2.6	
24 February 2025	09:06	Cloudy	Middle	0.05	19.3	19.3	7.4	7.4	8.1	8.1	87.7	87.5	4.8	4.9	16.0	17.0
					19.3		7.4		8.1		87.3		4.9		18.0	
26 February 2025	09:05	Cloudy	Middle	0.08	19.5	19.5	7.7	7.7	8.9	8.9	97.1	97.0	2.2	2.2	4.2	5.5
					19.5		7.7		8.9		96.8		2.2		6.7	
28 February 2025	12:46	Sunny	Middle	0.10	19.5	19.5	4.3	5.8	5.9	5.9	64.2	63.9	4.3	4.2	<1.0	<1.0
					19.5		7.3		5.8		63.5		4.2		<1.0	

Water Quality Monitoring Location : U5a

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 February 2025	13:30	Cloudy	Middle	0.02	18.4	18.4	9.5	9.5	9.4	9.4	99.7	99.7	10.3	10.3	12.0	13.0
					18.4		9.5		9.4		99.7		10.3		14.0	
03 February 2025	14:54	Cloudy	Middle	0.03	17.7	17.7	11.2	11.2	9.4	9.4	98.9	98.9	9.5	9.5	12.0	13.0
					17.7		11.2		9.4		98.9		9.5		14.0	
05 February 2025	14:30	Sunny	Middle	0.03	17.6	17.6	11.2	11.2	9.4	9.4	98.8	98.8	6.0	6.0	5.1	5.8
					17.6		11.2		9.4		98.8		6.0		6.4	
08 February 2025	17:12	Cloudy	Middle	0.03	17.1	17.1	10.1	10.1	9.7	9.6	100.1	100.1	3.0	3.0	35.0	36.0
					17.1		10.1		9.6		100.0		3.0		37.0	
10 February 2025	10:10	Fine	Middle	0.03	15.8	15.8	10.1	10.1	9.8	9.8	99.1	99.1	6.1	6.2	11.0	11.5
					15.8		10.1		9.8		99.1		6.2		12.0	
12 February 2025	17:45	Rain	Middle	0.04	19.4	19.4	10.6	10.6	8.8	8.8	95.4	95.5	2.6	2.6	21.0	21.0
					19.4		10.6		8.8		95.5		2.6		21.0	
14 February 2025	12:31	Cloudy	Middle	0.03	19.9	19.9	10.1	10.1	8.8	8.8	96.7	96.7	2.4	2.4	42.0	34.5
					19.9		10.1		8.8		96.7		2.4		27.0	
17 February 2025	13:08	Cloudy	Middle	0.02	22.2	22.2	10.4	10.4	9.2	9.2	105.5	105.5	5.0	5.0	21.0	16.0
					22.2		10.4		9.2		105.5		4.9		11.0	
20 February 2025	17:10	Cloudy	Middle	0.03	22.3	22.3	10.6	10.6	9.2	9.2	105.5	105.6	0.1	0.1	15.0	17.0
					22.3		10.6		9.2		105.6		0.1		19.0	
22 February 2025	09:09	Cloudy	Middle	0.03	20.1	20.1	9.6	9.6	9.6	9.6	105.3	105.3	26.3	25.8	2.9	4.2
					20.1		9.6		9.6		105.3		25.3		5.5	
24 February 2025	16:42	Cloudy	Middle	0.02	19.7	19.7	10.1	10.1	9.6	9.6	104.9	104.9	15.3	15.2	173.0	166.5
					19.7		10.1		9.6		104.9		15.2		160.0	
26 February 2025	16:56	Cloudy	Middle	0.03	20.1	20.1	11.1	11.1	9.6	9.6	106.0	106.2	0.2	0.2	78.0	63.5
					20.0		11.1		9.7		106.4		0.2		49.0	
28 February 2025	17:56	Sunny	Middle	0.03	23.3	23.3	10.1	10.1	8.3	8.3	97.3	97.4	4.5	4.4	43.0	42.0
					23.3		10.1		8.3		97.5		4.4		41.0	

Water Quality Monitoring Location : U6a

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 February 2025	14:10	Cloudy	Middle	0.05	21.7	21.7	7.6	7.6	10.7	10.7	121.6	121.7	3.4	3.4	1.7	2.1
					21.7		7.6		10.7		121.8		3.3		2.5	
03 February 2025	14:02	Cloudy	Middle	0.05	20.2	20.2	7.4	7.4	11.1	11.1	122.5	122.7	1.9	2.0	6.2	6.6
					20.2		7.4		11.1		122.8		2.0		7.0	
05 February 2025	14:05	Sunny	Middle	0.05	20.2	20.2	7.6	7.6	10.8	10.8	119.0	159.1	5.4	5.4	2.9	2.7
					20.2		7.6		10.8		199.1		5.4		2.5	
08 February 2025	10:40	Cloudy	Middle	0.04	17.1	17.1	8.0	8.0	9.7	9.7	101.2	101.3	2.4	2.4	2.2	2.3
					17.1		8.0		9.8		101.3		2.5		2.3	
10 February 2025	16:51	Fine	Middle	0.05	19.4	19.4	7.8	7.8	9.0	9.0	98.3	98.3	9.3	9.3	14.0	11.9
					19.4		7.9		9.0		98.2		9.3		9.7	
12 February 2025	15:15	Rain	Middle	0.05	19.3	19.3	7.3	7.3	8.7	8.7	94.0	94.0	13.3	13.3	15.0	14.0
					19.3		7.3		8.7		93.9		13.2		13.0	
14 February 2025	17:20	Cloudy	Middle	0.05	20.4	20.4	8.0	7.9	8.5	8.5	94.1	94.1	7.7	7.7	8.1	6.4
					20.4		7.9		8.5		94.1		7.7		4.6	
17 February 2025	13:39	Cloudy	Middle	0.05	22.6	22.6	8.9	8.9	9.3	9.3	107.6	107.9	4.0	4.0	33.0	26.0
					22.6		8.9		9.4		108.2		4.0		19.0	
20 February 2025	16:35	Cloudy	Middle	0.05	22.3	22.5	8.9	8.9	8.9	8.9	103.0	103.6	3.8	3.7	1.0	<1.0
					22.6		8.9		9.0		104.2		3.7		<1.0	
22 February 2025	11:20	Cloudy	Middle	0.07	20.0	20.0	7.8	7.8	7.8	7.8	86.0	86.2	6.1	6.1	3.0	4.5
					20.0		7.8		7.9		86.3		6.1		6.0	
24 February 2025	16:08	Cloudy	Middle	0.05	19.7	19.7	8.4	8.4	9.3	9.4	102.3	102.7	1.5	1.5	8.5	6.9
					19.7		8.3		9.4		103.0		1.5		5.3	
26 February 2025	16:20	Cloudy	Middle	0.05	19.6	19.6	7.8	7.8	9.8	9.9	107.5	108.2	1.9	1.9	35.0	27.5
					19.6		7.7		9.9		108.9		1.9		20.0	
28 February 2025	17:30	Sunny	Middle	0.05	23.3	23.3	7.7	7.7	7.7	7.7	90.2	90.1	7.7	5.7	6.7	6.4
					23.3		7.7		7.7		89.9		3.8		6.1	

Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Water Quality Monitoring Location : TS1

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 February 2025	14:00	Cloudy	Middle	0.02	20.6	20.7	9.3	9.3	9.2	9.2	102.1	102.2	10.9	11.0	6.9	5.7
					20.7		9.3		9.2		102.2		11.0		4.4	
03 February 2025	15:37	Cloudy	Middle	0.02	20.0	20.0	10.2	10.2	9.8	9.8	107.4	107.4	4.3	4.3	23.0	26.5
					20.0		10.2		9.8		107.4		4.3		30.0	
05 February 2025	15:00	Sunny	Middle	0.03	19.5	19.6	10.3	10.3	9.8	9.8	106.5	106.6	3.2	3.2	14.2	11.9
					19.6		10.3		9.8		106.6		3.2		9.5	
08 February 2025	16:06	Cloudy	Middle	0.02	17.1	17.1	9.8	9.8	9.2	9.2	95.5	95.7	6.1	6.1	32.0	26.0
					17.1		9.8		9.2		95.8		6.0		20.0	
10 February 2025	10:40	Fine	Middle	0.03	18.3	18.3	9.1	9.1	9.4	9.4	99.7	99.7	2.3	2.3	1.6	1.9
					18.3		9.1		9.4		99.7		2.3		2.1	
12 February 2025	15:46	Rain	Middle	0.02	19.5	19.5	9.0	9.0	8.1	8.1	87.8	87.8	25.0	25.0	3.1	2.9
					19.5		9.0		8.1		87.8		25.0		2.6	
14 February 2025	16:20	Cloudy	Middle	0.02	20.0	20.0	8.4	8.4	8.0	8.0	87.9	87.9	7.2	7.2	9.6	8.1
					20.0		8.4		8.0		87.8		7.3		6.5	
17 February 2025	14:10	Cloudy	Middle	0.02	22.3	22.3	9.7	9.7	8.7	8.7	99.6	99.5	3.1	3.1	33.0	27.0
					22.3		9.7		8.6		99.4		3.0		21.0	
20 February 2025	16:02	Cloudy	Middle	0.02	22.2	22.2	9.6	9.6	8.1	8.1	93.6	93.6	2.7	2.7	2.3	2.8
					22.2		9.6		8.1		93.5		2.7		3.3	
22 February 2025	09:36	Cloudy	Middle	0.02	19.4	19.4	9.8	9.8	10.2	10.2	110.6	110.6	8.9	8.8	1.6	1.9
					19.4		9.8		10.2		110.6		8.8		2.1	
24 February 2025	15:36	Cloudy	Middle	0.02	19.7	19.7	8.4	8.4	8.4	8.3	91.8	91.2	2.3	2.3	15.0	17.0
					19.7		8.4		8.3		90.5		2.3		19.0	
26 February 2025	15:47	Cloudy	Middle	0.02	19.9	19.9	8.4	8.4	9.0	8.9	98.2	98.1	7.3	7.3	6.1	6.7
					19.9		8.4		8.9		98.0		7.2		7.2	
28 February 2025	17:00	Sunny	Middle	0.03	23.6	23.6	7.7	7.7	7.9	7.8	92.5	92.4	1.0	0.9	<1.0	<1.0
					23.6		7.7		7.8		92.2		0.9		<1.0	

Water Quality Monitoring Location : TS2a

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 February 2025	14:40	Cloudy	Middle	0.05	22.6	22.6	7.6	7.6	6.8	6.8	79.0	79.2	8.7	8.7	3.6	3.0
					22.6		7.6		6.9		79.4		8.6		2.4	
03 February 2025	16:00	Cloudy	Middle	0.05	20.1	20.1	7.5	7.5	8.1	8.1	89.0	89.0	6.1	6.1	3.8	4.6
					20.1		7.5		8.1		88.9		6.1		5.3	
05 February 2025	16:02	Sunny	Middle	0.05	20.5	20.5	7.9	7.9	8.2	8.2	91.6	91.5	6.4	6.3	6.2	5.9
					20.5		7.9		8.2		91.3		6.3		5.6	
08 February 2025	15:36	Cloudy	Middle	0.05	17.0	17.0	7.5	7.5	7.4	7.4	77.1	76.5	4.7	4.8	10.0	12.0
					17.0		7.5		7.3		75.9		4.8		14.0	
10 February 2025	14:00	Fine	Middle	0.05	18.6	18.6	7.7	7.7	8.0	7.9	85.2	84.8	5.7	5.7	2.9	2.8
					18.6		7.7		7.9		84.3		5.8		2.6	
12 February 2025	16:18	Rain	Middle	0.05	19.7	19.7	7.6	7.6	7.1	7.1	77.6	77.6	10.7	10.7	39.0	31.5
					19.7		7.6		7.1		77.6		10.7		24.0	
14 February 2025	15:53	Cloudy	Middle	0.05	20.1	20.1	7.1	7.1	6.9	6.8	75.6	75.3	6.3	6.3	11.0	10.5
					20.1		7.1		6.8		75.0		6.4		10.0	
17 February 2025	14:42	Cloudy	Middle	0.05	22.3	22.3	7.9	7.9	7.7	7.7	88.2	88.2	7.6	7.6	5.3	4.7
					22.3		7.9		7.7		88.1		7.6		4.1	
20 February 2025	15:36	Cloudy	Middle	0.05	22.3	22.3	7.6	7.6	6.1	6.2	70.6	71.3	6.2	6.2	1.1	<1.0
					22.3		7.6		6.3		72.0		6.1		<1.0	
22 February 2025	11:21	Cloudy	Middle	0.03	19.9	19.9	7.6	7.6	7.8	7.8	85.3	85.3	7.1	7.1	6.9	6.5
					19.9		7.6		7.8		85.2		7.1		6.1	
24 February 2025	15:05	Cloudy	Middle	0.05	19.7	19.7	7.9	7.9	8.5	8.5	92.9	93.0	3.7	3.7	12.0	10.9
					19.7		7.9		8.5		93.0		3.7		9.8	
26 February 2025	15:17	Cloudy	Middle	0.05	20.0	20.0	7.2	7.2	7.9	7.9	86.6	86.9	3.7	3.7	4.8	4.2
					20.0		7.2		7.9		87.2		3.6		3.6	
28 February 2025	16:30	Sunny	Middle	0.05	23.8	23.8	7.8	7.7	7.6	7.6	90.3	90.3	9.4	9.3	2.0	2.1
					23.8		7.7		7.6		90.3		9.3		2.1	

Water Quality Monitoring Location : TSR1a

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 February 2025	15:20	Cloudy	Middle	0.10	23.6	23.6	8.5	8.5	11.5	11.6	136.7	137.2	7.6	7.6	2.2	2.5
					23.6		8.5		11.6		137.7		7.6		2.8	
03 February 2025	16:36	Cloudy	Middle	0.50	20.8	20.8	7.3	7.3	6.8	6.8	77.2	77.4	10.0	10.0	4.4	4.8
					20.8		7.3		6.9		77.5		10.0		5.2	
05 February 2025	16:30	Sunny	Middle	0.50	20.9	20.9	7.4	7.4	7.0	7.2	79.3	79.0	9.6	9.6	12.4	11.0
					20.9		7.5		7.5		78.7		9.6		9.5	
08 February 2025	15:03	Cloudy	Middle	0.60	17.0	17.0	7.4	7.4	6.7	6.8	69.8	70.0	6.5	6.5	16.0	12.9
					17.0		7.4		6.8		70.1		6.5		9.7	
10 February 2025	14:37	Fine	Middle	0.05	18.9	18.9	7.4	7.4	7.9	7.9	84.8	84.9	7.2	7.2	10.0	8.2
					18.9		7.4		7.9		84.9		7.2		6.3	
12 February 2025	16:40	Rain	Middle	0.55	19.9	19.9	7.6	7.6	8.6	8.6	94.7	94.8	14.5	14.5	13.0	11.0
					19.9		7.6		8.6		94.8		14.6		8.9	
14 February 2025	16:50	Cloudy	Middle	0.50	20.3	20.3	8.0	8.0	7.6	7.5	83.9	83.8	5.2	5.3	2.1	1.9
					20.3		8.0		7.5		83.6		5.3		1.7	
17 February 2025	15:20	Cloudy	Middle	0.30	22.3	22.3	7.1	7.1	2.0	1.9	22.8	22.4	7.1	7.1	3.7	3.6
					22.3		7.1		1.9		22.0		7.1		3.4	
20 February 2025	15:01	Cloudy	Middle	0.55	22.2	22.2	7.1	7.1	4.0	3.8	46.5	43.3	6.1	6.0	12.0	12.0
					22.1		7.1		3.5		40.0		5.9		12.0	
22 February 2025	12:00	Cloudy	Middle	0.60	20.4	20.4	7.7	7.7	9.3	9.3	103.5	103.5	17.7	17.7	6.6	7.2
					20.4		7.7		9.3		103.5		17.7		7.7	
24 February 2025	14:36	Cloudy	Middle	0.50	19.7	19.7	7.6	7.6	7.8	7.8	85.8	90.8	4.0	3.9	16.0	15.5
					19.7		7.6		7.8		95.8		3.9		15.0	
26 February 2025	14:12	Cloudy	Middle	0.60	19.8	19.8	7.3	7.3	9.3	9.3	102.2	102.2	6.4	6.4	5.0	6.2
					19.8		7.3		9.3		102.2		6.4		7.4	
28 February 2025	16:00	Sunny	Middle	0.50	23.9	23.9	7.9	7.9	7.4	7.3	87.5	87.3	18.4	18.5	15.0	18.5
					23.9		7.9		7.3		87.0		18.5		22.0	

Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Water Quality Monitoring Location : HT

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 February 2025	09:42	Cloudy	Middle	0.05	19.7	19.7	7.6	7.6	6.3	6.3	68.5	68.5	1.7	1.7	<1.0	<1.0
					19.7		7.6		6.3		68.4		1.7		<1.0	
03 February 2025	10:09	Cloudy	Middle	0.04	18.7	18.7	7.4	7.4	8.4	8.4	90.3	90.0	1.8	1.8	1.9	2.0
					18.7		7.4		8.4		89.6		1.8		2.1	
05 February 2025	11:56	Sunny	Middle	0.03	19.2	19.2	7.6	7.6	8.1	8.1	88.1	88.1	1.3	1.3	1.1	1.1
					19.2		7.6		8.1		88.0		1.3		1.0	
08 February 2025	11:20	Cloudy	Middle	0.03	16.9	16.9	7.6	7.6	9.1	9.1	93.7	93.7	4.6	4.6	1.5	1.5
					16.9		7.6		9.1		93.7		4.6		1.5	
10 February 2025	17:30	Fine	Middle	0.03	17.7	17.7	8.4	8.4	7.1	7.1	74.7	74.3	2.3	2.3	1.9	2.0
					17.7		8.4		7.0		73.9		2.3		2.0	
12 February 2025	10:36	Rain	Middle	0.03	19.8	19.8	7.7	7.7	8.7	8.7	95.1	95.1	6.9	6.9	6.8	6.1
					19.8		7.7		8.7		95.1		7.0		5.3	
14 February 2025	11:00	Cloudy	Middle	0.04	19.7	19.7	7.5	7.5	8.1	8.1	89.1	89.0	5.5	5.5	<1.0	<1.0
					19.7		7.5		8.1		88.9		5.5		<1.0	
17 February 2025	10:48	Cloudy	Middle	0.02	20.9	20.9	7.6	7.5	8.7	8.7	97.7	97.4	1.2	1.1	<1.0	<1.0
					20.9		7.5		8.7		97.1		1.1		<1.0	
20 February 2025	10:09	Cloudy	Middle	0.03	21.0	21.0	7.5	7.5	8.5	8.5	95.4	95.1	1.2	1.2	<1.0	<1.0
					21.0		7.5		8.4		94.8		1.2		<1.0	
22 February 2025	15:40	Cloudy	Middle	0.05	19.2	19.2	7.4	7.4	7.7	7.7	83.5	83.4	4.4	4.4	<1.0	<1.0
					19.2		7.4		7.7		83.3		4.4		<1.0	
24 February 2025	10:10	Cloudy	Middle	0.05	19.4	19.4	7.6	7.6	8.1	8.1	88.5	88.1	1.7	1.7	1.1	1.1
					19.4		7.5		8.1		87.7		1.7		<1.0	
26 February 2025	10:12	Cloudy	Middle	0.05	19.0	19.0	7.5	7.5	8.7	8.6	93.6	93.2	1.9	1.9	<1.0	<1.0
					19.0		7.5		8.6		92.7		1.9		<1.0	
28 February 2025	12:14	Sunny	Middle	0.05	21.5	21.5	7.7	7.7	8.1	8.1	91.8	91.8	12.4	12.4	5.8	5.8
					21.5		7.7		8.1		91.8		12.4		5.7	

Water Quality Monitoring Location : LUTa

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 February 2025	16:36	Cloudy	Middle	0.50	21.1	21.1	7.3	7.3	7.4	7.4	54.0	54.1	25.2	24.9	6.3	6.0
					21.1		7.3		7.4		54.1		24.6		5.7	
03 February 2025	17:14	Cloudy	Middle	0.85	21.1	21.1	7.7	7.7	8.1	8.1	92.0	92.0	10.6	10.6	13.0	13.0
					21.1		7.7		8.1		92.0		10.6		13.0	
05 February 2025	17:05	Sunny	Middle	0.75	20.1	20.1	7.5	7.5	7.9	7.9	88.9	88.9	12.2	12.2	11.0	10.5
					20.1		7.5		7.9		88.8		12.3		10.0	
08 February 2025	14:36	Cloudy	Middle	0.50	16.8	16.8	7.5	7.5	6.5	6.4	67.2	66.6	12.6	12.5	7.5	6.5
					16.8		7.5		6.4		66.0		12.5		5.4	
10 February 2025	15:02	Fine	Middle	0.35	18.5	18.5	7.8	7.8	9.0	9.0	97.7	97.7	12.8	12.8	8.9	8.0
					18.5		7.8		9.0		97.7		12.9		7.1	
12 February 2025	17:12	Rain	Middle	0.20	19.6	19.6	7.2	7.2	6.7	6.7	73.5	73.5	10.7	10.6	13.0	11.5
					19.6		7.2		6.7		73.4		10.6		10.0	
14 February 2025	15:20	Cloudy	Middle	0.05	19.6	19.6	7.0	7.1	8.3	8.3	90.8	90.8	10.9	10.9	4.9	4.5
					19.6		7.1		8.3		90.7		10.9		4.0	
17 February 2025	17:34	Cloudy	Middle	0.08	21.6	21.6	7.6	7.6	4.8	4.8	54.9	54.4	6.4	6.4	11.0	9.6
					21.6		7.6		4.7		53.8		6.4		8.1	
20 February 2025	17:40	Cloudy	Middle	0.15	22.2	22.2	7.4	7.4	7.0	7.0	81.0	81.0	10.6	10.5	2.3	2.9
					22.2		7.4		7.0		81.0		10.5		3.4	
22 February 2025	13:36	Cloudy	Middle	0.50	19.1	19.1	7.5	7.5	7.0	7.0	78.1	78.1	14.9	14.8	2.1	2.5
					19.1		7.5		7.0		78.0		14.8		2.9	
24 February 2025	14:02	Cloudy	Middle	0.10	19.6	19.6	7.5	7.5	8.0	8.0	87.8	87.5	3.0	3.0	3.1	2.7
					19.6		7.5		8.0		87.2		3.0		2.3	
26 February 2025	14:39	Cloudy	Middle	0.70	19.6	19.6	7.9	7.9	8.5	8.4	92.3	92.2	44.1	44.2	21.0	18.0
					19.6		7.9		8.4		92.1		44.2		15.0	
28 February 2025	15:36	Sunny	Middle	0.06	24.1	24.1	7.6	7.6	7.3	7.3	89.7	89.7	21.0	20.9	18.0	16.5
					24.1		7.6		7.3		89.7		20.9		15.0	

Water Quality Monitoring Location : D2a

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 February 2025	16:02	Cloudy	Middle	0.10	19.5	19.5	8.1	8.0	9.2	9.2	100.3	100.3	10.0	10.1	1.1	1.1
					19.5		8.0		9.2		100.3		10.1		<1.0	
03 February 2025	16:42	Cloudy	Middle	0.60	20.0	20.0	7.5	7.5	8.1	8.1	92.5	92.6	9.5	9.4	7.4	7.0
					20.0		7.5		8.1		92.7		9.4		6.6	
05 February 2025	17:36	Sunny	Middle	0.55	20.0	20.0	7.5	7.5	8.1	8.1	92.4	92.5	9.4	9.4	6.8	6.6
					20.0		7.5		8.1		92.5		9.4		6.3	
08 February 2025	14:00	Cloudy	Middle	0.60	16.6	16.6	7.3	7.3	8.4	8.4	88.1	88.1	7.4	7.4	12.0	13.0
					16.6		7.3		8.4		88.0		7.4		14.0	
10 February 2025	15:39	Fine	Middle	0.65	18.9	18.9	7.7	7.7	9.2	9.2	99.1	99.1	7.7	7.7	4.0	4.2
					18.9		7.7		9.2		99.1		7.7		4.4	
12 February 2025	14:42	Rain	Middle	0.60	19.5	19.5	7.1	7.1	8.9	8.9	97.1	97.1	10.7	10.7	1.5	1.7
					19.5		7.1		8.9		97.1		10.7		1.8	
14 February 2025	14:54	Cloudy	Middle	0.50	19.6	19.6	7.2	7.2	9.2	9.2	100.0	100.0	8.2	8.2	1.2	1.3
					19.6		7.2		9.2		100.0		8.2		1.3	
17 February 2025	15:52	Cloudy	Middle	0.75	21.0	21.0	7.8	7.8	8.3	8.3	92.6	93.1	4.9	4.9	12.0	13.0
					21.0		7.8		8.4		93.6		4.9		14.0	
20 February 2025	14:39	Cloudy	Middle	0.50	20.9	20.9	7.8	7.8	9.3	9.3	103.8	103.9	4.9	4.9	5.6	6.7
					20.9		7.8		9.3		103.9		4.9		7.7	
22 February 2025	13:01	Cloudy	Middle	0.80	19.3	19.3	7.4	7.4	6.4	6.4	72.8	72.2	9.6	9.6	3.7	4.6
					19.3		7.4		6.3		71.5		9.6		5.5	
24 February 2025	13:36	Cloudy	Middle	0.80	19.6	19.6	7.2	7.2	8.4	8.3	93.9	93.6	5.8	5.8	9.5	8.7
					19.6		7.2		8.3		93.2		5.9		7.8	
26 February 2025	13:36	Cloudy	Middle	0.50	19.4	19.4	7.4	7.4	9.5	9.5	103.2	103.4	4.8	4.8	4.9	5.6
					19.4		7.4		9.5		103.5		4.9		6.3	
28 February 2025	14:11	Sunny	Middle	0.50	23.7	23.7	7.4	7.4	7.7	7.7	90.5	90.5	4.8	4.9	<1.0	<1.0
					23.7		7.4		7.7		90.5		4.9		<1.0	

Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Water Quality Monitoring Location : D3

Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 February 2025	13:00	Cloudy	Middle	0.03	20.6	20.6	7.4	7.4	6.9	6.9	77.2	76.8	3.5	3.5	3.1	2.4
					20.6		7.4		6.9		76.3		3.5		1.6	
03 February 2025	14:37	Cloudy	Middle	0.02	19.2	19.2	7.4	7.4	7.9	7.9	86.1	86.1	2.2	2.3	3.2	4.1
					19.2		7.4		7.9		86.1		2.4		5.0	
05 February 2025	15:24	Sunny	Middle	0.03	19.4	19.4	7.4	7.4	8.1	8.1	88.6	88.5	1.8	1.8	1.6	1.3
					19.4		7.4		8.1		88.3		1.7		<1.0	
08 February 2025	13:39	Cloudy	Middle	0.03	16.8	16.8	7.6	7.6	8.9	9.0	92.0	92.5	1.3	1.2	1.5	1.5
					16.8		7.6		9.0		92.9		1.2		1.5	
10 February 2025	09:37	Fine	Middle	0.03	15.2	15.2	7.3	7.3	6.1	6.1	61.0	61.0	1.7	1.7	1.7	1.7
					15.2		7.3		6.1		60.9		1.7		1.6	
12 February 2025	14:10	Rain	Middle	0.03	19.4	19.4	7.1	7.1	7.7	7.7	83.9	83.8	3.9	3.9	1.7	1.4
					19.4		7.1		7.7		83.7		3.8		<1.0	
14 February 2025	14:15	Cloudy	Middle	0.03	19.7	19.7	7.3	7.3	7.8	7.8	84.8	84.8	3.5	3.5	1.2	1.2
					19.7		7.3		7.8		84.8		3.5		1.1	
17 February 2025	16:30	Cloudy	Middle	0.05	21.4	21.4	7.5	7.5	8.8	8.8	100.1	100.0	2.3	2.2	3.6	3.5
					21.4		7.5		8.8		99.9		2.2		3.3	
20 February 2025	14:12	Cloudy	Middle	0.04	21.8	21.8	7.5	7.5	8.8	8.7	99.6	99.6	0.7	0.7	<1.0	1.1
					21.8		7.5		8.7		99.5		0.7		1.2	
22 February 2025	08:30	Cloudy	Middle	0.05	19.7	19.7	7.4	7.4	8.3	8.3	90.8	90.7	6.2	6.2	17.7	17.9
					19.7		7.4		8.3		90.6		6.3		18.1	
24 February 2025	13:00	Cloudy	Middle	0.05	19.6	19.6	7.6	7.6	8.8	8.8	95.9	96.2	0.3	0.3	9.5	8.7
					19.6		7.6		8.8		96.5		0.3		7.8	
26 February 2025	13:02	Cloudy	Middle	0.04	19.8	19.8	7.3	7.3	8.1	8.0	88.4	88.2	0.8	0.8	3.4	3.1
					19.8		7.3		8.0		87.9		0.8		2.8	
28 February 2025	14:45	Sunny	Middle	0.05	24.0	24.0	7.5	7.4	7.9	7.8	93.3	93.2	1.4	1.4	<1.0	<1.0
					24.0		7.4		7.8		93.1		1.4		<1.0	

Water Quality Monitoring Location : D5a

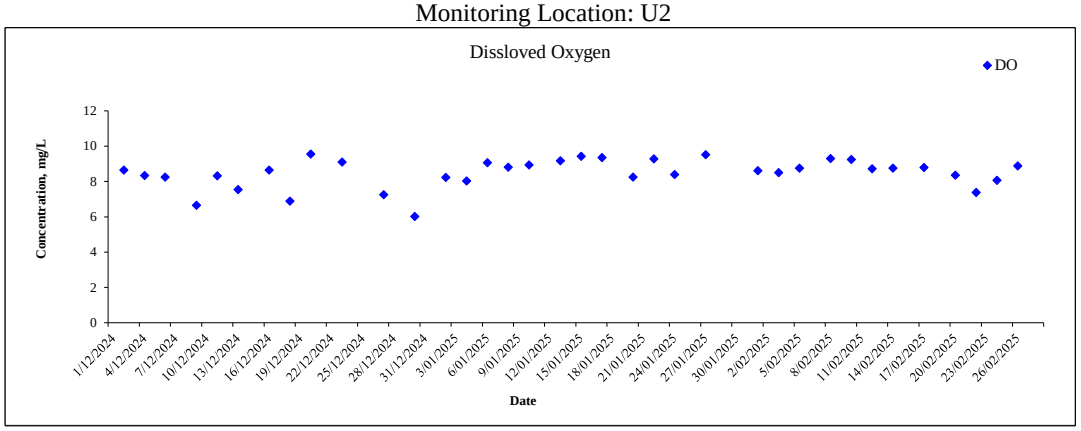
Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 February 2025	13:34	Cloudy	Middle	0.02	19.6	19.6	7.1	7.1	7.5	7.5	82.2	82.3	6.5	6.5	4.2	4.2
					19.6		7.1		7.5		82.3		6.4		4.2	
03 February 2025	13:25	Cloudy	Middle	0.03	16.9	16.9	7.6	7.6	6.1	6.1	63.1	63.1	8.6	8.6	2.6	2.5
					16.9		7.6		6.1		63.0		8.6		2.4	
05 February 2025	13:30	Sunny	Middle	0.03	16.4	16.4	7.5	7.5	6.5	6.5	66.1	66.1	9.1	9.1	2.3	2.3
					16.4		7.5		6.5		66.0		9.0		2.3	
08 February 2025	13:00	Cloudy	Middle	0.02	16.7	16.7	7.5	7.5	8.8	8.8	90.9	90.7	4.9	4.8	4.7	5.7
					16.7		7.5		8.8		90.4		4.8		6.6	
10 February 2025	16:12	Fine	Middle	0.02	18.2	18.2	7.6	7.5	6.4	6.4	68.3	68.1	6.0	6.0	2.0	2.2
					18.2		7.5		6.4		67.9		6.0		2.3	
12 February 2025	13:39	Rain	Middle	0.02	19.2	19.2	7.5	7.5	5.7	5.7	62.0	61.8	8.4	8.4	4.9	4.5
					19.2		7.5		5.7		61.5		8.3		4.1	
14 February 2025	13:41	Cloudy	Middle	0.02	19.9	19.9	7.0	7.0	8.4	8.4	92.2	92.2	8.5	8.5	1.2	1.2
					19.9		7.0		8.4		92.2		8.5		1.1	
17 February 2025	17:00	Cloudy	Middle	0.02	21.7	21.7	7.9	7.9	8.5	8.6	96.7	97.7	16.3	16.3	12.0	14.5
					21.7		7.9		8.7		98.6		16.2		17.0	
20 February 2025	13:39	Cloudy	Middle	0.00	21.7	21.7	7.9	7.9	8.2	8.3	93.5	94.0	16.1	16.1	8.1	8.9
					21.7		7.9		8.3		94.5		16.1		9.6	
22 February 2025	10:47	Cloudy	Middle	0.04	19.1	19.1	8.3	8.3	11.0	11.1	119.3	119.4	18.7	18.7	<1.0	1.2
					19.1		8.3		11.1		119.4		18.7		1.4	
24 February 2025	12:00	Cloudy	Middle	0.02	19.5	19.5	7.4	7.4	6.4	6.3	69.3	68.5	4.7	4.7	2.0	3.1
					19.5		7.4		6.2		67.6		4.7		4.1	
26 February 2025	11:56	Cloudy	Middle	0.03	18.7	18.7	7.5	7.5	9.0	9.0	96.7	96.6	6.0	6.0	8.7	7.7
					18.7		7.5		9.0		96.5		6.0		6.6	
28 February 2025	13:39	Sunny	Middle	0.50	23.6	23.6	7.6	7.6	8.2	8.2	96.5	96.6	5.2	5.3	<1.0	<1.0
					23.6		7.6		8.2		96.7		5.3		<1.0	

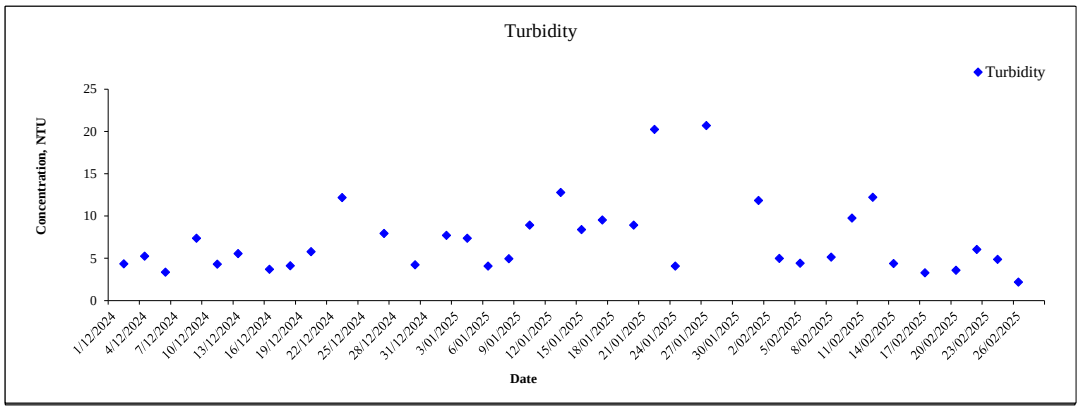
Water Quality Monitoring Location : D6a

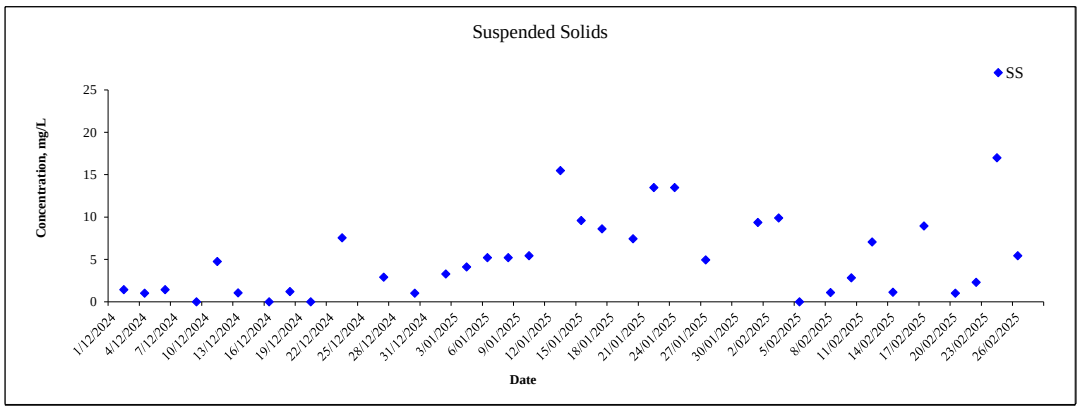
Date	Start Time	Weather	Water depth (m)		Temperature (°C)		pH		DO (mg/L)		DO (%)		Turbidity (NTU)		Suspended Solids (mg/L)	
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
01 February 2025	13:21	Cloudy	Middle	0.12	17.5	17.5	7.0	7.0	9.2	9.2	96.7	96.7	12.0	12.0	<1.0	1.2
					17.5		7.0		9.2		96.7		12.0		1.4	
03 February 2025	13:01	Cloudy	Middle	0.10	14.9	14.9	7.4	7.4	8.7	8.7	86.0	86.4	8.7	9.2	5.5	6.4
					14.9		7.4		8.8		86.7		9.7		7.3	
05 February 2025	13:07	Sunny	Middle	0.10	15.4	15.4	6.8	6.8	9.9	9.9	99.5	99.5	14.1	14.1	1.2	1.1
					15.4		6.8		9.9		99.5		14.1		<1.0	
08 February 2025	11:52	Cloudy	Middle	0.10	16.6	16.6	8.0	8.0	9.8	9.8	101.0	101.0	9.5	9.5	1.9	2.1
					16.6		8.0		9.8		100.9		9.5		2.2	
10 February 2025	16:39	Fine	Middle	0.10	17.8	17.8	7.7	7.7	8.5	8.5	89.5	89.8	9.4	9.4	2.6	2.6
					17.8		7.7		8.6		90.0		9.4		2.5	
12 February 2025	13:04	Rain	Middle	0.10	19.5	19.5	6.7	6.7	8.9	8.9	97.4	97.4	14.5	14.5	1.6	1.8
					19.5		6.7		8.9		97.4		14.5		2.0	
14 February 2025	13:02	Cloudy	Middle	0.10	19.3	19.3	6.8	6.8	9.5	9.5	103.0	103.0	13.0	13.0	2.4	2.6
					19.3		6.8		9.5		103.0		13.0		2.7	
17 February 2025	17:34	Cloudy	Middle	0.08	22.4	22.4	7.3	7.3	8.5	8.5	96.7	96.6	10.7	10.7	<1.0	1.2
					22.4		7.3		8.5		96.4		10.6		1.3	
20 February 2025	13:04	Cloudy	Middle	0.08	21.6	21.6	7.5	7.5	7.7	7.7	89.8	89.9	5.2	5.2	6.1	5.9
					21.6		7.5		7.7		89.9		5.2		5.6	
22 February 2025	11:20	Cloudy	Middle	0.07	20.0	20.0	7.8	7.8	7.8	7.8	86.0	86.2	6.1	6.1	17.8	15.4
					20.0		7.8		7.9		86.3		6.1		12.9	
24 February 2025	11:36	Cloudy	Middle	0.07	19.6	19.6	7.8	7.8	9.7	9.7	105.5	105.6	13.4	13.5	1.4	1.2
					19.6		7.8		9.7		105.7		13.5		<1.0	
26 February 2025	11:20	Cloudy	Middle	0.05	18.2	18.2	8.2	8.1	9.3	9.3	98.9	98.7	12.7	12.7	12.0	9.2
					18.2		8.1		9.3		98.5		12.7		6.3	
28 February 2025	13:04	Sunny	Middle	0.05	23.8	23.8	7.4	7.4	7.8	7.8	91.8	91.8	2.2	2.2	<1.0	<1.0
					23.8		7.4		7.8		91.7		2.2		<1.0	

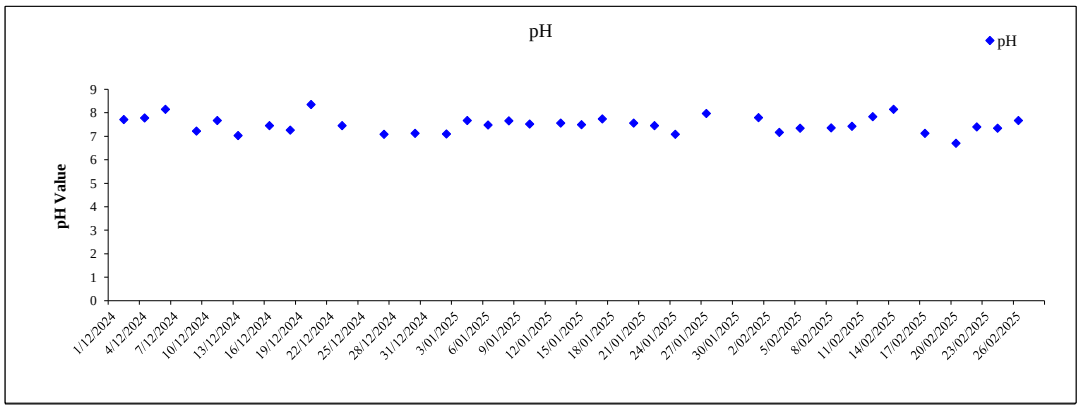
Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Monitoring Location: U2

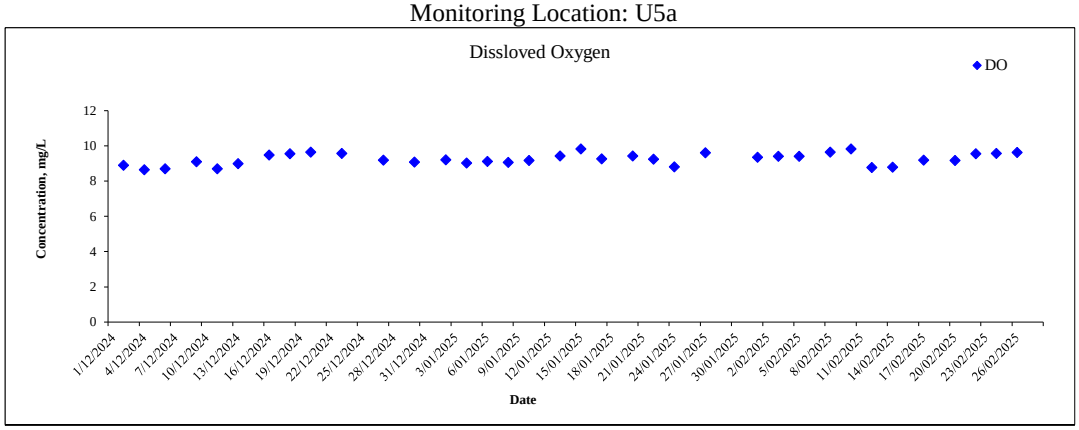


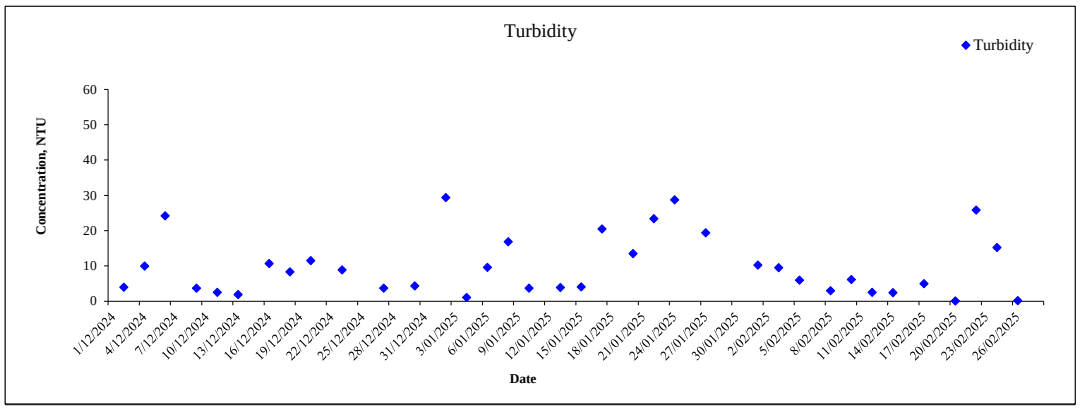


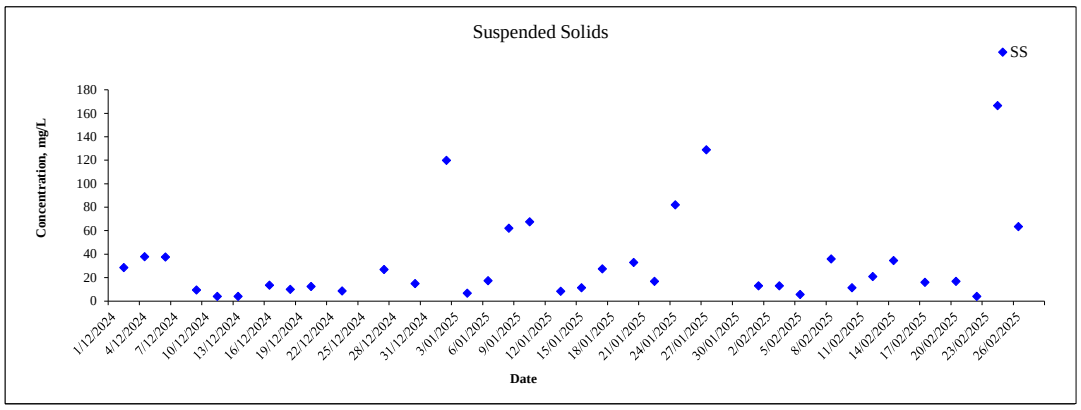


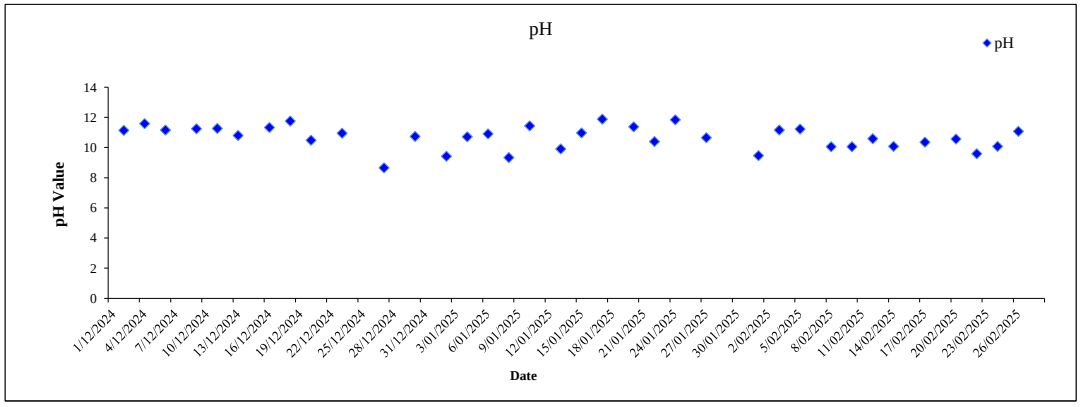


Monitoring Location: U5a



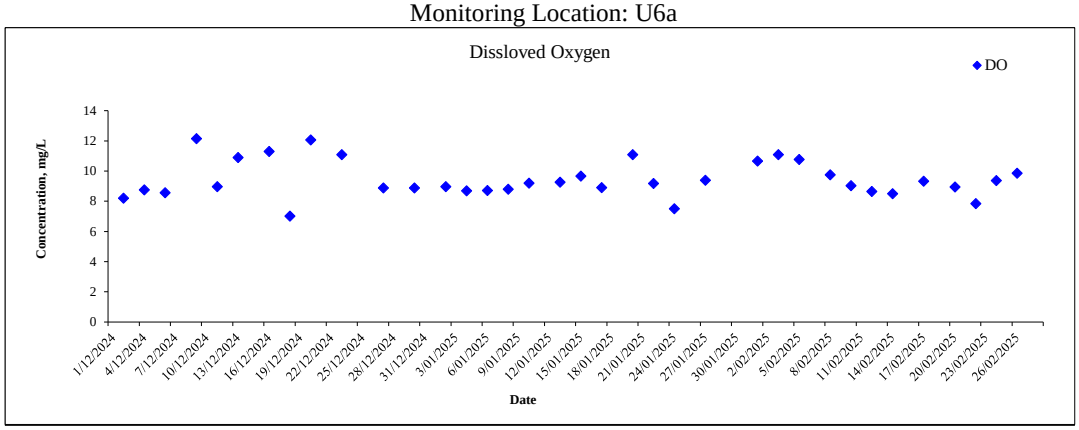


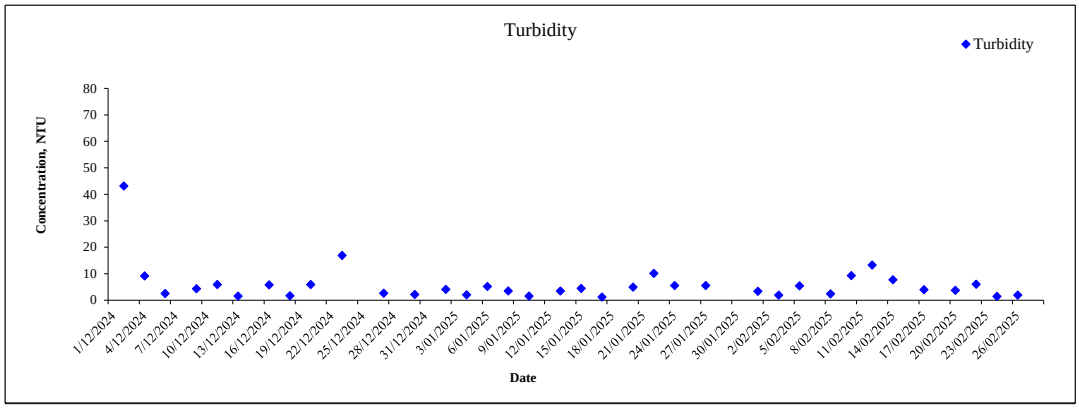


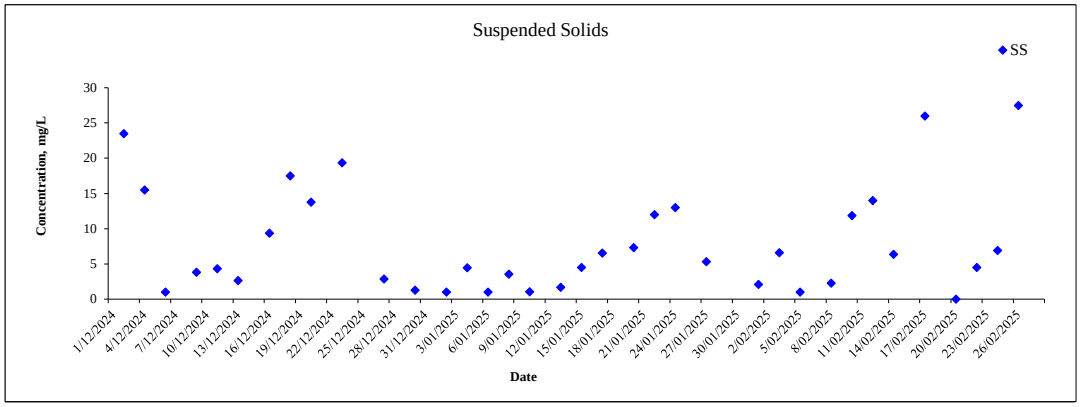


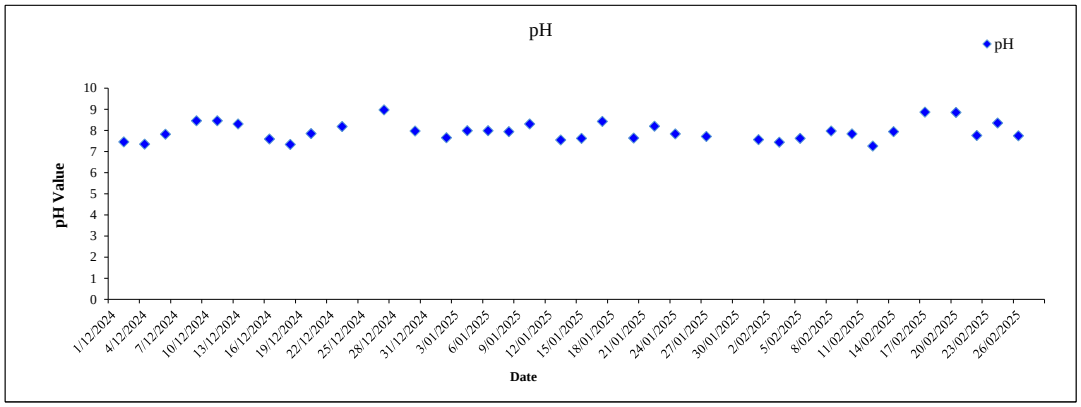
Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Monitoring Location: U6a

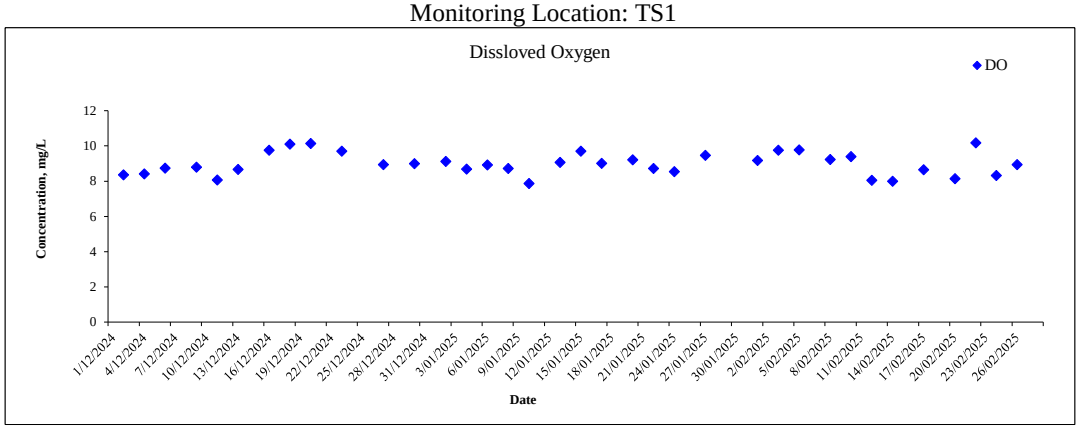


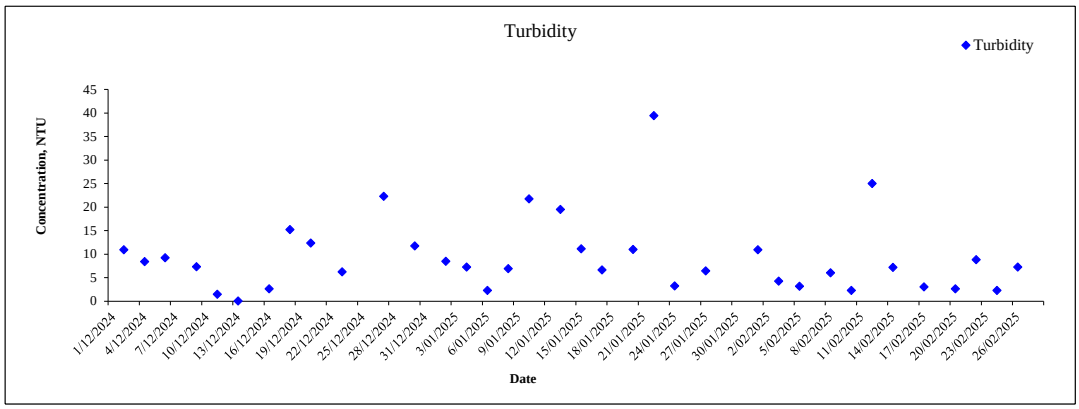


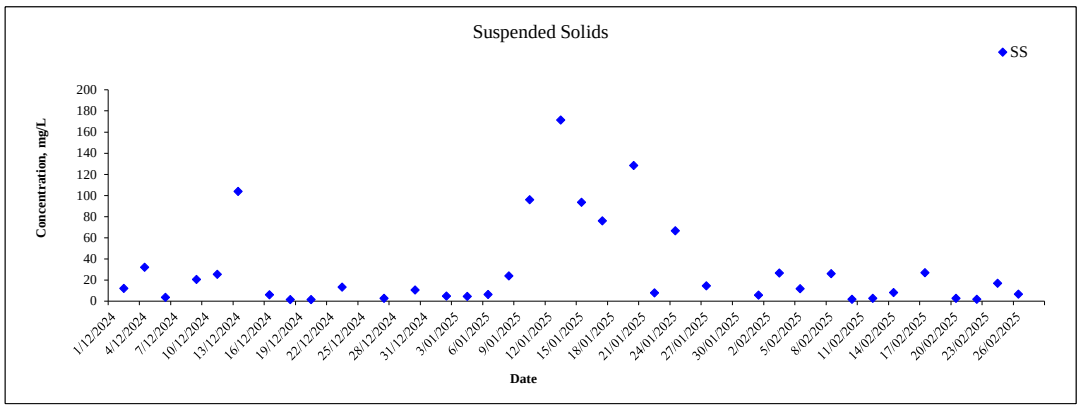


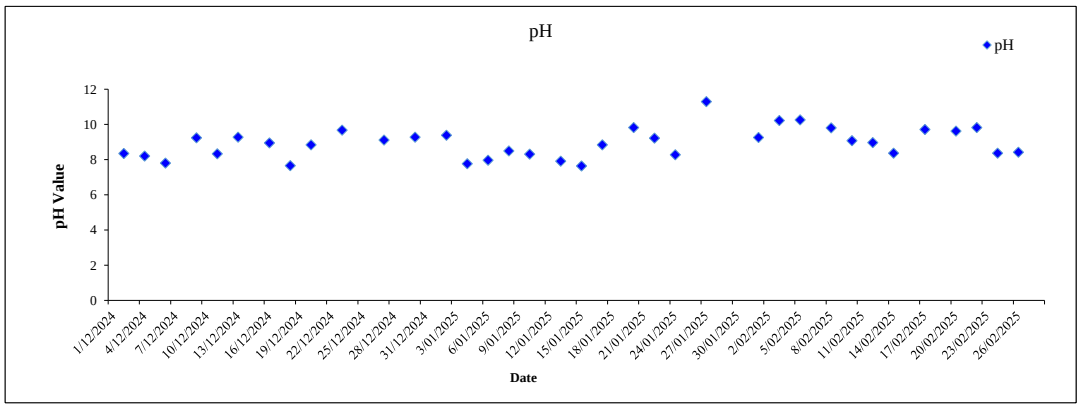


Monitoring Location: TS1

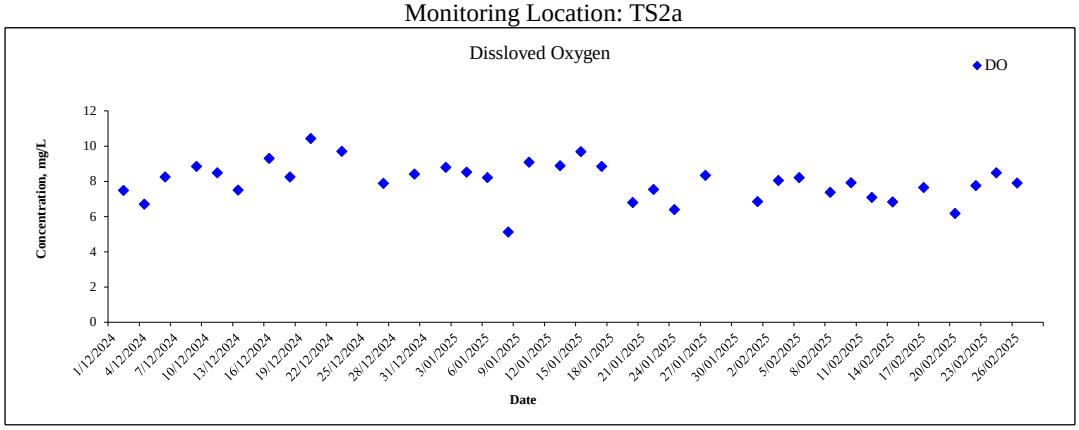


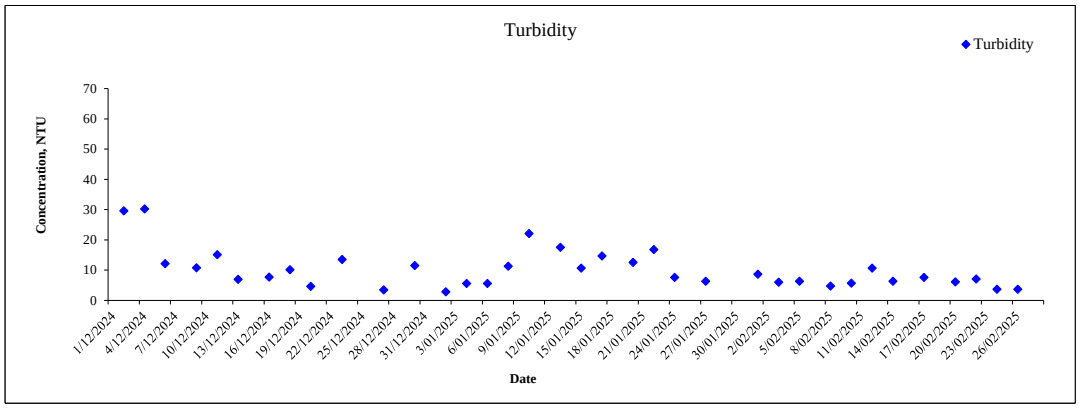


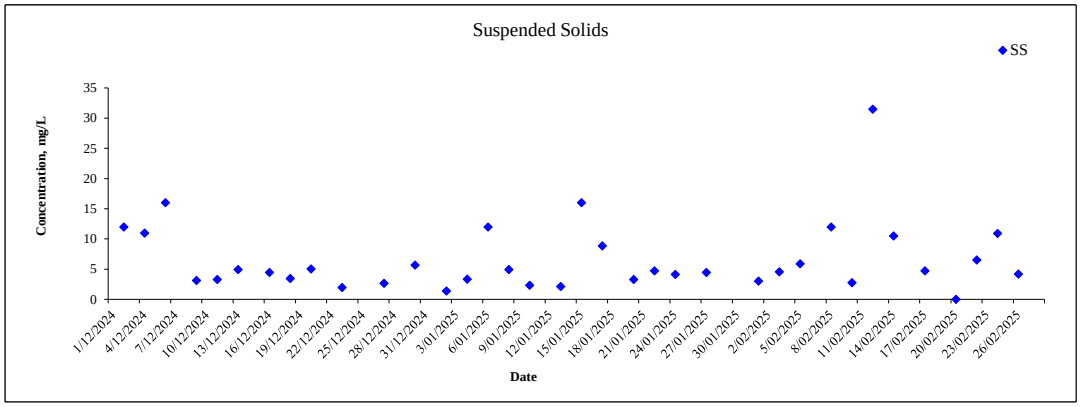


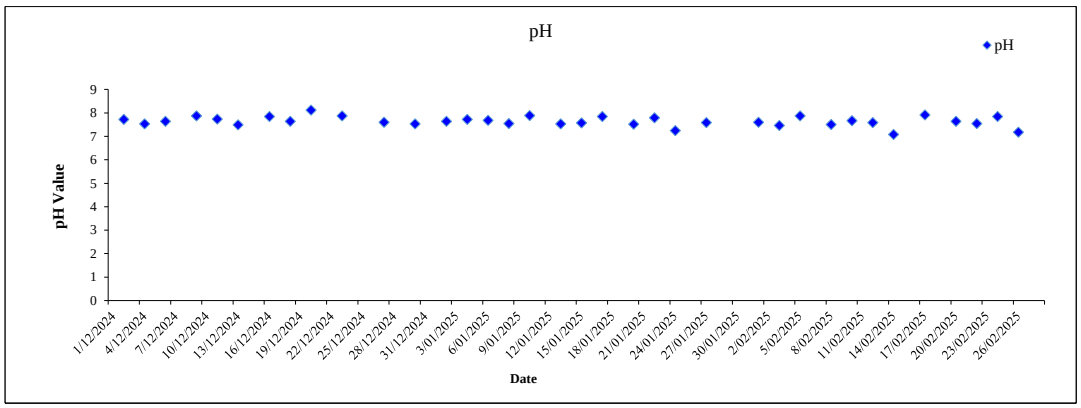


Monitoring Location: TS2a

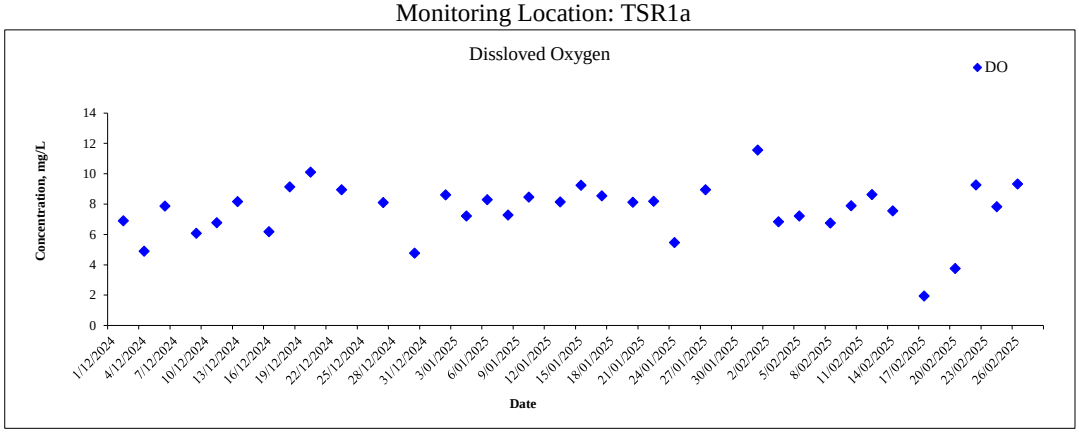


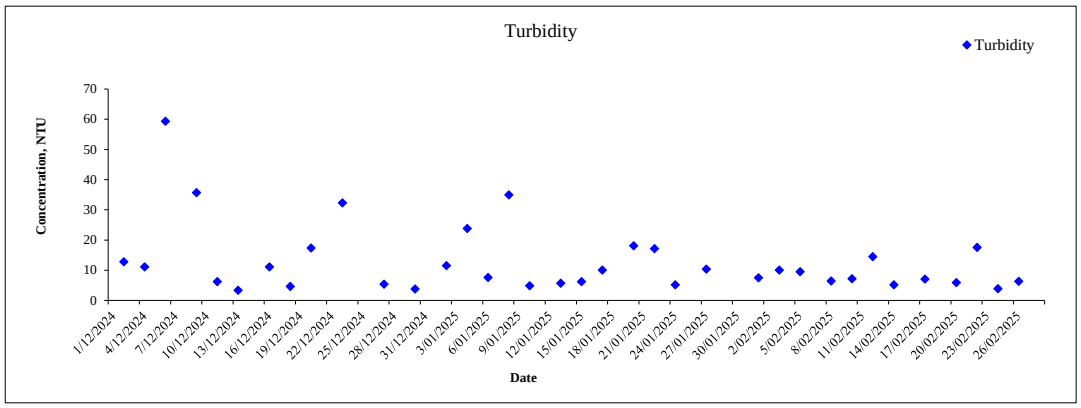


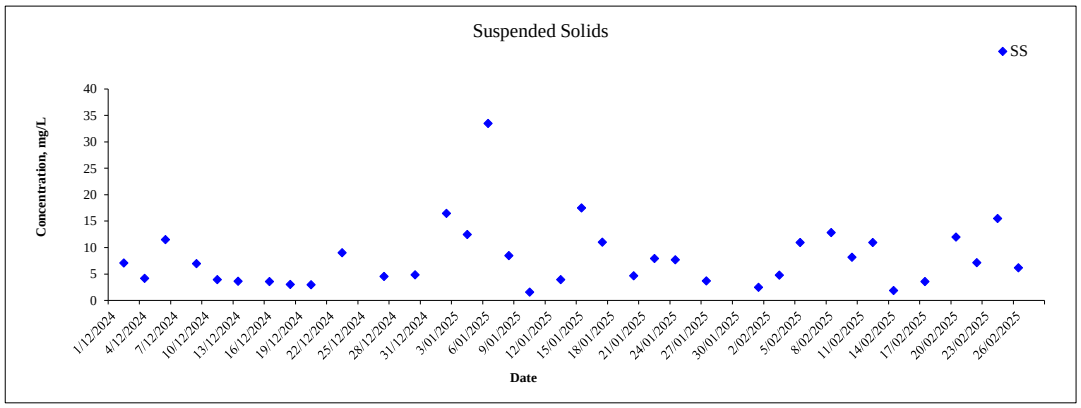


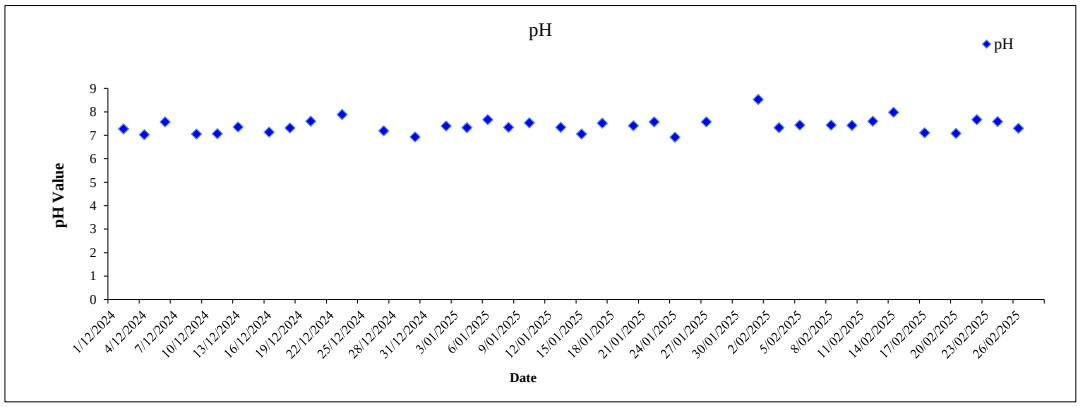


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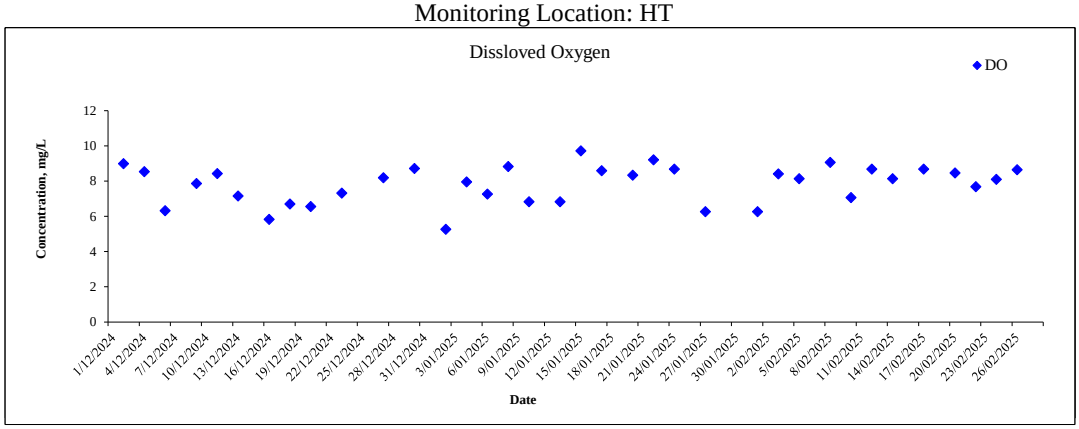


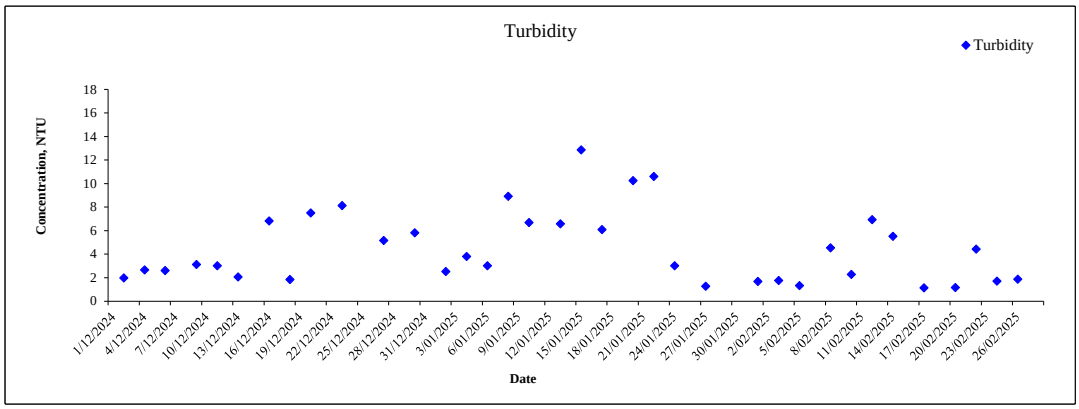


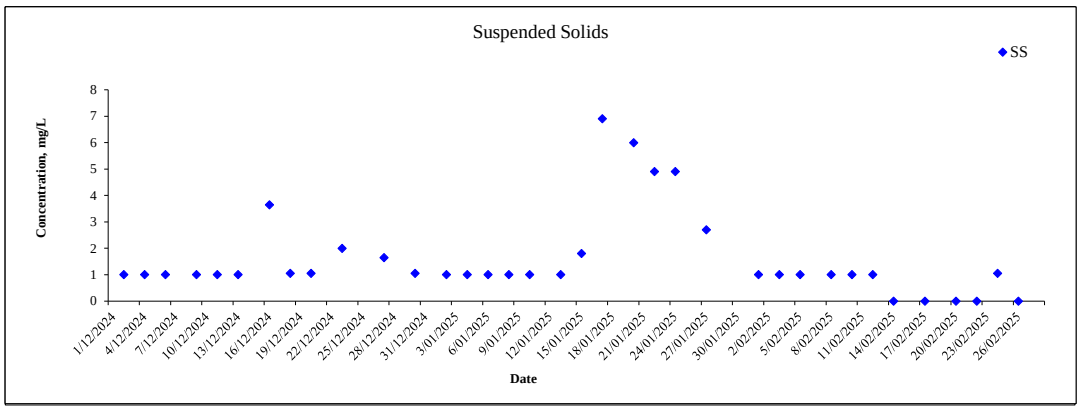


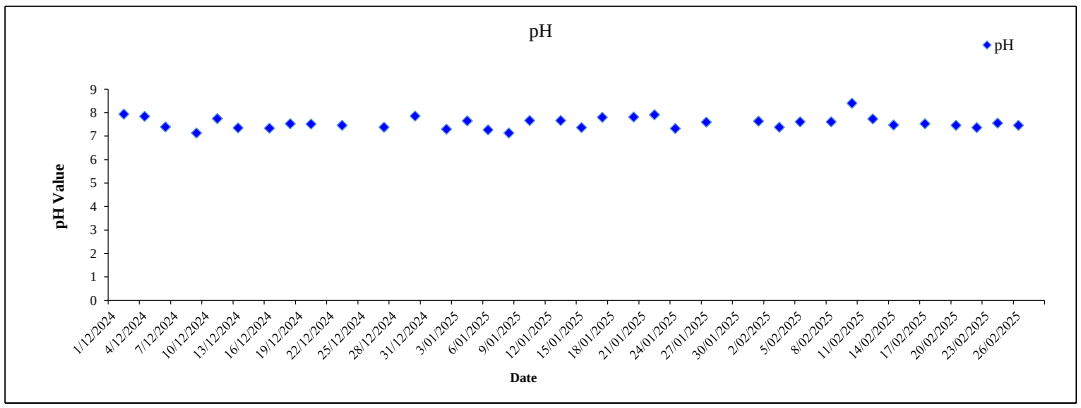
Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Monitoring Location: HT



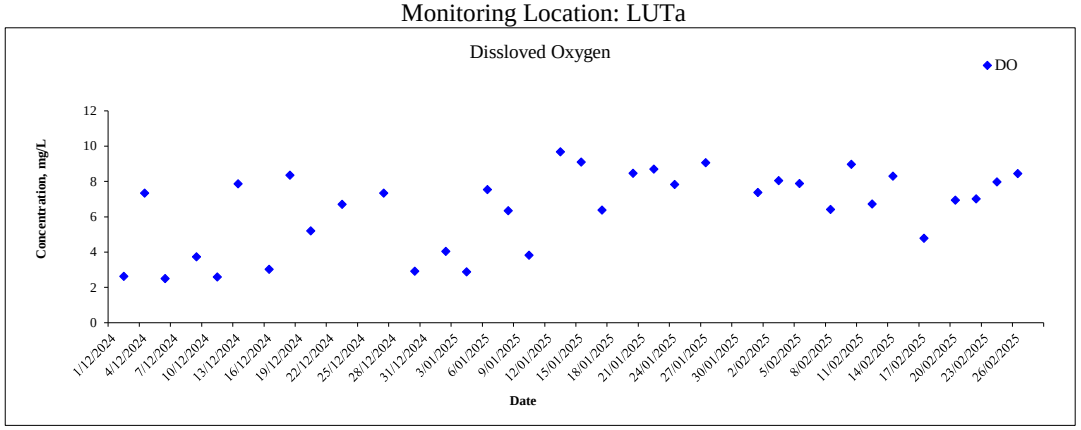


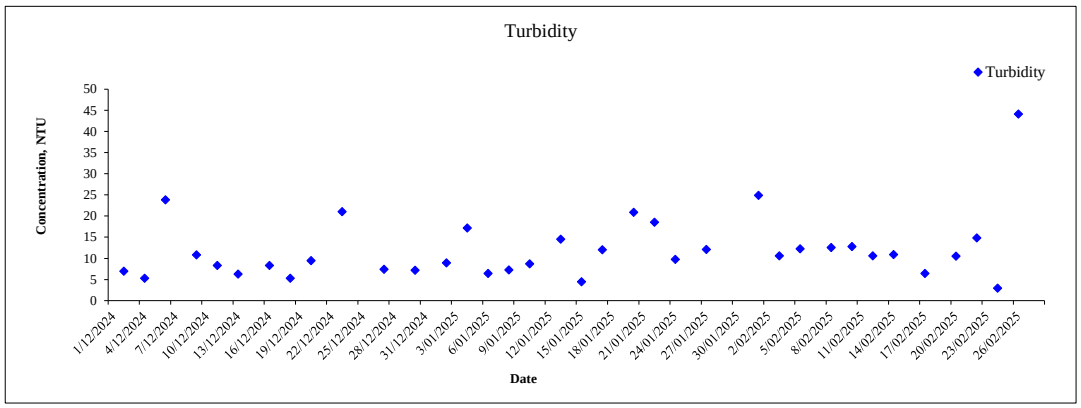


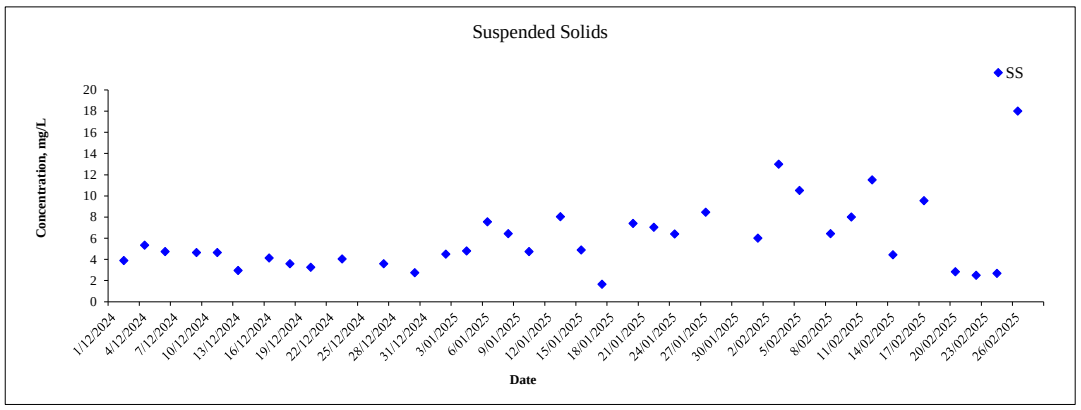


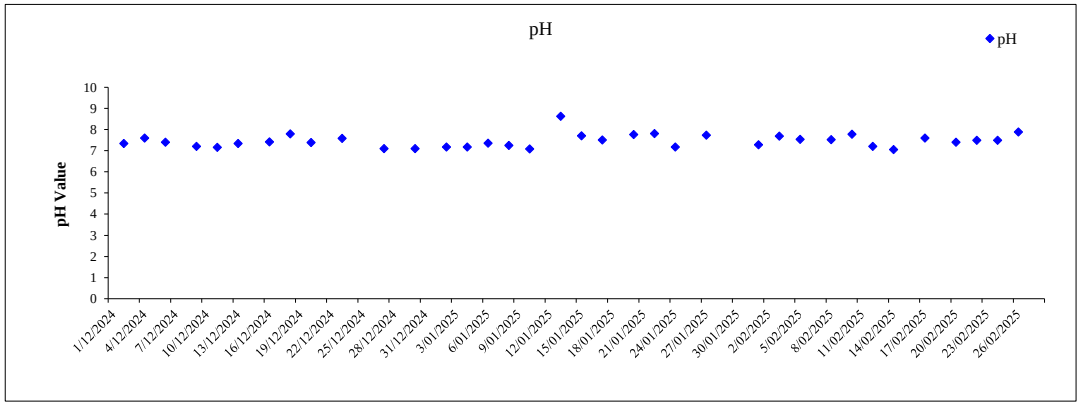
Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Monitoring Location: LUTa

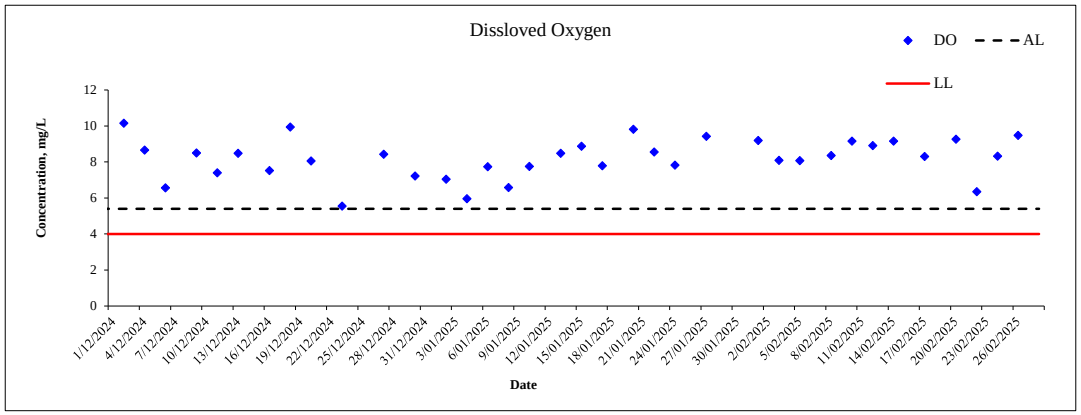


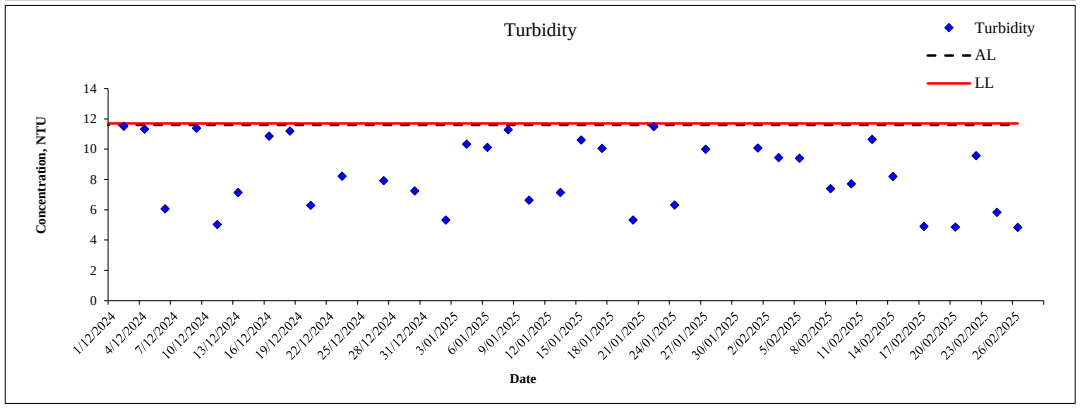


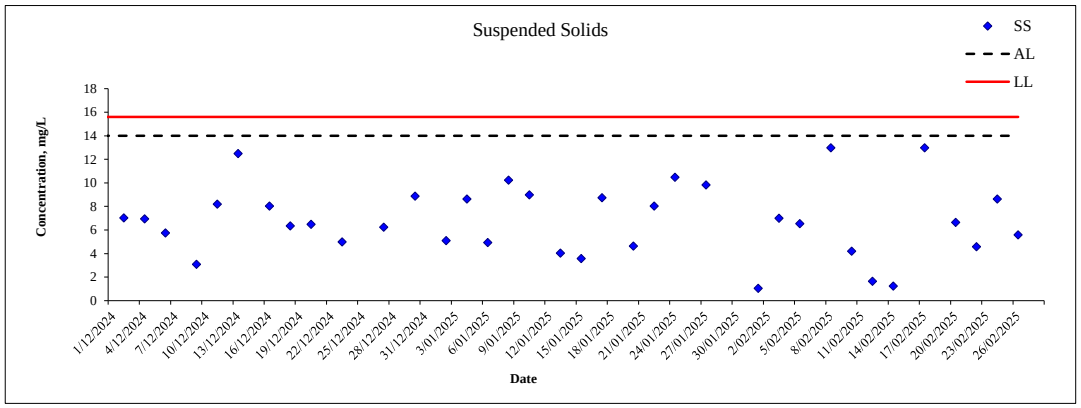


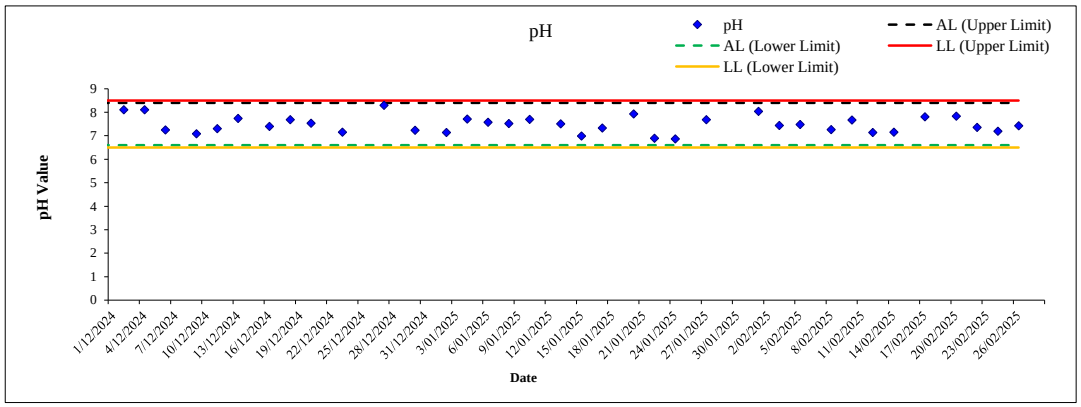


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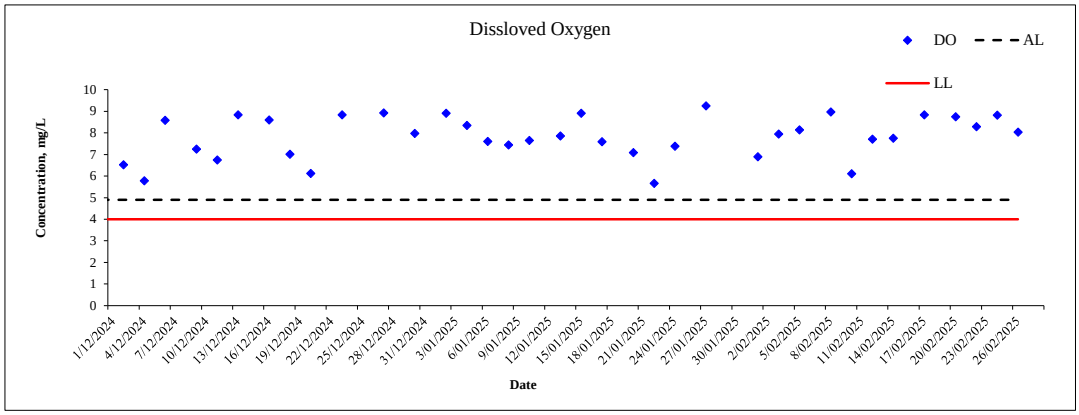


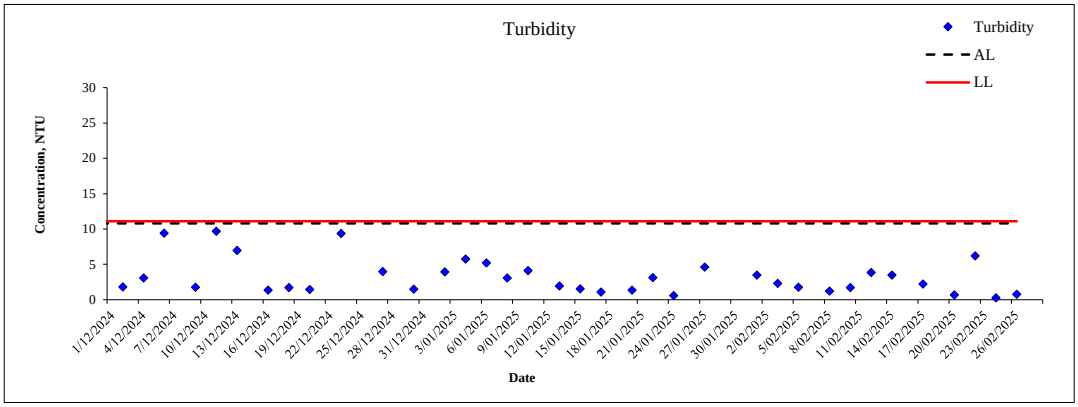


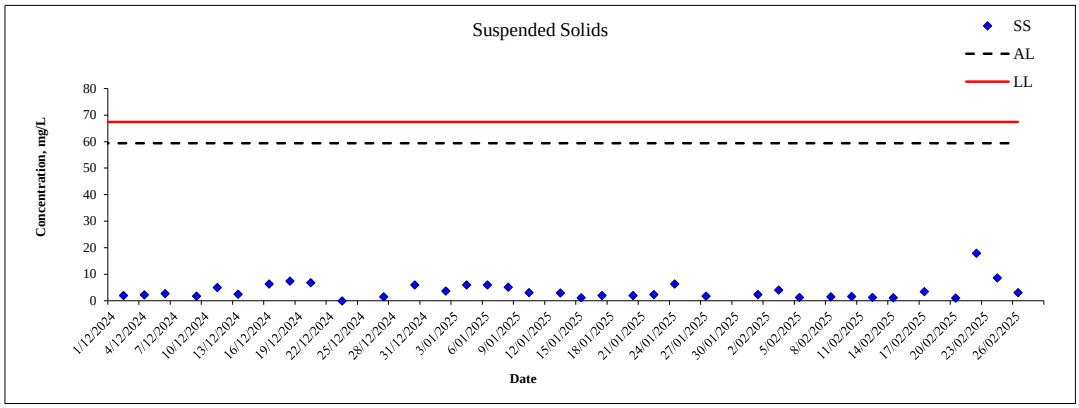


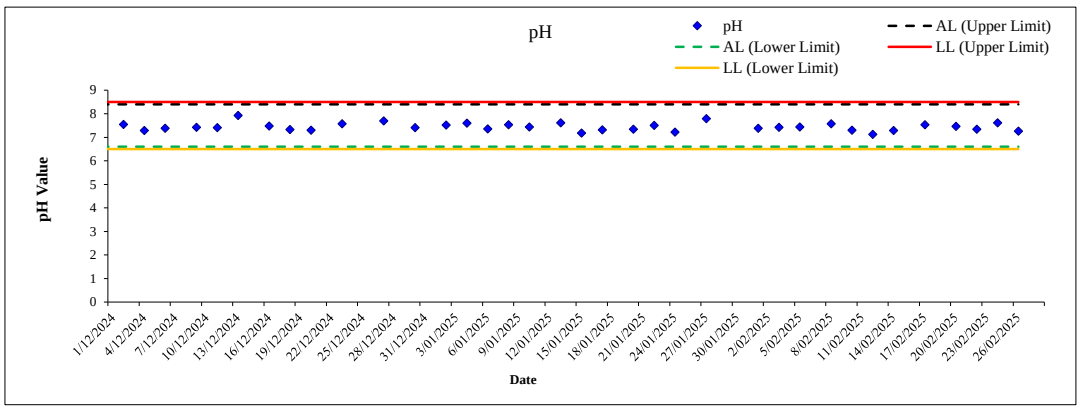
Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Monitoring Location: D3



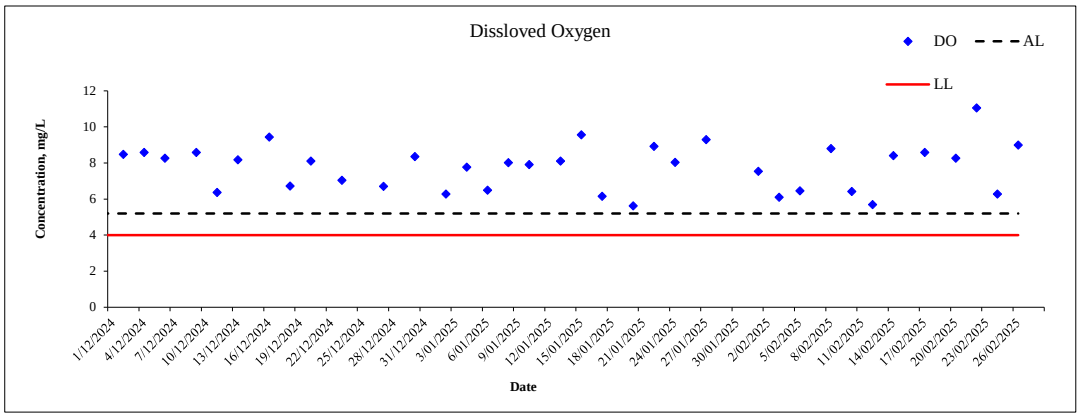


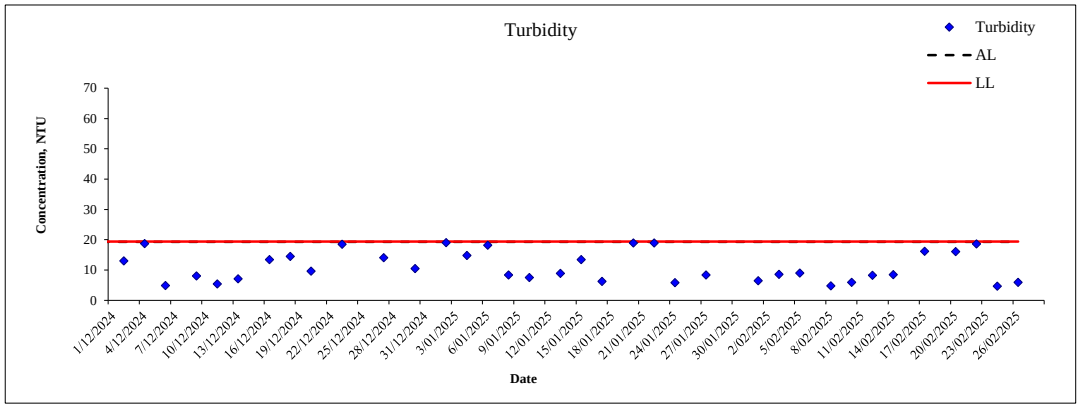


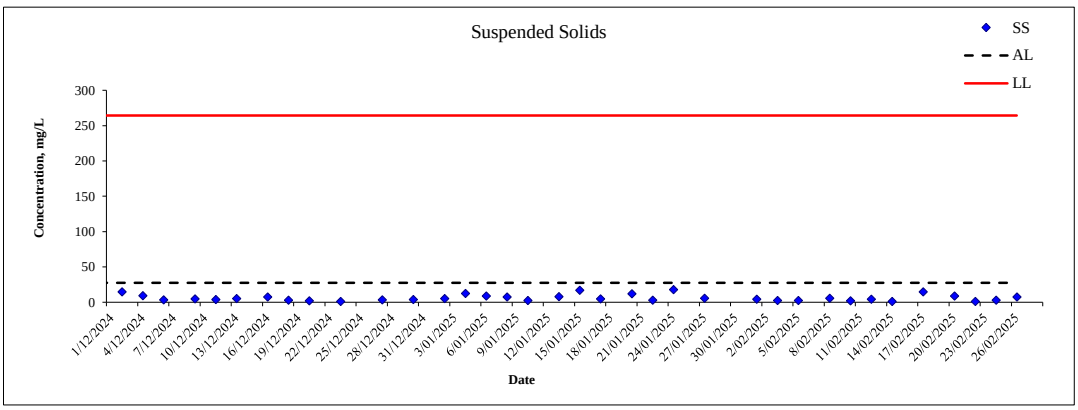


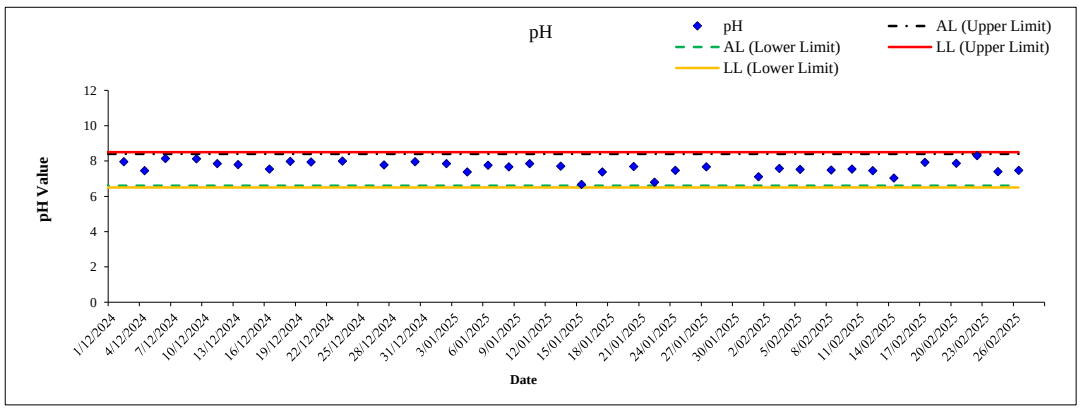
Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Monitoring Location:D5a



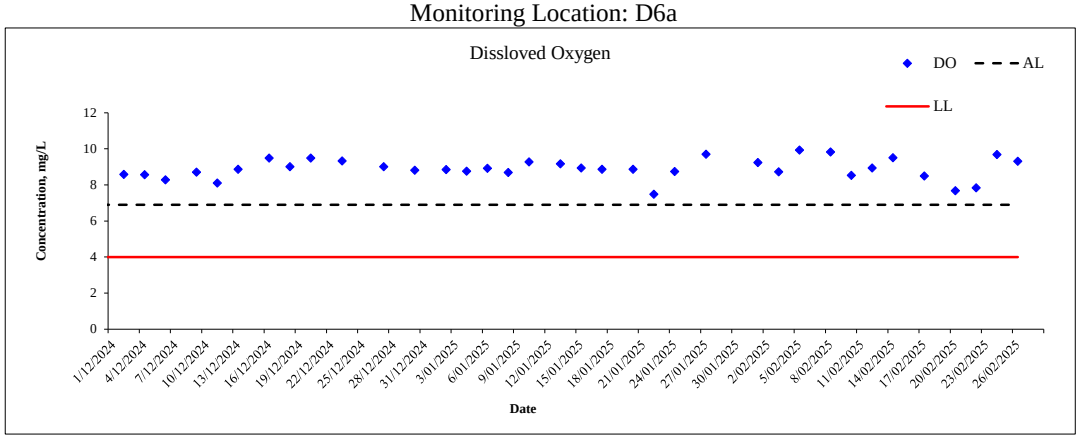


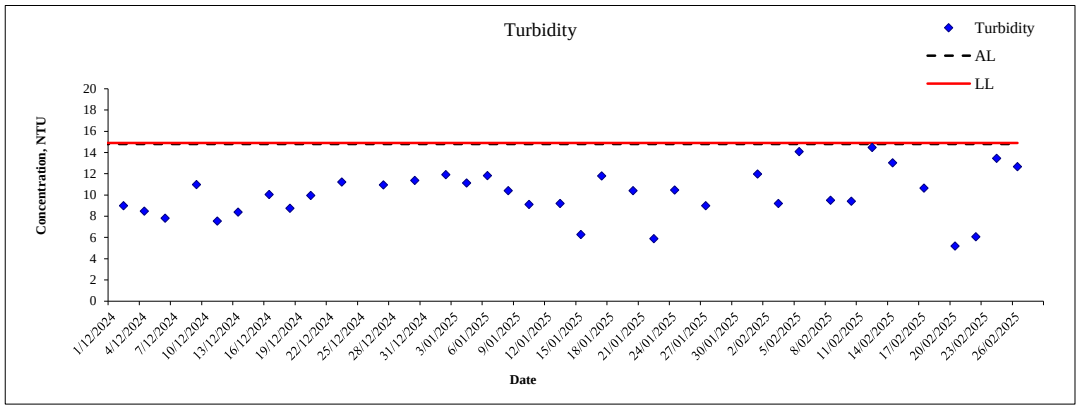


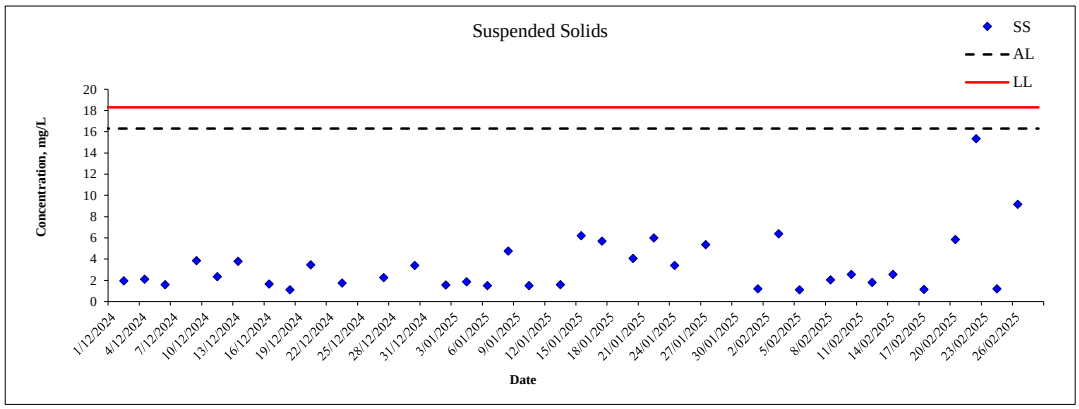


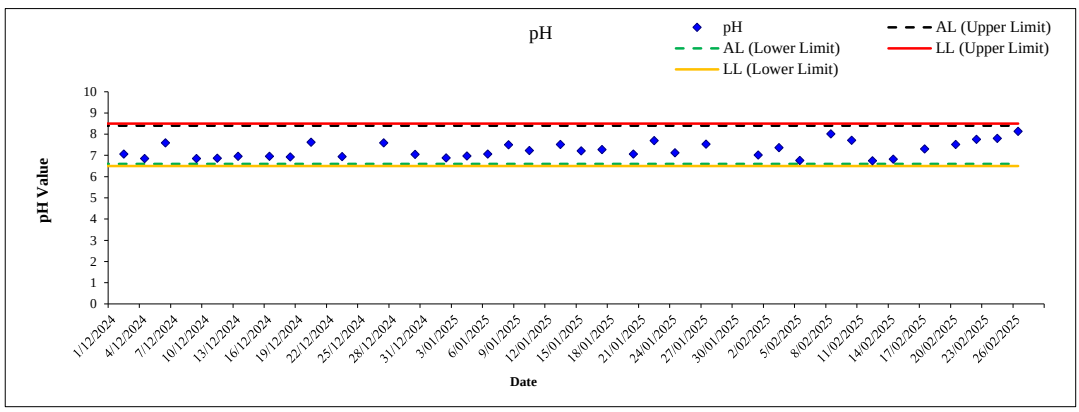
Contract No. WD/03/2023
Hung Shui Kiu/Ha Tsuen New Development Area
Second Phase Development - Environmental Team
Water Quality Monitoring Result

Monitoring Location: D6a









Appendix 4.3 Quality Control Report for Suspended Solids

Acumen Laboratory and Testing Limited
Flat/Rm D, 12/F, Ford Glory Plaza, Nos. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong
Tel: (852) 2333 6823 Fax: (852) 2333 1316

Appendix - Quality Control Summary Table

Project Name: Service Contract No. WD/03/2023 Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development - Environmental Team

		Method Blank Report		Duplicate Report			Sample Spike Report		Pass / Fail
		MDL	Result	Original Result	Duplicate Result	RPD	Spike concentration	Spike Recovery	
Sampling Date	Job No. / Unit	mg/L	mg/L	mg/L	mg/L	%	mg/L	%	/
01/02/2025	R250195	0.22	0.09	5.21	5.01	3.91	10	93.0	Pass
03/02/2025	R250201	0.22	0.07	4.54	4.69	-3.25	10	94.6	Pass
05/02/2025	R250235	0.22	0.08	5.04	4.86	3.64	10	92.5	Pass
08/02/2025	R250258	0.22	0.09	3.39	3.45	-1.75	10	93.4	Pass
10/02/2025	R250264	0.22	0.09	4.06	3.96	2.49	10	93.7	Pass
12/02/2025	R250305	0.22	0.07	3.83	3.92	-2.32	10	93.3	Pass
14/02/2025	R250332	0.22	0.10	3.86	3.73	3.43	10	93.8	Pass
17/02/2025	R250335	0.22	0.08	3.33	3.44	-3.25	10	94.4	Pass
20/02/2025	R250367	0.22	0.09	3.08	2.98	3.30	10	93.8	Pass
22/02/2025	R250391	0.22	0.07	3.11	3.23	-3.79	10	93.8	Pass
24/02/2025	R250397	0.22	0.10	3.62	3.51	3.09	10	93.9	Pass
26/02/2025	R250412	0.22	0.10	3.77	3.87	-2.62	10	95.5	Pass
28/02/2025	R250436	0.22	0.09	3.37	3.26	3.32	10	94.5	Pass

Acumen Laboratory and Testing Limited
Workshop 04, 7/F, The Whitney, No. 183 Wai Yip Street, Kwun Tong, Kowloon
Tel: (852) 2333 6823 Fax: (852) 2333 1316

Appendix - Quality Control Summary Table

Project Name: Service Contract No. WD/03/2023 Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development - Environmental Team)

		Method Blank Report		Duplicate Report			Sample Spike Report		Pass / Fail
		MDL	Result	Original Result	Duplicate Result	RPD	Spike concentration	Spike Recovery	
Sampling Date	Unit / Job No.	mg/L	mg/L	mg/L	mg/L	%	mg/L	%	/
01/02/2025	R250194	0.22	0.09	4.17	4.01	3.91	10	93.2	Pass
03/02/2025	R250200	0.22	0.11	4.83	5.01	-3.66	10	94.0	Pass
05/02/2025	R250234	0.22	0.09	4.78	4.65	2.76	10	92.8	Pass
08/02/2025	R250257	0.22	0.10	4.56	4.65	-1.95	10	92.5	Pass
10/02/2025	R250263	0.22	0.10	4.69	4.52	3.69	10	94.6	Pass
12/02/2025	R250304	0.22	0.07	4.45	4.26	4.36	10	94.5	Pass
14/02/2025	R250331	0.22	0.07	3.73	3.85	-3.17	10	92.2	Pass
17/02/2025	R250334	0.22	0.08	5.04	4.93	2.21	10	93.5	Pass
20/02/2025	R250366	0.22	0.09	4.56	4.71	-3.24	10	95.0	Pass
22/02/2025	R250390	0.22	0.10	3.55	3.42	3.73	10	94.1	Pass
24/02/2025	R250396	0.22	0.08	5.17	5.37	-3.80	10	93.9	Pass
26/02/2025	R250411	0.22	0.10	4.32	4.21	2.58	10	95.1	Pass
28/02/2025	R250435	0.22	0.09	3.60	3.74	-3.81	10	93.0	Pass

Appendix 4.4 Event and Action Plan for Water Quality

Event and Action Plan for Water Quality

Event	Action			
	ET Leader	IEC	ER	Contractor
Action Level				
Action level being exceeded by one sampling day	1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC and Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC and Contractor; 6. Repeat measurement on next day of exceedance.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER; 6. Implement the agreed mitigation measures.
Action Level being exceeded by more than one consecutive sampling days	1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC and Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC and Contractor; 6. Ensure mitigation measures are implemented; 7. Prepare to increase the monitoring frequency to daily; 8. Repeat measurement on next day of exceedance.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented; 3. Assess the effectiveness of the implemented mitigation measures	1. Inform the Engineer and confirm notification of the noncompliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures.

Limit Level				
Limit level being exceeded by one sampling day	1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC and Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit Level.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess the effectiveness of the implemented mitigation measures.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures.
Limit level being exceeded by more than one consecutive sampling days	1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, Contractor and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess the effectiveness of the implemented mitigation measures. 5. Consider and instruct, if necessary the Contractor to slow down or to stop all or part of the marine work until no exceedance if Limit Level.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures. 7. As directed by the ER, to slow down or to stop all or part of the marine work or construction activities.

Appendix 5.1 Summary of Monthly Waste Flow Table

Summary of Monthly Waste Flow Table for the Project in 2025

Month	Total Quantity Generated	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of C&D Materials Generated Monthly				
		Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastic	Chemical Waste	Others, e.g. General Refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
Jan	0.48	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Feb	1.51	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Mar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Apr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jun	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub-total	**1.99**	**0.00**	**0.00**	**1.94**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.05**
Jul	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**1.99**	**0.00**	**0.00**	**1.94**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.05**

Appendix 7.1 Event and Action Plan for Landscape and Visual

Event/Action Plan for Landscape and Visual

Event	Action			
	ET	IEC	ER	Contractor
Design Check	1. Check final design conforms to the requirements of EP and prepare report.	1. Check report. 2. Recommend remedial design if necessary.	1. Undertake remedial design if necessary.	-
Nonconformity on one occasion	1. Inform the IEC, ER and the Contractor 2. Discuss remedial actions with IEC, ER and Contractor 3. Monitor remedial actions until rectification has been completed	1. Check inspection report. 2. Check Contractor's working method 3. Discuss with ET, ER and Contractor on possible remedial measures. 4. Advise ER on effective of proposed remedial measures. 5. Check implementation of remedial measures	1. Confirm receipt of notification of nonconformity in writing 2. Review and agree on the remedial measures proposed by the Contractor 3. Ensure remedial measures are properly implemented	1. Identify source and investigate the nonconformity 2. Amend working methods agreed with ER as appropriate 3. Rectify damage and undertake any necessary replacement.
Repeated nonconformity	1. Identify sources 2. Inform the Contractor, IEC and ER 3. Discuss inspection frequency 4. Discuss remedial actions with IEC, ER and Contractor 5. Monitor remedial actions until rectification has been completed 6. If nonconformity stops, cease additional monitoring	1. Check inspection report 2. Check Contractor's working method 3. Discuss with ET, ER and Contractor on possible remedial measures 4. Advise ER on effectiveness of proposed remedial measures	1. Notify the Contractor 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented 3. Supervise implementation of remedial measures	1. Identify source and investigate the nonconformity 2. Amend working methods agreed with ER as appropriate 3. Rectify damage and undertake any necessary replacement. 4. Stop relevant portion of works as determined by ER until the nonconformity is abated.

Appendix 9.1 Complaint Log

Statistical Summary of Environmental Complaints for Contract 1

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 28 February 2025	0	0	N/A

Statistical Summary of Environmental Summons for Contract 1

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Details
1 – 28 February 2025	0	0	N/A

Statistical Summary of Environmental Prosecution for Contract 1

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Details
1 – 28 February 2025	0	0	N/A

Statistical Summary of Environmental Complaints for Contract 2

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
1 – 28 February 2025	0	0	N/A

Statistical Summary of Environmental Summons for Contract 2

Reporting Period	Environmental Summons Statistics		
	Frequency	Cumulative	Details
1 – 28 February 2025	0	0	N/A

Statistical Summary of Environmental Prosecution for Contract 2

Reporting Period	Environmental Prosecution Statistics		
	Frequency	Cumulative	Details
1 – 28 February 2025	0	0	N/A

Appendix 10.1 Impact Monitoring Schedule of Next Reporting Month

Service Contract No. WD/03/2023 Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development - Environmental Team (Version 1.0)

March 2025

Sun	Mon	Tue	Wed	Thur	Fri	Sat
						1 Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6
2	**3** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**4** Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**5** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20	**6** Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**7** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**8**
9	**10** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**11** Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20 Egretry Monitoring	**12** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**13**	**14** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**15** Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14
16	**17** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**18** Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**19** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**20** Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20	**21** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**22**
23	**24** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6	**25**	**26** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a Impact Noise Monitoring at CM1, CM2, CM3, CM4a, CM10, CM13, CM14, CM15a, CM16, CM18 and CM20	**27** Impact Air Quality Monitoring at AM7, AM8a, AM10, AM11, AM12 and AM14	**28** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a	**29** Impact Air Quality Monitoring at AM1, AM2, AM3, AM4, AM5 and AM6
30	**31** Impact Water Quality Monitoring at U2, U5a, U6a, TS1, TS2a, TSR1a, HT, LUTa, D2a, D3, D5a and D6a					

Remarks:
1. The schedule may be changed due to unforeseen circumstances (e.g. adverse weather, etc.).
2. Impact air quality monitoring at AM22, AM24 and AM25a will be carried out when the planned sensitive receivers are commissioned.
3. Impact noise monitoring at CM28, CM29, CM31 and CM32 will be carried out when the planned sensitive receivers are commissioned.
4. Impact water quality monitoring at U2 and HT will be carried out by the Environmental Team appointed under Hung Shui Kiu/Ha Tsuen New Development Area Stage 1 Works, and the corresponding water quality monitoring data at these stations will be shared with this Project (i.e. Hung Shui Kiu/Ha Tsuen New Development Area Second Phase Development).

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