

Development at West Kowloon Cultural District

**Quarterly Environmental Monitoring and Audit (EM&A) Report
(May 2023 – July 2023)**

August 2023

This Quarterly EM&A Report has been reviewed and certified by the Environmental Team Leader (ETL) and verified by the Independent Environmental Checker (IEC).

Certified by:



CK WU

Environmental Team Leader (ETL)

West Kowloon Cultural District Authority

Date

22 August 2023

Verified by:



Claudine LEE

Independent Environmental Checker (IEC)

Meinhardt Infrastructure and Environment Ltd

Date

22 August 2023

This Report Consists of:

Part-1: EM&A at Lyric Theatre Complex

and

**Part-2: EM&A for Foundation Works in
Zone 2B & 2C**

Part-1: EM&A at Lyric Theatre Complex



Lyric Theatre Complex

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Executive summary

This Quarterly EM&A Report presents the monitoring works at Lyric Theatre Complex conducted from 1 May 2023 to 31 July 2023. The construction works and EM&A programme for M+ Museum was commenced on 31 October 2015 and completed on 28 February 2021; while the construction works and EM&A programme for Lyric Theatre Complex (L1 and L2 Contracts) was commenced on 1 March 2016, and the EM&A programme for L1 Contract was completed on 30 June 2021.

The impact stage EM&A programme for the Project includes air quality, noise, water quality, waste, landscape and visual monitoring. The recommended environmental mitigation measures were implemented on site and regular inspections were carried out to ensure that the environmental conditions are acceptable.

The EM&A programme was carried out by the ET in accordance with the EM&A Manual requirements. It is concluded from the environmental monitoring and audit works that adequate environmental mitigation measures have been implemented by the contractors where appropriate in the reporting quarter.

Exceedance of Action and Limit Levels

There was no breach of Action and Limit levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in this reporting quarter.

Implementation of Mitigation Measures

Construction phase weekly site inspections were carried out to confirm the implementation measures undertaken by the Contractors in the reporting quarter. The status of implementation of mitigation measures during the reporting quarter is shown in **Appendix C**.

Landscape and visual impact inspections were conducted as part of the abovementioned weekly site inspections during the reporting quarter. No adverse comment on landscape and visual aspects were made during these inspections.

Record of Complaints

One complaint was received during the reporting quarter.

Record of Notifications of Summons and Successful Prosecutions

No notifications of summons and successful prosecutions were recorded in the reporting quarter.

1 Introduction

1.1 Background

Mott MacDonald Hong Kong Limited (MMHK) was commissioned to undertake the Environmental Team (ET) services (including environmental monitoring and audit (EM&A)) for the construction of M+ Museum Main Works (Contract No.: CC/2015/3A/022) and Lyric Theatre Complex including the Foundation Works (Contract No.: CC/2015/3A/014), L1 Contract (Contract No. CC/2017/3A/030) and L2 Contract (Contract No. CC/2017/3A/031) at West Kowloon Cultural District (WKCD) (The Project) as part of the WKCD development. The Project Proponent is the West Kowloon Cultural District Authority (WKCDA). The construction works and EM&A programme for M+ Museum was commenced on 31 October 2015 and completed on 28 February 2021; while the construction works and EM&A programme for Lyric Theatre Complex (L1 and L2 Contracts) was commenced on 1 March 2016, and the EM&A programme for L1 Contract was completed on 30 June 2021.

The overall works for the WKCD fall under two separate categories of Designated Project (DP) of the Environmental Impact Assessment Ordinance (EIAO), namely an “engineering feasibility study of urban development projects with a study area covering more than 20 ha or involving a total population of more than 100 000” (Item 1 of Schedule 3) and “an underpass more than 100m in length under the built areas” (Item A.9, Part I, Schedule 2). An Environmental Permit No. EP-453/2013/B (EP) was issued with respect to the “Underpass Road and Austin Road Flyover Serving the West Kowloon Cultural District” which specifically includes the abovementioned category of DP under Item A.9, Part I, Schedule 2 of the EIAO. The captioned projects include part of the abovementioned underpass road located within the site boundary also falls under this same category.

The M+ museum development aims to provide an iconic presence for the M+ museum, semi-transparent vertical plane, housing education facilities, a public restaurant and museum offices. At ground and lower levels, generous access will be provided to the park and other West Kowloon Cultural District facilities, alongside a public resource centre, theatres, retail and dining, and back-of-house functions.

The 1,200-seat Lyric Theatre Complex will be Hong Kong’s first world-class facility for dance performances, including ballet, contemporary and Chinese dance forms. In the run up to the opening of further major performing arts venues in the WKCD, it will also be used for a wide variety of performing arts events including drama, opera and musical performances. The Lyric Theatre Complex will act as a platform for Hong Kong’s leading arts organisations and be a new major venue to show programmes from Asia and worldwide.

The Quarterly EM&A Report is prepared in accordance with the Clause 3.4 of the Environmental Permit No. EP-453/2013/B. This Quarterly EM&A Report presents the monitoring works conducted from 1 May 2023 to 31 July 2023. The purpose of this report is to summarise the findings in the EM&A of the project over the reporting period.

1.2 Project Organisation

The organisation chart and lines of communication with respect to the on-site environmental management structure together with the contact information of the key personnel are shown in **Appendix A**.

1.3 Status of Construction Works in the Reporting Period

During the reporting period, construction works at L2 undertaken include:

- LTC construction
 - Structure (Slab, wall, columns and beam)
 - Falsework and formwork erection
 - Reinforcement work
 - Concrete work
 - ABWF & MEP work
 - Façade work
 - External Wall System (EWS)
- ASDA and Lyric Theatre Promenade
 - Structure and BS works
 - MEP works
- Remaining Works for M+ Promenade
 - UU cable diversion
 - Excavation
 - MEP installation
- DCS cofferdam (Cofferdam A)
 - Install cable duct
 - Excavation
 - Installation of ELS
- Extended basement
 - ABWF & MEP work
 - Cabling works
 - Waterproofing works
 - Paint works
- Underpass and Associated Area
 - RC Structure
 - Structure works
 - ABWF & MEP works
- M+ Day 2 Works
 - Remove plenum block wall & make good opening for Louvre
 - Preparation work for the propping of forming three additional openings
- P32 Interim Development
 - ABWF works

The Construction Works Programme of the Project is provided in **Appendix B**. A layout plan of the Project is provided in **Figure 1**.

2 Summary of EM&A Requirements and Mitigation Measures

2.1 Monitoring Requirements

In accordance with the EM&A Manual, environmental parameters including air quality, noise, landscape and visual have been monitored. The specific parameters, monitoring frequency and the respective Action and Limit levels are given in **Table 2.1**. Locations of the monitoring stations are provided in **Figure 1**.

Table 2.1: Summary of Impact EM&A Requirements

Parameters	Descriptions	Locations	Frequencies	Action level	Limit level
Air Quality	24-Hour TSP	AM1 - International Commerce Centre	At least once every 6 days	143.6 µg/m ³	260 µg/m ³
	1-Hour TSP	AM1 - International Commerce Centre	At least 3 times every 6 days	273.7 µg/m ³	500 µg/m ³
	24-Hour TSP	AM2 - The Harbourside Tower 1	At least once every 6 days	151.1 µg/m ³	260 µg/m ³
	1-Hour TSP	AM2 - The Harbourside Tower 1	At least 3 times every 6 days	274.2 µg/m ³	500 µg/m ³
Noise	Leq, 30 minutes	NM1- The Harbourside Tower 1	Weekly	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)
Landscape & Visual	Monitor implementation of proposed mitigation measures during the construction stage	As described in Table 9.1 and 9.2 of the EM&A Manual	Bi-weekly	N/A	N/A

In the context of the monitoring activities at M+ Museum and the Lyric Complex, three monitoring stations had been considered, including AM1 (International Commerce Centre), AM2 (The Harbourside Tower 1) for air monitoring, and NM1 (The Harbourside Tower 1) for noise monitoring. Other monitoring locations were so far away from M+ Museum and the Lyric Complex and could not be representative for impact monitoring.

The Harbourside management office formally rejected our proposal of setting up air quality and noise monitoring equipment on its premises at the podium level of Tower 1 (AM2/NM1) on 10 November 2015. Nevertheless, a suitable air quality monitoring location at AM2 was identified on the ground floor in front of The Harbourside Tower 1, which is at the same location as that of baseline monitoring for consistency. No management approval is required on the ground floor for conducting the air monitoring. However, the electricity supply at AM2 was suspended from 31 August 2016. In order to have a more secure electricity supply, an alternative air monitoring location (AM2A) was identified at Austin Road West opposite to The Harbourside Tower 1, which

is close to Lyric Theatre Complex site entrance. This alternative air monitoring location was approved by EPD on 28 September 2016. Due to the works programme, the air monitoring location AM2A has been relocated to the alternative monitoring location AM2B at the 1st floor of Gammon's site office, which was approved by EPD on 21 February 2019. In view of the upcoming construction works to be undertaken at the air monitoring station AM2B, AM2B was no longer available for conducting the impact air quality monitoring. Hence, an alternative air monitoring location was identified on the ground floor in front of The Harbourside Tower 1 (AM2) which is at the same location as the baseline monitoring and this previously approved monitoring location had also been used for the EM&A Programme from November 2015 to August 2016, the relocation was approved by EPD on 27 May 2021.

Alternative noise monitoring location was identified at The Arch (NM2); however, The Arch management office formally rejected our proposal of setting up noise monitoring equipment on its premises on 23 November 2015. On the other hand, noise monitoring at G/F of Harbourside could not be representative. However, approval from the management office of the International Commerce Centre has been granted on 29 February 2016 for conducting noise monitoring at the alternative noise monitoring location identified at the podium floor (NM1A) which is free from screening to the construction activities.

In short, 2 air quality monitoring stations and 1 noise impact monitoring station were confirmed for the impact monitoring.

2.2 Environmental Mitigation Measures

Environmental mitigation measures have been recommended in the EM&A Manual. Summary of implementation status of the environmental mitigation measures is provided in **Appendix C**.

3 Summary of EM&A Results

3.1 Monitoring Data

Impact monitoring has been conducted in the reporting quarter. Meteorological data for the reporting quarter have been extracted from Hong Kong Observatory and presented in **Appendix D**. Monitoring data with graphical presentation for the reporting quarter are shown in **Appendix E**. A summary on the monitoring results is presented in **Table 3.1**.

Table 3.1: Summary of Monitoring Data

Parameter	Monitoring Location	Minimum	Maximum	Average
Air Quality				
1 hour TSP	AM1	17	55	33
	AM2	23	74	44
24 hour TSP	AM1	7	42	20
	AM2	23	57	37
Construction Noise				
Leq(30min)	NM1A	65	68	66

3.2 Monitoring Exceedances

Summary of the exceedances in the reporting quarter is tabulated in **Table 3.2**.

Table 3.2: Summary of Exceedances

Monitoring Station	Parameter	No. of Exceedance		Action Taken
		Action Level	Limit Level	
Air Quality				
AM1	1 hour TSP	0	0	N/A
	24 hour TSP	0	0	N/A
AM2	1 hour TSP	0	0	N/A
	24 hour TSP	0	0	N/A
Construction Noise				
NM1A	Leq(30min)	0	0	N/A

3.2.1 1-hour TSP Monitoring

All 1-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/ Limit Level exceedance was recorded.

3.2.2 24-hour TSP Monitoring

All 24-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/ Limit Level exceedance was recorded.

3.2.3 Construction Noise Monitoring

All construction noise monitoring was conducted as scheduled in the reporting quarter. No Action/ Limit Level exceedance was recorded.

3.2.4 Landscape and Visual Monitoring

All landscape and visual impact inspections were conducted as scheduled in the reporting quarter. No adverse comment on landscape and visual aspects were recorded.

4 Waste Management

4.1 Lyric Theatre Complex

As advised by the Contractor (L2 Contract), 1,462.7 tonnes, 899.2 tonnes and 0.0 tonne of inert C&D material were disposed of as public fill to Tseung Kwan O Area 137, Tuen Mun Area 38, and Chai Wan Public Fill Barging Point respectively in the reporting quarter, while 1,260.3 tonnes of general refuse were disposed of at SENT and WENT landfill. 96.8 tonnes of metals, 0.5 tonnes of paper/cardboard packaging, 0.0 tonne of plastic and 0.0 tonne of timber were collected by recycling contractors in the reporting quarter. 0.0 tonne of inert C&D materials was reused on site. 0.0 tonne of fill materials was imported for use at site and 0.0 tonne of inert C&D materials was reused in other projects. 0.0 tonne of inert C&D materials were disposed to sorting facility and 0.0 tonne of chemical waste were collected by licensed contractors in the reporting quarter.

The actual amount of different types of waste generated by the activities of construction works at Lyric Theatre Complex in the reporting quarter are shown in **Appendix F**.

5 Environmental Non-conformance

There was no breach of Action or Limit levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in the reporting quarter.

One complaint was received in the reporting quarter. No notifications of summons and successful prosecutions were received in the reporting quarter.

On 29 May 2023, EPD received a complaint regarding polluted water discharge and referred the case on the same day. The complainant claimed that workers of Vibro usually use high pressure water jets to clean the pavement and road surface outside the entrance gate of the construction site which bring muddy water and stone granules to the road surface. And as the construction site is in close proximity to The Arch, the vehicles passing by are affected by the discharged water and stone granules. A video was also provided by the complainant.

Subsequent to the complaint case on 29 May 2023, supplementary information was provided by the complainant to the EPD on 3 June 2023, and the supplementary information was referred by EPD on 7 June 2023. A video was also provided by the complainant, claiming that a suspected worker of the construction site who was using high pressure water jet to clean the entrance gate of the construction site, bringing muddy water and stone granules to the road surface.

Based on the investigation, it was found that the concerned location was not within the site boundary of Lyric Theatre Complex (L2 Contract) and the complaint was directed to Vibro. Therefore, the complaint could not be attributable to Lyric Theatre Complex (L2 Contract). Although the complaint may not be attributable to Lyric Theatre Complex (L2 Contract), water pollution mitigation measures will continue to be strictly implemented on site. Nevertheless, the contractors are reminded to strengthen the implementation of the recommendation for water mitigation measures to reduce impact to the public.

The cumulative statistics on complaints, notifications of summons and successful prosecutions were provided in **Appendix G**.

6 Comments, Recommendations and Conclusion

6.1 Comments

Based on the observations made during site audits, landscape inspections, and construction dust and noise monitoring results, no non-compliances and exceedances of air quality and noise were recorded in the reporting quarter.

6.2 Recommendations

Reviewing the implementation of the recommended mitigation measures in the EM&A Manual, it was observed that they were effective and efficient in controlling the potential impacts due to construction of the project during the reporting period. Review of the effectiveness and efficiency of the EM&A programme will continue, and recommendations will be provided to remediate any potential impacts due to the project and to improve the EM&A programme if deficiencies of the existing EM&A programme are identified.

6.3 Conclusion

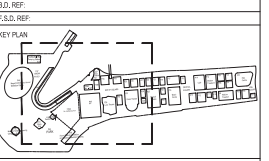
The EM&A programme as recommended in the EM&A Manual has been undertaken. The construction works and EM&A programme for M+ Museum was commenced on 31 October 2015 and completed on 28 February 2021; while the construction works and EM&A programme for Lyric Theatre Complex (L1 and L2 Contracts) was commenced on 1 March 2016, and the EM&A programme for L1 Contract was completed on 30 June 2021.

Monitoring of air quality and noise with respect to the Project is underway. In particular, the 1-hour TSP, 24-hour TSP and noise level (as Leq, 30 minutes) under monitoring have been checked against established Action and Limit levels. There was no breach of Action and Limit levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in this reporting quarter.

One complaint was received in the reporting quarter. No notifications of summons and successful prosecutions were received during the reporting quarter.

Weekly construction phase site inspections and bi-weekly landscape and visual impact inspections were conducted during the reporting quarter as required. It was observed that the Contractor had implemented all possible and feasible mitigation measures to mitigate the potential environmental impacts during construction phase works.

Figure 1 Site Layout Plan and Monitoring Stations



- NOTES
- WKCD BOUNDARY
 - M+ MUSEUM BOUNDARY
 - LYRIC THEATRE BOUNDARY
 - BOUNDARY OF UNDERPASS ROAD SERVING THE PLANNED WKCD
 - AREA HANDED OVER TO SUN HUNG KAI PROPERTIES
 - X CONSTRUCTION AIR/NOISE MONITORING STATIONS

REMARKS 1:
THE AIR MONITORING STATION AM2B HAS BEEN RELOCATED TO THE ALTERNATIVE MONITORING STATION AM2 AT THE G/F OF HARBOURSIDE ON 1 JUNE 2021

REMARKS 2:
THE SITE P32 (DELINEATED IN RED) WAS HANDED OVER TO SUN HUNG KAI PROPERTIES ON 31 JANUARY 2023.

REV.	DATE	DESCRIPTION	INITIAL

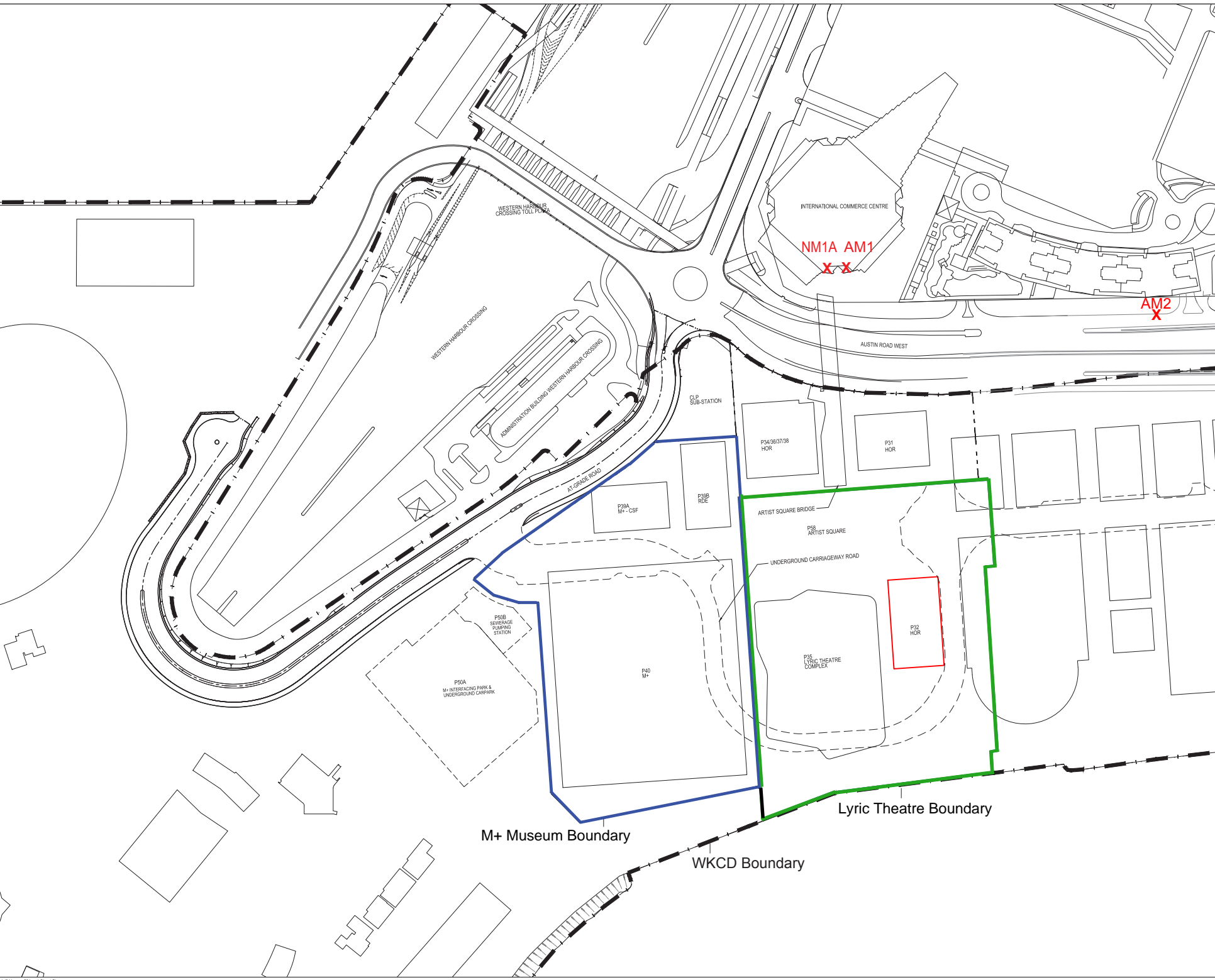
JOB TITLE
M+ MUSEUM FOR VISUAL CULTURE (MAIN CONTRACT WORKS) & LYRIC THEATRE COMPLEX

DRAWING TITLE
PROPOSED LOCATIONS OF CONSTRUCTION AIR/NOISE MONITORING STATIONS

SCALE	1:100	PRINTED	A1
CHECKED		DATE	
APPROVED		DATE	
DRAWN		DATE	
CONTRACT NO.			

DRAWING NO.	FIGURE 1	REV.	XA
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CAD REF NAME: XXXXX-4UT-FMS-DWG-PO3A-00-000-XXX.dwg



Appendices

- A. Project Organisation
- B. Construction Programme
- C. Environmental Mitigation Measures – Implementation Status
- D. Meteorological Data Extracted from Hong Kong Observatory
- E. Graphical Plots of the Monitoring Results
- F. Waste Flow table
- G. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

A. Project Organisation

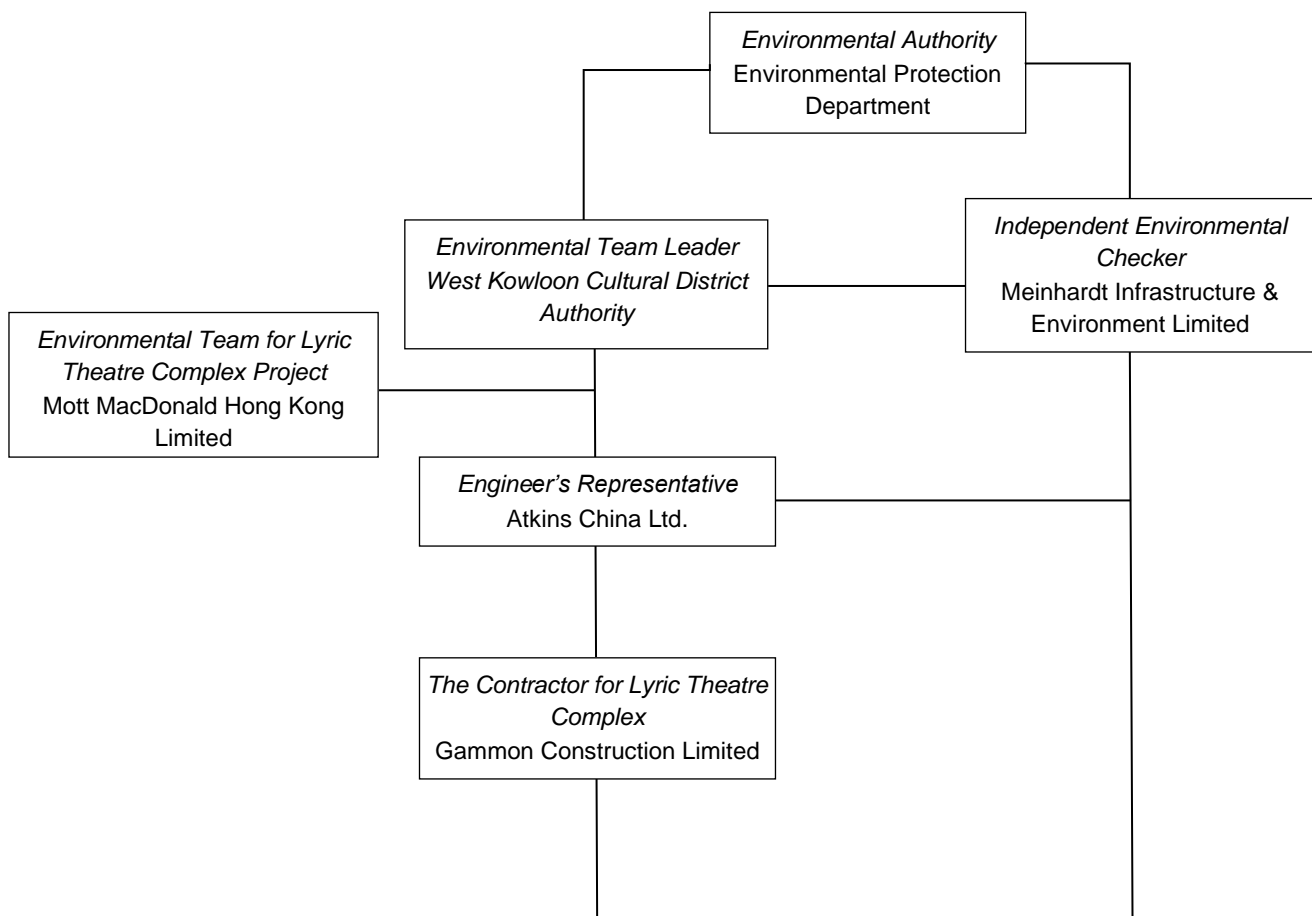


Table A-1: Contact information

Company Name	Role	Name	Telephone	Email
Atkins China Ltd.	Project Manager	Mr. Simha LytheRao	2204 8259	Simha.Lytherao@atkinglobal.com
Meinhardt Infrastructure & Environment Limited	Independent Environmental Checker	Ms. Claudine Lee	2859 5409	claudinelee@meinhardt.com.hk
Gammon Construction Limited (L2)	Environmental Manager	Ms. Fiona Law	9156 7654	fiona.cm.law@gammonconstruction.com
Mott MacDonald Hong Kong Ltd.	Contractor's Environmental Team Leader	Mr. Thomas Chan	2828 5757	thomas.chan@mottmac.com
West Kowloon Cultural District Authority	Senior Project Manager (Safety, Health and Environment)	Mr. C.K. Wu	5506 9178	ck.wu@wkcda.hk

B. Construction Programme

ID	Activity	RD	BL_Rev_00 Finish	BL_Rev_02 Start	BL_Rev_02 Finish	Start	Finish	LoE SUMM TF (approx)	BL_R2 VAR	LM VAR	2020			2021			2022			2023			2024			2025									
											Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q				
L2 CMWP_R02_14 - IFA on 27Apr22 - ***LIVE*** (31st UPD; DD = 30Apr2023)																																			
GENERAL & PRELIMINARIES																																			
Contract Significant Dates																																			
Commencement & Completion Dates - CMWP_Rev_01																																			
Section Key Dates																																			
KD05A	Complete Required Pedestrian Access Corridor and Floor Finishes at AURW	0	28-Feb-21		12-Nov-21		12-Nov-21 A		0	0																									
KD05B	Complete Required Pedestrian Access Corridor & associated top slab at Avenue Level [if instructed]	0	14-Feb-21		12-Nov-21		12-Nov-21 A		0	0																									
KD05	PC for HO of the Remaining Works for M+ Promenade South	0	24-Aug-20		13-Jan-23		19-Oct-23*	-279	-279	-31																									
KD08	PC for HO Loc ICT/Risers Rms to APC for ICT Sys Instn Wrks	0	10-Feb-23		10-Sep-24		15-Apr-25*	-217	-217	0																									
KD10	PC for HO of ASDA, Lyric Theatre Promenade South to Authority	0	10-Feb-23		10-Sep-24		15-Apr-25*	-217	-217	0																									
KD09	PC for HO of RDE areas for Tenancy Fit-out Wrks	0	10-Feb-23		10-Sep-24		15-Apr-25*	-217	-217	0																									
KD11	PC for HO of Extended Basement for M+ to Authority & HO of Carriageway to Relevant Govt Authority	0	10-Feb-23		12-Nov-24		17-Jun-25*	-217	-217	0																									
KD07	PRACTICAL COMPLETION for C'Way 3A (M+ Day 2 Works)	0	10-Feb-23		09-Dec-24		15-Jul-25*	-186	-218	0																									
KD13	PRACTICAL COMPLETION for Lyric Theatre, EB & C'Way 3B (Incl. Provisional PPE License)	0	08-Sep-23		10-Jan-25		15-Aug-25*	-217	-217	0																									
Stage Key Dates																																			
KD01	Compl Dsgn Coord/Subm and obtn NNO for L1 Contr Bsmt constn wrks	0	20-Jul-19		20-Jul-19		20-Jul-19 A		0	0																									
KD06	PC for Fountain Related Plantroom(s) (allow access to Project Contractor)	0	01-Apr-21		07-Jun-22		22-Sep-22 A		-106	0																									
KD03	OBTAIN OP for Lyric Theatre & Extended Basement	0	12-Dec-22		10-Sep-24		15-Apr-25*	-217	-217	0																									
KD14	Complete U/G road and the associated plantrooms at Zone 3A&3B Integrated Basement	0	04-Aug-22		26-Sep-24		30-Apr-25*	-216	-216	0																									
KD02	Obtain BA14 Acknowledge from BD for M+ Day2 A&A Works	0	12-Dec-22		08-Nov-24		13-Jun-25*	-217	-217	0																									
CMWP - Summary Program - Level 1																																			
SUM10	[LoE] CC_B Lyric Theatre - Substructure RC Structural Concrete	0		06-May-20	22-Jan-22	06-May-20 A	22-Jan-22 A		0	0																									
SUM30	[LoE] CC_H - Vibration Isolation Spring System Remaining as of 30Apr2020 (AS=30Sep19)	0		09-May-20	10-Feb-21	09-May-20 A	10-Feb-21 A		0	0																									
SUM25	[LoE] CC_E - DCS Cofferdam A Works & Obtain BA14	140		23-Jun-20	23-May-23	23-Jun-20 A	10-Nov-23	-143	-124	-3																									
SUM24	[LoE] CC_D - Remaining Works for M+ Promenade South	122		18-Feb-21	13-Jan-23	18-Feb-21 A	19-Oct-23	-201	-201	-21																									
SUM21	[LoE] CC_C - LT EVA1 & EVA2	514		12-Apr-21	25-Oct-24	12-Apr-21 A	18-Mar-25	121	-116	0																									
SUM27	[LoE] CC_G Extended Basement - ABWF Works (Incl. Deferred Areas Under Deck)	387		15-May-21	02-Feb-24	15-May-21 A	21-Aug-24	56	-158	-17																									
SUM28	[LoE] CC_G Extended Basement - MEP 1st Fix to Final Fix (Incl. Deferred Areas Under Deck)	369		17-May-21	12-Jan-24	17-May-21 A	31-Jul-24	-117	-158	-17																									
SUM14	[LoE] CC_B Lyric Theatre - ABWF Work Including Theatres (Excl. Punch List Works)	602		28-May-21	14-Oct-24	28-May-21 A	17-May-25	-99	-172	0																									
SUM35	[LoE] CC_J - M+ Day 2 Works (excl. connections to M+ and SZ_1 FS Changeover)	509		03-Jun-21	25-Jun-24	03-Jun-21 A	17-Jan-25	-149	-170	0																									
SUM23	[LoE] CC_C - Artist SQ. Bridge (ASB_1/2/3; ASB_3; P31_2; P34_2; AS_1/2; ASB-6/P31 EVA)	419		21-Jun-21	22-May-24	21-Jun-21 A	19-Nov-24	-52	-131	-15																									
SUM15	[LoE] CC_B Lyric Theatre - MEP 1st to Final Fix (Excl. TH SYS done by SVE)	620		22-Jun-21	04-Nov-24	22-Jun-21 A	09-Jun-25	-135	-172	0																									
SUM11	[LoE] CC_B Lyric Theatre - Superstructure RC Structural Concrete	217		02-Jul-21	22-Jul-23	02-Jul-21 A	19-Feb-24	-112	-158	0																									
SUM22	[LoE] CC_C - HoR Development (P32-1, P29-1, P31-EVA)	419		03-Aug-21	17-Apr-24	03-Aug-21 A	19-Nov-24	-52	-156	-15																									
SUM31	[LoE] CC_I Carriageway 3B - ABWF Works	207		12-Aug-21	01-Apr-23	12-Aug-21 A	08-Jan-24	210	-227	-5																									
SUM42	[LoE] CC_E - DCS Outside of Cofferdam A Works (Connect DIA1.600 & Remove Temp O'fall)	83		08-Sep-21	29-Sep-23	08-Sep-21 A	24-Aug-23	-129	26	-14																									
SUM32	[LoE] CC_I Carriageway 3B - MEP Works (1st Fix to Final Fix)	188		22-Mar-22	13-Feb-23	15-Sep-21 A	13-Dec-23	28	-249	-5																									
SUM40	[LoE] CC_N Lifts & Escalators	349		14-Dec-21	02-Feb-24	14-Dec-21 A	08-Jul-24	-31	-120	0																									
SUM41	[LoE] CC_B Lyric Theatre - Structural Steel by CSD	279		04-Mar-22	20-Oct-23	11-Mar-22 A	09-May-24	-138	-156	0																									
SUM20	[LoE] CC_C - LT Promenade & Pocket Square Bridge	433		04-Aug-22	31-Jul-24	30-Mar-22 A	05-Dec-24	-97	-96	0																									
SUM26	[LoE] CC_F - Mods to Existing Pump Cell Civil & MEP Works (Excl. Options 2 Add. Pumps)	145		01-Mar-22	26-Sep-22	12-Oct-22 A	16-Nov-23	27	-310	-11																									
SUM17	[LoE] CC_B Lyric Theatre - TH Systems (by SVE) Incl. T&C, Precom. & Commissioning	644		30-Aug-22	25-Nov-24	28-Nov-22 A	08-Jul-25	-141	-178	-6																									
SUM12	[LoE] CC_B Lyric Theatre - EWS Weather Tight Type	245		25-Jun-22	09-Sep-23	15-Dec-22 A	22-Mar-24	-81	-150	-22																									
SUM39	[LoE] CC_K - Water Main at Promenade	180		24-May-23	08-Jan-24	13-Sep-23	07-May-24	-45	-90	0																									
SUM13	[LoE] CC_B Lyric Theatre - EWS Non-Weather Tight Type 4.1 & 4.3	233		23-Mar-23	25-Mar-24	07-Dec-23	22-Oct-24	-55	-148	0																									
SUM29	[LoE] CC_G Extended Basement - T&C	120		03-Jan-23	02-Feb-24	07-May-24	27-Sep-24	-148	-189	-3																									
SUM33	[LoE] CC_I Underpass 3B & Associated Area - T&C	108		13-Apr-23	25-Oct-23	22-May-24	27-Sep-24	-148	-272	-3																									
SUM16	[LoE] CC_B Lyric Theatre - T&C (Excluding Non-FSD ELV & Electrical)	144		12-Dec-23	11-Jun-24	16-Jul-24	06-Jan-25	-111	-172	0																									
SUM18	[LoE] CC_B Lyric Theatre, EB, C'Way 3B - Stat. Insp. & Approval (from Form 314/501 to BD OP)	98		17-May-24	10-Sep-24	10-Dec-24	15-Apr-25	-172	-172	0																									
SUM38	[LoE] CC_J - M+ Day 2 FS Changeover in 3A SZ_1, Connections to M+, Integrated T&C	51		29-Jul-24	26-Sep-24	26-Feb-25	30-Apr-25	-172	-172	0																									
SUM34	[LoE] CC_J Carriageway 3A - Stat. Insp. & Approvals (from Form 314A to BA14)	56		02-Sep-24	08-Nov-24	02-Apr-25	13-Jun-25	-172	-172	0																									

Date	Revision	Checked	Approved
09-May-23	CMWP Rev_2 Update DD 30Apr23	NS	IH

- Base Line ACT
- Rev_0 KD
- Base Line MS
- Milestone
- Current - Other Works
- Current - Struct Works
- Current - MEP Works
- Current - ABWF Works
- Current - Facade Works
- Critical Works

L2 CMWP_R02_14 - IFA on 27Apr22 - *LIVE*****
(31st UPD; DD = 30Apr2023)

C. Environmental Mitigation Measures – Implementation Status

Table C-1: Environmental Mitigation Measures Implementation Status

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2023	Jun 2023	Jul 2023
Air Quality Impact (Construction)				
2.1 & 10.3.1	General Dust Control Measures Frequent water spraying for active construction areas (12 times a day or once every one hour), including Heavy construction activities such as construction of buildings or roads, drilling, ground excavation, cut and fill operations (i.e., earth moving)	✓	✓	✓
2.1 & 10.3.1	Best Practice For Dust Control The relevant best practices for dust control as stipulated in the Air Pollution Control (construction Dust) Regulation should be adopted to further reduce the construction dust impacts from the Project. These best practices include: <i>Good Site Management</i> <ul style="list-style-type: none"> • Good site management is important to help reducing potential air quality impact down to an acceptable level. As a general guide, the Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning. <i>Disturbed Parts of the Roads</i> <ul style="list-style-type: none"> • Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or • Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet. <i>Exposed Earth</i> <ul style="list-style-type: none"> • Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies. <i>Loading, Unloading or Transfer of Dusty Materials</i>	✓	✓	Obs
		✓	✓	✓
		✓	✓	✓
		N/A	N/A	N/A

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2023	L2 Jun 2023	Jul 2023
	<ul style="list-style-type: none"> All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet. 	✓	✓	✓
	<i>Debris Handling</i>			
	<ul style="list-style-type: none"> Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides. 	✓	✓	✓
	<ul style="list-style-type: none"> Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped. 	✓	✓	✓
	<i>Transport of Dusty Materials</i>			
	<ul style="list-style-type: none"> Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards. 	✓	✓	✓
	<i>Wheel washing</i>			
	<ul style="list-style-type: none"> Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. 	✓	✓	✓
	<i>Use of vehicles</i>			
	<ul style="list-style-type: none"> The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site. 	✓	✓	✓
	<ul style="list-style-type: none"> Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. 	✓	✓	✓
	<ul style="list-style-type: none"> Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle. 	✓	✓	✓
	<i>Site hoarding</i>			
	<ul style="list-style-type: none"> Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit. 	✓	✓	✓
2.1 & 10.3.1	<p>Best Practicable Means for Cement Works (Concrete Batching Plant)</p> <p>The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2(93) should be followed and implemented to further reduce the construction dust impacts of the Project. These best practices include: Exhaust from Dust Arrestment Plant</p>			

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2023	L2 Jun 2023	Jul 2023
	<ul style="list-style-type: none"> Wherever possible the final discharge point from particulate matter arrestment plant, where is not necessary to achieve dispersion from residual pollutants, should be at low level to minimise the effect on the local community in the case of abnormal emissions and to facilitate maintenance and inspection 	N/A	N/A	N/A
	<p>Emission Limits</p> <ul style="list-style-type: none"> All emissions to air, other than steam or water vapour, shall be colourless and free from persistent mist or smoke 	N/A	N/A	N/A
	<p>Engineering Design/Technical Requirements</p> <ul style="list-style-type: none"> As a general guidance, the loading, unloading, handling and storage of fuel, raw materials, products, wastes or by-products should be carried out in a manner so as to prevent the release of visible dust and/or other noxious or offensive emissions 	N/A	N/A	N/A
	<p>Non-Road Mobile Machinery (NRMM): All NRMMs operating on-site which are subject to emission control of Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation are approved/exempted (as the case may be) and affixed with the requisite approval/exemption labels.</p>	✓	✓	✓
Noise Impact (Construction)				
3.1 & 10.4.1	<p>Good Site Practice Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction:</p> <ul style="list-style-type: none"> only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works; machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs; mobile plant should be sited as far away from NSRs as possible; and material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities. 	✓	✓	✓
	<p>Adoption of Quieter PME</p>	✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2023	L2 Jun 2023	Jul 2023
3.1 & 10.4.1	The recommended quieter PME adopted in the assessment were taken from the EPD's QPME Inventory and "Sound Power Levels of Other Commonly Used PME" are presented in Table 4.26 in the EIA report. It should be noted that the silenced PME selected for assessment can be found in Hong Kong.	✓	✓	✓
3.1 & 10.4.1	Use of Movable Noise Barriers Movable noise barriers can be very effective in screening noise from particular items of plant when constructing the Project. Noise barriers located along the active works area close to the noise generating component of a PME could produce at least 10 dB(A) screening for stationary plant and 5 dB(A) for mobile plant provided the direct line of sight between the PME and the NSRs is blocked.	✓	✓	✓
3.1 & 10.4.1	Use of Noise Enclosure/ Acoustic Shed The use of noise enclosure or acoustic shed is to cover stationary PME such as air compressor and concrete pump. With the adoption of the noise enclosure, the PME could be completely screened, and noise reduction of 15 dB(A) can be achieved according to the EIAO Guidance Note No. 9/2010.	✓	✓	✓
3.1 & 10.4.1	Use of Noise Insulating Fabric Noise insulating fabric can also be adopted for certain PME (e.g. drill rig, pilling machine etc). The fabric should be lapped such that there are no openings or gaps on the joints. According to the approved Tsim Sha Tsui Station Northern Subway EIA report (AEIAR-127/2008), a noise reduction of 10 dB(A) can be achieved for the PME lapped with the noise insulating fabric.	✓	Obs	✓
3.1 & 10.4.1	Scheduling of Construction Works outside School Examination Periods During construction phase, the contractor should liaise with the educational institutions (including NSRs LCS and CRGPS) to obtain the examination schedule and avoid the noisy construction activities during school examination periods.	N/A	N/A	N/A

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2023	Jun 2023	Jul 2023
Water Quality Impact (Construction)				
4.1 & 10.5.1	<p>Construction site runoff and drainage</p> <p>The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended to protect water quality and sensitive uses of the coastal area, and when properly implemented should be sufficient to adequately control site discharges so as to avoid water quality impacts:</p> <ul style="list-style-type: none"> At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels, earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site drainage system should be undertaken by the WKCDA's Contractor prior to the commencement of construction; Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM standards under the WPCO. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the WKCDA's Contractor prior to the commencement of construction. All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times. Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities. 	✓	✓	✓
		✓	✓	✓
		Rem	Rem	✓
		✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2023	L2 Jun 2023	Jul 2023
	<ul style="list-style-type: none"> All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exit where practicable. Wash-water should have sand and silt settled out and removed regularly to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. 	✓	✓	✓
	<ul style="list-style-type: none"> Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system. 	✓	✓	✓
	<ul style="list-style-type: none"> Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and stormwater runoff being directed into foul sewers. 	✓	✓	✓
	<ul style="list-style-type: none"> Precautions should be taken at any time of the year when rainstorms are likely. Actions should be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC Note PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes. 	✓	✓	✓
	<ul style="list-style-type: none"> Bentonite slurries used in piling or slurry walling should be reconditioned and reused wherever practicable. Temporary enclosed storage locations should be provided on-site for any unused bentonite that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries. 	N/A	N/A	N/A
	<p>Barging facilities and activities</p> <p>Recommendations for good site practices during operation of the proposed barging point include:</p>			
	<ul style="list-style-type: none"> All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; 	N/A	N/A	N/A

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2023	L2 Jun 2023	Jul 2023
	<ul style="list-style-type: none"> Loading of barges and hoppers should be controlled to prevent splashing of material into the surrounding water. Barges or hoppers should not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation; All hopper barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; and Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site. 	N/A	N/A	N/A
4.1 & 10.5.1	Sewage effluent from construction workforce Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	✓	✓	✓
4.1 & 10.5.1	General construction activities <ul style="list-style-type: none"> Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby storm water drain. Stockpiles of cement and other construction materials should be kept covered when not being used. Oils and fuels should only be stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to any nearby storm water drain, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event. 	✓	✓	✓
		✓	Obs	Obs
Waste Management Implications (Construction)				
6.1 & 10.7.1	Good Site Practices Recommendations for good site practices during the construction activities include:			
	<ul style="list-style-type: none"> Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site Training of site personnel in proper waste management and chemical handling procedures 	✓	✓	✓
		✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2023	L2 Jun 2023	Jul 2023
	<ul style="list-style-type: none"> Provision of sufficient waste disposal points and regular collection of waste Appropriate measures to minimise windblown litter and dust/odour during transportation of waste by either covering trucks or by transporting wastes in enclosed containers Provision of wheel washing facilities before the trucks leaving the works area so as to minimise dust introduction to public roads Well planned delivery programme for offsite disposal such that adverse environmental impact from transporting the inert or non-inert C&D materials is not anticipated 	Obs	Obs	Obs
6.1 & 10.7.1	<p>Waste Reduction Measures</p> <p>Recommendations to achieve waste reduction include:</p> <ul style="list-style-type: none"> Sort inert C&D material to recover any recyclable portions such as metals Segregation and storage of different types of waste in different containers or skips to enhance reuse or recycling of materials and their proper disposal Encourage collection of recyclable waste such as waste paper and aluminium cans by providing separate labelled bins to enable such waste to be segregated from other general refuse generated by the work force Proper site practices to minimise the potential for damage or contamination of inert C&D materials Plan the use of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of wastes 	✓	✓	✓
6.1 & 10.7.1	<p>Inert and Non-inert C&D Materials</p> <p>In order to minimise impacts resulting from collection and transportation of inert C&D material for off-site disposal, the excavated materials should be reused on-site as fill material as far as practicable. In addition, inert C&D material generated from excavation works could be reused as fill materials in local projects that require public fill for reclamation.</p> <ul style="list-style-type: none"> The surplus inert C&D material will be disposed of at the Government's PFRFs for beneficial use by other projects in Hong Kong. Liaison with the CEDD Public Fill Committee (PFC) on the allocation of space for disposal of the inert C&D materials at PFRF is underway. No construction work is allowed to proceed until all issues on management of inert C&D materials have been resolved and all relevant arrangements have been endorsed by the relevant authorities including PFC and EPD. 	✓	✓	✓

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2023	L2 Jun 2023	Jul 2023
	<ul style="list-style-type: none"> The C&D materials generated from general site clearance should be sorted on site to segregate any inert materials for reuse or disposal of at PFRFs whereas the non-inert materials will be disposed of at the designated landfill site. In order to monitor the disposal of inert and non-inert C&D materials at respectively PFRFs and the designated landfill site, and to control fly-tipping, it is recommended that the Contractor should follow the Technical Circular (Works) No. 6/2010 for Trip Ticket System for Disposal of Construction & Demolition Materials issued by Development Bureau. In addition, it is also recommended that the Contractor should prepare and implement a Waste Management Plan detailing their various waste arising and waste management practices in accordance with the relevant requirements of the Technical Circular (Works) No. 19/2005 Environmental Management on Construction Site. 	✓	✓	✓
6.1 & 10.7.1	<p>Chemical Waste</p> <ul style="list-style-type: none"> If chemical wastes are produced at the construction site, the Contractor will be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the "Code of Practice on the Packaging Labelling and Storage of Chemical Wastes". Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor should use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation. Potential environmental impacts arising from the handling activities (including storage, collection, transportation and disposal of chemical waste) are expected to be minimal with the implementation of appropriate mitigation measures as recommended. 	✓	✓	✓
6.1 & 10.7.1	<p>General Refuse</p> <p>General refuse should be stored in enclosed bins or compaction units separated from inert C&D materials. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from inert C&D materials. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.</p>	Obs	Obs	✓

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2023	Jun 2023	Jul 2023
Land Contamination (Construction)				
7.1 & 10.8.1	<p>The potential for land contamination issues at the TST Fire Station due to its future relocation will be confirmed by site investigation after land acquisition. Where necessary, mitigation measures for minimising potential exposure to contaminated materials (if any) or remediation measures will be identified. If contaminated land is identified (e.g., during decommissioning of fuel oil storage tanks) after the commencement of works, mitigation measures are proposed in order to minimise the potentially adverse effects on the health and safety of construction workers and impacts arising from the disposal of potentially contaminated materials.</p> <p>The following measures are proposed for excavation and transportation of contaminated material:</p> <ul style="list-style-type: none"> To minimize the chance for construction workers to come into contact with any contaminated materials, bulk earth-moving excavation equipment should be employed; Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when interacting directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site; Stockpiling of contaminated excavated materials on site should be avoided as far as possible; The use of contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out; Vehicles containing any contaminated excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater; Truck bodies and tailgates should be sealed to stop any discharge; Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping; Speed control for trucks carrying contaminated materials should be exercised; Observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354) and obtain all necessary permits where required; and 	N/A	N/A	N/A
		N/A	N/A	N/A
		N/A	N/A	N/A
		N/A	N/A	N/A
		N/A	N/A	N/A
		N/A	N/A	N/A
		N/A	N/A	N/A
		N/A	N/A	N/A
		N/A	N/A	N/A

EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2023	L2 Jun 2023	Jul 2023
	<ul style="list-style-type: none"> Maintain records of waste generation and disposal quantities and disposal arrangements. 	N/A	N/A	N/A
Ecological Impact (Construction)				
No mitigation measure is required.				
Landscape and Visual Impact (Construction)				
Table 9.1 & 10.8 (CM1)	Trees should be retained in situ on site as far as possible. Should tree removal be unavoidable due to construction impacts, trees will be transplanted or felled with reference to the stated criteria in the Tree Removal Applications to be submitted to relevant government departments for approval in accordance to ETWB TCW No. 29/2004 and 3/2006.	N/A	N/A	N/A
Table 9.1 & 10.8 (CM2)	Compensatory tree planting shall be incorporated to the proposed project and maximize the new tree, shrubs and other vegetation planting to compensate tree felled and vegetation removed. Also, implementation of compensatory planting should be of a ratio not less than 1:1 in terms of quality and quantity within the site.	N/A	N/A	N/A
Table 9.1 & 10.8 (CM3)	Buffer trees for screening purposes to soften the hard architectural and engineering structures and facilities.	N/A	N/A	N/A
Table 9.1 & 10.8 (CM4)	Softscape treatments such as vertical green wall panel /planting of climbing and/or weeping plants, etc, to maximize the green coverage and soften the hard architectural and engineering structures and facilities.	N/A	N/A	N/A
Table 9.1 & 10.8 (CM5)	Roof greening by means of intensive and extensive green roof to maximize the green coverage and improve aesthetic appeal and visual quality of the building/structure.	N/A	N/A	N/A
Table 9.1 & 10.8 (CM6)	Sensitive streetscape design should be incorporated along all new roads and streets.	N/A	N/A	N/A
Table 9.1 & 10.8 (CM7)	Structure, ornamental planting shall be provided along amenity strips to enhance the landscape quality.	N/A	N/A	N/A
Table 9.1 & 10.8 (CM8)	Landscape design shall be incorporated to architectural and engineering structures in order to provide aesthetically pleasing designs.	N/A	N/A	N/A
Table 9.1 (CM9)	Minimize the structure of marine facilities to be built on the seabed and foreshore in order to minimize the affected extent to the waterbody	N/A	N/A	N/A

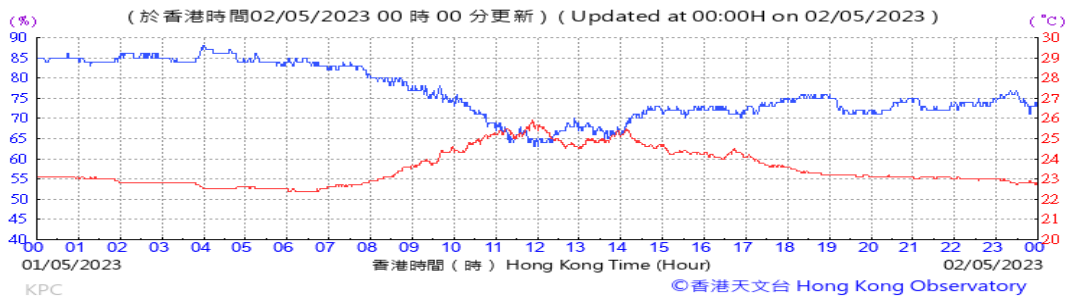
EM&A Ref.	Recommendation Measures	Implementation Stage		
		May 2023	L2 Jun 2023	Jul 2023
Table 9.2 & 10.9 (MCP1)	Use of decorative screen hoarding/boards	✓	✓	✓
Table 9.2 & 10.9 (MCP2)	Early introduction of landscape treatments	N/A	N/A	N/A
Table 9.2 & 10.9 (MCP3)	Adoption of light colour for the temporary ventilation shafts for the basement during the transition period.	N/A	N/A	N/A
Table 9.2 & 10.9 (MCP4)	Control of night time lighting	N/A	N/A	N/A
Table 9.2 & 10.9 (MCP5)	Use of greenery such as grass cover for the temporary open areas will help achieve the visual balance and soften the hard edges of the structures.	N/A	N/A	N/A

N/A	-	Not Applicable
✓	-	Implemented
Obs	-	Observed
Rem	-	Reminder

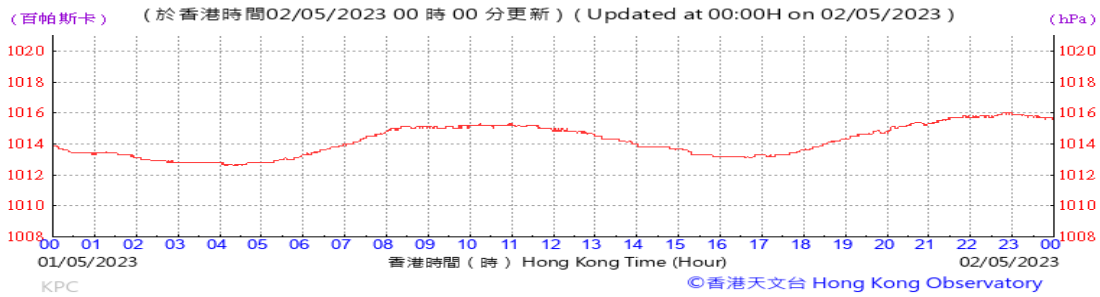
D. Meteorological Data Extracted from Hong Kong Observatory

Table D-1: Extract of Meteorological Observations for King's Park Automatic Weather Station in the reporting quarter

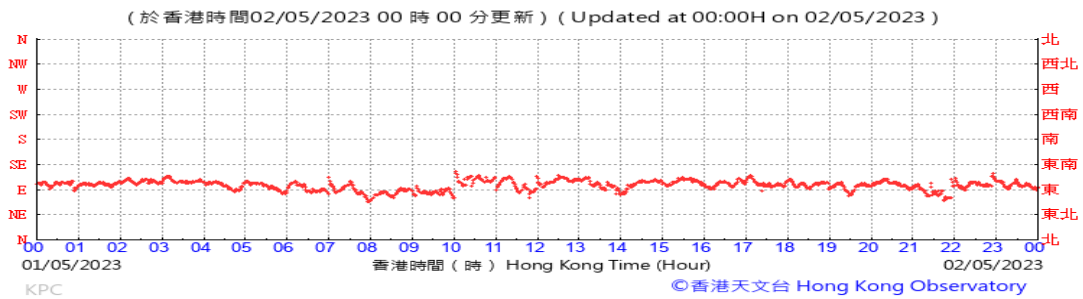
Temperature/Humidity:



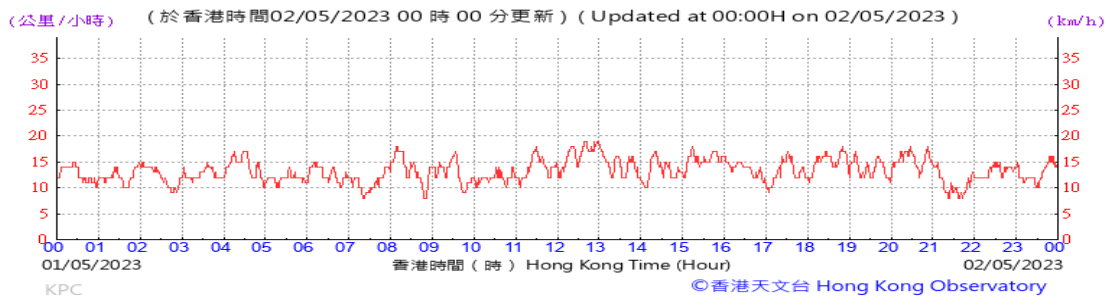
Pressure:



Wind Direction:



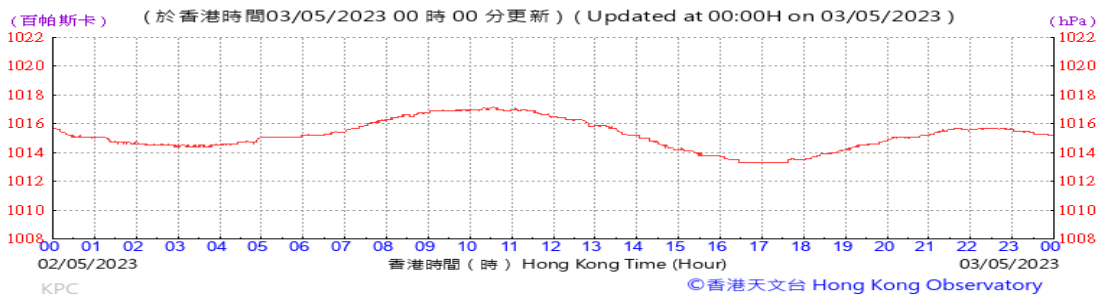
Wind Speed:



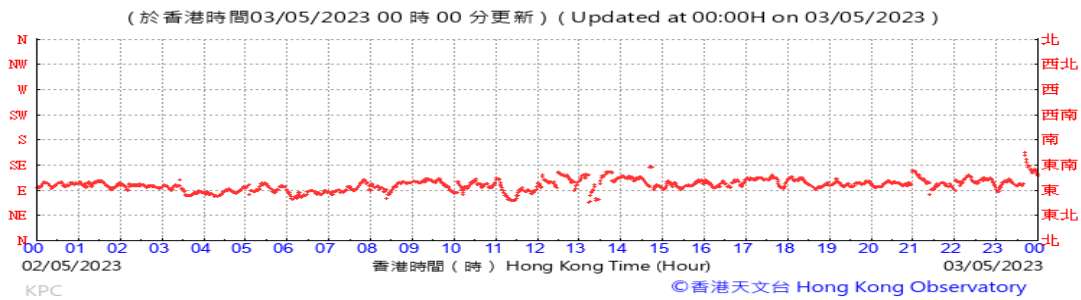
Temperature/Humidity:



Pressure:



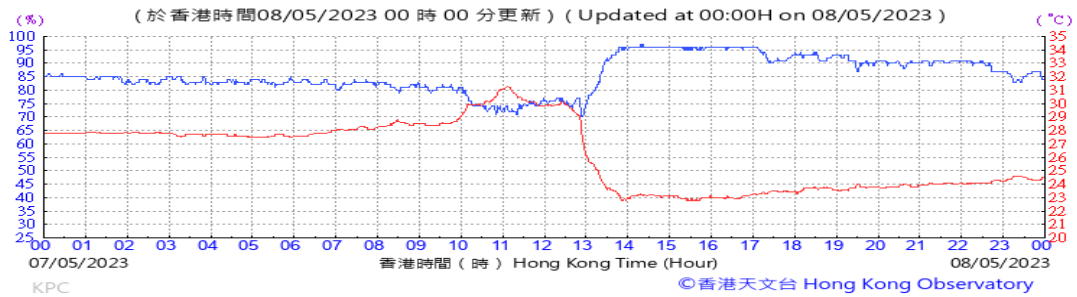
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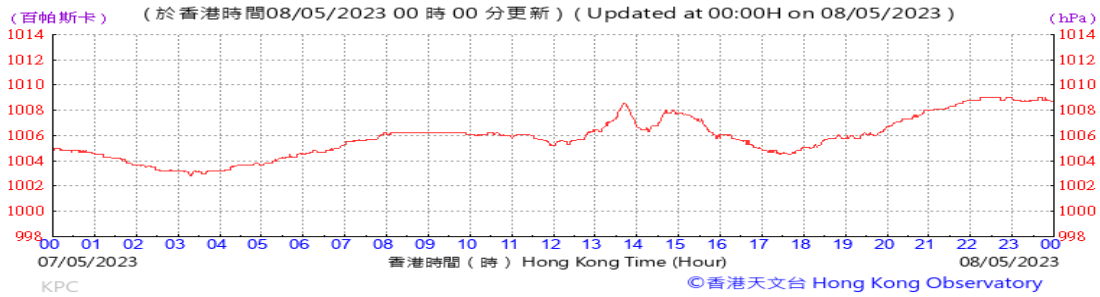
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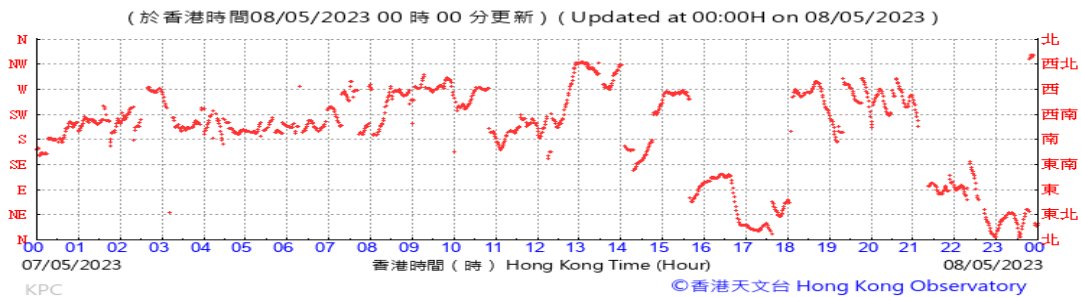
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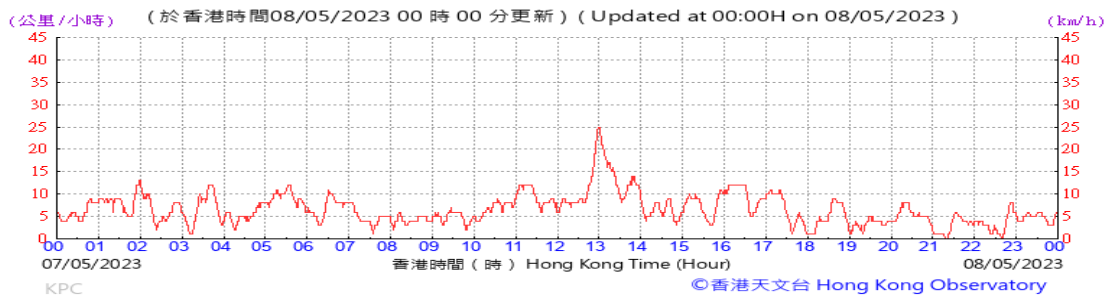
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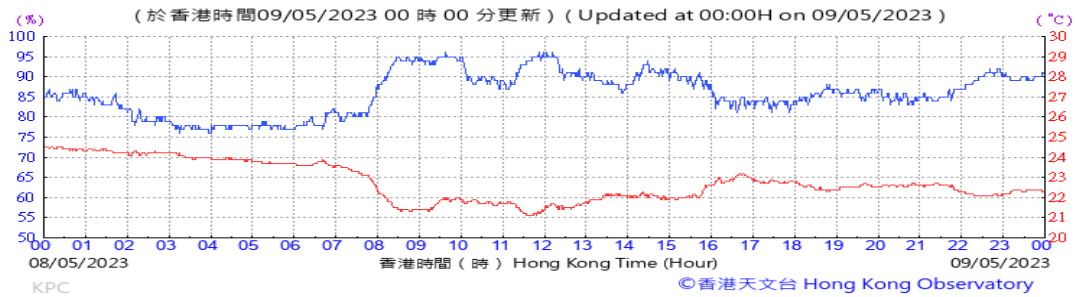
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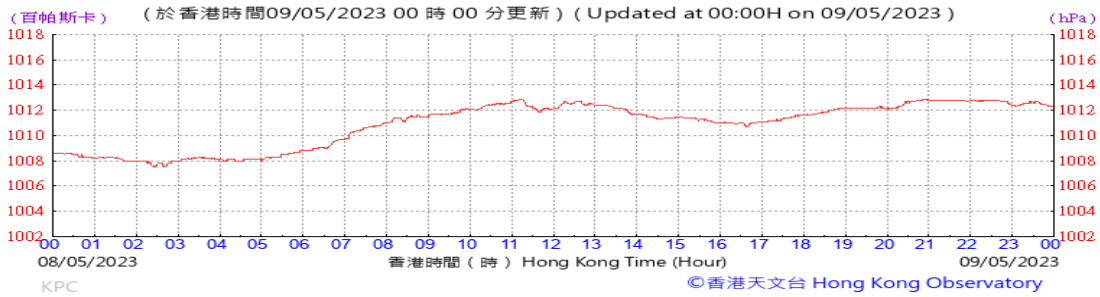
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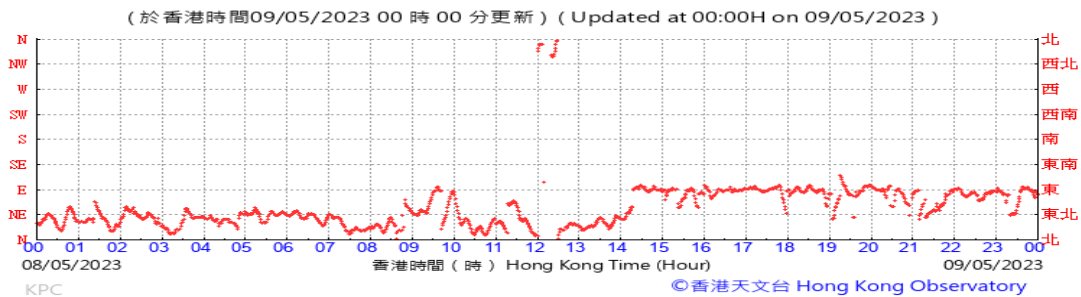
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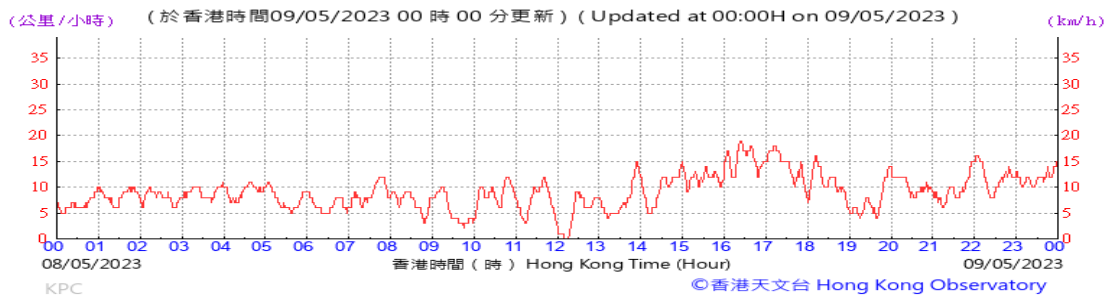
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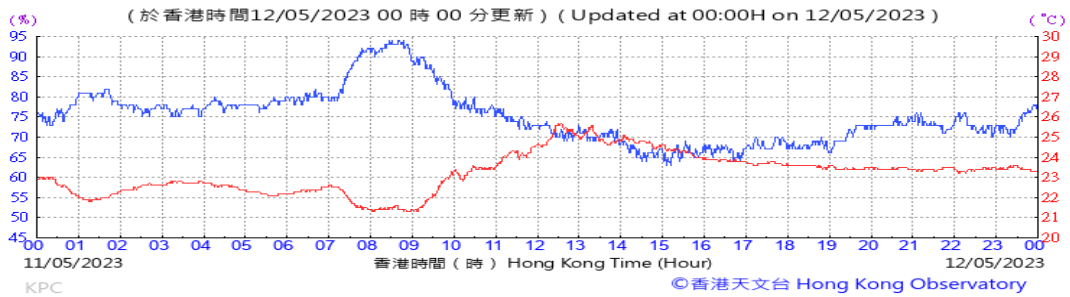
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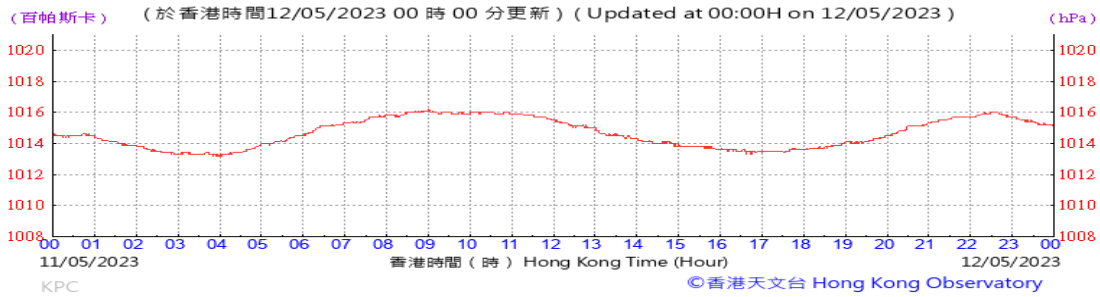
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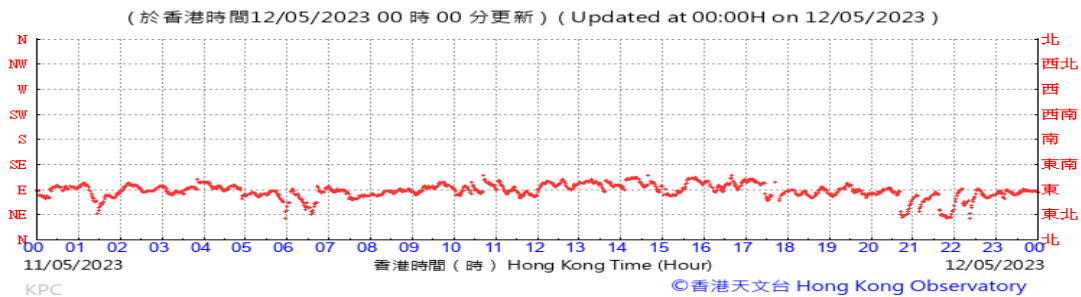
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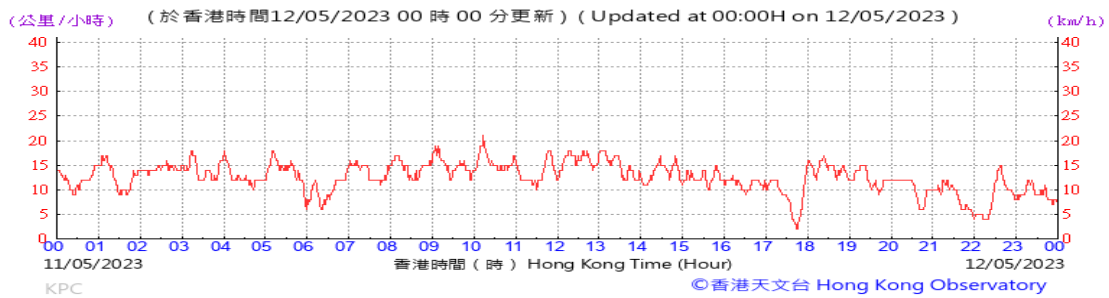
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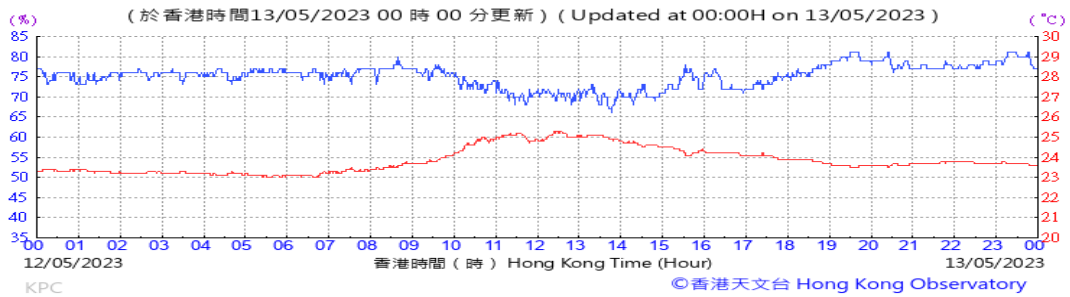
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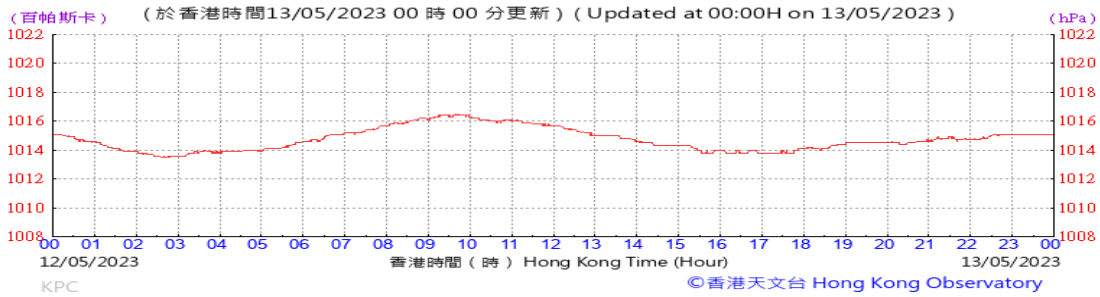
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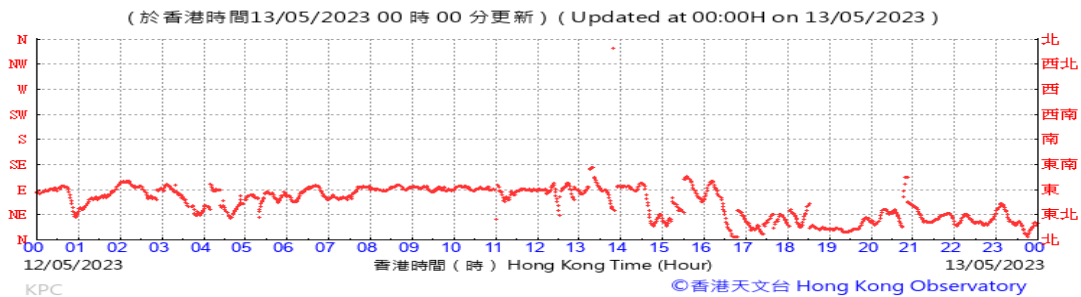
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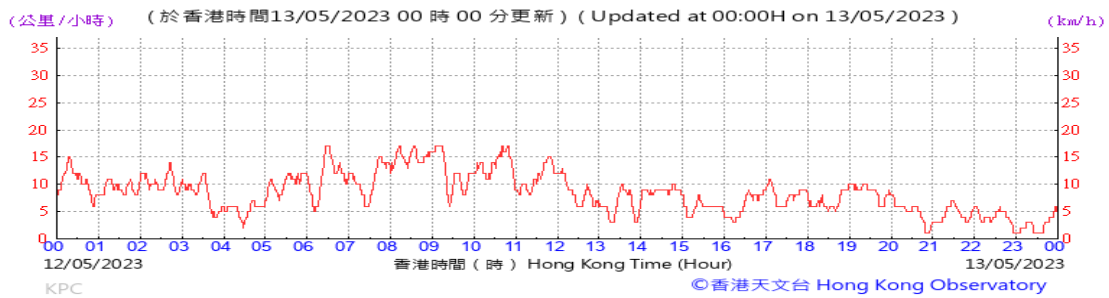
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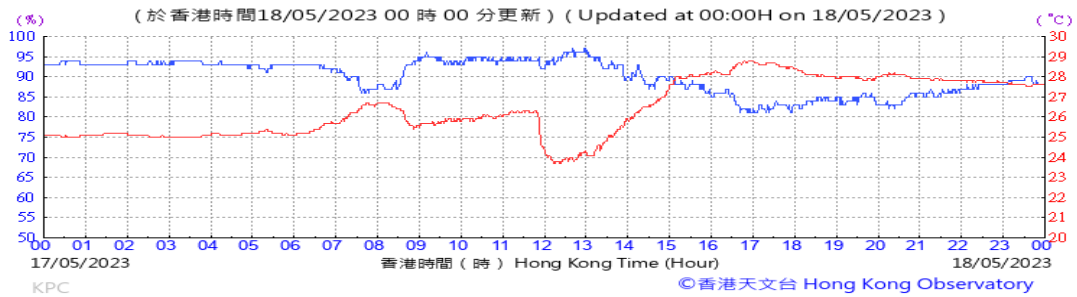
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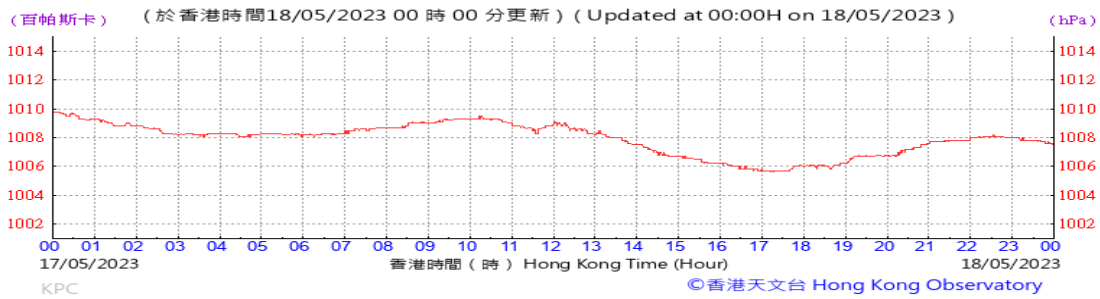
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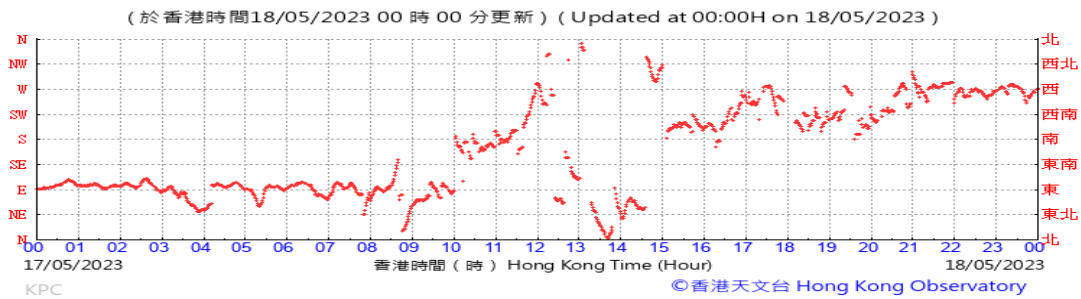
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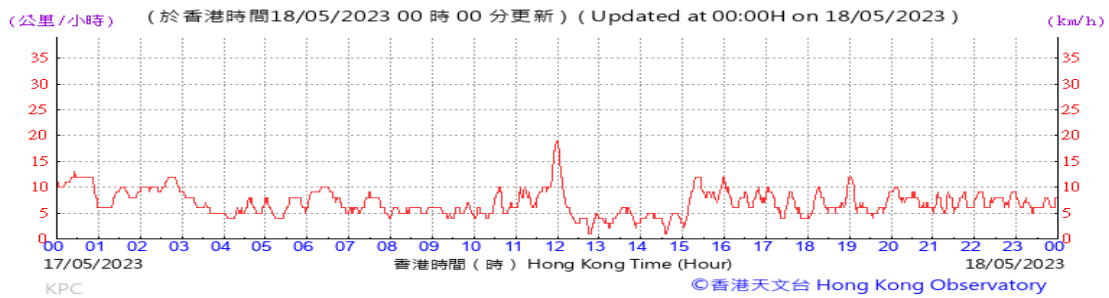
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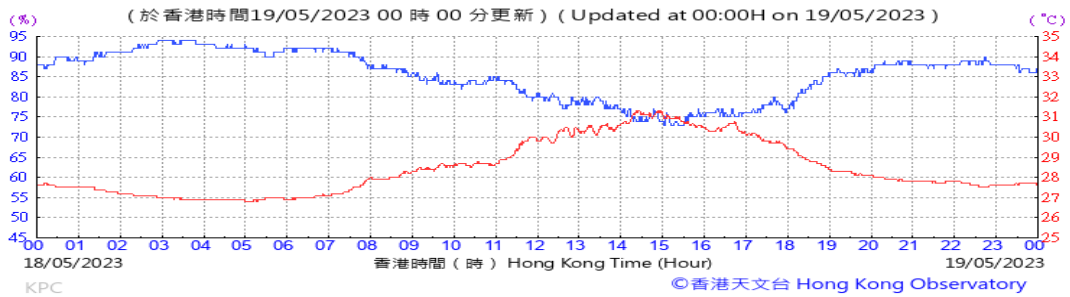
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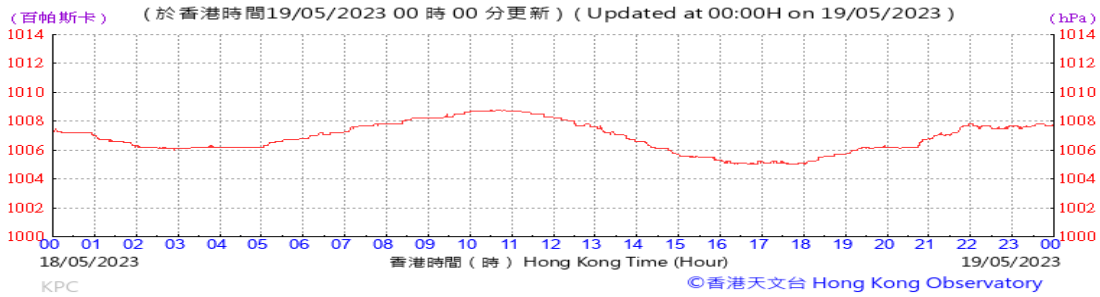
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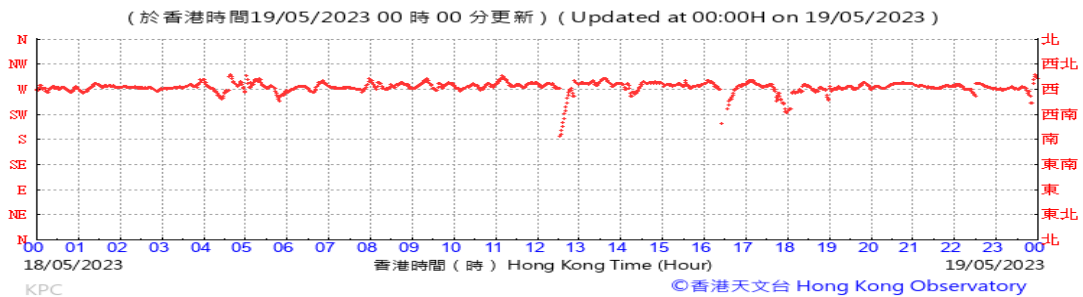
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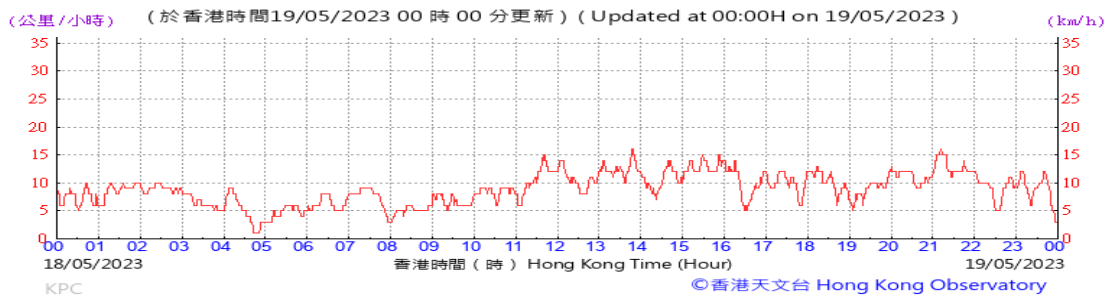
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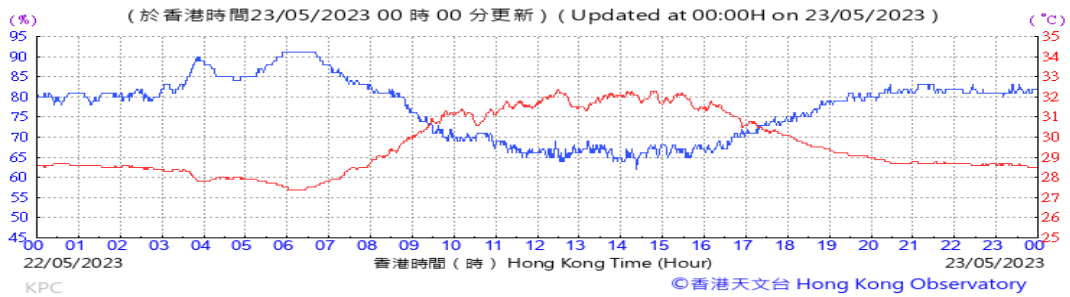
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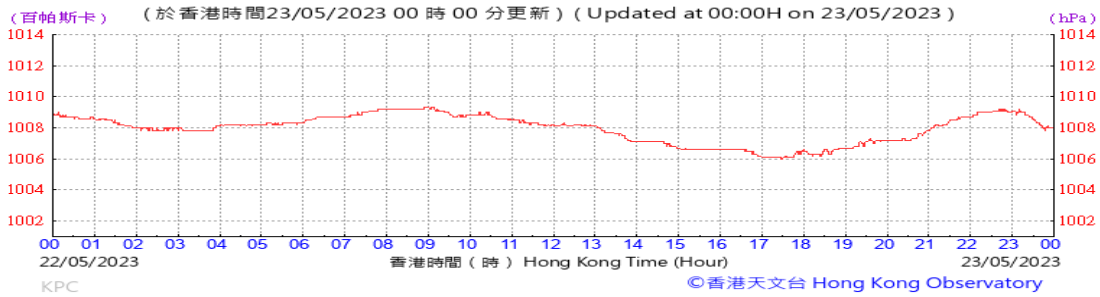
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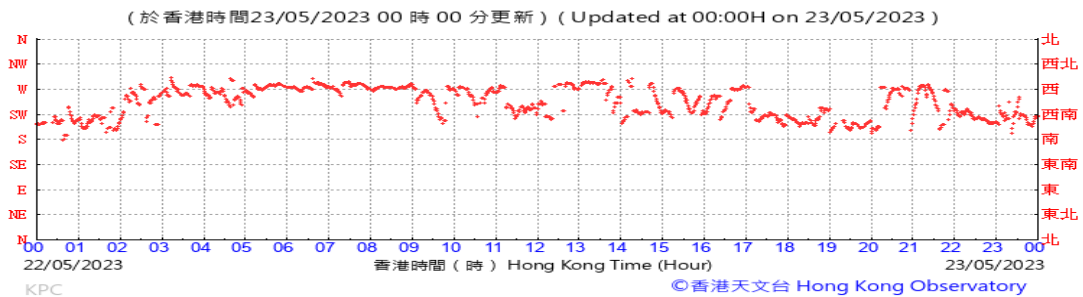
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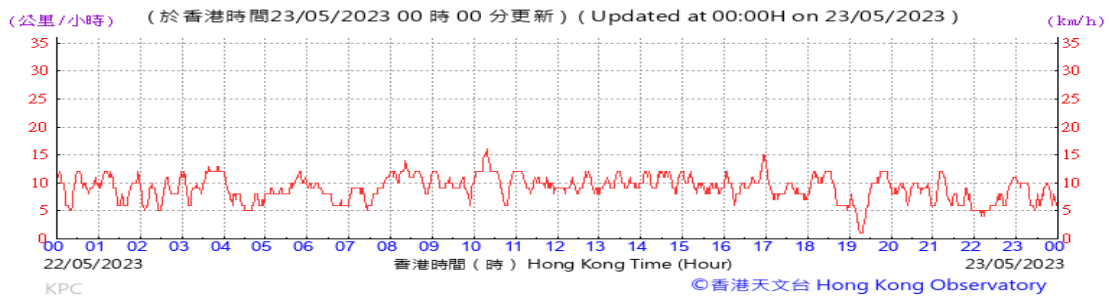
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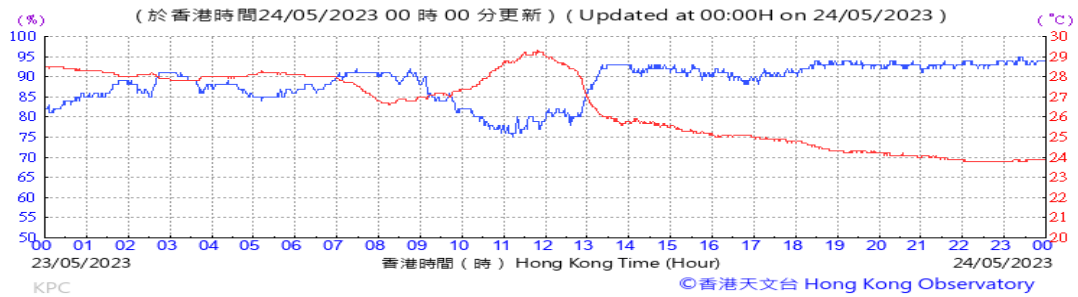
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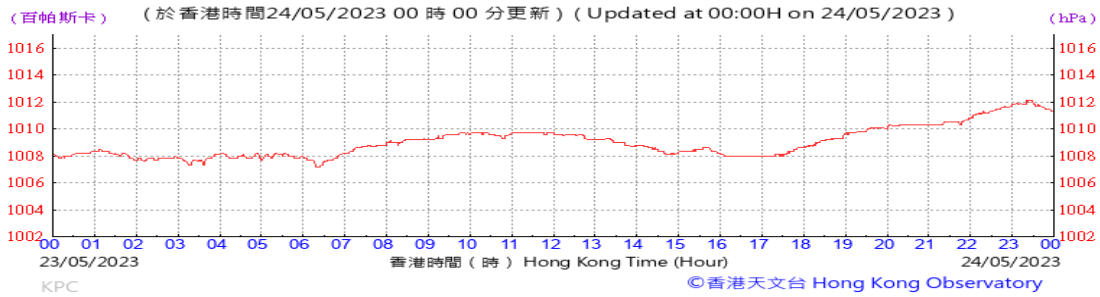
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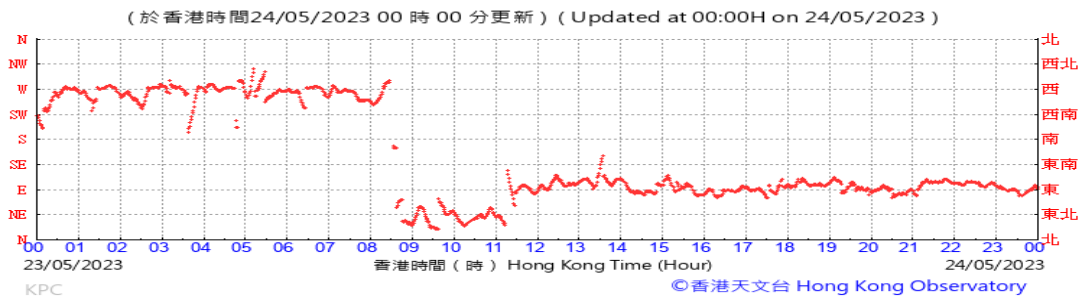
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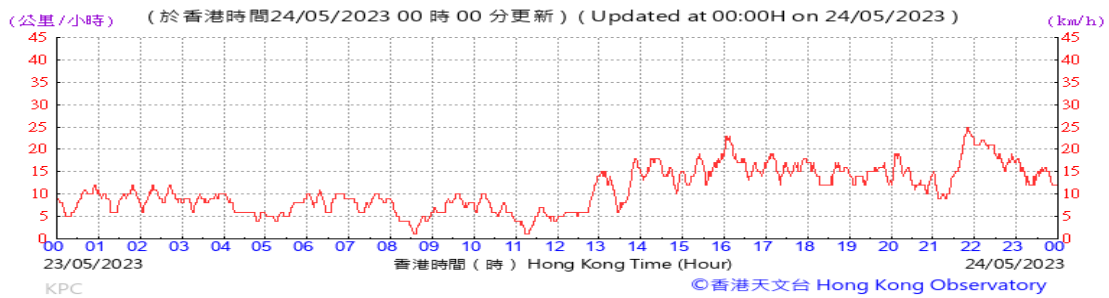
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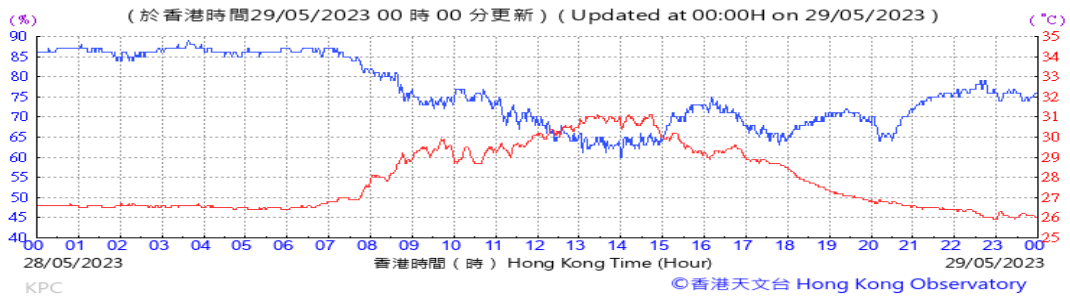
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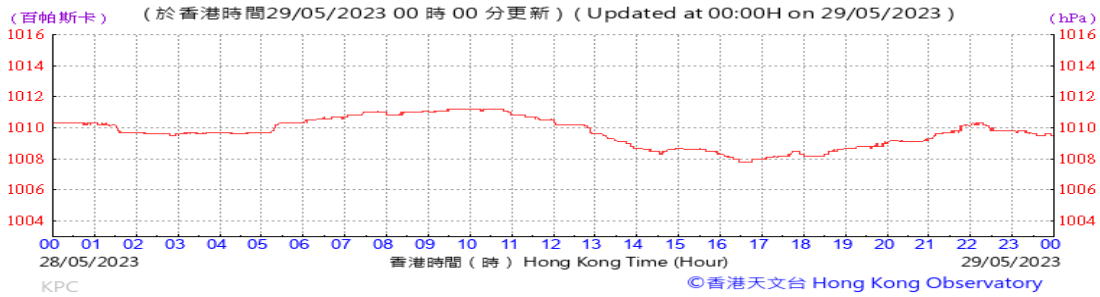
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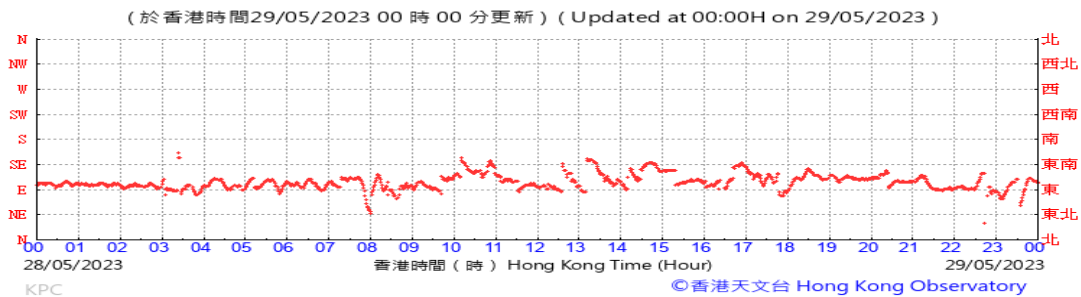
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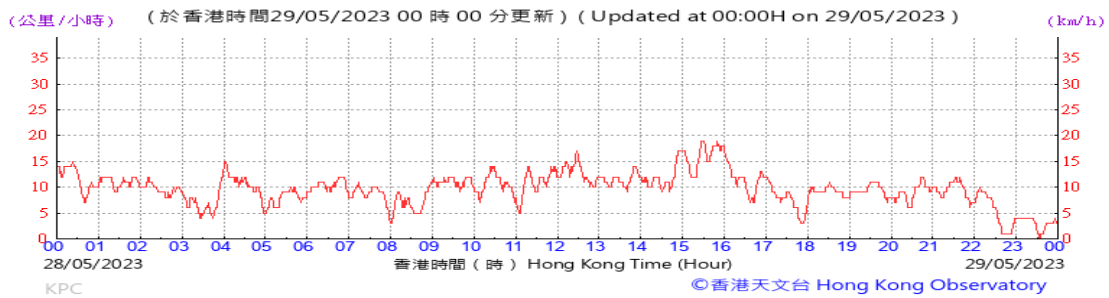
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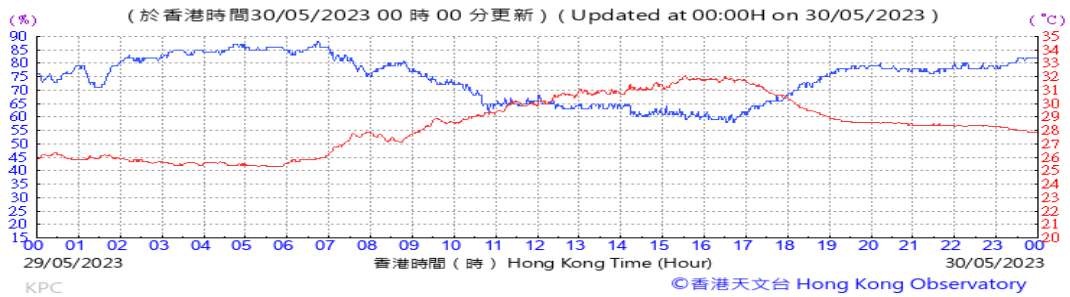
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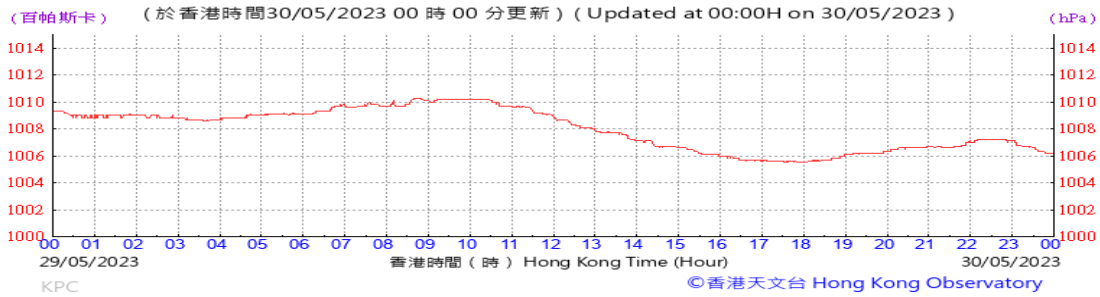
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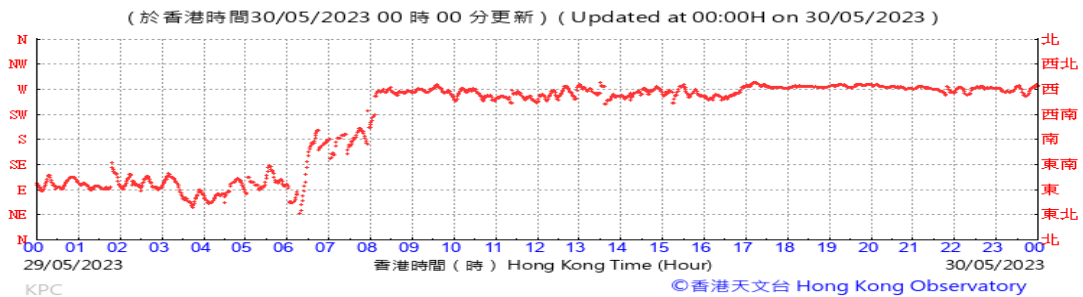
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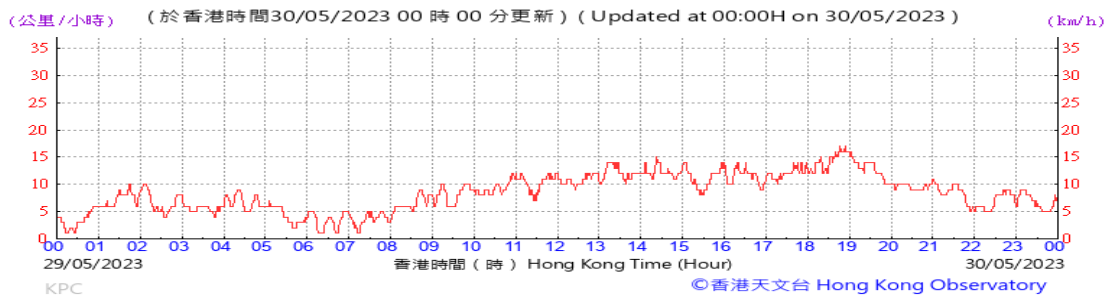
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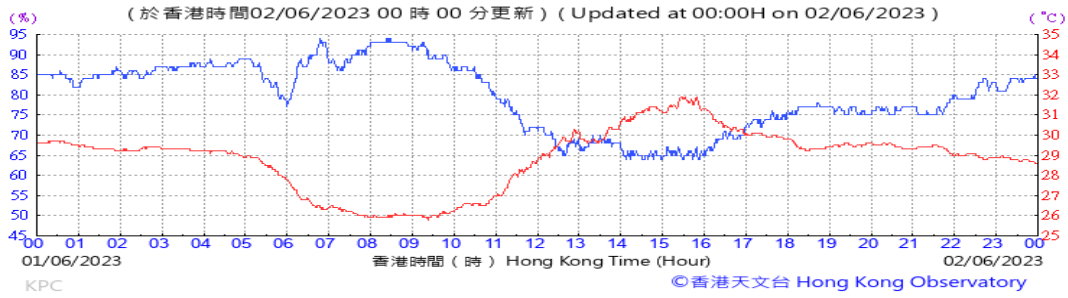
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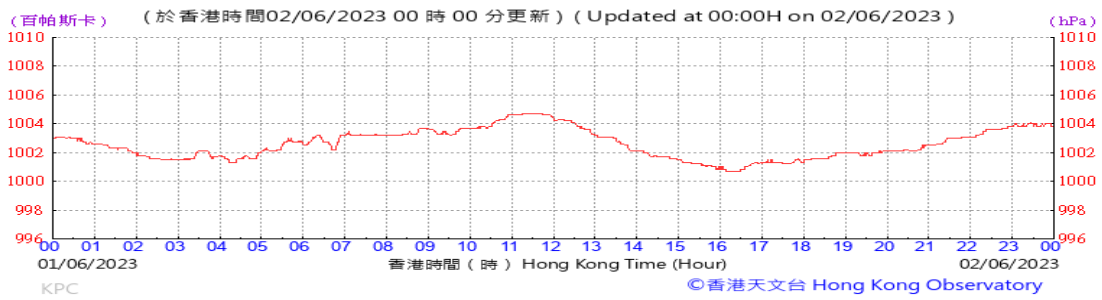
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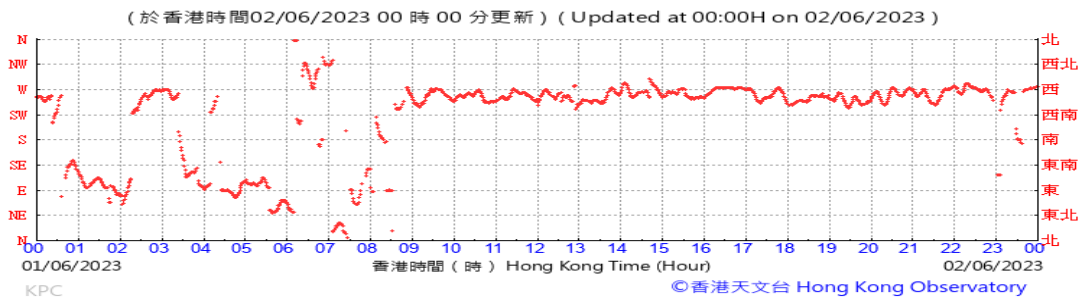
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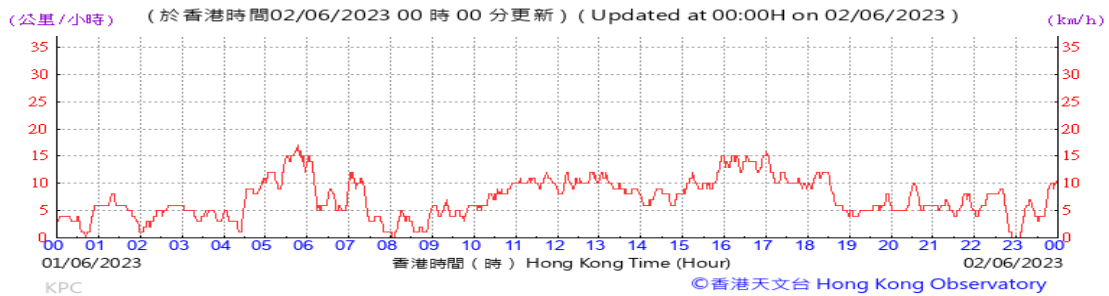
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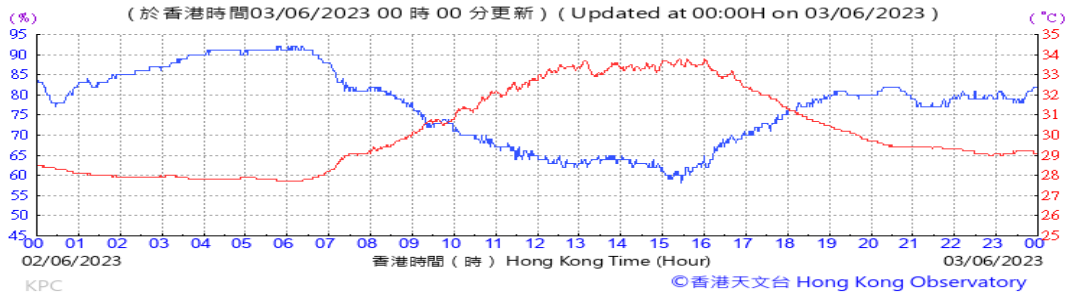
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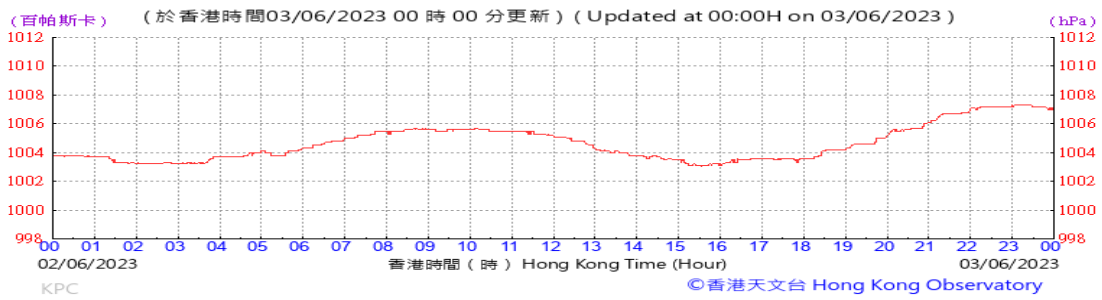
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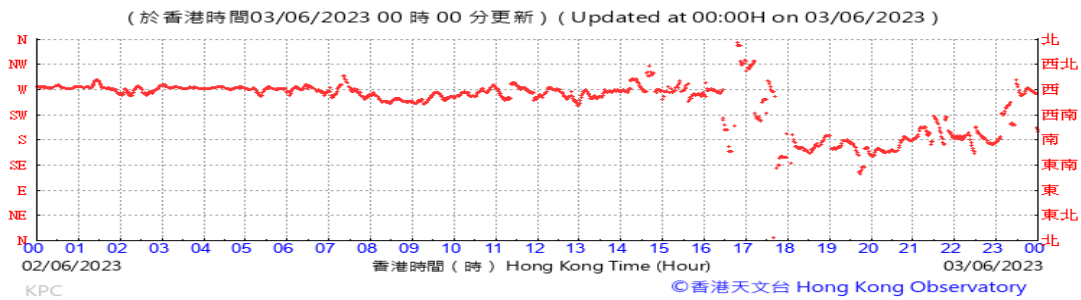
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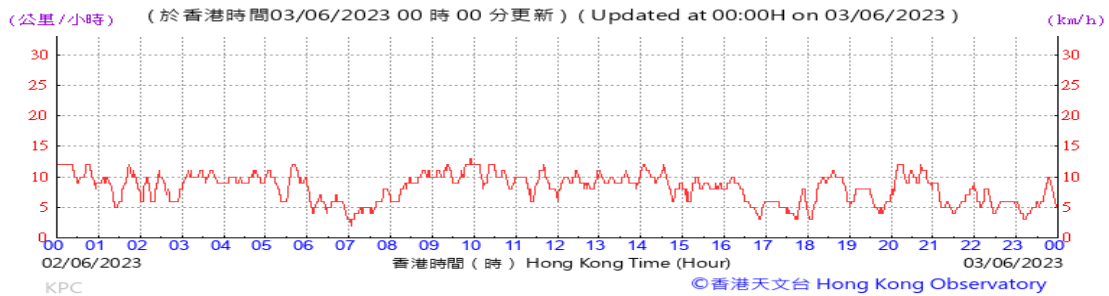
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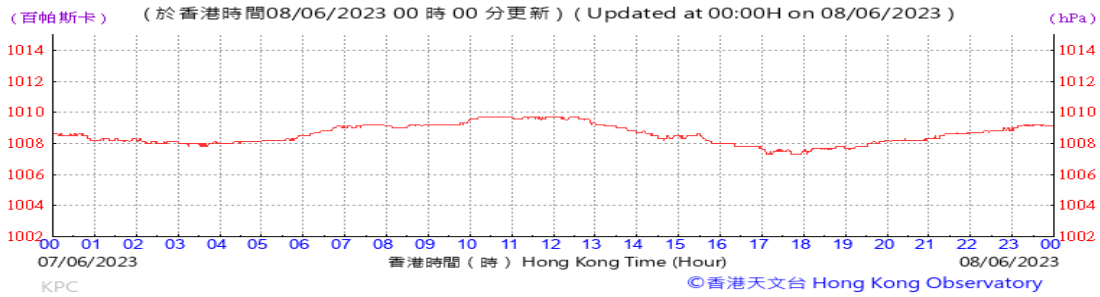
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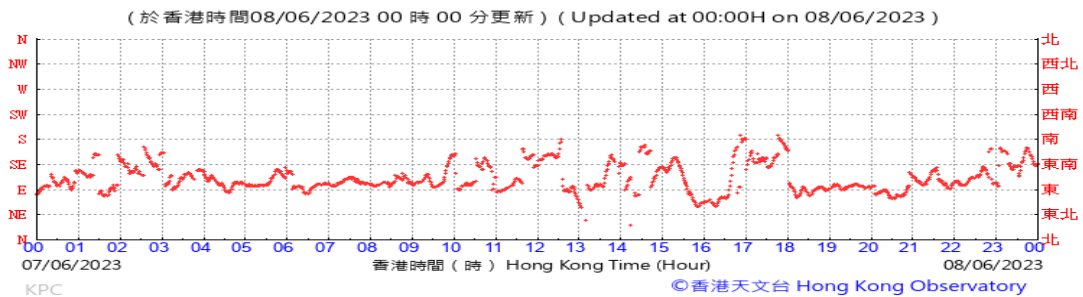
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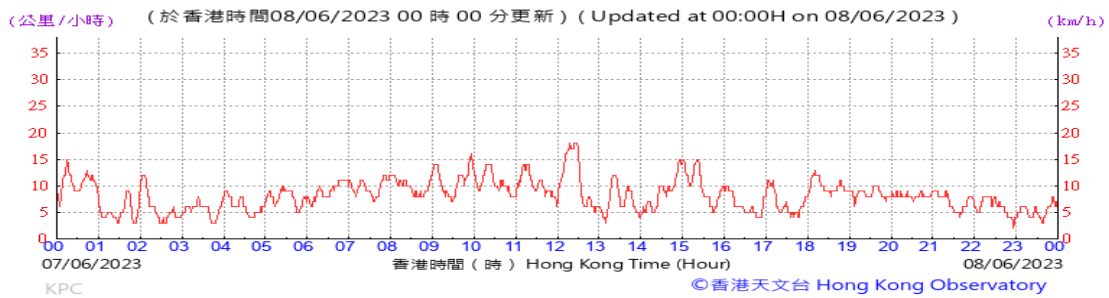
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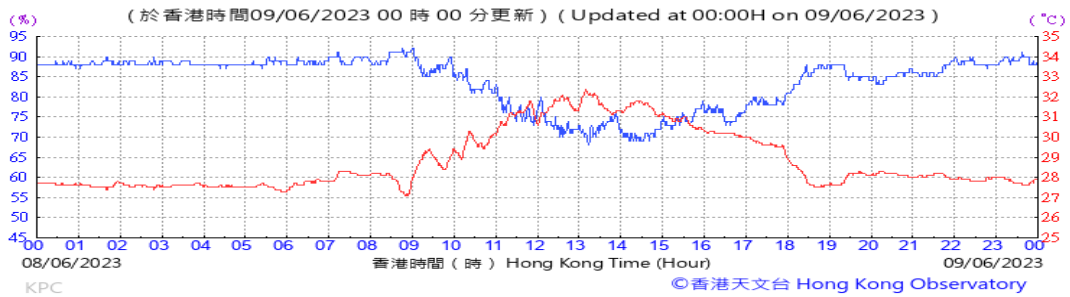
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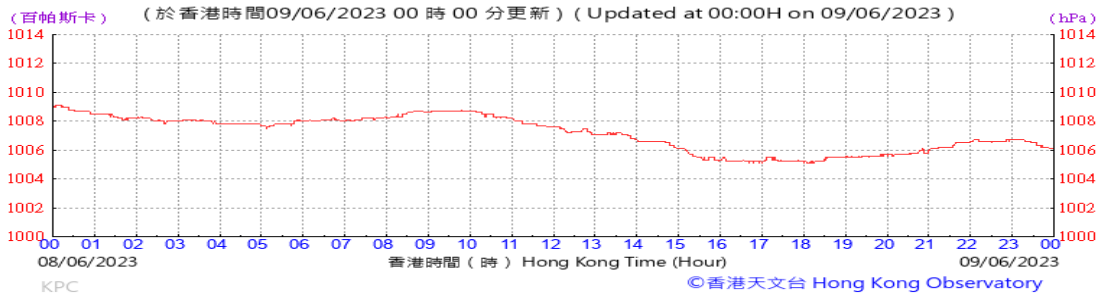
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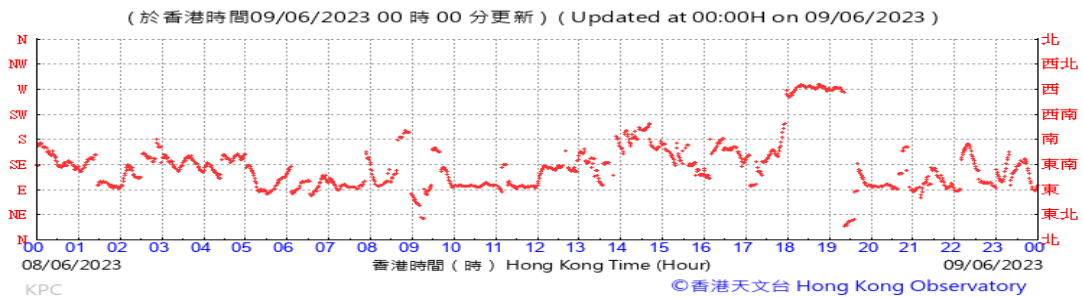
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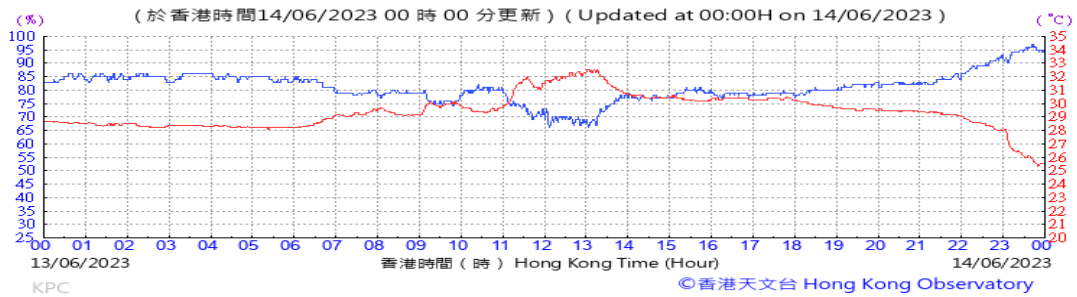
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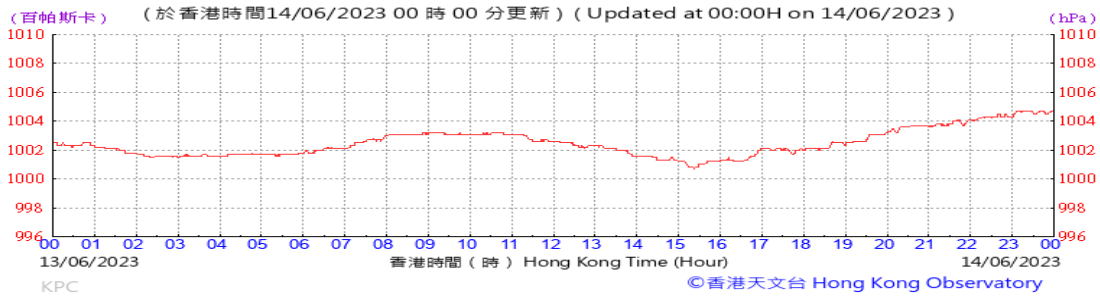
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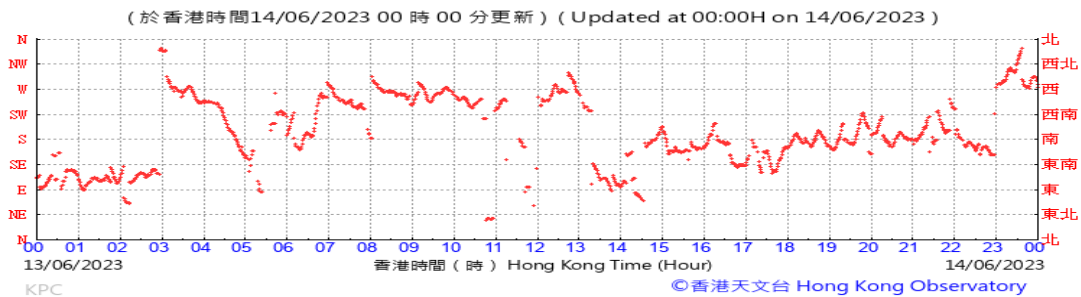
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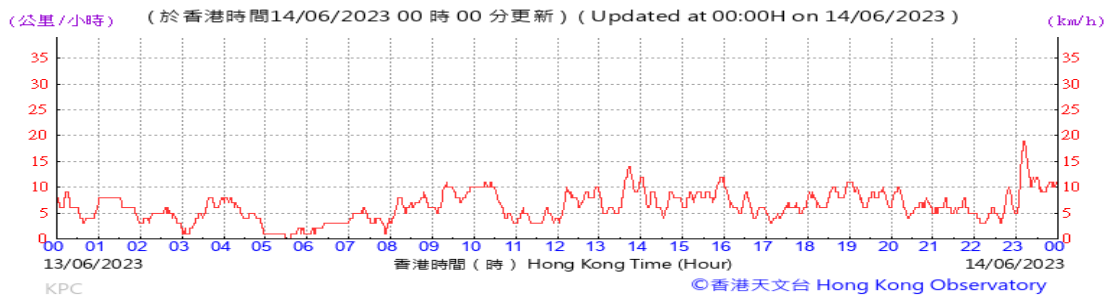
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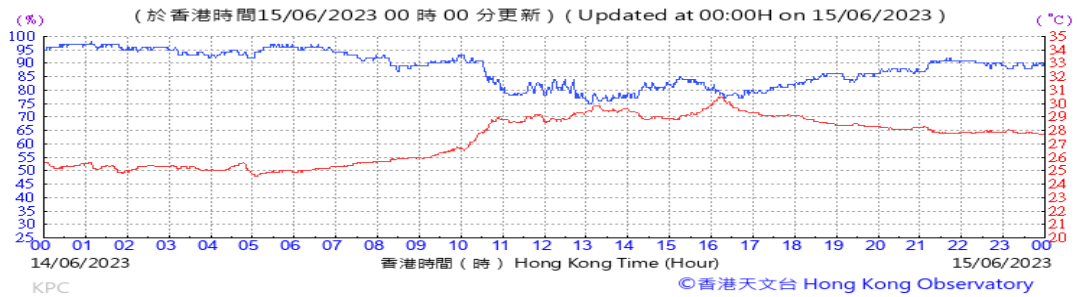
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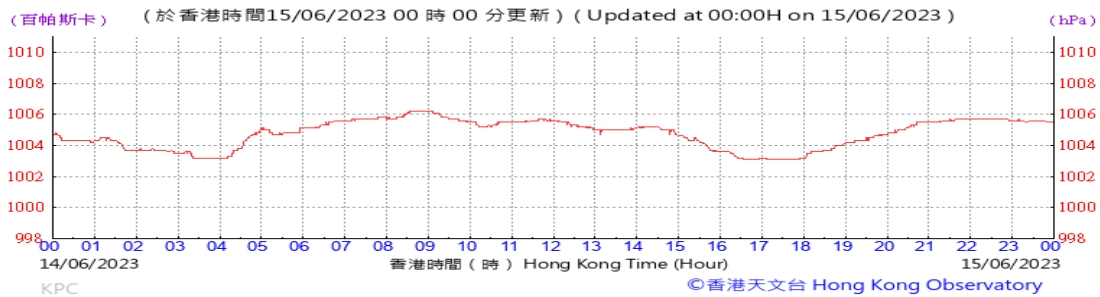
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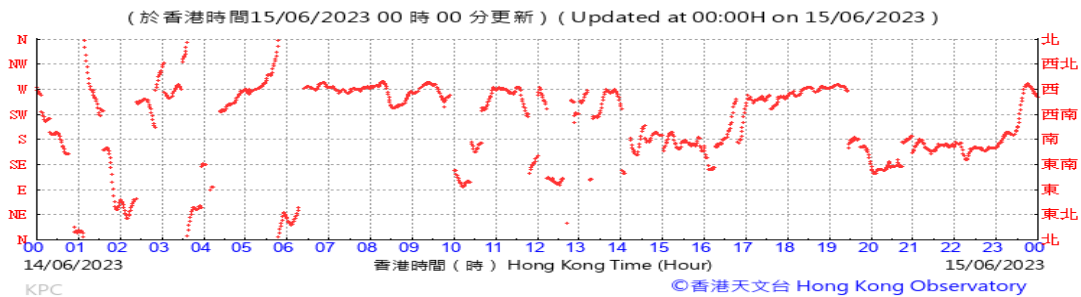
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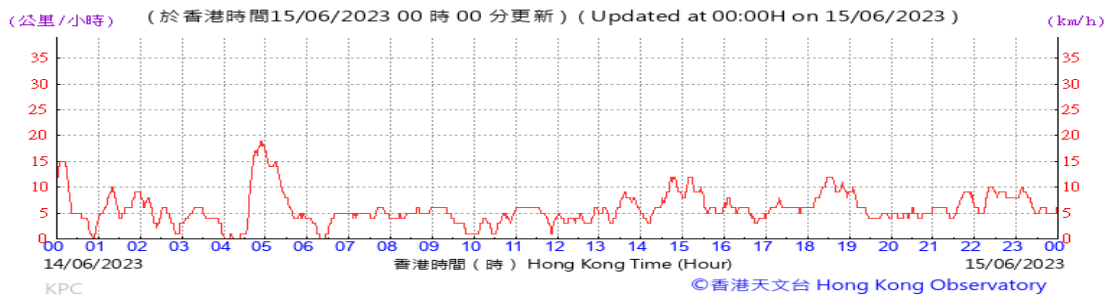
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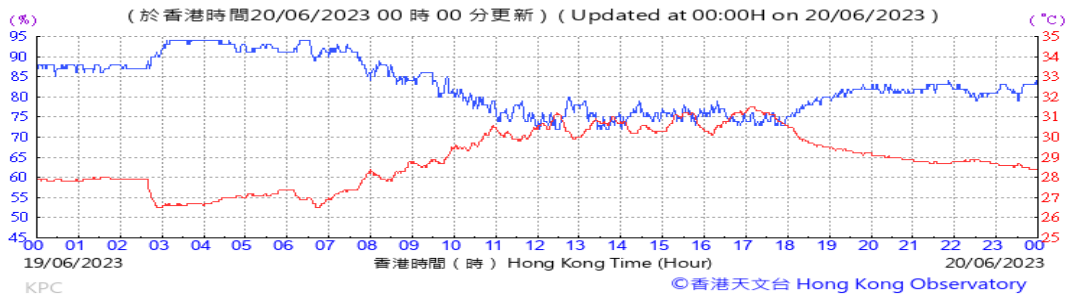
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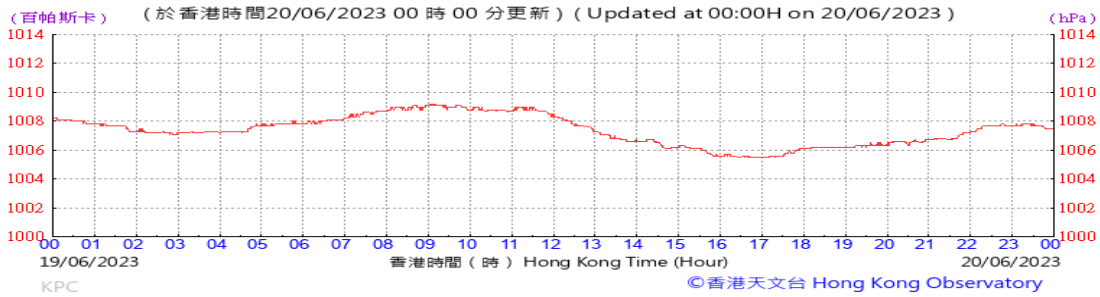
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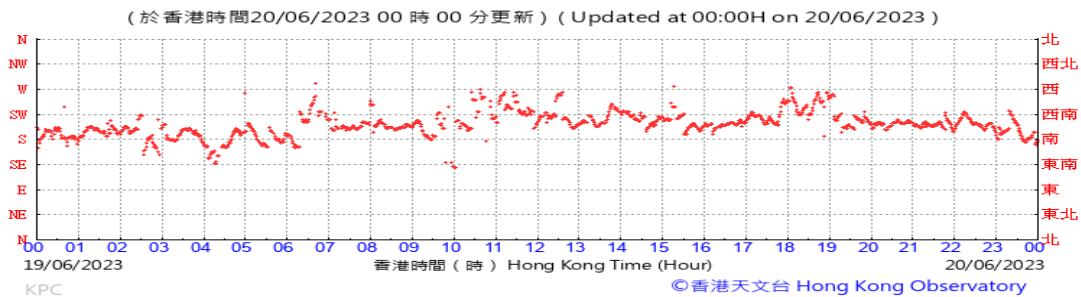
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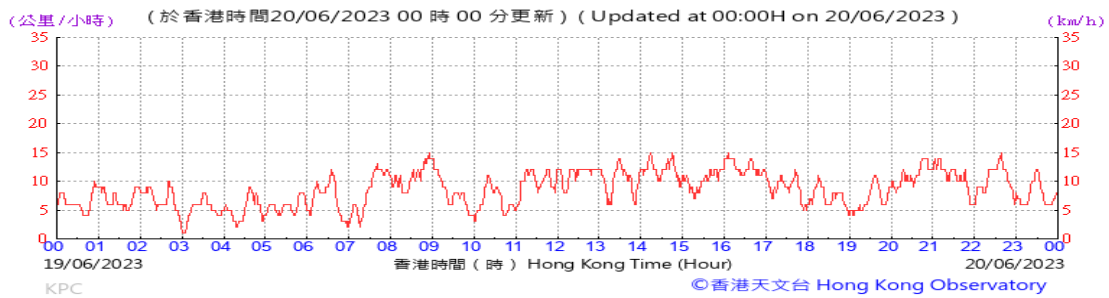
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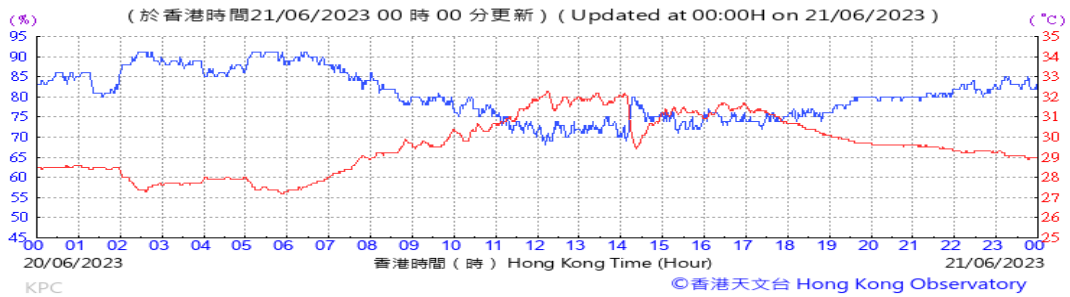
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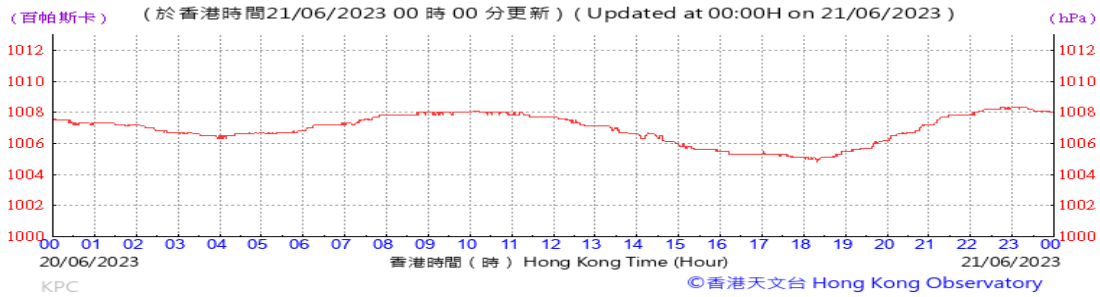
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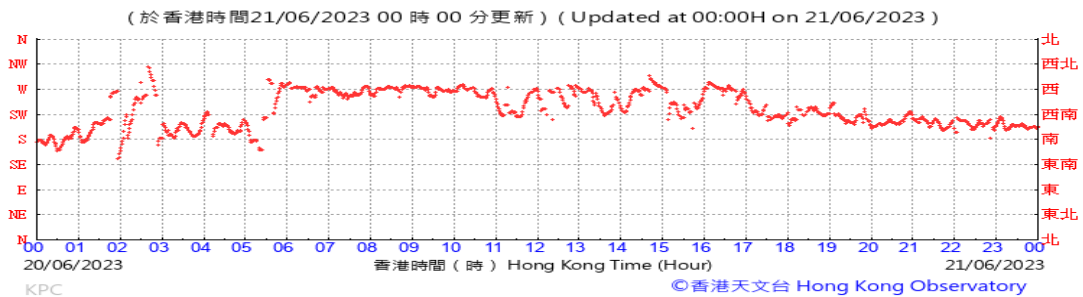
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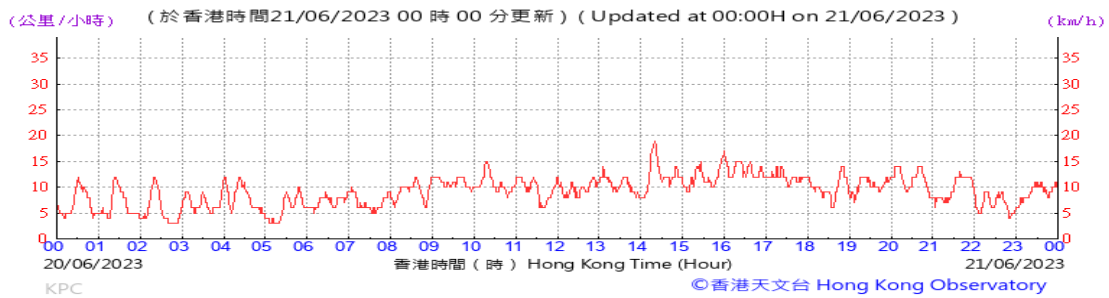
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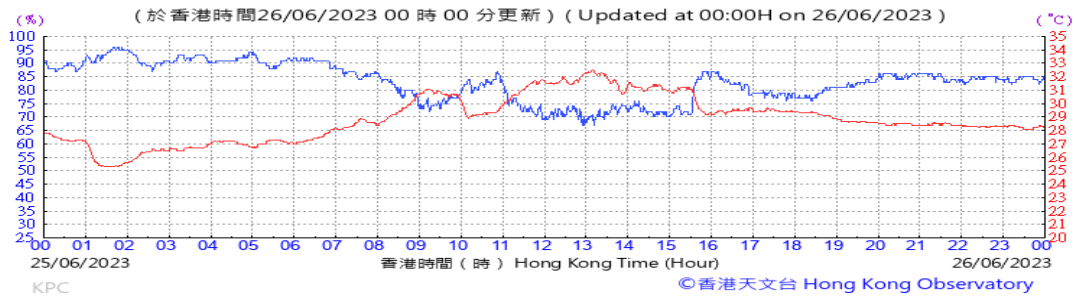
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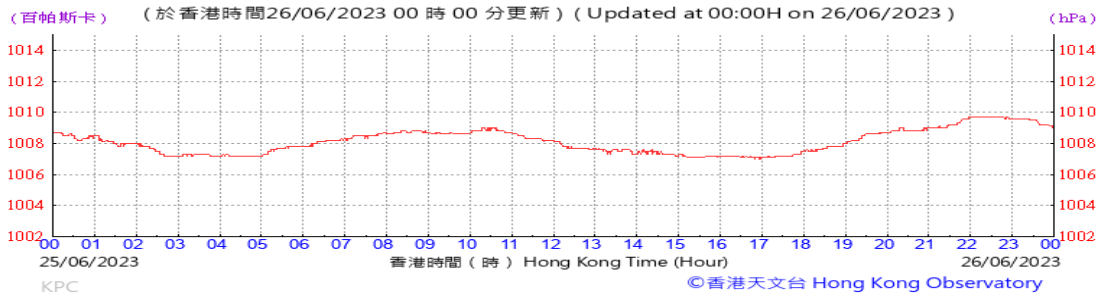
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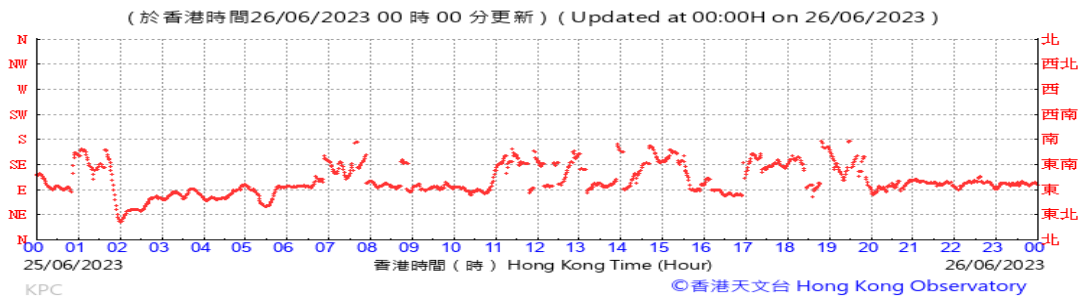
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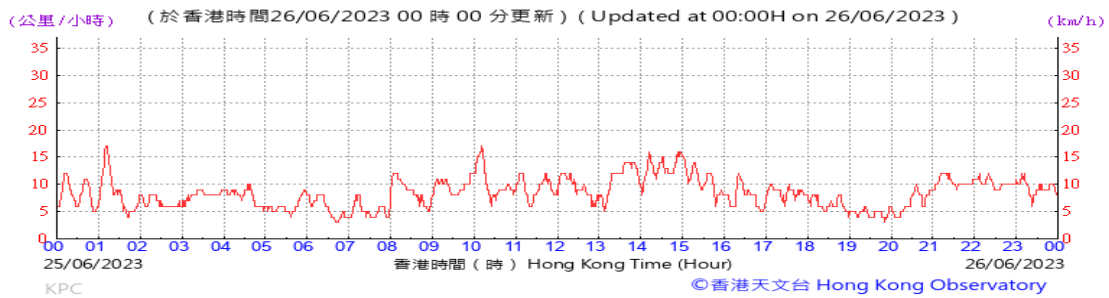
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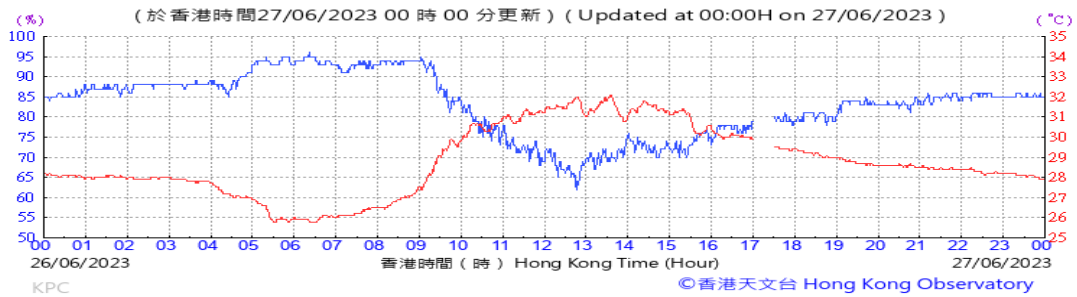
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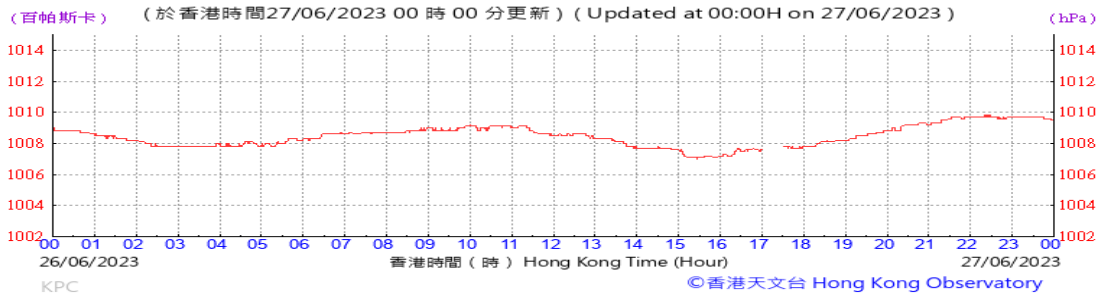
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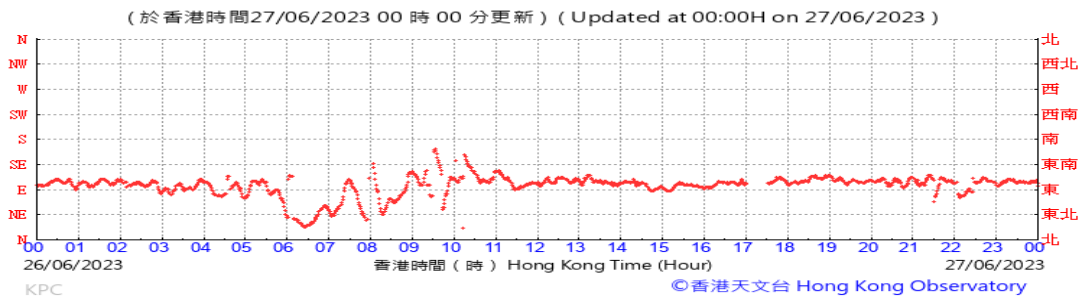
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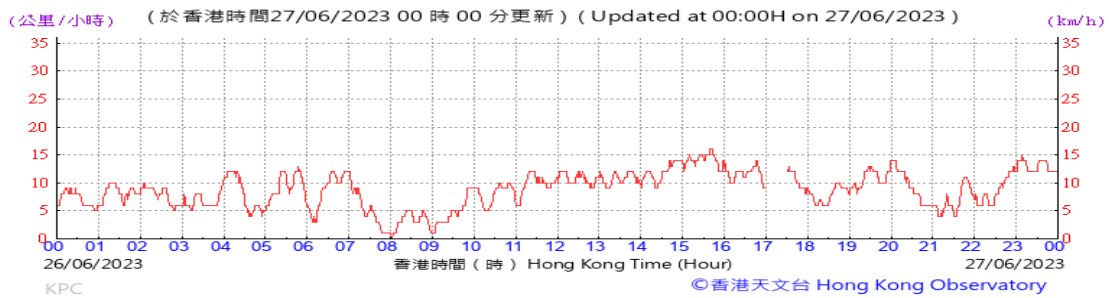
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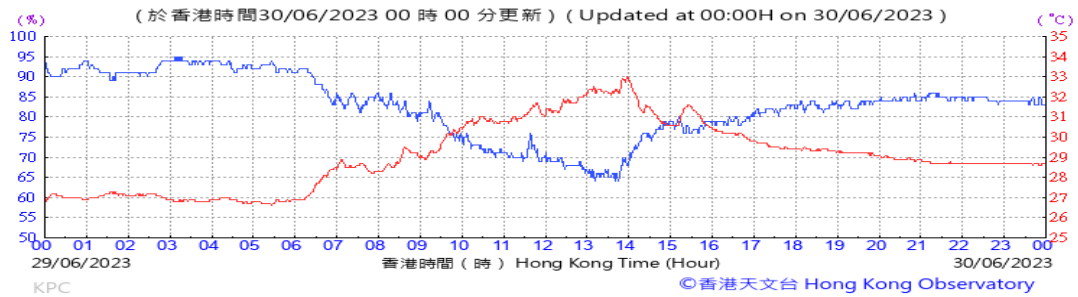
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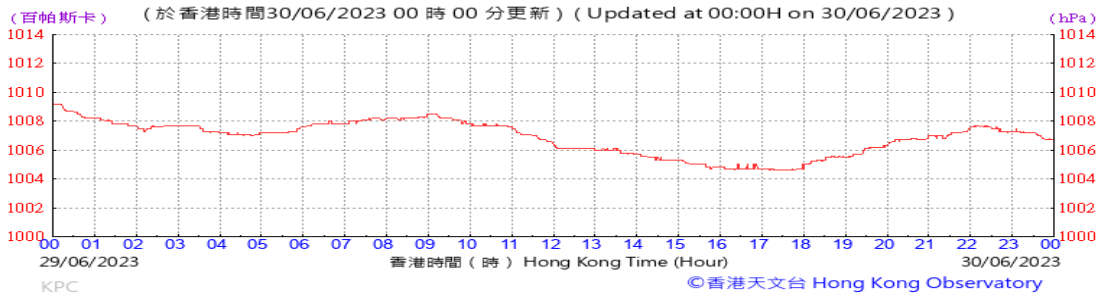
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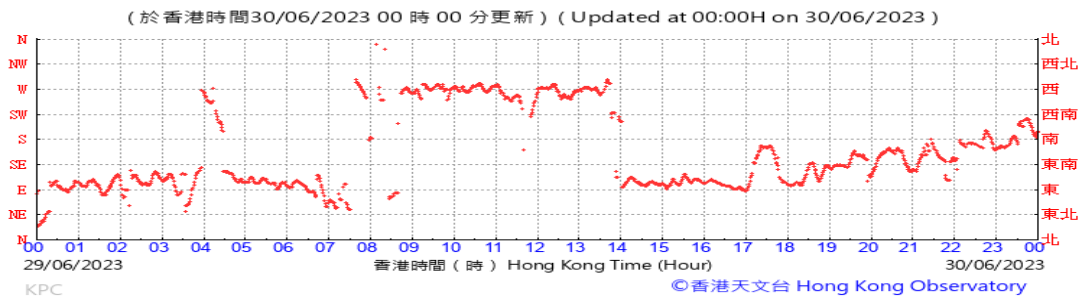
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Pressure:



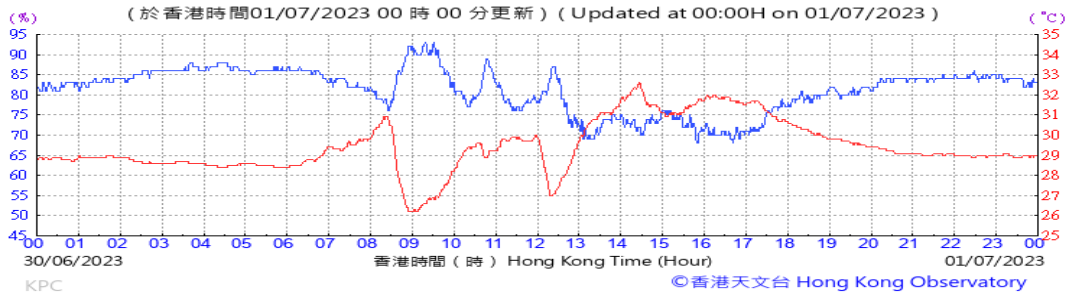
Wind Direction:



Wind Speed:



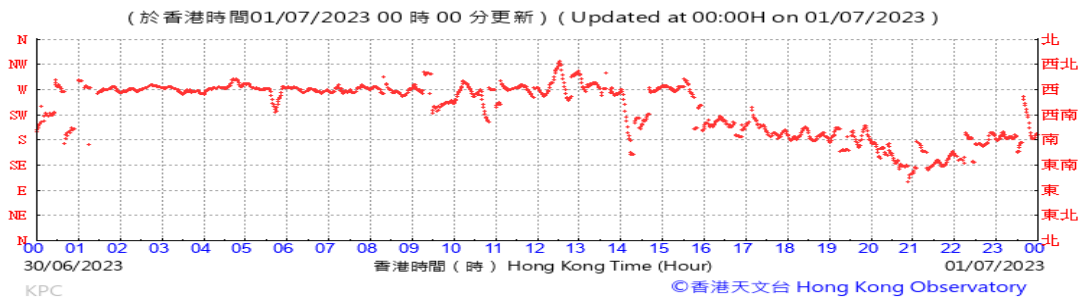
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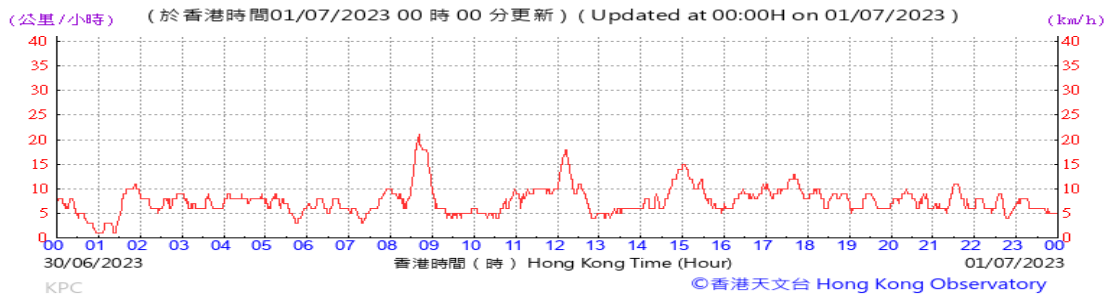
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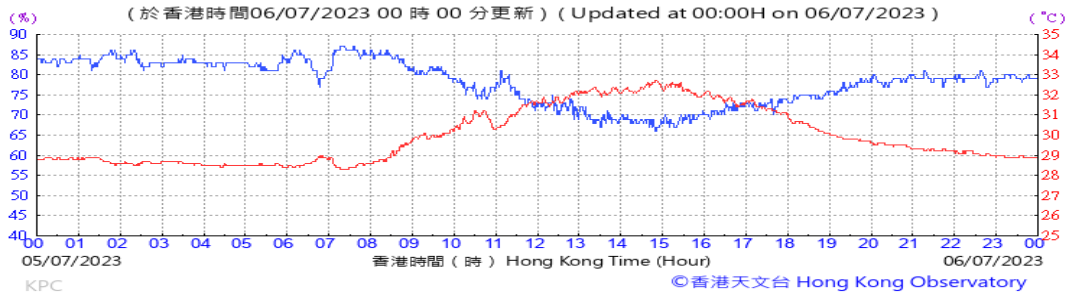
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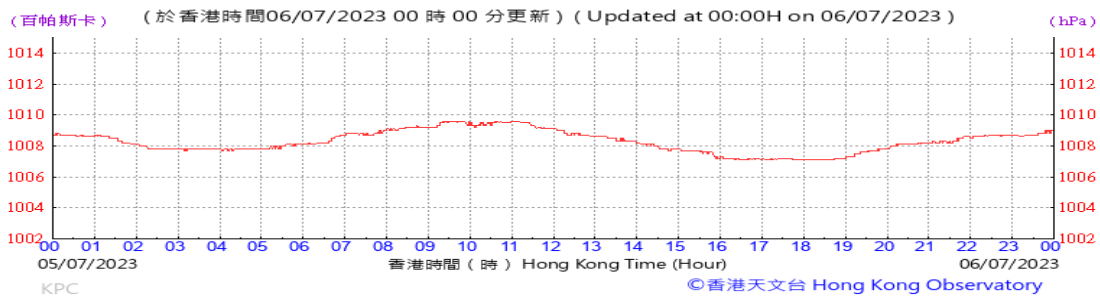
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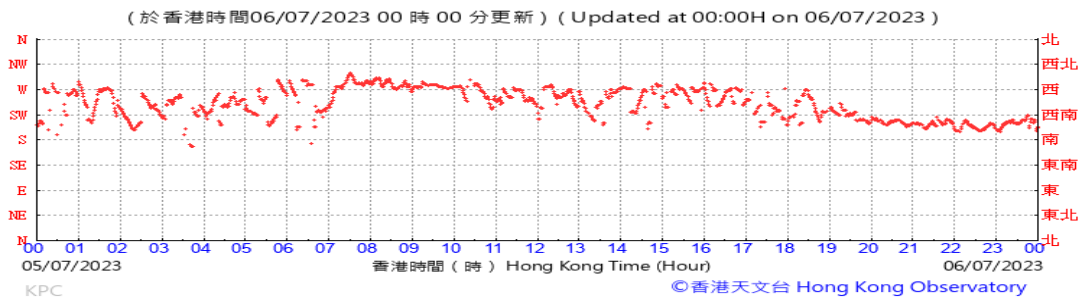
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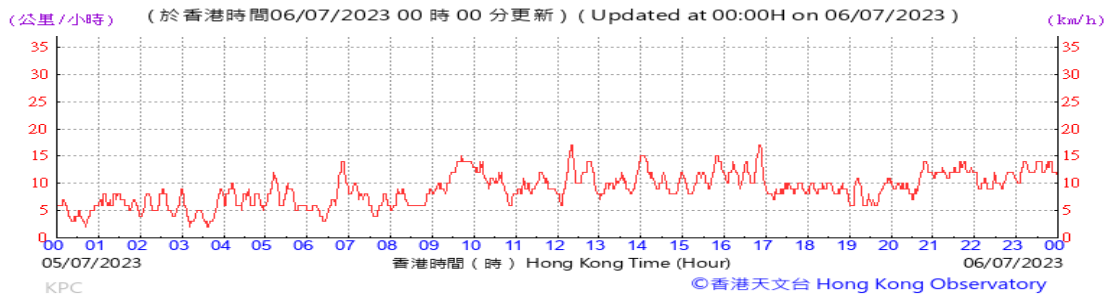
Pressure:



Wind Direction:



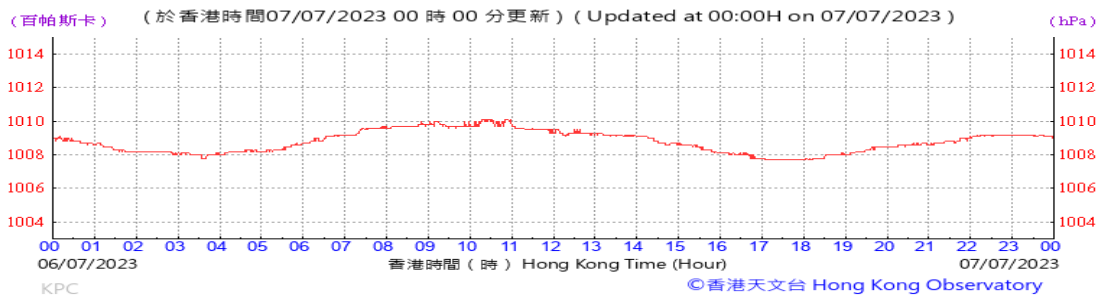
Wind Speed:



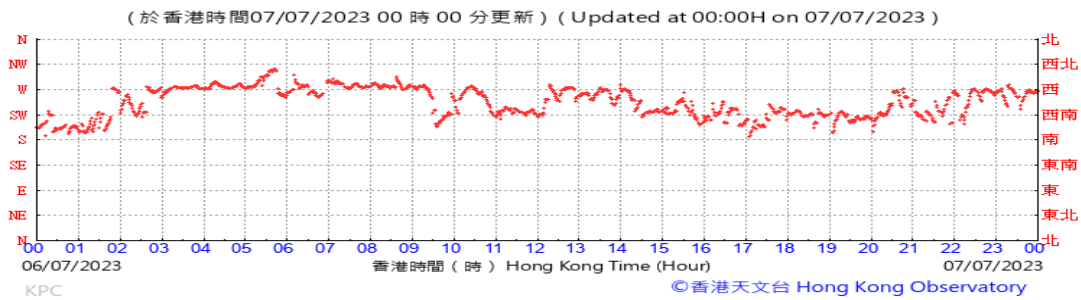
Temperature/Humidity:



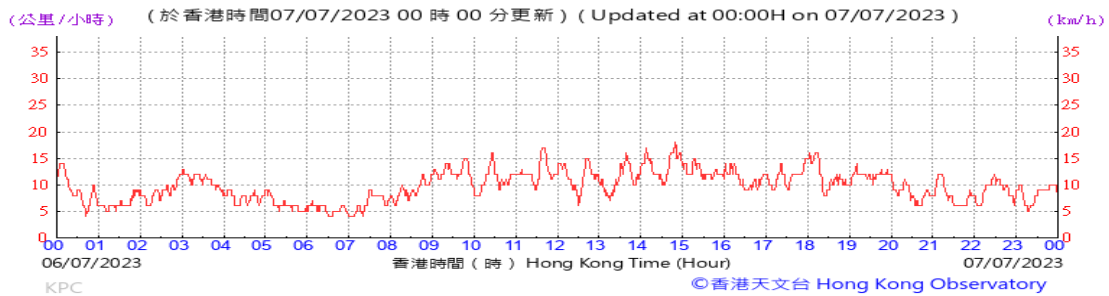
Pressure:



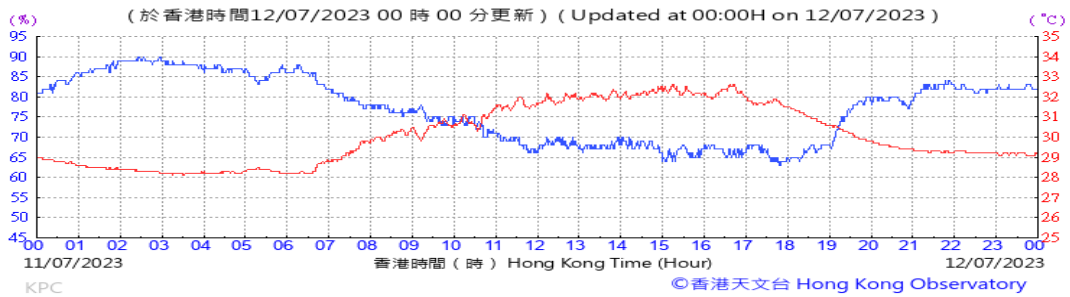
Wind Direction:



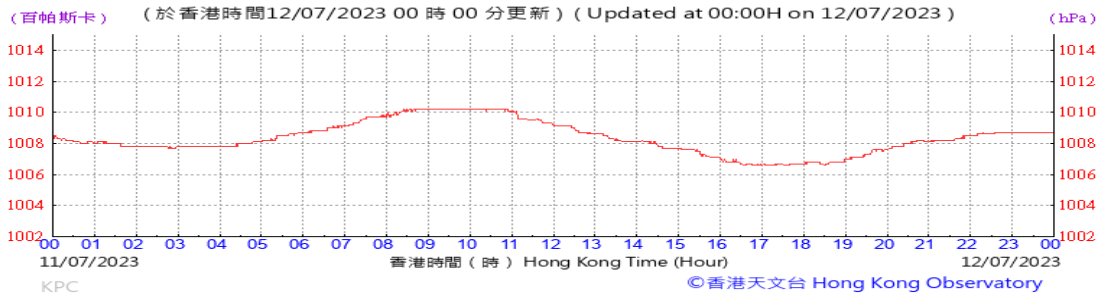
Wind Speed:



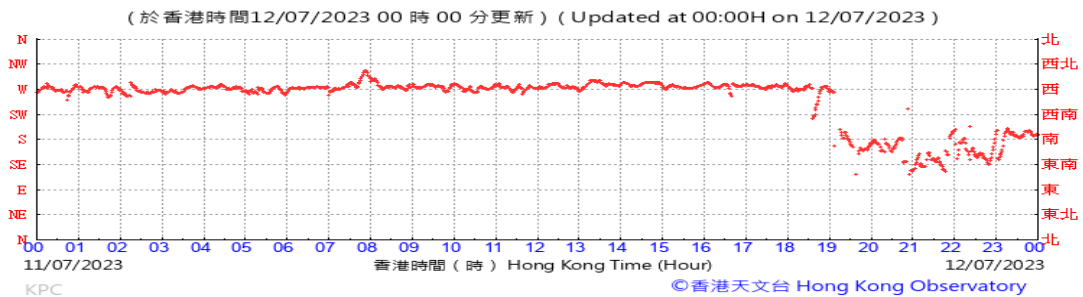
Temperature/Humidity:



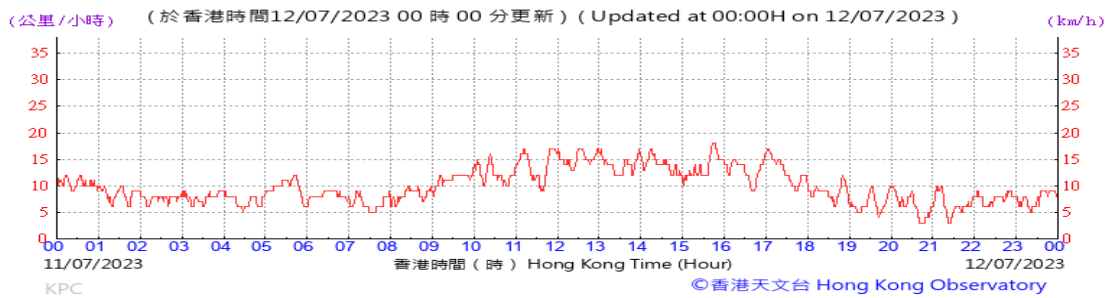
Pressure:



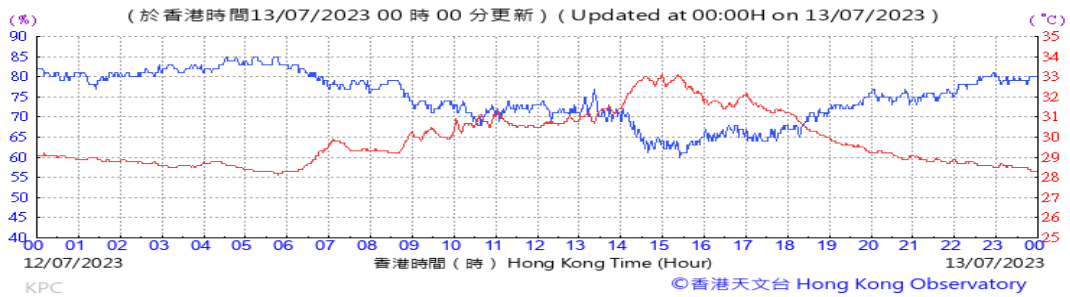
Wind Direction:



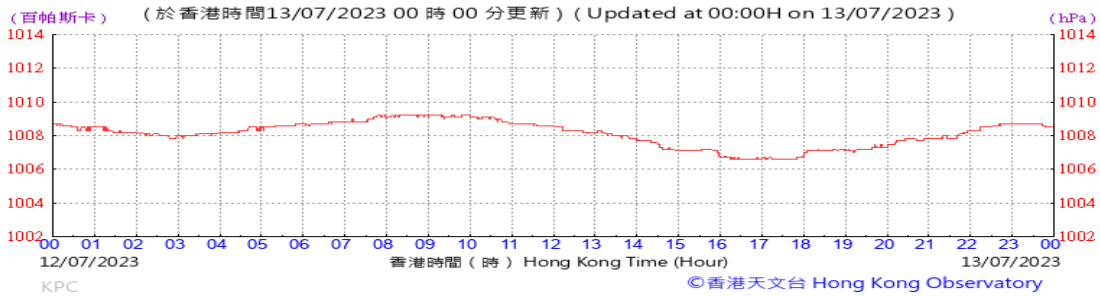
Wind Speed:



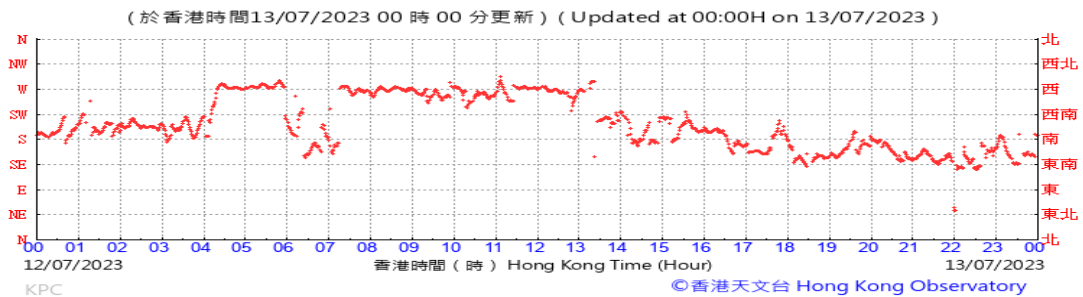
Temperature/Humidity:



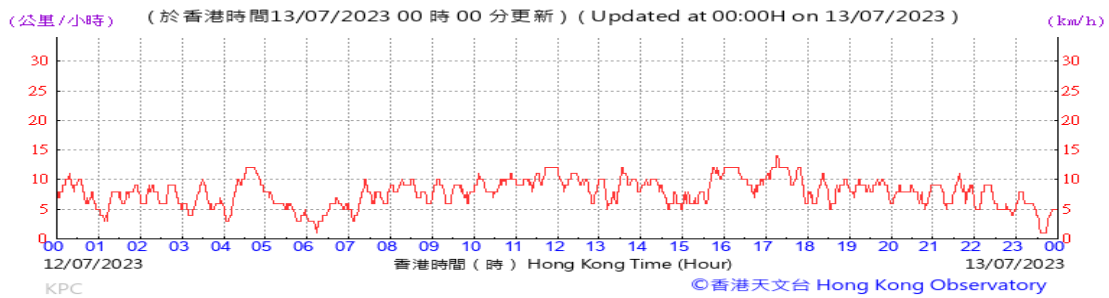
Pressure:



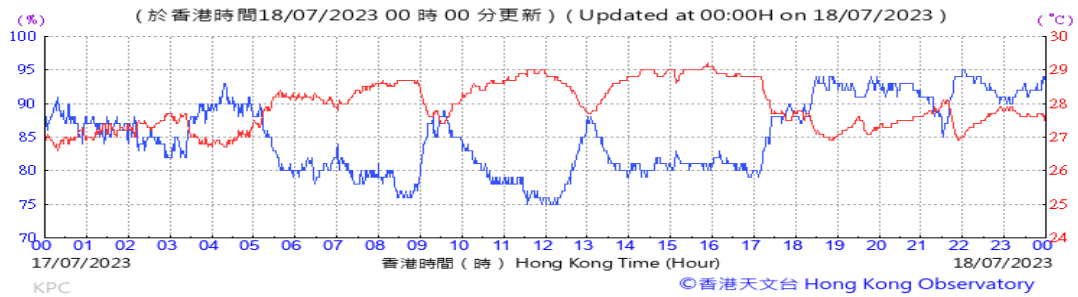
Wind Direction:



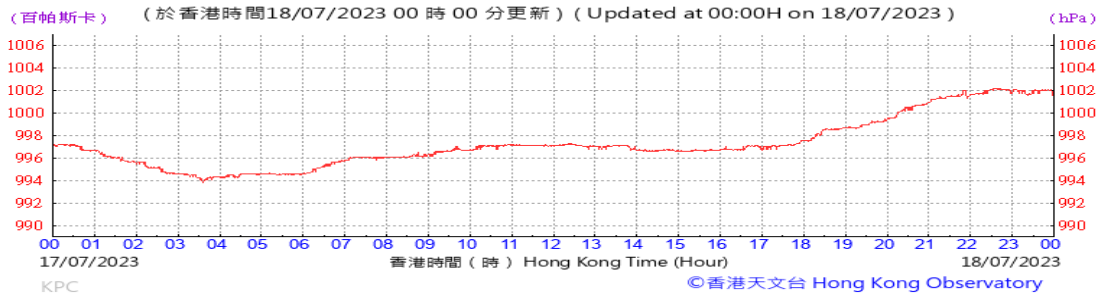
Wind Speed:



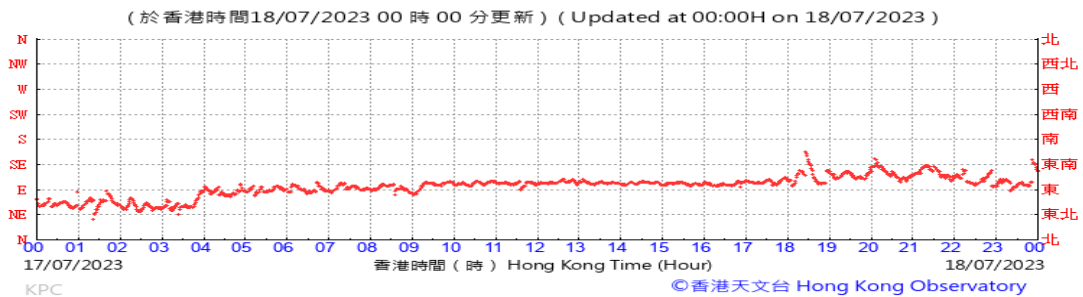
Temperature/Humidity:



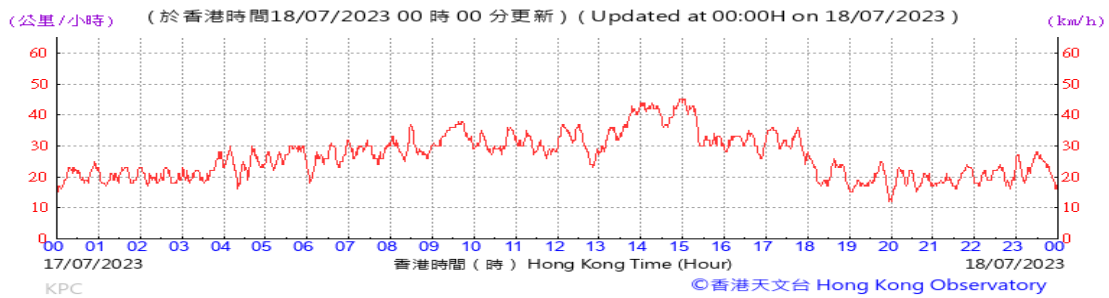
Pressure:



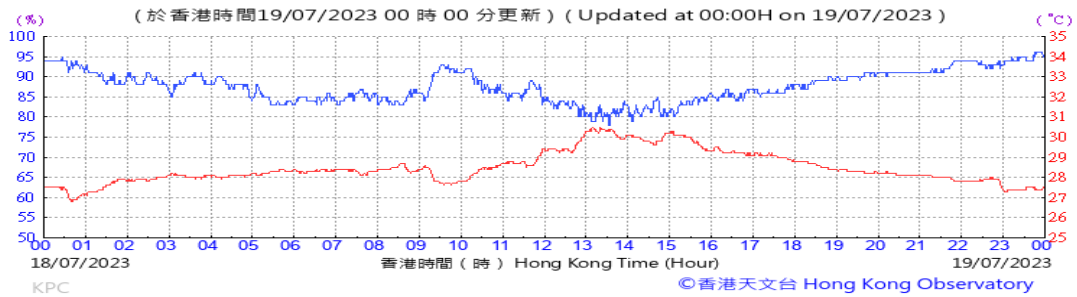
Wind Direction:



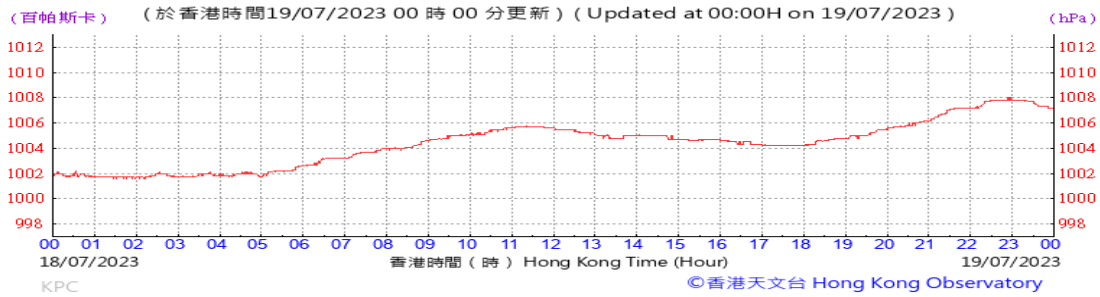
Wind Speed:



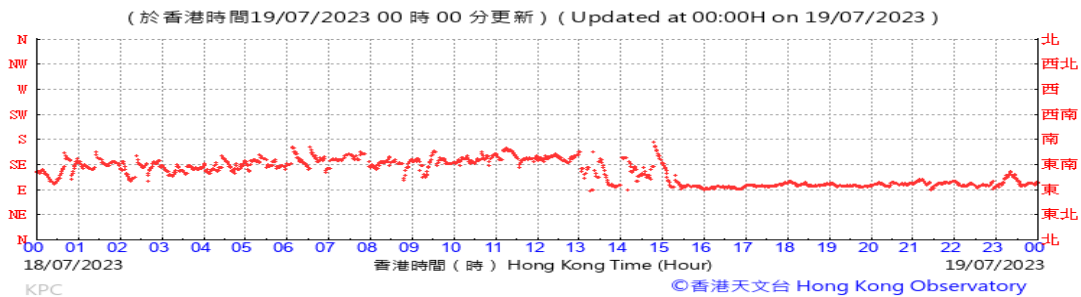
Temperature/Humidity:



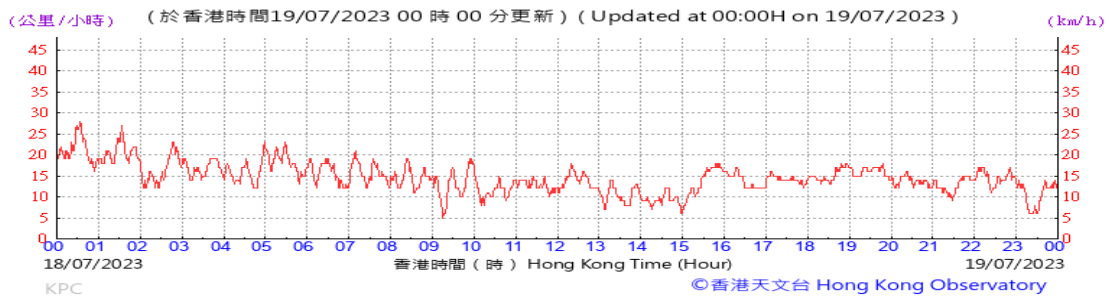
Pressure:



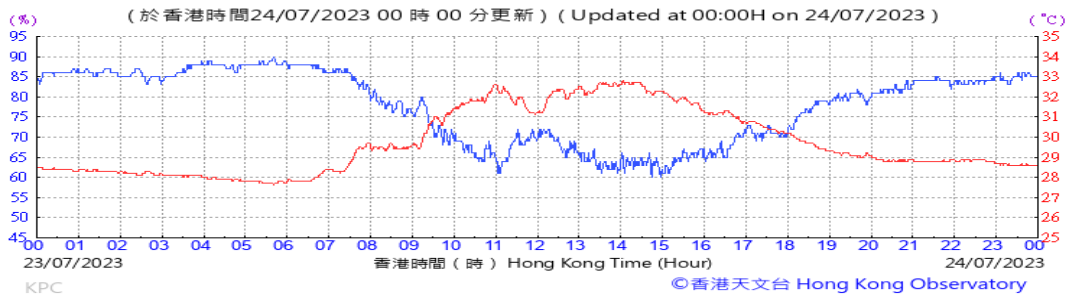
Wind Direction:



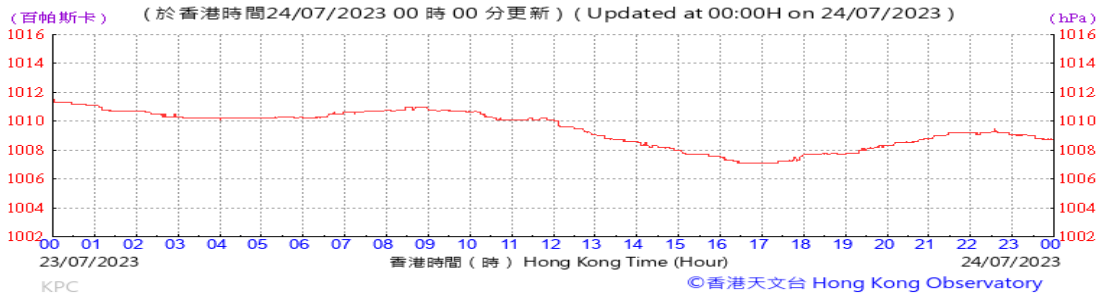
Wind Speed:



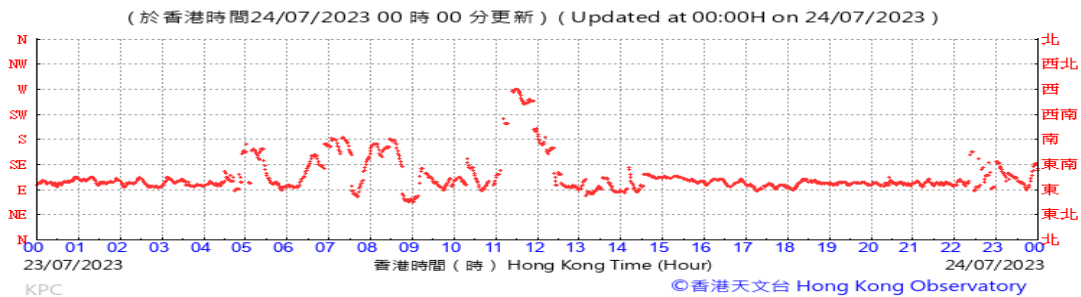
Temperature/Humidity:



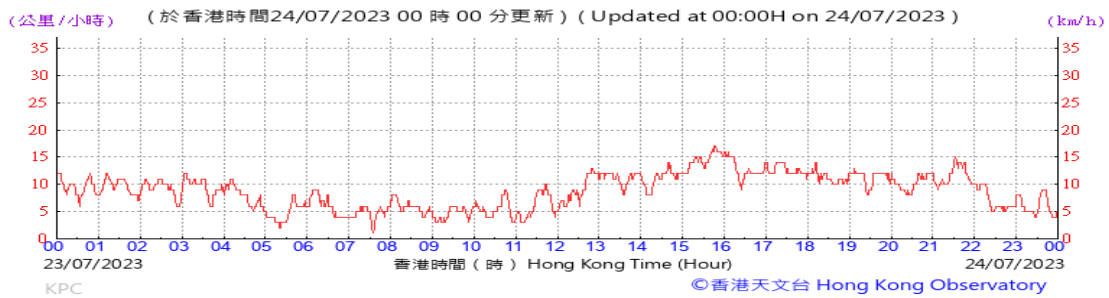
Pressure:



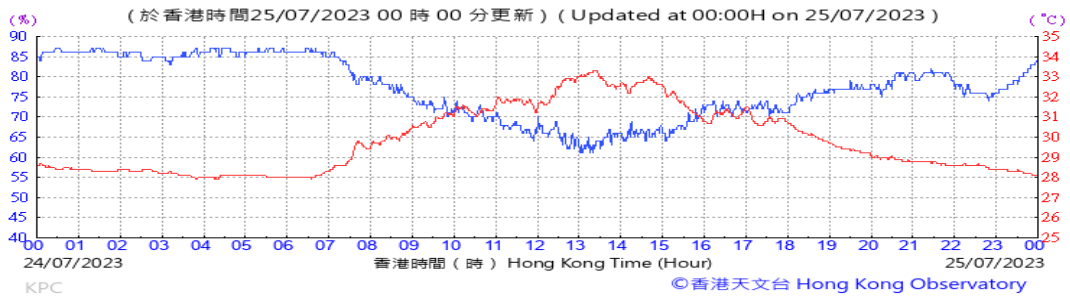
Wind Direction:



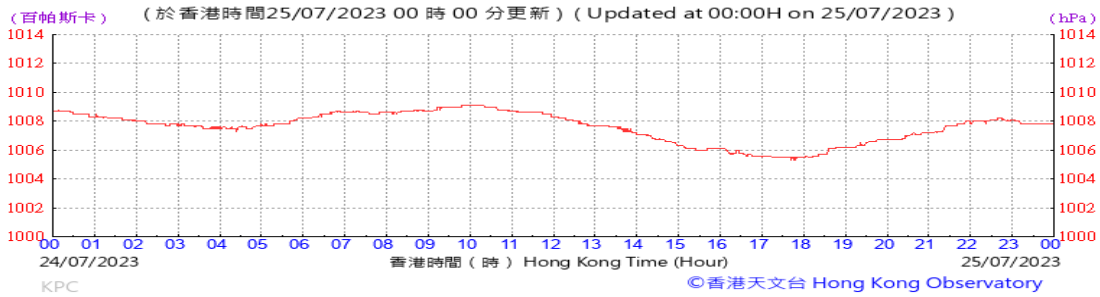
Wind Speed:



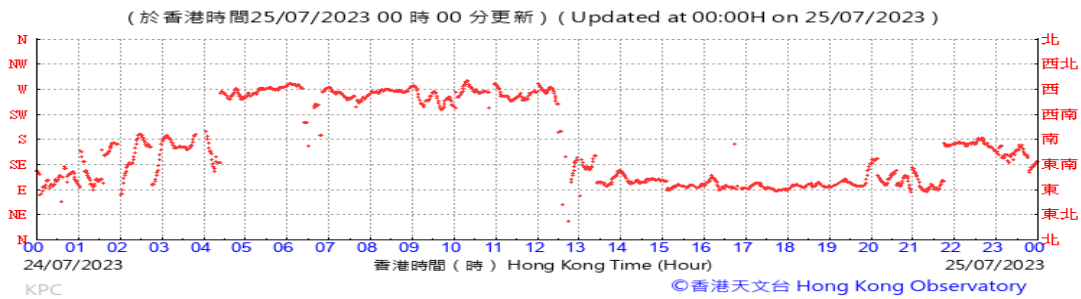
Temperature/Humidity:



Pressure:



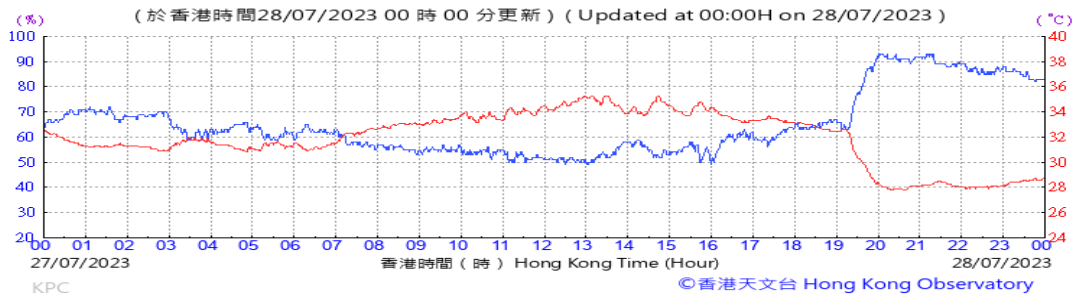
Wind Direction:



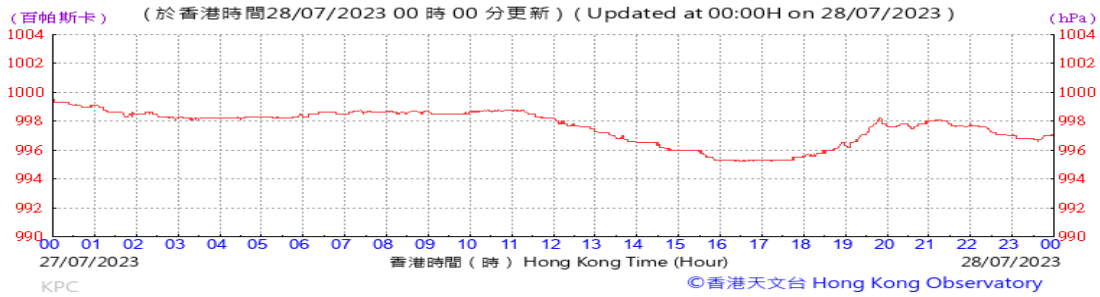
Wind Speed:

Data not available on HKO website

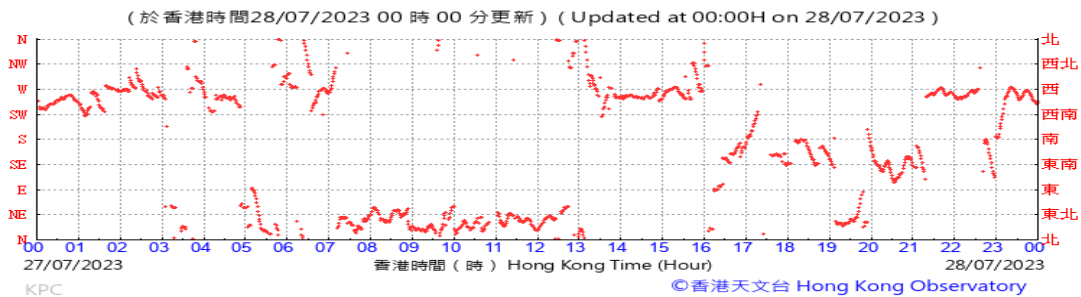
Temperature/Humidity:



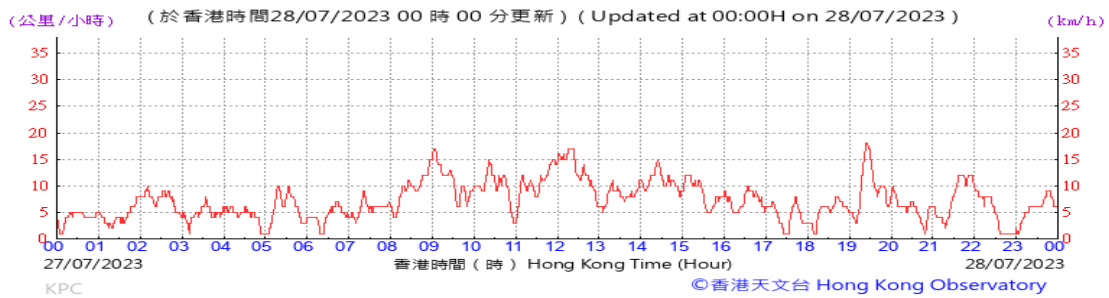
Pressure:



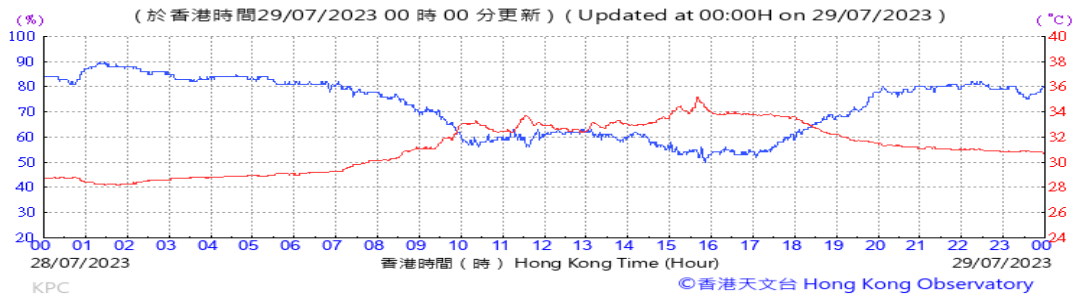
Wind Direction:



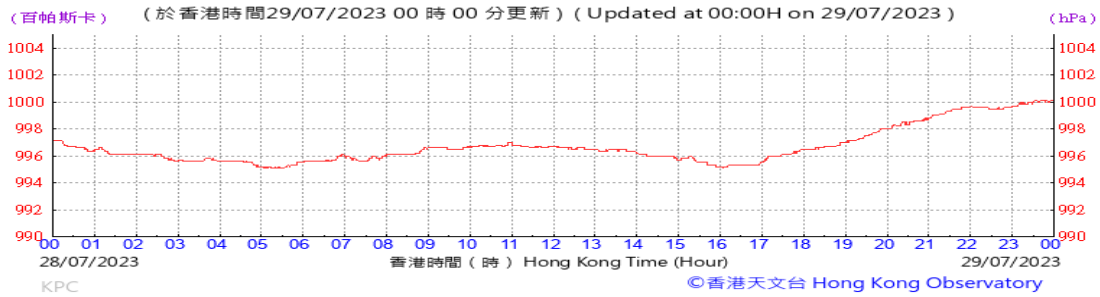
Wind Speed:



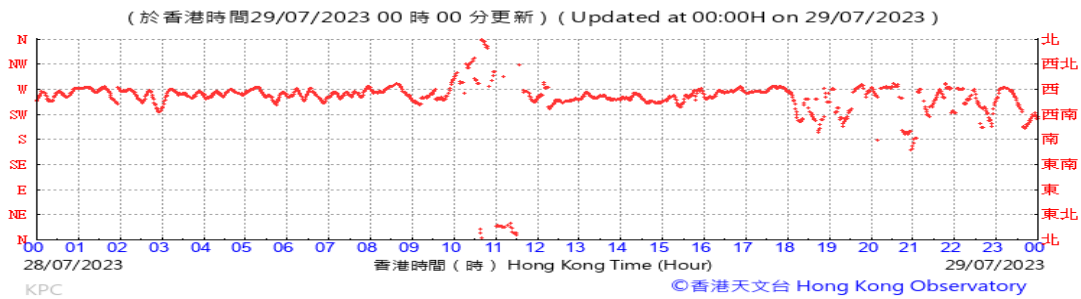
Temperature/Humidity:



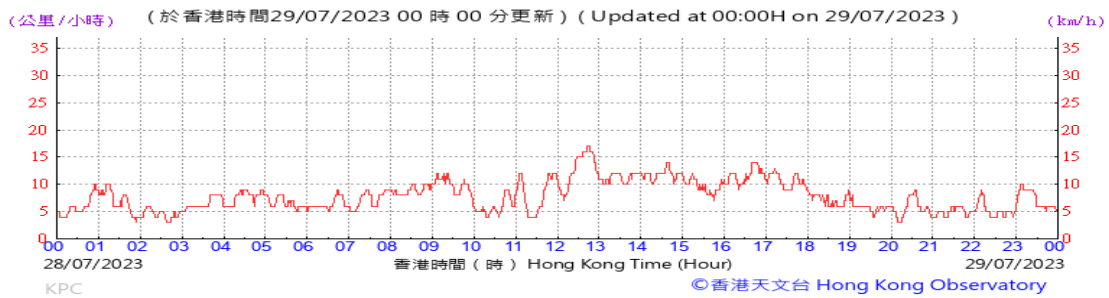
Pressure:



Wind Direction:



Wind Speed:

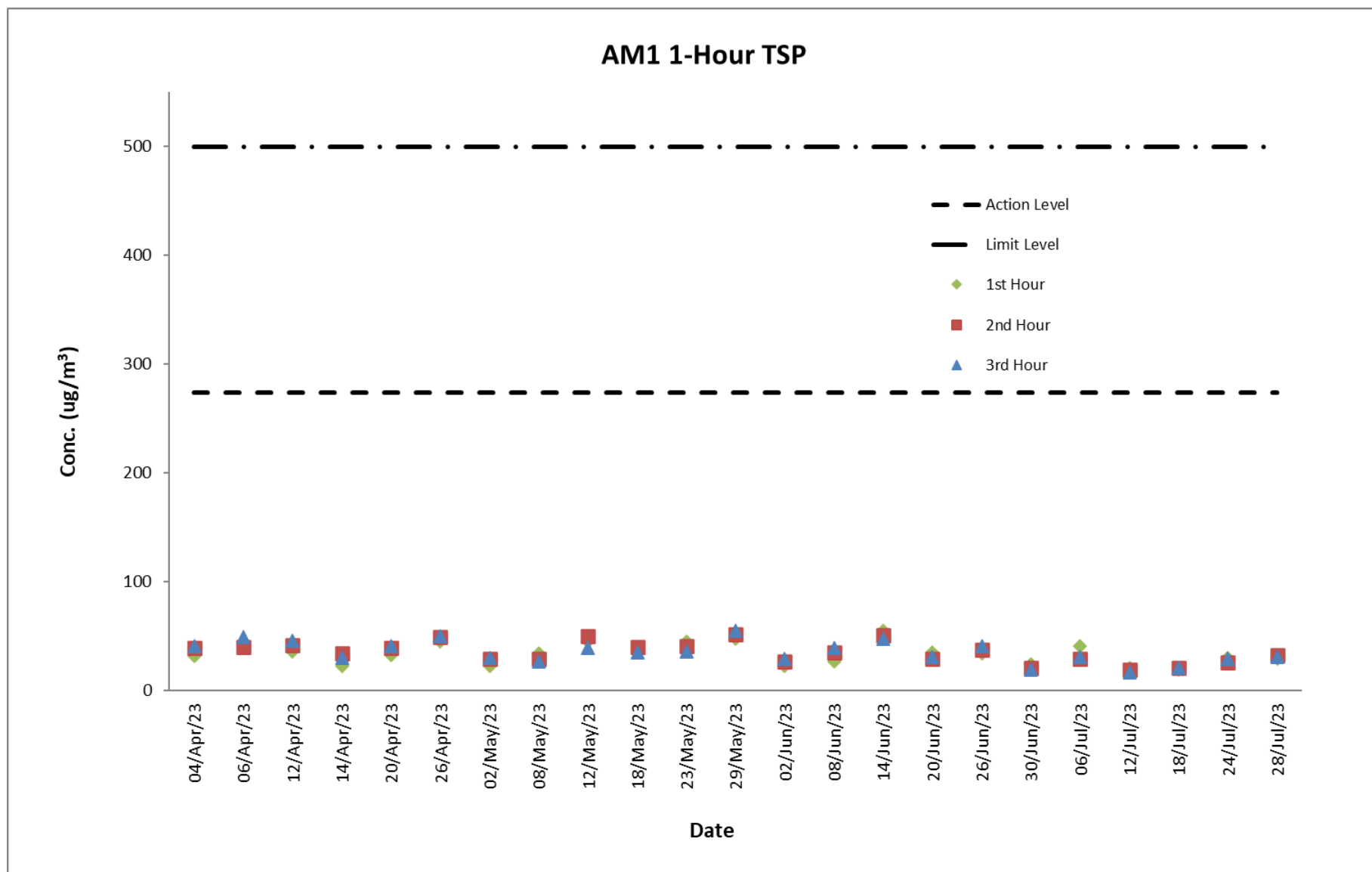


E. Graphical Plots of the Monitoring Results

Air Quality Monitoring Result at Station AM1 (1-hour TSP)

Date	Weather Condition	Time	Conc. ($\mu\text{g}/\text{m}^3$)			Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
			1 st Hour	2 nd Hour	3 rd Hour		
02-May-23	Cloudy	8:24 - 11:24	23	29	30	273.7	500
08-May-23	Cloudy	8:23 - 11:23	34	29	27	273.7	500
12-May-23	Cloudy	8:27 - 11:27	45	50	39	273.7	500
18-May-23	Cloudy	8:22 - 11:22	37	40	35	273.7	500
23-May-23	Cloudy	8:21 - 11:21	45	41	36	273.7	500
29-May-23	Sunny	8:23 - 11:23	48	52	55	273.7	500
02-Jun-23	Sunny	8:23 - 11:23	23	27	29	273.7	500
08-Jun-23	Cloudy	8:20 - 11:20	27	35	39	273.7	500
14-Jun-23	Cloudy	8:28 - 11:28	55	51	48	273.7	500
20-Jun-23	Fine	8:20 - 11:20	35	29	31	273.7	500
26-Jun-23	Cloudy	8:28 - 11:28	34	38	41	273.7	500
30-Jun-23	Fine	8:23 - 11:23	24	21	19	273.7	500
06-Jul-23	Fine	8:23 - 11:23	41	29	31	273.7	500
12-Jul-23	Sunny	8:20 - 11:20	21	19	17	273.7	500
18-Jul-23	Cloudy	8:28 - 11:28	19	21	21	273.7	500
24-Jul-23	Fine	8:23 - 11:23	30	26	29	273.7	500
28-Jul-23	Fine	8:28 - 11:28	29	33	31	273.7	500

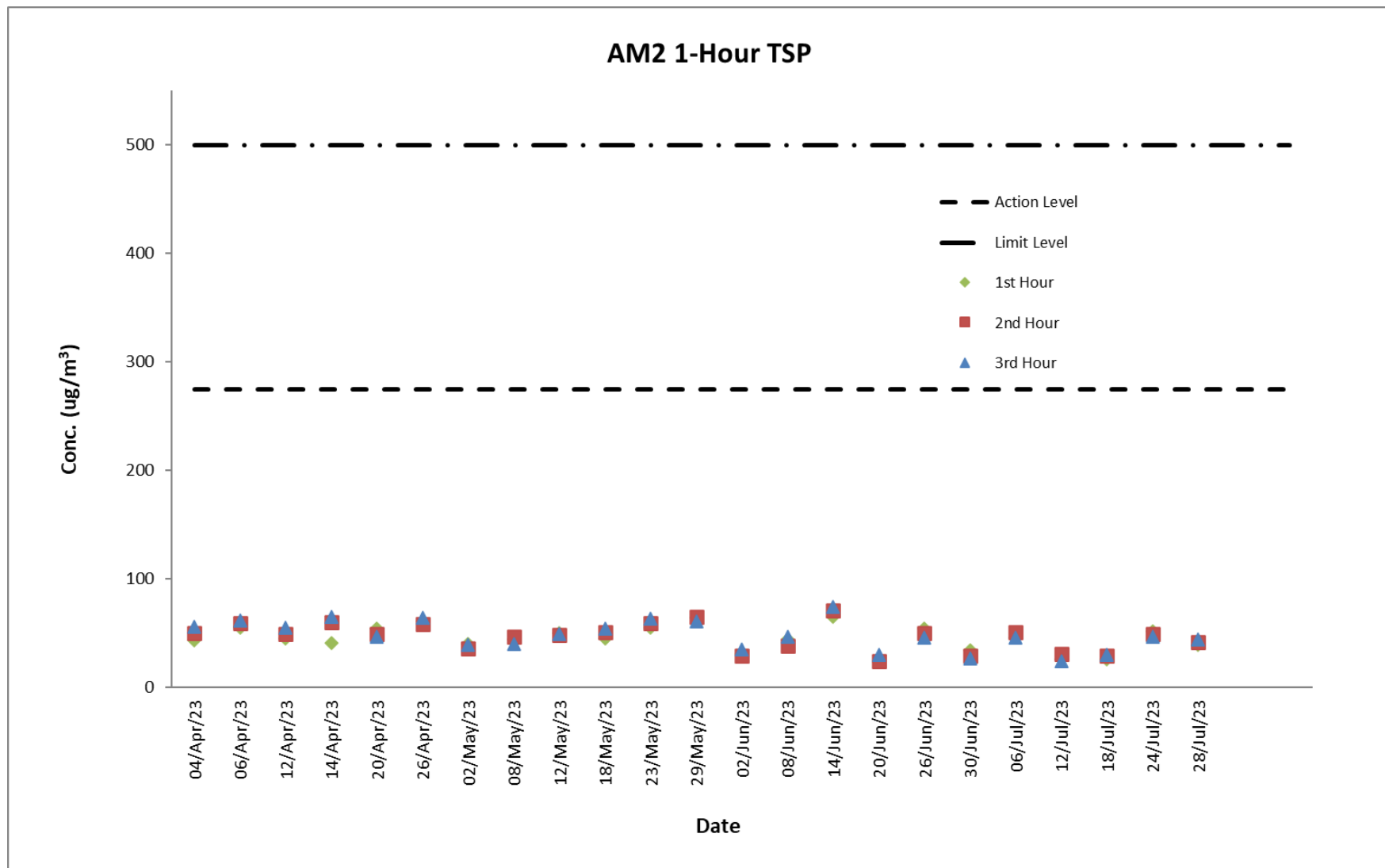
Graphical Presentation of Air Quality Monitoring Result at Station AM1 (1-hour TSP)



Air Quality Monitoring Result at Station AM2 (1-hour TSP)

Date	Weather Condition	Time	Conc. ($\mu\text{g}/\text{m}^3$)			Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
			1 st Hour	2 nd Hour	3 rd Hour		
02-May-23	Cloudy	8:38 - 11:38	40	36	39	274.2	500
08-May-23	Cloudy	8:38 - 11:38	44	47	40	274.2	500
12-May-23	Cloudy	8:43 - 11:43	50	48	49	274.2	500
18-May-23	Cloudy	8:37 - 11:37	45	51	54	274.2	500
23-May-23	Cloudy	8:35 - 11:35	55	59	63	274.2	500
29-May-23	Sunny	8:37 - 11:37	64	65	61	274.2	500
02-Jun-23	Sunny	8:36 - 11:36	31	29	35	274.2	500
08-Jun-23	Cloudy	8:36 - 11:36	44	38	47	274.2	500
14-Jun-23	Cloudy	8:43 - 11:43	65	71	74	274.2	500
20-Jun-23	Fine	8:35 - 11:35	23	24	30	274.2	500
26-Jun-23	Cloudy	8:43 - 11:43	54	50	46	274.2	500
30-Jun-23	Fine	8:38 - 11:38	34	29	27	274.2	500
06-Jul-23	Fine	8:38 - 11:38	46	51	46	274.2	500
12-Jul-23	Sunny	8:35 - 11:35	26	31	24	274.2	500
18-Jul-23	Cloudy	8:43 - 11:43	26	29	30	274.2	500
24-Jul-23	Fine	8:38 - 11:38	52	49	47	274.2	500
28-Jul-23	Fine	8:43 - 11:43	39	42	44	274.2	500

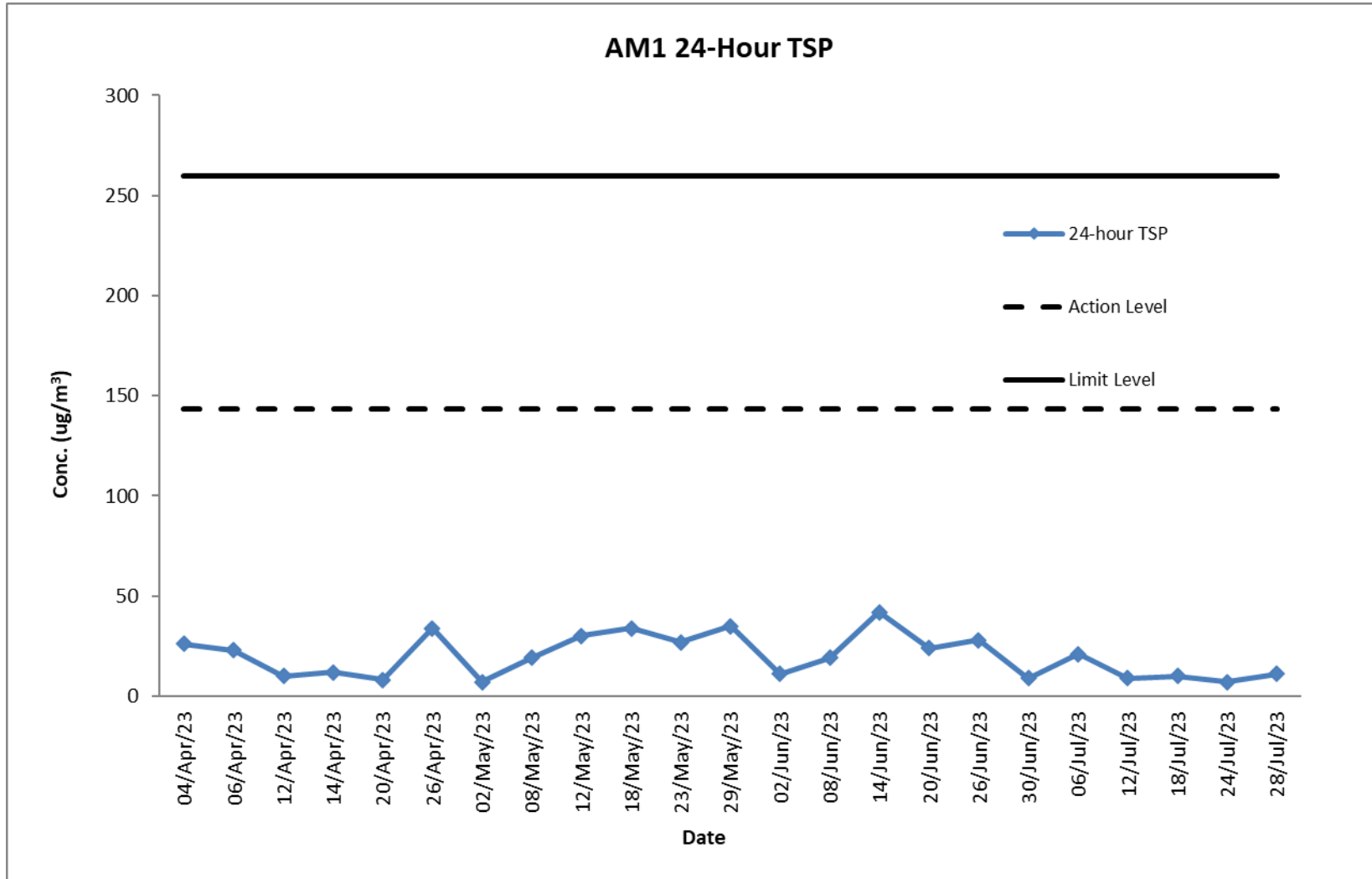
Graphical Presentation of Air Quality Monitoring Result at Station AM2 (1-hour TSP)



Air Quality Monitoring Result at Station AM1 (24-hour TSP)

Start		Finish		Filter Weight (g)		Reading		Sampling Time (hrs)	Flow Rate (m ³ /min)			Conc. (µg/m ³)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time	Initial	Final	Initial	Final		Initial	Final	Average				
02-May-23	08:21	03-May-23	08:21	2.7864	2.7991	26476.38	26500.38	24	1.2	1.2	1.2	7	Cloudy	143.6	260
08-May-23	08:20	09-May-23	08:20	2.7714	2.8036	26500.38	26524.38	24	1.2	1.2	1.2	19	Cloudy	143.6	260
12-May-23	08:25	13-May-23	08:25	2.7827	2.8338	26524.38	26548.38	24	1.19	1.19	1.19	30	Cloudy	143.6	260
18-May-23	08:20	19-May-23	08:20	2.7941	2.853	26548.38	26572.38	24	1.19	1.19	1.19	34	Cloudy	143.6	260
23-May-23	08:19	24-May-23	08:19	2.7682	2.814	26572.38	26596.38	24	1.19	1.19	1.19	27	Cloudy	143.6	260
29-May-23	08:20	30-May-23	08:20	2.7552	2.8151	26596.38	26620.38	24	1.19	1.19	1.19	35	Sunny	143.6	260
02-Jun-23	08:20	03-Jun-23	08:20	2.7779	2.7963	26620.38	26644.38	24	1.19	1.19	1.19	11	Sunny	143.6	260
08-Jun-23	08:18	09-Jun-23	08:18	2.7712	2.8030	26644.38	26668.38	24	1.19	1.19	1.19	19	Cloudy	143.6	260
14-Jun-23	08:25	15-Jun-23	08:25	2.7994	2.8721	26668.38	26692.38	24	1.19	1.19	1.19	42	Cloudy	143.6	260
20-Jun-23	08:18	21-Jun-23	08:18	2.8102	2.8514	26692.38	26716.38	24	1.19	1.19	1.19	24	Fine	143.6	260
26-Jun-23	08:25	27-Jun-23	08:25	2.8020	2.8495	26716.38	26740.38	24	1.19	1.19	1.19	28	Cloudy	143.6	260
30-Jun-23	08:20	01-Jul-23	08:20	2.8156	2.8307	26740.38	26764.38	24	1.19	1.19	1.19	9	Fine	143.6	260
06-Jul-23	08:20	07-Jul-23	08:20	2.7886	2.8246	26764.38	26788.38	24	1.19	1.19	1.19	21	Fine	143.6	260
12-Jul-23	08:18	13-Jul-23	08:18	2.8080	2.8230	26788.38	26812.38	24	1.11	1.11	1.11	9	Fine	143.6	260
18-Jul-23	08:25	19-Jul-23	08:25	2.8033	2.8200	26812.38	26836.38	24	1.11	1.11	1.11	10	Cloudy	143.6	260
24-Jul-23	08:20	25-Jul-23	08:20	2.8139	2.8255	26836.38	26860.38	24	1.11	1.11	1.11	7	Fine	143.6	260
28-Jul-23	08:25	29-Jul-23	08:25	2.7813	2.7995	26860.38	26884.38	24	1.11	1.11	1.11	11	Fine	143.6	260

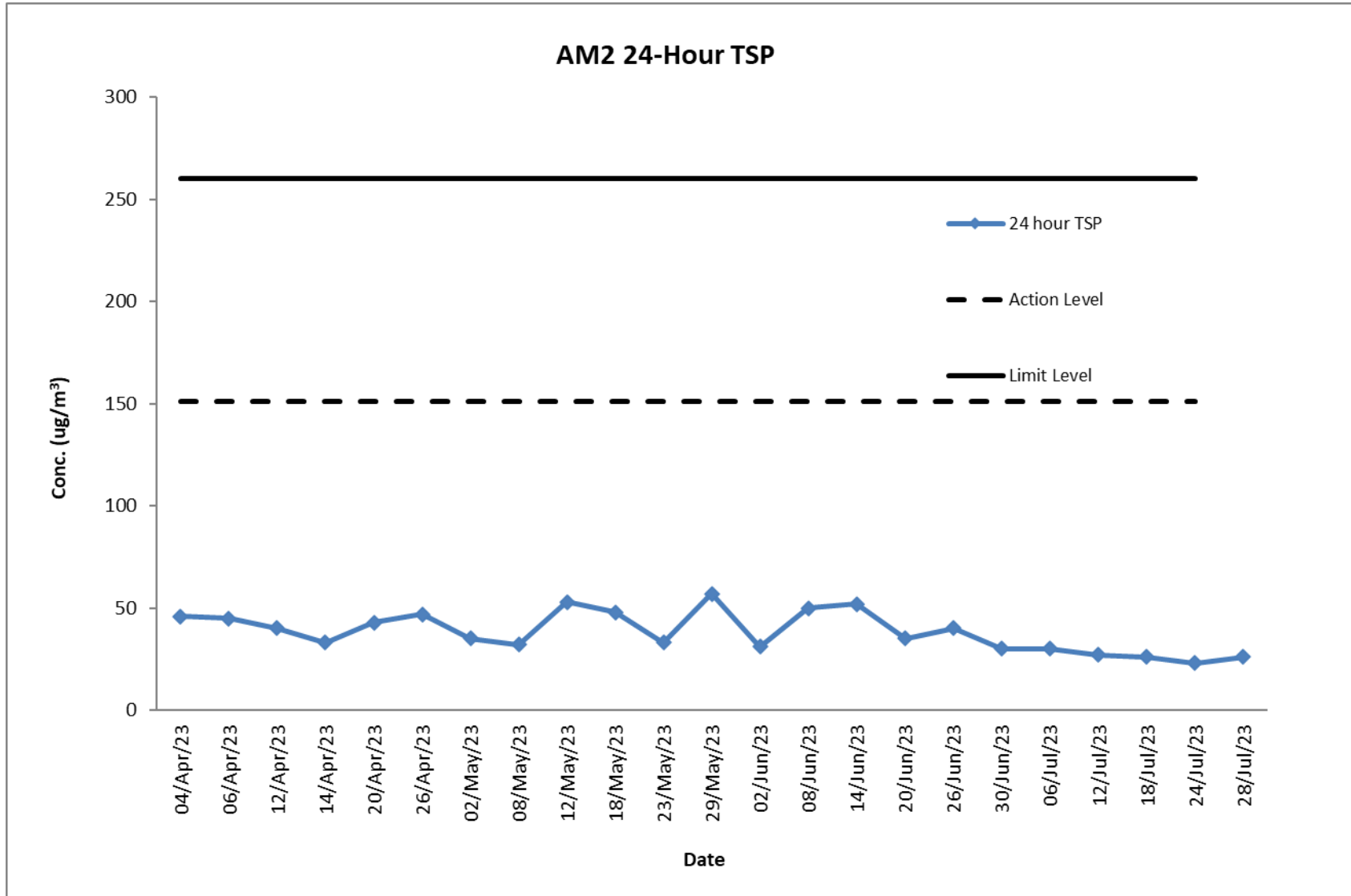
Graphical Presentation of Air Quality Monitoring Result at Station AM1 (24-hour TSP)



Air Quality Monitoring Result at Station AM2 (24-hour TSP)

Start		Finish		Sampling Time (hrs)	Conc. ($\mu\text{g}/\text{m}^3$)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time					
02-May-23	08:35	03-May-23	08:35	24	35	Cloudy	151.1	260
08-May-23	08:35	09-May-23	08:35	24	32	Cloudy	151.1	260
12-May-23	08:40	13-May-23	08:40	24	53	Cloudy	151.1	260
18-May-23	08:34	19-May-23	08:34	24	48	Cloudy	151.1	260
23-May-23	08:32	24-May-23	08:32	24	33	Cloudy	151.1	260
29-May-23	08:34	30-May-23	08:34	24	57	Sunny	151.1	260
02-Jun-23	08:34	03-Jun-23	08:34	24	31	Sunny	151.1	260
08-Jun-23	08:33	09-Jun-23	08:33	24	50	Cloudy	151.1	260
14-Jun-23	08:40	15-Jun-23	08:40	24	52	Cloudy	151.1	260
20-Jun-23	08:32	21-Jun-23	08:32	24	35	Fine	151.1	260
26-Jun-23	08:40	27-Jun-23	08:40	24	40	Cloudy	151.1	260
30-Jun-23	08:35	01-Jul-23	08:35	24	30	Fine	151.1	260
06-Jul-23	08:35	07-Jul-23	08:35	24	30	Fine	151.1	260
12-Jul-23	08:32	13-Jul-23	08:32	24	27	Sunny	151.1	260
18-Jul-23	08:40	19-Jul-23	08:40	24	26	Cloudy	151.1	260
24-Jul-23	08:35	25-Jul-23	08:35	24	23	Fine	151.1	260
28-Jul-23	08:40	29-Jul-23	08:40	24	26	Fine	151.1	260

Graphical Presentation of Air Quality Monitoring Result at Station AM2 (24-hour TSP)



Noise Monitoring Result at Station NM1A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
02-May-23	09:21	64.2	60.3	65
02-May-23	09:26	64.0	60.4	
02-May-23	09:31	65.5	61.6	
02-May-23	09:36	64.7	60.6	
02-May-23	09:41	63.5	59.9	
02-May-23	09:46	63.9	59.4	
08-May-23	09:21	65.9	61.4	66
08-May-23	09:26	64.3	60.5	
08-May-23	09:31	64.2	60.8	
08-May-23	09:36	65.7	61.6	
08-May-23	09:41	66.0	62.2	
08-May-23	09:46	64.4	60.0	
18-May-23	09:21	65.2	61.3	66
18-May-23	09:26	64.3	60.4	
18-May-23	09:31	64.5	60.6	
18-May-23	09:36	65.8	61.9	
18-May-23	09:41	65.0	61.6	
18-May-23	09:46	64.1	60.4	
23-May-23	09:17	64.2	60.3	66
23-May-23	09:22	64.8	60.4	
23-May-23	09:27	63.6	59.5	
23-May-23	09:32	65.7	61.9	
23-May-23	09:37	65.0	61.7	
23-May-23	09:42	64.1	60.0	
29-May-23	09:20	64.7	60.6	66
29-May-23	09:25	65.4	61.5	
29-May-23	09:30	65.9	61.9	
29-May-23	09:35	64.2	60.7	
29-May-23	09:40	64.0	60.2	
29-May-23	09:45	65.7	61.1	
08-Jun-23	09:20	65.7	61.6	67
08-Jun-23	09:25	66.5	62.4	
08-Jun-23	09:30	66.9	62.3	
08-Jun-23	09:35	65.2	61.9	
08-Jun-23	09:40	65.0	61.4	
08-Jun-23	09:45	66.6	62.0	
14-Jun-23	09:25	65.0	61.3	68
14-Jun-23	09:30	66.2	62.4	
14-Jun-23	09:35	67.5	63.9	
14-Jun-23	09:40	66.7	62.7	
14-Jun-23	09:45	67.0	63.1	
14-Jun-23	09:50	66.9	62.2	
20-Jun-23	09:19	65.4	61.3	67
20-Jun-23	09:24	66.2	62.6	
20-Jun-23	09:29	66.7	62.8	
20-Jun-23	09:34	65.7	61.5	
20-Jun-23	09:39	65.0	61.7	
20-Jun-23	09:44	65.9	61.0	
26-Jun-23	09:25	65.8	61.9	66
26-Jun-23	09:30	65.6	61.5	
26-Jun-23	09:35	64.4	60.6	
26-Jun-23	09:40	66.2	62.4	
26-Jun-23	09:45	65.0	61.1	
26-Jun-23	09:50	64.3	60.2	

06-Jul-23	09:21	66.8	62.9	67
06-Jul-23	09:26	65.6	61.5	
06-Jul-23	09:31	65.4	61.7	
06-Jul-23	09:36	66.2	62.2	
06-Jul-23	09:41	65.0	61.0	
06-Jul-23	09:46	66.3	62.1	
12-Jul-23	09:18	66.7	62.6	68
12-Jul-23	09:23	67.8	63.4	
12-Jul-23	09:28	66.2	62.7	
12-Jul-23	09:33	66.4	62.1	
12-Jul-23	09:38	67.6	63.0	
12-Jul-23	09:43	65.3	61.9	
18-Jul-23	09:26	65.8	61.7	66
18-Jul-23	09:31	64.6	60.4	
18-Jul-23	09:36	64.3	60.9	
18-Jul-23	09:41	65.2	61.4	
18-Jul-23	09:46	64.0	60.1	
18-Jul-23	09:51	64.7	60.0	
24-Jul-23	09:21	65.8	61.9	66
24-Jul-23	09:26	66.5	62.4	
24-Jul-23	09:31	64.3	60.7	
24-Jul-23	09:36	64.2	60.6	
24-Jul-23	09:41	65.0	61.2	
24-Jul-23	09:46	64.4	60.1	

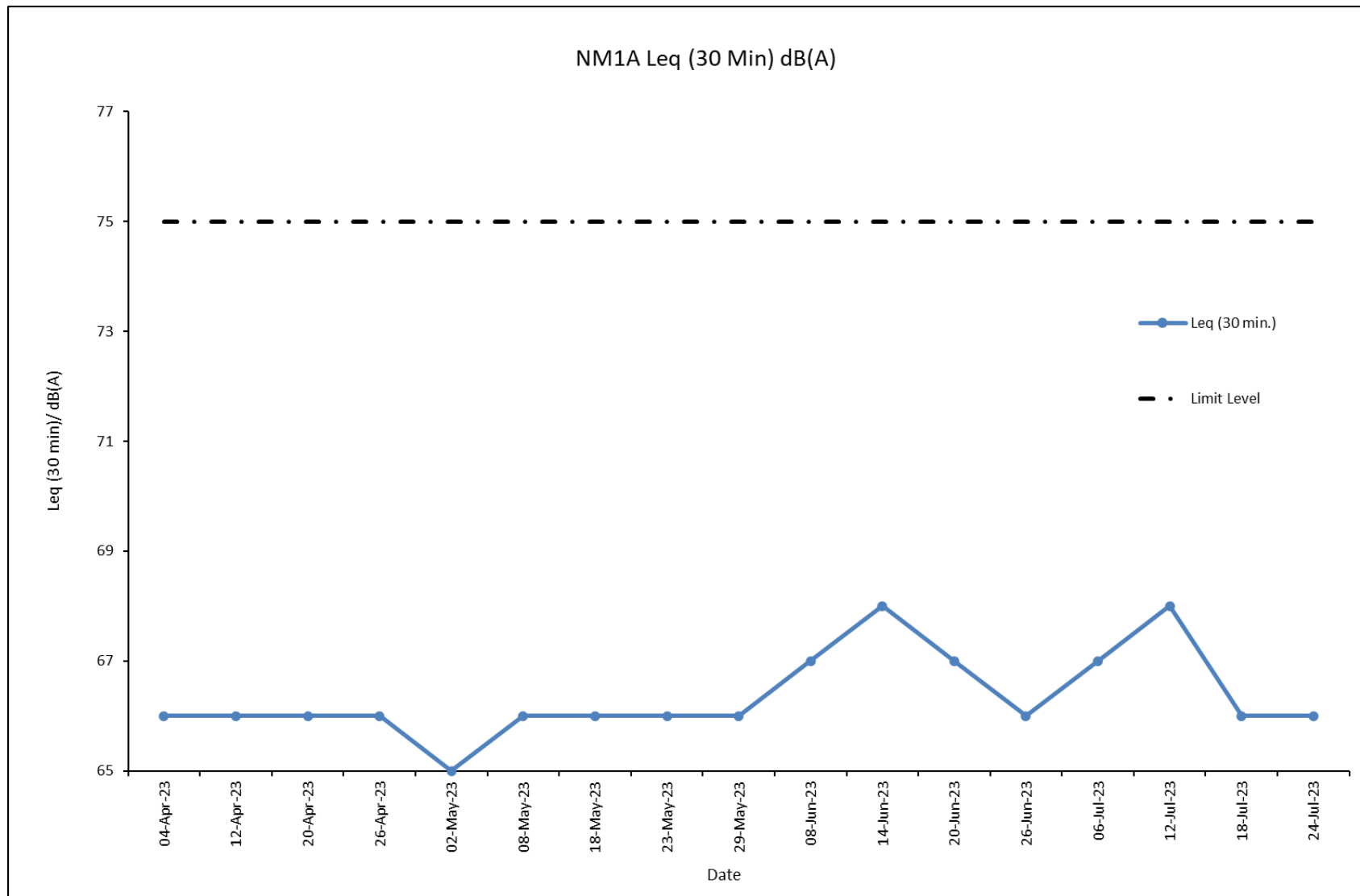
Remarks:

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



The station set-up of a free-field measurement at Station NM1A.

Graphical Presentation Noise Monitoring Result at Station NM1A



F. Waste Flow table

Table F-1: Monthly Waste Flow Table for Lyric Theatre Complex

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)
2016													
Mar	2702.1	0.0	0.0	0.0	2702.1	0.0	0.0	4.5	0.1	0.0	0.0	0.0	30.6
Apr	8631.5	0.0	0.0	0.0	8631.5	0.0	0.0	16.0	0.0	0.0	0.0	0.0	19.2
May	12487.8	0.0	0.0	0.0	12487.8	0.0	0.0	34.0	0.0	0.0	0.0	0.7	60.5
Jun	8600.8	0.0	0.0	0.0	8600.8	0.0	0.0	31.4	0.2	0.0	0.0	0.5	13.5
Jul	12624.2	0.0	0.0	0.0	12624.2	0.0	0.0	19.6	0.0	0.0	0.0	2.0	9.9
Aug	14419.9	0.0	0.0	0.0	14419.9	0.0	0.0	43.9	0.0	0.0	0.0	0.0	11.1
Sep	13671.3	0.0	0.0	0.0	13671.3	0.0	0.0	59.8	0.0	0.0	0.0	1.6	12.4
Oct	13088.9	0.0	0.0	0.0	13088.9	0.0	0.0	36.9	0.2	1.5	0.0	0.0	15.2
Nov	12424.7	0.0	0.0	0.0	12424.7	0.0	0.0	74.7	0.0	0.0	0.0	1.4	10.2
Dec	12487.6	0.0	0.0	0.0	12487.6	0.0	0.0	13.9	0.0	0.0	0.0	1.3	9.0
Sub-total (2016)	111138.8	0.0	0.0	0.0	111138.8	0.0	0.0	334.5	0.4	1.5	0.0	7.6	191.6
2017													
Jan	9607.8	0.0	0.0	0.0	9607.8	0.0	0.0	29.5	0.0	0.0	0.0	0.0	7.3
Feb	9108.2	0.0	0.0	0.0	9108.2	0.0	0.0	50.2	0.2	0.0	0.0	0.7	9.8
Mar	11361.7	0.0	0.0	0.0	11361.7	0.0	0.0	16.1	0.0	0.0	0.0	1.4	8.5
Apr	2591.5	0.0	0.0	0.0	2591.5	0.0	0.0	35.7	0.0	0.0	0.0	0.0	4.7
May	2579.3	0.0	0.0	99.0	2480.3	0.0	0.0	20.9	0.1	0.0	0.0	0.5	10.0
Jun	476.0	0.0	0.0	341.0	129.7	5.3	0.0	0.0	0.0	0.0	0.0	0.0	7.6
Jul	3419.0	0.0	0.0	804.0	2615.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.8
Aug	3730.9	0.0	0.0	1377.5	2353.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
Sep	2108.2	0.0	0.0	1133.5	974.7	0.0	0.0	34.6	0.2	0.0	0.0	0.0	10.8
Oct	9159.0	0.0	0.0	7868.0	1291.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	9.3
Nov	5095.4	0.0	0.0	4352.0	725.2	18.1	0.0	0.0	0.0	0.0	0.0	0.0	38.8
Dec	3856.2	0.0	0.0	3076.0	780.2	0.0	0.0	0.0	0.2	0.0	0.0	0.4	8.4
Sub-total (2017)	63093.1	0.0	0.0	19051.0	44018.7	23.4	0.0	187.1	0.7	0.0	0.0	3.8	137.3

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)
2018													
Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
Mar	6120.2	0.0	0.0	5782.0	338.2	0.0	0.0	0.0	0.0	1.0	0.0	0.5	17.6
Apr	14460.3	0.0	0.0	12484.1	1976.3	0.0	0.0	0.0	0.0	0.2	0.0	0.0	7.6
May	59783.7	0.0	0.0	46989.0	12794.7	0.0	0.0	59.6	0.0	0.0	0.0	0.0	9.4
Jun	53117.5	0.0	0.0	37642.8	15474.7	0.0	0.0	51.5	0.2	0.0	0.0	0.0	12.8
Jul	89901.5	0.0	0.0	85317.1	4584.4	0.0	165.1	114.6	0.0	0.0	0.0	0.0	41.3
Aug	35137.3	0.0	0.0	33731.6	1405.7	0.0	214.3	148.1	0.0	0.0	0.0	0.0	48.5
Sep	4924.3	0.0	0.0	4641.2	196.1	87.0	174.6	40.0	0.0	0.0	0.0	0.0	179.2
Oct	19099.9	0.0	0.0	11301.0	7642.8	156.1	0.0	106.3	0.4	0.0	0.0	0.0	528.5
Nov	104168.0	0.0	0.0	79811.6	24351.0	5.3	0.0	54.5	0.0	0.6	0.0	0.0	31.5
Dec	62989.9	0.0	0.0	51284.4	11699.9	5.6	0.0	95.1	0.0	0.6	0.0	0.0	65.9
Sub-total (2018)	449702.6	0.0	0.0	368984.8	80463.7	254.0	553.9	669.7	0.5	2.4	0.0	0.5	943.7
2019													
Jan	74479.1	0.0	0.0	69249.5	5229.7	0.0	318.0	326.7	0.2	0.0	0.0	0.0	76.3
Feb	21969.9	0.0	0.0	17723.9	4246.0	0.0	16.5	55.2	0.0	0.0	0.0	0.0	26.7
Mar	19311.9	0.0	0.0	8569.9	10742.0	0.0	337.8	61.5	0.0	0.0	0.0	0.0	36.3
Apr	28559.9	0.0	0.0	21280.3	7279.6	0.0	0.0	32.6	0.0	0.8	0.0	0.0	24.9
May	45418.0	0.0	0.0	11200.6	34217.4	0.0	0.0	27.4	0.2	0.5	0.0	0.0	33.7
Jun	66633.4	0.0	0.0	23874.5	42748.0	10.9	59.2	11.9	0.0	0.9	0.0	0.0	35.3
Jul	36619.6	0.0	0.0	1632.7	34960.9	26.0	64.4	120.7	0.0	0.0	0.0	0.0	57.9
Aug	2526.8	0.0	0.0	0.0	2499.0	27.8	31.9	40.2	0.0	0.8	0.0	0.0	66.3
Sep	4117.6	0.0	0.0	0.0	4088.7	28.9	95.2	19.0	0.0	0.6	0.0	0.0	127.4
Oct	6974.2	0.0	0.0	0.0	6948.1	26.1	15.9	11.4	0.2	1.0	0.0	0.6	223.6
Nov	5334.4	0.0	0.0	0.0	5304.1	30.3	0.0	8.9	0.0	0.0	0.0	0.0	151.6
Dec	6236.8	0.0	0.0	0.0	6236.8	0.0	0.0	70.6	0.0	0.0	0.0	0.0	98.9
Sub-total (2019)	318181.6	0.0	0.0	153531.3	164500.1	150.1	938.9	785.8	0.6	4.6	0.0	0.6	959.0

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)
2020													
Jan	7089.9	0.0	0.0	0.0	7089.9	0.0	0.0	10.6	0.2	0.0	0.0	0.0	65.7
Feb	16822.3	0.0	0.0	0.0	16822.3	0.0	0.0	232.2	0.1	0.0	0.0	0.0	66.3
Mar	6559.0	0.0	0.0	0.0	6559.0	0.0	110.4	63.1	0.0	0.9	0.0	0.0	138.3
Apr	4997.9	0.0	0.0	1615.7	3382.2	0.0	159.2	1123.9	1.9	0.0	0.0	0.0	113.2
May	2236.0	0.0	0.0	452.3	1783.6	0.0	0.0	406.5	0.0	0.0	0.0	0.0	188.8
Jun	1134.3	0.0	0.0	0.0	1134.3	0.0	31.5	262.6	0.2	0.6	0.0	0.0	210.6
Jul	148.8	0.0	0.0	0.0	148.8	0.0	31.5	458.5	0.5	0.0	0.0	0.0	220.0
Aug	540.7	0.0	0.0	0.0	540.7	0.0	0.0	340.8	0.0	0.0	0.0	0.0	238.3
Sep	1432.3	0.0	0.0	0.0	1432.3	0.0	0.0	750.7	0.2	0.0	0.0	0.0	291.9
Oct	1381.5	0.0	0.0	0.0	1381.5	0.0	0.0	717.9	0.2	0.0	0.0	0.0	400.2
Nov	1444.1	0.0	0.0	0.0	1437.4	6.7	475.8	473.6	0.2	0.5	0.0	0.0	377.8
Dec	793.8	0.0	0.0	0.0	793.8	0.0	0.0	478.3	0.2	0.0	0.0	0.0	435.8
Sub-total (2020)	44580.6	0.0	0.0	2068.1	42505.8	6.7	808.3	5318.7	3.7	2.0	0.0	0.0	2746.8
2021													
Jan	881.4	0.0	0.0	0.0	881.4	0.0	0.0	835.1	0.4	0.0	0.0	0.0	497.0
Feb	544.7	0.0	0.0	0.0	544.7	0.0	0.0	100.5	0.3	0.0	0.0	0.0	504.7
Mar	406.1	0.0	0.0	0.0	406.1	0.0	0.0	455.8	0.3	0.0	0.0	0.0	881.7
Apr	633.0	0.0	0.0	0.0	633.0	0.0	0.0	429.9	0.7	0.0	0.0	0.0	613.0
May	1125.8	0.0	0.0	0.0	1125.8	0.0	0.0	355.1	0.2	0.1	0.0	0.0	355.2
Jun	877.3	0.0	0.0	0.0	877.3	0.0	0.0	98.4	0.2	0.0	0.0	0.4	420.3
Jul	8.9	0.0	0.0	0.0	0.0	8.9	0.0	43.9	2.0	0.0	0.0	0.0	278.2
Aug	1296.2	0.0	0.0	0.0	1296.2	0.0	0.0	161.5	0.0	0.0	0.0	0.0	459.1
Sep	1040.5	0.0	0.0	0.0	490.9	549.6	0.0	62.9	0.0	0.0	0.0	0.0	620.8
Oct	311.0	0.0	0.0	0.0	311.0	0.0	0.0	85.9	0.3	0.0	0.0	0.0	485.6
Nov	203.9	0.0	0.0	0.0	203.9	0.0	0.0	65.9	0.0	0.0	0.0	0.0	609.6
Dec	576.6	0.0	0.0	0.0	576.6	0.0	0.0	13.4	0.0	0.0	0.0	0.0	590.6
Sub-total (2021)	7905.3	0.0	0.0	0.0	7346.9	558.5	0.0	2708.2	4.4	0.1	0.0	0.4	6315.9

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)	(in ton)
2022													
Jan	579.3	0.0	0.0	0.0	579.3	0.0	0.0	23.5	0.4	0.0	0.0	0.0	565.5
Feb	58.9	0.0	0.0	0.0	58.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	172.2
Mar	412.8	0.0	0.0	0.0	412.8	0.0	0.0	12.4	0.3	0.0	0.0	0.0	339.8
Apr	390.2	0.0	0.0	0.0	390.2	0.0	0.0	24.8	0.0	0.0	0.0	0.0	390.9
May	350.1	0.0	0.0	0.0	342.9	7.2	0.0	44.3	0.3	0.1	0.0	0.0	401.9
Jun	200.4	0.0	0.0	0.0	200.4	0.0	0.0	21.1	0.0	0.0	0.0	1.1	447.8
Jul	166.8	0.0	0.0	0.0	166.8	0.0	0.0	6.3	0.3	0.0	0.0	0.7	343.9
Aug	150.9	0.0	0.0	0.0	150.9	0.0	0.0	9.6	0.4	0.2	0.0	0.0	410.6
Sep	437.6	0.0	0.0	0.0	437.6	0.0	0.0	11.5	0.3	0.0	0.0	0.0	348.3
Oct	708.0	0.0	0.0	0.0	708.0	0.0	0.0	13.8	0.0	0.0	0.0	0.0	353.0
Nov	244.1	0.0	0.0	0.0	244.1	0.0	0.0	47.3	0.3	0.0	0.0	0.0	427.4
Dec	337.4	0.0	0.0	0.0	337.4	0.0	0.0	28.1	0.0	0.0	0.0	0.0	385.3
Sub-total (2022)	4036.4	0.0	0.0	0.0	4029.3	7.2	0.0	242.7	2.3	0.3	0.0	1.8	4586.6
2023													
Jan	307.0	0.0	0.0	0.0	307.0	0.0	0.0	44.5	0.0	0.0	0.0	0.0	415.1
Feb	1087.8	0.0	0.0	0.0	1087.8	0.0	0.0	22.9	0.4	0.0	0.0	0.0	411.4
Mar	1944.0	0.0	0.0	0.0	1944.0	0.0	0.0	26.2	0.0	0.0	0.0	0.0	469.6
Apr	819.5	0.0	0.0	0.0	819.5	0.0	0.0	213.6	0.0	0.0	0.0	0.0	320.5
May	842.1	0.0	0.0	0.0	842.1	0.0	0.0	35.6	0.3	0.0	0.0	0.0	439.4
Jun	952.1	0.0	0.0	0.0	952.1	0.0	0.0	22.9	0.2	0.0	0.0	0.0	399.3
Jul	583.1	0.0	0.0	0.0	583.1	0.0	0.0	38.3	0.0	0.0	0.0	0.0	421.6
Sub-total (2023)	6535.6	0.0	0.0	0.0	6535.6	0.0	0.0	404.0	0.9	0.0	0.0	0.0	2876.9
Total	1005173.9	0.0	0.0	543635.2	460538.7	999.9	2301.1	10650.5	13.4	10.8	0.0	14.7	18757.7

Note:

(1) 1462.68, 899.19 and 0 tonnes of inert C&D material were disposed of as public fill to Tseung Kwan O Area 137, Tuen Mun Area 38, and Chai Wan Public Fill Barging Point respectively in the reporting quarter.

(2) The values in the table are rounded off to 1 decimal place.

G. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Cumulative statistics for complaints, notifications of summons and successful prosecutions for the Project account for period starting from the date of commencement of construction works to the end of the reporting quarter are summarized in **Table G-1** below.

Table G-1: Statistics for complaints, notifications of summons and successful prosecutions for Lyric Theatre Complex

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of summons	Successful prosecutions
This reporting quarter (May 23 – Jul 23)	1	0	0
From 1 March 2016 to end of the reporting quarter	59	0	0

END OF PART-1

Part-2: EM&A for Foundation Works in Zone 2B & 2C

Foundation Works in Zone 2B & 2C

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The information supplied and contained within this report is, to the best of our knowledge, correct at time of printing

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Executive summary

This Quarterly EM&A Report presents the monitoring works conducted at Zone 2B & 2C from 1 May 2023 to 31 July 2023. The construction work for Zone 2A (Contract No.: GW/2020/05/073) was completed and handover to WKCDA on 31 March 2023. No construction work and only maintenance work is carried out by Zone 2B & 2C Contractor at Zone 2A.

The impact stage EM&A programme for the Project includes air quality, noise, water quality, waste, landscape and visual monitoring. The recommended environmental mitigation measures were implemented on site and regular inspections were carried out to ensure that the environmental conditions are acceptable.

The EM&A programme was carried out by the ET in accordance with the EM&A Manual requirements. It is concluded from the environmental monitoring and audit works that adequate environmental mitigation measures have been implemented by the contractors where appropriate in the reporting quarter.

Exceedance of Action and Limit Levels

There was no breach of Action or Limit Levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in this reporting quarter.

Implementation of Mitigation Measures

Construction phase weekly site inspections were carried out to confirm the implementation measures undertaken by the Contractors in the reporting quarter. The status of implementation of mitigation measures during the reporting quarter is shown in **Appendix C**.

Landscape and visual impact inspections were conducted as part of the above-mentioned weekly site inspections during the reporting quarter. No adverse comment on landscape and visual aspects were made during these inspections.

Record of Complaints

One environmental complaint was received during the reporting quarter.

Record of Notifications of Summons and Successful Prosecutions

No notifications of summons and successful prosecutions were recorded in the reporting quarter.

1 Introduction

1.1 Background

Apex Testing & Certification Limited (Apex) was commissioned to undertake the Environmental Team (ET) services (including environmental monitoring and audit (EM&A)) for the construction activities in Zone 2A, consisting of Foundation, Excavation and Lateral Support Works for Integrated Basement and Underground Road (Contract No.: GW/2020/05/073) ; and Zone 2B & 2C consisting of Piling Works for Integrated Basement and Underground Road (Contract No.: CC/2020/2B/088) at WKCD. The major construction works and EM&A programme for Zone 2A and Zone 2B & 2C commenced on 3 October 2020 and 30 September 2021 respectively. The major construction work for Zone 2A (Contract No.: GW/2020/05/073) was completed and handover to WKCD on 31 March 2023. No construction work and only maintenance work is carried out by Zone 2B & 2C Contractor at Zone 2A.

The overall works for the WKCD fall under two separate categories of Designated Project (DP) of the Environmental Impact Assessment Ordinance (EIAO), namely an “engineering feasibility study of urban development projects with a study area covering more than 20 ha or involving a total population of more than 100 000” (Item 1 of Schedule 3) and “an underpass more than 100m in length under the built areas” (Item A.9, Part I, Schedule 2). An Environmental Permit No. EP-453/2013/B (EP) was issued with respect to the “Underpass Road and Austin Road Flyover Serving the West Kowloon Cultural District” which specifically includes the abovementioned category of DP under Item A.9, Part I, Schedule 2 of the EIAO. The captioned projects include part of the abovementioned underpass road located within the site boundary falls under this same category.

The purpose of the development in Zone 2A and Zone 2B & 2C is to reserve for Integrated Basement (IB) and Underground Road (UR). The Zone 2A construction activities involve the foundation, excavation and lateral support (ELS) works, road works, drainage diversion works, and temporary car parking. The Zone 2B & 2C construction activities involve the piling works.

The Quarterly EM&A Report is prepared in accordance with the Clause 3.4 of the Environmental Permit No. EP-453/2013/B. This Quarterly EM&A Report presents the monitoring works at Zone 2B & 2C from 1 May 2023 to 31 July 2023. The purpose of this report is to summarise the findings in the EM&A of the project over the reporting period.

1.2 Project Organisation

The organisation chart and lines of communication with respect to the on-site environmental management structure together with the contact information of the key personnel are shown in **Appendix A**.

1.3 Environmental Status in the Reporting Period

During the reporting period, construction works at Zone 2B & 2C undertaken include:

KD05 (Section 1), KD06 (Section 2), KD07 (Section 3), KD08 (Section 4), KD09 (Section 5)

- Bored Pile Works
 - RCD Drilling, Airlifting, Cage Installation & Concreting and Excavation

The Construction Works Programme of the Project is provided in **Appendix B**. A layout plan of the Project is provided in **Figure 1**.

2 Summary of EM&A Requirements and Mitigation Measures

2.1 Monitoring Requirements

In accordance with the EM&A Manual, environmental parameters including air quality, noise, landscape and visual have been monitored. The specific parameters, monitoring frequency and the respective Action and Limit Levels are given in **Table 2.1**. Locations of the monitoring stations are provided in **Figure 1**.

Table 2.1: Summary of Impact EM&A Requirements

Parameters	Descriptions	Locations	Frequencies	Action Level	Limit Level
Air Quality	24-Hour TSP	AM3 - The Victoria Towers Tower 1	At least once every 6 days	152.4 µg/m ³	260 µg/m ³
	1-Hour TSP	AM3 - The Victoria Towers Tower 1	At least 3 times every 6 days	280.4 µg/m ³	500 µg/m ³
	24-Hour TSP	AM4 - Canton Road Government Primary School	At least once every 6 days	152.6 µg/m ³	260 µg/m ³
	1-Hour TSP	AM4 - Canton Road Government Primary School	At least 3 times every 6 days	278.5 µg/m ³	500 µg/m ³
	24-Hour TSP	AM5 - Topside Developments at West Kowloon Terminus Site	At least once every 6 days	141.1 µg/m ³	260 µg/m ³
	1-Hour TSP	AM5 - Topside Developments at West Kowloon Terminus Site	At least 3 times every 6 days	275.4 µg/m ³	500 µg/m ³
Noise	Leq, 30 minutes	NM2 - The Arch, Sun Tower	Weekly	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)
	Leq, 30 minutes	NM3 - The Victoria Towers Tower 1	Weekly	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)
	Leq, 30 minutes	NM4 - Canton Road Government Primary School	Weekly	When one documented complaint is received from any one of the sensitive receivers	70/65 dB(A) [^]
	Leq, 30 minutes	NM5 -Development next to Austin Station	Weekly	When one documented complaint is received from any one of the sensitive receivers	75 dB(A)
Landscape & Visual	Monitor implementation of proposed mitigation measures during the construction stage	As described in Table 9.1 and 9.2 of the EM&A Manual	Bi-weekly	N/A	N/A

Note:

[^]70 dB(A) for schools and 65 dB(A) during school examination periods.

The EM&A programme for the Project require 5 air monitoring stations and 5 noise quality monitoring stations located closest to the Project area. With regard to the monitoring activities at M+ Museum and the Lyric Complex, three monitoring stations had been considered, including AM1, AM2 for air monitoring, and NM1 for noise monitoring. In the context of the construction activities in Zone 2A and Zone 2B & 2C, all other monitoring locations including AM3, AM4, and AM5 for air monitoring; and NM2, NM3, NM4 and NM5 for noise monitoring, have been taken into account. However, access to all these originally designated monitoring stations was declined. Therefore, alternative monitoring stations was identified and proposed.

With regard to air monitoring, alternative monitoring locations (AM3A, AM4A, and AM5A) were identified at ground floor at the Northeast corner of West Kowloon Station's station box, at ground floor at the Southeast corner of West Kowloon Station's station box, and at ground floor at the North of West Kowloon Station's station box respectively. AM3A, AM4A, and AM5A were set in same direction to the area of major construction site activities in Zone 2A. These alternative air monitoring locations (AM3A, AM4A, and AM5A) were approved by EPD on 29 September 2020.

For noise monitoring, alternative noise monitoring location (NM2A) was identified at the ground floor in front of The Arch - Sun Tower, which is at the same location as stated in the EM&A Manual for consistency. This alternative noise monitoring location was approved by EPD on 29 September 2020. Other alternative noise monitoring locations (NM3A, NM4A, and NM5A) were identified at the ground floor in front of the Xiqu Centre, at the ground floor next to Tsim Sha Tsui Fire Station, and at the Pedestrian road (ground floor) outside West Kowloon Station respectively. NM3A, NM4A and NM5A were set closer to the construction site boundary with more direct line sight to the major site activities and higher exposure to the construction noise with no disturbance to the premises' occupants during noise monitoring activities. These alternative noise monitoring locations (NM3A, NM4A, and NM5A) were approved by EPD on 29 September 2020.

Therefore, 3 air quality monitoring stations and 4 noise impact monitoring station were confirmed for the impact monitoring for construction activities in Zone 2A and Zone 2B & 2C.

2.2 Environmental Mitigation Measures

Environmental mitigation measures have been recommended in the EM&A Manual. Summary of implementation status of the environmental mitigation measures is provided in **Appendix C**.

3 Summary of EM&A Results

3.1 Monitoring Data

In accordance with the EM&A Manual, impact monitoring has been conducted in the reporting quarter. Meteorological data for the reporting quarter have been extracted from Hong Kong Observatory and presented in **Appendix D**. Monitoring data with graphical presentation for the reporting quarter are shown in **Appendix E**. A summary on the monitoring results are presented in **Table 3.1**.

Table 3.1: Summary of Monitoring Data

Parameter	Monitoring Location	Minimum	Maximum	Average
Air Quality				
1 hour TSP	AM3A	31	69	45
1 hour TSP	AM4A	34	67	45
1 hour TSP	AM5A	31	69	45
24 hour TSP	AM3A	36	67	44
24 hour TSP	AM4A	35	62	44
24 hour TSP	AM5A	31	65	44
Construction Noise				
Leq(30min)	NM2A	62	62	62
Leq(30min)	NM3A	60	62	61
Leq(30min)	NM4A	58	61	60
Leq(30min)	NM5A	63	65	64

3.2 Monitoring Exceedances

Summary of the exceedances in the reporting quarter is tabulated in **Table 3.2**.

Table 3.2: Summary of Exceedances

Monitoring Station	Parameter	No. of Exceedance		Action Taken
		Action Level	Limit Level	
Air Quality				
AM3A	1 hour TSP	0	0	N/A
	24 hour TSP	0	0	N/A
AM4A	1 hour TSP	0	0	N/A
	24 hour TSP	0	0	N/A
AM5A	1 hour TSP	0	0	N/A
	24 hour TSP	0	0	N/A
Construction Noise				
NM2A	Leq(30min)	0	0	N/A
NM3A	Leq(30min)	0	0	N/A
NM4A	Leq(30min)	0	0	N/A
NM5A	Leq(30min)	0	0	N/A

3.2.1 1-hour TSP Monitoring

All 1-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/ Limit Level exceedance of 1-hour TSP for Air Quality was recorded.

3.2.2 24-hour TSP Monitoring

All 24-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/ Limit Level exceedance of 24-hour TSP for Air Quality was recorded.

3.2.3 Construction Noise Monitoring

All construction noise monitoring was conducted as scheduled in the reporting quarter. No Action/ Limit Level exceedance of Noise was recorded in the reporting quarter.

3.2.4 Landscape and Visual Monitoring

All landscape and visual impact inspections were conducted as scheduled in the reporting quarter. No adverse comment on landscape and visual aspects were recorded.

4 Waste Management

4.1 Zone 2B & 2C

As advised by the Zone 2B & 2C Contractor, 43796.49 tonnes and 21882.62 tonnes of inert C&D material were disposed of as public fill to Tseung Kwan O Area 137 and Tuen Mun Area 38 respectively in the reporting quarter, while 127.96 tonnes of general refuse were disposed of at SENT landfill. 147.99 tonnes of metals, 0.0 tonne of paper/cardboard packaging, 0.0 tonne of plastics and 0.0 tonne of timber was collected by recycling contractors in the reporting quarter. 9896.44 tonnes of inert C&D material were reused on site. 0.0 tonne of inert C&D material was imported for reuse at site and 1852.10 tonnes of inert C&D material were reused in other projects. 0.0 tonne of inert C&D material was disposed to sorting facility and 1.60 tonnes of chemical waste was collected by licensed contractors in the reporting quarter.

The actual amounts of different types of waste generated by the activities of construction works at Zone 2B & 2C in the reporting quarter are shown in **Appendix F**.

5 Environmental Non-conformance

There was no breach of Action or Limit Levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in the reporting quarter.

One complaint in May 2023 was received in the reporting quarter. No notifications of summons and successful prosecutions were received in the reporting quarter.

The EPD has received a recent water pollution complaint lodged by a member of public against construction site of WKCD, and referred to the WKCDA on 29 May 2023. The original context of the complaint is quoted below: “凱旋門居民表投訴近柯士甸道西西九龍文化區的地盤，每日將清洗地盤的黃泥水流入公眾馬路，又揚起沙石，情況已持續多個月，他曾向路政署投訴，但沒有改善。他表示地盤與凱旋門進出停車場的路段相近，車輛經過時，受到地盤排放的黃泥水及沙石滋擾，現時污染問題越來越嚴重。” (Resident from The Arch claimed that the Austin Road West WKCD construction site usually bring muddy water and stone granules to the public road while cleaning the construction site. The situation has been last for serval months. The complainant also claimed that the construction site is close to the entrance of The Arch car park. The discharged muddy water and stone granules have caused nuisance to the car when passing through the concerned road section. The pollution problem is getting worse.) The complainant has also provided a video clip demonstrating the concerned area. Subsequent to the aforementioned complaint case on 29 May 2023, the EPD has received a supplementary video clip captured by the complainant on 03 June 2023 at around 1:12 am and referred to the WKCDA on 07 June 2023. The complainant complained a suspected worker of the construction site who was using high pressure water jet to clean the entrance gate of the construction site, which bringing concerned cleaning water and stone granules to the road surface. Investigation at Zone 2B & 2C site revealed that the complaint might be attributable to the Zone 2B & 2C site. However, prompt actions have been taken by Contractor to enhance the preventive and mitigation measures. In addition, dust monitoring is regularly conducted at the site boundary with no exceedance to safeguard the air quality. Nonetheless, the Contractor is recommended to maintain good practice on site, and strengthen the implementation of road cleaning measures to reduce impacts to the nearby residents.

The cumulative statistics on complaints, notifications of summons and successful prosecutions were provided in **Appendix G**.

6 Comments, Recommendations and Conclusion

6.1 Comments

Based on the observations made during site audits and landscape inspections, and construction dust and noise monitoring results, no non-compliances and exceedances of air quality and construction noise were recorded in the reporting quarter.

6.2 Recommendations

Reviewing the implementation of the recommended mitigation measures in the EM&A Manual, it was observed that they were effective and efficient in controlling the potential impacts due to construction of the project during the reporting period. Review of the effectiveness and efficiency of the EM&A programme will continue, and recommendations will be provided to remediate any potential impacts due to the project and to improve the EM&A programme if deficiencies of the existing EM&A programme are identified.

6.3 Conclusion

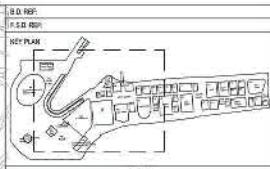
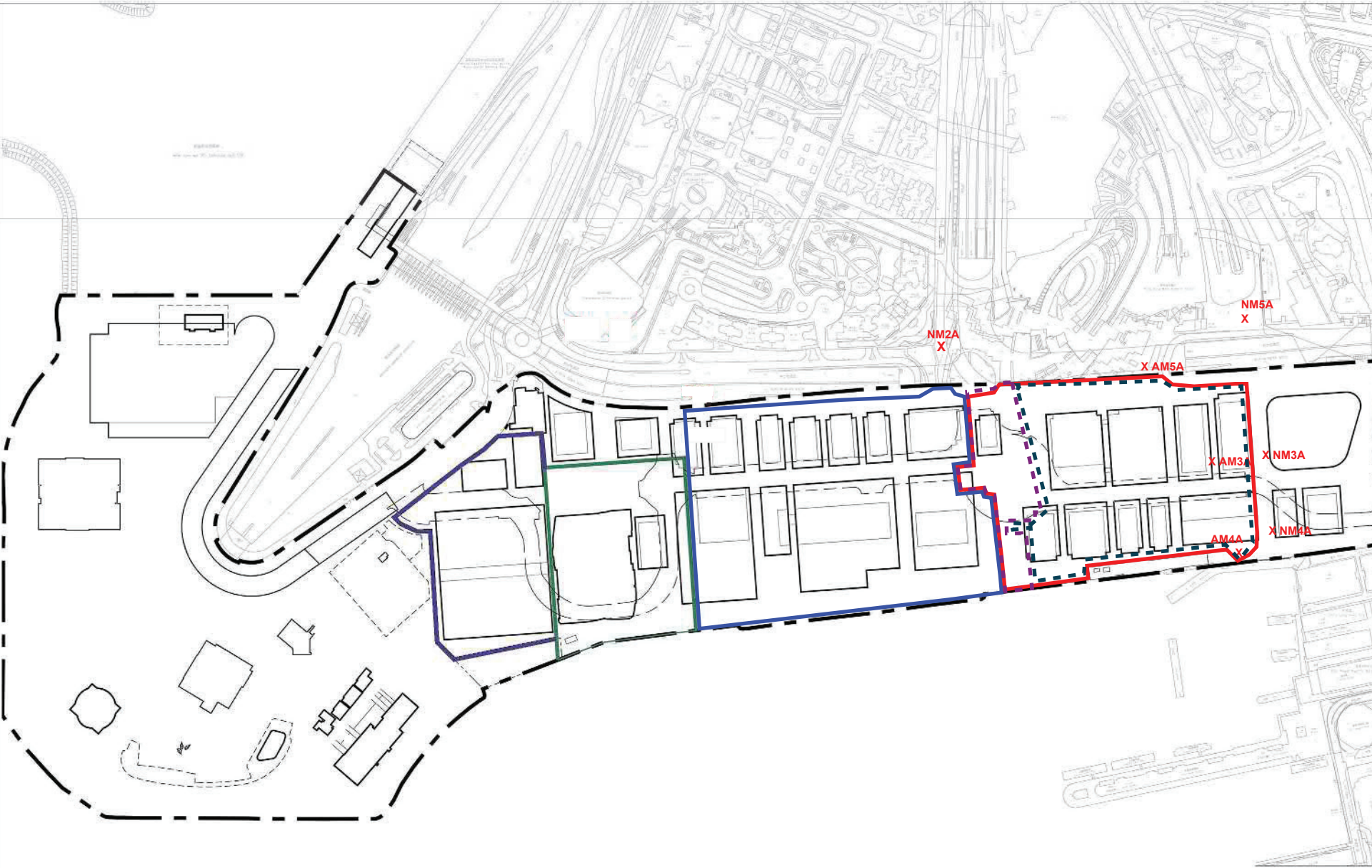
The EM&A programme as recommended in the EM&A Manual has been undertaken since the construction works of Zone 2A and Zone 2B & 2C commenced on 3 October 2020 and 30 September 2021 respectively. The construction work for Zone 2A (Contract No.: GW/2020/05/073) was completed and handover to WKCD on 31 March 2023. No construction work and only maintenance work is carried out by Zone 2B & 2C Contractor at Zone 2A.

Monitoring of air quality and noise with respect to the Project is underway. In particular, the 1-hour TSP, 24-hour TSP and noise level (as Leq, 30 minutes) under monitoring have been checked against established Action and Limit Levels. There was no breach of Action or Limit Levels for Air Quality (1-hour TSP and 24-hour TSP) and Noise in this reporting quarter.

One complaint was received in the reporting quarter. No notifications of summons and successful prosecutions were received during the reporting quarter.

Weekly construction phase site inspections and bi-weekly landscape and visual impact inspections were conducted during the reporting quarter as required. It was observed that the Contractor had implemented all possible and feasible mitigation measures to mitigate the potential environmental impacts during construction phase works.

Figure 1 Site Layout Plan and Monitoring Stations



- NOTES
- WKCD BOUNDARY
 - M+ MUSEUM BOUNDARY
 - LYRIC THEATRE BOUNDARY
 - BOUNDARY OF UNDERPASS ROAD SERVING THE PLANNED WKCD
 - X CONSTRUCTION AIR/NOISE MONITORING STATION

REMARKS:
THE AIR MONITORING STATION AM2A HAS BEEN RELOCATED TO THE ALTERNATIVE MONITORING STATION AM2B AT 1ST FLOOR OF GAMMON'S SITE OFFICE ON 26 FEBRUARY 2019.

- Zone 2A Boundary
- Zone 2B & 2C Boundary
- - - Under Management by Zone 2B & 2C Contractor Starting from 20 Dec 2022
- - - No Construction Work and Only Maintenance Work is Carried Out by Zone 2B & 2C Contractor Starting from 01 April 2023

REV	DATE	DESCRIPTION	INITIAL

JOB TITLE: **DEVELOPMENT AT WEST KOWLOON CULTURAL DISTRICT**

DRAWING TITLE: **SITE LAYOUT PLAN AND MONITORING STATIONS**

SCALE:	1:50	PRINTED:	A1
CHECKED:	DATE:	APPROVED:	DATE:
DRAWN:	TY:	DATE:	15-10-2015

CONTRACT NO.: -

DRAWING NO.:	FIGURE 1	REV.:	XX
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CAD REF NAME: XXXX\AUT\PLN\DWG PROJ\000\000\000.dwg

AUTHORITY:

A1 (81mm x 594mm) Sheet Size

Appendices

- A. Project Organisation
- B. Construction Programme
- C. Environmental Mitigation Measures – Implementation Status
- D. Meteorological Data Extracted from Hong Kong Observatory
- E. Graphical Plots of the Monitoring Results
- F. Waste Flow table
- G. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

A. Project Organisation

Project Organization

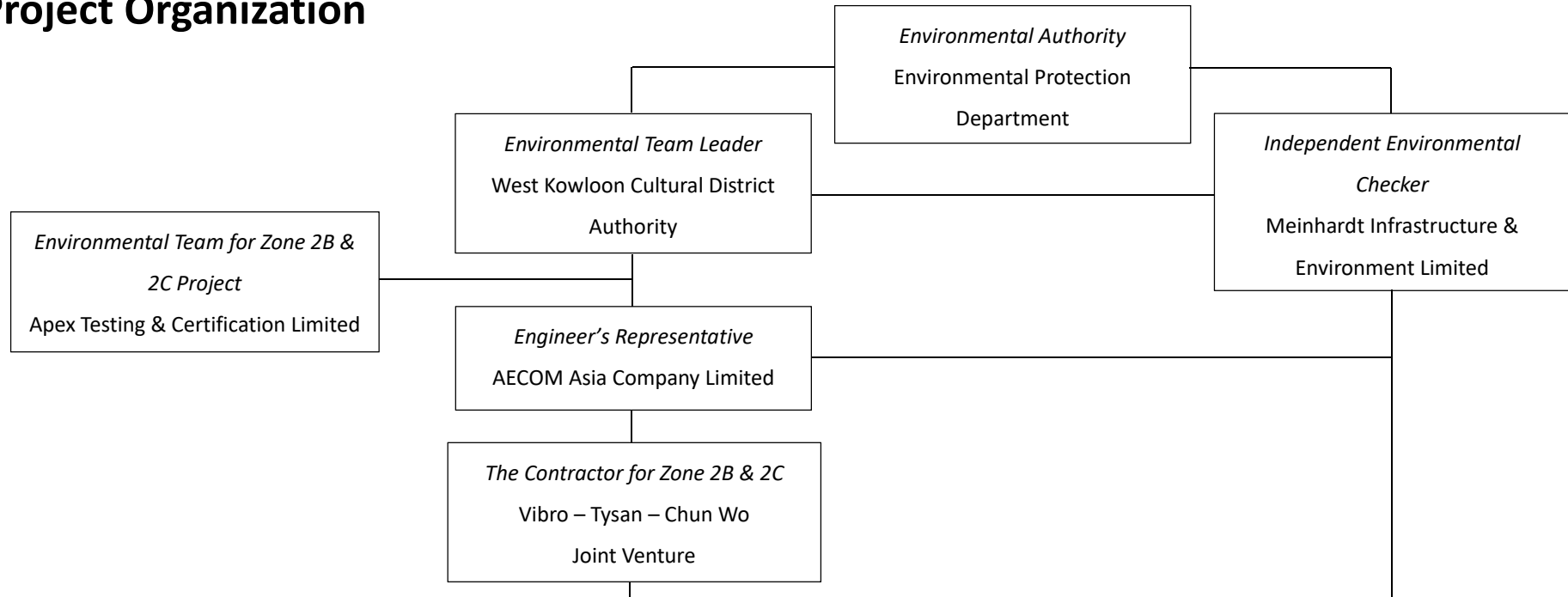


Table A-1: Contract Information

Company Name	Role	Name	Telephone	Email
West Kowloon Cultural District Authority	WKCDA Representative & Project ETL	Mr. C.K. WU	5506 9178	ck.wu@wkcd.a.hk
Meinhardt Infrastructure & Environment Limited	Independent Environmental Checker	Ms. Claudine LEE	2859 5409	caludinelee@meinhardt.com.hk
AECOM Asia Company Limited	Resident Engineer (Zone 2B & 2C)	Ms. Carmen CHAN	6892 9271	carmen.chan@aecom.com
Vibro – Tysan – Chun Wo Joint Venture	Environmental Sustainability Manager	Mr. Tony YAM	2137 5586	tony_yam@vibro.com.hk
Apex Testing & Certification Limited	Contractor's Environmental Team Leader	Mr. Calvin LUI	9629 9718	calvinlui@apextestcert.com

B. Construction Programme

Zone 2B & 2C

Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float	May 23				June 24				July 25				August 26				
								29	06	13	20	27	03	10	17	24	01	08	15	22	29	05	12	19

Piling for Integrated Basement and U/G Road In Zone 2B & 2C

Contract Dates

Optional Works subjected to CA's Instruction

CO2B	Last CAI date for Optional Works Item No.2B (330 Days to 660 Days after Commencement)	13-May-23		0	13-May-23 A		
CO2C	Last CAI date for Optional Works Item No.2C (330 Days to 710 Days after Commencement)	02-Jul-23		0	02-Jul-23		71

Construction Stage

PILE CONSTRUCTION

KD05 (Section 1)

Bored Piles - Drainage Diversion

CD07

04

P17-BP19.10	BP - Excavation	27-Jan-23	03-Feb-23	9	27-Apr-23 A	09-May-23 A	
P17-BP19.20	BP - RCD Drilling	04-Feb-23	21-Feb-23	5	10-May-23 A	16-May-23 A	
P17-BP19.30	BP - Airlift, Cage Install and Concrete	22-Feb-23	01-Mar-23	7	17-May-23 A	25-May-23 A	

CD08

P17-BP21.10	BP IAR-N - Excavation	07-Mar-23	13-Mar-23	15	11-Apr-23 A	28-Apr-23 A	
P17-BP21.20	BP IAR-N - RCD Drilling	14-Mar-23	30-Mar-23	5	29-Apr-23 A	06-May-23 A	
P17-BP21.30	BP IAR-N - Airlift, Cage Install and Concrete	31-Mar-23	12-Apr-23	7	08-May-23 A	16-May-23 A	

01

P17-BP20.10	BP - Excavation	17-Feb-23	23-Feb-23	4	27-May-23	31-May-23	-201
P17-BP20.20	BP - RCD Drilling	24-Feb-23	13-Mar-23	15	01-Jun-23	17-Jun-23	-201
P17-BP20.30	BP - Airlift, Cage Install and Concrete	14-Mar-23	21-Mar-23	7	19-Jun-23	27-Jun-23	-201

03

P17-BP18.10	BP IAR-N - Excavation	24-Mar-23	30-Mar-23	11	20-May-23 A	02-Jun-23	-203
P17-BP18.20	BP IAR-N - RCD Drilling	31-Mar-23	21-Apr-23	15	03-Jun-23 A	20-Jun-23	-203
P17-BP18.30	BP IAR-N - Airlift, Cage Install and Concrete	22-Apr-23	29-Apr-23	7	21-Jun-23 A	29-Jun-23	-203

Bored Piles - Gantry Gate A

CD06

08

CBA-BP01.30	BP - Airlift, Cage Install and Concrete	17-Feb-23	23-Feb-23	9	24-Apr-23 A	05-May-23 A	
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CD07

02

P22&P19-BP26.:	BP - RCD Drilling	16-Jul-22	03-Dec-22	261	16-Jul-22 A	02-Jun-23	-189
P22&P19-BP26.:	BP - Airlift, Cage Install and Concrete	05-Dec-22	13-Dec-22	8	03-Jun-23	12-Jun-23	-189

Bored Piles

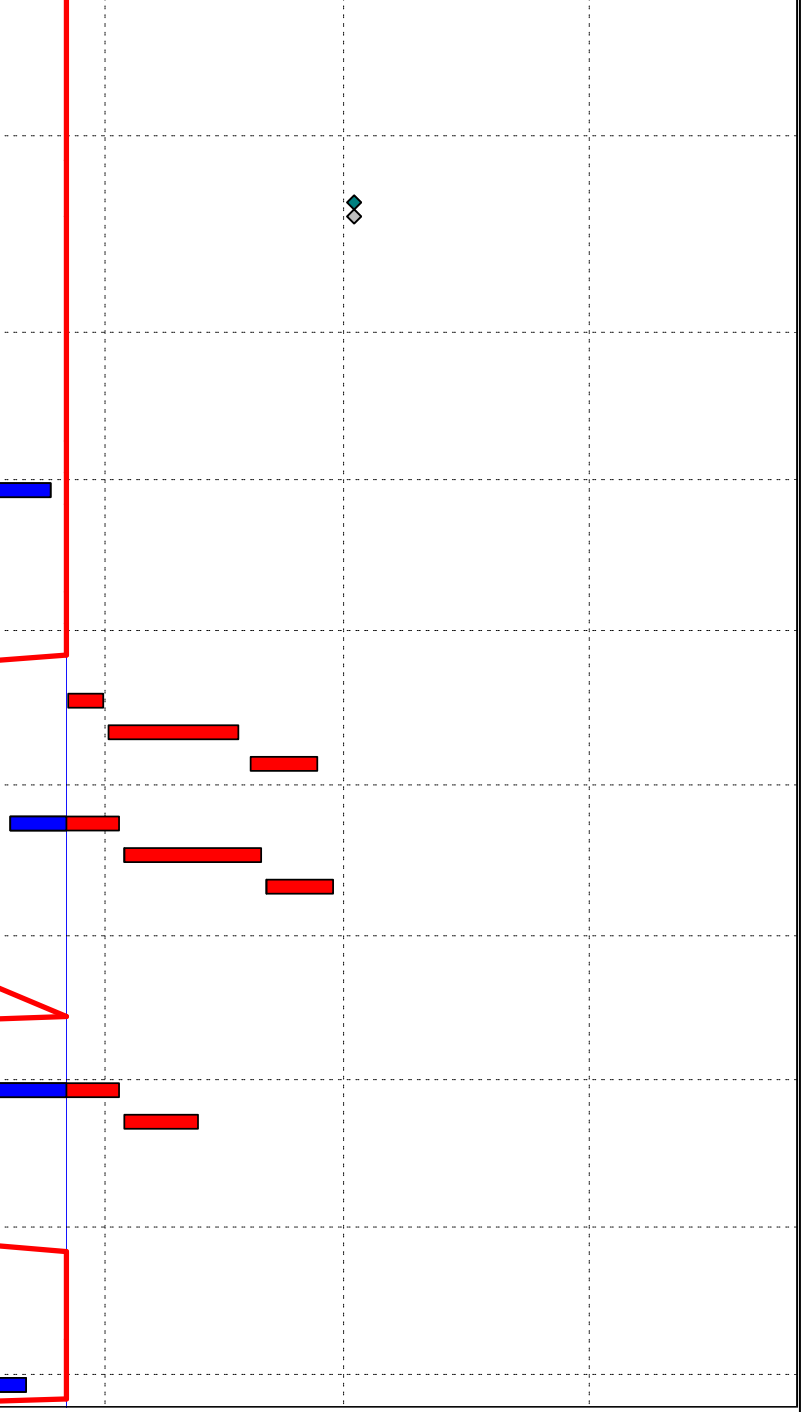
CD09

03

P17-BP22.30	BP IAR-N - Airlift, Cage Install and Concrete	04-Apr-23	15-Apr-23	7	20-Apr-23 A	28-Apr-23 A	
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TD07

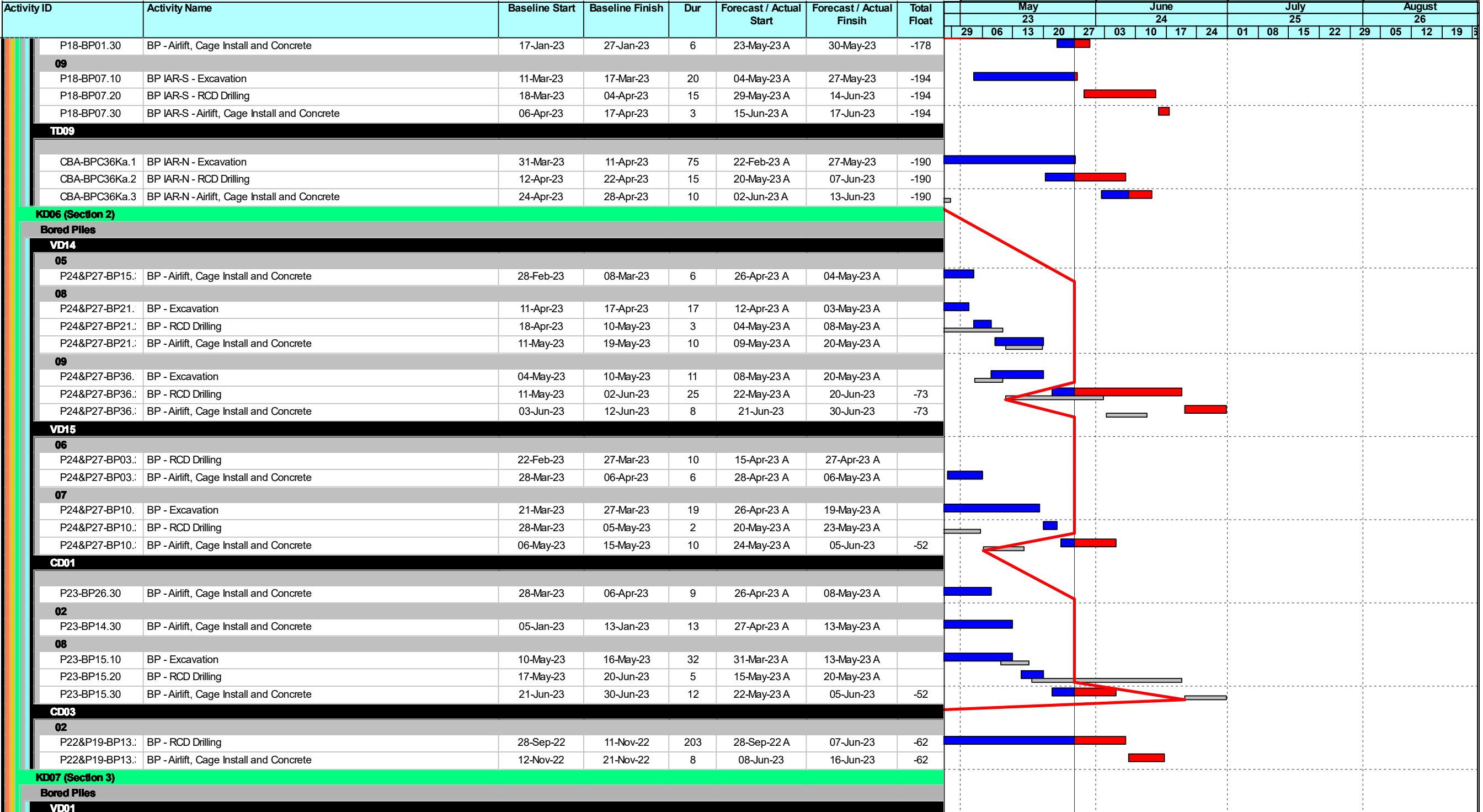
P18-BP04.30	BP IAR-S - Airlift, Cage Install and Concrete	01-Mar-23	08-Mar-23	11	19-Apr-23 A	03-May-23 A	
P18-BP01.20	BP - RCD Drilling	22-Dec-22	16-Jan-23	21	26-Apr-23 A	22-May-23 A	

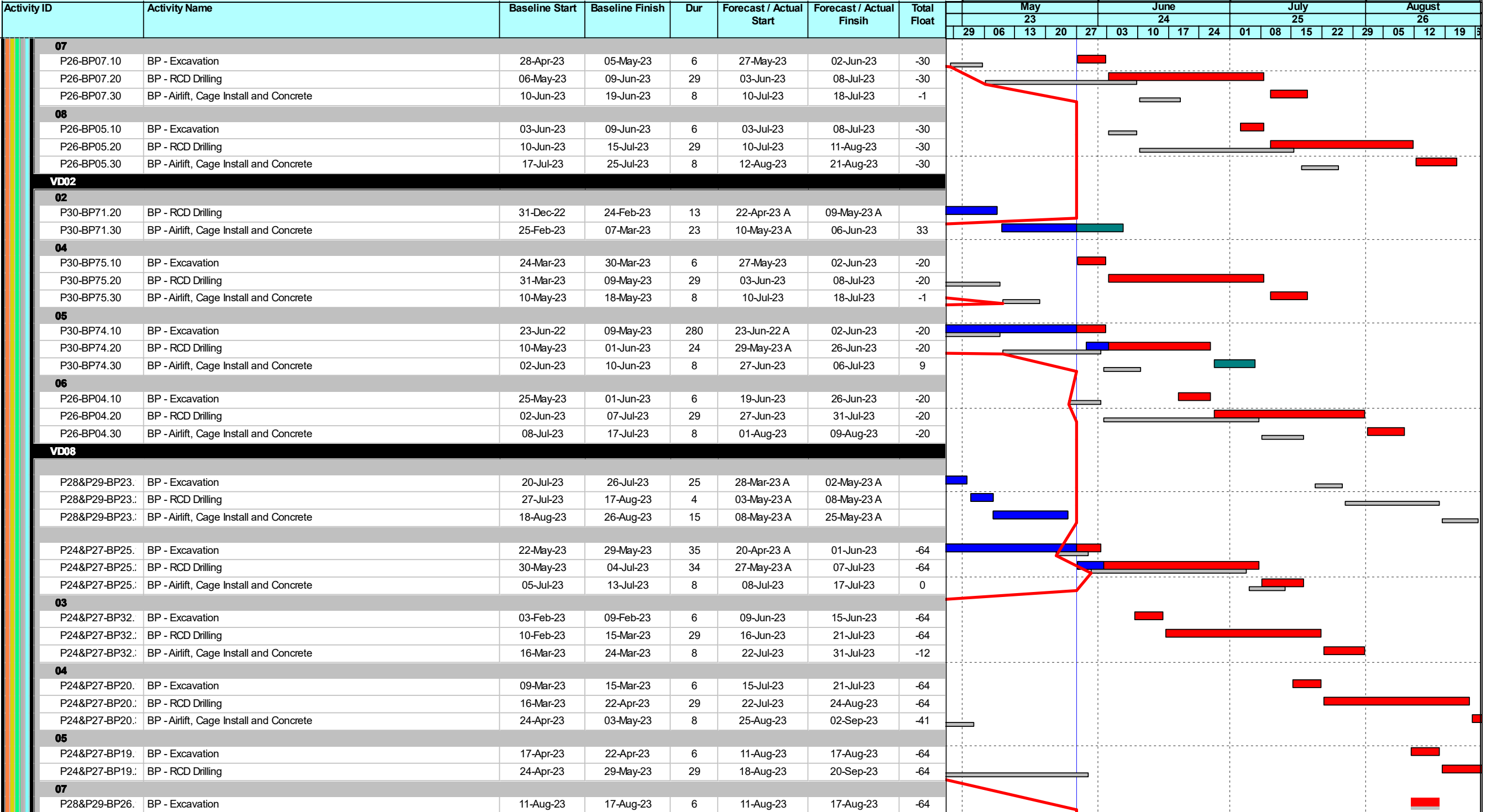


	Planned		Planned MS
	Critical		Critical MS
	Actual		Actual MS



Date	Revision	Checked	Approved
04-Mar-22	R0	KL	B
02-Dec-22	R03D	KL	C



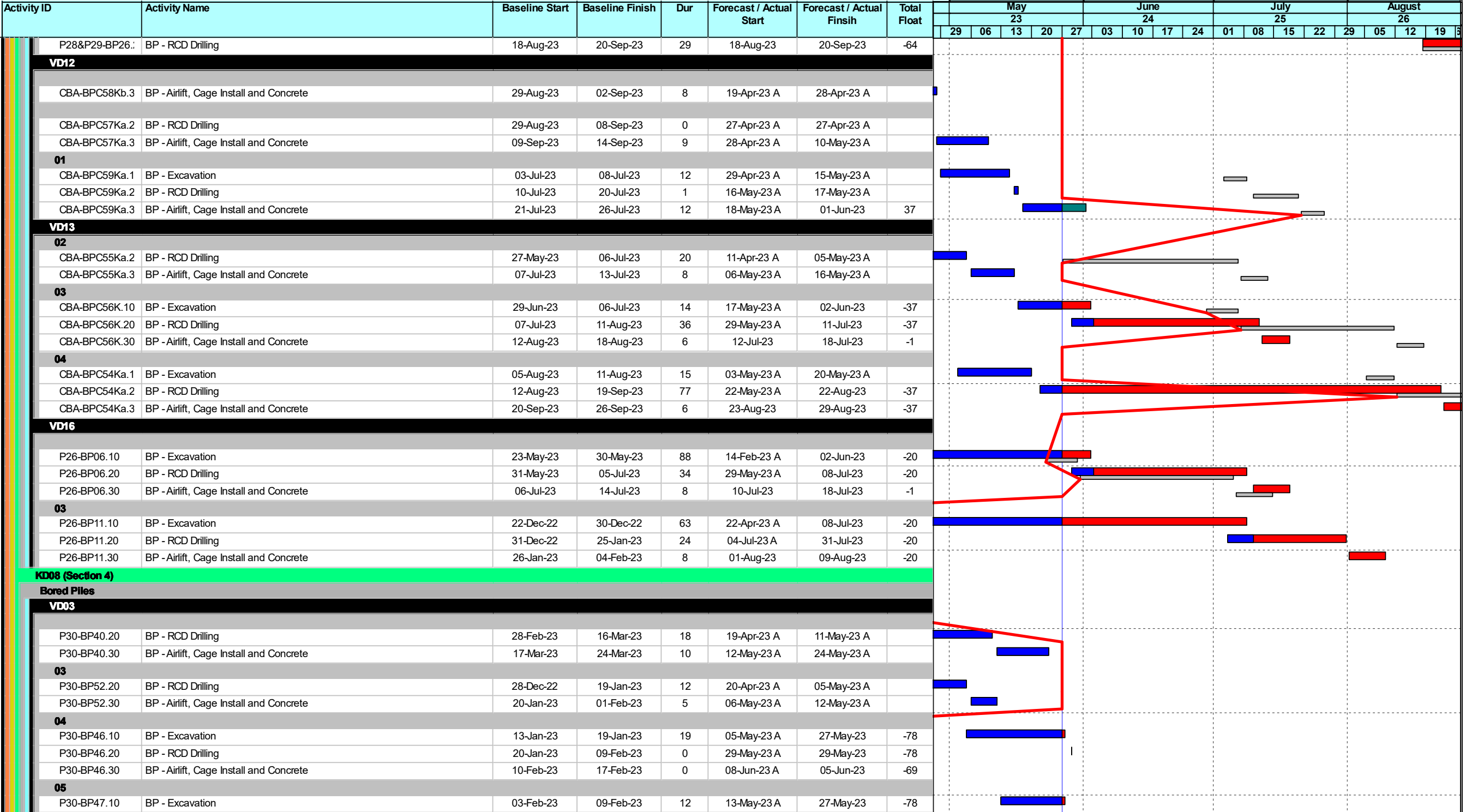








Planned	Planned MS
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Actual	Actual MS

West Kowloon Cultural District Authority
Piling for Integrated Basement and U/G Road in Zone 2B 2C
3 Month Rolling Programme as of 26 May 2023
Based on CMWP Rev.0 (3rd Draft)



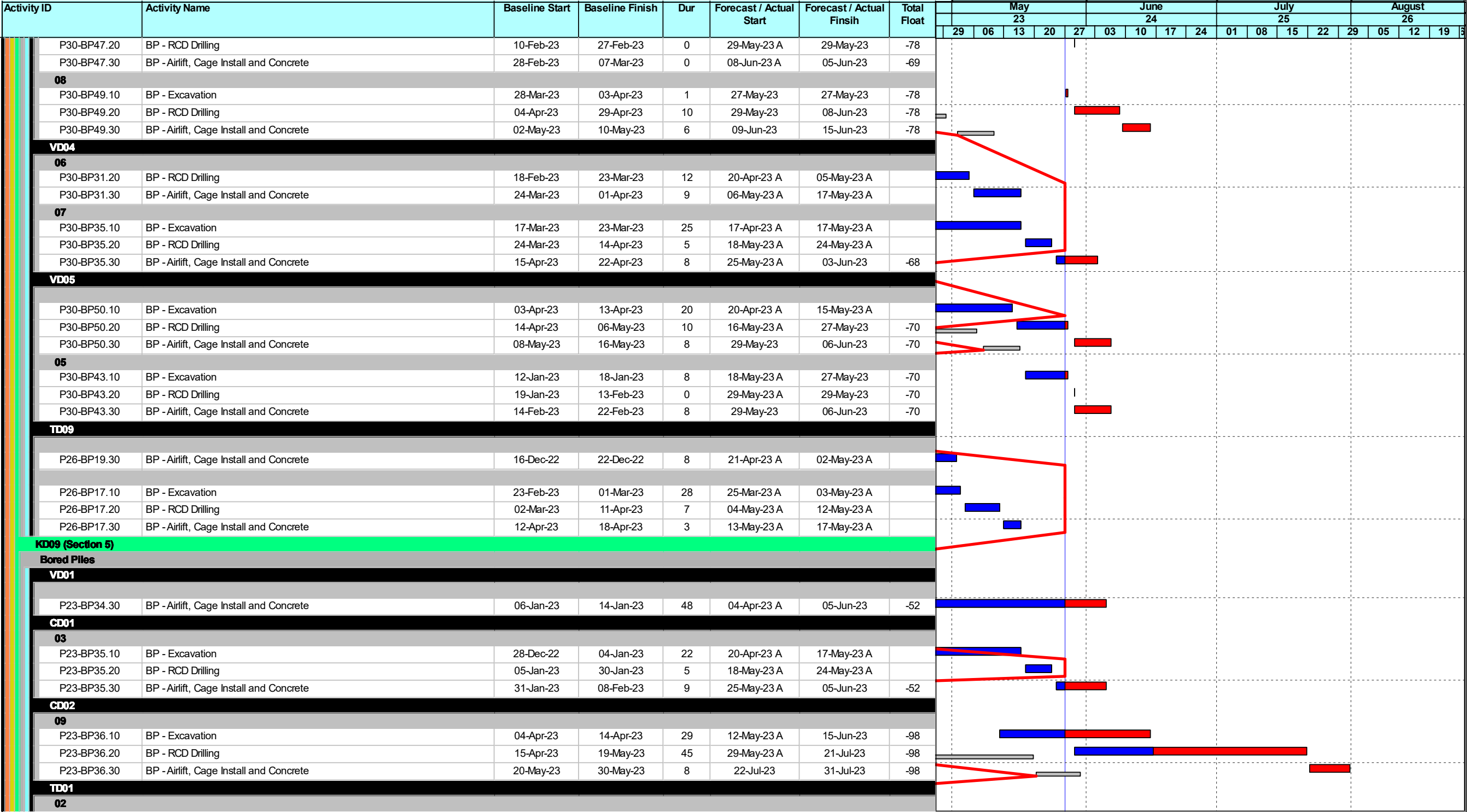
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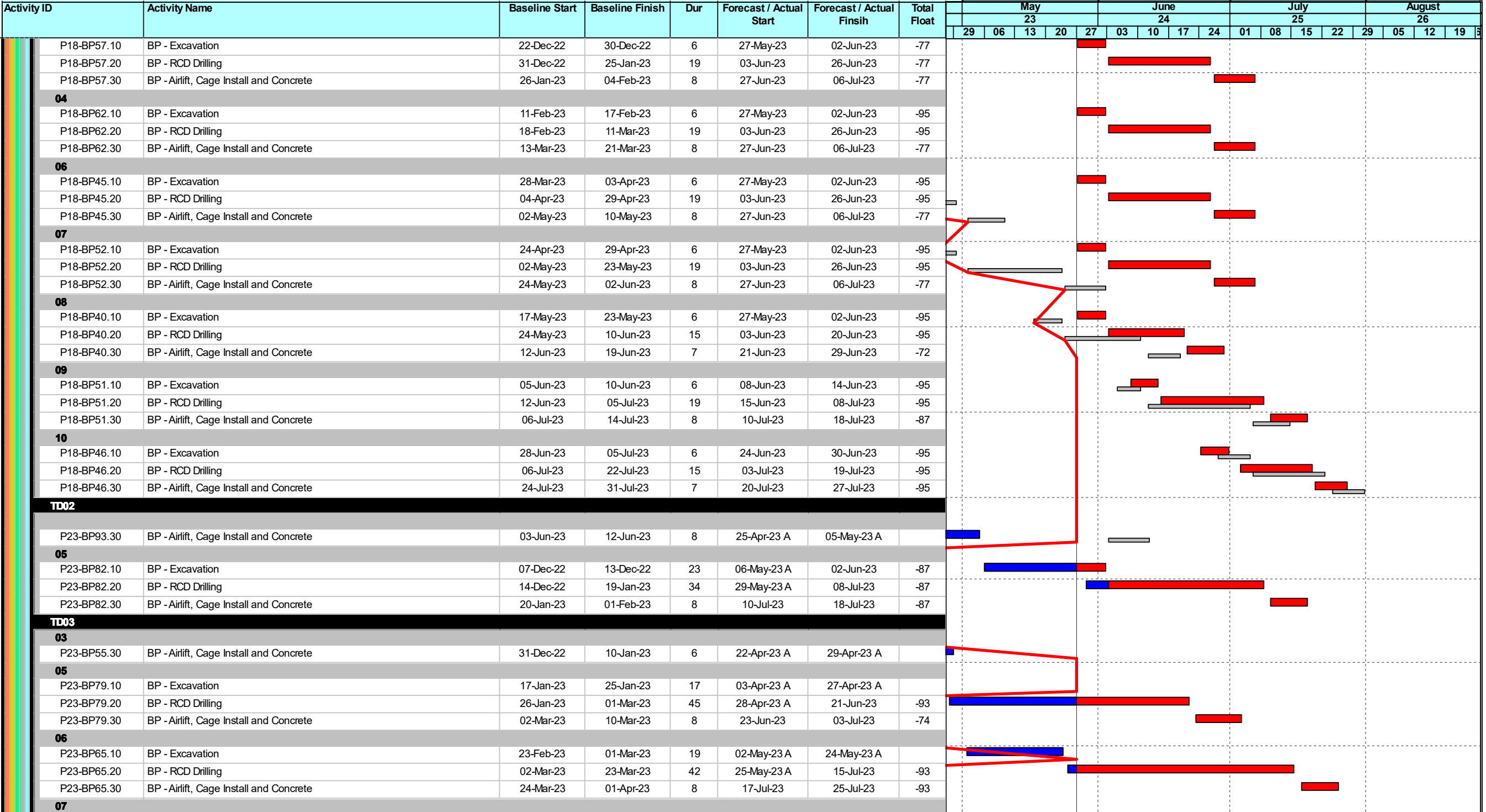








	Planned		Planned MS
	Critical		Critical MS
	Actual		Actual MS

West Kowloon Cultural District Authority
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	02-Dec-22	R03D	KL	C



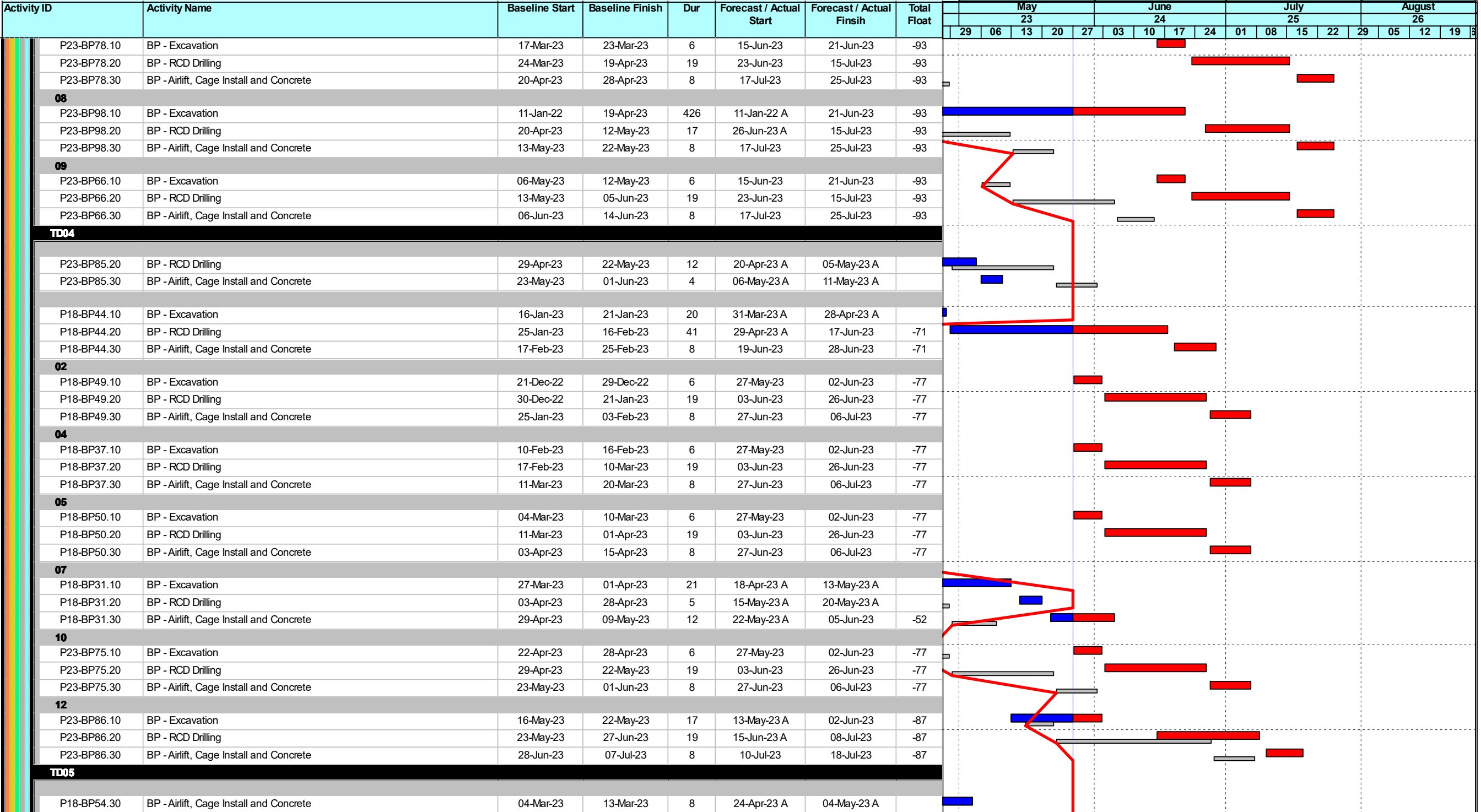


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	Actual		Actual MS

West Kowloon Cultural District Authority
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02-Dec-22	R03D	KL	C

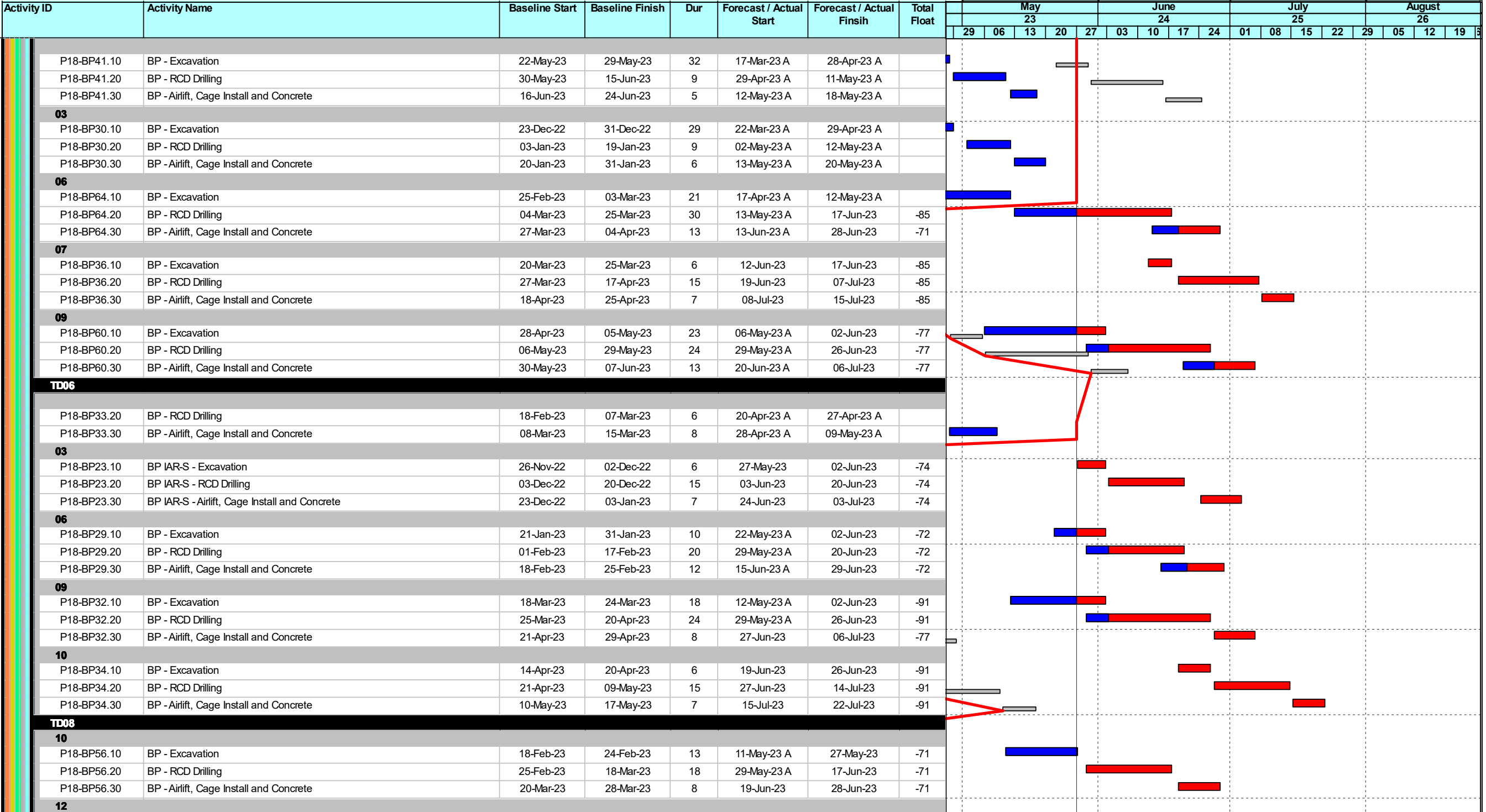


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	Actual		Actual MS

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02-Dec-22	R03D	KL	C

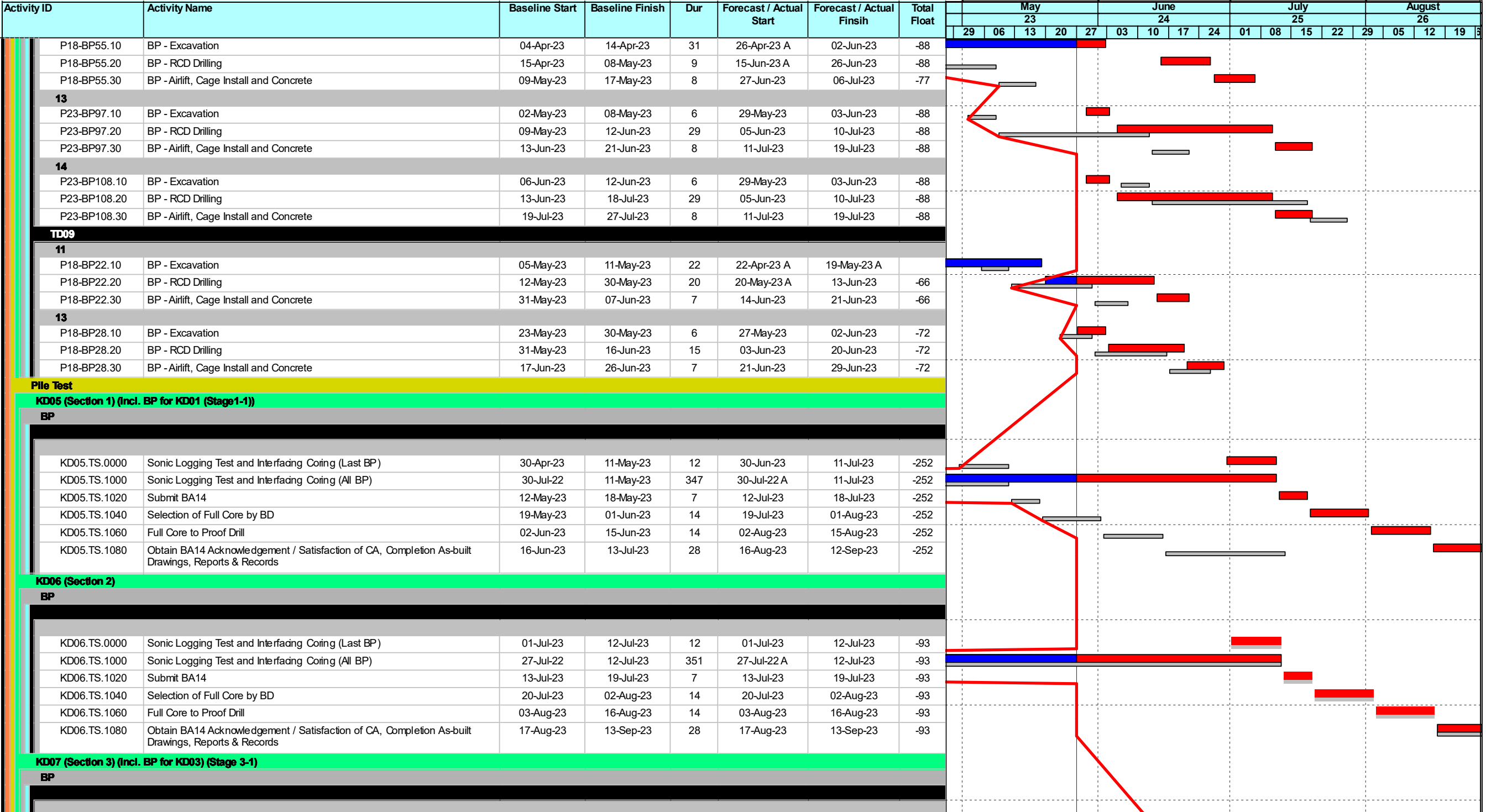


	Planned		Planned MS
	Critical		Critical MS
	Actual		Actual MS

West Kowloon Cultural District Authority
Piling for Integrated Basement and U/G Road in Zone 2B 2C
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 Based on CMWP Rev.0 (3rd Draft)



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04-Mar-22	R0	KL	B
02-Dec-22	R03D	KL	C



	Planned		Planned MS
	Critical		Critical MS
	Actual		Actual MS

West Kowloon Cultural District Authority
Piling for Integrated Basement and U/G Road in Zone 2B 2C
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Based on CMWP Rev.0 (3rd Draft)



Date	Revision	Checked	Approved
04-Mar-22	R0	KL	B
02-Dec-22	R03D	KL	C

Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float	May 23				June 24				July 25				August 26				
								29	06	13	20	27	03	10	17	24	01	08	15	22	29	05	12	19
KD07.TS.1000	Sonic Logging Test and Interfacing Coring (All BP)	14-Jun-23	11-Oct-23	306	10-Dec-22 A	11-Oct-23	-74																	
KD08 (Section 4) (Incl. BP for KD04 (Stage 4-1) & SSHP in KD09 (Section 5))																								
BP																								
KD08.TS.0000	Sonic Logging Test and Interfacing Coring (Last BP)	31-May-23	11-Jun-23	12	16-Jun-23	27-Jun-23	-98																	
KD08.TS.1000	Sonic Logging Test and Interfacing Coring (All BP)	04-Jul-22	11-Jun-23	359	04-Jul-22 A	27-Jun-23	-98																	
KD08.TS.1020	Submit BA14	12-Jun-23	18-Jun-23	7	28-Jun-23	04-Jul-23	-98																	
KD08.TS.1040	Selection of Full Core by BD	19-Jun-23	02-Jul-23	14	05-Jul-23	18-Jul-23	-98																	
KD08.TS.1060	Full Core to Proof Drill	03-Jul-23	16-Jul-23	14	19-Jul-23	01-Aug-23	-98																	
KD08.TS.1080	Obtain BA14 Acknowledgement / Satisfaction of CA, Completion As-built Drawings, Reports & Records	17-Jul-23	13-Aug-23	28	02-Aug-23	29-Aug-23	-98																	
SSHP																								
KD08.TS.1120	Submit BA14	15-Nov-22	21-Nov-22	7	27-May-23	02-Jun-23	-67																	
KD08.TS.1140	Selection of Pile for Static Load Test	22-Nov-22	05-Dec-22	14	03-Jun-23	16-Jun-23	-67																	
KD08.TS.1160	Static Load Test of Selected Pile	06-Dec-22	19-Dec-22	14	17-Jun-23	30-Jun-23	-67																	
KD08.TS.1180	Obtain BA14 Acknowledgement / Satisfaction of CA, Completion As-built Drawings, Reports & Records	20-Dec-22	16-Jan-23	28	01-Jul-23	28-Jul-23	-67																	
KD09 (Section 5) (Incl. BP for KD02 (Stage 5-1))																								
BP																								
KD09.TS.0000	Sonic Logging Test and Interfacing Coring (Last BP)	01-Aug-23	12-Aug-23	12	01-Aug-23	12-Aug-23	-124																	
KD09.TS.1000	Sonic Logging Test and Interfacing Coring (All BP)	23-May-22	12-Aug-23	447	23-May-22 A	12-Aug-23	-124																	
KD09.TS.1020	Submit BA14	13-Aug-23	19-Aug-23	7	13-Aug-23	19-Aug-23	-124																	
KD09.TS.1040	Selection of Full Core by BD	20-Aug-23	02-Sep-23	14	20-Aug-23	02-Sep-23	-124																	
Attendance to Other Project Contractors (optional works item no. 2A to 2E)																								
S2.AT.0000	Attendance at Section 2 Area (optional works item no. 2B) (Duration TBC)	13-May-23	01-Jun-23	20	27-May-23	15-Jun-23	-3																	
S3.AT.0000	Attendance at Section 3 Area (optional works item no. 2C) (Duration TBC)	02-Jul-23	21-Jul-23	20	02-Jul-23	21-Jul-23	71																	

	Planned		Planned MS
	Critical		Critical MS
	Actual		Actual MS

West Kowloon Cultural District Authority
Piling for Integrated Basement and U/G Road in Zone 2B 2C
3 Month Rolling Programme as of 26 May 2023
Based on CMWP Rev.0 (3rd Draft)

			Date	Revision	Checked	Approved
			04-Mar-22	R0	KL	B
			02-Dec-22	R03D	KL	C

Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float	June				July				August				September			
								24				25				26				27			
								03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16

Piling for Integrated Basement and U/G Road in Zone 2B & 2C

Contract Dates

Key Dates

KD for Zone 2B

Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float
KD05	KD05 (Section 1) - 03 Jan 2023		13-Jul-23	0		25-Sep-23*	-265
KD06	KD06 (Section 2) - 12 Jun 2023		13-Sep-23	0		09-Sep-23*	-89

KD for Zone 2C

Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float
KD08	KD08 (Section 4) - 23 May 2023		13-Aug-23	0		10-Sep-23*	-110

Optional Works subjected to CA's Instruction

Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float
CO2C	Last CAI date for Optional Works Item No.2C (330 Days to 710 Days after Commencement)	02-Jul-23		0	02-Jul-23		71

Construction Stage

Pile Construction

KD05 (Section 1)

Bored Piles - Drainage Diversion

CD08

Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float
P17-BP20.10	BP - Excavation	17-Feb-23	23-Feb-23	16	27-May-23 A	15-Jun-23 A	
P17-BP20.20	BP - RCD Drilling	24-Feb-23	13-Mar-23	9	16-Jun-23 A	28-Jun-23 A	
P17-BP20.30	BP - Airlift, Cage Install and Concrete	14-Mar-23	21-Mar-23	9	29-Jun-23 A	10-Jul-23	-211

03

Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float
P17-BP18.10	BP IAR-N - Excavation	24-Mar-23	30-Mar-23	13	20-May-23 A	06-Jun-23 A	
P17-BP18.20	BP IAR-N - RCD Drilling	31-Mar-23	21-Apr-23	6	07-Jun-23 A	14-Jun-23 A	
P17-BP18.30	BP IAR-N - Airlift, Cage Install and Concrete	22-Apr-23	29-Apr-23	22	15-Jun-23 A	12-Jul-23	-213

Bored Piles - Gantry Gate A

CD07

Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float
P22&P19-BP26.:	BP - RCD Drilling	16-Jul-22	03-Dec-22	284	16-Jul-22 A	03-Jul-23	-212
P22&P19-BP26.:	BP - Airlift, Cage Install and Concrete	05-Dec-22	13-Dec-22	8	03-Jul-23	11-Jul-23	-212

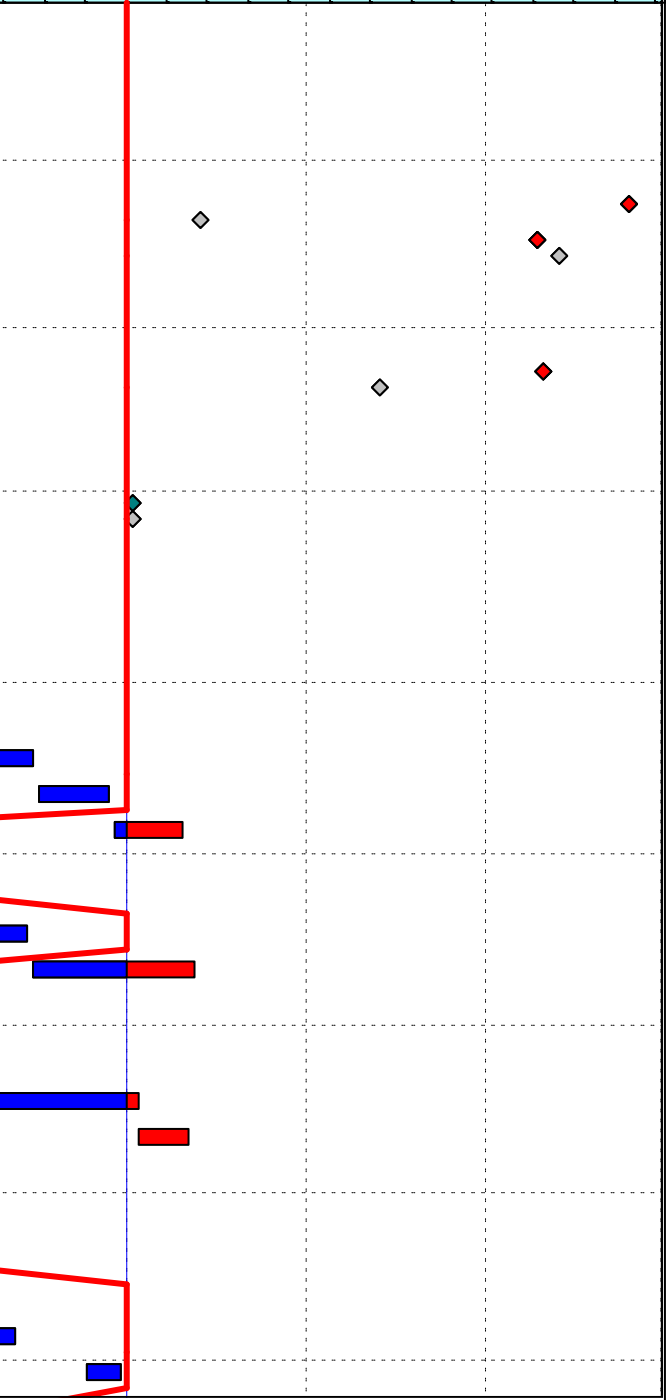
Bored Piles

TD07

Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float
P18-BP01.30	BP - Airlift, Cage Install and Concrete	17-Jan-23	27-Jan-23	7	23-May-23 A	01-Jun-23 A	

09

Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float
P18-BP07.20	BP IAR-S - RCD Drilling	18-Mar-23	04-Apr-23	10	31-May-23 A	12-Jun-23 A	
P18-BP07.30	BP IAR-S - Airlift, Cage Install and Concrete	06-Apr-23	17-Apr-23	5	24-Jun-23 A	30-Jun-23 A	



Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float	June				July				August				September			
								24				25				26				27			
								03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16

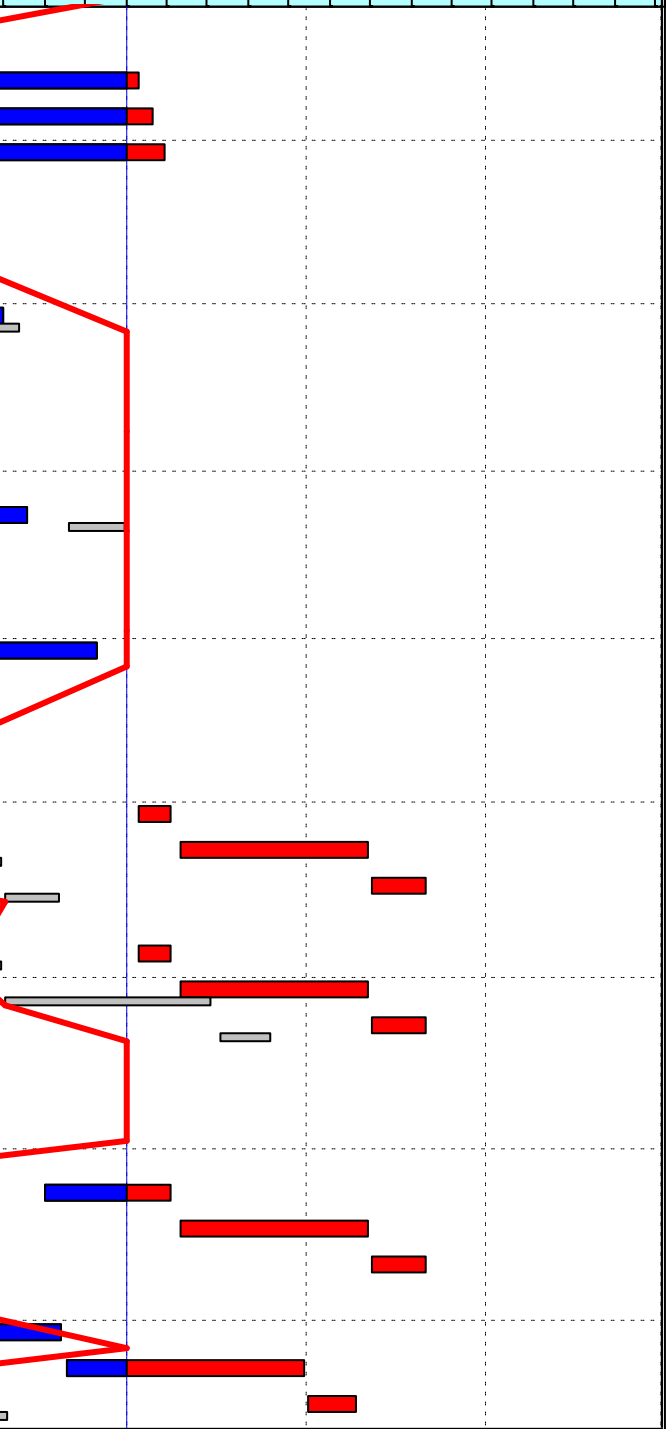
TD09							
CBA-BPC36Ka.1	BP IAR-N - Excavation	31-Mar-23	11-Apr-23	104	22-Feb-23 A	03-Jul-23	-209
CBA-BPC36Ka.2	BP IAR-N - RCD Drilling	12-Apr-23	22-Apr-23	37	20-May-23 A	05-Jul-23	-209
CBA-BPC36Ka.3	BP IAR-N - Airlift, Cage Install and Concrete	24-Apr-23	28-Apr-23	29	02-Jun-23 A	07-Jul-23	-209

KD06 (Section 2)

Bored Piles							
VD14							
09							
P24&P27-BP36.:	BP - Airlift, Cage Install and Concrete	03-Jun-23	12-Jun-23	10	30-May-23 A	10-Jun-23 A	
VD15							
07							
P24&P27-BP10.:	BP - Airlift, Cage Install and Concrete	06-May-23	15-May-23	12	24-May-23 A	08-Jun-23 A	
CD01							
08							
P23-BP15.30	BP - Airlift, Cage Install and Concrete	21-Jun-23	30-Jun-23	19	22-May-23 A	14-Jun-23 A	
CD03							
02							
P22&P19-BP13.:	BP - RCD Drilling	28-Sep-22	11-Nov-22	200	28-Sep-22 A	05-Jun-23 A	
P22&P19-BP13.:	BP - Airlift, Cage Install and Concrete	12-Nov-22	21-Nov-22	16	06-Jun-23 A	26-Jun-23 A	

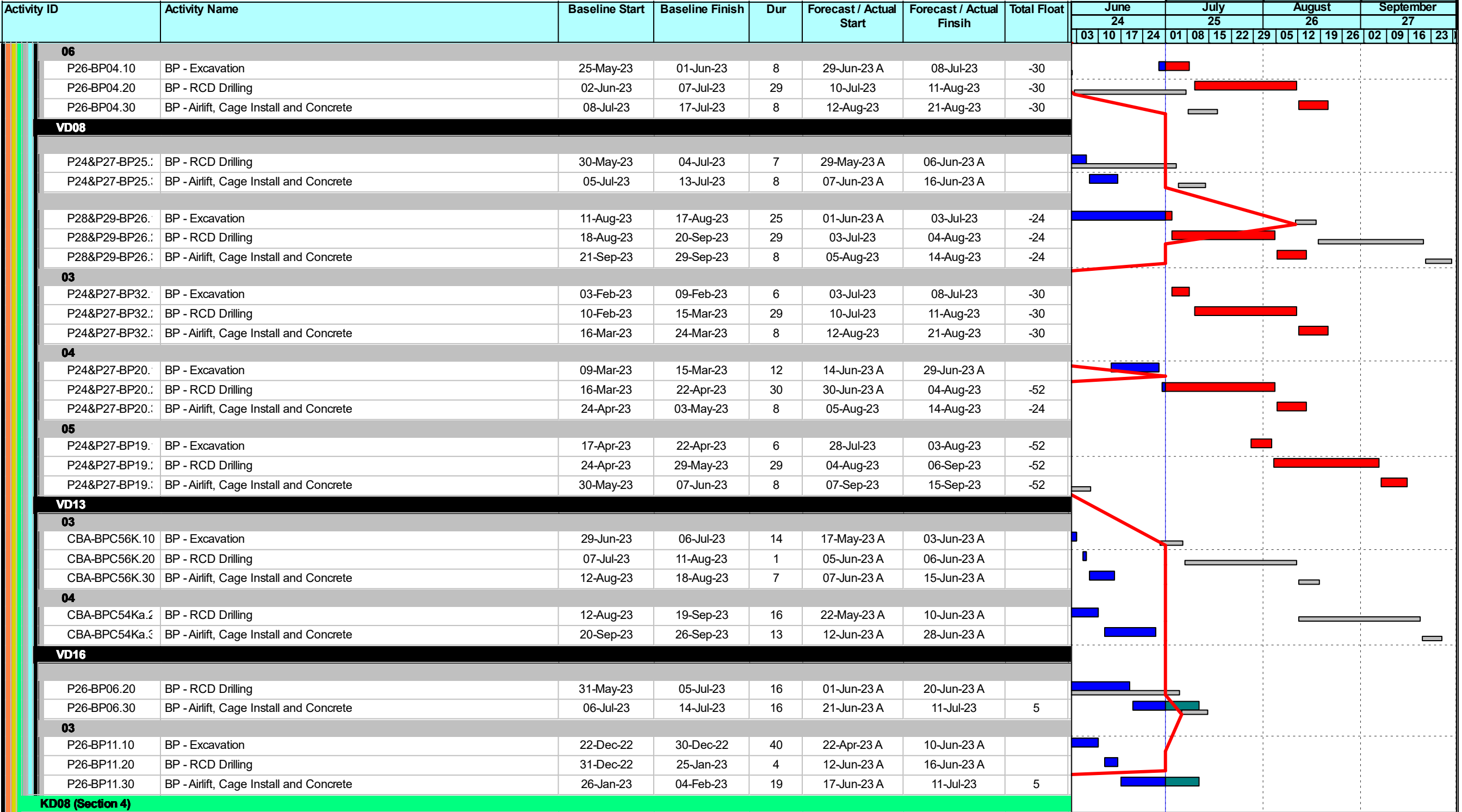
KD07 (Section 3)

Bored Piles							
VD01							
07							
P26-BP07.10	BP - Excavation	28-Apr-23	05-May-23	6	03-Jul-23	08-Jul-23	-30
P26-BP07.20	BP - RCD Drilling	06-May-23	09-Jun-23	29	10-Jul-23	11-Aug-23	-30
P26-BP07.30	BP - Airlift, Cage Install and Concrete	10-Jun-23	19-Jun-23	8	12-Aug-23	21-Aug-23	-30
08							
P26-BP05.10	BP - Excavation	03-Jun-23	09-Jun-23	6	03-Jul-23	08-Jul-23	-30
P26-BP05.20	BP - RCD Drilling	10-Jun-23	15-Jul-23	29	10-Jul-23	11-Aug-23	-30
P26-BP05.30	BP - Airlift, Cage Install and Concrete	17-Jul-23	25-Jul-23	8	12-Aug-23	21-Aug-23	-30
VD02							
02							
P30-BP71.30	BP - Airlift, Cage Install and Concrete	25-Feb-23	07-Mar-23	19	10-May-23 A	02-Jun-23 A	
04							
P30-BP75.10	BP - Excavation	24-Mar-23	30-Mar-23	17	17-Jun-23 A	08-Jul-23	-30
P30-BP75.20	BP - RCD Drilling	31-Mar-23	09-May-23	29	10-Jul-23	11-Aug-23	-30
P30-BP75.30	BP - Airlift, Cage Install and Concrete	10-May-23	18-May-23	8	12-Aug-23	21-Aug-23	-30
05							
P30-BP74.10	BP - Excavation	23-Jun-22	09-May-23	294	23-Jun-22 A	20-Jun-23 A	
P30-BP74.20	BP - RCD Drilling	10-May-23	01-Jun-23	33	21-Jun-23 A	31-Jul-23	-30
P30-BP74.30	BP - Airlift, Cage Install and Concrete	02-Jun-23	10-Jun-23	8	01-Aug-23	09-Aug-23	-20



	Planned		Planned MS
	Critical		Critical MS
	Actual		Actual MS

Date	Revision	Checked	Approved
04-Mar-22	R0	KL	B
02-Dec-22	R03D	KL	C



KD08 (Section 4)

	Planned		Planned MS
	Critical		Critical MS
	Actual		Actual MS

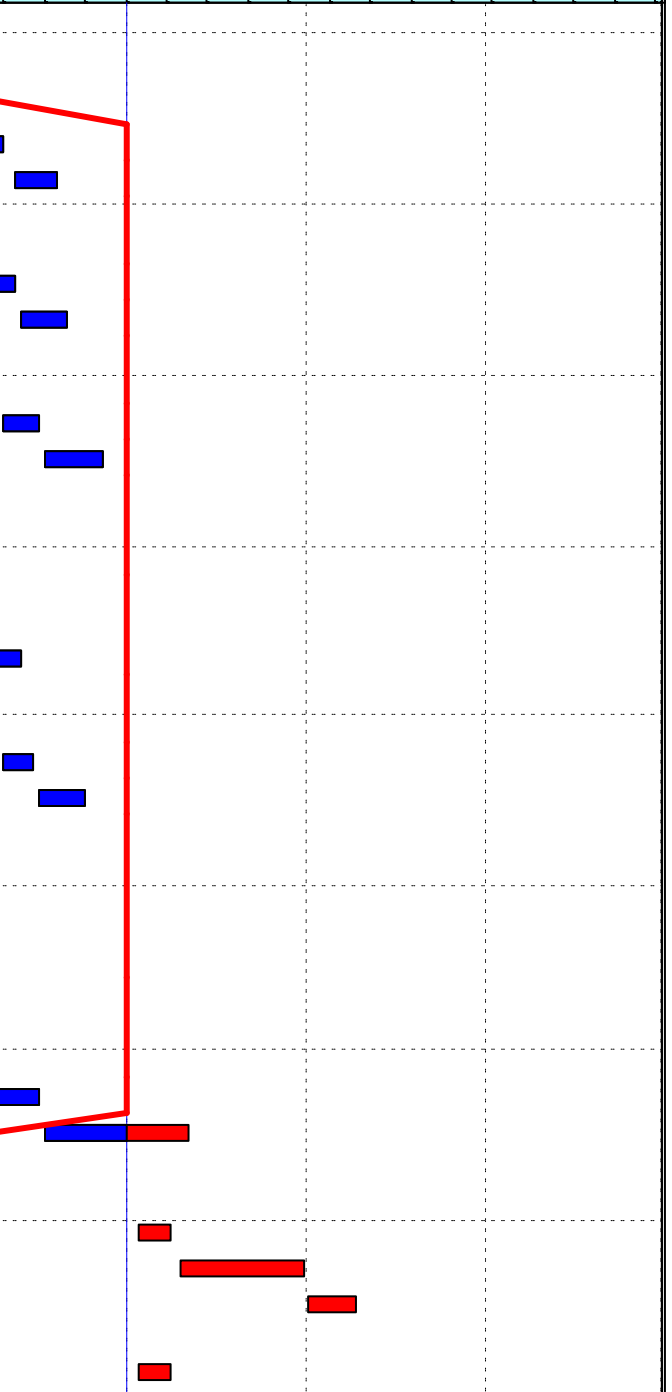
		Date	Revision	Checked	Approved
		04-Mar-22	R0	KL	B
		02-Dec-22	R03D	KL	C

Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float	June				July				August				September			
								24				25				26				27			
								03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16

Bored Piles							
VD03							
04							
P30-BP46.10	BP - Excavation	13-Jan-23	19-Jan-23	22	05-May-23 A	01-Jun-23 A	
P30-BP46.20	BP - RCD Drilling	20-Jan-23	09-Feb-23	7	02-Jun-23 A	10-Jun-23 A	
P30-BP46.30	BP - Airlift, Cage Install and Concrete	10-Feb-23	17-Feb-23	6	12-Jun-23 A	19-Jun-23 A	
05							
P30-BP47.10	BP - Excavation	03-Feb-23	09-Feb-23	19	13-May-23 A	06-Jun-23 A	
P30-BP47.20	BP - RCD Drilling	10-Feb-23	27-Feb-23	4	07-Jun-23 A	12-Jun-23 A	
P30-BP47.30	BP - Airlift, Cage Install and Concrete	28-Feb-23	07-Mar-23	7	13-Jun-23 A	21-Jun-23 A	
08							
P30-BP49.10	BP - Excavation	28-Mar-23	03-Apr-23	11	27-May-23 A	09-Jun-23 A	
P30-BP49.20	BP - RCD Drilling	04-Apr-23	29-Apr-23	5	10-Jun-23 A	16-Jun-23 A	
P30-BP49.30	BP - Airlift, Cage Install and Concrete	02-May-23	10-May-23	7	17-Jun-23 A	27-Jun-23 A	
VD04							
07							
P30-BP35.30	BP - Airlift, Cage Install and Concrete	15-Apr-23	22-Apr-23	9	25-May-23 A	06-Jun-23 A	
VD05							
P30-BP50.30	BP - Airlift, Cage Install and Concrete	08-May-23	16-May-23	12	30-May-23 A	13-Jun-23 A	
05							
P30-BP43.10	BP - Excavation	12-Jan-23	18-Jan-23	18	18-May-23 A	09-Jun-23 A	
P30-BP43.20	BP - RCD Drilling	19-Jan-23	13-Feb-23	4	10-Jun-23 A	15-Jun-23 A	
P30-BP43.30	BP - Airlift, Cage Install and Concrete	14-Feb-23	22-Feb-23	6	16-Jun-23 A	24-Jun-23 A	

KD09 (Section 5)

Bored Piles							
CD01							
03							
P23-BP35.30	BP - Airlift, Cage Install and Concrete	31-Jan-23	08-Feb-23	12	25-May-23 A	09-Jun-23 A	
CD02							
09							
P23-BP36.10	BP - Excavation	04-Apr-23	14-Apr-23	21	12-May-23 A	07-Jun-23 A	
P23-BP36.20	BP - RCD Drilling	15-Apr-23	19-May-23	7	08-Jun-23 A	16-Jun-23 A	
P23-BP36.30	BP - Airlift, Cage Install and Concrete	20-May-23	30-May-23	19	17-Jun-23 A	11-Jul-23	-81
TD01							
02							
P18-BP57.10	BP - Excavation	22-Dec-22	30-Dec-22	6	03-Jul-23	08-Jul-23	-106
P18-BP57.20	BP - RCD Drilling	31-Dec-22	25-Jan-23	19	10-Jul-23	31-Jul-23	-106
P18-BP57.30	BP - Airlift, Cage Install and Concrete	26-Jan-23	04-Feb-23	8	01-Aug-23	09-Aug-23	-106
04							
P18-BP62.10	BP - Excavation	11-Feb-23	17-Feb-23	6	03-Jul-23	08-Jul-23	-116



Planned	Planned MS
Critical	Critical MS
Actual	Actual MS

West Kowloon Cultural District Authority
Piling for Integrated Basement and U/G Road in Zone 2B 2C
3 Month Rolling Programme as of 30 June 2023
 Based on CMWP Rev.0 (3rd Draft)

Date	Revision	Checked	Approved
04-Mar-22	R0	KL	B
02-Dec-22	R03D	KL	C

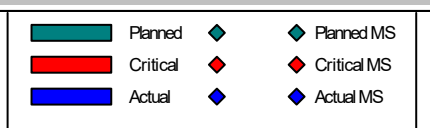
Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float	June				July				August				September							
								24				25				26				27							
								03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23			
P18-BP62.20	BP - RCD Drilling	18-Feb-23	11-Mar-23	19	10-Jul-23	31-Jul-23	-116																				
P18-BP62.30	BP - Airlift, Cage Install and Concrete	13-Mar-23	21-Mar-23	8	01-Aug-23	09-Aug-23	-106																				
06																											
P18-BP45.10	BP - Excavation	28-Mar-23	03-Apr-23	6	03-Jul-23	08-Jul-23	-116																				
P18-BP45.20	BP - RCD Drilling	04-Apr-23	29-Apr-23	19	10-Jul-23	31-Jul-23	-116																				
P18-BP45.30	BP - Airlift, Cage Install and Concrete	02-May-23	10-May-23	8	01-Aug-23	09-Aug-23	-106																				
07																											
P18-BP52.10	BP - Excavation	24-Apr-23	29-Apr-23	12	30-May-23 A	13-Jun-23 A																					
P18-BP52.20	BP - RCD Drilling	02-May-23	23-May-23	8	14-Jun-23 A	24-Jun-23 A																					
P18-BP52.30	BP - Airlift, Cage Install and Concrete	24-May-23	02-Jun-23	19	26-Jun-23 A	18-Jul-23	-87																				
08																											
P18-BP40.10	BP - Excavation	17-May-23	23-May-23	15	20-Jun-23 A	08-Jul-23	-116																				
P18-BP40.20	BP - RCD Drilling	24-May-23	10-Jun-23	15	10-Jul-23	26-Jul-23	-116																				
P18-BP40.30	BP - Airlift, Cage Install and Concrete	12-Jun-23	19-Jun-23	7	27-Jul-23	03-Aug-23	-101																				
09																											
P18-BP51.10	BP - Excavation	05-Jun-23	10-Jun-23	20	06-Jun-23 A	30-Jun-23 A																					
P18-BP51.20	BP - RCD Drilling	12-Jun-23	05-Jul-23	19	03-Jul-23 A	24-Jul-23	-114																				
P18-BP51.30	BP - Airlift, Cage Install and Concrete	06-Jul-23	14-Jul-23	8	25-Jul-23	02-Aug-23	-100																				
10																											
P18-BP46.10	BP - Excavation	28-Jun-23	05-Jul-23	6	20-Jul-23	26-Jul-23	-116																				
P18-BP46.20	BP - RCD Drilling	06-Jul-23	22-Jul-23	15	27-Jul-23	12-Aug-23	-116																				
P18-BP46.30	BP - Airlift, Cage Install and Concrete	24-Jul-23	31-Jul-23	7	14-Aug-23	21-Aug-23	-116																				
TD02																											
05																											
P23-BP82.10	BP - Excavation	07-Dec-22	13-Dec-22	52	06-May-23 A	08-Jul-23	-116																				
P23-BP82.20	BP - RCD Drilling	14-Dec-22	19-Jan-23	63	29-May-23 A	11-Aug-23	-116																				
P23-BP82.30	BP - Airlift, Cage Install and Concrete	20-Jan-23	01-Feb-23	8	12-Aug-23	21-Aug-23	-116																				
TD03																											
05																											
P23-BP79.30	BP - Airlift, Cage Install and Concrete	02-Mar-23	10-Mar-23	5	29-May-23 A	03-Jun-23 A																					
06																											
P23-BP65.20	BP - RCD Drilling	02-Mar-23	23-Mar-23	5	25-May-23 A	01-Jun-23 A																					
P23-BP65.30	BP - Airlift, Cage Install and Concrete	24-Mar-23	01-Apr-23	8	02-Jun-23 A	12-Jun-23 A																					
07																											
P23-BP78.10	BP - Excavation	17-Mar-23	23-Mar-23	15	02-Jun-23 A	20-Jun-23 A																					
P23-BP78.20	BP - RCD Drilling	24-Mar-23	19-Apr-23	27	21-Jun-23 A	24-Jul-23	-100																				
P23-BP78.30	BP - Airlift, Cage Install and Concrete	20-Apr-23	28-Apr-23	8	25-Jul-23	02-Aug-23	-100																				
08																											
P23-BP98.20	BP - RCD Drilling	20-Apr-23	12-May-23	6	31-May-23 A	07-Jun-23 A																					
P23-BP98.30	BP - Airlift, Cage Install and Concrete	13-May-23	22-May-23	7	08-Jun-23 A	16-Jun-23 A																					
09																											

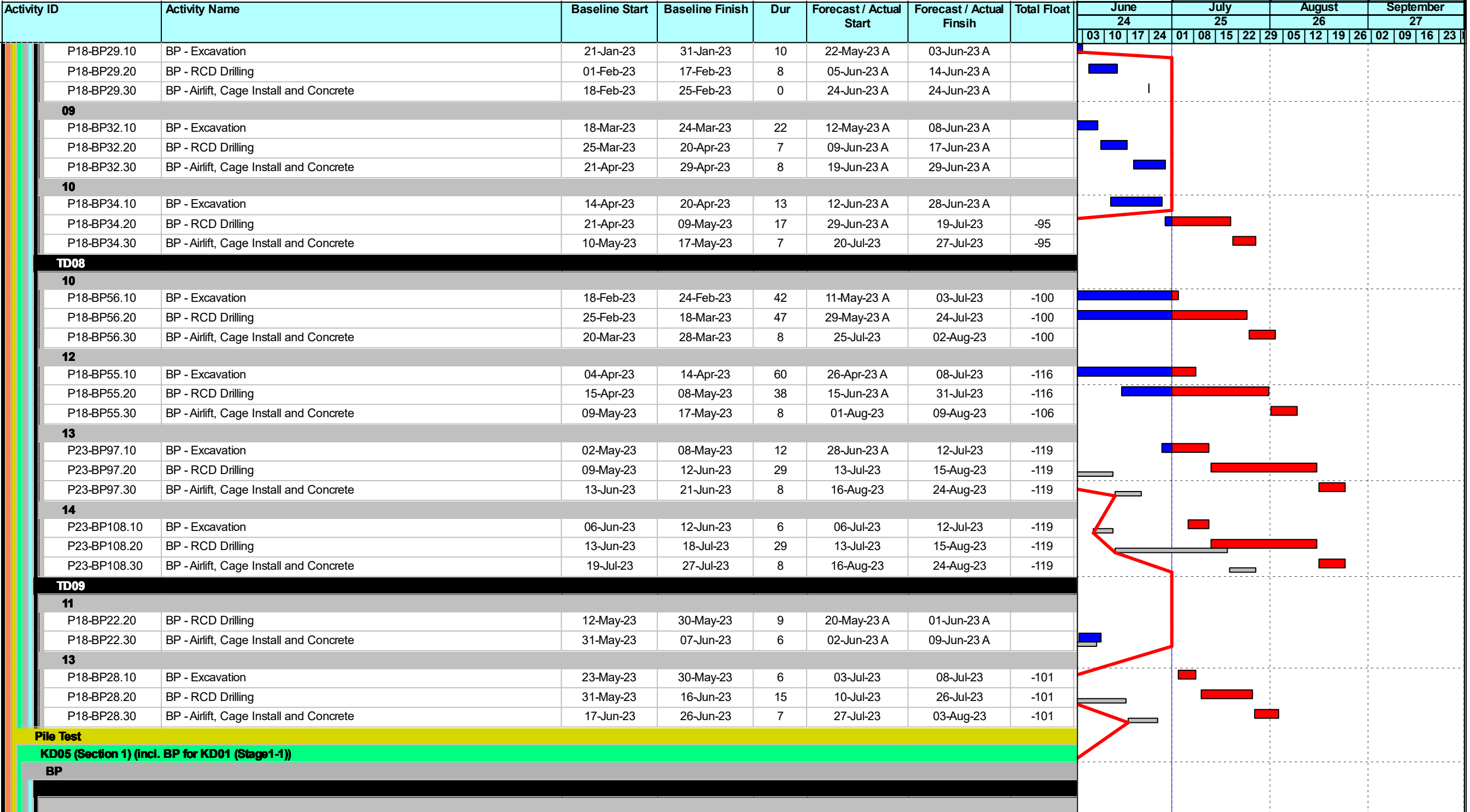
	Planned		Planned MS
	Critical		Critical MS
	Actual		Actual MS

West Kowloon Cultural District Authority
Piling for Integrated Basement and U/G Road in Zone 2B 2C
3 Month Rolling Programme as of 30 June 2023
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	Date	Revision	Checked	Approved
	04-Mar-22	R0	KL	B
	02-Dec-22	R03D	KL	C

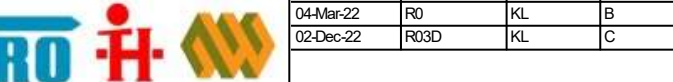
Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float	June 24				July 25				August 26				September 27							
								03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23			
P23-BP66.10	BP - Excavation	06-May-23	12-May-23	21	13-Jun-23 A	08-Jul-23	-106																				
P23-BP66.20	BP - RCD Drilling	13-May-23	05-Jun-23	19	10-Jul-23	31-Jul-23	-106																				
P23-BP66.30	BP - Airlift, Cage Install and Concrete	06-Jun-23	14-Jun-23	8	01-Aug-23	09-Aug-23	-106																				
TD04																											
02																											
P18-BP49.10	BP - Excavation	21-Dec-22	29-Dec-22	6	03-Jul-23	08-Jul-23	-106																				
P18-BP49.20	BP - RCD Drilling	30-Dec-22	21-Jan-23	19	10-Jul-23	31-Jul-23	-106																				
P18-BP49.30	BP - Airlift, Cage Install and Concrete	25-Jan-23	03-Feb-23	8	01-Aug-23	09-Aug-23	-106																				
04																											
P18-BP37.10	BP - Excavation	10-Feb-23	16-Feb-23	23	01-Jun-23 A	29-Jun-23 A	-100																				
P18-BP37.20	BP - RCD Drilling	17-Feb-23	10-Mar-23	20	30-Jun-23 A	24-Jul-23	-100																				
P18-BP37.30	BP - Airlift, Cage Install and Concrete	11-Mar-23	20-Mar-23	8	25-Jul-23	02-Aug-23	-100																				
05																											
P18-BP50.10	BP - Excavation	04-Mar-23	10-Mar-23	6	03-Jul-23	08-Jul-23	-106																				
P18-BP50.20	BP - RCD Drilling	11-Mar-23	01-Apr-23	19	10-Jul-23	31-Jul-23	-106																				
P18-BP50.30	BP - Airlift, Cage Install and Concrete	03-Apr-23	15-Apr-23	8	01-Aug-23	09-Aug-23	-106																				
10																											
P23-BP75.10	BP - Excavation	22-Apr-23	28-Apr-23	6	03-Jul-23	08-Jul-23	-106																				
P23-BP75.20	BP - RCD Drilling	29-Apr-23	22-May-23	19	10-Jul-23	31-Jul-23	-106																				
P23-BP75.30	BP - Airlift, Cage Install and Concrete	23-May-23	01-Jun-23	8	01-Aug-23	09-Aug-23	-106																				
12																											
P23-BP86.10	BP - Excavation	16-May-23	22-May-23	15	13-May-23 A	01-Jun-23 A	-106																				
P23-BP86.20	BP - RCD Drilling	23-May-23	27-Jun-23	5	02-Jun-23 A	08-Jun-23 A	-106																				
P23-BP86.30	BP - Airlift, Cage Install and Concrete	28-Jun-23	07-Jul-23	14	09-Jun-23 A	27-Jun-23 A	-106																				
TD05																											
06																											
P18-BP64.20	BP - RCD Drilling	04-Mar-23	25-Mar-23	26	13-May-23 A	14-Jun-23 A	-81																				
P18-BP64.30	BP - Airlift, Cage Install and Concrete	27-Mar-23	04-Apr-23	21	15-Jun-23 A	11-Jul-23	-81																				
07																											
P18-BP36.10	BP - Excavation	20-Mar-23	25-Mar-23	6	03-Jul-23	08-Jul-23	-101																				
P18-BP36.20	BP - RCD Drilling	27-Mar-23	17-Apr-23	15	10-Jul-23	26-Jul-23	-101																				
P18-BP36.30	BP - Airlift, Cage Install and Concrete	18-Apr-23	25-Apr-23	7	27-Jul-23	03-Aug-23	-101																				
09																											
P18-BP60.20	BP - RCD Drilling	06-May-23	29-May-23	5	31-May-23 A	06-Jun-23 A	-106																				
P18-BP60.30	BP - Airlift, Cage Install and Concrete	30-May-23	07-Jun-23	9	07-Jun-23 A	17-Jun-23 A	-106																				
TD06																											
03																											
P18-BP23.10	BP IAR-S - Excavation	26-Nov-22	02-Dec-22	6	03-Jul-23	08-Jul-23	-103																				
P18-BP23.20	BP IAR-S - RCD Drilling	03-Dec-22	20-Dec-22	15	10-Jul-23	26-Jul-23	-103																				
P18-BP23.30	BP IAR-S - Airlift, Cage Install and Concrete	23-Dec-22	03-Jan-23	7	29-Jul-23	05-Aug-23	-103																				
06																											

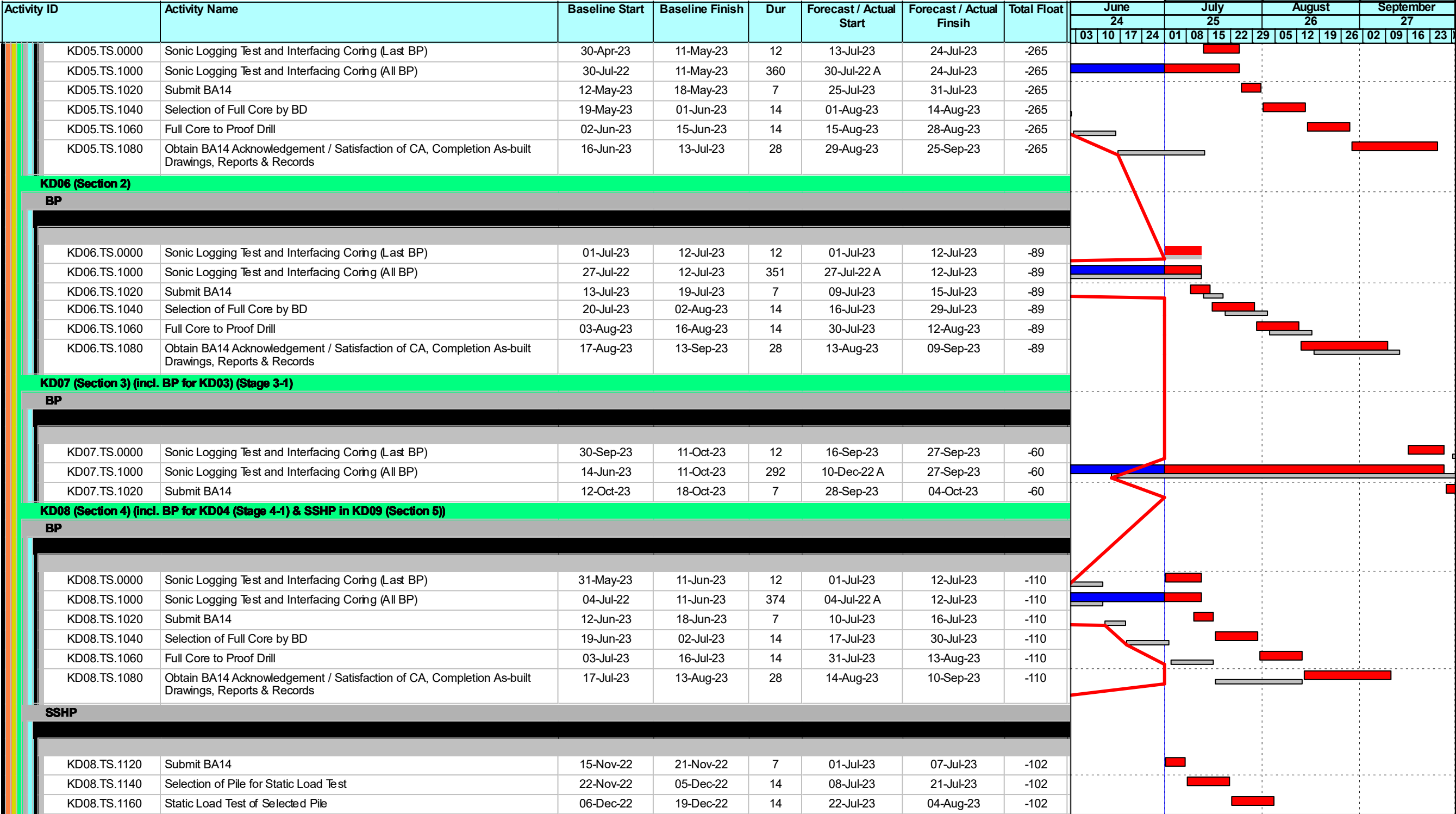




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Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float	June				July				August				September							
								24				25				26				27							
								03	10	17	24	01	08	15	22	29	05	12	19	26	02	09	16	23			
KD08.TS.1180	Obtain BA14 Acknowledgement / Satisfaction of CA, Completion As-built Drawings, Reports & Records	20-Dec-22	16-Jan-23	28	05-Aug-23	01-Sep-23	-102																				
KD09 (Section 5) (incl. BP for KD02 (Stage 5-1))																											
BP																											
KD09.TS.0000	Sonic Logging Test and Interfacing Coring (Last BP)	01-Aug-23	12-Aug-23	12	25-Aug-23	05-Sep-23	-148																				
KD09.TS.1000	Sonic Logging Test and Interfacing Coring (All BP)	23-May-22	12-Aug-23	471	23-May-22 A	05-Sep-23	-148																				
KD09.TS.1020	Submit BA14	13-Aug-23	19-Aug-23	7	06-Sep-23	12-Sep-23	-148																				
KD09.TS.1040	Selection of Full Core by BD	20-Aug-23	02-Sep-23	14	13-Sep-23	26-Sep-23	-148																				
KD09.TS.1060	Full Core to Proof Drill	03-Sep-23	16-Sep-23	14	27-Sep-23	10-Oct-23	-148																				
Attendance to Other Project Contractors (optional works item no. 2A to 2E)																											
S2.AT.0000	Attendance at Section 2 Area (optional works item no. 2B) (Duration TBC)	13-May-23	01-Jun-23	20	01-Jul-23	20-Jul-23	-38																				
S3.AT.0000	Attendance at Section 3 Area (optional works item no. 2C) (Duration TBC)	02-Jul-23	21-Jul-23	20	02-Jul-23	21-Jul-23	71																				

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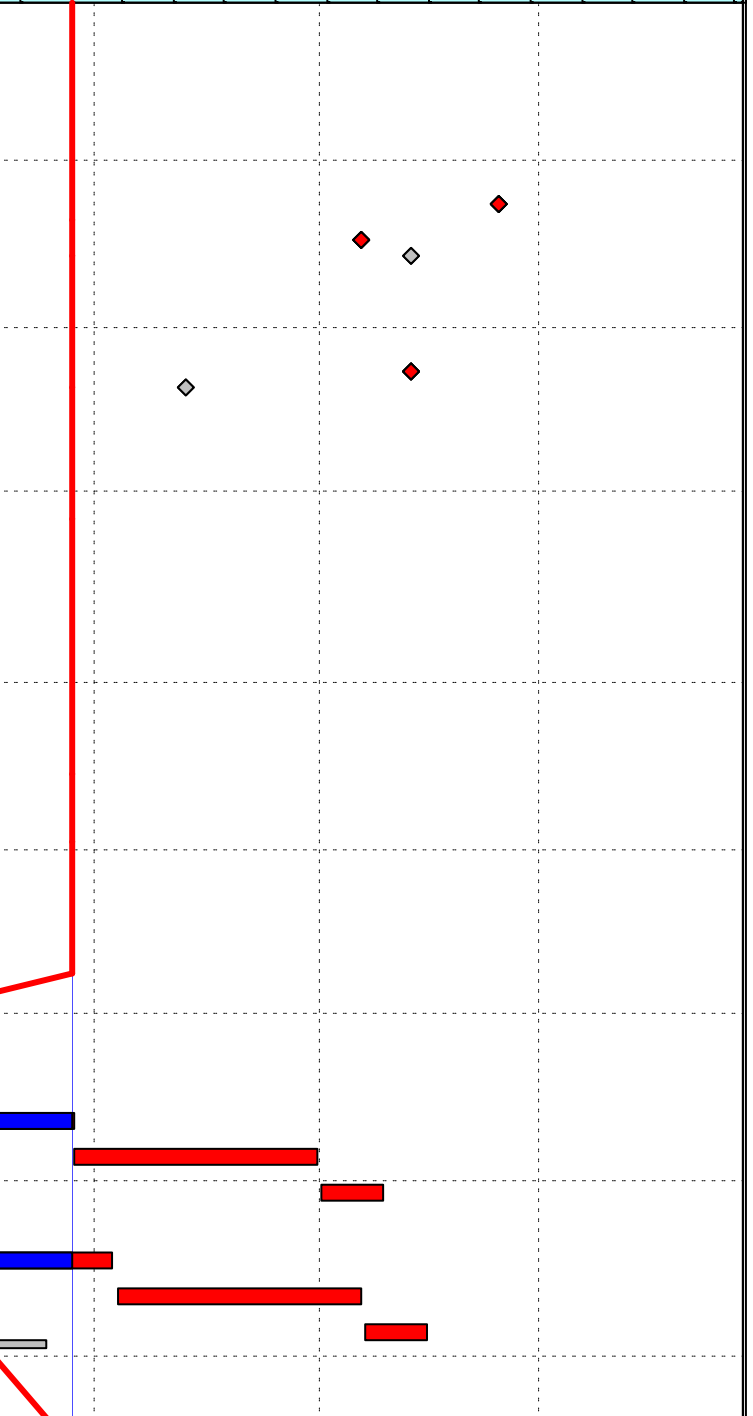
West Kowloon Cultural District Authority
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Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float	July				August				September				October			
								25				26				27				28			
								01	08	15	22	29	05	12	19	26	02	09	16	23	30	07	14

Piling for Integrated Basement and U/G Road in Zone 2B & 2C

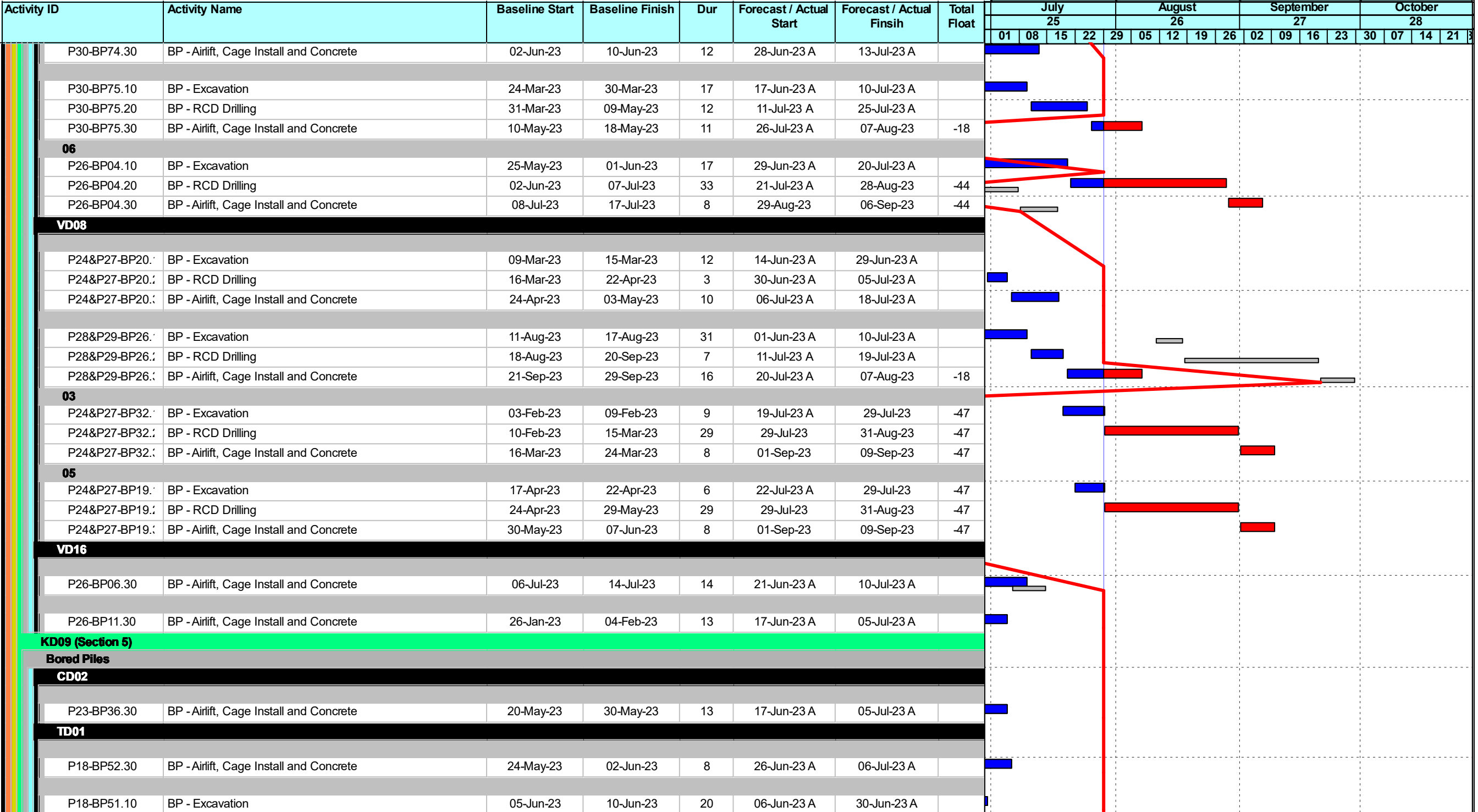
Contract Dates							
Key Dates							
KD for Zone 2B							
KD05	KD05 (Section 1) - 03 Jan 2023		13-Jul-23	0		25-Sep-23*	-265
KD06	KD06 (Section 2) - 12 Jun 2023		13-Sep-23	0		06-Sep-23*	-86
KD for Zone 2C							
KD08	KD08 (Section 4) - 23 May 2023		13-Aug-23	0		13-Sep-23*	-113
Optional Works subjected to CA's Instruction							
CO2C	Last CAI date for Optional Works Item No.2C (330 Days to 710 Days after Commencement)		02-Jul-23	0	02-Jul-23 A		
Construction Stage							
Pile Construction							
KD05 (Section 1)							
Bored Piles - Drainage Diversion							
CD08							
P17-BP18.30	BP IAR-N - Airlift, Cage Install and Concrete		22-Apr-23	29-Apr-23	0	10-Jul-23 A	10-Jul-23 A
P17-BP20.30	BP - Airlift, Cage Install and Concrete (Rev. to P17-BP20A)		14-Mar-23	21-Mar-23	10	29-Jun-23 A	12-Jul-23 A
Bored Piles							
TD07							
09							
P18-BP07.30	BP IAR-S - Airlift, Cage Install and Concrete		06-Apr-23	17-Apr-23	14	13-Jun-23 A	30-Jun-23 A
KD07 (Section 3)							
Bored Piles							
VD01							
P26-BP07.10	BP - Excavation		28-Apr-23	05-May-23	20	06-Jul-23 A	29-Jul-23
P26-BP07.20	BP - RCD Drilling		06-May-23	09-Jun-23	29	29-Jul-23	31-Aug-23
P26-BP07.30	BP - Airlift, Cage Install and Concrete		10-Jun-23	19-Jun-23	8	01-Sep-23	09-Sep-23
08							
P26-BP05.10	BP - Excavation		03-Jun-23	09-Jun-23	21	11-Jul-23 A	03-Aug-23
P26-BP05.20	BP - RCD Drilling		10-Jun-23	15-Jul-23	29	04-Aug-23	06-Sep-23
P26-BP05.30	BP - Airlift, Cage Install and Concrete		17-Jul-23	25-Jul-23	8	07-Sep-23	15-Sep-23
VD02							









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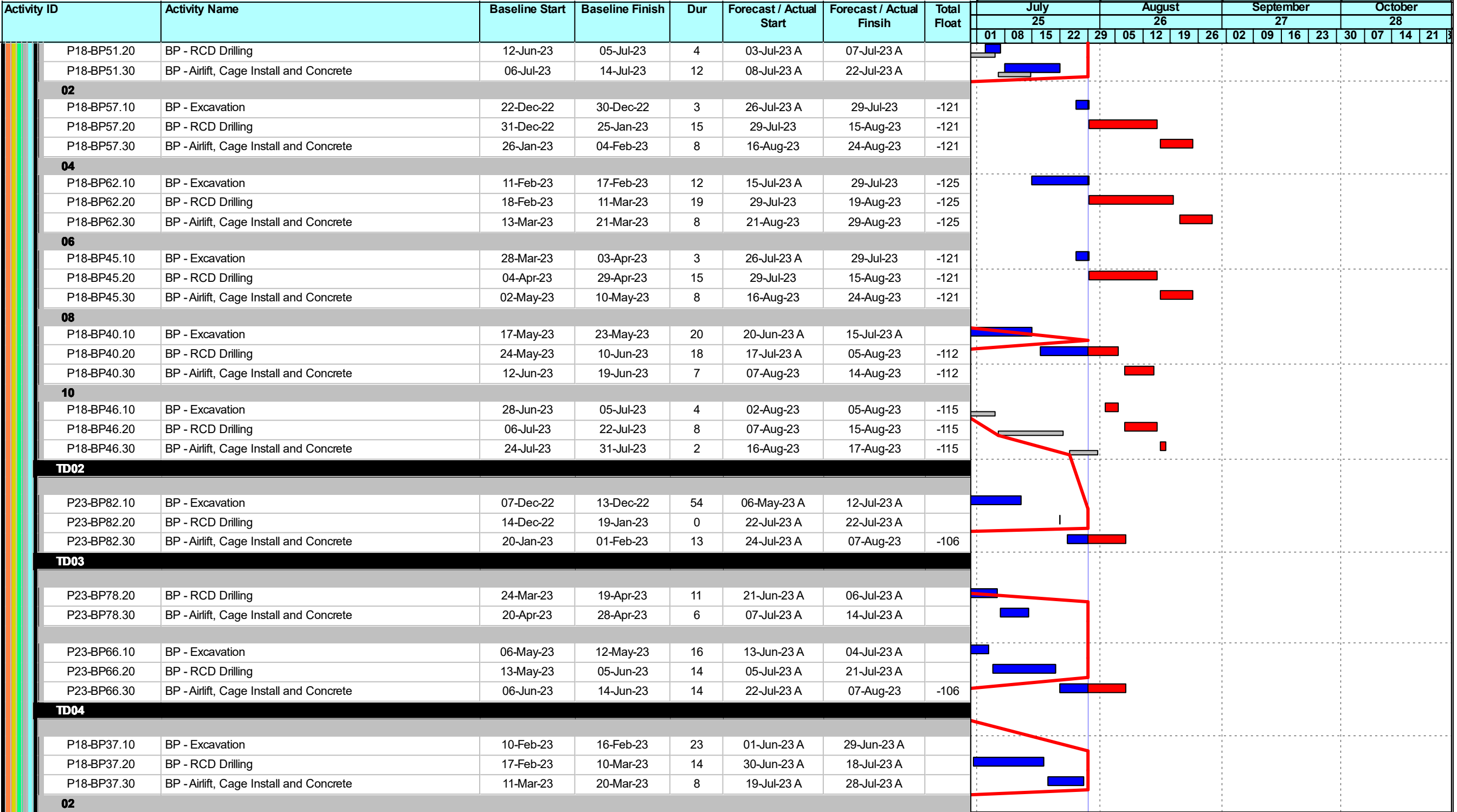








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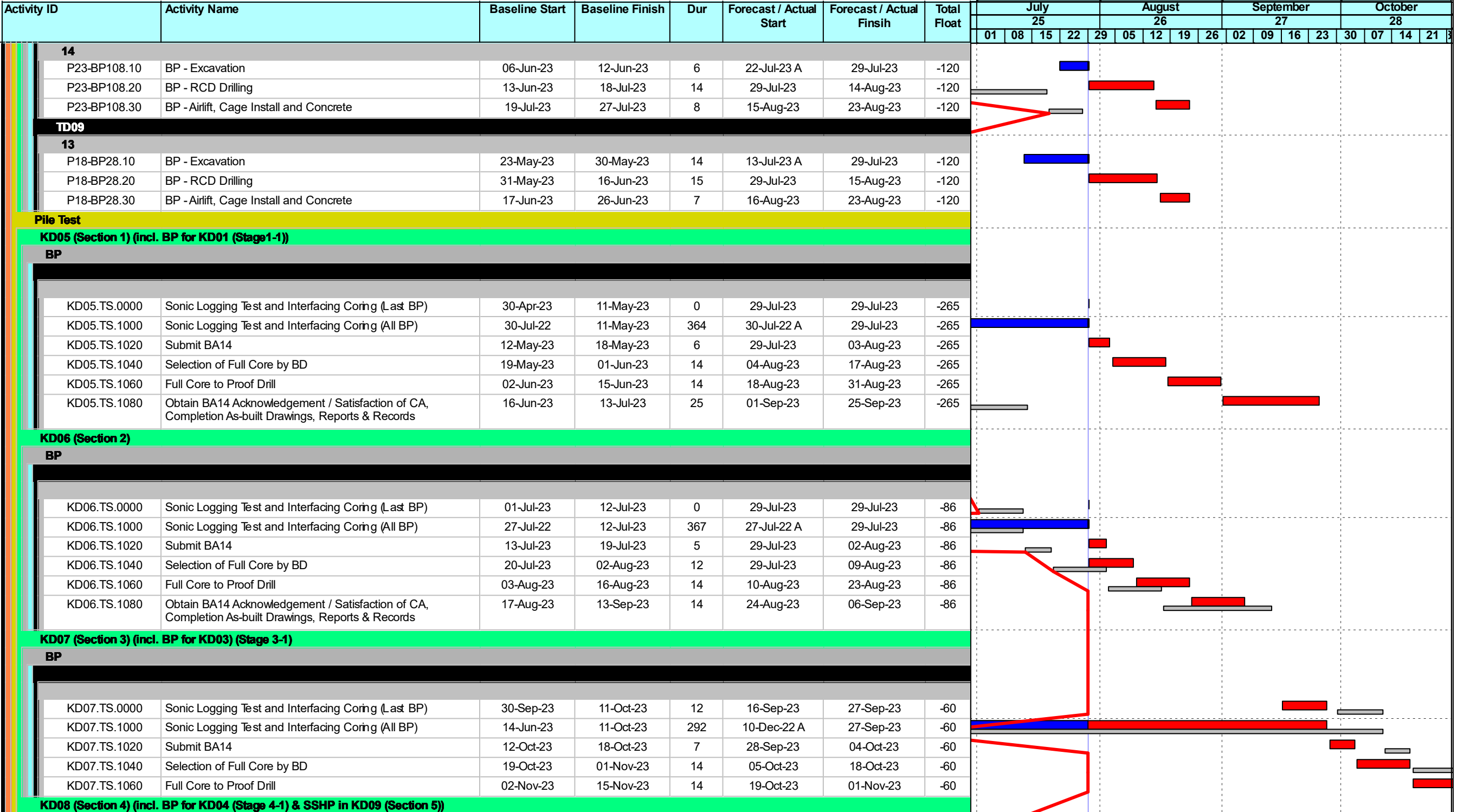
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

Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float	July				August					September				October			
								25				26					27				28			
								01	08	15	22	29	05	12	19	26	02	09	16	23	30	07	14	21
P18-BP49.10	BP - Excavation	21-Dec-22	29-Dec-22	18	08-Jul-23 A	29-Jul-23	-123	[Blue bar]																
P18-BP49.20	BP - RCD Drilling	30-Dec-22	21-Jan-23	17	29-Jul-23	17-Aug-23	-123					[Red bar]												
P18-BP49.30	BP - Airlift, Cage Install and Concrete	25-Jan-23	03-Feb-23	8	18-Aug-23	26-Aug-23	-123					[Red bar]												
05																								
P18-BP50.10	BP - Excavation	04-Mar-23	10-Mar-23	3	29-Jul-23	01-Aug-23	-123					[Red bar]												
P18-BP50.20	BP - RCD Drilling	11-Mar-23	01-Apr-23	14	02-Aug-23	17-Aug-23	-123					[Red bar]												
P18-BP50.30	BP - Airlift, Cage Install and Concrete	03-Apr-23	15-Apr-23	8	18-Aug-23	26-Aug-23	-123					[Red bar]												
10																								
P23-BP75.10	BP - Excavation	22-Apr-23	28-Apr-23	18	07-Jul-23 A	28-Jul-23 A		[Blue bar]																
P23-BP75.20	BP - RCD Drilling	29-Apr-23	22-May-23	14	29-Jul-23 A	14-Aug-23	-120					[Red bar]												
P23-BP75.30	BP - Airlift, Cage Install and Concrete	23-May-23	01-Jun-23	8	15-Aug-23	23-Aug-23	-120					[Red bar]												
TD05																								
P18-BP64.30	BP - Airlift, Cage Install and Concrete	27-Mar-23	04-Apr-23	20	15-Jun-23 A	11-Jul-23 A		[Blue bar]																
07																								
P18-BP36.10	BP - Excavation	20-Mar-23	25-Mar-23	19	07-Jul-23 A	29-Jul-23	-118	[Blue bar]																
P18-BP36.20	BP - RCD Drilling	27-Mar-23	17-Apr-23	13	29-Jul-23	12-Aug-23	-118					[Red bar]												
P18-BP36.30	BP - Airlift, Cage Install and Concrete	18-Apr-23	25-Apr-23	7	14-Aug-23	21-Aug-23	-118					[Red bar]												
TD06																								
P18-BP32.30	BP - Airlift, Cage Install and Concrete	21-Apr-23	29-Apr-23	8	19-Jun-23 A	29-Jun-23 A						[Red bar]												
P18-BP34.20	BP - RCD Drilling	21-Apr-23	09-May-23	7	29-Jun-23 A	08-Jul-23 A		[Blue bar]																
P18-BP34.30	BP - Airlift, Cage Install and Concrete	10-May-23	17-May-23	9	10-Jul-23 A	20-Jul-23 A		[Blue bar]																
03																								
P18-BP23.10	BP IAR-S - Excavation	26-Nov-22	02-Dec-22	3	29-Jul-23	01-Aug-23	-124					[Red bar]												
P18-BP23.20	BP IAR-S - RCD Drilling	03-Dec-22	20-Dec-22	14	02-Aug-23	17-Aug-23	-124					[Red bar]												
P18-BP23.30	BP IAR-S - Airlift, Cage Install and Concrete	23-Dec-22	03-Jan-23	7	21-Aug-23	28-Aug-23	-124					[Red bar]												
TD08																								
10																								
P18-BP56.10	BP - Excavation	18-Feb-23	24-Feb-23	42	11-May-23 A	03-Jul-23 A		[Blue bar]				[Red bar]												
P18-BP56.20	BP - RCD Drilling	25-Feb-23	18-Mar-23	9	04-Jul-23 A	14-Jul-23 A		[Blue bar]																
P18-BP56.30	BP - Airlift, Cage Install and Concrete	20-Mar-23	28-Mar-23	8	15-Jul-23 A	25-Jul-23 A		[Blue bar]				[Red bar]												
12																								
P18-BP55.10	BP - Excavation	04-Apr-23	14-Apr-23	77	26-Apr-23 A	29-Jul-23	-106	[Blue bar]				[Red bar]												
P18-BP55.20	BP - RCD Drilling	15-Apr-23	08-May-23	36	15-Jun-23 A	29-Jul-23	-106	[Blue bar]				[Red bar]												
P18-BP55.30	BP - Airlift, Cage Install and Concrete	09-May-23	17-May-23	8	29-Jul-23	07-Aug-23	-106					[Red bar]												
13																								
P23-BP97.10	BP - Excavation	02-May-23	08-May-23	14	28-Jun-23 A	15-Jul-23 A		[Blue bar]				[Red bar]												
P23-BP97.20	BP - RCD Drilling	09-May-23	12-Jun-23	7	17-Jul-23 A	25-Jul-23 A		[Blue bar]				[Red bar]												
P23-BP97.30	BP - Airlift, Cage Install and Concrete	13-Jun-23	21-Jun-23	11	26-Jul-23 A	07-Aug-23	-106	[Blue bar]				[Red bar]												

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Activity ID	Activity Name	Baseline Start	Baseline Finish	Dur	Forecast / Actual Start	Forecast / Actual Finsih	Total Float	July				August				September				October			
								25				26				27				28			
								01	08	15	22	29	05	12	19	26	02	09	16	23	30	07	14
BP																							
KD08.TS.0000	Sonic Logging Test and Interfacing Coring (Last BP)	31-May-23	11-Jun-23	0	29-Jul-23	29-Jul-23	-113																
KD08.TS.1000	Sonic Logging Test and Interfacing Coring (All SSHP)	04-Jul-22	11-Jun-23	388	04-Jul-22 A	27-Jul-23 A	-113	[Gantt bar: 04-Jul-22 to 27-Jul-23]															
KD08.TS.1020	Submit BA14	12-Jun-23	18-Jun-23	2	29-Jul-23	30-Jul-23	-113	[Gantt bar: 29-Jul-23 to 30-Jul-23]															
KD08.TS.1040	Selection of Full Core by BD	19-Jun-23	02-Jul-23	14	31-Jul-23	13-Aug-23	-113	[Gantt bar: 31-Jul-23 to 13-Aug-23]															
KD08.TS.1060	Full Core to Proof Drill	03-Jul-23	16-Jul-23	14	14-Aug-23	27-Aug-23	-113	[Gantt bar: 14-Aug-23 to 27-Aug-23]															
KD08.TS.1080	Obtain BA14 Acknowledgement / Satisfaction of CA, Completion As-built Drawings, Reports & Records	17-Jul-23	13-Aug-23	17	28-Aug-23	13-Sep-23	-113	[Gantt bar: 28-Aug-23 to 13-Sep-23]															
SSHP																							
KD08.TS.1160	Static Load Test of Selected Pile	06-Dec-22	19-Dec-22	3	21-Jul-23 A	24-Jul-23 A	-93	[Gantt bar: 21-Jul-23 to 24-Jul-23]															
KD08.TS.1180	Obtain BA14 Acknowledgement / Satisfaction of CA, Completion As-built Drawings, Reports & Records	20-Dec-22	16-Jan-23	26	29-Jul-23	23-Aug-23	-93	[Gantt bar: 29-Jul-23 to 23-Aug-23]															
KD09 (Section 5) (incl. BP for KD02 (Stage 5-1))																							
BP																							
KD09.TS.0000	Sonic Logging Test and Interfacing Coring (Last BP)	01-Aug-23	12-Aug-23	14	30-Aug-23	12-Sep-23	-155	[Gantt bar: 30-Aug-23 to 12-Sep-23]															
KD09.TS.1000	Sonic Logging Test and Interfacing Coring (All BP)	23-May-22	12-Aug-23	478	23-May-22 A	12-Sep-23	-155	[Gantt bar: 23-May-22 to 12-Sep-23]															
KD09.TS.1020	Submit BA14	13-Aug-23	19-Aug-23	7	13-Sep-23	19-Sep-23	-155	[Gantt bar: 13-Sep-23 to 19-Sep-23]															
KD09.TS.1040	Selection of Full Core by BD	20-Aug-23	02-Sep-23	14	20-Sep-23	03-Oct-23	-155	[Gantt bar: 20-Sep-23 to 03-Oct-23]															
KD09.TS.1060	Full Core to Proof Drill	03-Sep-23	16-Sep-23	14	04-Oct-23	17-Oct-23	-155	[Gantt bar: 04-Oct-23 to 17-Oct-23]															
KD09.TS.1080	Obtain BA14 Acknowledgement / Satisfaction of CA, Completion As-built Drawings, Reports & Records	17-Sep-23	14-Oct-23	28	18-Oct-23	14-Nov-23	-155	[Gantt bar: 18-Oct-23 to 14-Nov-23]															

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C. Environmental Mitigation Measures – Implementation Status

Table C-1: Environmental Mitigation Measures Implementation Status

		Implementation Stage		
		Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	May 2023	Jun 2023	Jul 2023
Air Quality Impact (Construction)				
2.1	<p>General Dust Control Measures</p> <p>Frequent water spraying for active construction areas (12 times a day or once every one hour), including Heavy construction activities such as construction of buildings or roads, drilling, ground excavation, cut and fill operations (i.e., earth moving)</p>	✓	Obs	✓
2.1	<p>Best Practice For Dust Control</p> <p>The relevant best practices for dust control as stipulated in the Air Pollution Control (construction Dust) Regulation should be adopted to further reduce the construction dust impacts from the Project. These best practices include:</p> <p><i>Good Site Management</i></p> <ul style="list-style-type: none"> Good site management is important to help reducing potential air quality impact down to an acceptable level. As a general guide, the Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimise the release of visible dust emission. Any piles of materials accumulated on or around the work areas should be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimising generation of fugitive dust emissions. The material should be handled properly to prevent fugitive dust emission before cleaning. <p><i>Disturbed Parts of the Roads</i></p> <ul style="list-style-type: none"> Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or 	✓	✓	✓

		Implementation Stage		
		Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	May 2023	Jun 2023	Jul 2023
	<ul style="list-style-type: none"> Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet. 	Obs	✓	Obs
	<i>Exposed Earth</i>	N/A	N/A	N/A
	<ul style="list-style-type: none"> Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seeding with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies. 			
	<i>Loading, Unloading or Transfer of Dusty Materials</i>	✓	✓	✓
	<ul style="list-style-type: none"> All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet. 			
	<i>Debris Handling</i>	✓	✓	✓
	<ul style="list-style-type: none"> Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides. Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped. 	N/A	N/A	N/A
	<i>Transport of Dusty Materials</i>	✓	✓	✓
	<ul style="list-style-type: none"> Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards. 			
	<i>Wheel washing</i>	✓	✓	✓
	<ul style="list-style-type: none"> Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. 			
	<i>Use of vehicles</i>	✓	✓	✓
	<ul style="list-style-type: none"> The speed of the trucks within the site should be controlled to about 10km/hour in order to reduce adverse dust impacts and secure the safe movement around the site. 			

		Implementation Stage		
		Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	May 2023	Jun 2023	Jul 2023
	<ul style="list-style-type: none"> Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle. 	✓	✓	✓
	<p><i>Site hoarding</i></p> <ul style="list-style-type: none"> Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit. 	✓	✓	✓
2.1	<p>Best Practicable Means for Cement Works (Concrete Batching Plant)</p> <p>The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2(93) should be followed and implemented to further reduce the construction dust impacts of the Project. These best practices include:</p> <p><i>Exhaust from Dust Arrestment Plant</i></p> <ul style="list-style-type: none"> Wherever possible the final discharge point from particulate matter arrestment plant, where is not necessary to achieve dispersion from residual pollutants, should be at low level to minimise the effect on the local community in the case of abnormal emissions and to facilitate maintenance and inspection <p><i>Emission Limits</i></p> <ul style="list-style-type: none"> All emissions to air, other than steam or water vapour, shall be colourless and free from persistent mist or smoke 	N/A	N/A	N/A
		N/A	N/A	N/A

		Implementation Stage		
		Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	May 2023	Jun 2023	Jul 2023
	<p><i>Engineering Design/Technical Requirements</i></p> <ul style="list-style-type: none"> As a general guidance, the loading, unloading, handling and storage of fuel, raw materials, products, wastes or by-products should be carried out in a manner so as to prevent the release of visible dust and/or other noxious or offensive emissions 	N/A	N/A	N/A
	<p>Non-Road Mobile Machinery (NRMM): All NRMMs operating on-site which are subject to emission control of Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation are approved/exempted (as the case may be) and affixed with the requisite approval/exemption labels.</p>	Obs	Obs, Rem	Obs
Noise Impact (Construction)				
3.1	<p>Good Site Practice</p> <ul style="list-style-type: none"> Good site practice and noise management can significantly reduce the impact of construction site activities on nearby NSRs. The following package of measures should be followed during each phase of construction: only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works; machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs; mobile plant should be sited as far away from NSRs as possible; and material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities. 	✓	✓	✓

		Implementation Stage		
		Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	May 2023	Jun 2023	Jul 2023
3.1	<p>Adoption of Quieter PME</p> <p>The recommended quieter PME adopted in the assessment were taken from the EPD's QPME Inventory and "Sound Power Levels of Other Commonly Used PME" are presented in Table 4.26 in the EIA report. It should be noted that the silenced PME selected for assessment can be found in Hong Kong.</p>	✓	✓	✓
3.1	<p>Use of Movable Noise Barriers</p> <p>Movable noise barriers can be very effective in screening noise from particular items of plant when constructing the Project. Noise barriers located along the active works area close to the noise generating component of a PME could produce at least 10 dB(A) screening for stationary plant and 5 dB(A) for mobile plant provided the direct line of sight between the PME and the NSRs is blocked.</p>	Obs	Obs	✓
3.1	<p>Use of Noise Enclosure/ Acoustic Shed</p> <p>The use of noise enclosure or acoustic shed is to cover stationary PME such as air compressor and concrete pump. With the adoption of the noise enclosure, the PME could be completely screened, and noise reduction of 15 dB(A) can be achieved according to the EIAO Guidance Note No. 9/2010.</p>	Obs, Rem	Obs, Rem	Rem
3.1	<p>Use of Noise Insulating Fabric</p> <p>Noise insulating fabric can also be adopted for certain PME (e.g. drill rig, pilling machine etc). The fabric should be lapped such that there are no openings or gaps on the joints. According to the approved Tsim Sha Tsui Station Northern Subway EIA report (AEIAR-127/2008), a noise reduction of 10 dB(A) can be achieved for the PME lapped with the noise insulating fabric.</p>	✓	✓	✓
3.1	<p>Scheduling of Construction Works outside School Examination Periods</p> <p>During construction phase, the contractor should liaise with the educational institutions (including NSRs LCS and CRGPS) to obtain the examination schedule and avoid the noisy construction activities during school examination periods.</p>	✓	✓	✓

		Implementation Stage		
		Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	May 2023	Jun 2023	Jul 2023
Water Quality Impact (Construction)				
4.1	<p>Construction site runoff and drainage</p> <p>The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended to protect water quality and sensitive uses of the coastal area, and when properly implemented should be sufficient to adequately control site discharges so as to avoid water quality impacts:</p> <ul style="list-style-type: none"> At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels, earth bunds or sand bag barriers should be provided on site to direct storm water to silt removal facilities. The design of the temporary on-site drainage system should be undertaken by the WKCDA's Contractor prior to the commencement of construction; Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM standards under the WPCO. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the WKCDA's Contractor prior to the commencement of construction. All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times. 	✓	✓	✓
		✓	✓	✓
		Obs	Obs	✓

		Implementation Stage		
		Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	May 2023	Jun 2023	Jul 2023
	<ul style="list-style-type: none"> Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities. 	✓	✓	✓
	<ul style="list-style-type: none"> All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exit where practicable. Wash-water should have sand and silt settled out and removed regularly to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. 	✓	✓	✓
	<ul style="list-style-type: none"> Open stockpiles of construction materials or construction wastes onsite should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system. 	✓	✓	✓
	<ul style="list-style-type: none"> Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and stormwater runoff being directed into foul sewers. 	✓	✓	✓
	<ul style="list-style-type: none"> Precautions should be taken at any time of the year when rainstorms are likely. Actions should be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC Note PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes. 	✓	✓	✓

		Implementation Stage		
		Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	May 2023	Jun 2023	Jul 2023
	<ul style="list-style-type: none"> Bentonite slurries used in piling or slurry walling should be reconditioned and reused wherever practicable. Temporary enclosed storage locations should be provided on-site for any unused bentonite that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries. 	N/A	N/A	N/A
4.1	<p>Barging facilities and activities</p> <p>Recommendations for good site practices during operation of the proposed barging point include:</p> <ul style="list-style-type: none"> All vessels should be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; Loading of barges and hoppers should be controlled to prevent splashing of material into the surrounding water. Barges or hoppers should not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation; All hopper barges should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; and Construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site. 	N/A	N/A	N/A
4.1	<p>Sewage effluent from construction workforce</p> <p>Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.</p>	✓	✓	✓
4.1	<p>General construction activities</p>			

		Implementation Stage		
		Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	May 2023	Jun 2023	Jul 2023
	<ul style="list-style-type: none"> Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby storm water drain. Stockpiles of cement and other construction materials should be kept covered when not being used. 	Obs	✓	✓
	<ul style="list-style-type: none"> Oils and fuels should only be stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to any nearby storm water drain, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event. 	Obs	Obs	Obs
Waste Management Implications (Construction)				
6.1	Good Site Practices			
	<ul style="list-style-type: none"> Recommendations for good site practices during the construction activities include: 			
	<ul style="list-style-type: none"> Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site 	Obs	Obs	Obs
	<ul style="list-style-type: none"> Training of site personnel in proper waste management and chemical handling procedures 	✓	✓	✓
	<ul style="list-style-type: none"> Provision of sufficient waste disposal points and regular collection of waste 	✓	✓	✓
	<ul style="list-style-type: none"> Appropriate measures to minimise windblown litter and dust/odour during transportation of waste by either covering trucks or by transporting wastes in enclosed containers 	✓	✓	✓
	<ul style="list-style-type: none"> Provision of wheel washing facilities before the trucks leaving the works area so as to minimise dust introduction to public roads 	✓	✓	✓

		Implementation Stage		
		Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	May 2023	Jun 2023	Jul 2023
	<ul style="list-style-type: none"> Well planned delivery programme for offsite disposal such that adverse environmental impact from transporting the inert or non-inert C&D materials is not anticipated 	✓	✓	✓
6.1	<p>Waste Reduction Measures</p> <p>Recommendations to achieve waste reduction include:</p> <ul style="list-style-type: none"> Sort inert C&D material to recover any recyclable portions such as metals Segregation and storage of different types of waste in different containers or skips to enhance reuse or recycling of materials and their proper disposal Encourage collection of recyclable waste such as waste paper and aluminium cans by providing separate labelled bins to enable such waste to be segregated from other general refuse generated by the work force Proper site practices to minimise the potential for damage or contamination of inert C&D materials Plan the use of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of wastes 	✓	✓	✓
6.1	<p>Inert and Non-inert C&D Materials</p> <p>In order to minimise impacts resulting from collection and transportation of inert C&D material for off-site disposal, the excavated materials should be reused on-site as fill material as far as practicable. In addition, inert C&D material generated from excavation works could be reused as fill materials in local projects that require public fill for reclamation.</p> <ul style="list-style-type: none"> The surplus inert C&D material will be disposed of at the Government's PFRFs for beneficial use by other projects in Hong Kong. 	✓	✓	Obs

		Implementation Stage		
		Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	May 2023	Jun 2023	Jul 2023
	<ul style="list-style-type: none"> Liaison with the CEDD Public Fill Committee (PFC) on the allocation of space for disposal of the inert C&D materials at PFRF is underway. No construction work is allowed to proceed until all issues on management of inert C&D materials have been resolved and all relevant arrangements have been endorsed by the relevant authorities including PFC and EPD. The C&D materials generated from general site clearance should be sorted on site to segregate any inert materials for reuse or disposal of at PFRFs whereas the non-inert materials will be disposed of at the designated landfill site. In order to monitor the disposal of inert and non-inert C&D materials at respectively PFRFs and the designated landfill site, and to control fly-tipping, it is recommended that the Contractor should follow the Technical Circular (Works) No. 6/2010 for Trip Ticket System for Disposal of Construction & Demolition Materials issued by Development Bureau. In addition, it is also recommended that the Contractor should prepare and implement a Waste Management Plan detailing their various waste arising and waste management practices in accordance with the relevant requirements of the Technical Circular (Works) No. 19/2005 Environmental Management on Construction Site. 	✓	✓	✓

6.1 **Chemical Waste**

		Implementation Stage		
		Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	May 2023	Jun 2023	Jul 2023
	<ul style="list-style-type: none"> If chemical wastes are produced at the construction site, the Contractor will be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the “Code of Practice on the Packaging Labelling and Storage of Chemical Wastes”. Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor should use a licensed collector to transport and dispose of the chemical wastes at the approved Chemical Waste Treatment Centre or other licensed recycling facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation. Potential environmental impacts arising from the handling activities (including storage, collection, transportation and disposal of chemical waste) are expected to be minimal with the implementation of appropriate mitigation measures as recommended. 	✓	✓	✓
6.1	<p>General Refuse</p> <p>General refuse should be stored in enclosed bins or compaction units separated from inert C&D materials. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from inert C&D materials. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' light material.</p>	Obs	Obs	Obs
Land Contamination (Construction)				

		Implementation Stage		
		Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	May 2023	Jun 2023	Jul 2023
7.1	<p>The potential for land contamination issues at the TST Fire Station due to its future relocation will be confirmed by site investigation after land acquisition. Where necessary, mitigation measures for minimising potential exposure to contaminated materials (if any) or remediation measures will be identified. If contaminated land is identified (e.g., during decommissioning of fuel oil storage tanks) after the commencement of works, mitigation measures are proposed in order to minimise the potentially adverse effects on the health and safety of construction workers and impacts arising from the disposal of potentially contaminated materials. The following measures are proposed for excavation and transportation of contaminated material:</p> <ul style="list-style-type: none"> To minimize the chance for construction workers to come into contact with any contaminated materials, bulk earth-moving excavation equipment should be employed; Contact with contaminated materials can be minimised by wearing appropriate clothing and personal protective equipment such as gloves and masks (especially when interacting directly with contaminated material), provision of washing facilities and prohibition of smoking and eating on site; Stockpiling of contaminated excavated materials on site should be avoided as far as possible; The use of contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out; Vehicles containing any contaminated excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater; Truck bodies and tailgates should be sealed to stop any discharge; Only licensed waste haulers should be used to collect and transport contaminated material to treatment/disposal site and should be equipped with tracking system to avoid fly tipping; 			
		N/A	N/A	N/A
		N/A	N/A	N/A
		N/A	N/A	N/A
		N/A	N/A	N/A
		N/A	N/A	N/A
		N/A	N/A	N/A
		N/A	N/A	N/A

		Implementation Stage		
		Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	May 2023	Jun 2023	Jul 2023
	<ul style="list-style-type: none"> Speed control for trucks carrying contaminated materials should be exercised; Observe all relevant regulations in relation to waste handling, such as Waste Disposal Ordinance (Cap. 354), Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354) and obtain all necessary permits where required; and Maintain records of waste generation and disposal quantities and disposal arrangements. 	N/A	N/A	N/A
		N/A	N/A	N/A
		N/A	N/A	N/A
Ecological Impact (Construction)				
No mitigation measure is required.				
Landscape and Visual Impact (Construction)				
Table 9.1 (CM1)	Trees should be retained in situ on site as far as possible. Should tree removal be unavoidable due to construction impacts, trees will be transplanted or felled with reference to the stated criteria in the Tree Removal Applications to be submitted to relevant government departments for approval in accordance to ETWB TCW No. 29/2004 and 3/2006.	✓	✓	✓
Table 9.1 (CM2)	Compensatory tree planting shall be incorporated to the proposed project and maximize the new tree, shrubs and other vegetation planting to compensate tree felled and vegetation removed. Also, implementation of compensatory planting should be of a ratio not less than 1:1 in terms of quality and quantity within the site.	N/A	N/A	N/A
Table 9.1 (CM3)	Buffer trees for screening purposes to soften the hard architectural and engineering structures and facilities.	N/A	N/A	N/A
Table 9.1 (CM4)	Softscape treatments such as vertical green wall panel /planting of climbing and/or weeping plants, etc, to maximize the green coverage and soften the hard architectural and engineering structures and facilities.	N/A	N/A	N/A
Table 9.1 (CM5)	Roof greening by means of intensive and extensive green roof to maximize the green coverage and improve aesthetic appeal and visual quality of the building/structure.	N/A	N/A	N/A

		Implementation Stage		
		Zone 2B & 2C		
EM&A Ref.	Recommendation Measures	May 2023	Jun 2023	Jul 2023
Table 9.1 (CM6)	Sensitive streetscape design should be incorporated along all new roads and streets.	N/A	N/A	N/A
Table 9.1 (CM7)	Structure, ornamental planting shall be provided along amenity strips to enhance the landscape quality.	N/A	N/A	N/A
Table 9.1 (CM8)	Landscape design shall be incorporated to architectural and engineering structures in order to provide aesthetically pleasing designs.	N/A	N/A	N/A
Table 9.1 (CM9)	Minimize the structure of marine facilities to be built on the seabed and foreshore in order to minimize the affected extent to the waterbody	N/A	N/A	N/A
Table 9.2 (MCP1)	Use of decorative screen hoarding/boards	✓	✓	✓
Table 9.2 (MCP2)	Early introduction of landscape treatments	N/A	N/A	N/A
Table 9.2 (MCP3)	Adoption of light colour for the temporary ventilation shafts for the basement during the transition period.	N/A	N/A	N/A
Table 9.2 (MCP4)	Control of night time lighting	✓	✓	✓
Table 9.2 (MCP5)	Use of greenery such as grass cover for the temporary open areas will help achieve the visual balance and soften the hard edges of the structures.	N/A	N/A	N/A

N/A - Not Applicable

✓ - Implemented

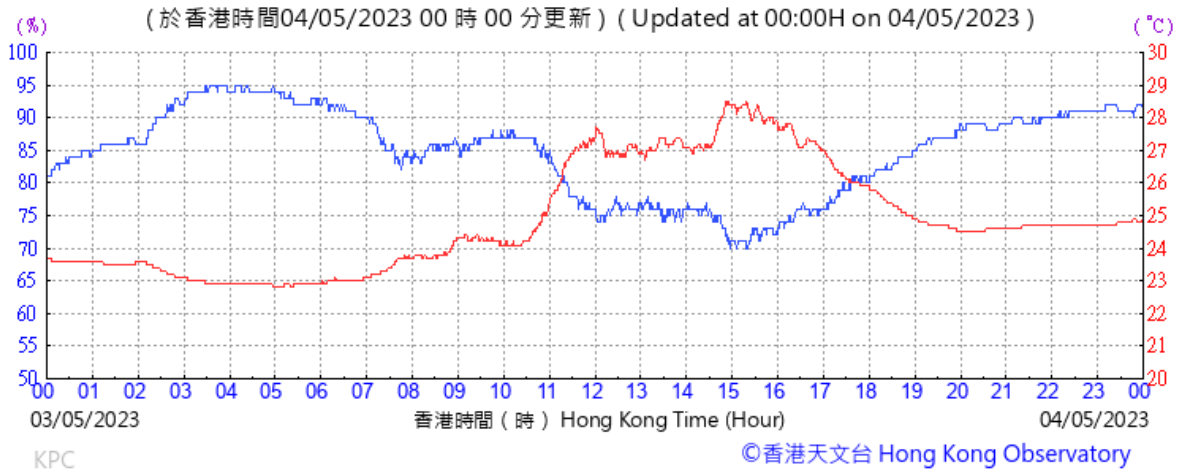
Obs - Observed

Rem - Reminder

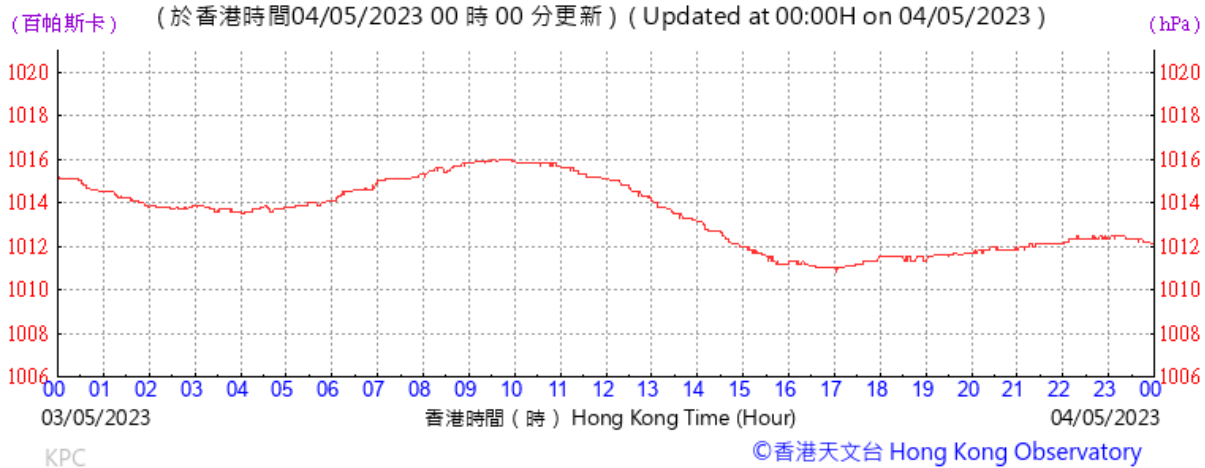
D. Meteorological Data Extracted from Hong Kong Observatory

Extract of Meteorological Observations for King's Park Automatic Weather Station, May 2023

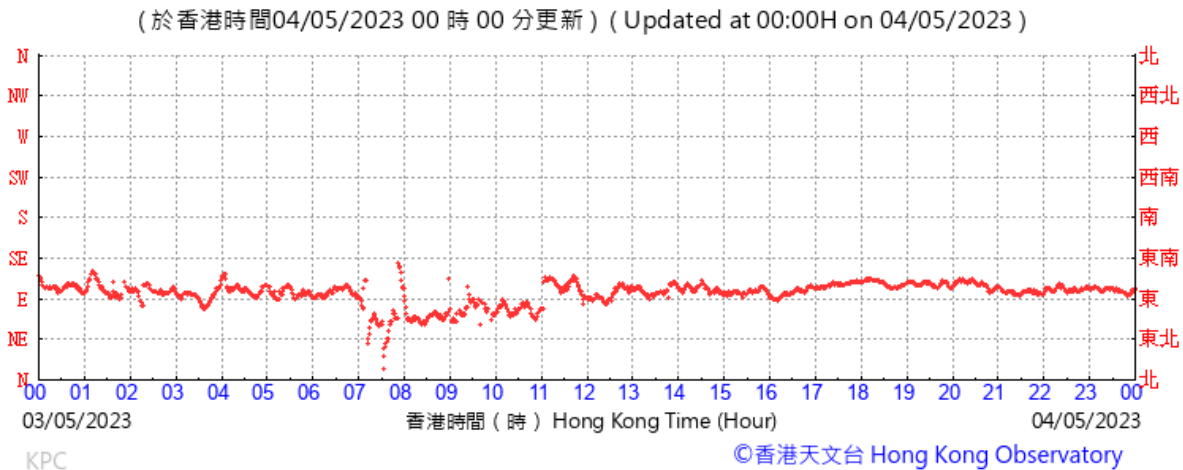
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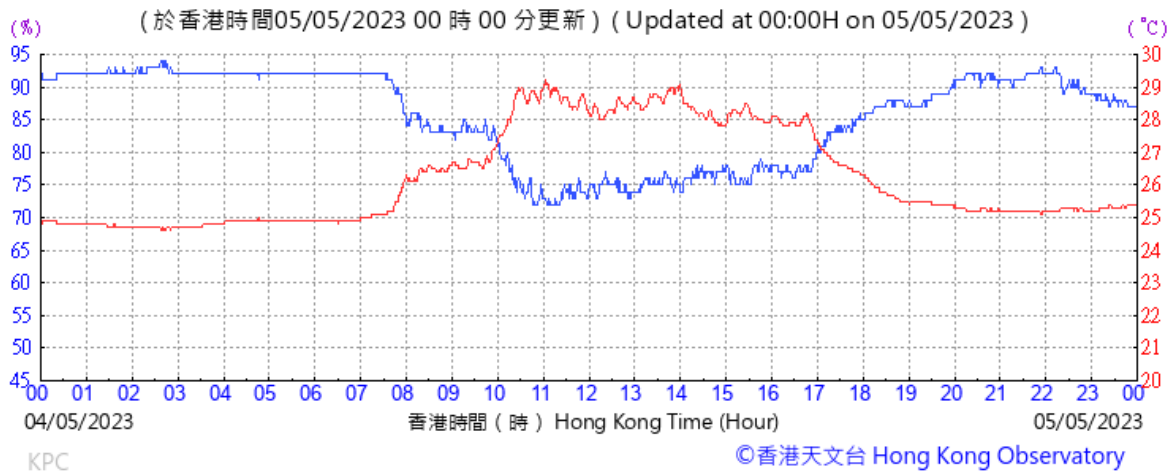
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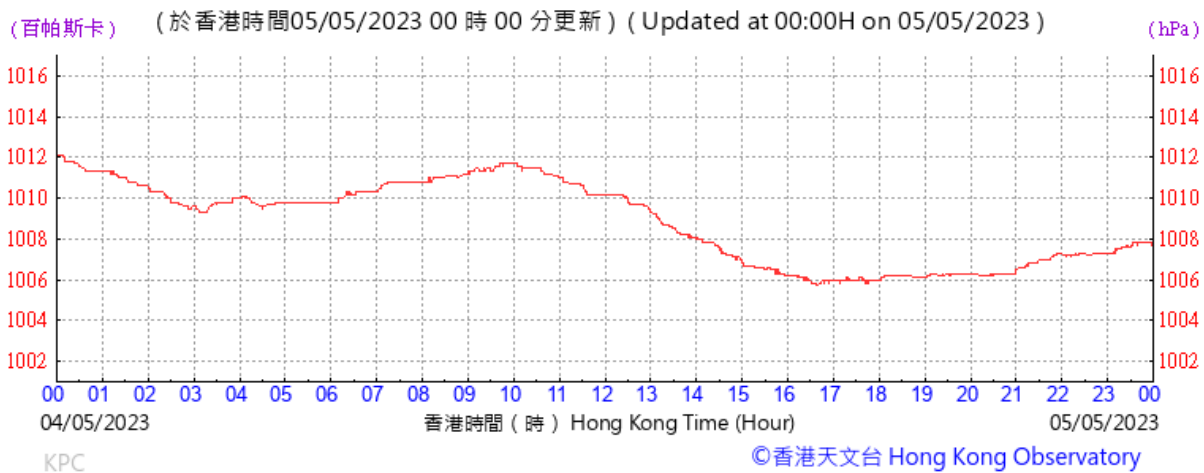
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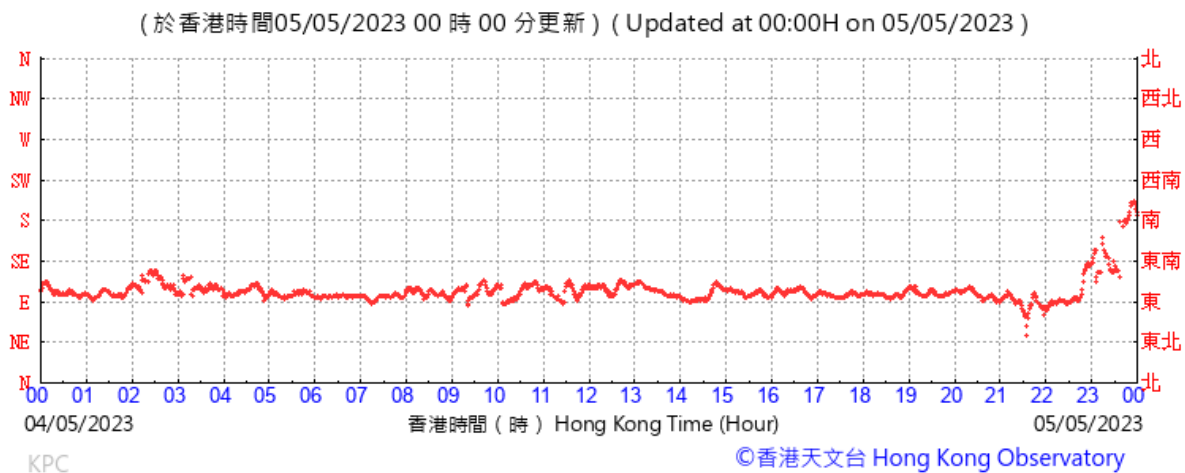
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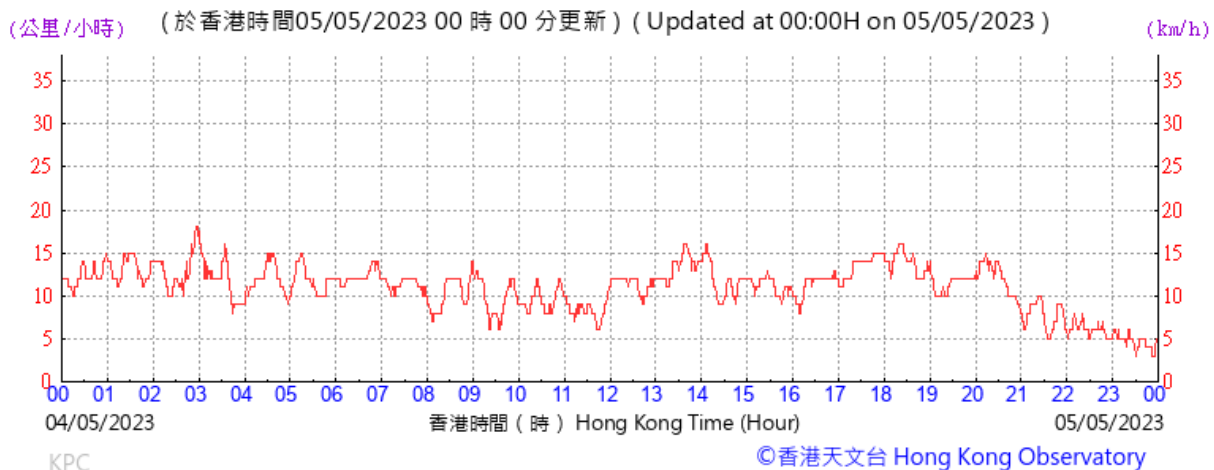
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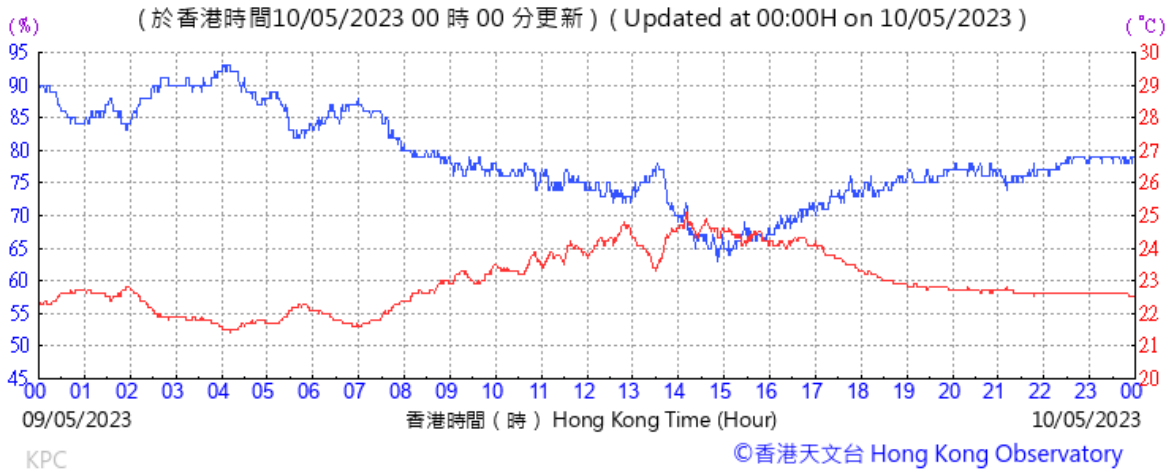
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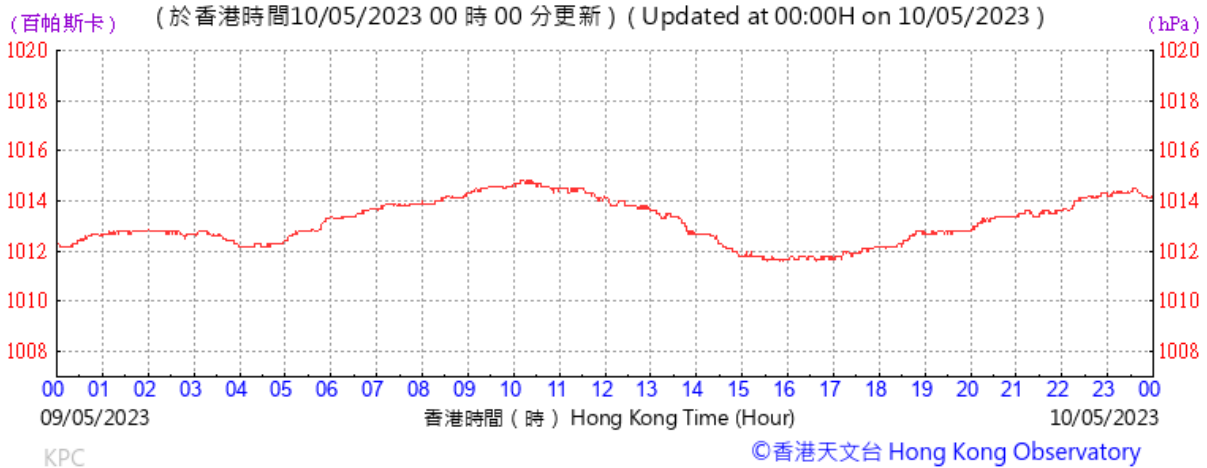
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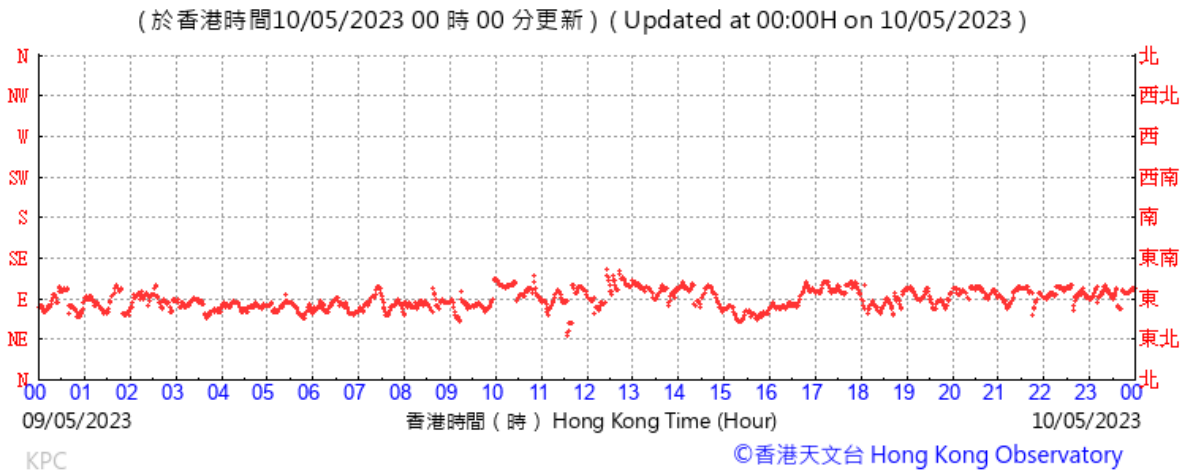
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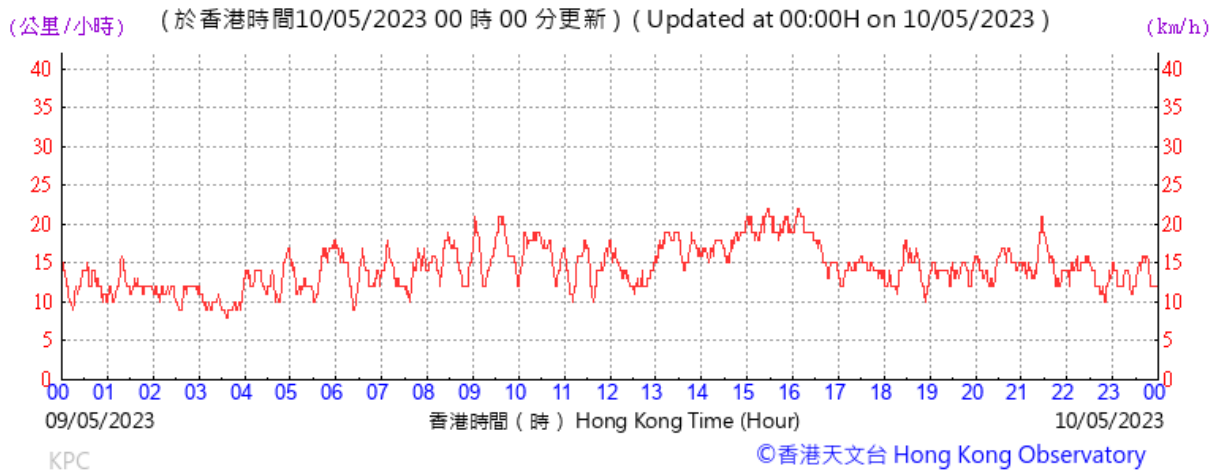
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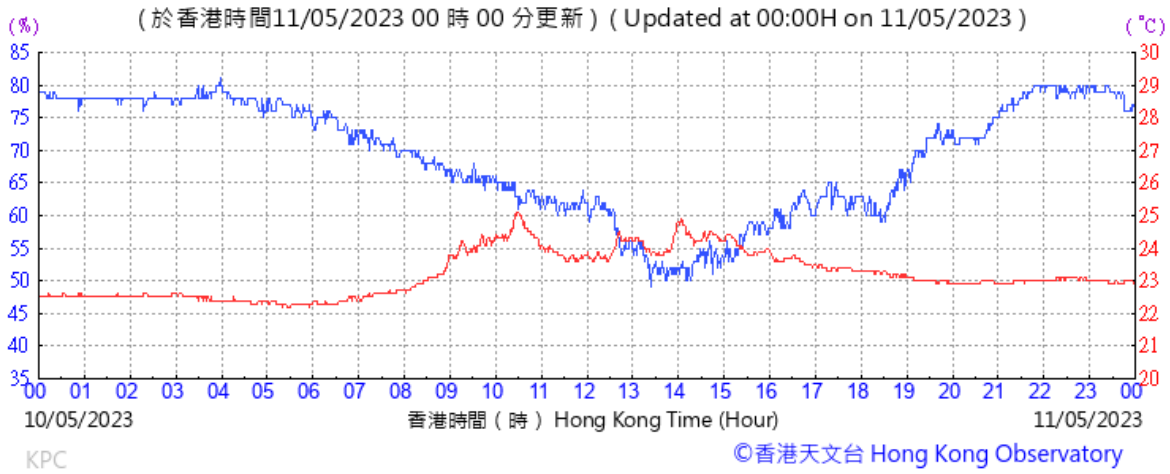
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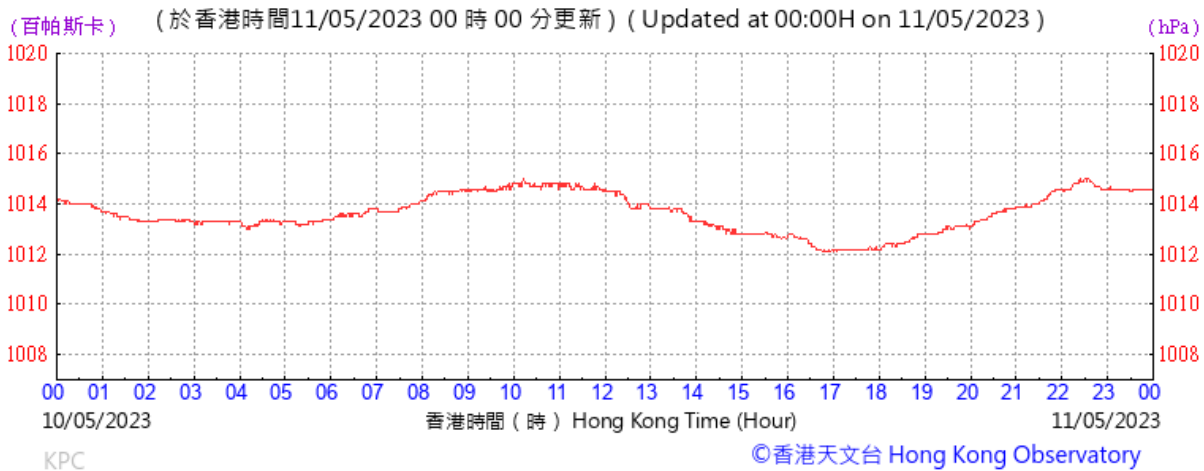
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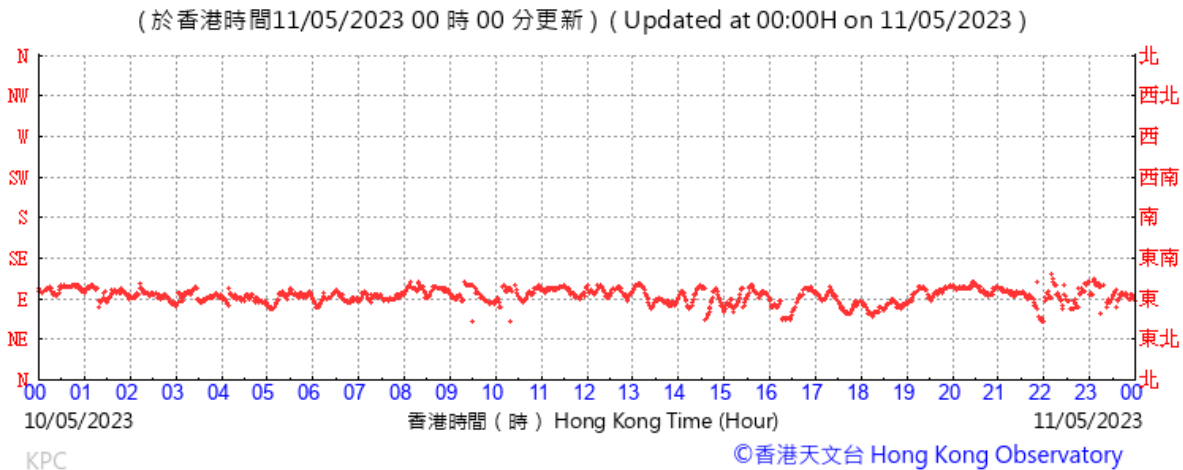
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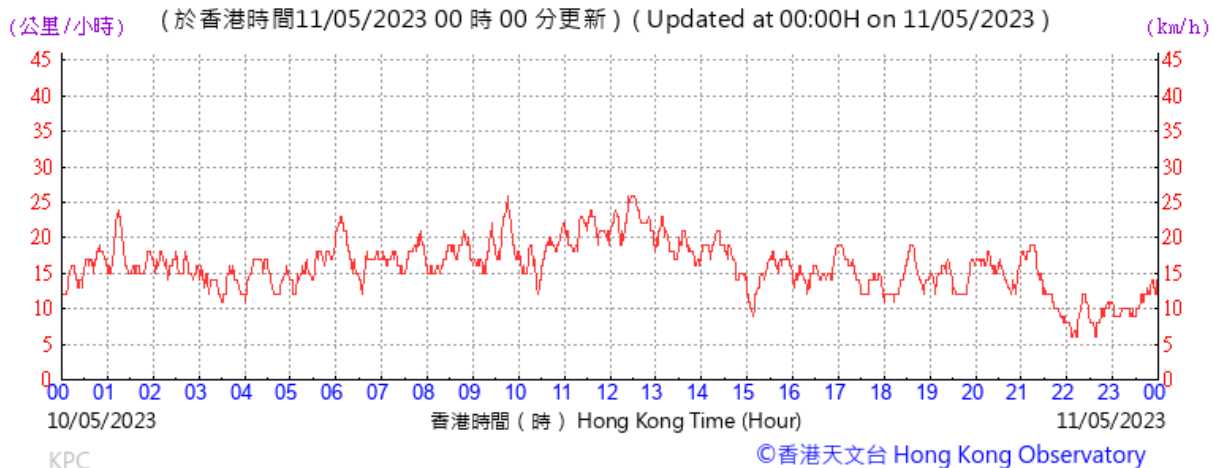
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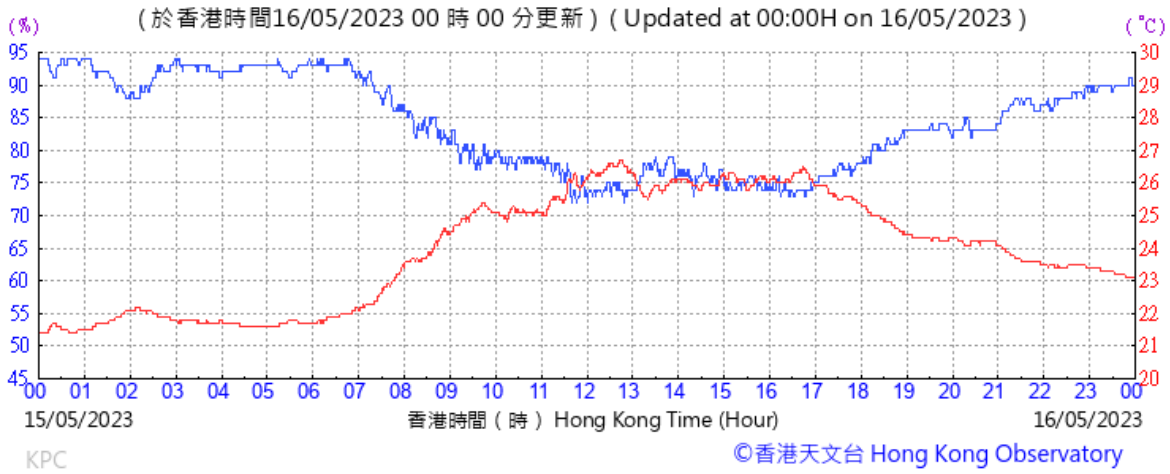
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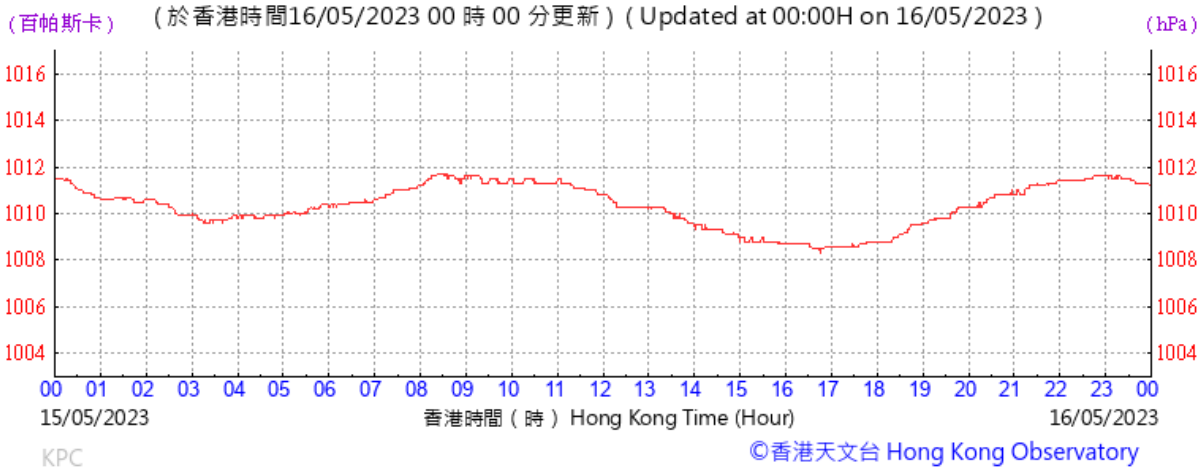
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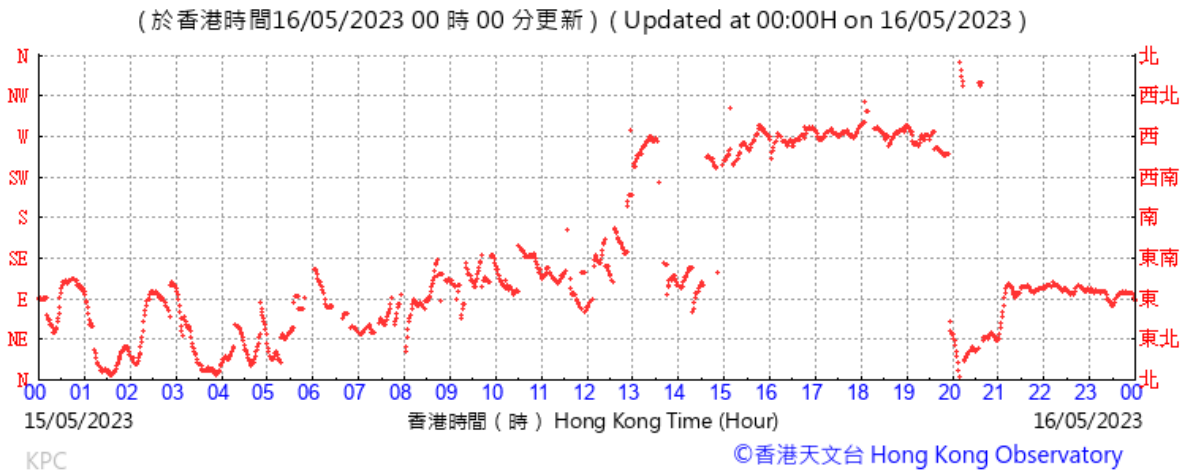
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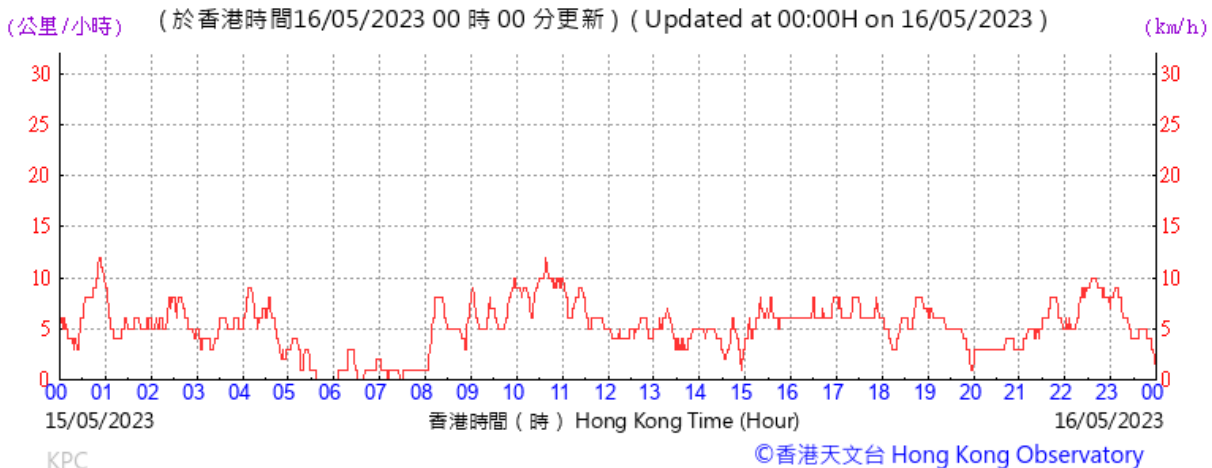
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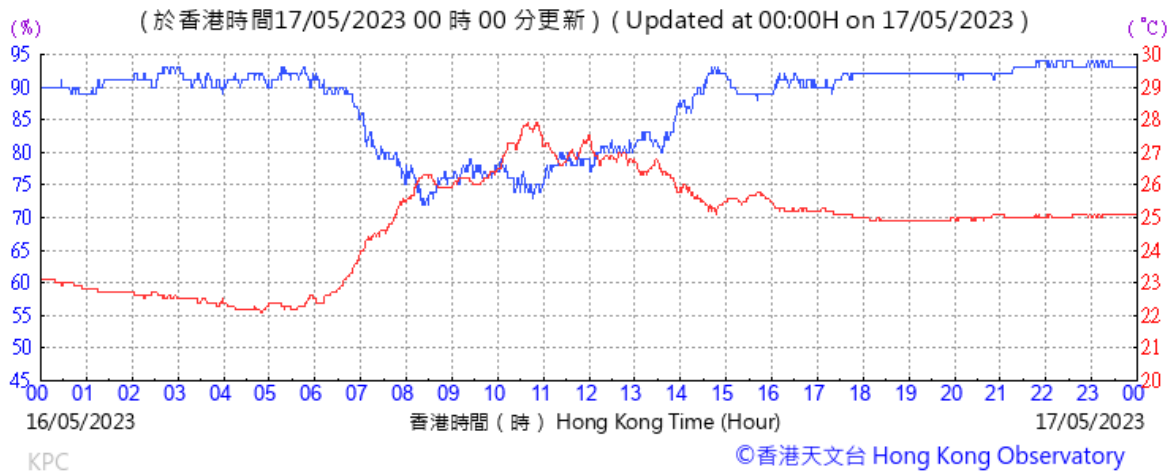
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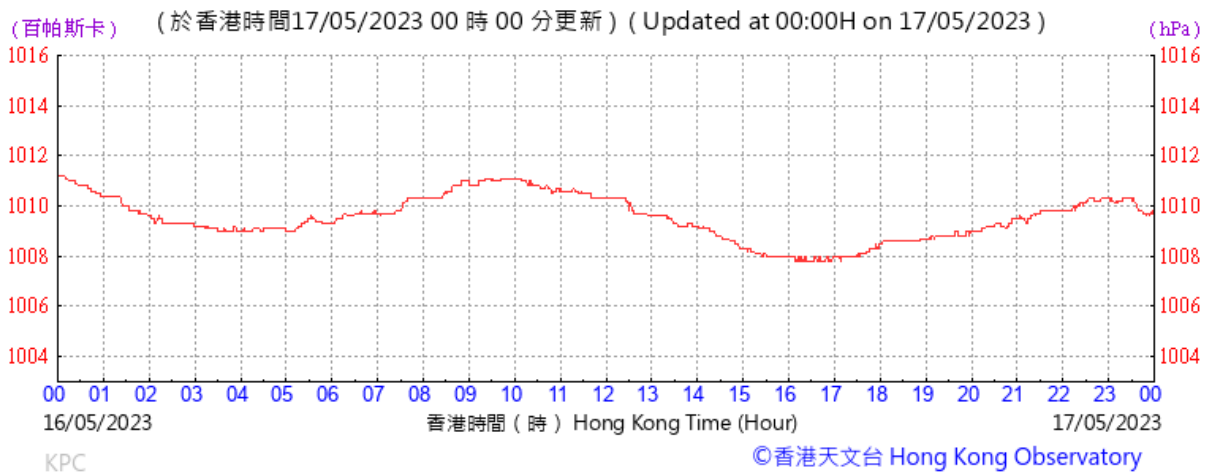
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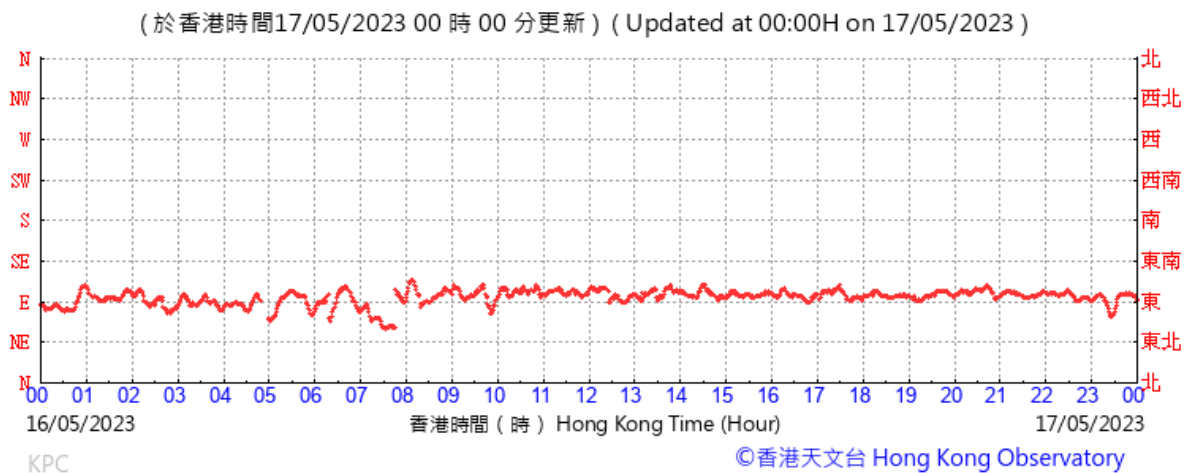
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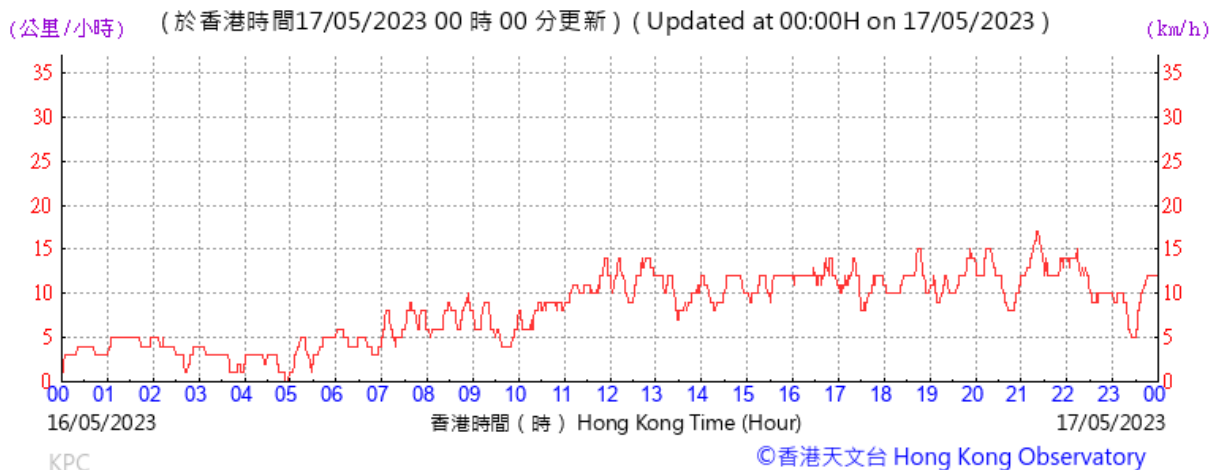
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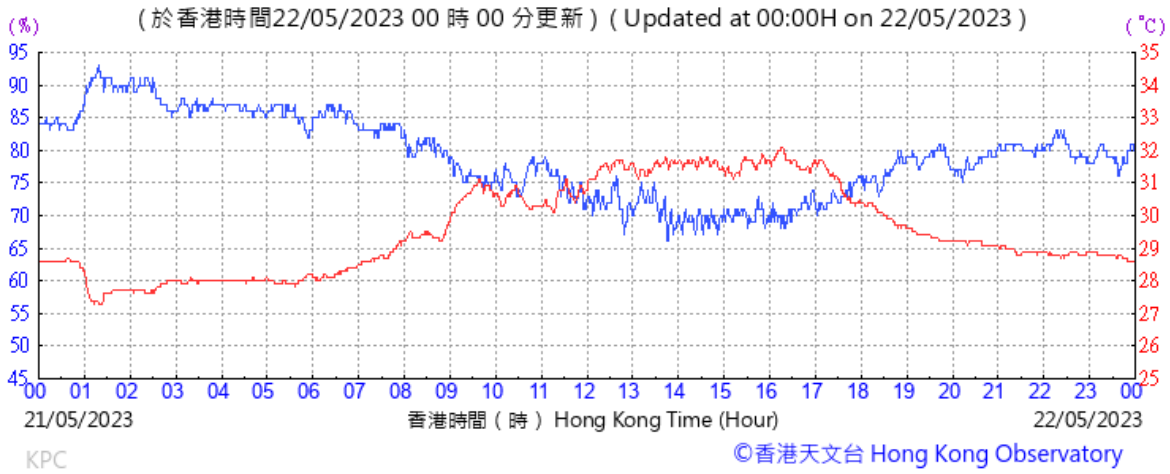
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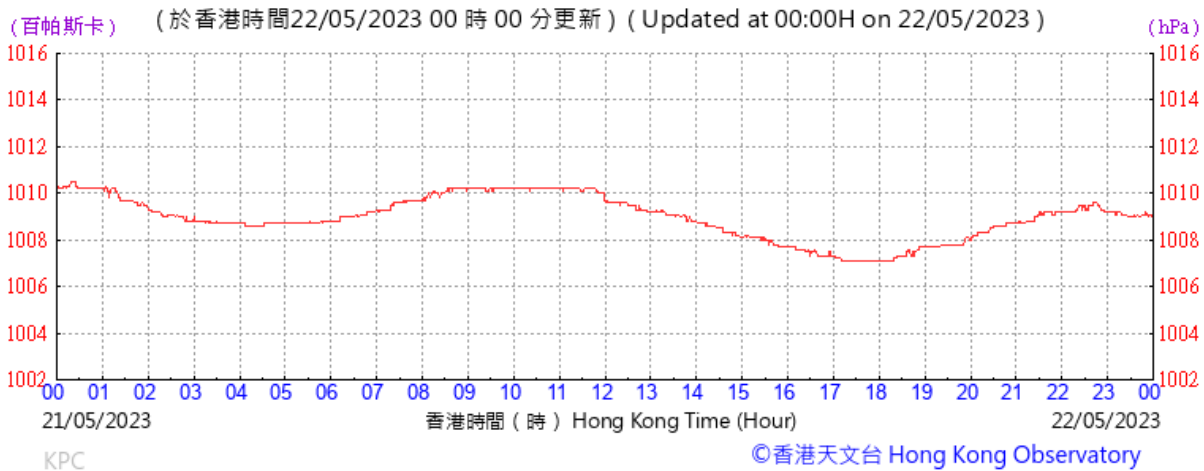
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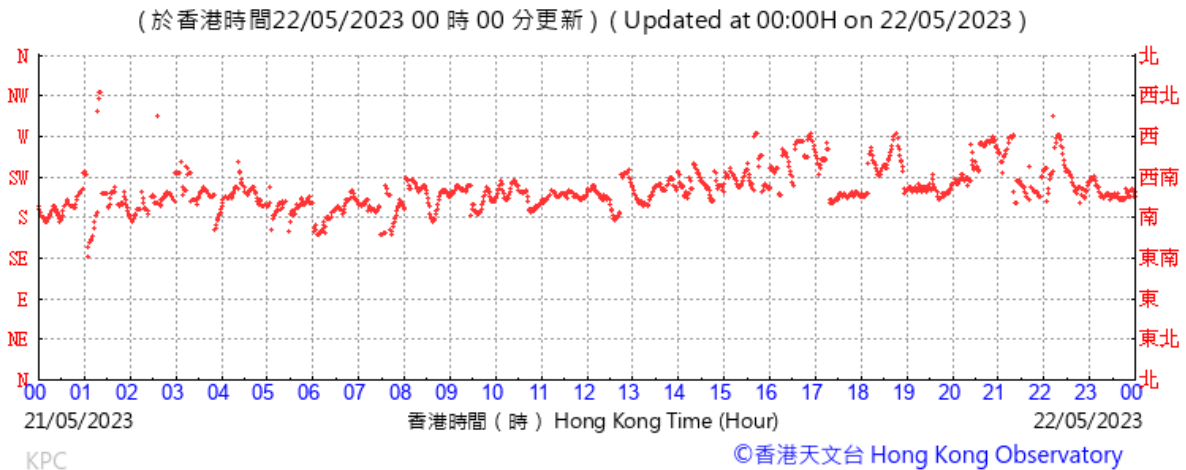
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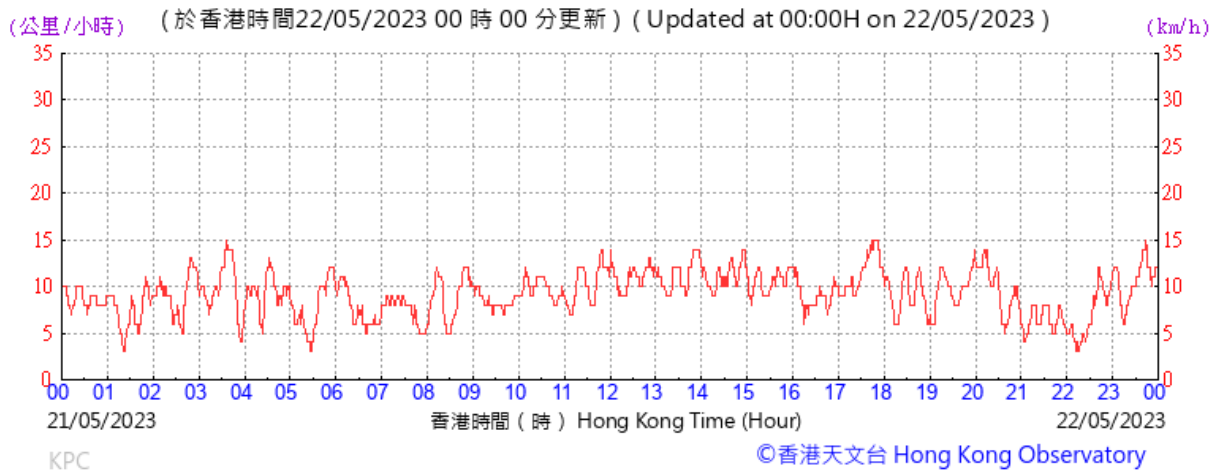
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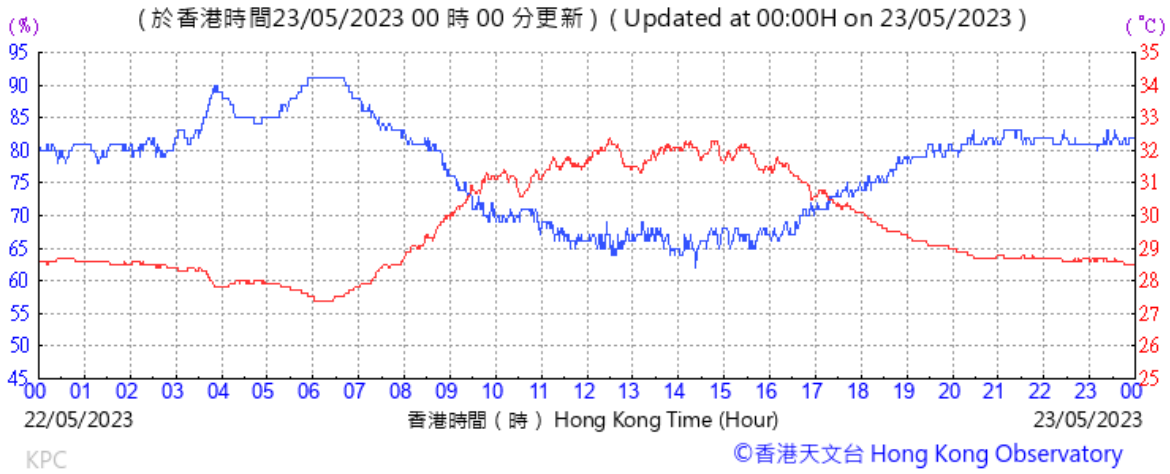
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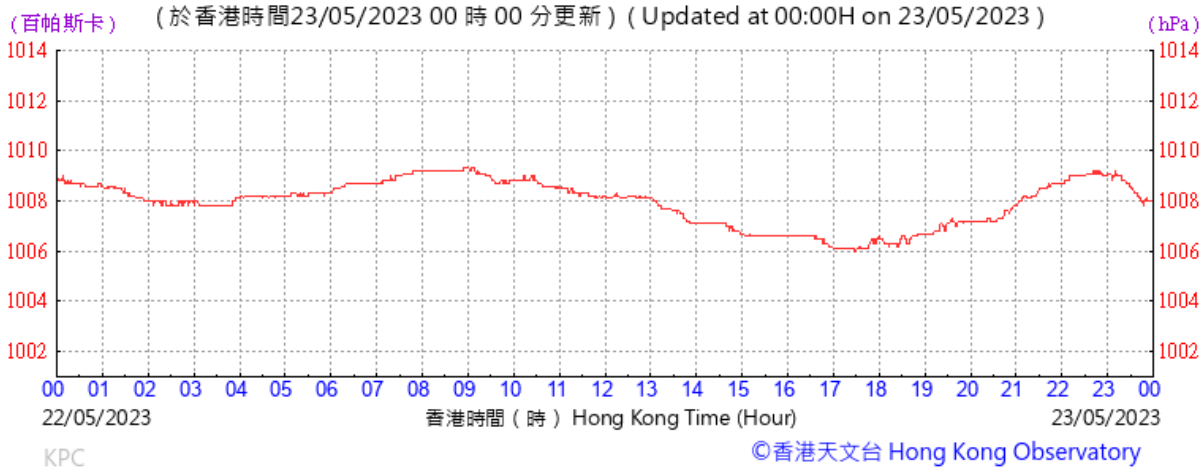
Wind Speed:



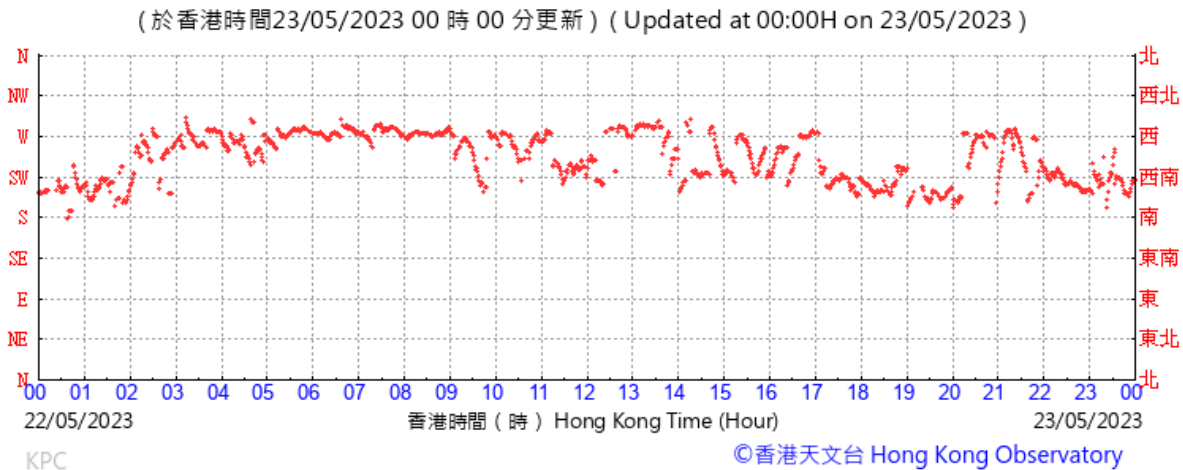
Temperature/Humidity:



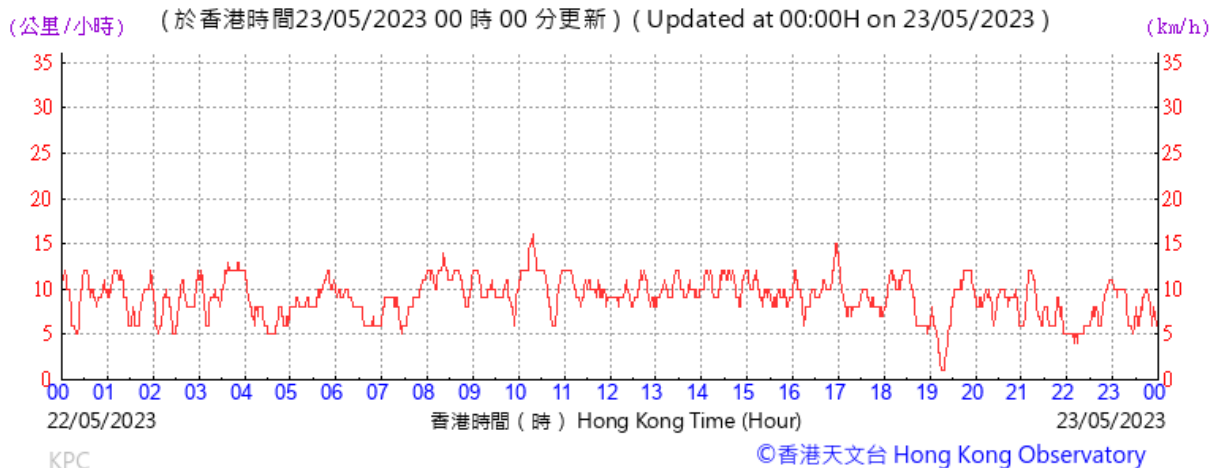
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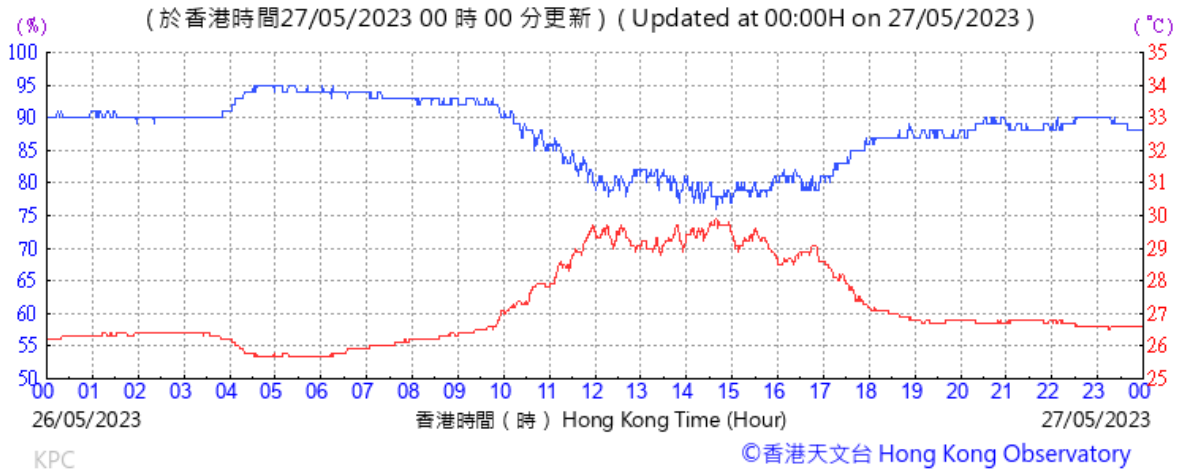
Wind Direction:



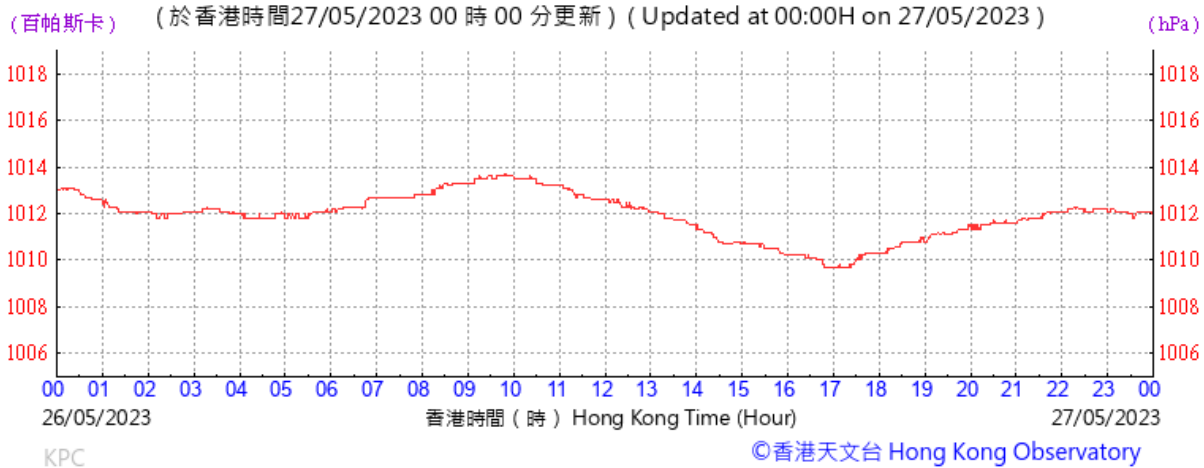
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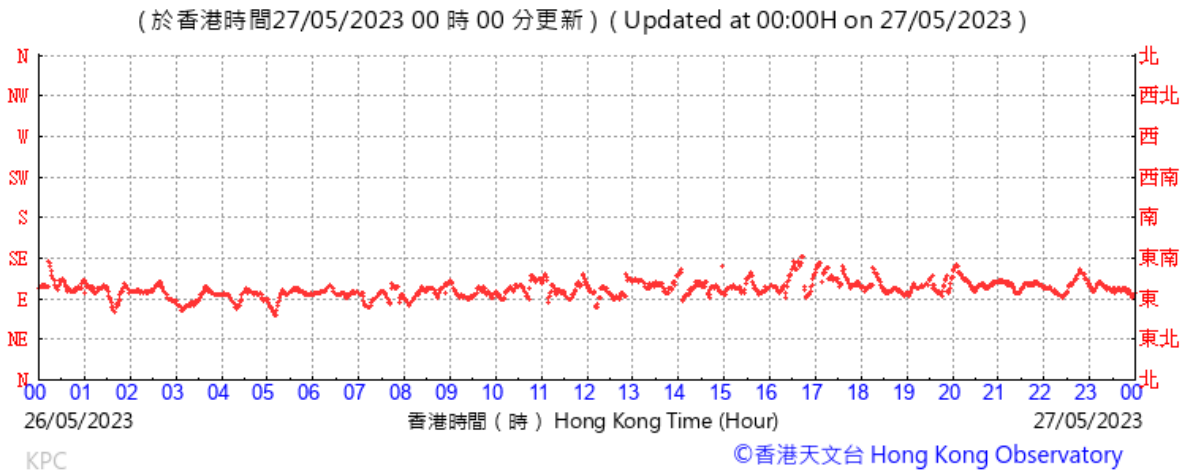
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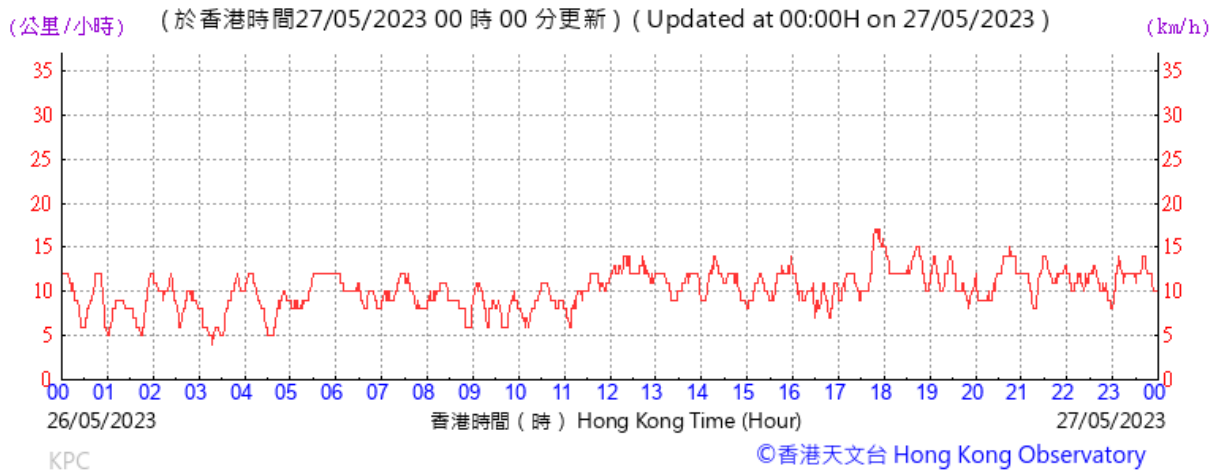
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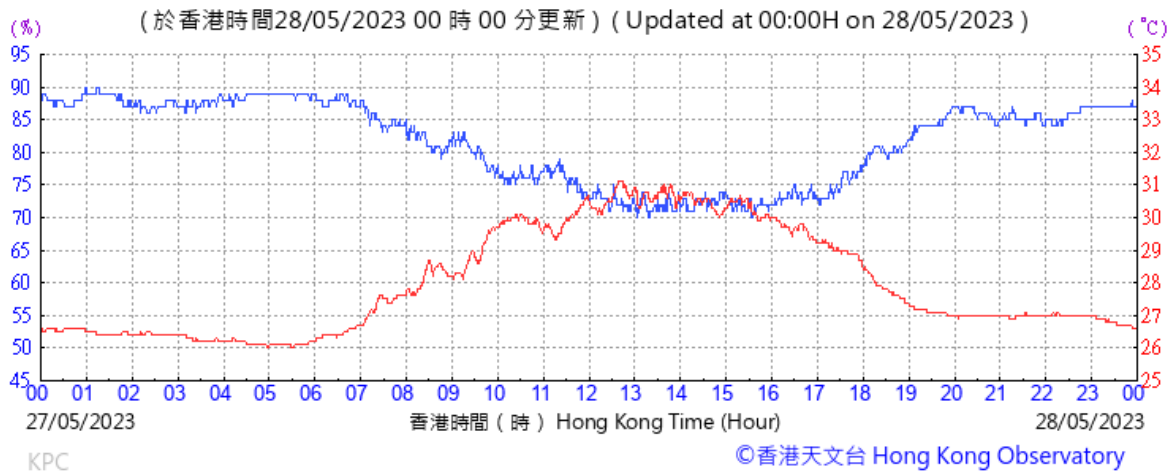
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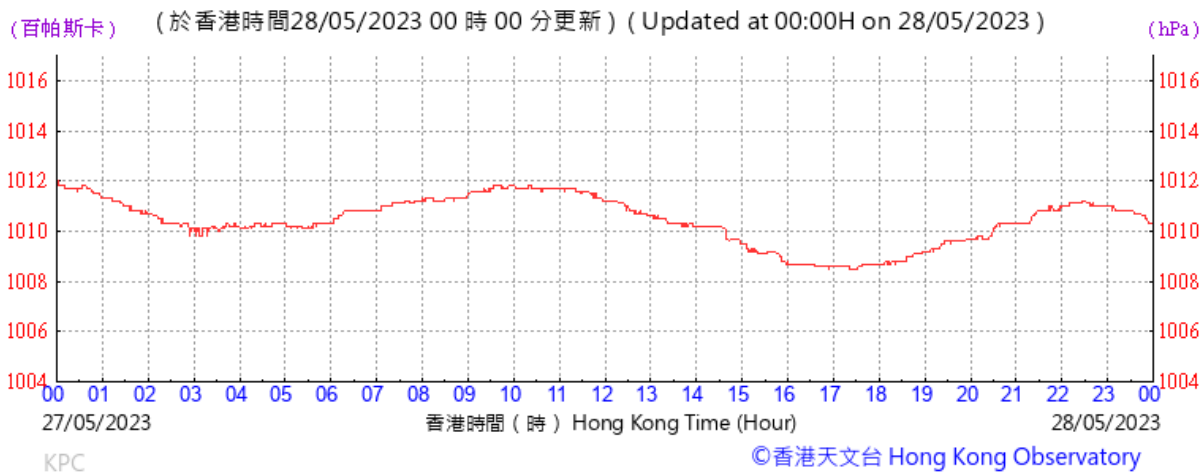
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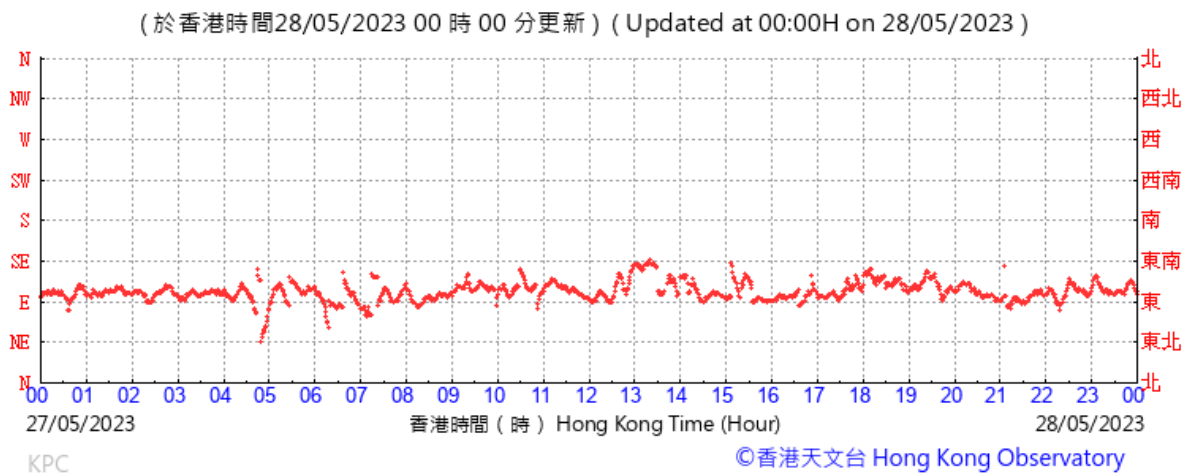
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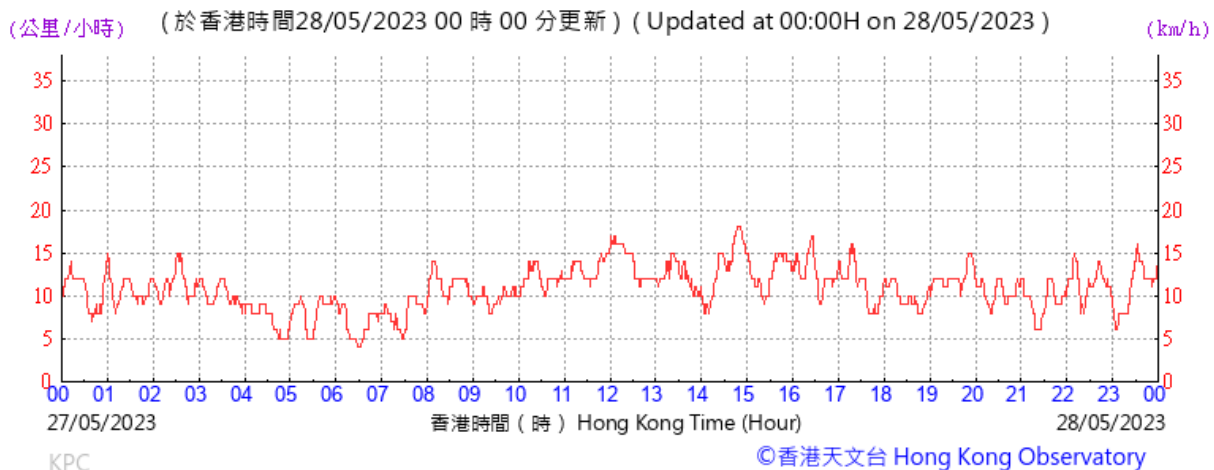
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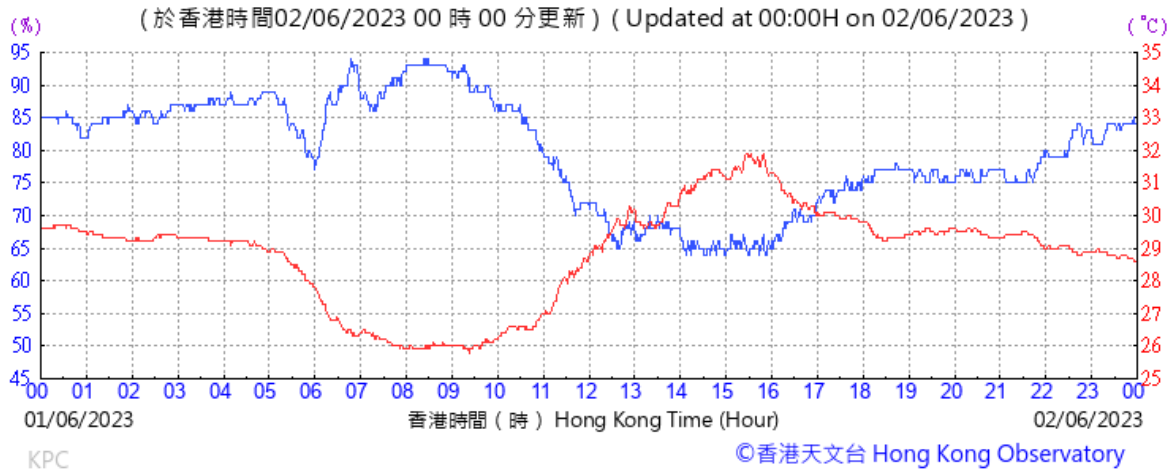


Wind Speed:

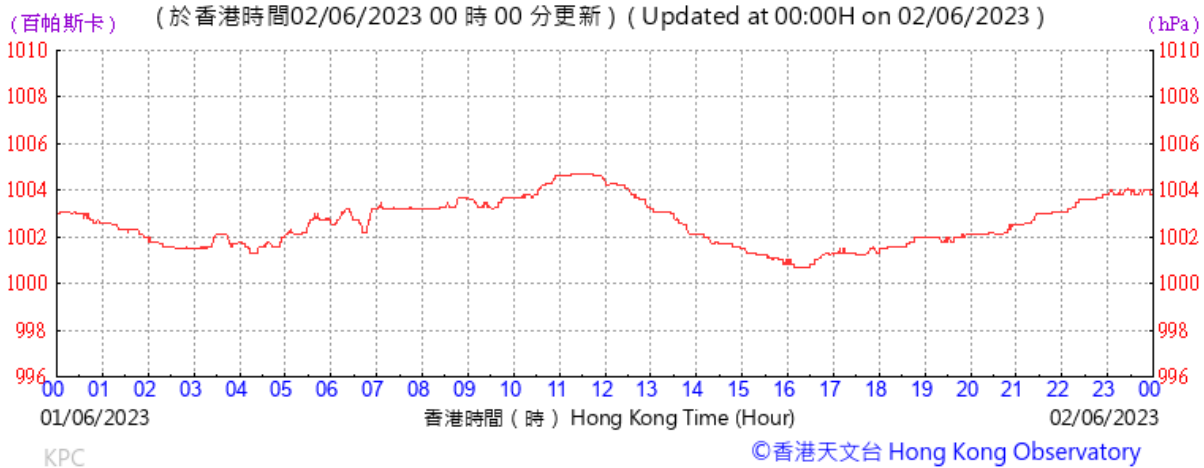


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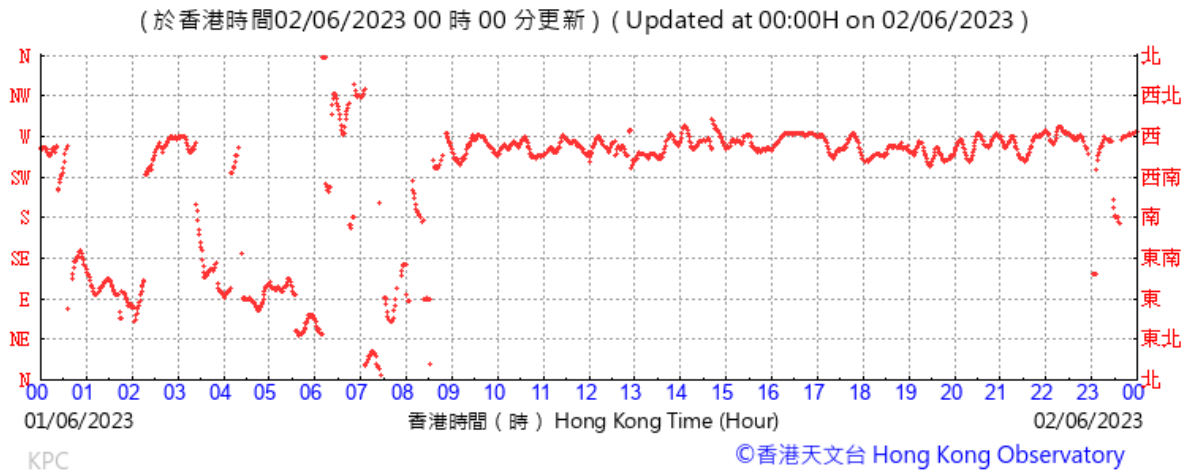
Temperature/Humidity:



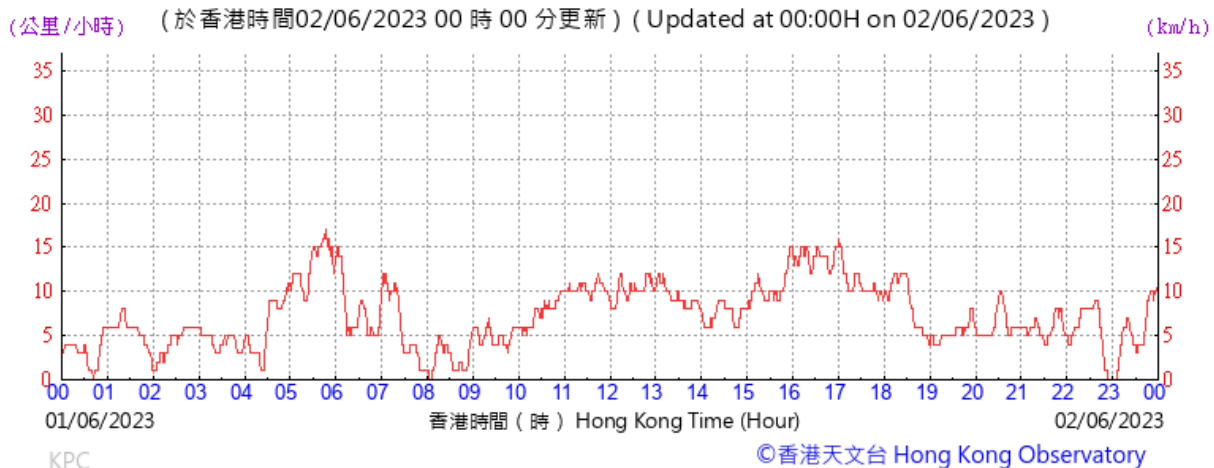
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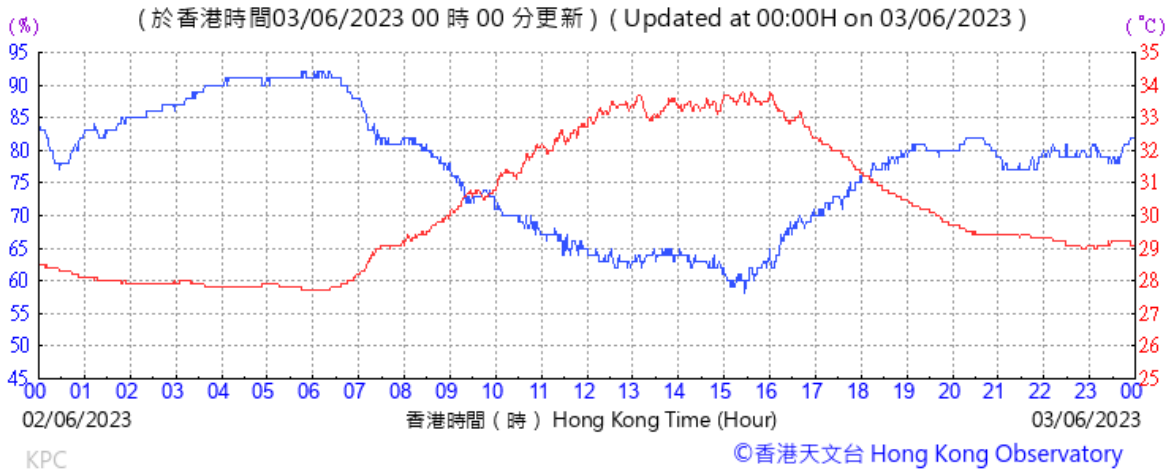
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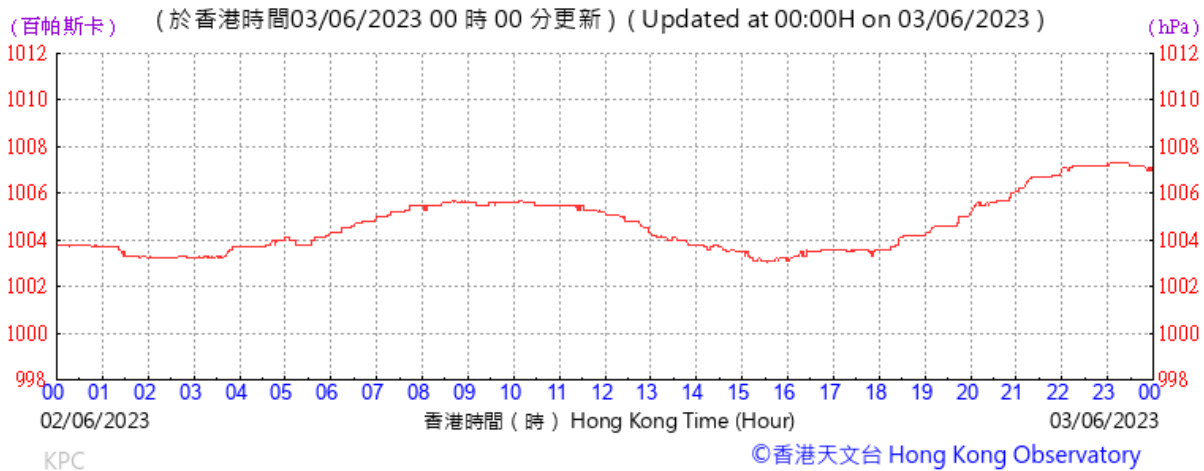
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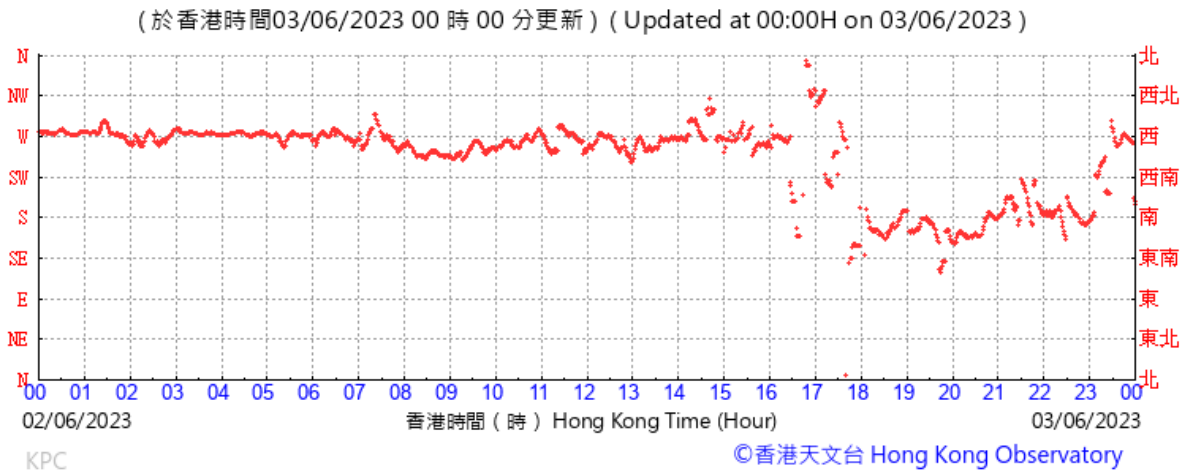
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Pressure:



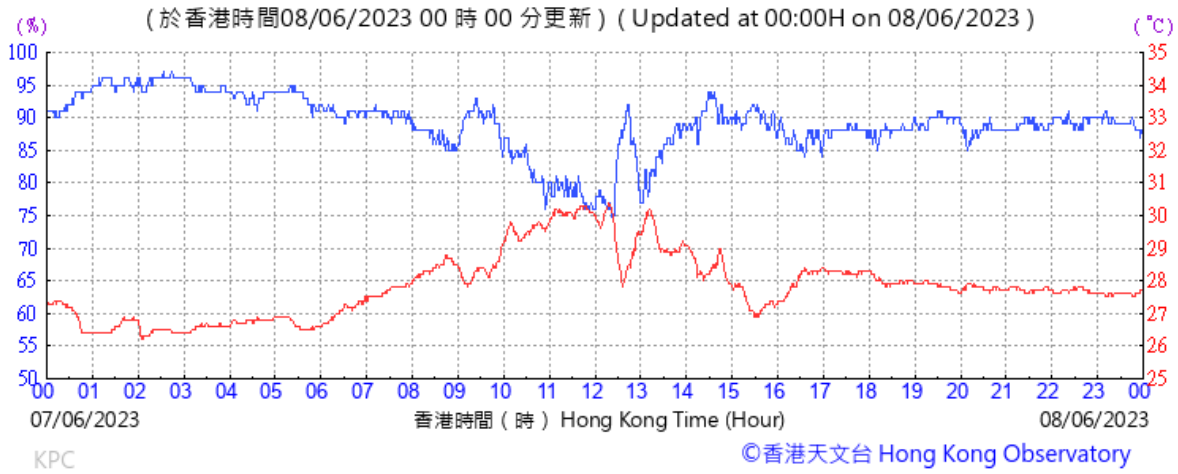
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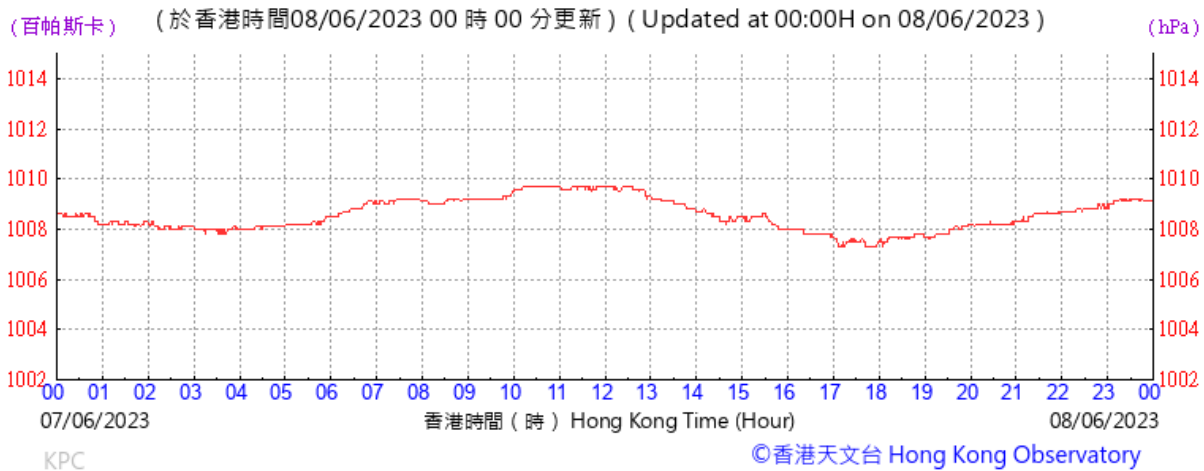
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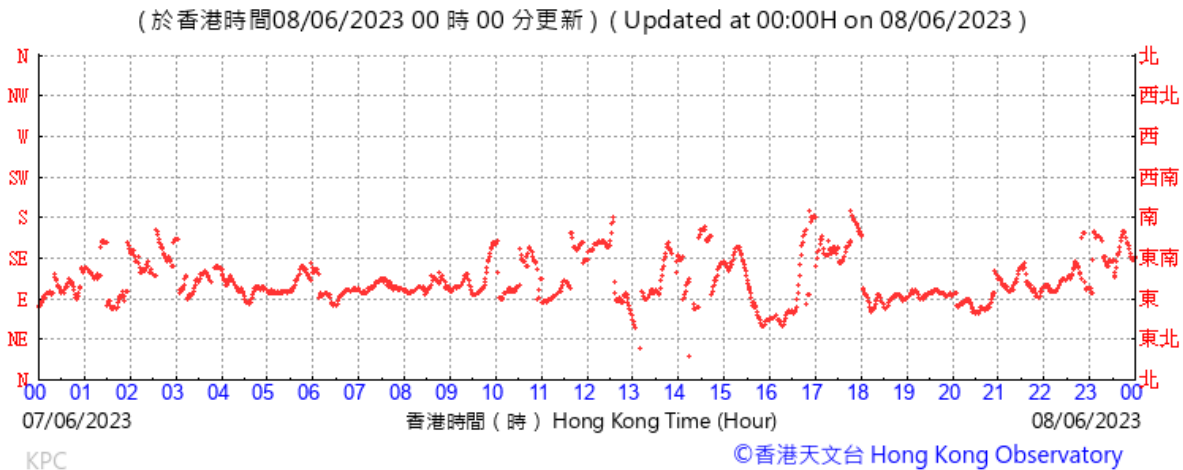
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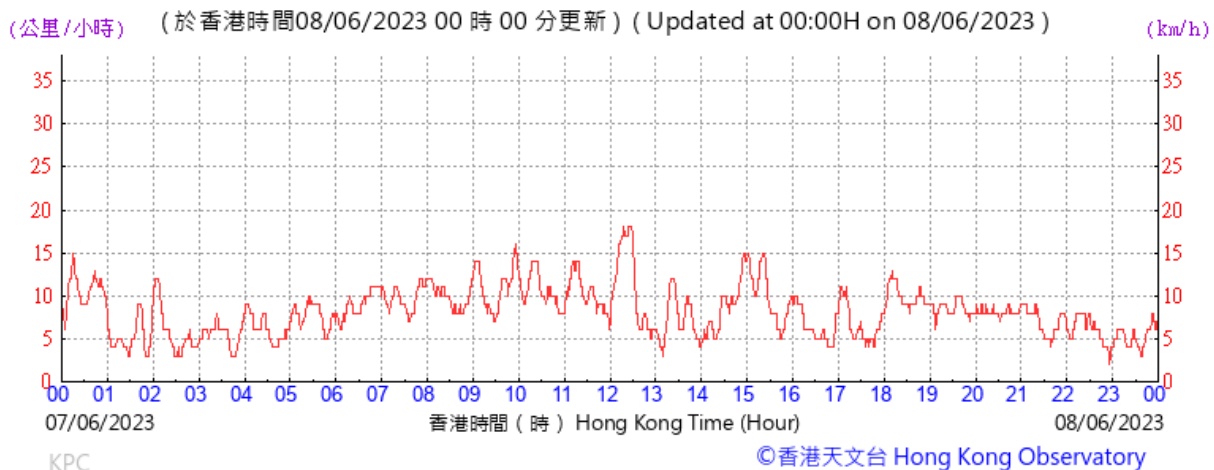
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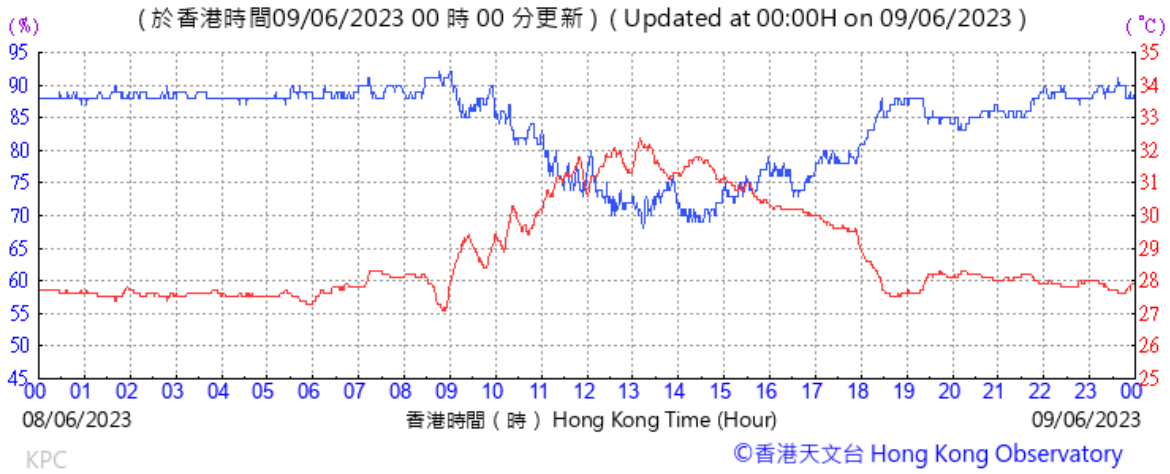
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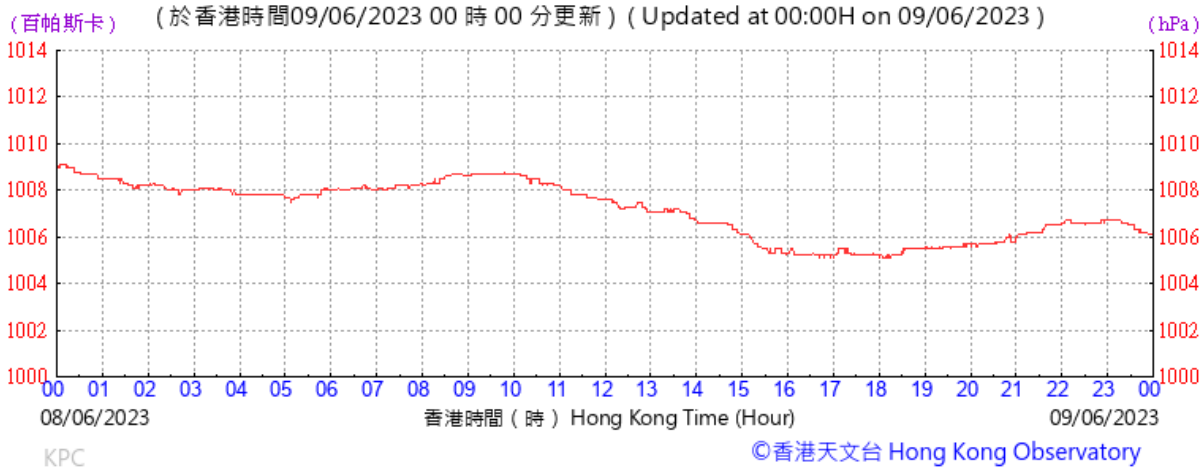
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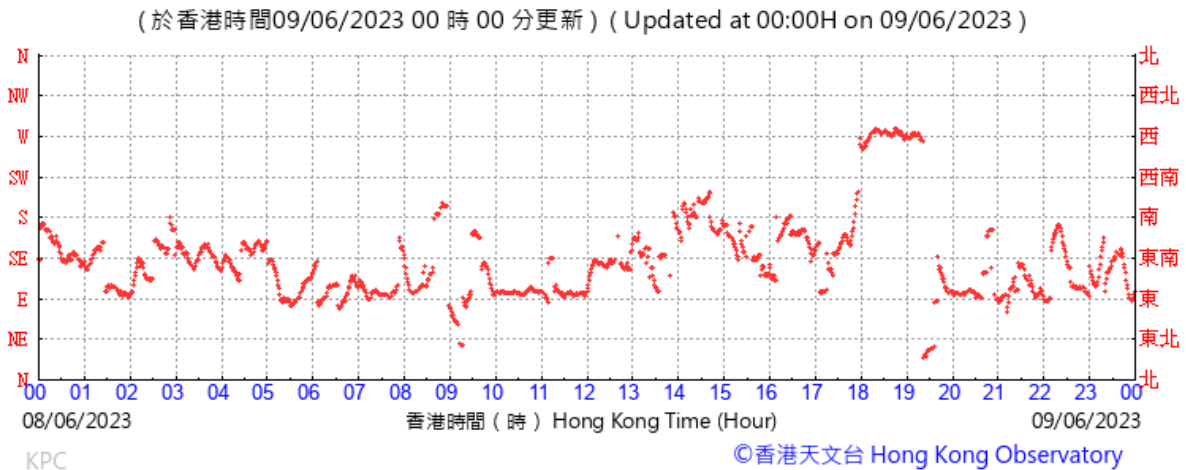
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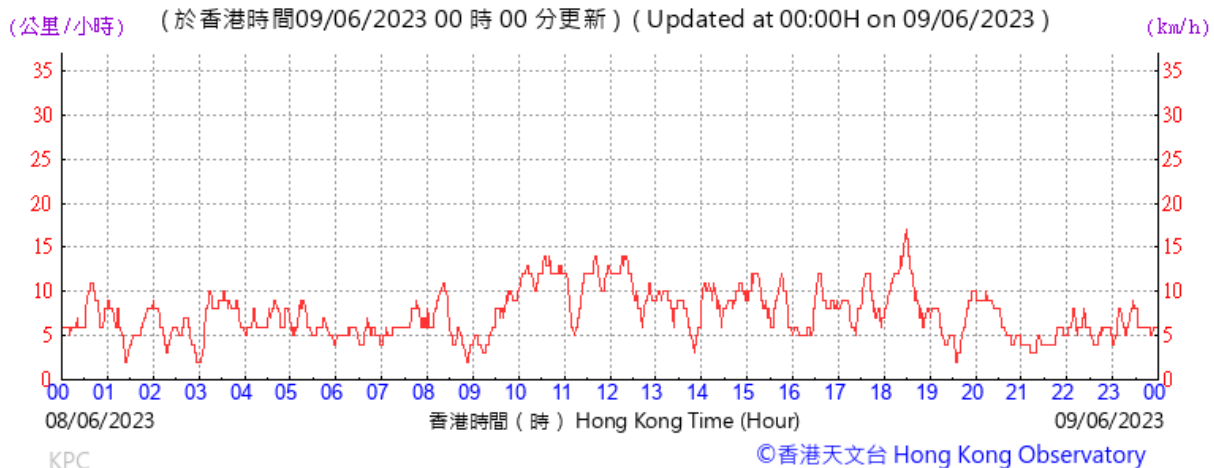
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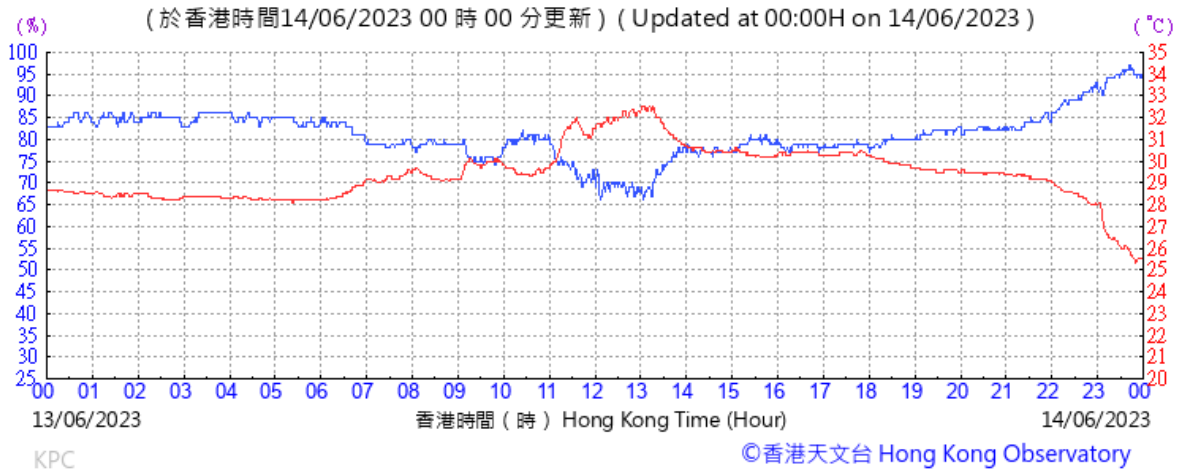
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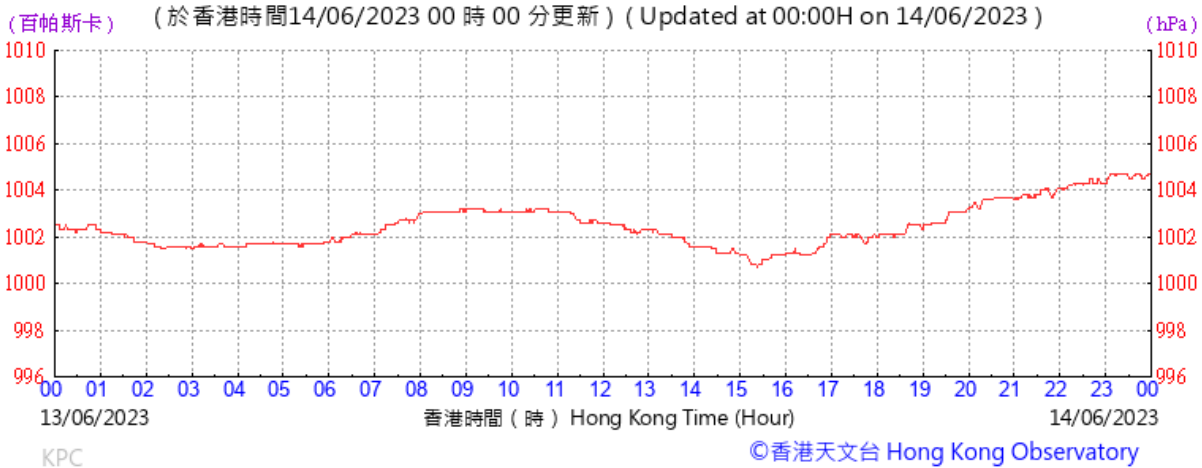
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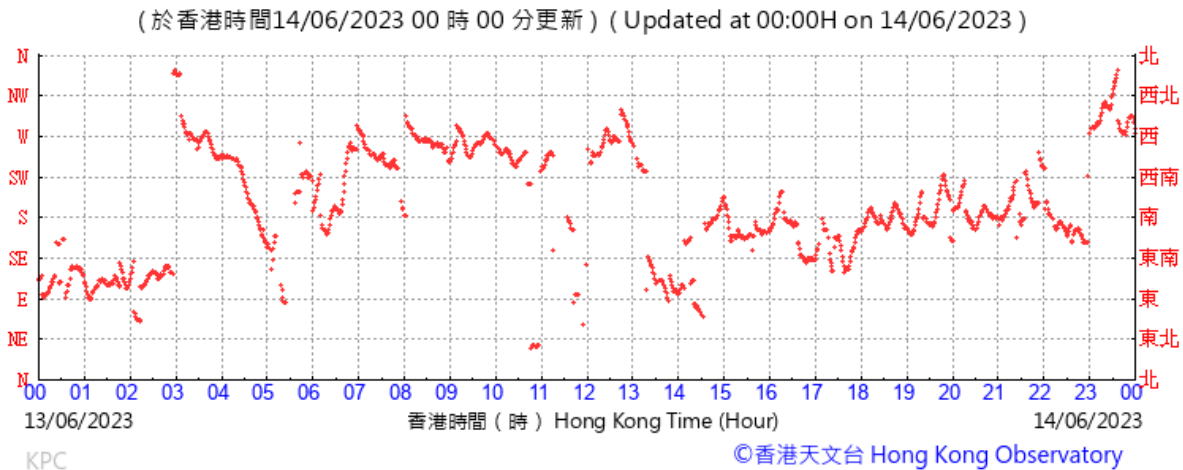
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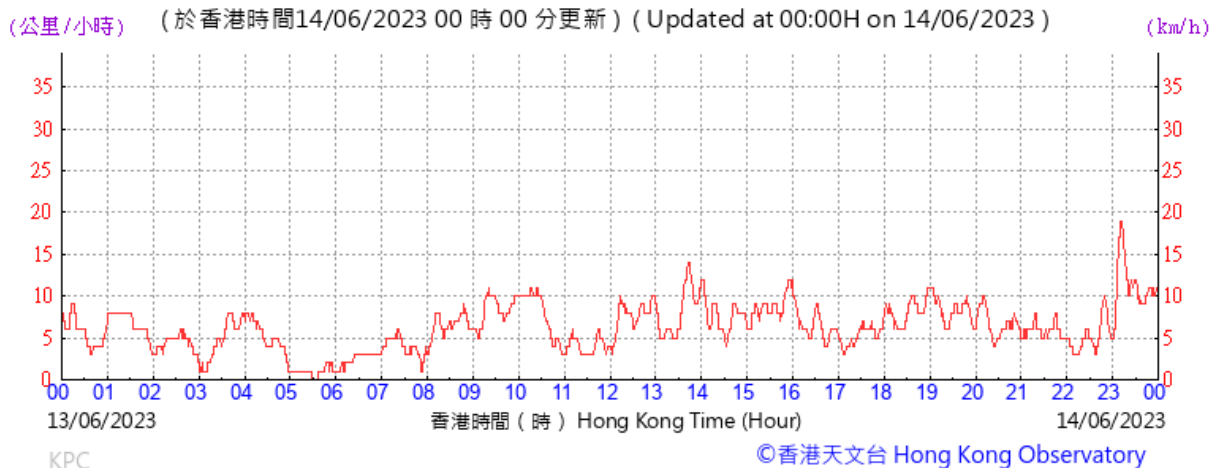
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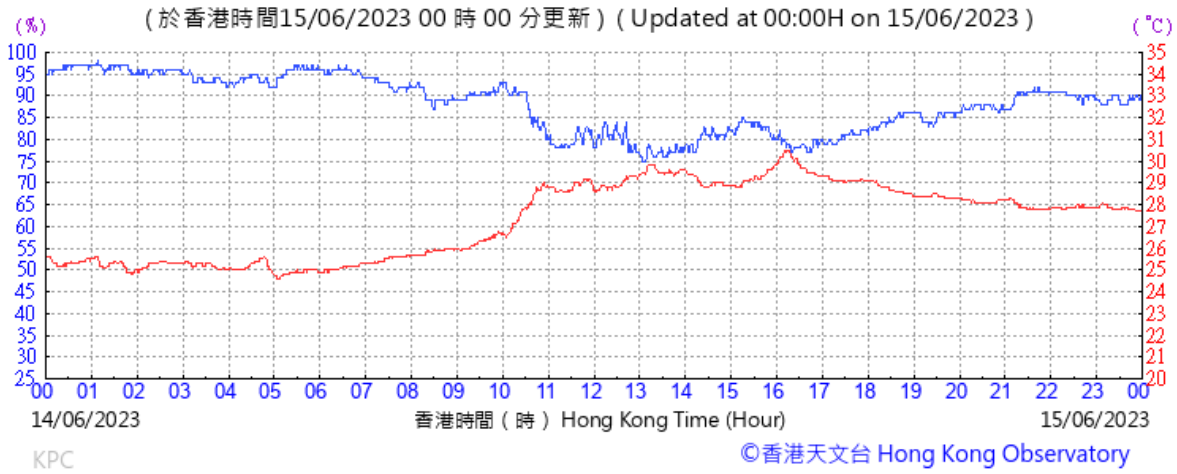
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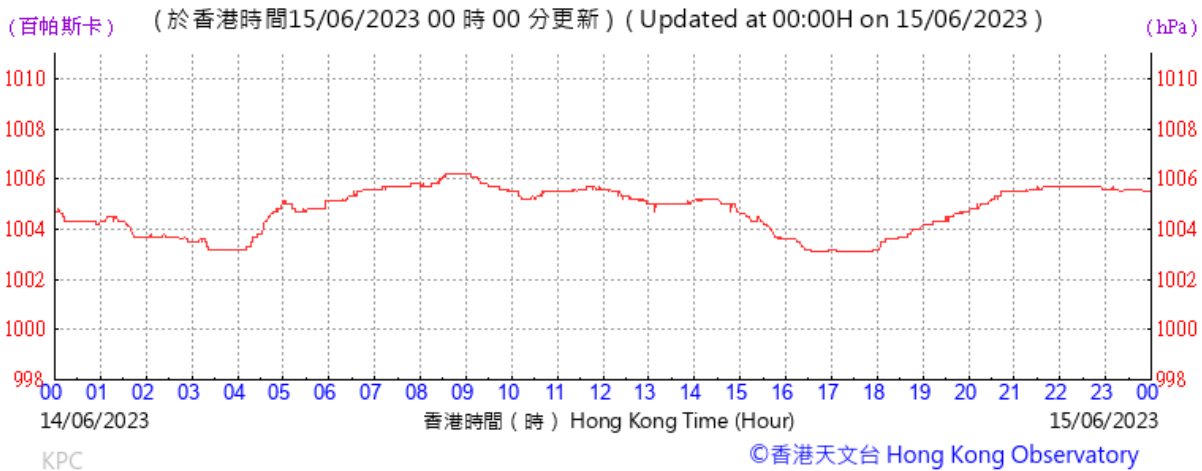
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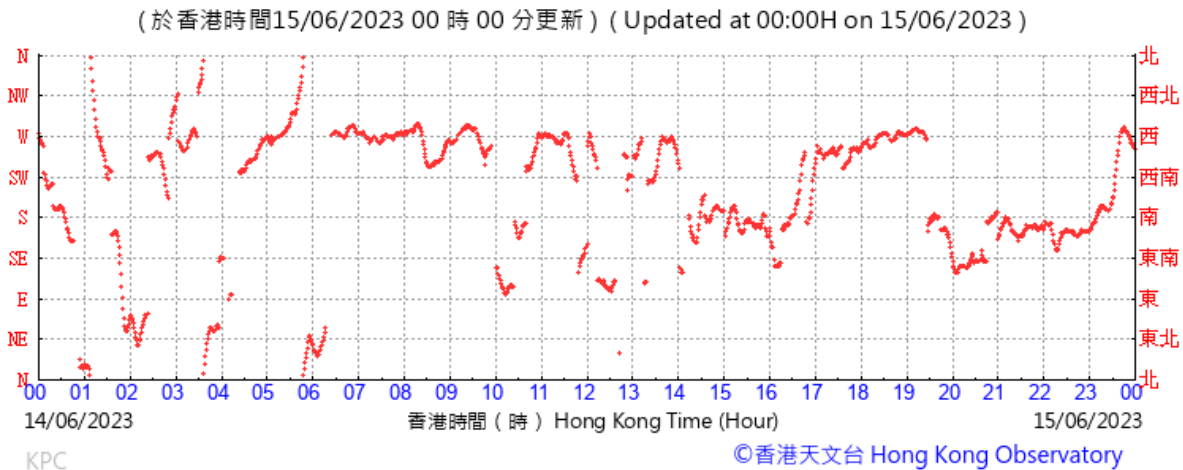
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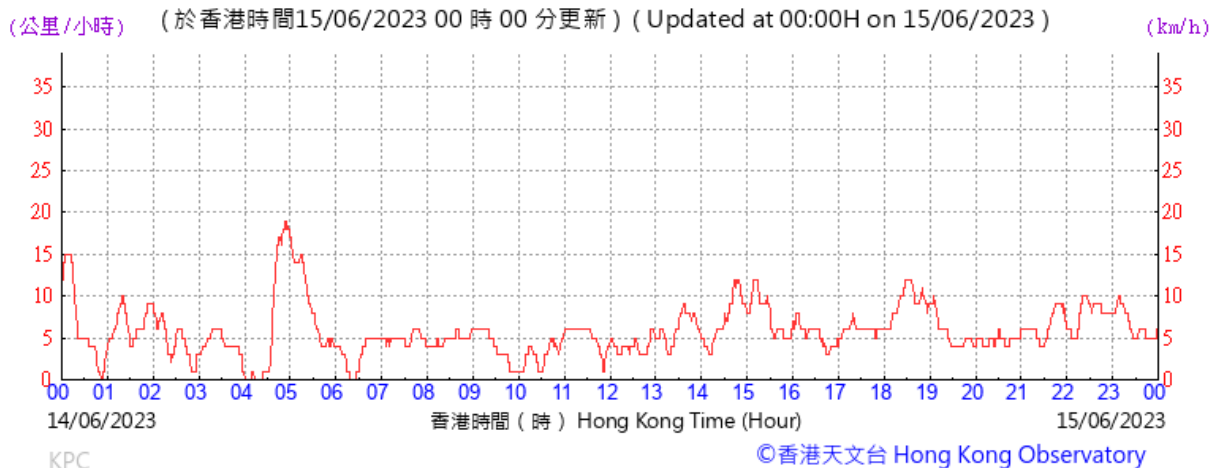
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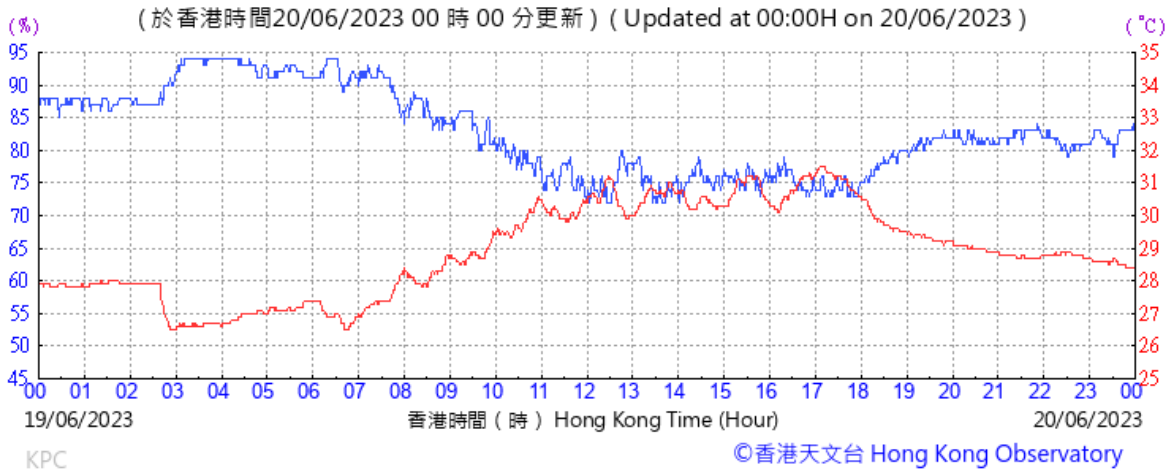
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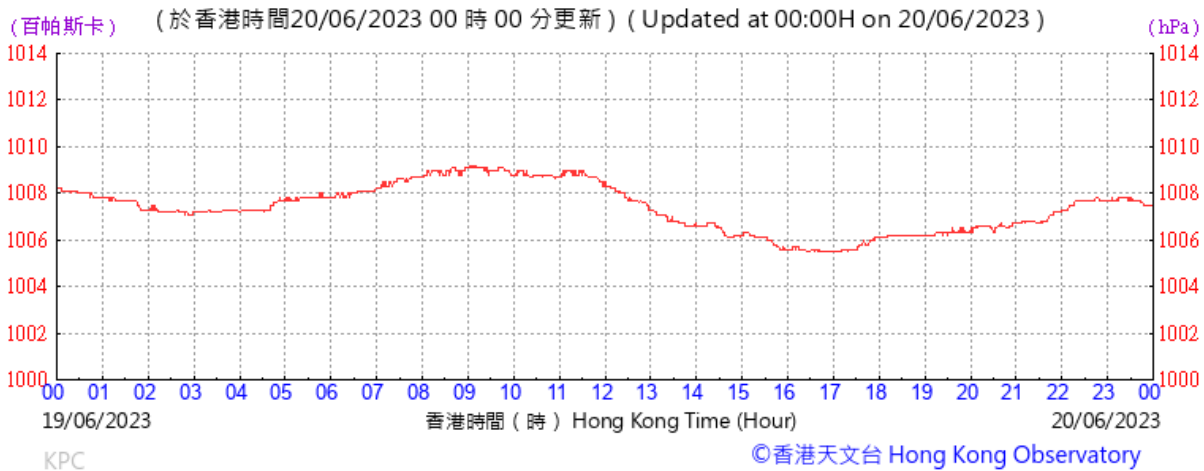
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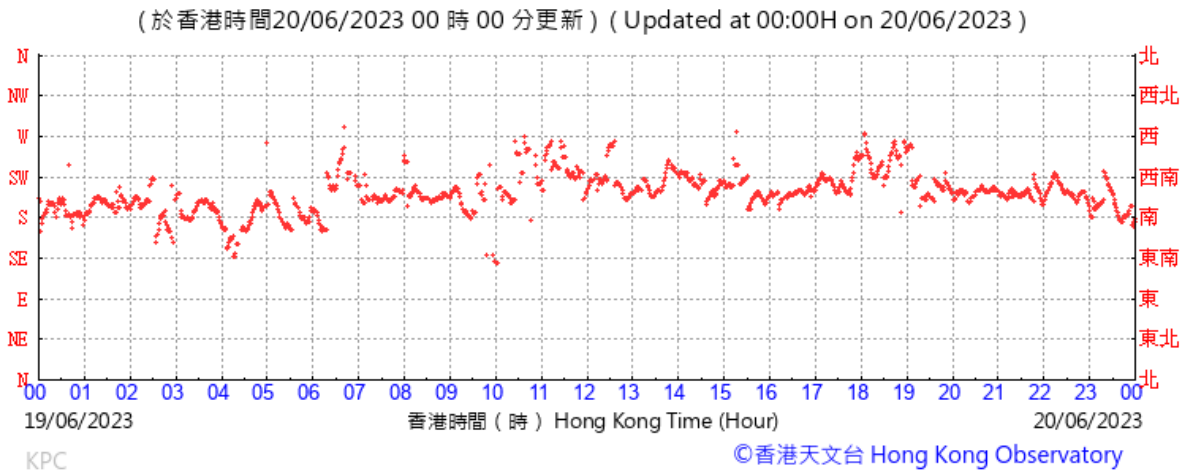
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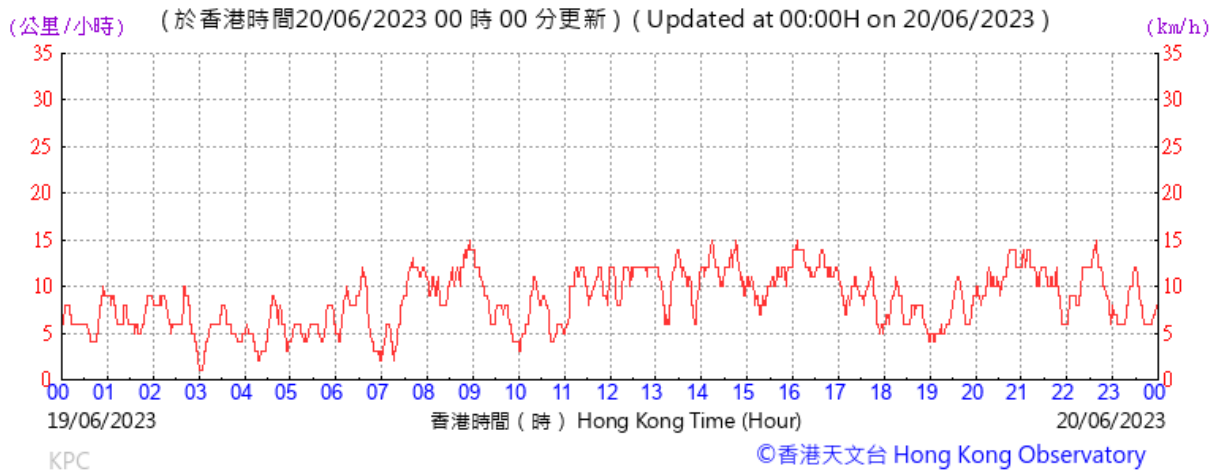
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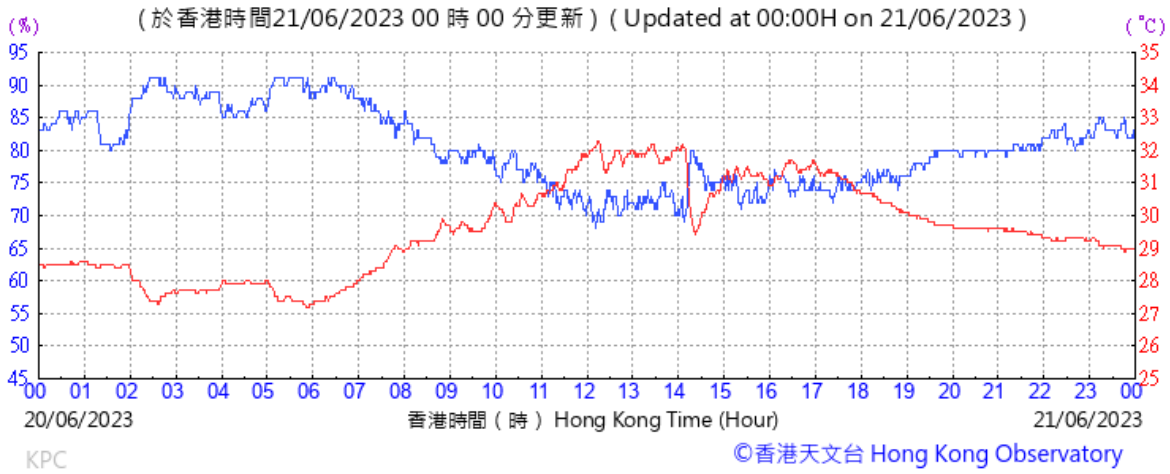
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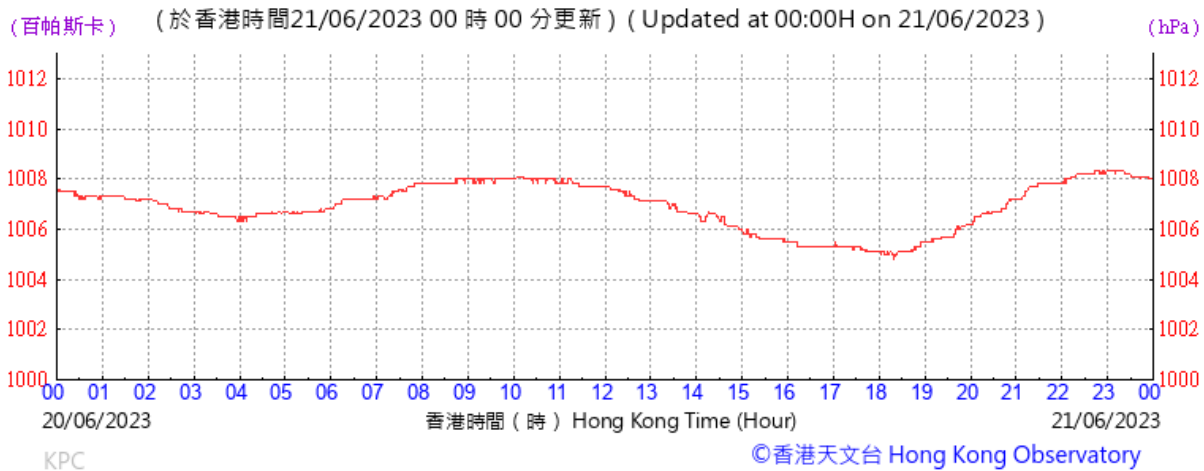
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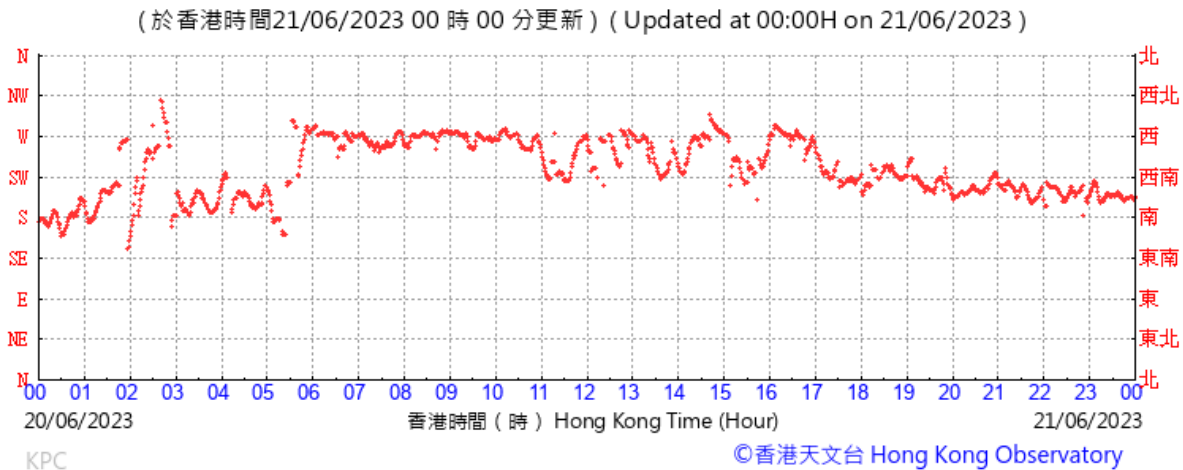
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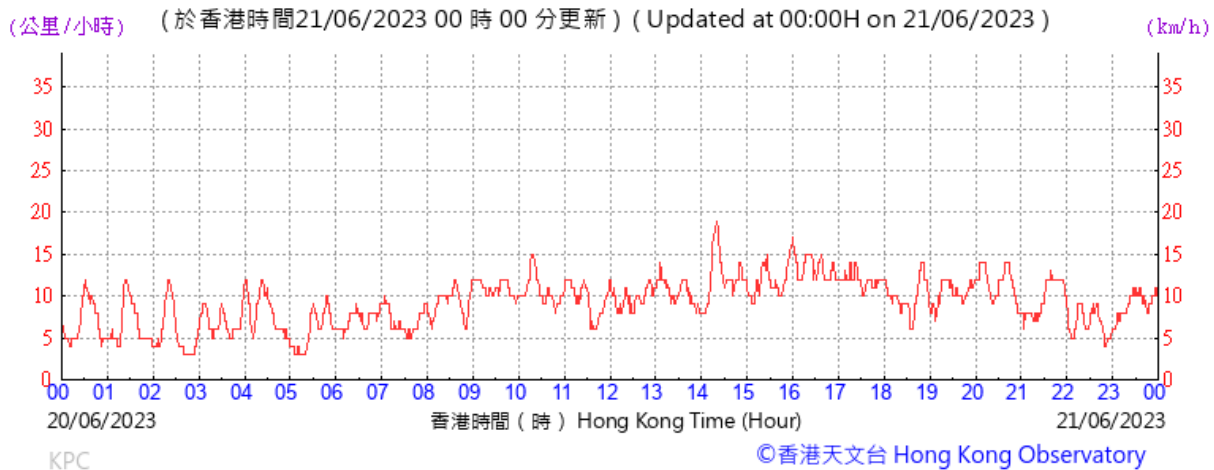
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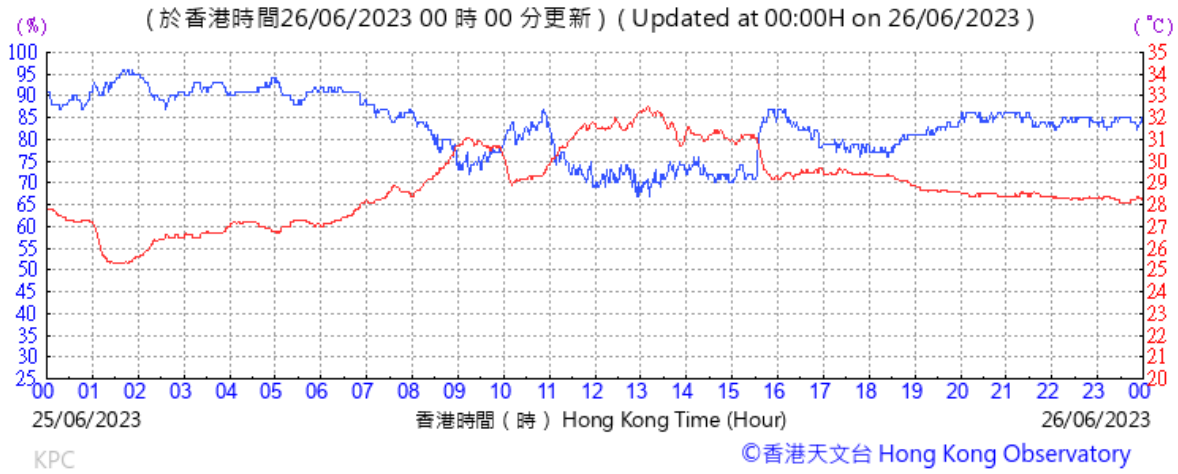
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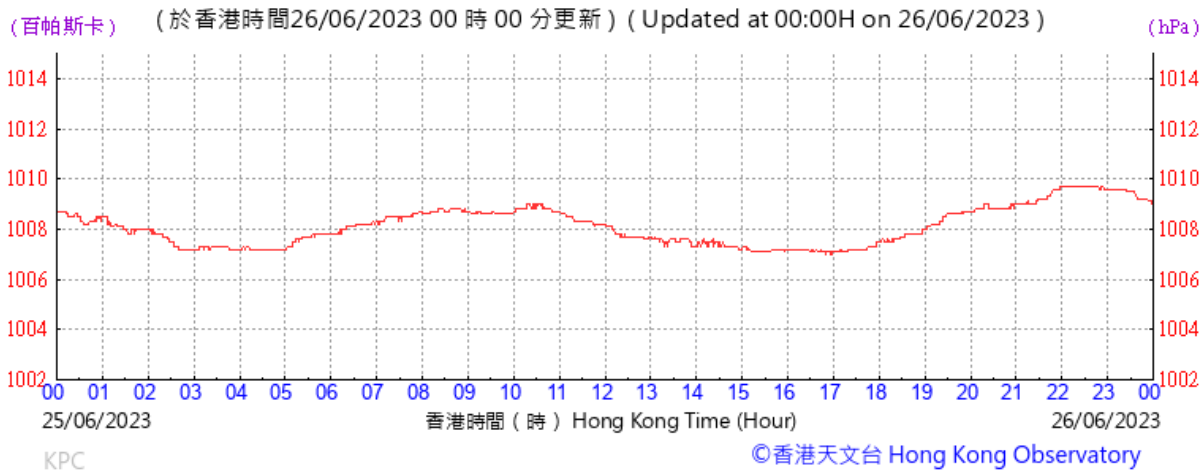
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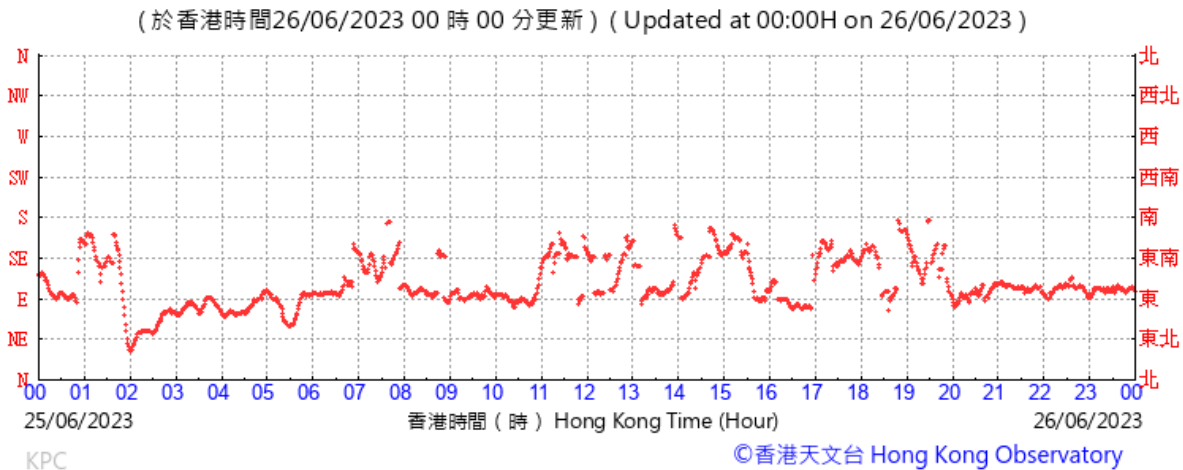
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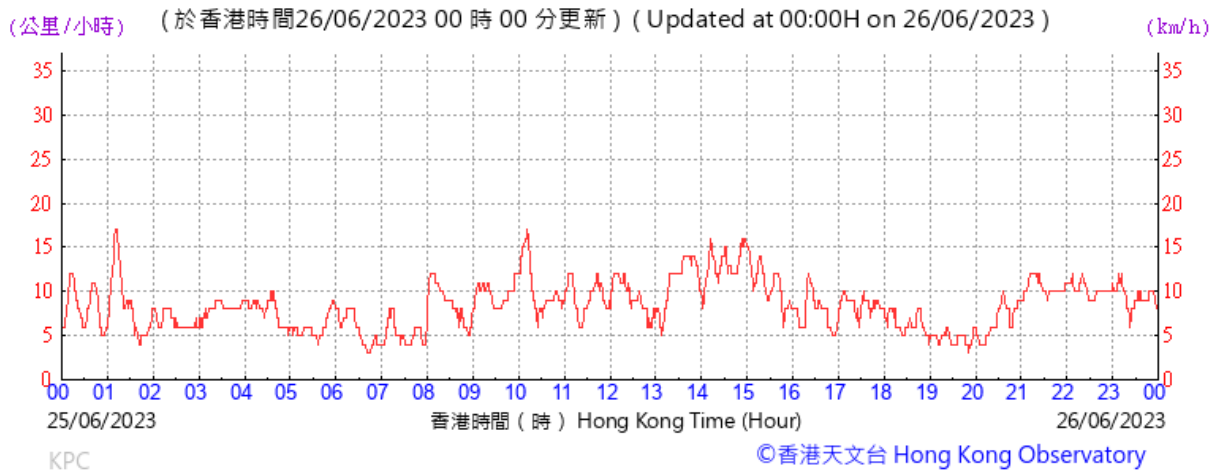
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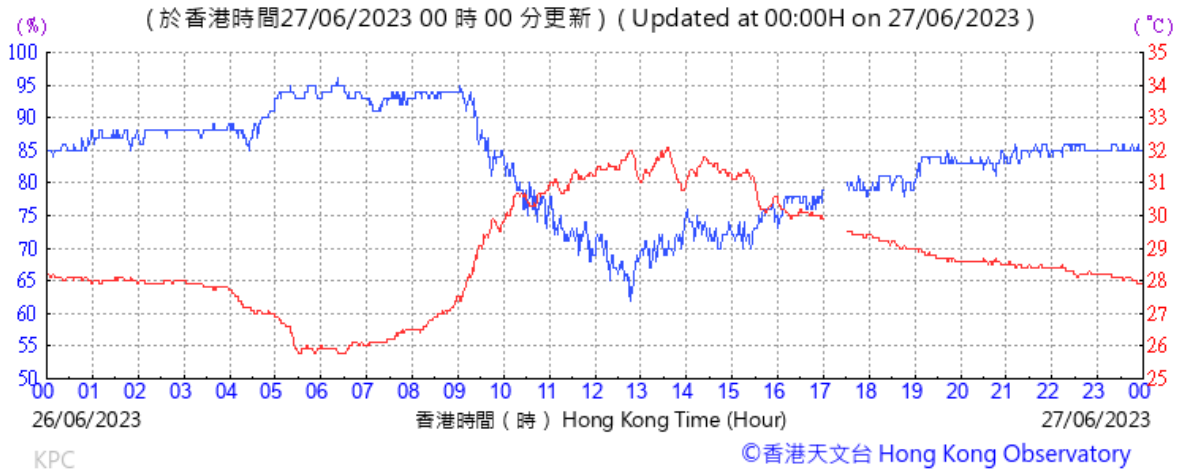
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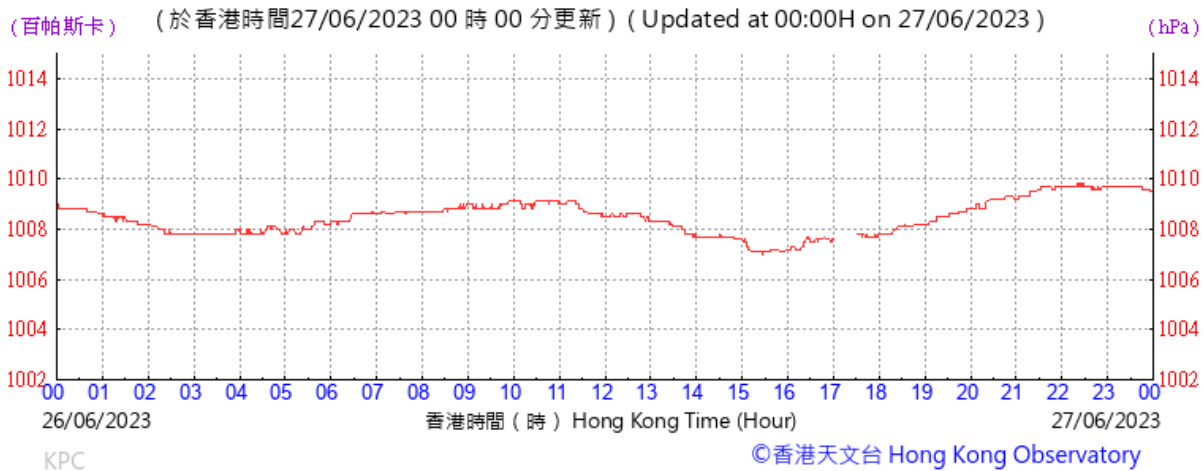
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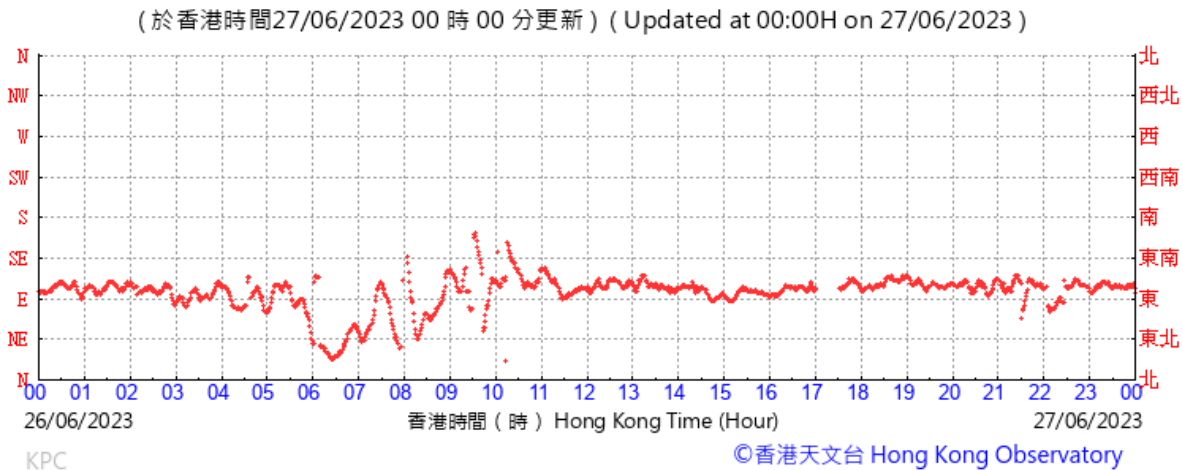
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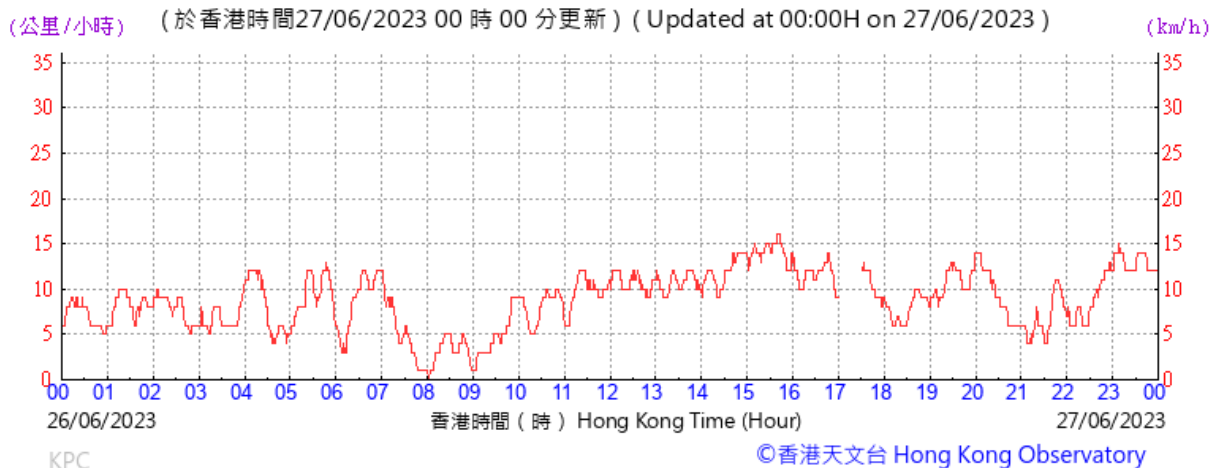
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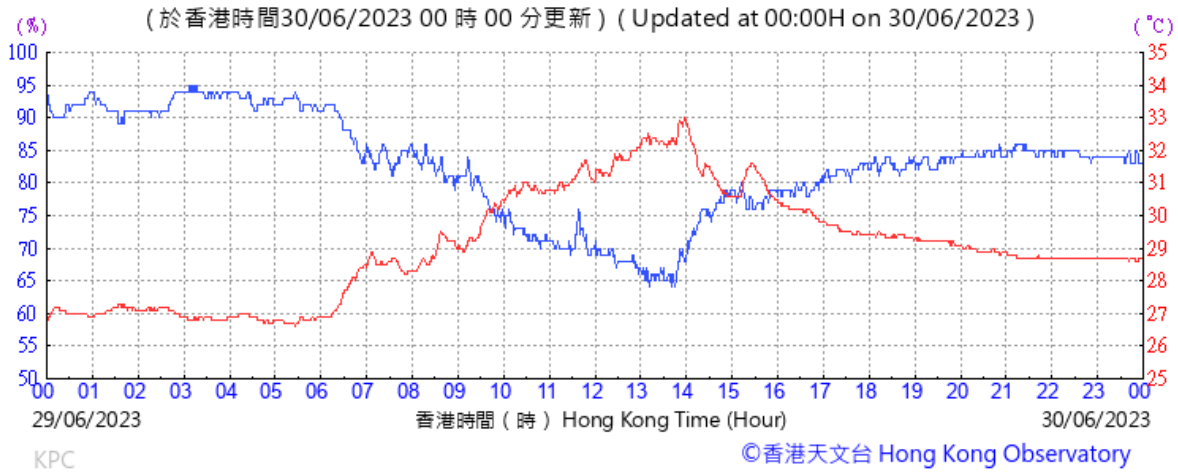
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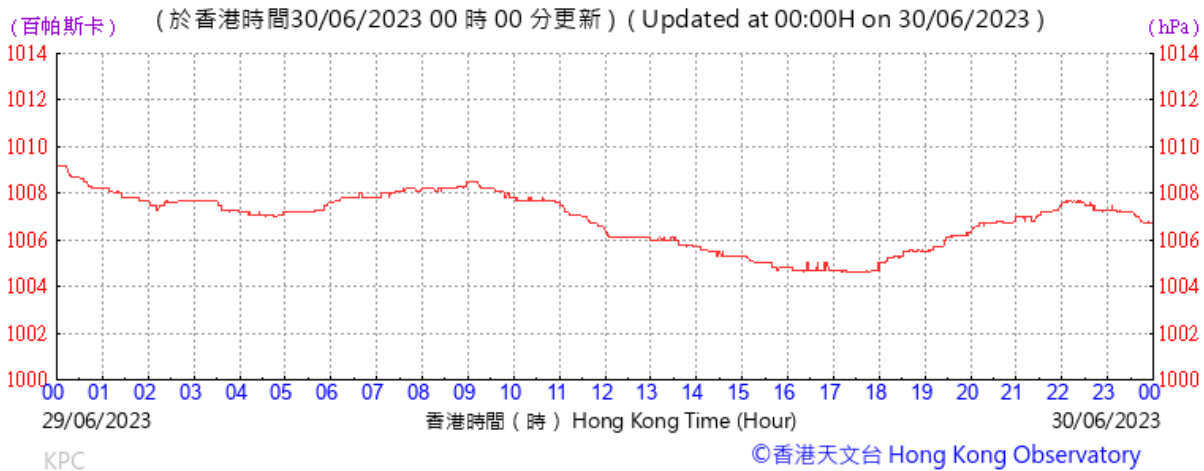
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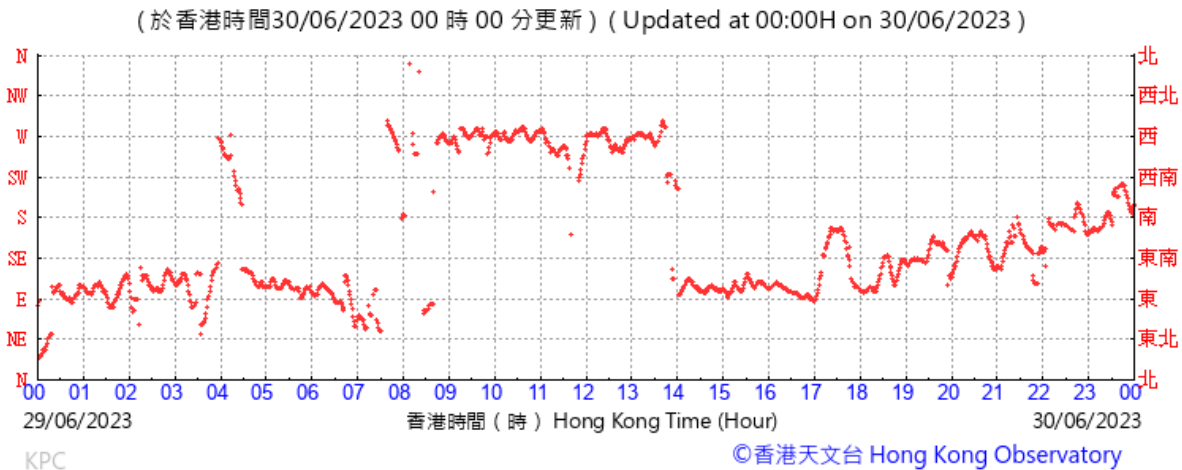
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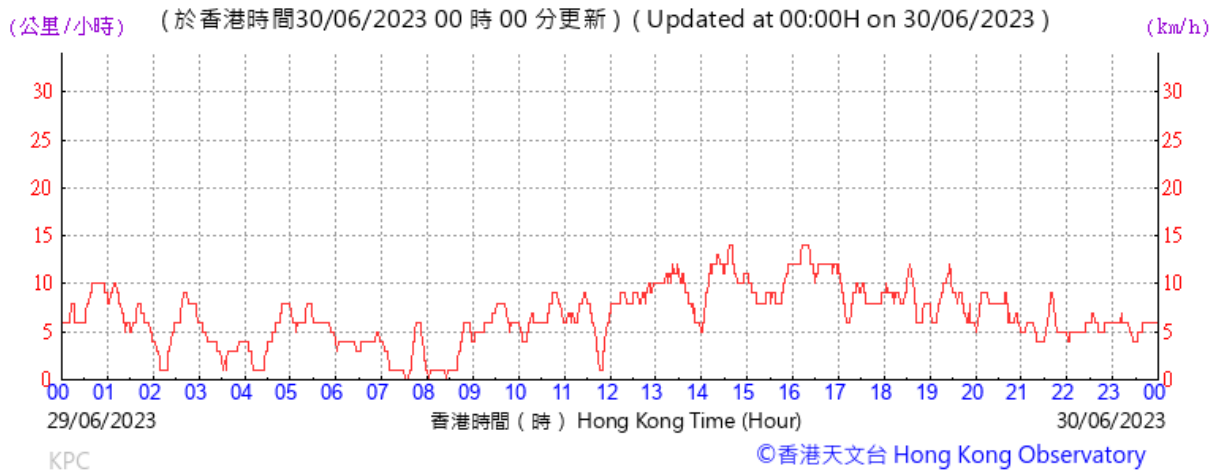
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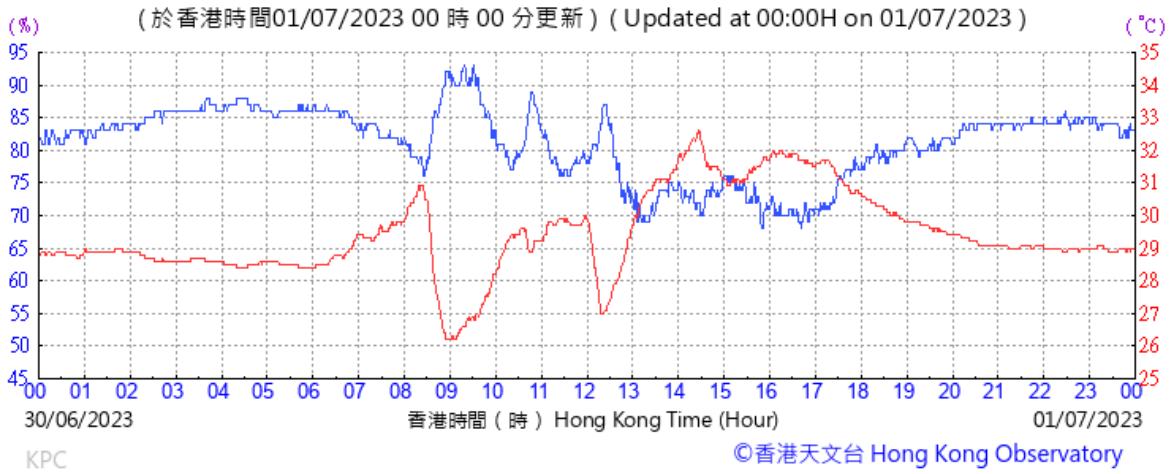
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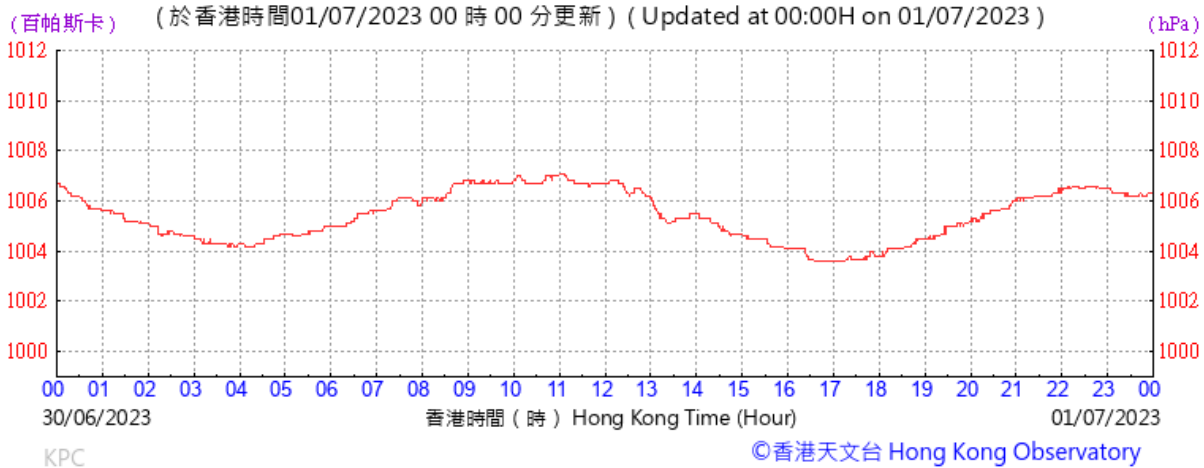
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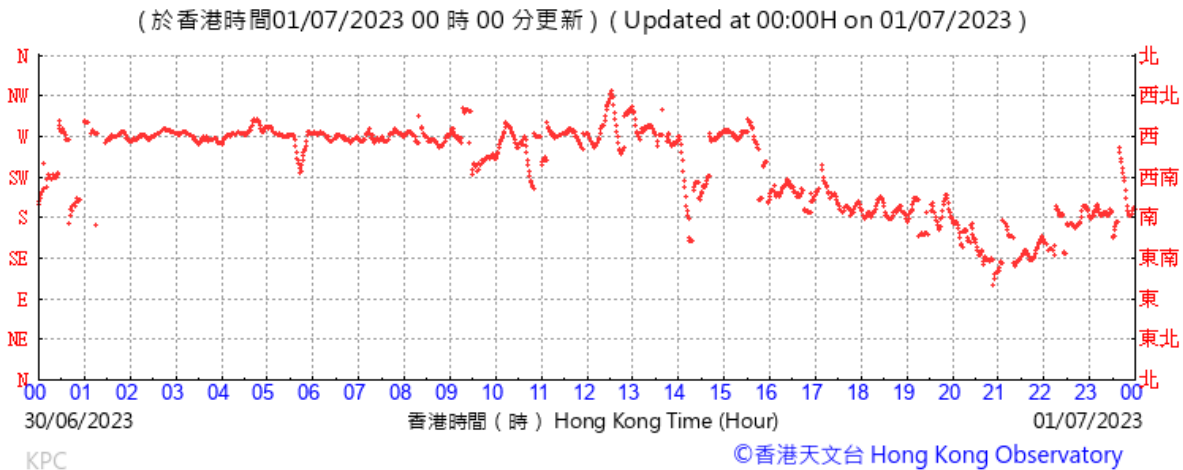
Temperature/Humidity:



Pressure:



Wind Direction:

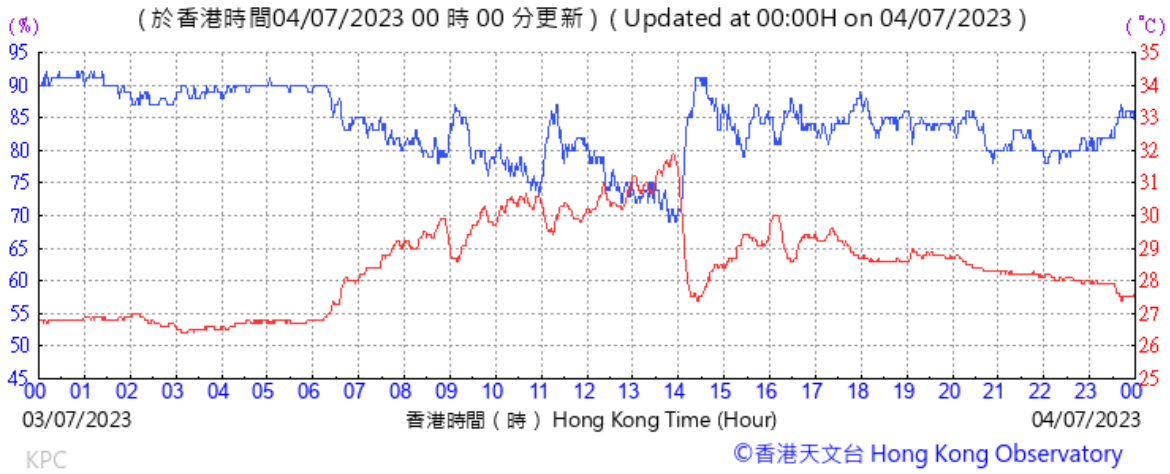


Wind Speed:

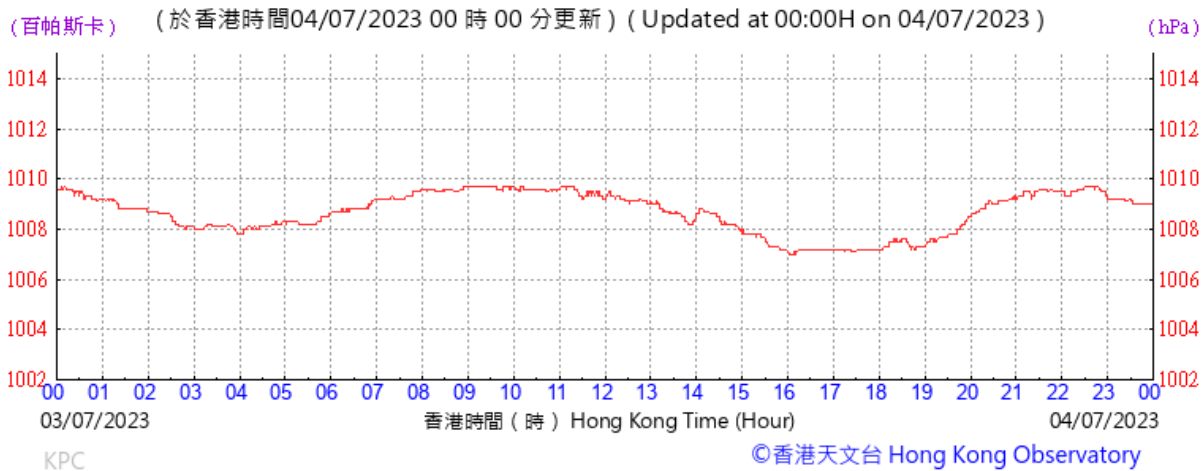


Extract of Meteorological Observations for King's Park Automatic Weather Station, July 2023

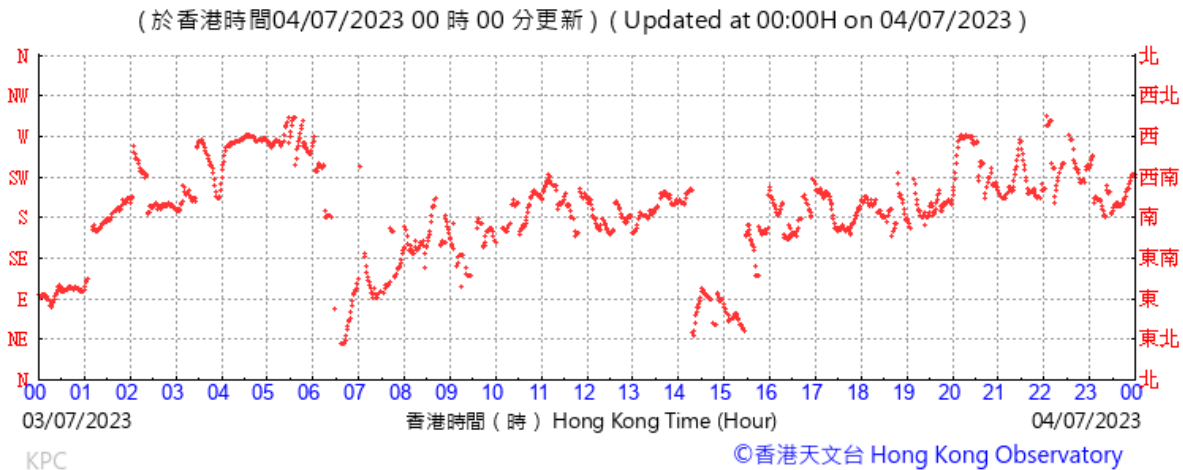
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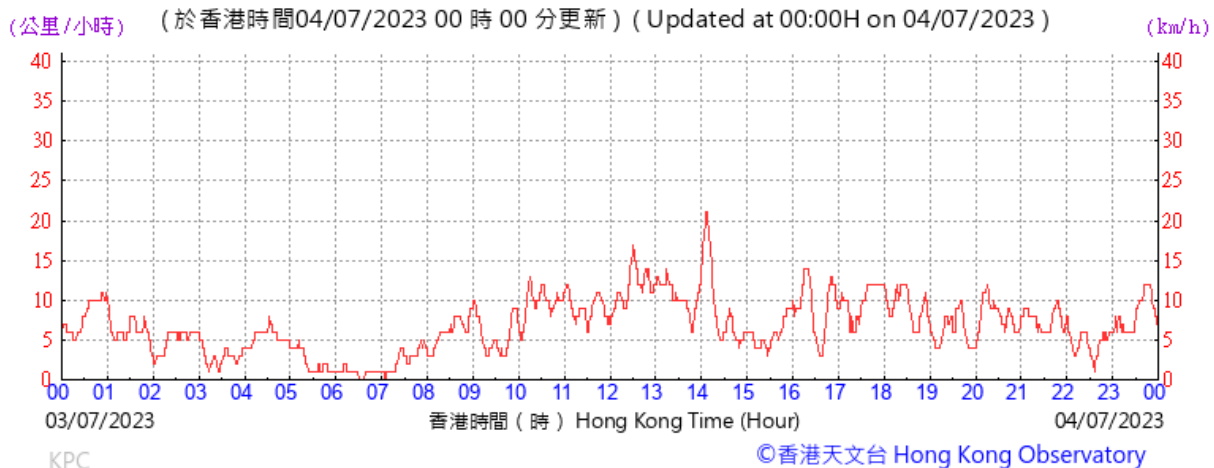
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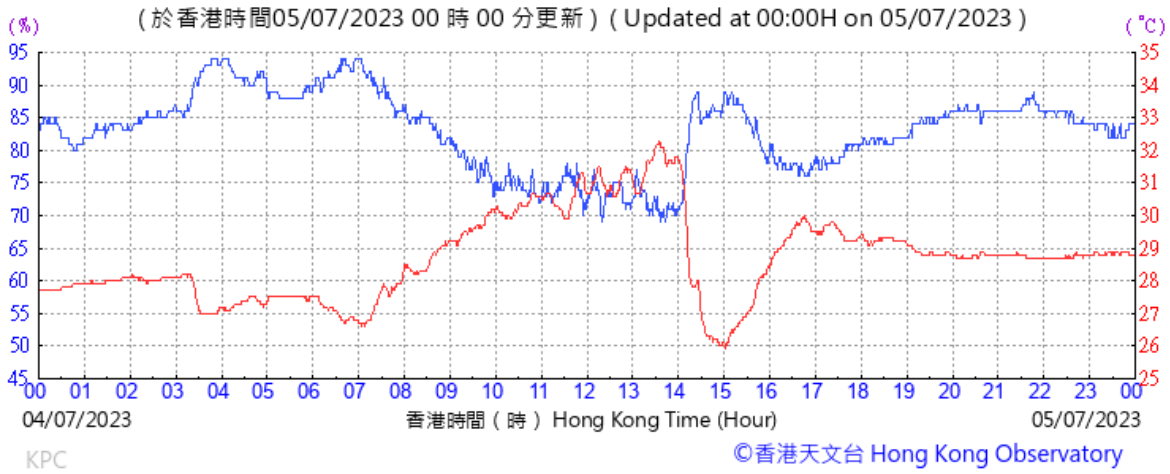
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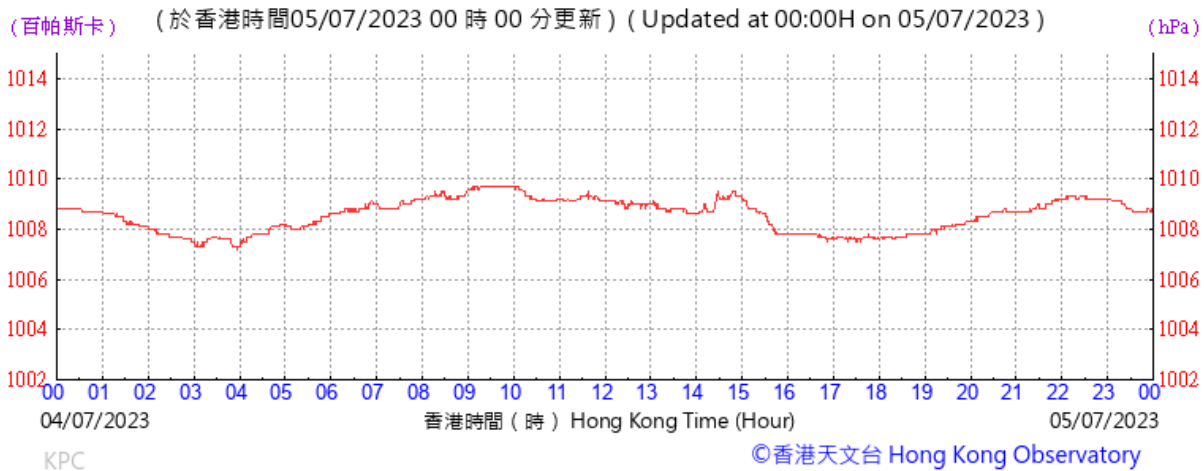
Wind Speed:



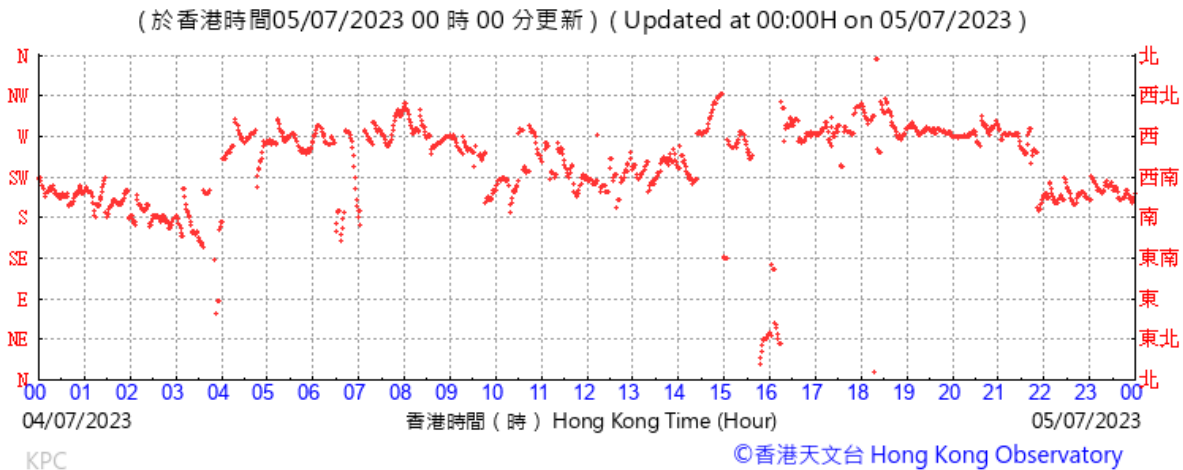
Temperature/Humidity:



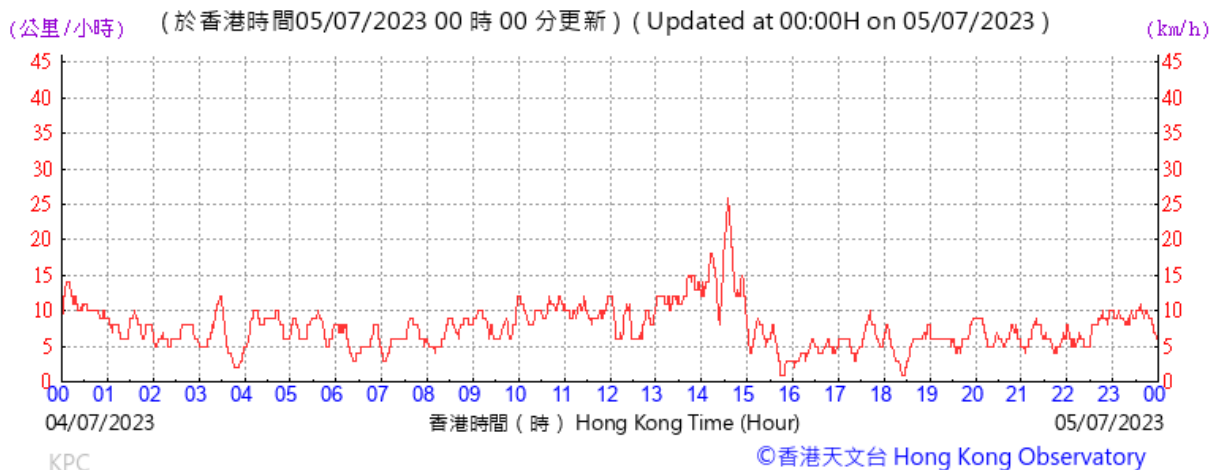
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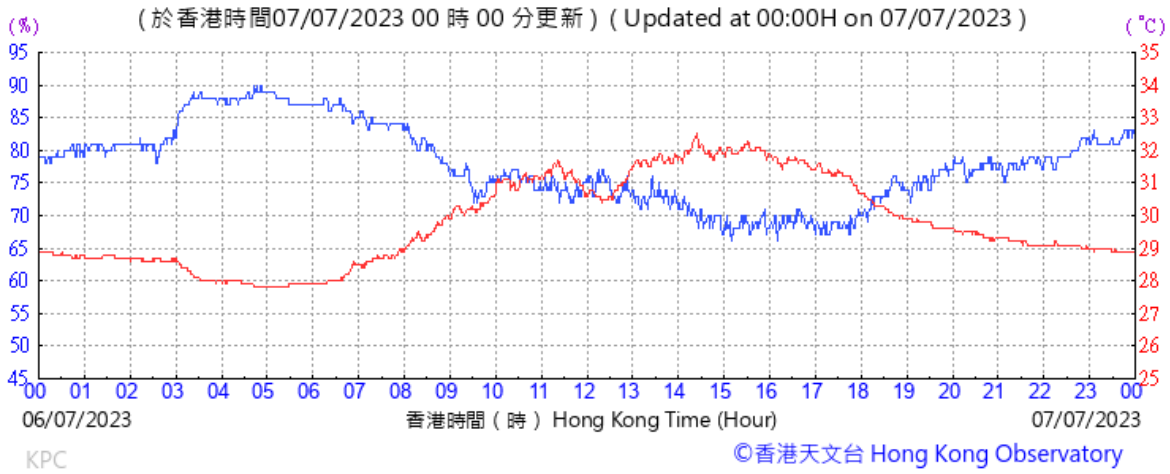
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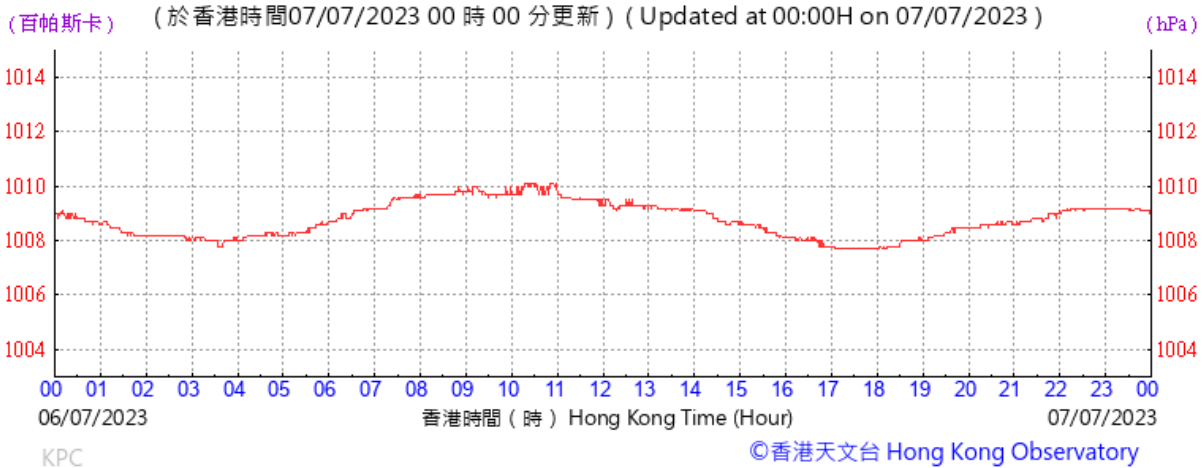
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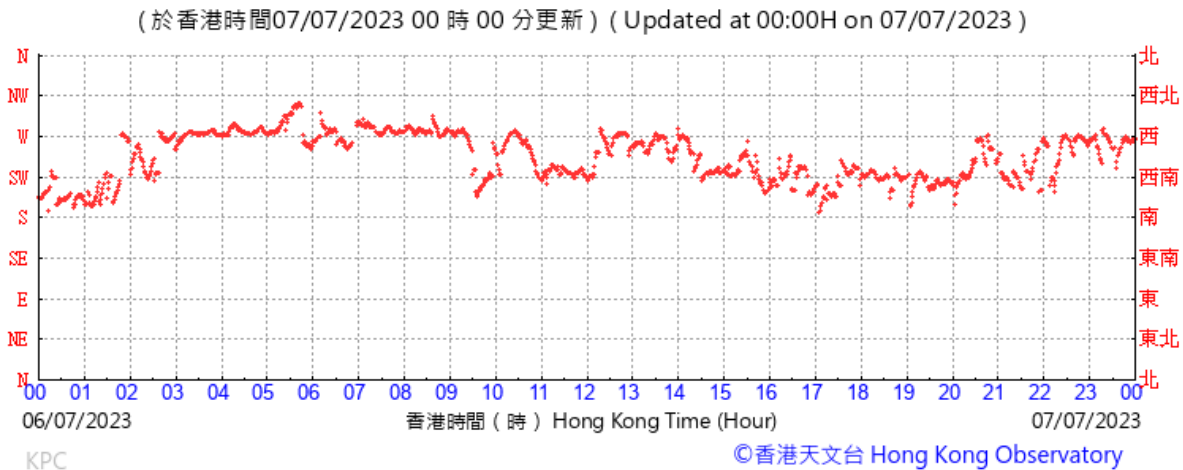
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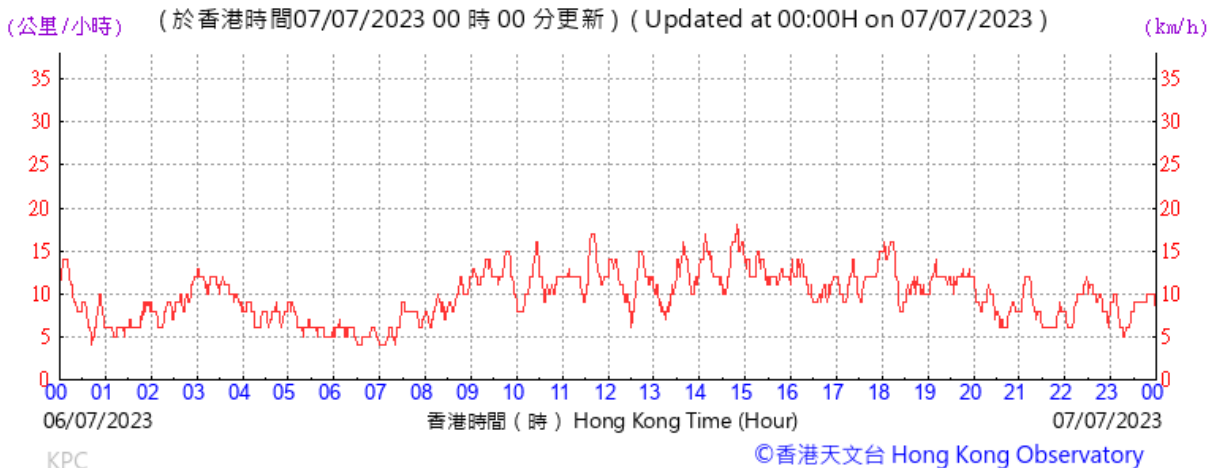
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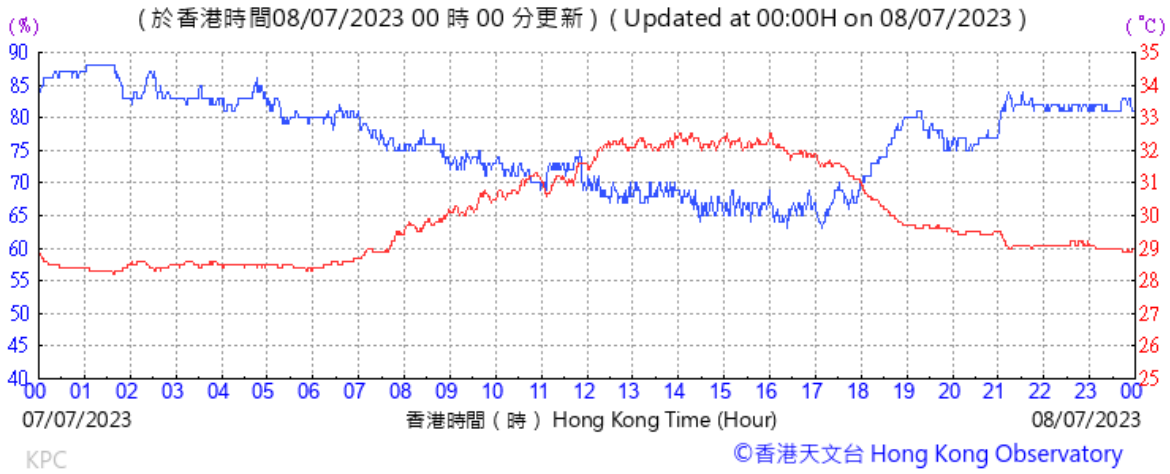
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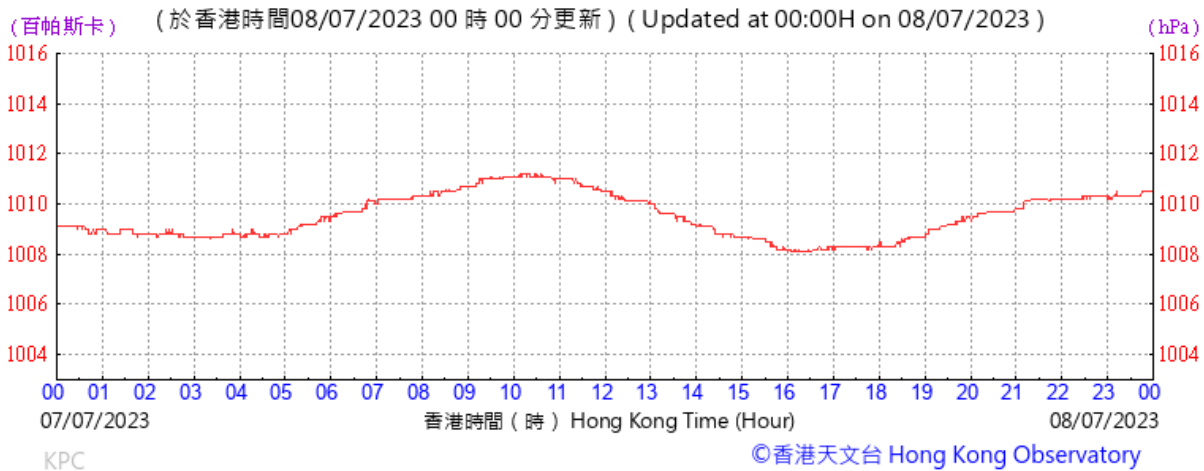
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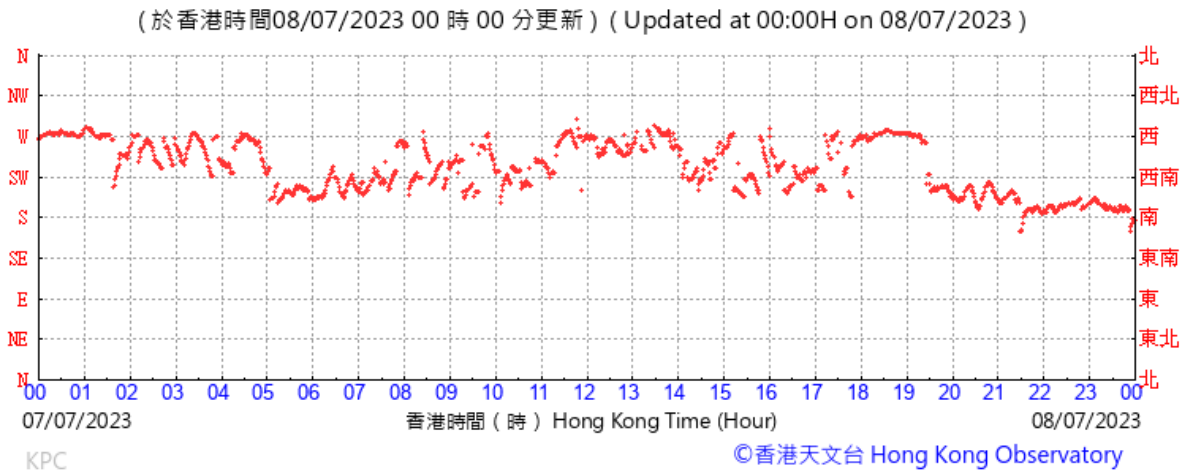
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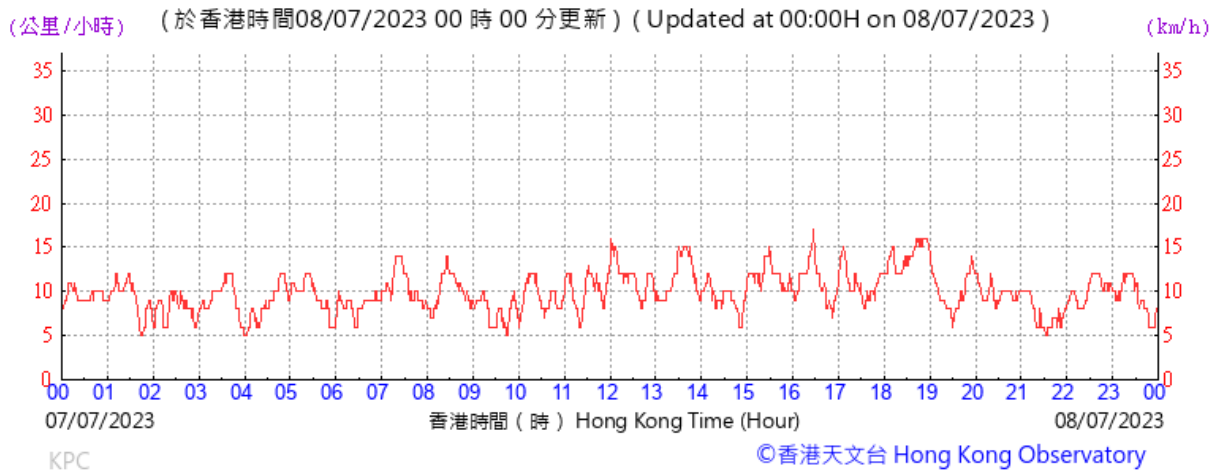
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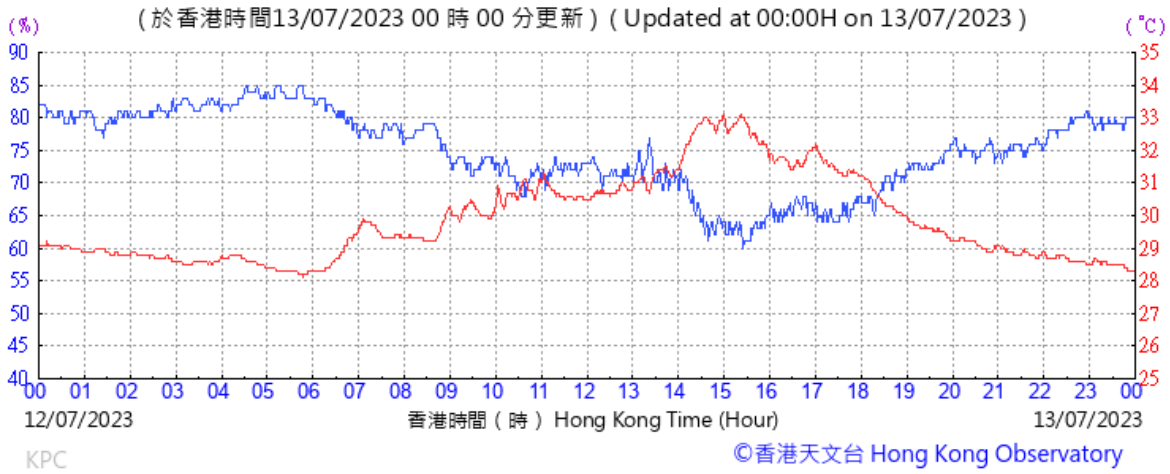
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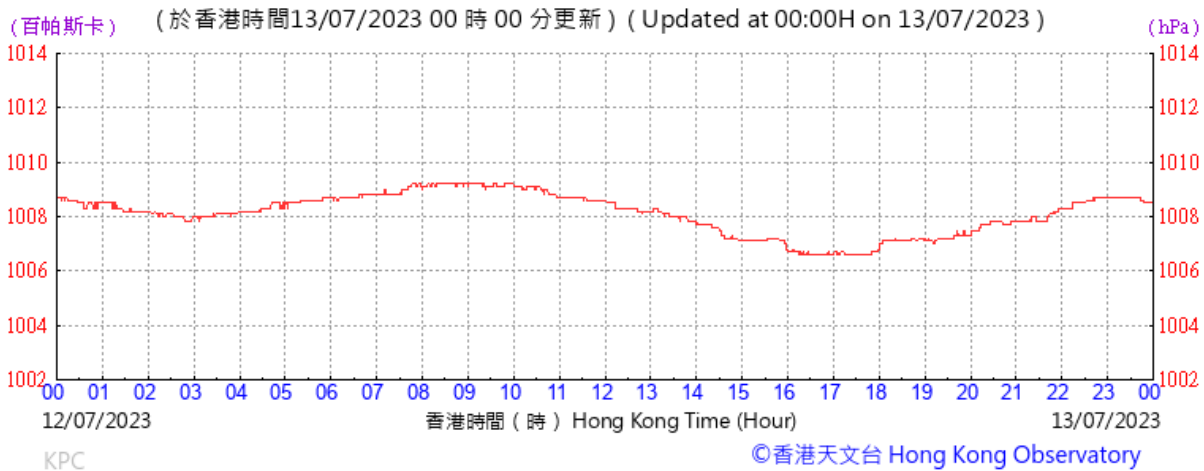
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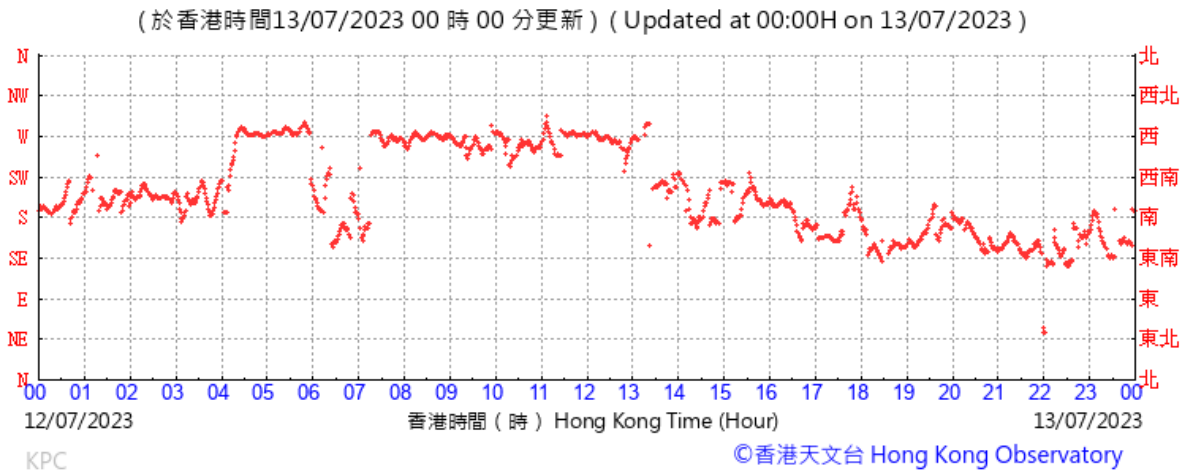
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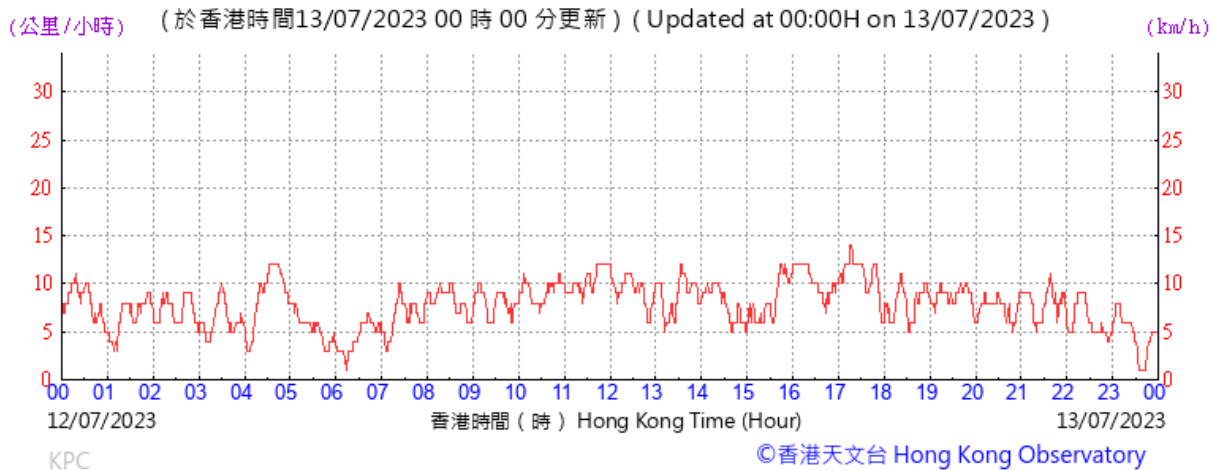
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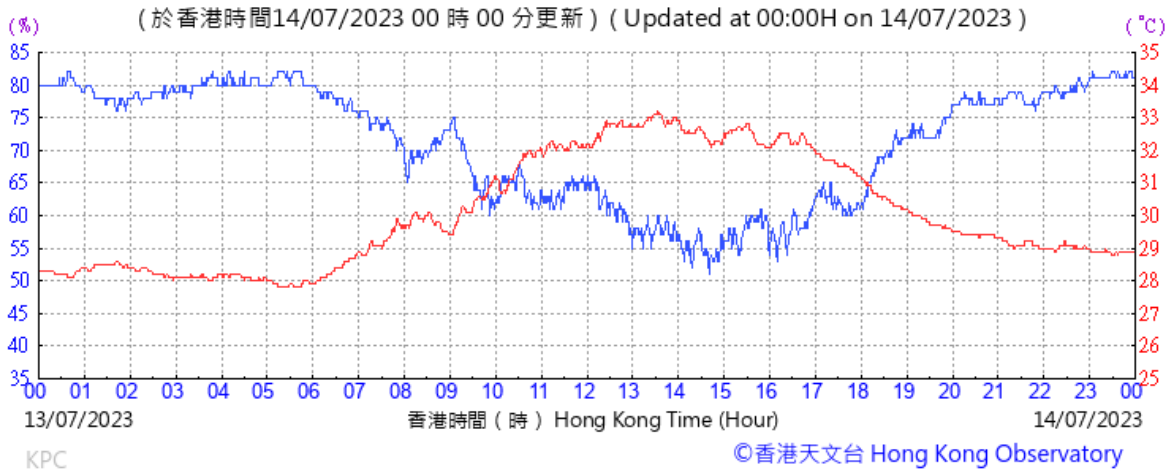
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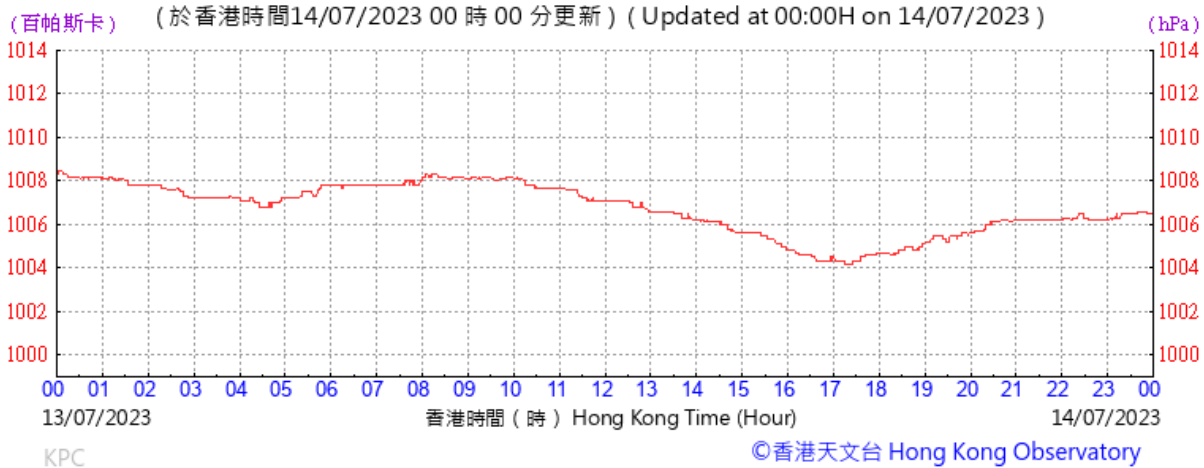
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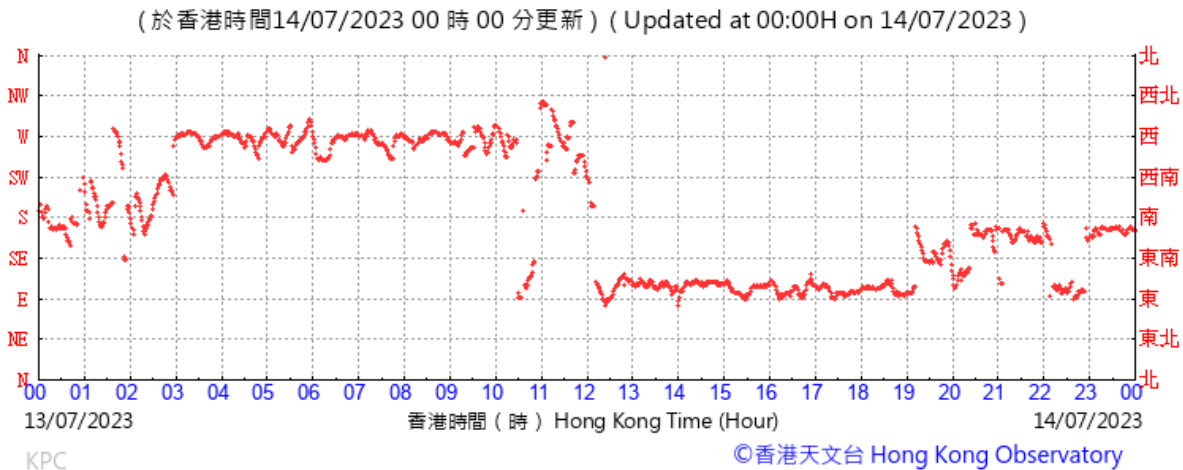
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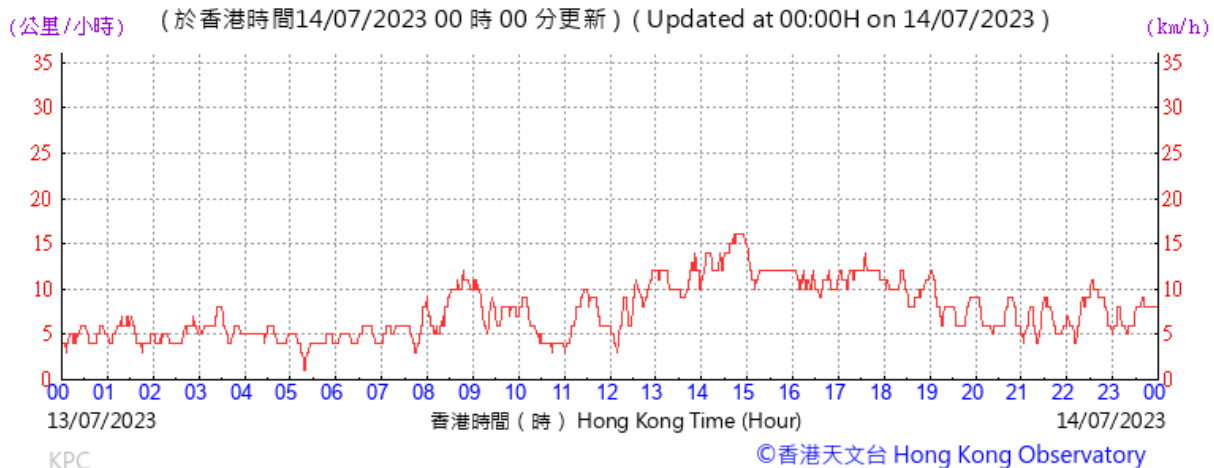
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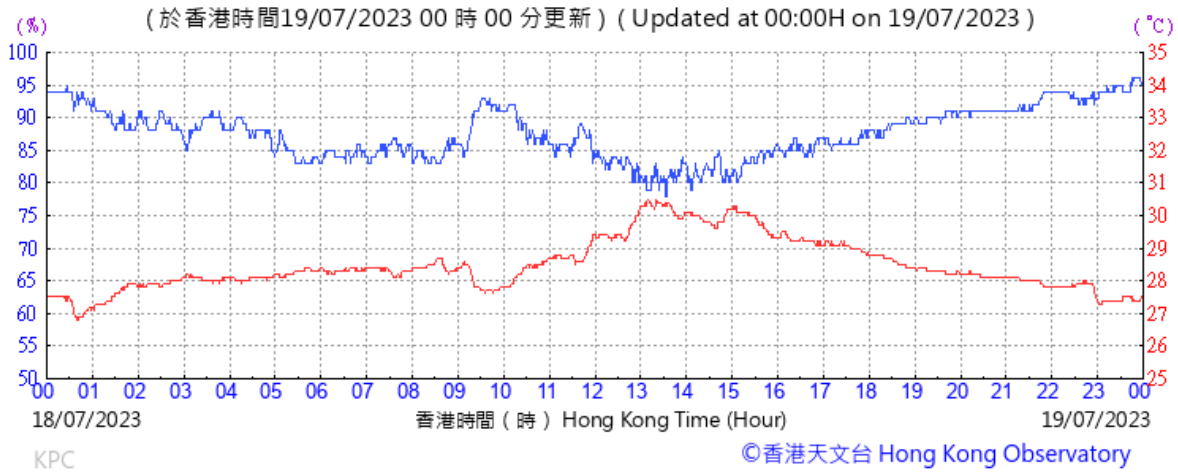
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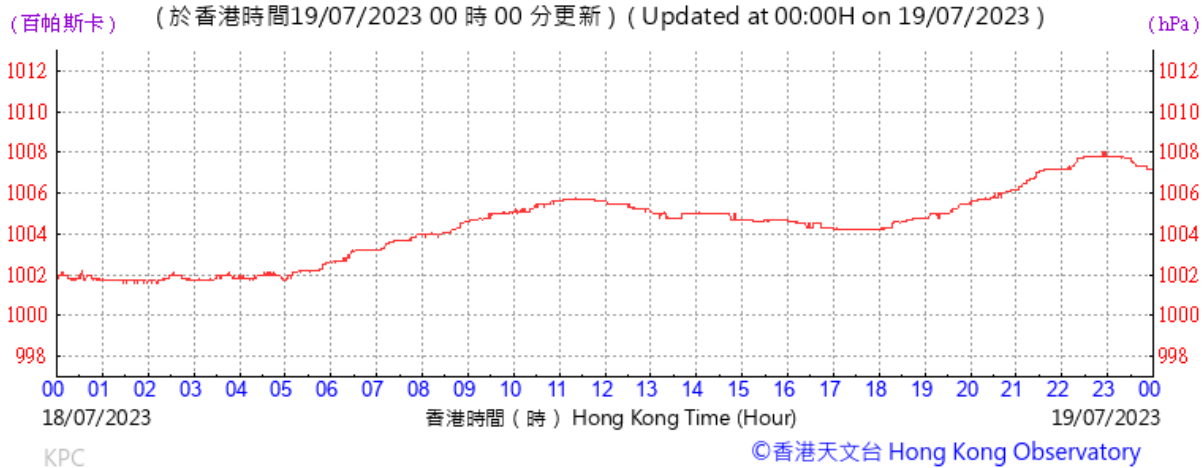
Wind Speed:



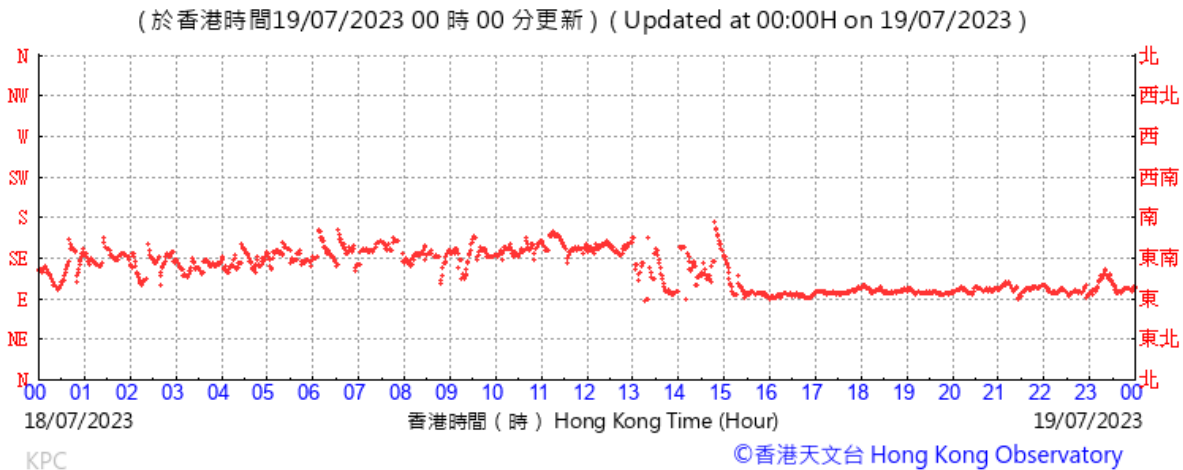
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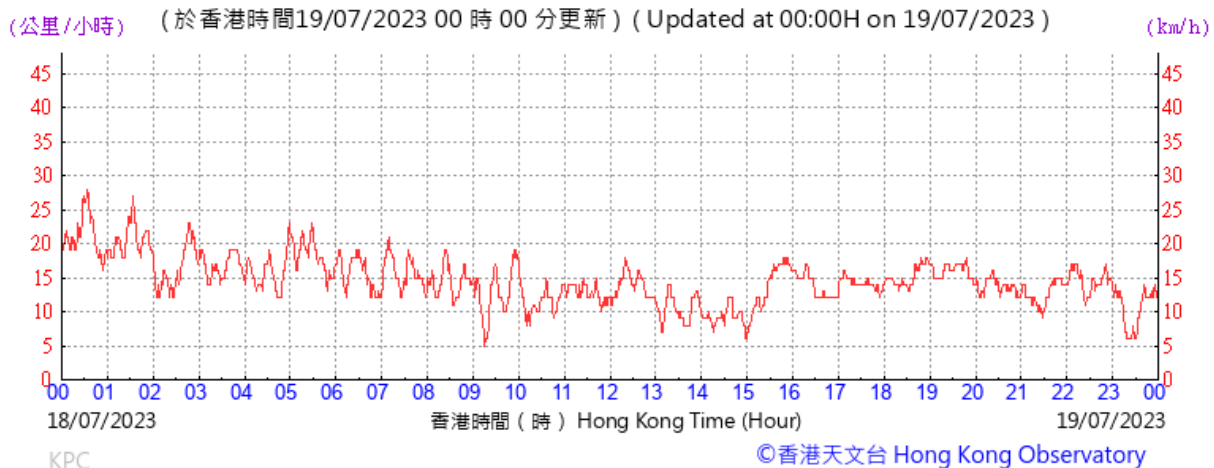
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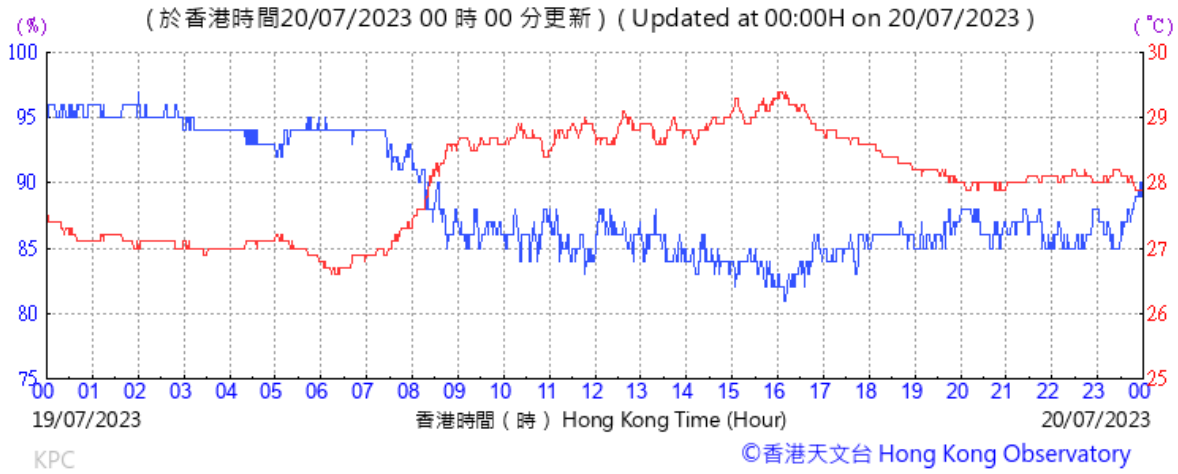
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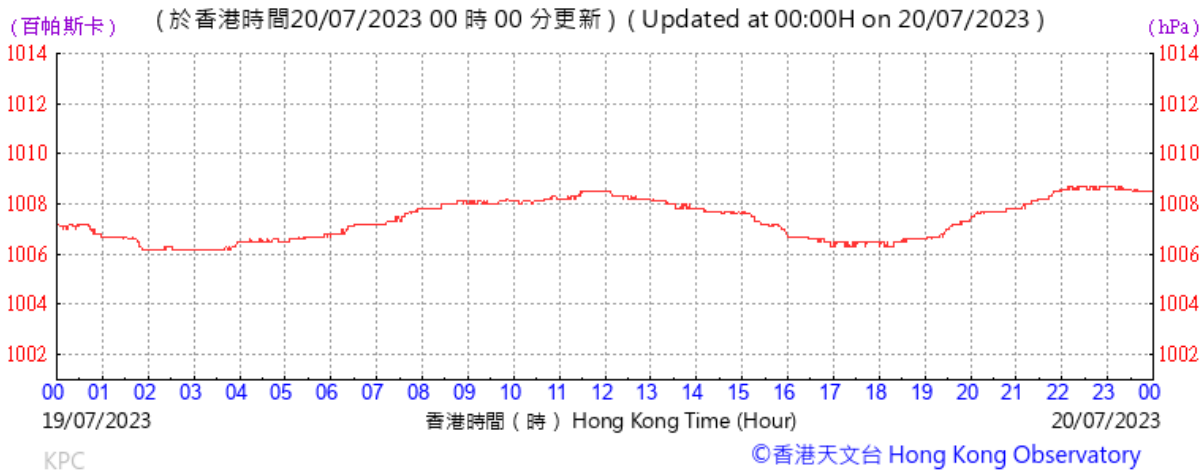
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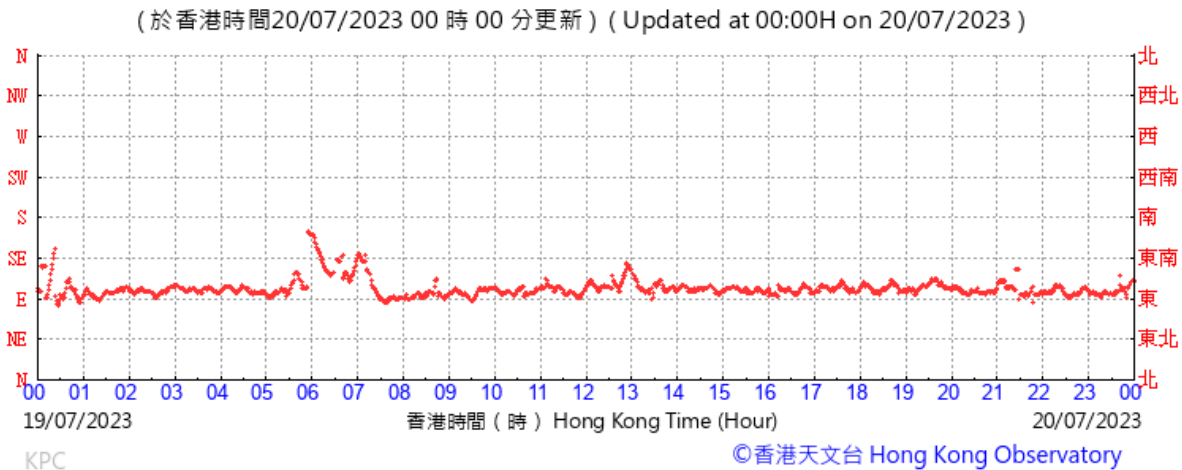
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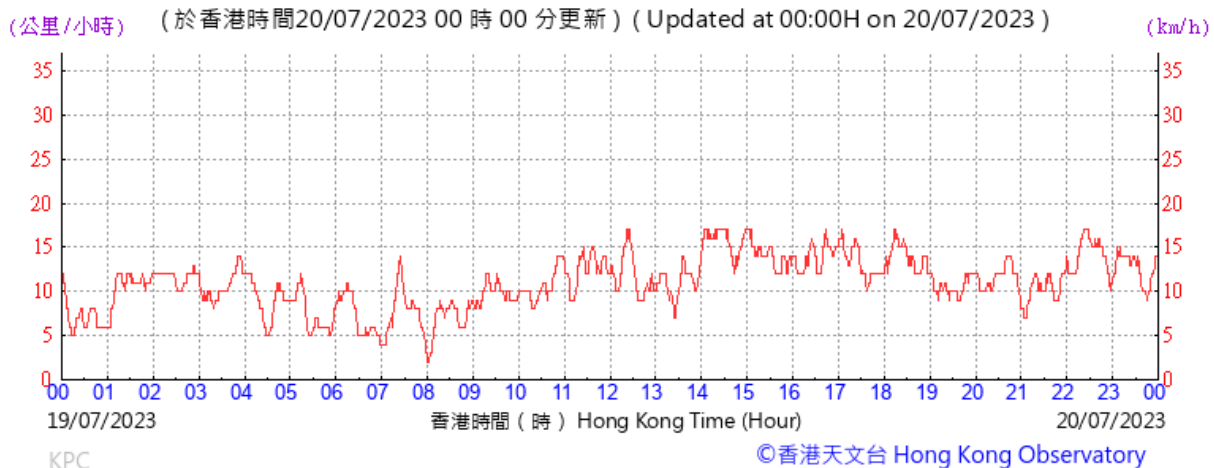
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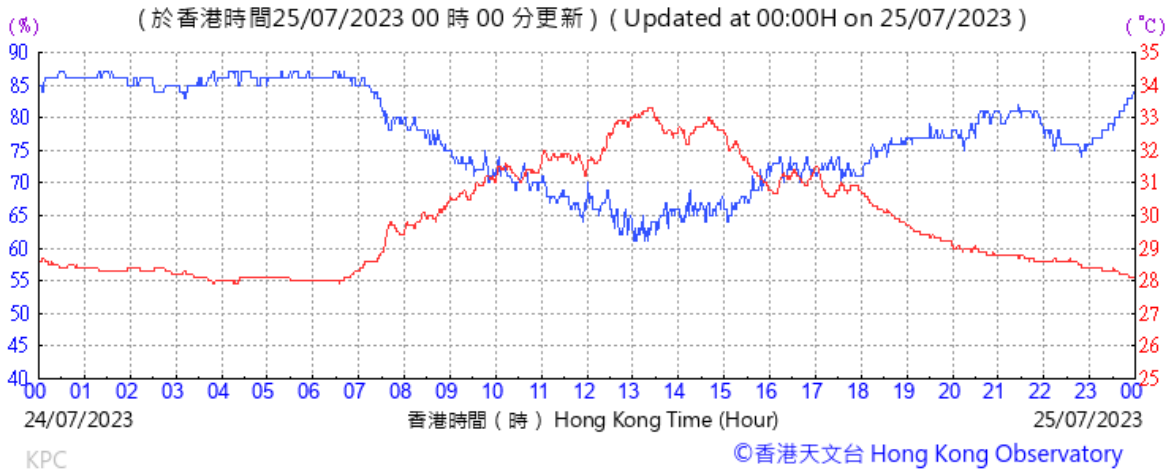
Wind Direction:



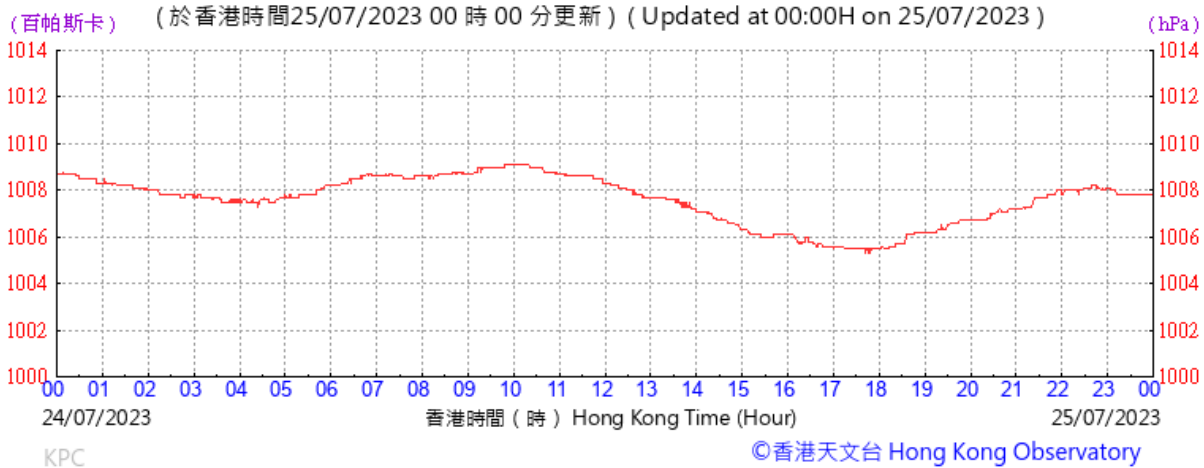
Wind Speed:



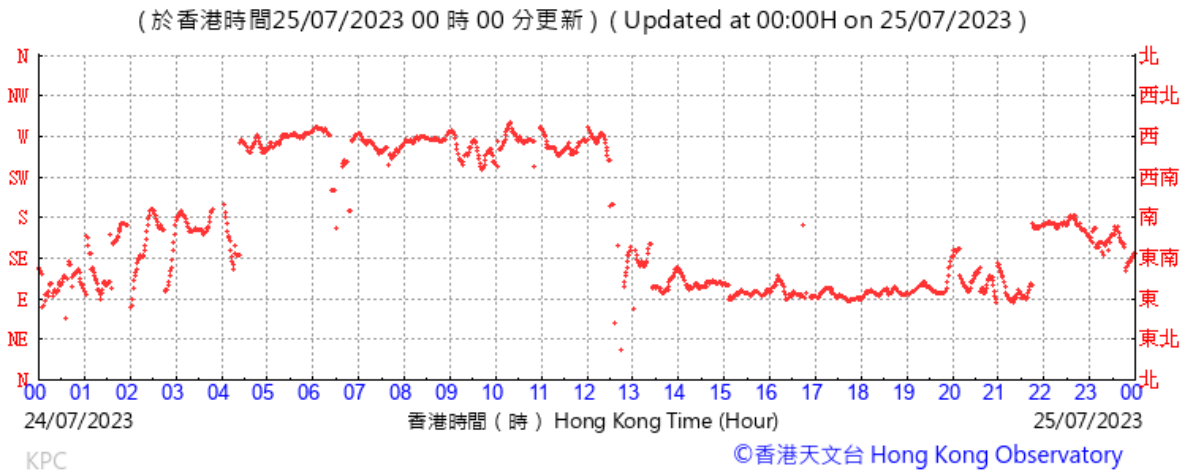
Temperature/Humidity:



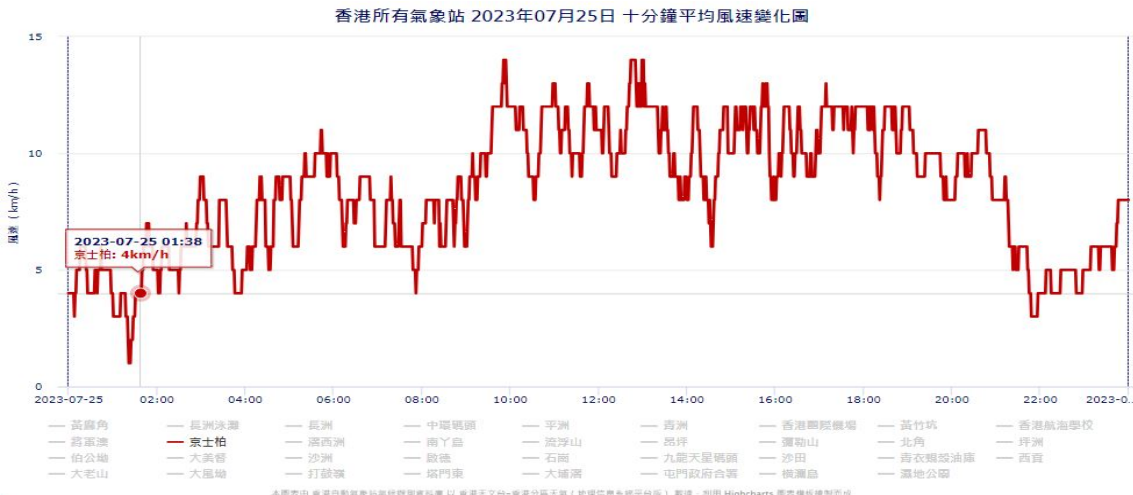
Pressure:



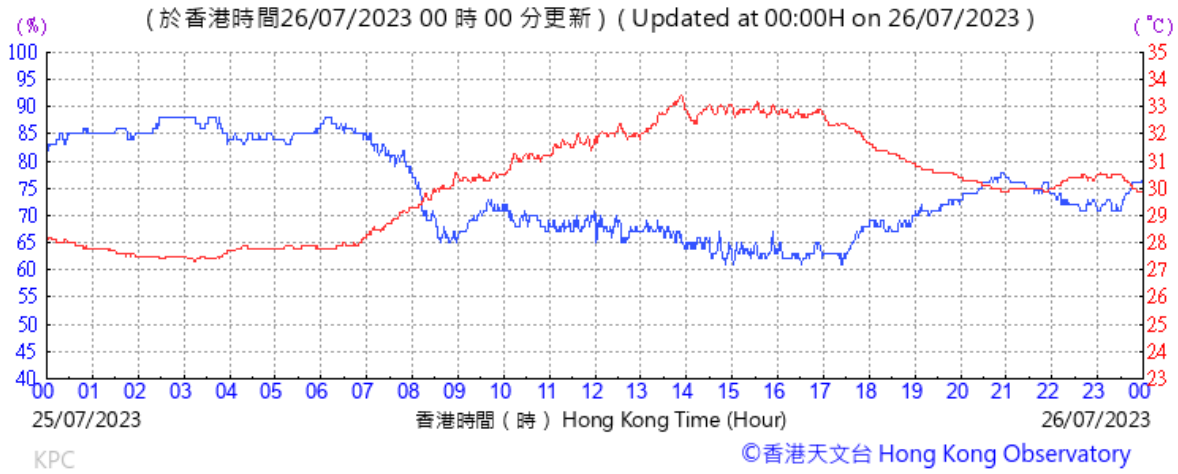
Wind Direction:



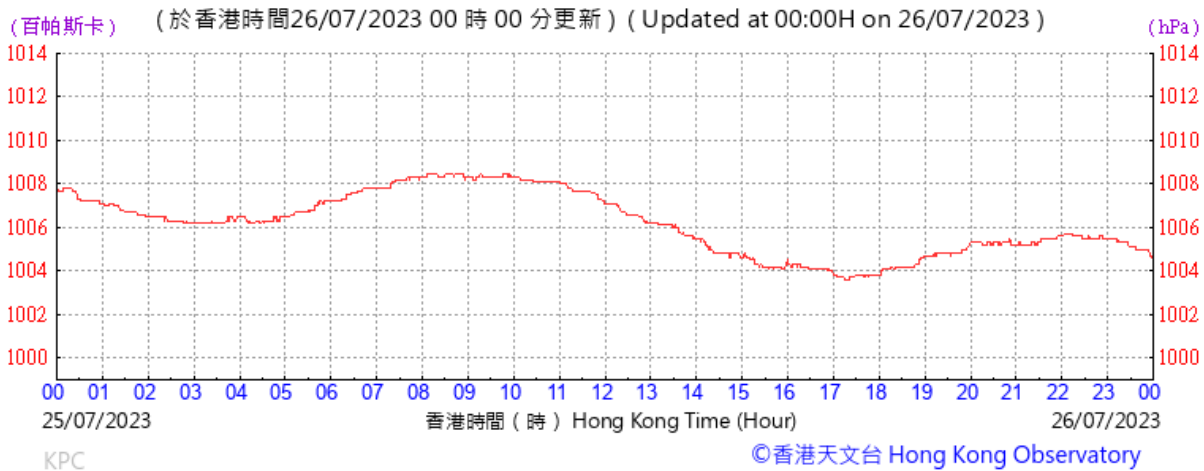
Wind Speed:



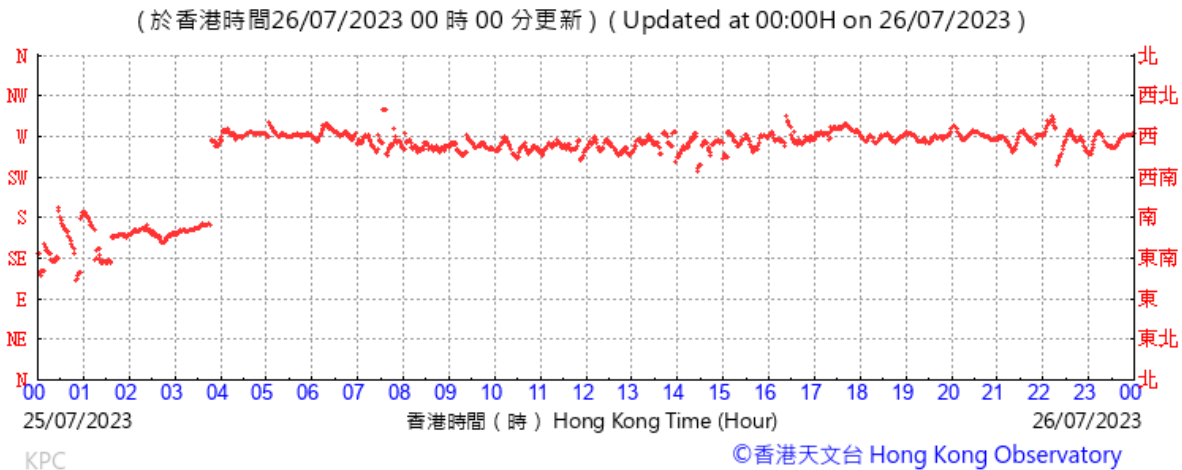
Temperature/Humidity:



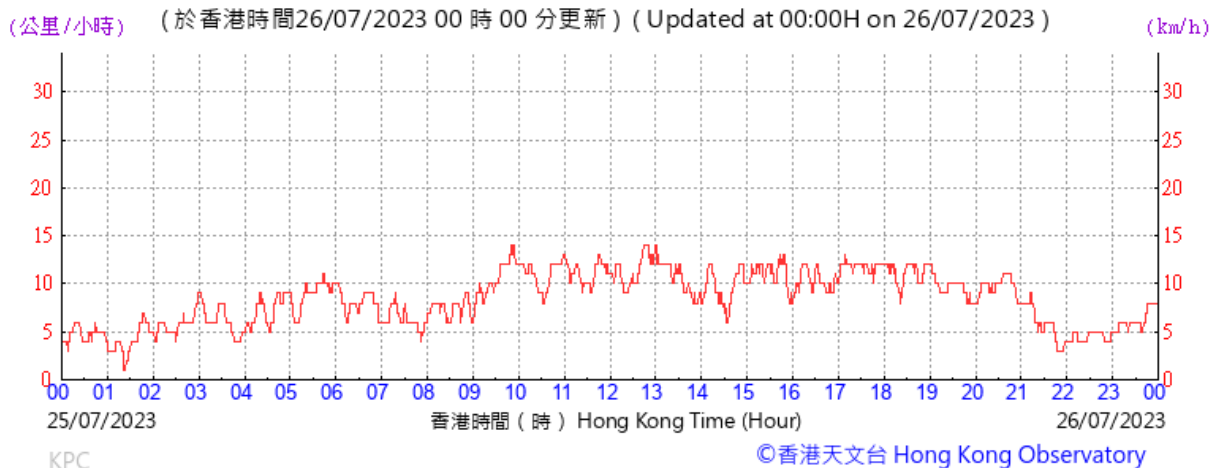
Pressure:



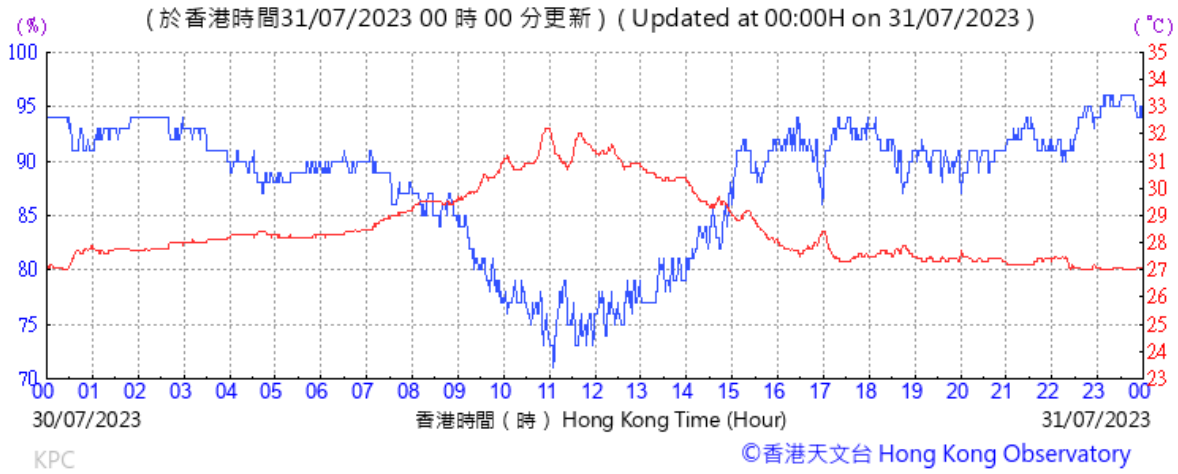
Wind Direction:



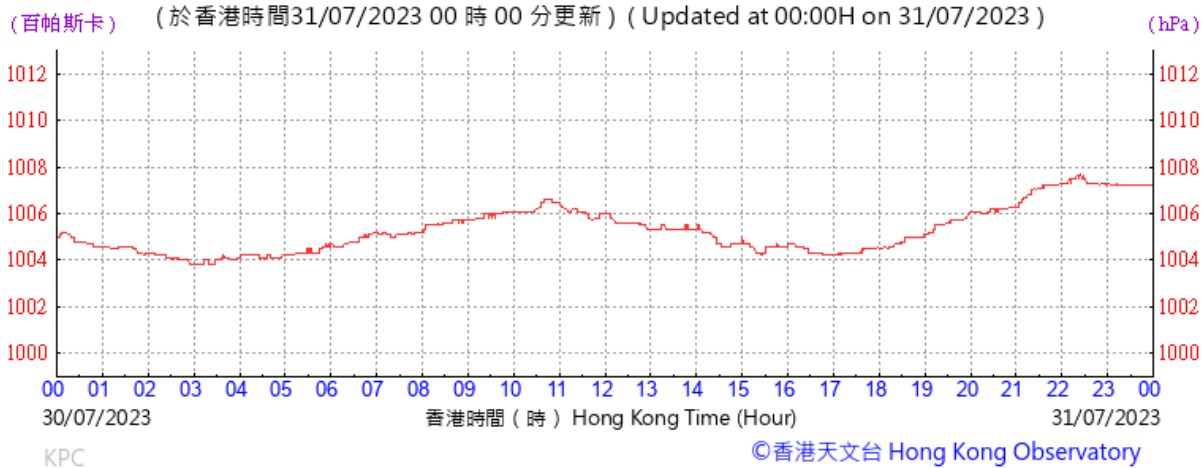
Wind Speed:



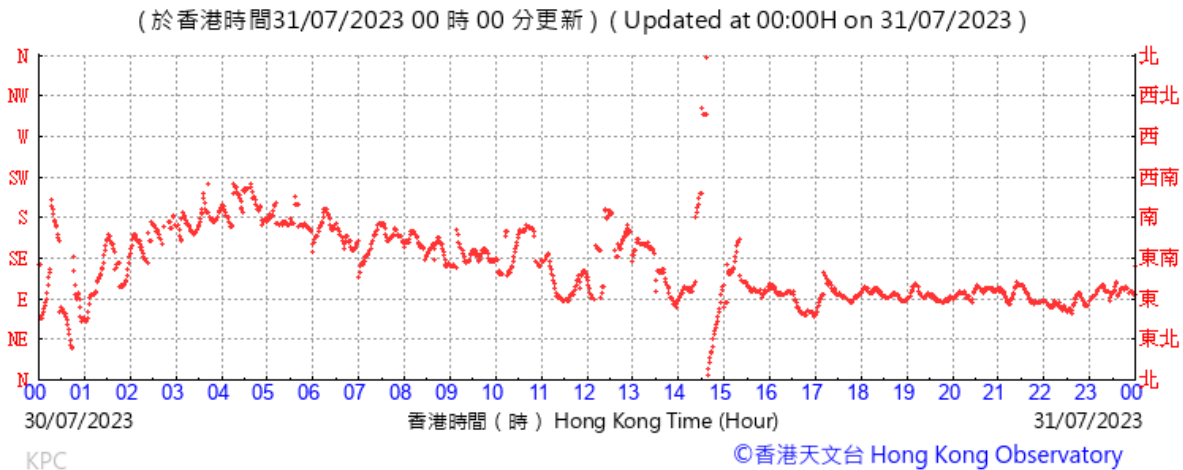
Temperature/Humidity:



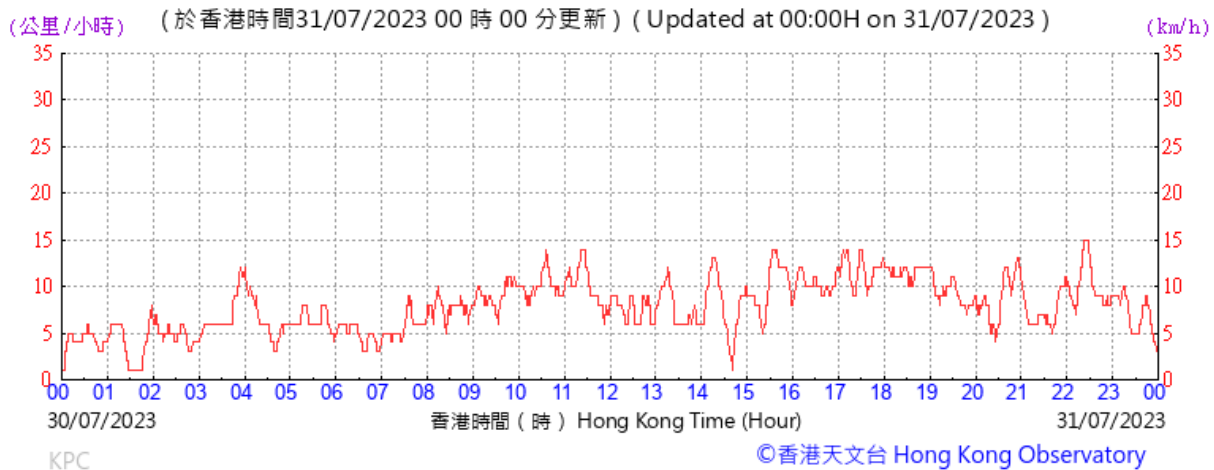
Pressure:



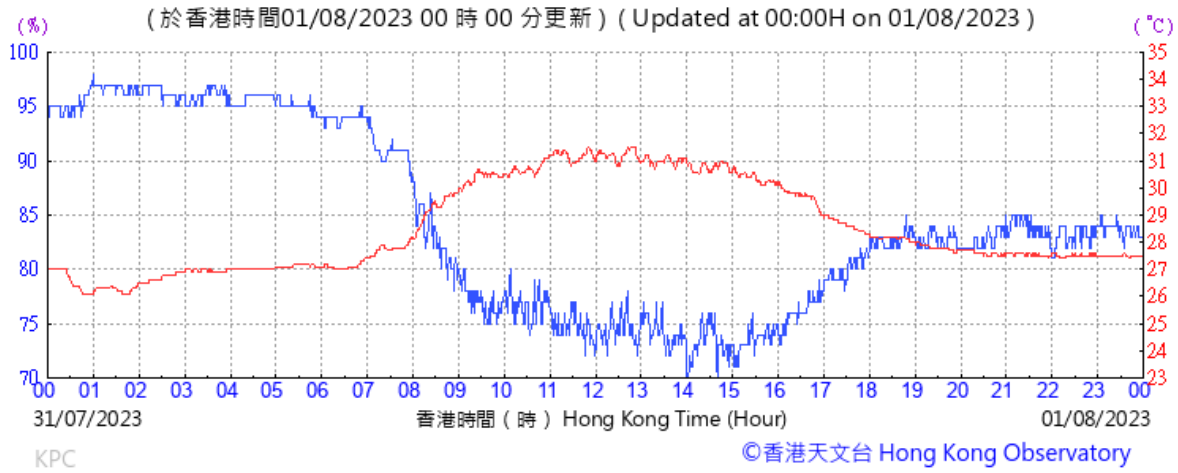
Wind Direction:



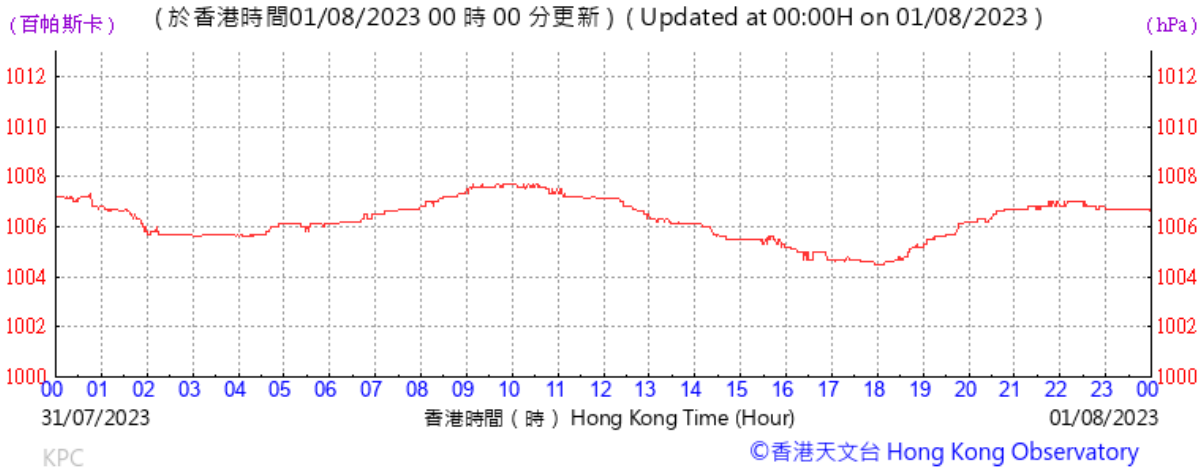
Wind Speed:



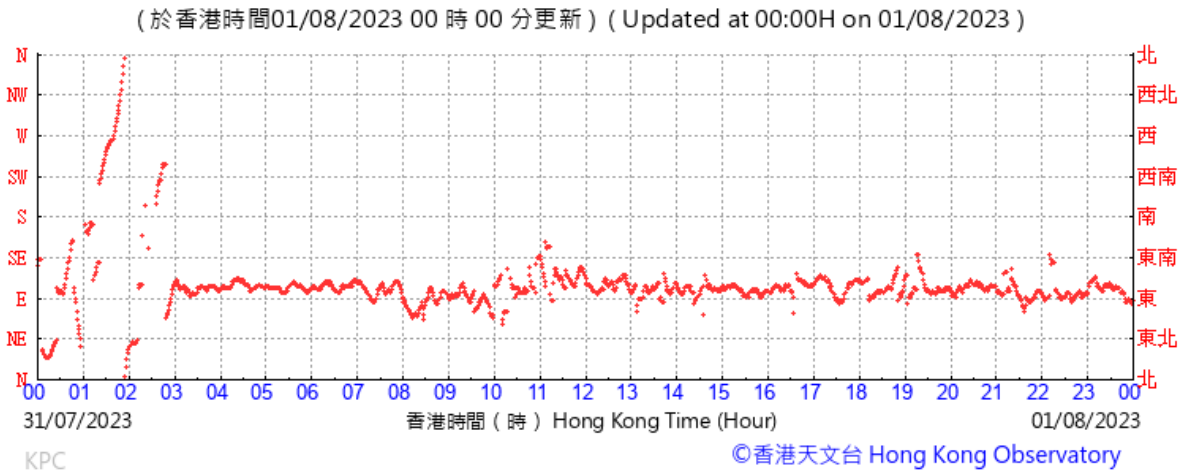
Temperature/Humidity:



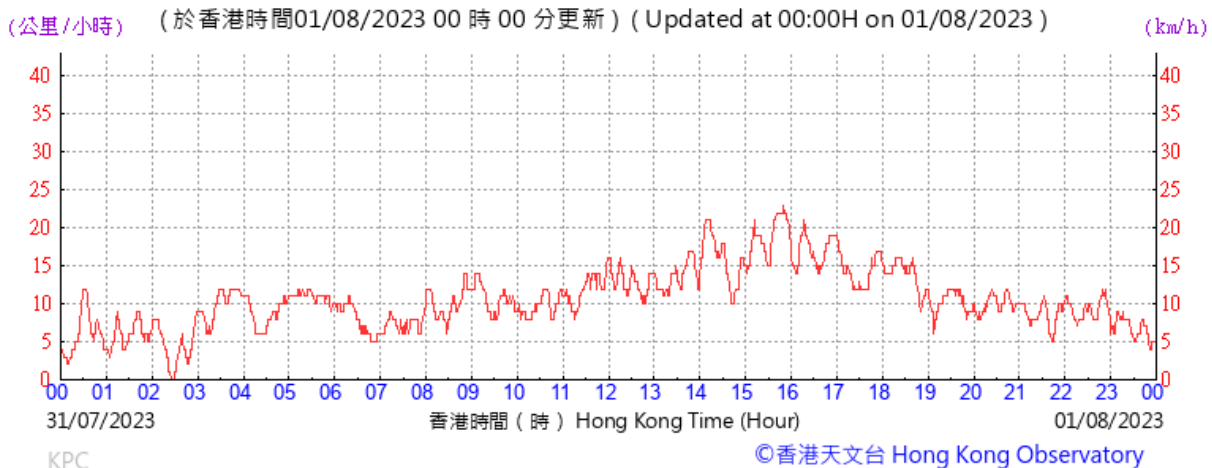
Pressure:



Wind Direction:



Wind Speed:

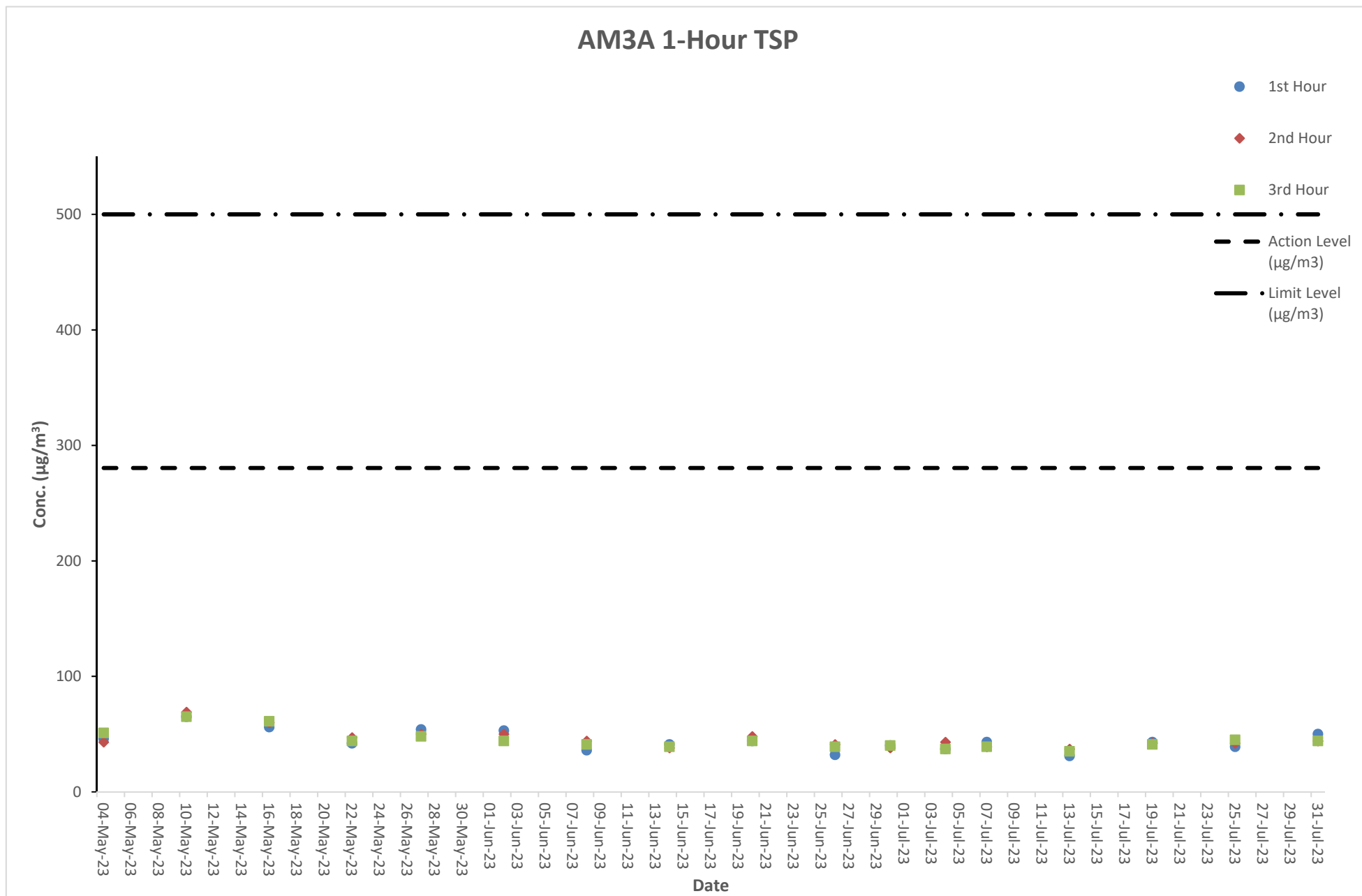


E. Graphical Plots of the Monitoring Results

Air Quality Monitoring Result at Station AM3A (1-hour TSP)

Date	Weather Condition	Time	Conc. ($\mu\text{g}/\text{m}^3$)			Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
			1 st Hour	2 nd Hour	3 rd Hour		
04-May-23	Fine	14:05 - 17:05	46	43	51	280.4	500
10-May-23	Cloudy	8:01 - 11:01	65	69	65	280.4	500
16-May-23	Fine	14:03 - 17:03	56	60	61	280.4	500
22-May-23	Fine	8:02 - 11:02	42	47	44	280.4	500
27-May-23	Fine	14:04 - 17:04	54	50	48	280.4	500
02-Jun-23	Fine	8:09 - 11:09	53	50	44	280.4	500
08-Jun-23	Fine	14:07 - 17:07	36	44	41	280.4	500
14-Jun-23	Cloudy	8:05 - 11:05	41	38	39	280.4	500
20-Jun-23	Cloudy	14:01 - 17:01	44	48	44	280.4	500
26-Jun-23	Cloudy	8:06 - 11:06	32	41	39	280.4	500
30-Jun-23	Fine	14:09 - 17:09	40	38	40	280.4	500
04-Jul-23	Cloudy	8:02 - 11:02	37	43	37	280.4	500
07-Jul-23	Fine	14:01 - 17:01	43	39	39	280.4	500
13-Jul-23	Fine	8:09 - 11:09	31	37	35	280.4	500
19-Jul-23	Cloudy	14:05 - 17:05	43	42	41	280.4	500
25-Jul-23	Fine	8:02 - 11:02	39	42	45	280.4	500
31-Jul-23	Cloudy	14:10 - 17:10	50	44	44	280.4	500

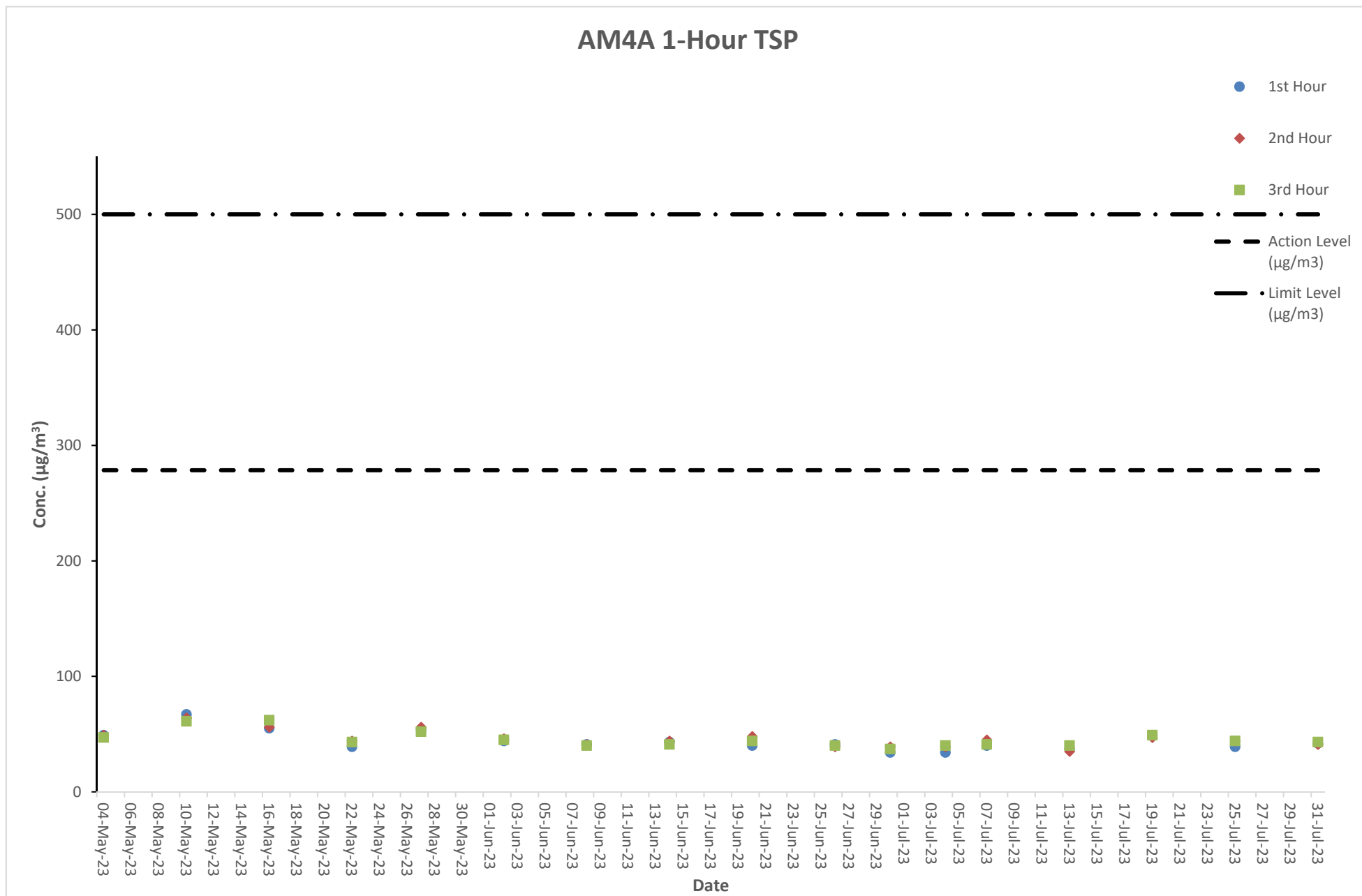
Graphical Presentation of Air Quality Monitoring Result at Station AM3A (1-hour TSP)



Air Quality Monitoring Result at Station AM4A (1-hour TSP)

Date	Weather Condition	Time	Conc. ($\mu\text{g}/\text{m}^3$)			Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
			1 st Hour	2 nd Hour	3 rd Hour		
04-May-23	Fine	14:13 - 17:13	49	49	47	278.5	500
10-May-23	Cloudy	8:09 - 11:09	67	64	61	278.5	500
16-May-23	Fine	14:11 - 17:11	55	56	62	278.5	500
22-May-23	Fine	8:10 - 11:10	39	44	43	278.5	500
27-May-23	Fine	14:12 - 17:12	54	56	52	278.5	500
02-Jun-23	Fine	8:17 - 11:17	44	46	45	278.5	500
08-Jun-23	Fine	14:15 - 17:15	41	41	40	278.5	500
14-Jun-23	Cloudy	8:13 - 11:13	43	44	41	278.5	500
20-Jun-23	Cloudy	14:09 - 17:09	40	48	44	278.5	500
26-Jun-23	Cloudy	8:14 - 11:14	41	39	40	278.5	500
30-Jun-23	Fine	14:17 - 17:17	34	39	37	278.5	500
04-Jul-23	Cloudy	8:10 - 11:10	34	39	40	278.5	500
07-Jul-23	Fine	14:09 - 17:09	40	45	41	278.5	500
13-Jul-23	Fine	8:17 - 11:17	37	35	40	278.5	500
19-Jul-23	Cloudy	14:13 - 17:13	49	47	49	278.5	500
25-Jul-23	Fine	8:10 - 11:10	39	44	44	278.5	500
31-Jul-23	Cloudy	14:18 - 17:18	42	41	43	278.5	500

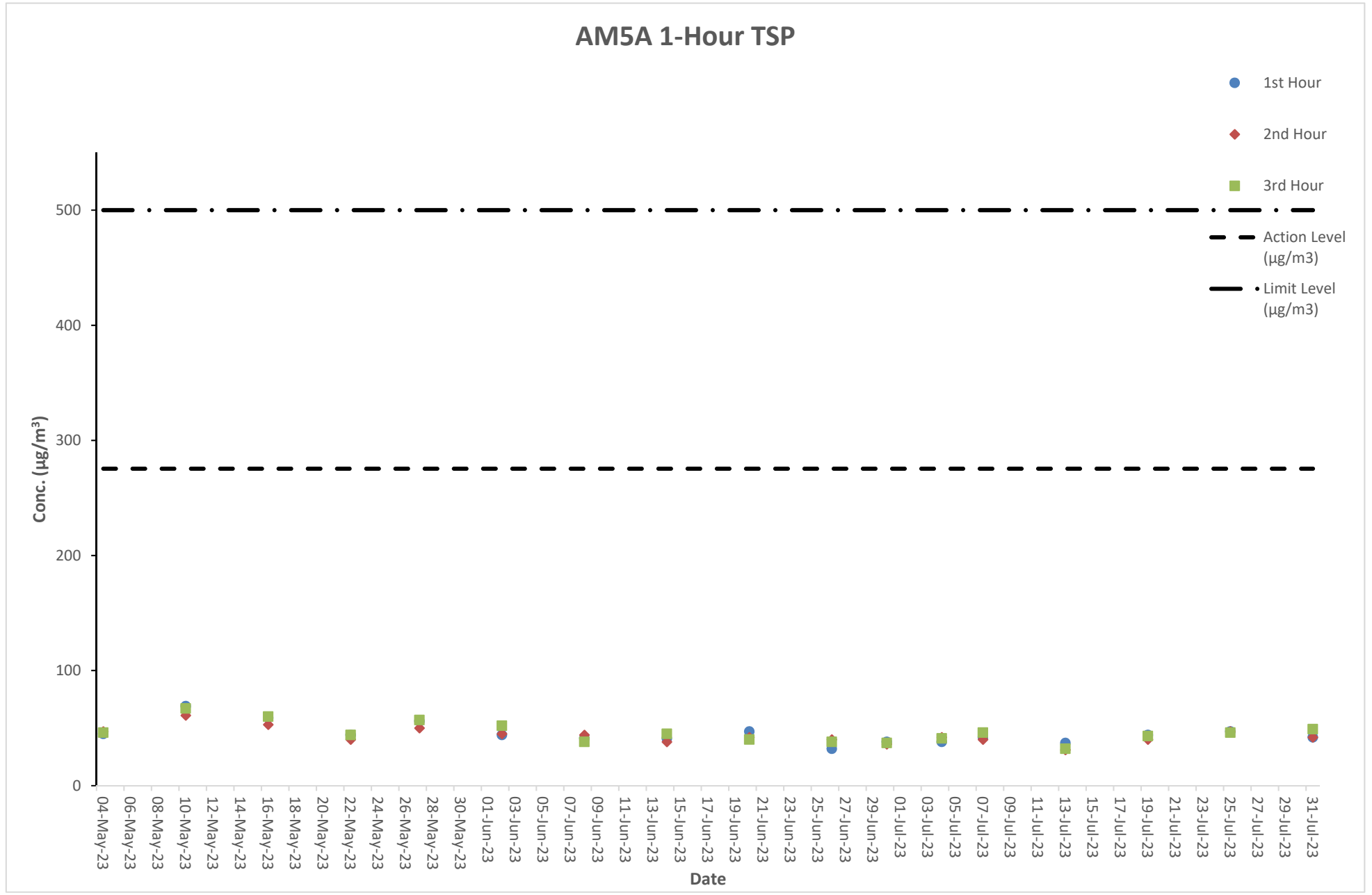
Graphical Presentation of Air Quality Monitoring Result at Station AM4A (1-hour TSP)



Air Quality Monitoring Result at Station AM5A (1-hour TSP)

Date	Weather Condition	Time	Conc. ($\mu\text{g}/\text{m}^3$)			Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
			1 st Hour	2 nd Hour	3 rd Hour		
04-May-23	Fine	14:28 - 17:28	45	47	46	275.4	500
10-May-23	Cloudy	8:26 - 11:26	69	61	67	275.4	500
16-May-23	Fine	14:26 - 17:26	59	53	60	275.4	500
22-May-23	Fine	8:27 - 11:27	44	40	44	275.4	500
27-May-23	Fine	14:27 - 17:27	56	50	57	275.4	500
02-Jun-23	Fine	8:32 - 11:32	44	45	52	275.4	500
08-Jun-23	Fine	14:32 - 17:32	41	44	38	275.4	500
14-Jun-23	Cloudy	8:28 - 11:28	41	38	45	275.4	500
20-Jun-23	Cloudy	14:26 - 17:26	47	42	40	275.4	500
26-Jun-23	Cloudy	8:29 - 11:29	32	40	38	275.4	500
30-Jun-23	Fine	14:34 - 17:34	38	36	37	275.4	500
04-Jul-23	Cloudy	8:25 - 11:25	38	42	41	275.4	500
07-Jul-23	Fine	14:26 - 17:26	42	40	46	275.4	500
13-Jul-23	Fine	8:32 - 11:32	37	31	32	275.4	500
19-Jul-23	Cloudy	14:30 - 17:30	44	40	43	275.4	500
25-Jul-23	Fine	8:25 - 11:25	47	47	46	275.4	500
31-Jul-23	Cloudy	14:35 - 17:35	42	42	49	275.4	500

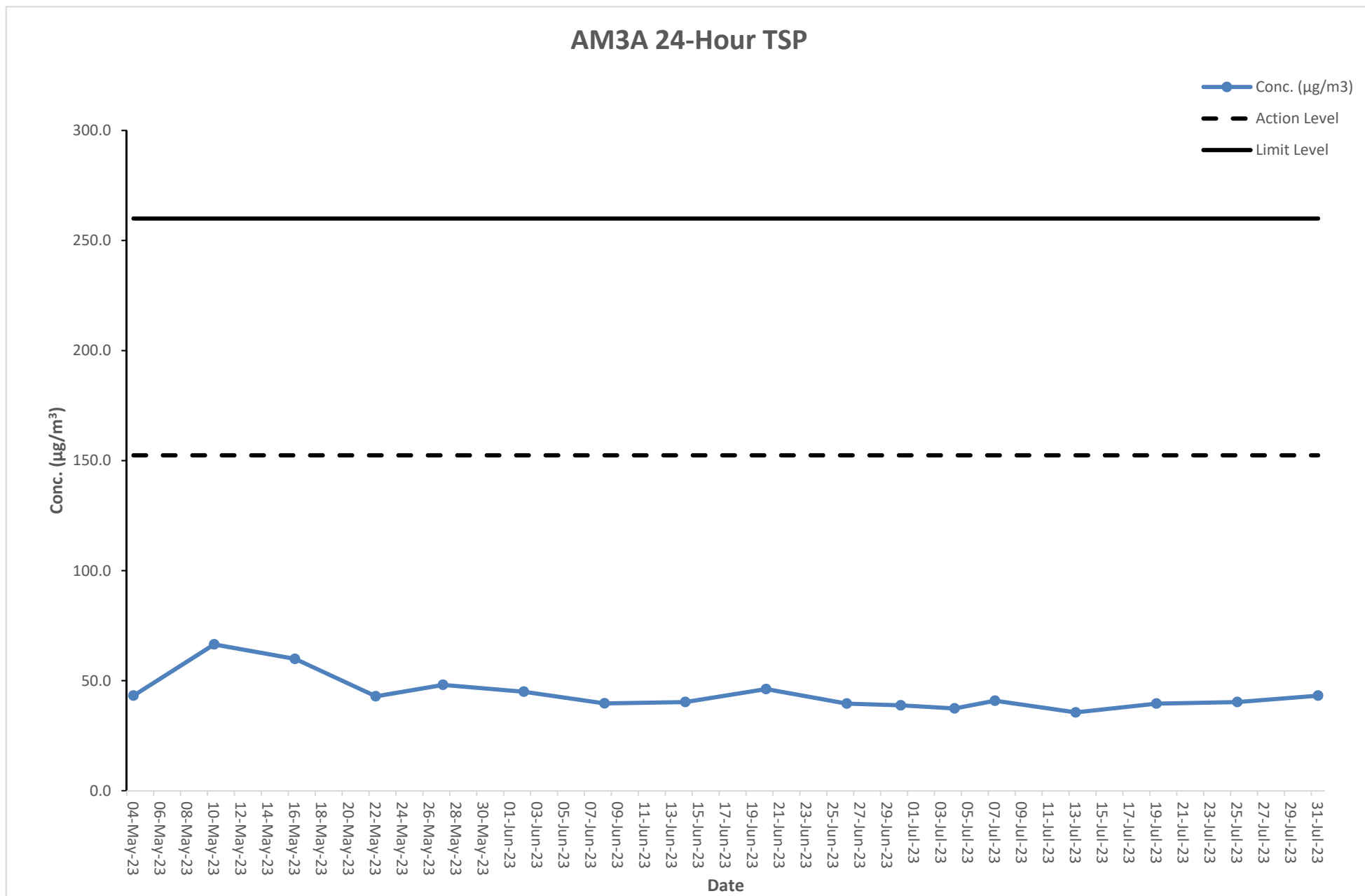
Graphical Presentation of Air Quality Monitoring Result at Station AM5A (1-hour TSP)



Air Quality Monitoring Result at Station AM3A (24-hour TSP)

Start		Finish		Filter Weight (g)		Elapsed Time Reading		Sampling Time (hrs)	Flow Rate (m ³ /min)			Conc. (µg/m ³)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time	Initial	Final	Initial	Final		Initial	Final	Average				
04-May-23	10:00	05-May-23	10:00	2.8051	2.8746	5144.8	5168.8	24	1.12	1.12	1.12	43.2	Sunny	152.4	260
10-May-23	10:00	11-May-23	10:00	2.8076	2.9146	5168.8	5192.8	24	1.12	1.12	1.12	66.5	Cloudy	152.4	260
16-May-23	10:00	17-May-23	10:00	2.8023	2.8986	5192.8	5216.8	24	1.12	1.12	1.12	59.9	Cloudy	152.4	260
22-May-23	10:00	23-May-23	10:00	2.8052	2.8742	5216.8	5240.8	24	1.12	1.12	1.12	42.9	Sunny	152.4	260
27-May-23	10:00	28-May-23	10:00	2.8041	2.8816	5240.8	5264.8	24	1.12	1.12	1.12	48.1	Sunny	152.4	260
02-Jun-23	10:00	03-Jun-23	10:00	2.8017	2.8742	5264.8	5288.8	24	1.12	1.12	1.12	45.0	Sunny	152.4	260
08-Jun-23	10:00	09-Jun-23	10:00	2.8055	2.8694	5288.8	5312.8	24	1.12	1.12	1.12	39.7	Rainy	152.4	260
14-Jun-23	10:00	15-Jun-23	10:00	2.8023	2.8672	5312.8	5336.8	24	1.12	1.12	1.12	40.3	Rainy	152.4	260
20-Jun-23	10:00	21-Jun-23	10:00	2.8062	2.8806	5336.8	5360.8	24	1.12	1.12	1.12	46.2	Rainy	152.4	260
26-Jun-23	10:00	27-Jun-23	10:00	2.8018	2.8656	5360.8	5384.8	24	1.12	1.12	1.12	39.6	Rainy	152.4	260
30-Jun-23	10:00	01-Jul-23	10:00	2.8018	2.8642	5384.8	5408.8	24	1.12	1.12	1.12	38.8	Rainy	152.4	260
04-Jul-23	10:00	05-Jul-23	10:00	2.8070	2.8672	5409.8	5433.8	24	1.12	1.12	1.12	37.4	Rainy	152.4	260
07-Jul-23	10:00	08-Jul-23	10:00	2.8022	2.8681	5433.8	5457.8	24	1.12	1.12	1.12	40.9	Sunny	152.4	260
13-Jul-23	10:00	14-Jul-23	10:00	2.8031	2.8605	5457.8	5481.8	24	1.12	1.12	1.12	35.6	Sunny	152.4	260
19-Jul-23	10:00	20-Jul-23	10:00	2.8019	2.8657	5481.8	5505.8	24	1.12	1.12	1.12	39.6	Rainy	152.4	260
25-Jul-23	10:00	26-Jul-23	10:00	2.8035	2.8684	5505.8	5529.8	24	1.12	1.12	1.12	40.3	Sunny	152.4	260
31-Jul-23	10:00	01-Aug-23	10:00	2.8052	2.8748	5529.8	5553.8	24	1.12	1.12	1.12	43.2	Rainy	152.4	260

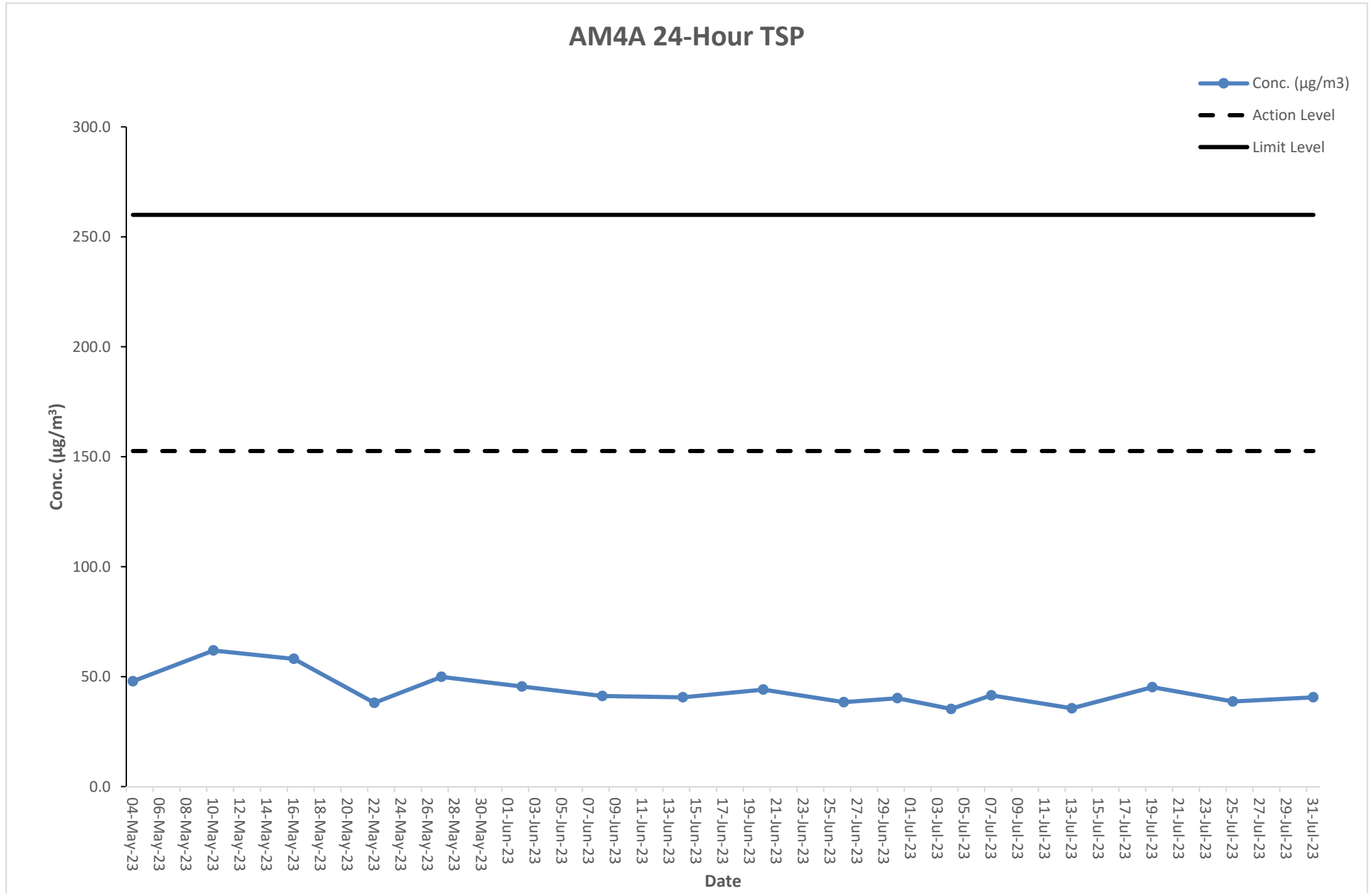
Graphical Presentation of Air Quality Monitoring Result at Station AM3A (24-hour TSP)



Air Quality Monitoring Result at Station AM4A (24-hour TSP)

Start		Finish		Filter Weight (g)		Elapsed Time Reading		Sampling Time (hrs)	Flow Rate (m ³ /min)			Conc. (µg/m ³)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time	Initial	Final	Initial	Final		Initial	Final	Average				
04-May-23	10:00	05-May-23	10:00	2.8052	2.8823	5564.4	5588.4	24	1.12	1.12	1.12	47.9	Sunny	152.6	260
10-May-23	10:00	11-May-23	10:00	2.8018	2.9015	5588.4	5612.4	24	1.12	1.12	1.12	61.9	Cloudy	152.6	260
16-May-23	10:00	17-May-23	10:00	2.8082	2.9017	5612.4	5636.4	24	1.12	1.12	1.12	58.1	Cloudy	152.6	260
22-May-23	10:00	23-May-23	10:00	2.8039	2.8652	5636.4	5660.4	24	1.12	1.12	1.12	38.1	Sunny	152.6	260
27-May-23	10:00	28-May-23	10:00	2.8066	2.8870	5660.4	5684.4	24	1.12	1.12	1.12	49.9	Sunny	152.6	260
02-Jun-23	10:00	03-Jun-23	10:00	2.8059	2.8791	5684.4	5708.4	24	1.12	1.12	1.12	45.5	Sunny	152.6	260
08-Jun-23	10:00	09-Jun-23	10:00	2.8028	2.8691	5708.4	5732.4	24	1.12	1.12	1.12	41.2	Rainy	152.6	260
14-Jun-23	10:00	15-Jun-23	10:00	2.8031	2.8685	5732.4	5756.4	24	1.12	1.12	1.12	40.6	Rainy	152.6	260
20-Jun-23	10:00	21-Jun-23	10:00	2.8059	2.8769	5756.4	5780.4	24	1.12	1.12	1.12	44.1	Rainy	152.6	260
26-Jun-23	10:00	27-Jun-23	10:00	2.8052	2.8670	5780.4	5804.4	24	1.12	1.12	1.12	38.4	Rainy	152.6	260
30-Jun-23	10:00	01-Jul-23	10:00	2.8068	2.8715	5804.4	5828.4	24	1.12	1.12	1.12	40.2	Rainy	152.6	260
04-Jul-23	10:00	05-Jul-23	10:00	2.8074	2.8642	5829.4	5853.4	24	1.12	1.12	1.12	35.3	Rainy	152.6	260
07-Jul-23	10:00	08-Jul-23	10:00	2.8044	2.8712	5853.4	5877.4	24	1.12	1.12	1.12	41.5	Sunny	152.6	260
13-Jul-23	10:00	14-Jul-23	10:00	2.8090	2.8664	5877.4	5901.4	24	1.12	1.12	1.12	35.6	Sunny	152.6	260
19-Jul-23	10:00	20-Jul-23	10:00	2.8083	2.8811	5901.4	5925.4	24	1.12	1.12	1.12	45.2	Rainy	152.6	260
25-Jul-23	10:00	26-Jul-23	10:00	2.8046	2.8669	5925.4	5949.4	24	1.12	1.12	1.12	38.7	Sunny	152.6	260
31-Jul-23	10:00	01-Aug-23	10:00	2.8056	2.8710	5949.4	5973.4	24	1.12	1.12	1.12	40.6	Rainy	152.6	260

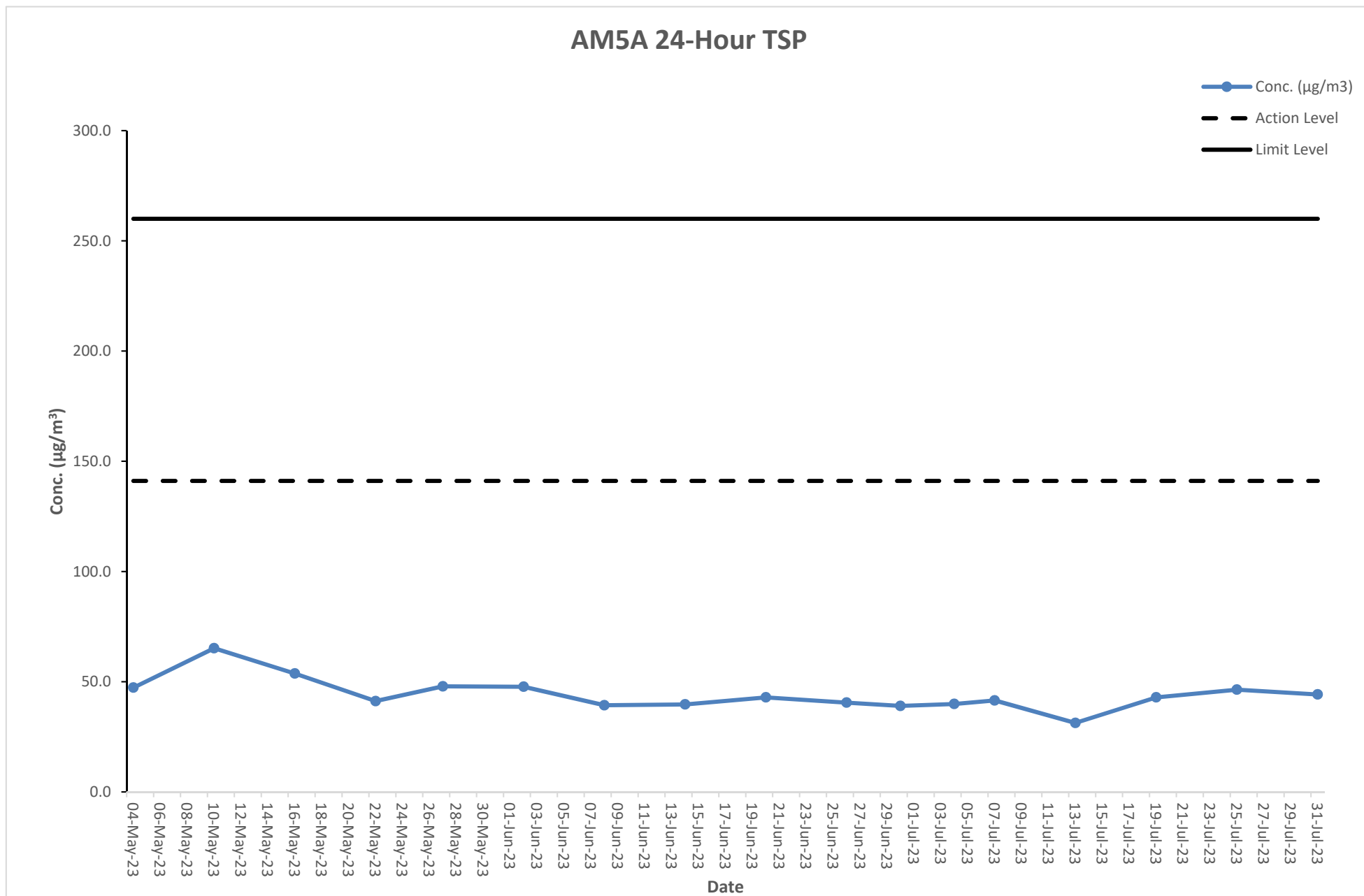
Graphical Presentation of Air Quality Monitoring Result at Station AM4A (24-hour TSP)



Air Quality Monitoring Result at Station AM5A (24-hour TSP)

Start		Finish		Filter Weight (g)		Elapsed Time Reading		Sampling Time (hrs)	Flow Rate (m ³ /min)			Conc. (µg/m ³)	Weather Condition	Action Level	Limit Level
Date	Time	Date	Time	Initial	Final	Initial	Final		Initial	Final	Average				
04-May-23	10:00	05-May-23	10:00	2.8021	2.8781	5704.6	5728.6	24	1.12	1.12	1.12	47.3	Sunny	141.1	260
10-May-23	10:00	11-May-23	10:00	2.8016	2.9065	5728.6	5752.6	24	1.12	1.12	1.12	65.2	Cloudy	141.1	260
16-May-23	10:00	17-May-23	10:00	2.8040	2.8905	5752.6	5776.6	24	1.12	1.12	1.12	53.7	Cloudy	141.1	260
22-May-23	10:00	23-May-23	10:00	2.8042	2.8706	5776.6	5800.6	24	1.12	1.12	1.12	41.2	Sunny	141.1	260
27-May-23	10:00	28-May-23	10:00	2.8055	2.8826	5800.6	5824.6	24	1.12	1.12	1.12	47.9	Sunny	141.1	260
02-Jun-23	10:00	03-Jun-23	10:00	2.8019	2.8788	5824.6	5848.6	24	1.12	1.12	1.12	47.7	Sunny	141.1	260
08-Jun-23	10:00	09-Jun-23	10:00	2.8082	2.8714	5848.6	5872.6	24	1.12	1.12	1.12	39.3	Rainy	141.1	260
14-Jun-23	10:00	15-Jun-23	10:00	2.8066	2.8705	5872.6	5896.6	24	1.12	1.12	1.12	39.7	Rainy	141.1	260
20-Jun-23	10:00	21-Jun-23	10:00	2.8051	2.8742	5896.6	5920.6	24	1.12	1.12	1.12	42.9	Rainy	141.1	260
26-Jun-23	10:00	27-Jun-23	10:00	2.8016	2.8668	5920.6	5944.6	24	1.12	1.12	1.12	40.5	Rainy	141.1	260
30-Jun-23	10:00	01-Jul-23	10:00	2.8044	2.8672	5944.6	5968.6	24	1.12	1.12	1.12	39.0	Rainy	141.1	260
04-Jul-23	10:00	05-Jul-23	10:00	2.8032	2.8674	5967.6	5991.6	24	1.12	1.12	1.12	39.9	Rainy	141.1	260
07-Jul-23	10:00	08-Jul-23	10:00	2.8025	2.8694	5991.6	6015.6	24	1.12	1.12	1.12	41.5	Sunny	141.1	260
13-Jul-23	10:00	14-Jul-23	10:00	2.8088	2.8591	6015.6	6039.6	24	1.12	1.12	1.12	31.3	Sunny	141.1	260
19-Jul-23	10:00	20-Jul-23	10:00	2.8070	2.8760	6039.6	6063.6	24	1.12	1.12	1.12	42.9	Rainy	141.1	260
25-Jul-23	10:00	26-Jul-23	10:00	2.8010	2.8758	6063.6	6087.6	24	1.12	1.12	1.12	46.4	Sunny	141.1	260
31-Jul-23	10:00	01-Aug-23	10:00	2.8011	2.8722	6087.6	6111.6	24	1.12	1.12	1.12	44.2	Rainy	141.1	260

Graphical Presentation of Air Quality Monitoring Result at Station AM5A (24-hour TSP)

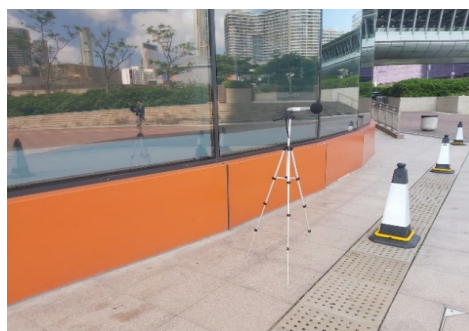
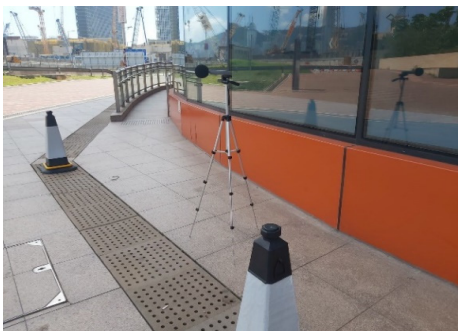


Noise Monitoring Result at Station NM2A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
04-May-23	14:35	64.0	60.0	61.5
04-May-23	14:40	64.1	59.8	
04-May-23	14:45	64.0	59.7	
04-May-23	14:50	64.2	59.5	
04-May-23	14:55	64.4	60.5	
04-May-23	15:00	62.8	58.9	
10-May-23	8:31	63.8	60.3	61.9
10-May-23	8:36	63.1	60.5	
10-May-23	8:41	63.2	59.4	
10-May-23	8:46	64.6	59.4	
10-May-23	8:51	63.8	60.2	
10-May-23	8:56	62.8	59.2	
16-May-23	14:33	63.1	59.8	61.5
16-May-23	14:38	63.0	60.4	
16-May-23	14:43	64.4	60.1	
16-May-23	14:48	64.3	59.9	
16-May-23	14:53	63.4	59.4	
16-May-23	14:58	64.6	59.0	
22-May-23	8:32	64.7	60.0	61.6
22-May-23	8:37	63.9	60.0	
22-May-23	8:42	63.5	60.4	
22-May-23	8:47	64.0	58.9	
22-May-23	8:52	63.5	59.0	
22-May-23	8:57	64.6	60.4	
27-May-23	14:34	64.2	59.8	61.7
27-May-23	14:39	64.0	58.9	
27-May-23	14:44	63.9	60.3	
27-May-23	14:49	64.3	59.6	
27-May-23	14:54	63.8	59.7	
27-May-23	14:59	64.6	58.8	
02-Jun-23	8:39	64.7	59.4	61.5
02-Jun-23	8:44	63.1	59.7	
02-Jun-23	8:49	64.2	59.0	
02-Jun-23	8:54	63.2	59.1	
02-Jun-23	8:59	64.7	60.5	
02-Jun-23	9:04	63.5	59.1	
08-Jun-23	14:37	63.2	60.0	62.1
08-Jun-23	14:42	64.4	59.5	
08-Jun-23	14:47	64.7	58.8	
08-Jun-23	14:52	63.6	60.3	
08-Jun-23	14:57	63.6	60.3	
08-Jun-23	15:02	63.5	58.8	
14-Jun-23	8:35	62.8	60.2	61.9
14-Jun-23	8:40	62.9	59.4	
14-Jun-23	8:45	62.9	59.4	
14-Jun-23	8:50	63.4	60.5	
14-Jun-23	8:55	62.9	59.1	
14-Jun-23	9:00	62.8	58.8	
20-Jun-23	14:31	62.8	58.9	61.7
20-Jun-23	14:36	64.1	60.1	
20-Jun-23	14:41	63.1	59.7	
20-Jun-23	14:46	64.1	60.3	
20-Jun-23	14:51	64.6	60.1	
20-Jun-23	14:56	62.8	60.1	
26-Jun-23	8:36	63.0	58.8	61.7
26-Jun-23	8:41	64.3	59.8	
26-Jun-23	8:46	63.0	59.8	
26-Jun-23	8:51	63.6	59.1	
26-Jun-23	8:56	63.6	60.0	
26-Jun-23	9:01	64.4	60.3	

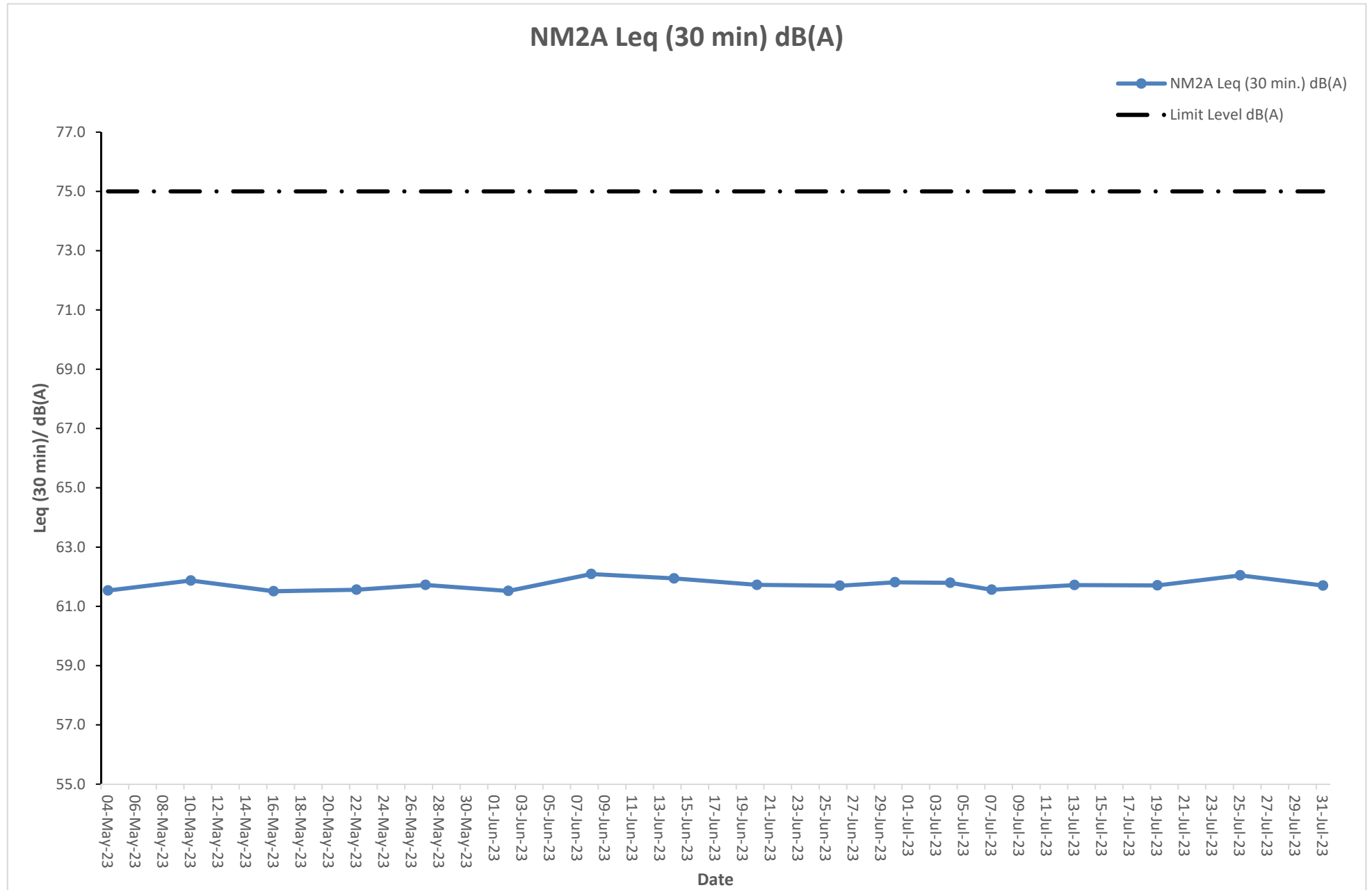
Noise Monitoring Result at Station NM2A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
30-Jun-23	14:39	64.4	60.4	61.8
30-Jun-23	14:44	63.3	58.8	
30-Jun-23	14:49	63.1	59.2	
30-Jun-23	14:54	63.2	59.6	
30-Jun-23	14:59	63.1	58.7	
30-Jun-23	15:04	64.4	59.1	
04-Jul-23	8:32	62.9	59.5	61.8
04-Jul-23	8:37	62.7	59.2	
04-Jul-23	8:42	62.8	60.6	
04-Jul-23	8:47	63.8	59.9	
04-Jul-23	8:52	63.3	60.6	
04-Jul-23	8:57	64.0	59.3	61.6
07-Jul-23	14:31	63.5	59.6	
07-Jul-23	14:36	63.1	60.1	
07-Jul-23	14:41	63.6	59.3	
07-Jul-23	14:46	63.9	60.4	
07-Jul-23	14:51	63.7	60.0	
07-Jul-23	14:56	63.7	59.9	61.7
13-Jul-23	8:39	62.7	59.4	
13-Jul-23	8:44	64.0	60.3	
13-Jul-23	8:49	63.0	59.4	
13-Jul-23	8:54	62.6	60.2	
13-Jul-23	8:59	63.0	60.2	
13-Jul-23	9:04	63.4	60.1	61.7
19-Jul-23	14:35	63.0	59.7	
19-Jul-23	14:40	63.6	59.7	
19-Jul-23	14:45	62.8	59.6	
19-Jul-23	14:50	63.5	60.5	
19-Jul-23	14:55	63.4	60.6	
19-Jul-23	15:00	63.7	60.0	62.0
25-Jul-23	8:32	63.3	60.0	
25-Jul-23	8:37	63.3	59.4	
25-Jul-23	8:42	63.9	60.2	
25-Jul-23	8:47	63.9	59.8	
25-Jul-23	8:52	64.0	59.9	
25-Jul-23	8:57	62.9	59.8	61.7
31-Jul-23	14:40	63.8	60.0	
31-Jul-23	14:45	63.4	60.5	
31-Jul-23	14:50	63.2	59.3	
31-Jul-23	14:55	63.9	59.2	
31-Jul-23	15:00	63.3	59.5	
31-Jul-23	15:05	63.2	59.5	



The station set-up of a façade measurement at station NM2A.

Graphical Presentation of Noise Monitoring Result at Station NM2A

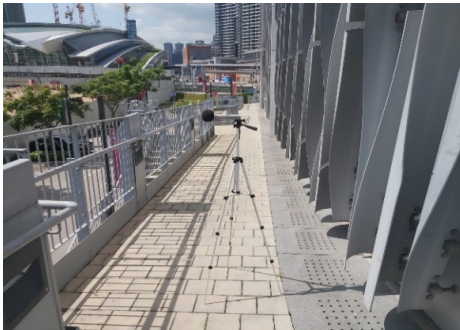


Noise Monitoring Result at Station NM3A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
04-May-23	16:05	64.9	58.6	62.2
04-May-23	16:10	63.4	59.4	
04-May-23	16:15	64.0	58.3	
04-May-23	16:20	63.2	58.0	
04-May-23	16:25	63.8	59.2	
04-May-23	16:30	63.7	57.8	
10-May-23	10:04	64.9	58.6	61.6
10-May-23	10:09	64.0	59.3	
10-May-23	10:14	64.2	58.7	
10-May-23	10:19	63.1	58.9	
10-May-23	10:24	64.2	59.2	
10-May-23	10:29	63.2	57.6	
16-May-23	16:03	64.3	58.3	62.3
16-May-23	16:08	63.8	58.2	
16-May-23	16:13	64.6	58.5	
16-May-23	16:18	63.6	58.4	
16-May-23	16:23	64.6	57.9	
16-May-23	16:28	63.8	57.8	
22-May-23	10:05	63.4	59.3	62.0
22-May-23	10:10	64.5	57.6	
22-May-23	10:15	63.7	58.9	
22-May-23	10:20	63.4	59.4	
22-May-23	10:25	63.2	58.9	
22-May-23	10:30	63.6	59.3	
27-May-23	16:04	63.1	57.7	61.7
27-May-23	16:09	63.5	59.0	
27-May-23	16:14	63.2	58.3	
27-May-23	16:19	64.4	58.0	
27-May-23	16:24	64.0	59.4	
27-May-23	16:29	64.8	57.6	
02-Jun-23	10:09	62.4	58.2	61.1
02-Jun-23	10:14	62.2	58.3	
02-Jun-23	10:19	63.9	57.4	
02-Jun-23	10:24	62.7	57.1	
02-Jun-23	10:29	62.8	57.6	
02-Jun-23	10:34	62.0	57.9	
08-Jun-23	16:10	62.3	57.0	60.8
08-Jun-23	16:15	62.0	58.0	
08-Jun-23	16:20	63.8	57.8	
08-Jun-23	16:25	63.2	57.6	
08-Jun-23	16:30	63.9	57.1	
08-Jun-23	16:35	62.0	57.7	
14-Jun-23	10:05	62.4	56.9	61.1
14-Jun-23	10:10	62.2	58.0	
14-Jun-23	10:15	62.0	58.1	
14-Jun-23	10:20	63.9	57.6	
14-Jun-23	10:25	63.6	56.5	
14-Jun-23	10:30	62.0	58.3	
20-Jun-23	16:04	62.5	56.8	61.1
20-Jun-23	16:09	63.7	58.0	
20-Jun-23	16:14	63.1	57.5	
20-Jun-23	16:19	63.5	57.9	
20-Jun-23	16:24	62.3	58.2	
20-Jun-23	16:29	63.0	58.2	
26-Jun-23	10:06	62.0	57.9	60.3
26-Jun-23	10:11	63.2	57.6	
26-Jun-23	10:16	62.4	57.9	
26-Jun-23	10:21	62.2	57.2	
26-Jun-23	10:26	62.8	56.5	
26-Jun-23	10:31	62.9	57.4	

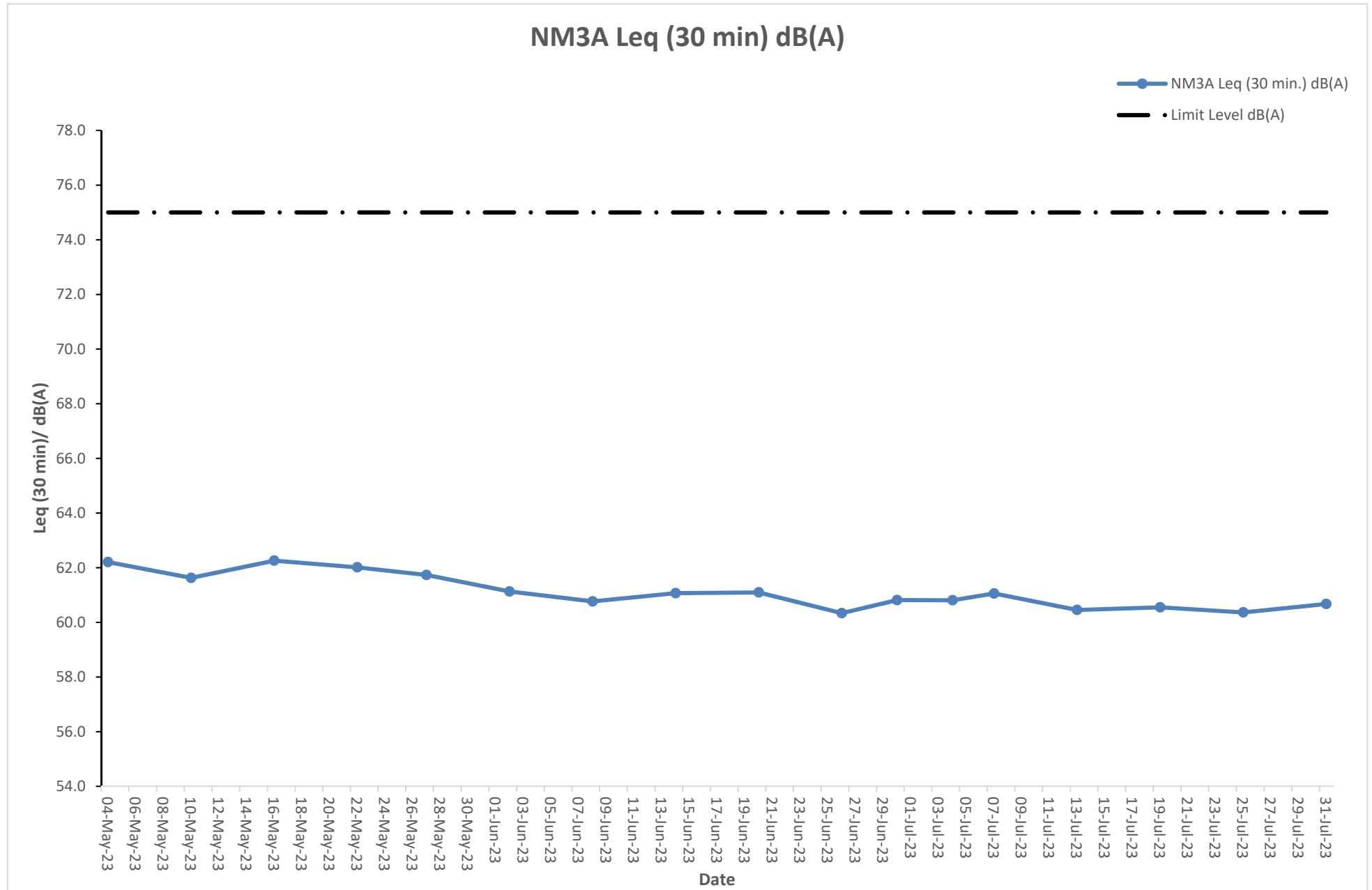
Noise Monitoring Result at Station NM3A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
30-Jun-23	16:21	62.8	58.0	60.8
30-Jun-23	16:26	63.9	57.5	
30-Jun-23	16:31	63.6	58.2	
30-Jun-23	16:36	62.0	57.5	
30-Jun-23	16:41	62.9	57.1	
30-Jun-23	16:46	62.1	57.2	
04-Jul-23	10:02	63.0	56.8	60.8
04-Jul-23	10:07	63.2	56.1	
04-Jul-23	10:12	63.5	57.6	
04-Jul-23	10:17	63.6	56.5	
04-Jul-23	10:22	63.8	56.7	
04-Jul-23	10:27	63.2	57.5	61.1
07-Jul-23	16:04	62.4	57.2	
07-Jul-23	16:09	63.7	56.7	
07-Jul-23	16:14	61.9	57.5	
07-Jul-23	16:19	63.5	56.5	
07-Jul-23	16:24	62.5	56.5	
07-Jul-23	16:29	62.1	56.9	60.5
13-Jul-23	10:09	63.8	56.5	
13-Jul-23	10:14	62.2	57.5	
13-Jul-23	10:19	63.1	57.6	
13-Jul-23	10:24	62.7	57.1	
13-Jul-23	10:29	62.2	56.5	
13-Jul-23	10:34	63.6	57.6	60.6
19-Jul-23	16:08	63.5	56.4	
19-Jul-23	16:13	62.6	57.3	
19-Jul-23	16:18	63.5	57.4	
19-Jul-23	16:23	63.0	57.4	
19-Jul-23	16:28	62.0	57.2	
19-Jul-23	16:33	63.7	56.5	60.4
25-Jul-23	10:02	62.8	57.3	
25-Jul-23	10:07	63.4	56.6	
25-Jul-23	10:12	63.7	57.2	
25-Jul-23	10:17	62.5	56.7	
25-Jul-23	10:22	63.0	56.0	
25-Jul-23	10:27	63.8	57.1	60.7
31-Jul-23	16:22	62.5	57.6	
31-Jul-23	16:27	63.6	56.6	
31-Jul-23	16:32	62.5	56.1	
31-Jul-23	16:37	62.7	57.2	
31-Jul-23	16:42	63.2	56.9	
31-Jul-23	16:47	62.1	57.6	



The station set-up of a façade measurement at station NM3A.

Graphical Presentation of Noise Monitoring Result at Station NM3A



Noise Monitoring Result at Station NM4A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
04-May-23	16:40	62.0	59.2	60.7
04-May-23	16:45	62.2	59.1	
04-May-23	16:50	63.0	58.0	
04-May-23	16:55	61.8	58.2	
04-May-23	17:00	62.3	59.2	
04-May-23	17:05	63.4	57.9	
10-May-23	10:39	63.2	59.7	60.5
10-May-23	10:44	63.0	58.9	
10-May-23	10:49	62.0	58.6	
10-May-23	10:54	61.7	59.7	
10-May-23	10:59	62.0	58.8	
10-May-23	11:04	62.0	58.4	
16-May-23	16:38	62.2	59.7	60.5
16-May-23	16:43	62.7	59.5	
16-May-23	16:48	62.3	59.6	
16-May-23	16:53	63.3	58.3	
16-May-23	16:58	61.9	58.1	
16-May-23	17:03	61.9	57.9	
22-May-23	10:40	63.1	58.8	60.7
22-May-23	10:45	62.0	58.3	
22-May-23	10:50	62.3	58.4	
22-May-23	10:55	62.0	58.2	
22-May-23	11:00	62.2	59.6	
22-May-23	11:05	61.9	58.8	
27-May-23	16:39	62.7	58.2	60.4
27-May-23	16:44	61.7	58.1	
27-May-23	16:49	63.1	59.6	
27-May-23	16:54	63.3	58.6	
27-May-23	16:59	62.8	58.5	
27-May-23	17:04	62.1	59.1	
02-Jun-23	10:44	61.3	58.0	60.3
02-Jun-23	10:49	61.9	58.0	
02-Jun-23	10:54	62.8	59.1	
02-Jun-23	10:59	61.4	59.1	
02-Jun-23	11:04	61.9	57.3	
02-Jun-23	11:09	61.4	57.9	
08-Jun-23	16:45	61.2	59.1	59.8
08-Jun-23	16:50	62.7	58.1	
08-Jun-23	16:55	62.5	58.6	
08-Jun-23	17:00	61.3	57.8	
08-Jun-23	17:05	61.5	57.4	
08-Jun-23	17:10	61.2	58.8	
14-Jun-23	10:40	62.3	57.7	60.1
14-Jun-23	10:45	62.1	57.8	
14-Jun-23	10:50	61.7	58.3	
14-Jun-23	10:55	62.4	57.3	
14-Jun-23	11:00	62.1	57.9	
14-Jun-23	11:05	61.0	57.6	
20-Jun-23	16:39	62.5	59.1	59.9
20-Jun-23	16:44	61.3	57.8	
20-Jun-23	16:49	61.7	57.5	
20-Jun-23	16:54	62.9	57.7	
20-Jun-23	16:59	62.9	59.0	
20-Jun-23	17:04	62.4	57.7	
26-Jun-23	10:41	61.4	58.5	60.0
26-Jun-23	10:46	61.2	59.1	
26-Jun-23	10:51	62.3	58.1	
26-Jun-23	10:56	62.3	57.9	
26-Jun-23	11:01	61.4	57.4	
26-Jun-23	11:06	62.0	57.7	

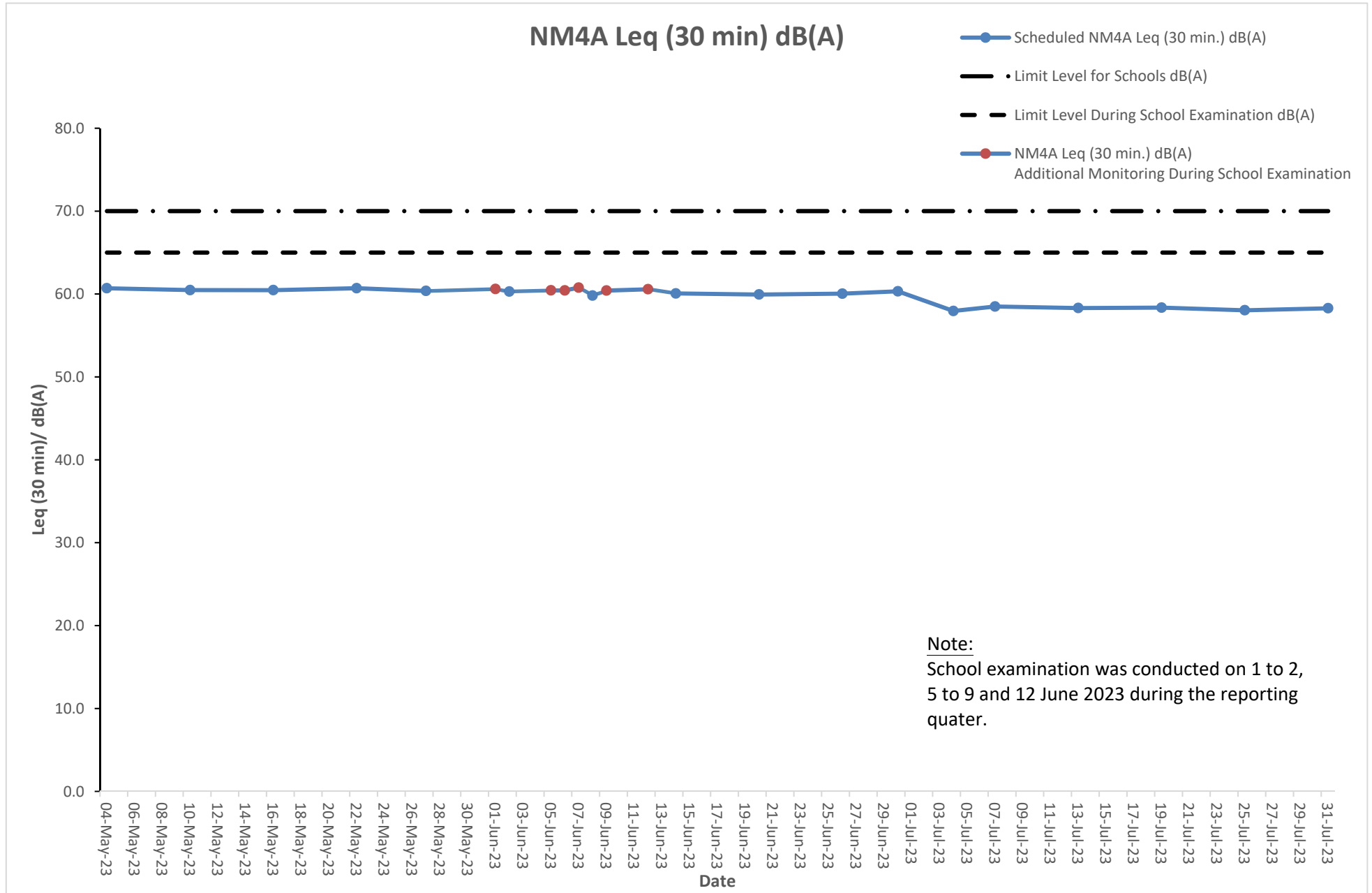
Noise Monitoring Result at Station NM4A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)
30-Jun-23	16:56	61.6	58.5	60.3
30-Jun-23	17:01	62.4	57.9	
30-Jun-23	17:06	62.8	58.2	
30-Jun-23	17:11	62.6	57.3	
30-Jun-23	17:16	61.8	57.6	
30-Jun-23	17:21	61.5	58.0	
04-Jul-23	10:37	60.5	56.1	58.0
04-Jul-23	10:42	60.3	56.3	
04-Jul-23	10:47	60.3	57.1	
04-Jul-23	10:52	59.7	56.8	
04-Jul-23	10:57	59.2	56.7	
04-Jul-23	11:02	59.8	57.0	
07-Jul-23	16:39	59.6	56.9	58.5
07-Jul-23	16:44	60.6	56.2	
07-Jul-23	16:49	59.4	55.9	
07-Jul-23	16:54	60.6	56.5	
07-Jul-23	16:59	60.0	56.4	
07-Jul-23	17:04	59.8	56.4	
13-Jul-23	10:44	59.7	56.0	58.3
13-Jul-23	10:49	59.7	55.9	
13-Jul-23	10:54	60.4	56.4	
13-Jul-23	10:59	59.7	55.8	
13-Jul-23	11:04	59.4	57.0	
13-Jul-23	11:09	60.2	56.7	
19-Jul-23	16:43	60.4	56.6	58.4
19-Jul-23	16:48	60.0	56.1	
19-Jul-23	16:53	59.8	55.7	
19-Jul-23	16:58	59.2	56.8	
19-Jul-23	17:03	59.4	55.9	
19-Jul-23	17:08	60.3	56.6	
25-Jul-23	10:37	59.2	57.1	58.0
25-Jul-23	10:42	59.8	56.2	
25-Jul-23	10:47	60.3	56.5	
25-Jul-23	10:52	60.1	56.0	
25-Jul-23	10:57	59.4	56.6	
25-Jul-23	11:02	59.4	55.7	
31-Jul-23	16:57	59.2	56.0	58.3
31-Jul-23	17:02	59.4	55.8	
31-Jul-23	17:07	59.4	56.3	
31-Jul-23	17:12	60.4	56.0	
31-Jul-23	17:17	60.1	56.5	
31-Jul-23	17:22	60.2	57.1	



The station set-up of a façade measurement at station NM4A.

Graphical Presentation of Noise Monitoring Result at Station NM4A



Noise Monitoring Result at Station NM5A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)	Leq (30 min.) +3 dB(A)
04-May-23	15:25	63.9	59.7	61.5	64.5
04-May-23	15:30	62.3	58.4		
04-May-23	15:35	63.6	59.7		
04-May-23	15:40	63.5	58.8		
04-May-23	15:45	62.4	58.7		
04-May-23	15:50	62.6	58.7	61.6	64.6
10-May-23	9:23	62.6	59.4		
10-May-23	9:28	63.4	58.3		
10-May-23	9:33	63.6	59.4		
10-May-23	9:38	62.9	59.5		
10-May-23	9:43	63.2	58.7	61.4	64.4
10-May-23	9:48	62.6	57.9		
16-May-23	15:23	62.3	58.0		
16-May-23	15:28	62.4	58.7		
16-May-23	15:33	63.4	57.8		
16-May-23	15:38	62.5	58.7	61.2	64.2
16-May-23	15:43	63.9	59.6		
16-May-23	15:48	63.0	59.1		
22-May-23	9:24	63.6	58.8		
22-May-23	9:29	62.6	57.8		
22-May-23	9:34	64.1	58.0	61.4	64.4
22-May-23	9:39	63.3	59.5		
22-May-23	9:44	62.5	59.1		
22-May-23	9:49	63.1	59.2		
27-May-23	15:24	64.0	58.8		
27-May-23	15:29	63.3	59.5	61.3	64.3
27-May-23	15:34	62.3	59.5		
27-May-23	15:39	63.6	58.2		
27-May-23	15:44	64.0	58.7		
27-May-23	15:49	63.1	58.0		
02-Jun-23	9:29	62.4	59.2	61.6	64.6
02-Jun-23	9:34	64.1	58.4		
02-Jun-23	9:39	63.6	58.5		
02-Jun-23	9:44	62.9	59.7		
02-Jun-23	9:49	62.8	58.7		
02-Jun-23	9:54	64.1	58.4	61.4	64.4
08-Jun-23	15:29	62.5	58.0		
08-Jun-23	15:34	62.5	59.7		
08-Jun-23	15:39	63.2	59.7		
08-Jun-23	15:44	62.7	58.1		
08-Jun-23	15:49	63.8	58.6	61.2	64.2
08-Jun-23	15:54	64.0	58.3		
14-Jun-23	9:25	62.9	58.7		
14-Jun-23	9:30	63.5	59.1		
14-Jun-23	9:35	64.2	58.4		
14-Jun-23	9:40	63.7	58.9	61.6	64.6
14-Jun-23	9:45	63.6	58.0		
14-Jun-23	9:50	62.6	58.2		
20-Jun-23	15:23	62.6	57.9		
20-Jun-23	15:28	63.1	58.9		
20-Jun-23	15:33	62.5	58.5	61.2	64.2
20-Jun-23	15:38	64.2	59.4		
20-Jun-23	15:43	63.0	58.2		
20-Jun-23	15:48	62.4	58.9		
26-Jun-23	9:26	62.9	59.7		
26-Jun-23	9:31	63.1	59.6	61.6	64.6
26-Jun-23	9:36	63.4	59.1		
26-Jun-23	9:41	64.1	59.0		
26-Jun-23	9:46	63.1	59.0		
26-Jun-23	9:51	64.2	59.0		

Noise Monitoring Result at Station NM5A

Date	Time	Measured L10 dB(A)	Measured L90 dB(A)	Leq (30 min.) dB(A)	Leq (30 min.) +3 dB(A)
30-Jun-23	15:40	62.7	58.5	61.3	64.3
30-Jun-23	15:45	63.1	58.4		
30-Jun-23	15:50	64.0	59.2		
30-Jun-23	15:55	63.7	58.9		
30-Jun-23	16:00	64.0	58.9		
30-Jun-23	16:05	63.2	59.4		
04-Jul-23	9:22	62.3	58.7	60.3	63.3
04-Jul-23	9:27	62.4	58.0		
04-Jul-23	9:32	61.9	58.0		
04-Jul-23	9:37	61.8	59.0		
04-Jul-23	9:42	62.4	57.6		
04-Jul-23	9:47	62.5	57.4		
07-Jul-23	15:23	62.2	58.4	60.6	63.6
07-Jul-23	15:28	61.7	58.0		
07-Jul-23	15:33	62.5	58.9		
07-Jul-23	15:38	62.8	57.6		
07-Jul-23	15:43	62.0	58.2		
07-Jul-23	15:48	62.4	58.9		
13-Jul-23	9:29	61.7	58.5	60.5	63.5
13-Jul-23	9:34	62.3	58.1		
13-Jul-23	9:39	62.4	59.1		
13-Jul-23	9:44	61.6	59.1		
13-Jul-23	9:49	61.6	58.1		
13-Jul-23	9:54	62.8	58.9		
19-Jul-23	15:27	62.2	58.9	60.6	63.6
19-Jul-23	15:32	61.6	58.4		
19-Jul-23	15:37	62.4	57.4		
19-Jul-23	15:42	62.5	58.7		
19-Jul-23	15:47	62.8	59.0		
19-Jul-23	15:52	61.4	57.9		
25-Jul-23	9:22	61.5	57.9	60.2	63.2
25-Jul-23	9:27	62.3	59.0		
25-Jul-23	9:32	61.4	59.3		
25-Jul-23	9:37	62.2	58.3		
25-Jul-23	9:42	62.7	59.3		
25-Jul-23	9:47	61.4	58.4		
31-Jul-23	15:41	62.7	59.3	60.5	63.5
31-Jul-23	15:46	61.4	58.2		
31-Jul-23	15:51	61.6	57.5		
31-Jul-23	15:56	62.7	57.5		
31-Jul-23	16:01	62.4	58.6		
31-Jul-23	16:06	62.7	57.4		

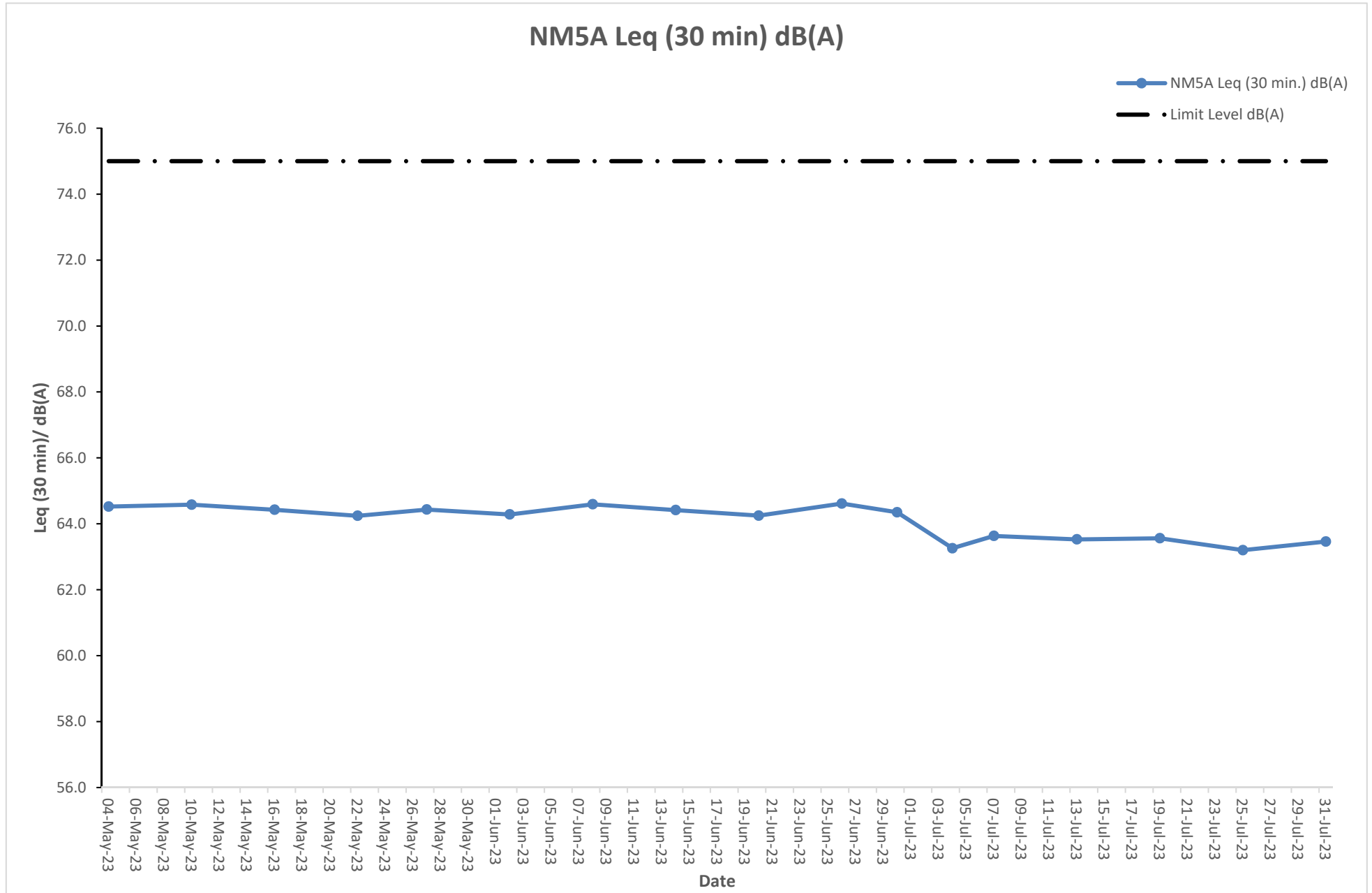
Remarks:

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



The station set-up of a free-field measurement at station NM5A.

Graphical Presentation of Noise Monitoring Result at Station NM5A



F. Waste Flow table

Zone 2B & 2C

Table F-1: Monthly Waste Flow Table for Zone 2B & 2C

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of C&D Materials Generated Monthly					
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Srotting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
2021													
Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	22.58	22.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.19
Nov	9265.04	10.45	125.93	0.00	9128.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.12
Dec	13462.30	62.94	1041.17	0.00	12358.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.62
Sub-total (2021)	22749.92	95.97	1167.10	0.00	21486.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	43.93
2022													
Jan	17427.64	0.00	2091.32	100.04	15236.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.60
Feb	18230.98	0.00	991.53	1719.99	15519.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.90
Mar	24777.12	0.00	2176.32	11721.21	10879.59	0.00	0.00	0.00	0.00	0.00	0.00	1.40	16.15
Apr	32749.58	0.00	2409.00	22393.87	7946.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.79
May	31115.05	0.00	3141.32	15121.57	12852.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.31
Jun	30747.96	0.00	3120.62	14645.87	12981.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.84
Jul	34017.48	0.00	3444.43	10214.91	20358.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.43
Aug	38065.92	0.00	3272.46	3610.61	31182.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.99
Sep	38896.62	0.00	3664.45	2790.24	32441.93	0.00	0.00	15.80	0.00	0.00	0.00	0.00	29.88
Oct	41174.38	0.00	4340.02	2447.22	34387.14	0.00	0.00	86.63	0.00	0.00	0.00	0.00	28.50
Nov	40031.63	0.00	4149.91	1021.06	34860.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.54
Dec	42615.90	0.00	4242.02	1655.36	36718.52	0.00	0.00	10.23	0.00	0.00	0.00	0.00	36.04
Sub-total (2022)	389850.25	0.00	37043.39	87441.95	265364.91	0.00	0.00	112.66	0.00	0.00	0.00	1.40	254.97

2023													
Jan	35248.24	0.00	2711.85	1182.55	31353.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.92
Feb	39553.32	0.00	4737.76	3184.34	31631.22	0.00	0.00	0.00	0.00	0.00	0.00	1.40	35.95
Mar	42528.10	0.00	4710.97	2381.39	35435.74	0.00	0.00	24.21	0.00	0.00	0.00	1.80	36.38
Apr	29352.63	0.00	3136.52	1211.00	25005.11	0.00	0.00	23.79	0.00	0.00	0.00	1.60	33.30
May	33842.57	0.00	3742.02	1113.13	28987.42	0.00	0.00	33.86	0.00	0.00	0.00	0.00	34.16
Jun	26638.62	0.00	3926.07	708.34	22004.21	0.00	0.00	90.36	0.00	0.00	0.00	0.40	40.29
Jul	16946.46	0.00	2228.35	30.63	14687.48	0.00	0.00	23.77	0.00	0.00	0.00	1.20	53.51
Sub-total (2023)	224109.94	0.00	25193.54	9811.38	189105.02	0.00	0.00	195.99	0.00	0.00	0.00	6.40	256.51
Total	636710.11	95.97	63404.03	97253.33	475956.78	0.00	0.00	308.65	0.00	0.00	0.00	7.80	555.41

Note:

-43796.49 tonnes and 21882.62 tonnes of inert C&D material were disposed of as public fill to Tseung Kwan O Area 137 Public Fill and Tuen Mun Area 38 respectively in the reporting period.

-For inert C&D material reused in other projects, the projects refer to (1)Sai Sha(Site B), (2)Poly U and (3)Kamtim.

G. Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Cumulative statistics for complaints, notifications of summons and successful prosecutions for the Project account for period starting from the date of commencement of construction work to the end of the reporting quarter and are summarized in the **Table G-1** below.

Table G-1: Statistics for complaints, notifications of summons and successful prosecutions for Zone 2B & 2C

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of summons	Successful prosecutions
This reporting quarter (May 23 – Jul 23)	1	0	0
From 30 September 2021 to end of the reporting quarter	31	0	0

END OF THE REPORT