

**Agreement No. CE
20/2004(EP) North
East New
Territories (NENT)
Landfill Extension**

1st Monthly EM&A Report
2023-01-13

Our Ref.: CL/91823/0227-VES
Date: 13 January 2023

By Email

Veolia Environmental Services Hong Kong Limited
40/F, One Taikoo Place
979 King's Road
Quarry Bay
Hong Kong

Attn.: Mr. Alvin Kam

**Meinhardt Infrastructure and
Environment Ltd**
邁進基建環保工程顧問有限公司

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Dear Sir

Re: Contract No. EP/SP/77/15
North-East New Territories Landfill Extension (NENTX)
1st Monthly EM&A Report

I refer to Conditions 3.3 under Environmental Permit No. EP-292/2007 and Further Environmental Permit No. FEP-01/292/2007, regarding the submission of a report for transplantation. I hereby verified the captioned "1st Monthly EM&A Report" dated 13 January 2023.

Yours faithfully
MEINHARDT INFRASTRUCTURE AND ENVIRONMENT LTD



Claudine Lee
Independent Environmental Checker

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Ref: P521530-0000-REP-NN-0024

By Email

13 January 2023

Meinhardt Infrastructure & Environment Ltd.
10/F Genesis
33-35 Wong Chuk Hand Road
Hong Kong

Attn: Ms. Claudine Lee,

Dear Claudine,

Re: Contract No. EP/SP/77/15
Northeast New Territories Landfill Extension
Submission of 1st Monthly EM&A Report

In accordance with the requirement specified in Condition 3.3 of Environmental Permit No. EP-292/2007 and Further Environmental Permit No. FEP-01/292/2007, we are pleased to submit the certified "1st Monthly EM&A Report" dated 13 January 2023 for your verification.

Should you require any further information or clarification, please do not hesitate to contact the undersigned or our Mr. Keith Chau on 3664 6788.

Yours faithfully,
For and on behalf of
Aurecon Hong Kong Limited

A handwritten signature in blue ink, appearing to read "Fredrick Leong".

Fredrick Leong
Environmental Team Leader

Encl.

1. 1st Monthly EM&A Report

cc.

1. IEC - Ms. Claudine Lee (By email: claudinelee@meinhardt.com.hk)
2. IEC Representative - Mr. Jimmy Lui (By email: jimmylui@meinhardt.com.hk)

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Executive Summary

Aurecon Hong Kong Limited (Aurecon) was appointed to undertake the role of Environmental Team (ET) and carry out Environmental Monitoring and Audit for the North East New Territories (NENT) Landfill Extension.

An Environmental Permit (EP) No. EP-292/2007 was issued by the Environmental Protection Department (EPD) on 26 November 2007 for the construction of this project based on the Environmental Impact Assessment (EIA) Report (Register No: AEIAR-111/2007) approved by the EPD. The latest EP No. FEP-01/292/2007 was subsequently issued by the EPD in 28 April 2022.

In accordance with the requirements specified in Section 2.6 to 2.10 and Section 12.3 of the approved Environmental Monitoring and Audit (EM&A) Manual and Environmental Permit (EP and FEP) condition 3.3, Monthly EM&A report should be submitted to the Director of Environmental Protection (DEP), within 2 weeks after the end of the reporting month.

The construction phase and EM&A programme of the Project commenced on 1 December 2022.

This 1st Monthly EM&A Report presents the EM&A works conducted from 1 December 2022 to 31 December 2022 in accordance with the EM&A Manual.

Summary of Construction Works undertaken during Report Period

The major construction works undertaken during the reporting period include:

-	Material loading and unloading, site traffic
-	Site clearance
-	Site formation
-	Tree felling

Environmental Monitoring and Audit Progress

A summary of the monitoring activities in this reporting period is listed below:

Items	Times	Date
- Air Quality Monitoring during normal weekdays at each monitoring station	5 times	5, 10, 16, 22 & 28 December 2022
- Construction Noise Monitoring during normal weekdays at each monitoring station	4 times	6, 16, 22 & 28 December 2022
- Surface Water Quality Monitoring during normal weekdays at each monitoring station	1 time	5 December 2022
- Joint Environmental Site Inspection	4 times	5, 12, 19 & 28 December 2022

Air Quality

5 sets of 1-hr TSP & 24-hr TSP construction dust measurement were carried out at each monitoring stations during normal weekdays of the reporting period. No exceedance of Action and Limit Levels of construction dust was recorded during the reporting period.

Noise

4 sets of 30-minute construction noise measurement were carried out at each monitoring stations during normal weekdays of the reporting period. No exceedance of Action and Limit Levels of construction noise was recorded during the reporting period.

Surface Water Quality

1 set of surface water quality measurement were carried out at each monitoring stations during normal weekdays of the reporting period. No exceedance of Action and Limit Levels of surface water quality was recorded during the reporting period.

Landscape and Visual

All the specified and affected LCAs, LR and VSRs have been monitored during the reporting period. No exceedance of Action and Limit Levels of landscape and visual was recorded during the reporting period.

Environmental Site Inspection

ET weekly environmental site inspections were carried out on 05, 12, 19 and 28 December 2022. A joint environmental site inspection was carried out by the representatives of the Employer's Representative (ER), the Contractor, IEC and the ET on 19 December 2022. The Contractor has generally implemented the mitigation measures as recommended.

Environmental Exceedance/Non-conformance/Compliant/Summons and Prosecution

No exceedance of the Action and Limit Levels was recorded at designated monitoring stations during the reporting period.

No non-compliance event was recorded during the reporting period.

One complaint on 20 December 2022 was received during the reporting period. The complaint lodged regarding presenting much dusty materials at roundabout at Wo Keng Shan Road & dusty flying problem at Kowloon-bound traffic at Lung Shan Tunnel. After Investigation, it was found that no dusty materials or wastes were transported out from the NENTX site during the complaint period in accordance with the construction record. In addition, it was observed that the wheel washing facilities with high pressure water jet have been provided at all sites exit of NENTX (i.e. Portion A and D) and all vehicles were cleaned before allowing them to leave the construction site to ensure that no mud or debris would be brought to the public area. All site vehicles of NENTX are also required to go through the auto wheel washing facility, which is managed by the operator of the NENT landfill, before entering the public area. The road section between the washing facilities and the exit point was paved with concrete, or bituminous materials were implemented in all site entrances/exits. No mud generated from vehicles under the NENTX project after exiting the site entrance were observed. Therefore, there is no direct evidence showing that the complaint is likely related to NENTX project.

No summons/prosecutions were received in this reporting period.

Environmental Protection Department-Regional Office (North) conducted general site inspection on 23 December 2022. No special findings were identified during the inspection.

Reporting Change

There was no reporting change in the reporting period.

Future Key Issues

Works to be undertaken in the next month include:

-	Material loading and unloading, site traffic
-	Permanent site office foundation works with pouring of concrete
-	Site clearance
-	Installation of permanent fencing
-	Site formation
-	Tree felling

Potential environmental impacts arising from the above construction activities are mainly associated with construction dust, construction noise, surface water, waste management and landscape and visual.

1. Introduction

1.1. Background

- 1.1.1. The North East New Territories Landfill Extension (the NENTX Project) is located adjacent to the existing North East New Territories (NENT) Landfill at Ta Kwu Ling. The extension site is located in a valley covering mainly the existing NENT Landfill Stockpile and Borrow Area that was formed to the east of the existing landfill as part of the original site development of the landfill, and layout plan shown in **Figure 1.1**.
- 1.1.2. The NENTX is a designated project. The Environmental Impact Assessment (EIA) Report (AEIAR-111/2007) and an Environmental Monitoring and Audit Manual were approved on 20 September 2007. The project is governed by an Environmental Permit (EP) (EP-292/2007) which was granted on 26 November 2007. A further of EP (FEP) was applied and the FEP (FEP-01/292/2007) was subsequently granted on 28 April 2022.
- 1.1.3. In accordance with the requirements specified in Section 2.6 to 2.10 and Section 12.3 of the approved Environmental Monitoring and Audit (EM&A) Manual and Environmental Permit (EP and FEP) condition 3.3, Monthly EM&A report should be submitted to the Director of Environmental Protection (DEP), within 2 weeks after the end of the reporting month.
- 1.1.4. The construction phase and EM&A programme of the Project commenced on 1 December 2022.

1.2. Purpose of this Report

- 1.2.1. This is the 1st Monthly EM&A Report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from 01 December 2022 to 31 December 2022.

1.3. Structure of the Report

- 1.3.1. The structure of the report is as follows:

Section 1 – Introduction

- details the background, purpose and structure of the report.

Section 2 – Project Information

- summarises background and scope of the Project, site description, project organization and contact details, construction programme, the construction works undertaken and the status of Environmental Permit(s)/License(s) during the reporting period.

Section 3 – Dust Monitoring

Section 4 – Noise Monitoring

Section 5 – Surface Water Monitoring

Section 6 – Waste

Section 7 – Landscape and Visual

Section 8 – Site Inspection and Audit

Section 9 – Environmental Non Conformance

Section 10 – Implementation Status on Environmental Mitigation Measures

Section 11 – Future Key Issues

2. Project Information

2.1. Construction Activities

- 2.1.1. A summary of the major construction activities undertaken in this reporting period is shown in **Table 2.1** and the construction programme is illustrated in **Appendix A**.

Table 2-1 Major Construction Activities Undertaken in the Reporting Period

Construction Activities Undertaken	
-	Material loading and unloading, site traffic
-	Site clearance
-	Site formation
-	Tree felling

2.2. Project Organization & Management Structure

- 2.2.1. The Project Organization Chart & Management Structure are shown in **Appendix B**. The key personnel contact information is summarized in **Table 2-2**.

Table 2-2 Contact Information of Key Personnel

Party	Name	Contact Number
Contractor (Veolia Environmental Service Hong Kong Holding LtdLimited.)	Mr. William Wan	9259 5326
Independent Environmental Consultant (IEC) (Meinhardt Infrastructure and Environment Ltd.)	Ms. Claudine Lee	2859 5409
Environmental Team (ET) (Aurecon Hong Kong Limited)	Mr. Fredrick Leong	3664 6888

2.3. Status of Environmental Approval Document

- 2.3.1. A summary of the relevant valid permits, licences, and/or notifications on environmental protection for this Project since the granting of the EP is presented in **Table 2.3**.

Table 2-3 Summary of the relevant valid permits, licences, and/or notifications on environmental protection

Permit / Licenses / Notification	Reference	Expiry Date	Remark
Environmental Permit (EP)	EP-292/2007	Throughout the Contract	Permit granted on 26 November 2007
Further Environmental Permit (FEP)	FEP-210/2022	Throughout the Contract	Permit granted on 28 April 2022
Notification of Construction Works as required under Air Pollution Control (Construction Dust) Regulation	479809	Throughout the Contract	Approved on 13 May 2022
Registration of Waste Producer under Waste Disposal Ordinance	7043692	Throughout the Contract	Approved on 13 April 2022
Registration as Chemical Waste Producer	5213-642-P1034-18	Throughout the Contract	Approved on 11 July 2022
Construction Noise Permit	GW-RN1151-22	28 February 2023	Approved on 29 November 2022
Effluent Discharge License under Water Pollution Control Ordinance	WT00042301-2022	31 October 2027	Approved on 18 October 2022

3. Construction Dust

3.1 Monitoring Requirement

- 3.1.1 In accordance with the EM&A Manual, 1-hr & 24-hr Total Suspended Particulates (TSP) levels should be measured at the designated air quality monitoring stations in every 6 days to ensure that any deteriorating air quality could be readily detected, and timely action shall be undertaken to rectify such situation. For 1-hr TSP monitoring, the sampling frequency of at least three times in every six-days should be undertaken when the highest dust impact occurs. The specific time to start and stop the 24-hr TSP monitoring shall be clearly defined for each location.

3.2 Monitoring Parameters, Frequency and Location

- 3.2.1 According to the EM&A Manual, three monitoring stations namely AM(D)1, AM(D)2 and AM(D)3 are selected for the impact monitoring.
- 3.2.2 A baseline monitoring plan has been submitted to IEC and EPD including the proposal of change of monitoring locations. Due to limited access to the original monitoring locations at AM(D)1, AM(D)2 and AM(D)3, the adjusted stations at AM1, AM2 and AM3 were agreed with IEC prior to the baseline and impact monitoring. The locations of adjusted dust monitoring locations are shown in **Figure 2**.
- 3.2.3 The detailed monitoring schedule is shown in **Appendix C**. The locations of dust monitoring stations are shown in **Table 3-1**. The monitoring parameters, frequency and duration are shown in **Table 3-2**.

Table 3-1 Locations of Dust Monitoring Stations

Monitoring Station	Representative for	Monitoring Parameters
AM1	Tung Lo Hang	1-hr and 24-hr TSP
AM2	Heung Yuen Wai	1-hr and 24-hr TSP
AM3	Wo Keng Shan Tsuen	1-hr and 24-hr TSP

Table 3-2 Dust Impact Monitoring Parameters, Frequency and Duration

Monitoring Station	Parameter	Frequency and Duration
AM1, AM2, AM3	1-hr TSP	At least 3 times per 6 days
	24-hr TSP	1 time per 6 days

3.3 Monitoring Equipment

3.3.1 High volume samplers (HVSs) were used for carrying out 24-hr TSP monitoring. For 1-hr TSP monitoring, direct reading dust meters were used to measure 1-hr TSP levels.

3.3.2 **Table 3-3** summarises the equipment that were used in the baseline dust monitoring programme. The calibration certificates are shown in **Appendix D**.

Table 3-3 Dust Monitoring Equipment

Equipment	Model	Monitoring Station
High Volume Sampler (HVS)	TE-5170X (S/N: 1105)	AM1
	TE-5170X (S/N: 1106)	AM2
	TE-5170X (S/N: 1856)	AM3
Direct Reading Dust Meter	Sibata LD-5R (S/N: 882106)	AM1 to AM3
	Sibata LD-5R (S/N: 882110)	
	Sibata LD-5R (S/N: 0Z4545)	
Calibration Kit (for HVS)	TE-5025A (S/N: 3465)	AM1 to AM3

3.4 Monitoring Methodology

3.4.1 The 1-hr TSP impact monitoring was conducted using a portable direct reading dust meter.

3.4.2 The measuring procedures of the 1-hr dust meter has been undertaken in accordance with the Manufacturer's Instruction Manual as follows:

- Place the 1-hr dust meter at least 1.3m above ground;
- Set POWER to "ON" and make sure that the battery level will not be flashed or in low level;
- Pull the air sampling inlet cover up;
- Push the knob at MEASURE position;
- Set time/mode setting to [BG] by pushing the time setting switch. Then, start the background measurement by pushing the start/stop switch once. It will take 6 sec. to complete the background measurement;
- turn knob to SENS. ADJ position and press in;
- Push Start/Stop switch once;
- Gently return knob to the MEASURE position;
- Push the time setting switch to change the time setting display to [LOG] at the bottom left of the liquid crystal display;
- Remove the cap and start measurement; and
- Information such as sampling date, time, count value and site condition will be recorded during the monitoring period.

3.4.3 The 24-hr TSP baseline monitoring has been conducted using a High Volume Sampler (HVS).

3.4.4 The HVS has been set-up at the monitoring location with a fixed power supply for operation. The measuring procedures of the 24-hr TSP measurements has been undertaken in accordance with the specifications listed in the EM&A Manual. Each HVS includes a motor, a filter holder, a flow controller and a sampling inlet in accordance with the performance specification of the USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50), Appendix B. The measuring procedures of the 24-hr dust meter was undertaken in accordance with the Manufacturer's Instruction Manual as follows:

- The power supply will be checked to ensure the HVS works properly;
- The filter holder and the area surrounding the filter will be cleaned;
- The filter holder will be removed by loosening the four bolts and a new filter on a supporting screen will be aligned carefully;
- The filter will be properly aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter;
- The swing bolts will be fastened to hold the filter holder down to the frame. The pressure applied should be sufficient to avoid air leakage at the edges;
- The shelter lid will be closed and secured with the aluminium strip;
- The HVS will be warmed-up to establish run-temperature conditions;
- A new flowrate record sheet will be set into the flow recorder;
- The programmable timer will be set for a sampling period of 24 hour, and the starting time, weather condition and the filter number will be recorded;
- The initial elapsed time will be recorded;
- At the end of sampling, the sampled filter will be removed carefully and folded in half-length so that only surfaces with collected particulate matter will be in contact;
- The sample will be placed in a clean plastic envelope and sealed;
- All monitoring information will be recorded on a standard data sheet; and
- The filters will be taken back to HOKLAS accredited laboratory for analysis.

3.4.5 In addition, site conditions and dust sources were recorded in a standard form for direct input into a database.

3.5 Monitoring Results

- 3.5.1 The impact dust monitoring results are summarized in **Table 3-4** and **Table 3-5**. The monitoring data together with graphical presentations are presented in **Appendix E** and **Appendix F**.

Table 3-4 Summary of Impact 1-hr TSP Monitoring Results

Dust Monitoring Station	Average 1-hr TSP Concentration, $\mu\text{g}/\text{m}^3$ (Range)	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AM1	54 (44 – 65)	>285	>500
AM2	54 (45 – 61)	>279	>500
AM3	63 (57 – 68)	>285	>500

Table 3-5 Summary of Impact 24-hr TSP Monitoring Results

Dust Monitoring Station	Average 24-hr TSP Concentration, $\mu\text{g}/\text{m}^3$ (Range)	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AM1	114 (88 – 147)	>164	>260
AM2	65 (43 – 92)	>152	>260
AM3	140 (126 – 157)	>163	>260

- 3.5.2 No exceedance of Action and Limit Levels of construction dust was recorded during the reporting period. Therefore, there was no record of Notification of Environmental Quality Limits Exceedance in the **Appendix G**.
- 3.5.3 No effect that arose from the other special phenomena and work progress of the concerned site was noted during the current monitoring month.

3.6 Wind Data Monitoring

- 3.6.1 During the monitoring period, wind data from existing weather station in the vicinity of the designated monitoring location, i.e Ta Kwu Ling station operated by Hong Kong Observatory was adopted. It is considered that the wind data obtained from Ta Kwu Ling station are representative of the Project area and could be used for the construction dust monitoring programme for the Project. The results for wind data monitoring are presented in **Appendix H**.

3.7 Recommended Mitigation Measures

3.7.1 The recommended dust mitigation measures from EIA report are listed as followed:

- The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation.
- Dust emission from construction vehicle movement is confined within the worksites area.
- Watering facilities will be provided at every designated vehicular exit point.
- Good site practice is recommended during construction phase. Covering with impermeable sheet should be provided for the inactive tipping area.

3.8 Event and Action Plan

3.8.1 Should non-compliance of the criteria occur, action in accordance with the action plan in **Table 3-6** shall be carried out.

Table 3-6 Event and Action Plan for dust impact

Event	ET	IEC	Contractor
Exceedance of Action Level			
1.Exceedance for one sample	<ul style="list-style-type: none"> Identify source Prepare Notification of Exceedance Inform IEC and Contractor Repeat measurement to confirm findings Increase monitoring frequency to daily if exceedance is due to the Project and continue until the monitoring results reduce to below action level 	<ul style="list-style-type: none"> Verify the Notification of Exceedance Check monitoring data submitted by ET and Contractor's working methods Discuss with ET and Contractor on proposed remedial measures 	<ul style="list-style-type: none"> Rectify any unacceptable practice Amend working methods if appropriate
2.Exceedance for two or more consecutive samples	<ul style="list-style-type: none"> Identify source Prepare Notification of Exceedance Inform Contractor and IEC Repeat measurements to confirm findings Increase monitoring frequency to daily if exceedance is due to the Project and continue until the monitoring results reduce to below action level Discuss with IEC for remedial action required Ensure remedial measures are properly implemented Continue monitoring at daily intervals if exceedance is due to the Project If no exceedance for 3 consecutive days, cease additional monitoring 	<ul style="list-style-type: none"> Verify the Notification of Exceedance Check monitoring data submitted by ET and Contractor's working methods Discuss with ET and Contractor on proposed remedial measures Review with analysed results submitted by ET Review the proposed remedial measures by Contractor Supervise the implementation of remedial measures 	<ul style="list-style-type: none"> Submit proposals for remedial actions to IEC within 3 working days of notification Implement the agreed proposals Amend proposal if appropriate

Event	ET	IEC	Contractor
Exceedance of Limit Level			
1.Exceedance for one sample	<ul style="list-style-type: none"> Identify source Prepare Notification of Exceedance Inform IEC and Contractor Repeat measurement to confirm findings Increase monitoring frequency to daily if exceedance is due to the Project and continue until the monitoring results reduce to below limit level Assess effectiveness of Contractor's remedial actions and keep EPD and IEC informed of the results 	<ul style="list-style-type: none"> Verify the Notification of Exceedance Check monitoring data submitted by ET and Contractor's working methods Discuss with ET and Contractor potential remedial actions Supervise the implementation of remedial measures 	<ul style="list-style-type: none"> Take immediate action to avoid further exceedance Submit proposals for remedial actions to IEC within 3 working days of notification Implement the agreed proposals Amend proposal if appropriate
2.Exceedance for two or more consecutive samples	<ul style="list-style-type: none"> Identify source Prepare Notification of Exceedance Inform IEC and EPD the causes and actions taken for the exceedances Discuss with IEC for remedial action required Ensure remedial measures are properly implemented Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and informed of the results Increase monitoring frequency to confirm findings If exceedance stops, cease additional monitoring 	<ul style="list-style-type: none"> Verify the Notification of Exceedance Check monitoring data submitted by ET and Contractor's working methods Discuss amongst ET and Contractor on the potential remedial actions. Review Contractor's remedial actions whenever necessary to assure their effectiveness Supervise the implementation of remedial measures 	<ul style="list-style-type: none"> Take immediate action to avoid further exceedance Submit proposals for remedial actions to IEC of notification Implement the agreed proposals Resubmit proposals if problem still not under control Stop the relevant activity of works until the exceedance is abated

4 Noise Monitoring

4.1 Monitoring Requirement

- 4.1.1 In accordance with the EM&A manual, noise impact monitoring shall be carried out at 2 monitoring stations NM1 and NM2 once a week during normal construction working hour (0700-1900 Monday to Saturday). The minimum logging interval shall be 30 minutes with average of 6 consecutive L_{eq} 5 mins. L_{10} and L_{90} shall also be measured at 5 mins intervals.

4.2 Monitoring Locations, Parameters and Frequency

- 4.2.1 According to the EM&A Manual, two monitoring stations namely NM1 and NM2 are selected for the impact monitoring.
- 4.2.2 A baseline monitoring plan has been submitted to IEC and EPD including the proposal of change of monitoring locations. Due to limited access to the original monitoring locations at NM1 and NM2, the adjusted stations at NM1a and NM2a were agreed with IEC prior to the baseline and impact monitoring. The noise monitoring locations are summarized in **Table 4-1** and shown in **Figure 2**.
- 4.2.3 The detailed monitoring schedule is shown in **Appendix C**. The frequency and duration are shown in **Table 4-2**.

Table 4-1 Noise Monitoring Locations

Monitoring Station	Representative for	Type of Measurement
NM1a	Wo Keng Shan Tsuen	Free field
NM2a	Lin Ma Hang	Free field

Remark:

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

Table 4-2 Noise Baseline Monitoring Parameters, Frequency and Duration

Monitoring Station	Parameter	Frequency and Duration
NM1a and NM2a	L_{Aeq} (30mins) average of 6 consecutive L_{eq} (5min); L_{10} (5min) & L_{90} (5min)	once a week during normal construction working hour (0700-1900 Monday to Saturday)

4.3 Monitoring Equipment

- 4.3.1 Integrating Sound Level Meters (SLMs) was used for noise impact monitoring. The SLM complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications shall be used for carrying out noise monitoring. The accuracy of the SLM was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements shall be accepted as valid only if the calibration level from prior to and after the noise measurement agrees to within 1.0dB.
- 4.3.2 A portable wind speed meter was used for measuring wind speeds in m/s.
- 4.3.3 **Table 4-3** summarises the equipment that have been used in the impact noise monitoring programme. The calibration certificates are shown in **Appendix D**.

Table 4-3 Noise Monitoring Equipment

Equipment	Model
Sound Level Meter	NTi XL2 (S/N: A2A-09696-E0)
Acoustic Calibrator	Rion NC-74 (S/N: 34504770)
Anemometer	RS-90 (S/N: 210722168)

4.4 Monitoring Methodology

- 4.4.1 The details of noise measurement procedures are described as follows:
- Free-field measurements were made at the monitoring locations.
 - For free field, the Sound Level Meter was set at a height of 1.2 m above the ground. The battery condition was checked to ensure the proper functioning of the meter.
 - Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
 - Frequency weighting: A
 - Time weighting: Fast
 - Measurement time: 5 minutes (Leq (30-min) would be determined for daytime noise by calculating the logarithmic average of six Leq (5min) data.)
 - Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after recalibration or repair of the equipment.
 - Noise measurement should be paused during periods of high intrusive noise if possible and observation shall be recorded when intrusive noise is not avoided.

- At the end of the monitoring period, the Leq, L10 and L90 shall be recorded. In addition, site conditions and noise sources should be recorded on a standard record sheet.
- All noise monitoring will be conducted with the wind speed not exceeding 5m/s and no gusts exceeding 10m/s.

4.5 Monitoring Results

4.5.1 The impact noise monitoring results are summarized in **Table 4-4**. The monitoring data together with graphical presentations are presented in **Appendix E** and **Appendix F**.

Table 4-4 Summary of Noise Monitoring Results during normal working hours (07:00-19:00, Monday to Saturday)

Noise Monitoring Station	Average Leq, 30min, dB(A) (Range)	Action Level	Limit Level
NM1a	53.6 (51.1 – 56.1)	When one documented complaint is received	>75dB(A)
NM2a	49.8 (48.9 – 51.2)		

Remark:

- (1) * A correction of +3 dB(A) was made to the free field measurements
- (2) If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

4.5.2 No exceedance of Action and Limit Levels of construction noise was recorded during the reporting period. Therefore, there was no record of Notification of Environmental Quality Limits Exceedance in the **Appendix G**.

4.5.3 No particular observations are identified near the monitoring stations during the monitoring period.

4.6 Recommended Mitigation Measures

4.6.1 The recommended dust mitigation measures from EIA report are listed as followed:

1. Use of good site practices to limit noise emissions by considering the following:
 - Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;
 - Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum;
 - Plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs;
 - Silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works;
 - Mobile plant should be sited as far away from NSRs as possible and practicable;

- Material stockpiles, mobile container site officer and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.
2. Select “Quiet plants” which comply with the BS 5228 Part 1 or TM standards.

4.7 Event and Action Plan

- 4.7.1 Should non-compliance of the criteria occurs, action in accordance with the action plan in **Table 4-5** shall be carried out.

Table 4-5 Event and action plan for construction noise monitoring

Event	ET	IEC	Contractor
Exceedance of Action Level	<ul style="list-style-type: none"> Identify source, investigate the causes of exceedance Prepare Notification of Exceedance Inform IEC and Contractor Report the results of investigation to IEC, and Contractor Discuss with Contractor and IEC for formulate remedial measures Ensure remedial measures are properly implemented Have additional monitoring if exceedance is due to the Project. If exceedance stops, cease additional monitoring 	<ul style="list-style-type: none"> Verify the Notification of Exceedance Review the analysed results submitted by ET Discuss with ET, and Contractor on the potential remedial actions Review the proposed remedial measures Supervise the implementation of remedial measures 	<ul style="list-style-type: none"> Submit noise mitigation proposals to IEC Implement the agreed noise mitigation proposals
Exceedance of Limit Level	<ul style="list-style-type: none"> Identify source, investigate the causes of exceedance Prepare Notification of Exceedance Inform IEC and Contractor Repeat measurements to confirm findings Discuss with Contractor and IEC for remedial measures Ensure remedial measures are properly implemented Assess effectiveness of Contractor's remedial actions and keep IEC and EPD informed of the results Have additional monitoring if exceedance is due to the Project. If exceedance stops, cease additional monitoring 	<ul style="list-style-type: none"> Verify the Notification of Exceedance Review the analysed results submitted by ET Discuss with ET, and Contractor on the potential remedial actions Review the proposed remedial measures Supervise the implementation of remedial measures 	<ul style="list-style-type: none"> Take immediate action to avoid further exceedance Submit proposals for remedial actions to IEC of notification Implement the agreed proposals Resubmit proposals if problem still not under control Stop the relevant portion of works as determined by project proponent until the exceedance is abated.

5 Surface Water Monitoring

5.1 Monitoring Requirement

- 5.1.1 In accordance with the EM&A manual, impact surface water quality monitoring was carried out at the two designated surface water discharge points (i.e WM1 and WM2) for once per month from commencement of construction works of the Project.

5.2 Monitoring Locations, Parameters and Frequency

- 5.2.1 Impact surface water monitoring was carried out on 5 December 2022 at WM1 and WM2. The monitoring locations are indicated in **Table 5-1** and **Figure 2**.
- 5.2.2 The monitoring parameters, frequency and duration of surface water quality baseline monitoring are summarized in **Table 5-2**. Detailed monitoring schedule is presented in **Appendix C**.

Table 5-1 Surface water quality monitoring locations

Monitoring Station	Location	Coordinates (HK Grid)	
		Easting	Northing
WM1	Upstream of Lin Ma Hang River	836665	845020
WM2	Ping Yuen River	835592	844186

Table 5-2 Surface water quality monitoring Parameters, Frequency and Duration

Parameter	Frequency
pH, Electrical conductivity, DO, Turbidity, SS, Alkalinity, COD, BOD ₅ , TOC, Ammonia-nitrogen, TKN, Nitrate, Sulphate, Sulphite, Phosphate, Chloride, Sodium, Mg, Ca, K, Fe, Ni, Zn, Mn, Cu, Pb, Cd, Coliform Count, Oil and Grease	once per month

5.3 Monitoring Equipment

- 5.3.1 The measurements of pH, electrical conductivity (EC), DO, turbidity, water temperature and air temperature were undertaken in situ. In situ monitoring instruments in compliance with the specifications listed under Section 5.5 of the EM&A Manual were used to undertake the surface water quality monitoring for the Project. **Table 5-3** summarises the equipment used in the impact surface water quality monitoring works. Copies of the calibration certificates are attached in **Appendix D**.

Table 5-3 Surface Water Quality Monitoring Equipment

Equipment	Model
Water Quality Meter	Horiba U-53 (S/N: PORBNFNT)
Water Flow Meter	FP111 (S/N: 22K100859)

5.4 Summary of Surface Water Quality Monitoring Procedure

Operational/ Analytical Procedures

- 5.4.1 Water samples were collected from within 500 mm of the water surface. Water was collected by a small clean open-mouthed bucket with the lip pointing upstream. Usually, water was then transferred to the sample bottles until they were filled to the top with no remaining air space before the lid was securely screwed on. For samples that were preserved with acid or alkalis prior to transport to the laboratory, the samples bottles were filled to the level specified by the analytical laboratory.
- 5.4.2 Analyses shall be carried out in accordance with methods described in ASTM or APHA - AWWA-WEF Standard.

Laboratory Analytical Methods

- 5.4.3 The testing of parameters presented in **Table 5-4** for all stations was conducted by ALS Technichem (HK) Pty Ltd. (HOKLAS Registration No. 066). Comprehensive quality assurance and control procedures were in place in order to ensure quality and consistency in results. The detection limits are provided in **Table 5-4**.

Table 5-4 Surface Water Monitoring Detection Limits and Limit of Reporting

Parameters	Detection Limit (in EM&A Manual)	Limit of Reporting	Method Reference
pH	0.1	0.1	APHA 4500 H+ B
Electrical conductivity	1 µS/cm	1 µS/cm	APHA 2510 B
Alkalinity	1 mg/L	1 mg/L	APHA 2320 B
COD	10 mg/L	5 mg/L	APHA 5220 C
BOD ₅	3 mg/L	2 mg/L	APHA 5210 B
TOC	1 mg/L	1 mg/L	APHA 5310 B
SS	0.1 mg/L	0.1 mg/L	APHA 2540 D
Ammonia-nitrogen	0.2 mg/L	0.01 mg/L	APHA 4500 NH ₃ G
TKN	0.4 mg/L	0.1 mg/L	APHA 4500Norg: D
Nitrate	0.5 mg/L	0.01 mg/L	APHA 4500 NO ₃ I
Sulphate	5 mg/L	1 mg/L	USEPA 375.4
Sulphite	2 mg/L	2 mg/L	APHA 4500 SO ₃ B
Phosphate	0.01 mg/L	0.01 mg/L	APHA 4500-P B & F
Chloride	0.5 mg/L	0.5 mg/L	USEPA 325.1
Sodium	50 µg/L	50 µg/L	USEPA 6010C
Mg	50 µg/L	50 µg/L	USEPA 6010C
Ca	50 µg/L	50 µg/L	USEPA 6010C
K	50 µg/L	50 µg/L	USEPA 6010C
Fe	50 µg/L	10 µg/L	USEPA 6010C
Ni	1 µg/L	1 µg/L	USEPA 6020A
Zn	10 µg/L	10 µg/L	USEPA 6020A
Mn	1 µg/L	1 µg/L	USEPA 6020A
Cu	1 µg/L	1 µg/L	USEPA 6020A
Pb	1 µg/L	1 µg/L	USEPA 6020A
Cd	0.2 µg/L	0.2 µg/L	USEPA 6020A
Coliform Count	1 cfu/ 100mL	1 cfu/ 100mL	DoE section 7.8, 7.9.4.1 & 3
Oil and Grease	5 mg/L	5 mg/L	APHA 5520 B

QA/ QC Requirements

5.4.4

All in situ monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or other international accreditation scheme before use, and subsequently re-calibrated at the intervals according to manufacturer's requirement throughout all stages of the surface water quality monitoring programme. Responses of sensors and electrodes were checked with certified standard solutions before each use. Calibration for a DO meter was carried out before measurement according to the instruction manual of the equipment model. For the on-site calibration of field equipment, the requirements of the BS 1427:2018, "Guide to on-site test methods for the analysis of waters" was observed.

Decontamination Procedures

- 5.4.5 Water sampling equipment used during the course of the monitoring programme was decontaminated by manual washing and rinsed with clean distilled water after each sampling location.

Sampling Management and Supervision

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

Quality Control Measures for Sample Testing

- 5.4.7 The samples testing was performed by ALS Technichem (HK) Pty Ltd. The following quality control programme was performed by the laboratory:
- One method blank; and
 - One sample duplicate.

5.5 Monitoring Results

- 5.5.1 Impact surface water quality monitoring was conducted at WM1 and WM2 on 5 December 2022. No adverse weather was observed during reporting period. The detailed monitoring schedule is shown in **Appendix C**.
- 5.5.2 The summary of monitoring results are presented in **Table 5-5**. Detailed monitoring results at each monitoring station and graphical presentations of surface water quality (DO, SS and Turbidity) at the monitoring stations are given in **Appendix E and Appendix F**.
- 5.5.3 No particular observations are identified near the monitoring stations during the monitoring period.
- 5.5.4 No exceedance of Action and Limit Levels of surface water monitoring was recorded during the reporting period. Therefore, there was no record of Notification of Environmental Quality Limits Exceedance in the **Appendix G**.

Table 5-5 Summary of Impact Surface Water Monitoring Results

Monitoring Station	Monitoring Parameter(s)	Monitoring Results	Action Level	Limit Level
WM1	DO in mg/L	10.8	<7.4	<4
	pH	7.4	>7.7	>7.8
	Turbidity in NTU	8.6	>9.2	>9.5
	SS in mg/L	3.4	>9.7	>11.4
WM2	DO in mg/L	6.5	<5	<4
	pH	7.5	>7.6	>7.7
	Turbidity in NTU	23.3	>108.3	>108.9
	SS in mg/L	25.6	>94.5	>94.7

5.6 Recommended Mitigation Measure

5.6.1 The recommended surface water mitigation measures from EIA report are listed as followed:

- Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities.
- The overall slope of the site should be kept to a minimum to reduce the erosive potential of surface water flows.
- The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94, which states that the retention time for silts and sediment traps should be 5 minutes under maximum flow conditions.
- 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.
- Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts.
- Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.

5.7 Event and Action Plan

5.7.1 Should non-compliance of the criteria occurs, action in accordance with the action plan in **Table 5-6** shall be carried out.

Table 5-6 Event and Action Plan for Water Quality

Event	ET	IEC	Contractor
Action level being exceeded by one sampling day	<ul style="list-style-type: none"> Repeat in situ measurement to confirm findings Identify source(s) of impact Prepare Notification of Exceedance Inform IEC and Contractor Check monitoring data, all plant, equipment and Contractor's working methods Repeat measurement on next day of exceedance 	<ul style="list-style-type: none"> Verify Notification of Exceedance Check monitoring data and Contractor's working methods 	<ul style="list-style-type: none"> Rectify unacceptable practice Amend working methods if appropriate
Action level being exceeded by two or more consecutive sampling days	<ul style="list-style-type: none"> Repeat in situ measurement to confirm findings Identify source(s) of impact Prepare Notification of Exceedance Inform IEC and Contractor Check monitoring data, all plant, equipment and Contractor's working methods Discuss with Contractor and IEC for remedial measures Ensure mitigation measures are implemented Increase the monitoring frequency to daily until no exceedance of Action level Repeat measurement on next day of exceedance 	<ul style="list-style-type: none"> Verify Notification of Exceedance Check monitoring data and Contractor's working method Discuss with ET and Contractor on possible remedial actions Review the proposed mitigation measures Supervise the implementation of mitigation measures 	<ul style="list-style-type: none"> Submit proposal of additional mitigation measures to IEC of notification Implement the agreed mitigation measures Amend proposal if appropriate

Event	ET	IEC	Contractor
Limit Level being exceeded by one sampling day	<ul style="list-style-type: none"> Repeat in situ measurement to confirm findings Identify source(s) of impact Prepare Notification of Exceedance Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods Discuss mitigation measures with IEC and Contractor Ensure mitigation measure are implemented 	<ul style="list-style-type: none"> Verify Notification of Exceedance Check monitoring data submitted By ET and Contractor's working method Discuss with ET and Contractor on possible remedial actions Review the proposed mitigation measures Supervise the implementation of mitigation measures 	<ul style="list-style-type: none"> Critically review the working method Rectify unacceptable practice Take immediate corrective actions to avoid further exceedance Submit proposal of mitigation measures to IEC Implement the agreed mitigation measures
Limit level being exceeded by two or more consecutive sampling days	<ul style="list-style-type: none"> Repeat in situ measurement to confirm findings Identify source(s) of impact Prepare Notification of Exceedance Inform IEC, contractor and EPD Check monitoring data, all plant, equipment and Contractor's working methods Discuss mitigation measures with IEC and Contractor Ensure mitigation measure are implemented 	<ul style="list-style-type: none"> Verify Notification of Exceedance Check monitoring data submitted by ET and Contractor's working method Discuss with ET and Contractor on possible remedial actions Review the proposed mitigation measures Supervise the implementation of mitigation measures 	<ul style="list-style-type: none"> Critically review the working method Rectify unacceptable practice Take immediate corrective actions to avoid further exceedance Submit proposal of mitigation measures to IEC Implement the agreed mitigation measures Resubmit proposals if problem still not under control Slow down or to stop relevant activity until exceedance is abated

6 Waste Management

- 6.1.1 Wastes generated from this Project include inert construction and demolition (C&D) materials and non-inert C&D materials. Non-inert C&D materials were made up of general refuse, steels and paper/cardboard packaging materials. Steel materials generated from the Project were also grouped into non-inert C&D materials as the materials were not disposed of with other inert C&D materials. With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting month are summarised in **Appendix I**.
- 6.1.2 A total of 5 tonnes of general refuse was generated during the reporting period. The general refuse generated from the Project were disposed of at the NENT Landfill. A total of 300 tonnes of hard rock and large broken concrete was generated during the reporting period. The hard rock and large broken concrete were reused in the contract. Therefore, no inert waste was generated during the reporting period. A total of 1 tonne of metals was generated during the reporting period. A total of 1 tonne of plastics was generated during the reporting period.
- 6.1.3 The recommended waste management mitigation measures from EIA report are listed as followed:
- Implement a trip-ticket system to ensure that the movement of C&D materials are properly documented and verified in accordance with DEVB TC(W) No. 6/2010.
 - Concrete and masonry should be used as general fill and steel reinforcement bars can be used by scrap steel mills.
 - Proper areas should be designated for waste segregation and storage wherever site conditions permit.
 - Maximise the use of reusable steel formwork to reduce the amount of C&D material.
 - Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement.
 - On-site sorting and segregation facility of all type of wastes is considered as one of the best practice in waste management and hence, should be implemented in all projects generating construction waste.
 - The sorted public fill and C&D waste should be properly reused.
 - Excavated slope, stockpiled material and bund walls should be covered by tarpaulin until used in order to prevent wind-blown dust during dry weather, and to reduce muddy runoff during wet weather.

7 Landscape and Visual

7.1 Monitoring Requirement

- 7.1.1 In order to monitor the landscape and visual impact after providing mitigation measures effectively, all the specified and affected LCAs, LRs and VSRs should be monitored. Implementation of the mitigation measures during construction phase of the Project has been monitored through the regular site inspection/audit.
- 7.1.2 All relevant environmental mitigation measures listed in the approved EIA Report and the EM&A Manual and their implementation status are summarised in **Appendix K**.

7.2 Result and Observation

- 7.2.1 Measures to mitigate the landscape and visual impacts during the construction phase has been checked to ensure compliance with the intended aims of the measures within the reporting period. The progress of the engineering works are regularly reviewed on site to identify the earliest practical opportunities for the landscape works to be undertaken.
- 7.2.2 In order to monitor the landscape and visual impact after providing mitigation measures effectively, all the specified and affected LCAs, LRs and VSRs should be monitored. Implementation of the mitigation measures during construction phase of the Project has been monitored through the regular site inspection/audit.

8 Ecological Monitoring

- 8.1.1 In the reporting period, the post-translocation monitoring for the Endemic Freshwater Crab *Somanniathelphusa zanklon* was conducted on 29 December 2022 based on the requirement of the approved Revised Translocation Proposal for the Endemic Freshwater Crab *Somanniathelphusa zanklon*.
- 8.1.2 In the reporting period, the post-transplantation monitoring was conducted on 21 December 2022 based on the requirement of the approved Transplantation Proposal for Plant Species of Conservation Importance (Rev.1).
- 8.1.3 The details of requirements and monitoring results for the post-translocation monitoring and post-transplantation monitoring would be reported separately.

9 Site Inspection and Audit

9.1.1 Site Inspection and audits were carried out by ET on weekly basis to monitor the implementation of proper environmental management practices and mitigation measures in the Project Site.

9.1.2 Weekly ET environmental site inspections were conducted in the reporting period on 05, 12, 19 and 28 December 2022. A joint environmental site inspection was carried out by the representatives of the ER, the Contractor, IEC and the ET on 19 December 2022. There was no noncompliance recorded during the site inspections.

9.1.3 Major findings and recommendations are summarized as follows:

05 December 2022

- The accumulated waste shall be disposed regularly. The Contractor was recommended to increase the frequency of waste disposal to avoid accumulate waste.
- Open cut slope shall be covered with impervious sheeting. The Contractor was reminded to cover the exposed slopes with impervious sheet to minimize dust dispersion.

12 December 2022

- The vehicle exit road shall be kept clear of dusty materials. The Contractor was reminded to schedule watering for the vehicle exist road.
- The Contractor was reminded to cover the exposed slope with impervious sheet for upcoming rainfall in this week. All exposed slopes shall be covered with impervious sheets during rainfall.
- The accumulated waste is observed. The Contractor was recommended to increase the frequency of waste disposal to avoid accumulation of waste.

19 December 2022

- Sediments are accumulated in the channel at the vehicle wash bay. The Contractor was reminded to remove the sediments at least on a weekly basis.

28 December 2022

- The vehicle road is covered with dusty materials in Portion A. The vehicle entrance shall be kept clear of dusty materials.
- The work area is dry and fugitive dust is observed from loading and unloading activity in Portion D. The Contractor has been reminded to schedule watering for work area and to spray with water during loading and unloading activities.
- Latex paint drums are observed without drip trays in Portion A. Drip tray shall be provided for latex paint drums.

9.1.4 Environmental Protection Department-Regional Office (North) conducted general site inspection on 23 December 2022. No special findings were identified during the inspection.

10 Environmental Non-conformance

9.1 Summary of Monitoring Exceedance

9.1.1 No exceedance of the Action and Limit Levels was recorded at monitoring station during the reporting period.

9.2 Summary of Environmental Non-compliance

9.2.1 No non-compliance event was recorded during the reporting period.

9.3 Summary of Environmental Complaint

9.3.1 One complaint on 20 December 2022 was received during the reporting period. The complaint lodged regarding presenting much dusty materials at roundabout at Wo Keng Shan Road & dusty flying problem at Kowloon-bound traffic at Lung Shan Tunnel. After Investigation, it was found that no dusty materials or wastes were transported out from the NENTX site during the complaint period in accordance with the construction record. In addition, it was observed that the wheel washing facilities with high pressure water jet have been provided at all sites exit of NENTX (i.e. Portion A and D) and all vehicles were cleaned before allowing them to leave the construction site to ensure that no mud or debris would be brought to the public area. All site vehicles of NENTX are also required to go through the auto wheel washing facility, which is managed by the operator of the NENT landfill, before entering the public area. The road section between the washing facilities and the exit point was paved with concrete, or bituminous materials were implemented in all site entrances/exits. No mud generated from vehicles under the NENTX project after exiting the site entrance were observed. Therefore, there is no direct evidence showing that the complaint is likely related to NENTX. The investigation report is provided in **Appendix J**.

9.4 Summary of Environmental Summons and Successful Prosecution

9.4.1 No summons was received during the reporting period.

11 Implementation Status on Environmental Mitigation Measures

- 11.1 The Contractor has generally implemented environmental mitigation measures and requirements as stated in the EIA Report, the EP and EM&A Manual and the contract documents. The implementation status during the reporting period is summarized in **Appendix K**.

12 Future Key Issues

12.1 Key Issues for the Coming Month

12.1.1 Works to be undertaken for the coming monitoring periods are summarized below:

- | | |
|---|---|
| - | Material loading and unloading, site traffic |
| - | Permanent site office foundation works with pouring of concrete |
| - | Site clearance |
| - | Installation of permanent fencing |
| - | Site formation |
| - | Tree felling |

12.1.2 Potential environmental impacts arising from the above construction activities are mainly associated with dust, construction noise, site runoff and waste management and landscape and visual.

12.2 Monitoring Schedule for the Next Month

12.2.1 The tentative schedule of environmental monitoring for the next reporting period is presented in **Appendix C**.

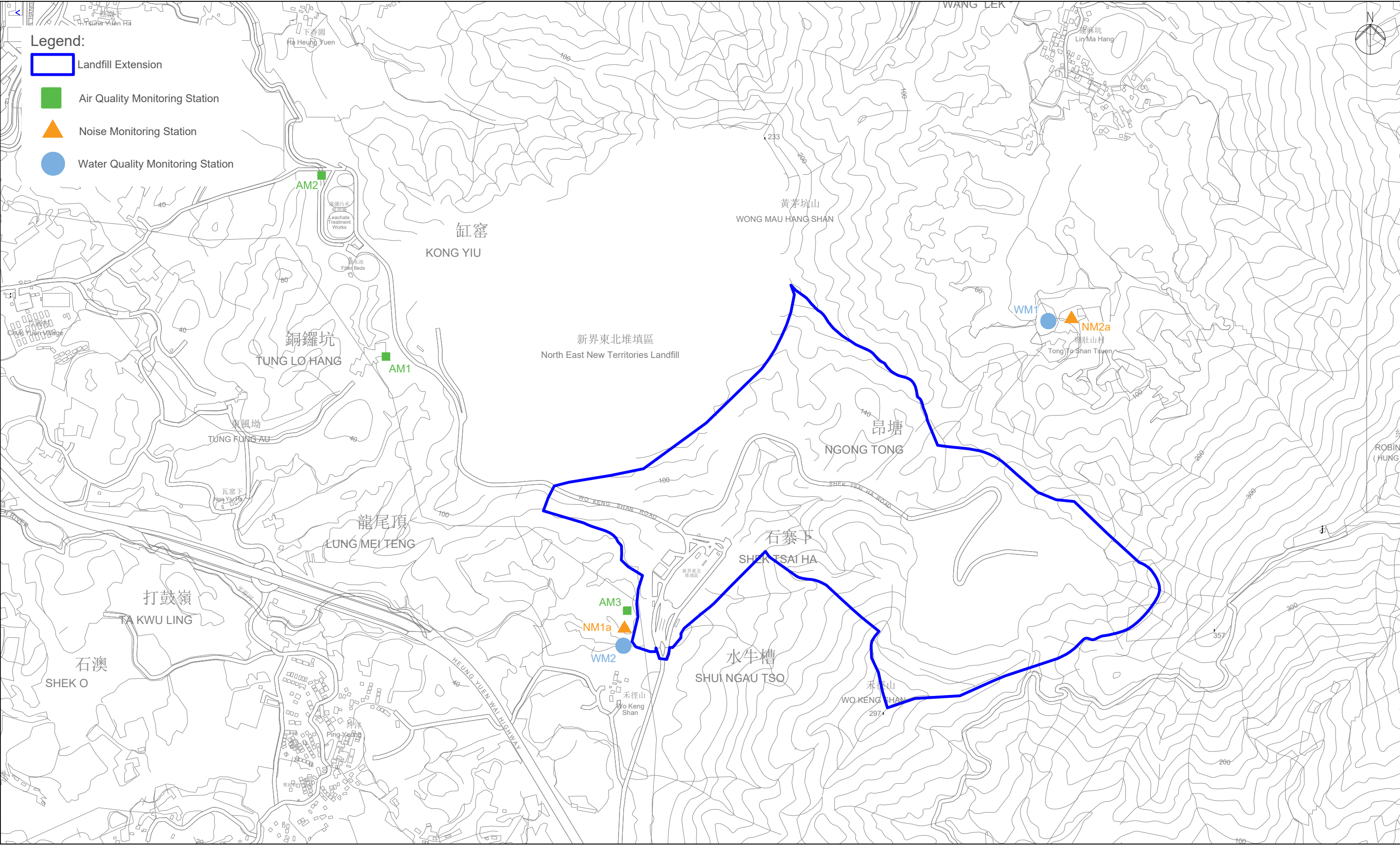
12.3 Construction Programme for the Next Month

12.3.1 The most updated construction programme for the Project is presented in **Appendix A**.

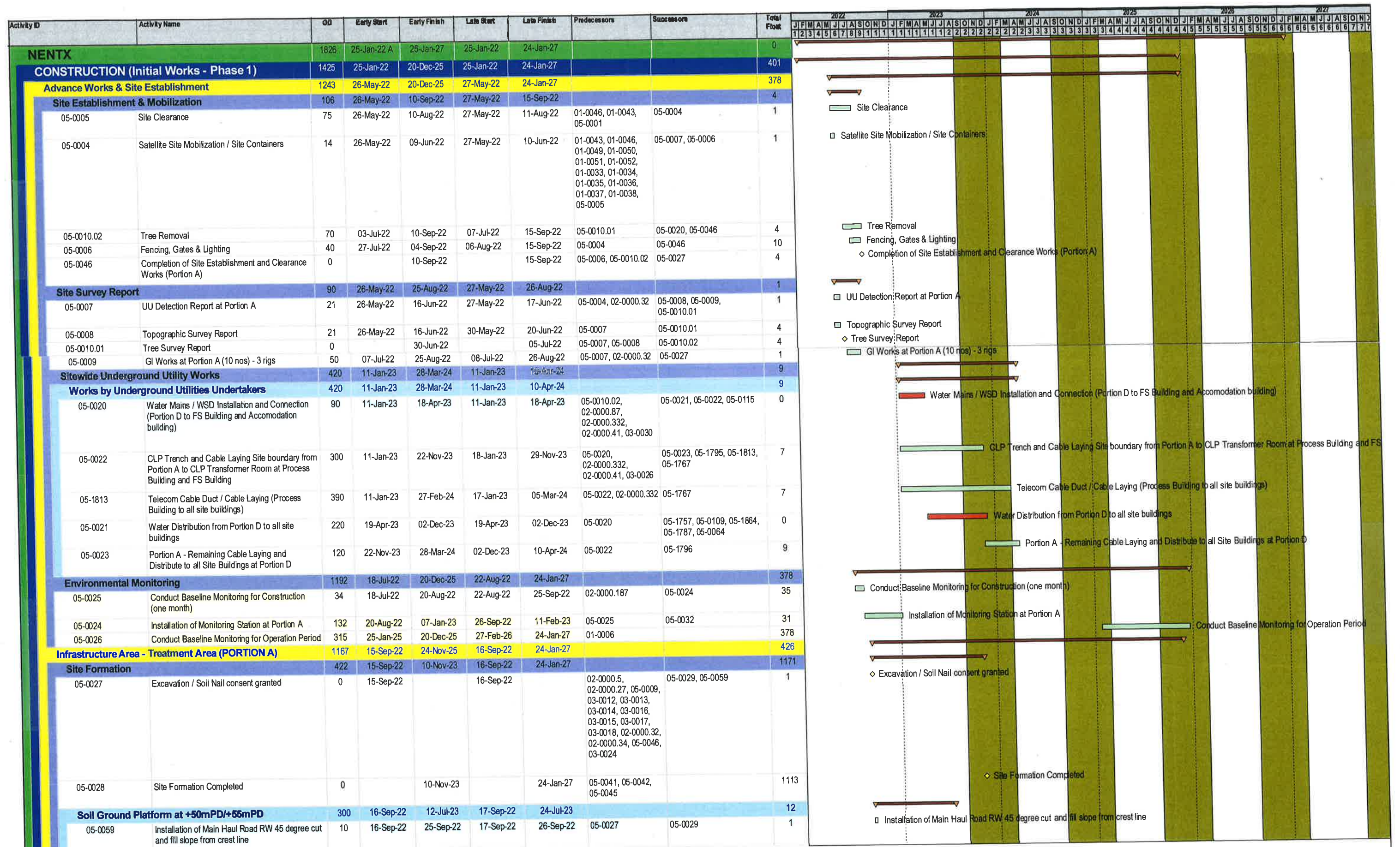
13 Conclusion

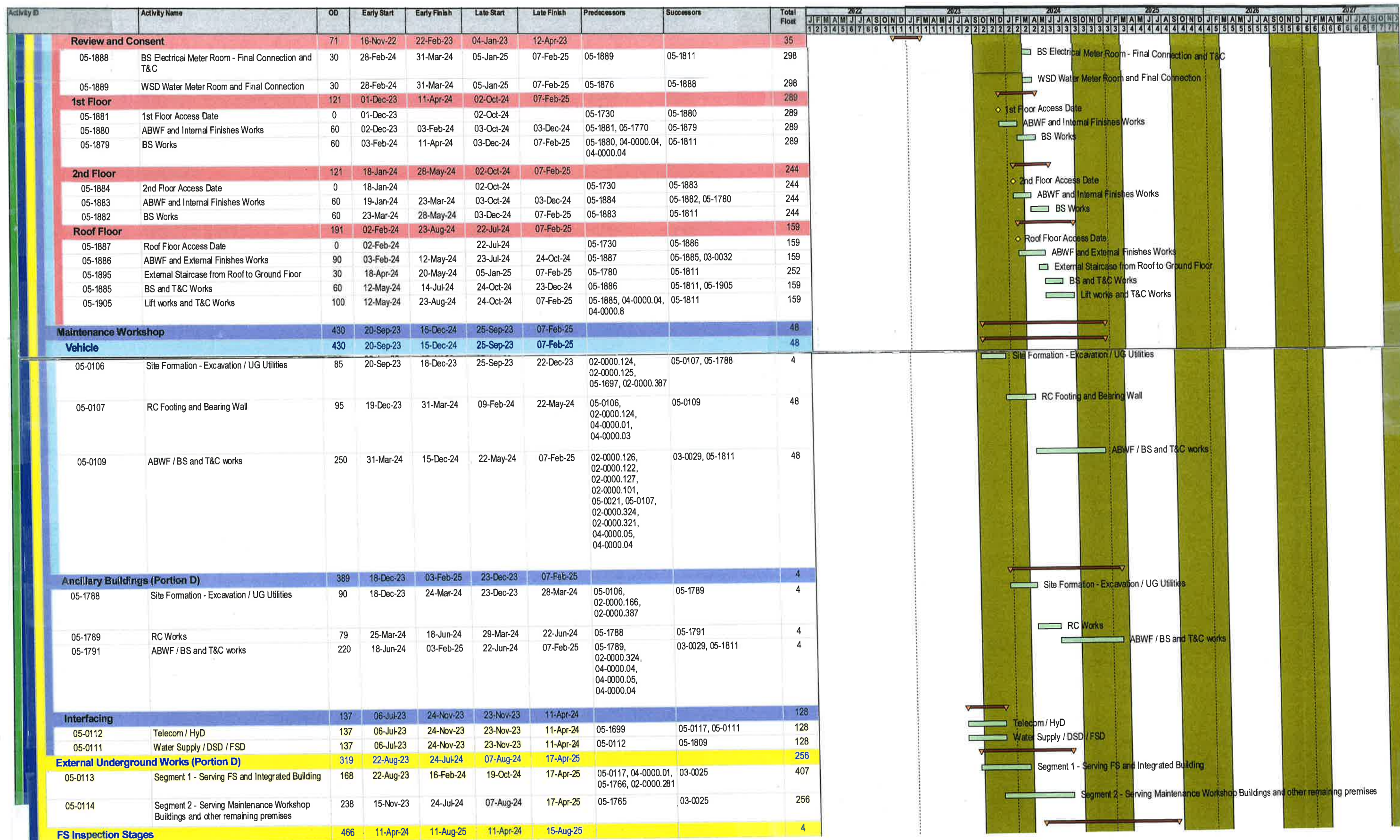
- 13.1** 1-hr & 24-hr TSP impact monitoring was carried out in the reporting month. No Action / Limit Level exceedance at AM1, AM2 & AM3 was recorded during the period.
- 13.2** Construction noise monitoring was carried out in the reporting month. No Action / Limit Level exceedance at NM1a & NM2a was recorded during the period.
- 13.3** Surface water monitoring was carried out in the reporting month. No Action / Limit Level exceedance at WM1 & WM2 was recorded during the period.
- 13.4** Four environmental site inspections were carried out in the reporting month. Recommendations on mitigation measures for Permit/ Licenses were given to the Contractor for remediating the deficiencies identified during the site inspections.
- 13.5** One complaint on 20 December 2022 was received during the reporting period. The complaint lodged regarding presenting much dusty materials at roundabout at Wo Keng Shan Road & dusty flying problem at Kowloon-bound traffic at Lung Shan Tunnel. After Investigation, it was found that no dusty materials or wastes were transported out from the NENTX site during the complaint period in accordance with the construction record. In addition, it was observed that the wheel washing facilities with high pressure water jet have been provided at all sites exit of NENTX (i.e. Portion A and D) and all vehicles were cleaned before allowing them to leave the construction site to ensure that no mud or debris would be brought to the public area. All site vehicles of NENTX are also required to go through the auto wheel washing facility, which is managed by the operator of the NENT landfill, before entering the public area. The road section between the washing facilities and the exit point was paved with concrete, or bituminous materials were implemented in all site entrances/exits. No mud generated from vehicles under the NENTX project after exiting the site entrance were observed. Therefore, there is no direct evidence showing that the complaint is likely related to NENTX.
- 13.6** No non-compliance event was recorded during the reporting period.
- 13.7** No notification of summons and prosecution was received during the reporting period.
- 13.8** The ET will keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

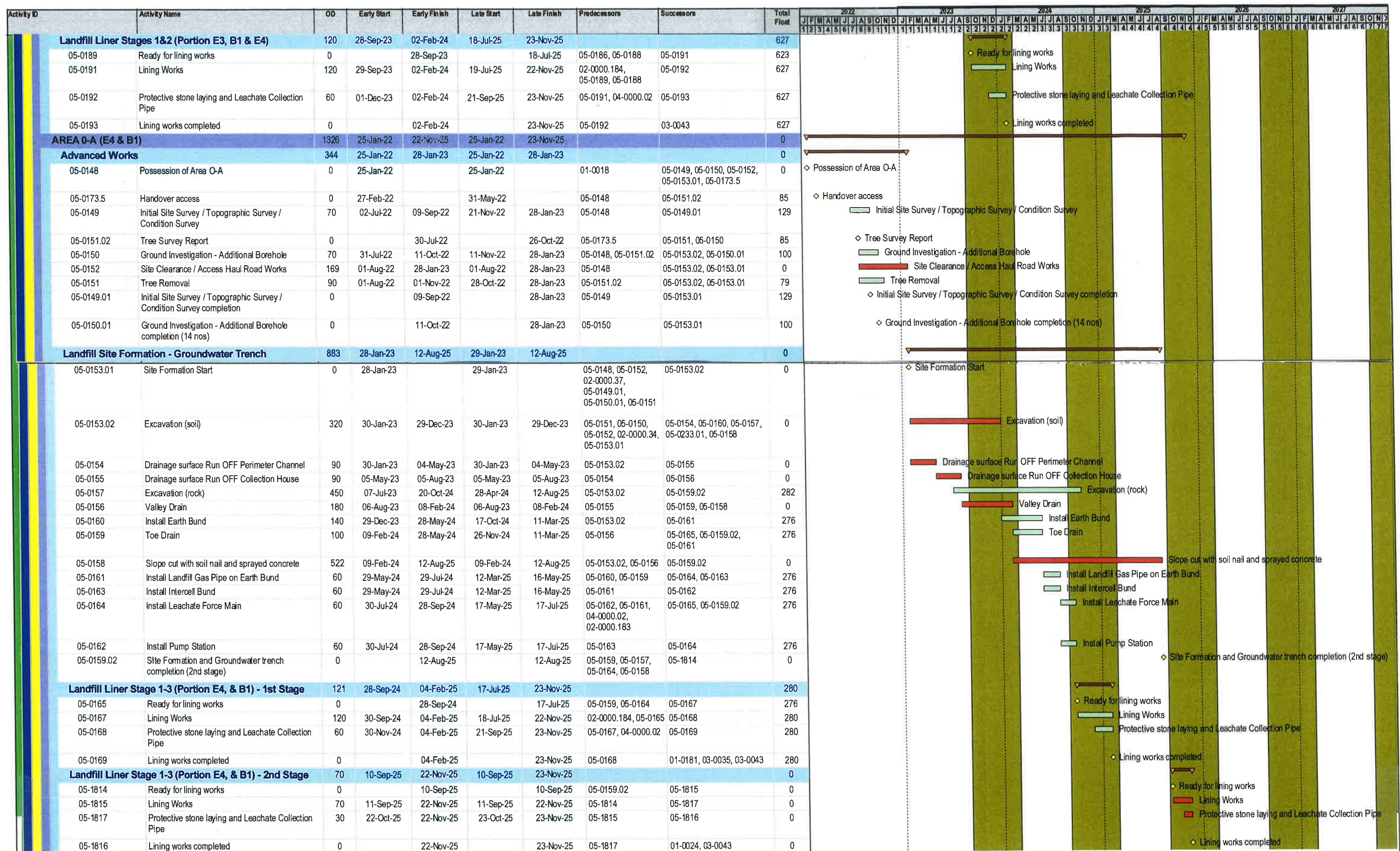
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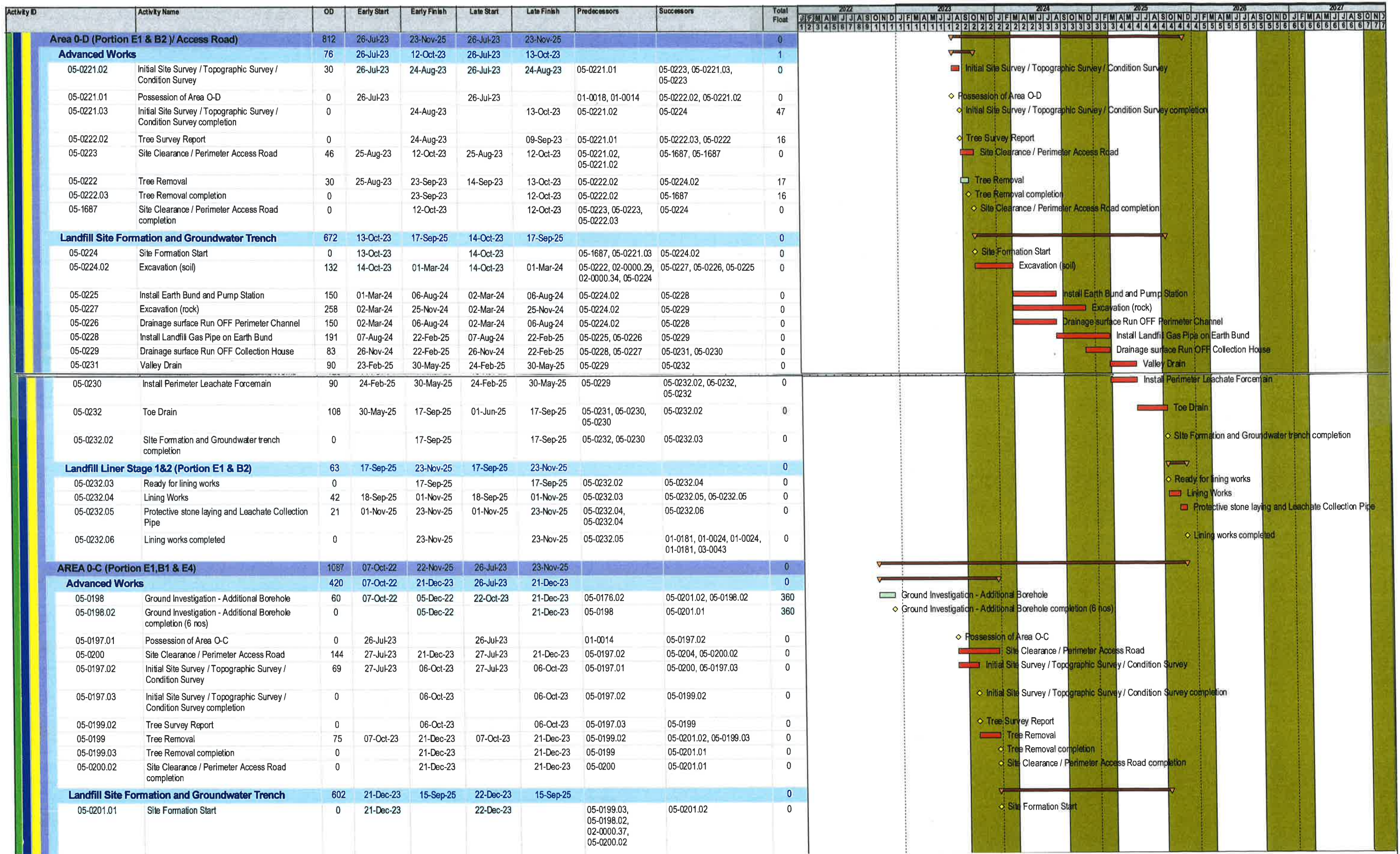


Appendix A



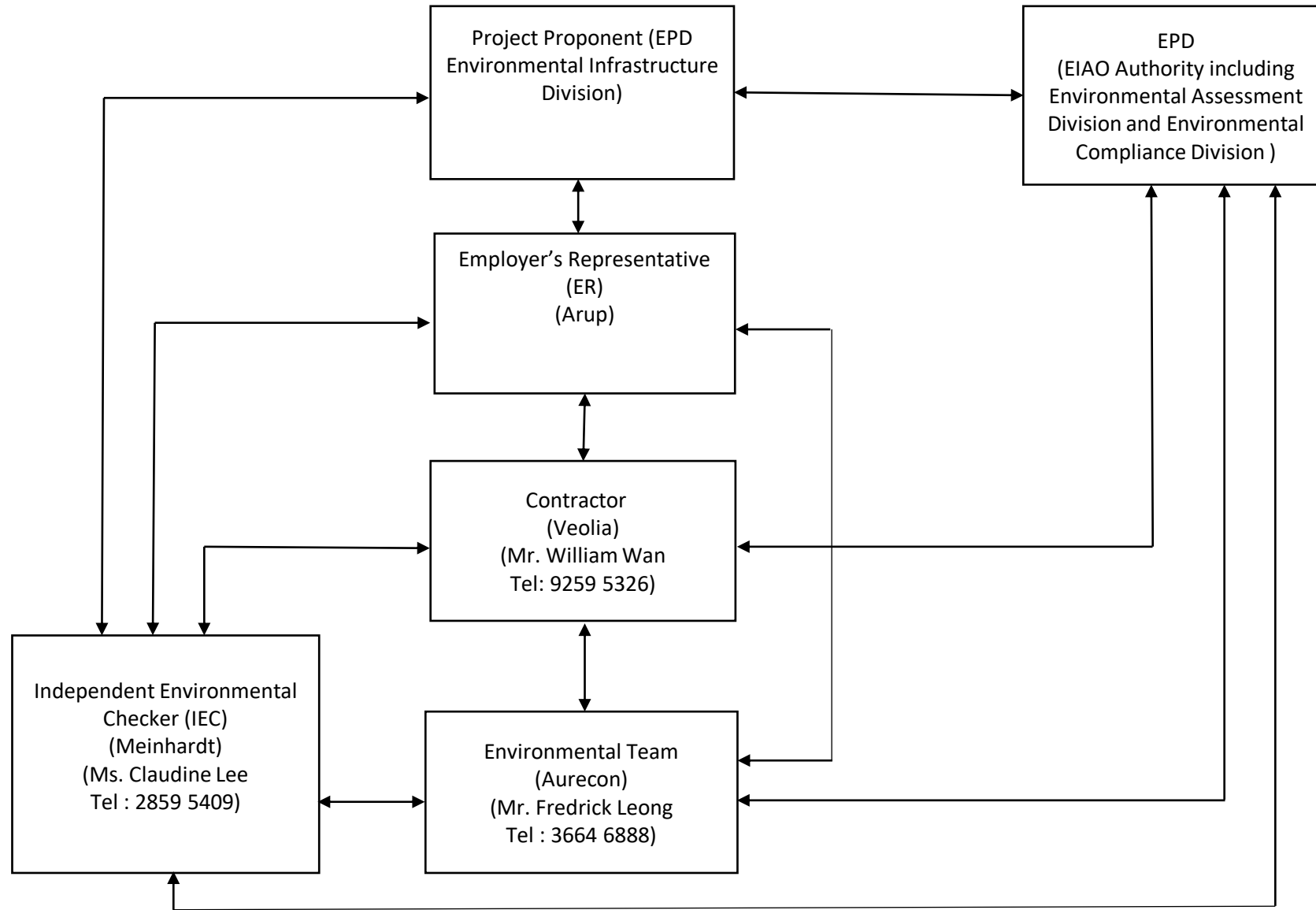






Appendix B

NENTX Project Organisation Chart



Notes:

EPD - Environmental Protection Department

Arup – Ove Arup & Partners Limited

Veolia - Veolia Environmental Services Hong Kong Limited

Meinhardt - Meinhardt Infrastructure And Environment Limited

Aurecon - Aurecon Hong Kong Limited

Appendix C

Impact Monitoring Schedule for NENT Landfill Extension (December 2022)

12-2022						
Sun	Mon	Tue	Wed	Thur	Fri	Sat
				1	2	3
4	5 Air quality monitoring at AM1, AM2 and AM3 Surface water quality monitoring at WM1 and WM2	6 Noise monitoring at NM1a and NM2a	7	8	9	10 Air quality monitoring at AM1, AM2 and AM3
11	12	13	14	15	16 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	17
18	19	20	21	22 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	23	24
25	26	27	28 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	29	30	31

Remark:

1. Air quality monitoring includes 1-hour TSP and 24-hour TSP monitoring at AM1, AM2 and AM3 (Ref.: Table 3.1 of the approved EM&A Manual).
2. Noise monitoring includes 30-minute construction noise monitoring at NM1a and NM2a (Ref.: Table 4.1 of the approved EM&A Manual).
3. Surface water quality monitoring includes in-situ measurement and water sampling for laboratory analysis at WM1 and WM2 (Ref.: Table 5.5 and Section 5.5.6 of the approved EM&A Manual).

Impact Monitoring Schedule for NENT Landfill Extension (January 2023)

1-2023						
Sun	Mon	Tue	Wed	Thur	Fri	Sat
1	2	3 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	4	5	6	7
8	9 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a Surface water quality monitoring at WM1 and WM2	10	11	12	13	14 Air quality monitoring at AM1, AM2 and AM3
15	16	17	18	19	20 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	21
22	23	24	25	26 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a	27	28
29	30	31	1 Air quality monitoring at AM1, AM2 and AM3 Noise monitoring at NM1a and NM2a			

Remark:

1. The schedule is tentative only and would be subject to changes due to unforeseen circumstances.
2. Air quality monitoring includes 1-hour TSP and 24-hour TSP monitoring at AM1, AM2 and AM3 (Ref.: Table 3.1 of the approved EM&A Manual).
3. Noise monitoring includes 30-minute construction noise monitoring at NM1a and NM2a (Ref.: Table 4.1 of the approved EM&A Manual).
4. Surface water quality monitoring includes in-situ measurement and water sampling for laboratory analysis at WM1 and WM2 (Ref.: Table 5.5 and Section 5.5.6 of the approved EM&A Manual).

Appendix D



MAXLAB

CALIBRATION CERTIFICATE

Certificate Information

Date of Issue

11-Feb-2022

Certificate Number

MLCN220284S

Customer Information

Company Name

Acuity Sustainability Consulting Limited

Address

Unit E, 12/F., Ford Glory Plaza,
Nos. 37-39 Wing Hong Street,
Cheung Sha Wan,
Kowloon, HK

Equipment-under-Test (EUT)

Description

Sound Level Calibrator

Manufacturer

Rion

Model Number

NC-74

Serial Number

34504770

Equipment Number

--

Calibration Particular

Date of Calibration

11-Feb-2022

Calibration Equipment

4231(MLTE008) / AV200063 / 23-Jun-23
1357(MLTE190) / MLEC21/05/02 / 26-May-22

Calibration Procedure

MLCG00, MLCG15

Calibration Conditions

Laboratory	Temperature	23 °C ± 5 °C
	Relative Humidity	55% ± 25%
EUT	Stabilizing Time	Over 3 hours
	Warm-up Time	Not applicable
	Power Supply	Internal battery

Calibration Results

Calibration data were detailed in the continuation pages.
Calibration result was within EUT specification.

Approved By & Date

K.O. Lo

11-Feb-2022

Statements

- * Calibration equipment used for this calibration are traceable to national / international standards.
- * The results on this Calibration Certificate only relate to the values measured at the time of the calibration and the uncertainties quoted will not include allowance for the EUT long term drift, variation with environmental changes, vibration and shock during transportation, overloading, mishandling, misuse, and the capacity of any other laboratory to repeat the measurement.
- * MaxLab Calibration Centre Limited shall not be liable for any loss or damage resulting from the use of the EUT.
- * The copy of this Certificate is owned by MaxLab Calibration Centre Limited. No part of this Certificate may be reproduced without the prior written approval of MaxLab Calibration Centre Limited.



Certificate No. MLCN220284S

<i>Calibration Data</i>				
EUT Setting	Standard Reading	EUT Error from Setting	Calibration Uncertainty	EUT Specification
94 dB	94.0 dB	0.0 dB	0.20 dB	\pm 0.3 dB

- END -

Calibrated By : Dan
Date : 11-Feb-22

Checked By : K.O. Lo
Date : 11-Feb-22

Page 2 of 2

萬儀校正中心有限公司
MaxLab Calibration Centre Limited

香港新界葵涌華星街 16-18 號保盈工業大廈 9 樓 B 室

Unit B, 9/F., Baldwin Industrial Bldg., 16-18 Wah Sing Street, Kwai Chung, N.T., Hong Kong Tel: (852) 2116 1380 Fax: (852) 2264 6480 Email: info@maxlab.com.hk

Certificate of Calibration

校正證書

Certificate No. : C216243

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC21-2101)

Date of Receipt / 收件日期 : 12 October 2021

Description / 儀器名稱 : Mini Anemometer

Manufacturer / 製造商 : RS PRO

Model No. / 型號 : RS-90

Serial No. / 編號 : 210722168

Supplied By / 委託者 : Acuity Sustainability Consulting Limited

Room C 11/F, Ford Glory Plaza, No. 37-39 Wing Hong Street,
Cheung Sha Wan, Kowloon

TEST CONDITIONS / 測試條件

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

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

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 25 October 2021

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.

The results are detailed in the subsequent page(s).

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

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Agilent Technologies / Keysight Technologies
- Testo Industrial Services GmbH, Germany
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA

Tested By : CKLo
測試 : C K Lo
Assistant Engineer

Certified By : H C Chan
核證 : H C Chan
Engineer

Date of Issue : 26 October 2021
簽發日期

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

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

Certificate of Calibration

校正證書

Certificate No. : C216243
證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
- Test equipment :

Equipment ID	Description	Certificate No.
CL018	Portable Calibrator	C204749
CL041 & CL041B	Digital Thermometer	C212654
CL042 & CL042B	Digital Thermometer	C212655
CL292	Recorder	C214057
CL330	Environmental Chamber	C205909
CL386	Multi-function Measuring Instrument	S16494

- Test procedure : MA006 & MA130N.

- Results :

4.1 Air Velocity

Applied Value (m/s)	UUT Reading (m/s)	Measured Correction		
		Value (m/s)	Measurement Uncertainty	
			Expanded Uncertainty (m/s)	Coverage Factor
2.01	1.70	+0.31	0.15	2.0
4.00	3.75	+0.25	0.20	2.0
6.01	5.81	+0.20	0.25	2.0
8.00	7.74	+0.26	0.29	2.0
10.01	9.84	+0.17	0.34	2.0

The results presented are the mean of 10 measurements at each calibration point.

4.2 Temperature

Applied Value (°C)	UUT Reading (°C)	Measured Correction		
		Value (°C)	Measurement Uncertainty	
			Expanded Uncertainty (°C)	Coverage Factor
25.0	24.8	+0.2	0.5	2.0

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

Remarks : - The Measured Corrections are defined as :
Value = Applied Value - UUT Reading

- The expanded uncertainties are for a level of confidence of 95 %.

Note :

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

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

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

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

Sun Creation Engineering Limited – Calibration & Testing Laboratory

c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 - 校正及檢測實驗室

c/o 香港新界屯門興安里一號四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

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

Verification Test Date: 3-Dec-22 to 4-Dec-22
Next Verification Test Date: 2-Dec-23
Unit-under-Test- Model No.: Sibata LD-5R
Unit-under-Test Serial No.: 882106
Our Report Reference No.: RPT-22-HVS-0027
Calibration Location: AM2, Located near the Leachate Treatment Works within the NENT Landfill

Standard Equipment Information			
Verification Equipment Type	Tisch TSP HVS	Tisch HVS Calibrator	
Standard Equipment Model No.	TE-5170X	TE-5025A	
Equipment serial no.	MFC 1106	3465	
Last Calibration Date	1-Dec-22	28-Jun-22	
Next Calibration Date	31-Jan-23	27-Jun-23	

Verification Test No.	Date	Time			K-Factor	Counts/Minute (R)	Total Counts (TC)	TSP Sample ID No.	Dust Concentration (ug/m3), (C)
		Start-time	End-time	Elapsed Time (in min)		x-axis			y axis
1	3/12/2022	194.73	198.08	201.00	0.00123	50	9983	R222043/1	61
2	3/12/2022	198.08	201.27	191.40	0.00092	37	7146	R222043/2	34
3	3/12/2022	201.27	204.35	184.80	0.00103	48	8870	R222043/3	49
4	4/12/2022	252.37	255.36	179.40	0.00108	62	11183	R222044/1	67
5	4/12/2022	255.38	258.38	180.00	0.00110	57	10260	R222044/2	62
6	4/12/2022	258.38	261.38	180.00	0.00108	65	11760	R222044/3	70
					0.00107				

K-Factor to be inputted in LD-5R (corrected 1 decimal point): 1.1

By Linear Regression of y on x:

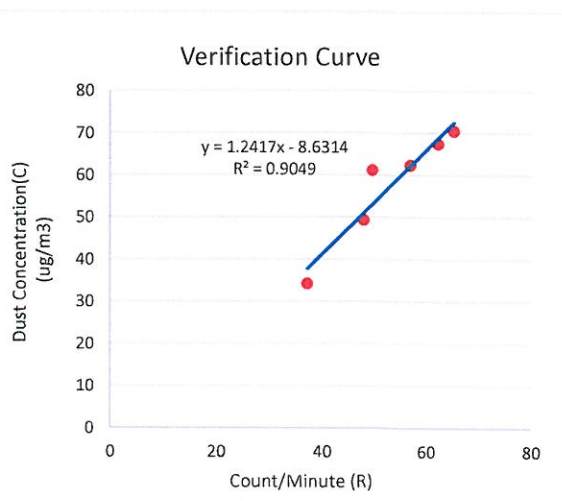
slope, mh= 1.2417

intercept, ch= -8.6314

*Correlation Coefficient, R= 0.9513

Verification Test Result: Strong Correlation, Results were accepted.

* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.



Verified By: IA
Technical Manager

Date: 05-12-2022

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

Verification Test Date: 3-Dec-22 to 4-Dec-22
Next Verification Test Date: 2-Dec-23
Unit-under-Test- Model No. Sibata LD-5R
Unit-under-Test Serial No. 882110
Our Report Reference No. RPT-22-HVS-0025
Calibration Location: AM2, Located near the Leachate Treatment Works within the NENT Landfill

Standard Equipment Information			
Verification Equipment Type	Tisch TSP HVS	Tisch HVS Calibrator	
Standard Equipment Model No.	TE-5170X	TE-5025A	
Equipment serial no.	MFC 1106	3465	
Last Calibration Date	1-Dec-22	28-Jun-22	
Next Calibration Date	31-Jan-23	27-Jun-23	

Verification Test No.	Date	Time			K-Factor	Counts/Minute (R)	Total Counts (TC)	TSP Sample ID No.	Dust Concentration (ug/m3), (C)
		Start-time	End-time	Elapsed Time (in min)		x-axis			y axis
1	3/12/2022	194.73	198.08	201.00	0.00101	61	12194	R222043/1	61
2	3/12/2022	198.08	201.27	191.40	0.00089	38	7337	R222043/2	34
3	3/12/2022	201.27	204.35	184.80	0.00108	46	8439	R222043/3	49
4	4/12/2022	252.37	255.36	179.40	0.00110	61	11003	R222044/1	67
5	4/12/2022	255.38	258.38	180.00	0.00112	56	10080	R222044/2	62
6	4/12/2022	258.38	261.38	180.00	0.00104	68	12180	R222044/3	70
					0.00104				

K-Factor to be inputted in LD-5R (corrected 1 decimal point): 1.0

By Linear Regression of y on x:

slope, mh= 1.1984

intercept, ch= -8.3267

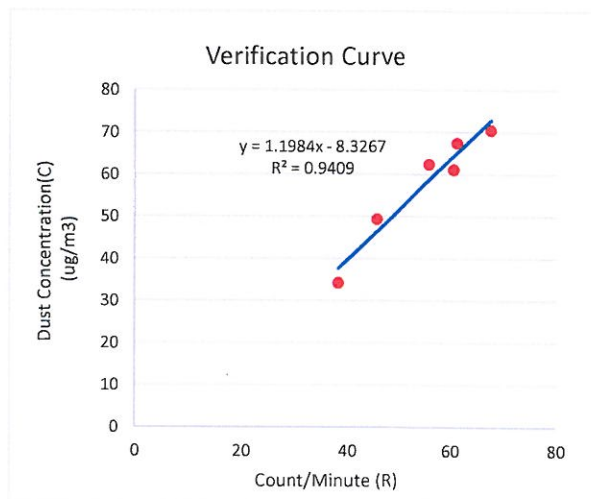
*Correlation Coefficient, R= 0.9700

Verification Test Result: Strong Correlation, Results were accepted.

* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.

Verified By: 
Technical Manager

Date: 05-12-2022



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

Verification Test Date: 3-Dec-22 to 4-Dec-22
Next Verification Test Date: 2-Dec-23
Unit-under-Test- Model No. Sibata LD-5R
Unit-under-Test Serial No. 0Z4545
Our Report Reference No. RPT-22-HVS-0026
Calibration Location: AM2, Located near the Leachate Treatment Works within the NENT Landfill

Standard Equipment Information			
Verification Equipment Type	Tisch TSP HVS	Tisch HVS Calibrator	
Standard Equipment Model No.	TE-5170X	TE-5025A	
Equipment serial no.	MFC 1106	3465	
Last Calibration Date	1-Dec-22	28-Jun-22	
Next Calibration Date	31-Jan-23	27-Jun-23	

Verification Test No.	Date	Time			K-Factor	Counts/ Minute (R)	Total Counts (TC)	TSP Sample ID No.	Dust Concentration (ug/m3), (C)
		Start-time	End-time	Elapsed Time (in min)	K-Factor (K=C/R)	x-axis			y axis
1	3/12/2022	194.73	198.08	201.00	0.00120	51	10251	R222043/1	61
2	3/12/2022	198.08	201.27	191.40	0.00102	34	6444	R222043/2	34
3	3/12/2022	201.27	204.35	184.80	0.00111	44	8193	R222043/3	49
4	4/12/2022	252.37	255.36	179.40	0.00122	55	9927	R222044/1	67
5	4/12/2022	255.38	258.38	180.00	0.00120	52	9360	R222044/2	62
6	4/12/2022	258.38	261.38	180.00	0.00112	63	11340	R222044/3	70
					0.00114				

K-Factor to be inputted in LD-5R (corrected 1 decimal point): 1.1

By Linear Regression of y on x:

slope, mh= 1.3204

intercept, ch= -8.3520

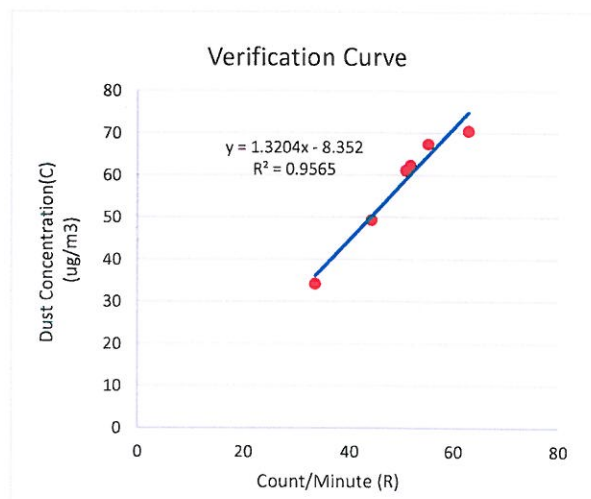
*Correlation Coefficient, R= 0.9780

Verification Test Result: Strong Correlation, Results were accepted.

* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.

Verified By: 
Technical Manager

Date: 05-12-2022



HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	NENTX	Site ID:	AM2	Date:	01-Dec-2022
Serial No:	1106	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Corrected Pressure (mm Hg):	759.7	Temperature (deg K):	302.1
-----------------------------	-------	----------------------	-------

Calibration Orifice

Model:	TE-5025A	Slope:	1.28946
Serial No.:	3465	Intercept:	-0.01207
Calibration Due Date:	28-Jun-23	Corr. Coeff:	0.99998

Calibration Data

Plate or Test #	In, H ₂ O (in)	Qa, X-Axis (m ³ /min)	I, CFM (chart)	IC, Y-Axis (corrected)
1	0.30	0.277	41.0	25.85
2	1.00	0.498	48.0	30.27
3	1.80	0.665	52.0	32.79
4	2.30	0.751	57.0	35.94
5	2.90	0.842	62.0	39.09

Sampler Calibration Relationship (Qa on x-axis, IC on y-axis)

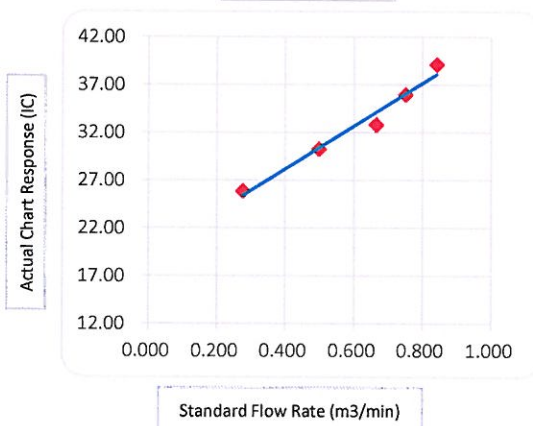
$m = 22.4910$ $b = 19.1407$ Corr. Coeff = 0.9855
 Sampler set point (SSP) 47 CFM

Calculations

$Q_{std} = 1/m[\sqrt{H_2O(P_a/P_{std})(T_{std}/T_a)}] - b$
 $IC = I[\sqrt{P_a/P_{std}}](T_{std}/T_a)$

Q_{std} = standard flow rate
 IC = corrected chart response
 I = actual chart response
 m = calibrator Q_{std} slope
 b = calibrator Q_{std} intercept
 T_a = actual temperature during calibration (deg K)
 P_a = actual pressure during calibration (mm Hg)
 $T_{std} = 298$ deg K
 $P_{std} = 760$ mm Hg
 For subsequent calculation of sampler flow:
 $(1.21 * m + b) / [\sqrt{298/T_a}(P_a/760)]$
 m = sampler slope
 b = sampler intercept
 I = chart response
 T_a = average temperature
 P_a = average pressure

Flow Rate Chart



Checked by: _____

Date: 01-Dec-2022

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	NENTX	Site ID:	AM3	Date:	01-Dec-2022
Serial No:	1856	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Corrected Pressure (mm Hg):	759.7	Temperature (deg K):	302.1
-----------------------------	-------	----------------------	-------

Calibration Orifice

Model:	TE-5025A	Slope:	1.28946
Serial No.:	3465	Intercept:	-0.01207
Calibration Due Date:	28-Jun-23	Corr. Coeff:	0.99998

Calibration Data

Plate or Test #	In, H ₂ O (in)	Q _a , X-Axis (m ³ /min)	I, CFM (chart)	IC, Y-Axis (corrected)
1	0.40	0.319	42.0	26.48
2	0.90	0.473	46.0	29.01
3	1.20	0.545	51.0	32.16
4	1.90	0.683	56.0	35.31
5	2.20	0.735	58.0	36.57

Sampler Calibration Relationship (Q_a on x-axis, IC on y-axis)

m = 25.0757 b = 18.0890 Corr. Coeff = 0.9913

Sampler set point (SSP) 49 CFM

Calculations

$$Q_{std} = 1/m[\sqrt{H_2O(P_a/P_{std})(T_{std}/T_a)} - b]$$

$$IC = I[\sqrt{P_a/P_{std}}(T_{std}/T_a)]$$

Q_{std} = standard flow rate

IC = corrected chart response

I = actual chart response

m = calibrator Q_{std} slope

b = calibrator Q_{std} intercept

T_a = actual temperature during calibration (deg K)

P_a = actual pressure during calibration (mm Hg)

T_{std} = 298 deg K

P_{std} = 760 mm Hg

For subsequent calculation of sampler flow:

$$(1.21 \cdot m + b) / [\sqrt{298/T_a} (P_a/760)]$$

m = sampler slope

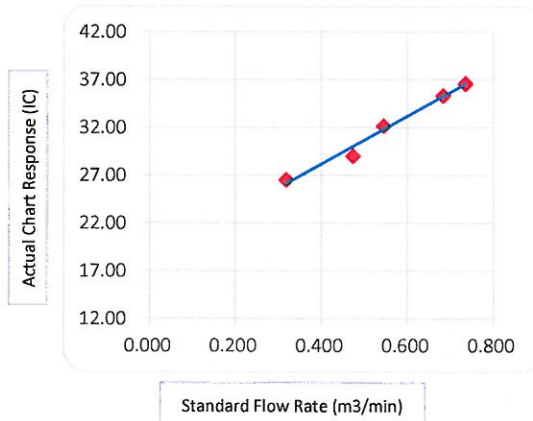
b = sampler intercept

I = chart response

T_a = average temperature

P_a = average pressure

Flow Rate Chart



Checked by:

Date: 01-Dec-2022

HIVOL SAMPLER CALIBRATION DATA SHEET (TSP)

Site Information

Location:	NENTX	Site ID:	AM1	Date:	01-Dec-2022
Serial No:	1105	Model:	TE-5170X	Operator:	Andy Li

Ambient Condition

Corrected Pressure (mm Hg):	759.7	Temperature (deg K):	302.1
-----------------------------	-------	----------------------	-------

Calibration Orifice

Model:	TE-5025A	Slope:	1.28946
Serial No.:	3465	Intercept:	-0.01207
Calibration Due Date:	28-Jun-23	Corr. Coeff	0.99998

Calibration Data

Plate or Test #	In, H ₂ O (in)	Qa, X-Axis (m ³ /min)	I, CFM (chart)	IC, Y-Axis (corrected)
1	0.60	0.388	45.0	28.37
2	1.10	0.522	51.0	32.16
3	1.50	0.608	54.0	34.05
4	1.90	0.683	57.0	35.94
5	2.40	0.767	60.0	37.83

Sampler Calibration Relationship (Qa on x-axis, IC on y-axis)

m = 24.8397 b = 18.9217 Corr. Coeff = 0.9988

Sampler set point (SSP) 49 CFM

Calculations

$$Q_{std} = 1/m[\sqrt{H_2O(P_a/P_{std})(T_{std}/T_a)} - b]$$

$$IC = I[\sqrt{P_a/P_{std}}(T_{std}/T_a)]$$

Q_{std} = standard flow rate

IC = corrected chart response

I = actual chart response

m = calibrator Q_{std} slope

b = calibrator Q_{std} intercept

T_a = actual temperature during calibration (deg K)

P_a = actual pressure during calibration (mm Hg)

T_{std} = 298 deg K

P_{std} = 760 mm Hg

For subsequent calculation of sampler flow:

$$(1.21 \cdot m + b) / [\sqrt{298/T_a} (P_a/760)]$$

m = sampler slope

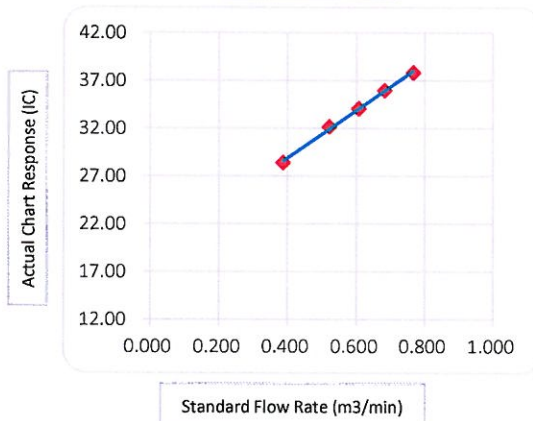
b = sampler intercept

I = chart response

T_a = average temperature

P_a = average pressure

Flow Rate Chart



Checked by:

Date: 01-Dec-2022

Certificate of Calibration

Calibration Certification Information

Cal. Date: June 28, 2022 Rootsmeter S/N: 438320 Ta: 296 °K
 Operator: Jim Tisch Pa: 755.1 mm Hg
 Calibration Model #: TE-5025A Calibrator S/N: 3465

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4290	3.2	2.00
2	3	4	1	1.0130	6.4	4.00
3	5	6	1	0.9050	7.9	5.00
4	7	8	1	0.8590	8.8	5.50
5	9	10	1	0.7110	12.8	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)}$ (y-axis)
0.9961	0.6970	1.4144	0.9958	0.6968	0.8854
0.9918	0.9791	2.0003	0.9915	0.9788	1.2522
0.9899	1.0938	2.2364	0.9895	1.0934	1.4000
0.9887	1.1509	2.3456	0.9883	1.1506	1.4683
0.9834	1.3831	2.8289	0.9830	1.3826	1.7708
QSTD	m=	2.05924	QA	m=	1.28946
	b=	-0.01929		b=	-0.01207
	r=	0.99998		r=	0.99998

Calculations

Vstd=	$\Delta Vol((Pa-\Delta P)/Pstd)(Tstd/Ta)$	Va=	$\Delta Vol((Pa-\Delta P)/Pa)$
Qstd=	Vstd/ΔTime	Qa=	Va/ΔTime
For subsequent flow rate calculations:			
Qstd= $1/m \left(\left(\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)} \right) - b \right)$		Qa= $1/m \left(\left(\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)} \right) - b \right)$	

Standard Conditions

Tstd:	298.15 °K
Pstd:	760 mm Hg
Key	
ΔH: calibrator manometer reading (in H2O)	
ΔP: rootsmeter manometer reading (mm Hg)	
Ta: actual absolute temperature (°K)	
Pa: actual barometric pressure (mm Hg)	
b: intercept	
m: slope	

RECALIBRATION

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

Certificate of Calibration

for

Description: Sound Level Meter
Manufacturer: NTi Audio
Type No.: XL2 (Serial No.: A2A-09696-E0)
Microphone: ACO 7052 (Serial No.: 68840)
Preamplifier: NTi Audio M2211 MA220 (Serial No.: 5287)

Submitted by:

Customer: Acumen Environmental Engineering and Technologies Co. Ltd.
Address: Unit D, 12/F, Ford Glory Plaza,
Nos. 37-39 Wing Hong Street,
Cheung Sha Wan, Kowloon, Hong Kong

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

- ☒ Within
☐ Outside

the allowable tolerance.

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

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 24 March 2022

Date of calibration: 26 March 2022

Calibrated by: 
Calibration Technician

Certified by: 
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: 26 March 2022



Certificate No.: APJ21-161-CC001

Page 1 of 4

1. Calibration Precaution:

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

2. Calibration Conditions:

Air Temperature: 22.6 °C
Air Pressure: 1006 hPa
Relative Humidity: 74.5 %

3. Calibration Equipment:

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV200041	HOKLAS

4. Calibration Results

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)				Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting		Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast		94	1000	94.1	±0.4

Linearity

Setting of Unit-under-test (UUT)				Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting		Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast		94	1000	94.1	Ref
				104		104.1	±0.3
				114		114.1	±0.3

Time Weighting

Setting of Unit-under-test (UUT)				Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting		Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast		94	1000	94.1	Ref
		Slow				94.1	±0.3

Certificate No.: APJ21-161-CC001



Page 2 of 4

Frequency Response

Linear Response

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dB	SPL	94	31.5	94.0	±2.0
				63	94.1	±1.5
				125	94.1	±1.5
				250	94.0	±1.4
				500	94.1	±1.4
				1000	94.1	Ref
				2000	94.3	±1.6
				4000	94.9	±1.6
				8000	93.6	+2.1; -3.1

A-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA	SPL	94	31.5	54.7	-39.4±2.0
				63	67.9	-26.2±1.5
				125	78.0	-16.1±1.5
				250	85.4	-8.6±1.4
				500	90.9	-3.2±1.4
				1000	94.1	Ref
				2000	95.5	+1.2±1.6
				4000	95.9	+1.0±1.6
				8000	92.5	-1.1+2.1; -3.1

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBC	SPL	94	31.5	91.0	-3.0±2.0
				63	93.2	-0.8±1.5
				125	93.9	-0.2±1.5
				250	94.0	-0.0±1.4
				500	94.1	-0.0±1.4
				1000	94.1	Ref
				2000	94.1	-0.2±1.6
				4000	94.1	-0.8±1.6
				8000	90.6	-3.0+2.1; -3.1

5. Calibration Results Applied

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

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.05
	63 Hz	± 0.05
	125 Hz	± 0.05
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
	8000 Hz	± 0.10
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:

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

Certificate No.: APJ21-161-CC001



Page 4 of 4



Calibration Certificate

Certificate No. 210252

Page 1 of 2 Pages

Customer : Acuity Sustainability Consulting Limited

Address : Unit E, 12/F, Ford Glory Plaza, No. 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, H.K.

Order No. : Q24081

Date of receipt : 31-Oct-22

Item Tested

Description : Flow Probe

Manufacturer : Global Water

Model : FP111

I.D. : --

Serial No. : 22K100859

Test Conditions

Date of Test : 7-Nov-22

Ambient Temperature : 23°C

Supply Voltage : --

Relative Humidity : 78%

Test Specifications

Calibration check.

Ref. Document/Procedure : V12

Test Results

All results were within the manufacturer's specification.

The results are shown in the attached page(s).

Main Test equipment used:

<u>Equipment No.</u>	<u>Description</u>	<u>Cert. No.</u>	<u>Traceable to</u>
S179	Std. Tape	201868	NIM-PRC
S136A	Stop Watch	201878	SCL-HKSAR

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

The test equipment used for calibration are traceable to International System of Units (SI), or by reference to a natural constant.
The test results apply to the above Unit-Under-Test only

Calibrated by : 
Kin Wong

Approved by : 
Alan Chu

This Certificate is issued by:

Hong Kong Calibration Ltd.

Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong.

Tel: 2425 8801 Fax: 2425 8646

Date: 7-Nov-22



Calibration Certificate

Certificate No. 210252

Page 2 of 2 Pages

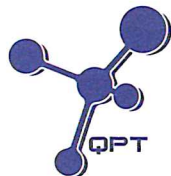
Results :

Applied Value (m/s)	UUT Reading (m/s)	Mfr's Spec.
0.96	1.0	± 0.1 m/s

Remarks : 1. UUT : Unit-Under-Test

2. Uncertainty : ± 1 %, for a confidence probability of not less than 95%.

----- END -----



專業化驗有限公司

QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong

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

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

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB100037
Date of Issue : 12 October 2022
Page No. : 1 of 2

PART A - CUSTOMER INFORMATION

Acuity Sustainability Consulting Limited

Unit E, 12/F, Ford Glory Plaza 37-39 Wing Hong Street, Cheung Sha Wan
Kowloon (HK) Hong Kong

PART B - SAMPLE INFORMATION

Name of Equipment : HORIBA U-53
Manufacturer : HORIBA
Serial Number : PORBNFNT
Date of Received : 10 October 2022
Date of Calibration : 12 October 2022
Date of Next Calibration : 11 January 2023
Request No. : D-BB100037

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

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

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.12	0.12	Satisfactory
7.42	7.61	0.19	Satisfactory
10.01	10.19	0.18	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
12	12.20	0.20	Satisfactory
26	25.36	-0.64	Satisfactory
37	35.44	-1.56	Satisfactory

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


(3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.98	-0.20	Satisfactory
20	20.23	1.15	Satisfactory
30	31.20	4.00	Satisfactory

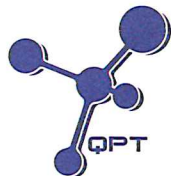
Tolerance of Salinity should be less than ± 10.0 (%)

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED
SIGNATORY:


LEE Chun-ning
Assistant Manager (Chemical Testing)

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專業化驗有限公司

QUALITY PRO TEST-CONSULT LIMITED

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB100037

Date of Issue : 12 October 2022

Page No. : 2 of 2

(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
7.87	7.45	-0.42	Satisfactory
4.09	4.05	-0.04	Satisfactory
1.26	1.00	-0.26	Satisfactory
0.01	0.06	0.05	Satisfactory

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

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	Result
0	0.00	--	Satisfactory
10	9.34	-6.6	Satisfactory
20	19.3	-3.5	Satisfactory
100	101	1.0	Satisfactory
800	780	-2.5	Satisfactory

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

Remark(s)

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

--- END OF REPORT ---

Appendix E

1-hour TSP Concentration ($\mu\text{g}/\text{m}^3$) at Location AM1

4-hour TSP Concentration (µg/m³) at Location A1										
Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average	Action Level	Limit Level
					µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
5/12/2022	Fine	14:21	15:21	16:21	45	51	44	47	285	500
10/12/2022	Fine	14:09	15:09	16:09	49	51	48	49		
16/12/2022	Fine	13:17	14:17	15:17	60	61	59	60		
22/12/2022	Fine	13:56	14:56	15:56	52	55	54	54		
28/12/2022	Fine	14:15	15:15	16:15	61	65	58	61		
Average					54					
Max.					65					
Min.					44					

1-hour TSP Concentration ($\mu\text{g}/\text{m}^3$) at Location AM2

Air Quality Concentration (µg/m³) at Location A12										
Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average	Action Level	Limit Level
					µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
5/12/2022	Fine	14:13	15:13	16:13	60	57	55	57	279	500
10/12/2022	Fine	14:30	15:30	16:30	51	55	50	52		
16/12/2022	Fine	13:06	14:06	15:06	47	45	47	46		
22/12/2022	Fine	13:43	14:43	15:43	61	59	60	60		
28/12/2022	Fine	14:00	15:00	16:00	56	60	53	56		
Average					54					
Max.					61					
Min.					45					

1-hour TSP Concentration ($\mu\text{g}/\text{m}^3$) at Location AM3

Area 1: Concentration (µg/m³) at Location A										
Date	Weather	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)	Average	Action Level	Limit Level
					µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
5/12/2022	Fine	14:37	15:37	16:37	65	67	64	65	285	500
10/12/2022	Fine	14:19	15:19	16:19	61	65	59	62		
16/12/2022	Fine	13:30	14:30	15:30	61	57	60	59		
22/12/2022	Fine	14:27	15:27	16:27	66	67	64	66		
28/12/2022	Fine	14:24	15:24	16:24	64	68	60	64		
Average					63					
Max.					68					
Min.					57					

The Summary of TSP 24-hour Concentration (µg/m³) at Location AM1

Start Date	Avg Air Temp	Avg Atmospheric Pressure	Weather Condition	Elapse Time		Sampling Time	Averaged Flow Rate	Averaged Flow Rate	Total Flow Volume	Filter Weight (g)		Particulate weight	Concentration	Action Level	Limit Level
	(°C)	(hPa)		Initial	Final	(minutes)	(cfm)	(m³/min)	(m³)	Initial	Final	(g)	(µg/m³)	(µg/m³)	(µg/m3)
5/12/2022	17.5	1019.8	Fine	229.73	253.71	1439	31	0.88	1266	2.7453	2.8570	0.1117	88	164	260
10/12/2022	17.6	1015.9	Fine	253.71	277.74	1442	34	0.96	1384	2.7511	2.8885	0.1374	99		
16/12/2022	17.8	1019.1	Fine	277.74	301.79	1443	31	0.88	1270	2.7852	2.9063	0.1211	95		
22/12/2022	20.8	1018.2	Fine	301.79	325.80	1441	31	0.87	1253	2.7617	2.9368	0.1751	140		
28/12/2022	18.0	1023.0	Fine	325.80	349.81	1441	37	1.05	1513	2.7762	2.9988	0.2226	147		
													Average	114	
													Min	88	
													Max	147	

The Summary of 24-hour TSP Concentration (µg/m³) at Location AM2

Start Date	Avg Air Temp	Avg Atmospheric Pressure	Weather Condition	Elapse Time		Sampling Time	Averaged Flow Rate	Flow Rate	Total Flow Volume	Filter Weight (g)		Particulate weight	Concentration	Action Level	Limit Level
	(°C)	(hPa)		Initial	Final	(minutes)	(cfm)	(m³/min)	(m³)	Initial	Final	(g)	(µg/m³)	(µg/m³)	(µg/m3)
5/12/2022	17.5	1019.8	Fine	122.54	146.61	1444	32	0.92	1329	2.7702	2.8268	0.0566	43	152	260
10/12/2022	17.6	1015.9	Fine	146.61	170.64	1442	38	1.09	1572	2.7577	2.8622	0.1045	66		
16/12/2022	17.8	1019.1	Fine	170.64	194.61	1438	37	1.05	1510	2.7905	2.8664	0.0759	50		
22/12/2022	20.8	1018.0	Fine	204.35	228.37	1441	39	1.11	1600	2.7558	2.8701	0.1143	71		
28/12/2022	18.0	1023.0	Fine	228.37	252.37	1440	40	1.12	1613	2.7763	2.9252	0.1489	92		
													Average	65	
													Min	43	
													Max	92	

The Summary of 24-hour TSP Concentration (µg/m³) at Location AM3

Start Date	Avg Air Temp	Avg Atmospheric Pressure	Weather Condition	Elapse Time		Sampling Time	Averaged Flow Rate	Flow Rate	Total Flow Volume	Filter Weight (g)		Particulate weight	Concentration	Action Level	Limit Level
	(°C)	(hPa)		Initial	Final	(minutes)	(cfm)	(m³/min)	(m³)	Initial	Final	(g)	(µg/m³)	(µg/m³)	(µg/m3)
5/12/2022	17.5	1019.8	Fine	981.90	1005.92	1441	36	1.03	1484	2.7577	2.9441	0.1864	126	163	260
10/12/2022	17.6	1015.9	Fine	1005.92	1029.97	1443	39	1.10	1587	2.7592	2.9773	0.2181	137		
16/12/2022	17.8	1019.1	Fine	1029.97	1054.00	1442	41	1.15	1658	2.7965	3.0095	0.2130	128		
22/12/2022	20.8	1018.2	Fine	1054.00	1078.00	1440	44	1.24	1786	2.7949	3.0681	0.2732	153		
28/12/2022	18.0	1023.0	Fine	1078.00	1102.04	1442	42	1.19	1716	2.7796	3.0485	0.2689	157		
													Average	140	
													Min	126	
													Max	157	

Impact Phase Construction Noise Monitoring Data at Location NM1

Date	Weather	Wind Speed	Start Time	End Time	L_{eq}	L_{10}	L_{90}
		m/s			dB(A)	dB(A)	dB(A)
6/12/2022	Fine	1.7	9:47	10:17	56.1	57.8	53.2
16/12/2022	Fine	1.2	15:30	16:00	51.1	53.4	46.1
22/12/2022	Fine	1.1	13:00	13:30	52.4	56.5	36.9
28/12/2022	Fine	2.1	16:00	16:30	53.3	55	49.9
Average					53.6		
Baseline Level					55.4		
Action Level					When one valid documented complaint is received		
Limit Level					75		

Impact Phase Construction Noise Monitoring Data at Location NM2

Date	Weather	Wind Speed	Start Time	End Time	L_{eq}	L_{10}	L_{90}
		m/s			dB(A)	dB(A)	dB(A)
6/12/2022	Fine	1.1	13:19	13:49	51.2	53.2	49.1
16/12/2022	Fine	1.6	10:41	11:11	49.2	53.3	44.3
22/12/2022	Fine	1.4	11:20	11:50	49.4	52.6	34.2
28/12/2022	Fine	1.7	9:30	10:00	48.9	49.2	47.8
Average					49.8		
Baseline Level					54.5		
Action Level					When one valid documented complaint is received		
Limit Level					75		

Monitoring Location: WM1

Date	Time	Weather	Water Depth (m)	Water Flow (L/s)	Water Temperature (°C)	DO (mg/L)			pH			Turbidity (NTU)			SS (mg/L)		
						Value	Action Level	Limit Level	Value	Action Level	Limit Level	Value	Action Level	Limit Level	Value	Action Level	Limit Level
5-Dec-22	12:37	Fine	0.02	-	14.9	10.8	7.4	4.0	7.4	7.7	7.8	8.6	9.2	9.5	3.4	9.7	11.4

Monitoring Location: WM2

Date	Time	Weather	Water Depth (m)	Water Flow (L/s)	Water Temperature (°C)	DO (mg/L)			pH			Turbidity (NTU)			SS (mg/L)		
						Value	Action Level	Limit Level	Value	Action Level	Limit Level	Value	Action Level	Limit Level	Value	Action Level	Limit Level
5-Dec-22	11:11	Fine	0.13	9.9	19.4	6.5	5.0	4.0	7.5	7.6	7.7	23.3	108.3	108.9	25.6	94.5	94.7

Remarks
1. Sample will be grabbed on surface when the water depth is less than 1m.



CERTIFICATE OF ANALYSIS

Client	: ACUMEN LABORATORY AND TESTING LIMITED	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 9
Contact	: MR HUNTINGTON HUI	Contact	: Richard Fung	Work Order	: HK2248482
Address	: UNIT D, 12/F, FORD GLORY PLAZA, NOS.37-39 WING HONG STREET, CHEUNG SHA WAN, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: htthui@acumen-env.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: +852 2333 6823	Telephone	: +852 2610 1044		
Facsimile	: +852 2333 1316	Facsimile	: +852 2610 2021		
Project	: NENTX			Date Samples Received	: 05-Dec-2022
Order number	: ---	Quote number	: HKE/2751/2022_V2	Issue Date	: 19-Dec-2022
C-O-C number	: ---			No. of samples received	: 2
Site	:			No. of samples analysed	: 2

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This document has been signed by those names that appear on this report and are the authorised signatories.

<u>Signatories</u>	<u>Position</u>	<u>Authorised results for</u>
 Fung Lim Chee, Richard	Managing Director	Inorganics, Kwai Tsing
 Fung Lim Chee, Richard	Managing Director	Metals_ENV, Kwai Tsing
 Ng Sin Kou, May	Laboratory Manager	Microbiology_ENV, Kwai Tsing

ALS Technichem (HK) Pty Ltd
Part of the **ALS Laboratory Group**

11/F., Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, N.T., Hong Kong
Tel: +852 2610 1044 Fax: +852 2610 2021 www.alsglobal.com



General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 05-Dec-2022 to 16-Dec-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2248482

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Microbiological sample(s) was/ were collected in 125mL sterile plastic bottles containing sodium thiosulfate. Sample(s) arrived at the laboratory at 18:25.

NOT DETECTED denotes result(s) is (are) less than the Limit of Report (LOR).

ED037 - Titration end point for Total Alkalinity is pH 4.5 while end point for Total Alkalinity <20mg/L is pH 4.2.

Water sample(s) digested by in-house method E-3005 prior to the determination of total metals. The in-house method is developed based on USEPA method 3005.

EA002 - pH value is reported as at 25°C. Calibration range of pH value is 4.0 - 10.0. Results exceeding this range is for reference only.

EA025 - The accredited LOR of Total Suspended Solids is 0.5mg/L. Results below this LOR are for reference only.



Analytical Results

Sub-Matrix: WATER

Sample ID

Sampling date / time

				WM1	WM2	---	---	---
				05-Dec-2022	05-Dec-2022	---	---	---
Compound	CAS Number	LOR	Unit	HK2248482-001	HK2248482-002	-----	-----	-----

EA/ED: Physical and Aggregate Properties

EA002: pH Value	----	0.1	pH Unit	6.7	6.8	---	---	---
EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	58	114	---	---	---
EA025: Suspended Solids (SS)	----	0.1	mg/L	3.4	25.6	---	---	---
ED037: Total Alkalinity as CaCO3	----	1	mg/L	16	35	---	---	---

ED/EK: Inorganic Nonmetallic Parameters

ED041K: Sulphate as SO4 - Turbidimetric	----	1	mg/L	3	8	---	---	---
ED045K: Chloride	16887-00-6	0.5	mg/L	6	6	---	---	---
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	0.02	0.18	---	---	---
EK058A: Nitrate as N	14797-55-8	0.01	mg/L	0.01	0.10	---	---	---
EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.2	0.4	---	---	---
EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.01	<0.01	---	---	---
EK086: Sulphite as SO3 2-	14265-45-3	2	mg/L	<2	<2	---	---	---

EP: Aggregate Organics

EP005: Total Organic Carbon	----	1	mg/L	3	3	---	---	---
EP020: Oil & Grease	----	5	mg/L	<5	<5	---	---	---
EP026C: Chemical Oxygen Demand	----	5	mg/L	<5	<5	---	---	---
EP030: Biochemical Oxygen Demand	----	2	mg/L	<2	<2	---	---	---

EG: Metals and Major Cations - Total

EG020: Cadmium	7440-43-9	0.2	µg/L	<0.2	<0.2	---	---	---
EG020: Copper	7440-50-8	1	µg/L	<1	2	---	---	---
EG020: Lead	7439-92-1	1	µg/L	<1	2	---	---	---
EG020: Manganese	7439-96-5	1	µg/L	42	2150	---	---	---
EG020: Nickel	7440-02-0	1	µg/L	<1	<1	---	---	---
EG020: Zinc	7440-66-6	10	µg/L	<10	21	---	---	---
EG032: Calcium	7440-70-2	50	µg/L	3180	12100	---	---	---
EG032: Iron	7439-89-6	10	µg/L	630	4950	---	---	---
EG032: Magnesium	7439-95-4	50	µg/L	410	1140	---	---	---
EG032: Potassium	7440-09-7	50	µg/L	290	2310	---	---	---
EG032: Sodium	7440-23-5	50	µg/L	8540	6710	---	---	---



Sub-Matrix: WATER				Sample ID	WM1	WM2	----	----	----
				Sampling date / time	05-Dec-2022	05-Dec-2022	----	----	----
Compound	CAS Number	LOR	Unit		HK2248482-001	HK2248482-002	-----	-----	-----
EM: Microbiological Testing									
EM002: E. coli	----	1	CFU/100mL		NOT DETECTED	120	----	----	----
EM003: Total Coliforms	----	1	CFU/100mL		NOT DETECTED	320	----	----	----



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4750420)								
HK2248491-001	Anonymous	EA002: pH Value	----	0.1	pH Unit	8.6	8.6	0.0
HK2248541-001	Anonymous	EA002: pH Value	----	0.1	pH Unit	8.2	8.1	1.5
EA/ED: Physical and Aggregate Properties (QC Lot: 4750426)								
HK2248482-001	WM1	EA010: Electrical Conductivity @ 25°C	----	1	µS/cm	58	59	1.7
EA/ED: Physical and Aggregate Properties (QC Lot: 4750427)								
HK2248482-002	WM2	ED037: Total Alkalinity as CaCO3	----	1	mg/L	35	34	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 4761918)								
HK2248482-002	WM2	EA025: Suspended Solids (SS)	----	0.5	mg/L	25.6	26.0	1.7
HK2248542-001	Anonymous	EA025: Suspended Solids (SS)	----	0.5	mg/L	<1.0	<1.0	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4750681)								
HK2248482-001	WM1	EK086: Sulphite as SO3 2-	14265-45-3	2	mg/L	<2	<2	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4752185)								
HK2244390-045	Anonymous	EK071K: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	0.25	0.25	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4755542)								
HK2248402-001	Anonymous	ED045K: Chloride	16887-00-6	1	mg/L	14	14	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4755543)								
HK2248672-001	Anonymous	ED041K: Sulphate as SO4 - Turbidimetric	----	1	mg/L	<1	<1	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4758623)								
HK2248482-002	WM2	EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.4	0.4	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4767856)								
HK2249232-001	Anonymous	EK055K: Ammonia as N	7664-41-7	0.01	mg/L	26.8	24.3	10.0
EP: Aggregate Organics (QC Lot: 4766370)								
HK2244301-157	Anonymous	EP005: Total Organic Carbon	----	1	mg/L	11	10	0.0
EP: Aggregate Organics (QC Lot: 4767756)								
HK2248376-001	Anonymous	EP026C: Chemical Oxygen Demand	----	5	mg/L	<5	<5	0.0
EG: Metals and Major Cations - Total (QC Lot: 4752298)								
HK2248482-002	WM2	EG032: Iron	7439-89-6	10	µg/L	4950	4830	2.5
		EG032: Calcium	7440-70-2	50	µg/L	12100	12000	0.6
		EG032: Magnesium	7439-95-4	50	µg/L	1140	1120	1.8
		EG032: Potassium	7440-09-7	50	µg/L	2310	2290	0.9

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report								
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)			
		Method: Compound	CAS Number	LOR		Unit	Result		LCS	DCS	Low	High	Value
EA/ED: Physical and Aggregate Properties (QC Lot: 4750426)													
EA010: Electrical Conductivity @ 25°C		----	1	µS/cm	<1	146.9 µS/cm	100	----	93.5	106	----	----	
					<1	1412 µS/cm	98.0	----	94.3	105	----	----	
EA/ED: Physical and Aggregate Properties (QC Lot: 4750427)													
ED037: Total Alkalinity as CaCO3		----	1	mg/L	<1	50 mg/L	102	----	95.0	105	----	----	
EA/ED: Physical and Aggregate Properties (QC Lot: 4761918)													
EA025: Suspended Solids (SS)		----	0.5	mg/L	<0.5	10 mg/L	92.0	----	85.1	117	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4750681)													
EK086: Sulphite as SO3 2-		14265-45-3	2	mg/L	<2	----	----	----	----	----	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4752185)													
EK071K: Reactive Phosphorus as P		14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	99.3	----	93.5	104	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4755542)													
ED045K: Chloride		16887-00-6	1	mg/L	<1	10 mg/L	103	----	91.1	111	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4755543)													
ED041K: Sulphate as SO4 - Turbidimetric		----	1	mg/L	<1	5 mg/L	98.2	----	89.8	108	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4758623)													



Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
Method: Compound	CAS Number	LOR	Unit	Result			LCS	DCS	Low	High	Value
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4758623) - Continued											
EK061A: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	0.5 mg/L	106	----	89.0	120	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4767856)											
EK055K: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	99.3	----	91.0	108	----	----
EP: Aggregate Organics (QC Lot: 4753981)											
EP030: Biochemical Oxygen Demand	----	----	mg/L	----	198 mg/L	110	----	78.6	118	----	----
EP: Aggregate Organics (QC Lot: 4766370)											
EP005: Total Organic Carbon	----	1	mg/L	<1	5 mg/L	106	----	83.4	124	----	----
				<1	100 mg/L	96.1	----	87.8	119	----	----
EP: Aggregate Organics (QC Lot: 4767756)											
EP026C: Chemical Oxygen Demand	----	----	mg/L	----	25 mg/L	98.8	----	92.0	108	----	----
				----	250 mg/L	97.7	----	92.3	106	----	----
EP: Aggregate Organics (QC Lot: 4770850)											
EP020: Oil & Grease	----	2	mg/L	<2	20 mg/L	102	----	81.3	107	----	----
EG: Metals and Major Cations - Total (QC Lot: 4752298)											
EG032: Calcium	7440-70-2	50	µg/L	<50	2000 µg/L	105	----	85.0	115	----	----
EG032: Iron	7439-89-6	10	µg/L	<10	2000 µg/L	104	----	85.0	115	----	----
EG032: Magnesium	7439-95-4	50	µg/L	<50	2000 µg/L	106	----	85.0	115	----	----
EG032: Potassium	7440-09-7	50	µg/L	<50	2000 µg/L	108	----	85.0	115	----	----
EG032: Sodium	7440-23-5	50	µg/L	<50	2000 µg/L	106	----	85.0	115	----	----
EG: Metals and Major Cations - Total (QC Lot: 4752299)											
EG020: Cadmium	7440-43-9	0.2	µg/L	<0.2	5 µg/L	102	----	85.0	109	----	----
EG020: Copper	7440-50-8	1	µg/L	<1	50 µg/L	104	----	90.0	111	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	50 µg/L	99.8	----	89.0	111	----	----
EG020: Manganese	7439-96-5	1	µg/L	<1	50 µg/L	102	----	85.0	115	----	----
EG020: Nickel	7440-02-0	1	µg/L	<1	50 µg/L	101	----	87.0	110	----	----
EG020: Zinc	7440-66-6	10	µg/L	<10	50 µg/L	103	----	86.0	114	----	----



Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

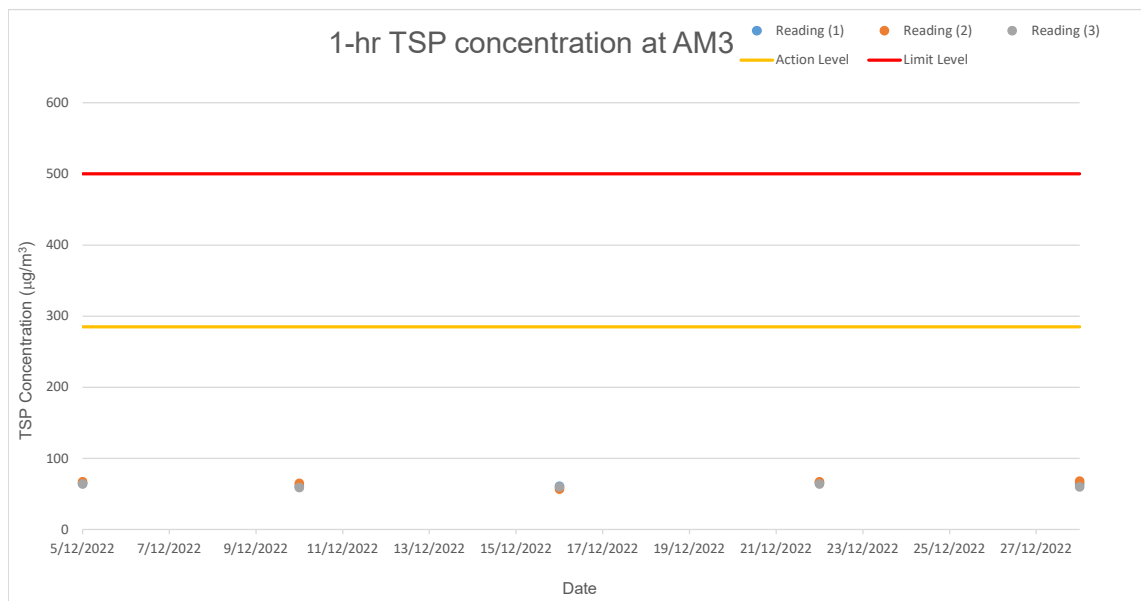
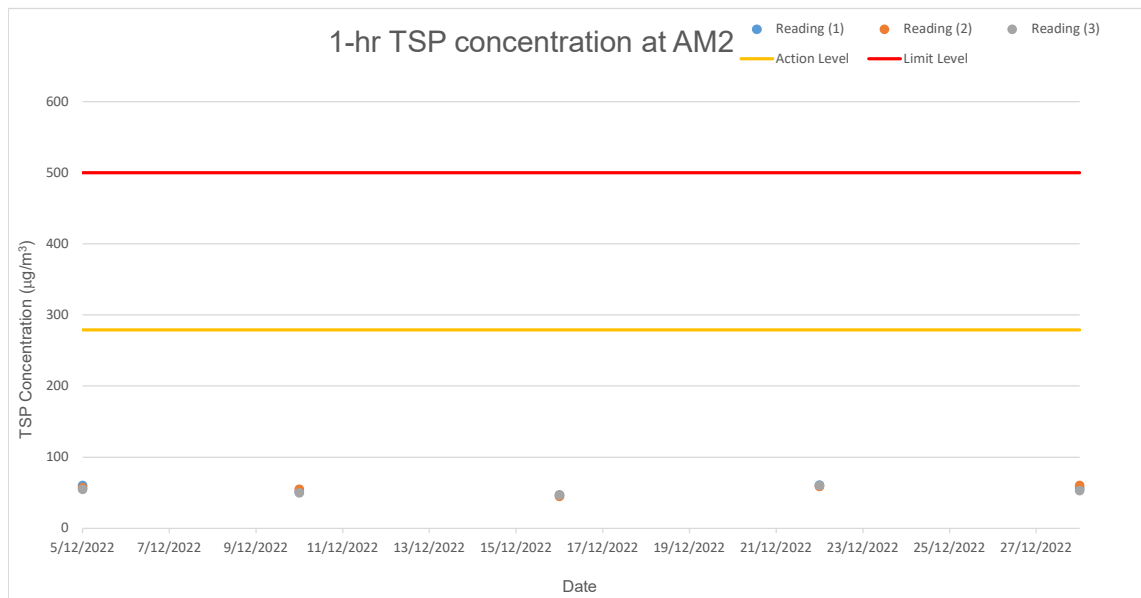
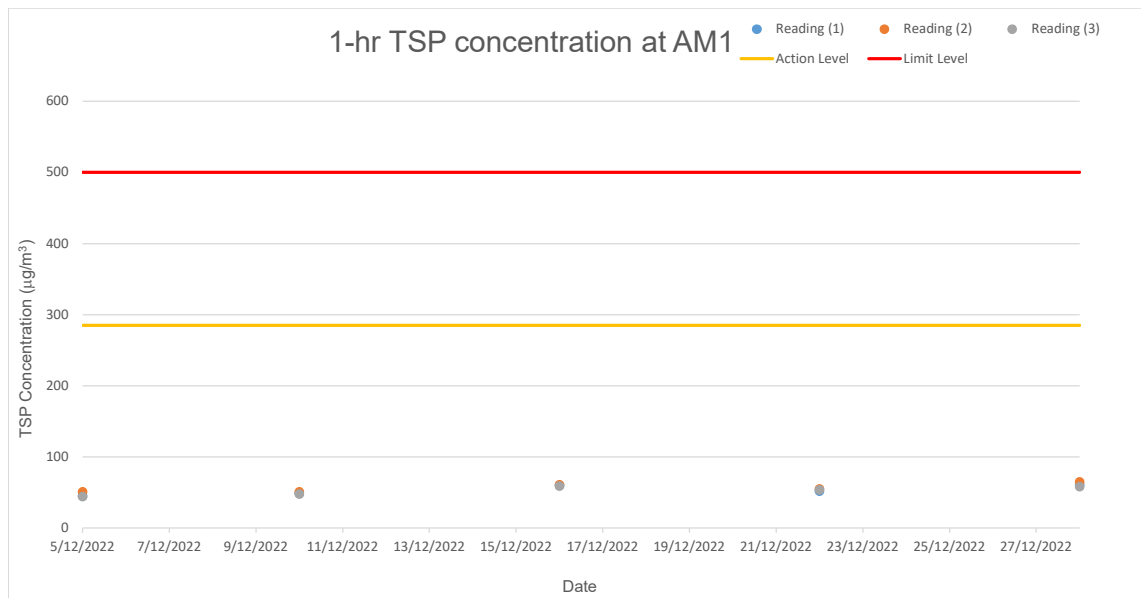
Matrix: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report							
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)		
Laboratory sample ID	Sample ID	Method: Compound	CAS Number			MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4752185)											
HK2244326-042	Anonymous	EK071K: Reactive Phosphorus as P	14265-44-2	5 mg/L	97.3	----	75.0	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4755542)											
HK2248402-001	Anonymous	ED045K: Chloride	16887-00-6	5 mg/L	96.3	----	75.0	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4755543)											
HK2248672-001	Anonymous	ED041K: Sulphate as SO4 - Turbidimetric	----	5 mg/L	91.7	----	75.0	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4758623)											
HK2248482-002	WM2	EK061A: Total Kjeldahl Nitrogen as N	----	0.5 mg/L	109	----	75.0	125	----	----	
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 4767856)											
HK2249232-001	Anonymous	EK055K: Ammonia as N	7664-41-7	50 mg/L	91.0	----	75.0	125	----	----	
EP: Aggregate Organics (QC Lot: 4766370)											
HK2244301-157	Anonymous	EP005: Total Organic Carbon	----	25 mg/L	102	----	75.0	125	----	----	
EP: Aggregate Organics (QC Lot: 4767756)											
HK2248376-001	Anonymous	EP026C: Chemical Oxygen Demand	----	10 mg/L	109	----	75.0	125	----	----	
EG: Metals and Major Cations - Total (QC Lot: 4752298)											
HK2248482-001	WM1	EG032: Calcium	7440-70-2	2000 µg/L	104	----	75.0	125	----	----	
		EG032: Iron	7439-89-6	2000 µg/L	106	----	75.0	125	----	----	
		EG032: Magnesium	7439-95-4	2000 µg/L	106	----	75.0	125	----	----	
		EG032: Potassium	7440-09-7	2000 µg/L	108	----	75.0	125	----	----	
		EG032: Sodium	7440-23-5	2000 µg/L	# Not Determined	----	75.0	125	----	----	
EG: Metals and Major Cations - Total (QC Lot: 4752299)											
HK2248482-001	WM1	EG020: Cadmium	7440-43-9	5 µg/L	110	----	75.0	125	----	----	
		EG020: Copper	7440-50-8	50 µg/L	105	----	75.0	125	----	----	
		EG020: Lead	7439-92-1	50 µg/L	102	----	75.0	125	----	----	
		EG020: Manganese	7439-96-5	50 µg/L	107	----	75.0	125	----	----	



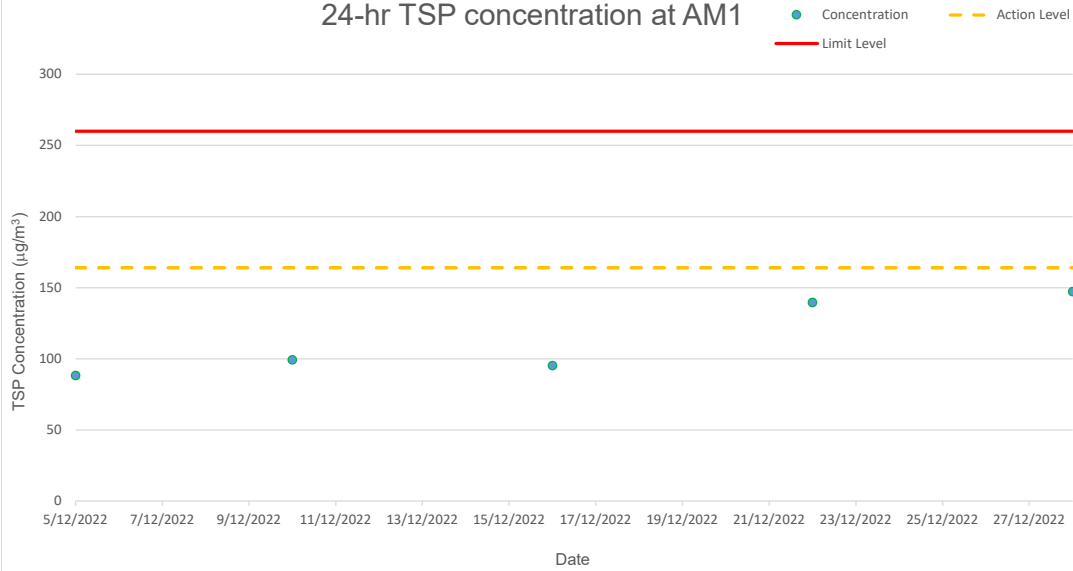
Matrix: WATER

Matrix: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
Laboratory sample ID	Sample ID	Method: Compound	CAS Number							
EG: Metals and Major Cations - Total (QC Lot: 4752299) - Continued										
HK2248482-001	WM1	EG020: Nickel	7440-02-0	50 µg/L	103	----	75.0	125	----	----
		EG020: Zinc	7440-66-6	50 µg/L	104	----	75.0	125	----	----

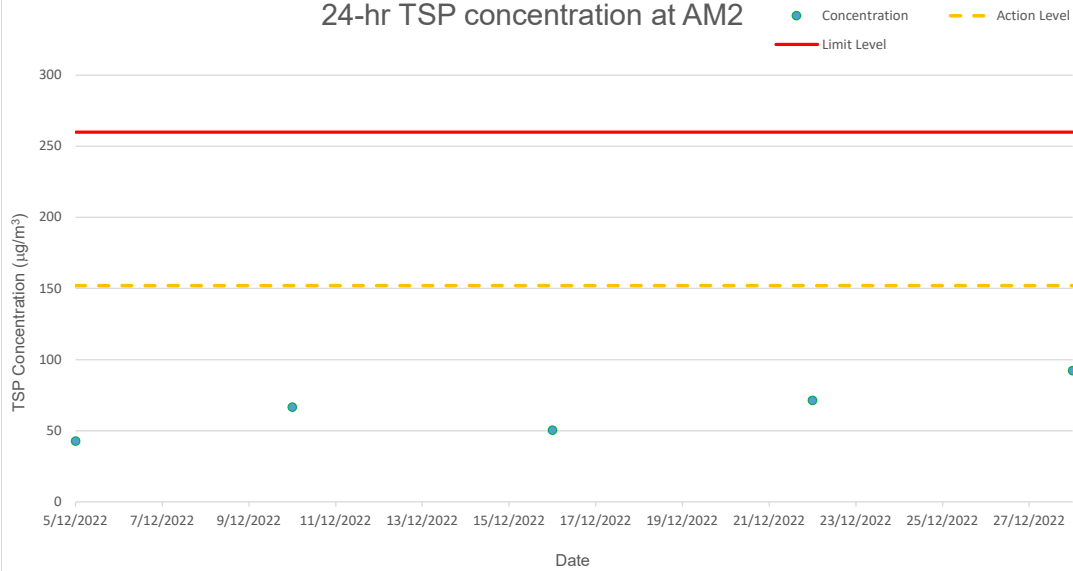
Appendix F



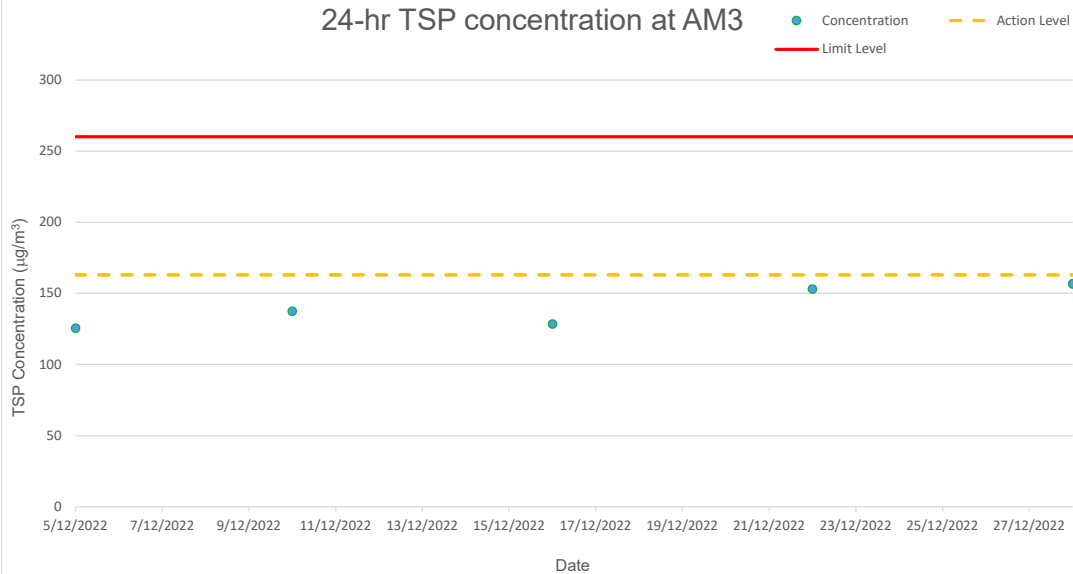
24-hr TSP concentration at AM1

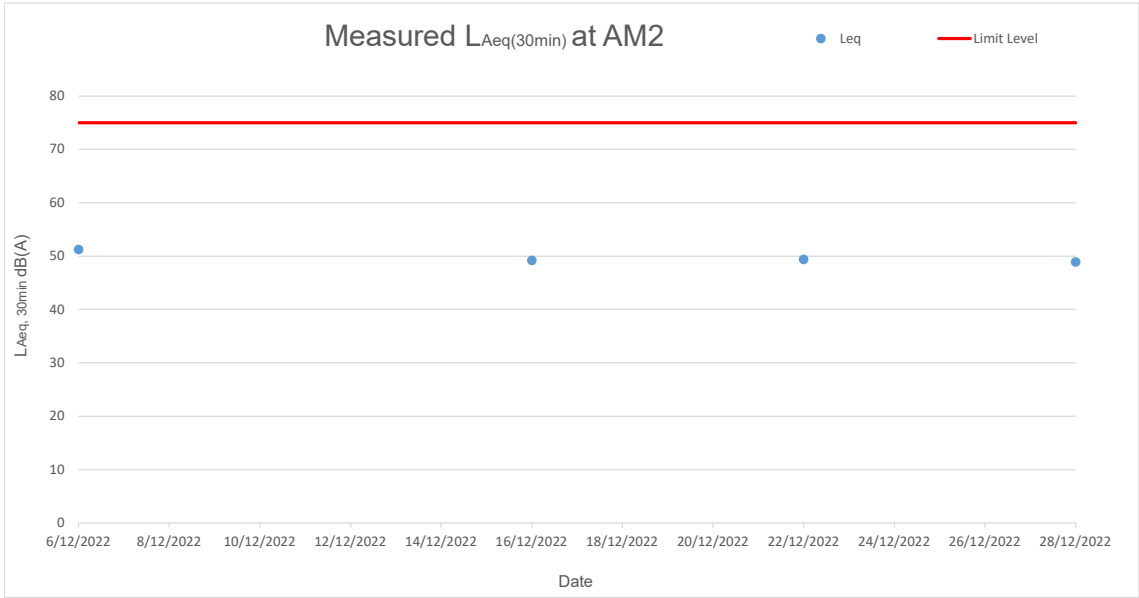
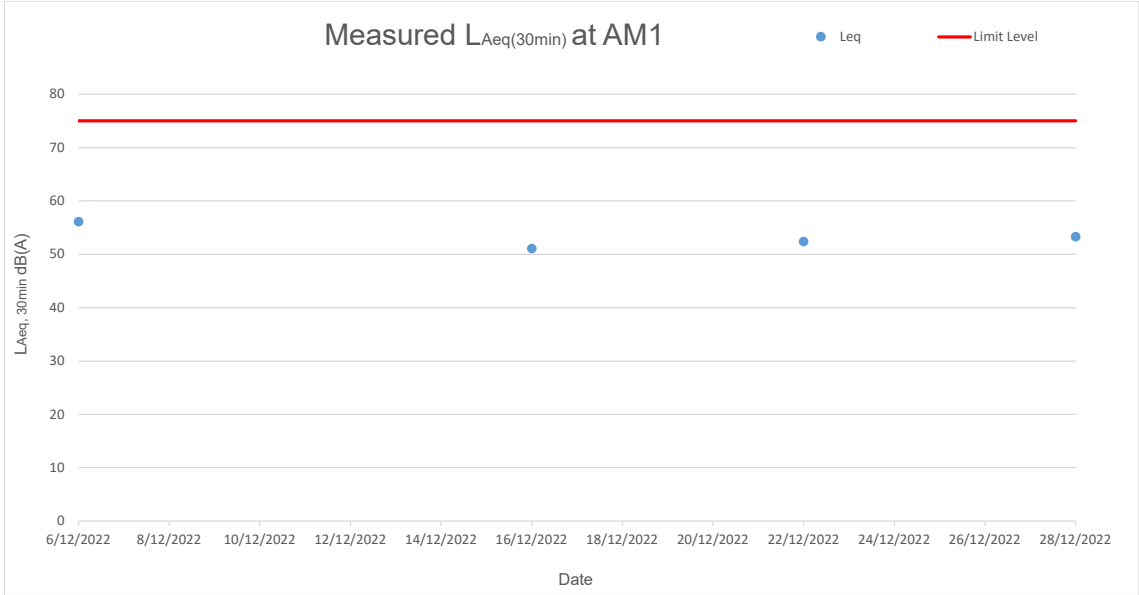


24-hr TSP concentration at AM2

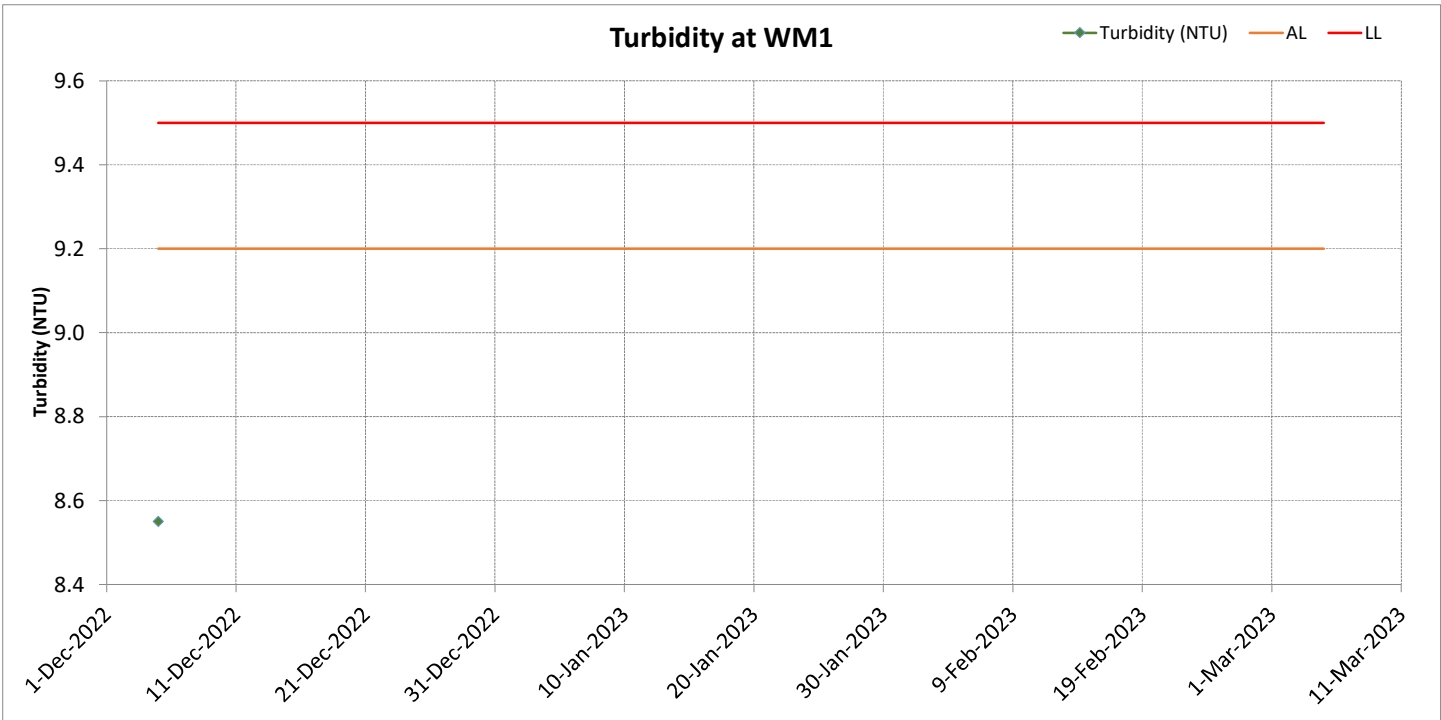
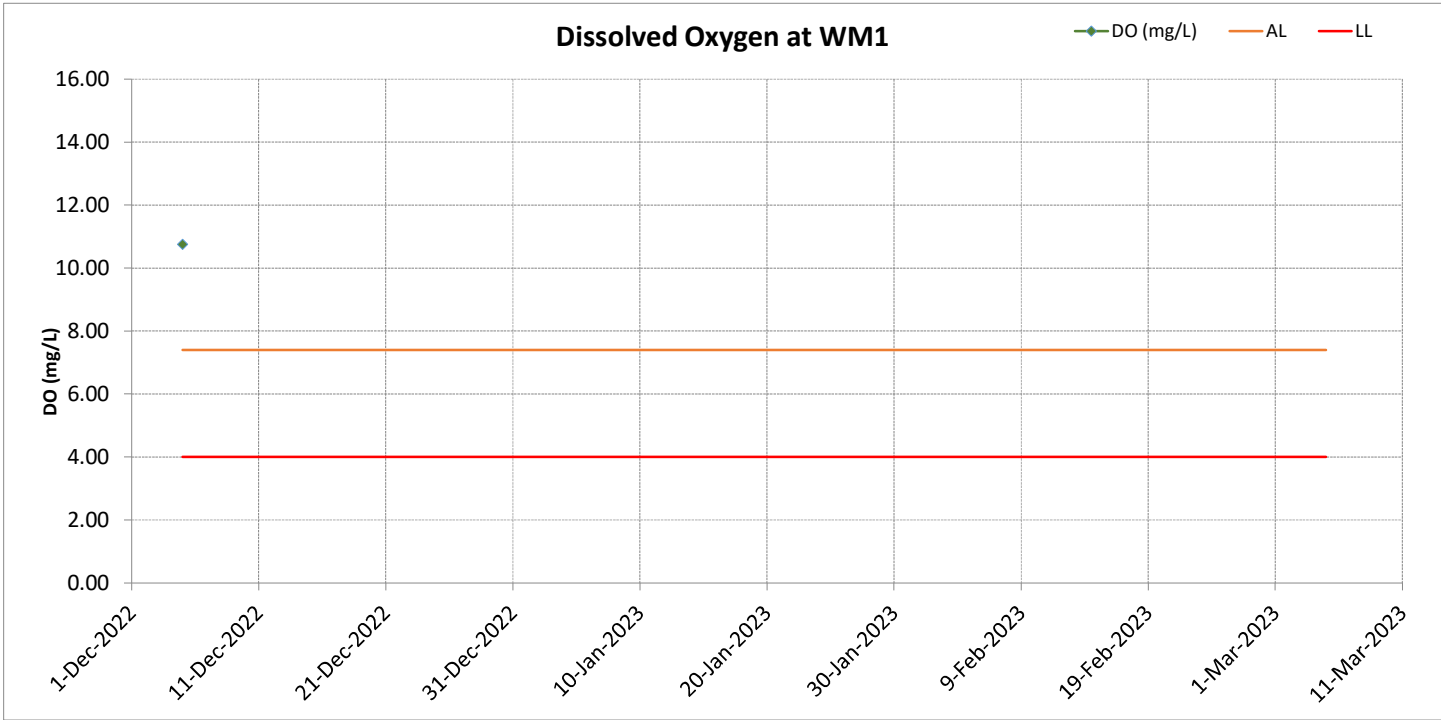


24-hr TSP concentration at AM3

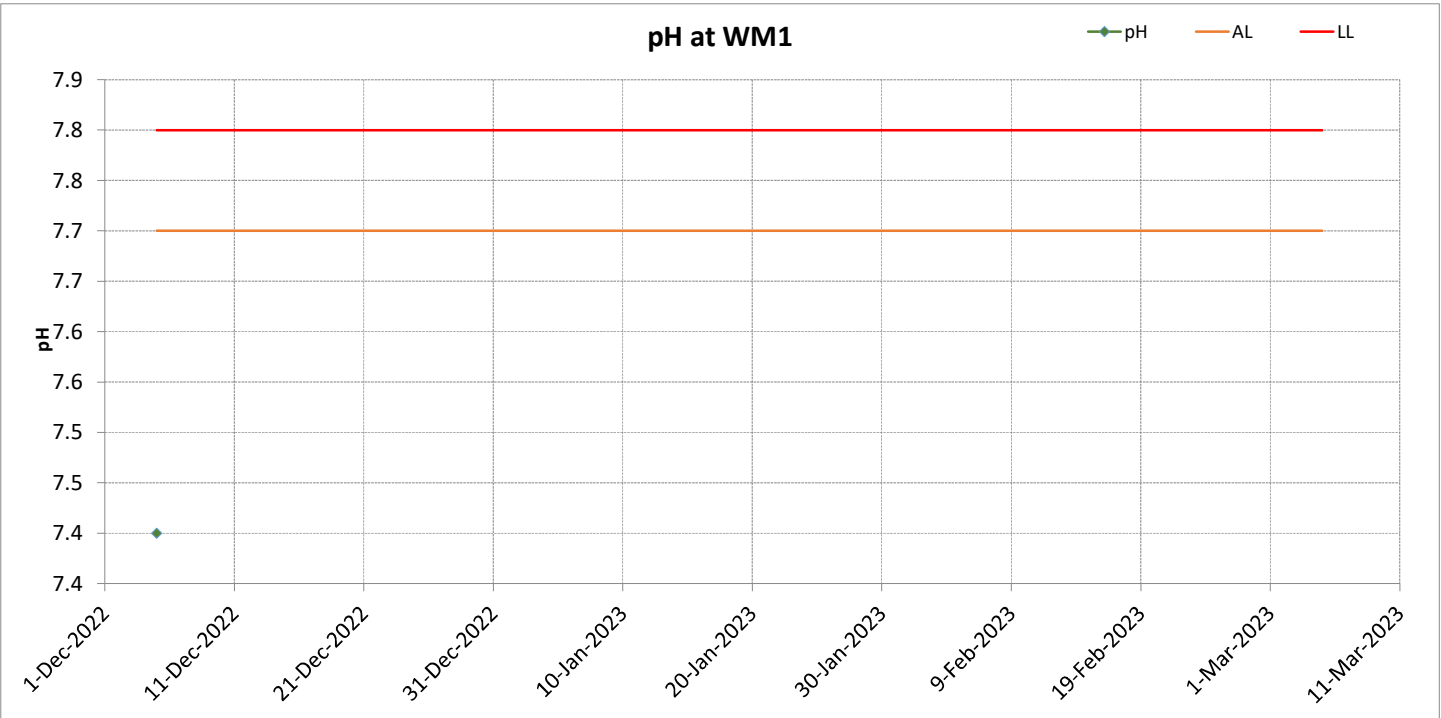
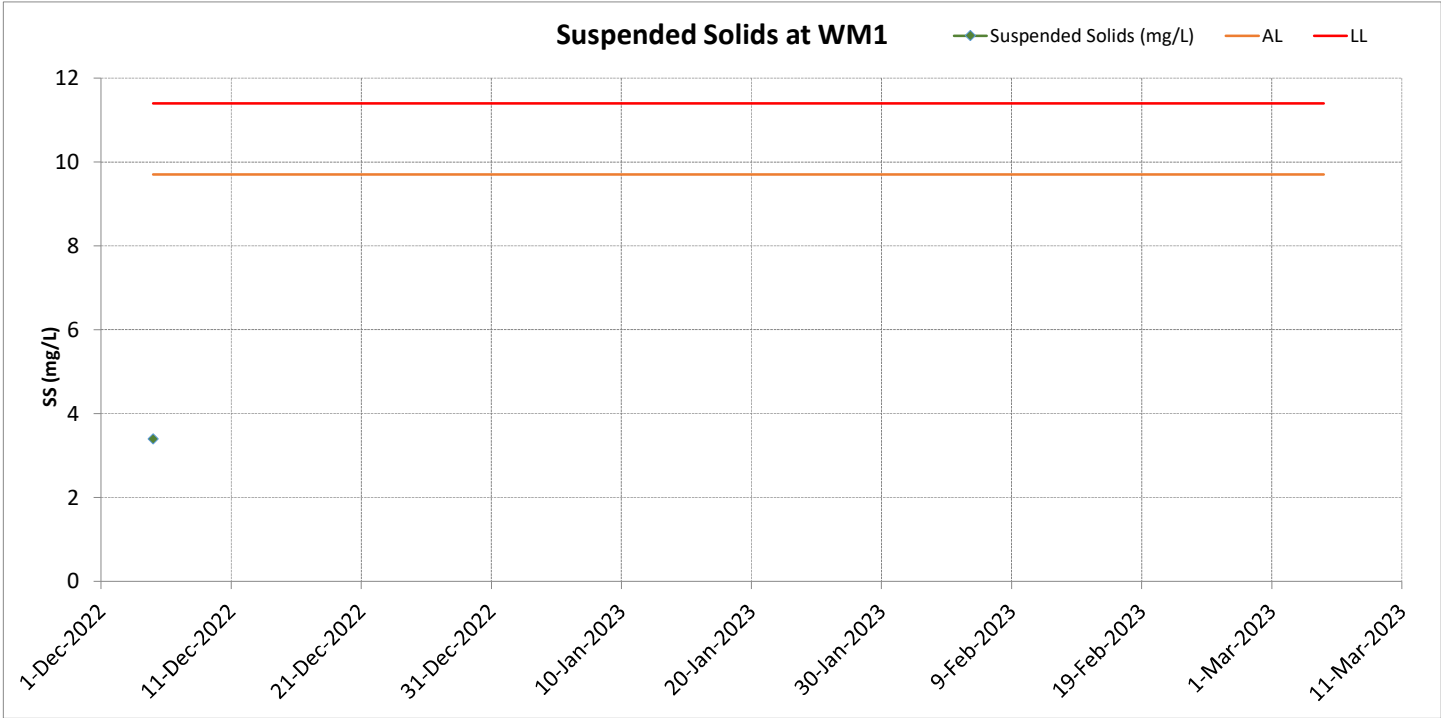




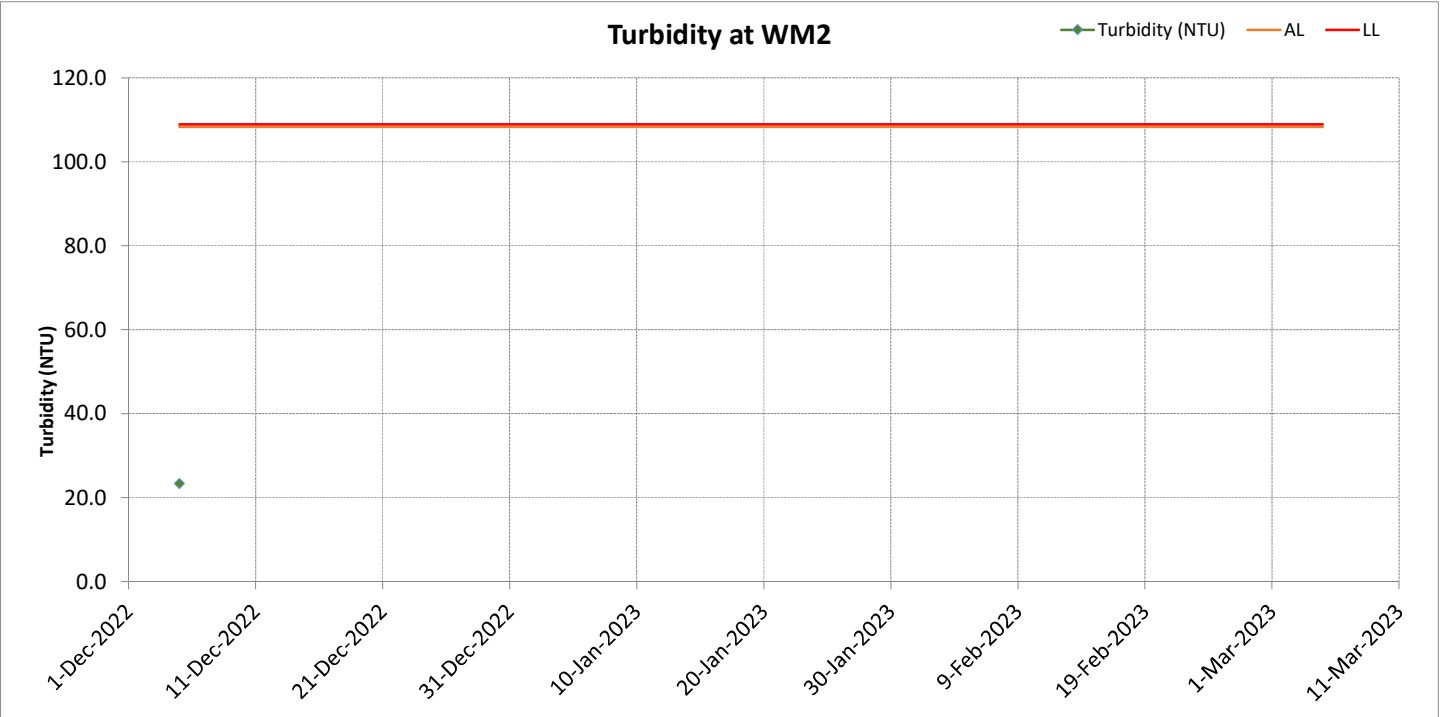
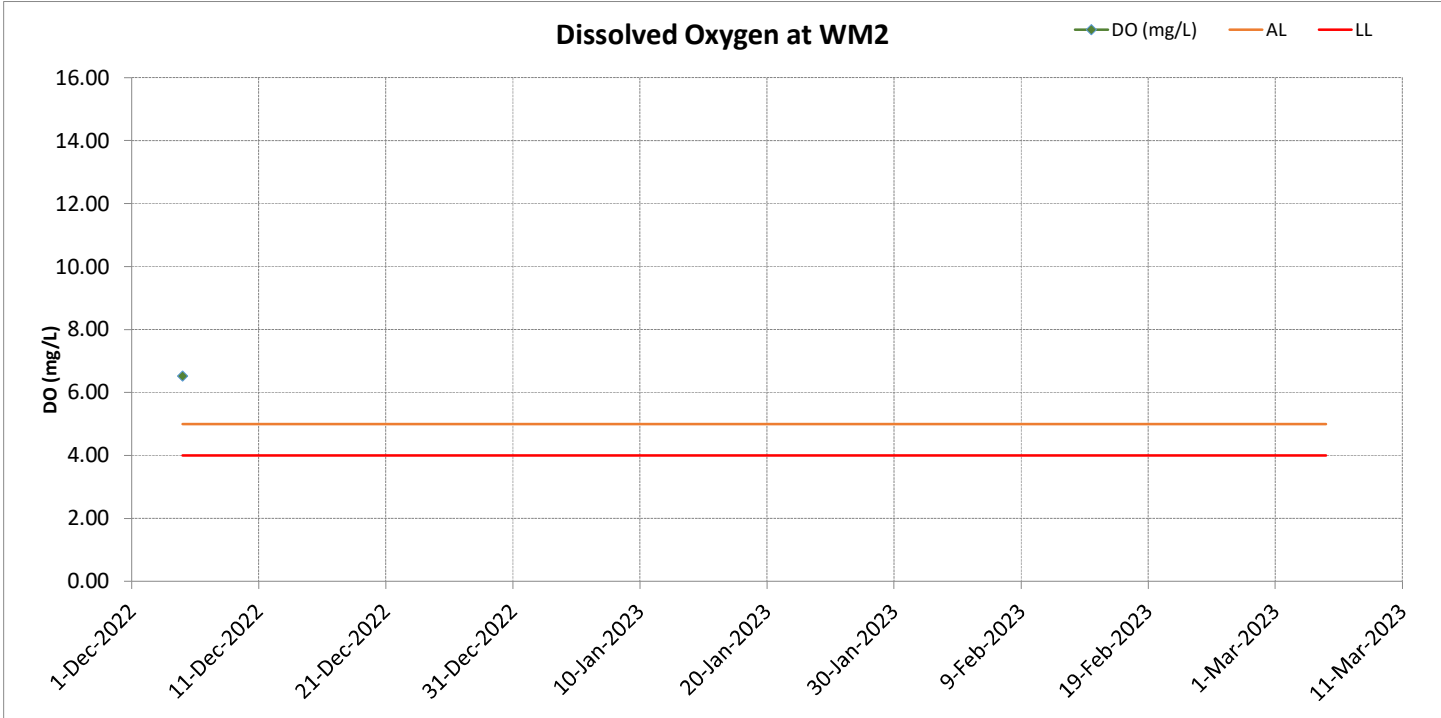
Surface Water Monitoring Results at WM1



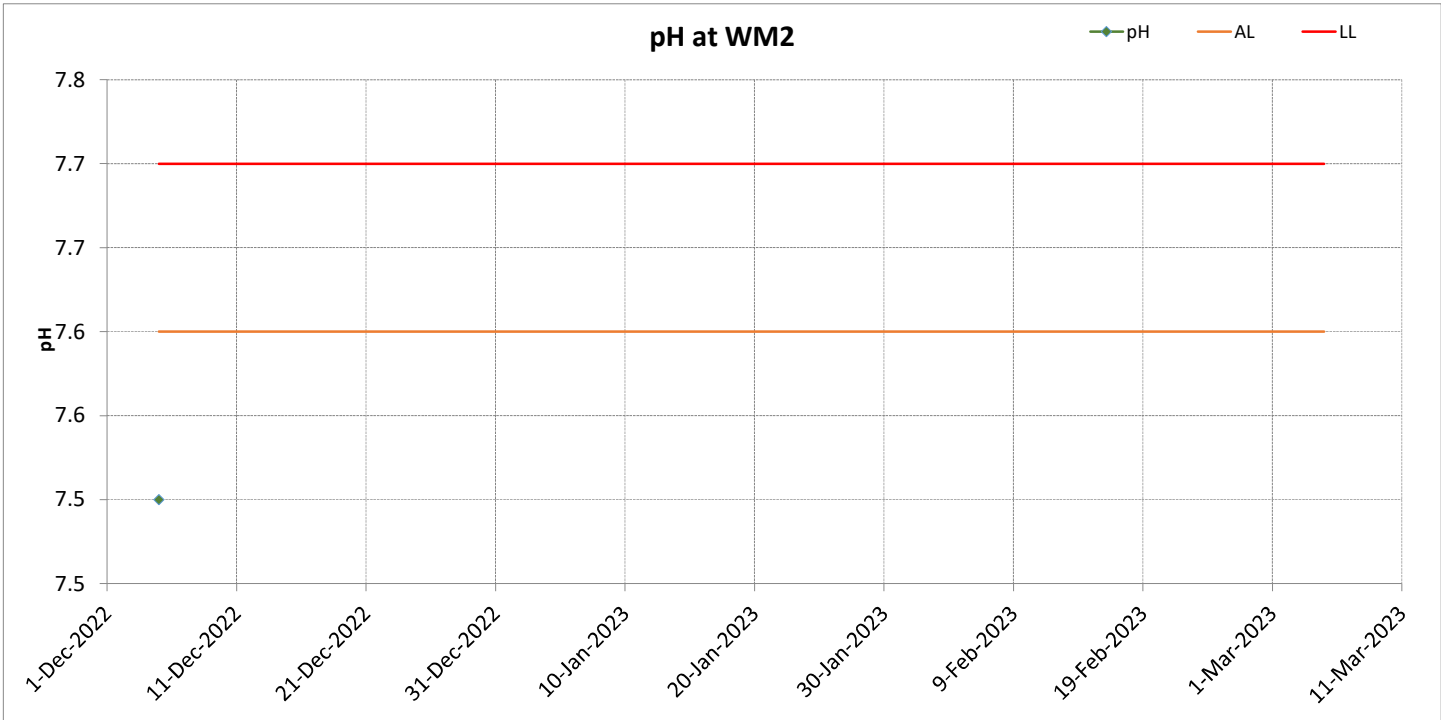
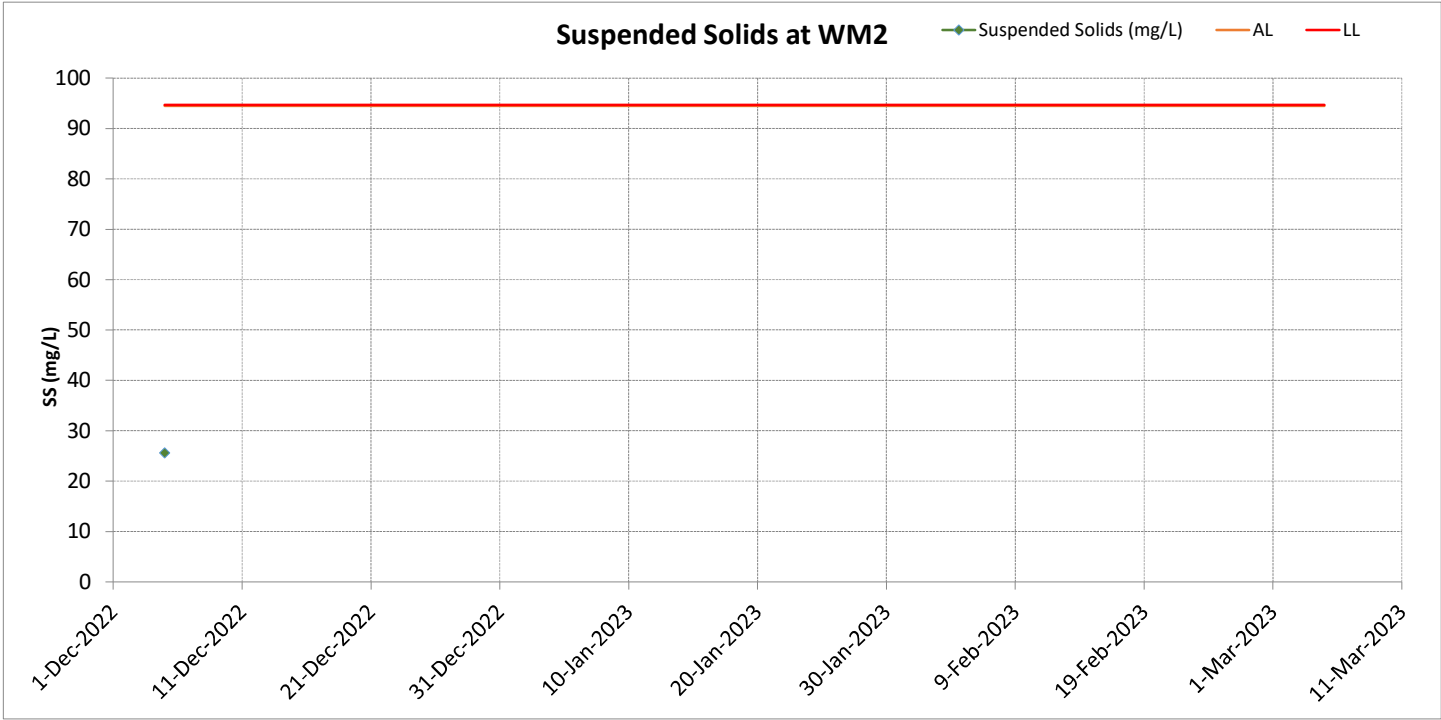
Surface Water Monitoring Results at WM1



Surface Water Monitoring Results at WM2



Surface Water Monitoring Results at WM2



Appendix G

Notification of Environmental Quality Limits Exceedance

Construction Dust

Monitoring Station	Monitoring Parameter(s)	No. of Exceedance	
		Action Level	Limit Level
WM1	1-hr TSP	0	0
	24-hr TSP	0	0
WM2	1-hr TSP	0	0
	24-hr TSP	0	0

Noise Monitoring

Monitoring Station	Monitoring Parameter(s)	No. of Exceedance	
		Action Level	Limit Level
NM1a	LAeq (30mins)	0	0
NM2a		0	0

Surface Water Monitoring

Monitoring Station	Monitoring Parameter(s)	No. of Exceedance	
		Action Level	Limit Level
WM1	Dissolved Oxygen	0	0
	pH	0	0
	Turbidity	0	0
	Suspended Solids	0	0
WM2	Dissolved Oxygen	0	0
	pH	0	0
	Turbidity	0	0
	Suspended Solids	0	0

Appendix H

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221201_0000	3.9	N
20221201_0010	4.2	N
20221201_0020	4.7	N
20221201_0020	4.7	N
20221201_0030	5	NNE
20221201_0040	4.4	N
20221201_0050	4.7	N
20221201_0100	4.7	NNE
20221201_0110	4.7	NNE
20221201_0120	5.3	N
20221201_0130	5.8	N
20221201_0140	5.3	N
20221201_0150	4.7	N
20221201_0200	4.2	NNE
20221201_0210	5	NNE
20221201_0220	4.4	N
20221201_0230	5	N
20221201_0240	4.4	N
20221201_0250	4.2	N
20221201_0300	4.2	N
20221201_0310	3.9	N
20221201_0320	4.2	N
20221201_0330	5	NNE
20221201_0340	4.4	N
20221201_0350	5.3	N
20221201_0400	5	N
20221201_0410	5.3	NNE
20221201_0420	5	N
20221201_0430	4.7	N
20221201_0440	4.7	N
20221201_0450	4.7	N
20221201_0500	5.3	N
20221201_0510	5.6	N
20221201_0520	5.3	N
20221201_0530	4.2	NNE
20221201_0540	4.4	N
20221201_0550	4.4	N
20221201_0600	5.8	N
20221201_0610	3.9	N
20221201_0620	3.3	N
20221201_0630	4.2	N
20221201_0640	3.9	N
20221201_0650	4.2	N
20221201_0700	4.4	NNE
20221201_0710	4.2	N
20221201_0720	3.9	N
20221201_0730	3.9	N
20221201_0740	4.4	N
20221201_0750	4.4	NNE
20221201_0800	4.2	N
20221201_0810	3.9	N
20221201_0820	4.2	N
20221201_0830	3.3	N
20221201_0840	3.6	N
20221201_0850	4.2	N
20221201_0900	3.3	N
20221201_0910	4.2	N
20221201_0920	3.3	N
20221201_0930	3.3	NNE
20221201_0940	3.1	N
20221201_0950	3.3	N
20221201_1000	3.3	N
20221201_1010	4.2	N
20221201_1020	3.6	N
20221201_1030	3.9	N
20221201_1040	4.4	N
20221201_1050	3.3	N
20221201_1100	4.2	N
20221201_1110	4.7	NNE
20221201_1120	4.7	NNE
20221201_1130	4.7	N
20221201_1140	4.7	NNE
20221201_1150	5	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221201_1200	4.7	N
20221201_1210	5.3	N
20221201_1220	4.7	N
20221201_1230	3.9	N
20221201_1240	4.7	N
20221201_1250	4.4	N
20221201_1300	3.9	N
20221201_1310	4.2	N
20221201_1320	4.2	N
20221201_1330	3.3	N
20221201_1340	4.7	NNE
20221201_1350	4.2	N
20221201_1400	4.7	N
20221201_1410	5	N
20221201_1420	4.7	N
20221201_1430	4.4	N
20221201_1440	5	N
20221201_1450	5	N
20221201_1500	5.3	N
20221201_1510	4.7	N
20221201_1520	4.2	N
20221201_1530	4.2	N
20221201_1540	5.3	N
20221201_1550	5.3	N
20221201_1600	5	N
20221201_1610	3.9	N
20221201_1620	4.2	N
20221201_1630	4.7	N
20221201_1640	4.4	N
20221201_1650	4.2	N
20221201_1700	5.3	N
20221201_1710	4.4	N
20221201_1720	3.9	N
20221201_1730	3.9	N
20221201_1740	5	N
20221201_1750	5	N
20221201_1800	3.9	N
20221201_1810	3.9	N
20221201_1820	4.2	N
20221201_1830	3.9	N
20221201_1840	3.9	N
20221201_1850	4.7	N
20221201_1900	4.7	N
20221201_1910	3.9	N
20221201_1920	4.4	N
20221201_1930	4.7	N
20221201_1940	5.3	N
20221201_1950	4.4	N
20221201_2000	3.9	N
20221201_2010	4.2	N
20221201_2020	4.4	N
20221201_2030	4.4	N
20221201_2040	4.4	N
20221201_2050	3.9	N
20221201_2100	3.6	N
20221201_2110	3.9	N
20221201_2120	4.2	N
20221201_2130	3.1	N
20221201_2140	3.3	N
20221201_2150	3.3	N
20221201_2200	3.3	N
20221201_2210	4.2	N
20221201_2220	5	N
20221201_2230	4.7	N
20221201_2240	5	N
20221201_2250	5	N
20221201_2300	5	N
20221201_2310	4.7	N
20221201_2320	3.9	N
20221201_2330	3.6	N
20221201_2340	3.9	N
20221201_2350	3.3	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221202_0000	3.9	N
20221202_0010	3.1	N
20221202_0020	4.2	N
20221202_0020	4.2	N
20221202_0030	4.7	N
20221202_0040	3.9	N
20221202_0050	4.2	N
20221202_0100	3.9	N
20221202_0110	3.3	N
20221202_0120	3.9	N
20221202_0130	3.1	N
20221202_0140	3.3	N
20221202_0150	4.2	N
20221202_0200	4.2	N
20221202_0210	4.7	NNE
20221202_0220	5.3	NNE
20221202_0230	4.7	N
20221202_0240	4.7	N
20221202_0250	4.4	N
20221202_0300	4.7	N
20221202_0310	4.7	NNE
20221202_0320	4.2	N
20221202_0330	4.2	N
20221202_0340	4.7	N
20221202_0350	4.4	N
20221202_0400	5	N
20221202_0410	4.4	N
20221202_0420	5	N
20221202_0430	4.7	N
20221202_0440	5	N
20221202_0450	4.4	N
20221202_0500	4.7	N
20221202_0510	5	N
20221202_0520	5.3	N
20221202_0530	5.3	N
20221202_0540	5	N
20221202_0550	5.3	N
20221202_0600	5	N
20221202_0610	4.7	N
20221202_0620	5.3	N
20221202_0630	4.7	N
20221202_0640	5	N
20221202_0650	4.7	N
20221202_0700	4.2	N
20221202_0710	4.2	N
20221202_0720	5	N
20221202_0730	4.7	N
20221202_0740	4.2	N
20221202_0750	4.7	N
20221202_0800	4.4	N
20221202_0810	4.2	N
20221202_0820	3.9	N
20221202_0830	4.4	N
20221202_0840	5	N
20221202_0850	4.7	N
20221202_0900	5.8	N
20221202_0910	5	N
20221202_0920	4.4	N
20221202_0930	5	N
20221202_0940	4.7	N
20221202_0950	5	N
20221202_1000	5.3	N
20221202_1010	5	N
20221202_1020	5	N
20221202_1030	4.7	N
20221202_1040	5.3	N
20221202_1050	4.7	N
20221202_1100	4.7	N
20221202_1110	4.4	N
20221202_1120	3.9	N
20221202_1130	3.9	N
20221202_1140	3.6	N
20221202_1150	3.3	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221202_1200	4.2	N
20221202_1210	3.6	N
20221202_1220	3.1	N
20221202_1230	2.8	N
20221202_1240	2.8	NNW
20221202_1250	2.8	NNW
20221202_1300	2.2	NNW
20221202_1310	2.2	NNW
20221202_1320	2.2	NNW
20221202_1330	2.5	NNW
20221202_1340	2.2	NNW
20221202_1350	1.7	NNW
20221202_1400	1.9	-
20221202_1410	1.7	NNW
20221202_1420	2.8	N
20221202_1430	1.7	N
20221202_1440	2.5	N
20221202_1450	2.5	NNW
20221202_1500	2.2	NW
20221202_1510	1.9	NNW
20221202_1520	2.8	N
20221202_1530	2.5	NNW
20221202_1540	2.5	N
20221202_1550	2.8	N
20221202_1600	1.7	NNW
20221202_1610	2.2	N
20221202_1620	1.7	N
20221202_1630	1.7	NNW
20221202_1640	2.2	NNW
20221202_1650	2.8	N
20221202_1700	2.5	N
20221202_1710	2.2	N
20221202_1720	1.9	N
20221202_1730	1.4	NNW
20221202_1740	1.9	NNW
20221202_1750	2.2	NNW
20221202_1800	1.7	N
20221202_1810	2.2	NNW
20221202_1820	1.7	N
20221202_1830	1.9	NNW
20221202_1840	2.2	N
20221202_1850	1.7	NNW
20221202_1900	1.7	NNW
20221202_1910	1.7	NNW
20221202_1920	2.2	NNW
20221202_1930	1.7	N
20221202_1940	2.2	N
20221202_1950	1.7	NNW
20221202_2000	1.7	N
20221202_2010	1.1	NNW
20221202_2020	1.7	N
20221202_2030	2.2	N
20221202_2040	1.7	N
20221202_2050	1.9	NNW
20221202_2100	1.7	NNW
20221202_2110	1.7	NNW
20221202_2120	1.7	NNW
20221202_2130	1.7	N
20221202_2140	1.9	N
20221202_2150	1.7	N
20221202_2200	1.7	N
20221202_2210	1.4	N
20221202_2220	1.4	N
20221202_2230	1.4	NNW
20221202_2240	1.4	NNW
20221202_2250	1.7	NNW
20221202_2300	2.2	N
20221202_2310	1.7	N
20221202_2320	1.7	NNW
20221202_2330	1.7	NNW
20221202_2340	1.4	NNW
20221202_2350	1.4	NNW

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221203_0000	1.4	NNW
20221203_0010	1.4	N
20221203_0020	1.1	N
20221203_0030	1.1	NNW
20221203_0040	1.4	NW
20221203_0050	1.7	NNW
20221203_0100	1.4	NNW
20221203_0110	1.7	NNW
20221203_0120	1.7	NNW
20221203_0130	2.5	NNW
20221203_0140	2.5	NNW
20221203_0150	2.2	NNW
20221203_0200	2.2	N
20221203_0210	2.5	N
20221203_0220	2.8	N
20221203_0230	2.5	N
20221203_0240	1.7	NNW
20221203_0250	2.2	NNW
20221203_0300	1.4	NNW
20221203_0310	2.5	NNW
20221203_0320	2.2	N
20221203_0330	1.7	N
20221203_0340	1.9	NNW
20221203_0350	2.2	NNW
20221203_0400	2.2	NNW
20221203_0410	2.2	NNW
20221203_0420	2.2	NNW
20221203_0430	2.2	NNW
20221203_0440	2.5	NNW
20221203_0450	2.5	NNW
20221203_0500	2.8	NNW
20221203_0510	2.8	NNW
20221203_0520	2.8	NNW
20221203_0530	2.5	NW
20221203_0540	2.5	NW
20221203_0550	2.2	NW
20221203_0600	2.5	NW
20221203_0610	2.5	NNW
20221203_0620	2.2	NW
20221203_0630	2.2	NW
20221203_0640	2.2	NNW
20221203_0650	2.2	NNW
20221203_0700	1.7	NNW
20221203_0710	2.5	NNW
20221203_0720	2.8	NNW
20221203_0730	2.8	NNW
20221203_0740	2.8	NW
20221203_0750	2.8	NW
20221203_0800	2.8	NW
20221203_0810	2.2	NW
20221203_0820	2.5	NNW
20221203_0830	3.1	NNW
20221203_0840	2.5	NNW
20221203_0850	2.5	NNW
20221203_0900	2.8	NW
20221203_0910	2.5	NNW
20221203_0920	2.5	NNW
20221203_0930	2.8	NNW
20221203_0940	2.8	N
20221203_0950	2.5	NNW
20221203_1000	2.5	NNW
20221203_1010	2.5	NNW
20221203_1020	2.2	NNW
20221203_1030	2.5	NNW
20221203_1040	2.5	NNW
20221203_1050	2.8	NNW
20221203_1100	3.1	NW
20221203_1110	3.1	NNW
20221203_1120	2.8	NNW
20221203_1130	2.5	NNW
20221203_1140	2.2	-
20221203_1150	2.8	NW

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221203_1200	2.2	NNW
20221203_1210	1.7	NNW
20221203_1220	1.7	N
20221203_1230	1.9	NNW
20221203_1240	2.2	NNW
20221203_1250	2.2	NW
20221203_1300	2.5	NNW
20221203_1310	2.2	NNW
20221203_1320	1.7	NNW
20221203_1330	1.7	NNW
20221203_1340	2.5	N
20221203_1350	1.9	NW
20221203_1400	1.9	NNW
20221203_1410	1.7	NNW
20221203_1420	1.7	NNW
20221203_1430	2.2	NW
20221203_1440	1.9	NNW
20221203_1450	2.2	NNW
20221203_1500	1.9	NNW
20221203_1510	2.2	NNW
20221203_1520	2.2	NW
20221203_1530	2.5	NW
20221203_1540	1.7	NNW
20221203_1550	2.2	NNW
20221203_1600	1.9	N
20221203_1610	1.7	NNW
20221203_1620	1.4	NNW
20221203_1630	1.7	NNW
20221203_1640	1.7	NNW
20221203_1650	1.4	N
20221203_1700	1.4	NW
20221203_1710	1.7	NW
20221203_1720	2.2	NW
20221203_1730	1.9	NW
20221203_1740	1.7	NW
20221203_1750	1.4	NW
20221203_1800	1.4	NW
20221203_1810	1.7	NW
20221203_1820	1.4	NNW
20221203_1830	1.4	NNW
20221203_1840	1.1	NW
20221203_1850	1.4	NW
20221203_1900	1.1	NNW
20221203_1910	1.1	N
20221203_1920	1.4	N
20221203_1930	0.6	NNW
20221203_1940	0.8	NNW
20221203_1950	1.1	N
20221203_2000	1.4	N
20221203_2010	0.3	N
20221203_2020	0	N
20221203_2030	0	N
20221203_2040	0.3	-
20221203_2050	0.6	NNW
20221203_2100	1.1	NNE
20221203_2110	1.4	NNE
20221203_2120	0.8	N
20221203_2130	0.3	N
20221203_2140	0	N
20221203_2150	0.3	NNW
20221203_2200	0.8	NNW
20221203_2210	0.6	NW
20221203_2220	0.3	NNW
20221203_2230	0.8	N
20221203_2240	0.8	N
20221203_2250	1.1	NNW
20221203_2300	1.1	N
20221203_2310	0.8	NNW
20221203_2320	0.8	NNW
20221203_2330	0.3	-
20221203_2340	0.3	-
20221203_2350	0	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221204_0000	0.3	NNW
20221204_0010	0	N
20221204_0020	0	N
20221204_0030	0	N
20221204_0020	0	N
20221204_0030	0	N
20221204_0040	0	N
20221204_0050	0.3	NNW
20221204_0100	0	N
20221204_0110	0	N
20221204_0120	0.3	WNW
20221204_0130	0	N
20221204_0140	0	N
20221204_0150	0.3	NW
20221204_0200	0.3	NW
20221204_0210	0.8	WNW
20221204_0220	1.4	NW
20221204_0230	0.3	WSW
20221204_0240	0.8	NW
20221204_0250	0.3	WNW
20221204_0300	0.8	WNW
20221204_0310	0.8	NW
20221204_0320	0.3	NNW
20221204_0330	0.3	NNW
20221204_0340	0.3	NNW
20221204_0350	0.3	NNW
20221204_0400	0.8	NW
20221204_0410	1.1	NNW
20221204_0420	0.6	NW
20221204_0430	0.3	NW
20221204_0440	0.8	NW
20221204_0450	1.1	NNW
20221204_0500	0.6	N
20221204_0510	1.1	NNW
20221204_0520	0.8	N
20221204_0530	1.4	NNW
20221204_0540	1.1	NNW
20221204_0550	0.8	NNW
20221204_0600	0.3	-
20221204_0610	0.3	NW
20221204_0620	0.6	NNW
20221204_0630	1.4	N
20221204_0640	1.4	N
20221204_0650	1.7	NNE
20221204_0700	1.1	N
20221204_0710	1.1	NW
20221204_0720	1.4	NNW
20221204_0730	1.4	N
20221204_0740	0.8	NNE
20221204_0750	0.8	SSE
20221204_0800	1.1	N
20221204_0810	0.8	ENE
20221204_0820	0.3	NE
20221204_0830	0.8	N
20221204_0840	1.7	N
20221204_0850	1.7	N
20221204_0900	1.4	N
20221204_0910	1.7	N
20221204_0920	1.7	N
20221204_0930	2.2	N
20221204_0940	2.2	NNE
20221204_0950	1.7	NNW
20221204_1000	2.2	N
20221204_1010	1.4	NNW
20221204_1020	1.7	N
20221204_1030	1.4	NNW
20221204_1040	1.4	NNW
20221204_1050	2.2	N
20221204_1100	3.3	N
20221204_1110	3.3	N
20221204_1120	2.8	N
20221204_1130	2.8	N
20221204_1140	2.8	N
20221204_1150	2.8	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221204_1200	2.8	N
20221204_1210	2.5	N
20221204_1220	3.6	N
20221204_1230	3.1	N
20221204_1240	3.1	N
20221204_1250	3.3	N
20221204_1300	3.1	N
20221204_1310	3.1	N
20221204_1320	2.8	NNW
20221204_1330	3.3	N
20221204_1340	3.3	N
20221204_1350	3.9	N
20221204_1400	3.3	N
20221204_1410	3.3	N
20221204_1420	3.3	N
20221204_1430	2.8	N
20221204_1440	3.3	N
20221204_1450	3.3	N
20221204_1500	4.2	NNE
20221204_1510	3.1	N
20221204_1520	4.4	NNE
20221204_1530	4.4	NNE
20221204_1540	4.7	NNE
20221204_1550	4.4	N
20221204_1600	3.9	N
20221204_1610	4.2	NNE
20221204_1620	3.6	N
20221204_1630	2.8	N
20221204_1640	2.8	N
20221204_1650	3.3	N
20221204_1700	3.3	N
20221204_1710	2.5	N
20221204_1720	2.8	N
20221204_1730	2.8	N
20221204_1740	3.3	N
20221204_1750	3.3	N
20221204_1800	2.8	N
20221204_1810	2.2	NNW
20221204_1820	2.5	N
20221204_1830	3.3	N
20221204_1840	3.3	N
20221204_1850	2.8	N
20221204_1900	2.8	NNW
20221204_1910	2.5	N
20221204_1920	2.8	N
20221204_1930	2.8	N
20221204_1940	2.5	N
20221204_1950	1.9	NNE
20221204_2000	1.7	N
20221204_2010	1.7	N
20221204_2020	2.2	N
20221204_2030	1.9	N
20221204_2040	1.4	N
20221204_2050	1.1	N
20221204_2100	1.4	NNW
20221204_2110	1.4	NNW
20221204_2120	1.7	N
20221204_2130	1.1	NNW
20221204_2140	1.9	N
20221204_2150	1.7	N
20221204_2200	1.9	N
20221204_2210	1.1	N
20221204_2220	1.7	N
20221204_2230	1.7	N
20221204_2240	2.2	N
20221204_2250	2.5	N
20221204_2300	1.9	N
20221204_2310	1.7	NNW
20221204_2320	2.5	N
20221204_2330	2.2	N
20221204_2340	2.5	N
20221204_2350	2.2	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221205_0000	2.2	N
20221205_0010	2.2	N
20221205_0020	1.9	N
20221205_0020	1.9	N
20221205_0030	2.5	N
20221205_0040	2.2	-
20221205_0050	2.5	NNW
20221205_0100	3.3	N
20221205_0110	3.1	N
20221205_0120	3.3	N
20221205_0130	3.6	N
20221205_0140	4.2	N
20221205_0150	4.2	N
20221205_0200	3.9	N
20221205_0210	3.9	N
20221205_0220	3.3	N
20221205_0230	3.9	N
20221205_0240	3.3	N
20221205_0250	4.2	N
20221205_0300	3.1	N
20221205_0310	3.3	N
20221205_0320	3.1	N
20221205_0330	3.6	N
20221205_0340	3.3	N
20221205_0350	3.9	N
20221205_0400	3.9	N
20221205_0410	4.2	N
20221205_0420	4.2	N
20221205_0430	4.7	N
20221205_0440	5	N
20221205_0450	4.4	N
20221205_0500	5	N
20221205_0510	5	N
20221205_0520	4.7	NNE
20221205_0530	5.3	N
20221205_0540	5	N
20221205_0550	4.7	N
20221205_0600	5	N
20221205_0610	4.7	N
20221205_0620	5	N
20221205_0630	4.4	N
20221205_0640	4.4	N
20221205_0650	3.9	N
20221205_0700	5.3	N
20221205_0710	4.7	N
20221205_0720	4.4	N
20221205_0730	4.4	N
20221205_0740	4.2	N
20221205_0750	3.9	N
20221205_0800	5	N
20221205_0810	5	N
20221205_0820	6.4	N
20221205_0830	5	N
20221205_0840	5	N
20221205_0850	4.7	N
20221205_0900	6.1	N
20221205_0910	5.8	N
20221205_0920	6.1	N
20221205_0930	5.6	N
20221205_0940	5.8	N
20221205_0950	5.3	N
20221205_1000	5.3	N
20221205_1010	4.7	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221205_1420	5	N
20221205_1430	5.8	N
20221205_1440	5.6	NNE
20221205_1450	4.7	NNE
20221205_1500	5.6	NNE
20221205_1510	5	NNE
20221205_1520	5.3	NNE
20221205_1530	5.3	NNE
20221205_1540	5.6	NNE
20221205_1550	4.4	NNE
20221205_1600	4.4	N
20221205_1610	4.2	NNE
20221205_1620	4.7	NNE
20221205_1630	4.7	NNE
20221205_1640	5	N
20221205_1650	4.7	N
20221205_1700	4.2	N
20221205_1710	4.2	N
20221205_1720	4.7	NNE
20221205_1730	4.2	NNE
20221205_1740	4.2	N
20221205_1750	5	N
20221205_1800	3.9	N
20221205_1810	4.4	N
20221205_1820	4.7	N
20221205_1830	4.2	N
20221205_1840	4.2	N
20221205_1850	4.7	N
20221205_1900	4.2	N
20221205_1910	4.4	N
20221205_1920	3.9	N
20221205_1930	4.7	N
20221205_1940	4.2	N
20221205_1950	4.7	N
20221205_2000	4.7	NNE
20221205_2010	4.7	NNE
20221205_2020	4.4	N
20221205_2030	4.2	N
20221205_2040	4.4	NNE
20221205_2050	4.4	N
20221205_2100	5.3	N
20221205_2110	5	NNE
20221205_2120	3.9	N
20221205_2130	4.4	N
20221205_2140	4.2	NNE
20221205_2150	4.2	N
20221205_2200	4.4	N
20221205_2210	4.7	N
20221205_2220	3.9	N
20221205_2230	3.3	N
20221205_2240	3.9	NNE
20221205_2250	4.2	NNE
20221205_2300	3.9	N
20221205_2310	4.2	NNE
20221205_2320	3.9	N
20221205_2330	3.3	N
20221205_2340	3.9	N
20221205_2350	3.9	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221206_0000	3.9	N
20221206_0010	3.3	N
20221206_0020	3.6	N
20221206_0020	3.6	N
20221206_0030	4.7	N
20221206_0040	3.6	N
20221206_0050	3.9	N
20221206_0100	4.4	N
20221206_0110	4.7	N
20221206_0120	3.9	N
20221206_0130	3.3	N
20221206_0140	3.9	N
20221206_0150	4.2	N
20221206_0200	4.2	N
20221206_0210	3.3	N
20221206_0220	4.2	N
20221206_0230	3.6	N
20221206_0240	4.2	N
20221206_0250	4.2	N
20221206_0300	3.9	N
20221206_0310	4.2	N
20221206_0320	3.9	N
20221206_0330	4.7	N
20221206_0340	4.4	NNE
20221206_0350	4.7	N
20221206_0400	5.3	N
20221206_0410	5	N
20221206_0420	5	NNE
20221206_0430	5.3	NNE
20221206_0440	4.4	NNE
20221206_0450	5.3	NNE
20221206_0500	4.7	NNE
20221206_0510	5.3	NNE
20221206_0520	4.2	N
20221206_0530	4.4	NNE
20221206_0540	4.2	N
20221206_0550	4.2	N
20221206_0600	4.2	N
20221206_0610	3.9	N
20221206_0620	3.9	N
20221206_0630	3.9	NNE
20221206_0640	3.3	N
20221206_0650	3.6	NNE
20221206_0700	3.3	N
20221206_0710	3.1	N
20221206_0720	3.3	N
20221206_0730	3.1	N
20221206_0740	2.8	N
20221206_0750	2.8	N
20221206_0800	3.3	N
20221206_0810	3.3	N
20221206_0820	3.9	N
20221206_0830	3.6	N
20221206_0840	3.6	NNE
20221206_0850	3.1	NNE
20221206_0900	3.1	N
20221206_0910	3.3	N
20221206_0920	3.3	N
20221206_0930	3.3	NNE
20221206_0940	3.9	NNE
20221206_0950	2.5	N
20221206_1000	3.3	NNE
20221206_1010	3.9	NNE
20221206_1020	4.7	NNE
20221206_1030	4.2	N
20221206_1040	4.4	NNE
20221206_1050	3.1	N
20221206_1100	3.3	N
20221206_1110	2.5	N
20221206_1120	3.1	NNW
20221206_1130	3.9	N
20221206_1140	2.8	NNW
20221206_1150	3.1	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221206_1200	3.3	N
20221206_1210	2.8	N
20221206_1220	3.9	N
20221206_1230	2.8	N
20221206_1240	3.3	N
20221206_1250	3.3	N
20221206_1300	2.8	N
20221206_1310	3.3	N
20221206_1320	3.3	N
20221206_1330	3.3	N
20221206_1340	4.2	N
20221206_1350	3.1	N
20221206_1400	2.2	N
20221206_1410	3.1	N
20221206_1420	3.9	N
20221206_1430	4.4	NNE
20221206_1440	3.9	NNE
20221206_1450	4.4	NNE
20221206_1500	4.4	N
20221206_1510	3.9	N
20221206_1520	3.3	N
20221206_1530	3.3	N
20221206_1540	3.6	NNE
20221206_1550	3.1	N
20221206_1600	2.5	N
20221206_1610	3.1	N
20221206_1620	3.3	N
20221206_1630	2.8	N
20221206_1640	2.8	N
20221206_1650	2.5	N
20221206_1700	2.5	N
20221206_1710	2.2	N
20221206_1720	1.7	N
20221206_1730	1.4	N
20221206_1740	1.1	N
20221206_1750	0.8	NNE
20221206_1800	0.3	NNW
20221206_1810	1.1	N
20221206_1820	0.8	NNW
20221206_1830	1.1	N
20221206_1840	1.1	N
20221206_1850	1.1	N
20221206_1900	0.8	N
20221206_1910	1.1	N
20221206_1920	0.8	N
20221206_1930	0.8	NNW
20221206_1940	0.8	N
20221206_1950	0.8	N
20221206_2000	0.3	NNW
20221206_2010	0	N
20221206_2020	0	N
20221206_2030	0	N
20221206_2040	0	N
20221206_2050	0	N
20221206_2100	0.3	NW
20221206_2110	0.3	NNW
20221206_2120	0	N
20221206_2130	0.3	N
20221206_2140	0.3	NNW
20221206_2150	0	N
20221206_2200	0	N
20221206_2210	0	N
20221206_2220	0.3	N
20221206_2230	0.3	N
20221206_2240	0.3	ENE
20221206_2250	0.3	NE
20221206_2300	0.8	NE
20221206_2310	0.3	ENE
20221206_2320	0	N
20221206_2330	0	N
20221206_2340	0.3	-
20221206_2350	0.3	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221207_0000	0.3	N
20221207_0010	0.8	NNW
20221207_0020	1.1	NNW
20221207_0020	1.1	NNW
20221207_0030	0.8	NNE
20221207_0040	0.3	NNE
20221207_0050	0.3	NNE
20221207_0100	0.3	NNE
20221207_0110	0	N
20221207_0120	0	N
20221207_0130	0	N
20221207_0140	0	N
20221207_0150	0	N
20221207_0200	0.8	NNW
20221207_0210	2.2	NNE
20221207_0220	1.4	N
20221207_0230	1.1	N
20221207_0240	0.8	N
20221207_0250	1.4	N
20221207_0300	0.8	N
20221207_0310	0.6	NNE
20221207_0320	1.1	NNE
20221207_0330	0.6	NNE
20221207_0340	0.3	NNW
20221207_0350	0.3	NNW
20221207_0400	0	N
20221207_0410	0	N
20221207_0420	0	N
20221207_0430	0	N
20221207_0440	0.3	WSW
20221207_0450	0.3	NW
20221207_0500	0.3	NW
20221207_0510	0.6	NW
20221207_0520	0.3	NW
20221207_0530	0.3	NNW
20221207_0540	0.3	-
20221207_0550	0.3	NW
20221207_0600	0.8	NNW
20221207_0610	1.1	NNW
20221207_0620	0.6	NNE
20221207_0630	0.3	-
20221207_0640	0.8	NW
20221207_0650	1.1	NNW
20221207_0700	0.8	N
20221207_0710	2.2	NNW
20221207_0720	2.5	NW
20221207_0730	2.5	NNW
20221207_0740	3.1	NNW
20221207_0750	2.2	NNW
20221207_0800	1.7	NNW
20221207_0810	1.9	NNW
20221207_0820	2.2	N
20221207_0830	0.8	ENE
20221207_0930	1.4	N
20221207_0940	1.1	N
20221207_0950	1.1	NNE
20221207_1000	1.7	N
20221207_1010	1.4	N
20221207_1020	1.7	N
20221207_1030	1.7	NNE
20221207_1040	2.2	N
20221207_1050	2.5	N
20221207_1100	3.1	N
20221207_1110	3.3	N
20221207_1120	2.5	N
20221207_1130	3.3	N
20221207_1140	3.1	N
20221207_1150	3.1	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221207_1200	3.3	N
20221207_1210	3.3	N
20221207_1220	4.2	NNE
20221207_1230	3.3	N
20221207_1240	3.3	N
20221207_1250	2.8	N
20221207_1300	2.2	NNW
20221207_1310	2.2	N
20221207_1320	2.8	N
20221207_1330	3.3	NNE
20221207_1340	1.7	ENE
20221207_1350	1.4	E
20221207_1400	1.7	E
20221207_1410	1.7	ESE
20221207_1420	1.4	NE
20221207_1430	1.9	NE
20221207_1440	2.2	N
20221207_1450	2.2	N
20221207_1500	2.2	N
20221207_1510	1.9	N
20221207_1520	2.5	NNE
20221207_1530	2.5	N
20221207_1540	1.7	NNE
20221207_1550	2.2	NNE
20221207_1600	1.4	NNE
20221207_1610	2.2	NE
20221207_1620	1.4	NNE
20221207_1630	1.7	E
20221207_1640	0.8	E
20221207_1650	1.7	ENE
20221207_1700	1.9	NE
20221207_1710	1.4	NNE
20221207_1720	1.4	NNE
20221207_1730	1.4	NNE
20221207_1740	1.4	NNE
20221207_1750	0.8	NNE
20221207_1800	0.8	N
20221207_1810	0.3	SE
20221207_1820	0.3	NW
20221207_1830	0.3	-
20221207_1840	0	N
20221207_1850	0	N
20221207_1900	0	N
20221207_1910	0	N
20221207_1920	0.3	NW
20221207_1930	0	N
20221207_1940	0.3	NW
20221207_1950	0	N
20221207_2000	0.3	S
20221207_2010	0	N
20221207_2020	0	N
20221207_2030	0	N
20221207_2040	0.3	SSE
20221207_2050	0	N
20221207_2100	0	N
20221207_2110	0.3	NNE
20221207_2120	0	N
20221207_2130	0	N
20221207_2140	0	N
20221207_2150	0	N
20221207_2200	0	N
20221207_2210	0	N
20221207_2220	0.3	S
20221207_2230	0	N
20221207_2240	0.3	-
20221207_2250	0	N
20221207_2300	0	N
20221207_2310	0	N
20221207_2320	0	N
20221207_2330	0.3	S
20221207_2340	0	N
20221207_2350	0.3	WNW

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221208_0000	0	N
20221208_0010	0	N
20221208_0020	0	N
20221208_0020	0	N
20221208_0030	0	N
20221208_0040	0	N
20221208_0050	0	N
20221208_0100	0	N
20221208_0110	0	N
20221208_0120	0	N
20221208_0130	0	N
20221208_0140	0	N
20221208_0150	0	N
20221208_0200	0	N
20221208_0210	0	N
20221208_0220	0	N
20221208_0230	0	N
20221208_0240	0.3	SSE
20221208_0250	0.8	SE
20221208_0300	0.3	SE
20221208_0310	0.3	ESE
20221208_0320	0	N
20221208_0330	0	N
20221208_0340	0	N
20221208_0350	0	N
20221208_0400	0.3	SSW
20221208_0410	0.3	SSW
20221208_0420	0	N
20221208_0430	0	N
20221208_0440	0	N
20221208_0450	0	N
20221208_0500	0	N
20221208_0510	0.3	S
20221208_0520	0.3	S
20221208_0530	0	N
20221208_0540	0	N
20221208_0550	0	N
20221208_0600	0	N
20221208_0610	0	N
20221208_0620	0.3	SSE
20221208_0630	0	N
20221208_0640	0	N
20221208_0650	0	N
20221208_0700	0	N
20221208_0710	0	N
20221208_0720	0	N
20221208_0730	0	N
20221208_0740	0	N
20221208_0750	0	N
20221208_0800	0	N
20221208_0810	0.3	E
20221208_0820	0.3	-
20221208_0830	0.3	NE
20221208_0840	0.3	NNE
20221208_0850	1.4	N
20221208_0900	1.9	N
20221208_0910	2.2	N
20221208_0920	2.5	N
20221208_0930	2.2	N
20221208_0940	2.8	N
20221208_0950	2.8	N
20221208_1000	3.1	N
20221208_1010	3.1	N
20221208_1020	2.8	NNE
20221208_1030	2.5	N
20221208_1040	2.8	N
20221208_1050	2.2	N
20221208_1100	1.7	NNW
20221208_1110	1.7	N
20221208_1120	2.2	NNW
20221208_1130	2.5	NW
20221208_1140	1.7	NW
20221208_1150	1.7	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221208_1200	1.7	NNW
20221208_1210	1.4	NW
20221208_1220	1.7	WNW
20221208_1230	1.7	NW
20221208_1240	2.2	NNW
20221208_1250	1.7	N
20221208_1300	1.4	-
20221208_1310	1.9	WNW
20221208_1320	1.7	N
20221208_1330	2.2	N
20221208_1340	1.4	N
20221208_1350	2.2	N
20221208_1400	1.4	-
20221208_1410	2.2	N
20221208_1420	1.7	NNW
20221208_1430	1.7	N
20221208_1440	1.7	N
20221208_1450	1.7	N
20221208_1500	2.5	N
20221208_1510	1.9	NW
20221208_1520	1.4	NNW
20221208_1530	1.7	N
20221208_1540	0.8	NNE
20221208_1550	1.1	-
20221208_1600	1.4	NNW
20221208_1610	1.7	N
20221208_1620	1.7	NNW
20221208_1630	1.1	N
20221208_1640	1.4	N
20221208_1650	1.1	N
20221208_1700	1.1	N
20221208_1710	1.4	N
20221208_1720	1.1	NNW
20221208_1730	0.8	NNW
20221208_1740	1.1	N
20221208_1750	1.1	NNE
20221208_1800	0.3	NNE
20221208_1810	0	N
20221208_1820	0.3	N
20221208_1830	0	N
20221208_1840	0.3	N
20221208_1850	0	N
20221208_1900	0	N
20221208_1910	0.3	S
20221208_1920	0.3	S
20221208_1930	0.3	S
20221208_1940	0	N
20221208_1950	0	N
20221208_2000	0	N
20221208_2010	0	N
20221208_2020	0	N
20221208_2030	0	N
20221208_2040	0	N
20221208_2050	0	N
20221208_2100	0	N
20221208_2110	0.3	-
20221208_2120	0	N
20221208_2130	0	N
20221208_2140	0	N
20221208_2150	0.3	S
20221208_2200	0.3	SSE
20221208_2210	0	N
20221208_2220	0	N
20221208_2230	0	N
20221208_2240	0	N
20221208_2250	0	N
20221208_2300	0	N
20221208_2310	0	N
20221208_2320	0	N
20221208_2330	0	N
20221208_2340	0	N
20221208_2350	0	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221209_0000	0	N
20221209_0010	0	N
20221209_0020	0	N
20221209_0020	0	N
20221209_0030	0	N
20221209_0040	0	N
20221209_0050	0.3	SE
20221209_0100	0.3	SE
20221209_0110	0	N
20221209_0120	0.3	-
20221209_0130	0	N
20221209_0140	0.3	-
20221209_0150	0.3	-
20221209_0200	1.7	NNW
20221209_0210	1.7	-
20221209_0220	2.2	NNW
20221209_0230	2.2	N
20221209_0240	1.7	ESE
20221209_0250	0.8	SSE
20221209_0300	0.8	SSE
20221209_0310	0.6	SSE
20221209_0320	0	N
20221209_0330	0.3	SE
20221209_0340	0.3	SSE
20221209_0350	0	N
20221209_0400	0.3	SSE
20221209_0410	0.3	SE
20221209_0420	0.3	ESE
20221209_0430	0.3	SE
20221209_0440	0	N
20221209_0450	0	N
20221209_0500	0	N
20221209_0510	0	N
20221209_0520	0	N
20221209_0530	0.3	S
20221209_0540	0	N
20221209_0550	0.3	SE
20221209_0600	0.3	-
20221209_0610	0	N
20221209_0620	0	N
20221209_0630	0	N
20221209_0640	0	N
20221209_0650	0.3	S
20221209_0700	0.3	-
20221209_0710	0.3	SSE
20221209_0720	0.3	S
20221209_0730	0.3	SW
20221209_0740	0	N
20221209_0750	0	N
20221209_0800	0.3	WNW
20221209_0810	0	N
20221209_0820	0.3	N
20221209_0830	1.1	N
20221209_0840	2.2	N
20221209_0850	1.7	N
20221209_0900	2.8	N
20221209_0910	2.2	N
20221209_0920	2.2	N
20221209_0930	1.7	N
20221209_0940	1.4	NNE
20221209_0950	2.2	NNE
20221209_1000	3.3	N
20221209_1010	3.6	N
20221209_1020	4.2	N
20221209_1030	5	N
20221209_1040	4.4	N
20221209_1050	2.8	N
20221209_1100	3.9	N
20221209_1110	3.3	N
20221209_1120	3.1	N
20221209_1130	3.3	NNW
20221209_1140	3.1	N
20221209_1150	3.3	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221209_1200	3.3	N
20221209_1210	4.2	N
20221209_1220	3.1	N
20221209_1230	3.3	N
20221209_1240	3.3	NNW
20221209_1250	3.9	N
20221209_1300	4.2	N
20221209_1310	3.3	N
20221209_1320	3.9	N
20221209_1330	3.9	N
20221209_1340	3.9	N
20221209_1350	2.8	N
20221209_1400	2.8	NNW
20221209_1410	2.8	NNE
20221209_1420	2.8	N
20221209_1430	3.1	N
20221209_1440	3.1	N
20221209_1450	2.8	N
20221209_1500	3.3	NNE
20221209_1510	2.8	N
20221209_1520	2.8	NNE
20221209_1530	2.5	NNE
20221209_1540	2.5	NNE
20221209_1550	2.2	NNE
20221209_1600	2.2	N
20221209_1610	2.2	N
20221209_1620	1.9	N
20221209_1630	2.2	N
20221209_1640	2.2	N
20221209_1650	2.2	N
20221209_1700	1.7	N
20221209_1710	1.4	N
20221209_1720	1.7	N
20221209_1730	1.7	N
20221209_1740	1.7	NNE
20221209_1750	1.7	NNE
20221209_1800	1.4	N
20221209_1810	1.4	N
20221209_1820	0.8	NNW
20221209_1830	1.7	N
20221209_1840	1.4	N
20221209_1850	0.8	NNE
20221209_1900	0	N
20221209_1910	0	N
20221209_1920	0	N
20221209_1930	0	N
20221209_1940	0	N
20221209_1950	0	N
20221209_2000	0	N
20221209_2010	0	N
20221209_2020	0	N
20221209_2030	0	N
20221209_2040	0	N
20221209_2050	0	N
20221209_2100	0.6	-
20221209_2110	1.1	N
20221209_2120	2.2	NNE
20221209_2130	2.2	N
20221209_2140	1.1	N
20221209_2150	1.7	N
20221209_2200	3.3	NNE
20221209_2210	1.4	NNW
20221209_2220	1.7	N
20221209_2230	1.7	N
20221209_2240	1.9	NNW
20221209_2250	2.5	N
20221209_2300	2.5	N
20221209_2310	2.2	N
20221209_2320	2.2	N
20221209_2330	3.1	N
20221209_2340	4.7	N
20221209_2350	4.4	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221210_0000	3.3	N
20221210_0010	4.2	N
20221210_0020	3.9	NNE
20221210_0020	3.9	NNE
20221210_0030	4.2	N
20221210_0040	3.9	NNE
20221210_0050	3.1	N
20221210_0100	3.9	N
20221210_0110	3.3	N
20221210_0120	3.3	N
20221210_0130	3.3	N
20221210_0140	3.3	N
20221210_0150	2.8	N
20221210_0200	2.8	N
20221210_0210	3.1	N
20221210_0220	3.1	N
20221210_0230	3.1	N
20221210_0240	3.1	N
20221210_0250	3.3	N
20221210_0300	2.8	N
20221210_0310	2.8	N
20221210_0320	1.7	NNE
20221210_0330	0.8	NNE
20221210_0340	0.3	SE
20221210_0350	0.3	-
20221210_0400	0.3	ESE
20221210_0410	0.8	NNW
20221210_0420	1.7	NNE
20221210_0430	0.8	NNE
20221210_0440	1.7	NE
20221210_0450	2.5	NNE
20221210_0500	4.2	NNE
20221210_0510	3.3	N
20221210_0520	3.3	N
20221210_0530	3.3	N
20221210_0540	3.1	N
20221210_0550	3.3	N
20221210_0600	3.9	N
20221210_0610	3.3	NNE
20221210_0620	1.7	NE
20221210_0630	3.3	NNE
20221210_0640	1.7	NE
20221210_0650	2.8	N
20221210_0700	2.2	NNE
20221210_0710	1.7	NNE
20221210_0720	1.1	ENE
20221210_0730	0.3	ENE
20221210_0740	0.3	SSE
20221210_0750	0.3	SSE
20221210_0800	0	N
20221210_0810	0	N
20221210_0820	0	N
20221210_0830	0	N
20221210_0840	0.3	WNW
20221210_0850	0.6	WNW
20221210_0900	0.8	NNW
20221210_0910	1.9	N
20221210_0920	1.7	N
20221210_0930	1.7	N
20221210_0940	2.5	N
20221210_0950	3.1	NNE
20221210_1000	4.2	NNE
20221210_1010	4.4	NNE
20221210_1020	4.2	N
20221210_1030	4.2	N
20221210_1040	4.2	NNE
20221210_1050	3.3	N
20221210_1100	3.3	N
20221210_1110	3.3	NNW
20221210_1120	3.3	N
20221210_1130	3.1	N
20221210_1140	3.9	N
20221210_1150	3.9	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221210_1200	4.7	NNE
20221210_1210	4.4	NNE
20221210_1220	3.9	NNE
20221210_1230	3.3	N
20221210_1240	3.1	N
20221210_1250	4.2	NNE
20221210_1300	3.6	NNE
20221210_1310	2.5	N
20221210_1320	1.7	NNW
20221210_1330	2.5	NNW
20221210_1340	2.2	NNW
20221210_1350	2.5	N
20221210_1400	3.1	N
20221210_1410	1.9	NNW
20221210_1420	1.7	N
20221210_1430	2.8	N
20221210_1440	1.7	N
20221210_1450	1.9	NNW
20221210_1500	2.2	N
20221210_1510	2.2	NNW
20221210_1520	2.2	NNW
20221210_1530	2.5	NNE
20221210_1540	2.5	N
20221210_1550	1.7	N
20221210_1600	1.9	N
20221210_1610	2.5	N
20221210_1620	2.8	N
20221210_1630	3.3	N
20221210_1640	3.9	N
20221210_1650	3.3	N
20221210_1700	3.3	N
20221210_1710	3.1	N
20221210_1720	2.8	N
20221210_1730	2.5	N
20221210_1740	2.8	NNE
20221210_1750	1.7	NNE
20221210_1800	1.4	N
20221210_1810	1.1	NNE
20221210_1820	1.4	NNE
20221210_1830	1.1	N
20221210_1840	0.6	NNE
20221210_1850	1.4	NNE
20221210_1900	1.7	NNE
20221210_1910	1.7	NNE
20221210_1920	1.1	NNE
20221210_1930	2.2	NNE
20221210_1940	2.5	NNE
20221210_1950	1.4	NNE
20221210_2000	2.2	NNE
20221210_2010	1.4	NE
20221210_2020	2.2	NNE
20221210_2030	2.2	NNE
20221210_2040	1.1	NNE
20221210_2050	2.2	NNE
20221210_2100	2.2	NNE
20221210_2110	3.1	N
20221210_2120	3.3	N
20221210_2130	2.8	N
20221210_2140	2.8	N
20221210_2150	3.1	N
20221210_2200	3.6	N
20221210_2210	3.6	N
20221210_2220	3.3	N
20221210_2230	2.5	N
20221210_2240	2.8	NNE
20221210_2250	1.1	SE
20221210_2300	0.8	-
20221210_2310	0.6	-
20221210_2320	1.7	NNW
20221210_2330	1.9	NNW
20221210_2340	2.2	NNW
20221210_2350	2.2	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221211_0000	2.5	N
20221211_0010	3.1	N
20221211_0020	2.5	N
20221211_0020	2.5	N
20221211_0030	2.8	N
20221211_0040	2.5	N
20221211_0050	2.5	NNE
20221211_0100	3.9	NNE
20221211_0110	3.9	NNE
20221211_0120	4.2	NNE
20221211_0130	4.4	NNE
20221211_0140	5	NNE
20221211_0150	4.4	NNE
20221211_0200	3.1	NNE
20221211_0210	2.8	N
20221211_0220	3.1	N
20221211_0230	3.3	N
20221211_0240	3.9	NNE
20221211_0250	5.3	NNE
20221211_0300	4.4	NNE
20221211_0310	4.2	NNE
20221211_0320	4.4	NNE
20221211_0330	3.9	NNE
20221211_0340	3.9	NNE
20221211_0350	4.2	NNE
20221211_0400	3.6	NNE
20221211_0410	3.1	N
20221211_0420	3.3	N
20221211_0430	3.3	NNE
20221211_0440	3.9	NNE
20221211_0450	4.2	N
20221211_0500	3.3	NNE
20221211_0510	3.6	N
20221211_0520	3.9	NNE
20221211_0530	3.9	NNE
20221211_0540	4.2	NNE
20221211_0550	4.2	NNE
20221211_0600	5	NNE
20221211_0610	4.2	NNE
20221211_0620	3.9	NNE
20221211_0630	3.1	N
20221211_0640	3.1	N
20221211_0650	2.8	N
20221211_0700	3.6	N
20221211_0710	3.3	N
20221211_0720	3.9	N
20221211_0730	3.9	NNE
20221211_0740	4.2	N
20221211_0750	3.3	N
20221211_0800	4.2	N
20221211_0810	4.4	NNE
20221211_0820	4.7	NNE
20221211_0830	5	NNE
20221211_0840	4.4	NNE
20221211_0850	3.9	NNE
20221211_0900	5.3	NNE
20221211_0910	4.7	NNE
20221211_0920	5	NNE
20221211_0930	5	NNE
20221211_0940	5	NNE
20221211_0950	5.3	NNE
20221211_1000	5	NNE
20221211_1010	4.7	NNE
20221211_1020	3.9	NNE
20221211_1030	4.7	NNE
20221211_1040	6.1	NNE
20221211_1050	6.1	NNE
20221211_1100	6.4	NNE
20221211_1110	5.3	NNE
20221211_1120	5.8	NNE
20221211_1130	5.3	NNE
20221211_1140	4.7	NNE
20221211_1150	5	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221211_1200	5	NNE
20221211_1210	5.3	NNE
20221211_1220	5.8	NNE
20221211_1230	4.7	N
20221211_1240	6.4	NNE
20221211_1250	5.3	NNE
20221211_1300	5.3	NNE
20221211_1310	5	NNE
20221211_1320	5.3	NNE
20221211_1330	5.3	NNE
20221211_1340	4.7	NNE
20221211_1350	4.7	NNE
20221211_1400	4.2	NNE
20221211_1410	3.3	NNE
20221211_1420	3.6	N
20221211_1430	3.9	NNE
20221211_1440	3.9	NNE
20221211_1450	3.9	NNE
20221211_1500	3.3	NNE
20221211_1510	3.3	N
20221211_1520	3.9	NNE
20221211_1530	3.3	NNE
20221211_1540	4.2	NNE
20221211_1550	3.6	NNE
20221211_1600	3.6	NNE
20221211_1610	3.3	NNE
20221211_1620	4.2	NNE
20221211_1630	4.2	NNE
20221211_1640	3.1	NNE
20221211_1650	4.7	NNE
20221211_1700	4.7	NNE
20221211_1710	3.3	NNE
20221211_1720	3.6	NNE
20221211_1730	3.3	NNE
20221211_1740	2.8	NNE
20221211_1750	3.3	NNE
20221211_1800	3.9	NNE
20221211_1810	4.2	NNE
20221211_1820	4.4	NNE
20221211_1830	5	NNE
20221211_1840	5	NNE
20221211_1850	4.7	NNE
20221211_1900	5.8	NNE
20221211_1910	4.7	NNE
20221211_1920	5.3	NNE
20221211_1930	5	NNE
20221211_1940	5.8	NNE
20221211_1950	5	NNE
20221211_2000	5	NNE
20221211_2010	5	NNE
20221211_2020	5.3	NNE
20221211_2030	5	NNE
20221211_2040	4.7	NNE
20221211_2050	3.9	N
20221211_2100	4.2	NNE
20221211_2110	5	N
20221211_2120	4.4	NNE
20221211_2130	5.3	N
20221211_2140	4.4	N
20221211_2150	5	NNE
20221211_2200	5	NNE
20221211_2210	4.7	NNE
20221211_2220	4.7	NNE
20221211_2230	4.4	NNE
20221211_2240	5.3	NNE
20221211_2250	4.4	NNE
20221211_2300	5.3	NNE
20221211_2310	5	NNE
20221211_2320	4.4	NNE
20221211_2330	5.3	NNE
20221211_2340	5	NNE
20221211_2350	5	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221212_0000	4.4	NNE
20221212_0010	4.7	N
20221212_0020	3.9	N
20221212_0030	4.4	N
20221212_0040	4.7	N
20221212_0050	4.4	N
20221212_0100	3.9	N
20221212_0110	4.7	NNE
20221212_0120	5	NNE
20221212_0130	5	NNE
20221212_0140	5	NNE
20221212_0150	4.2	N
20221212_0200	4.2	N
20221212_0210	3.9	NNE
20221212_0220	4.7	NNE
20221212_0230	3.9	NNE
20221212_0240	4.2	NNE
20221212_0250	3.9	NNE
20221212_0300	4.2	NNE
20221212_0310	3.9	N
20221212_0320	3.9	N
20221212_0330	4.2	NNE
20221212_0340	3.9	NNE
20221212_0350	5	NNE
20221212_0400	4.4	NNE
20221212_0410	4.7	NNE
20221212_0420	5	NNE
20221212_0430	3.9	N
20221212_0440	3.3	N
20221212_0450	3.3	NNE
20221212_0500	3.9	NNE
20221212_0510	4.2	NNE
20221212_0520	4.7	NNE
20221212_0530	3.3	NNE
20221212_0540	3.9	NNE
20221212_0550	4.4	NNE
20221212_0600	3.9	NNE
20221212_0610	4.2	N
20221212_0620	3.3	NNE
20221212_0630	3.1	N
20221212_0640	3.9	N
20221212_0650	3.9	N
20221212_0700	4.4	N
20221212_0710	4.4	NNE
20221212_0720	4.7	N
20221212_0730	3.3	NNE
20221212_0740	3.9	NNE
20221212_0750	3.3	NNE
20221212_0800	4.2	NNE
20221212_0810	3.3	NNE
20221212_0820	4.4	NNE
20221212_0830	4.4	NNE
20221212_0840	4.2	NNE
20221212_0850	4.7	NNE
20221212_0900	6.4	NNE
20221212_0910	4.7	N
20221212_0920	5	NNE
20221212_0930	5	N
20221212_0940	5.8	NNE
20221212_0950	6.1	NNE
20221212_1000	5.8	NNE
20221212_1010	5	NNE
20221212_1020	4.4	NNE
20221212_1030	5.6	NNE
20221212_1040	4.7	NNE
20221212_1050	5.8	NNE
20221212_1100	5.3	NNE
20221212_1110	6.4	NNE
20221212_1120	6.1	NNE
20221212_1130	5.3	NNE
20221212_1140	6.4	NNE
20221212_1150	5.8	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221212_1200	5.8	NNE
20221212_1210	5.8	NNE
20221212_1220	5.8	NNE
20221212_1230	5	NNE
20221212_1240	4.4	NNE
20221212_1250	5	NNE
20221212_1300	5.3	NNE
20221212_1310	4.7	NNE
20221212_1320	4.4	NNE
20221212_1330	5.8	NNE
20221212_1340	5.6	NE
20221212_1350	4.7	NNE
20221212_1400	4.2	NNE
20221212_1410	5	NNE
20221212_1420	3.9	NNE
20221212_1430	4.2	NNE
20221212_1440	5	NE
20221212_1450	5.3	NE
20221212_1500	4.4	NNE
20221212_1510	3.9	NNE
20221212_1520	4.2	NE
20221212_1530	5	NNE
20221212_1540	6.4	NNE
20221212_1550	5.3	NNE
20221212_1600	5	NNE
20221212_1610	5.3	NNE
20221212_1620	5.8	NNE
20221212_1630	5.6	NNE
20221212_1640	3.9	NNE
20221212_1650	4.4	NNE
20221212_1700	5.3	NNE
20221212_1710	6.1	NNE
20221212_1720	5.8	NNE
20221212_1730	5	NNE
20221212_1740	3.9	NNE
20221212_1750	5.3	NNE
20221212_1800	5	NNE
20221212_1810	5	NNE
20221212_1820	4.2	NNE
20221212_1830	3.9	NNE
20221212_1840	4.2	NNE
20221212_1850	3.3	NNE
20221212_1900	3.9	NNE
20221212_1910	4.7	NNE
20221212_1920	5	NNE
20221212_1930	4.7	NNE
20221212_1940	4.2	NNE
20221212_1950	4.4	NNE
20221212_2000	4.7	NNE
20221212_2010	5.8	NNE
20221212_2020	4.2	NNE
20221212_2030	4.4	NNE
20221212_2040	5	NNE
20221212_2050	4.4	NNE
20221212_2100	3.9	NNE
20221212_2110	4.2	NNE
20221212_2120	4.7	NNE
20221212_2130	3.9	NNE
20221212_2140	4.7	NNE
20221212_2150	5	NNE
20221212_2200	5.3	NNE
20221212_2210	5	NNE
20221212_2220	5	NNE
20221212_2230	5.3	NNE
20221212_2240	4.7	NNE
20221212_2250	5.3	NNE
20221212_2300	5	NNE
20221212_2310	5	NNE
20221212_2320	5.3	NNE
20221212_2330	5.3	NNE
20221212_2340	4.4	NNE
20221212_2350	3.9	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221213_0000	4.7	NNE
20221213_0010	5	NNE
20221213_0020	5.3	NNE
20221213_0030	5	NNE
20221213_0030	5	NNE
20221213_0040	5	NNE
20221213_0050	4.7	NNE
20221213_0100	5.3	NNE
20221213_0110	5	NNE
20221213_0120	5	NNE
20221213_0130	5	NNE
20221213_0140	5.3	NNE
20221213_0150	6.4	NNE
20221213_0200	5.3	NNE
20221213_0210	5	NNE
20221213_0220	4.7	N
20221213_0230	4.7	N
20221213_0240	4.4	N
20221213_0250	5.3	NNE
20221213_0300	4.2	NNE
20221213_0310	4.7	N
20221213_0320	4.7	NNE
20221213_0330	4.7	NNE
20221213_0340	4.7	NNE
20221213_0350	5	N
20221213_0400	5	NNE
20221213_0410	5	NNE
20221213_0420	5.3	NNE
20221213_0430	4.7	NNE
20221213_0440	4.2	N
20221213_0450	4.7	N
20221213_0500	4.7	NNE
20221213_0510	4.7	N
20221213_0520	5.3	NNE
20221213_0530	5.3	NNE
20221213_0540	4.4	NNE
20221213_0550	5	N
20221213_0600	4.7	NNE
20221213_0610	3.3	N
20221213_0620	3.9	N
20221213_0630	3.3	N
20221213_0640	3.1	N
20221213_0650	3.3	N
20221213_0700	3.6	N
20221213_0710	3.1	N
20221213_0720	3.6	N
20221213_0730	4.4	N
20221213_0740	4.4	NNE
20221213_0750	4.2	N
20221213_0800	4.2	N
20221213_0810	5.3	N
20221213_0820	5.3	N
20221213_0830	5.3	N
20221213_0840	5	N
20221213_0850	4.7	N
20221213_0900	4.2	N
20221213_0910	4.7	N
20221213_0920	4.4	N
20221213_0930	4.7	N
20221213_0940	4.4	N
20221213_0950	4.7	N
20221213_1000	5.6	N
20221213_1010	4.7	N
20221213_1020	3.9	N
20221213_1030	4.7	NNE
20221213_1040	4.2	N
20221213_1050	4.2	N
20221213_1100	3.9	N
20221213_1110	4.7	N
20221213_1120	4.4	N
20221213_1130	4.7	N
20221213_1140	3.9	N
20221213_1150	3.9	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221213_1200	5	N
20221213_1210	3.3	N
20221213_1220	2.8	N
20221213_1230	3.9	N
20221213_1240	4.4	N
20221213_1250	4.2	N
20221213_1300	3.3	N
20221213_1310	3.9	N
20221213_1320	3.3	N
20221213_1330	3.6	N
20221213_1340	4.2	N
20221213_1350	3.9	N
20221213_1400	4.7	N
20221213_1410	4.7	NNE
20221213_1420	5	NNE
20221213_1430	4.2	NNE
20221213_1440	4.2	NNE
20221213_1450	4.2	NNE
20221213_1500	4.7	NNE
20221213_1510	4.2	N
20221213_1520	4.7	NNE
20221213_1530	4.7	NNE
20221213_1540	3.9	NNE
20221213_1550	3.1	NNE
20221213_1600	3.3	NNE
20221213_1610	3.3	NNE
20221213_1620	3.3	N
20221213_1630	2.5	N
20221213_1640	2.8	N
20221213_1650	3.3	N
20221213_1700	3.1	N
20221213_1710	2.5	N
20221213_1720	2.8	N
20221213_1730	2.5	N
20221213_1740	3.1	N
20221213_1750	2.2	N
20221213_1800	2.8	NNE
20221213_1810	2.5	NNE
20221213_1820	3.3	NNE
20221213_1830	3.1	NNE
20221213_1840	3.1	N
20221213_1850	3.3	N
20221213_1900	3.3	N
20221213_1910	3.9	NNE
20221213_1920	3.3	NNE
20221213_1930	2.8	NNE
20221213_1940	3.3	N
20221213_1950	3.3	N
20221213_2000	3.3	N
20221213_2010	2.2	NNE
20221213_2020	2.2	N
20221213_2030	2.2	N
20221213_2040	1.7	N
20221213_2050	2.5	NNE
20221213_2100	2.2	N
20221213_2110	1.9	NNE
20221213_2120	1.7	N
20221213_2130	1.7	NNE
20221213_2140	1.7	N
20221213_2150	2.2	N
20221213_2200	2.2	NNE
20221213_2210	1.7	NNE
20221213_2220	1.9	NNE
20221213_2230	2.5	NNE
20221213_2240	1.7	N
20221213_2250	2.5	N
20221213_2300	3.3	N
20221213_2310	3.1	N
20221213_2320	3.3	N
20221213_2330	3.9	NNE
20221213_2340	3.9	NNE
20221213_2350	3.3	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221214_0000	3.3	N
20221214_0010	3.6	N
20221214_0020	2.8	N
20221214_0030	2.8	N
20221214_0020	2.8	N
20221214_0030	2.8	N
20221214_0040	3.9	N
20221214_0050	4.2	N
20221214_0100	4.2	N
20221214_0110	3.9	N
20221214_0120	4.2	N
20221214_0130	3.9	N
20221214_0140	4.2	N
20221214_0150	3.9	N
20221214_0200	3.9	N
20221214_0210	4.7	N
20221214_0220	4.7	N
20221214_0230	4.2	N
20221214_0240	4.2	N
20221214_0250	5	N
20221214_0300	4.2	N
20221214_0310	4.7	N
20221214_0320	5	N
20221214_0330	4.2	N
20221214_0340	4.7	N
20221214_0350	4.2	N
20221214_0400	3.6	N
20221214_0410	3.9	NNE
20221214_0420	4.2	NNE
20221214_0430	4.2	N
20221214_0440	3.3	N
20221214_0450	4.2	N
20221214_0500	4.2	N
20221214_0510	4.7	NNE
20221214_0520	5.3	NNE
20221214_0530	5.3	NNE
20221214_0540	5.3	NNE
20221214_0550	5	NNE
20221214_0600	5.3	NNE
20221214_0610	4.4	NNE
20221214_0620	3.9	NNE
20221214_0630	2.8	NNE
20221214_0640	3.3	NNE
20221214_0650	3.3	NNE
20221214_0700	3.3	NNE
20221214_0710	3.6	NNE
20221214_0720	3.3	NNE
20221214_0730	4.2	NNE
20221214_0740	4.2	NNE
20221214_0750	4.7	NNE
20221214_0800	5	N
20221214_0810	5.3	NNE
20221214_0820	5.3	NNE
20221214_0830	4.7	N
20221214_0840	4.4	NNE
20221214_0850	4.2	NNE
20221214_0900	4.2	NNE
20221214_0910	3.9	NNE
20221214_0920	4.2	NNE
20221214_0930	3.1	NNE
20221214_0940	3.3	NNE
20221214_0950	3.3	N
20221214_1000	3.1	NNE
20221214_1010	3.3	N
20221214_1020	4.2	N
20221214_1030	3.9	N
20221214_1040	4.2	N
20221214_1050	4.2	N
20221214_1100	3.9	N
20221214_1110	3.9	N
20221214_1120	4.7	NNE
20221214_1130	3.9	NNE
20221214_1140	4.4	NNE
20221214_1150	3.9	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221214_1200	3.3	N
20221214_1210	3.3	N
20221214_1220	4.2	NNE
20221214_1230	3.9	NNE
20221214_1240	3.9	NNE
20221214_1250	2.8	NNE
20221214_1300	2.5	N
20221214_1310	2.8	NNE
20221214_1320	3.3	N
20221214_1330	3.3	N
20221214_1340	3.6	N
20221214_1350	3.3	NNE
20221214_1400	2.8	N
20221214_1410	3.1	N
20221214_1420	3.1	N
20221214_1430	3.1	NNE
20221214_1440	2.5	NNE
20221214_1450	2.2	NNE
20221214_1500	1.7	NNE
20221214_1510	1.7	N
20221214_1520	2.5	N
20221214_1530	2.5	NNE
20221214_1540	2.2	N
20221214_1550	2.2	N
20221214_1600	3.3	N
20221214_1610	3.3	NNE
20221214_1620	4.4	NNE
20221214_1630	4.2	NNE
20221214_1640	4.7	NNE
20221214_1650	3.3	N
20221214_1700	3.3	N
20221214_1710	3.1	NNE
20221214_1720	2.2	NNE
20221214_1730	1.7	NNE
20221214_1740	1.1	NNE
20221214_1750	0.8	NE
20221214_1800	0.3	SSW
20221214_1810	0.3	-
20221214_1820	0.8	N
20221214_1830	0.3	-
20221214_1840	0.3	-
20221214_1850	0	N
20221214_1900	0.3	-
20221214_1910	1.1	NE
20221214_1920	0.3	-
20221214_1930	0.8	N
20221214_1940	2.2	N
20221214_1950	3.1	NNE
20221214_2000	2.5	NNE
20221214_2010	2.8	NNE
20221214_2020	2.2	N
20221214_2030	2.8	NNE
20221214_2040	3.1	NNE
20221214_2050	2.5	NNE
20221214_2100	1.9	NNE
20221214_2110	0.6	NE
20221214_2120	0.8	NE
20221214_2130	1.1	NNE
20221214_2140	1.7	N
20221214_2150	1.1	N
20221214_2200	1.1	NNW
20221214_2210	1.1	N
20221214_2220	1.4	N
20221214_2230	2.5	N
20221214_2240	2.5	N
20221214_2250	2.2	NNE
20221214_2300	2.5	N
20221214_2310	2.8	NNE
20221214_2320	3.1	NNE
20221214_2330	2.2	N
20221214_2340	1.9	N
20221214_2350	2.2	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221215_0000	2.2	NNE
20221215_0010	2.5	NNE
20221215_0020	2.2	NNE
20221215_0020	2.2	NNE
20221215_0030	1.7	NNE
20221215_0040	1.4	N
20221215_0050	0.8	N
20221215_0100	1.1	N
20221215_0110	0.8	N
20221215_0120	0.8	N
20221215_0130	1.1	N
20221215_0140	0.8	NNE
20221215_0150	0.8	N
20221215_0200	1.1	N
20221215_0210	1.1	NNE
20221215_0220	1.1	N
20221215_0230	0.8	N
20221215_0240	0.8	N
20221215_0250	1.1	NNE
20221215_0300	1.7	NNE
20221215_0310	1.4	N
20221215_0320	1.7	N
20221215_0330	1.1	N
20221215_0340	1.7	N
20221215_0350	1.7	N
20221215_0400	1.4	N
20221215_0410	1.7	N
20221215_0420	1.7	N
20221215_0430	1.7	NNE
20221215_0440	1.4	N
20221215_0450	1.1	N
20221215_0500	1.1	N
20221215_0510	0.8	N
20221215_0520	1.1	N
20221215_0530	1.1	N
20221215_0540	0.8	-
20221215_0550	0.8	N
20221215_0600	0.6	N
20221215_0610	0.8	N
20221215_0620	1.1	N
20221215_0630	0.8	NNE
20221215_0640	1.1	NNE
20221215_0650	0.3	NW
20221215_0700	0.6	NW
20221215_0710	0.8	NNW
20221215_0720	0.8	NNE
20221215_0730	0.3	N
20221215_0740	1.1	N
20221215_0750	0.8	N
20221215_0800	0.8	N
20221215_0810	0.6	NW
20221215_0820	0.8	NNW
20221215_0830	0.8	N
20221215_0840	0.8	N
20221215_0850	0.8	N
20221215_0900	0.3	NNW
20221215_0910	0.3	N
20221215_0920	0.8	NNE
20221215_0930	0.3	N
20221215_0940	0.8	N
20221215_0950	1.1	N
20221215_1000	0.3	N
20221215_1010	0.8	NW
20221215_1020	1.1	NNE
20221215_1030	1.4	NNE
20221215_1040	0.6	N
20221215_1050	0.8	N
20221215_1100	0.8	NNE
20221215_1110	0.8	N
20221215_1120	0.8	N
20221215_1130	0.6	N
20221215_1140	0.8	NNW
20221215_1150	1.4	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221215_1200	1.1	N
20221215_1210	1.4	NNE
20221215_1220	1.1	N
20221215_1230	1.4	N
20221215_1240	1.4	N
20221215_1250	1.7	N
20221215_1300	1.4	NNW
20221215_1310	1.1	NNW
20221215_1320	1.4	N
20221215_1330	1.1	N
20221215_1340	1.1	NNW
20221215_1350	0.8	NNW
20221215_1400	0.8	NNW
20221215_1410	0.3	-
20221215_1420	1.1	NNW
20221215_1430	1.7	N
20221215_1440	1.4	N
20221215_1450	0.8	NNW
20221215_1500	0.8	NNW
20221215_1510	0.8	NNW
20221215_1520	1.4	N
20221215_1530	1.1	NNW
20221215_1540	0.6	NW
20221215_1550	0.3	NNW
20221215_1600	0.3	NNW
20221215_1610	0.8	NNW
20221215_1620	1.1	NNE
20221215_1630	1.1	NNE
20221215_1640	1.1	N
20221215_1650	0.8	NNW
20221215_1700	1.1	NNW
20221215_1710	1.1	NNW
20221215_1720	1.7	N
20221215_1730	0.8	NNE
20221215_1740	1.1	NNE
20221215_1750	1.1	NNE
20221215_1800	0.3	ENE
20221215_1810	0.3	ESE
20221215_1820	0	N
20221215_1830	0	N
20221215_1840	0	N
20221215_1850	0.3	SW
20221215_1900	0.8	SW
20221215_1910	0	N
20221215_1920	0	N
20221215_1930	0.3	NNW
20221215_1940	0.3	N
20221215_1950	0.3	NNE
20221215_2000	0	N
20221215_2010	0.3	N
20221215_2020	0.3	NNE
20221215_2030	0.3	NE
20221215_2040	0.3	N
20221215_2050	0	N
20221215_2100	0	N
20221215_2110	0	N
20221215_2120	0	N
20221215_2130	0	N
20221215_2140	0	N
20221215_2150	0	N
20221215_2200	0	N
20221215_2210	0	N
20221215_2220	0	N
20221215_2230	0.3	N
20221215_2240	0.3	NNE
20221215_2250	0.3	NNE
20221215_2300	0.6	N
20221215_2310	0.3	N
20221215_2320	0.3	NNE
20221215_2330	0.3	NE
20221215_2340	0.3	N
20221215_2350	0.3	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221216_0000	0.3	N
20221216_0010	0	N
20221216_0020	0.3	NW
20221216_0020	0.3	NW
20221216_0030	0	N
20221216_0040	0	N
20221216_0050	0	N
20221216_0100	0	N
20221216_0110	0.3	NE
20221216_0120	0.3	N
20221216_0130	0.3	N
20221216_0140	0	N
20221216_0150	0.3	-
20221216_0200	0	N
20221216_0210	0	N
20221216_0220	0.3	NW
20221216_0230	0.3	NW
20221216_0240	0.3	NNW
20221216_0250	0.3	NW
20221216_0300	0	N
20221216_0310	0.3	NW
20221216_0320	0.3	NW
20221216_0330	0.8	NW
20221216_0340	0.3	NW
20221216_0350	0.3	WNW
20221216_0400	0.3	NW
20221216_0410	0.3	N
20221216_0420	0.3	NNW
20221216_0430	0.3	NNE
20221216_0440	0	N
20221216_0450	0.3	NW
20221216_0500	0.6	NE
20221216_0510	0.3	-
20221216_0520	0	N
20221216_0530	0	N
20221216_0540	0	N
20221216_0550	0	N
20221216_0600	0	N
20221216_0610	0	N
20221216_0620	0	N
20221216_0630	0	N
20221216_0640	0	N
20221216_0650	0.3	NNW
20221216_0700	0.3	NNW
20221216_0710	0.6	-
20221216_0720	0.3	WSW
20221216_0730	0	N
20221216_0740	0.3	W
20221216_0750	0.3	NE
20221216_0800	0	N
20221216_0810	0.3	-
20221216_0820	0	N
20221216_0830	0	N
20221216_0840	0	N
20221216_0850	0.3	-
20221216_0900	0	N
20221216_0910	0	N
20221216_0920	0	N
20221216_0930	0.8	WNW
20221216_0940	0.3	N
20221216_0950	1.4	N
20221216_1000	1.4	NNW
20221216_1010	1.4	NNW
20221216_1020	1.4	NNW
20221216_1030	1.4	NNW
20221216_1040	1.7	N
20221216_1050	1.4	NNW
20221216_1100	1.4	NNW
20221216_1110	1.4	NNW
20221216_1120	2.2	NNW
20221216_1130	2.5	NNW
20221216_1140	1.7	NNW
20221216_1150	2.2	NNW

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221216_1200	2.5	NNW
20221216_1210	2.5	NNW
20221216_1220	2.2	N
20221216_1230	2.2	N
20221216_1240	2.2	NNW
20221216_1250	2.8	N
20221216_1300	3.1	N
20221216_1310	2.5	N
20221216_1320	2.2	N
20221216_1330	2.2	NNW
20221216_1340	2.2	N
20221216_1350	1.4	N
20221216_1400	1.4	N
20221216_1410	2.2	N
20221216_1420	1.7	NNW
20221216_1430	1.9	N
20221216_1440	2.5	N
20221216_1450	3.3	N
20221216_1500	3.1	N
20221216_1510	3.3	N
20221216_1520	3.3	N
20221216_1530	3.3	N
20221216_1540	3.6	N
20221216_1550	4.4	N
20221216_1600	3.3	NNE
20221216_1610	3.6	N
20221216_1620	4.7	N
20221216_1630	3.9	N
20221216_1640	3.3	N
20221216_1650	3.3	N
20221216_1700	3.3	N
20221216_1710	3.3	N
20221216_1720	4.2	N
20221216_1730	3.9	N
20221216_1740	3.3	N
20221216_1750	2.8	N
20221216_1800	2.8	N
20221216_1810	2.5	N
20221216_1820	2.2	N
20221216_1830	1.7	N
20221216_1840	2.2	NNE
20221216_1850	3.1	NNE
20221216_1900	1.7	NNE
20221216_1910	1.7	NNE
20221216_1920	3.1	N
20221216_1930	3.6	N
20221216_1940	3.6	N
20221216_1950	4.4	N
20221216_2000	4.2	N
20221216_2010	4.2	N
20221216_2020	3.3	N
20221216_2030	4.7	N
20221216_2040	4.2	N
20221216_2050	4.7	N
20221216_2100	5	N
20221216_2110	4.2	N
20221216_2120	4.2	N
20221216_2130	5.8	N
20221216_2140	4.2	N
20221216_2150	4.4	N
20221216_2200	4.7	N
20221216_2210	4.2	N
20221216_2220	3.3	NNE
20221216_2230	4.7	N
20221216_2240	3.3	N
20221216_2250	3.3	N
20221216_2300	3.9	N
20221216_2310	3.3	N
20221216_2320	4.7	NNE
20221216_2330	3.6	NNE
20221216_2340	4.2	NNE
20221216_2350	4.7	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221217_0000	6.1	N
20221217_0010	3.9	N
20221217_0020	5.3	NNE
20221217_0020	5.3	NNE
20221217_0030	3.6	N
20221217_0040	3.3	N
20221217_0050	3.3	N
20221217_0100	2.8	N
20221217_0110	2.5	N
20221217_0120	2.2	N
20221217_0130	2.2	NNW
20221217_0140	2.5	N
20221217_0150	2.2	N
20221217_0200	2.5	N
20221217_0210	2.2	NNW
20221217_0220	1.7	N
20221217_0230	2.2	N
20221217_0240	2.2	NNE
20221217_0250	2.2	N
20221217_0300	2.8	NNE
20221217_0310	1.9	NE
20221217_0320	1.4	NNE
20221217_0330	2.5	NW
20221217_0340	1.9	NNW
20221217_0350	2.2	N
20221217_0400	2.8	N
20221217_0410	1.7	N
20221217_0420	1.4	NNE
20221217_0430	1.9	-
20221217_0440	2.5	N
20221217_0450	1.7	NNW
20221217_0500	2.2	NNW
20221217_0510	1.7	NNW
20221217_0520	2.8	NNW
20221217_0530	2.5	NNW
20221217_0540	3.3	NNE
20221217_0550	2.8	NNE
20221217_0600	2.5	NNW
20221217_0610	1.7	-
20221217_0620	1.7	NNW
20221217_0630	1.7	NW
20221217_0640	2.5	NNW
20221217_0650	2.2	NNW
20221217_0700	1.7	-
20221217_0710	1.1	SW
20221217_0720	2.2	-
20221217_0730	1.7	SE
20221217_0740	1.7	-
20221217_0750	3.3	NNE
20221217_0800	1.7	-
20221217_0810	3.1	N
20221217_0820	1.7	-
20221217_0830	3.3	NNE
20221217_0840	2.5	N
20221217_0850	3.3	-
20221217_0900	2.5	NNE
20221217_0910	3.1	NE
20221217_0920	4.2	NNE
20221217_0930	4.7	NNE
20221217_0940	3.6	NNE
20221217_0950	2.8	NNE
20221217_1000	3.3	NNE
20221217_1010	4.4	NNE
20221217_1020	4.4	NNE
20221217_1030	4.2	NE
20221217_1040	5.8	NNE
20221217_1050	5	NNE
20221217_1100	5.3	NNE
20221217_1110	5.3	NE
20221217_1120	5.3	NE
20221217_1130	5.8	NNE
20221217_1140	5.8	NE
20221217_1150	4.2	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221217_1200	4.7	NNE
20221217_1210	6.4	NNE
20221217_1220	6.4	NNE
20221217_1230	3.3	NNE
20221217_1240	4.2	NNE
20221217_1250	4.7	N
20221217_1300	4.2	NNE
20221217_1310	3.3	N
20221217_1320	3.3	NNE
20221217_1330	3.3	NNE
20221217_1340	3.3	NNE
20221217_1350	4.2	NNE
20221217_1400	3.3	N
20221217_1410	3.9	N
20221217_1420	2.8	N
20221217_1430	5	NNE
20221217_1440	3.3	N
20221217_1450	3.9	NNE
20221217_1500	4.4	NNE
20221217_1510	3.3	NE
20221217_1520	2.5	NE
20221217_1530	3.3	NE
20221217_1540	2.5	NNE
20221217_1550	1.7	NNE
20221217_1600	1.7	NNE
20221217_1610	1.7	NNE
20221217_1620	1.4	-
20221217_1630	3.3	NNE
20221217_1640	3.1	NE
20221217_1650	4.7	NE
20221217_1700	6.7	NNE
20221217_1710	6.4	NE
20221217_1720	6.4	NE
20221217_1730	6.9	NE
20221217_1740	4.7	NE
20221217_1750	5.8	NE
20221217_1800	6.4	NE
20221217_1810	6.1	NE
20221217_1820	5.8	NE
20221217_1830	5	NE
20221217_1840	6.4	NE
20221217_1850	4.7	NE
20221217_1900	5	NE
20221217_1910	6.7	NE
20221217_1920	6.4	NE
20221217_1930	6.1	NE
20221217_1940	5.3	NE
20221217_1950	5.3	ENE
20221217_2000	6.4	NE
20221217_2010	6.9	NE
20221217_2020	5.8	NE
20221217_2030	6.7	NE
20221217_2040	5.8	NE
20221217_2050	7.8	NE
20221217_2100	5	NE
20221217_2110	6.4	NE
20221217_2120	6.7	NE
20221217_2130	6.7	NE
20221217_2140	6.7	NE
20221217_2150	7.2	NE
20221217_2200	6.1	NE
20221217_2210	4.4	NNE
20221217_2220	6.4	NE
20221217_2230	7.5	NNE
20221217_2240	6.7	NE
20221217_2250	7.5	NE
20221217_2300	7.5	NE
20221217_2310	6.7	NE
20221217_2320	6.1	NNE
20221217_2330	7.8	NE
20221217_2340	7.8	NE
20221217_2350	6.4	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221218_0000	6.4	NE
20221218_0010	7.2	NNE
20221218_0020	6.7	NE
20221218_0020	6.7	NE
20221218_0030	8.9	NE
20221218_0040	8.3	NE
20221218_0050	7.2	NE
20221218_0100	6.7	NE
20221218_0110	5.6	NE
20221218_0120	8.3	NE
20221218_0130	9.2	NE
20221218_0140	8.1	NE
20221218_0150	7.8	NE
20221218_0200	7.2	NE
20221218_0210	8.9	NE
20221218_0220	7.5	NE
20221218_0230	7.5	NE
20221218_0240	7.2	NE
20221218_0250	7.2	NE
20221218_0300	8.3	NE
20221218_0310	7.8	NE
20221218_0320	9.4	NE
20221218_0330	8.9	NE
20221218_0340	6.7	NE
20221218_0350	6.1	NE
20221218_0400	7.2	NE
20221218_0410	6.9	NE
20221218_0420	7.8	NE
20221218_0430	7.2	NE
20221218_0440	6.7	NE
20221218_0450	6.7	NE
20221218_0500	6.4	NE
20221218_0510	5.8	NE
20221218_0520	6.4	NE
20221218_0530	4.4	NE
20221218_0540	5.6	NE
20221218_0550	4.2	ENE
20221218_0600	3.3	ENE
20221218_0610	4.4	NE
20221218_0620	3.6	NE
20221218_0630	5	NNE
20221218_0640	6.1	NE
20221218_0650	6.1	NNE
20221218_0700	7.5	NNE
20221218_0710	5	NNE
20221218_0720	5.3	NNE
20221218_0730	5.8	NNE
20221218_0740	7.8	NNE
20221218_0750	6.7	NNE
20221218_0800	6.4	NNE
20221218_0810	6.9	NNE
20221218_0820	6.1	NNE
20221218_0830	5.6	NNE
20221218_0840	7.5	NNE
20221218_0850	7.8	NNE
20221218_0900	7.8	NNE
20221218_0910	9.4	NNE
20221218_0920	9.2	NNE
20221218_0930	8.1	NNE
20221218_0940	8.1	NNE
20221218_0950	6.9	NNE
20221218_1000	7.5	NNE
20221218_1010	6.4	NNE
20221218_1020	6.7	NNE
20221218_1030	6.4	NNE
20221218_1040	5.3	NNE
20221218_1050	5.8	NNE
20221218_1100	6.4	NNE
20221218_1110	5.8	N
20221218_1120	6.9	NNE
20221218_1130	5.8	NNE
20221218_1140	6.1	NNE
20221218_1150	6.4	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221218_1200	6.4	NNE
20221218_1210	6.7	NNE
20221218_1220	6.7	NNE
20221218_1230	6.4	NNE
20221218_1240	6.1	NNE
20221218_1250	5.8	NNE
20221218_1300	5.8	NNE
20221218_1310	5.3	NNE
20221218_1320	6.1	NNE
20221218_1330	6.1	NE
20221218_1340	5.3	NE
20221218_1350	5.8	NNE
20221218_1400	4.7	NNE
20221218_1410	5.3	NNE
20221218_1420	5.8	NE
20221218_1430	5	NNE
20221218_1440	5.8	NNE
20221218_1450	4.4	NE
20221218_1500	4.4	NNE
20221218_1510	3.9	NNE
20221218_1520	4.2	NE
20221218_1530	4.4	NNE
20221218_1540	4.2	NE
20221218_1550	4.2	NE
20221218_1600	4.2	NNE
20221218_1610	3.9	NNE
20221218_1620	3.6	NE
20221218_1630	3.3	NNE
20221218_1640	4.2	NNE
20221218_1650	3.3	NNE
20221218_1700	4.2	NNE
20221218_1710	3.9	NNE
20221218_1720	3.3	NNE
20221218_1730	5	NNE
20221218_1740	3.1	NE
20221218_1750	2.8	NE
20221218_1800	2.2	NE
20221218_1810	2.2	NE
20221218_1820	1.7	NNE
20221218_1830	1.4	NE
20221218_1840	1.4	NE
20221218_1850	0.8	NE
20221218_1900	1.1	NNE
20221218_1910	0.3	-
20221218_1920	0.3	-
20221218_1930	0.3	-
20221218_1940	2.2	NNE
20221218_1950	3.9	NNE
20221218_2000	2.2	NE
20221218_2010	2.8	NE
20221218_2020	2.2	NE
20221218_2030	2.2	NE
20221218_2040	2.2	NE
20221218_2050	1.1	SE
20221218_2100	0.3	SSE
20221218_2110	0.3	S
20221218_2120	0	N
20221218_2130	0	N
20221218_2140	0.6	-
20221218_2150	0.3	-
20221218_2200	0	N
20221218_2210	0	N
20221218_2220	0	N
20221218_2230	0.3	NW
20221218_2240	0.3	ENE
20221218_2250	0.3	-
20221218_2300	0.3	NE
20221218_2310	0.3	-
20221218_2320	0	N
20221218_2330	0.3	NNE
20221218_2340	1.4	N
20221218_2350	2.2	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221219_0000	2.2	NNE
20221219_0010	1.4	NNE
20221219_0020	0.3	S
20221219_0020	0.3	S
20221219_0030	0	N
20221219_0040	0	N
20221219_0050	0	N
20221219_0100	0.8	NNE
20221219_0110	1.1	NNE
20221219_0120	0.3	E
20221219_0130	0	N
20221219_0140	0	N
20221219_0150	0.3	NNE
20221219_0200	1.1	NE
20221219_0210	0.8	NE
20221219_0220	0.3	NE
20221219_0230	0.3	NE
20221219_0240	0.3	NE
20221219_0250	1.1	NE
20221219_0300	0.8	SE
20221219_0310	0.3	-
20221219_0320	0.3	SSE
20221219_0330	0.3	ESE
20221219_0340	0.8	SSE
20221219_0350	0.3	SSE
20221219_0400	0.3	SSE
20221219_0410	0.3	SE
20221219_0420	0.3	SE
20221219_0430	0	N
20221219_0440	0	N
20221219_0450	0	N
20221219_0500	0	N
20221219_0510	0	N
20221219_0520	0.3	S
20221219_0530	0	N
20221219_0540	0	N
20221219_0550	0	N
20221219_0600	0	N
20221219_0610	0.3	S
20221219_0620	0.3	-
20221219_0630	1.1	SSE
20221219_0640	1.1	SSE
20221219_0650	0	N
20221219_0700	0.6	SSE
20221219_0710	0.8	SE
20221219_0720	0	N
20221219_0730	0	N
20221219_0740	0	N
20221219_0750	0.3	SSE
20221219_0800	0.3	SSE
20221219_0810	0.6	S
20221219_0820	0.3	S
20221219_0830	0.3	-
20221219_0840	0.3	-
20221219_0850	1.1	NE
20221219_0900	1.1	NE
20221219_0910	2.2	E
20221219_0920	1.1	ENE
20221219_0930	1.7	NNE
20221219_0940	3.3	NNE
20221219_0950	3.3	NNE
20221219_1000	3.3	NNE
20221219_1010	2.2	N
20221219_1020	2.8	NNE
20221219_1030	2.2	N
20221219_1040	2.2	N
20221219_1050	2.8	N
20221219_1100	3.3	N
20221219_1110	3.1	N
20221219_1120	3.3	N
20221219_1130	2.5	N
20221219_1140	3.3	NNE
20221219_1150	2.2	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221219_1200	1.4	NE
20221219_1210	1.4	NE
20221219_1220	1.7	ESE
20221219_1230	2.2	SE
20221219_1240	1.1	N
20221219_1250	2.8	NNE
20221219_1300	2.5	NNE
20221219_1310	1.4	-
20221219_1320	1.4	ENE
20221219_1330	1.1	-
20221219_1340	1.7	-
20221219_1350	1.7	-
20221219_1400	2.8	NE
20221219_1410	1.7	NNE
20221219_1420	2.2	ENE
20221219_1430	1.7	NNE
20221219_1440	1.7	SSW
20221219_1450	1.7	NNE
20221219_1500	2.2	NE
20221219_1510	1.9	NNE
20221219_1520	1.4	NE
20221219_1530	1.7	E
20221219_1540	2.5	ESE
20221219_1550	1.7	ESE
20221219_1600	2.2	E
20221219_1610	1.7	ESE
20221219_1620	1.7	ESE
20221219_1630	1.4	E
20221219_1640	2.2	E
20221219_1650	1.7	E
20221219_1700	1.4	ESE
20221219_1710	1.4	ESE
20221219_1720	1.1	ESE
20221219_1730	0.6	SE
20221219_1740	1.1	SE
20221219_1750	0.8	SSE
20221219_1800	0.8	SSE
20221219_1810	1.4	S
20221219_1820	0.8	S
20221219_1830	0.8	SSW
20221219_1840	1.4	S
20221219_1850	0.8	S
20221219_1900	1.1	SSW
20221219_1910	0.3	SSW
20221219_1920	0.3	SSW
20221219_1930	0.3	-
20221219_1940	0	N
20221219_1950	0.3	SSE
20221219_2000	0.8	SSE
20221219_2010	1.1	SSE
20221219_2020	1.1	SSE
20221219_2030	1.1	SSE
20221219_2040	0.8	SE
20221219_2050	0.3	SE
20221219_2100	0.8	SSE
20221219_2110	0.3	SSE
20221219_2120	0.3	SE
20221219_2130	0	N
20221219_2140	0	N
20221219_2150	0	N
20221219_2200	0.3	SSE
20221219_2210	0.8	SSE
20221219_2220	0	N
20221219_2230	0	N
20221219_2240	0	N
20221219_2250	0	N
20221219_2300	0	N
20221219_2310	0	N
20221219_2320	0.3	SSE
20221219_2330	0.8	ESE
20221219_2340	1.7	SE
20221219_2350	1.4	SE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221220_0000	0.6	ESE
20221220_0010	1.4	SE
20221220_0020	2.2	SE
20221220_0020	2.2	SE
20221220_0030	1.7	SE
20221220_0040	1.7	SE
20221220_0050	1.7	SE
20221220_0100	2.5	SE
20221220_0110	2.2	SE
20221220_0120	2.2	SE
20221220_0130	1.7	SE
20221220_0140	1.7	SE
20221220_0150	1.1	SE
20221220_0200	0.3	SSE
20221220_0210	0.3	SSE
20221220_0220	0.3	SSE
20221220_0230	0.3	SE
20221220_0240	0.3	ENE
20221220_0250	0.3	NNE
20221220_0300	0	N
20221220_0310	0.3	SSE
20221220_0320	0	N
20221220_0330	0.6	SE
20221220_0340	0.8	SE
20221220_0350	1.1	SE
20221220_0400	1.1	ESE
20221220_0410	0.8	SE
20221220_0420	1.1	ESE
20221220_0430	1.1	SE
20221220_0440	1.1	SE
20221220_0450	0.8	ESE
20221220_0500	0.3	SE
20221220_0510	0.3	E
20221220_0520	0.8	ESE
20221220_0530	1.4	SE
20221220_0540	1.7	SE
20221220_0550	1.4	SE
20221220_0600	1.4	SSE
20221220_0610	1.4	SE
20221220_0620	1.7	SE
20221220_0630	1.7	SE
20221220_0640	1.4	SSE
20221220_0650	1.4	SE
20221220_0700	1.4	SE
20221220_0710	1.4	SE
20221220_0720	1.1	SE
20221220_0730	1.7	SE
20221220_0740	1.4	SE
20221220_0750	1.4	SSE
20221220_0800	2.2	SSE
20221220_0810	1.7	SSE
20221220_0820	2.5	SE
20221220_0830	2.5	SE
20221220_0840	2.8	SE
20221220_0850	2.2	ESE
20221220_0900	2.2	ESE
20221220_0910	2.2	ESE
20221220_0920	3.3	E
20221220_0930	3.3	ESE
20221220_0940	3.1	ESE
20221220_0950	3.3	ESE
20221220_1000	3.9	E
20221220_1010	2.2	E
20221220_1020	3.1	ESE
20221220_1030	3.9	ESE
20221220_1040	3.9	ESE
20221220_1050	4.2	ESE
20221220_1100	3.1	ESE
20221220_1110	3.3	E
20221220_1120	2.8	ESE
20221220_1130	3.3	ESE
20221220_1140	3.3	ESE
20221220_1150	3.1	E

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221220_1200	2.8	ESE
20221220_1210	3.1	ESE
20221220_1220	2.8	E
20221220_1230	3.1	ESE
20221220_1240	3.6	E
20221220_1250	3.1	ENE
20221220_1300	3.9	E
20221220_1310	3.3	E
20221220_1320	2.8	E
20221220_1330	2.2	ENE
20221220_1340	2.2	NE
20221220_1350	1.7	NNE
20221220_1400	1.1	-
20221220_1410	0.8	-
20221220_1420	2.8	ENE
20221220_1430	2.2	E
20221220_1440	2.8	E
20221220_1450	1.9	E
20221220_1500	2.2	E
20221220_1510	2.5	E
20221220_1520	2.5	ESE
20221220_1530	3.1	SE
20221220_1540	2.5	ESE
20221220_1550	1.7	E
20221220_1600	2.2	ESE
20221220_1610	2.2	ESE
20221220_1620	1.9	ESE
20221220_1630	1.7	ESE
20221220_1640	2.2	E
20221220_1650	1.9	ESE
20221220_1700	1.9	ESE
20221220_1710	1.7	SE
20221220_1720	1.7	ESE
20221220_1730	0.8	E
20221220_1740	0.8	E
20221220_1750	1.4	ESE
20221220_1800	0.3	E
20221220_1810	0.3	E
20221220_1820	0.3	E
20221220_1830	0.3	ESE
20221220_1840	0.3	ESE
20221220_1850	0	N
20221220_1900	0.8	WNW
20221220_1910	0	N
20221220_1920	0	N
20221220_1930	0	N
20221220_1940	0	N
20221220_1950	0	N
20221220_2000	0.3	ESE
20221220_2010	0.3	-
20221220_2020	0	N
20221220_2030	0.3	SSE
20221220_2040	0	N
20221220_2050	0	N
20221220_2100	0	N
20221220_2110	0	N
20221220_2120	0	N
20221220_2130	0	N
20221220_2140	0.3	SE
20221220_2150	0.8	ESE
20221220_2200	0	N
20221220_2210	0.3	SE
20221220_2220	0	N
20221220_2230	0.3	SSE
20221220_2240	0	N
20221220_2250	0.3	NW
20221220_2300	0	N
20221220_2310	0	N
20221220_2320	0	N
20221220_2330	0.6	S
20221220_2340	0	N
20221220_2350	0.3	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221221_0000	0	N
20221221_0010	0.3	W
20221221_0020	0.3	NE
20221221_0030	0	N
20221221_0040	0.3	SW
20221221_0050	0	N
20221221_0100	0.3	W
20221221_0110	0	N
20221221_0120	0.6	SE
20221221_0130	0.3	ESE
20221221_0140	0.3	WSW
20221221_0150	0.3	NNE
20221221_0200	0	N
20221221_0210	0	N
20221221_0220	0.6	WSW
20221221_0230	0.6	SW
20221221_0240	0.3	SE
20221221_0250	0.3	ESE
20221221_0300	0	N
20221221_0310	0	N
20221221_0320	0.3	E
20221221_0330	0	N
20221221_0340	0	N
20221221_0350	0.3	WNW
20221221_0400	0.8	WNW
20221221_0410	0.3	ESE
20221221_0420	0.3	-
20221221_0430	0.3	WNW
20221221_0440	0.3	SSE
20221221_0450	0.3	SSE
20221221_0500	0.3	NW
20221221_0510	0.3	WSW
20221221_0520	0.3	SSW
20221221_0530	0	N
20221221_0540	0.3	-
20221221_0550	0.3	NW
20221221_0600	0.3	NW
20221221_0610	1.4	NNE
20221221_0620	0.3	S
20221221_0630	0.3	WSW
20221221_0640	0.8	SW
20221221_0650	1.4	NW
20221221_0700	1.7	N
20221221_0710	1.1	N
20221221_0720	1.7	NNW
20221221_0730	1.7	NNW
20221221_0740	1.1	NNW
20221221_0750	0.3	E
20221221_0800	0.3	N
20221221_0810	2.5	N
20221221_0820	3.3	NNE
20221221_0830	2.5	NNE
20221221_0840	2.2	NNE
20221221_0850	2.5	NNE
20221221_0900	2.5	NNE
20221221_0910	2.5	NNE
20221221_0920	2.5	NNE
20221221_0930	2.8	NNE
20221221_0940	2.8	NNE
20221221_0950	2.5	NNE
20221221_1000	3.3	NNE
20221221_1010	4.2	NNE
20221221_1020	3.9	NNE
20221221_1030	3.6	NE
20221221_1040	3.6	NE
20221221_1050	3.3	NNE
20221221_1100	2.5	N
20221221_1110	2.8	NNW
20221221_1120	2.5	N
20221221_1130	2.5	N
20221221_1140	2.8	N
20221221_1150	2.8	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221221_1200	4.2	NNE
20221221_1210	3.3	N
20221221_1220	2.8	N
20221221_1230	3.1	N
20221221_1240	3.3	NNW
20221221_1250	4.2	NNE
20221221_1300	3.3	NNE
20221221_1310	2.5	N
20221221_1320	3.3	N
20221221_1330	3.1	N
20221221_1340	3.3	N
20221221_1350	3.1	NNW
20221221_1400	3.1	NW
20221221_1410	3.1	N
20221221_1420	2.8	NNW
20221221_1430	3.3	N
20221221_1440	2.8	N
20221221_1450	3.1	N
20221221_1500	2.5	N
20221221_1510	2.5	NNW
20221221_1520	3.3	N
20221221_1530	2.5	N
20221221_1540	3.1	N
20221221_1550	2.5	N
20221221_1600	2.8	NNW
20221221_1610	2.5	N
20221221_1620	2.5	N
20221221_1630	2.5	N
20221221_1640	2.2	N
20221221_1650	1.7	N
20221221_1700	1.7	N
20221221_1710	1.4	N
20221221_1720	1.7	N
20221221_1730	1.1	N
20221221_1740	0.8	N
20221221_1750	0	N
20221221_1800	0	N
20221221_1810	0	N
20221221_1820	0.3	-
20221221_1830	0	N
20221221_1840	0	N
20221221_1850	0.3	SSW
20221221_1900	0.8	SSE
20221221_1910	0.3	SW
20221221_1920	0	N
20221221_1930	0.3	ENE
20221221_1940	0	N
20221221_1950	0	N
20221221_2000	0	N
20221221_2010	0.3	NW
20221221_2020	0	N
20221221_2030	0	N
20221221_2040	0	N
20221221_2050	0	N
20221221_2100	0	N
20221221_2110	0	N
20221221_2120	0.3	SW
20221221_2130	0.6	N
20221221_2140	1.7	N
20221221_2150	1.7	N
20221221_2200	0.8	N
20221221_2210	0.3	NNE
20221221_2220	2.5	NNE
20221221_2230	3.3	NE
20221221_2240	2.5	NE
20221221_2250	2.5	NE
20221221_2300	3.3	NE
20221221_2310	5.3	NE
20221221_2320	4.7	NE
20221221_2330	3.9	NNE
20221221_2340	3.3	NNE
20221221_2350	3.9	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221222_0000	4.7	NNE
20221222_0010	5.3	NNE
20221222_0020	5.3	NNE
20221222_0030	6.4	NNE
20221222_0020	5.3	NNE
20221222_0030	6.4	NNE
20221222_0040	5.3	NNE
20221222_0050	6.9	NNE
20221222_0100	5.8	NNE
20221222_0110	3.9	NNE
20221222_0120	3.1	NE
20221222_0130	1.9	NNE
20221222_0140	3.3	NNE
20221222_0150	2.2	NNE
20221222_0200	1.4	-
20221222_0210	1.4	SSE
20221222_0220	0.8	S
20221222_0230	1.4	SSW
20221222_0240	1.1	NNE
20221222_0250	0.3	-
20221222_0300	1.1	NNE
20221222_0310	0.3	E
20221222_0320	1.1	NE
20221222_0330	0.3	-
20221222_0340	0.3	SSW
20221222_0350	0.3	SE
20221222_0400	0.3	WNW
20221222_0410	0.6	SSW
20221222_0420	0.8	SSW
20221222_0430	0.3	NW
20221222_0440	0.3	ESE
20221222_0450	0	N
20221222_0500	0.6	NNE
20221222_0510	0.3	-
20221222_0520	0.6	NNE
20221222_0530	0.6	-
20221222_0540	0.8	SSE
20221222_0550	0.8	NE
20221222_0600	1.1	NE
20221222_0610	0.3	-
20221222_0620	0.6	-
20221222_0630	1.4	-
20221222_0640	1.1	WNW
20221222_0650	1.1	-
20221222_0700	0.8	ENE
20221222_0710	1.4	SE
20221222_0720	1.1	ESE
20221222_0730	0.8	-
20221222_0740	0.3	-
20221222_0750	0.6	ENE
20221222_0800	0.3	SE
20221222_0810	0.6	SSE
20221222_0820	0.8	SE
20221222_0830	0.8	SE
20221222_0840	0.8	SSE
20221222_0850	0.3	SSE
20221222_0900	0.3	SE
20221222_0910	0	N
20221222_0920	0.8	NNE
20221222_0930	2.8	NNE
20221222_0940	3.9	N
20221222_0950	4.2	NNE
20221222_1000	5.8	NNE
20221222_1010	4.7	N
20221222_1020	4.2	NNE
20221222_1030	4.4	NNE
20221222_1040	4.7	N
20221222_1050	3.9	NNE
20221222_1100	4.4	NNE
20221222_1110	3.9	N
20221222_1120	3.3	NNE
20221222_1130	2.2	N
20221222_1140	3.1	N
20221222_1150	3.6	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221222_1200	2.8	N
20221222_1210	3.3	N
20221222_1220	3.6	N
20221222_1230	3.3	N
20221222_1240	3.6	N
20221222_1250	3.1	NNE
20221222_1300	2.8	NNE
20221222_1310	1.4	-
20221222_1320	1.4	ENE
20221222_1330	1.7	E
20221222_1340	1.4	-
20221222_1350	3.3	N
20221222_1400	2.2	N
20221222_1410	3.3	NNE
20221222_1420	3.3	NNE
20221222_1430	4.4	NNE
20221222_1440	4.4	NNE
20221222_1450	4.4	NNE
20221222_1500	4.2	NNE
20221222_1510	3.6	NNE
20221222_1520	2.2	NNE
20221222_1530	3.1	NNE
20221222_1540	3.1	NNE
20221222_1550	3.3	NNE
20221222_1600	3.3	NNE
20221222_1610	2.8	N
20221222_1620	3.3	NNE
20221222_1630	3.1	NNE
20221222_1640	3.1	NNE
20221222_1650	3.3	NNE
20221222_1700	3.3	NNE
20221222_1710	2.2	NNE
20221222_1720	2.8	NNE
20221222_1730	1.7	NNE
20221222_1740	1.4	NNE
20221222_1750	0.8	NNE
20221222_1800	0.3	SW
20221222_1810	0.3	SW
20221222_1820	0.3	SE
20221222_1830	0	N
20221222_1840	0	N
20221222_1850	0	N
20221222_1900	0	N
20221222_1910	0.6	S
20221222_1920	0.8	W
20221222_1930	0.3	WSW
20221222_1940	0.3	WSW
20221222_1950	0.3	E
20221222_2000	0.3	SSE
20221222_2010	0.8	SW
20221222_2020	0.8	-
20221222_2030	0.6	-
20221222_2040	0.3	-
20221222_2050	0.3	-
20221222_2100	0.3	-
20221222_2110	0.3	-
20221222_2120	0.3	-
20221222_2130	1.1	SSE
20221222_2140	1.1	NNE
20221222_2150	1.4	N
20221222_2200	0.3	-
20221222_2210	0.3	ESE
20221222_2220	1.1	SSE
20221222_2230	1.1	S
20221222_2240	0.3	SE
20221222_2250	0.3	-
20221222_2300	0.8	S
20221222_2310	0.8	S
20221222_2320	0.8	SSW
20221222_2330	1.1	ESE
20221222_2340	0.3	S
20221222_2350	0.3	-

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221223_0000	0.6	S
20221223_0010	0.6	SSW
20221223_0020	0.6	SE
20221223_0020	0.6	SE
20221223_0030	0.3	S
20221223_0040	0.6	-
20221223_0050	0.6	N
20221223_0100	0.6	SE
20221223_0110	0.3	SE
20221223_0120	0.6	S
20221223_0130	0.8	S
20221223_0140	0.8	SSW
20221223_0150	0.8	S
20221223_0200	0.3	S
20221223_0210	0.3	SSE
20221223_0220	0	N
20221223_0230	0.3	ESE
20221223_0240	0.6	E
20221223_0250	0.3	-
20221223_0300	0.3	SE
20221223_0310	0.3	SSE
20221223_0320	0.8	SSE
20221223_0330	0.6	SE
20221223_0340	0.8	-
20221223_0350	0.6	-
20221223_0400	0.3	-
20221223_0410	0.8	-
20221223_0420	0.3	SE
20221223_0430	0.3	SE
20221223_0440	0.3	SE
20221223_0450	0.3	-
20221223_0500	0.3	SE
20221223_0510	0	N
20221223_0520	0.3	SE
20221223_0530	0.6	SE
20221223_0540	0.3	SSE
20221223_0550	0.3	SE
20221223_0600	0	N
20221223_0610	0.3	S
20221223_0620	0.3	SSE
20221223_0630	0.3	ESE
20221223_0640	0.3	-
20221223_0650	0	N
20221223_0700	0.3	S
20221223_0710	0.3	ENE
20221223_0720	0.3	SE
20221223_0730	0.6	SSE
20221223_0740	0.8	SSE
20221223_0750	0.8	E
20221223_0800	0	N
20221223_0810	0	N
20221223_0820	0.3	SE
20221223_0830	0.3	SSE
20221223_0840	0	N
20221223_0850	0	N
20221223_0900	0.3	S
20221223_0910	0.3	WNW
20221223_0920	0.3	E
20221223_0930	0.6	N
20221223_0940	1.4	N
20221223_0950	1.7	N
20221223_1000	2.2	NNE
20221223_1010	3.1	NNE
20221223_1020	2.2	NNE
20221223_1030	2.5	NNE
20221223_1040	2.5	NNE
20221223_1050	3.3	N
20221223_1100	3.9	NNE
20221223_1110	2.8	NNE
20221223_1120	2.8	NNE
20221223_1130	3.3	NNE
20221223_1140	4.4	NNE
20221223_1150	3.6	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221223_1200	3.9	NNE
20221223_1210	2.8	NNE
20221223_1220	2.2	NNE
20221223_1230	2.8	N
20221223_1240	2.5	NNE
20221223_1250	2.2	N
20221223_1300	1.7	N
20221223_1310	1.7	NNW
20221223_1320	2.5	N
20221223_1330	2.2	N
20221223_1340	2.8	NNE
20221223_1350	2.2	NNE
20221223_1400	1.9	NNE
20221223_1410	2.5	N
20221223_1420	2.2	N
20221223_1430	2.5	N
20221223_1440	2.2	NNE
20221223_1450	1.9	NNW
20221223_1500	1.7	N
20221223_1510	1.7	NNW
20221223_1520	1.9	NNW
20221223_1530	1.7	N
20221223_1540	1.1	NNW
20221223_1550	2.5	NNE
20221223_1600	2.5	NNE
20221223_1610	2.2	NNE
20221223_1620	2.2	NNE
20221223_1630	1.7	NNE
20221223_1640	1.4	NE
20221223_1650	0.6	ENE
20221223_1700	1.1	NE
20221223_1710	1.1	NNE
20221223_1720	0.8	N
20221223_1730	0.8	NE
20221223_1740	0	N
20221223_1750	0.3	S
20221223_1800	0.3	SSE
20221223_1810	0.8	SSE
20221223_1820	0.6	SSE
20221223_1830	1.1	SSE
20221223_1840	0.8	S
20221223_1850	0.3	S
20221223_1900	0.6	S
20221223_1910	0.6	S
20221223_1920	0.3	S
20221223_1930	0.3	-
20221223_1940	0.3	S
20221223_1950	0	N
20221223_2000	0.3	-
20221223_2010	0.3	S
20221223_2020	0.3	SSW
20221223_2030	0.8	SSE
20221223_2040	0.3	SSE
20221223_2050	0.3	SSE
20221223_2100	0	N
20221223_2110	0.3	S
20221223_2120	0.3	S
20221223_2130	0.8	SSE
20221223_2140	0.8	-
20221223_2150	0.3	-
20221223_2200	0.3	-
20221223_2210	0.3	-
20221223_2220	1.1	SSE
20221223_2230	0.8	SSE
20221223_2240	0.8	SSE
20221223_2250	0.3	SE
20221223_2300	0.6	SSE
20221223_2310	0	N
20221223_2320	0	N
20221223_2330	0	N
20221223_2340	0	N
20221223_2350	0	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221224_0000	0	N
20221224_0010	0	N
20221224_0020	0	N
20221224_0020	0	N
20221224_0030	0	N
20221224_0040	0.3	SW
20221224_0050	0	N
20221224_0100	0	N
20221224_0110	0	N
20221224_0120	0	N
20221224_0130	0	N
20221224_0140	0	N
20221224_0150	0	N
20221224_0200	0	N
20221224_0210	0	N
20221224_0220	0.3	NE
20221224_0230	0	N
20221224_0240	0	N
20221224_0250	0	N
20221224_0300	0	N
20221224_0310	0	N
20221224_0320	0	N
20221224_0330	0.3	-
20221224_0340	0	N
20221224_0350	0	N
20221224_0400	0	N
20221224_0410	0	N
20221224_0420	0.8	SSE
20221224_0430	0.8	SSE
20221224_0440	0	N
20221224_0450	0.3	SE
20221224_0500	0.3	SE
20221224_0510	0.3	S
20221224_0520	0	N
20221224_0530	0.3	SE
20221224_0540	0.3	-
20221224_0550	0.3	ENE
20221224_0600	1.1	SSE
20221224_0610	0.3	SSE
20221224_0620	0.3	-
20221224_0630	0.3	SSE
20221224_0640	0.8	SSE
20221224_0650	0.3	S
20221224_0700	0.3	SSE
20221224_0710	0.3	S
20221224_0720	0.3	SW
20221224_0730	0.3	SSE
20221224_0740	0.3	ESE
20221224_0750	0.3	ENE
20221224_0800	0.3	SE
20221224_0810	0.8	S
20221224_0820	0.8	SE
20221224_0830	0.3	-
20221224_0840	0.8	SSE
20221224_0850	0.8	SSE
20221224_0900	0.8	SSE
20221224_0910	0.3	SSE
20221224_0920	0	N
20221224_0930	0.8	NE
20221224_0940	1.1	NE
20221224_0950	0.6	NNE
20221224_1000	1.9	NNE
20221224_1010	1.7	N
20221224_1020	2.8	N
20221224_1030	2.5	N
20221224_1040	1.9	N
20221224_1050	3.1	N
20221224_1100	3.3	NNE
20221224_1110	4.2	N
20221224_1120	2.5	N
20221224_1130	1.9	N
20221224_1140	2.5	N
20221224_1150	3.1	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221224_1200	3.1	N
20221224_1210	2.8	N
20221224_1220	3.1	NNE
20221224_1230	3.3	N
20221224_1240	3.3	N
20221224_1250	3.3	NNE
20221224_1300	3.3	N
20221224_1310	3.6	N
20221224_1320	3.3	N
20221224_1330	3.3	N
20221224_1340	2.8	N
20221224_1350	3.3	N
20221224_1400	3.3	N
20221224_1410	3.3	N
20221224_1420	3.6	NNE
20221224_1430	4.4	NNE
20221224_1440	3.1	N
20221224_1450	3.3	N
20221224_1500	3.6	N
20221224_1510	3.3	NNE
20221224_1520	2.8	N
20221224_1530	3.9	NNE
20221224_1540	3.9	N
20221224_1550	3.3	NNE
20221224_1600	3.6	NNE
20221224_1610	3.1	NNE
20221224_1620	3.1	NNE
20221224_1630	2.8	NNE
20221224_1640	2.2	NNE
20221224_1650	2.2	NNE
20221224_1700	1.7	NE
20221224_1710	1.4	NE
20221224_1720	1.1	E
20221224_1730	0.3	ESE
20221224_1740	0.8	ESE
20221224_1750	0.3	-
20221224_1800	0.3	ESE
20221224_1810	0	N
20221224_1820	0	N
20221224_1830	0	N
20221224_1840	0	N
20221224_1850	0	N
20221224_1900	0	N
20221224_1910	0	N
20221224_1920	0.3	S
20221224_1930	0.3	-
20221224_1940	0.3	SW
20221224_1950	0.3	SSE
20221224_2000	0	N
20221224_2010	0.3	-
20221224_2020	0	N
20221224_2030	0	N
20221224_2040	0	N
20221224_2050	0	N
20221224_2100	0.3	S
20221224_2110	0	N
20221224_2120	0.3	-
20221224_2130	0	N
20221224_2140	0	N
20221224_2150	0	N
20221224_2200	0	N
20221224_2210	0	N
20221224_2220	0	N
20221224_2230	0	N
20221224_2240	0	N
20221224_2250	0	N
20221224_2300	0	N
20221224_2310	0	N
20221224_2320	0	N
20221224_2330	0	N
20221224_2340	0	N
20221224_2350	0	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221225_0000	0	N
20221225_0010	0	N
20221225_0020	0	N
20221225_0020	0	N
20221225_0030	0	N
20221225_0040	0	N
20221225_0050	0	N
20221225_0100	0	N
20221225_0110	0	N
20221225_0120	0	N
20221225_0130	0	N
20221225_0140	0	N
20221225_0150	0.3	S
20221225_0200	0.3	-
20221225_0210	0	N
20221225_0220	0	N
20221225_0230	0	N
20221225_0240	0	N
20221225_0250	0	N
20221225_0300	0	N
20221225_0310	0	N
20221225_0320	0	N
20221225_0330	0	N
20221225_0340	0	N
20221225_0350	0	N
20221225_0400	0	N
20221225_0410	0	N
20221225_0420	0	N
20221225_0430	0	N
20221225_0440	0	N
20221225_0450	0	N
20221225_0500	0	N
20221225_0510	0	N
20221225_0520	0	N
20221225_0530	0	N
20221225_0540	0	N
20221225_0550	0	N
20221225_0600	0	N
20221225_0610	0	N
20221225_0620	0	N
20221225_0630	0	N
20221225_0640	0	N
20221225_0650	0	N
20221225_0700	0	N
20221225_0710	0	N
20221225_0720	0	N
20221225_0730	0	N
20221225_0740	0	N
20221225_0750	0	N
20221225_0800	0	N
20221225_0810	0	N
20221225_0820	0	N
20221225_0830	0	N
20221225_0840	0	N
20221225_0850	0	N
20221225_0900	0	N
20221225_0910	0	N
20221225_0920	0.8	NNE
20221225_0930	0.8	ENE
20221225_0940	1.1	-
20221225_0950	0.8	W
20221225_1000	0.8	NNW
20221225_1010	0.8	NNE
20221225_1020	0.8	N
20221225_1030	1.4	ENE
20221225_1040	1.4	NNW
20221225_1050	1.1	NNW
20221225_1100	1.4	-
20221225_1110	1.7	NNE
20221225_1120	1.7	E
20221225_1130	2.5	ESE
20221225_1140	2.5	ESE
20221225_1150	2.8	ESE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221225_1200	3.9	E
20221225_1210	3.3	ESE
20221225_1220	3.3	E
20221225_1230	2.8	SE
20221225_1240	2.8	E
20221225_1250	2.8	E
20221225_1300	2.8	ESE
20221225_1310	2.5	E
20221225_1320	2.2	E
20221225_1330	1.7	E
20221225_1340	2.2	SE
20221225_1350	2.5	E
20221225_1400	2.2	ESE
20221225_1410	2.8	SE
20221225_1420	3.3	SE
20221225_1430	2.5	ESE
20221225_1440	2.5	E
20221225_1450	3.3	SE
20221225_1500	3.1	E
20221225_1510	3.1	ESE
20221225_1520	3.3	E
20221225_1530	3.3	E
20221225_1540	3.1	E
20221225_1550	2.8	E
20221225_1600	3.3	E
20221225_1610	3.1	E
20221225_1620	2.5	E
20221225_1630	2.8	ESE
20221225_1640	2.5	E
20221225_1650	2.5	ESE
20221225_1700	2.5	ESE
20221225_1710	2.2	ESE
20221225_1720	1.9	SE
20221225_1730	2.2	SE
20221225_1740	1.7	SE
20221225_1750	1.4	SE
20221225_1800	1.4	SE
20221225_1810	0.8	SE
20221225_1820	1.1	SE
20221225_1830	1.9	SE
20221225_1840	2.2	SE
20221225_1850	2.2	SE
20221225_1900	2.2	SSE
20221225_1910	2.2	SSE
20221225_1920	2.5	SSE
20221225_1930	2.2	SSE
20221225_1940	2.2	SSE
20221225_1950	1.4	S
20221225_2000	1.1	SSE
20221225_2010	0.3	W
20221225_2020	0.3	-
20221225_2030	0.8	SE
20221225_2040	1.4	ESE
20221225_2050	1.7	ESE
20221225_2100	1.7	ESE
20221225_2110	2.2	ESE
20221225_2120	2.2	SE
20221225_2130	1.7	SE
20221225_2140	1.4	ESE
20221225_2150	1.7	ESE
20221225_2200	1.9	SE
20221225_2210	2.2	SE
20221225_2220	2.5	SE
20221225_2230	2.2	SE
20221225_2240	2.5	SE
20221225_2250	2.2	SE
20221225_2300	2.2	SE
20221225_2310	2.2	SE
20221225_2320	2.5	SE
20221225_2330	2.5	SE
20221225_2340	1.7	SE
20221225_2350	2.5	SE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221226_0000	1.7	SE
20221226_0010	2.2	SE
20221226_0020	2.2	SE
20221226_0020	2.2	SE
20221226_0030	1.7	SE
20221226_0040	1.7	ESE
20221226_0050	1.4	ESE
20221226_0100	1.1	E
20221226_0110	1.1	E
20221226_0120	1.1	E
20221226_0130	0.3	ESE
20221226_0140	0.8	E
20221226_0150	0.8	E
20221226_0200	0.3	ESE
20221226_0210	0.6	ESE
20221226_0220	0.3	ESE
20221226_0230	0.3	WNW
20221226_0240	0	N
20221226_0250	0	N
20221226_0300	0.3	SW
20221226_0310	0.3	-
20221226_0320	0	N
20221226_0330	0.3	SSW
20221226_0340	0.6	SW
20221226_0350	0.3	SW
20221226_0400	0.3	WSW
20221226_0410	0.8	WSW
20221226_0420	0.3	WSW
20221226_0430	0.3	-
20221226_0440	0.8	ESE
20221226_0450	1.9	E
20221226_0500	1.9	ESE
20221226_0510	1.4	SE
20221226_0520	0.6	SE
20221226_0530	0.3	-
20221226_0540	0.3	-
20221226_0550	1.4	ESE
20221226_0600	1.4	ESE
20221226_0610	1.7	SE
20221226_0620	1.1	SE
20221226_0630	1.1	SE
20221226_0640	0.8	ESE
20221226_0650	1.1	ESE
20221226_0700	0.8	ESE
20221226_0710	0.8	SE
20221226_0720	0.6	SSE
20221226_0730	0.3	NW
20221226_0740	0	N
20221226_0750	0.8	SE
20221226_0800	1.1	SE
20221226_0810	1.1	SE
20221226_0820	0.8	SE
20221226_0830	1.4	ESE
20221226_0840	2.2	ESE
20221226_0850	2.5	ESE
20221226_0900	1.7	E
20221226_0910	3.1	E
20221226_0920	2.8	E
20221226_0930	3.1	ESE
20221226_0940	3.3	ESE
20221226_0950	2.5	ESE
20221226_1000	2.8	E
20221226_1010	2.8	E
20221226_1020	2.8	E
20221226_1030	2.5	E
20221226_1040	2.5	E
20221226_1050	2.2	ENE
20221226_1100	2.5	E
20221226_1110	2.8	ESE
20221226_1120	2.8	E
20221226_1130	3.1	E
20221226_1140	2.5	E
20221226_1150	2.5	E

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221226_1200	1.4	ESE
20221226_1210	2.5	SE
20221226_1220	1.4	SE
20221226_1230	2.2	E
20221226_1240	2.5	ESE
20221226_1250	2.5	ESE
20221226_1300	2.5	E
20221226_1310	2.8	ESE
20221226_1320	2.5	SE
20221226_1330	2.8	ESE
20221226_1340	2.8	ESE
20221226_1350	2.5	E
20221226_1400	1.7	E
20221226_1410	0.8	S
20221226_1420	1.1	E
20221226_1430	1.4	N
20221226_1440	1.7	-
20221226_1450	2.2	N
20221226_1500	1.7	NNW
20221226_1510	1.7	NNE
20221226_1520	0.6	ENE
20221226_1530	1.1	ENE
20221226_1540	1.4	ESE
20221226_1550	2.2	E
20221226_1600	2.8	E
20221226_1610	2.8	ESE
20221226_1620	2.5	ESE
20221226_1630	2.5	ESE
20221226_1640	3.1	ESE
20221226_1650	2.5	ESE
20221226_1700	2.2	ESE
20221226_1710	2.8	ESE
20221226_1720	2.2	ESE
20221226_1730	1.7	ESE
20221226_1740	2.2	ESE
20221226_1750	2.2	ESE
20221226_1800	1.7	ESE
20221226_1810	1.7	ESE
20221226_1820	1.9	ESE
20221226_1830	1.7	ESE
20221226_1840	0.8	-
20221226_1850	1.1	SSE
20221226_1900	0.8	SE
20221226_1910	0.3	SSE
20221226_1920	0.8	S
20221226_1930	1.1	SSE
20221226_1940	0.8	SSE
20221226_1950	1.4	SSE
20221226_2000	1.7	SSE
20221226_2010	2.2	SSE
20221226_2020	1.1	SSE
20221226_2030	1.1	S
20221226_2040	1.7	S
20221226_2050	1.9	S
20221226_2100	1.7	S
20221226_2110	1.4	S
20221226_2120	1.7	S
20221226_2130	1.7	SSW
20221226_2140	1.1	SSW
20221226_2150	1.1	S
20221226_2200	1.9	S
20221226_2210	0.8	-
20221226_2220	0.3	S
20221226_2230	0.6	SSE
20221226_2240	0.8	SSE
20221226_2250	0.3	ENE
20221226_2300	0.6	SE
20221226_2310	0.8	SE
20221226_2320	1.4	S
20221226_2330	1.4	S
20221226_2340	1.4	S
20221226_2350	1.4	S

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221227_0000	1.1	S
20221227_0010	0.3	SSW
20221227_0020	0.3	SW
20221227_0020	0.3	SW
20221227_0030	0	N
20221227_0040	0.3	WSW
20221227_0050	0	N
20221227_0100	0	N
20221227_0110	0.3	E
20221227_0120	0	N
20221227_0130	0.6	SW
20221227_0140	1.1	SW
20221227_0150	0.8	SSW
20221227_0200	0.8	ESE
20221227_0210	1.7	E
20221227_0220	1.7	E
20221227_0230	2.2	ESE
20221227_0240	1.7	ESE
20221227_0250	1.7	ESE
20221227_0300	0.8	ESE
20221227_0310	0.3	N
20221227_0320	0	N
20221227_0330	0.3	NNE
20221227_0340	0.8	NNE
20221227_0350	1.1	NNE
20221227_0400	0.8	NNE
20221227_0410	0.3	NNE
20221227_0420	0	N
20221227_0430	0	N
20221227_0440	0.3	-
20221227_0450	0.3	SW
20221227_0500	0.3	SSW
20221227_0510	0	N
20221227_0520	0.3	WNW
20221227_0530	0	N
20221227_0540	0.3	SSE
20221227_0550	0	N
20221227_0600	0	N
20221227_0610	0	N
20221227_0620	0	N
20221227_0630	0	N
20221227_0640	0	N
20221227_0650	0	N
20221227_0700	0	N
20221227_0710	0	N
20221227_0720	0	N
20221227_0730	0	N
20221227_0740	0	N
20221227_0750	0	N
20221227_0800	0	N
20221227_0810	0	N
20221227_0820	0	N
20221227_0830	0.3	NE
20221227_0840	0	N
20221227_0850	0	N
20221227_0900	0.3	-
20221227_0910	1.4	ENE
20221227_0920	1.7	ENE
20221227_0930	1.1	-
20221227_0940	1.9	N
20221227_0950	1.4	N
20221227_1000	0.8	N
20221227_1010	0.8	N
20221227_1020	1.7	ESE
20221227_1030	2.5	ESE
20221227_1040	3.3	ESE
20221227_1050	3.1	E
20221227_1100	3.1	ESE
20221227_1110	3.1	ESE
20221227_1120	2.8	E
20221227_1130	3.3	E
20221227_1140	3.1	E
20221227_1150	3.9	E

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221227_1200	3.1	E
20221227_1210	3.3	ENE
20221227_1220	2.8	ESE
20221227_1230	3.3	ESE
20221227_1240	3.3	ESE
20221227_1250	3.1	ESE
20221227_1300	3.3	ESE
20221227_1310	2.5	ESE
20221227_1320	2.8	ESE
20221227_1330	2.2	SE
20221227_1340	2.2	ESE
20221227_1350	3.1	ESE
20221227_1400	2.5	ESE
20221227_1410	1.7	ESE
20221227_1420	2.8	E
20221227_1430	1.7	E
20221227_1440	2.2	ESE
20221227_1450	2.5	-
20221227_1500	3.1	E
20221227_1510	2.2	ESE
20221227_1520	2.8	SE
20221227_1530	3.1	SSE
20221227_1540	3.6	SSE
20221227_1550	3.3	SSE
20221227_1600	3.1	SSE
20221227_1610	2.8	SSE
20221227_1620	1.7	SE
20221227_1630	1.7	E
20221227_1640	1.9	ESE
20221227_1650	1.7	SE
20221227_1700	1.9	ESE
20221227_1710	1.7	ESE
20221227_1720	1.4	ESE
20221227_1730	1.4	ESE
20221227_1740	2.2	ESE
20221227_1750	1.7	ESE
20221227_1800	1.7	ESE
20221227_1810	2.5	ESE
20221227_1820	2.5	ESE
20221227_1830	2.5	ESE
20221227_1840	2.2	ESE
20221227_1850	2.5	ESE
20221227_1900	2.8	ESE
20221227_1910	2.5	SE
20221227_1920	1.7	ESE
20221227_1930	1.7	ESE
20221227_1940	1.7	SE
20221227_1950	1.4	SE
20221227_2000	0.8	SE
20221227_2010	0.6	NNW
20221227_2020	0.8	WSW
20221227_2030	0.6	WNW
20221227_2040	0.3	-
20221227_2050	1.4	ESE
20221227_2100	1.7	ESE
20221227_2110	1.4	ESE
20221227_2120	1.7	ESE
20221227_2130	1.7	ESE
20221227_2140	1.7	ESE
20221227_2150	1.7	SE
20221227_2200	1.7	SE
20221227_2210	1.7	SE
20221227_2220	1.7	SE
20221227_2230	1.7	ESE
20221227_2240	1.7	ESE
20221227_2250	1.7	ESE
20221227_2300	1.4	ESE
20221227_2310	1.4	ESE
20221227_2320	1.1	ESE
20221227_2330	1.7	E
20221227_2340	1.7	ESE
20221227_2350	1.7	ESE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221228_0000	1.7	ESE
20221228_0010	1.7	ESE
20221228_0020	1.4	ESE
20221228_0020	1.4	ESE
20221228_0030	1.9	ESE
20221228_0040	2.2	E
20221228_0050	2.2	E
20221228_0100	2.8	ESE
20221228_0110	2.5	E
20221228_0120	2.2	E
20221228_0130	2.8	E
20221228_0140	2.8	ESE
20221228_0150	2.5	ESE
20221228_0200	1.7	E
20221228_0210	1.7	ESE
20221228_0220	1.7	ESE
20221228_0230	1.7	ESE
20221228_0240	1.7	ESE
20221228_0250	1.7	ESE
20221228_0300	1.7	SE
20221228_0310	1.4	ESE
20221228_0320	0.3	-
20221228_0330	0.8	ESE
20221228_0340	0.6	ENE
20221228_0350	0.3	ENE
20221228_0400	0.3	-
20221228_0410	0	N
20221228_0420	0	N
20221228_0430	0	N
20221228_0440	0	N
20221228_0450	0.3	SW
20221228_0500	0	N
20221228_0510	0	N
20221228_0520	0	N
20221228_0530	0.3	-
20221228_0540	0	N
20221228_0550	0	N
20221228_0600	0	N
20221228_0610	0	N
20221228_0620	0	N
20221228_0630	0	N
20221228_0640	0	N
20221228_0650	0	N
20221228_0700	0.3	NW
20221228_0710	0	N
20221228_0720	0	N
20221228_0730	0	N
20221228_0740	0	N
20221228_0750	0	N
20221228_0800	0	N
20221228_0810	0	N
20221228_0820	0.3	SSE
20221228_0830	0.3	SE
20221228_0840	0	N
20221228_0850	0	N
20221228_0900	0	N
20221228_0910	0.3	NE
20221228_0920	1.1	N
20221228_0930	0.6	NNE
20221228_0940	0.6	NW
20221228_0950	0.8	-
20221228_1000	1.4	NNW
20221228_1010	1.1	NW
20221228_1020	1.4	N
20221228_1030	1.7	NNW
20221228_1040	1.4	NNW
20221228_1050	2.2	NNE
20221228_1100	2.5	N
20221228_1110	2.8	N
20221228_1120	3.3	N
20221228_1130	3.9	NNE
20221228_1140	3.1	N
20221228_1150	4.4	NNE

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221228_1200	3.3	NNE
20221228_1210	3.9	N
20221228_1220	3.3	NNE
20221228_1230	3.1	N
20221228_1240	3.1	N
20221228_1250	3.6	N
20221228_1300	3.6	N
20221228_1310	4.2	NNE
20221228_1320	3.9	NNE
20221228_1330	4.7	NNE
20221228_1340	4.4	NNE
20221228_1350	3.9	NNE
20221228_1400	3.3	N
20221228_1410	4.4	NNE
20221228_1420	4.2	NNE
20221228_1430	3.9	NNE
20221228_1440	3.6	NNE
20221228_1450	3.3	NNE
20221228_1500	2.8	N
20221228_1510	3.9	NNE
20221228_1520	3.3	N
20221228_1530	3.3	NNE
20221228_1540	3.3	NNE
20221228_1550	3.1	N
20221228_1600	3.3	NNE
20221228_1610	3.3	NNE
20221228_1620	2.5	NNE
20221228_1630	2.2	NNE
20221228_1640	2.2	N
20221228_1650	2.2	N
20221228_1700	2.2	N
20221228_1710	1.7	N
20221228_1720	1.1	N
20221228_1730	0.8	NNE
20221228_1740	0.6	N
20221228_1750	0.3	SE
20221228_1800	0	N
20221228_1810	0	N
20221228_1820	0.3	SE
20221228_1830	0	N
20221228_1840	0.3	SW
20221228_1850	0.3	SSE
20221228_1900	0	N
20221228_1910	0.3	-
20221228_1920	0.3	SW
20221228_1930	0.3	SW
20221228_1940	0.3	SSW
20221228_1950	0	N
20221228_2000	0.3	-
20221228_2010	0.3	SSW
20221228_2020	0.3	SSE
20221228_2030	0.3	SSE
20221228_2040	0.3	S
20221228_2050	0.3	SSE
20221228_2100	0	N
20221228_2110	0.3	W
20221228_2120	0.3	NW
20221228_2130	0.3	SE
20221228_2140	0.3	-
20221228_2150	0	N
20221228_2200	0.3	NW
20221228_2210	0.3	-
20221228_2220	0.3	SSW
20221228_2230	0.3	SSE
20221228_2240	0	N
20221228_2250	0	N
20221228_2300	0	N
20221228_2310	0	N
20221228_2320	0	N
20221228_2330	0	N
20221228_2340	0	N
20221228_2350	0	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221229_0000	0	N
20221229_0010	0.3	NNW
20221229_0020	1.1	NNW
20221229_0020	1.1	NNW
20221229_0030	1.7	N
20221229_0040	1.4	NNE
20221229_0050	0.8	N
20221229_0100	0.3	NNW
20221229_0110	0.8	N
20221229_0120	0.8	N
20221229_0130	1.1	N
20221229_0140	1.7	N
20221229_0150	1.7	N
20221229_0200	1.4	N
20221229_0210	2.2	N
20221229_0220	1.7	N
20221229_0230	2.2	NNE
20221229_0240	1.7	NNE
20221229_0250	0.8	E
20221229_0300	0.3	ESE
20221229_0310	0	N
20221229_0320	0.3	S
20221229_0330	0.3	SSW
20221229_0340	0.3	WSW
20221229_0350	1.4	WNW
20221229_0400	1.4	N
20221229_0410	2.2	N
20221229_0420	2.5	N
20221229_0430	2.5	N
20221229_0440	2.8	NNE
20221229_0450	0.8	NE
20221229_0500	2.2	N
20221229_0510	3.3	N
20221229_0520	3.9	N
20221229_0530	3.1	N
20221229_0540	3.3	N
20221229_0550	3.3	N
20221229_0600	4.7	N
20221229_0610	4.7	N
20221229_0620	3.9	N
20221229_0630	3.3	N
20221229_0640	4.2	N
20221229_0650	3.3	N
20221229_0700	1.4	N
20221229_0710	1.1	NNW
20221229_0720	2.8	NNE
20221229_0730	2.5	N
20221229_0740	3.1	N
20221229_0750	2.2	N
20221229_0800	2.2	N
20221229_0810	2.8	N
20221229_0820	3.1	N
20221229_0830	3.9	N
20221229_0840	3.3	NNE
20221229_0850	2.2	N
20221229_0900	2.2	NNE
20221229_0910	1.1	E
20221229_0920	1.4	SE
20221229_0930	0.6	SSE
20221229_0940	1.1	S
20221229_0950	0.3	NW
20221229_1000	1.1	NNW
20221229_1010	1.4	NNW
20221229_1020	1.7	NNW
20221229_1030	2.2	NNW
20221229_1040	2.8	N
20221229_1050	3.1	N
20221229_1100	3.3	N
20221229_1110	3.3	N
20221229_1120	2.5	N
20221229_1130	3.9	N
20221229_1140	3.9	N
20221229_1150	4.2	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221229_1200	3.3	N
20221229_1210	3.3	N
20221229_1220	4.2	N
20221229_1230	2.8	N
20221229_1240	4.7	N
20221229_1250	4.7	N
20221229_1300	5	N
20221229_1310	3.9	N
20221229_1320	4.4	N
20221229_1330	4.2	N
20221229_1340	3.6	N
20221229_1350	5	N
20221229_1400	4.7	NNE
20221229_1410	3.9	N
20221229_1420	3.3	N
20221229_1430	2.5	N
20221229_1440	2.5	N
20221229_1450	3.3	N
20221229_1500	2.8	N
20221229_1510	3.1	N
20221229_1520	2.8	N
20221229_1530	3.3	N
20221229_1540	3.3	N
20221229_1550	2.8	N
20221229_1600	2.8	N
20221229_1610	3.3	N
20221229_1620	2.8	N
20221229_1630	1.7	N
20221229_1640	2.2	N
20221229_1650	1.9	N
20221229_1700	2.2	N
20221229_1710	2.5	N
20221229_1720	2.2	N
20221229_1730	2.2	N
20221229_1740	1.9	N
20221229_1750	2.2	N
20221229_1800	1.7	N
20221229_1810	1.9	N
20221229_1820	1.7	NNW
20221229_1830	1.7	NNW
20221229_1840	1.4	NNW
20221229_1850	1.4	NNW
20221229_1900	1.4	NNW
20221229_1910	1.4	NNW
20221229_1920	0.8	NNW
20221229_1930	0.3	N
20221229_1940	0.3	NW
20221229_1950	0	N
20221229_2000	0.8	WNW
20221229_2010	0.8	WNW
20221229_2020	0.3	-
20221229_2030	0.3	NW
20221229_2040	0.8	N
20221229_2050	0.3	-
20221229_2100	0.3	S
20221229_2110	0.6	SSE
20221229_2120	1.4	NNE
20221229_2130	2.5	N
20221229_2140	1.4	ESE
20221229_2150	0.6	SSE
20221229_2200	0.3	-
20221229_2210	0	N
20221229_2220	0.8	NNE
20221229_2230	2.2	NNE
20221229_2240	2.2	NNE
20221229_2250	1.1	NE
20221229_2300	1.1	NE
20221229_2310	1.4	NNE
20221229_2320	2.5	N
20221229_2330	3.3	N
20221229_2340	3.6	N
20221229_2350	3.9	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221230_0000	3.3	NNE
20221230_0010	1.7	NNE
20221230_0020	3.3	NNE
20221230_0020	3.3	NNE
20221230_0030	3.6	N
20221230_0040	4.2	N
20221230_0050	3.3	N
20221230_0100	2.8	N
20221230_0110	2.5	NNW
20221230_0120	2.8	NNW
20221230_0130	3.1	NNW
20221230_0140	3.3	N
20221230_0150	5	N
20221230_0200	3.3	N
20221230_0210	3.3	N
20221230_0220	3.6	N
20221230_0230	2.5	N
20221230_0240	0.6	NNW
20221230_0250	1.1	N
20221230_0300	2.5	N
20221230_0310	3.3	N
20221230_0320	3.3	N
20221230_0330	3.3	N
20221230_0340	3.3	N
20221230_0350	2.5	N
20221230_0400	2.8	N
20221230_0410	3.1	NNE
20221230_0420	3.9	N
20221230_0430	3.9	N
20221230_0440	4.4	N
20221230_0450	4.4	N
20221230_0500	4.2	N
20221230_0510	3.9	N
20221230_0520	3.6	N
20221230_0530	3.3	N
20221230_0540	3.3	NNE
20221230_0550	2.5	NNE
20221230_0600	2.2	NNE
20221230_0610	2.8	NNE
20221230_0620	0.8	NNE
20221230_0630	0.6	NNW
20221230_0640	0.8	ESE
20221230_0650	1.1	ENE
20221230_0700	1.9	NNE
20221230_0710	3.9	NNE
20221230_0720	3.3	NNE
20221230_0730	3.3	NNE
20221230_0740	3.9	N
20221230_0750	3.9	N
20221230_0800	4.2	N
20221230_0810	4.2	N
20221230_0820	4.4	N
20221230_0830	4.2	N
20221230_0840	4.2	NNE
20221230_0850	1.7	NNE
20221230_0900	3.9	NNE
20221230_0910	3.9	NNE
20221230_0920	3.1	N
20221230_0930	3.3	N
20221230_0940	3.3	N
20221230_0950	3.9	N
20221230_1000	3.3	N
20221230_1010	3.9	N
20221230_1020	3.9	N
20221230_1030	4.7	N
20221230_1040	4.7	N
20221230_1050	5.3	N
20221230_1100	3.3	N
20221230_1110	4.7	N
20221230_1120	6.1	N
20221230_1130	5.8	N
20221230_1140	5.8	NNE
20221230_1150	4.2	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221230_1200	5.8	NNE
20221230_1210	5.3	NNE
20221230_1220	5.3	NNE
20221230_1230	5.3	NNE
20221230_1240	6.4	NNE
20221230_1250	5	N
20221230_1300	5.3	N
20221230_1310	5	N
20221230_1320	3.9	N
20221230_1330	4.4	N
20221230_1340	4.2	NNE
20221230_1350	3.3	NNE
20221230_1400	4.2	NNE
20221230_1410	4.7	NNE
20221230_1420	4.7	N
20221230_1430	5	NNE
20221230_1440	3.9	NNE
20221230_1450	4.4	NNE
20221230_1500	4.4	NNE
20221230_1510	4.2	NNE
20221230_1520	3.9	NNE
20221230_1530	3.6	NE
20221230_1540	4.2	NNE
20221230_1550	4.2	NNE
20221230_1600	4.2	NNE
20221230_1610	3.3	NNE
20221230_1620	3.9	NNE
20221230_1630	3.1	NNE
20221230_1640	3.9	NNE
20221230_1650	3.6	NNE
20221230_1700	3.3	NNE
20221230_1710	3.1	N
20221230_1720	2.5	NNE
20221230_1730	2.5	N
20221230_1740	2.5	N
20221230_1750	2.2	NNE
20221230_1800	2.5	NNE
20221230_1810	1.9	NNE
20221230_1820	2.2	N
20221230_1830	3.1	N
20221230_1840	2.8	NNE
20221230_1850	2.2	NNE
20221230_1900	1.9	NNE
20221230_1910	2.8	N
20221230_1920	2.5	NNE
20221230_1930	2.8	NNE
20221230_1940	3.3	NNE
20221230_1950	2.8	N
20221230_2000	2.8	N
20221230_2010	3.3	N
20221230_2020	3.6	NNE
20221230_2030	2.8	NNE
20221230_2040	3.1	NNE
20221230_2050	1.7	NE
20221230_2100	1.4	NE
20221230_2110	0.8	NNE
20221230_2120	0.3	SE
20221230_2130	1.1	SE
20221230_2140	0.3	SE
20221230_2150	0.3	S
20221230_2200	0.3	SSW
20221230_2210	0.3	-
20221230_2220	0.6	-
20221230_2230	0.3	SW
20221230_2240	0.3	-
20221230_2250	0.3	ESE
20221230_2300	0.3	N
20221230_2310	1.4	NNW
20221230_2320	2.2	N
20221230_2330	3.1	N
20221230_2340	3.3	N
20221230_2350	3.3	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221231_0000	3.3	N
20221231_0010	3.3	NNE
20221231_0020	2.5	N
20221231_0020	2.5	N
20221231_0030	2.2	N
20221231_0040	1.7	N
20221231_0050	1.1	N
20221231_0100	1.1	NNE
20221231_0110	1.7	NNE
20221231_0120	2.2	NNE
20221231_0130	2.2	N
20221231_0140	2.2	N
20221231_0150	1.9	N
20221231_0200	2.2	N
20221231_0210	1.9	N
20221231_0220	2.8	N
20221231_0230	2.5	N
20221231_0240	2.5	N
20221231_0250	2.8	N
20221231_0300	2.5	N
20221231_0310	2.5	N
20221231_0320	2.5	N
20221231_0330	3.3	N
20221231_0340	2.2	N
20221231_0350	2.5	NNE
20221231_0400	0.3	NE
20221231_0410	0.3	ENE
20221231_0420	1.1	NE
20221231_0430	0.6	NE
20221231_0440	0.3	-
20221231_0450	0.8	SSE
20221231_0500	0.3	ENE
20221231_0510	0.3	SSE
20221231_0520	0.3	-
20221231_0530	0.3	ESE
20221231_0540	0.3	ENE
20221231_0550	0.3	SE
20221231_0600	0.8	SE
20221231_0610	0.3	-
20221231_0620	0	N
20221231_0630	0.8	SSE
20221231_0640	0.8	SSE
20221231_0650	0.3	-
20221231_0700	0	N
20221231_0710	0.3	SE
20221231_0720	0.3	-
20221231_0730	0.3	-
20221231_0740	0.3	SSE
20221231_0750	0.8	SE
20221231_0800	0.3	ESE
20221231_0810	0	N
20221231_0820	0.8	S
20221231_0830	0	N
20221231_0840	0.3	SE
20221231_0850	0.3	ESE
20221231_0900	0.3	SE
20221231_0910	0.3	E
20221231_0920	0.3	-
20221231_0930	0.3	ENE
20221231_0940	1.7	N
20221231_0950	3.1	N
20221231_1000	3.3	N
20221231_1010	3.1	N
20221231_1020	3.3	NNE
20221231_1030	3.9	NNE
20221231_1040	4.7	NNE
20221231_1050	4.2	NNE
20221231_1100	3.9	NNE
20221231_1110	4.2	NNE
20221231_1120	4.2	N
20221231_1130	3.9	N
20221231_1140	3.9	N
20221231_1150	3.9	N

Date & Time (YYYYMMBB_HHMM)	Wind Speed (m/s)	Wind Direction (From)
20221231_1200	3.9	N
20221231_1210	3.9	N
20221231_1220	2.8	N
20221231_1230	3.3	N
20221231_1240	3.3	N
20221231_1250	2.8	N
20221231_1300	2.8	NNW
20221231_1310	3.3	N
20221231_1320	3.1	N
20221231_1330	3.1	N
20221231_1340	3.3	N
20221231_1350	3.3	NNE
20221231_1400	3.3	N
20221231_1410	3.3	N
20221231_1420	3.1	N
20221231_1430	3.3	NNW
20221231_1440	3.3	N
20221231_1450	3.3	N
20221231_1500	3.3	NNE
20221231_1510	2.8	N
20221231_1520	3.1	N
20221231_1530	3.3	N
20221231_1540	3.6	NNE
20221231_1550	3.9	NNE
20221231_1600	3.3	NNE
20221231_1610	2.8	N
20221231_1620	2.8	NNE
20221231_1630	2.2	NNE
20221231_1640	2.5	NNE
20221231_1650	2.2	NNE
20221231_1700	2.2	NNE
20221231_1710	1.7	NNE
20221231_1720	1.4	NNE
20221231_1730	1.7	NNE
20221231_1740	1.7	N
20221231_1750	1.4	NNE
20221231_1800	1.7	N
20221231_1810	1.7	NNE
20221231_1820	1.4	N
20221231_1830	0.8	NNE
20221231_1840	1.1	N
20221231_1850	1.1	N
20221231_1900	1.7	N
20221231_1910	0.8	N
20221231_1920	0.8	NNW
20221231_1930	0.8	NW
20221231_1940	0.3	SE
20221231_1950	0.3	-
20221231_2000	0.3	S
20221231_2010	0.3	SSE
20221231_2020	0	N
20221231_2030	0	N
20221231_2040	0.3	-
20221231_2050	0	N
20221231_2100	0	N
20221231_2110	0	N
20221231_2120	0	N
20221231_2130	0.3	SSE
20221231_2140	0	N
20221231_2150	0.3	-
20221231_2200	0	N
20221231_2210	0	N
20221231_2220	0	N
20221231_2230	0.3	SSE
20221231_2240	1.1	SSE
20221231_2250	0.3	NE
20221231_2300	0	N
20221231_2310	0.3	SSE
20221231_2320	0	N
20221231_2330	0	N
20221231_2340	0	N
20221231_2350	0	N

Appendix I

Waste Flow Table



Month	Total Quantities of Inert C&D Materials to be Generated from the Contract						Total Quantities of Recyclables Generation			Total Quantities of C&D Materials to be Generated from the Contract	
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in tonne)	(in '000L)	(in tonne)
Dec-22	300	300	300	0	0	0	0	0	0	0	8
Total	300	300	300	0	0	0	0	0	0	0	8

Note: 1. The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.

2. Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.

Appendix J

Environmental Complaint/ Enquiry Form

Complaint/ Enquiry Received	
Date:	21 December 2022
Time:	14:28
From	Veolia (Environmental Manager referred the email from Complainant to ET)
Via:	Email
Complainant/ Enquirer*:	
Name:	Undisclosed
Tel.:	Undisclosed
Address:	Undisclosed
E-mail:	Undisclosed
Complaint/ Enquiry*:	
Date of complaint/ enquiry:	20 December 2022
Time of complaint/ enquiry:	15:06
Aspect:	Dust / Noise / Water / Other* :
Description:	
<p>It was noted from Veolia's email to the Environmental Team on 20 December 2022 that Veolia received complaint lodged regarding presenting much dusty materials at roundabout at Wo Keng Shan Road & dusty flying problem at Kowloon-bound traffic at Lung Shan Tunnel. The content of the complainant email is appended below.</p> <p>“你好！多次想以電話與你溝通關於下禾經迴旋處路面很多沙石的問題。事因本處大量居民反映迴旋處路面很多泥及沙石，是由堆填區的车帶出來的。此外，入到龍山隧道往九龍方向的時候，由於堆填區出嚟的泥頭車輾依然有泥，令到隧道沙塵滾滾阻礙其他司機的行車視線。議員希望貴公司做好車輛出入堆填區的清潔。”</p>	
Photo 1	Photo 2
	






<p>Photo 3</p> 	
<p>Investigation Results & Response:</p>	
<p>IEC notified on: 21 December 2022</p>	
<p>Results of investigation:</p>	
<p>According to the construction record, no dusty materials and wastes were transported out from the NENTX site during the complaint period. The site activities in December 2022 included the site formation works at Portion A, site clearance works at Portion D & site clearance and GI works at Portion B & E.</p> <p>During the regular weekly site inspection on 5, 12 & 19 December 2022, it was observed that the wheel washing facilities with high-pressure water jets have been provided at all site exits of NENTX (i.e. Portion A and Portion D) and cleaned all vehicles before allowing them to leave the construction site to ensure that no mud or debris would be brought to the public area. All site vehicles of NENTX are also required to go through the auto wheel washing facility, which is managed by the operator of the NENT landfill, before entering the public area.</p> <p>The road section between the washing facilities and the exit point was paved with concrete, or bituminous materials were implemented in all site entrances.</p> <p>No mud generated from vehicles under the NENTX project after exiting the site entrance was observed.</p>	
<p>Photo 4</p>	<p>Photo 5</p>
 <p>Site Entrance/Exit at Portion A of NENTX project.</p>	 <p>Wheel washing facilities with high pressure water jet provided at Site Entrance/Exit of Portion A</p>

Photo 6	Photo 7
 <p data-bbox="220 712 687 748">Site Exit at Portion D of NENTX project</p>	 <p data-bbox="1007 712 1219 748">Site Exit of NENT</p>
<p>Recommendations/ Mitigation Measures/ Actions if necessary:</p> <p>Based on the investigation result, there is no direct evidence showing that the complaint is likely related to the NENTX project. The Contractor has been reminded to implement the mitigation measures such as the provision of the concrete paved wheel washing area and other measures specified and required in the EIA Report, the EM&A Manual and the EP/FEP to minimize dust impact/ improve cleanliness.</p>	

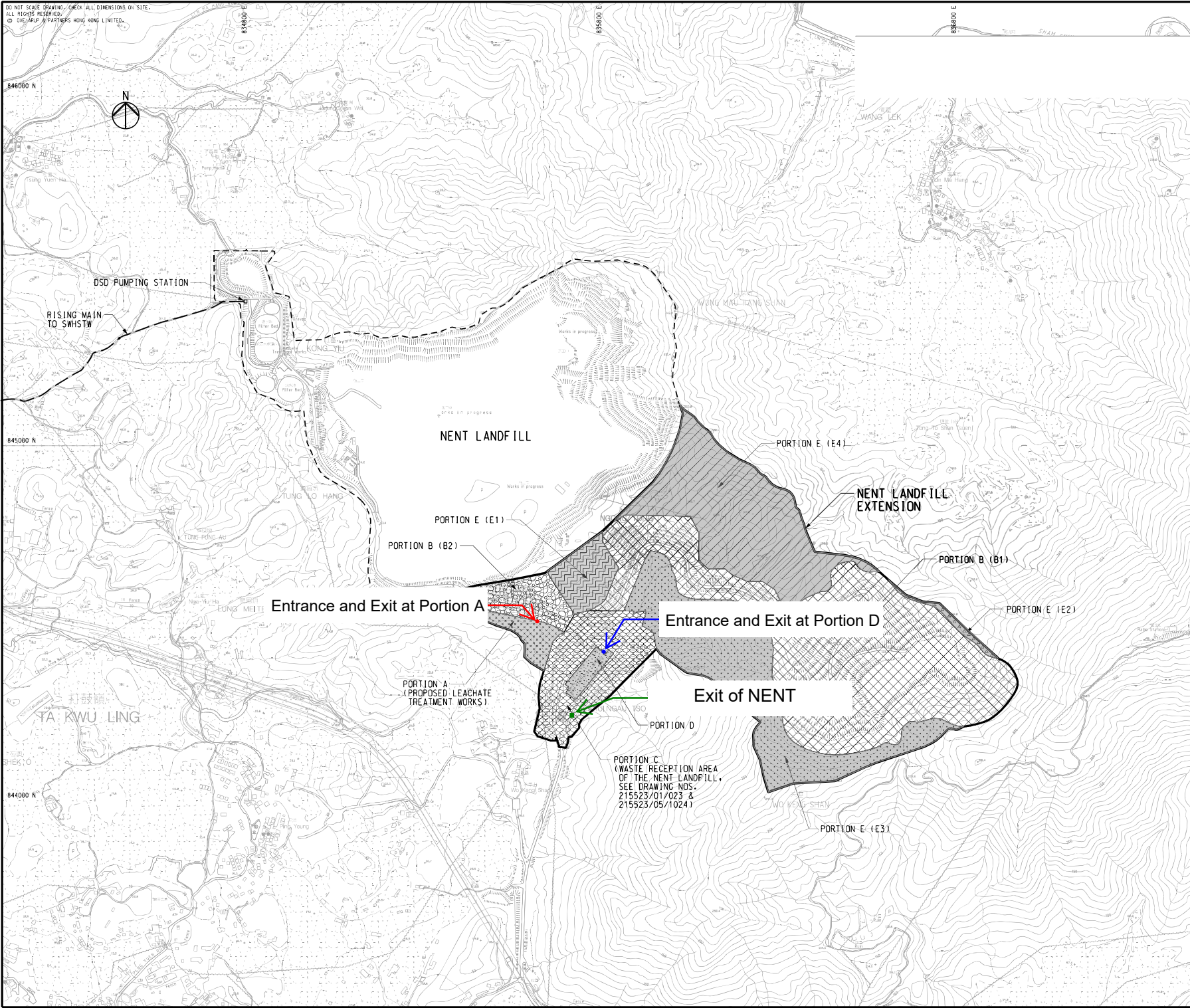
Prepared by : Jason Man

Date : 30 December 2022

Reviewed by : Keith Chau

Date : 30 December 2022

DO NOT SCALE DRAWING. CHECK ALL DIMENSIONS ON SITE.
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- LEGEND**
- NENT LANDFILL
 - NENT LANDFILL EXTENSION
 - PORTION A - NEW LAND
 - PORTION B (B1) - HAUL ROUTE, STOCKPILE & BORROW AREA OF THE NENT LANDFILL
 - PORTION B (B2) - A PIECE OF LAND OF THE NENT LANDFILL
 - PORTION C - WASTE RECEPTION AREA OF THE NENT LANDFILL
 - PORTION D - AREA FOR WASTE RECEPTION FACILITIES OF NENT LANDFILL EXTENSION
 - PORTION E (E1) - NEW LAND
 - PORTION E (E2) - NEW LAND
 - PORTION E (E3) - NEW LAND
 - PORTION E (E4) - NEW LAND
 - PORTION OF SITE HANDED OVER ON 25 FEB 2022

0	ISSUE FOR TENDER	SS	12/20
Rev	Description	By	Date

Consultant
ARUP 奧雅納工程顧問
Ove Arup & Partners Hong Kong Limited

Project Title
Contract No. EP/SP/77/15
North East New Territories
Landfill Extension

Drawing title

PORTIONS OF THE SITE

Drawing no. **215523/01/015** Rev. **0**

Drawn by	Date	Checked by	Approved by
Scale	1:5000 (M1)	Status	TENDER



Appendix K

North East New Territories (NENT) Landfill Extension
Environmental Mitigation Implementation Schedule (EMIS) Construction Phase

EIA Ref.	EM&A Log Ref.	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Air Quality							
S3.8.1	S3.1.8	<p>The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation.</p> <ul style="list-style-type: none"> Dust emission from construction vehicle movement is confined within the worksites area. Watering facilities will be provided at every designated vehicular exit point. Good site practice is recommended during construction phase. Covering with impermeable sheet should be provided for the inactive tipping area. 	Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria.	Contractor	Entire NENT Landfill Extension site	To control the dust impact to within the HKAQO and TM - EIA criteria (Ref. 1-hr and 24hr TSP levels are 500 $\mu\text{g}/\text{m}^3$ and 260 $\mu\text{g}/\text{m}^3$, respectively)	✓
Construction Noise							
S4	S4.9	<p>1) Use of good site practices to limit noise emissions by considering the following:</p> <ul style="list-style-type: none"> Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; Plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; Silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; Mobile plant should be sited as far away from NSRs as possible and practicable; Material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. 	Control construction airborne noise by means of good site practices	Contractor	Entire construction site	Noise Control Ordinance	✓
S4	S4.9	<p>2) Select "Quiet plants" which comply with the BS 5228 Part 1 or TM standards.</p>	Reduce the noise levels of plant items	Contractor	Entire construction site	<p>Noise Control Ordinance & its TM</p> <p>Annex 5, TM-EIA</p>	✓

North East New Territories (NENT) Landfill Extension
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Construction Runoff							
S5.8.1	S5.2.1	<p>Construction on Site Runoff</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 (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a silt/sediment trap. The sediment/silt traps should be incorporated in the permanent drainage channels to enhance deposition rates. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94, which states that the retention time for silts and sediment traps should be 5 minutes under maximum flow conditions. Construction works should be programmed to minimize surface excavation works during the rainy seasons (April to September). All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed, or alternatively, within 14 days of the cessation of earthworks where practicable. If excavation of soil cannot be avoided during the rainy season, or at any time of year when rainstorms are likely, exposed slope surfaces should be covered by tarpaulin or other means. The overall slope of the site should be kept to a minimum to reduce the erosive potential of surface water flows, and all traffic areas and access roads protected by coarse stone ballast. An additional advantage accruing from the use of crushed stone is the positive traction gained during prolonged periods of inclement weather and the reduction of surface sheet flows. 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 following rainstorms. Deposited silt and grit should be removed regularly and disposed of by spreading evenly over stable, vegetated areas. 	Control construction runoff and erosion from site surface, drainage channel, stockpiles, wheel washing facilities, etc to minimize water quality during construction stage	Contractor	Entire construction site	ProPECC PN 1/94 Water Pollution Control Ordinance	✓

North East New Territories (NENT) Landfill Extension
Environmental Mitigation Implementation Schedule (EMIS) Construction Phase

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	Status
Construction Runoff (Cont'd)							
S5.8.1	S5.2.1	<ul style="list-style-type: none"> Measures should be taken to minimise the ingress of site drainage into excavations. If the excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. Open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50 m³ 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. Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. Precautions to be taken at any time of year when rainstorms are likely, actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC 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. 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 bay should be provided at every construction site exit. Wash-water should have sand and silt settled out and removed at least on a weekly basis 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. Oil interceptors should be provided in the site drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain. 	Control construction runoff and erosion from site surface, drainage channel, stockpiles, wheel washing facilities, etc to minimize water quality during construction stage	Contractor	Entire Construction site	ProPECC PN 1/94 Water Pollution Control Ordinance	✓

North East New Territories (NENT) Landfill Extension
Environmental Mitigation Implementation Schedule (EMIS) Construction Phase

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Construction Runoff							
S5.8.1	S5.2.1	<ul style="list-style-type: none"> Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts. Requirements for solid waste management are detailed in Section 6 of this Report. All fuel tanks and storage areas should be provided with docks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby. To prevent pollution risks arising from works area (waste reception area) and haul roads, intercepting bund or barrier along the roadside should be constructed. 	Control construction runoff and erosion from site surface, drainage channel, stockpiles, wheel washing facilities, etc to minimize water quality during construction stage	Contractor	Entire construction site	ProPECC PN 1/94 Water Pollution Control Ordinance	✓
S5.8.1	S5.2.1	<u>Sewage Effluent from Workforce</u> <ul style="list-style-type: none"> Portable chemical toilets and sewage holding tanks are recommended for handling the construction sewage generated by the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance. Notices will be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project. Regular environmental audit on the construction site can provide an effective control of any malpractices and can achieve continual improvement of environmental performance on site. 	Control sewage effluent arising from the sanitary facilities provided for the on- site construction workforce	Contractor	On-site sanitary facilities	ProPECC PN 1/94 Water Pollution Control Ordinance Waste Disposal Ordinance	✓
S5.8.1	S5.2.1	<u>Accidental Spillage of Chemical</u> Any service workshop and maintenance facilities shall be located within a bunded area, and sumps and oil interceptors shall be provided. Maintenance of equipment involving activities with potential for leakage and spillage will only be undertaken within the areas.	Control of chemical leakage	Contractor	Service workshop and maintenance facilities	ProPECC PN 1/94 Water Pollution Control Ordinance Waste Disposal Ordinance	✓

North East New Territories (NENT) Landfill Extension
Environmental Mitigation Implementation Schedule (EMIS) Construction Phase

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Erosion Control Measures							
S5.8.2	S5.2.2	<p><u>Erosion Control /Measures</u></p> <p>a. Preserve Natural Vegetation This Best Management Practices will involve preserving natural vegetation to the greatest extent possible during the construction process. and after construction where appropriate. Maintaining natural vegetation is the most effective and inexpensive form of erosion prevention control.</p> <p>b. Provision of Buffer Zone A buffer zone consists of an undisturbed area or strip of natural vegetation or an established suitable planting adjacent to a disturbed area that reduces erosion and runoff. The rooted vegetation holds soils acts as a wind break and filters runoff that may leave the site.</p> <p>c. Seeding (Temporary/Permanent) A well-established vegetative cover is one of the most effective methods of reducing erosion. Vegetation should be established on construction sites as the slopes are finished, rather than waiting until all the grading is complete. Besides, Hydroseeding will be applied on the surface of stockpiled soil and on temporary soil covers for inactive tipping areas to prevent soil erosion during rainy season.</p> <p>d. Ground Cover Ground Cover is a protective layer of straw or other suitable material applied to the soil surface. Straw mulch and/or hydromulch are also used in conjunction with seeding of critical areas for the establishment of temporary or permanent vegetation. Ground cover provides immediate temporary protection from erosion. Mulch also enhances plant establishment by conserving moisture, holding fertilizer, seed, and topsoil in place, and moderating soil temperatures.</p>	Erosion control	Contractor	Drainage system	ProPECC PN 1/94 Water Pollution Control Ordinance	✓

North East New Territories (NENT) Landfill Extension
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Erosion Control Measures							
S5.8.2	S5.2.2	<p>e. Hydraulic Application Hydraulic application is a mechanical method of applying erosion control materials to bare soil in order to establish erosion-resistant vegetation on disturbed areas and critical slopes. By using hydraulic equipment, soil amendments, mulch, tackifying agents, Bonded Fiber Matrix (BFM) and liquid co-polymers can be uniformly broadcast, as homogenous slurry, onto the soil. These erosion and dust control materials can often be applied in one operation.</p> <p>f. Sod Establishes permanent turf for immediate erosion protection and stabilizes rainageways.</p> <p>g. Matting There are numerous erosion control products available that can be described in various ways, such as matting, blankets, fabric and nets. These products are referred as matting. A wide range of materials and combination of materials are used to produce matting including, but not limited to: straw, jute, wood fiber, coir (coconut fiber), plastic netting, and Bonded Fiber Matrix. The selection of matting materials for a site can make a significant difference in the effectiveness of the Best Management Practices.</p> <p>h. Plastic Sheeting Plastic Sheeting will provide immediate protection to slopes and stockpiles. However, it has been known to transfer erosion problems because water will sheet flow off the plastic at high velocity. This is usually attributable to poor application, installation and maintenance.</p> <p>i. Dust Control Dust Control is one preventative measure to minimize the wind transport of soil, prevent traffic hazards and reduce sediment transported by wind and deposited in water resources.</p>	Erosion control	Contractor	Drainage system	ProPECC PN 1/94 Water Pollution Control Ordinance	✓

North East New Territories (NENT) Landfill Extension
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Surface Water Drainage System							
S5.8.2	S5.2.2	<p>Temporary surface water drainage system will be provided to manage runoff during construction and operation. This system will consist of channels as constructed around the perimeter of the site area. This system will collect surface water from the areas of higher elevations to those of lower elevations and ultimately to the point of discharge. Erosion will therefore be minimised.</p> <p>The temporary surface water drainage system will include the use of a silt fence around the soil stockpile areas to prevent sediment from entering the system. Regular cleaning will be carried out to prevent blockage of the passage of water flow in silt fence.</p> <p>Intermediate drainage system will be installed for filled cell/phase. The major purpose of the intermediate drainage system is to prevent the clean surface water run-off from the filled phases coming into contact with the waste mass in active cell and to prevent excessive surface water infiltration through the intermediate cover, thus contribute to increasing volume of leachate. The intermediate drainage system will collect the clean surface water run-off and divert it to the permanent discharge channels connected to the public drainage system.</p> <p>In addition, surface flow from the haul road (especially near the wheel washing facility) will be collected to a dry weather flow interceptor and conveyed to the on-site leachate treatment plant for further treatment.</p>	Surface Water Management/ Control run off	Contractor	Surface water system Construction	Water Pollution Control Ordinance TM-water	✓

North East New Territories (NENT) Landfill Extension
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Groundwater Regime							
S5.8.2	GW1	<p>1) Adopt precautionary / mitigation measures:</p> <ul style="list-style-type: none"> • Provision of adequate water supply for irrigation purposes for the operational lifetime of the landfill extension, i.e. 10 to 12 years; • Installation of a network of monitoring stations to keep track of the stream flow volumes. Should monitoring of stream flow indicate insufficient quantities to provide sufficient water for irrigation downstream, a contractual requirement for the landfill operator to "tank in" water from an external source could be imposed. This is the system currently in place for the existing NENT Landfill; • Diversion of flow from other catchments. The surface runoff generated in the catchments with abandoned agricultural lands could be collected and conveyed to the active agricultural lands; • Formation of new extraction wells that extend deeper down within the aquifers • Provision of Piped Water Supply; and • Artificial recharge by surface spreading, spray irrigation or pumping water directly into the ground via vertical shafts. 	Control and maintain ground water yield	Contractor	Entire construction site and villages around the site	<p>TM-EIAO, Annex 6 and 14</p> <p>HKPSG</p>	N/A

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Waste Management							
S6	WM1	<p><u>C&D Materials</u></p> <p>Implement proper waste management measures during construction phase as stipulated in the Environmental Management Plan (EMP) in accordance with the ETWB TC(W) No. 19/2005 Environmental Management in Construction Sites.</p> <p>Implement a trip-ticket system to ensure that the movement of C&D materials are properly documented and verified in accordance with DEVB TC(W) No. 6/2010. Copies/counterfoils from trip-tickets (with quantities of C&D Materials off-site) should be kept for record purposes.</p> <p>Appropriate waste management should be implemented in accordance with the ETWB TC(W) No. 19/2005.</p> <p>Make provisions in Contract documents to allow and promote the use of recycled aggregates where appropriate. Ensure material balance in terms of excavated C&D materials in the design of NENT landfill extension project. The contract specifications should specify no excavated materials should be removed from the landfill extension site, but should be fully reused.</p> <p>Careful design, planning and good site management to minimise over-ordering and waste materials such as concrete, mortars and cement grouts. The design of formwork should maximise the use of standard wooden panels so that high reuse levels can be achieved. Alternatives such as steel formwork or plastic fencing should be considered to increase the potential for reuse.</p> <p>The Contractor should recycle as much as possible the C&D waste on-site through proper waste segregation on-site. Concrete and masonry should be used as general fill and steel reinforcement bars can be used by scrap steel mills. Proper areas should be designated for waste segregation and storage wherever site conditions permit. Maximise the use of reusable steel formwork to reduce the amount of C&D material.</p> <p>Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement. On-site sorting and segregation facility of all type of wastes is considered as one of the best practice in waste management and hence, should be implemented in all projects generating construction waste. The sorted public fill and C&D waste should be properly reused.</p>	Good site practice to minimise C&D waste generation and reuse/recycle all C&D on-site as far as possible	Contractor	Entire construction site	<p>Waste Disposal Ordinance</p> <p>ETWB TC(W) No. 19/2005</p> <p>DEVB TC(W) No. 6/2010</p>	✓

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S6	WM1	<p><u>C&D Materials (Cont'd)</u></p> <p>Excavated slope, stockpiled material and bund walls should be covered by tarpaulin until used in order to prevent wind-blown dust during dry weather, and to reduce muddy runoff during wet weather. Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.</p> <p>If any topsoil-like materials need to be stockpiled for any length of time, consideration should be given to hydroseeding of the topsoil on the stockpile to improve its visual appearance and prevent soil erosion.</p> <p>Nomination of approved personnel to be responsible for good site practices and making arrangements for collection of all wastes generated on-site and effective disposal.</p> <p>Training of site personnel for cleanliness, proper waste management procedures including chemical waste handling, and waste reduction, reuse and recycling concepts.</p> <p>Regular cleaning and maintenance programme systems, sumps and oil interceptors. Prior to disposal of C&D waste, wood, steel and other metals should be separated for re-use and/or recycling to minimise the quantity of waste to be disposed of to landfill. Proper storage and site practices should be implemented to minimise the potential for damage or contamination of construction materials.</p> <p>Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. Minimise excessive ordering of concrete, mortars and cement grout by doing careful check before ordering.</p>	Good site practice to minimise C&D waste generation and reuse/recycle all C&D on-site as far as possible	Contractor	Entire construction site	<p>Waste Disposal Ordinance</p> <p>ETWB TC(W) No. 19/2005</p> <p>DEVB TC(W) No. 6/2010</p>	✓
S6	WM2	<p><u>Chemical Waste</u></p> <p>Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.</p> <p>Plant/equipment maintenance schedule should be designed to optimise maintenance effectiveness and to minimise the generation of chemical wastes. Where possible, chemical wastes (e.g. waste lube oil) should be recycled by licensed treatment facilities</p>	Ensure proper disposal of chemical waste generated on-site to minimise the associated hazards on human health and environment	Contractor	Entire construction site	<p>Waste Disposal (Chemical Waste) General Regulation</p> <p>Code of Practice on the Packaging, Labelling and Storage of Chemical Waste</p>	✓

North East New Territories (NENT) Landfill Extension
Environmental Mitigation Implementation Schedule (EMIS) Construction Phase

EIA Ref.	EM&A Log Ref	Recommended Precautionary/Mitigation Measures (to be implemented when the trigger level is exceeded, where necessary)	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the measures	What requirement or standards for the measures to achieve?	
S6	WM2	<p><u>Chemical Waste (Cont'd)</u></p> <p>Containers used for storage of chemical wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 liters unless the specification has been approved by the EPD. Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulation.</p> <p>The storage area for chemical wastes should be clearly labelled and used solely for storage of chemical waste, enclosed with at least 3 sides, having an impermeable floor and bund of sufficient capacity to accommodate 110% of volume of the largest container or 20 % of total volume of waste stored in that area, whichever is the greatest, having adequate ventilation, being covered to prevent rainfall entering, and being arranged so that incompatible materials are adequately separated.</p> <p>Chemical waste should be collected by licensed waste collectors and disposed of at licensed facility, e.g. Chemical Waste Treatment Centre.</p>	Ensure proper disposal of chemical waste generated on-site to minimise the associated hazards on human health and environment.	Contractor	Entire construction site	<p>Waste Disposal (Chemical Waste) General Regulation</p> <p>Code of Practice on the Packaging, Labelling and Storage of Chemical Waste</p>	✓
S6	WM3	<p><u>General Refuse</u></p> <p>General refuse generated on-site should be properly stored in enclosed bins or compaction units separately from construction and chemical wastes.</p> <p>All recyclable materials (separated from the general waste) should be stored on-site in appropriate containers with cover prior to collection by a local recycler for subsequent reuse and recycling. Residual, non-recyclable, general waste should be stored in appropriate containers to avoid odour. Regular collection should be arranged by an approved waste collector in purpose-built vehicles that minimise environmental impacts during transportation</p> <p>Reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimise odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law.</p> <p>Aluminium cans should be separated from general waste stream and collected by recyclers. Proper collection bins should be provided on-site to facilitate the waste sorting.</p>	Minimise generation of general refuse to avoid odour, pest and visual nuisance	Contractor	Entire construction site	Waste Disposal Ordinance	✓

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S6	WM3	<u>General Refuse (Cont'd)</u> Office waste paper should be recycled if the volume warrant collection by recyclers. Participation in community waste paper recycling programme should be considered by the Contractor, including waste paper, aluminium cans, plastic bottles, waste batteries, etc.	Minimise generation of general refuse to avoid odour, pest and visual nuisance	Contractor	Entire construction site	Waste Disposal Ordinance	✓
S6	WM4	<u>Sludge from Leachate Treatment Works</u> Sludge should be collected by a licensed collector at regular intervals, to suit the operation schedule of the leachate treatment plant. The use of purpose-built sludge tankers can minimise the potential of environmental impacts during transportation.	Proper management of sludge arising from leachate treatment works to minimise the associated hazards on human health and environment	Contractor	Leachate Treatment Works	Waste Disposal Ordinance	N/A

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LFG							
Within NENT Landfill Extension							
S7	LFG1	Special LFG precautions should be taken due to close proximity of NENT landfill extension site to existing landfill to avoid potential hazards of LFG exposure (ignition, explosion, asphyxiation, toxicity).	To minimise the risk of LFG hazards to personnel in construction site	Contractor	Entire construction site	Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97)	✓
S7	LFG2	Prominent safety warning signs should be erected on-site to alert all personnel and visitors of LFG hazards during excavation works.				F&IU (Confined Spaces) Regulations	✓
S7	LFG3	No smoking or burning should be permitted on-site.				Code of Practice on Safety and Health at Work in Confined Spaces	✓
S7	LFG4	Prominent 'No smoking' and 'No Naked Flames' signs should be erected on-site.					✓
S7	LFG5	No worker should be allowed to work alone at any time in excavated trenches or confined areas on-site.					✓
S7	LFG6	Adequate fire fighting equipment should be provided on-site.					✓
S7	LFG7	Construction equipment should be equipped with vertical exhaust at least 0.6m above ground installed with spark arrestors.					✓
S7	LFG8	Electrical motors and extension cords should be explosion-proof and intrinsically safe for use on-site.					✓
S7	LFG9	'Permit to Work' system should be implemented.					✓
S7	LFG10	Welding, flame-cutting or other hot works should be conducted only under 'Permit to Work' system following clear safety requirements, gas monitoring procedures and presence of qualified persons to supervise the works.					✓
S7	LFG11	For piping assembly or conduit construction, all valves and seals should be closed immediately after installation to avoid accumulation and migration of LFG. If installation of large diameter pipes (diameter >600mm) is required, the pipe ends should be sealed on one side during installation. Forced ventilation is required prior to operation of installed pipeline. Forced ventilation should also be required for works inside trenches deeper than 1m.	To minimise the risk of LFG hazards to personnel in construction site	Contractor	Entire construction site	Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97)	✓
S7	LFG12	Frequency and location of LFG monitoring within excavation area should be determined prior to commencement of works. LFG monitoring in excavations should be conducted at no more than 10mm from exposed ground surface.				F&IU (Confined Spaces) Regulations Code of Practice on Safety and Health at Work in Confined Spaces	✓

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LFG							
Within NENT Landfill Extension							
S7	LFG13	For excavation works, LFG monitoring should be conducted (1) at ground surface prior to excavation, (2) immediately before workers entering excavations, (3) at the beginning of each half-day work, and (4) periodically throughout the working day when workers are in the excavation.	To minimise the risk of LFG hazards to personnel in construction site	Contractor	Entire construction site	Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97)	✓
S7	LFG14	Any cracks on ground level encountered on-site should be monitored for LFG periodically. Appropriate action should be taken in accordance with the action plan in Table 7.6 of EIA Report.				F&IU (Confined Spaces) Regulations	✓
S7	LFG15	LFG precautionary measures involved in excavation and piping works should be provided in accordance with LFG Guidance Note and included in Safety Plan of construction phase. Temporary offices or buildings should be located where free LFG has been proven or raised clear of ground at a separation distance of at least 500mm.				Code of Practice on Safety and Health at Work in Confined Spaces	✓
S7	LFG16	For large development such as NENT landfill extension, a Safety Officer trained in the use of gas detection equipment and LFG-related hazards should be present on-site throughout the groundwork phase. The Safety Officer should be provided with an intrinsically safe portable instrument appropriately calibrated and capable of measuring the following gases: •CH ₄ : 0-100% and LEL: 0-100%/v •CO ₂ : 0-100% •O ₂ : 0-21%					✓
S7	LFG17	Periodically during groundwork construction, the works area should be monitored for CH ₄ CO ₂ and O ₂ using appropriately calibrated portable gas detection equipment. The monitoring frequency and areas should be established prior to commencement of groundwork either by Safety Officer or appropriately qualified person. Routine monitoring should be carried out in all excavations, manholes, created by temporary storage of building materials on-site. Ali measurements in excavations should be made with monitoring tube located not more than 10mm from exposed ground surface.					✓

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Within NENT Landfill Extension (Cont'd)							
S7	LFG18	For excavations deeper than 1m, measurements should be conducted: <ul style="list-style-type: none"> At ground surface before excavation commences; Immediately before any worker enters the excavation; At the beginning of each working day for entire period the excavation remains open; and Periodically throughout the working day whilst workers are in excavation. 	To minimise the risk of LFG hazards to personnel in construction site	Contractor	Entire construction site	Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97)	✓
S7	LFG19	For excavations between 300mm and 1m, measurements should be conducted: <ul style="list-style-type: none"> Directly after excavation has been completed; and Periodic all whilst excavation remains open. 				F&IU (Confined Spaces) Regulations	✓
S7	LFG20	For excavations less than 300mm, monitoring may be omitted at the discretion of Safety Officer or appropriately qualified person.				Code of Practice on Safety and Health at Work in Confined Spaces	✓

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Landscape and Visual Phases							
S8	LV1	<u>Advanced screening tree planting</u> <ul style="list-style-type: none"> Early planting using fast growing trees and tall shrubs at strategic locations within site to block major view corridors to the site from the VSRs, and to locally screen haul roads, excavation works and site preparation works. Roadside planter and shrub planting design in front of Cheung Shan Temple. 	To minimise the impact on existing vegetation retained by personnel in construction To provide initiation on permanent landscape and visual mitigation measures	Contractor	Entire construction site	DEVB TC(W) No. 4/2020 - Tree Preservation DEVB TC(W)) No. 6/2015 - Maintenance of Vegetation and Hard Landscape Features	✓
S8	LV2	<u>Boundary Green Belt planting</u> <ul style="list-style-type: none"> Considerable planting belts proposed around the site perimeter and the construction of temporary soil bunds will screen the landfill operations to a certain degree. Fast growing and fire resistant plant species will be used. 				DEVB TC(W) No. 6/2011 - Maintenance of Man-made Slopes and Emergency Repair on Stability of Land	N/A
S8	LV3	<u>Temporary landscape treatment as green surface cover</u> <ul style="list-style-type: none"> For certain areas where landfilling operations would have to be suspended temporarily for periods of years, simple temporary landscape treatment such as hydroseeding should be considered. During construction and operational phases, grass hydroseeding or synthetic covering material of green colour should also be used as a temporary slope cover if applicable. 					N/A
S8	LV4	<u>Existing tree preservation</u> <ul style="list-style-type: none"> Transplant existing trees and vegetation, which are identified as ecologically significant in Ecological Impact Assessment and as rare tree species recorded in the tree survey, under circumstances where technically feasible. For all affected trees, the principle of avoidance of tree felling and tree transplanting of tree before felling should apply whenever possible. A tree felling application should be submitted to DEVB-GLTMS and be approved before any trees are felled or transplanted. 					✓

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Ecology							
General Protection Measures:							
S10	E1	Restriction of construction activities to the work areas that would be clearly demarcated.	To minimise environmental impacts and therefore potential ecological impacts within and near the construction site	Contractor	Entire construction site	Practice Note for Professional Persons (ProPECC), Construction Site Drainage (PN1/94)	✓
S10	E2	Reinstatement of the work areas immediately after completion of the works.					✓
S10	E3	Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme.				Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes, EPD (1992)	✓
S10	E4	Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.					✓
S10	E5	Plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs.				ETWB TC(W)) No. 33/2002 Management of Construction and Demolition Material Including Rock	✓
S10	E6	Silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works.					✓
S10	E7	Mobile plant should be sited as far away from NSRs as possible and practicable.				DEVB TC(W) No. 6/2010 Trip Ticket System for Disposal of Construction and Demolition Materials	✓
S10	E8	Material stockpiles, site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.					✓
S10	E9	Use of "quiet" plant and working methods.				ETWB TC(W)No.19/2005 Environmental Management on Construction Sites	✓
S10	E10	Construction phase mitigation measures in the Practice Note for Professional Persons on Construction Site Drainage.					✓

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Ecology							
General Protection Measures:							
S10	E11	Design and set up of the temporary on-site drainage system will be undertaken by the contractor prior to the commencement of construction.	To minimise environmental impacts and therefore potential ecological impacts within and near the construction site	Contractor	Entire construction	WBTC No. 12/2002, Specifications Facilitating the Use of Recycled Aggregates	✓
S10	E12	Design and incorporation of silt/sediment traps in the permanent drainage channels to enhance deposition rates and regular removal of repositied silt and grit.				WBTC Nos. 25/99,25/99A and 25/99C. Incorporation of Information on Construction and Demolition Material Management in Public Works Subcommittee Papers	✓
S10	E13	Minimization of surface excavation works during the rainy seasons (April to September), and in particular, control of silty surface runoff during storm events, especially for areas located near steep slopes.					N/A
S10	E14	Regular inspection and maintenance of all drainage facilities and erosion and sediment control structures to ensure proper and efficient operation at all times and particularly following rainstorms.					✓
S10	E15	Provision of oil interceptors in the drainage system downstream of any oil/fuel pollution sources					✓

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