Woodfibre LNG Air Quality Monitoring Station Report for March 2025

May 7, 2025

Prepared for:
Woodfibre LNG General Partner Inc.

Prepared by:
Stantec Consulting Ltd.

Project/File:
123222160

Stantec

Limitations and Sign-off

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Adriana MacLeod, B.Sc.

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Executive Summary

This report provides a summary of the ambient air quality monitoring data for March 2025 that has been collected in fulfilment of the requirements established in the Floatel Air Quality Monitoring and Mitigation Plan (Rev 6, July 5, 2024) (Woodfibre LNG 2024). Table E.1 below presents the monthly averages, ranges, and maximum values for key air contaminant concentrations measured during March 2025, along with additional information on any air quality exceedances and complaints received during this period. This report provides an overview of ambient air quality conditions and any regulatory compliance actions taken during March 2025.

Table E.1 March 2025 Air Quality Monitoring Station Summary

Air Contaminant		Units	Monthly Average	Monthly Range (Min - Max)
$PM_{2.5}$ (24-hour average)		µg/m³	4.8	2.8 - 7.3
PM_{10} (24-hour average)		µg/m³	11.7	9.2 - 16.3
TSP (24-hour average) [a]		µg/m³	18.0	12.3 - 27.8
NO_2 (24-hour average)		ppb	8.3	4.5 - 12.7
NO_2 (1-hour average)		ppb	8.5	0.0 - 34.6
SO_2	Mar 7 – Apr 1, 2025	ppb	<0.2 [b]	
VOC as Hexane	Mar 3 – Apr 1, 2025		<0.7 [b]	
Number of Air Quality Exceedances Recorded			None	
Number of Complaints Received			None	

Notes:

[a] Monthly average concentration and range are based on valid measurements collected between March 1 and March 31, 2025.

[b] Concentrations below the Reported Detection Limit (RDL) are indicated with a '<' symbol.

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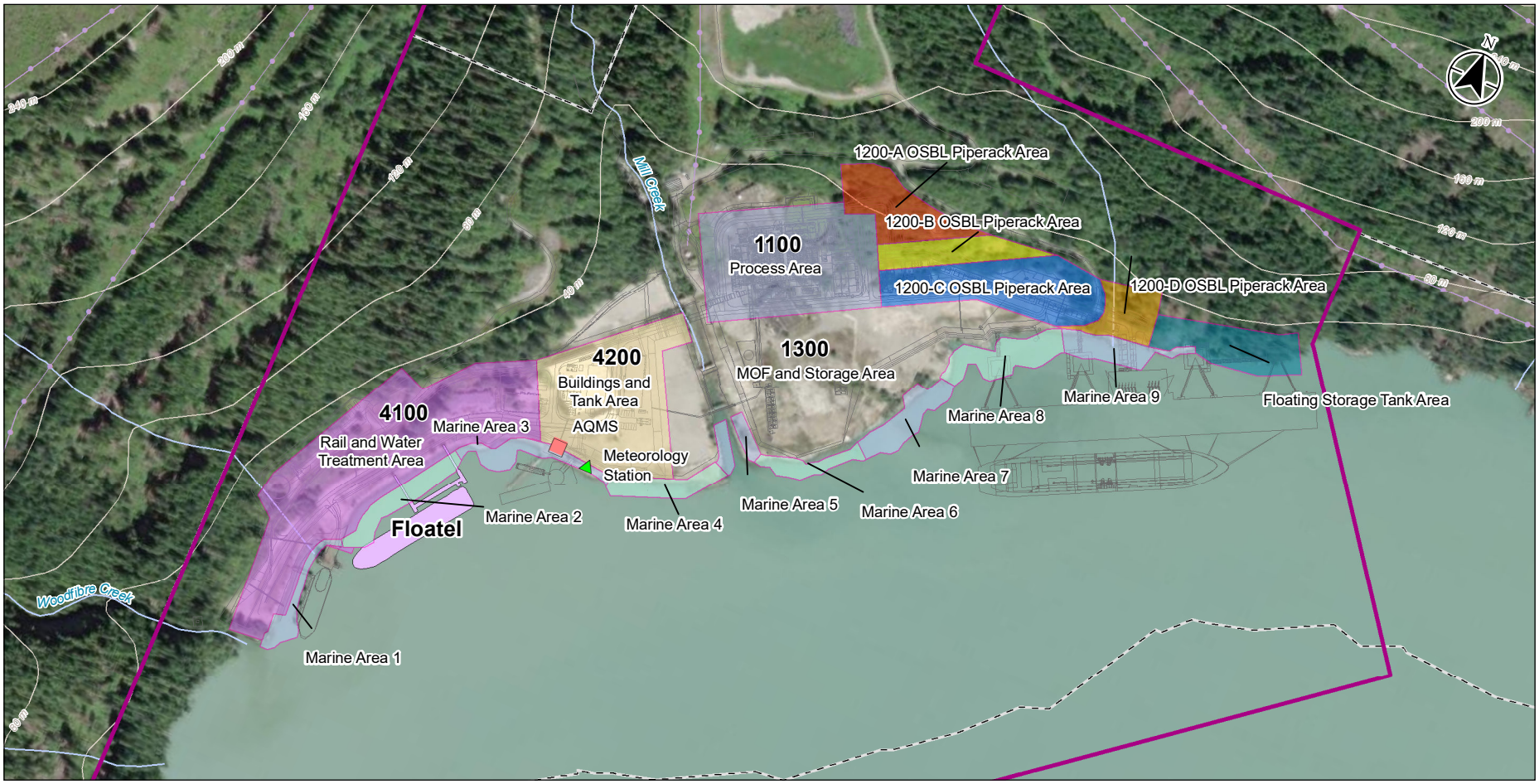
Acronyms / Abbreviations

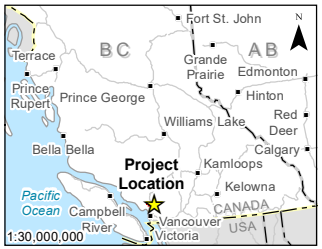
AGAT	AGAT Laboratories
AQMS	Air Quality Monitoring Station
AQO	British Columbia Air Quality Objective(s)
BC	British Columbia
BC ENV	British Columbia Ministry of Environment and Climate Change Strategy (2017–2024)
BC ENVP	British Columbia Ministry of Environment and Parks (2024–Present)
CAAQS	Canadian Ambient Air Quality Standard(s)
CCME	Canadian Council of Ministers of the Environment
EAO	British Columbia Environmental Assessment Office
Floatel	The marine-based work camp, associated facilities and mooring infrastructure dedicated to house approximately 650 Workers during the Construction and Operations of the Project
FAQMMP	Floatel Air Quality Monitoring and Mitigation Plan
FEM	Federal Equivalent Method
NO_2	Nitrogen Dioxide
PM	Particulate Matter
$PM_{2.5}$	Fine Particulate Matter (less than 2.5 microns (µm) in aerodynamic diameter)
PM_{10}	Particulate Matter (less than 10 microns (µm) in aerodynamic diameter)
QA/QC	Quality Assurance and Quality Control
SO_2	Sulphur Dioxide
TSP	Total Suspended Particulate
US EPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds
Woodfibre LNG	Woodfibre LNG General Partner Inc.

1 Introduction

Woodfibre LNG General Partner Inc. (Woodfibre LNG) is developing the Woodfibre Liquefied Natural Gas Project (the Project) at the former Woodfibre Pulp Mill site, approximately seven kilometres southwest of Skwxwú7mesh (Squamish), British Columbia (BC). To support onsite ambient air quality monitoring, Stantec Consulting Ltd. (Stantec) prepared the Floatel Air Quality Monitoring and Mitigation Plan (FAQMMP; Rev 6, July 5, 2024) on behalf of Woodfibre LNG (Woodfibre LNG 2024). The FAQMMP was developed to comply with Condition 30 of the Environmental Assessment Office (EAO) Amendment #3 (EAO 2023), which pertains specifically to Floatel air quality monitoring. The monitoring is intended to demonstrate compliance with ambient air quality standards and assists Woodfibre LNG in determining whether mitigation during the Project's construction phase is required. Further details regarding the purpose, duration, and compliance framework are available in the FAQMMP Rev 6 July 5, 2024 (Woodfibre LNG 2024). The air quality monitoring station (AQMS) continuously measures $PM_{2.5}$, PM_{10}, TSP, and NO_2 concentrations, along with passive sampling and analysis for SO_2 and VOCs. Data processing, quality assurance, and quality control (QA/QC) of the air quality monitoring equipment are performed, and the data presented in this monthly report is based on a Level 0 data validation as described by the British Columbia Field Sampling Manual – Part B (BC ENVP 2020, formerly British Columbia Ministry of Environment & Climate Change Strategy (BC ENV, 2017–2024); now Ministry of Environment & Parks (BC ENVP), 2024–present).

The location of the AQMS (UTM Easting 481,569 m and Northing 5,501,374 m, NAD83 datum, zone 10U) is adjacent to the existing meteorology station (UTM Easting 481,610 m and Northing 5,501,369 m, NAD83 datum, zone 10U) currently in operation at the Woodfibre LNG site as recommended in the FAQMMP. Figure 1.1 provides a map of the Woodfibre LNG site. This March 2025 monthly air quality report provides data on air quality and meteorology conditions monitored at the Woodfibre LNG Project site close to the Floatel. The monitoring and reporting support regulatory compliance. These monthly reports track ambient air quality trends, address potential issues, and help the Project meet project-specific and regulatory requirements.





Transmission Line
Topographic Contour
Watercourse
Municipal Boundary
Project Design Linework
Floatel
Certified Project Area
AQMS
Meteorology Station

0 50 100 150 200 250 m
1:7,500 (at original document size of 8.5x11)

Notes
1. Coordinate System: NAD 1983 UTM Zone 10N
2. Data Sources: DataBC, Government of British Columbia; Natural Resources Canada
3. Orthoimagery: ESRI World Imagery

Stantec

Project Location:
Woodfibre, British Columbia

Project Number: 123222160
Prepared by JPOUCHER on 20250103
Requested by KCHUEN on 20250103
Checked by YMA on 20240828

Client/Project/Report
Woodfibre LNG

Figure No.
1.1

Title
Map of Woodfibre LNG Site

2 Key Components Assessed

Two key sets of measurements are reported: a) meteorology data, including ambient temperature, wind speed and direction, and total rainfall, and b) ambient concentrations of air contaminants measured at the AQMS.

2.1 Meteorology

Meteorology data supporting the Woodfibre LNG AQMS are acquired from the nearby Woodfibre LNG meteorology station. This meteorology data supports the long-term ambient air quality monitoring program. The meteorology variables measured at the station are listed in Table 2.1. While the table includes all measured parameters, this report explicitly presents data for wind, air temperature, and rainfall only as these parameters are important to the FAAQMP. Pressure and relative humidity are excluded here. However, these parameters are reported in the Woodfibre LNG Export Facility Meteorology Technical Data Report – Draft that covers the monitoring period from September 25, 2023, and March 31, 2025 (Woodfibre LNG 2025).

Table 2.1 Parameters Measured at the Woodfibre LNG Site Meteorology Station

Parameter	Units
Wind Speed	m/s
Wind Direction	Degrees
Air Temperature	°C
Rainfall	mm
Barometric Pressure	hPa
Relative Humidity	%

2.2 Air Contaminants of Interest

The air contaminants being measured are described below according to the type of monitoring.

2.2.1 Continuous Sampling

- Particulate matter with aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$)
- Particulate matter with aerodynamic diameter less than or equal to 10 microns (PM_{10})
- Total suspended particulate (TSP)
- Nitrogen dioxide (NO_2)

2.2.2 Passive Sampling

- Sulphur dioxide (SO_2)
- Volatile organic compounds (VOCs)

2.3 Air Quality Criteria

The air contaminants monitored at the AQMS, along with their corresponding Canadian Ambient Air Quality Standards (CAAQS) (CCME 2024) and British Columbia Air Quality Objectives (BCAQO) (BC ENVP 2021) regulatory criteria, are presented in Table 2.2 and Table 2.3, respectively.

Table 2.2 Summary of 2020 and 2025 Canadian Ambient Air Quality Standards for the Contaminants of Potential Concern

Substance	Averaging Period	Concentration [a]			
		($\mu g/m^3$) [b,c]		(ppbv) [d]	
		2020	2025	2020	2025
Nitrogen Dioxide (NO_2)	1-hour [e]	113	79	60	42
	Annual [f]	32	23	17.0	12.0
Sulphur Dioxide (SO_2)	1-hour [g]	183	170	70	65
	Annual [h]	13	10.4	5.0	4.0
Fine Particulate Matter ($PM_{2.5}$)	24-hour [i]	27	— [j]	—	—
	Annual [k]	8.8	— [j]	—	—

Notes:

[a] Canadian Ambient Air Quality Standards (CCME 2024) for 2020 and 2025.
[b] $\mu g/m^3$ is the mass of the substance in micrograms per cubic meter of air.
[c] Standard conditions of 25°C and 101.325 kPa are used to convert from $\mu g/m^3$ to ppbv.
[d] ppbv is the volume of the substance (parts) per billion volumes of air.
[e] The 3-year average of the annual 98th percentile of the daily maximum 1-hour average concentration.
[f] The average over a single calendar year of all 1-hour average concentrations.
[g] The 3-year average of the annual 99th percentile of the daily maximum 1-hour average concentrations.
[h] The average over a single calendar year of all 1-hour average concentrations.
[i] The 3-year average of the annual 98th percentile of the daily 24-hour average concentrations.
[j] Currently under review by the CCME
[k] The 3-year average of the annual average of the daily 24-hour average concentrations.

Table 2.3 British Columbia Ambient Air Quality Objectives

Substance	Averaging Period	Air Quality Objective [a]	
		µg/m^3 [b,c]	ppbv [d]
Nitrogen Dioxide (NO_2)	1-hour [e]	113	60
	Annual [f]	32	17
Sulphur Dioxide (SO_2)	1-hour [g]	183	70
	Annual [h]	13	5
Fine Particulate Matter ($PM_{2.5}$)	24-hour [i]	25	—
	Annual [j]	8.0	—
Coarse Particulate Matter (PM_{10})	24-hour	50	—
Total Suspended Particulate (TSP)	24-hour	120	—
	Annual [k]	60	—

Notes:

[a] British Columbia Air Quality Objectives (BC ENVP 2021).
[b] µg/m^3 is the mass of the substance in micrograms per cubic meter of air.
[c] Standard conditions of 25°C and 101.325 kPa are used to convert from µg/m^3 to ppbv.
[d] ppbv is the volume of the substance (parts) per billion volumes of air.
[e] Achievement based on annual 98th percentile of daily 1-hour average maximum (D1HM), averaged over three consecutive years.
[f] Achievement based on annual average of 1-hour average concentrations over one year.
[g] Achievement based on annual 99th percentile of daily 1-hour average maximum (D1HM), averaged over three consecutive years.
[h] Achievement based on annual average of 1-hour concentrations over one year.
[i] Achievement based on annual 98th percentile of daily average, averaged over one year.
[j] Achievement based on annual average, averaged over one year.
[k] Based on geometric mean.

3 Instrument Summary

The AQMS is currently being operated to measure the ambient concentrations of the air contaminants mentioned above. A site visit took place from March 25 to March 27, 2025. The following summarizes the key instrument activities and observations for March:

Before the March field visit, routine data QA/QC identified the following issues:

- The BAM PM_{10} sampler exhibited flow fluctuations starting on March 10, 2025, accompanied by a flow alarm error. Attempts to resolve the issue through system restart, self-tests and a power cycle, with assistance from on-site staff, were unsuccessful.
- Daily NO_2 span checks failed on March 24 and 25, 2025.

The following maintenance activities were undertaken during the site visit between March 25 and March 27:

- *March 26:*
    - The BAM PM_{10} pump was replaced, and a calibration was performed.
    - NO_2 analyzer fittings along the zero-air pathway were tightened to resolve elevated zero values and span check failures.
- *March 27:*
    - The BAM $PM_{2.5}$ sampling time was adjusted from 50 minutes back to 42 minutes to meet US EPA FEM requirements for $PM_{2.5}$ monitoring (BC ENVP 2020, US EPA 2024, and Met One Instruments 2024).
    - The malfunctioning BAM TSP unit was replaced with a spare unit, and calibration was performed.

Data Validation Notes:

- As noted in the February 2025 Monthly Report, TSP concentrations were invalid following the replacement of the TSP unit on February 11, 2025, due to consistently lower readings compared to $PM_{2.5}$ and PM_{10}. As such, TSP data from March 1 to March 27, 2025, have been invalidated and are excluded from this report.
- Due to the BAM PM_{10} sampler's flow instability that started on March 10, 2025, PM_{10} data from March 10 to March 26, 2025, have been invalidated and are excluded from this report.
- Although $PM_{2.5}$ data collected between February 11 and March 27, 2025, were collected using a non-designated method (due to an increased sample time of 50 minutes), the instrument operated without errors. Therefore, $PM_{2.5}$ data collected during March 2025 are considered valid and have been included in this report.

- Due to failed NO_2 span checks on March 24 and 25, 2025, and maintenance performed on March 26 without an as-found verification record, NO_2 data from the last passed span check on March 23, 2025, until the successful zero/span check completed on March 26, 2025, at 19:00, have been invalidated and are excluded from this report. Missing NO_2 data on March 28, 2025, is due to remote system checks. Missing NO_2 data on March 28, 2025, is due to remote system checks.

The passive sampling of SO_2 and VOCs uses AGAT's Passive Sampler system. The Woodfibre LNG personnel exchange the monthly samples and submit them to AGAT for laboratory analysis.

Table 3.1 Summary of Instrumentation used at the Woodfibre LNG Air Quality Monitoring Station

Parameter	Instrumentation
$PM_{2.5}$, PM_{10}, and TSP	Met One Instruments BAM 1020 Beta Attenuation Mass Monitors
NO_2	Thermo Fisher Scientific – Model 42i (NO-NO_2-NO_x) Analyzer
SO_2 and total VOCs	AGAT's Passive Sampler system

3.1 Continuous Monitoring of PM and NO_2

Particulate matter ($PM_{2.5}$, PM_{10}, and TSP) was continuously monitored following the Standard Operating Procedure for the Continuous Measurements of Ambient PM Using a Beta Attenuation Monitor (Reference No: SOP-05a). The NO_2 concentrations were continuously monitored following the Standard Operating Procedure for the Continuous Measurement of Ambient NOx (Reference No: SOP-03) in Part B1 of the British Columbia Field Sampling Manual (BC ENVP 2020).

3.2 Passive Monitoring of SO_2 and VOC

The SO_2 and VOC ambient concentrations were monitored following the Standard Operating Procedure for the Passive/Diffusive Method of Air Sample Collection (Reference No: SOP-07) in Part B1 of the British Columbia Field Sampling Manual (BC ENVP 2020).

4 Ambient Air Quality Monitoring Results

The measured data presented for passive and continuous monitoring includes a) ambient air quality data collected at the AQMS (Appendix A: Figure A.1 to Figure A.10; Appendix B: Table B.1), and b) meteorology data acquired from the Woodfibre LNG meteorology station (Appendix A: Figure A.11 to Figure A.15; Appendix B: Table B.2).

4.1 Continuous Monitoring of PM and NO_2

A summary of the hourly ambient air monitoring results for $PM_{2.5}$, PM_{10}, TSP, and NO_2 for March 2025 is presented in Appendix A, Figure A.1 to Figure A.5, along with the corresponding regulatory criteria and comparisons with Langdale Elementary (BC ENVP 2024a) and Squamish Elementary (BC ENVP 2024b) regional ambient air quality monitoring stations. Langdale Elementary and Squamish Elementary were selected as reference points due to their relative proximity to the Woodfibre LNG construction site and the availability of relevant ambient air quality data. BC ENVP air quality monitoring station at Langdale Elementary provides measurements for $PM_{2.5}$, PM_{10}, NO_2, and SO_2, while Squamish Elementary monitors $PM_{2.5}$, NO_2, and SO_2. There are no BC ENVP ambient air quality monitoring stations near the Woodfibre LNG project site that measure TSP and VOCs. The hourly air quality objective threshold for NO_2 is based on the 3-year average of the annual 98th percentile of the daily maximum 1-hour average concentration (CCME 2024; BC ENVP 2021).

During March 2025, the hourly $PM_{2.5}$ concentrations ranged from 0[1] to 16 µg/m³, the hourly PM_{10} concentrations ranged from 3 to 82 µg/m³ (based on sampling between March 1 and March 10, and then from March 26 and March 31), the hourly TSP concentrations ranged from 6 to 183 µg/m³ (based on sampling between March 27 and March 31, after the TSP unit was replaced), and the hourly NO_2 concentrations ranged from 0[2] to 34.6 ppb. The hourly results for the NO_2 concentration monitoring during this period were less than the BCAQO threshold value of 60 ppb.

Similarly, a summary of the daily (24-hour average) ambient air quality monitoring results for $PM_{2.5}$, PM_{10}, TSP, and NO_2 for March 2025 is presented in Table E.1 and Figure A.6 to Figure A.10 (Appendix A), with corresponding regulatory criteria and comparisons with Langdale Elementary and Squamish Elementary regional air quality monitoring stations. The AQMS's BAM PM_{10} sampler's pump was replaced on March 26, 2025, and the BAM TSP sampler was replaced on March 27, 2025. Calibration of both instruments

[1] The BAM 1020 instrument recording the $PM_{2.5}$ concentrations may occasionally report slightly negative values when the are very low. Therefore, both the BCFSM (BC ENVP 2020) and the National Air Pollution Surveillance (NAPS, CCME 2019) program provide data validation criteria for $PM_{2.5}$ measurements: values between -3 and 0 µg/m³ are adjusted to 0, while values below -3 µg/m³ are flagged as invalid. This approach has been followed for $PM_{2.5}$ data validation program.

[2] The 42i NO-NO_2-NOx gas analyzer recording the NO_2 concentrations may occasionally report slightly negative values when the are very low. Both the BCFSM (BC ENVP 2020) and the National Air Pollution Surveillance (NAPS, CCME 2019) program provide data validation criteria for gas concentration measurements: values between -3 and 0 ppb are adjusted to 0, while values below -3 ppb are further investigated prior to setting to zero. This approach has been consistently applied in the data validation program.

was performed following the replacements, as documented in Appendix C.
The 24-hour regulatory standards for PM_{10} and TSP monitoring are 50 µg/m³ and 120 µg/m³, respectively. The 24-hour BCAQO threshold value for $PM_{2.5}$ is 25 µg/m³, based on the 3-year average of the annual 98th percentile of the daily 24-hour average concentrations (CCME 2024; BC ENVP 2021).

During March 2025, the 24-hour average $PM_{2.5}$ concentrations of ranged from 2.8 to 7.3 µg/m³, 24-hour average PM_{10} concentrations of ranged from 9.2 to 16.3 µg/m³ (based on valid data collected between March 1 and March 10, and then from March 27 to March 31), 24-hour average TSP concentrations ranged from 12.3 to 27.8 µg/m³ (based on valid data collected between March 28 and March 31, before the TSP unit was replaced on March 27; the data collected on March 27 was excluded due to less than 75% data completeness), and 24-hour average NO_2 concentrations of ranged from 4.5 to 12.7 ppb.

The 24-hour average $PM_{2.5}$, PM_{10} and NO_2 concentrations recorded at the Woodfibre LNG AQMS site were generally higher than those observed at the Langdale Elementary and Squamish Elementary regional air quality monitoring stations, which is expected given the proximity of the AQMS site to active construction activities.

The available data for March 2025 is insufficient to compare with the annual thresholds set for NO_2, $PM_{2.5}$, and TSP by BCAQO and CAAQS. However, the monthly average NO_2 concentration in March 2025 is 8.3 ppb. The combined average from January to March 2025 is 7.9 ppb, less than the BCAQO and CAAQS annual threshold of 17 ppb and 12 ppb, respectively.

The March 2025 monthly average $PM_{2.5}$ concentration is 4.8 µg/m³. The combined average for January and March 2025 is 5.5 µg/m³ is less than the BCAQO and CAAQS annual threshold values of 8.0 and 8.8 µg/m³, respectively. However, this three-month average does not represent a yearly valid average for comparison with these thresholds due to the limited duration of monitoring data. Similarly, the March monthly average TSP concentration is 18.0 µg/m³ (based on valid data collected between March 28 and March 31, after the TSP unit was replaced). The combined average TSP concentration from January to March 2025 is 25.2 µg/m³, below the BCAQO annual threshold of 60 µg/m³.

A summary of the 24-hour average $PM_{2.5}$, PM_{10}, TSP and NO_2 concentrations measured during March 2025 is presented in Appendix A (Figure A.6 to Figure A.10) and Appendix B, Table B.1. The results for $PM_{2.5}$, PM_{10}, and TSP were less than the BCAQO threshold values of 25 µg/m³, 50 µg/m³, and 120 µg/m³, respectively, and no air quality exceedances were recorded for these contaminants. Additionally, no complaints were received from the Floatel residents during March 2025 that required further investigation or mitigation actions. The weekly AQMS reports are presented in Appendix D.

4.2 Passive Monitoring of SO_2 and VOC

The passive sample media for SO_2 and total VOCs were swapped on April 1, 2025. This report includes the results for samples collected for the exposure period from March 3, 2025, to April 1, 2025, for VOCs, and from March 7, 2025, to April 1, 2025, for SO_2. The laboratory analysis report is presented in .

The results for SO_2 and VOC samples show an ambient average SO_2 concentration of <0.2 ppb and an ambient average VOC concentration of <0.7 ppb. The instrument-reported detection limits (RDL) are 0.2 ppb and 0.7 ppb, respectively. In comparison, the regional monitoring stations reported higher ambient SO_2 concentrations in March 2025, with Squamish Elementary recording 0.7 ppb and Langdale Elementary recording 0.9 ppb. The measured SO_2 concentration at the AQMS remained below 0.2 ppb, meaning it was lower than the levels recorded at Squamish Elementary and Langdale Elementary regional air quality stations.

4.3 Meteorology

A summary of the meteorology conditions during March 2025 is presented in Appendix A, Figure A.11 to Figure A.15 and Appendix B, Table B.2. Daily average and maximum wind speeds are shown in Figure A.11. The highest hourly average wind speed was recorded on March 9, 2025, at 11:00 (10.6 m/s), and the highest 24-hour average wind speed occurred on March 9 and March 20 (2.0 m/s). Figure A.12 presents a wind rose illustrating wind direction and speed for March 2025 at the Woodfibre LNG meteorology station. The prevailing wind direction is from the northwest. Additionally, Figure A.13 includes four wind roses capturing specific time intervals: between 0:00 and 8:00 hours, 9:00 and 12:00 hours, 13:00 and 19:00 hours, and 20:00 and 00:00 hours throughout March 2025.

The daily ambient temperature data is presented in Figure A.14. The maximum hourly air temperature of 17.3°C was recorded on March 30, 2025, at 14:00, while the minimum hourly temperature of 0.0°C occurred on March 18, 2025, at 06:00. The monthly average temperature for March 2025 was 6.3°C

The daily and total monthly rainfall data, presented in Figure A.15 and Table B.2, show that the highest single-day rainfall of 80.0 mm occurred on March 8, 2025. The total rainfall for March 2025 was 420.6 mm.

5 Summary of Ambient Air Quality Monitoring Results

The ambient air quality monitoring results for March 2025 indicate that the $PM_{2.5}$, PM_{10}, and TSP concentrations remained less than the BC Air Quality Objective threshold values. The hourly measured NO_2 concentrations were less than the BCAQO Threshold. The meteorology data, including wind speed, temperature, and rainfall, support accurate interpretation of the ambient air quality monitoring trends. No complaints from the Floatel residents were received that required further investigation or a mitigation plan during March 2025.

6 References

BC ENVP. 2020. *The British Columbia Field Sampling Manual: Part B: Air and Air Emissions Testing.* Retrieved March 18, 2025, from Government of British Columbia: Ministry of Environment and Climate Change Strategy (BC ENV, 2017-2024); now Ministry of Environment & Parks (BC ENVP, 2024–present); Environmental Protection & Sustainability; Research, Monitoring and Reporting; Monitoring; B.C. Field Sampling Manual Web Site: https://www2.gov.bc.ca/assets/gov/environment/research-monitoring-and-reporting/monitoring/emre/manuals/field-sampling-manual/bc_field_sampling_manual_part_b.pdf

BC ENVP. 2021. British Columbia Ambient Air Quality Objectives. Retrieved March 18, 2025, from Government of British Columbia; Environment and Climate Change Strategy (BC ENV, 2017-2024); now Ministry of Environment & Parks (BC ENVP, 2024–present); Environmental Protection and Sustainability; Air, Land, and Water; Air; Air Quality Management; Regulatory Framework, Objectives and Standards Web Page: https://www2.gov.bc.ca/gov/content/environment/air-land-water/air/air-quality-management/regulatory-framework/objectives-standards and https://www2.gov.bc.ca/assets/gov/environment/air-land-water/air/reports-pub/prov_air_qual_objectives_fact_sheet.pdf

BC ENVP. 2024a. Langdale Elementary - British Columbia Ambient Air Data Archive Website. Retrieved April 28, 2025; https://envistaweb.env.gov.bc.ca/StationReportFast.aspx?ST_ID=86

BC ENVP. 2024b. Squamish Elementary - British Columbia Ambient Air Data Archive Website. Retrieved March April 28; https://envistaweb.env.gov.bc.ca/StationReportFast.aspx?ST_ID=491

CCME. 2019. NAPS - Ambient Air monitoring and Quality Assurance and control Guidlines. National Air Pollution Surveillance Program (NAPS), Canadian Council of Ministers of the Environment (CCME); Retrieved April 28, 2025, https://ccme.ca/en/res/ambientairmonitoringandqa-qcguidelines_ensecure.pdf.

CCME. 2024. Canadian Ambient Air Quality Standards (CAAQS). Retrieved April 28, 2025, from Canadian Council of Ministers of the Environment (CCME); Canada's Air Web Site: https://ccme.ca/en/air-quality-report#slide-7

EAO. 2023. *Amendment #3 for the Woodfibre LNG Project (Project) Environmental Assessment Certificate #E15-02.* Victoria, British Columbia: British Columbia Environmental Assessment Office (EAO).

Met One Instruments. 2024. *BAM 1020 Operation Manual. Met One instruments, Inc. Grants Pass, Oregon, United States. https://metone.com/wp-content/uploads/2024/02/BAM-1020-9805-Manual-Rev-G-Reduced.pdf* .

Woodfibre LNG. 2024. Floatel Air Quality Monitoring and Mitigation Plan, Woodfibre LNG Project: Rev 6 (July 5, 2024). Vancouver, British Columbia: Woodfibre LNG General Partner Inc. (Woodfibre LNG).

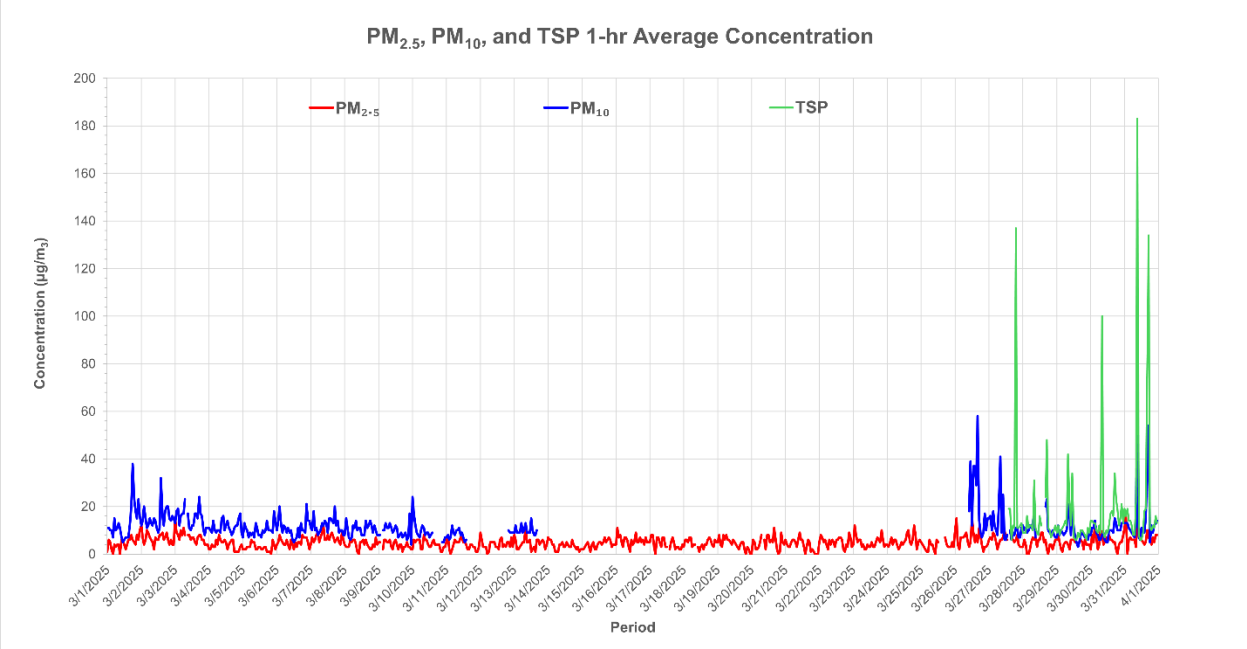
Woodfibre LNG. 2025. Woodfibre LNG Export Facility Meteorology Technical Data Report – Draft (for period from September 25, 2023, and March 31, 2025).

US EPA. 2024. List of Designated Reference and Equivalent Methods, Issue date June 15, 2024. Retrieved April 28, 2025, https://www.epa.gov/system/files/documents/2024-12/amtic-list-december-2024_final.pdf.

Appendices

Appendix A Figures

Figure A.1 Hourly PM Concentrations Recorded at the AQMS during March 2025



Note: Missing hourly data for PM_{10} between March 10 and March 26, 2025, is due to flow errors caused by a pump malfunction. TSP data collected before the TSP analyzer replacement on March 27, 2025, is invalid and is excluded from this report.

Figure A.2 Hourly $PM_{2.5}$ Concentrations Recorded at the AQMS, and the Langdale and Squamish Regional Air Quality Stations during March 2025

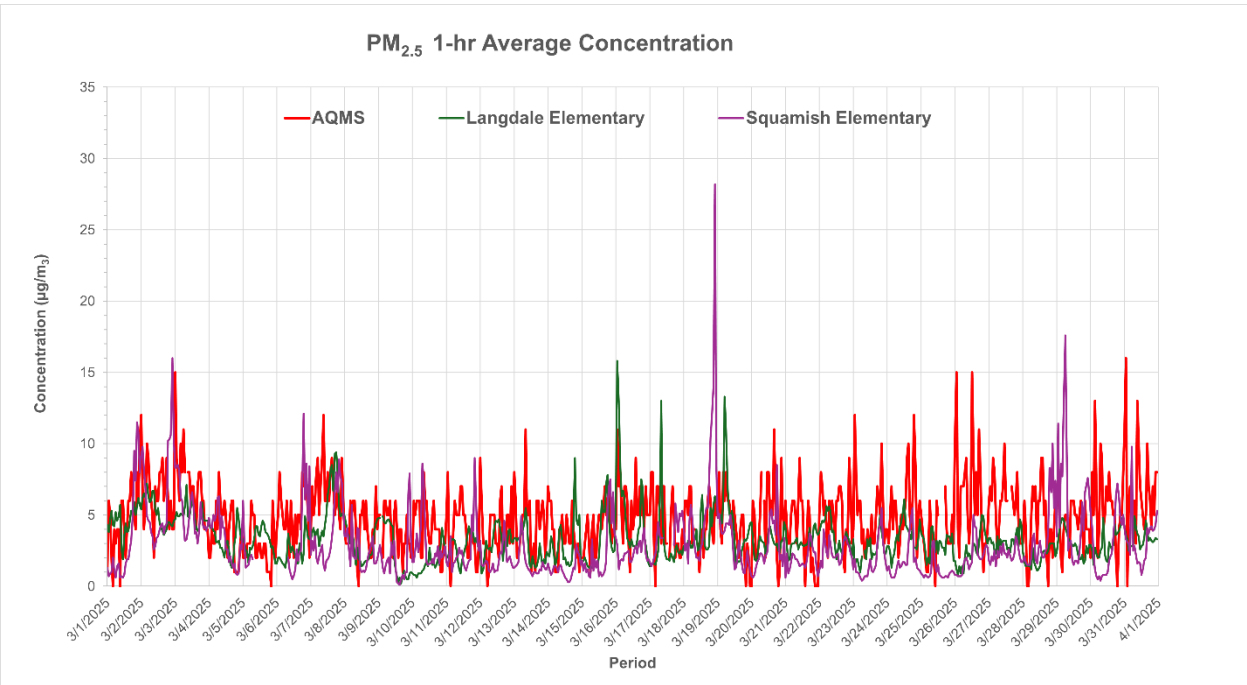
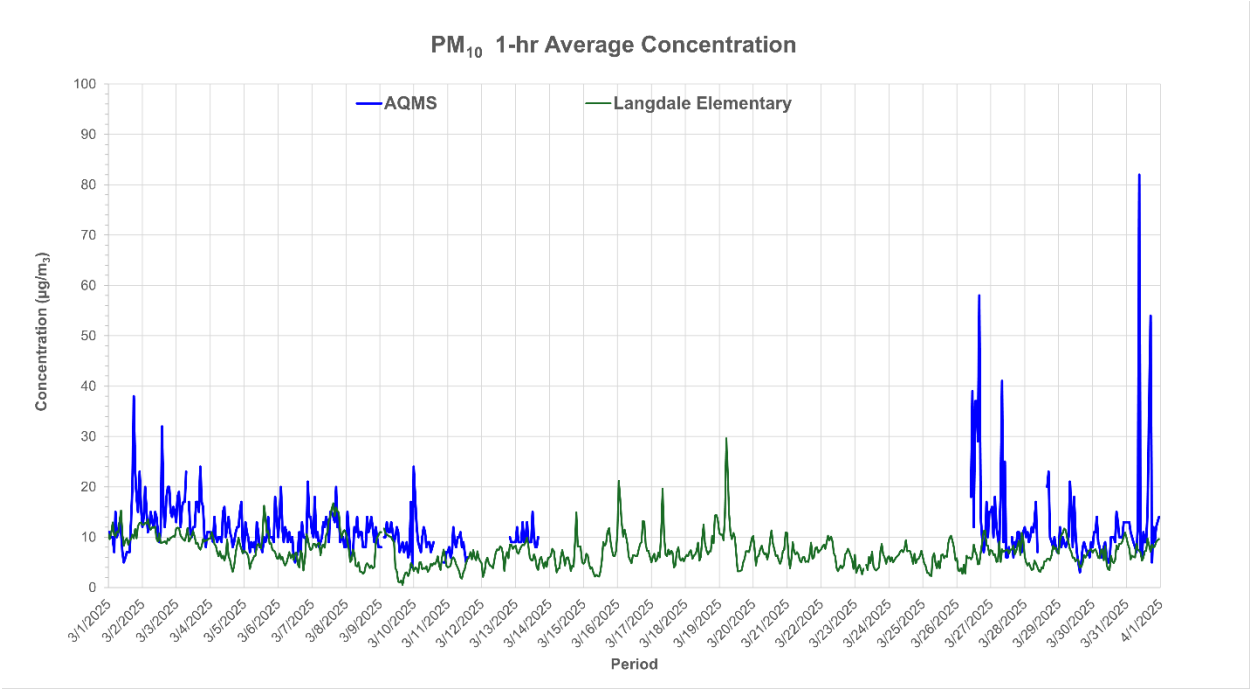
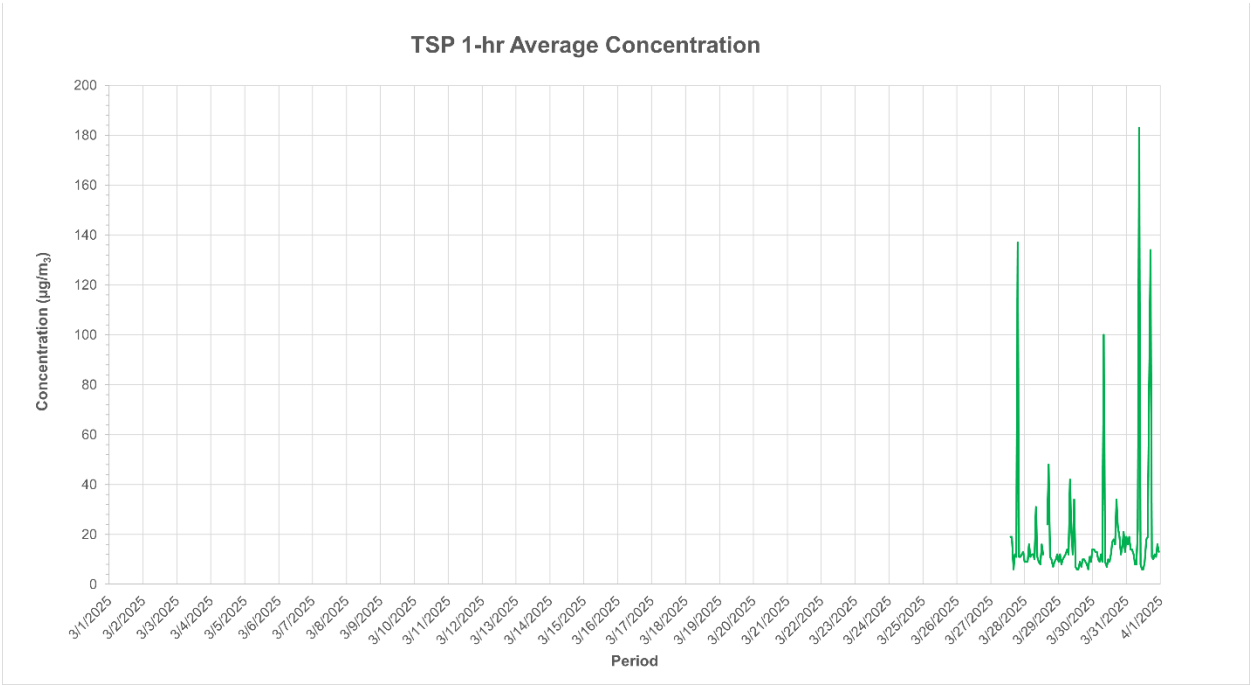


Figure A.3 Hourly PM_{10} Concentrations Recorded at the AQMS, and the Langdale Regional Air Quality Station during March 2025



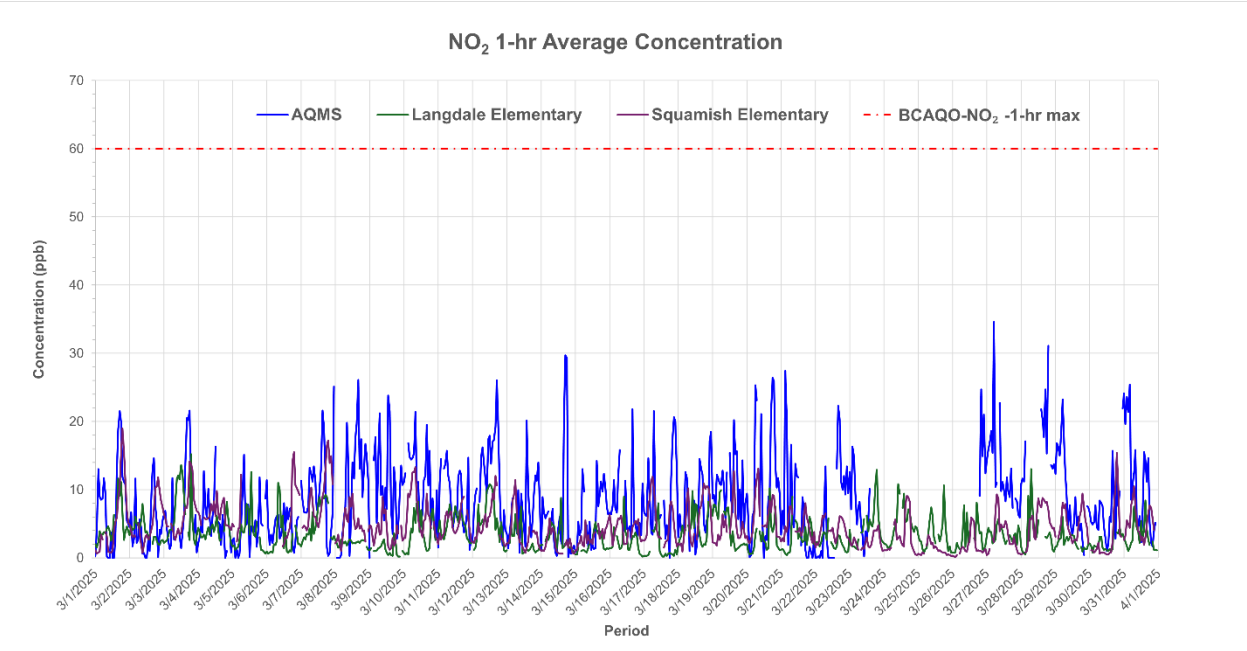
Note: Missing hourly data for PM_{10} due between March 10 and March 26, 2025, is due to flow errors caused by a pump malfunction.

Figure A.4 Hourly TSP Concentrations Recorded at the AQMS during March 2025



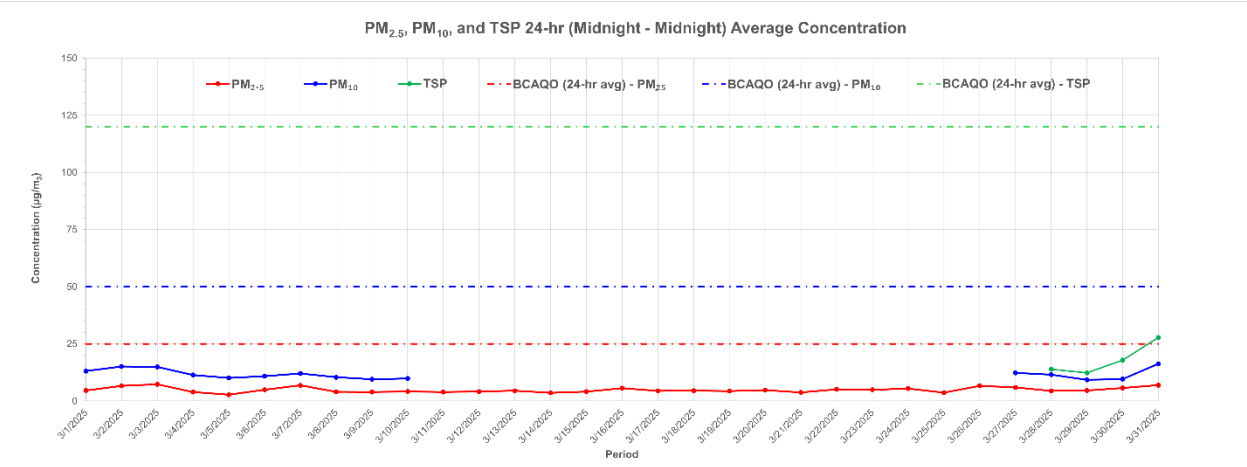
Note: TSP data collected before the TSP analyzer replacement on March 27, 2025, is invalid and is excluded from this report.

Figure A.5 Hourly NO_2 Concentrations Recorded at the AQMS, and the Langdale and Squamish Regional Air Quality Stations during March 2025



Note: NO_2 data (AQMS) from March 23 to March 26, 2025, were invalidated due to span check failures and are excluded from this report. Missing NO_2 data on March 28, 2025, is due to remote system checks.

Figure A.6 24-Hour Average PM Concentrations Recorded at the AQMS during March 2025



Note: Missing PM_{10} data from March 11 and March 26, 2025, is due to flow errors caused by a pump malfunction. TSP data collected before the TSP analyzer replacement on March 27, 2025, is invalid and is excluded from this report.

Figure A.7 24-Hour Average $PM_{2.5}$ Concentrations Recorded at the AQMS, and the Langdale and Squamish Regional Air Quality Stations during March 2025

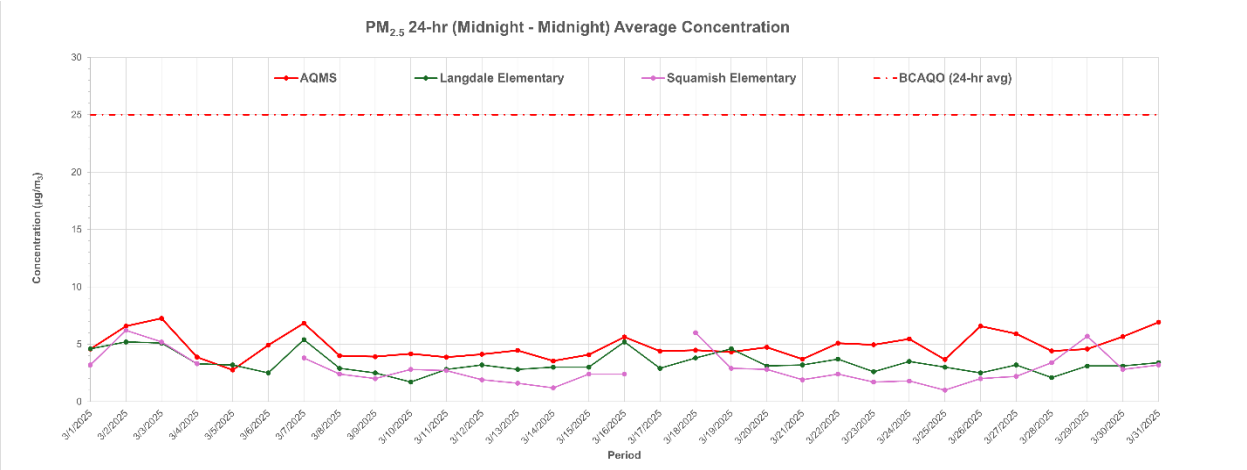
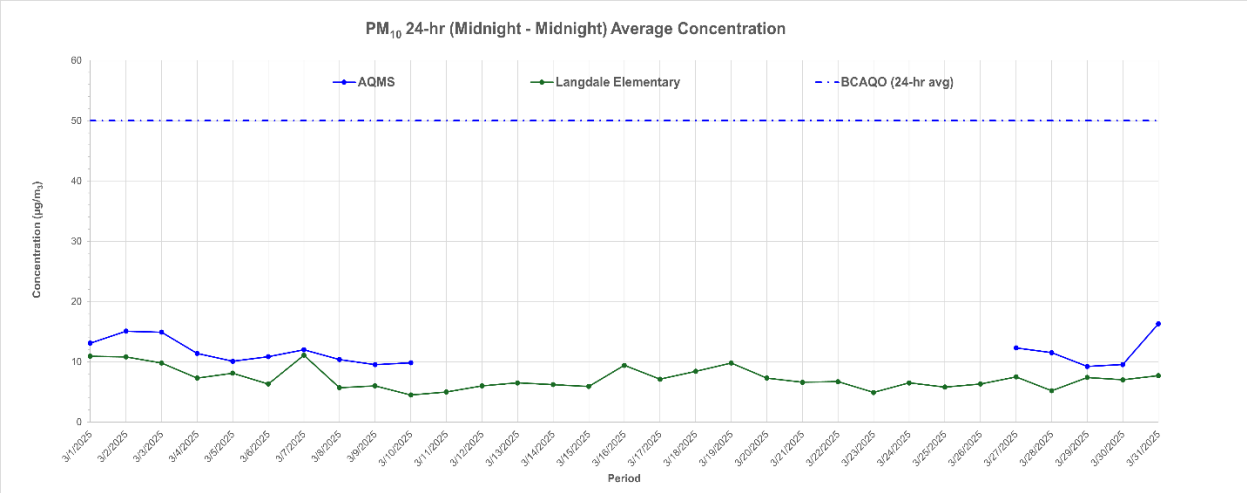
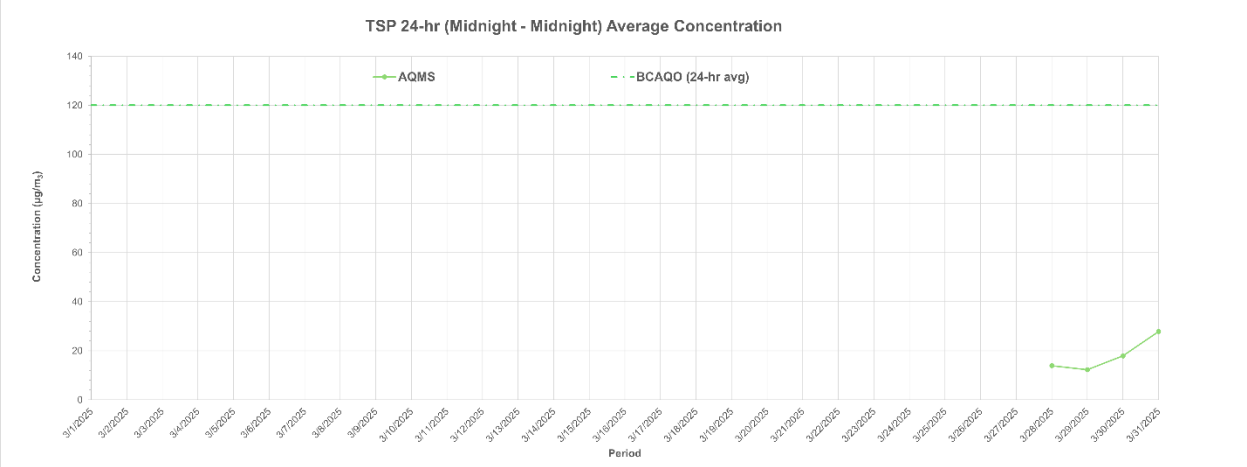


Figure A.8 24-Hour Average PM_{10} Concentrations Recorded at the AQMS, and the Langdale Regional Air Quality Station during March 2025



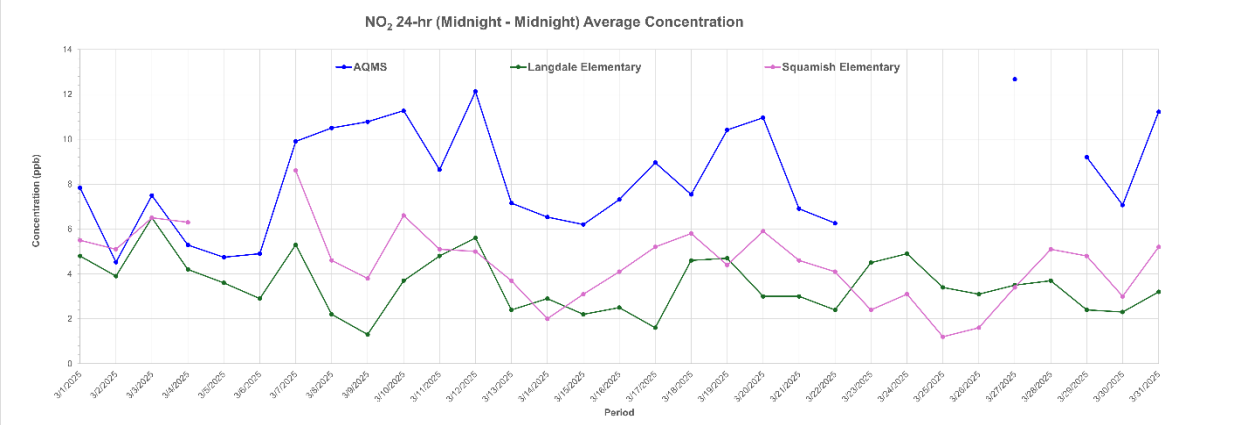
Note: Missing PM10 data from March 11 and March 26, 2025, is due to flow errors caused by a pump malfunction.

Figure A.9 24-Hour Average TSP Concentrations Recorded at the AQMS during March 2025



Note: TSP data collected before the TSP analyzer replacement on March 27, 2025, is invalid and is excluded from this report.

Figure A.10 24-Hour Average NO_2 Concentrations Recorded at the AQMS, and the Langdale and Squamish Regional Air Quality Stations during March 2025



Note: NO_2 data (AQMS) from March 23 to March 26, 2025, were invalidated due to span check failures and are excluded from this report. Missing NO_2 data on March 28, 2025, is due to remote system checks.

Figure A.11 Daily Average and Maximum Wind Speed Recorded at the Woodfibre LNG Meteorology Station during March 2025

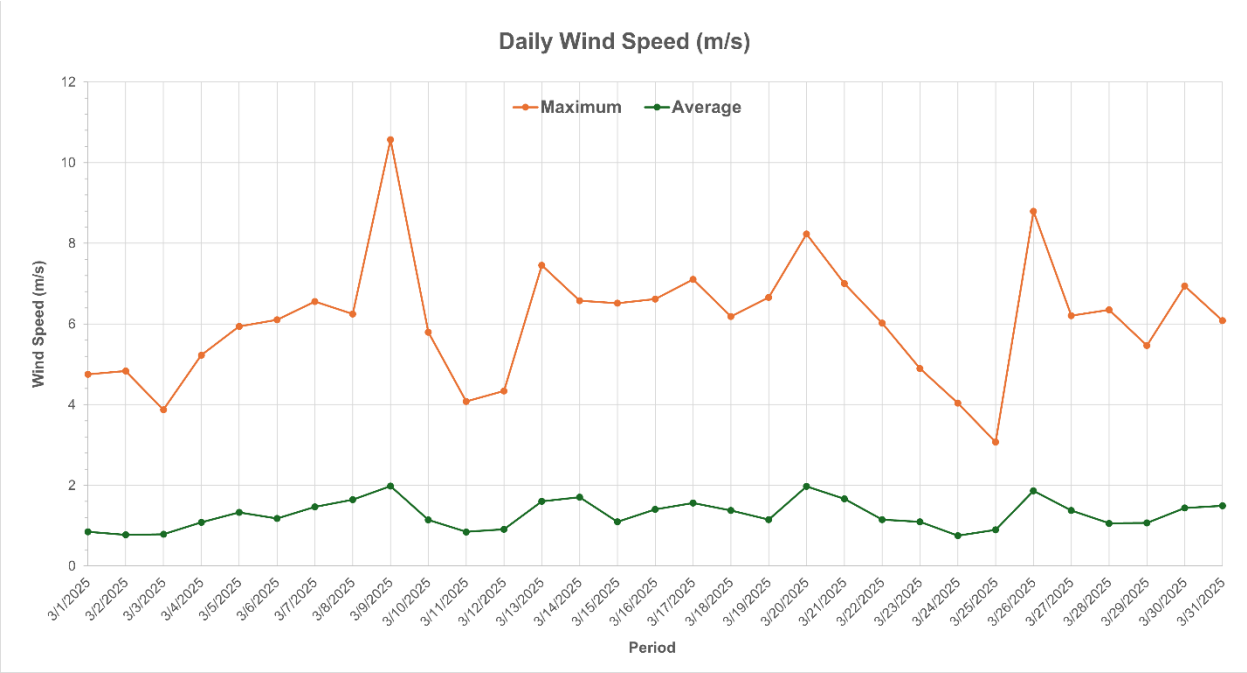


Figure A.12 Windrose for Woodfibre LNG Meteorology Station during March 2025

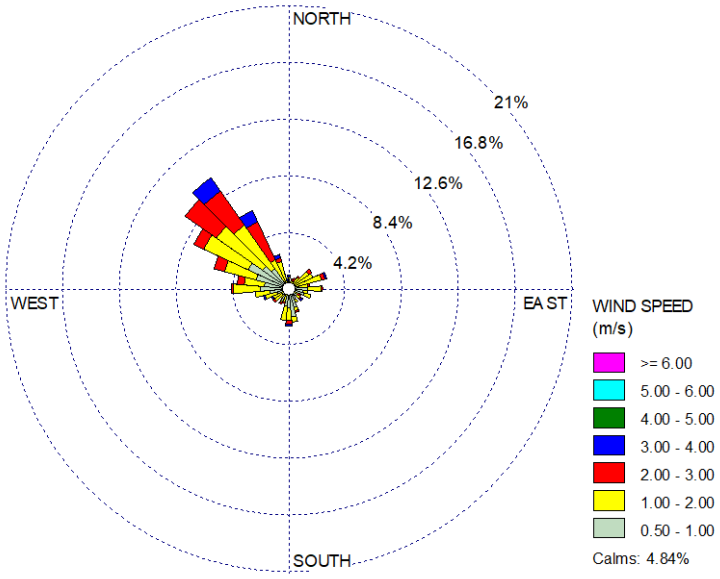


Figure A.13 Windrose for Woodfibre LNG Meteorology Station for the hours of 0000 - 0800, 0900 - 1200, 1300 - 1900, and 2000 - 2300 (March 2025)

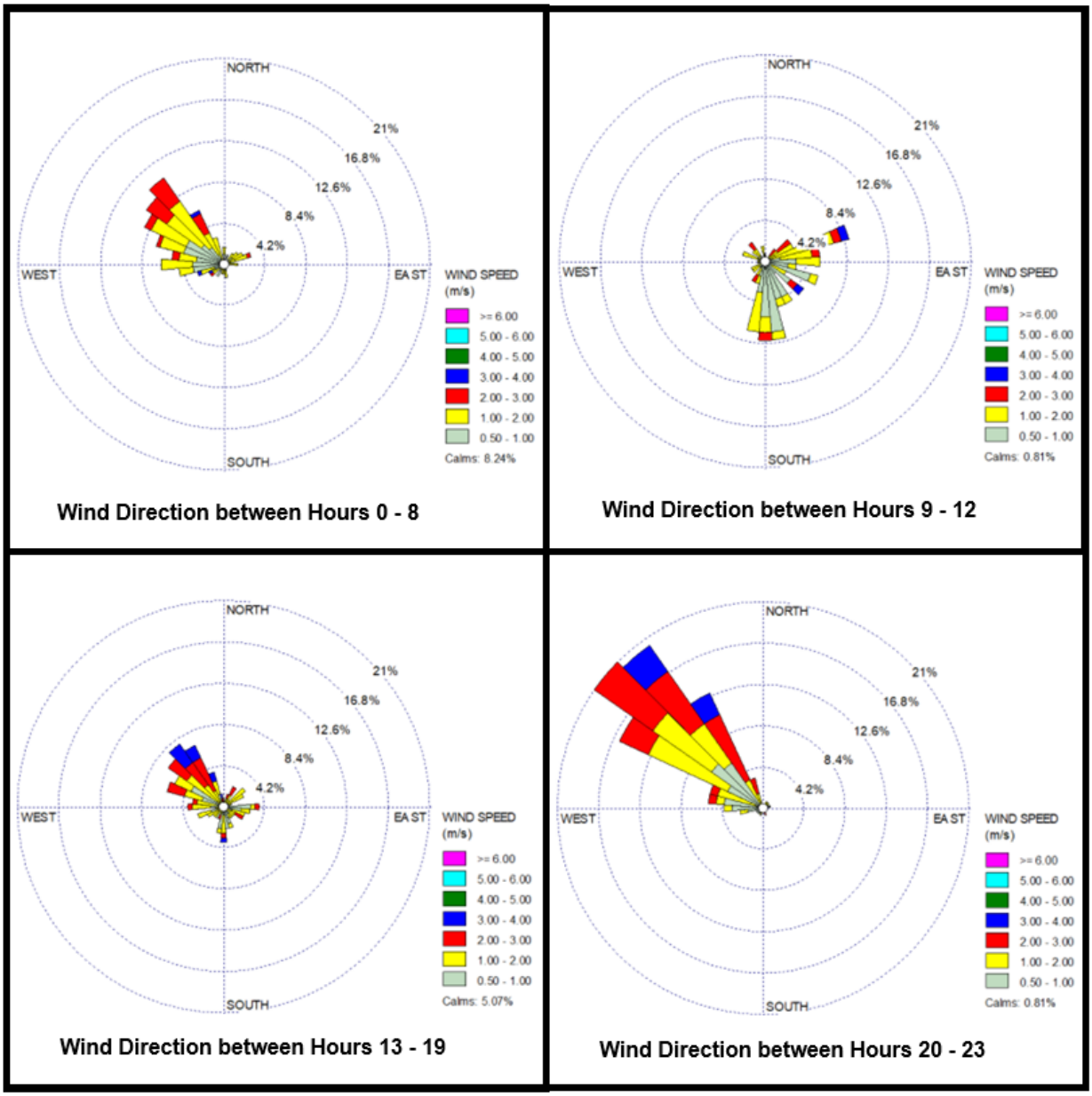


Figure A.14 Daily Average, Minimum, and Maximum Air Temperature Recorded at the Woodfibre LNG Meteorology Station during March 2025

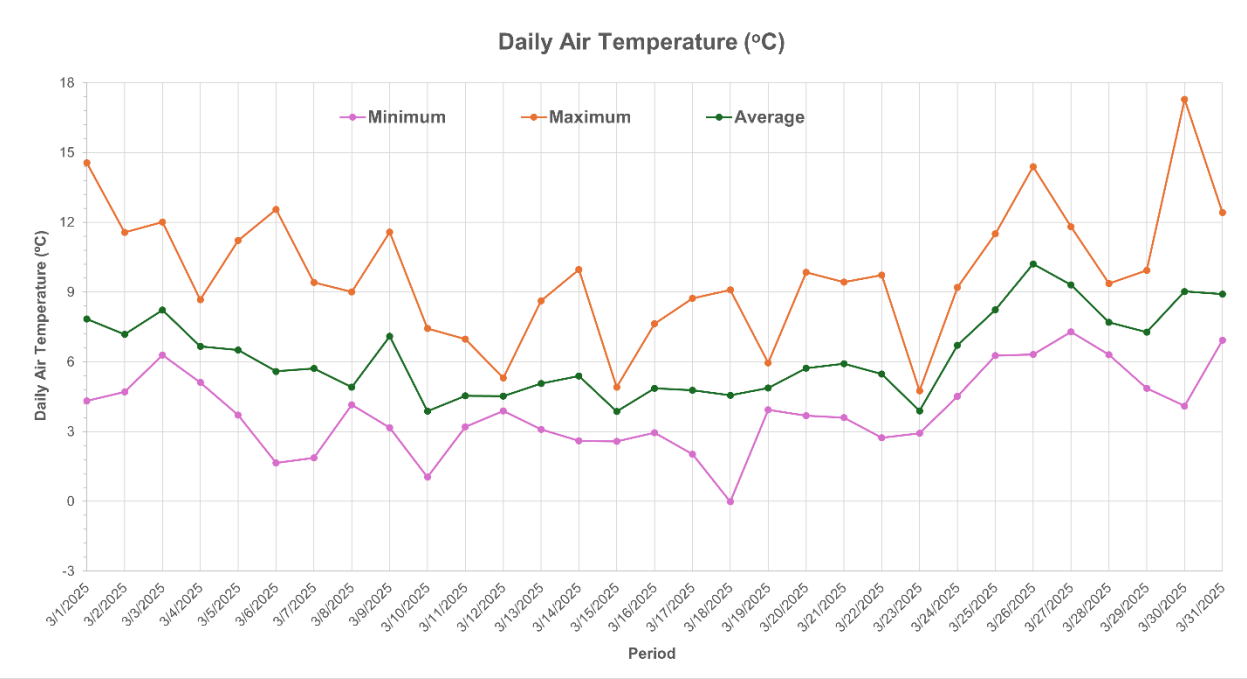
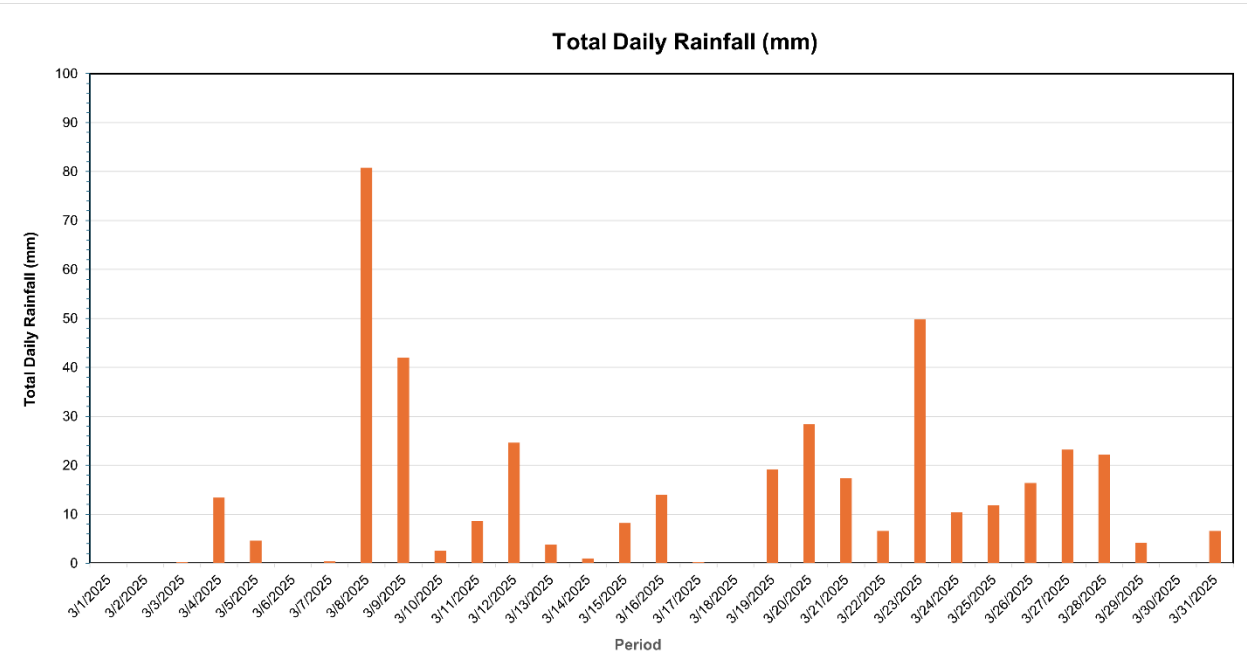


Figure A.15 Daily Rainfall Recorded at the Woodfibre LNG Meteorology Station during March 2025



Appendix B Data Tables

Table B.1 Daily $PM_{2.5}$, PM_{10}, TSP, and NO_2 Concentrations Recorded at the AQMS for March 2025

Date	AQMS (24-hr Average)				AQMS (1-hr Max)
	$PM_{2.5}$	PM_{10}	TSP	NO_2	NO_2
	µg/m³	µg/m³	µg/m³	ppb	ppb
3/1/2025	4.6	13.1	– [b]	7.8	21.5
3/2/2025	6.6	15.1	– [b]	4.5	14.6
3/3/2025	7.3	14.9	– [b]	7.5	21.6
3/4/2025	3.9	11.4	– [b]	5.3	16.3
3/5/2025	2.8	10.1	– [b]	4.7	15.1
3/6/2025	4.9	10.8	– [b]	4.9	11.4
3/7/2025	6.8	12.0	– [b]	9.9	25.1
3/8/2025	4.0	10.4	– [b]	10.5	26.1
3/9/2025	3.9	9.5	– [b]	10.8	23.8
3/10/2025	4.2	9.8	– [b]	11.3	21.4
3/11/2025	3.9	– [a]	– [b]	8.6	15.7
3/12/2025	4.1	– [a]	– [b]	12.1	26.0
3/13/2025	4.5	– [a]	– [b]	7.2	20.1
3/14/2025	3.5	– [a]	– [b]	6.5	29.7
3/15/2025	4.1	– [a]	– [b]	6.2	14.2
3/16/2025	5.6	– [a]	– [b]	7.3	21.8
3/17/2025	4.4	– [a]	– [b]	9.0	21.5
3/18/2025	4.5	– [a]	– [b]	7.5	18.5
3/19/2025	4.3	– [a]	– [b]	10.4	20.2
3/20/2025	4.7	– [a]	– [b]	11.0	26.4
3/21/2025	3.7	– [a]	– [b]	6.9	27.4
3/22/2025	5.1	– [a]	– [b]	6.3	22.3
3/23/2025	5.0	– [a]	– [b]	– [c]	– [c]
3/24/2025	5.5	– [a]	– [b]	– [c]	– [c]
3/25/2025	3.7	– [a]	– [b]	– [c]	– [c]
3/26/2025	6.6	– [a]	– [b]	– [c]	– [c]
3/27/2025	5.9	12.3	– [b]	12.7	34.6
3/28/2025	4.4	11.5	13.9	– [c]	– [c]

Date	AQMS (24-hr Average)				AQMS (1-hr Max)
	$PM_{2.5}$	PM_{10}	TSP	NO_2	NO_2
	µg/m³	µg/m³	µg/m³	ppb	ppb
3/29/2025	4.6	9.2	12.3	9.2	23.2
3/30/2025	5.7	9.5	17.9	7.1	21.9
3/31/2025	6.9	16.3	27.8	11.2	25.4

Note

[a] Data unavailable due to the PM_{10} analyzer (BAM 1020) being unable to provide valid data during this period.

[b] Data unavailable due to the TSP analyzer (BAM 1020) being unable to provide valid data during this period.

[c] Data unavailable due to the NO_2 gas analyzer being unable to provide valid data during this period.

Table B.2 Daily Wind Speed, Air Temperature, and Rainfall Recorded at the Woodfibre LNG Meteorology Station for March 2025

Date	Daily Wind Speed (m/s)		Daily Air Temperature (°C)			Daily Total Rainfall (mm)
	Max	Avg	Min	Max	Avg	
3/1/2025	4.8	0.8	4.3	14.6	7.8	0.0
3/2/2025	4.8	0.8	4.7	11.6	7.2	0.0
3/3/2025	3.9	0.8	6.3	12.0	8.2	0.2
3/4/2025	5.2	1.1	5.1	8.7	6.7	13.4
3/5/2025	5.9	1.3	3.7	11.2	6.5	4.6
3/6/2025	6.1	1.2	1.7	12.6	5.6	0.0
3/7/2025	6.6	1.5	1.9	9.4	5.7	0.4
3/8/2025	6.2	1.6	4.2	9.0	4.9	80.8
3/9/2025	10.6	2.0	3.2	11.6	7.1	42.0
3/10/2025	5.8	1.1	1.0	7.4	3.9	2.6
3/11/2025	4.1	0.8	3.2	7.0	4.5	8.6
3/12/2025	4.3	0.9	3.9	5.3	4.5	24.6
3/13/2025	7.5	1.6	3.1	8.6	5.1	3.8
3/14/2025	6.6	1.7	2.6	10.0	5.4	1.0
3/15/2025	6.5	1.1	2.6	4.9	3.9	8.2
3/16/2025	6.6	1.4	2.9	7.6	4.9	14.0

Date	Daily Wind Speed (m/s)		Daily Air Temperature (°C)			Daily Total Rainfall (mm)
	Max	Avg	Min	Max	Avg	
3/17/2025	7.1	1.6	2.0	8.7	4.8	0.2
3/18/2025	6.2	1.4	0.0	9.1	4.6	0.0
3/19/2025	6.7	1.1	3.9	6.0	4.9	19.2
3/20/2025	8.2	2.0	3.7	9.9	5.7	28.4
3/21/2025	7.0	1.7	3.6	9.4	5.9	17.4
3/22/2025	6.0	1.1	2.7	9.7	5.5	6.6
3/23/2025	4.9	1.1	2.9	4.8	3.9	49.8
3/24/2025	4.0	0.7	4.5	9.2	6.7	10.4
3/25/2025	3.1	0.9	6.3	11.5	8.2	11.8
3/26/2025	8.8	1.9	6.3	14.4	10.2	16.4
3/27/2025	6.2	1.4	7.3	11.8	9.3	23.2
3/28/2025	6.3	1.1	6.3	9.4	7.7	22.2
3/29/2025	5.5	1.1	4.9	9.9	7.3	4.2
3/30/2025	6.9	1.4	4.1	17.3	9.0	0.0
3/31/2025	6.1	1.5	6.9	12.4	8.9	6.6

Appendix C Station Calibration and Maintenance Record

AGAT Laboratories

TSP Audit

Date:	March 27, 2025
Client:	Woodfibre LNG
Location:	Woodfibre, BC
Technician:	Brad Moyles
Method:	Beta Attenuation Mass Monitor
Make:	Met One
Model:	BAM 1020
Serial number:	A12386
Parameter:	TSP
Operating Range:	1000 ug/m^3
Start Time:	9:45
Finish Time:	10:58

Audit Reference Instruments

Make/Model	Serial Number	Date Last Calibrated
TriCal Flow Device	188	3/28/2024
CNX +3000 Fluke	2445002	3/21/2024
RH/BP/Temp Sensor	181250070	4/3/2024

Audit Criteria:

Leak Check (<1.5 L/min):	**0.30**	**PASS**
Sample Flow (±4% of 16.7 L/min):	**16.64**	**PASS**
Ambient Temperature (±2 ◦C):	**0.00**	**PASS**
Ambient Pressure (±10 mmHg):	**-0.50**	**PASS**
Ambient RH Error (±10%):	**1.04%**	**PASS**

Audit Results: PASS

Instrument Verification

Sample Flow	Target (L/min)	Actual (Reference Standard)	Error (%)
Leak Check	**<1.5**	0.30	
Flow Check	**16.7**	16.72	0.1%

Ambient Temperature:	**°C**	**Ambient Pressure:**	**mmHg**
Ambient Temperature (Reference)	12.1	Ambient Pressure (Reference)	754
Ambient Temperature (Analyzer)	12.1	Ambient Pressure (Analyzer)	753

filter RH:	**%**
Ambient Humidity (Reference)	67.3
Ambient Humidity (Analyzer)	68

As-Left Diagnostics

Flow Rate:	16.72	L/min
Ambient Temperature:	12.1	°C
Barometric Pressure:	753.5	mmHg
Tape Pressure:	27	mmHg
Filter Relative Humidity:	66	%
Filter Temperature:	24.2	°C
Smart Inlet Heater Status:	On	
Measurement Cycle Time:	50	mins
Background Zero:	0	%
Analyzer Time:	13:04	
PC Time:	13:04	
Analyzer Date:	27-Mar	
PC Date:	27-Mar	

AGAT Laboratories

PM10 Audit

Date:	March 26, 2025
Client:	Woodfibre LNG
Location:	Woodfibre, BC
Technician:	Brad Moyles
Method:	Beta Attenuation Mass Monitor
Make:	Met One
Model:	BAM 1020
Serial number:	W22222
Parameter:	PM10
Operating Range:	1000 ug/m^3
Start Time:	9:15
Finish Time:	9:50

Audit Reference Instruments

Make/Model	Serial Number	Date Last Calibrated
TriCal Flow Device	188	3/28/2024
CNX +3000 Fluke	2445002	3/21/2024
RH/BP/Temp Sensor	181250070	Apr-24

Audit Criteria:

Leak Check (<1.5 L/min):	**0.70**	**PASS**
Sample Flow (±4% of 16.7 L/min):	**16.74**	**PASS**
Ambient Temperature (±2 ◦C):	**-1.50**	**PASS**
Ambient Pressure (±10 mmHg):	**-0.50**	**PASS**
Ambient RH Error (±10%):	**-0.07**	**PASS**

Audit Results: PASS

Instrument Verification

Sample Flow	Target (L/min)	Actual (Reference Standard)	Error (%)
Leak Check	**<1.5**	0.70	
Flow Check	**16.7**	16.74	0.2%

Ambient Temperature:	**°C**	**Ambient Pressure:**	**mmHg**
Ambient Temperature (Reference)	15.5	Ambient Pressure (Reference)	757
Ambient Temperature (Analyzer)	14	Ambient Pressure (Analyzer)	756

filter RH:	**%**
Ambient Humidity (Reference)	55.1
Ambient Humidity (Analyzer)	51

As-Left Diagnostics

Flow Rate:	16.74	L/min
Ambient Temperature:	15.5	°C
Barometric Pressure:	757	mmHg
Tape Pressure:	27.1	mmHg
Filter Relative Humidity:	38	%
Filter Temperature:	27	°C
Smart Inlet Heater Status:	ON	
Measurement Cycle Time:	42	mins
Background Zero:	0.0	%
Analyzer Time:	11:49	
PC Time:	11:48	
Analyzer Date:	26-Mar	
PC Date:	26-Mar	

AGAT Laboratories

PM_{10} Maintenance Log

TO BE COMPLETED/UPDATED MONTHLY

Maintenance Item	Frequency Due	Completed (Y/N)	Date Last Completed	Next Service Date
Nozzle and vane cleaning	2 Months	Y	26/03/2025	30/04/2025
Leak check	2 Months	Y	26/03/2025	30/04/2025
Flow system check	2 Months	Y	26/03/2025	30/04/2025
Clean capstan shaft and pinch roller	2 Months	Y	26/03/2025	30/04/2025
Thoroughly clean inlet and particle trap	2 Months	Y	26/03/2025	30/04/2025
Download and save digital data and error log	2 Months	Y	26/03/2025	30/04/2025
Compare digital data to analog data	2 Months	Y	26/03/2025	30/04/2025
Check and set clock	2 Months	Y	26/03/2025	30/04/2025
Replace filter tape	2 Months	Y	26/03/2025	30/04/2025
Run SELF TEST	2 Months	Y	26/03/2025	30/04/2025
Download and verify settings file	2 Months	Y	26/03/2025	30/04/2025
Flow system audit and calibration	2 Months	Y	26/03/2025	30/04/2025
Ambient pressure, temperature and RH audit and calibration	2 Months	Y	26/03/2025	30/04/2025
Replace or clean pump muffler	12 Months	N		
Test smart heater	24 Months	N		
Perform 72-hour BKGD test	12 Months	N		
Clean internal debris filter	12 Months	N		
Remove and check membrane span foil	12 Months	Y		
Beta detector count rate and dark count test	12 Months	N		
Clean vertical inlet tube	12 Months	N		
Test analog DAC output if necessary	12 Months	N		
Replace lithium battery if necessary	12 Months	N		
Rebuild vacuum pump	24 Months	N		
Replace nozzle o-ring	24 Months	N		
Preplace pump tubing if necessary	24 Months	N		

AGAT Laboratories

TSP Maintenance Log

TO BE COMPLETED/UPDATED MONTHLY

Maintenance Item	Frequency Due	Completed (Y/N)	Date Last Completed	Next Service Date
Nozzle and vane cleaning	2 Months	Y	27/03/2025	30/04/2025
Leak check	2 Months	Y	27/03/2025	30/04/2025
Flow system check	2 Months	Y	27/03/2025	30/04/2025
Clean capstan shaft and pinch roller	2 Months	Y	27/03/2025	30/04/2025
Thoroughly clean inlet	2 Months	Y	27/03/2025	30/04/2025
Download and save digital data and error log	2 Months	Y	27/03/2025	30/04/2025
Compare digital data to analog data	2 Months	Y	27/03/2025	30/04/2025
Check and set clock	2 Months	Y	27/03/2025	30/04/2025
Replace filter tape	2 Months	N	27/03/2025	30/04/2025
Run SELF TEST	2 Months	Y	27/03/2025	30/04/2025
Download and verify settings file	2 Months	Y	27/03/2025	30/04/2025
Flow system audit and calibration	2 Months	Y	27/03/2025	30/04/2025
Ambient pressure, temperature and RH audit and calibration	2 Months	Y	27/03/2025	30/04/2025
Replace or clean pump muffler	12 Months	N		
Test smart heater	24 Months	N		
Perform 72-hour BKGD test	12 Months	N		
Clean internal debris filter	12 Months	N		
Remove and check membrane span foil	12 Months	N		
Beta detector count rate and dark count test	12 Months	N		
Clean vertical inlet tube	12 Months	N		
Test analog DAC output if necessary	12 Months	N		
Replace lithium battery if necessary	12 Months	N		
Rebuild vacuum pump	24 Months	N		
Replace nozzle o-ring	24 Months	N		
Replace pump tubing if necessary	24 Months	N		

AGAT Laboratories			eLog Report		
Station	WLNG, Woodfibre, BC		Project #		
Date	March 26-27, 2025	Time In	\	Time Out	\
Weather Conditions			Technician	BM	

Replaced TSP unit with spare because readings seem low (Stantec recommendation after evaluating trends over time)
Replaced pump for PM10, reset tape latch - no more alarms
Pressure check, passed
Flow calibration, passed for TSP, PM10 and PM2.5
Ambient temperature check, passed
Shelter temperature check, passed
RH check, passed
BP check, passed

Tightened fittings along the NO2 zero pathway; CD Nova recommends a smaller capillary after the T where zero Teflon line joins the span line. Zero came in under 2 ppb following tightening the lines

Appendix D Weekly AQMS Reports

WLNG AQMS - Weekly Reporting

Reporting Period

This AQMS Weekly report covers the period from February 24 to March 02, 2025.

Objective

This report summarizes the air quality monitoring data for the week of February 24 to March 02, 2025. This report includes an analysis of pollutants such as $PM_{2.5}$, PM_{10}, TSP, and NO_2, highlighting any significant dust events, alerts from the Air Quality Monitoring Station (AQMS), and changes to the monitoring network and mitigation measures. Additionally, the report documents the results of any investigations into alerts or equipment failures, detailing the actions taken or plans for resolution because these are reasonable efforts to maintain compliance with environmental standards and support the ongoing air quality management efforts.

Summary of Onsite Air Quality and Meteorological Data Collected

This section presents four summary tables for the air quality and meteorology data. The data is based on a Level 0 verification, indicating that it has undergone preliminary checks for completeness and accuracy.

Table 1: Summary of Daily Results for the Past 7 Days

Date	$PM_{2.5}$ (µg/m³) [1]			PM_{10} (µg/m³)			TSP (µg/m³) [2]			NO_2 (ppb)		
	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg
24 Feb	3	14	6.0	8	111	21.5	-	-	-	1.9	26.0	12.7
25 Feb	1	6	3.8	5	29	10.8	-	-	-	0.0	37.5	11.3
26 Feb	0	10	4.5	6	64	15.7	-	-	-	0.0	17.9	7.8
27 Feb	1	9	5.0	5	16	11.3	-	-	-	1.1	22.1	7.2
28 Feb	0	6	3.0	5	47	11.8	-	-	-	0.0	25.7	5.5
01 Mar	0	10	4.6	5	38	13.1	-	-	-	0.0	21.5	7.8
02 Mar	2	12	6.6	9	32	15.1	-	-	-	0.0	14.6	4.5

Note: The British Columbia Air Quality Objectives (AQO) are:

- $PM_{2.5}$: 25 µg/m³ - Achievement based on annual 98th percentile of daily average, averaged over one year.
- PM_{10}: 50 µg/m³ - Achievement based on the daily (24-hr) average.
- TSP: 120 µg/m³ - Achievement based on the daily (24-hr) average.
- NO_2: 60 ppb - Achievement based on annual 98th percentile of daily 1-hour average maximum (D1HM), averaged over three consecutive years.

Bold Italic numbers indicates that the 24-hour average for PM or one or more 1-hour maximum values for NO_2 exceed the respective threshold values.

[1] As of February 11, the BAM $PM_{2.5}$ instrument's sampling time was changed from 42 minutes to 50 minutes. Since then, it has been operating as a non-designated method for $PM_{2.5}$ monitoring.

[2] Data unavailable due to the TSP BAM sampler being unable to collect valid data during this period.

Table 2: Weekly Averages Summary – $PM_{2.5}$, PM_{10}, TSP and NO_2

Pollutant	units	1-hr Min	1-hr Max	Weekly average	Trigger Limits (2/3 of the AQO)	Time Above Trigger Limit (Days)	Time Above AQO (Days)
$PM_{2.5}$	µg/m³	0	14	4.8	16.7 (24-hr avg)	0	0
PM_{10}	µg/m³	5	111	14.2	33.3 (24-hr avg)	0	0
TSP [1]	µg/m³	-	-	-	80 (24-hr avg)	-	-
NO_2	ppb	0.0	37.5	8.1	40 (1-hr avg max)	0	0

Note: [1] Data is unavailable due to the TSP BAM sampler being unable to collect valid data during this period.

Table 3: Summary of Meteorological Station Results

Date	Wind Speed (m/s)		Ambient Temperature (ºC)			Total Precipitation (mm)
	Max	24-hr Avg	Min	Max	24-hr Avg	
24 Feb	6.0	1.5	5.6	10.3	7.4	9.2
25 Feb	4.6	1.0	5.1	11.0	7.1	15.0
26 Feb	7.5	1.3	4.7	12.7	7.8	0.8
27 Feb	4.0	0.8	4.2	8.6	6.4	0.0
28 Feb	7.4	1.1	6.4	15.1	9.0	0.0
01 Mar	4.8	0.8	4.3	14.6	7.8	0.0

02 Mar	4.8	0.8	4.7	11.6	7.2	0.0

Table 4: Passive SO_2 and VOC Sampling

Date	Sampled Swapped (Yes/No)	Chain of Custody (COC) Submitted (Yes/No)	Sample Submitted to AGAT Lab (Yes/No)	Lab Results Received (Yes/No)	Lab Results Summary or Comments
24-Feb to 02-Mar	No	No	No	No	No sample swap or lab analysis was performed during this period.

Note: This table mostly contains "No" entries because SO_2 and VOC passive samples are swapped on a monthly basis, and this reporting period may not coincide with the sampling schedule. Passive samples were swapped on February 7, 2025, and shipped to AGAT Labs.

On-Site Dust Observation Report and Work Activities Details

Dust Observation Report Summary:

For this report: No dust observation report was received for this period.

Work Activities Details:

According to the Daily Construction Reports from Feb 24 to Mar 02, construction activities include, breaking rock in the 1100 sump, placing Type D in Area 1300, M02 foundation and east pond, loading out sifted blast rock from the Area 1100 and hauling to the Kode crusher, Kode stockpile management, offloading of the Type D from barge and haul to Area 4100, stockpiling at the batch plant, piping excavation for FIWP-002, excavation at the east pond and M01 foundation, placing and grading bedding sand in the utility trench in the 1200C area, washing car tops, site cleanup and fueling ongoing.

Summary of Daily Reports and Action Taken

Category	Details	Action Taken	Resolution Status / Anticipated Completion Date
AQ Exceedances Report	No AQ exceedances recorded for this period.	No Action required.	Not Applicable.
AQ Complaints	No AQ complaints received during this period.	No Action required.	Not Applicable.
Alerts from the AQMS	No alarms or instrument break-down was reported from AGAT during this period.	No Action required.	Not Applicable.
Changes to the Monitoring Network	No changes to the monitoring network during this period.	Not Applicable.	Not Applicable.
Changes to Mitigation Measures	No changes to mitigation measures during this period.	Not Applicable.	Not Applicable.

In summary, all instruments successfully collected air quality data throughout the reporting period, except for the TSP BAM sampler, which has not collected valid data since February 11, 2025. As of February 11, the BAM $PM_{2.5}$ instrument's sampling time was changed from 42 minutes to 50 minutes. Since then, it has been operating as a non-designated method for $PM_{2.5}$ monitoring. A site visit is planned for March 25 to March 28 to swap the malfunctioning TSP unit with the spare BAM TSP unit and adjust the BAM $PM_{2.5}$ sampling time from 50 minutes to 42 minutes to meet the United States Environmental Protection Agency (US EPA) Federal Equivalent Method (FEM) requirements for $PM_{2.5}$ monitoring. No air quality exceedances of the British Columbia Air Quality Objectives were recorded, and no further investigation was required.

WLNG AQMS - Weekly Reporting

Reporting Period

This AQMS Weekly report covers the period from March 03 to March 09, 2025.

Objective

This report summarizes the air quality monitoring data for the week of March 03 to March 09, 2025. This report includes an analysis of pollutants such as $PM_{2.5}$, PM_{10}, TSP, and NO_2, highlighting any significant dust events, alerts from the Air Quality Monitoring Station (AQMS), and changes to the monitoring network and mitigation measures. Additionally, the report documents the results of any investigations into alerts or equipment failures, detailing the actions taken or plans for resolution because these are reasonable efforts to maintain compliance with environmental standards and support the ongoing air quality management efforts.

Summary of Onsite Air Quality and Meteorological Data Collected

This section presents four summary tables for the air quality and meteorology data. The data is based on a Level 0 verification, indicating that it has undergone preliminary checks for completeness and accuracy.

Table 1: Summary of Daily Results for the Past 7 Days

Date	$PM_{2.5}$ (µg/m³) [1]			PM_{10} (µg/m³)			TSP (µg/m³) [2]			NO_2 (ppb)		
	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg
03 Mar	4	15	7.3	8	24	14.9	-	-	-	0.8	21.6	7.5
04 Mar	1	8	3.9	8	17	11.4	-	-	-	0.0	16.3	5.3
05 Mar	0	6	2.8	7	18	10.1	-	-	-	0.0	15.1	4.7
06 Mar	2	8	4.9	5	21	10.8	-	-	-	0.7	11.4	4.9
07 Mar	4	12	6.8	8	20	12.0	-	-	-	0.3	25.1	9.9
08 Mar	0	7	4.0	6	15	10.4	-	-	-	0.0	26.1	10.5
09 Mar	1	6	3.9	4	17	9.5	-	-	-	0.0	23.8	10.8

Note: The British Columbia Air Quality Objectives (AQO) are:

- $PM_{2.5}$: 25 µg/m³ - Achievement based on annual 98th percentile of daily average, averaged over one year.
- PM_{10}: 50 µg/m³ - Achievement based on the daily (24-hr) average.
- TSP: 120 µg/m³ - Achievement based on the daily (24-hr) average.
- NO_2: 60 ppb - Achievement based on annual 98th percentile of daily 1-hour average maximum (D1HM), averaged over three consecutive years.

Bold Italic numbers indicates that the 24-hour average for PM or one or more 1-hour maximum values for NO_2 exceed the respective threshold values.

[1] As of February 11, the BAM $PM_{2.5}$ instrument's sampling time was changed from 42 minutes to 50 minutes. Since then, it has been operating as a non-designated method for $PM_{2.5}$ monitoring.

[2] Data is unavailable due to the TSP BAM sampler being unable to collect valid data during this period.

Table 2: Weekly Averages Summary – $PM_{2.5}$, PM_{10}, TSP and NO_2

Pollutant	units	1-hr Min	1-hr Max	Weekly average	Trigger Limits (2/3 of the AQO)	Time Above Trigger Limit (Days)	Time Above AQO (Days)
$PM_{2.5}$	µg/m³	0	15	4.8	16.7 (24-hr avg)	0	0
PM_{10}	µg/m³	4	24	11.3	33.3 (24-hr avg)	0	0
TSP [1]	µg/m³	-	-	-	80 (24-hr avg)	-	-
NO_2	ppb	0.0	26.1	7.7	40 (1-hr avg max)	0	0

Note: [1] Data is unavailable due to the TSP BAM sampler being unable to collect valid data during this period.

Table 3: Summary of Meteorological Station Results

Date	Wind Speed (m/s)		Ambient Temperature (ºC)			Total Precipitation (mm)
	Max	24-hr Avg	Min	Max	24-hr Avg	
03 Mar	3.9	0.8	6.3	12.0	8.2	0.2
04 Mar	5.2	1.1	5.1	8.7	6.7	13.4
05 Mar	5.9	1.3	3.7	11.2	6.5	4.6
06 Mar	6.1	1.2	1.7	12.6	5.6	0.0
07 Mar	6.6	1.5	1.9	9.4	5.7	0.4
08 Mar	6.2	1.6	4.2	9.0	4.9	80.8

09 Mar	10.6	2.0	3.2	11.6	7.1	42.0

Table 4: Passive SO_2 and VOC Sampling

Date	Sampled Swapped (Yes/No)	Chain of Custody (COC) Submitted (Yes/No)	Sample Submitted to AGAT Lab (Yes/No)	Lab Results Received (Yes/No)	Lab Results Summary or Comments
03-Mar to 09-Mar	YES	YES	YES	Yes	**Exposure Period (Jan 7- Feb 7):** SO_2=0.2 ppb & VOC= 8.6 ppb.

Note: SO_2 and VOC passive samples are swapped on a monthly basis. Passive samples were swapped on March 3, 2025, and shipped to AGAT Labs. The laboratory analysis report for the exposure period from January 7 to February 7 was received on March 6, 2025.

On-Site Dust Observation Report and Work Activities Details

Dust Observation Report Summary:

For this report: No dust observation report was received for this period.

Work Activities Details:

According to the Daily Construction Reports from Mar 03 to Mar 09, construction activities include, breaking rock and hammering in the 1100 sump, Type D stockpile management, offloading the Agg barge via the TRI VC, material stockpiled in the 1300, backfilling in north of Batch plant, Pomerleau area, 1100 and MOF area.

Summary of Daily Reports and Action Taken

Category	Details	Action Taken	Resolution Status / Anticipated Completion Date
AQ Exceedances Report	No AQ exceedances recorded for this period.	No Action required.	Not Applicable.
AQ Complaints	No AQ complaints received during this period.	No Action required.	Not Applicable.
Alerts from the AQMS	No alarms or instrument break-down was reported from AGAT during this period.	No Action required.	Not Applicable.
Changes to the Monitoring Network	No changes to the monitoring network during this period.	Not Applicable.	Not Applicable.
Changes to Mitigation Measures	No changes to mitigation measures during this period.	Not Applicable.	Not Applicable.

In summary, all instruments successfully collected air quality data throughout the reporting period, except for the TSP BAM sampler, which has not collected valid data since February 11, 2025. As of February 11, the BAM $PM_{2.5}$ instrument's sampling time was changed from 42 minutes to 50 minutes. Since then, it has been operating as a non-designated method for $PM_{2.5}$ monitoring. A site visit is planned for March 25 to March 28 to swap the malfunctioning TSP unit with the spare BAM TSP unit and adjust the BAM $PM_{2.5}$ sampling time from 50 minutes to 42 minutes to meet the United States Environmental Protection Agency (US EPA) Federal Equivalent Method (FEM) requirements for $PM_{2.5}$ monitoring. No air quality exceedances of the British Columbia Air Quality Objectives were recorded, and no further investigation was required.

WLNG AQMS - Weekly Reporting

Reporting Period

This AQMS Weekly report covers the period from March 10 to March 16, 2025.

Objective

This report summarizes the air quality monitoring data for the week of March 10 to March 16, 2025. This report includes an analysis of pollutants such as $PM_{2.5}$, PM_{10}, TSP, and NO_2, highlighting any significant dust events, alerts from the Air Quality Monitoring Station (AQMS), and changes to the monitoring network and mitigation measures. Additionally, the report documents the results of any investigations into alerts or equipment failures, detailing the actions taken or plans for resolution because these are reasonable efforts to maintain compliance with environmental standards and support the ongoing air quality management efforts.

Summary of Onsite Air Quality and Meteorological Data Collected

This section presents four summary tables for the air quality and meteorology data. The data is based on a Level 0 verification, indicating that it has undergone preliminary checks for completeness and accuracy.

Table 1: Summary of Daily Results for the Past 7 Days

Date	$PM_{2.5}$ (µg/m³) [1]			PM_{10} (µg/m³) [2]			TSP (µg/m³) [3]			NO_2 (ppb)		
	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg
10 Mar	1	8	4.2	5	24	9.8	–	–	–	2.6	21.4	11.3
11 Mar	0	8	3.9	–	–	–	–	–	–	1.2	15.7	8.6
12 Mar	0	9	4.1	–	–	–	–	–	–	1.8	26.0	12.1
13 Mar	1	11	4.5	–	–	–	–	–	–	0.7	20.1	7.2
14 Mar	1	7	3.5	–	–	–	–	–	–	0.1	29.7	6.5
15 Mar	1	7	4.1	–	–	–	–	–	–	0.8	14.2	6.2
16 Mar	1	11	5.6	–	–	–	–	–	–	2.6	21.8	7.3

Note: The British Columbia Air Quality Objectives (AQO) are:

- $PM_{2.5}$: 25 µg/m³ - Achievement based on annual 98th percentile of daily average, averaged over one year.
- PM_{10}: 50 µg/m³ - Achievement based on the daily (24-hr) average.
- TSP: 120 µg/m³ - Achievement based on the daily (24-hr) average.
- NO_2: 60 ppb - Achievement based on annual 98th percentile of daily 1-hour average maximum (D1HM), averaged over three consecutive years.

Bold Italic numbers indicates that the 24-hour average for PM or one or more 1-hour maximum values for NO_2 exceed the respective threshold values.

[1] As of February 11, the BAM $PM_{2.5}$ instrument's sampling time was changed from 42 minutes to 50 minutes. Since then, it has been operating as a non-designated method for $PM_{2.5}$ monitoring.

[2] Data is unavailable due to the PM_{10} BAM sampler's flow controller failure.

[3] Data is unavailable due to the TSP BAM sampler being unable to collect valid data during this period.

Table 2: Weekly Averages Summary – $PM_{2.5}$, PM_{10}, TSP and NO_2

Pollutant	units	1-hr Min	1-hr Max	Weekly average	Trigger Limits (2/3 of the AQO)	Time Above Trigger Limit (Days)	Time Above AQO (Days)
$PM_{2.5}$	µg/m³	0	11	4.3	16.7 (24-hr avg)	0	0
PM_{10} [1]	µg/m³	5	24	9.8	33.3 (24-hr avg)	0	0
TSP [2]	µg/m³	–	–	–	80 (24-hr avg)	–	–
NO_2	ppb	0.1	29.7	8.5	40 (1-hr avg max)	0	0

Note:

[1] The PM_{10} weekly average is based on valid data collected from a single day, March 10, 2025.

[2] Data is unavailable due to the TSP BAM sampler being unable to collect valid data during this period.

Table 3: Summary of Meteorological Station Results

Date	Wind Speed (m/s)		Ambient Temperature (°C)			Total Precipitation (mm)
	Max	24-hr Avg	Min	Max	24-hr Avg	
10 Mar	5.8	1.1	1.0	7.4	3.9	2.6
11 Mar	4.1	0.8	3.2	7.0	4.5	8.6
12 Mar	4.3	0.9	3.9	5.3	4.5	24.6
13 Mar	7.5	1.6	3.1	8.6	5.1	3.8

14 Mar	6.6	1.7	2.6	10.0	5.4	1.0
15 Mar	6.5	1.1	2.6	4.9	3.9	8.2
16 Mar	6.6	1.4	2.9	7.6	4.9	14.0

Table 4: Passive SO_2 and VOC Sampling

Date	Sampled Swapped (Yes/No)	Chain of Custody (COC) Submitted (Yes/No)	Sample Submitted to AGAT Lab (Yes/No)	Lab Results Received (Yes/No)	Lab Results Summary or Comments
10-Mar to 16-Mar	No	No	No	No	No sample swap or lab analysis was performed during this period.

Note: This table mostly contains "No" entries because SO_2 and VOC passive samples are swapped on a monthly basis, and this reporting period may not coincide with the sampling schedule. Passive samples were swapped on March 3, 2025, and shipped to AGAT Labs.

On-Site Dust Observation Report and Work Activities Details

Dust Observation Report Summary:

For this report: No dust observation report was received for this period.

Work Activities Details:

According to the Daily Construction Reports from March 10 to March 16, construction activities include, breaking rock in the 1100, 1200D and 1200C flare stack area, backfilling at 1200D, MOF, 1300 and M09 area, hauling blast rock to Kode Crusher, slope cleaning near Pomerleau, staging the sump pieces for M09 sump, grading and placing GSB in the 1300 MOF area, and bailing the blast rock in the hill cut to allow access into the 1200A.

Summary of Daily Reports and Action Taken

Category	Details	Action Taken	Resolution Status / Anticipated Completion Date
AQ Exceedances Report	No AQ exceedances recorded for this period.	No Action required.	Not Applicable.
AQ Complaints	No AQ complaints received during this period.	No Action required.	Not Applicable.
Alerts from the AQMS	No alarms or instrument break-down was reported from AGAT during this period.	No Action required.	Not Applicable.
Changes to the Monitoring Network	No changes to the monitoring network during this period.	Not Applicable.	Not Applicable.
Changes to Mitigation Measures	No changes to mitigation measures during this period.	Not Applicable.	Not Applicable.

In summary, the TSP BAM sampler has been unable to collect valid data since February 11, 2025, due to a malfunction. Due to a flow controller failure, the BAM PM_{10} sampler has not been able to collect valid data since March 11, 2025. As of February 11, the BAM $PM_{2.5}$ instrument's sampling time was changed from 42 minutes to 50 minutes. Since then, it has been operating as a non-designated method for $PM_{2.5}$ monitoring. A site visit is planned for March 25 to March 28 to swap the malfunctioning TSP unit with the spare BAM TSP unit, troubleshoot the BAM PM_{10} flow controller, and adjust the BAM $PM_{2.5}$ sampling time from 50 minutes to 42 minutes to meet the United States Environmental Protection Agency (US EPA) Federal Equivalent Method (FEM) requirements for PM2.5 monitoring. No air quality exceedances of the British Columbia Air Quality Objectives were recorded, and no further investigation was required.

WLNG AQMS - Weekly Reporting

Reporting Period

This AQMS Weekly report covers the period from March 17 to March 23, 2025.

Objective

This report summarizes the air quality monitoring data for the week of March 17 to March 23, 2025. This report includes an analysis of pollutants such as $PM_{2.5}$, PM_{10}, TSP, and NO_2, highlighting any significant dust events, alerts from the Air Quality Monitoring Station (AQMS), and changes to the monitoring network and mitigation measures. Additionally, the report documents the results of any investigations into alerts or equipment failures, detailing the actions taken or plans for resolution because these are reasonable efforts to maintain compliance with environmental standards and support the ongoing air quality management efforts.

Summary of Onsite Air Quality and Meteorological Data Collected

This section presents four summary tables for the air quality and meteorology data. The data is based on a Level 0 verification, indicating that it has undergone preliminary checks for completeness and accuracy.

Table 1: Summary of Daily Results for the Past 7 Days

Date	$PM_{2.5}$ (µg/m³) [1]			PM_{10} (µg/m³) [2]			TSP (µg/m³) [3]			NO_2 (ppb) [4]		
	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg
17 Mar	0	8	4.4	–	–	–	–	–	–	0.0	21.5	9.0
18 Mar	1	7	4.5	–	–	–	–	–	–	0.5	18.5	7.5
19 Mar	0	8	4.3	–	–	–	–	–	–	3.9	20.2	10.4
20 Mar	0	11	4.7	–	–	–	–	–	–	0.0	26.4	11.0
21 Mar	0	9	3.7	–	–	–	–	–	–	0.0	27.4	6.9
22 Mar	1	9	5.1	–	–	–	–	–	–	0.0	22.3	6.3
23 Mar	2	12	5.0	–	–	–	–	–	–	–	–	–

Note: The British Columbia Air Quality Objectives (AQO) are:

- $PM_{2.5}$: 25 µg/m³ - Achievement based on annual 98th percentile of daily average, averaged over one year.
- PM_{10}: 50 µg/m³ - Achievement based on the daily (24-hr) average.
- TSP: 120 µg/m³ - Achievement based on the daily (24-hr) average.
- NO_2: 60 ppb - Achievement based on annual 98th percentile of daily 1-hour average maximum (D1HM), averaged over three consecutive years.

Bold Italic numbers indicates that the 24-hour average for PM or one or more 1-hour maximum values for NO_2 exceed the respective threshold values.

[1] As of February 11, the BAM $PM_{2.5}$ instrument's sampling time was changed from 42 minutes to 50 minutes. Since then, it has been operating as a non-designated method for $PM_{2.5}$ monitoring.

[2] Data is unavailable due to the PM_{10} BAM sampler's flow controller failure.

[3] Data is unavailable due to the TSP BAM sampler being unable to collect valid data during this period.

[4] Data is unavailable for March 23 due to the NO_2 gas analyzer being unable to collect valid measurements, with less than 75% valid data recorded for the day.

Table 2: Weekly Averages Summary – $PM_{2.5}$, PM_{10}, TSP and NO_2

Pollutant	units	1-hr Min	1-hr Max	Weekly average	Trigger Limits (2/3 of the AQO)	Time Above Trigger Limit (Days)	Time Above AQO (Days)
$PM_{2.5}$	µg/m³	0	12	4.5	16.7 (24-hr avg)	0	0
PM_{10} [1]	µg/m³	–	–	–	33.3 (24-hr avg)	–	–
TSP [2]	µg/m³	–	–	–	80 (24-hr avg)	–	–
NO_2	ppb	0.0	27.4	8.5	40 (1-hr avg max)	0	0

Note:

[1] Data is unavailable due to the PM10 BAM sampler's flow controller failure.

[2] Data is unavailable due to the TSP BAM sampler being unable to collect valid data during this period.

Table 3: Summary of Meteorological Station Results

Date	Wind Speed (m/s)		Ambient Temperature (ºC)			Total Precipitation (mm)
	Max	24-hr Avg	Min	Max	24-hr Avg	
17 Mar	7.1	1.6	2.0	8.7	4.8	0.2
18 Mar	6.2	1.4	0.0	9.1	4.6	0.0
19 Mar	6.7	1.1	3.9	6.0	4.9	19.2

20 Mar	8.2	2.0	3.7	9.9	5.7	28.4
21 Mar	7.0	1.7	3.6	9.4	5.9	17.4
22 Mar	6.0	1.1	2.7	9.7	5.5	6.6
23 Mar	4.9	1.1	2.9	4.8	3.9	49.8

Table 4: Passive SO_2 and VOC Sampling

Date	Sampled Swapped (Yes/No)	Chain of Custody (COC) Submitted (Yes/No)	Sample Submitted to AGAT Lab (Yes/No)	Lab Results Received (Yes/No)	Lab Results Summary or Comments
17-Mar to 23-Mar	No	No	No	YES	**Exposure Period (Feb 7 – Mar 3):** SO_2=<0.2 ppb & VOC= <0.7 ppb

Note: SO_2 and VOC passive samples are swapped on a monthly basis. Passive samples were swapped on March 3, 2025, and shipped to AGAT Labs. The laboratory analysis report for the exposure period from February 7 to March 3 was received on March 21, 2025.

On-Site Dust Observation Report and Work Activities Details

Dust Observation Report Summary:

For this report: No dust observation report was received for this period.

Work Activities Details:

According to the Daily Construction Reports from March 17 to March 23, construction activities include breaking rock at Area 1100 and flare stack areas, blasting material at Area 1100, 1200 and 4200, backfilling at Area 1100, 1300 and MOF, hauling blast rock from the 1100 and 1200 to Kode, and to 4100 stockpile, and Road maintenance around site.

Summary of Daily Reports and Action Taken

Category	Details	Action Taken	Resolution Status / Anticipated Completion Date
AQ Exceedances Report	No AQ exceedances recorded for this period.	No Action required.	Not Applicable.
AQ Complaints	No AQ complaints received during this period.	No Action required.	Not Applicable.
Alerts from the AQMS	No alarms or instrument break-down was reported from AGAT during this period.	No Action required.	Not Applicable.
Changes to the Monitoring Network	No changes to the monitoring network during this period.	Not Applicable.	Not Applicable.
Changes to Mitigation Measures	No changes to mitigation measures during this period.	Not Applicable.	Not Applicable.

In summary, the TSP BAM sampler has been unable to collect valid data since February 11, 2025, due to a malfunction. Due to a flow controller failure, the BAM PM_{10} sampler has not been able to collect valid data since March 11, 2025. As of February 11, the BAM $PM_{2.5}$ instrument's sampling time was changed from 42 minutes to 50 minutes for unknown reasons. Since then, it has been operating as a non-designated method for $PM_{2.5}$ monitoring. A site visit is planned for March 25 to March 28 to swap the malfunctioning TSP unit with the spare BAM TSP unit, troubleshoot the BAM PM_{10} pump/flow controller, and adjust the BAM $PM_{2.5}$ sampling time from 50 minutes to 42 minutes to meet the United States Environmental Protection Agency (US EPA) Federal Equivalent Method (FEM) requirements for $PM_{2.5}$ monitoring. No air quality exceedances of the British Columbia Air Quality Objectives were recorded, and no further investigation was required.

WLNG AQMS - Weekly Reporting

Reporting Period

This AQMS Weekly report covers the period from March 24 to March 30, 2025.

Objective

This report summarizes the air quality monitoring data for the week of March 24 to March 30, 2025. This report includes an analysis of pollutants such as $PM_{2.5}$, PM_{10}, TSP, and NO_2, highlighting any significant dust events, alerts from the Air Quality Monitoring Station (AQMS), and changes to the monitoring network and mitigation measures. Additionally, the report documents the results of any investigations into alerts or equipment failures, detailing the actions taken or plans for resolution because these are reasonable efforts to maintain compliance with environmental standards and support the ongoing air quality management efforts.

Summary of Onsite Air Quality and Meteorological Data Collected

This section presents four summary tables for the air quality and meteorology data. The data is based on a Level 0 verification, indicating that it has undergone preliminary checks for completeness and accuracy.

Table 1: Summary of Daily Results for the Past 7 Days

Date	$PM_{2.5}$ (µg/m³) [1]			PM_{10} (µg/m³) [2]			TSP (µg/m³) [3]			NO_2 (ppb) [4]		
	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg
24 Mar	2	12	5.5	–	–	–	–	–	–	–	–	–
25 Mar	0	7	3.6	–	–	–	–	–	–	–	–	–
26 Mar	1	15	6.6	–	–	–	–	–	–	–	–	–
27 Mar	2	10	5.9	6	41	12.3	–	–	–	5.9	34.6	12.7
28 Mar	0	9	4.4	7	23	11.5	7	48	13.9	–	–	–
29 Mar	1	8	4.6	3	21	9.2	6	42	12.3	0.4	23.2	9.2
30 Mar	0	13	5.7	5	15	9.5	7	100	17.9	1.0	21.9	7.1

Note: The British Columbia Air Quality Objectives (AQO) are:

- $PM_{2.5}$: 25 µg/m³ - Achievement based on annual 98th percentile of daily average, averaged over one year.
- PM_{10}: 50 µg/m³ - Achievement based on the daily (24-hr) average.
- TSP: 120 µg/m³ - Achievement based on the daily (24-hr) average.
- NO_2: 60 ppb - Achievement based on annual 98th percentile of daily 1-hour average maximum (D1HM), averaged over three consecutive years.

Bold Italic numbers indicates that the 24-hour average for PM or one or more 1-hour maximum values for NO_2 exceed the respective threshold values.

[1] As of February 11, the BAM $PM_{2.5}$ instrument's sampling time was changed from 42 minutes to 50 minutes. It operated as a non-designated method for $PM_{2.5}$ monitoring until corrected on March 27.

[2] Data is unavailable from March 24 to March 26 due to the PM_{10} BAM sampler's flow controller failure. Maintenance and calibration were completed on March 26.

[3] TSP data is unavailable from March 24 to March 27. The unit was swapped and calibrated on March 27.

[4] NO_2 valid data is unavailable from March 23–26 due to failed span checks, and for March 28 due to maintenance. Zero and span pan check was passed after maintenance on March 26 at 19:00.

Table 2: Weekly Averages Summary – $PM_{2.5}$, PM_{10}, TSP and NO_2

Pollutant	units	1-hr Min	1-hr Max	Weekly average	Trigger Limits (2/3 of the AQO)	Time Above Trigger Limit (Days)	Time Above AQO (Days)
$PM_{2.5}$	µg/m³	0	15	5.2	16.7 (24-hr avg)	0	0
PM_{10} [1]	µg/m³	3	41	10.6	33.3 (24-hr avg)	0	0
TSP [2]	µg/m³	6	100	14.7	80 (24-hr avg)	0	0
NO_2 [3]	ppb	0.4	34.6	9.6	40 (1-hr avg max)	0	0

Note:

[1] The PM_{10} weekly average is based on valid data collected from March 27 to March 30, 2025.

[2] The TSP weekly average is based on valid data collected from March 28 to March 30, 2025.

[3] The NO_2 weekly average is based on valid data collected on March 27, March 20 and March 30, 2025.

Table 3: Summary of Meteorological Station Results

Date	Wind Speed (m/s)		Ambient Temperature (ºC)			Total Precipitation (mm)
	Max	24-hr Avg	Min	Max	24-hr Avg	
24 Mar	4.0	0.7	4.5	9.2	6.7	10.4

25 Mar	3.1	0.9	6.3	11.5	8.2	11.8
26 Mar	8.8	1.9	6.3	14.4	10.2	16.4
27 Mar	6.2	1.4	7.3	11.8	9.3	23.2
28 Mar	6.3	1.1	6.3	9.4	7.7	22.2
29 Mar	5.5	1.1	4.9	9.9	7.3	4.2
30 Mar	6.9	1.4	4.1	17.3	9.0	0.0

Table 4: Passive SO_2 and VOC Sampling

Date	Sampled Swapped (Yes/No)	Chain of Custody (COC) Submitted (Yes/No)	Sample Submitted to AGAT Lab (Yes/No)	Lab Results Received (Yes/No)	Lab Results Summary or Comments
24-Mar to 30-Mar	No	No	No	No	No sample swap or lab analysis was performed during this period.

Note: This table mostly contains "No" entries because SO_2 and VOC passive samples are swapped on a monthly basis, and this reporting period may not coincide with the sampling schedule. Passive samples were swapped on March 3, 2025, and shipped to AGAT Labs.

On-Site Dust Observation Report and Work Activities Details

Dust Observation Report Summary:

For this report: No dust observation report was received for this period.

Work Activities Details:

According to the Daily Construction Reports from March 24 to March 30, construction activities include, breaking rock at Area 1100 and MOF Sump, hauling rock from Area 1100, 1200 and 4200 to Kode and to stockpile in 4100, removing slop material from the Kode to the surge pond, offloading the Agg barge at Area 1300, placing rocks in the 4200 Area, grading and clean up at MOF.

Summary of Daily Reports and Action Taken

Category	Details	Action Taken	Resolution Status / Anticipated Completion Date
AQ Exceedances Report	No AQ exceedances recorded for this period.	No Action required.	Not Applicable.
AQ Complaints	No AQ complaints received during this period.	No Action required.	Not Applicable.
Alerts from the AQMS	No alarms or instrument break-down was reported from AGAT during this period.	No Action required.	Not Applicable.
Changes to the Monitoring Network	No changes to the monitoring network during this period.	Not Applicable.	Not Applicable.
Changes to Mitigation Measures	No changes to mitigation measures during this period.	Not Applicable.	Not Applicable.

In summary, maintenance activities were conducted during the week of March 24 to March 30 to restore the full functionality of the monitoring equipment. The TSP BAM unit was swapped and calibrated on March 27, and the BAM PM_{10} pump was replaced and calibrated on March 26. The BAM $PM_{2.5}$ sampling time, previously changed from 42 to 50 minutes, was corrected on March 27 to meet US EPA FEM requirements. The NO_2 analyzer failed span checks on March 24 and 25 and underwent maintenance on March 26, with valid data collection resuming thereafter. NO_2 data was also unavailable on March 28 due to additional maintenance. No air quality exceedances of the British Columbia Air Quality Objectives were recorded, and no further investigation was required.

WLNG AQMS - Weekly Reporting

Reporting Period

This AQMS Weekly report covers the period from March 31 to April 06, 2025.

Objective

This report summarizes the air quality monitoring data for the week of March 31 to April 06, 2025. This report includes an analysis of pollutants such as $PM_{2.5}$, PM_{10}, TSP, and NO_2, highlighting any significant dust events, alerts from the Air Quality Monitoring Station (AQMS), and changes to the monitoring network and mitigation measures. Additionally, the report documents the results of any investigations into alerts or equipment failures, detailing the actions taken or plans for resolution because these are reasonable efforts to maintain compliance with environmental standards and support the ongoing air quality management efforts.

Summary of Onsite Air Quality and Meteorological Data Collected

This section presents four summary tables for the air quality and meteorology data. The data is based on a Level 0 verification, indicating that it has undergone preliminary checks for completeness and accuracy.

Table 1: Summary of Daily Results for the Past 7 Days

Date	$PM_{2.5}$ (µg/m³)			PM_{10} (µg/m³)			TSP (µg/m³)			NO_2 (ppb)		
	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg	1-hr Min	1-hr Max	24-hr Avg
31 Mar	0	16	6.9	5	82	16.3	6	183	27.8	1.7	25.4	11.2
01 Apr	0	14	6.2	8	46	15.3	9	82	21.6	2.5	38.9	7.9
02 Apr	3	17	6.9	6	91	19.3	11	185	33.8	0.0	35.3	7.9
03 Apr	0	12	5.4	5	15	11.0	8	36	14.7	1.7	13.7	5.9
04 Apr	4	12	7.0	7	20	12.2	9	34	17.8	3.4	10.7	6.5
05 Apr	2	19	6.4	7	57	17.1	11	154	36.5	1.5	16.0	7.4
06 Apr	1	15	6.0	6	29	14.4	8	74	20.1	6.4	37.2	14.0

Note: The British Columbia Air Quality Objectives (AQO) are:

- $PM_{2.5}$: 25 µg/m³ - Achievement based on annual 98th percentile of daily average, averaged over one year.
- PM_{10}: 50 µg/m³ - Achievement based on the daily (24-hr) average.
- TSP: 120 µg/m³ - Achievement based on the daily (24-hr) average.
- NO_2: 60 ppb - Achievement based on annual 98th percentile of daily 1-hour average maximum (D1HM), averaged over three consecutive years.

Bold Italic numbers indicates that the 24-hour average for PM or one or more 1-hour maximum values for NO_2 exceed the respective threshold values.

Table 2: Weekly Averages Summary – $PM_{2.5}$, PM_{10}, TSP and NO_2

Pollutant	units	1-hr Min	1-hr Max	Weekly average	Trigger Limits (2/3 of the AQO)	Time Above Trigger Limit (Days)	Time Above AQO (Days)
$PM_{2.5}$	µg/m³	0	19	6.4	16.7 (24-hr avg)	0	0
PM_{10}	µg/m³	5	91	15.1	33.3 (24-hr avg)	0	0
TSP	µg/m³	6	185	24.6	80 (24-hr avg)	0	0
NO_2	ppb	0.0	38.9	8.7	40 (1-hr avg max)	0	0

Table 3: Summary of Meteorological Station Results

Date	Wind Speed (m/s)		Ambient Temperature (ºC)			Total Precipitation (mm)
	Max	24-hr Avg	Min	Max	24-hr Avg	
31 Mar	6.1	1.5	6.9	12.4	8.9	6.6
01 Apr	6.7	1.6	4.8	12.0	8.6	0.2
02 Apr	6.1	1.5	5.6	11.3	7.9	7.4
03 Apr	6.0	1.3	4.5	14.9	8.4	0.0
04 Apr	5.7	1.0	4.0	14.9	8.9	0.0
05 Apr	8.2	1.1	5.0	18.8	10.9	0.0
06 Apr	3.8	0.9	7.7	11.3	9.6	40.6

Table 4: Passive SO_2 and VOC Sampling

Date	Sampled Swapped (Yes/No)	Chain of Custody (COC) Submitted (Yes/No)	Sample Submitted to AGAT Lab (Yes/No)	Lab Results Received (Yes/No)	Lab Results Summary or Comments
31-Mar to 06-Apr	Yes	Yes	Yes	No	NA

Note: SO_2 and VOC passive samples are swapped on a monthly basis. Passive samples were swapped on April 1, 2025, and shipped to AGAT Labs.

On-Site Dust Observation Report and Work Activities Details

Dust Observation Report Summary:

For this report: No dust observation report was received for this period.

Work Activities Details:

According to the Daily Construction Reports from March 31 to April 06, construction activities include, breaking oversized rock and excavating a utility trench in Area 1100, excavating a test pit in Area 1200D, sifting and hauling rock to Surge Road, hauling rock to the crusher from Areas 1100 and 1200, backfilling in Areas 1100 and 1200, stockpiling Type D material, performing grade work at the North Sump, conducting backfill and grade work at the Admin Building, removing blast rock from Area 1200, and placing Type A and Type D material in Area 1100.

Summary of Daily Reports and Action Taken

Category	Details	Action Taken	Resolution Status / Anticipated Completion Date
AQ Exceedances Report	No AQ exceedances recorded for this period.	No Action required.	Not Applicable.
AQ Complaints	No AQ complaints received during this period.	No Action required.	Not Applicable.
Alerts from the AQMS	No alarms or instrument break-down was reported from AGAT during this period.	No Action required.	Not Applicable.
Changes to the Monitoring Network	No changes to the monitoring network during this period.	Not Applicable.	Not Applicable.
Changes to Mitigation Measures	No changes to mitigation measures during this period.	Not Applicable.	Not Applicable.

In summary, all instruments operated as intended, successfully collecting air quality data throughout the reporting period. No air quality exceedances of the British Columbia Air Quality Objectives were recorded, and no further investigation was required.

Appendix E Passive SO_2 and VOC Samples – Lab Analysis Report

AGAT Laboratories

3650 – 21 Street NE
CALGARY, ALBERTA
CANADA T2E 6V6
TEL (403)299-2000

http://www.agatlabs.com

CLIENT NAME: STANTEC CONSULTING LTD
100-75 24TH STREET
EAST SASKATOON, SK S7K 0K3

ATTENTION TO: Dan Jarratt/Kashif Choudhry

PROJECT: Woodfibre LNG

AGAT WORK ORDER: 25C267863

AIR QUALITY MONITORING REVIEWED BY: Carmen Andrei, AQM Lab Supervisor

DATE REPORTED: Apr 16, 2025

PAGES (INCLUDING COVER): 6

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (403) 299-2000

*Notes

Disclaimer:

- *All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.*
- *All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.*
- *AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.*
- *This Certificate shall not be reproduced except in full, without the written approval of the laboratory.*
- *The test results reported herewith relate only to the samples as received by the laboratory.*
- *Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.*
- *All reportable information is available on request from AGAT Laboratories, in accordance with ISO/IEC 17025:2017, ISO/IEC 17025:2005 (Quebec), DR-12-PALA and/or NELAP Standards.*
- *This document is signed by an authorized signatory who meets the requirements of the MELCCFP, CALA, CCN and NELAP.*
- *For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.*

AGAT Laboratories

3650 – 21 Street NE
CALGARY, ALBERTA
CANADA T2E 6V6
TEL (403)299-2000

http://www.agatlabs.com

Air Quality Summary

AGAT WORK ORDER: 25C267863

PROJECT: Woodfibre LNG

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Dan Jarratt/Kashif Choudhry

SAMPLING SITE:

SAMPLED BY:

Parameter	Unit	Number of Samples	Peak Reading	Network Average
Ambient Sulfur Dioxide	ppbv	2	0.2	<0.2
Ambient VOC as Hexane	ppbv	2	<0.7	<0.7

AGAT Laboratories

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CALGARY, ALBERTA
CANADA T2E 6V6
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Certificate of Analysis

AGAT WORK ORDER: 25C267863

PROJECT: Woodfibre LNG

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Dan Jarratt/Kashif Choudhry

SAMPLING SITE:

SAMPLED BY:

Passive Air Quality Sampling

DATE RECEIVED: 2025-04-07

DATE REPORTED: 2025-04-16

				Site#01/ 07Mar/25,12:57 01Apr/25,09:00 /SO2 FILTER	Site#01/ 03Mar/25,13:10 01Apr/25,09:00 /TVOC FILTER
SAMPLE DESCRIPTION:					
SAMPLE TYPE:					
DATE SAMPLED:					
Parameter	Unit	G / S	RDL	6642271	6665782
Ambient Sulfur Dioxide	ppbv		0.2	0.2	-
Ambient VOC as Hexane	ppbv		0.7	-	<0.7

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6642271-6665782 All samples are field blank subtracted.

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

AGAT Laboratories

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CALGARY, ALBERTA
CANADA T2E 6V6
TEL (403)299-2000

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Certificate of Analysis

AGAT WORK ORDER: 25C267863

PROJECT: Woodfibre LNG

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Dan Jarratt/Kashif Choudhry

SAMPLING SITE:

SAMPLED BY:

Passive Quality Assurance

DATE RECEIVED: 2025-04-07

DATE REPORTED: 2025-04-16

SAMPLE DESCRIPTION:				Site#01/DUP 07Mar/25,12:57 01Apr/25,09:00 /SO2	BLANK/ 07Mar/25,12:57 01Apr/25,09:00 /SO2	Site#01/DUP 03Mar/25,13:10 01Apr/25,09:00 /TVOC	BLANK/ 03Mar/25,13:10 01Apr/25,09:00 /TVOC
SAMPLE TYPE:				FILTER	FILTER	FILTER	FILTER
DATE SAMPLED:							
Parameter	Unit	G / S	RDL	6642272	6642273	6665783	6665784
Ambient Sulfur Dioxide	ppbv		0.2	<0.2	<0.2	-	-
Ambient VOC as Hexane	ppbv		0.7	-	-	<0.7	<0.7

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

AGAT Laboratories

3650 – 21 Street NE
CALGARY, ALBERTA
CANADA T2E 6V6
TEL (403)299-2000

http://www.agatlabs.com

Quality Assurance

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 25C267863

PROJECT: Woodfibre LNG

ATTENTION TO: Dan Jarratt/Kashif Choudhry

SAMPLING SITE:

SAMPLED BY:

Air Quality Monitoring

RPT Date: Apr 16, 2025			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Passive Air Quality Sampling															
Ambient Sulfur Dioxide	251	6642272	0.2	<0.2	NA	< 0.2	101%	90%	110%	99%	80%	120%	96%	80%	120%
Ambient VOC as Hexane	184	6665782	<0.7	<0.7	NA	< 0.7	108%	60%	140%	92%	60%	140%			

Comments: If the RPD value is NA, the results of the duplicates are under 5X the RDL and will not be calculated.
Sample spikes and duplicates are not from the same sample.

Certified By:

AGAT Laboratories

3650 – 21 Street NE
CALGARY, ALBERTA
CANADA T2E 6V6
TEL (403)299-2000

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Method Summary

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 25C267863

PROJECT: Woodfibre LNG

ATTENTION TO: Dan Jarratt/Kashif Choudhry

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Air Quality Monitoring			
Ambient Sulfur Dioxide	AQM-43-16007	Inhouse Method	ION CHROMATOGRAPH
Ambient VOC as Hexane	IHF-60-25003	Modified NIOSH-1500,1501,1003	GC/MS

AGAT Laboratories

Have feedback? Scan here for a quick survey!

3650, 21 Street NE
Calgary, AB
T2E 6V6
P: 403.299.2000
webair.agatlabs.com

Laboratory Use Only

AGAT Job Number: 25026863

Notes:

Chain of Custody Record

Report Information

Company: Stantec
Contact: Kashif Choudhry
Address: 100-75 24th Street East
Saskatoon, SK, S7K 0K3
Phone: 474-774-0927 Fax:
LSD:
Client Project #: 123222160-12-2024.300

Invoice To Same Yes ☐ / No ☐

Company: Stantec
Contact: accounts.payable.invoices@stantec.com and
Address: 100-75 24th Street East
Saskatoon, SK, S7K 0K3
Phone: 474-774-0927 Fax:
PO/AFE#: 123222160-12-2024.300

Turnaround Time Required (TAT)

Regular TAT ☑ 5 to 7 working days

Rush TAT
☐ Less than 24 hours
☐ 24 to 48 hours
☐ 48 to 72 hours

Date Required:

UPON FILLING OUT THIS SECTION, THE CLIENT ACCEPTS THAT SURCHARGES WILL BE ATTACHED TO THIS ANALYSIS. IF NOT COMPLETED, REGULAR TAT WILL BE DEFAULT.

LABORATORY USE (LAB ID #)	SITE NAME/SAMPLE DESCRIPTION	DATE/TIME INSTALLED	DATE/TIME EXTRACTED	COMMENTS - SITE SAMPLE INFO. SAMPLE CONTAINMENT	H2S Passive	SO2 Passive	NO2 Passive	O3 Passive	PM2.5	PM~~10~~	TSP	Duplicate - SO2 Passive	Blank - SO2 Passive	VOC Passive	Duplicate - VOC Passive	Blank - VOC Passive
	Please Email reports to:															
	kashif.choudhry@stantec.com															
	daniel.casanova@stantec.com															
	katie.chuen@stantec.com															
	dan.jarratt@stantec.com															
	WLNG-SO2-AQMS	Mar 7, 2025 12:57PM	Apr 1, 2025 09:00AM			☑										
	WLNG-SO2-DUPLICATE											☑				
	WLNG-SO2-BLANK												☑			
	WLNG-VOC-AQMS	Mar 3, 2025 1:10PM	Apr 1, 2025 09:00AM											☑		
	WLNG-VOC-DUPLICATE														☑	
	WLNG-VOC-Blank															☑

Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time
		Chan Yan	Apr 7, 25
Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time
Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time

Pink Copy - Client
Yellow Copy - AGAT
White Copy- AGAT

N°: 640725