Woodfibre LNG Air Quality Monitoring Station Report for November 2024

January 17, 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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Prepared by: Digitally signed by Dr. Kashif I. Choudhry, P.Eng. Date: 2025.01.17 18:01:25 -06'00'

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Reviewed by: Digitally signed by Dan Jarratt Date: 2025.01.17 16:14:24 -08'00'

Signature

Dan Jarratt, EP, P.Eng. (AB, BC), Air Quality Technical Area Leader Canada

Printed Name

Approved by: Adriana MacLeod Digitally signed by Adriana MacLeod Date: 2025.01.17 16:09:43 -08'00'

Signature

Adriana MacLeod, B.Sc.

Printed Name

Executive Summary

This report provides a summary of the ambient air quality monitoring data for November 2024 that has been collected in fulfilment of the requirements established in the Floatel Air Quality Management and Monitoring Plan (Rev 6, July 5, 2024) (Woodfibre LNG, 2024). Table E.1 below presents the monthly averages, ranges, and maximum values for key air contaminants for November 2024, along with additional information on any air quality exceedances and complaints received during this period. Additionally, the September 1 to November 7, 2024, SO_2 and VOC passive sample data, previously unavailable due to shipping, receiving, and logistical issues, have now been received and are presented in the Results section. This report provides an overview of air quality conditions and any regulatory compliance actions taken in November 2024.

Table E.1 November 2024 Air Quality Monitoring Station Summary

Air Contaminant		Units	Monthly Average	Monthly Range (Min - Max)
$PM_{2.5}$ (24-hour average)		µg/m³	11	5 - 17
PM_{10} (24-hour average)		µg/m³	20	8 - 47
TSP (24-hour average)		µg/m³	43	16 - 105
NO_2 (24-hour average)		ppb	3.5	1.0 - 9.0
NO_2 (1-hour average)		ppb	3.6	0.0 - 20.6
SO_2	(Sep 1 – Nov 7)	ppb	0.2	
	(Nov 7 – Dec 2)		<0.2*	
VOC as Hexane	(Sep 1 – Nov 7)	ppb	0.8	
	(Nov 7 – Dec 2)		<0.7*	
Number of Air Quality Exceedances Recorded			None	
Number of Complaints Received			None	

Note:

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

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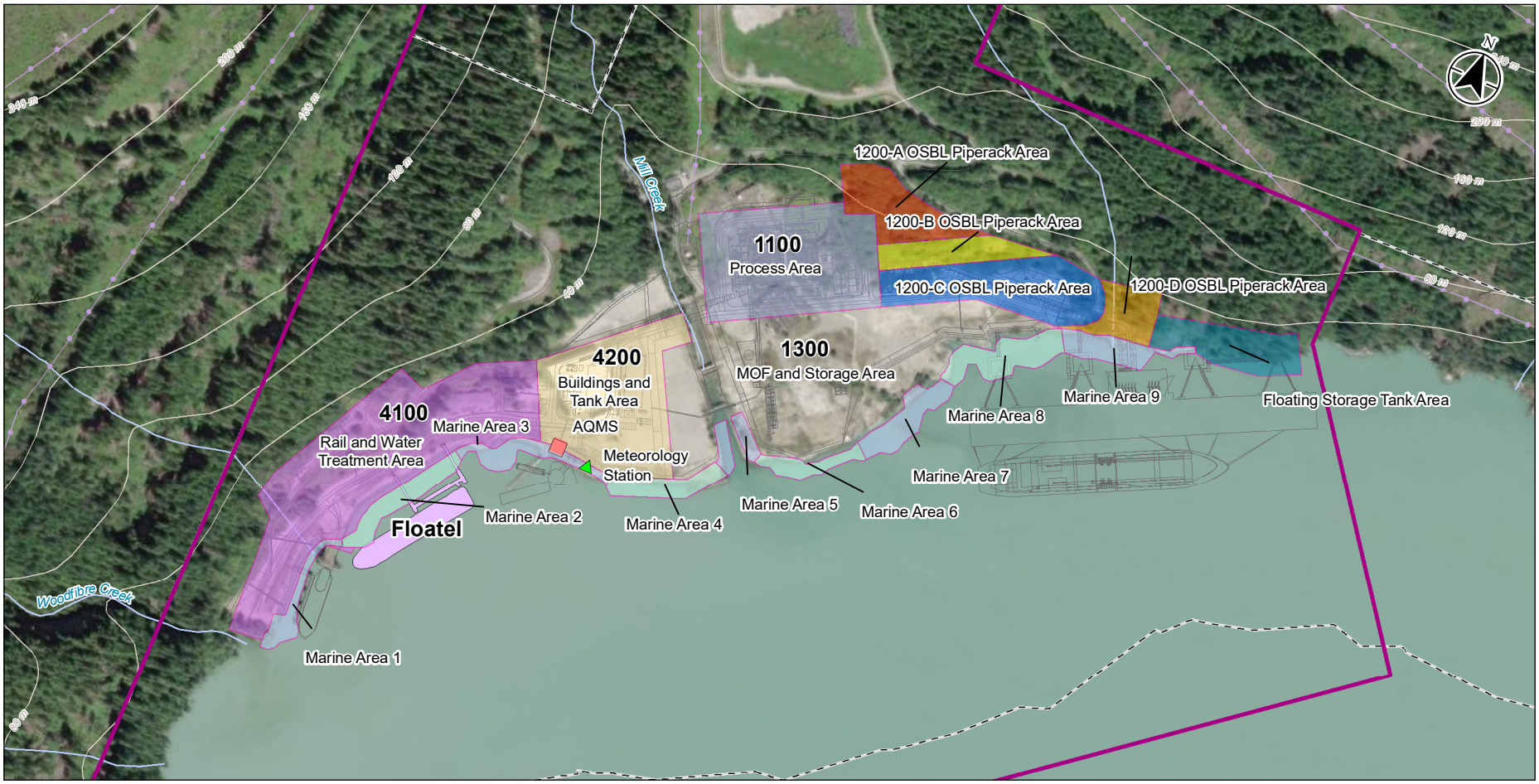
Acronyms / Abbreviations

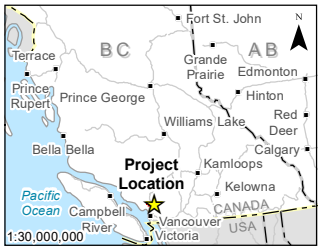
AGAT	AGAT Laboratories
AQMS	Air Quality Monitoring Station
AQO	British Columbia Air Quality Objective(s)
BC	British Columbia
BC ENV	British Columbia Ministry of Environment and Parks
CAAQS	Canadian Ambient Air Quality Standard(s)
CCME	Canadian Council of Ministers of the Environment
EAO	British Columbia 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
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
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 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 address regulatory compliance conditions issued by the Environmental Assessment Office (EAO) on November 1, 2023, as part of Amendment #3 (EAO, 2023), including Condition 30, which pertains specifically to Floatel air quality monitoring. The monitoring is intended to demonstrate compliance with 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). Woodfibre LNG contracts AGAT Laboratories (AGAT) to provide an air quality monitoring station (AQMS) rental, including installation, operation and quarterly maintenance and calibration services. The AQMS continuously measures $PM_{2.5}$, PM_{10}, TSP, and NO_2 concentrations, along with passive sampling and analysis for SO_2 and VOCs. Stantec performs data processing, quality assurance, and quality control (QA/QC) of the air quality monitoring equipment, 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 ENV, 2020).

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 Woodfibre LNG site as recommended in the FAQMMP. Figure 1.1 provides a map of the Woodfibre LNG site. This November 2024 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 supports regulatory compliance. These monthly reports track 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

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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) meteorological 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 WLNG Meteorology Station. This meteorology data supports the long-term ambient air quality monitoring collected at the site. 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, excluding pressure and relative humidity.

Table 2.1 Parameters Measured at the WLNG Meteorological 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

- Sulfur 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 ENV, 2021) regulatory criteria, are presented in Table 2.2 and Table 2.3, respectively.

Table 2.2 Summary of Current and 2025 Canadian Ambient Air Quality Standards for the Contaminants of Potential Concern (CCME, 2024)

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 (BC ENV, 2021)

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 ENV, 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

Woodfibre LNG contracts AGAT for the rental, operation and quarterly servicing of the AQMS. The station is currently being operated by AGAT to measure the ambient concentrations of the air contaminants mentioned above. The quarterly maintenance and calibration were completed by AGAT on November 26–27, 2024 (Appendix C). As part of this work, AGAT replaced the BAM $PM_{2.5}$ unit on November 27, 2024, as it could not collect valid data between November 15 and November 28 due to a flow controller malfunction and instrument setting. The Stantec Air Quality Engineer replaced the existing wind monitor at the WLNG Meteorology Station with a new RM Young model 05305-10A AQ wind monitor (Serial No. WM209007) and updated the Campbell Scientific datalogger program on November 28, 2024.

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

Table 3.1 Summary of Instrumentation used at the WLNG 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 ENV, 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 ENV, 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, and b) meteorology data acquired from the Woodfibre LNG Meteorology Station. The daily air quality and meteorological data are included in Appendix B, Table B.1 and 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 November 2024 is presented in Appendix A, Figure A.1 to Figure A.5, along with the corresponding regulatory criteria and comparisons with Langdale (BC ENV, 2024a) and Squamish (BC ENV, 2024b) regional air quality monitoring stations. Langdale and Squamish were selected as reference points due to their relative proximity to the WLNG construction site and the availability of relevant air quality data. BC ENV 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 ENV air quality monitoring stations 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 ENV 2021).

During November 2024, the hourly $PM_{2.5}$ concentrations ranged from 1 to 37 µg/m³, the hourly PM_{10} concentrations ranged from 1 to 206 µg/m³, the hourly TSP concentrations ranged from 11 to 424 µg/m³, and the hourly NO_2 concentrations ranged from 0 to 20.6 ppb. The hourly results for the NO_2 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 November 2024 is presented Table E.1 and in Appendix A, Figure A.6 to Figure A.10, with corresponding regulatory criteria and comparisons with Langdale and Squamish regional air quality monitoring stations. It is important to note that BAM $PM_{2.5}$ unit could not collect valid data between November 15 and November 28 due to a flow controller malfunction. 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 ENV 2021).

During November 2024, 24-hour average concentrations of $PM_{2.5}$ ranged from 5 to 17 µg/m³, 24-hour average concentrations of PM_{10} ranged from 8 to 47 µg/m³, 24-hour average concentrations of TSP ranged from 16 to 105 µg/m³, and 24-hour average concentrations of NO_2 ranged from 1.0 to 9.0 ppb.

The 24-hour average $PM_{2.5}$ and PM_{10} concentrations recorded at the WLNG AQMS site were generally higher than those observed at the regional air quality monitoring stations in Langdale and Squamish, which is expected given the proximity of the AQMS site to active construction activities. In contrast, NO_2 concentrations were similar to those at the regional air quality monitoring stations, indicating minimal impact from site-specific emissions on the ambient NO_2 concentrations.

A summary of the 24-hour average $PM_{2.5}$, PM_{10}, TSP and NO_2 concentrations in November 2024 is presented in 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 any contaminant. Additionally, no complaints were received from the Floatel residents during November 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

Passive samples for SO_2 and total VOCs were first installed on September 1, 2024; however, due to shipping, receiving, and logistical issues, the samples could not be swapped or submitted to AGAT for analysis until November 7, 2024. This report includes the results for samples collected between September 1 and November 7, 2024, and those collected for the exposure period from November 7 to December 2, 2024. The laboratory analysis reports are presented in Appendix D.

The results for SO_2 and VOC samples collected between September 1 and November 7, 2024, show an ambient average SO_2 concentration of 0.2 ppb and an ambient average VOC concentration of 0.8 ppb. For samples collected during the exposure period from November 7 to December 2, 2024, the ambient average SO_2 and VOC concentration were <0.2 ppb and <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, with Squamish Elementary recording 0.6 ppb, 0.6 ppb, and 0.1 ppb in September, October, and November 2024, respectively. Langdale Elementary recorded 0.8 ppb, 1.1 ppb, and 0.7 ppb during September, October, and November 2024, respectively. These concentrations are generally higher than those measured at the AQMS, particularly during November when the AQMS recorded <0.2 ppb.

4.3 Meteorology

A summary of the meteorology conditions in November 2024 is presented in Appendix B, Table B.2. Daily average and maximum wind speeds are shown in Figure A.11. The highest hourly wind speed was recorded on November 11, 2024, at 09:00 (12.2 m/s), and the highest 24-hour average wind speed occurred on November 4 (2.0 m/s). Figure A.12 presents a wind rose illustrating wind direction and speed for November 2024 at the WLNG Meteorological Station. The prevailing wind direction is from the northwest. Additionally, Figure A.13 includes four wind roses capturing specific time intervals: between 3:00 and 8:00 hours, 9:00 and 12:00 hours, 13:00 and 19:00 hours, and 20:00 and 02:00 hours throughout November 2024.

The daily ambient temperature data is presented in Figure A.14. The maximum hourly temperature of 11.9°C was recorded on November 8, 2024, at 16:00, while the minimum hourly temperature of 0.02°C occurred on November 26, 2024, at 07:00. The monthly average temperature for November 2024 was 5.8°C

The daily and total monthly rainfall data, presented in Figure A.15 and Appendix B, Table B.2, show that the highest single-day rainfall of 60.4 mm occurred on November 13, 2024. The total rainfall for November 2024 was 316.0 mm.

5 Summary of Ambient Air Quality Monitoring Results

The ambient air quality monitoring results for November 2024 indicate that $PM_{2.5}$, PM_{10}, and TSP concentrations remained less than the BC Air Quality Objective threshold values, with no exceedances recorded. The measured nitrogen dioxide (NO_2) concentrations were less than the regulatory limits. The meteorology data, including wind speed, temperature, and rainfall, supported accurate interpretation of air quality trends. No complaints from the Floatel residents were received that required further investigation or mitigation plan during November 2024.

6 References

BC ENV. (2020). *The British Columbia Field Sampling Manual: Part B: Air and Air Emissions Testing.* Retrieved November 21, 2024, from Government of British Columbia: Ministry of Environment and Climate Change Strategy (BC ENV): 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

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Appendices

Appendix A Figures

Figure A.1 Hourly PM Concentrations Recorded at the AQMS for November 2024

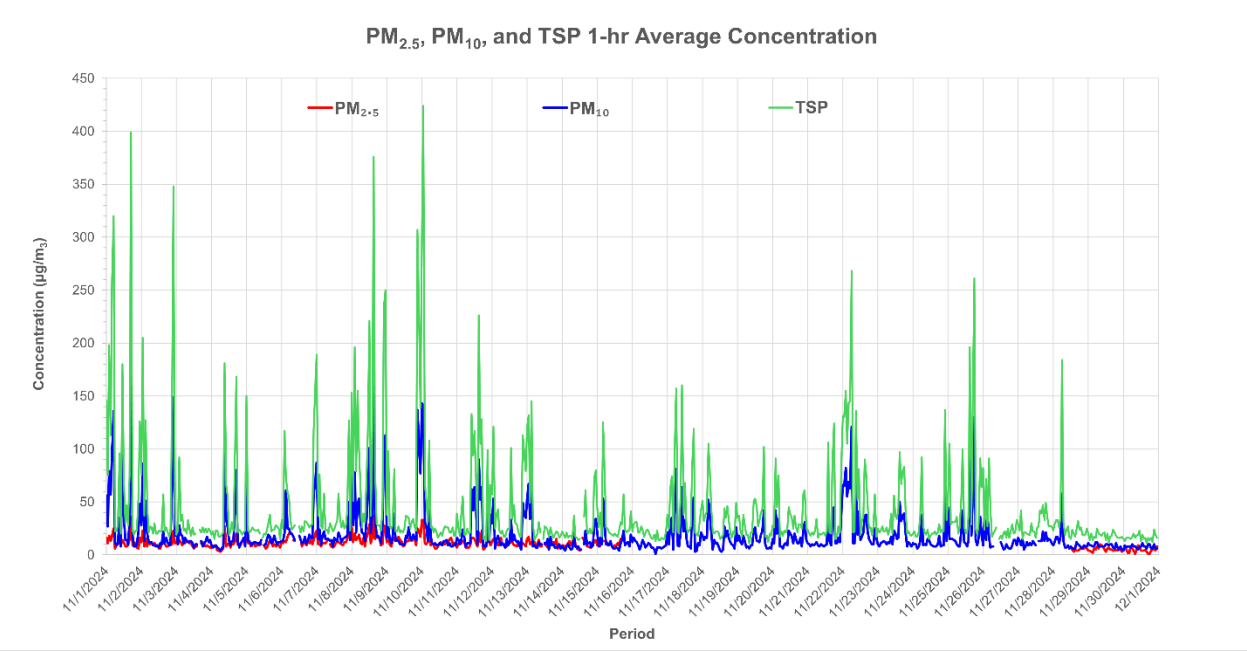


Figure A.2 Hourly $PM_{2.5}$ Concentrations Recorded at the AQMS and at Langdale and Squamish Regional Air Quality Stations for November 2024

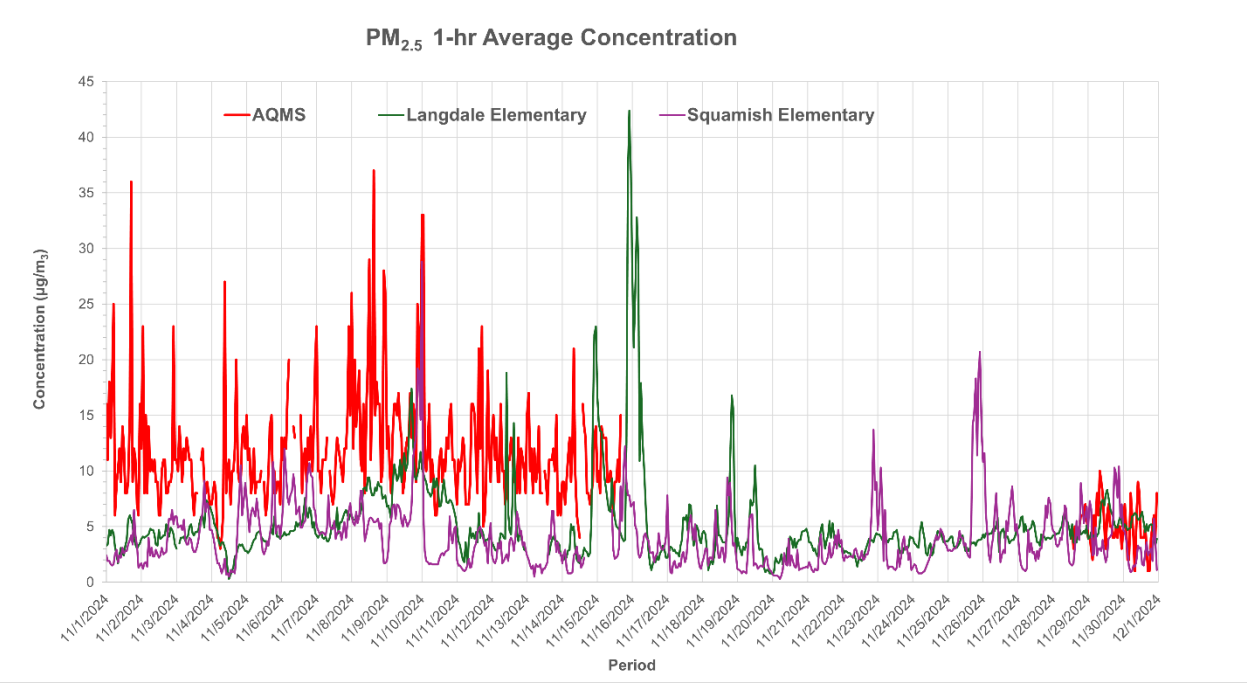


Figure A.3 Hourly PM_{10} Concentrations Recorded at the AQMS and at Langdale Regional Air Quality Station for November 2024

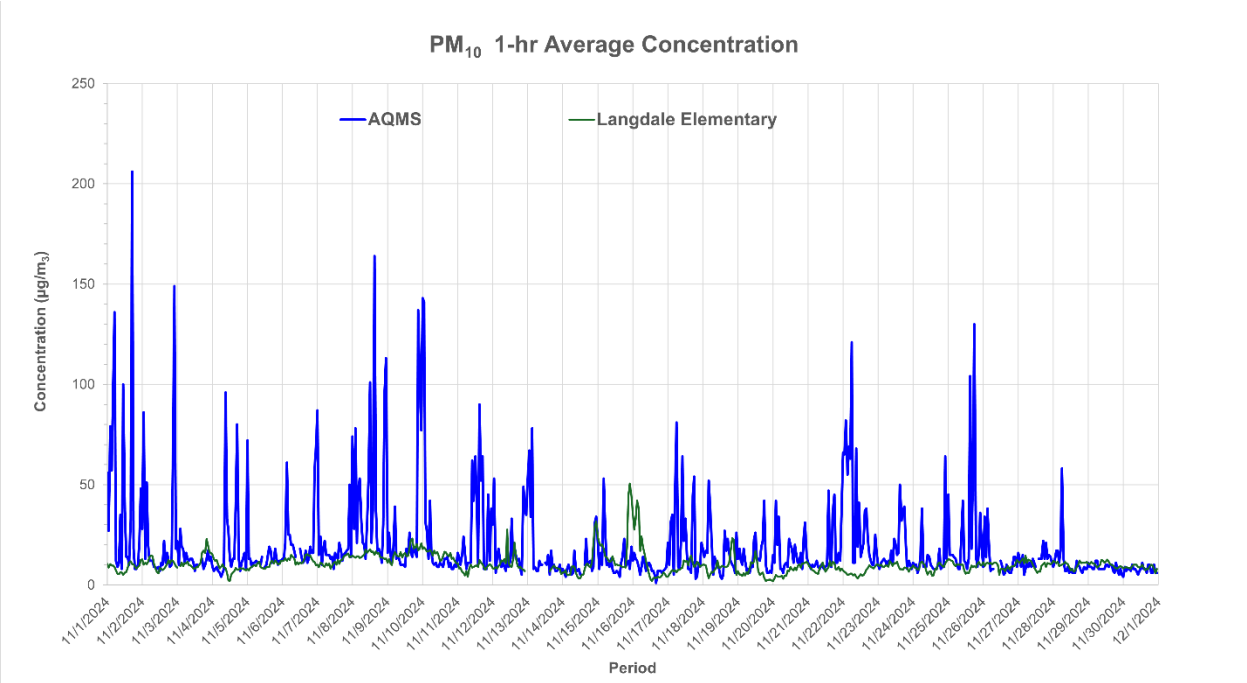


Figure A.4 Hourly TSP Concentrations Recorded at the AQMS for November 2024

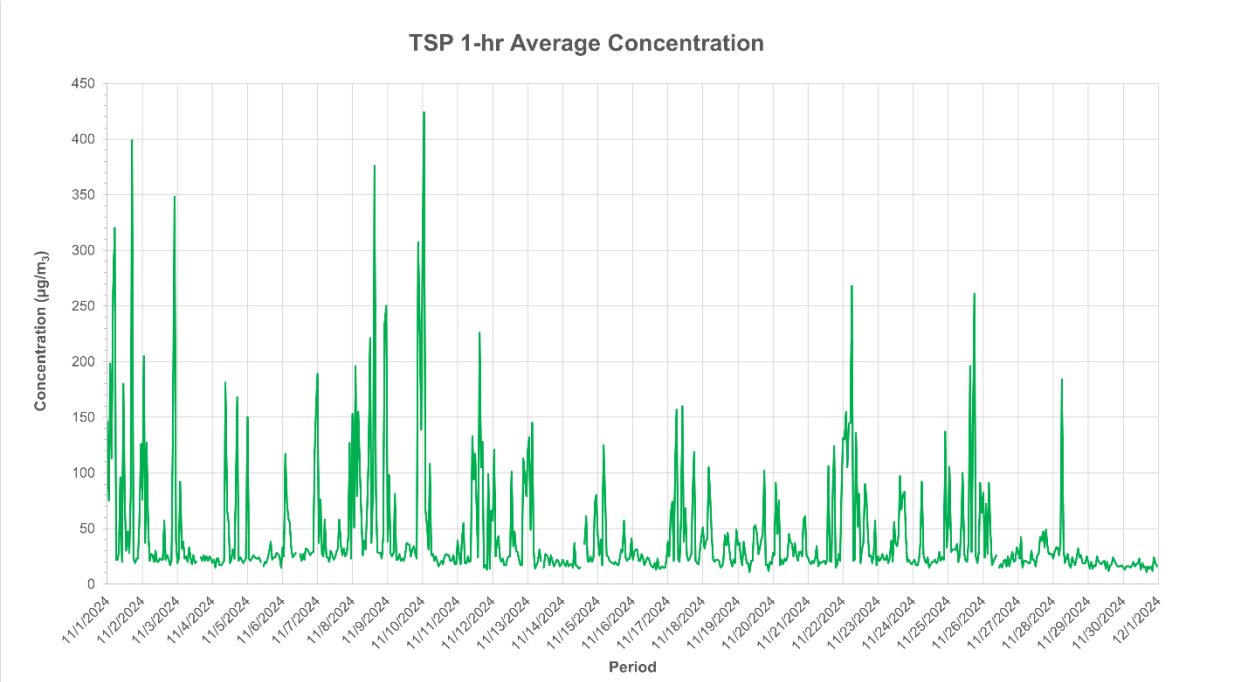


Figure A.5 Hourly NO_2 Concentrations Recorded at the AQMS and at the Langdale and Squamish Regional Air Quality Stations for November 2024

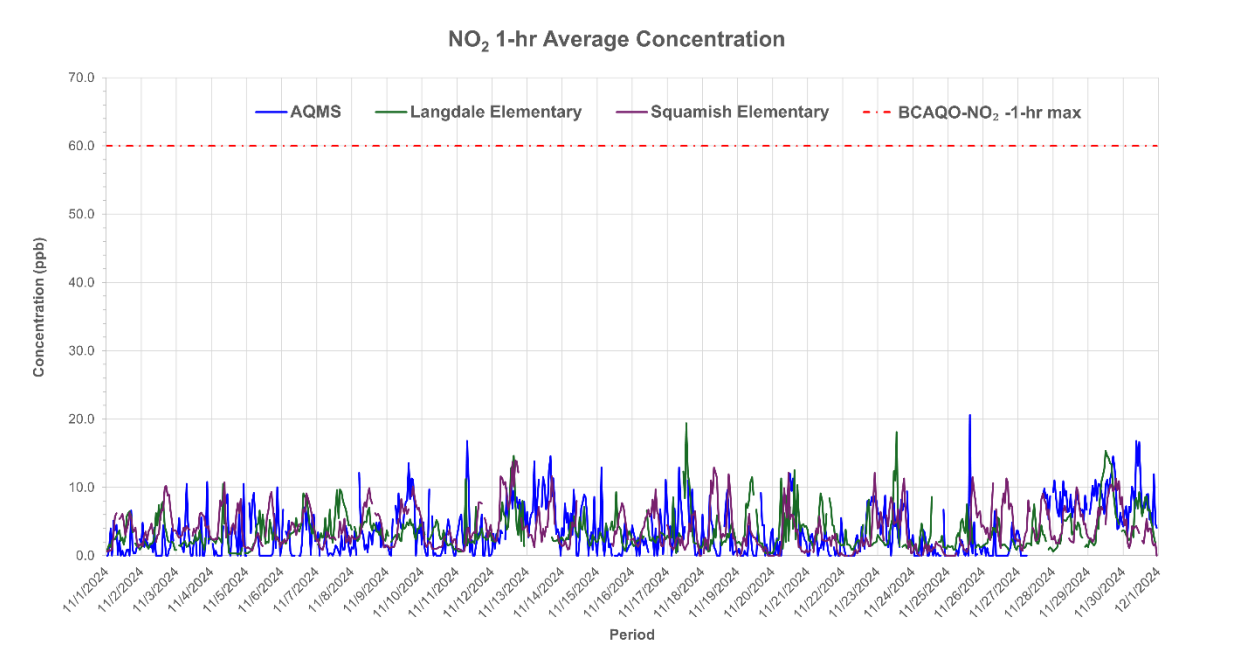


Figure A.6 24-Hour Average PM Concentrations Recorded at the AQMS for November 2024

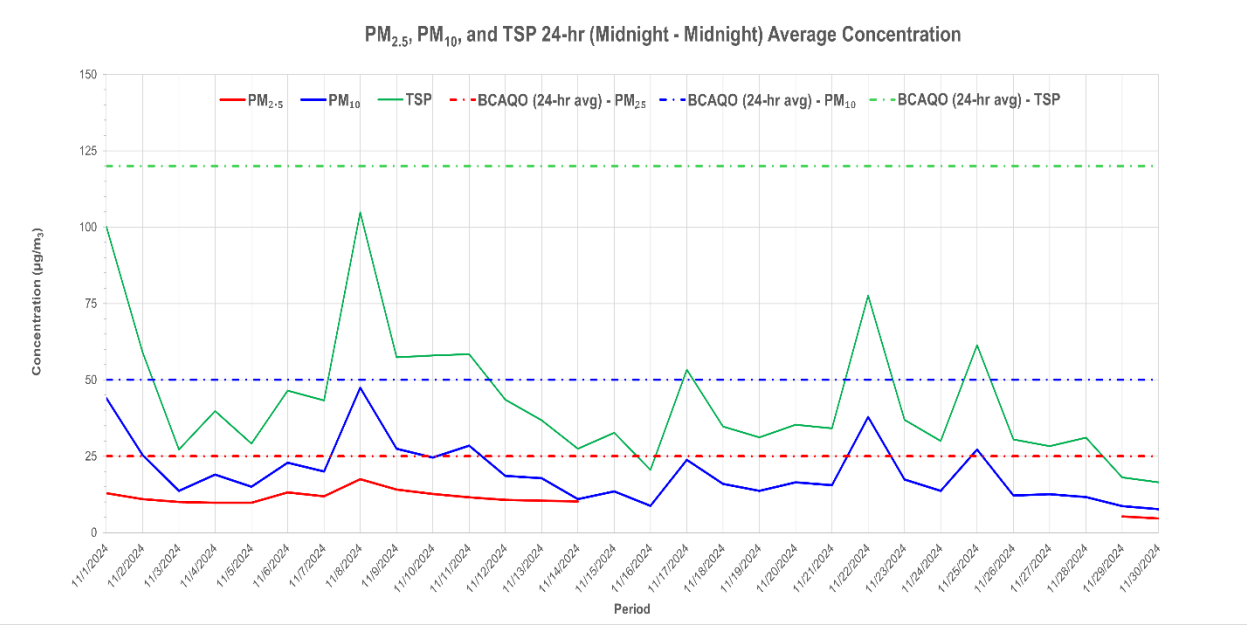


Figure A.7 24-Hour Average $PM_{2.5}$ Concentrations Recorded at the AQMS and at the Langdale and Squamish Regional Air Quality Stations for November 2024

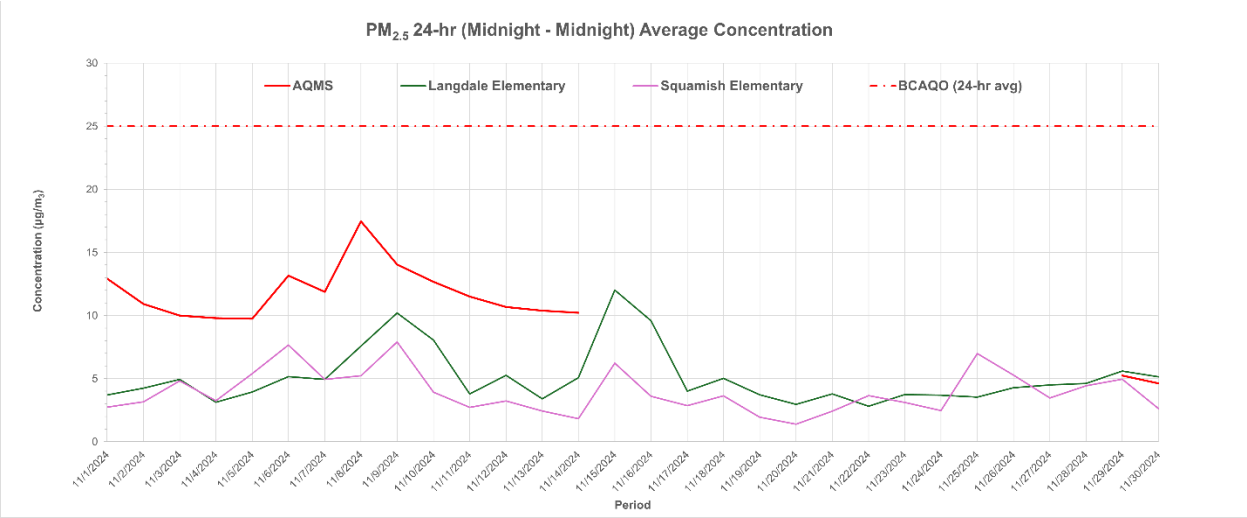


Figure A.8 24-Hour Average PM_{10} Concentrations Recorded at the AQMS and at the Langdale Regional Air Quality Station for November 2024

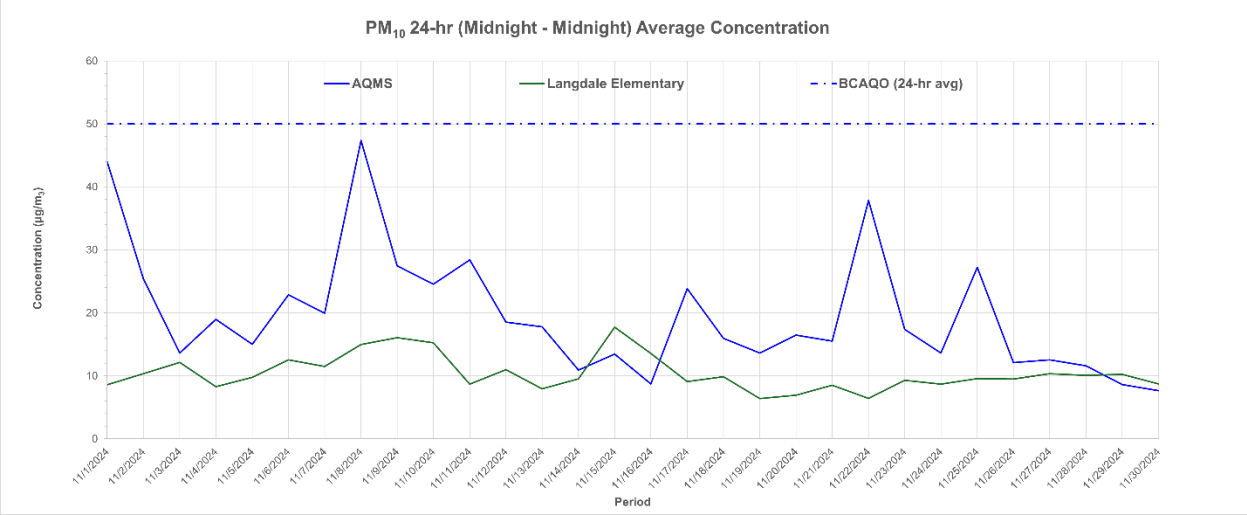


Figure A.9 24-Hour Average TSP Concentrations Recorded at the AQMS for November 2024

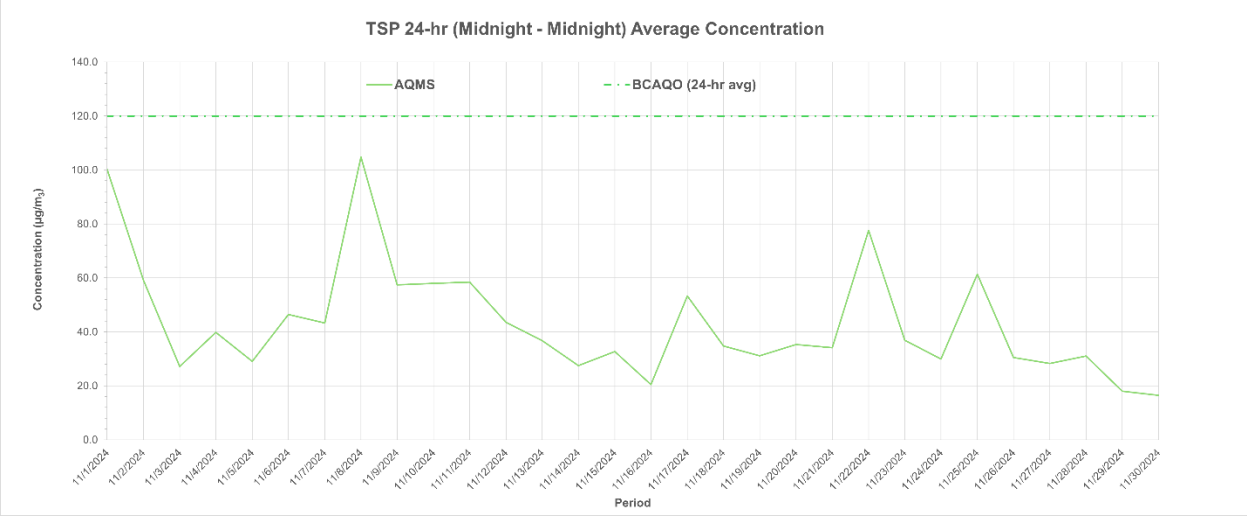


Figure A.10 24-Hour Average NO_2 Concentrations Recorded at the AQMS and at the Langdale and Squamish Regional Air Quality Stations for November 2024

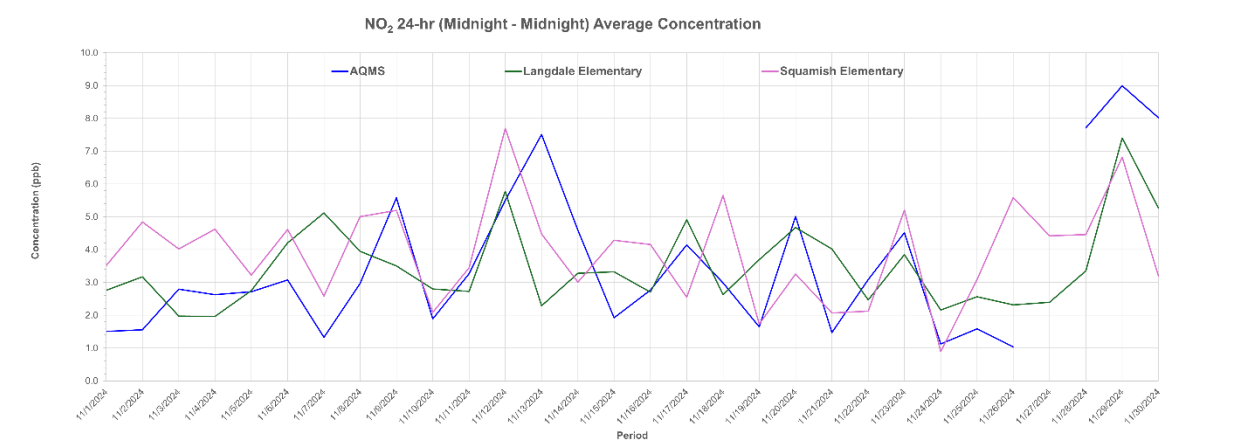


Figure A.11 Daily Average and Maximum Wind Speed Recorded at the Woodfibre LNG Meteorology Station for November 2024

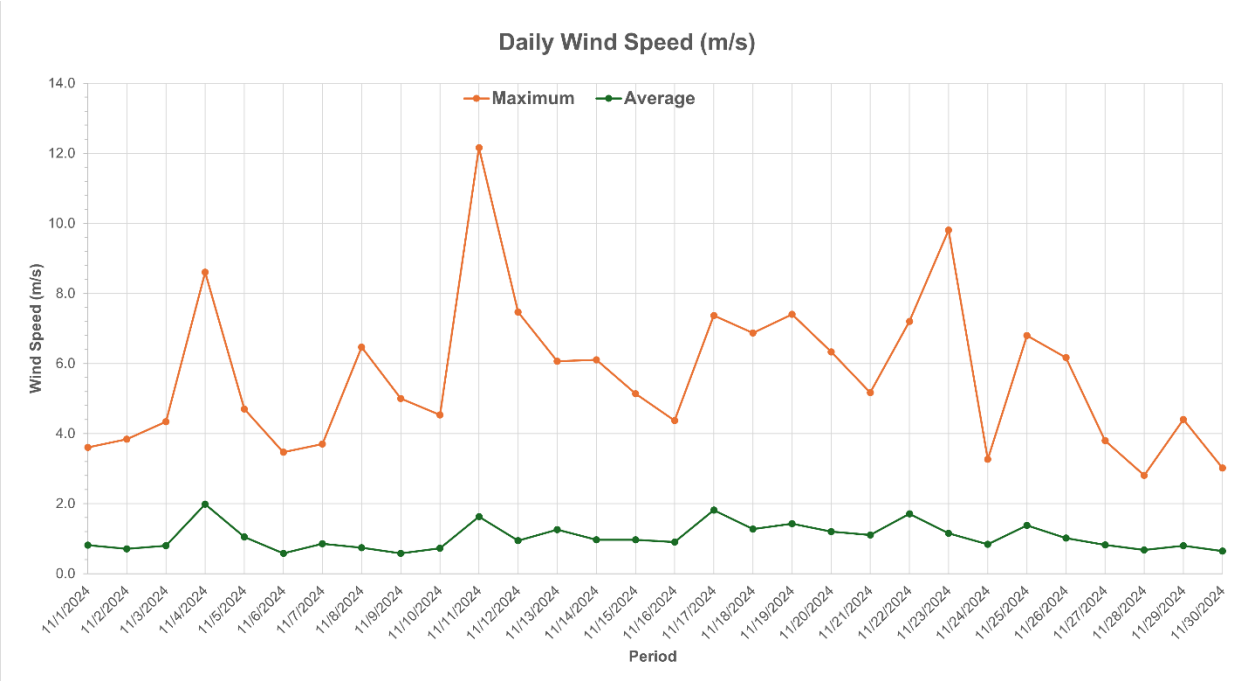


Figure A.12 Windrose for Woodfibre LNG Meteorology Station for November 2024

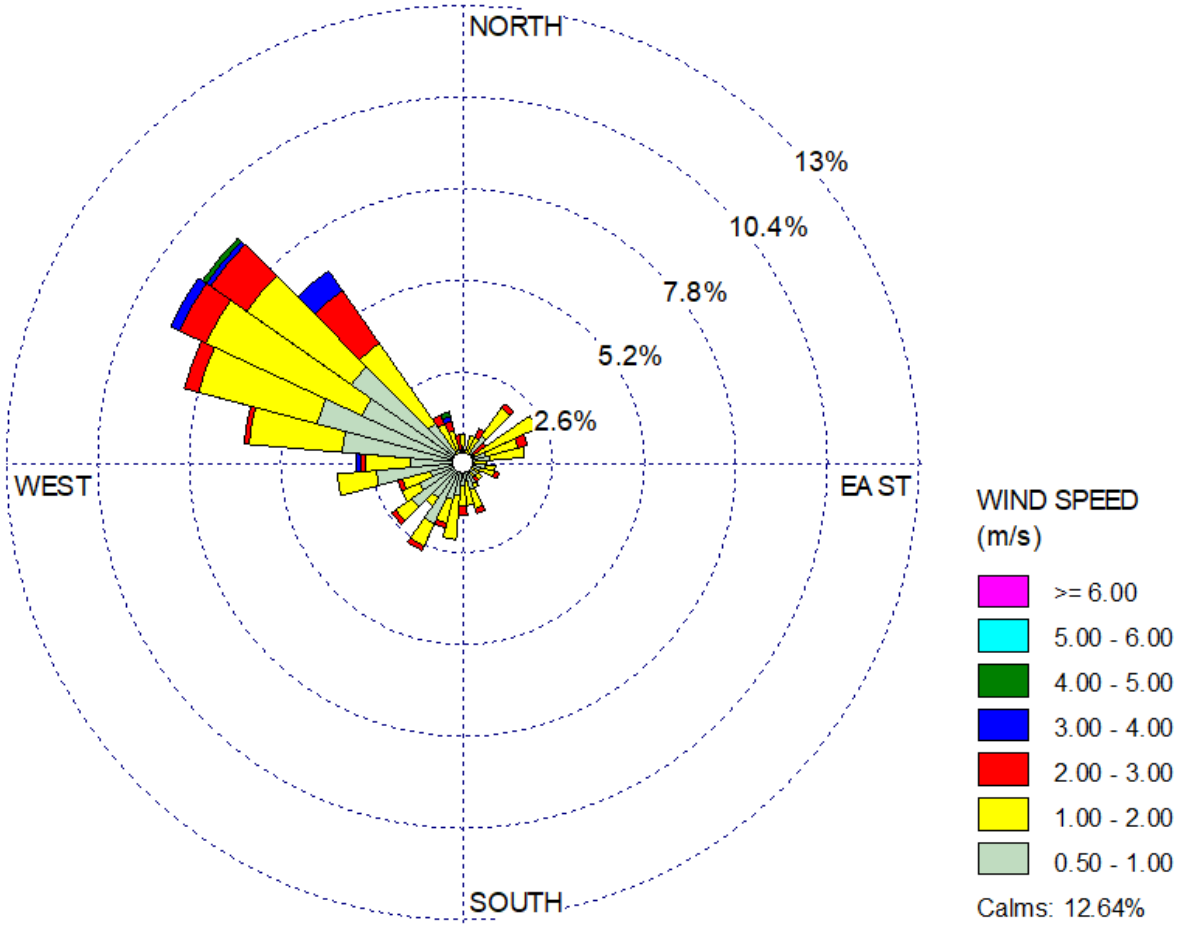


Figure A.13 Windrose for Woodfibre LNG Meteorology Station for Time Periods Hours 3 - 8, 9 - 12, 13 - 19, and 20 - 2 for November 2024

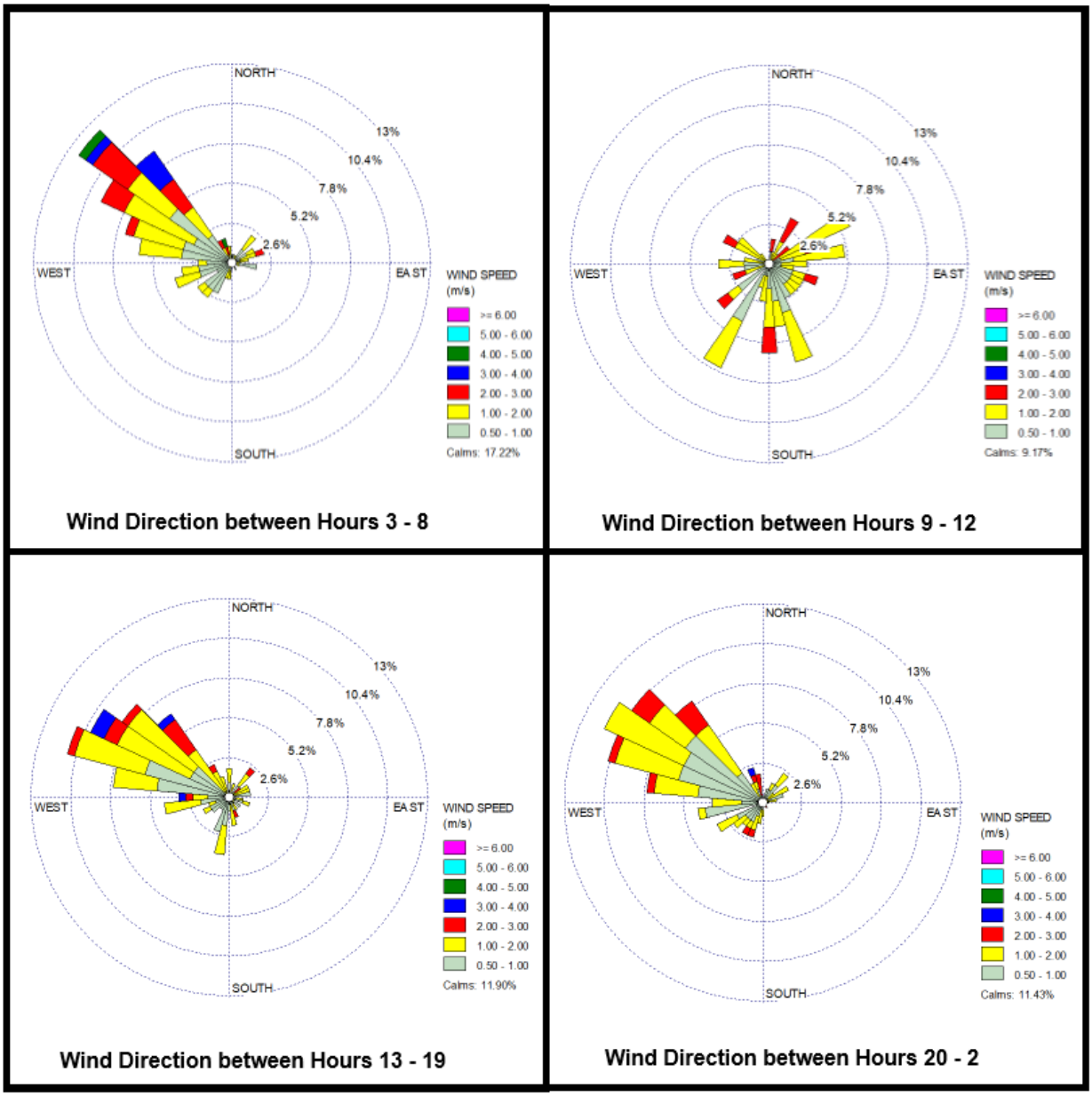


Figure A.14 Daily Average, Minimum, and Maximum Air Temperature Recorded at the Woodfibre LNG Meteorology Station for November 2024

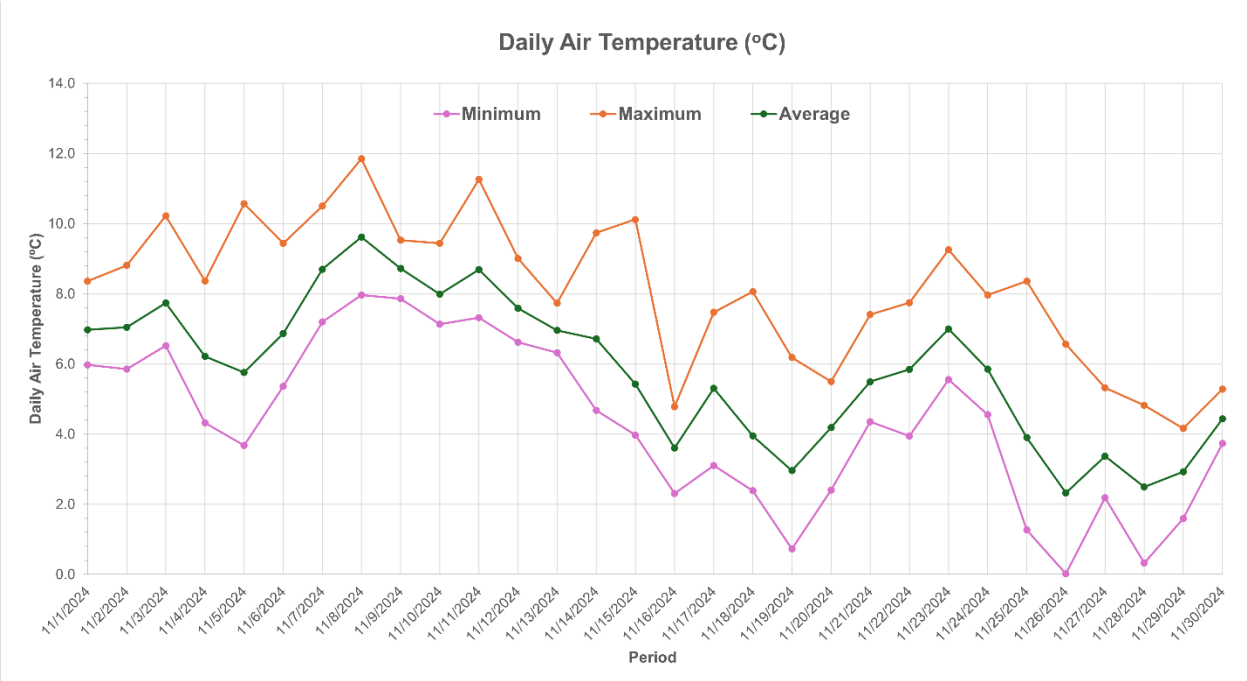
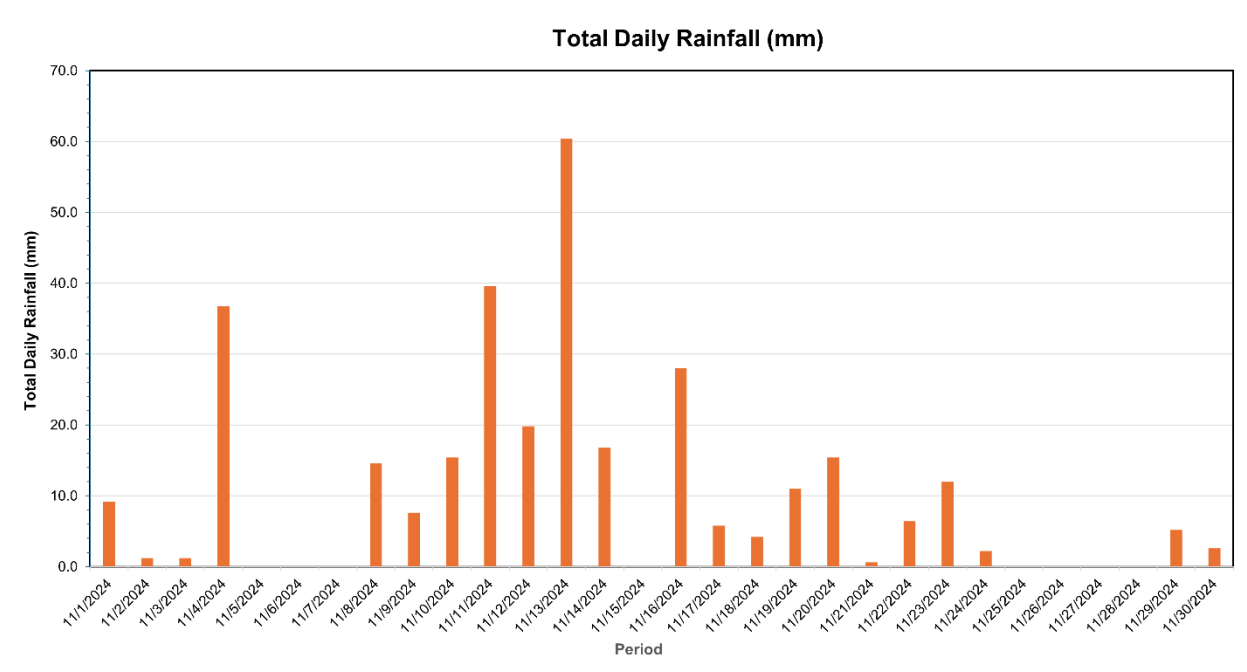


Figure A.15 Daily Rainfall Recorded at the Woodfibre LNG Meteorology Station for November 2024



Appendix B Data Tables

Table B.1 Daily $PM_{2.5}$, PM_{10}, TSP, and NO_2 Concentrations Recorded at the AQMS for November 2024

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
11/1/2024	13	44	100	1.5	6.6
11/2/2024	11	25	59	1.6	4.8
11/3/2024	10	14	27	2.8	10.8
11/4/2024	10	19	40	2.6	10.5
11/5/2024	10	15	29	2.7	10.0
11/6/2024	13	23	46	3.1	7.1
11/7/2024	12	20	43	1.3	4.3
11/8/2024	17	47	105	3.0	12.1
11/9/2024	14	27	57	5.6	13.5
11/10/2024	13	25	58	1.9	9.7
11/11/2024	12	28	58	3.3	16.8
11/12/2024	11	19	44	5.5	11.2
11/13/2024	10	18	37	7.5	14.6
11/14/2024	10	11	27	4.6	9.7
11/15/2024	–	13	33	1.9	12.9
11/16/2024	–	9	20	2.8	11.1
11/17/2024	–	24	53	4.1	12.9
11/18/2024	–	16	35	3.0	9.6
11/19/2024	–	14	31	1.6	9.2
11/20/2024	–	16	35	5.0	12.0
11/21/2024	–	16	34	1.5	5.5
11/22/2024	–	38	78	3.1	8.7
11/23/2024	–	17	37	4.5	9.4
11/24/2024	–	14	30	1.1	6.7
11/25/2024	–	27	61	1.6	20.6
11/26/2024	–	12	30	1.0	6.5
11/27/2024	–	13	28	–	–

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
11/28/2024	–	12	31	7.7	11.0
11/29/2024	5	9	18	9.0	14.5
11/30/2024	5	8	16	8.0	16.8

Table B.2 Daily Wind Speed, Air Temperature, and Rainfall Recorded at the Woodfibre LNG Meteorology Station for November 2024

Date	Daily Wind Speed (m/s)		Daily Air Temperature (°C)			Daily Total Rainfall (mm)
	Max	Avg	Min	Max	Avg	
11/1/2024	3.6	0.8	6.0	8.4	7.0	9.2
11/2/2024	3.8	0.7	5.9	8.8	7.0	1.2
11/3/2024	4.3	0.8	6.5	10.2	7.7	1.2
11/4/2024	8.6	2.0	4.3	8.4	6.2	36.8
11/5/2024	4.7	1.0	3.7	10.6	5.8	0.0
11/6/2024	3.5	0.6	5.4	9.4	6.9	0.0
11/7/2024	3.7	0.9	7.2	10.5	8.7	0.0
11/8/2024	6.5	0.7	8.0	11.9	9.6	14.6
11/9/2024	5.0	0.6	7.9	9.5	8.7	7.6
11/10/2024	4.5	0.7	7.1	9.4	8.0	15.4
11/11/2024	12.2	1.6	7.3	11.3	8.7	39.6
11/12/2024	7.5	0.9	6.6	9.0	7.6	19.8
11/13/2024	6.1	1.3	6.3	7.7	7.0	60.4
11/14/2024	6.1	1.0	4.7	9.7	6.7	16.8
11/15/2024	5.1	1.0	4.0	10.1	5.4	0.0
11/16/2024	4.4	0.9	2.3	4.8	3.6	28
11/17/2024	7.4	1.8	3.1	7.5	5.3	5.8
11/18/2024	6.9	1.3	2.4	8.1	3.9	4.2
11/19/2024	7.4	1.4	0.7	6.2	3.0	11.0
11/20/2024	6.3	1.2	2.4	5.5	4.2	15.4

Date	Daily Wind Speed (m/s)		Daily Air Temperature (°C)			Daily Total Rainfall (mm)
	Max	Avg	Min	Max	Avg	
11/21/2024	5.2	1.1	4.4	7.4	5.5	0.6
11/22/2024	7.2	1.7	3.9	7.7	5.8	6.4
11/23/2024	9.8	1.1	5.6	9.3	7.0	12.0
11/24/2024	3.3	0.8	4.6	8.0	5.9	2.2
11/25/2024	6.8	1.4	1.3	8.4	3.9	0.0
11/26/2024	6.2	1.0	0.0	6.6	2.3	0.0
11/27/2024	3.8	0.8	2.2	5.3	3.4	0.0
11/28/2024	2.8	0.7	0.3	4.8	2.5	0.0
11/29/2024	4.4	0.8	1.6	4.2	2.9	5.2
11/30/2024	3.0	0.6	3.7	5.3	4.4	2.6

Appendix C Station Calibration and Maintenance Record

AGAT Laboratories

$PM_{2.5}$ Audit

Date:	November 27, 2024
Client:	Woodfibre LNG
Location:	Woodfibre, BC
Coordinates:	
Technician:	Brad Moyles
Method:	Beta Attenuation Mass Monitor
Make:	Met One
Model:	BAM 1020
Serial number:	A12387
Parameter:	PM2.5
Operating Range:	1000 ug/m^3
Start Time:	14:00
Finish Time:	15:00

Diagnostics

Flow Rate:	16.73	L/min
Ambient Temperature:	5.7	°C
Barometric Pressure:	771	mmHg
Tape Pressure:	767	mmHg
Filter Relative Humidity:	22	%
Filter Temperature:	24.8	°C
Smart Inlet Heater Status:	OK	
Measurement Cycle Time:	60 Minutes	
Background Zero:	86%	
Range Offset:		

Audit Reference Instruments

Make/Model	Serial Number	Date Last Calibrated
TriCal Flow Device	188	3/28/2024
CNX +3000 Fluke	2445002	3/21/2024

Flow Check and Flow Calibration

Sample Flow	Target	Actual (Reference Standard)	Error (%)
As Found Flow/Leak Check	**<1.0**	0.50	
Check 1	**15.0**	15.41	2.66%
Check 2	**18.4**	18.44	0.22%
Check 3	**16.7**	16.72	0.12%

Ambient Temperature:	**°C**	**Ambient Pressure:**	**mmHg**
Ambient Temperature (Reference)	5.7	Ambient Pressure (Reference)	771
Ambient Temperature (Analyzer)	5.7	Ambient Pressure (Analyzer)	771
filter RH:	**%**	**Membrane ABS:**	
Ambient Humidity (Reference)	22	ABS Value (Factory Setting)	0.855
Ambient Humidity (Analyzer)	22	ABS Value (Analyzer)	0.855

Audit Criteria:

Leak Check:	**0.50**	**PASS**
Sample Flow:	**16.68**	**PASS**
Ambient Temperature:	**0.00%**	**PASS**
Ambient Pressure:	**0.00%**	**PASS**
Ambient RH Error:	**0.00%**	**PASS**
Membrane ABS:	**0.00%**	**PASS**

Notes:

Audit Results: **PASS**

AGAT Laboratories

$PM_{2.5}$ 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	11/27/2024	2/28/2025
Leak check	2 Months	Y	11/27/2024	2/28/2025
Flow system check	2 Months	Y	11/27/2024	2/28/2025
Clean capstan shaft and pinch roller	2 Months	Y	11/27/2024	2/28/2025
Clean inlet and cyclone particle trap	2 Months	Y	11/27/2024	2/28/2025
Download and save digital data and error log	2 Months	Y	11/27/2024	2/28/2025
Compare digital data to analog data	2 Months	Y	11/27/2024	2/28/2025
Check and set clock	2 Months	Y	11/27/2024	2/28/2025
Replace filter tape	2 Months	N		2/28/2025
Run SELF TEST	2 Months	Y	11/27/2024	2/28/2025
Download and verify settings file	2 Months	Y	11/27/2024	2/28/2025
Flow system audit and calibration	2 Months	Y	11/27/2024	2/28/2025
Completely disassemble and clean inlet and cyclone	2 Months	Y	11/27/2024	2/28/2025
Ambient pressure, temperature and RH audit and calibration	2 Months	Y	11/27/2024	2/28/2025
Replace or clean pump muffler	12 Months	N		
Test smart heater	24 Months	N		
Perform 72-hour BKGD test	12 Months	N	8/30/2024	9/30/2025
Clean internal debris filter	12 Months	N		
Remove and check membrane span foil	12 Months	Y	11/27/2024	11/30/2024
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

PM_{10} Audit

Date:	November 26, 2024
Client:	Woodfibre LNG
Location:	Woodfibre, BC
Coordinates:	
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:	14:00
Finish Time:	15:00

Diagnostics

Flow Rate:	16.64	L/min
Ambient Temperature:	2.5	°C
Barometric Pressure:	766.5	mmHg
Tape Pressure:	766	mmHg
Filter Relative Humidity:	21	%
Filter Temperature:	24.6	°C
Smart Inlet Heater Status:	OK	
Measurement Cycle Time:	60 Minutes	
Background Zero:	1%	
Range Offset:		

Audit Reference Instruments

Make/Model	Serial Number	Date Last Calibrated
TriCal Flow Device	188	3/28/2024
CNX +3000 Fluke	2445002	3/21/2024

Flow Check and Flow Calibration

Sample Flow	Target	Actual (Reference Standard)	Error (%)
As Found Flow/Leak Check	**<1.0**	0.60	
Check 1	**15.0**	15.01	0.07%
Check 2	**18.4**	18.18	-1.21%
Check 3	**16.7**	16.51	-1.15%

Ambient Temperature:	**°C**	**Ambient Pressure:**	**mmHg**
Ambient Temperature (Reference)	2.4	Ambient Pressure (Reference)	767
Ambient Temperature (Analyzer)	2.2	Ambient Pressure (Analyzer)	766
filter RH:	**%**	**Membrane ABS:**	
Ambient Humidity (Reference)	21	ABS Value (Factory Setting)	0.805
Ambient Humidity (Analyzer)	21	ABS Value (Analyzer)	0.805

Audit Criteria:

Leak Check:	**0.60**	**PASS**
Sample Flow:	**16.70**	**PASS**
Ambient Temperature:	**9.09%**	**PASS**
Ambient Pressure:	**0.13%**	**PASS**
Ambient RH Error:	**0.00%**	**PASS**
Membrane ABS:	**0.00%**	**PASS**

Notes:

Audit Results: **PASS**

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	As needed	Y	11/27/2024	2/28/2025
Leak check	2 Months	Y	11/27/2024	2/28/2025
Flow system check	2 Months	Y	11/27/2024	2/28/2025
Clean capstan shaft and pinch roller	2 Months	Y	11/27/2024	2/28/2025
Clean inlet and cyclone particle trap	2 Months	Y	11/27/2024	2/28/2025
Download and save digital data and error log	2 Months	Y	11/27/2024	2/28/2025
Compare digital data to analog data	2 Months	Y	11/27/2024	2/28/2025
Check and set clock	2 Months	Y	11/27/2024	2/28/2025
Replace filter tape	2 Months	N		2/28/2025
Run SELF TEST	2 Months	Y	11/27/2024	2/28/2025
Download and verify settings file	2 Months	Y	11/27/2024	2/28/2025
Flow system audit and calibration	2 Months	Y	11/27/2024	2/28/2025
Completely disassemble and clean inlet and cyclone	2 Months	Y	11/27/2024	2/28/2025
Ambient pressure, temperature and RH audit and calibration	2 Months	Y	11/27/2024	2/28/2025
Replace or clean pump muffler	12 Months	N		
Test smart heater	24 Months	N		
Perform 72-hour BKGD test	12 Months	N	8/30/2024	9/30/2025
Clean internal debris filter	12 Months	N		
Remove and check membrane span foil	12 Months	Y	11/27/2024	11/30/2024
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			eLog Report		
Station	WLNG, Woodfibre, BC		Project #	24C222762	
Date	November 26-27, 2024	Time In	11:00	Time Out	13:00
Weather Conditions	Clear, 2°C		Technician	BM	

On site for AQM station quarterly calibration
Pressure check, passed
Flow calibration, passed for PM10
Flow calibration, failed for PM2.5 - Spare instrument was installed and checked again on the 27th
Leak check, passed
Ambient temperature check, passed
Shelter temperature check, passed
RH check - unable to complete as the reference probe was unavailable
BP check, passed

Cleaned sample inlets for PM2.5 and PM10

AGAT Laboratories

PM_TSP_AUDIT

Date:	November 26, 2024
Client:	Woodfibre LNG
Location:	Woodfibre, BC
Coordinates:	
Technician:	Brad Moyles
Method:	Beta Attenuation Mass Monitor
Make:	Met One
8*-.	BAM 1020
Serial number:	A12385
Parameter:	TSP
Operating Range:	1000 ug/m^3
Start Time:	11:00
Finish Time:	13:00

Diagnostics

Flow Rate:	16.7	L/min
Ambient Temperature:	5	°C
Barometric Pressure:	767	mmHg
Tape Pressure:	767	mmHg
Filter Relative Humidity:	21	%
Filter Temperature:	24	°C
Smart Inlet Heater Status:	OK	
Measurement Cycle Time:	60 Minutes	
Background Zero:	86%	
Range Offset:		

Audit Reference Instruments

Make/Model	Serial Number	Date Last Calibrated
TriCal Flow Device	188	3/28/2024
CNX +3000 Fluke	2445002	3/21/2024

Flow Check and Flow Calibration

Sample Flow	Target	Actual (Reference Standard)	Error (%)
As Found Flow/Leak Check	**<1.0**	0.30	
Check 1	**15.0**	15.17	1.12%
Check 2	**18.4**	18.61	1.13%
Check 3	**16.7**	16.92	1.30%

Ambient Temperature:	**°C**	**Ambient Pressure:**	**mmHg**
Ambient Temperature (Reference)	5	Ambient Pressure (Reference)	767
Ambient Temperature (Analyzer)	5	Ambient Pressure (Analyzer)	766
filter RH:	**%**	**Membrane ABS:**	
Ambient Humidity (Reference)	21	ABS Value (Factory Setting)	0.841
Ambient Humidity (Analyzer)	21	ABS Value (Analyzer)	0.841

Audit Criteria:

Leak Check:	**0.30**	**PASS**
Sample Flow:	**16.68**	**PASS**
Ambient Temperature:	**0.00%**	**PASS**
Ambient Pressure:	**0.13%**	**PASS**
Ambient RH Error:	**0.00%**	**PASS**
Membrane ABS:	**0.00%**	**PASS**

Notes:

Audit Results: **PASS**

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	11/26/2024	2/28/2025
Leak check	2 Months	Y	11/26/2024	2/28/2025
Flow system check	2 Months	Y	11/26/2024	2/28/2025
Clean capstan shaft and pinch roller	2 Months	Y	11/26/2024	2/28/2025
Clean inlet and cyclone particle trap	2 Months	Y	11/26/2024	2/28/2025
Download and save digital data and error log	2 Months	Y	11/26/2024	2/28/2025
Compare digital data to analog data	2 Months	Y	11/26/2024	2/28/2025
Check and set clock	2 Months	Y	11/26/2024	2/28/2025
Replace filter tape	2 Months	N		2/28/2025
Run SELF TEST	2 Months	Y	11/26/2024	2/28/2025
Download and verify settings file	2 Months	Y	11/26/2024	2/28/2025
Flow system audit and calibration	2 Months	Y	11/26/2024	2/28/2025
Completely disassemble and clean inlet and cyclone	2 Months	Y	11/26/2024	2/28/2025
Ambient pressure, temperature and RH audit and calibration	2 Months	Y	11/26/2024	2/28/2025
Replace or clean pump muffler	12 Months	N		
Test smart heater	24 Months	N		
Perform 72-hour BKGD test	12 Months	N	8/30/2024	30/9/2025
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 #	24C222762	
Date	November 26, 2024	Time In	11:00	Time Out	13:00
Weather Conditions	Clear, 2C		Technician	BM	

On site for AQM station quarterly check/calibration
Pressure check, passed
Flow calibration, passed
Leak check, passed
Ambient temperature check, passed
Shelter temperature check, passed
RH check - unable to complete as reference probe was unavailable
BP check, passed

Cleaned sample inlet

Quality System Forms

AGAT Laboratories — $NO\text{-}NO_2\text{-}NO_X$ Routine

Revision: 3.0
12/19/2024
Jgallwey

AMBIENT AIR ANALYZER CALIBRATION FORM

Instructions - Use this form to record calibration data and calculations. Choose the type of calibration using the drop down menu at the top of the sheet. Complete the site information and include equipment type and serial number (S/N). Fill in all relevant boxes and the acceptance criteria will determine if the calibration hasd passed or failed. If the calibration has failed make necessary correction and/or calibrate the instrument until the calibration passes.

Site Information

Company	Woodfibre LNG	Plant	Woodfibre LNG	Job #	24C222762
Location	Woodfibre, BC			Date	November 27, 2024
				Start Time	11:00
				End Time	15:00
				Last Cal Date:	September 3, 2024
					February 28, 2025

Calibrator & Monitor Information

Calibrator Information		Analyzer Information	
Calibrator M/M	Sabio	Analyzer M/M	42i
Calibrator S/N	08500312R	Analyzer S/N	707120758
Zero Air S/N	Zero Air Cylinder	Detection Principle	Chemiluminescence
Verification Date	16-Apr-24		

Calibration Standard

Calibration Standard	Type	ID Number	Expiry Date	NOx Conc.	NO Conc.	ppm ± 2% @ 35ºC	Tank Pressure	
NO, NOx	Cylinder	CC522261	29-Nov-25	51.33	50.84		2000	PSI

Analyzer Settings	Before Calibration	After Calibration
Concentration Range ppb	0-500 ppb	0-500 ppb
Background ppb	N/A	8.3 / 8.2
Coefficient	N/A	1.033 / 0.985
Sample Flow cc/min	N/A	0.626
Span Value NOX / NO2	N/A	374 / 388

Calibrator Flow Measurement (sccm)

Calibration Point	Average Cal Gas Flow	Total Flow	Average Dilution Air Flow
Zero	0.0	4999.0	4999.0
High (100%)	49.2	4998.0	4948.8
Middle (60%)	29.5	5000.0	4970.5
Low (30%)	18.5	5000.0	4981.5

Current Shelter Temp	19.1	ºC
Current Barometric Pressure	769	mm/hg

Calibration Data - NO_X

	Stability Start	15- Minute	12- Minute	9- Minute	6- Minute	3- Minute	Average	Calculated Stability |x| ppb
As Found Zero	9:30	1.6	1.6	1.5	2.3	1.5	1.7	0.3
As Found Span	9:50	394.0	437.0	447.0	465.0	528.0	454.2	43.7
After Zero Adjust	10:50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
After Span Adjust - 1	11:10	503.0	503.0	503.0	501.0	501.0	502.2	1.0
After Span Adjust - 2	11:30	293.0	294.0	294.0	293.0	293.0	293.4	0.5
After Span Adjust - 3	11:45	195.0	194.1	194.1	194.0	193.0	194.0	0.6

Set point	Dilution Air Flow Rate @ STP (corrected)	Calibration Gas Flow @ STP (corrected)	Calculated Conc. (Cc)	Analyzer Response	Correction Factor (Cc/Ci)	Point Error %	Slope Error (%)	Converted Data Response
As Found Zero	913	0.0	0.0	1.7	N/A	NA		1.7
As Found Span	903	9.0	505.3	454.2	1.1125	-11.2%		454.2
After Zero Adjust	913	0.0	0.0	0.0	N/A	NA		0.0
After Span Adjust - 1	903	9.0	505.3	502.2	1.0062	-0.6%	-1.2%	502.2
After Span Adjust - 2	907	5.4	302.8	293.4	1.0322	-3.2%	1.3%	293.4
After Span Adjust - 3	909	3.4	189.9	194.0	0.9788	2.1%	-4.2%	194.0

Intercept	-0.616051
Correlation Coefficient	0.999208
Slope	0.983562

Calibration Data - NO

	Stability Start	15- Minute	12- Minute	9- Minute	6- Minute	3- Minute	Average	Calculated Stability |x| ppb
As Found Zero	9:30	1.4	1.4	1.7	1.4	1.4	1.5	0.1
As Found Span	9:50	387.0	429.0	443.0	458.0	526.0	448.6	45.4
After Zero Adjust	10:50	0.0	0.0	0.1	0.0	0.1	0.0	0.0
After Span Adjust - 1	11:10	503.0	503.0	503.0	501.0	501.0	502.2	1.0
After Span Adjust - 2	11:30	293.0	294.0	294.0	294.0	293.0	293.6	0.5
After Span Adjust - 3	11:45	196.0	194.1	194.1	194.0	194.0	194.4	0.8

Set point	Dilution Air Flow Rate @ STP (corrected)	Calibration Gas Flow @ STP (corrected)	Calculated Conc. (Cc)	Analyzer Response	Correction Factor (Cc/Ci)	Point Error %	Slope Error (%)	Converted Data Response
As Found Zero	913	0.0	0.0	1.5	N/A	NA		1.5
As Found Span	903	9.0	500.5	448.6	1.1156	-11.6%		448.6
After Zero Adjust	913	0.0	0.0	0.0	N/A	NA		0.0
After Span Adjust - 1	903	9.0	500.5	502.2	0.9965	0.3%	-1.3%	502.2
After Span Adjust - 2	907	5.4	300.0	293.6	1.0216	-2.2%	1.0%	293.6
After Span Adjust - 3	909	3.4	188.1	194.4	0.9674	3.3%	-4.7%	194.4

Intercept	-0.810289
Correlation Coefficient	0.999198
Slope	0.991795

Calibration Data - NO_2

	Stability Start	15- Minute	12- Minute	9- Minute	6- Minute	3- Minute	Average	Calculated Stability |x| ppb
15 min ref	12:00	0.9	1.3	0.8	0.8	0.5	0.9	0.3
400	12:20	464.0	466.0	467.0	468.0	469.0	466.8	1.7
300	12:35	371.0	371.0	371.0	371.0	371.0	371.0	0.0
150	12:50	255.0	255.0	255.0	256.0	256.0	255.4	0.5

Set point	Nox Response	NO Response	NO2 Calculated Conc.	NO2 Analyzer Conc.	Correction Factor (Cc/Ci)	Slope Error (%)	Converted Data Response
15 Min Reference	514.0	513.0	1.0	0.9	N/A	NA	0.9
Adjusted GPT 400 O3	497.0	33.0	464.0	466.0	0.9957	-1.4%	466.8
GPT 2 (200 cc O3)	500.0	129.0	371.0	371.0	1.0000	-1.8%	371.0
GPT 3 (150 cc O3)	501.0	245.0	256.0	255.0	1.0039	-1.9%	255.4
Zero	0.0	0.0	0.0	0.0	N/A	NA	1.2

Intercept	0.656217
Correlation Coefficient	0.999976
Slope	1.015914

Converter efficiency	100%

Acceptance Criteria - From Part B1 Ambient Air Quality Monitoring BC Field Sampling Manual

1) Instrument is adjusted to give a correction factor (Ccalculated / Cindicated) as close to 1.0 as possible.

2) Each calibration point must be within ±10% of the expected criteria

3) As found calibration point must be within ±10% of the expected criteria

4) Analyzer must run within ±10% of the manufacturer's specifications

5) Slope must be ≥ 0.90 and ≤ 1.10

6) Intercept must be = 3% of full range of analyzer

7) Correlation coefficient must be = 0.9950

8) Converter efficiency 96-104%

	NOx	NO	NO_2
As Found Span vs. Expected	-11.2%	-11.6%	-1.4%
	FAIL	FAIL	PASS
After Span Adjust - 1	-1.2%	-1.3%	-1.4%
	PASS	PASS	PASS
After Span Adjust - 2	1.3%	1.0%	-1.8%
	PASS	PASS	PASS
After Span Adjust - 3	-4.2%	-4.7%	-1.9%
	PASS	PASS	PASS
Slope	0.984	0.992	1.016
	PASS	PASS	PASS
Intercept	-0.62	-0.81	0.66
	PASS	PASS	PASS
Correlation	0.999	0.999	1.000
	PASS	PASS	PASS

NOx	**According to BC MOE Guidelines this calibration has FAILED**
NO	**According to BC MOE Guidelines this calibration has FAILED**
NO2	**According to BC MOE Guidelines this calibration has PASSED**

Calibration Performed by: Brad Moyles

Comments: Routine Calibration

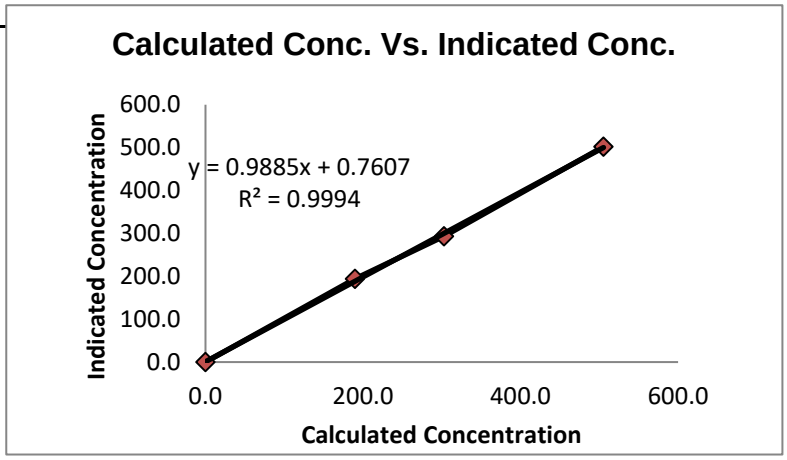
NOx - NO - NO2 Least Squares Calculations

Company: Woodfibre LNG
Date: 27-Nov-24
Analyzer: 42i
Units: ppb
Conc. Range: 0 - 500

Location: Woodfibre, BC
Job Number: 24C222762

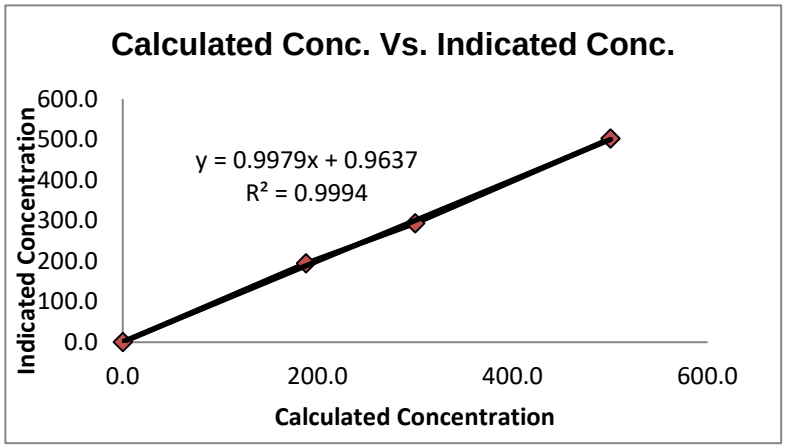
NOx	
Calculated Concentration	Converted Data Response
505.3	502.2
302.8	293.4
189.9	194.0
0.0	0.0

Slope	0.9836
Intercept	-0.6161
Correlation	0.9992



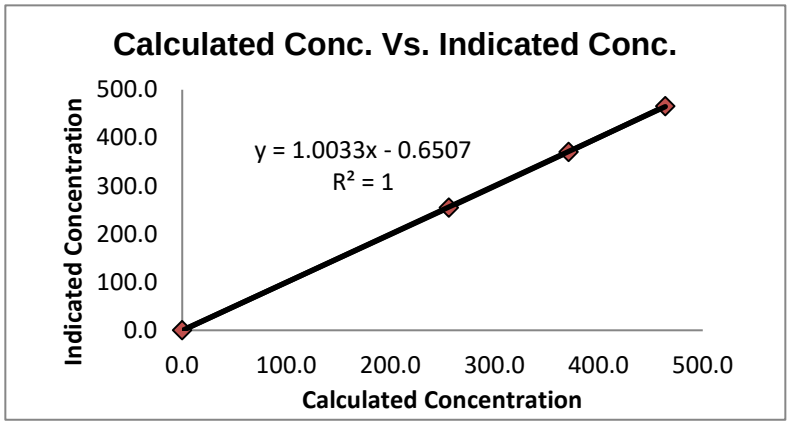
NO	
Calculated Concentration	Converted Data Response
500.5	502.2
300.0	293.6
188.1	194.4
0.0	0.0

Slope	0.9918
Intercept	-0.8103
Correlation	1.0000



NO_2	
NO Decrease	NO_2 increase
464.0	466.0
371.0	371.0
256.0	255.0
0.0	0.0

Slope	1.0159
Intercept	0.6562
Correlation	1.0000



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Analyzer Maintenance Log

Thermo Scientific 450i/43i/42i/45C/43C

Maintenance Item	Frequency Due	Completed (Y/N)	Date Last Completed	Date of Next Check/Service
In-line particulate filter changeout	Bi-Monthly	Y	11/27/2024	2/28/2025
Visual inspection and cleaning (loose connectors and fittings, cracked/clogged Teflon lines, excessive dirt and dust inside)	Bi-Monthly	Y	11/27/2024	2/28/2025
Leak test	Bi-Monthly	Y	11/27/2024	2/28/2025
Fan filter inspection and cleaning	Bi-Monthly	Y	11/27/2024	2/28/2025
Analyzer pump check (flow check) and replacement	Annually	Y		9/3/2025
Perm tube check (stability) and replacement	Annually	Y	9/3/2024	
Zero charcoal replaced	Annually	Y	9/3/2024	
SO2 scrubber beads replaced - 450i/45C ONLY	Annually			9/3/2025
Inspect and replace spent absorbent material (Drierite, silica gel) - 42i ONLY	Annually			9/3/2025

AGAT Laboratories

eLog Report

Station	Woodfibre LNG	Project #	22C222762		
Date	November 27, 2024	Time In	11:00	Time Out	15:00
Weather Conditions	Fair, 2°C	Technician On Site	BM		

LOG DETAILS

Routine Calibration	
As Founds NO, Nox	**NO2 GPT**
Ran zero, span = FAIL	**GPT As Found = PASS**
As found points dropped dramatically over 10 mins,	
showing no stability. Attempted to purge lines and	**Converter Efficiency 100%**
troubleshoot calibration setup to no avail. Contacted	
CD Nova, suggested cleaning reaction chamber.	
Completed this maintenance and points became	
stable. Proceeded with calibration	
Calibration:	
Point 1, 2, 3 = PASS	
INTERNAL Z/S	**INTERNAL Z/S**

Meteorological checks (DRDAS vs Actual)							
AT (Δ°C)	NA	ST (Δ°C)	NA	WS (Δkm/h)	1	WD	okay
Visual check	Y	Visual check	Y	Cups turning	Y	Vane free	Y
Calibrated	NA	Calibrated	NA	Calibrated	NA	Calibrated	NA

Station Checklist			
Flagged in/out of Calibration Mode	Y	Sample Lines Reconnected	Y
Manifold Flow Check	Y	Manifold Clean	Y
Replaced Sample Filters	Y	PC Fan Running	Y
UPS Systems Functioning	Y	Station Housekeeping	Y
Data Backed Up and Polling Active	Y	Monitor Off	Y
Check DR DAS Date/Time	Y	HVAC Check	Y

Appendix D Passive SO_2 and VOC Samples – Lab Analysis Report

AGAT Laboratories

3650 – 21 Street NE
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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: 24C222469

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

DATE REPORTED: Nov 29, 2024

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.*

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Air Quality Summary

AGAT WORK ORDER: 24C222469

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	0.8	0.8

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Certificate of Analysis

AGAT WORK ORDER: 24C222469

PROJECT: Woodfibre LNG

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Dan Jarratt/Kashif Choudhry

SAMPLING SITE:

SAMPLED BY:

Passive Air Quality Sampling

DATE RECEIVED: 2024-11-18

DATE REPORTED: 2024-11-29

				Site#01/ 01Sep/24,08:00 07Nov/24,10:20 /SO2,TVOC
SAMPLE DESCRIPTION:				
SAMPLE TYPE:				FILTER
DATE SAMPLED:				
Parameter	Unit	G / S	RDL	6334115
Ambient Sulfur Dioxide	ppbv		0.2	0.2
Ambient VOC as Hexane	ppbv		0.7	0.8

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

6334115 All samples are field blank subtracted.

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 24C222469

PROJECT: Woodfibre LNG

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Dan Jarratt/Kashif Choudhry

SAMPLING SITE:

SAMPLED BY:

Passive Quality Assurance

DATE RECEIVED: 2024-11-18

DATE REPORTED: 2024-11-29

Parameter	Unit	G / S	RDL	Site#01/DUP 01Sep/24,08:00 07Nov/24,10:20 /SO2,TVOC FILTER 6334116	BLANK/ 01Sep/24,08:00 07Nov/24,10:20 /SO2,TVOC FILTER 6334117
SAMPLE DESCRIPTION:					
SAMPLE TYPE:					
DATE SAMPLED:					
Ambient Sulfur Dioxide	ppbv		0.2	0.2	<0.2
Ambient VOC as Hexane	ppbv		0.7	0.8	0.7

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

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

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Quality Assurance

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 24C222469

PROJECT: Woodfibre LNG

ATTENTION TO: Dan Jarratt/Kashif Choudhry

SAMPLING SITE:

SAMPLED BY:

Air Quality Monitoring

RPT Date: Nov 29, 2024			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	245	6334116	0.2	0.2	NA	< 0.2	96%	90%	110%	98%	80%	120%	104%	80%	120%
Ambient VOC as Hexane	178	6334116	0.8	0.8	NA	0.7	102%	60%	140%	80%	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

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Method Summary

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 24C222469

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

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Calgary, AB
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Chain of Custody Record

Laboratory Use Only

AGAT Job Number:

Notes:

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	PM10	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	Sept 1, 2024 / 8AM	Nov 7, 2024 / 10:20PM			☑										
	WLNG-SO2-DUPLICATE											☑				
	WLNG-SO2-BLANK												☑			
	WLNG-VOC-AQMS	Sept 1, 2024 / 8AM	Nov 7, 2024 / 10:20PM											☑		
	WLNG-VOC-DUPLICATE														☑	
	WLNG-VOC-Blank															☑

Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time	Pink Copy - Client	Page _____ of _____
Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time	Yellow Copy - AGAT	
Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time	White Copy- AGAT	N°:

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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: 24C230990

AIR QUALITY MONITORING REVIEWED BY: Austin Bowles, Lab Technician

DATE REPORTED: Dec 30, 2024

PAGES (INCLUDING COVER): 6

VERSION*: 1

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*Notes

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Air Quality Summary

AGAT WORK ORDER: 24C230990

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

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Certificate of Analysis

AGAT WORK ORDER: 24C230990

PROJECT: Woodfibre LNG

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Dan Jarratt/Kashif Choudhry

SAMPLING SITE:

SAMPLED BY:

Passive Air Quality Sampling

DATE RECEIVED: 2024-12-09

DATE REPORTED: 2024-12-30

				Site#01/ 07Nov/24,10:25 02Dec/24,10:45
		SAMPLE DESCRIPTION:		/SO2,TVOC
		SAMPLE TYPE:		FILTER
		DATE SAMPLED:		
Parameter	Unit	G / S	RDL	6401713
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

6401713 All samples are field blank subtracted.

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 24C230990

PROJECT: Woodfibre LNG

CLIENT NAME: STANTEC CONSULTING LTD

ATTENTION TO: Dan Jarratt/Kashif Choudhry

SAMPLING SITE:

SAMPLED BY:

Passive Quality Assurance

DATE RECEIVED: 2024-12-09

DATE REPORTED: 2024-12-30

Parameter	Unit	G / S	RDL	Site#01/DUP 07Nov/24,10:25 02Dec/24,10:45 /SO2,TVOC FILTER 6401714	BLANK/ 07Nov/24,10:25 02Dec/24,10:45 /SO2,TVOC FILTER 6401715
Ambient Sulfur Dioxide	ppbv		0.2	<0.2	<0.2
Ambient VOC as Hexane	ppbv		0.7	<0.7	1.5

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

Analysis performed at AGAT Calgary (unless marked by *)

Certified By:

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Quality Assurance

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 24C230990

PROJECT: Woodfibre LNG

ATTENTION TO: Dan Jarratt/Kashif Choudhry

SAMPLING SITE:

SAMPLED BY:

Air Quality Monitoring

RPT Date: Dec 30, 2024			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	246	6401714	<0.2	<0.2	NA	< 0.2	99%	90%	110%	101%	80%	120%	104%	80%	120%
Ambient VOC as Hexane	179	6401714	<0.7	<0.7	NA	1.5	92%	60%	140%	129%	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

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Method Summary

CLIENT NAME: STANTEC CONSULTING LTD

AGAT WORK ORDER: 24C230990

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

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Laboratory Use Only

AGAT Job Number: 24C230990

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	Nov 7, 2024 10:25 PM	Dec 2, 2024 10:45 AM			☑	X2									
	WLNG-SO2-DUPLICATE ✓											☑				
	WLNG-SO2-BLANK ✓												☑			
	WLNG-VOC-AQMS	Nov 7, 2024 10:25 PM	Dec 2, 2024 10:45 AM			X2								☑		
	WLNG-VOC-DUPLICATE														☑	
	WLNG-VOC-Blank															☑

Samples Relinquished By (Print Name and Sign):	Date/Time	Samples Received By (Print Name and Sign):	Date/Time
			Dec 9, 24
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°: 120924

Date Revised: Aug 03, 2023

Appendix E Weekly AQMS Reports

WLNG AQMS - Weekly Reporting

Reporting Period

This AQMS Weekly report covers the period from October 28 to November 3, 2024.

Objective

This report summarizes the air quality monitoring data for the week of October 28 – November 3, 2024. 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 System (AQMS), and changes to the monitoring network and mitigation measures. Additionally, the documents the results of any investigations into alerts or equipment failures, detailing actions taken or plans for resolution to ensure compliance with the environmental standards and support ongoing air quality management efforts.

Summary of Onsite Air Quality and Meteorological Data Collected

This section presents four summary tables summarizing the air quality and meteorological monitoring 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
28-Oct	4	18	10.3	5	68	17.4	14	112	31.5	0.0	21.3	4.8
29-Oct	4	15	9.1	8	27	14.9	14	58	31.5	0.0	6.7	1.8
30-Oct	5	13	9.7	7	37	17.9	14	94	34.3	0.0	12.5	4.9
31-Oct	3	21	10.1	7	123	22.4	18	336	55.3	0.0	9.8	3.5
01-Nov	6	36	12.9	8	206	44.0	19	399	100.2	0.0	6.6	1.5
02-Nov	6	23	10.9	7	149	25.4	17	348	59.1	0.0	4.8	1.6
03-Nov	6	14	10.0	7	28	13.6	18	92	26.6	0.0	10.8	2.7

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	3	36	10.4	16.7 (24-hr avg)	0	0
PM_{10}	µg/m³	5	206	22.2	33.3 (24-hr avg)	1	0
TSP	µg/m³	14	399	48.4	80 (24-hr avg)	1	0
NO_2	ppb	0	21.3	3.0	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	
28-Oct	5.0	1.1	7.7	10.5	8.7	17.0
29-Oct	4.2	0.7	6.9	10.4	8.2	0.8
30-Oct	4.6	0.9	6.2	7.6	7.0	10.8
31-Oct	3.7	0.8	5.9	9.1	7.1	5.8
01-Nov	3.6	0.8	6.0	8.4	7.0	9.2
02-Nov	3.8	0.7	5.9	8.8	7.0	1.2
03-Nov	4.3	0.8	6.5	10.2	7.7	1.2

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
28-Oct to 03-Nov	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 installed on September 1, 2024; however, due to shipping/receiving issues and logistical challenges, the samples were only swapped on November 7, 2024.

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, as the template is still being prepared for the client to provide this information.

Work Activities Details:

According to the Daily Construction Reports from Oct 28 to Nov 3, construction activities include ongoing drilling, blasting, and rock breaking in areas 1100 and 1200, vibro and impact piling in Area 1300MOF, and blasted rock processing, outfall backfilling and debris removal in Area 4200, with similar operations carried out each day.

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.

WLNG AQMS - Weekly Reporting

Reporting Period

This AQMS Weekly report covers the period from November 4 to November 10, 2024.

Objective

This report summarizes the air quality monitoring data for the week of November 4 to November 10, 2024. 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 System (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 actions taken or plans for resolution to ensure compliance with environmental standards and support ongoing air quality management efforts.

Summary of Onsite Air Quality and Meteorological Data Collected

This section presents four summary tables summarizing the air quality and meteorological monitoring data. The presented 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
04-Nov	3	27	9.8	4	96	19.0	15	181	39.8	0.0	10.5	2.6
05-Nov	6	15	9.7	9	72	15.0	15	150	29.1	0.0	10.0	2.7
06-Nov	8	20	13.2	11	69	22.9	21	159	46.5	0.0	7.1	3.1
07-Nov	7	23	11.9	8	87	20.0	20	189	43.3	0.0	4.3	1.3
08-Nov	8	37	17.5	11	164	47.4	23	376	104.8	0.1	12.1	3.0
09-Nov	8	25	14.0	9	137	27.5	21	307	57.4	0.0	13.5	5.6
10-Nov	6	33	12.7	8	143	24.5	16	424	58.0	0.0	9.7	1.9

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	3	37	12.7	16.7 (24-hr avg)	1	0
PM_{10}	µg/m³	4	164	25.2	33.3 (24-hr avg)	1	0
TSP	µg/m³	15	424	54.1	80 (24-hr avg)	1	0
NO_2	ppb	0	13.5	2.9	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	
04-Nov	8.6	2.0	4.3	8.4	6.2	36.8
05-Nov	4.7	1.0	3.7	10.6	5.8	0.0
06-Nov	3.5	0.6	5.4	9.4	6.9	0.0
07-Nov	3.7	0.9	7.2	10.5	8.7	0.0
08-Nov	6.5	0.7	8.0	11.9	9.6	14.6
09-Nov	5.0	0.6	7.9	9.5	8.7	7.6
10-Nov	4.5	0.7	7.1	9.4	8.0	15.4

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
04-Nov to 10-Nov	Yes	Yes	Yes	No	Awaiting lab results

Note: The SO_2 and VOC passive samples samples were swapped on November 7, 2024.

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, as the template is still being prepared for the client to provide this information.

Work Activities Details:

According to the Daily Construction Reports from Nov 4 to Nov 10, construction activities include backfilling, grading and basting in Area 1200, vibro and impact piling in Area 1300MOF, stockpile processing in Area 4200, offloading imported material and demolishing and cleaning up at Admin Building.

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.

WLNG AQMS - Weekly Reporting

Reporting Period

This AQMS Weekly report covers the period from November 11 to November 17, 2024.

Objective

This report summarizes the air quality monitoring data for the week of November 11 to November 17, 2024. 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 System (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 actions taken or plans for resolution to ensure 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 summarizing the air quality and meteorological monitoring 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
11-Nov	5	23	11.5	8	90	28.4	13	226	58.4	0.0	16.8	3.3
12-Nov	7	16	10.7	5	53	18.5	17	121	43.5	0.4	11.2	5.5
13-Nov	6	17	10.4	5	78	17.8	14	145	36.7	0.0	14.6	7.5
14-Nov	4	21	10.2	4	34	10.9	14	80	27.5	0.0	9.7	4.6
15-Nov*	-	-	-	4	53	13.5	17	125	32.7	0.0	12.9	1.9
16-Nov*	-	-	-	1	16	8.7	13	31	20.5	0.0	11.1	2.8
17-Nov*	-	-	-	3	81	23.8	18	160	53.3	0.0	12.9	4.1

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.

* BAM $PM_{2.5}$ unit could not collect valid data between November 15 and November 17, 2024, due to a flow controller malfunction.

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	4	23	10.7	16.7 (24-hr avg)	0	0
PM_{10}	µg/m³	1	90	17.4	33.3 (24-hr avg)	0	0
TSP	µg/m³	13	226	38.9	80 (24-hr avg)	0	0
NO_2	ppb	0	16.8	4.2	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	
11-Nov	12.2	1.6	7.3	11.3	8.7	39.6
12-Nov	7.5	0.9	6.6	9.0	7.6	19.8
13-Nov	6.1	1.3	6.3	7.7	7.0	60.4
14-Nov	6.1	1.0	4.7	9.7	6.7	16.8
15-Nov	5.1	1.0	4.0	10.1	5.4	0.0
16-Nov	4.4	0.9	2.3	4.8	3.6	28.0
17-Nov	7.4	1.8	3.1	7.5	5.3	5.8

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
11-Nov to 17-Nov	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 November 7, 2024.

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, as the template is still being prepared for the client to provide this information.

Work Activities Details:

According to the Daily Construction Reports from Nov 11 to Nov 17, construction activities include ongoing drilling and blasting in areas 1100 and 1200, vibro and impact piling in Area 1300MOF, and Admin Building debris management in Area 4200 and material importing.

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, except BAM $PM_{2.5}$ unit could not collect valid data from November 15 to November 17, due to a flow controller malfunction. 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 November 18 to November 24, 2024.

Objective

This report summarizes the air quality monitoring data for the week of November 18 to November 24, 2024. 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 summarizing the air quality and meteorological monitoring 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
18-Nov	-	-	-	3	52	16.0	15	105	34.7	0.0	9.6	3.0
19-Nov	-	-	-	6	42	13.6	11	102	31.1	0.0	9.2	1.6
20-Nov	-	-	-	6	42	16.5	17	91	35.3	0.0	12.0	5.0
21-Nov	-	-	-	8	47	15.5	15	124	34.1	0.0	5.5	1.5
22-Nov	-	-	-	10	121	37.8	17	268	77.6	0.0	8.7	3.1
23-Nov	-	-	-	8	50	17.4	18	97	36.9	0.0	9.4	4.5
24-Nov	-	-	-	6	64	13.6	15	137	30.0	0.0	6.7	1.1

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.

* BAM $PM_{2.5}$ unit could not collect valid data between November 18 and November 24, 2024, due to a flow controller malfunction.

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	-	-	-	16.7 (24-hr avg)	0	0
PM_{10}	µg/m³	3	121	18.6	33.3 (24-hr avg)	1	0
TSP	µg/m³	11	268	40.0	80 (24-hr avg)	0	0
NO_2	ppb	0.0	12.0	2.8	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	
18-Nov	6.9	1.3	2.4	8.1	3.9	4.2
19-Nov	7.4	1.4	0.7	6.2	3.0	11.0
20-Nov	6.3	1.2	2.4	5.5	4.2	15.4
21-Nov	5.2	1.1	4.4	7.4	5.5	0.6
22-Nov	7.2	1.7	3.9	7.7	5.8	6.4
23-Nov	9.8	1.1	5.6	9.3	7.0	12.0
24-Nov	3.3	0.8	4.6	8.0	5.9	2.2

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
18-Nov to 24-Nov	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 November 7, 2024.

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, as the template is still being prepared for the client to provide this information.

Work Activities Details:

According to the Daily Construction Reports from Nov 18 to Nov 24, construction activities include blasting and oversize rock management in Areas 1100 and 1200, demolition in RORO, vibro and impact piling in Area 1300MOF, and stockpiling and breaking rocks across the protect.

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, except BAM $PM_{2.5}$ unit could not collect valid data due to a flow controller malfunction. 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 November 25 to December 01, 2024.

Objective

This report summarizes the air quality monitoring data for the week of November 25 to December 01, 2024. 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 ongoing air quality management efforts.

Summary of Onsite Air Quality and Meteorological Data Collected

This section presents four summary tables summarizing the air quality and meteorological monitoring 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
25-Nov*	-	-	-	8	130	27.2	19	261	61.3	0.0	20.6	1.6
26-Nov*	-	-	-	5	38	12.1	15	91	30.5	0.0	6.5	1.0
27-Nov*	-	-	-	5	22	12.5	15	49	28.3	-	-	-
28-Nov*	-	-	-	6	58	11.6	15	184	31.0	4.8	11.0	7.7
29-Nov	2	10	5.3	5	12	8.6	12	25	18.0	3.9	14.5	9.0
30-Nov	1	9	4.6	4	11	7.6	11	24	16.5	3.0	16.8	8.0
01-Dec*	0	7	3.8	5	12	7.4	13	22	16.9	-	-	-

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.

* Due to a flow controller malfunction, the BAM $PM_{2.5}$ unit could not collect valid data between November 25 and November 27, 2024, and the valid data available on November 28 did not meet the 75% requirement. Similarly, less than 75% of valid data was available for NO_2 on November 27 due to the gas analyzer's quarterly maintenance and calibration. The AQMS operator was unable to retrieve NO_2 data from the instrument for December 1, 2024.

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	10	4.6	16.7 (24-hr avg)	0	0
PM_{10}	µg/m³	4	130	12.4	33.3 (24-hr avg)	0	0
TSP	µg/m³	11	261	28.9	80 (24-hr avg)	0	0
NO_2	ppb	0.0	20.6	5.5	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	
25-Nov	6.8	1.4	1.3	8.4	3.9	0.0
26-Nov	6.2	1.0	0.0	6.6	2.3	0.0
27-Nov	3.8	0.8	2.2	5.3	3.4	0.0
28-Nov	2.8	0.7	0.3	4.8	2.5	0.0
29-Nov	4.4	0.8	1.6	4.2	2.9	5.2
30-Nov	3.0	0.6	3.7	5.3	4.4	2.6
01-Dec	4.9	1.1	2.7	8.9	4.6	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
25-Nov to 01-Dec	No	No	No	Yes	**Exposure Period (Sep 1- Nov 7):** SO_2=0.2 ppb & VOC= 0.8 ppb. **Exposure Period (Nov 7 – Dec 2):** SO_2= <0.2 ppb & VOC= <0.7 ppb.

Note: This table mostly contains "No" entries because SO_2 and VOC passive samples are swapped monthly, and this reporting period may not align with the sampling schedule. Passive samples were swapped on November 7 and December 2, 2024. The laboratory analysis report for the exposure period from September 1 to November 7 was received on December 6, 2024, while the report for the exposure period from November 7 to December 2 was received on December 31, 2024.

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, as the template is still being prepared for the client to provide this information.

Work Activities Details:

According to the Daily Construction Reports from Nov 25 to Dec 1, construction activities include demolition in RORO, rock management and grading in Area 1100, impact and vibro piling in Area 1300, back filling in Admin Building area and breaking rocks in multiple areas.

Summary of Daily Reports and Action Taken

AGAT Labs completed the quarterly calibration of the BAMS (PM_{10} and TSP) units on November 26, 2024. The BAM $PM_{2.5}$ unit was swapped and calibrated, and the NO-NO_2-NO_x analyzer (Thermo Fisher Scientific 42i) underwent its quarterly calibration on November 27, 2024. On November 28, 2024, a Stantec Qualified Professional swapped the meteorological wind sensor and updated the datalogger program.

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, except BAM $PM_{2.5}$ unit between November 25 and November 28. No air quality exceedances of the British Columbia Air Quality Objectives were recorded, and no further investigation was required.