



2025 Annual Report

Western Yellowhead Air Management Zone

Western Yellowhead Air Management Zone

P.O. Box 1542, Saskatoon, SK, S7K 3R3

Prepared by:

SLR Consulting (Canada) Ltd.

728 66th Street East, Saskatoon, SK S7P 0E4

SLR Project No.: 208.030089.00001

May 7, 2026

Revision: 0

Revision Record

Revision	Date	Prepared By	Checked By	Authorized By
0	May 7, 2026	E. Petriew	Q. Iqbal	C. Vatcher



Statement of Limitations

This report has been prepared by SLR Consulting (Canada) Ltd. (SLR) for Western Yellowhead Air Monitoring Zone (Client) in accordance with the scope of work and all other terms and conditions of the agreement between such parties. SLR acknowledges and agrees that the Client may provide this report to government agencies, interest holders, and/or Indigenous communities as part of project planning or regulatory approval processes. Copying or distribution of this report, in whole or in part, for any other purpose other than as aforementioned is not permitted without the prior written consent of SLR.

Any findings, conclusions, recommendations, or designs provided in this report are based on conditions and criteria that existed at the time work was completed and the assumptions and qualifications set forth herein. SLR may have used AI in the preparation of this document.

This report may contain data or information provided by third party sources on which SLR is entitled to rely without verification and SLR does not warranty the accuracy of any such data or information.

Nothing in this report constitutes a legal opinion nor does SLR make any representation as to compliance with any laws, rules, regulations, or policies established by federal, provincial, territorial, or local government bodies, other than as specifically set forth in this report. Revisions to legislative or regulatory standards referred to in this report may be expected over time and, as a result, modifications to the findings, conclusions, or recommendations may be necessary.



Executive Summary

The Western Yellowhead Air Monitoring Zone (WYAMZ) area is one of six air management zones in Saskatchewan, formed in line with the directive from the Canadian Council of Ministers of the Environment (CCME) under the Canada-wide Air Quality Management System (AQMS) that Canada will have regional Airsheds comprised of local (Provincial/Territorial) Air Management Zones. The WYAMZ region extends from east of Saskatoon to the Alberta border, and from north of Meadow Lake to north of Swift Current. Currently, WYAMZ has 28 member companies, including representatives from the oil and gas, potash, agriculture, and forestry industries, as well as municipalities.

WYAMZ owned and operated four stations, each using Airpointers®, located in Meadow Lake, Maidstone, Clavet, and Kerrobert. Each station continuously measures a combination of sulphur dioxide (SO₂), hydrogen sulphide (H₂S), nitrogen oxides (NO, NO₂, NO_x), ozone (O₃), fine particulate matter less than 2.5 micrometres in diameter (PM_{2.5}), ambient temperature (AT), relative humidity (RH), precipitation, wind speed (WS), and wind direction (WD).

The following analyzers did not have uptimes greater than 90% in 2025:

- Clavet: NO, NO₂, NO_x, PM_{2.5}
- Maidstone: NO, NO₂, NO_x, SO₂, H₂S, PM_{2.5}, Precipitation, AT, RH, WS/WD
- Meadow Lake: NO, NO₂, NO_x, O₃, PM_{2.5}.

There were no exceedances of the 1-hour, 8-hours, 24-Hours and / or annual Saskatchewan Ambient Air Quality Standards (SAAQS) for NO₂ or SO₂ at any monitoring sites in 2025. However, there were exceedances of the 1-hour and 24-hour H₂S SAAQS, 1-hour and 8-hour O₃ SAAQS, and the 24-hour and annual SAAQS for PM_{2.5} at the following stations:

H₂S 1 - hour (11 parts per billion [ppb])

- Maidstone: 61 exceedances, with a maximum concentration of 73.9 ppb

H₂S 24 - hour (3.6 ppb)

- Maidstone: 10 exceedances, with a maximum concentration of 10.4 ppb

O₃ 1 - hour (82 ppb)

- Clavet: 7 exceedances, with a maximum concentration of 94.4 ppb

O₃ 8 - hour (63 ppb)

- Clavet: 29 exceedances, with a maximum concentration of 83.2 ppb
- Meadow Lake: 21 exceedances, with a maximum concentration of 73 ppb

PM_{2.5} 24 - hour (28 micrograms per cubic metre [µg/m³])

- Clavet: 14 exceedances, with a maximum concentration of 90.1 µg/m³
- Kerrobert: 9 exceedances, with a maximum concentration of 75.9 µg/m³
- Maidstone: 9 exceedances, with a maximum concentration of 142.2 µg/m³
- Meadow Lake: 11 exceedances, with a maximum concentration of 129.6 µg/m³

PM_{2.5} Annual (10 µg/m³)

- Clavet: 12.4 µg/m³



The Air Quality Health Index (AQHI) was calculated at both the Clavet and Meadow Lake monitoring stations. Air quality conditions were classified as Low Risk 95.4% of the time at Meadow Lake and 91.4% at Clavet. Moderate Risk levels occurred 3.7% of the time at Meadow Lake and 6.9% at Clavet. High Risk levels were observed at both stations, occurring 0.7% of the time at Meadow Lake, and 1.6% of the time at Clavet. Very High-risk levels occurred 0.2% of the time at Meadow Lake, and for 2 total hours at Clavet. High and Very High-risk days occurred during months when wildfire smoke would typically be prevalent.



Table of Contents

Statement of Limitations	ii
Executive Summary	iii
Table of Contents	v
Acronyms and Abbreviations	vii
1.0 Introduction	1
1.1 Western Yellowhead Air Monitoring Zone Mission	1
1.2 Western Yellowhead Air Monitoring Zone Air Monitoring Network	1
2.0 Air Quality Monitoring	4
2.1 Summary of Exceedances	4
2.2 Meteorology	4
3.0 Continuous Air Monitoring	7
3.1 Sulphur Dioxide (SO ₂)	7
3.2 Hydrogen Sulphide (H ₂ S)	9
3.3 Nitrogen Dioxide (NO ₂)	11
3.4 Ozone (O ₃)	13
3.5 Fine Particulate Matter (PM _{2.5})	15
4.0 Health Indices	18
4.1 Air Quality Health Index	18
4.2 Air Quality Index	19
5.0 Quality Assurance and Quality Control Program	20
6.0 Closure	21
7.0 References	22

Tables in Text

Table 1: Western Yellowhead Air Monitoring Zone Continuous Air Monitoring Stations and Measurement Parameters	3
Table 2: Summary of Saskatchewan Ambient Air Quality Standards Exceedances	4
Table 3: Summary of Sulphur Dioxide Monitoring	7
Table 4: Summary of Sulphur Dioxide Exceedances	7
Table 5: Summary of Hydrogen Sulphide Monitoring	9
Table 6: Summary of Hydrogen Sulphide Exceedances	9
Table 7: Summary of Nitrogen Dioxide Monitoring	11
Table 8: Summary of Nitrogen Dioxide Exceedances	11



Table 9: Summary of Ozone Monitoring.....	13
Table 10: Summary of Ozone Exceedances.....	13
Table 11: Summary of Fine Particulate Matter Monitoring	15
Table 12: Summary of Fine Particulate Matter Exceedances.....	16
Table 13: Environment Canada Health Risk Classification for Air Quality Health Index (ECCC 2018).....	19
Table 14: Summary of Air Quality Health Index Monitoring.....	19

Figures in Text

Figure 1: Western Yellowhead Air Monitoring Zone Region and Locations of the Continuous Air Monitoring Stations.....	2
Figure 2: Clavet Wind Rose for 1-Hour Average Data in 2025	5
Figure 3: Kerrobert Wind Rose for 1-Hour Average Data in 2025	5
Figure 4: Maidstone Wind Rose for 1-Hour Average Data in 2025.....	6
Figure 5: Meadow Lake Wind Rose for 1-Hour Average Data in 2025.....	6
Figure 6: Kerrobert 1-Hour Average Sulphur Dioxide Pollution Rose	8
Figure 7: Maidstone 1-Hour Average Sulphur Dioxide Pollution Rose	8
Figure 8: Kerrobert 1-Hour Average Hydrogen Sulphide Pollution Rose	10
Figure 9: Maidstone 1-Hour Average Hydrogen Sulphide Pollution Rose	10
Figure 10: Clavet 1-Hour Average Nitrogen Dioxide Pollution Rose.....	12
Figure 11: Meadow Lake 1-Hour Average Nitrogen Dioxide Pollution Rose.....	12
Figure 12: Clavet 1-Hour Average Ozone Pollution Rose	14
Figure 13: Meadow Lake 1-Hour Average Ozone Pollution Rose	14
Figure 14: Clavet 1-Hour Average Fine Particulate Matter Pollution Rose	16
Figure 15: Kerrobert 1-Hour Average Fine Particulate Matter Pollution Rose	17
Figure 16: Maidstone 1-Hour Average Fine Particulate Matter Pollution Rose.....	17
Figure 17: Meadow Lake 1-Hour Average Fine Particulate Matter Pollution Rose	18

Appendices

Appendix A	Saskatchewan Ambient Air Quality Standards
Appendix B	Clavet Station: Continuous Monitoring Data
Appendix C	Kerrobert Station: Continuous Monitoring Data
Appendix D	Maidstone Station: Continuous Monitoring Data
Appendix E	Meadow Lake Station: Continuous Monitoring Data
Appendix F	WYAMZ Exceedance Summary



Acronyms and Abbreviations

Acronym	Full Form
$\mu\text{g}/\text{m}^3$	micrograms per cubic metre
μm	micrometres
AT	ambient temperature
AQHI	Air Quality Health Index
AQI	Air Quality Index
AQMS	Air Quality Management System
CO	carbon monoxide
H ₂ S	hydrogen sulphide
m/s	metres per second
NO	nitric oxide
NO ₂	nitrogen dioxide
NO _x	oxides of nitrogen
O ₃	ozone
PM _{2.5}	particulate matter less than 2.5 micrometres
ppb	parts per billion
RH	relative humidity
SAAQS	Saskatchewan Ambient Air Quality Standards
SLR	SLR Consulting (Canada) Ltd.
SO ₂	sulphur dioxide
VOCs	volatile organic compounds
WD	wind direction
WS	wind speed
WYAMZ	Western Yellowhead Air Management Zone



1.0 Introduction

The Western Yellowhead Air Monitoring Zone (WYAMZ) area is one of six air management zones in Saskatchewan, formed in line with the directive from the Canadian Council of Ministers of the Environment (i.e., CCME), under the Canada-wide Air Quality Management System (AQMS), that Canada will have regional Airsheds comprised of local (provincial/territorial) Air Management Zones. The approach is designed to collect credible, continuous real-time air quality information through collaborative efforts.

The WYAMZ region extends from east of Saskatoon to the Alberta border, and from north of Meadow Lake to north of Swift Current, as illustrated in Figure 1. Currently, WYAMZ has 28 member companies, including representatives from the oil and gas, potash, agriculture, and forestry industries, as well as municipalities.

1.1 Western Yellowhead Air Monitoring Zone Mission

WYAMZ operates as an independent, collaborative, non-profit organization that brings together representatives from industry, government, and other key stakeholders to support regional air quality management. Its mission is to collect, analyze, and share scientifically credible and continuous air quality data to enhance understanding of local and regional air quality conditions. WYAMZ is committed to promoting transparency by communicating monitoring results and related information to member organizations, regulatory agencies, and the public, thereby supporting informed decision-making and the protection of environmental and community health.

1.2 Western Yellowhead Air Monitoring Zone Air Monitoring Network

There are currently seven continuous air monitoring stations in the WYAMZ region, which includes four operated by WYAMZ (Meadow Lake, Maidstone, Clavet, and Kerrobert), one owned and operated by the Ministry of Environment (Saskatoon NAPS station), and two owned and operated by Cenovus (Cenovus East and Cenovus West, located in Lloydminster).

WYAMZ-owned and owned and operated four stations, each using Airpointers®, located in Meadow Lake, Maidstone, Clavet, and Kerrobert. Each station continuously measures a combination of sulphur dioxide (SO₂), hydrogen sulphide (H₂S), nitrogen oxides (NO, NO₂, NO_x), ozone (O₃), fine particulate matter less than 2.5 micrometres in diameter (PM_{2.5}), ambient temperature (AT), relative humidity (RH), precipitation, wind speed (WS), and wind direction (WD). The parameters being monitored at each station are available in Table 1.

The Airpointers® have been operating since December 1, 2013. Publicly available monitoring data is available on the WYAMZ website (WYAMZ 2018).



Figure 1: Western Yellowhead Air Monitoring Zone Region and Locations of the Continuous Air Monitoring Stations

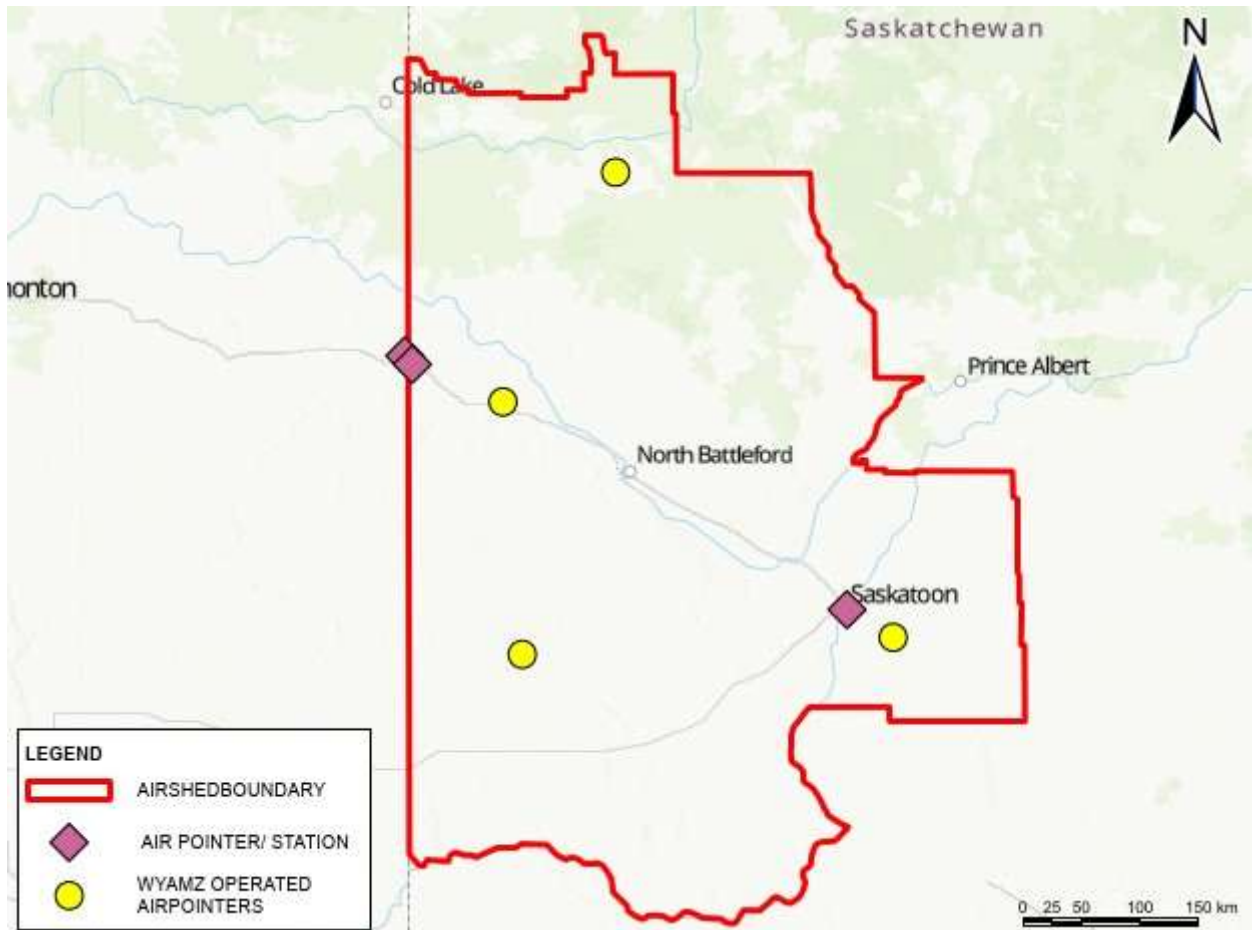


Table 1: Western Yellowhead Air Monitoring Zone Continuous Air Monitoring Stations and Measurement Parameters

WYAMZ Monitoring Stations				
Station Name	Clavet	Kerrobert	Maidstone	Meadow Lake
Latitude	52.00	51.54	54.13	53.22
Longitude	-106.37	-109.82	-108.42	-109.22
Monitored Parameters				
SO ₂	-	√	√	-
H ₂ S	-	√	√	-
NO	√	-	-	√
NO ₂	√	-	-	√
NO _x	√	-	-	√
O ₃	√	-	-	√
PM _{2.5}	√	√	√	√
Precipitation	√	√	√	√
Ambient Temperature	√	√	√	√
Relative Humidity	√	√	√	√
Wind Speed	√	√	√	√
Wind Direction	√	√	√	√



2.0 Air Quality Monitoring

2.1 Summary of Exceedances

The Saskatchewan Ambient Air Quality Standards (SAAQS), established by the Saskatchewan Ministry of Environment, provide science-based benchmarks designed to protect both public health and the environment. WYAMZ continuously monitors air quality and compares the data to these standards to assess regional air quality and monitor compliance with provincial guidelines.

Table 2 summarizes SAAQS exceedances for the WYAMZ-operated air monitoring stations.

Table 2: Summary of Saskatchewan Ambient Air Quality Standards Exceedances

Parameter	No. of Stations	Average Type	SAAQS	No. of Exceedances
SO ₂	2	1-Hour	172 ppb	0
		24-Hour	48 ppb	0
		Annual	8 ppb	0
H ₂ S	2	1-Hour	11 ppb	61
		24-Hour	3.6 ppb	10
NO ₂	3	1-Hour	159 ppb	0
		24-Hour	106 ppb	0
		Annual	24 ppb	0
O ₃	2	1-Hour	82 ppb	7
		8-Hour ¹	63 ppb	50
PM _{2.5}	4	24-Hour ²	28 µg/m ³	43
		Annual	10 µg/m ³	1

Notes:

ppb = parts per billion

µg/m³ = micrograms per cubic metre

(1) The 3-year average of the annual 4th-highest daily maximum 8-hour average concentrations; however, the reported exceedances are any 8-hour averages higher than the Saskatchewan Ambient Air Quality Standards (SAAQS).

(2) The 3-year average of the annual 98th percentile of the daily 24-hour average concentrations; however, the reported exceedances are any 24-hour averages higher than the SAAQS.

2.2 Meteorology

Air quality is dependent on the rate pollutants are emitted to the atmosphere by anthropogenic or natural means, and the rate at which pollutants are dispersed away from the sources. Air pollution transport and dispersion are directly influenced by WS, WD, AT, and local topography.

In 2025, wind direction patterns varied by station. At Clavet, prevailing winds were from the south southwest (8.2%). Kerrobert saw predominant winds from the north-northwest (13.2%), while southeast winds were most common at Maidstone (14.6 %). At Meadow Lake, winds were mainly from the southwest (11.1%). Wind rose diagrams for these locations are shown in Figures 2 through 5. Windspeeds at the stations ranged from an average of 1.2 metres per second (m/s) at the Meadow Lake station to 3.0 m/s at the Kerrobert station.



Figure 2: Clavet Wind Rose for 1-Hour Average Data in 2025

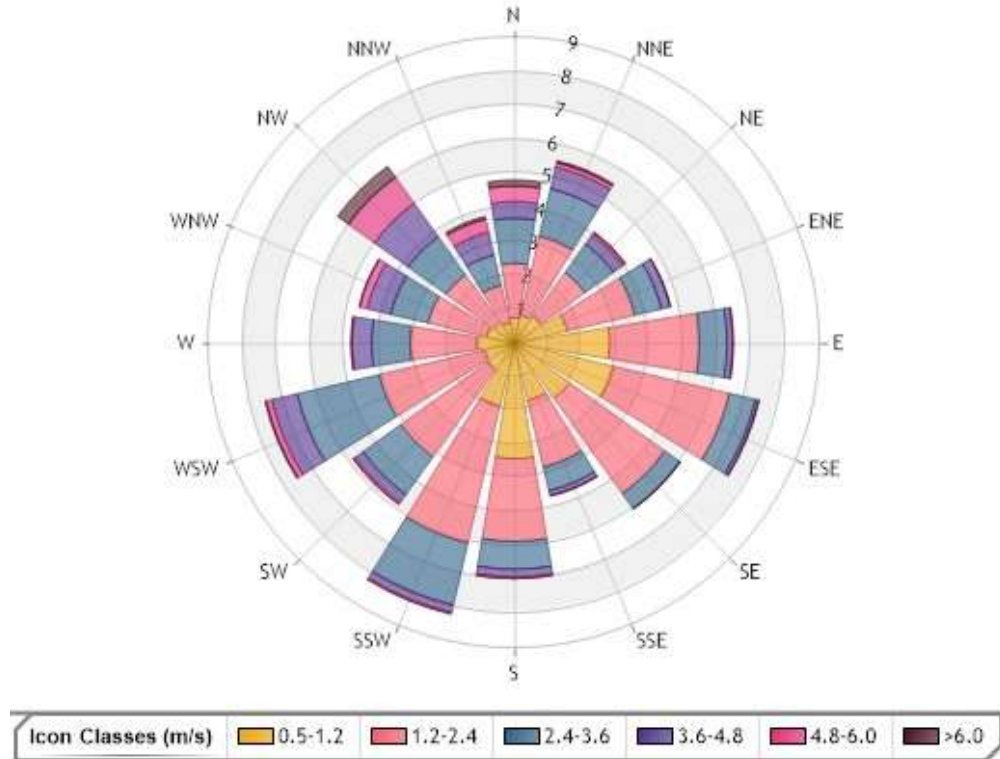


Figure 3: Kerrobert Wind Rose for 1-Hour Average Data in 2025

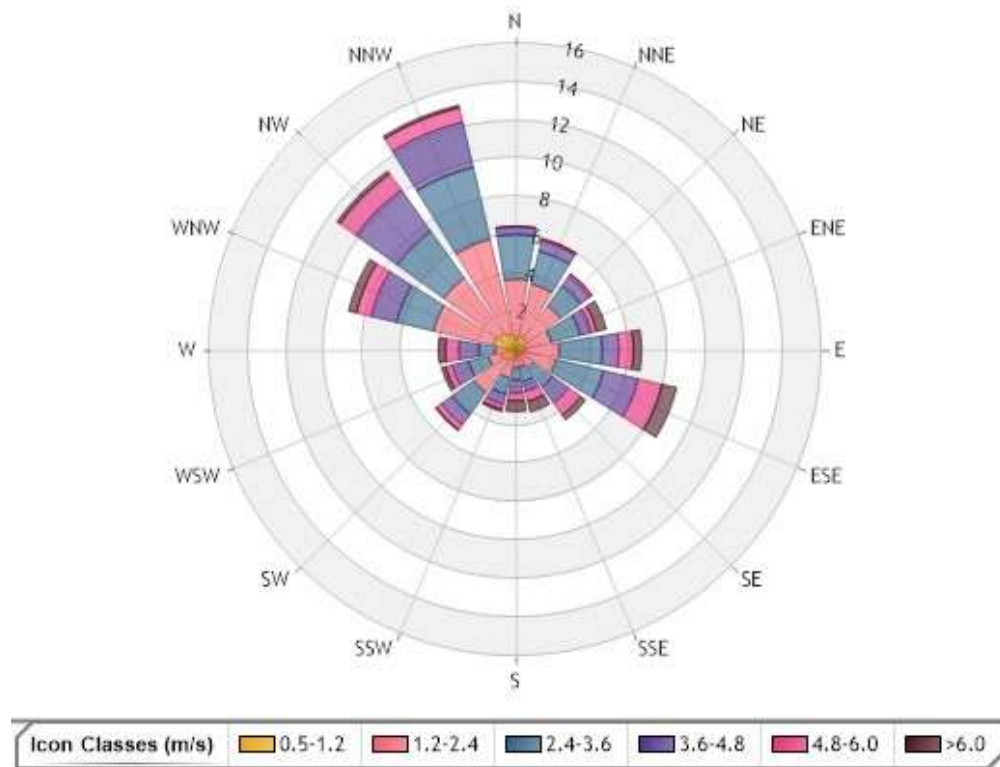


Figure 4: Maidstone Wind Rose for 1-Hour Average Data in 2025

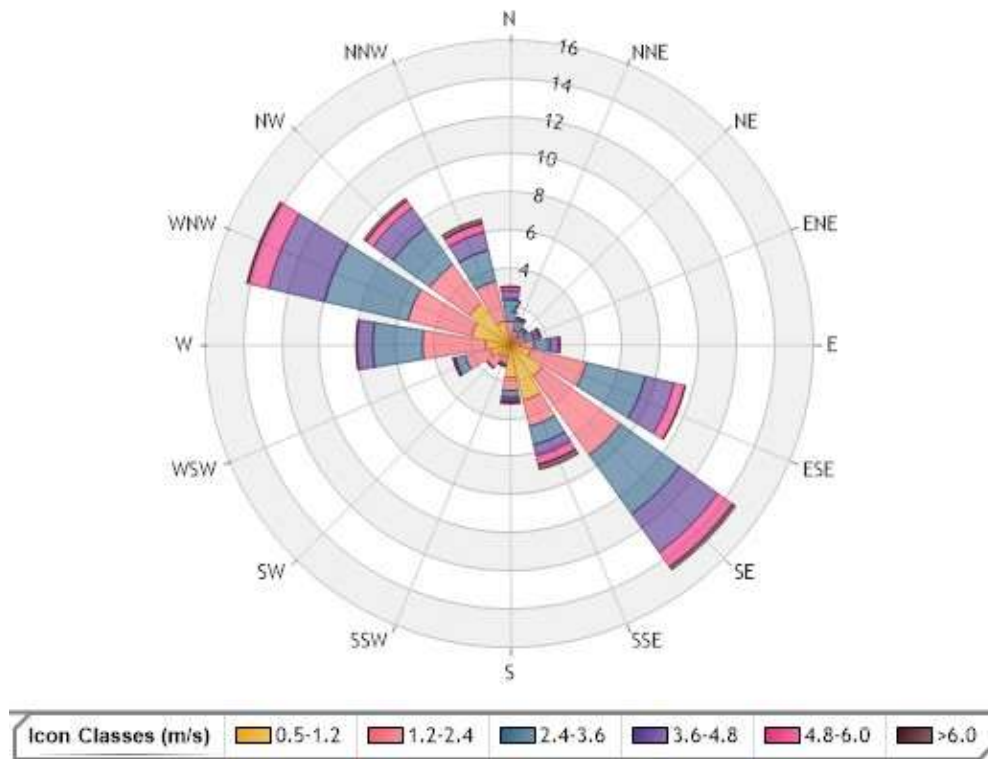
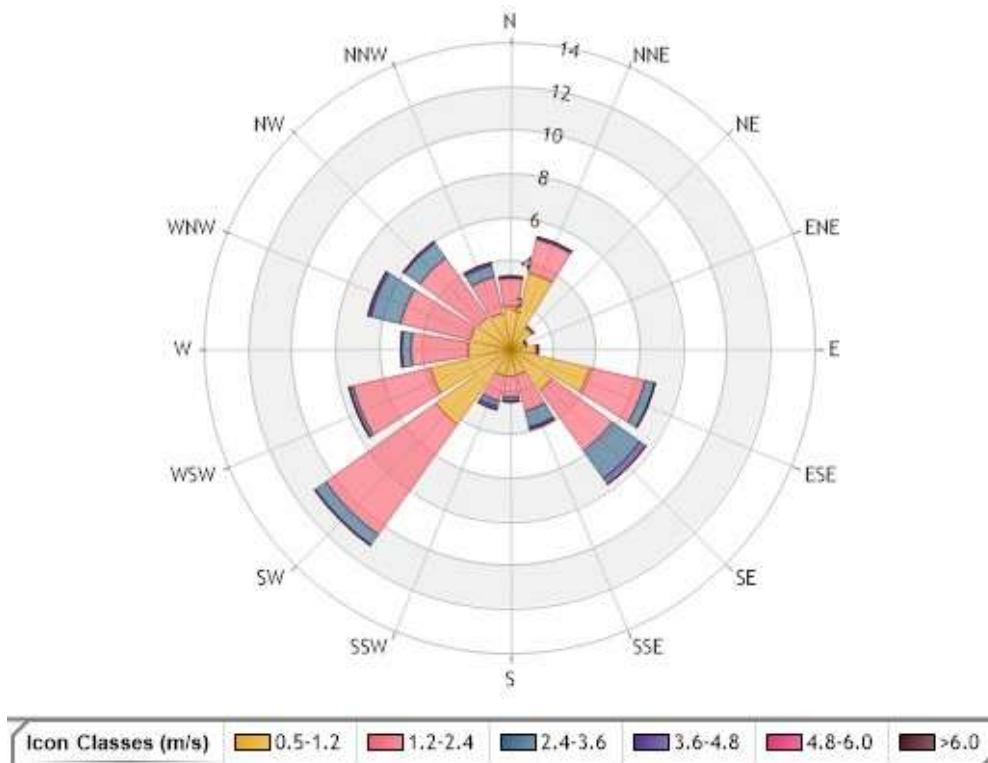


Figure 5: Meadow Lake Wind Rose for 1-Hour Average Data in 2025



3.0 Continuous Air Monitoring

3.1 Sulphur Dioxide (SO₂)

SO₂ is a colourless gas with a strong odour that poses risks to both human health and the environment. Exposure to SO₂ can irritate the respiratory system in humans and animals, with individuals who have asthma or reduced lung function being particularly vulnerable. In the environment, elevated concentrations of SO₂ can damage crops and forests, and contribute to the formation of acid rain, which negatively affects soil, water bodies, and entire ecosystems.

In Canada, the major sources of SO₂ are metal smelters, fossil fuel-fired power plants, transportation, upstream oil and gas, and other industrial facilities.

The SAAQS for SO₂ are:

- 1-hour average = 172 parts per billion (ppb)
- 24-hour average = 48 ppb
- Annual average = 8 ppb.

SO₂ is measured at both the Maidstone and Kerrobert stations. In 2025, the average SO₂ concentrations were low, at 0.3 ppb for Maidstone and 0.2 ppb for Kerrobert. The maximum 1-hour concentration recorded was 14.0 ppb at the Maidstone station on January 3, 2025. The maximum 24-hour average was measured at the Maidstone station on the same day, reaching 2.6 ppb. There were no exceedances of the 1-hour, 24-hour or annual SAAQS at either site. Operational uptimes were less than 90% at Maidstone (79.2%).

Table 3 and Table 4 show the SO₂ summaries for 2025.

Table 3: Summary of Sulphur Dioxide Monitoring

Monitoring Station	Annual Average SO ₂ Concentration	Instrument Uptime	Maximum SO ₂ Concentration			
			1-Hour Max.		24 Hour Max.	
	ppb	%	ppb	Time	ppb	Date
Maidstone	0.3	79.2	14.0	01/03/2025 17:00	2.6	01/03/2025
Kerrobert	0.2	93.3	5.5	09/10/2025 18:00	0.9	05/28/2025

Red indicates an operational time less than 90%.

Table 4: Summary of Sulphur Dioxide Exceedances

Monitoring Station	No. of SO ₂ SAAQS Exceedances		
	1-hr SAAQS	24-hr SAAQS	Annual SAAQS
	172 ppb	48 ppb	8 ppb
Maidstone	0	0	0
Kerrobert	0	0	0

Pollution roses for SO₂ at both sites are shown in Figures 6 and 7. At both locations, the majority of concentrations are less than 1 ppb (99.5% of the time at Kerrobert and 93.6% at Maidstone). Higher concentration events appear to occur when the wind is blowing in the east-southeast direction at the Maidstone Station.



Figure 6: Kerrobert 1-Hour Average Sulphur Dioxide Pollution Rose

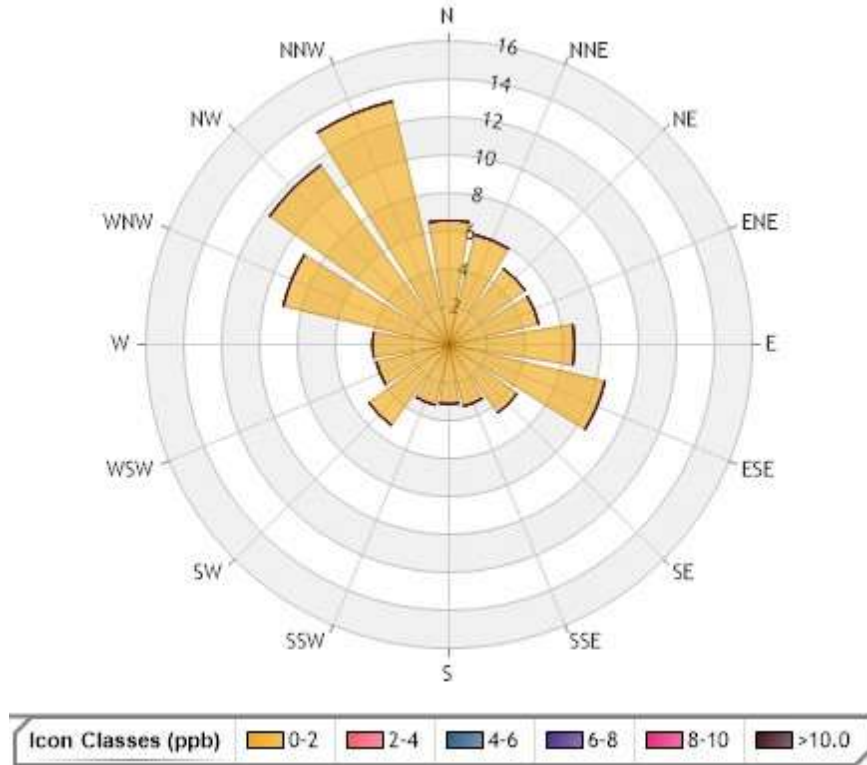
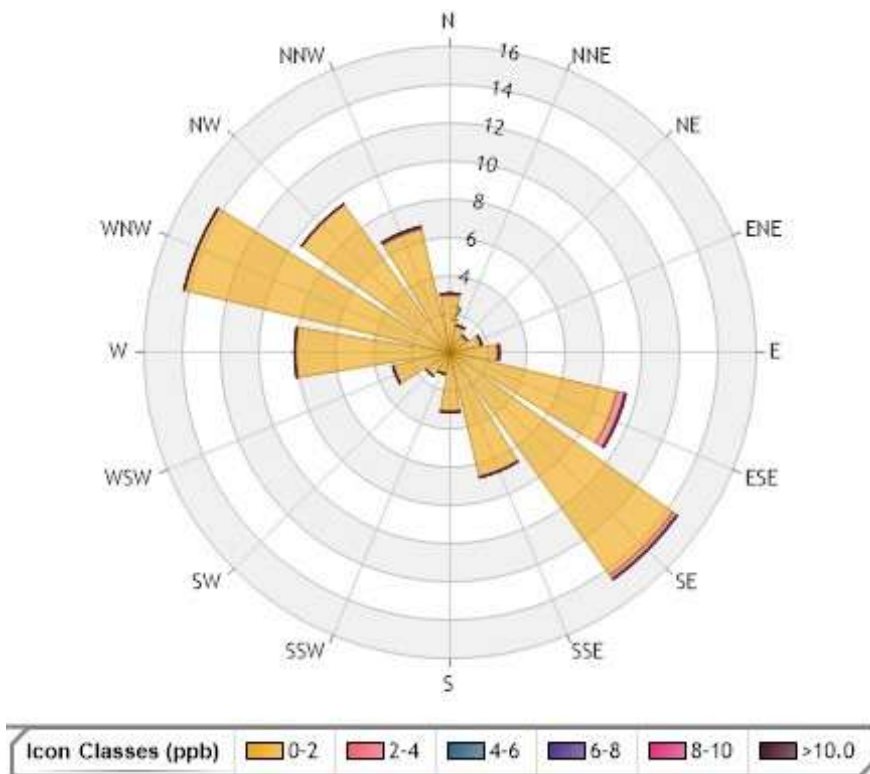


Figure 7: Maidstone 1-Hour Average Sulphur Dioxide Pollution Rose



3.2 Hydrogen Sulphide (H₂S)

H₂S is a colourless gas with a distinctive “rotten egg” odour. At high concentrations, it can be toxic, potentially damaging the nervous system and other organs or tissues in the body. H₂S is released from both natural and anthropogenic sources. Naturally, it is emitted by volcanoes, hot springs, and crude oil deposits, as well as from the decomposition of organic matter. Anthropogenic sources include mining operations, oil and gas facilities, livestock production, and wastewater treatment systems.

The SAAQS for H₂S are:

- 1-hour average = 11 ppb
- 24-hour average = 3.6 ppb.

H₂S is measured at both the Maidstone and Kerrobert stations. In 2025, the average H₂S concentrations were low, at 0.6 ppb for each station. The maximum 1-hour concentration recorded was 73.9 ppb at the Maidstone station on June 9, 2025. The maximum 24-hour average was measured at the Maidstone station on the same day, reaching 10.4 ppb. There were multiple exceedances of the 1-hour and 24-hour SAAQS at Maidstone during the year. Operational uptimes were less than 90% at Maidstone (79.2%). Table 5 and Table 6 show the H₂S summaries for 2025.

Table 5: Summary of Hydrogen Sulphide Monitoring

Monitoring Station	Annual Average H ₂ S Concentration	Instrument Uptime	Maximum H ₂ S Concentration			
			1-Hour Max.		24 Hour Max.	
	ppb	%	ppb	Time	ppb	Date
Maidstone	0.6	79.2	73.9	06/09/2025 07:00	10.4	6/9/2025
Kerrobert	0.6	93.4	7.8	03/20/2025 06:00	2.0	3/20/2025

Red indicates an operational time less than 90%.

Table 6: Summary of Hydrogen Sulphide Exceedances

Monitoring Station	No. of SAAQS H ₂ S Exceedances	
	1-hr SAAQS	24-hr SAAQS
	11 ppb	3.6 ppb
Maidstone	61	10
Kerrobert	0	0

Pollution roses for H₂S at both sites are shown in Figure 8 and Figure 9. At both locations, the majority of concentrations are less than 1 ppb (83.0% of the time at Kerrobert and 90.7% at Maidstone). Higher concentration events appear to occur when the wind is blowing in the east-southeast and southeast directions at the Maidstone Station.



Figure 8: Kerrobert 1-Hour Average Hydrogen Sulphide Pollution Rose

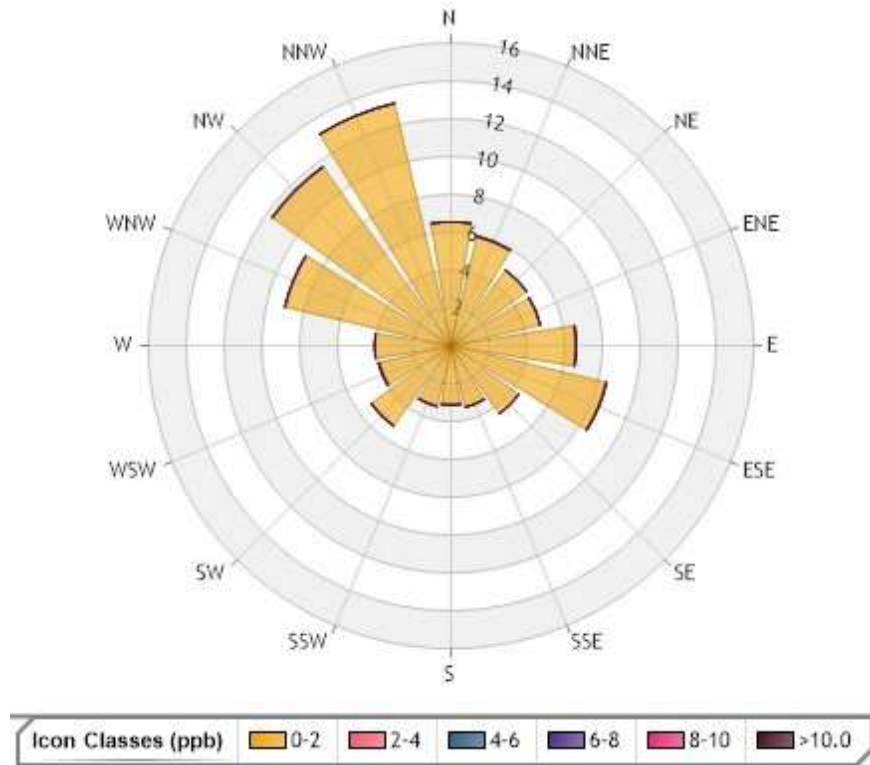
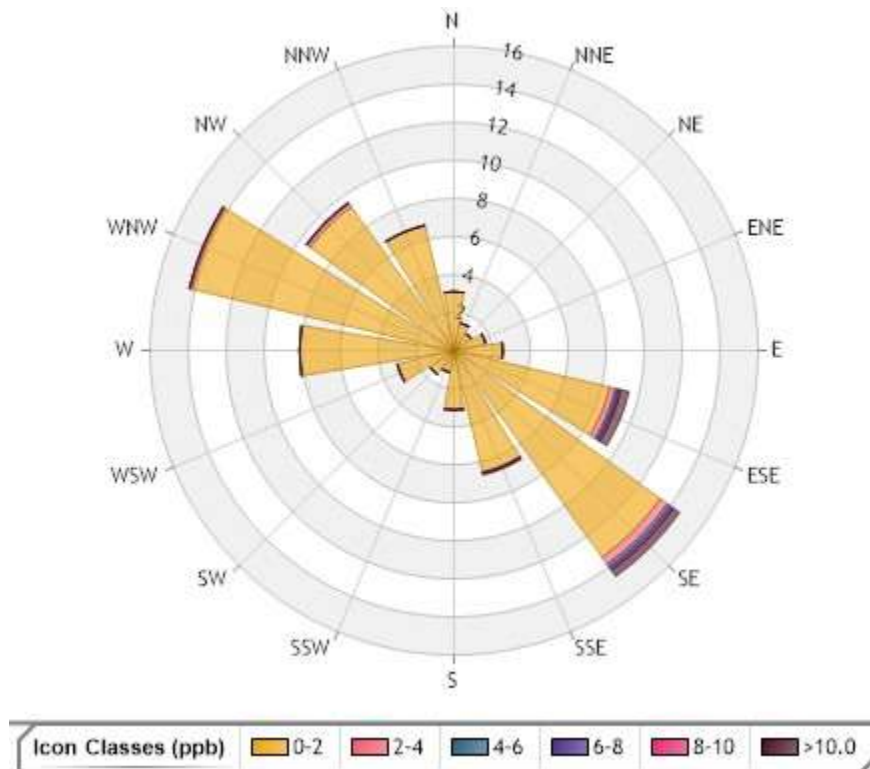


Figure 9: Maidstone 1-Hour Average Hydrogen Sulphide Pollution Rose



3.3 Nitrogen Dioxide (NO₂)

NO₂ is a gas formed when nitric oxide (NO) reacts with ozone in the ambient air. Together, NO and NO₂ are commonly referred to as oxides of nitrogen (NO_x). Exposure to NO₂ can impair respiratory health by reducing lung function and worsening conditions such as asthma. Similar to SO₂, NO₂ can damage crops and forests, and contribute to the formation of acid rain, which negatively affects soil, water bodies, and entire ecosystems.

The major emission sources of NO_x include transportation, fossil-fuelled electric power plants, and the upstream oil and gas industry.

The SAAQS for NO₂ are:

- 1-hour average = 159 ppb
- 24-hour average = 106 ppb
- Annual average = 24 ppb.

In 2025, NO₂ was measured at the Clavet and Meadow Lake stations. NO₂ was historically also measured at the Maidstone station but was not monitored in 2026 due to analyzer error. In 2025, the average NO₂ concentrations were low, at 2.5 ppb for Clavet and 1.8 ppb for Meadow Lake. The highest 1-hour concentration recorded was 29.4 ppb at the Meadow Lake station on December 20, 2025. The maximum 24-hour average was measured at the Meadow Lake station on the December 12, 2025, reaching 8.6 ppb. There were no exceedances of the 1-hour, 24-hour, or annual SAAQS at either of the sites. Operational uptimes were less than 90% at Clavet (86.1%) and Meadow Lake (72.6%). Table 7 and Table 8 show the NO₂ summaries for 2025.

Table 7: Summary of Nitrogen Dioxide Monitoring

Monitoring Station	Annual Average NO ₂ Concentration	Instrument Uptime	Maximum NO ₂ Concentration			
			1-Hour Max.		24 Hour Max.	
	ppb	%	ppb	Time	ppb	Date
Clavet	2.5	86.1	23.6	02/13/2025 20:00	2.5	01/03/2025
Meadow Lake	1.8	72.6	29.4	12/20/2025 19:00	8.6	12/12/2025

Red indicates an operational time less than 90%.

Table 8: Summary of Nitrogen Dioxide Exceedances

Monitoring Station	No. of SAAQS NO ₂ Exceedances		
	1-hr SAAQS	24-hr SAAQS	Annual SAAQS
	159 ppb	106 ppb	24 ppb
Clavet	0	0	0
Meadow Lake	0	0	0



Pollution roses for NO₂ at each of the stations are available in Figure 10 and Figure 11. At each location, the majority of concentrations are less than 5 ppb (88.0% of the time at Clavet and 93.0% at Meadow Lake). Higher concentration events appear to occur when the wind is blowing in the west-southwest and southwest direction at Meadow Lake.

Figure 10: Clavet 1-Hour Average Nitrogen Dioxide Pollution Rose

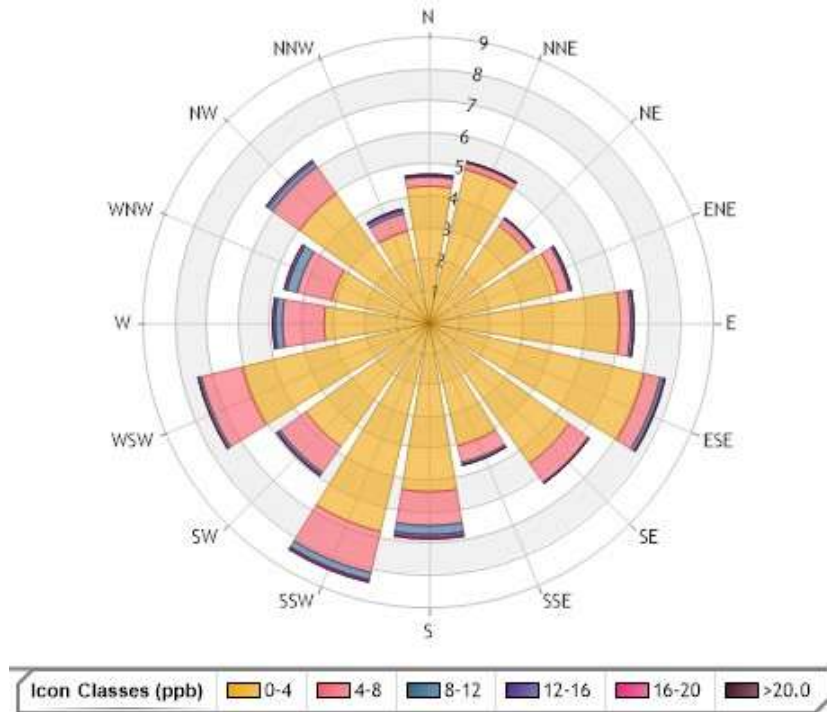
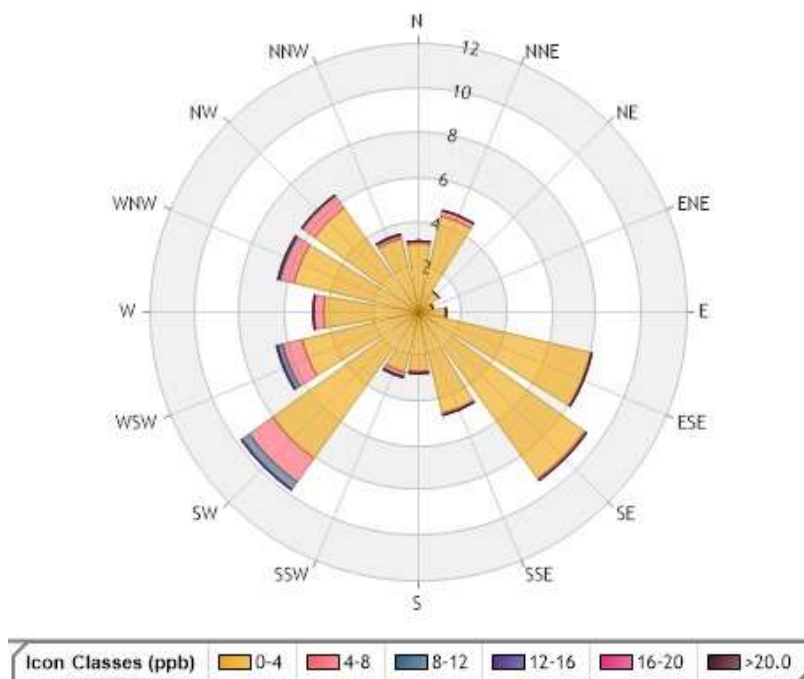


Figure 11: Meadow Lake 1-Hour Average Nitrogen Dioxide Pollution Rose



3.4 Ozone (O₃)

O₃ occurs naturally in the upper atmosphere but can also be formed at ground level. Ground level O₃ is a colourless gas that develops just above the earth’s surface. It is considered a secondary pollutant because it is formed through chemical reactions between NO_x and volatile organic compounds (VOCs) in the presence of sunlight and stagnant air. VOCs can originate through natural sources, such as coniferous forests, and human activities including gasoline combustion, upstream oil and gas production, and from the evaporation of liquid fuels and substances. As outlined in Section 3.3, major sources of NO_x include transportation, fossil-fuelled electric power plants, and the upstream oil and gas industry.

Acute exposure to ground-level O₃ can cause shortness of breath, decreased lung function, and chest discomfort. Long-term exposure has been linked to premature mortality, and various adverse health outcomes. Environmental impacts to O₃ include the decrease of crop productivity and impacts to vegetation.

The SAAQS for O₃ are:

- 1-hour average = 82 ppb
- 8-hour average = 63 ppb based on the 3-year average of the annual fourth highest daily maximum 8-hour average concentrations.

O₃ is measured at the Clavet and Meadow Lake stations. In 2025, the average O₃ concentrations were 30.0 ppb at Clavet and 28.1 ppb at Meadow Lake. The highest 1-hour concentration recorded was 94.4 ppb at the Clavet station on May 31, 2025. The maximum 8-hour average was measured at the Clavet station on May 31, 2025, reaching 83.0 ppb. There were multiple exceedances of the 1-hour or 8-hour SAAQS at Clavet. Operational uptimes were 94.1% at Clavet and 88.8% at Meadow Lake. Table 9 and Table 10 show the O₃ summaries for 2025.

Table 9: Summary of Ozone Monitoring

Monitoring Station	Annual Average O ₃ Concentration	Instrument Uptime	Maximum O ₃ Concentration			
			1-Hour Max.		8 Hour Max.	
	ppb	%	ppb	Time	ppb	Date
Clavet	30.0	94.1	94.4	05/31/2025 19:00	83.2	5/31/25
Meadow Lake	28.1	88.8	74.2	05/31/2025 23:00	73.0	5/31/25

Red indicates an operational time less than 90%.

Table 10: Summary of Ozone Exceedances

Monitoring Station	No. of SAAQS O ₃ Exceedances	
	1-hr SAAQS	8-hr SAAQS
	82 ppb	63 ppb
Clavet	7	29
Meadow Lake	0	21

Pollution roses for O₃ at each of the stations are available in Figure 12 and Figure 13. At each location, most concentrations are between 20 and 40 ppb (54.1 % of the time at Clavet and



66.2% at Meadow Lake). Higher concentration events do not appear in a predominant location at the Clavet Station but occur predominately with winds in the east-southeast direction at Meadow Lake.

Figure 12: Clavet 1-Hour Average Ozone Pollution Rose

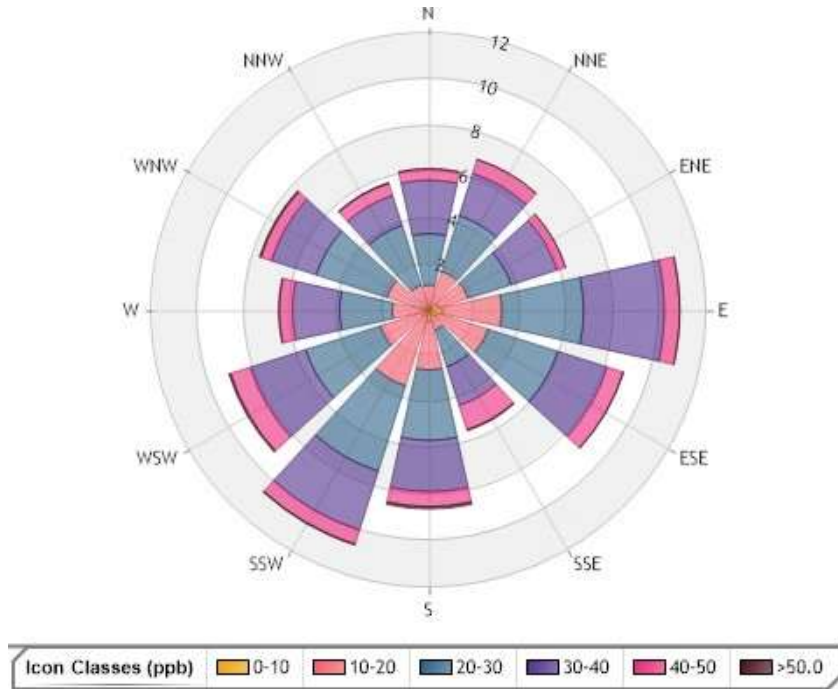
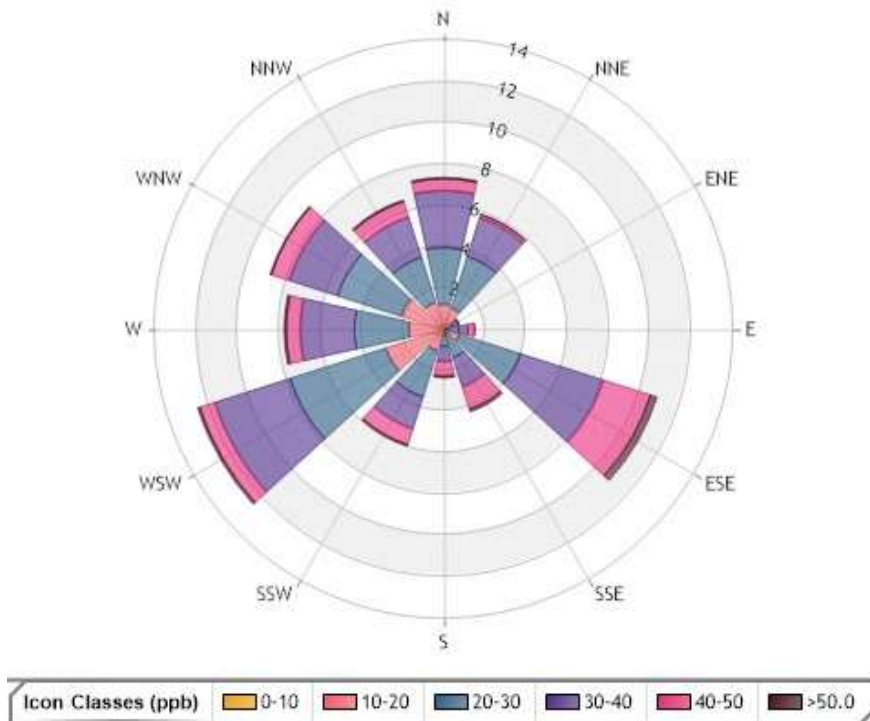


Figure 13: Meadow Lake 1-Hour Average Ozone Pollution Rose



3.5 Fine Particulate Matter (PM_{2.5})

PM_{2.5} refers to fine particulate matter with a diameter less than 2.5 micrometres (µm). These particles can vary in size, shape, and density and can originate from different sources such as vehicle and industrial emissions, wood burning, and the erosion of dust from fields. Secondary PM_{2.5} formation can occur from chemical reactions involving gases including SO₂, NO_x, and ammonia.

Exposure to PM_{2.5} is associated with a range of health issues, including shortness of breath, reduced lung function, and the worsening of heart and lung conditions such as asthma. Particulate matter has been linked to cardiac and respiratory diseases including bronchitis, emphysema and multiple forms of heart disease. Environmentally, PM_{2.5} can negatively impact vegetation, and can contribute to visibility problems and atmospheric haze.

The SAAQS for PM_{2.5} are:

- 24-hour average measured from midnight to midnight, with a value of 28 micrograms per cubic metre (µg/m³) based on the 98th percentile, averaged over three consecutive years.
- Annual average = 10 µg/m³.

PM_{2.5} is measured at each of the WYAMZ stations. In 2025, the average annual PM_{2.5} concentrations were between 8.1 µg/m³ at Maidstone Station and 12.4 µg/m³ at Clavet Station. The highest 1-hour concentration measured 668.7 µg/m³ at the Meadow Lake station on May 30, 2025. The maximum 24-hour average was measured at the Maidstone station on July 10, 2025, reaching 142.2 µg/m³. There were exceedances of the 24-hour SAAQS at each of the stations, with a maximum of 14, 24-hour exceedances at the Clavet Station. Operational uptimes were less than 90% at Clavet (53.5%), at Maidstone (79.5%), and at Meadow Lake (74.0%). Table 11 and Table 12 show the PM_{2.5} summaries for 2025.

Table 11: Summary of Fine Particulate Matter Monitoring

Monitoring Station	Annual Average PM _{2.5} Concentration	Instrument Uptime	Maximum PM _{2.5} Concentration and Time			
			1-Hour Max.		24 Hour Max.	
			µg/m ³	Time	µg/m ³	Date
Clavet	12.4	53.5	253.3	07/22/2025 03:00	90.1	6/10/2025
Kerrobert	8.3	97.6	160.7	07/14/2025 14:00	75.9	9/01/2025
Maidstone	8.1	79.5	246.0	05/30/2025 19:00	142.2	6/10/2025
Meadow Lake	9.9	74.0	668.7	05/30/2025 07:00	129.6	7/18/2025

Red font indicates an operational time less than 90%.



Table 12: Summary of Fine Particulate Matter Exceedances

Monitoring Station	No. of SAAQS PM _{2.5} Exceedances	
	24-hr SAAQS	Annual SAAQS
	28 µg/m ³	10 µg/m ³
Clavet	14	1
Kerrobot	9	0
Maidstone	9	0
Meadow Lake	11	0

Pollution roses for PM_{2.5} at each of the stations are shown in Figure 14 to Figure 17. Across all locations, PM_{2.5} concentrations were below 10 µg/m³ the majority of the time, ranging from 66.8% of the time at Clavet to 81.5% at Meadow Lake. Elevated concentrations (greater than 10 µg/m³) were more common during the summer months (July to September), coinciding with wildfire season. At Clavet, higher PM_{2.5} levels were most frequently associated with east-southeast winds; at Kerrobot, with north-northwest winds; at Maidstone with west-northwest winds; and at Meadow Lake, with winds from the southeast and southwest.

Figure 14: Clavet 1-Hour Average Fine Particulate Matter Pollution Rose

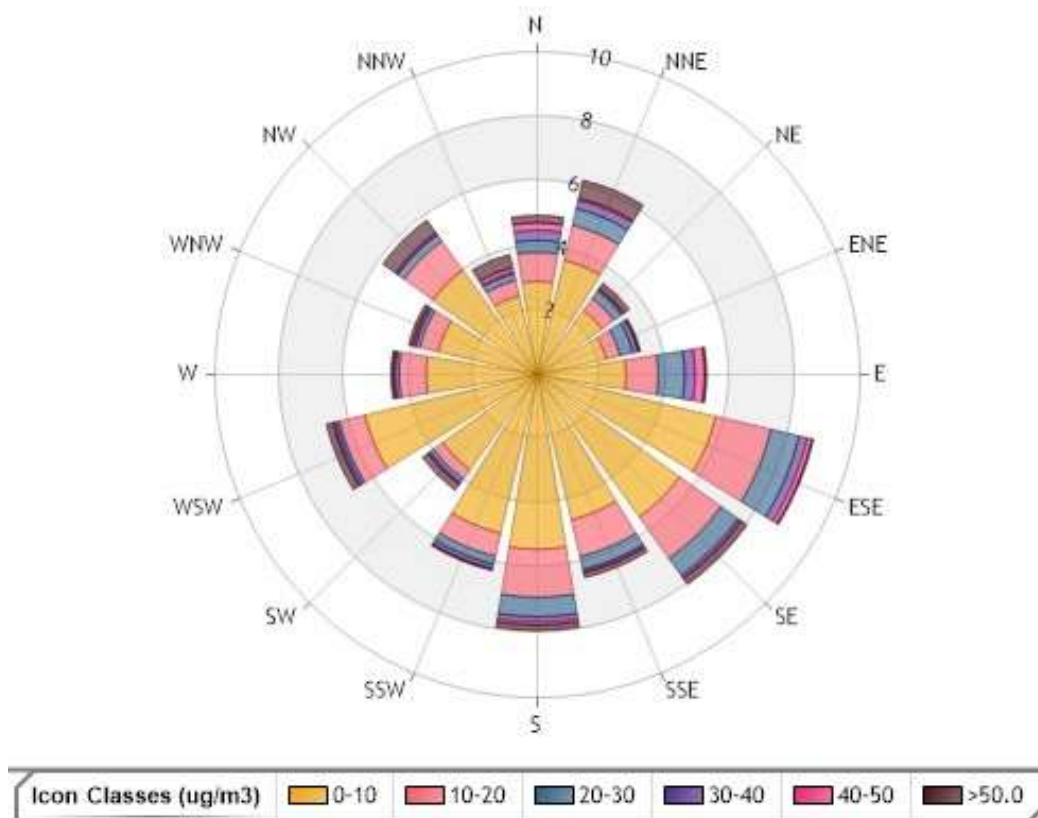


Figure 15: Kerrobert 1-Hour Average Fine Particulate Matter Pollution Rose

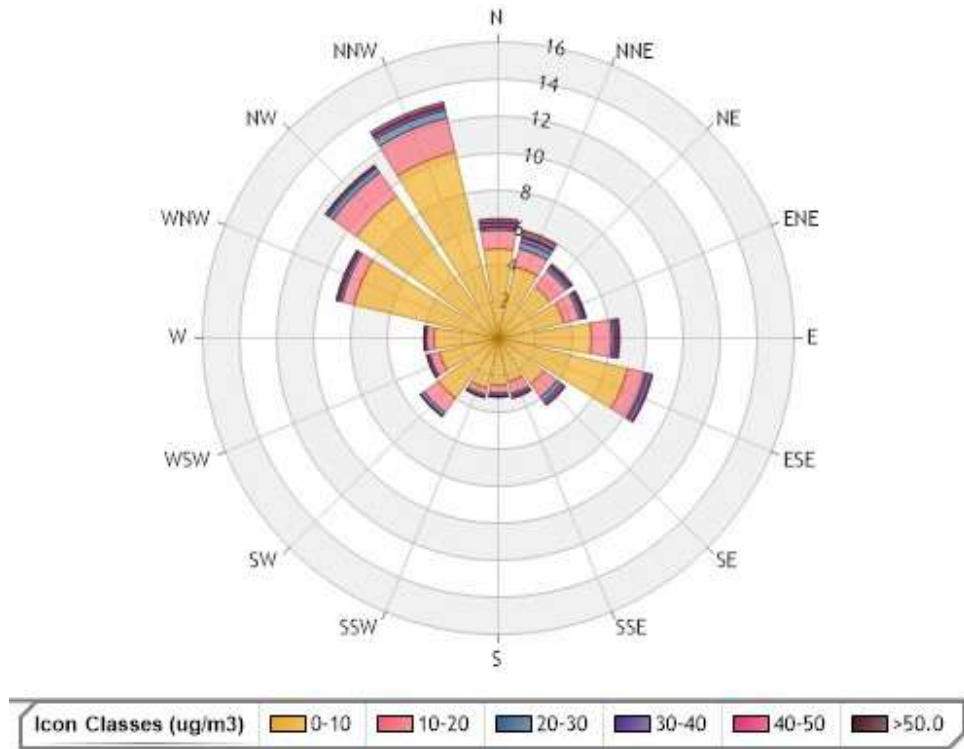


Figure 16: Maidstone 1-Hour Average Fine Particulate Matter Pollution Rose

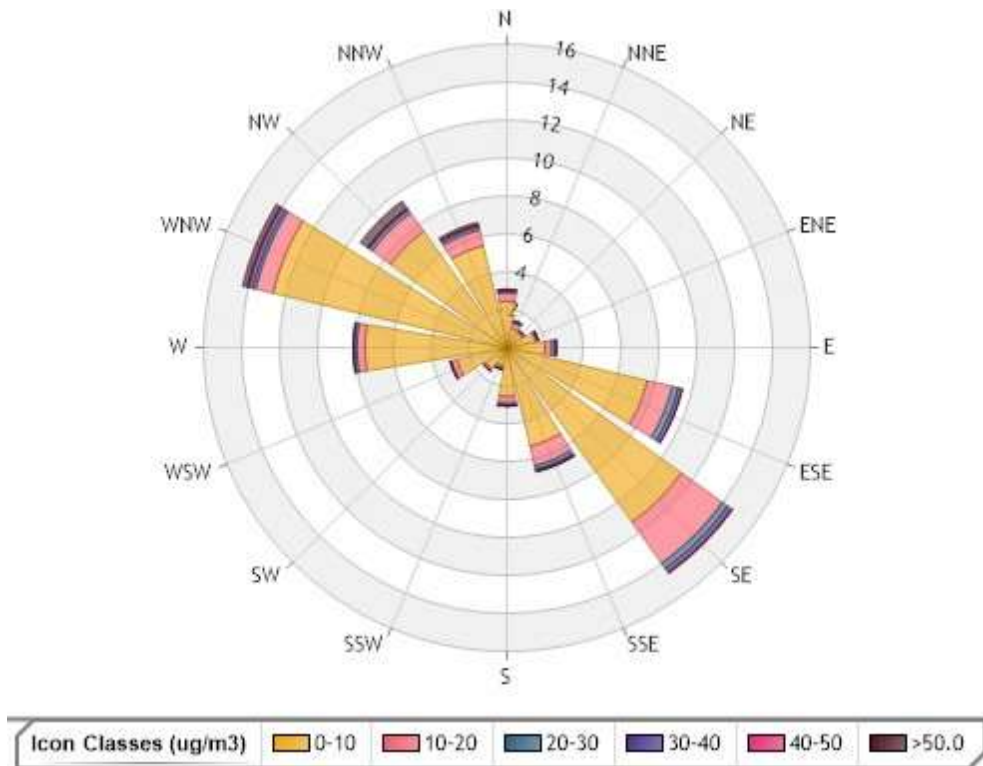
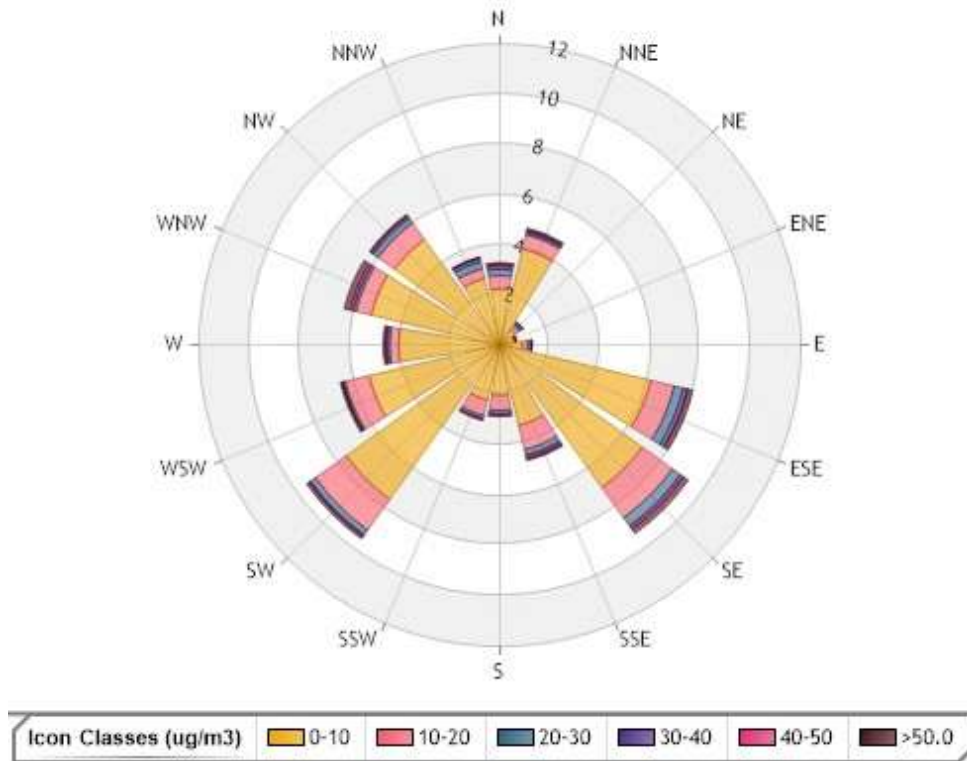


Figure 17: Meadow Lake 1-Hour Average Fine Particulate Matter Pollution Rose



4.0 Health Indices

4.1 Air Quality Health Index

Air Quality Health Index (AQHI) is a scale ranging from 1 to 10 that is designed to help the public make informed decisions about their health by limiting short-term exposure to air pollution and adjusting activity levels during periods of elevated pollution. The AQHI is calculated using three pollutants, including O₃, PM_{2.5}, and NO₂, and provides a rating that falls into one of four health risk categories:

- Low Risk (1 to 3)
- Moderate Risk (4 to 6)
- High Risk (7 to 10)
- Very High Risk (greater than 10).

All three pollutants are required to calculate the AQHI.

Table 13, sourced from Environment Canada (ECCC 2018), outlines the health messages associated with each risk category.

AQHI is calculated at both the Clavet and Meadow Lake monitoring stations. At both locations, air quality was rated as Low Risk 95.4% of the time at Meadow Lake and 91.4% at Clavet. Moderate Risk levels occurred 3.7% of the time at Meadow Lake and 6.9% at Clavet. High Risk levels were observed at both stations, occurring 0.7% of the time at Meadow Lake, and 1.6% of the time at Clavet. Very High-risk levels occurred 0.2% of the time at Meadow Lake, and for



2 total hours at Clavet. High and Very High-risk days occurred during months where wildfire smoke is typically prevalent. A summary of AQHI monitoring at Clavet and Meadow Lake can be found in Table 14.

Table 13: Environment Canada Health Risk Classification for Air Quality Health Index (ECCC 2018)

Health Risk	Air Quality Health Index	Health Messages	
		At Risk Population*	General Population
Low	1 - 3	Enjoy your usual outdoor activities.	Ideal air quality for outdoor activities.
Moderate	4 - 6	Consider reducing or rescheduling strenuous activities outdoors if you are experiencing symptoms.	No need to modify your usual outdoor activities unless you experience symptoms such as coughing and throat irritation.
High	7 - 10	Reduce or reschedule strenuous activities outdoors. Children and the elderly should also take it easy.	Consider reducing or rescheduling strenuous activities outdoors if you experience symptoms such as coughing and throat irritation.
Very High	Above 10	Avoid strenuous activities outdoors. Children and the elderly should also avoid outdoor physical exertion.	Reduce or reschedule strenuous activities outdoors, especially if you experience symptoms such as coughing and throat irritation.

* People with heart or breathing problems.

Table 14: Summary of Air Quality Health Index Monitoring

Station	Occurrence	Low	Moderate	High	Very High
Meadow Lake	Hours	5682	218	42	14
	Frequency	95.4%	3.7%	0.7%	0.2%
Clavet	Hours	4173	316	74	2
	Frequency	91.4%	6.9%	1.6%	0.0%

4.2 Air Quality Index

For locations that do not qualify to monitor for AQHI monitoring due to the absence of data for one or more required pollutants (O₃, PM_{2.5}, or NO₂), the Air Quality Index (AQI) can be used as an alternative. AQI is calculated using at least three of the following pollutants:

- O₃
- PM_{2.5}
- SO₂
- NO₂
- Carbon Monoxide (CO).



Similar to AQHI, the AQI is used to communicate outdoor air quality conditions to the public. However, it operates on a 1 to 100 scale, categorized as follows:

- Good (1 to 25) - No known harmful effects to soil, water, vegetation, animals, visibility, or human health.
- Fair (26 to 50) - Adequate protection against harmful effects to soil, water, vegetation, animals, material, visibility, and human health.
- Poor (51 to 100) - Not all aspects of the environment are adequately protected from possible adverse effects. Long-term control action may be necessary, depending on the frequency, duration, and circumstances of the readings.
- Very Poor (greater than 100) - In this range, further deterioration of air quality and continued high readings could pose a risk to public health.

AQI is typically calculated at the Maidstone Station. However, due to system downtimes, it could not be calculated for 2025. The Kerrobert Station does not qualify for the reporting requirements of either Index.

5.0 Quality Assurance and Quality Control Program

The WYAMZ contracts SLR Consulting (Canada) Ltd. (SLR) to conduct station maintenance, data validation, and reporting. SLR follows standard operating procedures (i.e., SOPs) and good practices based on current industry standards to ensure that reliable and accurate data is recorded. Data validation procedures are outlined below:

Preliminary Verification (Level 0)

Level 0 data refer to raw data collected directly from the data acquisition system or the instrument itself. During preliminary verification, these data may undergo manual or automated screening and flagging. Common screening checks include:

- Ensuring that instruments are operational and calibrated.
- Identifying periods of missing data.
- Verifying that no instrument faults, malfunctions, or significant data gaps are present.
- Looking for anomalies in data (e.g., spikes or outliers).

2. Primary Validation (Level 1)

This step involves basic quality checks on the collected data to ensure they meet required standards. Actions include:

- Removing obvious errors or corrupted data.
- Applying any necessary calibration factors or corrections.
- Verifying consistency with site conditions (e.g., no sudden jumps or dips inconsistent with expected environmental change).

3. Final Validation (Level 2)

This is a more in-depth review to ensure data integrity and adherence to the requirements.



Key validation steps include:

- Verifying that routine maintenance and calibration logs align with data patterns.
- Reviewing any flagged events or anomalies and determining if they are valid.
- If any data anomalies are found, they are flagged for further investigation.
- Flagged data is typically separated from the validated dataset to ensure transparency.
- Ensuring all documentation (calibration logs, maintenance records, etc.) is available to support the validation process.

6.0 Closure

We trust the information contained in this report meets your needs; however, please contact the individuals noted below with any questions.

Regards,

SLR Consulting (Canada) Ltd.



Craig Vatcher, CET, B.Tech., EP
Senior Project Manager – Air Quality



Qamar Iqbal, M.Sc, EP
Team Lead, Ambient Air Quality Specialist



7.0 References

ECCC. 2018. Understanding Air Quality Health Index Messages. Environment and Climate Change Canada. <https://www.canada.ca/en/environment-climate-change/services/air-quality-health-index/understanding-messages.html>.

WYAMZ. 2018. Air Quality Matters. Western Yellowhead Air Management Zone. www.wyamz.ca.





Appendix A Saskatchewan Ambient Air Quality Standards

2025 Annual Report

Western Yellowhead Air Management Zone

Western Yellowhead Air Management Zone

SLR Project No.: 208.030089.00001

May 7, 2026

TABLE 20: SASKATCHEWAN AMBIENT AIR QUALITY STANDARDS ($\mu\text{g}/\text{m}^3$)

Air Pollutant	1 Hour	8 Hours	24 Hours	Annual
Particulate Matter ($\text{PM}_{2.5}$)			28 ^a	10
Particulate Matter (PM_{10})			50	
Total Suspended Particulates (TSP)			100	60 ^b
Nitrogen Dioxide (NO_2)	300 (159 ppb)		200 (106 ppb)	45 ^c (24 ppb)
Sulphur Dioxide (SO_2)	450 (172 ppb)		125 (48 ppb)	20 ^c (8 ppb)
Hydrogen Sulphide (H_2S)	15 (11 ppb)		5 (3.6 ppb)	
Ozone (O_3)	160 (82 ppb)	124 ^d (63 ppb)		
Carbon Monoxide (CO)	15,000 (13,000 ppb)	6,000 (5,000 ppb)		

Footnotes

- (a) The 3-year average of the annual 98th percentile of the daily 24-hour average concentrations.
- (b) Geometric means
- (c) Arithmetic means
- (d) The 3-year average of the annual 4th-highest daily maximum 8-hour average concentrations.



Appendix B Clavet Station: Continuous Monitoring Data

2025 Annual Report

Western Yellowhead Air Management Zone

Western Yellowhead Air Management Zone

SLR Project No.: 208.030089.00001

May 7, 2026

Table B-1: Clavet Station - Summary statistics for continuous air monitoring results for 2025

Parameter	Unit	Operational Time	Uptime	Summary Statistics for Hourly Average Data		
		(Hours)	%	Average	Minimum	Maximum
NO	ppb	7540	86.1	1.0	0.0	22.7
NO2	ppb	7541	86.1	2.5	0.0	23.6
NOx	ppb	7540	86.1	3.5	0.0	28.3
O3	ppb	8243	94.1	30.0	0.0	94.4
PM2.5	µg/m ³	4689	53.5	12.4	0.8	253.3
Precipitation	mm	8745	99.8	0	0	13.3
Ambient Temperature	°C	8745	99.8	3.4	-39.9	32.4
Relative Humidity	%	8745	99.8	63.7	13.2	89.2
Wind Speed	m/s	8744	99.8	1.9	0	8.3



Table B-2: Summary of NO monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 24-hrs Conc.	1-Hour Exceedance ¹	24-Hour Exceedance ²	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 1	1-5	5-10	10-50	50-172	> 172
January	706	94.9	1.3	9.9	3.1	-	-	56.1	41.5	2.4	0.0	0.0	0.0
February	579	86.2	1.6	10.6	3.7	-	-	48.9	47.8	3.1	0.2	0.0	0.0
March	700	94.1	1.0	11.2	2.5	-	-	69.4	28.9	1.4	0.3	0.0	0.0
April	689	95.7	0.3	4.7	0.9	-	-	91.1	8.9	0.0	0.0	0.0	0.0
May	702	94.4	0.2	11.7	1.6	-	-	94.9	4.7	0.3	0.1	0.0	0.0
June	690	95.8	1.2	22.7	2.3	-	-	62.3	36.5	0.9	0.3	0.0	0.0
July	712	95.7	1.0	6.1	1.5	-	-	66.2	33.4	0.4	0.0	0.0	0.0
August	654	87.9	1.2	8.3	2	-	-	63.0	35.3	1.7	0	0	0
September	678	94.2	1.0	10.9	2.2	-	-	72.1	26.7	1.0	0.1	0.0	0.0
October	656	88.2	1.2	8.6	2.3	-	-	51.7	47.4	0.9	0.0	0.0	0.0
November	305	42.4	1.3	8.3	2.6	-	-	48.9	50.2	1.0	0.0	0.0	0.0
December	469	63.0	0.7	7.8	2.5	-	-	79.5	18.8	1.7	0.0	0.0	0.0
Annual	7540	86.1	1.0	22.7	3.7	0	0	67.93	30.77	1.21	0.09	0.00	0.00

¹ No 1-hour SAAQS for this parameter

² No 24-hour SAAQS for this parameter



Table B-3: Summary of NO2 monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 24-hrs Conc.	1-Hour Exceedance ¹	24-Hour Exceedance ²	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 5	5-15	15-53	53-100	100-159	>159
January	706	94.9	3.8	19.2	9.2	0	0	78.0	21.1	0.8	0.0	0.0	0.0
February	579	86.2	4.3	23.6	8.7	0	0	73.7	24.9	1.4	0.0	0.0	0.0
March	700	94.1	3.1	15.3	6.9	0	0	83.7	16.1	0.1	0.0	0.0	0.0
April	689	95.7	2.1	13.0	4.1	0	0	90.9	9.1	0.0	0.0	0.0	0.0
May	702	94.4	2.3	14.0	5.4	0	0	90.3	9.7	0.0	0.0	0.0	0.0
June	690	95.8	3.6	18.6	8.0	0	0	74.9	24.3	0.7	0.0	0.0	0.0
July	712	95.7	2.0	10.1	2.7	0	0	95.5	4.5	0.0	0.0	0.0	0.0
August	654	87.9	1.7	9.4	2	0	0	95.6	4.4	0.0	0.0	0.0	0.0
September	679	94.3	1.6	12.2	4.8	0	0	96.6	3.4	0.0	0.0	0.0	0.0
October	656	88.2	1.5	11.3	3.9	0	0	96.0	4.0	0.0	0.0	0.0	0.0
November	305	42.4	1.6	10.7	3.7	0	0	97.0	3.0	0.0	0.0	0.0	0.0
December	469	63.0	2.6	21.8	6.9	0	0	86.6	12.4	1.1	0.0	0.0	0.0
Annual	7541	86.1	2.5	23.6	9.2	0	0	88.0	11.7	0.3	0.0	0.0	0.0

¹ 1-hour SAAQS = 159

² 24-hour SAAQS = 106



Table B-4: Summary of NOx monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 24-hrs Conc.	1-Hour Exceedance ¹	24-Hour Exceedance ²	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 5	5-15	15-53	53-100	100-159	>159
January	706	94.9	5.1	21.8	11.8	-	-	63.5	33.6	3.0	0.0	0.0	0.0
February	579	86.2	5.9	28.2	11.5	-	-	49.2	48.2	2.6	0.0	0.0	0.0
March	700	94.1	4.1	23.6	9.4	-	-	74.1	24.0	1.9	0.0	0.0	0.0
April	689	95.7	2.2	16.0	4.9	-	-	88.0	11.9	0.1	0.0	0.0	0.0
May	702	94.4	2.3	25.1	6.9	-	-	89.6	10.3	0.1	0.0	0.0	0.0
June	690	95.8	4.8	28.3	10.0	-	-	65.9	31.3	2.8	0.0	0.0	0.0
July	712	95.7	3.0	15.1	4.2	-	-	88.1	11.8	0.1	0.0	0.0	0.0
August	654	87.9	2.7	12.8	4.0	-	-	88.8	11.2	0.0	0.0	0.0	0.0
September	678	94.2	2.6	16.1	6.8	-	-	90.4	9.1	0.4	0.0	0.0	0.0
October	656	88.2	2.7	17.1	6.2	-	-	89.5	10.2	0.3	0.0	0.0	0.0
November	305	42.4	2.9	19.0	6.3	-	-	89.8	9.5	0.7	0.0	0.0	0.0
December	469	63.0	3.2	27.3	8.6	-	-	78.7	19.4	1.9	0.0	0.0	0.0
Annual	7540	86.1	3.4	28.3	11.8	0	0	79.5	19.4	1.2	0.0	0.0	0.0

¹ No 1-hour SAAQS for this parameter

² No 24-hour SAAQS for this parameter



Table B-5: Summary of O3 monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 8-hrs Conc.	1-Hour Exceedance ¹	8-Hour Exceedance ²	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 10	10-20	20-40	40-65	65-82	>82
January	713	95.8	36.7	49.1	48.3	0	0	0.3	3.6	59.0	37.0	0.0	0.0
February	643	95.7	36.0	58.5	54.9	0	0	0.6	7.0	57.4	35.0	0.0	0.0
March	700	94.1	40.4	55.2	53.2	0	0	0.0	0.0	48.0	52.0	0.0	0.0
April	689	95.7	34.1	54.9	54.1	0	0	1.3	8.3	59.9	30.5	0.0	0.0
May	704	94.6	35.7	94.4	83.2	3	7	1.0	10.8	51.1	35.5	1.1	0.4
June	689	95.7	35.4	86.6	83.0	4	22	4.8	12.0	43.8	36.0	2.8	0.6
July	712	95.7	28.1	59.2	52.4	0	0	6.6	24.4	47.9	21.1	0.0	0.0
August	676	90.9	23.7	52.1	50.1	0	0	9.8	31.7	50.0	8.6	0.0	0.0
September	683	94.9	23.0	51.0	48.0	0	0	16.0	26.6	50.2	7.2	0.0	0.0
October	712	95.7	19.8	42.0	41.1	0	0	12.1	38.8	48.6	0.6	0.0	0.0
November	683	94.9	19.2	38.7	35.5	0	0	13.3	38.2	48.5	0.0	0.0	0.0
December	639	85.9	28.0	39.7	38.6	0	0	0.6	12.2	87.2	0.0	0.0	0.0
Annual	8243	94.1	30.0	94.4	83.2	7	29	5.6	17.9	54.1	22.1	0.3	0.1

¹ 1-hour SAAQS = 82

² 8-hour SAAQS = 63



Table B-6: Summary of PM2.5 monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 24-hrs Conc.	1-Hour Exceedance ¹	24-Hour Exceedance ²	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 5	5-10	10-15	15-30	30-80	>80
January	0	0.0	-	-	-	-	0	-	-	-	-	-	-
February	0	0.0	-	-	-	-	0	-	-	-	-	-	-
March	0	0.0	-	-	-	-	0	-	-	-	-	-	-
April	702	97.5	5.4	36.6	11.7	-	0	59.1	34.0	5.3	1.1	0.4	0.0
May	735	98.8	9.8	95.3	74.8	-	1	43.1	34.0	12.7	4.8	4.5	1.0
June	720	100.0	16.9	147.6	90.1	-	6	26.4	31.3	12.5	15.6	12.2	2.1
July	735	98.8	19.8	253.3	55.6	-	5	18.1	30.3	14.6	22.4	10.2	4.4
August	737	99.1	13.5	135.8	68.9	-	1	30.1	28.4	13.8	19.0	6.9	1.8
September	695	96.5	12.9	76.9	38.9	-	1	21.9	30.8	19.3	21.0	7.1	0.0
October	253	34.0	4.0	14.8	5.3	-	0	71.1	25.3	3.6	0.0	0.0	0.0
November	112	15.6	5.3	14.4	7.5	-	0	57.1	32.1	10.7	0.0	0.0	0.0
December	0	0.0	-	-	-	-	0	-	-	-	-	-	-
Annual	4689	53.5	11.0	253.3	90.1	0	14	35.7	31.1	12.5	12.9	6.4	1.4

¹ No 1-hour SAAQS for this parameter

² 24-hour SAAQS = 28



Table B-7: Summary of Precipitation monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Total Precipitation	Maximum 1-hr Precip.	Maximum 24-hrs Precip.	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(mm)	(mm)	(mm)	≤ 5	5-10	10-15	15-30	30-80	>80
January	744	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
February	672	100.0	0.2	0.2	0.2	100.0	0.0	0.0	0.0	0.0	0.0
March	744	100.0	1.1	0.5	1.0	100.0	0.0	0.0	0.0	0.0	0.0
April	718	99.7	14.9	2.2	13.3	100.0	0.0	0.0	0.0	0.0	0.0
May	740	99.5	4.5	0.5	2.2	100.0	0.0	0.0	0.0	0.0	0.0
June	720	100.0	81.0	11.7	17.7	99.7	0.1	0.1	0.0	0.0	0.0
July	742	99.7	32.6	9.1	19.2	99.7	0.3	0.0	0.0	0.0	0.0
August	744	100.0	71.0	13.3	20.3	99.3	0.5	0.1	0.0	0.0	0.0
September	718	99.7	3.7	1.1	1.5	100.0	0.0	0.0	0.0	0.0	0.0
October	743	99.9	6.3	2.6	5.4	100.0	0.0	0.0	0.0	0.0	0.0
November	720	100.0	3.2	1.8	2.4	100.0	0.0	0.0	0.0	0.0	0.0
December	740	99.5	5.2	3.3	3.5	100.0	0.0	0.0	0.0	0.0	0.0
Annual	8745	99.8	223.7	13.3	20.3	99.9	0.1	0.0	0.0	0.0	0.0



Table B-8: Summary of Ambient Temperature monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average Temperature	Minimum 1-hr Temp	Maximum 1-hr Temp	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(°C)	(°C)	(°C)	≤ -30	-30 ~ -15	-15 ~ 0	0 ~ 15	15 ~ 30	>30
January	744	100.0	-12.6	-35.0	0.5	6.0	33.9	54.0	6.0	0.0	0.0
February	672	100.0	-18.1	-39.9	2.4	13.4	54.2	22.0	10.4	0.0	0.0
March	744	100.0	-5.9	-19.6	1.1	0.0	3.1	82.5	14.4	0.0	0.0
April	718	99.7	4.6	-15.3	12.5	0.0	0.1	25.6	67.0	7.2	0.0
May	740	99.5	14.6	0.0	23.2	0.0	0.0	0.1	54.9	44.3	0.7
June	720	100.0	16.1	5.0	21.5	0.0	0.0	0.0	44.9	55.1	0.0
July	742	99.7	18.2	5.4	25.0	0.0	0.0	0.0	31.8	67.5	0.7
August	744	100.0	19.2	6.2	22.7	0.0	0.0	0.0	22.6	73.9	3.5
September	718	99.7	15.3	0.4	19.6	0.0	0.0	0.0	50.1	49.6	0.3
October	743	99.9	6.6	-4.7	16.2	0.0	0.0	12.8	76.4	10.8	0.0
November	720	100.0	-2.6	-21.8	8.0	0.0	3.5	60.8	35.3	0.4	0.0
December	740	99.5	-15.8	-33.5	-1.3	1.4	58.4	37.2	3.1	0.0	0.0
Annual	8745	99.8	3.3	-39.9	25.0	1.7	12.5	24.7	34.8	25.9	0.4



Table B-9: Summary of Relative Humidity monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average Relative Humidity	Minimum 1-hr RH	Maximum 1-hr RH	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(%)	(%)	(%)	≤ 15	15 - 30	30 - 60	60 - 80	80 - 90	>90
January	744	100.0	70.8	49.5	77.9	0.0	0.0	3.1	93.7	3.2	0.0
February	672	100.0	69.2	49.0	76.8	0.0	0.0	8.3	87.6	4.0	0.0
March	744	100.0	73.2	48.7	80.7	0.0	0.0	7.1	70.2	22.7	0.0
April	718	99.7	56.7	20.4	78.1	0.0	11.1	39.7	40.4	8.8	0.0
May	740	99.5	47.1	13.2	75.9	1.9	23.0	48.2	20.5	6.4	0.0
June	720	100.0	57.1	16.7	75.8	0.0	11.0	41.0	33.6	14.4	0.0
July	742	99.7	61.6	28.0	82.3	0.0	0.5	45.6	37.3	16.6	0.0
August	744	100.0	64.2	21.5	82.8	0.0	3.2	34.8	37.9	24.1	0.0
September	718	99.7	59.2	18.2	84.2	0.0	9.9	38.2	33.1	18.8	0.0
October	743	99.9	62.3	26.0	81.2	0.0	2.6	40.9	39.7	16.8	0.0
November	720	100.0	71.1	27.3	85.4	0.0	0.8	20.4	46.5	32.2	0.0
December	740	99.5	72.4	55.2	77.8	0.0	0.0	1.4	95.0	3.6	0.0
Annual	8745	99.8	63.7	13.2	85.4	0.2	5.2	27.5	52.9	14.4	0.0



Table B-10: Wind Frequency Table 2025

Month	Percentage of Data within Wind Speed Range (m/s)						Total
	0.5-1.2	1.2 ~ 2.4	2.4 ~ 3.6	3.6 ~ 4.8	4.8 ~ 6.0	>6.0	
North	0.75	1.60	1.33	0.49	0.46	0.18	4.81
North North-East	0.85	2.39	1.43	0.66	0.13	0.06	5.52
East North-East	0.96	1.60	1.03	0.33	0.08	0.03	4.03
East North-East	1.60	2.04	0.80	0.27	0.00	0.00	4.71
East	2.81	2.63	0.82	0.16	0.02	0.00	6.44
East South-East	3.00	3.50	0.79	0.10	0.00	0.00	7.39
South-East	2.00	3.45	0.55	0.00	0.00	0.00	6.00
South South-East	1.73	2.01	0.72	0.14	0.02	0.00	4.62
South	3.40	2.44	0.82	0.22	0.05	0.00	6.93
South South-West	1.90	4.14	1.88	0.22	0.05	0.00	8.19
South-West	0.96	3.16	1.37	0.29	0.06	0.00	5.84
West South-West	0.90	3.19	2.48	0.77	0.17	0.03	7.54
West	1.12	1.96	1.12	0.58	0.03	0.00	4.81
West North-West	0.86	1.76	1.12	0.72	0.22	0.02	4.70
North-West	0.75	1.73	1.38	1.21	0.94	0.40	6.41
North North-West	0.62	1.13	0.92	0.69	0.39	0.08	3.83
Summary	24.21	38.73	18.56	6.85	2.62	0.80	91.77

Percentage Calm 8.22%





Appendix C Kerrobert Station: Continuous Monitoring Data

2025 Annual Report

Western Yellowhead Air Management Zone

Western Yellowhead Air Management Zone

SLR Project No.: 208.030089.00001

May 7, 2026

Table C-1: Kerrobert Station - Summary statistics for continuous air monitoring results for 2025

Parameter	Unit	Operational Time	Uptime	Summary Statistics for Hourly Average Data		
		(Hours)	%	Average	Minimum	Maximum
H2S	ppb	8179	93.4	0.6	0.0	7.8
SO2	ppb	8172	93.3	0.2	0.0	5.5
PM2.5	µg/m ³	8550	97.6	8.3	0.5	160.7
Precipitation	mm	8587	98.0	0.0	0.0	15.2
Ambient Temperature	°C	8587	98.0	3.3	-35.8	31.1
Relative Humidity	%	8587	98.0	63.2	12.5	90.2
Wind Speed	m/s	8587	98.0	3.0	0.0	11.3



Table C-2: Summary of H2S monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 24-hrs Conc.	1-Hour Exceedance ¹	24-Hour Exceedance ²	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 1	1-3.6	3.6-5	5-8	8-11	>11
January	707	95.0	0.1	0.7	0.5	0	0	100.0	0.0	0.0	0.0	0.0	0.0
February	644	95.8	0.4	1.5	1.0	0	0	95.2	4.8	0.0	0.0	0.0	0.0
March	708	95.2	0.9	7.8	2.0	0	0	56.8	42.8	0.3	0.1	0.0	0.0
April	531	73.8	0.4	2.1	0.8	0	0	98.5	1.5	0.0	0.0	0.0	0.0
May	697	93.7	0.9	4.1	1.5	0	0	59.4	40.5	0.1	0.0	0.0	0.0
June	690	95.8	0.1	0.6	0.3	0	0	100.0	0.0	0.0	0.0	0.0	0.0
July	710	95.4	0.6	4.8	0.9	0	0	91.8	8.0	0.1	0.0	0.0	0.0
August	698	93.8	1.0	1.9	1.2	0	0	65.5	34.5	0.0	0.0	0.0	0.0
September	683	94.9	0.5	2.3	1.5	0	0	86.1	13.9	0.0	0.0	0.0	0.0
October	712	95.7	0.3	1.0	0.8	0	0	99.6	0.4	0.0	0.0	0.0	0.0
November	690	95.8	0.9	1.6	1.1	0	0	76.1	23.9	0.0	0.0	0.0	0.0
December	709	95.3	0.8	1.9	1.5	0	0	71.9	28.1	0.0	0.0	0.0	0.0
Annual	8179	93.4	0.6	7.8	2.0	0	0	83.0	16.9	0.0	0.0	0.0	0.0

¹ 1-hour SAAQS = 11

² 24-hour SAAQS = 3.6



Table C-3: Summary of SO2 monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 24-hrs Conc.	1-Hour Exceedance ¹	24-Hour Exceedance ²	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 1	1-5	5-11	11-57	57-172	172
January	700	94.1	0.1	1.0	0.5	0	0	100.0	0.0	0.0	0.0	0.0	0.0
February	644	95.8	0.2	2.3	0.5	0	0	98.8	1.2	0.0	0.0	0.0	0.0
March	708	95.2	0.1	4.3	0.4	0	0	98.7	1.3	0.0	0.0	0.0	0.0
April	531	73.8	0.2	1.9	0.6	0	0	99.2	0.8	0.0	0.0	0.0	0.0
May	697	93.7	0.5	1.9	0.9	0	0	99.3	0.7	0.0	0.0	0.0	0.0
June	690	95.8	0.1	2.0	0.3	0	0	99.7	0.3	0.0	0.0	0.0	0.0
July	710	95.4	0.4	2.4	0.9	0	0	99.0	1.0	0.0	0.0	0.0	0.0
August	698	93.8	0.4	0.9	0.5	0	0	100.0	0.0	0.0	0.0	0.0	0.0
September	683	94.9	0.2	5.5	0.6	0	0	99.1	0.7	0.1	0.0	0.0	0.0
October	712	95.7	0.0	2.0	0.1	0	0	99.9	0.1	0.0	0.0	0.0	0.0
November	690	95.8	0.0	0.2	0.0	0	0	100.0	0.0	0.0	0.0	0.0	0.0
December	709	95.3	0.0	1.0	0.1	0	0	100.0	0.0	0.0	0.0	0.0	0.0
Annual	8172	93.3	0.2	5.5	0.9	0	0	99.5	0.5	0.0	0.0	0.0	0.0

¹ 1-hour SAAQS = 172

² 24-hour SAAQS = 48



Table C-4: Summary of PM2.5 monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 24-hrs Conc.	1-Hour Exceedance ¹	24-Hour Exceedance ²	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 5	5-10	10-15	15-30	30-80	>80
January	744	100.0	4.1	39.1	13.4	-	0	81.3	15.7	1.1	1.7	0.1	0.0
February	662	98.5	4.8	18.1	10.3	-	0	66.2	27.6	4.5	1.7	0.0	0.0
March	744	100.0	4.9	25.2	12.6	-	0	60.1	32.7	5.1	2.2	0.0	0.0
April	553	76.8	5.0	30.4	16.8	-	0	65.6	24.8	3.4	6.0	0.2	0.0
May	743	99.9	9.0	112.7	34.2	-	1	34.6	39.4	13.9	9.3	2.6	0.3
June	717	99.6	14.6	136.1	67.2	-	3	22.2	43.1	10.5	10.5	11.9	2.0
July	741	99.6	13.9	160.7	59.4	-	2	23.5	31.2	21.1	14.0	8.8	1.5
August	722	97.0	9.8	90.9	61.4	-	1	36.0	37.8	14.8	6.5	4.0	0.8
September	718	99.7	15.0	106.4	75.9	-	2	15.7	27.6	22.4	26.6	5.8	1.8
October	743	99.9	6.2	35.1	20.9	-	0	57.5	25.6	9.4	5.9	1.6	0.0
November	720	100.0	5.6	28.6	15.3	-	0	59.0	29.3	7.2	4.4	0.0	0.0
December	743	99.9	6.4	113.1	26.4	-	0	52.8	38.2	6.5	1.1	0.9	0.5
Annual	8550	97.6	8.3	160.7	75.9	0	9	47.5	31.2	10.1	7.5	3.1	0.6

¹ No 1-hour SAAQS for this parameter

² 24-hour SAAQS = 28



Table C-5: Summary of Precipitation monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Total Precipitation	Maximum 1-hr Precip.	Maximum 24-hrs Precip.	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(mm)	(mm)	(mm)	≤ 5	5-10	10-15	15-30	30-80	>80
January	744	100.0	2.3	0.6	1.8	100.0	0.0	0.0	0.0	0.0	0.0
February	672	100.0	0.4	0.3	0.3	100.0	0.0	0.0	0.0	0.0	0.0
March	744	100.0	5.4	2.2	5.1	100.0	0.0	0.0	0.0	0.0	0.0
April	554	76.9	9.1	2.4	6.2	100.0	0.0	0.0	0.0	0.0	0.0
May	744	100.0	9.7	2.3	4.7	100.0	0.0	0.0	0.0	0.0	0.0
June	719	99.9	173.5	15.2	94.5	98.5	1.0	0.4	0.1	0.0	0.0
July	742	99.7	32.2	6.8	15.1	99.7	0.3	0.0	0.0	0.0	0.0
August	743	99.9	34.1	13.1	27.5	99.7	0.1	0.1	0.0	0.0	0.0
September	719	99.9	11.4	8.9	8.9	99.9	0.1	0.0	0.0	0.0	0.0
October	743	99.9	4.8	1.0	1.9	100.0	0.0	0.0	0.0	0.0	0.0
November	720	100.0	9.7	5.3	9.0	99.9	0.1	0.0	0.0	0.0	0.0
December	743	99.9	0.5	0.1	0.3	100.0	0.0	0.0	0.0	0.0	0.0
Annual	8587	98.0	293.1	15.2	94.5	99.8	0.1	0.0	0.0	0.0	0.0



Table C-6: Summary of Ambient Temperature monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average Temperature	Minimum 1-hr Temp	Maximum 1-Hr Temp	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(°C)	(°C)	(°C)	≤ -30	-30 ~ -15	-15 ~ 0	0 ~ 15	15 ~ 30	>30
January	744	100.0	-11.4	-33.4	-0.1	2.8	30.9	59.0	7.3	0.0	0.0
February	672	100.0	-17.7	-35.8	1.8	10.7	55.5	24.1	9.7	0.0	0.0
March	744	100.0	-4.5	-18.9	2.6	0.0	2.6	77.8	19.6	0.0	0.0
April	554	76.9	4.5	-10.0	11.3	0.0	0.0	25.8	69.1	5.1	0.0
May	744	100.0	13.7	0.8	22.8	0.0	0.0	0.0	60.5	38.8	0.7
June	719	99.9	15.4	4.1	20.3	0.0	0.0	0.0	51.0	49.0	0.0
July	742	99.7	16.7	5.1	21.7	0.0	0.0	0.0	41.5	58.5	0.0
August	743	99.9	18.3	6.5	22.0	0.0	0.0	0.0	30.0	68.8	1.2
September	719	99.9	15.3	1.5	19.0	0.0	0.0	0.0	50.9	49.1	0.0
October	743	99.9	5.5	-8.5	12.6	0.0	0.0	17.6	74.6	7.8	0.0
November	720	100.0	-2.7	-24.2	9.8	0.0	4.3	59.7	35.3	0.7	0.0
December	743	99.9	-15.0	-29.4	-1.0	0.0	54.5	41.6	3.9	0.0	0.0
Annual	8587	98.0	3.2	-35.8	22.8	1.1	12.3	25.5	37.3	23.6	0.2



Table C-7: Summary of Relative Humidity monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average Relative Humidity	Minimum 1-hr RH	Maximum 1-Hr RH	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(%)	(%)	(%)	≤ 15	15 - 30	30 - 60	60 - 80	80 - 90	>90
January	744	100	71	53	78	0	0	2	95	3	0
February	672	100	69	50	75	0	0	2	98	0	0
March	744	100	73	42	82	0	0	6	76	18	0
April	554	77	55	22	80	0	11	47	33	9	0
May	744	100	48	13	84	1	22	49	17	11	0
June	719	100	56	13	83	1	14	41	31	14	0
July	742	100	66	32	83	0	0	37	41	22	0
August	743	100	64	22	85	0	6	33	35	26	0
September	719	100	55	19	80	0	11	51	25	13	0
October	743	100	59	26	78	0	3	47	42	9	0
November	720	100	70	29	83	0	1	19	60	21	0
December	743	100	71	58	80	0	0	0	96	4	0
Annual	8587	98	63	13	85	0	6	28	54	13	0



Table C-8: Wind Frequency Table 2025

Wind Direction Sector	Percentage of Data within Windspeed Range (m/s)						Total
	0.5-1.2	1.2 ~ 2.4	2.4 ~ 3.6	3.6 ~ 4.8	4.8 ~ 6.0	>6.0	
North	0.61	3.11	2.32	0.41	0.03	0.00	6.48
North North-East	0.78	2.77	1.76	0.55	0.10	0.01	5.97
East North-East	0.72	2.14	1.30	0.58	0.15	0.02	4.91
East North-East	0.41	1.47	1.58	0.59	0.29	0.51	4.85
East	0.38	1.88	2.26	0.87	0.75	0.43	6.57
East South-East	0.33	1.82	2.56	1.86	1.28	0.77	8.62
South-East	0.20	0.92	1.22	1.04	0.77	0.33	4.48
South South-East	0.19	0.69	0.80	0.52	0.54	0.57	3.31
South	0.26	0.68	0.62	0.69	0.40	0.56	3.21
South South-West	0.50	1.00	0.85	0.56	0.26	0.12	3.29
South-West	0.65	2.06	1.41	0.69	0.30	0.07	5.18
West South-West	0.77	0.71	1.06	0.89	0.34	0.20	3.97
West	0.45	0.63	0.84	1.08	0.70	0.36	4.06
West North-West	1.20	3.23	1.98	1.37	0.79	0.42	8.99
North-West	1.07	3.58	2.99	2.66	1.03	0.19	11.52
North North-West	0.87	5.07	3.87	2.43	0.77	0.14	13.15
Summary	9.39	31.76	27.42	16.79	8.50	4.70	98.56
Percentage Calm	1.46%						





Appendix D Maidstone Station: Continuous Monitoring Data

2025 Annual Report

Western Yellowhead Air Management Zone

Western Yellowhead Air Management Zone

SLR Project No.: 208.030089.00001

May 7, 2026

Table D-1: Maidstone Station - Summary statistics for continuous air monitoring results for 2025

Parameter	Unit	Operational Time	Uptime	Summary Statistics for Hourly Average Data		
		(Hours)	%	Average	Minimum	Maximum
NO	ppb	0	0.0	NA	0	0.0
NO2	ppb	0	0.0	NA	0	0.0
NOx	ppb	0	0.0	NA	0	0.0
SO2	ppb	6934	79.2	0	0	14.0
H2S	ppb	6934	79.2	1	0	73.9
PM2.5	µg/m ³	6960	79.5	8	0	246.0
Precipitation	mm	7023	80.2	0	0	8.1
Ambient Temperature	°C	7023	80.2	-1	-37	30.8
Relative Humidity	%	7023	80.2	62	12	90.3
Wind Speed	m/s	7023	80.2	2	0	7.4



Table D-2: Summary of H2S monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 8-hrs Conc.	1-Hour Exceedance ¹	24-Hour Exceedance ²	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 1	1-3.6	3.6-5	5-8	8-11	>11
January	744	100.0	0.0	6.8	0.4	0	0	99.7	0.1	0.0	0.1	0.0	0.0
February	672	100.0	0.1	1.1	0.6	0	0	99.9	0.1	0.0	0.0	0.0	0.0
March	737	99.1	0.3	1.8	0.7	0	0	98.4	1.6	0.0	0.0	0.0	0.0
April	720	100.0	0.8	3.7	1.7	0	0	79.3	20.6	0.1	0.0	0.0	0.0
May	629	84.5	2.4	41.3	8.8	34	6	60.4	26.4	2.4	2.9	2.5	5.4
June	716	99.4	1.2	73.9	10.4	23	3	87.6	6.6	1.1	1.0	0.6	3.2
July	90	12.1	1.3	21.1	3.9	2	1	77.8	14.4	1.1	2.2	2.2	2.2
August	0	0.0	-	-	-	0	0	-	-	-	-	-	-
September	453	62.9	0.8	11.7	2.5	1	0	76.6	17.4	2.2	3.1	0.4	0.2
October	740	99.5	0.1	17.9	1.0	1	0	97.8	1.6	0.3	0.1	0.0	0.1
November	698	96.9	0.0	0.3	0.0	0	0	100.0	0.0	0.0	0.0	0.0	0.0
December	735	98.8	0.0	0.5	0.3	0	0	100.0	0.0	0.0	0.0	0.0	0.0
Annual	6934	79.2	0.7	73.9	10.4	61	10	90.7	6.9	0.5	0.6	0.3	0.9

¹ 1-hour SAAQS = 11

² 24-hour SAAQS = 3.6



Table D-3: Summary of SO2 monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 24-hrs Conc.	1-Hour Exceedance ¹	24-Hour Exceedance ²	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 1	1-5	5-11	11-57	57-172	172
January	744	100.0	0.6	14.0	2.6	0	0	85.1	14.4	0.4	0.1	0.0	0.0
February	672	100.0	0.6	5.8	2.5	0	0	82.7	17.0	0.3	0.0	0.0	0.0
March	737	99.1	0.5	4.0	1.2	0	0	89.8	10.2	0.0	0.0	0.0	0.0
April	720	100.0	0.6	4.4	0.9	0	0	96.9	3.1	0.0	0.0	0.0	0.0
May	629	84.5	0.7	2.2	1.1	0	0	90.0	10.0	0.0	0.0	0.0	0.0
June	716	99.4	0.0	0.8	0.3	0	0	100.0	0.0	0.0	0.0	0.0	0.0
July	90	12.1	0.1	1.3	0.2	0	0	98.9	1.1	0.0	0.0	0.0	0.0
August	0	0.0	-	-	-	0	0	-	-	-	-	-	-
September	453	62.9	0.1	3.7	0.4	0	0	98.0	2.0	0.0	0.0	0.0	0.0
October	741	99.6	0.0	1.5	0.1	0	0	99.9	0.1	0.0	0.0	0.0	0.0
November	698	96.9	0.1	2.5	0.6	0	0	98.6	1.4	0.0	0.0	0.0	0.0
December	734	98.7	0.3	8.4	1.1	0	0	95.4	4.5	0.1	0.0	0.0	0.0
Annual	6934	79.2	0.3	14.0	2.6	0	0	93.6	6.3	0.1	0.0	0.0	0.0

¹ 1-hour SAAQS = 172

² 24-hour SAAQS = 48



Table D-4: Summary of PM2.5 monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 24-hrs Conc.	1-Hour Exceedance ¹	24-Hours Exceedance ²	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 5	5-10	10-15	15-30	30-80	>80
January	741	99.6	3.3	17.5	11.4	-	0	88.4	7.7	2.6	1.3	0.0	0.0
February	672	100.0	3.9	13.5	11.4	-	0	80.2	14.9	4.9	0.0	0.0	0.0
March	736	98.9	4.0	13.8	7.3	-	0	74.2	23.5	2.3	0.0	0.0	0.0
April	720	100.0	4.3	32.9	8.6	-	0	77.2	19.2	3.2	0.3	0.1	0.0
May	629	84.5	13.9	246.0	94.6	-	2	33.2	40.7	14.1	6.4	2.4	3.2
June	716	99.4	20.7	224.0	142.2	-	7	16.6	34.6	19.0	12.7	11.5	5.6
July	90	12.1	5.4	19.0	7.2	-	0	63.3	31.1	3.3	2.2	0.0	0.0
August	0	0.0	-	-	-	-	0	-	-	-	-	-	-
September	465	64.6	11.1	66.6	25.4	-	0	21.7	29.9	24.7	21.5	2.2	0.0
October	741	99.6	6.7	72.7	24.7	-	0	50.9	33.5	9.6	3.6	2.4	0.0
November	717	99.6	8.9	37.9	26.6	-	0	38.5	32.1	10.5	16.5	2.5	0.0
December	733	98.5	6.1	26.2	17.8	-	0	57.6	27.3	10.0	5.2	0.0	0.0
Annual	6960	79.5	8.0	246.0	142.2	0	9	55.4	26.1	9.4	6.1	2.1	0.9

¹ No 1-hour SAAQS for this parameter

² 24-hour SAAQS = 28



Table D-5: Summary of Precipitation monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Total Precipitation	Maximum 1-hr Precip.	Maximum 24-hrs Precip.	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(mm)	(mm)	(mm)	≤ 5	5-10	10-15	15-30	30-80	>80
January	744	100.0	2.2	1.2	1.9	100	0	0.0	0.0	0.0	0.0
February	672	100.0	0.0	0.0	0.0	100	0	0.0	0.0	0.0	0.0
March	744	100.0	0.1	0.1	0.1	100	0	0.0	0.0	0.0	0.0
April	720	100.0	1.3	0.6	0.9	100	0	0.0	0.0	0.0	0.0
May	647	87.0	13.4	2.1	4.9	100	0	0.0	0.0	0.0	0.0
June	716	99.4	72.3	8.1	15.2	99	1	0.0	0.0	0.0	0.0
July	90	12.1	2.1	1.6	1.6	100	0	0.0	0.0	0.0	0.0
August	0	0.0	-	-	-	-	-	-	-	-	-
September	485	67.4	8.2	4.1	4.6	100	0	0.0	0.0	0.0	0.0
October	743	99.9	15.3	4.1	8.6	100	0	0.0	0.0	0.0	0.0
November	718	99.7	6.9	1.7	4.0	100	0	0.0	0.0	0.0	0.0
December	744	100.0	1.0	0.4	0.5	100	0	0.0	0.0	0.0	0.0
Annual	7023	80.2	122.7	8.1	15.2	100	0	0.0	0.0	0.0	0.0



Table D-6: Summary of Ambient Temperature monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average Temperature	Minimum 1-hr Temp	Maximum 1-Hr Temp	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(°C)	(°C)	(°C)	≤ -30	-30 ~ -15	-15 ~ 0	0 ~ 15	15 ~ 30	>30
January	744	100.0	-11.7	-35.5	2.7	5	37	45.6	13.3	0.0	0.0
February	672	100.0	-17.4	-36.5	3.4	9	60	18.3	13.1	0.0	0.0
March	744	100.0	-4.5	-20.1	3.3	0	4	75.4	20.8	0.0	0.0
April	720	100.0	4.6	-15.2	13.2	0	0	27.9	64.4	7.5	0.0
May	647	87.0	13.2	-2.0	21.7	0	0	1.5	61.2	36.5	0.8
June	716	99.4	15.1	1.8	19.6	0	0	0.0	48.5	51.5	0.0
July	90	12.1	18.9	8.7	21.7	0	0	0.0	23.3	76.7	0.0
August	0	0.0	-	-	-	-	-	-	-	-	-
September	485	67.4	14.5	-2.1	19.5	0	0	1.0	52.8	45.6	0.6
October	743	99.9	4.9	-7.2	11.9	0	0	19.2	75.0	5.8	0.0
November	718	99.7	-3.7	-24.2	4.6	0	4	64.6	31.1	0.0	0.0
December	744	100.0	-17.0	-36.1	-1.0	3	66	26.9	4.0	0.0	0.0
Annual	7023	80.2	1.5	-36.5	21.7	2	17	29.1	37.5	14.1	0.1



Table D-7: Summary of Relative Humidity monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average Relative Humidity	Minimum 1-hr RH	Maximum 1-Hr RH	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(%)	(%)	(%)	≤ 15	15 - 30	30 - 60	60 - 80	80 - 90	>90
January	744	100.0	66.3	45.6	75.5	0	0	14.4	84.7	0.9	0.0
February	672	100.0	63.5	44.7	72.0	0	0	25.7	74.3	0.0	0.0
March	744	100.0	66.4	42.2	76.8	0	0	25.1	69.8	5.1	0.0
April	720	100.0	52.3	17.2	74.9	0	14	48.2	35.8	1.9	0.0
May	647	87.0	51.1	12.3	78.6	2	20	40.0	25.3	12.4	0.0
June	716	99.4	58.5	16.6	81.1	0	6	45.3	29.6	19.1	0.0
July	90	12.1	63.1	38.5	65.4	0	0	48.9	30.0	21.1	0.0
August	0	0.0	-	-	-	-	-	-	-	-	-
September	485	67.4	61.5	19.3	80.6	0	7	40.8	24.5	26.6	0.6
October	743	99.9	63.8	25.6	80.0	0	2	35.9	43.7	18.3	0.0
November	718	99.7	70.2	34.5	81.4	0	0	18.4	65.7	15.9	0.0
December	744	100.0	68.4	33.4	74.9	0	0	4.7	95.2	0.1	0.0
Annual	7023	80.2	62.3	12.3	81.4	0	5	29.5	56.0	9.6	0.0



Table D-8: Wind Frequency Table 2025

Wind Direction Sector	Percentage of Data within Wind Speed Range (m/s)						
	0.5-1.2	1.2 ~ 2.4	2.4 ~ 3.6	3.6 ~ 4.8	4.8 ~ 6.0	>6.0	Total
North	0.40	0.83	1.17	0.47	0.19	0	3
North North-East	0.24	0.53	0.56	0.13	0.01	0	2
East North-East	0.16	0.36	0.40	0.16	0.03	0	1
East North-East	0.30	0.51	0.48	0.23	0.09	0	2
East	0.56	0.70	0.83	0.46	0.06	0	3
East South-East	1.12	2.99	3.19	1.55	0.58	0	9
South-East	2.05	5.08	3.84	2.48	0.95	0	15
South South-East	3.00	1.41	1.01	0.58	0.47	0	7
South	1.72	0.70	0.36	0.14	0.09	0	3
South South-West	0.61	0.41	0.13	0.01	0.01	0	1
South-West	0.73	0.77	0.01	0.00	0.00	0	2
West South-West	1.07	1.37	0.54	0.11	0.00	0	3
West	1.31	3.32	2.62	0.83	0.04	0	8
West North-West	2.12	3.43	4.50	3.03	1.11	0.07	14.26
North-West	2.66	2.56	2.41	1.27	0.44	0.17	9.51
North North-West	1.28	2.16	1.69	0.97	0.46	0.24	6.80
Summary	19.33	27.13	23.74	12.42	4.53	1.23	88.38
Percentage Calm	11.62%						





Appendix E Meadow Lake Station: Continuous Monitoring Data

2025 Annual Report

Western Yellowhead Air Management Zone

Western Yellowhead Air Management Zone

SLR Project No.: 208.030089.00001

May 7, 2026

Table E-1: Meadow Lake Station - Summary statistics for continuous air monitoring results for 2025

Parameter	Unit	Operational Time	Uptime	Summary Statistics for Hourly Average Data		
		(Hours)	%	Average	Minimum	Maximum
NO	ppb	6358	72.6	0.3	0.0	39.3
NO2	ppb	6358	72.6	1.8	0.0	29.4
NOx	ppb	6358	72.6	2.0	0.0	49.4
O3	ppb	7778	88.8	28.1	0.0	74.2
PM2.5	µg/m ³	6481	74.0	9.9	0.5	668.7
Precipitation	mm	8725	99.6	0.0	0.0	29.9
Ambient Temperature	°C	8725	99.6	3.7	-36.0	33.1
Relative Humidity	%	8725	99.6	57.7	10.3	87.8
Wind Speed	m/s	8725	99.6	1.2	0.0	4.9



Table E-2: Summary of NO monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 24-hrs Conc.	1-Hour Exceedance ¹	24-Hour Exceedance ²	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 1	1-5	5-10	10-50	50-172	> 172
January	0	0.0	-	-	-	-	-	-	-	-	-	-	-
February	0	0.0	-	-	-	-	-	-	-	-	-	-	-
March	124	16.7	0.3	1.5	0.4	-	-	98.4	1.6	0.0	0.0	0.0	0.0
April	690	95.8	0.3	3.4	0.8	-	-	96.2	3.8	0.0	0.0	0.0	0.0
May	694	93.3	0.1	8.8	1.1	-	-	98.6	1.2	0.3	0.0	0.0	0.0
June	683	94.9	0.1	3.6	0.2	-	-	99.3	0.7	0.0	0.0	0.0	0.0
July	701	94.2	0.1	7.4	0.7	-	-	97.7	2.1	0.1	0.0	0.0	0.0
August	693	93.1	0.1	9.7	0.8	-	-	97.8	2.0	0.1	0.0	0.0	0.0
September	675	93.8	0.3	11.9	1.9	-	-	93.3	5.9	0.6	0.1	0.0	0.0
October	713	95.8	0.6	39.3	3.7	-	-	88.9	8.3	1.4	1.4	0.0	0.0
November	690	95.8	0.7	28.2	5.1	-	-	88.4	8.4	1.9	1.3	0.0	0.0
December	695	93.4	0.5	9.6	1.6	-	-	86.2	13.2	0.6	0.0	0.0	0.0
Annual	6358	72.6	0.3	39.3	5.1	0	0	94.1	5.0	0.6	0.3	0.0	0.0

¹ No 1-hour SAAQS for this parameter

² No 24-hour SAAQS for this parameter



Table E-3: Summary of NO2 monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 24-hrs Conc.	1-Hour Exceedance ¹	24-Hour Exceedance ²	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 5	5-15	15-53	53-100	100-159	>159
January	0	0.0	-	-	-	0	0	-	-	-	-	-	-
February	0	0.0	-	-	-	0	0	-	-	-	-	-	-
March	124	16.7	1.1	4.7	1.7	0	0	100.0	0.0	0.0	0.0	0.0	0.0
April	690	95.8	1.4	13.3	4.1	0	0	94.8	5.2	0.0	0.0	0.0	0.0
May	694	93.3	0.9	14.1	3.2	0	0	98.6	1.4	0.0	0.0	0.0	0.0
June	683	94.9	1.1	7.8	3.1	0	0	98.1	1.9	0.0	0.0	0.0	0.0
July	701	94.2	0.8	8.2	2.2	0	0	99.1	0.9	0.0	0.0	0.0	0.0
August	693	93.1	0.7	7.5	1.5	0	0	99.1	0.9	0.0	0.0	0.0	0.0
September	675	93.8	1.7	11.5	3.4	0	0	94.5	5.5	0.0	0.0	0.0	0.0
October	713	95.8	2.3	17.8	5.4	0	0	91.6	7.7	0.7	0.0	0.0	0.0
November	690	95.8	3.3	22.7	7.3	0	0	82.6	16.4	1.0	0.0	0.0	0.0
December	695	93.4	3.9	29.4	8.6	0	0	77.4	20.7	1.9	0.0	0.0	0.0
Annual	6358	72.6	1.7	29.4	8.6	0	0	93.0	6.6	0.4	0.0	0.0	0.0

¹ 1-hour SAAQS = 159

² 24-hour SAAQS = 106



Table E-4: Summary of NOx monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 24-hrs Conc.	1-Hour Exceedance ¹	24-Hour Exceedance ²	Percent of Data within Concentration Range (%)						
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 5	5-15	15-53	53-100	100-159	>159	
January	0	0.0	-	-	-	-	-	-	-	-	-	-	-	-
February	0	0.0	-	-	-	-	-	-	-	-	-	-	-	-
March	124	16.7	1.3	5.1	2.1	-	-	99.2	0.8	0.0	0.0	0.0	0.0	0.0
April	690	95.8	1.7	15.1	4.9	-	-	93.0	6.7	0.3	0.0	0.0	0.0	0.0
May	694	93.3	1.0	22.9	4.0	-	-	98.3	1.4	0.3	0.0	0.0	0.0	0.0
June	683	94.9	1.0	11.4	2.9	-	-	97.8	2.2	0.0	0.0	0.0	0.0	0.0
July	701	94.2	0.7	14.9	2.3	-	-	98.7	1.3	0.0	0.0	0.0	0.0	0.0
August	693	93.1	0.7	15.7	2.0	-	-	98.7	1.2	0.1	0.0	0.0	0.0	0.0
September	675	93.8	1.8	20.1	5.2	-	-	91.1	8.4	0.4	0.0	0.0	0.0	0.0
October	713	95.8	2.8	49.4	7.9	-	-	88.5	8.8	2.7	0.0	0.0	0.0	0.0
November	690	95.8	3.9	48.3	12.3	-	-	79.0	17.7	3.3	0.0	0.0	0.0	0.0
December	695	93.4	4.3	39.0	10.3	-	-	71.1	25.8	3.2	0.0	0.0	0.0	0.0
Annual	6358	72.6	1.9	49.4	12.3	0	0	90.8	8.0	1.1	0.0	0.0	0.0	0.0

¹ No 1-hour SAAQS for this parameter

² No 24-hour SAAQS for this parameter



Table E-5: Summary of O3 monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 8-hrs Conc.	1-Hour Exceedance ¹	8-Hour Exceedance ²	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 10	10-20	20-40	40-65	65-82	>82
January	709	95.3	28.7	41.5	40.3	0	0	3.9	4.9	90.6	0.6	0.0	0.0
February	644	95.8	25.7	45.2	42.5	0	0	7.5	12.3	78.3	2.0	0.0	0.0
March	705	94.8	33.7	48.4	45.6	0	0	0.6	1.7	88.1	9.6	0.0	0.0
April	690	95.8	37.0	57.0	54.8	0	0	0.7	2.8	56.5	40.0	0.0	0.0
May	694	93.3	38.3	74.2	71.6	0	17	0.0	5.0	54.2	37.8	3.0	0.0
June	683	94.9	29.3	73.0	73.0	0	4	3.2	14.6	69.1	12.6	0.4	0.0
July	701	94.2	28.6	52.1	50.4	0	0	2.6	19.8	63.2	14.4	0.0	0.0
August	697	93.7	23.0	60.9	48.5	0	0	12.6	31.7	45.3	10.3	0.0	0.0
September	674	93.6	22.7	43.7	41.1	0	0	12.8	23.6	61.3	2.4	0.0	0.0
October	713	95.8	21.0	40.3	37.8	0	0	7.7	35.8	56.1	0.4	0.0	0.0
November	687	95.4	21.8	36.1	34.7	0	0	7.3	28.2	64.5	0.0	0.0	0.0
December	181	24.3	23.2	35.1	33.4	0	0	5.5	23.2	71.3	0.0	0.0	0.0
Annual	7778	88.8	27.7	74.2	73.0	0	21	5.3	16.6	66.2	11.6	0.3	0.0

¹ 1-hour SAAQS = 82

² 8-hour SAAQS = 63



Table E-6: Summary of PM2.5 monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average 1-hr Conc.	Maximum 1-hr Conc.	Maximum 24-hrs Conc.	1-Hour Exceedance ¹	24-Hour Exceedance ²	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(ppb)	(ppb)	(ppb)	(no.)	(no.)	≤ 5	5-10	10-15	15-30	30-80	>80
January	0	0.0	-	-	-	-	0	-	-	-	-	-	-
February	0	0.0	-	-	-	-	0	-	-	-	-	-	-
March	134	18.0	4.4	43.4	5.9	-	0	79.1	12.7	5.2	2.2	0.7	0.0
April	720	100.0	5.2	40.9	10.1	-	0	60.3	28.3	8.5	2.4	0.6	0.0
May	728	97.8	13.3	668.7	126.0	-	2	36.1	37.2	12.4	8.5	3.3	2.5
June	716	99.4	15.0	216.2	87.0	-	4	26.1	36.5	15.9	11.0	6.4	4.1
July	731	98.3	18.3	256.5	129.6	-	4	20.0	27.8	17.1	20.0	11.8	3.4
August	525	70.6	10.1	132.1	26.4	-	0	43.0	30.5	8.4	13.1	3.6	1.3
September	720	100.0	12.3	84.6	30.0	-	1	23.8	26.3	20.4	24.4	5.0	0.1
October	743	99.9	5.0	58.5	13.4	-	0	67.4	22.7	5.2	4.2	0.4	0.0
November	720	100.0	6.1	46.4	13.1	-	0	56.8	29.3	7.8	5.1	1.0	0.0
December	744	100.0	5.4	31.6	13.9	-	0	62.2	25.4	7.9	4.3	0.1	0.0
Annual	6481	74.0	9.5	668.7	129.6	0	11	44.8	28.9	11.4	10.1	3.5	1.2

¹ No 1-hour SAAQS for this parameter

² 24-hour SAAQS = 28



Table E-7: Summary of Precipitation monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Total Precipitation	Maximum 1-hr Precip.	Maximum 24-hrs Precip.	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(mm)	(mm)	(mm)	≤ 5	5-10	10-15	15-30	30-80	>80
January	744	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
February	672	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0
March	742	99.7	0.1	0.1	0.1	100.0	0.0	0.0	0.0	0.0	0.0
April	720	100.0	3.8	1.0	2.3	100.0	0.0	0.0	0.0	0.0	0.0
May	736	98.9	18.5	5.1	10.9	99.9	0.1	0.0	0.0	0.0	0.0
June	717	99.6	98.4	29.9	50.2	99.2	0.4	0.3	0.1	0.0	0.0
July	735	98.8	44.9	11.2	36.4	99.5	0.4	0.1	0.0	0.0	0.0
August	734	98.7	98.0	15.8	25.3	99.3	0.3	0.3	0.1	0.0	0.0
September	720	100.0	37.3	8.8	14.5	99.6	0.4	0.0	0.0	0.0	0.0
October	742	99.7	25.0	4.6	13.9	100.0	0.0	0.0	0.0	0.0	0.0
November	719	99.9	5.5	1.5	3.6	100.0	0.0	0.0	0.0	0.0	0.0
December	744	100.0	2.0	0.6	1.6	100.0	0.0	0.0	0.0	0.0	0.0
Annual	8725	99.6	333.5	29.9	50.2	99.8	0.1	0.1	0.0	0.0	0.0



Table E-8: Summary of Ambient Temperature monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average Temperature	Minimum 1-hr Temp	Maximum 1-hr Temp	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(°C)	(°C)	(°C)	≤ -30	-30 ~ -15	-15 ~ 0	0 ~ 15	15 ~ 30	>30
January	744	100.0	-11.0	-33.4	2.3	2.0	37.8	48.5	11.7	0.0	0.0
February	672	100.0	-16.2	-36.0	4.2	7.3	59.2	18.8	14.7	0.0	0.0
March	742	99.7	-3.6	-20.0	5.3	0.0	3.2	69.1	27.6	0.0	0.0
April	720	100.0	5.5	-10.0	16.0	0.0	0.0	22.6	68.8	8.6	0.0
May	736	98.9	14.4	1.4	24.7	0.0	0.0	0.0	57.7	41.2	1.1
June	717	99.6	15.5	4.5	21.1	0.0	0.0	0.0	50.5	49.5	0.0
July	735	98.8	18.3	5.0	23.6	0.0	0.0	0.0	29.8	70.1	0.1
August	734	98.7	18.9	6.0	25.0	0.0	0.0	0.0	25.3	71.0	3.7
September	720	100.0	15.3	3.2	19.8	0.0	0.0	0.0	46.7	53.3	0.0
October	742	99.7	6.0	-3.9	13.2	0.0	0.0	5.8	88.9	5.3	0.0
November	719	99.9	-2.6	-22.7	4.9	0.0	2.8	59.4	37.8	0.0	0.0
December	744	100.0	-17.1	-30.1	-5.2	0.1	70.4	27.7	1.7	0.0	0.0
Annual	8725	99.6	3.6	-36.0	25.0	0.7	14.3	21.1	38.5	25.0	0.4



Table E-9: Summary of Relative Humidity monitoring results for 2025

Month	Valid 1-hr Data	Operational Time	Average Relative Humidity	Minimum 1-hr RH	Maximum 1-hr RH	Percent of Data within Concentration Range (%)					
	(no.)	(%)	(%)	(%)	(%)	≤ 15	15 - 30	30 - 60	60 - 80	80 - 90	>90
January	744	100.0	61.2	39.8	71.7	0.0	0.0	40.9	58.7	0.4	0.0
February	672	100.0	57.8	26.4	66.8	0.0	0.4	56.8	42.7	0.0	0.0
March	742	99.7	56.0	26.0	65.1	0.0	1.1	59.7	39.2	0.0	0.0
April	720	100.0	45.4	16.0	64.2	0.0	20.4	58.6	20.6	0.4	0.0
May	736	98.9	47.7	10.3	72.0	1.5	22.7	47.3	22.0	6.5	0.0
June	717	99.6	55.5	21.2	79.8	0.0	8.6	47.6	33.9	9.9	0.0
July	735	98.8	52.7	23.5	69.9	0.0	9.0	53.2	33.6	4.2	0.0
August	734	98.7	62.4	21.6	84.2	0.0	4.2	37.5	37.7	20.6	0.0
September	720	100.0	60.7	24.3	82.6	0.0	2.6	45.4	34.2	17.8	0.0
October	742	99.7	63.6	25.6	80.4	0.0	1.1	35.3	54.9	8.8	0.0
November	719	99.9	64.6	33.3	75.4	0.0	0.0	28.2	70.0	1.8	0.0
December	744	100.0	64.6	48.8	70.9	0.0	0.0	16.4	83.6	0.0	0.0
Annual	8725	99.6	57.7	10.3	84.2	0.1	5.9	43.8	44.4	5.9	0.0



Table E-10: Wind Frequency Table 2025

Month	Percentage of Data within Wind Speed Range (m/s)						
	0.5-1.2	1.2 ~ 2.4	2.4 ~ 3.6	3.6 ~ 4.8	4.8 ~ 6.0	>6.0	Total
North	1.94	1.33	0.06	0.01	0.00	0.00	3.34
North North-East	3.60	1.58	0.10	0.00	0.00	0.00	5.28
East North-East	1.18	0.10	0.00	0.00	0.00	0.00	1.28
East North-East	0.71	0.02	0.00	0.00	0.00	0.00	0.73
East	1.15	0.11	0.00	0.00	0.00	0.00	1.26
East South-East	3.72	2.60	0.44	0.02	0.00	0.00	6.78
South-East	2.30	3.42	1.56	0.31	0.01	0.00	7.60
South South-East	1.20	1.71	0.76	0.10	0.00	0.00	3.77
South	1.25	0.94	0.18	0.03	0.01	0.00	2.41
South South-West	1.26	1.17	0.26	0.15	0.00	0.00	2.84
South-West	4.23	6.22	0.58	0.03	0.00	0.00	11.06
West South-West	3.79	3.64	0.18	0.00	0.00	0.00	7.61
West	1.95	2.64	0.44	0.02	0.00	0.00	5.05
West North-West	1.91	3.30	1.40	0.11	0.00	0.00	6.72
North-West	1.83	3.32	0.85	0.07	0.00	0.00	6.07
North North-West	1.70	1.71	0.54	0.11	0.01	0.00	4.07
Summary	33.72	33.81	7.35	0.96	0.03	0.00	75.87

Percentage Calm **24.09%**





Appendix F WYAMZ Exceedance Summary

2025 Annual Report

Western Yellowhead Air Management Zone

Western Yellowhead Air Management Zone

SLR Project No.: 208.030089.00001

May 7, 2026

8-Hour Exceedance Summary

Station	Pollutant	Date and Time	Concentration	Wind Speed	Wind Direction	Precipitation	NO	NO ₂	NOx	O ₃	H ₂ S	PM _{2.5}	SO ₂
Clavet	O ₃	5/31/25 17:00	66.0	0.9	161.9	0.0	0.8	2.7	3.5	66.0	-	77.9	-
Clavet	O ₃	5/31/25 18:00	70.7	1.1	159.8	0.0	0.8	2.6	3.4	70.7	-	76.1	-
Clavet	O ₃	5/31/25 19:00	75.4	1.3	146.4	0.0	0.8	2.7	3.4	75.4	-	72.2	-
Clavet	O ₃	5/31/25 20:00	79.3	1.4	147.4	0.0	0.8	2.8	3.6	79.3	-	69.9	-
Clavet	O ₃	5/31/25 21:00	81.2	1.6	143.5	0.0	0.8	2.8	3.6	81.2	-	69.5	-
Clavet	O ₃	5/31/25 22:00	82.7	1.7	146.5	0.0	0.8	3.4	4.2	82.7	-	68.2	-
Clavet	O ₃	5/31/25 23:00	83.2	1.8	145.2	0.0	0.8	4.1	4.9	83.2	-	69.8	-
Clavet	O ₃	6/1/25 0:00	83.0	1.8	142.2	0.0	0.7	4.7	5.4	83.0	-	72.8	-
Clavet	O ₃	6/1/25 1:00	82.1	1.8	140.6	0.0	0.7	4.9	5.6	82.1	-	78.1	-
Clavet	O ₃	6/1/25 2:00	78.9	1.9	139.7	0.0	0.7	5.2	5.9	78.9	-	80.0	-
Clavet	O ₃	6/1/25 3:00	73.4	1.9	139.8	0.0	0.7	5.4	6.1	73.4	-	76.5	-
Clavet	O ₃	6/1/25 4:00	68.1	2.1	143.9	0.0	0.6	5.3	6.0	68.1	-	69.5	-
Clavet	O ₃	6/1/25 5:00	65.8	2.5	152.6	0.0	0.7	5.2	5.8	65.8	-	60.7	-
Clavet	O ₃	6/9/25 19:00	66.2	2.7	240.6	0.0	1.0	2.4	3.3	66.2	-	13.2	-
Clavet	O ₃	6/9/25 20:00	69.7	3.0	256.0	0.0	0.9	2.4	3.3	69.7	-	20.0	-
Clavet	O ₃	6/9/25 21:00	71.6	3.1	270.0	0.0	0.8	2.4	3.2	71.6	-	28.3	-
Clavet	O ₃	6/9/25 22:00	70.8	3.0	289.6	0.0	0.8	3.0	3.7	70.8	-	37.1	-
Clavet	O ₃	6/9/25 23:00	67.1	3.1	265.0	0.0	0.8	3.3	4.1	67.1	-	44.8	-
Clavet	O ₃	6/11/25 19:00	66.6	1.4	226.8	0.0	0.8	3.6	4.4	66.6	-	74.7	-
Clavet	O ₃	6/11/25 20:00	68.7	1.3	226.5	0.0	0.7	3.5	4.2	68.7	-	74.9	-
Clavet	O ₃	6/11/25 21:00	70.2	1.2	205.5	0.0	0.7	3.4	4.1	70.2	-	74.2	-
Clavet	O ₃	6/11/25 22:00	66.9	1.2	179.8	0.0	0.7	4.0	4.7	66.9	-	70.2	-
Clavet	O ₃	6/12/25 18:00	66.9	1.6	102.3	0.0	1.0	3.1	4.1	66.9	-	45.4	-
Clavet	O ₃	6/12/25 19:00	73.7	1.6	104.1	0.0	0.9	3.0	3.9	73.7	-	47.8	-
Clavet	O ₃	6/12/25 20:00	77.6	1.7	103.6	0.0	0.8	3.0	3.8	77.6	-	47.7	-
Clavet	O ₃	6/12/25 21:00	80.5	1.7	103.9	0.0	0.8	3.0	3.7	80.5	-	46.8	-
Clavet	O ₃	6/12/25 22:00	79.0	1.8	103.8	0.0	0.7	3.5	4.2	79.0	-	46.7	-
Clavet	O ₃	6/12/25 23:00	74.7	1.7	102.2	0.0	0.7	4.1	4.7	74.7	-	46.3	-
Clavet	O ₃	6/13/25 0:00	68.1	1.6	99.3	0.0	0.7	4.9	5.6	68.1	-	45.5	-
Meadow Lake	O ₃	5/3/25 19:00	64.5	1.5	199.0	0.0	0.0	0.3	0.3	64.5	-	8.4	-
Meadow Lake	O ₃	5/3/25 20:00	66.2	1.6	179.0	0.0	0.0	0.3	0.3	66.2	-	8.9	-
Meadow Lake	O ₃	5/3/25 21:00	66.9	1.5	175.8	0.0	0.0	0.3	0.3	66.9	-	10.6	-
Meadow Lake	O ₃	5/3/25 22:00	63.9	1.3	158.4	0.0	0.0	0.8	0.8	63.9	-	12.3	-
Meadow Lake	O ₃	5/29/25 17:00	66.0	1.7	158.4	0.0	0.0	0.2	0.0	66.0	-	11.2	-
Meadow Lake	O ₃	5/29/25 18:00	68.1	1.9	161.7	0.0	0.0	0.2	0.0	68.1	-	11.4	-
Meadow Lake	O ₃	5/29/25 19:00	68.5	2.0	163.8	0.0	0.0	0.2	0.0	68.5	-	11.6	-
Meadow Lake	O ₃	5/29/25 20:00	67.5	2.1	164.0	0.0	0.0	0.2	0.0	67.5	-	11.4	-
Meadow Lake	O ₃	5/29/25 21:00	67.7	2.1	162.5	0.0	0.0	0.2	0.0	67.7	-	10.9	-
Meadow Lake	O ₃	5/29/25 22:00	66.9	2.1	161.7	0.0	0.0	0.3	0.0	66.9	-	10.6	-
Meadow Lake	O ₃	5/29/25 23:00	64.7	1.9	160.3	0.0	0.0	0.4	0.1	64.7	-	9.8	-
Meadow Lake	O ₃	5/31/25 18:00	66.1	2.6	154.1	0.0	0.0	1.3	0.9	66.1	-	37.6	-
Meadow Lake	O ₃	5/31/25 19:00	68.4	2.8	150.3	0.0	0.0	1.3	0.8	68.4	-	34.4	-
Meadow Lake	O ₃	5/31/25 20:00	69.7	3.0	146.5	0.0	0.0	1.2	0.8	69.7	-	31.8	-
Meadow Lake	O ₃	5/31/25 21:00	70.3	3.1	143.2	0.0	0.0	1.2	0.8	70.3	-	31.6	-
Meadow Lake	O ₃	5/31/25 22:00	70.7	3.2	141.7	0.0	0.0	1.2	0.8	70.7	-	30.7	-
Meadow Lake	O ₃	5/31/25 23:00	71.6	3.4	138.7	0.0	0.0	1.3	0.9	71.6	-	35.0	-
Meadow Lake	O ₃	6/1/25 0:00	72.3	3.5	136.9	0.0	0.0	1.5	1.0	72.3	-	39.4	-
Meadow Lake	O ₃	6/1/25 1:00	73.0	3.7	135.1	0.0	0.0	1.6	1.2	73.0	-	43.9	-
Meadow Lake	O ₃	6/1/25 2:00	72.1	3.5	137.7	0.0	0.0	1.8	1.3	72.1	-	46.4	-
Meadow Lake	O ₃	6/1/25 3:00	69.5	3.2	143.4	0.0	0.0	2.0	1.5	69.5	-	48.8	-



1 Hour Exceedance Summary

Station	Pollutant	Date and Time	Concentration	Wind Speed	Wind Direction	Precipitation	NO	NO ₂	NOx	O ₃	H2S	PM _{2.5}	SO ₂
Maidstone	H ₂ S	05/15/2025 02:00	30.97	1.85	135.9	0	Down	Down	Down	-	30.97	8.4	0.7
Maidstone	H ₂ S	05/15/2025 05:00	13.37	0.85	109.6	0	Down	Down	Down	-	13.37	7.9	0.5
Maidstone	H ₂ S	05/18/2025 02:00	11.76	1.95	116.5	0	Down	Down	Down	-	11.76	6.4	0.6
Maidstone	H ₂ S	05/19/2025 02:00	19.33	1.09	132.9	0	Down	Down	Down	-	19.33	6.4	0.7
Maidstone	H ₂ S	05/19/2025 07:00	11.8	2.05	118.1	0	Down	Down	Down	-	11.8	6.4	1
Maidstone	H ₂ S	05/19/2025 18:00	12.34	3.42	119.3	0.01	Down	Down	Down	-	12.34	4.7	0.9
Maidstone	H ₂ S	05/19/2025 19:00	11.97	3.34	118.2	0	Down	Down	Down	-	11.97	5.3	1
Maidstone	H ₂ S	05/19/2025 20:00	11.57	3.24	120.3	0	Down	Down	Down	-	11.57	4.9	0.9
Maidstone	H ₂ S	05/20/2025 07:00	13.51	3.82	123.8	0.62	Down	Down	Down	-	13.51	4.8	1
Maidstone	H ₂ S	05/20/2025 08:00	15.35	3.48	123	0.42	Down	Down	Down	-	15.35	4.4	1
Maidstone	H ₂ S	05/20/2025 22:00	17.12	1.93	127.7	0	Down	Down	Down	-	17.12	5.4	0.8
Maidstone	H ₂ S	05/20/2025 23:00	35.49	2.13	126.5	0	Down	Down	Down	-	35.49	6.2	0.8
Maidstone	H ₂ S	05/21/2025 21:00	11.63	1.29	123.1	0	Down	Down	Down	-	11.63	1.5	0.9
Maidstone	H ₂ S	05/21/2025 22:00	20.68	0.47	97.6	0	Down	Down	Down	-	20.68	2.8	0.9
Maidstone	H ₂ S	05/22/2025 04:00	11.25	0.62	138.8	0	Down	Down	Down	-	11.25	6.8	0.7
Maidstone	H ₂ S	05/22/2025 08:00	14.64	2.07	119.2	0	Down	Down	Down	-	14.64	11.6	0.8
Maidstone	H ₂ S	05/23/2025 08:00	25.07	2.06	117.5	0	Down	Down	Down	-	25.07	14.9	2.1
Maidstone	H ₂ S	05/23/2025 09:00	25.15	2.77	119.9	0	Down	Down	Down	-	25.15	13.3	2.2
Maidstone	H ₂ S	05/23/2025 10:00	18.11	3.16	120.8	0	Down	Down	Down	-	18.11	10.8	1.2
Maidstone	H ₂ S	05/23/2025 11:00	20	3.45	120	0	Down	Down	Down	-	20	8.1	1.2
Maidstone	H ₂ S	05/23/2025 12:00	11.86	3.28	114.8	0	Down	Down	Down	-	11.86	6.3	1.8
Maidstone	H ₂ S	05/24/2025 01:00	23.09	0.29	219.4	0	Down	Down	Down	-	23.09	7.6	0.9
Maidstone	H ₂ S	05/24/2025 02:00	21.3	0.34	187.3	0	Down	Down	Down	-	21.3	8.3	0.8
Maidstone	H ₂ S	05/24/2025 03:00	11.71	0.39	164.8	0	Down	Down	Down	-	11.71	8.7	0.8
Maidstone	H ₂ S	05/24/2025 04:00	24.48	0.82	161.4	0	Down	Down	Down	-	24.48	11	0.8
Maidstone	H ₂ S	05/24/2025 05:00	24.73	0.82	156.9	0	Down	Down	Down	-	24.73	12.2	0.8
Maidstone	H ₂ S	05/24/2025 06:00	33.66	0.94	147.5	0	Down	Down	Down	-	33.66	13.4	0.8
Maidstone	H ₂ S	05/24/2025 07:00	38.63	1.33	124.5	0	Down	Down	Down	-	38.63	13.7	0.9
Maidstone	H ₂ S	05/24/2025 08:00	14.27	1.79	122.3	0	Down	Down	Down	-	14.27	8.7	1
Maidstone	H ₂ S	05/25/2025 05:00	41.29	0.74	153.8	0	Down	Down	Down	-	41.29	16.5	0.7
Maidstone	H ₂ S	05/25/2025 06:00	18.69	1.42	129.6	0	Down	Down	Down	-	18.69	13.7	0.6
Maidstone	H ₂ S	05/25/2025 07:00	21.61	1.74	121.2	0	Down	Down	Down	-	21.61	12.3	0.8
Maidstone	H ₂ S	05/29/2025 08:00	35.4	1.54	121.2	0	Down	Down	Down	-	35.4	25.8	0.5
Maidstone	H ₂ S	05/29/2025 09:00	23.66	1.93	133.1	0	Down	Down	Down	-	23.66	24.5	0.7
Maidstone	H ₂ S	06/09/2025 04:00	11.34	1.34	133.1	0	Down	Down	Down	-	11.34	13.9	0
Maidstone	H ₂ S	06/09/2025 05:00	27.31	1.81	140.7	0	Down	Down	Down	-	27.31	15.3	0
Maidstone	H ₂ S	06/09/2025 06:00	31.88	1.97	123.2	0	Down	Down	Down	-	31.88	14.8	0
Maidstone	H ₂ S	06/09/2025 07:00	73.94	2.05	123.7	0	Down	Down	Down	-	73.94	16.5	0
Maidstone	H ₂ S	06/09/2025 08:00	47.93	1.79	115.1	0	Down	Down	Down	-	47.93	16.2	0
Maidstone	H ₂ S	06/09/2025 09:00	41.08	1.5	112.4	0	Down	Down	Down	-	41.08	16.6	0.1
Maidstone	H ₂ S	06/13/2025 04:00	12.17	2.94	129.5	0	Down	Down	Down	-	12.17	36.9	0
Maidstone	H ₂ S	06/13/2025 05:00	15.17	2.4	126	0	Down	Down	Down	-	15.17	38.4	0
Maidstone	H ₂ S	06/13/2025 06:00	21.61	2.2	119	0	Down	Down	Down	-	21.61	37.7	0
Maidstone	H ₂ S	06/19/2025 08:00	16.53	1.71	93.7	0	Down	Down	Down	-	16.53	15.9	0
Maidstone	H ₂ S	06/19/2025 10:00	32.69	0.24	90.7	0.01	Down	Down	Down	-	32.69	21.2	0



1 Hour Exceedance Summary

Station	Pollutant	Date and Time	Concentration	Wind Speed	Wind Direction	Precipitation	NO	NO ₂	NOx	O ₃	H ₂ S	PM _{2.5}	SO ₂
Maidstone	H ₂ S	06/19/2025 11:00	21.31	0.63	239	0.42	Down	Down	Down	-	21.31	21	0
Maidstone	H ₂ S	06/23/2025 08:00	27.26	1.63	138.5	0	Down	Down	Down	-	27.26	23	0
Maidstone	H ₂ S	06/23/2025 09:00	12.85	2.17	114.8	0	Down	Down	Down	-	12.85	18.2	0
Maidstone	H ₂ S	06/24/2025 23:00	24.32	1.76	125.9	0	Down	Down	Down	-	24.32	5.7	0
Maidstone	H ₂ S	06/24/2025 24:00	36.13	1.62	124.7	0	Down	Down	Down	-	36.13	5.3	0
Maidstone	H ₂ S	06/25/2025 01:00	21.42	1.47	131.2	0	Down	Down	Down	-	21.42	5.2	0
Maidstone	H ₂ S	06/25/2025 02:00	12.77	1.39	134.1	0	Down	Down	Down	-	12.77	5.4	0
Maidstone	H ₂ S	06/25/2025 09:00	11.38	3.68	125	0	Down	Down	Down	-	11.38	6.8	0
Maidstone	H ₂ S	06/26/2025 01:00	21.25	2.21	126.3	0	Down	Down	Down	-	21.25	5.3	0
Maidstone	H ₂ S	06/26/2025 02:00	20.52	2.28	137	0	Down	Down	Down	-	20.52	5.2	0
Maidstone	H ₂ S	06/26/2025 04:00	13.27	1.05	132.2	0	Down	Down	Down	-	13.27	5.7	0
Maidstone	H ₂ S	06/26/2025 05:00	12.09	0.49	155.9	0	Down	Down	Down	-	12.09	5.6	0
Maidstone	H ₂ S	07/02/2025 08:00	21.07	1.53	115.6	0	Down	Down	Down	-	21.07	6.3	0
Maidstone	H ₂ S	07/02/2025 09:00	15.86	2.55	120.3	0	Down	Down	Down	-	15.86	6.1	0.2
Maidstone	H ₂ S	09/12/2025 08:00	11.67	0.49	161.8	0	Down	Down	Down	-	11.67	26.7	0
Maidstone	H ₂ S	10/02/2025 24:00	17.86	0.1	183	0	Down	Down	Down	-	17.86	9.1	0
Clavet	O ₃	05/31/2025 18:00	88.5	1.85	149.4	0	0.5	3	3.5	88.5	-	61.6	-
Clavet	O ₃	05/31/2025 19:00	94.4	1.79	141.5	0	0.9	3.2	4.1	94.4	-	63.5	-
Clavet	O ₃	05/31/2025 20:00	91.7	1.65	140.9	0	0.8	4.1	4.9	91.7	-	68.8	-
Clavet	O ₃	06/12/2025 16:00	85.2	1.58	114.1	0	0.9	2.8	3.6	85.2	-	48.8	-
Clavet	O ₃	06/12/2025 17:00	86.6	1.62	127.8	0	0.6	3.1	3.7	86.6	-	49.6	-
Clavet	O ₃	06/12/2025 18:00	85.7	1.74	128	0	0.4	2.6	3	85.7	-	53.1	-
Clavet	O ₃	06/12/2025 19:00	83	1.83	92.2	0	1.1	2.9	4	83	-	52.9	-



24-Hour Exceedance Summary

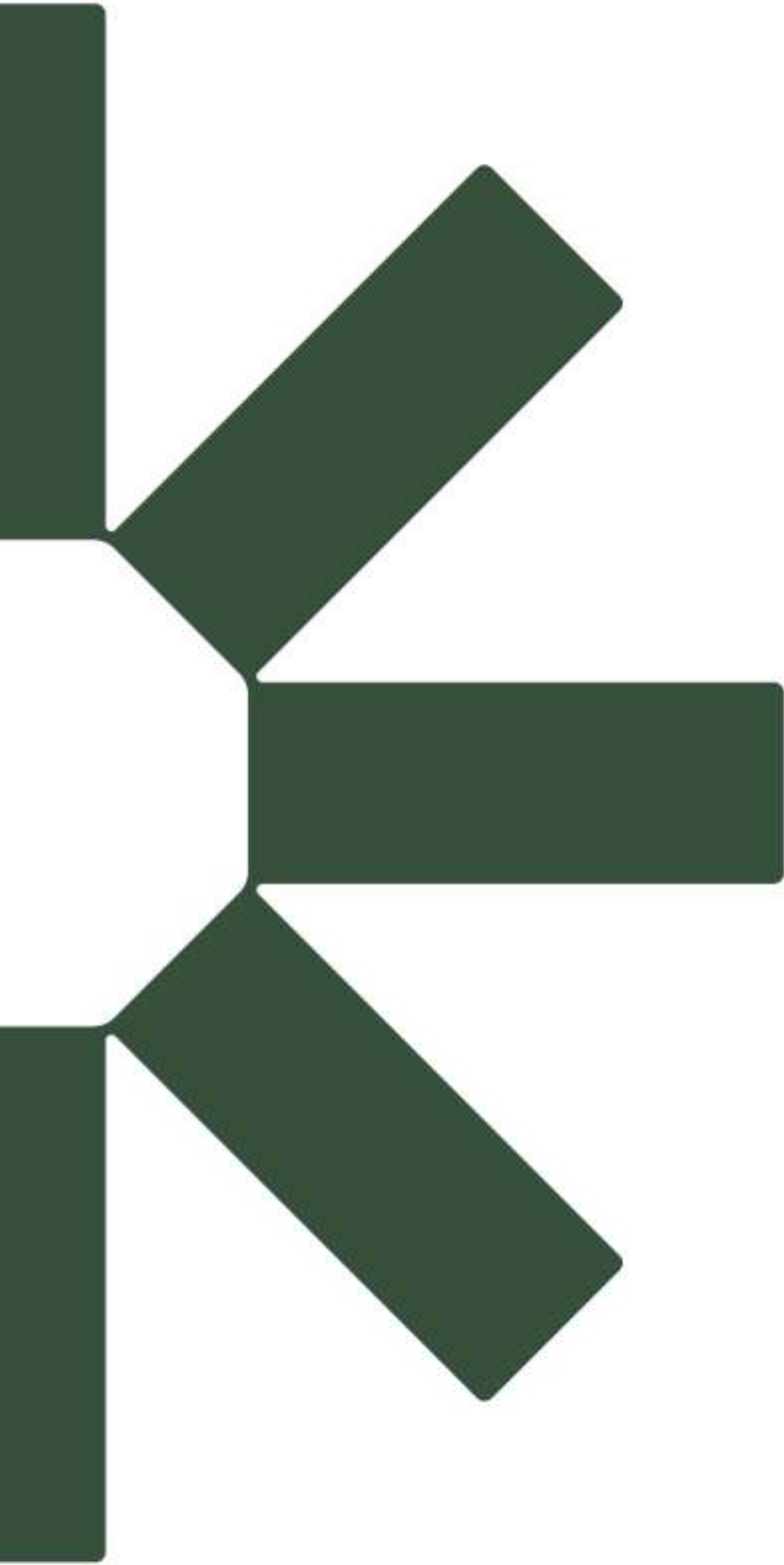
Station	Pollutant	Date	Concentration	Wind Speed	Wind Direction	Precipitation	NO	NO ₂	NOx	O ₃	H ₂ S	PM _{2.5}	SO ₂
Clavet	PM _{2.5}	05/31/2025 24:00	74.8	1.0	152.5	0.0	1.6	5.4	6.9	53.0	-	74.8	-
Clavet	PM _{2.5}	06/01/2025 24:00	28.1	3.7	272.1	0.0	0.9	2.7	3.6	50.1	-	28.1	-
Clavet	PM _{2.5}	06/09/2025 24:00	29.8	2.0	197.5	0.0	2.0	5.4	7.5	39.9	-	29.8	-
Clavet	PM _{2.5}	06/10/2025 24:00	90.1	2.4	325.3	0.0	1.2	5.5	6.7	35.3	-	90.1	-
Clavet	PM _{2.5}	06/11/2025 24:00	65.8	1.0	209.9	0.0	2.1	8.0	10.0	37.7	-	65.8	-
Clavet	PM _{2.5}	06/12/2025 24:00	36.2	1.3	88.5	0.0	1.2	6.4	7.7	41.8	-	36.2	-
Clavet	PM _{2.5}	06/13/2025 24:00	29.7	1.9	122.8	0.0	0.9	4.9	5.8	34.5	-	29.7	-
Clavet	PM _{2.5}	07/11/2025 24:00	35.5	1.7	257.6	0.1	1.5	2.7	4.2	26.4	-	35.5	-
Clavet	PM _{2.5}	07/14/2025 24:00	49.7	1.5	29.1	0.0	0.9	1.9	2.7	22.4	-	49.7	-
Clavet	PM _{2.5}	07/15/2025 24:00	55.6	1.3	30.9	0.0	1.3	2.2	3.5	18.0	-	55.6	-
Clavet	PM _{2.5}	07/21/2025 24:00	54.7	1.9	294.1	0.0	1.1	2.5	3.6	28.0	-	54.7	-
Clavet	PM _{2.5}	07/31/2025 24:00	30.2	0.8	103.9	0.0	1.0	1.5	2.5	34.6	-	30.2	-
Clavet	PM _{2.5}	08/09/2025 24:00	68.9	2.3	340.8	0.6	0.9	1.2	2.0	20.3	-	68.9	-
Clavet	PM _{2.5}	09/01/2025 24:00	38.9	1.8	4.7	0.0	0.9	1.5	2.4	22.1	-	38.9	-
Kerrobert	PM _{2.5}	05/12/2025 24:00	34.2	2.7	345.3	0.2	-	-	-	-	1.5	34.2	0.5
Kerrobert	PM _{2.5}	06/10/2025 24:00	67.2	1.6	358.1	0.0	-	-	-	-	0.0	67.2	0.0
Kerrobert	PM _{2.5}	06/11/2025 24:00	65.6	2.0	69.3	0.0	-	-	-	-	0.2	65.6	0.0
Kerrobert	PM _{2.5}	06/12/2025 24:00	40.1	3.6	103.8	0.0	-	-	-	-	0.1	40.1	0.0
Kerrobert	PM _{2.5}	07/14/2025 24:00	59.4	2.1	4.5	0.0	-	-	-	-	0.9	59.4	0.9
Kerrobert	PM _{2.5}	07/16/2025 24:00	40.4	2.3	121.9	0.0	-	-	-	-	0.7	40.4	0.3
Kerrobert	PM _{2.5}	08/09/2025 24:00	61.4	2.8	343.5	0.0	-	-	-	-	1.0	61.4	0.5
Kerrobert	PM _{2.5}	09/01/2025 24:00	75.9	2.4	11.9	0.0	-	-	-	-	1.5	75.9	0.6
Kerrobert	PM _{2.5}	09/09/2025 24:00	29.3	2.2	83.5	0.0	-	-	-	-	1.2	29.3	0.5
MaidStone	H ₂ S	05/19/2025 24:00	5.7	2.8	124.8	0.1	Down	Down	Down	-	5.7	5.7	0.9
MaidStone	H ₂ S	05/20/2025 24:00	6.5	3.4	129.0	0.2	Down	Down	Down	-	6.5	4.8	1.0
MaidStone	H ₂ S	05/21/2025 24:00	3.9	2.0	113.0	0.0	Down	Down	Down	-	3.9	4.7	1.0
MaidStone	H ₂ S	05/23/2025 24:00	5.5	2.4	130.1	0.0	Down	Down	Down	-	5.5	8.6	1.1
MaidStone	H ₂ S	05/24/2025 24:00	8.8	2.4	162.6	0.0	Down	Down	Down	-	8.8	9.4	0.8
MaidStone	H ₂ S	05/25/2025 24:00	4.5	3.7	145.0	0.0	Down	Down	Down	-	4.5	6.2	0.7
MaidStone	H ₂ S	06/09/2025 24:00	10.4	2.5	280.2	0.0	Down	Down	Down	-	10.4	39.7	0.1
MaidStone	H ₂ S	06/13/2025 24:00	4.0	3.5	119.8	0.2	Down	Down	Down	-	4.0	32.9	0.0
Maidstone	H ₂ S	06/19/2025 24:00	3.7	1.3	8.3	0.0	Down	Down	Down	-	3.7	11.1	0.0
Maidstone	H ₂ S	07/02/2025 24:00	3.9	2.9	139.2	0.0	Down	Down	Down	-	3.9	7.2	0.2
Maidstone	PM _{2.5}	05/30/2025 24:00	94.6	3.0	294.2	0.1	Down	Down	Down	-	0.2	94.6	0.0
Maidstone	PM _{2.5}	05/31/2025 24:00	84.7	4.1	151.1	0.0	Down	Down	Down	-	1.7	84.7	0.1
Maidstone	PM _{2.5}	06/01/2025 24:00	32.1	4.4	290.5	0.0	Down	Down	Down	-	0.1	32.1	0.0
Maidstone	PM _{2.5}	06/04/2025 24:00	29.1	1.4	296.9	0.0	Down	Down	Down	-	0.1	29.1	0.0
Maidstone	PM _{2.5}	06/05/2025 24:00	31.5	1.6	171.4	0.0	Down	Down	Down	-	0.9	31.5	0.1
Maidstone	PM _{2.5}	06/09/2025 24:00	39.7	2.5	280.2	0.0	Down	Down	Down	-	10.4	39.7	0.1
Maidstone	PM _{2.5}	06/10/2025 24:00	142.2	2.0	310.4	0.0	Down	Down	Down	-	0.1	142.2	0.0
Maidstone	PM _{2.5}	06/11/2025 24:00	71.4	1.5	342.2	0.0	Down	Down	Down	-	0.3	71.4	0.0



24-Hour Exceedance Summary

Station	Pollutant	Date	Concentration	Wind Speed	Wind Direction	Precipitation	NO	NO ₂	NO _x	O ₃	H ₂ S	PM _{2.5}	SO ₂
Maidstone	PM _{2.5}	06/13/2025 24:00	32.9	3.5	119.8	0.2	Down	Down	Down	-	4.0	32.9	0.0
Meadow Lake	PM _{2.5}	05/30/2025 24:00	126.0	1.3	277.1	0.1	1.1	3.2	4.0	35.3	-	126.0	-
Meadow Lake	PM _{2.5}	05/31/2025 24:00	72.6	2.1	149.2	0.0	0.0	1.5	1.1	46.4	-	72.6	-
Meadow Lake	PM _{2.5}	06/01/2025 24:00	29.1	2.3	270.8	0.0	0.0	0.9	0.6	39.7	-	29.1	-
Meadow Lake	PM _{2.5}	06/09/2025 24:00	47.2	1.3	240.3	0.0	0.0	2.1	1.9	37.5	-	47.2	-
Meadow Lake	PM _{2.5}	06/10/2025 24:00	87.0	1.2	264.9	0.0	0.0	3.1	2.9	30.8	-	87.0	-
Meadow Lake	PM _{2.5}	06/11/2025 24:00	35.7	0.8	332.1	0.0	0.1	1.7	1.6	24.5	-	35.7	-
Meadow Lake	PM _{2.5}	07/17/2025 24:00	31.2	0.5	68.3	0.0	0.1	1.4	1.3	32.5	-	31.2	-
Meadow Lake	PM _{2.5}	07/18/2025 24:00	129.6	0.8	94.0	0.0	0.1	2.2	1.9	35.6	-	129.6	-
Meadow Lake	PM _{2.5}	07/19/2025 24:00	45.3	1.2	105.7	0.0	0.0	0.4	0.2	35.8	-	45.3	-
Meadow Lake	PM _{2.5}	07/20/2025 24:00	32.3	0.7	79.1	0.0	0.0	0.4	0.1	36.0	-	32.3	-
Meadow Lake	PM _{2.5}	09/02/2025 24:00	30.0	0.7	334.5	0.0	0.0	0.8	0.7	20.5	-	30.0	-





Making Sustainability Happen