WOOD BUFFALO
ENVIRONMENTAL ASSOCIATION

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Wood Buffalo Environmental Association

OCTOBER 2025

MONTHLY REPORT

CONTINUOUS MONITORING

November 28, 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association

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November 28, 2025

Director, Environmental Monitoring and Evaluation Branch
Alberta Environment and Protected Areas
11th Floor, Oxbridge Place
9820 106 Street
Edmonton, Alberta T5K 2J6

RE: Monthly Ambient Air Quality Monitoring Report October 2025
Wood Buffalo Environmental Association

Enclosed is the October 2025 Ambient Air Quality Monitoring Report for the continuous ambient air quality monitoring stations of the Wood Buffalo Environmental Association (WBEA) regional air quality monitoring network. The WBEA works closely with Alberta Environment and Protected Areas (AEPA) and funding for this work was provided by the Oil Sands Monitoring Program (OSM). It is independent of any position of the OSM Program.

The continuous ambient air quality monitoring network stations are:

AMS 01 – Bertha Ganter – Fort McKay	AMS 20 – MacKay River
AMS 02 – Mildred Lake	AMS 21 – Conklin
AMS 03 – Lower Camp (Meteorology)	AMS 22 – Janvier
AMS 04 – Buffalo Viewpoint	AMS 23 – Fort Hills
AMS 05 – Mannix	AMS 25 – Waskōw ohci Pimâtisiwin
AMS 06 – Patricia McInnes	AMS 27 – Jackfish 2/3
AMS 07 – Athabasca Valley	AMS 29 – Surmont 2
AMS 08 – Fort Chipewyan	AMS 30 – Ells River
AMS 09 – Barge Landing	AMS 31 – Blackrod
AMS 11 – Lower Camp (Air Quality)	AMS 33 – Monday Creek
AMS 13 – Fort McKay South	AMS 501 – Leismer
AMS 14 – Anzac	AMS 505 – Sawbones Bay
AMS 17 - Wapasu	AMS 507 – Kirby South
AMS 18 – Stony Mountain	AMS 511 – Blackgold
AMS 19 – Firebag	

The WBEA submits this report on behalf of its members and for some members to satisfy the requirements contained in their EPEA Approvals (as amended):

Industry Operators	EPEA Approval No.
Athabasca Oil Operations	289664-01-00; 241311-01-00
Canadian Natural	153125-01-00;20809-02-00;149968-01-05; 224816-01-00; 237382-01-00; 308463-00-00
Cenovus Energy Inc.	48522-02-00; 206355-01-00
Chemtrade Logistics	404827-00-00
CNOOC International	137467-01-00, 236394-01-00
Connacher Oil and Gas Ltd.	240008-01-00
ConocoPhillips Company	48263-01-00
Greenfire Resources Operating Corporation	153105-01-00
Hammerstone Infrastructure Materials Ltd.	189942-01-00
Harvest Operations Corp.	246984-01-00
Imperial Oil Limited	46586-01-00
Inter Pipeline Limited	73203-02-00
IPC Canada Ltd.	301778-00-01
Keyera Energy Ltd.	187-03-03; 462683-00-00
MEG Energy Corp.	216466-01-00
Parsons Creek Aggregates	231302-00-00
PetroChina Canada Ltd.	254465-01-00
Suncor Energy Inc.	94-03-00; 80105-01-00; 151469-01-00; 48408-02-00
Sunshine Oilsands Ltd.	305529-00-00
Surmont Energy	318401-00-00
Syncrude Canada Ltd.	26-03-00
Titan Tire Reclamation Corporation	364232-00-00

Government and Non-Government Organizations	
Alberta Energy Regulator	Health Canada
Alberta Environment and Protected Areas	Keyano College
Alberta Health	Parks Canada
Alberta Health Services	Regional Municipality of Wood Buffalo
Environment and Climate Change Canada	

Indigenous Communities	
Athabasca Chipewyan First Nation	Fort McMurray 468 First Nation
Chard Métis Nation	Lakeland Métis
Chipewyan Prairie Dene First Nation	McMurray Métis
Conklin Resource Development Advisory Committee	Mikisew Cree First Nation
Fort Chipewyan Métis Nation	Smith's Landing First Nation
Fort McKay First Nation	Willow Lake Métis Nation
Fort McKay Métis Nation	

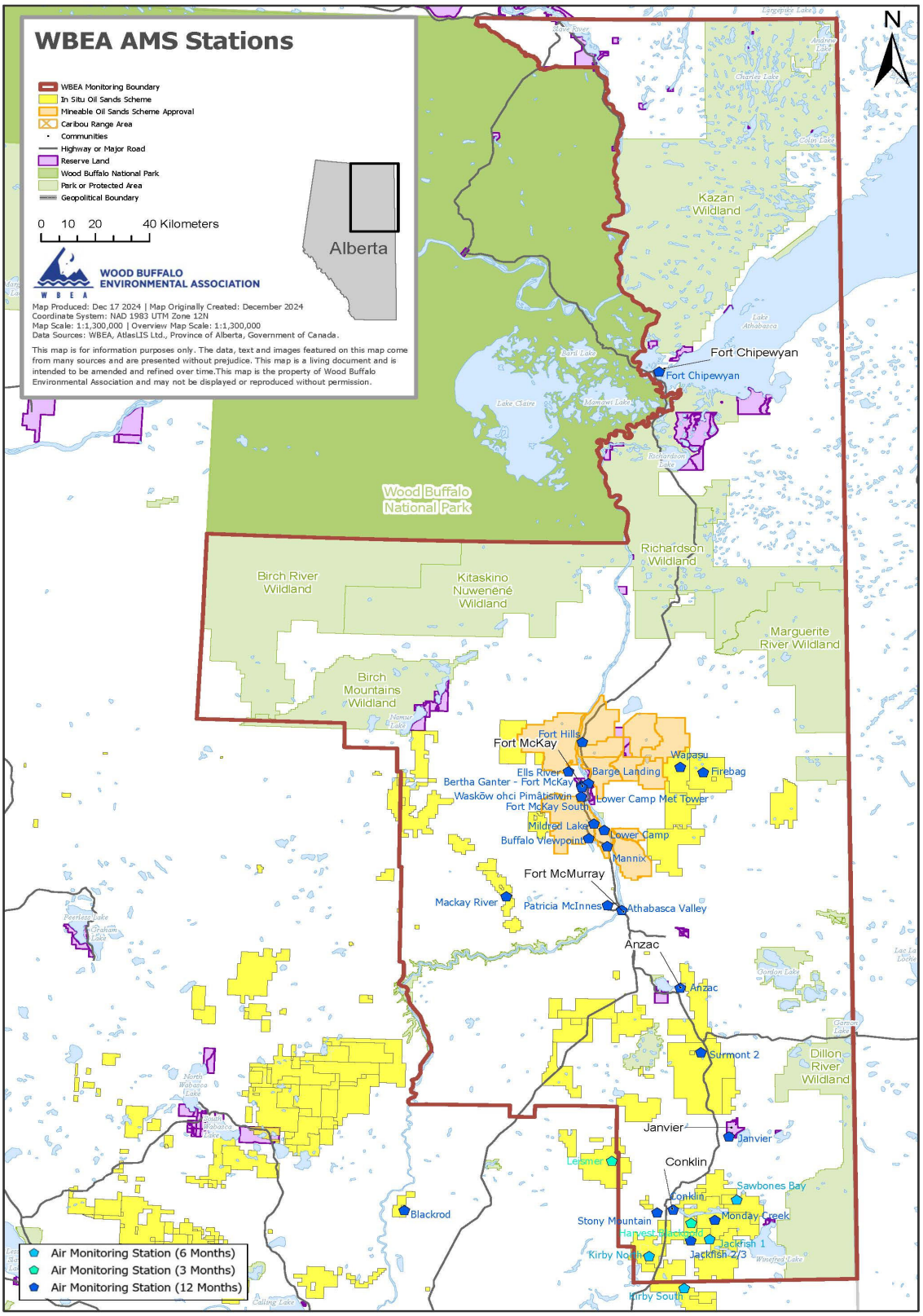

Figure 1. Map of WBEA Continuous Monitoring Network

The following operational notes are provided as per the Air Monitoring Directive requirements.

1.0 Concentrations in Excess of Alberta Ambient Air Quality Guidelines and Objectives

There were no ambient concentrations in excess of the air quality objectives as indicated in the Air Monitoring Directive Section RC 15-F for CO, H_2S, NH_3, NO_2, O_3, SO_2, $PM_{2.5}$ and TRS.

There were six ambient ground-level concentrations in excess of the 30-minute TRS guideline not reported to AEPA; following data validation and processing, the exceedances were confirmed to be not an exceedance.

Site	Parameter	Date / Time	Reference	Period	Reported	Final	Status*
Ells River	TRS	4Oct25, 21:30		30-min	11.057	11.057	nae
Ells River	TRS	9Oct25, 23:30		30-min	21.728	21.728	nae
Ells River	TRS	22Oct25, 08:30		30-min	11.225	11.225	nae
Ells River	TRS	23Oct25, 11:00		30-min	11.019	11.019	nae
Ells River	TRS	24Oct25, 14:00		30-min	11.16	11.16	nae
Ells River	TRS	25Oct25, 03:30		30-min	21.928	21.928	nae

2.0 Data Processing and Validation

Concentrations reported in near real-time are raw values. The final values are determined after processing data for reporting. For all parameters, except $PM_{2.5}$, the final 5-minute data values are determined by subtracting the daily zero responses, interpolated to the time of each raw 5-minute value, from the raw 5-minute data values. The $PM_{2.5}$ analyzers do not have the capability of performing zero's, therefore, the raw 5-minute values are validated through a comparison with associated parameters at the same, or a nearby, AMS. The final 5-minute data values are then rounded to one decimal place greater than the reporting precision indicated in the Air Monitoring Directive (AMD). The final 1-hour data values are calculated from final 5-minute data values and then rounded to reporting precision. The final 24-hour data values are calculated from the final 1-hour values.

After data processing and validation, NO_2 concentrations are re-calculated from baseline-corrected NO_X and NO concentrations. Specifically, the NO concentration is subtracted from the NO_X concentration to determine the NO_2 concentration.

2.1 Revisions to ETS Electronic Transfer System – Data and Monthly Reports

There were no revisions to historical data stored in the Electronic Transfer System with this monthly report.

3.0 Operational Status

3.1 Continuous Monitoring

In October 2025, there were two instances of monitoring instruments operating less than 90% of the time.

Station	Parameter	Details
AMS 27	$NO_X/NO/NO_2$	The $NO/NO_2/NO_x$ analyzer at Jackfish 2/3 AMS (AMS27) operated less than 90% of the time in October 2025, which is a contravention of the Air Monitoring Directive (AMD) (2016, as amended), Chapter 6, Clause DQ 4-C. This incident was reported to the Environmental and Dangerous Goods Emergencies (EDGE) line on November 12, 2025 (reference number 447579).

		The daily span check for the $NO/NO_2/NOX$ analyzer did not meet AMD criteria from October 21 to October 23, 2025. The analyzer was calibrated, and the span was adjusted on October 23, which resolved the issue and returned the instrument to normal operation. A total of 80 hours were invalidated during the data validation process, resulting operational uptime of 89% for October 2025.
Wapasu	WS/WD	The Wind Speed (WS) and Wind Direction (WD) at Wapasu AMS operated less than 90% of October 2025, which is a contravention of the Air Monitoring Directive (AMD) (2016, as amended), Chapter 6, Clause DQ 4-C. This incident was reported to Alberta Environment and Protected Areas (AB EPA) on November 18, 2025 (reference number 447765). Throughout the month of October, the Wind Speed (WS) and Wind Direction (WD) sensor froze due to weather conditions, resulting in intermittent flatlining. Normal operation returned once weather conditions changed. Data from this incident was invalidated for a total of 120 hours, resulting in an operational time of 83% for the month of October.

3.2 Intermittent Monitoring

The results for time-integrated sampling of dustfall, precipitation, PAH, TSP, VOC, $PM_{2.5}$ ECOC, $PM_{2.5,}$ and PM_{10} will be submitted in the 2025 Annual Report.

3.3 General Network Notes

The Ammonia (NH_3) analyzer currently operates on a 0 to 2500 ppb operating range with a detection level of 5 ppb in the WBEA network. In data processing, values less than five ppb have been considered below detection levels and are reported as zero.

Total hydrocarbon (THC), non-methane hydrocarbon (NMHC), and methane (CH_4) measurements are collected at some air monitoring stations in the WBEA network using the Thermo Environmental model 55i direct $THC/CH_4/NMHC$ analyzer. This analyzer uses a Gas Chromatography (GC) based system, which resets the baseline value at the start of every run. This may cause the ambient background to indicate a response below the expected 1.8 ppm background level. When all measurable criteria indicate valid data during the QAQC and validation process, the data is reported without any additional flags. However, a response below the expected 1.8 ppm triggers an investigation of the analyzer to determine if there is an issue.

Monitoring notes, including changes to monitoring locations, methods, or equipment, and any reporting or monitoring irregularities, for the continuous monitoring stations, are provided on a station-by-station basis. Notes of each interrupted event are provided in chronological order, and meteorological parameters are mentioned last.

In December 2024, the Wood Buffalo Environmental Association began reporting the new Alberta Ambient Air Quality Guideline for Total Reduced Sulfur (TRS) which is a 30-minute average limit of 5 ppb to be used for odour management.

The WBEA is reporting $PM_{2.5}$ exceedances of the Alberta Ambient Air Quality Guideline and Objective (AAAQG&O) as per the Alberta Environment and Protected Areas Temporary Airshed Wildfire Bulk Reporting Protocol, effective from April 1 to October 31. This protocol requires only monthly notification of exceedances of the 24-hour AAAQO, removing the requirement for immediate notification and 7-day follow-up reports during this period. Fort Hills and Ells River air monitoring stations are included in this protocol for wildfire-related exceedances; however, for exceedances not attributed to wildfire smoke,

these stations will continue to follow their site-specific reporting protocols as directed by the Alberta Energy Regulator.

Station 1, Bertha Ganter – Fort McKay

The NH_3 analyzer required additional time to stabilize to levels below ambient concentrations following the automated daily spans and routine monthly multipoint calibrations. Additional time is required for stabilization after exposure to high concentrations of NH_3 gas, and this is an inherent behavior in the NH_3 analyzer operations due to the properties of the NH_3 gas. Data for 1-2 hours following the daily spans have been reported as invalid for a total of 34 hours this month.

Maintenance to complete calibration of the NH_3 analyzer over two days on October 9 and 10 resulted in 18 hours of downtime.

Maintenance to replace the $NO_x/NO/NO_2$ analyzer as preventative maintenance and subsequent stabilization on October 14 and 15 resulted in 21 hours of downtime.

Station power failure brownouts on October 19 and 21 interrupted the normal operations of NH_3 and TRS analyzers for 2 hours.

Cleaning of the manifold on October 20 interrupted the normal operations of all gaseous analyzers, except for SO_2, and THC/NMHC/CH_4, for 1 hour.

An external ECC audit of the on October 21 interrupted the normal operations of the $NO_x/NO/NO_2$, O_3, and SO_2 analyzers for 6 to 7 hours.

An internal WBEA audit on October 28 and 29 interrupted the normal operations of the O_3 analyzer for 5 hours.

Failure to record data of the $PM_{2.5}$ analyzer on October 30 resulted in 1 hour of invalid data.

Maintenance due to station operator activity interrupted the normal operations of all gaseous analyzers on October 31 for 1 hour.

The surface leaf wetness sensor operated out of range on October 27, 28 and 29 resulting in 6 hours of invalid data.

Intermittent flatlines in the output signal of the wind sensor throughout the month resulted in 15 hours of invalid data.

Station 2, Mildred Lake

Cleaning of the manifold on October 30 interrupted the normal operations of the H_2S analyzer for 4 hours.

Station 3, Lower Camp – Meteorology

Failure to record data of the relative humidity and temperature sensor at 20-meter elevation throughout the month resulted in 11 hours of downtime.

The relative humidity and temperature sensor at 45-meter elevation operated out of range throughout the month resulting in 50 hours of invalid data.

Flatlines in the output signal of the vertical wind speed, wind speed, wind direction at 20-meter elevation on October 27 to 29 resulted in 9 hours of downtime.

Flatlines in the output signal of the vertical wind speed, wind speed, wind direction at 45-meter elevation on October 27 to 30 resulted in 9 hours of downtime.

Flatlines in the output signal of the vertical wind speed, wind speed, wind direction at 100-meter elevation on October 12 and 27 resulted in 4 hours of downtime.

Flatlines in the output signal of the vertical wind speed, wind speed, wind direction at 163-meter elevation on October 12 resulted in 3 hours of downtime.

Station 4, Buffalo Viewpoint

Unstable operation due to inconsistent response in analyzer output signal of the O_3 analyzer on October 7 resulted in 2 hours of invalid data.

Cleaning of the manifold on October 23 interrupted the normal operations of all gaseous analyzers, except for THC/NMHC/CH_4, for 1 hour.

Maintenance to replace support gas cylinder for the THC/NMHC/CH_4 analyzer on October 23 resulted in 3 hours of downtime.

Station 5, Mannix

Cleaning of the manifold on October 24 interrupted the normal operations of the H_2S and SO_2 analyzers for 1 hour.

Failure to record data of all meteorological sensors on October 31 resulted in 7 hours of downtime.

Flatlines in the output signal of the vertical wind speed, wind speed, wind direction at 20-meter elevation on October 13 and 29 resulted in 4 hours of downtime.

Flatlines in the output signal of the vertical wind speed, wind speed, wind direction at 45-meter elevation on October 22 resulted in 1 hour of downtime.

Flatlines in the output signal of the vertical wind speed, wind speed, wind direction at 75-meter elevation on October 12 resulted in 2 hours of downtime.

Station 6, Patricia McInnes

The NH_3 analyzer required additional time to stabilize to levels below ambient concentrations following the automated daily spans and routine monthly multipoint calibrations. NH_3 analyzers require additional time for stabilization after being exposed to high concentrations, this is due to the physical properties of the NH_3

gas. Data for 1-2 hours following each daily span has been reported as invalid for a total of 56 hours this month.

Unstable operation due to AMD noncompliance of the NH_3 analyzer on October 13 to 15 resulted in 49 hours of invalid data.

The daily span check for the NH_3 analyzer was outside the 10% AMD criteria on October 14 due to a calibration gas cylinder issue. NH_3 cylinders can be sensitive and occasionally unstable, which can affect daily zero and span results.

Station 7, Athabasca Valley

An internal audit on October 2 and 3 interrupted the normal operations of all air quality analyzers for 1 to 4 hours.

Cleaning of the manifold on October 9 interrupted the normal operations of the CO, O_3, NOx/NO/NO_2, and TRS analyzers for 2 hours.

An ECC external audit on October 22 interrupted the normal operations of the CO, O_3, NOx/NO/NO_2, and SO_2 analyzers for 7 hours.

Maintenance to replace the support gas cylinder of the THC/NMHC/CH_4 analyzer on October 23 resulted in 2 hours of downtime.

An internal audit on October 29 interrupted the normal operations of the O_3 analyzer for 1 hour.

Station 8, Fort Chipewyan

Daily QA check outside AMD compliance for the NOx/NO/NO_2 analyzer on Oct 16 to 17 resulted in 49 hours of invalid data.

A station power failure on October 17 and 31 interrupted the normal operations of all air quality analyzers for 8 hours.

Failure to record data of the precipitation collector sensor on October 17 and 31 resulted in 2 hours of invalid data.

Note: Automated daily zero-response checks of the O_3 analyzer did not meet WBEA's QC acceptance criteria for October. Therefore, the calibrator zeros from the multi-point calibrations conducted in September, October, and November were used to validate the analyzer baseline response.

Station 9, Barge Landing

Cleaning of the manifold on October 20 interrupted the normal operations of all gaseous analyzers except for the NO_x/NO/NO_2 for 2 hours.

Maintenance to replace the support gas cylinder of the THC/NMHC/CH_4 analyzer on October 24 resulted in 3 hours of downtime.

Station 11, Lower Camp

Cleaning of the manifold on October 15 interrupted the normal operations of all gaseous analyzers for 2 hours.

Maintenance to complete preventative maintenance and replace the relative humidity and temperature sensor on October 14 resulted in 1 hour of downtime.

Flatlines in the output signal of the wind sensor on October 18 and 26 resulted in 7 hours of invalid data.

Station 13, Fort McKay South

A station power failure from October 19 to 20 interrupted the normal operations of the NOx/NO/NO_2 analyzer for 25 hours. Subsequent maintenance to reboot the analyzer on October 20 resulted further in additional 1 hour of downtime.

Maintenance to replace the sampling pump of the NOx/NO/NO_2 on October 21 resulted in 6 hours of downtime.

The relative humidity sensor operated out of range on October 2 and 3 resulting in 11 hours of invalid data.

Flatlines in the output signal of the wind sensor on October 30 resulted in 3 hours of invalid data.

Station 14, Anzac

Maintenance to verify daily QA response of all gaseous analyzers on October 6, except the NOx/NO/NO_2 analyzer, resulted in 1 to 2 hours of downtime.

A station power failure on October 17 interrupted the normal operations of all air quality analyzers for 1 to 2 hours.

Maintenance to reset the modem of on October 18 interrupted the normal operation of all gaseous analyzers for 1 hour.

Station 17, Wapasu

Cleaning of the manifold on October 30 interrupted the normal operation of all gaseous analyzers except for the NO_x/NO/NO_2 analyzer for 2 hours.

The relative humidity sensor operated out of range throughout the month resulted in 72 hours of invalid data.

Maintenance due to station operator activities interrupted the normal operations of the wind sensor on October 10 for 2 hours.

Intermittent flatlines in the output signal of the wind sensor throughout the month resulted in 120 hours of invalid data.

Station 18, Stony Mountain

Maintenance to replace ethernet cable of the $PM_{2.5}$ analyzer on October 22 resulted in 2 hours of downtime.

The surface leaf wetness sensor operated out of range on October 5 and 27 resulting in 7 hours of invalid data.

Station 19, Firebag

Cleaning of the manifold on October 7 interrupted the normal operations of the $NO_x/NO/NO_2$, SO_2, and THC analyzes for 1 hour.

Intermittent flatlines in the output signal of the wind sensor throughout the month resulted in 62 hours of invalid data.

Station 20, MacKay River

Maintenance to replace the dryer on October 8 and 9 in interrupted the normal operations of the $NO_x/NO/NO_2$ analyzer for 19 hours.

Flatlines in the output signal of the wind sensor throughout the month resulted in 63 hours of invalid data.

Station 21, Conklin

Cleaning of the manifold on October 7 interrupted the normal operations of all gaseous analyzers, except for TRS, for 1 hour.

A flatline in the output signal of the wind sensor on October 5 resulted in 6 hours of invalid data.

The relative humidity sensor operated out of range throughout the month resulted in 12 hours of invalid data.

Station 22, Janvier

Cleaning of the manifold on October 28 interrupted the normal operation of all gaseous analyzers except for TRS analyzer for 1 hour.

Station power failures on October 26 and 29 interrupted the normal operations of $THC/NMHC/CH_4$ analyzer for 2 hours.

A station power failure from October 29 to 30 interrupted the normal operations of $PM_{2.5}$ analyzer for 19 hours.

Intermittent flatlines in the output signal of the wind sensor throughout the month resulted in 13 hours of invalid data.

Station 23, Fort Hills

Cleaning of the manifold on October 20 interrupted the normal operation of all gaseous analyzers except for NO_x/NO/NO_2 analyzer for 1 hour.

Unstable operation due to excessive baseline noise of the THC/NMHC/CH_4 analyzer on October 25 and 26 resulted in 7 hours of invalid data. Subsequent maintenance to recalibrate the analyzer to address baseline noise on October 26 and 29 resulted in additional 10 hours of downtime.

Station 25, Waskōw ohci Pimâtisiwin

Unstable operation due to inoperable external converter of the H_2S analyzer on October 19 to 21 resulted in 50 hours of invalid time.

Cleaning of the manifold on October 24 interrupted the normal operation of the H_2S analyzer for 1 hour.

Maintenance to recalibrate to adjust the zero of the H_2S analyzer on October 27 resulted in 6 hours of downtime.

Intermittent flatlines in the output signal of the wind sensor throughout the month resulted in 23 hours of invalid data.

Station 27, Jackfish 2/3

Unstable operation of the NO_x/NO/NO_2 analyzer due to daily span checks outside the AMD criteria between October 20 to 23 resulted in 80 hours of invalid data.

Unstable operation due to excessive baseline drift of the H_2S analyzer throughout the month resulted in 4 hours of invalid data.

Intermittent flatlines in the output signal of the wind sensor throughout the month resulted in 58 hours of invalid data.

Maintenance to recalibrate the wind sensor on October 31 resulted in 1 hour of downtime.

Station 29, Surmont 2

Cleaning of the manifold on October 3 interrupted the normal operation of the H_2S, SO_2 and THC analyzers for 1 hour.

Maintenance to replace a part of the manifold on October 11 interrupted the normal operation of the H_2S, NO_x/NO/NO_2, and SO_2 analyzers for 2 hours.
Unstable operation due to excessive baseline drift of the THC analyzer on October 10 and 11 resulted in 32 hours of invalid data. Subsequent maintenance on October 11 to replace the zero-air generator resulted in additional 5 hours of downtime.

The relative humidity sensor operated out of range throughout the month resulting in 13 hours of invalid data.

Intermittent flatlines in the output signal of the wind sensor throughout the month resulted in 6 hours of invalid data.

Station 30, Ells River

Cleaning of the manifold on October 6 interrupted the normal operation of all gaseous analyzers except for $NO_x/NO/NO_2$ analyzer for 1 hour.

Failure to record data of the SO_2 analyzer on October 6 resulted in 1 hour of invalid data.

Maintenance due to station operator activity interrupted the normal operations of the $NO_x/NO/NO_2$ on October 23 for 1 hour.

Maintenance due to station operator activity interrupted the normal operations of the TRS analyzer on October 23 for 2 hours.

Unstable operation due to flatline in analyzer output signal of the TRS analyzer on October 26 resulted in 1 hour of invalid data.

Maintenance to replace the TRS analyzer on October 28 to 30 resulted in 49 hours of downtime.

A station power failure on October 29 interrupted the normal operations of all air quality analyzers except for TRS instrument for 3 hours.

Intermittent flatlines in the output signal of the wind sensor throughout the month resulted in 6 hours of invalid data.

Station 31, Blackrod

Station power failures throughout the month interrupted the normal operations of all air quality analyzers for a total of 7 to 8 hours.

Unstable operation of the $NO_x/NO/NO_2$ analyzer due to daily span checks outside the AMD criteria on October 20 and 21 resulted in 32 hours of invalid data.

Flatlines in the output signal of the wind sensor on October 27 and 28 resulted in 34 hours of invalid data.

Station 33, Monday Creek

Cleaning of the manifold on October 29 interrupted the normal operation of the H_2S and SO_2 analyzers for 1 hour.
A flatlines in the output signal of the wind sensor on October 5 resulted in 4 hours of invalid data.

Station 501, Leismer

Note: The WBEA commenced ambient air quality monitoring at the Leismer air monitoring station, at the Athabasca Oil Leismer facility on October 1, 2025. Install calibrations were completed in September and are attached with the October calibration report.

Maintenance to verify daily QA response of the H_2S analyzer on October 6 resulted in 1 hour of downtime.

Unstable operation due to AMD noncompliance of the $NO_x/NO/NO_2$ analyzer on October 6 to 8 resulted in 49 hours of invalid data.

Flatlines in the output signal of the wind sensor on October 5, 21 and 27 resulted in 26 hours of invalid data.

Station 505, Sawbones Bay

Cleaning of the manifold on October 29 interrupted the normal operations of H_2S and $NO_x/NO/NO_2$ analyzers for 1 hour.

Flatlines in the output signal of the wind sensor on October 5 resulted in 7 hours of invalid data.

Station 507, Kirby South

Cleaning of the manifold on October 23 interrupted the normal operation of the H_2S and $NO_x/NO/NO_2$ analyzers for 1 hour.

Intermittent flatlines in the output signal of the wind sensor throughout the month resulted in 54 hours of invalid data.

Station 511, Blackgold

Note: The WBEA commenced ambient air quality monitoring at the Blackgold air monitoring station, at the Harvest Operations Corporation facility on October 1, 2025. Install calibrations were completed in September and are attached with the October calibration report.

Maintenance to verify daily QA response of all gaseous analyzers on October 1 resulted in 1 to 4 hours of downtime.

Maintenance to verify daily QA response of $NO_X/NO/NO_2$ analyzer on October 17 resulted in 2 hours of downtime.

Intermittent flatlines in the output signal of the wind sensor throughout the month resulted in 24 hours of invalid data.

The daily span check for the NO_2 analyzer was outside the 10% AMD criteria on October 18 due to an interruption in the station calibrator configuration.

If additional information is required, please contact the Wood Buffalo Environmental Association at (780) 799-4420.

Yours sincerely,

Wood Buffalo Environmental Association
The representative of the Person Responsible for this monitoring program is Dianne McIssac, Operations Manager, WBEA.

Level one (L1) data review was completed by the Field Technicians responsible for each respective air monitoring station. Level two (L2) data validation, report preparation, and submission were completed by Asad Hidayat, Denny Estador and Karina Fenwick of WBEA. The WBEA has retained the services of Air Resource Specialists (ARS) to conduct Level three (L3) review on its behalf. Contact information for WBEA staff is included below.

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T: (780) 215-6000
E: ahidayat@wbea.org

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Wood Buffalo Environmental Association
T: (780) 713-8510
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Wood Buffalo Environmental Association
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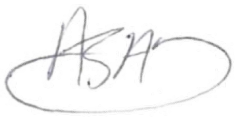
I certify that I have reviewed and verified this report, and that the information is complete, accurate and representative of the monitoring results, reporting timeframe, and the specified analysis, summarization, and reporting requirements.



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R00_2510

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION
MONTHLY AIR MONITORING SUMMARY

Created: Nov 27, 2025 12:15:00

APPROVAL NUMBERS	REPORT DATE	
	MONTH	YEAR
289664-00-00	10	2025
241311-00-00		
20809-02-00		
149968-01-00		
237382-00-00		
48522-01-00		
240008-00-00		

CONTINUOUS AMBIENT MONITORING

PARAMETER	STN. NO.	% TIME OPERATIONAL	30-MIN AVERAGE		ONE-HOUR AVERAGE		24-HOUR AVERAGE	
			MAXIMUM CONCENTRATION	NO. READINGS > REGULATION	MAXIMUM CONCENTRATION	NO. READINGS > REGULATION	MAXIMUM CONCENTRATION	NO. READINGS > REGULATION
SO2(ppb)	1	99	-	-	20	0	3.2	0
SO2(ppb)	2	100	-	-	52.5	0	7.6	0
SO2(ppb)	4	100	-	-	28.7	0	3.7	0
SO2(ppb)	5	100	-	-	30.9	0	5.8	0
SO2(ppb)	6	100	-	-	8.0	0	1.6	0
SO2(ppb)	7	99	-	-	6.1	0	1.3	0
SO2(ppb)	8	99	-	-	5.6	0	1.2	0
SO2(ppb)	9	100	-	-	11.6	0	2.4	0
SO2(ppb)	11	100	-	-	26.4	0	3.4	0
SO2(ppb)	13	100	-	-	18.9	0	3.6	0
SO2(ppb)	14	100	-	-	4.1	0	1.1	0
SO2(ppb)	17	100	-	-	17.0	0	5.2	0
SO2(ppb)	18	100	-	-	4.4	0	1.3	0
SO2(ppb)	19	100	-	-	24.3	0	5.6	0
SO2(ppb)	20	100	-	-	12.8	0	1.2	0
SO2(ppb)	21	100	-	-	3.5	0	0.7	0
SO2(ppb)	22	100	-	-	2.5	0	0.9	0
SO2(ppb)	23	100	-	-	16.0	0	3.4	0
SO2(ppb)	25	100	-	-	17.8	0	2.5	0
SO2(ppb)	27	100	-	-	16.6	0	6.3	0
SO2(ppb)	29	100	-	-	7.9	0	1.8	0
SO2(ppb)	30	99	-	-	14.4	0	2.9	0
SO2(ppb)	31	99	-	-	3.1	0	0.7	0
SO2(ppb)	33	100	-	-	7.4	0	1.1	0
SO2(ppb)	501	100	-	-	36.9	0	22.4	0
SO2(ppb)	505	100	-	-	34.1	0	8.3	0
SO2(ppb)	507	100	-	-	4.9	0	1.0	0
SO2(ppb)	511	100	-	-	7.0	0	2.0	0
H2S(ppb)	1	100	-	-	1.7	0	0.5	0
H2S(ppb)	2	99	-	-	1.9	0	0.6	0
H2S(ppb)	4	100	-	-	2.0	0	0.4	0
H2S(ppb)	5	100	-	-	4.9	0	1.1	0
H2S(ppb)	11	100	-	-	7.1	0	1.2	0
H2S(ppb)	17	100	-	-	6.2	0	0.4	0
H2S(ppb)	19	100	-	-	1.8	0	0.3	0
H2S(ppb)	20	100	-	-	1.0	0	0.2	0
H2S(ppb)	25	92	-	-	1.9	0	0.5	0
H2S(ppb)	27	99	-	-	1.3	0	0.2	0
H2S(ppb)	29	100	-	-	0.4	0	0.2	0
H2S(ppb)	31	99	-	-	1.1	0	0.3	0
H2S(ppb)	33	100	-	-	0.4	0	0.2	0
H2S(ppb)	501	100	-	-	1.5	0	0.3	0
H2S(ppb)	505	100	-	-	1.9	0	0.5	0
H2S(ppb)	507	100	-	-	3.7	0	0.5	0
H2S(ppb)	511	100	-	-	0.5	0	0.1	0
TRS(ppb)	1	99	1.7	0	1.5	-	0.5	-
TRS(ppb)	6	100	0.8	0	0.6	-	0.2	-
TRS(ppb)	7	99	2.6	0	2.5	-	0.7	-
TRS(ppb)	8	99	0.5	0	0.5	-	0.4	-
TRS(ppb)	9	100	2.0	0	2.0	-	0.8	-
TRS(ppb)	13	100	1.5	0	1.2	-	0.7	-
TRS(ppb)	14	99	1.4	0	1.0	-	0.3	-
TRS(ppb)	18	100	0.8	0	0.8	-	0.5	-
TRS(ppb)	21	100	0.5	0	0.5	-	0.3	-
TRS(ppb)	22	100	0.7	0	0.6	-	0.3	-
TRS(ppb)	23	100	3.4	0	2.9	-	0.9	-
TRS(ppb)	30	93	2.9	0	2.8	-	0.9	-
THC(ppm)	1	100	-	-	4.2	-	2.5	-
THC(ppm)	2	100	-	-	5.4	-	2.5	-
THC(ppm)	4	100	-	-	7.3	-	2.6	-
THC(ppm)	5	100	-	-	4.9	-	2.3	-
THC(ppm)	6	100	-	-	2.3	-	2.1	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION
MONTHLY AIR MONITORING SUMMARY

Created: Nov 27, 2025 12:15:00

APPROVAL NUMBERS	REPORT DATE		CONTINUOUS AMBIENT MONITORING					
	MONTH	YEAR						
289664-00-00	10	2025						
241311-00-00 20809-02-00 149968-01-00 237382-00-00 48522-01-00			30-MIN AVERAGE		ONE-HOUR AVERAGE		24-HOUR AVERAGE	
	PARAMETER	STN. NO.	% TIME OPERATIONAL	MAXIMUM CONCENTRATION	NO. READINGS > REGULATION	MAXIMUM CONCENTRATION	NO. READINGS > REGULATION	MAXIMUM CONCENTRATION	NO. READINGS > REGULATION
240008-00-00	THC(ppm)	7	99	-	-	2.6	-	2.2	-
48263-01-00	THC(ppm)	9	99	-	-	4.0	-	2.2	-
224816-00-00	THC(ppm)	11	100	-	-	3.7	-	2.7	-
151469-01-00	THC(ppm)	13	100	-	-	3.5	-	2.5	-
189942-00-00	THC(ppm)	14	99	-	-	2.2	-	2.0	-
206355-00-00	THC(ppm)	17	100	-	-	3.9	-	2.4	-
46586-00-00	THC(ppm)	18	100	-	-	2.3	-	2.1	-
73203-02-00	THC(ppm)	19	100	-	-	3.2	-	2.4	-
216466-01-00	THC(ppm)	20	100	-	-	3.0	-	2.4	-
137467-01-00	THC(ppm)	21	100	-	-	3.4	-	2.5	-
236394-00-00	THC(ppm)	22	100	-	-	2.2	-	2.1	-
254465-00-00	THC(ppm)	23	98	-	-	6.3	-	3.0	-
094-03-00	THC(ppm)	29	95	-	-	2.6	-	2.4	-
80105-01-00	THC(ppm)	30	99	-	-	5.9	-	3.3	-
305529-00-00	THC(ppm)	507	100	-	-	3.8	-	2.6	-
318401-00-00	THC(ppm)	511	100	-	-	3.0	-	2.5	-
026-03-00	O3(ppb)	1	98	-	-	35.0	0	22.0	-
364232-00-00	O3(ppb)	4	100	-	-	44.4	0	29.7	-
228044-00-00	O3(ppb)	6	100	-	-	43.9	0	30.6	-
247548-00-00	O3(ppb)	7	98	-	-	38.6	0	27.2	-
231302-00-00	O3(ppb)	8	99	-	-	36.7	0	27.1	-
246984-01-00	O3(ppb)	13	100	-	-	40.5	0	26.4	-
153125-01-00	O3(ppb)	14	100	-	-	41.9	0	31.2	-
	O3(ppb)	17	100	-	-	40.6	0	32.1	-
	O3(ppb)	18	100	-	-	40.0	0	31.5	-
	O3(ppb)	21	100	-	-	42.5	0	30.1	-
	O3(ppb)	22	100	-	-	42.9	0	29.8	-
	NO2(ppb)	1	96	-	-	25.7	0	9.0	-
	NO2(ppb)	4	100	-	-	20.2	0	8.1	-
	NO2(ppb)	6	100	-	-	20.7	0	6.9	-
	NO2(ppb)	7	98	-	-	25.9	0	10.4	-
	NO2(ppb)	8	92	-	-	13.1	0	3.2	-
	NO2(ppb)	9	100	-	-	22.3	0	13.8	-
	NO2(ppb)	13	96	-	-	24.8	0	8.7	-
	NO2(ppb)	14	100	-	-	9.9	0	3.5	-
	NO2(ppb)	17	100	-	-	17.1	0	5.1	-
	NO2(ppb)	18	100	-	-	7.6	0	2.9	-
	NO2(ppb)	19	100	-	-	17.8	0	6.0	-
	NO2(ppb)	20	97	-	-	17.1	0	5.0	-
	NO2(ppb)	21	100	-	-	9.2	0	3.8	-
	NO2(ppb)	22	100	-	-	5.8	0	3.0	-
	NO2(ppb)	23	100	-	-	35.2	0	15.0	-
	NO2(ppb)	27	89	-	-	7.6	0	2.7	-
	NO2(ppb)	29	100	-	-	8.3	0	3.2	-
	NO2(ppb)	30	100	-	-	22.7	0	10.3	-
	NO2(ppb)	31	95	-	-	29.5	0	10.4	-
	NO2(ppb)	33	100	-	-	11.8	0	3.4	-
	NO2(ppb)	501	93	-	-	36.9	0	6.8	-
	NO2(ppb)	505	100	-	-	15.7	0	6.4	-
	NO2(ppb)	507	100	-	-	28.8	0	10.2	-
	NO2(ppb)	511	99	-	-	11.5	0	3.3	-
	CO(ppm)	7	99	-	-	0.4	0	0.2	-
	NH3(ppb)	1	92	-	-	0.0	0	0.0	-
	NH3(ppb)	6	92	-	-	0.0	0	0.0	-
	PM2.5(ug/m3)	1	100	-	-	32.1	0	14.3	0
	PM2.5(ug/m3)	4	100	-	-	26.8	0	13.3	0
	PM2.5(ug/m3)	6	100	-	-	26.1	0	10.6	0
	PM2.5(ug/m3)	7	100	-	-	26.6	0	11.9	0
	PM2.5(ug/m3)	8	99	-	-	57.9	0	21.3	0
	PM2.5(ug/m3)	9	100	-	-	43.0	0	12.4	0
	PM2.5(ug/m3)	13	100	-	-	20.8	0	9.3	0
	PM2.5(ug/m3)	14	100	-	-	22.4	0	9.1	0

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION
MONTHLY AIR MONITORING SUMMARY

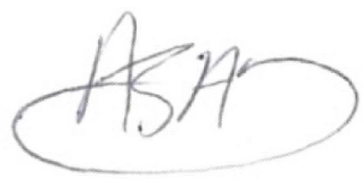
Created: Nov 27, 2025 12:15:00

APPROVAL NUMBERS: 289664-00-00, 241311-00-00, 20809-02-00, 149968-01-00, 237382-00-00, 48522-01-00

REPORT DATE: MONTH 10, YEAR 2025

CONTINUOUS AMBIENT MONITORING

PARAMETER	STN. NO.	% TIME OPERATIONAL	30-MIN AVERAGE MAXIMUM CONCENTRATION	30-MIN AVERAGE NO. READINGS > REGULATION	ONE-HOUR AVERAGE MAXIMUM CONCENTRATION	ONE-HOUR AVERAGE NO. READINGS > REGULATION	24-HOUR AVERAGE MAXIMUM CONCENTRATION	24-HOUR AVERAGE NO. READINGS > REGULATION
PM2.5(ug/m3)	17	100	-	-	30.1	0	14.5	0
PM2.5(ug/m3)	18	100	-	-	26.4	0	8.9	0
PM2.5(ug/m3)	21	100	-	-	29.7	0	9.3	0
PM2.5(ug/m3)	22	97	-	-	18.9	0	8.6	0
PM2.5(ug/m3)	23	100	-	-	34.8	0	10.2	0
PM2.5(ug/m3)	29	100	-	-	17.3	0	7.8	0
PM2.5(ug/m3)	30	99	-	-	13.2	0	6.6	0
WS(km/h)	1	98	-	-	-	-	-	-
WS(km/h)	2	100	-	-	-	-	-	-
WS(km/h)	4	100	-	-	-	-	-	-
WS(km/h)	5	99	-	-	-	-	-	-
WS(km/h)	6	100	-	-	-	-	-	-
WS(km/h)	7	100	-	-	-	-	-	-
WS(km/h)	8	100	-	-	-	-	-	-
WS(km/h)	9	100	-	-	-	-	-	-
WS(km/h)	11	99	-	-	-	-	-	-
WS(km/h)	13	100	-	-	-	-	-	-
WS(km/h)	14	100	-	-	-	-	-	-
WS(km/h)	17	84	-	-	-	-	-	-
WS(km/h)	18	100	-	-	-	-	-	-
WS(km/h)	19	92	-	-	-	-	-	-
WS(km/h)	20	92	-	-	-	-	-	-
WS(km/h)	21	99	-	-	-	-	-	-
WS(km/h)	22	98	-	-	-	-	-	-
WS(km/h)	23	100	-	-	-	-	-	-
WS(km/h)	25	97	-	-	-	-	-	-
WS(km/h)	27	92	-	-	-	-	-	-
WS(km/h)	29	99	-	-	-	-	-	-
WS(km/h)	30	99	-	-	-	-	-	-
WS(km/h)	31	95	-	-	-	-	-	-
WS(km/h)	33	99	-	-	-	-	-	-
WS(km/h)	501	97	-	-	-	-	-	-
WS(km/h)	505	99	-	-	-	-	-	-
WS(km/h)	507	93	-	-	-	-	-	-
WS(km/h)	511	97	-	-	-	-	-	-



SIGNATURE OF ASSOCIATION REPRESENTATIVE

FOR ALBERTA ENVIRONMENT USE ONLY

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS01
BERTHA GANTER - FORT MCKAY
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT McKAY - BERTHA GANTER (AMS01)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	701	36	43	99.06	-	-	19.7	0	3.2	0
H2S(ppb) Average	705	37	39	99.73	-	-	1.7	0	0.5	0
TRS(ppb) Average	703	37	41	99.46	1.7	0	1.5	-	0.5	-
THC(ppm) Average	707	36	37	99.87	-	-	4.2	-	2.5	-
NMHC(ppm) Average	707	36	37	99.87	-	-	0.535	-	0.064	-
CH4(ppm) Average	707	36	37	99.87	-	-	4.1	-	2.5	-
O3 (ppb) Average	695	35	49	98.12	-	-	35	0	22	-
NO2 (ppb) Average	676	39	68	96.1	-	-	25.7	0	9	-
NO (ppb) Average	676	39	68	96.1	-	-	86.8	-	12.6	-
NOX (ppb) Average	676	39	68	96.1	-	-	101	-	21.1	-
NH3 (ppb) Average	646	42	98	92.47	-	-	0	0	0	-
PM2.5 (ug/m3) Average	740	3	4	99.87	-	-	32.1	0	14.3	0
Temperature 2 m (C) Average	744	0	0	100	-	-	21.1	-	9.9	-
Temperature 10 m (C) Average	744	0	0	100	-	-	21.1	-	10.5	-
Relative Humidity (%) Average	744	0	0	100	-	-	98.7	-	93.8	-
Wind Speed 10 m (km/h) Average	729	0	15	97.98	-	-	29	-	19	-
Wind Direction 10 m (deg) Average	729	0	15	97.98	-	-	-	-	-	-
Precipitation (mm) Total	741	3	3	100	-	-	3.2	-	11.4	-
Leaf Wetness (% of range) Average	738	0	6	99.19	-	-	83.1	-	34.6	-
Global Solar Radiation (W/m2) Average	744	0	0	100	-	-	498.6	-	126.3	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BERTHA GANTER FORT McKAY (AMS01)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	701	0.59	1.8	-	0	0	0	0.1	0.3	1.2	19.7
H2S (ppb) Average	705	0.18	0.2	-	0	0	0.1	0.1	0.2	0.4	1.7
TRS (ppb) Average	703	0.24	0.2	-	0.1	0.1	0.1	0.2	0.3	0.5	1.5
THC (ppm) Average	707	2.16	0.2	-	2	2	2	2.1	2.2	2.3	4.2
NMHC(ppm) Average	707	0.018	0.044	-	0	0	0	0	0	0.1	0.535
CH4(ppm) Average	707	2.14	0.2	-	2	2	2	2.1	2.2	2.3	4.1
O3 (ppb) Average	695	13.26	8	-	0.2	1.7	6.6	13.8	19	24.1	35
NO2 (ppb) Average	676	4.68	4.3	-	0	0	0.6	3.9	7	10.8	25.7
NO (ppb) Average	676	2.78	8.2	-	0	0	0	0.7	1.9	5.5	86.8
NOX (ppb) Average	676	7.46	10.8	-	0	0.4	1.6	4.6	9.4	15.5	101
NH3 (ppb) Average	646	0	0	-	0	0	0	0	0	0	0
PM2.5 (ug/m3) Average	740	5.93	4.6	-	0.1	0.9	2.8	5.3	7.6	11.4	32.1
Temperature 2 m (C) Average	744	4.78	4.5	-	-4.3	-0.2	1.1	3.9	8	11	21.1
Temperature 10 m (C) Average	744	4.89	4.5	-	-4	-0.2	1.3	4	8	11	21.1
Relative Humidity (%) Average	744	76.61	17.2	-	30.4	50.2	64.6	80.7	91.3	96.2	98.7
Wind Speed 10 m (km/h) Average	729	8.4	5	-	0	3	5	7	11	15	29
Wind Direction 10 m (deg) Average	729	-	-	-	-	-	-	-	-	-	-
Precipitation (mm) Total	741	-	-	50.52	-	-	-	-	-	-	-
Leaf Wetness (% of range) Average	738	10.17	16	-	0.9	1.6	2	2.7	8.5	36.8	83.1
Global Solar Radiation (W/m2) Average	744	63.69	113.9	-	0	0	0	0	72.1	246.4	498.6

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BERTHA GANTER FORT McKAY (AMS01)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
SO2, NO2	21 Oct 2025 10:00	21 Oct 2025 15:00	6	Maintenance - ECC External Audit
O3	21 Oct 2025 10:00	21 Oct 2025 16:00	7	Maintenance - ECC External Audit
ALL GASEOUS ANALYZERS	31 Oct 2025 12:00	31 Oct 2025 12:00	1	Maintenance - station operator activities
H2S, NH3, NO2, O3, TRS	20 Oct 2025 15:00	20 Oct 2025 15:00	1	Maintenance - sample manifold cleaned
TRS	19 Oct 2025 10:00	19 Oct 2025 10:00	1	Station power failure
TRS	21 Oct 2025 12:00	21 Oct 2025 12:00	1	Station power failure
NH3	19 Oct 2025 09:00	19 Oct 2025 10:00	2	Station power failure
O3	28 Oct 2025 13:00	28 Oct 2025 15:00	3	Maintenance - WBEA internal audit
O3	29 Oct 2025 13:00	29 Oct 2025 14:00	2	Maintenance - WBEA internal audit
NO2	14 Oct 2025 15:00	15 Oct 2025 11:00	21	Maintenance - stabilization post installation
NH3	09 Oct 2025 18:00	10 Oct 2025 11:00	18	Maintenance - calibration in progress
NH3	01 Oct 2025 03:00	31 Oct 2025 03:00	34	Stabilization after daily QA check
PM2.5	30 Oct 2025 09:00	30 Oct 2025 09:00	1	DAS Failure - data not recorded
Wind Speed, Wind Direction	01 Oct 2025 19:00	01 Oct 2025 21:00	3	Flat line in sensor output signal - Sensor frozen
Wind Speed, Wind Direction	24 Oct 2025 19:00	24 Oct 2025 19:00	1	Flat line in sensor output signal - Sensor frozen
Wind Speed, Wind Direction	26 Oct 2025 03:00	26 Oct 2025 10:00	8	Flat line in sensor output signal - Sensor frozen
Wind Speed, Wind Direction	29 Oct 2025 22:00	30 Oct 2025 00:00	3	Flat line in sensor output signal - Sensor frozen
Surface Leaf Wetness	27 Oct 2025 20:00	27 Oct 2025 20:00	1	Sensor operated out of range
Surface Leaf Wetness	28 Oct 2025 10:00	28 Oct 2025 13:00	4	Sensor operated out of range
Surface Leaf Wetness	29 Oct 2025 16:00	29 Oct 2025 16:00	1	Sensor operated out of range

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Fort McKay - Bertha Ganter - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 19.7 ppb on Oct 16 13:00

Maximum Daily Average: 3.2 ppb on Oct 23

Minimum Value: 0.0 ppb on Oct 1 01:00

Minimum Daily Average: 0.0 ppb on Oct 9

Maximum Diurnal Average: 2.5 ppb at hour 13

Minimum Diurnal Average: 0.1 ppb at hour 3

Monthly Average: 0.59 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.3 P_{90} = 1.2 P_{99} = 8.7

Hours in Service:	744
Hours of Data:	701
Hours of Missing Data:	43
Hours of Calibration:	36
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.3	0.5	0.4	0.4	0.9	0.2	0.3	0.2	0.1	0.0	0.0	0.1	0.0	0.1	0.2	0.9
3-Oct	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
4-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.2
5-Oct	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.3	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
6-Oct	0.1	0.0	0.0	Z	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	4.2	8.6	2.6	1.2	0.6	0.6	0.3	0.3	0.6	0.9	8.6
7-Oct	0.6	0.4	0.3	0.9	Z	1.3	0.4	0.3	1.2	4.7	8.6	3.6	11.7	12.8	5.1	2.7	2.5	1.0	0.5	0.5	0.6	0.7	0.8	0.6	2.7	12.8
8-Oct	0.4	0.2	0.2	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
9-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.3	3.0	7.3	8.0	10.4	8.7	8.1	1.0	0.4	0.4	0.4	0.7	1.0	1.2	1.3	0.7	2.3	10.4
11-Oct	0.5	0.6	Z	0.3	0.2	0.6	0.2	0.3	0.3	0.2	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.0	0.2	0.6
12-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
13-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	1.3	2.6	1.8	2.1	0.3	2.6
14-Oct	1.2	1.2	0.8	0.7	0.7	Z	0.9	0.3	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.2	0.4	0.3	0.3	0.6	0.4	1.2
15-Oct	Z	0.4	0.3	0.2	0.4	0.1	0.0	0.0	0.3	9.3	3.0	1.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.7	9.3
16-Oct	0.0	Z	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.4	1.1	7.3	19.7	2.0	1.5	1.1	1.0	0.5	0.3	0.3	0.2	0.2	0.2	0.2	1.6	19.7
17-Oct	0.1	0.2	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2
18-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.3	0.3	0.2	0.0	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.3
20-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.0	0.0	C	C	C	C	C	0.0	0.0	0.0	0.0	0.1	0.1	0.4	1.3	0.1	1.3
21-Oct	Z	0.5	0.4	0.4	0.5	0.9	0.4	0.2	0.1	M	M	M	M	M	M	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	--	0.9
22-Oct	0.0	Z	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.5	4.8	15.2	13.1	5.9	4.6	3.4	1.9	0.9	0.4	0.3	0.2	0.3	0.3	2.3	15.2
23-Oct	0.4	0.8	Z	2.9	3.9	1.8	5.5	2.9	1.1	3.7	4.6	8.6	6.8	6.9	7.2	3.9	0.7	0.4	0.4	0.3	0.9	3.8	1.4	3.6	3.2	8.6
24-Oct	1.3	1.2	0.7	Z	0.5	0.4	1.0	1.3	0.6	0.5	1.2	2.2	6.4	1.6	1.2	1.0	0.8	0.6	0.5	0.3	0.3	0.2	0.2	0.2	1.0	6.4
25-Oct	0.1	0.2	0.2	0.3	Z	0.4	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.4
26-Oct	0.1	0.0	0.1	0.1	0.1	Z	0.1	0.1	0.2	0.4	0.6	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.6
27-Oct	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
28-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1
30-Oct	0.1	0.0	0.1	Z	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2
31-Oct	0.1	0.1	0.1	0.0	Z	0.1	0.3	1.8	0.7	0.4	0.5	M	1.1	2.1	2.2	1.5	2.6	1.5	0.6	2.1	1.2	3.9	2.8	1.1	1.2	3.9
	0.2	0.2	0.1	0.2	0.3	0.2	0.3	0.3	0.2	0.8	0.9	1.4	2.5	1.7	1.1	0.7	0.7	0.3	0.2	0.2	0.2	0.5	0.3	0.4	Diurnal Average	
	1.3	1.2	0.8	2.9	3.9	1.8	5.5	2.9	1.2	9.3	8.6	8.6	19.7	13.1	8.1	4.6	8.6	2.6	1.2	2.1	1.3	3.9	2.8	3.6	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

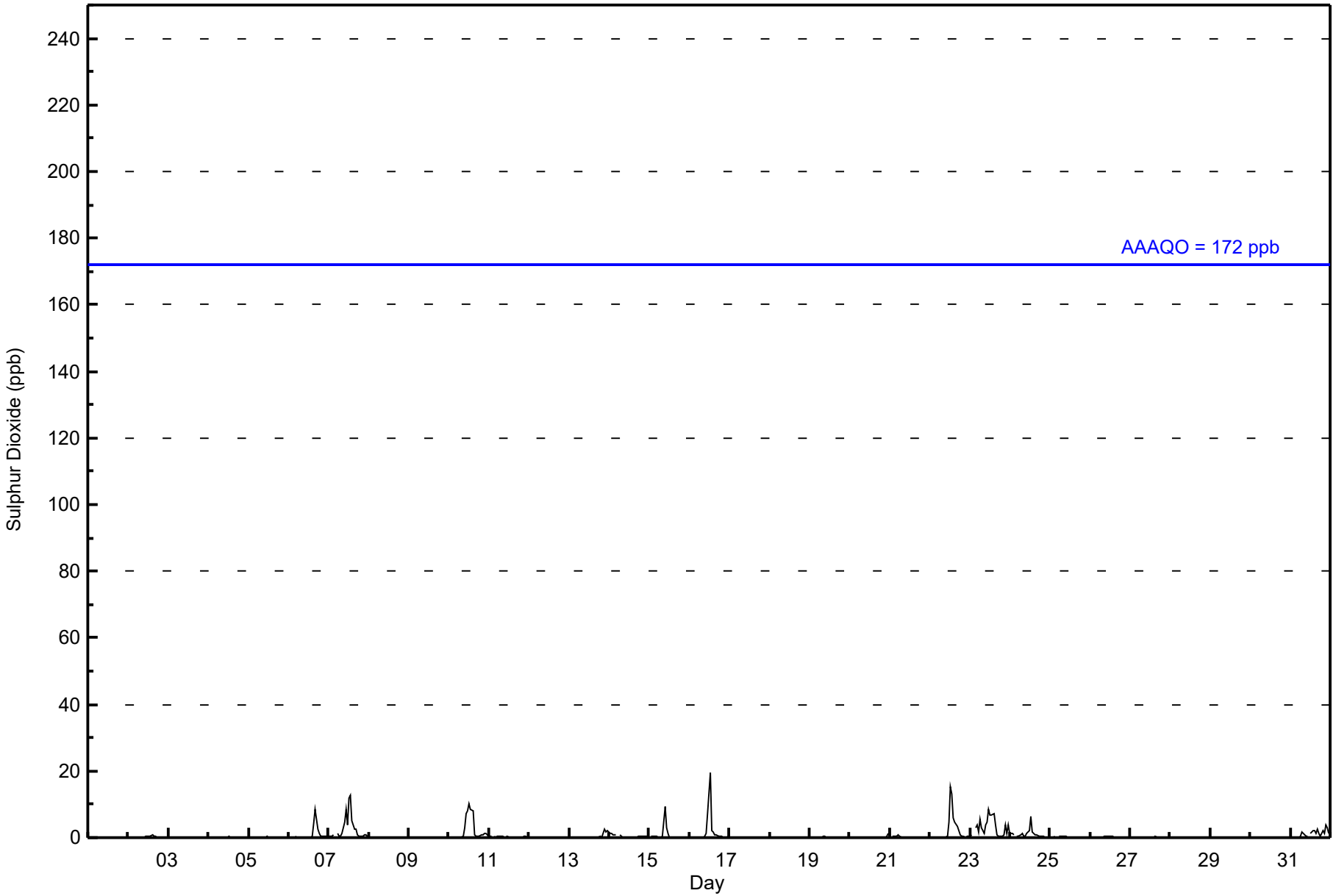
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Fort McKay - Bertha Ganter - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	696	99.29	99.29
11 - 20	5	0.71	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 701

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	84	6	5	3	3	3	6	91	151	59	45	37	45	59	23	62	682
11 - 20	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	0	5
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	84	6	5	3	3	3	6	95	152	59	45	37	45	59	23	62	687

Total Number of Valid Hours: 687

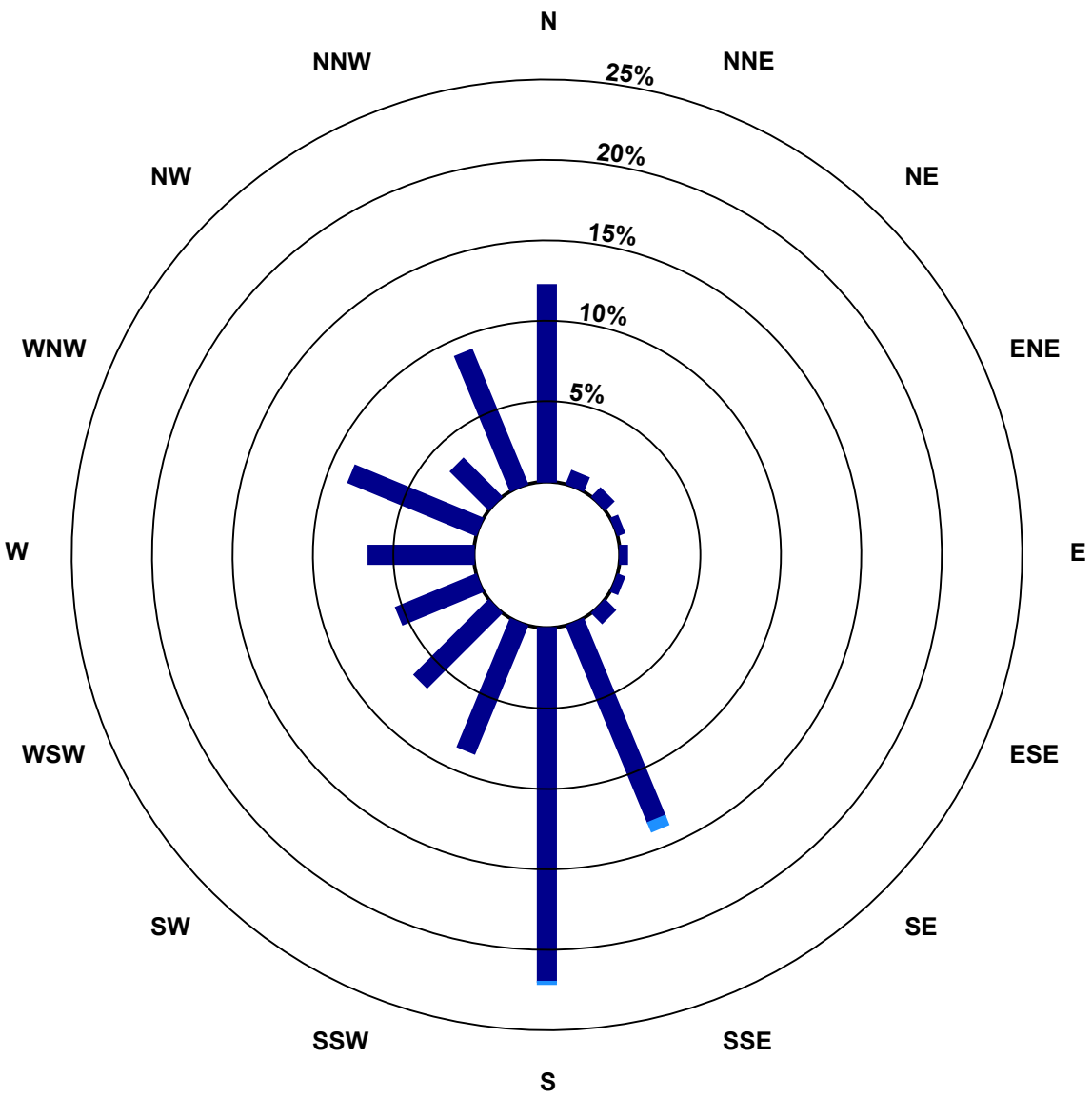
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Fort McKay - Bertha Ganter



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

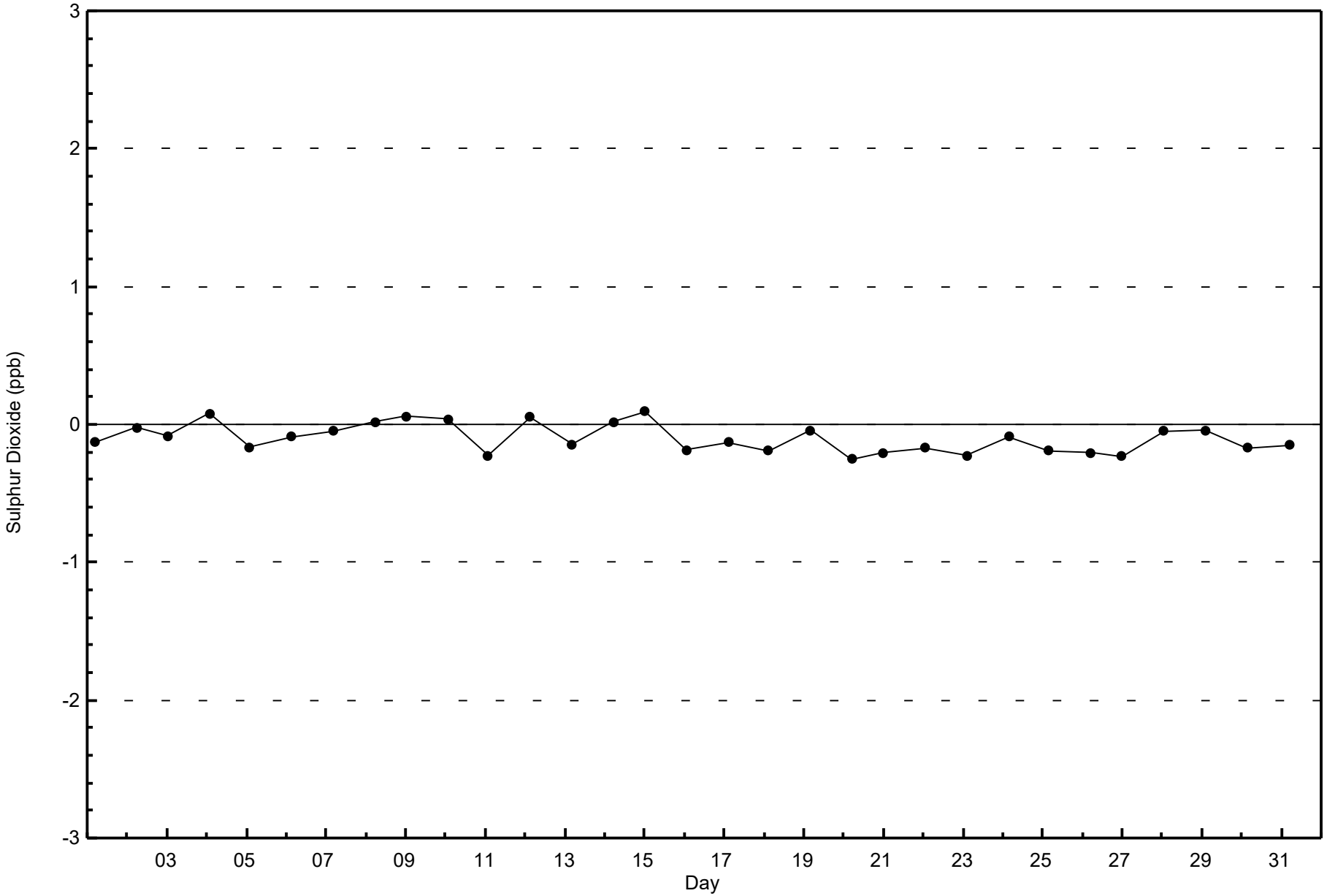
Total Number of Valid Hours: 687

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Fort McKay - Bertha Ganter - October 2025

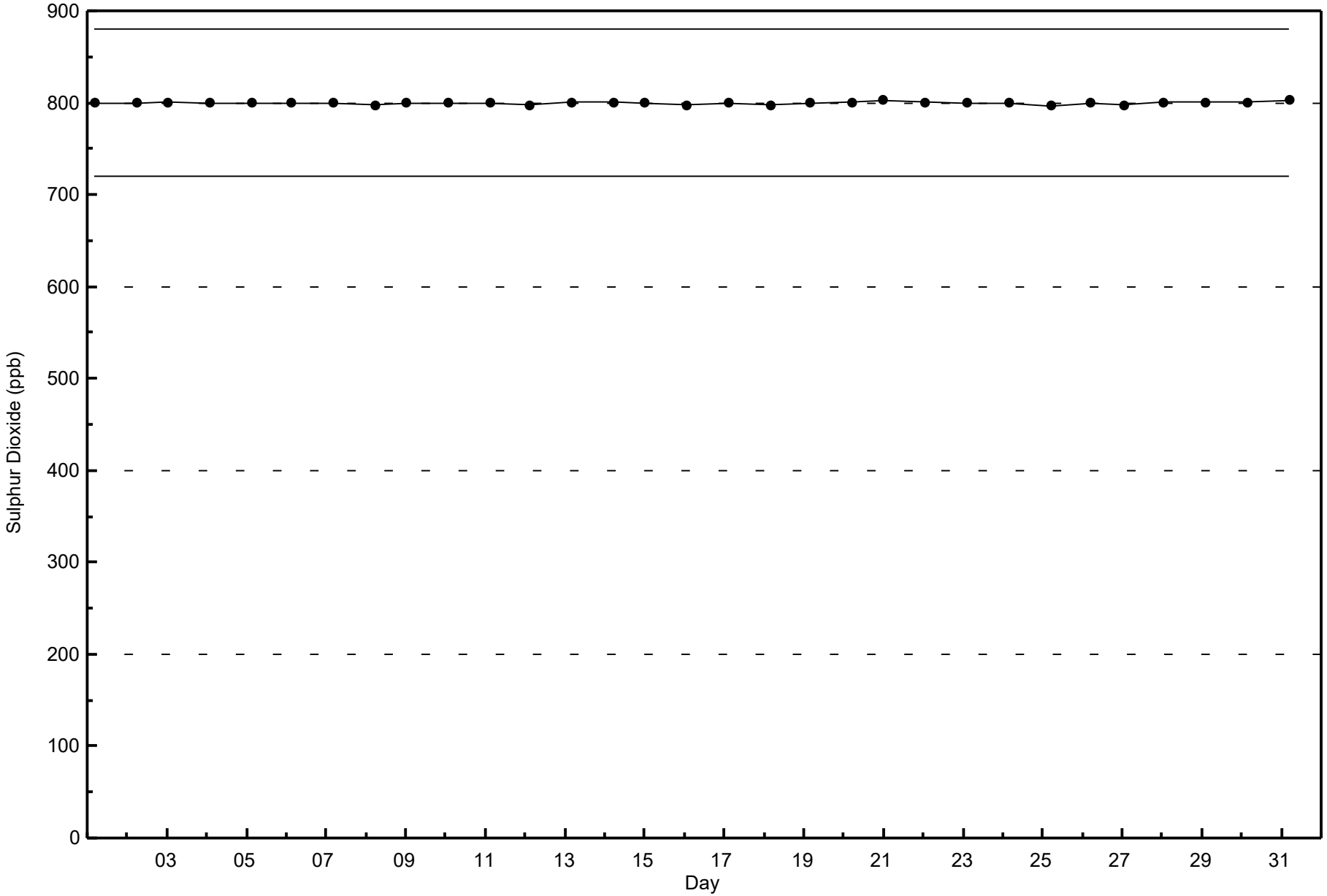


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Fort McKay - Bertha Ganter - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H_2S) - ppb

Fort McKay - Bertha Ganter - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 1.7 ppb on Oct 7 22:00 Maximum Daily Average: 0.5 ppb on Oct 7

Minimum Value: 0.0 ppb on Oct 14 16:00 Minimum Daily Average: 0.0 ppb on Oct 27

Maximum Diurnal Average: 0.3 ppb at hour 11 Minimum Diurnal Average: 0.1 ppb at hour 15

Monthly Average: 0.18 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.4 P_{99} = 1.1

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	37
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.3	0.3	0.3	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
2-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.3	0.4	1.0	1.3	1.1	1.1	1.1	0.6	0.2	0.2	0.2	0.2	0.1	0.2	0.6	0.6	0.4	0.2	0.4	1.3
3-Oct	0.4	Z	0.5	0.3	0.3	0.3	0.2	0.4	0.4	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.5
4-Oct	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.1	0.3
5-Oct	0.0	0.0	0.0	Z	0.1	0.0	0.1	0.2	0.4	0.2	0.4	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4
6-Oct	0.0	0.1	0.3	0.2	Z	0.4	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.4	0.4	0.8	0.9	1.1	1.1	0.5	0.3	1.1
7-Oct	0.5	0.2	0.1	0.1	0.1	Z	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.4	0.6	0.4	0.1	0.7	1.6	1.7	1.3	1.1	0.5	1.7
8-Oct	Z	0.3	0.5	0.4	0.2	0.2	0.1	0.1	0.1	0.1	C	C	C	C	C	C	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	--	0.5
9-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.6	0.4	0.4	0.1	0.6
10-Oct	0.5	0.5	Z	0.5	0.5	0.5	0.5	0.6	0.4	0.5	0.4	0.4	0.4	0.1	0.1	0.1	0.0	0.1	0.5	0.2	0.2	0.4	0.6	0.6	0.4	0.6
11-Oct	0.5	0.6	0.5	Z	0.4	1.1	0.2	0.1	0.4	0.4	0.1	0.8	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.6	0.3	0.1	0.3	1.1
12-Oct	0.2	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.0	0.1	0.3	0.3	0.0	0.1	0.3
13-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.2	0.1	0.3
14-Oct	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.5	0.1	0.5
15-Oct	0.5	Z	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.4	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.5
16-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.4	0.6	0.7	0.8	1.1	1.1	0.4	0.1	0.3	0.5	0.2	0.3	0.3	0.3	0.2	0.1	0.2	0.4	1.1
17-Oct	0.4	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.4
18-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.2	0.7	0.9	1.0	0.5	0.4	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	1.0
20-Oct	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.7	0.3	0.2	0.2	M	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.7
21-Oct	0.1	Z	0.1	0.2	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.6
22-Oct	0.1	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.4	0.2	0.2	0.2	0.7	1.2	0.4	0.1	0.0	0.0	0.1	0.0	0.2	1.2
23-Oct	0.0	0.0	0.1	Z	0.4	0.2	0.3	0.4	0.2	0.3	0.1	0.2	0.1	0.2	0.4	0.2	0.1	0.0	0.1	0.1	0.1	0.6	0.3	0.3	0.2	0.6
24-Oct	0.3	0.6	0.3	0.3	Z	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6
25-Oct	0.1	0.1	0.1	0.3	0.2	Z	0.3	0.3	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.4
26-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.6	0.7	0.7	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.7
27-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
29-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.0	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
30-Oct	0.1	0.1	0.1	0.2	Z	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.3
31-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	M	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.3	0.2	0.3	0.5	0.3	0.2	0.5
	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.3	0.2	0.2	Diurnal Average	
	0.5	0.6	0.5	0.5	0.5	1.1	0.5	0.6	1.0	1.3	1.1	1.1	1.1	0.6	0.4	0.4	0.7	1.2	0.5	0.8	1.6	1.7	1.3	1.1	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

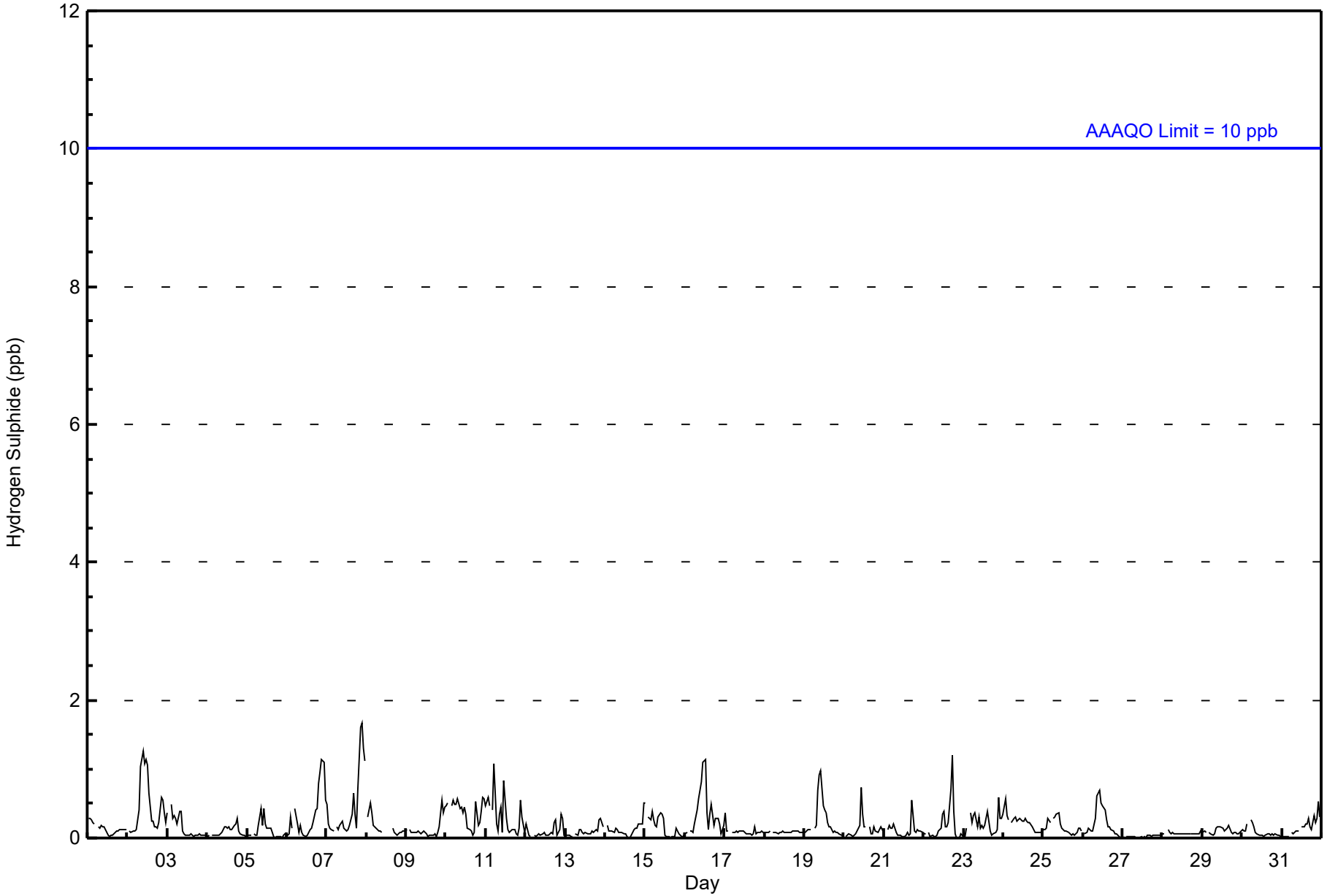
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Fort McKay - Bertha Ganter - October 2025



Hydrogen Sulphide (H_2S) - ppb

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	705	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	83	7	5	3	3	3	6	99	152	61	43	36	42	60	25	62	690
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	83	7	5	3	3	3	6	99	152	61	43	36	42	60	25	62	690

Total Number of Valid Hours: 690

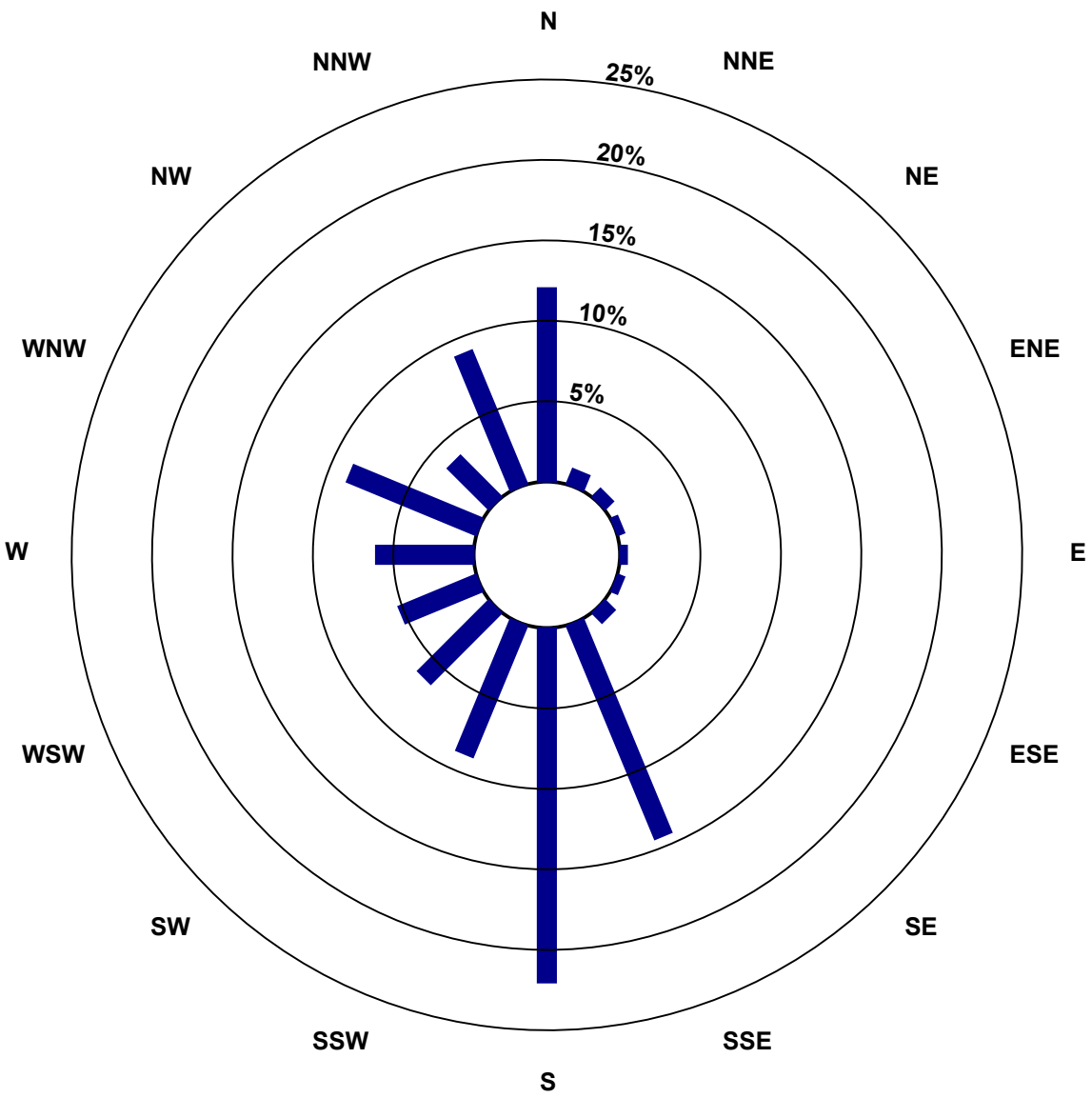
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H_2S) - ppb

Fort McKay - Bertha Ganter



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

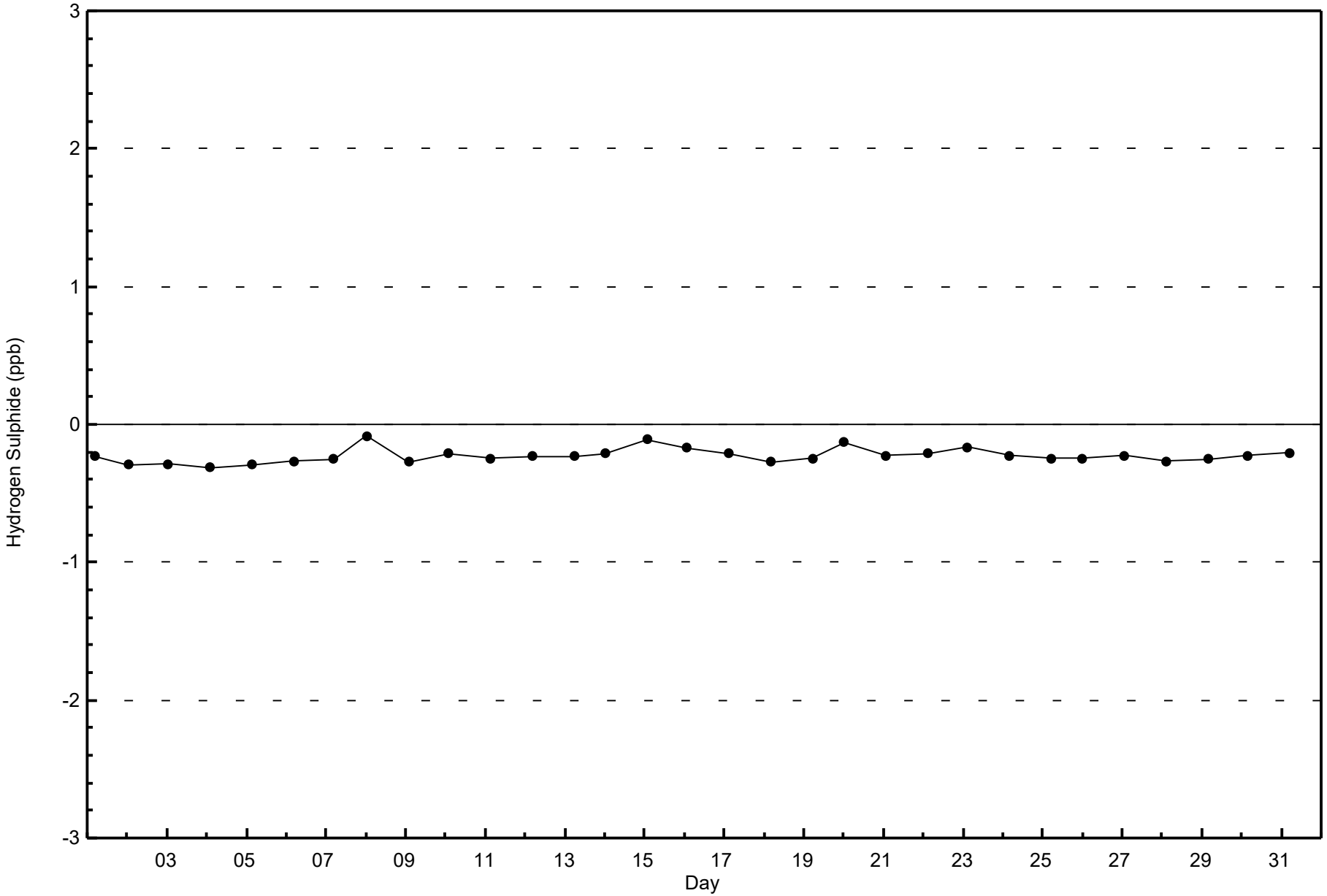
Total Number of Valid Hours: 690

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Fort McKay - Bertha Ganter - October 2025

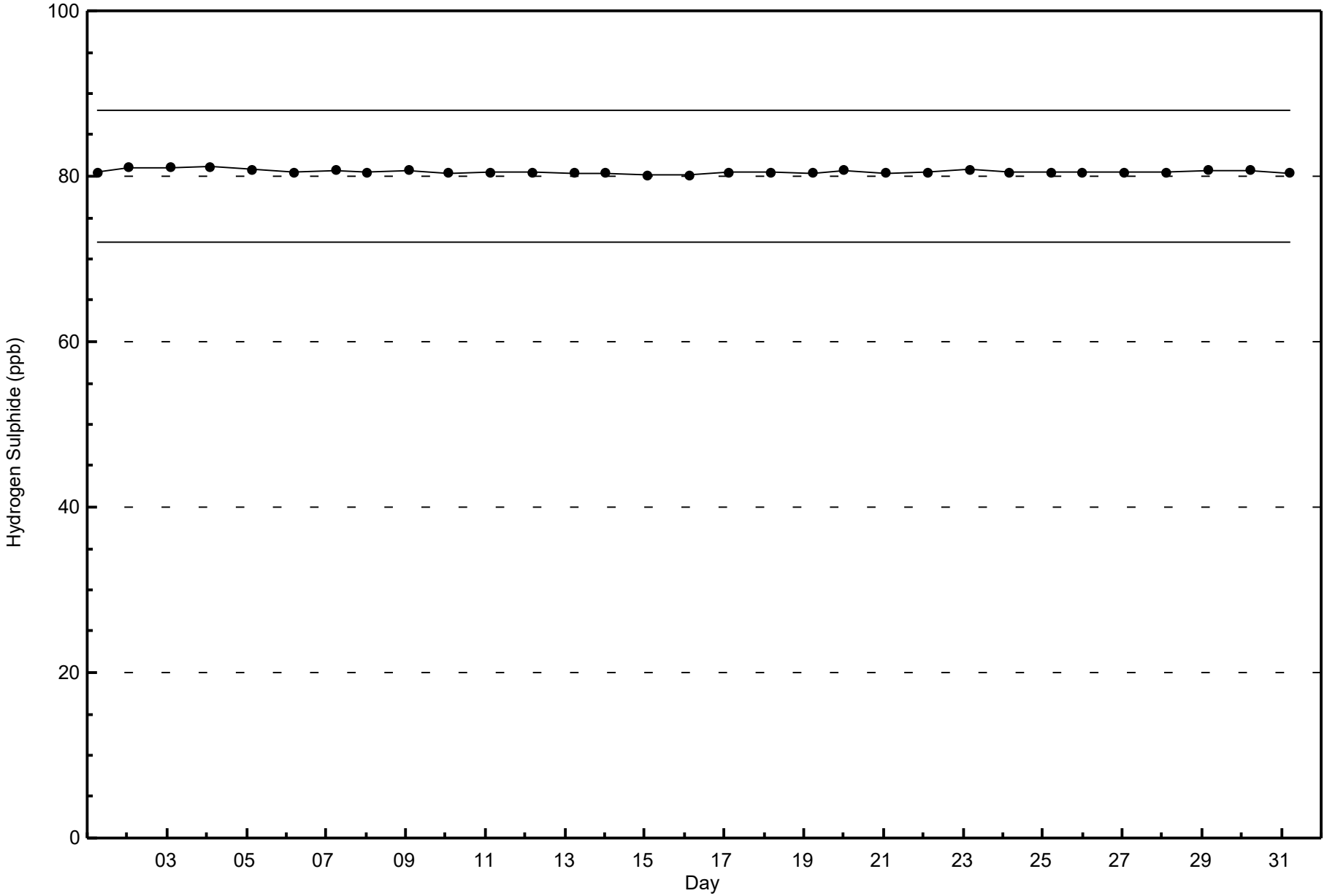


Wood Buffalo Environmental Association

Span Responses

Hydrogen Sulphide (H_2S) - ppb

Fort McKay - Bertha Ganter - October 2025



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Fort McKay - Bertha Ganter - October 2025

Number of Exceedences (AAAQG): 30-Min: 0

Maximum Value: 1.7 ppb on Oct 7 20:30

Maximum Daily Average: 0.5 ppb on Oct 2

Minimum Value: 0.0 ppb on Oct 8 10:30

Minimum Daily Average: 0.1 ppb on Oct 28

Maximum Diurnal Average: 0.3 ppb at hour 22

Minimum Diurnal Average: 0.2 ppb at hour 15

Monthly Average: 0.24 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.1 Q_1 = 0.1 Median = 0.2 Q_3 = 0.3 P_{90} = 0.5 P_{99} = 1.2

Periods in Service:	1488
Periods of Valid Data:	1404
Periods of Invalid Data:	84
Periods of Calibration:	73
Percent Operational Time:	99.3

Period Ending At (MST)

Day	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
1-Oct	0.3	0.3	0.3	0.2	0.2	Z	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	0.3	0.3	0.3	0.2	0.2	SP	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
2-Oct	Z	0.2	0.1	0.2	0.2	0.1	0.3	0.3	1.0	1.3	1.2	1.2	1.0	0.8	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.8	0.4	0.3	0.5	1.3
	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.4	1.0	1.3	1.0	1.1	1.1	0.5	0.2	0.3	0.2	0.2	0.2	0.3	0.9	0.5	0.4	0.2		
3-Oct	0.3	Z	0.6	0.4	0.4	0.4	0.2	0.4	0.7	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.7
	0.5	SP	0.5	0.4	0.3	0.3	0.3	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
4-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.2	0.1	0.1	0.1	0.1	0.2	0.4
	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1		
5-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.5	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6
	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.2	0.4	0.2	0.6	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
6-Oct	0.1	0.1	0.2	0.2	Z	0.5	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.5	0.4	0.9	0.8	1.2	1.3	0.7	0.4	1.3
	0.1	0.1	0.6	0.3	SP	0.5	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.5	0.5	0.8	1.2	1.2	1.0	0.5		
7-Oct	0.7	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.8	0.6	0.2	0.5	1.7	1.5	1.0	0.8	0.5	1.7
	0.4	0.3	0.2	0.2	0.2	SP	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.3	0.5	0.8	0.4	0.3	1.1	1.3	1.3	0.9	1.0		
8-Oct	Z	0.3	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.0	C	C	C	C	C	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	--	0.5
	SP	0.4	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	C	C	C	C	C	C	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2		
9-Oct	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.7	0.4	0.5	0.2	0.7
	0.2	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.6	0.4	0.5		
10-Oct	0.5	0.6	Z	0.5	0.6	0.6	0.5	0.6	0.5	0.5	0.6	0.4	0.6	0.2	0.2	0.2	0.1	0.1	0.6	0.4	0.2	0.5	0.7	0.7	0.4	0.7
	0.6	0.6	SP	0.6	0.7	0.6	0.6	0.6	0.4	0.6	0.4	0.6	0.3	0.2	0.2	0.1	0.1	0.2	0.6	0.2	0.4	0.5	0.7	0.6		
11-Oct	0.5	0.6	0.6	Z	0.4	0.9	0.3	0.2	0.1	0.9	0.1	1.0	0.5	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.8	0.4	0.2	0.4	1.0
	0.5	0.7	0.5	SP	0.4	0.8	0.2	0.2	0.6	0.2	0.2	0.9	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.3	0.5	0.4	0.2		
12-Oct	0.3	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.5	0.1	0.1	0.4	0.5	0.1	0.2	0.5
	0.3	0.3	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.2	0.5	0.3	0.1		
13-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.5	0.3	0.3	0.2	0.5
	0.1	0.1	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.2		
14-Oct	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.6	0.2	0.7
	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.7		
15-Oct	0.6	Z	0.4	0.4	0.5	0.5	0.3	0.3	0.4	0.3	0.3	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.3	0.6
	0.6	SP	0.5	0.3	0.4	0.3	0.3	0.3	0.5	0.6	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1		

Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Fort McKay - Bertha Ganter - October 2025

Day	Period Ending At (MST) 00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
16-Oct	0.1	0.2	Z	0.1	0.2	0.2	0.2	0.5	0.6	0.8	0.8	0.7	1.6	0.5	0.2	0.3	0.6	0.4	0.4	0.3	0.3	0.4	0.2	0.2	0.4	1.6
	0.1	0.1	SP	0.2	0.2	0.2	0.4	0.5	0.7	0.7	0.9	1.6	0.8	0.4	0.2	0.6	0.5	0.2	0.4	0.4	0.5	0.2	0.2	0.4		
17-Oct	0.6	0.1	0.2	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.6
	0.2	0.1	0.2	SP	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
18-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2
	0.1	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1		
19-Oct	0.2	0.1	0.2	0.2	0.1	Z	0.2	0.2	0.3	PF	0.9	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.9
	0.1	0.2	0.2	0.1	0.2	SP	0.2	0.2	0.4	PF	0.9	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1		
20-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.5	0.5	0.2	0.2	M	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.8
	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	PF	0.8	0.2	0.2	0.2	M	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2		
21-Oct	0.1	Z	0.2	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.1	PF	0.1	0.1	0.1	0.1	0.1	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.8
	0.1	SP	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	PF	0.1	0.1	0.2	0.1	0.2	0.8	0.1	0.1	0.2	0.2	0.1	0.2		
22-Oct	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.5	0.3	0.2	0.4	0.4	1.2	0.6	0.2	0.1	0.1	0.1	0.1	0.3	1.2
	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.4	0.3	0.3	0.3	0.9	0.8	0.3	0.1	0.1	0.1	0.2	0.1		
23-Oct	0.1	0.1	0.2	Z	0.5	0.3	0.4	0.6	0.2	0.4	0.2	0.3	0.2	0.2	0.4	0.4	0.2	0.1	0.1	0.2	0.2	0.5	0.3	0.4	0.3	0.8
	0.1	0.2	0.2	SP	0.5	0.3	0.4	0.3	0.3	0.4	0.2	0.3	0.2	0.3	0.6	0.2	0.1	0.1	0.2	0.2	0.3	0.8	0.4	0.4		
24-Oct	0.3	0.7	0.4	0.4	Z	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.7
	0.5	0.5	0.4	0.3	SP	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1		
25-Oct	0.2	0.2	0.2	0.2	0.2	Z	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.4
	0.2	0.2	0.2	0.2	0.2	SP	0.3	0.3	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2		
26-Oct	Z	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.7	0.4	0.5	0.4	0.4	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.7
	SP	0.1	0.2	0.2	0.2	0.2	0.2	0.5	0.4	0.5	0.4	0.4	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1		
27-Oct	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	SP	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
28-Oct	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
29-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
30-Oct	0.1	0.1	0.1	0.1	Z	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
	0.1	0.1	0.1	0.2	SP	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
31-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.2	0.2	0.2	M	M	0.2	0.3	0.2	0.4	0.3	0.2	0.3	0.2	0.4	0.6	0.4	0.2	0.6
	0.1	0.1	0.1	0.1	0.1	SP	0.1	0.2	0.2	0.2	M	M	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.5	0.4	0.3	0.6	0.3		
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	Diurnal Average	
	0.7	0.7	0.6	0.6	0.7	0.9	0.6	0.6	1.0	1.3	1.2	1.6	1.6	0.8	0.6	0.6	0.9	1.2	0.6	1.1	1.7	1.5	1.3	1.0	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance PF - Power Failure SP - Span

Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb

Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

Fort McKay - Bertha Ganter - October 2025

Maximum Value: 1.5 ppb on Oct 7 21:00

Maximum Daily Average: 0.5 ppb on Oct 2

Minimum Value: 0.1 ppb on Oct 8 10:00

Minimum Daily Average: 0.1 ppb on Oct 28

Maximum Diurnal Average: 0.3 ppb at hour 22

Minimum Diurnal Average: 0.2 ppb at hour 15

Monthly Average: 0.24 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.1 Q_1 = 0.1 Median = 0.2 Q_3 = 0.3 P_{90} = 0.5 P_{99} = 1.1

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	37
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.3	0.3	0.3	0.2	0.2	Z	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
2-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.3	0.3	1.0	1.3	1.1	1.1	1.0	0.6	0.3	0.3	0.2	0.2	0.2	0.3	0.6	0.6	0.4	0.3	0.5	1.3
3-Oct	0.4	Z	0.6	0.4	0.4	0.3	0.3	0.4	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6
4-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.2	0.4
5-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.4	0.2	0.5	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.5
6-Oct	0.1	0.1	0.4	0.2	Z	0.5	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.5	0.5	0.9	1.0	1.2	1.1	0.6	0.4	1.2
7-Oct	0.5	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.4	0.2	0.2	0.2	0.2	0.3	0.5	0.8	0.5	0.3	0.8	1.5	1.4	1.0	0.9	0.5	1.5
8-Oct	Z	0.4	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	C	C	C	C	C	C	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	--	0.4
9-Oct	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.6	0.4	0.5	0.2	0.6
10-Oct	0.6	0.6	Z	0.6	0.7	0.6	0.6	0.6	0.4	0.5	0.5	0.5	0.4	0.2	0.2	0.2	0.1	0.2	0.6	0.3	0.3	0.5	0.7	0.6	0.4	0.7
11-Oct	0.5	0.6	0.5	Z	0.4	0.8	0.2	0.2	0.4	0.5	0.1	0.9	0.3	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.7	0.4	0.2	0.4	0.9
12-Oct	0.3	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.1	0.2	0.4	0.4	0.1	0.2	0.4
13-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.4	0.4	0.3	0.2	0.2	0.4
14-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.6	0.2	0.6
15-Oct	0.6	Z	0.4	0.4	0.5	0.4	0.3	0.3	0.4	0.5	0.4	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.3	0.6
16-Oct	0.1	0.2	Z	0.2	0.2	0.2	0.3	0.5	0.6	0.7	0.9	1.1	1.2	0.4	0.2	0.4	0.6	0.3	0.4	0.4	0.4	0.3	0.2	0.3	0.4	1.2
17-Oct	0.4	0.1	0.2	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
18-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2
19-Oct	0.2	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.4	PF	0.9	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.9
20-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.7	0.4	0.2	0.2	M	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.7
21-Oct	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	PF	0.1	0.1	0.1	0.1	0.1	0.6	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.6
22-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.5	0.3	0.3	0.3	0.6	1.0	0.4	0.2	0.1	0.1	0.1	0.1	0.3	1.0
23-Oct	0.1	0.2	0.2	Z	0.5	0.3	0.4	0.4	0.3	0.4	0.2	0.3	0.2	0.3	0.5	0.3	0.2	0.1	0.1	0.2	0.2	0.7	0.4	0.4	0.3	0.7
24-Oct	0.4	0.6	0.4	0.3	Z	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.6
25-Oct	0.2	0.2	0.2	0.2	0.2	Z	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3
26-Oct	Z	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.4	0.5	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.5
27-Oct	0.1	Z	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
28-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
29-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
30-Oct	0.1	0.1	0.1	0.2	Z	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
31-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	M	0.2	0.3	0.3	0.3	0.4	0.2	0.2	0.4	0.3	0.3	0.6	0.4	0.2	0.6
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	Diurnal Average	
	0.6	0.6	0.6	0.6	0.7	0.8	0.6	0.6	1.0	1.3	1.1	1.1	1.2	0.6	0.5	0.5	0.8	1.0	0.6	0.9	1.5	1.4	1.1	0.9	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance PF - Power Failure

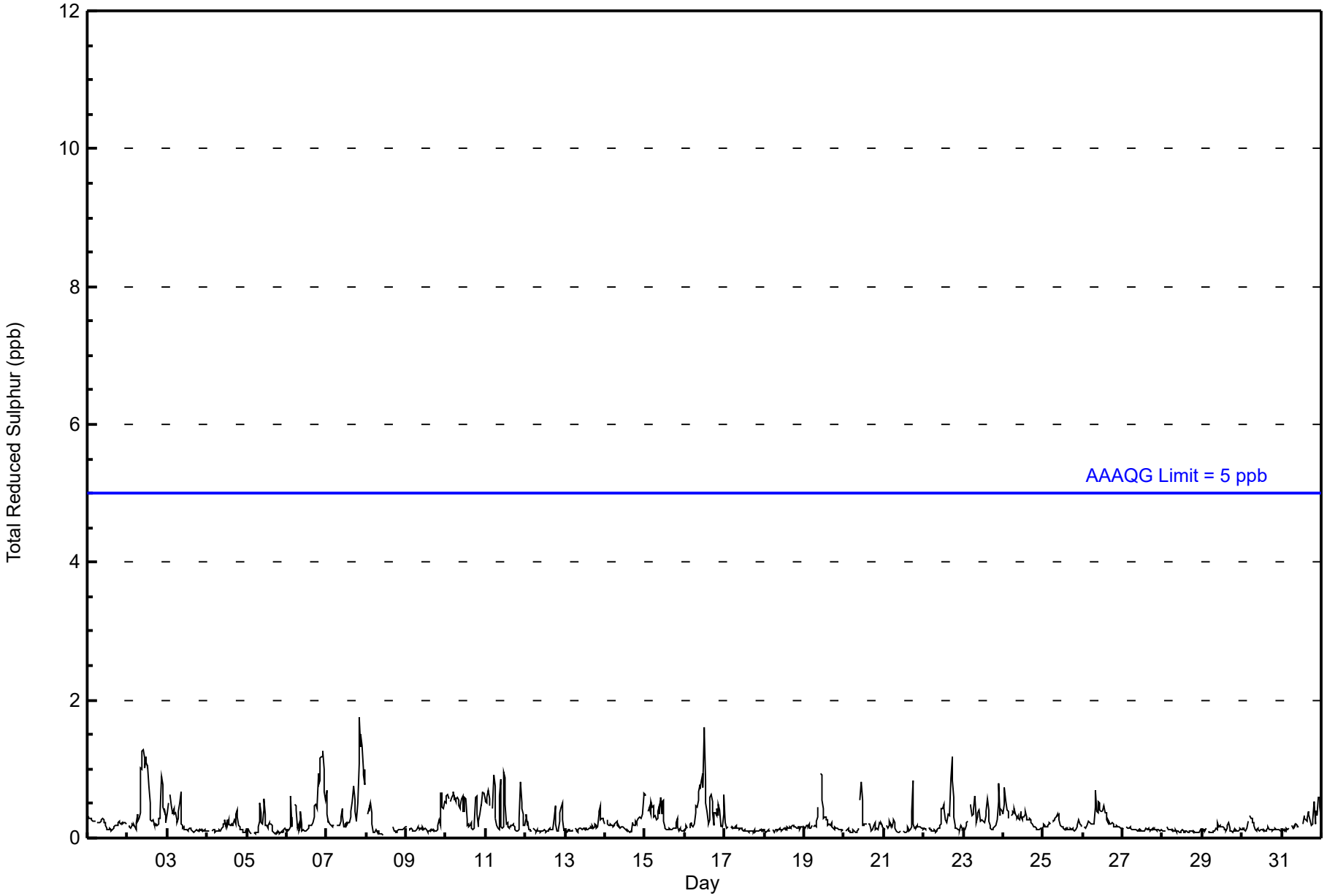
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA

Wood Buffalo Environmental Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Fort McKay - Bertha Ganter - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	703	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Reduced Sulphur (TRS) - ppb

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	83	6	5	3	3	3	6	99	152	61	43	36	42	59	25	62	688
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	83	6	5	3	3	3	6	99	152	61	43	36	42	59	25	62	688

Total Number of Valid Hours: 688

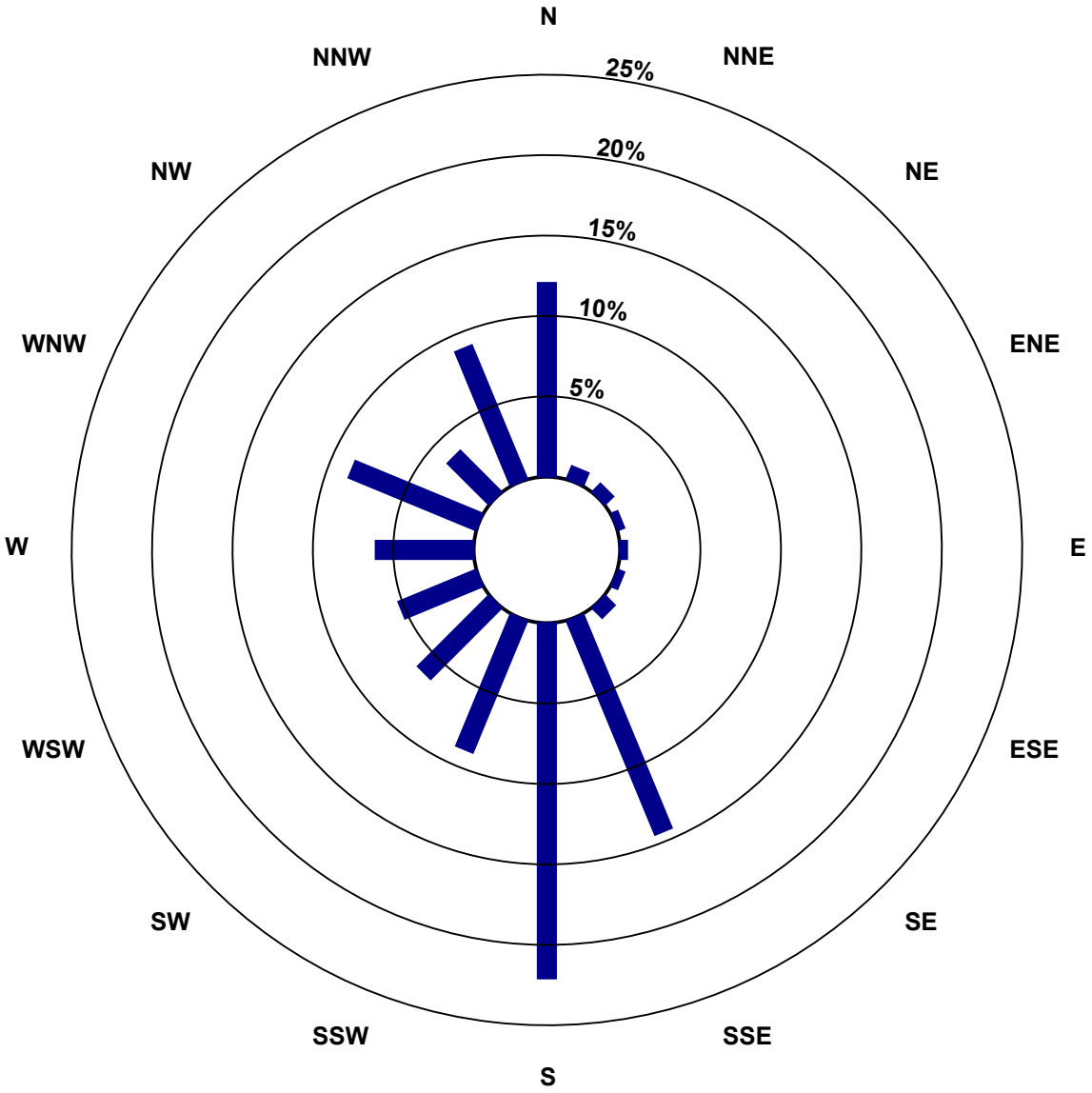
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Reduced Sulphur (TRS) - ppb

Fort McKay - Bertha Ganter



Classes (ppb)

- 0 - 2
- 3 - 4
- 5 - 7
- 8 - 11
- > 11

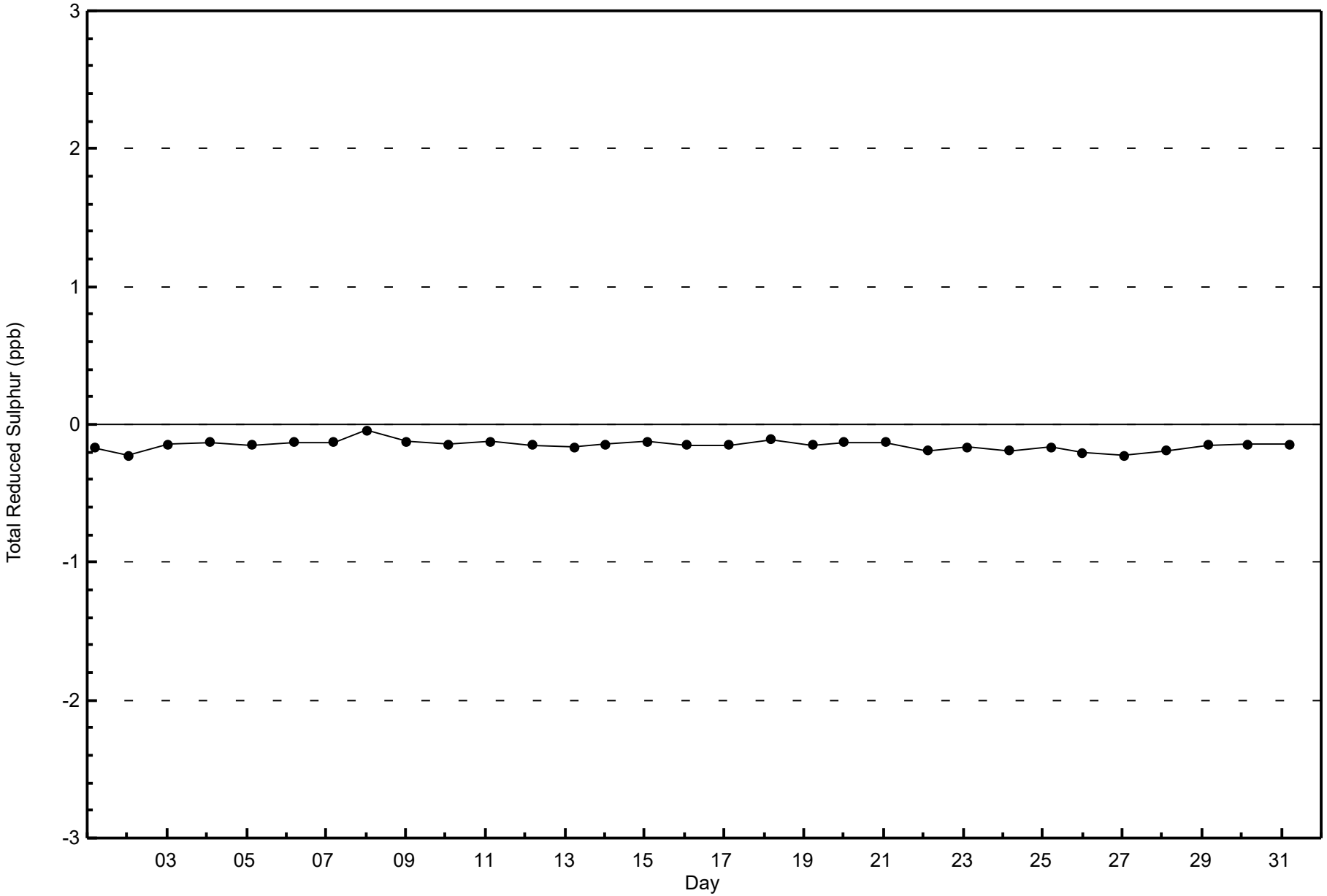
Total Number of Valid Hours: 688

Wood Buffalo Environmental Association

Zero Responses

Total Reduced Sulphur (TRS) - ppb

Fort McKay - Bertha Ganter - October 2025

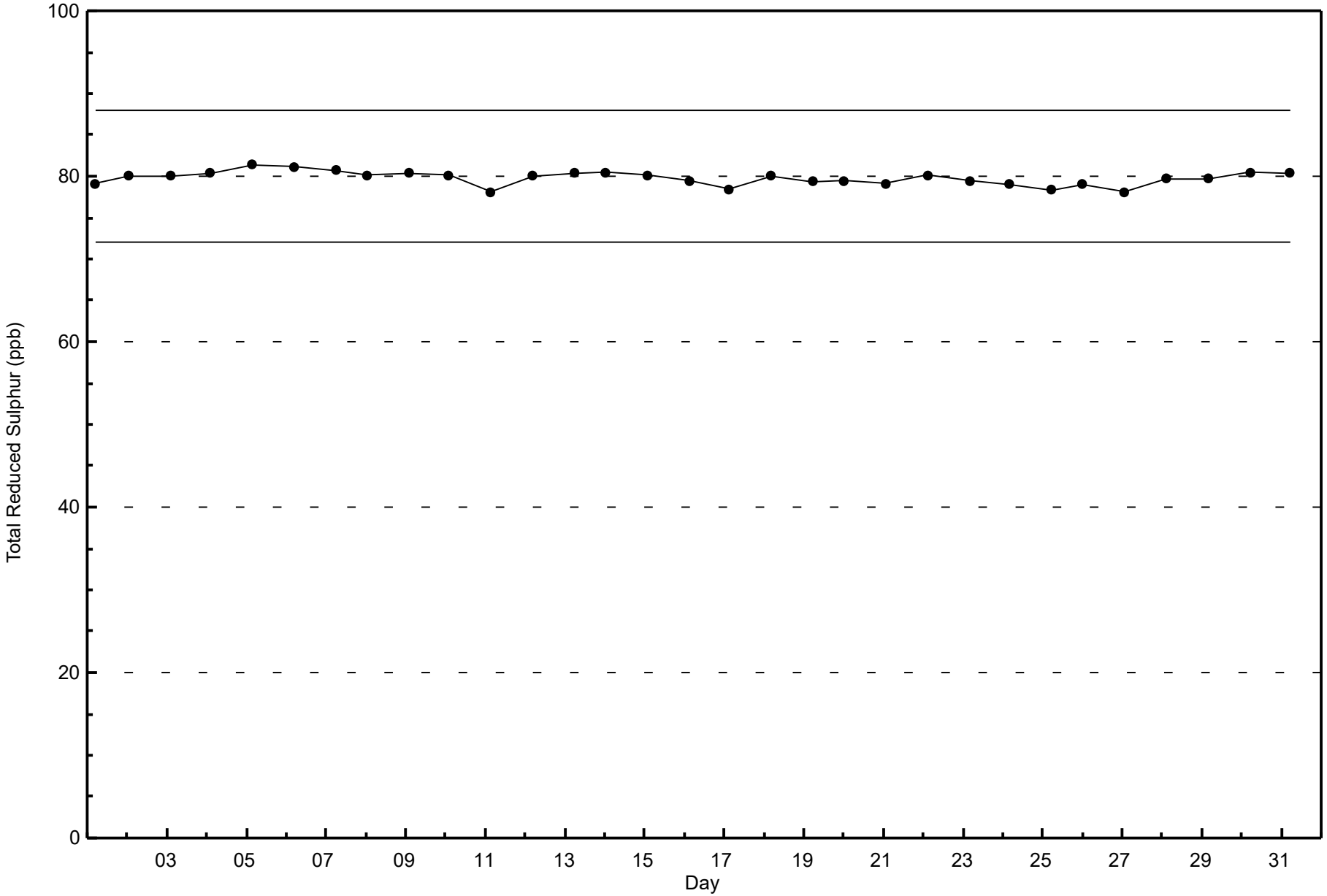


Wood Buffalo Environmental Association

Span Responses

Total Reduced Sulphur (TRS) - ppb

Fort McKay - Bertha Ganter - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Fort McKay - Bertha Ganter - October 2025

Maximum Value: 4.2 ppm on Oct 7 22:00

Maximum Daily Average: 2.5 ppm on Oct 7

Minimum Value: 2.0 ppm on Oct 28 15:00

Minimum Daily Average: 2.0 ppm on Oct 27

Maximum Diurnal Average: 2.3 ppm at hour 9

Minimum Diurnal Average: 2.1 ppm at hour 15

Monthly Average: 2.16 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.0 Median = 2.1 Q_3 = 2.2 P_{90} = 2.3 P_{99} = 3.1

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.2	2.3	2.3	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.3
2-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.2	2.6	2.6	2.4	2.4	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.2	2.6
3-Oct	Z	2.2	2.3	2.3	2.4	2.5	2.4	2.5	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.5
4-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.1	2.2
5-Oct	2.0	2.0	Z	2.1	2.1	2.0	2.1	2.2	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.3
6-Oct	2.1	2.0	2.1	Z	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.2	2.1	2.3
7-Oct	2.2	2.2	2.2	2.1	Z	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.7	3.7	4.2	4.2	4.1	2.5	4.2
8-Oct	3.1	2.7	2.9	2.4	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	3.1
9-Oct	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4	2.6	2.6	2.6	2.1	2.6
10-Oct	2.5	Z	2.5	2.8	3.0	2.6	2.6	2.5	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.7	2.3	2.3	2.3	2.2	2.3	2.4	3.0
11-Oct	2.3	2.3	Z	2.4	2.5	3.3	2.2	2.1	2.2	2.0	2.0	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.2	3.3
12-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.2	2.1	2.1	2.2
13-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.1	2.6	2.4	2.3	2.2	2.1	2.6
14-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.1	2.3
15-Oct	Z	2.3	2.3	2.5	2.4	2.4	2.4	2.3	2.2	2.5	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.1	2.1	2.1	2.2	2.5
16-Oct	2.2	Z	2.1	2.3	2.4	2.3	2.3	2.4	4.0	2.5	2.4	2.3	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.1	2.1	2.1	2.2	2.3	4.0
17-Oct	2.2	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.2
18-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.1
19-Oct	2.1	2.1	2.1	2.1	Z	2.2	2.3	2.3	2.9	2.6	2.4	2.2	2.4	2.4	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.9
20-Oct	2.1	2.0	2.1	2.1	2.1	Z	2.1	2.1	2.2	2.3	2.3	C	C	C	C	C	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3
21-Oct	Z	2.1	2.1	2.2	2.1	2.3	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.3
22-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.1	2.1	2.1	2.7	3.1	2.4	2.1	2.0	2.0	2.1	2.0	2.2	3.1
23-Oct	2.0	2.0	Z	2.1	2.1	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.3
24-Oct	2.3	2.2	2.1	Z	2.1	2.3	2.5	2.4	2.3	2.2	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.5
25-Oct	2.3	2.3	2.5	3.2	Z	2.6	2.7	2.6	2.6	2.7	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.3	3.2
26-Oct	2.3	2.2	2.3	2.4	2.3	Z	2.3	2.3	2.6	2.9	2.9	2.6	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.3	2.9
27-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
28-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.0	2.2
29-Oct	2.1	2.1	Z	2.1	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.7	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.7
30-Oct	2.2	2.1	2.1	Z	2.4	2.3	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4
31-Oct	2.0	2.1	2.0	2.1	Z	2.0	2.1	2.1	2.1	2.1	2.1	M	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	Diurnal Average	
	3.1	2.7	2.9	3.2	3.0	3.3	2.7	2.6	4.0	2.9	2.9	2.6	2.4	2.4	2.2	2.7	2.7	3.1	2.7	2.7	3.7	4.2	4.2	4.1	Diurnal Maximum	

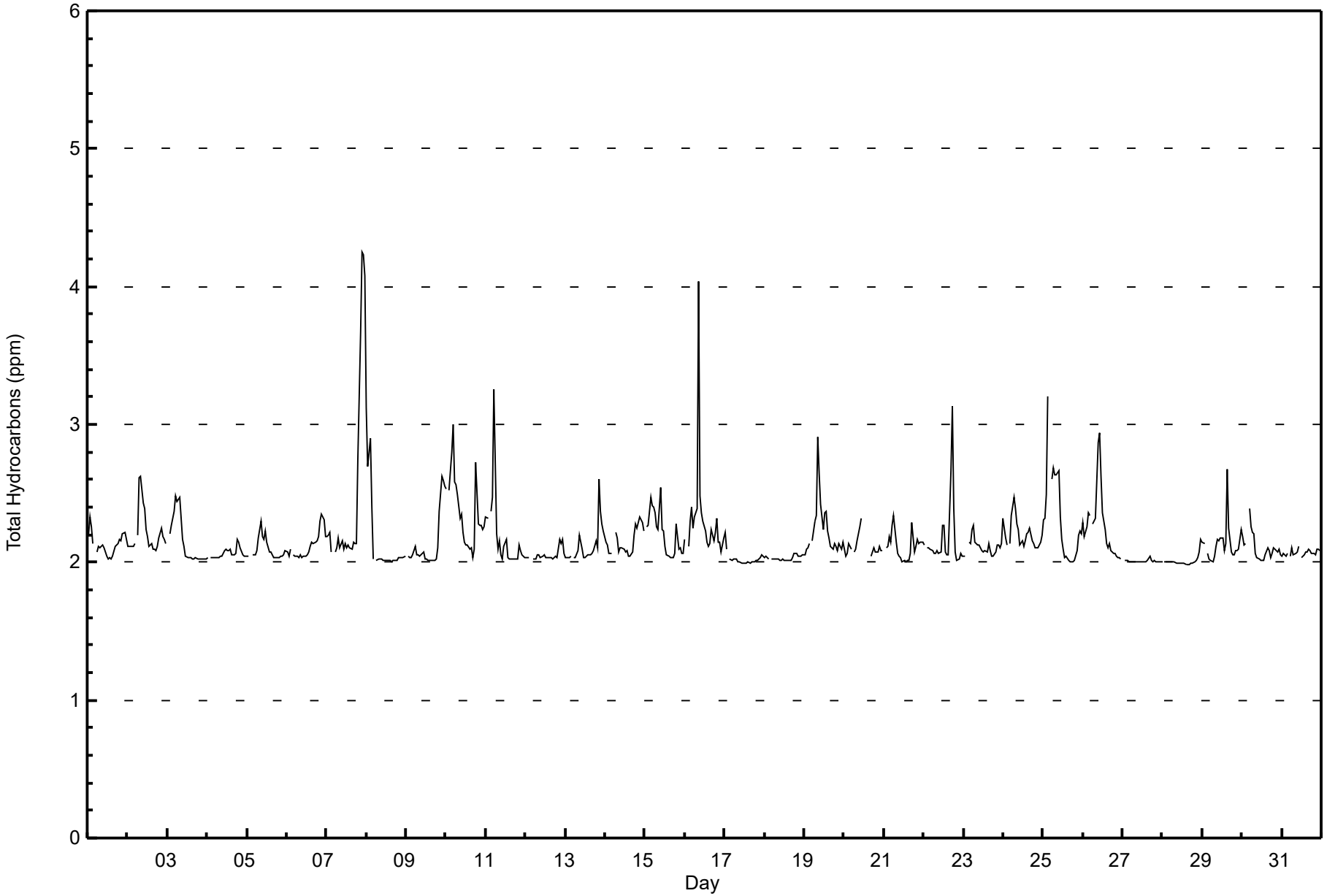
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Fort McKay - Bertha Ganter - October 2025



Total Hydrocarbons (THC) - ppm

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	244	34.51	34.51
2.1 - 3.0	454	64.21	98.73
3.1 - 10.0	9	1.27	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	28	1	2	1	1	2	1	9	13	20	31	27	30	50	7	21	244
2.1 - 3.0	55	4	3	2	2	1	5	86	139	39	15	12	14	9	15	39	440
3.1 - 10.0	1	1	0	0	0	0	0	0	1	0	0	0	1	1	2	2	9
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	84	6	5	3	3	3	6	95	153	59	46	39	45	60	24	62	693

Total Number of Valid Hours: 693

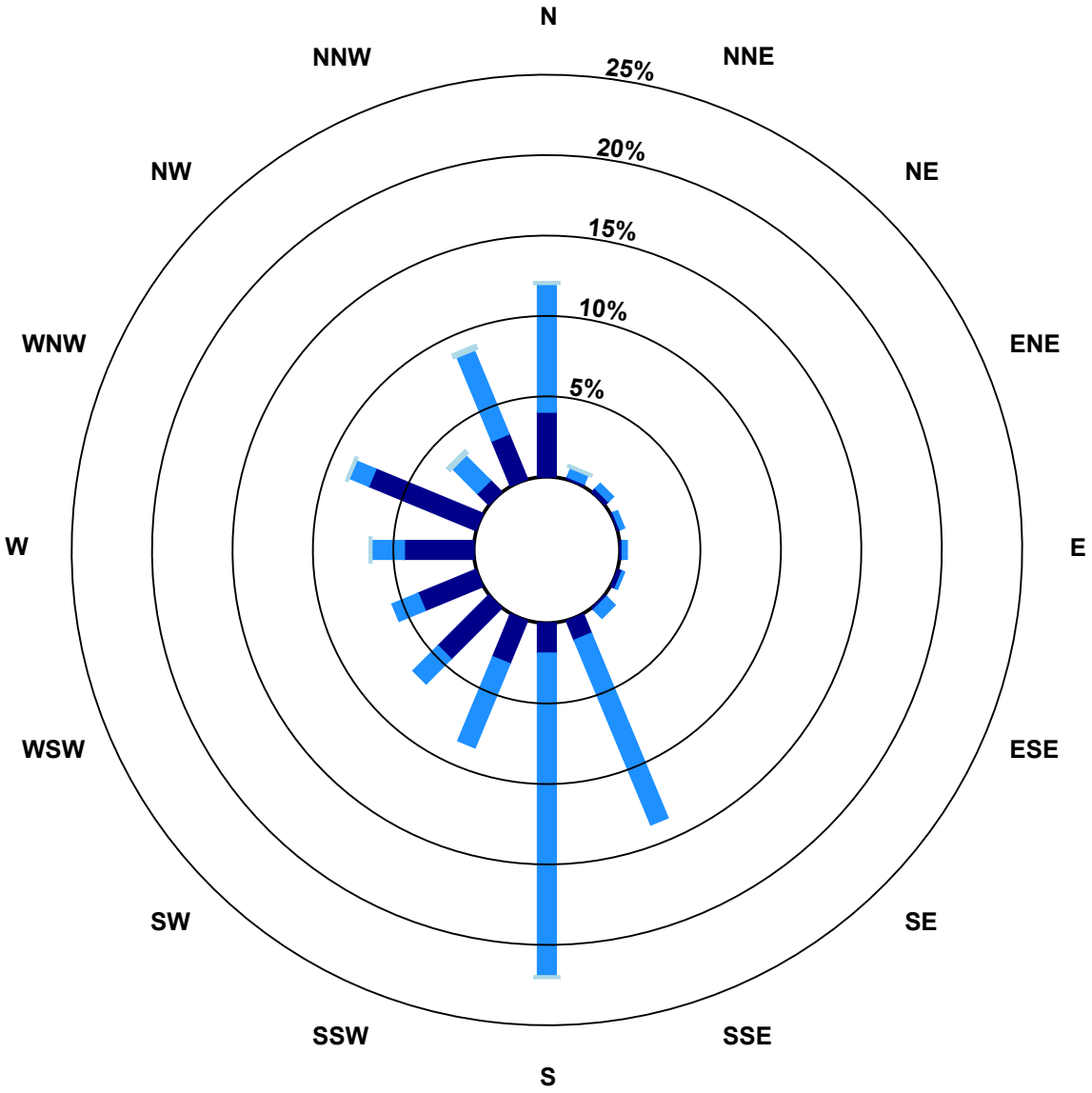
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Fort McKay - Bertha Ganter



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

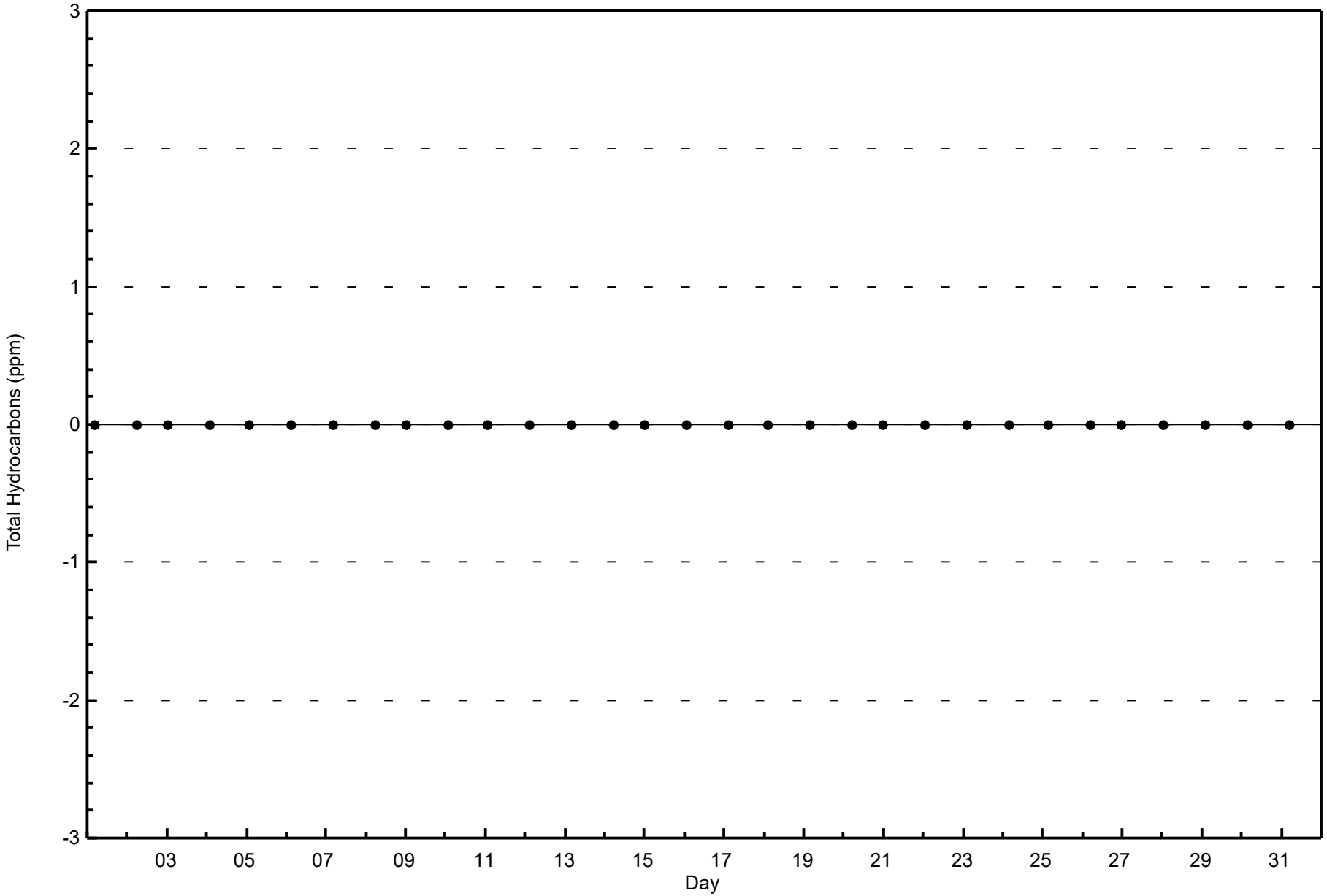
Total Number of Valid Hours: 693

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Fort McKay - Bertha Ganter - October 2025

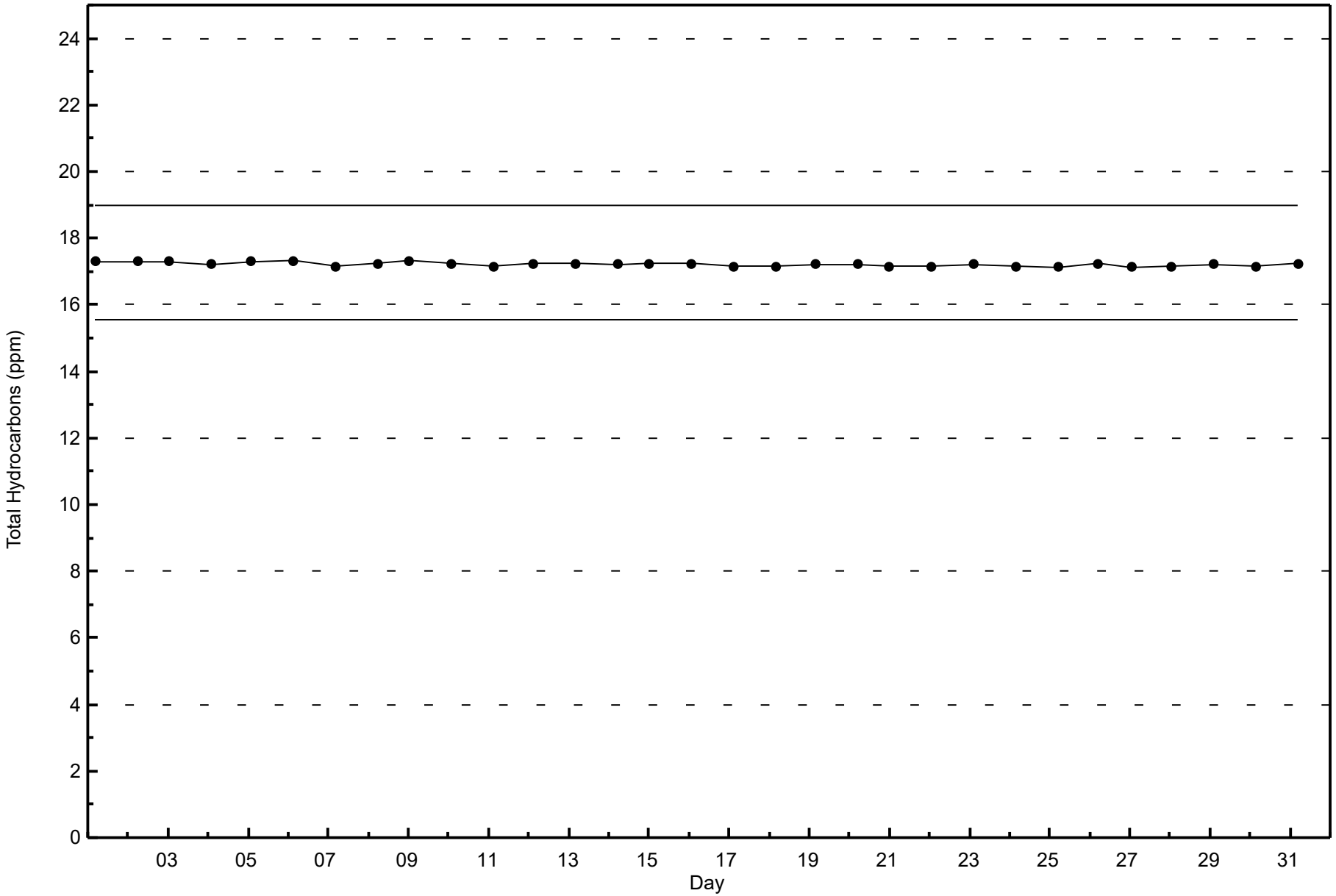


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Fort McKay - Bertha Ganter - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

Fort McKay - Bertha Ganter - October 2025

Maximum Value: 0.535 ppm on Oct 29 16:00

Maximum Daily Average: 0.064 ppm on Oct 10

Minimum Value: 0.000 ppm on Oct 1 04:00

Minimum Daily Average: 0.000 ppm on Oct 27

Maximum Diurnal Average: 0.038 ppm at hour 9

Minimum Diurnal Average: 0.002 ppm at hour 15

Monthly Average: 0.018 ppm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.1 P_{99} = 0.2

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.004	0.002	0.002	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.027	0.008	0.047	0.047	0.023	0.007	0.047
2-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.033	0.085	0.084	0.089	0.043	0.026	0.000	0.020	0.000	0.000	0.000	0.000	0.001	0.018	0.013	0.004	0.000	0.018	0.089
3-Oct	Z	0.024	0.033	0.054	0.058	0.078	0.068	0.086	0.037	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019	0.086
4-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.017
5-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.016	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.046
6-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.020	0.034	0.034	0.047	0.114	0.136	0.100	0.039	0.023	0.136
7-Oct	0.012	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.004	0.002	0.002	0.000	0.041	0.095	0.128	0.138	0.154	0.026	0.154
8-Oct	0.124	0.092	0.088	0.045	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.124
9-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.019	0.068	0.077	0.077	0.011	0.077
10-Oct	0.073	Z	0.096	0.267	0.294	0.152	0.131	0.086	0.056	0.100	0.046	0.003	0.005	0.002	0.000	0.003	0.000	0.000	0.094	0.051	0.000	0.001	0.002	0.002	0.064	0.294
11-Oct	0.052	0.040	Z	0.034	0.041	0.188	0.022	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.016	0.188
12-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.005	0.000	0.001	0.009
13-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.037	0.002	0.231	0.158	0.121	0.101	0.028	0.231
14-Oct	0.065	0.038	0.003	0.000	0.000	Z	0.081	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.030	0.077	0.039	0.074	0.112	0.085	0.037	0.030	0.112
15-Oct	Z	0.042	0.024	0.031	0.033	0.050	0.071	0.065	0.059	0.189	0.063	0.054	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.026	0.015	0.016	0.000	0.000	0.032	0.189
16-Oct	0.004	Z	0.001	0.017	0.037	0.014	0.038	0.058	0.434	0.082	0.088	0.074	0.058	0.022	0.000	0.001	0.073	0.023	0.000	0.018	0.000	0.001	0.000	0.002	0.045	0.434
17-Oct	0.004	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.004
18-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.023	0.023	0.006	0.003	0.000	0.001	0.003	0.023
19-Oct	0.000	0.000	0.000	0.004	Z	0.003	0.019	0.046	0.187	0.063	0.039	0.016	0.015	0.012	0.005	0.012	0.004	0.001	0.003	0.007	0.001	0.001	0.002	0.001	0.019	0.187
20-Oct	0.000	0.000	0.000	0.002	0.000	Z	0.000	0.000	0.017	0.102	0.080	C	C	C	C	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.102
21-Oct	Z	0.000	0.000	0.049	0.000	0.088	0.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.036	0.099	0.000	0.000	0.019	0.004	0.019	0.018	0.018	0.099
22-Oct	0.006	Z	0.000	0.000	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.116	0.124	0.000	0.000	0.000	0.071	0.123	0.050	0.000	0.000	0.000	0.008	0.000	0.022	0.124
23-Oct	0.000	0.000	Z	0.018	0.005	0.057	0.052	0.018	0.000	0.013	0.002	0.000	0.000	0.000	0.000	0.008	0.012	0.000	0.000	0.000	0.011	0.006	0.002	0.018	0.010	0.057
24-Oct	0.056	0.030	0.002	Z	0.001	0.073	0.131	0.092	0.060	0.039	0.003	0.000	0.000	0.005	0.020	0.041	0.050	0.012	0.008	0.000	0.000	0.000	0.000	0.000	0.027	0.131
25-Oct	0.040	0.024	0.049	0.074	Z	0.052	0.080	0.070	0.081	0.084	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.028	0.004	0.027	0.084
26-Oct	0.035	0.019	0.016	0.039	0.042	Z	0.022	0.046	0.157	0.131	0.098	0.068	0.053	0.026	0.013	0.004	0.008	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.034	0.157
27-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002
28-Oct	0.000	Z	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.016	0.001	0.016
29-Oct	0.000	0.000	Z	0.003	0.001	0.000	0.000	0.000	0.000	0.026	0.028	0.027	0.051	0.003	0.003	0.535	0.154	0.020	0.000	0.000	0.000	0.000	0.000	0.002	0.037	0.535
30-Oct	0.005	0.000	0.004	Z	0.168	0.087	0.077	0.077	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.018	0.168
31-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	M	0.000	0.000	0.000	0.000	0.004	0.002	0.002	0.000	0.000	0.000	0.001	0.000	0.000	0.004
	0.018	0.012	0.012	0.025	0.027	0.032	0.028	0.023	0.038	0.030	0.019	0.015	0.011	0.003	0.002	0.021	0.014	0.012	0.011	0.009	0.020	0.022	0.021	0.016	Diurnal Average	
	0.124	0.092	0.096	0.267	0.294	0.188	0.131	0.092	0.434	0.189	0.098	0.116	0.124	0.026	0.020	0.535	0.154	0.123	0.094	0.051	0.231	0.158	0.138	0.154	Diurnal Maximum	

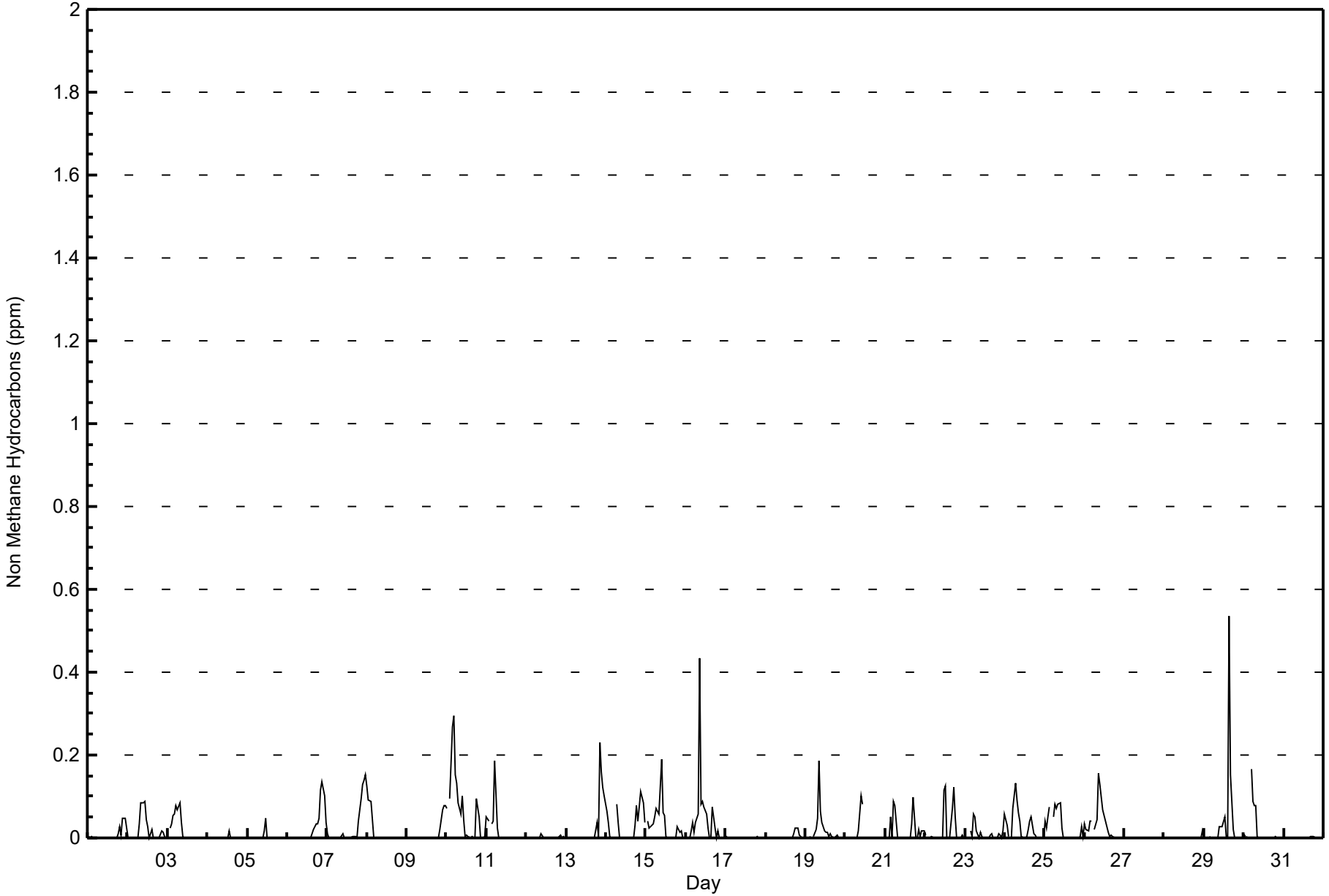
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm

Fort McKay - Bertha Ganter - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	501	70.86	70.86
0.006 - 0.05	121	17.11	87.98
0.06 - 0.1	71	10.04	98.02
> 0.1	14	1.98	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.005	62	2	4	3	2	2	3	56	82	49	42	31	37	56	18	49	498
0.006 - 0.05	16	0	0	0	1	1	2	22	36	6	3	7	5	2	4	7	112
0.06 - 0.1	2	3	1	0	0	0	1	17	28	4	1	1	3	2	2	5	70
> 0.1	4	1	0	0	0	0	0	0	7	0	0	0	0	0	0	1	13
Totals	84	6	5	3	3	3	6	95	153	59	46	39	45	60	24	62	693

Total Number of Valid Hours: 693

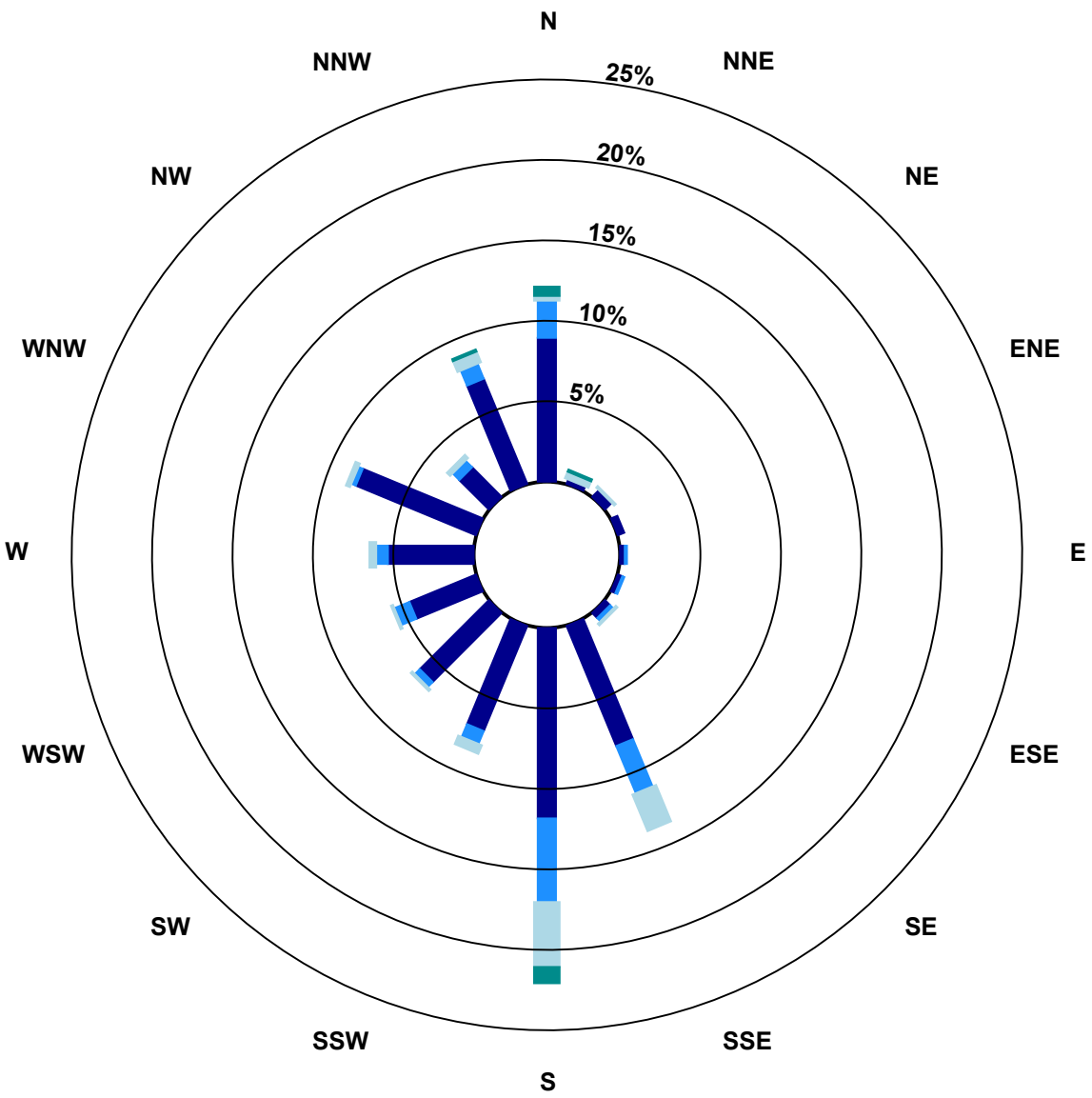
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Non Methane Hydrocarbons (NMHC) - ppm

Fort McKay - Bertha Ganter



Classes (ppm)

0 - 0.005

0.006 - 0.05

0.06 - 0.1

> 0.1

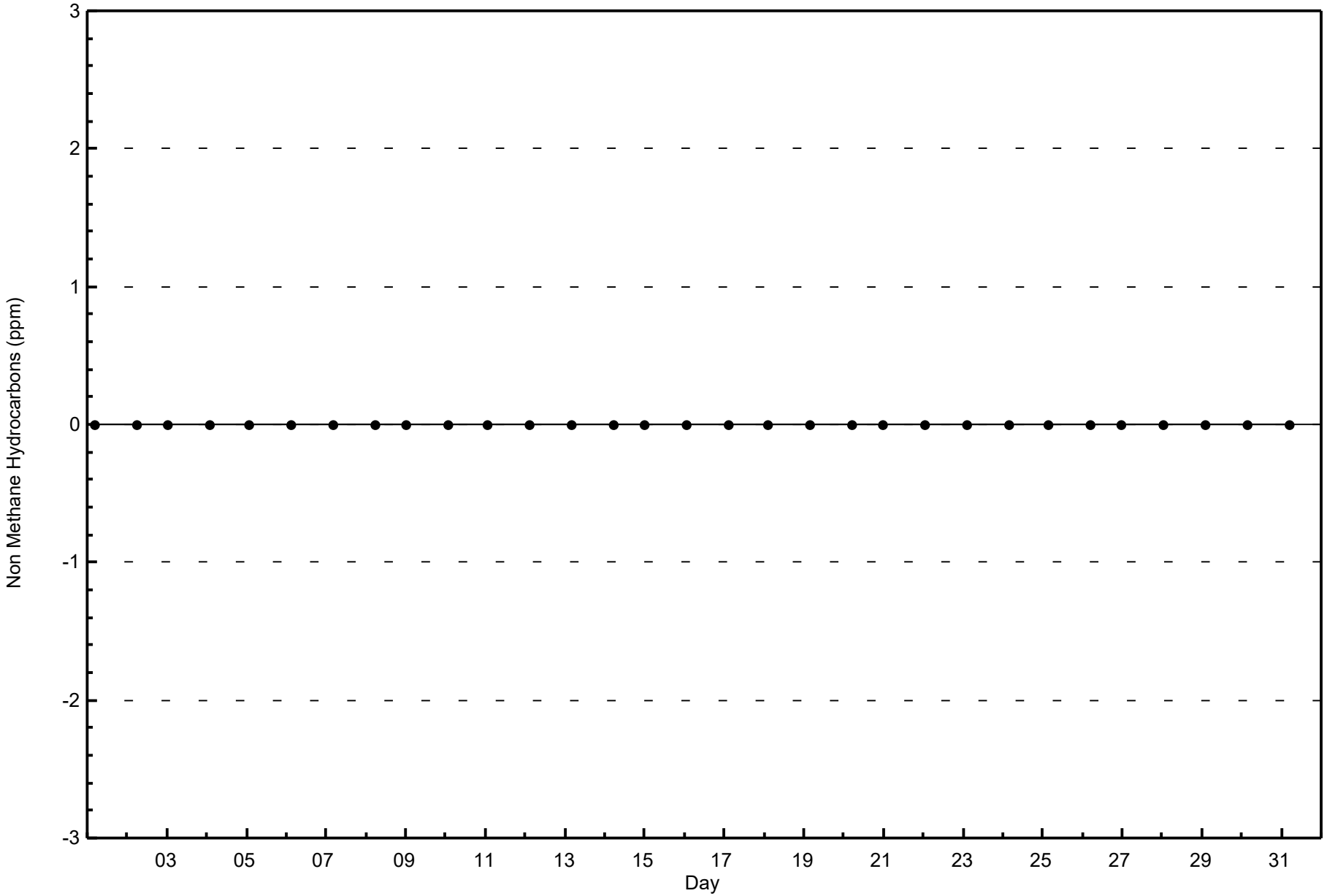
Total Number of Valid Hours: 693

Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Fort McKay - Bertha Ganter - October 2025

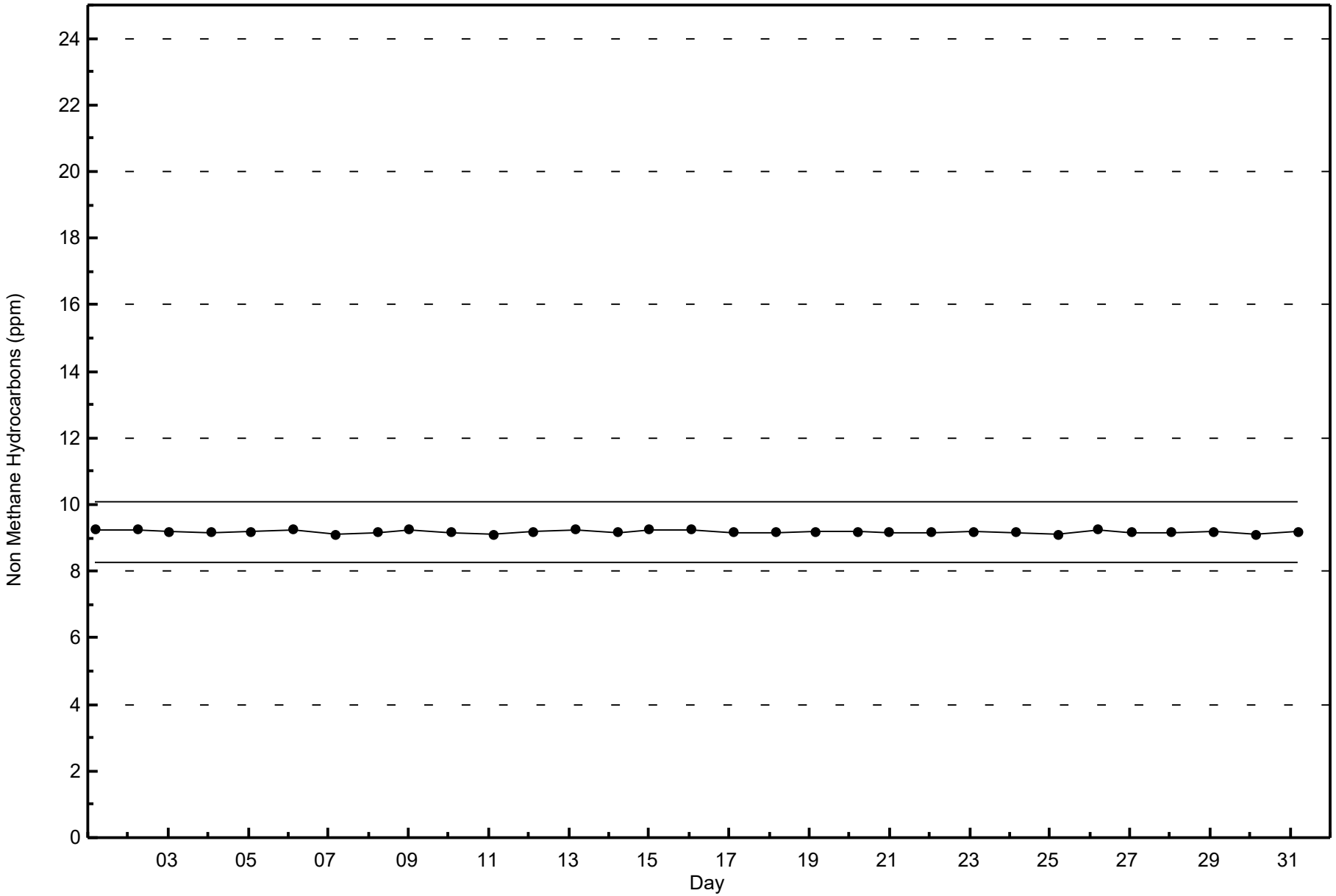


Wood Buffalo Environmental Association

Span Responses

Non Methane Hydrocarbons (NMHC) - ppm

Fort McKay - Bertha Ganter - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH_4) - ppm

Fort McKay - Bertha Ganter - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 4.1 ppm on Oct 7 22:00

Maximum Daily Average: 2.5 ppm on Oct 7

Minimum Value: 2.0 ppm on Oct 28 15:00

Minimum Daily Average: 2.0 ppm on Oct 27

Maximum Diurnal Average: 2.2 ppm at hour 9

Minimum Diurnal Average: 2.1 ppm at hour 16

Monthly Average: 2.14 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.0 Median = 2.1 Q_3 = 2.2 P_{90} = 2.3 P_{99} = 3.0

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.2	2.3	2.3	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.3
2-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.2	2.6	2.5	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.2	2.6
3-Oct	Z	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4
4-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.1	2.2
5-Oct	2.0	2.0	Z	2.1	2.1	2.0	2.1	2.2	2.3	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.3
6-Oct	2.1	2.0	2.1	Z	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.2
7-Oct	2.2	2.2	2.2	2.1	Z	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.7	3.6	4.1	4.1	3.9	2.5	4.1
8-Oct	3.0	2.6	2.8	2.4	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	3.0
9-Oct	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.6	2.5	2.5	2.1	2.6
10-Oct	2.5	Z	2.4	2.5	2.7	2.4	2.4	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.6	2.2	2.3	2.3	2.2	2.3	2.3	2.7
11-Oct	2.3	2.3	Z	2.3	2.4	3.1	2.2	2.1	2.2	2.0	2.0	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.2	3.1
12-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.2	2.1	2.1	2.2
13-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.2	2.2	2.1	2.1	2.4
14-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2
15-Oct	Z	2.2	2.2	2.4	2.4	2.4	2.3	2.2	2.2	2.4	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.1	2.1	2.1	2.2	2.4
16-Oct	2.2	Z	2.1	2.3	2.4	2.2	2.3	2.3	3.6	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.2	2.1	2.2	2.3	2.1	2.1	2.1	2.2	2.3	3.6
17-Oct	2.2	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.2
18-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
19-Oct	2.1	2.1	2.1	2.1	Z	2.2	2.3	2.3	2.7	2.6	2.4	2.2	2.3	2.4	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.7
20-Oct	2.1	2.0	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.2	2.2	C	C	C	C	C	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
21-Oct	Z	2.1	2.1	2.1	2.1	2.2	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3
22-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.6	3.0	2.3	2.1	2.0	2.0	2.1	2.0	2.2	3.0
23-Oct	2.0	2.0	Z	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2
24-Oct	2.3	2.1	2.1	Z	2.1	2.3	2.3	2.3	2.2	2.2	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3
25-Oct	2.3	2.3	2.4	3.1	Z	2.6	2.6	2.6	2.6	2.6	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.3	3.1
26-Oct	2.3	2.2	2.2	2.3	2.3	Z	2.3	2.3	2.4	2.7	2.8	2.6	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.2	2.8
27-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
28-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.0	2.2
29-Oct	2.1	2.1	Z	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2
30-Oct	2.2	2.1	2.1	Z	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
31-Oct	2.0	2.1	2.0	2.1	Z	2.0	2.1	2.1	2.1	2.1	2.1	M	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	Diurnal Average	
	3.0	2.6	2.8	3.1	2.7	3.1	2.6	2.6	3.6	2.7	2.8	2.6	2.3	2.4	2.2	2.2	2.6	3.0	2.6	2.7	3.6	4.1	4.1	3.9	Diurnal Maximum	

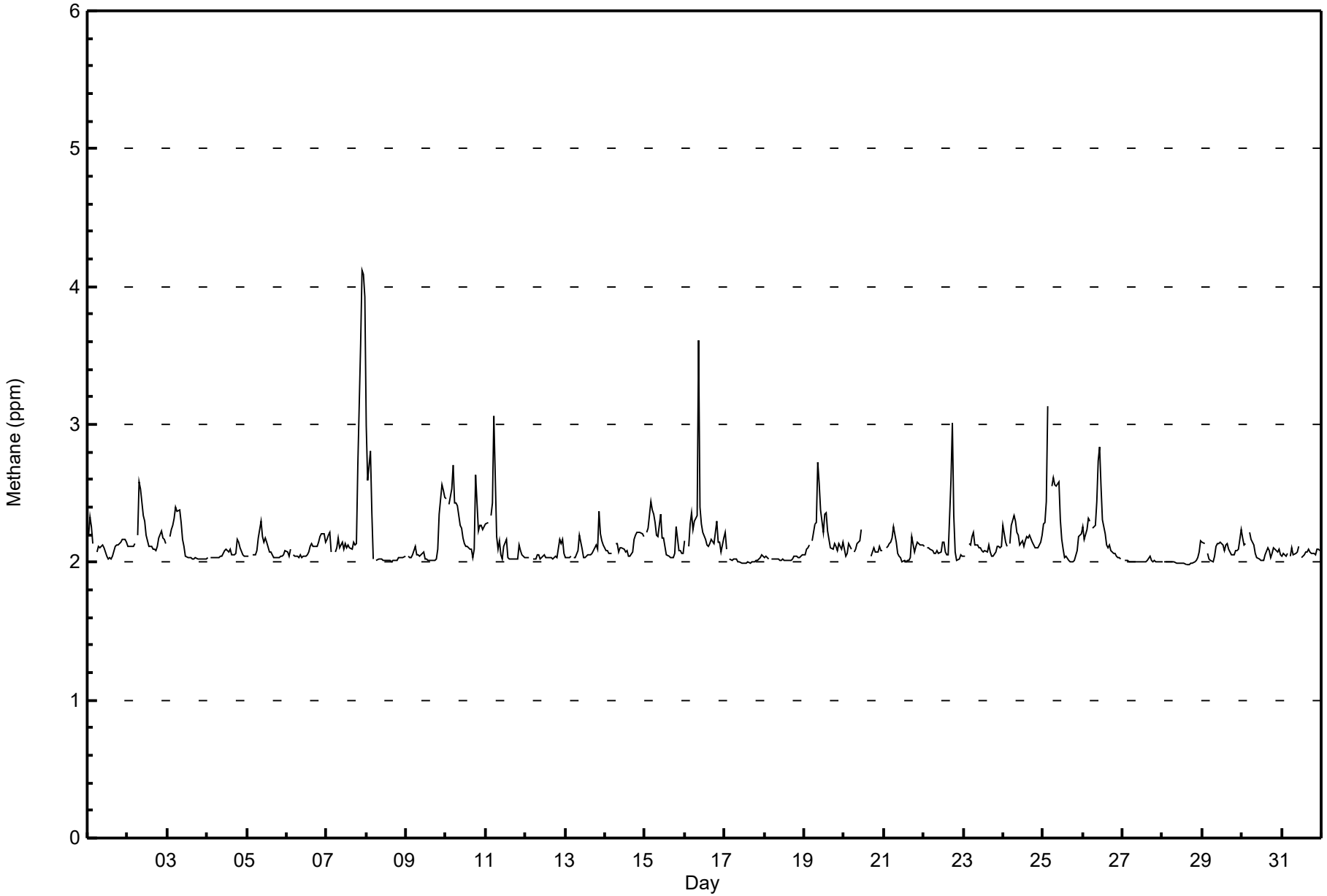
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Methane (CH_4) - ppm

Fort McKay - Bertha Ganter - October 2025



Methane (CH_4) - ppm

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	247	34.94	34.94
2.1 - 3.0	453	64.07	99.01
3.1 - 10.0	7	0.99	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Methane (CH_4) - ppm

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	28	1	2	1	1	2	1	9	13	21	31	28	30	50	7	22	247
2.1 - 3.0	55	5	3	2	2	1	5	86	139	38	15	11	14	10	15	38	439
3.1 - 10.0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	2	2	7
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	84	6	5	3	3	3	6	95	153	59	46	39	45	60	24	62	693

Total Number of Valid Hours: 693

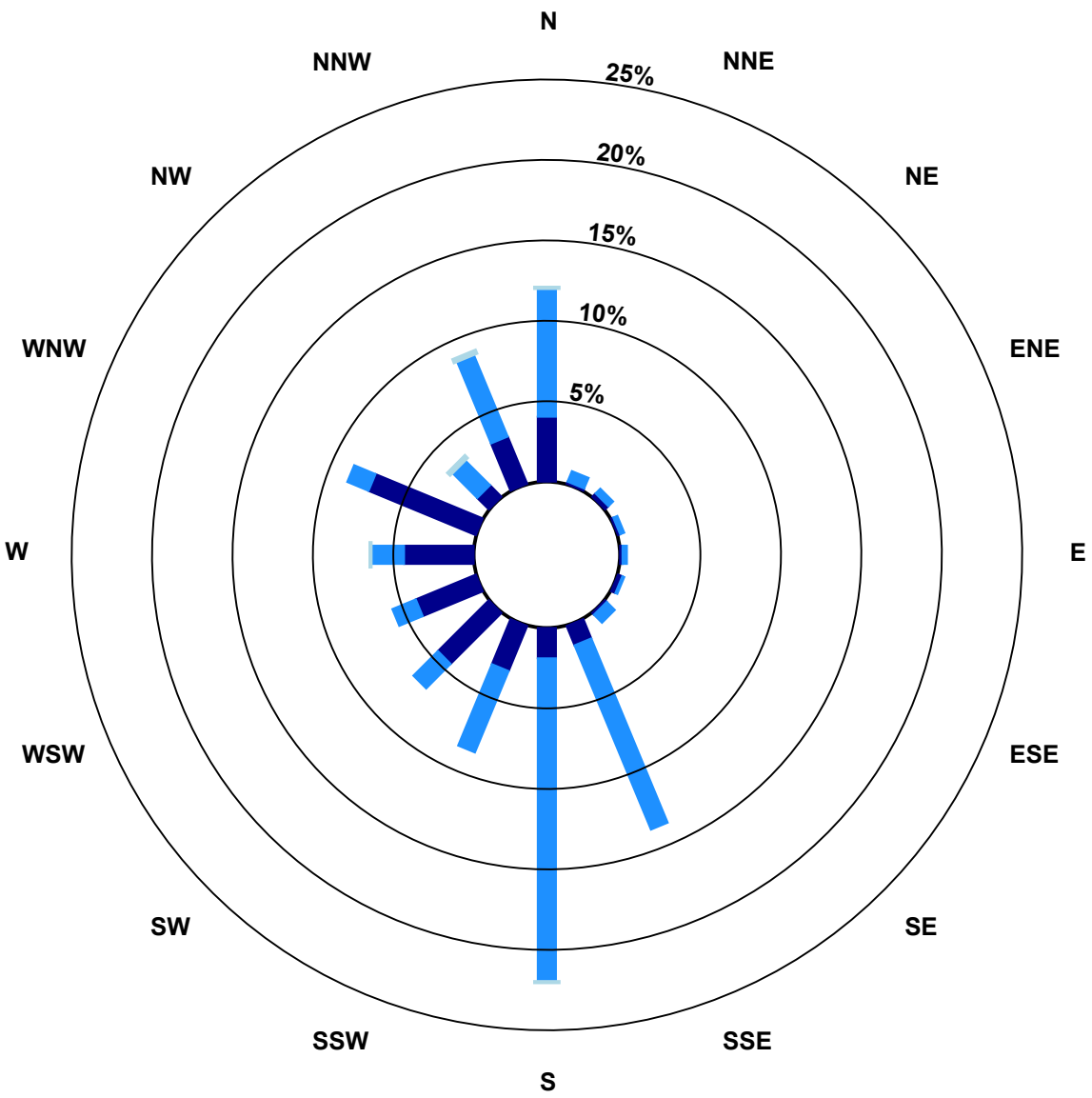
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Methane (CH_4) - ppm

Fort McKay - Bertha Ganter



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

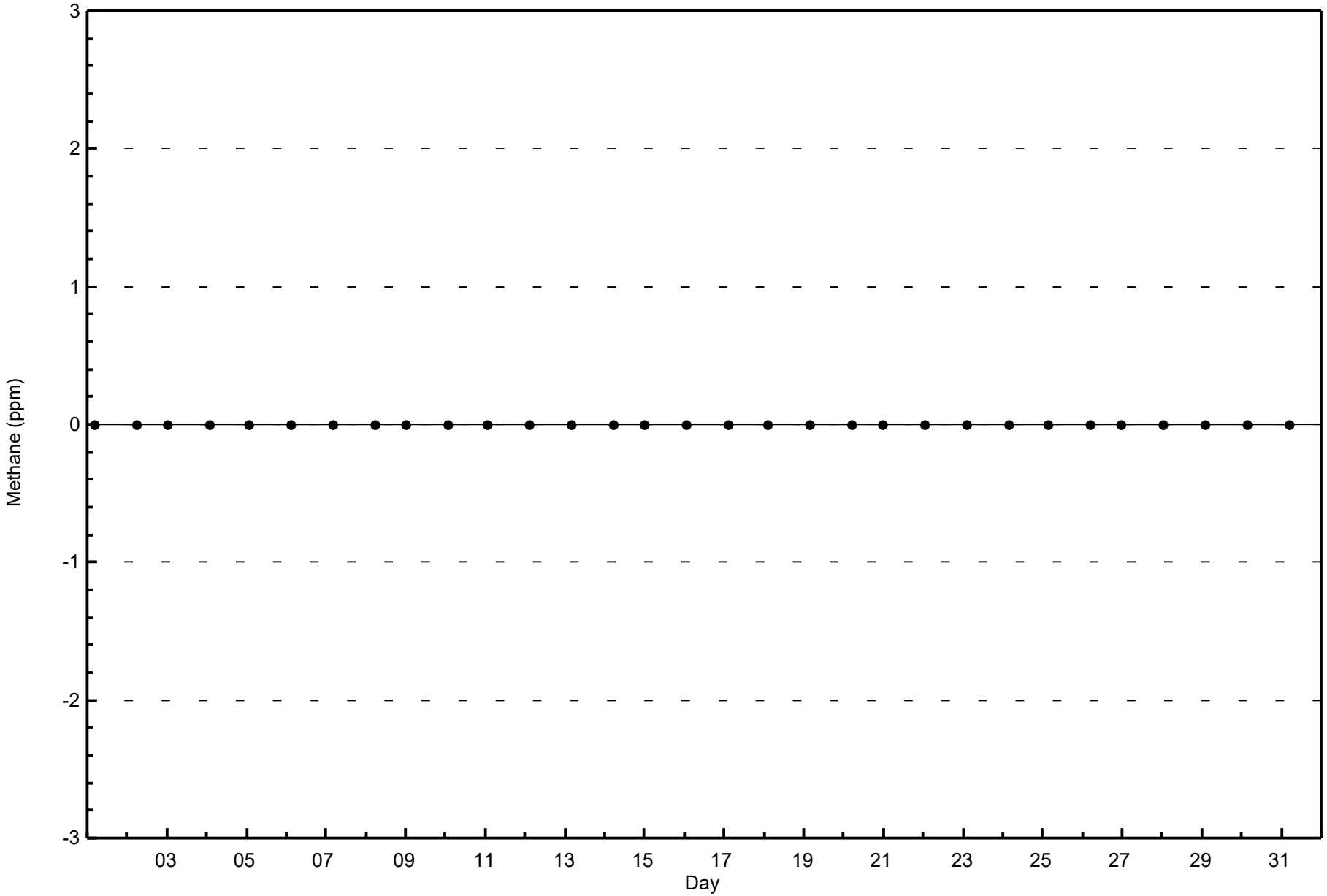
Total Number of Valid Hours: 693

Wood Buffalo Environmental Association

Zero Responses

Methane (CH_4) - ppm

Fort McKay - Bertha Ganter - October 2025

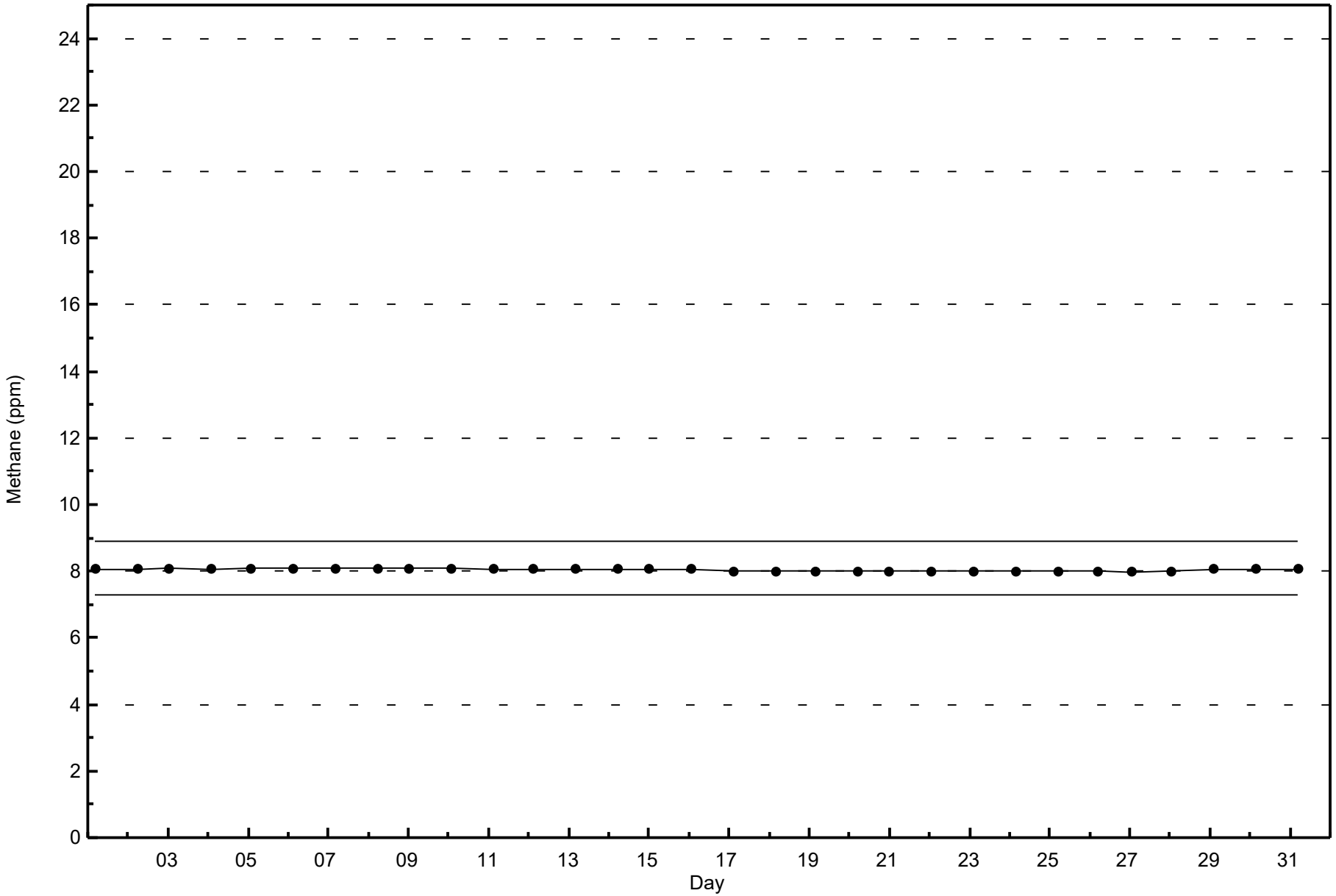


Wood Buffalo Environmental Association

Span Responses

Methane (CH_4) - ppm

Fort McKay - Bertha Ganter - October 2025



Maximum Value: 86.8 ppb on Oct 7 23:00

Maximum Daily Average: 12.6 ppb on Oct 7

Minimum Value: 0.0 ppb on Oct 1 04:00

Minimum Daily Average: 0.0 ppb on Oct 18

Maximum Diurnal Average: 7.0 ppb at hour 10

Minimum Diurnal Average: 0.7 ppb at hour 20

Monthly Average: 2.78 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.7 Q_3 = 1.9 P_{90} = 5.5 P_{99} = 52.5

Hours in Service:	744
Hours of Data:	676
Hours of Missing Data:	68
Hours of Calibration:	39
Percent Operational Time:	96.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.3	4.9	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.1	0.7	1.1	0.5	0.4	0.6	0.3	1.0	1.1	1.0	0.6	4.9
2-Oct	0.3	0.3	0.2	Z	0.7	1.6	3.9	29.5	19.5	9.9	8.5	8.0	5.6	2.0	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	29.5
3-Oct	0.0	0.0	0.0	0.1	Z	5.7	3.5	3.8	5.1	2.7	1.2	0.0	0.0	0.0	0.0	0.1	0.6	0.8	0.8	1.0	1.1	1.2	1.3	1.3	1.3	5.7
4-Oct	1.5	1.6	1.4	1.4	1.6	Z	1.6	1.6	1.7	2.0	2.0	2.2	1.8	1.7	1.2	1.1	1.0	1.1	1.3	1.0	0.7	0.7	1.0	1.3	1.4	2.2
5-Oct	Z	1.6	1.6	1.5	1.7	1.7	2.0	5.2	7.5	4.8	3.6	4.0	3.7	0.8	0.8	1.0	1.3	1.5	1.5	1.6	1.6	1.7	1.5	1.4	2.3	7.5
6-Oct	1.3	Z	1.4	1.3	1.4	1.5	1.5	1.6	1.9	2.5	3.2	2.5	2.5	3.2	3.5	2.7	2.5	1.3	0.8	0.6	1.9	2.7	0.8	0.4	1.9	3.5
7-Oct	0.1	0.0	Z	0.2	0.2	0.4	0.6	1.3	3.4	5.6	3.9	2.0	3.9	4.2	2.6	1.9	1.7	0.9	0.0	6.3	35.3	65.1	86.8	62.2	12.6	86.8
8-Oct	24.9	6.0	17.2	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.8	0.9	1.0	1.2	1.3	1.3	1.5	1.4	1.3	1.4	1.5	1.3	1.6	2.8	24.9
9-Oct	1.3	1.5	1.4	1.4	Z	2.4	1.3	2.4	2.5	2.9	4.6	1.2	1.3	1.4	1.5	1.6	1.6	1.5	1.4	1.5	1.3	1.1	1.0	0.8	1.7	4.6
10-Oct	0.6	0.5	0.6	0.5	0.6	Z	2.3	9.5	8.9	6.9	7.7	3.7	3.1	2.2	1.3	0.5	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	2.1	9.5
11-Oct	Z	0.0	0.0	0.0	0.9	53.6	0.4	0.8	1.5	0.0	0.0	0.0	0.6	0.0	0.0	0.3	0.6	0.8	0.9	1.2	1.0	0.7	0.8	1.0	2.8	53.6
12-Oct	1.2	Z	1.4	1.4	1.5	1.4	1.4	2.0	2.8	1.4	2.5	3.0	1.5	1.4	1.6	3.5	1.8	4.2	1.2	1.1	1.2	0.9	0.7	0.5	1.7	4.2
13-Oct	0.8	0.9	Z	1.3	1.4	1.4	1.3	2.5	8.5	6.3	3.2	1.1	1.4	1.4	1.3	1.3	1.2	1.0	0.8	0.5	0.4	0.2	0.0	0.0	1.7	8.5
14-Oct	0.0	0.0	0.0	Z	0.3	0.4	0.3	0.3	0.7	1.7	C	C	C	C	M	M	M	M	M	M	M	M	M	M	--	1.7
15-Oct	M	M	M	M	M	M	M	M	M	M	M	C	C	C	C	C	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.1
16-Oct	0.3	0.4	0.0	0.0	0.3	Z	0.3	6.6	9.7	7.0	6.2	7.1	8.1	2.3	0.6	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	9.7
17-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4	0.0	0.0	0.0	0.0	0.0	0.5	11.4
18-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.2
19-Oct	0.2	1.2	Z	1.7	1.2	1.5	4.1	8.0	59.6	52.1	32.5	12.1	31.3	29.7	12.6	9.6	5.2	2.5	4.9	3.3	1.5	2.4	0.3	2.4	12.2	59.6
20-Oct	0.4	0.0	0.0	Z	0.0	0.0	0.1	0.9	6.6	13.0	15.1	5.4	3.9	2.5	M	1.4	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.2	15.1
21-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.7	1.3	1.5	M	M	M	M	M	M	0.0	0.9	6.6	0.9	1.1	3.2	5.5	5.4	4.3	--	6.6
22-Oct	3.4	2.5	2.5	3.1	2.3	Z	0.6	1.4	3.8	9.4	8.2	6.7	9.1	4.9	2.3	2.2	32.1	61.0	12.4	0.2	0.0	0.0	0.0	0.0	7.3	61.0
23-Oct	Z	0.0	0.0	0.0	0.1	0.1	0.1	1.2	0.7	6.6	3.9	3.3	3.1	2.9	1.5	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	6.6
24-Oct	0.2	Z	0.0	0.0	0.0	0.0	0.0	0.9	5.3	7.3	4.4	3.4	3.2	2.2	1.4	1.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.3	7.3
25-Oct	1.3	0.5	Z	22.6	8.5	8.9	10.5	8.3	9.2	9.7	1.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.3	1.0	3.6	22.6
26-Oct	0.9	0.5	1.0	Z	0.4	0.5	0.0	6.9	27.5	46.9	62.0	41.1	23.5	15.6	3.7	2.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2	62.0
27-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.3
28-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.6	0.0	0.6
29-Oct	Z	0.1	0.1	0.1	0.0	0.0	0.0	0.1	3.8	3.2	5.1	3.5	3.5	2.3	3.6	3.0	0.8	0.4	0.0	0.0	0.0	0.0	0.0	2.1	1.4	5.1
30-Oct	1.9	Z	0.1	7.6	2.0	0.4	0.4	1.0	0.3	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	7.6
31-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.5	0.2	2.0	2.1	1.9	M	1.8	1.9	1.3	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.1
	1.6	0.9	1.2	1.8	1.0	3.3	1.2	3.3	6.5	7.0	6.5	4.1	4.1	3.0	1.6	1.4	1.9	2.9	1.3	0.7	1.7	2.8	3.5	2.7	Diurnal Average	
	24.9	6.0	17.2	22.6	8.5	53.6	10.5	29.5	59.6	52.1	62.0	41.1	31.3	29.7	12.6	9.6	32.1	61.0	12.4	6.3	35.3	65.1	86.8	62.2	Diurnal Maximum	

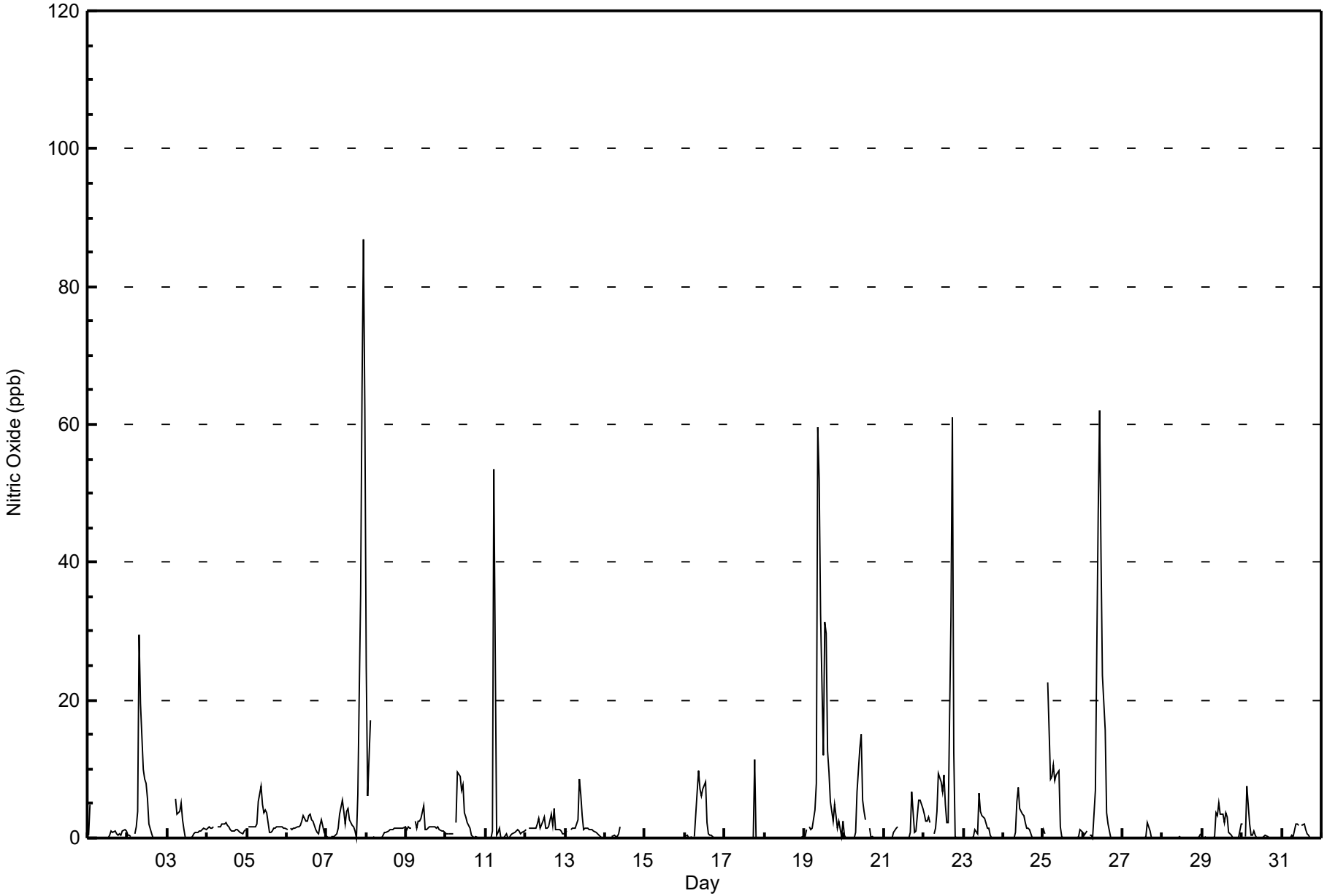
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Fort McKay - Bertha Ganter - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	656	97.04	97.04
21 - 40	10	1.48	98.52
11 - 80	9	1.33	99.85
81 - 159	1	0.15	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 676

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	77	4	5	3	3	3	7	96	132	55	42	37	43	57	21	59	644
21 - 40	3	1	0	0	0	0	0	0	1	0	0	0	0	1	1	2	9
11 - 80	3	2	0	0	0	0	0	0	0	0	0	0	1	0	0	2	8
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	83	7	5	3	3	3	7	96	133	55	42	37	44	58	23	63	662

Total Number of Valid Hours: 662

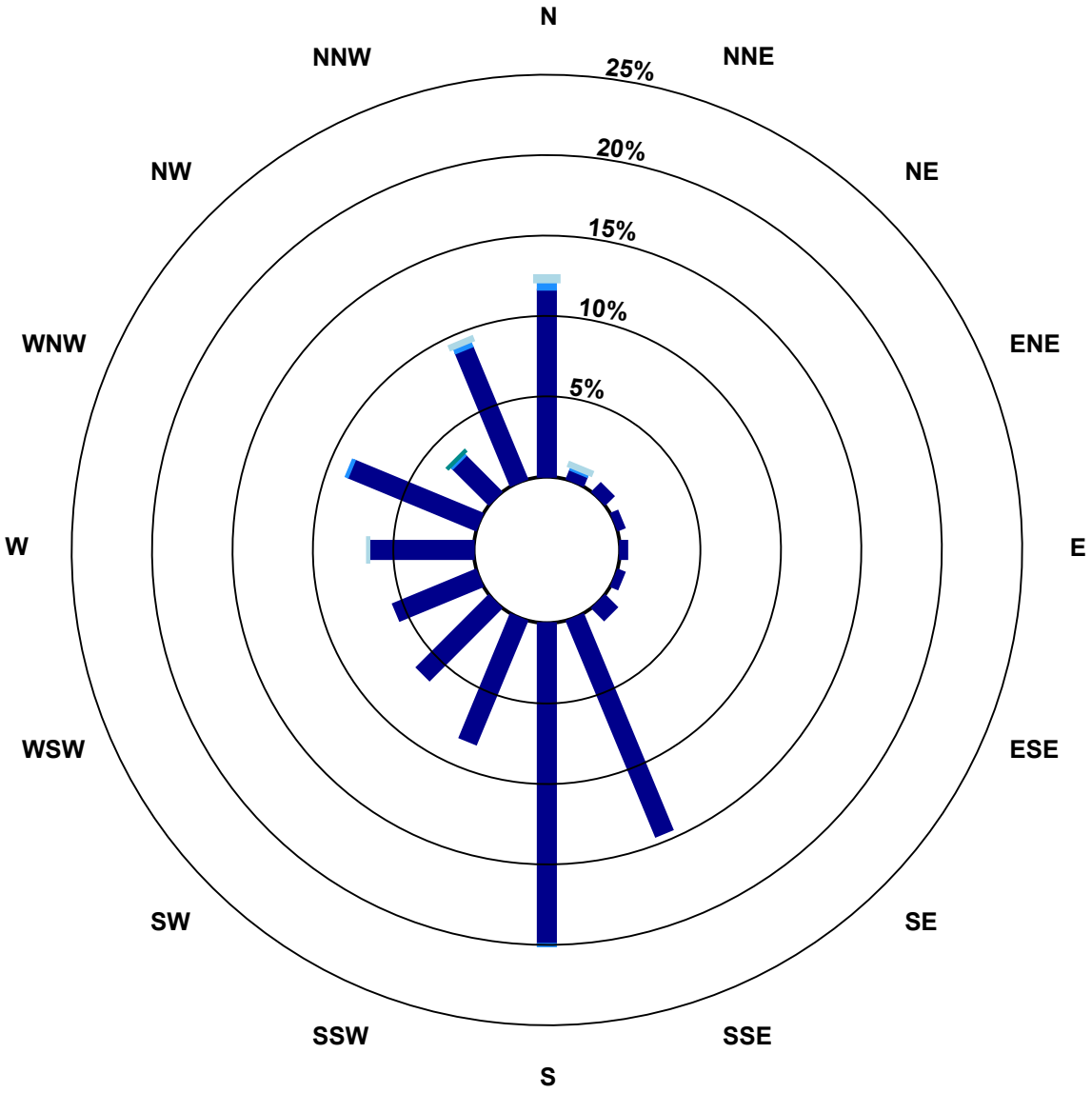
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Fort McKay - Bertha Ganter



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

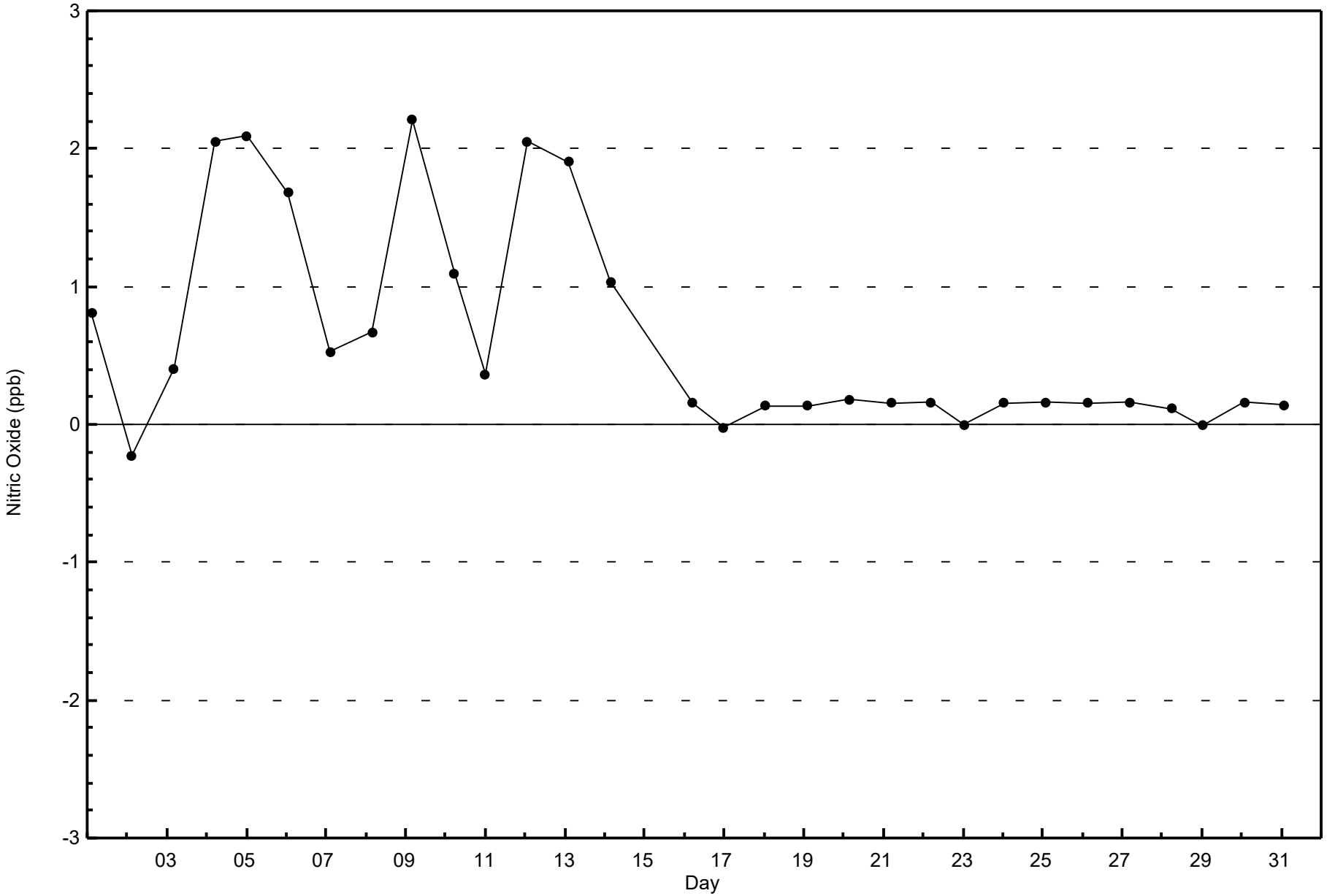
Total Number of Valid Hours: 662

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Fort McKay - Bertha Ganter - October 2025

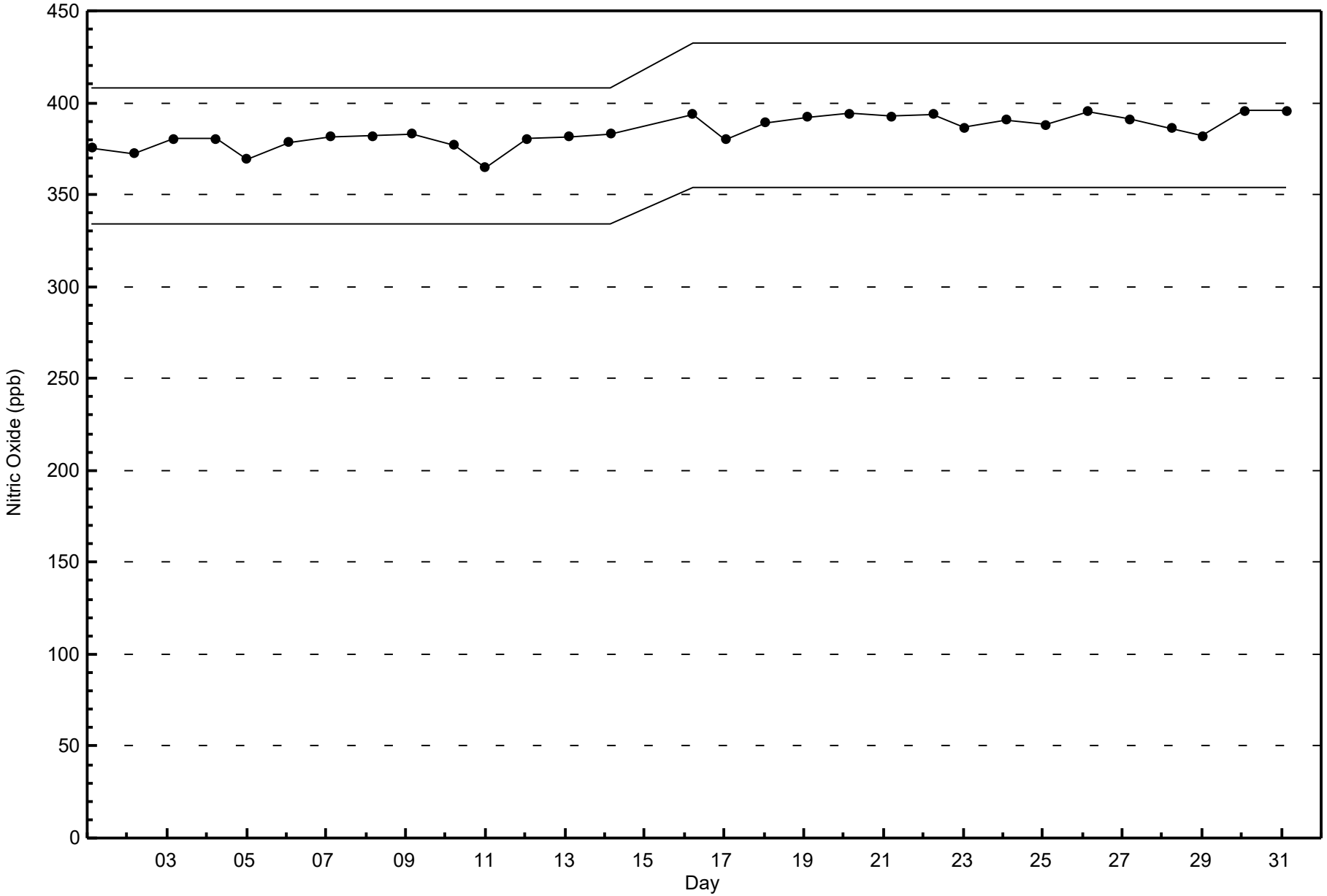


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Fort McKay - Bertha Ganter - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Fort McKay - Bertha Ganter - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 25.7 ppb on Oct 11 06:00

Maximum Daily Average: 9.0 ppb on Oct 24

Minimum Value: 0.0 ppb on Oct 1 12:00

Minimum Daily Average: 0.6 ppb on Oct 27

Maximum Diurnal Average: 5.9 ppb at hour 9

Minimum Diurnal Average: 3.3 ppb at hour 15

Monthly Average: 4.68 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.6 Median = 3.9 Q_3 = 7.0 P_{90} = 10.8 P_{99} = 16.9

Hours in Service:	744
Hours of Data:	676
Hours of Missing Data:	68
Hours of Calibration:	39
Percent Operational Time:	96.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	14.7	20.4	Z	4.8	2.2	0.6	2.8	2.2	3.3	4.4	2.9	0.0	0.0	1.2	0.7	2.0	6.8	7.4	8.1	5.7	5.4	5.4	6.4	5.9	4.9	20.4
2-Oct	3.7	2.6	2.2	Z	1.8	1.5	1.8	4.7	4.7	5.3	6.9	5.8	6.3	5.1	2.9	1.6	1.9	0.9	1.9	3.4	7.4	7.2	4.7	3.0	3.8	7.4
3-Oct	4.5	6.1	5.3	3.2	Z	5.1	4.0	4.1	5.9	4.3	2.9	0.7	0.0	0.0	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	2.1	6.1
4-Oct	0.0	0.0	0.0	0.0	0.1	Z	0.0	0.1	0.0	0.5	1.8	2.8	2.6	4.3	3.9	1.6	0.5	0.2	4.3	5.5	2.2	0.5	0.0	0.0	1.3	5.5
5-Oct	Z	0.8	0.2	0.2	0.0	1.2	3.5	7.0	6.6	4.9	2.9	3.1	2.6	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1	5.3	1.7	7.0
6-Oct	6.4	Z	5.0	0.2	0.4	0.2	0.5	0.7	1.0	2.1	2.8	1.8	1.8	3.4	4.5	5.0	7.9	10.8	13.7	11.9	18.9	20.2	16.4	11.6	6.4	20.2
7-Oct	7.5	2.8	Z	2.8	1.9	4.8	4.3	6.8	8.5	10.0	7.3	4.2	5.0	5.0	4.4	6.2	9.1	6.7	3.4	9.5	14.4	14.5	14.2	13.4	7.2	14.5
8-Oct	12.1	10.8	12.7	Z	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	12.7
9-Oct	0.2	0.7	0.1	0.1	Z	12.5	1.4	1.6	1.4	1.2	3.1	0.0	0.0	0.0	0.0	0.2	0.4	0.5	1.0	5.9	10.6	11.2	9.3	9.0	3.1	12.5
10-Oct	9.9	10.9	9.4	9.4	8.5	Z	9.5	10.2	9.1	8.5	8.9	5.9	6.0	4.6	4.4	2.8	2.8	2.7	5.3	4.3	3.7	5.1	5.5	4.2	6.6	10.9
11-Oct	Z	6.8	4.6	4.7	4.8	25.7	13.3	12.0	10.8	0.7	0.0	1.4	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	2.7	0.8	0.0	4.3	25.7
12-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	5.8	8.1	1.5	5.4	7.2	2.6	2.8	2.8	2.3	0.5	1.8	0.2	0.0	6.7	3.6	6.4	0.8	2.5	8.1
13-Oct	0.0	0.0	Z	0.1	0.3	0.2	0.6	4.9	10.7	7.3	3.2	0.0	0.3	0.4	0.1	0.0	0.4	1.4	1.3	1.6	1.6	4.0	4.1	3.9	2.0	10.7
14-Oct	3.8	4.9	3.8	Z	4.5	3.6	5.6	4.3	3.3	3.6	C	C	C	C	M	M	M	M	M	M	M	M	M	M	--	5.6
15-Oct	M	M	M	M	M	M	M	M	M	M	M	C	C	C	C	C	1.3	1.6	4.9	13.8	4.9	4.1	8.5	6.5	--	13.8
16-Oct	9.1	11.5	3.8	5.8	7.7	Z	11.8	16.0	12.1	10.8	10.8	10.6	14.4	7.5	3.8	6.3	10.4	8.1	3.8	4.7	3.6	5.8	3.8	6.5	8.2	16.0
17-Oct	Z	5.9	5.9	1.5	0.6	0.6	0.5	0.7	0.4	0.3	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	4.3	0.9	0.0	1.8	3.8	2.6	1.3	5.9
18-Oct	1.9	Z	1.6	0.8	2.4	4.7	5.5	1.6	0.5	0.2	0.2	0.4	0.3	0.2	0.0	0.2	0.4	2.0	3.6	4.6	5.0	6.0	6.5	5.3	2.3	6.5
19-Oct	4.9	6.8	Z	5.9	4.4	4.5	5.5	6.0	11.9	12.6	10.7	9.7	12.5	13.7	11.5	10.6	9.1	9.4	10.6	10.1	8.5	8.8	7.0	10.4	8.9	13.7
20-Oct	7.0	3.1	6.7	Z	8.9	9.9	7.7	10.3	10.4	10.9	11.7	7.1	6.5	5.5	M	6.0	2.6	5.4	4.1	3.0	1.9	3.4	4.6	3.2	6.4	11.7
21-Oct	1.9	2.4	2.3	4.2	Z	3.9	7.7	6.0	2.6	M	M	M	M	M	M	0.4	3.9	11.7	7.4	9.4	9.6	6.7	6.0	4.4	--	11.7
22-Oct	3.1	3.4	5.0	4.3	3.5	Z	3.4	2.5	2.2	4.8	4.8	4.9	7.3	6.3	5.1	9.0	13.4	15.5	13.3	4.5	0.8	2.1	2.8	2.9	5.4	15.5
23-Oct	Z	3.5	4.9	7.3	13.0	13.4	13.3	14.7	7.3	11.9	6.4	5.6	5.5	5.9	6.2	10.6	6.7	2.7	3.7	5.3	5.6	15.6	7.0	12.5	8.2	15.6
24-Oct	19.3	Z	10.6	16.9	13.3	10.8	8.0	10.6	11.6	10.5	7.4	6.8	7.3	8.3	9.1	8.6	11.8	9.4	6.7	5.4	3.5	3.6	4.1	3.6	9.0	19.3
25-Oct	5.5	4.3	Z	10.8	9.9	13.3	11.1	10.9	10.4	8.9	4.7	2.5	0.8	0.4	0.5	0.2	0.2	0.3	0.5	1.9	3.9	7.1	8.8	8.6	5.5	13.3
26-Oct	8.8	6.1	6.5	Z	5.3	4.4	4.4	6.8	8.2	9.6	13.6	14.3	12.1	9.6	7.6	8.5	10.9	7.6	6.2	5.9	3.1	2.7	2.2	2.5	7.3	14.3
27-Oct	1.7	1.3	1.1	1.5	Z	0.2	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.6	4.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	4.7
28-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.0	0.0	0.7	0.2	0.3	0.3	0.4	0.3	0.6	2.5	1.2	2.3	3.3	5.7	7.1	7.5	1.4	7.5
29-Oct	Z	5.5	2.5	4.2	2.6	1.2	1.9	5.1	16.9	11.9	10.4	10.5	9.0	8.3	12.4	12.1	9.9	10.9	6.7	5.2	3.3	2.1	3.5	11.3	7.3	16.9
30-Oct	12.6	Z	9.8	15.8	16.9	14.8	12.2	10.6	3.0	1.1	0.6	0.4	0.6	1.2	3.2	4.9	4.6	1.4	3.1	4.5	5.3	4.9	4.2	2.5	6.0	16.9
31-Oct	1.6	2.1	Z	3.6	2.7	3.3	7.0	4.4	6.8	4.0	3.2	M	3.8	5.1	5.6	5.9	10.3	6.6	3.2	6.0	3.8	8.2	8.9	5.5	5.1	10.3
	5.6	4.9	4.3	4.3	4.5	5.6	4.9	5.7	5.9	5.2	4.8	3.9	4.0	3.6	3.3	3.7	4.4	4.3	4.1	4.5	4.7	5.4	5.3	5.1	Diurnal Average	
	19.3	20.4	12.7	16.9	16.9	25.7	13.3	16.0	16.9	12.6	13.6	14.3	14.4	13.7	12.4	12.1	13.4	15.5	13.7	13.8	18.9	20.2	16.4	13.4	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

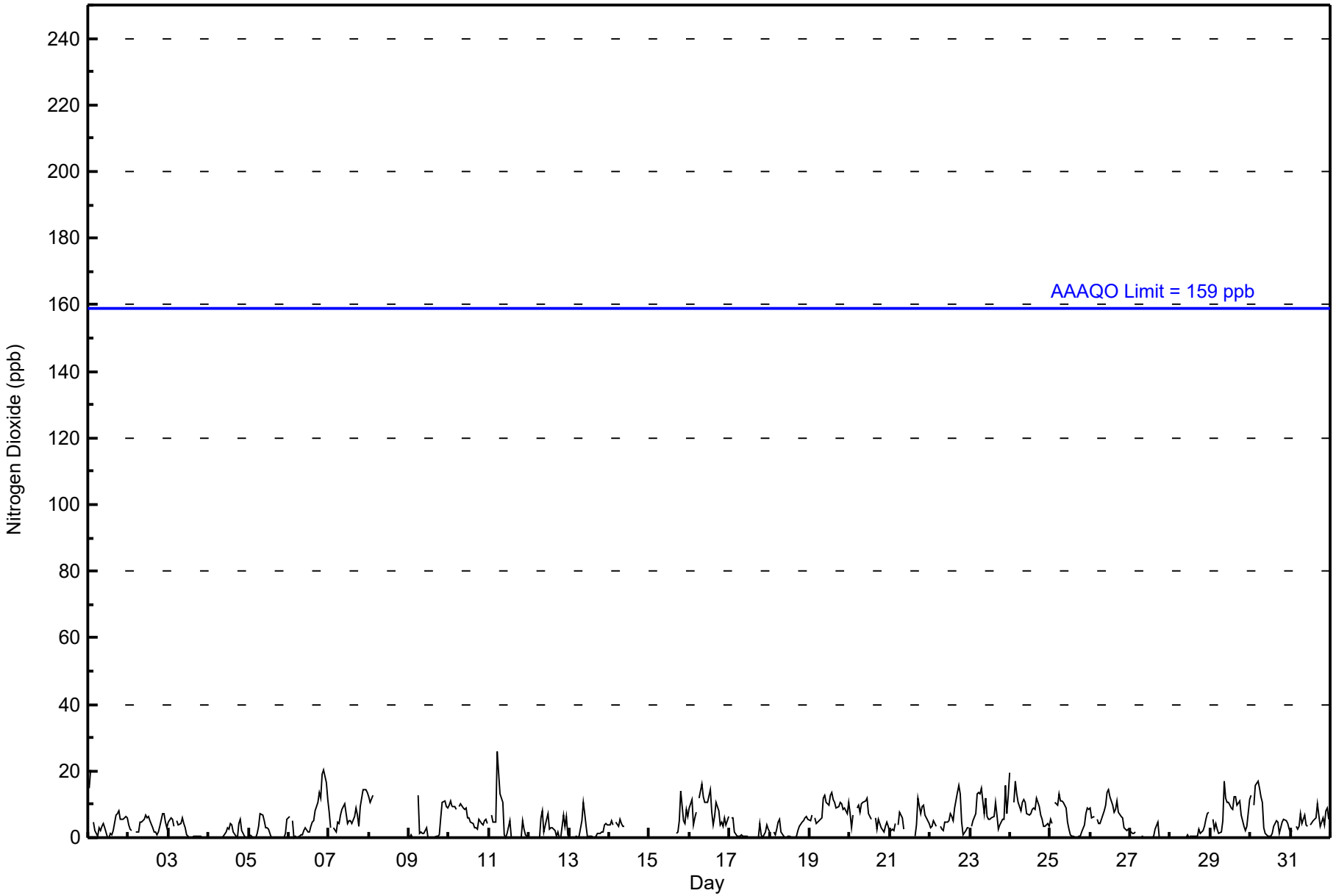
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Fort McKay - Bertha Ganter - October 2025



Nitrogen Dioxide (NO_2) - ppb

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	675	99.85	99.85
21 - 40	1	0.15	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 676

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	82	7	5	3	3	3	7	96	133	55	42	37	44	58	23	63	661
21 - 40	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	83	7	5	3	3	3	7	96	133	55	42	37	44	58	23	63	662

Total Number of Valid Hours: 662

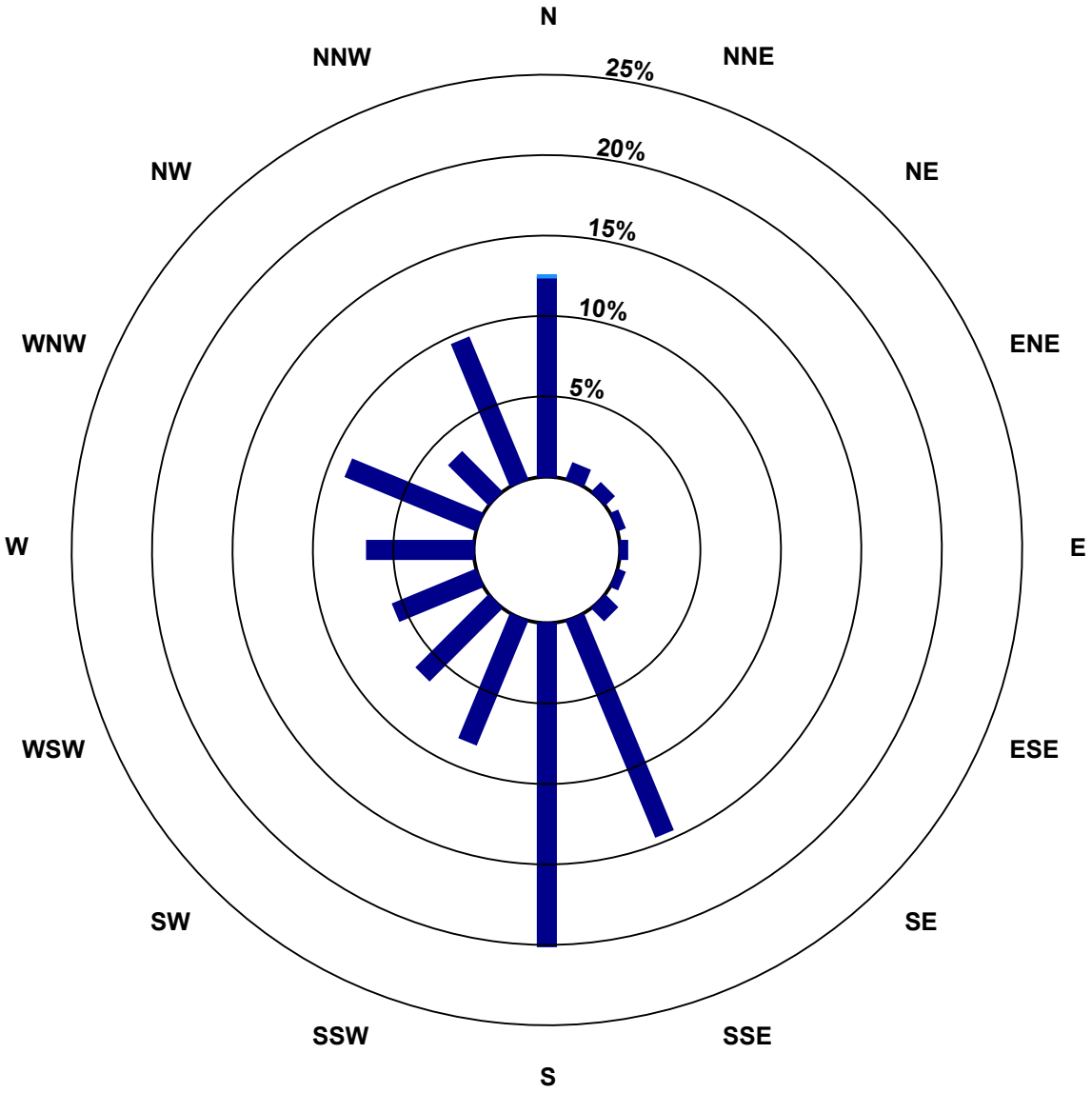
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Fort McKay - Bertha Ganter



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

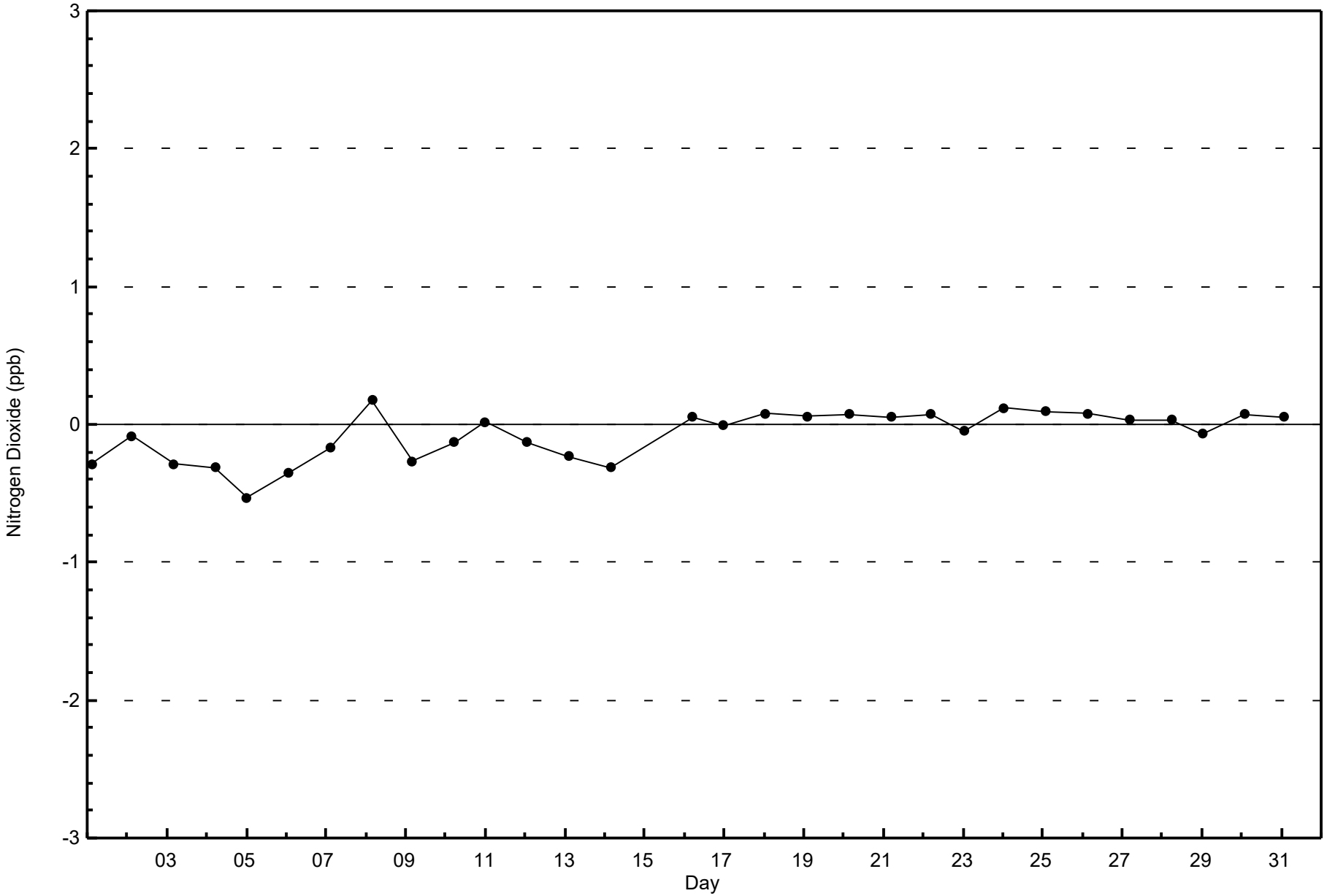
Total Number of Valid Hours: 662

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Fort McKay - Bertha Ganter - October 2025

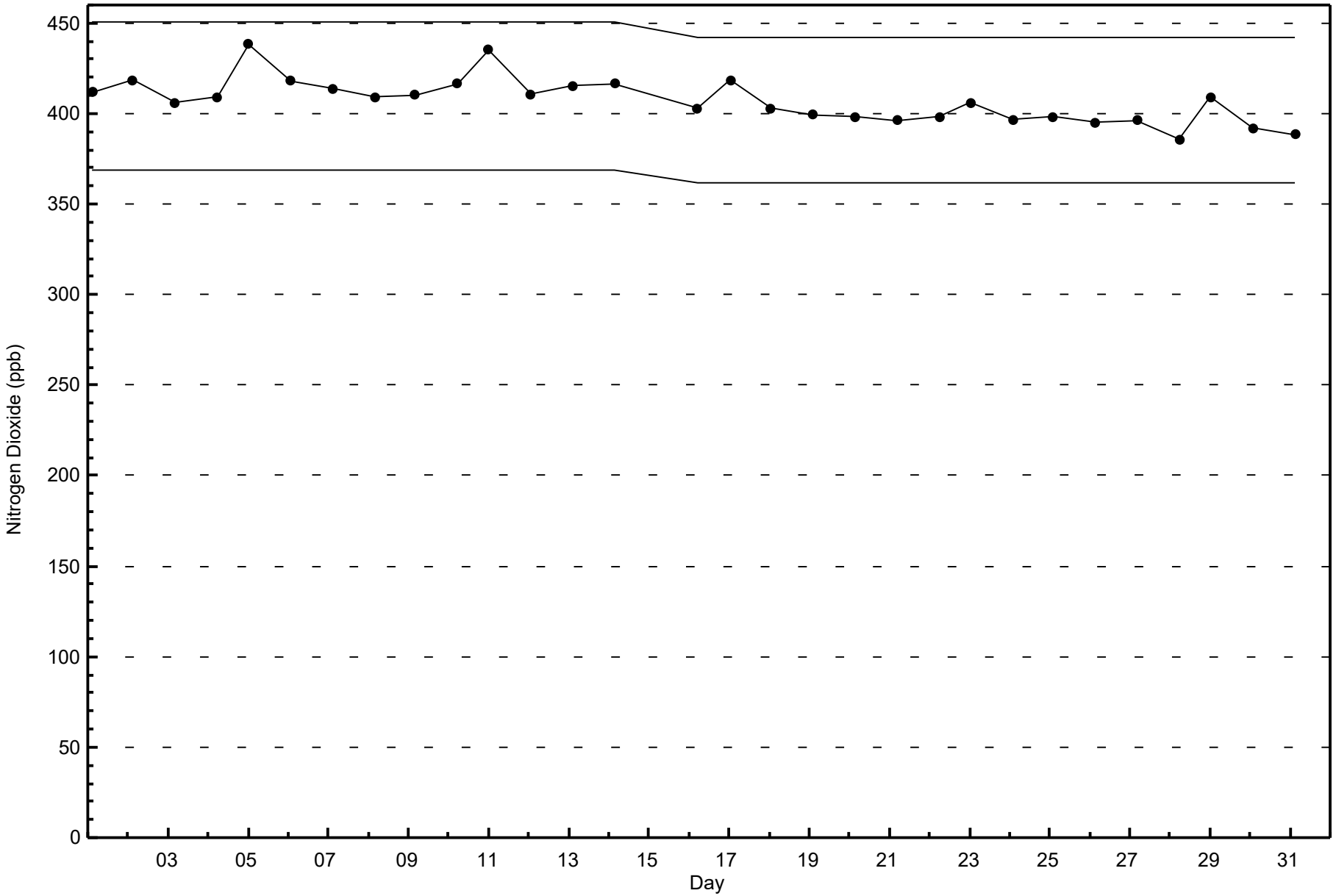


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Fort McKay - Bertha Ganter - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Fort McKay - Bertha Ganter - October 2025

Maximum Value: 101.0 ppb on Oct 7 23:00

Maximum Daily Average: 21.1 ppb on Oct 19

Minimum Value: 0.0 ppb on Oct 1 13:00

Minimum Daily Average: 0.8 ppb on Oct 27

Maximum Diurnal Average: 12.4 ppb at hour 9

Minimum Diurnal Average: 5.0 ppb at hour 15

Monthly Average: 7.46 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.4 Q_1 = 1.6 Median = 4.6 Q_3 = 9.4 P_{90} = 15.5 P_{99} = 66.4

Hours in Service:	744
Hours of Data:	676
Hours of Missing Data:	68
Hours of Calibration:	39
Percent Operational Time:	96.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	15.0	25.3	Z	4.8	2.2	0.6	2.8	2.2	3.3	4.4	2.9	0.0	0.0	1.6	1.8	2.7	7.9	7.9	8.5	6.3	5.7	6.4	7.5	6.9	5.5	25.3
2-Oct	4.0	2.9	2.4	Z	2.5	3.1	5.7	34.2	24.2	15.2	15.4	13.8	11.9	7.1	3.5	1.7	2.0	0.9	1.9	3.4	7.4	7.2	4.7	3.0	7.7	34.2
3-Oct	4.5	6.1	5.3	3.3	Z	10.8	7.5	7.9	11.0	7.0	4.1	0.7	0.0	0.0	0.2	0.4	0.9	1.1	1.1	1.3	1.3	1.4	1.4	1.4	3.4	11.0
4-Oct	1.5	1.6	1.4	1.4	1.7	Z	1.6	1.7	1.7	2.5	3.8	5.0	4.4	6.0	5.1	2.7	1.5	1.3	5.6	6.5	2.9	1.2	1.0	1.3	2.8	6.5
5-Oct	Z	2.4	1.8	1.7	1.7	2.9	5.5	12.2	14.1	9.7	6.5	7.1	6.3	1.0	1.0	1.1	1.3	1.5	1.5	1.6	1.6	1.7	2.6	6.7	4.1	14.1
6-Oct	7.7	Z	6.4	1.5	1.8	1.7	2.0	2.3	2.9	4.6	6.0	4.3	4.3	6.6	8.0	7.7	10.4	12.1	14.5	12.5	20.8	22.9	17.2	12.0	8.3	22.9
7-Oct	7.6	2.8	Z	3.0	2.1	5.2	4.9	8.1	11.9	15.6	11.2	6.2	8.9	9.2	7.0	8.1	10.8	7.6	3.4	15.8	49.7	79.6	101.0	75.6	19.8	101.0
8-Oct	37.0	16.8	29.9	Z	0.3	0.0	0.0	0.0	0.0	0.0	0.4	0.8	0.9	1.0	1.2	1.3	1.3	1.5	1.4	1.3	1.4	1.5	1.3	1.6	4.4	37.0
9-Oct	1.5	2.2	1.5	1.5	Z	14.9	2.7	4.0	3.9	4.1	7.7	1.2	1.3	1.4	1.5	1.8	2.0	2.0	2.4	7.4	11.9	12.3	10.3	9.8	4.7	14.9
10-Oct	10.5	11.4	10.0	9.9	9.1	Z	11.8	19.7	18.0	15.4	16.6	9.6	9.1	6.8	5.7	3.3	2.9	2.8	5.4	4.3	3.7	5.1	5.5	4.2	8.7	19.7
11-Oct	Z	6.8	4.6	4.7	5.7	79.3	13.7	12.8	12.3	0.7	0.0	1.4	5.8	0.0	0.0	0.3	0.6	0.8	0.9	1.2	6.0	3.4	1.6	1.0	7.1	79.3
12-Oct	1.2	Z	1.4	1.4	1.5	1.4	1.4	7.8	10.9	2.9	7.9	10.2	4.1	4.2	4.4	5.8	2.3	6.0	1.4	1.1	7.9	4.5	7.1	1.3	4.3	10.9
13-Oct	0.8	0.9	Z	1.4	1.7	1.6	1.9	7.4	19.2	13.6	6.4	1.1	1.7	1.8	1.4	1.3	1.6	2.4	2.1	2.1	2.0	4.2	4.1	3.9	3.7	19.2
14-Oct	3.8	4.9	3.8	Z	4.8	4.0	5.9	4.6	4.0	5.3	C	C	C	C	M	M	M	M	M	M	M	M	M	M	--	5.9
15-Oct	M	M	M	M	M	M	M	M	M	M	M	C	C	C	C	C	1.4	1.6	4.9	13.8	4.9	4.1	8.5	6.5	--	13.8
16-Oct	9.4	11.9	3.8	5.8	8.0	Z	12.1	22.6	21.8	17.8	17.0	17.7	22.5	9.8	4.4	6.7	10.7	8.1	3.8	4.7	3.6	5.8	3.8	6.5	10.4	22.6
17-Oct	Z	5.9	5.9	1.5	0.6	0.6	0.5	0.7	0.4	0.3	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	15.7	0.9	0.0	1.8	3.8	2.6	1.8	15.7
18-Oct	1.9	Z	1.6	0.8	2.4	4.7	5.5	1.6	0.5	0.2	0.2	0.4	0.3	0.2	0.0	0.2	0.4	2.0	3.6	4.6	5.0	6.1	6.5	5.5	2.4	6.5
19-Oct	5.1	8.0	Z	7.6	5.6	6.0	9.6	14.0	71.5	64.7	43.2	21.8	43.8	43.4	24.1	20.2	14.3	11.9	15.5	13.4	10.0	11.2	7.3	12.8	21.1	71.5
20-Oct	7.4	3.1	6.7	Z	8.9	9.9	7.8	11.2	17.0	23.9	26.8	12.5	10.4	8.0	M	7.4	2.6	5.5	4.1	3.0	1.9	3.4	4.6	3.2	8.6	26.8
21-Oct	1.9	2.4	2.3	4.2	Z	3.9	8.4	7.3	4.1	M	M	M	M	M	M	0.4	4.8	18.3	8.3	10.5	12.8	12.2	11.4	8.7	--	18.3
22-Oct	6.5	5.9	7.5	7.4	5.8	Z	4.0	3.9	6.0	14.2	13.0	11.6	16.4	11.2	7.4	11.2	45.5	76.5	25.7	4.7	0.8	2.1	2.8	2.9	12.7	76.5
23-Oct	Z	3.5	4.9	7.3	13.1	13.5	13.4	15.9	8.0	18.5	10.3	8.9	8.6	8.8	7.7	12.0	7.1	2.7	3.7	5.3	5.6	15.6	7.0	12.5	9.3	18.5
24-Oct	19.5	Z	10.6	16.9	13.3	10.8	8.0	11.5	16.9	17.8	11.8	10.2	10.5	10.5	10.5	10.0	12.9	9.4	6.7	5.4	3.5	3.6	4.1	3.7	10.4	19.5
25-Oct	6.8	4.8	Z	33.4	18.4	22.2	21.6	19.2	19.6	18.6	6.3	2.8	0.8	0.4	0.5	0.2	0.2	0.3	0.5	1.9	3.9	7.3	10.1	9.6	9.1	33.4
26-Oct	9.7	6.6	7.5	Z	5.7	4.9	4.4	13.7	35.7	56.5	75.6	55.4	35.6	25.2	11.3	10.6	11.9	7.6	6.2	5.9	3.1	2.7	2.2	2.5	17.4	75.6
27-Oct	1.7	1.3	1.1	1.5	Z	0.2	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.7	4.9	5.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.8	5.7
28-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.0	0.0	0.8	0.2	0.3	0.3	0.4	0.3	0.6	2.5	1.2	2.3	3.3	5.8	7.2	8.1	1.5	8.1
29-Oct	Z	5.6	2.6	4.3	2.6	1.2	1.9	5.2	20.7	15.1	15.5	14.0	12.5	10.6	16.0	15.1	10.7	11.3	6.7	5.2	3.3	2.1	3.5	13.4	8.7	20.7
30-Oct	14.5	Z	9.9	23.4	18.9	15.2	12.6	11.6	3.3	1.1	0.6	0.4	0.6	1.3	3.5	5.1	4.6	1.4	3.1	4.5	5.3	4.9	4.2	2.5	6.6	23.4
31-Oct	1.6	2.1	Z	3.6	2.7	3.3	7.5	4.6	8.8	6.1	5.1	M	5.6	7.0	6.9	6.5	10.6	6.6	3.2	6.0	3.8	8.2	8.9	5.5	5.6	10.6
	7.2	5.8	5.5	6.1	5.4	8.9	6.2	8.9	12.4	12.3	11.3	8.1	8.1	6.6	5.0	5.1	6.3	7.1	5.4	5.2	6.4	8.3	8.7	7.8	Diurnal Average	
	37.0	25.3	29.9	33.4	18.9	79.3	21.6	34.2	71.5	64.7	75.6	55.4	43.8	43.4	24.1	20.2	45.5	76.5	25.7	15.8	49.7	79.6	101.0	75.6	Diurnal Maximum	

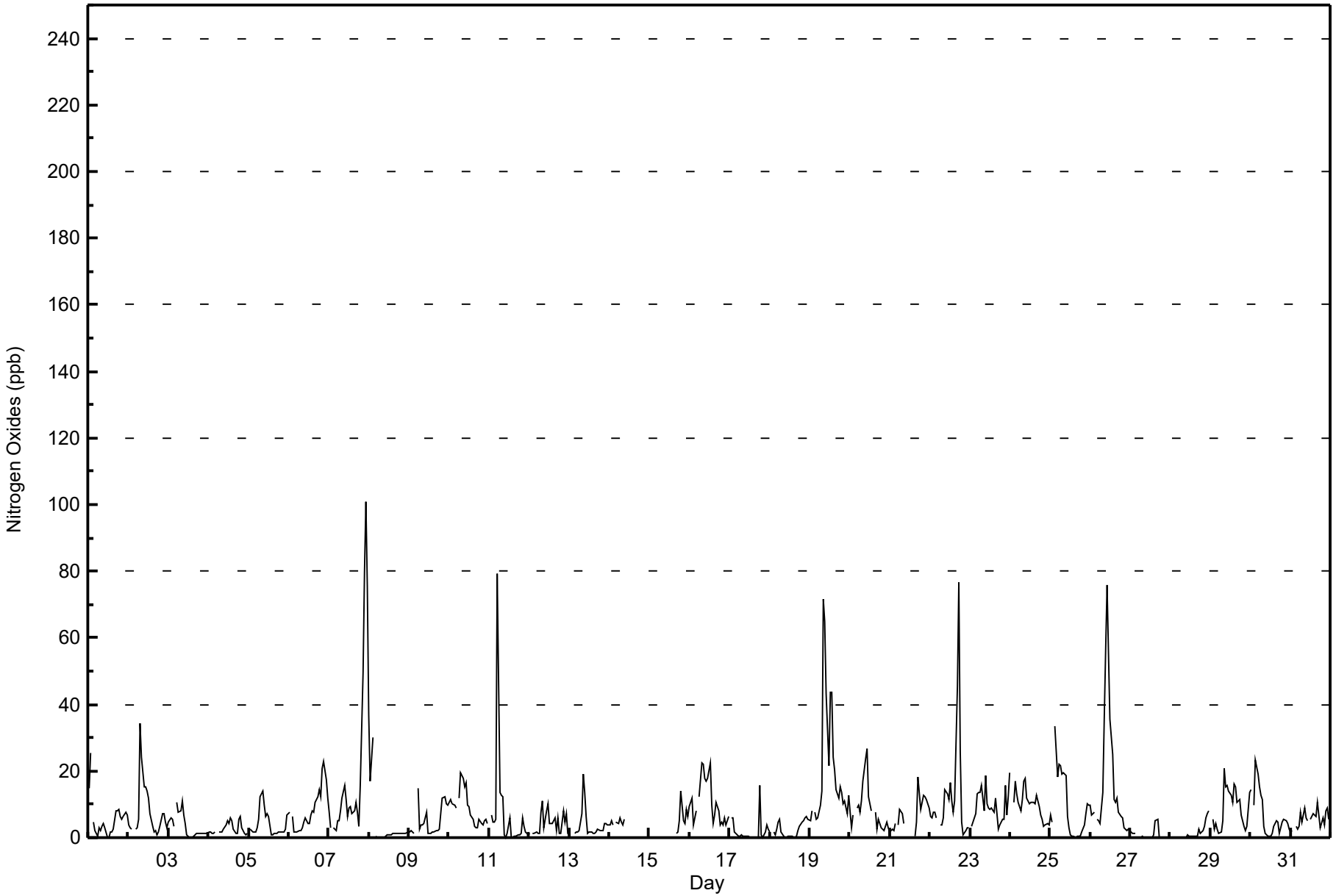
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Fort McKay - Bertha Ganter - October 2025



Nitrogen Oxides (NO_X) - ppb

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	638	94.38	94.38
21 - 40	23	3.40	97.78
11 - 80	14	2.07	99.85
81 - 159	1	0.15	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 676

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	73	3	4	3	3	3	7	90	129	55	42	37	43	56	21	57	626
21 - 40	5	1	1	0	0	0	0	6	4	0	0	0	0	2	1	2	22
11 - 80	5	3	0	0	0	0	0	0	0	0	0	0	1	0	0	4	13
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	83	7	5	3	3	3	7	96	133	55	42	37	44	58	23	63	662

Total Number of Valid Hours: 662

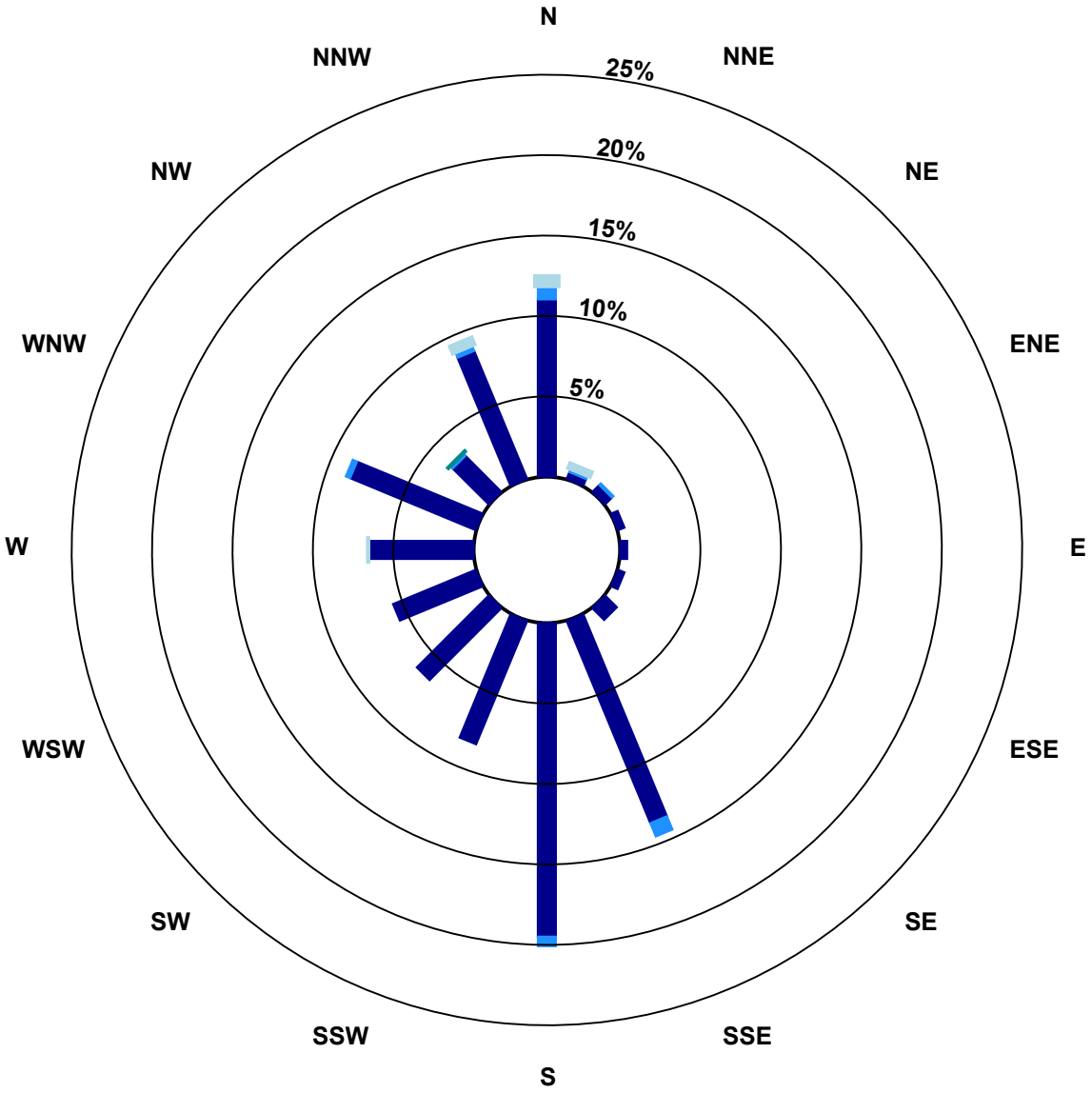
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Fort McKay - Bertha Ganter



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

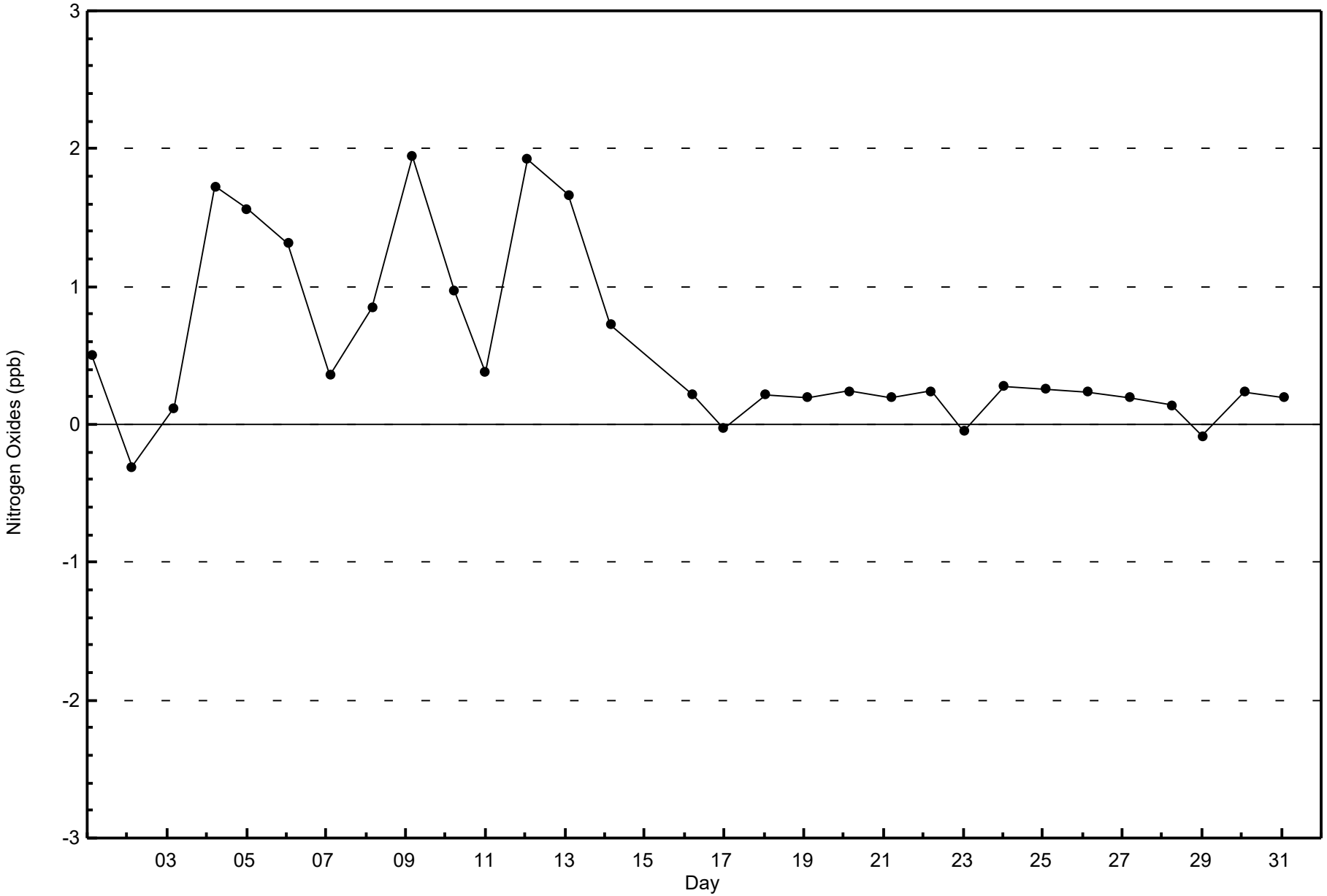
Total Number of Valid Hours: 662

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Fort McKay - Bertha Ganter - October 2025

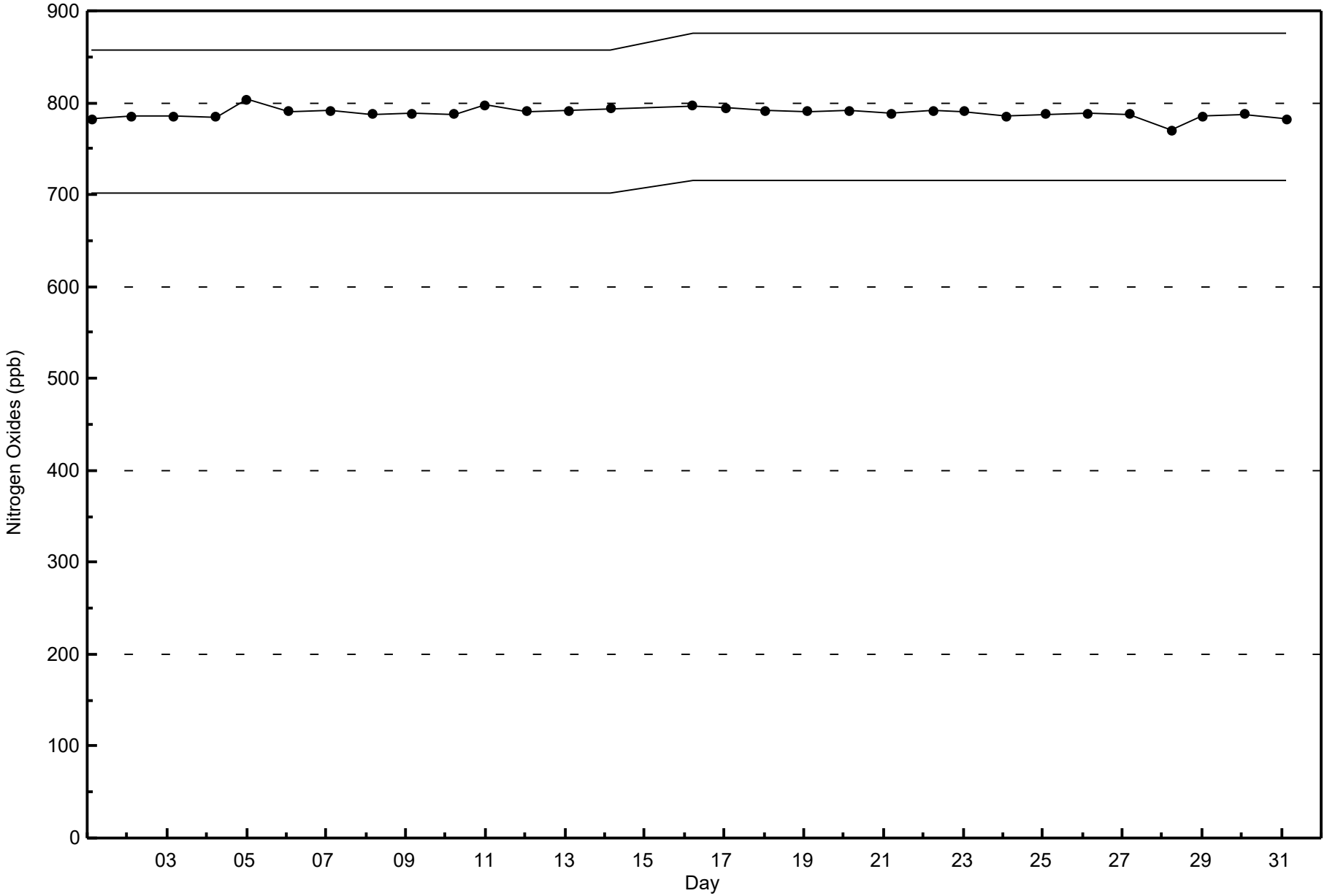


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Fort McKay - Bertha Ganter - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O_3) - ppb

Fort McKay - Bertha Ganter - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 35.0 ppb on Oct 10 17:00 Maximum Daily Average: 22.0 ppb on Oct 17

Minimum Value: 0.2 ppb on Oct 19 19:00 Minimum Daily Average: 1.1 ppb on Oct 19
Maximum Diurnal Average: 19.7 ppb at hour 15 Minimum Diurnal Average: 9.1 ppb at hour 8
Monthly Average: 13.26 ppb Percentiles: P_1 = 0.4 P_{10} = 1.7 Q_1 = 6.6 Median = 13.8 Q_3 = 19.0 P_{90} = 24.1 P_{99} = 29.9

Hours in Service:	744
Hours of Data:	695
Hours of Missing Data:	49
Hours of Calibration:	35
Percent Operational Time:	98.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	Z	0.2	3.4	10.5	13.0	13.9	12.3	12.2	11.1	10.4	13.7	23.7	24.6	24.4	24.5	23.1	15.1	10.1	5.1	1.4	0.8	0.8	0.5	0.8	11.1	24.6
2-Oct	1.8	Z	2.0	1.9	1.2	1.0	0.4	0.5	1.4	2.1	2.0	3.0	5.2	13.2	17.9	19.4	17.3	16.3	12.2	7.0	3.4	6.1	9.1	9.8	6.7	19.4
3-Oct	8.0	6.4	Z	1.9	1.5	0.8	0.8	3.0	7.7	14.1	19.0	24.6	27.2	27.3	27.5	27.9	28.5	26.5	23.1	21.8	19.4	16.4	16.1	17.1	15.9	28.5
4-Oct	15.2	14.1	13.1	Z	11.9	12.2	12.0	11.5	11.5	14.2	19.0	19.9	22.0	19.2	15.6	12.4	10.9	11.1	8.4	13.0	12.8	12.8	12.8	11.4	13.8	22.0
5-Oct	11.5	8.9	8.4	9.0	Z	9.2	5.6	2.5	3.5	5.3	6.4	10.0	12.1	15.7	16.4	19.7	20.7	21.5	19.9	19.5	20.4	18.8	17.3	22.1	13.2	22.1
6-Oct	21.0	22.9	18.5	26.9	25.7	Z	23.7	24.3	23.7	24.0	C	C	C	C	23.8	23.5	20.2	15.3	9.8	7.1	2.6	0.8	3.4	10.5	17.2	26.9
7-Oct	Z	19.8	20.1	18.9	18.8	15.2	14.9	12.7	11.3	10.1	12.7	15.5	14.4	15.8	17.3	15.3	10.9	9.1	9.3	2.7	0.8	1.0	1.0	1.1	11.7	20.1
8-Oct	1.8	Z	1.0	6.3	18.8	21.6	17.5	15.0	15.2	17.0	19.8	20.4	21.4	22.8	24.4	25.7	26.6	23.6	21.0	15.7	11.2	10.5	9.9	10.0	16.4	26.6
9-Oct	9.7	8.7	Z	12.0	10.8	2.6	9.3	8.5	9.4	11.8	13.5	20.5	25.8	31.0	33.7	32.3	29.9	28.5	26.2	17.4	9.6	7.7	6.6	5.6	16.1	33.7
10-Oct	7.0	4.9	4.4	Z	4.7	2.5	0.9	1.7	6.1	11.3	14.4	18.5	20.9	22.6	24.9	32.1	35.0	34.0	27.9	27.9	27.1	23.0	22.3	19.0	17.1	35.0
11-Oct	14.1	14.7	9.6	6.6	Z	0.7	13.0	12.7	12.5	19.1	16.4	13.3	8.1	10.3	11.1	11.7	12.1	16.0	16.6	17.3	14.3	17.8	20.5	22.1	13.5	22.1
12-Oct	21.0	21.7	22.4	22.5	22.5	Z	23.6	16.5	14.4	21.7	19.2	18.5	25.2	25.2	23.1	21.5	23.3	22.5	24.7	23.2	16.7	19.2	13.8	17.1	20.9	25.2
13-Oct	Z	15.8	15.6	14.8	14.8	15.3	15.4	11.8	8.1	13.9	20.5	26.0	26.4	26.5	27.0	27.8	26.3	24.1	23.2	22.6	21.9	18.7	18.1	17.9	19.7	27.8
14-Oct	18.1	Z	16.8	16.5	15.6	16.6	14.2	15.6	16.8	17.0	17.5	18.6	20.0	20.5	24.4	25.8	22.7	14.5	12.8	12.6	12.0	10.2	10.2	7.9	16.4	25.8
15-Oct	9.2	8.2	Z	9.0	8.4	7.3	5.8	7.3	8.5	8.9	11.0	13.1	19.6	24.6	26.2	27.3	27.5	26.5	20.7	11.8	19.2	19.3	19.1	19.6	15.6	27.5
16-Oct	12.3	8.0	16.1	Z	9.5	10.5	5.9	3.1	6.5	11.7	13.8	15.0	12.1	17.9	24.1	20.9	16.1	22.7	28.0	27.0	28.9	26.1	29.0	24.1	16.9	29.0
17-Oct	21.4	19.8	18.7	22.2	Z	24.9	21.6	18.0	20.3	18.8	17.9	19.3	24.3	25.8	28.1	29.9	29.7	28.7	25.4	25.8	24.3	17.6	13.0	11.0	22.0	29.9
18-Oct	16.2	14.6	16.1	17.3	16.9	Z	13.1	15.9	17.7	19.3	21.1	22.5	24.4	25.5	27.8	27.7	27.1	24.1	17.4	11.7	9.7	6.4	6.1	5.5	17.6	27.8
19-Oct	Z	2.1	1.6	0.9	0.8	0.5	0.5	0.3	0.4	0.7	0.9	1.8	1.5	1.4	1.9	1.8	1.6	0.8	0.2	0.3	1.4	0.8	2.6	0.4	1.1	2.6
20-Oct	4.3	Z	6.3	3.0	4.9	2.8	4.7	2.5	1.8	2.2	1.7	5.2	5.2	6.0	M	5.2	10.1	6.3	5.0	7.2	8.3	7.9	10.8	12.6	5.6	12.6
21-Oct	13.3	11.8	Z	9.5	8.7	8.1	4.3	4.2	6.3	M	M	M	M	M	M	M	15.5	1.7	3.5	2.2	1.6	1.1	0.9	1.0	--	15.5
22-Oct	0.7	0.7	1.0	Z	0.5	0.5	0.8	1.7	2.5	4.5	6.5	8.6	9.5	12.0	15.1	12.5	3.1	0.4	4.2	13.2	16.4	16.2	16.4	17.3	7.2	17.3
23-Oct	19.0	18.9	18.1	15.8	Z	9.3	9.3	7.6	13.4	10.2	16.1	17.8	18.3	19.1	20.6	16.1	18.4	18.9	17.4	15.7	15.4	6.6	13.7	9.1	15.0	20.6
24-Oct	3.3	5.5	10.7	6.0	5.9	Z	10.9	7.7	7.6	8.9	12.6	14.5	16.5	16.3	15.9	15.0	10.4	11.1	12.7	10.8	10.7	9.8	5.9	3.4	10.1	16.5
25-Oct	Z	1.9	0.6	0.3	0.6	0.3	0.4	0.4	0.8	0.9	4.6	6.7	14.1	21.7	17.5	17.6	17.7	17.4	17.9	15.5	10.0	5.5	3.2	1.7	7.7	21.7
26-Oct	2.9	Z	1.8	1.3	0.9	1.0	2.1	0.9	0.9	1.1	1.6	2.7	4.1	6.0	8.7	8.0	5.2	8.7	12.6	15.0	18.6	20.1	20.9	20.8	7.2	20.9
27-Oct	22.6	23.4	Z	25.9	24.8	22.4	20.7	20.4	20.5	19.6	19.6	19.7	19.9	19.8	20.1	18.3	14.0	15.7	14.7	16.4	15.3	15.4	15.5	15.8	19.1	25.9
28-Oct	16.6	17.8	16.0	Z	16.3	17.1	17.0	17.4	17.5	18.1	18.7	20.1	M	M	M	18.7	17.7	15.3	15.1	12.1	10.4	6.8	3.5	2.6	14.7	20.1
29-Oct	5.8	6.9	8.6	9.3	Z	15.9	14.1	11.9	2.9	6.9	9.0	8.4	M	M	5.0	6.3	7.8	6.5	8.7	9.3	10.4	11.8	8.9	1.2	8.4	15.9
30-Oct	3.5	5.6	2.5	0.5	1.3	Z	3.0	3.2	10.3	16.1	16.4	18.1	17.6	16.2	15.4	15.9	14.3	15.8	15.3	13.7	13.2	15.1	16.8	17.7	11.6	18.1
31-Oct	Z	16.9	15.7	13.7	13.6	10.3	7.4	10.1	7.6	10.9	12.7	M	14.4	14.1	14.5	14.4	10.7	13.8	17.8	15.8	17.9	14.4	12.9	14.9	13.4	17.9
	11.2	11.5	10.3	10.9	10.5	9.3	9.8	9.1	9.6	11.7	13.0	15.2	16.8	18.6	19.7	19.1	17.6	16.4	15.4	14.0	13.1	11.8	11.6	11.3	Diurnal Average	
	22.6	23.4	22.4	26.9	25.7	24.9	23.7	24.3	23.7	24.0	21.1	26.0	27.2	31.0	33.7	32.3	35.0	34.0	28.0	27.9	28.9	26.1	29.0	24.1	Diurnal Maximum	

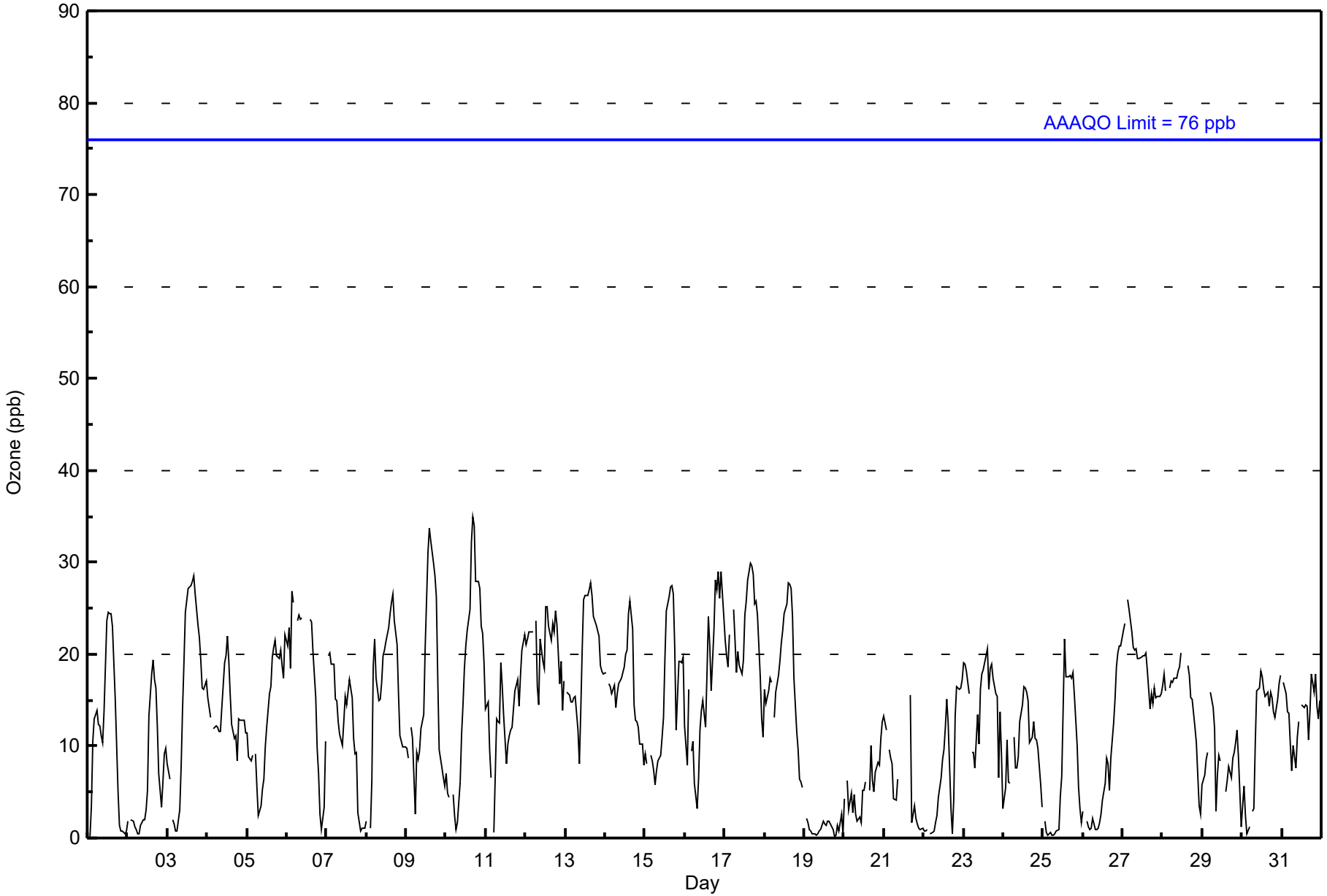
Z - zerospan C - Calibration M - Maintenance
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb

Wood Buffalo Environmental Association

Hourly Averages

Ozone (O_3) - ppb

Fort McKay - Bertha Ganter - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	564	81.15	81.15
21 - 50	131	18.85	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 695

Total Number of Hours: 744

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	60	7	4	3	2	2	6	94	122	50	23	28	36	48	22	42	549
21 - 50	24	0	0	0	0	0	0	6	24	12	21	6	9	11	2	16	131
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	84	7	4	3	2	2	6	100	146	62	44	34	45	59	24	58	680

Total Number of Valid Hours: 680

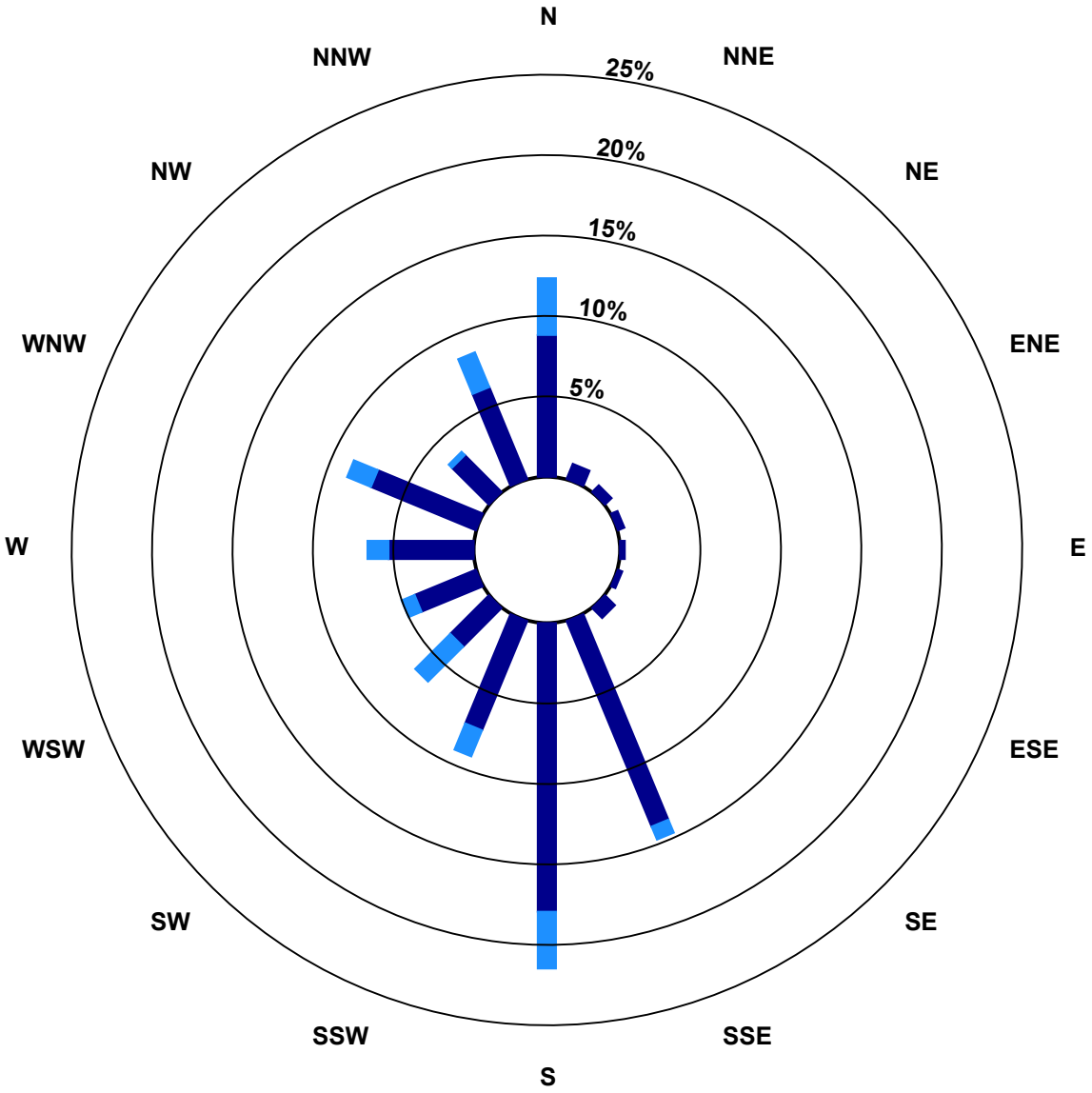
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Ozone (O_3) - ppb

Fort McKay - Bertha Ganter



Classes (ppb)

0 - 20

21 - 50

51 - 82

> 83

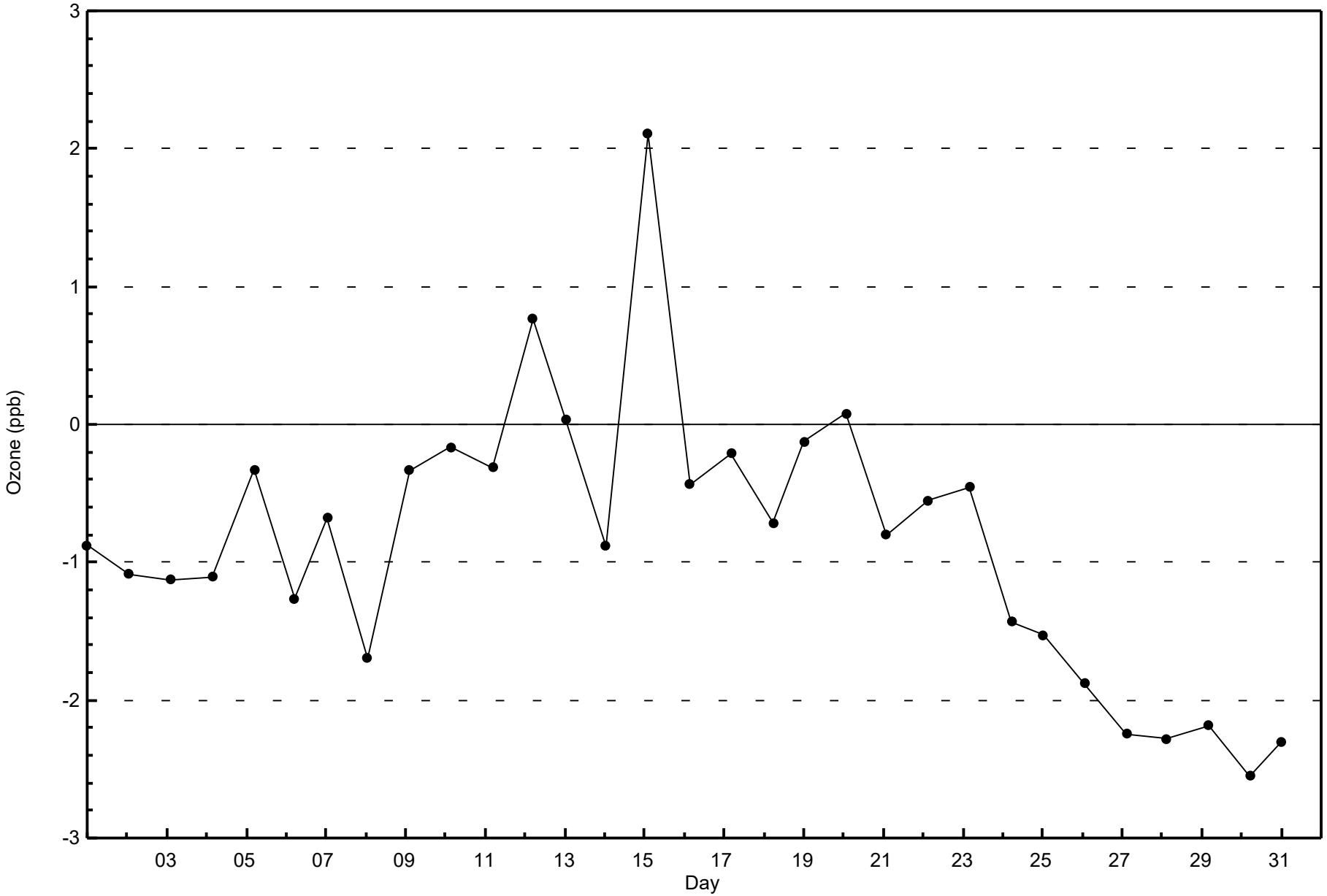
Total Number of Valid Hours: 680

Wood Buffalo Environmental Association

Zero Responses

Ozone (O_3) - ppb

Fort McKay - Bertha Ganter - October 2025

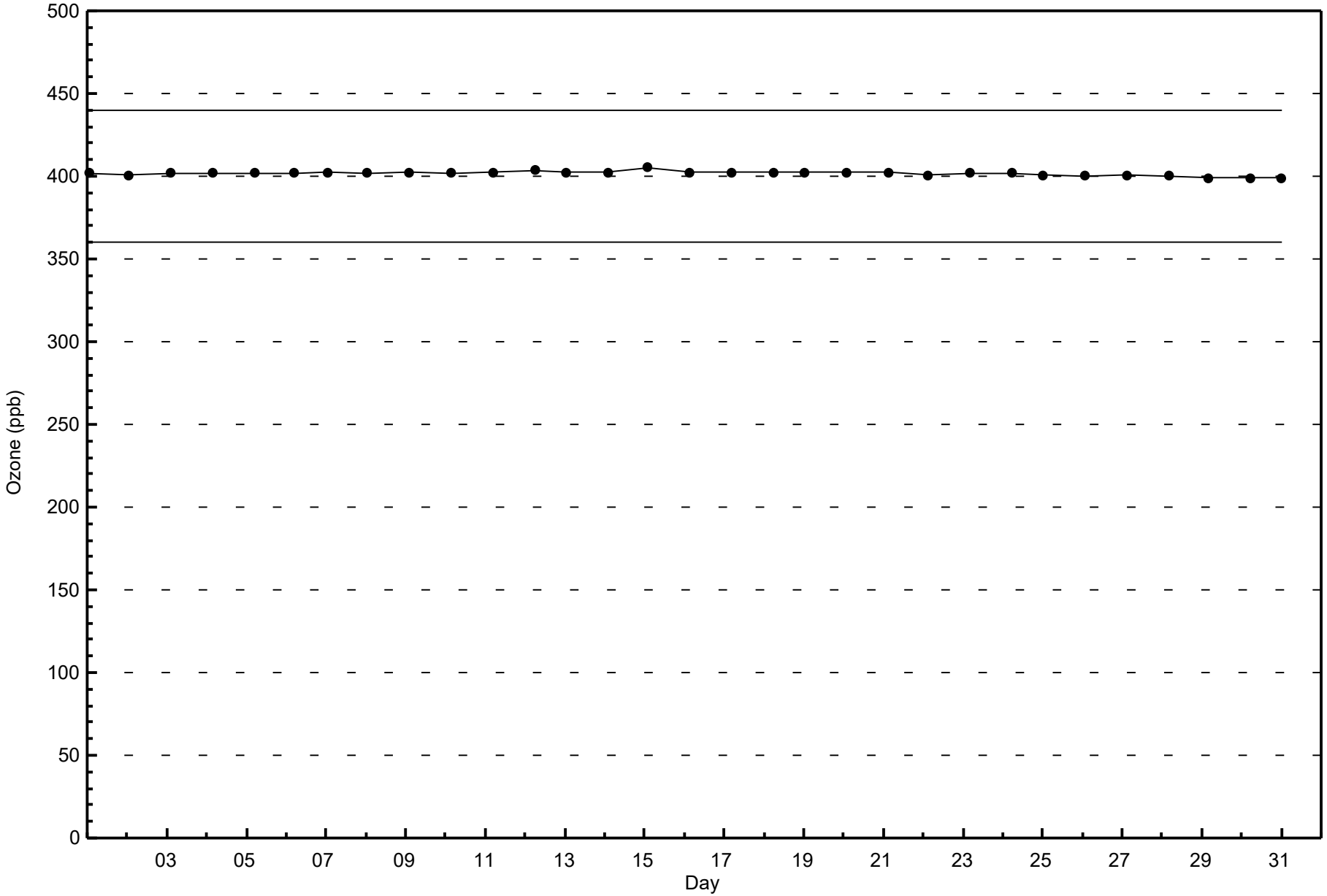


Wood Buffalo Environmental Association

Span Responses

Ozone (O_3) - ppb

Fort McKay - Bertha Ganter - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort McKay - Bertha Ganter - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 32.1 $\mu g/m^3$ on Oct 18 19:00

Maximum Daily Average: 14.3 $\mu g/m^3$ on Oct 1

Minimum Value: 0.1 $\mu g/m^3$ on Oct 28 00:00

Minimum Daily Average: 0.4 $\mu g/m^3$ on Oct 27

Maximum Diurnal Average: 7.2 $\mu g/m^3$ at hour 22

Minimum Diurnal Average: 5.3 $\mu g/m^3$ at hour 16

Monthly Average: 5.93 $\mu g/m^3$

Percentiles: $P_1 = 0.1$ $P_{10} = 0.9$ $Q_1 = 2.8$ Median = 5.3 $Q_3 = 7.6$ $P_{90} = 11.4$ $P_{99} = 21.0$

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Hours of Calibration:	3
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	21.3	19.7	20.8	19.4	18.0	15.7	15.3	16.0	19.1	18.8	14.0	8.0	5.4	5.3	5.3	5.1	6.5	6.8	15.8	18.9	14.2	27.3	15.3	10.3	14.3	27.3
2-Oct	8.4	8.3	7.2	7.2	7.3	6.9	6.3	6.0	10.7	14.0	20.5	15.0	9.2	6.3	5.8	5.2	7.7	6.5	7.8	8.8	9.4	9.2	10.4	14.2	9.1	20.5
3-Oct	12.4	12.7	13.8	13.6	11.9	10.4	11.6	14.8	12.6	8.0	5.5	3.7	4.5	6.4	6.7	5.8	4.4	5.1	4.0	3.5	2.8	2.8	2.8	2.8	7.6	14.8
4-Oct	3.6	4.4	4.7	4.9	5.1	4.8	4.1	3.6	3.4	3.6	4.8	5.0	4.7	3.7	4.2	3.3	1.1	0.4	0.8	1.9	2.2	1.8	1.5	1.2	3.3	5.1
5-Oct	1.0	1.1	1.3	1.5	2.0	3.1	5.4	6.0	7.1	8.1	8.6	9.1	13.4	21.1	23.6	10.8	2.8	2.5	2.4	3.6	3.4	3.5	2.9	2.3	6.1	23.6
6-Oct	2.5	1.5	2.6	1.5	1.4	1.1	0.9	0.7	0.8	1.0	1.3	1.3	1.5	2.3	3.1	4.1	6.9	7.3	9.8	9.3	12.6	13.8	11.8	7.1	4.4	13.8
7-Oct	5.0	3.0	2.7	4.0	3.2	6.9	4.9	5.0	8.5	22.3	14.4	6.1	7.4	7.9	5.7	6.4	9.2	7.3	6.3	6.9	10.6	14.2	10.6	9.7	7.8	22.3
8-Oct	8.7	7.2	6.6	5.1	2.9	2.7	3.3	3.6	3.6	3.0	2.8	2.9	3.4	3.6	3.6	3.1	2.6	2.5	2.1	1.3	1.4	1.4	1.2	0.9	3.3	8.7
9-Oct	1.0	1.3	1.0	0.7	1.2	2.5	4.1	6.5	6.2	5.0	5.9	6.2	8.1	4.7	6.6	7.1	7.6	8.6	6.8	10.7	11.8	12.4	9.0	7.2	5.9	12.4
10-Oct	6.9	10.9	8.1	5.7	5.0	6.3	9.3	12.0	10.9	13.9	15.4	9.2	9.6	8.9	9.4	11.4	13.7	7.8	13.4	8.9	7.8	9.0	8.5	8.1	9.6	15.4
11-Oct	12.2	16.1	12.9	10.1	10.0	15.3	10.5	10.8	9.0	4.4	3.5	2.7	2.9	2.0	0.7	0.5	0.5	0.5	0.4	0.3	0.4	0.4	0.3	0.3	5.3	16.1
12-Oct	0.3	0.6	0.7	0.7	0.6	0.4	0.5	0.7	0.9	0.4	0.7	0.9	0.8	0.9	0.9	0.7	0.6	1.2	0.6	0.6	2.0	1.4	2.9	1.0	0.9	2.9
13-Oct	0.7	0.7	0.7	0.7	0.6	0.9	2.4	1.9	3.6	4.4	4.1	6.2	7.5	7.0	6.1	4.8	4.0	4.2	4.0	4.2	5.4	5.8	5.3	5.3	3.8	7.5
14-Oct	4.8	5.4	5.5	5.3	5.9	4.9	5.8	6.6	6.2	5.8	6.4	6.2	5.8	5.5	4.0	3.5	4.6	10.2	6.8	6.2	9.1	8.4	6.7	7.9	6.1	10.2
15-Oct	7.0	7.3	7.0	6.3	6.0	6.1	6.3	6.4	6.9	7.8	7.5	7.1	6.2	6.3	7.4	7.3	7.5	8.5	10.1	18.2	10.6	11.0	5.4	5.2	7.7	18.2
16-Oct	7.6	8.3	6.1	6.4	7.1	7.6	12.4	23.5	22.1	20.6	19.4	16.7	19.9	20.2	10.8	11.1	19.4	15.1	6.8	6.9	6.6	6.7	4.7	4.7	12.1	23.5
17-Oct	4.5	4.0	5.0	6.0	5.9	5.6	5.4	3.9	2.3	2.1	2.2	2.5	2.7	2.6	2.2	1.6	1.4	1.5	8.3	6.4	2.7	2.8	4.3	4.4	3.8	8.3
18-Oct	2.7	2.0	1.5	1.2	1.1	1.3	1.5	1.5	1.8	2.9	2.3	2.0	2.0	2.2	1.5	1.9	3.1	17.3	32.1	18.7	11.6	19.7	11.6	6.8	6.3	32.1
19-Oct	5.3	8.1	11.4	11.0	6.2	5.7	5.1	5.7	7.0	6.4	5.8	5.5	7.2	7.1	5.9	6.0	4.7	3.6	3.5	3.3	3.1	3.0	2.9	3.4	5.7	11.4
20-Oct	3.4	2.9	2.6	1.6	1.5	1.4	1.1	1.4	2.2	3.3	3.7	4.0	5.0	4.9	7.5	5.8	5.1	5.5	7.0	6.4	7.2	8.5	7.0	6.5	4.4	8.5
21-Oct	5.9	6.0	6.9	7.7	7.8	7.7	6.8	5.2	5.0	4.9	4.4	3.0	3.7	3.0	2.8	2.5	3.3	5.3	4.9	4.6	17.8	9.3	8.6	10.1	6.1	17.8
22-Oct	7.8	7.6	6.5	7.0	5.9	5.7	4.7	4.6	4.7	7.2	6.5	C	C	C	4.7	8.6	7.5	9.1	6.8	6.0	4.1	4.4	5.0	4.4	6.1	9.1
23-Oct	4.3	5.1	9.7	9.4	10.1	9.5	10.4	9.8	5.0	10.5	7.0	5.4	6.3	8.1	7.9	13.9	9.1	5.9	8.4	9.1	10.0	15.3	7.3	11.8	8.7	15.3
24-Oct	16.5	13.8	8.9	12.0	11.2	8.1	5.6	6.9	7.3	6.6	6.7	7.8	7.7	8.5	8.7	7.9	11.4	9.1	9.6	5.7	5.9	5.6	8.0	6.7	8.6	16.5
25-Oct	6.6	7.0	6.4	6.9	7.1	7.4	8.6	8.4	8.0	7.5	5.8	4.9	3.7	2.1	3.2	4.2	3.4	3.3	2.8	3.1	3.6	6.2	20.3	6.9	6.1	20.3
26-Oct	10.0	6.6	8.4	5.9	4.3	3.9	4.3	4.9	4.2	5.1	6.0	6.2	5.5	5.2	4.3	3.9	3.7	3.4	2.7	2.6	2.6	2.0	1.8	1.6	4.5	10.0
27-Oct	1.9	1.7	1.2	0.9	0.6	0.5	0.5	0.5	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.4	1.9
28-Oct	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.4	0.4	0.5	0.6	0.7	0.4	1.1	2.0	1.0	0.8	1.7	3.8	1.3	1.8	2.7	3.9	1.0	3.9
29-Oct	2.6	2.7	2.4	3.1	3.1	3.1	3.3	3.2	3.8	3.5	3.8	3.8	4.0	3.5	3.4	3.6	3.2	3.2	3.4	3.6	3.0	2.8	3.4	4.1	3.3	4.1
30-Oct	3.2	3.5	3.7	4.4	5.4	5.5	6.5	7.0	DF	4.4	4.2	4.6	4.4	4.4	4.5	4.9	6.1	5.9	6.1	6.3	7.1	5.9	4.7	4.1	5.1	7.1
31-Oct	4.4	4.6	5.4	6.8	6.1	6.0	7.3	7.3	7.0	6.6	6.6	6.6	7.7	7.6	7.2	7.3	7.4	6.4	6.0	5.6	4.9	5.4	5.4	5.3	6.3	7.7
	5.9	5.9	5.9	5.7	5.3	5.4	5.6	6.3	6.4	6.9	6.5	5.4	5.7	5.7	5.4	5.3	5.5	5.7	6.5	6.3	6.3	7.2	6.2	5.4	Diurnal Average	
	21.3	19.7	20.8	19.4	18.0	15.7	15.3	23.5	22.1	22.3	20.5	16.7	19.9	21.1	23.6	13.9	19.4	17.3	32.1	18.9	17.8	27.3	20.3	14.2	Diurnal Maximum	

C - Calibration DF - DAS Failure

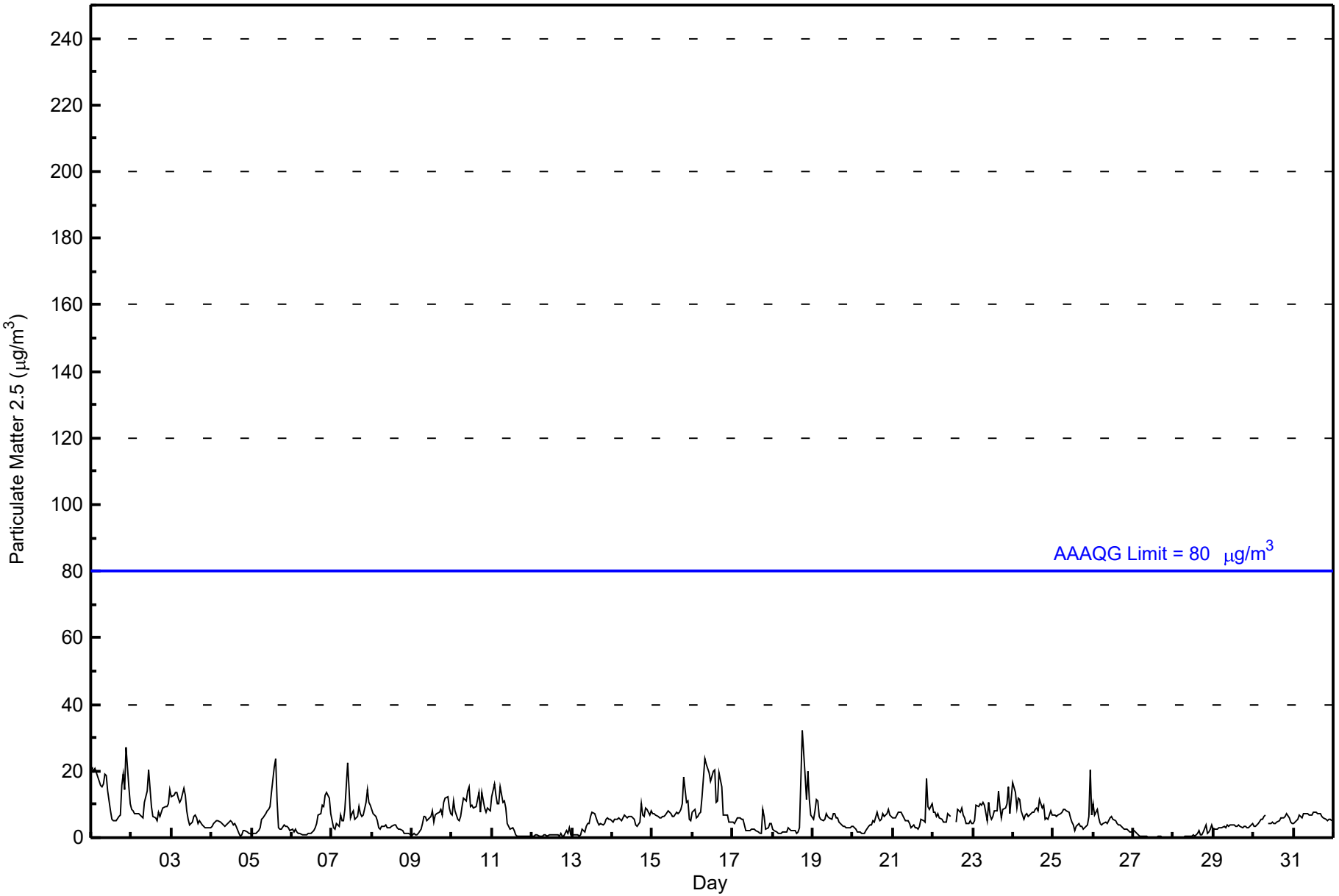
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 $\mu g/m^3$ 24-hr 29 $\mu g/m^3$

Wood Buffalo Environmental Association

Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort McKay - Bertha Ganter - October 2025



Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges ($\mu g/m^3$)	Number of Hours	%	Cumulative %
0 - 5	386	52.16	52.16
6 - 15	321	43.38	95.54
16 - 25	31	4.19	99.73
26 - 80	2	0.27	100.00
> 81.0	0	0.00	100.00

Total Number of Valid Hours: 740

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges ($\mu g/m^3$)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	66	4	5	1	1	2	3	23	47	22	25	27	35	54	14	48	377
6 - 15	14	3	0	2	2	1	4	70	106	39	22	8	13	7	12	14	317
16 - 25	7	0	0	0	0	0	0	6	6	3	1	2	0	1	0	3	29
26 - 80	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	87	7	5	3	3	3	7	99	159	64	48	39	48	62	26	65	725

Total Number of Valid Hours: 725

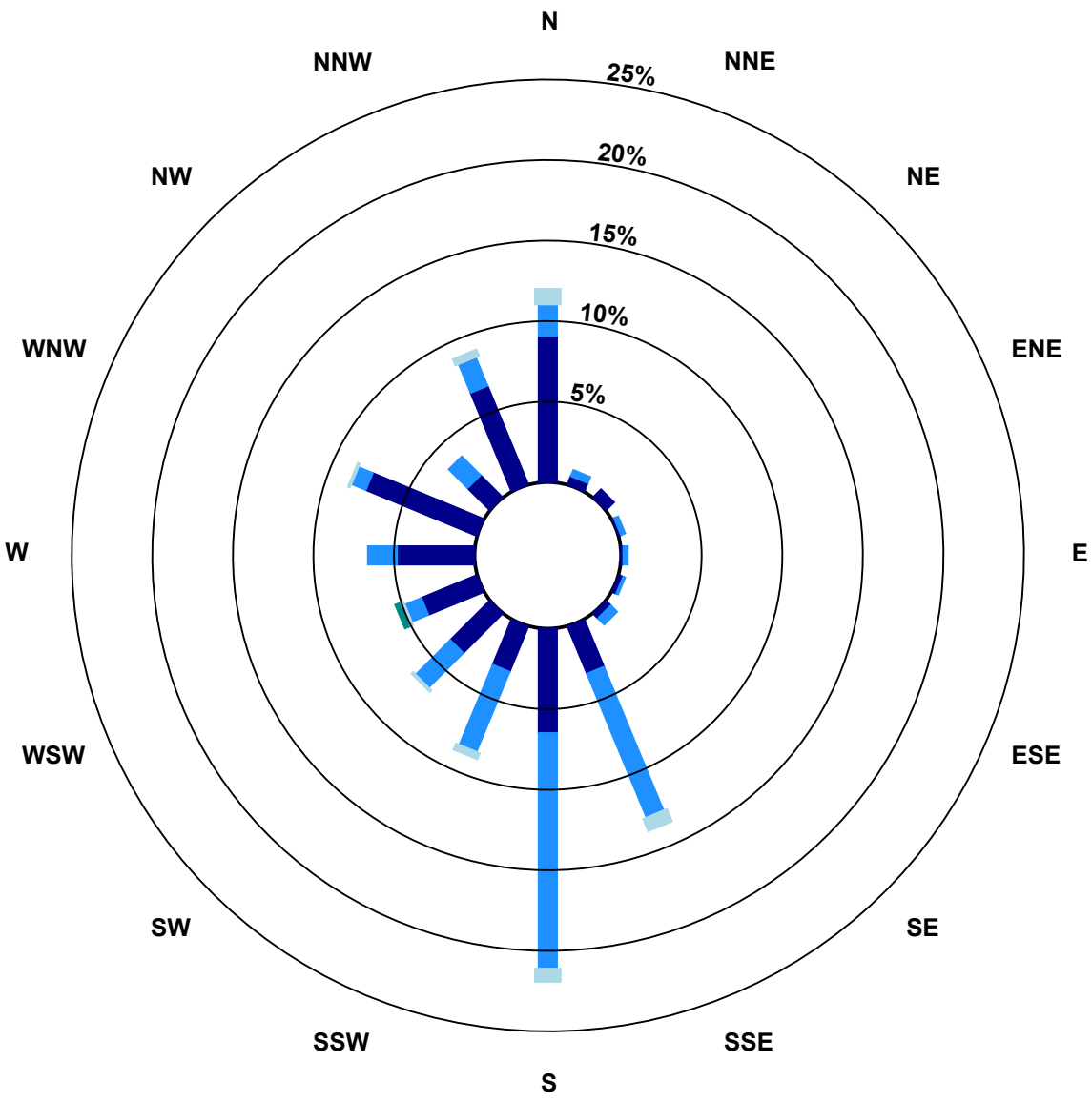
Total Number of Hours: 744

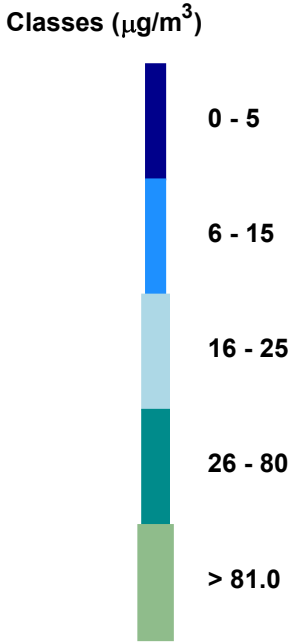
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort McKay - Bertha Ganter





Total Number of Valid Hours: 725

Wood Buffalo Environmental Association

Summary of Hour Averages

Ammonia (NH_3) - ppb

Fort McKay - Bertha Ganter - October 2025

Number of Exceedences (AAAQO): 1-hr: 0

Maximum Value: 0.0 ppb on Oct 1 01:00

Maximum Daily Average: 0.0 ppb on Oct 1

Minimum Value: 0.0 ppb on Oct 1 01:00

Minimum Daily Average: 0.0 ppb on Oct 1

Maximum Diurnal Average: 0.0 ppb at hour 1

Minimum Diurnal Average: 0.0 ppb at hour 1

Monthly Average: 0.00 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.0 P_{99} = 0.0

Hours in Service:	744
Hours of Data:	646
Hours of Missing Data:	98
Hours of Calibration:	42
Percent Operational Time:	92.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Oct	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3-Oct	0.0	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4-Oct	0.0	0.0	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5-Oct	0.0	0.0	0.0	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6-Oct	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7-Oct	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8-Oct	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9-Oct	0.0	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	C	C	C	C	C	C	C	M	M	M	M	M	M	M	--	0.0
10-Oct	M	M	M	M	M	M	M	M	M	M	M	C	C	C	C	C	RE	RE	RE	0.0	0.0	0.0	0.0	0.0	--	0.0
11-Oct	0.0	0.0	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-Oct	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13-Oct	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Oct	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-Oct	0.0	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16-Oct	0.0	0.0	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17-Oct	0.0	0.0	0.0	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18-Oct	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-Oct	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	PF	PF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20-Oct	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21-Oct	0.0	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22-Oct	0.0	0.0	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23-Oct	0.0	0.0	0.0	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24-Oct	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25-Oct	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26-Oct	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27-Oct	0.0	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28-Oct	0.0	0.0	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29-Oct	0.0	0.0	0.0	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30-Oct	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31-Oct	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance PF - Power Failure RE - Recovery

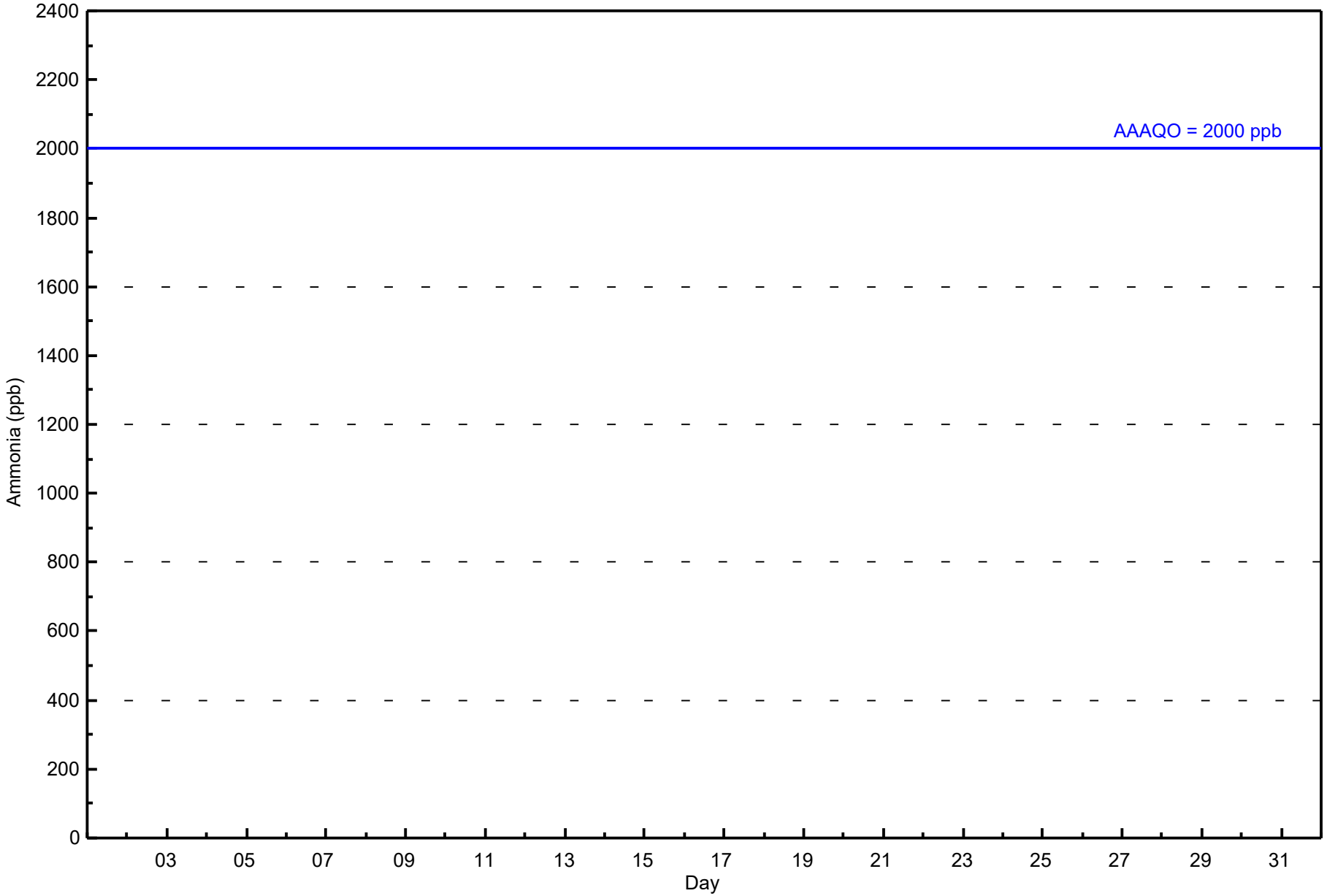
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 2000 ppb

Wood Buffalo Environmental Association

Hourly Averages

Ammonia (NH_3) - ppb

Fort McKay - Bertha Ganter - October 2025



Ammonia (NH_3) - ppb

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 5	646	100.00	100.00
6 - 10	0	0.00	100.00
11 - 15	0	0.00	100.00
16 - 20	0	0.00	100.00
21 - 25	0	0.00	100.00
> 26	0	0.00	100.00

Total Number of Valid Hours: 646

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Ammonia (NH_3) - ppb

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	76	6	5	2	3	2	7	90	128	54	41	39	40	55	25	60	633
6 - 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	76	6	5	2	3	2	7	90	128	54	41	39	40	55	25	60	633

Total Number of Valid Hours: 633

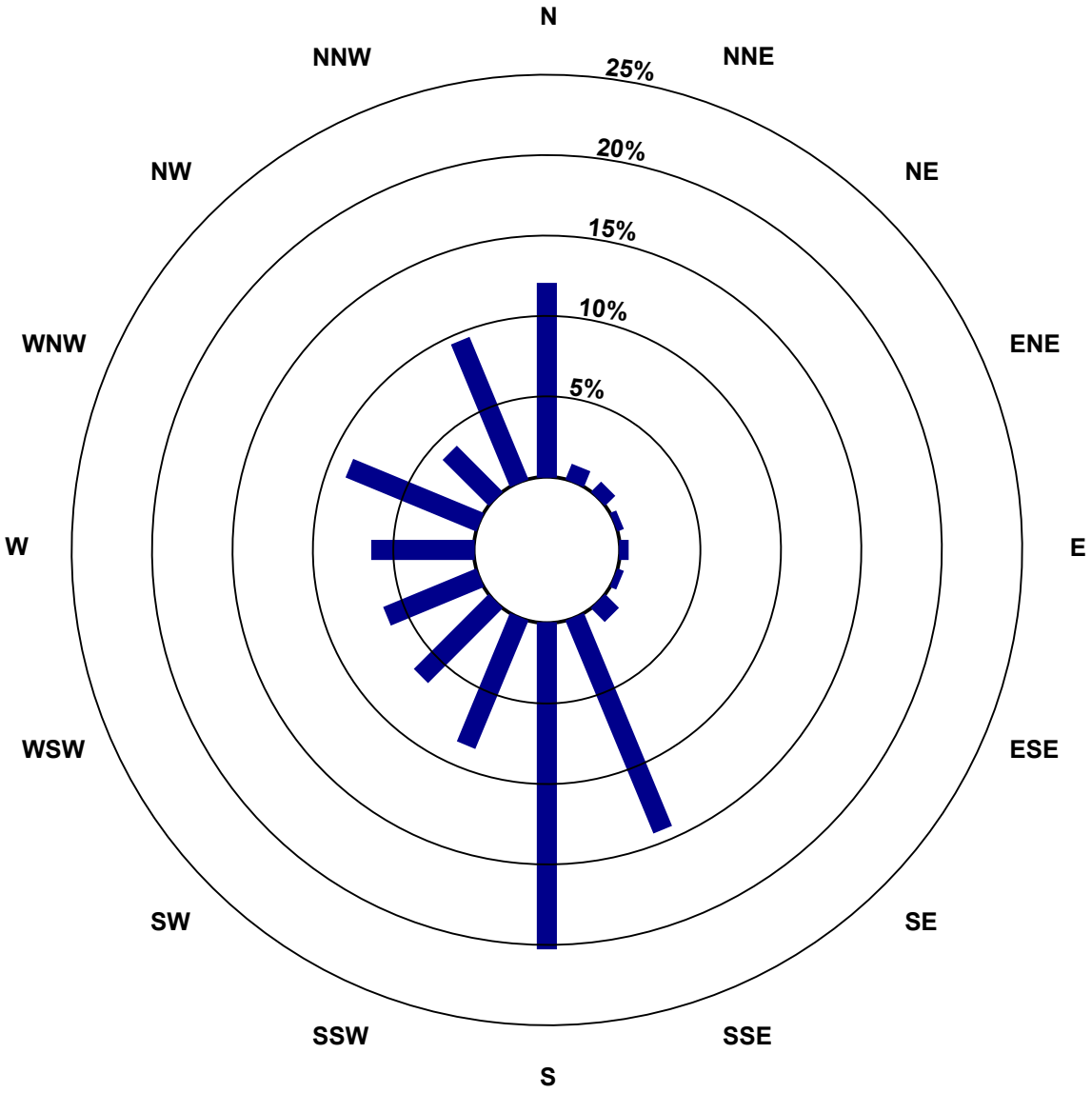
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Ammonia (NH_3) - ppb

Fort McKay - Bertha Ganter



Classes (ppb)

0 - 5

6 - 10

11 - 15

16 - 20

21 - 25

> 26

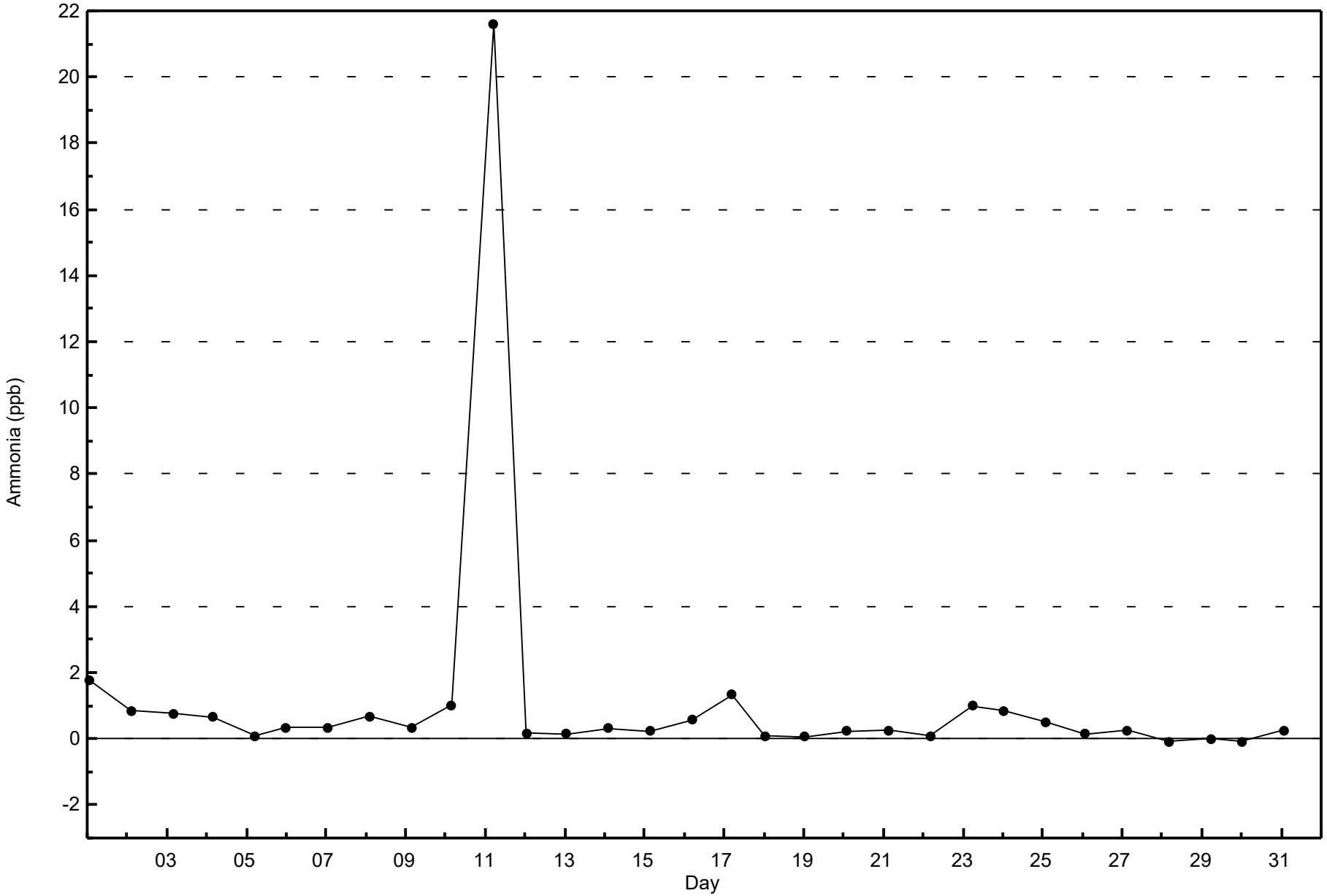
Total Number of Valid Hours: 633

Wood Buffalo Environmental Association

Zero Responses

Ammonia (NH_3) - ppb

Fort McKay - Bertha Ganter - October 2025

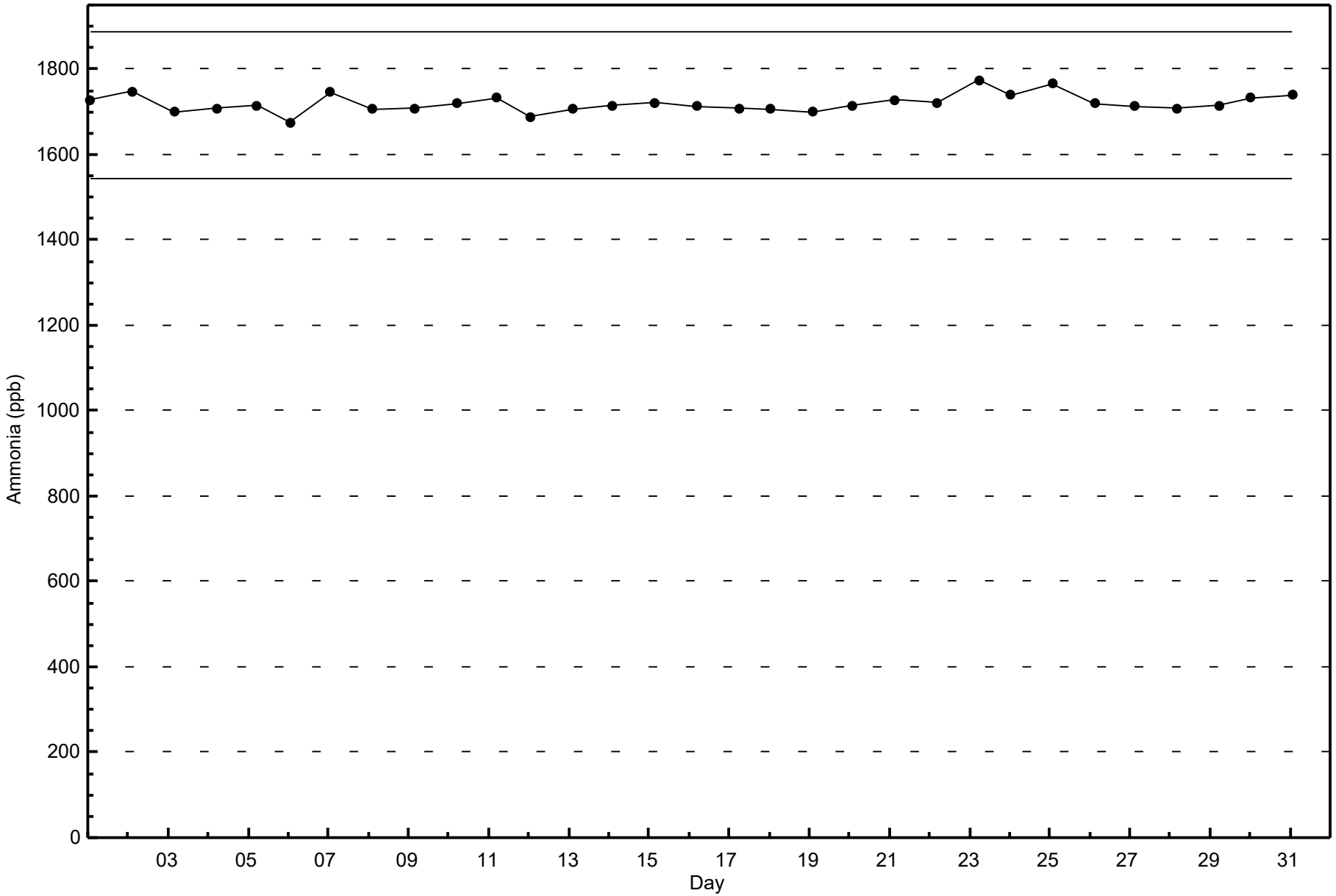


Wood Buffalo Environmental Association

Span Responses

Ammonia (NH_3) - ppb

Fort McKay - Bertha Ganter - October 2025



Maximum Value: 21.1 C on Oct 10 17:00

Maximum Daily Average: 10.5 C on Oct 10

Minimum Value: -4.0 C on Oct 13 07:00

Minimum Daily Average: 0.1 C on Oct 29

Maximum Diurnal Average: 8.6 C at hour 16

Minimum Diurnal Average: 2.1 C at hour 7

Monthly Average: 4.89 C

Percentiles: P_1 = -2.0 P_{10} = -0.2 Q_1 = 1.3 Median = 4.0 Q_3 = 8.0 P_{90} = 11.0 P_{99} = 16.1

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

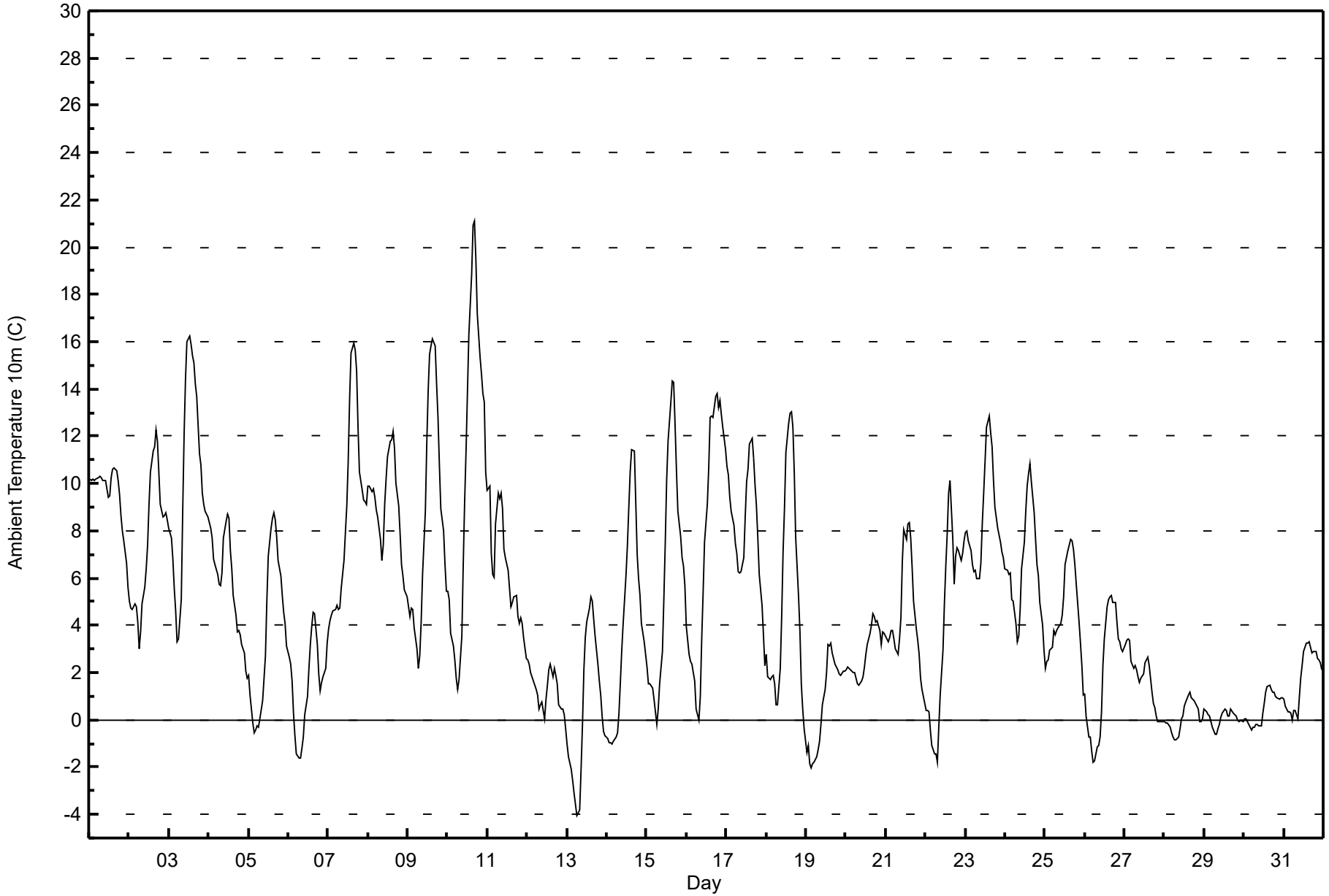
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.2	10.1	10.2	10.1	10.2	10.2	10.3	10.2	10.1	10.1	10.1	9.4	9.5	10.2	10.6	10.7	10.5	10.2	9.5	8.6	8.0	7.6	6.6	5.6	9.5	10.7
2-Oct	5.0	4.8	4.7	4.9	4.8	4.1	3.0	3.7	4.9	5.6	6.4	7.4	9.1	10.5	11.4	11.6	12.2	11.8	10.5	9.1	8.6	8.6	8.7	8.4	7.5	12.2
3-Oct	8.1	7.7	6.8	5.6	4.6	3.3	3.4	5.1	8.8	12.0	14.4	16.0	16.2	15.9	15.4	15.1	14.2	13.7	11.3	10.8	9.6	9.1	8.8	8.6	10.2	16.2
4-Oct	8.3	8.1	7.7	6.8	6.6	6.2	5.7	5.7	6.2	7.7	8.4	8.7	8.5	7.1	6.4	5.3	4.4	3.7	3.8	3.6	3.2	2.8	2.0	1.8	5.8	8.7
5-Oct	1.9	1.1	-0.2	-0.5	-0.4	-0.2	-0.3	0.0	0.8	1.7	2.7	5.0	6.9	8.1	8.5	8.8	8.5	7.7	6.8	6.1	5.3	4.6	4.1	3.1	3.8	8.8
6-Oct	2.7	2.3	1.6	0.3	-0.7	-1.5	-1.6	-1.6	-1.2	-0.8	0.2	1.0	2.2	3.2	4.0	4.5	4.5	3.2	1.9	1.2	1.6	1.8	2.2	3.2	1.4	4.5
7-Oct	3.8	4.2	4.4	4.6	4.7	4.9	4.7	4.8	5.6	6.7	8.0	9.1	11.0	13.6	15.5	15.9	15.7	14.7	12.4	10.5	9.7	9.3	9.2	9.1	8.8	15.9
8-Oct	9.9	9.9	9.6	9.8	9.4	8.9	8.6	7.6	6.7	7.4	9.1	10.2	11.2	11.8	11.9	12.2	11.5	10.0	9.1	7.9	6.6	6.1	5.5	5.2	9.0	12.2
9-Oct	4.8	4.4	4.8	4.6	3.9	3.0	2.2	2.7	4.2	6.2	8.8	11.6	13.9	15.5	15.8	16.1	15.8	14.2	12.8	10.8	8.9	8.0	6.6	5.4	8.5	16.1
10-Oct	5.5	5.1	3.7	3.1	2.6	1.8	1.3	1.7	3.6	6.5	9.2	11.4	13.9	16.3	18.8	20.9	21.1	19.5	17.2	15.4	14.6	13.8	13.4	10.5	10.5	21.1
11-Oct	9.7	9.9	7.1	6.2	6.1	8.3	9.6	9.4	9.6	9.0	7.2	6.8	6.3	5.5	4.8	5.0	5.2	5.3	4.4	4.1	4.3	4.1	3.5	2.6	6.4	9.9
12-Oct	2.5	2.4	2.0	1.8	1.5	1.3	1.0	0.5	0.6	0.7	0.1	0.9	1.5	2.1	2.4	1.8	2.2	1.9	1.5	0.6	0.5	0.4	0.2	-0.4	1.3	2.5
13-Oct	-1.1	-1.6	-2.1	-2.6	-3.1	-3.6	-4.0	-3.8	-2.1	-0.2	2.1	3.5	4.2	4.7	5.2	5.0	4.3	3.6	2.4	1.6	1.0	0.1	-0.5	-0.7	0.5	5.2
14-Oct	-0.8	-1.0	-1.0	-1.0	-0.9	-0.7	-0.5	0.3	1.6	3.0	4.1	6.1	7.3	8.9	10.5	11.4	11.4	9.2	7.0	6.0	5.2	4.0	3.3	2.8	4.0	11.4
15-Oct	2.2	1.5	1.5	1.3	0.9	0.3	-0.2	0.4	1.5	2.9	5.1	7.5	10.1	11.8	13.4	14.3	14.3	12.5	10.6	8.8	7.7	6.8	6.5	5.7	6.2	14.3
16-Oct	4.0	2.8	2.5	2.3	2.0	1.7	0.5	0.0	1.0	3.4	5.4	7.5	9.1	10.7	12.8	12.8	12.8	13.7	13.8	13.2	13.5	12.9	12.4	11.4	7.6	13.8
17-Oct	10.7	10.4	9.4	8.8	8.2	7.4	7.1	6.3	6.2	6.3	6.9	8.6	10.1	10.6	11.7	11.9	11.1	10.0	9.0	7.7	6.2	4.8	3.6	2.3	8.1	11.9
18-Oct	2.7	1.8	1.7	1.8	1.9	1.5	0.6	0.6	2.2	4.4	7.1	9.0	11.3	12.6	13.0	13.0	12.4	10.4	7.7	5.3	3.8	1.5	0.4	-0.4	5.3	13.0
19-Oct	-1.4	-1.1	-1.9	-2.0	-1.9	-1.8	-1.6	-1.3	-0.9	-0.2	0.7	1.3	2.0	3.2	3.1	3.3	2.9	2.3	2.2	2.1	1.9	1.9	2.0	2.0	0.7	3.3
20-Oct	2.1	2.3	2.2	2.1	2.0	2.0	1.7	1.5	1.5	1.6	1.8	2.2	2.7	3.2	3.7	4.0	4.5	4.4	4.1	4.2	3.8	3.2	3.7	3.6	2.8	4.5
21-Oct	3.5	3.3	3.5	3.8	3.8	3.4	3.0	2.8	3.5	4.3	6.7	8.0	7.6	8.3	8.3	7.7	6.5	5.0	3.8	3.4	2.8	1.8	1.3	0.7	4.4	8.3
22-Oct	0.4	0.4	0.3	-0.4	-1.1	-1.4	-1.5	-1.8	-0.3	1.0	2.9	4.9	6.5	7.9	9.6	10.1	7.6	5.7	6.9	7.3	7.2	6.8	7.0	7.6	3.9	10.1
23-Oct	7.9	8.0	7.6	7.2	6.6	6.3	6.3	6.0	5.9	6.6	8.3	9.6	10.9	12.4	12.8	12.2	11.6	10.1	9.0	8.1	7.8	7.5	7.1	6.9	8.4	12.8
24-Oct	6.4	6.3	6.1	6.2	5.1	5.0	4.1	3.3	3.6	4.6	6.4	7.5	8.8	9.9	10.5	10.8	10.1	8.8	7.7	6.6	6.1	5.0	4.0	2.9	6.5	10.8
25-Oct	2.2	2.5	2.5	2.9	3.1	3.8	3.6	3.8	3.9	4.1	4.4	5.2	6.5	6.9	7.2	7.7	7.6	7.2	6.6	5.7	4.1	3.2	2.3	1.1	4.5	7.7
26-Oct	1.1	0.2	-0.8	-0.7	-1.3	-1.8	-1.7	-1.2	-1.1	-0.7	0.4	2.3	3.4	4.8	5.1	5.2	5.2	5.0	5.0	4.1	3.4	3.3	3.0	2.9	1.9	5.2
27-Oct	3.2	3.4	3.4	3.4	2.5	2.2	2.3	2.1	1.8	1.6	1.8	2.0	2.4	2.5	2.6	2.3	1.2	0.7	0.5	0.2	-0.1	-0.1	-0.1	-0.1	1.7	3.4
28-Oct	-0.1	-0.1	-0.1	-0.3	-0.6	-0.7	-0.8	-0.9	-0.7	-0.4	0.0	0.1	0.5	0.8	1.1	1.1	0.9	0.9	0.8	0.6	0.4	-0.1	-0.1	0.1	0.1	1.1
29-Oct	0.5	0.4	0.2	0.2	-0.1	-0.3	-0.6	-0.6	-0.4	-0.2	0.1	0.3	0.4	0.4	0.2	0.1	0.4	0.3	0.2	0.2	0.0	-0.1	0.0	-0.1	0.1	0.5
30-Oct	0.1	0.1	-0.1	-0.2	-0.4	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	0.3	0.7	1.1	1.4	1.5	1.3	1.2	1.2	1.0	0.9	0.9	0.9	1.0	0.5	1.5
31-Oct	0.9	0.6	0.3	0.3	0.3	0.0	0.4	0.4	0.1	1.0	1.8	2.3	2.9	3.2	3.2	3.3	3.0	2.8	2.9	2.9	2.6	2.5	2.4	2.1	1.8	3.3
	3.8	3.5	3.2	2.9	2.6	2.4	2.1	2.2	2.8	3.7	4.8	6.0	7.0	7.9	8.4	8.6	8.2	7.4	6.5	5.7	5.1	4.6	4.2	3.7	Diurnal Average	
	10.7	10.4	10.2	10.1	10.2	10.2	10.3	10.2	10.1	12.0	14.4	16.0	16.2	16.3	18.8	20.9	21.1	19.5	17.2	15.4	14.6	13.8	13.4	11.4	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 10m (AT10) - C

Fort McKay - Bertha Ganter - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	93	12.50	12.50
0 - 10	538	72.31	84.81
10 - 20	111	14.92	99.73
> 20	2	0.27	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Ambient Temperature 2m (AT2) - C
Fort McKay - Bertha Ganter - October 2025

Maximum Value: 21.1 C on Oct 10 16:00

Maximum Daily Average: 9.9 C on Oct 3

Minimum Value: -4.3 C on Oct 13 07:00

Minimum Daily Average: 0.2 C on Oct 29

Maximum Diurnal Average: 8.7 C at hour 16

Minimum Diurnal Average: 1.9 C at hour 7

Monthly Average: 4.78 C

Percentiles: P_1 = -2.5 P_{10} = -0.2 Q_1 = 1.1 Median = 3.9 Q_3 = 8.0 P_{90} = 11.0 P_{99} = 16.4

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

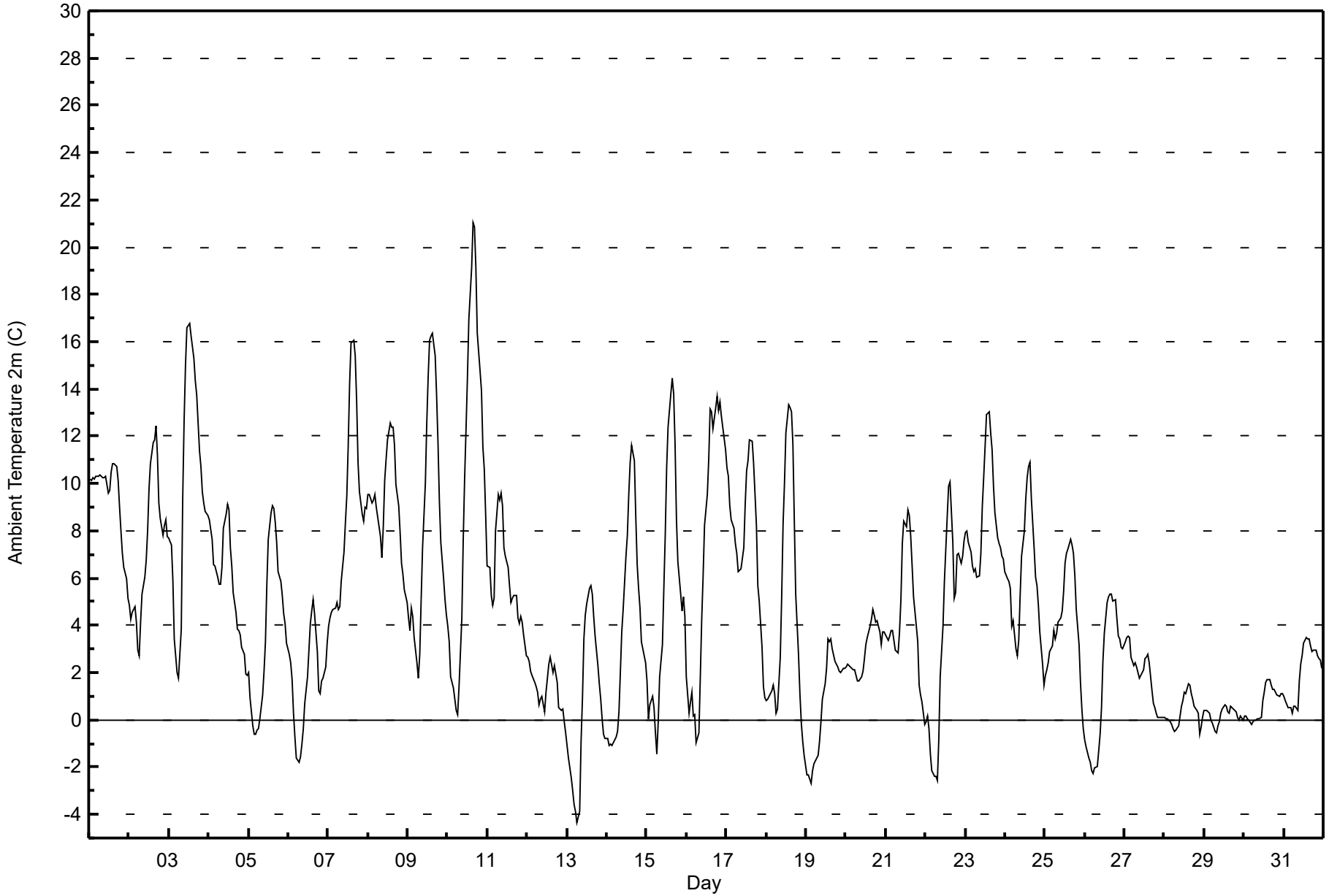
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.2	10.1	10.2	10.2	10.3	10.3	10.4	10.3	10.2	10.3	10.3	9.6	9.7	10.5	10.8	10.8	10.7	10.1	9.0	8.0	7.1	6.4	6.0	5.2	9.4	10.8
2-Oct	4.9	4.3	4.5	4.8	4.1	2.9	2.7	4.2	5.4	6.0	6.7	8.0	9.8	10.9	11.7	11.9	12.4	11.2	9.2	8.5	7.8	8.2	8.4	7.7	7.3	12.4
3-Oct	7.7	7.4	5.9	3.4	2.7	2.0	1.8	3.8	9.3	12.6	15.0	16.6	16.7	16.2	15.8	15.3	14.4	13.7	11.4	10.7	9.7	9.1	8.8	8.7	9.9	16.7
4-Oct	8.4	8.1	7.7	6.5	6.5	6.0	5.7	5.7	6.5	8.1	8.7	9.1	8.9	7.3	6.5	5.4	4.6	3.9	3.8	3.6	3.1	2.8	1.9	1.9	5.9	9.1
5-Oct	2.0	0.9	-0.2	-0.6	-0.6	-0.4	-0.4	0.0	1.0	2.1	3.3	5.8	7.6	8.8	9.1	8.9	8.4	7.5	6.3	5.8	5.3	4.5	4.1	3.3	3.8	9.1
6-Oct	2.8	2.4	1.7	0.3	-0.7	-1.6	-1.8	-1.6	-1.0	-0.4	0.7	1.8	3.0	4.1	4.6	5.1	4.5	2.9	1.2	1.1	1.6	1.7	2.3	3.3	1.6	5.1
7-Oct	3.9	4.3	4.5	4.7	4.8	4.9	4.6	4.8	5.9	7.1	8.4	9.5	11.6	14.2	15.9	16.0	15.4	13.5	10.9	9.6	8.7	8.4	9.0	8.9	8.7	16.0
8-Oct	9.6	9.5	9.2	9.3	9.5	9.0	8.6	7.7	6.8	8.2	10.1	11.0	11.9	12.6	12.4	12.4	11.6	10.0	9.0	7.9	6.6	6.1	5.5	5.0	9.1	12.6
9-Oct	4.3	3.8	4.8	4.4	3.5	2.4	1.8	2.8	5.1	7.3	10.0	12.6	14.5	16.1	16.2	16.4	15.4	13.8	11.7	9.2	7.5	6.0	5.1	4.4	8.3	16.4
10-Oct	3.9	3.3	1.8	1.3	0.9	0.4	0.2	1.4	4.3	7.6	10.2	12.3	14.5	16.9	19.2	21.1	20.9	19.2	16.4	14.7	13.9	11.6	10.6	8.6	9.8	21.1
11-Oct	6.5	6.5	5.2	4.8	5.2	8.0	9.5	9.3	9.6	9.0	7.3	6.9	6.5	5.7	4.9	5.1	5.3	5.3	4.3	4.1	4.4	4.1	3.6	2.7	6.0	9.6
12-Oct	2.6	2.5	2.1	1.9	1.6	1.4	1.1	0.6	0.9	1.0	0.3	1.2	1.8	2.4	2.6	2.0	2.3	2.0	1.6	0.5	0.4	0.5	-0.1	-0.5	1.4	2.6
13-Oct	-1.1	-1.6	-2.5	-3.0	-3.6	-3.8	-4.3	-3.9	-0.9	0.9	3.4	4.4	4.9	5.6	5.7	5.3	4.4	3.5	2.3	1.5	0.9	0.1	-0.6	-0.8	0.7	5.7
14-Oct	-0.8	-1.1	-1.0	-1.1	-1.0	-0.7	-0.5	0.4	2.0	3.7	4.7	6.9	7.8	9.6	10.9	11.6	10.9	8.6	6.6	5.6	4.7	3.3	2.7	2.4	4.0	11.6
15-Oct	1.7	0.1	0.7	1.0	0.5	-0.5	-1.4	-0.1	1.8	3.2	5.6	7.8	10.7	12.4	13.8	14.5	13.8	11.7	8.5	6.7	5.3	4.6	5.2	4.3	5.5	14.5
16-Oct	1.8	0.3	0.8	1.1	0.2	0.2	-1.0	-0.5	1.8	4.2	6.1	8.2	9.5	11.0	13.2	13.0	12.3	13.2	13.7	13.1	13.5	12.9	12.4	11.5	7.2	13.7
17-Oct	10.7	10.3	9.1	8.5	8.1	7.4	7.0	6.3	6.4	6.4	7.3	9.1	10.5	11.0	11.9	11.8	10.8	9.5	8.2	5.7	5.0	3.1	1.4	0.9	7.8	11.9
18-Oct	0.8	0.9	1.1	1.2	1.5	1.1	0.3	0.5	2.7	5.2	8.3	10.0	12.2	13.3	13.2	13.0	11.7	8.5	5.3	2.8	1.1	-0.1	-0.9	-1.5	4.7	13.3
19-Oct	-2.3	-2.3	-2.5	-2.7	-2.2	-1.9	-1.6	-1.5	-0.9	-0.1	0.9	1.5	2.2	3.5	3.3	3.4	3.0	2.5	2.3	2.3	2.1	2.0	2.2	2.2	0.6	3.5
20-Oct	2.2	2.4	2.3	2.3	2.1	2.1	1.9	1.7	1.6	1.8	2.1	2.6	3.2	3.5	3.9	4.3	4.7	4.5	4.1	4.2	3.7	3.2	3.7	3.7	3.0	4.7
21-Oct	3.6	3.4	3.5	3.8	3.8	3.4	2.9	2.8	3.7	5.1	7.5	8.4	8.1	8.9	8.6	7.8	6.5	5.2	4.0	3.3	1.5	1.1	0.8	-0.2	4.5	8.9
22-Oct	-0.1	0.2	-0.4	-1.4	-2.2	-2.4	-2.4	-2.6	-0.9	1.8	3.9	5.9	7.2	8.6	9.9	10.1	7.5	5.1	5.4	7.0	7.0	6.6	6.9	7.6	3.7	10.1
23-Oct	7.9	8.0	7.5	7.1	6.5	6.3	6.4	6.1	6.1	7.1	9.0	10.3	11.5	12.9	13.0	12.1	11.4	9.9	8.7	7.7	7.5	7.3	6.9	6.8	8.5	13.0
24-Oct	6.3	6.0	5.9	5.6	4.0	4.2	3.0	2.7	3.3	5.3	6.9	8.0	9.3	10.3	10.7	10.9	9.4	7.2	6.0	5.7	4.8	3.7	2.3	1.5	6.0	10.9
25-Oct	1.9	2.1	2.4	2.9	3.1	3.8	3.4	3.7	4.2	4.3	4.6	5.4	6.6	7.0	7.2	7.6	7.4	7.0	6.1	4.6	3.2	1.6	0.5	-0.4	4.2	7.6
26-Oct	-0.8	-1.1	-1.6	-1.8	-2.1	-2.3	-2.0	-1.9	-1.3	-0.6	0.5	2.5	3.6	5.0	5.2	5.3	5.3	5.0	5.1	4.2	3.5	3.4	3.1	3.0	1.6	5.3
27-Oct	3.3	3.5	3.6	3.5	2.6	2.3	2.4	2.2	2.0	1.8	1.9	2.1	2.6	2.7	2.8	2.4	1.2	0.7	0.5	0.3	0.1	0.1	0.1	0.1	1.9	3.6
28-Oct	0.1	0.0	0.1	0.0	-0.2	-0.4	-0.5	-0.5	-0.2	0.2	0.6	0.8	1.2	1.1	1.5	1.5	1.1	0.9	0.6	0.4	0.3	-0.6	-0.3	0.1	0.3	1.5
29-Oct	0.4	0.4	0.3	0.3	0.0	-0.1	-0.5	-0.5	-0.3	-0.1	0.3	0.5	0.6	0.6	0.3	0.3	0.6	0.5	0.4	0.3	0.1	0.0	0.1	0.0	0.2	0.6
30-Oct	0.2	0.2	0.0	0.0	-0.2	-0.1	0.0	0.0	0.0	0.1	0.1	0.8	1.2	1.6	1.7	1.7	1.5	1.3	1.3	1.2	1.1	1.0	1.1	1.1	0.7	1.7
31-Oct	1.0	0.8	0.5	0.5	0.5	0.3	0.6	0.6	0.4	1.7	2.3	2.7	3.2	3.5	3.4	3.4	3.1	2.9	3.0	2.9	2.7	2.6	2.5	2.2	2.0	3.5
	3.3	3.1	2.8	2.5	2.2	2.1	1.9	2.1	3.1	4.2	5.4	6.5	7.5	8.3	8.7	8.7	8.1	7.1	6.0	5.3	4.7	4.0	3.7	3.3	Diurnal Average	
	10.7	10.3	10.2	10.2	10.3	10.3	10.4	10.3	10.2	12.6	15.0	16.6	16.7	16.9	19.2	21.1	20.9	19.2	16.4	14.7	13.9	12.9	12.4	11.5	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Fort McKay - Bertha Ganter - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	89	11.96	11.96
0 - 10	545	73.25	85.22
10 - 20	108	14.52	99.73
> 20	2	0.27	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

Fort McKay - Bertha Ganter - October 2025

Maximum Value: 98.7 % on Oct 2 11:00

Maximum Daily Average: 93.8 % on Oct 26

Minimum Value: 30.4 % on Oct 14 16:00

Minimum Daily Average: 52.4 % on Oct 14

Maximum Diurnal Average: 85.8 % at hour 8

Minimum Diurnal Average: 62.5 % at hour 16

Monthly Average: 76.61 %

Percentiles: P_1 = 35.5 P_{10} = 50.2 Q_1 = 64.6 Median = 80.7 Q_3 = 91.3 P_{90} = 96.2 P_{99} = 97.7

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

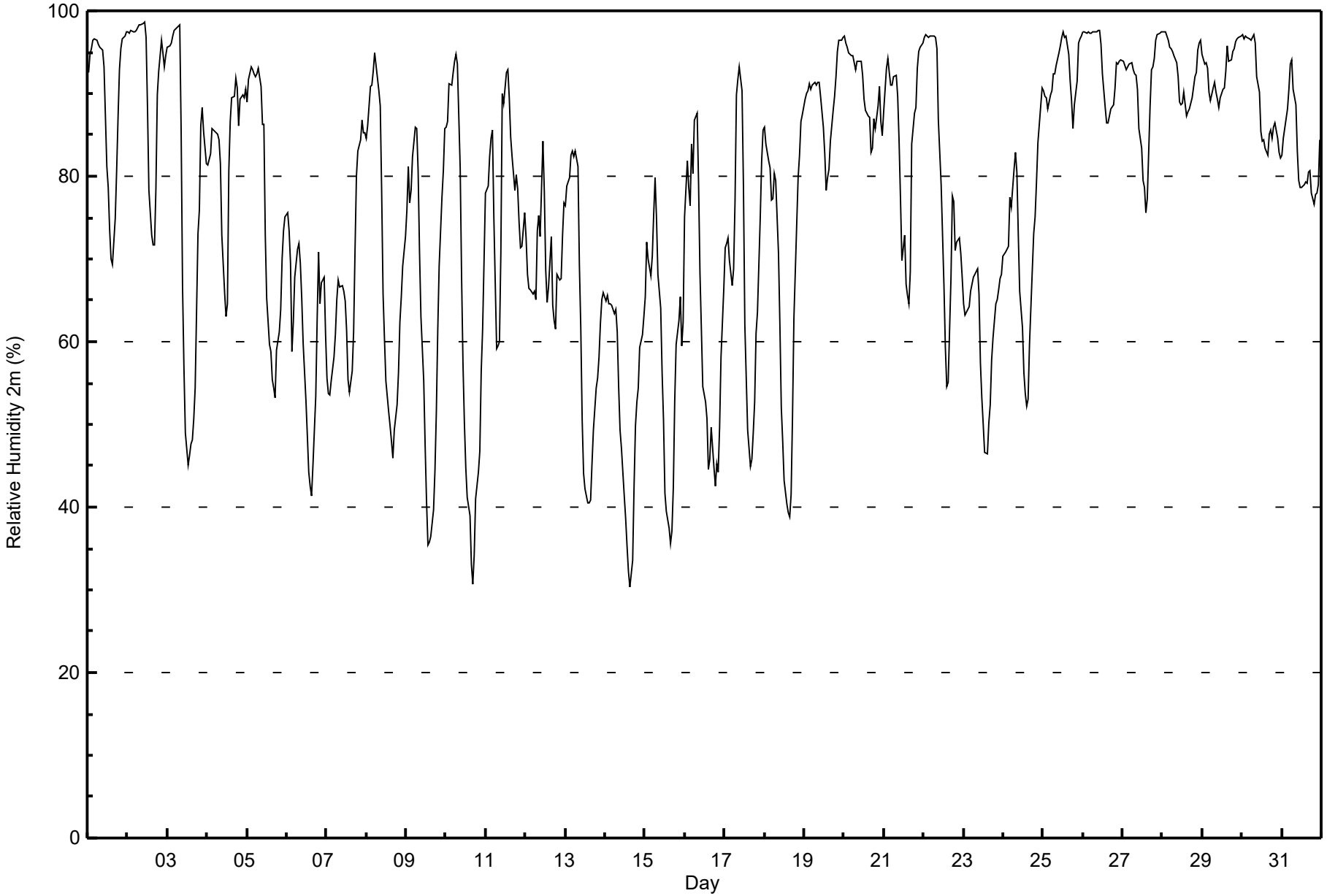
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	92.6	94.7	95.5	96.4	96.5	96.5	95.9	95.6	95.5	95.3	93.2	81.2	78.7	73.6	70.0	69.3	75.0	80.7	87.1	92.9	95.4	96.6	97.0	97.4	89.3	97.4
2-Oct	97.4	97.2	97.6	97.5	97.4	97.6	98.0	98.3	98.4	98.5	98.7	96.8	88.3	78.3	72.9	71.7	71.8	78.5	89.8	92.7	96.4	94.9	93.3	94.5	91.5	98.7
3-Oct	95.6	95.7	96.1	96.9	97.6	97.8	97.9	98.4	85.4	66.6	56.8	48.9	45.1	46.2	47.6	48.1	50.7	54.5	73.0	76.0	86.1	88.2	85.5	81.5	75.7	98.4
4-Oct	81.4	82.0	82.7	85.8	85.6	85.3	85.1	84.3	81.6	72.9	66.0	63.0	64.6	80.7	86.6	89.4	89.6	91.9	90.8	86.1	89.4	89.8	89.6	90.6	83.1	91.9
5-Oct	89.0	91.7	93.2	93.0	92.4	92.1	92.3	93.0	90.9	86.3	86.3	72.8	65.2	59.6	58.8	55.4	54.5	53.3	59.1	61.1	63.8	70.0	73.4	75.1	75.9	93.2
6-Oct	75.6	73.4	69.5	58.8	62.3	67.8	71.2	71.9	69.5	65.3	59.9	52.9	48.7	44.3	42.5	41.4	45.1	53.4	62.7	70.9	64.6	67.1	67.7	60.8	61.1	75.6
7-Oct	55.6	53.8	53.6	55.3	58.1	60.9	65.0	67.5	66.6	66.8	66.1	65.0	61.4	55.5	53.8	56.4	61.2	71.0	80.1	83.1	84.4	86.7	85.3	85.3	66.6	86.7
8-Oct	84.6	86.0	90.8	90.9	92.7	94.9	93.5	90.3	88.5	78.2	65.8	60.4	55.2	51.5	49.8	48.0	45.8	49.3	52.3	56.3	62.3	65.4	69.2	72.7	70.6	94.9
9-Oct	76.0	81.1	76.8	78.3	82.4	85.9	85.8	80.6	70.8	63.0	55.2	47.4	40.7	35.4	35.8	36.5	39.7	44.5	51.5	61.3	69.1	77.4	80.7	85.8	64.2	85.9
10-Oct	86.0	86.6	91.2	91.1	92.6	93.9	94.8	93.6	81.0	67.8	57.3	50.2	44.8	41.2	38.9	33.0	30.6	34.2	41.1	44.2	46.9	56.4	61.5	69.7	63.7	94.8
11-Oct	78.0	78.8	82.4	84.6	85.7	75.1	59.2	59.6	60.1	70.6	90.0	88.9	92.5	92.9	89.5	84.8	82.3	78.3	80.2	78.4	74.4	71.3	71.4	75.6	78.5	92.9
12-Oct	72.6	68.1	66.4	66.2	65.7	66.1	65.2	73.4	75.3	72.7	84.2	78.2	68.6	64.7	66.7	72.7	64.4	62.5	61.6	68.2	67.5	67.7	72.9	76.8	69.5	84.2
13-Oct	76.5	78.9	79.9	82.6	83.0	82.5	83.0	81.2	69.3	61.7	50.4	44.0	42.2	40.6	40.4	40.8	45.2	49.2	54.5	55.6	58.1	62.2	65.0	65.9	62.2	83.0
14-Oct	64.9	65.5	64.6	64.6	64.4	63.3	63.9	61.2	54.6	49.4	47.2	41.4	38.6	35.3	32.2	30.4	33.5	42.5	49.9	52.6	54.4	59.4	60.8	63.0	52.4	65.5
15-Oct	65.5	72.0	70.0	68.0	70.3	75.4	79.9	75.0	68.1	64.1	56.3	50.6	41.8	39.4	37.4	35.5	37.1	42.4	52.9	59.6	62.5	65.4	59.6	62.3	58.8	79.9
16-Oct	75.1	81.8	78.6	76.4	84.0	80.3	86.8	87.6	79.2	68.3	61.6	54.5	52.6	50.7	44.6	45.7	49.6	44.8	42.5	45.2	44.2	49.7	58.2	66.5	62.9	87.6
17-Oct	71.4	71.9	72.5	69.9	66.8	68.8	77.0	89.8	91.7	93.2	90.3	78.8	62.0	55.6	49.3	44.9	45.8	48.9	52.8	61.1	63.5	75.1	81.8	85.6	69.5	93.2
18-Oct	86.0	84.0	81.8	81.0	77.2	77.3	80.3	79.5	70.8	62.0	52.1	48.0	43.3	40.4	39.3	38.9	41.6	50.9	62.8	74.2	79.8	82.6	86.7	87.5	67.0	87.5
19-Oct	89.3	90.1	90.4	91.2	90.6	91.0	91.3	91.1	91.3	91.3	89.7	85.9	82.7	78.4	79.8	80.9	84.3	88.0	89.7	92.1	95.1	96.4	96.5	96.8	89.3	96.8
20-Oct	96.9	96.1	95.7	94.9	94.7	94.6	93.8	92.9	94.0	94.0	93.8	92.2	89.2	87.9	87.4	87.1	82.9	83.3	86.9	85.8	88.5	90.9	86.6	85.0	90.6	96.9
21-Oct	87.7	93.0	94.2	92.5	91.0	91.0	92.1	92.3	89.7	84.2	77.2	69.9	72.9	67.0	65.6	64.5	68.4	84.0	87.6	88.2	93.0	95.0	95.6	96.2	84.7	96.2
22-Oct	96.8	97.1	97.0	96.9	96.9	97.0	97.0	96.7	95.4	86.8	79.0	72.8	66.8	59.3	54.6	55.0	67.7	77.7	76.9	71.1	72.0	72.6	70.7	67.7	80.1	97.1
23-Oct	64.6	63.2	63.6	64.3	66.1	67.0	67.9	68.1	68.8	65.7	57.5	53.3	50.0	46.6	46.4	50.1	52.4	57.8	60.5	64.6	65.1	66.2	67.6	68.1	61.1	68.8
24-Oct	70.4	70.9	71.2	71.5	77.5	76.3	80.8	82.9	80.5	73.1	66.2	61.7	56.3	53.7	52.3	53.1	59.7	68.7	73.0	75.0	79.2	84.1	88.4	90.7	71.5	90.7
25-Oct	90.4	89.7	89.5	88.1	89.8	90.4	92.3	92.4	93.3	95.0	95.8	96.8	97.5	96.8	97.0	94.7	91.5	89.1	85.7	88.6	91.5	96.1	96.6	97.0	92.7	97.5
26-Oct	97.4	97.4	97.4	97.4	97.3	97.2	97.4	97.5	97.5	97.6	97.6	96.0	92.4	88.4	86.5	86.5	87.2	88.1	88.7	90.7	93.7	93.6	94.0	94.0	93.8	97.6
27-Oct	93.9	93.4	92.8	93.2	93.6	93.7	92.9	92.4	92.2	90.4	85.7	83.4	79.5	78.7	75.5	77.3	88.6	92.9	93.2	94.3	96.5	97.0	97.3	97.5	90.2	97.5
28-Oct	97.5	97.5	97.5	96.5	95.6	95.4	95.2	94.5	93.7	92.0	89.1	88.6	88.8	90.2	87.2	87.7	88.1	88.9	89.5	92.0	92.6	95.2	96.1	96.4	92.7	97.5
29-Oct	94.7	93.5	93.8	93.0	90.2	89.1	90.7	91.4	90.1	89.3	88.4	89.5	90.6	90.7	92.8	95.8	93.9	94.0	95.1	95.5	96.3	96.6	96.9	97.0	92.9	97.0
30-Oct	97.1	96.7	96.9	96.8	96.6	96.5	96.7	97.1	96.2	92.0	90.1	85.4	84.3	84.5	83.4	82.5	85.0	85.6	84.6	85.9	86.4	84.6	82.9	82.3	89.6	97.1
31-Oct	82.6	84.5	86.9	88.1	90.6	93.6	94.1	90.6	88.6	83.0	79.4	78.7	78.6	78.9	79.3	79.2	80.5	80.7	78.0	76.6	77.8	77.9	79.0	84.4	83.0	94.1
	83.3	84.1	84.2	83.9	84.7	85.0	85.7	85.8	82.8	78.6	75.1	70.2	66.6	64.1	62.7	62.5	64.3	68.1	72.1	74.8	77.1	79.7	80.9	82.2	Diurnal Average	
	97.5	97.5	97.6	97.5	97.6	97.8	98.0	98.4	98.4	98.5	98.7	96.8	97.5	96.8	97.0	95.8	93.9	94.0	95.1	95.5	96.5	97.0	97.3	97.5	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Fort McKay - Bertha Ganter - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Precipitation (PC) - mm

Fort McKay - Bertha Ganter - October 2025

Maximum Value: 3.2 mm on Oct 25 12:00

Maximum Daily Total: 11.4 mm on Oct 25

Minimum Value: 0.0 mm on Oct 1 12:00

Minimum Daily Total: 0.0 mm on Oct 2

Maximum Diurnal Total: 4.1 mm at hour 1

Minimum Diurnal Total: 0.5 mm at hour 19

Monthly Total: 50.52 mm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.1 P_{99} = 1.5

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Hours of Calibration:	3
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Total	Maximum
1-Oct	1.0	1.0	0.8	1.7	0.7	0.1	0.2	0.1	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	1.7
2-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.2
4-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	1.3	0.8	0.6	0.2	0.0	0.0	0.0	0.0	0.0	3.9	1.3
5-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8-Oct	0.0	0.1	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.7
9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.3	0.7	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	1.3
12-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2
13-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.5
18-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.1	0.0	0.6	0.3
20-Oct	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
21-Oct	0.5	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5
22-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25-Oct	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.3	0.6	1.1	3.2	2.7	2.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4	3.2
26-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.6	0.8	1.8	1.1	5.5	1.8
27-Oct	2.1	1.1	0.6	0.6	1.1	0.2	0.1	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.5	0.9	0.6	0.5	0.6	10.2	2.1
28-Oct	0.3	0.5	0.2	0.0	0.1	0.2	0.2	0.3	0.2	1.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	1.0
29-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.9	0.3
30-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6
	4.1	3.0	1.7	2.3	3.8	0.6	0.8	0.9	1.4	2.5	2.7	3.9	3.5	3.1	2.1	1.7	1.0	0.8	0.5	0.8	3.2	1.7	2.4	2.2	Diurnal Average	
	2.1	1.1	0.8	1.7	1.7	0.2	0.4	0.3	0.5	1.0	1.3	3.2	2.7	2.1	1.2	1.3	0.8	0.6	0.2	0.5	1.6	0.8	1.8	1.1	Diurnal Maximum	

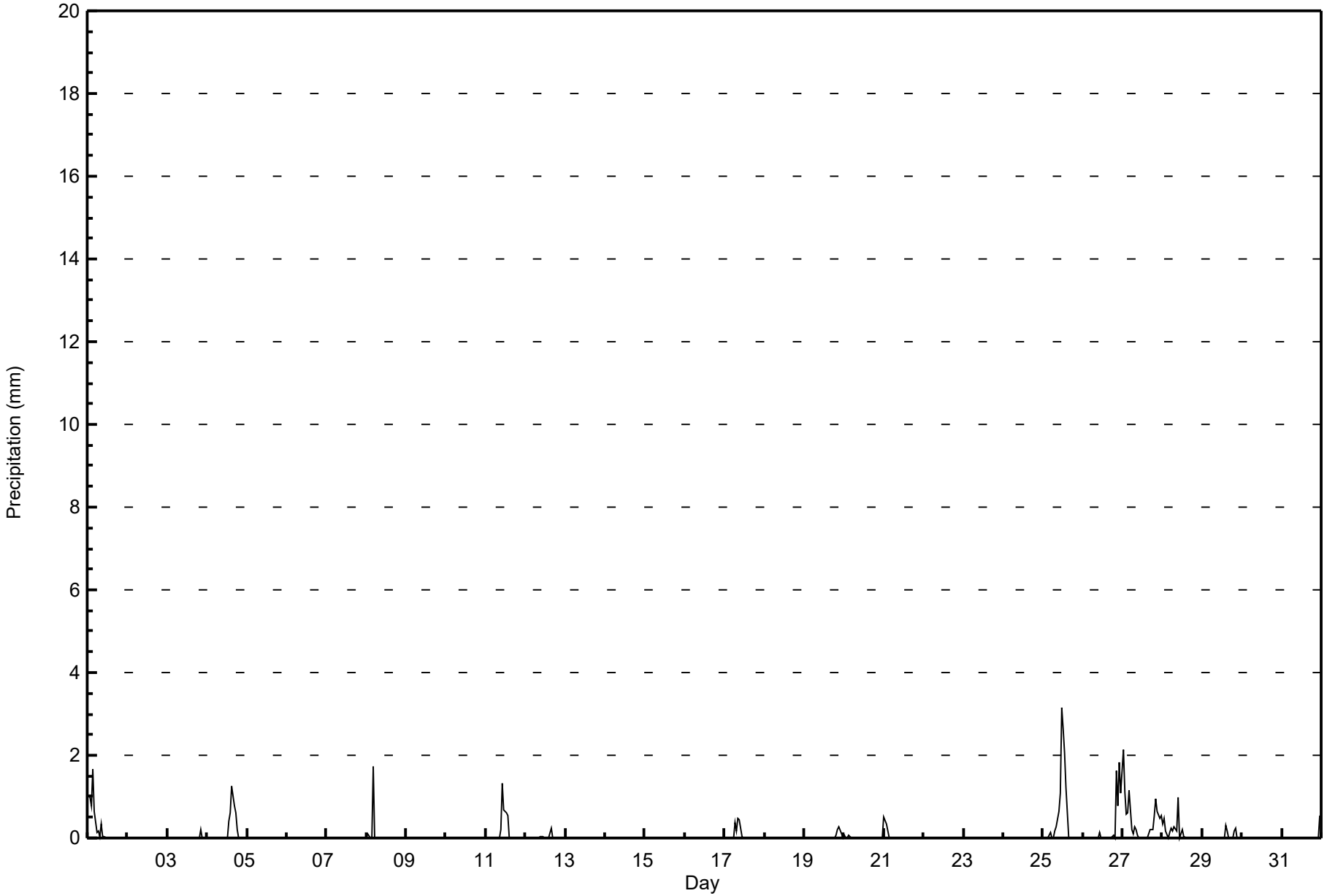
C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Precipitation (PC) - mm

Fort McKay - Bertha Ganter - October 2025



Concentration Ranges (mm)	Number of Hours	%	Cumulative %
0 - 0.3	699	94.33	94.33
0.4 - 0.5	8	1.08	95.41
0.6 - 0.7	12	1.62	97.03
0.8 - 1.4	14	1.89	98.92
1.5 - 10	8	1.08	100.00
> 10	0	0.00	100.00

Total Number of Valid Hours: 741

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Leaf Wetness (LW) - %

Fort McKay - Bertha Ganter - October 2025

Maximum Value: 83.1 % on Oct 28 01:00

Maximum Daily Average: 34.6 % on Oct 27

Minimum Value: 0.9 % on Oct 10 16:00

Minimum Daily Average: 1.8 % on Oct 14

Maximum Diurnal Average: 16.0 % at hour 2

Minimum Diurnal Average: 4.0 % at hour 16

Monthly Average: 10.17 %

Percentiles: P_1 = 1.1 P_{10} = 1.6 Q_1 = 2.0 Median = 2.7 Q_3 = 8.5 P_{90} = 36.8 P_{99} = 71.7

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Hours of Calibration:	0
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	60.6	61.2	56.8	59.5	48.8	30.5	22.4	25.1	42.6	28.7	12.5	3.2	13.5	4.2	2.0	1.9	2.0	2.2	3.0	6.2	12.8	22.8	36.7	53.2	25.5	61.2
2-Oct	57.5	58.4	57.9	53.4	43.5	49.3	36.7	24.5	10.2	6.4	5.7	4.3	2.6	2.1	2.0	2.0	1.9	3.0	12.1	26.3	43.9	51.6	53.7	55.1	27.7	58.4
3-Oct	47.1	44.2	44.1	44.3	41.9	37.8	38.1	37.8	21.1	4.0	1.6	1.4	1.3	1.3	1.5	1.5	1.5	1.5	3.5	6.8	25.7	8.2	8.5	7.8	18.0	47.1
4-Oct	5.4	3.7	2.8	4.8	2.6	2.9	2.6	2.9	2.5	2.0	1.9	1.9	1.9	33.7	53.9	48.6	52.0	52.9	32.9	16.5	11.2	8.5	9.5	9.0	15.3	53.9
5-Oct	7.8	12.5	4.7	5.1	5.6	5.9	6.0	6.7	22.0	6.5	6.6	4.3	1.8	1.6	1.8	1.8	1.8	1.9	2.0	2.0	2.1	2.1	2.2	2.2	4.9	22.0
6-Oct	3.4	2.3	2.2	2.1	2.2	2.3	2.3	2.3	2.2	2.0	1.8	1.5	1.4	1.4	1.4	1.4	1.7	1.9	2.1	2.2	2.1	2.1	2.1	2.0	2.0	3.4
7-Oct	1.9	1.9	1.8	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.8	1.8	1.6	1.4	1.3	1.5	1.7	2.0	2.5	2.8	2.7	2.6	2.4	2.4	2.0	2.8
8-Oct	2.7	14.9	9.2	10.7	48.9	17.3	10.9	9.0	8.6	4.9	1.8	1.6	1.4	1.4	1.4	1.4	1.5	1.6	1.7	1.8	1.9	1.9	2.1	2.2	6.7	48.9
9-Oct	2.3	2.4	2.3	2.3	2.9	6.4	8.1	3.8	2.3	1.9	1.6	1.4	1.2	1.1	1.0	1.0	1.3	1.5	1.7	1.9	2.1	2.5	3.0	5.9	2.6	8.1
10-Oct	7.4	10.2	17.5	25.3	19.5	5.3	5.7	12.4	14.8	3.8	1.7	1.4	1.2	1.1	1.0	0.9	0.9	1.1	1.3	1.4	1.5	1.7	1.9	2.1	5.9	25.3
11-Oct	2.4	2.8	2.6	2.5	2.4	2.2	1.9	1.8	1.8	9.8	61.5	40.7	50.4	36.5	15.1	6.7	5.5	3.9	2.7	2.4	2.3	2.2	2.4	4.5	11.1	61.5
12-Oct	2.4	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	12.0	19.2	6.3	3.8	2.1	2.1	2.3	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.4	3.5	19.2
13-Oct	2.4	2.5	2.9	3.1	3.4	3.7	3.9	4.2	3.9	2.3	1.7	1.5	1.5	1.5	1.4	1.5	1.7	1.8	1.9	1.9	2.0	2.0	2.1	2.1	2.4	4.2
14-Oct	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.9	1.7	1.6	1.4	1.4	1.3	1.2	1.1	1.3	1.5	1.7	1.7	1.8	1.9	2.0	2.0	1.8	2.1
15-Oct	2.1	2.3	2.2	2.2	2.2	2.4	2.7	2.4	2.1	2.0	1.8	1.6	1.4	1.2	1.1	1.1	1.3	1.5	1.8	2.0	2.1	2.1	2.0	2.1	1.9	2.7
16-Oct	2.8	3.6	3.4	2.8	4.4	3.2	3.4	3.7	5.3	2.9	1.8	1.6	1.6	1.5	1.4	1.4	1.5	1.5	1.7	1.5	2.0	1.6	1.6	1.8	2.4	5.3
17-Oct	1.9	1.9	2.1	2.1	2.0	2.0	23.4	36.7	55.3	51.8	18.8	2.7	1.7	1.5	1.4	1.4	1.6	1.7	1.8	2.0	2.1	2.6	3.3	3.6	9.4	55.3
18-Oct	7.8	9.2	7.8	4.1	2.5	2.5	2.7	2.7	2.4	2.0	1.5	1.3	1.2	1.1	1.1	1.2	1.5	1.7	2.0	2.4	2.9	3.4	4.2	3.3	3.0	9.2
19-Oct	3.6	3.9	4.1	4.3	4.3	4.3	4.2	4.1	4.0	3.7	2.5	2.4	2.3	2.2	2.3	2.3	2.4	3.0	8.0	30.4	47.5	52.4	41.2	30.2	11.2	52.4
20-Oct	37.8	22.4	25.2	29.3	11.4	9.8	8.3	6.7	12.1	14.5	20.0	17.0	4.1	2.7	2.4	2.5	2.4	2.5	2.5	2.6	2.8	3.2	2.8	8.1	10.5	37.8
21-Oct	37.3	42.1	30.8	9.0	11.2	9.9	9.6	8.6	7.9	5.3	2.2	2.0	2.1	1.9	2.0	2.0	2.1	2.4	2.6	5.0	14.8	19.1	24.2	15.1	11.2	42.1
22-Oct	5.8	6.4	5.5	5.7	6.2	6.5	6.9	7.2	7.6	18.4	4.6	2.2	1.9	1.8	1.6	1.8	2.1	2.4	2.7	2.3	2.3	2.4	2.3	2.2	4.5	18.4
23-Oct	2.1	2.1	2.1	2.1	2.1	2.5	14.7	2.2	2.1	2.0	1.7	1.6	1.5	1.4	1.5	1.6	1.7	1.9	2.0	2.1	2.1	2.1	2.1	2.1	2.5	14.7
24-Oct	2.1	2.2	2.2	2.3	2.6	2.6	3.0	2.8	2.6	2.3	2.0	1.9	1.7	1.7	1.7	1.7	2.0	2.3	2.4	2.4	2.6	3.3	3.7	5.2	2.5	5.2
25-Oct	2.9	2.8	2.7	2.7	19.5	8.3	5.5	17.2	42.0	55.5	63.7	72.0	65.6	64.8	49.7	10.6	7.0	7.3	7.4	13.4	27.3	52.4	25.8	6.1	26.3	72.0
26-Oct	6.6	7.2	7.6	8.0	8.3	8.5	8.7	8.9	9.1	10.2	32.7	6.0	6.0	5.3	4.2	2.6	2.6	2.6	15.1	12.6	46.9	35.6	53.6	43.5	14.7	53.6
27-Oct	54.6	44.6	36.9	42.1	50.7	33.7	27.6	37.4	38.2	19.9	4.0	2.6	2.5	3.4	2.4	5.2	26.3	28.7	42.8	OR	62.9	72.7	76.2	80.9	34.6	80.9
28-Oct	83.1	83.1	78.5	76.4	50.6	28.7	16.0	11.8	14.5	OR	OR	OR	OR	20.1	2.7	2.6	2.8	2.8	3.1	3.4	4.1	4.0	4.8	5.6	24.9	83.1
29-Oct	8.3	5.6	4.7	3.8	3.2	2.9	3.0	3.1	2.9	2.8	2.7	2.7	2.7	2.7	17.5	OR	41.0	19.7	24.5	25.7	40.9	24.4	18.2	10.1	11.9	41.0
30-Oct	25.5	32.7	15.4	13.4	9.2	9.1	10.1	9.0	13.2	49.4	71.2	15.7	5.0	7.1	7.8	6.8	5.6	4.6	3.6	3.0	2.8	2.7	2.6	2.6	13.7	71.2
31-Oct	2.6	2.6	2.7	2.7	2.8	3.0	2.9	2.8	3.0	2.6	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	39.3	4.1	39.3
	15.9	16.0	14.3	13.9	13.6	10.0	9.6	9.8	11.7	11.1	11.8	6.9	6.3	6.9	6.1	4.0	5.9	5.4	6.4	6.3	12.3	12.9	13.0	13.4	Diurnal Average	
	83.1	83.1	78.5	76.4	50.7	49.3	38.1	37.8	55.3	55.5	71.2	72.0	65.6	64.8	53.9	48.6	52.0	52.9	42.8	30.4	62.9	72.7	76.2	80.9	Diurnal Maximum	

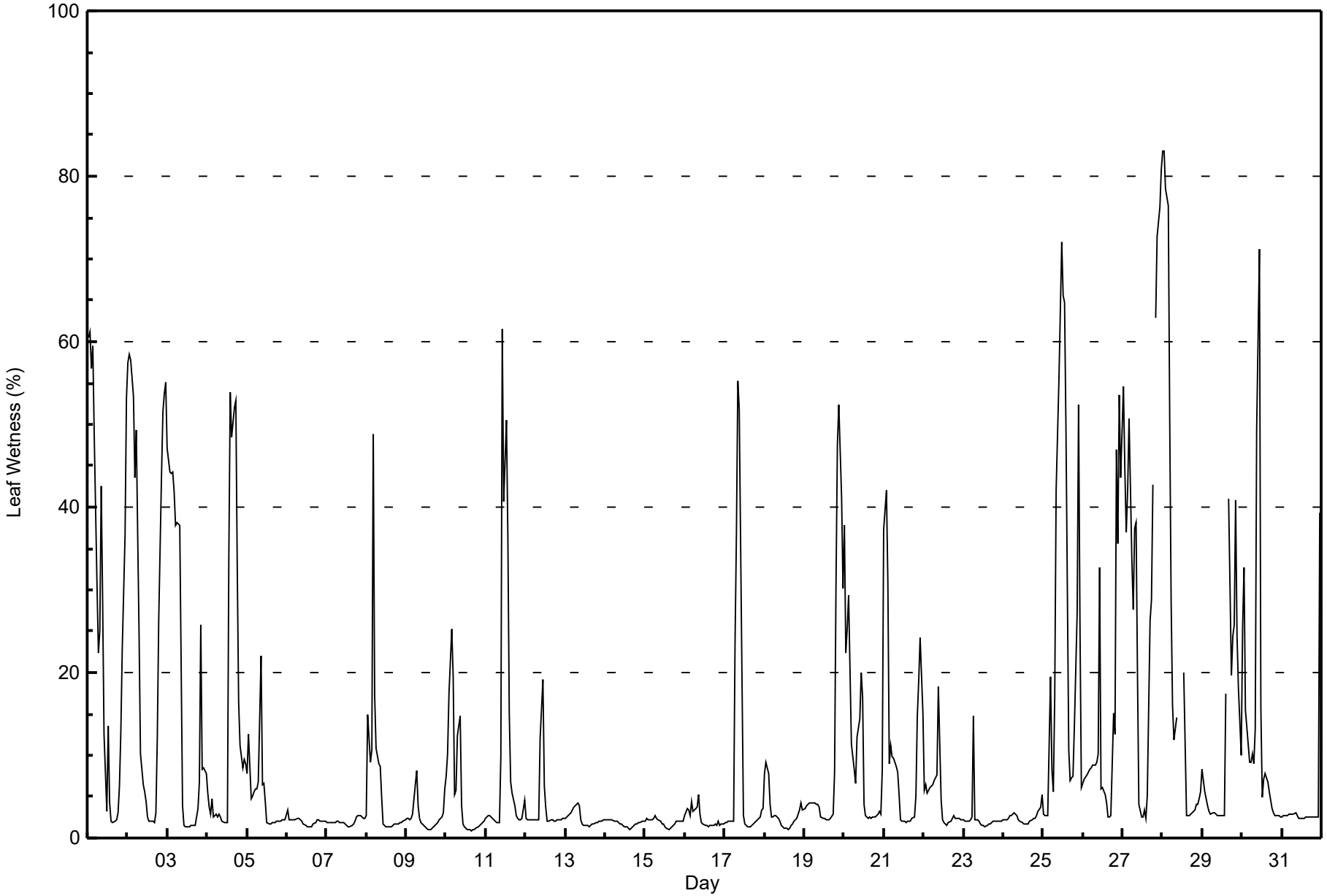
OR - Out of Range

Wood Buffalo Environmental Association

Hourly Averages

Leaf Wetness (LW) - %

Fort McKay - Bertha Ganter - October 2025



Leaf Wetness (LW) - %

Fort McKay - Bertha Ganter - October 2025

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 0.3	0	0.00	0.00
0.4 - 0.5	0	0.00	0.00
0.6 - 0.7	0	0.00	0.00
0.8 - 1.4	50	6.78	6.78
1.5 - 10	511	69.24	76.02
> 10	166	22.49	98.51

Total Number of Valid Hours: 738

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Global Radiation (GR) - W/m2

Fort McKay - Bertha Ganter - October 2025

Maximum Value: 498.6 W/m2 on Oct 6 13:00

Maximum Daily Average: 126.3 W/m2 on Oct 6

Minimum Value: 0.0 W/m2 on Oct 1 01:00

Minimum Daily Average: 11.2 W/m2 on Oct 25

Maximum Diurnal Average: 254.7 W/m2 at hour 13

Minimum Diurnal Average: 0.0 W/m2 at hour 1

Monthly Average: 63.69 W/m2

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 72.1 P_{90} = 246.4 P_{99} = 453.7

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

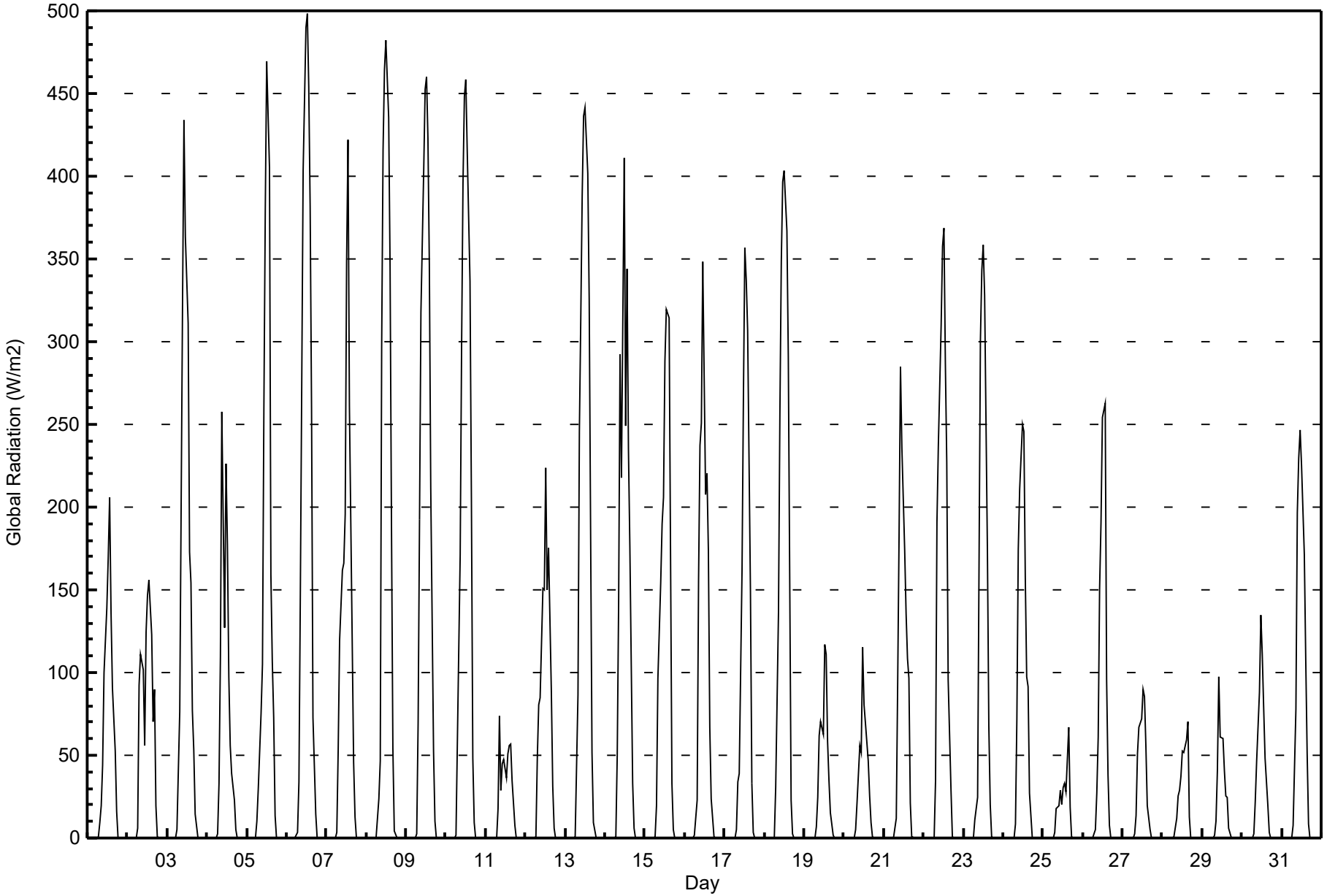
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.0	0.0	0.0	0.0	1.2	9.3	19.4	44.2	99.9	138.7	169.1	206.0	136.0	90.7	52.5	16.2	0.2	0.0	0.0	0.0	0.0	0.0	41.0	206.0
2-Oct	0.0	0.0	0.0	0.0	0.0	0.0	5.8	92.1	111.2	101.8	56.0	124.5	146.8	155.8	122.5	70.4	89.8	19.5	0.6	0.0	0.0	0.0	0.0	0.0	45.7	155.8
3-Oct	0.0	0.0	0.0	0.0	0.0	0.0	5.0	76.1	201.0	324.1	434.1	363.6	310.6	172.6	154.3	77.3	53.1	14.0	0.2	0.0	0.0	0.0	0.0	0.0	91.1	434.1
4-Oct	0.0	0.0	0.0	0.0	0.0	0.0	2.9	33.3	109.1	257.9	127.5	225.9	176.9	97.7	56.0	38.9	23.3	5.3	0.0	0.0	0.0	0.0	0.0	0.0	48.1	257.9
5-Oct	0.0	0.0	0.0	0.0	0.0	0.0	9.8	29.4	75.2	104.9	259.7	380.1	469.6	405.0	159.5	106.9	72.6	13.7	0.0	0.0	0.0	0.0	0.0	0.0	86.9	469.6
6-Oct	0.0	0.0	0.0	0.0	0.0	0.0	3.1	34.1	147.1	274.6	403.3	489.6	498.6	454.5	381.1	258.9	72.6	14.7	0.0	0.0	0.0	0.0	0.0	0.0	126.3	498.6
7-Oct	0.0	0.0	0.0	0.0	0.0	0.0	3.1	53.3	119.2	161.7	166.3	195.5	348.1	422.2	261.1	118.5	46.0	12.8	0.0	0.0	0.0	0.0	0.0	0.0	79.5	422.2
8-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.4	23.9	46.7	296.4	416.3	464.1	482.3	435.5	345.1	189.1	54.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	114.9	482.3
9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	2.7	69.2	192.4	317.5	404.2	452.7	460.1	422.5	346.2	212.3	52.9	9.9	0.0	0.0	0.0	0.0	0.0	0.0	122.6	460.1
10-Oct	0.0	0.0	0.0	0.0	0.0	0.0	2.0	58.2	171.5	296.7	395.9	448.5	458.2	415.7	336.8	204.8	48.1	9.3	0.1	0.0	0.0	0.0	0.0	0.0	118.6	458.2
11-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.6	73.7	28.6	45.1	47.5	36.0	50.9	55.5	57.0	34.9	7.4	0.0	0.0	0.0	0.0	0.0	0.0	18.9	73.7
12-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.5	48.2	80.6	85.1	151.0	150.2	223.9	150.2	175.6	88.7	31.7	5.6	0.0	0.0	0.0	0.0	0.0	0.0	49.6	223.9
13-Oct	0.0	0.0	0.0	0.0	0.0	0.0	1.1	86.6	245.9	314.1	387.8	436.1	441.4	401.9	325.8	186.1	51.7	9.0	0.0	0.0	0.0	0.0	0.0	0.0	120.3	441.4
14-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.8	50.3	142.7	292.5	217.8	411.4	249.5	343.7	234.6	176.2	32.9	5.5	0.0	0.0	0.0	0.0	0.0	0.0	89.9	411.4
15-Oct	0.0	0.0	0.0	0.0	0.0	0.0	1.1	19.9	96.3	153.9	189.5	205.7	288.3	319.3	314.1	172.6	32.8	4.8	0.0	0.0	0.0	0.0	0.0	0.0	74.9	319.3
16-Oct	0.0	0.0	0.0	0.0	0.0	0.0	1.3	23.1	156.0	237.5	250.8	348.5	207.4	220.4	173.8	67.0	23.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	71.2	348.5
17-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	34.1	38.9	161.7	268.1	357.1	337.3	306.7	149.3	33.4	3.4	0.0	0.0	0.0	0.0	0.0	0.0	70.6	357.1
18-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.3	30.7	136.8	256.9	348.4	396.4	403.2	366.8	290.8	157.3	22.8	2.2	0.0	0.0	0.0	0.0	0.0	0.0	100.5	403.2
19-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	24.8	61.6	70.0	62.7	116.6	111.4	58.1	35.2	15.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	23.5	116.6
20-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	21.5	55.7	52.1	115.6	80.9	69.3	46.8	25.2	9.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	20.1	115.6
21-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	93.9	183.9	284.9	235.3	174.0	135.9	108.7	96.6	21.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	56.1	284.9
22-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.9	190.8	237.4	310.6	357.5	368.9	287.2	227.2	95.5	30.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	89.2	368.9
23-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	24.8	162.7	301.2	342.9	358.4	327.8	173.1	67.9	20.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	74.6	358.4
24-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1	72.0	174.8	210.9	249.8	245.4	158.0	97.5	91.4	26.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	55.6	249.8
25-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	18.2	19.6	29.1	20.6	30.2	33.2	28.3	67.2	18.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	11.2	67.2
26-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	26.9	61.0	150.9	190.8	254.2	262.9	95.8	38.4	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.6	262.9
27-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	13.1	50.9	66.8	72.4	90.0	85.6	56.2	19.7	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.3	90.0
28-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	11.8	25.5	28.8	37.1	52.7	52.0	59.5	70.4	12.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.7	70.4
29-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	10.1	40.7	97.6	60.9	60.5	40.5	25.7	24.3	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.3	97.6
30-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	22.3	46.6	87.8	134.6	111.2	79.2	48.6	19.7	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.2	134.6
31-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	77.6	196.4	229.7	246.7	225.0	171.1	108.6	51.8	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.1	246.7
	0.0	0.0	0.0	0.0	0.0	0.0	1.3	27.8	89.2	158.2	207.6	247.5	254.7	232.0	171.3	100.8	32.6	5.3	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.0	0.0	0.0	0.0	0.0	0.0	9.8	92.1	245.9	324.1	434.1	489.6	498.6	454.5	381.1	258.9	89.8	19.5	0.6	0.0	0.0	0.0	0.0	0.0	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Global Radiation (GR) - W/m2

Fort McKay - Bertha Ganter - October 2025



Concentration Ranges (W/m2)	Number of Hours	%	Cumulative %
0 - 20	468	62.90	62.90
21 - 100	120	16.13	79.03
101 - 300	101	13.58	92.61
301 - 600	55	7.39	100.00
601 - 900	0	0.00	100.00
> 900	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Fort McKay - Bertha Ganter - October 2025

Maximum Speed: 29 km/h on Oct 27 11:00

Maximum Daily Speed Average: 18.2 km/h on Oct 27

Minimum Speed Value: 0 km/h on Oct 22 09:00

Minimum Daily Speed Average: 0.2 km/h on Oct 20

Maximum Diurnal Speed Average: 3.2 km/h at hour 13

Minimum Diurnal Speed Average: 1.1 km/h at hour 1

Monthly Average Velocity: 1.8 km/h 241.0 deg

Percentiles: $P_1 = 1$ $P_{10} = 3$ $Q_1 = 5$ Median = 7 $Q_3 = 11$ $P_{90} = 15$ $P_{99} = 27$

Hours in Service:	744
Hours of Data:	729
Hours of Missing Data:	15
Percent Operational Time:	98.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NNW9	NNW12	N13	N13	N14	N15	N16	N16	N16	N15	N18	N18	NNW13	N13	N11	N11	N5	NNW3	UO	UO	UO	WSW3	W3	WSW2	N10.8	N18
2-Oct	NW1	WSW1	S2	SSW1	SSE1	SSW3	SW3	S4	SSE7	SE7	SSE5	SE5	SSE4	SSE10	S10	S6	SSE4	S3	S5	SSE5	S6	S8	S7	SSW4	S4.5	S10
3-Oct	SSE8	S7	S5	S2	WSW3	SW2	SSW2	S6	S10	S14	S15	SSW13	SW12	WSW11	SW10	WSW11	SW9	SW8	WNW7	WSW6	W7	WSW5	WSW5	W7	SW6.6	S15
4-Oct	W7	WNW7	W6	W6	W7	W7	WNW7	WNW6	WNW5	NW8	NNW9	NNW7	NNW10	N10	NNW11	N14	NNW17	NNW10	NW11	NW11	WNW7	WNW6	WNW7	W4	NW7.4	NNW17
5-Oct	WNW6	WSW3	W6	W5	SW4	S4	S4	SSW5	S4	S7	SSE8	S6	SW4	SW5	SSW6	NW8	WNW7	WNW8	WNW7	W5	W5	WNW4	NNW7	N18	W2.9	N18
6-Oct	N12	N10	NNW15	NNW17	NNW13	NNW9	N9	N10	NNW7	N8	NE6	E3	SE7	S8	S8	SSE10	SSE10	SE6	SSE5	SSE5	SSE5	SSE3	SSE4	S7	N1.5	NNW17
7-Oct	SSE9	S10	S8	S9	S7	S8	S7	S9	S11	S12	SSE13	SSE12	SSE14	SSE14	SSE13	SSE7	SE3	ENE2	NNW4	NW5	NNW1	W3	NW3	NNW4	S6.2	SSE14
8-Oct	WNW4	NNW6	WNW2	W3	W5	W4	WNW7	W5	WSW5	WSW5	WSW7	W9	W9	WSW9	SW9	W7	W11	WNW9	WNW9	WNW13	WNW9	WNW7	WNW5	WNW6	W6.3	WNW13
9-Oct	SW2	SSW3	S3	SSW5	S6	SSW5	SW6	SSW6	SSW7	SSW9	SSW10	SW10	SW13	SW12	SW12	SW10	SW7	SSW6	SSW5	S5	S4	S5	S5	S6	SSW6.3	SW13
10-Oct	S5	SSW3	SSW3	S5	S4	S5	SSW4	S5	SSE7	SSE6	SSE12	SSE13	SSE14	SSE13	SSE14	S14	S13	S10	S9	S8	S9	WSW2	SW2	NNW4	S7.1	SSE14
11-Oct	NW2	WNW2	NW3	SW2	NNW4	N10	N12	N10	NNW13	NNW20	NNW15	NNW16	NW6	WNW11	WNW11	WNW10	WNW8	WNW13	WNW11	NW16	NNW18	NNW22	NNW23	NNW22	NNW10.9	NNW23
12-Oct	NNW19	NNW22	NNW21	NNW22	NNW22	NNW17	N19	N11	N10	N13	NNE13	N12	N21	N18	N18	N13	NNW15	NNW13	NNW12	NNW8	NW9	NW4	W2	WNW7	NNW13.7	NNW22
13-Oct	WNW7	WNW5	W4	WSW5	W4	WSW5	SSW4	S4	SSW5	S9	SSW10	SW11	SSW14	SSW14	S16	S17	S15	S13	S12	S13	S12	S15	S12	S12	SSW8.5	S17
14-Oct	S13	S12	S13	S11	S11	S14	S10	S11	S15	S14	S15	SSW16	SSW14	SSW13	SW9	SW10	SSW6	SSE7	S8	S9	S6	S7	S8	S8	S10.7	SSW16
15-Oct	S6	S6	S8	S8	S7	SSW4	S4	S7	S9	S10	S14	S8	SSW9	SW9	SW10	SSW9	SSW7	SSW5	S4	S5	W3	WSW4	WSW4	W2	SSW6.1	SSE14
16-Oct	S3	SSW4	SW4	S3	S2	SSE3	S5	S5	S5	SSE9	SSE11	SSE14	S14	SSE10	S10	S6	S4	S9	S11	S10	S12	SSW10	S10	S10	S7.6	S14
17-Oct	S9	SSW6	SW5	SW6	W7	W5	W5	W5	WSW6	W7	WSW5	W6	WNW10	WNW13	WNW12	WNW14	NW12	NW10	WNW6	W4	WNW5	SW2	S4	S4	W5.5	WNW14
18-Oct	S3	S3	S4	WSW5	WSW7	WSW7	SW4	WSW5	WSW6	WSW7	SSW4	SSE6	SSW7	SW7	W8	SW7	SW4	WSW2	WSW2	SSW2	WSW3	NNW2	WNW2	W2	SW3.9	W8
19-Oct	WSW2	W3	NW2	NW3	NW2	NNW3	NNW2	NW4	N4	NNE5	N4	N5	N10	NNW12	N11	N10	N12	N11	N10	N11	N11	N12	N12	N10	N6.8	N12
20-Oct	N11	N12	N9	N11	N9	NNW9	NNW11	N6	NNW4	N4	NNW4	SE5	S6	SSE7	SSE8	SSE6	SSW6	S7	S7	S7	S7	SSE5	SSE11	S9	ENE0.2	N12
21-Oct	SSE9	SSE9	S11	S9	S7	S6	S5	S5	SSE4	S5	SW3	WNW11	W7	WSW6	NW6	NW16	NNW11	NE7	NE5	NNE3	WSW2	SW2	SSE1	SW2	SW1.9	NW16
22-Oct	SW1	S0	W3	SW1	NW1	WNW2	NNW3	WNW3	SSE0	SSE5	SSE9	SSE9	SSE9	SSE8	SSE8	SSE4	NNE5	NNE4	SSE5	SSE11	SSE12	SSE9	SSE12	SSE16	SSE4.2	SSE16
23-Oct	SSE19	SSE17	S16	S15	S12	S13	SSE15	S12	SSE12	S12	SSE16	SSE14	SSE13	SSE13	SSE14	SSE9	SSE11	SSE11	SSE10	SSE8	SSE10	S10	S12	SSE12	SSE12.7	SSE19
24-Oct	SSE10	S5	S6	SSW6	S4	S5	SSW5	S7	S5	SSE9	SSE14	SSE11	SSE11	S7	S5	SSW1	ESE3	E2	UO	E2	ENE1	NW0	SW2	NNW3	S4.7	SSE14
25-Oct	NNW2	WNW3	W3	NW4	N7	SSE7	SSE0	W4	W2	NNW2	W3	WSW4	W7	W5	SW6	WSW10	W6	SSW6	SSW6	SW4	S4	S4	SSW3	SSW1	WSW2.8	WSW10
26-Oct	SSW2	SSW4	UO	UO	UO	UO	UO	UO	UO	UO	N11	N6	N11	N15	N18	N18	N18	N19	N24	N27	N28	N26	N26	N26	----	N28
27-Oct	N28	N28	N28	N27	N28	N25	N26	N28	N26	N28	NNW29	NNW24	N22	NNW21	NNW20	NNW18	NW11	WNW9	WNW9	WNW9	WNW6	WNW6	WNW5	WNW4	NNW18.2	NNW29
28-Oct	WNW5	WNW4	WNW4	WNW6	WNW4	WNW5	WNW4	WNW4	WNW5	WNW5	W4	W5	WSW5	W5	SW5	WSW5	SW4	SSE5	SW2	S2	S5	SSW2	SSE1	SSE3	WSW3.0	WNW6
29-Oct	SSE5	SSE5	SSE4	SE5	ESE6	ESE6	ENE4	NE4	NE4	N7	N11	N8	NNW6	N10	N10	NNE8	N10	N9	NNW9	NW10	NW6	UO	UO	UO	NNE4.2	N11
30-Oct	NNW4	NNW2	NNW3	NNE3	N2	S3	S4	S3	WSW4	SW6	WSW5	SW5	S6	S5	S7	SSW7	SSW5	SSW5	SSW5	SSW5	SW5	SSW8	SSW7	SSW8	SSW3.5	SSW8
31-Oct	SSW8	SSW9	SW8	SSW7	SSW8	SW4	S6	S11	S10	S13	SSE15	S18	S18	SSE21	SSE20	SSE19	SSE20	SSE22	SSE25	S18	SSE18	SSE17	S11	S12	S13.5	SSE25
	WSW1.1	W1.3	W1.7	W1.9	WNW2.1	W1.5	WNW1.7	WSW1.4	SW1.6	SW1.7	SSW1.9	SSW2.3	SW3.2	SW3.1	SW3.0	WSW2.8	W2.1	WSW1.6	WSW1.8	WSW1.9	SW2.0	SW1.8	SW1.7	SW1.2	Diurnal Average	
	N28	N28	N28	N27	N28	N25	N26	N28	N26	N28	NNW29	NNW24	N22	SSE21	NNW20	SSE19	SSE20	SSE22	SSE25	N27	N28	N26	N26	N26	Diurnal Maximum	

UO - Unstable Operation

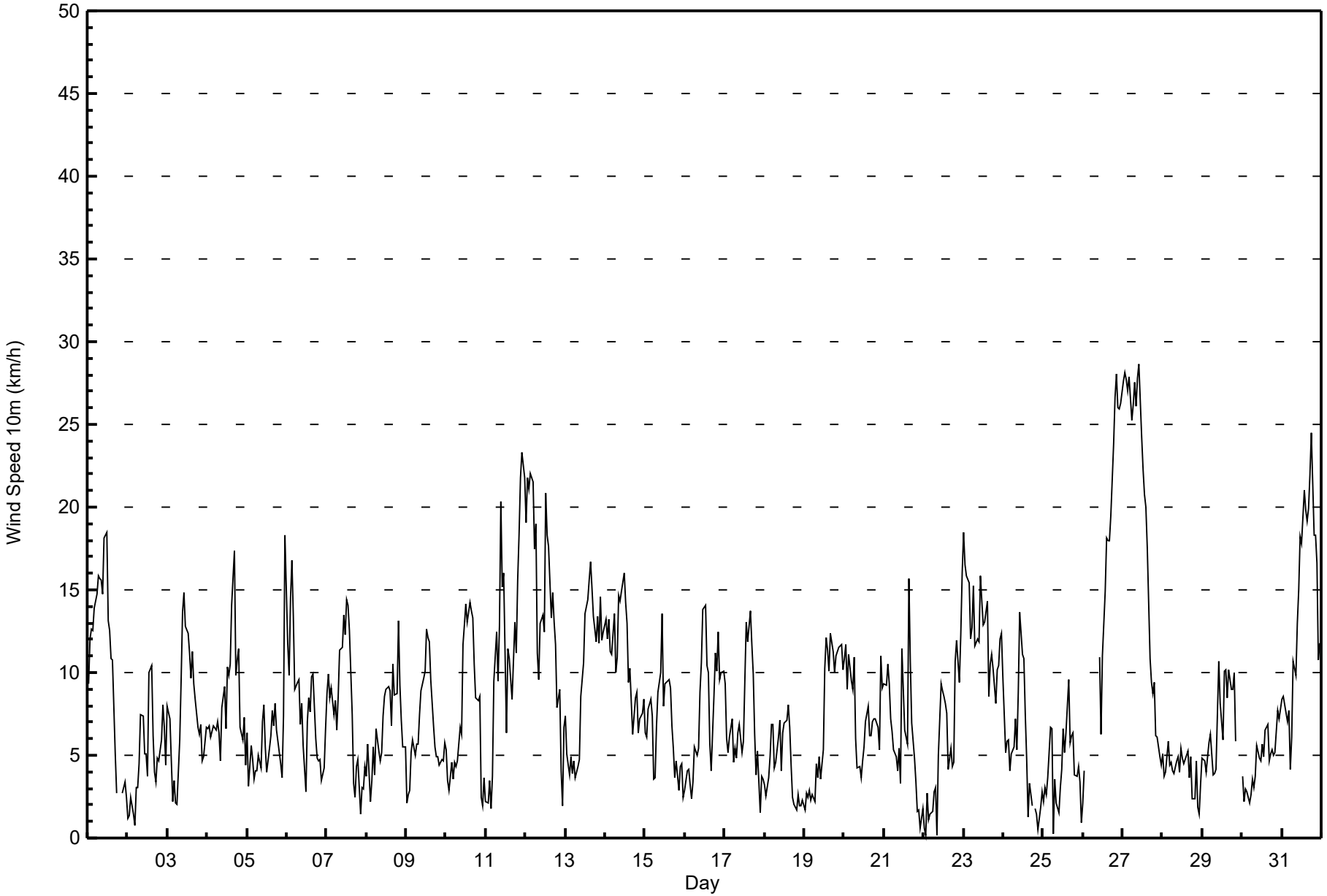
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Fort McKay - Bertha Ganter - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	269	36.90	36.90
6 - 11	293	40.19	77.09
12 - 19	132	18.11	95.20
20 - 28	34	4.66	99.86
29 - 38	1	0.14	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 729

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Fort McKay - Bertha Ganter - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	6	5	3	3	3	1	4	26	51	31	25	27	30	24	12	18	269
6 - 11	33	1	2	0	0	2	3	39	74	27	19	13	18	33	11	18	293
12 - 19	30	1	0	0	0	0	0	32	34	6	4	0	0	5	3	17	132
20 - 28	18	0	0	0	0	0	0	5	0	0	0	0	0	0	0	11	34
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	87	7	5	3	3	3	7	102	159	64	48	40	48	62	26	65	729

Total Number of Valid Hours: 729

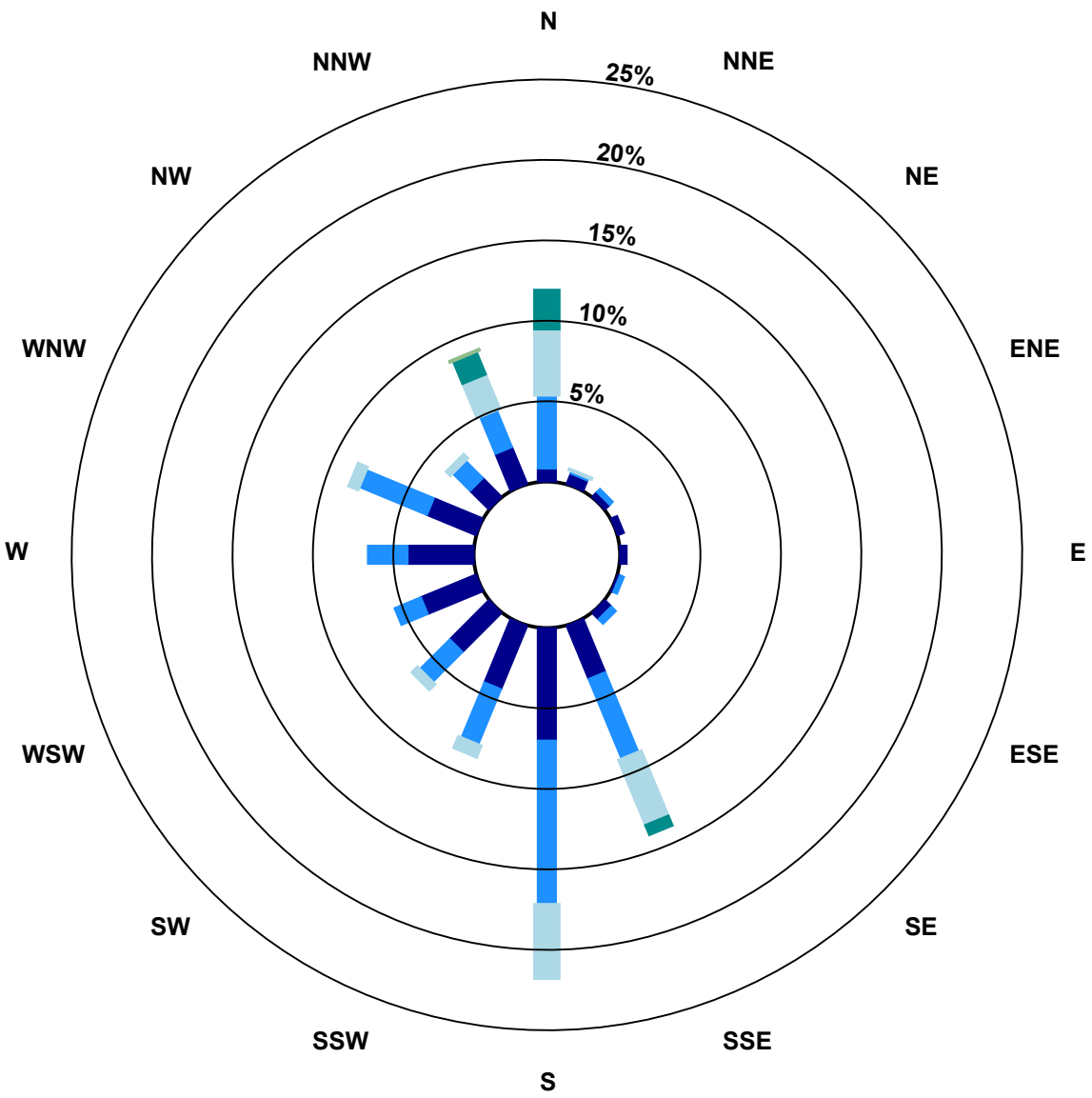
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Fort McKay - Bertha Ganter



Classes (km/h)

- 0 - 5
- 6 - 11
- 12 - 19
- 20 - 28
- 29 - 38
- > 38

Total Number of Valid Hours: 729

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 7 km/h on Oct 27 11:00

Minimum Value: 1 km/h on Oct 30 08:00

Percentiles: P_1 = 1 P_{10} = 1 Q_1 = 2 Median = 2 Q_3 = 3 P_{90} = 4 P_{99} = 6

Hours in Service:	744
Hours of Data:	729
Hours of Missing Data:	15
Hours of Calibration:	0
Percent Operational Time:	98.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	2	2	3	3	3	3	3	3	5	5	3	4	2	3	1	1	UO	UO	UO	1	1	1	5
2-Oct	1	1	1	1	1	1	1	2	1	1	2	1	1	3	3	2	2	1	1	1	1	1	2	1	3
3-Oct	1	1	2	2	2	1	2	2	2	4	4	5	5	5	5	5	4	3	5	3	3	2	2	3	5
4-Oct	3	3	2	2	2	2	2	2	2	2	3	3	3	6	3	6	4	4	3	3	2	2	2	2	6
5-Oct	4	2	2	2	1	1	1	1	2	2	2	3	2	2	2	4	3	2	2	2	2	2	6	4	6
6-Oct	3	3	4	4	3	2	3	3	3	2	2	2	3	4	3	3	2	2	1	1	2	2	1	1	4
7-Oct	2	2	2	2	2	2	2	2	3	3	3	2	3	3	2	2	1	1	1	1	1	2	2	3	3
8-Oct	2	3	2	2	2	1	3	2	2	2	4	3	4	4	4	3	5	3	4	5	4	3	2	3	5
9-Oct	1	2	1	1	1	1	2	2	3	3	3	4	4	5	5	4	3	2	1	1	2	1	1	2	5
10-Oct	1	2	2	1	2	1	1	1	1	1	3	3	3	3	3	4	4	3	2	2	1	2	2	1	4
11-Oct	2	2	2	1	3	3	3	2	4	4	3	5	2	4	4	3	3	4	3	4	4	5	6	6	6
12-Oct	6	5	4	5	5	4	4	3	2	4	4	4	6	5	5	5	3	3	2	1	1	3	1	2	6
13-Oct	2	2	1	2	1	2	1	1	2	2	3	5	5	5	5	4	4	3	2	3	2	3	3	2	5
14-Oct	3	2	3	3	2	3	2	3	4	5	5	5	4	4	4	3	3	2	1	2	1	1	1	2	5
15-Oct	1	1	1	2	1	1	1	2	2	3	3	3	4	4	4	3	2	1	1	1	2	2	2	1	4
16-Oct	2	1	3	1	1	1	1	1	1	2	2	3	3	2	3	2	1	2	2	2	3	5	2	2	5
17-Oct	2	2	2	3	3	2	2	2	2	3	2	3	4	5	4	6	4	3	3	1	1	1	2	2	6
18-Oct	2	1	1	3	2	3	2	2	3	3	2	3	3	3	3	3	1	2	2	1	2	2	2	2	3
19-Oct	2	1	1	1	1	1	1	1	2	1	2	1	2	2	2	2	3	2	2	2	2	2	2	2	3
20-Oct	2	3	2	2	3	2	2	3	1	1	1	1	2	1	1	2	2	1	2	2	1	2	2	2	3
21-Oct	2	2	2	2	2	1	1	2	2	1	2	4	2	2	3	4	4	2	2	1	2	2	1	1	4
22-Oct	2	1	1	1	2	1	1	1	1	2	2	2	2	2	2	3	2	1	2	3	3	2	4	3	4
23-Oct	4	4	4	3	3	3	3	3	2	3	3	3	2	2	3	2	2	2	2	2	2	2	2	3	4
24-Oct	2	2	3	1	2	1	1	2	2	2	2	2	2	2	1	1	1	2	UO	2	1	2	2	1	3
25-Oct	2	2	2	1	4	4	1	1	2	1	2	2	3	3	3	4	3	2	2	2	2	2	1	2	4
26-Oct	2	2	UO	UO	UO	UO	UO	UO	UO	UO	6	3	3	4	4	4	3	4	5	6	7	6	6	6	7
27-Oct	6	6	6	6	6	5	5	6	6	6	7	5	5	5	4	4	3	3	3	3	2	2	2	1	7
28-Oct	2	2	2	2	2	2	1	2	2	2	2	3	2	2	2	2	1	1	2	2	2	1	1	1	3
29-Oct	1	1	1	1	1	2	1	2	2	2	2	3	2	2	2	2	2	2	1	2	2	UO	UO	UO	3
30-Oct	1	1	1	1	1	1	1	1	2	3	2	2	2	1	2	2	2	2	1	1	1	2	2	3	3
31-Oct	2	3	3	2	3	1	2	3	2	3	3	4	4	5	4	4	5	6	5	5	5	4	3	2	6
	6	6	6	6	6	5	5	6	6	6	7	5	6	6	5	6	5	6	5	6	7	6	6	6	
	Diurnal Maximum																								

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Fort McKay - Bertha Ganter - October 2025

Direction of Maximum Speed: 347 deg on Oct 27 11:00
Direction of Maximum Daily Speed Average: 344.9 deg on Oct 27

Direction of Minimum Speed: 152 deg on Oct 22 09:00

Direction of Minimum Daily Speed Average: 0.2 deg on Oct 20

Monthly Average Direction: 241.0 deg

Hours in Service:	744
Hours of Data:	729
Hours of Missing Data:	15
Percent Operational Time:	98.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	340	345	354	355	355	356	355	352	356	356	352	351	342	355	353	4	4	332	UO	UO	UO	258	265	247	350.6
2-Oct	305	237	188	203	167	194	218	174	148	146	154	136	157	159	176	185	168	176	170	162	170	173	176	193	169.9
3-Oct	164	176	187	184	242	216	206	190	178	185	189	210	224	238	233	238	221	216	285	240	260	252	255	270	216.6
4-Oct	273	283	279	278	274	279	288	284	296	305	341	342	345	349	331	351	340	330	324	318	297	288	290	275	314.3
5-Oct	288	243	273	274	220	187	175	192	189	180	163	172	219	235	205	310	293	298	293	278	264	303	339	6	262.1
6-Oct	359	356	343	334	331	330	349	357	348	10	52	99	142	169	177	164	154	144	154	155	168	162	159	173	10.8
7-Oct	167	169	178	178	190	178	185	184	176	174	163	159	161	165	159	150	136	78	328	325	344	259	312	344	171.4
8-Oct	286	335	289	275	273	265	293	277	246	244	249	260	263	237	235	274	280	296	291	294	285	283	301	295	275.5
9-Oct	226	196	190	198	191	200	220	194	212	201	193	220	225	225	229	228	229	206	196	173	187	178	180	180	207.7
10-Oct	190	192	205	189	186	183	192	175	167	153	160	157	164	159	163	177	186	186	171	173	177	238	231	330	174.3
11-Oct	309	301	314	222	330	6	360	1	336	340	334	337	310	295	292	295	299	302	296	313	329	337	339	338	327.1
12-Oct	338	340	340	344	342	347	349	356	9	359	13	11	4	4	358	350	345	336	339	330	320	324	262	291	347.8
13-Oct	294	283	267	255	261	255	196	181	195	180	213	234	205	193	189	183	180	180	179	179	177	172	174	176	194.7
14-Oct	174	177	179	182	179	175	181	184	189	191	190	192	194	196	224	215	192	167	172	177	181	175	180	173	185.6
15-Oct	180	190	184	177	182	206	186	186	178	172	169	174	207	225	214	212	213	207	170	185	281	249	258	271	195.8
16-Oct	174	196	233	184	171	160	179	176	176	168	164	164	174	168	169	181	185	187	174	172	182	193	191	185	177.5
17-Oct	183	201	223	236	260	272	279	260	251	260	242	269	284	289	292	300	310	313	299	274	283	222	178	169	269.6
18-Oct	189	176	179	238	248	248	228	237	242	249	213	164	199	231	264	233	215	237	258	208	239	339	291	260	230.6
19-Oct	242	271	319	313	308	330	346	324	355	13	8	1	358	347	357	350	356	354	1	359	357	3	2	359	352.8
20-Oct	7	1	360	358	352	345	342	356	343	1	342	138	186	158	150	167	197	180	184	185	170	168	162	174	72.1
21-Oct	168	168	173	178	176	188	173	186	151	176	219	294	259	255	324	325	340	36	48	30	241	216	162	226	217.6
22-Oct	222	176	267	216	304	301	342	303	152	153	162	161	163	162	158	161	19	17	155	155	154	151	156	152	157.1
23-Oct	155	163	169	170	171	169	168	177	166	169	165	162	159	160	163	156	156	150	160	157	163	179	171	168	164.5
24-Oct	168	182	175	198	177	191	206	172	169	168	162	164	167	173	191	200	111	91	UO	90	65	313	233	335	171.7
25-Oct	348	296	273	318	3	164	159	271	280	335	265	239	269	270	223	249	260	206	198	217	189	190	192	198	242.9
26-Oct	207	201	UO	UO	UO	UO	UO	UO	UO	UO	5	349	353	4	0	357	358	358	360	5	4	11	3	5	--
27-Oct	3	1	2	357	353	352	350	350	349	349	347	347	350	343	341	335	315	296	296	291	286	287	282	284	344.9
28-Oct	290	298	292	291	282	283	285	291	288	287	279	278	251	269	223	241	214	166	215	179	170	196	151	158	257.9
29-Oct	159	154	155	141	107	114	76	47	53	360	2	2	333	350	6	20	6	1	339	324	326	UO	UO	UO	12.4
30-Oct	343	342	340	15	8	179	173	173	244	232	245	224	189	189	191	193	208	204	195	199	214	193	199	201	207.0
31-Oct	203	206	217	211	211	222	184	175	174	176	164	169	172	163	157	165	168	159	163	172	166	167	171	171	172.3
	241.7	262.3	269.9	273.5	288.7	269.2	294.7	254.7	224.7	220.0	196.1	210.9	219.1	224.1	225.8	255.4	266.7	245.7	238.6	240.5	231.0	223.5	226.3	235.8	
	Diurnal Average																								

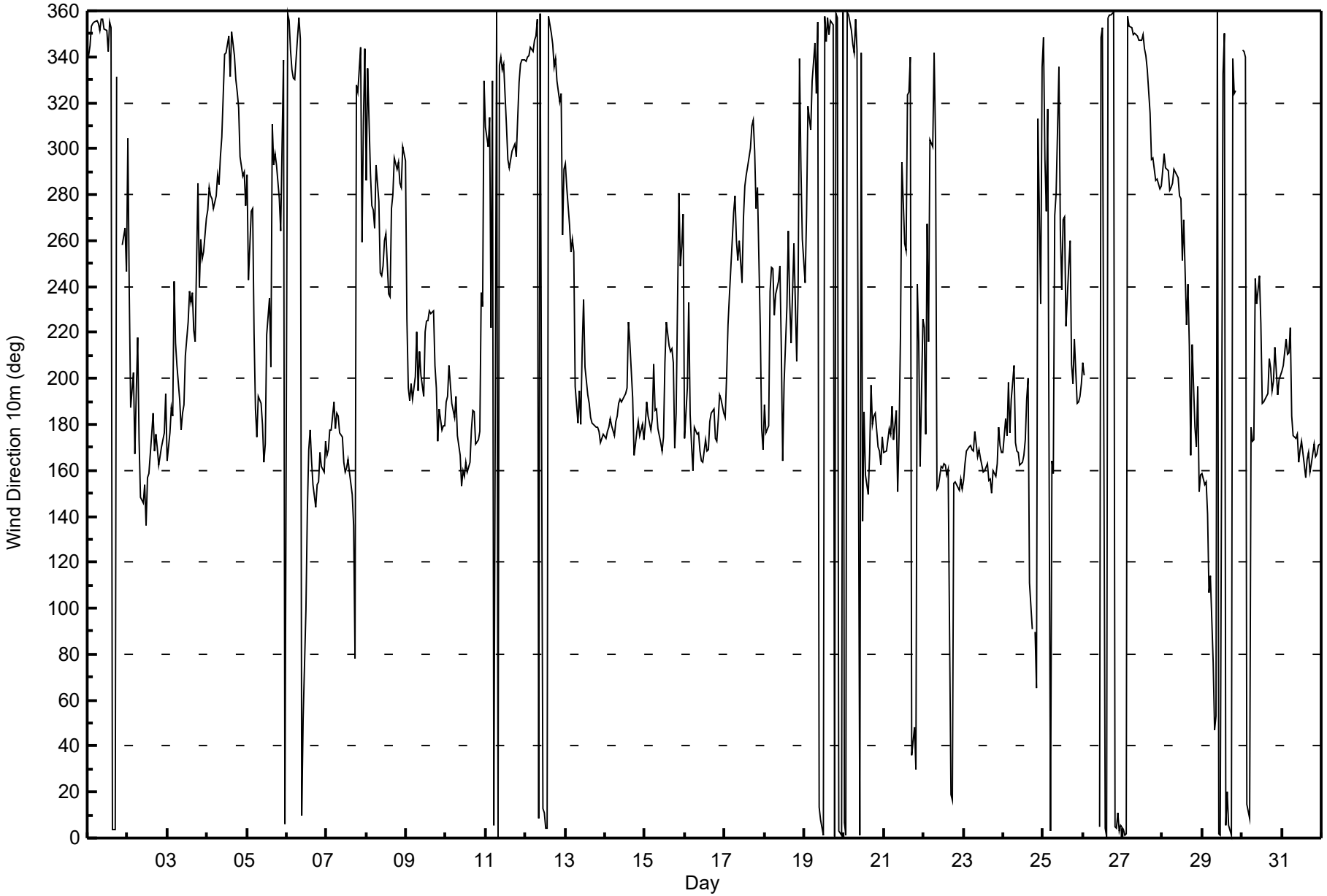
UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Fort McKay - Bertha Ganter - October 2025



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Fort McKay - Bertha Ganter - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 101 deg on Oct 22 02:00

Minimum Value: 10 deg on Oct 3 01:00

Percentiles: P_1 = 10 P_{10} = 13 Q_1 = 16 Median = 21 Q_3 = 35 P_{90} = 49 P_{99} = 80

Hours in Service:	744
Hours of Data:	729
Hours of Missing Data:	15
Hours of Calibration:	0
Percent Operational Time:	98.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	19	21	25	24	22	19	16	15	16	15	17	16	15	20	17	16	16	24	UO	UO	UO	33	15	37	37
2-Oct	76	35	27	63	70	44	42	35	15	17	22	19	29	15	19	23	31	22	11	18	10	12	14	20	76
3-Oct	10	15	18	69	23	36	41	17	17	21	21	34	40	44	45	42	34	34	42	48	43	48	51	47	69
4-Oct	43	30	31	27	34	29	21	25	37	20	25	43	22	33	20	17	14	13	13	13	17	20	20	25	43
5-Oct	28	53	34	40	41	29	24	25	34	16	25	49	66	62	33	40	23	19	21	31	45	51	47	17	66
6-Oct	21	19	20	12	11	10	17	17	28	24	47	80	59	45	32	21	16	16	12	14	18	26	18	13	80
7-Oct	14	14	16	16	21	15	17	15	16	16	14	13	14	14	13	12	37	49	18	25	78	40	63	54	78
8-Oct	50	36	85	48	35	46	28	38	43	48	55	46	45	49	50	49	35	21	24	25	31	30	27	27	85
9-Oct	46	65	44	16	16	16	28	39	34	27	29	37	35	42	41	41	42	27	12	16	50	14	21	13	65
10-Oct	13	32	44	10	11	12	22	19	19	19	16	14	14	15	13	19	18	16	10	16	11	64	77	28	77
11-Oct	78	65	70	47	57	19	19	23	17	19	13	15	24	20	22	22	21	17	17	14	13	15	14	15	78
12-Oct	14	15	15	16	17	18	20	21	21	23	19	21	20	21	23	23	18	13	17	16	10	32	35	17	35
13-Oct	15	23	21	33	34	42	20	14	29	20	34	44	34	28	23	18	16	15	14	14	12	12	12	13	44
14-Oct	12	12	14	15	14	13	16	15	20	23	20	23	24	25	39	31	27	11	13	14	14	10	11	12	39
15-Oct	12	12	13	12	14	27	24	17	18	14	14	21	35	38	38	31	30	20	27	21	61	36	39	67	67
16-Oct	58	24	55	53	62	26	13	14	16	15	13	13	15	14	18	20	17	19	14	17	16	34	20	16	62
17-Oct	14	28	34	39	40	40	26	33	37	43	50	51	34	28	27	20	15	12	22	15	18	66	35	42	66
18-Oct	35	45	36	57	43	32	48	52	46	47	69	55	46	49	41	43	34	34	57	67	57	66	65	54	69
19-Oct	40	14	27	21	41	29	32	21	34	22	32	21	20	17	20	21	21	18	16	15	15	14	14	14	41
20-Oct	16	16	15	14	17	15	15	20	20	20	38	26	24	16	15	24	22	14	14	16	13	24	14	18	38
21-Oct	15	13	14	17	16	15	14	23	40	29	79	25	39	44	47	16	23	21	28	25	54	65	79	38	79
22-Oct	85	101	53	72	41	45	15	35	94	29	16	26	22	16	19	28	18	27	34	14	14	12	12	12	101
23-Oct	14	15	13	13	13	13	12	17	13	18	14	13	13	13	12	13	12	11	13	12	11	13	13	12	18
24-Oct	14	25	24	18	47	19	17	17	18	14	11	15	13	17	24	44	34	72	UO	60	58	76	57	47	76
25-Oct	70	25	61	39	35	33	99	31	64	84	64	46	37	45	33	43	46	31	21	35	54	31	24	87	99
26-Oct	52	31	UO	UO	UO	UO	UO	UO	UO	UO	18	47	15	15	16	16	16	15	18	19	17	17	18	18	52
27-Oct	16	17	18	18	17	16	16	17	16	17	17	15	17	15	16	13	17	16	16	18	25	23	24	24	25
28-Oct	20	24	26	23	30	31	29	36	25	28	47	33	43	44	31	38	37	15	50	40	51	35	61	26	61
29-Oct	16	18	16	31	16	18	33	28	33	22	15	24	32	20	14	16	16	15	13	10	11	UO	UO	UO	33
30-Oct	18	40	31	28	68	41	26	19	38	46	54	47	23	23	20	20	24	25	21	22	26	19	23	22	68
31-Oct	23	25	29	25	31	40	17	15	13	15	15	15	15	13	13	13	14	14	14	15	13	14	15	13	40
	85	101	85	72	70	46	99	52	94	84	79	80	66	62	50	49	46	72	57	67	78	76	79	87	
	Diurnal Maximum																								

UO - Unstable Operation

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS02
MILDRED LAKE
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MILDRED LAKE (AMS02)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	708	36	36	100	52.5	0	7.6	0
H2S (ppb) Average	704	36	40	99.46	1.9	0	0.6	0
THC (ppm) Average	708	36	36	100	5.4	-	2.5	-
NMHC(ppm) Average	708	36	36	100	2.012	-	0.263	-
CH4(ppm) Average	708	36	36	100	4.8	-	2.3	-
Temperature (C) Average	744	0	0	100	21.8	-	11.1	-
Relative Humidity (%) Average	744	0	0	100	100	-	94.9	-
Wind Speed 10 m (km/h) Average	744	0	0	100	26	-	20	-
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MILDRED LAKE (AMS02)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	708	1	3.8	-	0	0	0.1	0.2	0.5	1.3	52.5
H2S (ppb) Average	704	0.22	0.2	-	0	0	0.1	0.1	0.3	0.5	1.9
THC (ppm) Average	708	2.13	0.3	-	1.8	1.9	2	2	2.2	2.5	5.4
NMHC(ppm) Average	708	0.058	0.152	-	0	0	0	0	0	0.2	2.012
CH4(ppm) Average	708	2.08	0.2	-	1.8	1.9	2	2	2.1	2.3	4.8
Temperature 2 m (C) Average	744	5.18	4.4	-	-2.2	0.1	1.4	4.5	8.3	11.1	21.8
Relative Humidity (%) Average	744	75.89	17.1	-	28.8	51.4	63.2	79	89.8	97.2	100
Wind Speed 10 m (km/h) Average	744	10.6	5	-	1	5	7	10	13	16	26
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MILDRED LAKE (AMS02)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
H2S	30 Oct 2025 11:00	30 Oct 2025 14:00	4	Maintenance - sample manifold cleaned

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Mildred Lake - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 52.5 ppb on Oct 6 14:00

Maximum Daily Average: 7.6 ppb on Oct 8

Minimum Value: 0.0 ppb on Oct 1 05:00

Minimum Daily Average: 0.0 ppb on Oct 1

Maximum Diurnal Average: 3.2 ppb at hour 15

Minimum Diurnal Average: 0.2 ppb at hour 8

Monthly Average: 1.00 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.2 Q_3 = 0.5 P_{90} = 1.3 P_{99} = 16.6

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
2-Oct	0.1	Z	0.1	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2
3-Oct	0.2	0.3	Z	0.4	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.0	1.5	0.7	0.0	0.0	0.0	0.0	1.7	4.2	11.8	5.7	11.4	1.7	11.8
4-Oct	7.5	7.9	5.6	Z	0.5	0.1	0.1	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	7.9
5-Oct	0.1	0.0	0.2	0.4	Z	0.0	0.1	0.0	0.1	0.1	0.1	0.1	7.8	4.3	5.0	6.1	3.7	0.2	0.1	0.8	7.4	2.7	0.3	0.2	1.7	7.8
6-Oct	0.1	0.1	0.1	0.1	0.2	Z	0.1	0.1	0.1	0.1	0.0	1.1	29.1	52.5	15.8	5.2	3.3	2.0	1.5	1.5	1.1	0.7	0.5	0.5	5.0	52.5
7-Oct	Z	0.6	0.5	0.4	0.4	0.3	0.3	0.4	0.2	0.2	0.1	0.2	0.3	0.2	0.1	0.6	0.4	0.4	0.4	0.1	0.2	0.2	0.2	0.4	0.3	0.6
8-Oct	0.6	Z	0.1	0.0	0.0	1.5	0.9	0.2	0.7	3.8	10.3	23.2	20.1	19.4	46.9	24.7	13.6	1.1	1.8	0.7	0.3	4.5	0.6	0.5	7.6	46.9
9-Oct	0.4	2.8	Z	9.7	0.8	0.4	0.4	0.5	1.1	1.8	0.6	0.5	0.4	0.5	2.5	3.6	0.3	0.3	0.3	0.2	0.3	0.1	0.1	0.3	1.2	9.7
10-Oct	0.3	0.8	0.3	Z	0.4	0.3	0.5	0.6	0.6	0.6	0.8	0.9	0.9	0.7	0.2	0.4	0.6	0.5	0.5	0.1	0.0	0.0	0.0	0.4	0.5	0.9
11-Oct	1.0	1.3	0.6	0.4	Z	0.4	0.5	0.3	0.3	0.2	0.0	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.4	0.6	0.5	0.4	1.3
12-Oct	0.7	0.3	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.7
13-Oct	Z	0.0	0.1	0.2	0.2	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.3	0.1	0.3
14-Oct	0.2	Z	0.6	0.5	0.4	0.6	0.6	0.6	0.6	0.4	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.1	0.1	0.2	0.2	0.2	1.5	0.3	0.4	1.5
15-Oct	1.6	0.6	Z	0.3	0.3	0.1	0.2	0.2	0.6	0.5	0.4	0.3	0.3	1.1	0.3	0.3	0.2	0.2	0.3	0.1	2.5	3.8	0.8	0.3	0.7	3.8
16-Oct	0.2	0.3	0.2	Z	2.9	0.6	0.4	0.6	0.5	1.4	0.5	0.8	1.0	0.3	0.4	0.3	0.4	0.2	0.1	0.1	0.3	0.2	0.3	0.1	0.5	2.9
17-Oct	0.0	0.2	0.2	0.1	Z	13.7	1.2	0.3	0.6	2.0	8.2	5.7	0.7	0.3	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	1.5	13.7
18-Oct	0.2	0.2	0.6	0.8	0.5	Z	0.4	0.4	0.3	2.1	2.1	4.5	7.8	5.3	14.9	4.8	3.1	1.9	0.6	0.4	0.2	0.2	0.3	0.5	2.3	14.9
19-Oct	Z	0.5	0.3	0.2	0.2	0.2	0.1	0.1	0.3	0.6	0.8	0.7	0.6	0.6	0.4	0.3	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.3	0.8
20-Oct	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2
21-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.3	0.2	0.7	1.2	0.1	0.0	1.7	3.7	0.3	0.1	0.1	0.1	0.1	0.0	0.2	0.2	0.2	0.4	3.7
22-Oct	0.3	0.4	0.3	Z	0.3	0.6	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.4	0.2	1.4	1.4	14.5	16.6	6.4	0.7	0.5	0.3	2.0	16.6
23-Oct	0.3	0.3	0.2	0.1	Z	0.0	0.0	0.1	0.5	0.5	0.4	0.4	0.3	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.0	0.2	0.3	0.3	0.5
24-Oct	0.5	0.5	0.6	0.3	0.6	Z	0.0	0.0	0.0	0.2	0.4	0.4	0.5	0.4	0.4	0.5	0.9	0.4	0.3	0.5	1.9	1.6	0.8	0.7	0.5	1.9
25-Oct	Z	0.2	0.1	0.0	0.2	0.5	0.2	0.1	1.0	0.8	0.0	0.0	0.1	0.0	0.7	12.1	9.3	1.2	0.2	0.1	0.0	0.0	0.1	0.1	1.2	12.1
26-Oct	0.1	Z	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.4	0.6	0.4	0.4	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.6
27-Oct	0.0	0.1	Z	0.0	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.2
28-Oct	0.0	0.0	0.1	Z	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.6	0.4	0.1	0.3	0.3	0.2	0.2	0.2	0.2	0.6
29-Oct	0.1	0.1	0.1	0.3	Z	0.9	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.0	0.2	0.9
30-Oct	0.1	0.1	0.1	0.0	0.1	Z	0.1	0.2	0.6	0.2	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.6
31-Oct	Z	0.1	0.0	0.2	0.0	0.2	0.2	0.2	0.2	0.4	0.5	0.5	0.7	0.6	0.6	0.5	0.4	0.2	0.1	0.2	0.0	0.0	0.0	0.1	0.3	0.7
	0.6	0.7	0.4	0.6	0.3	0.8	0.3	0.2	0.3	0.6	0.9	1.4	2.4	3.1	3.2	2.0	1.3	0.4	0.7	0.8	0.9	0.9	0.4	0.6	Diurnal Average	
	7.5	7.9	5.6	9.7	2.9	13.7	1.2	0.6	1.1	3.8	10.3	23.2	29.1	52.5	46.9	24.7	13.6	2.0	14.5	16.6	7.4	11.8	5.7	11.4	Diurnal Maximum	

Z - zerospan C - Calibration

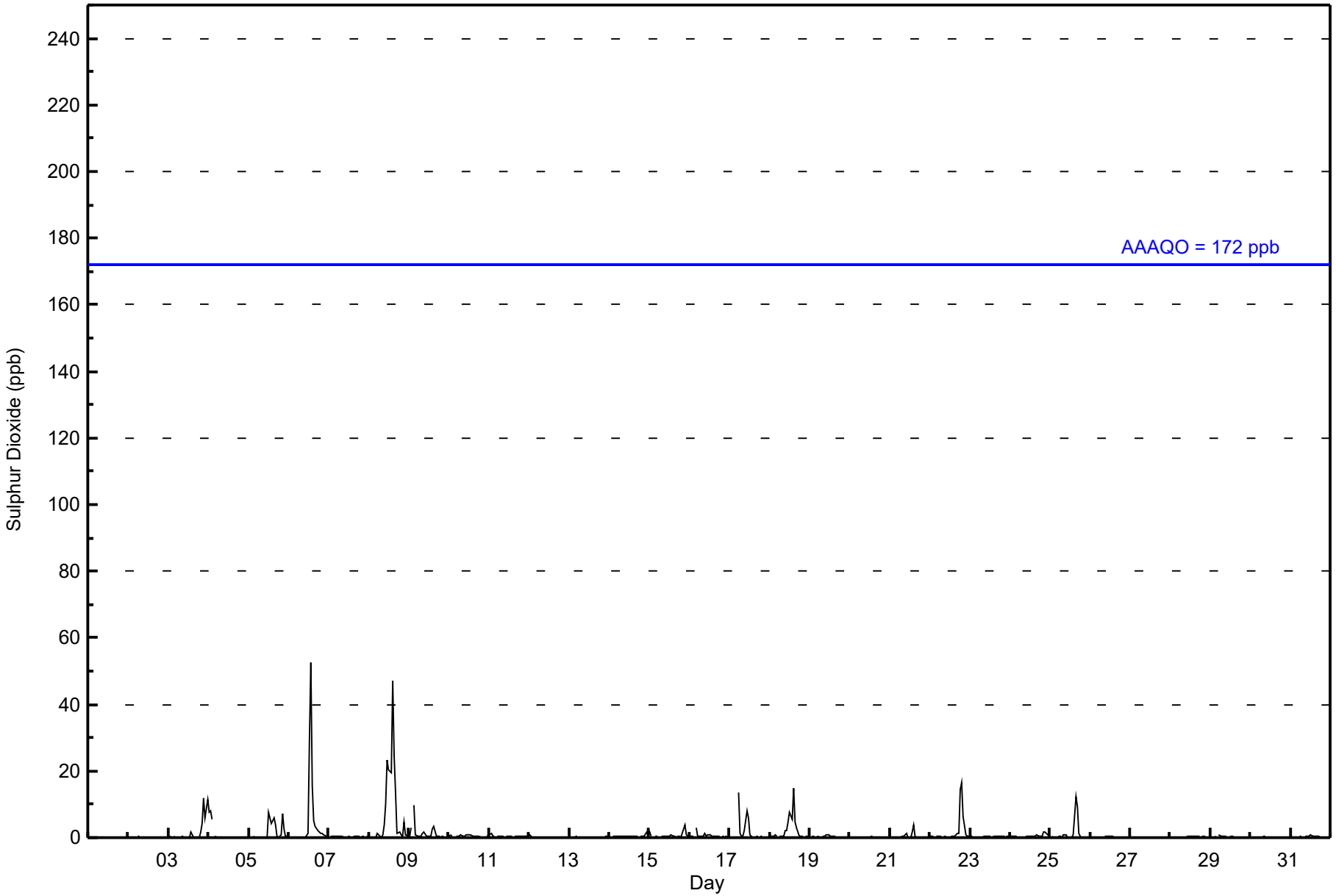
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Mildred Lake - October 2025



Sulphur Dioxide (SO_2) - ppb
Mildred Lake - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	692	97.74	97.74
11 - 20	11	1.55	99.29
21 - 60	5	0.71	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Mildred Lake - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	83	13	8	3	7	14	88	112	63	36	53	15	43	74	19	61	692
11 - 20	0	0	0	0	0	1	1	1	0	0	0	0	8	0	0	0	11
21 - 60	0	0	0	0	0	0	0	0	2	0	1	2	0	0	0	0	5
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	83	13	8	3	7	15	89	113	65	36	54	17	51	74	19	61	708

Total Number of Valid Hours: 708

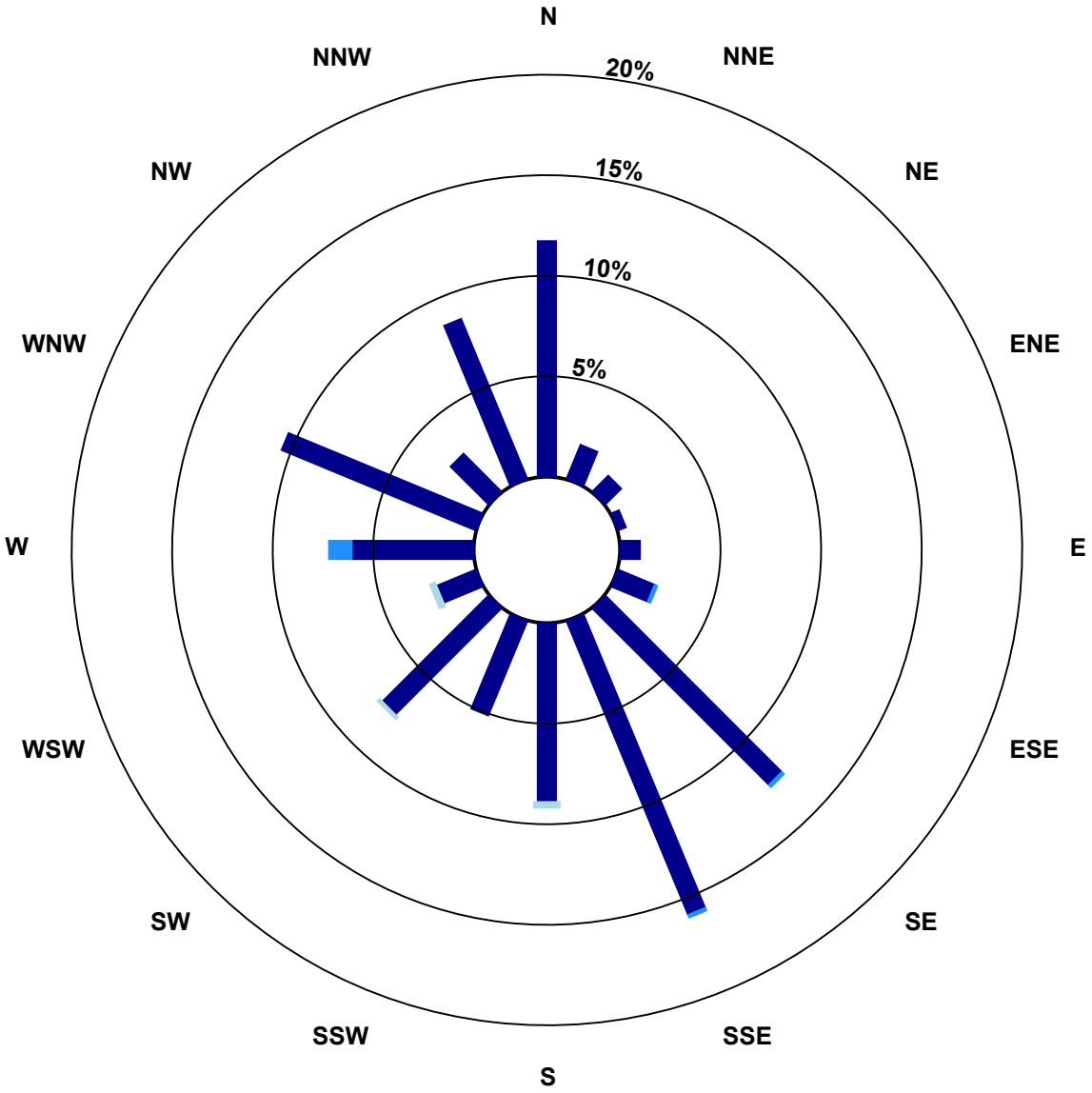
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Mildred Lake



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

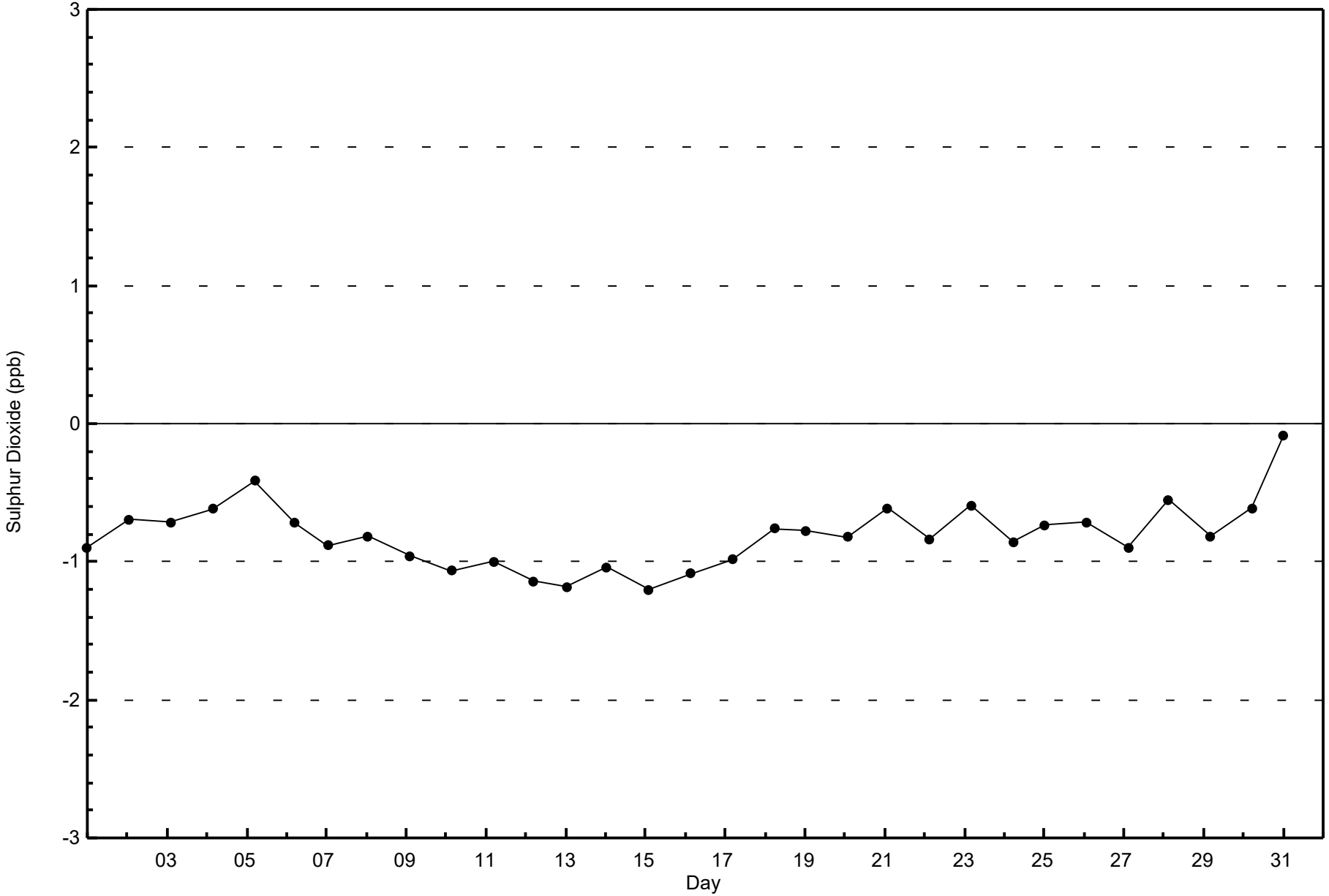
Total Number of Valid Hours: 708

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Mildred Lake - October 2025

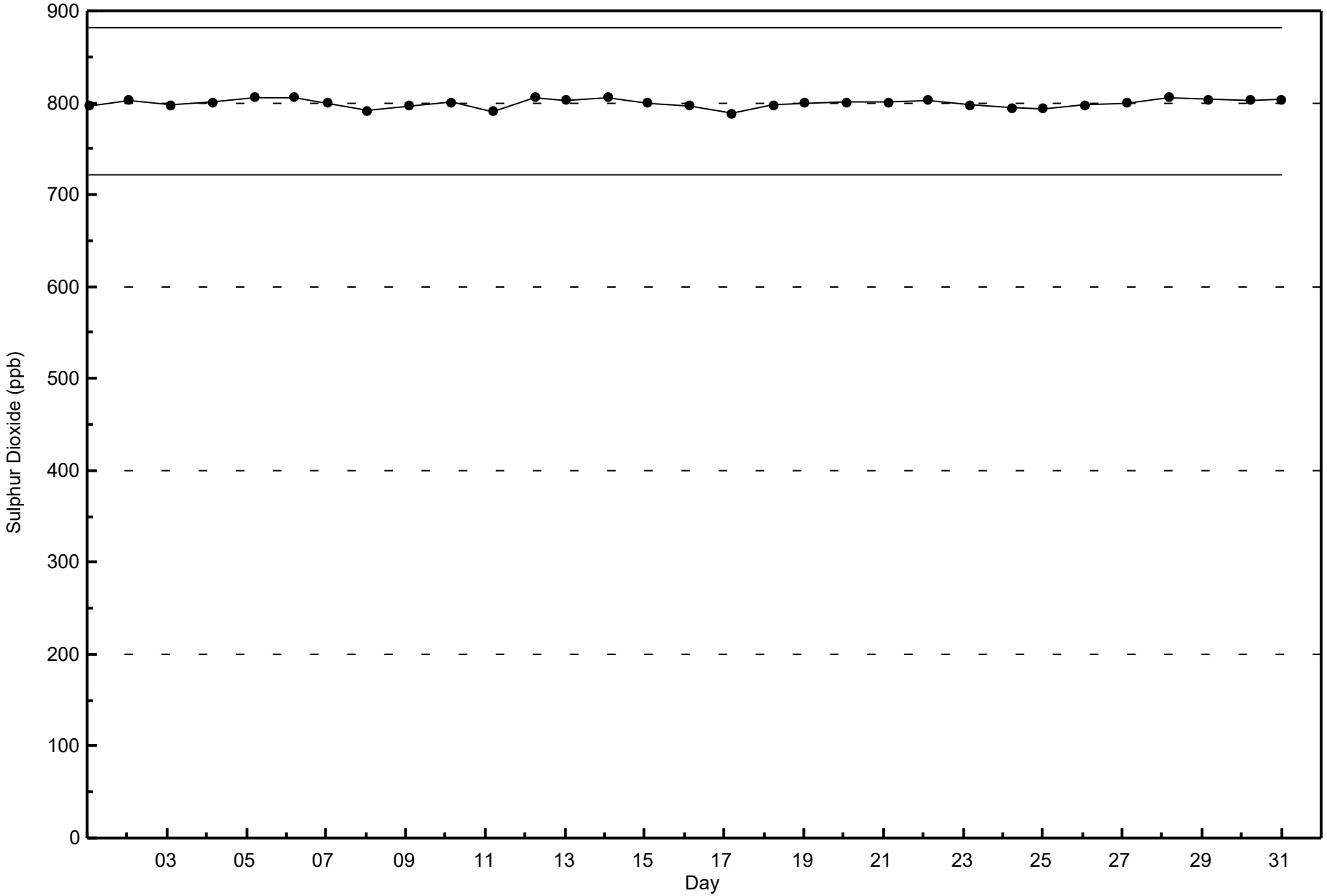


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Mildred Lake - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H_2S) - ppb

Mildred Lake - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 1.9 ppb on Oct 7 17:00

Maximum Daily Average: 0.6 ppb on Oct 19

Minimum Value: 0.0 ppb on Oct 1 14:00

Minimum Daily Average: 0.1 ppb on Oct 21

Maximum Diurnal Average: 0.3 ppb at hour 1

Minimum Diurnal Average: 0.2 ppb at hour 15

Monthly Average: 0.22 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.3 P_{90} = 0.5 P_{99} = 1.2

Hours in Service:	744
Hours of Data:	704
Hours of Missing Data:	40
Hours of Calibration:	36
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.4	Z	0.2	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
2-Oct	0.2	0.4	Z	0.2	0.3	0.4	1.0	0.4	0.6	0.9	0.3	0.7	0.5	0.2	0.2	0.1	0.1	0.6	0.2	0.2	0.1	0.1	0.2	0.2	0.4	1.0
3-Oct	0.5	1.0	0.6	Z	0.4	0.7	0.4	0.3	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.5	0.4	0.5	0.3	1.0
4-Oct	0.5	0.2	0.3	0.2	Z	0.7	0.8	0.9	0.5	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.0	0.0	0.1	0.1	0.4	0.3	0.9
5-Oct	0.3	0.1	0.4	0.7	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.5	0.4	0.1	0.1	0.5	0.3	0.2	0.1	0.1	0.2	0.7
6-Oct	Z	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5	0.2	0.3	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.5
7-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.3	1.9	1.9	0.5	0.1	0.2	0.3	0.7	1.0	0.3	1.9
8-Oct	1.3	0.5	Z	0.8	0.7	0.6	0.3	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.3	1.3
9-Oct	0.4	0.5	0.3	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.1	0.5
10-Oct	0.4	0.9	0.3	0.2	Z	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.2	0.2	0.4	0.2	0.9
11-Oct	0.7	0.9	1.4	0.4	0.6	Z	0.3	0.3	0.4	0.2	0.2	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.4	1.4
12-Oct	Z	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
13-Oct	0.1	Z	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
14-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8	0.1	0.1	0.8
15-Oct	0.8	0.3	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.2	0.4	0.2	0.2	1.2
16-Oct	0.1	0.1	0.1	0.6	Z	0.3	0.2	0.4	0.6	0.8	0.3	0.3	0.3	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.8
17-Oct	0.2	0.1	0.1	0.1	0.2	Z	0.4	0.5	0.6	0.4	0.4	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.9	1.2	0.9	0.6	0.4	1.2
18-Oct	Z	0.1	0.2	0.5	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.6	0.1	0.6
19-Oct	0.9	Z	0.8	0.6	0.5	0.6	0.5	0.3	0.4	0.7	1.1	1.1	1.2	1.1	0.7	0.6	0.5	0.3	0.4	0.4	0.3	0.3	0.2	0.2	0.6	1.2
20-Oct	0.1	0.1	Z	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2
21-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.0	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2
22-Oct	0.3	0.4	0.5	0.4	Z	0.4	0.2	0.2	0.2	C	C	C	C	C	0.1	0.2	0.5	0.4	0.9	1.6	0.9	0.1	0.1	0.4	0.4	1.6
23-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.1	0.2	0.1	0.1	0.2	0.2	0.3
24-Oct	Z	0.2	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.3	0.2	0.2	0.4	0.3	0.2	0.4	0.5	0.6	0.3	0.3	0.6
25-Oct	0.4	Z	0.2	0.4	0.4	0.4	0.3	0.3	0.7	0.9	0.7	0.6	0.5	0.7	0.4	0.5	0.4	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.4	0.9
26-Oct	0.1	0.2	Z	0.5	1.1	0.7	0.2	0.1	0.2	0.7	1.0	0.8	0.6	0.5	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	1.1
27-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2
28-Oct	0.1	0.1	0.1	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.3
29-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
30-Oct	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.1	M	M	M	M	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
31-Oct	0.0	Z	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	1.3	1.0	1.4	0.8	1.1	0.7	1.0	0.9	0.7	0.9	1.1	1.1	1.2	1.1	0.7	0.6	1.9	1.9	0.9	1.6	0.9	1.2	0.9	1.0	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

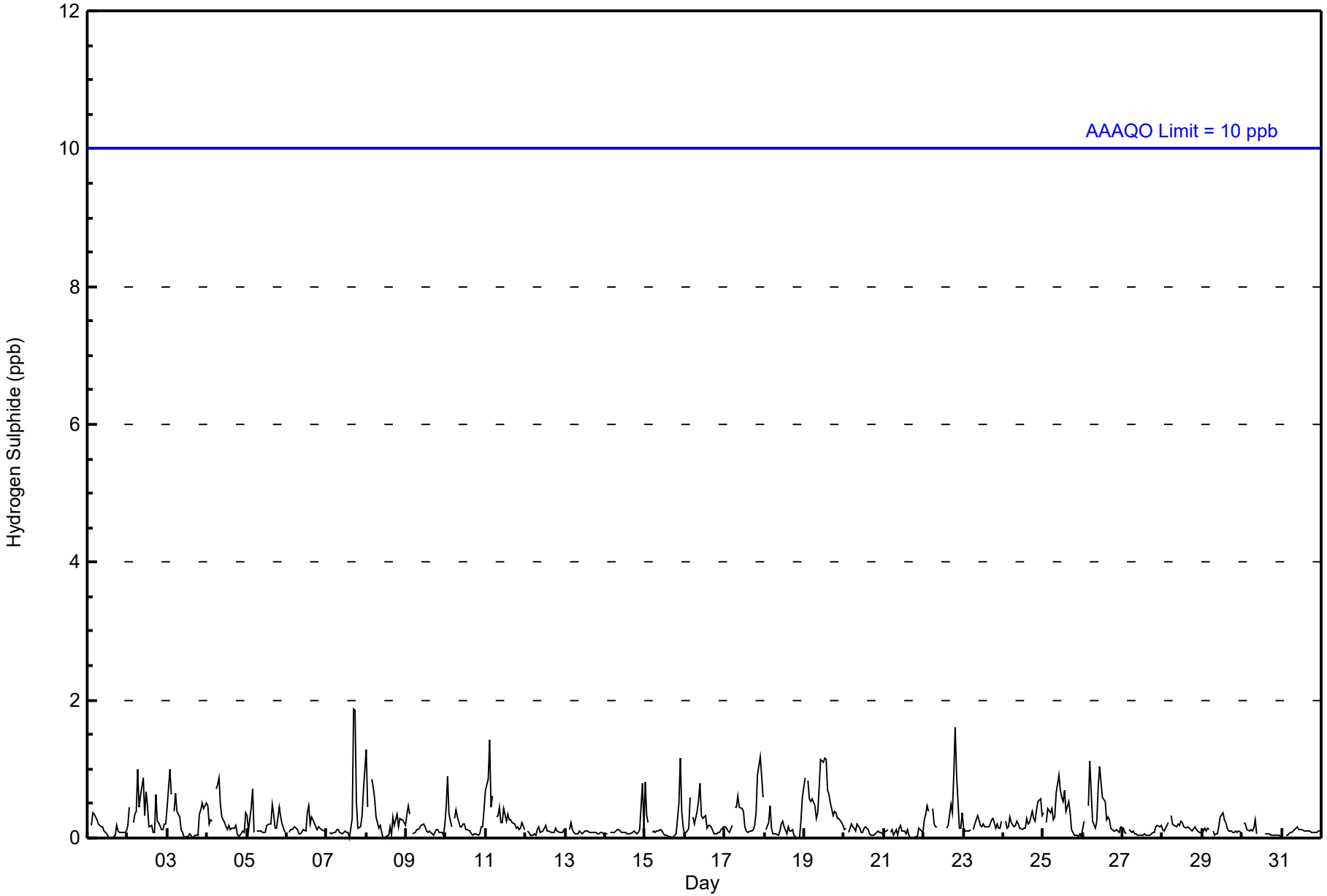
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Mildred Lake - October 2025



Hydrogen Sulphide (H_2S) - ppb
Mildred Lake - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	704	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Mildred Lake - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	82	13	8	4	7	17	87	106	65	38	54	18	52	73	18	62	704
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	82	13	8	4	7	17	87	106	65	38	54	18	52	73	18	62	704

Total Number of Valid Hours: 704

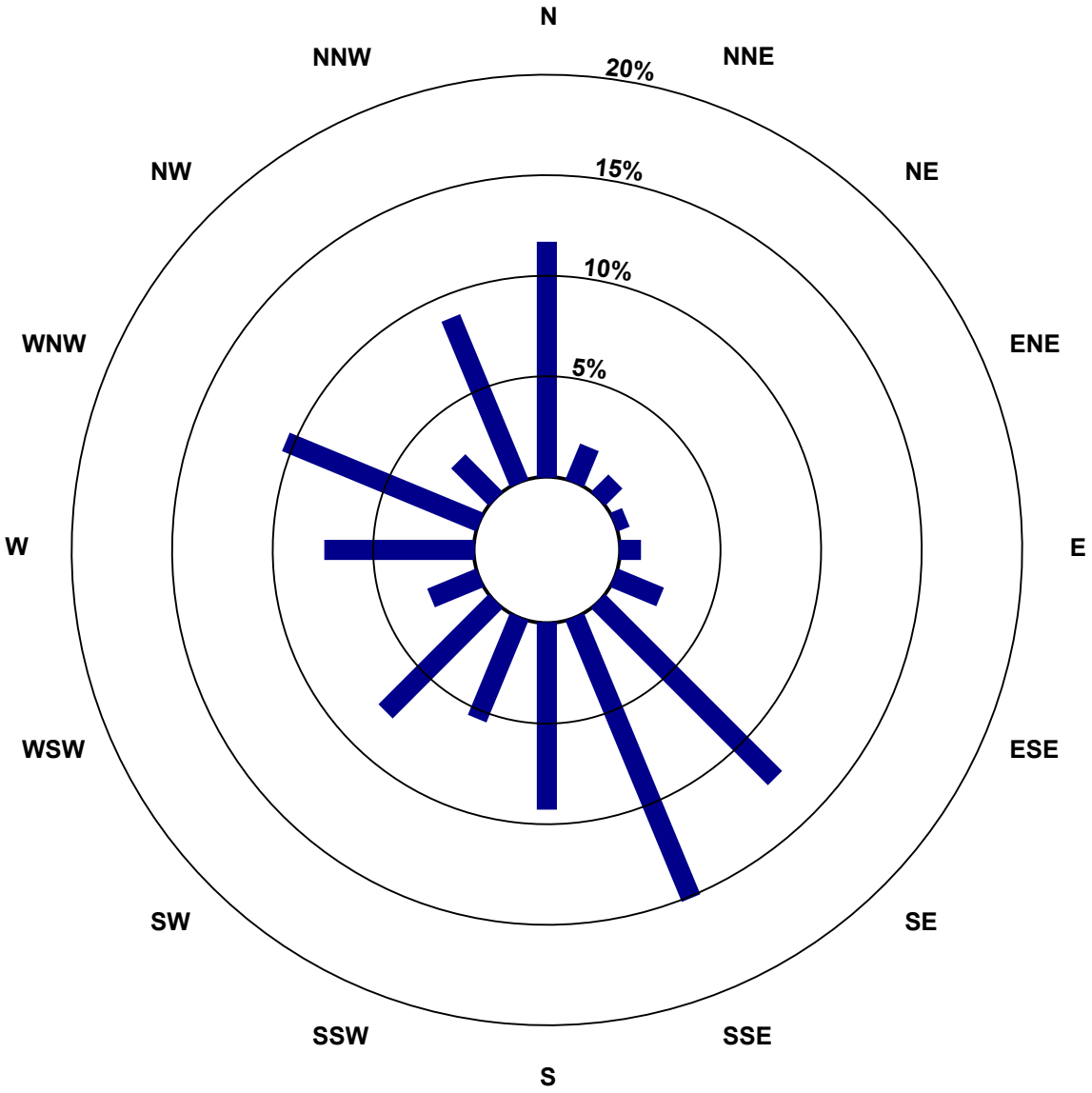
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H_2S) - ppb

Mildred Lake



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

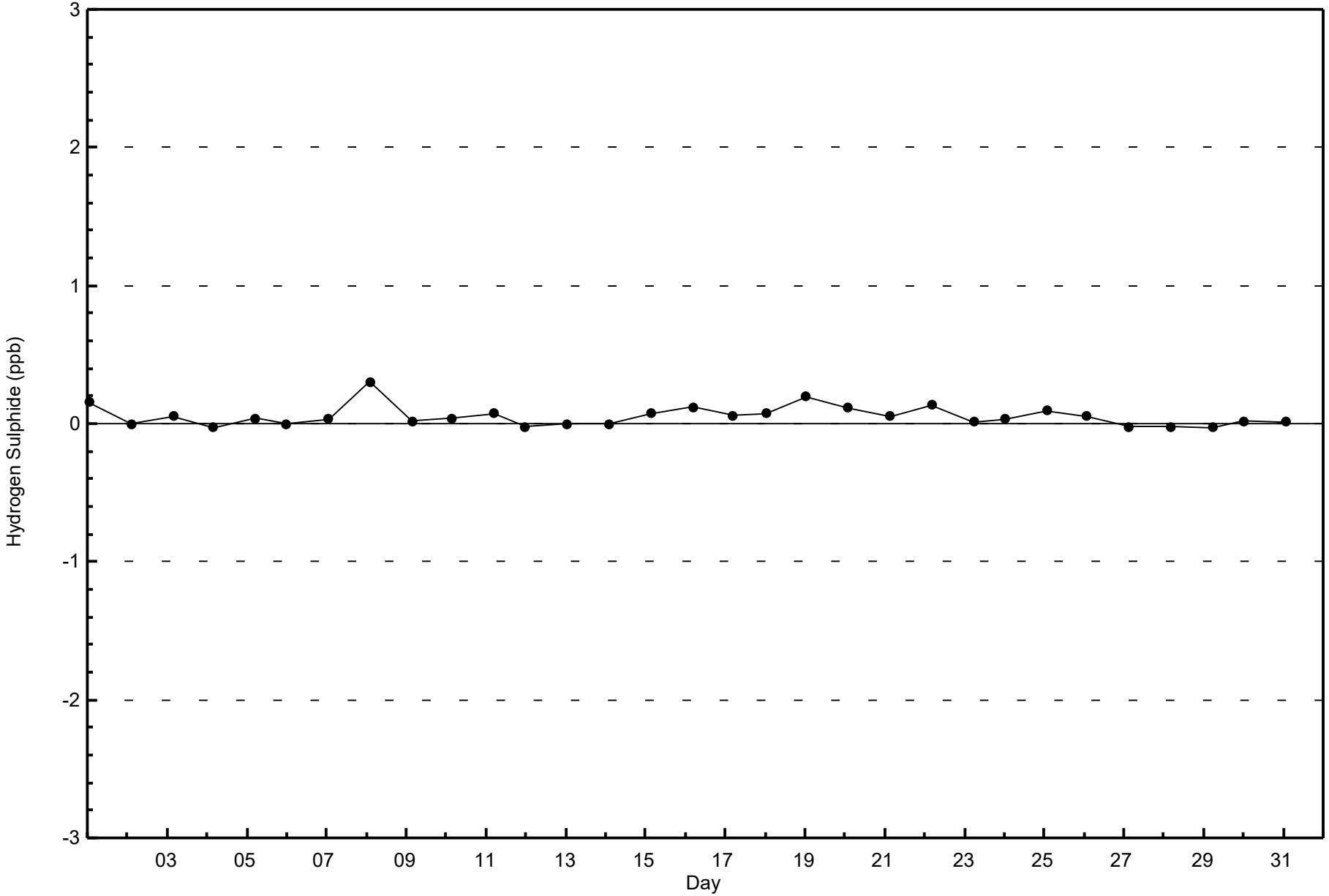
Total Number of Valid Hours: 704

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Mildred Lake - October 2025



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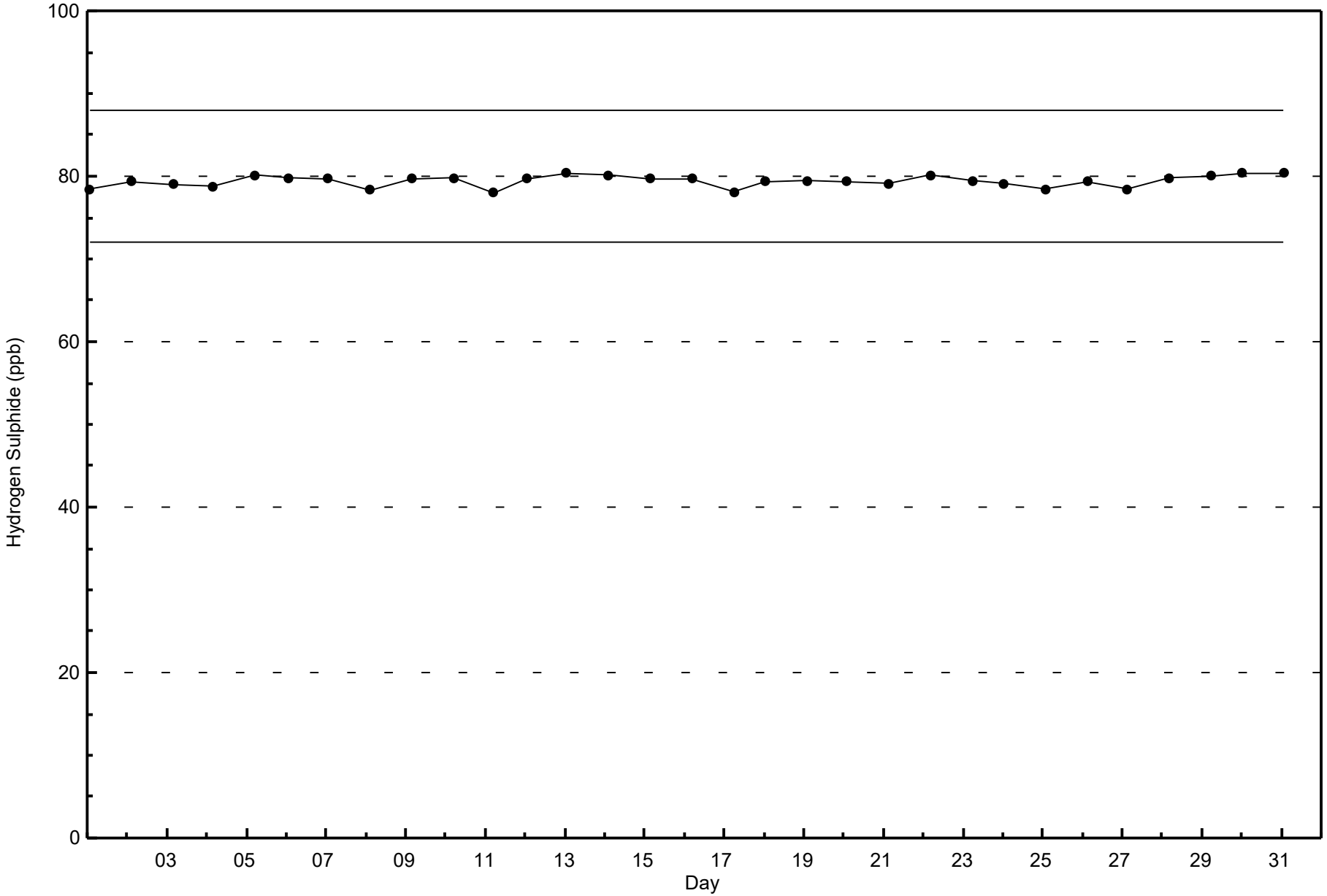
Span Responses

Hydrogen Sulphide (H_2S) - ppb

Mildred Lake - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Mildred Lake - October 2025

Maximum Value: 5.4 ppm on Oct 8 00:00

Maximum Daily Average: 2.5 ppm on Oct 19

Minimum Value: 1.8 ppm on Oct 29 00:00

Minimum Daily Average: 1.9 ppm on Oct 29

Maximum Diurnal Average: 2.3 ppm at hour 24

Minimum Diurnal Average: 2.1 ppm at hour 16

Monthly Average: 2.13 ppm

Percentiles: P_1 = 1.9 P_{10} = 1.9 Q_1 = 2.0 Median = 2.0 Q_3 = 2.2 P_{90} = 2.5 P_{99} = 3.5

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	Z	2.5	2.4	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.5
2-Oct	2.0	Z	2.5	2.3	2.3	2.1	2.3	2.1	2.8	2.4	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.1	2.6	2.2	2.0	2.1	2.4	2.4	2.2	2.8
3-Oct	2.4	2.5	Z	2.3	2.6	2.7	2.8	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4	2.2	2.3	2.2	2.3	2.2	2.8
4-Oct	2.1	2.0	2.1	Z	2.1	2.0	2.3	2.8	2.6	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4	2.4	2.5	2.2	2.8
5-Oct	2.4	2.4	2.6	2.8	Z	2.0	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.0	2.1	2.1	2.8	3.0	2.1	2.1	2.0	2.2	2.0	2.2	3.0
6-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.1	2.0	2.0	2.1	2.3	2.2	2.2	2.2	2.3	2.2	2.1	2.3
7-Oct	Z	2.3	2.2	2.0	2.1	2.1	2.4	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.5	2.6	2.3	2.4	2.4	2.7	3.7	5.4	2.4	5.4
8-Oct	4.3	Z	3.2	3.0	2.4	2.5	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.2	2.3	2.1	2.2	2.1	2.2	2.1	2.3	4.3
9-Oct	2.1	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	3.0	2.0	3.0
10-Oct	3.4	2.7	2.5	Z	2.1	2.2	2.3	2.1	2.0	2.0	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.1	2.5	2.6	2.2	2.2	3.4
11-Oct	2.1	2.4	2.8	2.3	Z	2.4	2.3	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.6	2.5	2.0	2.0	1.9	2.2	2.8
12-Oct	1.9	1.9	1.9	1.9	1.9	Z	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.6	2.0	2.6
13-Oct	Z	2.2	2.2	2.2	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2
14-Oct	1.9	Z	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4	2.3	2.0	2.4
15-Oct	2.4	2.5	Z	2.5	2.4	2.3	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.7	4.1	2.7	2.0	2.2	4.1
16-Oct	2.0	2.1	2.2	Z	3.6	2.6	2.0	2.0	2.8	2.3	2.5	2.2	2.1	2.2	2.4	2.5	2.2	1.9	1.9	2.4	2.0	1.9	1.9	1.9	2.2	3.6
17-Oct	1.9	2.0	2.0	2.0	Z	2.2	2.4	2.7	2.1	2.0	2.3	2.1	2.0	2.0	2.0	2.1	2.5	3.2	4.1	3.0	2.5	2.7	2.6	2.9	2.4	4.1
18-Oct	2.6	2.3	2.4	2.2	2.0	Z	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.2	2.6	2.1	2.6
19-Oct	Z	3.2	3.1	2.5	2.4	2.4	2.4	2.1	2.3	3.0	3.5	3.2	3.0	3.2	2.8	2.5	2.1	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.5	3.5
20-Oct	1.9	Z	1.9	1.9	2.0	2.0	2.0	2.0	2.1	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.1	2.1	1.9	2.0	2.2
21-Oct	2.1	2.1	Z	2.3	2.1	1.9	1.9	2.1	1.9	2.0	2.0	2.0	2.0	1.9	1.9	2.2	2.2	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.3
22-Oct	2.2	2.3	2.6	Z	2.4	2.1	1.9	2.2	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.4	2.1	2.0	2.0	2.0	2.0	2.0	1.9	2.1	2.6
23-Oct	1.9	1.9	1.9	1.9	Z	1.9	1.9	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.2	2.2	2.0	2.0	2.2
24-Oct	2.0	2.0	2.0	2.0	2.1	Z	2.0	2.1	2.1	2.0	2.2	2.1	2.0	2.1	2.3	2.4	2.1	2.1	2.1	2.3	2.2	2.2	2.8	2.1	2.1	2.8
25-Oct	Z	2.3	2.2	2.5	2.7	2.5	2.1	2.2	3.1	3.7	2.7	2.4	2.1	2.3	2.1	2.2	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.3	3.7
26-Oct	2.0	Z	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.4	3.2	2.9	2.4	2.2	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	3.2
27-Oct	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.2	2.1	2.2	1.9	2.2
28-Oct	2.1	2.3	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	2.0	2.3
29-Oct	1.8	2.0	2.0	1.9	Z	1.9	1.9	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.2
30-Oct	2.0	2.0	2.0	1.9	1.9	Z	1.9	1.9	2.0	1.9	C	C	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
31-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.3
	2.2	2.2	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	Diurnal Average	
	4.3	3.2	3.2	3.0	3.6	2.7	2.8	2.8	3.1	3.7	3.5	3.2	3.0	3.2	2.8	2.5	2.5	3.2	4.1	3.0	2.7	4.1	3.7	5.4	Diurnal Maximum	

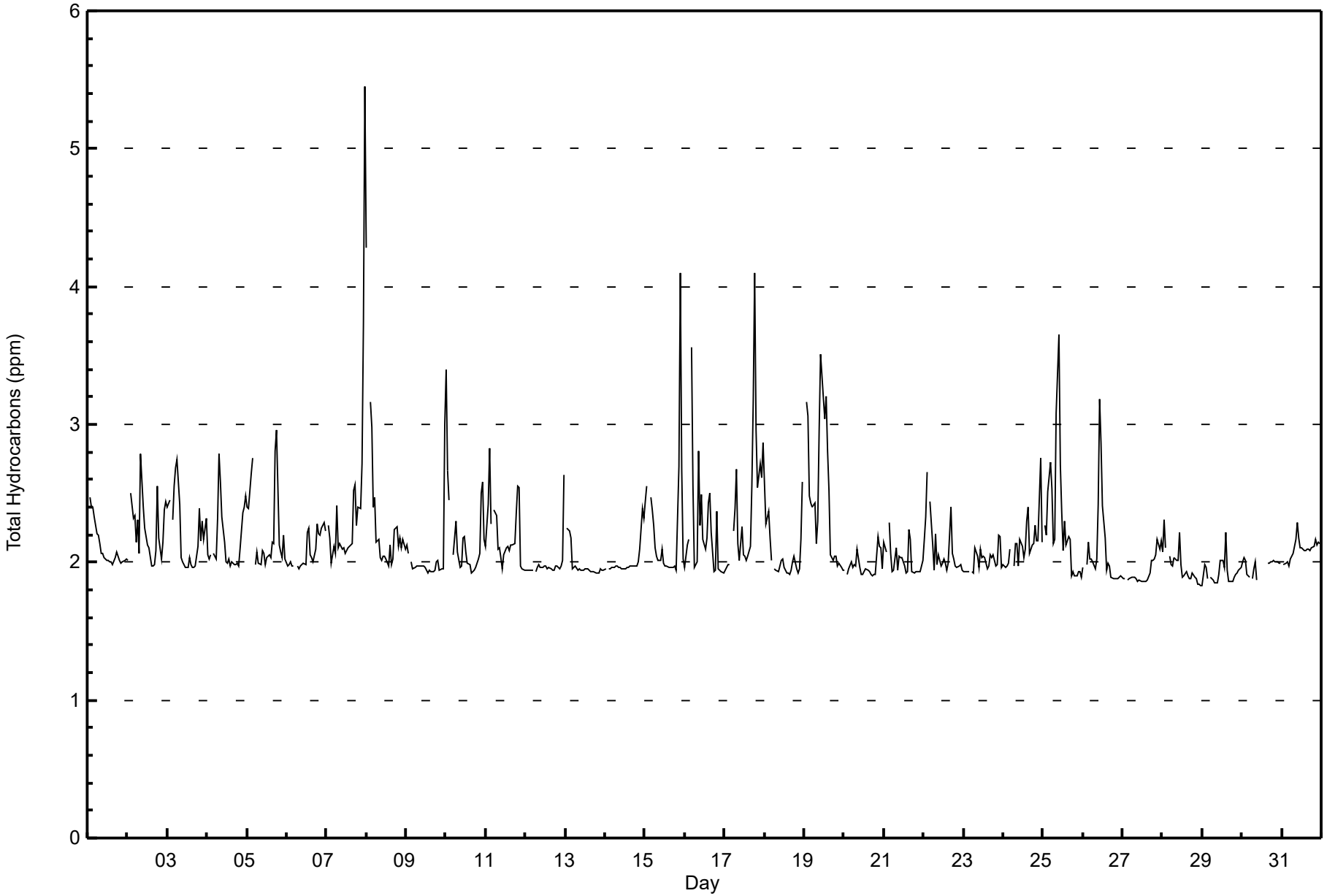
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Mildred Lake - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	401	56.64	56.64
2.1 - 3.0	290	40.96	97.60
3.1 - 10.0	17	2.40	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	62	10	4	2	4	5	31	42	55	33	45	9	24	21	8	46	401
2.1 - 3.0	20	3	4	1	3	10	55	71	9	3	9	7	27	48	9	11	290
3.1 - 10.0	1	0	0	0	0	0	3	0	1	0	0	1	0	5	2	4	17
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	83	13	8	3	7	15	89	113	65	36	54	17	51	74	19	61	708

Total Number of Valid Hours: 708

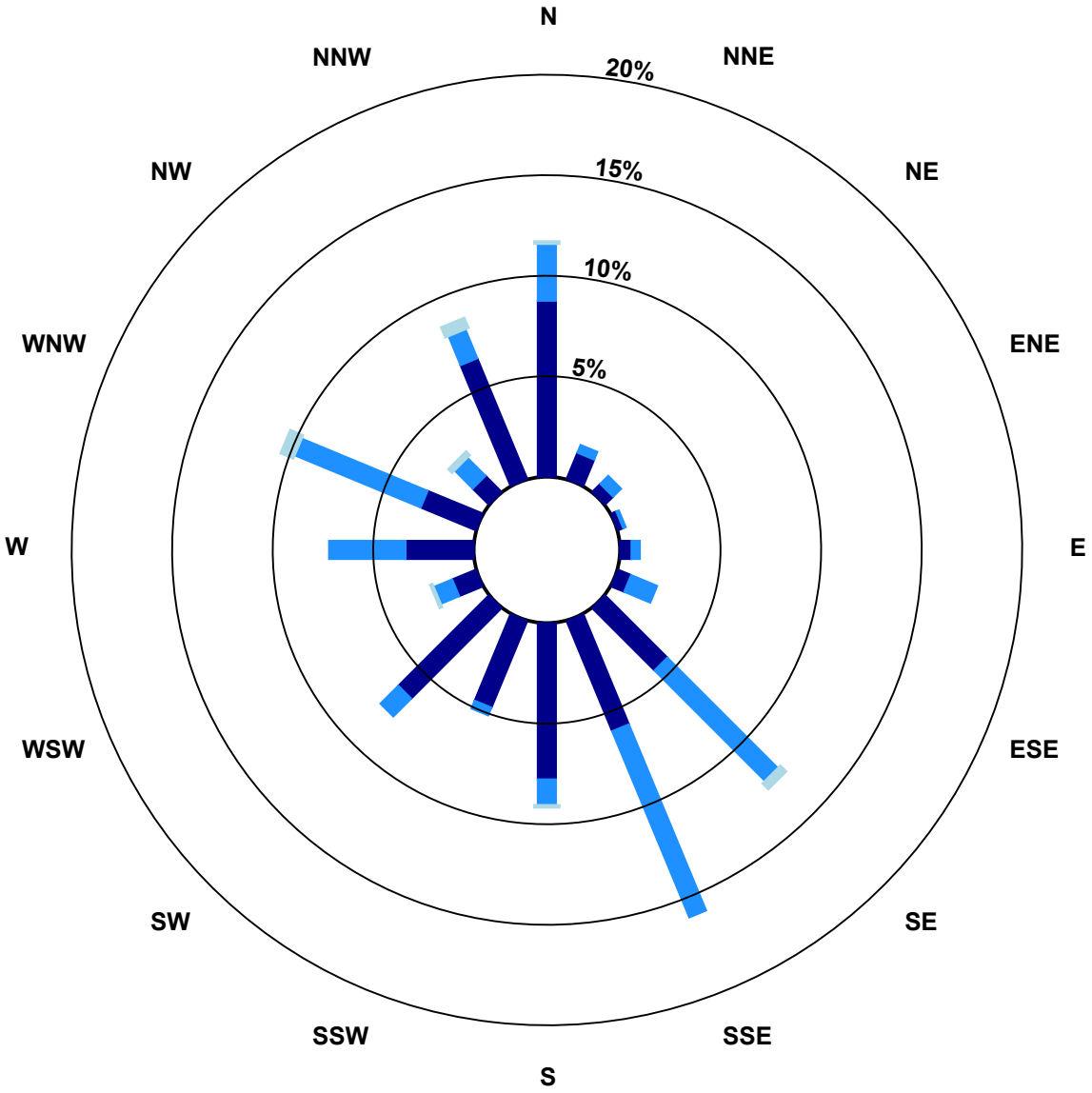
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Mildred Lake



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

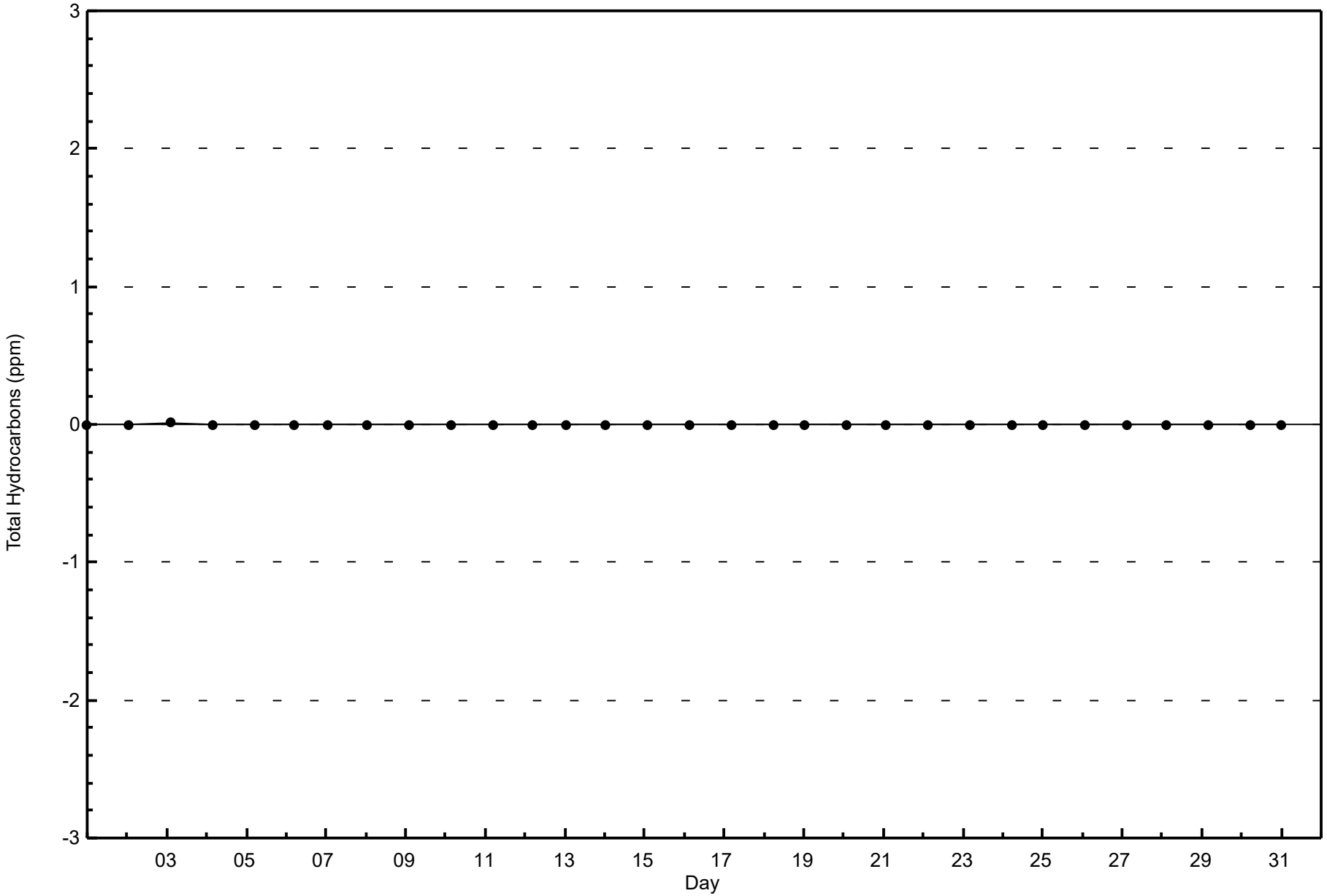
Total Number of Valid Hours: 708

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Mildred Lake - October 2025

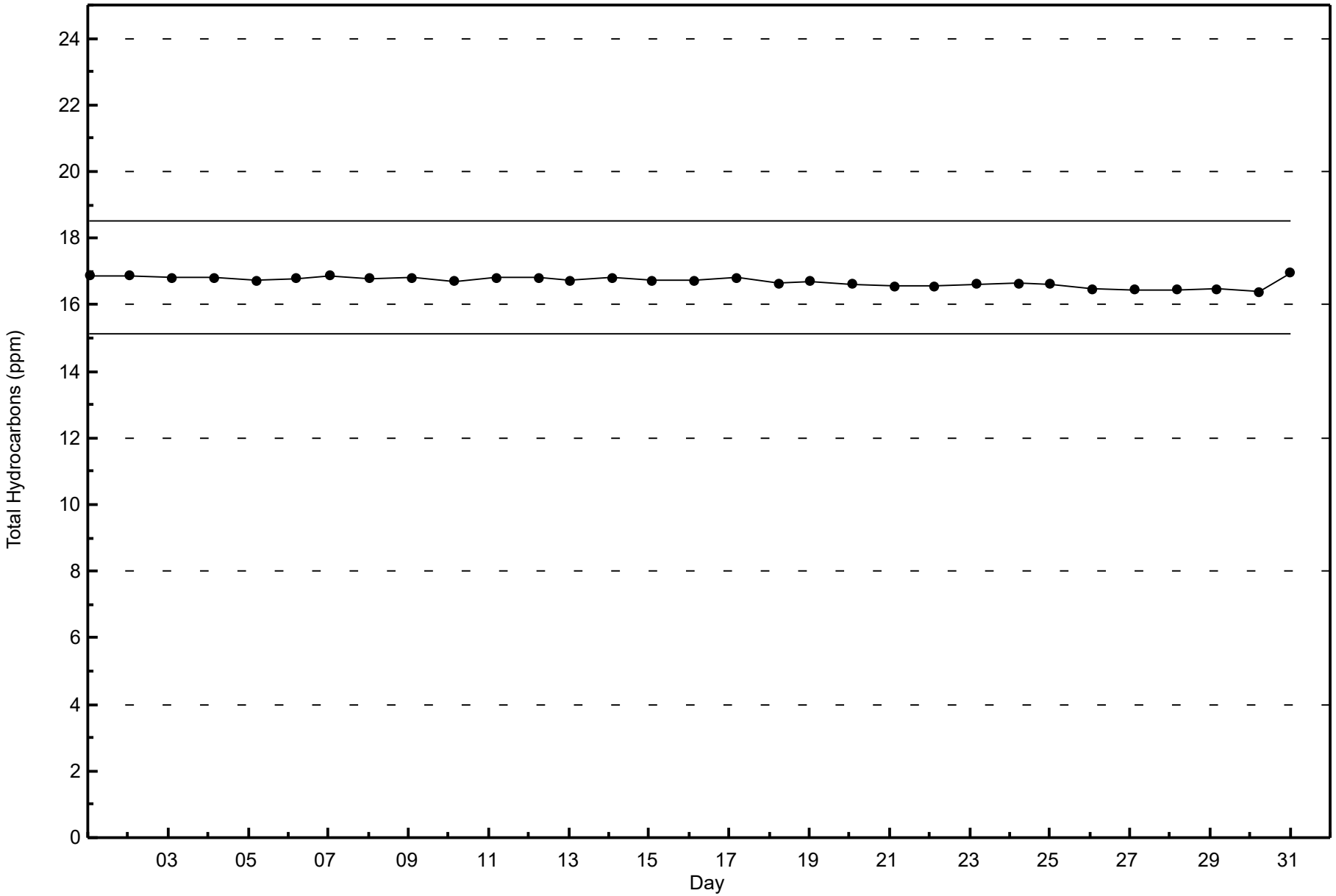


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Mildred Lake - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

Mildred Lake - October 2025

Maximum Value: 2.012 ppm on Oct 15 22:00

Maximum Daily Average: 0.263 ppm on Oct 19

Minimum Value: 0.000 ppm on Oct 1 11:00

Minimum Daily Average: 0.000 ppm on Oct 14

Maximum Diurnal Average: 0.121 ppm at hour 3

Minimum Diurnal Average: 0.027 ppm at hour 8

Monthly Average: 0.058 ppm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.2 P_{99} = 0.7

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	Z	0.272	0.242	0.233	0.193	0.100	0.124	0.061	0.008	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.054	0.272
2-Oct	0.000	Z	0.138	0.103	0.061	0.001	0.105	0.004	0.228	0.098	0.019	0.015	0.015	0.016	0.000	0.000	0.000	0.002	0.088	0.028	0.004	0.026	0.056	0.050	0.046	0.228
3-Oct	0.115	0.195	Z	0.013	0.083	0.106	0.129	0.070	0.000	0.000	0.000	0.000	0.000	0.068	0.017	0.000	0.000	0.000	0.029	0.271	0.107	0.245	0.081	0.228	0.076	0.271
4-Oct	0.016	0.000	0.000	Z	0.062	0.010	0.132	0.432	0.192	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.053	0.045	0.200	0.052	0.432
5-Oct	0.113	0.022	0.520	0.558	Z	0.000	0.064	0.000	0.000	0.076	0.036	0.000	0.020	0.011	0.002	0.118	0.046	0.116	0.112	0.063	0.070	0.010	0.024	0.002	0.086	0.558
6-Oct	0.007	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.171	0.228	0.050	0.000	0.000	0.000	0.093	0.009	0.000	0.000	0.000	0.000	0.024	0.228
7-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.072	0.000	0.002	0.000	0.000	0.000	0.000	0.024	0.281	0.337	0.077	0.080	0.105	0.212	0.371	0.678	0.097	0.678
8-Oct	0.883	Z	0.253	0.449	0.242	0.336	0.088	0.038	0.024	0.019	0.043	0.039	0.042	0.007	0.150	0.039	0.015	0.114	0.132	0.014	0.098	0.046	0.073	0.000	0.137	0.883
9-Oct	0.028	0.000	Z	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.016	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.142	0.009	0.142
10-Oct	0.226	0.122	0.026	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.019	0.000	0.018	0.226
11-Oct	0.000	0.115	0.330	0.043	Z	0.089	0.015	0.000	0.000	0.000	0.000	0.000	0.033	0.003	0.000	0.002	0.003	0.000	0.129	0.282	0.419	0.000	0.000	0.000	0.064	0.419
12-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.193	0.009	0.193
13-Oct	Z	0.003	0.000	0.102	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.102
14-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.609	2.012	0.530	0.024	0.141	2.012
16-Oct	0.000	0.129	0.100	Z	1.418	0.477	0.000	0.000	0.077	0.000	0.032	0.000	0.000	0.000	0.000	0.001	0.036	0.000	0.000	0.027	0.000	0.000	0.000	0.000	0.100	1.418
17-Oct	0.000	0.000	0.000	0.000	Z	0.221	0.081	0.153	0.031	0.010	0.295	0.056	0.000	0.000	0.000	0.000	0.183	0.376	0.880	0.208	0.166	0.255	0.233	0.241	0.147	0.880
18-Oct	0.342	0.318	0.379	0.230	0.079	Z	0.000	0.000	0.000	0.020	0.004	0.005	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.090	0.340	0.079	0.379
19-Oct	Z	0.722	0.653	0.308	0.271	0.240	0.175	0.003	0.057	0.375	0.638	0.538	0.532	0.702	0.479	0.350	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.263	0.722
20-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.004	0.093	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.093
21-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.050	0.000	0.023	0.000	0.002	0.000	0.003	0.007	0.067	0.153	0.000	0.000	0.000	0.000	0.000	0.000	0.054	0.016	0.153
22-Oct	0.157	0.238	0.478	Z	0.279	0.057	0.000	0.000	0.000	0.000	0.000	0.027	0.000	0.000	0.000	0.000	0.209	0.045	0.029	0.000	0.000	0.000	0.000	0.000	0.066	0.478
23-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.015	0.000	0.000	0.000	0.000	0.000	0.002	0.021
24-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.084	0.117	0.091	0.000	0.017	0.048	0.145	0.016	0.066	0.465	0.019	0.046	0.465
25-Oct	Z	0.006	0.000	0.150	0.203	0.153	0.005	0.018	0.345	0.460	0.283	0.208	0.019	0.132	0.184	0.251	0.234	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.116	0.460
26-Oct	0.025	Z	0.000	0.000	0.000	0.012	0.013	0.000	0.000	0.130	0.548	0.394	0.181	0.061	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.059	0.548
27-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.050	0.157	0.069	0.118	0.017	0.157
28-Oct	0.026	0.068	0.040	Z	0.060	0.000	0.007	0.012	0.000	0.010	0.286	0.033	0.000	0.000	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.024	0.286
29-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.226	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.226
30-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.039	0.000	C	C	C	C	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.039
31-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.077	0.085	0.121	0.085	0.114	0.069	0.030	0.027	0.038	0.041	0.076	0.044	0.034	0.044	0.042	0.032	0.038	0.033	0.053	0.036	0.053	0.100	0.067	0.074	Diurnal Average	
	0.883	0.722	0.653	0.558	1.418	0.477	0.175	0.432	0.345	0.460	0.638	0.538	0.532	0.702	0.479	0.350	0.281	0.376	0.880	0.282	0.609	2.012	0.530	0.678	Diurnal Maximum	

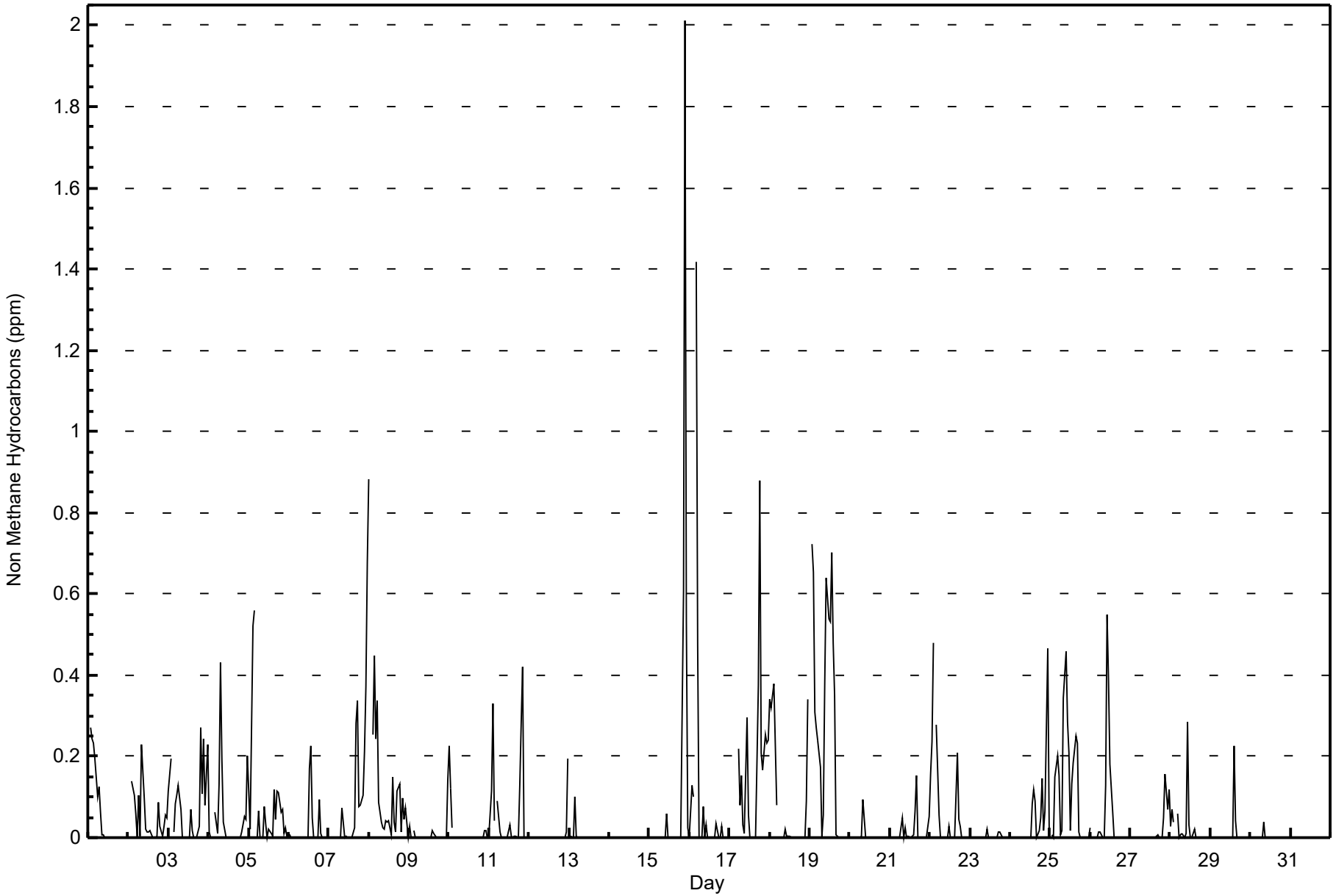
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm

Mildred Lake - October 2025



Non Methane Hydrocarbons (NMHC) - ppm
Mildred Lake - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	461	65.11	65.11
0.006 - 0.05	90	12.71	77.82
0.06 - 0.1	70	9.89	87.71
> 0.1	87	12.29	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Non Methane Hydrocarbons (NMHC) - ppm
Mildred Lake - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.005	62	10	4	1	5	4	59	89	58	33	37	3	16	24	8	48	461
0.006 - 0.05	6	0	1	2	0	2	14	10	3	0	8	7	13	18	5	1	90
0.06 - 0.1	6	1	1	0	0	4	10	12	1	1	5	2	9	16	0	2	70
> 0.1	9	2	2	0	2	5	6	2	3	2	4	5	13	16	6	10	87
Totals	83	13	8	3	7	15	89	113	65	36	54	17	51	74	19	61	708

Total Number of Valid Hours: 708

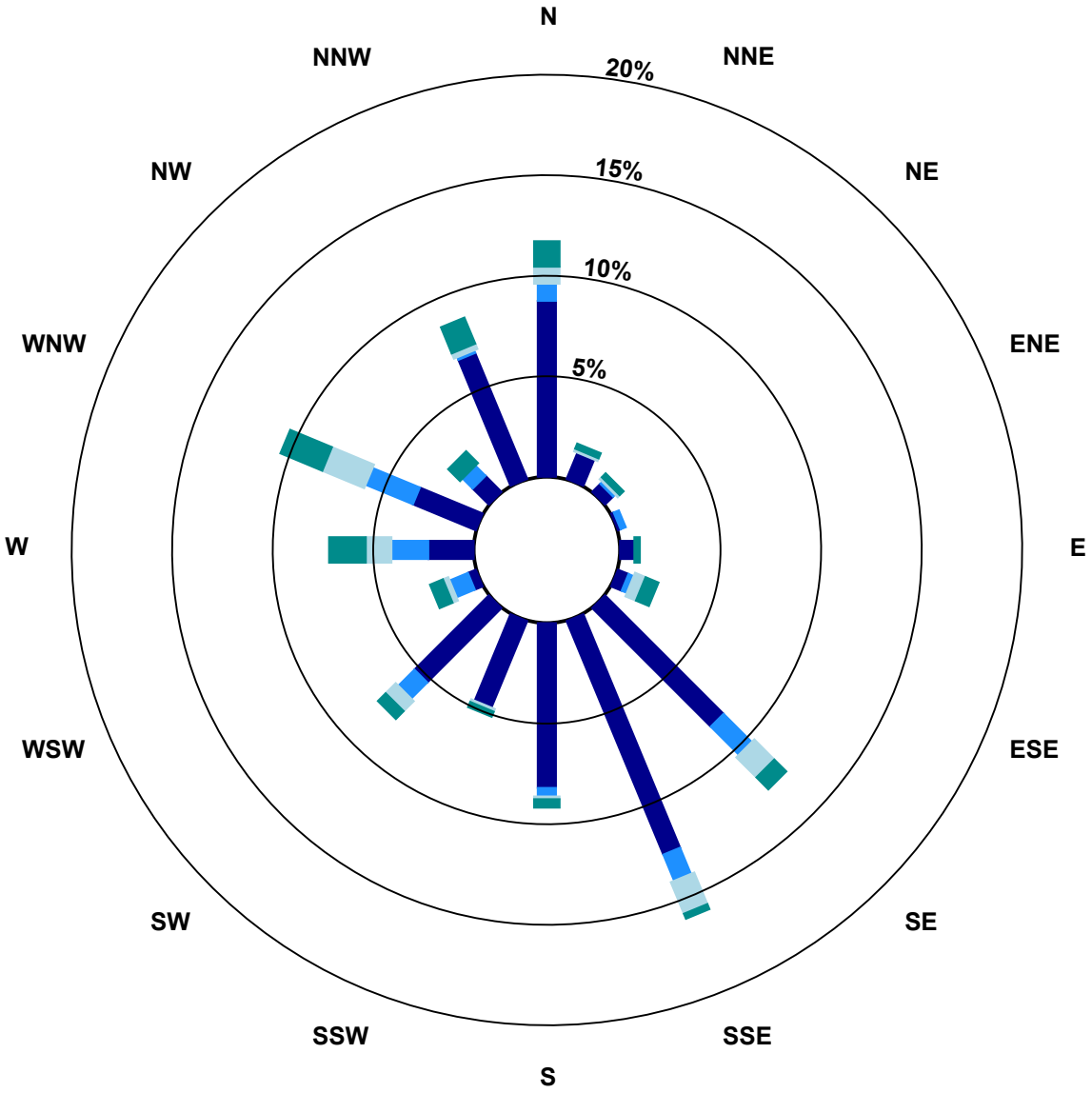
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Non Methane Hydrocarbons (NMHC) - ppm

Mildred Lake



Classes (ppm)

0 - 0.005

0.006 - 0.05

0.06 - 0.1

> 0.1

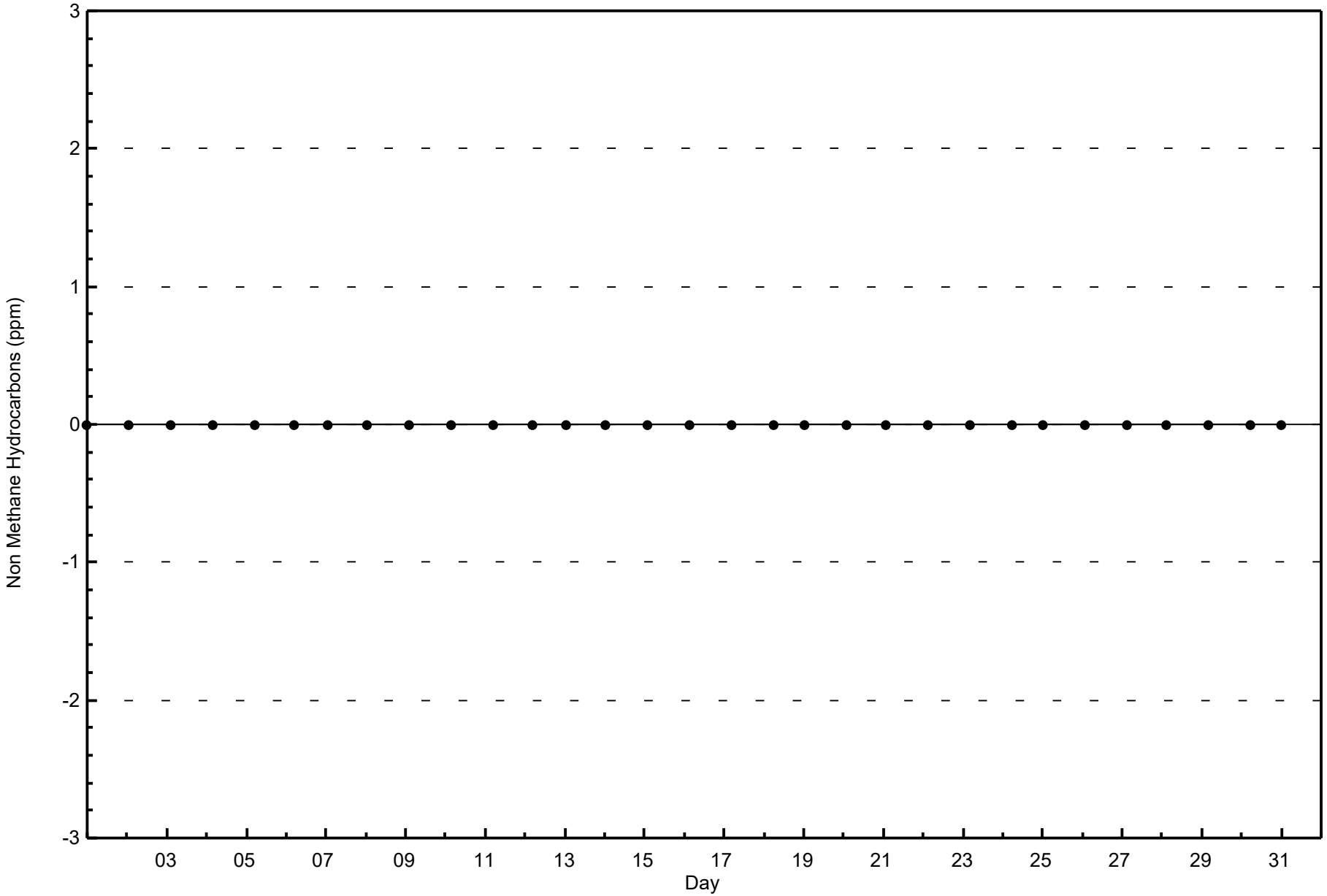
Total Number of Valid Hours: 708

Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Mildred Lake - October 2025

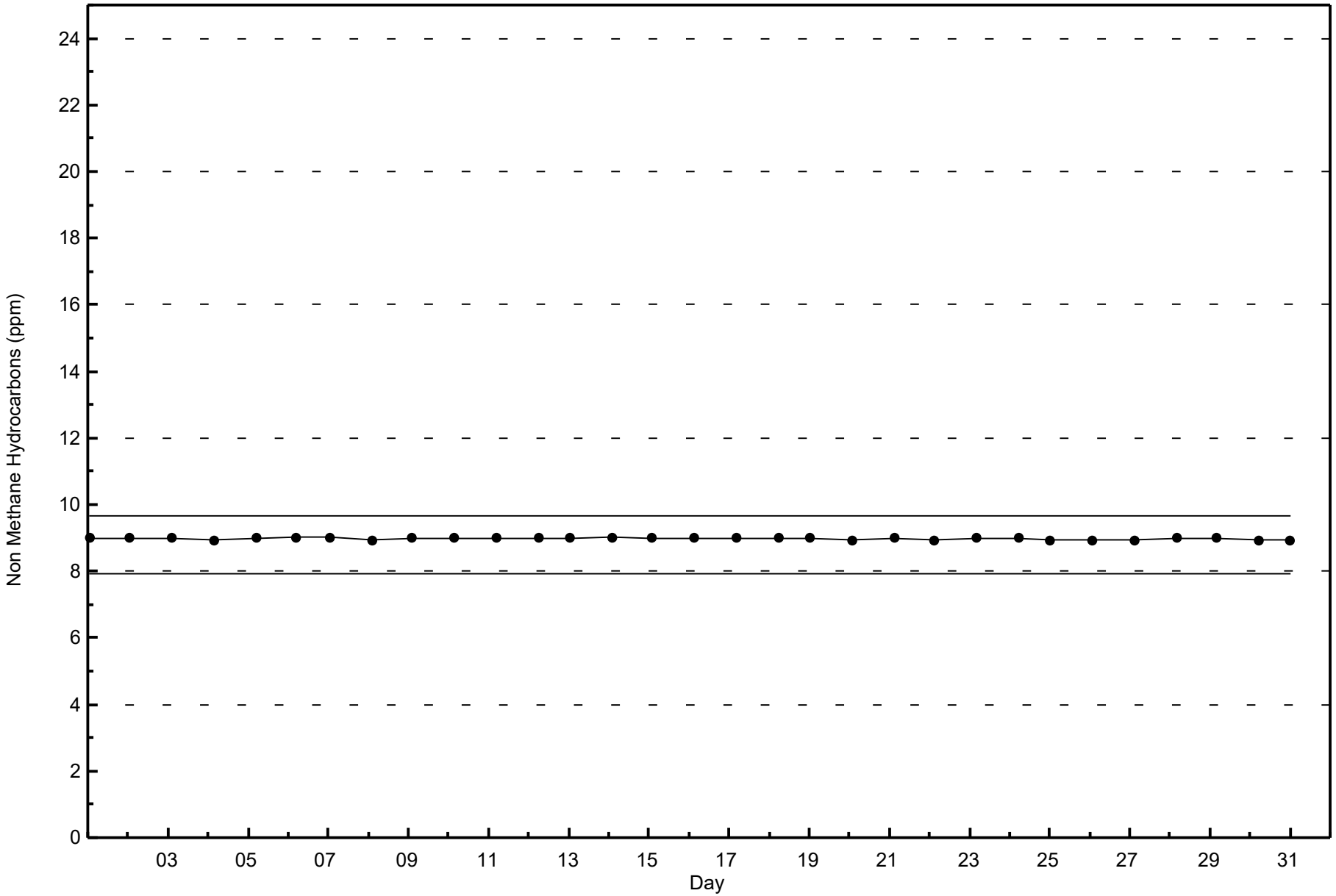


Wood Buffalo Environmental Association

Span Responses

Non Methane Hydrocarbons (NMHC) - ppm

Mildred Lake - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH_4) - ppm

Mildred Lake - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 4.8 ppm on Oct 8 00:00 Maximum Daily Average: 2.3 ppm on Oct 7

Minimum Value: 1.8 ppm on Oct 29 00:00 Minimum Daily Average: 1.9 ppm on Oct 29

Maximum Diurnal Average: 2.2 ppm at hour 24 Minimum Diurnal Average: 2.0 ppm at hour 15

Monthly Average: 2.08 ppm Percentiles: P_1 = 1.9 P_{10} = 1.9 Q_1 = 2.0 Median = 2.0 Q_3 = 2.1 P_{90} = 2.3 P_{99} = 2.9

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	Z	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2
2-Oct	2.0	Z	2.4	2.2	2.3	2.1	2.2	2.1	2.6	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.1	2.5	2.1	2.0	2.1	2.3	2.4	2.2	2.6
3-Oct	2.3	2.3	Z	2.3	2.5	2.6	2.6	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.6
4-Oct	2.0	2.0	2.1	Z	2.0	2.0	2.2	2.4	2.4	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.4	2.3	2.1	2.4
5-Oct	2.3	2.4	2.1	2.2	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.7	2.9	2.1	2.0	2.0	2.2	2.0	2.1	2.9
6-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.2	2.3	2.2	2.1	2.3
7-Oct	Z	2.3	2.2	2.0	2.1	2.1	2.4	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.5	3.4	4.8	2.3	4.8
8-Oct	3.4	Z	2.9	2.5	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	3.4
9-Oct	2.1	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.9	2.0	2.9
10-Oct	3.2	2.5	2.4	Z	2.1	2.2	2.3	2.1	2.0	2.0	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.1	2.5	2.6	2.2	2.2	3.2
11-Oct	2.1	2.3	2.5	2.2	Z	2.3	2.3	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.1	2.0	2.0	1.9	2.1	2.5
12-Oct	1.9	1.9	1.9	1.9	1.9	Z	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.4	2.0	2.4
13-Oct	Z	2.2	2.2	2.1	2.0	2.0	2.0	1.9	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2
14-Oct	1.9	Z	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4	2.3	2.0	2.4
15-Oct	2.4	2.5	Z	2.5	2.4	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.1	2.1	2.1	2.0	2.1	2.5
16-Oct	2.0	2.0	2.1	Z	2.1	2.1	2.0	2.0	2.7	2.3	2.5	2.2	2.1	2.2	2.4	2.5	2.2	1.9	1.9	2.3	2.0	1.9	1.9	1.9	2.1	2.7
17-Oct	1.9	2.0	2.0	2.0	Z	2.0	2.3	2.5	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4	2.8	3.2	2.7	2.4	2.5	2.4	2.6	2.3	3.2
18-Oct	2.2	2.0	2.0	1.9	1.9	Z	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.1	2.2	2.0	2.2
19-Oct	Z	2.4	2.4	2.2	2.2	2.2	2.3	2.1	2.2	2.6	2.9	2.7	2.5	2.5	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.2	2.9
20-Oct	1.9	Z	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.1	2.1	1.9	2.0	2.2
21-Oct	2.1	2.1	Z	2.3	2.1	1.9	1.9	2.1	1.9	2.0	2.0	2.0	2.0	1.9	1.9	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.3
22-Oct	2.0	2.1	2.2	Z	2.2	2.1	1.9	2.2	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.2
23-Oct	1.9	1.9	1.9	1.9	Z	1.9	1.9	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.2	2.2	2.0	2.0	2.2
24-Oct	2.0	2.0	2.0	2.0	2.1	Z	2.0	2.1	2.1	2.0	2.2	2.1	2.0	2.0	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.1	2.1	2.3
25-Oct	Z	2.3	2.2	2.4	2.5	2.4	2.1	2.1	2.7	3.2	2.4	2.2	2.1	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	3.2
26-Oct	1.9	Z	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.3	2.6	2.5	2.2	2.1	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.6
27-Oct	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0
28-Oct	2.1	2.2	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	2.2
29-Oct	1.8	2.0	2.0	1.9	Z	1.9	1.9	1.8	1.8	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0
30-Oct	2.0	2.0	2.0	1.9	1.9	Z	1.9	1.9	2.0	1.9	C	C	C	C	C	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
31-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.3
	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.2	Diurnal Average	
	3.4	2.5	2.9	2.5	2.5	2.6	2.6	2.5	2.7	3.2	2.9	2.7	2.5	2.5	2.4	2.5	2.4	2.8	3.2	2.7	2.4	2.5	3.4	4.8	Diurnal Maximum	

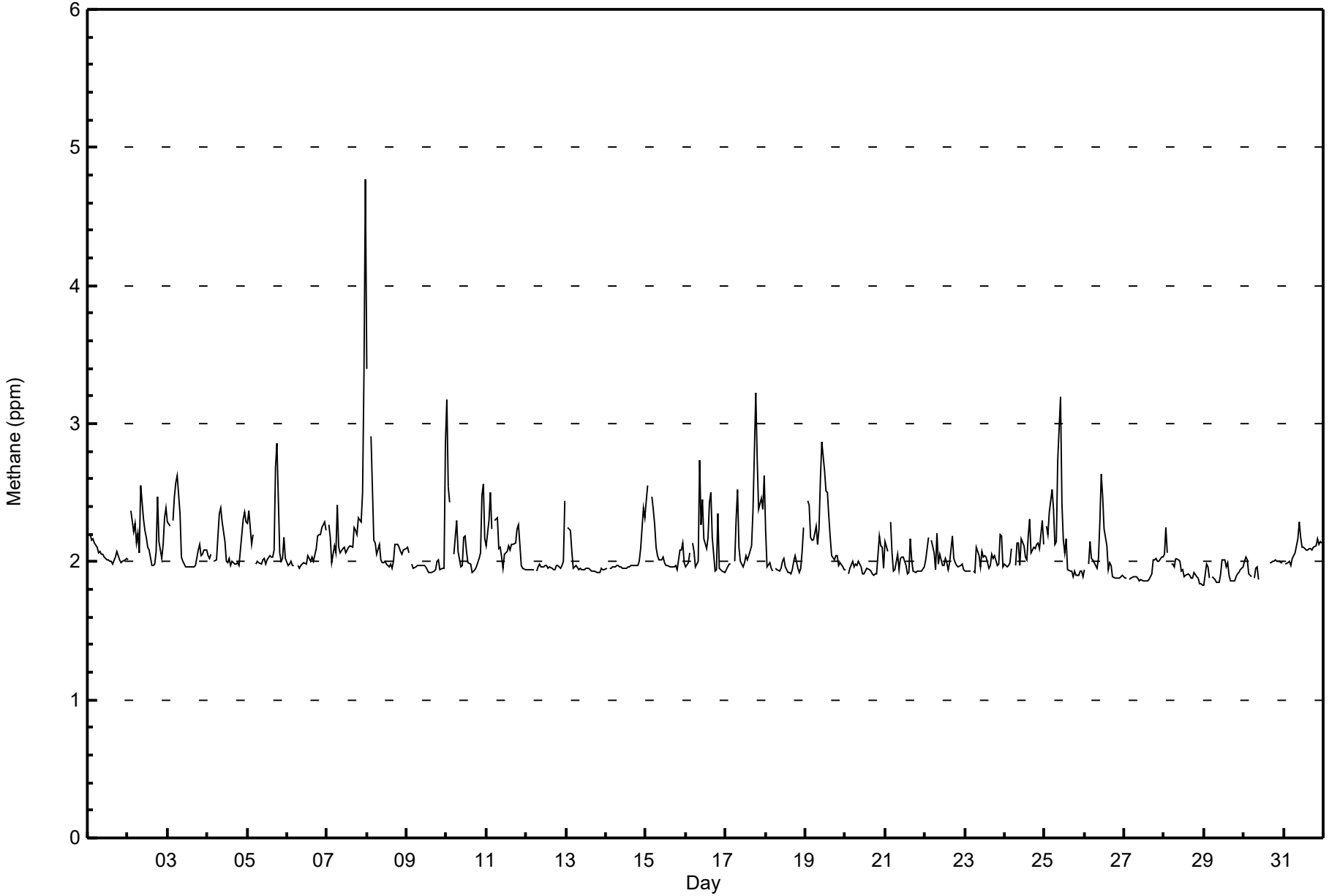
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Methane (CH_4) - ppm

Mildred Lake - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	439	62.01	62.01
2.1 - 3.0	263	37.15	99.15
3.1 - 10.0	6	0.85	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Methane (CH_4) - ppm
Mildred Lake - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	64	11	4	2	4	6	33	47	57	34	48	14	32	28	8	47	439
2.1 - 3.0	19	2	4	1	3	9	55	66	8	2	6	3	19	43	10	13	263
3.1 - 10.0	0	0	0	0	0	0	1	0	0	0	0	0	0	3	1	1	6
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	83	13	8	3	7	15	89	113	65	36	54	17	51	74	19	61	708

Total Number of Valid Hours: 708

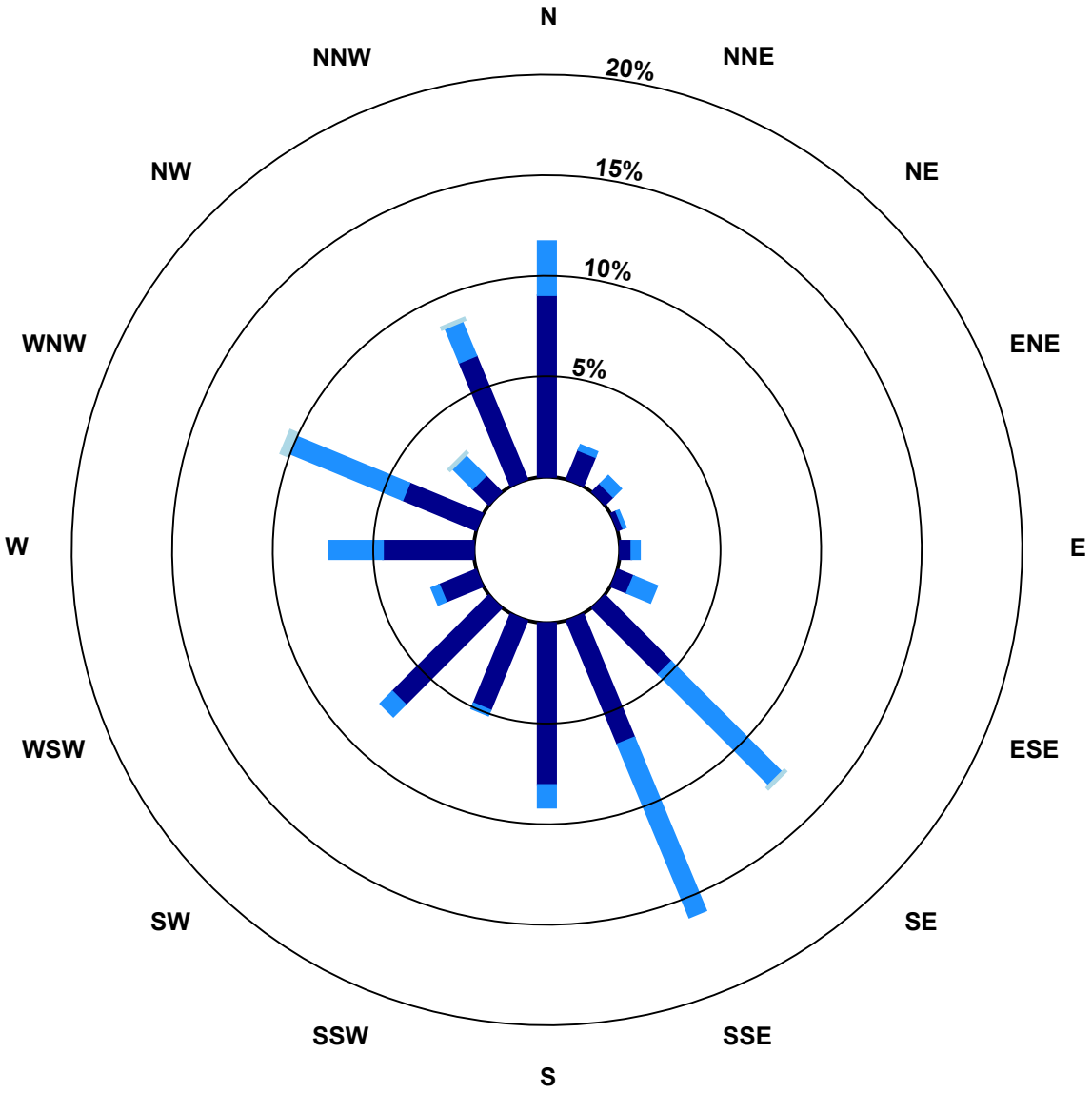
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Methane (CH_4) - ppm

Mildred Lake



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

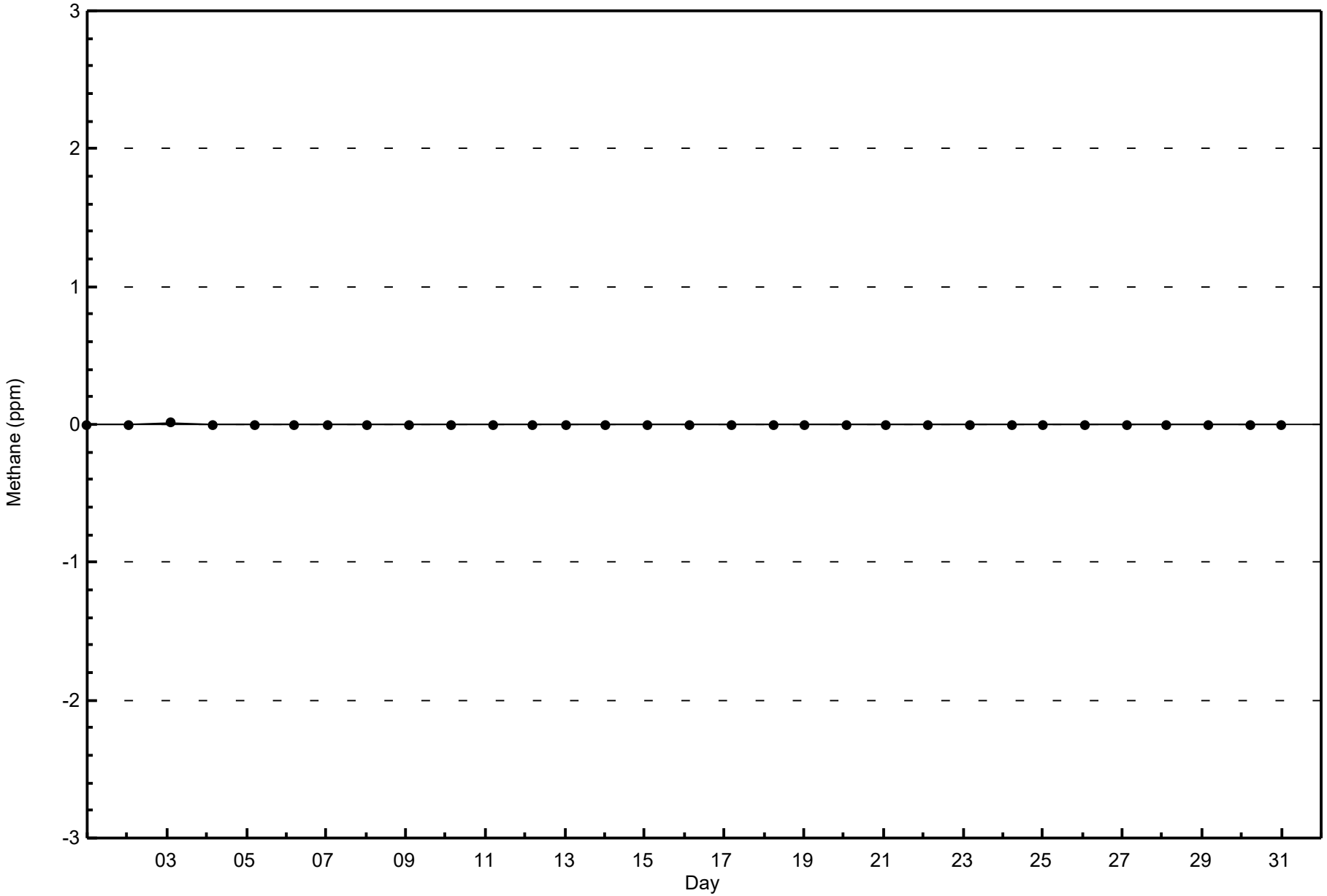
Total Number of Valid Hours: 708

Wood Buffalo Environmental Association

Zero Responses

Methane (CH_4) - ppm

Mildred Lake - October 2025

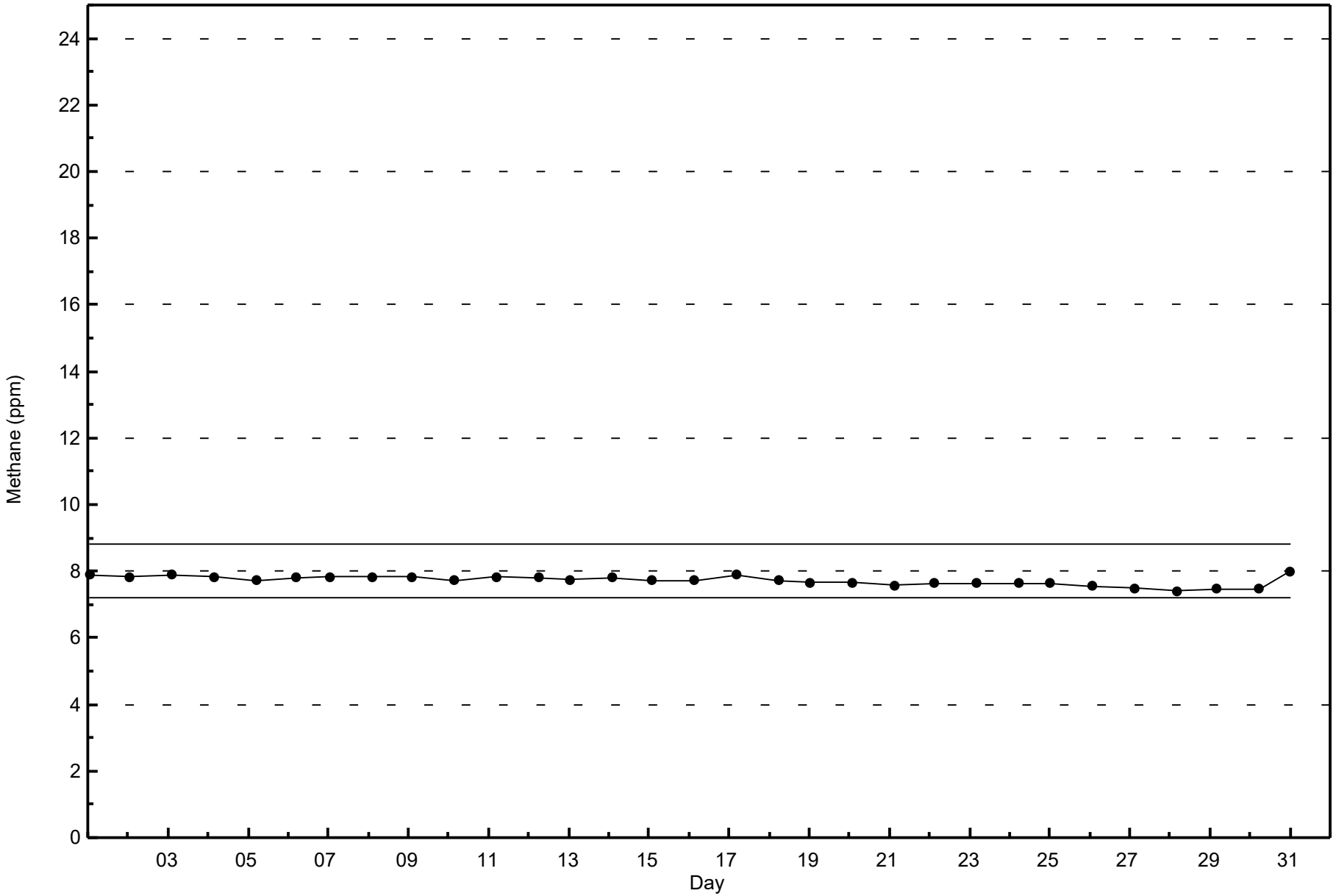


Wood Buffalo Environmental Association

Span Responses

Methane (CH_4) - ppm

Mildred Lake - October 2025



Maximum Value: 21.8 C on Oct 10 16:00

Maximum Daily Average: 11.1 C on Oct 3

Minimum Value: -2.2 C on Oct 13 07:00

Minimum Daily Average: -0.1 C on Oct 29

Maximum Diurnal Average: 8.5 C at hour 16

Minimum Diurnal Average: 2.7 C at hour 8

Monthly Average: 5.18 C

Percentiles: P_1 = -1.2 P_{10} = 0.1 Q_1 = 1.4 Median = 4.5 Q_3 = 8.3 P_{90} = 11.1 P_{99} = 16.3

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

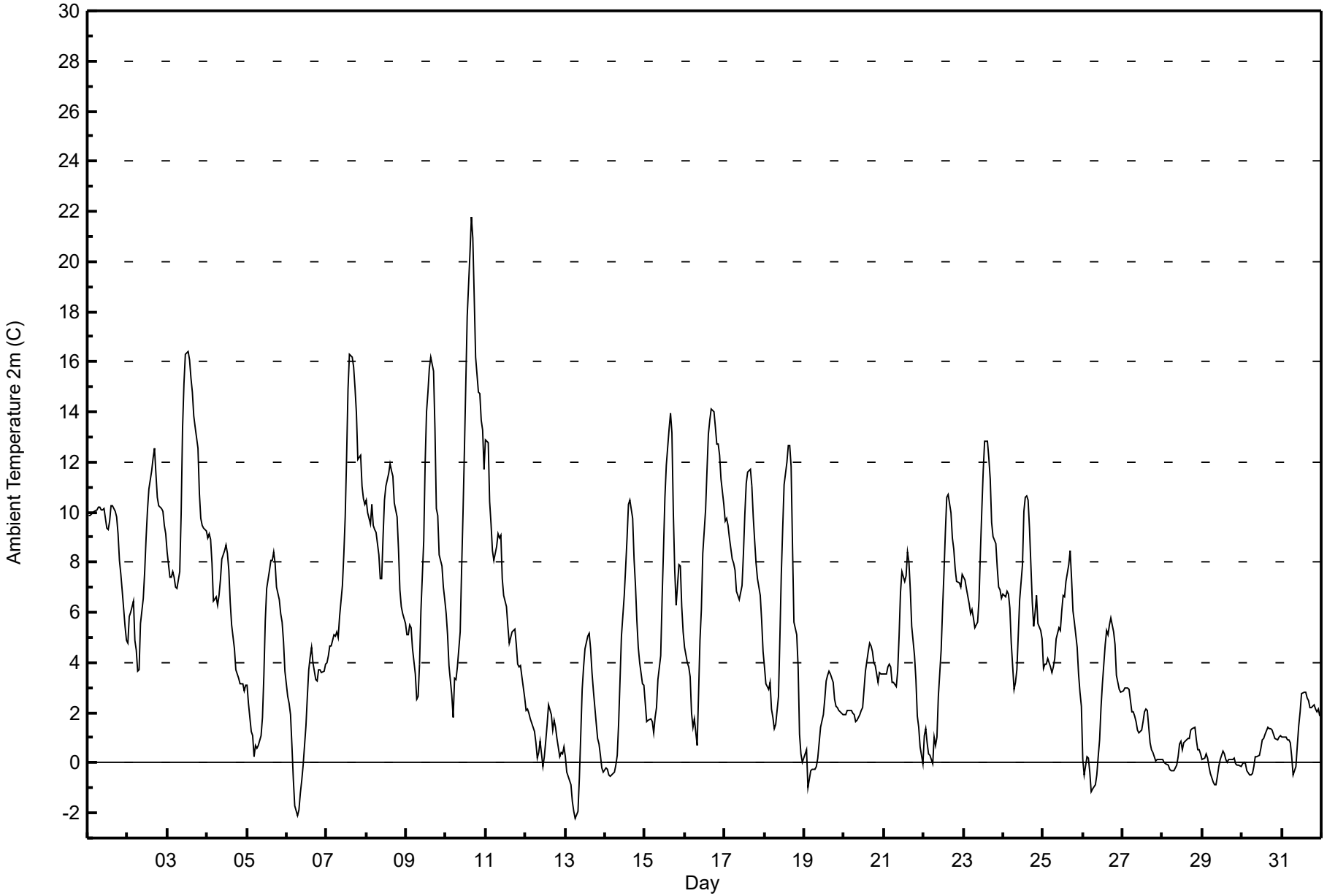
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	9.9	9.9	9.9	10.0	10.0	10.1	10.2	10.2	10.1	10.1	10.1	9.4	9.3	9.7	10.3	10.2	10.0	9.8	9.1	8.1	7.5	6.8	5.4	4.9	9.2	10.3
2-Oct	4.7	5.9	6.0	6.4	4.9	4.5	3.7	3.7	5.5	6.6	7.6	9.0	10.1	10.9	11.6	12.1	12.5	11.6	10.6	10.3	10.1	10.0	9.5	9.1	8.2	12.5
3-Oct	8.4	7.4	7.4	7.6	7.4	7.0	7.0	7.6	9.9	13.3	15.1	16.3	16.4	16.1	15.3	14.8	13.8	13.4	12.6	10.8	9.7	9.5	9.4	9.2	11.1	16.4
4-Oct	9.0	9.2	8.9	7.9	6.4	6.6	6.3	6.7	7.3	8.1	8.5	8.7	8.3	7.7	6.4	5.5	4.5	3.7	3.5	3.4	3.1	3.2	2.9	3.1	6.2	9.2
5-Oct	3.1	2.4	1.3	1.1	0.3	0.7	0.6	0.7	1.1	1.8	3.5	5.7	6.9	7.7	8.1	8.1	8.4	8.0	7.0	6.5	6.0	5.6	4.8	3.6	4.3	8.4
6-Oct	2.6	2.4	1.9	0.7	-0.7	-1.7	-2.1	-1.9	-1.2	-0.7	-0.1	1.5	2.7	3.7	4.2	4.6	4.0	3.3	3.3	3.7	3.7	3.6	3.6	3.9	1.9	4.6
7-Oct	4.0	4.3	4.6	4.7	5.1	5.1	5.2	5.0	5.8	7.0	8.3	9.8	12.2	14.9	16.3	16.2	15.8	14.9	14.0	12.1	12.3	11.1	10.5	10.3	9.6	16.3
8-Oct	10.5	10.0	9.5	10.3	9.5	9.3	9.2	8.3	7.4	7.4	9.0	10.5	11.0	11.5	12.0	11.7	11.4	10.4	9.8	8.5	6.9	6.2	6.0	5.6	9.2	12.0
9-Oct	5.1	5.1	5.5	5.4	4.5	3.5	2.5	2.7	3.9	6.1	8.9	11.9	14.0	14.8	15.7	16.2	15.6	13.3	10.2	9.8	8.3	7.8	7.0	6.5	8.5	16.2
10-Oct	5.9	5.1	3.9	2.7	1.8	3.4	3.3	3.8	5.2	7.7	9.9	12.4	15.1	17.8	20.4	21.8	20.9	18.6	16.2	14.8	14.7	13.7	13.3	11.7	11.0	21.8
11-Oct	12.9	12.8	10.4	9.5	8.5	8.1	8.6	9.1	9.0	9.1	7.4	6.7	6.2	5.4	4.8	5.0	5.2	5.3	4.7	3.9	3.8	3.9	3.5	2.6	6.9	12.9
12-Oct	2.1	2.1	2.0	1.7	1.4	1.3	0.8	0.2	0.4	0.9	-0.2	0.2	0.8	1.5	2.3	1.9	1.3	1.7	1.4	1.0	0.3	0.4	0.4	0.6	1.1	2.3
13-Oct	0.3	-0.4	-0.7	-0.9	-1.6	-1.9	-2.2	-1.9	-0.6	1.1	2.9	3.8	4.5	5.0	5.2	4.6	3.6	2.9	1.6	1.0	0.7	0.3	-0.2	-0.4	1.1	5.2
14-Oct	-0.2	-0.3	-0.5	-0.5	-0.5	-0.4	-0.1	0.3	1.6	3.3	5.1	6.7	7.8	9.0	10.3	10.5	9.7	8.1	7.1	5.7	4.6	4.0	3.2	3.1	4.1	10.5
15-Oct	2.4	1.7	1.7	1.7	1.7	1.2	1.8	2.2	3.3	4.3	6.5	8.5	10.6	11.9	13.4	13.9	13.2	10.0	7.7	6.3	7.9	7.8	6.2	5.2	6.3	13.9
16-Oct	4.6	4.0	3.8	3.5	2.0	1.4	1.8	0.7	2.8	4.9	6.1	8.4	10.1	11.7	13.1	13.7	14.1	14.0	13.4	12.7	12.7	12.3	11.3	10.3	8.1	14.1
17-Oct	9.6	9.7	9.5	9.0	8.1	8.0	7.7	6.8	6.7	6.5	7.0	8.3	9.9	11.1	11.6	11.7	11.0	9.8	8.9	8.0	7.3	6.7	5.7	4.4	8.5	11.7
18-Oct	3.8	3.1	2.9	3.2	2.1	1.8	1.4	1.5	2.6	5.0	7.5	9.4	11.1	12.0	12.7	12.6	11.8	8.6	5.6	5.1	3.8	1.2	0.3	0.0	5.4	12.7
19-Oct	0.4	0.5	-1.0	-0.7	-0.3	-0.3	-0.3	-0.1	0.2	0.8	1.4	1.9	2.5	3.2	3.5	3.6	3.6	3.2	2.5	2.3	2.2	2.1	2.0	1.9	1.5	3.6
20-Oct	1.9	1.9	2.1	2.1	2.1	2.0	1.9	1.6	1.7	1.9	2.1	2.2	3.0	3.7	4.4	4.8	4.6	4.4	4.0	3.9	3.2	3.6	3.6	3.6	2.9	4.8
21-Oct	3.6	3.6	3.8	4.0	3.8	3.2	3.2	3.1	3.7	5.1	6.8	7.6	7.2	7.4	8.4	8.0	6.9	5.5	4.2	3.3	1.9	1.4	0.6	-0.1	4.4	8.4
22-Oct	1.1	1.4	0.8	0.3	0.3	0.0	1.0	0.7	1.0	2.7	4.5	6.1	7.6	9.2	10.6	10.7	10.0	9.0	8.5	7.7	7.2	7.2	7.0	7.5	5.1	10.7
23-Oct	7.4	7.3	6.9	6.3	6.0	6.1	5.8	5.4	5.6	6.5	8.4	10.1	11.6	12.8	12.8	12.2	11.3	9.6	9.0	8.7	7.8	7.0	6.9	6.6	8.3	12.8
24-Oct	6.7	6.6	6.9	6.7	6.2	4.8	2.9	3.2	3.7	5.1	6.5	7.9	10.0	10.6	10.7	10.5	9.3	6.4	5.5	6.0	6.7	5.6	5.3	4.9	6.6	10.7
25-Oct	3.7	4.0	3.9	4.1	3.8	3.6	3.8	4.1	5.0	5.4	5.3	6.1	6.7	6.6	7.3	7.9	8.4	7.3	6.1	5.6	4.6	3.5	2.8	2.3	5.1	8.4
26-Oct	0.1	-0.5	0.3	0.2	-0.4	-1.2	-1.0	-0.9	-0.5	0.3	0.9	2.2	3.2	4.7	5.3	5.1	5.5	5.8	5.2	4.7	3.5	3.2	2.9	2.8	2.1	5.8
27-Oct	2.9	3.0	3.0	3.0	2.9	2.0	2.0	1.9	1.6	1.3	1.2	1.3	1.7	2.0	2.1	2.1	0.8	0.6	0.4	0.2	0.1	0.1	0.1	0.2	1.5	3.0
28-Oct	0.1	0.0	0.0	-0.1	-0.3	-0.3	-0.3	-0.3	-0.1	0.2	0.7	0.9	0.5	0.8	0.9	1.0	0.9	1.3	1.3	1.4	0.9	0.5	0.5	0.4	0.5	1.4
29-Oct	0.1	0.2	0.4	0.2	-0.1	-0.4	-0.8	-0.9	-0.9	-0.5	-0.1	0.1	0.5	0.3	0.2	0.0	0.1	0.1	0.2	0.2	0.0	-0.1	-0.1	-0.2	-0.1	0.5
30-Oct	0.0	0.0	0.0	-0.3	-0.5	-0.5	-0.5	-0.1	0.3	0.3	0.3	0.6	0.9	1.0	1.2	1.4	1.3	1.4	1.3	1.1	1.0	0.9	1.0	1.1	0.5	1.4
31-Oct	1.0	1.0	1.0	0.9	0.9	0.8	0.2	-0.5	-0.1	0.7	1.5	2.0	2.8	2.8	2.8	2.6	2.5	2.2	2.2	2.3	2.1	2.0	2.2	1.8	1.6	2.8
	4.1	4.0	3.7	3.6	3.1	2.8	2.7	2.7	3.3	4.3	5.3	6.3	7.3	8.0	8.5	8.5	8.1	7.2	6.4	5.8	5.3	4.9	4.4	4.1	Diurnal Average	
	12.9	12.8	10.4	10.3	10.0	10.1	10.2	10.2	10.1	13.3	15.1	16.3	16.4	17.8	20.4	21.8	20.9	18.6	16.2	14.8	14.7	13.7	13.3	11.7	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Mildred Lake - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	66	8.87	8.87
0 - 10	562	75.54	84.41
10 - 20	113	15.19	99.60
> 20	3	0.40	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 100.0 % on Oct 2 09:00

Maximum Daily Average: 94.9 % on Oct 26

Minimum Value: 28.8 % on Oct 10 16:00

Minimum Daily Average: 51.5 % on Oct 14

Maximum Diurnal Average: 84.5 % at hour 8

Minimum Diurnal Average: 63.8 % at hour 16

Monthly Average: 75.89 %

Percentiles: P_1 = 37.1 P_{10} = 51.4 Q_1 = 63.2 Median = 79.0 Q_3 = 89.8 P_{90} = 97.2 P_{99} = 99.4

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

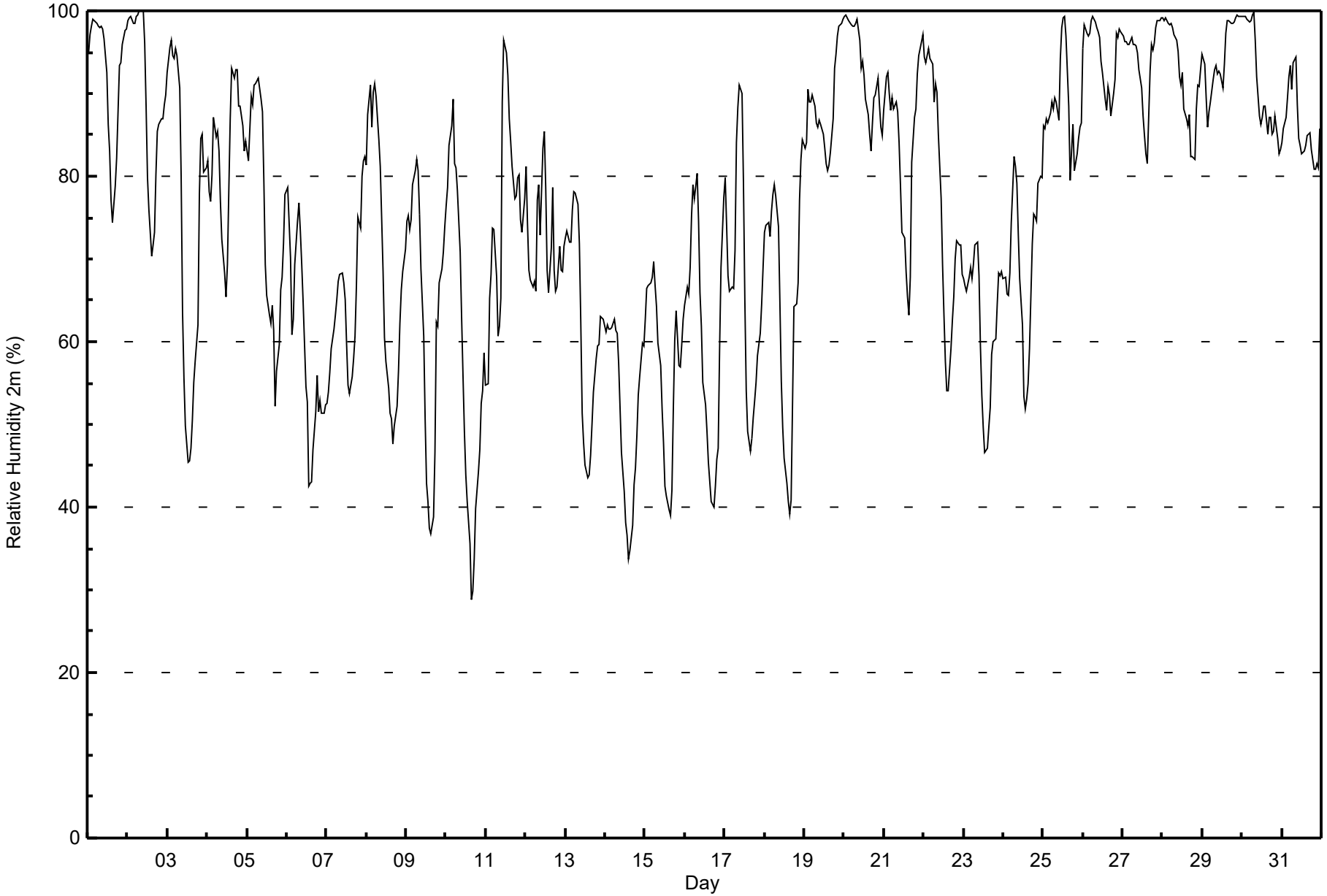
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	94.9	97.0	98.1	99.0	98.8	98.5	98.2	97.9	98.1	97.8	96.6	92.6	86.2	83.1	77.1	74.4	78.8	82.3	87.7	93.4	93.8	95.9	97.7	97.8	92.3	99.0
2-Oct	98.7	99.1	99.2	98.5	98.5	99.3	99.6	100.0	100.0	100.0	96.1	88.5	79.8	75.9	70.4	71.7	73.3	80.3	85.3	86.2	87.0	86.9	88.6	89.8	89.7	100.0
3-Oct	92.5	95.6	96.4	94.7	94.3	95.5	94.6	90.6	79.9	63.6	55.7	49.8	45.4	45.6	47.1	50.6	55.1	57.6	62.0	77.9	84.5	85.1	80.6	81.0	74.0	96.4
4-Oct	81.9	78.1	77.0	80.2	87.2	84.7	85.3	83.1	77.0	72.4	68.3	65.4	69.3	78.4	87.0	93.0	91.9	92.9	92.8	88.6	88.5	86.1	83.1	84.3	82.3	93.0
5-Oct	83.0	81.9	89.6	88.6	91.0	91.2	91.5	91.8	89.3	87.9	79.3	69.4	65.7	63.2	62.1	64.4	61.3	52.1	56.4	59.6	66.3	67.8	71.9	77.8	75.1	91.8
6-Oct	78.6	74.4	70.1	60.9	62.7	69.3	74.5	76.8	73.3	69.2	64.7	54.6	52.7	42.5	42.9	43.1	46.9	51.5	55.9	51.5	52.8	51.4	51.3	52.4	59.3	78.6
7-Oct	52.5	53.9	56.2	59.1	61.5	63.3	65.1	67.3	68.1	68.2	67.0	65.1	59.6	54.7	53.7	55.8	58.0	60.7	66.8	75.0	73.7	80.0	81.9	82.3	64.6	82.3
8-Oct	81.4	87.4	91.1	86.0	90.1	91.1	89.7	84.5	81.1	75.0	68.4	60.5	57.5	54.4	51.3	50.8	47.6	49.8	52.1	56.4	62.2	66.3	68.5	71.2	69.8	91.1
9-Oct	74.5	75.2	73.5	74.8	78.9	80.7	82.1	80.7	75.5	68.8	60.7	50.6	42.9	40.7	37.4	36.8	38.8	46.6	62.4	61.9	67.2	68.7	70.9	73.9	63.5	82.1
10-Oct	76.5	78.7	83.7	86.1	89.3	81.6	81.0	78.3	70.9	63.0	55.9	49.2	43.9	40.6	35.6	28.8	29.9	33.7	39.8	44.2	46.9	52.5	54.0	58.6	58.4	89.3
11-Oct	54.7	55.0	65.3	68.1	73.7	73.6	67.8	60.7	61.9	65.3	89.0	96.5	94.9	92.2	87.0	84.2	81.2	77.3	77.5	79.8	80.1	74.8	73.3	77.2	75.5	96.5
12-Oct	81.2	74.3	68.6	67.4	66.7	67.4	66.1	77.1	79.0	72.9	83.4	85.5	78.6	68.6	65.9	71.4	78.6	68.6	66.0	66.6	71.5	68.7	68.5	71.6	72.3	85.5
13-Oct	72.5	73.5	72.1	72.1	76.0	78.1	78.0	76.6	71.9	62.3	51.4	47.8	45.1	43.5	43.8	46.3	50.0	53.8	58.0	59.5	59.7	63.1	62.9	62.7	61.7	78.1
14-Oct	61.3	62.0	61.5	61.6	61.8	62.7	61.4	61.0	57.5	52.0	46.6	41.8	38.1	36.6	33.8	34.7	37.8	42.7	44.8	48.6	53.6	55.8	59.8	59.5	51.5	62.7
15-Oct	62.8	66.4	66.7	67.0	67.8	69.7	66.8	64.2	59.8	57.2	51.9	47.9	42.6	41.3	39.7	39.0	42.1	51.9	60.2	63.7	57.2	56.9	59.7	62.8	56.9	69.7
16-Oct	64.4	66.6	65.7	68.9	75.3	79.0	77.2	80.3	74.6	66.0	61.9	55.1	52.4	49.2	45.4	43.0	40.7	39.9	42.6	45.7	47.1	59.1	68.9	77.5	60.3	80.3
17-Oct	79.9	74.1	67.9	66.0	66.6	66.4	71.0	84.1	88.4	91.0	90.0	79.3	65.1	54.0	49.2	46.7	48.2	50.9	52.9	55.1	58.4	61.0	64.5	69.0	66.7	91.0
18-Oct	73.2	74.1	74.4	72.8	75.8	77.8	79.0	77.7	73.9	64.7	55.3	49.7	45.9	42.8	40.7	39.2	40.8	52.3	64.3	64.5	67.1	77.1	82.0	84.3	64.6	84.3
19-Oct	83.4	84.1	90.5	89.0	88.9	89.9	88.4	86.5	86.0	86.8	86.3	85.0	83.4	81.5	80.7	81.4	82.9	86.9	93.1	94.8	97.0	98.1	98.5	99.0	88.4	99.0
20-Oct	99.4	99.5	99.2	98.8	98.4	98.2	98.2	98.4	99.0	96.4	93.1	94.0	92.2	89.3	87.5	85.0	83.0	86.4	89.4	89.9	91.9	88.7	86.0	84.9	92.8	99.5
21-Oct	88.0	92.1	92.6	90.0	88.0	89.6	88.2	88.9	87.9	84.1	78.9	73.2	72.5	68.4	65.5	63.2	67.8	81.7	87.1	88.1	92.4	94.6	95.5	97.1	84.0	97.1
22-Oct	94.3	93.7	94.6	95.4	94.2	93.6	88.9	91.3	90.2	85.1	77.3	69.3	63.2	57.7	54.0	54.0	59.1	62.6	65.3	70.1	72.1	71.7	71.6	68.2	76.6	95.4
23-Oct	67.7	66.8	66.1	67.9	68.9	67.6	69.3	71.7	72.0	68.0	59.6	53.6	49.6	46.7	47.2	49.7	52.0	58.5	60.0	60.4	64.6	68.3	68.0	68.6	62.2	72.0
24-Oct	67.6	67.7	65.8	65.6	68.3	74.4	82.3	81.2	79.1	73.1	67.7	62.1	53.4	51.9	53.0	55.0	59.2	71.8	75.4	75.0	74.6	79.2	80.0	79.9	69.3	82.3
25-Oct	86.1	85.8	87.0	86.5	87.6	88.9	88.1	89.4	89.0	86.7	94.2	98.0	99.1	99.4	97.0	88.5	79.5	83.0	86.2	80.7	82.7	84.5	86.0	86.5	88.3	99.4
26-Oct	95.5	98.3	97.3	97.0	97.4	98.7	99.3	98.7	98.0	97.5	96.8	94.0	92.6	89.4	88.0	90.8	89.8	87.3	90.1	91.7	97.3	96.7	97.8	97.4	94.9	99.3
27-Oct	97.0	96.3	96.2	95.9	95.9	96.7	96.0	95.9	95.8	94.8	92.9	90.6	87.4	84.9	82.8	81.5	92.7	96.0	95.3	96.1	98.0	98.8	98.9	99.2	94.0	99.2
28-Oct	99.2	98.9	99.2	98.4	98.2	98.4	97.9	97.2	96.4	95.1	92.1	91.0	92.5	88.1	87.0	86.1	87.4	82.3	82.3	82.0	88.2	91.1	90.8	92.9	92.2	99.2
29-Oct	94.7	93.5	89.5	85.9	87.8	89.0	91.7	92.8	93.4	92.3	92.7	92.3	90.6	93.5	97.3	98.8	98.8	98.4	98.4	98.6	99.1	99.5	99.4	99.3	94.5	99.5
30-Oct	99.2	99.4	99.4	99.0	98.7	98.9	99.4	99.8	96.5	92.1	87.3	86.3	87.2	88.5	88.5	85.0	87.1	87.1	85.1	85.5	87.3	84.5	82.8	83.3	91.2	99.8
31-Oct	84.0	85.8	87.1	89.6	92.0	93.3	90.4	93.8	94.3	88.7	84.5	83.8	82.7	83.1	83.8	85.0	85.1	85.2	83.2	80.8	80.8	81.5	81.0	85.8	86.0	94.3
	81.3	81.6	82.0	81.6	83.2	84.1	84.1	84.5	82.5	78.6	75.7	71.7	68.1	65.5	63.9	63.8	65.3	68.1	71.6	73.3	75.6	77.2	78.2	79.9	Diurnal Average	
	99.4	99.5	99.4	99.0	98.8	99.3	99.6	100.0	100.0	100.0	96.8	98.0	99.1	99.4	97.3	98.8	98.8	98.4	98.4	98.6	99.1	99.5	99.4	99.3	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Mildred Lake - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Mildred Lake - October 2025

Maximum Speed: 26 km/h on Oct 27 11:00

Maximum Daily Speed Average: 18.7 km/h on Oct 27

Minimum Speed Value: 1 km/h on Oct 30 08:00

Minimum Daily Speed Average: 1.1 km/h on Oct 20

Maximum Diurnal Speed Average: 3.8 km/h at hour 16

Minimum Diurnal Speed Average: 0.7 km/h at hour 1

Monthly Average Velocity: 2.0 km/h 225.3 deg

Percentiles: $P_1 = 2$ $P_{10} = 5$ $Q_1 = 7$ Median = 10 $Q_3 = 13$ $P_{90} = 16$ $P_{99} = 24$

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	N10	N10	N9	N10	N15	N16	N14	NNW13	N13	N14	N14	NNW17	NNW12	NNW10	NNW10	NNW10	N6	N4	NNE4	N1	NNE5	N3	N2	SSW2	N9.1	NNW17
2-Oct	S1	SW4	SW3	SW4	ESE2	SSE2	SSE4	S6	SSE7	SE6	SSE8	SE9	SE11	SSE11	S12	S11	SSE9	SE8	SE8	SE10	S11	SSE11	SSE13	SE13	SSE7.2	SSE13
3-Oct	SE7	SE5	SE9	SE10	SSE10	SE8	SSE10	SSE8	S9	SSW13	SSW14	SW16	SW18	WSW19	SW20	SW17	SW12	SW13	WSW10	W11	W14	W11	W13	W11	SW8.9	SW20
4-Oct	W12	W15	W14	W12	W9	W14	W11	WNW8	NW8	WNW10	NW10	N8	N6	NNW6	NNE8	N13	NNW20	NNW17	NW14	NW13	NW9	WNW12	WNW11	WNW10	NW9.6	NNW20
5-Oct	WNW10	NW6	W7	W8	SW7	SW8	SSW5	SSE8	S9	SSE8	SSE9	SSW10	WSW9	WNW8	WNW8	W9	WNW8	WNW10	WNW11	W14	W11	WNW10	WNW10	N16	W5.7	N16
6-Oct	N14	N10	N14	NNW15	NNW13	NNW8	N7	N6	NNW8	NW10	NW7	W3	S5	S6	SSE6	ESE6	ESE8	SE9	SSE10	SE12	SSE12	SSE12	SE15	SSE13	ENE1.1	NNW15
7-Oct	SSE13	SSE11	SSE9	SSE9	SSE11	SSE11	SSE15	SSE14	SSE12	SSE14	SSE15	SSE14	SSE13	SSE17	SE13	SE10	ESE9	E7	SE6	S3	NE2	NNE3	NW4	NNW6	SSE8.7	SSE17
8-Oct	WNW5	NNW8	NW8	WNW9	WNW12	W10	WNW12	WNW12	W14	W12	WSW12	WSW12	W14	W13	WSW11	SW10	W16	WNW11	WNW12	WNW15	WNW15	WNW12	WNW12	WNW12	W11.1	W16
9-Oct	WNW7	W10	W11	WSW7	SW9	SW10	SW10	SW12	SW11	SSW10	SSW13	SW12	SW14	SW15	SW13	SW13	SW12	SSW7	SSW6	S5	S6	S7	SSE7	SSE8	SW8.6	SW15
10-Oct	SE6	SSE6	S6	S4	SSE4	S7	SE8	S9	S11	SSE10	SSE15	SSE15	SSE15	SSE14	SSE14	S18	S16	S11	SSE9	SSE10	SSE11	SE11	SE9	ESE8	SSE9.8	S18
11-Oct	SE10	SE9	SSW2	S3	ENE3	N11	NNW11	N12	NNW12	NNW16	NNW17	NNW13	NW13	WNW18	WNW18	WNW15	WNW15	WNW14	WNW16	NW17	NW17	NNW19	NNW21	NNW21	NW10.5	NNW21
12-Oct	NNW15	NNW19	NNW20	NNW21	NNW20	NNW18	N21	N16	N13	N16	N17	N13	N15	N16	N13	NNW17	NNW11	NNW12	NNW11	NNW9	NW8	NNW7	NW5	NW8	NNW13.9	N21
13-Oct	NW10	NW11	WNW7	W7	SW5	WSW7	WSW7	SW6	S9	S10	SW13	SW14	SW13	S16	S18	S20	S15	S15	S14	S16	S15	SSE14	S15	SSE15	SSW9.4	S20
14-Oct	SSE15	SSE15	SSE16	SSE15	SSE15	SSE14	S17	S15	S15	S17	SSW17	SSW15	SSW15	SSW14	SSW15	SSW12	S12	S10	S12	SSE8	SSE8	SSE8	SE8	SSE8	S12.5	S17
15-Oct	SSE8	SE8	SE9	SE10	SSE11	SSE9	SSE14	SSE12	SSE12	SSE12	SSE15	S9	SW12	SW11	SSW12	SSW13	SSW10	SSW6	S4	SSW7	W5	WSW7	SW7	SW8	S8.0	SSE15
16-Oct	SW7	SW7	SW7	SW5	S4	SSW6	S8	SSE3	SE7	SE9	SSE11	SE13	SE15	SSE14	SE12	SSE12	S10	S11	S10	SSE10	S13	SSW17	S14	S11	S8.8	SSW17
17-Oct	S7	SW8	SW12	WSW12	WSW12	W12	WNW11	WNW10	W15	W16	WSW10	WNW12	WNW13	WNW16	WNW16	WNW15	WNW13	WNW12	WNW10	WNW9	W10	WNW9	WNW6	WNW6	W10.3	WNW16
18-Oct	SW5	SW8	SW7	WSW7	SW8	WSW8	SW8	SW6	SW10	SW6	W8	W8	W9	W9	W10	W8	W6	SW4	S5	SSW5	S4	SE4	ESE2	ESE4	WSW5.4	SW10
19-Oct	ESE6	SE2	SE2	SSE3	NE1	N3	NNW7	N5	N7	NNW6	NNW6	NNW8	NNW11	NNW12	NNW12	N12	N12	N14	N10	N11	N13	N14	N12	N11	N7.4	N14
20-Oct	N12	N9	N10	N9	N10	N7	NNW8	NNW10	NNE6	NNE6	NNE4	E3	SSE5	S7	S9	SSW9	SW8	S8	S9	SSE9	SSE10	SSE12	SE14	SSE8	ESE1.1	SSE14
21-Oct	SE13	SSE12	SSE11	SSE10	SSE10	S8	SW9	SW7	SW7	WNW6	WNW11	WNW13	WNW12	W14	W12	WNW12	NNW12	NNE8	NNE8	NNE5	NE2	E2	E1	ESE4	WSW2.5	W14
22-Oct	ESE4	ESE4	NE3	ESE6	SE5	SE7	SSE12	SSE7	SSE8	SSE13	SSE11	SSE9	SSE11	SSE12	SE10	SE8	ESE10	SE12	ESE12	SE11	SE15	SE20	SE19	SE21	SE10.0	SE21
23-Oct	SE22	SE21	SE16	SE13	SE13	SE16	SE19	SE13	SE10	SE14	SSE16	SSE15	SSE12	SE12	SE13	SE13	SE13	SE9	SE11	SE15	SE12	SE11	SE14	SE12	SE13.9	SE22
24-Oct	SE13	SE13	SE19	SSE16	SSE12	S10	SSW5	SSE10	S7	S9	SSE13	SSE14	SSE10	SSE9	SE5	SE7	SE6	NE4	ENE5	ESE5	SE8	ESE6	SE7	SE4	SSE8.4	SE19
25-Oct	SE2	SSE1	WNW3	NNW7	NNE6	E3	E4	WSW4	WNW7	WNW8	W7	W9	W16	W13	WSW14	W18	WSW16	SW11	SSW8	SW9	SSW7	S7	S7	SW3	WSW5.4	W18
26-Oct	ENE5	SSE3	SSE6	SE5	ESE3	N4	N6	N5	N7	N13	N9	N11	N15	N16	N15	N13	N14	N19	N21	N20	N24	N23	N23	N25	N11.2	N25
27-Oct	N22	N24	N24	N24	N24	NNW25	NNW25	NNW23	NNW24	NNW25	NNW26	NNW25	NNW24	NNW21	NNW19	NW19	NW15	WNW15	WNW15	WNW16	WNW14	WNW13	WNW12	WNW11	NNW18.7	NNW26
28-Oct	WNW12	WNW11	WNW12	W12	WNW10	W8	WNW7	WNW6	WNW5	WNW4	W7	W9	WNW13	W15	W12	WNW10	W7	WNW11	WNW7	W5	SSE2	SSE4	SSW3	SE2	WNW7.2	W15
29-Oct	SE4	SE5	SSE10	SE9	SE13	SE9	ENE6	NE6	NE5	NNE6	N11	N9	N7	N11	N9	N10	N9	N10	N8	NNW11	NNW9	NNW7	NNW6	NNW4	NNE4.3	SE13
30-Oct	N6	N2	NNW2	NE4	NNE4	N1	E2	SSE1	WSW3	SW8	SW10	SW10	S9	S9	SSW7	SSW10	SSW9	SW8	SW9	SSW9	SSW8	SSW9	SSW11	SSW10	SSW4.9	SSW11
31-Oct	SSW10	S9	S10	S9	S8	S12	S13	SSE10	SSE10	SSE14	SSE18	SSE19	SSE20	SE21	SE22	SE20	SE24	SE24	SE23	SE24	SE21	SE19	SSE18	SE14	SSE15.7	SE24
	SSE0.7	SW0.8	SW1.6	SW1.4	SW1.3	SW1.5	SW1.2	SW1.4	WSW2.1	SW2.1	SW2.8	SW2.9	WSW3.8	WSW3.8	SW3.7	SW3.8	WSW2.9	WSW1.6	SW1.5	SW2.1	SSW2.0	SSW2.0	S2.1	S1.1	Diurnal Average	
	N22	N24	N24	N24	N24	NNW25	NNW25	NNW23	NNW24	NNW25	NNW26	NNW25	NNW24	SE21	SE22	SE20	SE24	SE24	SE23	SE24	N24	N23	N23	N25	Diurnal Maximum	

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 7 km/h on Oct 12 08:00

Minimum Value: 1 km/h on Oct 10 04:00

Percentiles: P_1 = 1 P_{10} = 2 Q_1 = 2 Median = 3 Q_3 = 4 P_{90} = 5 P_{99} = 6

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

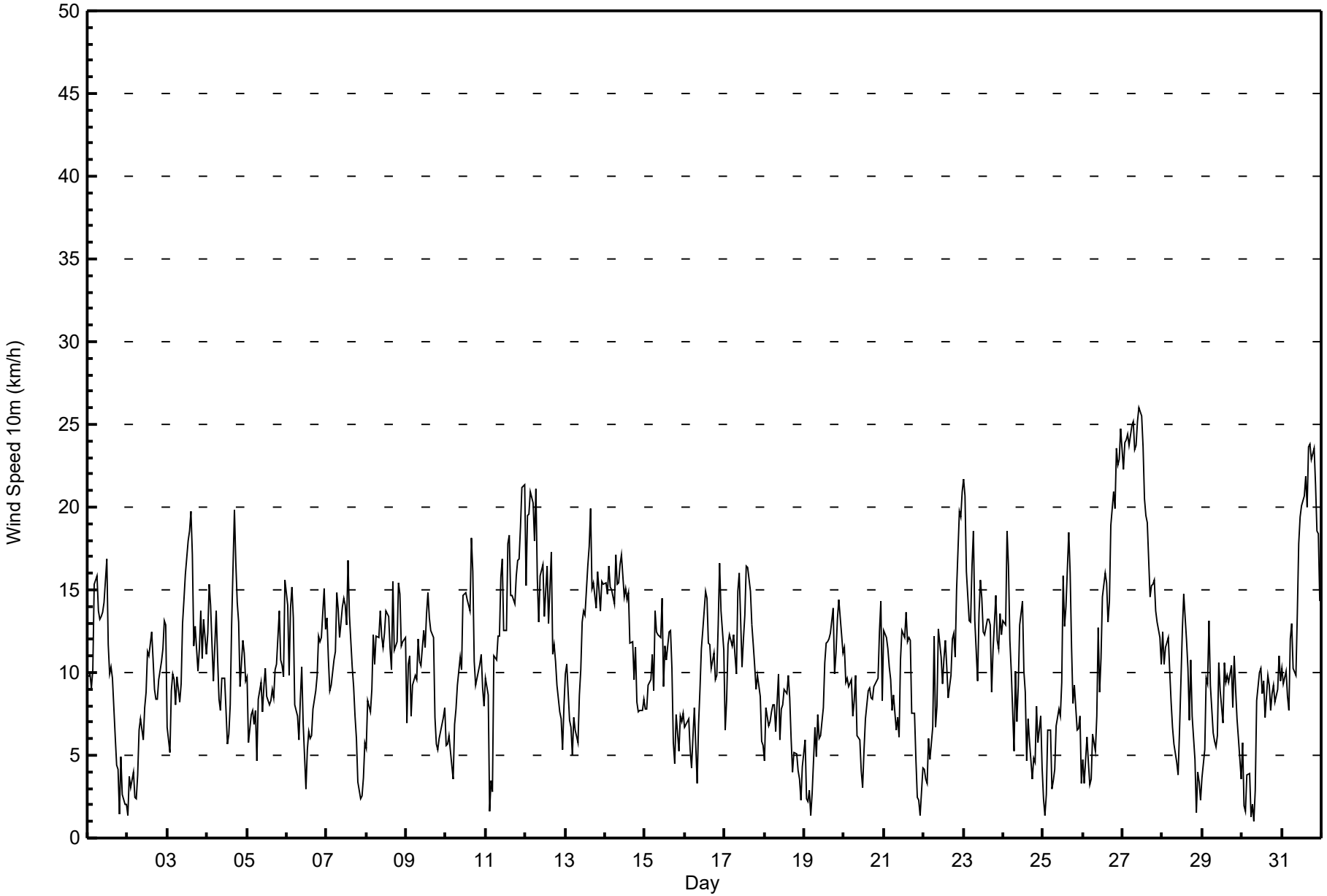
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	2	4	3	3	3	3	3	3	3	4	3	2	2	2	2	1	1	2	1	1	1	1	4
2-Oct	1	2	2	2	1	2	1	1	2	2	2	2	3	2	3	3	2	2	2	2	3	2	2	3	3
3-Oct	2	1	2	2	2	2	2	2	2	4	5	5	6	6	7	6	4	5	4	4	5	3	5	4	7
4-Oct	4	5	4	4	4	4	3	3	2	3	3	2	3	4	3	3	5	6	4	3	3	3	3	3	6
5-Oct	4	3	3	4	2	3	2	3	2	2	2	3	3	3	3	4	3	3	2	4	4	5	4	4	5
6-Oct	4	4	3	5	3	2	2	2	2	2	3	2	2	2	2	3	2	2	2	2	3	3	3	3	5
7-Oct	3	3	2	2	3	3	3	2	3	3	3	3	3	3	3	2	2	4	2	2	3	2	2	3	4
8-Oct	2	3	2	3	5	4	4	4	4	4	4	4	4	5	4	3	5	3	4	5	6	4	4	4	6
9-Oct	2	3	3	3	3	3	3	3	3	4	4	4	4	5	5	4	3	2	1	1	2	1	1	2	5
10-Oct	2	2	1	1	1	2	3	2	2	2	4	3	3	3	4	5	4	4	2	1	2	2	2	1	5
11-Oct	3	2	3	2	2	3	3	3	3	4	3	3	3	5	5	4	4	4	4	4	4	5	5	6	6
12-Oct	4	5	5	5	6	4	6	7	3	4	4	4	4	4	4	4	2	3	2	3	1	2	1	3	7
13-Oct	3	2	3	3	2	2	2	2	2	3	4	5	4	4	5	5	3	3	3	3	3	3	3	3	5
14-Oct	3	3	3	3	3	3	3	3	4	5	5	5	5	4	5	3	3	2	2	2	2	1	2	2	5
15-Oct	1	1	2	2	4	2	3	3	3	3	3	3	4	3	4	3	3	3	2	2	2	2	1	2	4
16-Oct	2	1	2	1	2	2	2	2	3	2	3	3	3	3	2	2	3	2	2	3	3	6	4	3	6
17-Oct	3	5	3	4	4	4	3	3	4	5	4	4	4	5	6	5	4	3	2	2	2	3	2	2	6
18-Oct	2	2	2	5	2	2	2	2	3	2	3	3	3	3	3	3	2	1	1	1	3	2	2	1	5
19-Oct	1	1	1	2	1	2	1	1	1	1	1	2	2	2	2	2	3	2	2	2	3	3	3	3	3
20-Oct	3	2	3	2	3	2	2	3	2	2	1	1	1	2	2	3	3	2	2	2	2	2	3	2	3
21-Oct	2	3	3	3	2	2	3	2	3	3	3	3	3	4	3	3	3	2	2	1	1	1	2	1	4
22-Oct	2	2	2	2	1	2	2	2	2	3	2	2	2	2	2	2	3	4	4	3	5	4	5	5	5
23-Oct	5	5	4	3	3	4	4	3	3	3	3	3	2	3	3	3	4	3	4	4	3	3	3	3	5
24-Oct	3	3	3	5	2	2	1	2	1	2	3	2	2	2	1	3	3	1	2	1	2	2	2	3	5
25-Oct	1	1	2	2	4	2	2	2	3	3	3	4	4	4	5	7	6	4	2	3	2	2	2	2	7
26-Oct	1	2	1	2	2	2	1	2	3	2	4	3	3	3	3	3	3	5	5	6	6	6	6	6	6
27-Oct	6	6	6	6	6	5	6	6	5	6	6	6	6	5	5	4	4	4	4	4	4	4	3	3	6
28-Oct	3	3	3	3	3	2	2	2	1	1	2	3	4	5	3	3	3	3	2	2	2	1	2	1	5
29-Oct	1	1	3	2	4	4	1	1	2	2	3	3	2	3	2	2	2	2	2	2	2	1	2	1	4
30-Oct	1	2	2	2	1	1	2	1	2	3	4	3	2	2	3	3	2	2	2	2	3	3	3	3	4
31-Oct	3	2	2	2	2	3	3	2	2	3	4	4	4	4	5	5	5	5	6	6	5	4	3	3	6
	6	6	6	6	6	5	6	7	5	6	6	6	6	6	7	7	6	6	6	6	6	6	6	6	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Mildred Lake - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	100	13.44	13.44
6 - 11	343	46.10	59.54
12 - 19	259	34.81	94.35
20 - 28	42	5.65	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wind Speed 10m (WS10) - km/h
Mildred Lake - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	10	6	7	3	6	8	12	11	10	6	8	2	3	4	2	2	100
6 - 11	32	7	1	1	1	8	39	54	37	20	33	10	27	35	11	27	343
12 - 19	33	0	0	0	0	1	31	51	21	12	17	7	24	35	7	20	259
20 - 28	12	0	0	0	0	0	12	1	1	0	1	0	0	0	0	15	42
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	87	13	8	4	7	17	94	117	69	38	59	19	54	74	20	64	744

Total Number of Valid Hours: 744

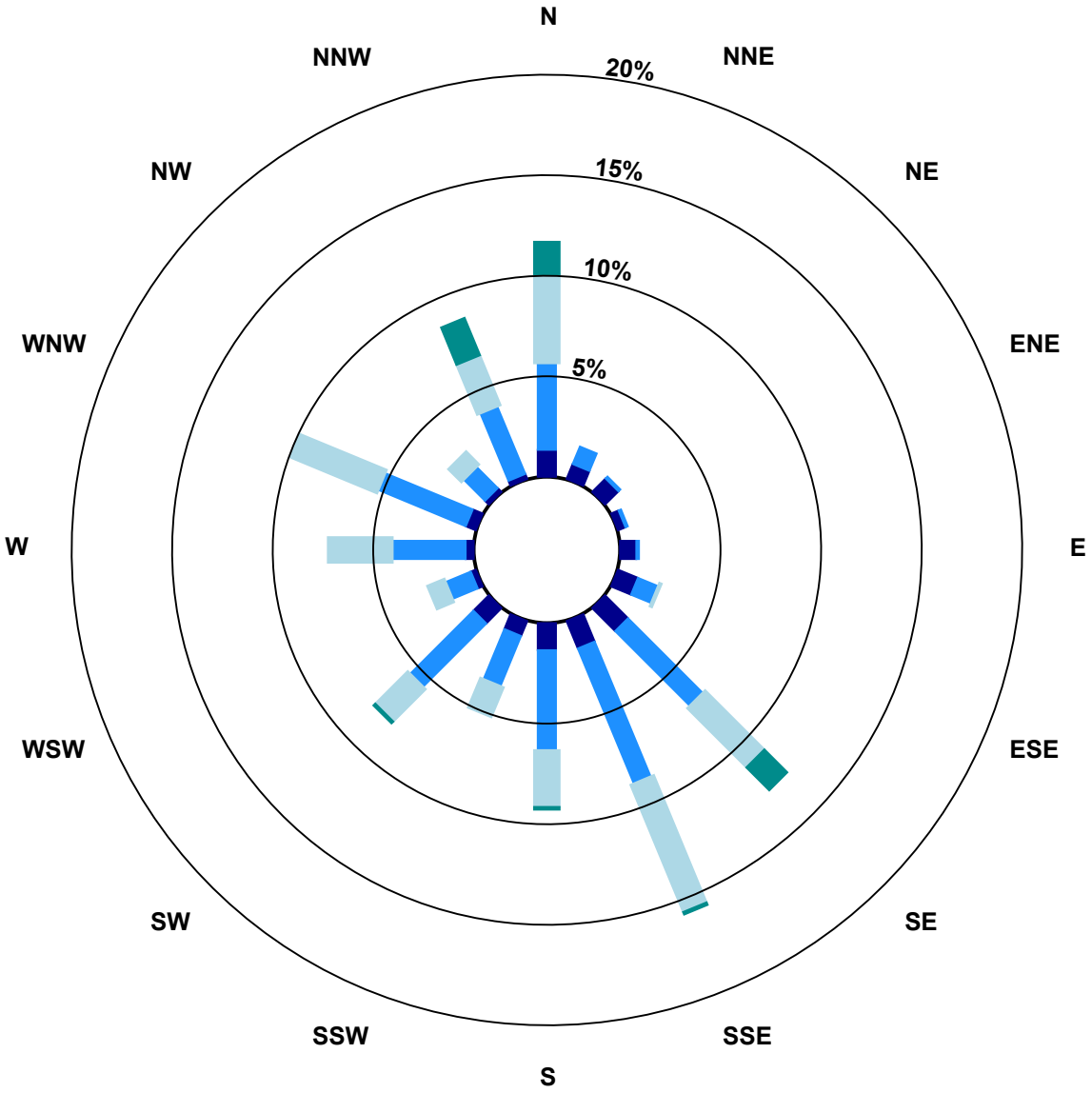
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Mildred Lake



Classes (km/h)

0 - 5

6 - 11

12 - 19

20 - 28

29 - 38

> 38

Total Number of Valid Hours: 744

Direction of Maximum Speed: 343 deg on Oct 27 11:00

Direction of Maximum Daily Speed Average: 336.9 deg on Oct 27

Direction of Minimum Speed: 160 deg on Oct 30 08:00

Direction of Minimum Daily Speed Average: 1.1 deg on Oct 20

Monthly Average Direction: 225.3 deg

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	352	349	352	356	353	349	351	348	353	351	352	341	342	340	347	345	350	353	25	358	22	10	352	202	350.3
2-Oct	176	227	232	231	112	166	147	170	149	131	151	139	145	154	175	169	166	144	145	142	170	155	147	146	156.6
3-Oct	136	124	145	142	147	142	149	162	191	195	210	217	231	237	230	225	221	218	247	266	269	259	275	267	216.1
4-Oct	274	274	275	269	266	281	278	283	305	302	306	5	350	347	16	350	341	337	326	322	311	298	299	292	307.3
5-Oct	295	308	259	267	232	228	203	167	170	154	161	194	246	288	288	273	282	303	302	278	267	290	298	358	265.4
6-Oct	3	353	357	340	329	337	353	353	329	322	325	275	184	190	149	118	108	138	154	146	153	147	146	152	58.9
7-Oct	148	149	158	163	161	150	148	151	155	157	152	152	148	149	143	131	109	101	143	186	52	22	321	336	146.7
8-Oct	297	335	307	289	282	275	282	295	278	275	240	258	268	273	258	230	277	292	284	293	289	284	289	296	280.1
9-Oct	288	271	278	246	221	222	224	233	223	209	208	218	230	229	231	227	228	212	195	190	181	181	159	148	222.5
10-Oct	134	160	175	189	163	169	143	170	175	160	147	150	149	155	166	189	181	170	162	152	161	144	137	103	159.6
11-Oct	130	126	201	169	68	355	348	359	340	339	335	327	315	293	292	295	295	295	301	306	313	328	338	343	321.7
12-Oct	338	341	340	343	346	345	350	353	355	351	360	5	356	7	356	346	330	345	333	341	325	332	317	304	346.1
13-Oct	309	304	293	279	233	242	240	220	187	186	228	226	221	191	179	179	179	172	176	170	170	165	170	168	196.4
14-Oct	166	165	168	168	168	165	171	178	186	189	201	202	202	205	206	193	174	172	173	164	166	147	134	151	178.1
15-Oct	147	145	141	142	149	147	148	149	159	163	156	187	217	223	207	202	211	207	180	196	259	239	233	232	180.1
16-Oct	224	226	232	224	185	195	180	151	144	144	152	140	141	148	144	150	178	184	173	163	181	201	188	183	172.3
17-Oct	187	233	236	238	238	260	282	292	276	273	251	282	285	284	290	290	297	303	298	292	280	287	288	290	275.0
18-Oct	225	232	225	244	233	239	227	228	233	217	272	277	270	263	262	279	263	221	191	194	180	129	109	119	238.1
19-Oct	118	133	137	152	42	6	348	353	350	339	341	348	348	347	345	350	1	357	3	358	2	3	5	6	358.4
20-Oct	11	7	358	359	349	356	332	339	20	20	20	97	168	169	173	205	220	181	173	159	149	149	146	164	121.8
21-Oct	146	154	156	153	164	171	223	228	222	284	285	287	282	276	280	295	339	25	31	23	39	86	85	115	243.9
22-Oct	115	117	36	113	132	132	149	158	167	156	161	154	152	148	143	144	115	129	122	126	134	143	139	138	139.3
23-Oct	138	138	135	133	134	138	141	144	135	142	148	147	150	143	137	139	138	125	127	136	135	141	142	136	138.7
24-Oct	137	138	144	147	160	172	200	164	181	171	153	149	160	151	139	134	129	46	78	119	130	120	137	125	146.7
25-Oct	143	150	289	340	20	91	86	250	293	292	276	273	277	280	242	260	256	217	202	225	203	175	189	227	252.4
26-Oct	77	161	159	140	110	10	4	350	350	353	353	353	356	2	4	358	358	0	357	11	1	4	2	359	2.8
27-Oct	1	2	359	358	354	348	347	346	343	343	343	342	343	338	339	325	319	297	302	296	294	291	291	291	336.9
28-Oct	295	302	292	279	283	281	285	294	299	292	279	280	286	281	279	284	263	284	285	261	148	148	197	131	281.7
29-Oct	131	127	152	128	144	130	70	48	40	15	1	356	352	358	2	11	4	5	1	333	339	333	334	333	20.2
30-Oct	350	352	348	42	26	351	97	160	245	218	232	214	184	176	193	195	196	216	217	201	198	197	197	195	203.4
31-Oct	199	187	185	189	181	172	171	165	164	158	149	148	148	140	139	143	145	139	141	145	146	143	148	145	152.3
	149.3	217.9	227.3	228.9	214.5	229.6	222.4	232.2	239.3	234.8	223.5	230.0	237.8	237.1	230.1	235.2	241.4	240.2	222.2	218.0	211.7	193.6	186.5	174.4	
	Diurnal Average																								

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 89 deg on Oct 11 03:00

Minimum Value: 9 deg on Oct 15 01:00

Percentiles: P_1 = 10 P_{10} = 13 Q_1 = 15 Median = 18 Q_3 = 23 P_{90} = 33 P_{99} = 67

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

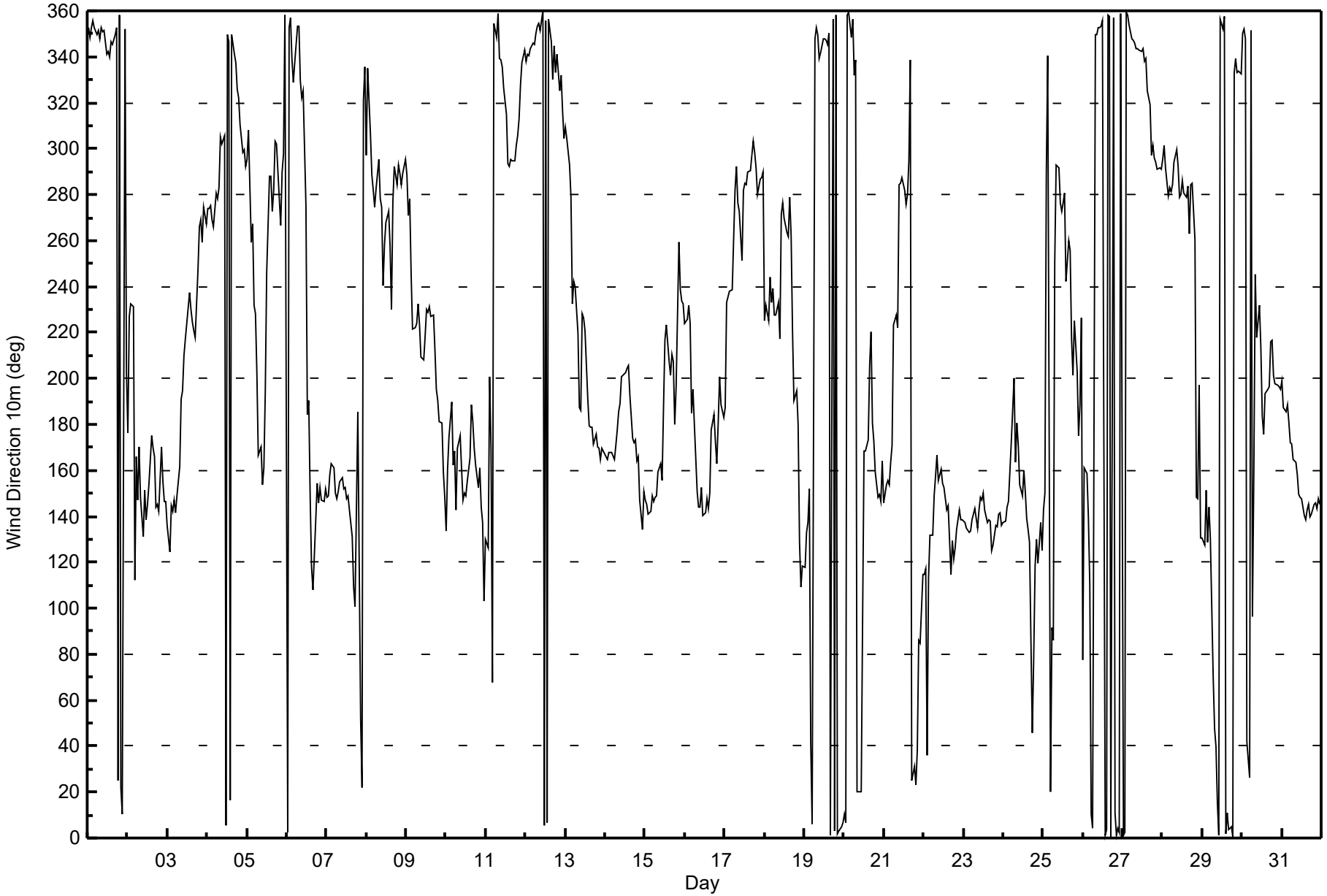
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	16	14	16	15	15	15	16	16	15	17	16	15	15	18	17	14	14	27	17	62	14	50	40	65	65
2-Oct	68	44	57	28	46	44	30	25	24	29	12	17	16	17	16	17	16	15	13	14	14	14	11	12	68
3-Oct	22	17	11	13	11	14	11	15	15	21	24	24	26	25	24	24	25	26	41	31	24	25	22	26	41
4-Oct	21	20	20	30	32	19	19	20	20	20	22	26	50	33	25	16	15	14	12	12	16	17	17	20	50
5-Oct	21	17	24	26	28	29	29	20	16	20	19	23	39	31	26	31	22	16	18	19	26	40	21	24	40
6-Oct	18	16	16	15	11	13	15	17	20	13	42	74	49	34	43	44	20	23	12	12	15	14	11	13	74
7-Oct	14	16	17	15	15	14	11	11	14	14	13	15	16	13	14	19	14	18	40	59	66	59	31	44	66
8-Oct	23	22	17	21	19	25	23	22	20	24	26	28	26	26	28	28	21	20	20	21	20	22	21	18	28
9-Oct	23	21	21	36	24	23	22	18	20	25	21	25	25	25	25	25	21	22	16	16	22	14	12	11	36
10-Oct	33	25	10	12	40	13	23	15	15	16	14	15	14	15	19	16	15	14	12	9	12	14	16	14	40
11-Oct	17	16	89	47	41	18	17	19	17	15	14	12	18	19	18	17	17	17	17	15	14	12	15	15	89
12-Oct	14	15	15	15	16	15	17	19	15	19	17	20	22	20	22	20	11	14	13	16	9	14	11	16	22
13-Oct	14	16	20	39	33	24	30	34	15	21	24	27	26	19	17	14	13	13	13	13	14	15	14	13	39
14-Oct	14	14	13	13	14	14	12	13	16	17	21	23	21	23	21	20	14	13	14	13	13	12	13	10	23
15-Oct	9	9	11	11	13	11	10	12	17	18	15	29	26	25	22	18	20	25	17	16	30	20	13	15	30
16-Oct	19	17	20	33	49	22	14	46	22	14	18	19	16	11	13	11	18	14	18	21	15	19	18	16	49
17-Oct	24	59	23	23	24	24	19	16	19	19	27	21	22	21	20	18	17	16	16	15	18	21	25	29	59
18-Oct	36	19	28	42	23	16	13	18	18	29	42	29	28	30	28	24	23	27	11	16	57	29	54	22	57
19-Oct	15	48	56	47	31	21	12	20	12	17	20	15	13	12	12	12	16	16	18	14	15	15	16	16	56
20-Oct	18	18	16	14	16	20	14	20	21	23	31	36	24	19	20	23	26	16	14	14	12	12	13	19	36
21-Oct	12	16	14	16	17	11	25	28	31	36	21	20	19	20	21	22	18	23	20	19	17	51	70	14	70
22-Oct	17	40	52	20	28	15	11	16	18	16	17	22	16	15	17	21	18	19	19	19	19	14	16	15	52
23-Oct	16	16	17	17	16	15	14	13	17	15	12	14	14	16	16	15	16	21	19	16	16	14	14	16	21
24-Oct	16	16	11	13	14	12	23	16	17	14	13	12	15	15	28	23	29	41	20	40	16	15	20	60	60
25-Oct	65	69	57	26	54	43	33	21	33	29	24	25	19	22	26	21	28	26	16	23	35	27	17	82	82
26-Oct	26	50	20	24	36	38	13	35	13	10	18	12	14	15	16	15	14	18	16	20	19	19	17	17	50
27-Oct	18	17	16	18	17	14	16	15	14	15	15	14	14	14	15	12	16	16	16	17	17	17	17	18	18
28-Oct	17	16	17	19	19	18	18	18	17	20	18	20	18	19	19	20	30	20	20	34	69	25	65	54	69
29-Oct	30	25	18	21	17	24	22	21	21	27	17	31	21	15	17	16	18	15	22	11	13	11	13	23	31
30-Oct	13	36	33	23	24	52	46	75	42	29	30	22	19	15	25	17	18	19	21	20	19	19	18	19	75
31-Oct	20	16	15	16	18	15	14	15	16	15	13	14	13	15	16	14	13	16	15	14	13	14	12	12	20
	68	69	89	47	54	52	46	75	42	36	42	74	50	34	43	44	30	41	41	62	69	59	70	82	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Mildred Lake - October 2025



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS03
LOWER CAMP METEOROLOGY
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - LOWER CAMP MET TOWER (AMS03)
OCTOBER 2025

MONTHLY SUMMARY for
AMD SECTION III.B.1(c)

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
Temperature 20 m (C) Average	733	0	11	98.52	22.1	-	12.1	-
Temperature 45 m (C) Average	744	0	0	100	23.4	-	12.2	-
Temperature 100 m (C) Average	744	0	0	100	21.7	-	12.5	-
Temperature 163 m (C) Average	744	0	0	100	21.1	-	12.9	-
Relative Humidity 20 m (%) Average	733	0	11	98.52	98.6	-	91.7	-
Relative Humidity 45 m (%) Average	694	0	50	93.28	99	-	92.2	-
Relative Humidity 100 m (%) Average	744	0	0	100	99	-	91.7	-
Relative Humidity 163 m (%) Average	744	0	0	100	98.3	-	91.6	-
Wind Speed 20 m (km/h) Average	735	0	9	98.79	32	-	19.0	-
Wind Speed 45 m (km/h) Average	735	0	9	98.79	47	-	28.0	-
Wind Speed 100 m (km/h) Average	740	0	4	99.46	53	-	37.0	-
Wind Speed 163 m (km/h) Average	741	0	3	99.6	57	-	42.0	-
Wind Direction 20 m (deg) Average	735	0	9	98.79	-	-	-	-
Wind Direction 45 m (deg) Average	735	0	9	98.79	-	-	-	-
Wind Direction 100 m (deg) Average	740	0	4	99.46	-	-	-	-
Wind Direction 163 m (deg) Average	741	0	3	99.6	-	-	-	-
Vertical Wind Speed 20 m (km/h) Average	735	0	9	98.79	0.3	-	-0.1	-
Vertical Wind Speed 45 m (km/h) Average	735	0	9	98.79	1.9	-	0.7	-
Vertical Wind Speed 100 m (km/h) Average	740	0	4	99.46	3.8	-	1.3	-
Vertical Wind Speed 163 m (km/h) Average	741	0	3	99.6	7	-	1.9	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - LOWER CAMP MET TOWER (AMS03)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
Temperature 20 m (C) Average	733	5.67	4.4	-	-1.4	0.7	2	4.8	8.6	11.7	22.1
Temperature 45 m (C) Average	744	5.9	4.5	-	-2.1	0.7	2.2	5.2	8.9	12	23.4
Temperature 100 m (C) Average	744	5.68	4.5	-	-1.6	0.3	1.8	5.1	8.8	11.6	21.7
Temperature 163 m (C) Average	744	5.46	4.5	-	-2.2	-0.1	1.5	4.9	8.7	11.3	21.1
Relative Humidity 20 m (%) Average	733	73	16.5	-	27.1	48.2	61.3	76	86.4	93.5	98.6
Relative Humidity 45 m (%) Average	694	70.89	18	-	23.9	44.1	58.6	73.5	85.7	93.1	99
Relative Humidity 100 m (%) Average	744	71.42	17.1	-	26.2	46.3	59.1	73.7	85.3	93	99
Relative Humidity 163 m (%) Average	744	69.56	17.5	-	25.7	44.5	56.1	71	83.5	91.7	98.3
Wind Speed 20 m (km/h) Average	735	11.1	6	-	0	3	6	11	15	20	32
Wind Speed 45 m (km/h) Average	735	15.8	8	-	0	6	10	15	21	27	47
Wind Speed 100 m (km/h) Average	740	20.4	10	-	0	8	14	19	27	33	53
Wind Speed 163 m (km/h) Average	741	23.8	11	-	2	11	16	23	31	38	57
Wind Direction 20 m (deg) Average	735	-	-	-	-	-	-	-	-	-	-
Wind Direction 45 m (deg) Average	735	-	-	-	-	-	-	-	-	-	-
Wind Direction 100 m (deg) Average	740	-	-	-	-	-	-	-	-	-	-
Wind Direction 163 m (deg) Average	741	-	-	-	-	-	-	-	-	-	-
Vertical Wind Speed 20 m (km/h) Average	735	-0.3	0.3	-	-1.2	-0.7	-0.5	-0.3	-0.1	0	0.3
Vertical Wind Speed 45 m (km/h) Average	735	0.19	0.3	-	-0.8	-0.2	0	0.2	0.4	0.6	1.9
Vertical Wind Speed 100 m (km/h) Average	740	0.17	0.7	-	-1.5	-0.6	-0.2	0.1	0.4	1.1	3.8
Vertical Wind Speed 163 m (km/h) Average	741	0.8	0.9	-	-1.3	-0.1	0.2	0.6	1.3	1.9	7

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - LOWER CAMP MET TOWER (AMS03)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
Relative Humidity, Temeprature, 20m	10 Oct 2025 10:00	10 Oct 2025 11:00	2	DAS Failure - data not recorded
Relative Humidity, Temeprature, 20m	14 Oct 2025 13:00	14 Oct 2025 13:00	1	DAS Failure - data not recorded
Relative Humidity, Temeprature, 20m	23 Oct 2025 13:00	23 Oct 2025 13:00	1	DAS Failure - data not recorded
Relative Humidity, Temeprature, 20m	24 Oct 2025 12:00	24 Oct 2025 12:00	1	DAS Failure - data not recorded
Relative Humidity, Temeprature, 20m	24 Oct 2025 14:00	24 Oct 2025 17:00	4	DAS Failure - data not recorded
Relative Humidity, Temeprature, 20m	25 Oct 2025 16:00	25 Oct 2025 16:00	1	DAS Failure - data not recorded
Relative Humidity, Temeprature, 20m	25 Oct 2025 21:00	25 Oct 2025 21:00	1	DAS Failure - data not recorded
Relative Humidity, 45m	01 Oct 2025 01:00	01 Oct 2025 12:00	12	Sensor operated out of range
Relative Humidity, 45m	01 Oct 2025 21:00	02 Oct 2025 10:00	14	Sensor operated out of range
Relative Humidity, 45m	02 Oct 2025 23:00	03 Oct 2025 07:00	9	Sensor operated out of range
Relative Humidity, 45m	04 Oct 2025 15:00	04 Oct 2025 21:00	7	Sensor operated out of range
Relative Humidity, 45m	08 Oct 2025 02:00	08 Oct 2025 03:00	2	Sensor operated out of range
Relative Humidity, 45m	08 Oct 2025 05:00	08 Oct 2025 05:00	1	Sensor operated out of range
Relative Humidity, 45m	11 Oct 2025 11:00	11 Oct 2025 15:00	5	Sensor operated out of range
Vertical Wind Speed, Wind Speed, Wind Direction, 20m	27 Oct 2025 21:00	27 Oct 2025 21:00	1	Flat line in sensor output signal
Vertical Wind Speed, Wind Speed, Wind Direction, 20m	28 Oct 2025 03:00	28 Oct 2025 03:00	1	Flat line in sensor output signal
Vertical Wind Speed, Wind Speed, Wind Direction, 20m	28 Oct 2025 05:00	28 Oct 2025 09:00	5	Flat line in sensor output signal
Vertical Wind Speed, Wind Speed, Wind Direction, 20m	29 Oct 2025 15:00	29 Oct 2025 16:00	2	Flat line in sensor output signal
Vertical Wind Speed, Wind Speed, Wind Direction, 45m	27 Oct 2025 22:00	27 Oct 2025 23:00	2	Flat line in sensor output signal
Vertical Wind Speed, Wind Speed, Wind Direction, 45m	29 Oct 2025 15:00	29 Oct 2025 17:00	3	Flat line in sensor output signal
Vertical Wind Speed, Wind Speed, Wind Direction, 45m	29 Oct 2025 21:00	29 Oct 2025 21:00	1	Flat line in sensor output signal
Vertical Wind Speed, Wind Speed, Wind Direction, 45m	30 Oct 2025 00:00	30 Oct 2025 02:00	3	Flat line in sensor output signal
Vertical Wind Speed, Wind Speed, Wind Direction, 100m	12 Oct 2025 12:00	12 Oct 2025 13:00	2	Flat line in sensor output signal
Vertical Wind Speed, Wind Speed, Wind Direction, 100m	27 Oct 2025 17:00	27 Oct 2025 18:00	2	Flat line in sensor output signal
Vertical Wind Speed, Wind Speed, Wind Direction, 163m	12 Oct 2025 12:00	12 Oct 2025 14:00	3	Flat line in sensor output signal

Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 20m (AT20) - C

Lower Camp Met Tower - October 2025

Maximum Value: 22.1 C on Oct 10 16:00

Maximum Daily Average: 12.1 C on Oct 10

Minimum Value: -1.4 C on Oct 13 08:00

Minimum Daily Average: 0.6 C on Oct 29

Maximum Diurnal Average: 8.9 C at hour 16

Minimum Diurnal Average: 3.1 C at hour 8

Monthly Average: 5.67 C

Percentiles: P_1 = -0.7 P_{10} = 0.7 Q_1 = 2.0 Median = 4.8 Q_3 = 8.6 P_{90} = 11.7 P_{99} = 16.7

Hours in Service:	744
Hours of Data:	733
Hours of Missing Data:	11
Hours of Calibration:	0
Percent Operational Time:	98.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.1	10.0	10.2	10.2	10.4	10.5	10.6	10.6	10.5	10.4	10.6	10.1	10.0	10.3	10.8	10.8	10.6	10.3	9.9	9.6	8.6	8.3	7.8	6.8	9.9	10.8
2-Oct	6.4	6.3	5.8	6.0	5.7	5.3	4.6	4.8	5.3	7.1	8.2	9.1	10.4	11.4	12.1	12.6	12.9	12.6	11.9	11.1	10.5	9.7	9.2	8.7	8.6	12.9
3-Oct	8.7	8.5	8.5	8.0	8.0	7.4	7.0	7.4	9.1	13.2	15.0	16.2	16.6	16.5	15.8	15.4	14.6	14.2	13.7	11.4	10.3	9.8	9.6	9.4	11.4	16.6
4-Oct	9.0	9.0	8.9	8.1	7.2	7.4	7.0	7.4	8.0	8.8	8.9	8.9	9.3	8.6	6.5	6.0	5.1	4.1	3.8	3.8	3.6	3.7	3.4	3.4	6.7	9.3
5-Oct	3.7	3.2	2.4	1.6	1.3	1.2	1.4	1.6	1.5	1.9	3.0	4.8	6.3	7.7	8.3	8.4	8.4	8.7	7.7	7.2	6.3	5.9	5.5	4.3	4.7	8.7
6-Oct	3.2	2.9	2.5	1.5	0.2	-0.7	-1.1	-0.9	-0.4	-0.1	0.9	1.6	2.3	3.3	4.3	4.6	4.9	4.9	4.2	3.7	3.9	4.0	3.9	3.6	2.4	4.9
7-Oct	3.7	4.1	4.9	5.1	5.0	4.9	4.8	4.8	5.7	6.6	8.5	10.3	12.0	14.5	16.2	16.6	16.5	16.1	15.8	15.0	14.1	12.8	10.8	10.1	10.0	16.6
8-Oct	10.3	9.4	9.6	9.8	10.3	9.7	9.7	9.1	8.2	7.8	8.6	10.1	10.8	11.4	12.0	11.9	12.1	11.1	10.7	9.4	7.6	6.9	6.6	6.3	9.6	12.1
9-Oct	5.8	5.6	6.1	6.2	5.4	4.3	3.7	3.6	4.5	6.2	7.8	11.2	13.5	14.3	15.3	16.1	16.1	14.7	12.6	11.3	10.4	9.7	7.8	7.5	9.2	16.1
10-Oct	7.0	6.3	5.7	4.9	4.4	3.5	3.0	3.1	4.1	DF	DF	11.4	14.5	17.1	20.0	22.1	21.7	20.5	19.4	17.9	16.8	16.0	14.7	13.1	12.1	22.1
11-Oct	12.7	11.6	9.6	8.3	7.4	6.9	8.7	9.4	9.5	9.7	8.3	7.3	6.8	6.1	5.4	5.4	5.7	5.9	5.3	4.6	4.4	4.5	4.1	3.3	7.1	12.7
12-Oct	2.5	2.7	2.6	2.3	2.0	1.8	1.4	0.6	0.7	1.2	0.5	0.3	1.3	2.1	2.8	2.5	2.0	2.2	2.1	1.6	0.9	0.8	0.8	1.0	1.6	2.8
13-Oct	0.8	0.2	-0.1	-0.1	-0.4	-0.9	-1.3	-1.4	-0.9	1.0	2.7	3.4	4.0	4.5	4.7	4.6	4.3	3.7	2.9	2.2	1.9	1.3	0.8	0.9	1.6	4.7
14-Oct	0.8	0.7	0.7	0.7	0.7	0.4	0.8	1.1	2.0	3.2	4.3	5.7	DF	8.6	9.5	10.0	10.1	9.1	7.9	6.8	6.9	5.6	4.9	4.4	4.6	10.1
15-Oct	3.9	3.4	3.0	2.9	2.4	2.1	1.8	1.6	2.5	3.9	6.0	7.5	10.6	11.7	13.2	14.4	14.5	12.7	11.4	10.5	7.8	7.5	7.3	6.7	7.0	14.5
16-Oct	6.2	5.3	3.5	3.0	2.1	1.7	1.0	1.0	2.0	3.7	5.2	7.5	10.0	12.3	12.9	14.0	15.1	15.3	14.6	14.1	13.5	13.2	11.8	11.0	8.3	15.3
17-Oct	10.6	11.0	10.9	10.4	9.3	8.4	8.2	7.4	7.3	6.9	7.2	8.6	9.9	11.0	11.9	12.2	11.8	10.8	9.8	8.6	7.2	6.3	5.6	5.4	9.0	12.2
18-Oct	4.8	4.2	4.0	3.8	3.7	3.4	2.7	2.4	3.4	4.7	6.7	9.3	11.0	11.8	12.5	13.0	12.4	10.2	8.6	5.9	4.2	2.9	1.9	0.9	6.2	13.0
19-Oct	0.5	0.5	0.2	-0.3	-0.5	-0.6	-0.6	-0.4	-0.2	0.4	1.2	1.9	2.8	4.0	4.2	4.3	4.3	4.0	3.3	3.0	2.9	2.6	2.6	2.5	1.8	4.3
20-Oct	2.4	2.5	2.6	2.7	2.7	2.6	2.6	2.2	2.3	2.7	2.9	2.9	3.4	4.1	4.6	5.3	5.3	5.2	5.0	4.9	4.4	4.6	4.8	4.8	3.6	5.3
21-Oct	4.4	4.4	3.9	4.4	4.4	4.3	3.6	3.4	4.4	5.0	6.9	8.0	7.7	7.9	8.4	8.8	7.7	5.9	4.7	4.0	3.5	2.7	2.0	1.6	5.1	8.8
22-Oct	1.2	1.6	1.5	1.3	1.6	0.6	0.2	0.3	1.6	2.5	4.2	6.1	7.6	9.3	10.9	11.4	10.9	9.9	9.2	8.4	7.9	7.8	7.6	7.9	5.5	11.4
23-Oct	7.9	8.0	7.8	7.5	7.1	6.7	6.4	6.3	6.3	6.8	8.1	9.6	DF	12.6	12.9	12.6	11.9	10.7	10.2	9.4	8.8	8.5	7.9	7.1	8.7	12.9
24-Oct	7.1	7.0	6.9	6.8	6.9	6.3	5.7	5.2	5.1	5.7	6.6	DF	10.0	DF	DF	DF	DF	8.8	7.0	6.9	7.5	6.8	6.0	5.6	6.7	10.0
25-Oct	5.0	4.9	3.6	3.5	3.7	4.6	4.5	4.7	4.9	4.8	5.4	6.3	7.3	7.6	7.9	DF	8.8	8.4	8.0	7.1	DF	4.8	3.9	3.3	5.6	8.8
26-Oct	1.8	0.8	1.2	1.1	0.8	-0.2	-0.8	-0.7	-0.6	-0.1	1.0	2.2	3.9	5.3	5.7	5.8	6.2	6.4	5.9	5.3	4.2	3.8	3.7	3.5	2.8	6.4
27-Oct	3.5	3.4	3.6	3.4	3.4	2.9	2.5	2.4	2.2	1.8	1.5	1.6	1.8	2.3	2.5	2.7	1.3	1.0	0.9	0.7	0.5	0.6	0.6	0.7	2.0	3.6
28-Oct	0.7	0.5	0.8	0.9	0.5	0.2	0.0	0.0	0.1	0.2	0.7	0.9	0.8	1.4	1.6	1.8	1.5	1.8	2.2	2.0	1.9	1.3	1.1	1.1	1.0	2.2
29-Oct	1.2	1.2	1.2	1.0	0.5	0.3	-0.1	-0.3	-0.2	0.3	0.5	0.8	1.1	1.0	0.6	0.4	0.8	0.8	0.7	0.6	0.3	0.3	0.3	0.4	0.6	1.2
30-Oct	0.4	0.5	0.5	0.3	-0.1	-0.2	-0.2	-0.1	0.4	0.9	0.9	1.0	1.1	1.4	1.7	2.0	2.0	2.0	1.9	1.7	1.7	1.6	1.6	1.7	1.0	2.0
31-Oct	1.7	1.8	1.8	1.8	1.7	1.5	0.9	0.3	0.8	1.2	2.1	2.5	3.3	3.3	3.4	3.2	3.3	3.0	3.1	3.3	2.9	2.8	2.8	2.7	2.3	3.4
	4.8	4.6	4.3	4.1	3.8	3.4	3.2	3.1	3.5	4.3	5.1	6.2	7.2	8.1	8.6	8.9	8.8	8.2	7.6	6.8	6.2	5.7	5.2	4.8	Diurnal Average	
	12.7	11.6	10.9	10.4	10.4	10.5	10.6	10.6	10.5	13.2	15.0	16.2	16.6	17.1	20.0	22.1	21.7	20.5	19.4	17.9	16.8	16.0	14.7	13.1	Diurnal Maximum	

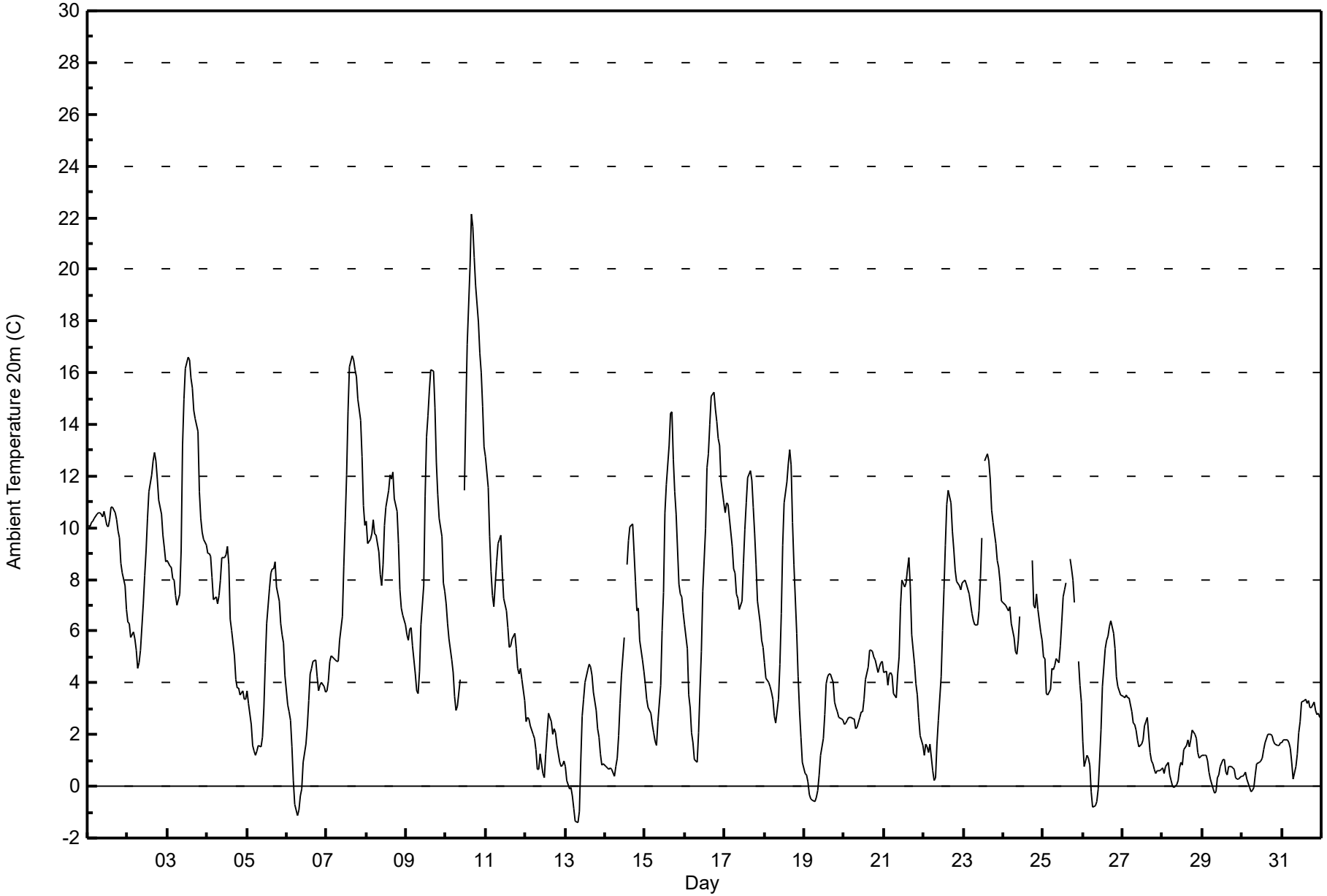
DF - DAS Failure

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 20m (AT20) - C

Lower Camp Met Tower - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	31	4.23	4.23
0 - 10	569	77.63	81.86
10 - 20	129	17.60	99.45
> 20	4	0.55	100.00

Total Number of Valid Hours: 733

Total Number of Hours: 744

Maximum Value: 23.4 C on Oct 10 16:00

Maximum Daily Average: 12.2 C on Oct 10

Minimum Value: -2.1 C on Oct 13 07:00

Minimum Daily Average: 0.5 C on Oct 29

Maximum Diurnal Average: 9.3 C at hour 16

Minimum Diurnal Average: 3.2 C at hour 7

Monthly Average: 5.90 C

Percentiles: P_1 = -0.6 P_{10} = 0.7 Q_1 = 2.2 Median = 5.2 Q_3 = 8.9 P_{90} = 12.0 P_{99} = 17.5

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

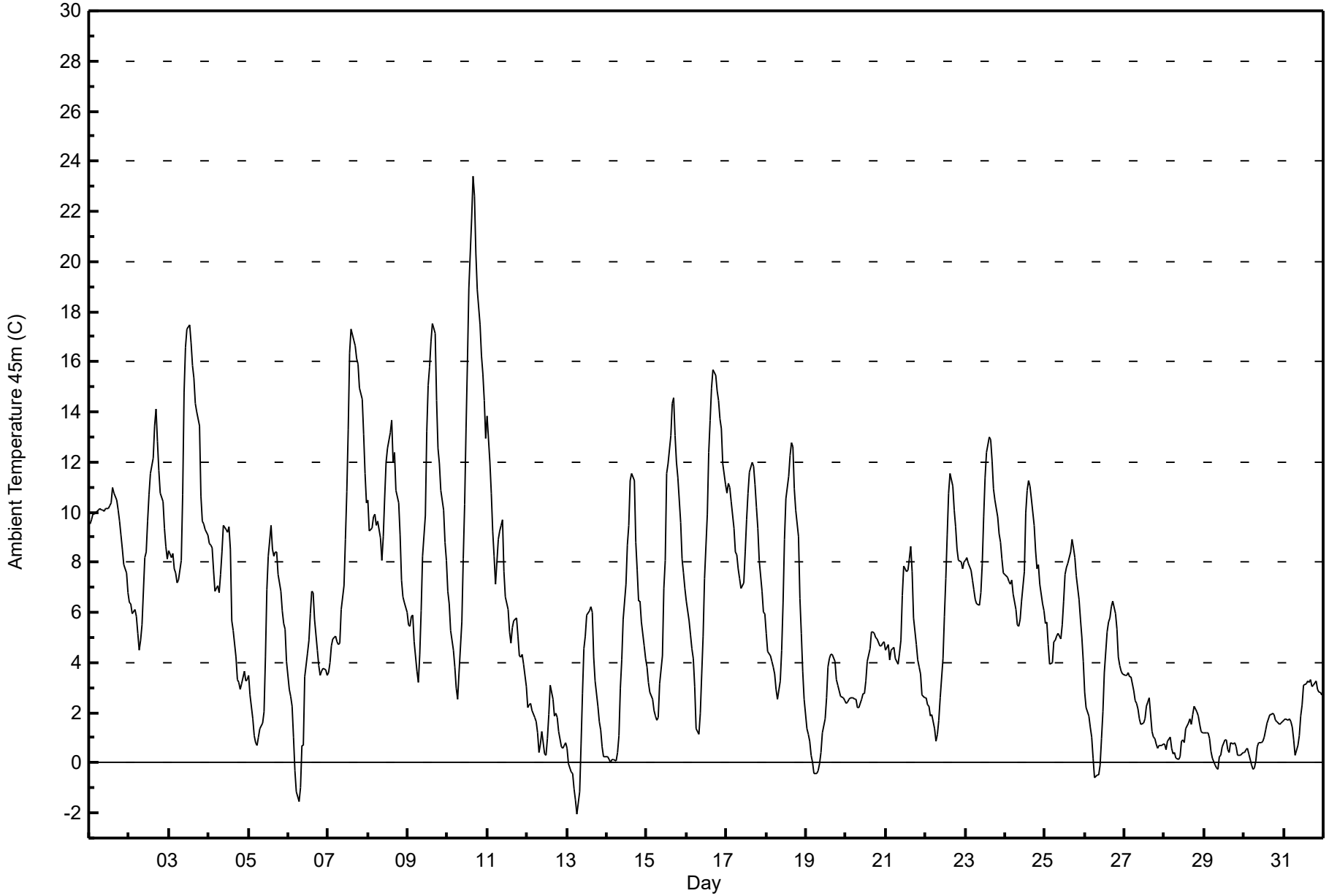
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	9.6	9.7	9.9	9.9	10.0	10.1	10.1	10.1	10.1	10.0	10.1	10.1	10.2	10.4	11.0	10.8	10.5	10.1	9.7	9.1	8.5	7.9	7.5	6.8	9.7	11.0
2-Oct	6.4	6.4	6.0	6.1	5.8	5.2	4.5	4.9	5.5	8.2	8.4	9.6	10.7	11.5	12.2	13.4	14.1	12.8	11.6	10.8	10.4	9.4	8.6	8.2	8.8	14.1
3-Oct	8.5	8.2	8.4	7.7	7.6	7.2	7.3	8.1	10.7	14.8	16.6	17.3	17.5	16.7	15.8	15.3	14.3	14.0	13.4	10.6	9.7	9.5	9.3	9.1	11.6	17.5
4-Oct	8.8	8.7	8.6	7.7	6.8	7.1	6.8	7.5	8.4	9.5	9.3	9.2	9.4	8.5	5.7	5.3	4.2	3.3	3.2	2.9	3.1	3.6	3.3	3.3	6.4	9.5
5-Oct	3.5	2.7	1.8	1.1	0.8	0.7	1.0	1.4	1.6	2.0	4.2	6.9	8.3	9.4	8.5	8.3	8.4	8.4	7.5	6.9	6.1	5.6	5.4	4.0	4.8	9.4
6-Oct	2.9	2.7	2.3	1.1	-0.3	-1.1	-1.5	-1.0	0.7	0.7	3.4	4.4	4.9	6.0	6.8	6.8	5.7	4.5	3.9	3.5	3.7	3.8	3.7	3.5	2.9	6.8
7-Oct	3.6	4.0	4.7	4.9	5.1	4.8	4.7	4.8	6.1	7.1	8.9	10.8	13.3	16.3	17.3	16.9	16.7	16.1	15.9	15.0	14.5	13.1	11.5	10.4	10.3	17.3
8-Oct	10.5	9.2	9.4	9.8	9.9	9.5	9.6	9.0	8.1	9.0	10.6	12.0	12.6	13.2	13.6	12.0	12.4	10.9	10.4	9.1	7.3	6.6	6.4	6.0	9.9	13.6
9-Oct	5.5	5.4	5.9	5.9	4.8	3.7	3.2	4.4	6.1	8.3	9.9	13.2	15.1	15.8	16.8	17.5	17.1	14.5	12.5	11.9	10.8	10.1	8.8	8.1	9.8	17.5
10-Oct	6.9	6.3	5.3	4.5	3.8	3.0	2.6	3.6	5.6	8.1	10.3	13.3	16.0	18.9	21.7	23.4	22.6	20.3	18.9	17.5	16.3	15.5	14.5	13.0	12.2	23.4
11-Oct	13.8	12.0	10.8	9.3	8.3	7.1	8.9	9.3	9.5	9.7	7.6	6.6	6.1	5.2	4.8	5.4	5.7	5.8	5.1	4.3	4.2	4.3	3.9	3.0	7.1	13.8
12-Oct	2.2	2.3	2.4	2.1	1.8	1.6	1.2	0.4	0.8	1.2	0.4	0.3	1.0	1.9	3.1	2.6	1.9	2.0	1.8	1.3	0.6	0.6	0.7	0.8	1.4	3.1
13-Oct	0.6	0.0	-0.4	-0.4	-1.1	-1.5	-2.1	-1.2	0.7	2.8	4.5	5.1	5.9	6.1	6.3	6.0	4.2	3.3	2.3	1.7	1.3	0.7	0.2	0.3	1.9	6.3
14-Oct	0.2	0.1	0.0	0.1	0.1	0.1	0.4	1.1	3.0	4.1	5.7	7.1	8.7	9.5	11.2	11.5	11.3	8.8	7.7	6.4	6.4	5.6	4.7	4.2	4.9	11.5
15-Oct	3.8	3.2	2.8	2.5	2.1	1.8	1.7	1.8	3.1	4.3	6.9	8.1	11.5	11.9	13.0	14.4	14.6	13.0	12.0	11.4	9.6	8.1	7.6	7.0	7.3	14.6
16-Oct	6.5	5.7	5.1	4.6	4.2	3.0	1.3	1.1	2.0	3.5	5.1	7.3	9.9	12.4	13.7	15.0	15.7	15.5	14.8	14.5	13.7	13.3	11.9	11.1	8.8	15.7
17-Oct	10.8	11.1	11.0	10.4	9.4	8.4	8.3	7.7	7.4	6.9	7.2	8.4	9.7	10.8	11.6	12.0	11.8	11.1	10.2	9.4	8.1	6.8	6.0	6.0	9.2	12.0
18-Oct	5.2	4.4	4.3	4.0	3.8	3.5	3.0	2.5	3.3	4.5	6.4	8.9	10.6	11.4	12.3	12.8	12.6	10.9	10.1	9.0	6.6	5.2	3.7	2.5	6.7	12.8
19-Oct	1.4	1.1	0.9	0.3	0.0	-0.4	-0.5	-0.3	0.0	0.4	1.2	1.8	2.6	3.8	4.2	4.3	4.3	4.0	3.3	3.1	2.9	2.6	2.6	2.5	1.9	4.3
20-Oct	2.3	2.4	2.5	2.6	2.6	2.5	2.5	2.2	2.2	2.5	2.8	2.8	3.3	4.0	4.5	5.2	5.2	5.2	5.0	4.9	4.7	4.6	4.8	4.8	3.6	5.2
21-Oct	4.5	4.7	4.1	4.5	4.6	4.6	4.1	3.9	4.4	4.9	6.7	7.8	7.6	7.7	8.1	8.7	7.7	5.8	4.7	4.1	3.8	3.5	2.7	2.6	5.2	8.7
22-Oct	2.6	2.3	2.3	1.9	1.9	1.3	0.9	1.1	1.7	2.6	4.2	5.8	7.3	9.1	10.8	11.5	11.1	10.1	9.4	8.5	8.1	8.0	7.7	8.0	5.8	11.5
23-Oct	8.1	8.2	8.0	7.7	7.3	6.9	6.5	6.4	6.3	6.8	7.9	9.8	11.4	12.4	13.0	12.9	12.0	10.9	10.5	9.8	9.1	8.8	8.1	7.6	9.0	13.0
24-Oct	7.5	7.4	7.2	7.1	7.3	6.7	6.1	5.5	5.5	5.7	6.4	7.6	10.0	10.9	11.2	11.0	10.5	9.5	8.4	7.7	7.9	7.1	6.3	6.0	7.8	11.2
25-Oct	5.5	5.6	4.7	4.0	4.0	4.8	4.9	5.1	5.1	4.9	5.5	6.5	7.5	7.8	8.0	8.4	8.9	8.6	8.2	7.4	6.5	5.7	5.0	4.0	6.1	8.9
26-Oct	2.8	2.2	1.9	1.4	1.0	0.2	-0.6	-0.5	-0.5	-0.1	1.0	2.1	3.6	5.2	5.6	5.8	6.2	6.5	5.9	5.3	4.2	3.9	3.7	3.5	2.9	6.5
27-Oct	3.5	3.5	3.6	3.4	3.4	2.9	2.5	2.4	2.1	1.8	1.5	1.6	1.7	2.3	2.4	2.6	1.3	1.0	1.0	0.7	0.6	0.7	0.7	0.8	2.0	3.6
28-Oct	0.8	0.5	0.8	1.0	0.6	0.4	0.4	0.2	0.1	0.3	0.8	0.9	0.8	1.4	1.6	1.8	1.5	1.9	2.2	2.0	1.9	1.5	1.3	1.2	1.1	2.2
29-Oct	1.2	1.2	1.2	1.0	0.5	0.2	-0.1	-0.2	-0.2	0.3	0.3	0.6	0.9	0.9	0.5	0.4	0.8	0.8	0.8	0.6	0.3	0.3	0.3	0.4	0.5	1.2
30-Oct	0.4	0.5	0.6	0.3	-0.1	-0.3	-0.2	0.1	0.6	0.8	0.8	0.9	1.0	1.3	1.6	1.9	1.9	2.0	1.9	1.7	1.6	1.5	1.6	1.6	1.0	2.0
31-Oct	1.7	1.8	1.7	1.7	1.6	1.4	0.9	0.3	0.7	1.1	1.9	2.3	3.1	3.2	3.3	3.2	3.3	3.1	3.1	3.3	2.9	2.8	2.8	2.7	2.2	3.3
	4.9	4.6	4.4	4.1	3.8	3.4	3.2	3.3	3.9	4.7	5.7	6.7	7.8	8.6	9.0	9.3	9.0	8.2	7.6	6.9	6.3	5.8	5.3	4.9	Diurnal Average	
	13.8	12.0	11.0	10.4	10.0	10.1	10.1	10.1	10.7	14.8	16.6	17.3	17.5	18.9	21.7	23.4	22.6	20.3	18.9	17.5	16.3	15.5	14.5	13.0	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 45m (AT45) - C

Lower Camp Met Tower - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	25	3.36	3.36
0 - 10	578	77.69	81.05
10 - 20	137	18.41	99.46
> 20	4	0.54	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 21.7 C on Oct 10 16:00

Maximum Daily Average: 12.5 C on Oct 10

Minimum Value: -1.6 C on Oct 6 07:00

Minimum Daily Average: 0.0 C on Oct 29

Maximum Diurnal Average: 8.5 C at hour 16

Minimum Diurnal Average: 3.3 C at hour 8

Monthly Average: 5.68 C

Percentiles: P_1 = -0.9 P_{10} = 0.3 Q_1 = 1.8 Median = 5.1 Q_3 = 8.8 P_{90} = 11.6 P_{99} = 16.8

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

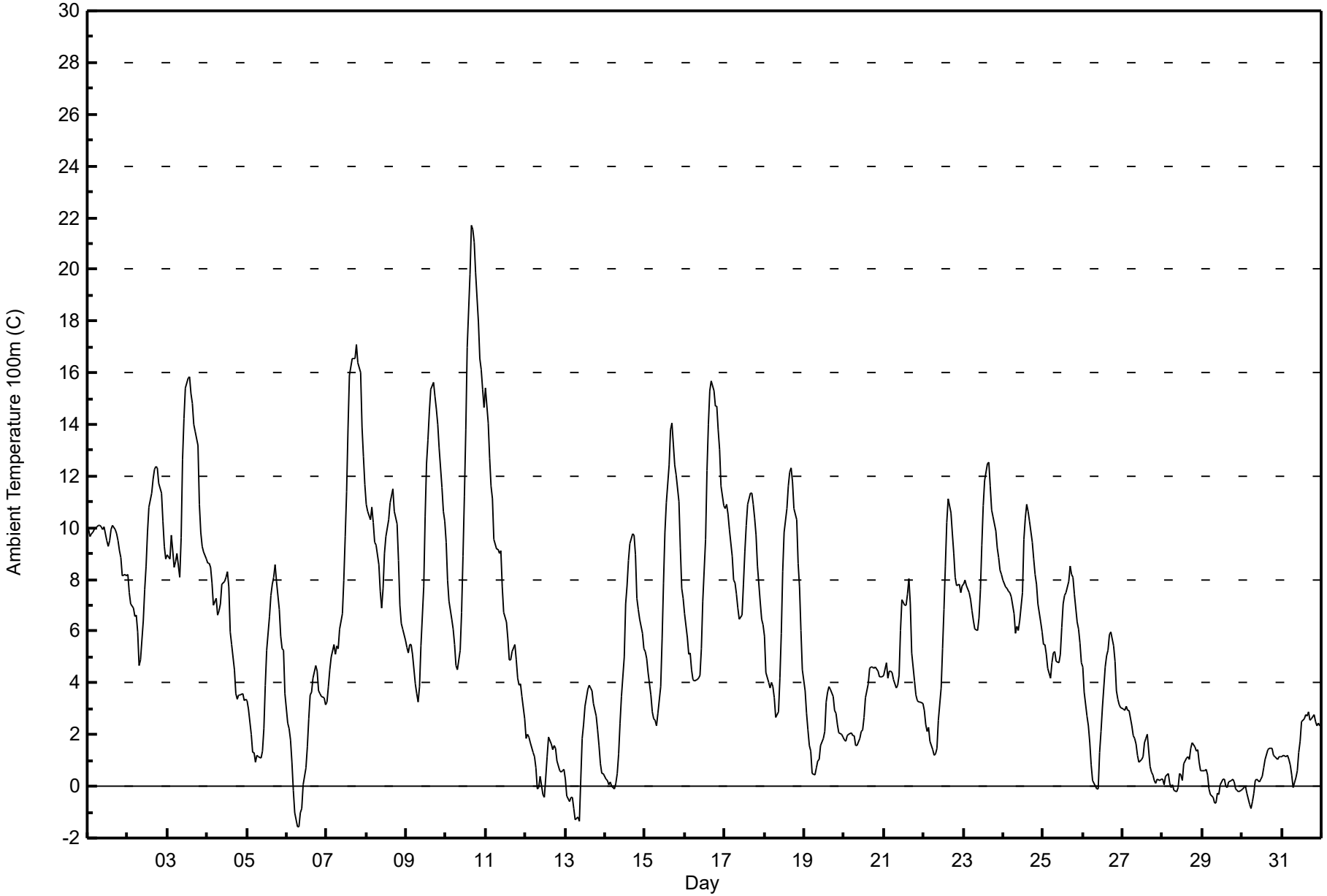
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.0	9.6	9.8	9.8	9.9	10.1	10.1	10.1	10.0	9.9	10.1	9.5	9.3	9.5	9.9	10.1	9.9	9.8	9.5	9.1	8.9	8.2	8.2	8.2	9.6	10.1
2-Oct	8.2	7.5	7.1	6.9	6.6	6.6	6.0	4.7	4.9	6.4	7.6	8.5	9.8	10.8	11.3	11.9	12.3	12.4	12.3	11.7	11.3	10.3	9.3	8.8	8.9	12.4
3-Oct	9.0	8.8	9.7	9.1	8.5	8.7	9.0	8.1	9.6	12.6	14.2	15.4	15.8	15.8	15.2	14.8	14.0	13.8	13.2	10.9	9.8	9.3	9.1	8.8	11.4	15.8
4-Oct	8.6	8.6	8.5	7.9	7.0	7.3	6.6	6.8	7.1	7.8	7.9	8.1	8.3	7.7	6.0	5.5	4.5	3.6	3.4	3.5	3.5	3.6	3.3	3.3	6.2	8.6
5-Oct	3.3	3.0	2.0	1.3	1.3	0.9	1.2	1.2	1.1	1.4	2.2	3.9	5.3	6.6	7.4	7.8	8.1	8.6	7.9	6.8	5.8	5.3	5.3	3.6	4.2	8.6
6-Oct	2.4	2.2	1.8	0.9	-0.2	-1.0	-1.6	-1.6	-1.0	-0.9	0.0	0.7	1.6	2.6	3.5	3.6	4.2	4.7	4.5	3.7	3.6	3.5	3.4	3.2	1.8	4.7
7-Oct	3.3	3.9	4.5	5.0	5.5	5.1	5.4	5.3	6.1	6.7	8.0	9.7	11.4	13.8	15.9	16.6	16.6	16.5	17.1	16.4	16.0	13.9	12.8	11.7	10.3	17.1
8-Oct	10.9	10.6	10.3	10.8	10.2	9.4	9.3	8.6	7.5	6.9	7.6	9.0	9.7	10.3	10.9	11.3	11.5	10.6	10.1	8.8	7.0	6.3	6.1	5.6	9.1	11.5
9-Oct	5.4	5.1	5.5	5.5	5.1	4.0	3.6	3.3	3.9	5.4	7.7	10.4	12.5	13.4	14.5	15.3	15.6	15.1	14.6	14.0	13.1	11.6	10.6	10.2	9.4	15.6
10-Oct	9.5	8.0	7.2	6.5	6.1	5.5	4.7	4.5	5.2	6.7	8.9	11.2	13.8	17.0	19.8	21.7	21.6	21.0	19.9	17.9	16.6	16.1	15.4	14.7	12.5	21.7
11-Oct	15.4	14.0	12.7	11.6	11.1	9.5	9.2	9.2	9.0	9.1	7.7	6.7	6.3	5.7	4.9	4.9	5.2	5.5	4.9	4.2	3.9	4.0	3.5	2.6	7.5	15.4
12-Oct	1.8	2.0	1.9	1.7	1.3	1.1	0.7	-0.1	-0.1	0.4	-0.3	-0.4	0.3	1.1	1.9	1.6	1.4	1.6	1.5	1.0	0.6	0.5	0.6	0.7	1.0	2.0
13-Oct	0.3	-0.4	-0.6	-0.4	-0.4	-0.9	-1.3	-1.2	-1.3	0.3	1.9	2.4	3.1	3.7	3.9	3.8	3.7	3.2	2.7	2.2	1.6	0.8	0.5	0.5	1.2	3.9
14-Oct	0.3	0.2	0.1	0.2	0.0	-0.1	0.1	0.5	1.2	2.5	3.5	5.0	7.1	7.8	8.7	9.4	9.8	9.7	8.9	7.3	6.8	6.5	5.9	5.3	4.4	9.8
15-Oct	5.2	4.9	4.4	3.5	2.9	2.6	2.5	2.3	2.8	3.8	5.7	7.9	9.8	11.0	12.4	13.8	14.1	13.2	12.4	12.0	11.0	9.2	7.7	7.2	7.6	14.1
16-Oct	6.7	5.7	5.1	5.2	4.5	4.1	4.1	4.1	4.2	4.3	5.3	7.1	9.6	12.2	14.0	15.3	15.7	15.3	14.7	14.7	13.8	13.0	11.6	10.9	9.2	15.7
17-Oct	10.7	10.9	10.5	10.0	8.9	8.0	7.9	7.4	6.9	6.5	6.6	7.8	9.1	10.1	10.9	11.4	11.3	10.9	10.4	9.7	8.5	7.1	6.5	6.2	8.9	11.4
18-Oct	5.8	4.4	4.0	3.8	4.0	3.8	3.4	2.7	2.9	4.2	5.9	8.3	9.8	10.8	11.6	12.2	12.3	11.8	10.8	10.3	8.6	7.7	6.0	4.5	7.1	12.3
19-Oct	3.7	2.8	2.2	1.6	1.3	0.5	0.4	0.7	1.0	1.0	1.6	1.8	2.1	3.2	3.6	3.8	3.8	3.5	2.9	2.8	2.4	2.1	2.0	1.9	2.2	3.8
20-Oct	1.8	1.8	1.9	2.0	2.0	2.0	2.0	1.6	1.6	1.8	2.1	2.2	2.6	3.4	4.0	4.6	4.6	4.6	4.5	4.6	4.5	4.2	4.3	4.2	3.0	4.6
21-Oct	4.3	4.8	4.2	4.4	4.4	4.4	4.1	3.8	3.9	4.3	6.0	7.2	7.0	7.0	7.4	8.0	7.1	5.2	4.1	3.5	3.3	3.3	3.3	3.2	4.9	8.0
22-Oct	2.9	2.4	2.1	2.3	1.8	1.4	1.2	1.3	1.5	2.6	3.8	5.3	6.8	8.5	10.2	11.1	10.6	9.8	9.0	8.1	7.8	7.8	7.5	7.8	5.6	11.1
23-Oct	7.8	8.0	7.7	7.5	7.2	6.8	6.4	6.1	6.0	6.5	7.6	9.3	10.8	11.8	12.5	12.5	11.6	10.7	10.4	9.9	9.2	8.9	8.4	8.2	8.8	12.5
24-Oct	8.0	7.7	7.6	7.5	7.5	7.4	6.7	5.9	6.2	6.0	6.4	7.5	9.5	10.4	10.9	10.6	10.3	9.4	8.8	8.2	7.8	7.1	6.3	6.0	7.9	10.9
25-Oct	5.5	5.5	5.1	4.6	4.2	4.8	5.2	5.2	4.9	4.8	5.1	6.2	7.1	7.4	7.5	7.9	8.5	8.2	8.1	7.5	6.3	6.1	5.5	4.8	6.1	8.5
26-Oct	4.6	3.6	2.7	2.3	1.7	0.8	0.2	0.0	-0.1	-0.1	1.3	2.1	3.0	4.6	5.0	5.2	5.9	6.0	5.4	4.8	3.7	3.3	3.2	3.0	3.0	6.0
27-Oct	3.0	3.0	3.1	2.9	2.9	2.3	2.0	1.8	1.6	1.2	0.9	1.0	1.2	1.7	1.8	2.0	0.8	0.5	0.4	0.2	0.1	0.3	0.2	0.3	1.5	3.1
28-Oct	0.3	0.1	0.4	0.5	0.1	0.0	0.1	-0.2	-0.2	-0.1	0.5	0.4	0.2	0.9	1.1	1.2	1.1	1.4	1.7	1.5	1.3	1.4	0.9	0.6	0.6	1.7
29-Oct	0.6	0.6	0.6	0.4	-0.1	-0.3	-0.5	-0.7	-0.6	-0.3	-0.3	0.1	0.3	0.3	0.0	0.0	0.2	0.2	0.3	0.2	-0.1	-0.2	-0.2	-0.1	0.0	0.6
30-Oct	-0.1	0.0	0.0	-0.3	-0.7	-0.8	-0.6	-0.3	0.2	0.3	0.2	0.3	0.4	0.7	1.0	1.4	1.4	1.5	1.4	1.2	1.1	1.0	1.1	1.1	0.5	1.5
31-Oct	1.1	1.2	1.2	1.2	1.0	0.8	0.5	-0.1	0.4	0.6	1.3	1.7	2.5	2.6	2.8	2.7	2.9	2.6	2.6	2.8	2.5	2.4	2.4	2.3	1.7	2.9
	5.2	4.9	4.6	4.4	4.1	3.7	3.5	3.3	3.4	4.0	4.7	5.7	6.7	7.5	8.1	8.5	8.4	8.1	7.7	7.1	6.5	5.9	5.5	5.1	Diurnal Average	
	15.4	14.0	12.7	11.6	11.1	10.1	10.1	10.1	10.0	12.6	14.2	15.4	15.8	17.0	19.8	21.7	21.6	21.0	19.9	17.9	16.6	16.1	15.4	14.7	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 100m (AT100) - C

Lower Camp Met Tower - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	46	6.18	6.18
0 - 10	569	76.48	82.66
10 - 20	126	16.94	99.60
> 20	3	0.40	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 21.1 C on Oct 10 16:00

Maximum Daily Average: 12.9 C on Oct 10

Minimum Value: -2.2 C on Oct 6 08:00

Minimum Daily Average: -0.5 C on Oct 29

Maximum Diurnal Average: 7.9 C at hour 16

Minimum Diurnal Average: 3.2 C at hour 8

Monthly Average: 5.46 C

Percentiles: P_1 = -1.3 P_{10} = -0.1 Q_1 = 1.5 Median = 4.9 Q_3 = 8.7 P_{90} = 11.3 P_{99} = 16.9

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

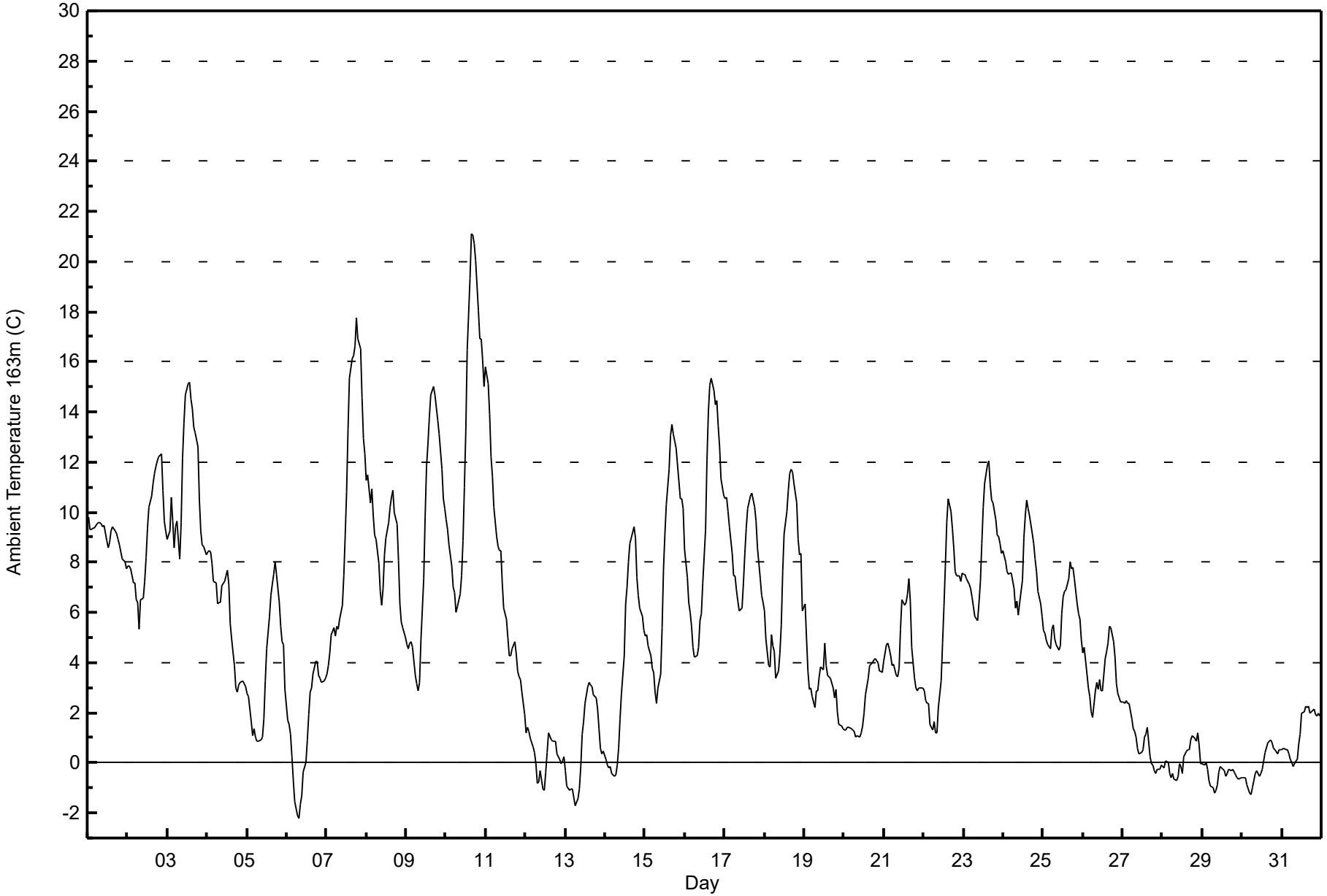
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	9.8	9.3	9.3	9.3	9.4	9.5	9.6	9.6	9.5	9.4	9.4	8.9	8.6	8.8	9.3	9.4	9.3	9.1	8.9	8.7	8.4	8.1	8.0	7.8	9.1	9.8
2-Oct	7.9	7.8	7.7	7.2	7.2	6.5	6.4	5.4	6.5	6.6	7.2	8.2	9.4	10.2	10.6	11.2	11.6	11.8	12.1	12.2	12.3	10.9	9.7	9.2	9.0	12.3
3-Oct	8.9	9.2	10.6	9.6	8.6	9.4	9.6	8.1	9.6	12.2	13.5	14.7	15.1	15.2	14.5	14.1	13.4	13.2	12.6	10.5	9.2	8.7	8.6	8.3	11.2	15.2
4-Oct	8.4	8.5	8.4	7.9	7.2	7.2	6.3	6.4	6.4	7.1	7.2	7.4	7.7	7.1	5.5	4.9	3.9	3.0	2.8	3.1	3.2	3.3	3.2	3.0	5.8	8.5
5-Oct	2.8	2.7	1.6	1.1	1.3	1.0	0.9	0.8	0.9	1.1	1.8	3.3	4.6	5.8	6.7	7.2	7.5	8.0	7.5	6.4	5.5	4.8	4.7	2.9	3.8	8.0
6-Oct	1.7	1.5	1.1	0.3	-0.7	-1.5	-2.1	-2.2	-1.7	-1.3	-0.4	0.0	0.9	1.9	2.8	3.0	3.5	4.1	4.1	3.5	3.4	3.2	3.3	3.4	1.3	4.1
7-Oct	3.5	3.9	4.4	5.1	5.4	5.1	5.5	5.3	5.7	6.3	7.4	9.1	10.8	13.3	15.4	16.1	16.3	16.6	17.7	16.9	16.5	14.6	13.0	12.3	10.3	17.7
8-Oct	11.3	11.5	10.4	10.9	9.8	9.1	8.9	8.0	6.9	6.3	7.0	8.3	8.9	9.6	10.2	10.6	10.9	10.0	9.5	8.1	6.4	5.6	5.4	5.0	8.7	11.5
9-Oct	4.7	4.5	4.8	4.8	4.6	3.5	3.2	2.9	3.2	4.9	7.3	9.8	11.8	12.7	13.8	14.7	15.0	14.7	14.2	13.7	13.1	11.7	10.5	10.2	8.9	15.0
10-Oct	9.7	9.3	8.7	7.8	7.0	6.8	6.0	6.2	6.7	7.4	8.9	11.0	13.2	16.5	19.3	21.1	21.0	20.7	20.1	18.0	16.9	16.9	16.1	15.0	12.9	21.1
11-Oct	15.8	15.1	13.9	12.2	11.4	10.2	9.0	8.7	8.4	8.5	7.2	6.2	5.7	5.0	4.3	4.3	4.6	4.8	4.3	3.7	3.4	3.3	2.8	1.9	7.3	15.8
12-Oct	1.2	1.4	1.3	1.0	0.6	0.4	0.0	-0.8	-0.8	-0.3	-1.0	-1.1	-0.4	0.4	1.2	0.9	0.8	0.9	0.8	0.4	0.1	0.0	0.1	0.2	0.3	1.4
13-Oct	-0.3	-0.9	-1.1	-1.1	-1.0	-1.4	-1.7	-1.4	-1.0	-0.1	1.1	1.7	2.4	3.0	3.2	3.1	3.0	2.7	2.6	2.2	1.3	0.6	0.3	0.4	0.7	3.2
14-Oct	0.1	-0.1	-0.2	-0.1	-0.4	-0.5	-0.5	-0.1	0.6	1.7	2.7	4.3	6.3	7.0	8.0	8.8	9.2	9.4	9.0	7.4	6.7	6.2	5.8	5.3	4.0	9.4
15-Oct	5.0	5.1	4.6	4.3	3.8	3.6	2.8	2.4	3.0	3.5	5.4	7.7	9.1	10.3	11.7	13.1	13.5	13.1	12.8	12.6	11.2	10.5	10.5	10.2	7.9	13.5
16-Oct	8.5	7.4	6.4	6.0	5.5	4.6	4.2	4.2	4.6	5.7	5.9	7.2	9.3	12.1	14.0	15.1	15.4	14.9	14.3	14.4	13.5	12.6	11.3	10.7	9.5	15.4
17-Oct	10.5	10.6	10.0	9.4	8.4	7.5	7.5	6.9	6.5	6.1	6.2	7.2	8.4	9.4	10.2	10.7	10.8	10.5	10.2	9.6	8.6	7.3	6.7	6.4	8.6	10.8
18-Oct	6.0	5.0	3.9	3.8	5.1	4.6	4.4	3.4	3.6	4.4	5.5	7.6	9.1	10.1	10.9	11.5	11.7	11.6	11.2	10.4	8.9	8.3	8.3	6.1	7.3	11.7
19-Oct	6.3	5.0	3.6	2.9	3.0	2.7	2.2	2.9	2.9	3.4	3.8	3.7	4.8	3.9	3.5	3.4	3.4	3.0	2.6	2.9	2.0	1.6	1.5	1.4	3.2	6.3
20-Oct	1.3	1.3	1.4	1.4	1.4	1.3	1.3	1.0	1.1	1.1	1.2	1.4	2.0	2.7	3.4	3.9	3.9	4.0	4.1	4.2	4.0	3.7	3.6	3.6	2.4	4.2
21-Oct	4.0	4.7	4.8	4.6	4.3	3.9	3.9	3.5	3.4	3.8	5.4	6.5	6.3	6.4	6.7	7.4	6.4	4.6	3.4	3.0	2.9	3.0	3.0	3.0	4.5	7.4
22-Oct	2.9	2.5	2.4	2.3	1.5	1.3	1.6	1.2	1.2	2.2	3.3	4.7	6.2	7.9	9.6	10.6	10.0	9.4	8.6	7.6	7.4	7.5	7.2	7.5	5.3	10.6
23-Oct	7.5	7.5	7.4	7.1	6.9	6.6	6.2	5.8	5.7	6.4	7.3	8.8	10.2	11.2	11.9	12.0	11.1	10.5	10.4	9.7	9.1	9.0	8.7	8.3	8.6	12.0
24-Oct	8.4	8.0	7.6	7.5	7.6	7.5	6.9	6.2	6.5	5.9	6.4	7.3	9.0	9.9	10.5	10.2	9.8	9.1	8.7	8.1	7.6	6.8	6.3	5.8	7.8	10.5
25-Oct	5.3	5.2	4.9	4.7	4.6	5.3	5.5	5.0	4.7	4.5	4.7	6.0	6.6	6.8	6.9	7.3	8.0	7.7	7.8	7.3	6.4	5.9	5.7	4.9	5.9	8.0
26-Oct	4.4	4.6	3.5	3.0	2.6	2.0	1.8	2.9	3.2	2.9	3.3	2.9	2.9	4.1	4.4	4.8	5.5	5.4	4.8	4.2	3.1	2.8	2.6	2.4	3.5	5.5
27-Oct	2.4	2.4	2.5	2.3	2.3	1.8	1.4	1.2	1.0	0.6	0.3	0.4	0.5	1.0	1.2	1.4	0.2	0.0	-0.1	-0.3	-0.4	-0.2	-0.2	-0.1	0.9	2.5
28-Oct	-0.1	-0.2	0.1	0.0	-0.4	-0.6	-0.4	-0.6	-0.7	-0.5	-0.1	-0.2	-0.4	0.2	0.4	0.5	0.5	0.9	1.1	1.0	0.9	1.2	0.7	0.0	0.1	1.2
29-Oct	0.0	-0.1	0.0	-0.2	-0.7	-1.0	-1.0	-1.2	-1.1	-0.9	-0.4	-0.1	-0.3	-0.3	-0.5	-0.4	-0.2	-0.3	-0.2	-0.4	-0.5	-0.6	-0.6	-0.6	-0.5	0.0
30-Oct	-0.6	-0.6	-0.6	-0.9	-1.2	-1.3	-1.0	-0.7	-0.4	-0.3	-0.5	-0.5	-0.3	0.1	0.4	0.8	0.9	0.9	0.8	0.6	0.5	0.4	0.5	0.5	-0.1	0.9
31-Oct	0.5	0.6	0.5	0.5	0.3	0.1	0.0	-0.1	0.1	0.1	0.8	1.1	2.0	2.0	2.2	2.2	2.3	2.0	2.0	2.1	1.9	1.9	2.0	1.9	1.2	2.3
	5.1	4.9	4.6	4.4	4.0	3.7	3.5	3.2	3.4	3.8	4.5	5.3	6.1	6.9	7.5	7.9	7.8	7.6	7.4	6.8	6.2	5.8	5.5	5.1	Diurnal Average	
	15.8	15.1	13.9	12.2	11.4	10.2	9.6	9.6	9.6	12.2	13.5	14.7	15.1	16.5	19.3	21.1	21.0	20.7	20.1	18.0	16.9	16.9	16.1	15.0	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 163m (AT163) - C

Lower Camp Met Tower - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	88	11.83	11.83
0 - 10	536	72.04	83.87
10 - 20	116	15.59	99.46
> 20	4	0.54	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 20m (RH20) - %

Lower Camp Met Tower - October 2025

Maximum Value: 98.6 % on Oct 2 09:00

Maximum Daily Average: 91.7 % on Oct 26

Minimum Value: 27.1 % on Oct 10 17:00

Minimum Daily Average: 49.3 % on Oct 14

Maximum Diurnal Average: 82.0 % at hour 8

Minimum Diurnal Average: 60.2 % at hour 16

Monthly Average: 73.00 %

Percentiles: P_1 = 34.9 P_{10} = 48.2 Q_1 = 61.3 Median = 76.0 Q_3 = 86.4 P_{90} = 93.5 P_{99} = 97.6

Hours in Service:	744
Hours of Data:	733
Hours of Missing Data:	11
Hours of Calibration:	0
Percent Operational Time:	98.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	92.7	95.9	96.3	96.3	95.8	95.0	94.4	94.3	95.2	94.8	92.3	88.2	80.2	78.0	73.5	72.3	75.2	78.7	83.4	84.1	92.4	91.0	92.2	96.7	88.7	96.7
2-Oct	97.2	97.7	97.6	98.0	97.5	97.6	98.2	98.5	98.6	94.9	89.7	84.8	77.6	71.0	66.5	67.8	70.3	73.5	78.0	81.7	83.1	86.5	88.7	90.6	86.9	98.6
3-Oct	89.3	89.8	89.5	90.4	90.0	91.9	92.5	88.5	81.2	62.9	52.7	47.6	44.5	43.9	45.4	46.7	51.8	52.5	55.2	74.0	80.1	81.7	79.4	80.2	70.9	92.5
4-Oct	80.8	80.5	78.6	81.5	84.0	79.6	80.3	77.9	74.2	68.9	66.2	64.5	63.0	69.1	87.5	89.6	88.4	89.2	91.4	87.6	85.8	83.3	80.3	79.6	79.7	91.4
5-Oct	79.2	77.4	85.0	83.9	86.0	85.6	86.0	85.8	86.9	86.4	81.0	70.7	65.7	62.2	59.6	60.7	61.3	49.1	52.3	55.7	62.2	66.9	67.9	73.3	72.1	86.9
6-Oct	76.0	73.6	67.9	54.1	58.9	66.0	73.6	73.2	67.9	65.6	58.6	56.1	51.0	48.2	42.6	43.3	44.0	42.4	48.9	53.9	52.9	53.4	53.5	57.2	57.6	76.0
7-Oct	58.5	58.3	58.8	60.7	62.7	64.9	67.0	69.9	68.5	68.3	65.4	62.5	59.1	54.9	52.9	53.6	54.5	56.1	59.1	62.4	64.9	70.7	78.3	80.7	63.0	80.7
8-Oct	79.6	87.0	89.2	88.7	84.1	86.9	85.9	79.3	77.3	73.6	69.5	58.5	55.4	52.3	48.9	49.3	44.1	45.9	47.9	52.3	58.0	62.3	64.2	67.2	67.0	89.2
9-Oct	70.2	72.1	69.9	70.9	73.4	75.8	76.0	76.1	73.4	67.9	63.8	51.0	43.0	40.3	37.3	36.7	38.5	42.2	50.2	54.5	58.6	61.5	72.6	74.4	60.4	76.1
10-Oct	74.7	76.7	75.6	76.7	77.4	80.7	83.8	83.1	78.3	DF	DF	52.6	43.6	40.4	34.2	27.4	27.1	28.7	30.7	34.9	40.8	43.8	49.4	53.3	55.2	83.8
11-Oct	55.3	62.5	69.8	76.0	80.0	82.9	67.9	61.3	59.7	61.3	81.5	90.4	90.3	87.3	82.2	80.2	77.3	73.2	73.6	75.3	76.1	71.5	69.3	71.4	74.0	90.4
12-Oct	77.4	72.2	65.6	64.5	64.9	66.5	65.2	78.3	80.2	72.5	79.7	86.7	77.5	66.8	62.7	70.0	71.9	68.6	61.6	65.6	67.3	67.9	67.0	67.1	70.3	86.7
13-Oct	70.5	71.4	70.0	68.2	71.1	73.9	72.7	70.3	68.6	60.3	51.0	48.5	45.8	43.8	43.7	45.4	46.7	49.7	52.3	53.6	53.2	55.3	57.5	56.8	58.3	73.9
14-Oct	57.5	57.1	56.2	56.4	56.6	60.7	57.5	57.2	55.1	51.1	47.2	43.3	DF	35.4	34.2	35.3	36.1	40.1	44.0	48.0	45.0	50.8	53.8	54.4	49.3	60.7
15-Oct	56.7	59.8	62.2	61.0	64.1	65.6	67.0	68.1	63.6	58.4	53.5	50.2	40.7	40.6	38.0	34.9	34.9	40.3	44.0	45.8	57.1	58.8	60.6	61.8	53.7	68.1
16-Oct	62.4	64.2	72.2	73.6	78.2	79.6	83.0	84.0	76.7	70.3	66.6	59.0	52.0	45.0	44.7	41.2	36.9	35.9	38.5	40.4	43.9	55.8	68.6	75.1	60.3	84.0
17-Oct	75.7	67.3	60.2	58.3	61.3	64.0	67.5	80.2	83.7	87.2	85.8	77.2	62.1	52.0	46.0	43.5	44.0	46.9	48.1	52.1	60.6	65.3	67.9	67.0	63.5	87.2
18-Oct	69.9	73.9	73.9	74.0	73.5	72.9	72.8	73.0	70.4	64.4	57.6	49.4	44.5	42.1	39.8	37.2	39.5	47.6	52.0	62.6	70.7	75.1	80.6	85.8	62.6	85.8
19-Oct	88.6	88.1	90.5	94.0	94.8	95.2	93.6	90.6	90.3	88.4	86.2	85.3	82.9	79.1	78.1	77.9	78.9	82.2	89.6	90.6	93.1	94.6	94.8	94.9	88.4	95.2
20-Oct	95.9	94.4	94.7	93.9	93.2	93.0	92.4	94.2	94.3	90.7	86.4	87.8	84.4	83.0	83.9	80.1	79.3	80.9	83.3	82.7	85.3	80.8	77.2	75.8	87.0	95.9
21-Oct	81.2	84.5	90.4	85.7	83.6	82.7	85.9	86.0	83.0	82.5	77.0	67.5	67.6	64.6	63.0	59.4	64.7	80.2	83.5	84.5	85.7	91.0	93.5	93.8	80.1	93.8
22-Oct	94.1	92.0	91.7	92.4	85.8	90.6	91.2	91.6	86.6	82.7	75.9	66.3	61.0	55.9	51.0	50.3	55.0	58.8	61.9	66.7	68.5	68.7	68.2	66.2	73.9	94.1
23-Oct	65.1	63.2	61.8	62.3	63.1	64.2	65.7	66.7	67.1	66.3	61.3	54.2	DF	45.9	46.4	48.2	50.9	54.2	55.3	58.0	60.4	62.0	63.9	66.1	59.7	67.1
24-Oct	66.1	65.9	65.5	65.3	64.2	66.9	69.1	71.1	71.4	70.1	67.0	DF	54.1	DF	DF	DF	DF	61.3	69.3	70.8	70.5	72.7	76.0	75.8	68.0	76.0
25-Oct	78.6	79.7	87.7	88.2	88.7	83.8	84.1	84.9	85.8	87.4	90.6	94.9	91.9	89.1	89.6	DF	76.6	76.7	72.6	70.7	DF	84.0	86.8	86.9	84.5	94.9
26-Oct	94.3	96.1	93.9	92.4	93.2	96.3	97.6	97.8	97.2	97.0	94.8	92.2	88.8	85.0	85.7	86.3	85.7	83.7	85.4	87.4	92.1	92.0	92.7	92.4	91.7	97.8
27-Oct	92.0	92.2	92.4	92.0	92.0	92.6	92.4	91.7	91.7	91.3	90.3	88.8	87.2	81.4	79.2	76.0	89.5	92.7	92.0	92.7	94.3	93.8	94.9	94.3	90.3	94.9
28-Oct	93.5	93.7	90.2	85.6	89.9	93.7	95.8	94.6	94.7	93.6	88.6	87.5	88.6	79.9	78.0	77.8	82.3	79.3	75.6	78.2	79.3	85.1	86.3	85.0	86.5	95.8
29-Oct	85.2	85.7	79.7	78.5	82.4	83.2	86.4	87.5	87.6	84.5	87.8	87.2	85.9	88.7	93.3	96.0	93.7	94.2	94.4	95.0	96.7	96.7	96.2	95.7	89.3	96.7
30-Oct	96.1	95.8	94.8	94.6	94.6	94.9	96.1	97.0	94.5	87.2	79.6	81.1	81.8	82.1	83.3	78.8	79.4	80.4	80.5	79.0	80.9	78.5	78.9	78.1	86.2	97.0
31-Oct	78.2	79.4	80.5	82.8	85.7	86.7	85.3	90.9	88.7	84.0	80.6	80.7	78.9	78.8	79.3	80.2	79.5	79.6	77.3	75.0	76.2	75.9	76.2	79.3	80.8	90.9
	78.5	79.0	79.1	78.7	79.7	81.1	81.5	82.0	80.4	77.1	74.3	70.5	67.2	62.9	61.7	60.2	61.9	63.4	65.5	68.2	71.2	73.5	75.4	76.7	Diurnal Average	
	97.2	97.7	97.6	98.0	97.5	97.6	98.2	98.5	98.6	97.0	94.8	94.9	91.9	89.1	93.3	96.0	93.7	94.2	94.4	95.0	96.7	96.7	96.2	96.7	Diurnal Maximum	

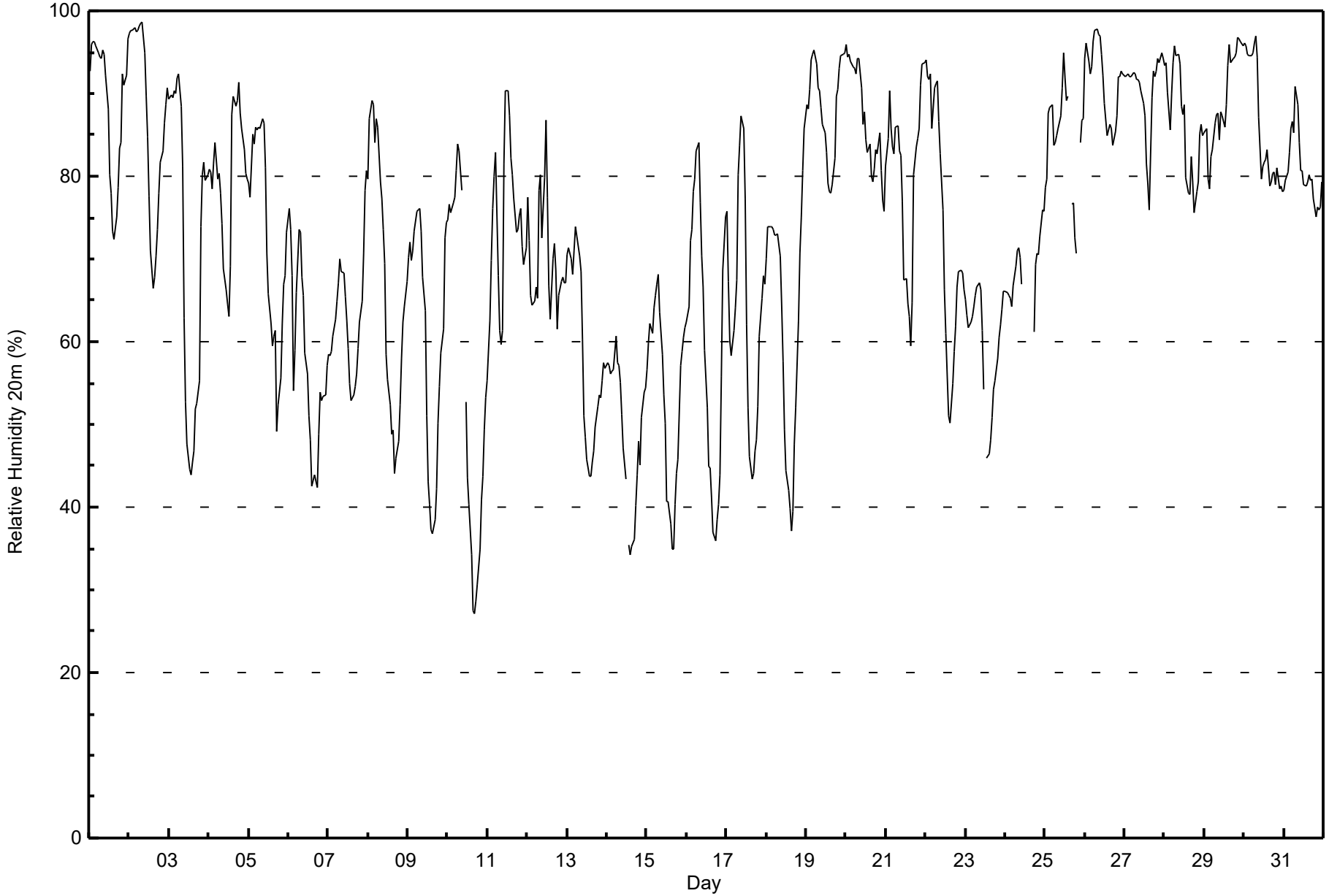
DF - DAS Failure

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 20m (RH20) - %

Lower Camp Met Tower - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	22	3.00	3.00
40 - 60	146	19.92	22.92
60 - 80	269	36.70	59.62
80 - 100	296	40.38	100.00

Total Number of Valid Hours: 733

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 45m (RH45) - %

Lower Camp Met Tower - October 2025

Maximum Value: 99.0 % on Oct 26 07:00

Maximum Daily Average: 92.2 % on Oct 26

Minimum Value: 23.9 % on Oct 10 16:00

Minimum Daily Average: 46.8 % on Oct 14

Maximum Diurnal Average: 81.2 % at hour 7

Minimum Diurnal Average: 58.1 % at hour 15

Monthly Average: 70.89 %

Percentiles: P_1 = 31.4 P_{10} = 44.1 Q_1 = 58.6 Median = 73.5 Q_3 = 85.7 P_{90} = 93.1 P_{99} = 98.3

Hours in Service:	744
Hours of Data:	694
Hours of Missing Data:	50
Hours of Calibration:	0
Percent Operational Time:	93.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	82.4	80.1	73.3	74.4	79.4	85.9	92.8	97.2	OR	OR	OR	OR	--	97.2
2-Oct	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	96.7	86.6	77.9	71.5	66.9	64.1	64.3	73.7	82.8	88.9	90.8	98.1	OR	OR	--	98.1
3-Oct	OR	OR	OR	OR	OR	OR	OR	85.6	70.1	53.0	44.1	41.8	40.3	42.4	44.9	46.8	52.4	53.4	56.8	83.7	92.0	89.0	85.0	86.1	--	92.0
4-Oct	86.7	86.3	83.4	88.3	91.8	84.5	85.1	78.5	71.4	64.2	63.5	62.9	61.8	69.6	OR	OR	OR	OR	OR	OR	OR	86.5	83.1	82.3	--	91.8
5-Oct	82.5	81.1	93.9	93.8	96.4	95.0	94.8	91.2	91.1	90.2	73.1	56.0	52.5	50.8	57.6	61.6	60.1	49.1	52.8	57.0	63.7	69.2	69.3	76.1	73.3	96.4
6-Oct	79.2	76.2	69.7	55.7	61.5	69.4	77.1	73.9	59.6	58.6	43.6	41.4	38.2	35.9	32.5	33.9	39.0	41.3	47.5	52.8	52.6	53.2	53.5	57.7	54.3	79.2
7-Oct	59.3	58.8	59.4	61.2	62.8	65.7	68.2	70.4	66.4	65.9	63.5	60.1	52.9	46.0	47.9	52.5	53.7	56.5	59.5	63.1	63.7	70.4	76.5	81.7	61.9	81.7
8-Oct	82.5	OR	OR	95.8	OR	94.0	91.5	82.1	79.1	64.7	55.6	46.7	44.6	42.4	40.3	47.8	42.4	46.7	48.8	53.6	59.7	64.2	66.2	69.5	62.8	95.8
9-Oct	73.2	74.7	72.2	73.2	77.5	80.7	79.8	70.0	61.8	54.6	50.5	40.5	35.2	33.7	31.4	31.2	33.8	41.5	47.7	50.4	54.7	57.3	64.2	68.6	56.6	80.7
10-Oct	73.6	75.1	78.4	80.4	81.1	85.5	89.0	79.4	66.7	56.1	50.1	42.4	36.2	33.1	28.6	23.9	24.4	28.5	31.4	35.5	41.9	45.2	49.9	54.2	53.8	89.0
11-Oct	51.3	59.8	64.3	71.5	74.5	82.7	67.2	62.1	60.3	61.9	OR	OR	OR	OR	OR	82.1	79.3	75.2	76.7	79.3	78.9	74.0	71.6	74.3	70.9	82.7
12-Oct	81.8	76.0	67.4	66.2	66.7	68.2	66.9	81.3	79.9	72.9	82.5	90.3	80.9	68.1	60.0	69.2	73.5	70.5	63.0	67.7	69.5	69.1	67.3	69.0	72.0	90.3
13-Oct	72.3	73.7	72.4	70.8	75.3	77.8	76.6	66.8	56.2	48.4	40.4	39.1	36.0	35.9	36.2	38.1	45.7	50.0	53.8	55.1	55.0	57.3	59.6	58.7	56.3	77.8
14-Oct	59.1	58.7	58.2	58.2	58.3	61.2	58.7	56.4	48.8	45.6	39.9	36.8	32.1	31.7	28.1	29.8	31.7	39.6	43.2	47.2	45.1	48.8	52.9	53.6	46.8	61.2
15-Oct	55.7	59.6	62.4	62.4	64.9	66.4	67.2	66.1	59.1	55.9	47.6	46.8	36.4	38.8	37.5	34.3	34.0	38.5	41.5	42.3	47.8	56.0	59.7	61.1	51.7	67.2
16-Oct	61.8	63.1	63.7	64.7	65.8	71.3	81.0	82.3	76.9	70.5	67.1	59.1	51.8	44.3	40.8	36.9	34.4	34.9	37.5	38.8	42.8	55.2	68.5	75.4	57.8	82.3
17-Oct	75.6	67.1	60.3	58.3	61.2	64.2	67.4	77.5	83.0	87.2	86.1	78.3	62.8	52.6	46.6	43.7	43.6	45.3	46.1	48.9	56.3	62.6	66.5	64.3	62.7	87.2
18-Oct	68.1	73.4	73.6	74.0	73.0	72.4	72.3	73.4	70.9	65.4	58.7	50.4	45.3	42.6	40.0	37.2	37.6	43.3	43.9	47.9	57.5	63.0	69.7	74.9	59.5	74.9
19-Oct	83.0	83.4	85.1	89.0	91.8	96.4	94.5	91.8	91.3	89.8	87.6	86.8	85.0	80.9	79.5	79.2	80.2	83.3	90.1	91.2	94.4	96.4	96.6	97.1	88.5	97.1
20-Oct	98.3	96.9	96.9	95.8	95.1	95.1	94.4	96.5	96.8	93.3	88.6	90.2	86.7	84.9	85.7	81.8	80.9	82.3	84.7	83.7	84.7	81.6	78.4	77.1	88.8	98.3
21-Oct	81.5	83.2	90.0	85.4	83.2	81.4	83.1	84.8	83.5	84.2	79.0	68.5	68.4	65.6	64.4	60.4	65.4	81.5	85.0	85.5	85.1	85.0	90.4	86.1	79.6	90.4
22-Oct	87.0	88.1	86.8	88.3	85.7	88.0	89.5	89.6	87.7	83.7	76.9	67.9	62.3	57.1	51.6	49.8	54.8	58.1	61.4	66.5	68.4	67.8	67.9	65.9	73.0	89.6
23-Oct	64.7	62.2	61.0	61.6	62.2	63.3	64.7	66.3	67.1	66.1	61.3	53.2	48.1	46.2	45.5	46.8	50.3	53.3	54.1	56.4	59.2	61.0	63.2	64.2	58.4	67.1
24-Oct	64.7	64.4	64.2	63.9	62.3	64.6	67.4	70.1	70.1	69.9	67.3	63.0	54.1	50.5	49.8	52.6	54.3	58.6	62.9	68.0	69.1	72.0	75.0	74.8	63.9	75.0
25-Oct	76.8	77.0	81.9	86.0	88.1	83.4	82.7	84.4	85.9	87.6	91.3	95.5	91.7	88.5	89.6	82.4	76.2	76.9	72.0	69.6	73.9	77.3	79.5	82.5	82.5	95.5
26-Oct	90.8	93.0	91.2	92.3	93.4	96.5	99.0	98.9	98.0	98.5	96.0	94.0	91.0	87.0	87.3	87.9	87.0	84.6	86.5	88.3	93.1	92.8	93.5	93.4	92.2	99.0
27-Oct	92.9	93.0	93.3	92.9	93.1	93.7	93.4	92.9	92.9	92.5	91.6	90.3	88.8	82.9	80.5	77.0	90.5	93.2	92.4	93.5	95.4	94.5	95.7	94.9	91.3	95.7
28-Oct	94.4	94.8	90.8	85.3	89.2	92.4	90.3	91.6	93.4	92.3	86.0	86.9	88.8	79.8	77.7	78.3	83.0	79.4	75.4	78.7	80.1	84.1	85.8	86.0	86.0	94.8
29-Oct	86.4	86.9	80.2	78.9	83.1	84.1	86.9	87.8	88.1	85.7	89.9	89.2	88.2	90.9	95.2	97.7	95.2	95.7	95.4	96.5	98.6	98.6	98.2	97.6	90.6	98.6
30-Oct	98.0	97.3	96.3	95.2	96.3	97.1	98.4	98.8	93.5	88.5	81.1	82.7	83.8	83.9	84.9	79.7	80.5	81.3	81.1	79.5	81.6	79.5	79.4	79.0	87.4	98.8
31-Oct	79.3	80.6	81.9	84.3	87.5	88.6	86.9	92.6	90.5	86.0	82.5	82.3	80.4	80.2	80.3	81.0	80.4	80.4	77.9	75.7	76.9	76.4	76.8	79.4	82.0	92.6
	77.1	77.2	77.0	77.6	78.6	80.8	81.2	80.8	77.2	73.6	70.4	66.5	62.8	59.9	58.1	58.7	60.3	62.7	64.8	68.1	70.1	72.9	73.9	75.4	Diurnal Average	
	98.3	97.3	96.9	95.8	96.4	97.1	99.0	98.9	98.0	98.5	96.7	95.5	91.7	90.9	95.2	97.7	95.2	95.7	95.4	97.2	98.6	98.6	98.2	97.6	Diurnal Maximum	

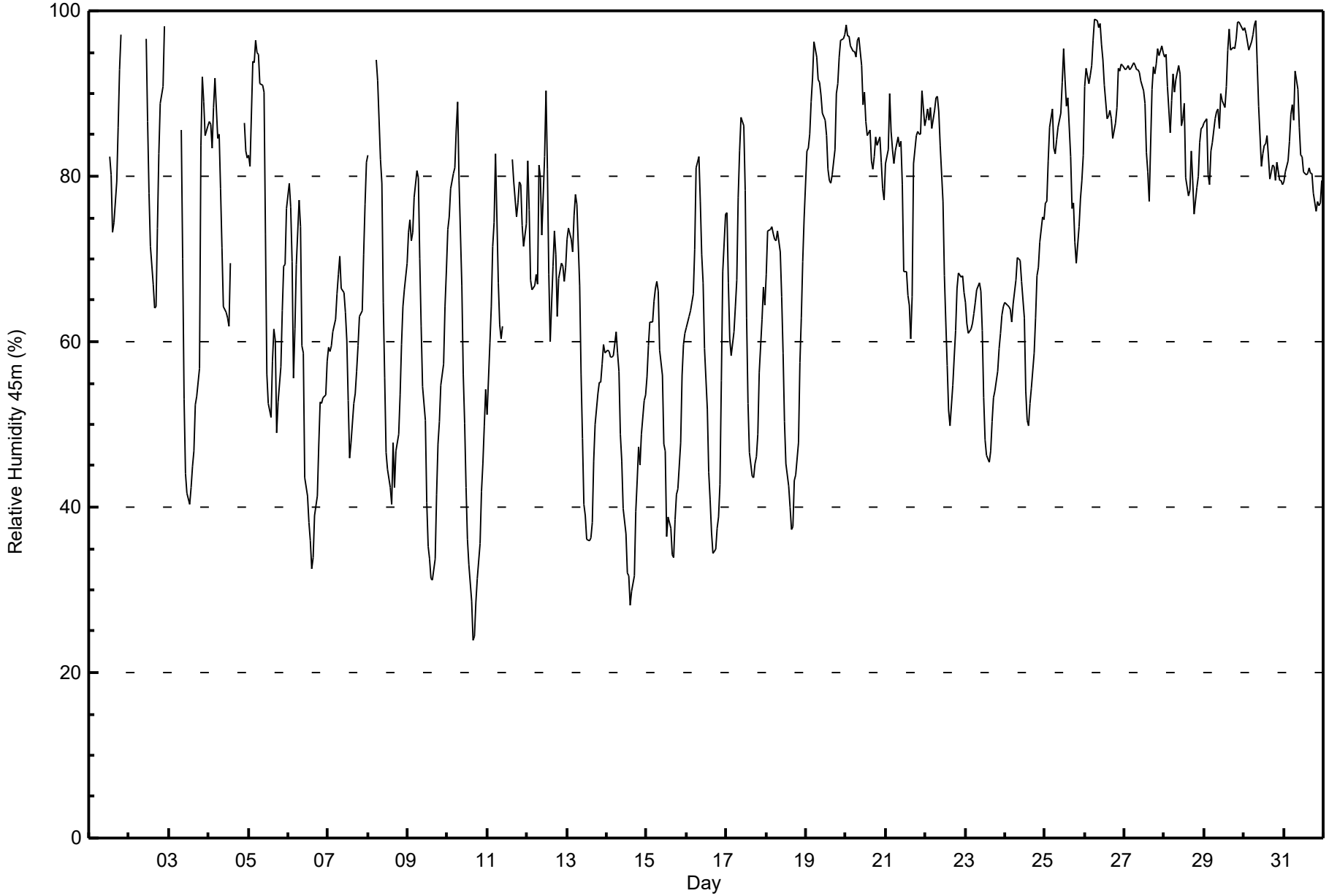
OR - Out of Range

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 45m (RH45) - %

Lower Camp Met Tower - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	45	6.48	6.48
40 - 60	149	21.47	27.95
60 - 80	230	33.14	61.10
80 - 100	270	38.90	100.00

Total Number of Valid Hours: 694

Total Number of Hours: 744

Maximum Value: 99.0 % on Oct 2 09:00

Maximum Daily Average: 91.7 % on Oct 27

Minimum Value: 26.2 % on Oct 10 17:00

Minimum Daily Average: 47.4 % on Oct 14

Maximum Diurnal Average: 80.0 % at hour 8

Minimum Diurnal Average: 61.4 % at hour 16

Monthly Average: 71.42 %

Percentiles: P_1 = 34.5 P_{10} = 46.3 Q_1 = 59.1 Median = 73.7 Q_3 = 85.3 P_{90} = 93.0 P_{99} = 98.6

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

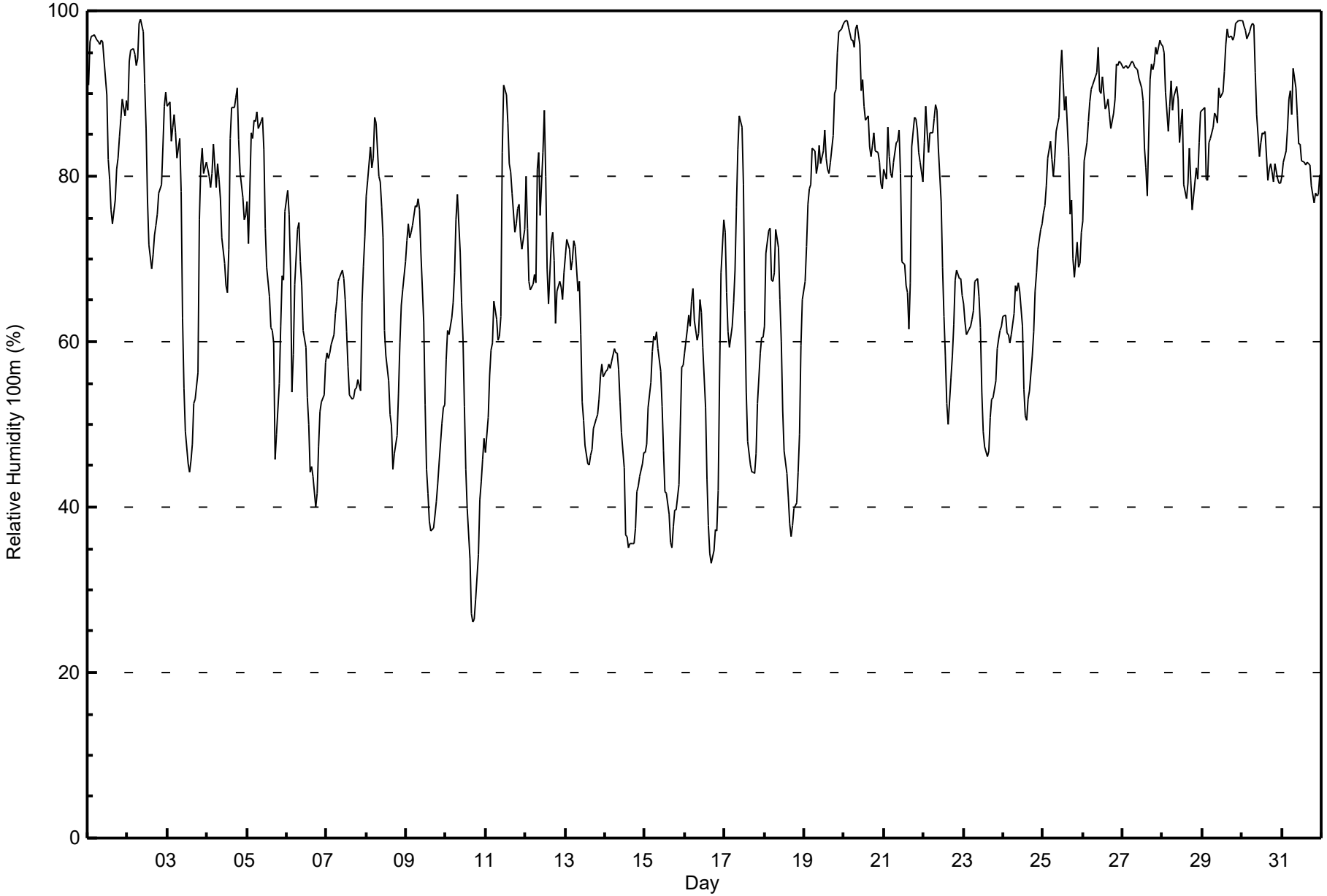
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	91.0	96.2	97.0	97.0	97.1	96.5	96.3	95.9	96.4	96.3	94.1	89.8	82.0	79.7	75.9	74.2	77.2	80.8	82.2	84.7	87.0	89.3	87.3	89.1	88.9	97.1
2-Oct	87.9	93.9	95.2	95.4	94.7	93.3	94.2	98.5	99.0	97.5	91.2	85.8	77.1	71.7	68.8	70.5	72.8	74.1	75.4	77.9	79.0	83.6	88.5	90.2	85.7	99.0
3-Oct	88.6	88.9	84.2	86.0	87.5	85.3	82.2	84.5	78.1	62.8	54.4	49.2	45.3	44.2	45.6	47.6	52.5	53.1	56.3	74.8	81.2	83.4	80.3	81.7	69.9	88.9
4-Oct	80.9	80.0	78.7	80.4	83.9	78.7	81.6	79.7	77.3	72.5	69.5	66.8	66.0	71.1	84.6	88.3	88.3	89.4	90.7	84.4	80.6	77.4	74.7	75.3	79.2	90.7
5-Oct	77.0	71.9	85.2	84.6	86.8	86.6	87.8	85.7	86.6	87.1	83.2	73.8	69.0	65.4	61.7	61.4	59.8	45.8	48.8	55.0	61.9	68.0	67.4	75.8	72.3	87.8
6-Oct	78.3	75.4	68.8	53.8	58.5	66.9	73.5	74.4	69.6	66.7	61.4	59.3	53.2	50.0	44.3	44.9	43.8	39.9	41.6	47.2	51.5	52.7	53.6	57.5	57.8	78.3
7-Oct	58.7	57.9	58.6	59.6	60.9	63.5	65.0	67.4	67.8	68.7	67.6	65.1	61.3	56.9	53.6	53.1	53.2	54.3	54.5	55.4	54.1	64.7	69.2	72.7	61.0	72.7
8-Oct	77.7	79.4	83.6	81.0	82.3	87.2	86.5	80.0	79.3	76.2	72.5	61.3	58.3	55.3	51.2	49.8	44.6	46.4	48.7	53.8	59.8	64.4	66.3	69.7	67.3	87.2
9-Oct	72.2	74.2	72.5	73.2	74.0	76.5	76.2	77.3	75.9	70.7	62.4	52.3	44.5	41.7	38.3	37.1	37.5	39.0	40.7	42.9	45.5	50.2	52.1	52.3	57.5	77.3
10-Oct	57.9	61.4	60.9	62.8	64.7	68.3	74.7	77.9	70.9	64.8	60.4	52.3	44.5	39.8	33.6	27.2	26.2	26.4	28.9	34.2	40.8	43.1	45.8	48.3	50.6	77.9
11-Oct	46.6	50.9	55.9	58.9	59.8	64.9	62.8	60.2	60.6	63.1	82.9	91.0	89.8	86.4	81.5	80.5	78.0	73.3	74.2	76.2	76.7	72.7	71.2	73.6	70.5	91.0
12-Oct	80.0	73.7	67.4	66.2	67.0	68.2	67.1	80.9	82.9	75.3	82.9	88.0	80.0	68.8	64.6	72.2	73.3	69.8	62.3	66.1	67.2	66.7	65.0	68.2	71.8	88.0
13-Oct	70.3	72.4	71.2	68.7	69.9	72.3	71.5	66.2	67.3	60.9	52.7	50.6	47.5	45.2	45.0	46.2	47.0	49.6	50.6	51.3	53.1	55.8	57.2	55.8	58.3	72.4
14-Oct	56.4	56.6	57.3	56.7	57.6	59.1	58.7	58.6	56.6	52.7	49.0	44.8	36.7	36.5	35.2	35.5	35.6	35.6	37.4	41.9	42.6	43.7	45.3	46.6	47.4	59.1
15-Oct	46.6	47.6	52.0	55.1	58.7	60.6	60.3	61.2	59.1	56.4	52.2	46.8	41.8	41.7	39.2	35.8	35.0	37.7	39.7	39.7	42.7	49.8	57.0	57.1	48.9	61.2
16-Oct	58.7	61.5	63.3	61.9	64.9	66.4	62.5	60.1	61.0	65.1	63.6	59.3	52.1	43.4	37.8	34.3	33.2	34.7	37.3	37.2	42.1	55.9	68.4	74.8	54.1	74.8
17-Oct	73.3	65.9	61.1	59.3	61.8	64.7	68.6	76.2	83.2	87.2	86.0	79.0	63.7	53.9	48.0	45.0	44.2	44.3	44.0	46.5	52.5	58.6	60.6	60.5	62.0	87.2
18-Oct	61.8	70.7	73.4	73.7	67.4	67.3	68.4	73.5	71.4	65.1	60.0	51.6	46.8	44.1	41.3	38.0	36.4	37.8	39.8	40.6	44.3	48.7	59.5	65.2	56.1	73.7
19-Oct	67.3	71.6	76.6	78.5	79.0	83.5	83.0	80.3	81.3	83.7	81.5	83.0	85.7	82.1	80.9	80.4	81.6	84.9	90.0	90.4	95.0	97.4	97.8	98.2	83.9	98.2
20-Oct	98.7	98.9	98.8	97.9	96.5	96.4	95.6	97.7	98.3	95.9	90.4	91.8	88.6	86.8	87.2	83.5	82.3	83.8	85.3	83.1	82.8	81.7	79.2	78.5	90.0	98.9
21-Oct	80.9	79.7	86.0	82.4	80.4	79.8	81.8	84.1	84.2	85.7	80.4	69.6	69.3	66.7	65.9	61.6	67.2	83.5	87.1	87.0	85.6	82.9	81.8	79.4	78.9	87.1
22-Oct	84.1	88.4	85.4	82.8	85.2	85.2	87.0	88.6	88.0	83.4	77.0	69.1	63.0	58.2	52.5	50.0	55.6	58.2	62.0	67.4	68.7	67.6	67.7	65.5	72.5	88.6
23-Oct	64.5	62.3	60.8	61.5	61.9	62.8	63.7	67.3	67.7	65.4	61.7	53.9	49.2	47.4	46.2	46.8	50.8	53.1	53.2	55.3	59.1	60.4	61.4	61.8	58.3	67.7
24-Oct	63.1	63.3	61.0	60.9	59.9	60.9	63.4	66.7	66.1	67.0	66.1	61.9	54.2	51.1	50.4	53.0	54.1	58.2	61.3	66.1	68.3	71.2	73.5	74.3	62.3	74.3
25-Oct	75.5	76.5	78.8	82.2	84.3	82.0	80.0	82.2	85.4	87.2	92.4	95.2	91.3	88.0	89.7	82.4	75.5	77.1	69.9	67.7	72.0	69.0	69.6	73.2	80.3	95.2
26-Oct	74.6	81.8	84.1	86.6	89.1	90.5	91.0	92.0	92.6	95.6	90.3	90.1	92.0	88.1	88.4	89.3	87.5	85.8	87.6	89.3	93.5	93.4	93.9	93.7	89.2	95.6
27-Oct	93.1	93.2	93.4	93.1	93.3	93.9	93.8	93.2	93.1	92.9	91.9	90.7	89.1	83.4	81.0	77.6	91.6	93.6	92.8	93.8	95.6	94.8	96.5	96.0	91.7	96.5
28-Oct	95.8	94.9	90.1	85.5	88.6	91.5	88.0	89.6	90.8	89.3	84.1	86.3	88.2	79.0	77.4	79.1	83.3	79.5	75.9	79.4	81.0	79.7	84.0	87.8	85.4	95.8
29-Oct	88.0	88.3	79.6	79.5	84.1	84.7	85.9	87.7	87.4	86.4	90.6	89.5	90.1	92.7	95.9	97.8	96.8	97.0	96.4	97.0	98.4	98.7	98.8	98.8	91.2	98.8
30-Oct	98.8	98.2	97.6	96.5	97.5	98.2	98.5	98.3	92.5	87.5	82.4	84.1	85.3	85.1	85.5	79.4	80.8	81.4	80.6	79.4	81.5	79.7	79.1	79.2	87.8	98.8
31-Oct	80.1	81.7	83.1	85.7	89.3	90.4	87.4	93.0	90.7	87.4	84.0	83.9	81.9	81.6	81.4	81.8	81.5	81.3	78.8	76.8	78.0	77.6	77.8	80.2	83.1	93.0
	75.1	76.0	76.2	75.7	77.0	78.3	78.6	80.0	79.4	77.3	74.8	71.5	67.3	64.1	62.3	61.4	62.2	62.9	63.7	65.9	68.5	70.4	71.9	73.6	Diurnal Average	
	98.8	98.9	98.8	97.9	97.5	98.2	98.5	98.5	99.0	97.5	94.1	95.2	92.0	92.7	95.9	97.8	96.8	97.0	96.4	97.0	98.4	98.7	98.8	98.8	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 100m (RH100) - %

Lower Camp Met Tower - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	35	4.70	4.70
40 - 60	161	21.64	26.34
60 - 80	259	34.81	61.16
80 - 100	289	38.84	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 98.3 % on Oct 20 04:00

Maximum Daily Average: 91.6 % on Oct 27

Minimum Value: 25.7 % on Oct 10 18:00

Minimum Daily Average: 44.2 % on Oct 15

Maximum Diurnal Average: 77.5 % at hour 8

Minimum Diurnal Average: 61.3 % at hour 16

Monthly Average: 69.56 %

Percentiles: P_1 = 33.7 P_{10} = 44.5 Q_1 = 56.1 Median = 71.0 Q_3 = 83.5 P_{90} = 91.7 P_{99} = 98.1

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

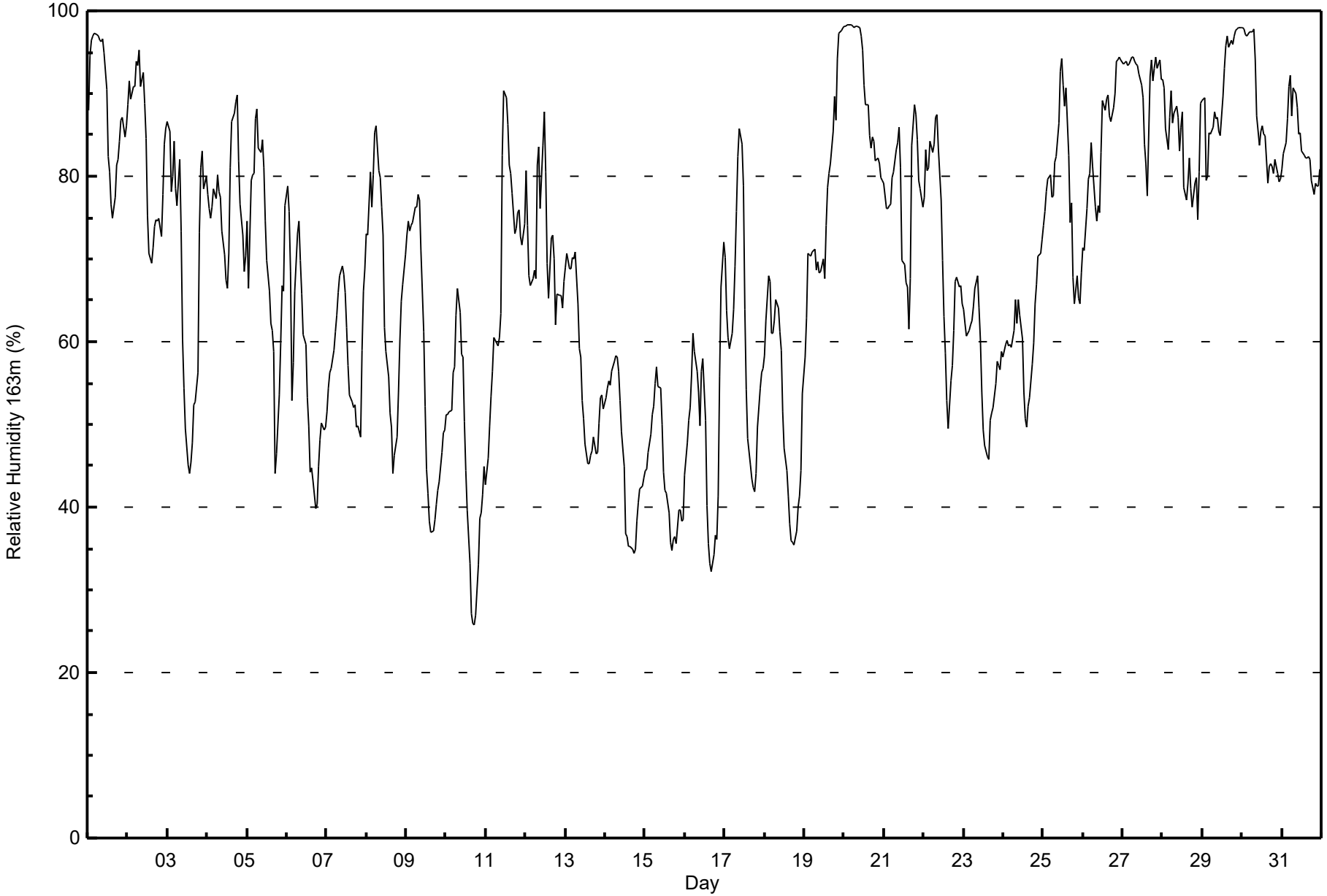
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	88.0	94.6	96.5	96.9	97.3	97.1	96.9	96.4	96.4	96.6	94.8	90.5	82.5	80.6	76.7	75.0	77.5	81.4	82.1	84.3	86.8	87.1	84.7	86.1	88.6	97.3
2-Oct	88.6	91.6	89.4	90.8	90.9	94.0	93.5	95.3	90.8	92.5	88.9	84.6	75.3	70.8	69.5	71.4	73.9	74.7	74.7	74.9	72.7	77.9	83.9	85.7	83.2	95.3
3-Oct	86.6	85.4	78.1	80.0	84.3	78.5	76.4	82.0	73.4	60.4	54.5	49.5	45.1	44.0	45.4	47.8	52.4	52.8	56.2	73.2	81.1	83.0	78.4	79.9	67.8	86.6
4-Oct	77.8	76.2	74.9	76.2	78.5	77.2	80.2	78.1	77.5	73.4	70.5	67.4	66.4	70.7	81.0	86.6	87.6	88.9	89.9	81.8	76.5	72.9	68.5	70.4	77.0	89.9
5-Oct	74.5	66.4	79.6	80.2	80.4	87.0	88.2	83.3	82.9	84.4	81.1	74.6	69.8	66.2	62.1	61.3	58.8	44.0	46.5	53.6	59.9	66.8	66.1	76.5	70.6	88.2
6-Oct	78.9	75.8	68.6	52.9	57.4	66.1	73.0	74.6	69.8	65.7	60.8	59.6	53.1	49.8	44.2	44.8	43.2	39.8	40.3	44.8	48.1	50.1	49.4	49.7	56.7	78.9
7-Oct	51.6	54.4	56.3	56.8	58.9	61.1	63.2	65.9	68.0	69.1	68.1	65.9	61.7	57.2	53.6	52.6	52.1	52.4	49.7	49.9	48.5	59.1	66.1	68.7	58.8	69.1
8-Oct	73.0	72.9	80.6	76.2	80.2	85.2	86.2	80.7	79.8	76.3	72.8	61.7	58.9	55.8	51.4	49.6	44.1	46.3	48.5	53.9	60.2	64.9	67.0	70.5	66.5	86.2
9-Oct	72.9	74.6	73.4	74.0	74.4	76.3	76.3	77.8	77.1	71.0	61.2	52.2	44.6	41.7	38.3	37.0	37.1	38.4	40.3	42.0	43.1	46.5	48.9	49.3	57.0	77.8
10-Oct	51.2	51.1	51.5	51.7	56.3	56.9	63.3	66.5	63.6	58.4	58.2	50.4	44.4	39.7	33.2	27.1	25.9	25.7	26.9	33.0	38.7	39.4	41.5	45.0	45.8	66.5
11-Oct	42.8	45.9	49.9	53.4	56.5	60.5	59.8	59.5	60.5	63.3	82.6	90.4	89.6	86.3	81.3	80.3	78.0	73.1	73.7	75.6	76.0	72.7	71.7	74.2	69.1	90.4
12-Oct	80.6	74.0	67.9	66.7	67.7	68.6	67.5	81.4	83.6	76.2	83.7	87.8	80.4	69.6	65.2	72.5	72.9	70.1	62.0	65.7	65.7	65.7	64.1	67.3	72.0	87.8
13-Oct	68.9	70.7	68.8	68.8	70.2	70.0	70.8	64.5	59.2	58.1	52.8	50.7	47.7	45.3	45.2	46.3	46.8	48.4	46.5	46.7	50.2	53.1	53.5	51.8	56.5	70.8
14-Oct	53.3	54.4	55.2	54.8	56.4	57.6	58.3	58.2	56.5	52.9	49.2	45.0	36.7	36.5	35.2	35.2	34.9	34.5	34.9	38.3	40.5	42.2	42.6	43.6	46.1	58.3
15-Oct	44.5	44.5	46.6	48.8	51.2	52.3	54.9	56.9	54.5	54.5	50.0	44.3	42.0	41.8	39.4	35.8	34.8	36.1	36.4	35.5	39.6	39.6	38.3	38.5	44.2	56.9
16-Oct	43.9	47.8	50.6	52.0	56.0	61.0	58.8	56.4	53.9	49.9	56.4	57.9	50.5	40.2	35.6	33.2	32.2	34.2	36.6	36.1	41.4	55.7	66.5	72.1	49.1	72.1
17-Oct	70.2	63.7	60.6	59.1	61.1	63.9	69.2	75.7	82.3	85.8	84.0	78.8	63.9	54.3	48.3	45.1	43.5	42.5	41.9	44.1	49.6	54.4	56.3	56.7	60.6	85.8
18-Oct	58.4	62.5	68.0	67.2	61.0	61.0	62.5	65.1	64.1	61.2	59.0	51.6	47.1	44.3	41.4	38.0	36.0	35.7	35.4	37.2	40.0	41.3	44.4	53.7	51.5	68.0
19-Oct	58.1	62.9	70.6	70.6	70.4	70.8	71.1	68.6	69.6	68.4	68.5	70.0	67.6	74.1	78.6	80.3	81.5	85.4	89.7	86.8	94.3	97.2	97.7	97.9	77.1	97.9
20-Oct	98.1	98.2	98.2	98.3	98.2	98.2	98.0	98.1	98.2	98.0	97.0	95.2	91.0	88.7	88.6	84.9	83.4	84.7	84.3	81.8	82.1	81.5	79.8	79.4	91.0	98.3
21-Oct	79.2	76.1	76.1	76.4	76.7	79.8	80.6	83.2	84.1	85.9	81.0	69.9	69.3	67.1	66.6	61.5	67.7	83.8	88.7	87.5	84.5	79.6	78.5	76.2	77.5	88.7
22-Oct	77.5	83.2	80.6	81.0	84.3	82.8	83.9	87.2	87.5	83.4	77.1	69.8	63.0	58.6	52.9	49.6	55.2	57.1	61.4	67.3	67.7	66.6	66.7	64.6	71.2	87.5
23-Oct	63.9	62.2	60.6	61.4	62.1	62.6	64.2	66.4	67.9	64.1	60.1	53.9	49.4	47.5	46.2	45.8	50.5	51.4	52.0	54.9	57.6	57.2	56.7	58.7	57.4	67.9
24-Oct	58.2	59.6	60.1	59.4	59.6	59.3	61.4	65.1	62.2	65.1	63.3	60.3	53.8	50.7	49.7	52.2	53.2	57.2	59.9	64.6	67.0	70.3	70.7	72.4	60.6	72.4
25-Oct	74.1	75.7	78.2	79.7	80.2	77.4	77.6	81.6	82.5	86.4	92.7	94.3	91.0	88.5	90.7	82.6	74.4	76.7	67.7	64.5	68.0	65.3	64.6	68.4	78.5	94.3
26-Oct	71.4	70.9	76.1	79.6	80.3	84.1	81.2	76.3	74.6	76.4	75.5	82.8	89.2	88.0	89.3	89.9	87.3	86.5	88.4	90.0	93.9	94.0	94.4	94.0	83.9	94.4
27-Oct	93.5	93.7	93.9	93.4	93.6	94.3	94.4	93.9	93.6	93.4	92.4	91.1	89.6	84.0	81.5	77.7	92.1	94.1	91.6	93.1	94.5	93.1	94.2	91.7	91.6	94.5
28-Oct	91.7	90.6	85.8	83.3	87.1	90.3	86.5	87.6	88.5	87.1	83.0	86.0	87.9	78.7	77.2	79.2	82.3	78.5	76.2	79.2	79.8	74.8	80.5	88.8	83.8	91.7
29-Oct	89.1	89.6	79.5	80.0	85.3	85.2	85.9	87.8	87.0	87.1	85.3	84.9	89.7	93.1	95.7	97.0	95.6	96.5	95.9	97.0	97.6	97.8	97.9	97.9	90.8	97.9
30-Oct	97.9	97.8	97.1	97.0	97.4	97.5	97.5	97.8	94.1	87.3	83.7	85.4	86.1	85.0	85.0	79.2	81.2	81.6	81.1	80.3	82.1	80.4	79.3	79.7	88.0	97.9
31-Oct	80.9	82.8	84.1	87.0	90.9	92.2	87.3	90.6	90.1	88.4	85.0	85.3	83.0	82.6	82.1	82.2	82.4	82.1	79.5	77.8	79.1	78.7	78.7	80.9	83.9	92.2
	72.2	72.6	72.8	72.7	74.3	75.8	76.4	77.5	76.6	74.9	73.3	70.7	66.8	63.9	62.3	61.3	61.9	62.4	62.5	64.4	66.7	68.0	68.8	70.7	Diurnal Average	
	98.1	98.2	98.2	98.3	98.2	98.2	98.0	98.1	98.2	98.0	97.0	95.2	91.0	93.1	95.7	97.0	95.6	96.5	95.9	97.0	97.6	97.8	97.9	97.9	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 163m (RH163) - %

Lower Camp Met Tower - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	44	5.91	5.91
40 - 60	191	25.67	31.59
60 - 80	255	34.27	65.86
80 - 100	254	34.14	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 20m (WS20) - km/h

Lower Camp Met Tower - October 2025

Maximum Speed: 32 km/h on Oct 31 19:00

Maximum Daily Speed Average: 18.8 km/h on Oct 31

Minimum Speed Value: 0 km/h on Oct 22 00:00

Minimum Daily Speed Average: 1.8 km/h on Oct 6

Maximum Diurnal Speed Average: 5.8 km/h at hour 15

Minimum Diurnal Speed Average: 0.3 km/h at hour 8

Monthly Average Velocity: 2.5 km/h 190.2 deg

Percentiles: $P_1 = 0$ $P_{10} = 3$ $Q_1 = 6$ Median = 11 $Q_3 = 15$ $P_{90} = 20$ $P_{99} = 26$

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	NNW8	NW6	NNW6	NNW8	NNW11	NNW12	NNW11	NNW11	NNW11	NNW10	NNW12	NNW14	NNW9	NNW8	N9	NNW9	NNW8	NNW4	N2	WNW1	N1	NW2	NW1	NE0	NNW7.3	NNW14
2-Oct	E1	SE1	N2	ESE3	SE5	ESE5	ESE8	SSE5	SE10	SE8	SSE8	SE9	SE10	SSE12	S18	SSE13	SSE11	SSE13	SE13	SE12	SE13	SE9	SE3	ESE5	SE7.8	S18
3-Oct	ESE11	SE11	SE17	SE14	SE11	SE13	SE17	SE11	ESE9	S17	SSW21	SSW23	WSW23	WSW25	WSW26	SW26	SSW16	SSW17	SW15	W11	W14	WSW16	WSW11	WSW14	SSW10.8	WSW26
4-Oct	WSW15	WSW11	WSW10	WSW11	W9	W13	W10	NW6	NW4	NW6	NW9	N7	N5	NNW6	NNE7	NNW11	NNW15	NNW15	NW10	NW10	NW8	WNW9	NW8	NW6	WNW7.7	WSW15
5-Oct	WNW9	NNW4	WSW11	W9	SW8	SSW7	SSE6	SE9	SE10	SE9	SE10	SSE10	WSW10	WSW9	WSW8	WSW11	NNW4	NW11	NW11	W12	WSW14	W9	WNW7	NNW15	WSW4.7	NNW15
6-Oct	N13	NNW9	N15	NNW16	NW10	NNW8	N6	N8	N11	N8	NNW3	SSE4	SW4	SW3	SSE4	ESE8	SE10	SSE15	SSE13	SE10	SE8	SE7	SE9	SE6	NE1.8	NNW16
7-Oct	SE2	SE4	SSE4	SSE10	SE11	SE8	SE8	SE7	SE13	SE13	SSE18	SSE20	SSE13	SE13	SE15	SE11	ESE12	ESE11	SE16	SSE5	E4	NNW1	NNW5	NNW6	SE8.3	SSE20
8-Oct	NNW3	NW6	NW4	NNW4	WNW10	W7	W11	NW13	W11	W10	WSW14	W15	W15	W13	WSW14	WSW12	W17	WNW10	W13	WNW14	WNW16	WNW13	WNW15	WNW11	W10.5	W17
9-Oct	WNW8	W7	WNW9	WSW10	SSW10	SSW9	SW12	SSW11	SW12	SW10	SE10	SW12	WSW18	WSW21	WSW18	WSW14	WSW13	SW5	SW2	SSE3	SE5	SE6	SE10	SE11	SW7.7	WSW21
10-Oct	SE8	SE9	ESE7	ESE3	SE6	ESE7	ESE7	ESE5	ESE6	SE10	SE13	SE11	SE18	SE18	SSE22	S27	S25	SSE19	SSE21	SSE19	SSE19	SSE17	SE9	ESE3	SSE12.3	S27
11-Oct	SE12	SE8	N2	NNW3	NW1	NNW8	NW8	NNW6	NNW10	NNW14	NNW12	NW12	NW11	WNW18	WNW19	WNW15	WNW12	WNW16	WNW17	NW17	NW14	NW15	NNW17	NNW23	NW9.9	NNW23
12-Oct	NNW16	NNW16	NNW18	NNW19	NNW20	NNW19	NNW22	N15	NNW11	NNW15	NNW16	NNW14	NNW16	N18	N16	N15	NW9	NNW10	NNW10	NNW7	NW8	NW4	NW4	NNW5	NNW13.3	NNW22
13-Oct	NNW7	NNW6	NNW4	W7	WSW5	SW9	SW9	SW10	SSW10	S13	SW16	WSW15	SW15	S22	S23	S26	S20	SSE20	SSE17	SSE19	SSE21	SSE24	SSE23	SSE24	S11.6	S26
14-Oct	SSE22	SSE21	SE23	SSE22	SSE19	SE17	SSE15	SSE13	S19	S23	S24	S21	SSW22	SSW20	S19	S18	SSE17	SSE10	SSE8	ESE7	SE14	SE15	SE16	SE15	SSE16.1	S24
15-Oct	SE15	SE14	SE19	SE17	SE16	SE14	SE14	SE13	SE16	SE15	SE15	SE14	SW16	SW17	SW15	SW14	SSW12	SSE6	S6	SW11	SW6	NW2	W2	SSW2	SSE9.1	SE19
16-Oct	SW2	SSE6	SE11	SE12	SE12	SE13	SE11	SE9	SE11	SE10	SE12	SE13	SE15	SSE21	SE21	SE17	SSE16	S17	SSE17	SSE19	SSE21	S25	S22	S20	SSE13.7	S25
17-Oct	S13	SSW14	SW18	SW19	WSW17	WSW14	W14	WNW12	W14	W16	WSW15	W9	WNW18	WNW17	WNW20	WNW16	WNW15	WNW12	NW10	NW5	WSW3	W6	WNW5	W3	W10.8	WNW20
18-Oct	WSW6	W4	SW3	W4	WSW10	SW13	SW11	SSW6	SW13	SW14	SW8	WSW7	WSW10	WSW11	WSW11	W9	WSW6	NW2	SSW2	SSE3	SE2	SE2	SE2	ESE2	WSW5.9	SW14
19-Oct	ESE0	SE2	S1	NE1	NNW3	NW3	NW4	NW3	NW4	NW4	NNW4	NNW6	NNW5	NNW5	NW4	NNW6	NNW7	NNW7	NNW6	NNW6	NNW8	NNW10	NNW9	N11	NNW4.6	N11
20-Oct	N11	NNW10	NNW8	NNW8	NNW8	NNW7	NNW6	NW8	N4	NNE3	N4	SE2	SSE3	SSE7	SSE11	SSW12	SSW9	SSE9	SSE12	SSE14	SE13	SE20	SE22	SSE13	SSE2.7	SSE22
21-Oct	SE9	SE18	SE8	SE10	SE10	SE12	SE8	SSE6	WSW10	WSW6	W7	WNW17	WNW15	W15	WSW15	WNW12	NNW11	NNE7	N4	NNW2	NNE0	NE1	WNW0	W0	SW2.2	SE18
22-Oct	NNE0	ESE1	NNW2	SE3	ESE5	N1	ESE3	NNW2	SE7	SE14	SSE14	SSE13	SE11	SE10	SE11	SE9	ESE13	SE15	SE16	SE19	ESE19	SE21	SE21	SE21	SE9.9	SE21
23-Oct	SE24	SE26	SE22	SE17	SE16	SE18	SE17	SE15	SE11	SE11	SE17	SSE17	SSE15	SE13	SE15	SE10	ESE14	ESE18	ESE16	SE16	SE17	SE18	SE21	SE16	SE16.5	SE26
24-Oct	SE14	SE14	SE10	SE11	SE13	SE14	SE9	SE7	SE5	SE9	SE11	SE11	SE10	SE8	SE7	SE8	SE3	NNW4	NNW3	SW0	ESE7	ESE3	WNW0	NE2	SE6.9	SE14
25-Oct	SSW1	WSW0	NNW5	NNW7	N3	S1	WNW3	WNW3	NNW3	SE1	W4	W9	W15	W14	WSW16	WSW18	WSW14	SW8	SW12	SW7	SE6	SE9	SE9	SE5	WSW4.3	WSW18
26-Oct	N1	SSE2	ESE7	SE6	E2	NNW4	NNW5	NNW4	NNW4	NNW6	NNW4	NNW8	NNW8	NNW12	N10	NNW7	NNW11	N17	N19	N19	N21	N21	N20	N21	N8.8	N21
27-Oct	N21	N20	N21	N22	NNW23	NNW20	NNW20	NNW21	NNW21	NNW21	NNW21	NNW20	NNW19	NNW19	NNW19	NW14	NW13	WNW15	WNW15	WNW15	UO	WNW16	WNW14	WNW14	NNW17.2	NNW23
28-Oct	WNW14	WNW11	UO	WNW20	UO	UO	UO	UO	UO	WNW13	WNW13	W12	W12	W13	W13	W8	WSW5	WNW4	WNW6	SW3	SSW2	SE5	E2	ESE0	W7.5	WNW20
29-Oct	ESE2	SE6	SE12	ESE11	SE13	ESE8	ENE5	NE6	NNE6	N5	N11	N7	NNW6	NNW9	UO	UO	N9	N9	NNW6	NW8	NNW8	NW6	NW6	NW5	NNE3.2	SE13
30-Oct	NW5	WNW3	WNW3	N3	ENE4	ENE1	NE1	ESE2	SSW5	SW13	WSW13	SSW10	S9	SSE11	S9	S12	S11	SSW8	SSW10	SSW10	SSW9	SSW11	S9	S9	SSW5.8	WSW13
31-Oct	S11	S12	S13	SSE11	S12	SSE14	SSE14	SSE7	SE13	SE15	SE19	SE22	SE24	SE23	SE28	SE29	SE29	SE28	SE32	SE30	SE23	SE23	SE21	SE16	SE18.8	SE32
	SSE0.7	SE1.9	SSE1.7	S1.1	SSE1.9	SSE2.0	S1.3	SSE0.3	S1.6	SSW2.6	SSW3.5	SSW3.9	SW5.0	SW4.9	SSW5.8	SSW5.7	SSW3.7	S2.5	S2.9	S2.8	SSE3.5	SSE3.4	SSE2.8	SE1.4	Diurnal Average	
	SE24	SE26	SSE23	N22	NNW23	NNW20	NNW22	NNW21	NNW21	S23	S24	SSW23	SE24	WSW25	SE28	SE29	SE29	SE28	SE32	SE30	SE23	S25	SSE23	SSE24	Diurnal Maximum	

UO - Unstable Operation

All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 20m (WS20) - km/h

Lower Camp Met Tower - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 10 km/h on Oct 12 00:00

Minimum Value: 1 km/h on Oct 2 01:00

Percentiles: $P_1 = 1$ $P_{10} = 2$ $Q_1 = 2$ Median = 3 $Q_3 = 5$ $P_{90} = 6$ $P_{99} = 8$

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	0
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	3	3	3	3	4	5	4	4	4	4	5	6	4	4	3	3	4	1	1	1	1	1	1	1	6
2-Oct	1	1	1	2	2	3	2	2	3	2	4	4	3	6	3	3	2	4	3	3	3	3	2	3	6
3-Oct	3	3	3	3	3	4	3	3	2	4	5	5	7	8	9	6	3	4	4	5	5	5	4	5	9
4-Oct	4	5	4	5	4	5	5	4	2	3	4	3	3	4	4	5	6	6	4	3	3	4	3	3	6
5-Oct	3	3	5	4	3	3	3	3	3	2	3	3	4	3	4	5	2	3	3	5	5	4	4	6	6
6-Oct	5	4	5	7	5	3	3	4	4	3	3	2	2	2	3	3	3	2	3	3	3	3	3	3	7
7-Oct	2	2	2	3	3	2	4	4	3	3	5	4	4	3	3	4	4	4	3	4	3	2	2	4	5
8-Oct	1	3	2	3	5	4	4	5	5	4	4	6	5	5	6	4	7	5	6	5	6	5	5	4	7
9-Oct	3	3	4	4	2	2	3	3	4	3	3	5	6	5	5	4	3	3	1	1	2	3	2	3	6
10-Oct	2	2	2	2	2	2	2	3	2	4	3	3	5	4	4	5	4	3	3	3	4	4	6	2	6
11-Oct	3	4	3	2	2	4	4	3	4	6	5	5	4	7	7	5	4	5	5	5	4	6	8	10	10
12-Oct	6	7	7	7	7	8	9	7	4	6	6	5	6	6	6	6	3	4	3	3	2	1	1	1	9
13-Oct	3	2	2	4	2	2	2	2	2	3	5	5	5	5	5	5	4	3	3	3	3	3	3	3	5
14-Oct	4	4	4	4	4	4	4	3	5	5	5	4	4	4	4	3	3	2	4	3	3	2	3	3	5
15-Oct	3	3	3	3	3	4	4	3	4	5	5	3	4	4	3	3	2	3	2	2	2	2	3	3	5
16-Oct	3	2	2	2	2	2	3	3	3	4	4	4	6	5	3	3	3	2	3	3	3	6	4	4	6
17-Oct	3	4	5	6	5	4	4	4	5	5	5	4	6	7	7	5	6	3	3	2	2	2	2	2	7
18-Oct	4	4	2	3	4	3	3	3	6	6	2	3	4	3	3	3	3	1	1	1	1	2	1	1	6
19-Oct	1	2	1	1	1	1	1	1	2	2	2	3	3	2	2	3	4	4	2	2	3	3	3	3	4
20-Oct	3	4	3	3	3	2	2	3	2	1	2	1	2	2	2	2	3	2	2	2	4	5	5	5	5
21-Oct	4	6	3	3	4	4	2	2	4	3	5	6	4	5	5	5	4	3	2	1	1	1	2	1	6
22-Oct	2	2	2	2	3	1	2	1	4	3	3	3	3	3	3	4	4	4	5	6	5	6	6	6	6
23-Oct	7	7	7	7	5	5	5	4	4	4	4	4	3	3	4	3	5	5	5	4	5	4	4	5	7
24-Oct	4	4	4	5	3	2	5	3	4	3	4	3	3	3	2	3	3	2	1	2	3	2	2	1	5
25-Oct	1	1	2	3	3	1	1	2	2	2	3	4	5	5	5	5	5	4	3	3	2	3	2	4	5
26-Oct	1	2	2	3	2	1	2	2	2	3	4	3	3	4	4	3	4	6	6	7	7	7	7	7	7
27-Oct	7	6	7	7	7	8	8	8	7	7	7	7	7	8	7	5	5	6	5	5	UO	6	4	5	8
28-Oct	5	4	UO	7	UO	UO	UO	UO	UO	6	5	5	4	5	4	4	2	3	3	2	2	2	1	1	7
29-Oct	1	2	4	4	6	5	2	2	2	3	4	4	2	3	UO	UO	3	3	2	3	3	2	2	1	6
30-Oct	2	1	1	2	2	1	1	2	3	3	4	2	2	2	2	3	2	2	2	2	2	2	2	2	4
31-Oct	3	3	2	2	2	3	4	3	3	3	5	6	7	7	8	9	8	8	9	8	6	7	6	5	9
	7	7	7	7	7	8	9	8	7	7	7	7	7	8	9	9	8	8	9	8	7	7	8	10	
	Diurnal Maximum																								

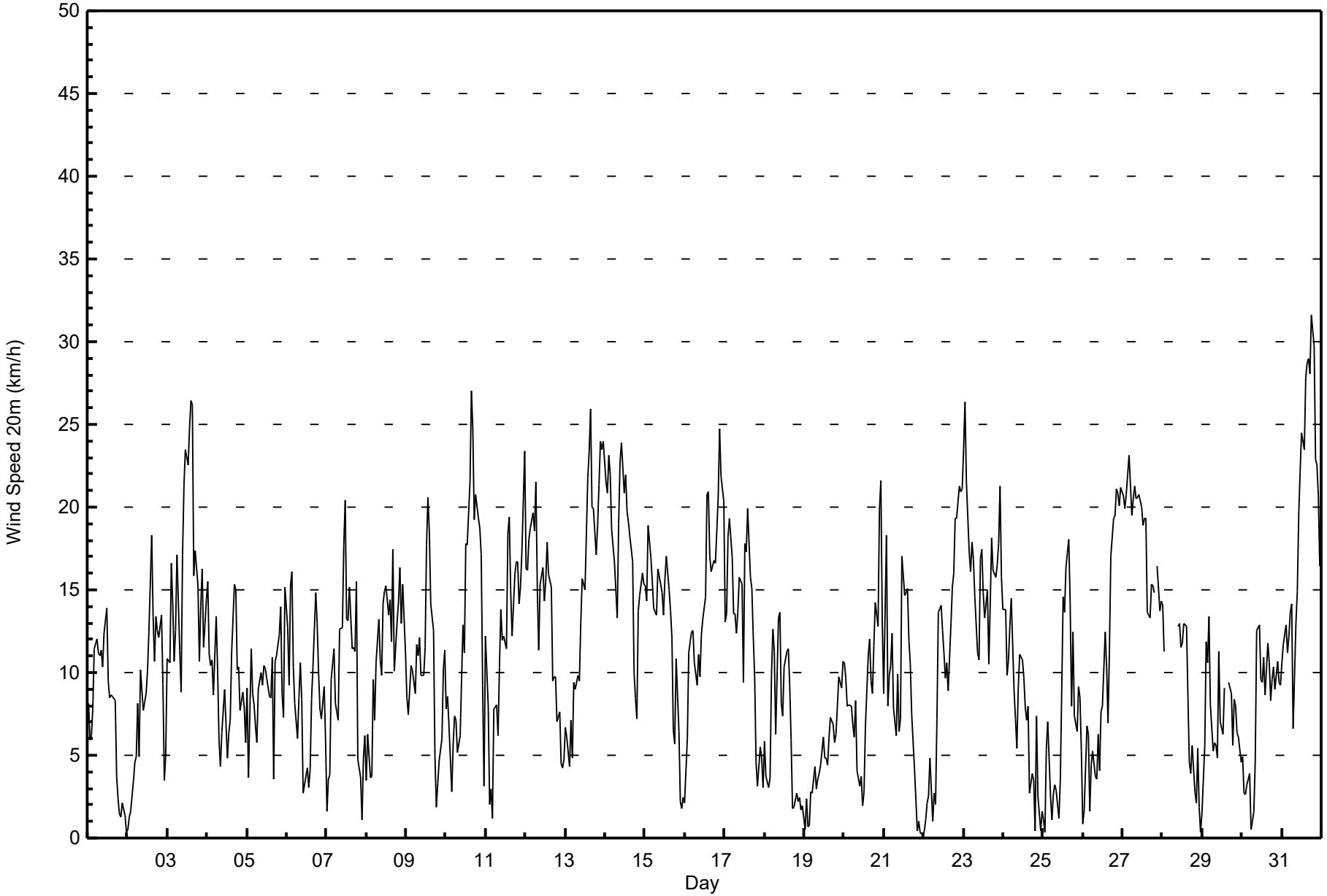
UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 20m (WS20) - km/h

Lower Camp Met Tower - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	148	20.14	20.14
6 - 11	266	36.19	56.33
12 - 19	243	33.06	89.39
20 - 28	74	10.07	99.46
29 - 38	4	0.54	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 735

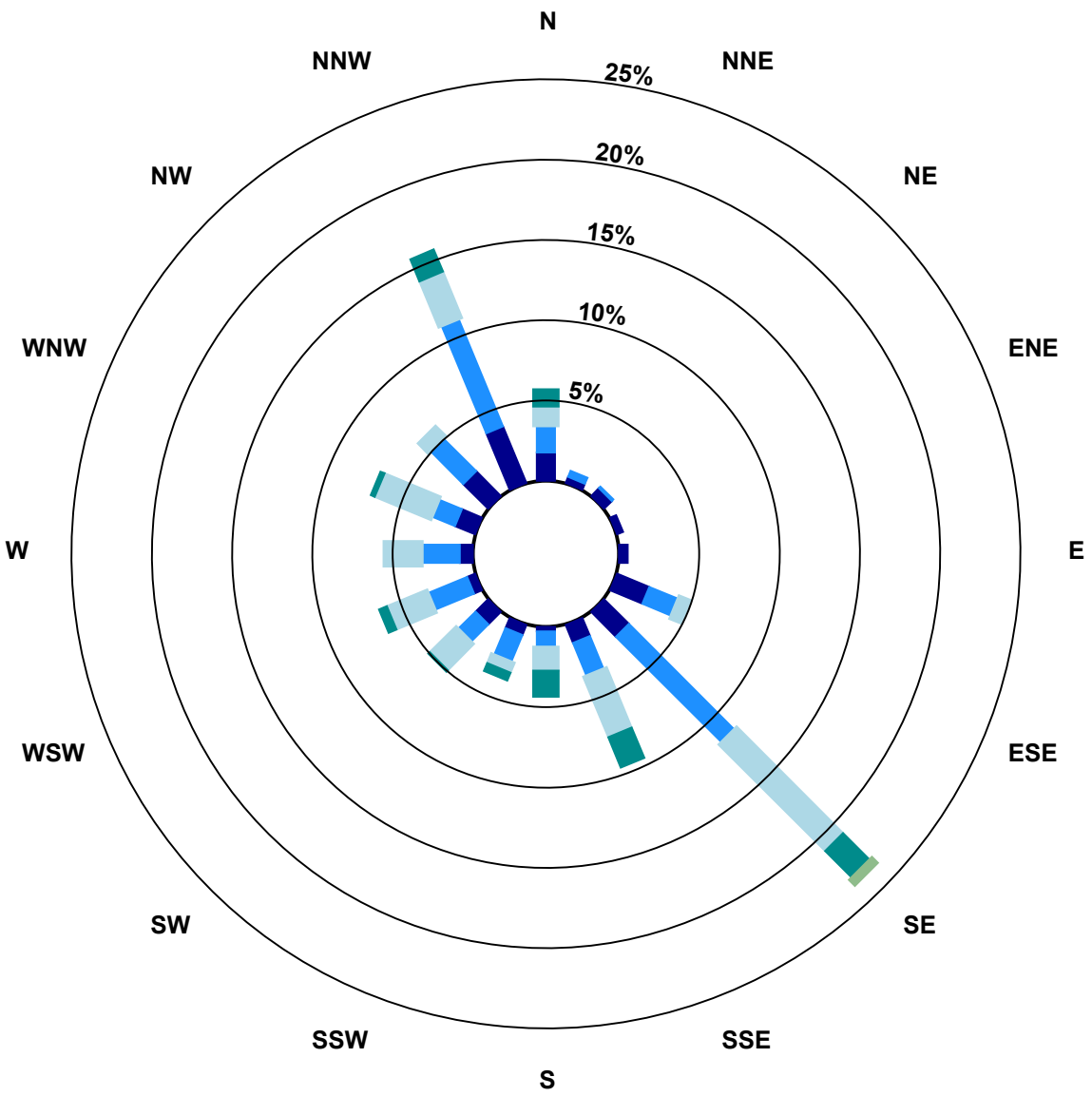
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 20m (WS20) - km/h

Lower Camp Met Tower



Classes (km/h)

- 0 - 5
- 6 - 11
- 12 - 19
- 20 - 28
- 29 - 38
- > 38

Total Number of Valid Hours: 735

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 45m (WS45) - km/h

Lower Camp Met Tower - October 2025

Maximum Speed: 47 km/h on Oct 31 19:00

Maximum Daily Speed Average: 26.6 km/h on Oct 27

Minimum Speed Value: 0 km/h on Oct 2 03:00

Minimum Daily Speed Average: 2.3 km/h on Oct 20

Maximum Diurnal Speed Average: 6.5 km/h at hour 15

Minimum Diurnal Speed Average: 0.5 km/h at hour 8

Monthly Average Velocity: 2.7 km/h 193.0 deg

Percentiles: P_1 = 1 P_{10} = 6 Q_1 = 10 Median = 15 Q_3 = 21 P_{90} = 27 P_{99} = 37

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NNW14	NNW11	NNW11	NNW13	NNW18	NNW19	NNW18	NNW18	NNW18	NNW17	NNW20	NNW21	NNW14	NNW13	N12	NNW13	NNW13	NNW6	N5	NW2	NNE3	NNW4	NNW3	SW2	NNW11.8	NNW21
2-Oct	ESE1	SSW3	WSW0	SSE3	SE7	SE7	SE12	SE7	SE13	SE9	SE10	SE11	SE14	SSE15	S20	SSE14	SSE11	SSE17	SE17	SE18	SE20	SE16	SE8	ESE9	SE10.5	SE20
3-Oct	ESE15	SE15	SE21	SE19	SE14	SE20	SE22	SE16	SE11	S19	SSW23	SSW26	WSW29	WSW32	WSW33	SW30	SSW19	SSW21	SW18	W16	W20	WSW23	WSW18	WSW22	SSW13.5	WSW33
4-Oct	WSW23	WSW18	WSW17	WSW19	W16	W22	W17	WNW10	NW6	NW9	NW12	N9	N7	NNW9	NNE12	NNW18	NNW24	NNW24	NW15	NW15	NW12	WNW16	WNW14	WNW10	WNW11.9	NNW24
5-Oct	WNW14	NNW6	WSW16	WSW14	SW13	SSW9	S6	SE11	SE12	SE12	SE12	SSE11	WSW11	WSW10	WSW12	WSW15	NW6	WNW16	NW18	W19	WSW21	W13	WNW13	N22	WSW7.3	NNW22
6-Oct	N19	NNW13	N23	NNW25	NNW17	NNW14	N10	N13	N15	N12	N5	S3	SW4	WSW3	SSE3	ESE11	SE14	SSE19	SSE17	SE16	SE13	SE13	SE16	ESE10	NE3.8	NNW25
7-Oct	SE5	ESE8	SE7	SE12	SE15	SE10	SE11	SE12	SE18	SE18	SSE20	SSE23	SE15	SE16	SE19	SE18	ESE18	ESE20	SE22	SSE7	ESE4	ENE4	NNW7	NNW10	SE11.6	SSE23
8-Oct	WNW5	NNW12	NW8	NW7	WNW16	W11	W17	NW19	W16	WSW14	WSW17	W20	W21	W18	WSW19	WSW16	W25	WNW15	W18	WNW21	WNW23	WNW19	WNW22	WNW16	W15.3	W25
9-Oct	WNW13	W11	WNW13	WSW13	SW13	SSW11	SW15	SW14	SW14	SW11	SE10	SW14	WSW22	WSW25	WSW22	WSW18	WSW16	SW9	SSW5	S8	SSE7	SE9	SE14	SE15	SW10.3	WSW25
10-Oct	SE13	SE13	SE11	SE7	SE8	SE12	SE11	SE10	ESE9	SE12	SE15	SE14	SE22	SE22	SSE25	S30	S29	SSE24	SSE26	SSE24	SSE23	SSE22	SE16	ESE8	SE16.1	S30
11-Oct	SE18	ESE13	NNE2	NNW3	NNW2	NNW13	NNW13	NNW11	NNW17	NNW21	NNW19	NW18	NW16	WNW26	WNW28	WNW22	WNW17	WNW24	WNW24	WNW22	NW21	NNW23	NNW27	NNW35	NW14.5	NNW35
12-Oct	NNW25	NNW25	NNW28	NNW29	NNW30	NNW28	NNW32	N22	NNW16	NNW23	N24	N21	N23	N27	N24	N23	NNW14	N15	NNW16	NNW11	NW12	NW8	NW7	NNW7	NNW20.1	NNW32
13-Oct	NW10	NNW9	NW6	W11	WSW8	SW13	SW12	SW14	SSW11	S14	SW17	WSW19	SW17	S23	S25	S28	S22	SSE23	SSE20	SSE22	SSE24	SSE27	SSE27	SSE28	S13.3	S28
14-Oct	SE25	SSE24	SSE26	SSE25	SSE21	SE21	SSE17	SSE15	S21	S24	SSW26	S22	SSW24	SSW21	SSW20	S20	S20	S15	SSE14	SE12	SE16	SE19	SE21	SE20	SSE18.8	SSE26
15-Oct	SE22	SE21	SE24	SE21	SE20	SE19	SE19	SE18	SE20	SE21	SE22	SE16	SW17	SW20	SW17	SW16	SSW15	S9	SSW8	SW16	SW11	W7	W7	SW6	SSE11.8	SE24
16-Oct	WSW7	S6	SSE8	SSE10	SE10	SE13	SE17	SE15	SE16	SE15	SE16	SE19	SE21	SSE24	SSE25	SSE22	S21	S21	S20	SSE23	SSE25	S29	S26	S25	SSE16.5	S29
17-Oct	S17	SSW18	SW22	SW24	WSW24	WSW20	W21	WNW20	W19	W22	WSW21	W13	WNW24	WNW23	WNW27	WNW22	WNW22	WNW20	WNW17	WNW11	WSW9	W10	W9	W7	W16.1	WNW27
18-Oct	WSW11	WSW9	WSW8	W8	WSW15	WSW18	SW16	SW10	SW19	SW16	SW9	W9	WSW13	WSW14	WSW13	W13	WSW10	W1	W1	SSE6	SE6	SE8	SE7	SE6	SW8.5	SW19
19-Oct	SE5	SE7	SE3	SE3	NNW2	NNW4	NNW8	NNW6	NNW7	NNW7	NNW7	NNW8	NNW7	NNW7	NNW8	NNW10	NNW12	NNW11	NNW10	NNW11	NNW13	NNW15	N14	N17	NNW7.0	N17
20-Oct	N16	N14	NNW12	NNW13	NNW12	NNW11	NNW10	NW12	N6	N4	N5	ESE2	SSE3	SSE8	SSE12	SSW13	SSW10	S10	SSE14	SSE17	SE18	SE24	SE26	SSE16	SE2.3	SE26
21-Oct	SE14	SE24	SE15	SE16	SE16	SE14	SSE6	SSW6	SW16	WSW8	W10	WNW24	WNW20	W21	WSW21	WNW17	NNW17	NNE12	N6	N3	ENE1	E3	ESE1	SE4	SW3.0	SE24
22-Oct	ESE5	ESE6	NE1	ESE4	ESE7	ESE3	SE7	SE4	SE11	SE17	SE16	SE14	SE14	SE12	SE13	ESE14	ESE20	SE23	SE27	SE28	ESE29	SE35	SE33	SE34	SE15.5	SE35
23-Oct	SE38	SE43	SE36	SE30	SE27	SE30	SE29	SE25	SE20	SE18	SE24	SSE20	SSE17	SE17	SE22	ESE17	ESE23	ESE28	ESE27	SE27	ESE28	SE26	SE28	SE29	SE26.1	SE43
24-Oct	SE25	SE25	SE21	SE22	SE22	SE19	SE15	SE11	SE10	SE13	SE17	SE14	SE12	SE12	SE9	SE13	ESE6	N3	NE3	ESE5	ESE15	ESE8	ESE3	E4	SE12.3	SE25
25-Oct	SE4	ESE4	NNW6	NNW11	N6	ESE3	NNE1	W6	WNW5	ENE2	WSW6	WSW14	W21	W20	WSW23	WSW26	WSW21	SW11	SW17	SW12	SE7	SE11	SE12	SE7	WSW6.3	WSW26
26-Oct	SE5	SE5	SE11	SE10	ESE4	NNW5	NNW9	NNW7	NNW7	NNW10	NNW7	NNW11	NNW13	NNW18	N17	NNW12	N19	N28	N31	N30	N34	N34	N33	N34	N13.8	N34
27-Oct	N33	N33	N33	N33	N34	NNW30	NNW32	NNW32	NNW32	NNW31	NNW31	NNW30	NNW29	NNW30	NNW29	NNW21	NW19	WNW23	WNW22	WNW22	WNW24	UO	UO	WNW22	NNW26.6	N34
28-Oct	WNW22	WNW17	WNW22	WNW28	WNW25	WNW21	WNW22	WNW19	WNW14	WNW17	WNW20	W17	W17	W19	W18	W12	WSW7	WNW7	WNW8	SW4	SW2	SE8	SE4	ESE1	WNW13.3	WNW28
29-Oct	ESE2	ESE8	SE16	ESE16	SE22	ESE14	E9	NE8	NE8	NNE7	N16	N11	NNW8	NNW12	UO	UO	UO	N14	NNW9	NW13	UO	NNW10	NW9	UO	NE4.7	SE22
30-Oct	UO	UO	NW3	NNE6	ENE6	NE1	ENE1	SE1	SSW7	SW14	WSW15	SW11	S10	SSE12	S9	SSW13	SSW12	SSW10	SSW12	SSW12	SSW11	SSW13	SSW11	SSW11	SSW7.4	WSW15
31-Oct	SSW12	S13	S14	SSE13	S13	SSE15	SSE17	SE9	SE17	SE20	SE27	SE31	SE32	SE36	SE43	SE45	SE41	SE43	SE47	SE42	SE33	SE36	SE32	SE25	SE26.4	SE47
	SE1.7	SE2.9	SSE1.5	S1.3	S1.7	S1.7	SSW1.0	WNW0.5	SSW1.3	SSW2.1	SSW3.1	SW3.8	WSW5.6	WSW5.6	SW6.5	SSW6.2	SSW4.5	S2.7	S3.4	S3.8	SSE4.3	SSE5.0	SSE4.1	SE2.3	Diurnal Average	
	SE38	SE43	SE36	N33	N34	NNW30	NNW32	NNW32	NNW32	NNW31	NNW31	SE31	SE32	SE36	SE43	SE45	SE41	SE43	SE47	SE42	N34	SE36	N33	NNW35	Diurnal Maximum	

UO - Unstable Operation

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 11 km/h on Oct 12 00:00

Minimum Value: 1 km/h on Oct 1 20:00

Percentiles: P_1 = 1 P_{10} = 2 Q_1 = 3 Median = 4 Q_3 = 5 P_{90} = 6 P_{99} = 8

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	0
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	3	3	3	4	4	5	4	4	4	4	5	6	4	5	4	3	4	1	1	1	2	2	1	1	6
2-Oct	1	2	1	1	1	3	2	2	2	2	4	5	3	5	3	3	2	5	3	2	3	3	3	3	5
3-Oct	2	3	2	3	3	2	2	3	2	4	5	5	6	7	9	7	4	5	4	6	5	4	5	4	9
4-Oct	4	4	3	5	5	5	6	5	2	3	3	3	3	7	5	6	6	7	4	3	4	5	4	4	7
5-Oct	3	3	5	4	3	4	2	3	3	2	3	3	4	3	4	6	3	3	3	5	4	5	6	7	7
6-Oct	6	5	6	7	6	3	3	4	4	3	3	2	2	2	3	3	3	2	3	3	3	4	4	3	7
7-Oct	3	4	3	3	4	2	4	5	2	3	5	4	4	3	3	4	4	4	2	6	5	2	2	5	6
8-Oct	3	4	3	3	6	5	4	5	5	4	4	5	5	5	5	4	7	6	7	6	7	6	6	4	7
9-Oct	4	3	4	4	2	3	3	4	4	3	3	5	5	4	4	4	2	4	1	1	2	3	2	1	5
10-Oct	2	1	1	2	2	2	3	3	2	4	1	3	4	3	3	5	4	3	3	3	3	4	7	4	7
11-Oct	2	4	5	3	2	4	6	4	4	6	6	5	4	8	7	5	4	5	5	5	5	7	9	11	11
12-Oct	7	7	7	7	7	8	10	7	4	6	6	4	6	7	6	6	3	4	4	4	2	2	1	2	10
13-Oct	3	2	2	5	2	2	2	2	2	3	4	4	5	5	5	5	4	3	3	3	3	3	3	3	5
14-Oct	3	3	3	4	4	3	4	3	5	5	5	4	5	5	4	3	4	2	3	3	2	2	2	1	5
15-Oct	1	2	2	2	3	3	4	4	4	5	4	4	4	3	3	3	3	4	2	2	2	5	5	5	5
16-Oct	5	3	2	2	2	4	2	2	1	3	4	4	5	5	3	4	3	3	3	2	3	7	4	4	7
17-Oct	3	4	5	6	4	4	4	4	5	4	5	4	6	7	8	6	6	3	4	3	2	2	3	4	8
18-Oct	5	6	4	4	4	3	2	4	6	6	2	3	3	3	3	3	3	1	1	1	1	1	1	1	6
19-Oct	2	2	1	1	1	1	2	2	2	2	2	4	3	3	3	3	4	5	2	3	2	3	3	3	5
20-Oct	3	4	3	3	3	2	2	3	2	2	2	1	2	2	2	2	3	2	2	2	4	4	5	6	6
21-Oct	5	5	3	2	4	4	2	2	4	3	5	5	4	4	5	4	4	4	3	2	1	1	2	2	5
22-Oct	3	2	1	3	3	2	2	3	4	3	3	3	3	2	3	5	3	4	4	5	5	5	4	5	5
23-Oct	5	4	5	8	6	3	3	4	4	5	3	4	3	3	4	4	5	4	4	3	4	4	4	4	8
24-Oct	4	4	4	5	3	2	5	4	4	2	3	3	3	3	2	5	5	2	2	3	3	3	2	2	5
25-Oct	2	2	3	4	5	1	1	3	3	2	3	5	5	6	5	5	5	4	3	3	3	3	2	4	6
26-Oct	3	4	2	3	3	2	2	2	2	3	6	4	3	4	4	3	4	5	6	7	6	6	6	6	7
27-Oct	6	6	6	6	7	8	7	7	8	7	7	7	7	7	7	6	6	5	5	5	5	UO	UO	4	8
28-Oct	4	4	6	6	7	5	4	5	4	6	5	6	5	5	4	5	3	4	3	3	2	2	2	2	7
29-Oct	2	3	4	4	7	7	2	2	3	3	4	5	3	2	UO	UO	UO	3	2	2	UO	3	2	UO	7
30-Oct	UO	UO	1	2	1	1	1	1	3	3	4	2	2	2	2	3	2	2	2	3	2	3	2	2	4
31-Oct	3	3	2	3	3	3	4	4	4	3	6	6	6	6	6	6	7	7	6	8	6	5	5	6	8
	7	7	7	8	7	8	10	7	8	7	7	7	7	8	9	7	7	7	7	8	7	7	9	11	
	Diurnal Maximum																								

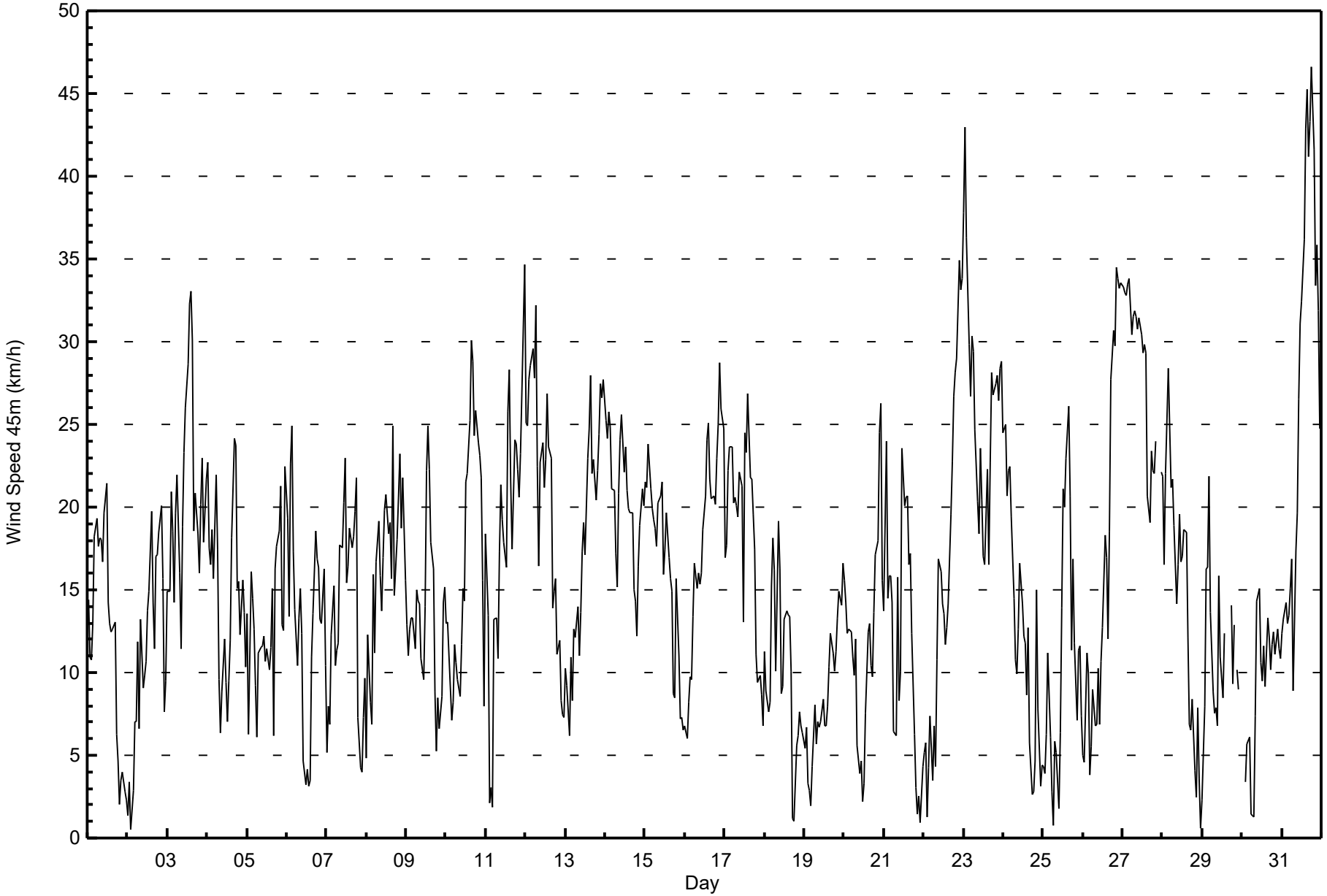
UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 45m (WS45) - km/h

Lower Camp Met Tower - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	68	9.25	9.25
6 - 11	172	23.40	32.65
12 - 19	262	35.65	68.30
20 - 28	178	24.22	92.52
29 - 38	48	6.53	99.05
> 38	7	0.95	100.00

Total Number of Valid Hours: 735

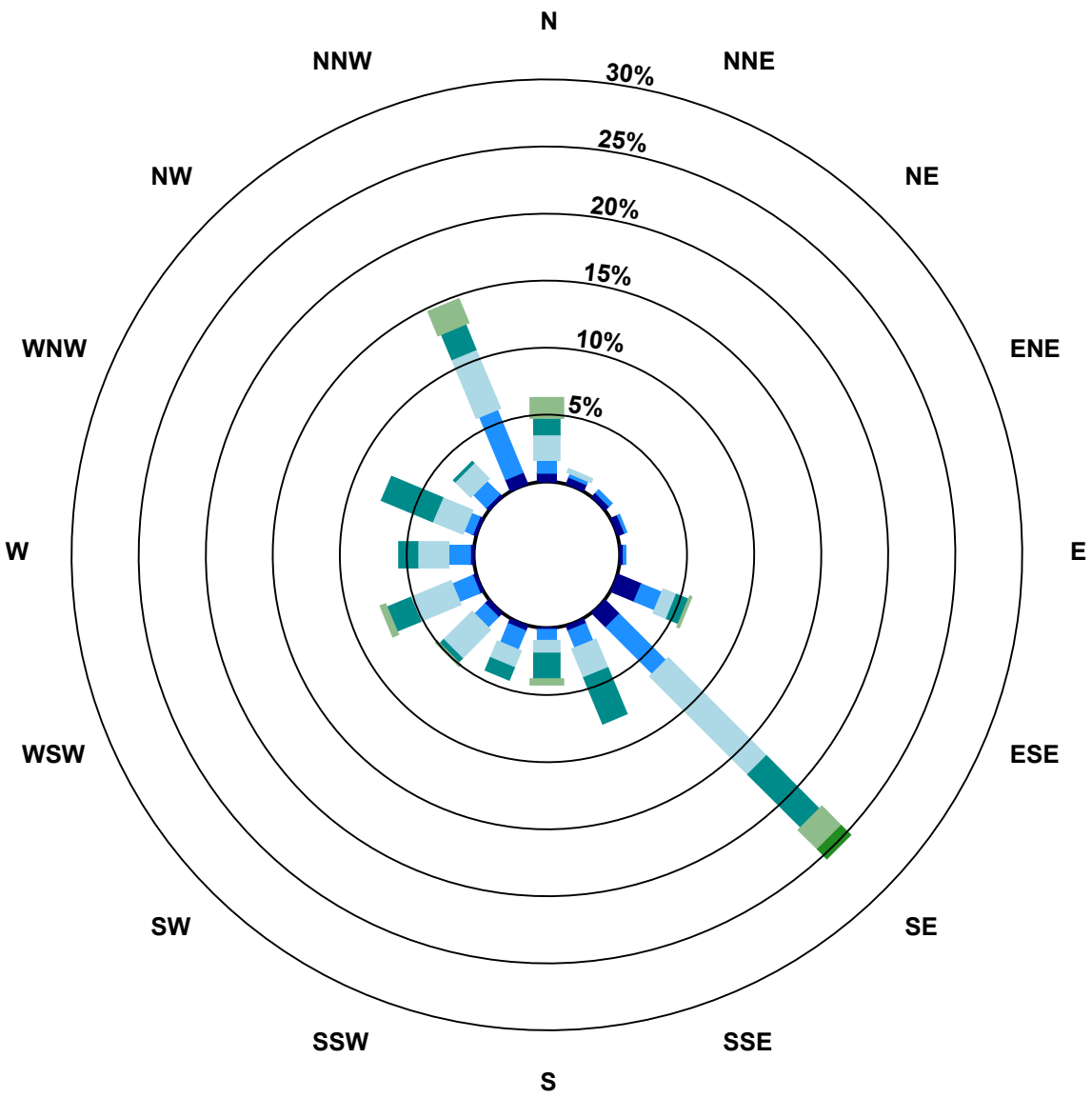
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 45m (WS45) - km/h

Lower Camp Met Tower



Classes (km/h)

- 0 - 5
- 6 - 11
- 12 - 19
- 20 - 28
- 29 - 38
- > 38

Total Number of Valid Hours: 735

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 100m (WS100) - km/h

Lower Camp Met Tower - October 2025

Maximum Speed: 53 km/h on Oct 31 19:00

Maximum Daily Speed Average: 33.6 km/h on Oct 27

Minimum Speed Value: 0 km/h on Oct 30 07:00

Minimum Daily Speed Average: 2.7 km/h on Oct 20

Maximum Diurnal Speed Average: 7.4 km/h at hour 13

Minimum Diurnal Speed Average: 2.3 km/h at hour 1

Monthly Average Velocity: 4.3 km/h 212.5 deg

Percentiles: P_1 = 3 P_{10} = 8 Q_1 = 14 Median = 19 Q_3 = 27 P_{90} = 33 P_{99} = 46

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NNW21	NNW18	N17	N18	NNW25	NNW27	N23	NNW25	N24	NNW23	NNW26	NNW28	NNW18	N17	N14	NNW16	N17	NNW9	N8	N3	NNE6	NNE8	N6	W4	NNW16.5	NNW28
2-Oct	WSW3	WSW8	WSW8	WSW7	SE3	S6	SSE9	SE8	SE14	SE10	SE11	SE13	SE17	SSE19	S22	SSE15	SSE12	SSE19	SSE22	SSE24	SSE29	SSE23	SE16	SE15	SSE12.5	SSE29
3-Oct	SE17	SE20	SSE23	SSE20	SSE19	SSE21	SSE24	SSE18	S16	S24	SSW26	SW29	WSW34	WSW38	WSW40	SW36	SSW23	SW27	WSW24	W22	W27	WSW29	WSW24	WSW27	SSW18.9	WSW40
4-Oct	WSW29	W25	W23	WSW26	W26	W30	W23	WNW15	NW9	NW11	NW14	N11	N9	NNW11	NNE17	NNW24	NNW32	NNW33	NW22	NW23	NW21	WNW26	WNW24	WNW19	WNW17.2	NNW33
5-Oct	WNW19	NW10	WSW19	WSW20	WSW17	SW15	SW8	SSE12	SSE12	SE12	SSE13	S11	WSW13	WSW12	WSW14	W18	NW10	WNW23	WNW26	W25	WSW28	W17	WNW19	N26	W11.1	WSW28
6-Oct	N23	N18	N28	NNW34	NNW26	NNW19	N17	N17	N18	N15	N6	SSW3	SW4	WSW4	SSE3	ESE12	SE15	SSE19	SSE21	SE23	SE18	SE18	SE21	SE15	NE4.5	NNW34
7-Oct	SE13	SE14	SE14	SE17	SE18	SE14	SE17	SE19	SSE22	SSE21	SSE22	SSE25	SSE19	SE19	SSE21	SE23	ESE24	SE29	SSE28	S14	SSE7	ESE10	NNW2	NNW13	SE16.0	SE29
8-Oct	WNW9	NNW19	NW15	WNW16	WNW22	W17	W23	WNW24	W19	W18	WSW18	W24	W24	W22	WSW23	WSW19	W31	WNW20	W23	WNW26	WNW29	WNW24	WNW27	WNW21	W20.2	W31
9-Oct	WNW17	W15	W16	WSW16	SW19	SW18	WSW21	SW20	SW18	SW12	S8	SW17	WSW26	WSW29	WSW25	WSW22	WSW21	SW17	SW13	SSW13	SSW15	S9	S11	SSE13	SW15.4	WSW29
10-Oct	SSE13	SSE16	SSE17	SSE12	SSE12	SSE19	SSE16	SSE15	S13	SSE14	SE16	SE17	SSE24	SSE25	SSE29	S37	S37	S35	SSE37	SSE31	SSE29	SSE33	SSE25	SE13	SSE21.8	SSE37
11-Oct	SE21	SE22	SE6	SW4	SE3	N17	N19	N17	NNW25	NNW28	NNW27	NNW25	NW23	WNW32	WNW37	WNW28	WNW23	WNW31	WNW30	NW31	NW30	NNW31	NNW34	NNW44	NW18.3	NNW44
12-Oct	NNW33	NNW32	NNW34	NNW37	NNW37	N34	NNW39	N28	N19	NNW27	N27	UO	UO	N31	N27	N27	NNW20	N19	NNW21	NNW16	NNW17	NNW14	NW12	NW12	NNW25.2	NNW39
13-Oct	NW16	NW13	NW8	W15	WSW12	WSW18	WSW17	WSW18	SW14	SSW17	SW19	WSW22	SW19	S24	S27	S32	S26	SSE30	S28	S31	SSE31	SSE33	SSE32	SSE34	SSW16.9	SSE34
14-Oct	SSE31	SSE30	SSE29	SSE30	SSE23	SSE23	SSE22	S19	S25	S27	SSW29	S23	SSW26	SSW23	SSW22	S22	S25	S22	S21	SSE17	SSE18	SSE18	SSE19	SSE19	S22.5	SSE31
15-Oct	SSE20	SSE21	SSE22	SSE23	SSE24	SSE25	SSE28	SSE23	SE25	SSE26	SSE24	S18	SW20	SW22	SW19	SW18	SSW20	SSW16	SW18	SW23	WSW18	WSW22	WSW22	WSW21	S16.4	SSE28
16-Oct	WSW19	WSW13	SW13	SW14	SW9	SSW9	S13	S11	SSE13	SE14	SE16	SE20	SE25	SSE29	SSE33	SSE31	S28	S29	S26	S27	S33	SSW38	SSW35	S34	S19.6	SSW38
17-Oct	SSW26	SW26	SW29	SW30	WSW31	WSW27	W27	WNW27	W26	W29	WSW27	W17	WNW29	WNW27	WNW32	WNW27	WNW28	NW28	NW28	WNW23	W16	WNW11	W15	W13	W22.1	WNW32
18-Oct	WSW20	WSW18	WSW17	WSW19	WSW24	WSW26	WSW22	WSW17	WSW26	WSW18	WSW9	W11	WSW16	WSW16	WSW16	W17	WSW14	SW11	S3	SSE5	S6	SE6	SE8	SE10	WSW13.0	WSW26
19-Oct	ESE16	SE14	SE7	SSE2	ESE2	NE2	NNW10	N4	N6	NNW6	NNW7	NNW10	NNW10	NNW9	NNW13	N15	N17	N15	N15	N15	N18	N18	N17	N19	N8.0	N19
20-Oct	N18	N17	N16	N16	NNW16	N15	NNW14	NNW16	N7	NNE5	N5	E2	S4	S9	SSE13	SSW14	SSW13	S13	S19	SSE22	SSE25	SSE30	SSE31	SSE20	SSE2.7	SSE31
21-Oct	SE19	SSE32	SE19	SE20	SE21	SSE14	SW9	WSW15	WSW21	W10	W13	WNW27	WNW24	W24	WSW25	WNW21	NNW22	NNE15	NNE8	NE6	ENE4	ESE5	SE9	SE12	SW4.7	SSE32
22-Oct	SE10	SE10	ESE6	SE8	SE12	SE11	SE17	SE14	SE16	SSE18	SSE16	SSE13	SE14	SE14	SE15	ESE21	ESE26	SE30	SE35	SE35	SE37	SE43	SE42	SE43	SE20.9	SE43
23-Oct	SE48	SE49	SE46	SE40	SE36	SE37	SE35	SE29	SE26	SE25	SE24	SSE21	SSE17	SE18	SE27	SE25	SE30	SE37	SE36	SE35	SE33	SE31	SE33	SE35	SE32.0	SE49
24-Oct	SE29	SE30	SE31	SE32	SE32	SE27	SE22	SE19	SE16	SE16	SE19	SE18	SE15	SE15	SE12	SE20	ESE13	ESE7	ESE12	ESE17	SE24	ESE17	ESE15	ESE11	SE19.3	SE32
25-Oct	SE12	SE9	W3	NNW13	N14	E8	E7	SW7	W11	NNW2	WSW11	WSW22	W28	W27	WSW31	WSW33	WSW30	SW18	SW24	WSW19	SSW10	S11	SSW11	SSW8	WSW10.3	WSW33
26-Oct	ESE9	SE11	SSE15	SE13	SE7	NE3	NE5	NNE7	NNW9	NNW16	N10	N15	N18	N22	N21	N17	N25	N34	N37	NNE35	N41	N40	N39	N40	N16.2	N41
27-Oct	N39	N40	N39	N40	N42	NNW40	NNW41	NNW41	NNW42	NNW39	NNW41	NNW39	NNW38	NNW38	NNW38	NNW29	UO	UO	WNW28	WNW29	WNW30	WNW34	WNW29	WNW30	NNW33.6	NNW42
28-Oct	WNW29	WNW23	WNW29	WNW34	WNW31	WNW27	WNW29	WNW27	WNW21	WNW23	WNW25	W21	W21	W24	W22	W15	WSW10	W10	WNW11	SW7	SW5	S10	S9	S3	W17.6	WNW34
29-Oct	ESE3	SE9	SE20	SE21	SE26	ESE19	E16	E9	E10	NE8	N18	N13	NNW9	N14	N18	NNE20	N18	N18	N13	NNW19	NNW21	NNW15	NNW13	NNW8	NNE7.2	SE26
30-Oct	NNW12	N5	NNW3	NNE7	ENE6	NNE2	NE0	SW4	SW9	SW17	WSW18	SW12	S10	S13	SSW11	SSW17	SSW16	SW14	SW15	SW15	SSW14	SSW16	SSW16	SSW15	SW8.1	WSW18
31-Oct	SSW16	S16	S18	S16	S16	SSE18	SSE22	SSE13	SE21	SE22	SE30	SE35	SE36	SE41	SE48	SE52	SE46	SE51	SE53	SE47	SE38	SE41	SE37	SE31	SE30.6	SE53
	S2.3	S3.4	SSW3.4	SW3.7	SW3.2	SW3.1	SW2.7	WSW2.4	SW3.5	SW3.1	SW3.9	SW5.3	WSW7.4	WSW6.9	SW7.2	SW6.7	SSW5.7	SSW5.2	SSW5.8	SSW5.7	SSW5.9	S5.9	S5.1	S3.3	Diurnal Average	
	SE48	SE49	SE46	N40	N42	NNW40	NNW41	NNW41	NNW42	NNW39	NNW41	NNW39	NNW38	SE41	SE48	SE52	SE46	SE51	SE53	SE47	N41	SE43	SE42	NNW44	Diurnal Maximum	

UO - Unstable Operation

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 10 km/h on Oct 12 00:00

Minimum Value: 1 km/h on Oct 30 07:00

Percentiles: P_1 = 1 P_{10} = 2 Q_1 = 2 Median = 3 Q_3 = 4 P_{90} = 6 P_{99} = 8

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Hours of Calibration:	0
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	3	3	2	4	3	4	4	4	4	4	4	6	4	5	4	3	4	2	1	1	2	3	1	1	6
2-Oct	1	4	2	2	2	1	2	2	2	3	3	4	3	5	3	4	2	4	2	3	3	4	4	3	5
3-Oct	3	4	2	2	2	2	2	3	3	4	5	6	6	6	9	7	4	4	5	6	5	3	4	3	9
4-Oct	3	4	2	3	4	4	4	6	2	3	3	2	3	7	5	7	5	6	5	3	3	4	3	5	7
5-Oct	4	4	5	3	3	4	2	3	3	3	2	3	4	3	3	7	4	3	3	5	3	7	6	7	7
6-Oct	5	4	6	6	5	4	3	3	4	3	3	2	2	2	4	3	2	2	2	3	3	2	2	2	6
7-Oct	2	3	3	2	3	2	3	3	3	3	5	4	4	3	3	4	4	3	4	8	5	3	4	5	8
8-Oct	4	5	4	3	6	5	4	5	5	4	4	4	4	5	4	3	7	7	7	5	7	6	6	5	7
9-Oct	4	4	4	4	2	3	2	4	3	4	3	5	4	4	4	4	2	3	2	2	2	3	2	2	5
10-Oct	2	2	2	3	3	2	2	2	2	3	2	3	3	4	3	5	4	3	3	3	3	5	7	4	7
11-Oct	3	2	7	2	1	9	6	4	4	6	6	5	4	7	6	5	4	5	5	4	4	8	9	10	10
12-Oct	7	7	6	6	7	7	10	7	3	6	5	UO	UO	6	5	5	3	3	3	4	2	2	1	2	10
13-Oct	3	3	2	5	2	1	1	1	2	3	4	4	5	4	5	4	4	3	3	3	3	2	3	3	5
14-Oct	3	3	3	5	5	3	4	4	6	5	5	4	4	5	4	3	3	2	3	2	3	2	3	2	6
15-Oct	2	2	2	2	2	4	3	4	4	4	3	4	4	3	3	3	3	5	3	2	3	7	6	7	7
16-Oct	7	5	4	2	3	3	1	1	2	2	3	2	4	4	2	3	3	3	3	4	3	6	3	3	7
17-Oct	4	4	5	6	4	3	3	4	6	4	5	4	5	6	7	6	5	4	3	4	3	3	3	4	7
18-Oct	4	8	4	4	3	2	1	3	5	5	2	3	3	2	3	3	2	2	2	1	2	2	2	4	8
19-Oct	2	3	2	2	1	1	2	3	2	2	3	2	3	2	2	2	3	4	4	2	2	2	2	2	4
20-Oct	2	4	2	2	3	2	2	3	2	2	2	1	2	3	2	2	3	2	2	2	5	4	4	6	6
21-Oct	6	4	3	4	4	6	2	3	3	3	5	3	3	4	4	4	4	3	5	3	2	3	3	2	6
22-Oct	2	2	4	5	3	2	3	3	2	3	3	3	2	2	3	5	4	3	4	5	4	4	3	3	5
23-Oct	4	4	4	7	5	3	2	2	3	3	3	4	3	2	3	4	4	3	3	3	4	4	4	3	7
24-Oct	4	2	2	3	2	2	5	5	3	2	2	2	4	2	3	4	5	3	4	4	3	3	6	2	6
25-Oct	3	4	3	7	6	2	3	5	5	2	5	4	5	6	5	4	5	5	2	3	5	2	2	3	7
26-Oct	2	3	2	4	3	1	2	3	5	3	8	4	3	3	3	2	4	5	5	6	5	6	5	5	8
27-Oct	6	5	5	5	6	7	6	6	7	7	6	6	6	6	6	6	UO	UO	5	4	4	3	4	4	7
28-Oct	4	4	6	6	8	6	4	4	3	5	5	6	5	5	3	6	4	4	3	3	3	2	3	2	8
29-Oct	2	3	4	4	5	7	3	3	3	3	3	6	2	2	2	3	2	3	3	3	2	2	2	1	7
30-Oct	2	2	1	1	2	1	1	1	4	3	4	3	2	2	2	3	2	2	2	2	2	2	2	2	4
31-Oct	3	3	2	3	3	4	4	4	4	3	5	5	5	5	5	4	7	5	5	8	5	4	4	4	8
	7	8	7	7	8	9	10	7	7	7	8	6	6	7	9	7	7	7	7	8	7	8	9	10	
	Diurnal Maximum																								

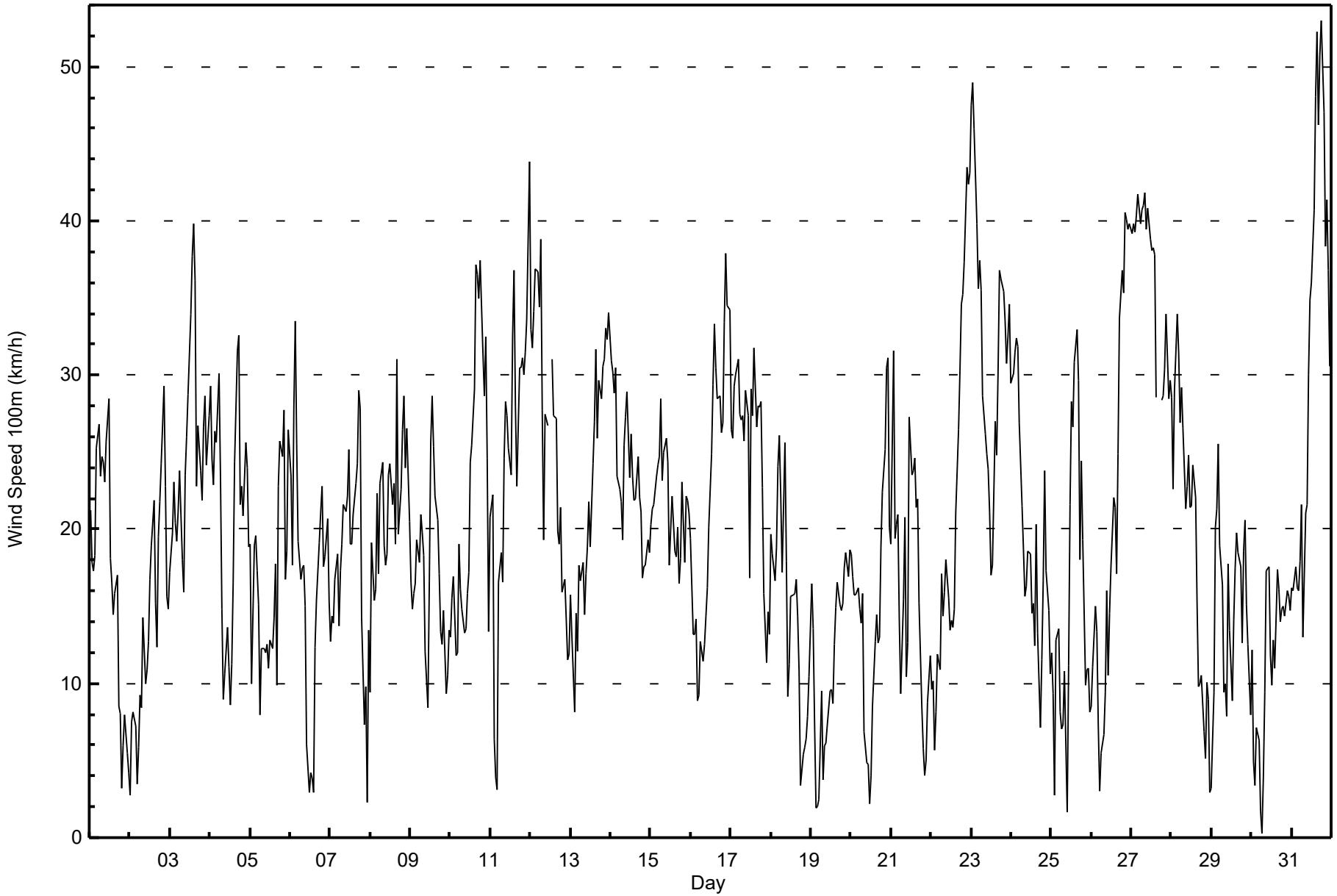
UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 100m (WS100) - km/h

Lower Camp Met Tower - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	35	4.73	4.73
6 - 11	97	13.11	17.84
12 - 19	255	34.46	52.30
20 - 28	205	27.70	80.00
29 - 38	114	15.41	95.41
> 38	34	4.59	100.00

Total Number of Valid Hours: 740

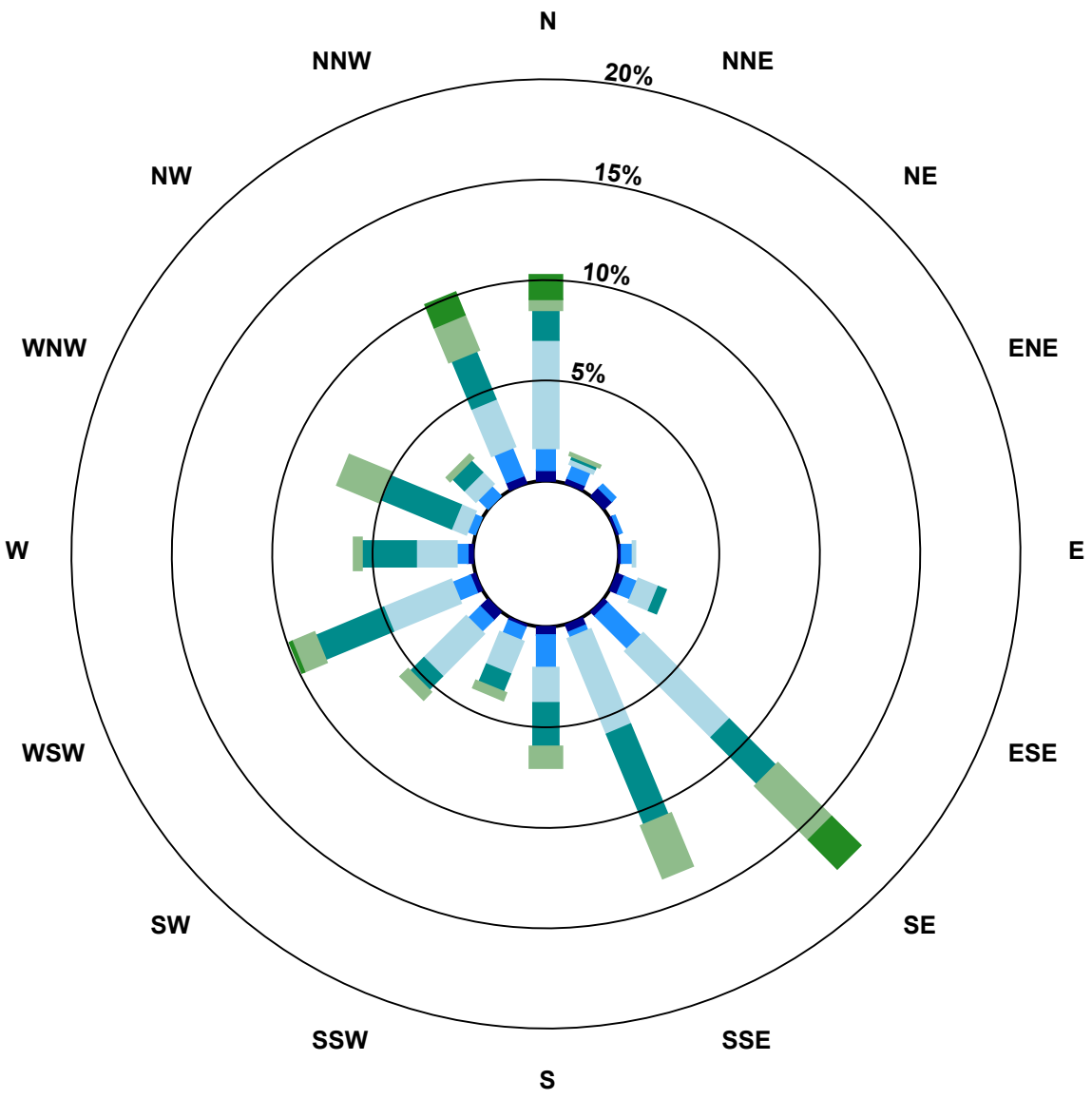
Total Number of Hours: 744

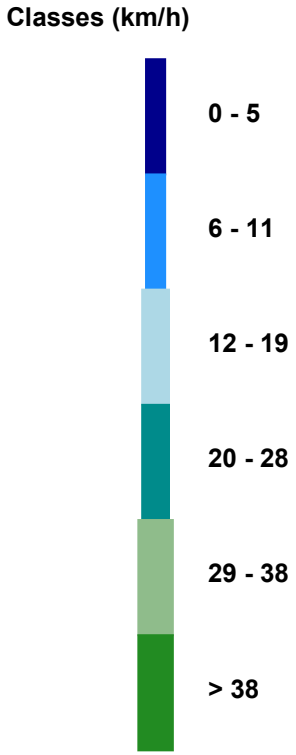
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 100m (WS100) - km/h

Lower Camp Met Tower





Total Number of Valid Hours: 740

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 163m (WS163) - km/h

Lower Camp Met Tower - October 2025

Maximum Speed: 57 km/h on Oct 31 19:00

Maximum Daily Speed Average: 37.9 km/h on Oct 27

Minimum Speed Value: 2 km/h on Oct 30 06:00

Minimum Daily Speed Average: 3.4 km/h on Oct 20

Maximum Diurnal Speed Average: 8.5 km/h at hour 14

Minimum Diurnal Speed Average: 3.7 km/h at hour 8

Monthly Average Velocity: 5.9 km/h 225.4 deg

Percentiles: P_1 = 3 P_{10} = 11 Q_1 = 16 Median = 23 Q_3 = 31 P_{90} = 38 P_{99} = 49

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	N27	N23	N22	N22	N30	N31	N28	N30	N29	N27	N29	N32	N21	N18	N15	NNW17	N20	N11	NNE12	NNE7	NNE11	NNE16	NNE11	N3	N20.2	N32
2-Oct	WNW2	WSW8	W11	WSW14	W5	SSW5	SSE6	SSE9	SSE13	SSE11	SSE12	SE11	SSE19	SSE23	S23	S17	S14	SSE19	SSE26	SSE34	S40	SSE34	SSE28	SSE26	S15.1	S40
3-Oct	SSE24	S26	SSW23	S23	S21	S19	S22	S23	SSW24	SSW28	SSW28	SW30	WSW36	WSW40	WSW42	SW39	SW24	SW31	WSW28	W28	W33	W33	W30	W31	SW24.1	WSW42
4-Oct	W35	W29	W28	W27	W29	W30	WNW24	NW19	NW12	NW11	NW14	N11	N9	NNW12	NNE20	N28	NNW37	NNW38	NNW26	NNW28	NW27	NW30	NW29	NW24	NW20.8	NNW38
5-Oct	NW22	NW14	W22	W24	WSW21	WSW18	WSW11	S12	S14	S13	S12	S11	WSW14	W13	W15	W19	WNW13	NW26	NW31	W29	W31	W20	WNW22	N28	W14.0	W31
6-Oct	N27	N20	N31	NNW39	NNW31	N24	N22	N21	N19	NNE16	N6	SW3	WSW4	WSW4	SSE4	SE12	SE16	SSE19	SSE22	SSE23	SSE22	SSE21	SSE21	SSE21	NNE4.3	NNW39
7-Oct	SSE20	SE18	SE18	SSE22	SSE24	SSE19	SSE24	SSE26	SSE28	SSE26	SSE25	SSE27	SSE22	SSE21	SSE23	SE25	SE31	SE32	SSE38	S22	SSW9	ESE12	SE5	NNW11	SSE20.6	SSE38
8-Oct	NW16	NNW28	NW22	WNW25	WNW29	W24	WNW27	WNW26	W22	W19	WSW19	W25	W25	W23	WSW24	WSW21	W35	WNW23	W26	WNW30	WNW33	WNW27	WNW28	WNW24	WNW23.6	W35
9-Oct	WNW20	W18	WNW19	WSW18	WSW22	SW22	WSW24	WSW24	WSW21	SW13	SW12	SW17	WSW26	WSW30	WSW27	WSW24	WSW23	SW21	SW15	SW14	WSW19	SW16	SW11	SSW11	WSW18.6	WSW30
10-Oct	S9	SSE13	SSE14	S16	SSE17	SSE27	SSE27	SSE23	SSE22	SSE21	SSE17	SSE20	SSE25	SSE27	S31	S41	S41	S40	S43	S41	S40	S45	S36	SSE23	S27.0	S45
11-Oct	SSE27	SSE27	SSE14	SSW9	SSE6	NNE13	NNE26	N22	N30	NNW34	NNW31	NNW31	NW27	WNW37	WNW42	WNW33	WNW27	WNW35	NW37	NW40	NW37	NNW37	NNW38	N49	NW20.5	NNW49
12-Oct	NNW39	NNW37	NNW38	NNW42	NNW39	N37	N43	N32	N23	N30	N28	UO	UO	UO	N29	N30	N23	N22	NNW26	N19	NNW21	NNW19	NNW14	NW16	N28.5	N43
13-Oct	NW20	NW17	WNW12	W15	W12	WSW19	WSW18	WSW19	SW19	SSW22	SW20	WSW23	SW20	S25	S29	S34	S28	S35	S36	S38	S40	S39	S39	S40	SSW20.1	S40
14-Oct	S39	S38	S38	S42	S32	S28	S30	S27	S31	SSW30	SSW30	SSW25	SSW27	SSW26	SSW23	SSW23	S28	SSW23	SSW26	S24	SSW25	S21	S22	S23	S27.8	S42
15-Oct	S22	S20	S23	S24	S26	S26	S33	SSE31	SSE32	SSE29	SSE29	SSW23	SW22	WSW24	SW20	SW20	SW23	SW24	SW28	WSW29	WSW24	W31	W28	W29	SSW21.0	S33
16-Oct	WSW28	WSW28	WSW28	WSW22	WSW19	WSW17	SW15	SW12	SSW9	S8	SSE15	SE18	SSE26	SSE33	SSE36	S34	SSW34	S33	SSW29	SSW31	SSW40	SSW44	SSW39	SSW39	SSW22.6	SSW44
17-Oct	SW31	SW32	WSW35	WSW35	WSW36	W32	WNW31	WNW31	W31	W34	W31	W21	WNW31	WNW29	WNW34	WNW31	WNW32	NW34	NW35	WNW30	WNW24	WNW19	WNW21	WNW20	W26.8	WSW36
18-Oct	W17	W22	WSW22	W25	WNW23	W23	WNW20	W18	W24	W18	W10	W13	W17	WSW16	WSW17	W18	WSW16	WSW13	WSW11	SSW7	SSW8	S6	S8	SSE15	WSW14.2	W25
19-Oct	SSE14	SSE14	SSE9	SSE9	SSE8	SE8	E5	ESE10	ESE12	ESE13	ESE10	E5	ENE8	N14	N17	N17	NNE19	N18	NNE17	NE18	N20	N22	N19	N18	NE7.6	N22
20-Oct	N20	N18	N17	N18	N19	N18	N17	NNW17	N7	NNE6	N4	E2	S6	S10	S14	SSW16	SSW15	S16	S23	S25	SSE29	SSE36	SSE35	SSE24	SSE3.4	SSE36
21-Oct	SSE25	S35	SSE29	SSE28	SSE27	SSW15	WSW19	WSW24	WSW23	W14	W16	WNW29	WNW25	W24	W25	WNW24	NNW24	NNE18	NE12	NE9	ENE7	E6	ESE10	SE14	SW6.7	S35
22-Oct	SE14	SE14	SE12	SE11	SE17	SE18	SE28	SSE19	SSE16	SSE19	SSE18	SSE13	SSE14	SE16	SE16	SE26	SE32	SE37	SE43	SE42	SE43	SE47	SE47	SE47	SE25.0	SE47
23-Oct	SE50	SE49	SE48	SE42	SE35	SE37	SE35	SSE30	SE25	SE26	SSE24	SSE21	SSE17	SE18	SE29	SE31	SE35	SE41	SE39	SE35	SSE34	SSE37	SSE41	SSE34	SE33.7	SE50
24-Oct	SSE34	SSE31	SE31	SE33	SE29	SSE25	SSE23	SE20	SSE20	SSE18	SSE21	SSE19	SSE15	SE17	SE17	SE24	SE19	ESE13	SE21	SE25	SE29	SE22	SE26	SE17	SE22.6	SSE34
25-Oct	SE17	SE15	S3	NNW10	N17	ENE7	ESE13	SSW6	W18	W5	W16	W25	W33	WNW31	WSW35	W37	WSW35	WSW25	WSW30	WSW27	SW18	SW14	SW16	WSW14	WSW13.7	W37
26-Oct	SSE3	SSE9	SSE20	SSE20	SSE12	E3	ESE7	ENE9	ENE9	NE9	NE13	NNE15	N22	N24	N26	N21	NNE32	NNE40	N42	NNE41	N46	NNE46	N45	N45	NNE17.6	NNE46
27-Oct	N45	N45	N44	N45	N47	N46	N47	N47	NNW48	NNW46	NNW47	NNW45	NNW44	NNW44	NNW43	NNW35	NW30	WNW37	WNW36	WNW35	WNW36	WNW38	WNW34	WNW34	NNW37.9	NNW48
28-Oct	WNW34	NW29	WNW36	WNW38	WNW36	WNW32	WNW34	WNW33	WNW27	WNW28	WNW29	WNW24	W26	W28	W24	W18	WSW13	W16	W11	WSW10	SW7	SSW11	SSW18	S6	WNW21.6	WNW38
29-Oct	SSE5	SE10	SE21	SE25	SE27	SE22	ESE20	ESE15	E14	ENE8	NNE14	NNE13	N9	N15	N22	NNE27	NNE23	NNE23	NNE18	NNW19	NNW22	NNW15	N12	N9	NE8.8	SE27
30-Oct	N14	N8	N6	NNE7	ENE5	NNW2	SW2	WSW7	WSW9	WSW18	WSW19	SW13	SSW10	S15	SSW14	SSW20	SW19	SW16	SW16	SW16	SSW16	SW18	SSW18	SSW17	SW9.2	SSW20
31-Oct	SSW19	SSW18	S20	S18	S18	S21	SSE26	SSE23	SSE24	SSE21	SE30	SE34	SE37	SE43	SE51	SE56	SE49	SE55	SE57	SE49	SE38	SE41	SE35	SSE31	SSE32.5	SE57
	SW3.7	SSW4.4	SW5.5	SW6.2	SW5.3	SW4.8	WSW3.8	WSW3.7	SW5.1	SW4.2	SW4.7	WSW5.8	WSW8.1	WSW8.5	SW7.8	SW7.1	SW5.9	SW6.0	SW7.3	SW7.7	SW8.3	SSW7.6	SSW6.9	SW5.4	Diurnal Average	
	SE50	SE49	SE48	N45	N47	N46	N47	N47	NNW48	NNW46	NNW47	NNW45	NNW44	NNW44	SE51	SE56	SE49	SE55	SE57	SE49	N46	SE47	SE47	NNW49	Diurnal Maximum	

UO - Unstable Operation

All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 163m (WS163) - km/h

Lower Camp Met Tower - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 10 km/h on Oct 11 06:00

Minimum Value: 0 km/h on Oct 2 01:00

Percentiles: $P_1 = 1$ $P_{10} = 2$ $Q_1 = 2$ Median = 3 $Q_3 = 4$ $P_{90} = 6$ $P_{99} = 8$

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Hours of Calibration:	0
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	3	2	2	3	3	4	4	3	3	4	3	5	4	5	3	3	3	3	2	2	2	3	1	2	5
2-Oct	0	3	2	2	2	2	3	1	2	3	3	4	4	4	2	4	2	4	1	4	2	3	4	5	5
3-Oct	3	2	1	2	2	2	2	2	3	3	5	5	6	6	8	6	4	4	5	6	4	2	2	3	8
4-Oct	3	3	2	2	3	4	3	6	2	2	3	3	3	7	4	7	5	5	4	3	3	3	2	5	7
5-Oct	6	4	4	3	1	3	3	4	4	3	2	3	4	3	3	6	5	3	3	4	1	7	6	6	7
6-Oct	5	5	6	7	5	5	3	3	4	3	3	2	2	2	4	3	2	2	1	2	4	3	4	6	7
7-Oct	3	3	3	3	4	3	3	4	4	4	4	4	4	3	3	5	3	4	3	9	6	5	3	6	9
8-Oct	5	3	5	4	6	5	3	5	5	4	4	3	3	4	4	2	6	8	7	6	7	5	6	5	8
9-Oct	4	4	5	3	2	2	3	3	3	4	3	5	4	3	5	3	3	3	4	1	4	3	2	1	5
10-Oct	2	3	3	1	5	2	3	3	3	2	3	5	3	4	3	4	3	3	1	3	3	3	6	3	6
11-Oct	2	4	8	3	2	10	5	4	3	6	5	5	4	6	5	5	4	4	5	4	4	7	8	9	10
12-Oct	7	6	6	6	7	8	9	7	4	6	6	UO	UO	UO	5	5	3	4	2	4	2	3	1	2	9
13-Oct	2	3	2	4	2	1	1	2	1	4	4	3	4	4	4	4	4	3	2	2	2	2	2	2	4
14-Oct	3	2	4	3	5	3	4	4	5	5	5	3	4	4	4	2	2	1	1	3	3	2	2	2	5
15-Oct	1	2	1	1	2	3	3	4	5	4	4	5	4	3	3	3	4	3	3	2	4	2	1	2	5
16-Oct	3	4	2	2	2	2	1	2	1	2	5	2	5	2	2	2	3	3	5	6	3	6	3	2	6
17-Oct	4	4	4	5	3	3	2	4	6	3	5	4	5	6	6	6	6	3	3	3	5	4	3	5	6
18-Oct	4	3	3	2	2	1	1	2	2	4	2	3	2	2	3	3	2	1	2	2	3	2	2	2	4
19-Oct	1	4	2	2	2	2	2	3	3	3	3	3	2	3	2	1	4	4	4	3	2	3	3	2	4
20-Oct	2	3	2	2	2	3	2	3	2	2	2	2	2	3	3	2	3	2	2	1	4	3	4	5	5
21-Oct	5	3	4	4	4	5	3	2	3	2	5	3	2	3	3	4	3	3	5	3	2	2	2	1	5
22-Oct	2	3	5	4	2	3	3	3	2	2	3	2	3	2	3	4	4	3	5	5	3	4	4	4	5
23-Oct	4	5	4	5	3	4	3	3	3	3	3	3	3	3	3	3	4	3	4	4	4	5	4	4	5
24-Oct	4	3	3	2	4	2	3	2	4	2	3	2	4	3	4	3	5	3	5	3	3	3	5	2	5
25-Oct	4	4	4	7	4	2	3	2	5	3	5	2	5	7	4	4	4	5	3	4	3	2	2	5	7
26-Oct	1	6	3	2	6	2	3	3	2	3	3	3	1	3	4	3	5	6	6	6	6	6	6	6	6
27-Oct	7	6	6	6	6	7	6	6	6	6	6	5	6	6	6	6	4	4	4	4	3	2	3	3	7
28-Oct	3	3	4	5	7	5	4	3	3	4	4	6	5	5	3	6	5	4	4	3	3	3	4	3	7
29-Oct	3	3	4	4	3	7	2	3	4	5	4	4	2	2	2	3	2	3	5	4	3	2	2	2	7
30-Oct	2	1	1	1	2	1	1	1	3	2	4	3	3	1	2	3	2	2	1	2	2	2	2	2	4
31-Oct	3	3	2	3	2	3	2	5	4	3	5	5	4	5	5	4	7	5	6	9	5	4	4	4	9
	7	6	8	7	7	10	9	7	6	6	6	6	6	7	8	7	7	8	7	9	7	7	8	9	
	Diurnal Maximum																								

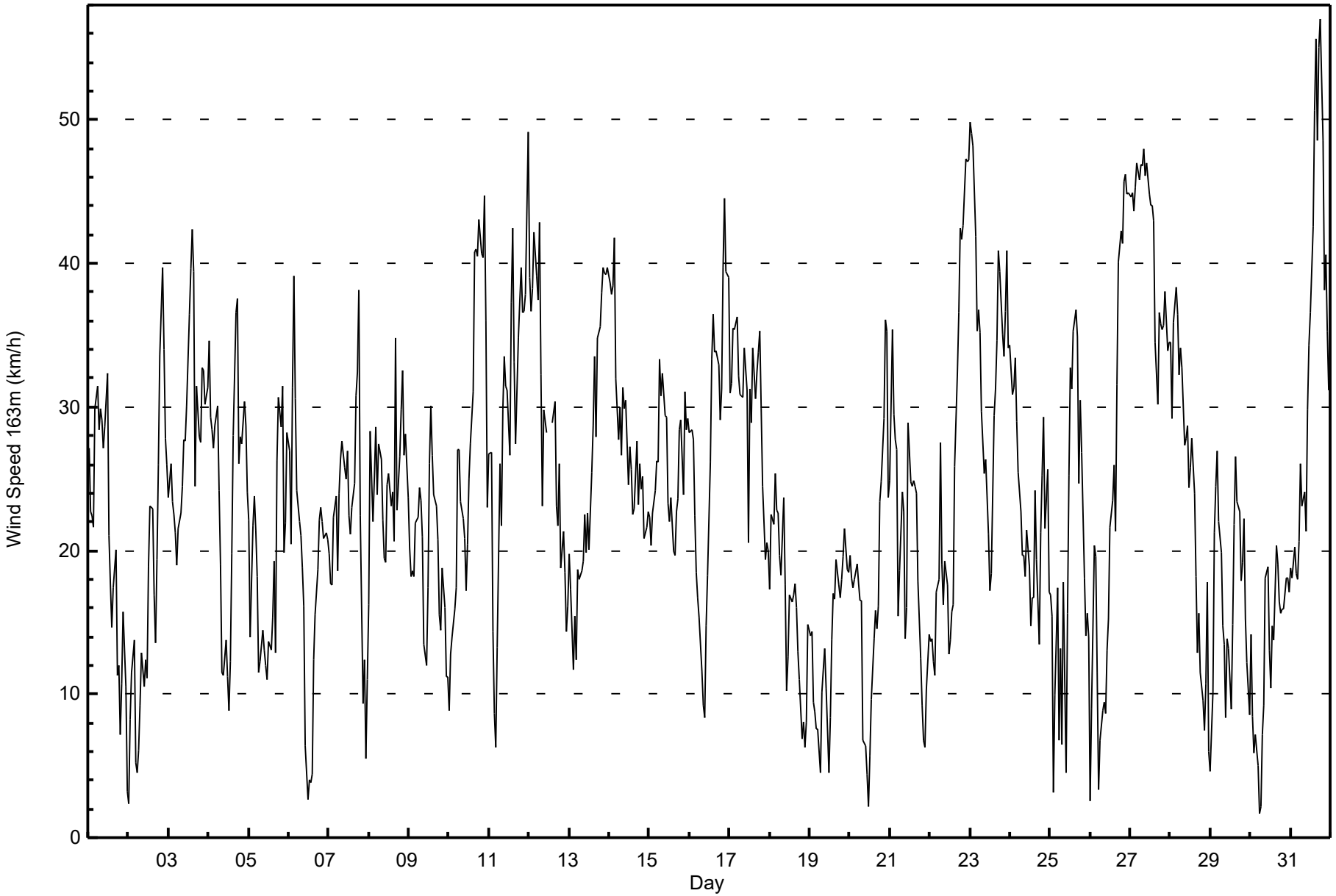
UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 163m (WS163) - km/h

Lower Camp Met Tower - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	21	2.83	2.83
6 - 11	70	9.45	12.28
12 - 19	185	24.97	37.25
20 - 28	235	31.71	68.96
29 - 38	158	21.32	90.28
> 38	72	9.72	100.00

Total Number of Valid Hours: 741

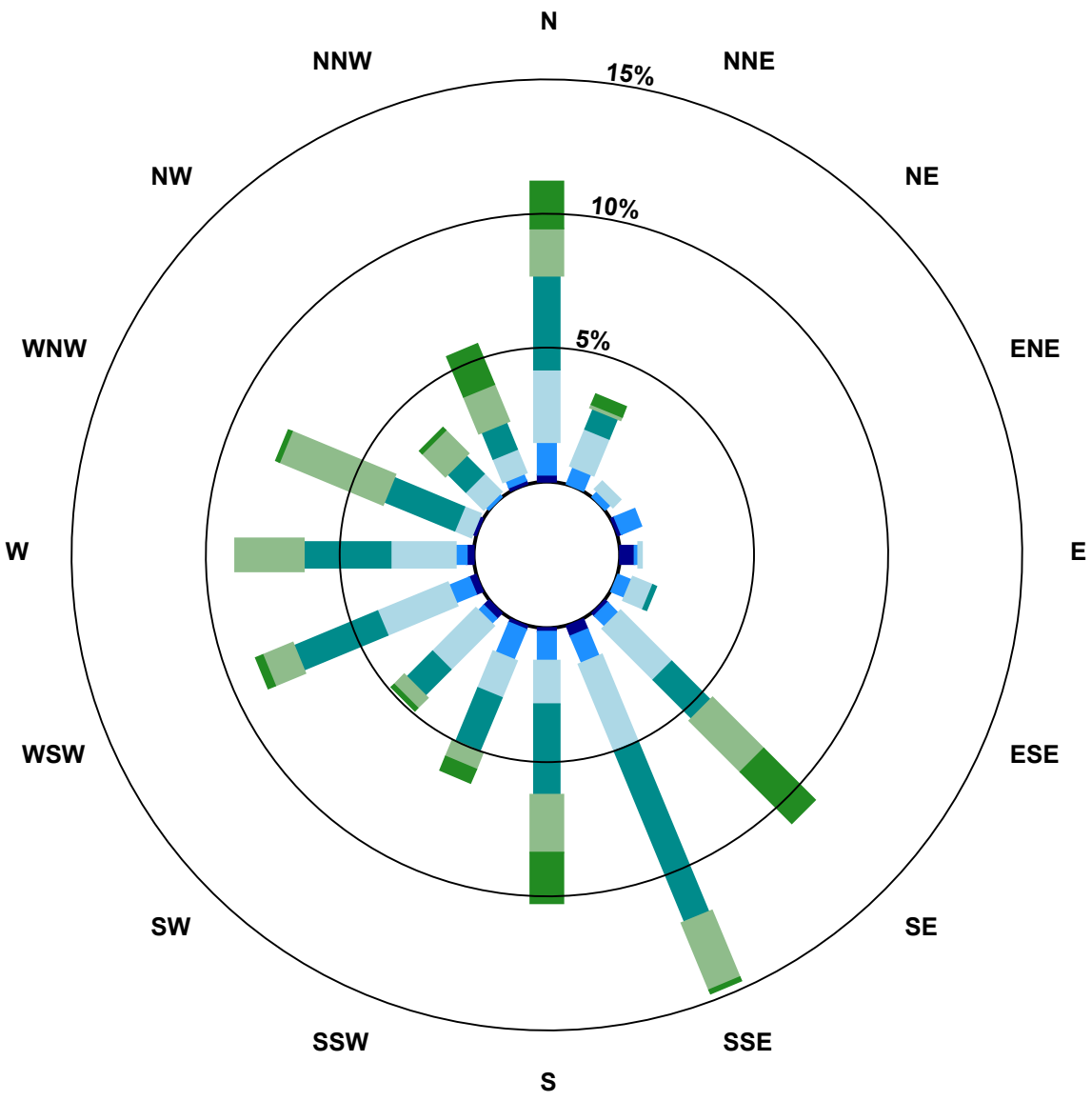
Total Number of Hours: 744

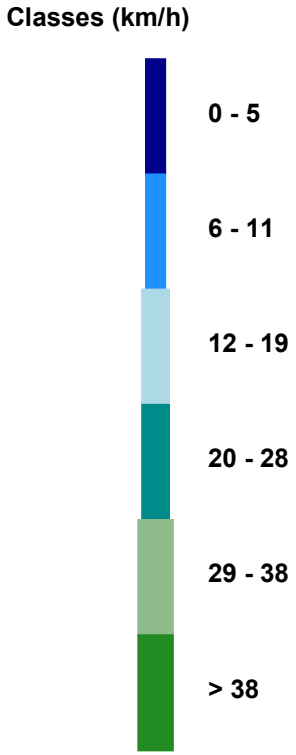
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 163m (WS163) - km/h

Lower Camp Met Tower





Total Number of Valid Hours: 741

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 20m (WD20) - deg

Lower Camp Met Tower - October 2025

Direction of Maximum Speed: 134 deg on Oct 31 19:00
Direction of Maximum Daily Speed Average: 141.7 deg on Oct 31

Direction of Minimum Speed: 272 deg on Oct 22 00:00

Direction of Minimum Daily Speed Average: 1.8 deg on Oct 6

Monthly Average Direction: 190.2 deg

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	328	326	335	331	336	337	338	331	338	336	340	333	340	342	349	332	340	334	355	295	10	304	324	39	336.0
2-Oct	85	144	351	121	124	121	121	158	132	144	149	143	141	152	170	162	158	157	139	133	135	130	136	102	143.3
3-Oct	123	126	135	130	126	133	135	128	118	175	201	211	238	244	238	221	202	212	232	273	263	252	254	255	203.8
4-Oct	255	254	257	256	269	261	272	310	326	313	309	350	350	334	14	334	335	333	315	310	319	303	314	321	302.6
5-Oct	290	335	246	263	228	192	152	142	142	133	142	165	239	254	257	258	328	307	309	269	254	268	296	344	250.5
6-Oct	357	341	350	336	325	333	0	4	9	11	347	165	217	215	157	115	135	156	149	133	137	138	135	133	54.0
7-Oct	143	141	147	149	146	146	136	137	140	139	153	159	150	144	145	134	123	120	133	156	83	339	330	334	141.0
8-Oct	336	324	312	334	299	261	267	310	278	259	239	259	264	275	255	244	270	285	272	295	297	286	292	303	278.5
9-Oct	295	274	288	242	210	207	221	212	222	225	138	232	242	240	239	241	239	220	224	149	141	137	132	131	222.8
10-Oct	131	126	122	121	127	120	117	116	120	131	141	141	143	141	151	176	172	158	152	147	149	150	137	117	146.3
11-Oct	131	131	355	333	304	340	313	338	333	334	329	320	311	293	290	295	296	291	299	306	309	325	337	338	314.6
12-Oct	334	337	336	336	336	343	341	356	345	340	347	347	348	354	355	357	325	343	333	340	316	318	317	340	341.6
13-Oct	333	332	330	276	243	230	225	217	209	189	217	247	219	183	175	173	176	158	160	154	150	149	149	147	180.6
14-Oct	147	147	146	149	148	140	156	159	174	184	191	184	204	196	190	171	166	164	148	113	137	132	135	134	162.0
15-Oct	134	133	137	135	135	136	131	140	137	132	135	138	215	233	233	221	197	157	171	229	221	319	262	194	161.9
16-Oct	214	149	132	133	127	125	128	127	128	129	135	138	136	155	140	141	164	169	165	156	161	188	180	176	151.9
17-Oct	178	210	231	235	247	257	272	290	269	264	247	265	294	297	291	294	297	302	304	309	257	268	289	272	267.8
18-Oct	257	263	232	272	243	236	228	203	231	234	232	252	251	243	240	259	247	324	202	150	141	130	139	122	236.4
19-Oct	110	134	183	37	345	323	326	318	326	319	334	342	336	340	325	329	339	337	336	334	335	341	345	352	337.4
20-Oct	349	346	339	341	335	340	329	321	350	15	357	127	152	167	150	194	201	164	151	150	137	145	146	157	150.2
21-Oct	131	143	127	131	130	136	141	150	237	257	278	285	286	262	256	287	337	12	350	331	26	47	294	272	230.3
22-Oct	23	104	344	134	114	5	103	348	145	138	147	147	142	140	143	134	116	126	129	133	122	129	129	127	131.0
23-Oct	128	130	129	129	127	127	126	130	127	135	138	151	153	136	133	135	122	116	117	125	124	136	140	129	130.8
24-Oct	132	127	129	131	137	142	137	133	132	135	132	136	143	132	142	135	139	346	343	230	123	120	302	55	132.4
25-Oct	206	237	343	343	4	172	293	283	329	142	267	259	266	281	248	255	251	220	223	233	127	130	141	136	246.9
26-Oct	359	153	117	124	87	344	339	328	332	340	328	344	339	340	351	337	345	2	356	10	357	2	359	353	356.0
27-Oct	357	356	351	350	348	341	337	338	333	332	333	331	331	332	332	325	315	293	296	295	UO	287	289	287	329.0
28-Oct	291	303	UO	284	UO	UO	UO	UO	UO	290	289	279	267	278	269	269	250	296	283	224	199	131	83	105	279.0
29-Oct	116	127	144	115	127	111	66	34	32	9	351	351	337	344	UO	UO	352	353	335	319	329	322	317	304	15.3
30-Oct	322	299	295	9	76	59	56	102	193	223	237	212	180	166	169	186	188	197	201	202	201	198	189	188	198.3
31-Oct	191	183	177	167	174	162	153	151	142	140	138	138	140	131	132	132	137	132	134	137	138	130	133	134	141.7
	154.0	144.6	151.9	181.6	158.9	166.0	171.0	151.4	179.2	198.0	197.5	211.4	228.6	229.1	210.9	208.9	204.2	179.7	181.5	177.2	155.9	164.8	157.3	140.5	
	Diurnal Average																								

UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 112 deg on Oct 15 23:00

Minimum Value: 6 deg on Oct 13 23:00

Percentiles: P_1 = 7 P_{10} = 10 Q_1 = 14 Median = 18 Q_3 = 25 P_{90} = 49 P_{99} = 97

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	0
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	20	21	21	19	18	18	19	18	17	19	19	20	20	22	20	17	20	22	21	44	94	56	48	101	101
2-Oct	87	78	65	25	24	42	16	36	16	22	14	18	19	25	9	12	12	10	11	11	12	18	52	39	87
3-Oct	15	13	9	10	11	14	10	13	15	16	11	13	18	15	17	12	13	17	29	32	20	15	18	17	32
4-Oct	15	21	21	27	35	23	32	43	24	30	24	32	47	37	25	20	18	17	18	13	17	26	22	34	47
5-Oct	26	39	16	27	32	27	33	22	18	18	19	23	33	26	23	27	42	17	13	23	18	31	28	17	42
6-Oct	20	23	18	19	18	18	29	21	21	25	74	50	54	62	49	23	17	8	14	14	19	25	23	32	74
7-Oct	95	63	41	12	11	13	20	47	12	13	12	10	15	14	12	20	14	22	8	71	69	99	27	33	99
8-Oct	31	33	42	54	28	30	28	19	24	24	16	22	20	23	23	16	19	21	20	24	19	24	19	19	54
9-Oct	23	25	23	24	16	12	8	19	16	24	21	34	15	13	11	14	12	43	42	29	23	16	11	9	43
10-Oct	12	10	13	35	22	16	16	35	22	15	9	14	12	10	11	8	7	6	6	8	9	10	56	85	85
11-Oct	11	22	94	51	64	23	23	23	17	17	18	18	17	17	18	17	17	16	15	14	16	18	18	17	94
12-Oct	17	18	17	17	16	17	17	19	17	18	17	19	20	22	19	22	18	18	18	25	12	13	19	20	25
13-Oct	19	20	30	28	27	10	9	9	12	14	20	18	28	14	12	8	10	8	8	8	6	6	6	7	30
14-Oct	8	8	7	8	9	12	12	11	13	10	10	10	12	10	13	9	9	9	29	22	10	8	8	8	29
15-Oct	10	10	7	7	9	11	12	11	10	14	15	18	19	10	11	11	13	23	27	8	34	75	112	77	112
16-Oct	91	21	9	8	10	8	11	11	12	19	17	13	20	8	8	11	15	8	12	8	7	14	10	8	91
17-Oct	10	20	10	12	15	17	20	16	19	17	15	30	18	19	18	17	17	15	17	28	38	17	31	63	63
18-Oct	27	81	61	65	31	13	18	36	23	19	17	24	20	17	19	19	34	68	51	22	42	31	75	40	81
19-Oct	77	56	84	78	17	22	20	36	29	30	22	19	26	33	36	24	24	39	21	17	16	14	15	18	84
20-Oct	16	18	16	18	18	21	20	16	27	29	33	57	46	24	15	11	11	12	9	8	13	12	12	18	57
21-Oct	21	13	22	17	20	20	12	18	25	28	37	18	17	21	17	22	20	23	38	49	99	74	97	100	100
22-Oct	104	96	80	68	30	78	45	62	41	9	13	15	16	15	14	23	15	13	16	13	15	14	14	15	104
23-Oct	15	14	15	16	15	15	16	15	21	18	13	12	15	13	15	18	15	14	15	15	15	13	11	16	21
24-Oct	16	17	22	22	16	8	20	24	62	12	15	16	15	19	26	28	93	28	34	94	18	71	89	65	94
25-Oct	76	103	18	19	93	82	44	39	46	86	73	23	18	21	15	14	18	30	13	26	24	17	12	42	103
26-Oct	82	61	15	14	67	9	15	39	22	19	81	19	19	15	22	19	17	17	16	20	15	16	17	16	82
27-Oct	16	16	15	15	14	18	16	16	17	17	16	17	16	17	17	17	14	18	16	17	UO	14	17	16	18
28-Oct	16	14	UO	16	UO	UO	UO	UO	UO	21	19	21	20	23	18	22	52	53	27	57	73	31	66	97	97
29-Oct	68	24	23	19	19	32	27	18	21	47	15	36	28	13	UO	UO	19	17	28	15	16	15	13	18	68
30-Oct	22	24	19	44	23	89	61	67	41	11	17	28	10	12	16	14	12	10	10	13	12	14	10	10	89
31-Oct	9	10	11	14	9	12	11	21	11	12	13	14	14	15	13	14	14	14	13	13	14	15	15	15	21
	104	103	94	78	93	89	61	67	62	86	81	57	54	62	49	28	93	68	51	94	99	99	112	101	
	Diurnal Maximum																								

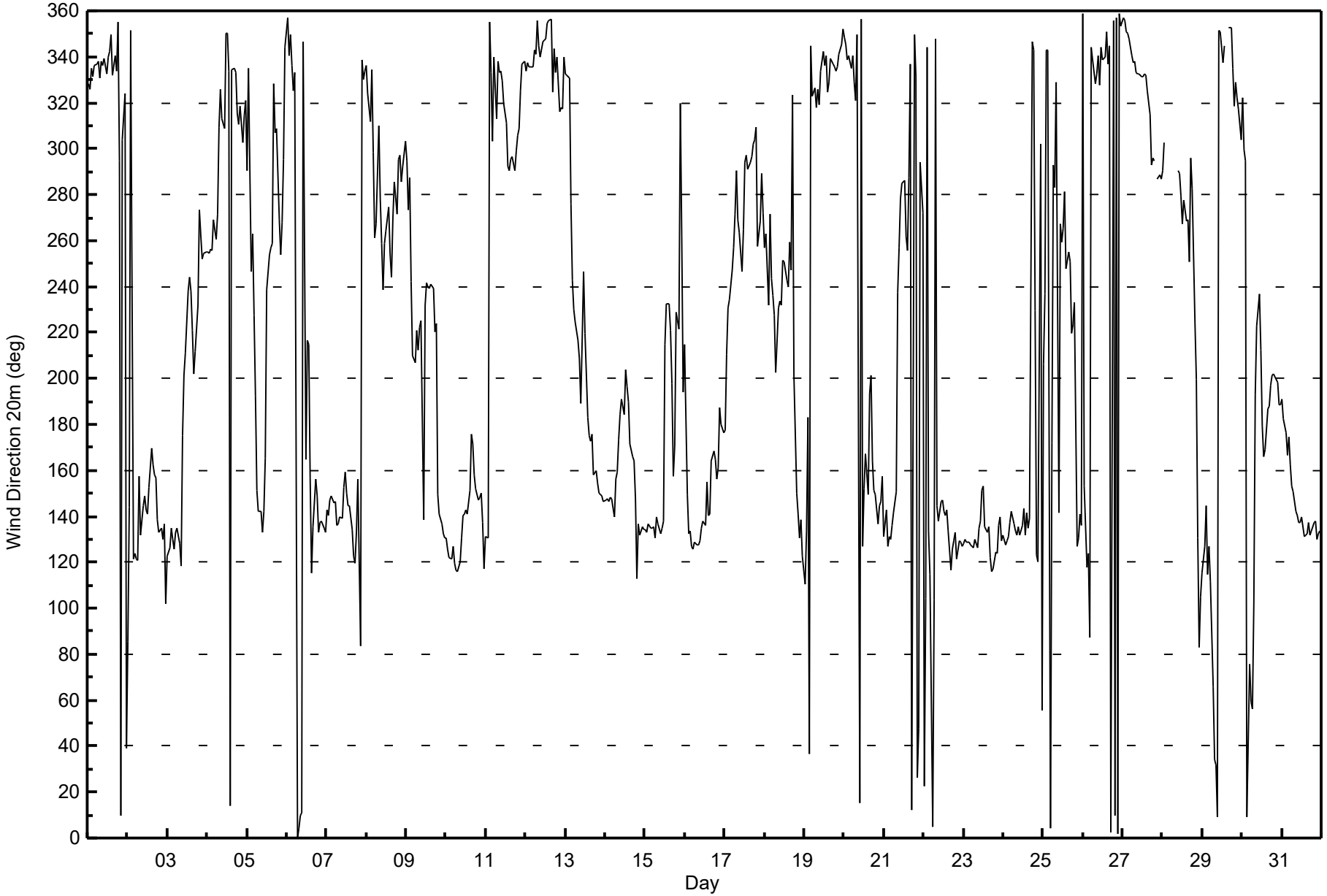
UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 20m (WD20) - deg

Lower Camp Met Tower - October 2025



Direction of Maximum Speed: 131 deg on Oct 31 19:00
Direction of Maximum Daily Speed Average: 332.1 deg on Oct 27

Direction of Minimum Speed: 247 deg on Oct 2 03:00
Direction of Minimum Daily Speed Average: 2.3 deg on Oct 20

Monthly Average Direction: 193.0 deg

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	334	333	343	337	340	341	343	337	341	339	342	335	344	346	352	335	344	339	1	314	13	342	335	236	340.3
2-Oct	123	206	247	159	131	136	128	144	128	142	142	134	134	154	170	161	157	155	138	131	140	130	126	113	142.2
3-Oct	119	125	134	129	129	130	133	127	130	178	203	213	238	243	238	221	205	213	235	270	261	252	253	254	204.7
4-Oct	254	252	255	251	260	261	264	297	322	313	307	352	353	338	17	338	336	335	319	312	312	297	300	302	299.1
5-Oct	286	330	246	258	230	203	174	145	141	132	139	164	242	256	258	258	320	303	305	267	253	264	288	349	256.5
6-Oct	359	345	354	339	330	337	4	6	8	10	352	172	223	237	150	115	132	155	148	132	128	125	126	123	45.8
7-Oct	127	122	131	136	136	137	128	131	137	137	151	156	145	136	143	125	118	117	131	166	110	76	332	334	133.8
8-Oct	301	336	308	313	294	262	267	306	277	258	241	261	263	275	254	244	268	286	270	294	295	283	291	301	278.7
9-Oct	294	270	285	242	214	212	226	217	227	225	141	234	242	239	239	241	237	227	192	179	161	135	134	134	223.8
10-Oct	128	131	126	132	127	125	126	125	121	127	139	135	143	144	152	177	174	161	154	148	147	150	141	107	145.5
11-Oct	125	121	29	331	346	341	330	346	337	336	332	324	312	291	290	294	295	291	299	303	308	327	337	340	317.8
12-Oct	337	339	337	337	337	347	344	357	348	343	351	351	350	356	357	357	331	349	336	344	321	323	321	330	343.9
13-Oct	326	327	324	269	242	233	227	220	209	191	218	245	220	184	176	174	177	159	164	158	152	151	150	147	185.0
14-Oct	146	147	147	150	147	141	157	162	174	185	193	184	204	198	192	175	170	169	154	125	140	133	133	132	161.7
15-Oct	132	131	134	134	133	132	133	135	133	133	133	146	217	233	230	219	203	180	194	217	227	267	263	231	163.7
16-Oct	239	182	157	163	142	134	127	125	127	126	129	131	132	154	147	150	171	173	169	161	168	190	184	179	156.3
17-Oct	185	213	230	233	246	255	272	289	268	262	245	266	292	294	290	293	297	301	301	295	257	262	268	268	267.7
18-Oct	244	250	241	259	243	239	231	221	233	234	235	259	254	244	242	260	245	277	267	156	138	132	127	127	233.9
19-Oct	129	128	136	126	344	347	338	338	339	328	338	341	338	339	336	335	344	344	342	342	341	344	350	355	345.7
20-Oct	352	349	344	345	340	343	335	323	353	11	358	109	153	168	150	196	205	169	156	152	138	144	144	155	138.7
21-Oct	131	143	126	129	129	138	167	209	236	258	277	286	286	263	256	286	338	18	360	11	72	97	121	128	230.2
22-Oct	120	118	53	107	118	120	124	131	137	137	144	144	135	134	135	121	118	124	126	130	123	129	128	125	128.0
23-Oct	127	129	128	128	125	125	124	127	125	129	133	147	148	131	128	122	122	118	119	124	123	132	136	127	127.8
24-Oct	127	124	124	126	129	133	132	134	135	134	130	131	137	126	136	125	118	355	47	114	121	106	111	96	126.2
25-Oct	136	122	327	339	8	106	26	264	298	59	257	253	263	280	246	254	249	226	223	230	145	137	140	135	244.3
26-Oct	126	126	126	128	116	343	347	337	339	339	339	342	342	345	353	339	349	2	357	9	358	3	360	355	358.8
27-Oct	359	357	354	352	351	343	339	339	335	334	334	332	332	333	332	328	316	293	294	294	290	UO	UO	287	332.1
28-Oct	291	302	293	284	284	288	288	295	298	291	288	279	266	277	269	266	249	287	283	227	214	143	146	118	282.3
29-Oct	111	121	138	118	126	116	81	49	42	20	353	357	339	347	UO	UO	UO	355	347	322	UO	327	322	UO	38.3
30-Oct	UO	UO	307	16	74	38	57	145	206	224	238	216	181	167	175	192	195	204	208	208	203	203	194	194	200.6
31-Oct	193	184	179	168	176	163	153	144	135	134	132	132	135	128	130	130	133	130	131	134	133	129	129	130	137.2
	135.5	132.6	156.5	188.5	178.1	179.0	201.3	295.6	197.4	201.3	202.9	223.0	237.7	238.8	217.9	213.3	209.8	185.7	182.1	178.1	166.1	153.3	148.5	130.5	
	Diurnal Average																								

UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 45m (WD45) - deg

Lower Camp Met Tower - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 98 deg on Oct 29 00:00

Minimum Value: 3 deg on Oct 15 02:00

Percentiles: P_1 = 4 P_{10} = 7 Q_1 = 9 Median = 12 Q_3 = 17 P_{90} = 30 P_{99} = 82

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	0
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	11	11	14	11	10	11	10	12	10	12	11	12	15	17	13	11	12	15	11	26	19	37	33	50	50
2-Oct	41	34	91	24	9	18	9	29	11	17	10	12	14	19	8	11	12	6	10	5	9	8	21	18	91
3-Oct	10	9	6	5	8	5	5	6	15	15	9	11	15	11	14	10	12	14	27	26	13	9	10	8	27
4-Oct	8	11	10	11	17	11	18	35	16	22	17	29	34	33	16	14	11	10	14	11	11	14	14	25	35
5-Oct	22	25	11	13	15	19	28	20	14	15	14	22	27	19	15	22	33	11	9	18	10	26	16	14	33
6-Oct	12	17	12	13	10	10	15	12	14	15	60	54	57	63	68	16	12	5	10	8	11	14	12	14	68
7-Oct	39	33	24	9	7	10	11	18	6	9	11	8	15	12	11	13	6	10	5	56	81	42	17	21	81
8-Oct	26	17	22	31	19	26	24	14	19	15	12	15	14	16	17	11	14	17	15	19	14	19	12	14	31
9-Oct	17	19	16	18	12	11	8	16	12	20	21	25	10	9	7	10	8	15	20	16	19	15	7	7	25
10-Oct	5	5	6	10	13	9	11	15	14	11	6	9	10	8	11	8	6	6	5	6	7	9	32	28	32
11-Oct	5	13	77	87	83	9	15	15	10	11	11	12	13	11	11	12	12	9	10	11	12	13	12	12	87
12-Oct	11	10	11	11	11	11	11	13	12	13	10	11	13	17	12	16	17	13	10	19	7	8	11	14	19
13-Oct	13	16	23	19	15	7	8	6	10	11	18	12	25	14	12	8	10	8	7	8	6	5	5	6	25
14-Oct	7	7	6	8	8	8	12	10	13	9	9	9	11	9	13	8	8	8	19	14	9	6	4	3	19
15-Oct	3	3	4	4	6	7	10	8	7	11	10	21	17	8	8	10	10	20	17	5	8	65	42	52	65
16-Oct	54	30	22	18	16	10	4	5	4	7	8	8	15	7	7	8	14	7	12	10	7	13	9	7	54
17-Oct	8	15	9	9	9	11	15	8	16	10	8	24	12	14	13	12	11	9	8	16	14	10	16	25	25
18-Oct	14	62	28	33	13	7	9	22	12	11	12	18	15	13	17	12	15	69	85	12	23	6	12	9	85
19-Oct	13	10	17	29	70	10	10	29	12	14	12	13	18	16	20	13	11	27	15	10	9	9	9	11	70
20-Oct	9	12	10	10	12	15	14	11	20	24	27	46	36	23	15	10	9	13	9	8	11	10	10	16	46
21-Oct	15	9	10	9	12	17	21	26	9	19	23	11	11	17	11	19	17	15	31	52	64	33	91	18	91
22-Oct	19	27	85	51	16	28	13	40	15	6	13	14	13	12	10	13	8	7	7	7	8	6	6	6	85
23-Oct	6	5	6	9	8	5	5	7	9	10	6	12	14	10	8	11	7	7	7	6	7	8	8	6	14
24-Oct	7	7	9	8	6	5	10	23	18	8	7	10	11	11	18	21	54	60	51	60	8	17	63	33	63
25-Oct	38	42	29	12	42	40	83	23	41	63	57	14	15	16	9	9	12	23	11	18	28	18	11	27	83
26-Oct	42	25	7	8	59	9	4	16	11	9	45	10	12	8	11	11	10	9	9	14	8	9	9	9	59
27-Oct	9	9	8	8	8	12	10	10	11	10	10	11	10	10	11	12	11	10	10	11	8	UO	UO	9	12
28-Oct	9	9	11	10	11	13	11	13	13	14	12	16	15	18	13	17	40	42	20	46	65	25	40	98	98
29-Oct	58	19	20	13	10	22	13	21	18	44	9	29	24	8	UO	UO	UO	10	22	9	UO	9	9	UO	58
30-Oct	UO	UO	15	36	15	60	50	76	21	9	15	26	11	11	17	12	11	9	9	10	10	13	9	9	76
31-Oct	8	10	11	14	9	11	10	17	9	8	8	9	10	6	5	5	8	6	6	8	9	6	7	9	17
	58	62	91	87	83	60	83	76	41	63	60	54	57	63	68	22	54	69	85	60	81	65	91	98	
	Diurnal Maximum																								

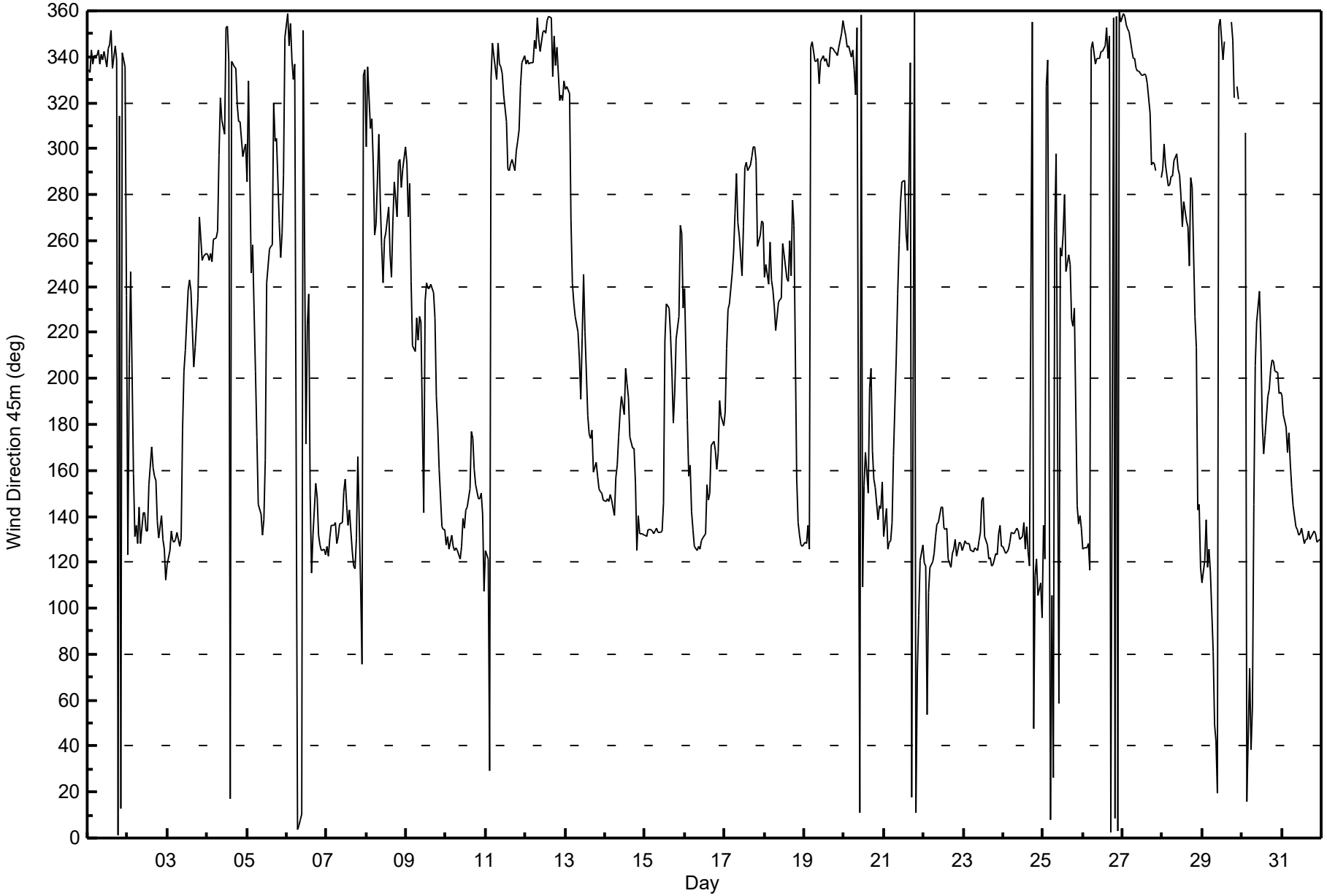
UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 45m (WD45) - deg

Lower Camp Met Tower - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 100m (WD100) - deg

Lower Camp Met Tower - October 2025

Direction of Maximum Speed: 135 deg on Oct 31 19:00
Direction of Maximum Daily Speed Average: 333.3 deg on Oct 27

Direction of Minimum Speed: 37 deg on Oct 30 07:00

Direction of Minimum Daily Speed Average: 2.7 deg on Oct 20

Monthly Average Direction: 212.5 deg

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	348	345	351	349	348	347	349	345	349	346	348	342	347	350	350	340	350	348	10	353	24	20	5	269	348.4
2-Oct	242	241	253	245	139	172	161	142	138	143	143	130	143	158	172	165	163	157	151	150	161	150	139	136	156.6
3-Oct	135	143	158	148	150	148	157	151	175	188	206	216	240	243	239	223	210	218	238	270	261	253	258	255	212.3
4-Oct	258	259	259	257	260	267	269	292	312	312	308	353	357	338	17	343	338	338	324	319	312	300	303	295	300.8
5-Oct	291	317	250	258	245	229	226	160	156	146	148	169	246	258	258	259	305	301	302	269	256	264	289	351	262.9
6-Oct	359	349	357	341	334	345	357	4	6	10	352	196	229	241	158	121	135	155	157	138	139	135	133	132	40.1
7-Oct	132	132	132	137	141	142	141	142	148	150	152	153	148	142	148	130	121	128	148	175	167	104	336	330	141.0
8-Oct	295	329	310	286	286	264	271	303	275	261	246	262	264	275	254	245	270	286	272	291	294	284	292	299	279.4
9-Oct	292	271	281	245	227	224	239	233	234	223	186	233	241	240	240	242	237	231	216	212	210	189	175	164	233.0
10-Oct	149	150	155	155	149	152	147	152	171	148	145	141	148	153	159	181	180	171	165	161	160	162	152	135	159.0
11-Oct	142	127	133	223	132	356	353	355	344	339	338	329	315	293	291	295	296	292	300	305	312	331	342	344	320.9
12-Oct	341	342	340	342	342	349	346	357	349	346	354	UO	UO	359	358	356	338	351	339	347	327	330	324	309	345.0
13-Oct	317	314	304	265	251	246	244	238	220	200	221	245	221	187	178	177	182	166	174	172	165	162	165	164	195.7
14-Oct	160	159	162	163	161	153	166	174	181	189	195	188	206	201	196	182	180	189	179	148	165	160	156	156	174.3
15-Oct	155	154	150	153	149	148	150	148	146	148	148	176	219	234	229	221	211	208	216	230	250	251	249	242	186.8
16-Oct	245	237	232	229	225	200	185	177	156	132	141	136	140	154	154	156	182	182	183	180	185	197	193	190	179.4
17-Oct	201	222	233	235	246	255	277	289	270	265	249	270	292	294	293	294	298	304	305	291	281	286	278	275	271.0
18-Oct	255	251	246	251	252	251	249	242	238	243	243	262	256	246	244	261	251	228	189	162	176	141	133	142	241.5
19-Oct	121	127	145	159	115	38	339	358	349	344	329	332	343	338	348	350	356	353	355	360	352	354	357	358	359.2
20-Oct	356	354	351	350	347	350	341	329	357	15	357	99	170	173	161	200	209	179	170	163	149	150	147	158	149.3
21-Oct	144	152	142	143	146	163	236	245	241	264	278	287	288	264	257	289	340	22	20	42	69	104	124	129	226.9
22-Oct	140	130	107	124	132	130	134	140	144	148	156	149	140	134	133	122	122	128	127	131	128	133	134	133	132.8
23-Oct	133	135	134	135	135	133	131	136	133	135	142	151	152	136	131	126	127	126	129	133	137	143	146	138	135.0
24-Oct	140	137	128	128	131	134	137	137	146	146	142	137	140	132	134	125	119	107	117	123	128	119	122	119	131.6
25-Oct	127	125	273	328	7	81	93	235	272	345	254	257	266	280	248	255	251	233	232	240	199	178	198	196	246.3
26-Oct	121	138	153	146	129	41	38	24	337	343	2	350	349	353	359	350	359	7	2	12	1	5	2	359	5.9
27-Oct	2	1	358	356	353	346	344	343	340	338	338	335	335	334	334	330	UO	UO	295	295	292	289	291	291	333.3
28-Oct	294	303	292	283	286	287	287	292	294	289	286	279	264	275	269	265	243	260	282	235	215	169	176	175	279.3
29-Oct	123	130	141	124	129	121	100	89	84	39	356	3	344	351	360	16	5	5	8	330	335	334	334	329	30.7
30-Oct	345	350	335	21	70	12	37	229	226	233	240	220	189	174	193	203	206	215	219	217	209	209	201	201	214.7
31-Oct	198	189	184	174	182	167	159	150	143	140	136	136	139	132	134	134	138	134	135	137	138	134	136	137	142.3
	191.2	169.1	199.2	220.4	213.8	214.3	231.3	250.0	225.1	224.9	225.9	230.4	238.0	243.0	227.6	218.3	213.3	191.6	199.7	198.9	199.1	185.1	185.4	188.7	
	Diurnal Average																								

UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 100m (WD100) - deg

Lower Camp Met Tower - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 89 deg on Oct 25 10:00

Minimum Value: 2 deg on Oct 24 05:00

Percentiles: P_1 = 3 P_{10} = 5 Q_1 = 7 Median = 9 Q_3 = 13 P_{90} = 21 P_{99} = 62

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Hours of Calibration:	0
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	5	5	7	7	6	7	7	8	7	7	7	9	9	11	10	9	7	12	8	16	12	20	14	31	31
2-Oct	29	36	11	11	29	34	10	16	7	11	8	6	12	14	6	10	10	4	8	7	7	10	12	17	36
3-Oct	12	10	7	6	7	5	6	9	15	12	8	10	12	9	11	8	10	12	23	22	10	5	6	4	23
4-Oct	4	5	6	5	8	5	10	20	12	16	14	24	27	29	12	10	8	6	10	8	9	6	5	11	29
5-Oct	18	15	11	8	7	8	23	20	15	16	11	22	21	12	10	17	31	7	8	13	6	22	12	12	31
6-Oct	9	11	8	9	6	8	7	8	10	9	53	66	59	45	89	11	11	4	3	5	7	7	5	7	89
7-Oct	8	6	7	6	7	8	9	8	8	9	9	8	12	11	8	10	5	7	7	31	52	12	80	22	80
8-Oct	16	13	15	14	12	17	19	12	15	10	10	11	10	12	14	9	10	15	13	17	10	16	8	11	19
9-Oct	14	16	15	14	9	10	5	8	9	14	28	14	7	7	5	7	6	8	9	10	12	16	12	7	28
10-Oct	12	7	4	5	7	8	10	11	12	18	6	10	8	6	11	6	5	3	3	5	6	7	11	16	18
11-Oct	7	9	80	43	38	20	17	9	7	7	8	8	12	9	7	8	9	7	7	7	8	10	9	8	80
12-Oct	8	8	8	7	8	8	8	9	9	10	7	UO	UO	13	9	14	11	9	7	12	5	5	6	9	14
13-Oct	8	11	19	9	7	4	6	4	9	9	15	9	25	12	11	7	8	6	5	6	4	4	5	5	25
14-Oct	6	6	6	7	8	8	12	10	12	8	7	8	9	9	12	7	5	8	13	9	12	10	7	7	13
15-Oct	6	5	5	5	6	7	7	8	10	10	10	21	15	8	7	7	6	6	8	3	6	16	10	10	21
16-Oct	13	21	17	10	20	22	9	11	14	6	7	5	11	4	3	3	11	5	10	9	5	10	7	5	22
17-Oct	5	9	7	7	6	6	13	5	11	8	5	21	8	10	9	9	8	7	5	7	12	20	14	17	21
18-Oct	5	23	10	10	6	3	4	6	5	6	16	13	10	10	14	8	8	9	46	17	18	14	16	16	46
19-Oct	7	4	21	53	37	24	10	56	14	21	10	11	12	14	7	6	8	14	9	11	6	7	7	7	56
20-Oct	7	8	7	6	8	11	9	10	16	16	26	43	29	19	16	9	8	12	6	8	8	7	7	13	43
21-Oct	10	5	8	10	10	19	20	7	4	15	16	7	8	15	6	18	17	11	24	33	21	22	9	8	33
22-Oct	9	8	48	11	11	11	9	11	6	8	11	15	13	11	9	6	5	5	5	6	4	4	4	4	48
23-Oct	4	4	4	5	4	4	3	4	4	6	7	10	12	9	5	6	4	4	4	4	5	6	5	4	12
24-Oct	4	4	2	2	2	3	5	7	8	7	6	6	8	8	13	8	14	31	14	13	5	5	13	12	31
25-Oct	17	19	79	24	28	11	15	45	26	89	34	6	13	14	6	6	9	14	8	12	26	15	14	38	89
26-Oct	12	15	10	10	26	31	21	25	15	8	27	8	7	5	8	8	7	7	7	12	6	7	7	6	31
27-Oct	7	6	6	6	6	9	7	7	8	8	7	8	7	7	7	9	UO	UO	8	8	6	5	6	6	9
28-Oct	7	7	8	8	8	9	7	8	8	10	9	13	11	15	11	12	39	27	18	32	38	24	19	64	64
29-Oct	52	17	18	8	5	13	5	15	17	45	7	20	22	5	5	12	11	8	19	7	3	4	6	9	52
30-Oct	10	14	16	27	16	46	86	22	14	5	12	25	11	10	17	9	8	9	7	7	8	11	6	7	86
31-Oct	7	10	10	12	8	10	7	13	9	8	7	8	9	5	4	4	7	5	5	7	7	4	5	6	13
	52	36	80	53	38	46	86	56	26	89	53	66	59	45	89	18	39	31	46	33	52	24	80	64	
	Diurnal Maximum																								

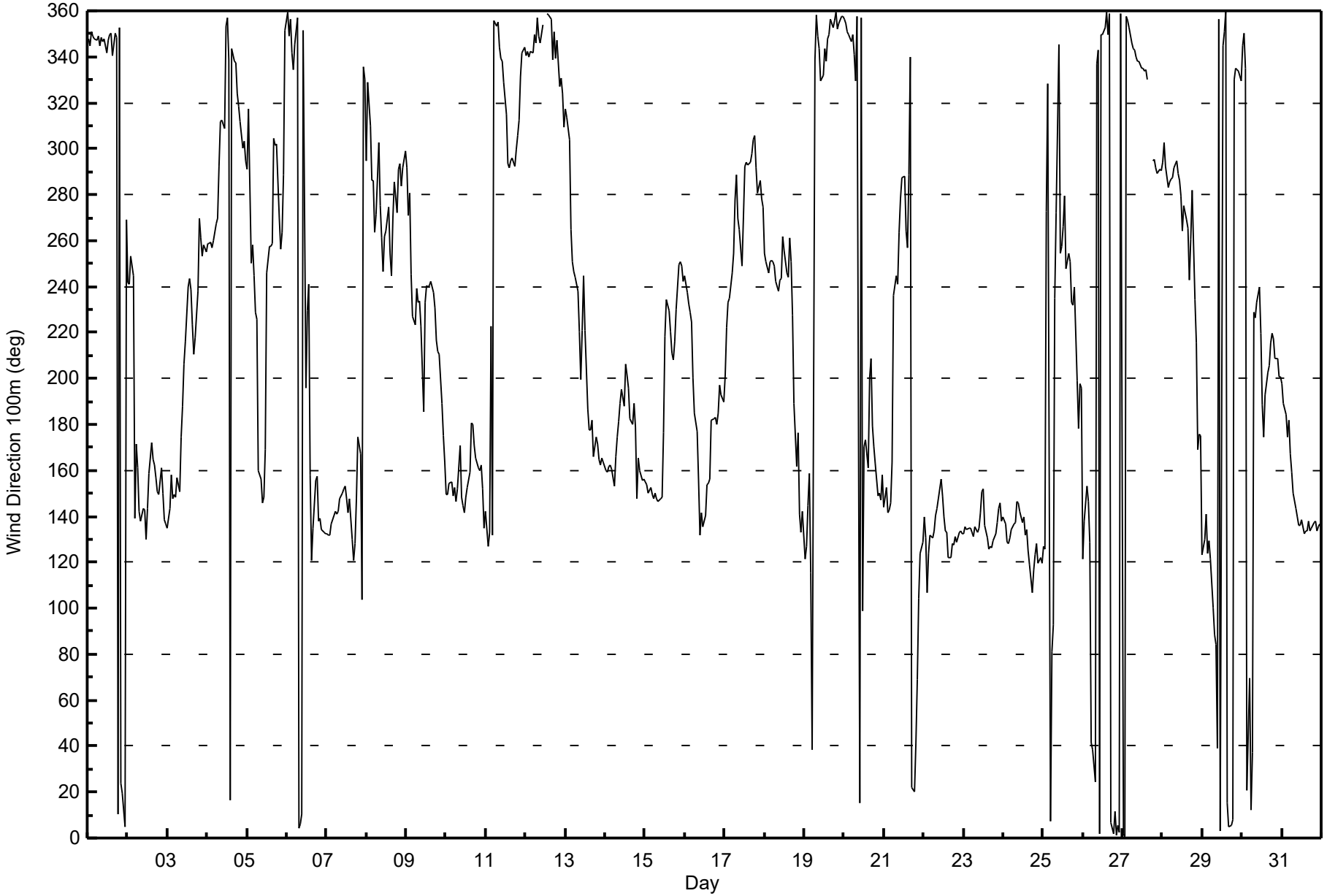
UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 100m (WD100) - deg

Lower Camp Met Tower - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 163m (WD163) - deg

Lower Camp Met Tower - October 2025

Direction of Maximum Speed: 140 deg on Oct 31 19:00
Direction of Maximum Daily Speed Average: 337.3 deg on Oct 27

Direction of Minimum Speed: 328 deg on Oct 30 06:00

Direction of Minimum Daily Speed Average: 3.4 deg on Oct 20

Monthly Average Direction: 225.4 deg

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	1	359	1	4	357	356	357	353	356	355	355	349	353	353	352	348	358	357	22	14	32	33	31	355	359.3
2-Oct	283	252	259	255	262	195	164	158	165	153	156	138	156	165	176	170	172	161	160	165	183	168	158	156	171.3
3-Oct	158	173	195	175	169	183	191	187	202	202	210	222	242	246	242	227	217	224	243	271	267	260	268	263	223.6
4-Oct	269	273	275	279	277	281	290	304	310	321	314	356	3	346	16	351	343	343	331	329	321	315	320	307	312.3
5-Oct	306	324	259	268	254	252	251	181	186	169	169	185	248	263	261	262	299	304	304	278	270	274	298	357	272.0
6-Oct	4	355	1	346	341	351	359	9	7	15	358	221	240	243	159	131	144	160	168	150	156	154	152	156	33.0
7-Oct	155	143	145	154	156	160	155	156	157	160	157	154	153	152	152	138	128	139	155	176	196	119	136	327	151.7
8-Oct	307	332	323	289	288	269	283	303	278	269	253	263	266	276	256	249	273	287	275	293	295	286	293	301	284.0
9-Oct	294	276	282	252	239	236	250	246	242	223	223	232	242	242	243	246	240	236	231	234	237	223	222	195	242.9
10-Oct	184	166	167	176	162	165	160	158	163	164	150	153	157	161	169	185	184	180	180	180	181	183	174	158	171.7
11-Oct	159	151	157	210	164	12	14	6	353	345	346	336	322	298	296	300	300	298	305	311	320	336	346	349	324.9
12-Oct	346	348	345	347	348	354	351	1	353	351	0	UO	UO	UO	3	360	349	354	344	349	334	340	331	309	349.1
13-Oct	317	316	299	267	259	255	257	250	236	212	224	247	220	190	182	182	187	174	189	187	177	177	184	187	206.0
14-Oct	180	178	178	177	175	172	178	186	190	195	198	193	207	205	203	192	189	203	201	182	194	189	187	191	188.1
15-Oct	188	189	177	188	180	174	169	167	167	163	168	196	223	238	232	226	218	222	234	246	255	264	268	260	207.4
16-Oct	256	249	250	253	257	242	224	222	196	177	152	142	154	163	166	170	192	191	196	196	196	204	204	203	200.6
17-Oct	216	232	240	240	250	259	287	295	278	276	260	276	295	297	296	298	302	311	313	300	294	303	300	292	278.9
18-Oct	281	267	257	264	284	280	285	271	261	273	276	270	260	250	248	263	255	243	239	200	205	184	171	161	258.7
19-Oct	148	160	157	150	160	130	92	108	105	106	110	89	71	10	8	9	16	9	20	39	11	9	10	3	46.7
20-Oct	5	4	359	358	355	359	350	340	5	25	5	99	187	181	177	206	213	190	185	175	159	160	153	165	162.3
21-Oct	155	170	158	159	167	195	252	251	252	273	281	292	293	269	262	295	343	22	38	56	68	81	123	133	232.0
22-Oct	137	140	130	139	138	136	141	148	154	158	165	158	156	140	139	128	128	134	129	133	136	139	141	141	139.2
23-Oct	141	142	141	143	145	145	143	148	144	145	154	156	159	145	135	132	132	135	139	144	147	152	154	150	143.9
24-Oct	151	149	139	137	142	148	149	146	157	155	157	148	149	140	136	130	128	122	126	133	136	130	131	129	140.6
25-Oct	134	129	171	327	4	73	108	198	265	273	267	272	275	284	252	259	256	241	244	249	231	220	232	243	252.8
26-Oct	156	155	164	162	163	99	103	73	59	40	41	22	8	6	10	7	12	16	10	19	9	13	10	6	20.4
27-Oct	9	8	5	3	359	353	350	349	346	345	344	341	340	339	339	335	324	301	302	300	297	294	298	300	337.3
28-Oct	301	307	294	288	290	290	291	293	296	292	289	283	268	277	273	271	252	259	279	239	232	193	197	187	281.4
29-Oct	158	144	146	130	134	128	113	107	100	66	20	18	359	1	10	26	19	20	26	343	348	346	349	349	48.4
30-Oct	358	10	9	26	63	328	227	247	250	242	245	228	201	191	209	211	214	225	228	224	213	214	206	206	224.3
31-Oct	202	193	189	181	187	172	167	157	153	152	145	143	146	139	140	140	143	139	140	143	146	142	146	147	150.0
	227.0	213.4	221.3	231.6	235.7	235.8	240.5	242.4	231.8	229.8	229.0	237.4	241.0	239.5	233.3	223.8	226.7	215.9	214.1	214.4	219.2	205.9	203.6	214.8	
	Diurnal Average																								

UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 163m (WD163) - deg

Lower Camp Met Tower - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 80 deg on Oct 6 12:00

Minimum Value: 2 deg on Oct 10 19:00

Percentiles: P_1 = 3 P_{10} = 4 Q_1 = 6 Median = 7 Q_3 = 11 P_{90} = 16 P_{99} = 53

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Hours of Calibration:	0
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	5	5	5	7	6	6	6	6	6	6	6	9	8	9	9	8	6	11	5	9	7	7	6	35	35
2-Oct	16	14	10	5	22	18	14	14	10	10	10	12	10	10	6	7	8	4	5	6	5	7	7	8	22
3-Oct	9	11	5	9	8	8	5	9	6	9	9	10	10	8	10	7	8	10	20	18	8	4	5	4	20
4-Oct	3	5	5	4	10	4	9	9	9	13	13	24	25	21	12	8	6	5	8	6	8	6	5	10	25
5-Oct	15	8	11	10	4	4	16	18	15	16	11	20	17	11	9	16	27	6	7	9	5	18	11	15	27
6-Oct	8	9	7	8	4	8	5	7	8	7	54	80	49	52	75	13	12	5	3	7	7	8	8	12	80
7-Oct	9	9	10	8	8	7	6	6	6	7	7	7	9	10	7	11	4	9	4	15	39	10	63	32	63
8-Oct	11	7	14	11	10	9	15	11	12	9	8	9	9	10	12	8	8	13	11	14	10	13	8	9	15
9-Oct	12	15	14	12	9	9	4	5	9	16	19	10	6	6	5	6	6	6	10	7	8	8	12	13	19
10-Oct	16	7	6	6	7	3	4	5	4	5	5	8	8	7	10	5	4	2	2	4	5	5	10	9	16
11-Oct	4	7	21	23	45	13	14	8	6	5	8	7	13	7	6	8	7	5	5	6	6	8	8	7	45
12-Oct	6	6	7	6	7	7	7	8	7	10	8	UO	UO	UO	8	11	7	8	6	9	5	5	6	8	11
13-Oct	7	6	16	7	8	3	3	7	7	8	14	8	23	11	9	6	8	5	5	6	3	3	4	3	23
14-Oct	5	4	4	4	6	7	8	6	8	7	6	8	8	7	11	7	4	6	6	8	7	8	7	4	11
15-Oct	5	5	6	5	7	10	5	5	7	9	11	17	14	7	7	7	6	5	5	3	5	4	4	10	17
16-Oct	11	5	5	7	7	14	8	8	16	12	8	7	11	4	4	3	7	4	8	6	4	9	5	5	16
17-Oct	5	6	5	6	5	6	11	4	8	7	5	18	7	9	8	7	6	5	3	6	7	10	6	13	18
18-Oct	8	8	5	9	6	5	5	11	10	10	18	9	9	9	14	7	6	4	9	17	17	17	7	9	18
19-Oct	5	8	16	15	16	16	16	11	9	9	11	43	18	10	4	6	7	12	9	18	7	6	7	7	43
20-Oct	7	8	6	5	7	10	8	11	14	15	18	41	26	16	14	9	7	10	5	8	4	7	6	12	41
21-Oct	7	6	6	7	9	18	9	3	4	13	12	6	6	14	6	18	16	10	18	17	12	14	13	7	18
22-Oct	6	12	11	10	8	7	5	6	6	6	8	13	12	11	9	4	4	4	4	5	4	4	4	5	13
23-Oct	4	5	4	5	5	5	4	5	5	6	7	9	9	11	6	3	4	4	5	6	5	5	4	5	11
24-Oct	5	4	5	4	5	5	5	5	5	6	5	8	10	8	10	4	8	10	7	8	4	4	4	6	10
25-Oct	15	9	68	34	21	14	11	45	11	48	12	5	11	11	6	5	8	9	7	11	14	11	11	12	68
26-Oct	61	17	4	5	11	22	15	7	10	17	15	14	4	6	7	7	5	6	7	10	6	7	7	6	61
27-Oct	6	6	6	6	5	7	5	6	7	6	6	6	6	6	6	7	9	4	5	5	4	3	4	4	9
28-Oct	5	5	6	6	7	7	6	4	4	6	7	12	8	12	10	11	23	15	17	17	26	16	11	43	43
29-Oct	48	19	17	6	4	7	5	6	10	41	15	20	21	5	5	8	8	6	14	8	4	6	7	7	48
30-Oct	8	11	12	22	18	56	55	15	11	4	10	22	11	8	15	8	6	8	8	7	8	8	5	7	56
31-Oct	6	10	8	9	7	7	7	8	7	8	8	8	8	5	5	4	7	5	5	7	8	6	7	7	10
	61	19	68	34	45	56	55	45	16	48	54	80	49	52	75	18	27	15	20	18	39	18	63	43	
	Diurnal Maximum																								

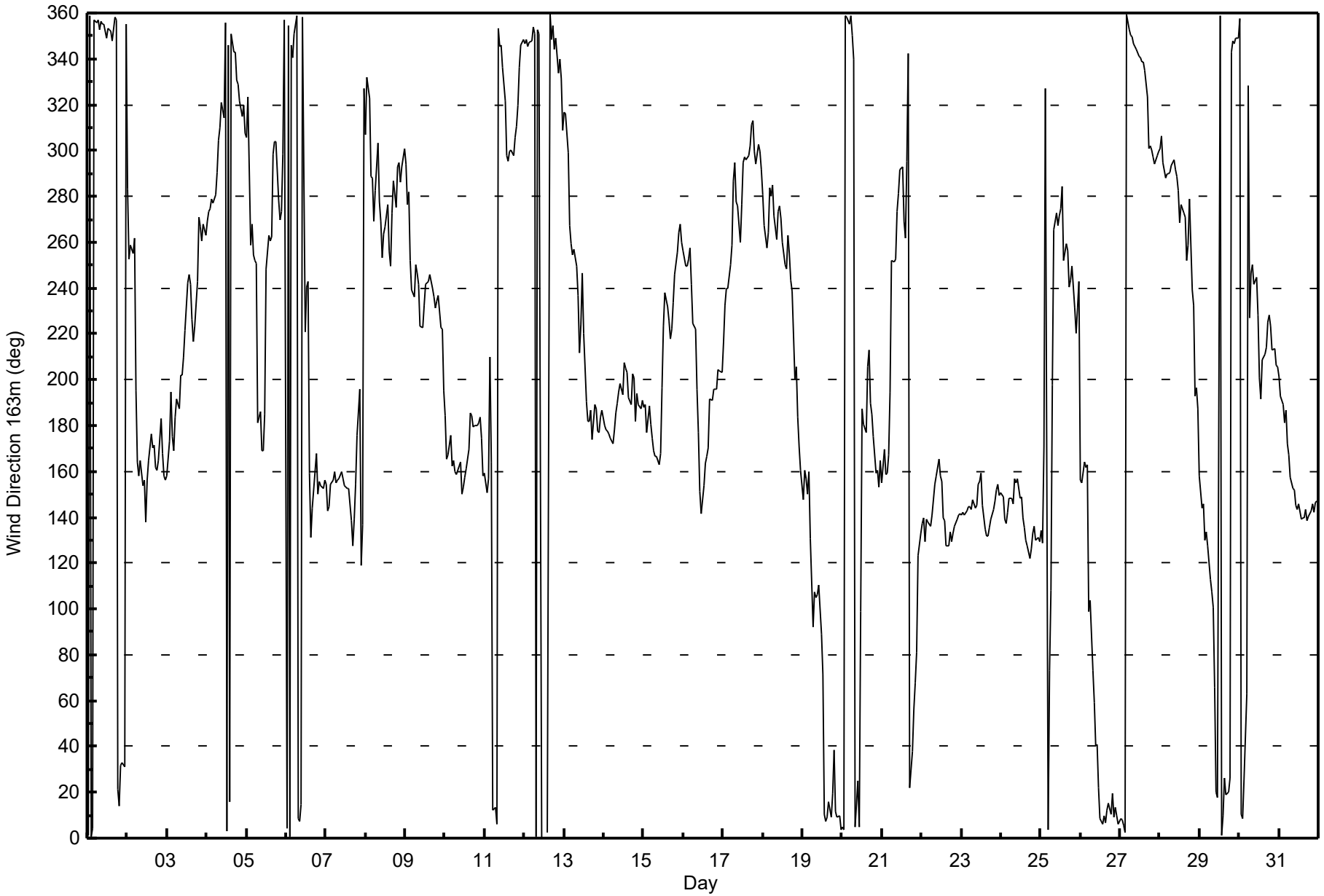
UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 163m (WD163) - deg

Lower Camp Met Tower - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 20m (VW20) - km/h

Lower Camp Met Tower - October 2025

Maximum Value: 0.3 km/h on Oct 16 03:00

Maximum Daily Average: -0.1 km/h on Oct 19

Minimum Value: -1.2 km/h on Oct 3 15:00

Minimum Daily Average: -0.6 km/h on Oct 31

Maximum Diurnal Average: -0.2 km/h at hour 6

Minimum Diurnal Average: -0.5 km/h at hour 15

Monthly Average: -0.30 km/h

Percentiles: P_1 = -1.0 P_{10} = -0.7 Q_1 = -0.5 Median = -0.3 Q_3 = -0.1 P_{90} = 0.0 P_{99} = 0.2

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	0
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	-0.1	0.0	-0.1	-0.2	-0.1	-0.1	-0.2	-0.2	-0.1	-0.2	-0.2	-0.4	-0.2	0.0	-0.5	-0.2	-0.3	-0.1	0.1	0.0	0.1	0.0	0.0	0.0	-0.1	0.1
2-Oct	0.0	0.0	0.0	0.0	0.2	0.0	-0.1	-0.2	-0.3	-0.2	-0.4	-0.3	-0.2	-0.3	-0.8	-0.4	-0.3	-0.3	-0.2	-0.3	-0.3	-0.3	-0.2	-0.3	-0.2	0.2
3-Oct	-0.7	-0.4	-0.4	-0.4	-0.4	-0.3	-0.5	-0.4	-0.1	-0.7	-0.8	-0.7	-0.8	-1.1	-1.2	-0.9	-0.6	-0.7	-0.5	-0.5	-0.6	-0.9	-0.5	-0.8	-0.6	-0.1
4-Oct	-0.8	-0.4	-0.3	-0.2	-0.2	-0.4	-0.1	-0.3	0.0	0.0	-0.3	-0.2	0.0	-0.1	-0.1	-0.3	-0.2	-0.1	-0.4	-0.5	-0.3	0.0	-0.1	0.0	-0.2	0.0
5-Oct	-0.4	0.0	-0.3	-0.3	0.1	0.0	0.1	-0.3	-0.4	-0.3	-0.6	-0.5	-0.4	-0.3	-0.4	-0.6	-0.1	-0.5	-0.5	-0.6	-0.6	-0.4	-0.1	-0.5	-0.3	0.1
6-Oct	-0.2	-0.2	-0.5	-0.1	-0.1	0.1	-0.1	0.1	-0.3	-0.1	-0.3	0.2	-0.2	-0.1	-0.1	-0.4	-0.1	-0.2	-0.2	-0.1	-0.2	-0.1	-0.2	-0.4	-0.2	0.2
7-Oct	-0.1	-0.1	-0.1	-0.4	-0.3	-0.1	-0.2	-0.4	-0.5	-0.6	-0.7	-0.6	-0.6	-0.5	-0.6	-0.2	-0.4	-0.2	-0.4	-0.1	0.1	0.0	-0.1	-0.1	-0.3	0.1
8-Oct	-0.1	-0.2	-0.1	0.0	-0.1	-0.4	-0.4	-0.6	-0.4	-0.2	-0.7	-0.7	-1.0	-0.5	-0.6	-0.5	-1.0	-0.4	-0.8	-0.5	-0.5	-0.4	-0.7	-0.4	-0.5	0.0
9-Oct	-0.3	-0.3	-0.4	-0.3	-0.4	-0.4	-0.2	-0.2	-0.4	-0.4	-0.2	-0.7	-0.8	-0.8	-0.9	-0.7	-0.5	-0.1	0.0	0.0	0.1	0.2	0.1	0.1	-0.3	0.2
10-Oct	-0.2	-0.2	0.1	0.0	-0.1	-0.3	-0.3	-0.3	-0.3	-0.2	-0.3	-0.3	-0.6	-0.6	-0.5	-1.1	-1.1	-0.5	-0.1	-0.2	-0.2	0.2	0.2	-0.1	-0.3	0.2
11-Oct	-0.1	-0.5	0.0	0.0	0.0	-0.1	-0.3	-0.1	-0.1	-0.2	0.0	-0.2	-0.5	-0.6	-0.6	-0.7	-0.5	-0.6	-0.8	-0.8	-0.6	-0.2	-0.1	-0.3	-0.3	0.0
12-Oct	-0.3	-0.2	-0.2	-0.2	-0.5	-0.5	-0.4	-0.4	-0.3	-0.4	-0.6	-0.4	-0.3	-0.2	-0.4	-0.1	-0.2	-0.2	-0.1	-0.1	-0.3	-0.1	-0.1	0.0	-0.3	0.0
13-Oct	0.0	-0.2	-0.1	-0.2	0.0	0.1	0.0	-0.1	-0.5	-0.3	-0.4	-0.7	-0.8	-0.8	-1.0	-1.1	-1.0	-0.6	-0.5	-0.4	-0.5	-0.5	-0.4	-0.5	-0.4	0.1
14-Oct	-0.4	-0.4	-0.6	-0.6	-0.7	-0.4	-0.6	-0.4	-0.8	-0.9	-0.9	-1.1	-0.8	-0.7	-0.7	-0.7	-0.6	-0.2	0.1	-0.5	-0.1	-0.1	-0.3	-0.3	-0.5	0.1
15-Oct	0.0	0.0	-0.4	-0.5	-0.5	-0.5	-0.4	-0.5	-0.5	-0.5	-0.4	-0.2	-0.6	-0.7	-0.6	-0.3	-0.5	0.0	-0.1	-0.2	-0.2	0.0	-0.1	-0.1	-0.3	0.0
16-Oct	0.2	-0.1	0.3	0.0	0.1	0.1	0.0	0.1	-0.4	-0.1	-0.3	-0.6	-0.4	-0.3	-0.2	-0.1	-0.4	-0.8	-0.5	-0.2	-0.7	-1.1	-0.9	-0.7	-0.3	0.3
17-Oct	-0.5	-0.3	-0.5	-0.5	-0.7	-0.4	-0.6	-0.3	-0.7	-1.0	-0.5	-0.2	-0.9	-0.8	-0.9	-0.7	-0.6	-0.5	-0.5	-0.1	-0.1	-0.3	-0.3	-0.3	-0.5	-0.1
18-Oct	-0.2	0.0	-0.1	-0.2	-0.2	-0.2	-0.1	-0.1	0.0	-0.5	-0.5	-0.2	-0.2	-0.5	-0.5	-0.3	-0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	-0.2	0.1
19-Oct	0.0	0.0	0.1	0.0	0.0	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1	-0.2	0.1	-0.1	0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.3	-0.2	-0.1	0.1
20-Oct	-0.4	-0.1	-0.3	-0.1	-0.2	0.0	0.0	-0.3	-0.1	-0.1	-0.1	-0.2	-0.2	0.0	-0.4	-0.4	-0.4	-0.3	-0.2	-0.2	-0.4	-0.5	-0.3	-0.5	-0.2	0.0
21-Oct	-0.2	-0.3	-0.4	-0.4	-0.4	0.0	0.1	0.1	0.3	-0.3	-0.2	-0.7	-0.7	-0.6	-0.6	-0.5	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	-0.2	0.3
22-Oct	0.1	0.0	0.0	0.0	-0.2	0.1	0.1	0.1	-0.2	-0.6	-0.6	-0.5	-0.3	-0.2	-0.4	-0.2	-0.5	-0.5	-0.3	-0.6	-0.7	-0.5	-0.5	-0.6	-0.3	0.1
23-Oct	-0.6	-0.6	-0.6	-0.4	-0.4	-0.6	-0.5	-0.4	-0.3	-0.3	-0.7	-0.5	-0.7	-0.6	-0.2	-0.1	-0.5	-0.7	-0.4	-0.3	-0.4	-0.5	-0.7	-0.3	-0.5	-0.1
24-Oct	-0.5	-0.6	0.0	-0.1	-0.2	-0.4	-0.1	-0.4	-0.1	-0.4	-0.3	-0.4	-0.4	-0.2	-0.2	-0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	-0.2	0.1
25-Oct	0.0	0.0	-0.2	0.0	-0.2	0.0	0.0	-0.1	0.1	0.0	-0.1	-0.3	-0.8	-0.6	-0.5	-0.7	-0.5	-0.3	-0.3	-0.2	0.1	0.1	0.1	0.0	-0.2	0.1
26-Oct	0.0	0.0	0.1	-0.1	0.0	0.0	-0.2	-0.1	0.0	0.0	-0.2	-0.2	-0.1	-0.4	-0.1	-0.1	-0.1	0.0	-0.2	-0.1	-0.2	0.1	0.1	-0.3	-0.1	0.1
27-Oct	0.0	-0.1	-0.4	-0.4	-0.5	0.0	-0.1	-0.3	-0.1	-0.3	-0.3	-0.1	0.0	-0.1	-0.4	-0.3	-0.7	-0.5	-0.6	-0.6	UO	-0.1	-0.3	-0.5	-0.3	0.0
28-Oct	-0.4	-0.7	UO	-0.8	UO	UO	UO	UO	UO	-0.4	-0.4	-0.4	-0.5	-0.6	-0.6	-0.4	-0.1	0.0	-0.3	0.0	-0.1	0.0	0.0	-0.1	-0.3	0.0
29-Oct	-0.1	-0.1	-0.4	-0.4	-0.4	-0.1	0.0	0.0	0.1	-0.1	-0.3	0.0	-0.3	-0.3	UO	UO	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	-0.2	-0.2	0.1
30-Oct	-0.1	-0.1	-0.1	0.0	-0.1	0.0	-0.1	-0.1	-0.1	-0.5	-0.6	-0.5	-0.7	-0.4	-0.2	-0.5	-0.5	-0.4	-0.4	-0.5	-0.3	-0.5	-0.4	-0.4	-0.3	0.0
31-Oct	-0.6	-0.4	-0.7	-0.5	-0.5	-0.5	-0.5	-0.1	-0.5	-0.4	-0.7	-0.7	-0.7	-0.6	-0.9	-0.8	-0.7	-0.8	-1.0	-0.9	-0.7	-0.6	-0.5	-0.4	-0.6	-0.1
	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.4	-0.4	-0.5	-0.4	-0.5	-0.5	-0.4	-0.3	-0.3	-0.3	-0.3	-0.2	-0.2	-0.3	Diurnal Average	
	0.2	0.0	0.3	0.0	0.2	0.1	0.1	0.1	0.3	0.0	0.0	0.2	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.2	0.2	0.1	Diurnal Maximum	

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Vertical Wind Speed 20m (VW20) - km/h

Lower Camp Met Tower - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 1
Maximum Value: 5.1 km/h on Oct 31 19:00

Minimum Value: 0.1 km/h on Oct 19 00:00

Percentiles: P_1 = 0.2 P_{10} = 0.7 Q_1 = 1.1 Median = 1.7 Q_3 = 2.3 P_{90} = 3.1 P_{99} = 4.4

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	0
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	1.7	1.3	1.3	1.6	2.4	2.5	2.2	2.4	2.4	2.2	2.7	3.0	2.1	2.1	1.8	1.7	1.7	0.7	0.5	0.2	0.4	0.5	0.2	0.2	3.0
2-Oct	0.1	0.4	0.3	0.4	0.5	0.5	1.2	1.1	1.8	1.4	1.2	1.4	2.0	1.9	1.6	1.5	1.1	1.0	1.3	1.7	2.0	1.9	1.2	1.3	2.0
3-Oct	1.6	1.5	1.7	1.6	1.3	2.1	2.0	1.7	1.4	1.9	2.5	2.8	3.4	3.5	3.6	3.0	1.8	2.2	2.0	2.3	2.7	2.7	2.3	2.5	3.6
4-Oct	2.7	2.3	2.1	2.4	2.3	2.9	2.6	1.7	1.2	1.6	1.9	1.5	1.5	1.9	1.7	2.3	3.3	3.3	2.0	1.6	1.4	2.0	1.8	1.5	3.3
5-Oct	1.8	0.9	1.8	1.8	1.4	1.1	0.8	1.5	1.4	1.6	1.8	1.6	2.2	2.0	1.9	2.0	0.9	1.7	1.7	2.4	2.7	2.0	1.8	3.1	3.1
6-Oct	2.6	2.0	3.0	3.3	2.2	1.7	1.5	1.9	2.3	1.9	1.7	1.6	1.7	1.8	1.6	1.8	1.9	1.1	1.0	1.9	1.7	1.8	2.3	1.7	3.3
7-Oct	1.3	1.4	1.2	1.2	1.4	1.1	1.3	1.7	1.8	2.1	1.9	2.0	2.1	2.1	1.9	2.1	1.9	2.1	1.7	1.1	0.8	0.5	0.6	1.0	2.1
8-Oct	0.5	0.9	0.6	0.8	2.2	1.4	2.1	2.4	2.4	2.2	2.1	3.0	3.1	2.8	2.7	1.8	3.4	2.2	2.6	2.9	3.1	2.7	2.8	2.2	3.4
9-Oct	1.6	1.6	1.8	1.5	1.1	1.3	1.2	1.5	1.6	1.6	1.6	1.9	2.7	2.8	2.2	2.0	1.5	0.7	0.3	0.2	0.5	0.5	1.1	1.2	2.8
10-Oct	1.0	0.9	0.8	0.6	0.9	1.3	1.1	1.4	1.2	1.8	1.6	1.7	2.3	2.1	2.0	2.4	1.9	1.4	1.6	1.8	2.2	2.1	2.0	0.8	2.4
11-Oct	0.9	1.4	1.0	0.5	0.3	1.4	1.4	1.2	2.2	2.9	2.7	2.3	2.0	3.4	3.7	2.7	2.2	2.9	2.9	2.7	2.4	3.1	3.6	4.4	4.4
12-Oct	3.4	3.3	3.6	3.8	3.8	3.5	4.1	3.0	2.2	3.0	3.1	2.7	3.1	3.7	3.1	3.3	1.9	1.9	2.0	1.6	1.1	0.6	0.6	0.7	4.1
13-Oct	1.4	1.3	0.9	1.5	0.8	1.1	1.0	1.1	1.3	1.6	2.2	2.5	2.2	2.3	2.2	2.3	1.7	1.8	1.5	1.5	1.8	1.9	1.8	2.1	2.5
14-Oct	2.2	2.1	2.1	2.2	2.0	2.2	2.0	1.7	2.2	2.5	2.6	2.0	2.4	2.2	2.1	1.5	1.4	0.9	1.2	1.4	1.3	1.4	1.5	1.6	2.6
15-Oct	1.8	1.8	2.0	1.8	1.8	1.7	1.8	1.6	2.1	2.3	2.7	1.8	2.2	1.7	1.7	1.5	1.4	0.7	0.9	0.8	0.7	1.4	1.5	1.5	2.7
16-Oct	1.5	1.0	1.4	1.2	1.0	0.9	1.4	1.3	1.8	2.0	1.9	2.2	2.5	1.7	1.7	1.3	1.3	1.2	1.4	1.4	1.6	2.6	2.0	1.7	2.6
17-Oct	1.4	1.9	2.2	2.4	2.6	2.5	2.5	2.3	2.4	2.7	2.4	2.0	3.3	3.1	3.6	2.9	2.7	1.9	1.6	1.0	0.7	0.7	1.0	0.8	3.6
18-Oct	1.2	1.7	1.3	1.7	1.9	1.8	1.4	1.2	2.4	1.6	1.2	1.8	2.1	1.9	1.8	1.9	1.0	0.4	0.4	0.3	0.3	0.2	0.2	0.1	2.4
19-Oct	0.3	0.4	0.2	0.2	0.2	0.4	0.8	0.6	0.7	0.9	0.9	1.1	1.2	1.2	1.2	1.3	1.5	1.5	1.1	1.2	1.5	1.7	1.6	2.0	2.0
20-Oct	1.7	1.9	1.5	1.5	1.6	1.5	1.2	1.6	0.9	0.8	0.9	0.8	1.0	1.2	1.3	1.2	1.0	0.8	1.0	1.1	1.8	2.5	2.6	1.8	2.6
21-Oct	1.6	1.8	1.6	1.7	1.9	1.5	0.7	0.9	2.0	1.3	1.8	2.9	2.5	2.6	2.8	2.4	2.2	1.7	1.2	0.8	0.5	0.3	0.2	0.3	2.9
22-Oct	0.4	0.5	0.5	0.4	0.8	0.5	0.6	0.8	1.4	1.4	1.6	1.6	1.7	1.6	1.4	1.7	2.3	2.5	3.2	3.3	3.4	3.8	3.7	4.0	4.0
23-Oct	4.3	4.6	4.1	3.6	3.0	3.3	3.3	2.8	2.6	2.3	2.6	2.0	1.6	1.9	2.5	2.0	2.7	3.2	2.9	2.8	3.0	2.6	2.6	3.1	4.6
24-Oct	2.6	2.7	2.3	2.5	2.1	1.2	1.4	0.9	0.8	1.3	1.9	1.6	1.4	1.6	0.9	1.7	0.9	0.7	0.5	0.7	1.4	0.9	0.7	0.5	2.7
25-Oct	0.5	0.4	0.6	1.0	0.9	0.3	0.3	0.5	1.0	0.3	1.2	1.8	2.6	2.5	2.6	3.0	2.7	1.6	1.4	1.0	0.8	0.7	0.6	0.7	3.0
26-Oct	0.3	0.2	0.7	0.9	0.5	0.4	0.8	0.5	0.6	1.2	1.2	1.4	1.8	2.2	2.1	1.5	2.1	3.2	3.6	3.7	4.0	4.2	4.0	3.9	4.2
27-Oct	4.0	4.0	3.8	3.9	3.8	3.9	4.2	4.2	4.2	4.1	4.1	4.1	4.1	4.1	3.9	2.8	2.5	2.9	2.5	2.7	UO	3.5	2.7	2.7	4.2
28-Oct	2.6	1.9	UO	3.5	UO	UO	UO	UO	UO	2.0	2.6	2.3	2.4	2.5	2.2	1.8	1.2	1.1	1.0	0.7	0.7	0.6	0.6	0.9	3.5
29-Oct	0.7	1.1	1.8	2.1	2.8	2.0	1.2	0.9	0.9	1.1	1.8	1.5	1.2	1.4	UO	UO	1.7	1.7	1.1	1.5	1.5	1.3	1.0	0.5	2.8
30-Oct	0.9	0.4	0.2	0.7	0.8	0.4	0.3	0.2	0.8	1.2	1.8	1.3	1.0	1.2	0.9	1.2	1.2	0.9	1.0	1.0	0.8	1.1	0.9	0.9	1.8
31-Oct	1.2	1.1	1.2	1.1	1.1	1.4	1.5	1.1	1.9	2.2	3.0	3.6	3.4	4.2	4.6	5.1	4.5	5.0	5.1	4.5	3.7	4.1	3.6	2.8	5.1
	4.3	4.6	4.1	3.9	3.8	3.9	4.2	4.2	4.2	4.1	4.1	4.1	4.1	4.2	4.6	5.1	4.5	5.0	5.1	4.5	4.0	4.2	4.0	4.4	
	Diurnal Maximum																								

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 45m (VW45) - km/h

Lower Camp Met Tower - October 2025

Maximum Value: 1.9 km/h on Oct 18 09:00

Maximum Daily Average: 0.7 km/h on Oct 23

Minimum Value: -0.8 km/h on Oct 11 19:00

Minimum Daily Average: -0.2 km/h on Oct 11

Maximum Diurnal Average: 0.3 km/h at hour 22

Minimum Diurnal Average: 0.1 km/h at hour 13

Monthly Average: 0.19 km/h

Percentiles: P_1 = -0.6 P_{10} = -0.2 Q_1 = 0.0 Median = 0.2 Q_3 = 0.4 P_{90} = 0.6 P_{99} = 1.1

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	0
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.1	0.1	0.0	-0.1	0.1	-0.1	-0.1	-0.1	0.1	-0.2	-0.2	0.1	0.0	-0.1	-0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.0	0.2
2-Oct	0.2	0.2	0.2	0.3	0.7	0.4	0.4	0.1	0.1	0.1	0.2	0.3	0.5	0.3	0.0	0.3	0.3	0.3	0.4	0.2	0.5	0.2	0.3	0.2	0.3	0.7
3-Oct	-0.5	-0.1	0.1	0.0	-0.1	0.3	0.5	0.1	0.3	0.1	0.2	0.4	0.4	0.2	0.4	0.4	0.3	0.3	0.4	-0.2	0.0	0.0	0.1	-0.1	0.1	0.5
4-Oct	0.0	0.3	0.3	0.9	0.9	0.5	0.7	0.2	0.0	0.4	-0.2	0.0	0.2	0.0	0.3	-0.2	-0.3	-0.2	-0.4	-0.5	-0.3	0.1	0.0	0.3	0.1	0.9
5-Oct	0.2	0.0	0.6	0.5	1.1	0.6	0.4	0.0	-0.1	0.0	0.0	0.3	-0.1	0.2	0.1	0.2	0.1	-0.5	-0.4	0.0	0.4	0.4	0.4	-0.1	0.2	1.1
6-Oct	0.0	0.1	-0.2	0.1	-0.1	0.2	0.4	0.2	0.1	0.1	-0.1	0.8	0.1	0.3	0.4	0.0	0.3	0.5	0.5	0.4	0.3	0.3	0.3	0.0	0.2	0.8
7-Oct	0.0	0.0	0.3	0.4	0.5	0.5	0.1	0.1	0.2	0.0	0.3	0.2	0.4	0.3	0.6	0.6	0.2	0.4	0.2	0.6	0.5	0.2	-0.1	0.0	0.3	0.6
8-Oct	0.0	0.0	0.0	0.1	0.2	0.2	0.2	-0.6	0.0	0.4	0.2	0.0	-0.4	0.2	0.3	0.2	-0.3	0.1	-0.3	-0.4	-0.5	-0.2	-0.5	-0.4	-0.1	0.4
9-Oct	-0.3	0.3	-0.2	0.4	0.3	0.2	0.5	0.6	0.4	0.6	0.4	0.1	0.2	0.2	0.0	0.2	0.3	0.3	0.1	0.1	0.2	0.5	0.8	0.9	0.3	0.9
10-Oct	0.2	0.0	0.4	0.4	0.2	0.0	0.0	0.1	0.3	0.2	0.5	0.1	0.1	0.2	0.2	0.1	-0.2	-0.2	0.1	0.5	0.7	1.1	1.0	0.1	0.3	1.1
11-Oct	0.3	0.0	0.4	0.2	0.2	0.0	-0.1	0.0	0.0	-0.1	-0.1	-0.4	-0.4	-0.5	-0.5	-0.5	-0.4	-0.5	-0.8	-0.6	-0.3	-0.3	-0.4	-0.1	-0.2	0.4
12-Oct	-0.1	-0.1	-0.2	-0.1	-0.3	0.2	-0.2	0.3	0.0	0.0	0.1	-0.1	0.1	0.3	0.3	0.4	0.1	0.2	0.0	0.2	-0.2	0.0	0.0	0.1	0.0	0.4
13-Oct	-0.1	-0.2	-0.1	0.1	0.7	0.8	0.5	0.7	-0.1	0.6	0.6	0.1	0.0	0.2	-0.2	-0.2	-0.1	-0.4	-0.3	-0.2	-0.1	-0.1	0.1	0.3	0.1	0.8
14-Oct	0.2	0.4	0.3	0.3	0.1	0.2	-0.2	-0.1	-0.1	0.1	0.1	-0.4	0.3	0.2	0.1	0.0	-0.2	0.1	0.8	0.0	0.0	0.2	0.2	0.0	0.1	0.8
15-Oct	0.6	0.9	0.3	0.0	-0.1	0.1	-0.2	0.1	-0.2	0.0	0.4	0.2	0.4	0.1	0.3	0.5	0.2	0.3	0.0	0.2	0.4	0.8	0.6	0.6	0.3	0.9
16-Oct	1.0	0.2	0.4	0.1	0.3	0.6	0.7	0.5	-0.1	0.4	0.2	0.1	0.3	0.3	0.5	0.3	-0.1	-0.4	0.1	0.1	-0.4	-0.1	0.1	0.3	0.2	1.0
17-Oct	0.4	0.4	0.4	0.4	0.1	0.1	0.0	-0.4	-0.1	-0.2	0.5	0.2	-0.7	-0.5	-0.7	-0.5	-0.6	-0.4	-0.2	0.2	0.4	0.0	-0.2	-0.2	-0.1	0.5
18-Oct	0.4	1.0	0.4	0.6	0.8	0.8	1.1	0.6	1.9	0.6	0.1	0.2	0.2	0.0	0.0	0.0	0.5	0.1	0.1	0.2	0.3	0.4	0.3	0.3	0.5	1.9
19-Oct	0.3	0.4	0.3	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.1	-0.1	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4
20-Oct	0.2	0.1	0.1	0.0	0.0	0.2	0.0	-0.2	0.2	0.2	0.1	0.1	0.0	0.3	0.3	0.1	0.1	0.1	0.1	0.0	0.3	0.4	0.9	0.1	0.1	0.9
21-Oct	0.5	0.6	0.3	0.2	0.3	0.4	0.2	0.3	1.4	0.3	0.4	-0.7	-0.7	-0.1	0.0	-0.2	0.1	0.4	0.4	0.2	0.3	0.3	0.2	0.3	0.2	1.4
22-Oct	0.3	0.4	0.0	0.2	-0.1	0.2	0.3	0.5	0.3	0.0	0.2	-0.1	0.4	0.2	0.1	0.8	0.2	0.3	0.6	0.3	0.3	0.5	0.5	0.4	0.3	0.8
23-Oct	0.5	0.7	0.7	0.8	0.6	0.7	0.7	0.7	0.6	0.6	0.5	1.0	0.5	0.2	0.8	0.9	0.5	0.3	0.7	0.8	0.5	0.8	0.9	0.7	0.7	1.0
24-Oct	0.5	0.4	0.9	0.9	0.8	0.1	0.3	-0.2	0.5	0.2	0.3	0.1	0.0	0.1	0.1	0.7	0.5	0.2	0.2	0.4	0.7	0.4	0.3	0.3	0.4	0.9
25-Oct	0.3	0.3	-0.2	0.1	0.0	0.1	0.1	0.1	0.3	0.1	0.2	0.5	0.1	-0.3	0.4	0.0	0.3	0.2	0.4	0.3	0.3	0.4	0.5	0.5	0.2	0.5
26-Oct	0.4	0.3	0.5	0.2	0.3	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.3	-0.1	0.4	0.1	0.2	0.4	0.6	0.2	0.6	0.7	0.6	0.8	0.3	0.8
27-Oct	0.8	0.7	0.6	0.5	0.4	0.3	0.1	-0.2	0.0	-0.2	-0.1	-0.3	0.0	0.0	-0.3	0.0	-0.6	-0.6	-0.6	-0.3	1.5	UO	UO	0.3	0.1	1.5
28-Oct	-0.2	-0.6	-0.5	-0.7	-0.1	-0.1	-0.2	-0.3	-0.1	-0.3	-0.2	0.1	-0.2	-0.1	-0.1	0.1	0.3	0.3	0.0	0.3	0.1	0.6	0.2	0.2	-0.1	0.6
29-Oct	-0.1	0.3	0.4	0.2	0.4	0.4	0.5	0.0	0.2	0.1	0.0	0.3	-0.1	0.0	UO	UO	UO	0.3	0.2	-0.2	UO	-0.1	-0.1	UO	0.1	0.5
30-Oct	UO	UO	0.0	0.2	0.1	0.2	0.1	0.1	0.4	0.3	0.2	0.4	-0.2	0.0	0.2	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.4
31-Oct	0.0	0.0	-0.2	-0.2	0.0	-0.1	0.0	0.3	0.7	0.6	0.7	0.7	1.0	0.5	0.9	1.0	1.2	0.8	1.1	1.2	1.3	0.8	0.9	0.9	0.6	1.3
	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.2	Diurnal Average	
	1.0	1.0	0.9	0.9	1.1	0.8	1.1	0.7	1.9	0.6	0.7	1.0	1.0	0.5	0.9	1.0	1.2	0.8	1.1	1.2	1.5	1.1	1.0	0.9	Diurnal Maximum	

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Vertical Wind Speed 45m (VW45) - km/h

Lower Camp Met Tower - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 4.5 km/h on Oct 12 00:00

Minimum Value: 0.1 km/h on Oct 30 03:00

Percentiles: P_1 = 0.3 P_{10} = 0.8 Q_1 = 1.1 Median = 1.6 Q_3 = 2.3 P_{90} = 2.8 P_{99} = 4.0

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	0
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	1.6	1.5	1.5	1.5	2.3	2.5	2.2	2.4	2.1	2.3	2.5	3.0	2.2	2.2	1.8	1.7	1.7	0.9	0.6	0.2	0.5	0.9	0.3	0.3	3.0
2-Oct	0.2	0.6	0.4	0.5	0.4	0.5	0.9	1.1	1.5	1.5	1.1	1.1	2.0	2.3	1.8	1.8	1.2	1.0	1.1	1.2	1.9	1.6	1.6	1.5	2.3
3-Oct	1.4	1.3	1.2	1.3	1.2	1.2	1.1	1.2	1.5	2.3	2.9	3.2	3.1	3.0	3.4	3.4	2.0	2.5	2.4	2.4	2.9	2.2	2.1	2.2	3.4
4-Oct	2.0	2.2	2.0	2.3	2.6	2.8	2.4	2.0	1.2	1.8	1.8	1.6	1.6	1.6	1.5	2.3	3.3	3.2	2.0	1.6	1.5	2.0	2.0	1.6	3.3
5-Oct	1.8	1.0	1.5	1.6	1.4	1.2	1.0	1.4	1.4	1.4	1.7	1.9	2.2	2.2	1.8	1.9	1.2	1.5	1.5	2.2	2.3	1.9	1.9	2.6	2.6
6-Oct	2.3	1.9	2.6	3.2	2.3	1.8	1.6	1.8	1.9	1.8	1.9	1.8	2.0	2.1	1.7	1.9	1.6	0.9	0.9	1.6	1.8	2.1	2.2	1.7	3.2
7-Oct	1.5	1.6	1.5	1.2	1.1	1.0	1.2	1.6	1.4	1.7	2.3	2.3	2.3	2.0	1.7	2.0	1.1	1.9	1.5	1.2	1.0	0.8	0.5	0.9	2.3
8-Oct	0.5	0.7	0.8	1.1	2.4	1.6	2.0	2.2	2.3	2.3	1.9	2.9	2.9	3.1	2.6	1.6	3.5	2.3	2.8	3.2	3.2	2.7	2.7	2.3	3.5
9-Oct	1.7	1.9	2.1	1.6	1.3	1.4	1.3	1.5	1.7	1.8	1.7	1.8	2.3	2.5	1.9	1.9	1.3	0.8	0.6	0.5	0.7	0.8	1.1	0.8	2.5
10-Oct	0.8	0.7	0.7	0.8	0.8	1.2	1.2	1.2	1.1	1.1	0.9	1.5	2.3	2.0	2.2	2.6	2.1	1.5	1.8	1.9	2.2	2.4	2.2	1.1	2.6
11-Oct	0.6	1.2	1.0	0.4	0.3	1.0	1.5	1.3	2.3	2.8	2.7	2.8	2.2	3.2	3.5	2.8	2.1	2.6	2.7	2.8	2.7	3.5	3.7	4.5	4.5
12-Oct	3.5	3.1	3.5	3.7	3.7	3.2	3.6	2.7	1.9	2.8	2.5	2.3	2.7	3.0	2.6	2.7	2.0	1.9	2.0	1.6	1.0	0.7	0.5	0.8	3.7
13-Oct	1.5	1.4	1.0	1.3	0.8	1.0	1.0	1.0	1.3	2.0	2.6	2.3	2.4	3.0	2.6	2.7	1.9	1.9	1.6	1.7	2.0	1.9	2.0	2.2	3.0
14-Oct	2.2	2.4	2.1	2.4	2.2	2.1	2.5	2.0	2.6	2.9	3.1	2.4	2.8	2.8	2.4	1.8	1.5	0.9	1.3	1.4	1.6	1.1	0.9	0.9	3.1
15-Oct	0.9	0.9	1.1	1.3	1.5	1.4	2.0	1.8	2.0	2.2	2.2	1.6	2.5	1.7	1.8	1.7	1.6	1.1	1.2	1.0	0.6	2.0	2.2	1.9	2.5
16-Oct	1.9	1.3	1.6	1.5	1.3	1.0	0.9	0.8	0.8	1.4	1.4	1.6	2.1	2.0	1.9	1.5	1.7	1.5	1.5	1.4	1.8	3.1	2.3	1.9	3.1
17-Oct	1.8	2.1	2.4	2.5	2.3	2.2	2.1	1.9	2.5	2.8	2.1	2.2	2.9	3.2	3.6	3.0	2.5	1.6	1.3	1.2	0.8	0.8	1.1	1.0	3.6
18-Oct	1.5	1.8	1.8	2.2	1.9	1.5	1.2	1.3	2.2	1.4	1.3	2.0	2.1	1.9	1.8	1.8	0.8	0.6	0.3	0.4	0.6	0.3	0.3	0.3	2.2
19-Oct	0.6	0.5	0.4	0.3	0.2	0.3	0.6	0.5	0.7	0.8	0.8	0.8	1.2	1.2	1.3	1.4	1.4	1.3	1.0	1.1	1.4	1.6	1.3	1.5	1.6
20-Oct	1.6	1.5	1.4	1.3	1.4	1.3	1.2	1.6	0.9	0.9	0.9	0.9	1.1	1.3	1.4	1.6	1.2	1.1	1.1	1.3	2.1	2.6	2.8	2.1	2.8
21-Oct	1.6	1.8	1.4	1.5	2.0	1.8	0.8	1.1	1.6	1.3	2.0	2.5	2.1	2.1	2.4	2.5	2.3	1.6	1.3	1.1	0.6	0.4	0.4	0.4	2.5
22-Oct	0.4	0.6	0.6	0.4	0.9	0.8	1.1	1.3	1.5	1.1	1.5	1.6	1.6	1.6	1.4	1.8	1.8	1.8	2.4	2.6	2.6	2.5	2.4	2.8	2.8
23-Oct	3.0	2.6	2.8	2.9	2.3	2.1	1.8	2.0	2.1	1.9	1.8	1.9	1.6	1.6	2.0	2.2	2.0	2.2	2.1	2.0	2.3	2.1	1.9	2.2	3.0
24-Oct	2.1	2.0	2.1	2.0	1.5	1.1	1.2	1.0	0.7	0.8	1.3	1.3	1.2	1.3	1.0	1.8	1.1	1.0	0.8	1.1	1.3	1.1	1.3	0.7	2.1
25-Oct	0.8	0.7	0.5	0.8	0.8	0.4	0.3	0.7	1.2	0.5	1.6	1.8	2.5	2.5	2.2	2.6	2.7	1.9	1.5	1.0	1.2	0.9	0.9	0.9	2.7
26-Oct	0.5	0.4	0.7	0.8	0.5	0.3	0.5	0.4	0.7	1.0	1.0	1.2	1.7	1.8	1.9	1.4	1.8	2.9	2.9	3.0	3.2	3.6	3.3	3.3	3.6
27-Oct	3.1	3.2	3.1	3.1	3.2	3.8	4.1	4.0	4.3	4.2	4.1	4.1	4.1	4.3	4.0	3.0	2.5	2.6	2.5	2.8	3.2	UO	UO	2.6	4.3
28-Oct	2.3	1.6	2.5	3.3	2.9	2.9	2.6	2.6	2.0	2.1	2.5	2.5	2.4	2.6	2.0	1.9	1.3	1.4	1.2	1.1	0.9	0.9	0.9	1.1	3.3
29-Oct	0.8	1.5	1.7	1.8	1.9	1.8	1.2	0.9	1.0	1.3	1.2	1.2	1.0	1.1	UO	UO	UO	1.3	1.2	1.5	UO	1.2	1.1	UO	1.9
30-Oct	UO	UO	0.1	0.7	0.7	0.5	0.3	0.3	0.8	1.2	2.1	1.6	1.1	1.3	1.0	1.5	1.3	1.0	1.0	0.9	0.8	1.2	1.1	1.1	2.1
31-Oct	1.3	1.3	1.4	1.2	1.2	1.6	1.8	1.2	1.7	2.0	2.5	2.7	2.8	2.9	2.8	3.0	3.3	3.1	3.4	3.5	3.0	2.7	2.7	2.3	3.5
	3.5	3.2	3.5	3.7	3.7	3.8	4.1	4.0	4.3	4.2	4.1	4.1	4.1	4.3	4.0	3.4	3.5	3.2	3.4	3.5	3.2	3.6	3.7	4.5	
	Diurnal Maximum																								

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 100m (VW100) - km/h

Lower Camp Met Tower - October 2025

Maximum Value: 3.8 km/h on Oct 16 00:00

Maximum Daily Average: 1.3 km/h on Oct 23

Minimum Value: -1.5 km/h on Oct 17 17:00

Minimum Daily Average: -0.4 km/h on Oct 11

Maximum Diurnal Average: 0.4 km/h at hour 23

Minimum Diurnal Average: 0.0 km/h at hour 14

Monthly Average: 0.17 km/h

Percentiles: P_1 = -1.2 P_{10} = -0.6 Q_1 = -0.2 Median = 0.1 Q_3 = 0.4 P_{90} = 1.1 P_{99} = 2.4

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Hours of Calibration:	0
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.1	-0.1	0.1	0.0	0.3	-0.1	-0.1	0.0	-0.3	-0.4	0.3	0.1	0.0	-0.3	0.0	0.0	-0.1	-0.1	0.0	-0.1	0.1	0.0	0.0	0.3
2-Oct	0.0	0.1	0.1	0.1	0.2	0.2	0.0	0.0	0.3	0.1	0.2	0.1	1.1	0.3	-0.4	0.2	0.1	0.4	0.7	1.0	0.9	1.1	1.4	0.7	0.4	1.4
3-Oct	-1.0	-0.6	-0.8	-0.3	-0.2	1.1	-0.1	-0.3	0.3	0.1	0.0	0.1	0.4	0.0	0.1	0.1	0.0	0.1	0.2	-0.4	-0.3	0.0	0.0	-0.3	-0.1	1.1
4-Oct	-0.3	0.6	0.6	1.5	2.9	0.7	1.6	0.8	-0.3	0.6	-0.6	-0.3	0.0	0.0	0.1	-0.1	-0.6	-0.6	-0.7	-0.9	-0.4	0.0	-0.3	0.5	0.2	2.9
5-Oct	0.2	-0.4	0.7	0.9	1.3	1.1	0.5	-0.3	-0.4	-0.2	0.4	0.3	-0.4	-0.1	-0.1	0.2	-0.2	-1.0	-1.0	-0.1	0.4	0.3	0.6	0.1	0.1	1.3
6-Oct	-0.1	0.2	0.1	-0.4	-0.3	-0.2	0.5	0.2	0.2	-0.1	-0.3	0.8	-0.4	-0.2	0.6	0.1	0.6	0.4	0.5	0.7	1.2	1.5	0.8	0.7	0.3	1.5
7-Oct	1.1	0.6	0.8	0.3	0.8	0.8	0.7	0.7	0.6	0.2	1.0	0.7	1.2	1.3	1.6	1.5	0.0	0.9	1.1	1.0	0.1	0.3	-0.1	-0.2	0.7	1.6
8-Oct	-0.3	-0.4	-0.3	-0.1	0.3	-0.1	0.1	-1.1	0.2	0.3	0.1	-0.3	-0.6	0.3	0.0	0.0	-0.6	-0.1	-0.3	-0.9	-0.7	-0.4	-1.0	-0.7	-0.3	0.3
9-Oct	-0.3	0.2	-0.2	0.3	0.2	0.0	0.2	1.1	0.4	0.5	0.4	-0.1	0.0	0.0	-0.4	0.0	0.1	0.3	0.0	0.0	0.1	0.0	-0.4	0.0	0.1	1.1
10-Oct	0.0	0.1	0.3	0.3	0.3	-0.3	-0.1	0.5	0.0	0.2	1.0	0.0	0.0	-0.1	-0.2	-0.3	-0.6	-0.8	-0.5	0.2	1.1	1.9	2.3	0.1	0.2	2.3
11-Oct	0.9	0.5	0.5	0.1	0.0	0.1	-0.4	-0.1	-0.2	-0.5	-0.3	-0.9	-0.7	-1.1	-1.2	-0.9	-0.7	-1.0	-1.1	-1.0	-0.9	-0.2	-0.7	-0.8	-0.4	0.9
12-Oct	-0.5	-0.5	-0.5	-0.6	-0.5	0.3	-0.1	0.3	0.1	0.0	0.2	UO	UO	-0.1	0.4	0.1	0.1	0.5	-0.2	0.3	-0.5	-0.1	-0.4	-0.1	-0.1	0.5
13-Oct	-0.5	-0.3	-0.6	0.1	0.5	0.6	0.3	0.4	-0.1	0.5	0.3	0.1	-0.2	0.6	-0.3	-0.5	-0.3	-0.7	-0.8	-0.9	-0.7	-0.6	-0.4	-0.4	-0.2	0.6
14-Oct	0.0	0.1	0.2	0.2	0.1	-0.1	0.0	-0.1	-0.1	0.1	-0.5	-0.5	-0.1	0.4	-0.1	-0.1	-0.2	0.6	1.3	0.1	-1.1	-0.3	-0.1	-0.2	0.0	1.3
15-Oct	0.4	0.8	0.3	-0.4	-0.4	0.2	-0.8	-0.7	-0.6	0.0	0.9	0.3	0.0	-0.2	0.2	0.2	0.3	0.4	-0.2	0.1	0.4	2.7	3.0	3.8	0.4	3.8
16-Oct	3.0	1.3	0.4	0.0	0.0	-0.2	-0.3	-0.2	0.1	0.2	0.9	1.1	0.8	0.7	0.1	0.1	-0.4	-0.5	0.0	-0.1	-0.5	-0.2	0.4	0.6	0.3	3.0
17-Oct	0.9	0.5	0.4	0.3	0.1	-0.2	-0.4	-1.0	-0.3	-0.5	0.1	0.0	-1.5	-1.1	-1.3	-1.2	-1.5	-1.1	-0.7	0.1	0.4	0.1	-0.3	-0.3	-0.3	0.9
18-Oct	0.1	1.7	0.8	2.1	1.2	0.9	1.1	1.0	3.7	0.6	0.1	-0.3	0.1	-0.3	-0.2	-0.4	0.2	0.5	0.1	0.0	-0.1	0.1	0.1	0.4	0.6	3.7
19-Oct	0.5	0.1	0.1	0.0	0.0	0.0	-0.1	0.0	-0.1	0.1	-0.2	-0.2	0.0	0.1	0.1	0.2	0.2	0.1	0.3	0.3	0.1	0.0	0.3	0.0	0.1	0.5
20-Oct	0.0	-0.1	0.1	-0.2	-0.2	-0.1	0.0	-0.5	0.3	0.2	-0.1	0.0	0.0	0.2	0.3	-0.1	0.0	-0.3	-0.4	-0.5	0.6	1.1	1.7	0.1	0.1	1.7
21-Oct	1.3	0.6	0.9	0.5	0.9	0.2	0.1	0.3	2.0	0.6	0.3	-1.3	-1.3	-0.5	-0.2	-0.3	-0.2	0.6	0.6	-0.1	-0.2	0.0	0.2	0.3	0.2	2.0
22-Oct	0.1	0.1	0.0	0.1	-0.2	0.1	0.3	0.6	0.5	0.2	0.1	-0.2	0.5	-0.1	0.3	1.5	0.4	0.1	1.0	0.1	0.2	0.0	0.5	0.6	0.3	1.5
23-Oct	0.5	0.7	1.0	1.8	1.6	1.2	0.8	1.6	1.4	1.4	1.6	2.4	1.3	0.3	1.4	1.7	0.4	0.2	0.9	1.6	1.4	2.2	1.8	1.9	1.3	2.4
24-Oct	1.7	1.6	1.8	1.3	1.1	0.2	1.2	-0.2	0.7	0.8	0.6	0.1	-0.6	0.0	-0.1	1.2	1.1	0.5	0.4	0.7	1.0	1.0	1.1	0.2	0.7	1.8
25-Oct	0.2	0.2	-0.1	-0.1	-0.1	0.1	0.0	-0.1	0.4	0.0	0.3	0.7	0.1	-0.4	0.1	-0.2	0.2	0.2	0.2	0.1	-0.1	-0.3	0.0	0.5	0.1	0.7
26-Oct	0.2	0.2	0.2	0.2	0.3	0.0	0.0	-0.1	0.0	0.1	-0.3	-0.2	0.6	0.1	0.3	0.2	0.1	0.1	0.4	0.1	0.5	0.5	0.4	0.7	0.2	0.7
27-Oct	0.8	0.5	0.6	0.3	0.7	0.1	0.1	0.1	-0.4	-0.1	-0.7	-1.0	-0.9	-0.9	-1.1	-0.3	UO	UO	-1.0	-0.9	-1.1	-1.0	-0.9	-1.2	-0.4	0.8
28-Oct	-0.9	-1.0	-1.3	-1.5	-1.1	-0.6	-1.1	-1.1	-0.9	-0.7	-0.8	-0.2	0.1	0.0	-0.3	0.2	0.5	0.7	0.1	0.4	0.0	0.7	0.4	-0.3	-0.4	0.7
29-Oct	-0.3	0.4	0.8	0.4	0.0	0.4	1.1	-0.1	0.1	-0.4	-0.3	0.1	-0.2	-0.1	-0.1	0.2	0.1	0.2	0.3	-0.1	-0.3	-0.3	-0.1	-0.2	0.1	1.1
30-Oct	-0.1	-0.1	0.0	-0.1	0.0	0.0	-0.1	-0.1	0.2	0.0	-0.2	0.5	-0.3	-0.1	0.0	-0.3	-0.2	-0.1	0.0	-0.2	-0.2	-0.3	-0.1	-0.1	-0.1	0.5
31-Oct	-0.3	-0.2	-0.2	-0.3	-0.1	-0.4	0.1	1.1	2.2	1.6	2.1	2.2	2.5	1.1	0.9	1.0	1.8	1.0	1.0	1.7	2.8	1.4	1.9	1.7	1.1	2.8
	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.4	0.4	0.3	Diurnal Average	
	3.0	1.7	1.8	2.1	2.9	1.2	1.6	1.6	3.7	1.6	2.1	2.4	2.5	1.3	1.6	1.7	1.8	1.0	1.3	1.7	2.8	2.7	3.0	3.8	Diurnal Maximum	

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Vertical Wind Speed 100m (VW100) - km/h

Lower Camp Met Tower - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 4.6 km/h on Oct 12 00:00

Minimum Value: 0.2 km/h on Oct 26 06:00

Percentiles: P_1 = 0.3 P_{10} = 0.7 Q_1 = 1.2 Median = 1.6 Q_3 = 2.2 P_{90} = 2.8 P_{99} = 3.9

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Hours of Calibration:	0
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	0.9	1.1	1.3	1.4	1.9	2.4	2.0	2.1	2.0	2.1	2.1	2.8	2.2	2.3	1.9	1.5	1.6	1.1	0.7	0.4	0.7	1.2	0.6	0.3	2.8
2-Oct	0.2	0.6	0.5	0.7	0.3	0.5	0.7	1.0	1.4	1.7	1.1	0.9	2.1	2.5	1.9	2.1	1.3	1.3	1.5	1.9	1.9	2.3	2.0	2.3	2.5
3-Oct	2.2	2.1	1.3	1.4	1.8	1.1	1.4	1.8	1.9	2.3	2.9	3.6	3.0	2.5	2.7	3.2	1.6	2.5	2.5	2.4	2.7	1.7	1.7	1.5	3.6
4-Oct	1.2	1.6	1.6	1.4	2.2	2.0	2.0	2.0	1.3	2.1	2.1	1.9	1.8	1.8	1.3	2.1	3.3	2.7	1.9	1.5	1.3	1.6	1.3	1.4	3.3
5-Oct	1.6	0.9	1.5	1.5	1.2	0.9	1.1	1.7	1.6	1.3	1.7	2.3	2.2	2.2	1.7	1.9	1.5	1.6	1.1	2.0	1.7	1.8	1.9	2.6	2.6
6-Oct	2.2	1.9	2.5	3.2	1.8	2.0	1.4	1.9	2.2	1.5	2.4	2.3	2.4	2.4	1.8	1.8	1.6	1.1	0.9	1.3	1.4	1.5	1.5	1.6	3.2
7-Oct	1.3	1.2	1.4	1.4	1.5	1.4	1.7	1.8	2.1	2.2	2.8	2.6	2.6	2.3	2.1	1.7	1.3	1.6	2.4	1.7	1.3	0.6	0.4	0.9	2.8
8-Oct	0.8	0.6	1.0	1.6	2.5	1.5	2.1	2.2	2.4	2.2	2.0	2.6	2.9	3.5	2.6	1.5	3.0	2.7	2.8	3.1	3.4	2.9	2.8	2.6	3.5
9-Oct	1.8	2.2	2.4	1.6	1.0	1.4	1.2	1.3	1.7	2.1	2.2	2.0	2.1	2.3	1.6	1.6	1.3	0.7	0.6	0.6	1.0	1.0	1.0	0.8	2.4
10-Oct	0.7	0.9	1.0	1.0	1.0	1.3	1.5	1.2	1.0	1.1	0.9	1.8	2.2	2.2	2.1	2.4	1.8	0.7	1.0	1.7	2.3	2.5	2.5	2.0	2.5
11-Oct	1.2	1.2	1.1	0.6	0.5	0.8	1.8	1.5	2.1	2.6	2.2	2.6	1.7	3.2	3.4	2.8	2.5	2.4	2.7	2.7	2.4	3.5	3.9	4.6	4.6
12-Oct	3.7	3.2	3.6	3.6	3.4	3.4	3.7	2.8	2.0	3.0	2.8	UO	UO	3.2	2.8	2.7	1.8	1.8	1.9	1.7	1.0	0.7	0.5	1.0	3.7
13-Oct	1.4	1.4	1.2	1.3	0.8	0.7	0.6	0.5	0.7	2.2	2.9	2.3	2.6	3.5	3.0	2.8	1.9	1.4	1.2	1.2	1.6	1.4	1.5	1.8	3.5
14-Oct	1.9	2.3	2.3	2.7	2.5	2.2	2.8	2.3	2.7	2.9	3.2	2.6	3.1	3.0	2.5	1.6	1.2	0.7	1.1	1.6	2.0	1.7	1.3	1.3	3.2
15-Oct	1.3	1.2	1.0	1.4	1.8	1.8	2.2	2.2	2.6	2.5	2.6	1.8	2.6	1.5	1.9	1.7	1.5	1.3	1.7	0.6	0.7	2.3	2.2	2.0	2.6
16-Oct	2.1	1.5	1.9	1.2	1.5	1.1	0.8	0.7	0.8	0.9	1.2	1.3	1.8	1.8	1.6	1.2	1.5	1.2	1.5	1.1	1.4	3.2	1.9	1.4	3.2
17-Oct	1.7	1.9	2.2	2.2	1.8	1.5	1.8	1.5	2.5	2.5	1.6	2.4	2.6	3.2	3.6	3.0	2.1	1.4	1.1	1.2	1.5	1.3	1.1	1.3	3.6
18-Oct	1.2	1.9	1.8	2.3	1.3	1.0	0.9	1.5	1.9	1.2	1.3	1.7	1.9	1.6	1.6	1.3	0.6	0.9	0.8	0.5	0.7	0.5	0.3	0.7	2.3
19-Oct	0.5	0.5	0.5	0.3	0.3	0.2	0.4	0.5	0.7	0.9	0.7	0.8	1.1	1.2	1.2	1.1	1.1	1.2	0.8	1.0	1.0	1.4	1.2	1.5	1.5
20-Oct	1.5	1.5	1.3	1.1	1.4	1.4	1.0	1.1	1.1	1.0	1.0	0.9	1.0	1.5	1.6	1.6	1.2	1.0	0.8	1.1	2.3	2.7	2.8	2.4	2.8
21-Oct	1.9	1.8	1.6	1.8	2.5	2.5	1.1	1.2	1.1	1.5	2.1	2.2	1.8	1.7	1.8	2.4	1.8	1.7	1.8	1.6	1.0	0.5	0.5	0.5	2.5
22-Oct	0.7	0.7	0.9	0.5	1.4	1.4	1.7	1.9	1.5	1.5	2.0	1.8	1.9	1.9	1.7	1.8	1.7	1.9	2.3	2.8	2.3	2.5	2.1	2.4	2.8
23-Oct	2.4	2.9	2.4	2.6	1.9	1.7	1.3	1.5	1.5	1.5	2.1	2.5	2.2	1.8	1.9	2.1	1.5	1.7	1.9	1.8	2.3	2.5	2.3	1.9	2.9
24-Oct	2.0	2.0	1.2	1.0	1.2	1.3	1.3	1.3	1.0	1.2	1.3	1.4	1.6	1.4	1.5	1.6	1.3	1.3	1.3	1.5	1.3	1.0	1.9	0.8	2.0
25-Oct	1.0	1.0	0.7	0.7	0.8	0.5	0.5	0.6	1.5	0.6	1.6	1.5	2.4	2.7	2.0	2.2	2.0	1.9	1.4	0.9	1.7	1.2	1.1	1.3	2.7
26-Oct	0.7	0.5	1.0	1.0	0.6	0.2	0.3	0.5	0.6	0.7	1.1	1.0	1.2	1.2	2.0	1.4	1.9	3.0	3.2	3.7	3.6	4.0	3.6	3.7	4.0
27-Oct	3.7	3.5	3.3	3.1	3.1	3.4	3.7	3.9	4.1	4.0	4.1	3.8	3.7	3.9	3.7	3.0	UO	UO	2.9	2.6	2.3	2.3	2.0	1.6	4.1
28-Oct	2.2	1.7	2.4	3.3	2.8	3.0	2.5	2.3	2.0	2.0	2.6	2.5	2.6	2.8	1.7	2.2	1.4	2.0	1.9	1.4	1.1	1.1	1.4	1.6	3.3
29-Oct	1.1	1.8	1.8	1.8	1.5	1.6	1.3	1.1	1.3	1.8	1.2	1.0	1.0	0.9	1.1	1.6	1.3	1.3	1.4	1.3	0.7	0.6	0.6	0.4	1.8
30-Oct	0.8	0.5	0.4	0.9	0.7	0.5	0.3	0.6	0.7	1.1	2.3	1.7	1.1	1.2	1.0	1.5	1.2	1.0	0.8	0.7	0.7	1.1	1.0	1.2	2.3
31-Oct	1.5	1.5	1.3	1.2	1.2	1.7	1.7	1.8	1.8	2.1	2.4	2.6	3.0	3.0	2.8	2.9	4.2	3.4	3.9	4.4	3.5	2.7	2.8	2.6	4.4
	3.7	3.5	3.6	3.6	3.4	3.4	3.7	3.9	4.1	4.0	4.1	3.8	3.7	3.9	3.7	3.2	4.2	3.4	3.9	4.4	3.6	4.0	3.9	4.6	
	Diurnal Maximum																								

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 163m (VW163) - km/h

Lower Camp Met Tower - October 2025

Maximum Value: 7.0 km/h on Oct 16 00:00

Maximum Daily Average: 1.9 km/h on Oct 23

Minimum Value: -1.3 km/h on Oct 3 01:00

Minimum Daily Average: 0.1 km/h on Oct 12

Maximum Diurnal Average: 1.2 km/h at hour 23

Minimum Diurnal Average: 0.6 km/h at hour 17

Monthly Average: 0.80 km/h

Percentiles: P_1 = -0.6 P_{10} = -0.1 Q_1 = 0.2 Median = 0.6 Q_3 = 1.3 P_{90} = 1.9 P_{99} = 4.3

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Hours of Calibration:	0
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	-0.1	0.1	0.2	0.1	0.2	0.2	0.3	0.1	0.2	0.3	0.1	0.3	0.6	0.6	0.2	-0.2	0.0	0.0	0.2	0.2	0.2	0.0	0.1	0.2	0.2	0.6
2-Oct	0.2	0.7	0.7	0.9	0.3	0.2	0.4	0.1	0.2	0.3	0.6	0.0	1.5	0.9	0.2	0.6	0.3	0.5	1.2	1.6	2.3	3.0	3.9	2.7	1.0	3.9
3-Oct	-1.3	-1.0	-0.1	-0.4	-0.3	0.5	-0.1	-0.3	1.8	1.1	0.9	1.5	2.1	1.7	1.7	1.8	0.9	1.3	1.4	0.9	1.2	1.4	1.4	0.8	0.8	2.1
4-Oct	0.9	1.8	1.9	2.5	4.5	1.7	2.9	2.2	0.1	1.3	-0.1	-0.2	0.2	0.5	0.1	0.2	0.1	0.1	-0.3	0.0	0.4	0.6	0.2	1.4	1.0	4.5
5-Oct	1.1	-0.1	2.0	2.5	2.6	2.1	1.2	-0.5	-0.1	-0.1	0.5	0.6	0.4	0.7	0.6	1.0	0.7	-0.1	0.1	1.3	1.9	1.4	1.7	0.3	0.9	2.6
6-Oct	-0.2	0.3	0.0	-0.1	0.3	0.0	0.5	-0.1	0.2	-0.1	-0.4	1.2	-0.6	-0.4	0.8	0.1	0.6	0.5	0.7	1.3	2.4	2.7	1.4	1.8	0.5	2.7
7-Oct	2.4	1.0	0.7	0.7	1.3	1.3	1.5	1.7	1.2	1.1	1.4	1.4	1.8	2.1	2.1	1.8	-0.5	1.4	2.0	1.9	0.8	0.3	0.4	0.3	1.3	2.4
8-Oct	0.3	0.0	0.4	1.3	1.8	1.0	1.4	-0.3	1.2	1.6	1.0	0.7	0.8	1.3	1.0	1.0	1.1	1.1	1.2	0.5	0.5	0.6	0.0	0.1	0.8	1.8
9-Oct	0.3	1.3	1.1	1.4	1.2	1.2	1.1	2.6	1.6	1.0	1.1	0.8	1.2	1.2	0.7	1.0	1.2	1.3	0.9	0.8	1.4	0.9	0.3	0.3	1.1	2.6
10-Oct	0.2	0.0	0.5	0.1	0.4	0.2	0.5	1.5	1.0	1.4	1.5	0.6	0.4	0.2	0.1	0.6	0.3	0.0	0.2	1.1	2.3	3.2	3.5	0.6	0.8	3.5
11-Oct	1.3	1.9	1.0	0.6	0.2	0.3	-0.6	-0.1	0.2	-0.3	0.0	-0.2	0.2	0.6	0.6	0.2	0.3	0.0	-0.1	0.1	0.2	0.3	-0.2	-0.5	0.2	1.9
12-Oct	-0.4	-0.5	-0.1	-0.7	0.0	0.4	0.0	0.0	0.2	0.0	0.0	UO	UO	UO	0.4	0.1	0.4	0.6	0.0	0.5	-0.1	0.1	0.0	0.6	0.1	0.6
13-Oct	0.1	0.6	-0.4	1.2	1.2	1.6	1.3	1.2	0.7	1.3	1.0	1.4	0.7	1.4	0.4	0.4	0.5	-0.2	0.3	0.1	-0.1	0.0	0.4	0.5	0.7	1.6
14-Oct	0.6	0.7	1.1	1.1	0.8	0.4	0.8	0.9	1.0	0.9	0.4	0.2	0.6	1.3	0.9	0.8	0.7	1.6	3.0	0.3	-0.7	0.1	0.3	0.4	0.8	3.0
15-Oct	0.5	0.2	0.2	-0.2	-0.6	0.1	-0.9	-0.6	0.0	0.3	1.5	1.1	1.0	0.9	1.1	1.1	1.6	1.8	1.2	1.2	1.6	5.3	5.4	7.0	1.3	7.0
16-Oct	6.3	4.6	2.8	1.3	1.0	1.1	0.8	0.6	0.2	0.3	1.1	1.2	1.2	1.1	0.3	0.1	0.3	0.4	1.0	1.0	0.7	1.3	1.8	2.1	1.4	6.3
17-Oct	2.2	2.0	2.2	2.0	1.7	1.3	0.8	0.0	1.3	1.4	1.8	1.1	-0.6	0.3	-0.4	-0.1	-0.4	-0.4	0.2	1.2	1.4	1.2	0.7	0.5	0.9	2.2
18-Oct	0.7	3.2	2.2	4.5	1.6	1.5	1.3	1.7	4.9	1.5	1.0	0.3	1.0	0.5	0.7	0.5	1.0	1.3	1.1	0.3	0.3	0.3	0.2	0.5	1.3	4.9
19-Oct	0.6	0.5	0.5	0.1	0.1	0.2	0.3	0.1	0.0	0.5	0.5	0.2	0.1	0.5	0.1	0.3	0.6	0.3	0.6	0.2	0.1	-0.2	0.3	-0.1	0.3	0.6
20-Oct	-0.1	-0.2	0.0	0.0	-0.1	-0.1	0.0	-0.2	0.4	0.3	0.0	0.2	0.3	0.3	0.6	0.7	0.6	0.2	0.2	0.1	1.2	2.0	2.6	1.1	0.4	2.6
21-Oct	2.3	0.7	2.5	1.3	1.4	0.4	1.0	1.6	3.6	1.6	1.3	-0.4	-0.4	0.5	0.9	0.8	0.1	1.1	1.0	-0.2	-0.2	-0.1	0.2	0.6	0.9	3.6
22-Oct	0.7	0.3	0.5	0.3	0.4	0.7	1.4	1.0	0.8	0.9	0.2	-0.1	0.7	-0.2	0.5	1.5	0.0	0.0	1.0	0.0	0.3	0.3	1.0	1.4	0.6	1.5
23-Oct	1.6	1.5	1.8	3.0	2.4	2.0	1.6	2.1	1.9	2.1	2.4	3.1	2.0	1.0	2.0	2.7	0.4	0.6	1.5	2.0	1.9	2.6	2.3	1.9	1.9	3.1
24-Oct	2.2	1.8	2.5	2.1	1.1	1.2	1.7	0.2	0.8	1.3	1.2	0.8	-0.2	0.5	0.1	1.6	1.4	0.7	0.6	1.1	1.6	1.0	1.5	0.5	1.1	2.5
25-Oct	0.3	0.2	0.2	0.2	0.1	0.0	0.1	0.3	1.6	0.4	1.0	1.9	1.4	1.1	1.9	1.6	2.1	1.5	1.3	1.2	0.7	0.5	1.0	1.3	0.9	2.1
26-Oct	0.1	0.3	0.7	0.4	0.3	0.1	0.2	-0.1	0.0	0.2	-0.4	-0.3	0.9	0.0	0.3	0.0	0.2	0.0	0.1	0.0	0.1	0.2	0.0	0.7	0.2	0.9
27-Oct	0.3	0.2	0.3	0.2	0.6	0.6	0.6	1.0	0.4	0.5	-0.4	-0.5	-0.6	-0.5	-0.6	0.0	-0.1	-0.2	0.0	0.5	0.5	0.8	0.7	0.1	0.2	1.0
28-Oct	0.3	-0.2	0.1	0.3	0.4	1.0	0.2	-0.1	0.0	0.4	0.7	1.0	1.7	1.8	0.8	1.3	1.3	2.0	0.7	1.1	0.7	1.7	1.9	-0.1	0.8	2.0
29-Oct	0.0	0.7	1.4	0.2	-0.2	0.3	1.0	-0.2	0.1	-0.7	0.0	0.6	-0.2	0.0	-0.1	0.3	0.2	0.4	0.4	0.3	0.0	0.1	0.2	0.1	0.2	1.4
30-Oct	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.3	0.6	0.7	0.5	1.1	0.2	0.4	0.8	0.5	0.6	0.7	0.8	0.5	0.4	0.4	0.5	0.6	0.4	1.1
31-Oct	0.3	0.2	0.3	0.0	0.4	0.0	0.7	2.4	3.1	2.3	3.1	3.1	3.7	1.4	1.4	1.5	2.2	1.3	1.3	2.3	4.0	1.6	2.4	2.5	1.7	4.0
	0.8	0.7	0.9	0.9	0.8	0.7	0.7	0.6	0.9	0.8	0.8	0.8	0.7	0.7	0.6	0.8	0.6	0.6	0.8	0.8	0.9	1.1	1.2	1.0	Diurnal Average	
	6.3	4.6	2.8	4.5	4.5	2.1	2.9	2.6	4.9	2.3	3.1	3.1	3.7	2.1	2.1	2.7	2.2	2.0	3.0	2.3	4.0	5.3	5.4	7.0	Diurnal Maximum	

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Vertical Wind Speed 163m (VW163) - km/h

Lower Camp Met Tower - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 5.1 km/h on Oct 31 20:00

Minimum Value: 0.2 km/h on Oct 2 01:00

Percentiles: P_1 = 0.4 P_{10} = 0.8 Q_1 = 1.1 Median = 1.6 Q_3 = 2.2 P_{90} = 2.8 P_{99} = 3.9

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Hours of Calibration:	0
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	1.1	1.0	1.1	1.7	1.9	2.3	2.1	2.1	2.1	2.0	2.2	2.5	2.3	2.4	2.2	1.4	1.4	1.3	0.7	0.7	0.8	1.4	0.7	0.3	2.5
2-Oct	0.2	0.5	0.6	0.7	0.3	0.4	0.4	0.9	1.1	1.8	1.3	1.2	2.4	2.5	1.9	2.0	1.4	1.0	1.2	1.2	0.6	1.4	2.1	2.6	2.6
3-Oct	2.2	1.7	1.0	1.3	1.7	0.9	1.0	1.5	1.6	2.2	3.0	3.7	2.8	2.4	2.7	3.2	1.6	2.4	2.5	2.0	2.1	1.4	1.3	1.2	3.7
4-Oct	0.8	1.5	1.5	1.3	1.2	1.3	1.9	2.1	1.3	2.0	2.1	1.9	1.9	1.8	1.1	1.7	2.7	2.1	1.6	1.3	1.1	1.3	1.0	1.3	2.7
5-Oct	1.6	0.9	1.2	0.9	1.2	0.6	1.4	1.9	1.9	1.4	1.7	2.3	2.3	2.1	1.9	2.0	1.5	1.4	0.9	1.8	1.1	1.8	1.9	2.8	2.8
6-Oct	2.1	2.0	2.7	2.7	1.4	2.2	1.3	1.7	2.1	1.3	2.3	2.2	2.3	2.6	2.1	2.0	1.7	1.1	0.7	1.5	2.2	2.0	1.9	2.4	2.7
7-Oct	2.0	1.9	2.4	2.1	2.0	1.9	2.1	2.0	2.1	2.4	2.8	2.6	2.6	2.6	2.1	1.9	1.4	2.1	2.1	2.0	1.3	0.7	0.5	0.9	2.8
8-Oct	1.0	0.5	1.1	1.5	2.2	1.2	1.9	1.8	2.3	2.0	2.0	2.5	2.9	3.4	2.4	1.5	2.7	2.6	2.7	2.9	3.0	2.5	2.7	2.6	3.4
9-Oct	1.9	2.4	2.5	1.7	1.0	1.3	1.4	1.3	1.6	1.8	2.5	2.0	2.1	2.1	1.6	1.5	1.4	0.6	0.9	0.8	1.2	1.1	0.9	0.8	2.5
10-Oct	0.9	0.9	0.8	0.8	0.9	1.2	1.4	1.7	1.2	1.1	1.0	2.1	2.0	2.1	2.0	2.0	1.6	0.8	0.6	1.4	1.7	1.3	1.5	2.3	2.3
11-Oct	1.4	1.9	1.7	0.8	0.5	0.7	2.2	1.8	1.8	2.0	1.8	2.4	1.5	2.8	2.9	2.8	2.3	2.1	2.4	2.5	2.0	3.2	3.5	4.4	4.4
12-Oct	3.1	3.1	3.3	3.3	3.2	3.5	3.6	2.8	2.0	3.0	3.2	UO	UO	UO	3.1	2.7	1.8	1.8	1.5	1.8	0.8	0.8	0.5	1.1	3.6
13-Oct	1.2	1.4	1.4	1.3	1.1	0.6	0.6	0.5	0.4	1.8	2.8	2.6	2.9	3.5	3.1	2.4	2.0	1.1	0.9	0.7	1.2	1.1	1.2	1.3	3.5
14-Oct	1.4	1.5	1.9	1.9	2.2	2.1	2.4	1.8	2.2	2.6	2.7	2.3	2.9	3.0	2.6	1.5	1.1	0.6	0.8	1.8	1.6	1.2	0.9	0.8	3.0
15-Oct	0.9	0.8	0.8	0.7	1.0	1.4	1.6	1.9	2.2	2.2	2.6	2.0	2.6	1.6	2.1	1.8	1.3	1.0	0.9	0.5	0.9	1.3	1.0	1.1	2.6
16-Oct	1.5	1.1	1.2	0.7	0.9	0.8	0.8	0.8	0.7	1.0	1.5	1.3	1.8	1.3	0.9	0.8	1.3	1.4	1.7	1.4	1.5	2.8	1.7	1.4	2.8
17-Oct	1.6	1.7	1.9	2.3	1.7	1.3	1.5	1.2	2.0	2.1	1.4	3.0	2.7	3.2	3.4	2.7	1.7	1.0	0.7	1.0	2.0	2.0	1.6	1.2	3.4
18-Oct	1.2	1.5	1.5	2.1	0.9	0.8	0.7	1.6	1.7	1.0	1.1	1.4	1.7	1.7	1.7	1.5	0.7	0.4	0.9	0.7	1.0	0.5	0.4	0.6	2.1
19-Oct	0.5	0.6	0.5	0.8	0.7	0.5	0.7	0.6	0.8	1.0	1.1	1.0	0.7	0.9	1.2	0.9	1.0	1.3	1.0	1.3	1.1	1.6	1.5	1.5	1.6
20-Oct	1.7	1.7	1.3	1.1	1.3	1.4	1.0	1.1	1.1	1.0	0.9	0.9	1.3	1.4	1.6	1.5	1.1	0.9	0.6	0.7	1.7	2.0	2.6	2.3	2.6
21-Oct	2.2	1.5	1.6	2.0	2.4	2.6	1.3	1.1	0.9	1.4	2.2	2.2	1.5	1.7	1.8	2.2	1.5	1.8	2.2	1.8	1.1	0.7	0.6	0.6	2.6
22-Oct	0.6	0.8	0.8	0.8	1.6	1.9	1.7	1.5	1.3	1.4	1.9	1.8	2.1	2.0	2.0	1.7	1.5	2.1	2.4	3.0	2.7	3.0	2.9	3.2	3.2
23-Oct	3.2	3.9	3.0	3.2	2.5	2.5	2.2	1.8	1.7	1.9	2.2	2.3	2.3	1.8	2.0	1.7	1.7	1.9	2.5	3.0	2.7	2.7	2.1	2.3	3.9
24-Oct	2.5	2.1	2.1	1.6	2.1	1.8	1.6	1.5	1.4	1.2	1.2	1.7	1.6	1.7	1.5	1.6	1.5	1.4	1.4	1.6	1.9	1.4	2.0	1.0	2.5
25-Oct	0.8	1.2	1.2	0.8	0.8	0.5	0.4	0.5	1.4	1.0	1.4	1.2	2.1	2.5	1.9	2.3	1.9	1.8	1.6	1.1	1.7	1.3	1.4	1.3	2.5
26-Oct	0.7	0.5	1.0	1.0	0.6	0.3	0.4	0.6	0.6	0.8	1.1	1.0	0.8	1.4	2.4	1.8	2.1	2.9	3.6	3.8	3.9	4.0	3.9	3.9	4.0
27-Oct	4.1	3.9	3.4	3.4	3.6	3.2	3.2	3.5	3.9	3.6	3.4	3.4	3.3	3.5	3.4	2.4	1.7	1.9	2.2	2.5	2.0	1.5	1.6	1.2	4.1
28-Oct	1.8	1.3	1.9	2.8	2.7	2.8	2.4	1.7	1.5	1.7	2.3	2.3	2.3	2.4	1.6	2.0	1.7	2.1	2.2	1.4	1.4	0.9	1.9	1.9	2.8
29-Oct	1.3	2.0	2.2	1.8	1.9	1.6	1.1	0.9	1.3	1.8	1.4	1.0	0.8	0.9	1.3	1.3	1.2	1.4	1.4	0.9	0.5	0.6	0.7	0.5	2.2
30-Oct	1.0	0.5	0.5	1.0	0.8	0.5	0.5	0.8	0.9	1.2	2.3	1.8	1.1	1.0	1.1	1.5	1.2	1.3	0.9	0.9	0.8	1.2	1.2	1.3	2.3
31-Oct	1.5	1.5	1.3	1.2	1.1	1.6	1.4	2.1	2.2	2.3	2.7	3.3	3.4	3.3	3.3	3.4	4.8	3.7	4.3	5.1	4.5	3.6	3.6	2.8	5.1
	4.1	3.9	3.4	3.4	3.6	3.5	3.6	3.5	3.9	3.6	3.4	3.7	3.4	3.5	3.4	3.4	4.8	3.7	4.3	5.1	4.5	4.0	3.9	4.4	
	Diurnal Maximum																								

UO - Unstable Operation

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS04
BUFFALO VIEWPOINT
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BUFFALO VIEWPOINT (AMS04)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	707	0.38	1.7	-	0	0	0	0.1	0.2	0.5	28.7
H2S (ppb) Average	707	0.15	0.2	-	0	0.1	0.1	0.1	0.2	0.3	2
THC (ppm) Average	707	2.11	0.3	-	2	2	2	2	2.1	2.2	7.3
NMHC(ppm) Average	707	0.03	0.203	-	0	0	0	0	0	0.1	4.889
CH4(ppm) Average	707	2.08	0.2	-	2	2	2	2	2.1	2.1	4.8
O3(ppb) Average	707	19.29	8.5	-	1.3	7.1	13.8	20.2	24.4	30.1	44.4
NO2(ppb) Average	707	2.83	3.6	-	0.1	0.3	0.6	1.4	3.4	8.2	20.2
NO(ppb) Average	707	1.69	7.9	-	0	0	0	0.1	0.5	1.8	102.3
NOX(ppb) Average	707	4.53	10.4	-	0.1	0.4	0.6	1.5	4	9.9	120
PM2.5(ug/m3) Average	743	4.63	3.5	-	0.1	1.1	2.6	3.9	5.8	8.5	26.8
Temperature 2 m (C) Average	744	4.98	4.5	-	-2.7	0	1.2	4	8	11.2	22.1
Relative Humidity (%) Average	744	75.5	17.7	-	27.4	49.1	63	78.8	91.2	96.6	98.3
Wind Speed 10 m (km/h) Average	744	10.4	5	-	0	5	7	10	13	17	30
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BUFFALO VIEWPOINT (AMS04)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
H2S, NO2,O3, SO2	23 Oct 2025 08:00	23 Oct 2025 08:00	1	Maintenance - sample manifold cleaned
THC/NMHC/CH4	23 Oct 2025 08:00	23 Oct 2025 10:00	3	Maintenance - replaced support gas cylinder
O3	07 Oct 2025 23:00	08 Oct 2025 00:00	2	Unstable Operation - inconsistent response

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BUFFALO VIEWPOINT (AMS04)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	707	36	37	99.87	28.7	0	3.7	0
H2S (ppb) Average	707	36	37	99.87	2	0	0.4	0
THC (ppm) Average	707	34	37	99.6	7.3	-	2.6	-
NMHC(ppm) Average	707	34	37	99.6	4.889	-	0.252	-
CH4(ppm) Average	707	34	37	99.6	4.8	-	2.4	-
O3(ppb) Average	707	34	37	99.6	44.4	0	29.7	-
NO2(ppb) Average	707	36	37	99.87	20.2	0	8.1	-
NO(ppb) Average	707	36	37	99.87	102.3	-	17.1	-
NOX(ppb) Average	707	36	37	99.87	120	-	25.2	-
PM2.5(ug/m3) Average	743	1	1	100	26.8	0	13.3	0
Temperature (C) Average	744	0	0	100	22.1	-	10.9	-
Relative Humidity (%) Average	744	0	0	100	98.3	-	94.9	-
Wind Speed 10 m (km/h) Average	744	0	0	100	30	-	23	-
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Buffalo Viewpoint - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 28.7 ppb on Oct 6 13:00 Maximum Daily Average: 3.7 ppb on Oct 6

Minimum Value: 0.0 ppb on Oct 1 01:00 Minimum Daily Average: 0.0 ppb on Oct 1
Maximum Diurnal Average: 1.4 ppb at hour 13 Minimum Diurnal Average: 0.1 ppb at hour 3
Monthly Average: 0.38 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.5 P_{99} = 7.5

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2
3-Oct	0.1	0.1	0.0	0.1	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.2
4-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.2	0.3	0.1	0.5	0.8	1.9	0.3	0.5	0.0	0.0	0.0	0.0	0.3	1.9
5-Oct	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.7	0.0	0.7
6-Oct	0.0	0.1	Z	2.0	2.3	0.7	0.0	0.0	0.0	0.0	3.3	13.0	28.7	19.2	7.6	2.5	2.3	0.7	0.9	0.8	0.8	0.6	0.2	0.1	3.7	28.7
7-Oct	0.1	0.2	0.2	Z	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.4	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.4	0.6	0.8	0.3	0.8
8-Oct	0.6	0.5	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.1	0.6
9-Oct	0.1	0.0	0.2	0.2	0.0	Z	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2
10-Oct	Z	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.3	0.4	0.6	0.7	0.5	0.2	0.4	0.3	0.2	0.3	0.2	0.1	0.2	0.2	0.1	0.2	0.7
11-Oct	0.2	Z	0.3	0.2	0.2	0.2	0.1	0.2	2.4	2.8	4.3	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	12.6	6.1	1.3	12.6
12-Oct	9.0	6.2	Z	3.0	2.0	1.1	1.4	0.4	0.1	0.5	1.1	0.0	0.0	0.0	0.0	1.1	0.4	0.5	2.2	1.2	1.3	1.7	0.4	0.0	1.5	9.0
13-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.4	0.1	0.4
14-Oct	0.3	0.3	0.4	0.3	Z	0.4	0.5	0.6	0.5	0.4	0.4	0.5	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.3	0.6
15-Oct	0.1	0.2	0.0	0.1	0.1	Z	0.2	0.2	0.4	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.4	0.2	0.1	0.1	0.2	0.4
16-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.1	0.5	0.4	0.5	0.3	0.3	0.2	0.4	0.2	0.2	0.2	0.3	0.5
17-Oct	0.2	Z	0.3	0.3	0.3	0.4	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4
18-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
19-Oct	0.0	0.1	0.1	Z	0.1	0.0	0.3	0.3	0.2	0.1	0.3	0.4	0.3	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.4
20-Oct	0.0	0.1	0.0	0.1	Z	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.3	0.6	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.6
21-Oct	0.0	0.1	0.1	0.1	0.1	Z	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2
22-Oct	Z	0.1	0.1	0.1	0.1	0.1	C	C	C	C	C	0.0	0.0	0.1	0.3	0.3	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.3
23-Oct	0.2	Z	0.2	0.2	0.2	0.2	0.1	M	0.1	0.2	0.3	0.4	0.3	0.3	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4
24-Oct	0.2	0.2	Z	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.4	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.3	0.6
25-Oct	0.0	0.0	0.0	Z	0.2	0.7	0.6	0.5	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8
26-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.0	0.0	0.1	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
27-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	1.0	2.3	3.4	8.8	9.1	3.3	2.0	3.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.5	9.1
28-Oct	Z	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
29-Oct	0.0	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.8	0.5	0.6	0.4	0.2	0.2	0.8
30-Oct	0.2	0.1	Z	0.1	3.7	3.2	1.2	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.7
31-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.4
	0.4	0.3	0.1	0.3	0.4	0.3	0.2	0.1	0.2	0.3	0.5	0.9	1.4	0.9	0.4	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.5	0.3	Diurnal Average	
	9.0	6.2	0.4	3.0	3.7	3.2	1.4	0.6	2.4	2.8	4.3	13.0	28.7	19.2	7.6	3.3	2.3	1.9	2.2	1.2	1.3	1.7	12.6	6.1	Diurnal Maximum	

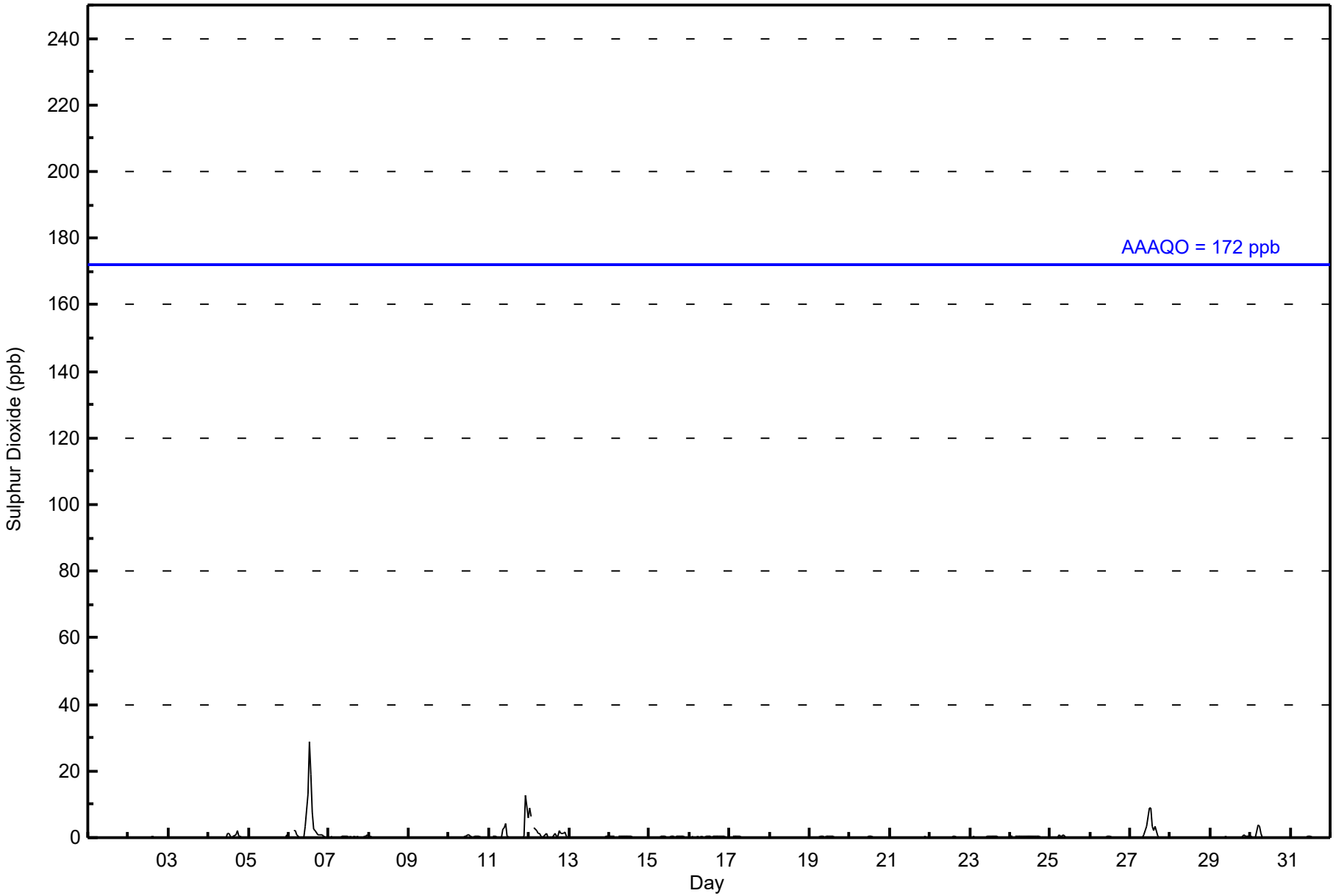
Z - zerospan C - Calibration M - Maintenance
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Buffalo Viewpoint - October 2025



Sulphur Dioxide (SO_2) - ppb
Buffalo Viewpoint - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	703	99.43	99.43
11 - 20	3	0.42	99.86
21 - 60	1	0.14	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Buffalo Viewpoint - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	93	25	6	2	7	10	61	155	51	43	38	39	67	43	32	31	703
11 - 20	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	3
21 - 60	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	93	25	6	2	7	10	61	155	51	43	40	40	67	43	32	32	707

Total Number of Valid Hours: 707

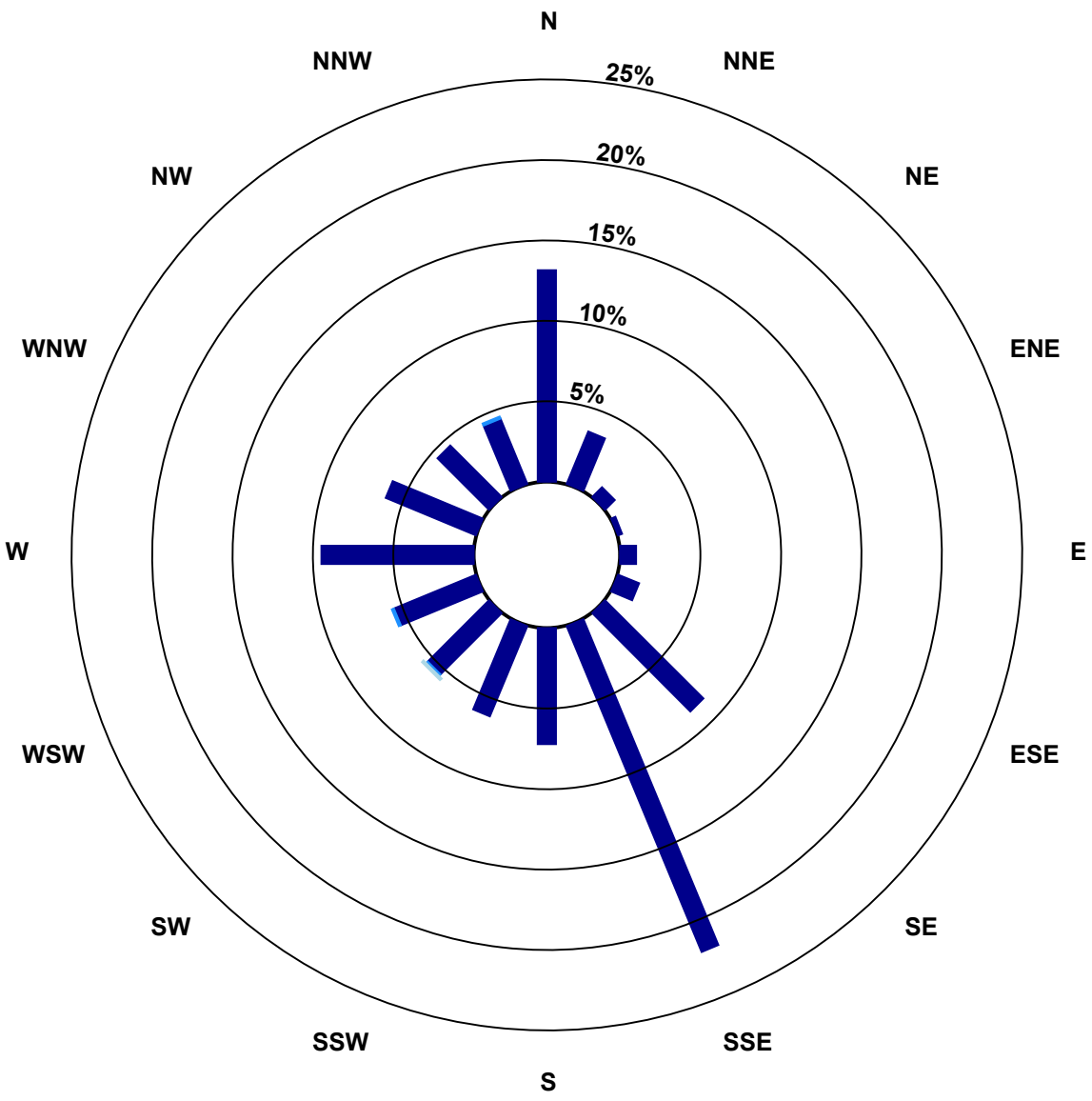
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Buffalo Viewpoint



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

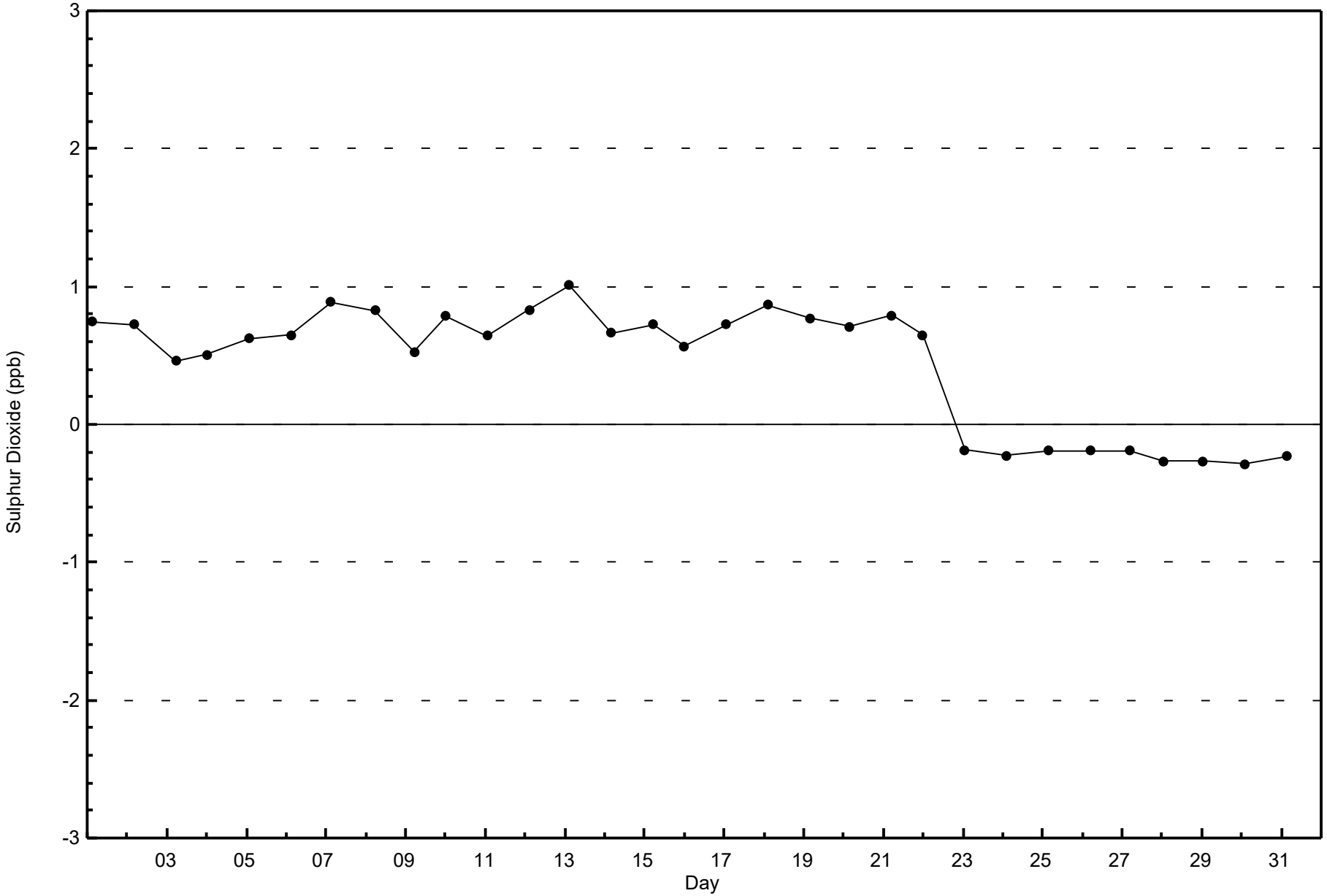
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Buffalo Viewpoint - October 2025

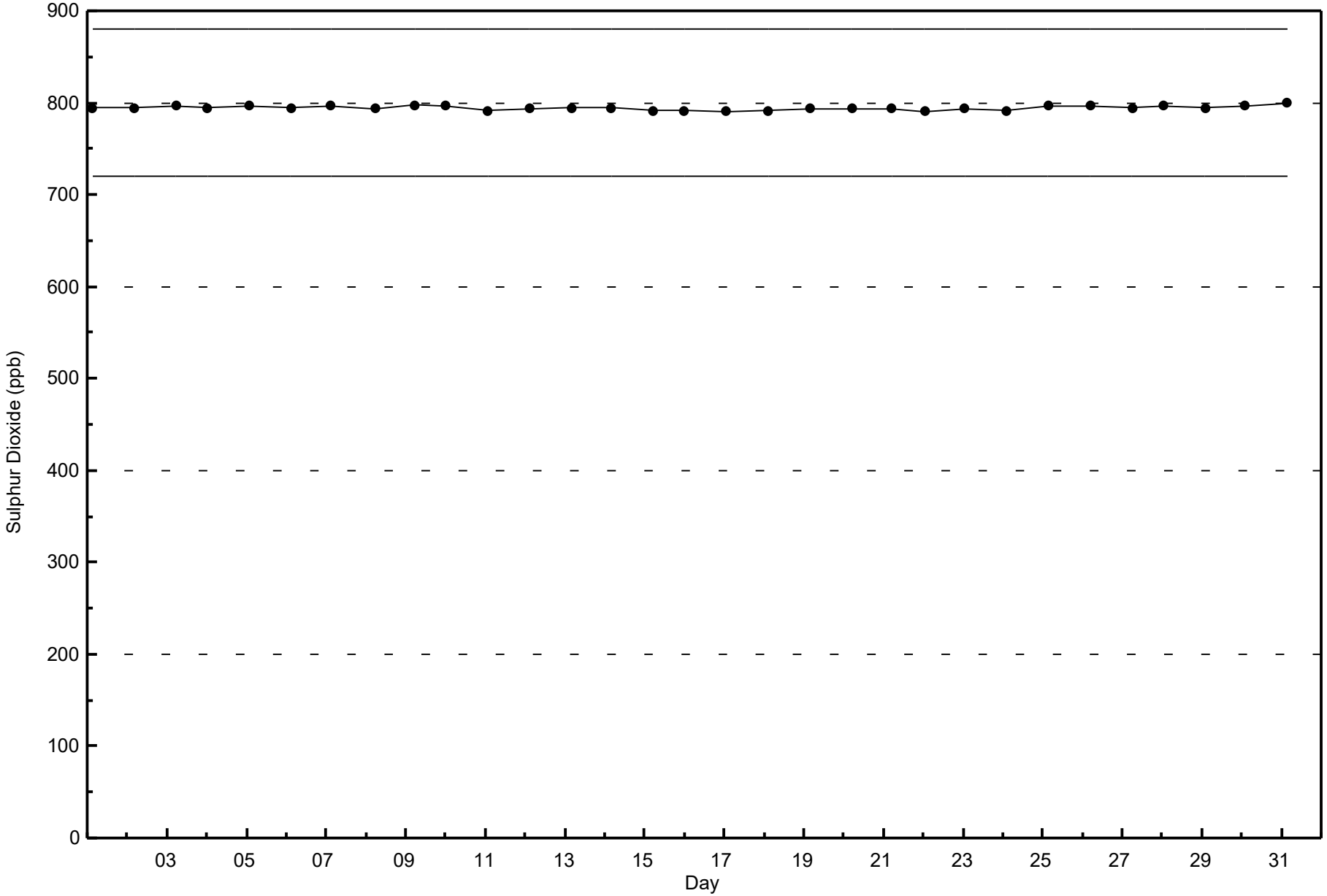


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Buffalo Viewpoint - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H_2S) - ppb

Buffalo Viewpoint - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 2.0 ppb on Oct 8 00:00 Maximum Daily Average: 0.4 ppb on Oct 19

Minimum Value: 0.0 ppb on Oct 8 08:00 Minimum Daily Average: 0.1 ppb on Oct 28
Maximum Diurnal Average: 0.2 ppb at hour 11 Minimum Diurnal Average: 0.1 ppb at hour 20
Monthly Average: 0.15 ppb Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.3 P_{99} = 1.0

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.4	0.4	0.3	0.3	Z	0.3	0.2	0.3	0.4	0.4	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.3	0.4	0.3	0.3	0.4
2-Oct	0.2	0.3	0.2	0.2	0.2	Z	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.3
3-Oct	Z	0.2	0.1	0.1	0.1	0.1	C	C	C	C	C	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
4-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.4
5-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
6-Oct	0.1	0.1	0.1	Z	0.4	0.4	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.4
7-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.5	0.3	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.7	1.3	2.0	0.3	2.0
8-Oct	1.0	1.1	1.0	0.4	0.2	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	1.1
9-Oct	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2
10-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11-Oct	0.2	0.1	Z	0.2	0.2	0.3	0.3	0.5	0.5	0.7	1.2	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	1.2
12-Oct	0.3	0.4	0.4	Z	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.4
13-Oct	0.1	0.1	0.1	0.0	Z	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
14-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
16-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2
17-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
18-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2
19-Oct	0.2	0.1	0.1	0.1	Z	0.1	0.6	0.7	0.5	0.4	0.5	0.8	0.9	1.0	0.9	0.6	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.4	1.0
20-Oct	0.2	0.1	0.1	0.2	0.3	Z	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3
21-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
22-Oct	0.2	Z	0.1	0.1	0.1	0.1	0.0	0.2	0.7	0.5	0.5	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.7
23-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.9	M	0.4	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.9
24-Oct	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2
25-Oct	0.1	0.1	0.1	0.1	Z	0.4	0.5	0.5	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.5
26-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.3	0.2	0.1	0.3	1.0	0.8	0.6	0.5	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	1.0
27-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
28-Oct	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1
29-Oct	0.1	0.1	Z	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.4	0.3	0.4	0.3	0.1	0.4
30-Oct	0.3	0.3	0.3	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.3
31-Oct	0.0	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	Diurnal Average	
	1.0	1.1	1.0	0.4	0.4	0.4	0.9	0.7	0.7	0.7	1.2	0.8	0.9	1.0	0.9	0.6	0.5	0.4	0.3	0.3	0.4	0.7	1.3	2.0	Diurnal Maximum	

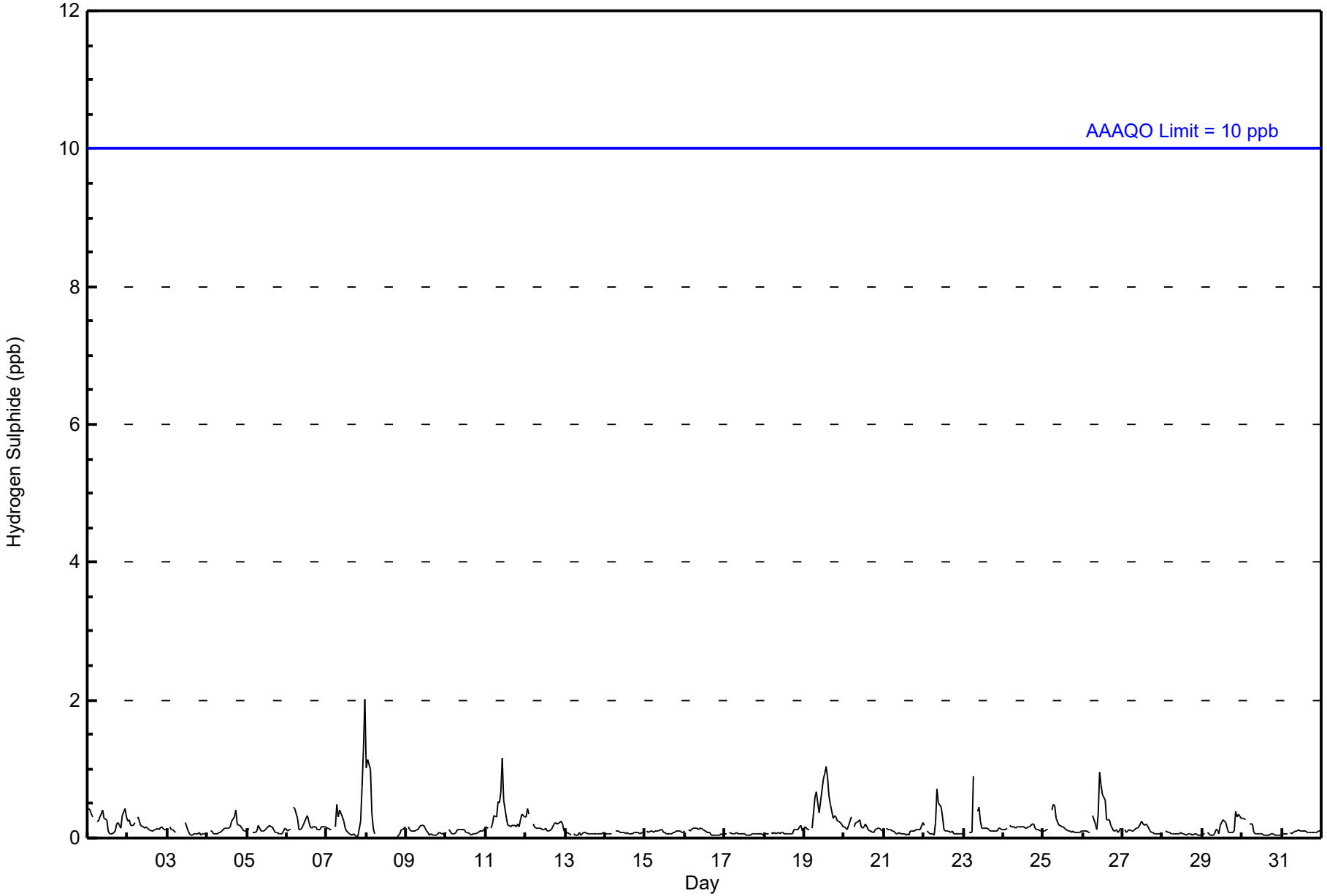
Z - zerospan C - Calibration M - Maintenance
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Buffalo Viewpoint - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Buffalo Viewpoint - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	707	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Buffalo Viewpoint - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	94	25	4	2	7	10	59	161	50	43	40	41	65	43	33	30	707
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	94	25	4	2	7	10	59	161	50	43	40	41	65	43	33	30	707

Total Number of Valid Hours: 707

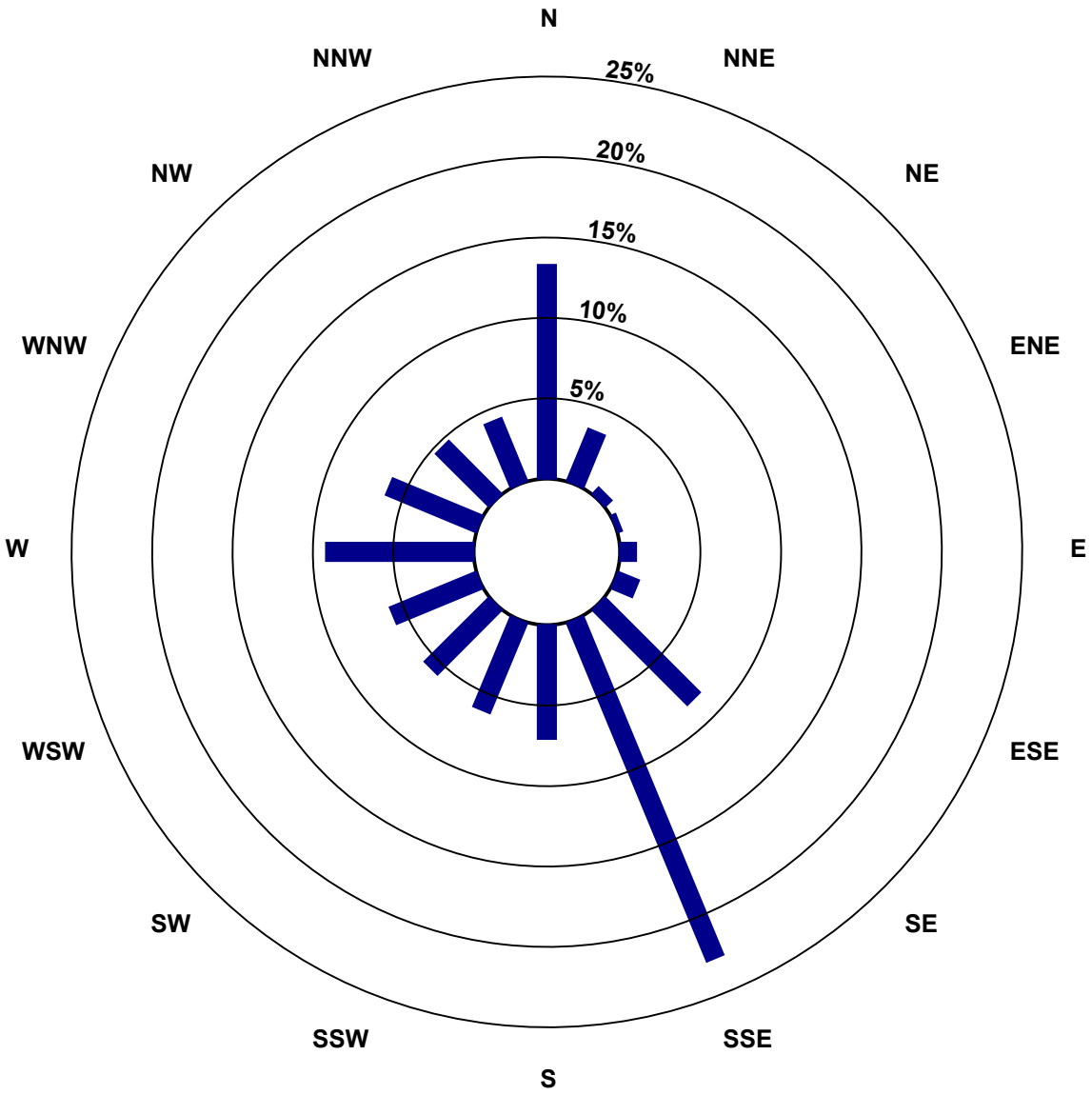
Total Number of Hours: 744

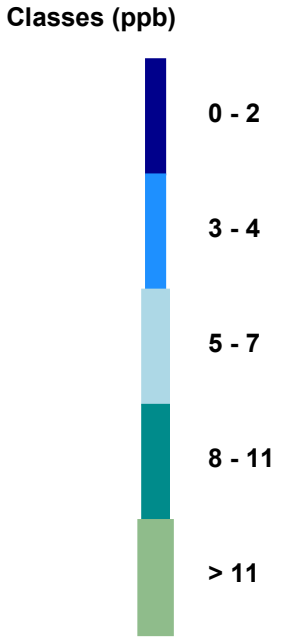
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H_2S) - ppb

Buffalo Viewpoint





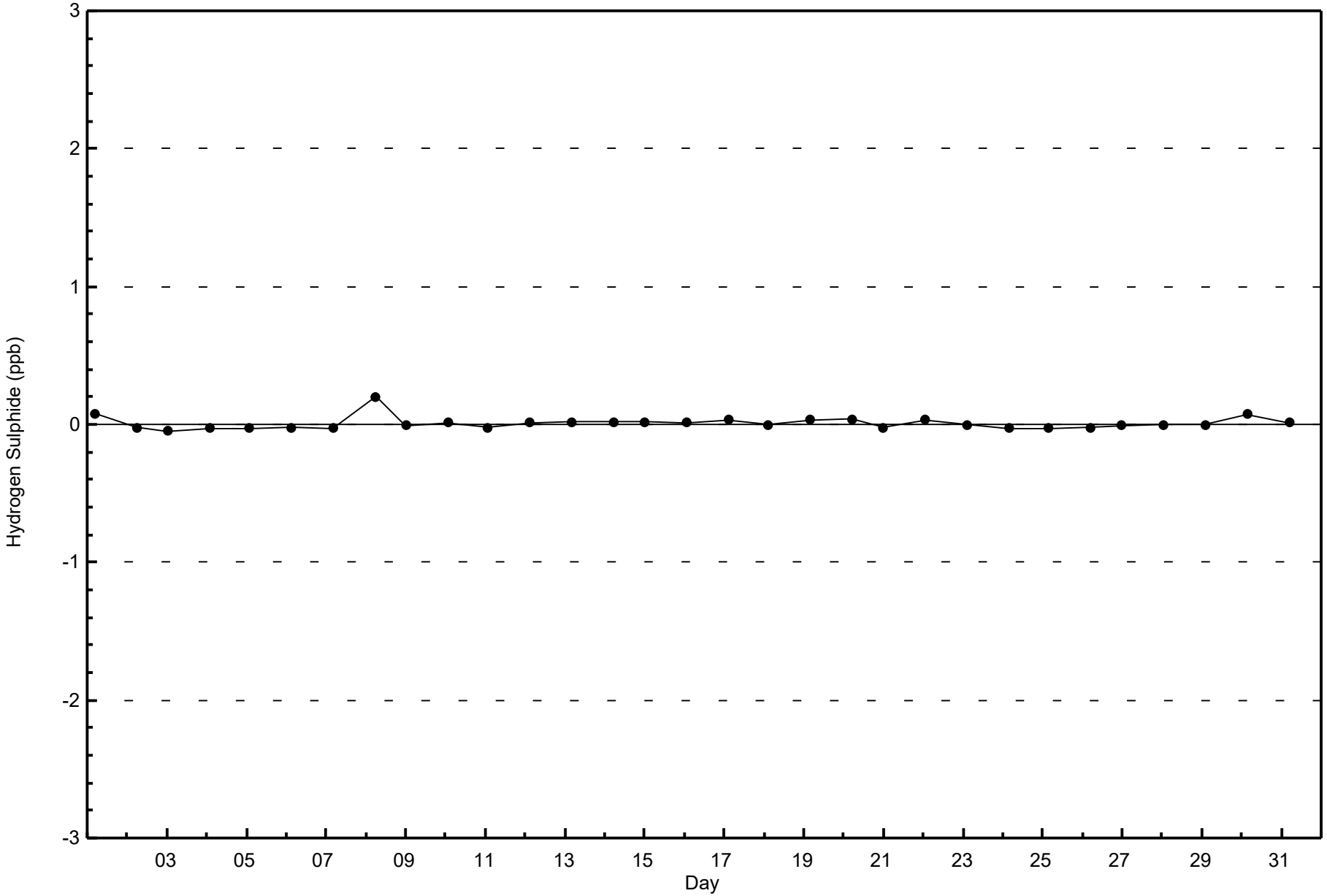
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Buffalo Viewpoint - October 2025

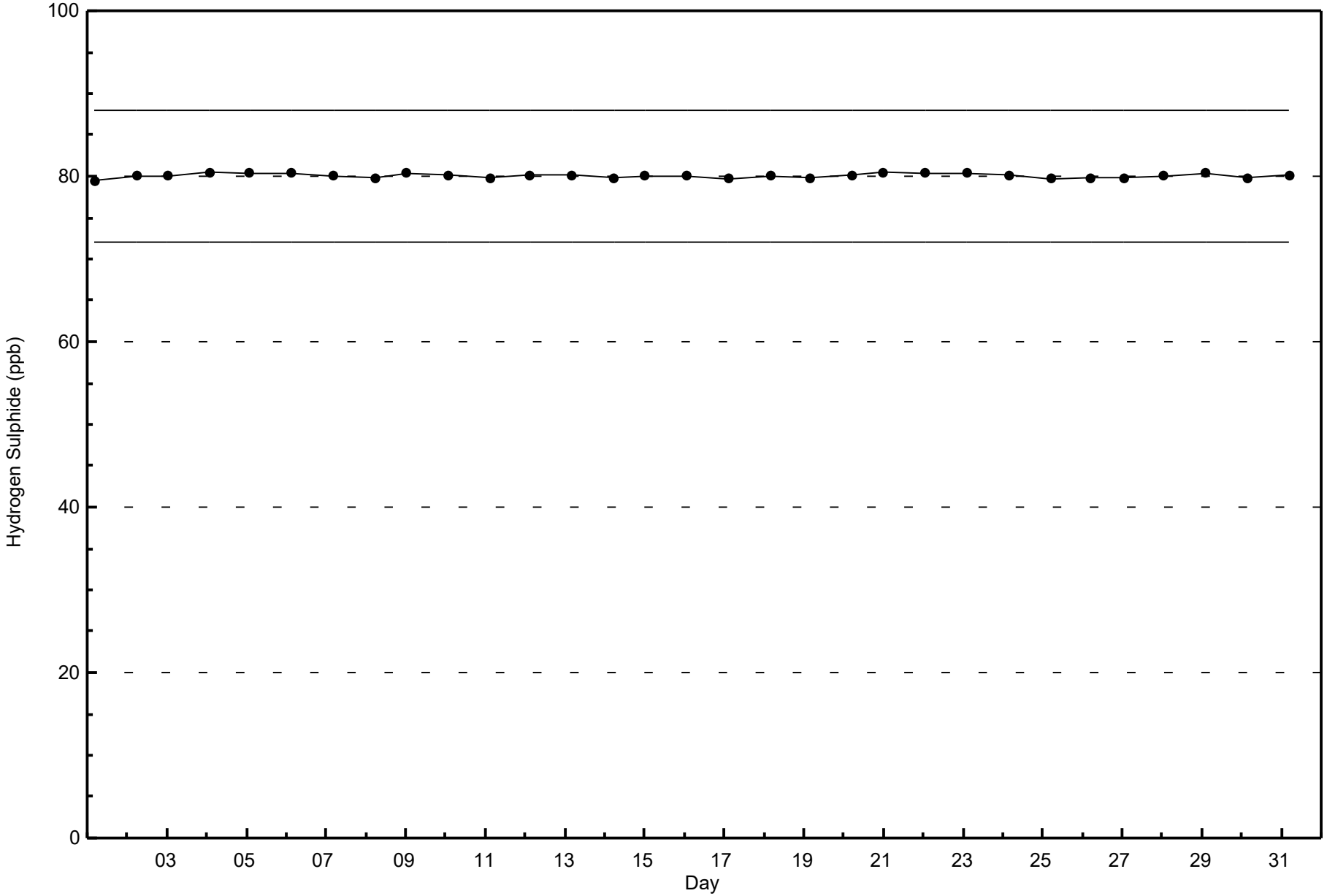


Wood Buffalo Environmental Association

Span Responses

Hydrogen Sulphide (H_2S) - ppb

Buffalo Viewpoint - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Buffalo Viewpoint - October 2025

Maximum Value: 7.3 ppm on Oct 8 02:00

Maximum Daily Average: 2.6 ppm on Oct 7

Minimum Value: 2.0 ppm on Oct 3 15:00

Minimum Daily Average: 2.0 ppm on Oct 3

Maximum Diurnal Average: 2.3 ppm at hour 2

Minimum Diurnal Average: 2.0 ppm at hour 20

Monthly Average: 2.11 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.0 Median = 2.0 Q_3 = 2.1 P_{90} = 2.2 P_{99} = 3.1

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	34
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.3	2.5	2.4	Z	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.3	2.3	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.5
2-Oct	2.2	2.2	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2
3-Oct	2.0	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
4-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.2
5-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
6-Oct	2.0	2.0	Z	2.2	2.1	2.2	2.1	2.0	2.0	2.0	2.1	2.2	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3
7-Oct	2.0	2.0	2.0	Z	2.0	2.0	C	C	C	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.1	3.1	4.7	5.6	5.4	2.6	5.6
8-Oct	3.2	7.3	3.2	2.2	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.4	7.3
9-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1
10-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.2	2.1	2.2
11-Oct	2.2	Z	2.1	2.1	2.2	2.5	2.3	2.2	2.3	2.3	3.1	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.5	2.2	2.2	3.1
12-Oct	2.5	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.5
13-Oct	2.1	2.1	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
14-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
15-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1
16-Oct	Z	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
17-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1
18-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1
19-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.5	2.7	2.5	2.3	2.7	3.1	3.1	3.1	3.1	2.7	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.4	3.1
20-Oct	2.1	2.0	2.0	2.1	Z	2.1	2.1	2.2	2.3	2.2	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.3
21-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.2	2.0	2.2
22-Oct	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
23-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	M	M	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
24-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
25-Oct	2.1	2.1	2.1	Z	3.1	2.7	2.8	3.0	2.3	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	3.1
26-Oct	2.0	2.1	2.1	2.0	Z	2.0	2.2	2.1	2.1	2.2	3.0	3.0	2.7	2.5	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	3.0
27-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.1	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3
28-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
29-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.2	2.1	2.4	2.2	2.1	2.0	2.0	2.1	2.3	2.4	2.4	2.5	2.1	2.5
30-Oct	2.7	2.4	Z	2.1	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.7
31-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1
	2.1	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	Diurnal Average	
	3.2	7.3	3.2	2.2	3.1	2.7	2.8	3.0	2.5	2.3	3.1	3.1	3.1	3.1	3.1	2.7	2.2	2.2	2.2	2.1	3.1	4.7	5.6	5.4	Diurnal Maximum	

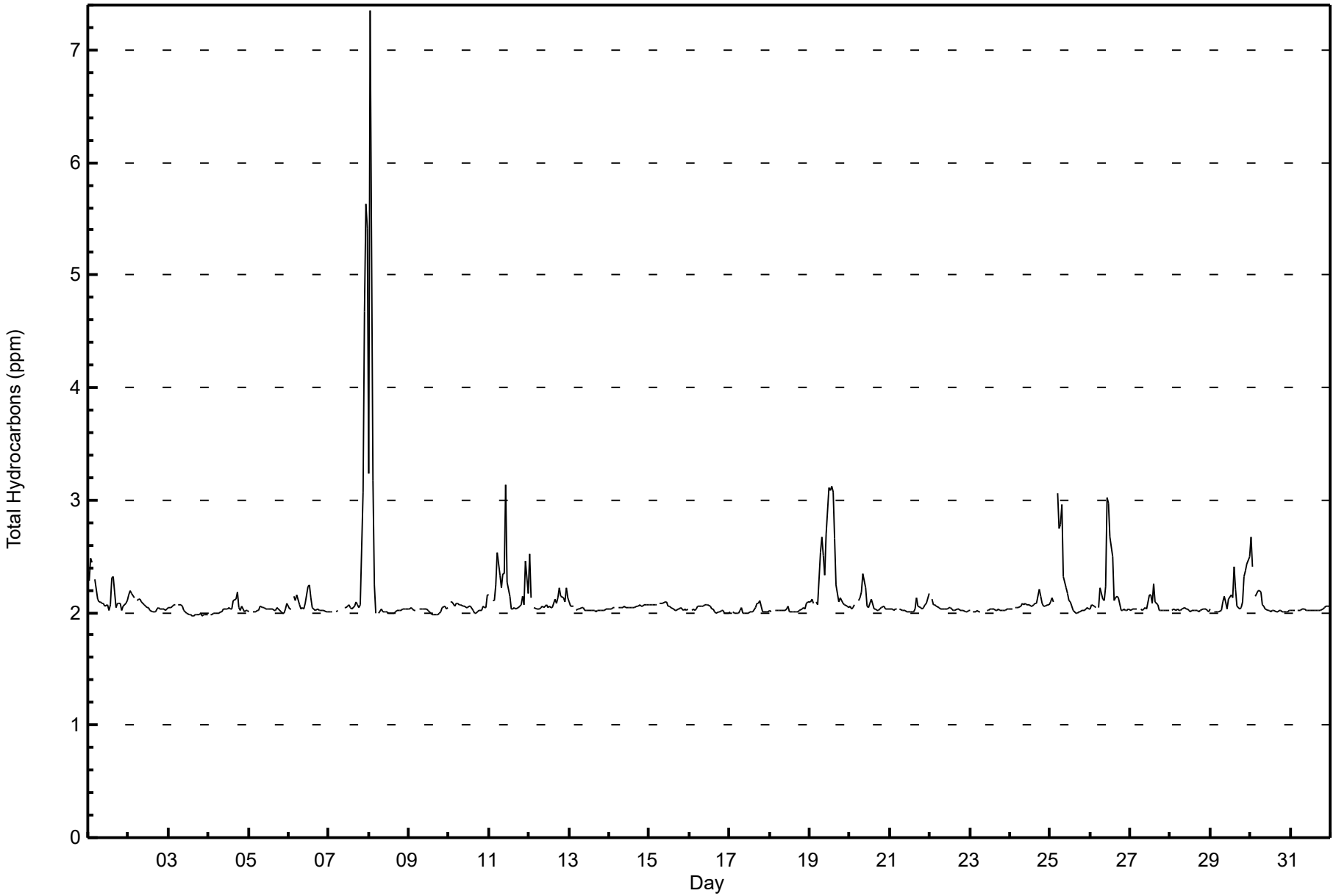
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Buffalo Viewpoint - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	438	61.95	61.95
2.1 - 3.0	256	36.21	98.16
3.1 - 10.0	13	1.84	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Buffalo Viewpoint - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	36	4	2	0	1	5	36	98	34	33	33	37	63	36	16	4	438
2.1 - 3.0	55	18	3	2	6	5	25	56	18	10	7	3	4	7	12	25	256
3.1 - 10.0	2	3	1	0	0	0	0	0	0	0	0	0	0	0	4	3	13
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	93	25	6	2	7	10	61	154	52	43	40	40	67	43	32	32	707

Total Number of Valid Hours: 707

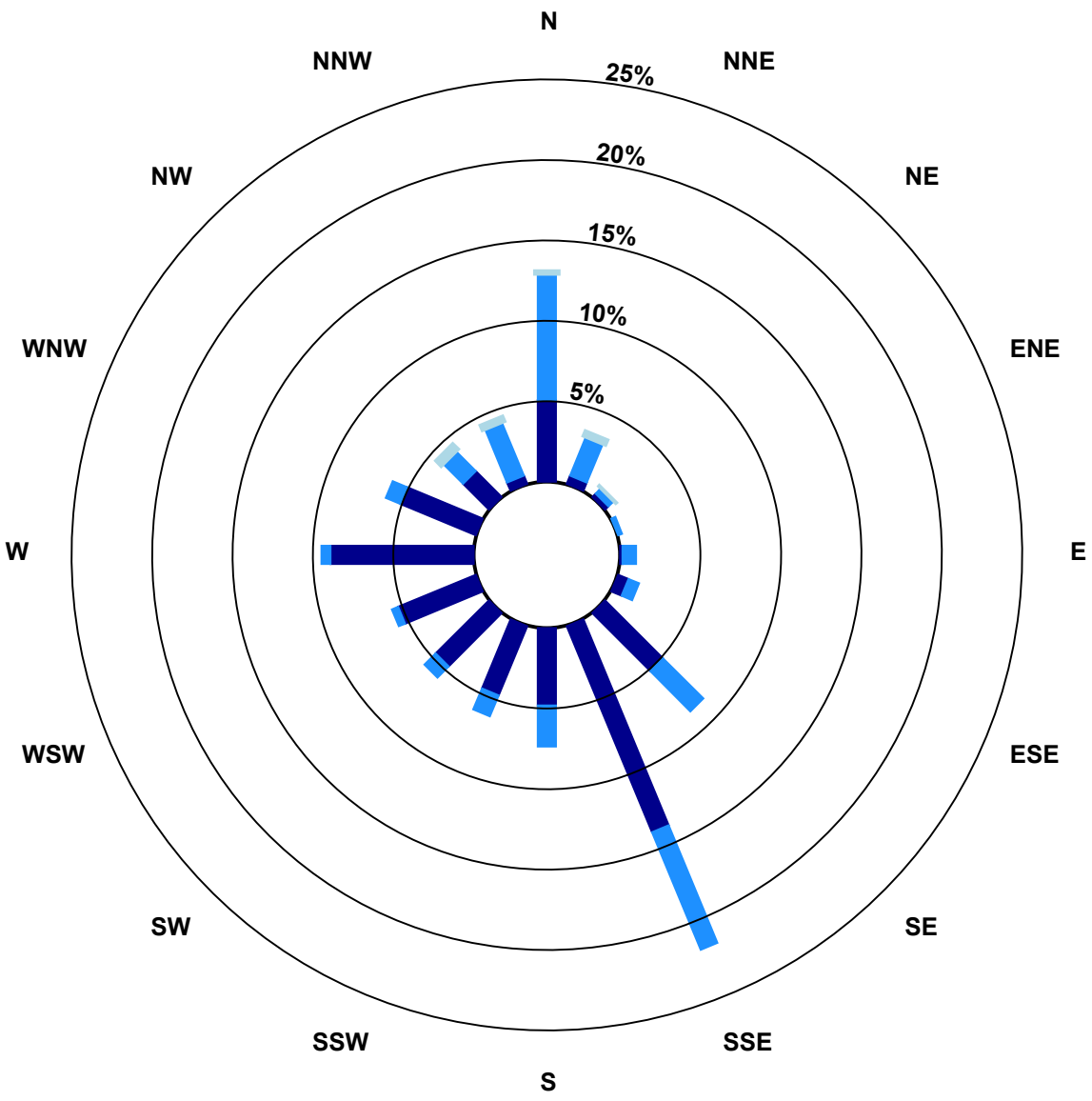
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Buffalo Viewpoint



Classes (ppm)

- 0 - 2.0
- 2.1 - 3.0
- 3.1 - 10.0
- > 10.0

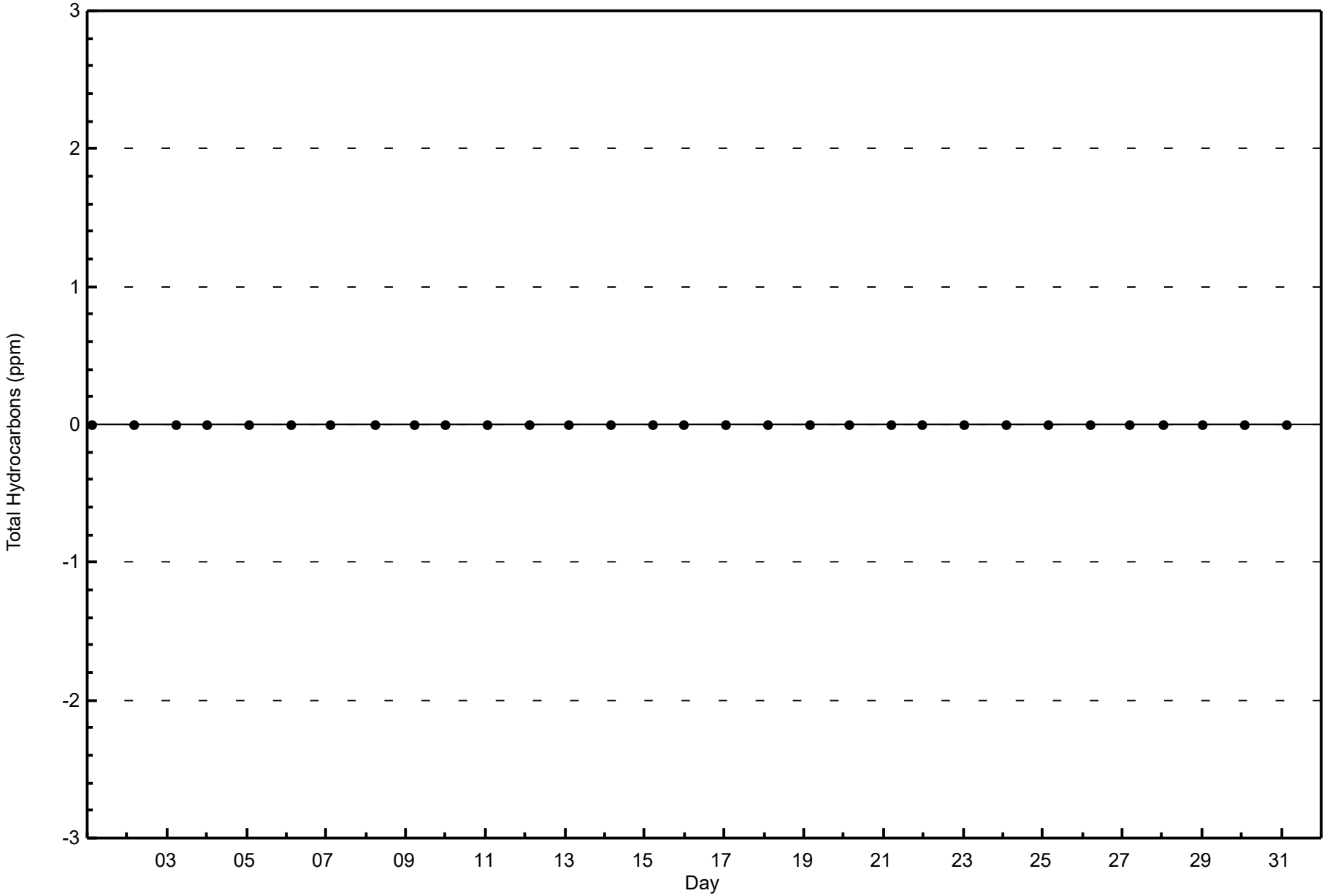
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Buffalo Viewpoint - October 2025

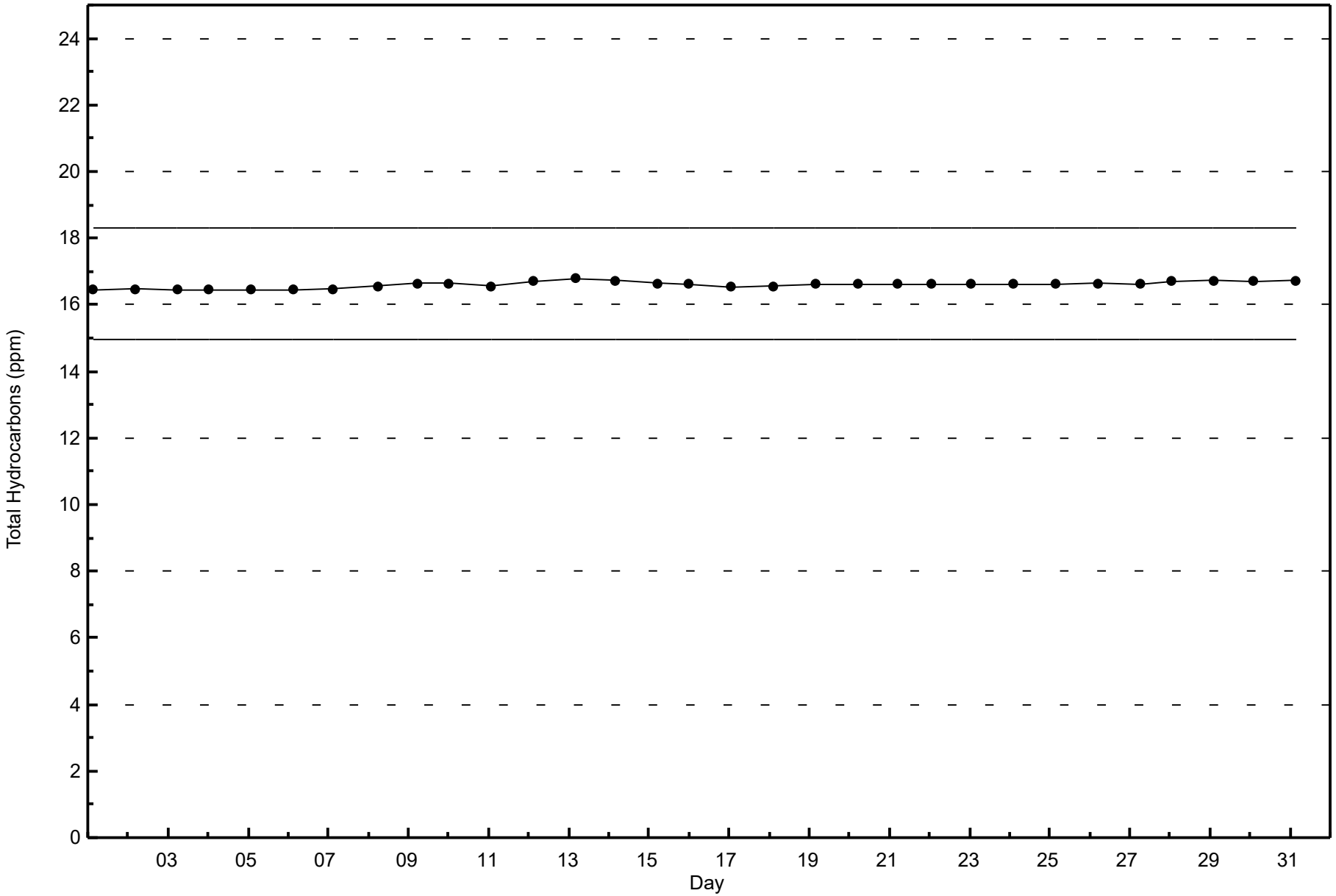


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Buffalo Viewpoint - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

Buffalo Viewpoint - October 2025

Maximum Value: 4.889 ppm on Oct 8 02:00

Maximum Daily Average: 0.252 ppm on Oct 8

Minimum Value: 0.000 ppm on Oct 1 08:00

Minimum Daily Average: 0.000 ppm on Oct 2

Maximum Diurnal Average: 0.206 ppm at hour 2

Minimum Diurnal Average: 0.002 ppm at hour 20

Monthly Average: 0.030 ppm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.1 P_{99} = 0.5

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	34
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.077	0.252	0.250	Z	0.129	0.011	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.002	0.000	0.000	0.000	0.000	0.000	0.032	0.252
2-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.007	0.004	0.041	0.080	0.112	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.112
5-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.001	0.017
6-Oct	0.020	0.000	Z	0.085	0.041	0.091	0.000	0.000	0.017	0.004	0.029	0.141	0.170	0.093	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.031	0.170
7-Oct	0.000	0.000	0.000	Z	0.000	0.000	C	C	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.179	0.504	0.848	0.958	0.124	0.958
8-Oct	0.410	4.889	0.478	0.031	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.252	4.889
9-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11-Oct	0.000	Z	0.000	0.000	0.000	0.072	0.011	0.000	0.132	0.125	0.952	0.022	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.357	0.091	0.077	0.952
12-Oct	0.405	0.052	Z	0.008	0.006	0.000	0.000	0.000	0.000	0.000	0.027	0.000	0.000	0.000	0.000	0.078	0.039	0.057	0.130	0.062	0.025	0.014	0.066	0.000	0.042	0.405
13-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
16-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.004
18-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.163	0.228	0.156	0.041	0.195	0.384	0.378	0.508	0.524	0.345	0.072	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.130	0.524
20-Oct	0.000	0.000	0.000	0.000	Z	0.035	0.054	0.094	0.226	0.105	0.000	0.000	0.020	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.025	0.226
21-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004
22-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	M	M	M	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.020
25-Oct	0.000	0.000	0.000	Z	0.156	0.159	0.163	0.262	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.262
26-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.080	0.007	0.000	0.007	0.327	0.356	0.219	0.177	0.005	0.000	0.016	0.071	0.000	0.000	0.000	0.000	0.000	0.000	0.055	0.356
27-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.003	0.002	0.000	0.078	0.087	0.032	0.168	0.057	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019	0.168
28-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.011	0.033	0.023	0.000	0.000	0.000	0.000	0.230	0.096	0.000	0.000	0.000	0.011	0.200	0.231	0.246	0.238	0.057	0.246
30-Oct	0.292	0.165	Z	0.004	0.095	0.100	0.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.031	0.292
31-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.046	0.206	0.028	0.005	0.016	0.019	0.018	0.021	0.021	0.010	0.049	0.032	0.029	0.028	0.031	0.020	0.007	0.009	0.004	0.002	0.013	0.024	0.049	0.042	Diurnal Average	
	0.410	4.889	0.478	0.085	0.156	0.159	0.163	0.262	0.226	0.125	0.952	0.384	0.378	0.508	0.524	0.345	0.080	0.112	0.130	0.062	0.200	0.504	0.848	0.958	Diurnal Maximum	

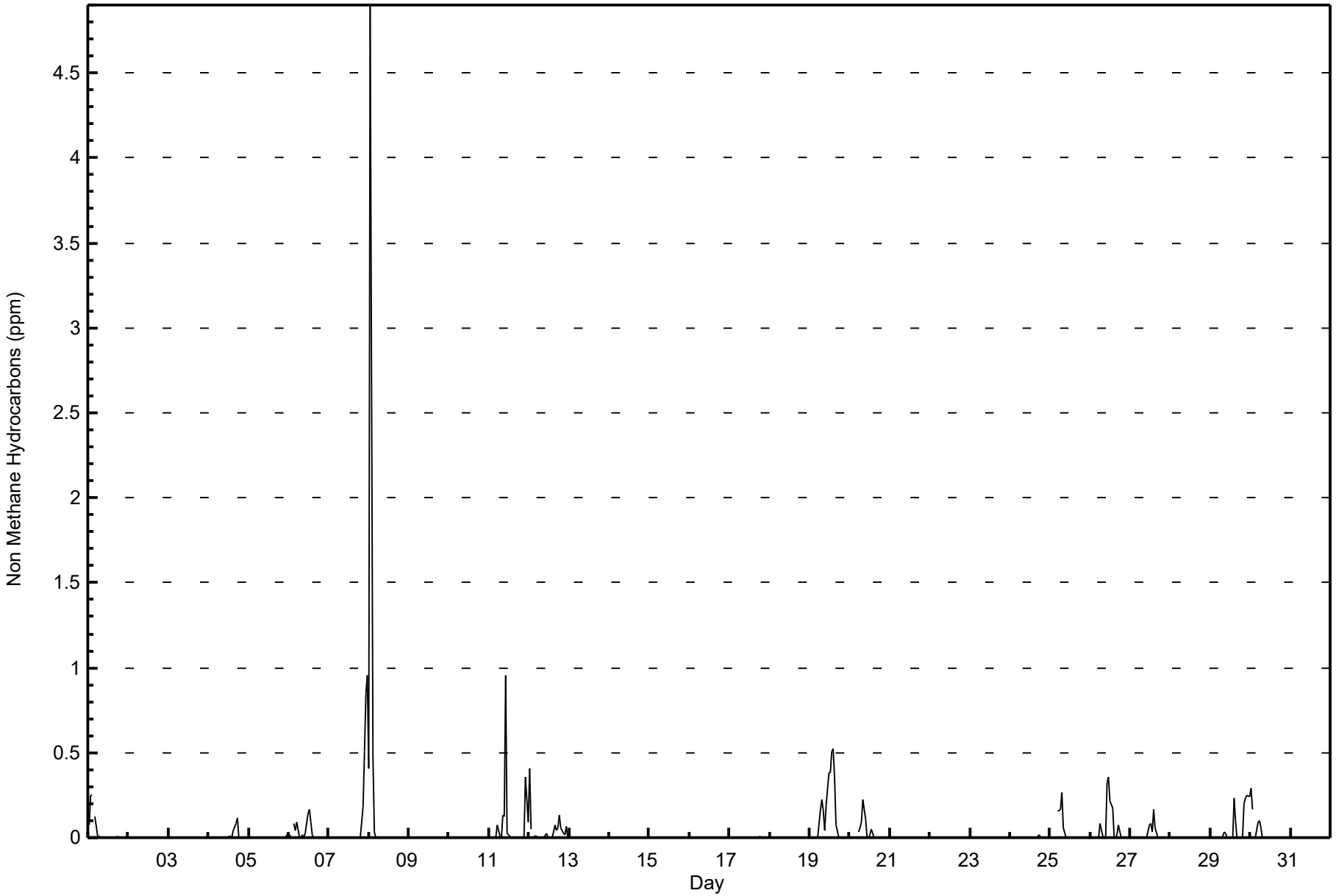
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm

Buffalo Viewpoint - October 2025



Non Methane Hydrocarbons (NMHC) - ppm
Buffalo Viewpoint - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	604	85.43	85.43
0.006 - 0.05	35	4.95	90.38
0.06 - 0.1	29	4.10	94.48
> 0.1	39	5.52	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Buffalo Viewpoint - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.005	55	12	3	1	3	10	61	153	50	41	37	38	67	41	27	5	604
0.006 - 0.05	19	1	1	0	3	0	0	1	1	1	0	0	0	2	1	5	35
0.06 - 0.1	9	3	0	0	1	0	0	0	1	0	2	1	0	0	0	12	29
> 0.1	10	9	2	1	0	0	0	0	0	1	1	1	0	0	4	10	39
Totals	93	25	6	2	7	10	61	154	52	43	40	40	67	43	32	32	707

Total Number of Valid Hours: 707

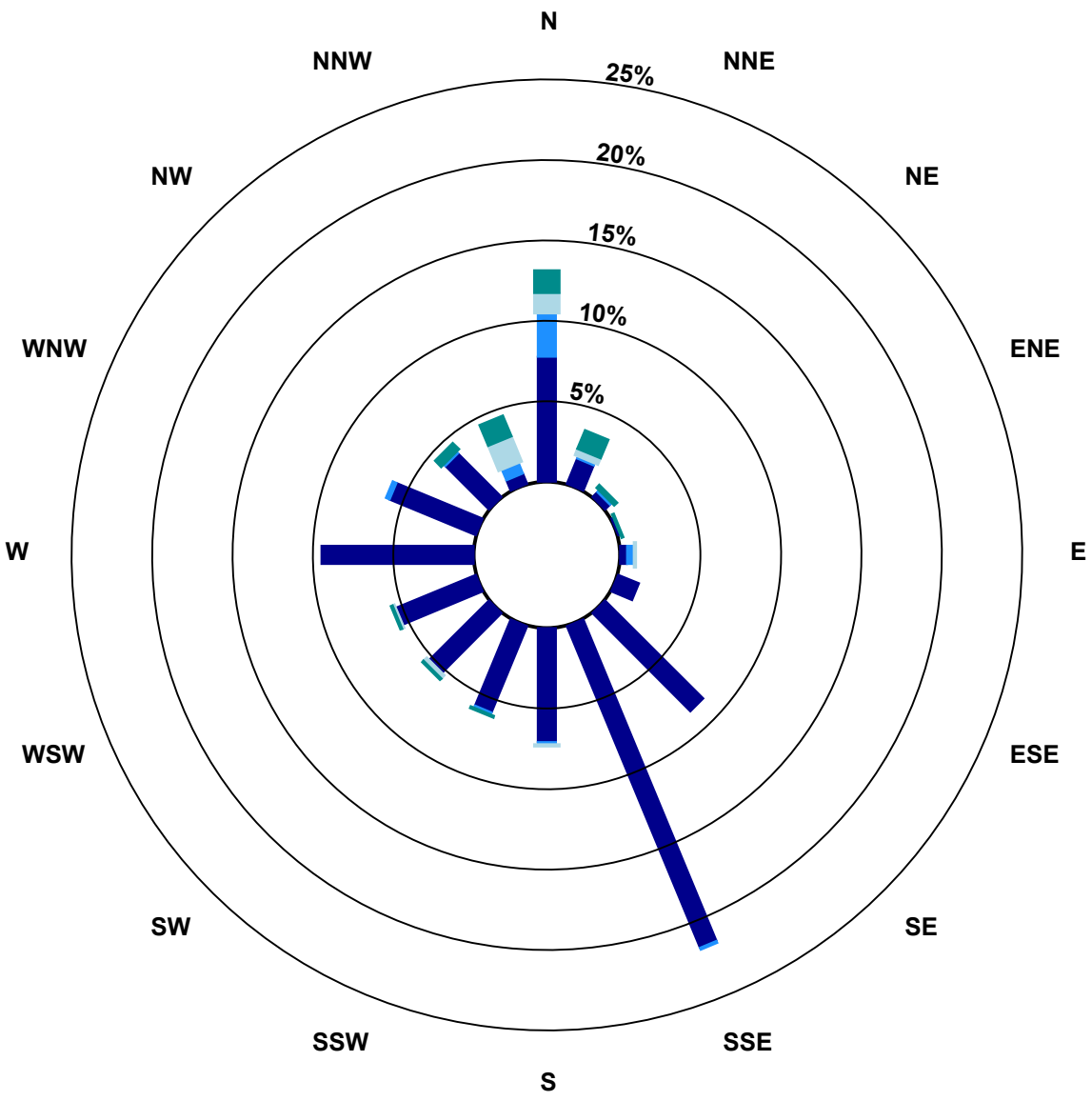
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Non Methane Hydrocarbons (NMHC) - ppm

Buffalo Viewpoint



Classes (ppm)

0 - 0.005

0.006 - 0.05

0.06 - 0.1

> 0.1

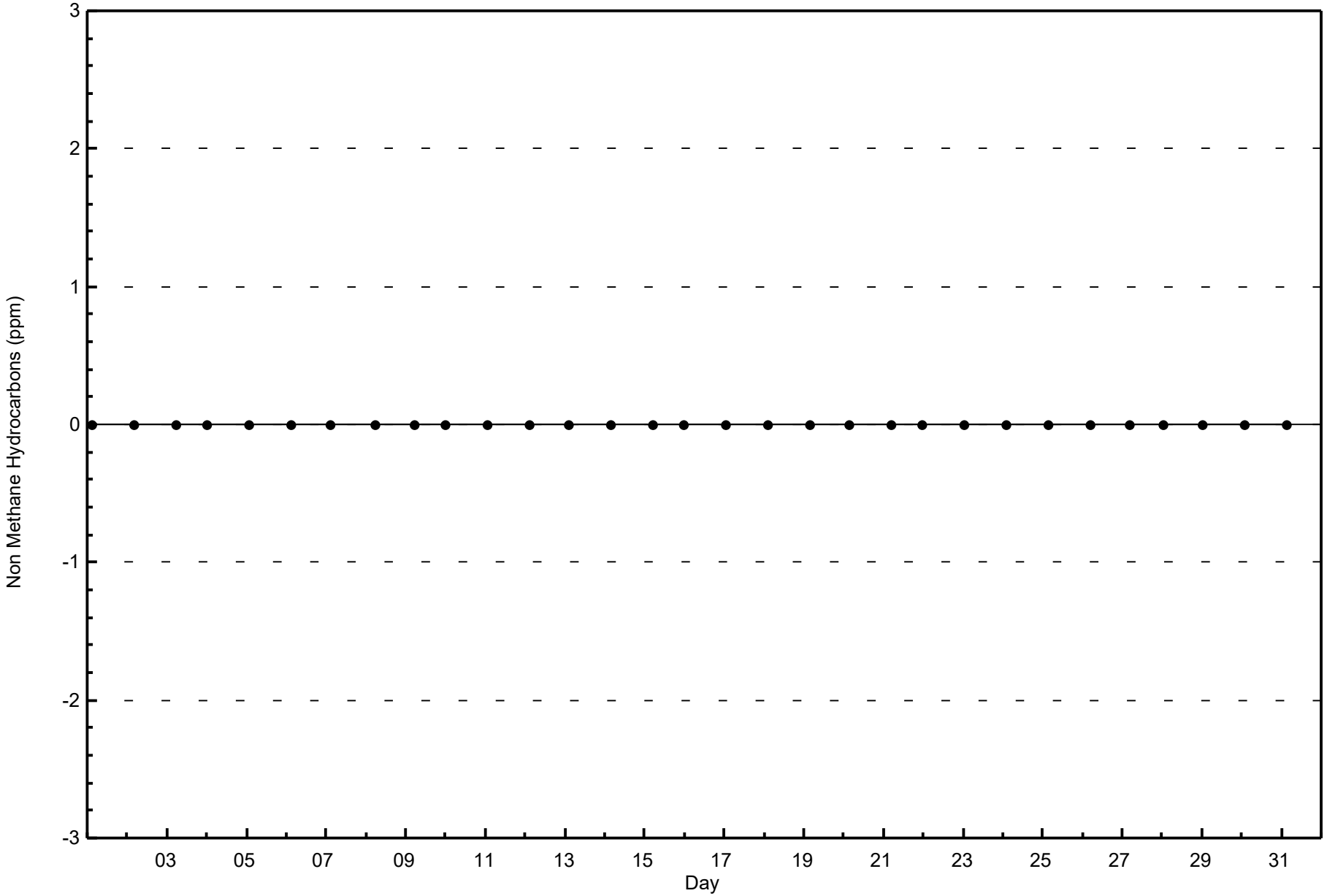
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Buffalo Viewpoint - October 2025

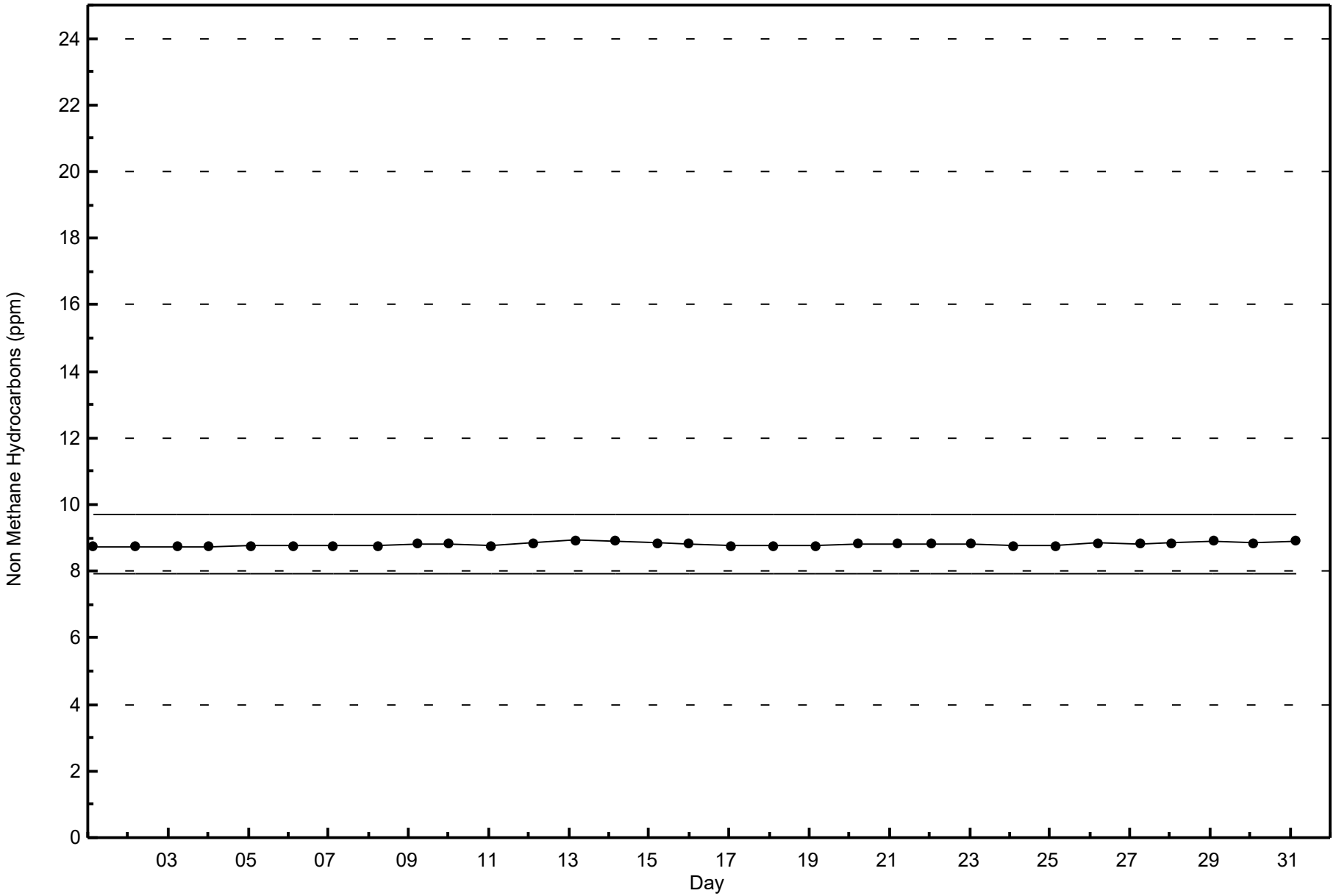


Wood Buffalo Environmental Association

Span Responses

Non Methane Hydrocarbons (NMHC) - ppm

Buffalo Viewpoint - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH_4) - ppm

Buffalo Viewpoint - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 4.8 ppm on Oct 7 23:00

Maximum Daily Average: 2.4 ppm on Oct 7

Minimum Value: 2.0 ppm on Oct 3 15:00

Minimum Daily Average: 2.0 ppm on Oct 3

Maximum Diurnal Average: 2.1 ppm at hour 24

Minimum Diurnal Average: 2.0 ppm at hour 20

Monthly Average: 2.08 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.0 Median = 2.0 Q_3 = 2.1 P_{90} = 2.1 P_{99} = 2.7

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	34
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.2	2.2	2.2	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.3	2.3	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.3
2-Oct	2.2	2.2	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2
3-Oct	2.0	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
4-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1
5-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
6-Oct	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
7-Oct	2.0	2.0	2.0	Z	2.0	2.0	C	C	C	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.1	2.9	4.2	4.8	4.5	2.4	4.8
8-Oct	2.8	2.5	2.7	2.2	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.8
9-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1
10-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.2	2.1	2.2
11-Oct	2.2	Z	2.1	2.1	2.2	2.5	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.5
12-Oct	2.1	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
13-Oct	2.1	2.1	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
14-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
15-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1
16-Oct	Z	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
17-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1
18-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1
19-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.4	2.4	2.4	2.3	2.5	2.7	2.7	2.6	2.6	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.3	2.7
20-Oct	2.1	2.0	2.0	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1
21-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.2	2.0	2.2
22-Oct	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
23-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	M	M	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
24-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
25-Oct	2.1	2.1	2.1	Z	2.9	2.6	2.6	2.7	2.3	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.9
26-Oct	2.0	2.1	2.1	2.0	Z	2.0	2.1	2.1	2.1	2.2	2.7	2.6	2.4	2.3	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.7
27-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
28-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
29-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.2	2.1	2.2	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.2	2.3	2.1	2.3
30-Oct	2.4	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4
31-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1
	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	Diurnal Average	
	2.8	2.5	2.7	2.2	2.9	2.6	2.6	2.7	2.4	2.3	2.7	2.7	2.7	2.6	2.6	2.3	2.2	2.2	2.1	2.1	2.9	4.2	4.8	4.5	Diurnal Maximum	

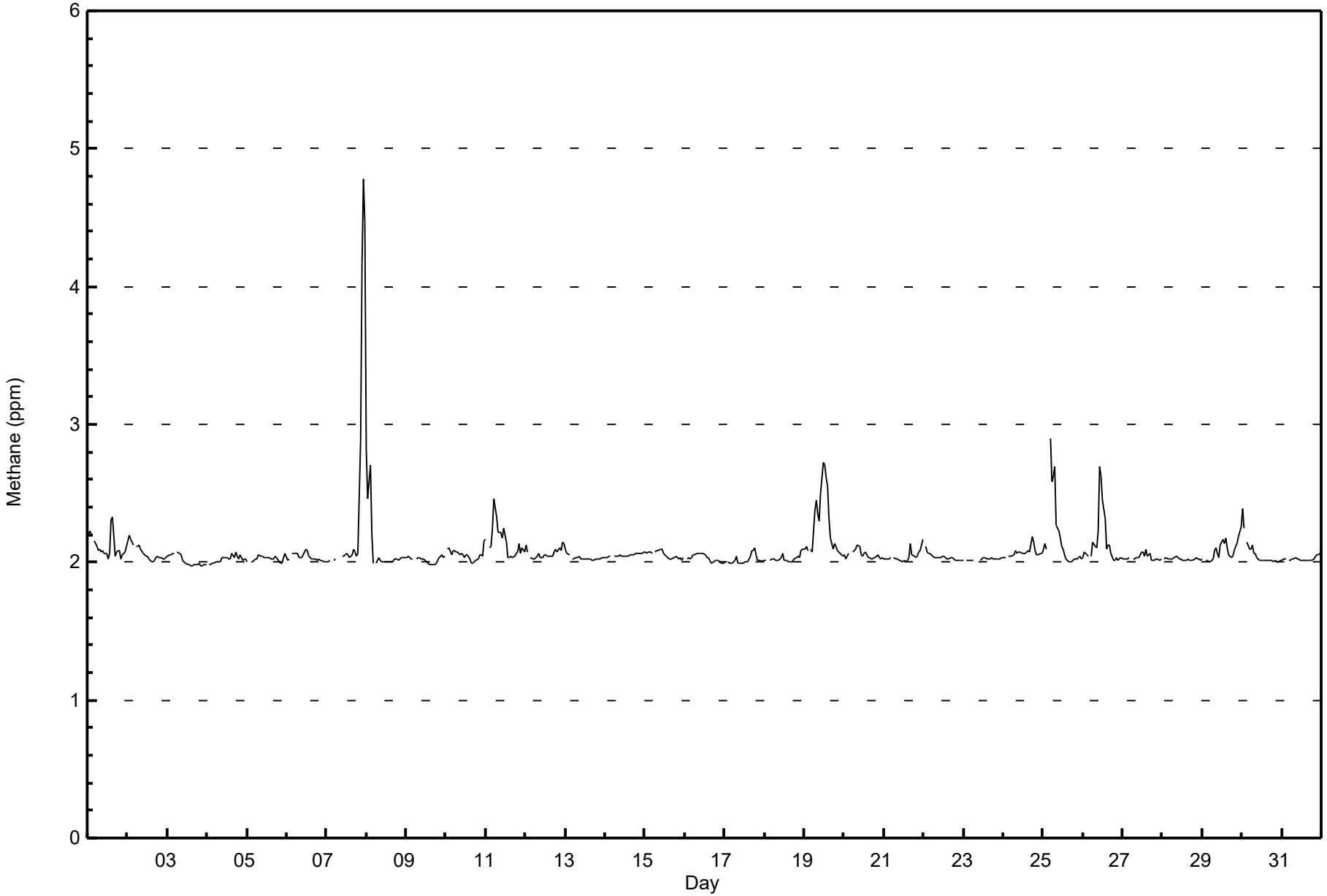
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Methane (CH_4) - ppm

Buffalo Viewpoint - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	445	62.94	62.94
2.1 - 3.0	259	36.63	99.58
3.1 - 10.0	3	0.42	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Methane (CH_4) - ppm

Buffalo Viewpoint - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	39	4	2	0	1	5	36	98	34	33	34	37	63	36	16	7	445
2.1 - 3.0	54	21	4	2	6	5	25	56	18	10	6	3	4	7	14	24	259
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	93	25	6	2	7	10	61	154	52	43	40	40	67	43	32	32	707

Total Number of Valid Hours: 707

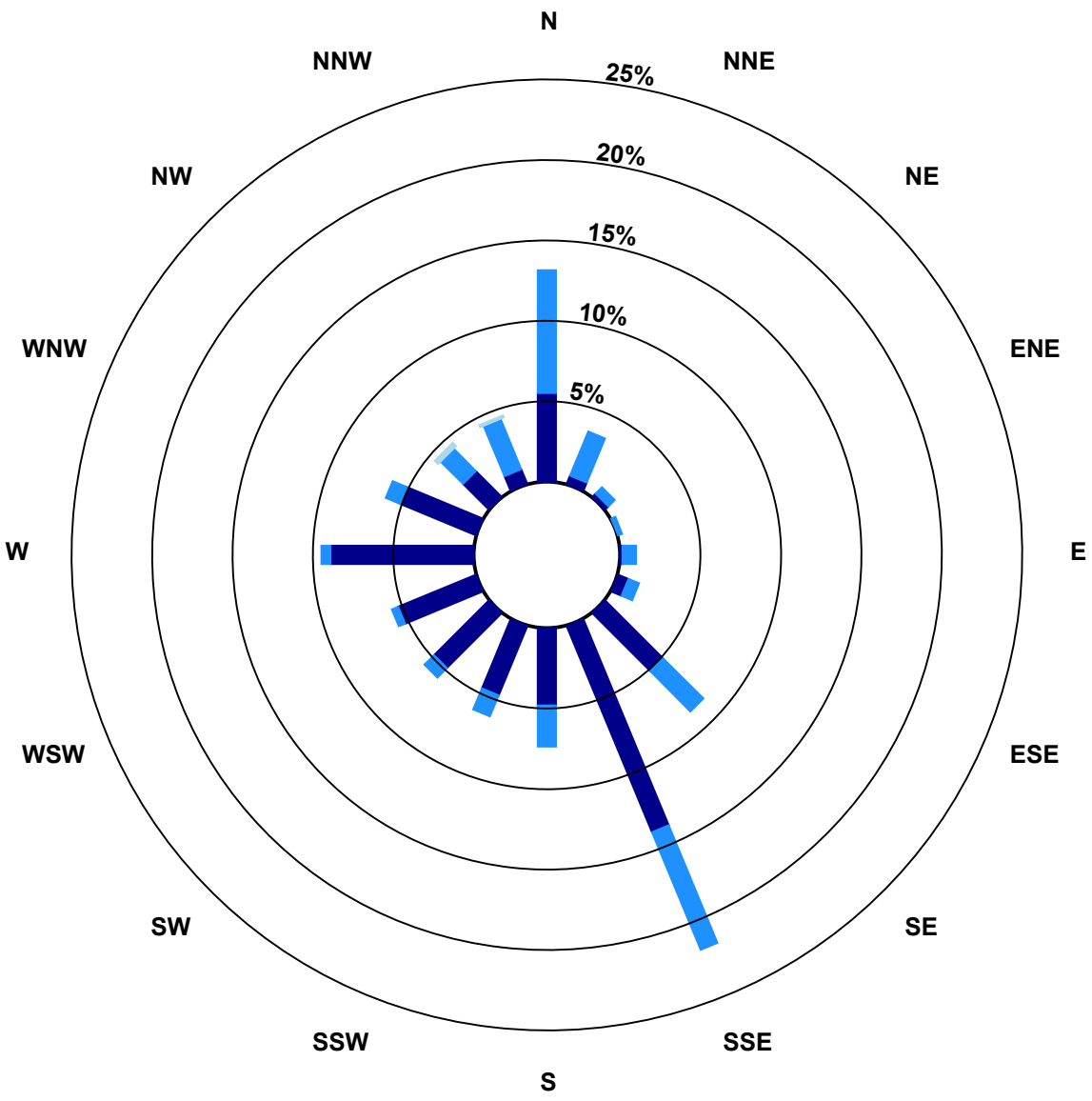
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Methane (CH_4) - ppm

Buffalo Viewpoint



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

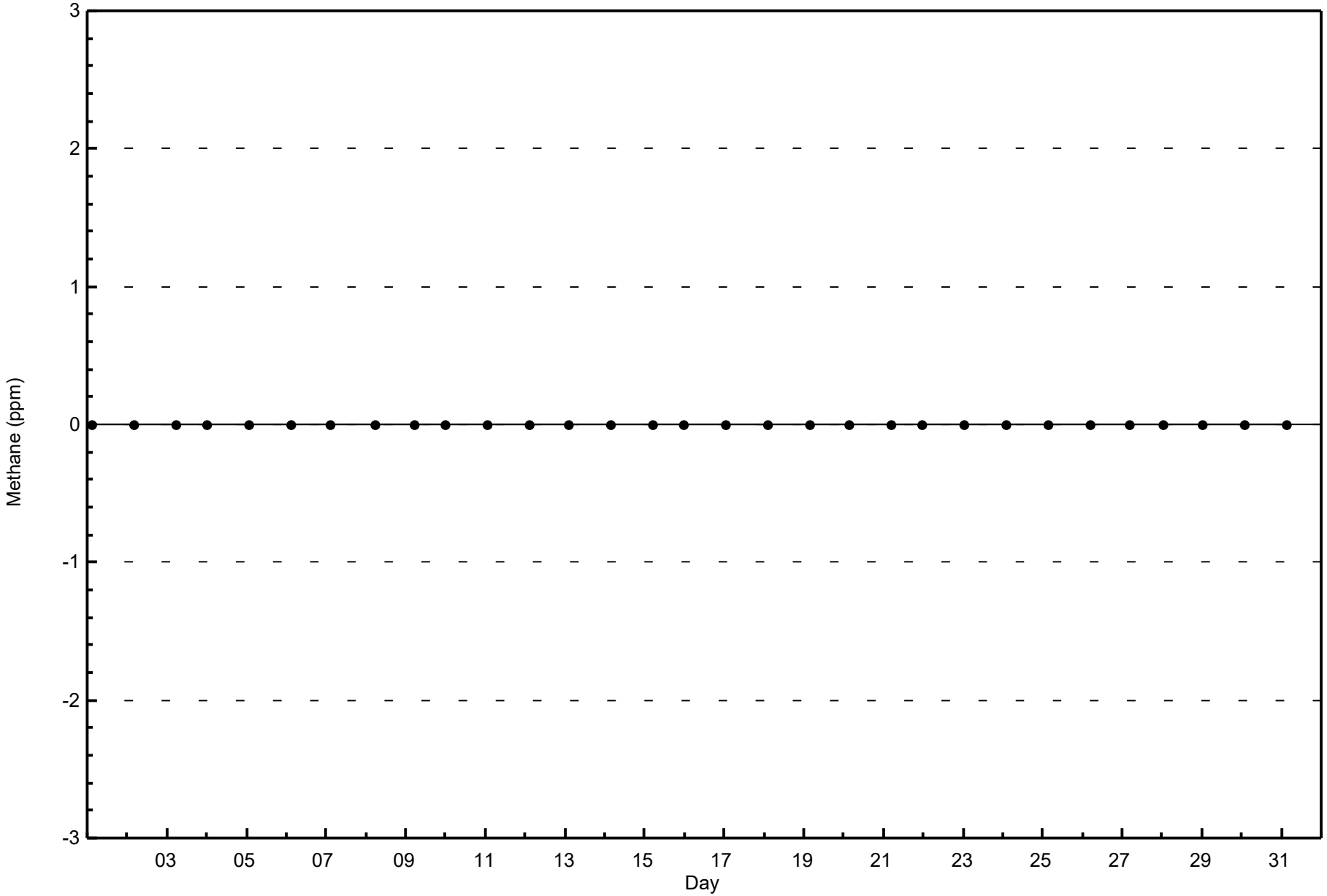
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Methane (CH_4) - ppm

Buffalo Viewpoint - October 2025

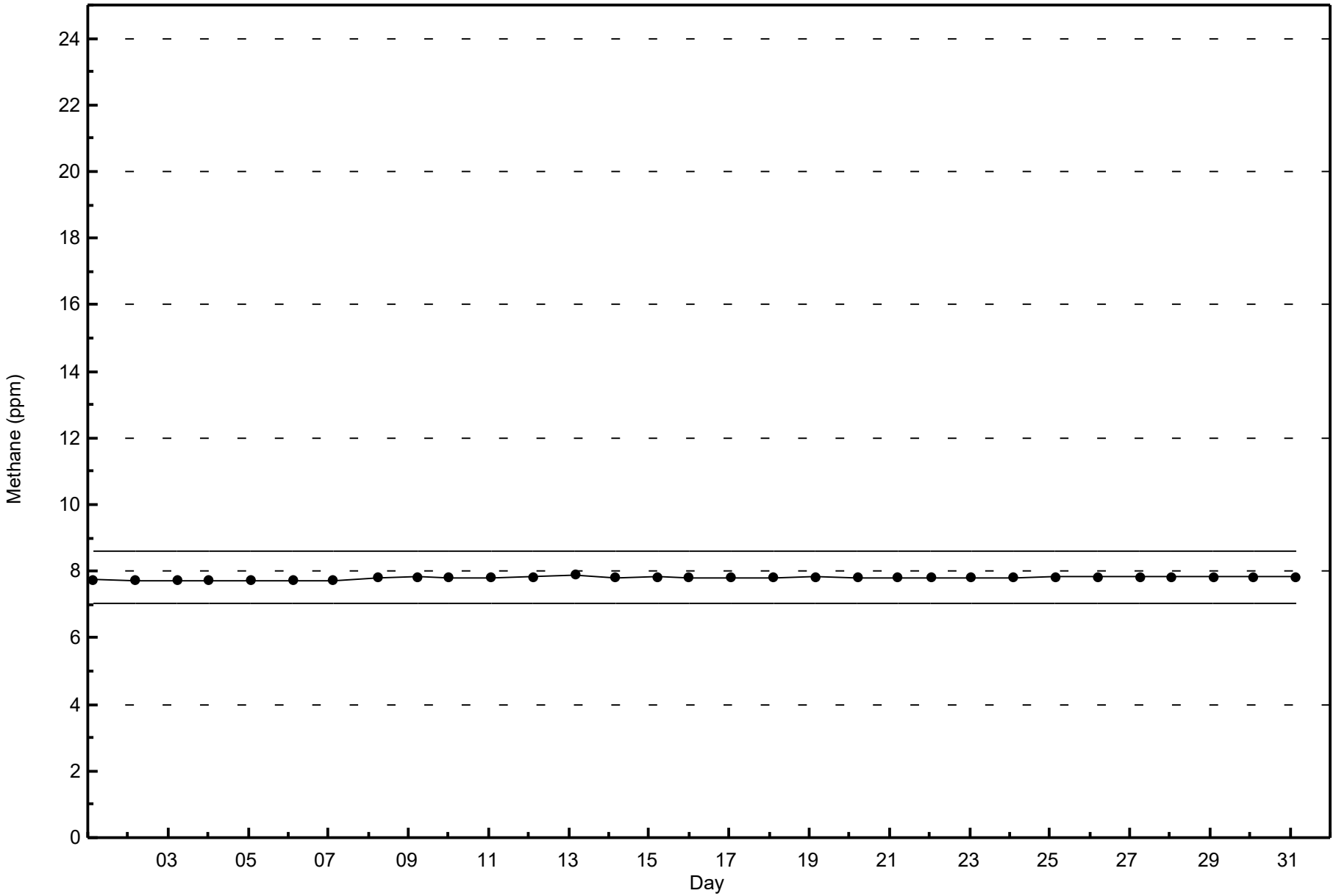


Wood Buffalo Environmental Association

Span Responses

Methane (CH_4) - ppm

Buffalo Viewpoint - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Buffalo Viewpoint - October 2025

Maximum Value: 102.3 ppb on Oct 8 00:00

Maximum Daily Average: 17.1 ppb on Oct 19

Minimum Value: 0.0 ppb on Oct 3 15:00

Minimum Daily Average: 0.0 ppb on Oct 5

Maximum Diurnal Average: 4.4 ppb at hour 12

Minimum Diurnal Average: 0.1 ppb at hour 20

Monthly Average: 1.69 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.5 P_{90} = 1.8 P_{99} = 47.1

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	Z	0.7	0.5	0.4	0.3	0.3	C	C	C	C	C	1.1	0.4	0.5	0.5	0.3	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.4	1.1
2-Oct	0.2	Z	0.4	0.2	0.2	1.0	0.8	3.2	3.2	3.4	2.1	1.8	1.4	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.0	0.8	3.4
3-Oct	0.0	0.0	Z	0.3	0.0	0.0	0.2	0.3	0.3	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.1	0.1	0.1	0.3
4-Oct	0.1	0.1	0.0	Z	0.2	0.0	0.1	0.1	0.6	0.8	1.2	1.1	0.5	0.3	0.3	1.4	1.0	1.6	0.2	0.1	0.1	0.0	0.0	0.0	0.4	1.6
5-Oct	0.0	0.2	0.1	0.0	Z	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
6-Oct	0.0	0.0	0.0	0.9	0.2	Z	0.3	0.6	1.3	1.8	3.3	5.4	8.8	5.9	2.2	0.8	0.7	0.2	0.0	0.0	0.1	0.0	0.0	0.1	1.4	8.8
7-Oct	Z	0.2	0.0	0.2	0.1	0.1	0.3	0.3	0.5	0.6	0.6	0.9	1.0	1.0	0.6	0.5	3.3	1.7	0.4	0.4	16.9	60.0	64.1	102.3	11.1	102.3
8-Oct	38.3	9.4	Z	2.7	0.5	0.3	0.4	0.4	0.2	0.3	0.3	0.4	0.3	0.2	0.3	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	2.4	38.3
9-Oct	0.1	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.0	0.2
10-Oct	0.1	0.2	0.2	Z	0.2	0.1	0.2	0.5	1.0	0.9	0.9	1.0	0.8	0.5	0.2	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.3	1.0
11-Oct	0.0	0.2	0.2	0.2	Z	0.6	0.5	0.7	2.7	1.6	2.2	0.6	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	2.0	2.2	0.6	2.7
12-Oct	1.6	2.2	2.0	1.0	0.8	Z	0.6	0.4	1.8	0.4	0.5	1.3	1.1	0.8	0.7	0.7	0.6	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.8	2.2
13-Oct	Z	0.3	0.2	0.1	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
14-Oct	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
15-Oct	0.0	0.0	Z	0.1	0.1	0.0	0.0	0.2	0.8	0.8	1.0	0.2	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0
16-Oct	0.0	0.0	0.0	Z	0.0	0.1	0.0	0.3	1.8	2.6	1.9	1.4	0.7	0.3	0.1	0.2	0.1	0.0	0.1	0.2	0.2	0.0	0.1	0.1	0.4	2.6
17-Oct	0.2	0.2	0.1	0.2	Z	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.3	0.3	0.6	0.2	0.3	0.1	0.0	0.0	0.2	0.1	0.2	0.6
18-Oct	0.1	0.1	0.1	0.0	0.0	Z	0.2	0.1	0.2	0.2	0.2	0.3	0.1	0.2	0.1	0.0	0.1	0.1	0.9	0.2	0.3	0.1	0.2	0.2	0.2	0.9
19-Oct	Z	0.3	0.3	0.2	0.2	0.2	13.3	16.5	15.5	17.0	38.9	62.9	68.5	59.2	60.7	28.0	6.8	0.7	1.8	0.9	0.5	0.4	0.3	0.1	17.1	68.5
20-Oct	0.2	Z	0.4	0.2	1.0	0.8	0.3	1.2	6.6	6.2	1.1	1.6	1.8	1.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	6.6
21-Oct	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.6	0.2	0.1	0.0	0.1	0.1	0.4	1.3	0.1	1.3
22-Oct	0.4	0.4	0.6	Z	0.6	0.0	0.0	0.5	0.5	1.1	1.5	1.0	0.9	0.7	0.5	0.2	0.9	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.5	1.5
23-Oct	0.0	0.1	0.1	0.0	Z	0.1	0.1	M	0.0	0.3	0.4	0.5	0.8	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.8
24-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.4	1.1	0.6	0.7	0.4	0.3	0.3	1.1	0.6	0.6	0.8	0.2	0.1	0.0	0.1	0.1	0.3	1.1
25-Oct	Z	0.4	0.2	0.2	4.1	8.6	7.6	5.0	0.6	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	1.2	8.6
26-Oct	0.2	Z	0.3	0.1	0.2	0.3	8.3	2.6	1.1	22.5	47.5	40.8	31.8	19.8	3.9	2.1	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	8.0	47.5
27-Oct	0.0	0.0	Z	0.1	0.1	0.0	0.3	0.4	1.9	3.2	3.3	5.9	4.3	0.8	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	5.9
28-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.2
29-Oct	0.2	0.2	0.1	0.2	Z	0.3	0.3	0.4	0.4	0.9	2.9	4.7	6.1	6.0	10.6	5.0	1.2	0.5	0.4	1.1	0.8	1.4	2.0	1.3	2.0	10.6
30-Oct	3.8	7.0	6.5	1.1	0.8	Z	0.6	0.4	0.4	0.2	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	7.0
31-Oct	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.7	0.7	0.5	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.7
	1.8	0.8	0.5	0.3	0.4	0.5	1.2	1.2	1.4	2.2	3.7	4.4	4.2	3.2	2.7	1.3	0.6	0.3	0.2	0.1	0.6	2.0	2.3	3.5	Diurnal Average	
	38.3	9.4	6.5	2.7	4.1	8.6	13.3	16.5	15.5	22.5	47.5	62.9	68.5	59.2	60.7	28.0	6.8	1.7	1.8	1.1	16.9	60.0	64.1	102.3	Diurnal Maximum	

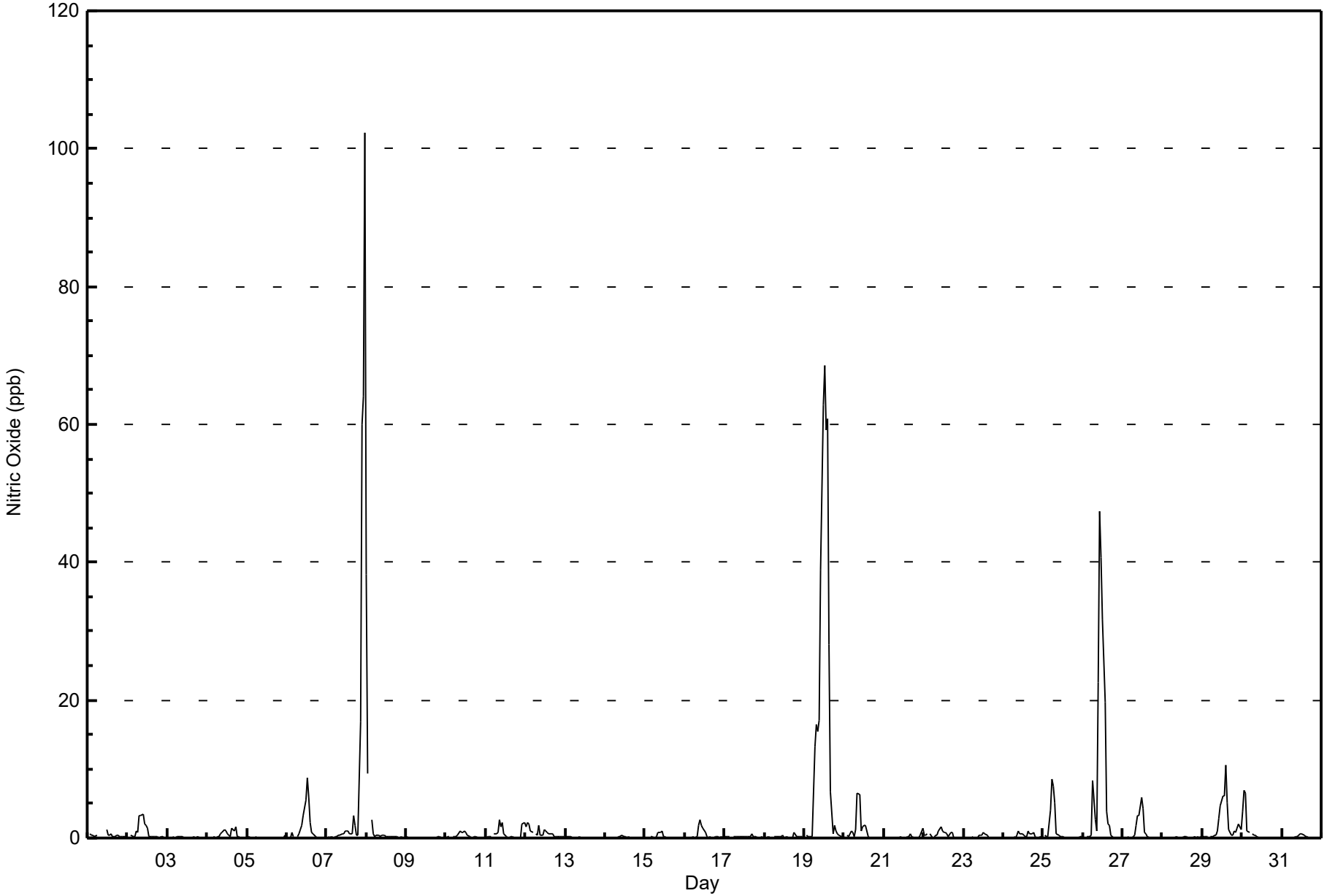
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Buffalo Viewpoint - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	693	98.02	98.02
21 - 40	5	0.71	98.73
11 - 80	8	1.13	99.86
81 - 159	1	0.14	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Buffalo Viewpoint - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	85	20	6	2	7	10	59	164	47	43	40	42	68	42	29	29	693
21 - 40	2	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5
11 - 80	3	3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	8
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	90	25	6	2	7	10	59	164	47	43	40	42	68	42	32	30	707

Total Number of Valid Hours: 707

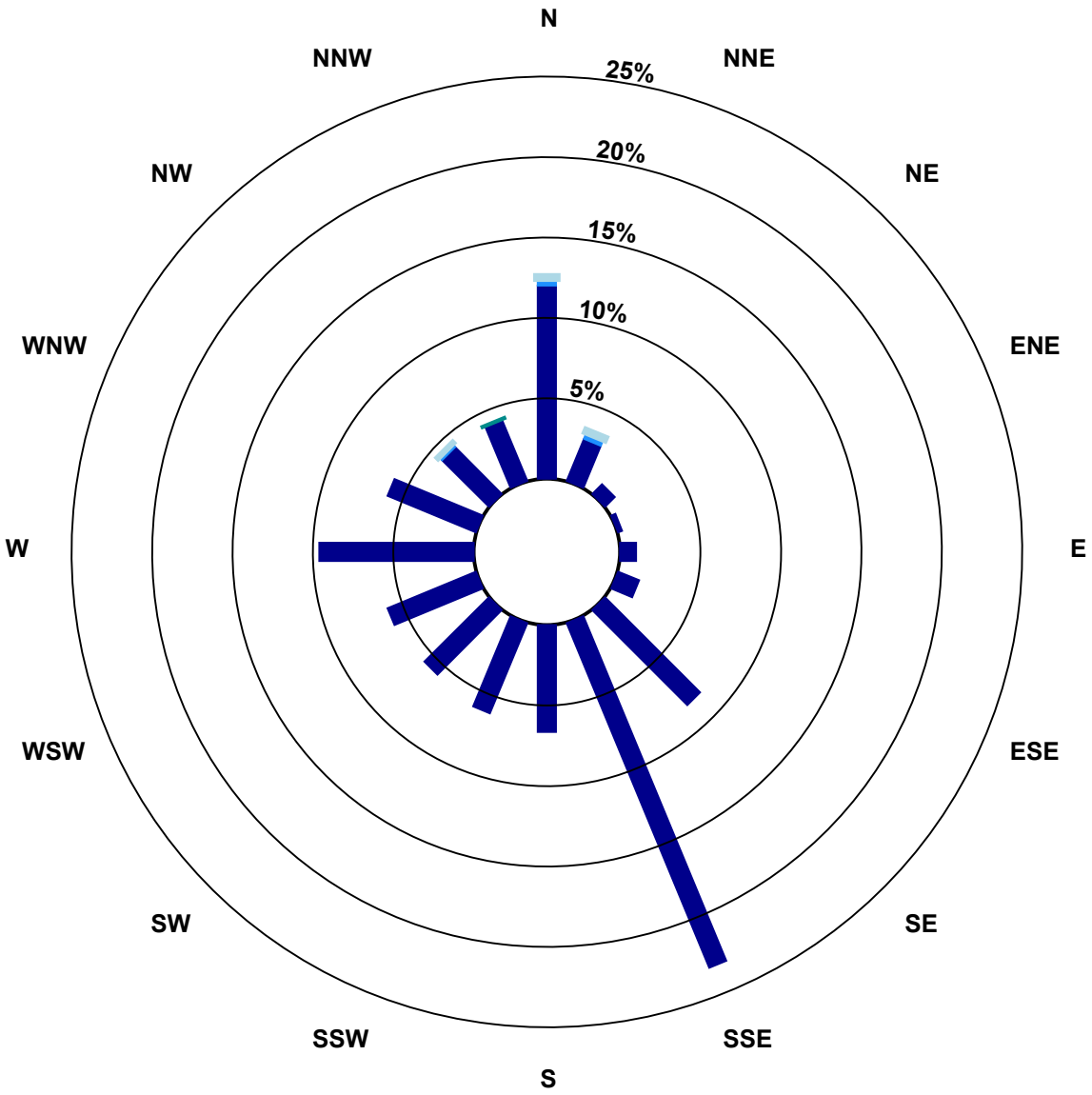
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Buffalo Viewpoint



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

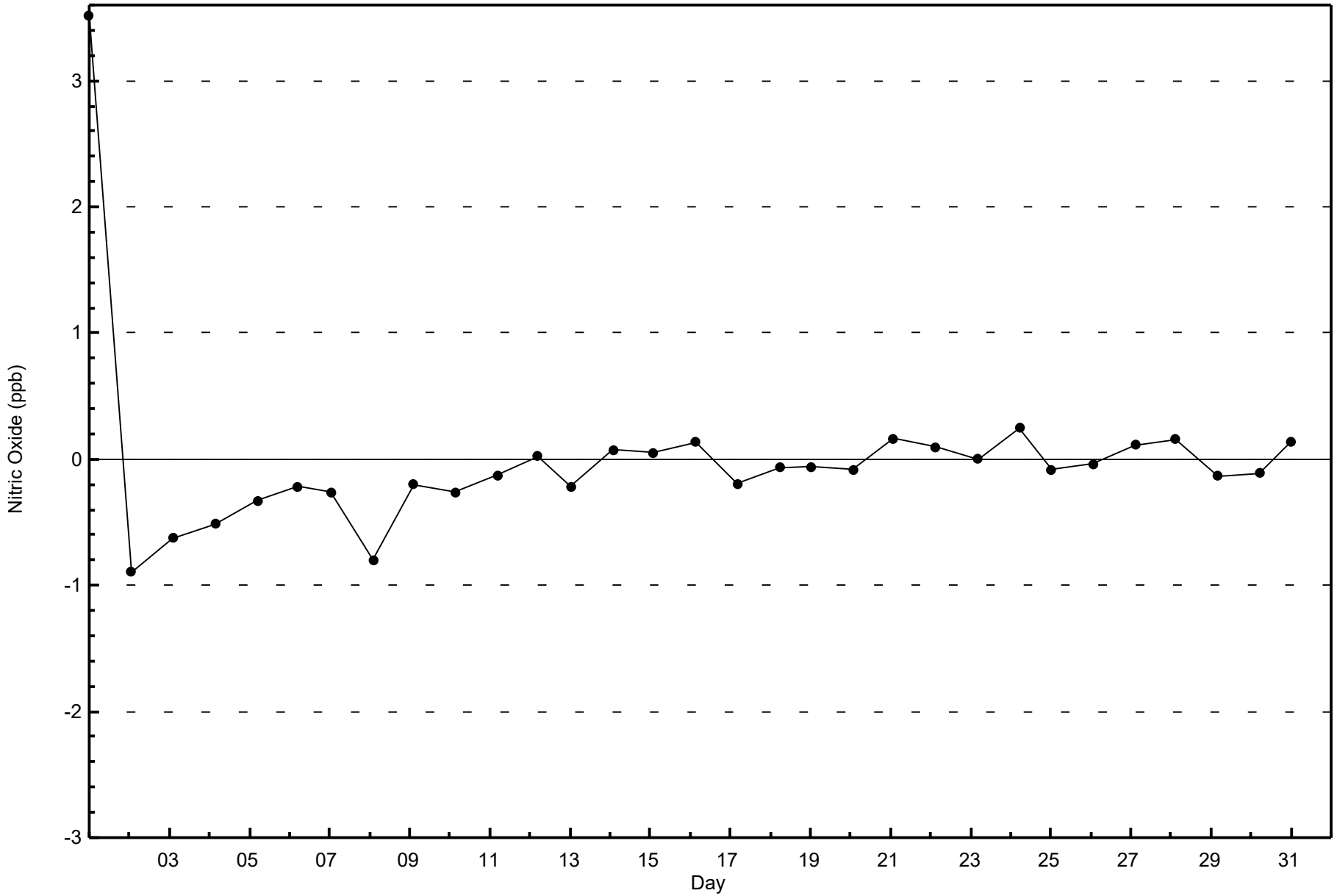
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Buffalo Viewpoint - October 2025

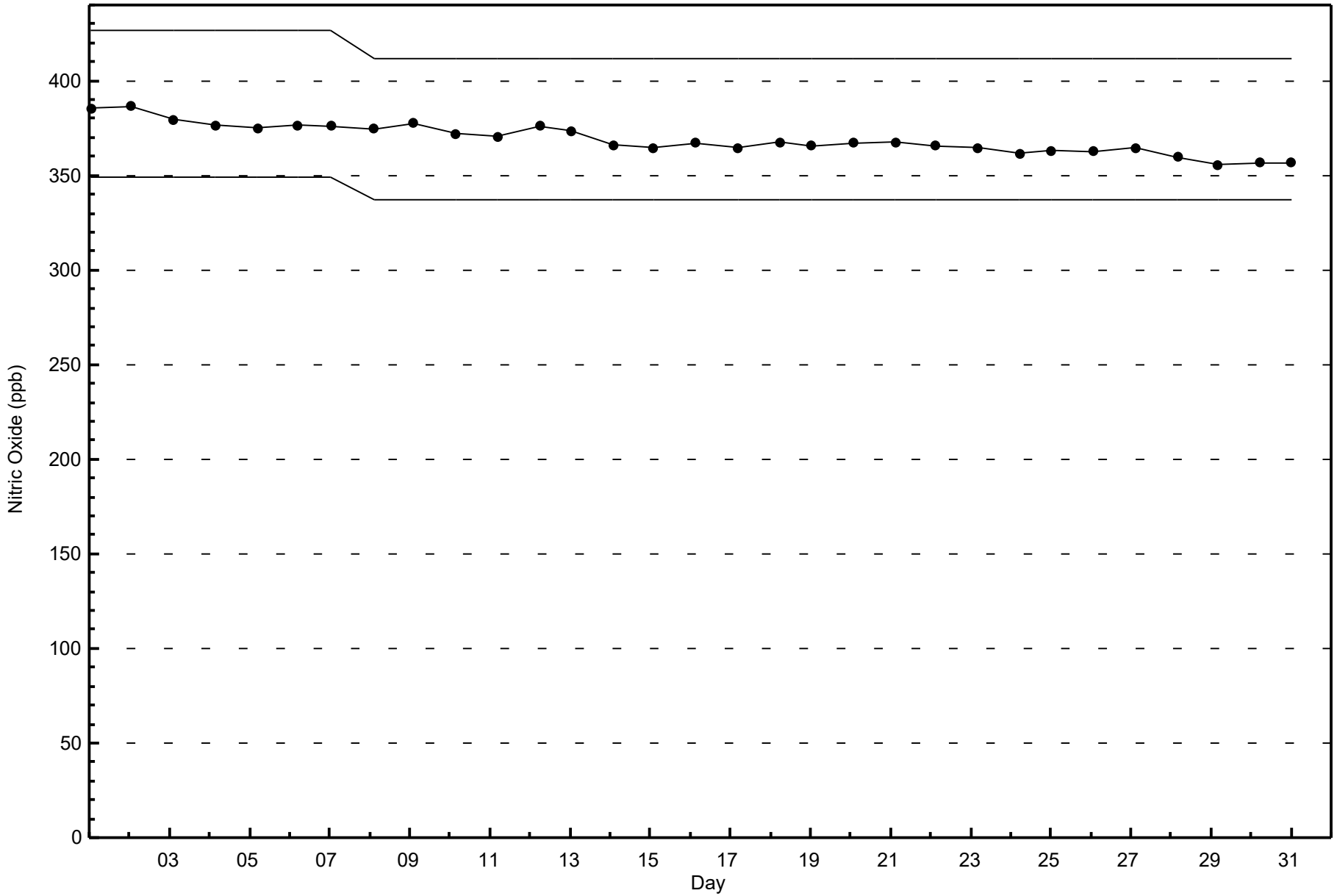


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Buffalo Viewpoint - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Buffalo Viewpoint - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 20.2 ppb on Oct 7 22:00 Maximum Daily Average: 8.1 ppb on Oct 19

Minimum Value: 0.1 ppb on Oct 8 12:00 Minimum Daily Average: 0.4 ppb on Oct 28
Maximum Diurnal Average: 3.6 ppb at hour 8 Minimum Diurnal Average: 2.1 ppb at hour 20
Monthly Average: 2.83 ppb Percentiles: P_1 = 0.1 P_{10} = 0.3 Q_1 = 0.6 Median = 1.4 Q_3 = 3.4 P_{90} = 8.2 P_{99} = 15.5

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	Z	14.6	14.9	12.3	9.0	6.0	C	C	C	C	C	4.4	2.8	3.5	3.8	3.6	4.8	7.7	9.8	5.8	3.9	3.7	2.0	1.4	6.3	14.9
2-Oct	1.0	Z	1.6	1.3	1.2	3.5	2.9	3.0	2.0	2.5	2.7	2.3	2.8	1.5	0.5	0.6	0.7	0.7	1.5	1.7	2.6	2.0	1.4	1.0	1.8	3.5
3-Oct	1.0	0.9	Z	1.0	0.9	1.0	1.4	1.3	0.7	0.6	0.4	0.3	0.3	0.4	0.3	0.5	0.3	0.3	0.3	0.5	0.3	0.4	0.3	0.4	0.6	1.4
4-Oct	0.3	0.3	0.4	Z	0.4	0.3	0.4	0.7	1.6	2.5	3.4	2.4	2.7	2.3	3.3	6.2	3.2	4.4	3.2	3.0	4.7	0.7	1.8	0.5	2.1	6.2
5-Oct	0.2	1.4	0.2	0.1	Z	0.3	0.3	0.9	0.4	0.3	0.3	0.2	0.3	0.4	0.4	0.4	0.5	1.7	1.6	0.9	0.1	0.2	1.7	6.2	0.8	6.2
6-Oct	3.4	4.3	4.3	8.2	6.0	Z	4.0	6.3	6.7	5.6	6.3	7.7	11.4	8.9	4.8	2.8	3.9	1.6	2.6	3.2	2.8	2.4	1.4	1.2	4.8	11.4
7-Oct	Z	1.1	1.1	0.9	0.8	0.9	0.9	1.6	1.8	1.4	1.6	1.8	1.6	1.3	1.1	1.7	9.7	11.6	2.8	2.2	11.7	20.2	17.5	17.7	4.9	20.2
8-Oct	15.5	12.6	Z	5.9	0.4	0.2	0.2	0.5	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.2	0.3	1.1	0.8	0.6	0.7	1.1	1.4	0.7	1.9	15.5
9-Oct	1.0	0.7	Z	0.5	0.2	0.1	0.3	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.5	3.7	2.8	0.6	0.8	1.2	0.7	3.7
10-Oct	2.2	2.1	1.0	Z	1.1	1.4	2.2	3.1	2.8	1.9	1.9	2.2	1.8	1.8	1.2	0.6	0.5	0.7	0.7	0.6	0.8	0.8	0.9	1.6	1.5	3.1
11-Oct	2.7	2.2	1.7	1.4	Z	8.1	11.3	10.7	13.5	8.2	7.2	6.0	3.1	0.5	0.3	0.7	0.6	0.7	1.3	1.4	4.2	2.1	8.3	10.5	4.6	13.5
12-Oct	9.4	10.0	9.1	6.8	6.2	Z	3.9	4.1	7.5	3.7	2.6	5.1	4.9	3.6	3.3	4.4	5.4	4.3	4.4	4.0	4.7	3.6	5.5	6.3	5.3	10.0
13-Oct	Z	2.7	3.0	0.6	0.3	0.2	0.2	0.8	1.1	0.2	0.1	0.3	0.2	0.1	0.2	0.3	0.2	0.5	0.4	0.3	0.5	0.6	0.9	0.9	0.6	3.0
14-Oct	1.0	Z	1.5	1.1	1.0	1.1	1.9	1.4	1.2	1.2	1.0	1.0	1.0	0.8	0.9	0.8	0.8	1.2	1.6	1.0	1.1	1.4	1.5	1.3	1.2	1.9
15-Oct	1.6	1.7	Z	2.1	2.3	2.3	2.6	3.4	3.2	3.4	2.8	2.0	1.4	1.1	0.9	0.5	0.5	0.6	1.1	2.9	1.5	1.9	0.4	0.7	1.8	3.4
16-Oct	0.6	0.8	0.7	Z	1.3	2.9	3.3	4.6	5.3	4.9	4.3	2.8	2.7	1.4	1.5	1.6	1.0	0.6	0.7	0.6	0.8	0.7	0.6	0.5	1.9	5.3
17-Oct	0.6	0.7	0.7	0.4	Z	0.4	0.4	0.9	0.3	0.2	0.9	0.4	0.4	0.4	0.4	0.8	3.9	5.1	6.9	0.8	0.2	0.3	0.5	0.3	1.1	6.9
18-Oct	0.3	0.3	0.2	0.4	0.5	Z	0.2	0.3	0.3	0.4	0.7	0.8	0.1	0.1	0.1	0.1	0.2	0.8	12.1	5.1	6.8	3.0	3.4	2.2	1.7	12.1
19-Oct	Z	2.4	1.8	1.5	1.2	1.9	11.8	12.7	12.3	11.4	12.9	15.4	15.4	15.2	15.9	13.0	9.4	5.2	7.5	6.1	5.0	4.0	2.5	1.2	8.1	15.9
20-Oct	2.5	Z	2.2	4.8	10.2	8.2	6.1	7.7	10.2	8.5	4.1	4.2	5.0	4.3	1.0	0.4	0.3	0.4	0.5	0.5	1.0	1.0	1.0	1.0	3.7	10.2
21-Oct	0.7	0.8	Z	1.7	1.3	1.7	1.4	0.6	0.5	0.5	0.5	0.5	0.7	0.6	0.9	1.6	6.5	3.7	1.9	1.7	3.5	2.5	3.1	4.0	1.8	6.5
22-Oct	3.2	3.7	6.4	Z	3.1	1.4	1.7	2.8	1.3	1.3	1.6	1.3	1.4	1.5	1.3	1.8	5.2	7.8	2.1	1.1	0.6	0.7	0.6	0.7	2.3	7.8
23-Oct	0.6	0.7	0.5	0.6	Z	1.7	1.9	M	1.2	1.4	1.1	1.3	1.6	1.6	1.7	1.8	1.7	1.7	1.2	1.4	1.1	1.0	1.0	1.0	1.3	1.9
24-Oct	1.1	1.5	1.8	2.2	2.8	Z	3.3	3.5	2.9	3.2	1.8	2.0	1.9	1.9	2.3	6.0	6.7	10.3	14.1	4.4	0.8	0.8	1.0	0.7	3.3	14.1
25-Oct	Z	1.5	0.8	0.9	9.7	13.6	12.5	12.8	4.1	2.0	2.6	1.6	1.1	0.7	0.3	0.5	0.5	0.3	0.3	0.4	0.7	0.7	1.0	0.9	3.0	13.6
26-Oct	2.7	Z	1.9	1.6	1.3	2.2	12.3	7.3	4.2	10.8	14.5	13.4	12.5	11.9	6.7	8.2	9.5	5.7	1.2	1.2	2.5	1.9	2.3	3.2	6.0	14.5
27-Oct	2.6	2.4	Z	2.9	2.4	2.3	3.6	4.8	8.1	9.0	8.2	11.0	8.8	3.4	4.3	2.2	3.1	0.4	0.2	0.2	0.5	0.7	0.6	0.9	3.6	11.0
28-Oct	0.2	0.4	0.9	Z	0.6	0.2	0.1	0.3	0.8	0.5	0.4	0.2	0.2	0.4	0.4	0.4	0.2	0.5	0.5	0.4	0.4	0.5	0.2	0.1	0.4	0.9
29-Oct	0.7	0.4	0.3	0.5	Z	0.4	3.1	4.1	2.6	3.2	5.1	9.3	10.2	11.8	13.4	9.5	7.6	6.4	4.9	8.0	9.7	11.5	14.4	13.6	6.6	14.4
30-Oct	16.9	16.4	15.8	11.0	8.7	Z	7.6	3.4	2.0	0.6	0.4	0.3	0.3	0.6	0.4	0.3	0.4	0.3	0.2	0.2	0.3	0.4	0.4	0.3	3.8	16.9
31-Oct	Z	0.6	0.6	0.5	0.5	1.1	0.9	1.6	1.9	1.0	1.4	1.5	1.5	1.4	1.4	1.5	1.2	1.1	0.9	0.7	0.6	0.8	1.1	1.1	1.1	1.9
	2.9	3.2	2.9	2.7	2.8	2.4	3.4	3.6	3.4	3.0	3.1	3.3	3.2	2.7	2.4	2.4	2.9	2.8	2.8	2.1	2.5	2.3	2.6	2.7	Diurnal Average	
	16.9	16.4	15.8	12.3	10.2	13.6	12.5	12.8	13.5	11.4	14.5	15.4	15.4	15.2	15.9	13.0	9.7	11.6	14.1	8.0	11.7	20.2	17.5	17.7	Diurnal Maximum	

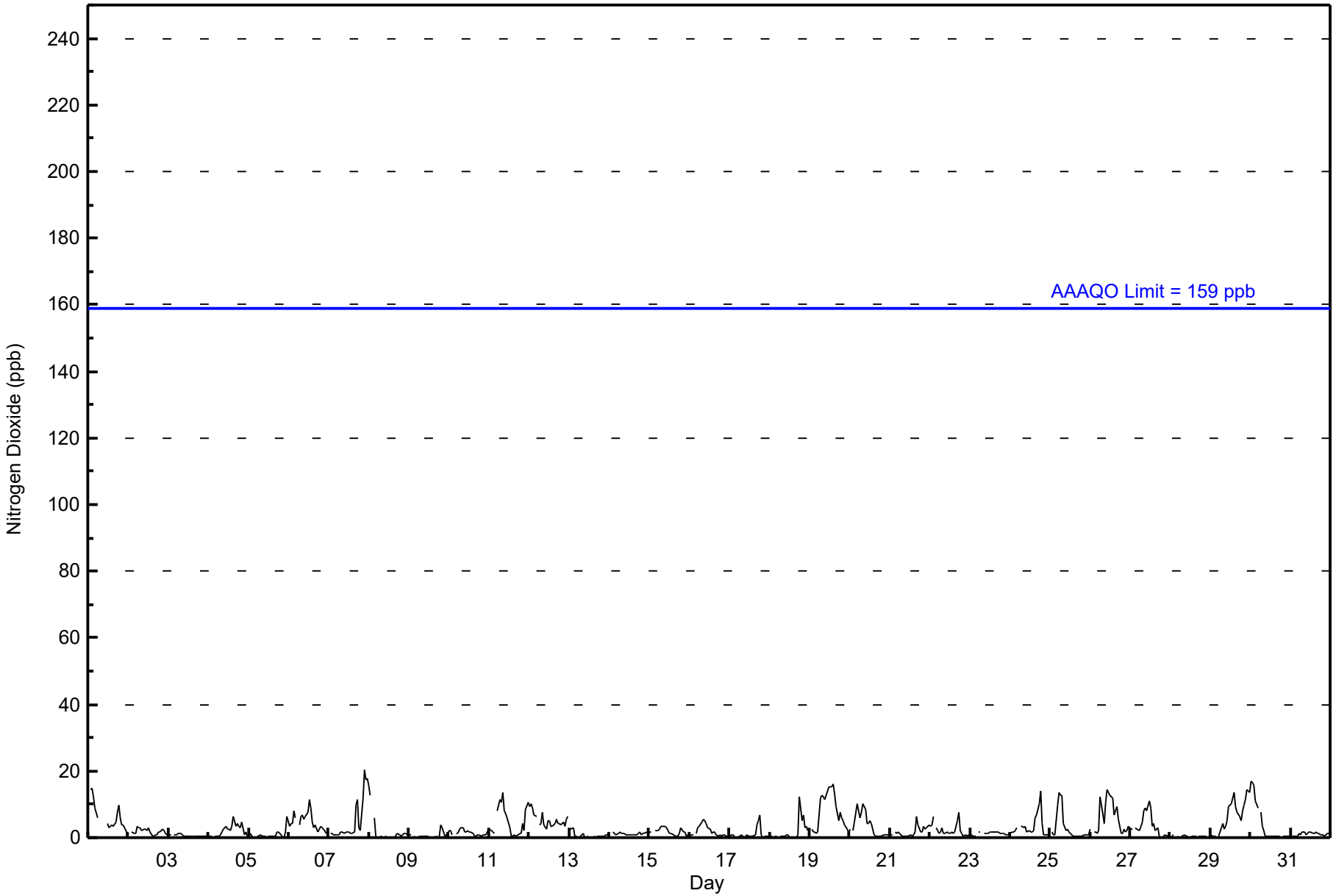
Z - zerospan C - Calibration M - Maintenance
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Buffalo Viewpoint - October 2025



Nitrogen Dioxide (NO_2) - ppb
Buffalo Viewpoint - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Buffalo Viewpoint - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	90	25	6	2	7	10	59	164	47	43	40	42	68	42	32	30	707
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	90	25	6	2	7	10	59	164	47	43	40	42	68	42	32	30	707

Total Number of Valid Hours: 707

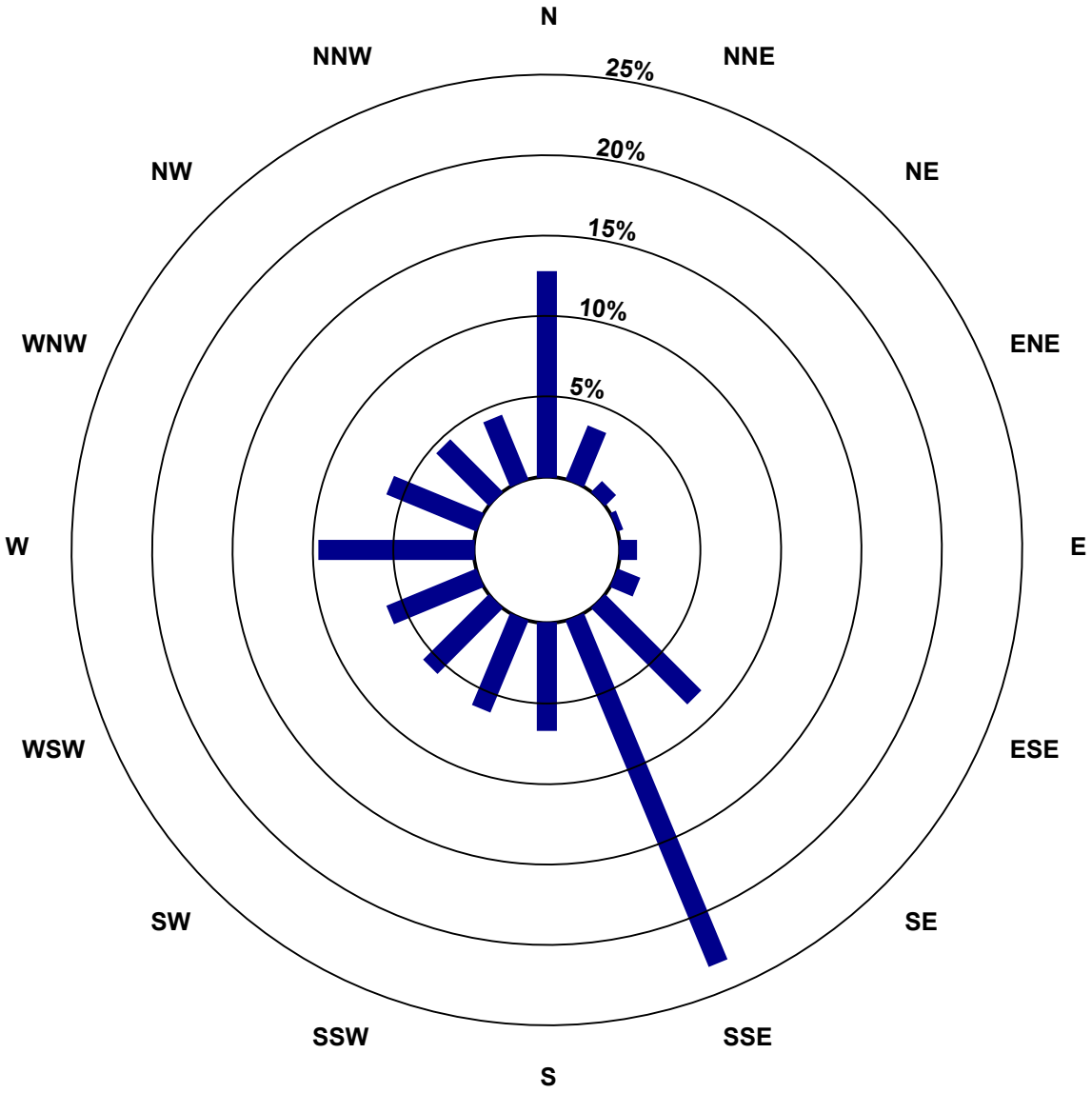
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Buffalo Viewpoint



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

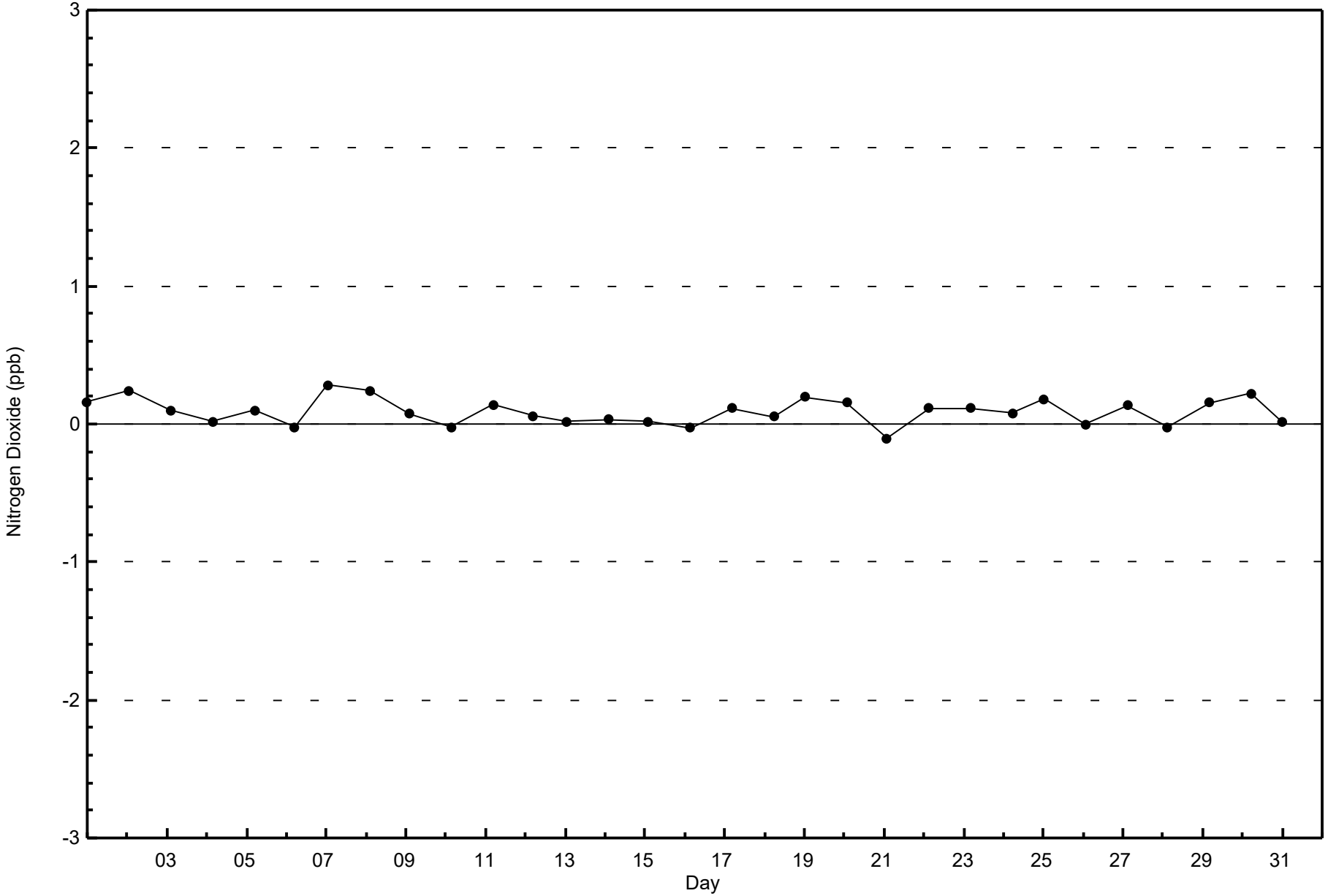
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Buffalo Viewpoint - October 2025

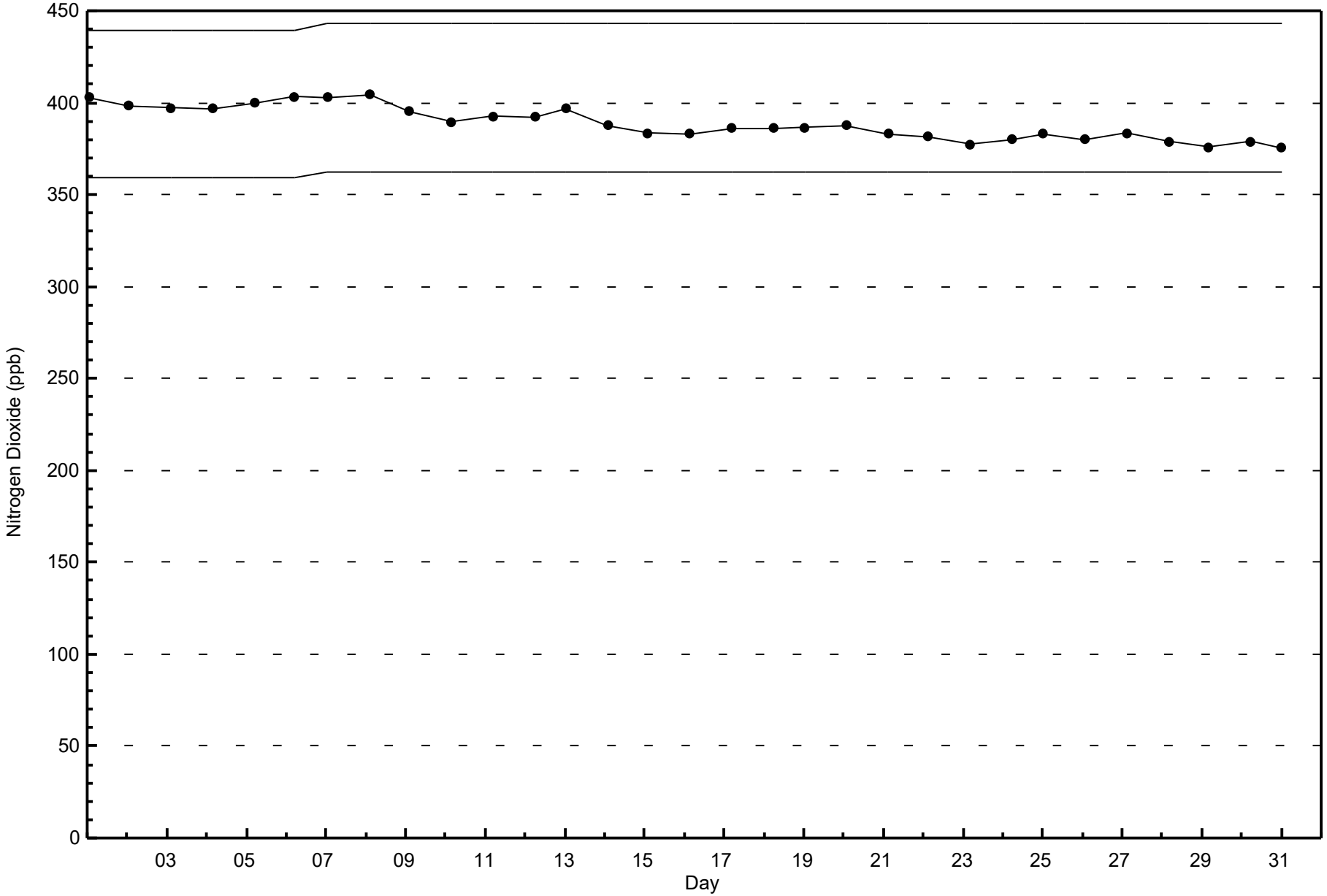


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Buffalo Viewpoint - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Buffalo Viewpoint - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 120.0 ppb on Oct 8 00:00 Maximum Daily Average: 25.2 ppb on Oct 19

Minimum Value: 0.1 ppb on Oct 5 04:00 Minimum Daily Average: 0.4 ppb on Oct 28
Maximum Diurnal Average: 7.6 ppb at hour 12 Minimum Diurnal Average: 2.2 ppb at hour 20
Monthly Average: 4.53 ppb Percentiles: P_1 = 0.2 P_{10} = 0.4 Q_1 = 0.6 Median = 1.5 Q_3 = 4.0 P_{90} = 9.9 P_{99} = 61.5

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	Z	15.3	15.4	12.7	9.3	6.3	C	C	C	C	C	5.5	3.2	4.0	4.3	3.9	5.0	8.1	10.1	6.0	4.1	3.9	2.2	1.5	6.7	15.4
2-Oct	1.2	Z	2.0	1.5	1.4	4.5	3.7	6.2	5.2	5.9	4.8	4.1	4.2	1.8	0.7	0.8	0.8	0.8	1.6	1.7	2.8	2.1	1.5	1.0	2.6	6.2
3-Oct	1.0	0.9	Z	1.3	0.9	1.0	1.6	1.6	1.0	0.8	0.5	0.4	0.3	0.5	0.3	0.5	0.4	0.3	0.5	0.5	0.4	0.4	0.4	0.5	0.7	1.6
4-Oct	0.4	0.4	0.4	Z	0.6	0.3	0.5	0.8	2.2	3.3	4.6	3.5	3.2	2.6	3.6	7.6	4.2	6.0	3.4	3.1	4.8	0.7	1.8	0.5	2.5	7.6
5-Oct	0.2	1.6	0.3	0.1	Z	0.5	0.3	1.0	0.4	0.3	0.3	0.2	0.3	0.4	0.4	0.4	0.5	1.7	1.6	0.9	0.1	0.2	1.7	6.5	0.9	6.5
6-Oct	3.4	4.3	4.3	9.1	6.2	Z	4.3	6.9	8.0	7.4	9.6	13.1	20.2	14.8	7.0	3.6	4.6	1.8	2.6	3.2	2.9	2.4	1.4	1.3	6.2	20.2
7-Oct	Z	1.3	1.1	1.1	0.9	1.0	1.2	1.9	2.3	2.0	2.2	2.7	2.6	2.3	1.7	2.2	13.0	13.3	3.2	2.6	28.6	80.2	81.6	120.0	16.1	120.0
8-Oct	53.8	22.0	Z	8.6	0.9	0.5	0.6	0.9	0.4	0.5	0.6	0.5	0.4	0.3	0.4	0.3	0.5	1.3	1.0	0.7	0.8	1.2	1.5	0.7	4.3	53.8
9-Oct	1.1	0.7	Z	0.6	0.2	0.1	0.3	0.4	0.3	0.3	0.4	0.3	0.2	0.3	0.2	0.2	0.3	0.3	0.5	3.8	2.9	0.7	0.9	1.4	0.7	3.8
10-Oct	2.3	2.3	1.2	Z	1.3	1.5	2.4	3.6	3.8	2.8	2.8	3.2	2.6	2.3	1.4	0.6	0.6	0.8	0.8	0.6	0.8	0.9	0.9	1.6	1.8	3.8
11-Oct	2.7	2.4	1.9	1.6	Z	8.7	11.8	11.4	16.2	9.8	9.4	6.6	3.3	0.5	0.3	0.8	0.7	0.7	1.3	1.4	4.3	2.1	10.3	12.7	5.3	16.2
12-Oct	11.0	12.2	11.1	7.8	7.0	Z	4.5	4.5	9.3	4.1	3.1	6.4	6.0	4.4	4.0	5.1	6.0	4.5	4.5	4.2	4.8	3.8	5.7	6.5	6.1	12.2
13-Oct	Z	3.0	3.2	0.7	0.3	0.2	0.2	0.9	1.3	0.2	0.1	0.4	0.2	0.2	0.2	0.3	0.2	0.5	0.4	0.3	0.5	0.6	0.9	0.9	0.7	3.2
14-Oct	1.0	Z	1.6	1.1	1.0	1.1	1.9	1.4	1.3	1.3	1.3	1.1	1.1	0.9	1.0	0.8	0.8	1.2	1.6	1.0	1.1	1.4	1.5	1.3	1.2	1.9
15-Oct	1.6	1.7	Z	2.2	2.4	2.3	2.6	3.6	4.0	4.2	3.8	2.2	1.7	1.1	1.0	0.5	0.5	0.6	1.1	2.9	1.5	1.9	0.4	0.7	1.9	4.2
16-Oct	0.6	0.8	0.7	Z	1.3	3.0	3.3	4.9	7.1	7.5	6.2	4.2	3.4	1.7	1.6	1.8	1.1	0.6	0.8	0.8	1.0	0.7	0.7	0.6	2.4	7.5
17-Oct	0.8	0.9	0.8	0.6	Z	0.7	0.6	1.1	0.5	0.5	1.1	0.6	0.6	0.5	0.7	1.1	4.5	5.3	7.2	0.9	0.2	0.3	0.7	0.4	1.3	7.2
18-Oct	0.4	0.4	0.3	0.4	0.5	Z	0.4	0.4	0.5	0.6	0.9	1.1	0.2	0.3	0.2	0.1	0.3	0.9	13.0	5.3	7.1	3.1	3.6	2.4	1.8	13.0
19-Oct	Z	2.7	2.1	1.7	1.4	2.1	25.1	29.2	27.8	28.4	51.8	78.3	83.9	74.4	76.6	41.0	16.2	5.9	9.3	7.0	5.5	4.4	2.8	1.3	25.2	83.9
20-Oct	2.7	Z	2.6	5.0	11.2	9.0	6.4	8.9	16.8	14.7	5.2	5.8	6.8	6.2	1.2	0.4	0.3	0.4	0.5	0.5	1.0	1.0	1.0	1.0	4.7	16.8
21-Oct	0.7	0.8	Z	1.8	1.3	1.7	1.4	0.6	0.5	0.6	0.6	0.5	0.7	0.6	1.0	1.7	7.1	3.9	2.0	1.7	3.6	2.6	3.5	5.3	1.9	7.1
22-Oct	3.6	4.1	7.0	Z	3.7	1.4	1.7	3.3	1.8	2.4	3.1	2.3	2.3	2.2	1.8	2.0	6.1	8.7	2.2	1.1	0.6	0.7	0.6	0.7	2.7	8.7
23-Oct	0.6	0.8	0.6	0.6	Z	1.8	2.0	M	1.2	1.7	1.5	1.8	2.4	2.2	2.0	1.9	1.7	1.7	1.2	1.4	1.1	1.0	1.0	1.0	1.4	2.4
24-Oct	1.1	1.5	1.8	2.2	2.8	Z	3.4	3.5	3.3	4.3	2.4	2.7	2.3	2.2	2.6	7.1	7.3	10.9	14.9	4.6	0.9	0.8	1.1	0.8	3.7	14.9
25-Oct	Z	1.9	1.0	1.1	13.8	22.2	20.1	17.8	4.7	2.4	2.9	1.8	1.3	0.8	0.4	0.6	0.6	0.3	0.3	0.5	0.7	0.8	1.1	1.0	4.3	22.2
26-Oct	2.9	Z	2.2	1.7	1.5	2.5	20.6	9.9	5.3	33.3	62.0	54.2	44.3	31.7	10.6	10.3	11.3	6.2	1.2	1.2	2.5	1.9	2.3	3.2	14.0	62.0
27-Oct	2.6	2.4	Z	3.0	2.5	2.3	3.9	5.2	10.0	12.2	11.5	16.9	13.1	4.2	4.9	2.3	3.1	0.4	0.2	0.2	0.5	0.7	0.6	0.9	4.5	16.9
28-Oct	0.2	0.4	0.9	Z	0.6	0.2	0.1	0.3	0.9	0.6	0.4	0.2	0.2	0.5	0.6	0.5	0.3	0.5	0.5	0.5	0.5	0.7	0.3	0.2	0.4	0.9
29-Oct	0.9	0.6	0.4	0.7	Z	0.7	3.4	4.5	3.0	4.1	8.0	14.0	16.3	17.8	24.0	14.5	8.8	6.9	5.3	9.1	10.5	12.9	16.4	14.9	8.6	24.0
30-Oct	20.7	23.4	22.3	12.1	9.5	Z	8.2	3.8	2.4	0.8	0.4	0.4	0.4	0.7	0.4	0.4	0.4	0.3	0.2	0.2	0.3	0.4	0.4	0.3	4.7	23.4
31-Oct	Z	0.7	0.6	0.5	0.5	1.1	0.9	1.6	2.1	1.3	1.8	2.2	2.2	1.9	1.6	1.6	1.3	1.1	0.9	0.7	0.7	0.9	1.1	1.1	1.2	2.2
	4.7	4.1	3.4	3.1	3.2	3.0	4.6	4.8	4.8	5.3	6.8	7.6	7.4	5.9	5.1	3.7	3.5	3.1	3.0	2.2	3.1	4.4	4.8	6.2	Diurnal Average	
	53.8	23.4	22.3	12.7	13.8	22.2	25.1	29.2	27.8	33.3	62.0	78.3	83.9	74.4	76.6	41.0	16.2	13.3	14.9	9.1	28.6	80.2	81.6	120.0	Diurnal Maximum	

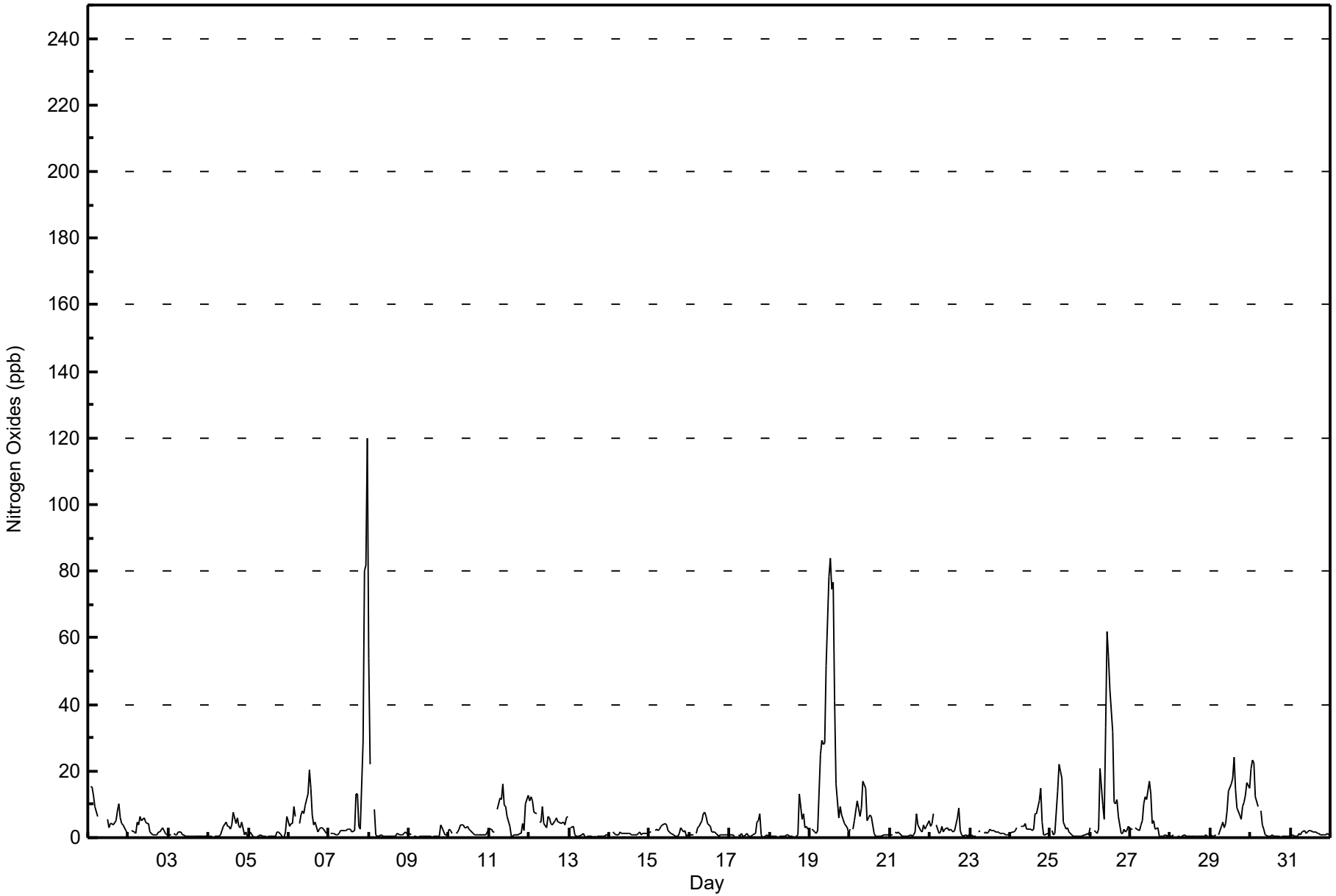
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Buffalo Viewpoint - October 2025



Nitrogen Oxides (NO_X) - ppb
Buffalo Viewpoint - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	680	96.18	96.18
21 - 40	14	1.98	98.16
11 - 80	10	1.41	99.58
81 - 159	3	0.42	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Buffalo Viewpoint - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	81	15	5	1	7	10	59	164	47	43	40	41	68	42	29	28	680
21 - 40	5	5	1	1	0	0	0	0	0	0	0	1	0	0	0	1	14
11 - 80	4	4	0	0	0	0	0	0	0	0	0	0	0	0	2	0	10
81 - 159	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	90	25	6	2	7	10	59	164	47	43	40	42	68	42	32	30	707

Total Number of Valid Hours: 707

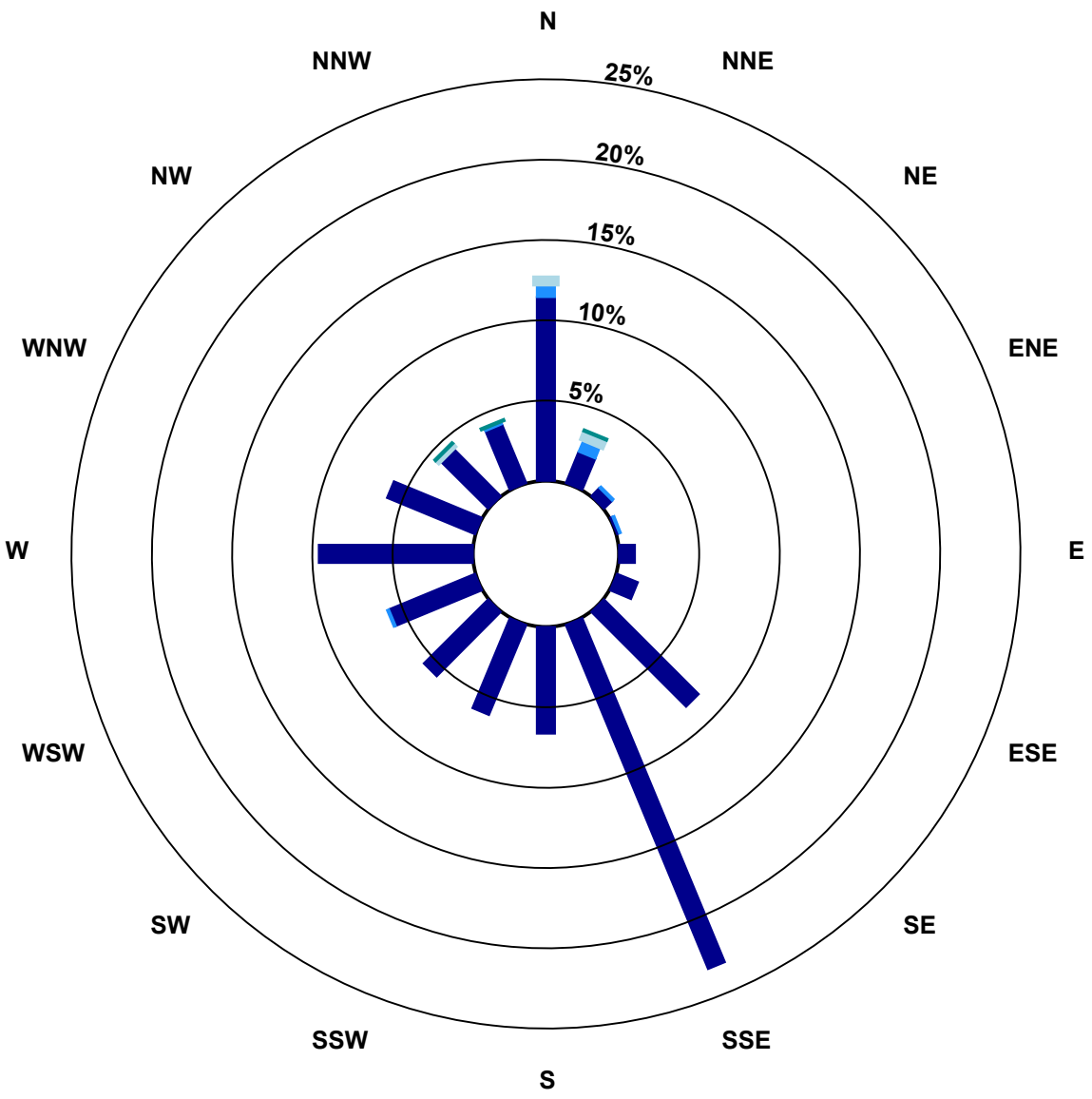
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Buffalo Viewpoint



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

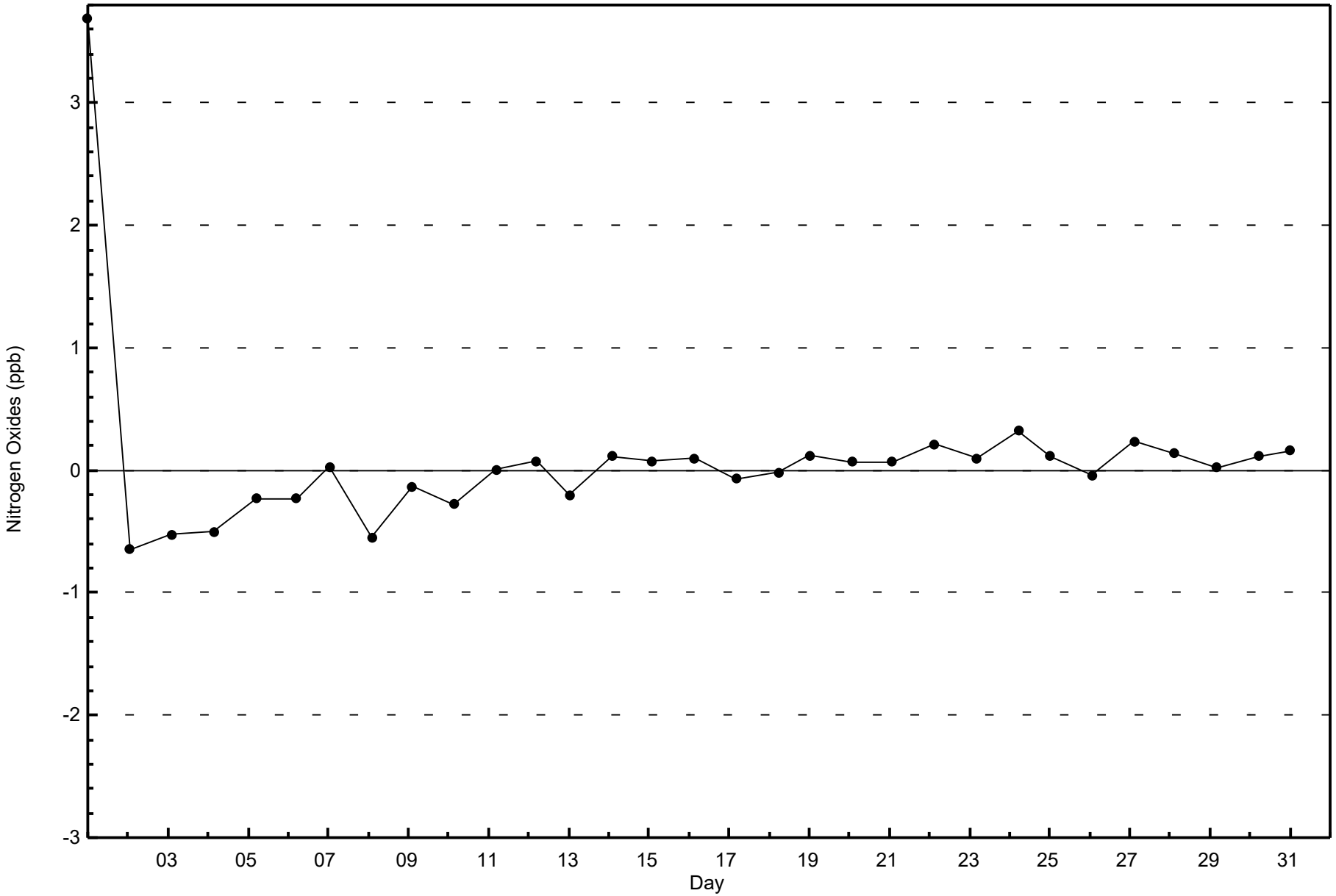
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Buffalo Viewpoint - October 2025

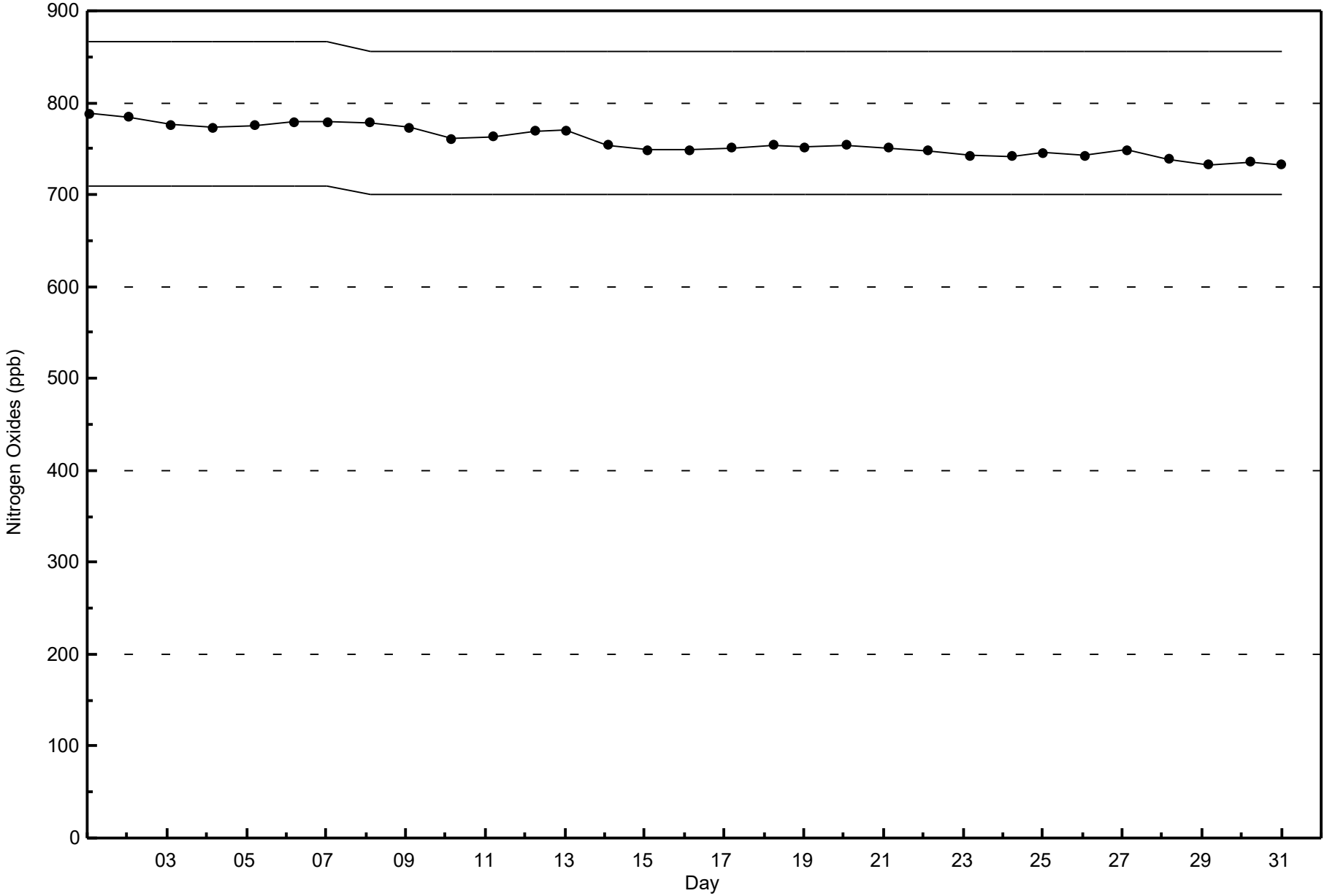


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Buffalo Viewpoint - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O_3) - ppb

Buffalo Viewpoint - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 44.4 ppb on Oct 10 16:00 Maximum Daily Average: 29.7 ppb on Oct 17

Minimum Value: 1.3 ppb on Oct 30 02:00 Minimum Daily Average: 6.0 ppb on Oct 19
Maximum Diurnal Average: 23.8 ppb at hour 15 Minimum Diurnal Average: 14.7 ppb at hour 8
Monthly Average: 19.29 ppb Percentiles: P_1 = 2.0 P_{10} = 7.1 Q_1 = 13.8 Median = 20.2 Q_3 = 24.4 P_{90} = 30.1 P_{99} = 39.0

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	34
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.8	5.9	5.7	6.3	10.3	Z	13.7	11.7	13.0	13.6	14.9	19.2	25.1	24.5	25.3	24.7	21.3	14.6	12.0	13.6	12.8	9.1	8.5	4.8	14.0	25.3
2-Oct	Z	2.7	4.0	4.9	4.2	2.7	3.9	3.4	4.4	6.2	6.0	8.0	12.3	20.2	26.0	23.7	22.0	18.6	15.2	13.6	12.3	13.4	14.5	14.6	11.2	26.0
3-Oct	13.9	Z	12.5	12.6	12.4	11.3	11.4	11.5	15.1	23.5	26.4	29.7	33.5	33.7	34.9	34.5	32.4	32.5	31.5	28.2	28.2	24.4	21.7	19.5	23.3	34.9
4-Oct	17.7	16.8	Z	15.6	15.6	16.6	16.0	15.8	15.1	16.9	19.5	23.6	21.7	20.9	19.4	15.0	10.8	10.5	11.7	15.9	16.1	17.9	17.8	19.2	16.8	23.6
5-Oct	17.5	17.0	14.4	Z	13.9	13.1	12.9	8.9	9.1	9.0	11.5	15.7	18.4	20.4	21.0	21.2	20.3	23.7	24.2	26.3	26.9	26.2	22.1	17.1	17.9	26.9
6-Oct	24.8	22.3	19.7	20.7	Z	23.1	21.5	18.4	20.3	22.5	22.6	22.5	20.4	24.0	26.7	27.7	25.8	26.0	23.1	22.2	23.3	22.4	23.3	23.2	22.9	27.7
7-Oct	23.0	22.9	22.4	21.5	20.9	Z	20.0	18.8	18.5	C	C	C	10.6	11.5	12.6	12.3	8.7	4.4	8.3	9.8	6.3	1.7	UO	UO	14.1	23.0
8-Oct	2.1	Z	2.0	16.8	33.8	33.5	25.4	20.5	21.4	22.3	24.2	26.1	26.9	27.6	28.8	29.8	31.1	28.1	27.2	22.4	15.1	13.2	11.9	12.4	21.8	33.8
9-Oct	11.7	Z	15.8	17.8	17.2	15.7	14.6	13.7	15.6	19.2	23.2	26.4	30.1	34.1	38.8	38.7	37.1	35.6	33.9	25.1	23.5	26.4	24.4	21.3	24.4	38.8
10-Oct	19.1	15.7	Z	18.5	16.7	16.7	18.1	17.4	18.5	21.6	24.0	26.1	26.5	29.3	37.7	44.4	44.1	42.6	40.2	39.0	37.8	38.4	38.7	35.8	29.0	44.4
11-Oct	31.0	32.9	32.9	Z	25.6	16.7	12.4	14.6	11.9	16.1	15.2	13.1	13.8	15.3	15.6	14.9	14.6	17.3	18.9	18.5	16.3	21.2	15.2	14.4	18.2	32.9
12-Oct	14.3	14.2	15.7	17.4	Z	19.1	21.6	20.9	16.6	22.1	23.9	22.2	23.1	26.2	26.2	22.3	19.3	21.2	22.5	23.9	22.0	24.7	21.0	20.2	20.9	26.2
13-Oct	22.4	22.1	22.0	24.0	23.4	Z	23.4	20.2	19.4	26.0	30.5	30.0	30.5	30.9	30.8	30.9	30.4	28.9	27.7	26.5	25.6	24.4	23.6	23.7	26.0	30.9
14-Oct	Z	22.3	21.9	22.2	22.8	22.0	21.8	22.1	22.6	23.3	24.0	25.4	26.8	26.8	27.8	27.3	25.9	24.9	21.9	23.3	22.5	20.5	19.3	18.7	23.3	27.8
15-Oct	17.2	Z	15.9	15.8	15.8	15.4	15.4	14.8	15.4	15.1	17.4	24.1	26.0	28.5	31.3	33.2	33.5	32.7	29.3	24.5	29.9	29.3	32.9	30.9	23.7	33.5
16-Oct	30.8	30.6	Z	30.5	26.9	20.7	17.8	16.3	16.2	16.5	19.1	21.1	23.4	28.2	29.9	31.8	38.3	40.5	39.2	38.9	37.3	40.9	38.3	35.7	29.1	40.9
17-Oct	33.0	31.5	31.8	Z	35.0	34.5	32.0	30.1	29.0	27.5	24.8	25.4	27.9	31.6	33.1	32.9	28.4	27.1	24.1	31.0	30.0	28.1	27.5	27.3	29.7	35.0
18-Oct	25.5	26.2	25.7	24.0	Z	23.5	24.2	23.9	24.1	24.7	25.8	29.0	30.9	32.4	33.5	33.4	33.7	32.0	15.0	21.0	16.6	25.7	17.2	16.8	25.4	33.7
19-Oct	13.8	14.3	16.0	16.5	16.9	Z	2.5	1.7	2.5	2.7	2.0	2.1	2.2	2.1	1.9	2.1	3.0	6.1	2.4	3.6	4.5	5.4	6.2	7.7	6.0	16.9
20-Oct	Z	10.1	9.6	8.1	3.5	6.1	6.3	4.6	3.3	5.5	10.2	10.7	9.8	9.4	12.5	13.4	12.6	10.9	9.3	9.5	12.5	15.3	16.7	15.9	9.8	16.7
21-Oct	15.3	Z	12.8	11.4	11.7	11.3	15.2	17.8	16.5	15.1	17.6	25.2	25.4	24.8	23.6	22.5	17.1	15.7	11.1	10.0	9.3	8.0	5.4	2.0	15.0	25.4
22-Oct	3.2	3.7	Z	4.6	5.7	8.7	9.2	8.3	9.6	10.6	12.4	15.3	17.0	20.6	23.2	23.0	17.4	14.7	20.2	20.5	20.3	21.4	21.7	23.1	14.5	23.2
23-Oct	23.7	24.8	25.1	Z	23.3	22.2	21.3	M	21.0	21.8	23.5	24.4	24.2	26.5	27.3	26.6	27.0	23.0	24.4	24.5	23.9	22.3	21.5	22.5	23.9	27.3
24-Oct	23.6	23.3	22.3	21.4	Z	18.3	17.2	15.7	16.2	16.8	19.3	21.8	25.3	26.5	25.3	18.8	17.7	14.4	9.8	17.7	19.8	18.6	17.7	17.2	19.3	26.5
25-Oct	15.6	14.4	15.5	14.6	4.2	Z	1.6	2.1	9.4	11.5	13.2	18.5	21.9	29.2	24.2	26.0	26.6	24.9	24.4	22.9	19.8	14.7	12.1	14.4	16.6	29.2
26-Oct	Z	8.4	11.8	13.6	12.9	13.6	1.8	4.1	5.6	2.7	2.8	3.4	4.4	4.9	11.2	6.6	6.2	12.4	19.7	21.9	20.2	22.9	23.0	22.8	11.2	23.0
27-Oct	24.5	Z	25.9	27.6	27.1	24.1	20.8	18.6	14.9	13.1	13.5	10.6	13.0	18.2	17.4	20.2	17.5	19.8	19.8	20.1	20.6	21.1	21.8	22.1	19.7	27.6
28-Oct	23.7	23.3	Z	21.9	22.1	22.6	22.8	22.6	22.2	22.8	24.0	24.0	24.8	26.0	26.7	24.6	22.2	23.2	20.1	17.2	16.1	16.6	17.6	15.8	21.9	26.7
29-Oct	12.5	13.9	17.7	Z	21.3	19.9	16.8	16.1	17.3	14.7	12.1	8.4	8.0	6.6	3.6	7.4	8.2	9.1	10.2	7.7	6.7	5.0	4.6	4.3	11.0	21.3
30-Oct	2.2	1.3	1.9	6.3	Z	11.0	9.1	14.7	13.6	15.2	23.0	23.2	22.7	20.3	21.1	24.7	23.4	21.9	22.1	24.0	23.3	24.8	23.3	22.7	17.2	24.8
31-Oct	21.7	21.4	20.8	19.2	18.1	Z	14.6	12.0	13.1	15.6	17.2	18.4	19.1	20.3	20.2	20.4	20.9	21.1	22.4	23.6	23.9	23.2	22.7	21.4	19.6	23.9
	18.3	17.7	17.0	16.7	17.7	17.7	15.7	14.7	15.2	16.5	18.1	19.8	20.8	22.6	23.8	23.7	22.5	21.9	20.7	20.9	20.1	20.2	19.7	18.9	Diurnal Average	
	33.0	32.9	32.9	30.5	35.0	34.5	32.0	30.1	29.0	27.5	30.5	30.0	33.5	34.1	38.8	44.4	44.1	42.6	40.2	39.0	37.8	40.9	38.7	35.8	Diurnal Maximum	

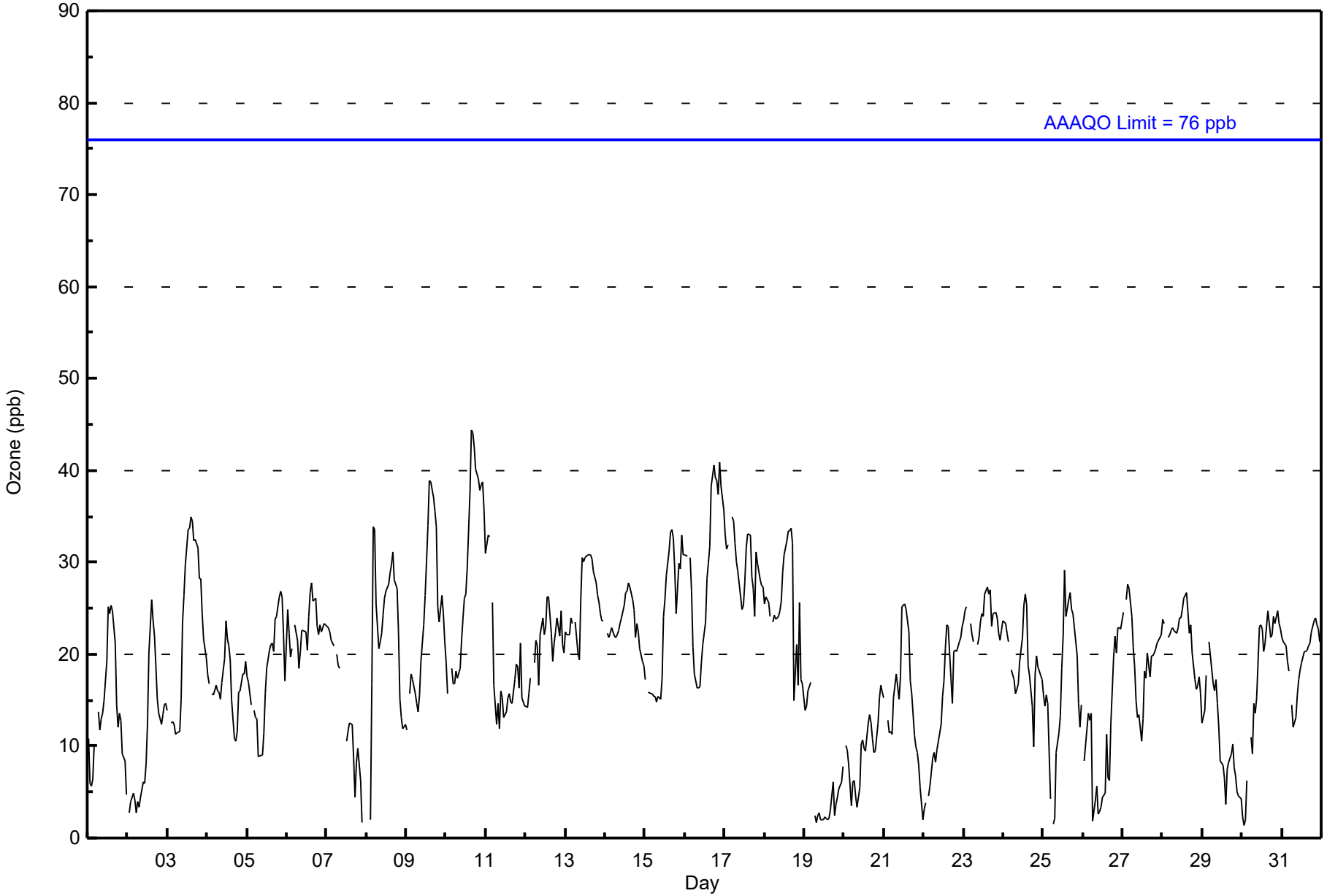
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb

Wood Buffalo Environmental Association

Hourly Averages

Ozone (O_3) - ppb

Buffalo Viewpoint - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	364	51.49	51.49
21 - 50	343	48.51	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	63	23	6	1	5	6	38	88	25	12	12	10	18	17	18	22	364
21 - 50	31	2	0	0	1	2	24	72	23	32	29	31	49	25	15	7	343
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	94	25	6	1	6	8	62	160	48	44	41	41	67	42	33	29	707

Total Number of Valid Hours: 707

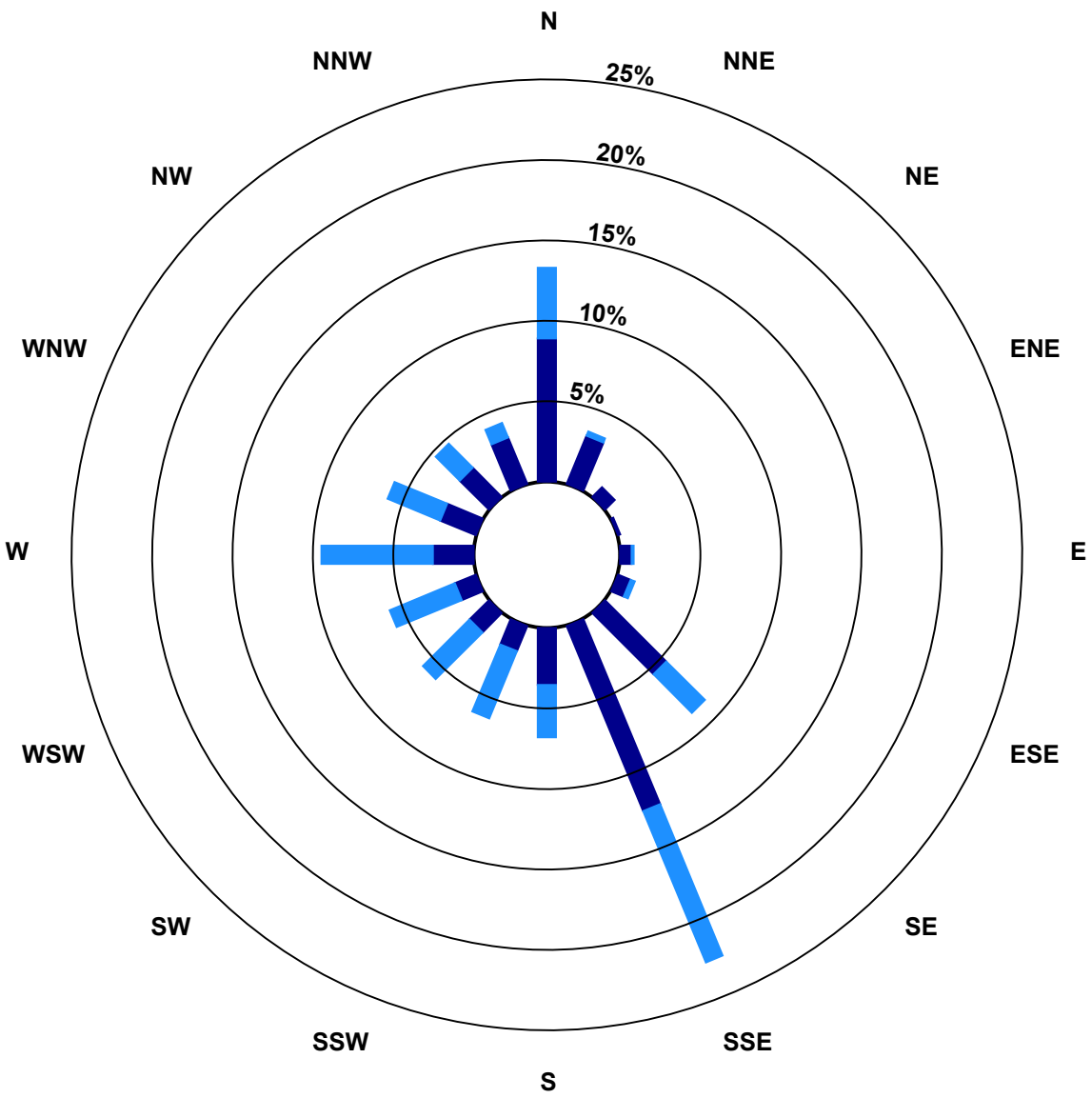
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Ozone (O_3) - ppb

Buffalo Viewpoint



Classes (ppb)

0 - 20

21 - 50

51 - 82

> 83

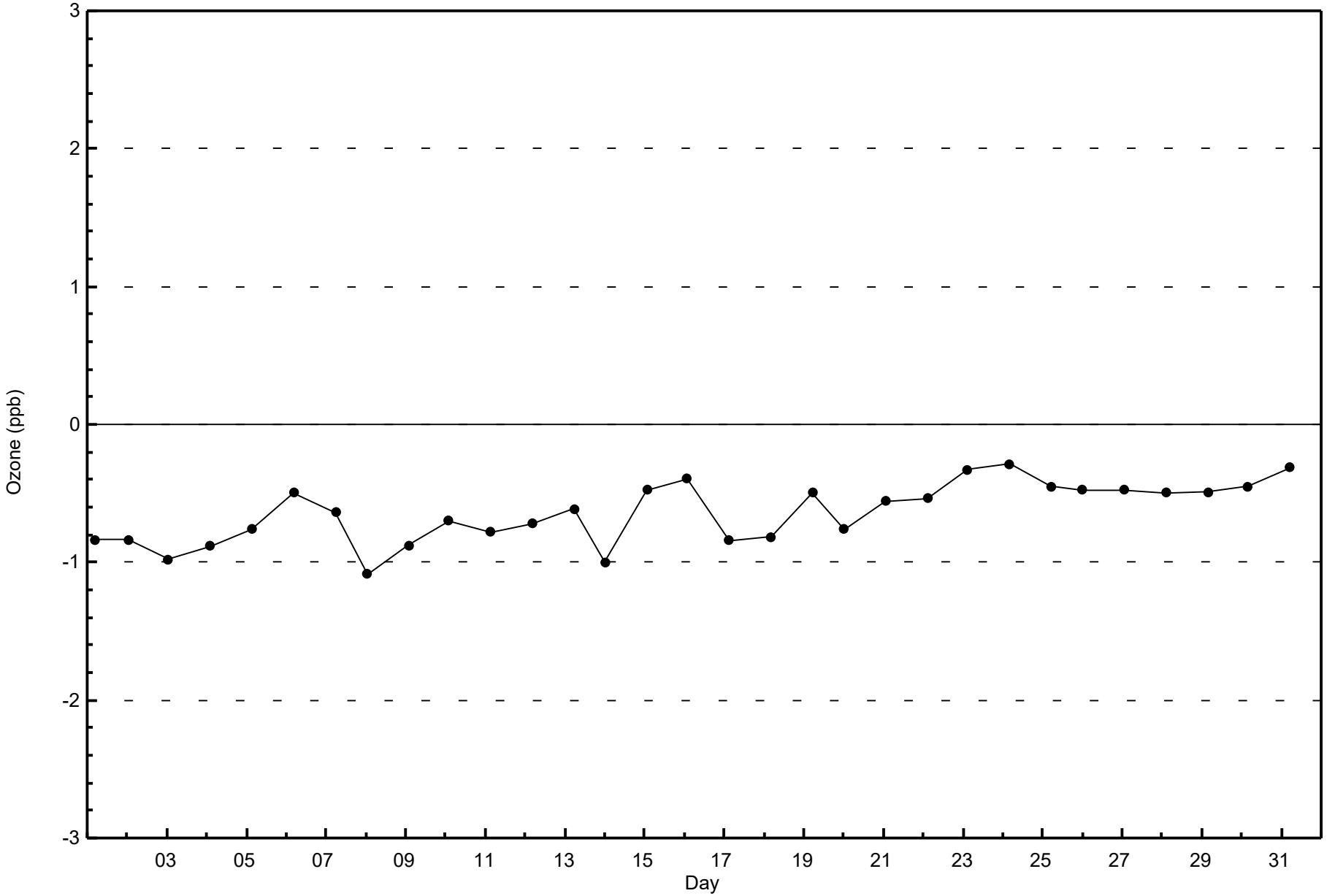
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Ozone (O_3) - ppb

Buffalo Viewpoint - October 2025

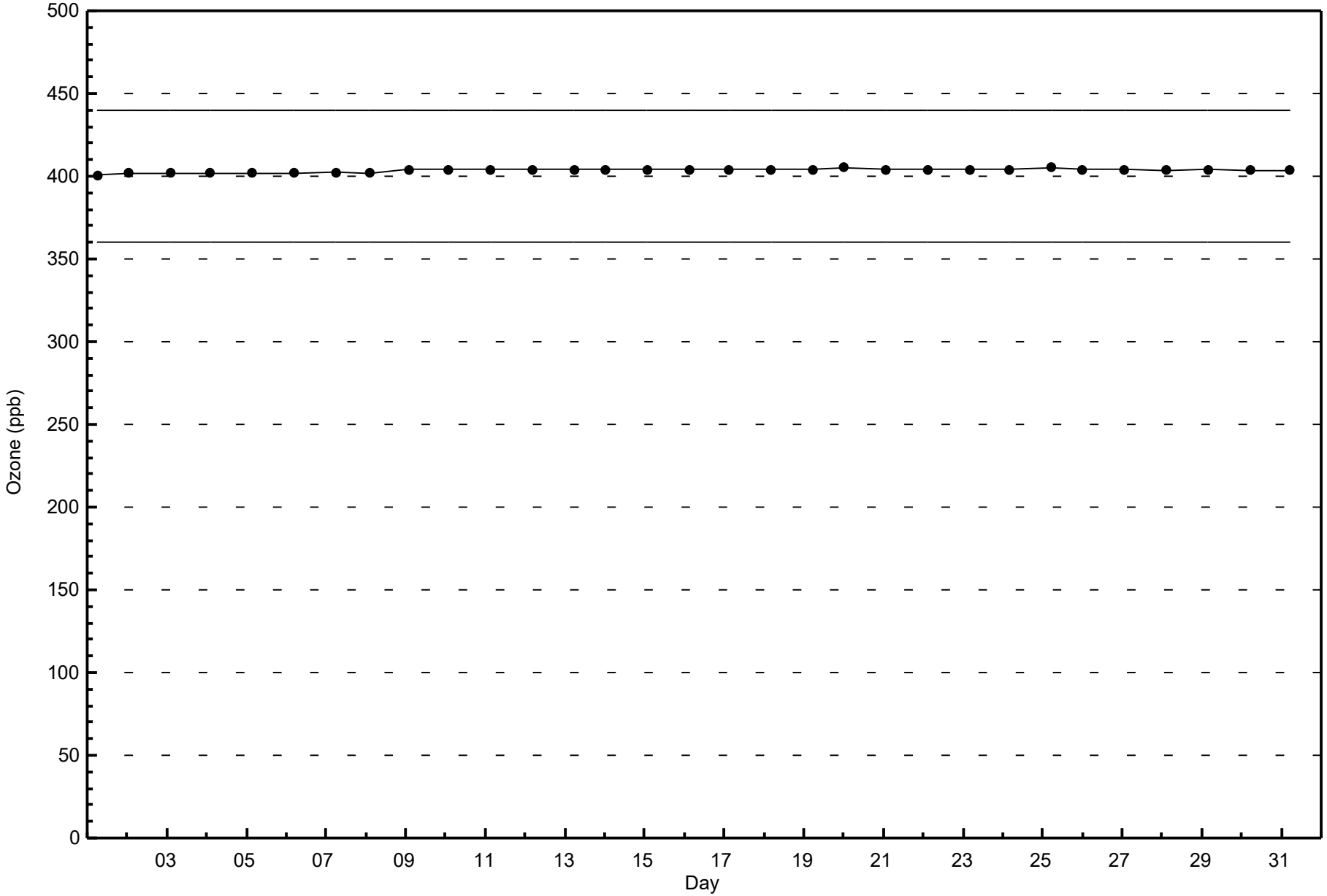


Wood Buffalo Environmental Association

Span Responses

Ozone (O_3) - ppb

Buffalo Viewpoint - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Buffalo Viewpoint - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 26.8 $\mu g/m^3$ on Oct 1 03:00

Maximum Daily Average: 13.3 $\mu g/m^3$ on Oct 1

Minimum Value: 0.1 $\mu g/m^3$ on Oct 28 02:00

Minimum Daily Average: 0.7 $\mu g/m^3$ on Oct 28

Maximum Diurnal Average: 5.6 $\mu g/m^3$ at hour 8

Minimum Diurnal Average: 3.7 $\mu g/m^3$ at hour 19

Monthly Average: 4.63 $\mu g/m^3$

Percentiles: $P_1 = 0.2$ $P_{10} = 1.1$ $Q_1 = 2.6$ Median = 3.9 $Q_3 = 5.8$ $P_{90} = 8.5$ $P_{99} = 17.9$

Hours in Service:	744
Hours of Data:	743
Hours of Missing Data:	1
Hours of Calibration:	1
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	22.1	24.6	26.8	23.5	21.0	17.4	16.2	16.1	16.5	18.0	15.2	11.1	7.3	6.0	5.8	6.0	5.7	7.2	8.5	8.7	9.2	9.4	9.3	8.8	13.3	26.8
2-Oct	7.0	6.5	5.5	5.2	5.2	6.1	6.0	3.5	3.3	5.5	5.4	5.4	5.9	4.7	4.4	5.0	5.7	6.2	6.3	6.7	6.8	8.5	9.5	9.3	6.0	9.5
3-Oct	9.4	10.4	11.6	12.8	13.6	14.3	13.8	12.6	9.2	5.7	4.4	3.2	2.2	2.4	2.7	3.0	3.6	2.2	3.1	3.5	2.0	1.9	3.0	4.5	6.5	14.3
4-Oct	4.5	5.0	7.2	7.7	6.4	5.6	4.9	3.9	3.3	3.3	4.3	5.1	5.6	4.2	4.2	6.7	4.1	4.0	0.4	0.9	1.5	1.1	1.0	0.8	4.0	7.7
5-Oct	0.9	1.3	1.4	1.6	3.0	6.2	7.1	6.5	5.9	5.9	7.6	10.2	17.7	21.6	20.4	17.6	12.0	3.0	1.6	1.4	1.9	2.2	2.9	3.2	6.8	21.6
6-Oct	2.1	2.2	2.2	7.0	4.8	2.6	2.1	2.2	2.3	2.3	3.8	6.8	12.6	10.7	5.0	2.7	3.0	2.3	2.9	3.2	2.8	2.4	1.6	1.5	3.8	12.6
7-Oct	1.3	1.4	1.7	2.0	2.5	2.9	3.5	3.4	3.6	3.7	3.8	3.9	3.9	3.8	3.5	3.9	6.3	5.7	4.0	3.9	5.4	8.5	9.6	10.5	4.3	10.5
8-Oct	8.7	6.4	4.6	3.3	1.9	2.2	3.9	3.7	3.5	2.9	3.2	3.0	3.1	3.0	2.9	3.6	3.3	2.5	1.8	2.3	1.7	2.0	1.6	1.5	3.2	8.7
9-Oct	1.4	1.1	0.6	0.6	0.6	2.4	4.7	5.1	11.2	14.6	17.4	13.7	8.6	5.9	3.1	2.5	1.4	0.9	0.9	2.1	3.0	1.6	2.0	2.0	4.5	17.4
10-Oct	1.9	2.0	2.0	1.8	1.9	4.4	6.9	13.6	4.9	3.9	4.2	4.6	4.4	4.9	5.2	4.9	4.9	4.6	4.5	4.8	5.5	6.0	6.1	6.4	4.8	13.6
11-Oct	6.3	6.2	6.4	6.3	6.6	9.4	9.1	9.5	12.5	8.8	11.1	3.5	3.2	1.9	0.8	0.5	0.4	0.4	0.4	0.4	0.4	0.3	5.4	9.6	5.0	12.5
12-Oct	8.3	10.4	9.4	4.7	5.4	2.5	3.1	1.8	1.1	0.7	1.0	1.0	1.1	1.0	1.0	2.1	1.0	1.6	2.2	2.4	1.5	1.9	1.9	1.5	2.9	10.4
13-Oct	0.7	0.9	1.0	0.6	0.6	0.5	0.7	1.0	1.2	1.6	4.0	7.2	6.9	6.7	5.8	4.0	2.5	2.5	2.4	2.4	2.9	3.5	3.9	4.1	2.8	7.2
14-Oct	4.0	4.5	4.6	4.2	3.9	4.0	4.2	4.4	4.5	4.3	4.1	3.6	3.2	3.1	3.1	3.1	3.1	3.3	5.6	4.6	4.0	3.5	3.5	3.5	3.9	5.6
15-Oct	3.6	3.7	3.7	3.9	4.6	5.8	5.3	4.3	4.0	3.9	3.7	3.2	3.6	5.0	5.8	6.3	6.4	6.6	7.2	10.5	8.3	8.4	6.4	6.7	5.5	10.5
16-Oct	7.7	8.1	9.2	9.5	10.1	10.8	11.5	10.1	8.4	7.2	6.6	6.6	8.4	7.4	5.6	4.9	4.1	3.0	3.0	3.1	3.3	3.0	2.6	2.5	6.5	11.5
17-Oct	2.7	3.8	4.1	3.8	4.1	4.6	4.7	2.9	1.8	1.7	2.4	2.9	2.6	2.1	1.8	1.7	2.3	2.0	2.5	1.2	1.1	1.1	1.2	1.2	2.5	4.7
18-Oct	1.1	1.1	1.8	2.9	3.2	3.2	3.3	3.5	4.1	4.3	3.7	2.4	2.1	1.6	1.4	1.4	1.6	1.6	3.4	3.3	2.9	2.6	2.8	2.9	2.6	4.3
19-Oct	3.2	2.9	3.0	2.9	2.8	3.0	8.1	11.2	9.6	6.8	7.2	7.9	8.1	9.0	10.4	7.6	5.5	3.6	3.5	3.1	3.0	2.8	2.5	2.8	5.4	11.2
20-Oct	3.7	3.1	3.4	4.0	3.5	3.3	3.0	3.6	3.9	3.4	2.3	3.1	3.9	5.2	3.4	4.7	5.1	5.5	6.3	7.5	7.3	5.5	4.6	4.5	4.3	7.5
21-Oct	5.0	5.4	5.6	5.9	5.9	5.4	4.3	4.1	4.0	4.1	3.8	2.9	2.8	2.6	2.6	2.4	3.1	4.1	5.0	4.4	4.4	4.2	4.4	4.5	4.2	5.9
22-Oct	4.8	4.8	4.1	4.3	4.0	3.5	3.4	3.3	3.4	3.4	3.6	3.3	3.2	2.9	2.7	2.7	5.6	8.7	5.2	7.7	5.3	4.2	4.0	3.8	4.2	8.7
23-Oct	3.9	3.6	3.5	3.5	3.3	3.2	3.3	C	3.3	3.2	2.9	2.8	2.9	3.3	3.4	3.4	3.5	4.3	4.1	4.3	4.7	4.7	4.8	4.0	3.7	4.8
24-Oct	3.6	3.3	3.5	3.6	3.8	3.6	3.7	3.8	3.9	4.1	3.9	4.9	4.1	4.0	3.8	6.4	5.5	6.8	6.9	6.1	5.5	5.6	6.5	6.9	4.7	6.9
25-Oct	6.7	6.5	6.0	6.1	8.5	9.4	9.9	10.3	7.1	5.5	5.0	4.3	3.9	2.6	4.3	3.8	3.1	3.0	2.7	2.9	3.0	3.1	3.3	3.4	5.2	10.3
26-Oct	3.5	3.4	3.0	2.6	2.1	2.2	4.7	4.1	3.5	4.9	7.2	8.1	7.3	6.4	4.7	4.6	4.5	4.0	2.9	2.3	2.7	2.1	2.2	2.3	4.0	8.1
27-Oct	2.0	1.8	1.7	1.3	1.2	0.8	0.7	0.6	3.1	5.1	6.9	13.3	10.0	0.8	0.8	0.4	0.3	0.1	0.1	0.2	0.4	0.2	0.2	0.2	2.2	13.3
28-Oct	0.2	0.1	0.2	0.3	0.3	0.5	0.7	0.8	0.6	0.7	0.6	0.6	0.4	0.3	0.5	0.9	0.9	1.0	1.1	1.1	1.0	1.1	1.1	1.5	0.7	1.5
29-Oct	1.8	2.1	2.7	4.0	3.7	2.0	2.7	3.5	3.7	3.6	3.9	4.9	4.9	5.1	5.8	4.6	4.1	4.3	4.6	5.4	8.1	7.6	6.9	6.0	4.4	8.1
30-Oct	5.7	5.0	4.7	4.8	6.9	8.8	9.3	7.0	5.1	5.0	5.3	5.1	5.0	5.4	5.2	6.0	5.4	5.3	5.4	5.6	5.0	4.3	4.2	4.1	5.6	9.3
31-Oct	4.3	5.4	5.4	6.4	6.8	7.0	6.6	6.8	6.6	6.3	6.2	6.4	7.3	7.0	6.9	6.8	6.5	6.1	5.7	5.2	4.8	5.0	5.2	5.3	6.1	7.3
	4.6	4.7	4.9	4.9	4.9	5.1	5.5	5.6	5.1	5.0	5.3	5.3	5.4	4.9	4.4	4.3	4.0	3.8	3.7	3.9	3.8	3.8	4.0	4.2	Diurnal Average	
	22.1	24.6	26.8	23.5	21.0	17.4	16.2	16.1	16.5	18.0	17.4	13.7	17.7	21.6	20.4	17.6	12.0	8.7	8.5	10.5	9.2	9.4	9.6	10.5	Diurnal Maximum	

C - Calibration

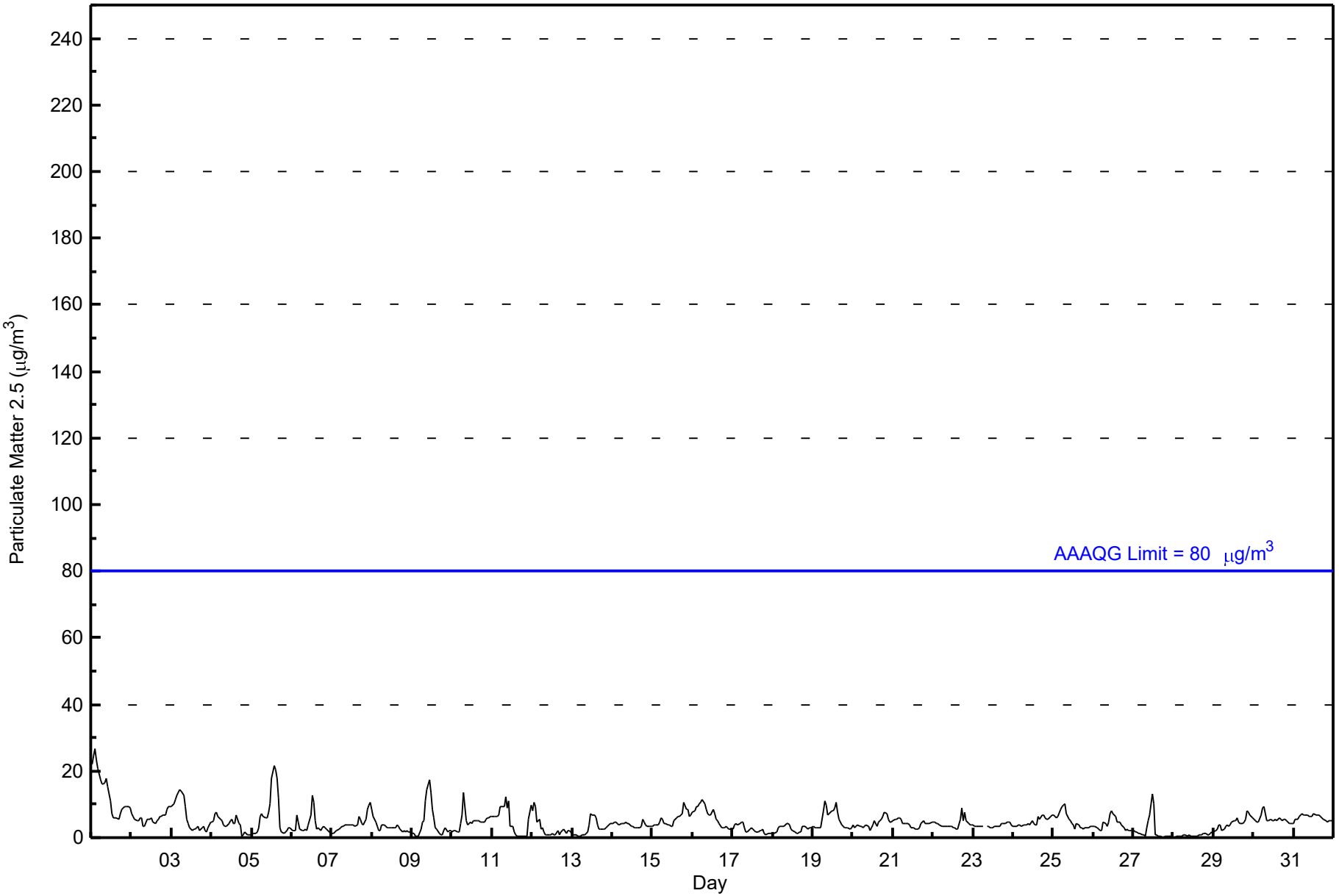
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 $\mu g/m^3$ 24-hr 29 $\mu g/m^3$

Wood Buffalo Environmental Association

Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Buffalo Viewpoint - October 2025



Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Buffalo Viewpoint - October 2025

Concentration Ranges ($\mu g/m^3$)	Number of Hours	%	Cumulative %
0 - 5	535	72.01	72.01
6 - 15	193	25.98	97.98
16 - 25	14	1.88	99.87
26 - 80	1	0.13	100.00
> 81.0	0	0.00	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Buffalo Viewpoint - October 2025

Concentration Ranges ($\mu g/m^3$)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	64	17	3	0	3	7	44	118	39	35	27	33	58	39	30	18	535
6 - 15	26	8	3	2	4	3	20	51	14	9	14	10	8	5	4	12	193
16 - 25	7	0	0	0	0	0	0	0	0	0	1	0	4	0	0	2	14
26 - 80	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	98	25	6	2	7	10	64	169	53	44	42	43	70	44	34	32	743

Total Number of Valid Hours: 743

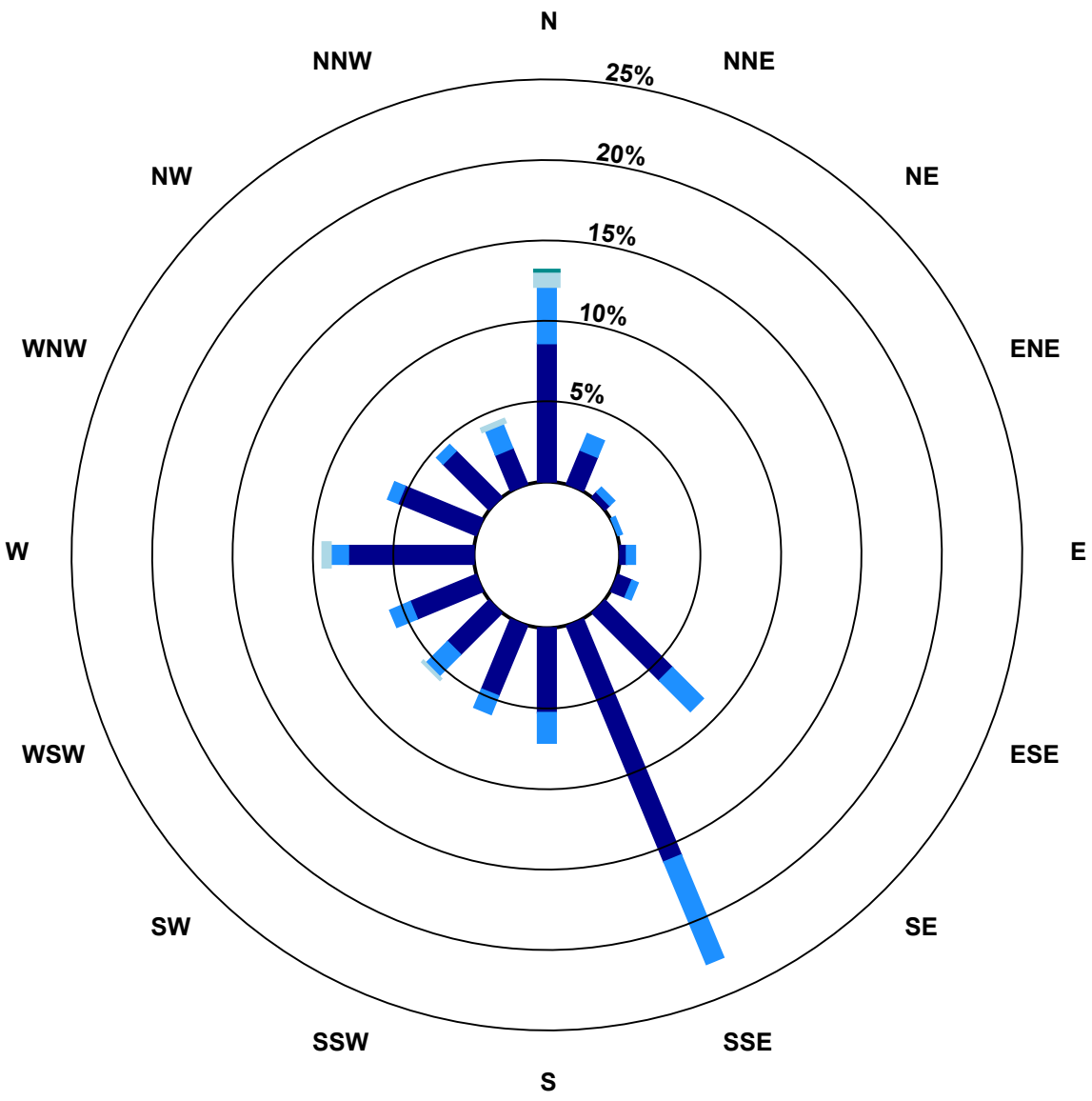
Total Number of Hours: 744

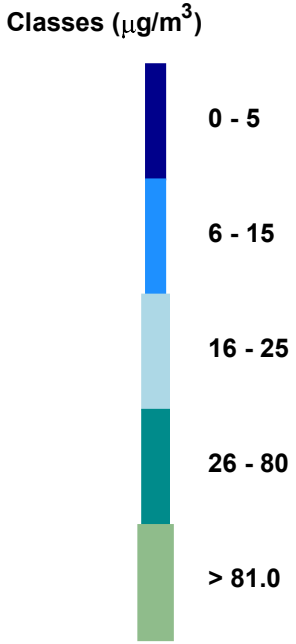
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Buffalo Viewpoint





Total Number of Valid Hours: 743

Maximum Value: 22.1 C on Oct 10 16:00
Maximum Daily Average: 10.9 C on Oct 10

Minimum Value: -2.7 C on Oct 13 08:00
Minimum Daily Average: -0.2 C on Oct 29
Maximum Diurnal Average: 8.6 C at hour 16
Minimum Diurnal Average: 2.2 C at hour 8
Monthly Average: 4.98 C
Percentiles: P_1 = -1.9 P_{10} = 0.0 Q_1 = 1.2 Median = 4.0 Q_3 = 8.0 P_{90} = 11.2 P_{99} = 16.5

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

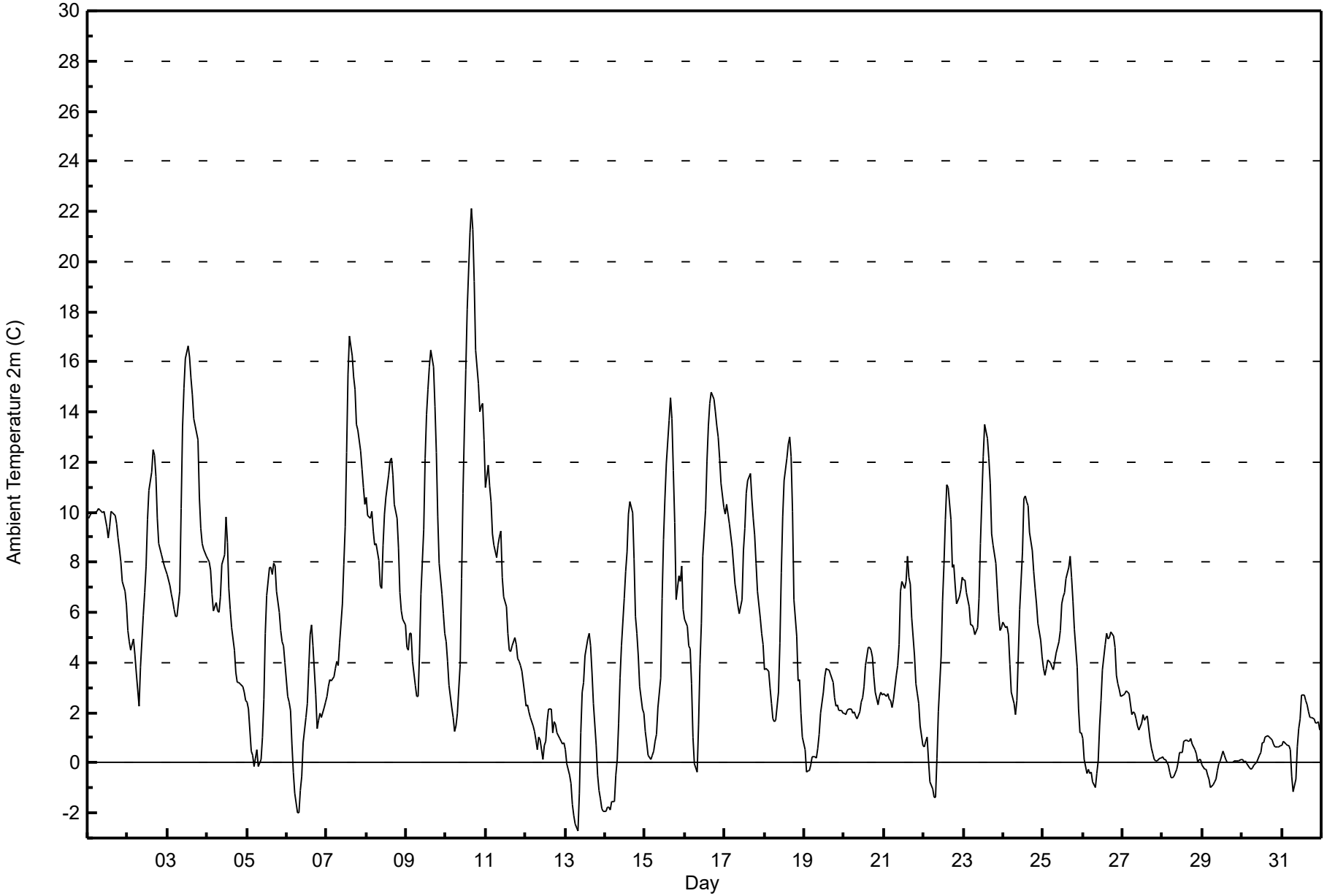
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	9.8	9.9	10.0	10.0	10.0	10.0	10.1	10.1	10.0	10.0	10.0	9.4	9.0	9.4	10.1	10.0	9.8	9.5	9.0	8.5	8.0	7.2	6.9	6.3	9.3	10.1
2-Oct	5.3	4.8	4.5	4.9	4.3	3.6	2.9	2.3	3.8	5.9	6.8	7.8	9.7	10.9	11.6	12.5	12.3	11.4	9.7	8.8	8.3	8.1	7.9	7.7	7.3	12.5
3-Oct	7.5	7.1	6.7	6.5	6.1	5.9	5.8	6.8	10.1	13.4	14.9	16.1	16.6	16.2	15.3	14.7	13.7	13.4	12.9	10.6	9.4	8.8	8.5	8.3	10.6	16.6
4-Oct	8.1	8.0	7.7	6.7	6.1	6.4	6.0	6.0	6.6	7.9	8.3	9.8	8.8	6.9	6.1	5.4	4.5	3.6	3.2	3.2	3.2	3.0	2.8	2.5	5.9	9.8
5-Oct	2.4	2.2	0.5	0.3	-0.1	0.2	0.5	-0.2	0.1	1.0	2.5	5.2	6.7	7.8	7.8	7.5	8.0	7.8	6.9	6.0	5.3	4.8	4.6	4.0	3.8	8.0
6-Oct	2.6	2.4	2.1	0.7	-0.4	-1.2	-2.0	-2.0	-1.1	-0.6	0.8	1.8	2.4	3.8	5.1	5.5	4.7	2.7	1.4	1.7	2.0	1.8	2.2	2.4	1.6	5.5
7-Oct	2.7	3.1	3.3	3.3	3.5	3.7	4.0	3.9	4.8	6.4	7.9	9.4	12.4	15.5	17.0	16.2	15.4	14.9	13.5	13.3	12.4	11.7	11.0	10.3	9.1	17.0
8-Oct	10.6	9.8	9.8	10.0	9.2	8.7	8.8	8.1	7.1	7.0	8.7	9.9	10.6	11.5	12.0	12.2	11.5	10.3	9.8	8.6	6.8	6.1	5.7	5.5	9.1	12.2
9-Oct	4.6	4.5	5.2	5.1	4.1	3.1	2.7	2.6	4.4	6.7	9.3	12.2	13.9	14.9	15.8	16.5	15.8	14.2	12.4	9.8	8.0	6.7	5.9	5.2	8.5	16.5
10-Oct	4.9	4.0	3.1	2.2	1.8	1.2	1.5	2.0	3.9	7.4	10.8	13.3	15.7	18.1	21.1	22.1	21.3	19.2	16.5	15.1	14.0	14.2	14.3	12.9	10.9	22.1
11-Oct	11.0	11.9	11.0	10.4	9.2	8.7	8.2	8.7	9.0	9.2	7.4	6.6	6.2	5.2	4.5	4.4	4.7	5.0	4.7	4.1	4.0	3.9	3.6	2.8	6.9	11.9
12-Oct	2.3	2.3	2.1	1.8	1.5	1.3	0.9	0.5	1.1	0.9	0.1	0.7	0.9	1.6	2.2	2.2	1.2	1.6	1.5	1.2	1.0	0.9	0.8	0.8	1.3	2.3
13-Oct	0.5	0.0	-0.5	-0.8	-1.7	-2.1	-2.5	-2.7	-1.2	1.2	2.8	3.2	4.3	5.0	5.2	4.7	3.6	2.4	0.7	-0.5	-1.1	-1.4	-1.8	-2.0	0.6	5.2
14-Oct	-1.9	-1.8	-1.8	-1.9	-1.6	-1.6	-0.5	0.1	1.6	3.4	4.6	6.6	7.6	8.4	9.9	10.4	10.0	8.1	5.8	5.2	4.3	3.0	2.2	2.0	3.4	10.4
15-Oct	1.3	0.8	0.3	0.1	0.3	0.5	0.8	1.1	2.2	3.4	6.5	8.9	10.5	11.9	13.7	14.5	13.7	11.6	9.6	6.5	7.5	7.2	7.9	6.1	6.1	14.5
16-Oct	5.7	5.5	4.7	4.5	3.2	1.0	0.0	-0.4	1.5	4.0	5.6	8.3	10.1	12.0	13.5	14.3	14.8	14.5	14.0	13.4	13.0	12.1	11.1	10.2	8.2	14.8
17-Oct	9.9	10.3	9.9	9.5	8.6	7.9	7.1	6.7	6.3	6.0	6.5	8.4	9.4	10.8	11.3	11.5	10.5	9.8	9.1	8.0	6.8	5.8	5.2	4.7	8.3	11.5
18-Oct	3.7	3.8	3.6	3.0	2.4	1.7	1.6	1.7	2.8	4.8	7.5	9.8	11.3	12.2	12.7	13.0	12.2	10.0	6.5	5.1	3.3	3.3	2.0	1.0	5.8	13.0
19-Oct	0.5	-0.3	-0.3	-0.3	-0.1	0.2	0.2	0.2	0.6	1.1	2.0	2.8	3.4	3.7	3.7	3.7	3.5	3.2	2.6	2.3	2.3	2.1	2.1	2.0	1.7	3.7
20-Oct	2.0	1.9	2.1	2.1	2.1	2.0	2.0	1.9	1.8	2.1	2.4	2.6	3.0	3.9	4.6	4.6	4.5	4.2	3.4	2.8	2.3	2.6	2.8	2.7	2.8	4.6
21-Oct	2.8	2.7	2.8	2.5	2.5	2.2	2.5	3.5	3.9	4.7	6.8	7.2	6.9	7.2	8.3	7.4	7.1	5.8	4.3	3.2	2.7	2.3	1.5	0.7	4.2	8.3
22-Oct	0.7	0.8	1.0	0.1	-0.8	-1.1	-1.4	-1.4	0.2	2.1	4.3	6.5	7.9	9.7	11.1	11.0	9.7	7.8	7.9	7.0	6.4	6.6	6.9	7.4	4.6	11.1
23-Oct	7.3	7.3	6.8	6.2	5.5	5.5	5.4	5.1	5.4	6.6	8.7	10.5	12.2	13.5	12.9	12.1	11.1	9.1	8.7	8.0	7.0	5.9	5.3	5.4	8.0	13.5
24-Oct	5.6	5.4	5.4	5.1	3.9	2.8	2.4	1.9	2.5	4.3	6.1	8.4	10.5	10.6	10.4	10.3	9.2	8.4	7.7	7.0	6.3	5.6	4.9	4.2	6.2	10.6
25-Oct	3.7	3.5	3.8	4.1	4.0	3.8	3.7	4.1	4.4	4.8	5.3	6.3	6.6	6.8	7.3	7.8	8.3	7.4	6.5	5.4	3.8	2.2	1.2	1.2	4.8	8.3
26-Oct	1.0	0.1	-0.4	-0.3	-0.5	-0.4	-0.8	-1.0	-0.4	0.1	1.5	2.5	3.7	4.7	5.2	4.9	5.0	5.2	5.1	4.6	3.5	3.1	2.9	2.7	2.2	5.2
27-Oct	2.7	2.8	2.9	2.8	2.7	1.9	2.1	2.0	1.7	1.5	1.3	1.6	1.9	1.7	1.8	1.9	0.9	0.6	0.4	0.1	0.1	0.1	0.2	0.2	1.5	2.9
28-Oct	0.2	0.2	0.1	-0.1	-0.4	-0.6	-0.6	-0.5	-0.3	0.0	0.4	0.4	0.4	0.8	0.9	0.9	0.9	1.0	0.7	0.5	0.3	0.0	0.1	0.1	0.2	1.0
29-Oct	-0.1	-0.3	-0.2	-0.5	-0.7	-1.0	-0.9	-0.8	-0.7	-0.3	0.0	0.0	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	-0.2	0.4
30-Oct	0.1	0.0	0.1	0.0	-0.2	-0.3	-0.2	-0.1	0.0	0.0	0.3	0.4	0.8	0.8	1.1	1.1	1.0	1.0	0.9	0.7	0.6	0.7	0.6	0.7	0.4	1.1
31-Oct	0.7	0.8	0.8	0.7	0.7	0.5	-0.5	-1.1	-0.7	0.6	1.4	1.8	2.7	2.7	2.5	2.3	2.0	1.8	1.8	1.8	1.6	1.6	1.6	1.3	1.2	2.7
	3.8	3.7	3.4	3.2	2.7	2.4	2.3	2.2	2.9	4.0	5.2	6.4	7.3	8.0	8.5	8.6	8.1	7.3	6.4	5.5	4.9	4.5	4.2	3.9	Diurnal Average	
	11.0	11.9	11.0	10.4	10.0	10.0	10.1	10.1	10.1	13.4	14.9	16.1	16.6	18.1	21.1	22.1	21.3	19.2	16.5	15.1	14.0	14.2	14.3	12.9	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Buffalo Viewpoint - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	72	9.68	9.68
0 - 10	558	75.00	84.68
10 - 20	111	14.92	99.60
> 20	3	0.40	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

Buffalo Viewpoint - October 2025

Maximum Value: 98.3 % on Oct 30 02:00

Maximum Daily Average: 94.9 % on Oct 27

Minimum Value: 27.4 % on Oct 10 16:00

Minimum Daily Average: 52.4 % on Oct 14

Maximum Diurnal Average: 84.3 % at hour 8

Minimum Diurnal Average: 63.1 % at hour 16

Monthly Average: 75.50 %

Percentiles: P_1 = 35.4 P_{10} = 49.1 Q_1 = 63.0 Median = 78.8 Q_3 = 91.2 P_{90} = 96.6 P_{99} = 98.2

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

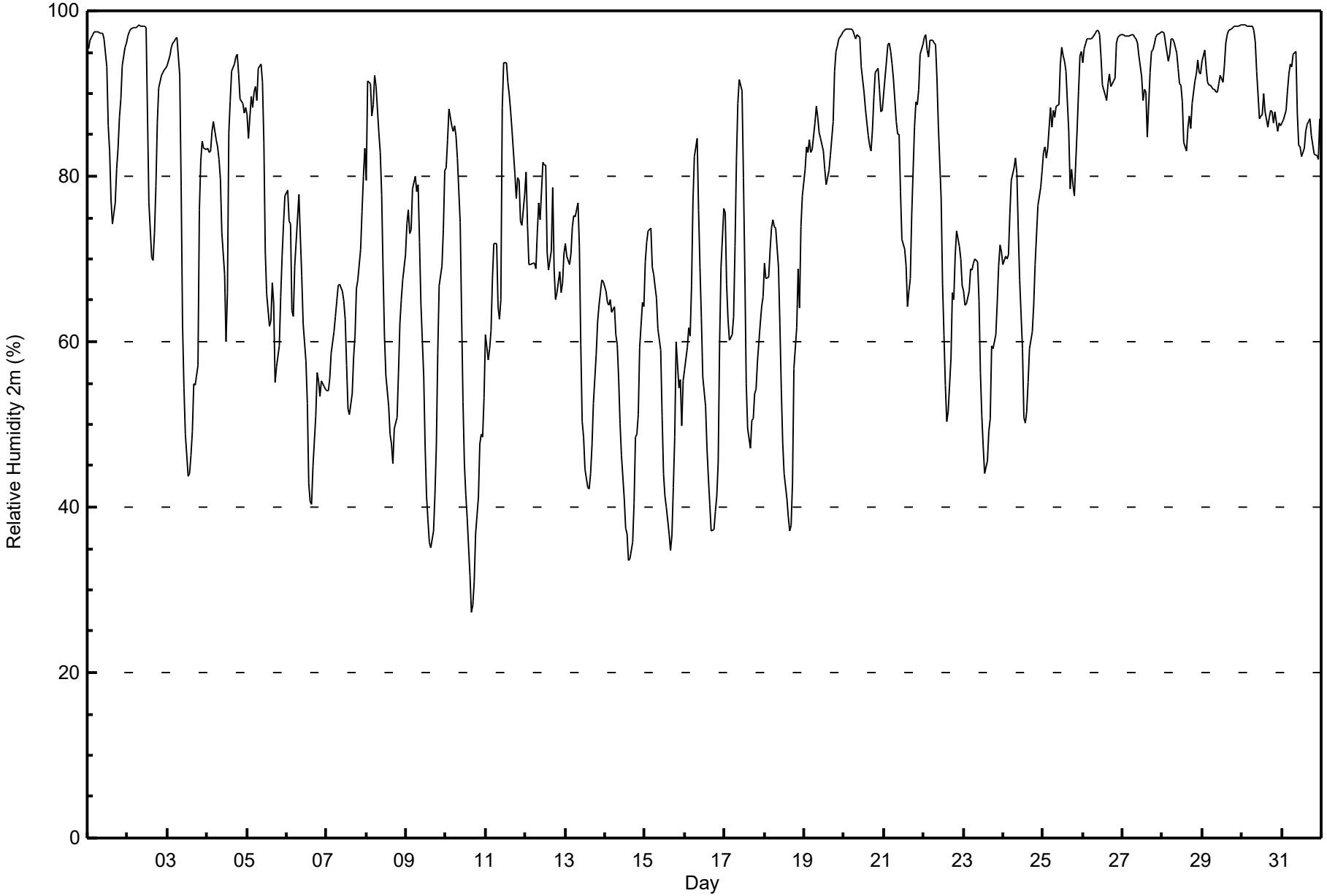
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	95.4	96.4	96.8	97.2	97.5	97.5	97.4	97.3	97.3	97.3	96.6	93.3	86.1	83.0	77.1	74.2	76.8	80.8	83.3	87.2	89.4	93.4	95.6	96.1	91.0	97.5
2-Oct	97.0	97.5	97.8	97.9	98.0	98.0	98.2	98.2	98.2	98.2	98.2	98.1	87.5	76.8	70.2	69.8	73.2	78.8	86.4	90.7	92.2	92.6	92.8	93.0	90.8	98.2
3-Oct	93.3	94.6	95.5	96.1	96.3	96.6	96.7	92.2	78.8	62.0	54.4	48.8	43.8	44.1	46.2	49.2	54.9	54.8	57.0	75.9	81.9	84.3	83.5	83.2	73.5	96.7
4-Oct	83.4	82.9	83.1	85.4	86.6	84.4	83.5	82.1	79.6	73.3	68.2	60.0	65.9	85.2	89.2	92.7	93.6	94.5	94.7	92.4	89.3	88.8	87.7	88.3	84.0	94.7
5-Oct	87.5	84.6	89.7	88.4	90.2	90.8	89.1	93.0	93.5	91.3	84.1	70.8	65.8	61.9	62.5	67.1	64.6	55.1	56.9	59.5	65.4	70.3	74.2	77.6	76.4	93.5
6-Oct	78.3	74.5	74.2	63.7	63.1	69.2	74.9	77.8	72.6	67.9	62.2	57.6	52.5	42.8	40.8	40.3	44.9	51.0	56.4	55.3	53.5	55.3	54.5	54.3	59.9	78.3
7-Oct	54.1	54.1	55.6	58.6	61.3	63.1	65.0	66.8	66.9	66.1	64.9	62.6	57.2	51.8	51.2	53.8	58.1	60.7	66.4	67.4	71.2	75.8	80.0	83.4	63.2	83.4
8-Oct	79.6	91.6	91.2	87.3	88.7	92.2	90.8	85.2	82.8	77.8	68.6	60.7	55.9	52.2	48.8	47.7	45.2	49.5	50.9	56.3	62.2	65.1	67.5	70.5	69.5	92.2
9-Oct	74.3	76.0	73.0	73.6	78.5	80.0	78.2	78.9	72.0	64.6	55.8	47.4	41.4	38.4	35.8	35.1	37.1	41.6	47.4	58.6	66.8	69.1	73.6	80.7	61.6	80.7
10-Oct	80.9	84.3	88.1	86.0	85.4	86.2	84.8	82.2	74.4	63.3	52.7	45.3	41.6	38.6	31.7	27.4	28.1	31.0	36.8	41.1	47.6	48.8	48.4	53.2	57.8	88.1
11-Oct	60.8	57.8	59.2	61.3	67.6	71.9	71.8	64.3	62.7	65.1	88.3	93.8	93.7	91.4	89.9	87.8	85.4	80.3	77.4	79.9	79.6	74.6	74.0	77.8	75.7	93.8
12-Oct	80.5	74.0	69.3	69.4	69.5	69.5	68.8	73.2	76.7	74.7	81.7	81.4	81.3	70.8	68.6	71.1	78.6	68.7	65.1	66.0	68.5	66.0	67.2	70.7	72.1	81.7
13-Oct	71.9	70.3	69.3	70.7	73.9	75.3	75.1	76.9	71.5	59.7	50.3	48.5	44.6	42.3	42.2	44.0	47.5	52.5	58.4	62.3	64.4	65.9	67.4	67.2	61.3	76.9
14-Oct	66.1	64.8	64.4	65.1	63.5	64.3	60.9	59.6	55.5	50.2	46.4	41.1	37.5	36.8	33.5	33.8	35.8	40.5	48.5	48.9	51.2	59.3	64.7	64.2	52.4	66.1
15-Oct	69.6	72.1	73.5	73.8	68.9	68.1	66.6	65.3	61.5	59.0	51.1	44.1	41.4	40.0	36.7	34.7	36.7	42.4	48.5	59.9	54.4	55.4	49.8	55.3	55.4	73.8
16-Oct	56.6	59.3	61.6	60.7	66.7	77.0	82.3	84.5	75.9	69.0	62.9	55.7	52.2	47.1	43.5	40.4	37.2	37.2	39.5	41.3	45.4	59.9	68.9	76.1	58.4	84.5
17-Oct	75.7	66.9	62.8	60.1	60.8	63.0	71.6	81.9	88.8	91.8	90.3	79.9	68.5	54.9	49.5	47.2	50.5	50.7	53.7	54.2	57.7	62.2	64.3	65.5	65.5	91.8
18-Oct	69.5	67.6	67.9	70.9	73.7	74.8	73.9	73.7	69.0	62.1	54.3	47.9	44.0	41.1	38.8	37.1	37.8	43.0	56.8	61.6	68.8	64.1	73.9	77.6	60.4	77.6
19-Oct	80.9	83.6	83.0	84.4	82.8	83.2	86.4	88.4	87.1	85.3	84.6	83.1	80.9	79.0	79.8	80.7	82.6	86.6	92.7	95.1	95.8	96.7	97.1	97.4	86.6	97.4
20-Oct	97.6	97.8	97.8	97.8	97.8	97.6	97.1	96.6	97.1	96.8	93.3	91.7	90.2	88.1	84.9	83.8	83.1	85.6	89.6	92.5	93.1	90.5	87.8	88.0	92.3	97.8
21-Oct	90.0	94.0	96.0	96.1	95.0	93.5	91.8	86.5	85.2	85.2	78.1	72.3	71.2	69.1	64.3	66.1	67.7	75.3	85.9	89.0	88.6	90.6	94.8	95.9	84.3	96.1
22-Oct	96.7	97.1	95.3	94.5	96.5	96.5	96.1	95.9	91.9	86.2	77.4	66.9	60.8	54.7	50.4	51.5	58.0	66.0	65.1	70.4	73.4	71.4	70.1	66.8	77.1	97.1
23-Oct	66.1	64.5	64.6	66.1	68.9	68.6	69.4	70.1	69.7	64.9	56.3	51.0	47.3	44.1	45.6	49.1	50.7	59.4	59.1	60.8	64.7	69.1	71.8	70.8	61.4	71.8
24-Oct	69.3	70.4	70.0	70.6	75.5	79.5	81.0	82.2	80.3	73.4	67.5	59.1	50.8	50.1	51.5	55.0	59.2	61.1	64.4	69.3	72.9	76.4	78.7	80.7	68.7	82.2
25-Oct	82.8	83.5	82.2	83.5	88.3	86.0	88.0	87.1	88.5	88.6	93.6	95.5	94.7	93.9	92.7	85.3	78.4	80.8	78.9	77.7	85.8	90.4	94.6	95.1	87.3	95.5
26-Oct	93.8	95.5	96.6	96.6	96.6	96.7	96.7	97.3	97.6	97.6	97.1	94.4	91.0	89.9	89.1	91.3	92.4	90.9	91.5	91.8	96.1	96.7	96.9	97.1	94.6	97.6
27-Oct	97.1	97.0	97.0	96.9	97.0	97.2	97.2	96.8	96.6	96.0	94.6	92.1	89.1	90.5	90.2	84.7	92.5	95.1	95.2	95.9	96.7	97.2	97.3	97.5	94.9	97.5
28-Oct	97.5	97.3	96.0	93.9	94.7	96.6	96.6	96.2	95.0	93.0	91.2	91.1	89.1	84.0	83.1	85.9	87.3	85.8	88.8	91.5	92.4	94.1	92.5	92.4	91.9	97.5
29-Oct	93.9	95.3	93.1	91.4	91.1	91.0	90.6	90.5	90.1	90.2	91.3	92.2	91.3	93.3	96.0	97.2	97.6	97.9	98.0	98.1	98.2	98.2	98.2	98.3	94.3	98.3
30-Oct	98.3	98.3	98.3	98.2	98.2	98.1	98.1	97.7	96.3	92.8	87.0	87.3	87.4	90.1	87.8	86.0	87.2	88.0	87.8	86.4	87.8	85.5	86.4	86.2	91.5	98.3
31-Oct	86.4	86.7	88.0	90.3	92.4	93.6	93.1	94.8	95.1	87.7	83.8	83.5	82.4	83.4	85.4	86.3	86.6	87.0	84.8	82.8	82.5	82.5	82.1	87.0	87.0	95.1
	81.4	81.6	81.6	81.5	82.7	83.9	84.2	84.3	82.2	78.4	75.0	70.9	67.3	64.8	63.1	63.1	64.8	66.9	69.9	72.9	75.4	77.1	78.6	80.2	Diurnal Average	
	98.3	98.3	98.3	98.2	98.2	98.1	98.2	98.2	98.2	98.2	98.2	98.1	94.7	93.9	96.0	97.2	97.6	97.9	98.0	98.1	98.2	98.2	98.2	98.3	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Buffalo Viewpoint - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Buffalo Viewpoint - October 2025

Maximum Speed: 30 km/h on Oct 27 06:00

Maximum Daily Speed Average: 21.3 km/h on Oct 27

Minimum Speed Value: 0 km/h on Oct 1 23:00

Minimum Daily Speed Average: 0.9 km/h on Oct 20

Maximum Diurnal Speed Average: 4.3 km/h at hour 14

Minimum Diurnal Speed Average: 0.4 km/h at hour 1

Monthly Average Velocity: 2.2 km/h 259.7 deg

Percentiles: P_1 = 2 P_{10} = 5 Q_1 = 7 Median = 10 Q_3 = 13 P_{90} = 17 P_{99} = 28

Hours in Service: 744

Hours of Data: 744

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NNW10	N12	N13	N12	NNW17	N20	N19	N18	N17	N16	N18	N20	N18	N13	N14	N13	N11	N4	E1	SE1	NE5	SSW1	ENE0	SSW4	N10.9	N20
2-Oct	SSE3	S4	SSW2	SW4	SSE5	SSE6	S6	SSE8	SSE7	SSE6	SSE4	ESE6	SE8	SSE8	S10	S7	SSE5	SSE5	SSE6	SSE7	SSE8	SSE8	SSE10	SSE9	SSE6.1	SSE10
3-Oct	SE8	SSE7	SSE7	SE11	SSE5	SSE5	SSE8	SSE8	S7	SSW11	SW16	SW16	WSW20	WSW20	WSW19	SW17	SSW9	SW13	WSW11	W12	W17	WSW13	W12	WSW14	SW9.4	WSW20
4-Oct	W15	W11	W10	W11	W15	W13	W14	WNW10	WNW9	WNW10	NW11	NW11	N7	NNW3	NNE9	N15	NNW19	NNW17	NNW16	NNW17	NW13	NW12	NW11	W10	NW10.1	NNW19
5-Oct	WNW10	WNW8	W11	WSW11	SW8	SW7	SW4	SSE8	SSE7	SSE6	SSE6	SW8	W10	W12	W10	W9	W9	WNW10	WNW12	W14	W12	W13	WNW8	N15	W6.7	N15
6-Oct	N16	N13	N17	NNW20	NNW16	NNW12	N10	N9	N11	N7	N4	WSW3	SW4	SW4	SSW3	SSE6	SE6	SSE6	SSE5	SSE6	S8	SSE8	SSE8	SSE9	N2.8	NNW20
7-Oct	SSE9	SSE9	S8	S8	S9	SSE9	SSE10	SSE10	SSE10	SSE10	SSE11	SSE12	SSE11	SSE12	SE10	SE8	SE7	SE7	SSE5	SSW3	N1	NW3	NW6	NNW7	SSE6.6	SSE12
8-Oct	NW6	NNW10	NW9	WNW8	WNW12	W11	W13	WNW15	W14	W12	W13	W17	W20	W16	W14	W13	W18	WNW12	W12	WNW16	WNW16	WNW14	WNW12	WNW13	W12.7	W20
9-Oct	W8	W10	W11	WSW8	SSW8	SW10	WSW9	SW7	WSW10	SW8	SW11	WSW12	WSW15	WSW16	WSW15	WSW12	WSW10	SW7	SSW6	SSE7	SSE8	SSE8	SSE8	SE7	SW7.9	WSW16
10-Oct	SE6	SSE5	S6	S6	S6	S7	SSE9	SSE8	SSE9	SSE9	SSE9	SSE10	SSE12	SSE12	S13	SSW16	S15	S10	SSE9	SSE9	SSE10	SSE12	SSE11	E5	SSE8.9	SSW16
11-Oct	ESE11	SE8	SW6	S4	SE6	N8	N10	N11	NNW15	NNW19	NNW20	NW15	NW15	WNW20	WNW18	WNW15	WNW13	NW15	NW18	NW20	NW19	NNW22	NNW22	N25	NNW11.3	N25
12-Oct	NNW19	N26	N27	N24	N24	N23	N22	N19	N14	N16	N18	NNE14	N17	N18	N16	N17	N14	N15	NNW14	N13	NNW12	N11	NNW7	WNW9	N16.7	N27
13-Oct	NW11	NW12	WNW7	W8	WSW5	SW6	SW7	S6	S5	SSW9	SW13	WSW14	SW12	SSW15	S14	S15	S12	SSE9	S8	SSE9	SSE9	SSE10	SSE10	SSE11	SSW7.0	S15
14-Oct	SSE11	SSE12	SSE11	SSE11	SSE10	SSE9	S12	S11	S13	SSW13	SSW15	SW12	SSW14	SSW14	SW14	SSW11	S9	SSE6	SSE8	SSE10	SSE10	SE8	SE8	SE9	S9.8	SSW15
15-Oct	SE7	SE7	SE9	SE9	SSE10	SSE7	SSE11	SSE11	SSE11	SSE10	SSE11	SSW11	SW12	WSW11	SW11	SW10	SW11	SSW9	S9	SSE9	WSW3	W10	W8	SW4	S6.9	SW12
16-Oct	WSW5	WNW5	WNW7	WNW8	W5	S5	SSE8	SSE6	SSE6	SSE6	SE8	SE8	SE10	SSE10	SSE9	SSE8	SSW10	SSW11	SSW10	S8	S12	SSW18	SSW11	S9	S6.2	SSW18
17-Oct	SSW8	SW13	WSW13	WSW15	WSW16	W17	W13	WNW12	W17	W18	WSW13	W16	WNW15	WNW18	WNW17	NW16	NW12	NW14	NW11	WNW9	W12	W11	WSW7	W7	W11.9	W18
18-Oct	WSW8	W14	WSW12	W16	W10	SW6	SW7	WSW7	WSW11	WSW9	W5	WNW7	WNW12	W10	W12	W10	WSW6	SW5	SSE7	S7	SE7	ESE5	SSE5	SSE7	WSW6.2	W16
19-Oct	SE8	SSE7	SSE5	SSE4	SE5	ESE4	NE6	NE5	NNE5	NNE5	N4	NNE5	NNE7	N9	NNE11	NNE11	N12	N10	N10	NNE10	NNE12	NNE12	N11	N11	NNE5.7	NNE12
20-Oct	N11	N11	N10	N10	N10	N11	N10	N10	NNE5	NE5	N3	ESE2	S4	SSE5	SSW8	SSW9	SW8	S6	SSE6	SE7	SE8	SSE11	SSE11	S6	NE0.9	N11
21-Oct	SSE8	SSE8	SSE7	S6	SSE8	SSE7	WSW6	W14	W12	W10	W13	NW14	NW12	WNW12	W11	WNW10	NNW11	N9	NNE8	NE6	E3	SSE3	SSE4	SE5	W3.2	NW14
22-Oct	SSE4	SE5	S1	SE4	SSE5	SSE5	SSE5	SSE5	SSE6	SSE8	S8	SSE7	SE8	SE10	SE8	SE6	SE7	SE9	SE11	SE12	SE9	SE11	SE13	SE16	SE7.5	SE16
23-Oct	SE15	SSE15	SSE14	SSE14	SSE12	SSE12	SSE10	SSE9	SSE9	SSE10	SSE11	SSE11	SSE9	SE9	SE11	SE10	SE9	SE10	SE11	SE11	SSE9	SSE10	SSE11	SSE10	SSE10.8	SE15
24-Oct	SSE11	SSE10	SSE9	SSE8	S5	S5	SSW6	SSE6	S5	S6	SSE8	SSE8	SSE7	SSE8	S6	ESE7	ESE5	E5	ESE6	SE7	SE7	SSE7	SSE8	SE5	SSE6.4	SSE11
25-Oct	S4	S4	SSW3	NW4	NE6	ENE4	SSW2	WSW6	WNW9	W12	W15	W15	W17	W13	WSW17	W19	WSW17	SW12	SW9	SSW7	SSE8	SSE8	SE8	SE6	WSW6.1	W19
26-Oct	ESE5	S6	SE7	SSE7	SSE3	N3	NNE7	N5	N6	N10	N6	N10	N12	N14	N13	N11	N12	N19	N23	NNE22	N28	N26	N25	N28	N10.8	N28
27-Oct	N26	N27	N26	N28	N26	N30	N28	N28	N29	NNW29	N29	N26	NNW22	NNW21	NNW19	NNW20	NW17	NW18	NW18	NW17	NW15	NW15	NW15	NW14	NNW21.3	N30
28-Oct	NW14	NW11	WNW13	WNW15	W13	W14	WNW12	WNW10	WNW10	WNW10	WNW12	W13	W16	W16	W12	W6	SW4	WSW7	S4	S6	SSE6	SSE5	S5	S4	W8.2	W16
29-Oct	SE4	SE5	SE6	SE7	SE10	SE6	ESE7	E6	E7	NE4	N9	NNE7	NNE7	NNE9	N10	NNE11	N8	NNE9	N7	NNW10	NNW8	NNW6	NNW6	NNW4	NNE4.1	NNE11
30-Oct	N5	NNE2	WSW1	NE3	E2	S3	SW2	WSW6	SW6	WSW7	WSW9	SSW5	SSW6	S4	SW6	SSW9	SSW8	SW5	SW6	SW5	SSW7	SSW7	SSW7	SSW7	SW4.2	SSW9
31-Oct	SSW7	SSW7	SSW8	S6	S7	S8	SSE9	SSE7	SSE9	SSE10	SSE12	SSE13	SSE14	SE16	SE16	SSE17	SSE15	SE18	SSE18	SSE17	SSE14	SSE12	SSE10	SSE8	SSE11.1	SSE18
	W0.4	W1.2	W1.9	W2.2	WSW1.8	W1.6	W1.5	W1.6	W2.2	W2.7	W3.1	W3.6	W4.3	W4.3	WSW4.2	WSW3.7	W3.1	W1.9	WSW1.4	SW1.3	SW1.5	SW2.1	SSW1.5	WSW0.7	Diurnal Average	
	N26	N27	N27	N28	N26	N30	N28	N28	N29	NNW29	N29	N26	NNW22	NNW21	NNW19	NNW20	NNW19	N19	N23	NNE22	N28	N26	N25	N28	Diurnal Maximum	

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 8 km/h on Oct 27 10:00

Minimum Value: 1 km/h on Oct 19 11:00

Percentiles: P_1 = 1 P_{10} = 1 Q_1 = 2 Median = 3 Q_3 = 4 P_{90} = 5 P_{99} = 7

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

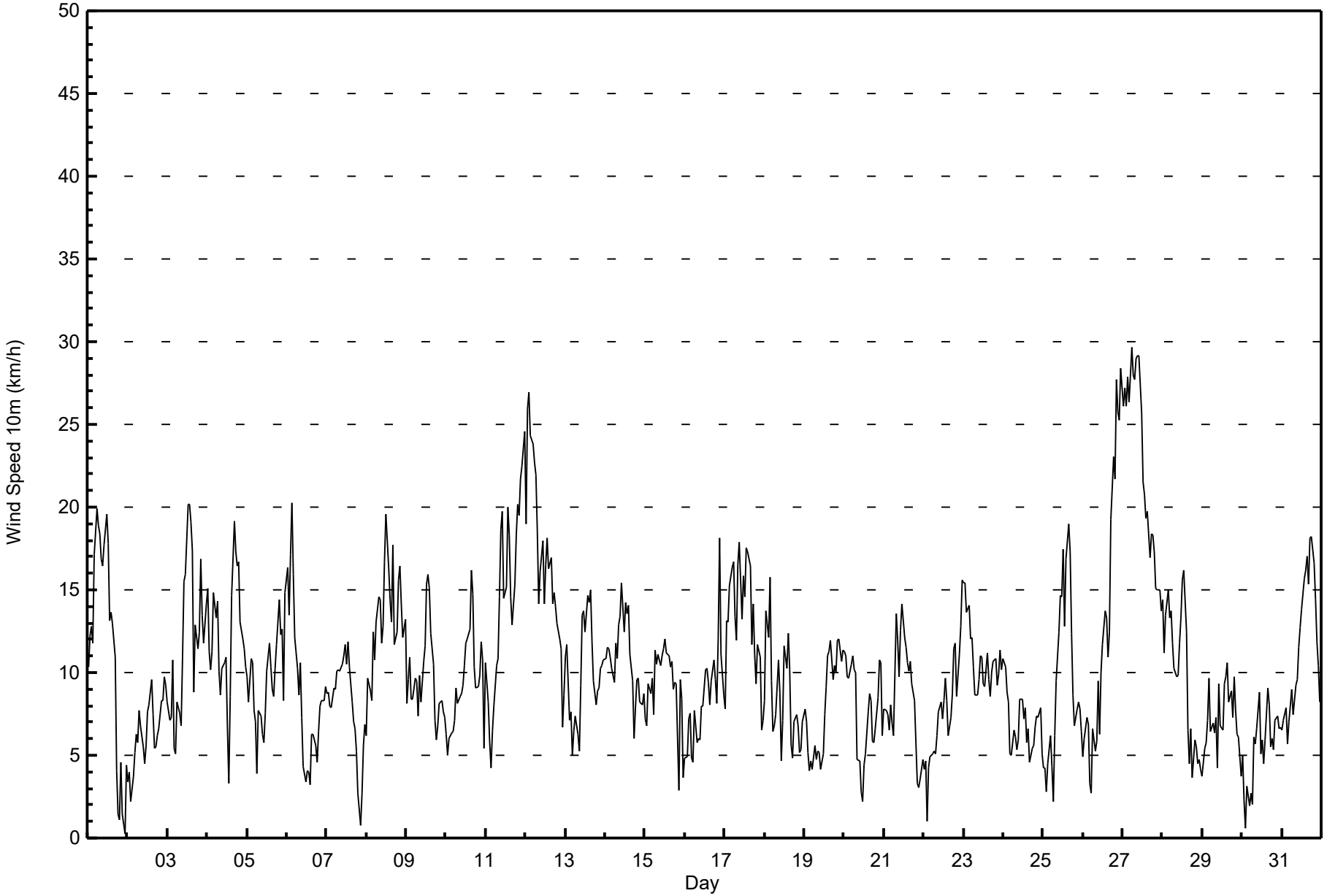
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	3	3	3	3	5	5	5	5	5	4	5	6	5	3	4	4	3	3	1	1	1	2	1	2	6
2-Oct	1	1	1	1	1	1	1	2	2	1	2	1	3	3	3	3	2	1	2	2	2	2	3	3	3
3-Oct	2	2	3	2	2	1	2	2	2	4	5	5	7	6	7	5	3	4	4	4	5	3	4	4	7
4-Oct	4	3	3	3	3	4	3	3	3	3	3	4	4	2	3	5	6	5	5	5	4	4	3	3	6
5-Oct	3	3	4	4	2	3	2	2	2	2	2	3	3	4	3	3	2	3	3	3	3	3	2	5	5
6-Oct	5	4	5	7	5	3	3	2	3	4	2	2	2	2	2	2	2	1	1	2	2	2	2	3	7
7-Oct	3	3	2	2	3	3	3	3	3	3	3	4	4	4	4	2	2	2	1	1	2	2	2	3	4
8-Oct	2	3	3	3	5	3	3	5	3	3	4	5	5	5	4	4	5	3	3	5	5	5	3	4	5
9-Oct	3	3	3	2	2	2	3	3	3	2	3	4	5	5	5	4	3	2	1	1	1	1	2	1	5
10-Oct	1	1	1	1	1	1	2	2	3	3	3	4	4	4	5	5	5	3	3	3	3	3	3	2	5
11-Oct	2	3	1	1	2	4	4	4	4	5	6	4	4	6	6	4	3	5	5	6	6	6	7	8	8
12-Oct	5	8	8	7	6	7	6	6	4	4	5	4	5	5	4	5	4	4	4	5	4	4	2	3	8
13-Oct	3	3	2	2	1	1	1	1	2	2	4	4	4	4	5	5	4	3	2	3	3	3	3	3	5
14-Oct	3	3	3	3	3	3	4	3	4	4	4	4	4	4	4	3	3	1	2	2	2	2	2	1	4
15-Oct	2	1	3	2	3	2	3	3	4	3	4	4	4	3	3	3	2	1	1	2	2	3	3	2	4
16-Oct	2	1	2	2	2	2	1	2	2	2	2	3	3	3	3	3	4	3	3	3	4	6	4	3	6
17-Oct	2	4	3	4	4	4	4	3	3	4	3	4	4	5	5	5	4	4	3	2	3	2	3	2	5
18-Oct	4	3	3	4	3	2	2	2	3	2	2	3	3	3	4	3	2	1	1	1	2	3	1	1	4
19-Oct	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	3	3	2	2	2	3	3	3	3	3
20-Oct	3	3	3	3	3	3	3	3	2	1	1	1	1	2	2	2	2	2	2	2	3	3	3	2	3
21-Oct	2	2	2	2	2	1	3	3	3	3	4	4	3	3	3	3	3	3	2	1	1	1	2	1	4
22-Oct	1	2	2	2	1	1	1	1	2	2	3	2	2	3	3	2	2	2	4	4	3	3	4	5	5
23-Oct	5	5	4	5	4	4	3	3	2	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	5
24-Oct	3	3	3	3	2	1	2	2	2	2	3	3	2	2	2	3	1	1	2	2	2	2	2	2	3
25-Oct	2	1	2	2	2	2	1	2	3	4	4	3	4	4	5	5	5	3	2	2	2	1	2	2	5
26-Oct	2	1	1	2	1	2	1	2	2	3	3	2	3	3	4	3	4	5	6	6	7	7	7	7	7
27-Oct	7	7	7	7	7	8	7	7	8	8	8	8	6	5	6	6	5	5	5	5	4	4	4	4	8
28-Oct	4	3	4	4	3	3	3	3	3	2	3	4	5	5	3	3	2	2	1	1	1	1	1	1	5
29-Oct	1	2	2	2	3	3	2	2	2	2	2	3	2	2	2	3	2	2	2	3	2	2	2	1	3
30-Oct	2	1	1	2	1	1	2	3	2	2	3	2	2	1	2	3	2	1	2	1	2	2	2	2	3
31-Oct	2	2	3	2	2	3	3	2	3	3	4	4	5	5	5	6	5	6	6	6	5	4	4	3	6
	7	8	8	7	7	8	7	7	8	8	8	8	7	6	7	6	6	6	6	6	7	7	7	8	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Buffalo Viewpoint - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	107	14.38	14.38
6 - 11	390	52.42	66.80
12 - 19	208	27.96	94.76
20 - 28	35	4.70	99.46
29 - 38	4	0.54	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Buffalo Viewpoint - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	7	8	3	2	5	5	8	23	15	9	10	5	2	1	2	2	107
6 - 11	33	12	3	0	2	5	49	127	30	28	21	19	24	19	9	9	390
12 - 19	33	4	0	0	0	0	7	20	8	7	11	17	43	23	22	13	208
20 - 28	22	1	0	0	0	0	0	0	0	0	0	2	1	1	1	7	35
29 - 38	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	98	25	6	2	7	10	64	170	53	44	42	43	70	44	34	32	744

Total Number of Valid Hours: 744

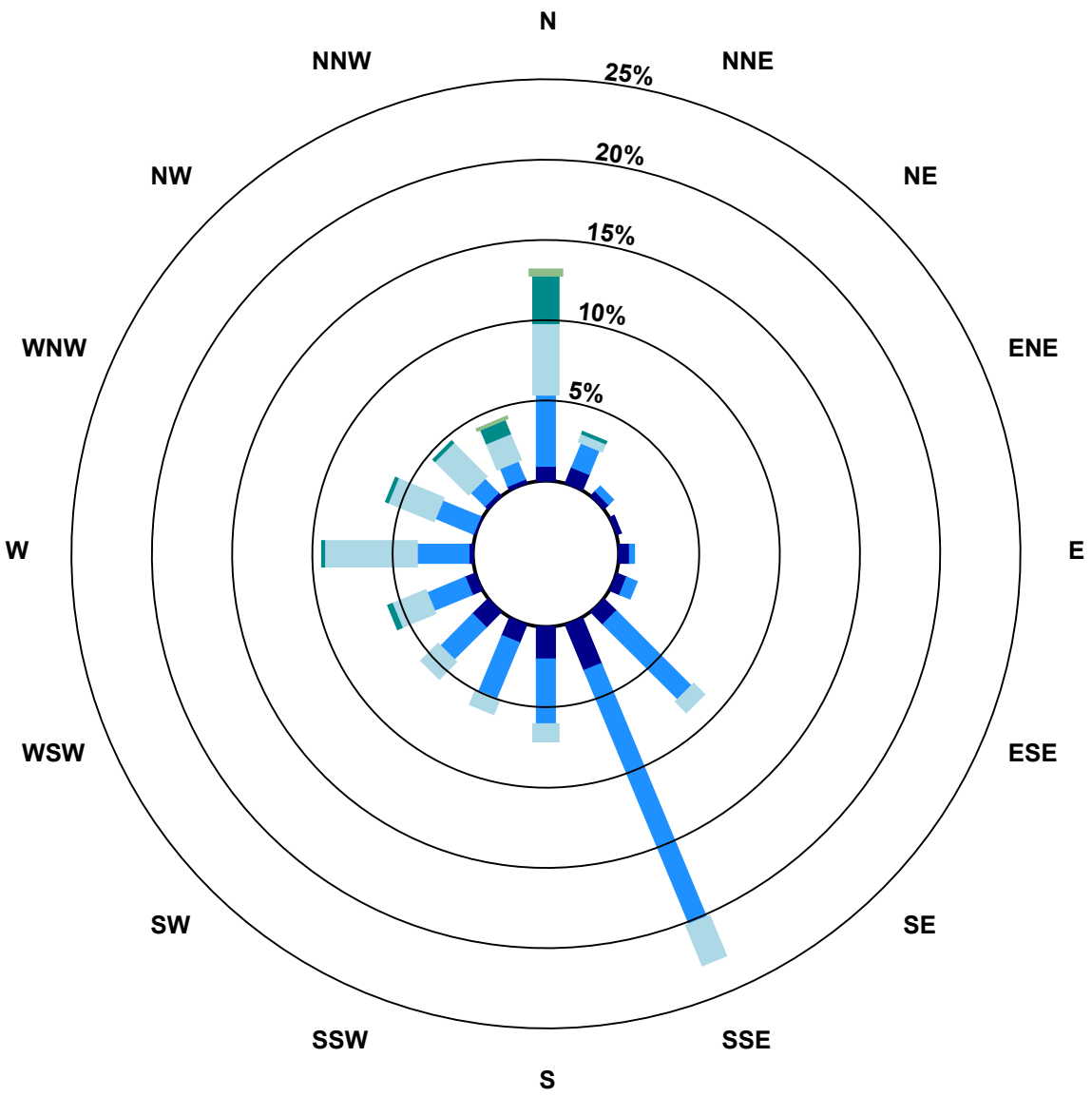
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Buffalo Viewpoint



Classes (km/h)

0 - 5

6 - 11

12 - 19

20 - 28

29 - 38

> 38

Total Number of Valid Hours: 744

Direction of Maximum Speed: 352 deg on Oct 27 06:00
Direction of Maximum Daily Speed Average: 340.9 deg on Oct 27

Direction of Minimum Speed: 69 deg on Oct 1 23:00

Direction of Minimum Daily Speed Average: 0.9 deg on Oct 20

Monthly Average Direction: 259.7 deg

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	347	349	353	351	348	350	350	350	351	350	353	351	354	353	359	356	358	7	98	141	47	200	69	210	352.6
2-Oct	166	188	197	216	147	155	177	155	168	154	147	115	140	168	176	172	163	147	149	163	153	157	148	147	158.7
3-Oct	143	158	154	143	152	161	165	152	176	206	215	222	243	251	241	231	213	226	240	269	263	255	263	258	224.0
4-Oct	261	267	269	270	265	263	272	285	291	301	308	323	356	337	19	356	348	334	329	329	323	306	309	279	305.9
5-Oct	284	301	260	252	220	218	233	160	158	147	160	219	267	264	274	269	274	298	290	273	262	271	293	357	263.8
6-Oct	6	1	359	348	342	344	5	10	3	1	349	242	225	218	211	152	130	150	168	152	170	166	160	164	4.1
7-Oct	159	162	172	170	172	155	150	164	163	162	159	156	159	155	146	129	133	144	168	202	354	326	308	332	159.1
8-Oct	304	335	317	286	289	264	270	300	276	270	267	266	268	273	265	261	275	285	274	296	295	283	283	294	281.1
9-Oct	271	275	277	246	213	224	238	222	249	236	233	241	245	252	253	252	250	230	193	160	161	167	148	139	233.1
10-Oct	129	160	175	171	176	169	154	163	168	164	149	154	154	158	180	199	190	172	158	156	150	154	151	88	163.5
11-Oct	123	145	223	187	132	4	5	2	346	342	337	326	317	302	300	297	298	306	314	314	323	332	343	351	326.5
12-Oct	345	352	351	352	350	352	356	0	11	1	4	12	3	8	359	358	354	355	343	353	329	353	345	299	354.1
13-Oct	307	310	288	263	246	235	222	184	171	200	230	254	230	209	191	190	191	167	171	155	159	154	151	148	205.4
14-Oct	150	158	152	156	161	158	172	180	189	205	203	215	210	211	215	203	184	165	154	149	155	144	139	143	177.8
15-Oct	139	139	138	142	152	155	155	154	159	156	159	210	227	244	232	225	219	208	186	152	240	277	265	234	187.4
16-Oct	250	297	298	283	276	190	151	160	159	147	144	135	129	148	148	154	195	192	196	182	191	209	193	179	182.3
17-Oct	192	229	237	239	252	260	276	283	269	264	254	273	292	296	302	309	305	317	316	283	273	277	256	277	274.2
18-Oct	251	260	250	260	259	216	236	245	252	255	266	298	283	277	267	269	258	214	153	174	140	122	147	148	245.4
19-Oct	143	157	158	156	143	108	40	34	17	17	11	19	15	11	17	13	9	3	7	19	16	12	0	9	23.3
20-Oct	2	5	3	1	356	359	357	356	19	34	7	111	186	164	202	212	214	179	153	145	146	152	157	173	49.1
21-Oct	148	164	164	169	159	152	246	259	266	278	280	308	307	298	278	282	327	8	33	36	86	168	154	140	271.4
22-Oct	149	143	175	143	157	158	167	160	161	167	170	151	143	146	140	132	124	130	132	130	141	142	145	146	145.4
23-Oct	144	149	151	153	149	148	152	163	159	159	161	161	153	142	132	138	136	135	144	145	159	165	154	156	150.3
24-Oct	155	159	150	155	179	187	192	166	181	174	157	153	165	161	169	120	105	92	118	136	139	152	162	144	154.0
25-Oct	178	170	211	307	53	58	198	252	285	281	268	263	269	278	254	265	256	234	214	199	152	155	138	137	246.6
26-Oct	104	170	144	149	159	4	26	2	354	11	9	5	10	3	10	358	1	6	4	15	3	6	4	0	9.2
27-Oct	2	3	1	360	355	352	352	352	350	348	349	349	345	332	338	336	318	306	305	307	305	304	306	307	340.9
28-Oct	308	307	295	284	281	279	282	284	290	282	283	276	270	279	270	269	235	253	191	190	151	156	189	181	274.2
29-Oct	127	142	139	129	140	131	106	85	80	36	11	12	16	16	7	17	6	12	11	334	339	337	344	340	32.7
30-Oct	5	20	256	55	81	190	229	254	220	237	243	212	203	171	219	208	212	218	226	216	210	209	211	207	217.5
31-Oct	208	198	195	191	191	173	168	161	159	162	154	156	153	142	142	150	152	142	149	153	149	147	153	157	157.2
	266.0	273.5	271.3	262.0	253.7	263.3	270.2	278.0	268.5	270.7	263.0	267.0	264.9	264.2	257.5	258.7	262.9	266.5	244.1	233.4	235.1	229.3	213.5	236.5	
	Diurnal Average																								

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 90 deg on Oct 22 03:00

Minimum Value: 8 deg on Oct 19 00:00

Percentiles: P_1 = 12 P_{10} = 18 Q_1 = 21 Median = 24 Q_3 = 30 P_{90} = 35 P_{99} = 79

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

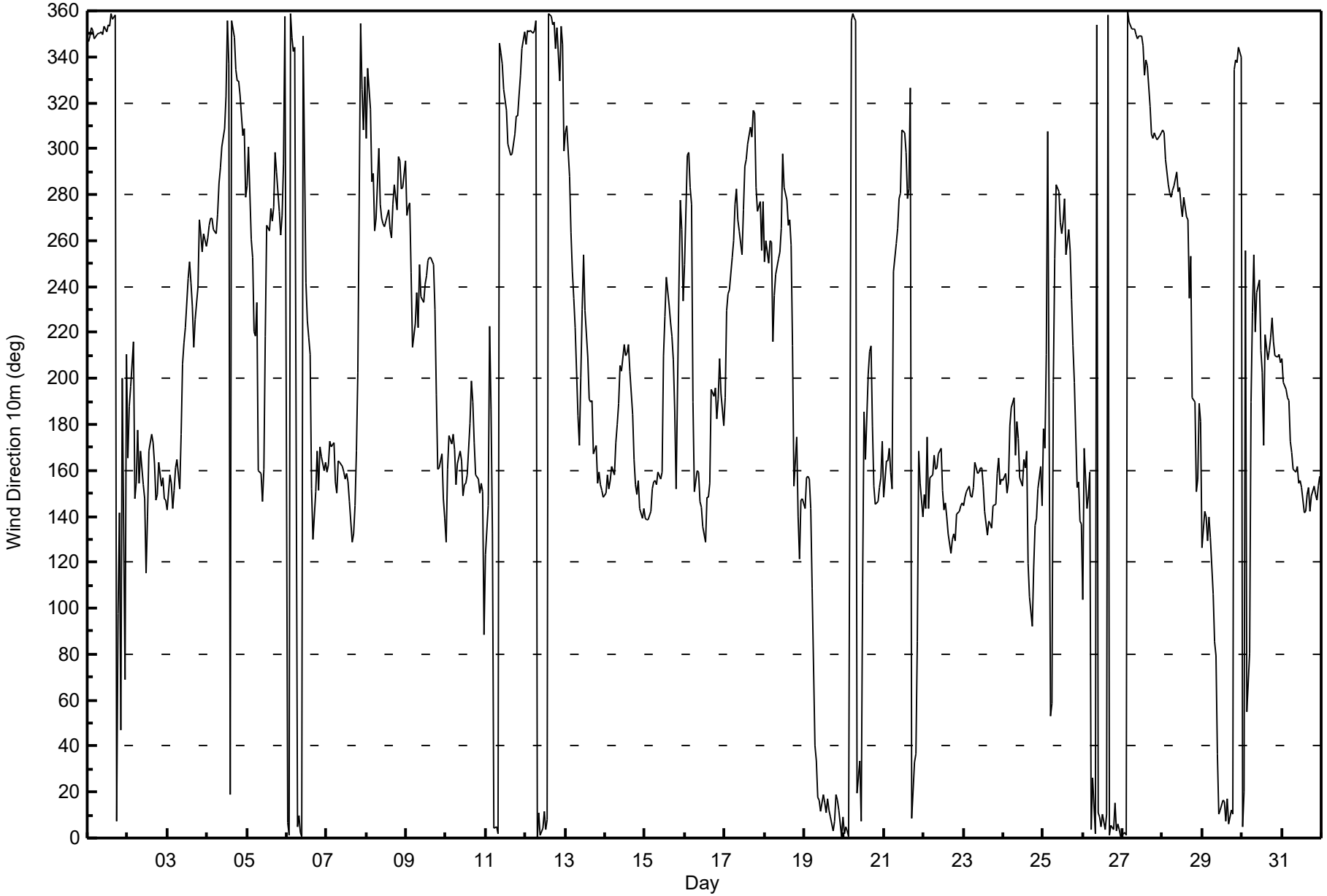
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	18	19	19	18	22	20	21	20	22	19	22	22	22	22	21	21	20	29	54	66	10	78	86	35	86
2-Oct	27	24	47	34	16	20	21	22	22	28	35	25	35	35	31	36	33	26	30	31	28	28	31	33	47
3-Oct	27	27	25	19	27	22	24	22	31	26	21	22	22	20	22	20	23	21	21	25	16	17	19	19	31
4-Oct	15	19	20	17	15	15	16	22	24	24	25	32	36	50	28	24	24	22	22	19	22	24	23	22	50
5-Oct	22	37	18	21	18	27	51	21	24	26	38	34	35	22	21	24	27	25	22	17	15	26	29	29	51
6-Oct	24	22	22	23	22	21	20	20	20	32	48	83	70	67	84	44	31	27	40	33	27	28	31	29	84
7-Oct	33	33	29	26	27	29	28	25	27	30	30	32	34	34	35	27	30	29	35	68	86	79	21	43	86
8-Oct	31	21	24	20	23	18	19	25	17	20	20	19	18	22	21	23	22	21	17	24	26	21	22	23	31
9-Oct	25	22	18	19	18	16	26	37	20	25	21	23	21	22	21	22	20	18	17	13	20	25	16	13	37
10-Oct	17	24	21	12	15	16	18	28	31	33	34	33	31	32	34	25	26	28	29	31	29	30	32	46	46
11-Oct	18	37	34	44	28	48	22	22	21	23	22	22	21	23	24	23	24	24	24	23	21	21	22	22	48
12-Oct	22	23	24	22	22	24	24	23	22	23	24	21	22	24	22	24	23	23	23	23	22	22	22	26	26
13-Oct	24	23	26	18	19	16	16	19	29	25	23	22	25	26	29	29	28	30	30	28	30	32	28	28	32
14-Oct	31	29	29	31	30	30	30	27	27	25	24	24	21	20	19	25	30	23	20	19	19	18	19	19	31
15-Oct	19	16	19	20	24	25	26	28	30	30	32	26	23	22	20	19	16	12	17	15	62	32	22	50	62
16-Oct	49	32	19	21	43	46	13	29	31	32	28	32	28	31	31	32	32	27	26	32	25	22	27	27	49
17-Oct	24	20	19	20	17	15	20	21	14	14	16	20	23	24	24	23	25	21	20	22	15	17	23	30	30
18-Oct	42	15	20	12	32	35	22	21	18	19	36	28	24	25	21	18	17	17	12	11	26	13	34	8	42
19-Oct	13	20	19	20	24	26	11	18	10	13	14	22	21	18	18	19	17	19	19	17	17	20	20	20	26
20-Oct	22	21	21	23	21	20	19	24	27	25	33	61	31	32	26	19	21	29	28	27	28	30	33	38	61
21-Oct	30	32	33	34	28	21	43	18	17	20	21	24	25	25	24	25	22	26	20	22	20	44	38	14	44
22-Oct	30	37	90	48	32	34	30	31	32	29	34	42	36	33	29	25	25	25	31	30	31	31	30	32	90
23-Oct	31	33	32	33	32	32	33	29	30	32	33	32	35	32	27	27	31	29	30	28	30	30	30	34	35
24-Oct	32	32	34	35	27	26	26	37	30	36	29	32	36	30	30	30	28	15	28	31	30	31	31	40	40
25-Oct	44	40	37	47	48	32	68	19	24	23	17	12	15	21	19	15	18	18	16	42	22	18	14	21	68
26-Oct	45	27	17	15	50	43	17	25	20	15	26	16	22	21	23	21	21	23	22	24	23	24	23	25	50
27-Oct	23	24	24	23	23	22	24	22	21	22	22	23	22	20	21	21	25	22	23	22	23	23	23	22	25
28-Oct	23	23	22	20	19	18	19	21	22	19	20	18	16	20	20	24	33	20	47	19	23	29	23	22	47
29-Oct	30	31	31	31	30	31	24	18	16	41	21	28	20	19	21	19	21	18	18	21	21	20	22	21	41
30-Oct	19	49	84	40	68	42	83	26	18	20	24	44	28	34	22	22	17	17	15	27	25	19	22	23	84
31-Oct	22	26	26	33	27	33	30	31	33	33	35	32	34	31	32	33	34	32	35	35	34	33	36	36	36
	49	49	90	48	68	48	83	37	33	41	48	83	70	67	84	44	34	32	54	68	86	79	86	50	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Buffalo Viewpoint - October 2025



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS05
MANNIX
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MANNIX (AMS05)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	707	36	37	99.87	30.9	0	5.8	0
H2S (ppb) Average	707	36	37	99.87	5	0	1.1	0
THC (ppm) Average	705	36	39	99.6	4.9	-	2.3	-
NMHC(ppm) Average	705	36	39	99.6	0.258	-	0.043	-
CH4(ppm) Average	705	36	39	99.6	4.8	-	2.3	-
Temperature 2 m (C) Average	737	0	7	99.06	21.3	-	10.3	-
Temperature 20 m (C) Average	737	0	7	99.06	21.6	-	11.5	-
Temperature 45 m (C) Average	737	0	7	99.06	21.4	-	11.7	-
Temperature 75 m (C) Average	737	0	7	99.06	21.1	-	12.4	-
Temperature 90 m (C) Average	737	0	7	99.06	20.8	-	12.2	-
Relative Humidity 2 m (%) Average	737	0	7	99.06	100	-	97	-
Relative Humidity 20 m (%) Average	737	0	7	99.06	99	-	94	-
Relative Humidity 45 m (%) Average	737	0	7	99.06	98	-	93	-
Relative Humidity 75 m (%) Average	737	0	7	99.06	99	-	94	-
Relative Humidity 90 m (%) Average	737	0	7	99.06	100	-	94	-
Wind Speed 20 m (km/h) Average	733	0	11	98.52	34	-	25	-
Wind Speed 45 m (km/h) Average	736	0	8	98.92	44	-	33	-
Wind Speed 75 m (km/h) Average	735	0	9	98.79	49	-	37	-
Wind Speed 90 m (km/h) Average	737	0	7	99.06	52	-	40	-
Wind Direction 20 m (deg) Average	733	0	11	98.52	-	-	-	-
Wind Direction 45 m (deg) Average	736	0	8	98.92	-	-	-	-
Wind Direction 75 m (deg) Average	735	0	9	98.79	-	-	-	-
Wind Direction 90 m (deg) Average	735	0	9	98.79	-	-	-	-
Vertical Wind Speed 20 m (km/h) Average	735	0	9	98.79	1.3	-	0.8	-
Vertical Wind Speed 45 m (km/h) Average	737	0	7	99.06	2.3	-	1.5	-
Vertical Wind Speed 75 m (km/h) Average	737	0	7	99.06	1.7	-	0.7	-
Vertical Wind Speed 90 m (km/h) Average	737	0	7	99.06	1.6	-	0.6	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MANNIX (AMS05)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	707	0.5	2.4	-	0	0	0	0.1	0.2	0.5	30.9
H2S (ppb) Average	707	0.24	0.4	-	0	0.1	0.1	0.1	0.2	0.4	4.9
THC (ppm) Average	705	2.15	0.2	-	2	2.1	2.1	2.1	2.2	2.2	4.9
NMHC(ppm) Average	705	0.006	0.018	-	0	0	0	0	0	0	0.258
CH4(ppm) Average	705	2.15	0.2	-	2	2.1	2.1	2.1	2.1	2.2	4.8
Temperature 2 m (C) Average	737	4.76	4.5	-	-3.9	-0.1	0.8	4.1	7.8	11	21.3
Temperature 20 m (C) Average	737	5.22	4.5	-	-2.9	-0.1	1.5	4.5	8.4	11.3	21.6
Temperature 45 m (C) Average	737	5.08	4.6	-	-2.9	-0.5	1.3	4.3	8.2	11.1	21.4
Temperature 75 m (C) Average	737	5.33	4.5	-	-2.2	-0.2	1.5	4.7	8.5	11.2	21.1
Temperature 90 m (C) Average	737	4.74	4.7	-	-3.1	-1	0.7	4.3	7.9	10.8	20.8
Relative Humidity 2 m (%) Average	737	78.7	17	-	30	53	67	82	94	98	100
Relative Humidity 20 m (%) Average	737	72.9	17	-	28	48	60	75	87	94	99
Relative Humidity 45 m (%) Average	737	71.9	18	-	27	46	59	73	86	94	98
Relative Humidity 75 m (%) Average	737	71.9	18	-	27	45	58	73	87	95	99
Relative Humidity 90 m (%) Average	737	71.7	18	-	27	45	57	73	86	95	100
Wind Speed 20 m (km/h) Average	733	13.3	6	-	0	7	9	13	17	21	34
Wind Speed 45 m (km/h) Average	736	18.3	7	-	1	9	14	18	23	27	44
Wind Speed 75 m (km/h) Average	735	21.1	9	-	2	10	15	21	27	31	49
Wind Speed 90 m (km/h) Average	737	22.5	9	-	2	11	16	23	29	33	52
Wind Direction 20 m (deg) Average	733	-	-	-	-	-	-	-	-	-	-
Wind Direction 45 m (deg) Average	736	-	-	-	-	-	-	-	-	-	-
Wind Direction 75 m (deg) Average	735	-	-	-	-	-	-	-	-	-	-
Wind Direction 90 m (deg) Average	735	-	-	-	-	-	-	-	-	-	-
Vertical Wind Speed 20 m (km/h) Average	735	0.08	0.5	-	-1.4	-0.5	-0.2	0	0.5	0.7	1.3
Vertical Wind Speed 45 m (km/h) Average	737	0.29	1	-	-2.9	-1	-0.2	0.2	1.1	1.5	2.3
Vertical Wind Speed 75 m (km/h) Average	737	0.1	0.5	-	-2.5	-0.6	-0.2	0.2	0.5	0.7	1.7
Vertical Wind Speed 90 m (km/h) Average	737	0.26	0.4	-	-1.6	-0.2	0	0.3	0.5	0.7	1.6

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MANNIX (AMS05)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
H2S, SO2	24 Oct 2025 13:00	24 Oct 2025 13:00	1	Maintenance - sample manifold cleaned
ALL METEOROLOGICAL SENSORS	31 Oct 2025 18:00	01 Nov 2025 00:00	7	DAS Failure - data not recorded
Vertical Wind Speed, Wind Speed, Wind Direction, 20m	13 Oct 2025 09:00	13 Oct 2025 10:00	2	Flat line in sensor output signal
Vertical Wind Speed, Wind Speed, Wind Direction, 20m	29 Oct 2025 18:00	29 Oct 2025 19:00	2	Flat line in sensor output signal
Vertical Wind Speed, Wind Speed, Wind Direction, 45m	22 Oct 2025 07:00	22 Oct 2025 07:00	1	Flat line in sensor output signal
Vertical Wind Speed, Wind Speed, Wind Direction, 75m	12 Oct 2025 12:00	12 Oct 2025 13:00	2	Flat line in sensor output signal

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Mannix - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 30.9 ppb on Oct 27 02:00 Maximum Daily Average: 5.8 ppb on Oct 26

Minimum Value: 0.0 ppb on Oct 1 21:00 Minimum Daily Average: 0.0 ppb on Oct 18
Maximum Diurnal Average: 1.5 ppb at hour 2 Minimum Diurnal Average: 0.1 ppb at hour 5
Monthly Average: 0.50 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.5 P_{99} = 11.8

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	5.6	3.5	2.7	2.0	Z	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.7	5.6
2-Oct	0.0	0.0	0.0	0.0	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2
3-Oct	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
4-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	3.7	7.0	0.8	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.6	7.0
5-Oct	0.1	0.3	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.1	0.3
6-Oct	0.8	0.1	0.8	Z	0.2	0.2	0.2	0.2	0.2	2.4	1.2	0.9	3.2	3.1	2.6	2.6	2.3	1.1	0.8	0.8	0.5	0.4	0.3	0.4	1.1	3.2
7-Oct	0.3	0.3	0.3	0.3	Z	0.3	0.2	0.2	0.3	0.4	0.5	0.5	0.7	0.7	0.6	0.4	0.4	0.4	0.2	0.2	0.1	0.3	0.2	0.3	0.3	0.7
8-Oct	0.5	0.3	0.2	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.5
9-Oct	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
10-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.2	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.2	0.2	0.4
11-Oct	0.1	0.2	Z	0.1	0.1	0.1	4.7	9.3	2.4	1.0	0.4	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	1.1	0.3	0.2	0.2	0.9	9.3
12-Oct	0.2	0.2	0.2	Z	0.3	0.2	0.1	3.6	1.1	0.4	2.0	0.3	0.4	0.8	6.3	2.3	0.5	0.4	0.5	0.4	0.3	0.3	0.2	0.3	0.9	6.3
13-Oct	0.3	1.1	0.6	0.3	Z	0.2	0.1	0.1	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.2	1.1
14-Oct	0.3	0.4	0.4	0.3	0.4	Z	0.5	0.5	0.7	0.6	0.6	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.3	0.7
15-Oct	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.4
16-Oct	0.1	Z	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.3
17-Oct	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
18-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-Oct	0.0	0.1	0.0	0.2	Z	0.1	0.1	0.2	0.4	0.3	0.1	0.1	0.2	0.3	1.0	0.9	0.6	0.4	0.2	0.0	0.3	0.8	0.1	0.2	0.3	1.0
20-Oct	0.3	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3
21-Oct	Z	0.0	0.1	0.1	0.0	0.1	0.3	0.4	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4
22-Oct	0.0	Z	0.2	0.1	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.2	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
23-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.3	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.4
24-Oct	0.0	0.1	0.2	Z	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	M	0.4	0.4	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.4
25-Oct	0.1	0.0	0.0	0.0	Z	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.2
26-Oct	0.1	0.1	0.0	0.1	0.2	Z	0.5	0.3	0.3	0.4	0.6	0.5	1.7	3.4	15.1	13.8	26.4	13.3	11.9	2.7	7.6	3.3	1.9	28.6	5.8	28.6
27-Oct	Z	30.9	24.9	4.6	0.8	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.7	30.9
28-Oct	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
29-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
30-Oct	0.0	0.1	0.1	Z	0.3	0.8	1.4	0.3	0.2	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.4
31-Oct	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
	0.3	1.5	1.2	0.3	0.1	0.1	0.3	0.5	0.2	0.3	0.4	0.4	0.3	0.4	1.0	0.7	1.0	0.6	0.5	0.2	0.4	0.2	0.1	1.0	Diurnal Average	
	5.6	30.9	24.9	4.6	0.8	0.8	4.7	9.3	2.4	2.4	3.7	7.0	3.2	3.4	15.1	13.8	26.4	13.3	11.9	2.7	7.6	3.3	1.9	28.6	Diurnal Maximum	

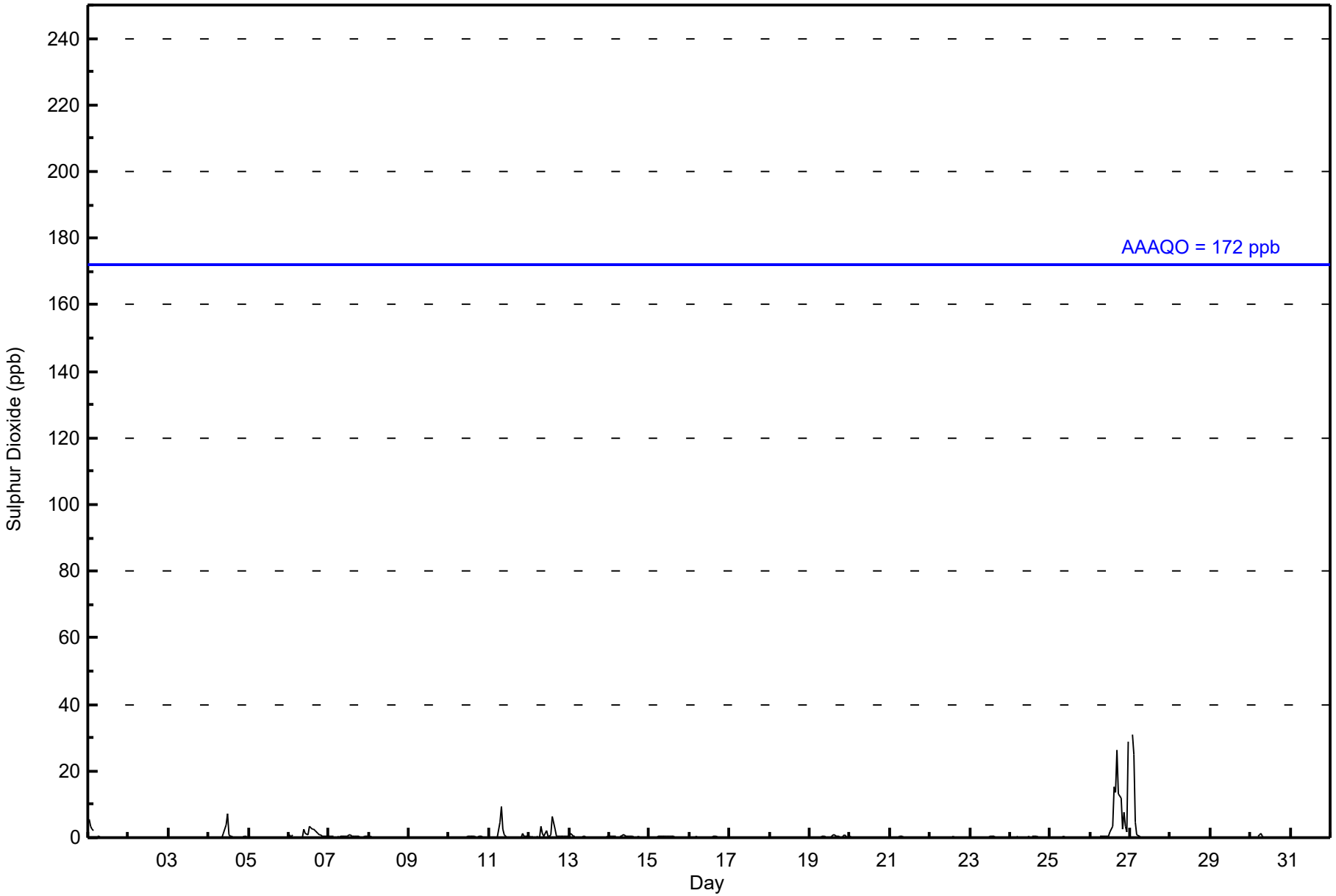
Z - zerospan C - Calibration M - Maintenance
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Mannix - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	699	98.87	98.87
11 - 20	4	0.57	99.43
21 - 60	4	0.57	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Mannix - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	43	17	2	2	6	3	79	157	54	40	33	49	77	41	16	69	688
11 - 20	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
21 - 60	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	51	17	2	2	6	3	79	157	54	40	33	49	77	41	16	69	696

Total Number of Valid Hours: 696

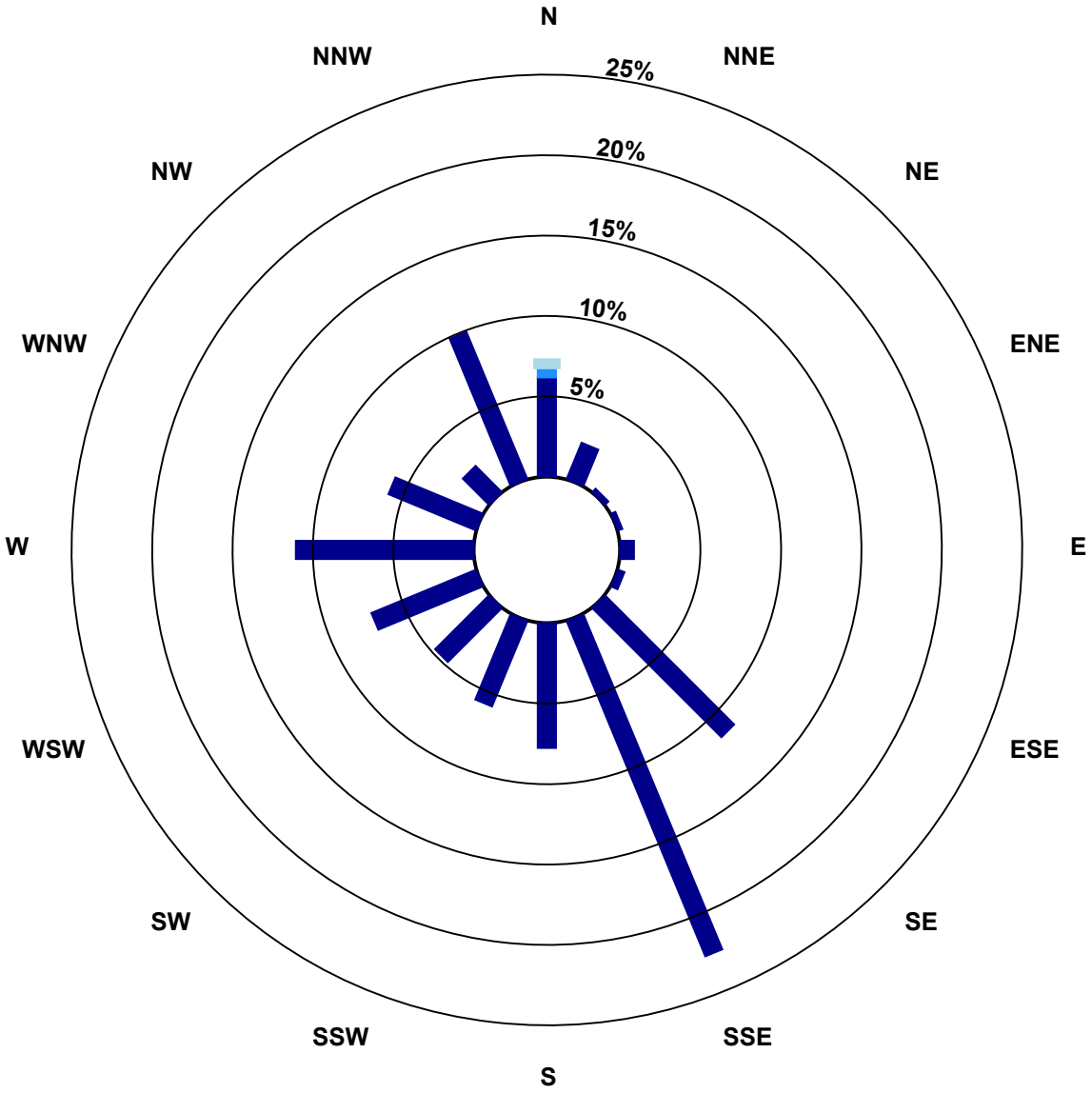
Total Number of Hours: 744

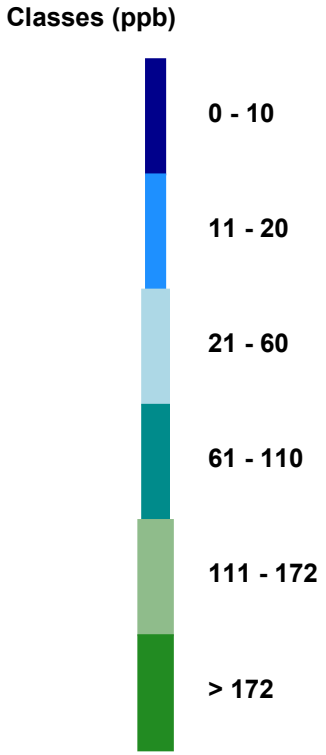
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Mannix





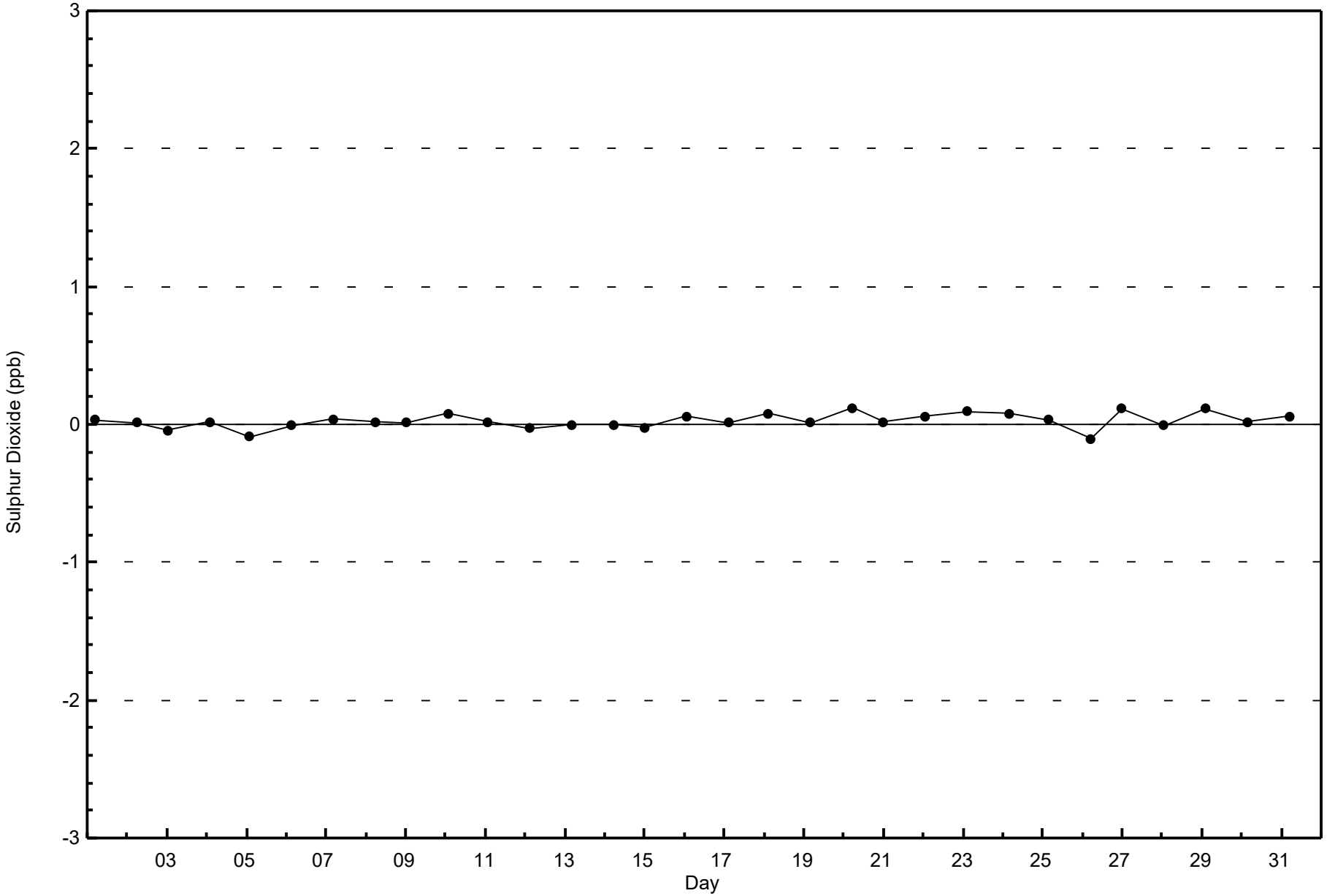
Total Number of Valid Hours: 696

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Mannix - October 2025

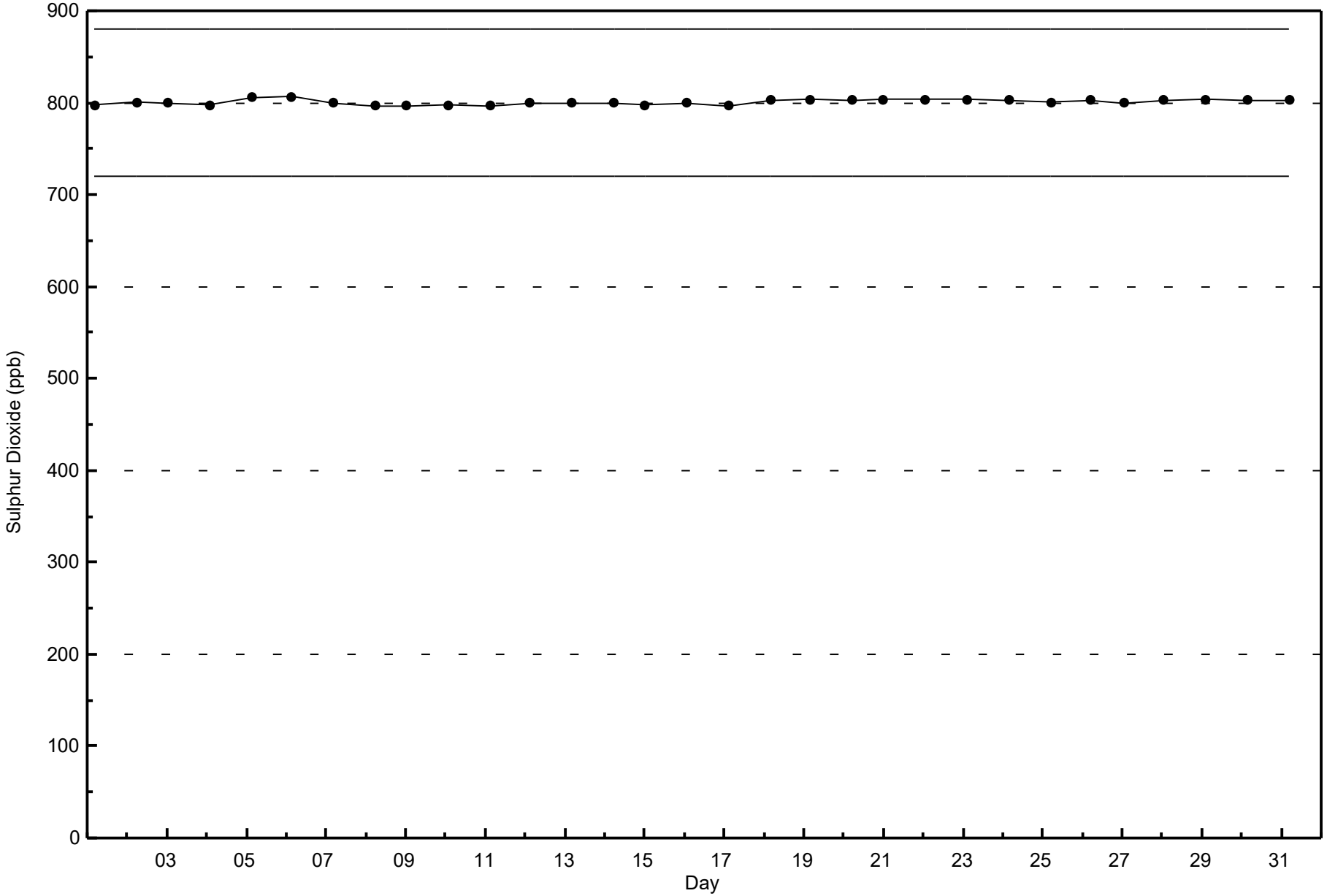


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Mannix - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H_2S) - ppb

Mannix - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 4.9 ppb on Oct 7 22:00 Maximum Daily Average: 1.1 ppb on Oct 26

Minimum Value: 0.0 ppb on Oct 30 11:00 Minimum Daily Average: 0.1 ppb on Oct 17
Maximum Diurnal Average: 0.3 ppb at hour 7 Minimum Diurnal Average: 0.1 ppb at hour 21
Monthly Average: 0.24 ppb Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.4 P_{99} = 2.0

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.9	0.7	0.9	1.0	0.4	Z	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.2	0.2	0.1	0.3	0.3	0.3	0.4	0.3	0.5	0.4	1.0
2-Oct	Z	0.1	0.1	0.2	0.2	0.5	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.5
3-Oct	0.2	Z	0.2	0.1	0.2	0.2	0.3	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.4
4-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.5	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.6
5-Oct	0.1	0.1	0.1	Z	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
6-Oct	0.3	0.2	0.3	0.2	Z	0.2	0.3	0.1	0.1	0.2	C	C	C	C	C	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
7-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.3	0.2	0.1	0.1	0.2	4.9	1.9	2.3	0.5	4.9
8-Oct	Z	0.9	1.0	0.5	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.2	1.0
9-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2
10-Oct	0.1	0.2	Z	0.3	0.2	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.4
11-Oct	0.2	0.2	0.2	Z	0.2	0.4	1.0	1.1	0.4	0.5	0.3	0.3	0.4	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.4	0.2	0.2	0.1	0.3	1.1
12-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.5	0.2	0.1	0.3	0.1	0.1	0.2	0.2	0.3	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.5
13-Oct	0.1	0.1	0.1	0.0	0.1	Z	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2
14-Oct	Z	0.2	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.3
15-Oct	0.2	Z	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.3
16-Oct	0.1	0.1	Z	0.4	0.5	0.5	0.5	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.5
17-Oct	0.1	0.1	0.1	Z	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2
18-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.3	0.2	0.3	0.1	0.3
19-Oct	0.2	0.3	0.3	0.3	0.2	Z	0.3	1.7	2.0	1.7	0.9	0.5	2.2	1.7	1.3	1.0	0.8	0.5	0.6	0.8	0.5	0.5	0.3	0.2	0.8	2.2
20-Oct	Z	0.1	0.2	0.3	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.3
21-Oct	0.1	Z	0.1	0.1	0.2	0.2	0.6	0.7	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.7	0.4	0.4	0.2	0.7
22-Oct	0.2	0.3	Z	0.3	0.1	0.1	0.1	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3
23-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.3
24-Oct	0.1	0.1	0.1	0.2	Z	0.1	0.2	0.2	0.2	0.2	0.2	0.2	M	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2
25-Oct	0.2	0.1	0.1	0.1	1.0	Z	1.0	0.5	0.4	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	1.0
26-Oct	Z	0.2	0.1	0.2	0.2	1.9	2.4	1.4	1.1	1.6	3.6	2.1	3.2	1.2	0.9	0.6	1.0	0.3	1.2	0.2	0.3	0.2	0.3	1.3	1.1	3.6
27-Oct	0.9	1.5	1.5	0.6	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	1.5
28-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
29-Oct	0.1	0.1	0.1	Z	0.1	0.0	0.1	0.1	0.3	0.2	0.6	0.4	0.3	0.3	0.2	0.3	0.1	0.2	0.1	0.1	0.0	0.1	0.0	0.5	0.2	0.6
30-Oct	0.6	0.1	0.1	0.9	Z	0.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.9
31-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.3	0.2	0.3	Diurnal Average	
	0.9	1.5	1.5	1.0	1.0	1.9	2.4	1.7	2.0	1.7	3.6	2.1	3.2	1.7	1.3	1.0	1.0	0.5	1.2	0.8	0.5	4.9	1.9	2.3	Diurnal Maximum	

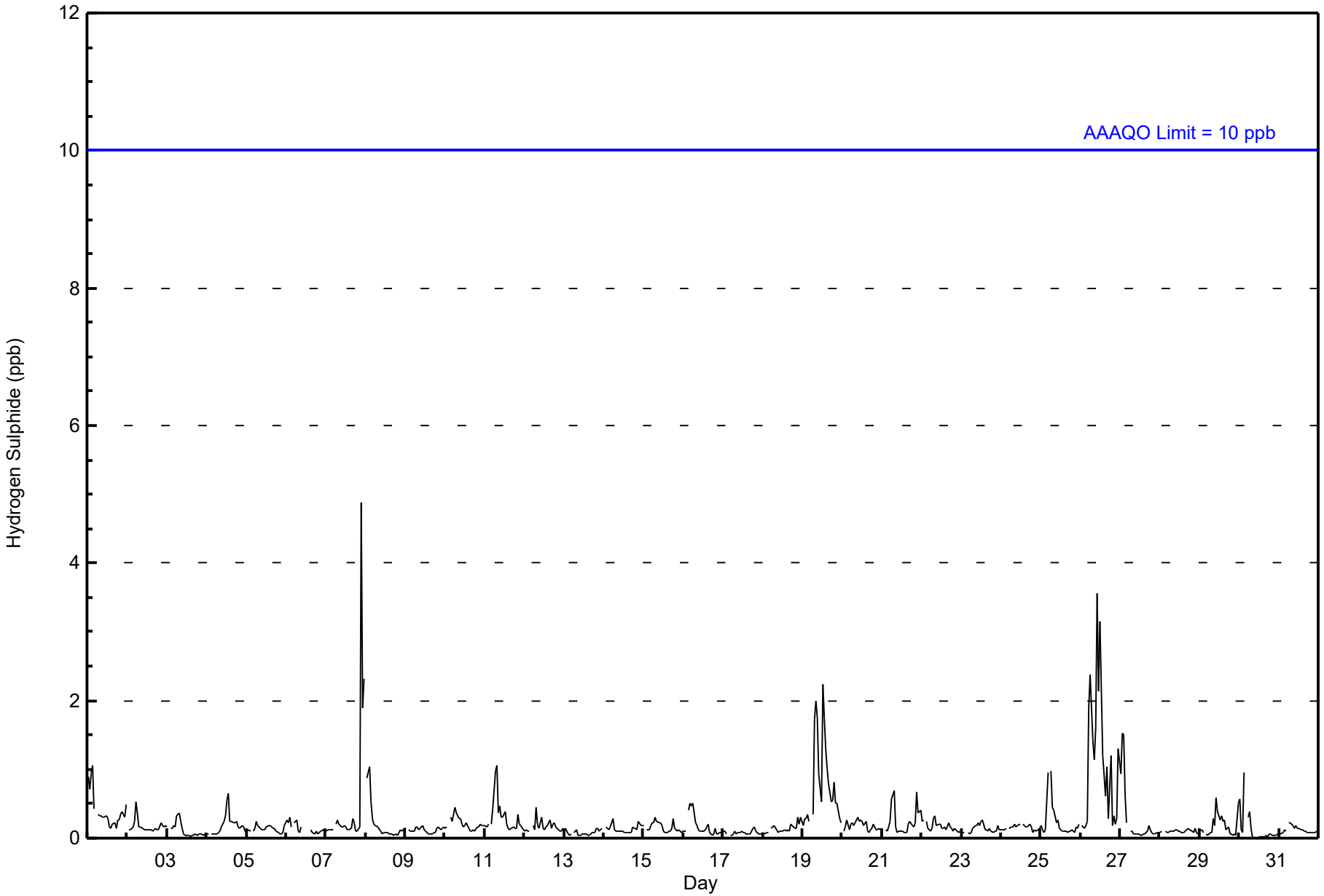
Z - zerospan C - Calibration M - Maintenance
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Mannix - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	704	99.58	99.58
3 - 4	2	0.28	99.86
5 - 7	1	0.14	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Mannix - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	50	19	1	1	5	3	76	157	57	39	32	48	79	43	14	69	693
3 - 4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5 - 7	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	52	19	1	1	6	3	76	157	57	39	32	48	79	43	14	69	696

Total Number of Valid Hours: 696

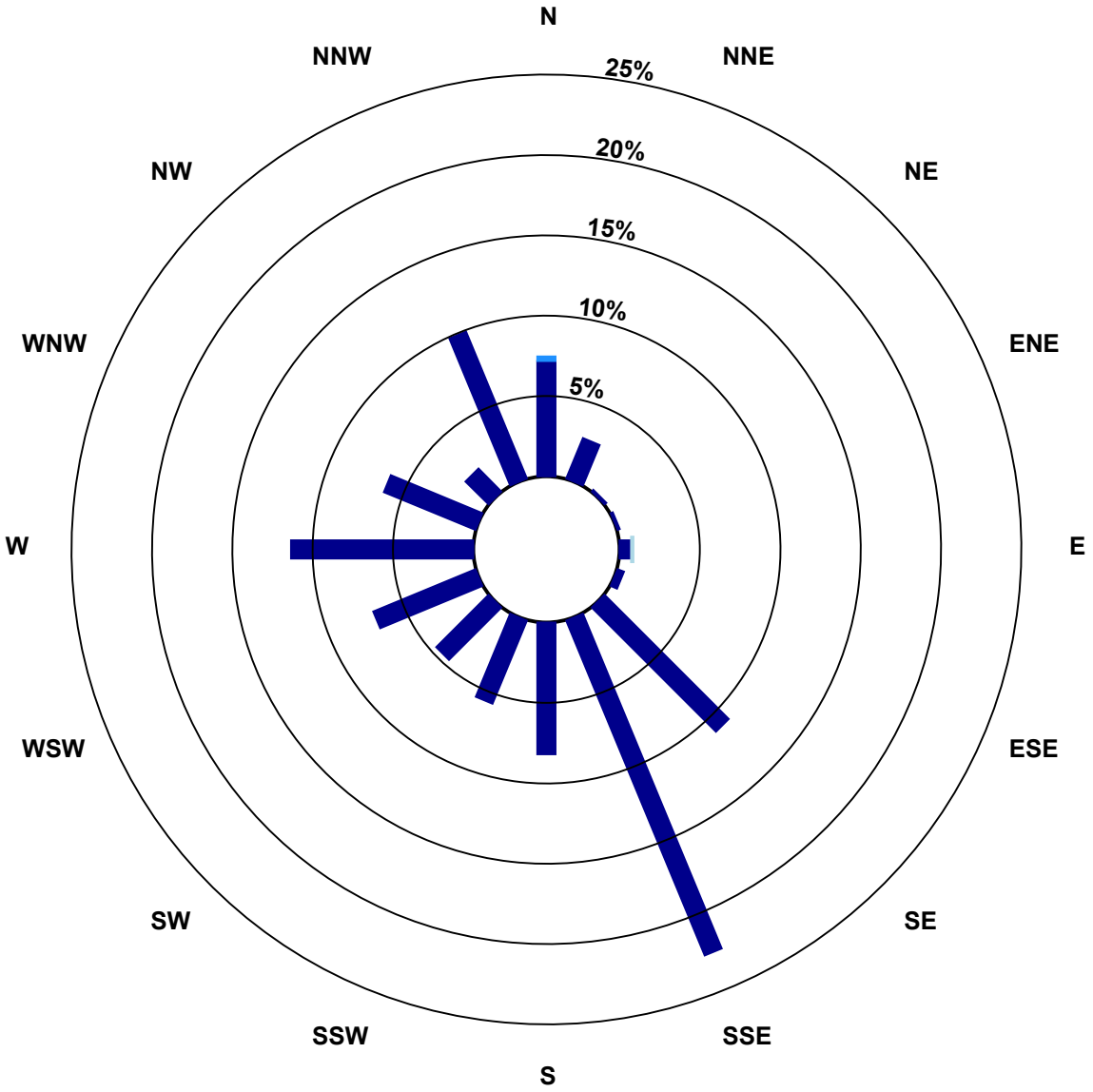
Total Number of Hours: 744

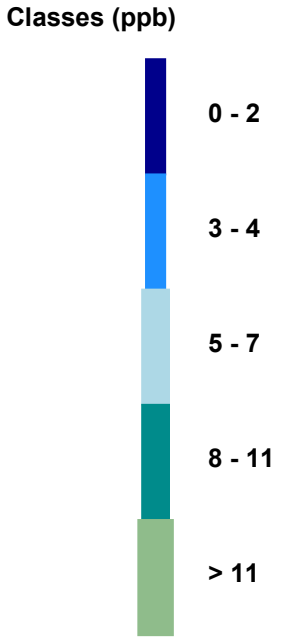
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H_2S) - ppb

Mannix





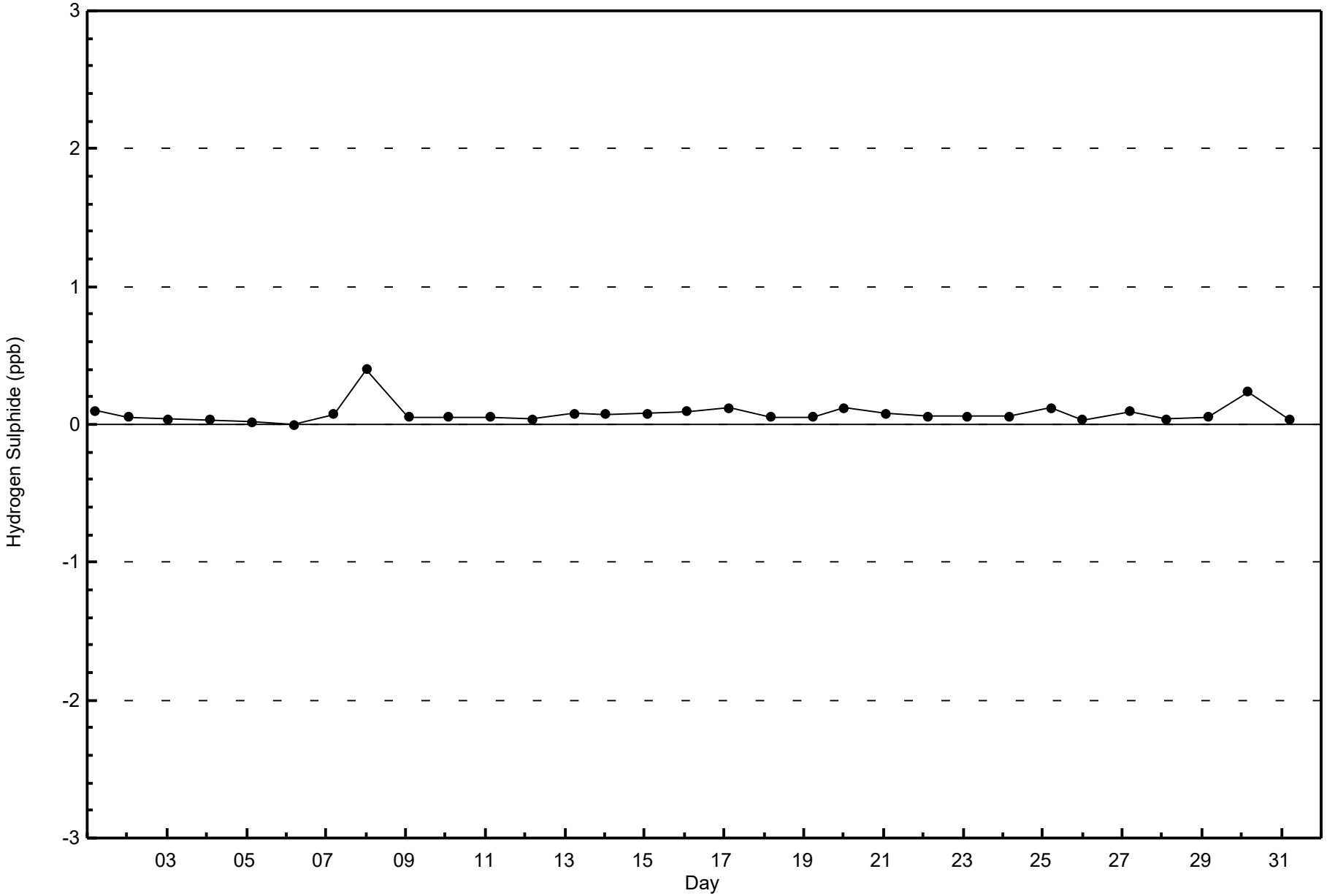
Total Number of Valid Hours: 696

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Mannix - October 2025

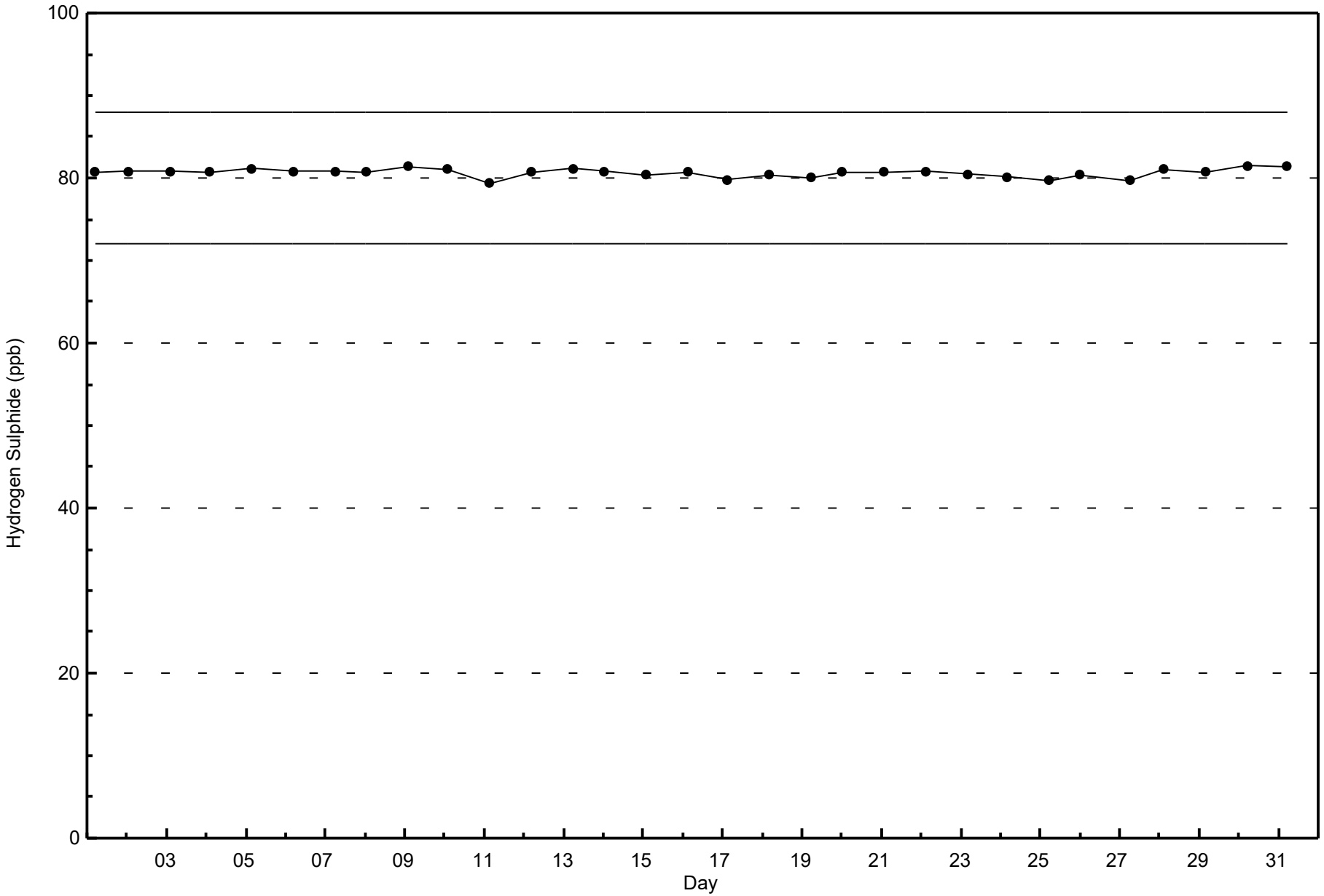


Wood Buffalo Environmental Association

Span Responses

Hydrogen Sulphide (H_2S) - ppb

Mannix - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Mannix - October 2025

Maximum Value: 4.9 ppm on Oct 8 00:00

Maximum Daily Average: 2.3 ppm on Oct 7

Minimum Value: 2.0 ppm on Oct 17 22:00

Minimum Daily Average: 2.1 ppm on Oct 18

Maximum Diurnal Average: 2.2 ppm at hour 24

Minimum Diurnal Average: 2.1 ppm at hour 18

Monthly Average: 2.15 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.1 Q_1 = 2.1 Median = 2.1 Q_3 = 2.2 P_{90} = 2.2 P_{99} = 3.0

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	36
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.3
2-Oct	2.2	2.1	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
3-Oct	Z	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
4-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.3	2.4	2.2	2.2	2.1	2.1	2.4
5-Oct	2.1	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2
6-Oct	2.2	2.2	2.1	Z	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
7-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.1	2.1	2.3	3.3	2.6	4.9	2.3	4.9
8-Oct	4.2	3.2	3.1	2.4	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	4.2
9-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
10-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
11-Oct	2.2	2.2	Z	2.2	2.2	2.4	2.4	2.3	2.2	2.3	2.2	2.3	2.4	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.1	2.1	2.2	2.4
12-Oct	2.1	2.1	2.1	Z	2.1	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.3	2.2	2.3
13-Oct	2.2	2.2	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
14-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2
15-Oct	Z	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
16-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
17-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	C	C	C	C	C	2.0	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.1	2.2
18-Oct	2.0	2.1	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1
19-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.7	3.0	3.0	2.2	2.3	2.7	2.6	2.9	2.5	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.3	3.0
20-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
21-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.2	2.3	2.2	2.2	2.1	2.3
22-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3
23-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
24-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	M	M	M	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2
25-Oct	2.3	2.2	2.1	2.2	Z	2.6	2.6	2.6	2.6	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.6
26-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.8	2.6	3.0	2.7	2.6	2.4	2.6	2.3	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	3.0
27-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3
28-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
29-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.2	2.5	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.2	2.4	2.2	2.5
30-Oct	2.3	2.2	2.4	Z	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4
31-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	Diurnal Average	
	4.2	3.2	3.1	2.4	2.2	2.6	2.8	2.7	3.0	3.0	2.6	2.4	2.7	2.6	2.9	2.5	2.3	2.2	2.2	2.3	2.4	3.3	2.6	4.9	Diurnal Maximum	

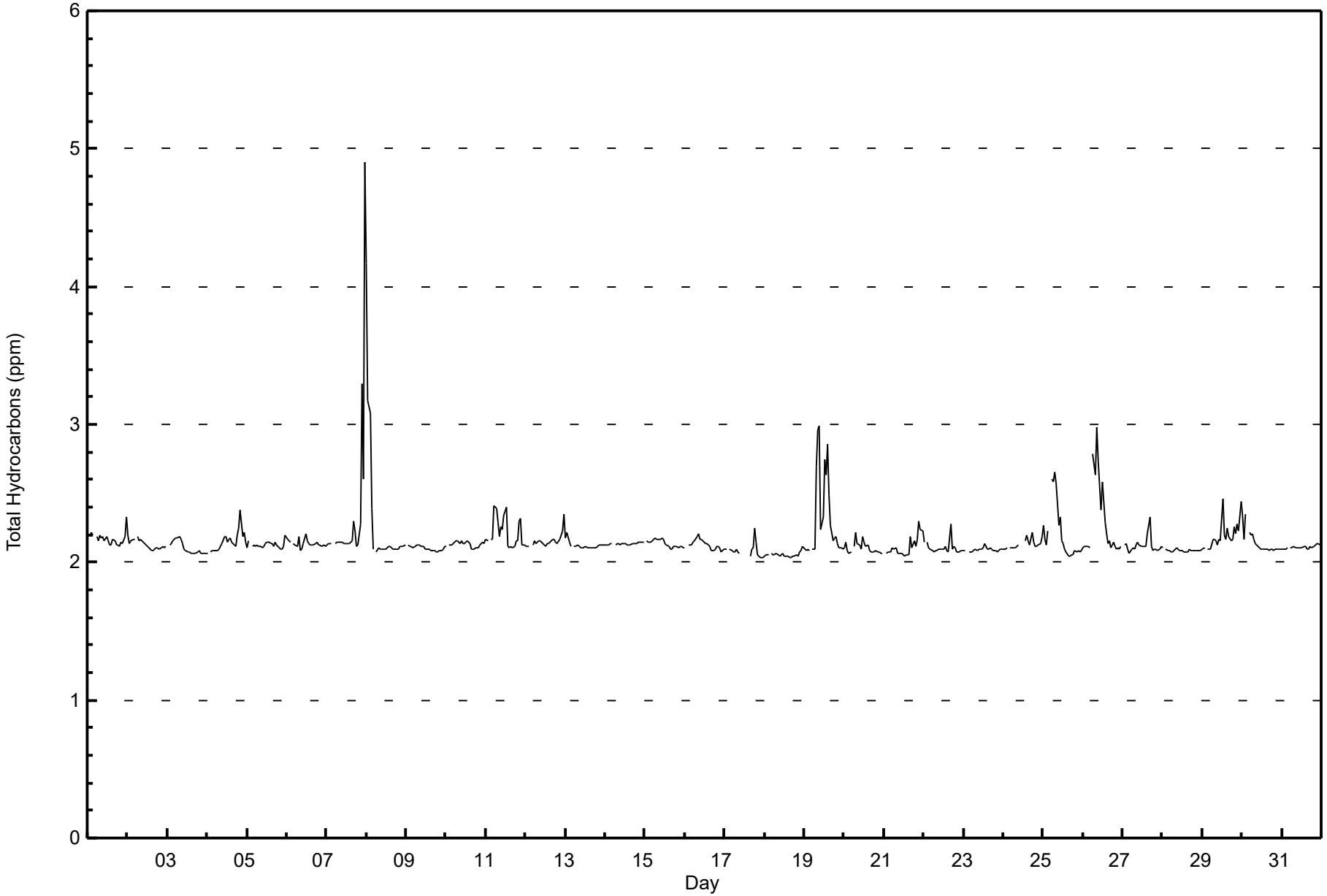
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Mannix - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	18	2.55	2.55
2.1 - 3.0	682	96.74	99.29
3.1 - 10.0	5	0.71	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Mannix - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	0	0	0	0	0	0	0	0	1	1	1	5	8	2	0	0	18
2.1 - 3.0	51	17	2	2	5	3	79	155	53	39	32	44	69	37	15	68	671
3.1 - 10.0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	1	1	5
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	51	17	2	2	6	3	79	155	54	40	33	49	77	41	16	69	694

Total Number of Valid Hours: 694

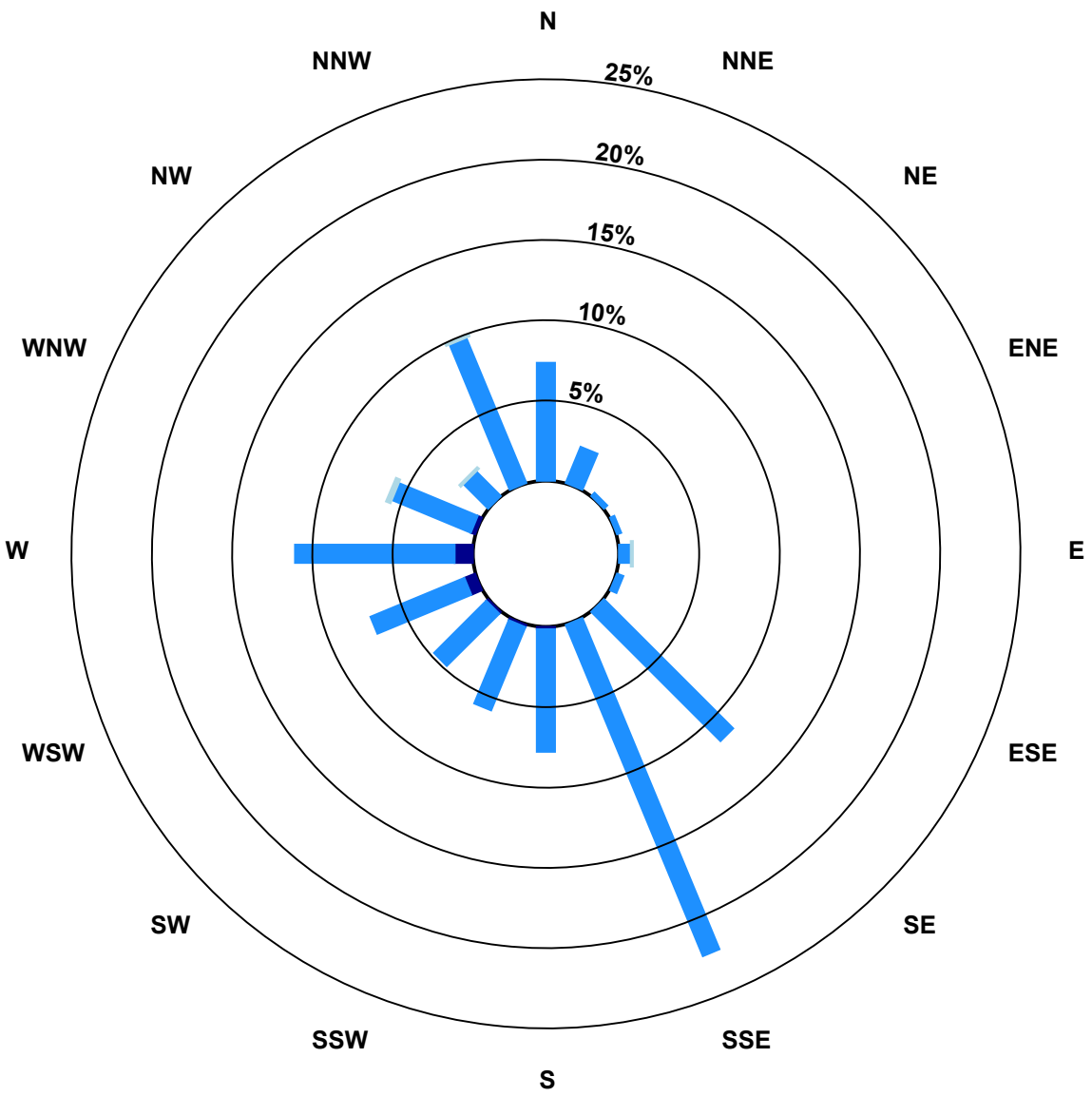
Total Number of Hours: 744

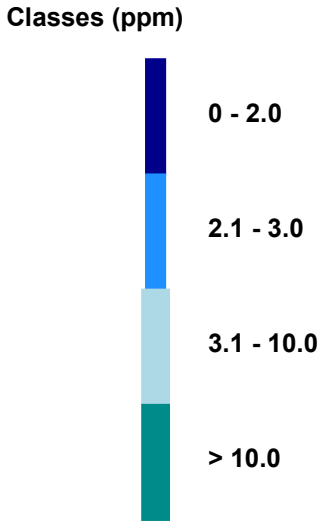
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Mannix





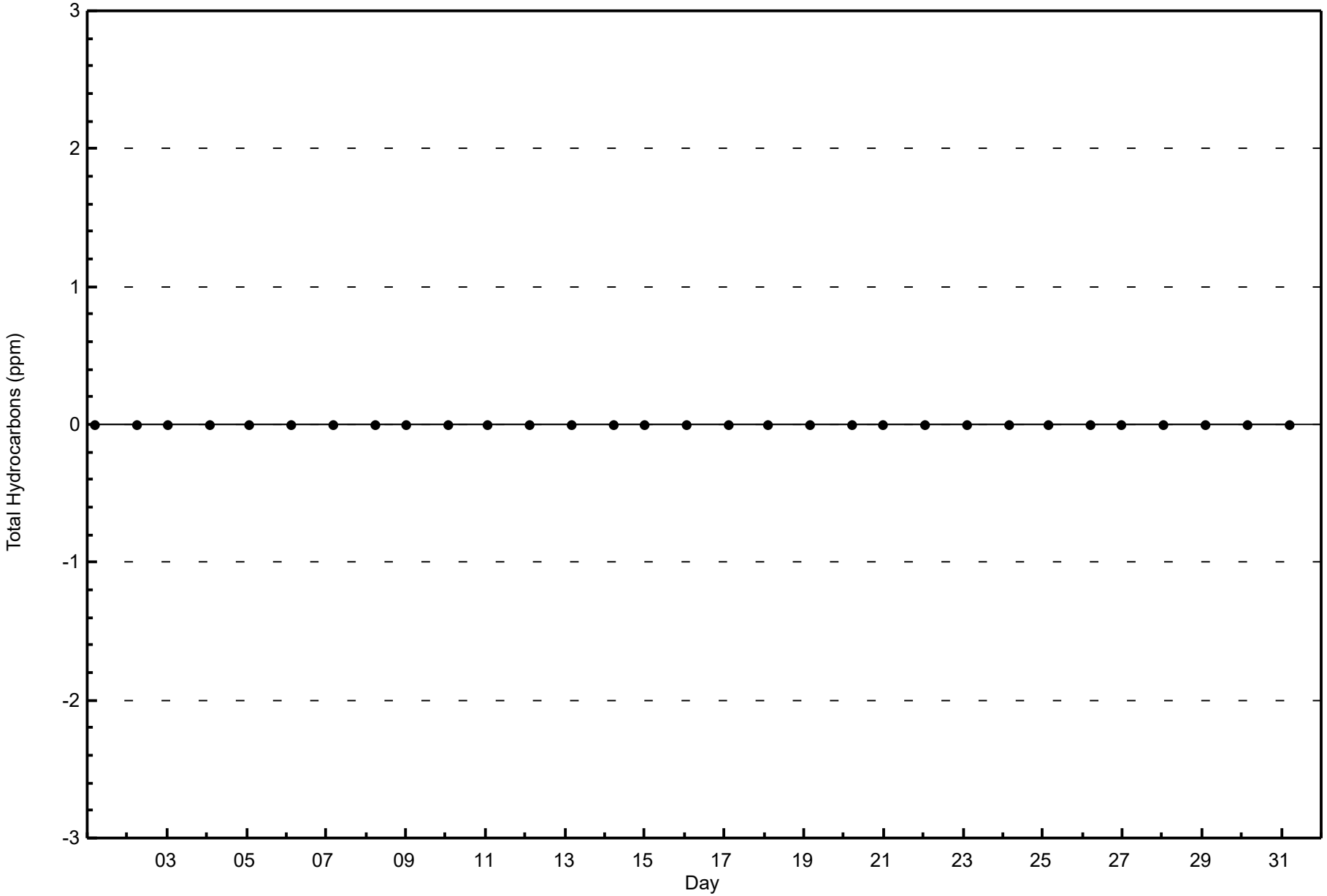
Total Number of Valid Hours: 694

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Mannix - October 2025

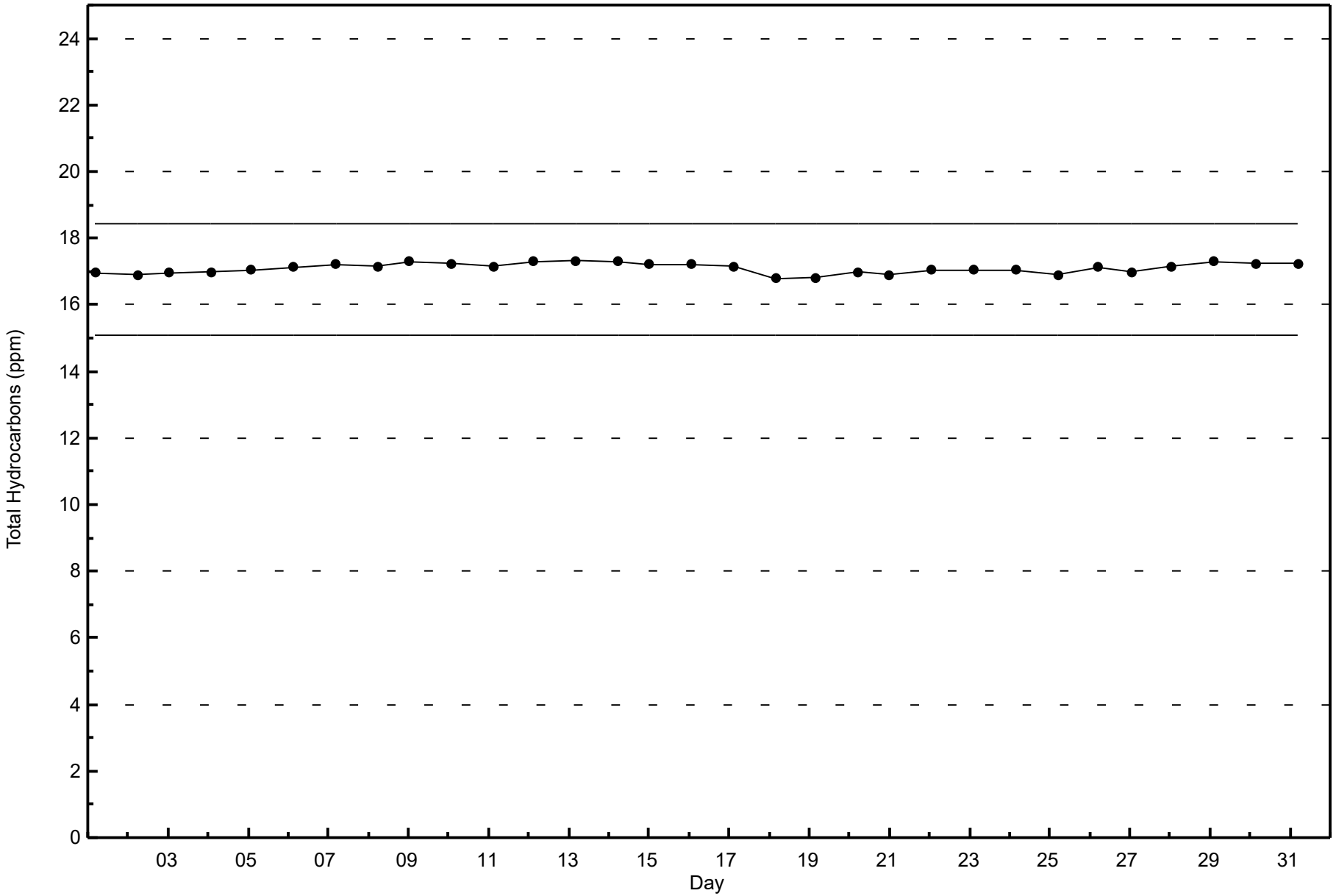


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Mannix - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

Mannix - October 2025

Maximum Value: 0.258 ppm on Oct 19 08:00

Maximum Daily Average: 0.043 ppm on Oct 19

Minimum Value: 0.000 ppm on Oct 1 18:00

Minimum Daily Average: 0.000 ppm on Oct 13

Maximum Diurnal Average: 0.021 ppm at hour 8

Minimum Diurnal Average: 0.001 ppm at hour 5

Monthly Average: 0.006 ppm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.0 P_{99} = 0.1

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	36
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.004	0.005	0.008	0.007	Z	0.001	0.002	0.000	0.003	0.002	0.005	0.005	0.015	0.002	0.001	0.004	0.001	0.000	0.030	0.003	0.034	0.025	0.006	0.000	0.007	0.034
2-Oct	0.001	0.000	0.000	0.000	0.002	Z	0.004	0.000	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.000	0.002	0.004	0.003	0.002	0.000	0.003	0.001	0.002	0.001	0.004
3-Oct	Z	0.004	0.003	0.003	0.003	0.006	0.004	0.006	0.006	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.001	0.001	0.001	0.000	0.002	0.006
4-Oct	0.000	Z	0.001	0.000	0.001	0.001	0.000	0.001	0.001	0.000	0.000	0.017	0.014	0.002	0.072	0.020	0.002	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.006	0.072
5-Oct	0.001	0.000	Z	0.000	0.001	0.001	0.003	0.006	0.007	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.025	0.002	0.025
6-Oct	0.046	0.000	0.004	Z	0.000	0.000	0.000	0.113	0.000	0.010	0.006	0.004	0.001	0.002	0.001	0.000	0.003	0.015	0.008	0.006	0.004	0.004	0.004	0.002	0.010	0.113
7-Oct	0.004	0.006	0.000	0.000	Z	0.001	0.001	0.004	0.001	0.002	0.007	0.000	0.001	0.002	0.002	0.009	0.005	0.039	0.000	0.000	0.002	0.045	0.020	0.049	0.009	0.049
8-Oct	0.016	0.020	0.027	0.000	0.000	Z	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.003	0.027
9-Oct	Z	0.001	0.000	0.000	0.000	0.001	0.001	0.002	0.000	0.001	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.001	0.001	0.009	0.001	0.009
10-Oct	0.006	Z	0.001	0.000	0.000	0.006	0.007	0.010	0.001	0.016	0.005	0.006	0.005	0.010	0.003	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.002	0.000	0.003	0.016
11-Oct	0.005	0.003	Z	0.001	0.000	0.009	0.045	0.076	0.004	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.006	0.076
12-Oct	0.001	0.000	0.000	Z	0.001	0.003	0.001	0.005	0.001	0.000	0.005	0.000	0.000	0.013	0.020	0.005	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.002	0.020
13-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.001
14-Oct	0.000	0.000	0.001	0.000	0.000	Z	0.001	0.001	0.000	0.001	0.002	0.000	0.000	0.001	0.001	0.001	0.000	0.001	0.001	0.000	0.002	0.000	0.000	0.001	0.001	0.002
15-Oct	Z	0.000	0.001	0.001	0.000	0.002	0.007	0.005	0.006	0.003	0.004	0.006	0.001	0.002	0.001	0.001	0.001	0.002	0.004	0.003	0.001	0.001	0.002	0.001	0.002	0.007
16-Oct	0.001	Z	0.004	0.003	0.003	0.008	0.007	0.029	0.046	0.015	0.006	0.003	0.003	0.002	0.002	0.002	0.001	0.000	0.000	0.001	0.001	0.002	0.000	0.002	0.006	0.046
17-Oct	0.001	0.001	Z	0.001	0.000	0.000	0.000	0.000	0.000	0.000	C	C	C	C	C	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
18-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.008	0.013	0.015	0.002	0.015
19-Oct	0.016	0.000	0.000	0.005	Z	0.009	0.000	0.258	0.061	0.070	0.016	0.002	0.163	0.071	0.118	0.043	0.021	0.014	0.012	0.035	0.006	0.005	0.032	0.028	0.043	0.258
20-Oct	0.027	0.068	0.000	0.000	0.000	Z	0.025	0.005	0.002	0.010	0.001	0.002	0.003	0.002	0.004	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.000	0.002	0.007	0.068
21-Oct	Z	0.000	0.002	0.003	0.002	0.003	0.002	0.008	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.011	0.058	0.009	0.011	0.033	0.018	0.005	0.007	0.058
22-Oct	0.002	Z	0.002	0.005	0.005	0.005	0.001	0.005	0.001	0.010	0.001	0.003	0.004	0.029	0.002	0.002	0.001	0.002	0.000	0.010	0.005	0.001	0.012	0.011	0.005	0.029
23-Oct	0.006	0.008	Z	0.003	0.002	0.001	0.002	0.000	0.006	0.013	0.001	0.002	0.001	0.032	0.001	0.001	0.006	0.008	0.001	0.001	0.000	0.001	0.002	0.001	0.004	0.032
24-Oct	0.001	0.001	0.000	Z	0.001	0.001	0.002	0.001	0.002	0.002	M	M	M	0.006	0.034	0.001	0.004	0.002	0.000	0.001	0.002	0.001	0.000	0.000	0.003	0.034
25-Oct	0.002	0.001	0.002	0.001	Z	0.041	0.031	0.003	0.002	0.003	0.008	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.001	0.003	0.001	0.002	0.000	0.001	0.005	0.041
26-Oct	0.004	0.001	0.001	0.000	0.000	Z	0.114	0.051	0.011	0.023	0.146	0.044	0.075	0.006	0.029	0.011	0.017	0.010	0.016	0.036	0.003	0.028	0.013	0.010	0.028	0.146
27-Oct	Z	0.015	0.014	0.001	0.001	0.000	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.015
28-Oct	0.001	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.002
29-Oct	0.000	0.001	Z	0.002	0.000	0.002	0.021	0.051	0.043	0.010	0.003	0.028	0.023	0.011	0.017	0.103	0.069	0.017	0.041	0.002	0.006	0.011	0.022	0.044	0.023	0.103
30-Oct	0.037	0.002	0.000	Z	0.010	0.006	0.005	0.001	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.037
31-Oct	0.001	0.000	0.000	0.001	Z	0.000	0.001	0.003	0.001	0.002	0.003	0.003	0.003	0.005	0.001	0.002	0.002	0.012	0.004	0.003	0.000	0.000	0.001	0.001	0.002	0.012
	0.007	0.005	0.003	0.001	0.001	0.004	0.009	0.021	0.007	0.006	0.008	0.005	0.011	0.007	0.010	0.007	0.004	0.005	0.006	0.004	0.003	0.006	0.005	0.007	Diurnal Average	
	0.046	0.068	0.027	0.007	0.010	0.041	0.114	0.258	0.061	0.070	0.146	0.044	0.163	0.071	0.118	0.103	0.069	0.039	0.058	0.036	0.034	0.045	0.032	0.049	Diurnal Maximum	

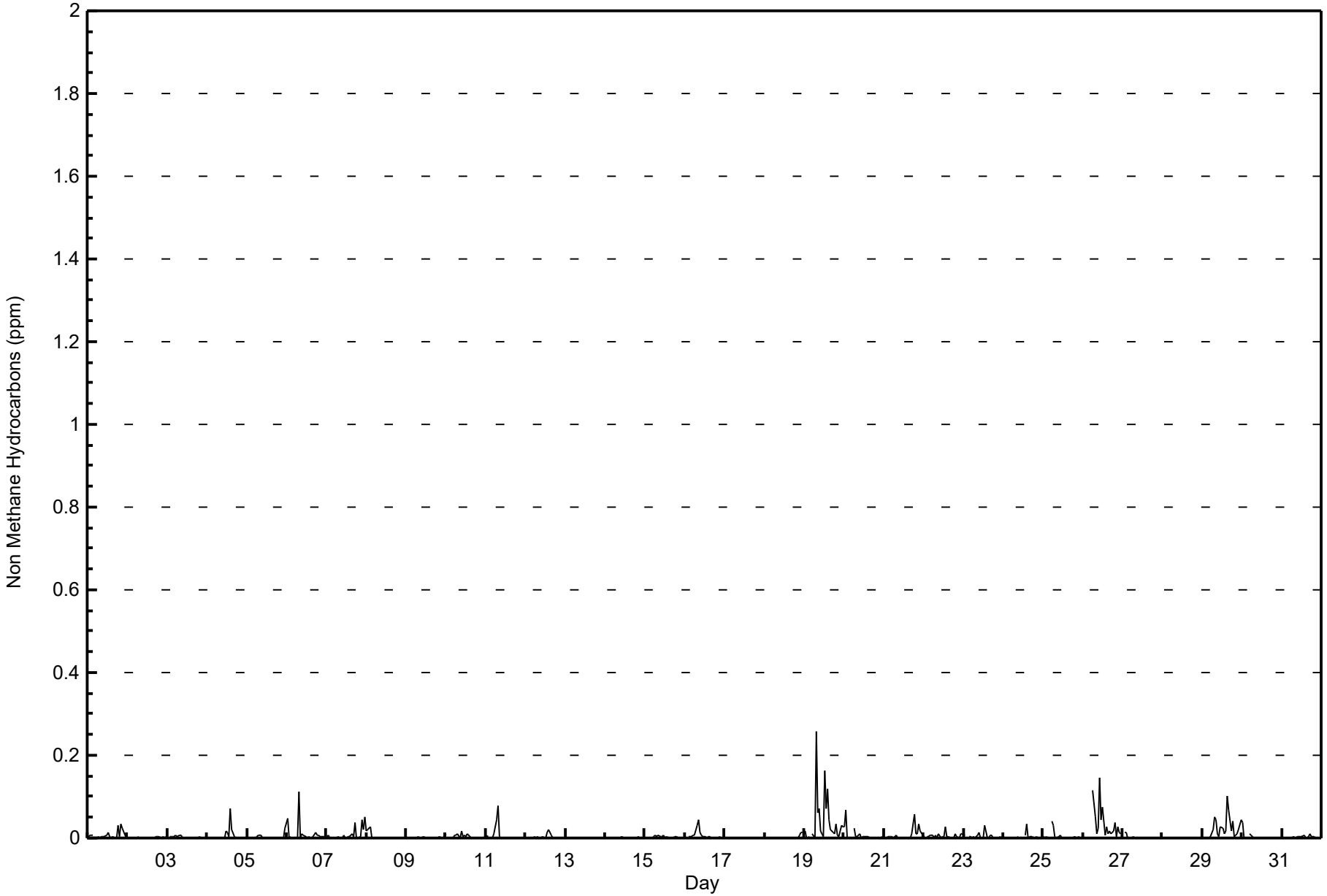
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm

Mannix - October 2025



Non Methane Hydrocarbons (NMHC) - ppm

Mannix - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	563	79.86	79.86
0.006 - 0.05	126	17.87	97.73
0.06 - 0.1	14	1.99	99.72
> 0.1	2	0.28	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Mannix - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.005	11	1	0	0	0	0	63	125	51	39	31	49	77	38	13	57	555
0.006 - 0.05	35	9	2	2	5	3	16	30	3	1	2	0	0	2	3	10	123
0.06 - 0.1	5	6	0	0	1	0	0	0	0	0	0	0	0	1	0	1	14
> 0.1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Totals	51	17	2	2	6	3	79	155	54	40	33	49	77	41	16	69	694

Total Number of Valid Hours: 694

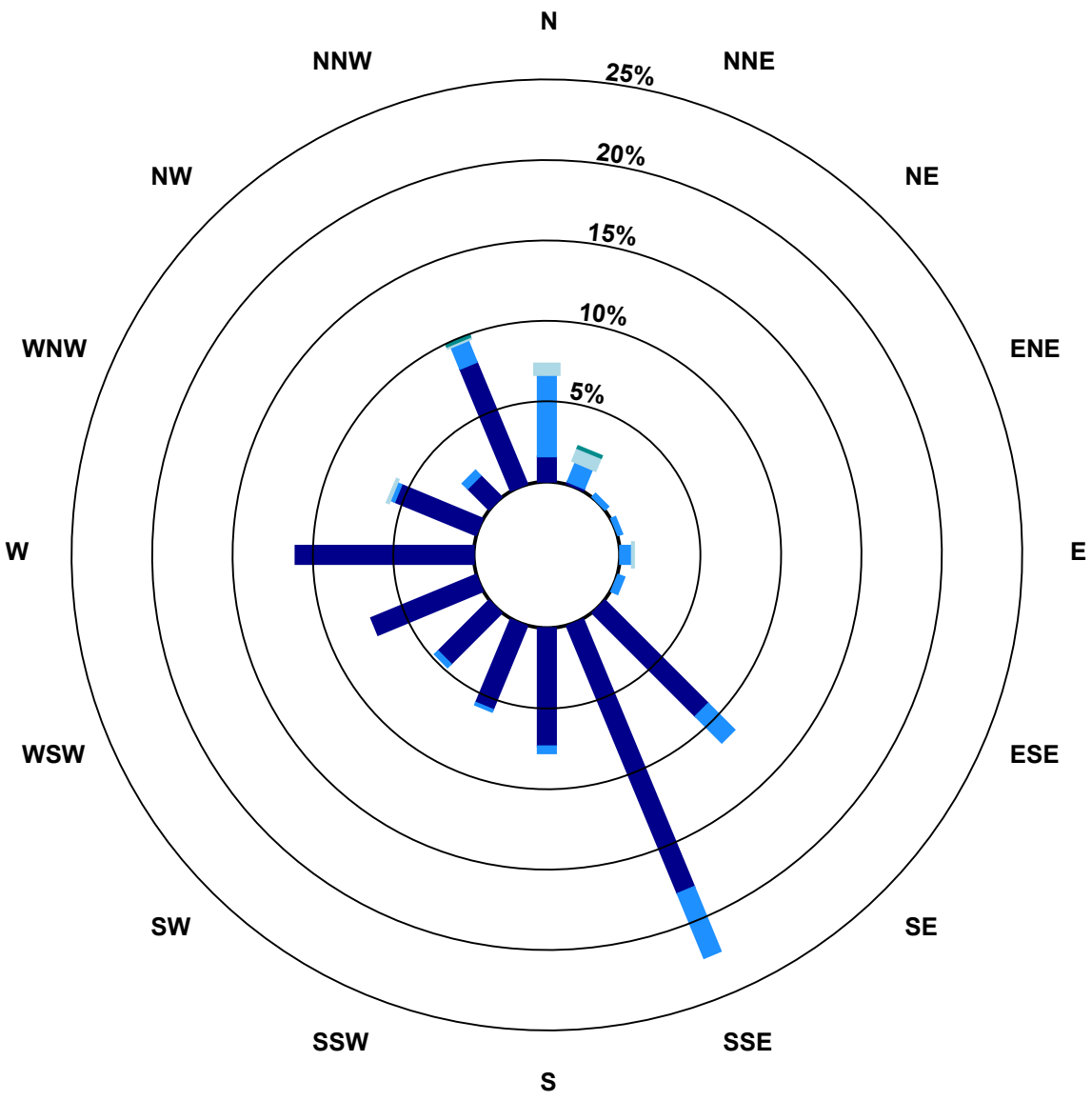
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Non Methane Hydrocarbons (NMHC) - ppm

Mannix



Classes (ppm)

0 - 0.005

0.006 - 0.05

0.06 - 0.1

> 0.1

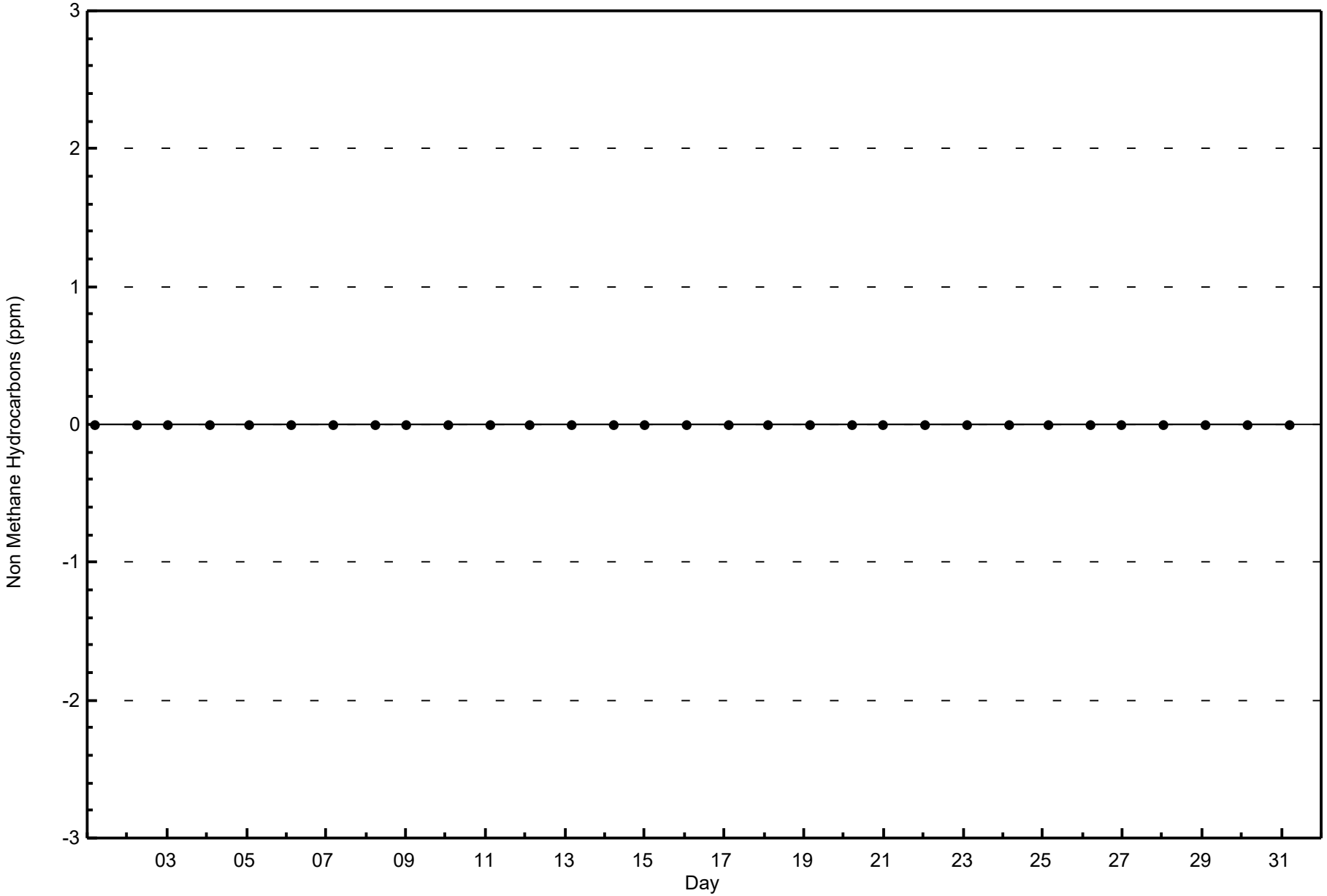
Total Number of Valid Hours: 694

Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Mannix - October 2025

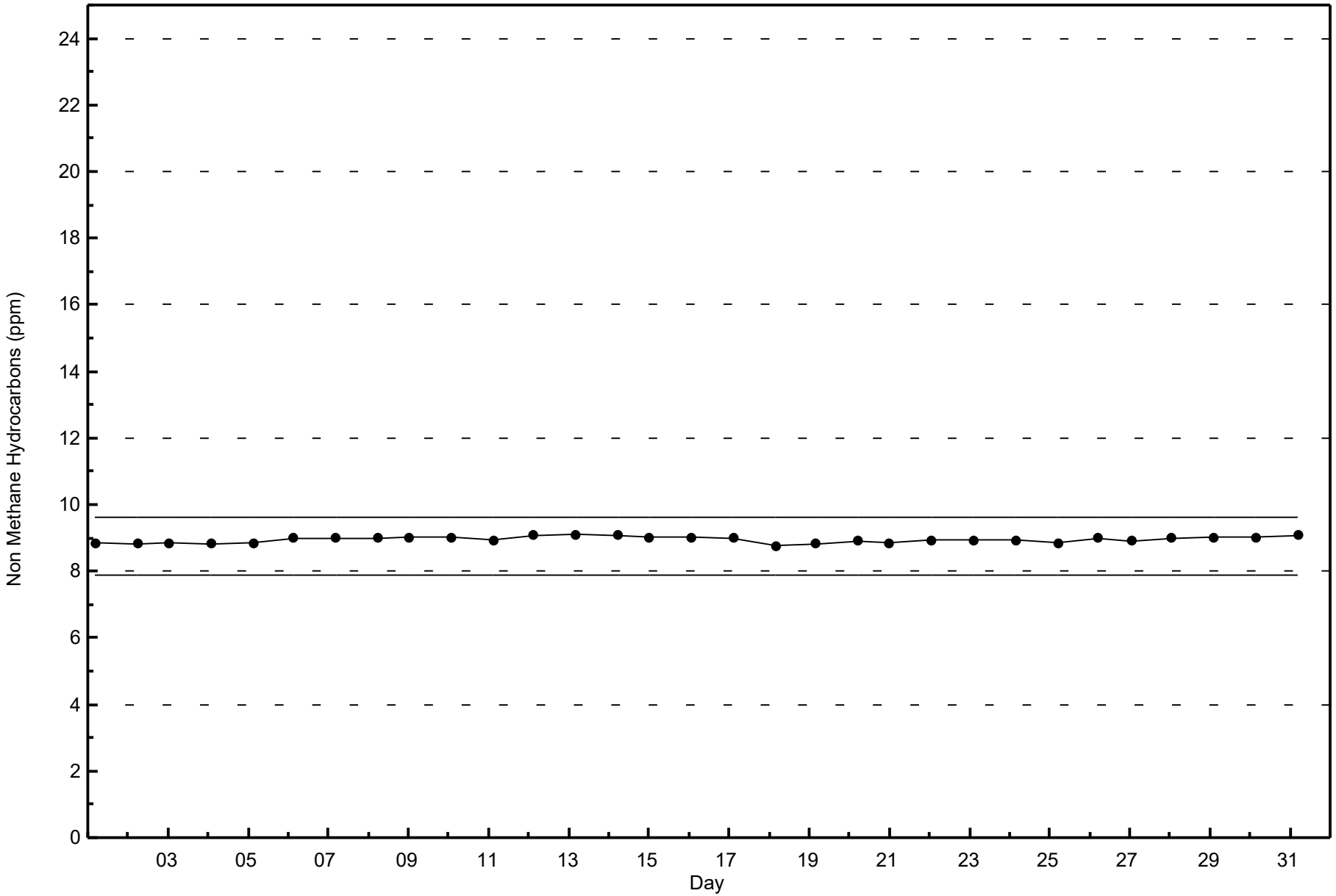


Wood Buffalo Environmental Association

Span Responses

Non Methane Hydrocarbons (NMHC) - ppm

Mannix - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH_4) - ppm

Mannix - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 4.8 ppm on Oct 8 00:00

Maximum Daily Average: 2.3 ppm on Oct 7

Minimum Value: 2.0 ppm on Oct 17 22:00

Minimum Daily Average: 2.1 ppm on Oct 18

Maximum Diurnal Average: 2.2 ppm at hour 24

Minimum Diurnal Average: 2.1 ppm at hour 18

Monthly Average: 2.15 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.1 Q_1 = 2.1 Median = 2.1 Q_3 = 2.1 P_{90} = 2.2 P_{99} = 2.9

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	36
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.3
2-Oct	2.2	2.1	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
3-Oct	Z	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
4-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.2	2.2	2.1	2.1	2.4
5-Oct	2.1	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2
6-Oct	2.1	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
7-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.1	2.1	2.3	3.3	2.6	4.8	2.3	4.8
8-Oct	4.2	3.2	3.1	2.4	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	4.2
9-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
10-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
11-Oct	2.2	2.2	Z	2.2	2.2	2.4	2.3	2.2	2.2	2.3	2.2	2.3	2.4	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.1	2.1	2.2	2.4
12-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.3	2.2	2.3
13-Oct	2.2	2.2	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
14-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
15-Oct	Z	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
16-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
17-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	C	C	C	C	C	2.0	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.1	2.2
18-Oct	2.0	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1
19-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.4	2.9	2.9	2.2	2.3	2.6	2.6	2.7	2.5	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.3	2.9
20-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
21-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.3	2.2	2.2	2.1	2.3
22-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3
23-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
24-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	M	M	M	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2
25-Oct	2.3	2.2	2.1	2.2	Z	2.6	2.6	2.6	2.6	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.6
26-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.7	2.6	3.0	2.7	2.4	2.3	2.5	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	3.0
27-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3
28-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
29-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.4	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.3	2.2	2.2	2.4
30-Oct	2.3	2.2	2.3	Z	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3
31-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	Diurnal Average	
	4.2	3.2	3.1	2.4	2.2	2.6	2.7	2.6	3.0	2.9	2.4	2.3	2.6	2.6	2.7	2.5	2.3	2.2	2.2	2.3	2.4	3.3	2.6	4.8	Diurnal Maximum	

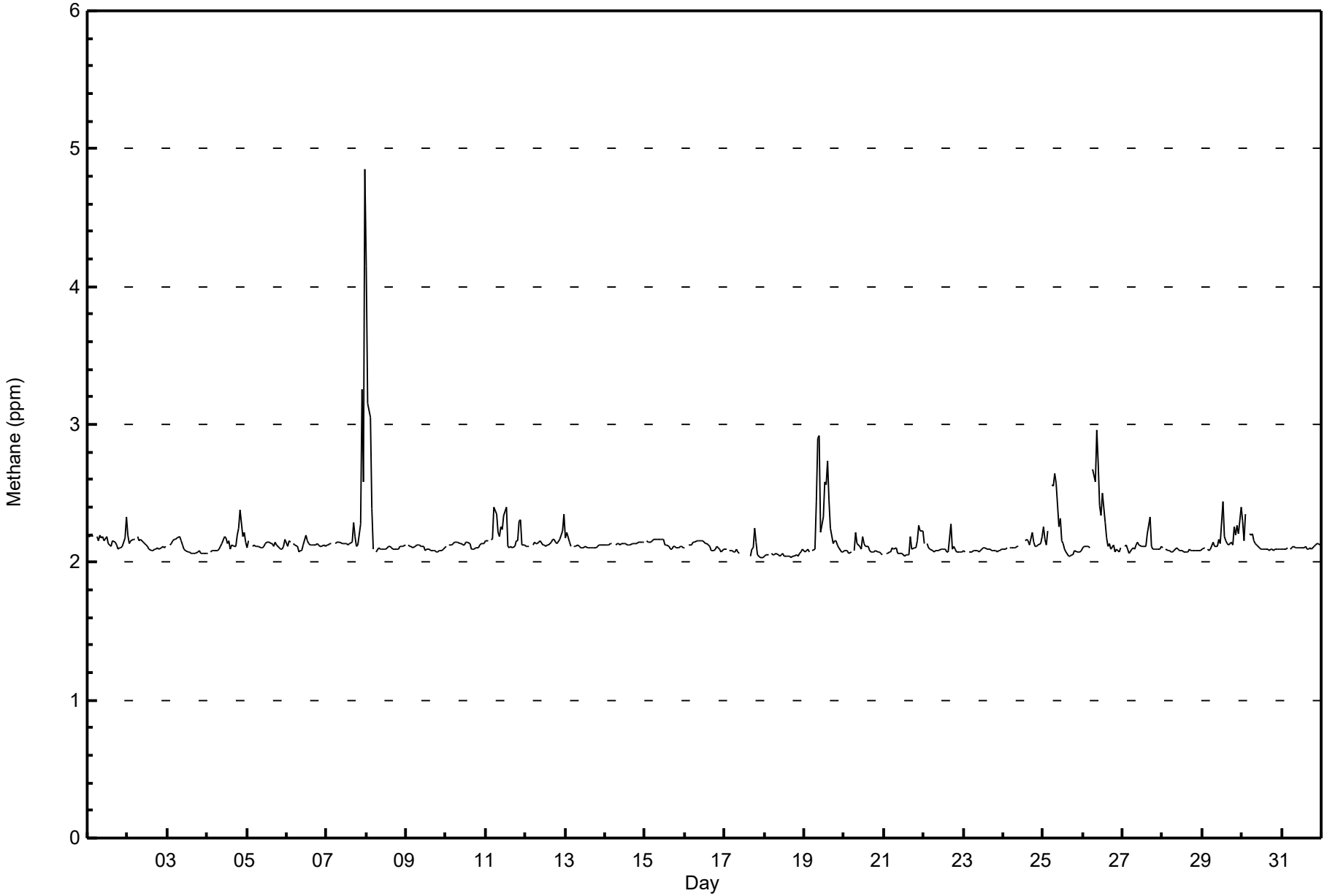
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Methane (CH_4) - ppm

Mannix - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	18	2.55	2.55
2.1 - 3.0	682	96.74	99.29
3.1 - 10.0	5	0.71	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Methane (CH_4) - ppm

Mannix - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	0	0	0	0	0	0	0	0	1	2	1	4	8	2	0	0	18
2.1 - 3.0	51	17	2	2	5	3	79	155	53	38	32	45	69	37	15	68	671
3.1 - 10.0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	1	1	5
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	51	17	2	2	6	3	79	155	54	40	33	49	77	41	16	69	694

Total Number of Valid Hours: 694

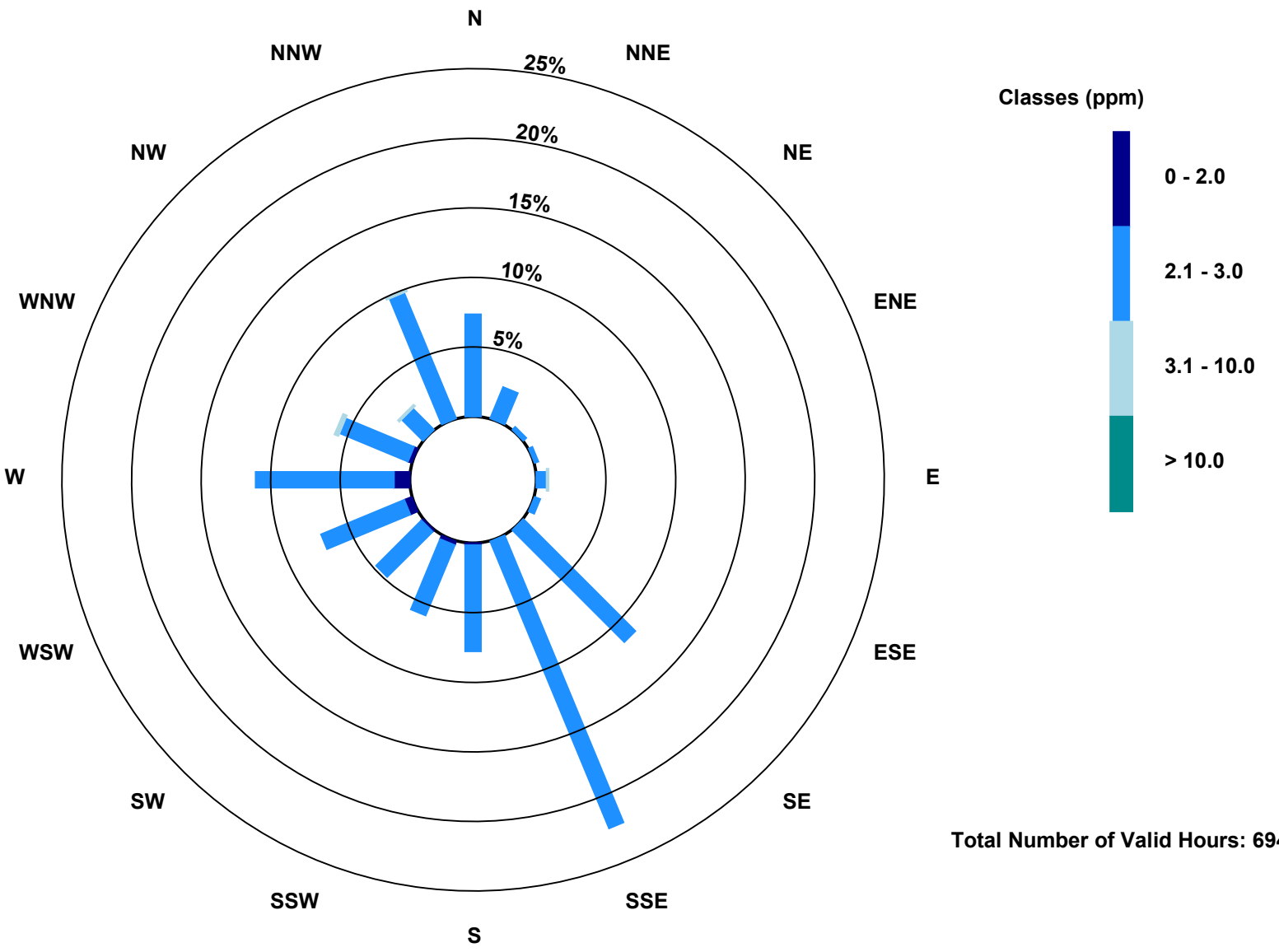
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Methane (CH_4) - ppm

Mannix



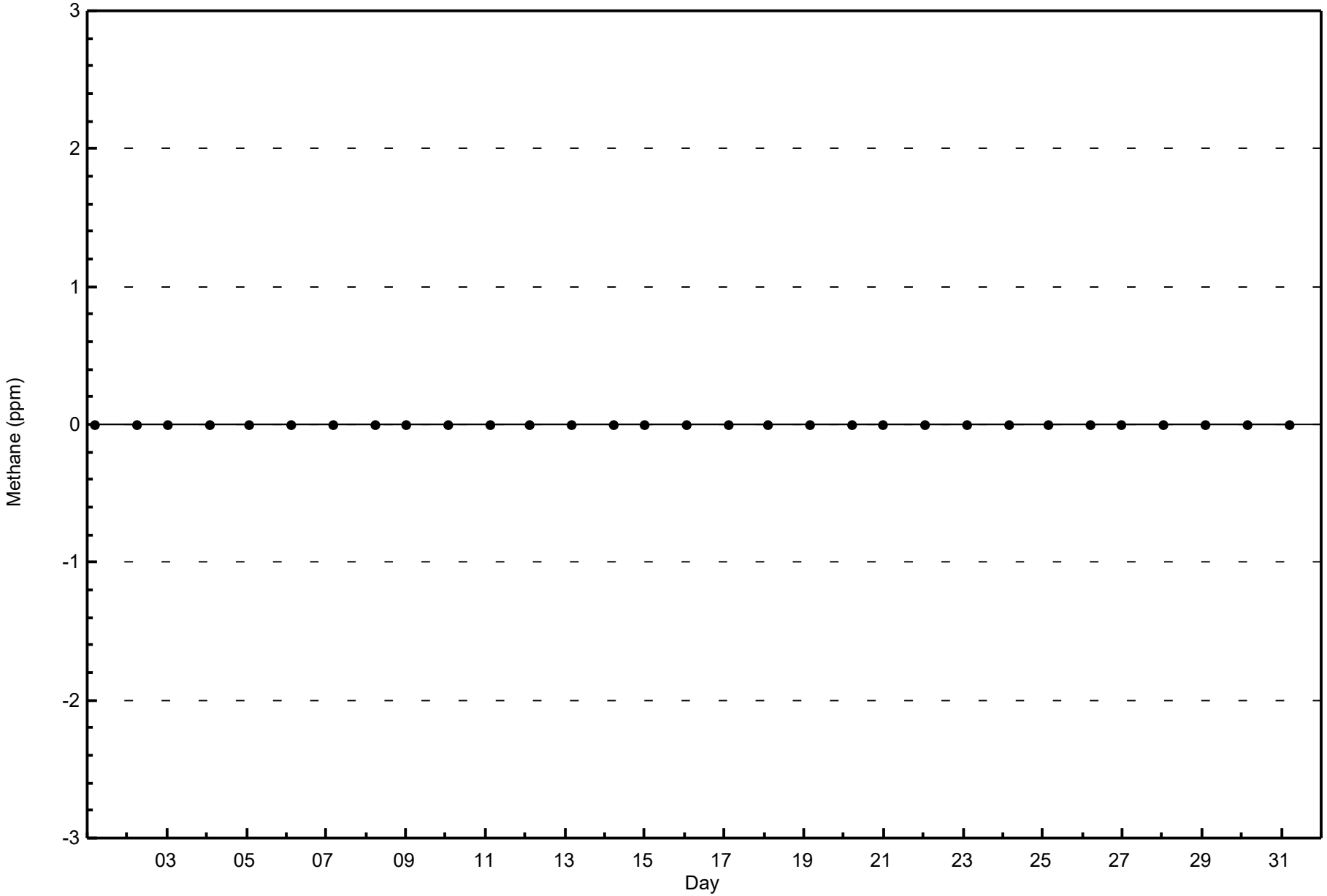
Total Number of Valid Hours: 694

Wood Buffalo Environmental Association

Zero Responses

Methane (CH_4) - ppm

Mannix - October 2025

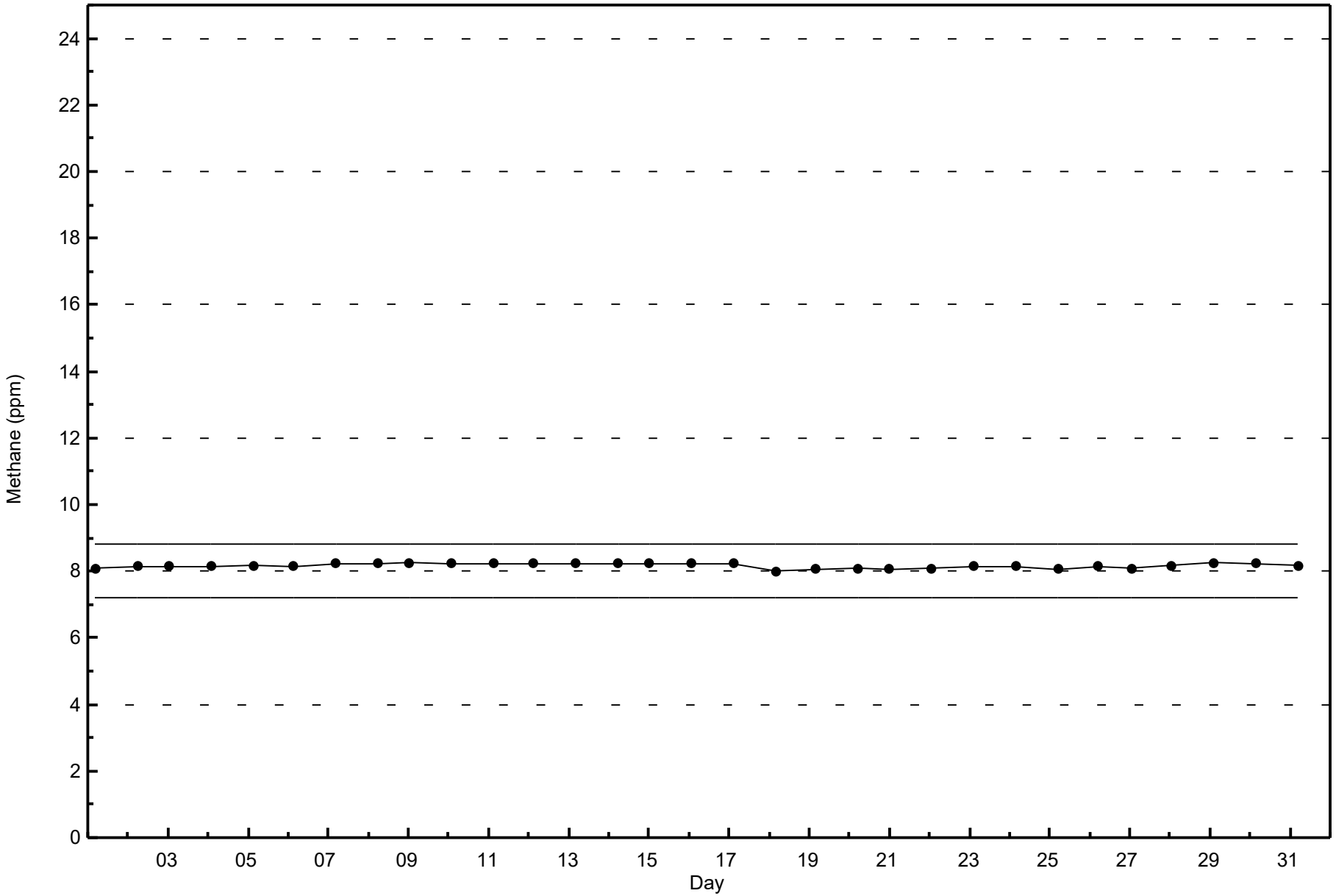


Wood Buffalo Environmental Association

Span Responses

Methane (CH_4) - ppm

Mannix - October 2025



Maximum Value: 21.3 C on Oct 10 16:00

Maximum Daily Average: 10.3 C on Oct 3

Minimum Value: -3.9 C on Oct 13 08:00

Minimum Daily Average: -0.1 C on Oct 28

Maximum Diurnal Average: 8.4 C at hour 15

Minimum Diurnal Average: 2.0 C at hour 7

Monthly Average: 4.76 C

Percentiles: P_1 = -2.1 P_{10} = -0.1 Q_1 = 0.8 Median = 4.1 Q_3 = 7.8 P_{90} = 11.0 P_{99} = 16.4

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.0	9.8	9.8	9.8	9.8	9.9	9.9	9.9	9.9	9.8	9.8	9.5	8.9	9.2	10.2	10.3	9.7	9.4	8.9	8.1	7.6	7.6	6.3	5.5	9.1	10.3
2-Oct	4.6	4.7	4.3	4.4	3.9	4.0	3.4	4.1	5.1	6.2	7.0	8.5	9.9	11.0	11.9	12.3	11.5	10.3	8.7	8.1	7.7	7.1	6.5	6.0	7.1	12.3
3-Oct	7.1	7.0	5.9	5.7	5.7	5.7	5.1	6.4	9.1	12.2	15.0	16.4	16.9	16.4	15.4	14.4	13.0	12.7	12.1	10.8	9.0	8.4	8.0	7.8	10.3	16.9
4-Oct	8.1	7.9	7.8	6.8	5.3	5.6	6.3	6.5	7.2	8.3	9.1	9.9	8.4	7.2	6.3	5.5	4.5	3.4	3.0	2.8	2.7	2.8	2.4	2.3	5.8	9.9
5-Oct	2.3	1.9	-0.1	-1.0	-1.4	-1.3	-1.1	-0.4	0.1	1.2	2.5	4.6	6.7	7.7	7.9	7.5	6.9	6.7	6.0	5.6	5.0	4.7	4.4	3.8	3.3	7.9
6-Oct	2.4	2.0	1.8	0.2	-1.2	-2.1	-2.4	-1.5	-0.7	0.1	0.9	1.6	2.2	2.7	3.4	3.5	3.4	1.6	0.1	1.9	2.2	2.5	2.4	2.8	1.2	3.5
7-Oct	2.8	3.2	3.4	3.5	3.7	3.8	3.9	3.9	5.3	6.8	8.5	10.2	12.7	15.0	16.5	16.2	15.8	15.0	14.4	12.8	11.9	13.1	12.1	10.7	9.4	16.5
8-Oct	9.9	9.6	9.3	9.3	9.4	8.8	8.8	8.5	7.5	7.2	9.0	10.4	11.2	11.6	12.0	12.5	11.3	10.2	9.6	8.7	6.8	5.9	5.5	5.3	9.1	12.5
9-Oct	4.6	3.9	4.6	4.7	2.8	1.1	0.0	0.6	3.2	5.9	9.5	13.0	14.5	15.3	15.9	15.9	14.9	12.3	9.6	8.2	7.4	6.4	5.5	4.7	7.7	15.9
10-Oct	4.2	3.4	2.5	2.0	1.7	1.0	0.7	2.0	4.7	7.0	9.6	12.9	14.9	17.9	19.7	21.3	19.9	17.0	15.1	13.7	11.5	11.3	10.9	10.8	9.8	21.3
11-Oct	9.8	9.9	9.8	8.3	8.3	8.2	8.7	9.1	8.9	9.1	8.1	6.8	6.3	5.3	4.6	4.4	4.7	4.8	4.3	3.7	3.8	3.8	3.2	2.5	6.5	9.9
12-Oct	1.7	1.4	1.2	1.2	1.0	0.8	0.5	0.0	0.3	1.0	0.6	0.4	1.6	1.9	2.4	2.6	1.5	1.2	1.0	0.8	0.1	0.2	0.4	0.5	1.0	2.6
13-Oct	0.3	-0.1	-0.4	-0.9	-2.2	-2.8	-3.3	-3.9	-1.4	1.1	3.3	3.8	4.4	4.8	4.7	4.1	2.9	1.7	0.4	-0.6	-0.8	-1.3	-1.9	-2.4	0.4	4.8
14-Oct	-2.4	-2.0	-2.1	-2.0	-1.9	-1.7	-0.6	-0.1	1.4	3.3	5.5	6.9	9.1	9.1	9.4	9.6	8.7	6.2	4.1	2.8	2.0	1.3	0.7	0.3	2.8	9.6
15-Oct	0.3	0.6	0.5	0.1	0.4	0.5	0.4	0.5	2.3	3.7	6.2	7.8	11.0	12.0	13.4	14.0	12.2	9.1	6.3	5.7	5.3	4.9	3.7	3.3	5.2	14.0
16-Oct	2.5	1.2	0.4	0.1	0.2	0.1	-0.6	-0.4	1.5	3.5	5.5	8.0	10.4	12.1	13.5	13.9	14.0	13.6	12.7	11.7	11.9	11.3	10.1	9.6	7.0	14.0
17-Oct	8.7	8.4	8.4	8.2	7.6	7.7	7.3	6.2	6.2	5.9	6.3	8.3	9.7	11.0	11.8	11.4	10.3	9.1	8.6	6.6	4.9	4.3	3.8	2.7	7.6	11.8
18-Oct	1.9	0.8	0.0	0.7	1.0	0.0	-0.7	-0.4	1.7	4.2	6.9	9.3	11.1	11.7	12.3	12.2	10.7	7.7	6.5	5.5	2.9	2.3	1.8	0.7	4.6	12.3
19-Oct	0.6	-0.2	-0.7	-0.6	0.3	0.8	0.9	0.6	1.4	3.1	4.6	4.6	5.6	6.2	5.4	4.8	4.4	4.0	3.3	3.1	3.2	2.5	2.2	2.0	2.6	6.2
20-Oct	2.0	1.9	2.0	2.1	2.0	2.0	1.9	1.9	1.8	1.9	2.4	2.7	3.2	3.9	4.2	4.5	4.4	4.0	3.1	2.6	1.9	2.6	2.8	3.2	2.7	4.5
21-Oct	3.1	3.0	3.3	2.9	2.6	2.1	1.0	1.0	2.9	4.5	6.4	7.7	7.4	7.1	7.7	7.1	6.4	5.6	4.2	3.1	2.4	1.8	0.9	0.3	3.9	7.7
22-Oct	0.9	1.3	1.6	0.4	0.4	0.0	-0.1	-0.7	0.7	2.4	4.7	6.0	8.0	9.3	10.4	10.8	9.7	8.5	7.7	6.8	6.8	6.3	6.5	7.2	4.8	10.8
23-Oct	7.1	6.9	6.6	6.1	5.4	5.3	5.2	4.8	5.5	6.1	8.8	10.4	12.0	12.6	12.6	12.0	10.8	9.3	8.8	8.0	7.5	6.8	5.9	5.7	7.9	12.6
24-Oct	5.7	5.8	5.9	5.5	5.4	4.8	4.2	3.9	4.3	5.2	6.5	8.6	11.0	11.0	10.8	10.1	9.3	8.6	7.9	7.5	6.7	5.9	5.5	4.6	6.9	11.0
25-Oct	4.9	4.9	5.1	4.2	4.3	4.5	5.0	4.1	4.2	4.9	5.0	6.0	6.4	6.6	7.0	7.2	7.6	5.7	3.9	2.9	2.2	1.5	0.6	0.3	4.5	7.6
26-Oct	0.3	0.2	-0.9	-0.3	-0.5	-0.6	-0.7	-0.7	-0.5	0.2	2.2	3.6	4.1	5.3	5.4	5.5	6.0	5.9	5.4	4.6	3.8	3.2	3.1	3.0	2.4	6.0
27-Oct	2.9	2.9	3.1	2.8	2.6	2.3	1.7	1.6	1.4	1.3	0.9	1.1	1.4	1.8	1.9	1.8	0.8	0.3	0.1	0.1	-0.1	0.0	0.0	0.0	1.4	3.1
28-Oct	0.0	-0.1	-0.1	-0.4	-0.6	-0.7	-0.8	-0.8	-0.5	-0.2	0.5	0.2	0.2	0.7	0.7	0.6	0.4	0.0	0.1	0.0	-0.1	-0.2	-0.4	-0.3	-0.1	0.7
29-Oct	-0.3	-0.1	-0.1	-0.2	-0.6	-0.7	-0.6	-0.5	-0.4	0.2	0.7	0.5	0.9	0.6	0.2	0.1	0.2	0.3	0.2	0.2	0.0	0.0	-0.1	-0.1	0.0	0.9
30-Oct	-0.1	0.0	0.0	-0.3	-0.6	-0.5	-0.3	-0.3	-0.1	0.0	0.5	0.7	1.2	0.9	1.1	1.0	0.7	0.6	0.5	0.5	0.4	0.2	0.2	0.2	0.3	1.2
31-Oct	0.4	0.6	0.6	0.7	0.6	0.2	-0.8	-1.1	-0.7	0.3	1.7	2.0	2.7	2.6	2.4	2.2	2.0	DF	DF	DF	DF	DF	DF	DF	--	2.7
	3.4	3.3	3.0	2.7	2.4	2.2	2.0	2.1	3.0	4.1	5.4	6.5	7.5	8.1	8.4	8.4	7.7	6.8	5.9	5.2	4.6	4.2	3.8	3.4	Diurnal Average	
	10.0	9.9	9.8	9.8	9.8	9.9	9.9	9.9	9.9	12.2	15.0	16.4	16.9	17.9	19.7	21.3	19.9	17.0	15.1	13.7	11.9	13.1	12.1	10.8	Diurnal Maximum	

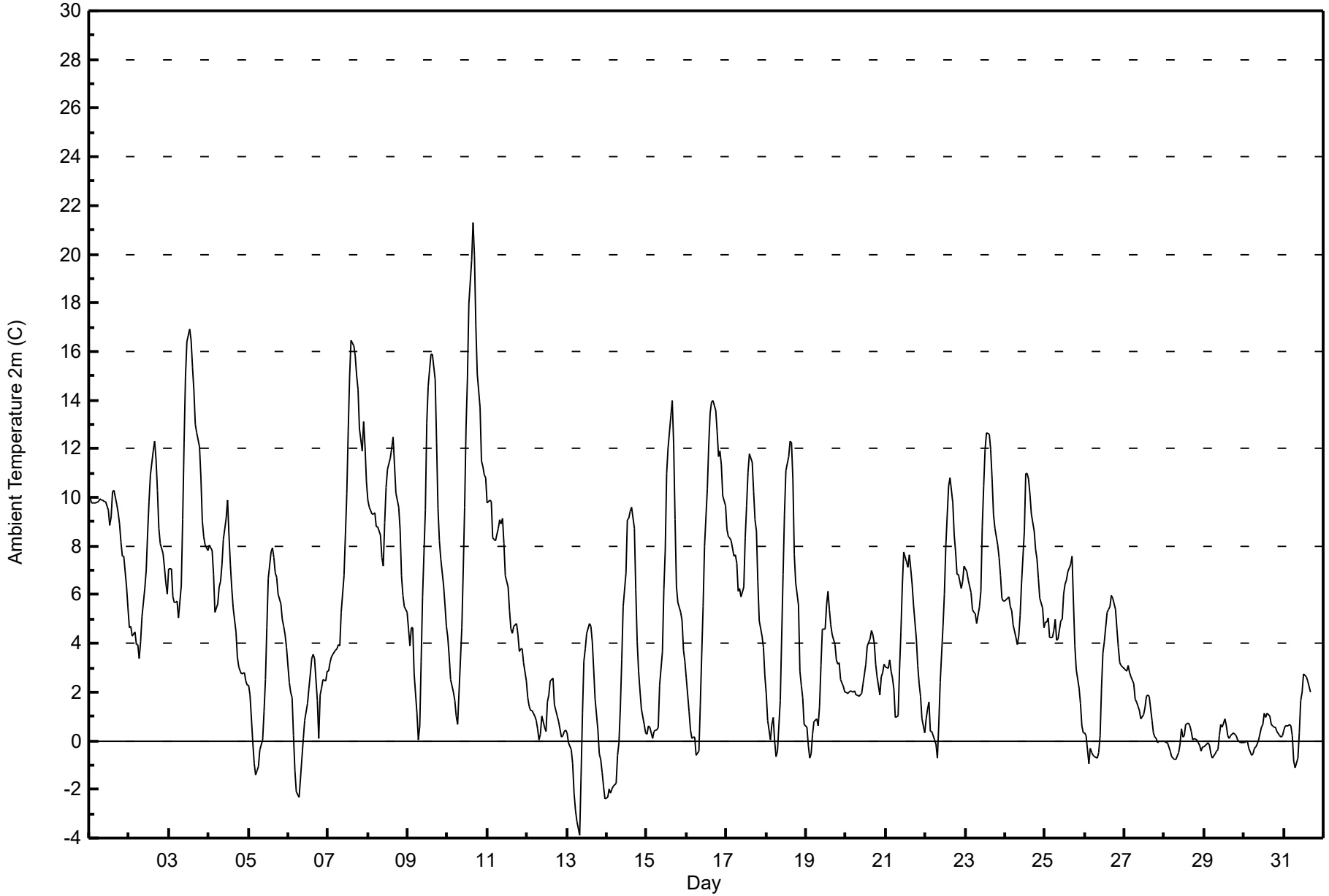
DF - DAS Failure

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Mannix - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	87	11.80	11.80
0 - 10	555	75.31	87.11
10 - 20	94	12.75	99.86
> 20	1	0.14	100.00

Total Number of Valid Hours: 737

Total Number of Hours: 744

Maximum Value: 21.6 C on Oct 10 16:00

Maximum Daily Average: 11.5 C on Oct 10

Minimum Value: -2.9 C on Oct 13 08:00

Minimum Daily Average: -0.2 C on Oct 28

Maximum Diurnal Average: 8.3 C at hour 16

Minimum Diurnal Average: 2.5 C at hour 8

Monthly Average: 5.22 C

Percentiles: P_1 = -1.4 P_{10} = -0.1 Q_1 = 1.5 Median = 4.5 Q_3 = 8.4 P_{90} = 11.3 P_{99} = 16.5

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.3	9.9	9.9	9.9	9.8	9.9	10.1	10.0	9.9	9.9	9.9	9.6	9.0	9.1	9.6	9.9	9.8	9.6	9.5	9.2	8.9	8.3	8.0	6.6	9.4	10.3
2-Oct	6.3	5.4	5.1	5.3	5.4	5.1	3.9	3.7	4.5	5.4	6.5	8.1	9.3	10.6	11.4	11.9	11.8	11.6	11.1	10.3	9.6	9.2	8.7	8.2	7.8	11.9
3-Oct	8.2	8.0	7.6	7.4	7.2	6.9	6.3	6.4	9.4	11.8	14.4	15.4	16.0	16.1	15.3	14.5	13.5	13.4	12.9	11.2	9.4	8.7	8.5	8.4	10.7	16.1
4-Oct	8.5	8.3	8.1	7.3	6.1	6.3	6.6	6.3	6.6	7.3	8.0	8.3	8.0	7.2	6.0	5.5	4.5	3.5	3.2	3.3	3.6	3.3	3.0	2.7	5.9	8.5
5-Oct	2.4	2.6	0.9	-0.1	-0.5	-0.3	-0.2	-0.1	0.0	0.9	1.7	3.6	5.5	6.7	7.3	7.4	7.2	7.6	6.9	6.1	5.2	4.8	4.6	3.8	3.5	7.6
6-Oct	2.2	2.0	1.8	0.7	-0.3	-1.1	-1.7	-1.7	-1.6	-1.0	-0.5	0.5	1.6	3.0	3.6	3.8	4.2	3.6	2.9	2.9	2.8	2.7	2.5	2.9	1.5	4.2
7-Oct	2.8	3.2	3.6	3.8	4.0	3.9	4.1	4.3	5.0	6.2	7.7	9.4	11.7	14.2	16.0	16.4	16.6	16.3	16.2	15.1	14.8	14.2	13.6	11.5	9.8	16.6
8-Oct	10.5	10.7	10.2	10.0	9.8	8.9	8.9	8.5	7.3	6.8	8.0	9.2	10.0	10.6	11.1	11.7	11.3	10.4	9.9	8.8	6.9	6.0	5.6	5.4	9.0	11.7
9-Oct	4.9	4.3	4.8	4.8	3.9	3.0	1.5	1.2	3.0	5.5	8.5	11.6	13.3	14.3	15.1	15.7	15.7	14.5	13.2	12.4	11.5	9.8	8.3	7.8	8.7	15.7
10-Oct	7.2	6.2	5.4	5.0	4.5	3.6	2.9	2.8	4.5	6.5	8.4	11.4	14.1	17.6	20.1	21.6	21.2	19.7	18.3	16.6	15.2	14.2	14.1	14.1	11.5	21.6
11-Oct	13.9	13.7	12.4	11.3	10.8	10.0	9.1	9.3	8.9	8.9	7.8	6.7	6.3	5.3	4.6	4.4	4.7	5.0	4.7	4.1	4.0	3.9	3.3	2.5	7.3	13.9
12-Oct	1.6	1.6	1.5	1.4	1.1	0.9	0.5	-0.2	-0.4	0.2	-0.3	-0.6	0.2	0.8	1.8	1.7	1.1	1.3	1.2	0.9	0.5	0.6	0.6	0.6	0.8	1.8
13-Oct	0.3	-0.1	-0.5	-0.9	-1.5	-1.8	-2.5	-2.9	-1.6	0.6	1.9	2.4	3.1	3.7	4.0	3.8	3.3	2.4	1.6	0.7	0.2	-0.4	-0.8	-1.1	0.6	4.0
14-Oct	-1.2	-1.2	-1.2	-1.1	-1.3	-1.2	-0.4	0.1	1.0	2.4	3.7	5.3	7.4	7.9	8.4	9.3	9.4	8.6	7.5	6.5	5.3	4.4	3.8	3.3	3.6	9.4
15-Oct	2.9	2.4	2.3	1.5	1.3	1.3	1.1	1.1	2.2	3.3	5.4	7.4	9.8	11.2	12.7	13.7	13.7	12.0	10.3	9.4	8.5	8.4	7.4	7.2	6.5	13.7
16-Oct	7.1	6.8	5.8	4.6	3.7	2.2	1.4	1.2	1.5	3.0	4.6	7.0	9.5	11.5	13.2	14.2	14.9	14.4	13.7	12.8	12.7	12.1	10.7	10.0	8.3	14.9
17-Oct	9.5	9.7	9.4	9.0	8.4	8.1	7.4	6.5	6.3	5.9	6.1	7.6	8.9	10.2	10.9	11.2	10.7	10.0	9.4	8.5	7.6	6.6	5.7	5.0	8.3	11.2
18-Oct	4.4	3.0	2.7	2.6	2.4	2.1	1.7	1.8	2.3	4.1	6.1	8.4	10.0	10.9	11.7	12.2	12.1	11.3	10.7	9.5	6.5	6.4	5.6	3.1	6.3	12.2
19-Oct	3.5	2.2	1.4	1.6	1.3	1.8	1.8	1.5	2.6	3.5	4.5	4.2	5.1	5.6	4.6	4.2	4.2	3.9	3.4	3.3	3.1	2.4	2.0	1.8	3.1	5.6
20-Oct	1.8	1.7	1.8	1.8	1.9	1.8	1.8	1.6	1.4	1.6	2.0	2.4	2.7	3.3	3.7	4.2	4.2	4.2	3.8	3.7	3.3	3.1	3.0	3.3	2.7	4.2
21-Oct	3.2	3.2	3.6	3.4	3.1	2.9	3.1	3.5	4.0	4.4	5.7	7.1	6.9	6.7	7.2	7.2	6.9	5.5	4.2	3.5	3.3	3.3	3.1	2.4	4.5	7.2
22-Oct	2.2	2.4	2.4	2.0	1.3	0.8	0.6	0.2	0.7	2.0	3.6	5.0	7.1	8.9	10.4	11.2	10.4	9.3	8.4	7.4	7.5	6.9	7.0	7.5	5.2	11.2
23-Oct	7.5	7.4	7.1	6.8	6.2	5.7	5.3	5.0	5.3	5.9	7.6	9.3	10.9	12.0	12.6	12.3	11.3	10.1	9.6	8.8	8.3	7.6	6.8	6.4	8.2	12.6
24-Oct	6.3	6.3	6.4	6.1	5.9	5.4	5.0	4.6	4.5	4.8	5.8	7.6	10.1	10.4	10.6	10.2	10.0	9.5	8.8	7.9	7.1	6.6	6.0	5.5	7.2	10.6
25-Oct	5.4	5.1	5.1	4.4	4.3	4.8	5.2	4.0	4.1	4.7	4.7	5.9	6.4	6.6	7.1	7.6	8.1	7.3	6.5	6.2	5.2	4.0	3.6	3.5	5.4	8.1
26-Oct	3.4	2.7	1.2	0.9	0.9	1.1	0.6	0.3	0.4	0.7	2.2	3.3	3.5	4.5	5.1	5.4	6.1	5.9	5.5	4.6	3.8	3.2	3.1	3.1	3.0	6.1
27-Oct	3.0	2.9	3.1	2.8	2.7	2.3	1.7	1.6	1.4	1.0	0.7	0.8	1.0	1.5	1.6	1.8	0.7	0.3	0.1	0.0	-0.3	-0.2	-0.2	-0.2	1.3	3.1
28-Oct	-0.2	-0.3	-0.4	-0.7	-0.9	-1.0	-1.0	-1.0	-0.9	-0.8	-0.7	-0.6	-0.6	-0.3	0.2	0.1	0.1	0.3	0.5	0.7	0.5	0.7	0.4	0.2	-0.2	0.7
29-Oct	0.1	0.1	0.0	-0.2	-0.7	-0.8	-0.6	-0.6	-0.5	0.0	0.1	0.1	0.3	0.2	-0.1	-0.2	0.0	0.1	0.0	0.1	-0.1	-0.2	-0.3	-0.3	-0.1	0.3
30-Oct	-0.2	0.0	0.1	-0.2	-0.8	-0.8	-0.5	-0.5	-0.4	-0.3	-0.2	-0.2	0.2	0.4	0.8	0.9	1.0	1.0	0.9	0.7	0.7	0.5	0.6	0.7	0.2	1.0
31-Oct	0.8	0.8	0.8	0.7	0.5	0.3	-0.5	-0.9	-0.6	0.1	0.9	1.4	2.1	2.3	2.3	2.2	2.1	DF	DF	DF	DF	DF	DF	DF	--	2.3
	4.5	4.2	3.9	3.6	3.2	3.0	2.7	2.5	2.9	3.7	4.7	5.7	6.7	7.5	8.0	8.3	8.1	7.8	7.2	6.5	5.9	5.4	4.9	4.5	Diurnal Average	
	13.9	13.7	12.4	11.3	10.8	10.0	10.1	10.0	9.9	11.8	14.4	15.4	16.0	17.6	20.1	21.6	21.2	19.7	18.3	16.6	15.2	14.2	14.1	14.1	Diurnal Maximum	

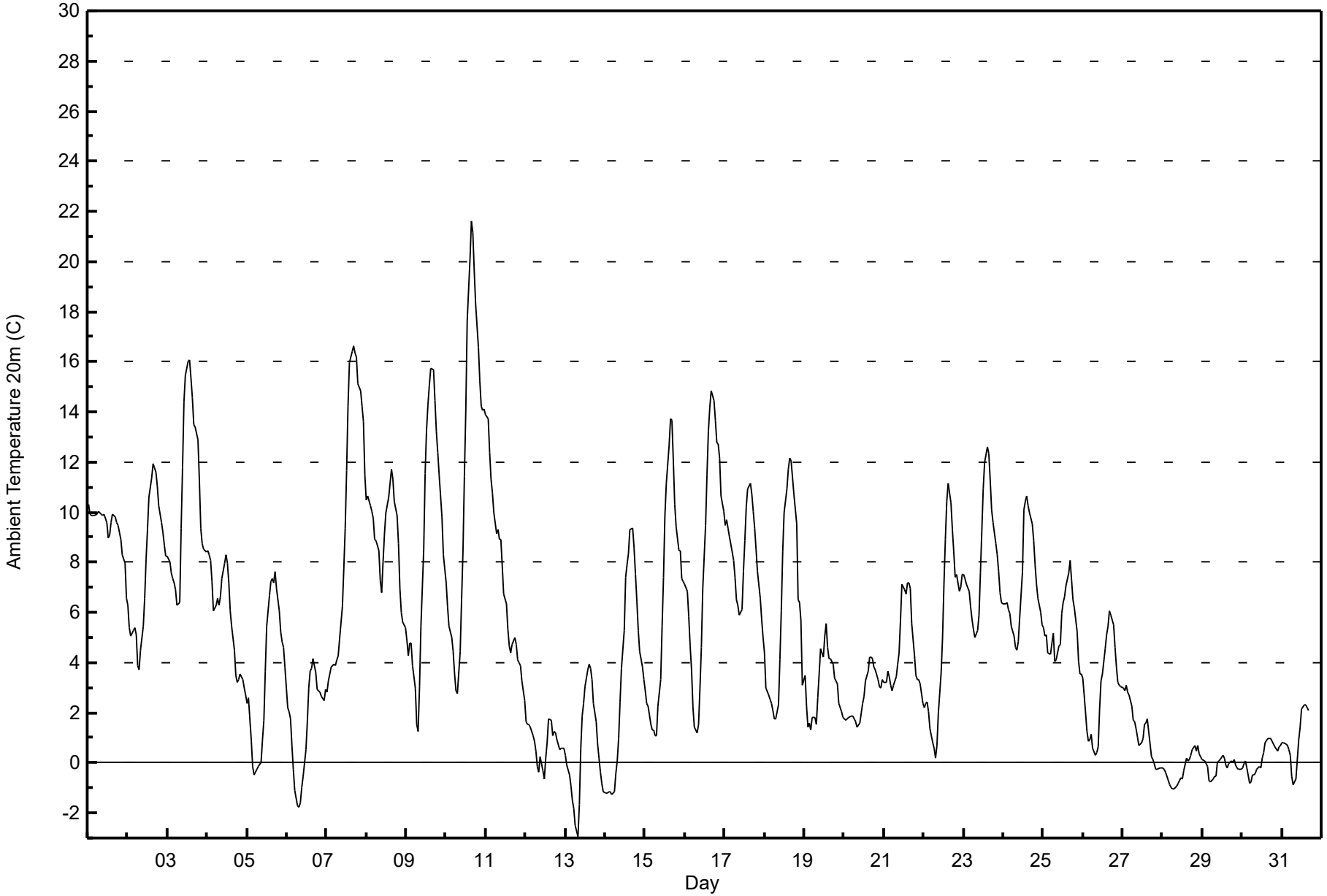
DF - DAS Failure

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 20m (AT20) - C

Mannix - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	82	11.13	11.13
0 - 10	543	73.68	84.80
10 - 20	109	14.79	99.59
> 20	3	0.41	100.00

Total Number of Valid Hours: 737

Total Number of Hours: 744

Maximum Value: 21.4 C on Oct 10 16:00

Maximum Daily Average: 11.7 C on Oct 10

Minimum Value: -2.9 C on Oct 13 08:00

Minimum Daily Average: -0.6 C on Oct 28

Maximum Diurnal Average: 7.9 C at hour 16

Minimum Diurnal Average: 2.4 C at hour 8

Monthly Average: 5.08 C

Percentiles: P_1 = -1.7 P_{10} = -0.5 Q_1 = 1.3 Median = 4.3 Q_3 = 8.2 P_{90} = 11.1 P_{99} = 16.5

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.2	9.7	9.7	9.6	9.6	9.7	9.8	9.8	9.7	9.6	9.7	9.3	8.7	8.8	9.2	9.6	9.5	9.3	9.2	9.0	8.7	8.1	8.0	7.7	9.3	10.2
2-Oct	7.4	6.9	6.9	6.1	5.6	5.5	4.5	3.4	4.2	5.1	6.1	7.4	8.9	10.2	10.9	11.4	11.5	11.5	11.2	10.4	10.2	9.6	9.0	8.6	8.0	11.5
3-Oct	8.5	8.4	7.9	7.5	7.5	7.0	6.7	7.0	9.1	11.3	13.9	15.0	15.6	15.8	15.1	14.3	13.3	13.2	12.7	11.0	9.2	8.5	8.3	8.2	10.6	15.8
4-Oct	8.2	8.1	7.8	7.0	6.0	6.1	6.3	5.9	6.2	6.8	7.5	7.8	7.5	6.8	5.7	5.2	4.1	3.1	2.9	3.1	3.3	3.0	2.7	2.4	5.6	8.2
5-Oct	2.0	2.4	0.7	-0.3	-0.5	-0.4	-0.3	-0.4	-0.4	0.4	1.1	3.0	4.9	6.1	6.8	7.0	7.0	7.5	6.9	5.8	5.0	4.5	4.3	3.5	3.2	7.5
6-Oct	1.8	1.7	1.4	0.4	-0.6	-1.5	-2.1	-2.2	-2.2	-1.7	-1.1	-0.1	1.2	2.4	3.0	3.4	3.8	3.5	3.1	2.7	2.6	2.4	2.4	2.7	1.1	3.8
7-Oct	2.7	3.2	3.5	3.8	4.0	3.9	4.2	4.2	4.7	5.8	7.3	8.9	11.2	13.8	15.6	16.3	16.6	16.4	16.4	15.8	15.8	14.7	13.9	12.3	9.8	16.6
8-Oct	10.6	10.9	10.3	10.1	9.6	8.7	8.6	8.2	6.9	6.3	7.5	8.7	9.5	10.1	10.7	11.2	11.0	10.2	9.6	8.5	6.6	5.7	5.3	5.0	8.7	11.2
9-Oct	4.6	4.0	4.4	4.5	3.9	3.0	1.6	1.6	2.4	4.8	8.0	11.1	12.8	13.8	14.6	15.3	15.5	14.7	14.0	13.2	12.5	11.2	9.2	8.5	8.7	15.5
10-Oct	7.7	6.6	6.2	6.0	5.6	4.5	3.3	3.0	4.0	5.9	8.0	11.0	13.6	17.2	19.8	21.4	21.1	20.0	18.8	17.1	15.8	15.0	14.6	14.6	11.7	21.4
11-Oct	14.8	14.6	13.2	11.7	11.0	10.1	9.0	9.0	8.6	8.6	7.5	6.4	6.0	5.0	4.3	4.0	4.3	4.7	4.4	3.8	3.6	3.5	2.9	2.1	7.2	14.8
12-Oct	1.2	1.2	1.2	1.0	0.7	0.5	0.0	-0.6	-0.8	-0.3	-0.8	-1.1	-0.4	0.3	1.2	1.2	0.6	0.8	0.8	0.5	0.2	0.2	0.2	0.2	0.3	1.2
13-Oct	-0.1	-0.5	-0.9	-1.3	-1.7	-2.0	-2.7	-2.9	-2.2	-0.1	1.3	1.8	2.4	3.0	3.2	3.1	2.9	2.2	1.5	0.8	0.3	-0.4	-0.9	-1.0	0.2	3.2
14-Oct	-1.1	-1.1	-1.0	-1.0	-1.2	-1.2	-0.8	-0.3	0.4	1.8	3.1	4.7	6.8	7.4	7.8	8.7	9.0	8.7	8.1	6.9	5.7	5.0	4.4	4.0	3.5	9.0
15-Oct	3.4	3.1	2.2	1.8	1.7	1.4	1.2	1.2	2.2	3.0	5.0	7.1	9.4	10.8	12.2	13.4	13.5	12.5	11.1	10.2	9.1	9.2	8.4	8.1	6.7	13.5
16-Oct	7.9	7.5	6.5	5.9	4.9	4.1	3.7	2.7	1.4	2.5	4.2	6.6	9.1	11.2	13.1	14.3	15.0	14.5	13.7	13.0	12.7	12.1	10.5	9.9	8.6	15.0
17-Oct	9.5	9.7	9.2	8.8	8.2	7.8	7.1	6.3	6.0	5.6	5.8	7.2	8.4	9.7	10.5	10.8	10.6	10.0	9.4	8.8	7.7	6.7	6.0	5.4	8.1	10.8
18-Oct	4.8	3.3	3.1	2.8	2.7	2.7	2.0	1.9	2.1	3.6	5.7	8.0	9.5	10.5	11.3	11.8	11.9	11.5	11.2	10.7	8.7	7.8	6.6	3.8	6.6	11.9
19-Oct	4.0	3.8	2.2	2.2	2.0	1.8	2.0	2.2	2.8	3.6	4.3	4.2	5.0	5.3	4.2	3.8	3.8	3.7	3.1	3.1	2.9	2.0	1.6	1.4	3.1	5.3
20-Oct	1.4	1.3	1.4	1.4	1.4	1.4	1.3	1.2	1.0	1.1	1.5	2.0	2.2	2.8	3.2	3.8	3.8	3.9	3.7	3.6	3.3	2.9	2.7	3.1	2.3	3.9
21-Oct	3.0	3.1	3.5	3.3	3.2	3.0	3.6	3.6	3.7	4.0	5.2	6.7	6.5	6.3	6.7	6.9	6.7	5.2	3.9	3.2	3.0	3.1	3.0	2.7	4.3	6.9
22-Oct	2.4	2.4	2.3	1.9	1.1	0.6	0.3	0.1	0.2	1.4	3.0	4.7	6.6	8.6	10.2	11.0	10.2	9.1	8.2	7.2	7.3	6.6	6.7	7.3	5.0	11.0
23-Oct	7.2	7.1	6.9	6.6	6.1	5.4	5.0	4.8	5.0	5.5	7.1	8.8	10.5	11.5	12.3	12.1	11.0	10.0	9.4	8.6	8.1	7.6	6.8	6.3	7.9	12.3
24-Oct	6.2	6.2	6.1	5.9	5.7	5.3	4.9	4.5	4.3	4.4	5.4	7.3	9.6	10.1	10.4	10.0	9.8	9.4	8.7	7.7	6.9	6.5	5.8	5.6	6.9	10.4
25-Oct	5.3	4.9	5.0	4.3	4.1	4.7	4.9	4.3	3.9	4.3	4.5	5.7	6.1	6.4	6.8	7.3	7.9	7.3	7.1	6.7	5.7	5.0	4.6	4.2	5.5	7.9
26-Oct	3.7	3.3	1.6	1.2	2.0	1.2	0.8	0.6	0.8	1.2	2.2	3.1	3.1	4.2	4.8	5.1	5.8	5.6	5.2	4.3	3.5	2.8	2.7	2.8	3.0	5.8
27-Oct	2.7	2.6	2.8	2.5	2.4	1.9	1.2	1.2	0.9	0.6	0.3	0.4	0.5	1.1	1.2	1.4	0.3	-0.1	-0.2	-0.4	-0.6	-0.5	-0.5	-0.5	0.9	2.8
28-Oct	-0.5	-0.6	-0.6	-1.0	-1.3	-1.4	-1.4	-1.4	-1.3	-1.2	-1.1	-1.0	-1.0	-0.9	-0.7	-0.6	-0.5	-0.2	0.1	0.4	0.3	0.7	0.2	0.0	-0.6	0.7
29-Oct	-0.2	-0.2	-0.4	-0.6	-1.1	-1.2	-1.1	-1.0	-1.0	-0.4	-0.3	-0.3	-0.1	-0.2	-0.5	-0.6	-0.4	-0.2	-0.3	-0.2	-0.5	-0.6	-0.7	-0.7	-0.5	-0.1
30-Oct	-0.6	-0.5	-0.3	-0.6	-1.3	-1.2	-0.9	-0.9	-0.9	-0.7	-0.7	-0.7	-0.3	-0.1	0.4	0.6	0.6	0.6	0.6	0.4	0.4	0.2	0.4	0.4	-0.2	0.6
31-Oct	0.5	0.5	0.4	0.3	0.1	0.0	-0.8	-1.2	-1.1	-0.4	0.5	1.0	1.8	1.9	1.9	1.8	1.7	DF	DF	DF	DF	DF	DF	DF	--	1.9
	4.5	4.3	4.0	3.6	3.3	2.9	2.7	2.4	2.6	3.3	4.2	5.3	6.3	7.1	7.6	7.9	7.8	7.6	7.2	6.5	5.9	5.4	5.0	4.6	Diurnal Average	
	14.8	14.6	13.2	11.7	11.0	10.1	9.8	9.8	9.7	11.3	13.9	15.0	15.6	17.2	19.8	21.4	21.1	20.0	18.8	17.1	15.8	15.0	14.6	14.6	Diurnal Maximum	

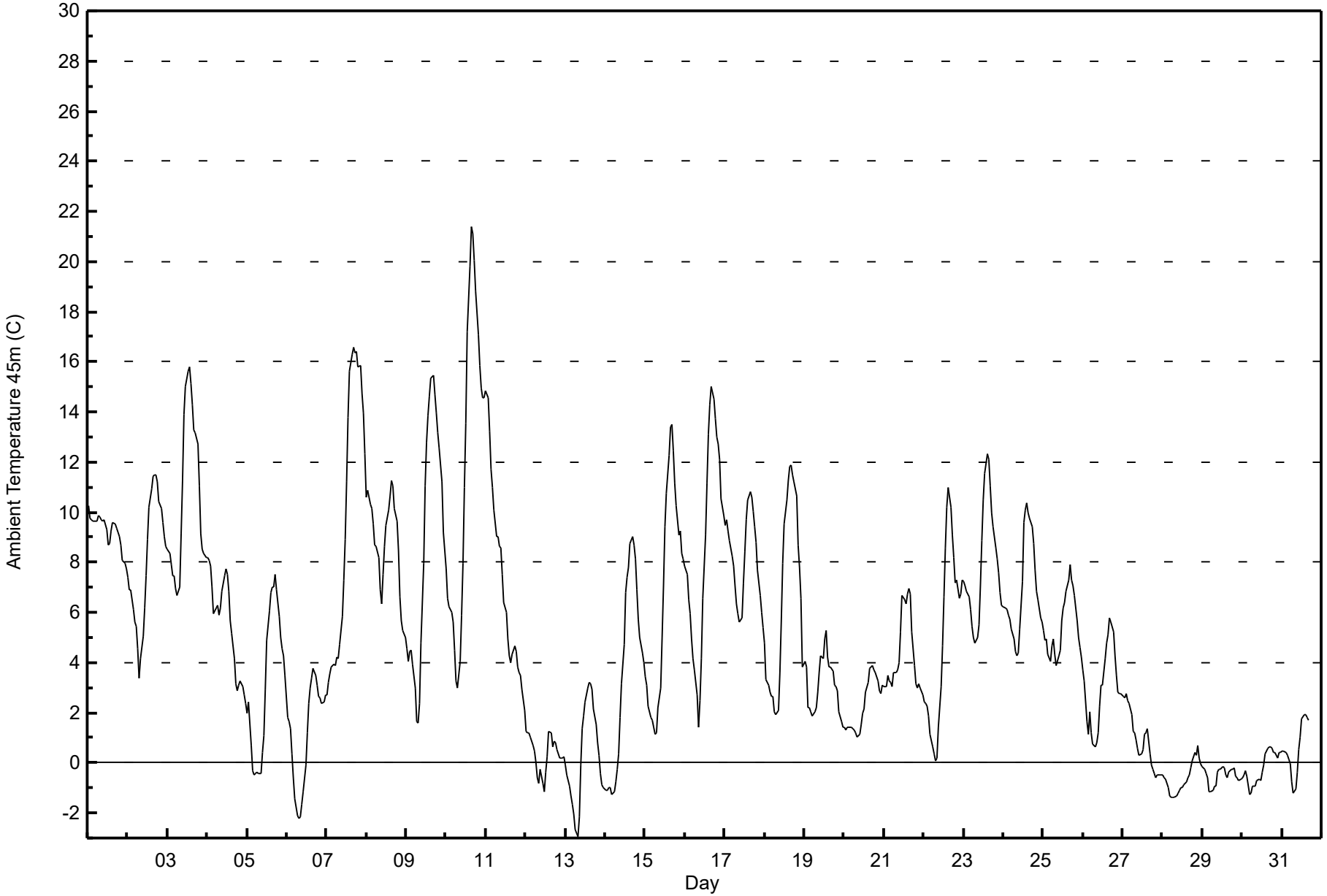
DF - DAS Failure

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 45m (AT45) - C

Mannix - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	110	14.93	14.93
0 - 10	518	70.28	85.21
10 - 20	106	14.38	99.59
> 20	3	0.41	100.00

Total Number of Valid Hours: 737

Total Number of Hours: 744

Maximum Value: 21.1 C on Oct 10 16:00

Maximum Daily Average: 12.4 C on Oct 10

Minimum Value: -2.2 C on Oct 13 07:00

Minimum Daily Average: -0.4 C on Oct 29

Maximum Diurnal Average: 7.9 C at hour 16

Minimum Diurnal Average: 2.9 C at hour 8

Monthly Average: 5.33 C

Percentiles: P_1 = -1.5 P_{10} = -0.2 Q_1 = 1.5 Median = 4.7 Q_3 = 8.5 P_{90} = 11.2 P_{99} = 16.6

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.3	9.8	9.7	9.6	9.6	9.7	9.8	9.8	9.7	9.6	9.6	9.2	8.6	8.7	9.1	9.5	9.5	9.3	9.1	9.0	8.6	8.1	8.1	8.0	9.3	10.3
2-Oct	7.9	7.6	7.7	7.4	6.8	5.7	5.8	3.7	4.6	5.2	6.3	7.6	9.0	10.1	10.8	11.3	11.4	11.5	11.5	11.0	11.2	10.3	9.6	9.2	8.5	11.5
3-Oct	9.2	8.9	8.5	8.3	8.1	7.9	7.9	8.2	9.5	11.3	13.6	14.7	15.3	15.6	14.9	14.1	13.2	13.1	12.6	11.0	9.1	8.5	8.3	8.2	10.8	15.6
4-Oct	8.2	8.1	7.8	7.1	6.2	6.3	6.3	6.0	6.2	6.7	7.3	7.6	7.4	6.8	5.7	5.2	4.1	3.2	2.9	3.1	3.3	3.1	2.8	2.5	5.6	8.2
5-Oct	2.1	2.6	1.0	0.2	0.3	0.1	0.2	0.2	0.1	0.5	1.1	2.8	4.8	5.9	6.7	7.0	7.2	7.7	7.0	5.9	5.0	4.6	4.4	3.5	3.4	7.7
6-Oct	1.8	1.7	1.4	0.5	-0.5	-1.3	-1.9	-2.1	-2.1	-1.7	-1.2	-0.1	1.1	2.4	3.0	3.3	3.8	3.7	3.6	3.0	2.9	2.7	3.1	3.1	1.3	3.8
7-Oct	3.3	4.0	4.3	4.7	4.8	4.7	4.9	4.8	5.1	5.9	7.2	8.8	11.0	13.6	15.4	16.1	16.5	16.5	16.7	16.3	16.1	15.1	14.3	13.2	10.1	16.7
8-Oct	11.0	11.6	10.7	10.5	9.6	8.7	8.6	8.1	6.8	6.2	7.3	8.5	9.3	9.9	10.5	11.1	10.9	10.1	9.6	8.4	6.6	5.6	5.3	5.0	8.7	11.6
9-Oct	4.6	4.2	4.5	4.5	4.3	3.3	2.4	2.5	2.5	4.6	7.8	10.8	12.5	13.6	14.3	15.1	15.3	14.7	14.1	13.2	12.7	11.7	10.0	9.5	8.9	15.3
10-Oct	9.4	7.9	7.8	7.5	6.7	6.3	5.5	5.2	5.2	6.0	8.0	10.8	13.4	17.0	19.6	21.1	21.0	20.1	18.9	17.2	16.0	15.5	15.2	15.2	12.4	21.1
11-Oct	15.2	15.4	14.3	11.8	11.2	10.5	9.3	9.0	8.6	8.5	7.4	6.4	6.0	5.0	4.3	4.0	4.3	4.7	4.5	3.9	3.7	3.5	2.9	2.1	7.4	15.4
12-Oct	1.3	1.3	1.2	1.1	0.7	0.5	0.1	-0.5	-0.8	-0.2	-0.7	-1.0	-0.3	0.3	1.2	1.2	0.7	0.9	0.9	0.6	0.3	0.3	0.2	0.4	0.4	1.3
13-Oct	0.0	-0.4	-0.8	-1.2	-1.4	-1.8	-2.2	-1.8	-1.6	-0.1	1.3	1.8	2.4	2.9	3.1	3.1	2.9	2.4	1.9	1.3	0.7	0.0	-0.3	-0.3	0.5	3.1
14-Oct	-0.4	-0.5	-0.5	-0.5	-0.7	-0.7	-0.6	-0.1	0.5	1.7	3.0	4.6	6.6	7.3	7.6	8.6	9.0	8.8	8.5	7.2	6.3	5.8	5.3	5.0	3.8	9.0
15-Oct	4.7	4.3	3.2	2.5	2.5	2.2	2.2	2.4	2.8	3.2	5.1	7.2	9.2	10.6	12.0	13.2	13.4	12.6	11.4	11.1	10.2	9.9	9.4	9.1	7.3	13.4
16-Oct	9.0	8.5	7.3	6.5	5.6	4.7	4.2	4.0	4.0	3.9	4.4	6.5	9.1	11.2	13.2	14.6	15.1	14.5	13.8	13.3	12.9	12.1	10.6	9.9	9.1	15.1
17-Oct	9.6	9.8	9.3	8.9	8.3	7.9	7.1	6.5	6.0	5.6	5.8	7.1	8.3	9.6	10.3	10.7	10.5	10.2	9.6	9.1	7.9	7.0	6.4	5.9	8.2	10.7
18-Oct	5.1	3.9	3.7	3.5	3.4	3.1	2.5	2.3	2.4	3.6	5.6	7.8	9.4	10.3	11.1	11.7	11.8	11.5	11.4	10.9	10.3	9.0	7.9	6.7	7.0	11.8
19-Oct	5.4	5.0	3.4	3.5	2.9	2.7	2.7	3.1	3.4	4.0	4.4	4.5	5.2	5.4	4.5	4.0	4.0	3.9	3.3	3.4	3.0	2.1	1.7	1.5	3.6	5.4
20-Oct	1.5	1.4	1.5	1.6	1.5	1.4	1.3	1.3	1.1	1.2	1.4	1.7	2.1	2.8	3.2	3.8	3.9	3.9	3.9	3.9	3.6	3.1	3.0	3.3	2.4	3.9
21-Oct	3.4	3.6	4.2	3.7	3.8	3.6	4.0	3.9	3.8	4.0	5.1	6.6	6.4	6.3	6.6	7.0	6.8	5.2	3.9	3.2	3.1	3.3	3.1	2.9	4.5	7.0
22-Oct	2.8	2.6	2.5	2.1	1.4	1.0	0.7	0.5	0.6	1.6	3.0	4.6	6.6	8.5	10.1	10.9	10.2	9.1	8.2	7.2	7.3	6.6	6.8	7.4	5.1	10.9
23-Oct	7.2	7.1	6.9	6.7	6.4	5.6	5.1	5.1	5.2	5.6	7.0	8.7	10.4	11.5	12.2	12.1	11.0	10.0	9.6	8.7	8.3	7.9	7.3	6.9	8.0	12.2
24-Oct	6.8	6.5	6.4	6.2	6.1	5.7	5.5	5.0	4.7	4.6	5.4	7.2	9.5	10.0	10.4	9.9	9.8	9.5	8.9	7.8	6.9	6.8	6.0	6.1	7.1	10.4
25-Oct	5.6	5.1	5.3	4.7	4.4	5.0	5.0	4.7	4.3	4.4	4.6	5.8	6.2	6.4	6.9	7.3	7.9	7.5	7.3	6.9	6.2	5.7	5.2	4.8	5.7	7.9
26-Oct	4.3	4.2	2.9	2.4	3.2	2.4	2.9	1.8	2.7	2.8	3.0	3.8	3.8	4.4	4.8	5.1	5.8	5.6	5.2	4.3	3.5	2.9	2.8	2.8	3.6	5.8
27-Oct	2.7	2.6	2.8	2.5	2.4	1.9	1.3	1.2	0.9	0.7	0.4	0.4	0.6	1.1	1.2	1.4	0.5	0.0	-0.1	-0.3	-0.4	-0.3	-0.2	-0.2	1.0	2.8
28-Oct	-0.1	-0.2	-0.2	-0.6	-1.0	-1.1	-1.1	-1.1	-1.0	-0.8	-0.6	-0.5	-0.4	0.0	0.2	0.0	0.3	0.6	0.8	1.0	0.8	1.2	0.6	0.2	-0.1	1.2
29-Oct	0.1	0.0	-0.3	-0.4	-1.1	-1.1	-0.9	-0.8	-0.8	-0.3	0.0	-0.1	0.1	-0.1	-0.3	-0.4	-0.1	0.0	-0.1	0.0	-0.4	-0.4	-0.5	-0.5	-0.4	0.1
30-Oct	-0.4	-0.2	0.0	-0.4	-1.1	-1.0	-0.7	-0.8	-0.7	-0.6	-0.7	-0.7	-0.3	0.0	0.5	0.7	0.8	0.8	0.7	0.6	0.5	0.4	0.6	0.6	-0.1	0.8
31-Oct	0.6	0.6	0.5	0.4	0.2	0.1	-0.5	-0.8	-0.7	-0.2	0.5	1.0	1.8	1.9	2.0	1.9	1.8	DF	DF	DF	DF	DF	DF	DF	--	2.0
	4.9	4.7	4.4	4.0	3.7	3.4	3.1	2.9	3.0	3.5	4.3	5.3	6.3	7.1	7.6	7.9	7.8	7.7	7.3	6.7	6.2	5.7	5.3	5.1	Diurnal Average	
	15.2	15.4	14.3	11.8	11.2	10.5	9.8	9.8	9.7	11.3	13.6	14.7	15.3	17.0	19.6	21.1	21.0	20.1	18.9	17.2	16.1	15.5	15.2	15.2	Diurnal Maximum	

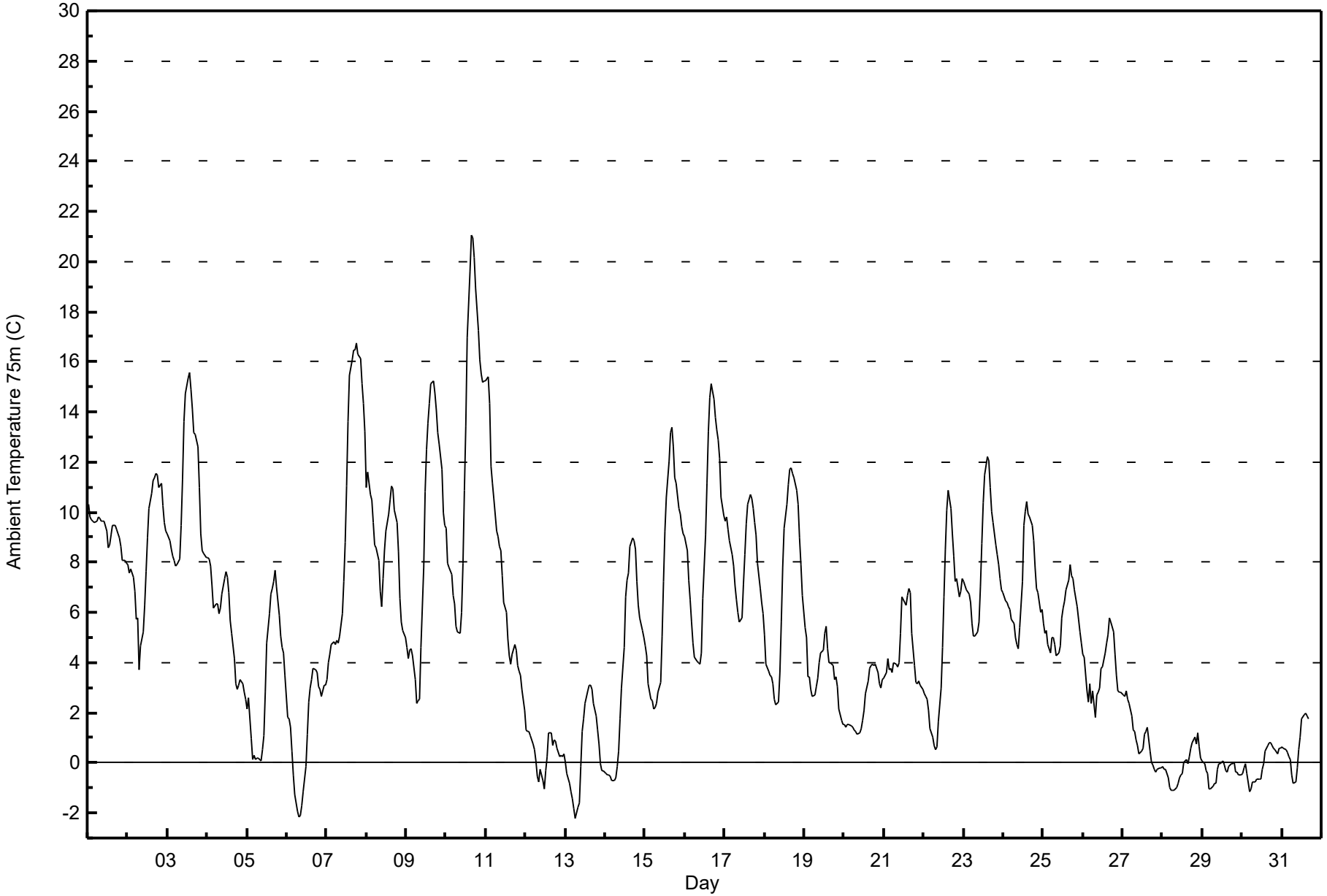
DF - DAS Failure

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 75m (AT75) - C

Mannix - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	93	12.62	12.62
0 - 10	532	72.18	84.80
10 - 20	109	14.79	99.59
> 20	3	0.41	100.00

Total Number of Valid Hours: 737

Total Number of Hours: 744

Maximum Value: 20.8 C on Oct 10 16:00 — Maximum Daily Average: 12.2 C on Oct 10

Minimum Value: -3.1 C on Oct 6 08:00 — Minimum Daily Average: -1.2 C on Oct 29

Maximum Diurnal Average: 7.3 C at hour 16 — Minimum Diurnal Average: 2.4 C at hour 8

Monthly Average: 4.74 C — Percentiles: P_1 = -2.3 P_{10} = -1.0 Q_1 = 0.7 Median = 4.3 Q_3 = 7.9 P_{90} = 10.8 P_{99} = 16.5

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	9.9	9.4	9.2	9.1	9.1	9.2	9.3	9.2	9.1	9.1	9.1	8.7	8.0	8.1	8.5	8.9	8.9	8.8	8.6	8.4	8.1	7.5	7.5	7.4	8.7	9.9
2-Oct	7.3	7.0	7.2	7.6	7.0	5.3	5.5	3.9	5.0	4.6	5.9	7.2	8.5	9.6	10.2	10.7	10.8	11.0	11.1	10.9	10.9	10.2	9.4	9.0	8.2	11.1
3-Oct	8.8	8.5	8.1	7.9	7.6	7.6	7.7	7.9	9.0	10.8	13.1	14.3	14.9	15.1	14.5	13.7	12.7	12.6	12.2	10.4	8.6	7.9	7.8	7.6	10.4	15.1
4-Oct	7.6	7.5	7.2	6.5	5.7	5.8	5.7	5.4	5.5	6.1	6.7	7.0	6.8	6.2	5.0	4.5	3.4	2.4	2.2	2.4	2.6	2.4	2.1	1.8	4.9	7.6
5-Oct	1.4	1.8	0.3	-0.4	0.0	-0.4	-0.5	-0.4	-0.2	-0.2	0.3	2.0	4.0	5.2	6.0	6.3	6.6	7.1	6.4	5.3	4.4	3.9	3.7	2.8	2.7	7.1
6-Oct	1.0	0.9	0.6	-0.4	-1.3	-2.1	-2.8	-3.1	-3.1	-2.7	-2.1	-1.0	0.2	1.5	2.2	2.7	3.1	3.0	3.0	2.4	2.3	2.1	2.6	2.6	0.5	3.1
7-Oct	2.8	3.5	3.8	4.3	4.5	4.3	4.3	4.3	4.6	5.3	6.6	8.2	10.5	13.1	15.0	15.8	16.2	16.2	16.6	16.3	16.0	14.9	14.2	13.2	9.8	16.6
8-Oct	10.7	11.5	10.4	10.1	9.1	8.2	8.0	7.5	6.2	5.6	6.7	7.8	8.7	9.3	9.9	10.5	10.4	9.5	9.0	7.8	5.9	4.9	4.6	4.3	8.2	11.5
9-Oct	3.9	3.5	3.8	3.8	3.6	2.7	1.8	1.8	1.8	3.9	7.2	10.3	12.0	13.0	13.9	14.6	14.8	14.3	13.7	12.7	12.4	11.4	9.7	9.1	8.3	14.8
10-Oct	9.1	7.9	7.7	7.6	6.4	6.1	6.0	5.3	5.2	5.5	7.5	10.3	12.9	16.5	19.3	20.8	20.7	20.0	18.8	17.0	15.8	15.3	15.0	15.1	12.2	20.8
11-Oct	14.9	15.3	14.4	11.5	10.8	10.2	8.9	8.5	8.1	7.9	6.8	5.7	5.3	4.2	3.5	3.2	3.6	4.0	3.8	3.2	2.9	2.7	2.2	1.3	6.8	15.3
12-Oct	0.5	0.5	0.4	0.2	-0.1	-0.3	-0.8	-1.4	-1.6	-1.1	-1.6	-1.9	-1.2	-0.6	0.3	0.3	-0.1	0.1	0.0	-0.2	-0.6	-0.5	-0.6	-0.5	-0.4	0.5
13-Oct	-0.8	-1.3	-1.7	-2.0	-2.2	-2.7	-2.9	-2.3	-2.3	-1.0	0.4	0.9	1.5	2.1	2.3	2.3	2.2	1.7	1.2	0.7	0.0	-0.7	-1.0	-1.0	-0.3	2.3
14-Oct	-1.1	-1.2	-1.2	-1.3	-1.4	-1.5	-1.4	-1.0	-0.4	0.9	2.2	3.9	5.9	6.6	6.9	8.0	8.4	8.3	8.0	6.7	5.9	5.5	4.9	4.6	3.2	8.4
15-Oct	4.4	4.1	2.9	2.2	1.9	1.6	1.7	2.0	2.3	2.6	4.4	6.7	8.6	10.0	11.5	12.6	12.9	12.2	11.0	11.0	10.4	9.8	9.9	9.4	6.9	12.9
16-Oct	9.2	8.4	7.0	6.1	5.2	4.3	3.6	3.6	3.7	4.1	3.9	5.9	8.5	10.7	12.9	14.3	14.8	14.2	13.4	13.0	12.5	11.7	10.1	9.4	8.8	14.8
17-Oct	9.2	9.3	8.8	8.3	7.7	7.2	6.4	6.0	5.3	5.0	5.2	6.4	7.7	9.0	9.7	10.1	10.0	9.7	9.1	8.7	7.5	6.4	6.0	5.5	7.7	10.1
18-Oct	4.6	3.5	3.2	3.2	3.2	2.7	2.0	1.6	1.7	2.8	4.9	7.2	8.7	9.7	10.6	11.1	11.2	11.1	10.9	10.5	10.0	8.7	7.7	7.1	6.6	11.2
19-Oct	5.8	4.6	3.2	3.0	2.5	2.4	2.3	2.6	2.9	3.4	3.7	3.9	4.5	4.8	4.1	3.4	3.5	3.4	2.8	2.9	2.4	1.4	1.0	0.8	3.1	5.8
20-Oct	0.7	0.7	0.8	0.8	0.7	0.7	0.5	0.5	0.3	0.4	0.5	0.8	1.2	2.0	2.5	3.0	3.2	3.2	3.2	3.3	3.0	2.5	2.3	2.6	1.6	3.3
21-Oct	2.8	3.2	3.7	3.2	3.2	3.1	3.4	3.3	3.1	3.3	4.4	5.9	5.7	5.6	6.0	6.4	6.1	4.5	3.1	2.5	2.4	2.5	2.4	2.2	3.8	6.4
22-Oct	2.1	2.0	1.8	1.4	0.6	0.3	0.0	-0.2	-0.1	0.9	2.2	4.0	5.9	7.9	9.6	10.4	9.6	8.6	7.7	6.6	6.7	6.0	6.3	6.8	4.5	10.4
23-Oct	6.6	6.5	6.3	6.2	5.9	4.9	4.4	4.5	4.7	5.0	6.4	8.1	9.8	10.9	11.8	11.6	10.5	9.6	9.1	8.2	7.8	7.5	7.0	6.6	7.5	11.8
24-Oct	6.5	6.0	5.9	5.7	5.7	5.2	5.2	4.6	4.4	4.0	4.7	6.6	8.9	9.5	10.0	9.4	9.2	8.9	8.3	7.2	6.3	6.3	5.4	5.6	6.6	10.0
25-Oct	5.1	4.6	4.7	4.1	3.8	4.5	4.3	4.1	3.7	3.7	4.0	5.2	5.5	5.8	6.3	6.6	7.3	6.9	6.8	6.4	5.9	5.3	4.7	4.3	5.2	7.3
26-Oct	3.8	3.8	2.9	2.3	2.6	2.1	2.8	1.6	2.4	2.3	2.4	3.2	3.6	3.8	4.1	4.4	5.1	4.9	4.6	3.6	2.8	2.1	2.0	2.0	3.1	5.1
27-Oct	2.0	1.9	2.1	1.8	1.7	1.2	0.6	0.6	0.3	-0.1	-0.4	-0.3	-0.2	0.3	0.4	0.6	-0.4	-0.8	-0.9	-1.1	-1.3	-1.1	-1.1	-1.0	0.2	2.1
28-Oct	-1.0	-1.1	-1.0	-1.4	-1.8	-1.9	-1.9	-1.9	-1.8	-1.6	-1.3	-1.3	-1.3	-0.8	-0.7	-0.8	-0.5	-0.2	0.0	0.2	0.0	0.5	0.0	-0.5	-0.9	0.5
29-Oct	-0.7	-0.8	-1.1	-1.3	-1.9	-2.0	-1.8	-1.7	-1.7	-1.1	-0.8	-0.8	-0.7	-0.9	-1.1	-1.2	-1.0	-0.8	-0.9	-0.8	-1.2	-1.2	-1.3	-1.3	-1.2	-0.7
30-Oct	-1.3	-1.1	-0.9	-1.3	-2.0	-1.8	-1.6	-1.6	-1.6	-1.5	-1.5	-1.5	-1.2	-0.9	-0.3	-0.1	0.0	0.0	-0.1	-0.2	-0.3	-0.4	-0.2	-0.3	-0.9	0.0
31-Oct	-0.2	-0.2	-0.3	-0.4	-0.6	-0.7	-1.2	-1.5	-1.5	-1.1	-0.3	0.3	1.0	1.1	1.2	1.1	1.0	DF	DF	DF	DF	DF	DF	DF	--	1.2
	4.4	4.2	3.9	3.5	3.1	2.8	2.6	2.4	2.4	2.8	3.6	4.6	5.6	6.4	7.0	7.3	7.2	7.1	6.8	6.2	5.7	5.2	4.8	4.6	Diurnal Average	
	14.9	15.3	14.4	11.5	10.8	10.2	9.3	9.2	9.1	10.8	13.1	14.3	14.9	16.5	19.3	20.8	20.7	20.0	18.8	17.0	16.0	15.3	15.0	15.1	Diurnal Maximum	

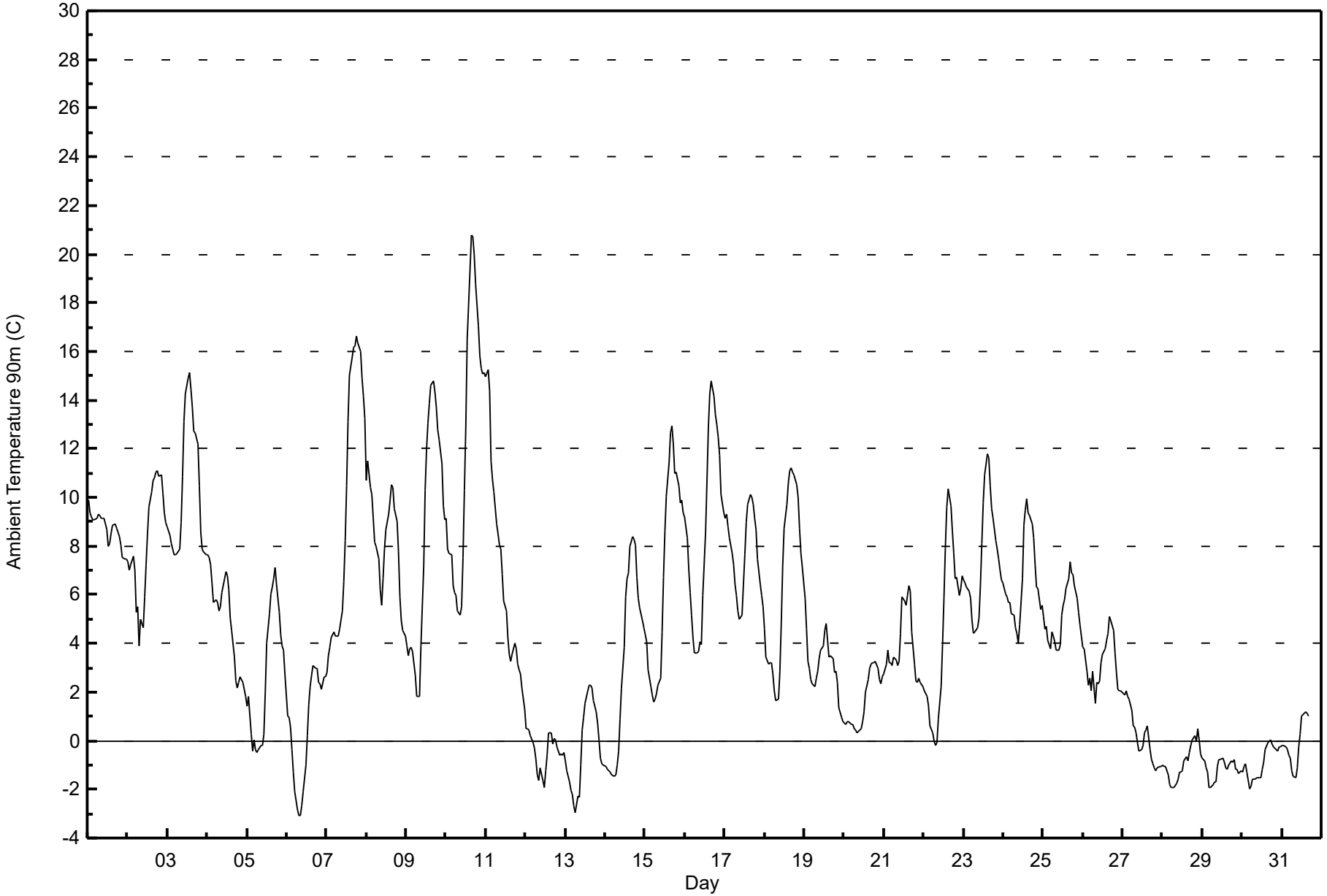
DF - DAS Failure

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 90m (AT90) - C

Mannix - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	146	19.81	19.81
0 - 10	493	66.89	86.70
10 - 20	96	13.03	99.73
> 20	2	0.27	100.00

Total Number of Valid Hours: 737

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity (RH) - %

Mannix - October 2025

Maximum Value: 100 % on Oct 2 07:00

Maximum Daily Average: 96.9 % on Oct 28

Minimum Value: 30 % on Oct 10 16:00

Minimum Daily Average: 56.9 % on Oct 14

Maximum Diurnal Average: 88.0 % at hour 8

Minimum Diurnal Average: 65.4 % at hour 15

Monthly Average: 78.7 %

Percentiles: P_1 = 38 P_{10} = 53 Q_1 = 67 Median = 82 Q_3 = 94 P_{90} = 98 P_{99} = 100

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	98	99	99	99	99	100	100	100	100	100	100	98	93	91	83	81	82	85	86	91	94	93	97	98	94.3	100
2-Oct	99	100	100	100	100	100	100	100	100	100	100	94	84	77	72	73	79	86	93	94	97	97	99	99	93.4	100
3-Oct	99	97	98	99	99	99	99	97	90	76	63	54	51	49	50	55	63	63	64	77	89	90	89	88	79.0	99
4-Oct	85	85	84	87	92	90	84	83	80	76	69	64	68	86	89	94	96	98	98	97	95	94	93	92	86.7	98
5-Oct	91	89	95	97	98	98	98	98	97	95	88	78	69	65	65	71	78	72	65	64	69	73	78	79	82.2	98
6-Oct	82	81	75	64	68	74	80	78	72	66	63	58	54	48	47	48	51	59	65	60	60	55	57	56	63.3	82
7-Oct	58	59	61	65	68	69	70	73	70	68	67	64	59	55	54	57	59	62	66	72	75	70	76	84	65.8	84
8-Oct	86	93	95	95	89	92	91	89	84	78	67	60	56	54	50	49	48	52	54	56	64	67	70	73	71.3	95
9-Oct	77	81	78	80	86	92	95	94	82	71	59	47	42	38	37	38	41	49	59	64	68	73	77	81	67.0	95
10-Oct	81	84	85	84	85	90	92	86	74	66	59	48	44	41	37	30	32	38	43	48	58	61	62	63	62.2	92
11-Oct	67	67	67	74	74	74	69	62	64	65	83	95	96	96	93	90	87	83	80	83	82	78	77	78	78.5	96
12-Oct	84	85	80	74	73	73	72	82	84	78	81	90	81	72	65	71	78	76	71	70	73	72	70	72	76.0	90
13-Oct	77	75	74	75	83	85	84	87	74	63	53	49	46	46	46	48	53	58	63	67	67	69	72	75	66.2	87
14-Oct	73	69	70	69	69	69	65	64	60	54	47	43	37	37	37	38	41	49	56	59	61	65	67	69	56.9	73
15-Oct	69	68	69	71	71	70	70	70	63	59	53	51	43	42	39	38	43	52	63	64	65	66	70	71	60.0	71
16-Oct	73	78	81	83	83	84	87	87	80	71	65	58	53	48	43	42	41	42	46	50	51	67	81	83	65.8	87
17-Oct	87	84	77	73	71	68	71	90	92	95	96	84	70	56	49	48	51	53	56	62	68	71	72	78	71.7	96
18-Oct	80	84	88	86	83	87	89	88	78	67	57	50	46	44	41	40	44	53	55	56	69	71	74	80	67.1	89
19-Oct	81	85	88	88	84	82	82	88	87	81	73	77	74	70	75	78	81	86	94	95	94	98	98	99	84.9	99
20-Oct	99	100	100	100	99	99	99	99	99	98	96	93	92	90	91	89	89	90	93	96	96	92	89	87	94.7	100
21-Oct	90	95	95	94	94	94	96	98	94	89	82	74	72	72	68	70	72	81	88	91	92	94	96	97	86.9	98
22-Oct	98	95	89	93	92	92	93	95	92	85	75	69	61	59	55	54	61	65	68	73	74	76	74	70	77.4	98
23-Oct	69	68	67	68	70	71	72	74	72	70	59	52	48	47	49	50	54	60	60	63	65	68	71	71	63.3	74
24-Oct	71	71	70	71	71	73	75	77	76	73	68	61	49	51	53	57	60	62	66	70	74	77	78	80	68.1	80
25-Oct	80	81	82	88	87	86	84	89	89	88	95	98	98	97	98	93	88	93	97	97	97	97	98	99	91.6	99
26-Oct	98	97	98	99	98	99	99	99	99	99	97	94	92	90	89	90	88	89	92	94	97	97	97	97	95.4	99
27-Oct	97	96	97	98	98	98	99	99	98	98	98	98	97	92	90	87	94	98	98	98	99	99	99	100	96.8	100
28-Oct	100	100	99	98	99	100	100	100	99	99	97	95	94	89	89	92	95	97	97	96	97	97	98	98	96.9	100
29-Oct	98	95	90	89	89	89	88	88	87	85	87	90	89	94	97	98	98	98	98	98	99	99	99	100	93.5	100
30-Oct	100	100	100	100	99	99	99	99	99	99	94	90	87	89	91	90	91	93	93	92	94	95	94	93	94.9	100
31-Oct	91	90	91	92	94	94	96	98	96	90	84	84	83	84	85	87	87	DF	DF	DF	DF	DF	DF	DF	--	98
	85.1	85.5	85.2	85.5	86.0	86.7	87.0	88.0	84.8	80.7	76.6	72.9	68.7	66.7	65.4	66.0	68.5	71.3	74.2	76.5	79.3	80.7	82.5	83.6	Diurnal Average	
	100	100	100	100	100	100	100	100	100	100	100	98	98	97	98	98	98	98	98	98	99	99	99	100	Diurnal Maximum	

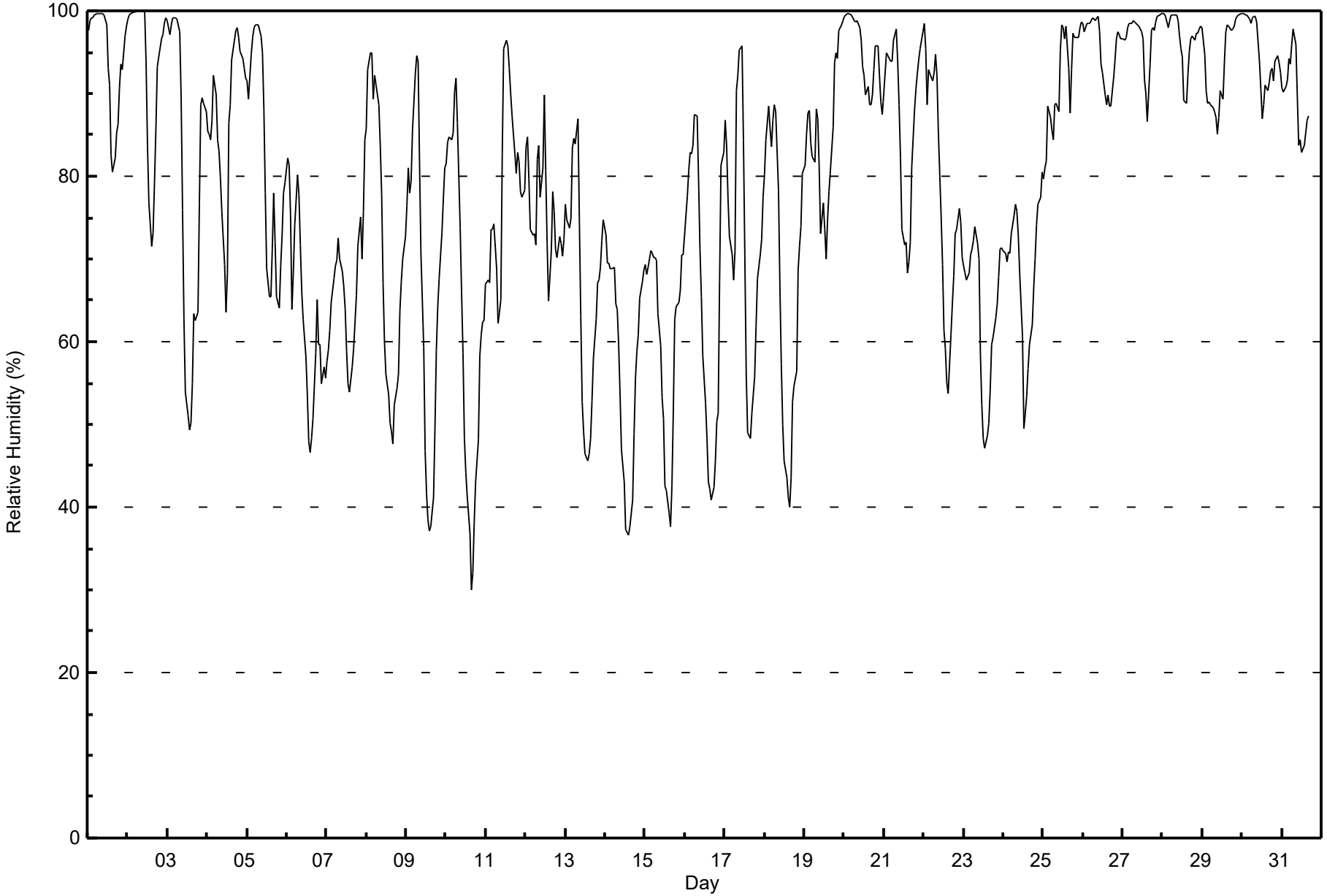
DF - DAS Failure

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity (RH) - %

Mannix - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	14	1.90	1.90
40 - 60	110	14.93	16.83
60 - 80	221	29.99	46.81
80 - 100	388	52.65	99.46

Total Number of Valid Hours: 737

Total Number of Hours: 744

Maximum Value: 99 % on Oct 28 02:00

Maximum Daily Average: 93.8 % on Oct 28

Minimum Value: 28 % on Oct 10 17:00

Minimum Daily Average: 50.0 % on Oct 14

Maximum Diurnal Average: 82.5 % at hour 8

Minimum Diurnal Average: 62.5 % at hour 16

Monthly Average: 72.9 %

Percentiles: P_1 = 36 P_{10} = 48 Q_1 = 60 Median = 75 Q_3 = 87 P_{90} = 94 P_{99} = 98

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	90	94	95	95	95	96	95	95	95	95	93	90	81	79	75	74	75	79	81	83	85	88	88	94	87.9	96
2-Oct	95	96	96	96	96	96	98	98	98	99	97	88	81	74	69	71	75	77	80	82	86	87	88	90	88.1	99
3-Oct	90	90	92	92	91	91	92	91	81	71	56	49	47	44	45	49	55	54	56	70	81	84	83	81	72.4	92
4-Oct	80	80	80	82	86	84	80	80	79	75	69	65	67	76	84	86	88	90	90	85	80	83	83	84	80.7	90
5-Oct	86	78	87	90	91	90	91	91	91	88	84	77	68	64	63	64	68	61	57	58	64	69	73	75	76.2	91
6-Oct	80	76	70	56	59	64	73	74	70	67	64	59	53	45	43	44	43	46	47	50	50	49	52	51	57.7	80
7-Oct	54	55	57	60	62	64	66	67	68	68	66	64	59	55	53	52	53	55	57	60	58	63	66	77	60.8	77
8-Oct	80	81	85	86	83	89	88	85	81	75	67	60	56	53	50	48	45	49	50	53	60	64	67	70	67.7	89
9-Oct	73	76	74	75	79	81	86	86	78	70	59	48	41	37	36	35	37	40	45	47	50	56	63	64	59.8	86
10-Oct	64	67	66	65	69	75	78	78	70	65	59	50	44	39	34	28	28	30	32	38	44	48	49	49	52.9	78
11-Oct	50	50	55	58	59	63	64	59	60	63	80	90	89	89	86	84	82	77	74	77	76	73	72	74	71.0	90
12-Oct	80	78	71	67	67	68	67	79	82	75	80	87	79	71	63	70	75	71	66	65	67	66	64	67	72.0	87
13-Oct	73	70	70	71	76	75	76	78	70	60	53	49	47	46	45	46	49	52	55	58	59	62	64	65	61.2	78
14-Oct	64	62	62	62	63	63	60	59	57	53	48	44	38	36	36	36	37	39	41	43	46	49	51	52	50.0	64
15-Oct	55	57	58	62	63	64	64	65	60	57	52	49	42	41	39	36	36	41	47	48	50	51	53	52	51.7	65
16-Oct	51	51	54	58	63	71	74	76	76	70	66	59	52	48	41	39	36	38	41	44	46	60	75	79	56.9	79
17-Oct	81	73	69	65	64	62	68	82	87	90	90	81	68	54	48	46	47	48	50	52	54	58	61	64	65.1	90
18-Oct	65	71	72	72	73	73	73	72	71	64	57	51	46	43	40	38	38	38	38	40	50	52	55	67	56.7	73
19-Oct	65	71	74	73	75	74	74	82	75	72	69	74	72	70	75	78	79	82	89	89	90	95	96	97	78.9	97
20-Oct	98	98	98	98	96	96	95	96	97	96	93	90	90	88	90	86	86	86	88	89	88	87	85	83	91.6	98
21-Oct	85	89	87	86	87	88	85	84	83	84	81	71	69	70	67	66	67	79	86	87	86	82	83	91	80.8	91
22-Oct	90	84	81	84	84	86	87	90	89	84	77	70	62	58	52	50	56	59	63	69	68	71	70	66	72.9	90
23-Oct	65	64	63	63	65	67	69	70	70	68	60	54	49	47	46	47	51	55	56	58	60	62	65	66	60.0	70
24-Oct	66	66	65	66	66	68	70	71	72	72	69	62	50	51	51	54	55	57	61	66	70	72	73	75	64.5	75
25-Oct	75	78	79	83	84	82	81	86	86	86	92	96	94	92	92	85	79	83	79	74	76	80	83	80	83.5	96
26-Oct	80	84	88	90	90	90	92	92	92	93	88	86	90	88	87	88	85	86	87	90	92	93	93	92	89.0	93
27-Oct	92	92	93	93	93	94	94	93	93	93	93	91	90	84	83	80	90	94	94	94	96	97	98	98	92.3	98
28-Oct	99	99	99	97	97	98	98	98	98	98	98	98	98	95	88	91	92	90	88	85	87	84	87	90	93.8	99
29-Oct	90	89	85	85	86	85	86	86	85	83	87	89	89	94	97	98	97	97	97	96	97	97	97	98	91.2	98
30-Oct	97	96	95	96	97	97	98	98	97	93	88	87	85	87	87	83	83	84	85	85	87	86	83	83	89.7	98
31-Oct	83	84	86	88	92	90	93	95	92	88	85	84	83	83	84	84	85	DF	DF	DF	DF	DF	DF	DF	--	95
	77.2	77.3	77.6	77.9	79.0	80.0	81.1	82.5	80.8	77.9	74.8	71.3	67.1	64.5	62.9	62.5	63.6	64.6	66.0	67.8	70.2	72.3	74.0	75.7	Diurnal Average	
	99	99	99	98	97	98	98	98	98	99	98	98	98	95	97	98	97	97	97	96	97	97	98	98	Diurnal Maximum	

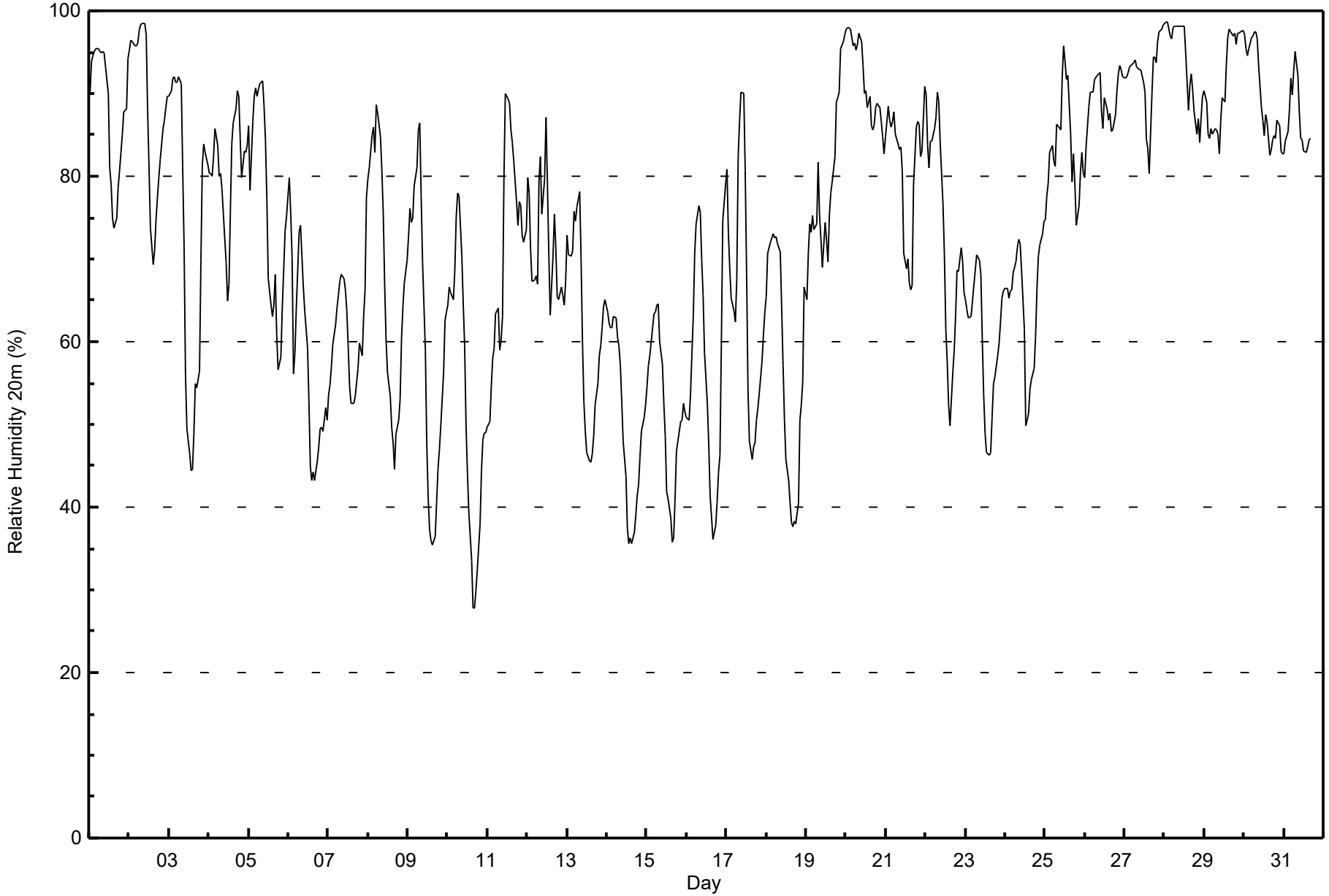
DF - DAS Failure

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 20m (RH20) - %

Mannix - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	27	3.66	3.66
40 - 60	157	21.30	24.97
60 - 80	240	32.56	57.53
80 - 100	313	42.47	100.00

Total Number of Valid Hours: 737

Total Number of Hours: 744

Maximum Value: 98 % on Oct 20 04:00

Maximum Daily Average: 93.5 % on Oct 28

Minimum Value: 27 % on Oct 10 17:00

Minimum Daily Average: 48.3 % on Oct 14

Maximum Diurnal Average: 80.9 % at hour 8

Minimum Diurnal Average: 62.5 % at hour 16

Monthly Average: 71.9 %

Percentiles: P_1 = 36 P_{10} = 46 Q_1 = 59 Median = 73 Q_3 = 86 P_{90} = 94 P_{99} = 98

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	89	93	94	95	95	96	95	95	95	95	93	90	81	78	75	74	75	79	81	83	85	88	87	88	87.4	96
2-Oct	91	93	92	92	94	95	96	98	98	98	97	91	82	73	70	72	75	77	78	80	82	84	86	87	86.8	98
3-Oct	87	88	90	91	89	90	90	88	80	72	56	50	46	44	44	49	54	54	56	69	81	84	82	81	71.5	91
4-Oct	80	80	80	82	85	83	80	80	79	76	70	66	67	75	83	85	87	90	89	83	79	82	81	83	80.3	90
5-Oct	86	75	85	88	88	88	89	90	91	89	85	78	68	65	63	64	65	57	54	57	63	68	73	75	75.2	91
6-Oct	80	76	70	56	58	64	74	75	71	68	65	60	53	45	44	44	43	43	44	49	48	48	49	49	57.2	80
7-Oct	51	52	55	58	61	63	64	66	68	68	67	64	60	55	53	52	53	54	55	56	53	60	64	72	59.3	72
8-Oct	78	78	82	83	82	88	88	85	81	76	67	61	57	54	50	48	44	48	50	53	60	64	67	70	67.3	88
9-Oct	73	76	75	75	77	79	83	82	79	71	60	48	41	37	36	35	36	39	42	44	45	49	56	58	58.3	83
10-Oct	60	63	60	59	61	69	74	75	70	66	60	50	44	40	33	27	27	28	31	36	42	45	47	47	50.5	75
11-Oct	46	46	51	56	58	62	63	59	60	63	80	90	89	88	85	84	82	76	73	77	76	73	72	74	70.1	90
12-Oct	80	78	71	67	68	68	67	80	83	76	80	87	79	71	64	71	76	71	65	65	66	65	64	67	72.1	87
13-Oct	73	70	70	70	72	72	74	74	69	61	53	49	47	46	46	47	48	51	53	55	56	60	62	62	60.1	74
14-Oct	61	59	58	58	60	60	60	59	58	53	48	44	38	35	37	36	37	37	37	40	43	45	47	48	48.3	61
15-Oct	50	52	57	59	60	61	62	62	58	57	52	48	42	41	39	36	36	39	43	44	47	46	47	47	49.3	62
16-Oct	47	47	49	51	56	60	59	64	73	70	66	59	52	47	40	37	35	37	39	42	45	59	74	79	53.7	79
17-Oct	80	72	68	65	63	62	68	80	87	90	90	81	68	54	48	46	46	46	49	49	52	56	58	60	64.0	90
18-Oct	62	67	68	69	70	68	69	69	70	65	57	51	46	43	41	38	37	37	36	36	41	45	50	61	54.0	70
19-Oct	61	65	70	67	70	71	72	74	72	70	68	71	69	69	76	79	80	82	89	88	90	96	97	98	76.8	98
20-Oct	98	98	98	98	98	97	97	97	98	98	95	91	91	89	91	87	86	86	88	88	87	86	84	82	92.0	98
21-Oct	84	87	85	85	84	84	81	82	83	84	81	71	69	70	68	66	66	80	87	87	86	81	81	85	79.8	87
22-Oct	85	81	80	84	83	85	87	90	90	86	78	71	62	58	52	50	56	59	63	69	68	72	70	66	72.6	90
23-Oct	65	64	63	63	64	67	69	70	70	68	61	54	49	47	46	46	51	54	55	58	60	62	64	65	59.8	70
24-Oct	66	66	65	66	66	67	69	71	72	72	69	62	50	50	51	54	55	56	60	66	70	71	73	73	64.2	73
25-Oct	74	77	79	82	84	81	81	84	86	86	92	96	94	92	92	85	79	81	74	69	72	71	73	73	81.4	96
26-Oct	76	79	85	87	84	88	89	88	88	87	84	83	90	88	87	88	86	86	87	90	92	94	93	92	87.1	94
27-Oct	91	92	92	93	93	94	95	94	95	94	93	92	90	85	83	80	90	94	94	94	96	96	97	97	92.3	97
28-Oct	97	97	96	94	96	98	98	98	98	98	98	98	98	96	93	94	95	92	89	83	84	79	85	89	93.5	98
29-Oct	90	88	85	85	86	86	86	86	86	83	86	89	89	94	97	98	98	98	97	96	98	98	98	98	91.4	98
30-Oct	98	98	95	96	97	98	98	98	98	95	89	87	85	88	87	82	82	84	84	83	85	84	81	81	89.8	98
31-Oct	82	84	85	88	92	90	93	95	93	89	85	85	84	83	84	85	85	DF	DF	DF	DF	DF	DF	DF	--	95
	75.5	75.5	76.0	76.2	77.3	78.5	79.6	80.9	80.6	78.1	75.1	71.4	67.2	64.6	63.1	62.5	63.3	63.8	64.7	66.3	68.5	70.3	72.1	73.6	Diurnal Average	
	98	98	98	98	98	98	98	98	98	98	98	98	98	96	97	98	98	98	97	96	98	98	98	98	Diurnal Maximum	

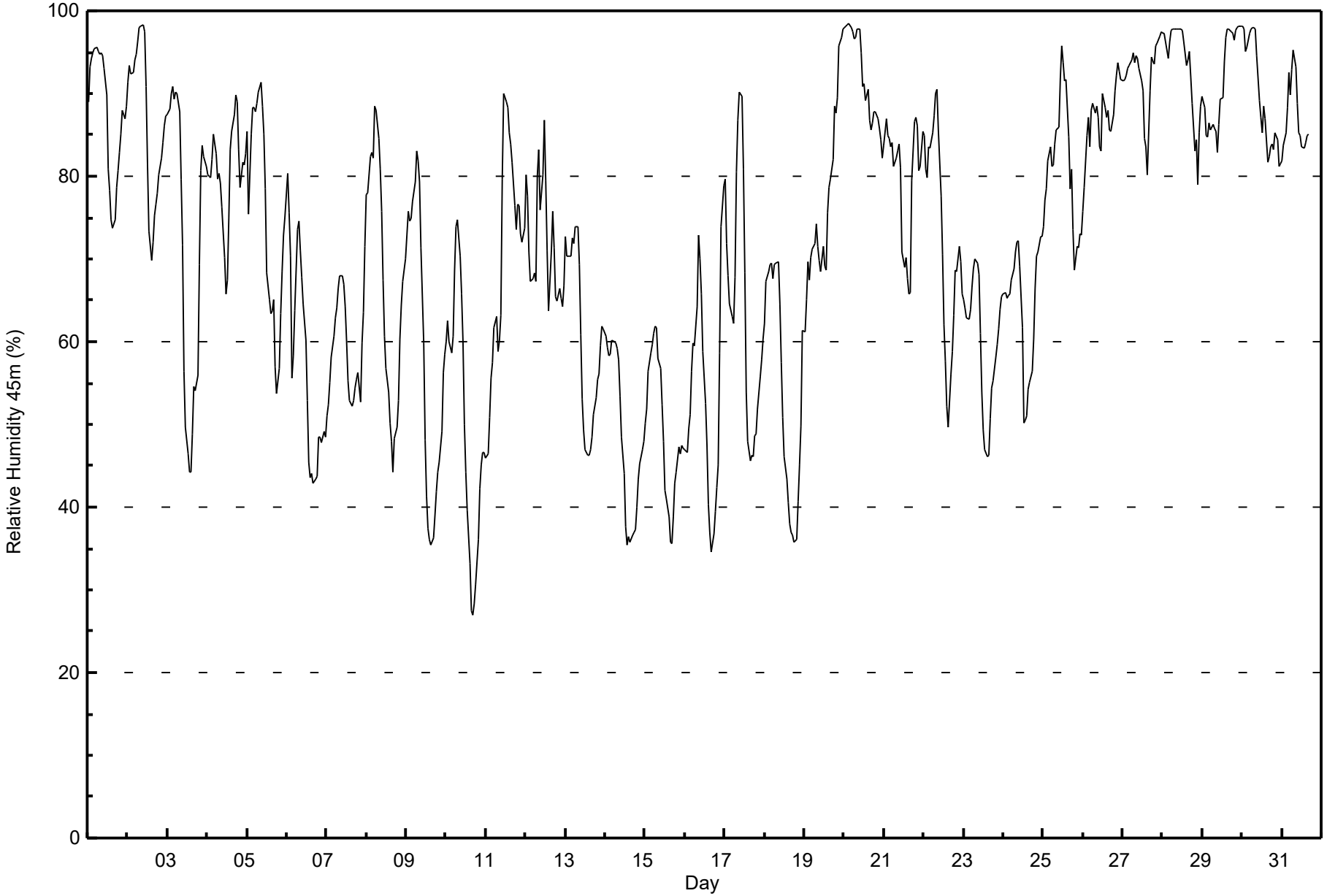
DF - DAS Failure

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 45m (RH45) - %

Mannix - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	32	4.34	4.34
40 - 60	168	22.80	27.14
60 - 80	233	31.61	58.75
80 - 100	304	41.25	100.00

Total Number of Valid Hours: 737

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 75m (RH75) - %

Mannix - October 2025

Maximum Value: 99 % on Oct 20 04:00

Maximum Daily Average: 93.8 % on Oct 27

Minimum Value: 27 % on Oct 10 17:00

Minimum Daily Average: 48.0 % on Oct 15

Maximum Diurnal Average: 80.0 % at hour 8

Minimum Diurnal Average: 63.3 % at hour 16

Monthly Average: 71.9 %

Percentiles: $P_1 = 36$ $P_{10} = 45$ $Q_1 = 58$ Median = 73 $Q_3 = 87$ $P_{90} = 95$ $P_{99} = 99$

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	90	94	96	96	97	97	97	96	96	96	95	91	82	79	76	75	76	80	83	85	87	90	88	89	88.7	97
2-Oct	89	93	91	90	90	95	96	98	99	99	98	90	81	74	72	74	77	78	78	79	79	82	85	86	86.4	99
3-Oct	87	88	89	89	89	88	87	83	78	71	58	51	48	45	45	50	55	55	57	71	82	85	84	82	71.5	89
4-Oct	82	81	81	83	85	83	81	81	81	78	72	68	69	76	83	86	89	91	90	84	79	82	81	83	81.2	91
5-Oct	85	75	85	87	86	87	88	88	89	89	87	81	70	67	65	65	64	55	53	57	64	70	74	76	75.2	89
6-Oct	82	77	72	56	59	64	75	76	73	70	66	62	54	46	45	45	43	43	42	48	49	47	45	46	57.8	82
7-Oct	48	50	54	57	60	62	64	66	69	70	69	66	62	57	54	53	54	55	55	54	52	58	62	68	59.0	70
8-Oct	77	75	81	81	83	89	90	86	83	77	69	62	58	55	51	49	45	49	50	54	62	66	69	72	68.1	90
9-Oct	74	77	76	76	77	79	81	79	80	74	62	50	43	39	37	36	37	39	42	45	45	47	53	55	58.5	81
10-Oct	53	57	54	54	58	61	66	67	67	66	61	51	45	40	34	28	27	28	31	36	42	44	45	45	48.4	67
11-Oct	45	44	48	56	58	61	62	60	61	65	81	91	90	89	87	85	83	78	75	78	78	75	74	75	70.8	91
12-Oct	82	79	72	69	69	70	69	82	85	78	82	87	81	73	66	72	77	73	66	66	67	66	65	68	73.4	87
13-Oct	74	72	71	71	72	72	72	67	67	62	54	51	48	48	47	48	49	51	53	54	55	59	60	58	59.8	74
14-Oct	58	58	58	58	59	59	61	60	59	55	50	45	39	36	38	37	37	37	36	40	42	44	45	45	48.1	61
15-Oct	47	48	54	57	58	59	59	58	56	57	53	48	43	42	40	37	36	39	43	42	45	44	44	44	48.0	59
16-Oct	43	44	47	50	55	58	59	58	58	61	65	60	53	48	40	36	34	37	40	42	45	60	75	80	52.0	80
17-Oct	80	72	69	65	64	63	69	80	88	91	91	83	70	55	49	47	47	46	48	48	52	56	57	59	64.5	91
18-Oct	62	66	67	68	67	67	69	70	69	66	59	52	47	45	42	39	38	37	36	36	36	41	46	51	53.1	70
19-Oct	56	60	67	65	69	70	71	71	70	69	69	71	68	68	75	80	81	82	88	86	90	97	98	99	75.9	99
20-Oct	99	99	99	99	99	99	99	99	99	99	99	97	95	92	93	89	87	88	89	87	86	86	85	83	93.7	99
21-Oct	83	85	81	82	81	82	81	83	84	86	83	73	71	72	69	66	67	81	89	89	87	81	82	84	80.1	89
22-Oct	82	80	80	84	84	85	88	90	91	87	80	72	63	59	54	51	57	59	64	70	70	73	70	67	73.4	91
23-Oct	66	65	64	63	64	67	70	70	69	69	62	55	51	48	47	47	52	55	55	59	60	61	62	64	60.2	70
24-Oct	65	66	65	66	65	67	67	70	71	73	70	63	51	51	51	55	56	57	61	67	71	71	73	72	64.4	73
25-Oct	74	78	79	82	84	82	83	84	86	87	93	97	95	93	93	86	79	81	73	69	69	68	70	71	81.4	97
26-Oct	73	74	81	83	79	84	79	83	79	79	80	79	86	88	88	90	87	87	89	92	94	96	94	93	84.9	96
27-Oct	93	94	94	95	96	97	97	96	97	95	95	93	92	86	85	81	92	96	95	95	96	96	97	97	93.8	97
28-Oct	96	95	94	92	95	97	96	97	96	95	94	93	91	85	84	89	87	85	82	79	82	76	84	88	89.7	97
29-Oct	90	88	85	86	88	87	88	87	87	84	86	89	90	95	98	98	98	97	97	96	99	99	99	99	92.0	99
30-Oct	99	98	95	97	99	99	99	99	99	96	92	89	87	90	88	82	83	84	85	84	86	84	82	82	90.7	99
31-Oct	83	85	87	90	94	91	94	96	94	90	87	87	86	85	86	87	87	DF	DF	DF	DF	DF	DF	DF	--	96
	74.8	74.7	75.3	75.7	76.8	78.2	79.2	80.0	80.0	78.5	76.2	72.5	68.1	65.4	63.9	63.3	63.9	64.0	64.8	66.3	68.4	70.1	71.6	72.8	Diurnal Average	
	99	99	99	99	99	99	99	99	99	99	99	97	95	95	98	98	98	97	97	96	99	99	99	99	Diurnal Maximum	

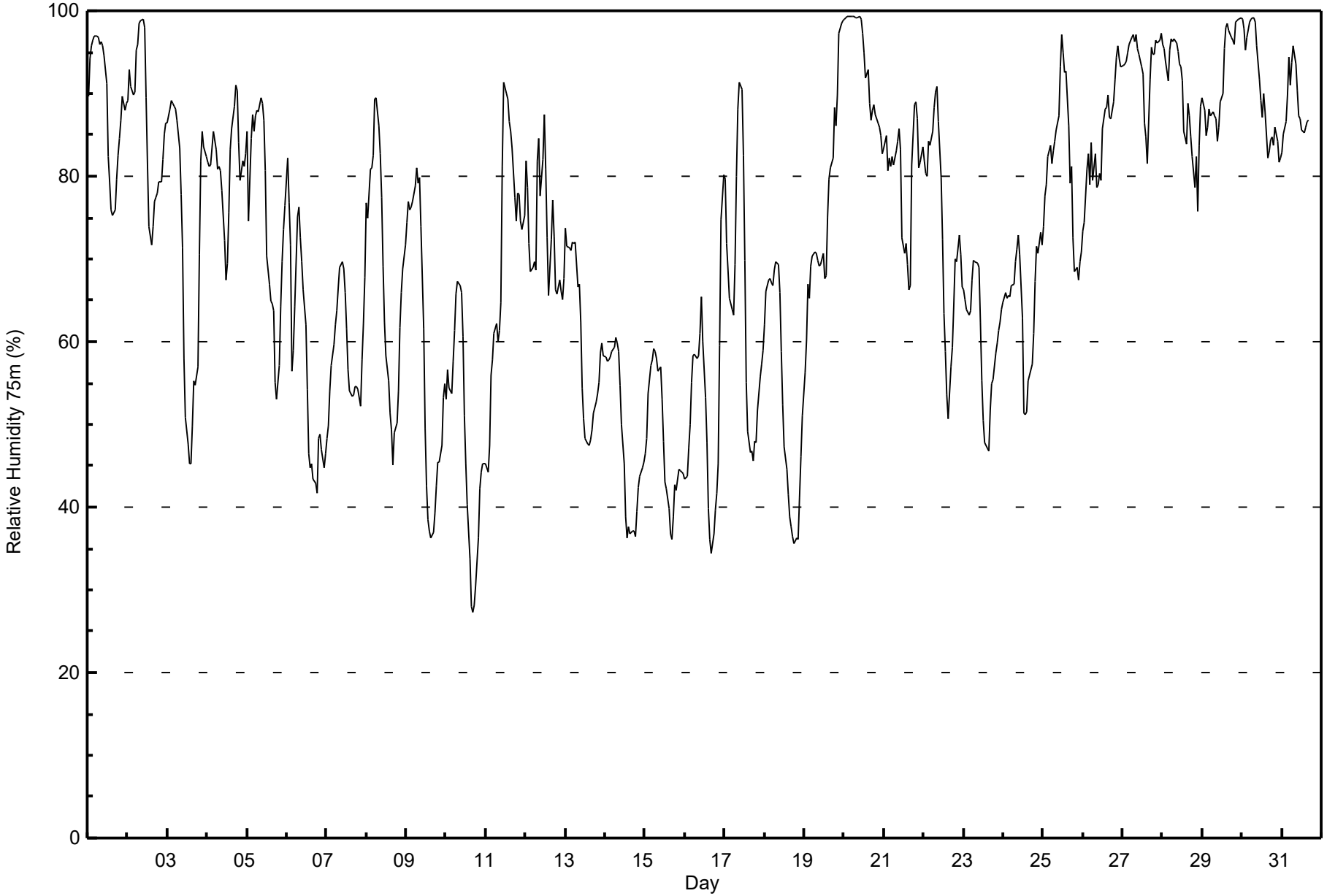
DF - DAS Failure

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 75m (RH75) - %

Mannix - October 2025



Relative Humidity 75m (RH75) - %

Mannix - October 2025

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	34	4.61	4.61
40 - 60	178	24.15	28.77
60 - 80	219	29.72	58.48
80 - 100	306	41.52	100.00

Total Number of Valid Hours: 737

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 90m (RH90) - %

Mannix - October 2025

Maximum Value: 100 % on Oct 20 05:00

Maximum Daily Average: 94.3 % on Oct 20

Minimum Value: 27 % on Oct 10 17:00

Minimum Daily Average: 47.0 % on Oct 15

Maximum Diurnal Average: 79.6 % at hour 8

Minimum Diurnal Average: 63.5 % at hour 16

Monthly Average: 71.7 %

Percentiles: P_1 = 35 P_{10} = 45 Q_1 = 57 Median = 73 Q_3 = 86 P_{90} = 95 P_{99} = 100

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	90	94	96	97	97	97	97	96	96	96	95	91	83	79	76	75	76	79	83	85	87	90	88	89	88.9	97
2-Oct	90	93	91	87	87	95	96	98	97	99	95	87	81	73	72	74	77	78	78	78	78	80	84	85	85.6	99
3-Oct	86	88	89	88	88	87	86	82	77	71	58	51	48	45	45	50	55	55	57	71	82	86	84	83	71.2	89
4-Oct	82	81	81	83	85	83	81	81	81	79	73	68	70	75	83	85	89	91	91	84	79	82	81	82	81.3	91
5-Oct	85	74	84	86	82	86	88	86	86	88	87	82	71	67	65	65	63	54	52	57	64	70	73	77	74.7	88
6-Oct	83	77	72	56	59	64	76	77	73	71	67	63	55	47	45	45	43	43	41	47	48	46	43	45	57.7	83
7-Oct	47	49	54	57	59	62	64	66	69	70	69	66	62	57	54	53	53	54	54	52	51	57	61	66	58.6	70
8-Oct	76	73	79	80	82	89	90	86	83	78	70	63	59	56	52	49	45	49	50	54	62	66	69	72	68.0	90
9-Oct	75	77	76	76	77	79	80	79	80	74	62	50	43	39	37	36	37	39	42	45	45	47	52	54	58.4	80
10-Oct	52	55	53	51	56	60	62	64	64	65	60	51	46	41	34	28	27	28	30	36	42	44	45	44	47.3	65
11-Oct	45	44	46	56	57	60	61	60	61	65	82	92	90	90	87	86	84	78	75	78	78	75	74	76	70.8	92
12-Oct	82	79	72	69	69	70	69	83	85	78	83	87	81	73	66	73	77	73	66	66	68	66	65	68	73.7	87
13-Oct	74	72	72	71	72	72	70	64	65	63	55	51	48	48	48	48	49	51	52	52	54	58	59	57	59.4	74
14-Oct	57	57	57	58	58	59	60	60	59	55	50	45	39	36	38	37	37	37	36	39	41	43	44	44	47.8	60
15-Oct	45	47	52	55	57	58	58	56	55	57	53	47	43	42	40	37	36	39	42	41	42	43	40	41	47.0	58
16-Oct	40	42	46	49	54	57	58	57	56	55	64	60	53	47	39	35	34	37	39	41	45	59	74	80	51.0	80
17-Oct	79	72	68	65	64	63	70	80	89	92	91	83	70	55	49	47	47	45	47	47	51	55	56	58	64.3	92
18-Oct	61	65	67	66	65	66	68	70	69	66	59	52	47	45	42	39	37	36	35	36	35	40	45	47	52.4	70
19-Oct	52	58	65	65	68	70	70	70	69	69	69	70	67	68	73	79	80	81	87	85	90	98	99	100	75.0	100
20-Oct	100	100	100	100	100	100	100	100	100	100	100	100	98	93	94	90	87	88	89	87	86	86	85	83	94.3	100
21-Oct	83	83	78	81	81	82	81	83	85	86	84	73	71	72	70	66	67	82	89	90	87	81	82	83	80.0	90
22-Oct	82	80	80	84	84	86	89	91	91	87	80	73	64	59	53	51	57	59	64	70	70	73	70	67	73.5	91
23-Oct	66	65	64	63	63	67	70	69	69	69	63	55	51	48	47	47	52	55	55	58	59	61	61	62	60.0	70
24-Oct	64	65	65	65	65	66	66	68	69	72	70	63	52	51	51	55	56	57	61	67	72	70	73	71	63.9	73
25-Oct	73	77	79	82	84	81	83	85	85	88	94	98	95	93	93	86	79	81	72	68	67	67	69	70	81.2	98
26-Oct	72	73	78	80	78	82	76	81	77	78	80	79	82	87	89	91	88	87	89	93	95	96	95	94	84.1	96
27-Oct	94	94	95	95	95	96	96	95	95	95	95	93	92	86	85	82	92	97	96	96	97	97	97	98	94.0	98
28-Oct	97	96	94	92	95	97	96	96	95	94	92	93	92	86	84	89	87	85	82	79	82	75	82	88	89.4	97
29-Oct	90	88	85	87	89	88	89	88	88	85	86	88	90	96	98	99	99	98	97	96	99	100	100	100	92.5	100
30-Oct	100	100	98	98	99	99	100	100	99	96	92	90	88	91	88	83	83	85	85	84	86	84	82	83	91.4	100
31-Oct	83	86	87	91	95	92	94	96	94	91	88	87	86	86	87	87	87	DF	DF	DF	DF	DF	DF	DF	--	96
	74.3	74.3	74.9	75.3	76.4	77.8	78.8	79.6	79.5	78.4	76.2	72.6	68.2	65.5	64.0	63.5	63.9	64.0	64.6	66.1	68.2	69.8	71.1	72.3	Diurnal Average	
	100	100	100	100	100	100	100	100	100	100	100	100	98	96	98	99	99	98	97	96	99	100	100	100	Diurnal Maximum	

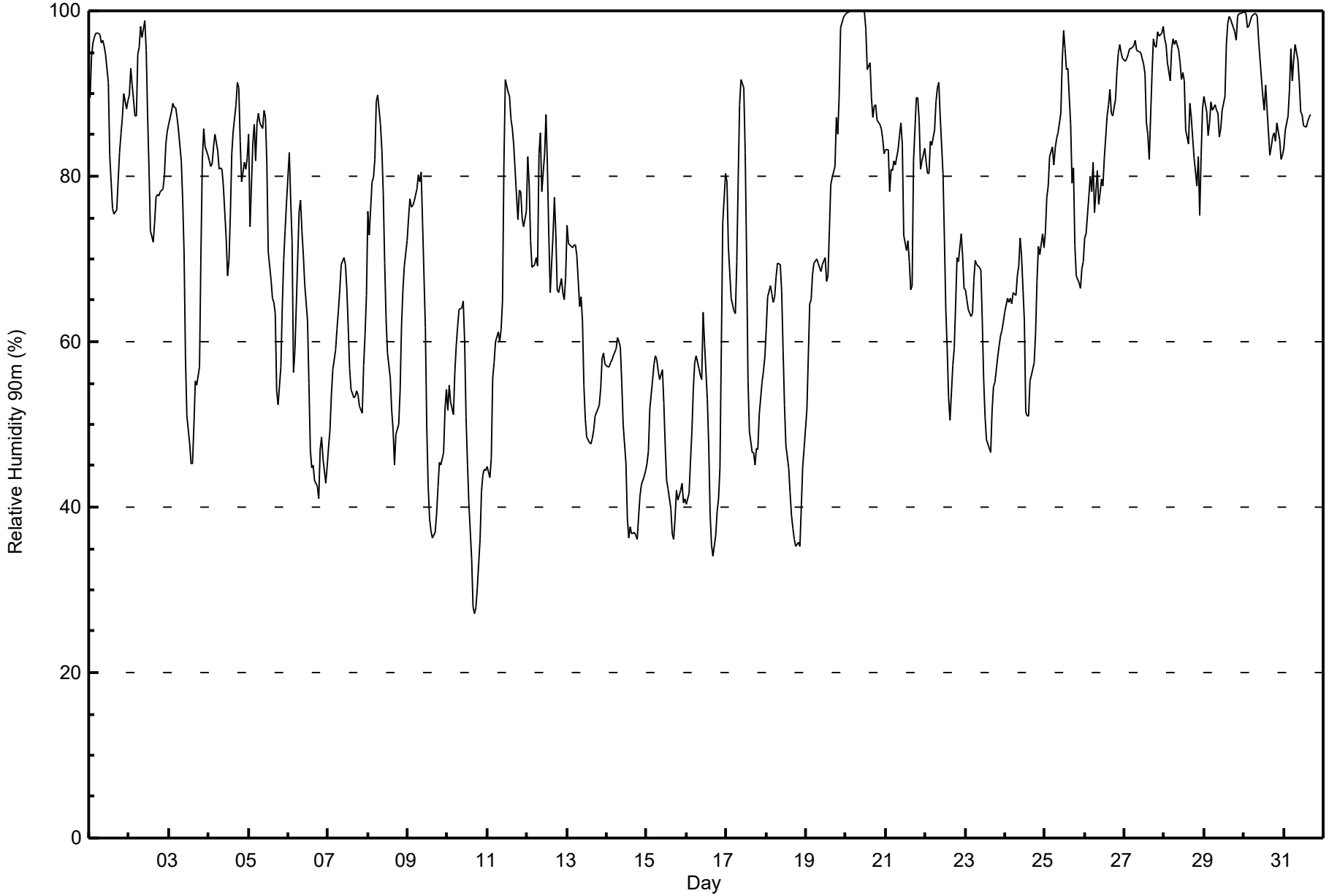
DF - DAS Failure

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 90m (RH90) - %

Mannix - October 2025



Relative Humidity 90m (RH90) - %

Mannix - October 2025

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	34	4.61	4.61
40 - 60	182	24.69	29.31
60 - 80	220	29.85	59.16
80 - 100	294	39.89	99.05

Total Number of Valid Hours: 737

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 20m (WS20) - km/h

Mannix - October 2025

Maximum Speed: 34 km/h on Oct 27 00:00

Maximum Daily Speed Average: 22.6 km/h on Oct 27

Minimum Speed Value: 0 km/h on Oct 19 09:00

Minimum Daily Speed Average: 1.5 km/h on Oct 20

Maximum Diurnal Speed Average: 6.4 km/h at hour 14

Minimum Diurnal Speed Average: 1.7 km/h at hour 8

Monthly Average Velocity: 3.4 km/h 225.2 deg

Percentiles: P_1 = 2 P_{10} = 7 Q_1 = 9 Median = 13 Q_3 = 17 P_{90} = 21 P_{99} = 29

Hours in Service: 744

Hours of Data: 733

Hours of Missing Data: 11

Percent Operational Time: 98.5

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	N13	NNW11	N12	N15	NNW17	NNW19	NNW16	NNW16	NNW16	NNW16	NNW15	NNW18	NNW16	NNW14	NNW13	NNW10	NNW12	NNW9	NNE7	NNW4	NNE6	NNE5	N3	WSW6	NNW11.5	NNW19
2-Oct	WSW6	WSW7	WSW7	WSW5	SSE4	S7	SSE6	SSE6	SE6	SSE7	SSE9	SE7	SSE9	SSE13	S13	SSE12	SSE8	SSE10	SE10	SSE12	SSE14	SSE12	SSE9	SSE12	SSE7.8	SSE14
3-Oct	SSE15	SSE14	SSE10	SSE11	SSE12	SSE11	SSE12	SSE9	S8	S11	SSW15	SW23	SW22	WSW23	WSW28	SW23	SSW14	SW16	SW17	W15	W20	WSW16	WSW15	W11	SW12.3	WSW28
4-Oct	W15	W16	W16	W16	WSW12	W16	W17	WNW14	WNW12	WNW12	WNW14	NNW9	ENE7	W4	NNE11	NNW14	NNW20	NNW19	NNW16	NW17	NW14	WNW14	WNW12	WNW12	WNW11.4	NNW20
5-Oct	W13	WNW8	WSW11	WSW11	WSW9	SW7	S5	SSE9	SSE10	SSE7	S10	S7	WSW12	W13	W12	W14	W5	W10	W15	W18	W17	W15	W13	NNW15	WSW8.3	W18
6-Oct	NNE13	NNW14	NNW19	NNW23	NNW14	NNW13	N9	N11	NNW13	NNE9	NW7	NW3	W2	SW3	SSE5	SE8	SE9	SSE10	SSE10	SE10	SSE11	SSE12	SSE13	SSE12	NNE2.1	NNW23
7-Oct	SSE12	SSE12	SSE12	SSE10	SSE10	SSE8	SSE11	SSE11	SSE11	SSE14	SSE17	SSE17	SSE15	SSE15	SSE13	SE12	SE15	SE16	SE13	S7	S4	E7	SW1	NW3	SSE10.5	SSE17
8-Oct	WNW9	NW13	WNW10	W12	W18	W15	W15	WNW15	W18	W17	W18	W19	W21	W21	W19	WSW17	W21	W12	W13	W21	WNW20	WNW20	W17	W17	W16.2	W21
9-Oct	W11	WSW10	W10	SW7	SSW8	SSW9	S8	S7	S6	S6	SSW8	SW15	WSW19	WSW21	WSW20	WSW19	WSW14	SW9	SSW9	S7	S9	S9	SSE8	SSE9	SW9.0	WSW21
10-Oct	SSE9	SSE10	SSE11	SSE11	SSE9	SSE8	SSE10	SSE10	SSE11	SSE10	SSE13	SSE15	SSE15	SSE13	SSE14	S20	S15	S15	SSE16	SSE16	SSE15	SSE17	SSE15	SSE11	SSE12.7	S20
11-Oct	SE9	SE13	SSE9	SW4	SW4	N7	N16	N22	NNW20	NNW18	NNW18	NW18	NW17	WNW22	WNW24	WNW21	WNW17	WNW20	WNW23	WNW23	NW24	NW21	NNW24	NNW28	NW13.0	NNW28
12-Oct	NNW22	NNW21	NNW23	NNW25	NNW26	NNW25	NNW27	N22	NNW17	NNW18	N20	NNW19	NNW21	N22	N21	N19	NNW15	NNW14	NNW14	NNW12	NNW12	NNW12	NW11	WNW8	NNW18.2	NNW27
13-Oct	WNW11	WNW13	W12	W11	WSW9	WSW9	WSW8	SW7	UO	UO	SW16	SW17	SSW15	SSW16	S16	S18	S14	SSE18	S14	SSE15	SSE18	SSE17	SSE16	SSE15	SSW10.6	S18
14-Oct	SSE16	SSE18	SSE18	SSE18	SSE17	SSE17	S18	S16	S17	SSW18	SSW21	SSW17	SSW16	SW20	SSW18	SSW14	S12	S11	S13	SSE13	SSE12	SSE13	SSE12	SSE13	S15.0	SSW21
15-Oct	SSE13	SSE15	SSE14	SSE13	SSE17	SSE14	SSE14	SSE15	SSE18	SSE18	SSE18	S12	SW16	WSW16	SW12	SW13	SSW12	S9	S8	SW11	WSW11	W14	WSW14	WSW14	S11.0	SSE18
16-Oct	WSW11	SW9	SSW7	S8	SSW8	SSE12	SSE11	SSE11	SSE11	SSE12	SSE12	SE12	SSE16	SSE12	SSE16	SSE13	S13	S13	SSE11	SSE12	S14	SSW20	S15	S11	S10.9	SSW20
17-Oct	S10	SW14	SW18	SW19	WSW16	WSW16	W19	WNW14	W21	W22	WSW16	W17	W22	WNW25	WNW23	WNW21	WNW18	WNW17	WNW14	WNW12	W11	W14	W16	W12	W15.6	WNW25
18-Oct	WSW12	WSW12	WSW12	WSW14	WSW12	WSW11	WSW9	WSW9	WSW13	W10	WSW9	W7	W13	W13	W16	W13	WSW7	SW6	SSW8	SSW9	S4	SE7	SSE9	SSE10	WSW8.5	W16
19-Oct	SE9	SSE9	S8	SSE6	S4	SE3	S2	NNW1	WNW0	E3	ESE5	WSW1	NNE5	N5	NNW6	N8	N12	N8	N10	NNE10	N11	N13	NNE14	N8	NNE3.3	NNE14
20-Oct	N10	NNE10	N9	N10	N11	NNW10	N10	NW11	NNE6	NE4	W2	SE2	S5	S7	SSE9	SSW8	SSW7	S8	SSE11	SSE11	SSE12	SSE15	SSE14	SSE13	SE1.5	SSE15
21-Oct	SSE11	SSE13	SE14	SSE13	SSE12	SSE8	S6	S3	WSW10	W12	W14	WNW18	WNW16	W16	W16	W15	NW11	N12	NNE11	N8	NNE3	ESE3	SE3	SSE7	WSW3.4	WNW18
22-Oct	SSE9	SE9	SE8	SSE8	SE13	SSE11	SE11	SSE9	SSE9	SSE12	SSE15	SSE11	SSE15	SE10	SE9	SE16	SE17	SE19	SE21	SE23	SE22	SE24	SE22	SE25	SE14.4	SE25
23-Oct	SE25	SE26	SE25	SE19	SE15	SE20	SE21	SE13	SE12	SE13	SSE13	SSE17	SSE14	SSE15	SE15	SE17	SE19	SE21	SE21	SE24	SE18	SE14	SE15	SE16	SE17.7	SE26
24-Oct	SE17	SE17	SE19	SE19	SE18	SE14	SE13	SE13	SSE11	SSE10	SSE12	SSE11	SSE11	SSE10	SSE9	SE14	SE12	SE12	SE13	SE17	SE16	SE13	SE16	SE10	SE13.6	SE19
25-Oct	SSE9	SE12	S6	NW6	NNE8	NE7	E5	WSW7	W6	W4	SW7	W16	W21	W19	WSW19	W20	WSW19	SSW10	SSW11	SSW10	SSW8	SSE9	S10	S7	SW6.6	W21
26-Oct	SE6	SSE9	SSE10	SSE10	SSE7	N2	NNE6	NNW4	NNW3	N8	N5	N9	N12	N14	N18	N20	N21	N27	N26	NNE27	N33	N29	N32	N34	NNE12.3	N34
27-Oct	N32	N30	N27	N26	NNW28	NNW26	NNW28	NNW30	NNW29	NNW28	NNW27	NNW26	NNW25	NNW25	NNW24	NW22	NW21	WNW20	WNW20	WNW23	WNW21	WNW21	WNW20	WNW20	NNW22.6	N32
28-Oct	WNW21	WNW16	W18	W25	W23	W23	W22	W18	W16	W17	W16	W18	W17	W19	WSW17	WSW7	SSW4	SW4	SW5	SW6	SSW7	S9	S9	SSW8	W12.8	W25
29-Oct	SSE8	SSE12	SSE12	SE13	SE19	SE15	ESE11	E10	E10	E5	N7	N6	N7	N9	N11	NNE16	NNE11	UO	UO	NNW11	NNW11	NNW9	NNW8	NW7	ENE3.4	SE19
30-Oct	N7	NNW6	WNW2	NNE3	ENE7	SSW3	SW4	WSW7	SW7	SW10	SW10	SSW10	SSW7	SSE9	SSW8	SSW9	SSW9	SSW7	SW7	WSW7	SSW7	SSW7	SSW8	SSW7	SW4.8	SW10
31-Oct	S9	S10	S10	SSE11	S10	SSE14	SSE12	SSE12	SSE14	SSE16	SE17	SE20	SE20	SE24	SE26	SE29	SE28	DF	DF	DF	DF	DF	DF	DF	---	SE29
	SSW2.2	SSW2.9	SSW3.5	SW3.0	SSW3.0	SW2.6	SW1.9	WSW1.7	WSW2.7	SW2.8	SW4.5	WSW4.9	WSW5.7	WSW6.4	WSW5.6	SW5.2	SW3.9	SW2.7	SW3.1	SW3.4	SW3.4	SSW3.4	SSW3.1	SSW2.7	Diurnal Average	
	N32	N30	N27	N26	NNW28	NNW26	NNW28	NNW30	NNW29	NNW28	NNW27	NNW26	NNW25	WNW25	WSW28	SE29	SE28	N27	N26	NNE27	N33	N29	N32	N34	Diurnal Maximum	

DF - DAS Failure UO - Unstable Operation

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 9 km/h on Oct 12 00:00

Minimum Value: 1 km/h on Oct 2 03:00

Percentiles: P_1 = 1 P_{10} = 2 Q_1 = 2 Median = 3 Q_3 = 5 P_{90} = 6 P_{99} = 8

Hours in Service:	744
Hours of Data:	733
Hours of Missing Data:	11
Hours of Calibration:	0
Percent Operational Time:	98.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	4	4	5	5	6	6	6	6	6	6	6	7	6	5	5	4	4	3	2	2	3	2	2	2	7
2-Oct	1	2	1	2	1	1	2	2	2	3	3	3	3	5	5	4	3	2	3	3	3	3	3	3	5
3-Oct	4	4	3	3	3	3	3	3	3	5	7	7	7	7	8	7	5	5	5	6	5	4	4	3	8
4-Oct	3	3	3	3	3	3	4	4	3	3	4	3	3	4	4	6	6	7	6	6	5	4	3	3	7
5-Oct	3	4	3	2	1	1	1	3	4	3	4	4	5	3	3	4	3	3	3	3	3	4	3	6	6
6-Oct	5	4	6	7	5	4	4	5	5	4	3	3	2	3	3	3	3	2	2	3	3	3	3	3	7
7-Oct	3	3	3	2	3	2	3	3	3	4	5	5	5	4	5	4	5	5	4	2	3	3	4	5	5
8-Oct	4	4	3	2	5	3	3	6	5	4	5	5	5	5	5	4	6	4	5	6	5	5	3	5	6
9-Oct	3	3	3	2	2	3	2	2	2	3	4	5	5	6	6	5	5	3	2	1	2	2	1	2	6
10-Oct	2	2	2	2	2	3	3	2	3	4	4	4	5	4	7	7	5	3	3	3	2	3	3	3	7
11-Oct	2	4	3	2	1	4	6	7	6	5	5	5	6	7	6	5	4	5	6	6	6	7	8	9	9
12-Oct	8	6	7	8	8	8	8	7	5	5	6	6	6	7	7	6	5	4	4	4	4	3	3	2	8
13-Oct	3	3	2	2	1	1	2	1	UO	UO	5	5	5	6	7	7	6	3	4	3	3	3	3	2	7
14-Oct	3	3	3	3	3	3	5	6	6	7	7	6	6	6	6	5	4	3	2	2	2	1	2	2	7
15-Oct	2	2	2	2	3	3	2	3	4	4	4	4	5	4	3	3	3	3	2	2	2	2	2	1	5
16-Oct	2	2	1	2	1	4	2	2	3	3	4	4	4	4	4	2	4	4	3	2	4	7	4	4	7
17-Oct	3	4	4	4	3	4	4	3	4	4	4	4	4	5	5	6	5	4	3	2	2	2	2	2	6
18-Oct	3	2	2	2	2	1	2	3	2	2	2	2	4	3	4	4	2	1	1	1	2	3	2	3	4
19-Oct	3	3	3	2	2	2	1	1	1	4	2	2	2	2	2	2	3	3	3	2	3	3	4	3	4
20-Oct	4	3	3	3	3	3	3	4	2	2	1	2	2	3	3	3	2	3	2	2	3	4	4	3	4
21-Oct	3	3	3	3	2	2	2	2	3	3	3	5	4	4	5	3	3	3	3	2	1	2	1	2	5
22-Oct	2	3	5	4	3	2	3	2	2	4	4	3	4	4	3	4	5	5	5	6	6	6	6	7	7
23-Oct	7	7	6	6	4	5	5	3	3	4	4	4	4	3	4	4	5	6	5	6	5	4	3	4	7
24-Oct	4	5	4	4	4	3	3	3	2	2	3	3	3	2	4	4	4	4	5	5	4	3	5	4	5
25-Oct	3	5	4	3	3	2	4	2	3	2	2	3	5	5	6	5	4	3	2	2	3	2	2	2	6
26-Oct	3	4	3	2	4	2	2	2	1	5	3	3	3	4	6	6	6	6	7	8	9	8	9	8	9
27-Oct	9	9	8	7	8	7	7	8	8	8	8	8	7	8	6	6	6	5	5	5	5	5	4	4	9
28-Oct	5	4	4	4	4	4	3	4	3	3	3	4	4	4	3	5	1	1	2	2	1	1	2	2	5
29-Oct	2	3	3	4	5	4	4	3	2	4	3	2	2	3	2	4	3	UO	UO	3	3	2	2	2	5
30-Oct	3	2	1	3	2	1	2	2	2	2	3	3	2	2	3	3	3	2	2	2	2	2	3	2	3
31-Oct	3	3	3	2	4	3	2	2	3	4	5	5	5	7	7	7	7	DF	DF	DF	DF	DF	DF	DF	7
	9	9	8	8	8	8	8	8	8	8	8	8	7	8	8	7	7	7	7	8	9	8	9	9	
	Diurnal Maximum																								

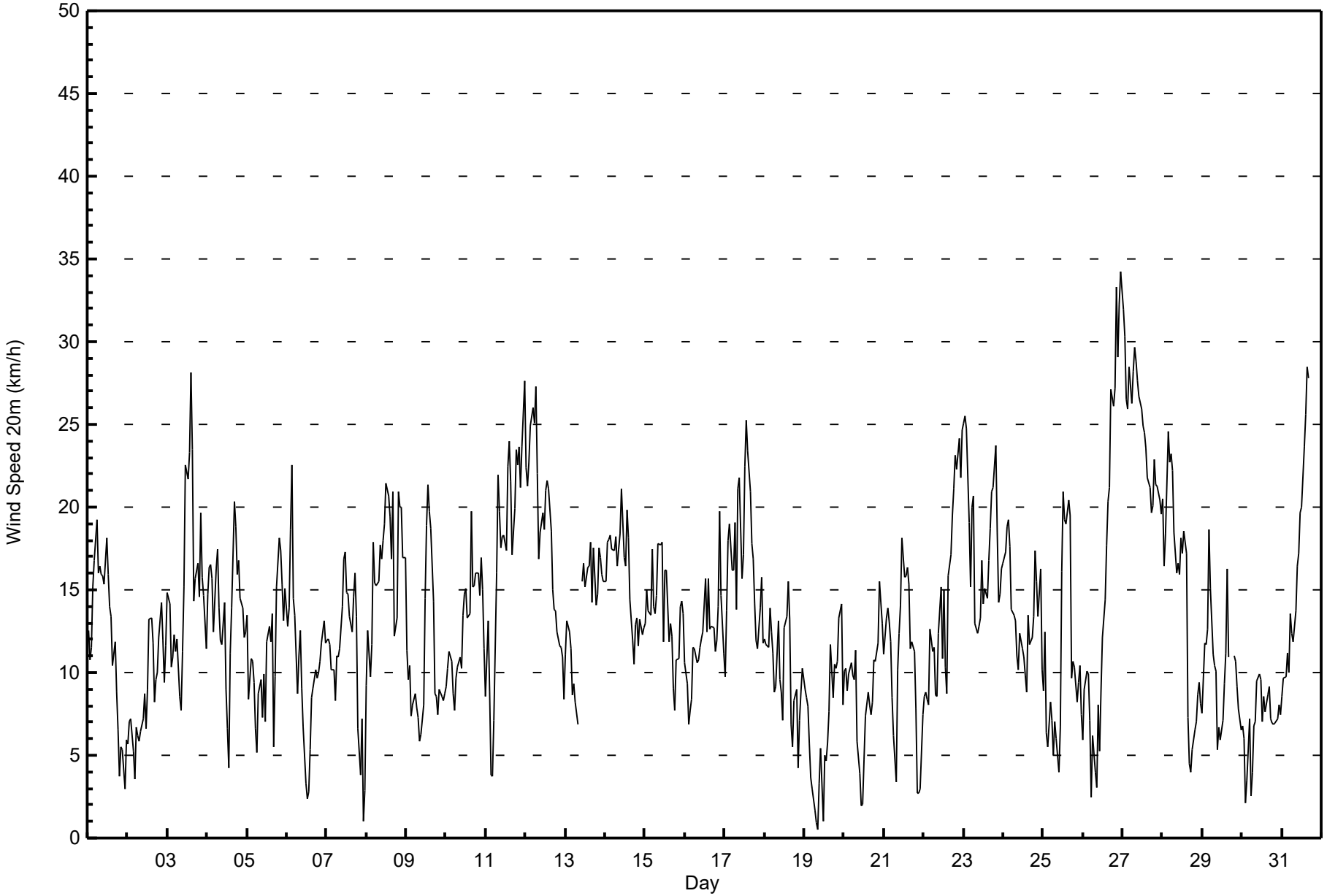
DF - DAS Failure UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 20m (WS20) - km/h

Mannix - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	50	6.82	6.82
6 - 11	254	34.65	41.47
12 - 19	319	43.52	84.99
20 - 28	101	13.78	98.77
29 - 38	9	1.23	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 733

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 20m (WS20) - km/h

Mannix - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	4	4	1	0	3	2	3	2	7	2	7	2	5	2	1	5	50
6 - 11	22	11	1	2	3	1	16	73	32	26	13	23	9	5	6	11	254
12 - 19	10	3	0	0	0	0	43	91	17	10	11	23	55	18	5	33	319
20 - 28	11	1	0	0	0	0	19	0	1	2	4	5	13	19	4	22	101
29 - 38	6	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	9
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	53	19	2	2	6	3	82	166	57	40	35	53	82	44	16	73	733

Total Number of Valid Hours: 733

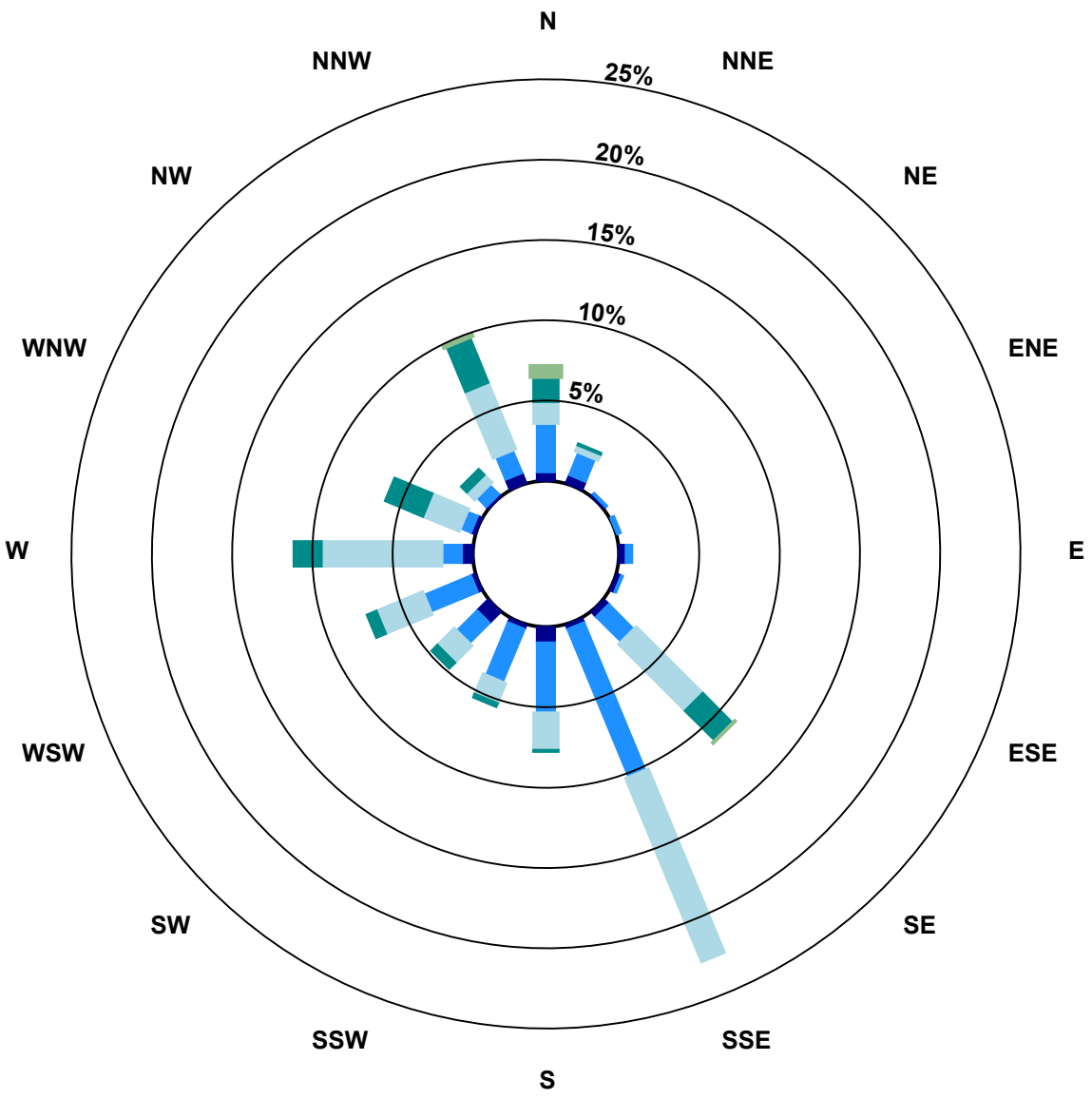
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 20m (WS20) - km/h

Mannix



Classes (km/h)

0 - 5

6 - 11

12 - 19

20 - 28

29 - 38

> 38

Total Number of Valid Hours: 733

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 45m (WS45) - km/h

Mannix - October 2025

Maximum Speed: 44 km/h on Oct 27 00:00

Maximum Daily Speed Average: 29.5 km/h on Oct 27

Minimum Speed Value: 1 km/h on Oct 19 07:00

Minimum Daily Speed Average: 2.3 km/h on Oct 20

Maximum Diurnal Speed Average: 7.7 km/h at hour 14

Minimum Diurnal Speed Average: 2.6 km/h at hour 8

Monthly Average Velocity: 4.7 km/h 220.7 deg

Percentiles: P_1 = 3 P_{10} = 9 Q_1 = 14 Median = 18 Q_3 = 23 P_{90} = 27 P_{99} = 38

Hours in Service:	744
Hours of Data:	736
Hours of Missing Data:	8
Percent Operational Time:	98.9

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	N20	N17	N18	N22	NNW25	NNW28	NNW25	NNW25	NNW24	NNW24	NNW24	NNW27	NNW23	NNW21	NNW19	NNW16	NNW18	NNW13	N9	N6	NNE8	NNE8	N6	WNW6	NNW17.5	NNW28
2-Oct	W4	WSW12	WSW13	W10	SSW2	S8	SE9	SSE8	SE8	SSE9	SSE13	SE10	SSE12	SSE18	S20	SSE16	SSE12	SSE15	SE17	SSE21	SSE25	SSE21	SSE17	SSE20	SSE11.5	SSE25
3-Oct	SSE25	SSE24	SSE19	SSE20	SSE23	SSE19	SSE21	S17	S14	S17	SSW23	SW31	SW29	WSW30	WSW37	SW32	SSW22	SW23	SW23	W19	WSW24	WSW21	WSW20	W15	SSW18.2	WSW37
4-Oct	W18	W20	W20	W20	WSW18	W22	W23	WNW20	WNW15	WNW15	WNW18	NNW12	NE8	W5	N16	NNW20	NNW29	NNW27	NNW24	NW25	NW22	WNW20	WNW17	WNW17	WNW15.8	NNW29
5-Oct	W16	WNW12	WSW15	WSW16	WSW15	SW12	SSW9	SSE14	SSE16	SSE11	S15	S10	WSW14	W15	W14	W16	W9	W14	W22	W23	W21	W19	W18	NNW21	WSW11.2	W23
6-Oct	NNE18	NNW20	NNW26	NNW31	NNW21	NNW20	N14	N16	NNW18	NNE11	NW8	NW5	WSW3	SW3	SSE7	SE11	SE12	SSE16	SSE16	SE16	SSE16	SSE17	SSE19	SSE17	NNE3.0	NNW31
7-Oct	SSE18	SE19	SSE19	SSE17	SSE17	SSE14	SSE18	SSE18	SSE18	SSE20	SSE23	SSE22	SSE19	SSE18	SSE17	SE16	SE18	SE21	SE22	S13	S9	E9	SE3	NW6	SSE15.5	SSE23
8-Oct	WNW14	NW21	WNW16	W18	W23	W20	W19	WNW21	W21	W19	W21	W22	WSW25	W24	W23	WSW21	W25	W16	W17	W27	WNW26	W25	W20	W21	W20.4	W27
9-Oct	W15	W13	W14	SW11	SSW15	SSW16	S13	SSW13	S9	S8	SSW11	SW18	WSW23	WSW26	WSW24	WSW24	WSW19	SW14	SSW16	SSW12	S14	SSW18	SSE12	SSE14	SW13.6	WSW26
10-Oct	SSE16	SSE18	SSE19	SSE19	SSE17	SSE17	SSE17	SSE17	SSE15	SSE14	SSE16	SSE18	SSE19	SSE18	SSE20	S30	S24	S24	SSE25	SSE24	SSE22	SSE26	SSE23	SSE20	SSE19.7	S30
11-Oct	SE16	SE23	SSE16	S7	S2	NNW9	N23	N30	NNW27	NNW24	NNW25	NW25	NW24	WNW29	WNW30	W26	W21	WNW26	WNW32	WNW30	NW32	NW29	NNW31	NNW37	NW16.5	NNW37
12-Oct	NNW30	NNW28	NNW30	NNW34	NNW35	NNW34	NNW36	N29	NNW23	NNW24	NNW25	NNW25	NNW28	NNW28	N27	N24	NNW20	NNW19	NNW19	NNW17	NNW17	NNW16	NW16	WNW12	NNW24.5	NNW36
13-Oct	WNW14	WNW17	W14	W15	WSW12	WSW13	WSW14	SW13	SSW11	SSW15	SSW20	SW21	SSW21	S22	S25	S26	S22	SSE24	S22	SSE23	SSE26	SSE24	SSE23	SSE23	SSW14.9	S26
14-Oct	SSE23	SSE26	SSE25	SSE25	SSE25	SSE25	S27	S25	S27	SSW27	SSW29	SSW25	SSW23	SW26	SSW26	SSW22	S19	S17	S23	S20	S19	SSE19	SSE19	SSE19	S22.4	SSW29
15-Oct	SSE21	SSE22	SSE20	SSE21	SSE27	SSE22	SSE22	SSE22	SSE25	SSE23	SSE22	S17	SW21	WSW20	SW15	SW16	SSW19	SSW16	SSW14	SW21	SW20	W21	WSW19	WSW18	S16.2	SSE27
16-Oct	WSW17	WSW16	WSW10	SW11	SW13	SSW13	S14	SSE14	SSE15	SSE14	SE15	SE16	SSE19	SSE16	SSE21	SSE19	S20	S21	S17	SSE18	S23	SSW31	S24	S18	S15.0	SSW31
17-Oct	S17	SW20	SW24	SW25	WSW21	WSW21	W23	WNW20	W24	W25	WSW20	W19	W25	W30	WNW28	WNW27	WNW23	WNW25	WNW22	WNW19	W16	W18	W21	W17	W20.0	W30
18-Oct	W17	WSW18	WSW16	WSW21	W19	WSW17	WSW14	WSW14	WSW19	WSW11	WSW10	W8	W15	W15	W18	W15	WSW9	WSW8	SW9	SSW12	SSW12	SSE14	SSE15	SSE17	WSW11.6	WSW21
19-Oct	SE15	SE13	SSE13	SE12	SSE11	SE6	ESE1	ENE3	E3	E6	ESE7	ESE3	NE6	N5	NNW8	N11	N16	N12	N15	NNE15	N14	N18	NNE18	N11	NE4.9	N18
20-Oct	NNE14	NNE13	NNW12	N13	NNW14	NNW13	N14	NW15	N7	NE4	WNW2	SE2	S6	S9	SSE11	SSW12	SSW12	S12	SSE16	SSE17	SSE18	SSE21	SSE20	SSE19	SSE2.3	SSE21
21-Oct	SE16	SSE18	SE20	SE18	SSE18	S12	SW10	SW6	WSW14	W15	W16	WNW22	WNW20	W19	W19	W19	NW16	N14	NNE14	N9	NE4	E4	ESE4	SE13	WSW4.4	WNW22
22-Oct	SE14	SE13	SE12	SE10	SE18	SE17	UO	SSE14	SSE11	SSE15	SSE17	SSE12	SSE17	SE12	SE11	SE20	SE21	SE24	SE25	SE27	SE28	SE30	SE28	SE31	SE18.3	SE31
23-Oct	SE32	SE32	SE31	SE25	SE22	SE26	SE26	SE18	SE17	SE17	SSE16	SSE20	SSE16	SSE17	SE18	SE22	SE23	SE26	SE28	SE31	SE24	SE21	SE22	SE23	SE22.9	SE32
24-Oct	SE24	SE24	SE24	SE25	SE24	SE20	SE19	SE19	SE15	SE13	SE15	SE14	SSE13	SSE12	SSE11	SE17	SE15	SE15	SE18	SE22	SE20	SE18	SE21	SE15	SE18.0	SE25
25-Oct	SE12	SE16	SSE9	NW6	NNE12	NE9	E7	SW9	W10	W6	WSW10	W20	W25	W23	WSW24	WSW24	WSW24	SW16	SSW17	SW16	SW15	S14	S14	SSW8	SW9.2	W25
26-Oct	SE8	SSE15	SSE17	SSE17	SE10	NNE3	NNE8	NNE7	NNE7	N13	NNE8	N11	N15	N20	N24	N26	N28	N36	N35	NNE36	N44	N38	N43	N44	NNE16.3	N44
27-Oct	N43	N40	N35	N34	NNW37	NNW36	NNW37	NNW39	NNW38	NNW37	NNW35	NNW34	NNW33	NNW32	NNW31	NW28	NW27	WNW26	WNW26	WNW29	WNW28	WNW27	WNW26	WNW25	NNW29.5	N43
28-Oct	WNW27	WNW22	W23	W29	W27	W27	W26	W22	W20	W20	W19	W21	W20	W22	WSW21	WSW10	SW7	WSW8	SW9	SW10	SSW10	S12	S16	SSW14	W16.4	W29
29-Oct	SSE11	SSE16	SE15	SE15	SE23	SE18	ESE14	E13	E12	E7	N9	N8	N9	N12	N14	NNE22	N17	N20	N19	NNW15	NNW15	NNW12	NNW11	NW8	NE5.5	SE23
30-Oct	N9	NNW9	NNW3	NNE5	NE8	SW3	WSW5	WSW9	SW9	SW12	SW12	SSW13	SSW9	SSE10	SSW10	SSW14	SSW14	SSW11	SW11	WSW10	SSW11	SSW12	SSW14	SSW13	SW6.9	SSW14
31-Oct	S13	S15	S15	SSE15	S16	SSE18	SSE17	SSE16	SSE18	SSE20	SE21	SE24	SE24	SE29	SE31	SE35	SE35	DF	DF	DF	DF	DF	DF	DF	---	SE35
	S3.3	S4.1	SSW4.8	SW4.3	SSW4.5	SSW4.1	SW2.8	SW2.6	SW3.8	SW3.7	SW5.4	WSW6.0	WSW7.0	WSW7.7	WSW7.0	SW6.7	SW5.3	SW3.7	SW4.4	SW5.2	SW5.7	SSW5.3	SSW4.7	SSW3.9	Diurnal Average	
	N43	N40	N35	N34	NNW37	NNW36	NNW37	NNW39	NNW38	NNW37	NNW35	NNW34	NNW33	NNW32	WSW37	SE35	SE35	N36	N35	NNE36	N44	N38	N43	N44	Diurnal Maximum	

DF - DAS Failure UO - Unstable Operation

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 9 km/h on Oct 27 03:00

Minimum Value: 1 km/h on Oct 2 03:00

Percentiles: P_1 = 1 P_{10} = 2 Q_1 = 2 Median = 3 Q_3 = 4 P_{90} = 6 P_{99} = 8

Hours in Service:	744
Hours of Data:	736
Hours of Missing Data:	8
Hours of Calibration:	0
Percent Operational Time:	98.9

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	4	3	5	4	6	5	5	5	5	5	5	6	5	4	4	4	4	4	2	3	3	2	3	2	6
2-Oct	2	3	1	1	2	2	2	3	2	2	2	2	2	4	4	3	2	2	2	3	2	3	3	3	4
3-Oct	3	2	3	3	3	2	3	3	2	3	6	6	5	7	7	7	4	4	4	5	5	3	3	3	7
4-Oct	3	3	3	3	3	3	3	3	3	2	3	3	3	4	5	7	5	6	5	5	4	3	3	3	7
5-Oct	2	4	3	2	1	2	1	3	3	3	3	4	4	2	3	4	3	3	3	3	3	4	3	7	7
6-Oct	4	4	6	7	4	4	5	5	4	4	3	3	2	3	4	3	3	2	1	3	2	2	2	2	7
7-Oct	2	2	2	2	2	2	2	2	3	4	4	3	3	3	4	4	5	5	3	4	6	3	4	6	6
8-Oct	4	4	3	2	5	3	3	6	4	3	5	4	5	4	5	4	6	4	5	5	5	5	3	4	6
9-Oct	3	3	3	3	2	3	2	2	3	3	4	4	4	5	6	5	5	3	1	1	2	3	1	2	6
10-Oct	1	2	1	2	2	3	3	2	2	3	3	3	4	3	8	6	5	3	3	3	2	2	2	4	8
11-Oct	3	4	5	2	1	7	5	7	5	5	5	5	5	6	5	4	3	6	5	5	5	7	8	9	9
12-Oct	8	6	7	7	7	7	8	7	5	5	6	5	5	7	7	6	5	3	4	4	3	3	3	2	8
13-Oct	2	3	2	2	1	1	1	1	2	4	5	4	5	5	5	5	5	3	3	3	3	2	3	2	5
14-Oct	2	2	3	2	3	3	4	5	4	6	6	4	4	6	5	4	3	2	2	1	2	1	2	1	6
15-Oct	2	1	2	2	2	2	3	3	4	3	4	4	4	4	3	3	3	4	2	2	2	2	1	2	4
16-Oct	2	3	2	1	2	3	2	2	2	3	3	4	4	4	3	2	4	3	3	3	3	6	4	3	6
17-Oct	2	3	4	3	3	4	4	3	3	3	4	4	4	5	5	5	5	4	2	2	2	3	2	2	5
18-Oct	3	2	2	3	2	1	2	2	2	2	2	2	3	3	3	4	2	1	1	2	5	3	2	3	5
19-Oct	3	2	2	2	2	3	1	2	3	4	3	3	2	1	2	2	3	4	4	2	3	3	3	3	4
20-Oct	4	3	2	3	3	3	3	3	2	2	1	2	2	2	2	3	2	3	2	2	3	3	3	3	4
21-Oct	3	2	3	4	2	2	2	3	3	3	3	5	4	3	4	3	3	3	3	2	1	2	1	3	5
22-Oct	2	3	5	5	3	2	UO	2	2	3	3	3	3	4	3	3	4	5	5	6	5	6	6	7	7
23-Oct	7	6	6	6	3	4	5	3	3	3	4	3	3	3	3	4	4	5	5	5	5	3	3	3	7
24-Oct	4	4	4	4	4	3	3	3	2	2	3	3	3	2	5	5	4	5	5	4	4	3	4	5	5
25-Oct	4	6	5	4	4	2	4	2	3	2	3	3	5	5	7	5	4	3	2	2	4	2	2	3	7
26-Oct	3	5	3	3	5	2	2	3	2	7	3	3	3	4	5	5	6	5	7	7	7	7	8	7	8
27-Oct	8	8	9	7	7	7	7	7	7	7	7	7	7	7	6	5	5	4	4	4	4	4	4	4	9
28-Oct	4	4	4	3	3	3	3	4	3	3	3	4	4	4	3	5	2	2	1	2	2	2	2	3	5
29-Oct	2	2	3	4	5	4	5	3	3	5	3	3	2	3	2	4	3	3	3	3	3	2	2	1	5
30-Oct	3	2	1	3	3	2	2	2	3	2	2	3	2	2	3	2	2	2	2	2	2	2	2	2	3
31-Oct	2	2	3	2	3	3	2	2	3	3	5	5	5	7	7	7	7	DF	DF	DF	DF	DF	DF	DF	7
	8	8	9	7	7	7	8	7	7	7	7	7	7	7	8	7	7	6	7	7	7	7	8	9	
	Diurnal Maximum																								

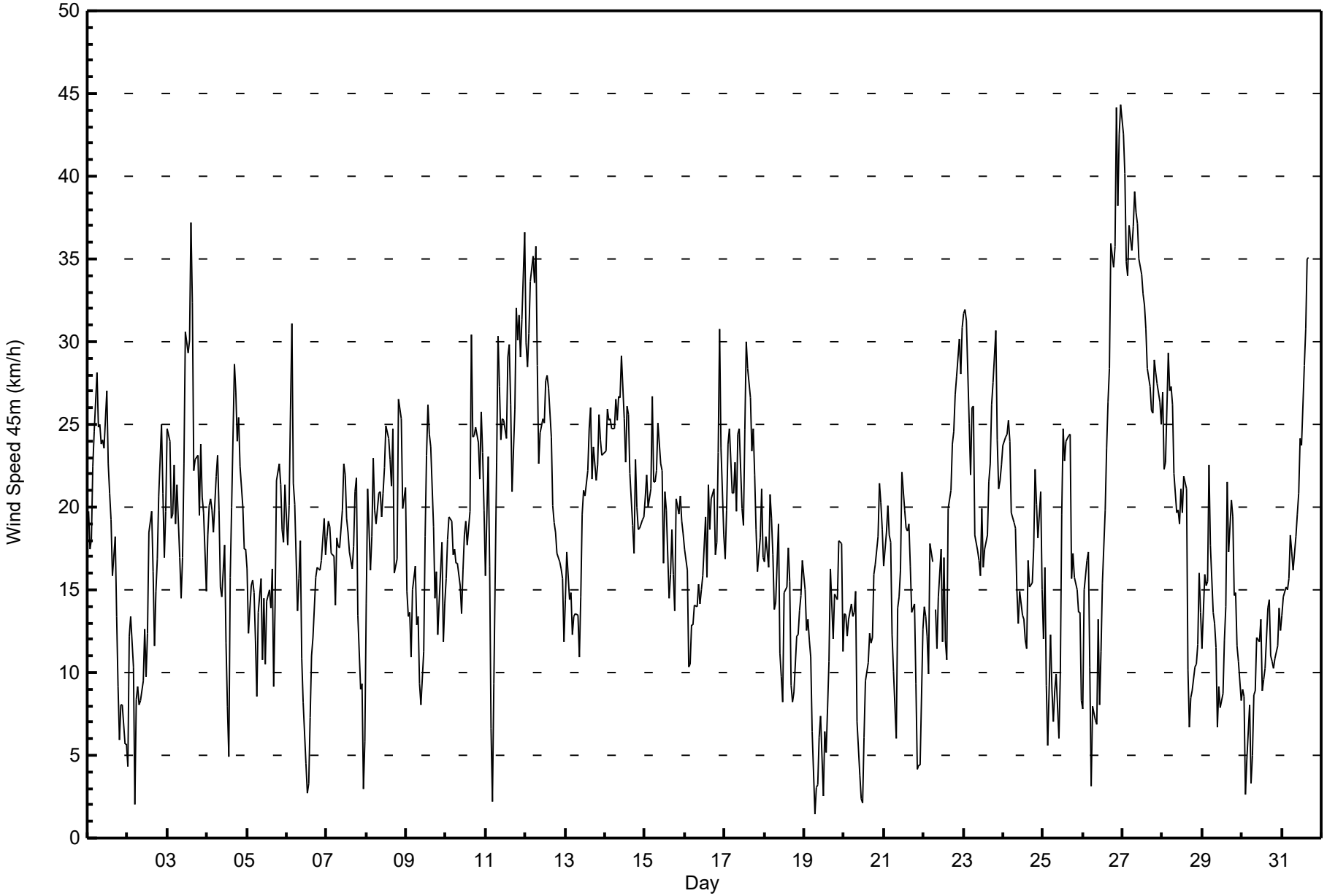
DF - DAS Failure UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 45m (WS45) - km/h

Mannix - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	24	3.26	3.26
6 - 11	100	13.59	16.85
12 - 19	305	41.44	58.29
20 - 28	246	33.42	91.71
29 - 38	55	7.47	99.18
> 38	6	0.82	100.00

Total Number of Valid Hours: 736

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 45m (WS45) - km/h

Mannix - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	1	2	2	1	2	3	2	0	1	1	2	2	2	1	1	1	24
6 - 11	11	8	4	0	4	1	9	11	8	9	10	11	5	1	4	4	100
12 - 19	19	7	0	0	2	1	41	85	25	23	12	22	36	12	3	17	305
20 - 28	10	1	0	0	0	0	36	47	17	9	10	18	41	21	7	29	246
29 - 38	7	1	0	0	0	0	10	0	1	2	3	2	2	5	2	20	55
> 38	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
Totals	53	19	6	1	8	5	98	143	52	44	37	55	86	40	17	72	736

Total Number of Valid Hours: 736

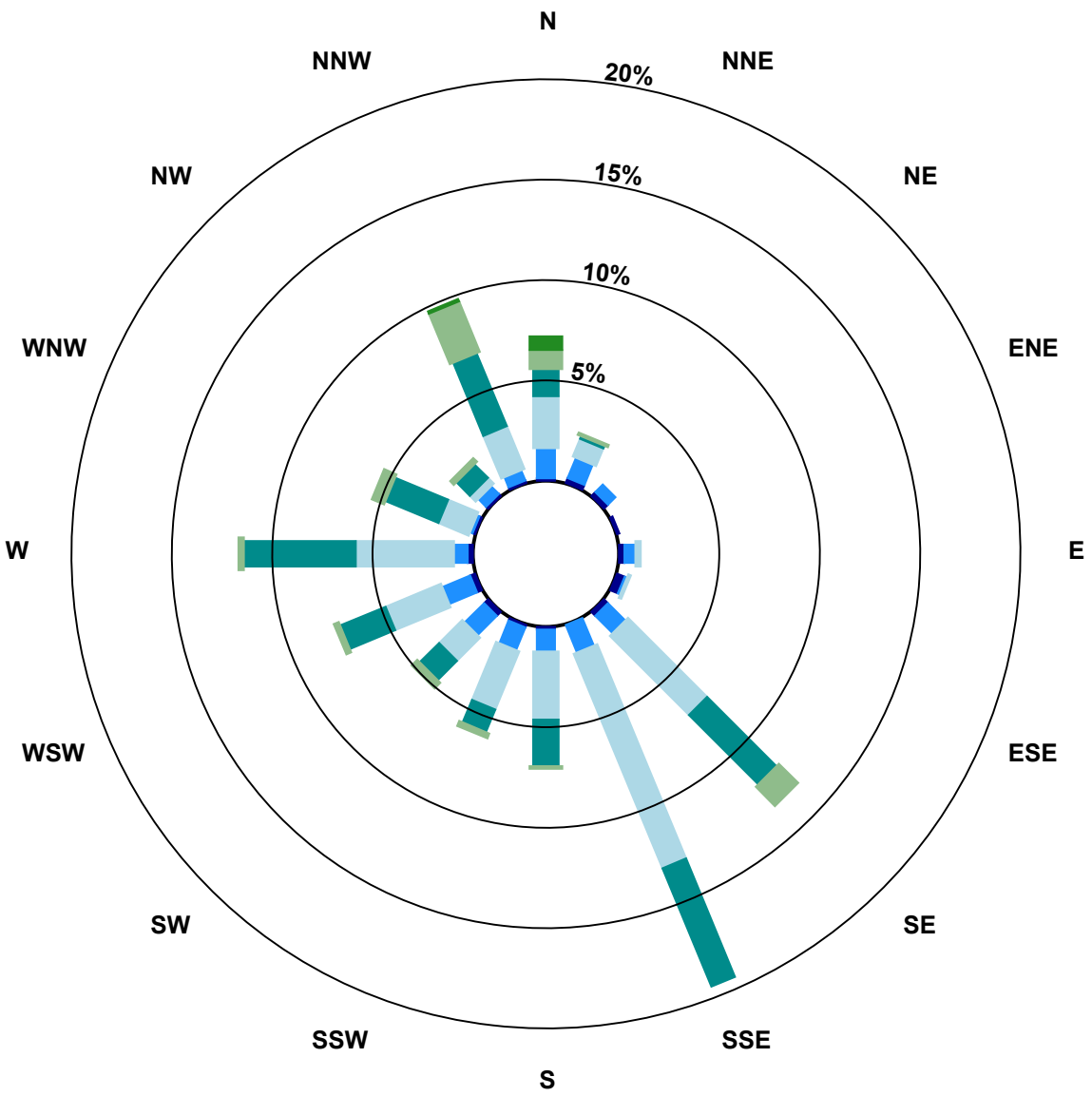
Total Number of Hours: 744

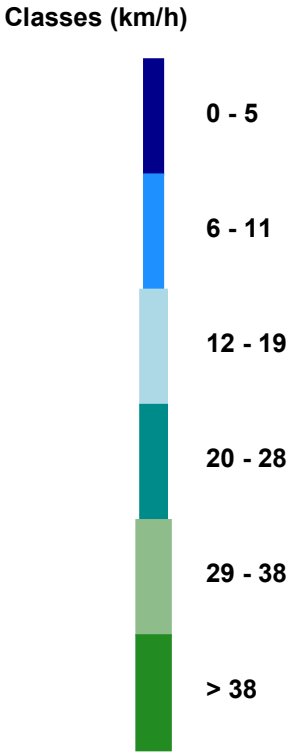
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 45m (WS45) - km/h

Mannix





Total Number of Valid Hours: 736

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 75m (WS75) - km/h

Mannix - October 2025

Maximum Speed: 49 km/h on Oct 26 21:00

Maximum Daily Speed Average: 33.4 km/h on Oct 27

Minimum Speed Value: 2 km/h on Oct 20 12:00

Minimum Daily Speed Average: 3.5 km/h on Oct 20

Maximum Diurnal Speed Average: 7.8 km/h at hour 14

Minimum Diurnal Speed Average: 3.3 km/h at hour 8

Monthly Average Velocity: 5.4 km/h 223.7 deg

Percentiles: P_1 = 4 P_{10} = 10 Q_1 = 15 Median = 21 Q_3 = 27 P_{90} = 31 P_{99} = 43

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	N24	N21	N22	N26	N29	N34	N29	NNW29	N28	N29	N27	NNW32	N25	NNW24	NNW21	NNW18	NNW21	N16	NNE10	N7	NNE10	NNE11	NNE8	NW4	N20.7	N34
2-Oct	NNW2	WSW9	SW15	W14	W5	SSW6	SE9	SSE9	SSE10	SSE10	SSE16	SSE11	SSE15	SSE22	S21	SSE17	SSE13	SSE18	SSE22	SSE29	S32	SSE30	SSE26	SSE28	SSE14.4	S32
3-Oct	S31	S28	S25	S27	S27	SSE24	S26	SSW24	SSW19	S19	SSW25	SW34	SW32	WSW33	WSW41	SW37	SW27	SW27	SW26	W22	W27	W24	W22	W18	SW22.4	WSW41
4-Oct	W21	W23	W23	W23	W23	W26	WNW26	WNW23	WNW16	WNW15	WNW18	NNW12	NE8	WNW5	NNE19	N24	NNW33	NNW31	NNW27	NNW28	NW25	WNW22	WNW20	WNW20	NW17.7	NNW33
5-Oct	W19	NW15	W18	W21	WSW21	WSW17	SW12	S15	S19	SSE13	S16	S11	WSW15	W15	W14	W18	W13	WNW17	WNW25	W25	W24	W21	WNW21	N25	W13.3	W25
6-Oct	NNE21	NNW23	N29	N36	NNW25	NNW24	N17	NNE18	NNW20	NNE12	NW8	NW4	WSW3	SW3	SSE7	SE11	SE13	SSE20	SSE21	SE22	SSE22	SSE23	SSE26	SSE23	NE3.8	N36
7-Oct	SSE25	SSE26	SSE26	SSE25	SSE25	SSE22	SSE25	SSE26	SSE24	SSE24	SSE26	SSE24	SSE21	SSE19	SSE19	SE13	SE13	SE21	SSE29	S21	S12	ESE7	SE6	NNW5	SSE19.4	SSE29
8-Oct	WNW17	NNW27	NW21	WNW23	WNW26	W23	W22	WNW23	W22	W20	W22	W23	W26	W25	W24	WSW22	W27	WNW18	W19	W29	WNW28	WNW27	W21	WNW22	W22.2	W29
9-Oct	W17	W16	W16	WSW14	SW19	SW21	SSW14	SW14	SSW11	S9	SSW12	SW19	WSW25	WSW28	WSW26	WSW26	WSW21	SW18	SW19	SW13	SSW14	SW19	SSW11	S13	SW15.9	WSW28
10-Oct	S13	SSE21	S18	S17	SSE21	SSE28	SSE27	SSE25	SSE21	SSE17	SSE19	SSE20	SSE21	SSE21	S24	S34	S29	S31	S32	S30	S28	S30	S29	SSE28	SSE24.0	S34
11-Oct	SSE20	SSE29	SSE24	S10	SSE4	N10	NNE28	NNE35	N33	NNW28	NNW29	NNW28	NW27	WNW32	WNW32	WNW28	WNW22	WNW28	WNW35	NW33	NW34	NNW33	NNW35	NNW42	NW17.5	NNW42
12-Oct	NNW34	NNW33	NNW35	NNW38	NNW41	N38	N41	N31	N26	NNW28	N29	UO	UO	N32	N30	N28	NNW22	NNW22	NNW21	NNW20	NNW20	NNW19	NNW17	NW13	NNW27.7	N41
13-Oct	WNW16	WNW18	WNW15	W17	W14	WSW16	WSW18	SW20	SSW17	SSW16	SW21	SW23	SSW22	SSW24	S27	S29	S25	S29	S28	S30	S32	SSE30	SSE29	S29	SSW17.7	S32
14-Oct	S30	S31	S31	S31	S30	S29	S32	S30	S30	SSW30	SSW32	SSW27	SSW24	SW28	SSW28	SSW24	S22	S21	SSW26	S24	S23	S20	S21	S21	S26.2	SSW32
15-Oct	S22	S22	SSE26	S26	S31	S29	S31	SSE31	S31	SSE27	S25	S20	SW23	WSW21	SW16	SW17	SW22	SSW20	SW18	SW30	SW29	W26	W26	WSW23	SSW20.6	S31
16-Oct	WSW24	W20	WSW15	WSW15	WSW15	SW12	SSW13	S9	SSE10	SSE14	SSE18	SSE18	SSE23	SSE19	SSE26	SSE25	S26	S27	S21	S24	S30	SSW38	SSW29	S23	S17.1	SSW38
17-Oct	SSW22	SW25	SW28	SW29	WSW24	WSW24	W25	WNW24	W26	W27	WSW23	W19	W25	WNW31	WNW30	WNW28	WNW26	WNW29	WNW27	WNW23	W21	WNW22	WNW25	WNW20	W22.7	WNW31
18-Oct	W20	W23	W21	W26	W25	W22	W19	W18	WSW23	W13	W10	W9	W15	W15	W18	W16	W10	WSW11	WSW10	SW10	SSW16	SSE10	SSE10	S21	WSW14.1	W26
19-Oct	SE19	SE16	SE11	SE15	SE12	SE11	E5	E6	ESE6	ESE8	ESE7	E6	ENE9	NE6	N9	N13	NNE19	NNE14	NNE17	NE17	NNE17	NNE19	NNE20	NNE14	ENE7.1	NNE20
20-Oct	NNE16	NNE15	N14	N15	N16	NNW15	N16	NNW16	NNE8	NE4	NNW2	SE2	S6	S10	SSE12	SSW14	SSW14	S15	S20	SSE22	SSE25	SSE28	SSE27	SSE24	SSE3.5	SSE28
21-Oct	SSE22	SSE25	SSE27	SSE24	S23	SSW16	WSW15	WSW10	W17	W16	W17	WNW23	WNW21	WNW19	W19	W22	NW19	NNE15	NNE16	NNE11	ENE7	E5	ESE5	SE14	SW5.0	SSE27
22-Oct	SE15	SE13	SE12	SE10	SE20	SE21	SE22	SSE19	SSE16	SSE18	SSE19	SSE12	SSE18	SSE12	SE12	SE20	SE16	SE22	SE19	SE22	SE29	SE31	SE30	SE33	SE19.0	SE33
23-Oct	SE34	SE35	SE34	SE29	SE27	SE29	SE29	SE24	SE23	SE21	SSE17	SSE21	SSE17	SSE18	SE19	SE24	SE20	SE24	SE32	SE36	SE30	SSE28	SSE29	SE29	SE26.0	SE36
24-Oct	SE31	SE31	SE28	SE28	SE28	SE26	SE24	SE23	SE20	SSE16	SSE17	SSE15	SSE14	SSE14	SSE13	SE17	SE15	SE13	SE15	SE20	SE21	SE16	SE21	SE12	SE19.8	SE31
25-Oct	SE12	SE14	SSE11	NNW4	NNE16	ENE12	ESE7	SSW8	W14	W8	WSW13	W23	W28	W25	WSW28	W27	WSW29	SW20	SW20	SW18	SW20	SSW15	SSW14	WSW11	WSW10.9	WSW29
26-Oct	SE4	SSE15	S23	SSE23	SSE13	NNE4	ENE7	NE9	NE7	NE13	NE10	NNE11	NNE18	N23	NNE27	NNE30	NNE33	NNE41	N40	NNE40	N49	NNE43	NNE48	N49	NNE17.9	NNE49
27-Oct	N47	N45	N39	N38	N42	N41	N43	N44	NNW44	NNW43	NNW40	NNW40	NNW38	NNW37	NNW35	NNW31	NW31	WNW29	WNW29	WNW32	WNW31	WNW31	WNW30	WNW28	NNW33.4	NNE47
28-Oct	WNW30	WNW25	WNW25	W32	W29	W30	W29	W24	WNW21	W22	W21	W22	W21	W24	W23	W12	WSW9	WSW11	WSW11	WSW11	SW11	SSW12	SSW21	SSW17	W18.5	W32
29-Oct	S15	SSE20	SSE18	SE15	SE24	SE15	ESE11	ESE11	E12	E7	NNE10	NNE9	N9	NNE13	N16	NNE25	NNE21	NNE24	NNE22	NNW17	NNW18	NNW13	NNW12	NNW10	NE6.6	NNE25
30-Oct	N10	N10	NNE3	NE6	ENE9	WSW4	WSW5	W10	SW10	WSW14	SW12	SSW14	SSW9	SSE10	SSW12	SSW17	SSW17	SW13	SW12	WSW12	SSW12	SW14	SSW17	SSW15	SW7.8	SSW17
31-Oct	SSW16	S17	S18	S18	SSW19	S22	SSE22	SSE21	SSE23	SSE23	SE23	SE27	SE25	SE30	SE34	SE38	SE39	DF	DF	DF	DF	DF	DF	DF	---	SE39
	SSW4.0	SSW4.6	SSW5.6	SW5.4	SW5.3	SW5.1	SW3.7	SW3.3	SW4.3	SW3.9	SW5.4	SW6.5	SW7.6	WSW7.8	WSW7.3	SW7.0	WSW6.0	SW4.6	SW5.3	SW6.4	SW7.1	SW6.5	SSW5.9	SSW4.9	Diurnal Average	
	NNE47	N45	N39	NNW38	N42	N41	N43	N44	NNW44	NNW43	NNW40	NNW40	NNW38	NNW37	WSW41	SE38	SE39	NNE41	N40	NNE40	NNE49	NNE43	NNE48	N49	Diurnal Maximum	

DF - DAS Failure UO - Unstable Operation

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 9 km/h on Oct 12 00:00

Minimum Value: 1 km/h on Oct 2 01:00

Percentiles: $P_1 = 1$ $P_{10} = 2$ $Q_1 = 2$ Median = 3 $Q_3 = 4$ $P_{90} = 6$ $P_{99} = 9$

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	0
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	4	3	5	5	6	5	5	5	5	5	5	7	6	4	4	4	4	4	2	3	3	3	3	1	7
2-Oct	1	4	2	1	4	3	3	4	2	2	2	3	2	3	4	3	3	1	3	3	1	2	3	3	4
3-Oct	2	3	1	2	2	2	2	2	3	4	6	6	5	6	6	7	4	4	4	5	5	3	3	3	7
4-Oct	4	3	3	3	2	3	3	3	2	2	3	3	3	5	5	7	5	6	5	5	4	3	3	3	7
5-Oct	2	4	4	2	2	3	3	4	2	3	3	4	4	2	2	4	4	3	3	3	3	4	3	7	7
6-Oct	4	4	6	7	4	3	5	6	4	4	3	3	2	2	4	4	3	2	1	2	2	2	1	2	7
7-Oct	1	1	1	1	2	2	2	2	3	3	3	3	3	4	4	5	6	8	3	7	8	3	3	5	8
8-Oct	4	4	3	2	4	3	3	6	4	3	4	4	5	4	4	4	6	4	5	5	5	5	3	4	6
9-Oct	3	3	3	3	2	3	2	2	3	3	4	4	4	5	5	4	5	3	2	1	2	2	2	2	5
10-Oct	2	2	3	2	4	2	2	4	3	4	3	4	4	3	8	6	5	3	3	3	2	2	2	4	8
11-Oct	2	5	8	3	1	9	5	7	5	5	5	5	5	6	5	4	3	6	5	5	5	7	8	9	9
12-Oct	8	6	7	7	7	7	8	8	6	5	6	UO	UO	7	8	6	5	3	3	4	3	3	2	2	8
13-Oct	3	2	2	2	1	1	1	1	3	3	5	4	5	4	5	5	5	3	2	3	3	2	3	2	5
14-Oct	2	2	3	3	3	3	4	4	4	6	6	4	4	5	4	4	3	2	2	1	2	1	2	1	6
15-Oct	1	1	2	1	2	2	2	3	4	3	4	4	4	4	3	3	3	4	2	4	3	2	1	2	4
16-Oct	2	3	3	2	2	2	2	2	2	2	2	5	4	4	2	2	4	3	3	4	3	6	4	3	6
17-Oct	2	4	3	3	4	4	4	3	3	4	3	4	4	5	4	5	5	4	3	2	2	3	2	1	5
18-Oct	3	2	2	2	1	1	1	2	2	3	2	2	3	3	3	4	2	1	1	2	3	2	6	3	6
19-Oct	1	2	3	3	2	5	3	2	4	3	3	3	2	1	2	2	2	4	3	3	2	2	3	3	5
20-Oct	3	3	2	3	3	3	3	3	2	2	1	2	2	2	2	3	2	3	2	2	3	3	3	3	3
21-Oct	2	2	2	3	2	2	2	3	3	3	3	5	4	3	4	3	2	4	3	2	2	2	2	3	5
22-Oct	2	4	5	5	4	3	2	2	2	3	3	3	3	4	3	5	6	8	7	8	8	8	8	9	9
23-Oct	9	8	7	6	3	4	5	3	3	4	4	3	3	2	4	4	6	9	6	5	4	3	3	3	9
24-Oct	3	4	4	5	4	3	3	3	2	3	3	3	3	2	5	6	5	6	6	6	6	5	5	5	6
25-Oct	5	6	5	4	4	2	4	2	2	2	3	3	4	5	7	5	5	3	2	3	4	3	1	4	7
26-Oct	2	7	3	2	5	2	1	2	2	6	4	4	2	3	4	5	6	4	7	7	6	7	6	6	7
27-Oct	7	8	9	7	7	7	6	7	7	7	7	7	7	7	7	5	5	4	4	4	4	4	4	3	9
28-Oct	4	3	4	3	4	4	3	4	3	3	3	4	4	4	3	6	2	2	1	2	3	3	2	3	6
29-Oct	3	2	3	5	6	6	4	3	3	5	3	4	2	3	2	4	3	2	2	2	3	2	2	1	6
30-Oct	3	3	1	3	3	2	2	2	3	2	2	3	1	2	3	3	2	2	2	2	2	2	3	2	3
31-Oct	2	3	3	2	3	4	2	1	3	3	5	6	6	9	8	9	8	DF	DF	DF	DF	DF	DF	DF	9
	9	8	9	7	7	9	8	8	7	7	7	7	7	9	8	9	8	9	7	8	8	8	8	9	
	Diurnal Maximum																								

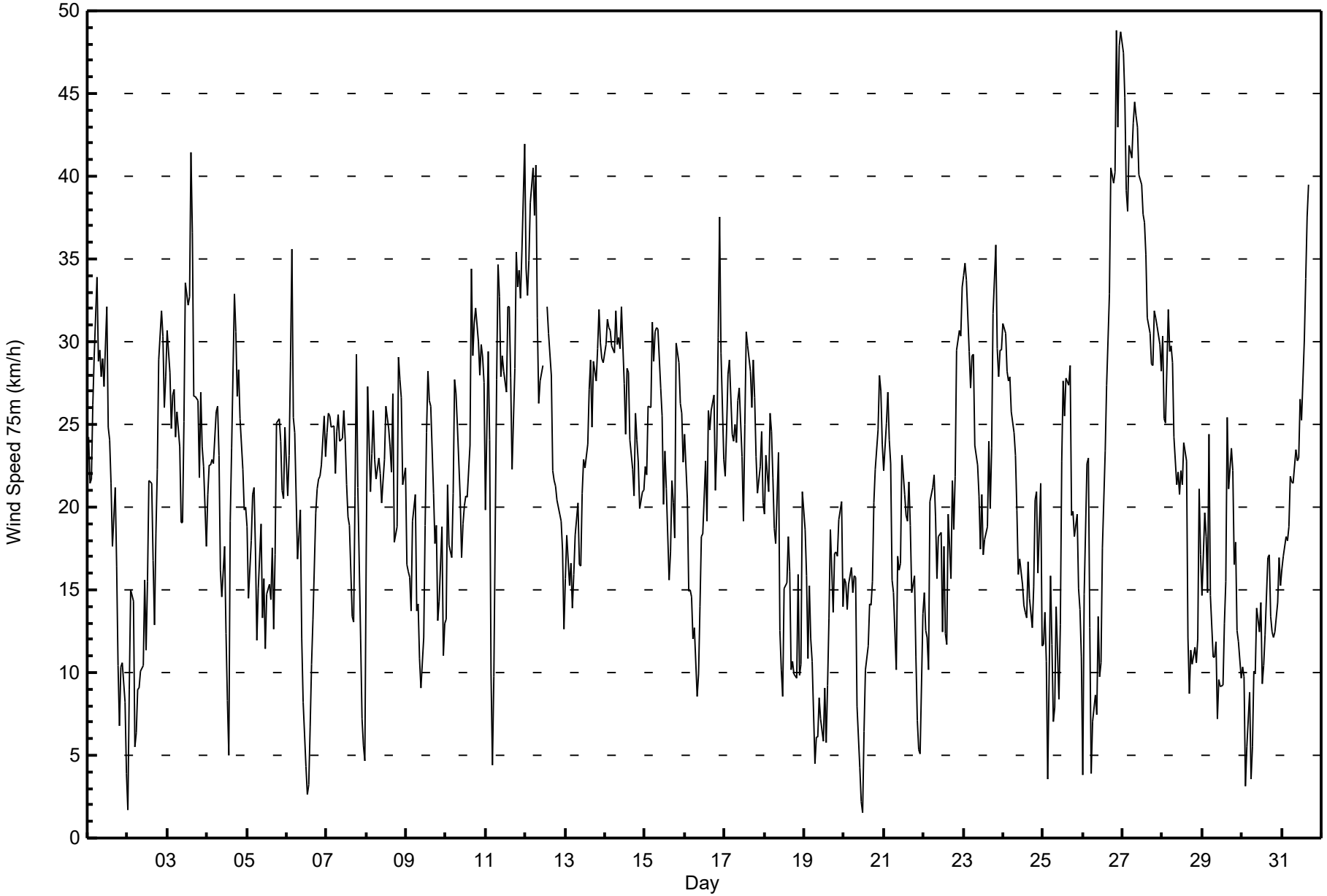
DF - DAS Failure UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 75m (WS75) - km/h

Mannix - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	21	2.86	2.86
6 - 11	81	11.02	13.88
12 - 19	206	28.03	41.90
20 - 28	285	38.78	80.68
29 - 38	119	16.19	96.87
> 38	23	3.13	100.00

Total Number of Valid Hours: 735

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 75m (WS75) - km/h

Mannix - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	0	2	1	0	2	1	2	1	0	0	1	3	1	1	2	4	21
6 - 11	6	9	6	4	3	7	5	11	6	5	3	10	4	0	1	1	81
12 - 19	8	16	2	1	1	0	24	35	14	25	17	13	27	10	3	10	206
20 - 28	12	8	0	0	0	0	28	62	31	12	15	15	51	30	3	18	285
29 - 38	13	3	0	0	0	0	19	9	27	4	5	3	5	14	2	15	119
> 38	9	6	0	0	0	0	1	0	0	0	0	1	0	0	0	6	23
Totals	48	44	9	5	6	8	79	118	78	46	41	45	88	55	11	54	735

Total Number of Valid Hours: 735

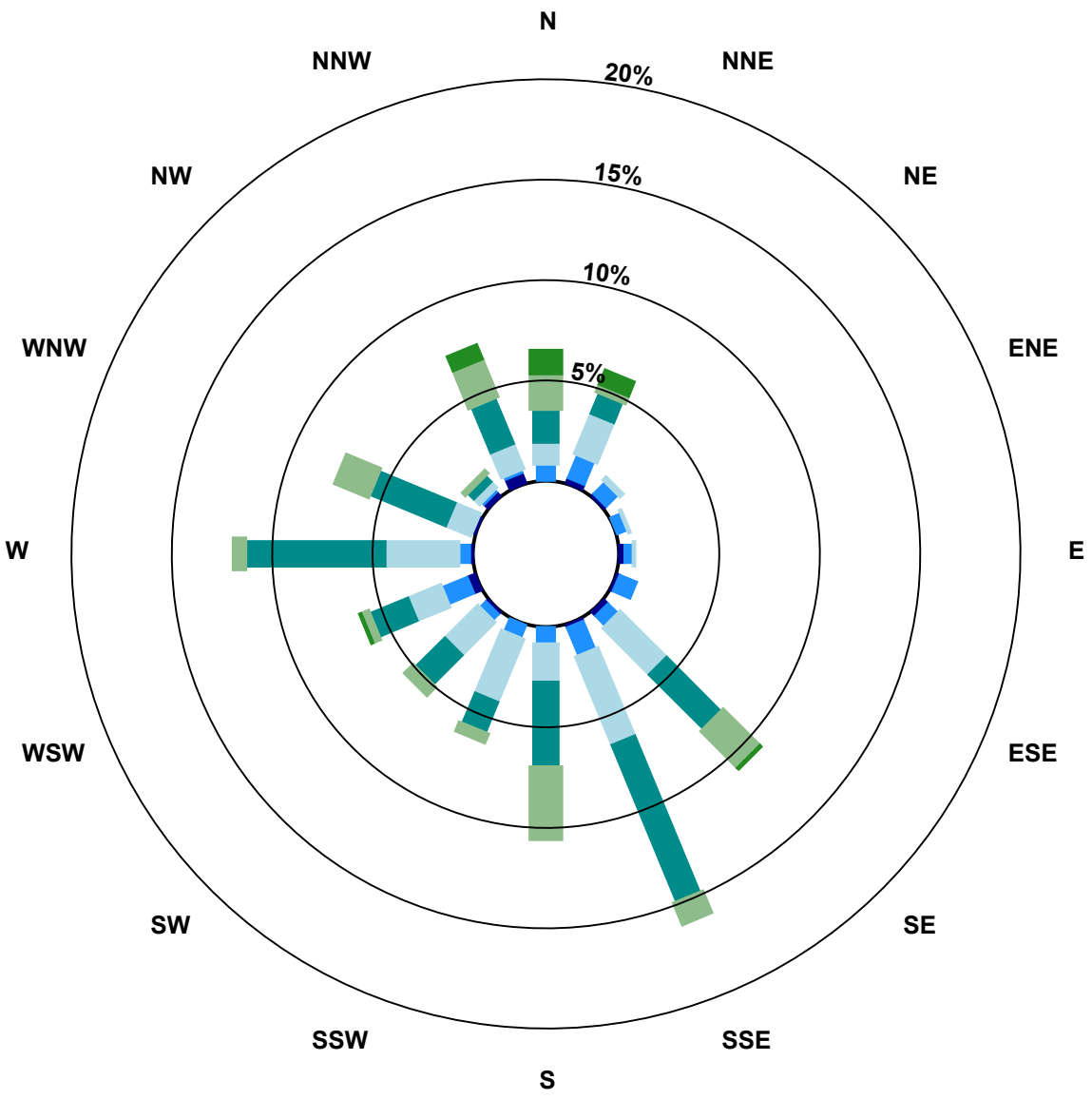
Total Number of Hours: 744

Wood Buffalo Environmental Association

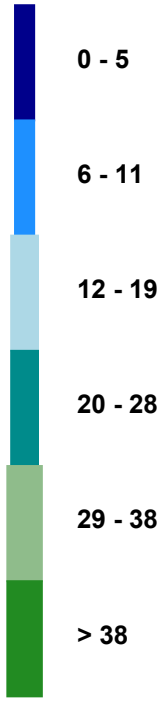
Wind Rose Oct 2025

Wind Speed 75m (WS75) - km/h

Mannix



Classes (km/h)



Total Number of Valid Hours: 735

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 90m (WS90) - km/h

Mannix - October 2025

Maximum Speed: 52 km/h on Oct 26 21:00

Maximum Daily Speed Average: 35.9 km/h on Oct 27

Minimum Speed Value: 2 km/h on Oct 20 12:00

Minimum Daily Speed Average: 3.5 km/h on Oct 20

Maximum Diurnal Speed Average: 8.4 km/h at hour 14

Minimum Diurnal Speed Average: 3.9 km/h at hour 8

Monthly Average Velocity: 5.9 km/h 229.1 deg

Percentiles: P_1 = 4 P_{10} = 11 Q_1 = 16 Median = 23 Q_3 = 29 P_{90} = 33 P_{99} = 47

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	N26	N23	N23	N28	N32	N36	N31	NNW32	N30	NNW31	N29	NNW34	N26	NNW26	NNW23	NNW18	NNW23	N18	NNE11	N7	NNE11	NNE11	NNE9	NNW4	N22.2	N36
2-Oct	N2	WSW8	SW15	WSW14	W7	SSW6	SE8	SSE12	S12	SSE11	SSE16	SSE12	SSE17	SSE22	S21	S17	SSE13	SSE19	SSE23	SSE32	S33	SSE33	SSE29	SSE30	S15.3	SSE33
3-Oct	S31	S29	S24	S26	S27	S24	S24	SSW25	SSW21	SSW20	SSW26	SW34	SW33	WSW34	WSW43	SW38	SW28	SW28	SW28	W23	W29	W25	W24	W19	SW23.6	WSW43
4-Oct	W23	W25	W24	W25	W25	W28	WNW29	WNW26	WNW17	WNW15	WNW18	NNW13	NE8	WNW5	NNE21	N25	NNW35	NNW33	NNW28	NW30	NW27	WNW24	WNW22	WNW22	NW19.4	NNW35
5-Oct	W21	NW16	W20	W24	WSW25	WSW21	WSW14	S14	S19	S14	S16	S11	WSW15	W16	W15	W18	W15	WNW19	WNW28	W27	W26	W23	WNW22	NNW27	W15.1	WNW28
6-Oct	NNE22	NNW25	N30	NNW38	NNW27	NNW27	N18	N19	NNW21	NNE12	NW9	NW5	WSW3	SW4	SSE7	SE11	SSE14	SSE20	SSE21	SE23	SSE24	SSE24	SSE27	SSE25	NE3.7	NNW38
7-Oct	SSE26	SSE27	SSE27	SSE27	SSE27	SSE25	SSE26	SSE28	SSE26	SSE25	SSE26	SSE24	SSE22	SSE20	SSE19	SE16	SE18	SE24	SSE31	S24	S13	ESE9	SSE7	NNW4	SSE21.0	SSE31
8-Oct	WNW20	NNW30	NW24	WNW26	WNW28	W25	W24	WNW25	W23	W21	W22	W23	W27	W26	W24	WSW23	W28	W19	W20	W31	WNW29	WNW28	W23	WNW24	W23.7	W31
9-Oct	W18	W18	W17	WSW15	SW20	SW21	SW14	SW15	SW11	SSW9	SSW12	SW19	WSW25	WSW29	WSW28	WSW27	WSW22	SW19	SW20	SW14	SSW14	SW19	SW12	SSW13	SW17.0	WSW29
10-Oct	S11	SSE18	S14	S13	SSE20	SSE28	SSE31	SSE28	SSE23	SSE19	SSE20	SSE20	SSE21	SSE21	S25	S35	S30	S33	S34	S32	S30	S31	S30	S29	S24.5	S35
11-Oct	SSE21	SSE31	SSE26	SSE11	SSE6	N10	NNE29	N36	N35	NNW30	NNW31	NNW30	NW29	WNW35	WNW35	WNW30	WNW24	WNW30	WNW38	WNW36	NW37	NNW35	NNW37	NNW44	NW18.9	NNW44
12-Oct	NNW37	NNW35	NNW37	NNW41	NNW43	N40	NNW43	N33	NNW28	NNW29	N30	UO32	UO32	N34	N32	N29	NNW24	NNW23	NNW23	NNW22	NNW21	NNW21	NNW19	NW13	NNW29.4	NNW43
13-Oct	WNW17	WNW19	WNW16	W18	W15	WSW17	WSW21	WSW22	SW19	SSW17	SW21	SW24	SSW23	SSW24	S27	S29	S25	S30	S30	S32	S33	S31	S30	S29	SSW18.5	S33
14-Oct	S31	S32	S32	S32	S31	S30	S33	S31	SSW31	SSW30	SSW33	SSW27	SSW25	SW29	SSW29	SSW24	S23	SSW21	SSW26	S25	SSW23	SSW20	S19	SSW20	S26.8	S33
15-Oct	S19	S19	S25	S26	S31	S30	S32	S32	S32	S28	S26	SSW21	SW24	WSW22	SW16	SW18	SW22	SSW22	SW21	SW34	WSW33	W30	W30	W27	SSW21.7	SW34
16-Oct	WSW29	W24	W18	W18	WSW17	SW12	SW13	SSW8	S7	SSE10	SSE20	SSE19	SSE24	SSE20	SSE27	SSE26	S27	S28	S22	S25	SSW32	SSW40	SSW31	SSW24	SSW17.8	SSW40
17-Oct	SSW23	SW27	SW31	SW31	WSW26	WSW26	W27	WNW26	W29	W30	WSW25	W20	W26	WNW32	WNW31	WNW30	WNW28	WNW32	WNW30	WNW26	W24	WNW25	WNW27	WNW22	W24.8	WNW32
18-Oct	W22	W26	W23	W29	W28	W25	W21	W20	W25	W14	W11	W9	W16	W16	W19	W17	W11	WSW12	WSW11	SW9	SSW16	S8	S8	S16	WSW15.4	W29
19-Oct	SSE16	SSE18	SE10	SE14	SE13	SE12	E7	ESE9	ESE10	ESE12	ESE10	ESE7	E10	NE6	NNE9	N14	NNE19	NNE14	NNE17	NE18	NNE18	N20	NNE21	NNE15	ENE8.0	NNE21
20-Oct	NNE16	NNE16	N15	N16	N18	NNW16	N17	NNW16	NNE8	NE4	NNW2	SE2	SSW7	S10	S12	SSW14	SSW15	S16	S21	SSE24	SSE26	SSE30	SSE29	SSE25	SSE3.5	SSE30
21-Oct	SSE24	SSE28	SSE29	SSE26	S24	SSW17	WSW17	WSW13	W19	W17	W17	WNW24	WNW22	W21	W20	W23	NW20	N15	NNE16	NNE12	ENE8	E6	ESE7	SE14	WSW5.7	SSE29
22-Oct	SE15	SE14	SE14	SE11	SE21	SE23	SE23	SSE21	SSE18	SSE20	SSE18	SSE12	SSE18	SSE13	SE12	SE21	SE20	SE25	SE24	SE27	SE33	SE34	SE34	SE37	SE20.9	SE37
23-Oct	SE37	SE38	SE37	SE32	SE29	SE32	SE32	SE25	SE24	SE23	SSE18	SSE21	SSE17	SSE18	SE20	SE26	SE23	SE29	SE34	SE38	SE31	SSE30	SSE32	SE31	SE27.9	SE38
24-Oct	SE33	SE32	SE31	SE31	SE31	SE28	SE27	SE26	SE22	SE17	SSE18	SE16	SSE14	SSE14	SE14	SE19	SE16	SE15	SE18	SE23	SE23	SE18	SE23	SE15	SE21.7	SE33
25-Oct	SE13	SE14	SSE12	NNW4	NNE16	ENE12	ESE9	SSW8	W16	W10	WSW15	W25	W30	W28	WSW30	W29	WSW31	SW21	SW21	WSW20	WSW23	SW16	SW15	WSW14	WSW12.0	WSW31
26-Oct	SE3	SSE12	S23	S23	SSE14	NE3	E7	NE9	ENE8	NE13	ENE10	NE10	NNE17	N25	N28	N31	N34	NNE42	N42	NNE43	N52	NNE46	N51	N51	NNE18.4	N52
27-Oct	N50	N47	N41	N40	N45	N45	NNW47	NNW48	NNW47	NNW46	NNW43	NNW42	NNW39	NNW40	NNW37	NW33	NW33	WNW31	WNW31	WNW34	WNW34	WNW34	WNW33	WNW31	NNW35.9	N50
28-Oct	WNW33	WNW28	WNW27	W34	W32	W32	W31	W26	WNW23	W24	W23	W24	W23	W25	W24	W14	WSW10	W13	WSW11	WSW12	SW10	SSW12	SSW22	SSW18	W20.2	W34
29-Oct	S15	SSE20	SE19	SE16	SE26	SE17	ESE15	ESE15	E13	E9	NNE9	NNE9	N9	N13	N16	NNE27	NNE22	NNE24	NNE23	NNW17	NNW20	NNW13	NNW13	NNW10	NE7.1	NNE27
30-Oct	N11	N10	NNE3	NNE6	ENE9	WSW4	WSW6	W11	WSW11	WSW15	SW13	SW15	SSW9	SSE10	SSW13	SW18	SSW18	SW14	SW13	WSW13	SSW13	SW15	SSW17	SSW16	SW8.3	SSW18
31-Oct	SSW17	S18	S19	S18	SSW20	S22	SSE23	SSE23	SSE25	SSE24	SE24	SE27	SE26	SE33	SE36	SE41	SE41	DF	DF	DF	DF	DF	DF	DF	---	SE41
	SSW4.1	SSW4.6	SSW5.8	SW5.8	SW5.7	SW5.6	SW4.3	SW3.9	SW5.0	SW4.3	SW5.8	SW6.9	WSW8.0	WSW8.4	WSW7.8	WSW7.3	WSW6.3	SW5.2	SW5.9	SW7.1	SW7.9	SW7.1	SW6.4	SW5.3	Diurnal Average	
	N50	N47	N41	NNW41	N45	N45	NNW47	NNW48	NNW47	NNW46	NNW43	NNW42	NNW39	NNW40	WSW43	SE41	SE41	NNE42	N42	NNE43	N52	NNE46	N51	N51	Diurnal Maximum	

DF - DAS Failure

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 9 km/h on Oct 12 00:00

Minimum Value: 1 km/h on Oct 18 19:00

Percentiles: P_1 = 1 P_{10} = 2 Q_1 = 2 Median = 3 Q_3 = 4 P_{90} = 6 P_{99} = 8

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	3	3	4	5	6	4	5	5	5	5	5	7	6	4	5	4	3	4	2	3	4	3	3	1	7
2-Oct	1	3	2	1	2	3	3	3	2	2	2	2	2	3	3	3	3	1	3	2	1	1	3	2	3
3-Oct	2	2	1	2	2	2	2	2	3	4	6	5	5	6	6	7	4	4	4	5	5	3	3	4	7
4-Oct	4	3	3	3	3	3	4	3	2	2	3	3	3	5	5	8	6	6	4	4	4	3	3	3	8
5-Oct	2	4	4	2	2	3	4	4	2	3	3	4	4	2	2	4	4	3	3	3	3	5	3	7	7
6-Oct	5	4	7	7	4	3	5	6	4	4	3	3	2	3	3	3	2	1	1	1	2	2	1	2	7
7-Oct	1	1	1	1	2	2	2	2	2	3	3	3	3	3	4	4	5	6	2	8	8	3	3	6	8
8-Oct	4	3	3	2	4	3	3	6	4	3	4	4	5	3	4	4	6	4	5	5	5	5	3	4	6
9-Oct	3	2	3	2	2	3	2	2	3	2	4	4	4	5	5	4	5	3	2	2	2	2	2	2	5
10-Oct	2	3	3	2	5	1	1	4	3	4	2	4	3	3	8	6	5	2	3	3	2	1	2	5	8
11-Oct	2	5	8	3	1	9	5	7	5	4	5	5	5	7	5	4	3	6	4	5	5	7	8	9	9
12-Oct	8	6	7	7	6	7	8	8	6	5	6	3	4	6	7	7	5	3	3	4	3	3	2	2	8
13-Oct	3	3	3	2	1	1	1	1	3	3	5	4	5	4	5	5	5	4	2	2	2	2	3	2	5
14-Oct	2	2	3	3	4	3	4	4	4	6	5	4	4	5	4	4	3	2	2	1	2	1	2	1	6
15-Oct	1	1	2	1	2	2	2	2	3	3	4	4	4	4	2	3	3	4	3	3	3	3	2	2	4
16-Oct	3	3	3	2	2	2	2	2	1	2	2	4	4	4	2	2	4	3	3	4	3	6	4	3	6
17-Oct	2	4	3	3	4	4	4	4	4	4	4	4	4	5	4	5	5	4	3	3	2	3	2	2	5
18-Oct	3	2	2	2	1	1	1	3	2	3	3	2	3	3	3	4	2	1	1	2	3	2	6	3	6
19-Oct	2	2	3	2	3	3	2	2	5	3	4	3	3	1	2	2	2	4	4	3	2	3	3	3	5
20-Oct	3	3	3	3	3	3	3	3	2	2	2	1	2	2	2	3	2	2	2	2	3	2	2	3	3
21-Oct	2	2	2	3	2	2	2	3	3	3	3	5	4	3	4	3	3	4	3	2	2	2	2	2	5
22-Oct	2	3	4	4	4	2	1	2	2	3	3	3	3	4	3	4	4	6	5	6	6	6	5	7	7
23-Oct	6	6	5	5	2	3	3	2	2	3	4	3	2	2	3	3	4	7	4	4	4	3	2	2	7
24-Oct	3	3	3	3	2	2	2	2	2	3	3	3	3	2	4	5	4	5	5	4	4	4	4	4	5
25-Oct	4	6	5	3	4	2	5	2	2	2	4	3	5	5	7	5	5	3	2	3	5	3	2	4	7
26-Oct	2	6	3	3	4	1	2	1	2	6	4	3	2	3	4	5	5	4	7	7	6	7	6	6	7
27-Oct	7	8	9	7	7	7	6	7	7	7	7	7	7	7	7	5	5	4	4	4	4	4	4	3	9
28-Oct	4	3	4	4	4	4	3	4	3	3	3	4	4	3	3	6	2	2	2	2	3	4	2	4	6
29-Oct	2	2	2	4	5	5	5	3	3	6	3	4	2	3	2	3	2	2	2	2	3	2	2	1	6
30-Oct	3	3	2	3	3	3	2	3	3	2	2	3	1	2	3	2	2	2	2	2	2	2	3	2	3
31-Oct	2	3	3	2	3	4	2	1	3	3	4	5	5	7	6	7	6	DF	DF	DF	DF	DF	DF	DF	7
	8	8	9	7	7	9	8	8	7	7	7	7	7	7	8	8	6	7	7	8	8	7	8	9	
	Diurnal Maximum																								

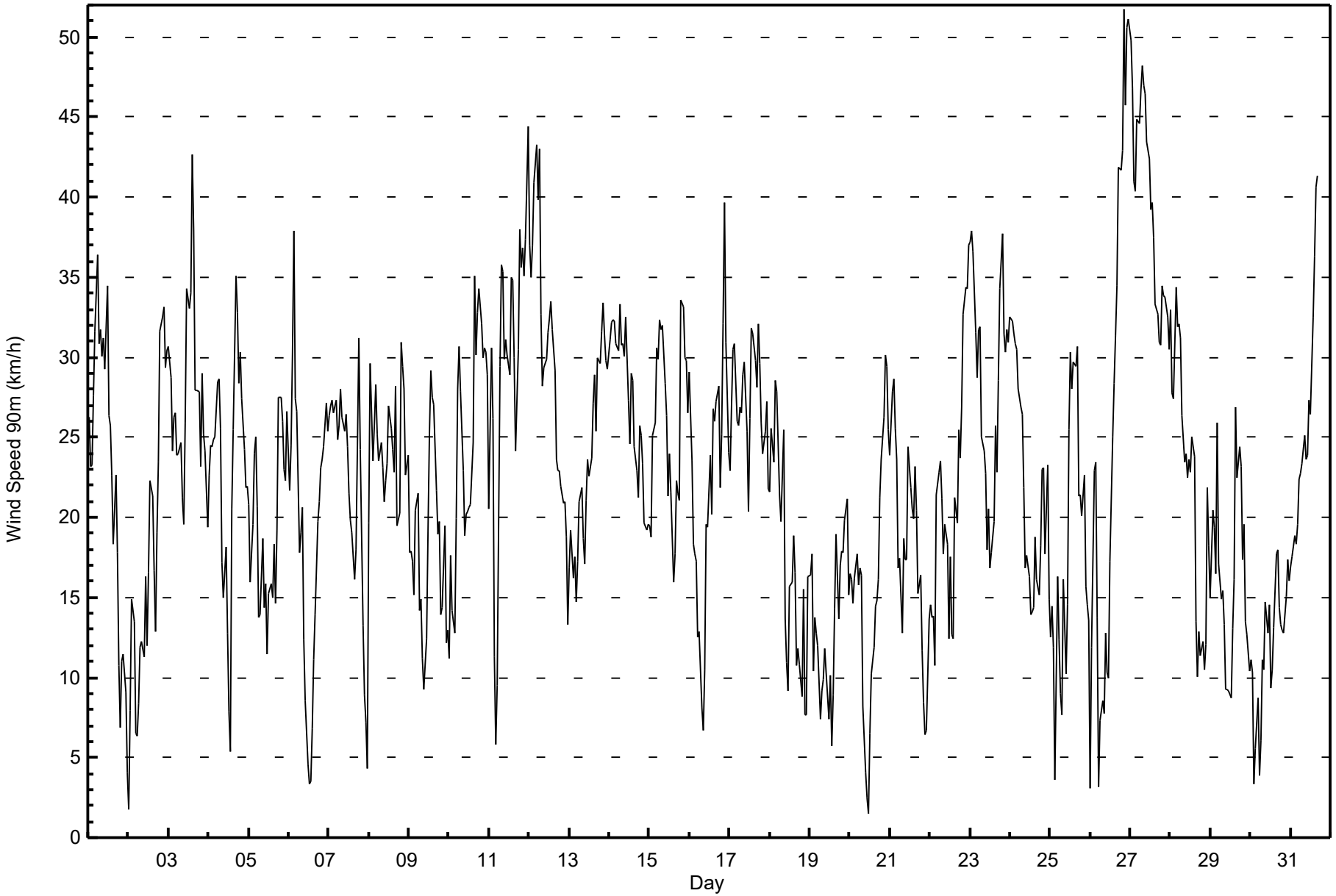
DF - DAS Failure

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 90m (WS90) - km/h

Mannix - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	15	2.04	2.04
6 - 11	74	10.04	12.08
12 - 19	192	26.05	38.13
20 - 28	265	35.96	74.08
29 - 38	161	21.85	95.93
> 38	30	4.07	100.00

Total Number of Valid Hours: 737

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 90m (WS90) - km/h

Mannix - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	1	1	2	0	0	0	2	0	0	0	1	2	0	1	1	4	15
6 - 11	5	9	4	5	4	7	4	7	6	6	3	6	6	0	1	1	74
12 - 19	10	13	2	1	1	3	24	28	18	17	20	15	23	7	2	8	192
20 - 28	9	7	0	0	0	0	27	51	25	20	14	15	53	24	3	17	265
29 - 38	15	1	0	0	0	0	23	12	33	6	7	6	13	21	4	18	159
> 38	10	3	0	0	0	0	2	0	0	1	0	1	0	0	0	13	30
Totals	50	34	8	6	5	10	82	98	82	50	45	45	95	53	11	61	735

Total Number of Valid Hours: 735

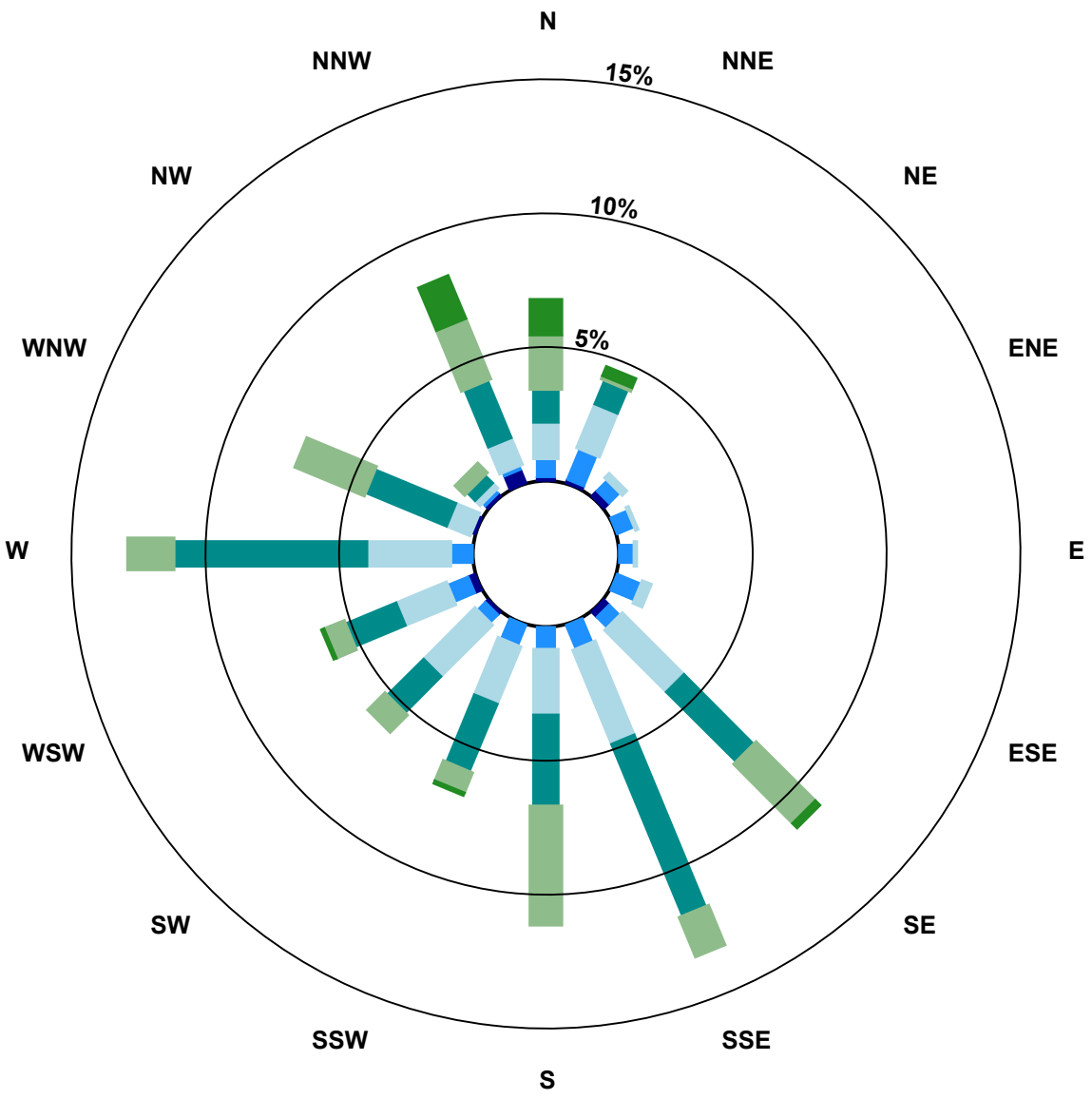
Total Number of Hours: 744

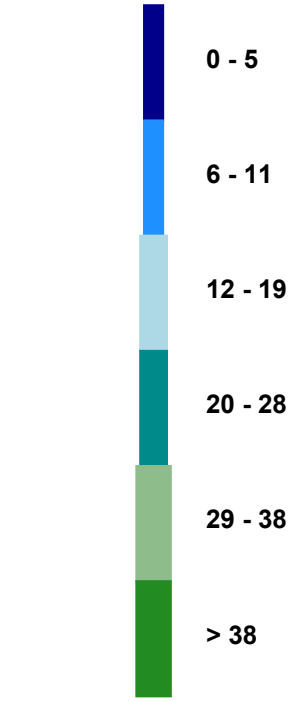
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 90m (WS90) - km/h

Mannix





Total Number of Valid Hours: 735

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 20m (WD20) - deg

Mannix - October 2025

Direction of Maximum Speed: 7 deg on Oct 27 00:00
Direction of Maximum Daily Speed Average: 331.2 deg on Oct 27

Direction of Minimum Speed: 301 deg on Oct 19 09:00
Direction of Minimum Daily Speed Average: 1.5 deg on Oct 20

Monthly Average Direction: 225.2 deg

Hours in Service:	744
Hours of Data:	733
Hours of Missing Data:	11
Percent Operational Time:	98.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	349	347	356	357	341	340	348	335	344	340	345	335	343	337	340	332	335	343	12	348	25	19	350	247	343.5
2-Oct	238	245	246	239	154	176	152	157	146	150	155	142	154	160	174	164	153	151	145	158	164	160	158	163	165.6
3-Oct	159	162	156	155	160	155	160	165	174	174	207	222	228	240	240	227	211	220	233	265	259	255	257	260	215.0
4-Oct	265	263	265	263	252	267	277	286	283	284	287	329	59	274	13	345	339	338	328	322	311	290	287	284	297.0
5-Oct	268	293	252	250	239	226	186	160	167	159	171	180	252	269	265	260	265	279	279	273	263	268	279	343	255.8
6-Oct	14	336	343	343	335	338	350	5	338	29	311	313	265	232	149	138	145	151	152	143	156	153	151	150	14.4
7-Oct	149	151	152	152	156	154	153	152	152	154	155	160	153	149	150	135	129	132	141	186	186	93	234	326	149.1
8-Oct	285	321	288	277	279	266	262	283	273	265	263	268	261	271	265	247	261	279	270	273	285	282	272	280	272.6
9-Oct	271	256	262	231	201	197	180	185	185	177	201	226	240	247	241	246	241	221	199	182	176	186	151	148	220.2
10-Oct	148	151	160	158	149	148	155	158	164	153	155	156	154	151	160	183	182	171	168	163	164	161	153	152	160.4
11-Oct	137	141	157	227	233	354	5	10	341	337	331	322	312	288	285	282	283	288	297	299	307	325	339	344	315.3
12-Oct	341	340	339	341	339	345	344	354	340	338	349	335	342	349	2	351	330	339	338	338	334	329	319	293	341.2
13-Oct	284	291	277	259	245	247	247	229	UO	UO	216	224	206	195	184	185	183	165	172	167	164	164	163	161	200.5
14-Oct	161	163	164	162	161	164	177	187	188	198	205	200	201	220	206	199	185	179	178	165	166	159	157	158	180.6
15-Oct	159	160	153	160	161	156	154	155	160	159	163	176	222	239	225	227	212	189	179	224	244	266	241	241	189.5
16-Oct	249	235	196	185	193	167	158	152	151	150	148	143	148	158	153	154	182	181	168	165	182	195	189	187	172.0
17-Oct	187	223	231	231	238	246	271	286	275	268	253	267	273	282	286	292	289	293	297	290	272	268	268	264	267.5
18-Oct	252	244	241	251	255	241	241	243	247	260	257	264	278	270	266	267	254	228	208	207	189	146	151	153	242.6
19-Oct	141	163	176	156	172	129	184	335	301	88	118	245	25	7	347	350	1	6	2	18	9	5	28	10	27.2
20-Oct	11	13	349	352	350	336	352	325	15	46	280	141	179	174	157	203	207	171	166	160	149	154	148	157	141.5
21-Oct	147	154	146	147	157	154	187	183	250	267	274	294	292	278	266	268	304	6	16	10	19	104	136	152	247.2
22-Oct	157	144	143	148	145	148	143	156	153	152	160	149	158	143	139	137	134	134	134	134	135	135	132	133	141.2
23-Oct	135	135	135	137	143	136	136	144	144	145	150	156	157	151	137	137	136	131	139	140	140	144	146	138	140.3
24-Oct	141	141	138	138	140	143	141	142	150	150	152	148	164	150	151	137	137	134	140	139	140	144	143	143	142.7
25-Oct	150	143	182	325	21	47	100	237	268	261	233	266	262	272	248	259	244	210	201	212	203	157	169	171	230.4
26-Oct	135	160	157	155	162	360	29	342	344	0	11	4	7	353	10	8	6	9	2	14	8	9	9	7	11.3
27-Oct	7	7	4	349	347	346	343	343	340	339	338	335	334	334	333	320	316	298	300	292	291	287	289	286	331.2
28-Oct	288	289	279	277	275	275	275	276	278	274	272	268	263	260	255	248	192	228	222	216	202	177	189	196	264.0
29-Oct	166	154	147	137	140	134	110	101	79	94	4	355	351	5	5	15	15	UO	UO	329	334	327	334	310	59.5
30-Oct	350	337	292	16	58	206	229	246	224	236	235	210	205	161	200	210	206	209	230	241	196	205	198	200	217.6
31-Oct	191	184	182	163	189	166	160	153	153	152	142	143	141	137	138	138	143	DF	DF	DF	DF	DF	DF	DF	--
	200.7	194.9	203.8	219.0	212.1	214.5	215.7	244.4	242.2	228.5	224.0	238.9	241.7	247.6	240.7	233.7	228.1	215.7	215.2	225.0	225.3	211.5	204.2	206.7	
	Diurnal Average																								

DF - DAS Failure UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 91 deg on Oct 19 09:00

Minimum Value: 4 deg on Oct 16 00:00

Percentiles: P_1 = 5 P_{10} = 8 Q_1 = 10 Median = 12 Q_3 = 16 P_{90} = 23 P_{99} = 74

Hours in Service:	744
Hours of Data:	733
Hours of Missing Data:	11
Hours of Calibration:	0
Percent Operational Time:	98.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	16	16	17	15	17	14	16	14	17	17	17	16	16	16	16	17	16	18	17	29	25	35	47	22	47
2-Oct	13	11	7	18	23	18	18	17	17	19	15	16	13	14	17	15	15	10	9	12	9	10	10	9	23
3-Oct	11	10	10	11	11	11	10	11	19	21	23	15	16	14	13	14	15	13	14	21	12	11	11	14	23
4-Oct	11	9	9	10	10	10	11	11	11	15	16	27	30	64	42	23	13	14	17	15	13	11	11	12	64
5-Oct	9	23	11	10	6	11	28	15	17	24	19	33	22	19	15	14	19	10	8	8	8	27	10	32	33
6-Oct	20	16	14	13	14	14	19	21	17	23	34	84	76	68	47	18	14	9	8	12	10	10	9	10	84
7-Oct	9	10	9	10	12	12	10	10	11	12	11	11	13	13	13	11	13	9	10	54	71	23	75	87	87
8-Oct	18	22	14	12	11	10	11	12	11	11	13	14	12	14	15	20	12	10	11	19	14	11	10	12	22
9-Oct	17	15	13	18	12	14	12	12	20	28	30	16	13	14	15	14	12	18	8	12	11	13	6	9	30
10-Oct	7	8	7	6	9	11	10	10	12	15	11	13	14	14	24	15	14	10	9	7	7	6	8	9	24
11-Oct	9	9	44	48	21	55	15	14	13	13	13	13	16	11	10	9	10	12	10	10	12	16	14	13	55
12-Oct	13	13	13	13	13	13	12	15	14	14	16	14	14	21	19	17	13	12	12	13	13	13	14	20	21
13-Oct	13	9	11	9	9	8	9	7	UO	UO	15	16	17	20	19	17	16	7	10	9	7	7	6	6	20
14-Oct	7	7	6	6	7	7	12	14	15	17	15	17	18	13	14	16	14	12	9	5	5	4	6	6	18
15-Oct	5	5	7	6	6	8	8	8	10	9	9	19	15	14	13	12	14	13	11	14	7	8	5	4	19
16-Oct	6	22	17	14	16	11	6	8	9	10	11	12	10	10	9	8	19	12	16	11	13	16	14	14	22
17-Oct	14	14	9	9	10	12	12	10	8	8	12	12	10	12	11	12	11	12	9	9	9	6	4	8	14
18-Oct	9	5	4	9	7	4	5	9	9	13	16	23	17	16	14	13	11	7	7	8	39	18	13	12	39
19-Oct	11	14	14	25	48	36	74	80	91	72	25	77	23	16	17	15	12	14	15	15	17	12	13	21	91
20-Oct	17	17	14	13	15	17	22	15	27	26	47	62	24	26	23	19	16	13	8	10	8	9	10	17	62
21-Oct	10	8	9	13	11	7	19	35	13	12	12	13	12	12	13	9	25	16	12	13	36	42	35	11	42
22-Oct	12	17	15	18	10	8	10	9	12	9	11	14	12	14	12	8	8	8	7	8	8	8	8	8	18
23-Oct	9	9	8	9	11	8	8	9	10	12	11	12	13	10	10	8	9	8	9	8	9	10	10	8	13
24-Oct	9	9	8	8	9	10	9	9	9	10	10	11	16	9	21	10	10	11	13	10	10	9	9	17	21
25-Oct	15	10	49	36	28	17	48	15	24	46	30	8	9	10	14	11	13	17	9	15	26	11	8	27	49
26-Oct	36	20	12	11	16	59	14	41	41	18	32	14	12	13	12	13	13	10	13	13	10	12	11	11	59
27-Oct	11	12	13	12	12	13	11	12	12	12	13	12	13	13	13	14	11	10	10	10	9	9	9	9	14
28-Oct	10	10	9	8	8	7	7	8	9	7	8	8	9	9	12	23	18	22	18	11	12	8	11	13	23
29-Oct	9	9	13	11	9	10	17	11	12	77	19	39	32	11	11	11	17	UO	UO	18	14	13	14	16	77
30-Oct	21	21	36	47	19	59	21	13	11	12	19	16	19	10	25	15	15	16	14	23	21	15	13	14	59
31-Oct	14	14	14	11	17	11	8	7	8	9	10	10	10	9	9	9	10	DF	DF	DF	DF	DF	DF	DF	17
	36	23	49	48	48	59	74	80	91	77	47	84	76	68	47	23	25	22	18	54	71	42	75	87	
	Diurnal Maximum																								

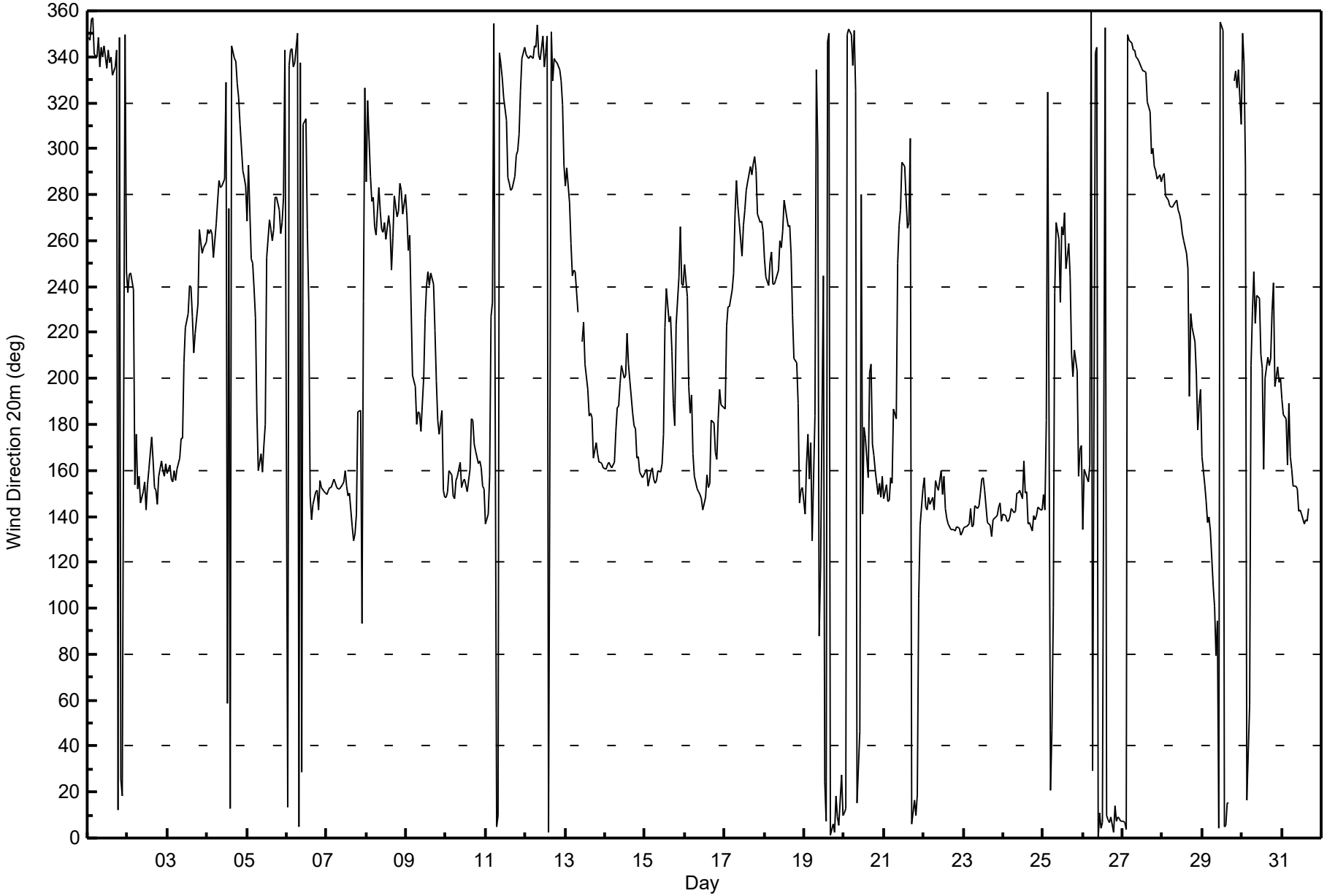
DF - DAS Failure UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 20m (WD20) - deg

Mannix - October 2025



Direction of Maximum Speed: 4 deg on Oct 27 00:00
Direction of Maximum Daily Speed Average: 329.4 deg on Oct 27

Direction of Minimum Speed: 112 deg on Oct 19 07:00

Direction of Minimum Daily Speed Average: 2.3 deg on Oct 20

Monthly Average Direction: 220.7 deg

Hours in Service:	744
Hours of Data:	736
Hours of Missing Data:	8
Percent Operational Time:	98.9

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	352	349	356	357	343	340	348	335	343	338	343	335	342	337	338	331	336	342	10	358	23	16	11	282	344.1
2-Oct	262	244	245	262	197	180	145	156	146	147	151	140	150	159	172	164	152	150	144	154	162	155	153	157	164.0
3-Oct	157	163	157	154	159	154	159	179	184	177	205	219	226	238	238	225	209	218	231	261	258	253	258	261	208.9
4-Oct	265	263	265	263	255	267	277	285	285	285	287	327	49	279	10	346	338	336	327	321	311	292	289	284	298.4
5-Oct	270	297	255	254	239	229	207	161	168	159	171	179	248	267	264	260	264	280	278	271	263	266	279	341	253.8
6-Oct	12	336	344	342	334	337	352	4	337	22	316	313	255	226	147	136	141	148	148	139	150	148	147	148	21.6
7-Oct	147	146	149	149	150	151	147	151	150	154	154	157	153	147	147	129	124	130	140	173	188	96	145	324	146.9
8-Oct	286	321	297	279	278	265	262	282	271	263	261	264	258	269	262	246	259	276	268	272	283	280	272	279	272.4
9-Oct	271	259	265	236	210	201	185	194	188	180	196	224	239	245	239	243	240	222	208	199	186	197	165	154	219.3
10-Oct	151	151	157	156	147	153	156	152	162	155	153	154	153	152	162	180	180	170	167	165	167	160	154	153	159.9
11-Oct	141	140	149	187	190	348	4	6	341	335	330	321	312	286	284	280	280	287	295	297	305	325	337	341	314.8
12-Oct	339	338	338	339	338	343	342	352	340	337	348	336	341	347	0	350	329	338	336	337	331	329	319	297	339.7
13-Oct	285	291	277	260	252	247	243	224	202	195	212	222	204	191	180	183	181	164	171	167	163	161	160	159	196.9
14-Oct	158	161	166	166	162	166	176	184	185	195	202	196	198	216	203	195	182	181	180	169	170	167	162	164	179.9
15-Oct	160	161	152	162	161	157	157	155	161	160	164	178	217	237	223	225	210	196	199	220	235	262	251	248	189.8
16-Oct	252	246	240	234	228	194	177	158	148	147	146	142	148	158	153	153	182	179	170	167	182	193	187	185	178.9
17-Oct	189	222	230	229	240	247	270	284	272	265	251	265	271	280	283	290	287	294	296	289	272	273	273	272	266.5
18-Oct	259	249	251	256	259	251	253	252	250	258	252	260	276	267	263	264	254	244	229	206	194	147	151	150	242.7
19-Oct	132	139	161	146	160	142	112	63	92	94	112	110	48	10	348	352	1	4	1	20	9	4	20	10	44.0
20-Oct	12	12	348	351	348	335	350	325	10	36	296	132	182	174	156	198	204	170	167	159	150	153	148	155	147.2
21-Oct	143	151	143	143	158	172	226	230	252	263	271	292	290	276	263	267	304	3	16	11	41	96	120	143	238.1
22-Oct	145	134	134	138	139	142	UO	150	149	149	157	148	155	143	137	133	129	130	129	128	133	132	130	131	137.1
23-Oct	133	133	133	136	140	132	133	142	141	142	149	153	155	149	135	134	131	128	136	138	139	144	145	137	138.1
24-Oct	138	138	136	133	135	137	137	137	145	146	146	144	161	149	147	133	131	127	133	134	136	135	137	131	137.7
25-Oct	139	135	165	321	14	51	99	225	272	262	240	263	261	271	246	257	243	217	211	221	216	176	184	203	230.9
26-Oct	133	154	157	157	143	12	33	19	12	6	22	4	2	353	6	5	4	7	1	12	4	8	5	4	11.5
27-Oct	5	4	2	350	346	345	341	342	338	337	336	333	332	331	330	319	315	295	296	290	287	285	286	285	329.4
28-Oct	286	287	278	274	273	272	273	274	276	272	270	266	260	259	255	251	215	241	236	225	210	188	187	192	261.0
29-Oct	167	153	142	132	136	129	108	99	80	92	6	357	350	3	359	13	8	7	9	330	331	328	331	315	40.2
30-Oct	349	343	332	20	54	227	241	249	225	235	231	209	201	159	202	206	204	208	225	239	195	207	197	199	216.3
31-Oct	190	182	181	163	188	166	159	151	149	149	141	140	138	135	136	137	141	DF	DF	DF	DF	DF	DF	DF	--
	187.7	189.5	197.8	214.8	207.8	212.8	224.1	230.3	231.3	222.5	221.9	236.5	239.7	245.9	236.8	229.0	227.2	223.1	218.9	220.3	219.0	206.5	199.3	200.9	
	Diurnal Average																								

DF - DAS Failure UO - Unstable Operation

All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 45m (WD45) - deg

Mannix - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 82 deg on Oct 6 13:00

Minimum Value: 2 deg on Oct 10 04:00

Percentiles: $P_1 = 3$ $P_{10} = 5$ $Q_1 = 7$ Median = 9 $Q_3 = 11$ $P_{90} = 18$ $P_{99} = 68$

Hours in Service:	744
Hours of Data:	736
Hours of Missing Data:	8
Hours of Calibration:	0
Percent Operational Time:	98.9

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	8	8	9	8	12	8	9	9	10	10	10	11	11	9	11	10	10	13	13	17	16	26	23	13	26
2-Oct	17	6	4	6	53	15	15	16	10	13	8	9	9	10	9	9	10	5	4	7	4	5	6	5	53
3-Oct	4	4	5	5	4	5	5	9	11	13	18	10	11	10	10	10	9	8	10	19	9	8	7	10	19
4-Oct	8	6	7	8	6	7	8	7	9	11	11	24	26	60	38	20	9	10	13	10	8	8	8	8	60
5-Oct	7	22	12	7	5	6	26	10	11	17	11	24	18	15	12	11	12	8	5	6	6	21	8	30	30
6-Oct	17	11	11	9	10	8	14	15	11	18	35	66	82	71	41	12	9	5	4	6	6	6	4	5	82
7-Oct	4	4	4	5	7	6	5	6	7	7	7	7	9	8	8	8	9	7	5	43	61	25	60	70	70
8-Oct	11	16	11	9	9	8	8	9	8	8	10	12	9	12	13	16	10	7	8	17	11	8	7	10	17
9-Oct	15	11	9	16	7	8	8	12	13	21	22	12	10	11	11	10	9	14	5	11	9	9	9	7	22
10-Oct	4	4	4	2	7	5	5	4	7	11	7	8	9	10	19	9	7	6	5	4	5	3	4	5	19
11-Oct	10	5	36	37	35	60	12	11	9	9	9	9	14	9	8	6	7	9	7	7	9	13	11	10	60
12-Oct	10	9	9	9	9	10	9	13	10	10	13	10	10	18	15	13	9	8	8	10	10	9	9	17	18
13-Oct	11	6	9	7	7	5	6	6	11	13	13	14	13	15	13	10	9	5	6	6	4	4	4	4	15
14-Oct	5	4	4	5	5	5	7	7	7	12	10	9	12	9	9	9	8	6	5	4	3	3	5	5	12
15-Oct	4	4	4	5	3	5	5	5	7	7	7	17	12	11	11	10	9	6	8	7	5	8	3	3	17
16-Oct	4	5	12	9	8	21	11	6	5	7	7	8	8	8	5	5	14	6	12	9	7	10	8	8	21
17-Oct	8	11	6	7	8	10	11	7	7	7	8	11	8	10	9	9	9	9	5	8	7	5	3	6	11
18-Oct	9	3	3	6	4	3	3	5	5	10	13	18	14	13	11	11	7	6	12	6	22	11	7	6	22
19-Oct	4	7	8	10	8	17	72	36	75	37	18	77	20	18	9	9	6	7	9	15	18	7	9	15	77
20-Oct	12	13	11	9	11	14	19	12	22	27	43	73	21	21	19	13	11	9	6	7	5	6	7	11	73
21-Oct	7	6	6	9	12	13	11	21	9	9	10	11	9	11	11	8	23	16	10	12	23	31	24	8	31
22-Oct	9	8	11	14	7	5	UO	5	9	7	7	11	9	10	9	5	6	6	6	6	7	6	5	7	14
23-Oct	6	7	6	7	8	5	6	7	7	9	9	10	10	6	8	6	7	6	7	6	7	7	7	5	10
24-Oct	6	6	6	6	6	6	6	6	7	7	7	9	13	7	19	10	8	10	9	8	8	6	6	12	19
25-Oct	12	6	44	50	20	18	39	19	15	42	27	7	8	8	12	9	11	12	7	14	14	11	15	30	50
26-Oct	14	14	8	9	11	57	10	17	14	10	17	11	7	9	8	9	9	6	9	11	6	8	6	7	57
27-Oct	7	8	9	9	9	9	8	8	9	9	9	9	9	10	10	10	9	8	8	7	7	7	7	7	10
28-Oct	7	8	7	6	6	6	6	6	7	6	7	7	8	7	10	15	17	9	10	8	8	8	5	8	17
29-Oct	8	7	11	10	8	8	15	10	10	69	12	38	29	7	10	8	10	6	7	17	10	11	11	12	69
30-Oct	15	15	38	35	18	65	22	12	9	10	17	11	16	8	24	11	10	9	12	18	16	10	7	8	65
31-Oct	10	10	9	9	11	9	6	5	6	7	8	8	8	7	7	8	8	DF	DF	DF	DF	DF	DF	DF	11
	17	22	44	50	53	65	72	36	75	69	43	77	82	71	41	20	23	16	13	43	61	31	60	70	
	Diurnal Maximum																								

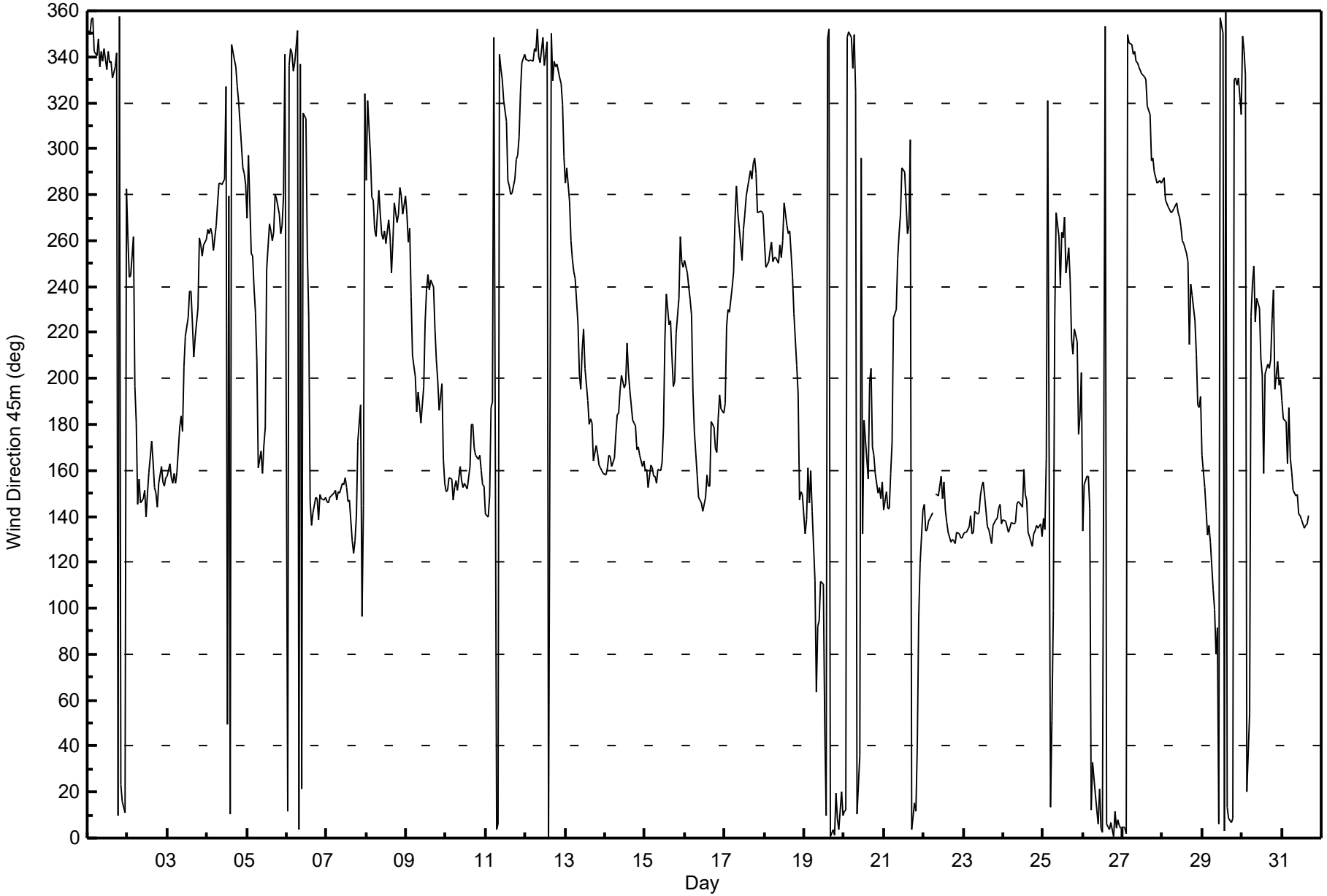
DF - DAS Failure UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 45m (WD45) - deg

Mannix - October 2025



Direction of Maximum Speed: 11 deg on Oct 26 21:00
Direction of Maximum Daily Speed Average: 337.1 deg on Oct 27

Direction of Minimum Speed: 127 deg on Oct 20 12:00

Direction of Minimum Daily Speed Average: 3.5 deg on Oct 20

Monthly Average Direction: 223.7 deg

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	3	1	5	6	352	351	356	347	352	349	352	344	351	347	346	339	347	352	17	9	31	26	24	326	354.8
2-Oct	344	242	234	260	263	193	144	163	158	153	154	149	153	165	176	168	158	155	152	161	172	163	161	163	168.6
3-Oct	170	174	172	169	171	168	174	199	200	190	210	222	230	241	242	228	214	222	235	263	263	259	265	266	214.7
4-Oct	271	269	272	270	265	273	283	292	295	294	294	335	55	295	17	354	346	343	334	329	320	301	299	293	306.4
5-Oct	278	310	262	261	247	240	234	174	181	168	177	182	253	272	271	265	268	289	285	277	269	273	288	350	260.8
6-Oct	18	347	353	349	341	346	3	13	346	29	326	321	255	221	151	142	146	153	152	142	150	150	151	153	44.8
7-Oct	151	149	152	152	151	154	152	156	156	160	159	161	158	151	151	134	128	138	148	172	186	114	146	341	152.7
8-Oct	295	331	309	286	284	271	268	289	277	268	265	268	263	273	267	250	264	282	273	277	289	285	278	286	279.0
9-Oct	279	270	274	246	223	214	212	224	207	190	204	229	242	250	243	247	243	227	220	216	204	218	202	182	231.4
10-Oct	173	164	171	169	159	164	161	149	159	161	153	158	161	158	169	185	184	175	172	173	174	171	169	165	167.5
11-Oct	153	153	152	172	154	360	15	13	351	344	340	330	321	292	289	287	288	294	301	304	313	332	345	348	323.3
12-Oct	347	347	346	346	346	351	351	359	349	345	357	UO	UO	356	8	359	340	347	344	345	338	338	328	307	348.1
13-Oct	296	300	288	268	263	252	247	233	212	200	216	225	208	193	184	186	185	170	175	175	169	168	168	171	201.6
14-Oct	169	171	175	174	173	175	182	190	190	199	205	200	201	218	207	200	188	190	193	182	186	188	181	184	188.1
15-Oct	179	180	168	176	172	169	171	167	170	168	172	189	221	240	229	228	215	208	217	226	236	265	261	258	200.0
16-Oct	254	259	258	256	253	222	204	187	159	151	151	150	155	162	161	160	189	184	179	179	191	200	193	191	190.5
17-Oct	200	229	234	233	245	253	275	291	277	271	257	271	277	285	288	296	293	301	303	295	280	282	283	285	272.4
18-Oct	270	259	261	267	269	261	262	262	258	263	259	262	280	271	267	269	259	255	247	217	205	168	167	170	253.2
19-Oct	146	143	141	145	146	140	93	98	107	106	116	101	74	41	10	9	13	20	16	40	22	12	25	18	62.1
20-Oct	20	20	357	359	355	344	357	335	18	40	332	127	189	178	166	203	209	178	175	166	159	159	154	160	153.2
21-Oct	147	157	147	148	170	197	243	250	259	268	277	297	296	282	269	274	312	12	26	28	61	95	122	143	234.8
22-Oct	143	136	137	138	141	142	142	151	152	153	162	153	159	149	144	139	133	136	133	133	140	139	139	139	142.4
23-Oct	140	140	140	143	146	140	140	145	145	145	155	157	159	153	142	140	137	135	142	143	145	151	150	143	144.3
24-Oct	143	142	141	139	140	141	141	140	146	147	148	147	163	155	149	138	136	131	134	138	139	136	139	131	141.7
25-Oct	137	136	158	342	20	66	103	212	277	270	254	269	267	277	250	262	248	228	227	234	233	206	212	237	243.2
26-Oct	138	157	169	167	149	29	63	50	55	40	52	30	13	5	13	13	12	15	9	19	11	15	12	11	22.1
27-Oct	11	11	9	359	356	354	350	350	346	345	343	341	339	338	338	327	323	301	301	296	294	291	293	292	337.1
28-Oct	293	295	285	281	280	278	279	280	284	280	277	273	266	266	262	263	241	256	253	241	223	205	196	197	268.4
29-Oct	174	159	147	136	141	133	114	105	91	97	26	16	4	13	10	22	18	16	20	343	341	341	339	331	45.9
30-Oct	356	0	20	35	63	239	255	259	235	239	235	213	204	166	210	212	210	215	231	242	200	214	202	204	220.8
31-Oct	196	188	186	170	192	172	165	155	151	153	146	145	145	141	142	142	145	DF	DF	DF	DF	DF	DF	DF	--
	197.5	196.9	200.3	219.7	215.0	216.9	218.9	227.6	229.3	219.8	222.6	231.1	235.3	250.3	240.6	235.1	237.7	232.3	226.4	222.6	222.3	217.7	208.8	208.3	
	Diurnal Average																								

DF - DAS Failure UO - Unstable Operation

All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 75m (WD75) - deg

Mannix - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 95 deg on Oct 20 12:00

Minimum Value: 2 deg on Oct 6 23:00

Percentiles: P_1 = 2 P_{10} = 4 Q_1 = 6 Median = 8 Q_3 = 11 P_{90} = 17 P_{99} = 61

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	0
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	7	6	8	7	9	6	7	8	8	8	8	9	10	8	9	10	9	11	11	12	10	15	14	30	30
2-Oct	31	35	5	8	50	25	11	20	12	12	6	10	8	8	7	9	9	5	2	5	2	3	4	4	50
3-Oct	3	3	3	3	3	4	5	7	8	11	16	8	10	8	9	9	7	7	9	20	8	7	7	9	20
4-Oct	8	6	7	7	6	7	8	5	8	10	11	24	23	59	34	18	8	8	11	9	8	8	8	8	59
5-Oct	7	22	14	6	4	4	22	10	9	15	10	17	18	14	11	12	9	8	5	6	6	18	7	29	29
6-Oct	15	9	9	8	8	6	12	13	9	14	33	62	81	81	40	13	8	3	3	4	4	4	2	4	81
7-Oct	2	3	2	4	5	4	3	3	5	6	6	6	8	7	7	11	11	11	3	32	61	24	53	65	65
8-Oct	8	15	11	7	10	8	8	8	9	8	9	12	10	11	12	16	10	7	8	17	11	7	8	9	17
9-Oct	14	10	8	14	7	5	14	13	13	20	18	10	9	10	10	9	8	12	6	10	9	7	15	12	20
10-Oct	11	4	6	6	4	2	3	6	7	8	6	7	8	8	18	8	6	5	4	4	4	2	3	4	18
11-Oct	8	3	23	21	18	76	12	9	7	8	8	8	13	9	7	6	7	8	6	6	9	12	9	9	76
12-Oct	8	8	8	8	7	8	8	12	8	8	11	UO	UO	17	14	12	8	7	6	7	9	8	8	17	17
13-Oct	9	5	8	7	9	4	4	6	10	10	12	13	11	15	11	10	8	4	4	5	4	3	3	3	15
14-Oct	4	3	4	5	4	5	6	6	7	11	9	8	11	8	7	8	7	5	7	5	6	5	6	6	11
15-Oct	3	4	4	3	2	3	3	3	6	7	7	17	11	11	9	9	7	5	5	4	5	9	3	4	17
16-Oct	3	5	7	7	6	25	12	13	10	6	5	7	7	7	4	4	11	5	11	7	6	9	8	7	25
17-Oct	8	8	5	6	8	9	11	7	7	7	7	12	8	9	8	9	9	8	4	8	6	5	4	6	12
18-Oct	9	2	3	6	5	3	2	5	4	10	15	19	13	12	10	11	7	8	10	14	15	14	10	3	19
19-Oct	5	4	8	6	5	19	19	17	20	15	15	28	15	15	11	7	4	9	8	13	18	5	7	11	28
20-Oct	10	11	9	8	10	14	18	11	20	28	48	95	19	17	19	12	11	9	5	5	4	5	5	8	95
21-Oct	5	4	3	6	14	16	7	12	7	8	10	10	8	11	11	7	23	17	8	11	14	24	22	7	24
22-Oct	5	9	10	11	5	4	3	3	9	8	7	11	9	9	9	5	9	8	9	9	6	6	5	6	11
23-Oct	6	6	5	6	6	3	4	4	5	7	8	9	9	6	6	5	8	8	5	4	5	6	5	3	9
24-Oct	3	3	4	3	3	3	3	4	4	7	7	8	11	6	17	10	10	12	10	8	7	8	5	13	17
25-Oct	11	8	32	88	17	15	28	22	11	35	23	6	8	9	11	9	10	9	8	14	12	9	14	21	88
26-Oct	53	15	6	7	9	38	21	11	17	10	16	20	6	8	6	7	7	5	8	9	5	7	5	6	53
27-Oct	6	7	8	7	7	8	6	7	8	7	8	8	8	8	8	9	9	7	7	6	6	6	6	6	9
28-Oct	6	7	6	6	6	6	6	7	6	6	7	7	8	7	10	9	11	10	8	7	10	11	4	6	11
29-Oct	7	6	10	9	6	10	15	12	11	49	16	37	28	6	8	5	8	5	6	17	8	11	9	10	49
30-Oct	12	11	31	24	15	61	24	13	11	7	16	10	19	9	22	10	8	8	11	15	15	8	5	6	61
31-Oct	9	9	8	8	9	7	5	3	5	6	7	7	7	6	6	6	6	DF	DF	DF	DF	DF	DF	DF	9
	53	35	32	88	50	76	28	22	20	49	48	95	81	81	40	18	23	17	11	32	61	24	53	65	
	Diurnal Maximum																								

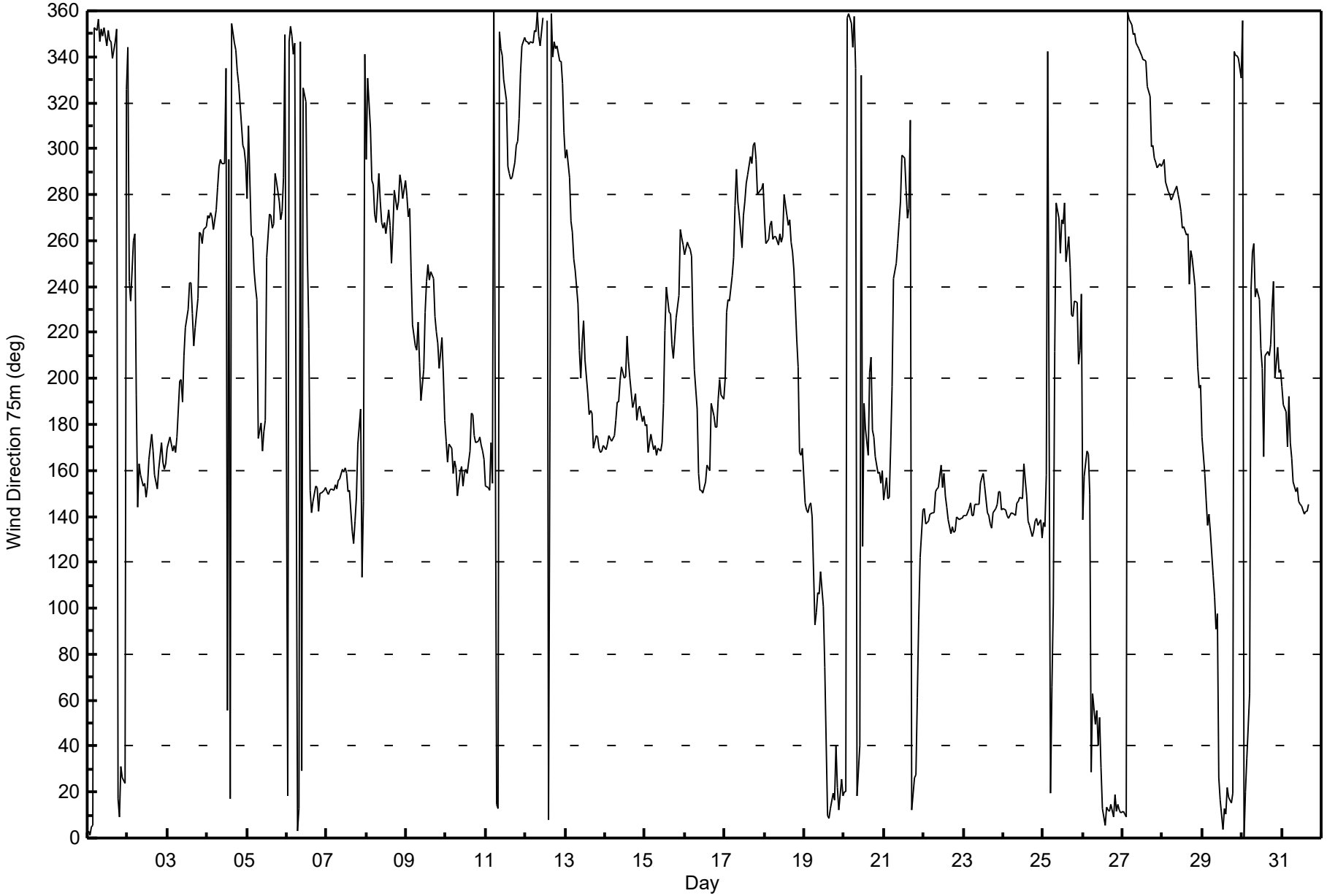
DF - DAS Failure UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 75m (WD75) - deg

Mannix - October 2025



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 90m (WD90) - deg

Mannix - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 92 deg on Oct 20 12:00

Minimum Value: 2 deg on Oct 6 23:00

Percentiles: P_1 = 2 P_{10} = 4 Q_1 = 6 Median = 8 Q_3 = 10 P_{90} = 17 P_{99} = 61

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	0
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	6	6	7	7	9	6	7	8	8	7	7	8	10	7	8	9	8	10	10	11	9	13	14	29	29
2-Oct	25	60	5	8	23	21	11	12	13	11	5	11	8	8	7	9	9	4	2	6	2	2	3	4	60
3-Oct	4	4	3	3	4	4	6	6	7	11	15	8	10	8	9	8	7	7	9	19	8	6	6	8	19
4-Oct	8	6	6	6	6	7	7	5	8	9	11	22	24	56	32	17	7	8	11	8	7	7	7	8	56
5-Oct	6	20	14	5	3	3	18	11	10	15	11	15	17	13	10	12	8	8	4	6	5	16	6	27	27
6-Oct	13	9	9	8	7	5	11	12	8	13	31	58	74	65	41	13	8	3	3	3	3	3	2	4	74
7-Oct	2	2	2	3	5	3	3	2	4	6	6	5	8	8	6	9	7	11	3	26	58	23	49	70	70
8-Oct	7	14	11	7	10	8	7	7	8	8	9	11	9	10	12	14	9	6	7	16	10	7	7	8	16
9-Oct	13	9	7	12	6	5	14	10	13	20	16	9	8	9	9	8	7	11	6	9	9	7	14	13	20
10-Oct	15	6	10	13	3	2	3	6	5	8	6	8	7	8	17	7	6	5	4	4	4	3	3	4	17
11-Oct	8	4	14	16	15	72	12	8	7	7	8	8	13	8	7	5	7	8	6	6	8	11	9	8	72
12-Oct	8	7	7	7	7	8	7	11	8	8	10	UO	UO	16	13	11	8	6	6	7	8	8	8	16	16
13-Oct	8	5	7	7	9	3	2	6	10	9	11	12	10	15	11	10	8	4	4	5	3	3	3	3	15
14-Oct	4	3	4	5	5	4	6	6	6	11	8	8	11	7	7	7	7	5	7	5	7	6	8	7	11
15-Oct	4	6	3	3	2	3	3	3	6	7	7	17	11	10	9	9	6	6	5	3	4	8	5	5	17
16-Oct	2	5	6	6	5	24	11	17	20	11	6	7	7	8	3	5	10	5	11	6	6	9	8	7	24
17-Oct	7	7	5	5	7	8	10	7	6	6	6	12	8	8	8	8	8	7	4	7	5	4	4	6	12
18-Oct	9	2	3	6	5	4	3	5	4	9	14	17	12	12	9	10	7	8	8	20	10	14	14	3	20
19-Oct	9	4	8	5	5	17	9	12	13	11	12	23	14	17	15	7	5	11	10	11	19	5	6	10	23
20-Oct	10	10	9	7	9	14	17	11	19	28	44	92	18	16	19	12	10	9	5	5	4	4	5	7	92
21-Oct	5	4	3	6	14	15	6	9	7	8	9	10	7	10	10	6	22	17	7	10	12	23	19	6	23
22-Oct	6	7	10	10	4	3	3	3	7	7	7	10	9	10	8	5	7	6	6	6	6	6	4	5	10
23-Oct	5	5	5	6	6	3	3	3	5	6	8	8	9	6	6	4	7	6	5	4	5	5	4	3	9
24-Oct	3	3	3	3	3	3	3	2	3	8	6	7	11	6	15	9	9	9	9	7	6	7	4	9	15
25-Oct	9	7	28	82	17	15	25	23	10	28	19	6	7	8	10	8	10	8	8	13	11	8	13	13	82
26-Oct	68	18	5	6	8	41	26	14	18	13	17	23	9	7	6	6	6	5	8	9	5	6	5	6	68
27-Oct	6	7	8	8	7	8	6	6	7	7	8	7	7	8	8	8	8	6	7	6	6	5	5	5	8
28-Oct	5	6	6	6	6	5	5	6	6	6	6	6	7	7	10	7	8	9	8	7	9	12	4	6	12
29-Oct	7	6	11	8	6	8	12	10	12	35	19	36	29	6	8	5	7	5	5	18	8	12	9	10	36
30-Oct	11	8	27	21	16	61	21	12	10	6	15	10	20	9	21	10	8	8	10	13	14	7	5	6	61
31-Oct	8	9	8	8	9	7	6	2	4	6	7	7	7	6	6	6	6	DF	DF	DF	DF	DF	DF	DF	9
	68	60	28	82	23	72	26	23	20	35	44	92	74	65	41	17	22	17	11	26	58	23	49	70	
	Diurnal Maximum																								

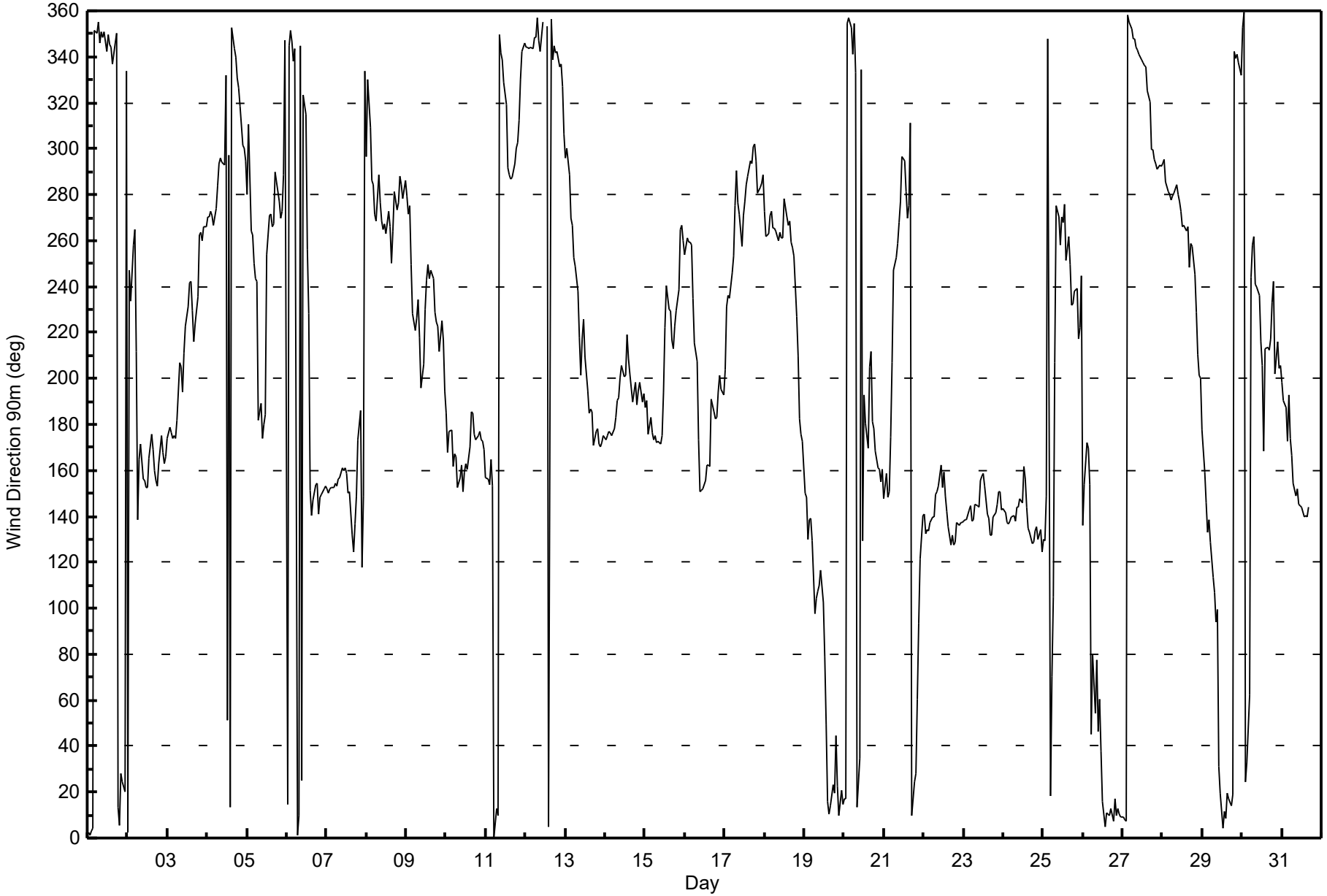
DF - DAS Failure UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 90m (WD90) - deg

Mannix - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 20m (VW20) - km/h

Mannix - October 2025

Maximum Value: 1.3 km/h on Oct 31 14:00

Maximum Daily Average: 0.8 km/h on Oct 23

Minimum Value: -1.4 km/h on Oct 27 09:00

Minimum Daily Average: -0.9 km/h on Oct 27

Maximum Diurnal Average: 0.1 km/h at hour 3

Minimum Diurnal Average: 0.0 km/h at hour 17

Monthly Average: 0.08 km/h

Percentiles: P_1 = -1.2 P_{10} = -0.5 Q_1 = -0.2 Median = 0.0 Q_3 = 0.5 P_{90} = 0.7 P_{99} = 1.1

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	0
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	-0.5	-0.2	-0.2	-0.4	-0.6	-0.8	-0.3	-0.5	-0.5	-0.3	-0.1	-0.6	-0.7	-0.4	-0.3	-0.3	-0.3	-0.3	-0.2	-0.2	0.0	0.0	-0.1	-0.2	-0.3	0.0
2-Oct	-0.1	-0.1	-0.1	0.0	-0.1	0.0	0.3	0.3	0.4	0.4	0.4	0.6	0.4	0.6	0.2	0.5	0.4	0.5	0.4	0.7	0.6	0.7	0.6	0.6	0.3	0.7
3-Oct	0.9	0.7	0.6	0.6	0.7	0.6	0.5	0.3	0.4	0.4	0.1	-0.1	0.1	0.2	0.1	0.1	-0.1	-0.2	0.0	0.0	-0.1	0.1	0.0	0.1	0.3	0.9
4-Oct	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	0.0	-0.2	-0.4	0.3	0.0	-0.3	-0.6	-0.8	-0.5	-0.6	-0.6	-0.5	-0.3	-0.4	-0.1	-0.2	0.3
5-Oct	-0.1	-0.1	0.0	-0.1	-0.2	-0.1	0.0	0.5	0.5	0.5	0.4	0.5	0.0	0.0	0.0	0.1	0.0	-0.1	0.0	-0.1	-0.1	-0.1	0.0	-0.4	0.0	0.5
6-Oct	-0.1	-0.5	-0.6	-0.8	-0.3	-0.5	-0.1	-0.1	-0.4	0.0	-0.2	-0.1	0.0	-0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.4	0.0	0.6
7-Oct	0.5	0.6	0.5	0.4	0.4	0.4	0.5	0.4	0.5	0.6	0.9	0.7	0.8	0.5	0.7	0.8	0.9	0.7	0.5	0.3	0.0	0.2	0.1	0.1	0.5	0.9
8-Oct	-0.1	-0.5	-0.2	-0.1	-0.2	-0.2	-0.1	0.0	-0.2	-0.1	-0.3	-0.2	-0.2	-0.1	-0.3	0.0	-0.2	0.0	-0.1	-0.2	-0.2	-0.1	-0.1	0.0	-0.1	0.0
9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	-0.1	-0.1	-0.1	0.0	0.0	0.1	0.0	-0.1	0.0	0.1	0.0	0.3	0.3	0.0	0.3
10-Oct	0.4	0.5	0.5	0.6	0.4	0.4	0.5	0.4	0.3	0.6	0.6	0.8	0.7	0.8	0.5	0.2	0.2	0.4	0.6	0.7	0.7	0.8	0.8	0.6	0.5	0.8
11-Oct	0.5	0.6	0.4	0.0	-0.1	-0.1	-0.6	-0.5	-0.9	-0.7	-0.8	-0.8	-0.6	0.1	-0.1	-0.1	-0.2	-0.2	-0.5	-0.6	-0.7	-0.8	-0.9	-0.9	-0.4	0.6
12-Oct	-0.9	-1.0	-0.9	-0.9	-1.1	-1.0	-1.3	-0.8	-0.5	-0.8	-0.9	-0.8	-0.7	-0.8	-0.8	-0.5	-0.7	-0.6	-0.7	-0.4	-0.4	-0.4	-0.3	-0.2	-0.7	-0.2
13-Oct	0.0	-0.2	-0.1	-0.2	-0.2	-0.2	-0.2	0.0	0.1	0.0	-0.4	-0.1	-0.1	0.1	0.6	0.2	0.3	0.7	0.4	0.5	0.8	0.7	0.6	0.6	0.2	0.8
14-Oct	0.7	0.7	0.8	0.9	0.8	0.8	0.3	-0.1	0.1	0.1	-0.2	0.3	0.1	-0.1	0.0	0.1	0.2	0.2	0.2	0.6	0.5	0.6	0.6	0.6	0.4	0.9
15-Oct	0.6	0.6	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.8	1.0	0.3	-0.1	-0.1	0.0	-0.1	0.0	0.0	0.1	-0.1	-0.1	-0.2	-0.2	-0.2	0.3	1.0
16-Oct	-0.2	-0.2	-0.1	-0.1	-0.1	0.1	0.3	0.4	0.6	0.8	0.7	0.7	0.7	0.6	0.7	0.6	0.3	0.1	0.4	0.5	0.2	0.0	0.1	0.1	0.3	0.8
17-Oct	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3	-0.2	-0.3	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.4	-0.4	-0.3	-0.3	-0.3	0.0	-0.1	0.0	-0.1	-0.2	0.0
18-Oct	-0.2	-0.3	-0.2	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2	-0.3	-0.1	-0.1	-0.2	-0.3	-0.2	-0.1	-0.1	-0.1	-0.3	-0.3	0.1	0.3	0.4	0.5	-0.1	0.5
19-Oct	0.6	0.3	0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.3	0.6	0.0	-0.1	0.0	-0.1	-0.3	-0.6	-0.3	-0.4	-0.2	-0.4	-0.5	-0.1	-0.1	0.0	0.6
20-Oct	-0.1	-0.2	-0.4	-0.4	-0.5	-0.3	-0.2	-0.4	0.0	0.2	0.0	0.1	0.1	0.2	0.5	0.1	0.0	0.3	0.4	0.5	0.6	0.8	0.7	0.6	0.1	0.8
21-Oct	0.5	0.7	0.7	0.7	0.5	0.4	0.0	0.0	-0.1	0.0	-0.1	-0.3	-0.2	-0.1	-0.2	-0.1	-0.3	-0.4	-0.4	-0.3	-0.1	0.1	0.1	0.7	0.1	0.7
22-Oct	0.5	0.6	0.5	0.5	0.5	0.4	0.6	0.4	0.3	0.5	0.6	0.5	0.6	0.5	0.3	0.6	0.7	0.8	0.7	0.9	0.9	1.1	1.0	1.2	0.6	1.2
23-Oct	1.3	1.1	1.1	0.9	0.8	0.9	0.9	0.6	0.6	0.7	0.9	0.7	0.7	0.7	0.8	0.7	0.7	0.9	1.0	0.9	0.7	0.7	0.7	0.7	0.8	1.3
24-Oct	0.7	0.8	0.8	0.8	0.7	0.6	0.6	0.6	0.5	0.5	0.8	0.5	0.6	0.5	0.5	0.7	0.6	0.7	0.8	0.9	0.6	0.5	0.7	0.5	0.6	0.9
25-Oct	0.4	0.6	0.3	-0.1	-0.1	0.1	0.2	0.0	-0.1	0.1	-0.1	-0.1	-0.1	-0.1	0.0	-0.1	-0.4	-0.1	-0.2	-0.2	0.0	0.4	0.2	0.1	0.0	0.6
26-Oct	0.3	0.3	0.6	0.4	0.2	-0.1	0.0	-0.1	-0.1	-0.4	-0.2	-0.2	-0.3	-0.5	-0.4	-0.7	-0.7	-0.9	-1.2	-0.7	-1.2	-1.0	-1.0	-1.3	-0.4	0.6
27-Oct	-0.9	-1.0	-0.8	-1.1	-1.1	-0.9	-1.3	-1.3	-1.4	-1.1	-1.2	-1.0	-1.0	-1.0	-1.0	-0.9	-0.9	-0.4	-0.7	-0.7	-0.4	-0.4	-0.2	-0.3	-0.9	-0.2
28-Oct	-0.3	-0.3	-0.1	0.0	-0.1	-0.1	0.0	-0.1	-0.1	0.1	0.0	0.2	-0.1	-0.1	-0.2	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.1	0.0	-0.1	-0.1	0.2
29-Oct	0.4	0.6	0.5	0.6	0.8	0.7	1.0	0.7	0.5	0.4	-0.1	-0.1	-0.2	-0.4	-0.4	-0.5	0.2	UO	UO	-0.7	-0.4	-0.4	-0.3	-0.2	0.1	1.0
30-Oct	-0.4	-0.1	0.0	0.2	0.1	0.0	-0.1	0.0	-0.1	0.0	-0.1	0.0	0.0	0.4	0.0	0.1	-0.1	-0.1	0.0	-0.1	0.0	0.0	0.1	0.0	0.0	0.4
31-Oct	0.0	0.1	0.1	0.5	0.1	0.6	0.6	0.6	0.6	0.8	1.0	1.3	1.1	1.3	1.1	1.1	1.2	DF	DF	DF	DF	DF	DF	DF	--	1.3
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	Diurnal Average	
	1.3	1.1	1.1	0.9	0.8	0.9	1.0	0.7	0.7	0.8	1.0	1.3	1.1	1.3	1.1	1.1	1.2	0.9	1.0	0.9	0.9	1.1	1.0	1.2	Diurnal Maximum	

DF - DAS Failure

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Vertical Wind Speed 20m (VW20) - km/h

Mannix - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 4.6 km/h on Oct 27 00:00

Minimum Value: 0.0 km/h on Oct 13 09:00

Percentiles: P_1 = 0.3 P_{10} = 0.6 Q_1 = 1.0 Median = 1.5 Q_3 = 2.1 P_{90} = 2.8 P_{99} = 4.2

Hours in Service:	744
Hours of Data:	735
Hours of Missing Data:	9
Hours of Calibration:	0
Percent Operational Time:	98.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2.3	2.0	2.1	2.5	2.9	3.3	3.0	2.8	2.9	2.9	2.8	3.1	2.7	2.5	2.4	1.9	2.1	1.6	1.0	0.6	0.9	1.0	0.8	0.3	3.3
2-Oct	0.2	0.4	0.2	0.3	0.3	0.6	1.0	1.1	1.2	1.3	1.4	1.3	1.3	1.9	2.3	1.7	1.2	1.1	1.2	1.6	1.7	1.5	1.2	1.2	2.3
3-Oct	1.9	1.8	1.3	1.5	1.7	1.5	1.5	1.2	1.5	2.1	2.9	3.3	3.2	3.2	3.8	3.3	2.4	2.3	2.4	1.9	2.2	2.0	1.7	1.5	3.8
4-Oct	1.5	1.6	1.6	1.6	1.5	1.6	2.0	1.9	1.6	1.6	2.0	1.7	1.4	0.9	2.0	2.3	2.9	3.1	2.8	2.7	2.3	2.0	1.5	1.5	3.1
5-Oct	1.2	1.2	1.1	1.0	0.6	0.7	0.7	1.3	1.6	1.4	2.0	1.9	1.9	1.9	1.5	1.6	0.8	1.0	1.6	1.7	1.6	1.5	1.4	2.6	2.6
6-Oct	2.4	2.2	3.0	3.4	2.3	2.3	1.7	2.1	2.2	2.0	1.8	1.7	1.7	1.9	1.7	1.7	1.4	1.1	1.0	1.6	1.4	1.4	1.4	1.4	3.4
7-Oct	1.4	1.4	1.3	1.3	1.3	1.1	1.2	1.5	1.6	1.9	2.3	2.1	2.1	2.0	1.9	2.0	2.0	2.0	1.8	1.2	0.9	0.8	0.7	1.0	2.3
8-Oct	0.9	1.8	1.1	1.1	1.9	1.4	1.6	2.1	1.8	1.8	2.0	2.2	2.4	2.3	2.1	2.3	2.2	1.6	1.5	2.5	2.3	2.3	1.8	2.0	2.5
9-Oct	1.5	1.1	1.3	1.1	1.0	1.3	0.8	1.1	1.3	1.4	1.9	2.1	2.5	2.6	2.6	2.6	1.9	0.9	0.8	0.5	0.6	1.0	0.5	0.8	2.6
10-Oct	0.8	1.0	0.8	0.7	0.7	0.9	0.9	1.0	1.3	1.6	1.7	1.9	1.9	2.0	2.4	3.3	2.5	1.7	1.7	1.4	1.0	1.2	1.4	1.3	3.3
11-Oct	0.9	1.5	1.1	0.6	0.2	1.0	2.3	3.3	2.9	2.6	2.7	2.6	2.5	2.8	2.8	2.3	1.8	2.3	2.9	2.7	2.9	3.1	3.6	4.2	4.2
12-Oct	3.3	3.3	3.4	3.6	3.6	3.7	3.8	3.3	2.5	2.7	3.0	2.8	3.3	3.4	3.4	2.9	2.1	2.0	1.9	1.8	1.7	1.7	1.5	0.9	3.8
13-Oct	1.1	1.4	1.1	1.1	0.6	0.7	0.8	0.5	0.0	1.3	2.6	2.2	2.6	2.7	2.9	2.8	2.3	1.4	1.5	1.3	1.4	1.4	1.2	1.1	2.9
14-Oct	1.3	1.4	1.3	1.4	1.5	1.4	2.4	2.6	2.9	3.0	3.3	2.8	2.5	2.5	3.0	2.5	1.9	1.0	1.2	0.7	0.6	0.6	0.7	0.7	3.3
15-Oct	0.8	0.8	1.2	1.0	1.3	1.3	1.3	1.2	1.7	1.7	1.9	1.6	2.3	1.9	1.6	1.5	1.7	1.0	0.5	0.9	0.9	0.6	0.4	0.4	2.3
16-Oct	0.5	0.5	0.4	0.5	0.4	0.6	0.5	0.8	1.2	1.4	1.5	1.8	1.8	1.4	1.6	1.1	2.0	1.8	1.4	1.0	2.1	3.1	2.4	1.8	3.1
17-Oct	1.4	1.6	1.9	1.9	1.8	2.0	1.8	1.5	1.8	1.8	2.0	1.9	1.9	2.6	2.6	2.5	1.9	1.9	1.6	0.9	0.6	0.7	0.6	0.5	2.6
18-Oct	0.7	0.7	0.4	1.0	0.8	0.5	0.4	0.5	1.5	1.3	1.3	1.5	1.7	1.6	1.6	1.5	0.7	0.2	0.4	0.5	0.4	0.5	0.5	0.9	1.7
19-Oct	1.0	0.5	0.5	0.6	0.7	0.6	0.3	0.4	0.6	1.1	1.2	0.7	0.9	0.8	1.0	1.2	1.5	1.1	1.4	1.3	1.3	1.8	1.9	1.6	1.9
20-Oct	1.8	1.6	1.5	1.5	1.7	1.5	1.7	1.6	1.1	0.9	0.8	0.9	0.9	1.2	1.1	1.4	1.1	1.0	0.9	1.0	1.2	1.6	1.7	1.5	1.8
21-Oct	1.2	1.2	1.7	1.4	1.0	0.6	0.4	0.8	1.3	1.3	1.6	2.2	1.8	1.6	1.5	1.2	1.4	1.3	1.4	0.8	0.5	0.4	0.5	0.6	2.2
22-Oct	0.7	1.1	1.3	0.7	1.5	1.2	1.4	0.7	0.9	1.5	1.6	1.4	1.7	1.4	1.2	1.7	1.8	2.1	2.1	2.5	2.4	2.7	2.3	2.7	2.7
23-Oct	2.9	2.9	2.6	2.3	1.7	2.2	2.2	1.5	1.5	1.6	1.8	1.8	1.6	1.5	1.6	1.8	2.0	2.3	2.3	2.8	2.1	1.8	1.6	1.8	2.9
24-Oct	2.0	2.1	2.1	2.1	2.1	1.8	1.5	1.5	1.1	1.2	1.5	1.5	1.5	1.0	1.2	1.8	1.5	1.7	1.7	2.1	1.8	1.4	1.7	1.3	2.1
25-Oct	0.8	1.4	1.2	0.6	1.3	0.8	0.9	0.6	0.7	0.9	1.0	1.4	2.0	1.6	2.3	2.4	2.3	1.3	1.1	0.9	0.9	0.5	0.4	0.4	2.4
26-Oct	0.7	0.7	0.8	1.0	0.4	0.4	0.4	0.4	0.4	1.1	0.8	1.2	1.8	2.2	2.5	2.7	3.2	3.5	3.7	3.8	4.5	4.1	4.3	4.6	4.6
27-Oct	4.2	4.3	3.9	3.8	4.2	4.0	4.0	4.3	4.1	4.2	3.9	3.6	3.7	3.6	3.3	2.8	2.6	2.5	2.2	2.5	2.5	2.4	2.3	2.1	4.3
28-Oct	2.3	1.8	1.7	2.0	1.8	1.8	1.6	1.5	1.4	1.3	1.3	1.4	1.5	1.8	1.7	1.0	0.5	0.5	0.6	0.6	0.6	0.4	1.2	1.0	2.3
29-Oct	0.6	1.1	1.3	1.5	2.0	1.9	1.6	1.4	1.1	1.4	1.0	1.0	0.9	1.2	1.3	2.0	2.0	UO	UO	1.4	1.7	1.1	1.1	0.6	2.0
30-Oct	1.0	0.8	0.2	0.8	1.0	0.6	0.6	0.8	0.7	1.0	1.4	1.5	1.1	0.9	1.1	1.3	1.3	1.0	0.8	0.8	0.7	0.9	1.2	1.1	1.5
31-Oct	1.2	1.3	1.4	1.2	1.7	1.4	1.0	1.0	1.4	1.7	2.1	2.5	2.3	2.6	2.9	3.2	3.3	DF	DF	DF	DF	DF	DF	DF	3.3
	4.2	4.3	3.9	3.8	4.2	4.0	4.0	4.3	4.1	4.2	3.9	3.6	3.7	3.6	3.8	3.3	3.3	3.5	3.7	3.8	4.5	4.1	4.3	4.6	
	Diurnal Maximum																								

DF - DAS Failure UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 45m (VW45) - km/h

Mannix - October 2025

Maximum Value: 2.3 km/h on Oct 31 17:00

Maximum Daily Average: 1.5 km/h on Oct 10

Minimum Value: -2.9 km/h on Oct 27 08:00

Minimum Daily Average: -1.6 km/h on Oct 27

Maximum Diurnal Average: 0.4 km/h at hour 3

Minimum Diurnal Average: 0.2 km/h at hour 17

Monthly Average: 0.29 km/h

Percentiles: P_1 = -2.1 P_{10} = -1.0 Q_1 = -0.2 Median = 0.2 Q_3 = 1.1 P_{90} = 1.5 P_{99} = 1.9

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	-1.0	-0.9	-0.9	-1.1	-1.1	-1.5	-0.8	-0.9	-1.0	-1.0	-0.7	-1.4	-1.2	-1.0	-0.8	-0.7	-0.8	-0.6	-0.4	-0.2	-0.1	-0.4	-0.1	-0.1	-0.8	-0.1
2-Oct	-0.1	0.1	0.0	0.1	0.1	0.3	0.7	0.6	0.7	1.0	1.0	1.1	0.9	1.4	1.2	1.1	1.1	1.2	1.3	1.8	1.9	1.8	1.5	1.5	0.9	1.9
3-Oct	2.1	1.9	1.6	1.7	1.8	1.7	1.6	1.1	1.0	1.5	1.0	0.7	0.7	0.4	0.4	0.6	0.6	0.5	0.5	0.1	0.1	0.1	0.0	0.0	0.9	2.1
4-Oct	0.1	0.1	0.0	0.1	0.0	0.0	-0.2	-0.3	-0.3	0.2	-0.1	-0.8	0.3	0.1	-0.5	-0.9	-1.8	-1.4	-1.1	-0.9	-0.6	-0.3	-0.4	-0.1	-0.4	0.3
5-Oct	0.0	-0.2	0.0	-0.1	-0.1	-0.1	0.2	1.1	1.2	1.0	1.2	1.3	0.0	0.0	0.2	0.3	0.0	-0.2	-0.2	-0.1	0.0	0.0	-0.2	-0.7	0.2	1.3
6-Oct	-0.2	-1.2	-1.4	-1.9	-1.0	-1.3	-0.1	-0.2	-0.8	-0.2	-0.4	0.1	-0.2	-0.2	0.7	0.6	1.1	1.2	1.3	1.2	1.3	1.4	1.4	1.4	0.1	1.4
7-Oct	1.4	1.6	1.5	1.3	1.3	0.9	1.3	1.4	1.2	1.7	2.0	1.6	1.8	1.0	1.4	1.0	1.4	1.1	1.4	1.1	0.6	0.4	0.4	0.1	1.2	2.0
8-Oct	-0.2	-1.1	-0.4	-0.2	0.0	-0.1	0.1	-0.1	0.0	0.0	0.1	0.0	0.1	0.1	-0.2	0.2	0.0	0.0	0.0	0.1	-0.2	-0.4	0.0	0.1	-0.1	0.2
9-Oct	0.0	0.1	0.1	0.3	0.2	0.4	0.4	0.2	0.4	0.8	0.9	0.5	0.2	0.1	0.4	0.0	0.3	0.2	0.2	0.4	0.6	0.5	0.6	0.9	0.4	0.9
10-Oct	1.1	1.6	1.5	1.5	1.4	1.4	1.3	1.0	1.0	1.3	1.3	1.7	1.6	1.6	1.6	1.7	1.3	1.5	1.5	1.8	1.4	2.0	1.9	1.6	1.5	2.0
11-Oct	1.2	1.9	1.3	0.3	0.1	-0.3	-1.3	-1.2	-1.6	-1.5	-1.5	-1.2	-0.9	0.3	0.0	-0.1	-0.2	-0.3	-0.7	-0.6	-1.2	-1.3	-1.8	-2.1	-0.5	1.9
12-Oct	-1.9	-1.9	-2.0	-2.0	-2.1	-2.0	-2.3	-1.6	-1.3	-1.7	-1.4	-1.6	-1.9	-1.6	-1.3	-1.1	-1.3	-1.5	-1.4	-1.0	-1.1	-0.9	-0.7	-0.2	-1.5	-0.2
13-Oct	-0.2	-0.4	-0.1	-0.1	-0.1	-0.1	-0.1	0.1	0.3	0.5	0.5	0.5	0.7	1.1	1.9	1.6	1.4	1.6	1.2	1.3	1.8	1.7	1.6	1.5	0.8	1.9
14-Oct	1.6	1.7	1.6	1.7	1.7	1.8	1.7	1.3	1.3	1.1	1.1	0.7	1.0	0.6	0.6	0.9	1.1	0.9	1.1	1.3	1.1	1.1	1.3	1.3	1.2	1.8
15-Oct	1.4	1.6	1.6	1.6	2.2	1.8	1.7	1.8	1.8	1.8	1.9	0.9	0.5	0.1	0.4	0.5	0.4	0.5	0.3	0.2	0.1	-0.3	0.0	0.0	1.0	2.2
16-Oct	-0.1	0.0	0.0	0.1	0.1	0.5	0.6	0.8	1.1	1.4	1.1	1.3	1.6	1.1	1.5	1.4	1.1	1.0	1.2	1.2	1.0	1.1	1.0	0.9	0.9	1.6
17-Oct	0.7	0.4	0.4	0.3	0.0	-0.1	-0.2	-0.3	0.0	0.0	0.1	-0.1	-0.3	-0.4	-0.3	-0.6	-0.6	-0.7	-0.5	-0.5	-0.2	-0.2	-0.2	-0.3	-0.1	0.7
18-Oct	-0.1	-0.1	0.0	-0.3	-0.3	0.0	-0.1	-0.1	-0.2	-0.3	0.2	-0.1	-0.2	-0.2	0.0	0.0	-0.1	0.0	0.0	0.2	0.5	1.1	1.3	1.4	0.1	1.4
19-Oct	1.3	0.9	1.2	1.0	1.2	0.5	0.1	0.2	0.3	0.9	1.3	0.3	0.1	0.1	-0.2	-0.6	-1.0	-0.6	-0.8	-0.6	-0.7	-1.0	-0.3	0.0	0.2	1.3
20-Oct	-0.3	-0.3	-0.9	-0.8	-0.9	-0.5	-0.8	-1.0	0.1	0.1	0.0	0.1	0.4	0.5	0.9	0.5	0.2	0.8	1.0	1.1	1.3	1.6	1.6	1.3	0.3	1.6
21-Oct	1.1	1.5	1.4	1.5	1.2	0.7	0.1	0.1	0.0	0.1	0.1	-0.2	-0.3	-0.2	-0.1	0.0	-0.7	-0.7	-0.6	-0.6	-0.1	0.3	0.3	1.5	0.3	1.5
22-Oct	1.3	1.2	0.9	0.9	0.9	0.8	1.0	1.0	0.7	1.0	1.1	0.8	1.1	0.7	0.0	0.6	0.4	1.1	0.8	0.8	1.5	1.5	1.5	1.7	1.0	1.7
23-Oct	1.8	1.7	1.7	1.6	1.5	1.4	1.5	1.3	1.2	1.2	1.3	1.5	1.2	1.0	1.2	1.2	0.8	1.1	1.7	1.7	1.6	1.5	1.5	1.2	1.4	1.8
24-Oct	1.3	1.4	1.5	1.5	1.4	1.2	1.1	1.1	0.9	0.8	1.2	0.9	1.2	0.8	0.8	0.9	0.8	1.4	1.0	1.1	1.0	0.7	1.0	1.0	1.1	1.5
25-Oct	0.7	1.1	0.7	-0.1	-0.4	0.2	0.4	0.2	-0.1	0.2	0.1	0.1	0.1	-0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.2	0.8	0.5	0.3	0.2	1.1
26-Oct	0.6	1.1	1.4	1.1	0.7	0.0	-0.1	-0.2	-0.1	-0.7	-0.3	-0.5	-0.7	-1.1	-0.9	-1.1	-1.1	-1.9	-1.8	-1.5	-2.6	-1.9	-2.3	-2.6	-0.7	1.4
27-Oct	-2.1	-2.0	-1.3	-1.6	-2.1	-2.0	-2.3	-2.9	-2.4	-2.1	-1.9	-1.7	-2.0	-1.7	-1.8	-1.6	-1.4	-0.8	-1.0	-0.9	-0.7	-0.8	-0.5	-0.6	-1.6	-0.5
28-Oct	-0.7	-0.5	-0.3	-0.4	-0.4	-0.2	-0.1	-0.3	-0.3	-0.1	-0.1	0.0	0.0	-0.1	-0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.4	0.7	0.4	-0.1	0.7
29-Oct	0.8	1.2	1.0	0.8	1.2	0.7	1.7	0.7	0.5	0.5	-0.1	-0.2	-0.5	-0.5	-0.7	-1.2	-0.7	-1.1	-1.1	-0.9	-0.7	-0.6	-0.6	-0.3	0.0	1.7
30-Oct	-0.7	-0.3	0.1	0.2	0.0	0.2	0.1	0.0	0.1	0.2	0.0	0.4	0.2	0.7	0.3	0.5	0.2	0.2	0.1	0.1	0.4	0.2	0.4	0.3	0.2	0.7
31-Oct	0.5	0.8	0.9	1.2	0.7	1.5	1.3	1.3	1.3	1.5	1.7	1.7	1.7	1.9	1.9	1.9	2.3	DF	DF	DF	DF	DF	DF	DF	--	2.3
	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.4	0.4	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	Diurnal Average	
	2.1	1.9	1.7	1.7	2.2	1.8	1.7	1.8	1.8	1.8	2.0	1.7	1.8	1.9	1.9	1.9	2.3	1.6	1.7	1.8	1.9	2.0	1.9	1.7	Diurnal Maximum	

DF - DAS Failure

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 1
Maximum Value: 4.8 km/h on Oct 27 09:00

Minimum Value: 0.2 km/h on Oct 2 01:00

Percentiles: P_1 = 0.3 P_{10} = 0.6 Q_1 = 1.0 Median = 1.6 Q_3 = 2.2 P_{90} = 2.9 P_{99} = 4.3

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2.3	2.0	2.0	2.2	3.2	3.5	3.1	3.0	3.2	3.0	3.0	3.4	2.9	2.6	2.5	2.0	2.2	1.7	1.0	0.6	1.1	1.2	0.9	0.3	3.5
2-Oct	0.2	0.3	0.2	0.2	0.4	0.3	0.9	1.0	1.2	1.4	1.2	1.4	1.4	1.8	1.9	1.5	1.3	1.0	1.0	1.4	0.9	1.5	1.3	1.2	1.9
3-Oct	1.4	1.1	1.1	1.4	1.2	1.1	1.0	0.9	1.4	2.0	2.9	3.3	3.3	3.3	3.8	3.1	2.3	2.2	2.3	1.7	2.4	2.0	1.7	1.7	3.8
4-Oct	1.9	1.7	1.7	1.5	1.3	1.4	1.8	1.7	1.4	1.7	2.1	1.9	1.5	0.9	2.0	2.7	3.5	3.4	2.8	2.7	2.0	1.6	1.4	1.3	3.5
5-Oct	1.2	1.2	0.8	0.8	0.6	0.7	0.6	0.9	1.2	1.4	1.8	2.0	2.1	2.0	1.6	1.7	0.9	1.1	1.3	1.6	1.6	1.5	1.2	2.7	2.7
6-Oct	2.5	2.5	3.5	3.6	2.6	2.3	2.2	2.6	2.5	2.1	2.0	2.0	1.8	2.2	2.1	2.0	1.6	0.9	0.7	1.5	1.3	1.3	1.1	1.3	3.6
7-Oct	1.1	1.1	1.0	1.0	1.1	1.0	1.0	1.4	1.5	1.8	2.2	2.0	2.4	2.3	2.0	2.1	2.4	1.9	1.6	1.3	1.1	0.9	1.0	0.7	2.4
8-Oct	0.7	1.7	1.0	0.9	1.8	1.4	1.7	2.1	2.0	1.9	2.2	2.3	2.6	2.4	2.2	2.3	2.5	1.5	1.5	2.7	2.3	2.3	1.8	2.1	2.7
9-Oct	1.5	1.2	1.4	1.2	0.7	0.9	0.8	0.7	1.3	1.6	2.0	2.3	2.6	2.9	2.8	2.6	2.0	0.9	0.4	0.4	0.8	0.7	0.6	0.9	2.9
10-Oct	0.6	0.7	0.5	0.5	0.5	1.0	0.8	0.9	1.1	1.7	1.8	2.1	2.0	2.1	2.5	3.2	2.2	1.6	1.8	1.5	1.2	1.0	1.2	1.3	3.2
11-Oct	0.8	1.2	1.2	0.7	0.3	1.0	2.4	3.2	3.4	2.9	2.9	2.9	2.5	2.9	2.9	2.2	1.7	2.5	2.7	2.8	2.8	3.4	4.0	4.7	4.7
12-Oct	4.0	3.5	3.7	4.3	4.2	4.0	4.1	3.4	2.9	3.1	3.3	2.9	3.5	3.5	3.5	3.4	2.2	2.0	2.0	2.1	1.9	1.9	1.7	0.8	4.3
13-Oct	1.1	1.1	1.1	0.8	0.3	0.6	0.7	0.6	1.2	1.9	2.6	2.6	2.6	2.9	2.8	2.8	2.2	1.4	1.4	1.3	1.3	1.3	1.2	1.1	2.9
14-Oct	1.3	1.2	1.5	1.6	1.4	1.4	2.3	2.4	2.5	2.8	3.1	2.6	2.6	2.6	2.8	2.3	1.7	0.8	0.6	0.7	0.7	0.5	0.6	0.6	3.1
15-Oct	0.7	0.6	1.2	0.9	0.9	1.3	1.3	1.3	1.7	1.9	1.9	1.6	2.5	2.0	1.8	1.6	1.4	0.9	0.8	0.8	0.9	0.6	0.3	0.3	2.5
16-Oct	0.4	0.4	0.5	0.7	0.4	0.7	0.6	0.7	1.1	1.3	1.6	2.0	2.0	1.6	1.6	1.1	1.9	1.7	1.4	1.0	2.0	3.2	2.2	1.7	3.2
17-Oct	1.3	1.8	1.9	2.1	1.9	2.3	2.1	1.4	2.0	2.0	2.1	2.3	2.2	2.7	2.7	2.6	1.9	1.8	1.5	0.8	0.9	1.0	0.6	0.6	2.7
18-Oct	0.5	0.4	0.5	0.7	0.4	0.4	0.4	0.5	1.2	1.4	1.8	1.9	1.9	1.8	1.6	1.6	0.7	0.2	0.2	0.3	0.4	0.6	0.5	0.8	1.9
19-Oct	0.8	0.5	0.5	0.8	1.0	1.0	0.5	0.7	1.0	1.5	1.5	1.1	0.8	0.7	1.0	1.1	1.2	0.8	1.1	1.2	1.3	1.5	1.9	1.7	1.9
20-Oct	1.9	1.9	1.5	1.6	1.7	1.6	1.8	1.7	1.3	1.0	0.9	1.0	1.0	1.2	1.3	1.3	1.0	1.0	0.9	1.0	1.1	1.8	2.1	1.6	2.1
21-Oct	1.4	1.3	1.6	1.6	1.1	0.8	0.6	1.1	1.5	1.5	1.7	2.2	2.0	1.7	1.7	1.3	1.4	1.5	1.6	1.0	0.7	0.6	0.7	0.8	2.2
22-Oct	0.6	1.3	1.5	0.7	1.5	1.2	1.3	0.9	1.0	1.6	1.8	1.7	1.9	1.7	1.5	1.6	2.1	2.2	2.4	2.8	2.8	2.9	2.3	3.1	3.1
23-Oct	3.3	3.1	2.8	2.5	1.7	2.0	2.2	1.6	1.6	1.6	1.9	2.1	1.9	1.6	1.8	1.9	2.0	2.3	2.6	2.9	2.5	1.9	1.7	1.8	3.3
24-Oct	1.9	2.3	2.2	1.9	2.1	1.9	1.4	1.6	1.2	1.3	1.6	1.7	1.6	1.2	1.5	2.1	1.7	1.9	2.1	2.2	2.0	1.4	1.7	1.5	2.3
25-Oct	1.1	1.4	1.4	0.6	1.4	0.9	1.1	0.4	0.8	0.8	1.1	1.5	2.1	1.6	2.6	2.7	2.4	1.6	1.1	1.0	0.9	0.6	0.6	0.4	2.7
26-Oct	0.8	0.8	0.8	1.0	0.4	0.3	0.3	0.4	0.7	0.7	1.0	1.1	1.6	2.1	2.4	2.9	3.2	2.9	3.7	3.6	3.6	4.0	3.9	4.2	4.2
27-Oct	4.0	4.5	4.1	3.9	4.4	4.3	4.2	4.4	4.8	4.6	4.6	4.3	4.2	4.2	3.7	3.0	2.7	2.4	2.4	2.7	2.6	2.5	2.5	2.1	4.8
28-Oct	2.5	1.8	1.8	2.2	2.0	2.0	2.0	1.7	1.6	1.4	1.6	1.7	1.8	2.0	1.7	1.1	0.6	0.6	0.6	0.6	0.6	0.4	1.0	0.8	2.5
29-Oct	0.7	1.1	1.4	1.6	2.4	2.0	1.9	1.6	1.4	1.7	1.1	1.0	0.8	0.8	1.3	1.9	1.8	1.6	1.4	1.4	2.0	1.1	1.2	0.9	2.4
30-Oct	1.1	0.7	0.4	0.8	1.1	0.7	0.6	0.8	0.6	1.1	1.4	1.6	1.1	1.0	1.1	1.3	1.1	1.0	0.8	0.6	0.6	0.7	1.0	1.0	1.6
31-Oct	1.2	1.4	1.4	1.2	1.5	1.4	0.9	1.0	1.5	1.9	2.5	2.7	2.7	3.1	3.2	3.8	3.8	DF	DF	DF	DF	DF	DF	DF	3.8
	4.0	4.5	4.1	4.3	4.4	4.3	4.2	4.4	4.8	4.6	4.6	4.3	4.2	4.2	3.8	3.8	3.8	3.4	3.7	3.6	3.6	4.0	4.0	4.7	
	Diurnal Maximum																								

DF - DAS Failure

Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 75m (VW75) - km/h

Mannix - October 2025

Maximum Value: 1.7 km/h on Oct 11 14:00

Maximum Daily Average: 0.7 km/h on Oct 8

Minimum Value: -2.5 km/h on Oct 12 13:00

Minimum Daily Average: -0.7 km/h on Oct 22

Maximum Diurnal Average: 0.3 km/h at hour 11

Minimum Diurnal Average: 0.0 km/h at hour 17

Monthly Average: 0.10 km/h

Percentiles: P_1 = -1.3 P_{10} = -0.6 Q_1 = -0.2 Median = 0.2 Q_3 = 0.5 P_{90} = 0.7 P_{99} = 1.1

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	-0.4	-0.4	-0.3	-0.3	-0.2	-0.5	0.3	0.1	0.4	-0.1	0.4	-0.2	-0.3	-0.4	-0.2	0.0	-0.1	0.1	-0.2	-0.1	-0.3	-0.5	-0.2	0.0	-0.2	0.4
2-Oct	0.0	0.2	0.1	0.6	0.2	-0.1	0.0	-0.1	0.0	0.1	0.1	0.2	-0.1	0.3	0.1	0.2	0.4	0.1	-0.1	0.7	0.8	0.7	0.5	0.5	0.2	0.8
3-Oct	0.9	0.8	0.9	1.0	0.9	0.7	0.8	0.3	0.3	0.7	0.5	0.3	0.9	0.7	0.6	0.5	0.1	0.2	0.6	0.7	0.7	0.6	0.3	0.4	0.6	1.0
4-Oct	0.5	0.7	0.6	0.6	0.5	0.7	0.7	0.7	0.4	1.0	0.7	-0.4	0.2	0.1	-0.3	-0.2	-0.6	-0.2	-0.2	0.2	0.3	0.8	0.7	0.7	0.3	1.0
5-Oct	0.5	0.3	0.3	0.2	0.0	-0.1	0.1	0.5	0.7	0.4	0.7	0.9	0.2	0.4	0.6	0.7	0.3	0.4	0.7	0.6	0.6	0.6	0.5	0.2	0.4	0.9
6-Oct	0.4	-0.4	-0.3	-0.8	0.0	-0.5	0.4	0.6	-0.2	-0.2	-0.1	0.1	-0.5	-0.2	-0.1	-0.4	-0.1	0.1	0.0	-0.5	-0.1	-0.1	-0.2	0.0	-0.1	0.6
7-Oct	-0.1	-0.1	0.0	0.0	0.0	-0.1	-0.2	0.3	0.3	0.7	0.6	0.5	0.6	-0.5	0.0	-0.3	-0.2	-0.8	-0.6	0.4	0.4	0.0	-0.1	0.2	0.0	0.7
8-Oct	0.6	0.0	0.5	0.6	0.9	0.7	0.5	0.9	0.9	0.5	0.6	0.7	1.0	1.0	0.5	0.7	0.7	0.6	0.6	1.2	1.1	0.9	0.6	1.2	0.7	1.2
9-Oct	0.6	0.6	0.7	0.3	0.1	0.1	-0.1	-0.2	-0.1	0.3	0.7	0.4	0.4	0.5	0.5	0.4	0.7	0.2	0.0	0.0	0.0	0.1	0.0	0.1	0.3	0.7
10-Oct	0.2	0.7	0.3	0.3	0.5	0.9	0.5	-0.4	0.2	0.7	0.3	0.6	0.5	0.4	0.4	0.7	0.6	0.6	0.5	0.7	0.5	0.7	0.7	0.6	0.5	0.9
11-Oct	0.2	0.1	-0.1	0.1	0.0	-0.1	-0.8	-0.3	-0.6	-0.7	-0.5	0.0	0.4	1.7	1.6	1.0	0.8	1.0	1.1	1.1	0.6	0.2	-0.5	-0.4	0.2	1.7
12-Oct	-0.8	-1.0	-0.7	-0.6	-0.7	-0.7	-0.9	-0.5	-0.5	-0.7	-0.2	-2.1	-2.5	-0.6	0.0	0.0	-0.4	-0.7	-0.6	-0.3	-0.4	-0.1	0.1	0.3	-0.6	0.3
13-Oct	0.5	0.6	0.4	0.3	0.2	0.1	0.1	0.2	0.0	-0.2	0.5	0.6	0.1	0.6	1.1	0.9	0.7	0.7	0.5	0.5	0.7	0.6	0.5	0.5	0.4	1.1
14-Oct	0.6	0.6	0.6	0.7	0.7	0.8	0.7	0.5	0.3	0.2	0.3	0.0	0.5	0.1	0.0	0.3	0.3	0.2	0.3	0.6	0.5	0.3	0.7	0.5	0.4	0.8
15-Oct	0.9	0.8	0.7	0.9	1.0	0.9	1.0	0.9	0.7	0.7	0.7	0.4	0.2	0.2	0.4	0.5	0.0	0.1	0.1	0.3	0.2	0.3	0.3	0.2	0.5	1.0
16-Oct	0.3	0.4	0.4	0.3	0.3	0.2	0.0	0.0	0.2	0.4	-0.1	0.2	0.3	0.1	0.3	0.5	0.4	0.4	0.4	0.5	0.3	0.1	0.3	0.1	0.3	0.5
17-Oct	0.2	0.3	0.4	0.3	0.5	0.4	0.7	0.6	0.9	0.9	0.8	0.8	0.7	0.9	0.9	0.7	0.7	0.7	0.7	0.5	0.4	0.5	0.6	0.2	0.6	0.9
18-Oct	0.3	0.3	0.4	0.2	0.1	0.4	0.2	0.2	0.3	-0.1	0.1	0.2	0.3	0.2	0.4	0.5	0.0	0.1	0.0	0.0	0.2	0.2	0.3	0.6	0.2	0.6
19-Oct	0.2	-0.4	-0.1	0.0	0.2	0.0	-0.3	-0.1	0.3	1.1	1.2	0.2	-0.1	0.4	0.1	-0.3	-0.6	-0.3	-0.3	-0.4	-0.6	-0.5	-0.2	0.4	0.0	1.2
20-Oct	0.1	0.1	-0.5	-0.4	-0.5	0.1	-0.1	-0.2	0.1	-0.1	-0.2	-0.4	0.1	0.2	0.3	0.1	-0.1	0.4	0.5	0.5	0.3	0.5	0.1	0.2	0.0	0.5
21-Oct	-0.2	0.4	-0.3	0.0	0.4	0.3	0.2	0.3	0.4	0.5	0.6	1.0	0.6	0.5	0.4	0.6	0.2	-0.5	-0.5	-0.7	-0.3	-0.1	-0.1	0.1	0.2	1.0
22-Oct	-0.2	-0.2	-0.1	-0.1	-0.9	-0.7	-0.7	-0.2	-0.2	-0.2	0.0	-0.1	0.1	-0.3	-1.3	-1.5	-1.4	-1.1	-1.3	-1.1	-1.2	-1.2	-1.2	-1.1	-0.7	0.1
23-Oct	-1.1	-1.2	-1.3	-0.7	-0.5	-1.1	-1.0	-0.4	-0.4	-0.3	0.2	0.2	0.2	-0.4	-0.6	-1.0	-1.4	-1.2	-0.8	-1.0	-0.6	-0.3	-0.3	-1.0	-0.7	0.2
24-Oct	-1.0	-1.1	-0.6	-0.8	-0.9	-1.0	-0.8	-0.8	-0.5	-0.4	-0.1	-0.2	0.5	-0.2	0.0	-0.7	-0.7	0.4	-0.6	-0.9	-1.0	-1.1	-0.8	-0.2	-0.6	0.5
25-Oct	-0.5	-0.4	0.0	0.2	-0.3	-0.2	0.0	0.2	0.3	0.4	0.4	0.9	0.9	0.8	0.5	0.9	0.6	0.3	0.0	0.2	0.3	0.1	0.0	0.1	0.2	0.9
26-Oct	0.0	0.2	0.6	0.4	-0.1	0.0	-0.2	-0.2	-0.1	-0.4	-0.3	-0.3	-0.4	-0.5	-0.5	-0.5	-0.4	-1.0	-0.6	-0.5	-1.0	-0.6	-1.1	-1.2	-0.4	0.6
27-Oct	-0.9	-0.9	0.2	-0.2	-0.5	-0.5	-0.8	-1.2	-0.6	-0.7	-0.5	-0.6	-0.8	-0.4	-0.1	-0.1	-0.1	0.7	0.7	0.8	0.8	0.7	0.8	0.5	-0.2	0.8
28-Oct	0.8	0.6	0.9	0.8	1.0	1.1	1.0	0.7	0.7	0.7	0.7	0.8	0.5	0.5	0.4	0.2	0.1	0.3	0.1	0.2	0.0	0.0	0.2	0.0	0.5	1.1
29-Oct	0.3	0.3	-0.4	-0.6	-0.8	-0.8	0.8	-0.4	-0.3	-0.1	0.0	-0.1	-0.3	-0.2	-0.1	-0.8	-0.4	-0.7	-0.6	-0.3	-0.1	-0.2	-0.2	-0.1	-0.2	0.8
30-Oct	-0.6	-0.1	0.1	0.2	-0.4	0.2	0.2	0.0	0.0	0.1	-0.2	0.2	0.0	0.0	0.2	0.3	0.0	0.0	0.1	0.1	0.1	-0.1	-0.1	0.0	0.0	0.3
31-Oct	0.1	0.2	0.4	0.5	0.1	0.6	0.5	0.2	-0.1	0.2	-0.2	-0.5	-0.2	-0.7	-1.1	-1.0	-0.9	DF	DF	DF	DF	DF	DF	DF	--	0.6
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.9	0.8	0.9	1.0	1.0	1.1	1.0	0.9	0.9	1.1	1.2	1.0	1.0	1.7	1.6	1.0	0.8	1.0	1.1	1.2	1.1	0.9	0.8	1.2	Diurnal Maximum	

DF - DAS Failure

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 4.7 km/h on Oct 12 00:00

Minimum Value: 0.1 km/h on Oct 2 01:00

Percentiles: P_1 = 0.3 P_{10} = 0.6 Q_1 = 0.9 Median = 1.5 Q_3 = 2.2 P_{90} = 2.9 P_{99} = 4.1

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2.2	1.8	1.8	2.1	2.9	3.0	3.1	3.0	3.1	2.8	2.9	3.1	3.1	2.5	2.6	2.0	2.1	1.7	0.9	0.5	1.2	1.3	1.2	0.3	3.1
2-Oct	0.1	0.2	0.2	0.3	0.3	0.3	0.8	0.8	1.0	1.2	0.9	1.2	1.2	1.6	2.0	1.6	1.2	0.7	0.4	1.1	0.5	1.1	1.2	1.1	2.0
3-Oct	1.0	0.9	0.7	0.9	0.8	0.7	0.7	0.8	1.5	2.2	3.0	3.3	3.5	3.3	3.7	3.1	2.1	2.2	2.3	1.8	2.4	1.9	1.9	2.0	3.7
4-Oct	2.0	1.8	2.0	1.6	1.2	1.6	1.7	1.5	1.3	1.8	2.3	2.1	1.8	1.0	1.8	2.5	3.2	3.3	2.5	2.6	1.9	1.7	1.4	1.4	3.3
5-Oct	1.2	1.3	0.7	0.8	0.5	0.6	0.4	0.7	0.9	1.2	1.8	2.2	2.4	2.0	1.8	1.9	1.1	1.3	1.4	1.5	1.5	1.6	1.1	2.5	2.5
6-Oct	2.5	2.3	3.4	3.3	2.4	1.9	2.2	2.6	2.3	2.0	2.2	2.2	1.9	2.3	2.4	2.2	1.5	0.6	0.3	1.0	1.0	1.0	0.5	1.0	3.4
7-Oct	0.7	0.5	0.6	0.7	0.8	0.8	0.6	1.0	1.2	1.6	2.0	1.9	2.5	2.1	1.9	2.4	2.8	2.0	1.1	1.1	1.0	1.3	0.9	1.0	2.8
8-Oct	0.7	1.4	0.9	0.9	1.9	1.4	1.8	2.1	2.2	2.0	2.4	2.6	2.7	2.6	2.4	2.4	2.5	1.6	1.7	2.7	2.6	2.4	2.0	2.3	2.7
9-Oct	1.9	1.3	1.5	1.1	0.6	0.7	0.9	0.7	1.1	1.6	2.2	2.5	2.6	2.9	2.8	2.6	2.0	1.0	0.3	0.4	1.0	0.5	0.7	1.1	2.9
10-Oct	0.8	0.5	0.4	0.5	0.4	0.6	0.6	0.7	0.8	1.6	1.6	2.0	2.0	2.1	2.5	3.2	2.3	1.4	1.7	1.5	1.2	0.8	0.9	0.9	3.2
11-Oct	0.8	0.7	0.7	0.7	0.3	0.7	2.2	2.9	3.1	2.7	2.8	2.8	2.4	2.9	3.2	2.2	1.9	2.4	2.8	3.0	2.9	3.5	3.9	4.7	4.7
12-Oct	3.8	3.2	3.3	4.1	4.0	3.8	3.8	3.3	2.8	2.9	3.5	2.2	2.3	3.2	3.5	3.2	2.1	1.8	1.8	2.0	1.7	1.9	1.5	0.9	4.1
13-Oct	1.2	1.1	1.1	0.6	0.3	0.6	0.5	0.2	1.1	1.9	2.8	2.8	2.6	3.2	3.2	2.9	2.0	1.1	1.2	1.1	1.1	1.0	0.9	0.8	3.2
14-Oct	1.1	1.0	1.6	1.9	1.4	1.5	2.4	2.4	2.5	3.0	3.1	2.6	2.9	2.4	2.7	2.4	1.7	0.6	0.5	0.8	0.7	0.5	0.6	0.5	3.1
15-Oct	0.5	0.6	0.7	0.7	0.7	0.9	1.0	0.9	1.7	1.7	1.7	1.7	2.6	2.0	1.8	1.8	1.2	0.8	1.0	0.6	0.7	0.7	0.3	0.3	2.6
16-Oct	0.4	0.6	0.9	0.9	0.7	0.7	0.7	0.8	0.5	0.7	1.1	1.6	1.8	1.3	1.1	0.9	1.9	1.6	1.6	0.9	1.8	3.1	2.1	1.6	3.1
17-Oct	1.2	1.8	1.9	2.2	2.1	2.3	2.2	1.3	2.1	2.1	2.0	2.5	2.5	2.9	2.9	2.6	1.9	1.7	1.5	0.8	1.1	1.2	0.8	0.6	2.9
18-Oct	0.6	0.4	0.6	0.6	0.3	0.5	0.4	0.5	0.8	1.2	1.9	1.9	2.0	2.0	1.8	1.9	0.8	0.2	0.2	0.3	0.4	0.5	0.4	0.5	2.0
19-Oct	0.6	0.6	0.7	0.6	0.8	1.0	0.8	1.4	1.7	2.2	2.1	1.4	1.1	0.8	0.8	0.9	0.9	0.8	0.9	1.1	1.0	1.3	1.6	1.7	2.2
20-Oct	1.9	1.7	1.6	1.6	1.7	1.6	1.6	1.6	1.3	1.0	0.8	0.9	1.1	1.4	1.3	1.2	0.7	0.8	0.8	0.7	0.8	1.4	1.7	1.4	1.9
21-Oct	1.0	0.9	0.8	1.3	1.2	0.9	0.8	1.4	1.6	1.5	2.0	2.3	2.0	1.7	2.0	1.2	1.4	1.6	1.5	1.1	0.8	0.9	1.1	0.8	2.3
22-Oct	0.8	1.7	1.8	1.2	1.3	1.1	0.9	0.7	0.8	1.4	1.6	1.7	2.1	1.6	1.4	1.6	2.3	2.3	2.5	2.7	2.7	2.8	2.2	3.1	3.1
23-Oct	3.0	3.0	2.6	2.4	1.4	1.7	1.7	1.3	1.3	1.5	1.9	2.0	2.0	1.6	1.8	1.7	2.0	2.3	2.4	2.4	2.1	1.6	1.2	1.2	3.0
24-Oct	1.2	1.8	1.8	1.5	1.5	1.5	1.1	1.3	0.9	1.0	1.5	1.6	1.8	1.0	1.6	2.4	2.0	2.7	2.4	2.0	2.0	1.7	1.6	2.0	2.7
25-Oct	1.4	1.6	1.8	0.7	1.0	0.7	1.5	0.4	0.7	0.8	1.0	1.5	2.3	1.8	2.7	3.1	2.4	1.6	1.5	1.1	0.9	0.6	0.5	0.5	3.1
26-Oct	1.0	0.8	0.5	0.6	0.5	0.2	0.3	0.4	0.9	0.7	1.2	1.1	0.9	1.9	2.2	2.9	2.9	2.4	3.5	3.3	3.2	3.8	3.3	4.2	4.2
27-Oct	3.9	4.5	4.3	4.0	4.2	4.0	3.7	4.1	4.5	4.2	4.1	4.0	4.0	4.0	3.6	2.8	2.3	2.5	2.5	2.7	2.6	2.4	2.4	2.0	4.5
28-Oct	2.3	1.7	1.8	2.2	2.2	2.2	2.1	1.8	1.7	1.5	1.7	1.8	1.7	1.9	1.5	1.0	0.6	0.7	0.7	0.7	0.5	0.4	0.7	0.8	2.3
29-Oct	0.6	0.9	1.3	2.0	2.1	2.4	2.9	2.6	1.8	2.1	1.1	1.0	0.8	0.8	1.2	1.5	1.5	1.4	1.2	1.2	1.9	1.1	1.2	0.9	2.9
30-Oct	1.2	0.7	0.5	0.9	1.0	0.7	0.5	0.6	0.4	1.0	1.5	1.5	1.2	1.0	1.2	1.3	1.0	1.0	0.8	0.6	0.7	0.6	0.9	1.0	1.5
31-Oct	1.3	1.3	1.3	1.1	1.4	1.3	0.6	0.7	1.3	1.7	2.5	2.5	2.8	3.0	3.2	3.5	3.7	DF	DF	DF	DF	DF	DF	DF	3.7
	3.9	4.5	4.3	4.1	4.2	4.0	3.8	4.1	4.5	4.2	4.1	4.0	4.0	4.0	3.7	3.5	3.7	3.3	3.5	3.3	3.2	3.8	3.9	4.7	
	Diurnal Maximum																								

DF - DAS Failure

Wood Buffalo Environmental Association

Summary of Hour Averages

Vertical Wind Speed 90m (VW90) - km/h

Mannix - October 2025

Maximum Value: 1.6 km/h on Oct 6 08:00

Maximum Daily Average: 0.6 km/h on Oct 19

Minimum Value: -1.6 km/h on Oct 22 19:00

Minimum Daily Average: -0.1 km/h on Oct 22

Maximum Diurnal Average: 0.4 km/h at hour 11

Minimum Diurnal Average: 0.0 km/h at hour 17

Monthly Average: 0.26 km/h

Percentiles: P_1 = -0.9 P_{10} = -0.2 Q_1 = 0.0 Median = 0.3 Q_3 = 0.5 P_{90} = 0.7 P_{99} = 1.2

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.2	0.4	0.7	0.5	0.2	1.2	0.9	1.2	0.6	1.2	0.4	0.3	-0.2	-0.1	0.1	0.3	0.4	0.3	0.3	0.3	0.1	0.2	0.2	0.4	1.2
2-Oct	0.1	0.1	0.0	0.4	0.3	0.0	0.2	0.2	0.1	0.4	0.5	0.5	0.3	0.4	0.0	0.1	0.6	0.4	0.5	0.9	0.5	0.7	0.8	0.4	0.4	0.9
3-Oct	0.7	0.5	0.7	0.9	0.7	0.5	0.6	0.0	0.1	0.5	0.1	-0.3	0.4	0.0	-0.2	-0.1	-0.1	-0.1	0.1	0.4	0.2	0.2	-0.1	0.2	0.3	0.9
4-Oct	0.2	0.3	0.3	0.3	0.2	0.4	0.3	0.5	0.3	1.0	0.5	-0.3	0.7	0.2	0.5	0.3	-0.3	-0.1	0.0	-0.1	0.2	0.7	0.6	0.5	0.3	1.0
5-Oct	0.3	0.3	0.1	0.0	-0.2	-0.3	0.0	0.3	0.4	0.5	0.6	0.9	0.1	0.2	0.4	0.5	0.2	0.3	0.4	0.3	0.2	0.3	0.4	0.8	0.3	0.9
6-Oct	1.3	0.0	0.2	-0.3	0.2	-0.2	1.1	1.6	0.2	0.4	0.2	0.4	-0.5	0.0	0.1	-0.2	0.3	0.5	0.5	0.8	0.7	0.8	0.8	0.7	0.4	1.6
7-Oct	0.8	1.1	1.0	0.9	0.9	0.5	0.6	0.9	0.8	1.0	0.9	0.6	0.7	-0.1	0.5	-0.1	-0.4	0.0	0.6	0.5	0.5	0.3	0.2	0.4	0.5	1.1
8-Oct	0.5	0.1	0.4	0.4	0.5	0.4	0.3	0.6	0.5	0.2	0.2	0.4	0.6	0.7	0.2	0.3	0.3	0.4	0.3	0.7	0.7	0.4	0.3	0.9	0.4	0.9
9-Oct	0.4	0.6	0.5	0.2	0.0	0.0	-0.1	-0.3	0.0	0.3	0.6	0.1	0.0	0.0	0.0	-0.1	0.4	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.1	0.6
10-Oct	0.0	0.5	0.1	0.1	0.6	0.6	0.5	0.7	0.5	0.8	1.0	0.8	0.6	0.6	0.6	0.4	0.4	0.4	0.3	0.6	0.4	0.5	0.6	0.5	0.5	1.0
11-Oct	0.5	1.0	1.0	0.3	0.2	0.3	0.2	1.0	-0.1	-0.3	-0.2	-0.1	0.3	0.9	0.9	0.5	0.4	0.7	0.8	0.8	0.5	0.4	0.0	0.3	0.4	1.0
12-Oct	-0.3	-0.6	-0.2	-0.1	-0.4	-0.2	-0.2	0.6	-0.1	-0.5	0.4	-0.5	-0.3	0.0	1.1	0.8	-0.2	-0.4	-0.3	0.0	-0.2	0.0	0.2	0.3	0.0	1.1
13-Oct	0.4	0.5	0.3	0.2	0.1	-0.1	-0.1	0.0	-0.1	-0.5	0.3	0.3	-0.3	0.4	0.8	0.7	0.5	0.4	0.3	0.2	0.4	0.4	0.3	0.4	0.2	0.8
14-Oct	0.4	0.4	0.3	0.4	0.4	0.6	0.2	0.1	-0.2	-0.3	-0.2	-0.4	0.3	-0.3	-0.4	-0.1	0.1	-0.1	-0.2	0.2	0.1	-0.1	0.2	0.1	0.1	0.6
15-Oct	0.4	0.3	0.7	0.5	0.8	0.8	1.0	0.7	0.5	0.6	0.6	0.2	-0.1	-0.2	0.3	0.2	-0.2	-0.1	0.0	-0.1	-0.2	0.0	0.0	-0.1	0.3	1.0
16-Oct	-0.1	0.2	0.3	0.4	0.3	0.2	-0.1	0.0	0.3	0.7	0.5	0.7	0.7	0.3	0.4	0.6	0.1	0.1	0.2	0.2	0.0	-0.4	-0.2	-0.1	0.2	0.7
17-Oct	-0.1	0.0	-0.2	-0.2	0.1	0.0	0.3	0.3	0.3	0.3	0.3	0.5	0.2	0.4	0.5	0.4	0.4	0.5	0.6	0.3	0.2	0.2	0.2	0.1	0.2	0.6
18-Oct	0.1	0.0	0.1	-0.1	-0.1	0.1	0.0	0.0	0.0	-0.1	0.1	0.2	0.2	0.1	0.2	0.4	0.0	0.1	0.0	0.1	0.1	0.2	0.3	0.4	0.1	0.4
19-Oct	1.0	0.6	0.1	0.5	0.9	0.4	0.1	0.3	0.8	1.6	1.6	0.8	0.4	0.9	0.5	0.2	0.0	0.2	0.3	0.2	0.2	0.1	0.6	1.1	0.6	1.6
20-Oct	0.9	0.8	-0.1	0.1	0.0	0.3	0.4	0.0	0.4	0.2	-0.1	-0.2	0.2	0.2	0.5	0.0	-0.1	0.3	0.3	0.4	0.5	0.7	0.8	0.3	0.3	0.9
21-Oct	0.7	0.5	0.6	0.9	0.3	0.0	0.1	0.3	0.2	0.3	0.4	0.9	0.5	0.3	0.2	0.3	0.3	0.0	0.1	-0.2	0.0	0.2	0.1	1.0	0.3	1.0
22-Oct	0.4	0.1	0.2	0.3	0.0	0.6	0.6	0.6	0.3	0.3	0.1	0.1	0.3	0.0	-1.2	-0.8	-1.6	-0.9	-1.6	-1.4	-0.1	-0.2	0.3	0.2	-0.1	0.6
23-Oct	0.3	0.3	0.2	0.8	0.8	0.5	0.7	0.9	0.9	0.8	0.5	0.4	0.3	-0.1	0.2	0.2	-1.4	-1.2	0.8	1.0	0.9	0.6	0.8	0.9	0.4	1.0
24-Oct	0.8	0.7	1.0	0.5	0.7	0.6	0.8	0.6	0.6	0.3	0.6	0.5	0.6	0.0	0.3	0.0	-0.3	0.5	-0.5	-0.6	-0.6	-1.1	-0.3	-0.1	0.2	1.0
25-Oct	-0.3	-0.3	0.1	0.4	0.4	0.4	0.5	0.2	0.2	0.4	0.3	0.5	0.3	0.2	-0.2	0.3	0.0	0.1	-0.2	-0.1	0.1	0.1	-0.1	0.1	0.1	0.5
26-Oct	0.2	0.4	0.6	0.3	0.3	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.3	0.5	0.4	0.7	0.3	0.8	0.6	-0.1	0.2	-0.2	-0.3	0.3	0.8
27-Oct	-0.2	-0.1	1.2	0.6	0.2	0.1	-0.4	-0.8	-0.4	-0.5	-0.4	-0.6	-0.8	-0.3	0.0	-0.2	-0.3	0.3	0.4	0.5	0.5	0.1	0.2	0.1	0.0	1.2
28-Oct	0.2	0.2	0.4	0.1	0.2	0.4	0.4	0.2	0.4	0.3	0.3	0.4	0.3	0.2	0.0	0.1	0.2	0.3	0.1	0.1	-0.1	-0.1	-0.2	-0.2	0.2	0.4
29-Oct	0.3	0.5	0.2	-0.2	0.2	-0.6	1.4	0.2	0.2	0.4	0.5	0.3	0.1	0.3	0.6	0.3	0.5	0.1	0.2	0.0	0.1	0.0	0.0	-0.1	0.2	1.4
30-Oct	-0.4	0.2	0.3	0.6	0.1	0.3	0.2	0.0	-0.1	-0.1	-0.3	0.1	0.0	0.1	0.2	0.1	-0.2	-0.1	0.0	0.0	0.0	-0.1	-0.2	-0.1	0.0	0.6
31-Oct	0.0	0.1	0.2	0.4	-0.1	0.5	0.4	0.6	0.6	0.7	0.6	0.6	0.8	0.6	0.3	0.7	0.7	DF	DF	DF	DF	DF	DF	DF	--	0.8
	0.3	0.3	0.4	0.3	0.3	0.2	0.4	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.3	Diurnal Average	
	1.3	1.1	1.2	0.9	0.9	0.8	1.4	1.6	1.2	1.6	1.6	0.9	0.8	0.9	1.1	0.8	0.7	0.7	0.8	1.0	0.9	0.8	0.8	1.1	Diurnal Maximum	

DF - DAS Failure

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Vertical Wind Speed 90m (VW90) - km/h

Mannix - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 4.9 km/h on Oct 27 02:00

Minimum Value: 0.2 km/h on Oct 2 01:00

Percentiles: P_1 = 0.3 P_{10} = 0.6 Q_1 = 0.9 Median = 1.5 Q_3 = 2.2 P_{90} = 3.0 P_{99} = 4.2

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2.2	1.9	2.0	2.3	2.8	2.8	3.1	3.0	3.1	2.8	3.1	3.0	3.3	2.6	2.6	2.0	2.2	1.7	1.0	0.6	1.1	1.3	1.2	0.3	3.3
2-Oct	0.2	0.2	0.2	0.3	0.2	0.3	0.7	0.7	1.0	1.1	0.8	1.0	1.1	1.7	2.0	1.7	1.2	0.6	0.3	1.0	0.5	0.8	1.1	1.0	2.0
3-Oct	1.1	1.0	0.7	0.8	0.8	0.7	0.7	0.8	1.5	2.2	3.0	3.3	3.6	3.1	3.8	3.2	2.2	2.2	2.4	1.8	2.5	1.9	1.9	2.1	3.8
4-Oct	2.0	1.7	2.0	1.5	1.2	1.6	1.7	1.3	1.3	1.8	2.4	2.0	1.9	1.0	1.7	2.5	3.1	3.3	2.5	2.5	1.8	1.6	1.4	1.4	3.3
5-Oct	1.2	1.4	0.8	0.7	0.5	0.6	0.4	0.7	0.8	1.2	1.8	2.4	2.4	2.0	1.9	2.0	1.1	1.3	1.4	1.5	1.5	1.6	1.1	2.5	2.5
6-Oct	2.6	2.3	3.5	3.2	2.4	1.8	2.3	2.6	2.3	2.1	2.4	2.4	2.0	2.2	2.5	2.2	1.4	0.4	0.3	0.8	0.9	0.9	0.4	1.1	3.5
7-Oct	0.6	0.5	0.5	0.6	0.7	0.8	0.6	0.9	1.1	1.6	2.1	1.9	2.5	2.2	1.9	2.2	2.8	2.0	1.0	1.2	1.1	1.0	0.8	1.0	2.8
8-Oct	0.8	1.2	0.8	0.9	1.9	1.3	1.7	2.1	2.1	2.0	2.6	2.7	2.8	2.7	2.6	2.5	2.6	1.5	1.7	2.7	2.5	2.3	1.9	2.3	2.8
9-Oct	1.9	1.2	1.4	1.1	0.5	0.7	1.0	0.7	1.1	1.7	2.2	2.4	2.6	2.9	2.9	2.5	2.0	1.0	0.4	0.5	1.0	0.6	0.7	1.2	2.9
10-Oct	0.8	0.4	0.3	0.6	0.4	0.5	0.5	0.6	0.6	1.6	1.5	2.0	2.0	2.1	2.6	3.2	2.3	1.3	1.7	1.6	1.3	0.9	1.0	0.9	3.2
11-Oct	0.9	0.8	0.7	0.7	0.3	0.6	2.4	3.1	3.0	2.6	2.5	2.7	2.3	3.0	3.1	2.3	1.8	2.5	2.7	3.1	2.9	3.4	4.0	4.6	4.6
12-Oct	3.6	3.2	3.4	3.9	3.7	3.8	3.8	3.5	2.8	2.7	3.5	2.0	2.4	3.2	3.6	3.3	2.1	1.8	1.8	1.9	1.6	1.7	1.3	0.9	3.9
13-Oct	1.2	1.1	1.0	0.5	0.3	0.6	0.4	0.2	1.0	1.9	2.8	3.0	2.5	3.4	3.3	3.1	2.1	1.0	1.1	1.0	1.0	1.0	0.8	0.8	3.4
14-Oct	1.1	1.1	1.7	1.9	1.6	1.6	2.4	2.3	2.5	3.0	3.2	2.5	3.0	2.4	2.7	2.4	1.7	0.6	0.5	0.8	0.7	0.5	0.6	0.5	3.2
15-Oct	0.6	0.7	0.6	0.6	0.6	0.7	0.9	0.8	1.8	1.7	1.8	1.6	2.6	2.0	1.9	1.7	1.1	0.8	1.0	0.4	0.5	0.7	0.2	0.3	2.6
16-Oct	0.4	0.7	1.0	1.0	0.7	0.8	0.6	1.0	0.6	0.7	1.1	1.5	1.8	1.3	1.1	0.9	1.9	1.6	1.7	0.9	1.8	3.2	1.9	1.6	3.2
17-Oct	1.2	1.7	1.8	2.2	2.1	2.4	2.1	1.2	2.1	2.1	2.0	2.7	2.7	3.0	2.9	2.6	1.9	1.7	1.3	0.8	1.1	1.2	0.8	0.7	3.0
18-Oct	0.7	0.4	0.6	0.6	0.3	0.5	0.4	0.4	0.7	1.0	1.8	2.0	2.1	2.1	1.8	2.0	0.8	0.2	0.2	0.4	0.4	0.6	0.5	0.4	2.1
19-Oct	0.5	0.4	0.7	0.6	1.0	1.1	0.6	1.3	1.7	2.0	2.0	1.5	1.1	0.8	0.8	0.9	0.9	0.8	0.9	1.1	1.0	1.4	1.5	1.8	2.0
20-Oct	1.9	1.7	1.6	1.5	1.8	1.6	1.6	1.5	1.3	1.0	0.8	0.9	1.1	1.4	1.2	1.2	0.7	0.8	0.7	0.6	0.8	1.4	1.6	1.4	1.9
21-Oct	0.9	0.9	0.8	1.6	1.3	0.9	0.9	1.6	1.6	1.6	2.0	2.3	2.0	1.7	1.9	1.2	1.3	1.7	1.4	1.1	0.8	0.8	1.0	0.8	2.3
22-Oct	0.7	1.8	1.8	1.3	1.1	1.0	0.7	0.6	0.8	1.3	1.7	1.7	2.2	1.6	1.5	1.5	2.4	2.3	2.5	2.8	2.8	2.9	2.1	3.2	3.2
23-Oct	3.2	3.0	2.6	2.6	1.3	1.3	1.3	1.1	1.1	1.3	1.9	2.2	2.2	1.6	1.8	1.5	2.1	2.2	2.4	2.3	2.2	1.5	1.1	1.0	3.2
24-Oct	1.1	1.5	1.3	1.2	1.2	1.1	0.9	0.8	0.9	0.9	1.5	1.5	1.8	1.0	1.7	2.4	2.0	2.7	2.5	2.1	1.8	1.7	1.4	2.0	2.7
25-Oct	1.5	1.7	1.9	0.8	1.0	0.6	1.2	0.4	0.6	0.9	1.1	1.5	2.3	1.7	2.8	3.2	2.4	1.7	1.6	1.2	1.0	0.6	0.5	0.5	3.2
26-Oct	1.0	0.8	0.5	0.5	0.4	0.3	0.3	0.5	1.1	0.8	1.3	1.1	0.8	1.9	2.2	3.0	2.9	2.5	3.8	3.3	3.4	4.0	3.5	4.6	4.6
27-Oct	4.1	4.9	4.7	4.1	4.4	4.2	3.7	4.0	4.4	4.0	4.2	3.8	4.0	3.9	3.5	2.8	2.1	2.5	2.5	2.7	2.6	2.3	2.2	1.9	4.9
28-Oct	2.2	1.6	1.8	2.2	2.1	2.2	2.0	1.8	1.7	1.5	1.7	1.8	1.6	1.9	1.4	0.9	0.7	0.8	0.7	0.7	0.5	0.5	0.6	0.8	2.2
29-Oct	0.6	0.8	1.1	1.9	2.1	2.3	2.4	1.9	1.8	1.9	1.2	0.9	0.7	0.8	1.3	1.4	1.3	1.3	1.1	1.3	1.9	1.1	1.2	0.9	2.4
30-Oct	1.2	0.7	0.5	0.9	1.0	0.8	0.6	0.5	0.3	0.9	1.6	1.6	1.2	1.0	1.1	1.3	1.0	1.0	0.8	0.6	0.7	0.6	1.0	1.0	1.6
31-Oct	1.2	1.4	1.3	1.1	1.3	1.4	0.6	0.5	1.1	1.7	2.5	2.5	2.7	3.0	3.3	3.7	3.9	DF	DF	DF	DF	DF	DF	DF	3.9
	4.1	4.9	4.7	4.1	4.4	4.2	3.8	4.0	4.4	4.0	4.2	3.8	4.0	3.9	3.8	3.7	3.9	3.3	3.8	3.3	3.4	4.0	4.0	4.6	
	Diurnal Maximum																								

DF - DAS Failure

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS06
PATRICIA MCINNES
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - PATRICIA McINNES (AMS06)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	708	36	36	100	-	-	8	0	1.6	0
TRS (ppb) Average	707	37	37	100	0.8	0	0.6	0	0.2	0
THC (ppm) Average	708	36	36	100	-	-	2.3	-	2.1	-
NMHC(ppm) Average	708	36	36	100	-	-	0.026	-	0.002	-
CH4(ppm) Average	708	36	36	100	-	-	2.3	-	2.1	-
O3 (ppb) Average	709	35	35	100	-	-	43.9	0	30.6	-
NO2 (ppb) Average	707	37	37	100	-	-	20.7	0	6.9	-
NO (ppb) Average	707	37	37	100	-	-	18.2	-	2.7	-
NOX (ppb) Average	707	37	37	100	-	-	38.9	-	9.6	-
NH3 (ppb) Average	643	41	101	91.94	-	-	0	0	0	-
PM2.5 (ug/m3) Average	742	2	2	100	-	-	26.1	0	10.6	0
Temperature 2 m (C) Average	744	0	0	100	-	-	21.9	-	10.6	-
Relative Humidity (%) Average	744	0	0	100	-	-	100	-	94.5	-
Wind Speed 10 m (km/h) Average	744	0	0	100	-	-	31	-	23	-
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - PATRICIA McINNES (AMS06)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	708	0.36	0.8	-	0	0	0	0.1	0.4	0.7	8
TRS (ppb) Average	707	0.12	0.1	-	0	0.1	0.1	0.1	0.2	0.2	0.6
THC (ppm) Average	708	2.01	0.1	-	1.9	2	2	2	2	2.1	2.3
NMHC(ppm) Average	708	0	0.002	-	0	0	0	0	0	0	0.026
CH4(ppm) Average	708	2.01	0.1	-	1.9	2	2	2	2	2.1	2.3
O3 (ppb) Average	709	20.82	7.7	-	3.1	10.1	15.8	21.3	25.7	30.2	43.9
NO2 (ppb) Average	707	3.33	3.4	-	0	0.1	0.6	2.6	4.5	7.6	20.7
NO (ppb) Average	707	1.12	1.9	-	0	0	0.2	0.5	1.3	2.5	18.2
NOX (ppb) Average	707	4.45	5	-	0	0.3	1	3.2	5.7	10	38.9
NH3 (ppb) Average	643	0	0	-	0	0	0	0	0	0	0
PM2.5 (ug/m3) Average	742	4.04	3.2	-	0.1	0.8	2.2	3.6	4.9	7.1	26.1
Temperature 2 m (C) Average	744	4.89	4.6	-	-2.8	-0.1	1.1	3.9	7.9	11.3	21.9
Relative Humidity (%) Average	744	75.25	17.5	-	27	49.2	62.6	77.5	90	96.7	100
Wind Speed 10 m (km/h) Average	744	11.5	6	-	1	5	7	10	15	20	31
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - PATRICIA MCINNES (AMS06)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
NH3	01 Oct 2025 03:00	31 Oct 2025 04:00	56	Stabilization after daily span

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Patricia McInnes - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 8.0 ppb on Oct 20 12:00 Maximum Daily Average: 1.6 ppb on Oct 12

Minimum Value: 0.0 ppb on Oct 1 22:00 Minimum Daily Average: 0.0 ppb on Oct 5
Maximum Diurnal Average: 0.9 ppb at hour 11 Minimum Diurnal Average: 0.2 ppb at hour 22
Monthly Average: 0.36 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.4 P_{90} = 0.7 P_{99} = 3.5

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.6	1.5	1.6	1.2	Z	1.0	0.8	0.9	0.8	1.0	0.7	0.9	0.7	0.4	0.3	0.4	0.2	0.1	0.4	0.1	0.0	0.0	0.0	0.0	0.6	1.6
2-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.3	0.7	0.5	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.4	0.3	0.2	0.7
3-Oct	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.3
4-Oct	0.0	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.3	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.6
5-Oct	0.0	0.0	Z	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
6-Oct	0.2	0.2	0.1	Z	1.2	0.9	0.7	0.2	0.3	0.9	4.8	4.2	2.7	2.9	2.8	2.4	1.8	1.5	1.3	1.1	0.8	0.5	0.5	0.4	1.4	4.8
7-Oct	0.5	0.4	0.5	0.5	Z	0.4	0.5	0.5	0.5	0.6	0.7	0.5	0.7	0.6	0.7	0.5	0.5	0.5	0.6	0.5	0.5	0.4	0.3	0.2	0.5	0.7
8-Oct	0.4	0.4	0.2	0.1	0.1	Z	0.1	0.0	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.4
9-Oct	Z	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2
10-Oct	0.1	Z	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.5	0.4	0.3	0.3	0.4	0.7	1.4	0.6	0.3	0.2	0.3	0.8	0.4	1.4
11-Oct	0.7	0.4	Z	0.6	0.7	0.6	0.6	2.5	1.2	2.0	3.0	1.2	0.2	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.5	3.9	0.8	3.9
12-Oct	2.0	2.5	2.3	Z	0.7	0.2	0.1	0.2	1.7	0.6	7.5	1.6	0.3	0.5	1.4	1.5	1.2	7.4	3.2	0.6	0.4	0.2	0.3	0.2	1.6	7.5
13-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.5	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.7	1.0	0.9	0.7	0.2	1.0
14-Oct	0.6	0.8	0.6	0.5	0.6	Z	1.0	1.1	1.3	1.2	1.0	0.7	0.5	0.4	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.5	1.3
15-Oct	Z	0.2	0.1	0.2	0.2	0.3	0.6	0.7	0.6	0.6	0.5	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.7
16-Oct	0.1	Z	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.6	0.6	0.4	0.4	0.3	0.2	0.1	0.2	0.5	0.2	0.1	0.1	0.2	0.6
17-Oct	0.1	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.4	0.1	0.4
18-Oct	0.1	0.0	0.3	Z	0.2	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.3
19-Oct	0.1	0.0	0.1	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.7	0.6	0.1	0.7
20-Oct	1.5	0.9	0.3	0.1	0.2	Z	0.9	0.4	0.5	2.1	3.4	8.0	5.1	0.5	0.4	0.3	0.3	0.4	0.2	0.2	0.3	0.3	0.3	0.3	1.2	8.0
21-Oct	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.1	0.3
22-Oct	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.2	C	C	C	C	C	0.5	0.3	0.2	0.2	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.5
23-Oct	0.0	0.1	Z	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.5	0.3	0.1	0.3	0.3	0.1	0.1	0.1	0.1	0.2	0.2	0.5
24-Oct	0.3	0.5	0.6	Z	0.7	0.5	0.4	0.4	0.4	0.4	0.3	0.5	0.7	0.7	0.6	0.6	0.7	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.4	0.7
25-Oct	0.0	0.1	0.1	0.0	Z	0.1	0.1	0.2	0.2	0.4	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.4
26-Oct	0.1	0.1	0.0	0.1	0.0	Z	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.3	2.5	0.9	1.8	2.3	0.5	0.1	0.0	0.0	0.0	0.0	0.4	2.5
27-Oct	Z	0.1	0.6	1.6	1.0	0.4	0.1	0.1	0.4	2.1	3.5	3.0	0.8	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.6	3.5
28-Oct	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
29-Oct	0.1	0.3	Z	0.4	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.7	0.8	0.8	0.5	0.2	0.8
30-Oct	0.4	0.5	0.7	Z	0.3	0.2	0.3	0.3	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7
31-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.2	0.2	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.4
	0.3	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.5	0.9	0.8	0.5	0.3	0.4	0.3	0.3	0.5	0.3	0.2	0.2	0.2	0.2	0.3	Diurnal Average	
	2.0	2.5	2.3	1.6	1.2	1.0	1.0	2.5	1.7	2.1	7.5	8.0	5.1	2.9	2.8	2.4	1.8	7.4	3.2	1.1	0.8	1.0	0.9	3.9	Diurnal Maximum	

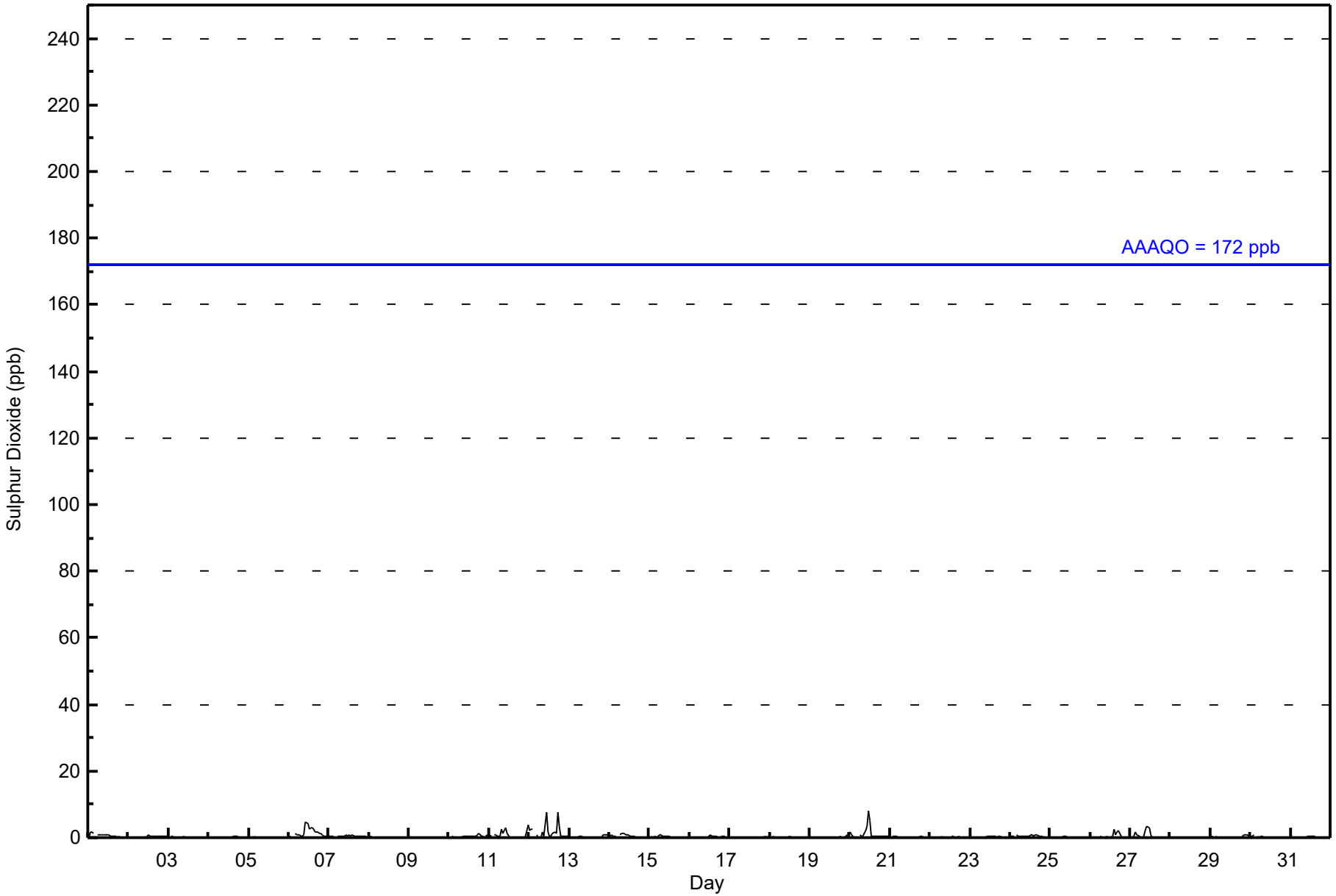
Z - zerospan C - Calibration
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Patricia McInnes - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	708	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Patricia McInnes - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	53	11	3	5	10	39	98	37	56	65	53	60	55	72	36	55	708
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	53	11	3	5	10	39	98	37	56	65	53	60	55	72	36	55	708

Total Number of Valid Hours: 708

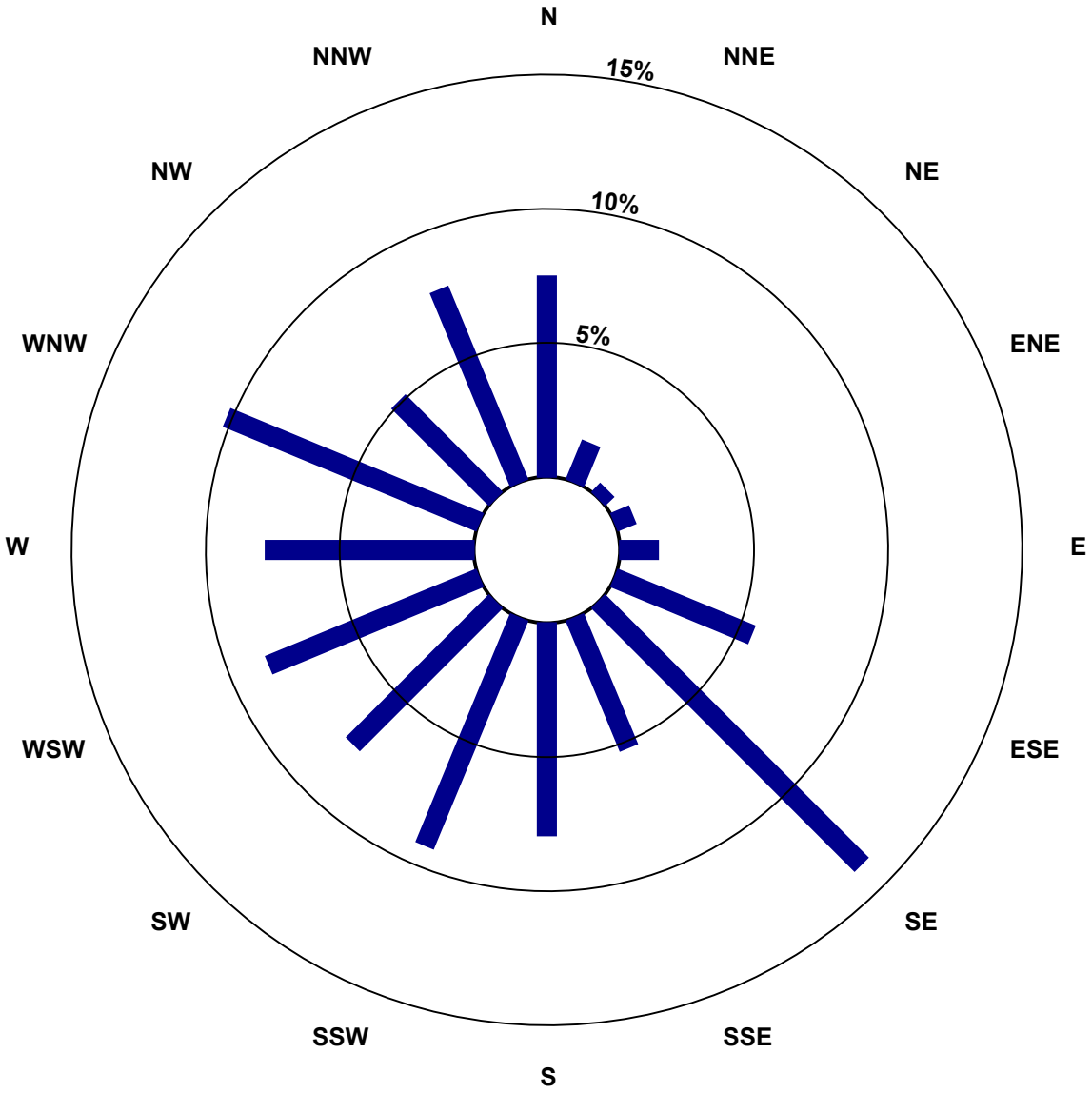
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Patricia McInnes



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

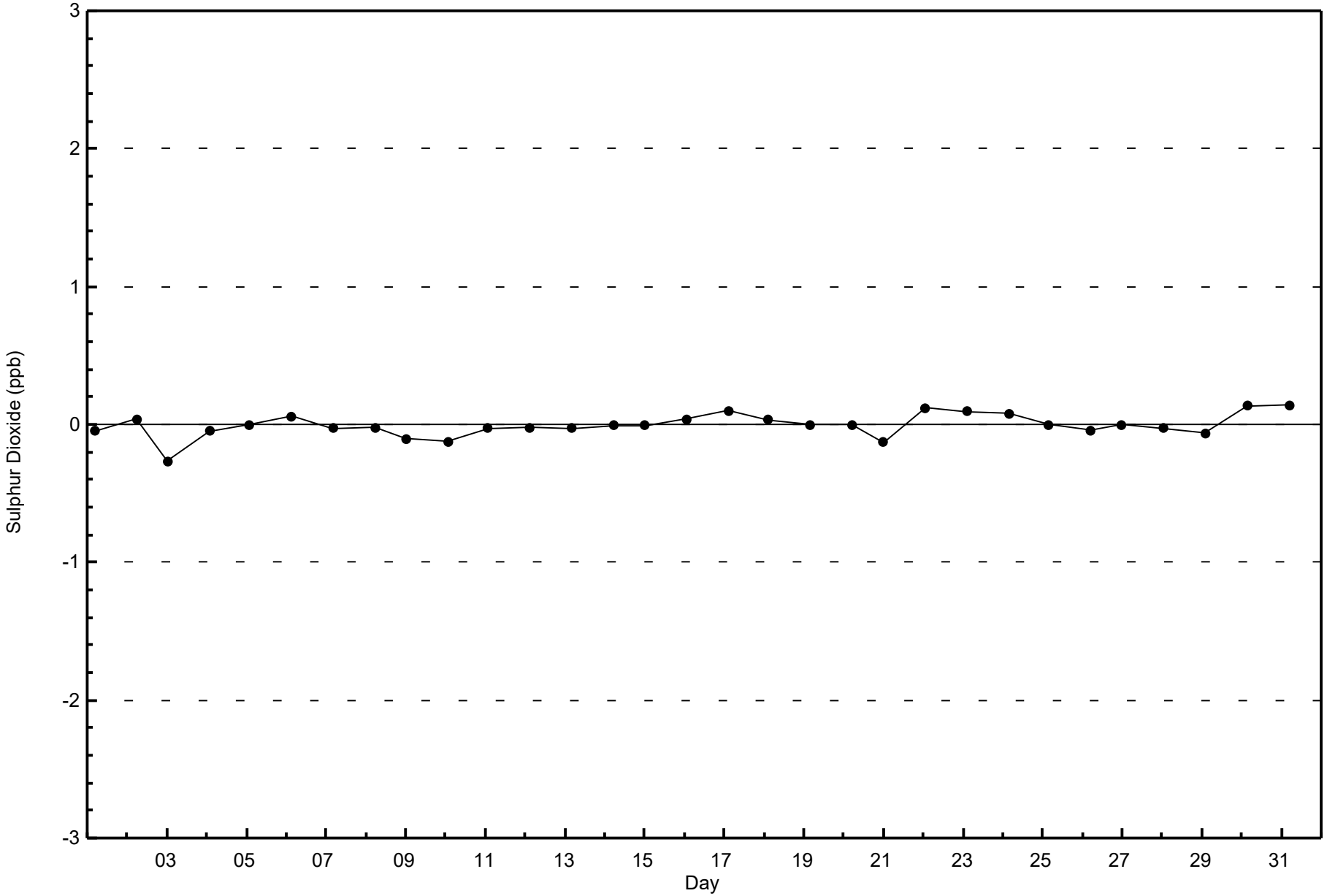
Total Number of Valid Hours: 708

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Patricia McInnes - October 2025

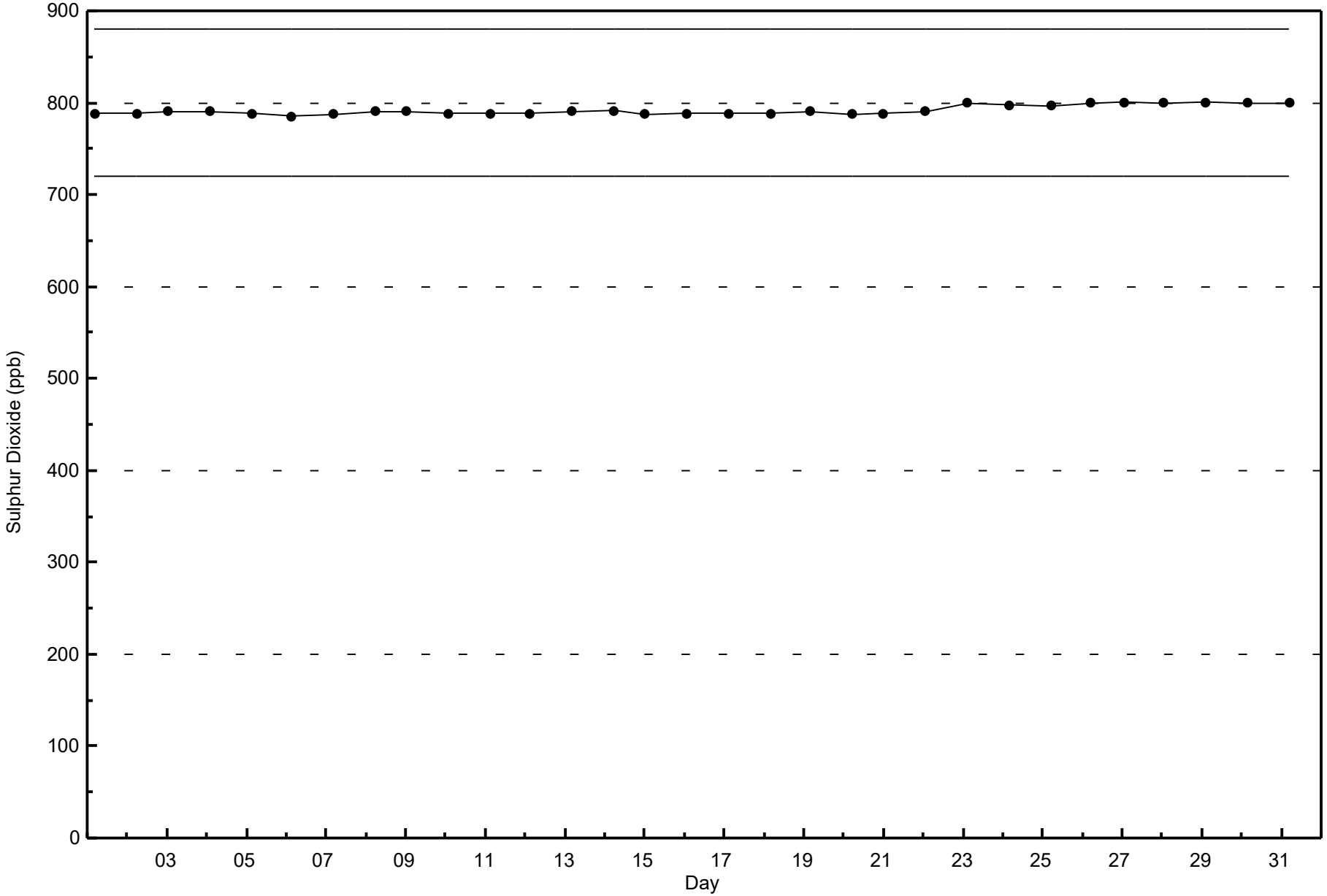


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Patricia McInnes - October 2025



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Patricia McInnes - October 2025

Number of Exceedences (AAAQG): 30-Min: 0

Maximum Value: 0.8 ppb on Oct 26 14:30 Maximum Daily Average: 0.2 ppb on Oct 1

Minimum Value: 0.0 ppb on Oct 25 23:30 Minimum Daily Average: 0.1 ppb on Oct 28

Maximum Diurnal Average: 0.2 ppb at hour 11 Minimum Diurnal Average: 0.1 ppb at hour 24

Monthly Average: 0.13 ppb Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.1 Median = 0.1 Q_3 = 0.1 P_{90} = 0.2 P_{99} = 0.4

Periods in Service:	1488
Periods of Valid Data:	1416
Periods of Invalid Data:	72
Periods of Calibration:	72
Percent Operational Time:	100.0

Day	Period Ending At (MST) 00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
1-Oct	0.3	0.3	0.4	0.5	0.5	Z	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.5
	0.3	0.3	0.4	0.4	0.3	SP	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1		
2-Oct	Z	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3
	SP	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
3-Oct	0.1	Z	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.2
	0.1	SP	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0		
4-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1		
5-Oct	0.0	0.1	0.1	Z	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1		
6-Oct	0.1	0.3	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.3
	0.3	0.3	0.1	0.1	SP	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
7-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	C	C	C	C	C	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.4
	0.1	0.1	0.1	0.1	0.1	SP	0.2	0.2	0.2	C	C	C	C	C	0.4	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2		
8-Oct	Z	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.3
	SP	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1		
9-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2
	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1		
10-Oct	0.0	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
11-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.4	0.4	0.4	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.5
	0.1	0.1	0.1	SP	0.1	0.1	0.2	0.5	0.2	0.3	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2		
12-Oct	0.2	0.1	0.2	0.1	Z	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.2	0.2	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1		
13-Oct	0.1	0.1	0.0	0.1	0.0	Z	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.0	0.1	0.1	0.0	0.0	SP	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
14-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
15-Oct	0.1	Z	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	SP	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		

Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Patricia McInnes - October 2025

Day	Period Ending At (MST) 00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
16-Oct	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	SP	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
17-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
18-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
19-Oct	0.1	0.2	0.1	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.1	0.3	0.2	0.1	0.5	0.3	0.2	0.1	0.3	0.2	0.2	0.5
	0.1	0.2	0.2	0.2	0.2	SP	0.2	0.3	0.3	0.2	0.2	0.2	0.4	0.2	0.3	0.1	0.1	0.3	0.4	0.2	0.2	0.2	0.3	0.2		
20-Oct	Z	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3
	SP	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.3	0.3	0.3	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
21-Oct	0.2	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2
	0.1	SP	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.1	0.2	0.1		
22-Oct	0.1	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
23-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
24-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	0.2	SP	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1		
25-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.4
	0.1	0.1	0.1	0.1	0.1	SP	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0		
26-Oct	Z	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.2	0.3	0.2	0.2	0.3	0.8	0.3	0.2	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.8
	SP	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.5	0.2	0.1	0.2	0.4	0.4	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.1		
27-Oct	0.1	Z	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.3
	0.1	SP	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0		
28-Oct	0.0	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
	0.0	0.1	SP	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
29-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.3
	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1		
30-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	0.1	SP	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
31-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	0.1	0.1	SP	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.3	0.3	0.4	0.5	0.5	0.3	0.4	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.8	0.3	0.3	0.3	0.5	0.3	0.2	0.2	0.3	0.2	Diurnal Maximum	

Z - zerospan C - Calibration SP - Span

Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb

Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

Patricia McInnes - October 2025

Maximum Value: 0.6 ppb on Oct 26 15:00

Maximum Daily Average: 0.2 ppb on Oct 1

Minimum Value: 0.0 ppb on Oct 26 00:00

Minimum Daily Average: 0.1 ppb on Oct 28

Maximum Diurnal Average: 0.2 ppb at hour 11

Minimum Diurnal Average: 0.1 ppb at hour 24

Monthly Average: 0.12 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.2 P_{99} = 0.4

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.3	0.3	0.4	0.4	0.4	Z	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.4
2-Oct	Z	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3
3-Oct	0.1	Z	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2
4-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2
5-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2
6-Oct	0.2	0.3	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3
7-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	C	C	C	C	C	C	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	--	0.2
8-Oct	Z	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.3
9-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
10-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
11-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.2	0.4	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4
12-Oct	0.2	0.2	0.2	0.1	Z	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2
13-Oct	0.1	0.1	0.1	0.1	0.0	Z	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
14-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15-Oct	0.1	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
16-Oct	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
17-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
18-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2
19-Oct	0.1	0.2	0.1	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.3	0.2	0.2	0.4
20-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3
21-Oct	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2
22-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
23-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
24-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
25-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.4	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.4
26-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.4	0.3	0.2	0.2	0.4	0.6	0.2	0.2	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.6
27-Oct	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2
28-Oct	0.0	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
29-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
30-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
31-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.3	0.3	0.4	0.4	0.4	0.2	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.6	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.3	0.2	Diurnal Maximum	

Z - zerospan C - Calibration

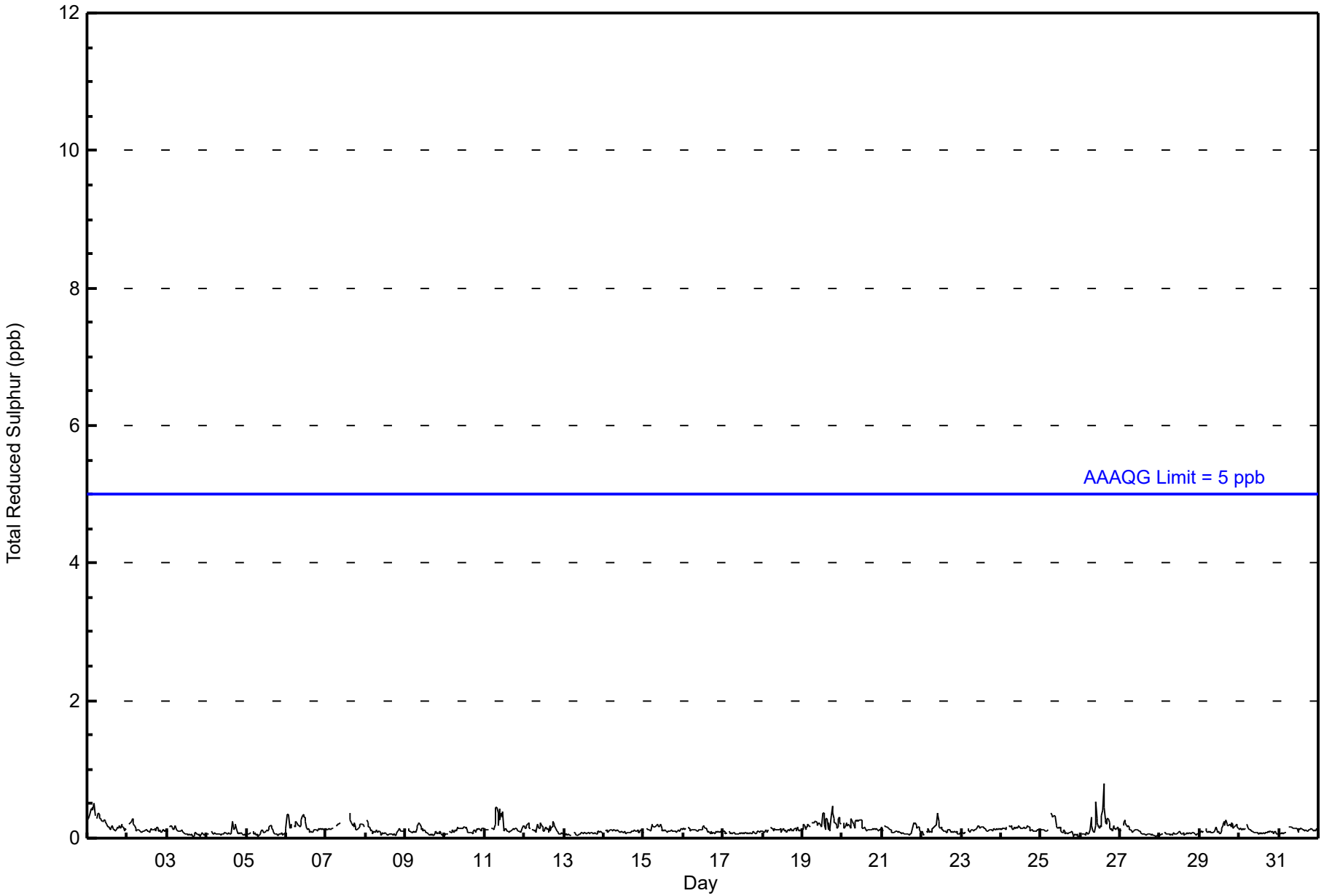
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA

Wood Buffalo Environmental Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Patricia McInnes - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	707	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Reduced Sulphur (TRS) - ppb

Patricia McInnes - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	53	11	3	5	10	38	96	35	57	67	51	59	57	74	36	55	707
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	53	11	3	5	10	38	96	35	57	67	51	59	57	74	36	55	707

Total Number of Valid Hours: 707

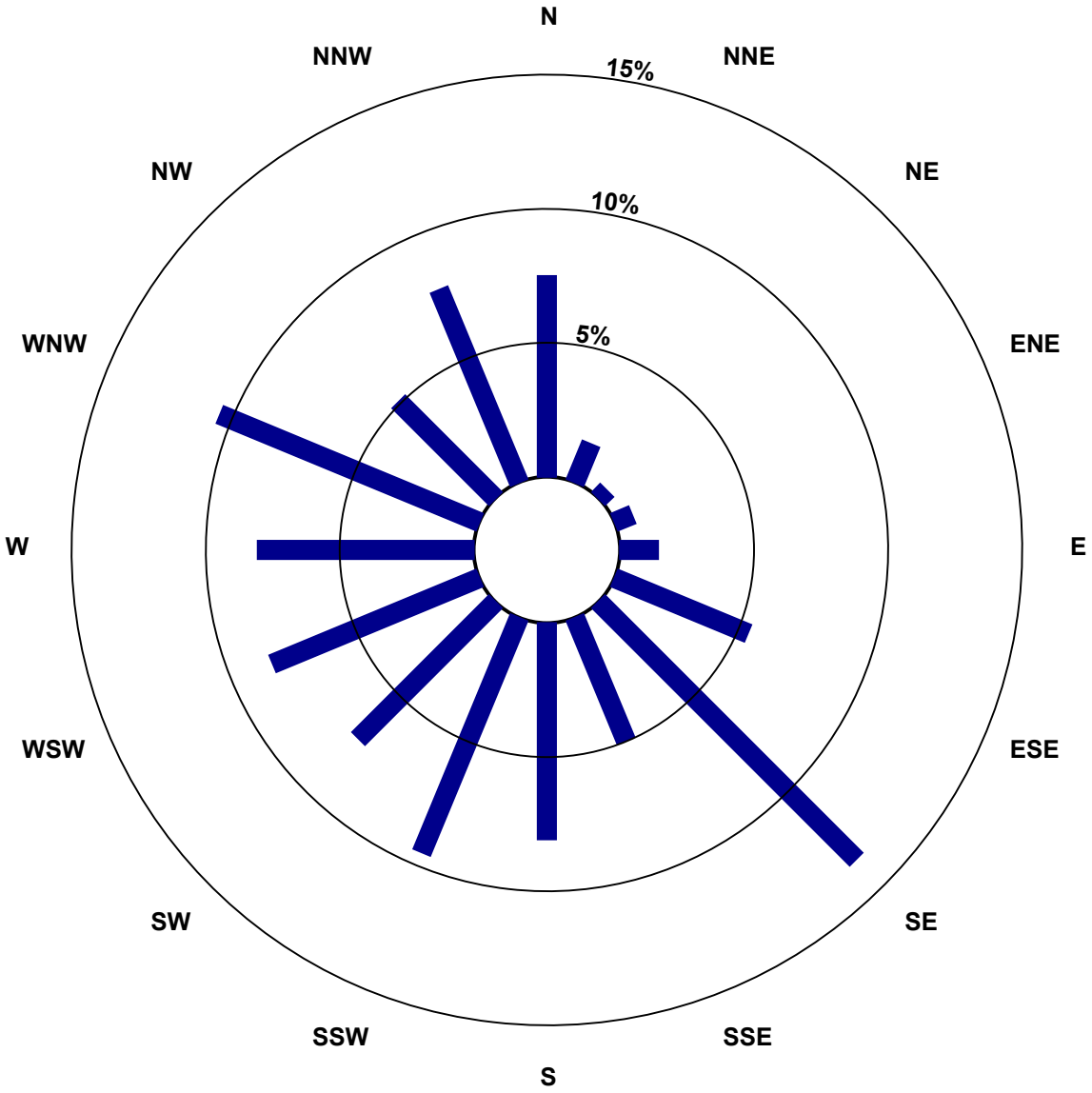
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Reduced Sulphur (TRS) - ppb

Patricia McInnes



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

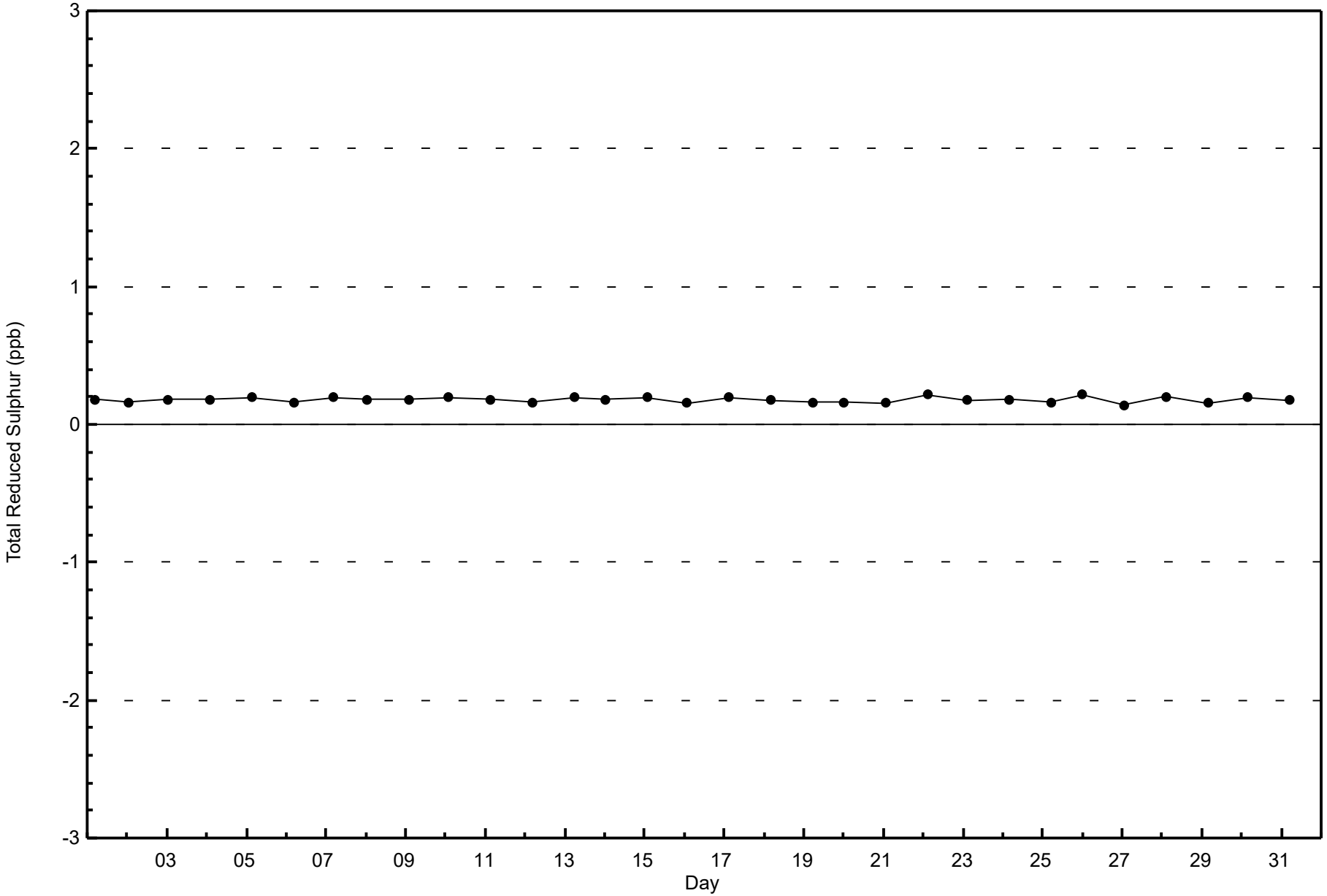
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Total Reduced Sulphur (TRS) - ppb

Patricia McInnes - October 2025

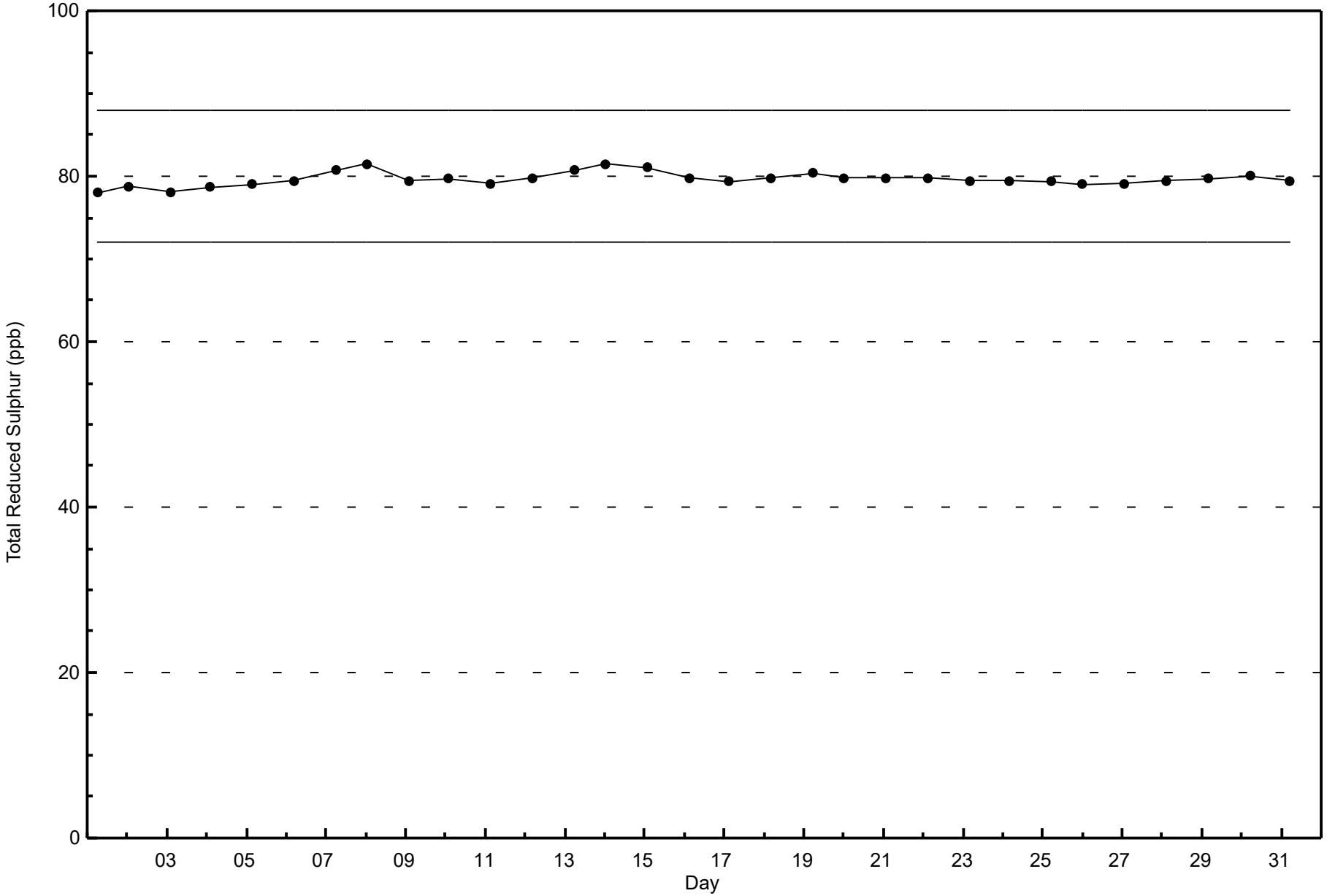


Wood Buffalo Environmental Association

Span Responses

Total Reduced Sulphur (TRS) - ppb

Patricia McInnes - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Patricia McInnes - October 2025

Maximum Value: 2.3 ppm on Oct 11 08:00

Maximum Daily Average: 2.1 ppm on Oct 1

Minimum Value: 1.9 ppm on Oct 25 17:00

Minimum Daily Average: 2.0 ppm on Oct 28

Maximum Diurnal Average: 2.0 ppm at hour 8

Minimum Diurnal Average: 2.0 ppm at hour 16

Monthly Average: 2.01 ppm

Percentiles: P_1 = 1.9 P_{10} = 2.0 Q_1 = 2.0 Median = 2.0 Q_3 = 2.0 P_{90} = 2.1 P_{99} = 2.2

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.2	2.3	2.2	2.1	2.1	2.1	2.3
2-Oct	2.2	2.1	2.1	2.2	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.2
3-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
4-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
7-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.0	2.2
8-Oct	2.1	2.1	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
9-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.1
10-Oct	2.0	Z	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
11-Oct	2.0	2.0	Z	2.0	2.1	2.1	2.2	2.3	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3
12-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
13-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
14-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
15-Oct	Z	2.0	2.0	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2
16-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
17-Oct	2.0	2.0	Z	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
18-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.1
19-Oct	2.1	2.0	2.1	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.0	2.0	2.1	2.0	2.0	2.3
20-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
21-Oct	Z	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.0	2.2
22-Oct	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	C	C	C	C	C	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.1
23-Oct	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
24-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
25-Oct	2.1	2.0	2.0	2.0	Z	2.1	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.2
26-Oct	2.0	2.1	2.0	2.1	2.1	Z	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.2
27-Oct	Z	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.0
28-Oct	2.0	Z	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
29-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1
30-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
31-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	Diurnal Average	
	2.2	2.1	2.1	2.2	2.1	2.2	2.2	2.3	2.2	2.2	2.1	2.1	2.0	2.2	2.1	2.1	2.2	2.1	2.3	2.2	2.3	2.2	2.1	2.2	Diurnal Maximum	

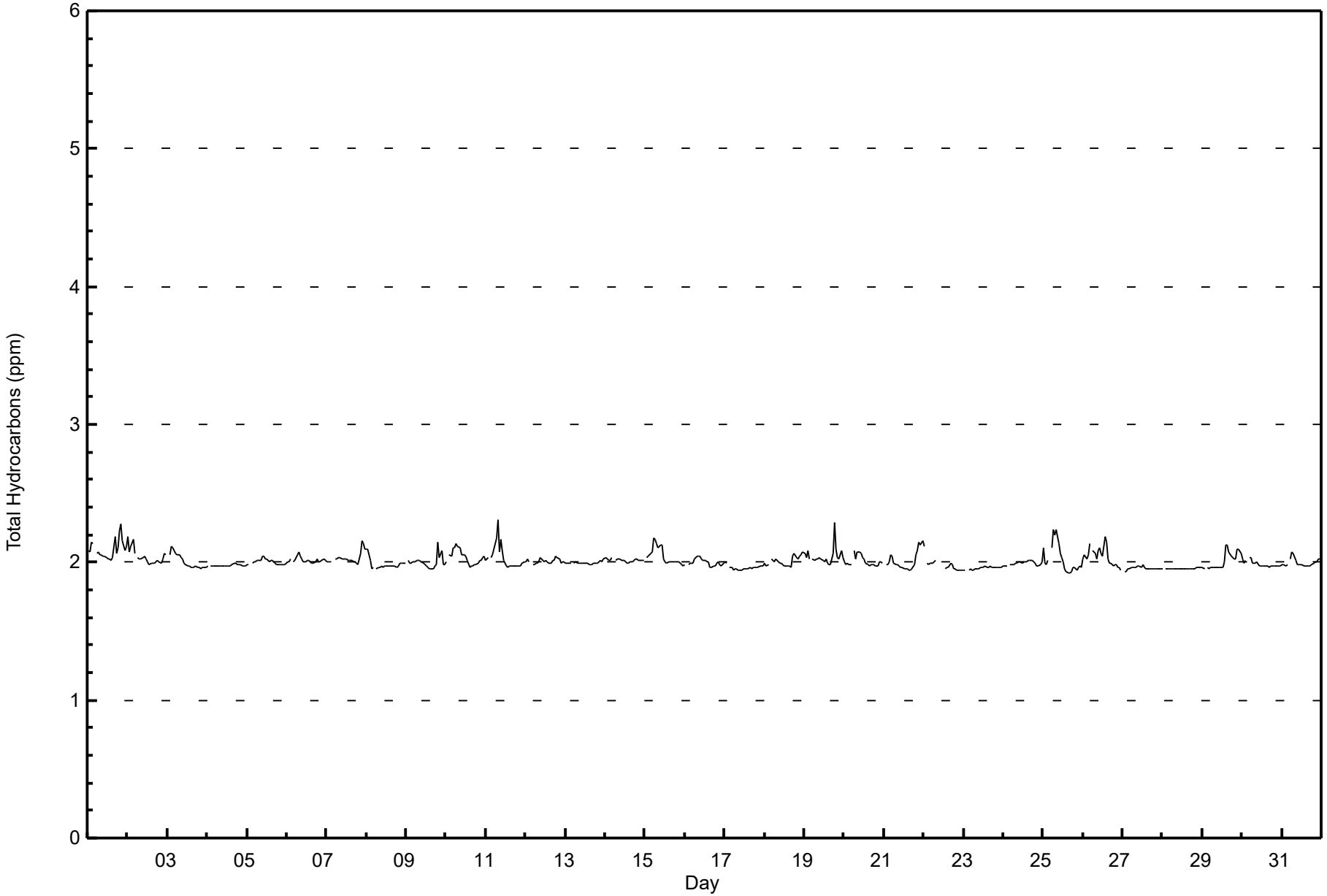
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Patricia McInnes - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	600	84.75	84.75
2.1 - 3.0	108	15.25	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Patricia McInnes - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	37	7	2	4	9	37	86	26	43	57	51	55	50	67	28	41	600
2.1 - 3.0	16	4	1	1	1	2	12	11	13	8	2	5	5	5	8	14	108
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	53	11	3	5	10	39	98	37	56	65	53	60	55	72	36	55	708

Total Number of Valid Hours: 708

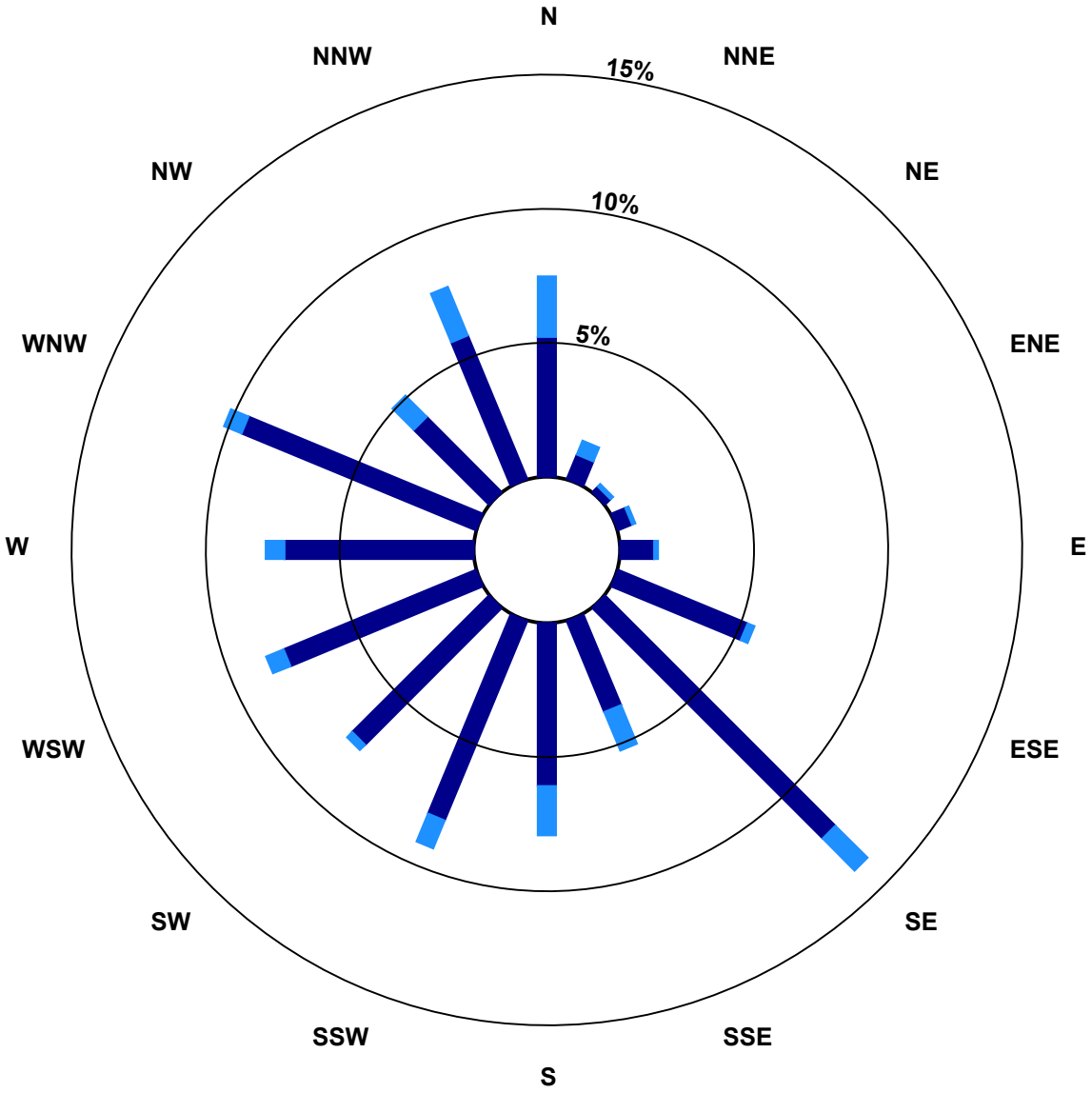
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Patricia McInnes



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

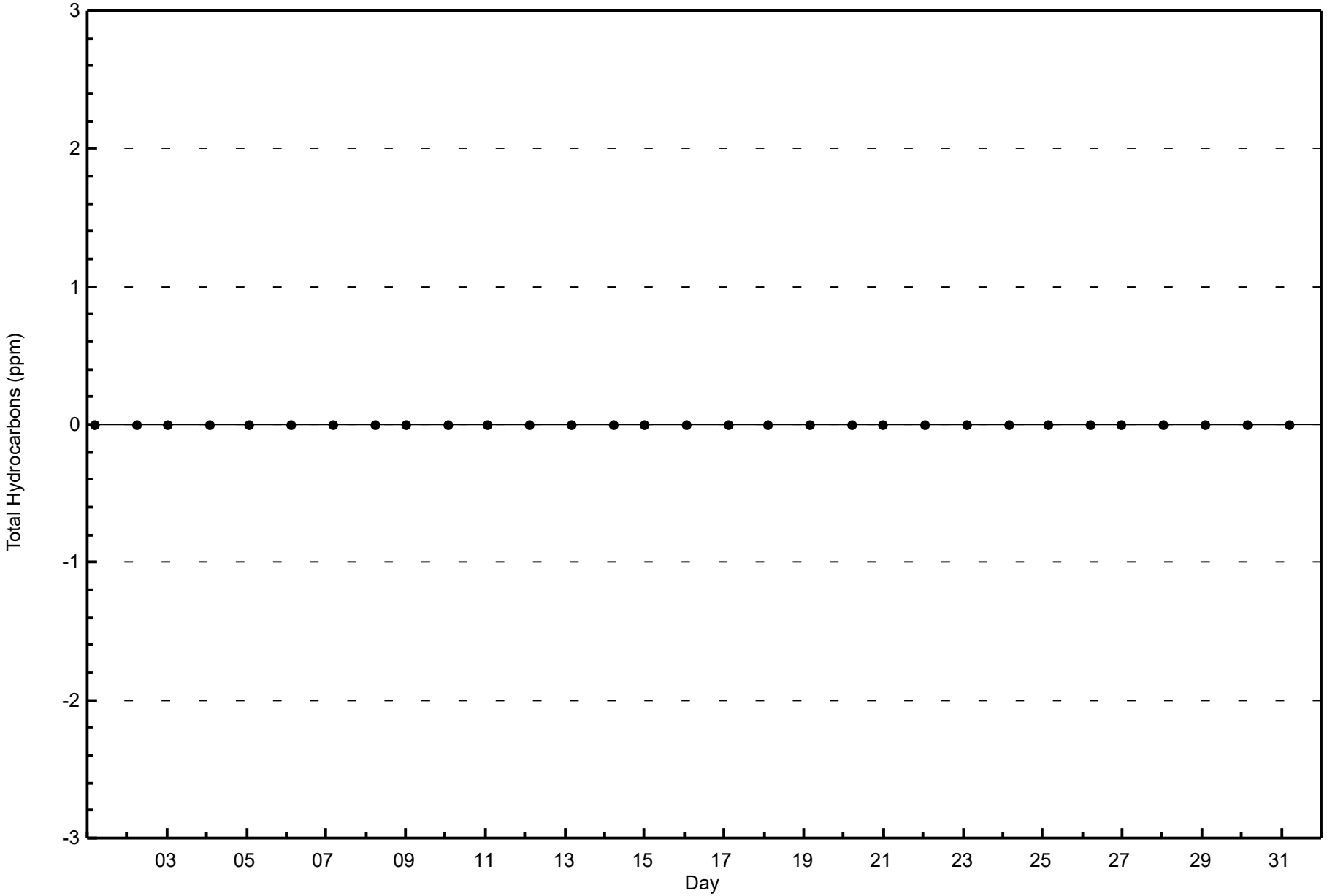
Total Number of Valid Hours: 708

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Patricia McInnes - October 2025

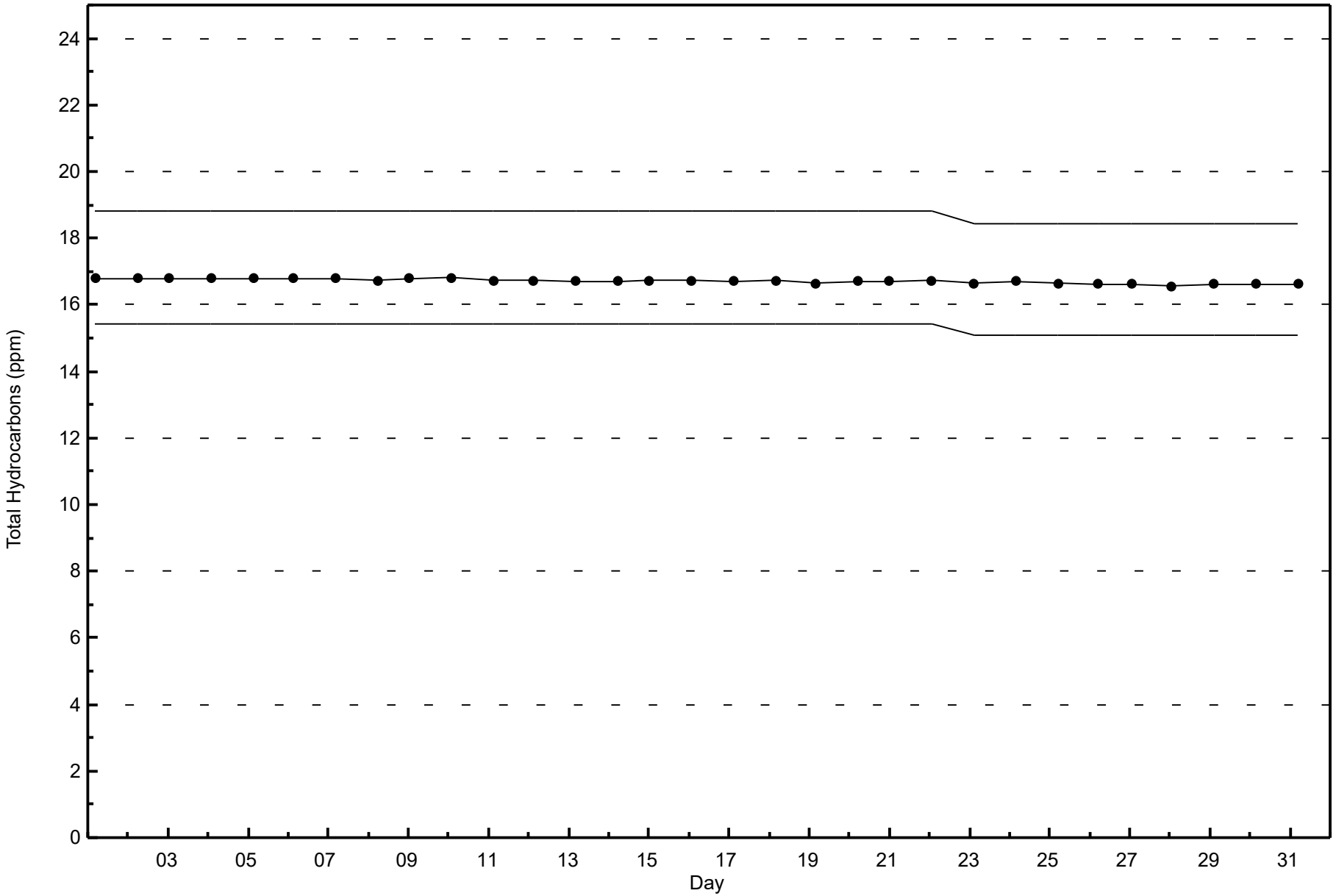


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Patricia McInnes - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

Patricia McInnes - October 2025

Maximum Value: 0.026 ppm on Oct 22 17:00

Maximum Daily Average: 0.002 ppm on Oct 22

Minimum Value: 0.000 ppm on Oct 1 01:00

Minimum Daily Average: 0.000 ppm on Oct 1

Maximum Diurnal Average: 0.001 ppm at hour 17

Minimum Diurnal Average: 0.000 ppm at hour 2

Monthly Average: 0.000 ppm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.0 P_{99} = 0.0

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
8-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10-Oct	0.000	Z	0.000	0.000	0.005	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
11-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15-Oct	Z	0.000	0.000	0.000	0.000	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.020
16-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
19-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.004	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.001	0.021
20-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	C	C	C	C	C	0.000	0.000	0.000	0.026	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.026
23-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.001	0.003	0.000	0.003	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.012
24-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001
26-Oct	0.001	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
27-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
29-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	Diurnal Average	
	0.001	0.000	0.000	0.000	0.005	0.020	0.004	0.000	0.000	0.000	0.003	0.001	0.001	0.021	0.004	0.003	0.026	0.013	0.003	0.001	0.000	0.000	0.000	0.000	Diurnal Maximum	

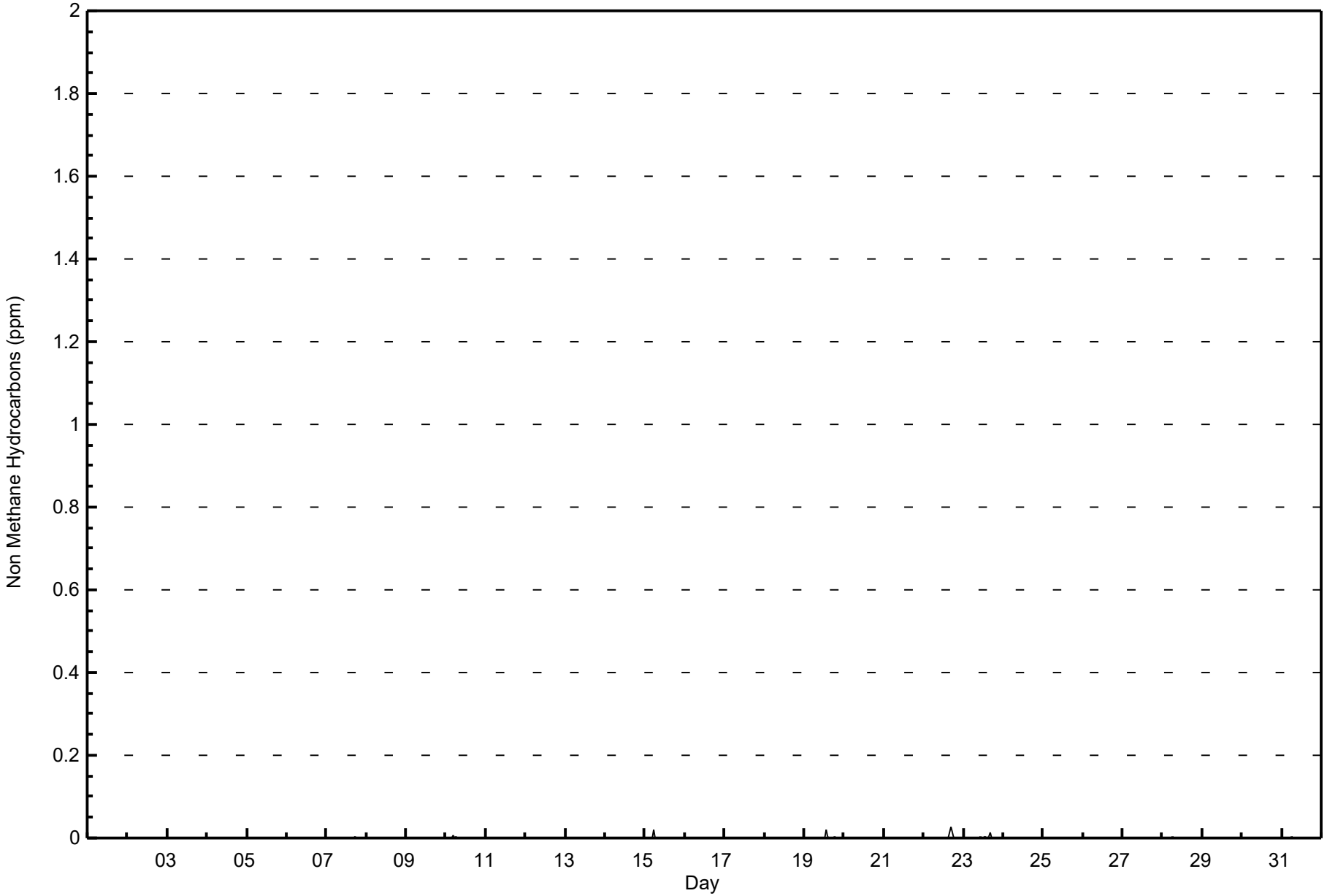
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm

Patricia McInnes - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	703	99.29	99.29
0.006 - 0.05	5	0.71	100.00
0.06 - 0.1	0	0.00	100.00
> 0.1	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.005	53	11	3	4	10	38	96	36	56	65	53	60	55	72	36	55	703
0.006 - 0.05	0	0	0	1	0	1	2	1	0	0	0	0	0	0	0	0	5
0.06 - 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	53	11	3	5	10	39	98	37	56	65	53	60	55	72	36	55	708

Total Number of Valid Hours: 708

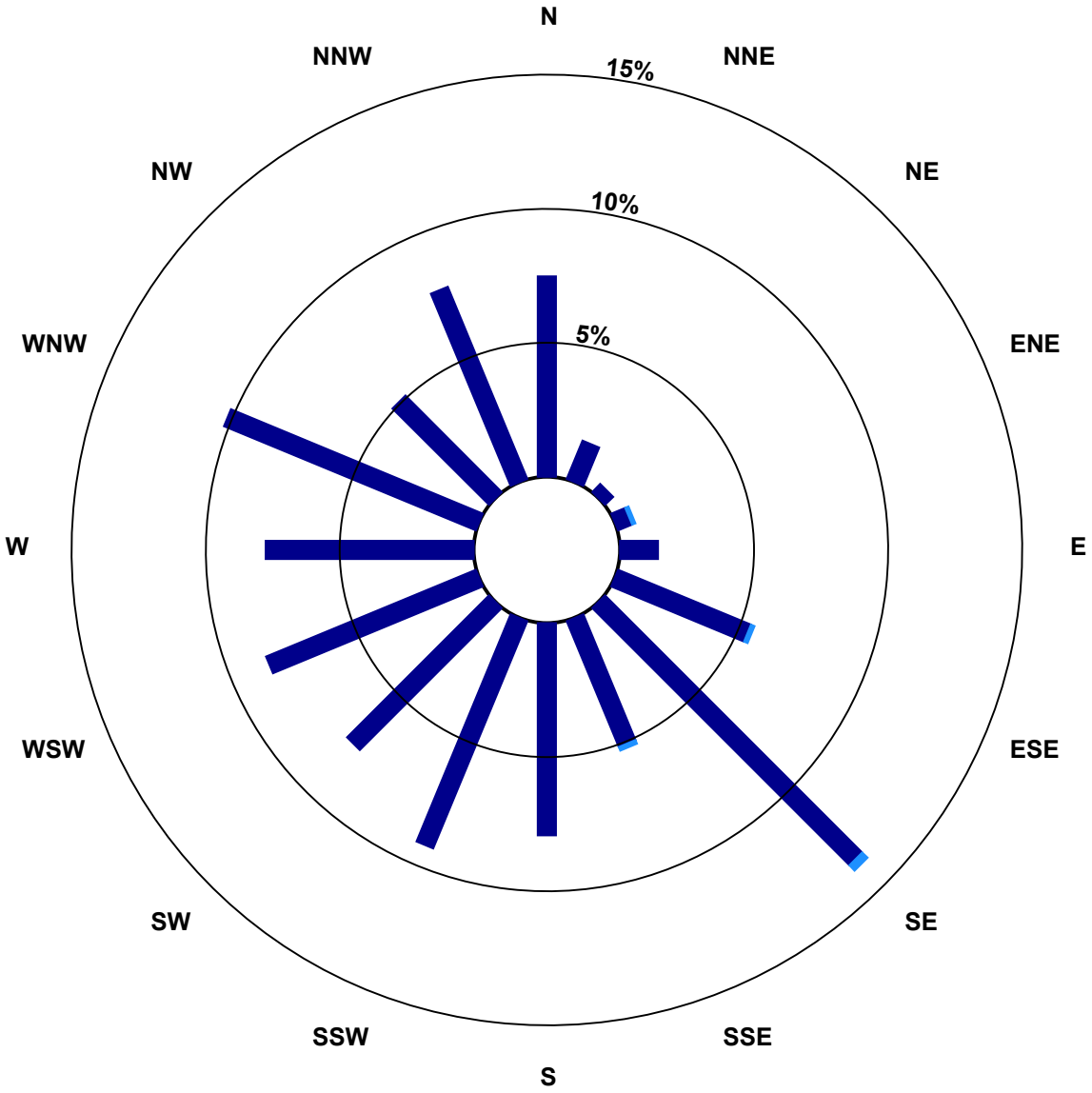
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Non Methane Hydrocarbons (NMHC) - ppm

Patricia McInnes



Classes (ppm)

0 - 0.005

0.006 - 0.05

0.06 - 0.1

> 0.1

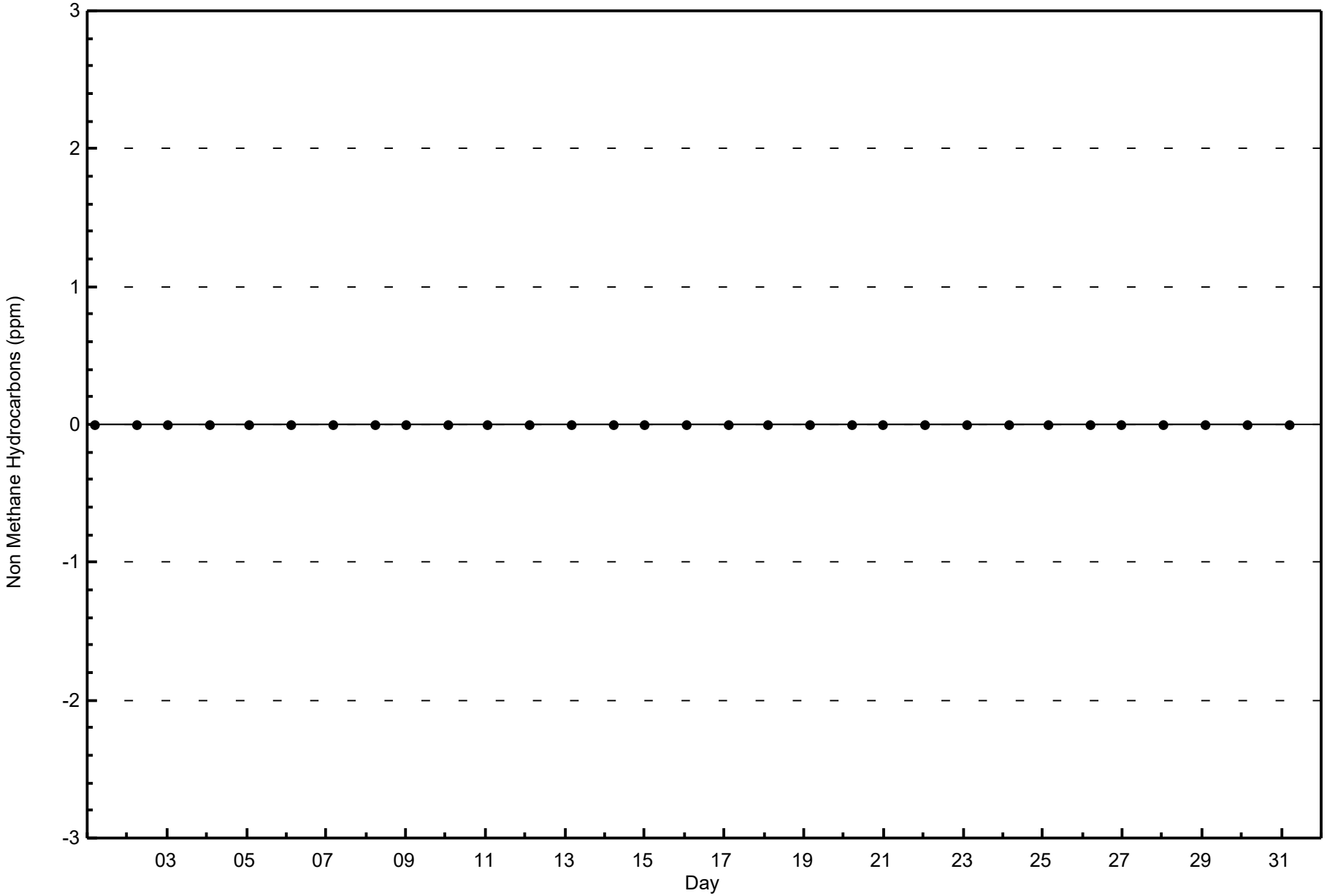
Total Number of Valid Hours: 708

Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Patricia McInnes - October 2025

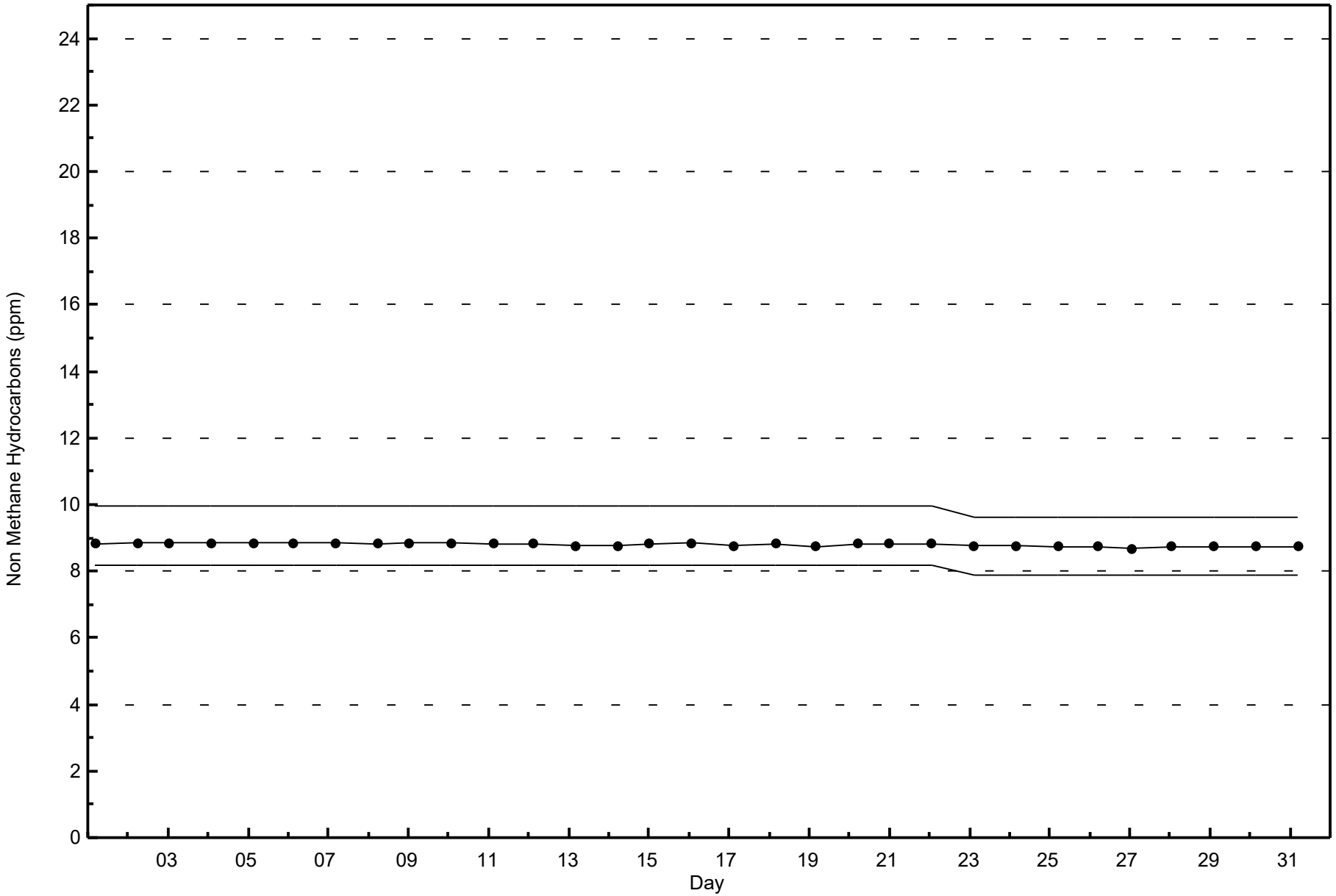


Wood Buffalo Environmental Association

Span Responses

Non Methane Hydrocarbons (NMHC) - ppm

Patricia McInnes - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH_4) - ppm

Patricia McInnes - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 2.3 ppm on Oct 11 08:00 Maximum Daily Average: 2.1 ppm on Oct 1

Minimum Value: 1.9 ppm on Oct 25 17:00
Maximum Diurnal Average: 2.0 ppm at hour 8
Monthly Average: 2.01 ppm

Minimum Daily Average: 2.0 ppm on Oct 28
Minimum Diurnal Average: 2.0 ppm at hour 16
Percentiles: P_1 = 1.9 P_{10} = 2.0 Q_1 = 2.0 Median = 2.0 Q_3 = 2.0 P_{90} = 2.1 P_{99} = 2.2

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.2	2.3	2.2	2.1	2.1	2.1	2.3
2-Oct	2.2	2.1	2.1	2.2	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.2
3-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
4-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
7-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.0	2.2
8-Oct	2.1	2.1	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
9-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.0	2.1
10-Oct	2.0	Z	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
11-Oct	2.0	2.0	Z	2.0	2.1	2.1	2.2	2.3	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3
12-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
13-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
14-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
15-Oct	Z	2.0	2.0	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2
16-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
17-Oct	2.0	2.0	Z	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
18-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.1
19-Oct	2.1	2.0	2.1	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.0	2.0	2.1	2.0	2.0	2.3
20-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.1	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
21-Oct	Z	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.0	2.2
22-Oct	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	C	C	C	C	C	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.1
23-Oct	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
24-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
25-Oct	2.1	2.0	2.0	2.0	Z	2.1	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.2
26-Oct	2.0	2.1	2.0	2.1	2.1	Z	2.1	2.1	2.0	2.1	2.1	2.1	2.0	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.2
27-Oct	Z	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.0
28-Oct	2.0	Z	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
29-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1
30-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
31-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	Diurnal Average	
	2.2	2.1	2.1	2.2	2.1	2.2	2.2	2.3	2.2	2.2	2.1	2.1	2.0	2.2	2.1	2.1	2.2	2.1	2.3	2.2	2.3	2.2	2.1	2.2	Diurnal Maximum	

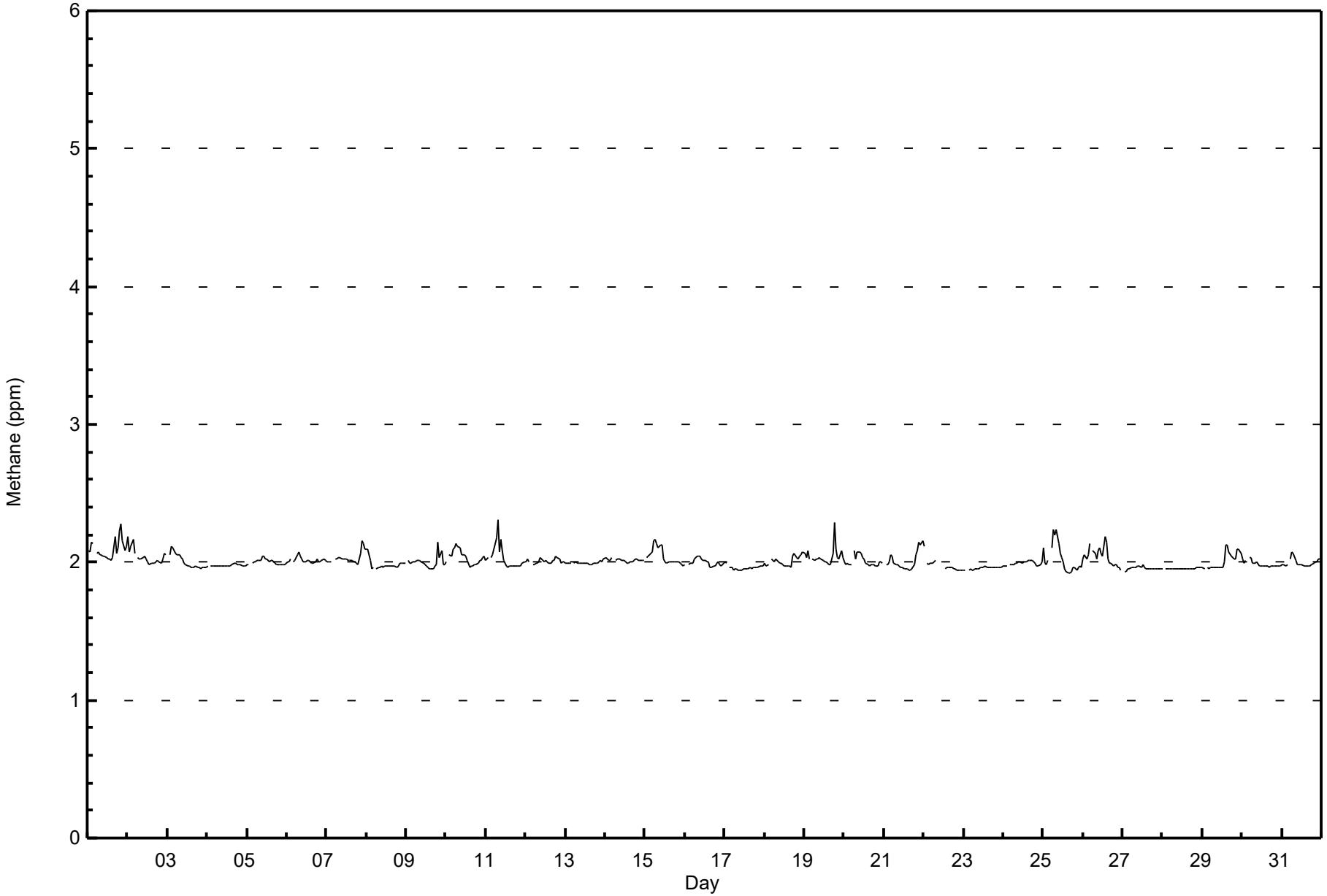
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Methane (CH_4) - ppm

Patricia McInnes - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	600	84.75	84.75
2.1 - 3.0	108	15.25	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Concentration Ranges (ppm)	Wind Direction N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Totals
0 - 2.0	37	7	2	4	9	37	86	26	43	57	51	55	50	67	28	41	600
2.1 - 3.0	16	4	1	1	1	2	12	11	13	8	2	5	5	5	8	14	108
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	53	11	3	5	10	39	98	37	56	65	53	60	55	72	36	55	708

Total Number of Valid Hours: 708

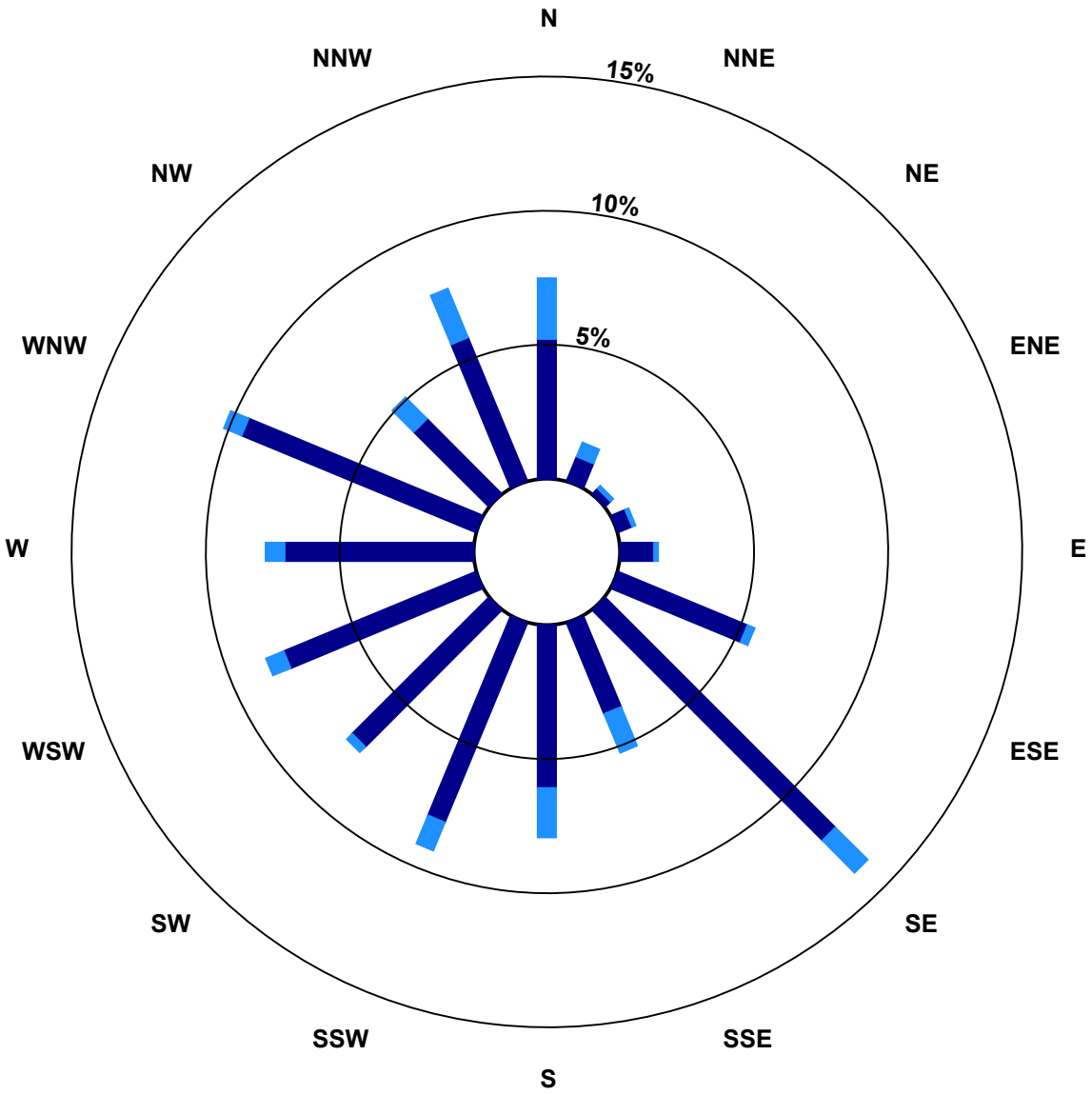
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Methane (CH_4) - ppm

Patricia McInnes



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

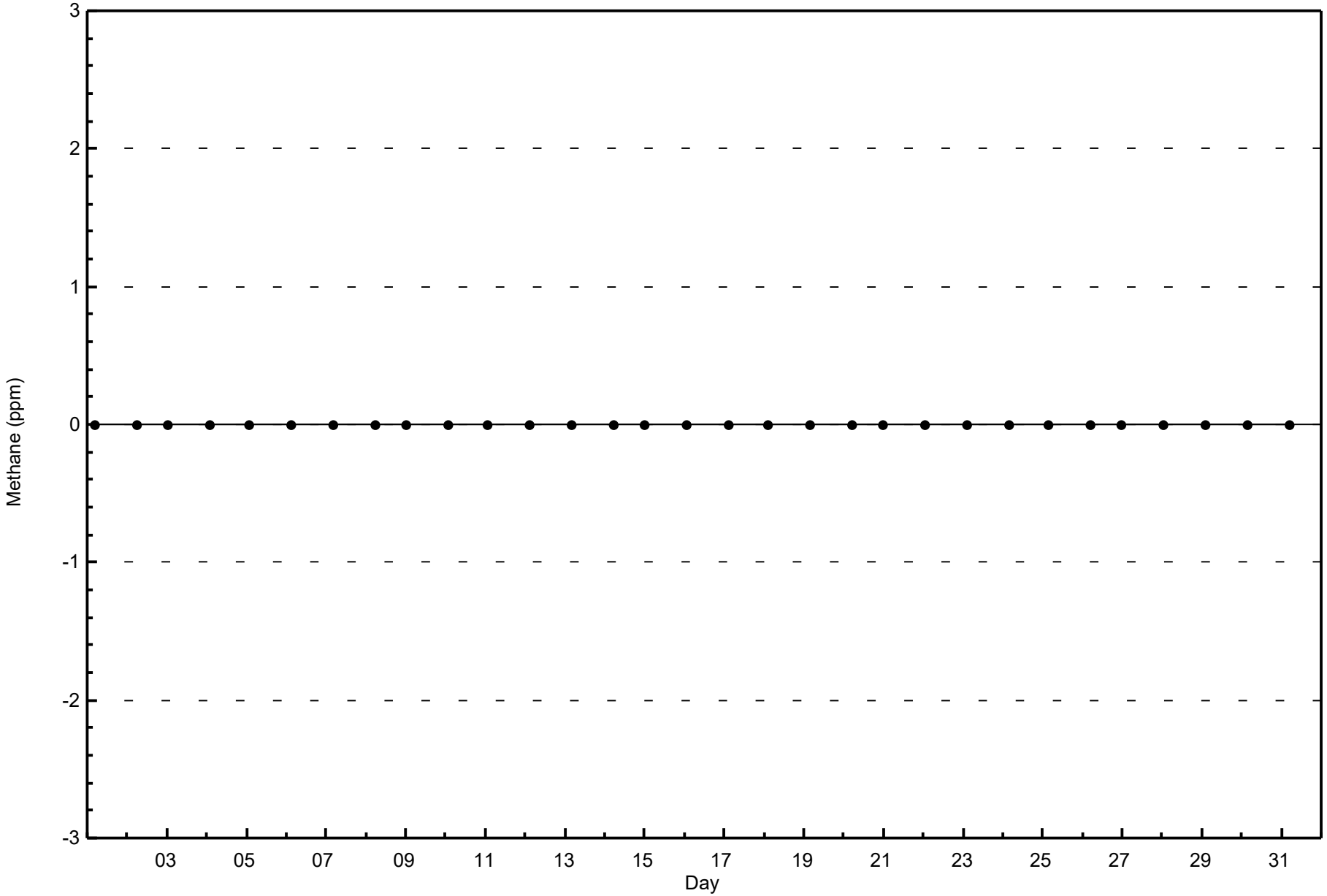
Total Number of Valid Hours: 708

Wood Buffalo Environmental Association

Zero Responses

Methane (CH_4) - ppm

Patricia McInnes - October 2025

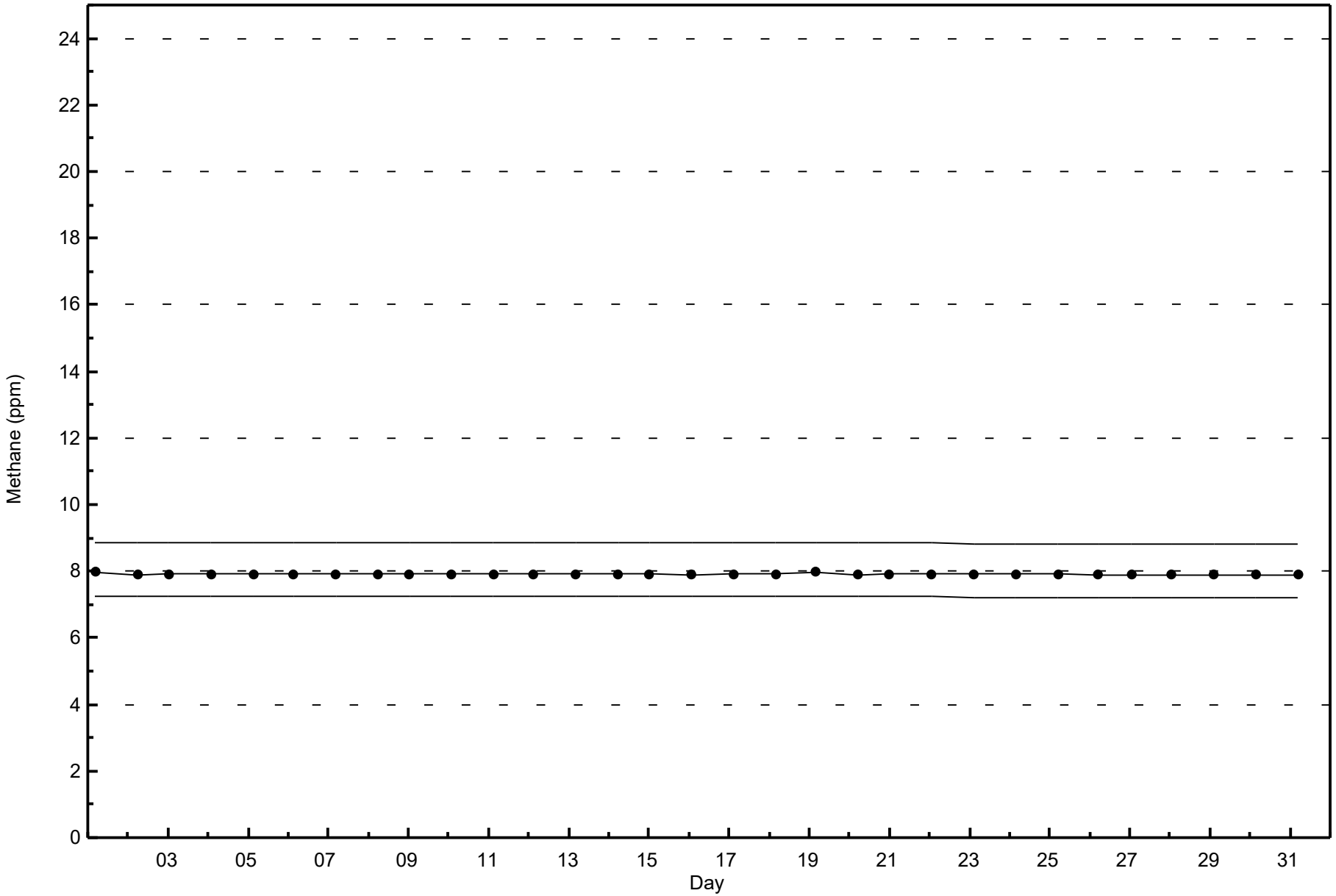


Wood Buffalo Environmental Association

Span Responses

Methane (CH_4) - ppm

Patricia McInnes - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O_3) - ppb

Patricia McInnes - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 43.9 ppb on Oct 10 16:00
Maximum Daily Average: 30.6 ppb on Oct 17

Minimum Value: 3.1 ppb on Oct 19 19:00
Minimum Daily Average: 11.2 ppb on Oct 20
Maximum Diurnal Average: 26.2 ppb at hour 16
Minimum Diurnal Average: 16.3 ppb at hour 8
Monthly Average: 20.82 ppb
Percentiles: P_1 = 4.3 P_{10} = 10.1 Q_1 = 15.8 Median = 21.3 Q_3 = 25.7 P_{90} = 30.2 P_{99} = 39.1

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	Z	17.0	13.9	14.7	15.8	17.5	16.4	18.7	20.3	22.3	19.3	20.4	24.6	25.3	26.8	27.7	25.7	24.8	20.4	13.9	7.0	8.3	10.4	9.7	18.3	27.7
2-Oct	6.6	Z	8.1	8.0	7.0	7.3	4.8	7.3	7.1	9.2	12.1	14.1	24.2	27.3	24.9	22.5	21.7	17.8	9.3	15.7	16.5	12.2	12.4	12.9	13.4	27.3
3-Oct	13.6	15.2	Z	10.8	8.0	7.8	13.2	14.4	17.1	19.8	C	C	C	C	35.1	34.6	32.6	31.0	29.8	29.8	30.5	25.7	22.0	19.3	21.6	35.1
4-Oct	18.0	19.6	22.6	Z	19.9	19.0	19.2	20.9	21.6	22.0	23.1	25.7	27.3	25.6	24.0	24.8	20.5	13.6	14.6	16.5	19.0	17.8	18.5	19.7	20.6	27.3
5-Oct	17.9	16.8	14.8	15.6	Z	12.1	11.6	10.8	11.3	11.5	14.8	19.7	22.4	24.2	23.4	23.6	24.0	25.8	28.2	27.7	27.9	27.5	26.3	25.5	20.1	28.2
6-Oct	27.5	29.1	23.5	24.0	28.4	Z	20.2	20.6	22.2	24.9	28.0	28.3	28.3	28.4	29.5	29.3	28.5	20.5	16.9	21.5	23.5	21.9	21.1	22.0	24.7	29.5
7-Oct	Z	22.6	22.6	21.5	20.1	16.9	16.8	16.6	17.7	18.9	17.1	19.1	20.0	21.4	22.9	21.9	17.1	14.3	26.4	24.9	17.0	9.7	10.3	13.8	18.7	26.4
8-Oct	14.2	Z	20.2	32.2	36.8	36.7	29.3	24.5	24.6	26.8	29.8	29.3	29.2	29.1	30.5	31.7	32.9	32.0	30.8	26.3	19.2	16.3	15.1	14.3	26.6	36.8
9-Oct	13.7	10.9	Z	14.7	14.0	14.1	12.8	13.0	14.9	18.4	21.9	25.0	27.9	35.0	39.1	38.5	37.6	33.7	27.0	14.6	10.9	6.6	28.5	28.3	21.8	39.1
10-Oct	26.9	22.6	17.0	Z	7.1	8.7	4.0	7.2	14.8	20.4	20.3	20.3	23.9	32.4	43.7	43.9	43.3	38.3	39.3	38.8	37.1	36.8	33.6	30.5	26.6	43.9
11-Oct	33.6	32.9	32.4	32.2	Z	24.7	23.2	18.4	22.2	16.0	18.0	19.8	18.7	16.3	17.8	17.7	16.9	17.9	18.9	20.3	21.2	22.9	23.3	22.6	22.1	33.6
12-Oct	24.0	21.7	23.8	25.6	25.9	Z	25.0	26.3	23.7	23.0	23.6	27.9	28.3	28.7	30.0	29.3	24.5	22.0	21.7	21.8	24.9	25.8	24.9	24.0	25.1	30.0
13-Oct	Z	24.2	25.0	24.0	23.4	24.1	22.3	19.5	22.5	27.2	31.0	32.0	32.0	31.8	31.9	31.4	31.0	27.5	26.6	26.5	26.1	24.6	25.5	20.2	26.5	32.0
14-Oct	19.2	Z	23.7	23.2	18.3	18.8	22.9	23.2	23.4	24.2	25.0	26.7	27.9	28.9	28.9	27.8	26.7	21.8	15.4	19.9	22.2	20.9	20.3	19.8	23.0	28.9
15-Oct	19.0	18.5	Z	12.5	10.3	3.8	3.8	8.6	11.1	14.0	12.1	25.8	28.4	27.8	28.8	29.5	28.8	26.4	25.4	25.3	26.3	27.3	30.4	31.6	20.7	31.6
16-Oct	31.5	29.6	28.5	Z	28.4	26.5	24.0	20.9	21.3	22.2	25.5	25.1	25.4	26.4	26.9	39.3	40.2	35.9	34.7	33.2	36.9	39.9	36.8	32.5	30.1	40.2
17-Oct	29.6	28.6	29.3	32.4	Z	33.0	32.1	33.4	31.1	29.8	27.0	28.4	30.1	32.1	34.1	33.7	32.6	31.6	31.0	30.6	29.7	28.2	27.7	27.1	30.6	34.1
18-Oct	22.8	26.2	26.0	24.9	12.9	Z	17.3	15.2	19.4	23.5	24.9	29.0	32.2	32.7	34.3	35.9	36.2	28.0	21.6	19.1	12.0	7.7	10.5	8.3	22.6	36.2
19-Oct	Z	18.0	13.6	19.3	20.0	20.7	17.9	14.2	12.5	12.6	15.7	17.6	18.2	17.6	18.0	19.5	17.8	10.7	3.1	5.2	10.4	10.7	4.6	4.6	14.0	20.7
20-Oct	6.2	Z	9.1	10.6	12.1	10.9	4.7	11.2	8.0	7.6	8.1	9.2	10.2	12.4	11.6	12.2	10.9	9.5	12.2	16.0	15.4	15.3	17.3	17.0	11.2	17.3
21-Oct	16.3	15.9	Z	11.5	10.9	13.9	18.7	19.4	19.6	20.9	23.0	25.1	27.0	26.9	26.9	26.0	24.4	22.5	17.2	8.6	7.0	6.3	4.3	4.5	17.2	27.0
22-Oct	4.5	8.5	11.0	Z	12.2	13.6	11.9	7.9	7.7	10.1	13.2	17.0	16.7	20.7	23.0	22.1	23.1	22.6	22.4	20.6	20.6	20.1	20.5	20.5	16.1	23.1
23-Oct	21.6	21.8	22.0	21.7	Z	21.0	21.2	19.8	20.5	20.4	20.0	21.7	23.5	25.0	26.6	27.1	25.9	25.9	24.8	24.2	21.9	21.1	21.2	23.0	22.7	27.1
24-Oct	22.6	21.6	20.8	20.7	20.1	Z	18.0	17.5	19.2	19.5	20.0	22.3	23.9	23.6	23.1	23.0	22.8	20.7	23.4	21.6	20.3	19.5	20.0	17.7	21.0	23.9
25-Oct	Z	18.2	18.7	16.6	15.5	6.1	4.9	5.6	6.6	8.5	17.3	20.4	25.0	33.4	27.7	26.3	25.9	21.9	11.9	14.8	22.5	16.4	19.6	22.3	17.7	33.4
26-Oct	11.9	Z	12.4	8.5	4.3	6.7	3.4	3.9	9.3	14.1	15.4	17.9	17.6	10.6	6.8	11.0	13.3	14.6	18.3	17.8	22.0	23.1	24.3	26.3	13.6	26.3
27-Oct	27.4	28.3	Z	28.9	31.0	29.0	24.3	23.7	22.9	21.4	19.5	21.1	21.2	21.6	22.0	21.0	21.7	22.1	21.6	22.1	23.1	24.0	24.8	25.2	23.8	31.0
28-Oct	23.3	21.5	23.9	Z	24.6	24.8	25.4	25.3	25.2	22.9	24.3	27.1	27.9	26.3	27.0	27.9	26.0	24.6	24.7	24.1	22.8	21.2	19.6	19.1	24.3	27.9
29-Oct	22.7	24.4	23.7	21.0	Z	20.4	19.8	19.6	19.3	20.5	18.8	19.2	17.6	14.1	7.9	8.8	7.5	9.2	9.7	10.0	11.1	6.2	5.9	9.1	15.1	24.4
30-Oct	13.0	15.0	14.0	14.4	13.9	Z	12.3	11.2	11.9	11.1	25.2	24.7	23.6	21.9	22.5	24.5	24.1	20.3	19.3	20.1	19.5	20.3	18.8	20.5	18.4	25.2
31-Oct	Z	20.4	19.8	18.2	14.6	6.1	4.1	5.4	11.6	15.8	17.4	18.7	19.7	20.1	19.8	20.0	19.9	20.1	21.6	22.7	22.3	23.0	22.2	21.1	17.6	23.0
	19.5	21.1	20.0	19.5	17.5	17.1	16.3	16.3	17.4	18.7	20.4	22.6	24.1	24.9	25.7	26.2	25.3	22.8	21.6	21.1	20.9	19.6	20.0	19.8	Diurnal Average	
	33.6	32.9	32.4	32.4	36.8	36.7	32.1	33.4	31.1	29.8	31.0	32.0	32.2	35.0	43.7	43.9	43.3	38.3	39.3	38.8	37.1	39.9	36.8	32.5	Diurnal Maximum	

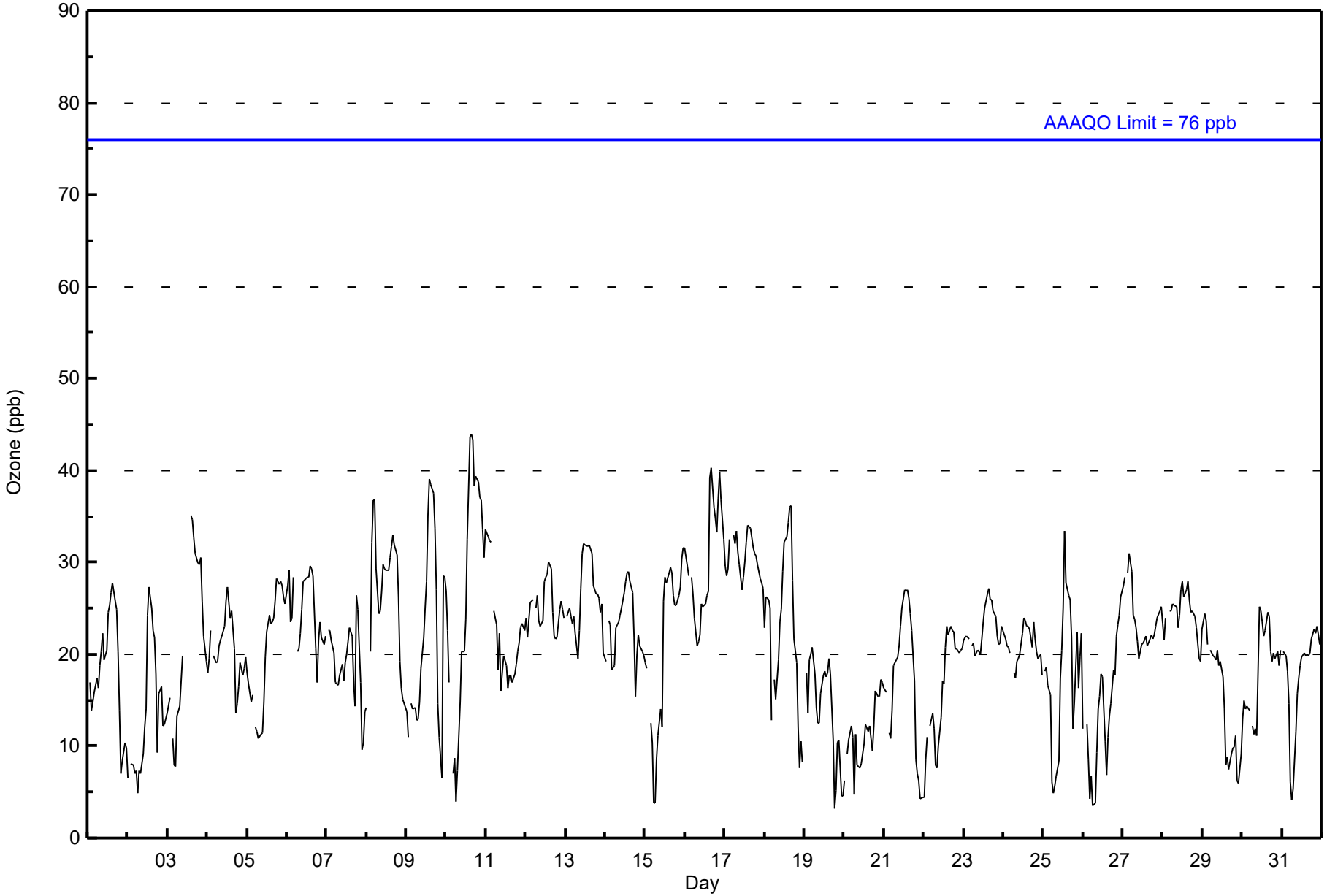
Z - zerospan C - Calibration
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb

Wood Buffalo Environmental Association

Hourly Averages

Ozone (O_3) - ppb

Patricia McInnes - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	327	46.12	46.12
21 - 50	382	53.88	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Ozone (O_3) - ppb

Patricia McInnes - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	27	9	3	5	8	16	53	29	30	33	18	17	14	21	16	28	327
21 - 50	27	2	0	0	1	25	47	9	24	34	33	38	44	51	21	26	382
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	54	11	3	5	9	41	100	38	54	67	51	55	58	72	37	54	709

Total Number of Valid Hours: 709

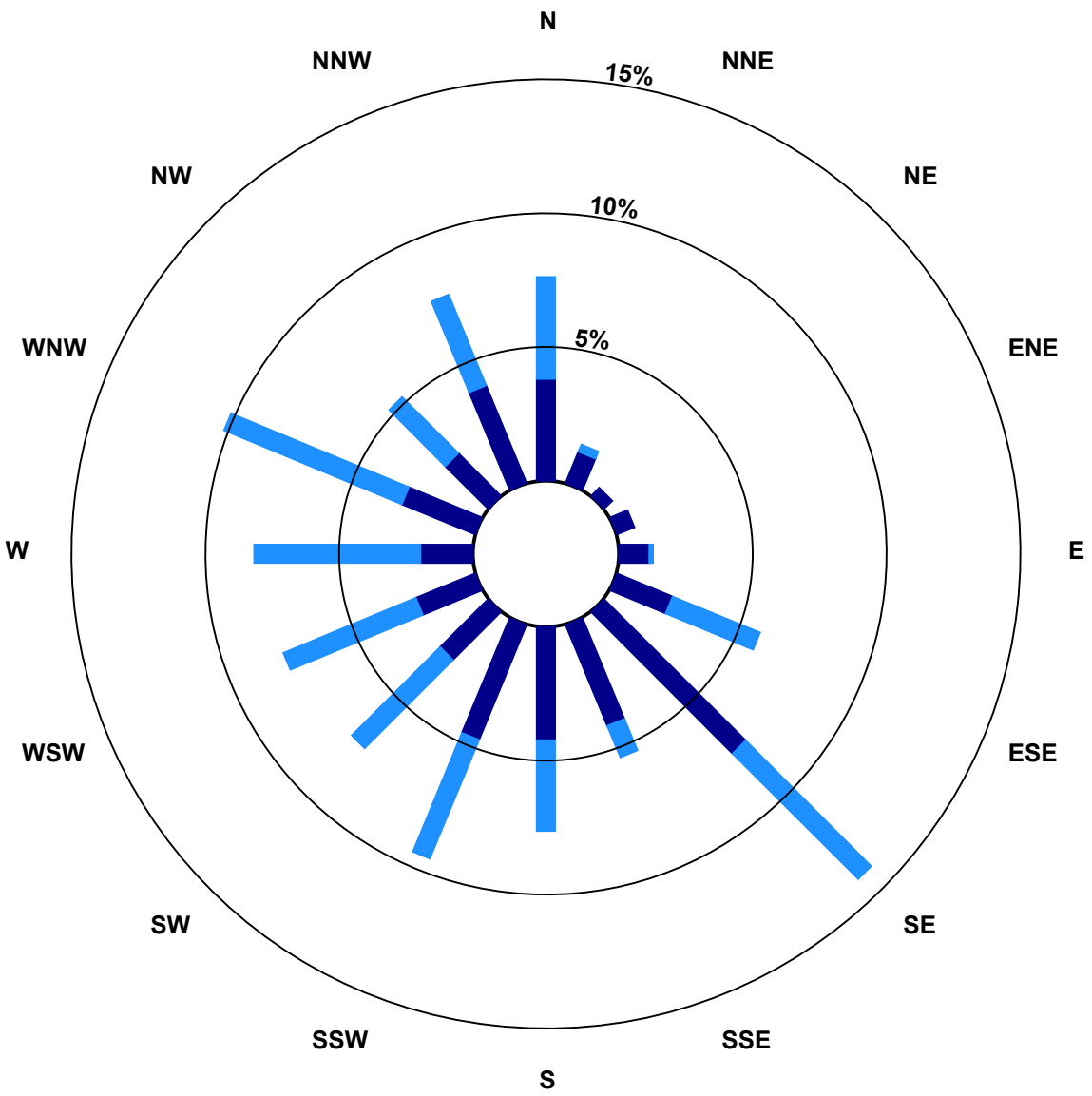
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Ozone (O_3) - ppb

Patricia McInnes



Classes (ppb)

0 - 20

21 - 50

51 - 82

> 83

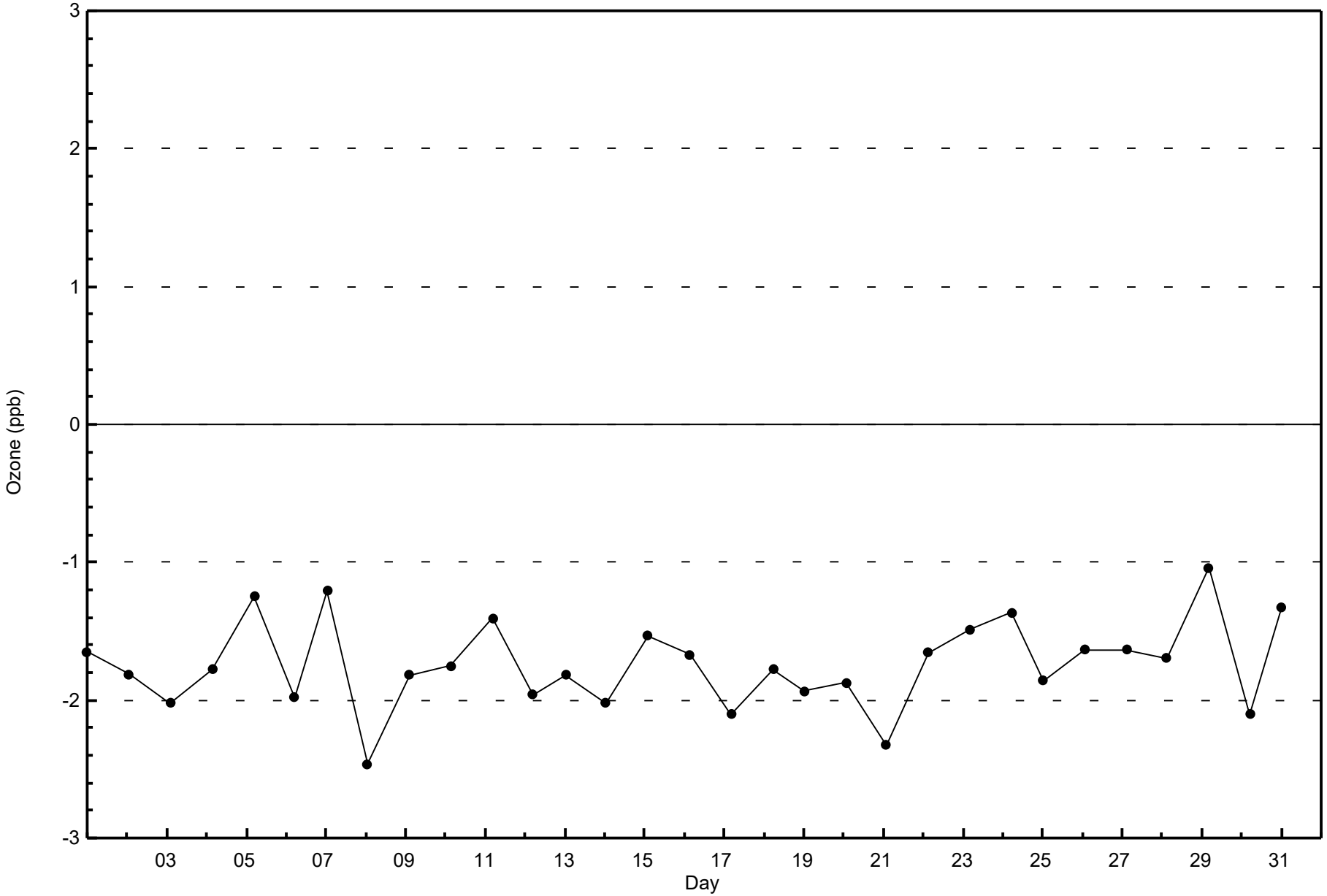
Total Number of Valid Hours: 709

Wood Buffalo Environmental Association

Zero Responses

Ozone (O_3) - ppb

Patricia McInnes - October 2025

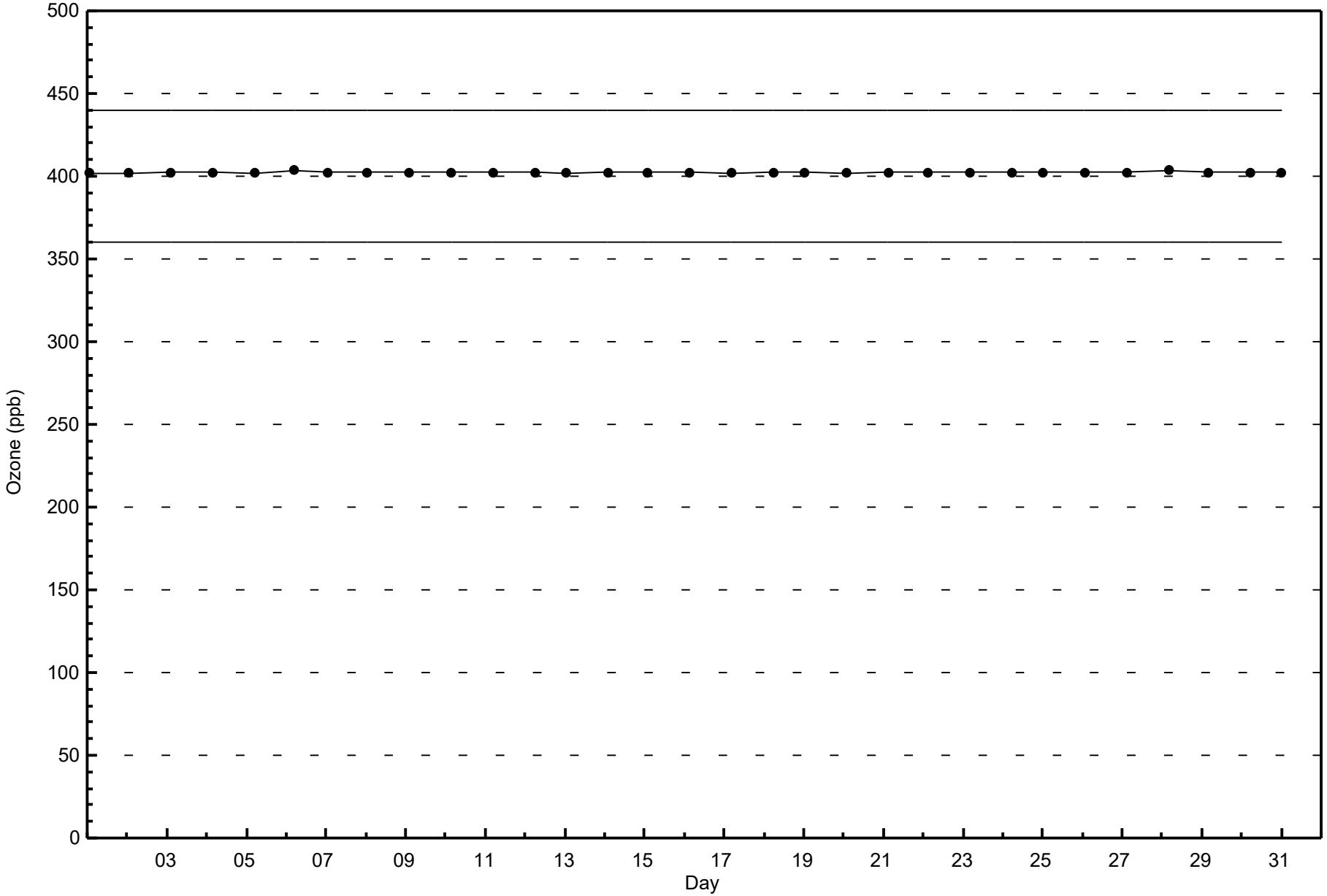


Wood Buffalo Environmental Association

Span Responses

Ozone (O_3) - ppb

Patricia McInnes - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Patricia McInnes - October 2025

Maximum Value: 18.2 ppb on Oct 15 06:00

Maximum Daily Average: 2.7 ppb on Oct 26

Minimum Value: 0.0 ppb on Oct 4 19:00

Minimum Daily Average: 0.1 ppb on Oct 28

Maximum Diurnal Average: 2.1 ppb at hour 7

Minimum Diurnal Average: 0.3 ppb at hour 3

Monthly Average: 1.12 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.2 Median = 0.5 Q_3 = 1.3 P_{90} = 2.5 P_{99} = 8.9

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.2	0.2	Z	0.5	0.3	0.6	0.5	0.7	0.5	0.6	0.5	0.6	0.5	0.6	0.8	0.9	1.4	0.2	0.4	0.7	5.3	1.4	0.2	0.2	0.8	5.3
2-Oct	0.3	0.6	0.4	Z	2.1	1.9	3.5	2.5	3.0	C	C	C	C	C	C	0.5	1.0	1.3	4.7	2.4	2.6	1.6	1.3	0.8	--	4.7
3-Oct	0.3	0.6	0.7	1.1	Z	4.0	1.6	2.5	0.7	0.9	0.6	0.3	0.3	0.4	0.3	0.1	0.3	0.3	0.1	0.1	0.1	0.2	0.5	0.4	0.7	4.0
4-Oct	0.2	0.3	0.4	0.2	0.2	Z	1.4	0.8	1.0	0.7	1.3	0.9	0.9	0.3	0.7	0.8	0.4	0.3	0.0	0.0	0.1	0.4	0.5	0.4	0.5	1.4
5-Oct	Z	0.4	0.5	0.5	0.5	1.1	0.7	0.6	0.4	0.7	0.6	0.4	0.1	0.6	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.0	0.1	0.0	0.3	1.1
6-Oct	0.2	Z	0.0	0.2	0.1	0.1	0.8	1.3	2.5	1.9	1.7	2.2	2.1	2.3	1.3	1.7	1.6	2.7	3.8	2.5	1.4	0.7	0.6	0.5	1.4	3.8
7-Oct	0.6	0.3	Z	0.3	0.5	0.8	0.8	2.1	1.8	2.4	4.0	2.6	2.5	1.9	1.9	2.3	3.5	4.7	1.2	0.7	3.6	3.5	2.4	0.5	2.0	4.7
8-Oct	0.2	0.3	0.4	Z	0.5	0.5	0.0	0.0	0.0	0.2	0.1	0.4	0.7	0.7	0.4	0.5	0.2	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.3	0.7
9-Oct	0.2	0.6	0.1	0.2	Z	0.9	0.8	0.7	0.3	1.5	0.6	0.5	0.5	0.2	0.1	0.2	0.2	0.3	0.5	2.7	6.4	11.8	0.2	0.2	1.3	11.8
10-Oct	0.3	0.4	1.2	1.0	6.5	Z	6.7	8.0	4.7	2.5	2.9	3.1	2.2	1.0	0.2	0.2	0.4	0.2	0.2	0.0	0.2	0.5	0.5	0.2	1.9	8.0
11-Oct	Z	0.1	0.0	0.1	0.3	0.5	0.0	0.2	0.4	1.7	0.6	0.0	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.7
12-Oct	0.0	Z	0.1	0.1	0.2	0.4	0.4	0.4	0.8	1.0	1.0	0.5	0.8	0.7	0.6	0.6	0.5	0.3	0.1	0.2	0.0	0.1	0.0	0.2	0.4	1.0
13-Oct	0.2	0.1	Z	0.0	0.3	0.3	0.7	0.9	0.9	0.2	0.0	0.0	0.1	0.1	0.3	0.4	0.4	1.4	0.9	0.8	0.6	0.3	0.3	2.1	0.5	2.1
14-Oct	1.0	0.3	0.4	Z	0.7	1.0	0.5	0.5	0.7	0.6	0.6	0.3	0.3	0.3	0.4	0.5	0.5	1.0	2.1	1.1	0.6	0.9	0.5	0.5	0.7	2.1
15-Oct	0.3	0.3	0.5	1.4	Z	18.2	9.9	4.4	5.2	3.4	5.8	0.7	0.6	0.6	0.6	0.6	0.5	0.6	0.4	0.3	0.3	0.2	0.1	0.2	2.4	18.2
16-Oct	0.1	0.2	0.1	0.1	0.1	Z	0.3	1.1	1.1	1.5	0.5	1.8	1.7	1.3	1.6	0.2	0.2	0.4	0.6	0.9	0.2	0.1	0.1	0.1	0.6	1.8
17-Oct	Z	0.0	0.1	0.0	0.0	0.1	0.5	1.8	2.1	0.6	0.2	0.2	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.1
18-Oct	0.1	Z	0.0	0.2	5.1	3.2	1.0	2.3	2.4	1.1	1.3	0.7	0.2	1.1	0.4	0.0	0.0	0.4	1.2	3.7	5.7	16.7	1.4	3.0	2.2	16.7
19-Oct	1.0	0.5	Z	1.0	1.3	1.0	0.6	2.7	1.8	1.4	1.7	1.5	1.9	2.0	2.3	2.1	1.7	8.2	17.8	1.3	0.8	0.3	0.3	0.1	2.3	17.8
20-Oct	0.1	0.1	0.1	Z	0.0	0.0	0.1	0.0	1.5	3.7	3.2	4.2	3.0	0.6	0.7	0.4	0.9	1.9	1.5	1.0	1.1	1.1	0.6	0.1	1.1	4.2
21-Oct	0.2	0.2	0.4	1.2	Z	1.0	0.2	0.0	0.0	0.1	0.0	0.1	0.4	1.0	0.5	0.5	0.4	0.3	0.7	2.3	2.2	2.1	7.4	0.3	0.9	7.4
22-Oct	1.7	0.6	0.8	0.8	1.8	Z	1.8	4.5	6.8	6.6	3.2	1.9	3.6	2.6	1.5	2.0	2.1	1.4	1.0	1.6	0.5	0.7	0.4	0.3	2.1	6.8
23-Oct	Z	0.2	0.4	0.4	0.5	0.9	0.7	2.1	0.9	1.8	2.8	2.0	1.9	1.5	1.0	1.0	1.8	0.9	0.9	0.9	0.8	0.6	0.6	0.1	1.1	2.8
24-Oct	0.3	Z	0.2	0.2	0.4	0.8	0.8	1.4	1.0	1.0	1.2	1.7	1.5	1.4	1.6	1.7	1.9	4.1	0.6	0.4	0.7	0.5	0.4	0.7	1.1	4.1
25-Oct	1.8	0.2	Z	0.2	0.4	3.0	1.8	3.2	3.0	3.3	0.3	0.3	0.0	0.0	0.0	0.0	0.2	1.8	4.2	2.3	0.6	4.8	0.9	0.3	1.4	4.8
26-Oct	2.1	1.8	0.9	Z	2.0	0.7	16.3	6.6	1.5	2.2	2.9	1.8	2.6	7.5	8.6	2.0	0.6	0.3	0.3	0.6	0.3	0.2	0.1	0.0	2.7	16.3
27-Oct	0.1	0.1	0.1	0.0	Z	0.1	0.0	0.1	0.1	0.2	0.5	0.3	0.2	0.0	0.1	0.4	0.3	0.2	0.3	0.3	0.2	0.2	0.0	0.0	0.2	0.5
28-Oct	0.1	0.0	0.0	0.1	0.1	Z	0.3	0.1	0.3	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.3	0.1	0.1	0.4	0.2	0.1	0.0	0.1	0.4
29-Oct	Z	0.1	0.2	0.2	0.2	0.8	1.0	0.9	0.9	1.0	1.2	0.6	1.0	2.0	5.2	4.0	2.4	0.9	0.4	0.0	0.0	0.1	0.0	0.1	1.0	5.2
30-Oct	0.0	Z	0.0	0.2	0.2	0.2	0.4	0.0	0.7	0.9	0.0	0.4	0.5	0.8	0.7	0.6	0.9	1.0	1.9	0.6	1.3	0.4	0.3	0.2	0.5	1.9
31-Oct	0.0	0.2	Z	0.3	1.3	8.9	11.6	6.6	2.8	1.9	2.1	1.7	1.9	1.8	1.4	1.2	0.9	0.9	0.6	0.6	0.6	0.7	0.5	0.4	2.1	11.6
	0.4	0.3	0.3	0.4	1.0	2.0	2.1	1.9	1.6	1.5	1.4	1.1	1.1	1.1	1.1	0.8	0.8	1.2	1.5	0.9	1.2	1.6	0.7	0.4	Diurnal Average	
	2.1	1.8	1.2	1.4	6.5	18.2	16.3	8.0	6.8	6.6	5.8	4.2	3.6	7.5	8.6	4.0	3.5	8.2	17.8	3.7	6.4	16.7	7.4	3.0	Diurnal Maximum	

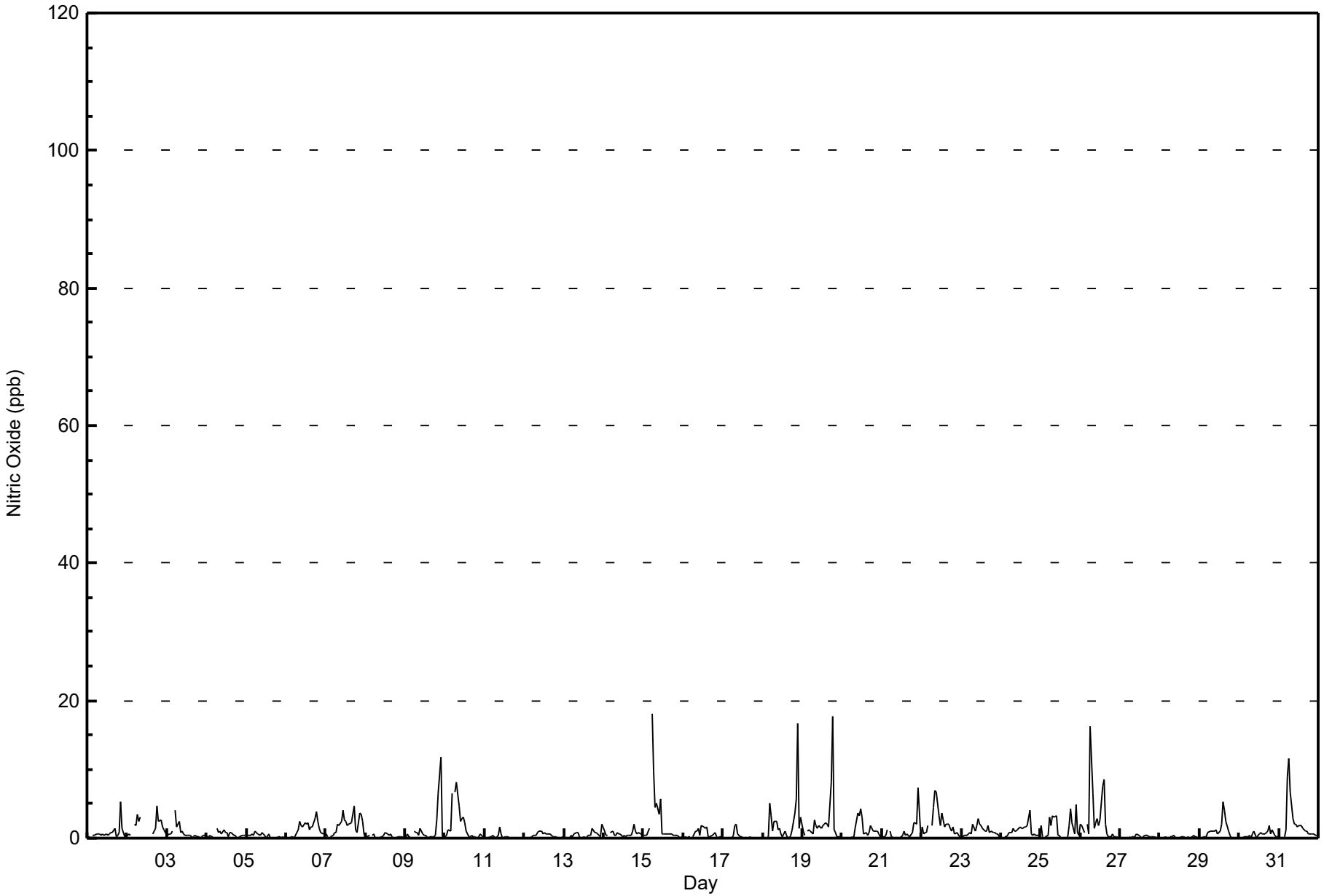
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Patricia McInnes - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	55	11	3	5	10	41	100	34	51	66	52	61	55	74	36	53	707
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	55	11	3	5	10	41	100	34	51	66	52	61	55	74	36	53	707

Total Number of Valid Hours: 707

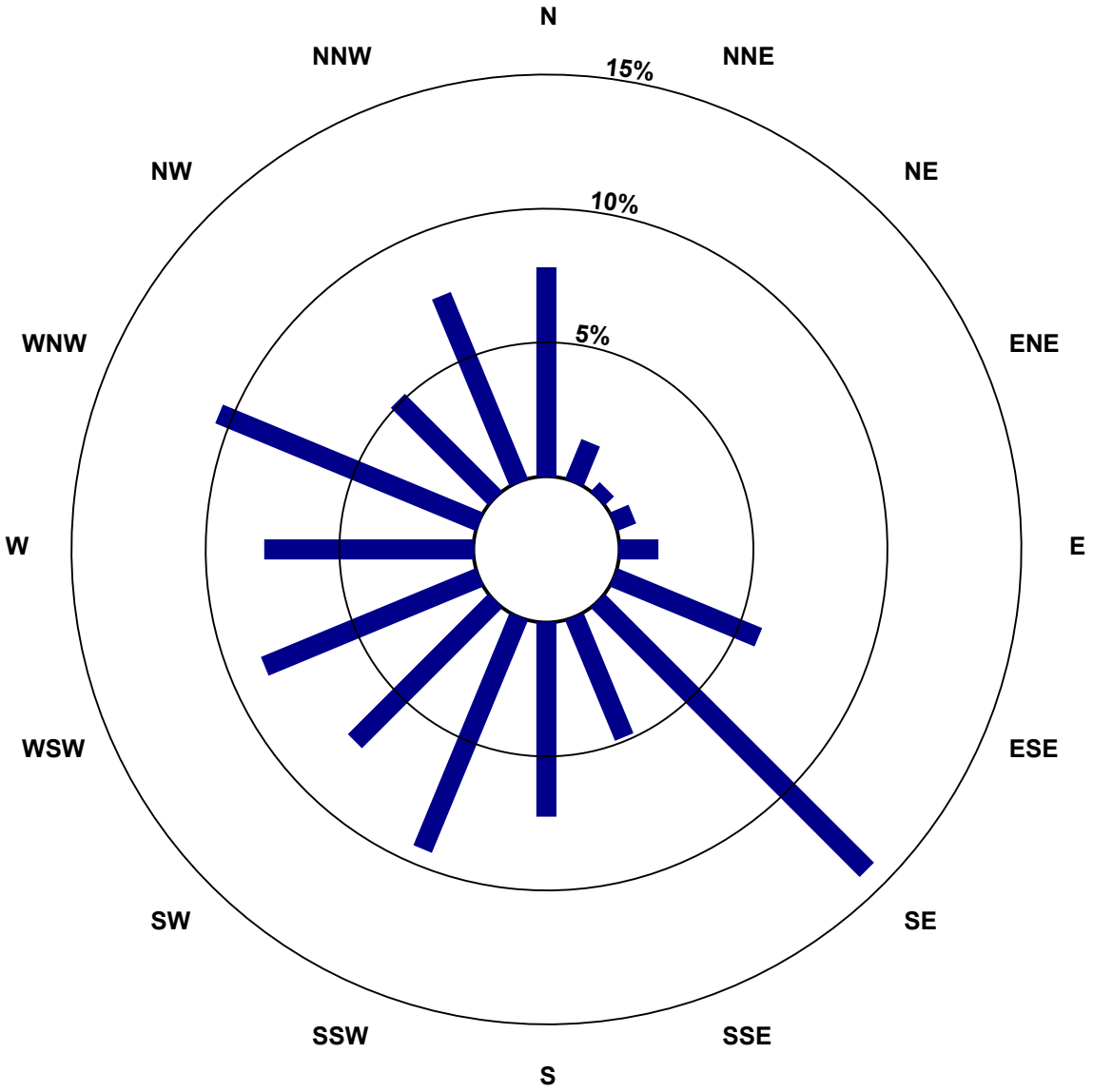
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Patricia McInnes



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

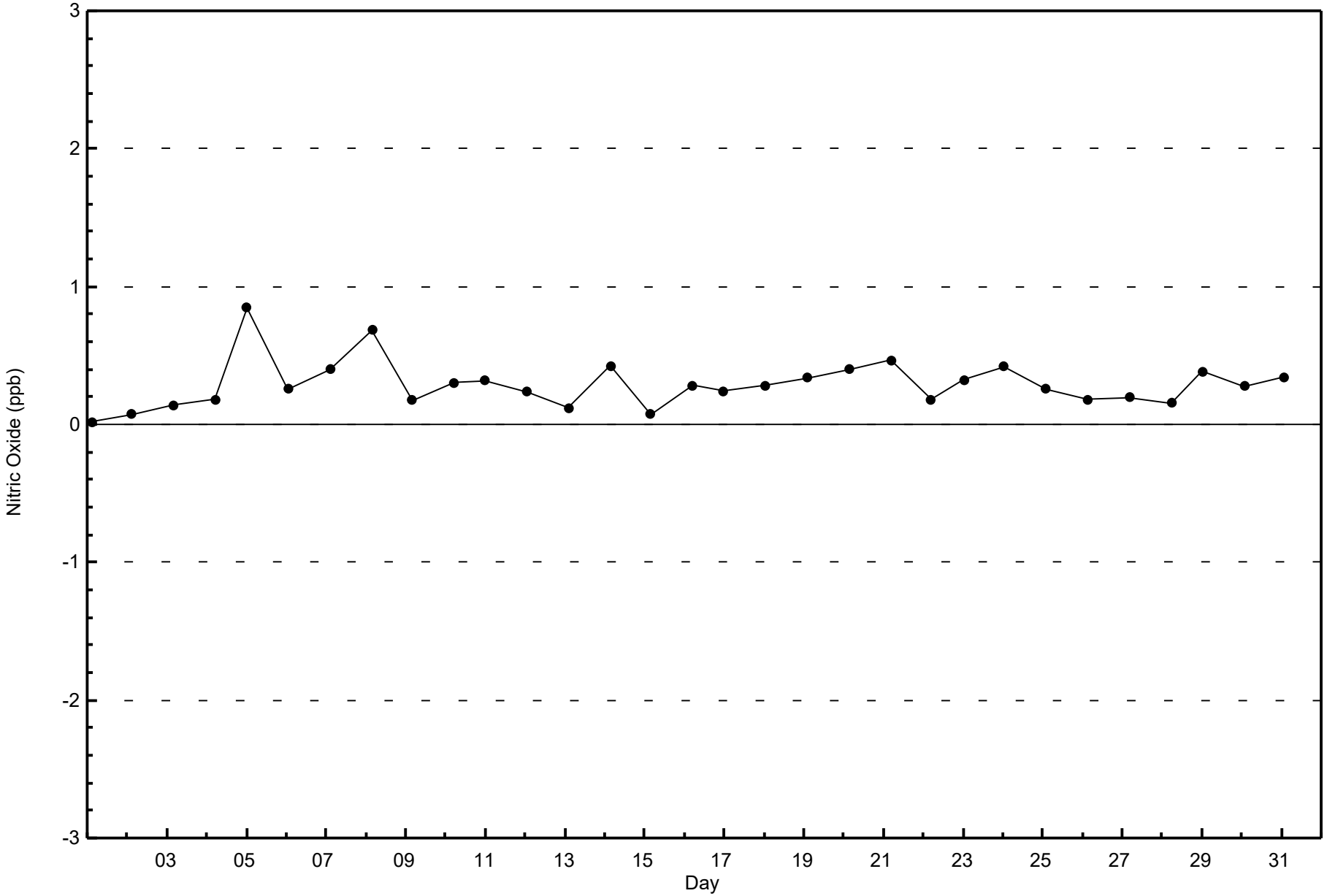
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Patricia McInnes - October 2025

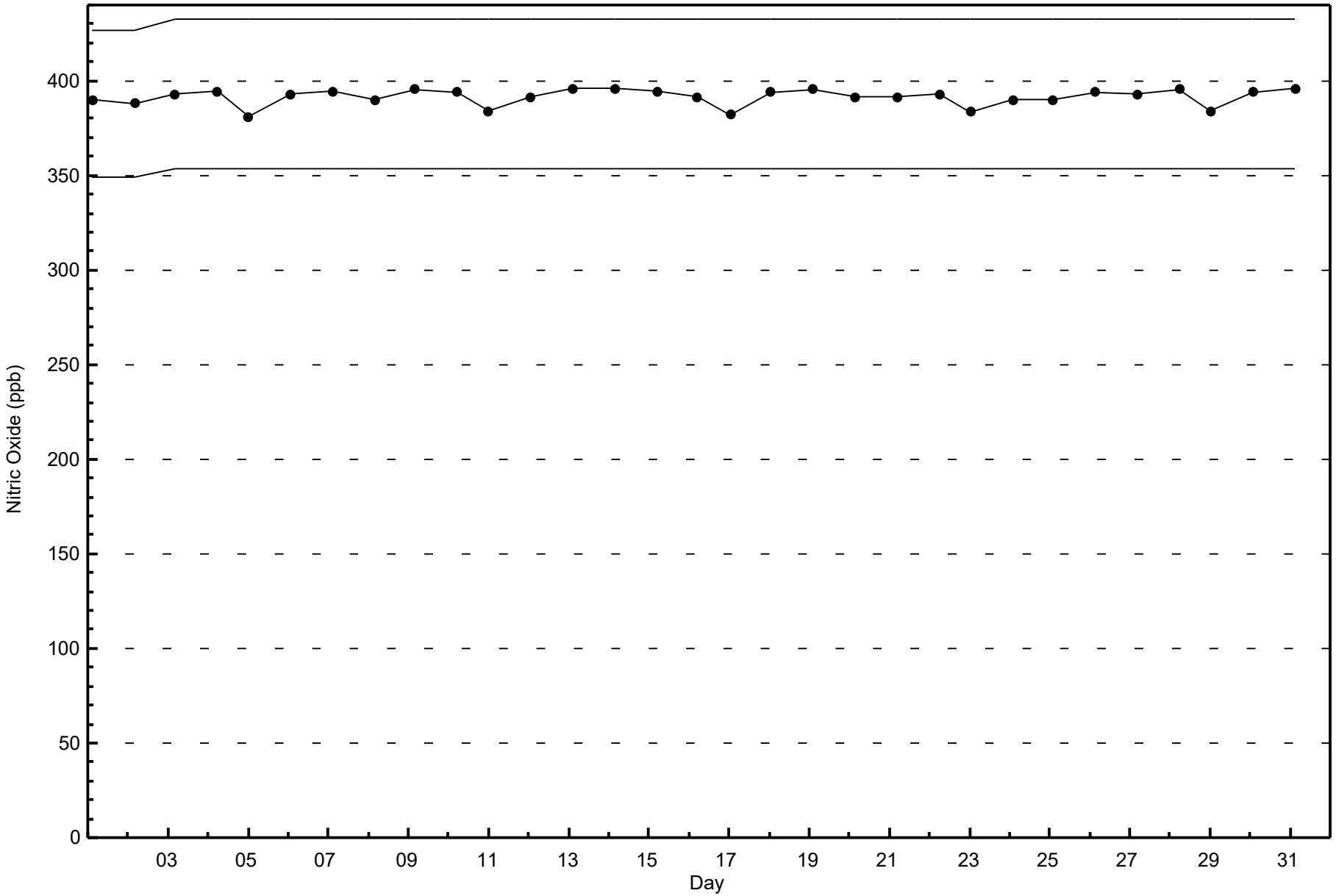


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Patricia McInnes - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Patricia McInnes - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 20.7 ppb on Oct 15 06:00 Maximum Daily Average: 6.9 ppb on Oct 26

Minimum Value: 0.0 ppb on Oct 3 13:00 Minimum Daily Average: 0.3 ppb on Oct 5
Maximum Diurnal Average: 5.2 ppb at hour 7 Minimum Diurnal Average: 1.9 ppb at hour 13
Monthly Average: 3.33 ppb Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.6 Median = 2.6 Q_3 = 4.5 P_{90} = 7.6 P_{99} = 15.2

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	4.2	3.5	Z	4.8	4.0	3.5	3.7	2.9	2.5	2.2	2.3	1.9	2.0	2.8	2.8	3.6	5.1	3.8	4.4	3.5	4.4	1.4	0.6	0.5	3.1	5.1
2-Oct	0.6	0.6	0.4	Z	4.0	2.8	4.4	2.3	2.7	C	C	C	C	C	C	1.9	2.5	5.5	12.7	6.3	5.6	8.7	6.0	4.6	--	12.7
3-Oct	3.9	3.0	4.3	5.5	Z	8.5	3.3	3.1	1.1	0.9	0.2	0.1	0.0	0.1	0.0	0.0	0.5	0.8	0.8	0.5	0.3	0.2	0.0	0.0	1.6	8.5
4-Oct	0.0	0.0	0.0	0.0	0.0	Z	1.0	0.0	0.3	0.2	0.7	0.2	0.6	0.0	0.4	1.7	2.2	2.0	0.3	0.0	0.0	0.0	0.0	0.0	0.4	2.2
5-Oct	Z	0.0	0.0	0.4	0.5	0.7	0.5	0.7	0.4	0.7	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.4	0.1	0.0	0.1	0.2	0.3	0.7
6-Oct	1.6	Z	4.4	4.1	2.8	3.0	8.7	4.9	5.1	4.7	3.2	3.6	3.5	3.4	2.7	2.8	3.3	12.1	15.2	9.2	5.9	5.7	4.1	3.4	5.1	15.2
7-Oct	3.2	2.6	Z	2.8	4.2	6.8	5.9	5.7	4.5	3.4	5.2	3.9	3.2	2.6	2.7	4.3	10.0	15.9	5.8	7.2	12.5	16.8	11.5	4.5	6.3	16.8
8-Oct	4.8	4.6	1.7	Z	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.1	0.2	0.1	0.2	0.1	0.0	0.6	4.8
9-Oct	0.0	2.4	0.5	0.5	Z	2.2	2.1	0.8	0.3	1.2	0.2	0.1	0.0	0.0	0.0	0.3	0.3	2.9	6.7	11.5	13.2	14.9	1.6	1.4	2.7	14.9
10-Oct	2.0	4.6	8.4	10.4	16.8	Z	15.1	13.2	7.1	3.5	3.8	4.0	3.1	2.4	0.9	1.1	2.1	5.4	2.6	2.1	3.0	2.4	5.3	7.8	5.5	16.8
11-Oct	Z	3.9	2.6	2.7	4.2	5.9	4.7	9.0	4.5	11.0	6.1	2.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	3.7	2.7	11.0
12-Oct	2.2	Z	2.4	1.4	0.9	0.6	1.4	1.3	2.8	4.1	4.1	1.6	2.1	2.5	1.6	2.4	3.9	4.6	3.1	3.0	2.1	0.2	0.4	0.7	2.1	4.6
13-Oct	0.1	0.1	Z	0.2	0.2	1.3	1.7	2.7	1.5	0.6	0.4	0.4	0.5	0.4	0.6	0.7	1.4	5.0	4.5	3.3	2.6	3.7	3.1	7.5	1.8	7.5
14-Oct	6.9	5.3	2.6	Z	8.7	8.0	2.8	2.1	2.0	1.4	1.4	1.2	1.2	1.3	1.2	1.3	2.0	5.8	11.7	6.1	3.4	3.7	3.7	3.4	3.8	11.7
15-Oct	3.9	3.7	4.3	8.8	Z	20.7	18.1	11.7	8.8	6.6	7.8	2.9	1.9	1.5	1.5	1.6	2.1	3.4	3.6	2.6	1.9	1.3	0.4	0.6	5.2	20.7
16-Oct	0.7	0.8	0.6	0.7	0.8	Z	2.0	3.3	2.7	2.2	1.1	2.3	3.2	3.0	4.0	1.8	2.1	5.0	4.0	5.4	2.5	1.3	1.5	1.9	2.3	5.4
17-Oct	Z	1.5	0.9	0.6	0.6	0.8	0.1	1.8	2.4	0.5	0.3	0.2	0.0	0.0	0.0	0.5	0.3	0.2	0.1	0.3	0.1	0.2	0.0	0.3	0.5	2.4
18-Oct	3.7	Z	0.4	2.0	13.2	9.0	6.7	9.5	5.4	2.8	2.3	1.4	0.3	1.3	0.5	0.2	0.3	4.6	4.2	6.3	11.3	16.3	6.4	11.9	5.2	16.3
19-Oct	8.4	5.4	Z	4.0	4.1	3.2	4.9	6.3	6.2	6.9	5.7	4.5	3.9	5.8	5.7	4.0	5.8	10.9	13.1	8.6	5.8	4.1	7.1	6.5	6.1	13.1
20-Oct	4.8	2.2	2.2	Z	1.4	4.0	11.2	4.2	6.6	7.4	7.6	8.0	5.8	1.2	1.2	0.7	1.2	3.7	3.7	2.7	3.8	4.0	3.2	2.9	4.1	11.2
21-Oct	2.6	2.5	2.4	5.7	Z	3.3	1.4	1.0	0.4	0.3	0.3	0.2	0.6	0.8	0.4	0.4	0.3	1.6	5.0	9.2	8.3	6.7	7.2	3.0	2.8	9.2
22-Oct	5.2	5.1	3.1	2.8	4.4	Z	3.3	7.1	7.4	5.0	2.6	1.9	2.8	2.6	2.1	3.2	4.6	5.5	2.1	1.8	1.2	0.9	0.8	0.8	3.3	7.4
23-Oct	Z	1.0	0.8	1.6	2.3	2.8	2.1	3.7	2.6	3.1	3.8	2.5	2.3	2.7	2.5	3.0	3.4	3.3	3.8	3.2	2.9	3.1	3.1	2.1	2.7	3.8
24-Oct	2.3	Z	3.4	3.6	4.1	5.0	5.3	5.7	3.9	2.9	2.7	2.9	3.2	3.7	4.9	4.8	6.0	8.8	3.5	2.6	2.6	2.5	1.6	3.5	3.9	8.8
25-Oct	5.6	1.9	Z	1.9	2.7	11.4	11.3	10.0	8.0	7.0	1.7	1.4	0.6	0.1	0.0	0.1	0.4	3.3	12.8	7.7	2.0	7.3	4.7	1.8	4.5	12.8
26-Oct	10.2	12.3	7.1	Z	10.4	7.0	14.8	10.3	3.8	5.7	6.4	4.5	5.2	11.5	13.9	8.4	5.0	5.2	4.1	5.0	3.1	1.8	1.4	0.8	6.9	14.8
27-Oct	0.5	0.4	0.9	1.8	Z	2.1	2.5	2.1	2.7	3.4	4.0	2.4	2.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	4.0
28-Oct	0.0	0.1	0.1	0.1	0.0	Z	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	1.5	1.0	1.2	2.7	2.3	1.5	1.2	0.6	2.7
29-Oct	Z	1.7	2.3	2.5	1.6	2.9	3.7	3.3	3.5	2.4	4.1	3.1	3.7	6.4	11.4	11.5	11.9	9.1	7.5	6.7	7.2	12.7	13.5	9.8	6.2	13.5
30-Oct	5.4	Z	5.7	5.0	6.3	4.2	1.5	1.1	2.1	1.4	0.4	0.9	1.0	1.2	1.5	2.1	2.7	6.1	6.2	4.2	5.0	2.7	2.6	1.7	3.1	6.3
31-Oct	1.7	2.6	Z	1.9	4.2	14.7	16.5	14.7	6.6	3.4	3.0	2.9	3.0	3.6	3.1	3.2	3.2	2.8	2.8	2.4	3.0	3.1	3.1	2.8	4.7	16.5
	3.3	2.8	2.5	2.9	3.9	5.2	5.2	4.7	3.5	3.2	2.7	2.1	1.9	2.1	2.2	2.1	2.7	4.5	4.7	4.0	3.8	4.1	3.1	2.9	Diurnal Average	
	10.2	12.3	8.4	10.4	16.8	20.7	18.1	14.7	8.8	11.0	7.8	8.0	5.8	11.5	13.9	11.5	11.9	15.9	15.2	11.5	13.2	16.8	13.5	11.9	Diurnal Maximum	

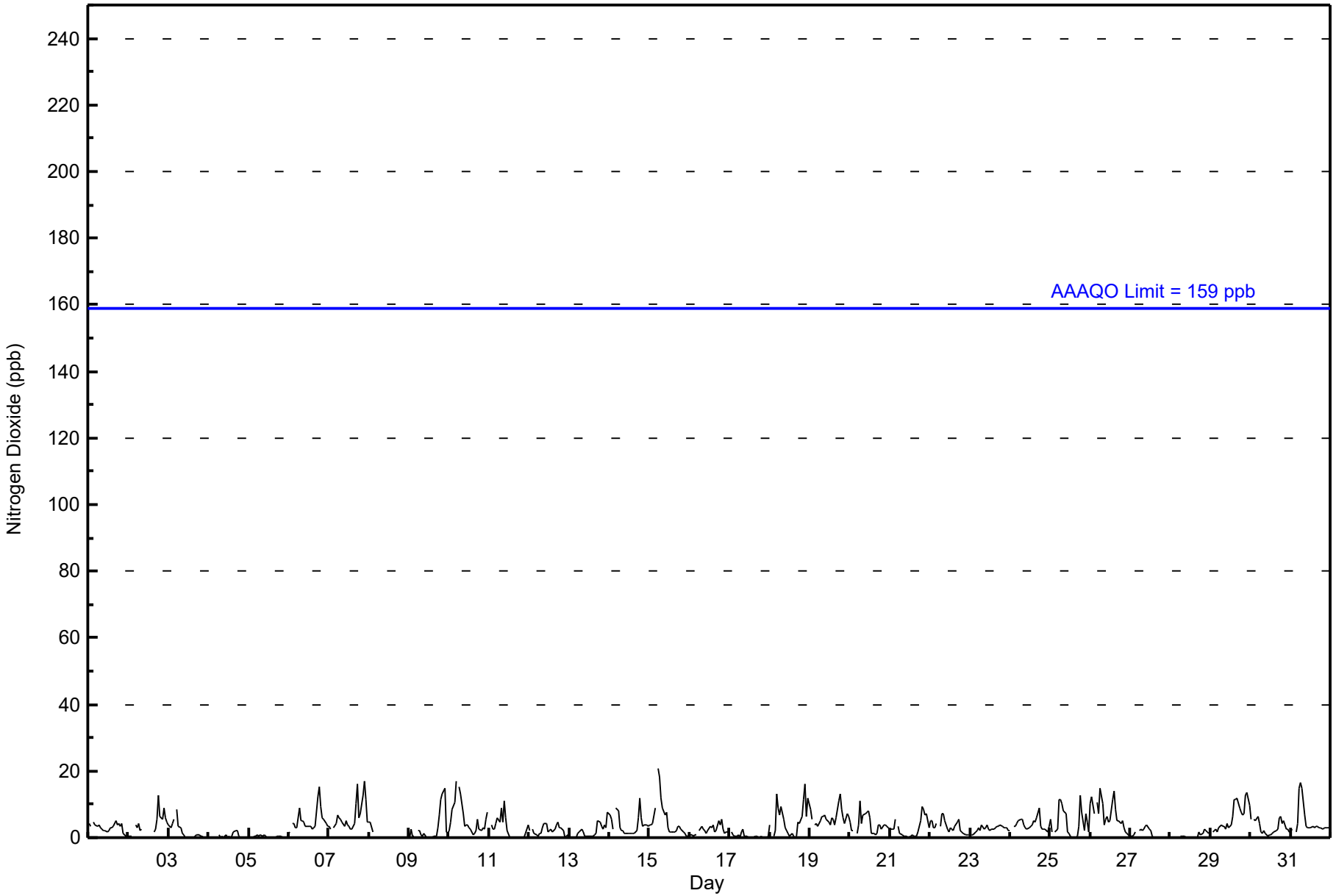
Z - zerospan C - Calibration
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Patricia McInnes - October 2025



Nitrogen Dioxide (NO_2) - ppb

Patricia McInnes - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	706	99.86	99.86
21 - 40	1	0.14	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	55	11	3	5	10	41	100	33	51	66	52	61	55	74	36	53	706
21 - 40	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	55	11	3	5	10	41	100	34	51	66	52	61	55	74	36	53	707

Total Number of Valid Hours: 707

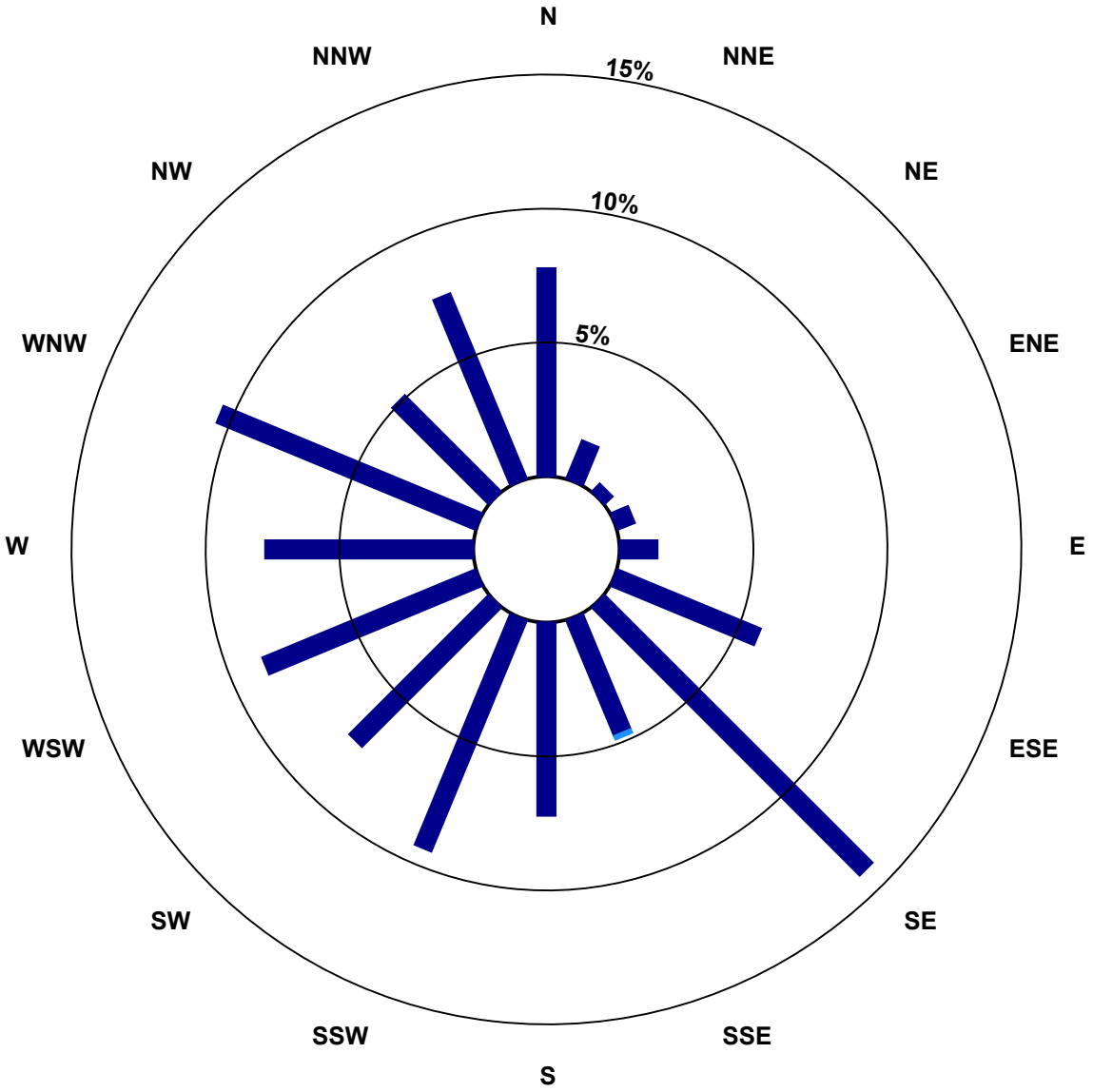
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Patricia McInnes



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

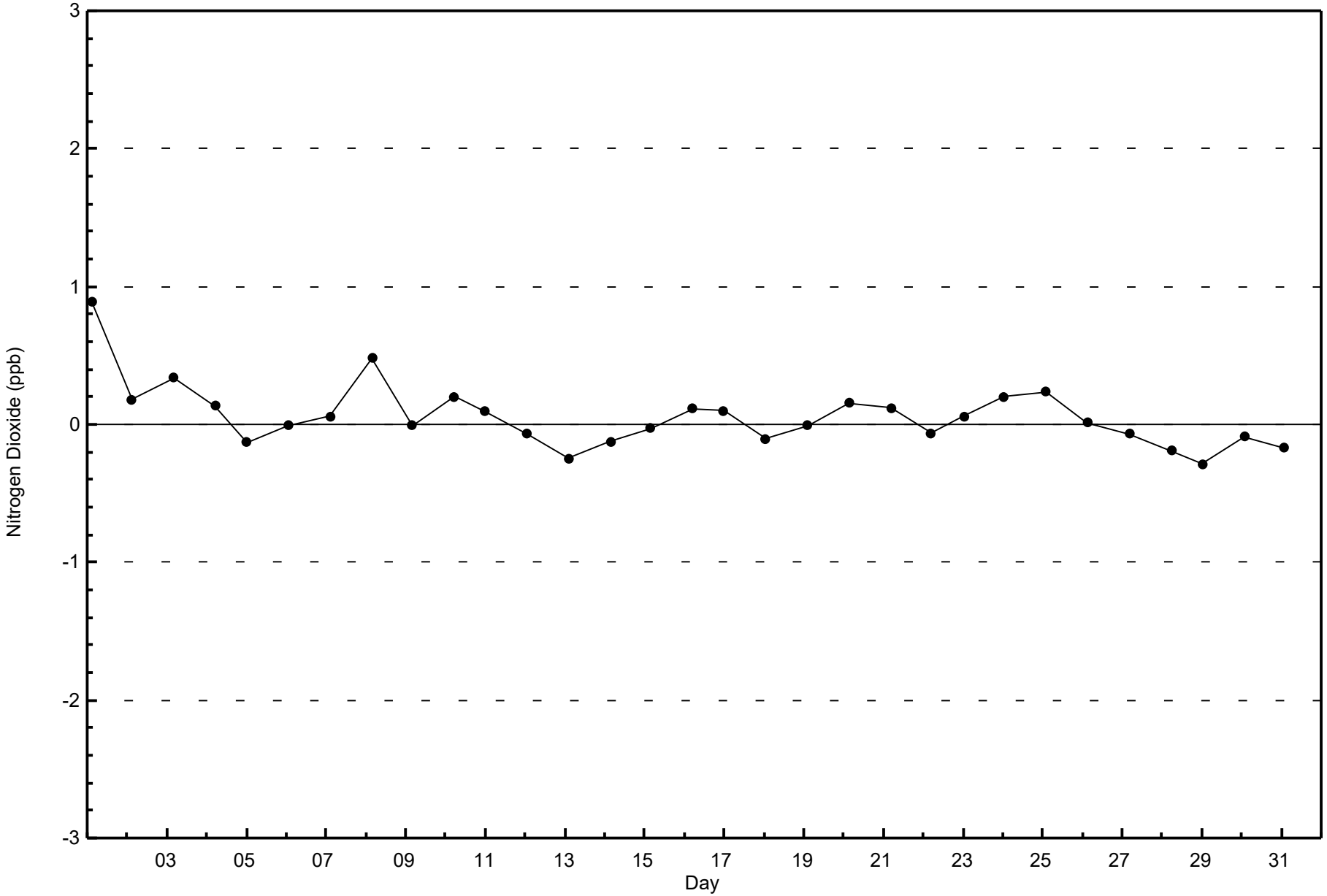
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Patricia McInnes - October 2025

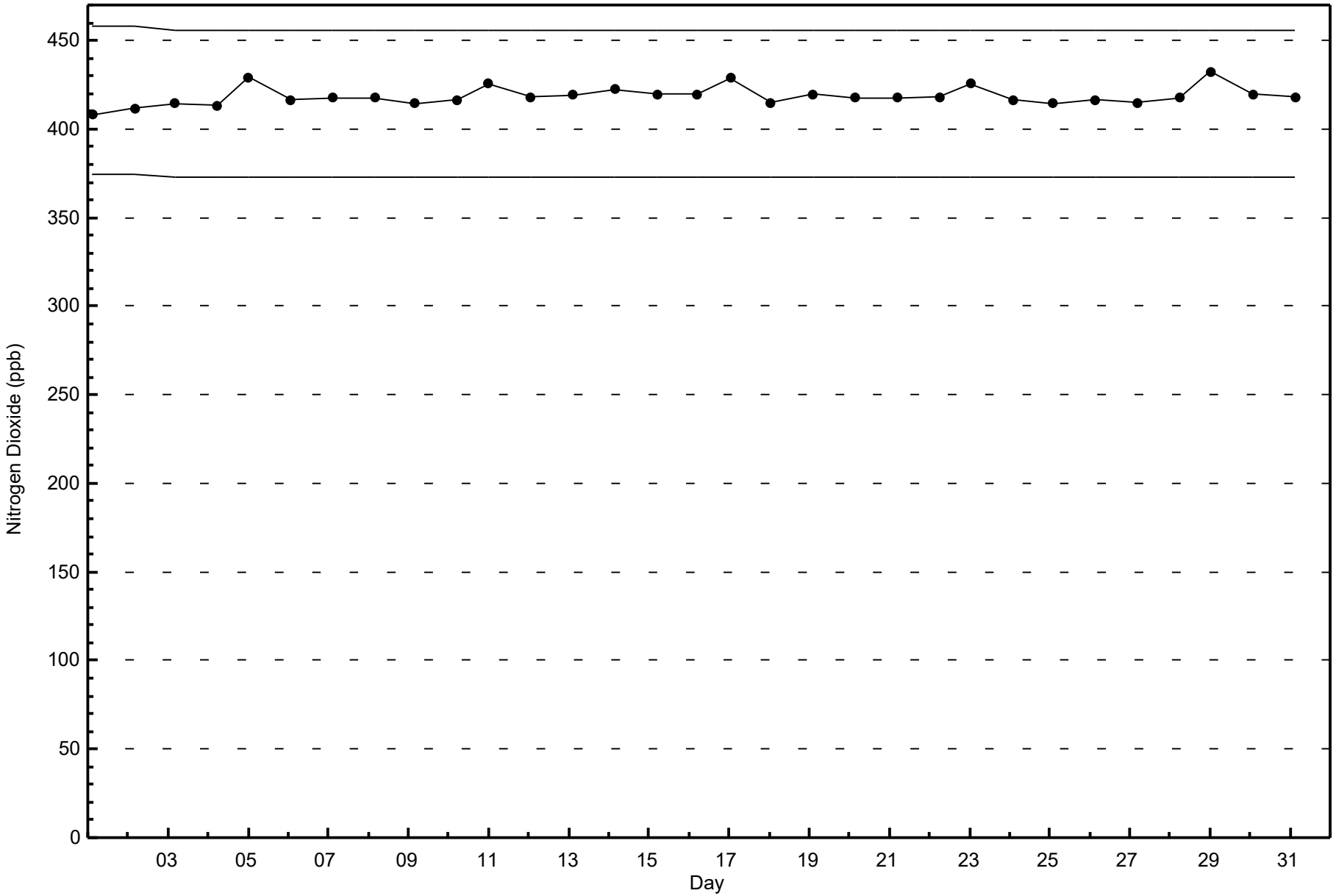


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Patricia McInnes - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Patricia McInnes - October 2025

Maximum Value: 38.9 ppb on Oct 15 06:00

Maximum Daily Average: 9.6 ppb on Oct 26

Minimum Value: 0.0 ppb on Oct 4 20:00

Minimum Daily Average: 0.6 ppb on Oct 5

Maximum Diurnal Average: 7.3 ppb at hour 7

Minimum Diurnal Average: 2.8 ppb at hour 3

Monthly Average: 4.45 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.3 Q_1 = 1.0 Median = 3.2 Q_3 = 5.7 P_{90} = 10.0 P_{99} = 23.6

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	4.4	3.7	Z	5.3	4.3	4.1	4.2	3.6	3.0	2.8	2.8	2.5	2.5	3.4	3.6	4.5	6.5	4.0	4.8	4.2	9.7	2.8	0.8	0.7	3.8	9.7
2-Oct	0.9	1.2	0.8	Z	6.1	4.7	7.9	4.8	5.7	C	C	C	C	C	C	2.4	3.5	6.8	17.4	8.7	8.2	10.3	7.3	5.4	--	17.4
3-Oct	4.2	3.6	5.0	6.6	Z	12.5	4.9	5.6	1.8	1.8	0.8	0.4	0.3	0.5	0.3	0.1	0.8	1.1	0.9	0.6	0.4	0.4	0.5	0.4	2.3	12.5
4-Oct	0.2	0.3	0.4	0.2	0.2	Z	2.4	0.8	1.3	0.9	2.0	1.1	1.5	0.3	1.1	2.5	2.6	2.3	0.3	0.0	0.1	0.4	0.5	0.4	0.9	2.6
5-Oct	Z	0.4	0.5	0.9	1.0	1.8	1.2	1.3	0.8	1.4	1.0	0.6	0.3	0.8	0.2	0.2	0.2	0.4	0.6	0.5	0.4	0.0	0.2	0.2	0.6	1.8
6-Oct	1.8	Z	4.4	4.3	2.9	3.1	9.5	6.2	7.6	6.6	4.9	5.8	5.6	5.7	4.0	4.5	4.9	14.8	19.0	11.7	7.3	6.4	4.7	3.9	6.5	19.0
7-Oct	3.8	2.9	Z	3.1	4.7	7.6	6.7	7.8	6.3	5.8	9.2	6.5	5.7	4.5	4.6	6.6	13.5	20.6	7.0	7.9	16.1	20.3	13.9	5.0	8.3	20.6
8-Oct	5.0	4.9	2.1	Z	0.6	0.7	0.2	0.1	0.1	0.3	0.2	0.4	0.7	0.8	0.5	0.5	0.2	0.3	0.1	0.3	0.3	0.3	0.2	0.1	0.8	5.0
9-Oct	0.2	3.0	0.6	0.7	Z	3.1	2.9	1.5	0.6	2.7	0.8	0.6	0.5	0.2	0.1	0.5	0.5	3.2	7.2	14.2	19.6	26.7	1.8	1.6	4.0	26.7
10-Oct	2.3	5.0	9.6	11.4	23.3	Z	21.8	21.2	11.8	6.0	6.7	7.1	5.3	3.4	1.1	1.3	2.5	5.6	2.8	2.1	3.2	2.9	5.8	8.0	7.4	23.3
11-Oct	Z	4.0	2.6	2.8	4.5	6.4	4.7	9.2	4.9	12.7	6.7	2.3	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	3.8	2.9	12.7
12-Oct	2.2	Z	2.5	1.5	1.1	1.0	1.8	1.7	3.6	5.1	5.1	2.1	2.9	3.2	2.2	3.0	4.4	4.9	3.2	3.2	2.1	0.3	0.4	0.9	2.5	5.1
13-Oct	0.3	0.2	Z	0.2	0.5	1.6	2.4	3.6	2.4	0.8	0.4	0.4	0.6	0.5	0.9	1.1	1.8	6.4	5.4	4.1	3.2	4.0	3.4	9.6	2.3	9.6
14-Oct	7.9	5.6	3.0	Z	9.4	9.0	3.3	2.6	2.7	2.0	2.0	1.5	1.5	1.6	1.6	1.8	2.5	6.8	13.8	7.2	4.0	4.6	4.2	3.9	4.5	13.8
15-Oct	4.2	4.0	4.8	10.2	Z	38.9	28.0	16.1	14.0	10.0	13.6	3.6	2.5	2.1	2.1	2.2	2.6	4.0	4.0	2.9	2.2	1.5	0.5	0.8	7.6	38.9
16-Oct	0.8	1.0	0.7	0.8	0.9	Z	2.3	4.4	3.8	3.7	1.6	4.1	4.9	4.3	5.6	2.0	2.3	5.4	4.6	6.3	2.7	1.4	1.6	2.0	2.9	6.3
17-Oct	Z	1.5	1.0	0.6	0.6	0.9	0.6	3.6	4.5	1.1	0.5	0.4	0.0	0.1	0.0	0.6	0.4	0.2	0.1	0.3	0.1	0.2	0.0	0.3	0.8	4.5
18-Oct	3.8	Z	0.4	2.2	18.3	12.2	7.7	11.8	7.8	3.9	3.6	2.1	0.5	2.4	0.9	0.2	0.3	5.0	5.4	10.0	17.0	33.0	7.8	14.9	7.4	33.0
19-Oct	9.4	5.9	Z	5.0	5.4	4.2	5.5	9.0	8.0	8.3	7.4	6.0	5.8	7.8	8.0	6.1	7.5	19.1	30.9	9.9	6.6	4.4	7.4	6.6	8.4	30.9
20-Oct	4.9	2.3	2.3	Z	1.4	4.0	11.3	4.2	8.1	11.1	10.8	12.2	8.8	1.8	1.9	1.1	2.1	5.6	5.2	3.7	4.9	5.1	3.8	3.0	5.2	12.2
21-Oct	2.8	2.7	2.8	6.9	Z	4.3	1.6	1.0	0.4	0.4	0.3	0.3	1.0	1.8	0.9	0.9	0.7	1.9	5.7	11.5	10.5	8.8	14.6	3.3	3.7	14.6
22-Oct	6.9	5.7	3.9	3.6	6.2	Z	5.1	11.6	14.2	11.6	5.8	3.8	6.4	5.2	3.6	5.2	6.7	6.9	3.1	3.4	1.7	1.6	1.2	1.1	5.4	14.2
23-Oct	Z	1.2	1.2	2.0	2.8	3.7	2.8	5.8	3.5	4.9	6.6	4.5	4.2	4.2	3.5	4.0	5.2	4.2	4.7	4.1	3.7	3.7	3.7	2.2	3.8	6.6
24-Oct	2.6	Z	3.6	3.8	4.5	5.8	6.1	7.1	4.9	3.9	3.9	4.6	4.7	5.1	6.5	6.5	7.9	12.9	4.1	3.0	3.3	3.0	2.0	4.2	5.0	12.9
25-Oct	7.4	2.1	Z	2.1	3.1	14.4	13.1	13.2	11.0	10.3	2.0	1.7	0.6	0.1	0.0	0.1	0.6	5.1	17.0	10.0	2.6	12.1	5.6	2.1	5.9	17.0
26-Oct	12.3	14.1	8.0	Z	12.4	7.7	31.1	16.9	5.3	7.9	9.3	6.3	7.8	19.0	22.5	10.4	5.6	5.5	4.4	5.6	3.4	2.0	1.5	0.8	9.6	31.1
27-Oct	0.6	0.5	1.0	1.8	Z	2.2	2.5	2.2	2.8	3.6	4.5	2.7	2.4	0.3	0.2	0.4	0.3	0.2	0.3	0.3	0.2	0.2	0.0	0.0	1.3	4.5
28-Oct	0.1	0.1	0.1	0.2	0.1	Z	0.7	0.4	0.6	0.3	0.2	0.2	0.1	0.3	0.3	0.2	0.3	1.8	1.1	1.3	3.1	2.5	1.6	1.2	0.7	3.1
29-Oct	Z	1.8	2.5	2.7	1.8	3.7	4.7	4.2	4.4	3.4	5.3	3.7	4.7	8.4	16.6	15.5	14.3	10.0	7.9	6.7	7.2	12.8	13.5	9.9	7.2	16.6
30-Oct	5.4	Z	5.7	5.2	6.5	4.4	1.9	1.1	2.8	2.3	0.4	1.3	1.5	2.0	2.2	2.7	3.6	7.1	8.1	4.8	6.3	3.1	2.9	1.9	3.6	8.1
31-Oct	1.7	2.8	Z	2.2	5.5	23.6	28.1	21.3	9.4	5.3	5.1	4.6	4.9	5.4	4.5	4.4	4.1	3.7	3.4	3.0	3.6	3.8	3.6	3.2	6.8	28.1
	3.7	3.1	2.8	3.3	4.9	7.2	7.3	6.6	5.1	4.7	4.1	3.1	2.9	3.2	3.3	3.0	3.5	5.7	6.2	4.9	5.0	5.8	3.8	3.3	Diurnal Average	
	12.3	14.1	9.6	11.4	23.3	38.9	31.1	21.3	14.2	12.7	13.6	12.2	8.8	19.0	22.5	15.5	14.3	20.6	30.9	14.2	19.6	33.0	14.6	14.9	Diurnal Maximum	

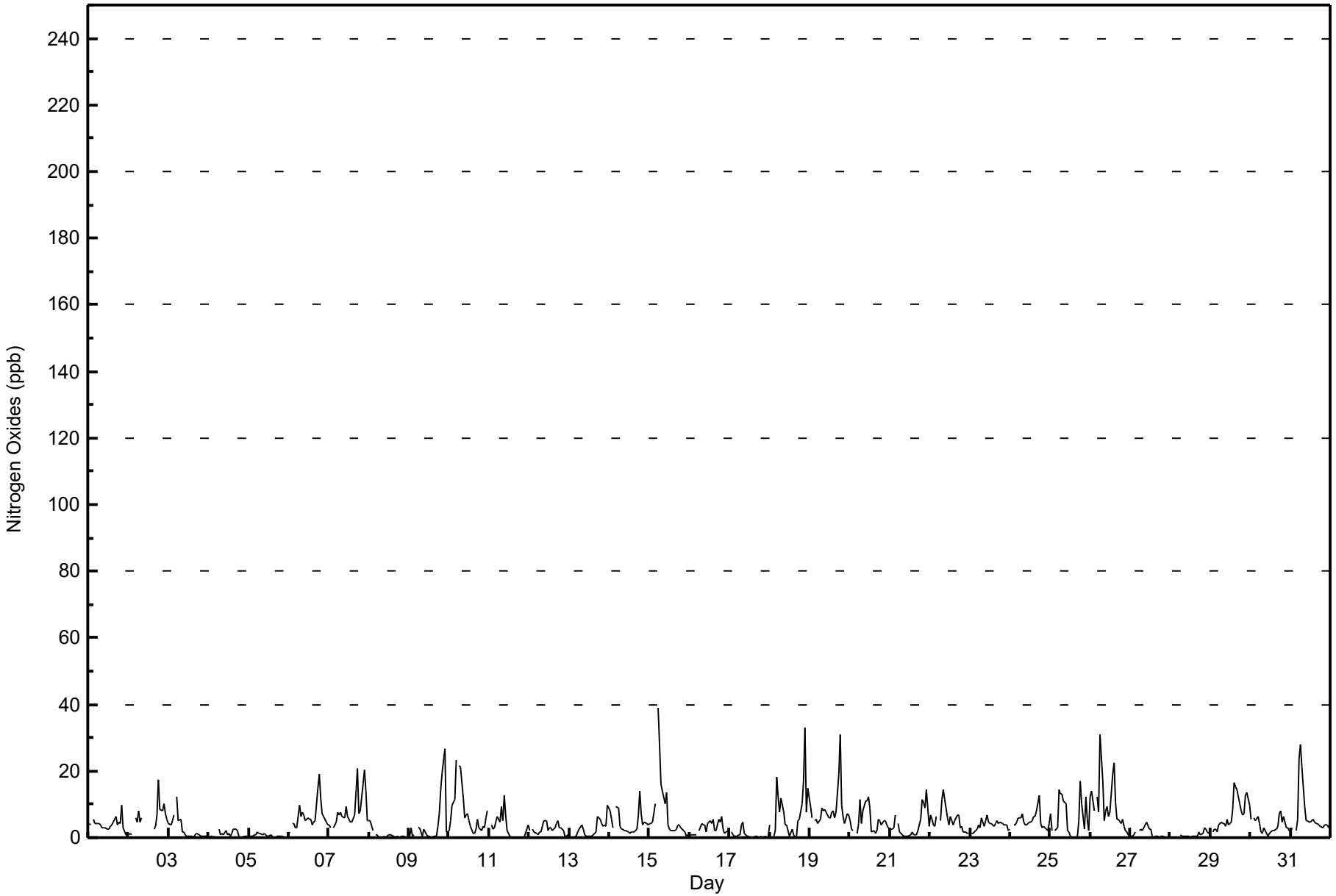
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Patricia McInnes - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	693	98.02	98.02
21 - 40	14	1.98	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	53	11	3	4	10	41	97	29	49	65	52	61	55	74	36	53	693
21 - 40	2	0	0	1	0	0	3	5	2	1	0	0	0	0	0	0	14
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	55	11	3	5	10	41	100	34	51	66	52	61	55	74	36	53	707

Total Number of Valid Hours: 707

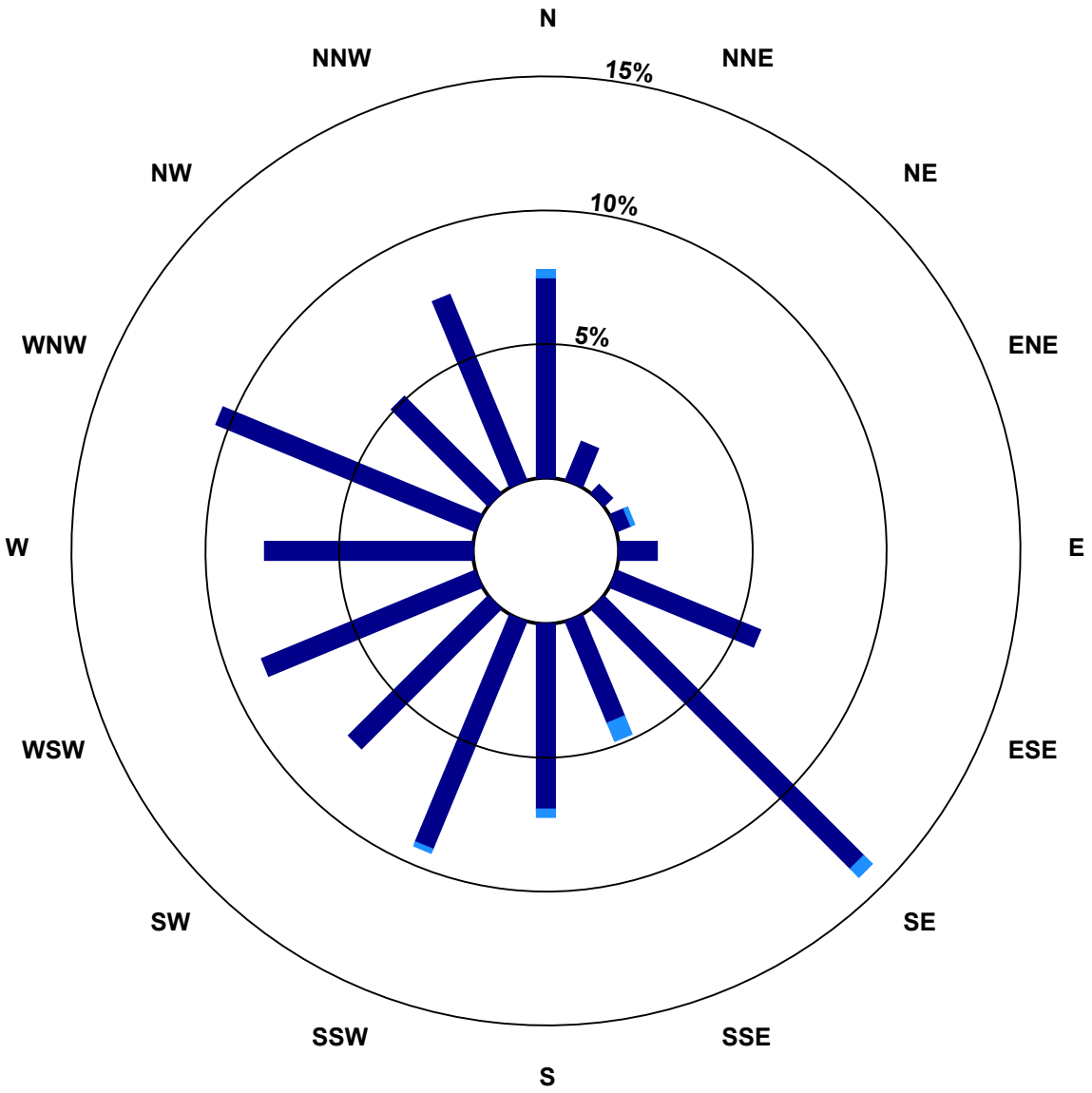
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Patricia McInnes



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

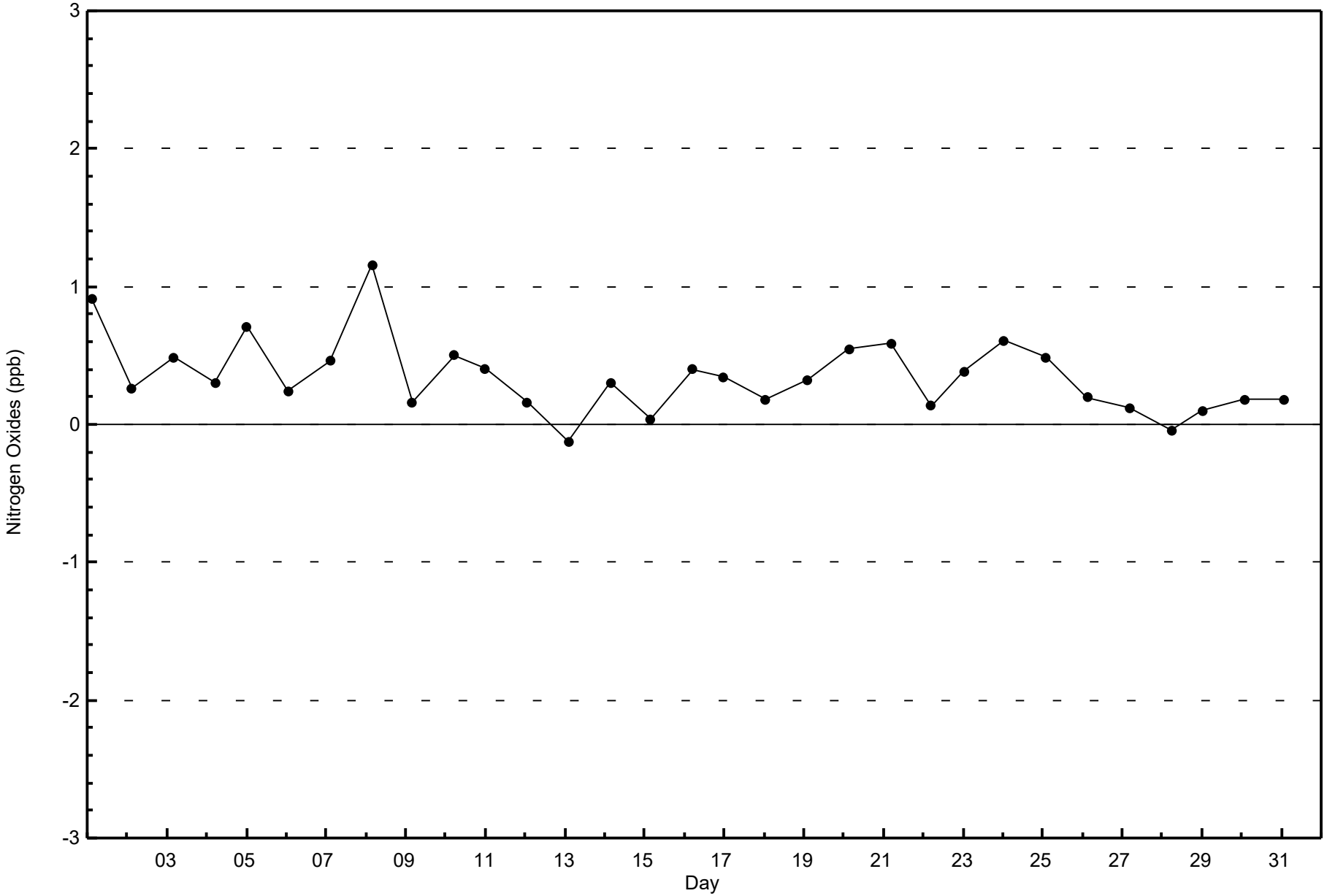
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Patricia McInnes - October 2025

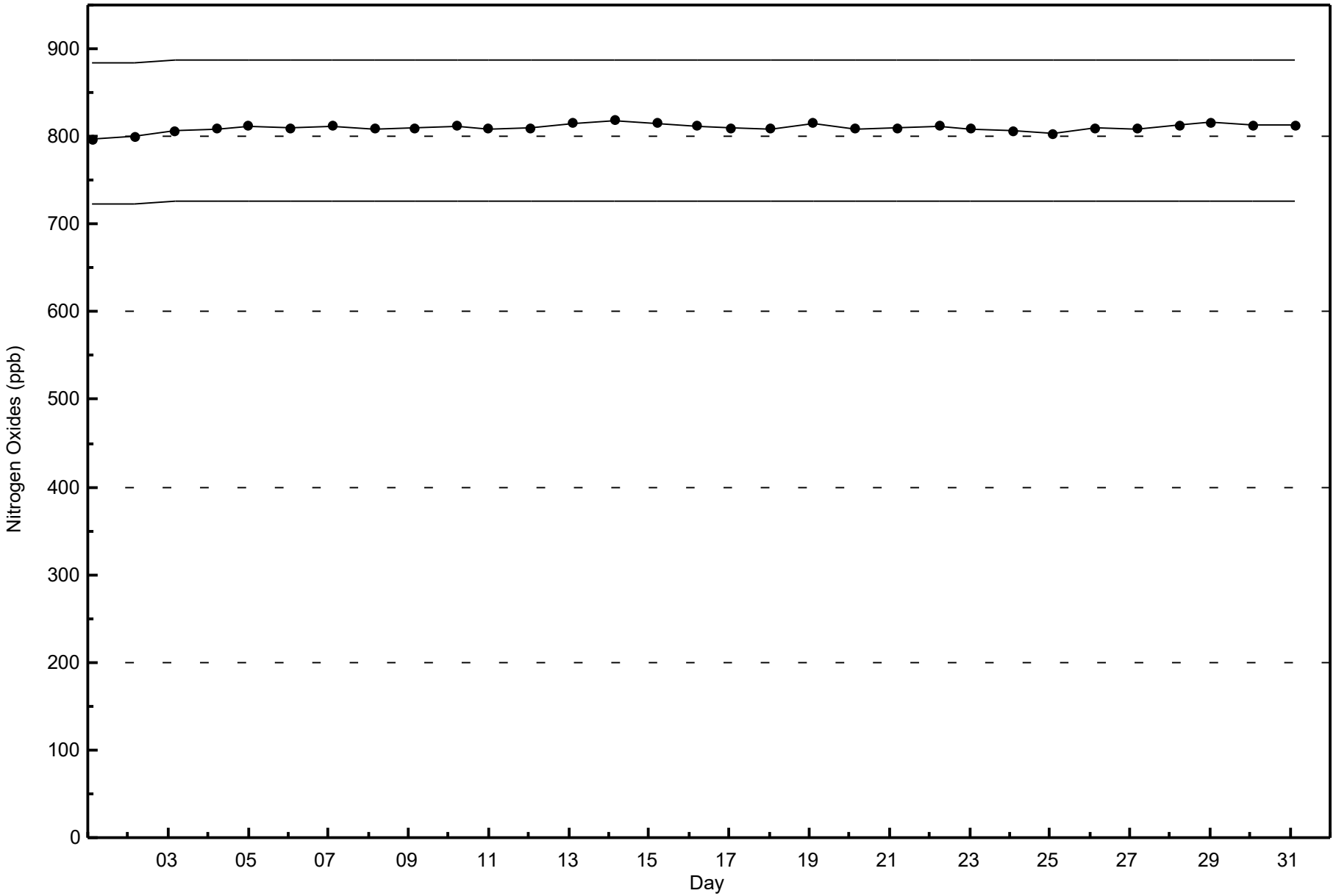


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Patricia McInnes - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Ammonia (NH_3) - ppb

Patricia McInnes - October 2025

Number of Exceedences (AAAQO): 1-hr: 0

Maximum Value: 0.0 ppb on Oct 1 01:00

Maximum Daily Average: 0.0 ppb on Oct 1

Minimum Value: 0.0 ppb on Oct 1 01:00

Minimum Daily Average: 0.0 ppb on Oct 1

Maximum Diurnal Average: 0.0 ppb at hour 1

Minimum Diurnal Average: 0.0 ppb at hour 1

Monthly Average: 0.00 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.0 P_{99} = 0.0

Hours in Service:	744
Hours of Data:	643
Hours of Missing Data:	101
Hours of Calibration:	41
Percent Operational Time:	91.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Oct	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3-Oct	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4-Oct	0.0	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5-Oct	0.0	0.0	0.0	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6-Oct	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7-Oct	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8-Oct	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	C	C	C	C	C	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	--	0.0
9-Oct	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-Oct	0.0	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-Oct	0.0	0.0	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12-Oct	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13-Oct	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Oct	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-Oct	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16-Oct	0.0	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17-Oct	0.0	0.0	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18-Oct	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-Oct	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20-Oct	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21-Oct	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22-Oct	0.0	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23-Oct	0.0	0.0	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24-Oct	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25-Oct	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26-Oct	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27-Oct	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28-Oct	0.0	0.0	0.0	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29-Oct	0.0	0.0	0.0	0.0	0.0	Z	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30-Oct	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31-Oct	0.0	Z	RE	RE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Maximum	

Z - zerospan C - Calibration RE - Recovery

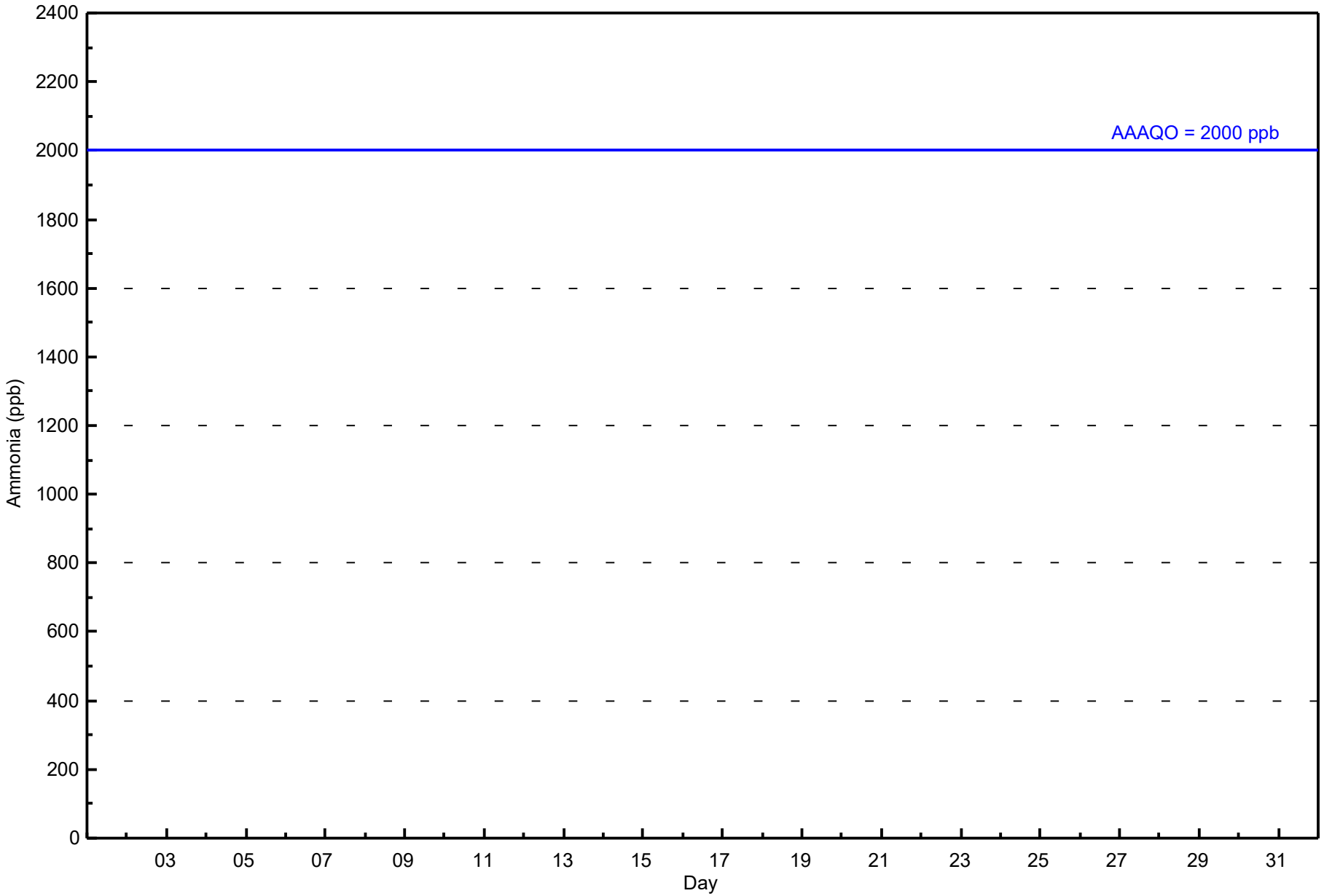
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 2000 ppb

Wood Buffalo Environmental Association

Hourly Averages

Ammonia (NH_3) - ppb

Patricia McInnes - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 5	643	100.00	100.00
6 - 10	0	0.00	100.00
11 - 15	0	0.00	100.00
16 - 20	0	0.00	100.00
21 - 25	0	0.00	100.00
> 26	0	0.00	100.00

Total Number of Valid Hours: 643

Total Number of Hours: 744

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	50	11	3	5	8	38	92	32	50	63	47	55	45	66	34	44	643
6 - 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	50	11	3	5	8	38	92	32	50	63	47	55	45	66	34	44	643

Total Number of Valid Hours: 643

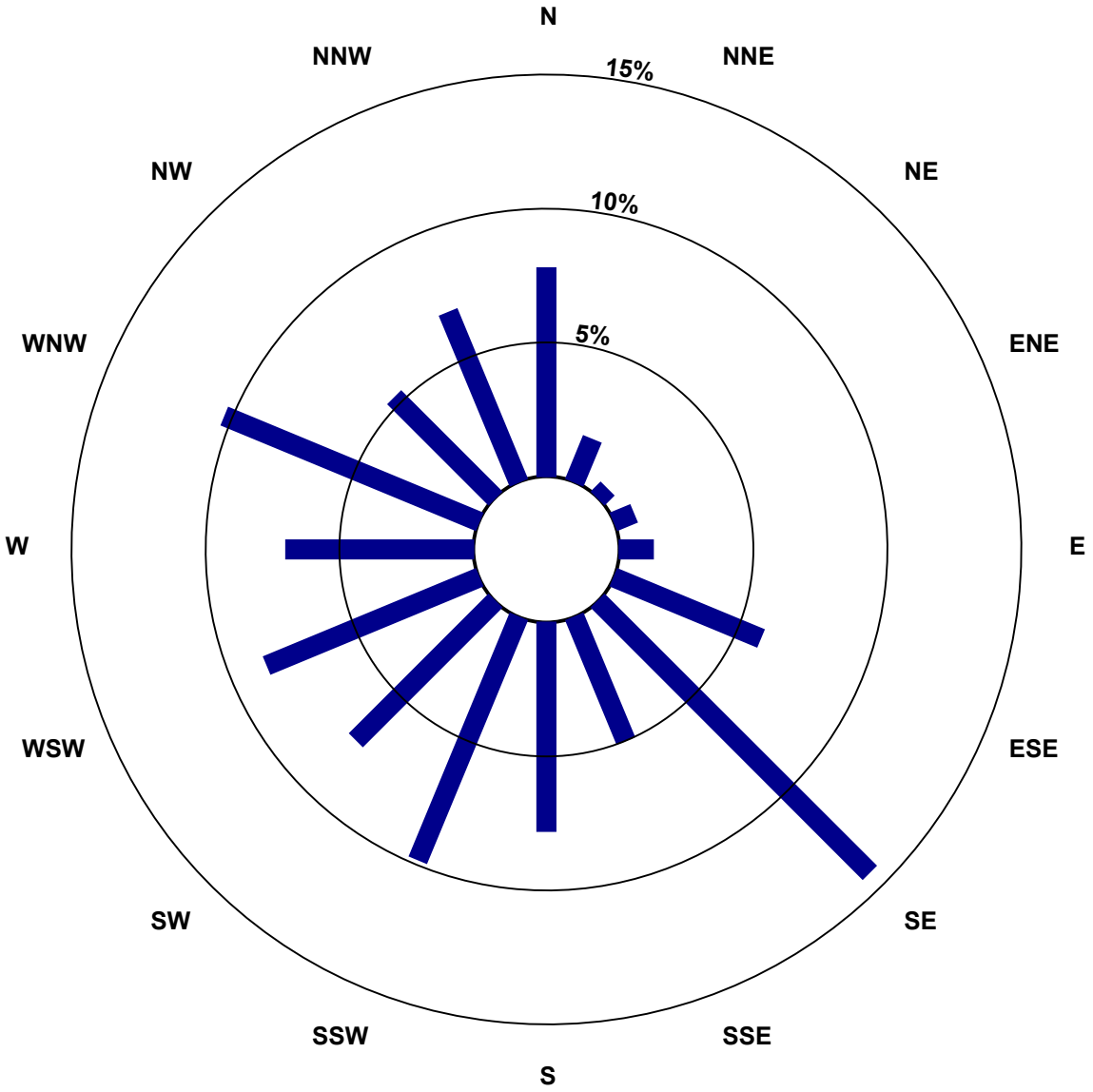
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Ammonia (NH_3) - ppb

Patricia McInnes



Classes (ppb)

0 - 5

6 - 10

11 - 15

16 - 20

21 - 25

> 26

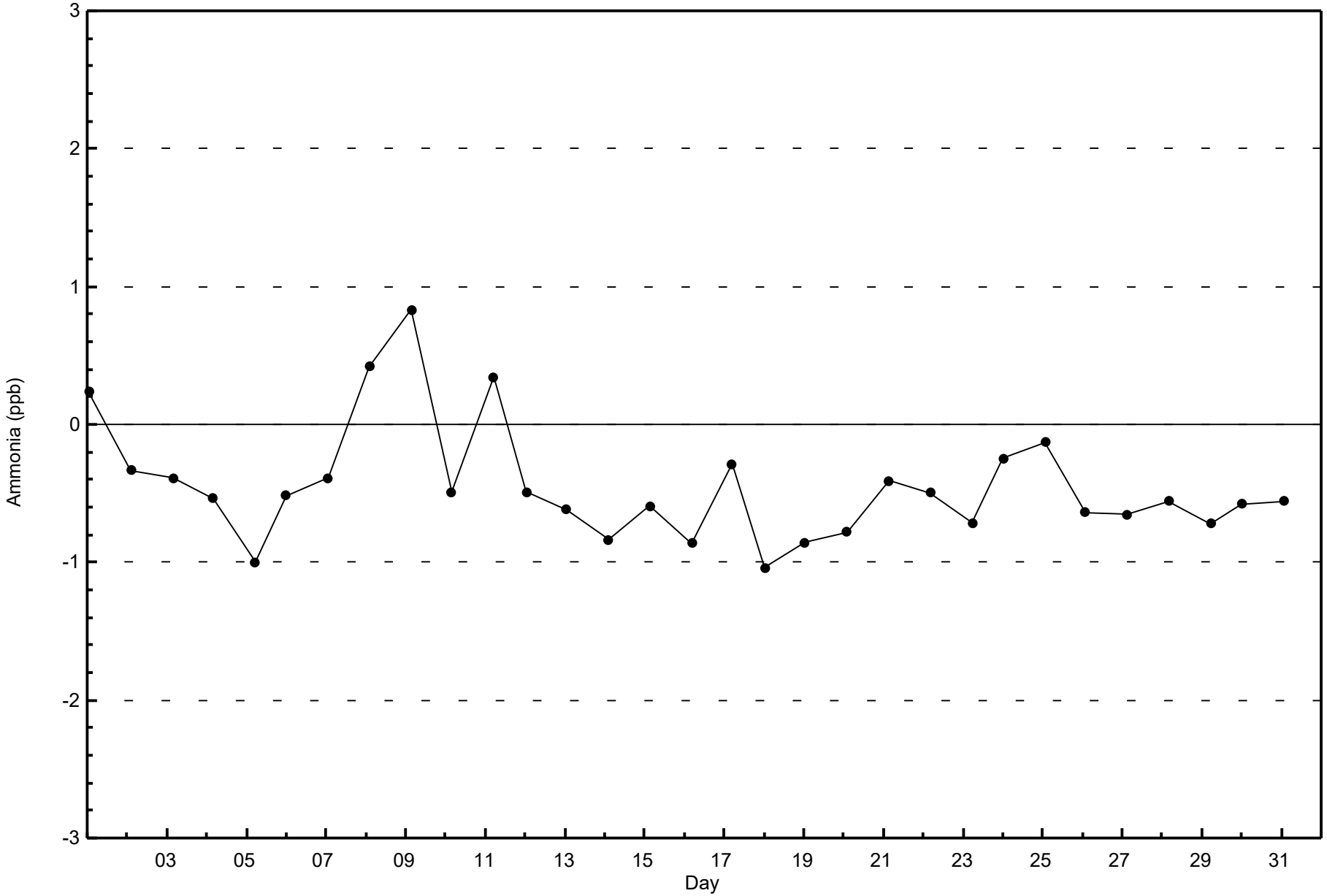
Total Number of Valid Hours: 643

Wood Buffalo Environmental Association

Zero Responses

Ammonia (NH_3) - ppb

Patricia McInnes - October 2025



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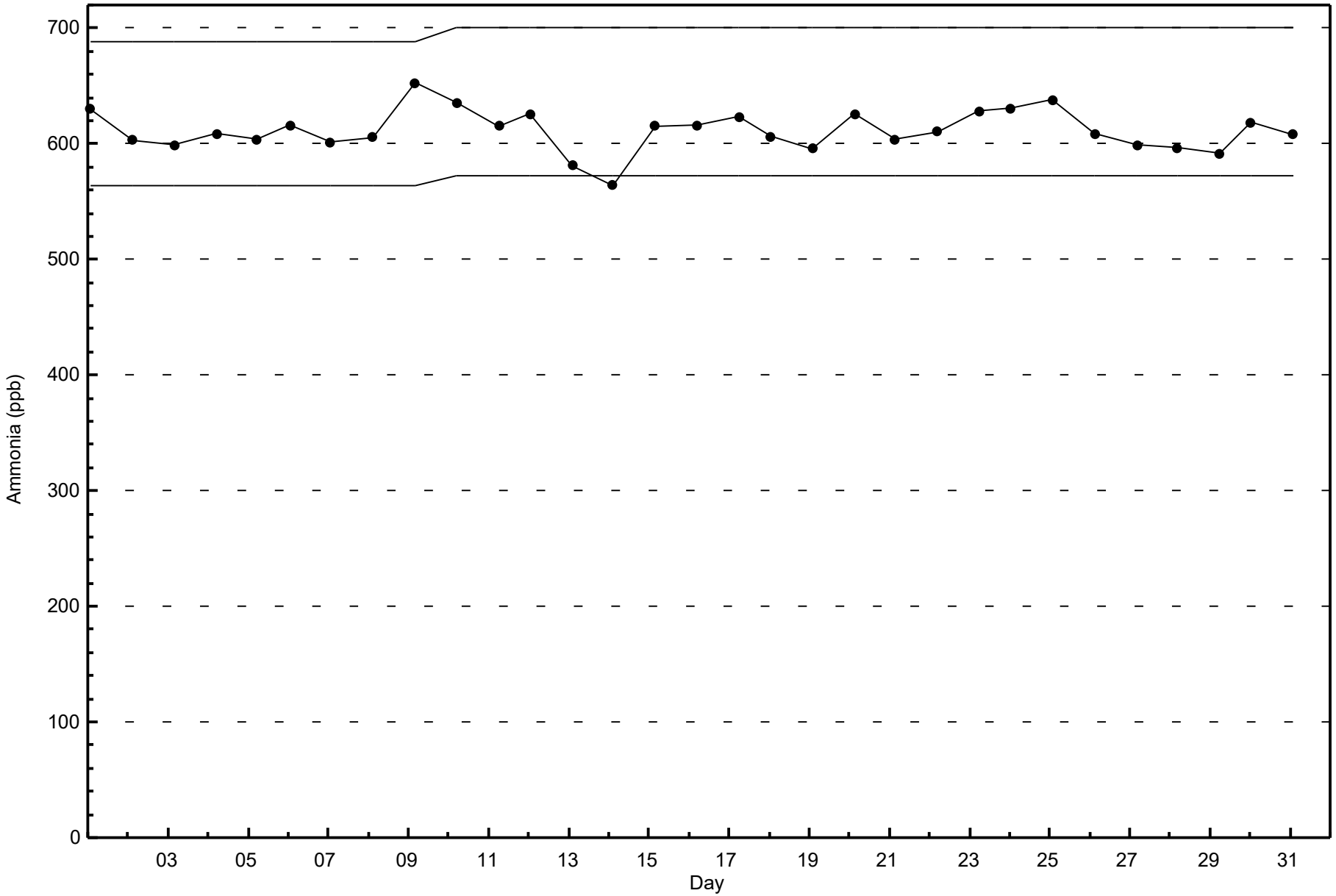
Span Responses

Ammonia (NH_3) - ppb

Patricia McInnes - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Patricia McInnes - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 26.1 $\mu g/m^3$ on Oct 1 04:00

Maximum Daily Average: 10.6 $\mu g/m^3$ on Oct 1

Minimum Value: 0.1 $\mu g/m^3$ on Oct 27 18:00

Minimum Daily Average: 0.6 $\mu g/m^3$ on Oct 27

Maximum Diurnal Average: 4.9 $\mu g/m^3$ at hour 7

Minimum Diurnal Average: 3.5 $\mu g/m^3$ at hour 17

Monthly Average: 4.04 $\mu g/m^3$

Percentiles: P_1 = 0.1 P_{10} = 0.8 Q_1 = 2.2 Median = 3.6 Q_3 = 4.9 P_{90} = 7.1 P_{99} = 17.7

Hours in Service:	744
Hours of Data:	742
Hours of Missing Data:	2
Hours of Calibration:	2
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	18.3	18.7	23.9	26.1	19.6	16.3	13.6	11.4	10.9	10.4	11.8	11.4	7.9	6.6	5.7	4.8	4.8	4.6	5.0	4.9	5.4	5.5	3.5	3.7	10.6	26.1
2-Oct	3.6	4.2	4.5	5.0	3.9	2.4	2.3	2.0	3.8	4.7	4.0	4.6	3.8	4.0	4.7	5.9	6.1	6.7	8.1	8.6	9.0	13.8	10.5	8.2	5.6	13.8
3-Oct	8.0	8.4	8.8	9.5	10.2	9.7	9.4	9.9	9.0	7.7	4.5	2.7	1.7	C	C	0.8	0.9	1.0	1.1	1.0	1.0	1.0	2.3	2.6	5.0	10.2
4-Oct	2.7	3.7	4.3	4.8	4.9	4.8	4.3	3.1	2.7	2.7	2.7	3.1	3.3	3.4	2.8	2.2	2.9	1.9	0.4	0.3	0.5	0.5	0.5	0.5	2.6	4.9
5-Oct	0.7	0.9	1.0	1.4	3.4	3.7	3.7	3.8	3.7	6.5	6.1	3.7	8.6	9.6	15.2	15.7	10.9	4.0	1.0	0.9	1.2	1.5	2.2	2.5	4.7	15.7
6-Oct	2.2	1.5	1.8	1.7	2.0	1.8	3.7	2.3	1.9	2.0	1.3	1.4	2.1	2.7	2.7	2.6	3.0	10.0	5.4	3.2	2.6	2.6	1.5	1.5	2.6	10.0
7-Oct	1.1	1.1	1.4	1.8	2.4	2.9	3.2	3.2	3.5	3.9	7.0	10.5	5.0	4.5	5.0	4.3	5.9	16.2	5.1	4.8	11.1	25.3	5.4	4.1	5.8	25.3
8-Oct	3.7	4.4	3.5	1.9	1.9	2.3	5.1	5.2	3.3	2.8	2.0	2.4	3.3	3.1	2.5	2.8	2.6	1.9	1.3	1.5	2.0	1.5	1.1	1.0	2.6	5.2
9-Oct	0.8	1.4	0.7	0.9	2.0	2.4	3.2	8.8	16.2	13.8	8.0	5.5	4.1	1.5	0.6	0.7	0.7	2.2	2.9	4.7	5.6	11.2	4.4	1.8	4.3	16.2
10-Oct	1.2	2.1	1.9	3.2	4.4	3.0	3.9	4.3	4.8	3.6	3.7	4.0	3.9	4.3	4.3	4.1	4.2	4.6	4.3	4.7	5.5	5.2	8.3	16.8	4.6	16.8
11-Oct	6.7	5.4	5.7	5.8	5.9	5.9	6.0	6.9	5.3	7.4	5.5	3.7	2.7	2.1	0.8	0.5	0.3	0.4	0.4	0.3	0.2	0.2	0.5	2.0	3.4	7.4
12-Oct	1.5	1.1	2.0	1.5	1.3	0.5	0.4	0.5	0.6	0.7	1.4	0.5	0.6	0.6	0.7	0.6	0.9	3.1	1.4	0.9	0.8	0.4	0.5	0.6	1.0	3.1
13-Oct	0.5	0.4	0.4	0.4	0.4	0.6	0.5	0.8	1.1	1.1	3.1	4.3	4.0	4.2	3.7	2.7	2.9	4.8	4.0	4.4	3.7	6.7	9.0	6.6	2.9	9.0
14-Oct	5.5	6.2	3.6	3.5	6.4	7.4	3.8	4.2	4.5	4.4	3.8	3.2	2.9	2.8	2.5	2.6	2.8	3.3	5.3	3.8	3.5	3.2	3.2	3.1	4.0	7.4
15-Oct	3.1	3.1	3.2	3.5	3.8	7.7	4.6	4.0	4.0	3.9	7.2	2.7	2.5	3.3	3.7	4.1	4.2	4.2	3.8	3.5	3.3	3.7	4.9	7.3	4.1	7.7
16-Oct	8.9	8.5	7.5	6.9	7.1	6.1	5.5	5.3	4.8	4.8	5.8	5.5	5.3	3.9	3.5	3.1	2.9	4.1	3.1	3.9	3.4	2.8	2.5	2.7	4.9	8.9
17-Oct	2.8	2.7	2.4	2.0	2.3	2.9	4.2	4.4	1.6	1.7	2.5	2.6	2.4	1.8	1.3	1.1	1.0	1.1	1.0	0.9	0.9	0.9	1.0	1.4	2.0	4.4
18-Oct	1.8	1.8	2.5	2.5	3.6	3.2	3.4	3.9	4.4	4.0	3.3	2.6	2.4	5.1	3.6	2.2	2.1	5.7	3.4	3.4	7.1	14.4	4.5	10.0	4.2	14.4
19-Oct	4.8	3.2	2.9	3.2	3.2	3.1	3.8	4.8	6.0	6.0	6.0	5.5	4.2	3.8	3.5	3.7	3.9	4.2	5.7	4.1	3.2	2.8	3.7	3.6	4.1	6.0
20-Oct	3.9	3.9	3.6	3.2	3.1	3.0	5.7	3.8	5.4	7.8	7.0	8.4	6.6	3.1	4.9	7.9	8.3	8.6	8.5	5.6	5.1	4.5	4.5	4.9	5.5	8.6
21-Oct	4.6	4.6	4.7	4.8	4.8	4.1	2.8	2.5	2.6	3.0	2.8	2.4	4.0	2.1	1.8	1.9	2.0	2.1	3.5	5.0	4.9	5.0	6.5	4.0	3.6	6.5
22-Oct	4.1	3.4	3.0	2.9	3.2	2.9	3.0	3.5	4.5	4.5	4.2	3.1	3.0	2.9	2.7	2.9	3.4	3.7	4.5	6.7	4.8	4.2	4.0	4.0	3.7	6.7
23-Oct	3.7	3.7	3.7	3.4	4.0	3.2	3.1	3.3	3.6	3.2	3.0	2.9	2.8	2.7	2.7	3.1	4.2	3.5	4.1	5.6	5.2	4.6	4.1	3.2	3.6	5.6
24-Oct	2.9	2.9	3.0	3.1	3.4	3.4	3.6	3.6	3.7	4.0	4.9	4.0	3.9	3.7	3.7	3.8	3.8	4.4	5.1	4.7	5.0	5.2	5.4	5.7	4.0	5.7
25-Oct	6.0	5.3	5.3	5.3	5.2	6.9	8.1	7.6	7.3	7.0	3.7	3.3	3.8	2.4	3.8	3.3	2.5	3.5	5.9	6.3	4.0	4.6	5.0	1.6	4.9	8.1
26-Oct	2.8	3.5	2.0	6.2	7.2	2.8	9.3	5.7	3.5	3.4	3.8	3.3	3.5	4.3	4.1	3.8	3.3	3.0	2.8	3.0	2.4	1.9	1.4	0.9	3.6	9.3
27-Oct	0.7	0.7	0.7	0.6	0.5	0.7	0.9	0.8	1.3	2.3	2.6	1.3	0.6	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.6	2.6
28-Oct	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.5	0.7	0.8	1.3	1.2	1.4	1.5	1.6	1.7	1.9	0.7	1.9
29-Oct	2.4	3.7	3.6	2.3	1.4	1.9	2.5	2.8	3.0	3.1	3.3	3.2	3.3	4.2	5.1	4.5	5.4	7.2	5.6	4.5	4.8	6.6	7.4	6.8	4.1	7.4
30-Oct	4.8	4.1	4.3	4.5	5.2	4.5	3.7	3.6	3.7	4.4	4.0	4.4	4.7	4.8	4.6	4.6	5.0	7.1	6.9	4.8	6.6	4.1	4.9	3.9	4.7	7.1
31-Oct	3.6	4.4	4.7	5.7	5.8	15.9	23.2	18.7	7.8	6.2	5.7	6.0	6.1	6.5	6.1	6.7	5.8	5.5	5.3	5.7	5.0	4.7	4.7	4.5	7.3	23.2
	3.8	3.8	3.9	4.1	4.3	4.4	4.9	4.7	4.5	4.6	4.4	3.9	3.6	3.5	3.6	3.5	3.5	4.3	3.7	3.7	3.8	4.8	3.8	3.9	Diurnal Average	
	18.3	18.7	23.9	26.1	19.6	16.3	23.2	18.7	16.2	13.8	11.8	11.4	8.6	9.6	15.2	15.7	10.9	16.2	8.5	8.6	11.1	25.3	10.5	16.8	Diurnal Maximum	

C - Calibration

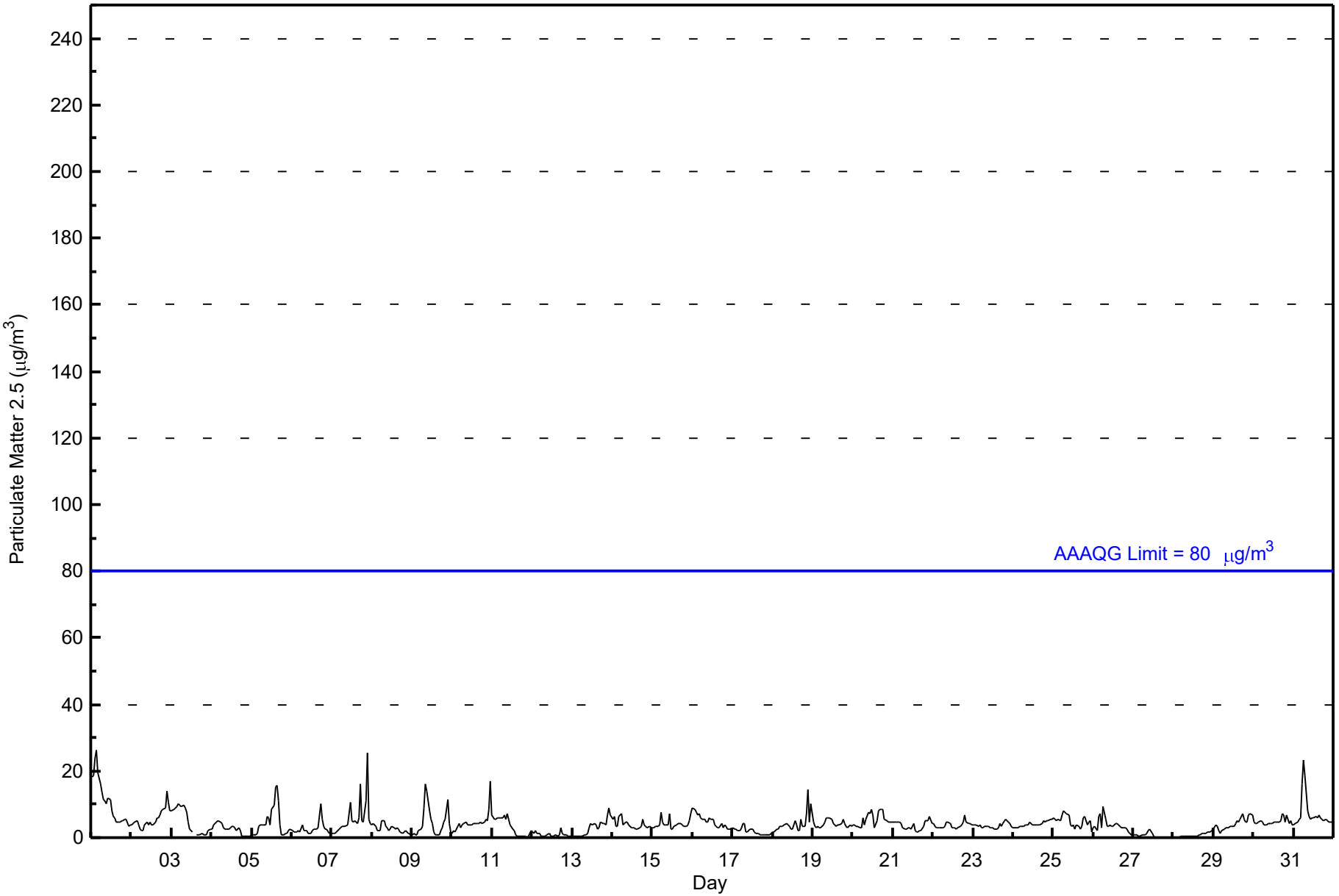
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 $\mu g/m^3$ 24-hr 29 $\mu g/m^3$

Wood Buffalo Environmental Association

Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Patricia McInnes - October 2025



Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Patricia McInnes - October 2025

Concentration Ranges ($\mu g/m^3$)	Number of Hours	%	Cumulative %
0 - 5	601	81.00	81.00
6 - 15	127	17.12	98.11
16 - 25	13	1.75	99.87
26 - 80	1	0.13	100.00
> 81.0	0	0.00	100.00

Total Number of Valid Hours: 742

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Patricia McInnes - October 2025

Concentration Ranges ($\mu g/m^3$)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	45	11	3	4	7	37	84	25	35	51	47	51	53	72	33	43	601
6 - 15	9	0	0	1	3	4	20	12	23	17	6	9	6	2	4	11	127
16 - 25	3	0	0	0	0	1	2	3	0	0	0	1	0	1	0	2	13
26 - 80	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	58	11	3	5	10	42	106	40	58	68	53	61	59	75	37	56	742

Total Number of Valid Hours: 742

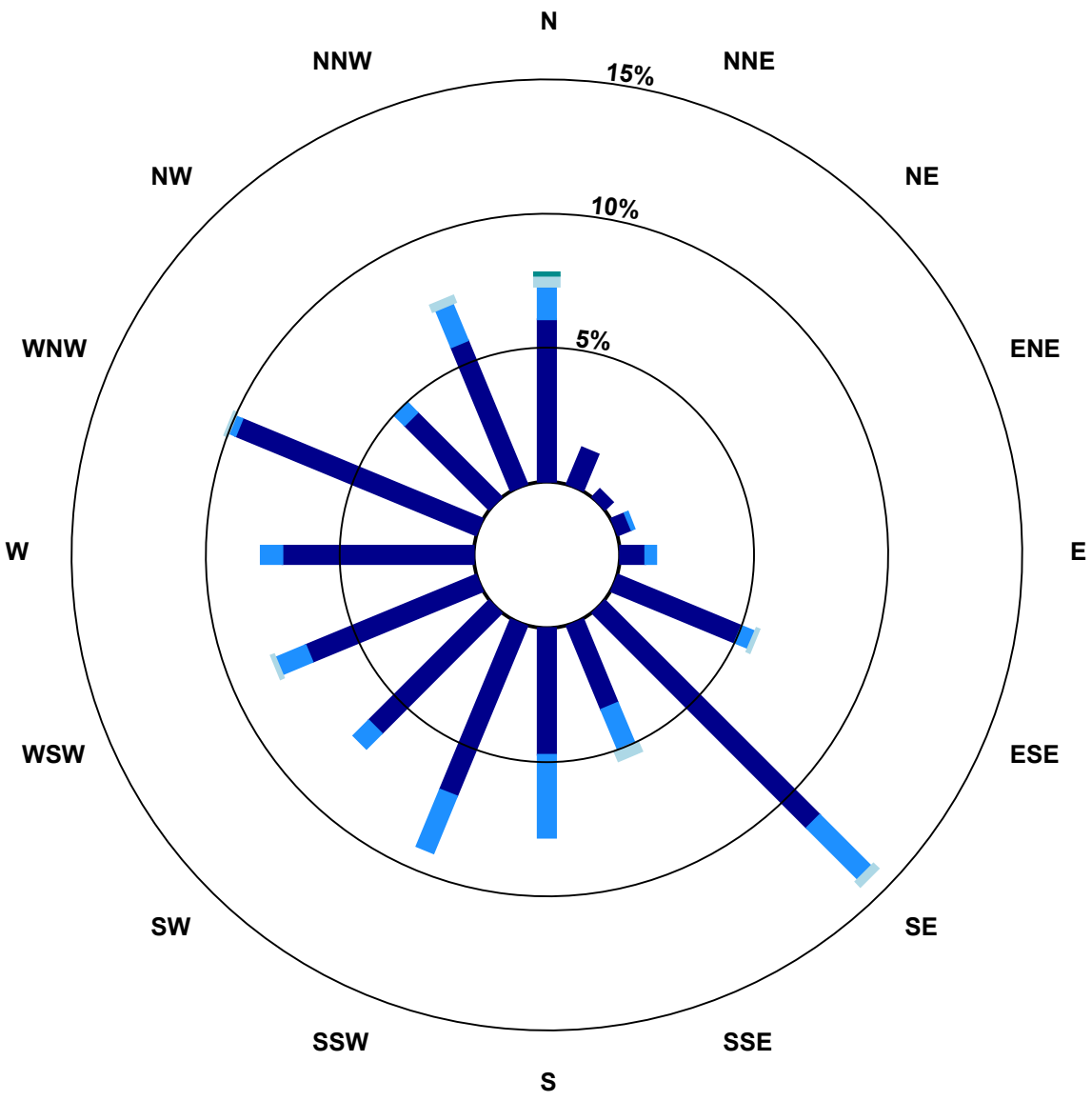
Total Number of Hours: 744

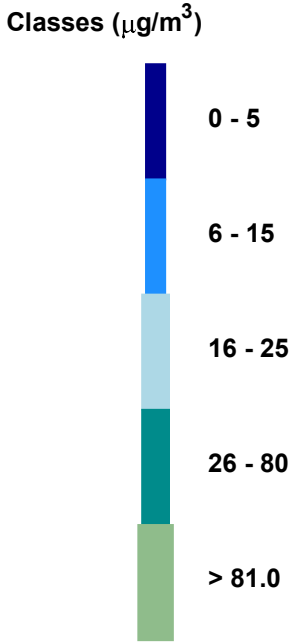
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Patricia McInnes





Total Number of Valid Hours: 742

Maximum Value: 21.9 C on Oct 10 16:00

Maximum Daily Average: 10.6 C on Oct 10

Minimum Value: -2.8 C on Oct 6 08:00

Minimum Daily Average: 0.0 C on Oct 29

Maximum Diurnal Average: 8.6 C at hour 16

Minimum Diurnal Average: 2.0 C at hour 7

Monthly Average: 4.89 C

Percentiles: P_1 = -1.9 P_{10} = -0.1 Q_1 = 1.1 Median = 3.9 Q_3 = 7.9 P_{90} = 11.3 P_{99} = 17.1

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

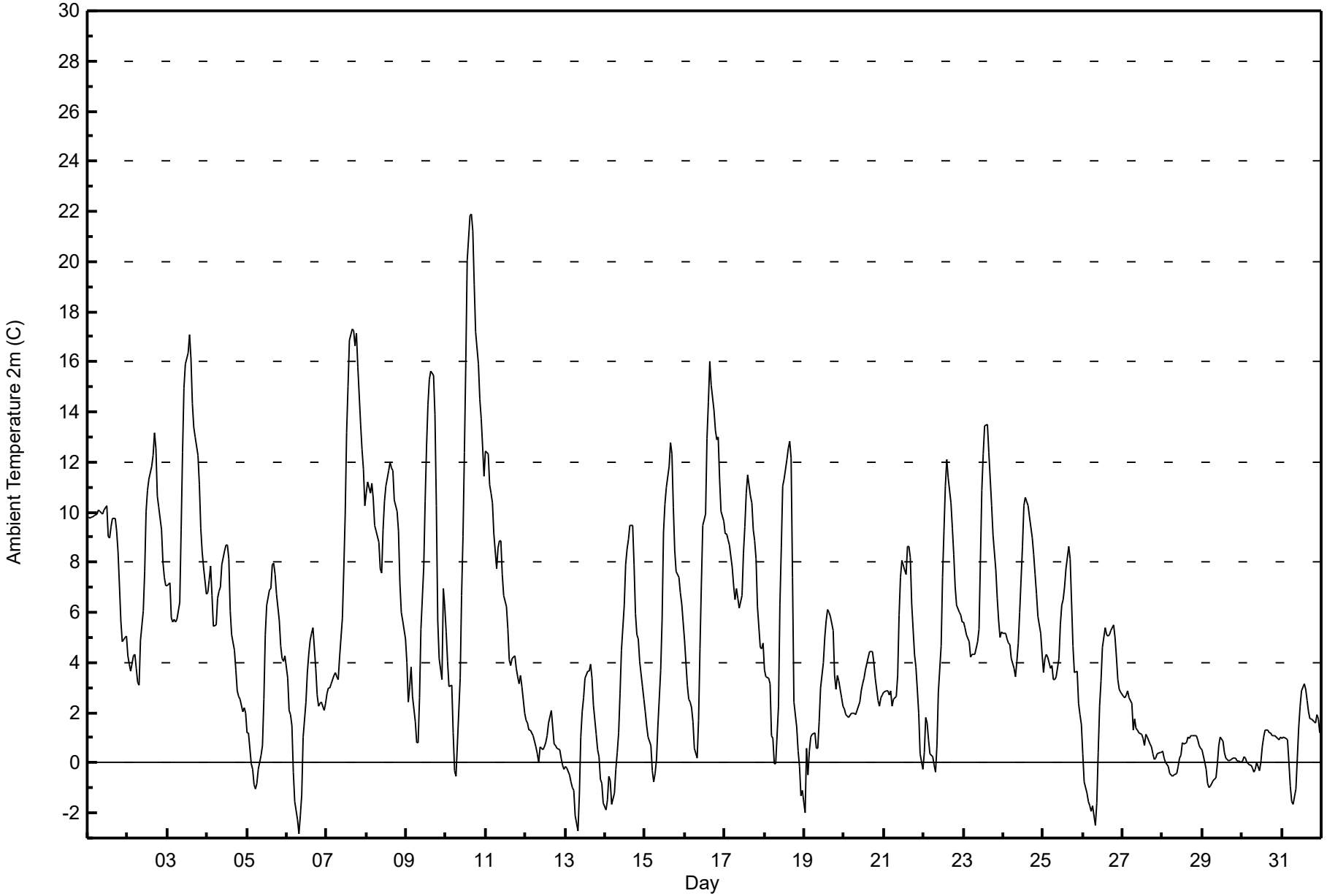
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	9.8	9.7	9.8	9.8	9.9	9.9	10.1	10.0	10.0	9.9	10.1	10.3	9.0	9.0	9.4	9.7	9.8	9.2	8.4	7.1	5.6	4.8	5.0	5.1	8.8	10.3
2-Oct	4.3	4.0	3.6	4.3	4.3	3.8	3.2	3.1	4.9	6.0	7.6	10.0	10.9	11.3	11.8	12.2	13.2	12.5	10.6	10.2	9.3	8.0	7.4	7.0	7.7	13.2
3-Oct	7.1	7.2	5.8	5.6	5.7	5.6	5.7	6.4	9.3	12.4	14.9	15.9	16.4	17.1	16.1	14.4	13.4	13.0	12.3	11.1	9.3	8.4	7.8	6.8	10.3	17.1
4-Oct	6.8	7.3	7.9	6.7	5.4	5.5	6.6	6.8	7.0	7.9	8.4	8.7	8.7	8.1	6.1	5.1	4.5	3.7	2.9	2.7	2.5	2.0	2.2	2.0	5.6	8.7
5-Oct	1.2	1.2	0.0	-0.3	-0.9	-1.0	-0.8	-0.3	0.3	0.7	2.5	5.1	6.3	6.9	7.0	7.9	8.0	7.5	6.7	5.6	4.7	4.2	4.0	4.3	3.4	8.0
6-Oct	3.4	2.1	1.9	1.5	-0.4	-1.5	-2.3	-2.8	-2.1	-1.2	1.0	2.4	3.6	4.3	4.9	5.2	5.4	3.8	2.7	2.3	2.4	2.4	2.1	2.4	1.8	5.4
7-Oct	2.7	3.0	3.0	3.1	3.5	3.6	3.4	3.3	4.2	5.8	7.7	9.9	13.2	15.0	16.9	17.3	17.2	16.7	17.1	15.8	13.5	12.5	11.7	10.3	9.6	17.3
8-Oct	10.8	11.2	10.8	11.1	10.6	9.5	9.3	8.8	7.7	7.6	9.3	10.4	11.1	11.7	12.0	11.8	11.6	10.5	10.0	9.2	7.2	6.0	5.6	4.9	9.5	12.0
9-Oct	4.0	2.4	3.0	3.8	2.7	1.6	0.8	0.8	2.6	5.3	7.8	10.4	12.6	14.3	15.3	15.6	15.5	13.9	10.2	5.7	4.2	3.3	6.9	6.2	7.0	15.6
10-Oct	5.2	4.0	3.1	3.1	1.2	-0.3	-0.5	0.8	3.4	6.7	9.0	12.4	16.0	20.1	21.9	21.9	21.2	19.1	17.2	15.9	14.5	13.8	12.6	11.4	10.6	21.9
11-Oct	12.4	12.3	11.1	10.7	10.3	9.1	7.7	8.6	8.9	8.9	7.5	6.7	6.2	5.4	4.1	3.9	4.2	4.3	3.8	3.4	3.1	3.5	3.1	2.0	6.7	12.4
12-Oct	1.7	1.6	1.3	1.3	1.1	0.8	0.7	0.4	0.0	0.6	0.5	0.6	0.8	1.1	1.6	2.1	1.4	0.8	0.7	0.6	0.5	0.2	-0.1	-0.3	0.8	2.1
13-Oct	-0.2	-0.2	-0.5	-0.8	-1.0	-1.1	-2.1	-2.7	-1.2	1.0	2.0	2.6	3.4	3.6	3.7	3.9	3.4	2.3	1.2	0.5	0.3	-0.6	-0.8	-1.6	0.6	3.9
14-Oct	-1.9	-1.5	-0.5	-0.7	-1.6	-1.2	-0.3	0.4	1.2	2.8	4.5	6.3	7.9	8.5	8.9	9.5	9.5	7.9	6.0	5.1	4.9	4.0	3.1	2.5	3.5	9.5
15-Oct	2.0	1.5	1.0	0.7	-0.3	-0.8	-0.4	0.1	1.5	3.7	5.7	9.2	10.3	11.0	11.8	12.8	12.3	10.2	8.5	7.6	7.4	6.8	6.4	5.6	5.6	12.8
16-Oct	4.9	3.1	2.5	2.4	2.2	1.6	0.6	0.2	1.7	4.6	7.1	9.5	9.9	13.0	14.4	16.0	15.1	14.0	13.3	12.9	13.0	11.3	10.0	9.6	8.0	16.0
17-Oct	9.2	9.2	8.9	8.7	7.8	7.1	6.5	7.0	6.5	6.2	6.7	8.3	9.4	10.8	11.5	10.7	10.4	9.3	8.9	8.1	6.2	4.6	4.6	4.8	8.0	11.5
18-Oct	3.7	3.4	3.4	3.2	1.1	1.0	0.0	-0.1	2.2	6.3	8.6	11.0	11.3	12.1	12.5	12.8	12.2	7.4	2.4	1.4	0.4	-0.1	-1.3	-1.1	4.8	12.8
19-Oct	-2.0	0.6	-0.5	0.5	1.0	1.1	1.2	0.6	0.6	1.7	3.0	4.0	5.0	5.7	6.1	6.0	5.8	5.3	3.5	2.9	3.5	3.3	2.6	2.2	2.7	6.1
20-Oct	2.1	1.9	1.9	1.8	2.0	2.0	2.0	1.9	2.1	2.4	2.9	3.1	3.4	3.7	4.2	4.4	4.4	4.4	4.0	3.4	2.5	2.3	2.6	2.7	2.8	4.4
21-Oct	2.8	2.9	2.9	2.7	2.9	2.3	2.6	2.6	3.5	5.9	7.4	8.1	7.7	7.5	8.7	8.6	8.2	6.4	4.3	3.8	2.9	2.0	0.4	-0.2	4.4	8.7
22-Oct	0.4	1.8	1.6	0.9	0.4	0.2	-0.1	-0.4	0.7	2.8	4.7	7.4	9.3	11.1	12.1	11.4	10.3	9.4	8.3	7.0	6.3	6.0	5.9	5.6	5.1	12.1
23-Oct	5.6	5.4	5.1	4.8	4.2	4.3	4.4	4.3	4.8	5.3	8.1	10.9	12.3	13.5	13.5	12.4	11.3	10.3	9.1	7.7	6.6	5.7	5.0	5.2	7.5	13.5
24-Oct	5.2	5.2	5.0	4.8	4.7	4.2	3.8	3.4	4.0	4.8	6.0	8.6	10.3	10.6	10.4	10.3	9.8	8.9	8.3	7.5	6.7	5.8	5.1	4.3	6.6	10.6
25-Oct	3.6	4.2	4.3	4.2	3.8	3.9	3.3	3.3	3.4	4.2	5.5	6.3	6.5	7.0	7.7	8.6	8.1	6.4	4.6	3.6	3.7	2.3	1.9	1.5	4.7	8.6
26-Oct	0.3	-0.7	-1.2	-1.5	-1.7	-1.9	-1.7	-2.5	-1.6	0.4	2.3	3.2	4.6	5.4	5.1	5.1	5.1	5.3	5.5	5.0	4.2	3.3	2.9	2.8	2.0	5.5
27-Oct	2.6	2.6	2.7	2.9	2.6	2.4	1.3	1.7	1.4	1.3	1.2	1.1	1.0	0.7	1.1	1.0	0.7	0.6	0.4	0.1	0.2	0.4	0.4	0.4	1.3	2.9
28-Oct	0.5	0.2	0.0	-0.2	-0.4	-0.5	-0.5	-0.5	-0.4	-0.1	0.2	0.3	0.8	0.8	0.8	1.0	1.0	1.1	1.1	1.1	1.1	0.9	0.7	0.6	0.4	1.1
29-Oct	0.5	0.0	-0.2	-0.8	-1.0	-0.9	-0.7	-0.7	-0.6	0.0	0.7	1.0	0.9	0.4	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	1.0
30-Oct	0.1	0.2	0.2	0.0	-0.1	-0.1	-0.2	-0.4	-0.2	0.0	-0.3	0.0	0.6	1.0	1.3	1.3	1.2	1.2	1.1	1.1	1.1	1.0	0.9	1.0	0.5	1.3
31-Oct	1.0	1.0	1.0	0.9	0.0	-0.9	-1.6	-1.7	-1.0	0.2	1.4	2.2	2.9	3.2	2.9	2.5	2.1	1.8	1.8	1.7	1.6	1.9	1.8	1.2	1.2	3.2
	3.5	3.4	3.2	3.1	2.6	2.2	2.0	2.0	2.7	4.0	5.3	6.6	7.5	8.2	8.5	8.6	8.3	7.3	6.3	5.5	4.8	4.2	3.9	3.5	Diurnal Average	
	12.4	12.3	11.1	11.1	10.6	9.9	10.1	10.0	10.0	12.4	14.9	15.9	16.4	20.1	21.9	21.9	21.2	19.1	17.2	15.9	14.5	13.8	12.6	11.4	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Patricia McInnes - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	84	11.29	11.29
0 - 10	544	73.12	84.41
10 - 20	112	15.05	99.46
> 20	4	0.54	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 100.0 % on Oct 20 02:00

Maximum Daily Average: 94.5 % on Oct 27

Minimum Value: 27.0 % on Oct 10 17:00

Minimum Daily Average: 51.0 % on Oct 14

Maximum Diurnal Average: 84.5 % at hour 8

Minimum Diurnal Average: 62.6 % at hour 16

Monthly Average: 75.25 %

Percentiles: P_1 = 35.2 P_{10} = 49.2 Q_1 = 62.6 Median = 77.5 Q_3 = 90.0 P_{90} = 96.7 P_{99} = 99.8

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

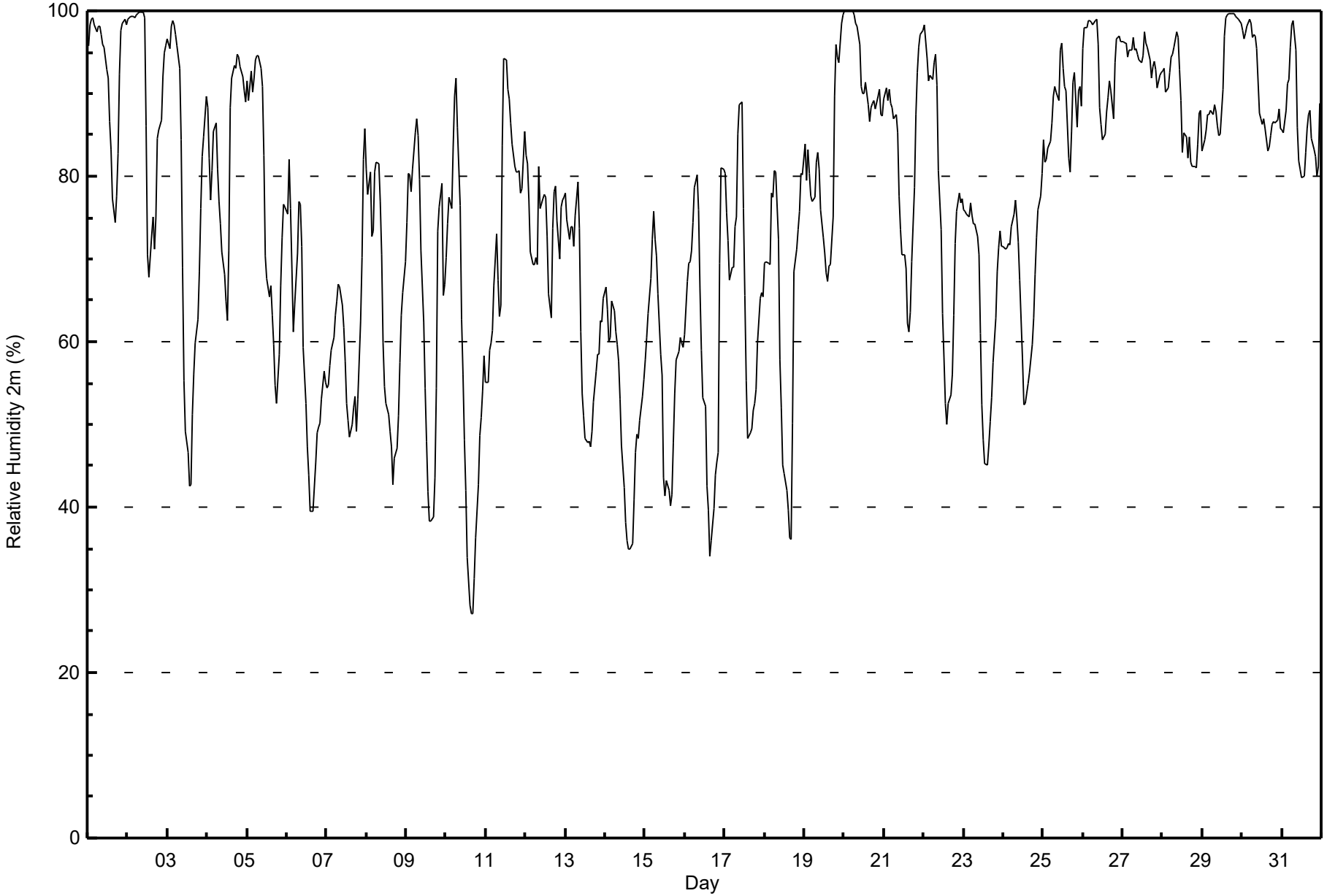
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	95.7	98.3	99.1	99.1	98.4	97.5	98.1	98.1	97.0	95.9	95.5	92.8	91.8	86.6	83.3	77.3	74.5	77.7	82.7	92.4	97.6	98.4	98.9	98.3	92.7	99.1
2-Oct	98.9	99.2	99.3	99.3	99.2	99.4	99.7	99.8	99.8	99.9	99.2	86.1	70.5	67.8	72.9	75.0	71.2	75.1	84.7	85.5	86.7	92.0	95.0	95.7	89.7	99.9
3-Oct	96.7	95.4	98.1	98.8	98.3	97.2	95.7	93.1	84.4	68.9	55.3	49.2	46.6	42.6	42.7	51.3	56.1	59.8	62.7	68.5	76.0	82.3	84.8	89.7	74.8	98.8
4-Oct	88.3	82.2	77.2	80.7	85.4	86.4	80.9	76.9	74.2	70.9	68.2	65.0	62.5	71.1	88.3	91.9	93.5	93.1	94.7	94.5	93.2	92.1	90.4	89.0	82.9	94.7
5-Oct	91.6	89.1	92.7	90.2	91.9	94.0	94.5	94.6	93.0	90.8	82.5	70.3	67.7	65.4	66.8	63.2	59.7	54.8	52.5	58.5	66.8	72.5	76.6	76.3	77.3	94.6
6-Oct	75.5	82.0	76.1	68.8	61.3	64.6	70.6	77.0	76.6	71.5	59.4	52.5	47.4	43.9	39.5	39.6	39.5	45.4	49.0	49.6	50.1	53.0	56.4	55.1	58.5	82.0
7-Oct	54.5	54.7	57.2	59.1	60.5	63.2	65.0	67.0	66.7	64.4	61.6	57.5	52.6	50.5	48.5	50.0	52.0	53.4	49.2	53.0	62.5	70.2	82.0	85.7	60.0	85.7
8-Oct	80.9	77.8	80.5	72.8	73.4	80.5	81.8	81.6	76.9	70.6	59.9	54.6	52.6	51.2	49.1	47.2	42.7	45.9	47.1	51.1	57.5	63.2	65.9	69.6	63.9	81.8
9-Oct	74.5	80.3	80.2	78.1	80.9	85.2	87.0	85.0	79.7	71.0	62.4	54.4	48.0	41.9	38.4	38.4	38.7	43.6	54.3	73.4	76.3	79.2	65.5	66.9	66.0	87.0
10-Oct	70.2	74.3	77.5	76.1	83.5	89.7	91.9	85.9	76.4	62.8	56.2	48.2	42.0	33.9	28.1	27.1	27.0	31.3	36.2	42.7	48.7	50.9	54.1	58.3	57.2	91.9
11-Oct	55.0	55.1	59.1	59.9	61.3	66.8	73.1	67.5	63.0	64.4	83.6	94.2	94.0	90.5	89.3	86.4	83.8	81.3	80.4	80.5	80.8	77.9	78.5	85.4	75.5	94.2
12-Oct	82.6	81.5	77.1	70.8	69.3	69.3	70.2	69.4	81.3	76.2	77.3	77.9	77.5	72.8	65.8	62.9	73.7	78.1	78.8	74.6	70.0	76.2	77.2	77.4	74.5	82.6
13-Oct	78.0	74.8	72.3	73.8	74.0	71.5	75.3	79.4	73.7	61.2	53.7	51.0	48.4	47.8	48.0	47.2	49.2	52.7	56.5	58.5	58.5	62.6	62.4	65.3	62.3	79.4
14-Oct	66.5	63.9	60.0	60.4	64.9	63.7	61.2	59.7	57.6	53.1	47.5	42.3	38.1	35.9	35.0	34.8	35.6	40.8	46.6	48.8	48.2	50.4	53.3	55.4	51.0	66.5
15-Oct	57.8	60.5	63.3	67.6	72.4	75.7	72.4	70.4	65.7	58.4	56.0	43.5	41.3	43.2	42.0	40.2	41.5	47.8	53.7	57.8	58.8	60.5	59.7	59.3	57.1	75.7
16-Oct	60.9	67.4	69.4	69.7	71.0	74.3	78.6	80.2	76.0	66.5	58.9	53.2	52.2	42.6	39.7	34.0	35.9	39.9	43.8	45.4	46.6	69.5	81.0	80.9	59.9	81.0
17-Oct	80.4	75.5	72.2	67.5	69.0	68.9	73.9	75.1	85.0	88.6	89.0	76.1	65.5	55.3	48.3	49.1	49.5	51.8	52.6	54.2	59.8	65.3	66.0	65.4	66.8	89.0
18-Oct	69.5	69.6	69.5	69.3	77.9	77.4	80.7	80.5	72.4	57.8	52.0	45.0	44.1	42.0	39.6	36.2	36.1	50.1	68.5	71.2	73.6	75.7	80.3	80.1	63.3	80.7
19-Oct	84.0	79.5	83.1	80.3	77.7	76.9	77.4	81.7	82.9	80.8	76.0	72.6	70.6	68.2	67.2	69.1	69.3	75.2	89.7	95.9	94.5	93.7	98.4	99.6	81.0	99.6
20-Oct	99.9	100.0	100.0	100.0	100.0	99.9	99.4	98.5	98.2	95.9	90.9	90.0	90.1	91.4	88.6	86.6	88.3	88.7	89.1	88.2	89.7	90.5	87.5	87.3	93.3	100.0
21-Oct	89.4	90.7	89.1	90.5	88.8	88.3	86.9	87.5	85.3	77.5	73.6	70.5	70.5	68.7	62.2	61.1	63.5	69.6	78.7	87.5	92.6	95.5	97.2	97.6	81.8	97.6
22-Oct	98.3	96.3	94.3	91.5	92.1	91.7	93.7	94.8	91.0	80.7	73.6	63.4	58.2	52.5	49.9	52.6	53.5	56.0	63.2	71.9	75.7	77.9	76.8	77.3	76.1	98.3
23-Oct	76.0	75.8	75.4	75.2	76.8	75.3	74.2	74.2	72.7	70.5	61.0	52.4	48.1	45.3	45.2	47.5	50.4	53.1	57.5	62.8	68.5	71.3	73.4	71.5	64.8	76.8
24-Oct	71.5	71.1	71.3	71.9	71.7	73.9	75.4	77.0	74.9	72.0	67.5	57.9	52.4	52.6	53.8	54.9	56.2	59.7	62.8	68.1	72.5	75.9	77.5	80.4	67.6	80.4
25-Oct	84.3	81.8	82.0	83.4	84.3	86.4	89.7	90.8	90.1	89.2	95.2	96.2	93.0	90.8	90.3	82.3	80.6	85.4	91.4	92.5	86.0	90.4	90.9	88.5	88.1	96.2
26-Oct	95.4	98.0	97.9	98.8	98.9	98.7	98.3	98.8	99.0	96.0	88.4	86.2	84.5	85.0	87.8	89.5	91.6	90.4	87.0	93.8	96.6	96.7	96.9	96.3	93.8	99.0
27-Oct	96.3	96.1	96.1	94.5	95.2	95.3	96.7	95.3	95.4	94.7	94.0	93.7	94.5	97.5	96.0	95.6	94.0	91.9	93.2	93.9	92.9	90.6	92.1	92.6	94.5	97.5
28-Oct	92.8	93.0	90.2	90.7	92.5	94.4	94.7	95.7	97.5	96.8	92.8	89.1	82.9	85.2	84.7	82.2	84.7	81.7	81.1	81.2	81.0	83.8	87.6	88.0	88.5	97.5
29-Oct	83.0	84.5	85.5	87.4	87.5	88.0	87.4	88.6	87.9	86.1	84.9	85.1	90.5	97.0	99.2	99.5	99.6	99.6	99.7	99.6	99.3	99.1	99.0	98.5	92.3	99.7
30-Oct	97.6	96.6	97.3	98.2	99.0	98.4	96.7	97.2	97.0	95.4	87.6	86.9	86.3	87.0	85.7	83.0	83.5	84.9	86.2	86.6	86.4	86.7	88.2	85.8	90.8	99.0
31-Oct	85.7	85.3	88.0	91.2	91.7	95.6	98.3	98.9	95.2	85.9	81.9	80.8	79.8	80.1	82.9	85.8	87.4	87.9	84.6	83.3	82.4	80.0	81.2	88.8	86.8	98.9
	81.7	81.6	81.6	81.1	82.2	83.5	84.5	84.5	82.8	77.9	73.7	69.0	65.9	64.1	63.2	62.6	63.3	66.0	69.6	73.1	75.1	78.2	79.8	80.8	Diurnal Average	
	99.9	100.0	100.0	100.0	100.0	99.9	99.7	99.8	99.8	99.9	99.2	96.2	94.5	97.5	99.2	99.5	99.6	99.6	99.7	99.6	99.3	99.1	99.0	99.6	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Patricia McInnes - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Patricia McInnes - October 2025

Maximum Speed: 31 km/h on Oct 27 08:00

Maximum Daily Speed Average: 21.7 km/h on Oct 27

Minimum Speed Value: 1 km/h on Oct 22 00:00

Minimum Daily Speed Average: 1.9 km/h on Oct 20

Maximum Diurnal Speed Average: 6.0 km/h at hour 14

Minimum Diurnal Speed Average: 1.2 km/h at hour 2

Monthly Average Velocity: 3.1 km/h 259.8 deg

Percentiles: P_1 = 2 P_{10} = 5 Q_1 = 7 Median = 10 Q_3 = 15 P_{90} = 20 P_{99} = 27

Hours in Service: 744

Hours of Data: 744

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NNW15	N15	N14	N17	N17	N18	N16	N16	N17	N18	NNW17	N16	N19	NNW11	NNW12	NNW12	NNW10	NW6	WSW5	WNW4	NW4	WNW3	W5	W3	NNW11.4	N19
2-Oct	WSW3	WSW3	WSW5	WSW1	SSW4	SSW5	S4	S5	SSE5	SSE6	SSE5	SE6	SSE7	SSE11	S10	S9	SSE8	SSE7	SSE6	S6	S6	S5	SSE9	SSE9	S5.4	SSE11
3-Oct	SSE7	S6	S5	S6	S6	SSW5	SSW9	SW8	SSW8	SSW11	SW19	WSW25	WSW26	WSW26	WSW28	WSW23	SW15	SW14	SW13	WSW18	WSW13	WSW11	WSW11	WSW15	SW12.5	WSW28
4-Oct	WSW14	WSW12	W16	W12	WSW12	W14	WNW15	NW14	NW14	NW12	NW12	NW11	WNW8	WSW13	NW12	NW10	NNW16	NNW21	NW17	NW16	NW13	WNW11	WNW13	W10	WNW11.7	NNW21
5-Oct	W10	W9	W11	W10	WSW10	WSW11	SW10	SW11	SW11	SSW9	SSW12	SW13	W17	W17	W12	W13	W14	W13	WNW14	W14	W14	W15	WNW10	WNW8	W10.8	W17
6-Oct	N19	N14	N12	N16	NNW13	N10	N4	NNW5	NNW7	NNW9	NNE5	E2	NNE1	S5	SSE7	S8	S6	ESE6	SE7	SE8	SE8	SE7	SE8	SE8	NNE2.4	N19
7-Oct	SE9	SE9	SE9	SE9	SE9	SSE7	SE8	SE9	SE10	SE10	SE9	SE9	SE9	ESE12	ESE15	ESE11	ESE7	SE7	S10	S5	SSW4	ESE5	NNE2	NW5	SE7.3	ESE15
8-Oct	NW13	NNW14	WNW8	WNW16	WNW16	WNW10	W11	WNW17	WNW17	W14	W16	W21	W23	W20	W19	W19	W21	W13	W13	WNW21	WNW21	WNW13	WNW12	WNW12	W15.3	W23
9-Oct	W8	SW6	WSW7	SW7	SW9	SW7	SW7	SW11	WSW12	WSW15	SW16	WSW16	WSW18	WSW21	WSW19	WSW18	WSW15	SW8	SSW4	SSW3	SSW4	S5	SW10	SSW9	SW10.3	WSW21
10-Oct	SSW7	SSW5	SSE6	SSE5	SSE4	SSW3	SSE5	S5	S5	SE7	SE7	SE7	SE8	S9	SSW19	SSW18	SSW14	S10	SSW11	SSW12	SSW9	SSW8	S7	SSE8	S7.7	SSW19
11-Oct	SSE9	SE9	ESE10	SE11	SE7	SE3	NNW8	NNW19	N18	NNW20	NNW21	NNW17	NW18	WNW21	WNW22	WNW23	WNW17	WNW18	WNW20	NW22	NW22	NW22	NNW22	N25	NW11.8	N25
12-Oct	NNW24	NNW21	NNW26	N28	N28	N22	N20	N23	N16	N16	N18	N20	N21	NNW20	N18	N17	NNW16	NNW11	NNW6	NW6	NW8	NW7	WNW6	WNW7	N16.3	N28
13-Oct	WNW10	WNW11	NW9	WNW9	WNW5	WSW5	WSW8	SW8	SW8	SSW12	SW16	SW17	SSW17	SSW17	SSW19	S17	S14	S9	S9	S10	S10	S9	S8	SSE7	SSW8.4	SSW19
14-Oct	SSE8	S7	S10	S10	SSE9	S7	SSW13	SSW16	SSW17	SW21	SW21	SW21	SW17	SW15	SW19	SW18	SW12	SSW8	S6	SSW7	SW10	SW10	SW9	SSW9	SSW11.8	SW21
15-Oct	SSW8	SSW8	SSW7	S6	S3	SSE6	SE6	SE8	SSE10	SSE8	SE5	SSW10	SW18	WSW18	WSW17	SW15	SW12	SW9	WSW10	WSW12	WSW15	WSW13	W14	WSW12	SW8.4	WSW18
16-Oct	WSW11	WSW12	WSW14	WSW15	WSW11	WSW11	SW10	SSW9	S9	S8	S9	SSE8	ESE10	SE8	ESE8	SSW13	SSW12	S9	SSW6	SSW9	SW10	SW15	SSW12	SSW10	SSW8.5	WSW15
17-Oct	SSW9	WSW13	WSW15	SW17	WSW15	WSW15	WSW15	WNW18	WNW19	W18	W14	W16	WNW22	WNW23	WNW23	NW15	NW10	WNW9	WNW10	W9	W11	W12	W12	WNW13	W13.2	WNW23
18-Oct	NW3	W11	W11	W5	SSE3	SW7	S6	S6	S5	SE4	ESE4	W3	WNW13	WNW14	W16	WNW15	W8	WSW3	SW4	WSW6	SW5	SSW3	SSW4	S4	WSW4.9	W16
19-Oct	SSE6	SSE6	SE3	SE6	SE8	SE9	SE5	ESE5	E4	NNW2	E2	NE4	ENE5	ENE6	ENE9	E11	ENE7	NE6	N8	N10	NNE8	N8	NNW10	NNW12	ENE3.7	NNW12
20-Oct	N11	N11	NNW11	NNW11	NNW12	NNW11	NW10	NNW10	NNW8	NW5	WNW4	NW2	SSW6	SW9	SSW9	SSW10	SSW7	S7	S7	S9	S8	SSE8	SE8	SSE6	WNW1.9	NNW12
21-Oct	SE9	ESE9	SE9	SSE7	S7	SW10	SW15	WSW11	WSW9	WNW10	WNW13	WNW17	WNW19	WNW16	NW14	WNW13	NW11	NNW9	N8	N5	NW3	WNW2	S1	SE1	WNW5.2	WNW19
22-Oct	ESE3	ESE5	SE8	E9	ESE8	SE12	SE10	SE7	SE7	SE7	SSE8	SSE7	ESE8	ESE10	ESE13	ESE15	SE13	SE15	SE17	SE18	SE20	SE21	SE21	ESE20	SE11.4	ESE21
23-Oct	SE22	SE22	SE20	SE14	SE11	SE12	SE13	SE11	SE10	SE11	SE8	SE9	ESE9	ESE10	ESE14	ESE14	ESE13	ESE15	SE13	SE13	SE12	SE9	ESE10	SE12	SE12.8	SE22
24-Oct	SE13	SE15	SE15	SE14	SE15	SE10	SE9	SE10	SE11	SE9	SE9	SE11	SE9	ESE10	ESE14	ESE11	ESE11	ESE10	SE13	SE12	ESE11	ESE8	ESE11	ESE6	SE11.0	SE15
25-Oct	SE2	ESE7	ESE3	N6	N9	N7	NW5	W2	WNW3	SSW7	W17	W17	W20	W19	WSW23	W21	WSW17	SW8	SSW4	SW9	SW10	SSW4	SW9	SW7	WSW7.0	WSW23
26-Oct	SE6	S4	SSW5	SSE3	E2	NW2	ENE3	W3	NNW4	N9	NNE7	NNE9	NNE14	N13	N16	N19	N20	NNW20	N21	N21	N24	N24	N27	N26	N10.8	N27
27-Oct	N25	N25	N26	N27	N27	NNW28	NNW30	NNW31	NNW30	NNW29	NNW26	NNW24	NNW19	NW16	NW15	NW15	WNW22	WNW23	WNW22	WNW21	WNW20	WNW22	WNW21	WNW18	NNW21.7	NNW31
28-Oct	WNW18	WNW18	WNW22	WNW21	WNW19	W19	WNW19	WNW16	WNW14	WNW13	W17	W18	W20	WNW16	W14	W10	W9	WSW8	WSW8	WSW8	SW6	SSW6	SSW7	SSW8	W12.8	WNW22
29-Oct	S8	SSE10	SE12	ESE13	ESE15	ESE12	E10	E11	E11	E10	NE8	NNE1	NNE7	NNE9	N11	NNE12	N10	N9	NNW9	NW11	NNW13	NNW12	NNW9	NNW9	NE4.6	ESE15
30-Oct	NW5	NNW5	NNW4	W4	WSW5	WNW3	NW5	WNW4	WNW4	SW5	WSW11	SW7	SSW7	SSW7	SW9	SW8	SSW8	S6	S6	SSW4	SSW6	SW6	SSW6	S7	SW4.4	WSW11
31-Oct	S6	SSE7	S8	SSW10	S8	SSE5	SSE6	SE7	SE8	SE11	SE13	SE14	SE18	SE18	SE21	SE22	SE21	SE22	SE25	SE24	SE16	SE14	SE13	SE12	SE13.1	SE25
	WNW1.3	W1.2	W1.9	W1.8	W1.6	W2.1	W2.5	WNW2.9	WNW2.4	W2.7	W3.9	W4.7	W5.6	W6.0	WSW5.6	WSW5.0	WSW4.2	WSW2.2	WSW2.6	WSW3.6	WSW3.7	WSW3.1	WSW2.7	WSW2.3	Diurnal Average	
	N25	N25	N26	N28	N28	NNW28	NNW30	NNW31	NNW30	NNW29	NNW26	WSW25	WSW26	WSW26	WSW28	WSW23	WNW22	WNW23	SE25	SE24	N24	N24	N27	N26	Diurnal Maximum	

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 7 km/h on Oct 3 20:00

Minimum Value: 0 km/h on Oct 18 18:00

Percentiles: P_1 = 1 P_{10} = 1 Q_1 = 2 Median = 2 Q_3 = 4 P_{90} = 5 P_{99} = 6

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

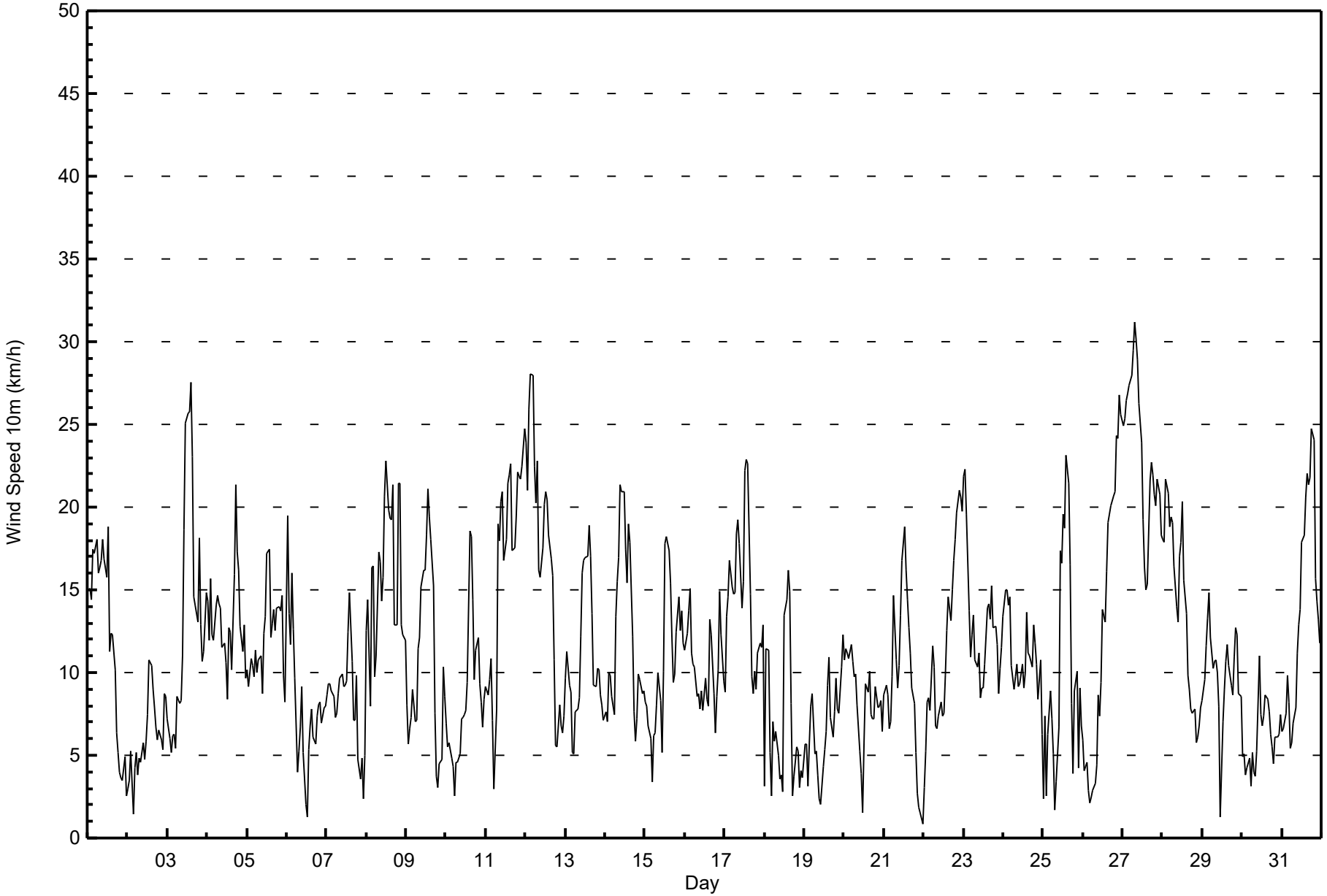
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	3	3	3	4	4	4	4	4	4	4	4	4	6	2	2	3	2	2	1	1	1	1	1	2	6
2-Oct	1	1	1	2	1	3	1	1	1	1	1	2	3	3	3	2	2	1	1	1	1	1	1	1	3
3-Oct	1	2	1	1	2	1	2	1	2	3	5	5	6	6	7	5	3	3	4	7	3	2	2	2	7
4-Oct	2	2	3	2	3	2	3	3	3	3	3	2	3	2	5	3	6	5	5	3	2	2	2	2	6
5-Oct	2	2	1	2	1	2	2	2	3	2	3	4	4	4	3	3	3	3	3	3	2	3	3	2	4
6-Oct	5	5	3	4	4	2	1	1	2	2	3	2	2	3	3	2	2	1	2	1	2	1	1	1	5
7-Oct	2	2	2	2	2	2	2	1	2	2	2	2	2	3	3	3	3	1	2	3	1	2	2	1	3
8-Oct	5	4	3	3	4	2	2	5	4	3	4	5	4	4	4	5	6	4	3	6	5	3	3	3	6
9-Oct	3	1	1	2	1	2	2	2	3	3	3	4	4	5	5	4	4	2	1	1	1	2	2	2	5
10-Oct	1	1	1	2	1	1	1	1	1	2	1	2	2	6	5	5	5	2	3	3	2	2	2	1	6
11-Oct	1	2	3	2	3	2	4	5	4	5	5	4	4	5	5	5	4	3	4	4	4	4	6	6	6
12-Oct	7	5	6	7	7	6	5	6	4	4	4	5	5	5	5	5	4	3	1	2	1	1	1	1	7
13-Oct	2	2	3	1	1	1	1	1	2	3	4	4	4	5	5	4	4	2	2	3	3	2	2	2	5
14-Oct	1	2	2	2	2	2	4	4	5	6	5	5	4	4	4	4	4	2	1	1	2	2	1	2	6
15-Oct	1	1	2	1	1	2	1	2	2	2	2	3	4	4	3	3	3	2	2	2	2	2	2	1	4
16-Oct	2	2	2	3	4	2	2	2	2	2	2	2	2	2	2	5	4	2	3	3	2	4	3	2	5
17-Oct	2	3	3	3	3	3	2	4	4	4	3	4	4	5	5	5	2	2	2	1	1	1	2	2	5
18-Oct	3	2	3	3	1	1	1	2	1	1	2	4	3	4	4	3	3	0	1	1	1	1	1	1	4
19-Oct	1	2	2	1	3	2	1	1	2	1	2	1	2	1	2	3	2	2	1	2	2	1	2	2	3
20-Oct	2	2	2	2	3	2	2	2	1	2	1	2	3	3	3	3	2	2	2	2	2	1	2	2	3
21-Oct	2	3	3	1	1	2	3	2	2	4	3	3	4	3	3	3	2	2	1	1	1	1	1	1	4
22-Oct	2	1	2	2	1	3	2	1	1	1	2	2	2	2	3	3	3	4	4	4	4	4	4	4	4
23-Oct	5	5	5	3	2	2	3	2	3	3	2	2	2	2	3	3	3	3	3	2	3	2	2	3	5
24-Oct	3	3	3	2	3	2	2	3	2	2	3	2	2	2	3	3	3	2	3	2	4	2	3	1	4
25-Oct	2	3	2	2	2	2	2	1	2	2	5	3	4	4	4	5	3	3	1	3	2	2	3	3	5
26-Oct	3	2	1	2	1	1	1	1	1	4	2	2	3	3	3	4	3	4	4	4	5	5	5	6	6
27-Oct	6	6	6	6	6	5	5	6	6	6	6	5	5	3	4	3	4	4	4	4	5	4	4	4	6
28-Oct	4	4	4	4	3	3	4	4	3	3	3	4	4	3	3	3	2	2	2	1	1	1	1	2	4
29-Oct	2	3	3	4	3	3	3	2	2	3	2	3	2	2	2	2	2	2	1	2	2	2	1	2	4
30-Oct	1	1	1	1	2	2	1	1	1	1	3	3	1	2	2	2	2	1	1	1	2	2	1	2	3
31-Oct	2	2	2	2	2	1	1	2	2	2	3	4	5	5	5	5	5	5	6	7	4	3	3	3	7
	7	6	6	7	7	6	5	6	6	6	6	5	6	6	7	5	6	5	6	7	5	5	6	6	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Patricia McInnes - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	105	14.11	14.11
6 - 11	327	43.95	58.06
12 - 19	225	30.24	88.31
20 - 28	83	11.16	99.46
29 - 38	4	0.54	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Patricia McInnes - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	2	4	1	2	4	6	7	8	14	15	3	8	7	9	10	5	105
6 - 11	14	5	2	3	6	22	60	32	42	37	30	18	14	15	10	17	327
12 - 19	23	2	0	0	0	12	28	0	2	15	18	30	31	33	14	17	225
20 - 28	19	0	0	0	0	2	11	0	0	1	2	7	7	18	3	13	83
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	58	11	3	5	10	42	106	40	58	68	53	63	59	75	37	56	744

Total Number of Valid Hours: 744

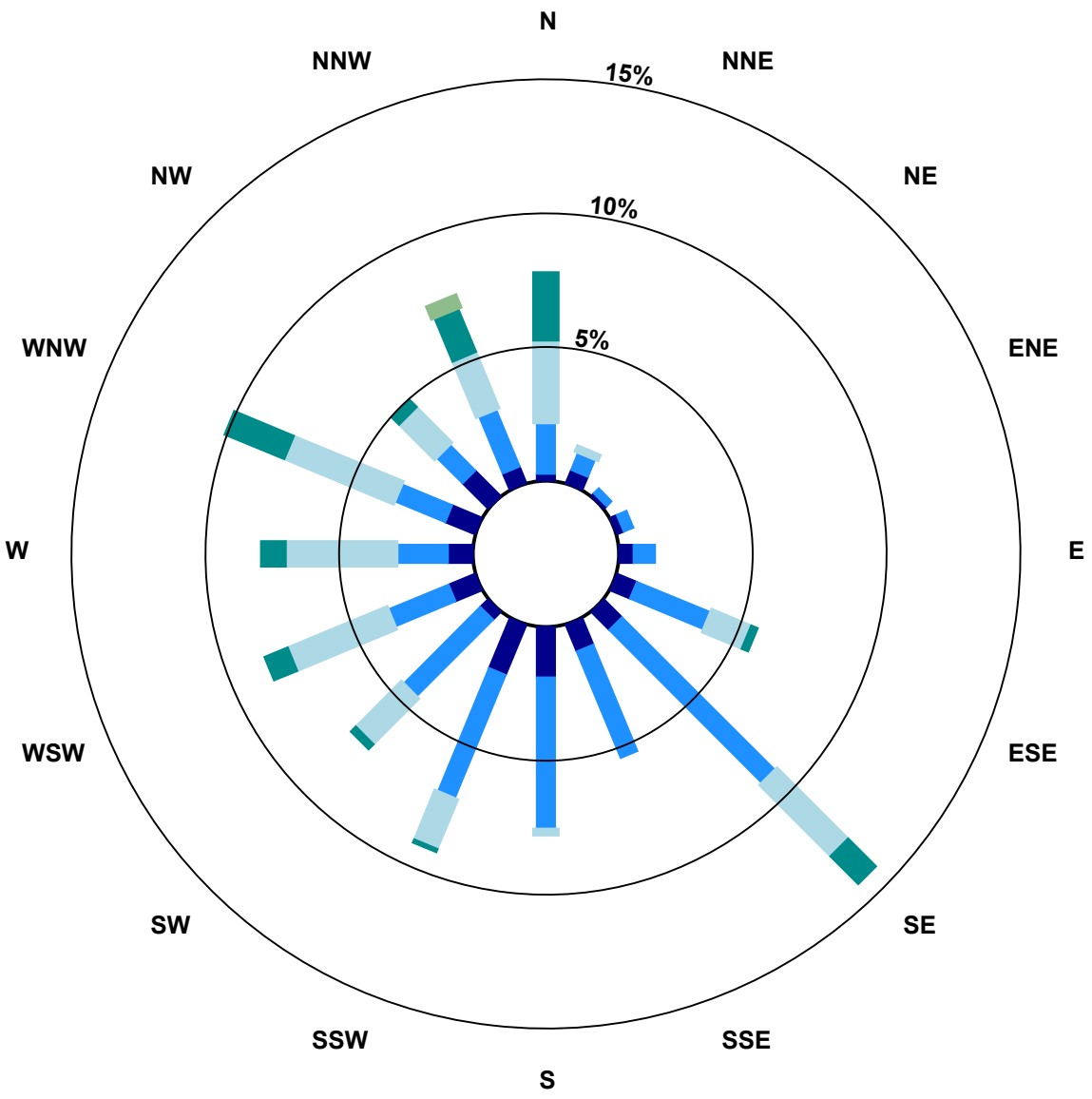
Total Number of Hours: 744

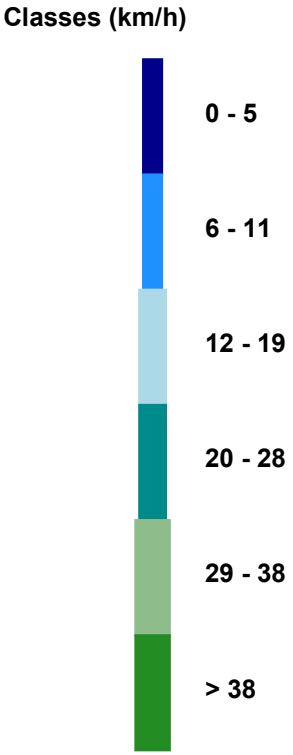
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Patricia McInnes





Total Number of Valid Hours: 744

Direction of Maximum Speed: 344 deg on Oct 27 08:00
Direction of Maximum Daily Speed Average: 329.4 deg on Oct 27

Direction of Minimum Speed: 144 deg on Oct 22 00:00

Direction of Minimum Daily Speed Average: 1.9 deg on Oct 20

Monthly Average Direction: 259.8 deg

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	342	349	0	356	353	352	357	354	355	352	348	355	350	348	348	347	340	321	258	291	308	292	265	265	346.1
2-Oct	255	249	256	238	196	200	191	184	154	159	161	127	168	161	181	177	162	149	155	171	174	169	157	151	172.1
3-Oct	160	173	187	175	170	202	209	219	206	197	229	238	238	242	251	250	227	217	226	251	254	244	247	254	231.1
4-Oct	257	256	269	267	254	267	297	309	304	313	306	315	289	253	311	322	341	343	326	320	306	292	294	279	297.6
5-Oct	270	274	268	269	251	240	222	227	223	200	202	223	264	276	264	281	275	281	285	281	272	262	287	302	260.2
6-Oct	4	5	353	2	348	350	353	329	345	341	24	92	29	183	168	191	182	121	131	134	140	138	132	141	31.7
7-Oct	131	132	137	134	138	147	140	131	133	137	138	130	129	122	119	107	111	138	170	190	195	114	28	310	133.1
8-Oct	314	339	298	291	290	282	267	293	291	276	271	268	267	266	272	261	274	271	263	286	287	284	282	286	280.9
9-Oct	279	230	256	229	231	217	220	229	242	243	236	238	241	251	247	238	238	218	213	193	210	190	236	212	236.1
10-Oct	194	203	157	160	163	193	168	172	170	136	143	140	133	183	202	198	193	186	197	209	203	203	190	161	182.6
11-Oct	150	136	118	129	128	126	339	348	352	341	339	333	314	300	295	297	293	292	299	308	310	317	339	349	321.0
12-Oct	348	344	348	351	352	355	356	355	4	354	354	355	354	348	6	7	348	336	330	322	321	307	295	296	349.4
13-Oct	293	302	313	298	287	252	244	236	220	207	222	229	208	203	196	191	186	179	182	179	182	170	171	155	213.0
14-Oct	152	176	189	170	162	178	193	206	210	219	214	225	215	214	229	226	215	198	188	200	218	219	216	210	207.6
15-Oct	212	211	205	181	175	153	137	141	148	160	136	208	235	253	241	232	215	214	239	243	244	253	263	258	221.4
16-Oct	243	239	237	239	246	237	223	198	182	169	177	152	120	130	117	203	202	183	202	197	214	218	200	201	204.4
17-Oct	212	238	238	234	241	237	256	288	282	280	264	281	296	296	299	315	304	293	290	278	264	262	275	282	273.3
18-Oct	317	278	272	261	168	221	189	179	171	139	123	261	285	282	271	287	276	247	234	240	224	201	200	176	252.9
19-Oct	151	164	135	132	140	125	125	104	83	330	84	37	72	72	76	80	70	47	352	356	24	1	346	346	61.4
20-Oct	356	7	347	342	340	338	325	329	329	316	290	325	205	235	205	213	203	183	178	173	171	149	139	148	283.3
21-Oct	125	121	135	163	187	226	236	244	254	285	299	294	292	297	309	303	315	338	355	353	306	299	183	144	281.5
22-Oct	105	109	129	95	118	131	129	144	138	142	162	156	111	113	118	117	125	127	126	128	125	124	124	123	125.4
23-Oct	126	128	128	131	133	128	128	130	133	134	135	130	110	120	122	120	122	121	129	125	136	136	121	131	127.2
24-Oct	129	125	125	125	125	131	135	128	131	138	134	133	137	118	117	119	116	111	124	131	121	123	123	103	125.4
25-Oct	129	120	118	354	9	9	317	261	285	210	269	267	274	277	253	260	243	224	204	226	230	196	222	236	256.9
26-Oct	139	174	202	159	97	314	66	275	339	358	12	12	12	6	4	360	349	346	3	10	9	6	7	4	3.9
27-Oct	2	357	355	355	349	346	340	344	344	339	339	335	327	312	317	308	302	301	302	300	298	298	297	297	329.4
28-Oct	292	290	288	288	284	281	285	286	290	286	281	276	278	296	278	281	259	248	250	245	224	205	210	201	276.9
29-Oct	173	151	138	122	121	112	92	86	85	88	56	14	23	17	2	13	0	357	347	320	342	344	336	328	47.0
30-Oct	324	333	327	260	254	284	315	286	282	234	254	223	204	193	219	215	205	183	183	213	192	214	192	186	228.1
31-Oct	189	168	186	192	190	167	154	141	140	141	135	130	136	134	130	132	135	130	135	139	142	138	133	130	141.3
	283.1	273.2	267.1	278.8	272.9	263.6	264.4	284.9	281.5	266.3	262.7	263.0	267.3	261.7	254.7	252.7	250.6	243.0	237.9	248.6	249.5	246.0	249.3	254.7	
	Diurnal Average																								

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 102 deg on Oct 6 13:00

Minimum Value: 6 deg on Oct 2 23:00

Percentiles: P_1 = 8 P_{10} = 11 Q_1 = 12 Median = 14 Q_3 = 18 P_{90} = 27 P_{99} = 76

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

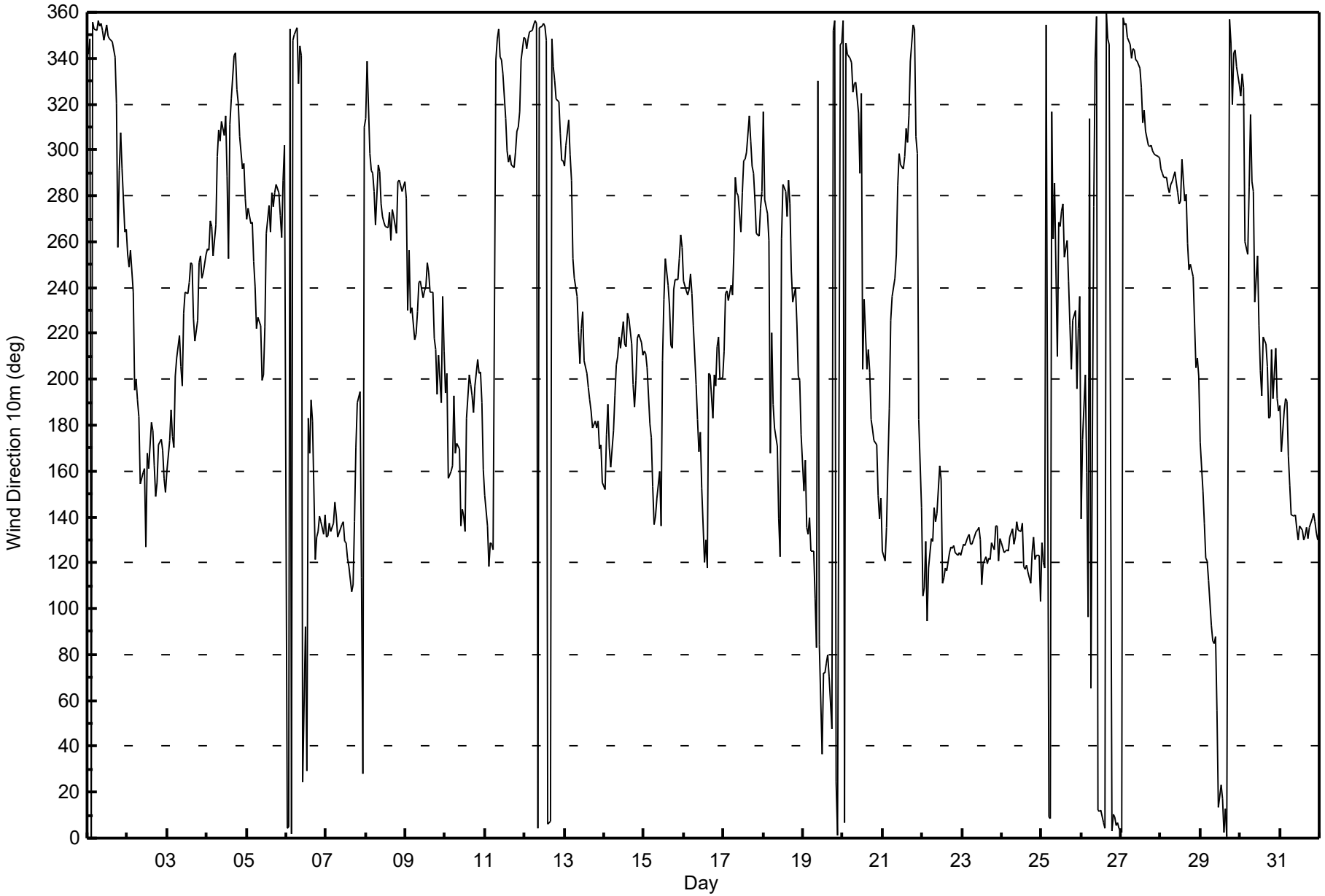
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	12	14	14	15	15	15	16	16	15	16	14	15	15	15	15	13	13	25	16	15	13	33	22	48	48
2-Oct	26	15	10	68	25	33	39	32	24	18	27	28	35	18	22	20	19	13	10	19	14	11	6	8	68
3-Oct	10	15	11	12	12	13	13	12	17	18	16	14	14	16	13	13	13	15	14	18	15	13	11	9	18
4-Oct	11	13	11	9	10	15	11	12	12	13	13	20	29	13	19	32	14	12	13	11	14	10	9	11	32
5-Oct	10	10	8	11	8	11	15	13	15	20	17	23	17	16	16	14	12	13	10	12	10	9	46	19	46
6-Oct	18	15	15	16	14	13	43	17	21	18	57	93	102	62	44	31	32	13	11	10	13	13	13	12	102
7-Oct	13	13	12	12	12	12	12	12	12	15	17	15	19	14	13	13	11	13	17	29	36	34	63	35	63
8-Oct	24	18	23	13	13	17	16	13	13	14	16	16	15	17	19	12	13	13	10	12	12	14	13	13	24
9-Oct	23	10	20	29	10	21	15	13	14	13	14	15	15	14	17	14	13	15	17	15	15	22	9	18	29
10-Oct	15	12	16	13	15	25	14	18	20	19	21	19	18	35	17	17	17	15	15	16	16	15	23	7	35
11-Oct	8	11	13	12	17	81	36	14	16	14	13	12	13	12	11	11	11	11	10	10	11	11	16	16	81
12-Oct	15	13	15	15	16	17	17	18	15	17	20	15	18	15	18	17	15	11	15	13	15	11	13	9	20
13-Oct	10	9	11	8	17	16	11	11	15	18	18	23	18	20	18	17	17	14	15	17	15	13	14	10	23
14-Oct	10	16	15	16	12	15	17	16	16	15	15	16	17	19	15	14	17	14	11	13	14	12	11	14	19
15-Oct	11	10	10	12	28	13	9	13	13	17	22	25	14	13	12	14	14	17	9	8	9	14	9	10	28
16-Oct	13	14	15	16	33	12	13	19	19	17	19	27	13	17	16	30	16	18	57	23	15	14	17	15	57
17-Oct	14	11	11	10	11	12	11	14	11	14	13	17	14	15	12	11	13	9	9	12	8	7	9	11	17
18-Oct	66	9	10	39	42	21	18	13	30	40	57	84	23	21	19	15	10	23	9	16	14	19	17	18	84
19-Oct	13	24	39	15	16	13	20	14	46	28	78	41	44	18	15	15	16	34	12	17	18	18	11	11	78
20-Oct	15	12	12	10	12	12	11	16	13	27	28	85	24	18	19	15	17	15	16	15	18	12	13	21	85
21-Oct	14	12	20	18	17	11	10	11	17	23	16	17	13	16	18	16	13	15	12	19	21	71	46	74	74
22-Oct	74	22	21	15	18	13	12	12	14	18	20	27	24	16	13	12	14	13	13	12	11	11	12	11	74
23-Oct	12	12	12	13	12	12	12	12	16	16	17	17	18	18	14	11	11	12	12	13	12	11	11	13	18
24-Oct	12	11	11	11	11	12	16	13	13	14	16	16	18	18	13	14	12	12	11	12	11	14	12	17	18
25-Oct	66	19	78	26	12	23	33	68	44	26	13	11	17	19	10	13	11	27	34	13	14	34	20	58	78
26-Oct	27	38	19	34	46	36	48	29	17	25	23	12	12	12	13	15	12	12	19	14	14	16	14	15	48
27-Oct	15	15	16	17	13	13	10	12	11	11	13	11	14	10	12	13	10	10	10	11	10	9	10	10	17
28-Oct	11	10	10	10	10	11	10	11	11	11	12	11	12	13	17	15	9	19	11	13	25	19	15	15	25
29-Oct	17	13	14	15	14	16	19	15	13	19	21	90	19	13	13	13	14	16	13	13	10	10	10	12	90
30-Oct	14	13	31	9	29	35	29	28	28	20	11	25	18	15	19	16	17	13	16	23	24	22	18	14	35
31-Oct	16	15	17	16	10	16	15	11	12	13	14	15	15	14	13	13	14	13	13	15	15	13	12	13	17
	74	38	78	68	46	81	48	68	46	40	78	93	102	62	44	32	32	34	57	29	36	71	63	74	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Patricia McInnes - October 2025



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS07
ATHABASCA VALLEY
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ATHABASCA VALLEY (AMS07)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	697	37	47	98.66	-	-	6.1	0	1.3	0
TRS (ppb) Average	704	36	40	99.46	2.6	0	2.5	0	0.7	0
THC (ppm) Average	703	37	41	99.46	-	-	2.6	-	2.2	-
NMHC (ppm) Average	703	37	41	99.46	-	-	0.567	-	0.03	-
CH4(ppm) Average	703	37	41	99.46	-	-	2.4	-	2.1	-
O3 (ppb) Average	696	36	48	98.39	-	-	38.6	0	27.2	-
NO2 (ppb) Average	695	36	49	98.25	-	-	25.9	0	10.4	-
NO (ppb) Average	695	36	49	98.25	-	-	26.3	-	4.9	-
NOX (ppb) Average	695	36	49	98.25	-	-	39.1	-	13.9	-
PM2.5 (ug/m3) Average	741	2	3	99.87	-	-	26.6	0	11.9	0
CO(ppm) Average	698	35	46	98.52	-	-	0.4	0	0.2	-
Temperature 2 m (C) Average	744	0	0	100	-	-	23	-	10.7	-
Relative Humidity (%) Average	744	0	0	100	-	-	99.2	-	92.4	-
Barometric Pressure (inHg) Average	744	0	0	100	-	-	29.3	-	29.3	-
Wind Speed 10 m (km/h) Average	744	0	0	100	-	-	32	-	25	-
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ATHABASCA VALLEY (AMS07)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	697	0.3	0.5	-	0	0	0.1	0.1	0.3	0.6	6.1
TRS (ppb) Average	704	0.21	0.2	-	0	0.1	0.1	0.2	0.2	0.4	2.5
THC (ppm) Average	703	2.07	0.1	-	2	2	2	2.1	2.1	2.1	2.6
NMHC (ppm) Average	703	0.003	0.028	-	0	0	0	0	0	0	0.567
CH4(ppm) Average	703	2.07	0.1	-	2	2	2	2.1	2.1	2.1	2.4
O3 (ppb) Average	696	16.22	7.9	-	0.8	4.9	9.8	17.1	21.7	26.8	38.6
NO2 (ppb) Average	695	5.33	4.2	-	0.4	1.1	2.3	4.1	7.2	11.5	25.9
NO (ppb) Average	695	1.99	3	-	0	0.1	0.3	0.9	2.4	5.1	26.3
NOX (ppb) Average	695	7.32	6.5	-	0.4	1.4	2.7	5.3	9.2	16.2	39.1
PM2.5 (ug/m3) Average	741	4.29	3	-	0.1	1	2.6	3.9	5.5	7	26.6
CO(ppm) Average	698	0.14	0	-	0.1	0.1	0.1	0.1	0.1	0.2	0.4
Temperature 2 m (C) Average	744	5.69	4.5	-	-1.7	0.7	2.2	4.7	8.7	11.9	23
Relative Humidity (%) Average	744	72.27	16.4	-	25.4	47.1	61.6	74.8	85.4	91.8	99.2
Barometric Pressure (inHg) Average	744	28.9	0.2	-	28.3	28.5	28.7	28.9	29.1	29.2	29.3
Wind Speed 10 m (km/h) Average	744	11.1	6	-	0	4	6	10	15	20	32
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ATHABASCA VALLEY (AMS07)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
SO2	02 Oct 2025 13:00	02 Oct 2025 15:00	3	Maintenance - WBEA internal audit
TRS	02 Oct 2025 12:00	02 Oct 2025 13:00	2	Maintenance - WBEA internal audit
THC/NMHC/CH4	02 Oct 2025 15:00	02 Oct 2025 16:00	2	Maintenance - WBEA internal audit
NOx	02 Oct 2025 12:00	02 Oct 2025 15:00	4	Maintenance - WBEA internal audit
O3	03 Oct 2025 10:00	03 Oct 2025 11:00	2	Maintenance - WBEA internal audit
CO	03 Oct 2025 11:00	03 Oct 2025 12:00	2	Maintenance - WBEA internal audit
PM2.5	03 Oct 2025 12:00	03 Oct 2025 12:00	1	Maintenance - WBEA internal audit
CO,O3,NOx, TRS,	09 Oct 2025 13:00	09 Oct 2025 14:00	2	Maintenance - sample manifold cleaned
SO2	22 Oct 2025 09:00	22 Oct 2025 15:00	7	Maintenance - ECC External Audit
O3	22 Oct 2025 09:00	22 Oct 2025 15:00	7	Maintenance - ECC External Audit
NOx	22 Oct 2025 09:00	22 Oct 2025 15:00	7	Maintenance - ECC External Audit
CO	22 Oct 2025 09:00	22 Oct 2025 15:00	7	Maintenance - ECC External Audit
THC/NMHC/CH4	23 Oct 2025 15:00	23 Oct 2025 16:00	2	Maintenance - replaced support gas cylinder
O3	29 Oct 2025 11:00	29 Oct 2025 11:00	1	Maintenance - WBEA internal audit

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Athabasca Valley - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 6.1 ppb on Oct 20 13:00

Maximum Daily Average: 1.3 ppb on Oct 6

Minimum Value: 0.0 ppb on Oct 21 18:00

Minimum Daily Average: 0.0 ppb on Oct 28

Maximum Diurnal Average: 0.7 ppb at hour 13

Minimum Diurnal Average: 0.2 ppb at hour 21

Monthly Average: 0.30 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.3 P_{90} = 0.6 P_{99} = 2.7

Hours in Service:	744
Hours of Data:	697
Hours of Missing Data:	47
Hours of Calibration:	37
Percent Operational Time:	98.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.2	0.3	0.3	Z	0.3	0.9	1.0	0.6	1.0	0.9	1.0	1.0	0.8	1.1	1.9	2.7	1.4	0.7	0.5	0.5	0.4	0.3	0.2	0.2	0.8	2.7
2-Oct	0.2	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.3	M	M	M	0.7	0.7	0.6	0.4	0.3	0.3	0.2	0.3	0.2	0.3	0.7
3-Oct	0.2	0.2	0.2	0.2	0.2	Z	0.3	0.3	0.3	0.4	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.4
4-Oct	Z	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.5	2.3	0.9	0.6	0.2	0.4	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.3	2.3
5-Oct	0.0	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.3
6-Oct	0.1	0.0	Z	0.2	0.4	0.2	0.1	0.1	1.7	2.1	4.2	3.1	3.7	2.3	1.9	1.9	1.9	1.5	1.2	1.0	0.6	0.4	0.3	0.4	1.3	4.2
7-Oct	0.3	0.3	0.2	Z	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.4	0.6
8-Oct	0.1	0.3	0.3	0.2	Z	0.3	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.3
9-Oct	0.0	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	C	C	C	C	C	C	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	--	0.2
10-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.6	0.6	0.4	0.5	0.9	0.5	0.4	0.4	0.5	0.6	0.5	0.6	0.4	0.9
11-Oct	0.7	Z	0.7	0.5	0.4	0.4	0.4	0.5	0.3	1.7	2.7	1.7	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.6	0.4	0.5	2.7
12-Oct	0.4	0.2	Z	0.2	0.1	0.7	0.8	0.3	0.1	0.9	0.2	1.3	1.6	0.6	0.1	0.0	1.6	0.5	0.3	0.4	0.2	0.2	0.2	0.2	0.5	1.6
13-Oct	0.2	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.1	0.2	0.3	0.6	0.9	0.9	0.2	0.9
14-Oct	0.9	1.1	0.8	0.7	Z	0.6	0.5	0.7	1.5	1.4	1.1	0.8	0.5	0.4	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.4	0.3	0.3	0.6	1.5
15-Oct	0.3	0.3	0.3	0.2	0.2	Z	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
16-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.6	0.6	0.5	0.4	0.4	0.6	0.4	0.3	0.4	0.4	0.3	0.2	0.3	0.6
17-Oct	0.2	Z	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.3	0.2	0.1	0.3
18-Oct	0.1	0.2	Z	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
19-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.2
20-Oct	0.0	0.0	0.0	0.1	Z	0.4	0.4	0.3	0.2	0.9	3.1	3.0	6.1	0.6	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.7	6.1
21-Oct	0.2	0.2	0.2	0.2	0.2	Z	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.2
22-Oct	Z	0.1	0.0	0.0	0.1	0.0	0.0	0.0	M	M	M	M	M	M	M	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	--	0.3
23-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.5	0.7	0.7	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7
24-Oct	0.4	0.5	Z	0.8	0.7	0.5	0.4	0.3	0.2	0.2	0.3	0.5	0.6	0.7	0.7	0.8	0.8	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.4	0.8
25-Oct	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
26-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
27-Oct	0.1	0.0	0.0	0.0	0.4	Z	0.4	0.5	0.7	0.1	0.1	0.2	2.1	0.7	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.1
28-Oct	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
29-Oct	0.0	Z	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.1	0.4
30-Oct	0.4	0.5	Z	0.4	1.1	1.2	0.4	0.3	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2
31-Oct	0.0	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.4	0.6	0.6	0.6	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6
	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.4	0.7	0.6	0.7	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.9	1.1	0.8	0.8	1.1	1.2	1.0	0.7	1.7	2.1	4.2	3.1	6.1	2.3	1.9	2.7	1.9	1.5	1.2	1.0	0.6	0.6	0.9	0.9	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

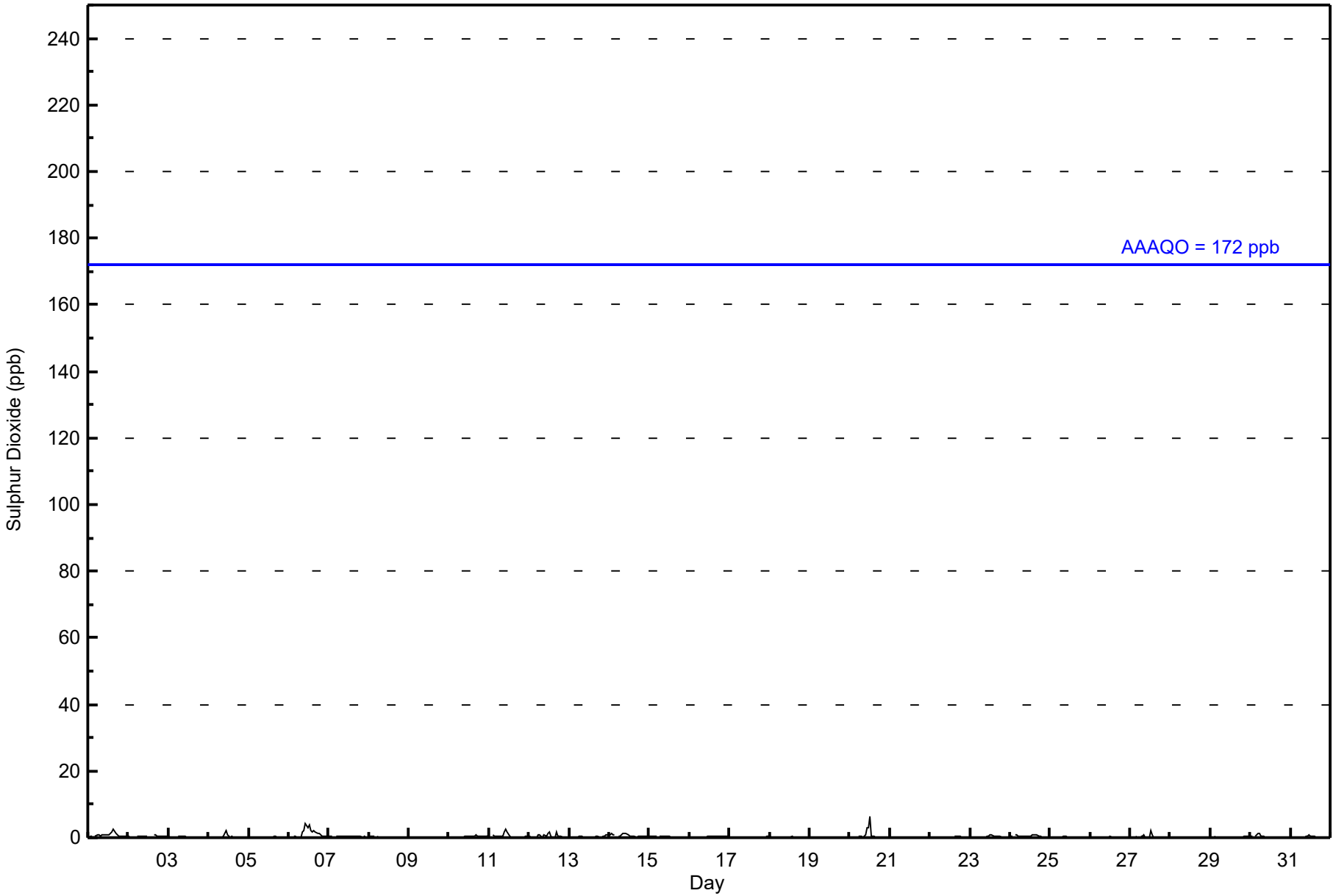
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Athabasca Valley - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	697	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 697

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Athabasca Valley - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	8	4	7	14	21	184	65	31	29	35	51	32	61	33	69	53	697
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	8	4	7	14	21	184	65	31	29	35	51	32	61	33	69	53	697

Total Number of Valid Hours: 697

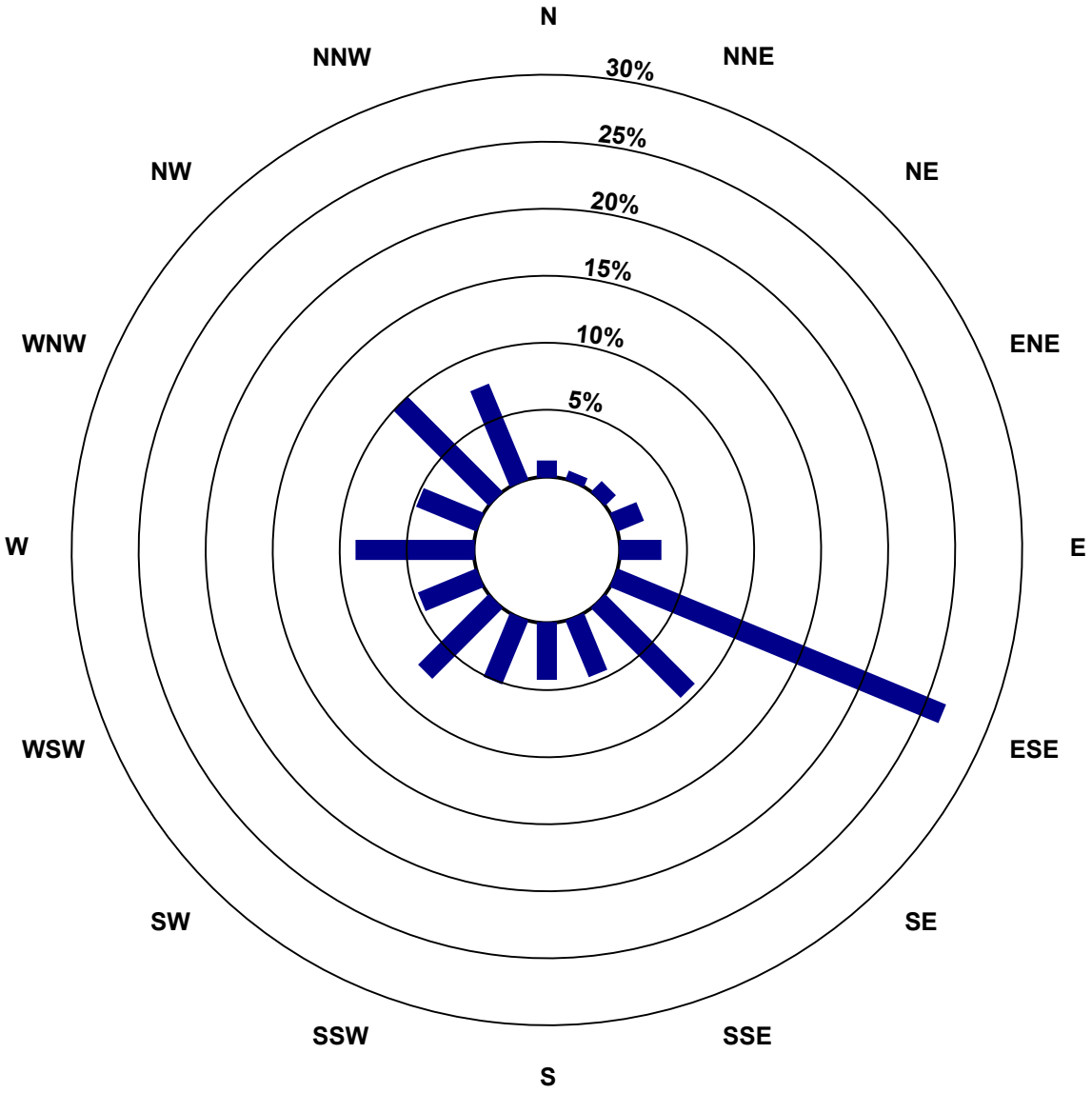
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Athabasca Valley



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

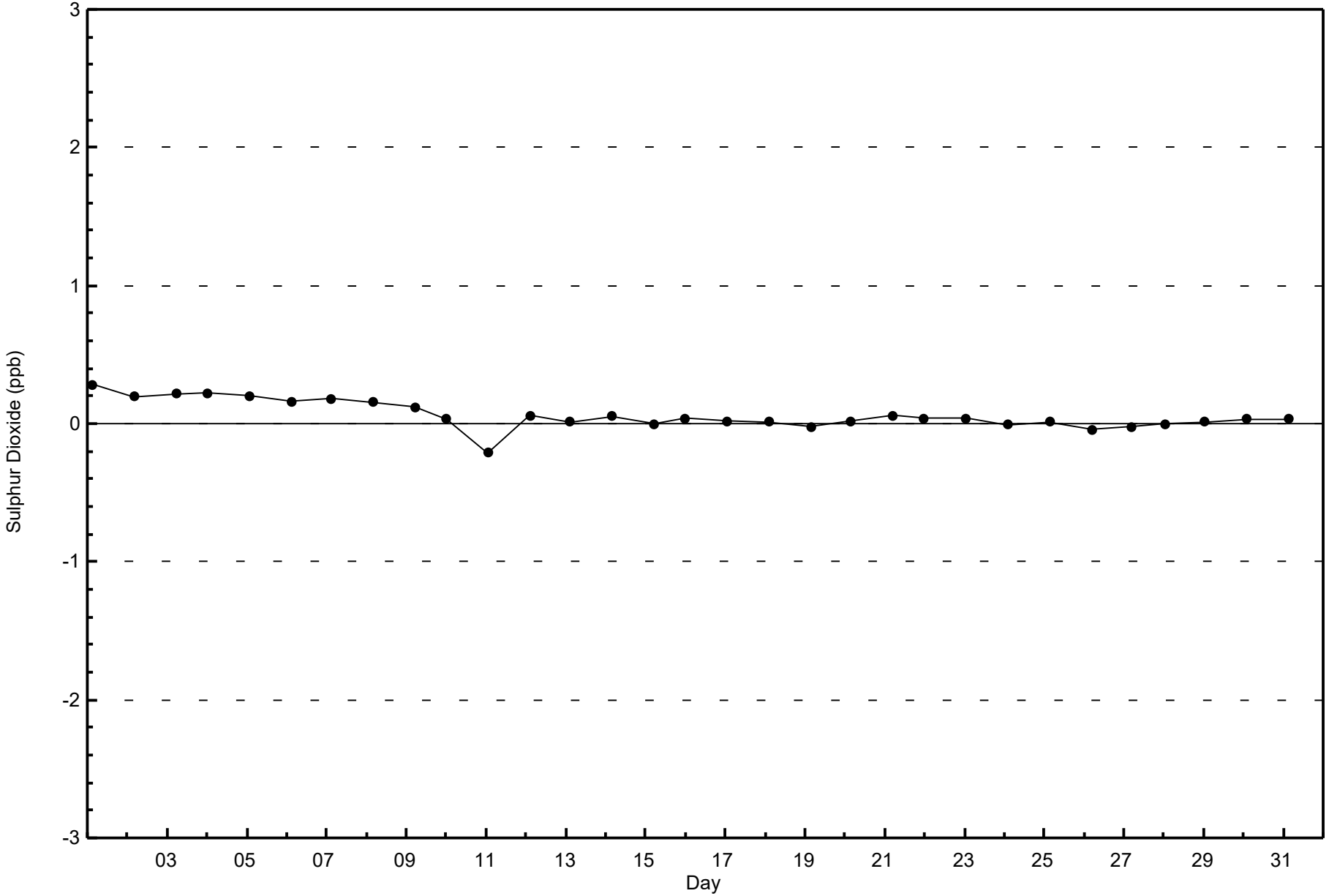
Total Number of Valid Hours: 697

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Athabasca Valley - October 2025

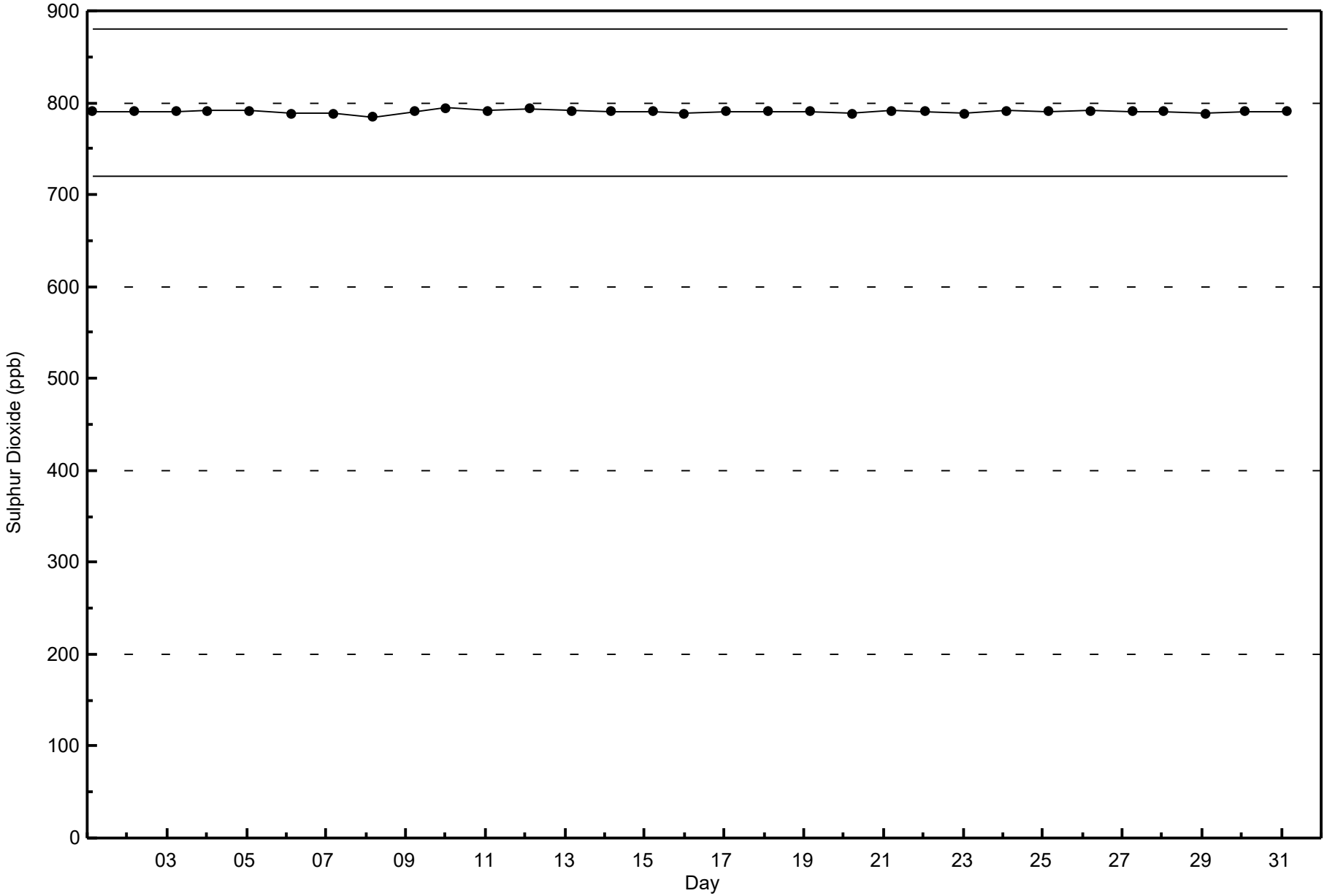


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Athabasca Valley - October 2025



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Athabasca Valley - October 2025

Number of Exceedences (AAAQG): 30-Min: 0

Maximum Value: 2.6 ppb on Oct 19 10:00 Maximum Daily Average: 0.7 ppb on Oct 19

Minimum Value: 0.0 ppb on Oct 28 19:30 Minimum Daily Average: 0.1 ppb on Oct 28

Maximum Diurnal Average: 0.3 ppb at hour 11 Minimum Diurnal Average: 0.1 ppb at hour 22

Monthly Average: 0.21 ppb Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.4 P_{99} = 1.2

Periods in Service:	1488
Periods of Valid Data:	1408
Periods of Invalid Data:	80
Periods of Calibration:	72
Percent Operational Time:	99.5

Period Ending At (MST)

Day	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
1-Oct	1.8	1.2	0.8	0.8	Z	0.4	0.4	0.6	0.5	0.4	0.6	0.4	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.5	1.8
	1.1	1.0	0.7	1.1	SP	0.5	0.5	0.6	0.7	0.6	0.7	0.4	0.4	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.2	0.2	0.1	0.2		
2-Oct	0.2	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.2	M	M	M	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.1	0.1	0.1	0.1	0.1	SP	0.2	0.1	0.1	0.1	0.2	M	M	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
3-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3
	SP	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
4-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.4	0.4	0.2	0.5	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.7
	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.7	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.1		
5-Oct	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1		
6-Oct	0.2	0.1	0.4	Z	0.2	0.4	0.6	0.7	0.4	0.3	0.4	0.4	0.4	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.8
	0.1	0.2	0.4	SP	0.3	0.5	0.3	0.8	0.4	0.4	0.4	0.4	0.4	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1		
7-Oct	0.2	0.2	0.3	0.3	Z	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.7	0.3	1.8
	0.2	0.2	0.3	0.3	SP	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.8		
8-Oct	1.3	0.4	0.5	0.8	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	1.3
	1.0	0.5	0.9	0.3	0.1	SP	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1		
9-Oct	Z	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	M	M	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	SP	0.1	0.2	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.1	M	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1		
10-Oct	0.1	Z	0.2	0.1	0.3	0.4	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.5
	0.1	SP	0.2	0.2	0.4	0.5	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2		
11-Oct	0.2	0.1	Z	0.2	0.2	0.3	1.2	1.1	0.5	0.4	0.8	1.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.3	0.4	1.4
	0.2	0.2	SP	0.2	0.3	0.4	1.4	0.8	0.3	0.6	1.0	0.8	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.3	0.2		
12-Oct	0.2	0.3	0.3	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.5	0.3	0.2	0.4	0.2	0.1	0.1	0.2	0.6
	0.1	0.5	0.2	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.2	0.1	0.1	0.1	0.6	0.4	0.4	0.2	0.3	0.1	0.1	0.1		
13-Oct	0.1	0.3	0.2	0.1	Z	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.3
	0.1	0.3	0.1	0.1	SP	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2		
14-Oct	0.2	0.1	0.2	0.1	0.1	Z	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.1	0.2	0.1	0.1	0.1	SP	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
15-Oct	Z	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
	SP	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		

Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Athabasca Valley - October 2025

Day	Period Ending At (MST) 00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
16-Oct	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
17-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
18-Oct	0.1	0.1	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.1	0.2	0.1	SP	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
19-Oct	0.2	0.4	0.4	0.5	Z	0.6	0.5	0.4	0.4	0.5	2.5	1.7	0.5	0.6	1.7	0.2	0.1	0.1	0.5	1.0	0.5	0.4	0.4	0.4	0.7	2.6
	0.3	0.4	0.4	0.5	SP	0.5	0.4	0.4	0.4	2.6	2.4	0.7	0.6	1.8	0.4	0.1	0.1	0.1	0.8	1.1	0.4	0.5	0.3	0.5		
20-Oct	0.7	0.6	0.6	0.2	0.3	Z	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.7
	0.7	0.6	0.2	0.3	0.3	SP	0.2	0.3	0.3	0.3	0.4	0.4	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2		
21-Oct	Z	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.9	1.0	0.6	0.1	0.1	0.1	0.2	1.0
	SP	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.7	0.8	0.2	0.1	0.1	0.1		
22-Oct	0.1	Z	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.3	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
	0.1	SP	0.1	0.1	0.1	0.2	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
23-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	C	C	C	C	C	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.2	0.2	0.2	C	C	C	C	C	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
24-Oct	0.1	0.1	0.1	Z	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	SP	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1		
25-Oct	0.1	0.1	0.1	2.4	Z	0.9	0.6	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	2.4
	0.1	0.1	0.2	1.2	SP	0.2	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
26-Oct	0.1	0.1	0.2	0.2	0.2	Z	0.4	0.4	0.6	0.8	0.6	0.7	0.9	0.5	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.4	1.6
	0.2	0.1	0.2	0.2	0.2	SP	0.4	0.5	1.6	1.0	0.9	0.9	0.9	0.5	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1		
27-Oct	Z	0.1	0.2	0.1	0.2	0.3	0.1	0.2	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
	SP	0.2	0.2	0.1	0.2	0.2	0.1	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
28-Oct	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.2
	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0		
29-Oct	0.0	0.1	Z	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.9	0.4	0.6	0.2	0.5	0.2	0.4	0.2	0.6	0.4	0.2	0.9
	0.1	0.1	SP	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.6	0.3	0.5	0.2	0.4	0.2	0.7	0.1	0.9	0.2		
30-Oct	0.2	0.2	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.2	0.1	0.2	SP	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
31-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	0.1	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	Diurnal Average	
	1.8	1.2	0.9	2.4	0.4	0.9	1.4	1.1	1.6	2.6	2.5	1.7	0.9	1.8	1.7	0.7	0.6	0.5	0.9	1.1	0.7	0.5	0.9	1.8	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance SP - Span

Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb

Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

Athabasca Valley - October 2025

Maximum Value: 2.5 ppb on Oct 19 11:00

Maximum Daily Average: 0.7 ppb on Oct 19

Minimum Value: 0.0 ppb on Oct 28 18:00

Minimum Daily Average: 0.1 ppb on Oct 28

Maximum Diurnal Average: 0.3 ppb at hour 11

Minimum Diurnal Average: 0.1 ppb at hour 22

Monthly Average: 0.21 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.1 Median = 0.2 Q_3 = 0.2 P_{90} = 0.4 P_{99} = 1.2

Hours in Service:	744
Hours of Data:	704
Hours of Missing Data:	40
Hours of Calibration:	36
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.4	1.1	0.8	1.0	Z	0.4	0.5	0.6	0.6	0.5	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.5	1.4
2-Oct	0.2	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.2	M	M	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
3-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3
4-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.4
5-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2
6-Oct	0.1	0.1	0.4	Z	0.3	0.4	0.5	0.7	0.4	0.3	0.4	0.4	0.4	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.7
7-Oct	0.2	0.2	0.3	0.3	Z	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.2	0.3	1.2
8-Oct	1.2	0.5	0.7	0.5	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	1.2
9-Oct	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	M	M	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
10-Oct	0.1	Z	0.2	0.2	0.4	0.4	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5
11-Oct	0.2	0.2	Z	0.2	0.2	0.4	1.3	1.0	0.4	0.5	0.9	1.0	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.4	1.3
12-Oct	0.2	0.4	0.3	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.4	0.5	0.4	0.2	0.3	0.1	0.1	0.1	0.2	0.5
13-Oct	0.1	0.3	0.1	0.1	Z	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.3
14-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
15-Oct	Z	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
16-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
17-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
18-Oct	0.1	0.1	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
19-Oct	0.2	0.4	0.4	0.5	Z	0.5	0.5	0.4	0.4	1.6	2.5	1.2	0.6	1.2	1.0	0.2	0.1	0.1	0.6	1.0	0.4	0.5	0.3	0.4	0.7	2.5
20-Oct	0.7	0.6	0.4	0.2	0.3	Z	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.7
21-Oct	Z	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.8	0.9	0.4	0.1	0.1	0.1	0.2	0.9
22-Oct	0.1	Z	0.1	0.1	0.1	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
23-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.2	C	C	C	C	C	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
24-Oct	0.1	0.1	0.1	Z	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
25-Oct	0.1	0.1	0.2	1.8	Z	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	1.8
26-Oct	0.2	0.1	0.2	0.2	0.2	Z	0.4	0.4	1.1	0.9	0.7	0.8	0.9	0.5	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.4	1.1
27-Oct	Z	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
28-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1
29-Oct	0.0	0.1	Z	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.8	0.4	0.6	0.2	0.5	0.2	0.5	0.2	0.7	0.3	0.2	0.8
30-Oct	0.2	0.2	0.2	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
31-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	Diurnal Average	
	1.4	1.1	0.8	1.8	0.4	0.5	1.3	1.0	1.1	1.6	2.5	1.2	0.9	1.2	1.0	0.4	0.6	0.5	0.8	1.0	0.5	0.5	0.7	1.2	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

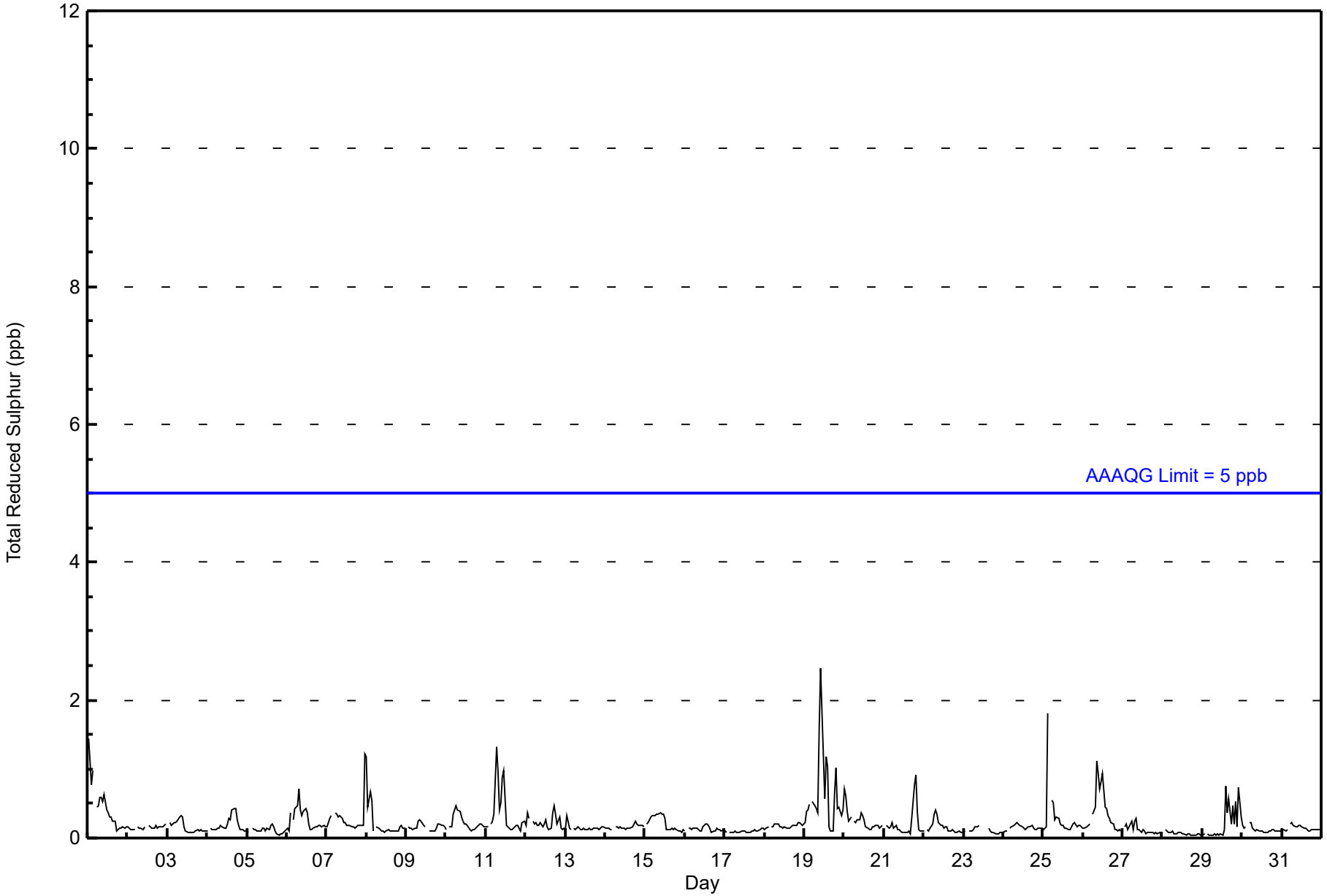
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA

Wood Buffalo Environmental Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Athabasca Valley - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	704	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Reduced Sulphur (TRS) - ppb

Athabasca Valley - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	8	4	7	14	21	183	67	34	28	40	49	33	58	35	73	50	704
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	8	4	7	14	21	183	67	34	28	40	49	33	58	35	73	50	704

Total Number of Valid Hours: 704

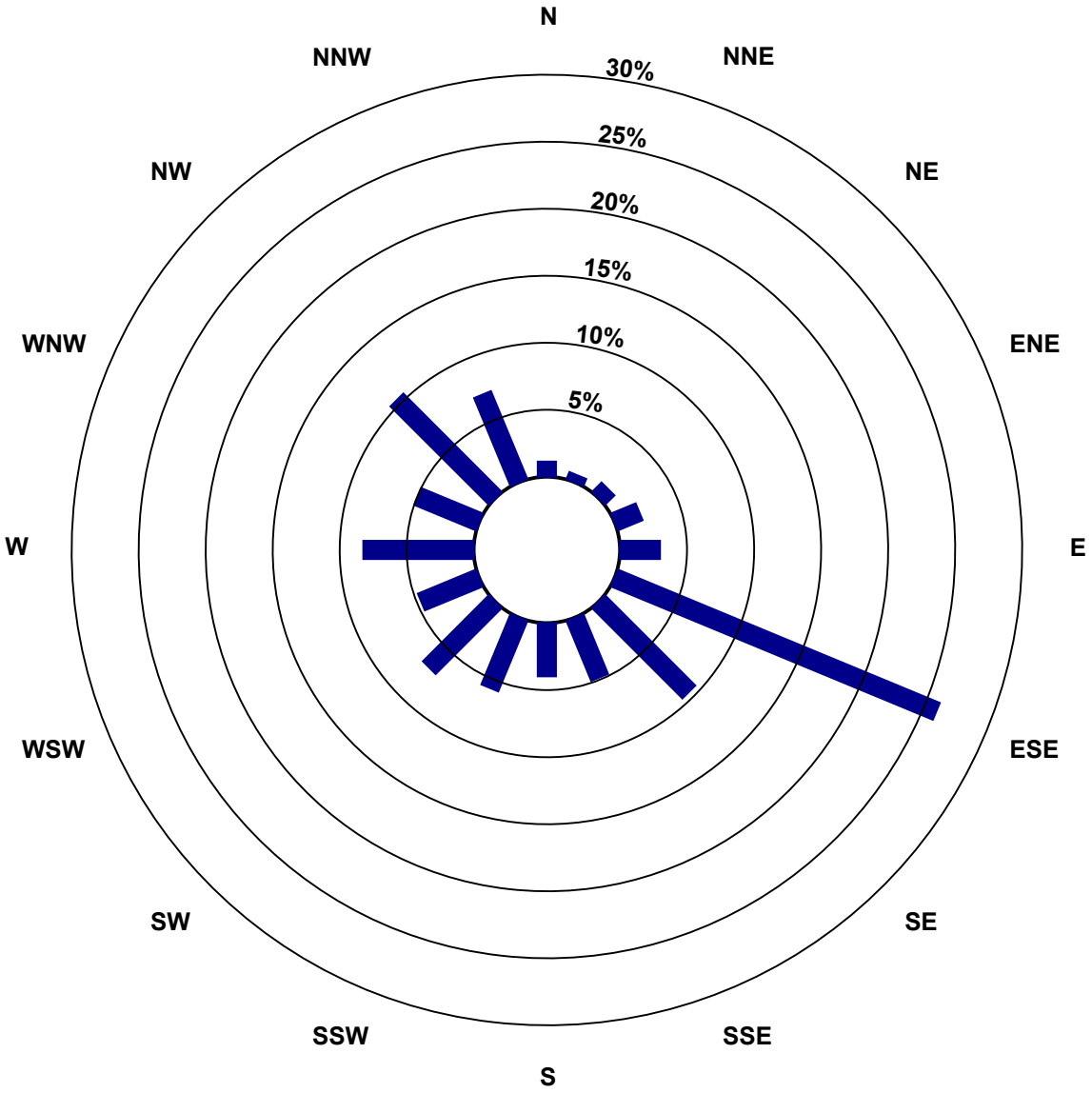
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Reduced Sulphur (TRS) - ppb

Athabasca Valley



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

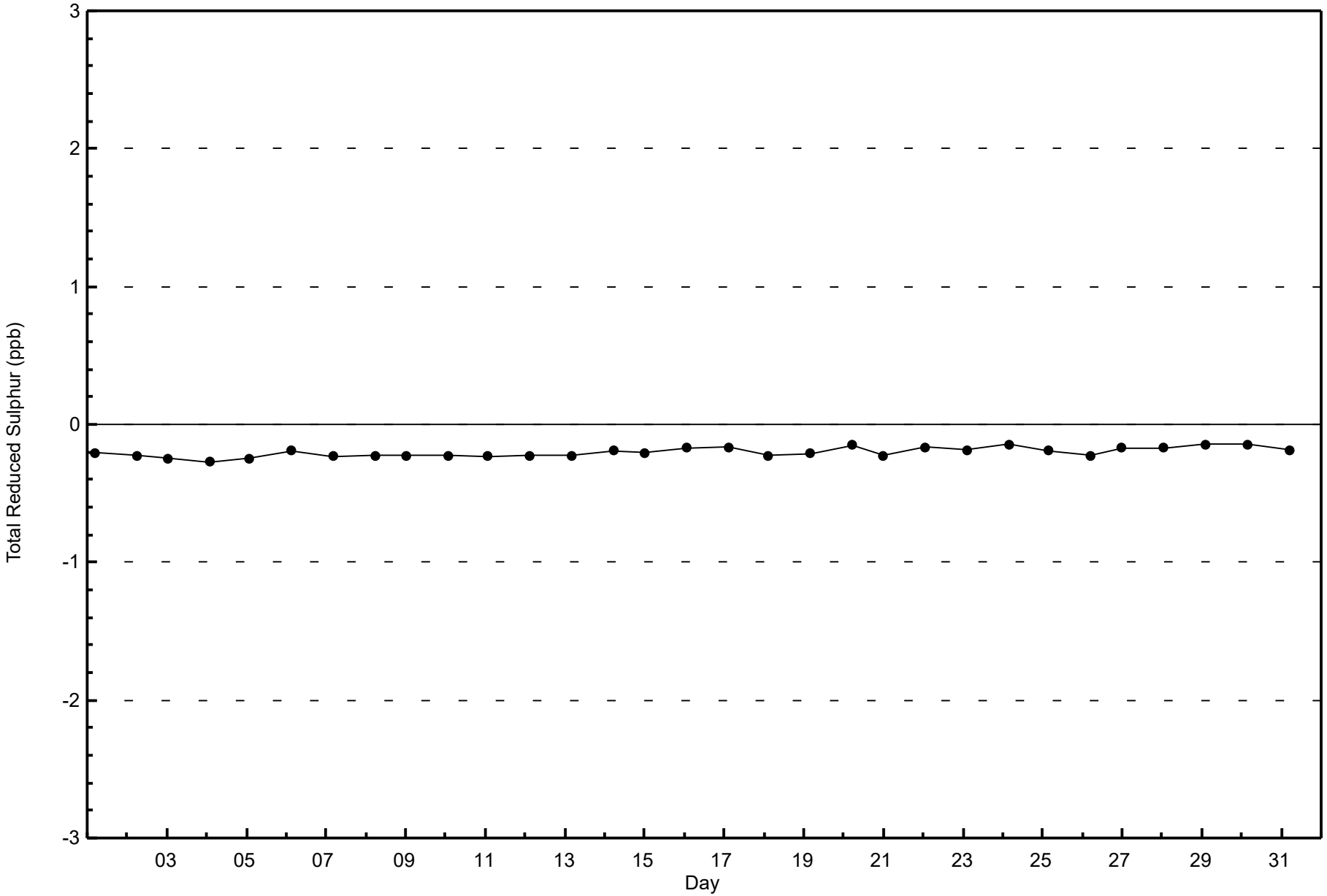
Total Number of Valid Hours: 704

Wood Buffalo Environmental Association

Zero Responses

Total Reduced Sulphur (TRS) - ppb

Athabasca Valley - October 2025

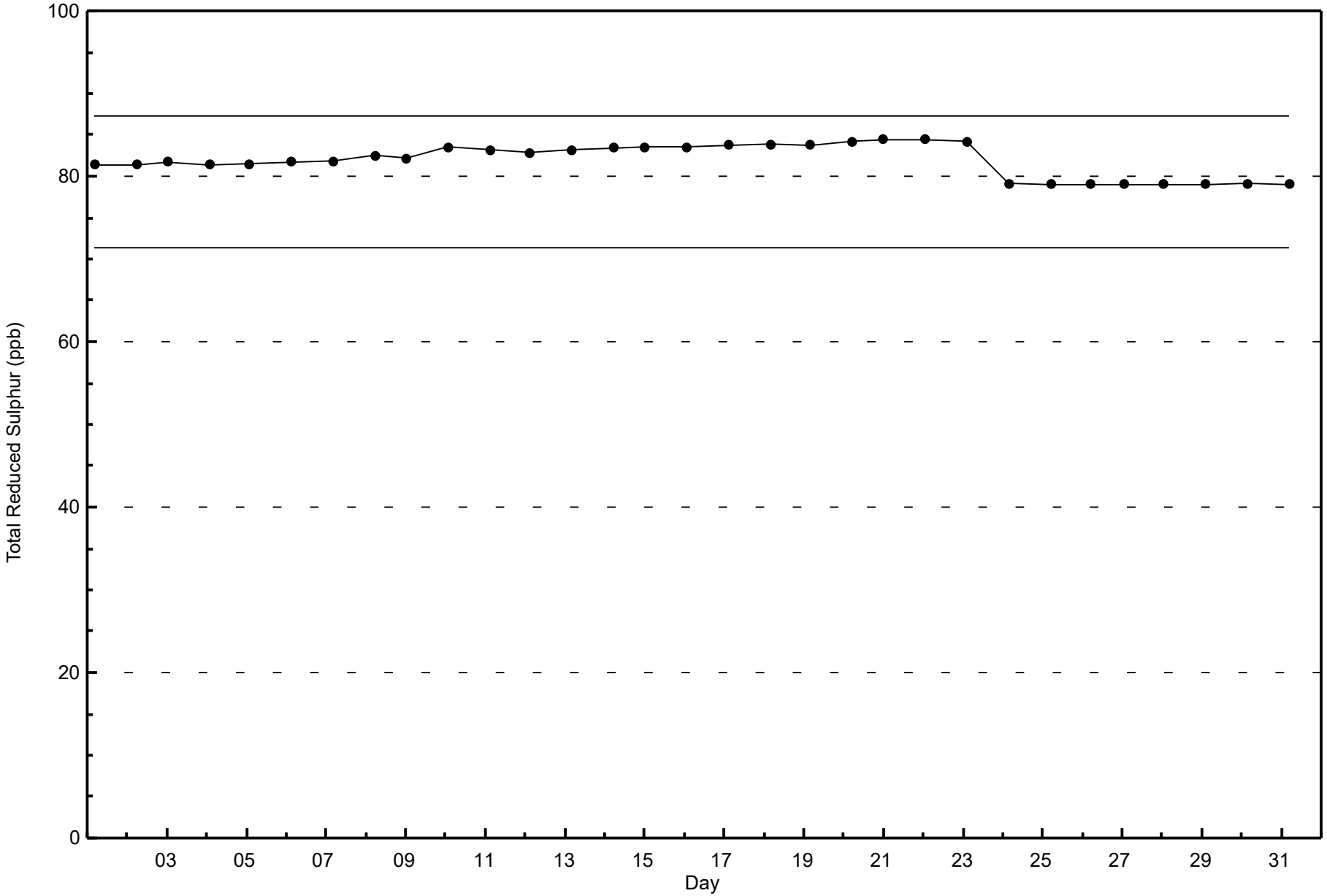


Wood Buffalo Environmental Association

Span Responses

Total Reduced Sulphur (TRS) - ppb

Athabasca Valley - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Athabasca Valley - October 2025

Maximum Value: 2.6 ppm on Oct 16 14:00

Maximum Daily Average: 2.2 ppm on Oct 16

Minimum Value: 2.0 ppm on Oct 8 06:00

Minimum Daily Average: 2.0 ppm on Oct 28

Maximum Diurnal Average: 2.1 ppm at hour 3

Minimum Diurnal Average: 2.0 ppm at hour 17

Monthly Average: 2.07 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.0 Median = 2.1 Q_3 = 2.1 P_{90} = 2.1 P_{99} = 2.3

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	37
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.2	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
2-Oct	2.1	2.1	2.1	2.2	Z	2.2	2.2	2.1	2.1	2.1	2.4	2.1	2.1	2.1	M	M	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4
3-Oct	2.2	2.2	2.3	2.3	2.2	Z	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3
4-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5-Oct	2.0	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1
6-Oct	2.0	2.0	Z	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
7-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
8-Oct	2.1	2.3	2.3	2.2	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3
9-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.1	2.1	2.1	C	C	C	C	C	C	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.2	--	2.2
10-Oct	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.1	2.2
11-Oct	2.2	Z	2.1	2.2	2.2	2.2	2.2	2.3	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3
12-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1
13-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
14-Oct	2.1	2.2	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
15-Oct	2.1	2.1	2.2	2.2	2.2	Z	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
16-Oct	Z	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.6	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.2	2.6
17-Oct	2.2	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2
18-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.4	2.2	2.1	2.4
19-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.3	2.3	2.1	2.0	2.1	2.1	2.1	2.3
20-Oct	2.1	2.1	2.1	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
21-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
22-Oct	Z	2.1	2.1	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2
23-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	M	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
24-Oct	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
25-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.3
26-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.3
27-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
28-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
29-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2
30-Oct	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.2
31-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	Diurnal Average	
	2.2	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.2	2.2	2.4	2.2	2.2	2.6	2.3	2.2	2.2	2.3	2.3	2.3	2.2	2.3	2.4	2.2	Diurnal Maximum	

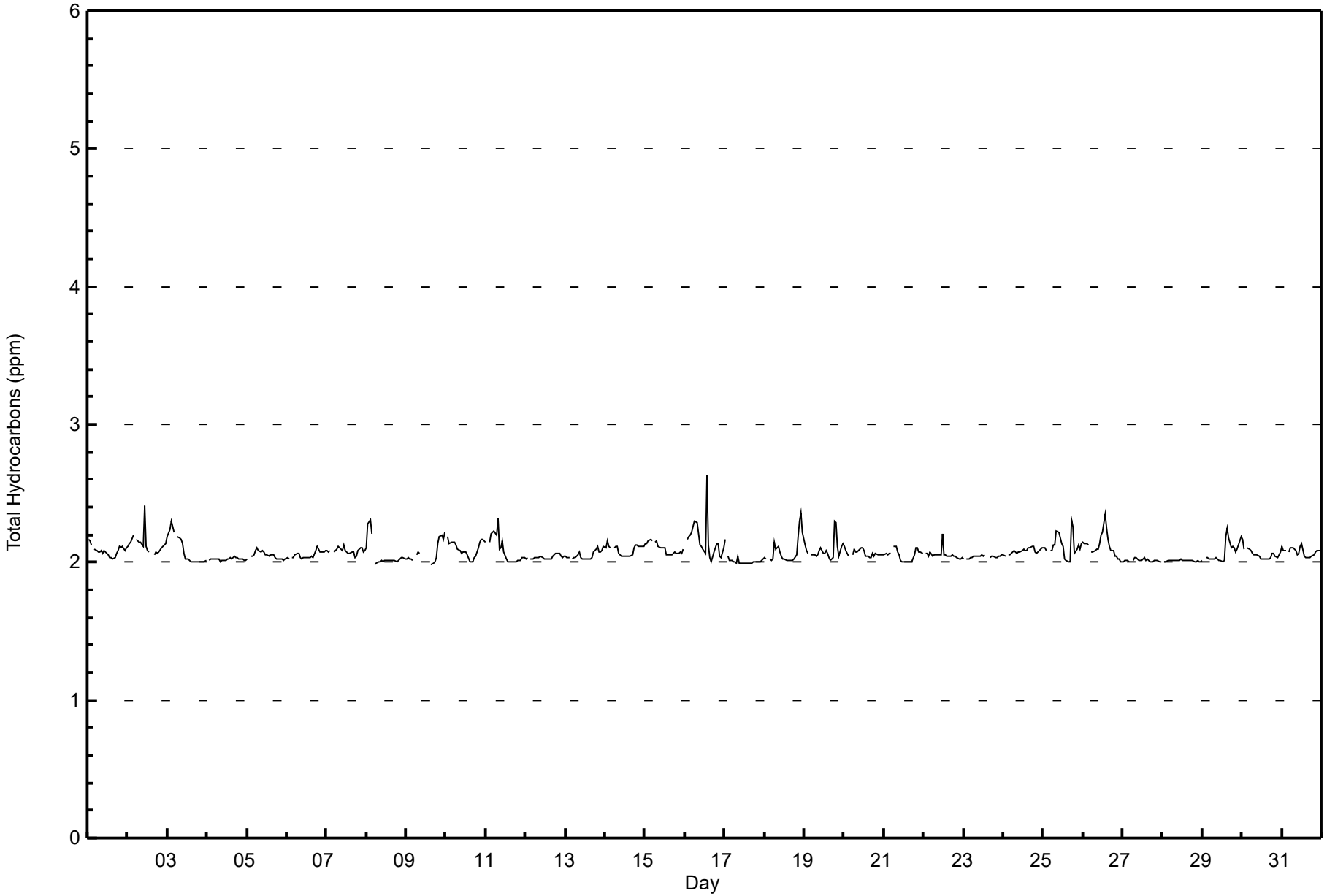
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Athabasca Valley - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	328	46.66	46.66
2.1 - 3.0	375	53.34	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Athabasca Valley - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	5	3	5	7	4	39	5	13	18	25	42	27	58	24	31	22	328
2.1 - 3.0	3	1	2	7	17	151	60	18	11	10	9	5	3	9	38	31	375
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	8	4	7	14	21	190	65	31	29	35	51	32	61	33	69	53	703

Total Number of Valid Hours: 703

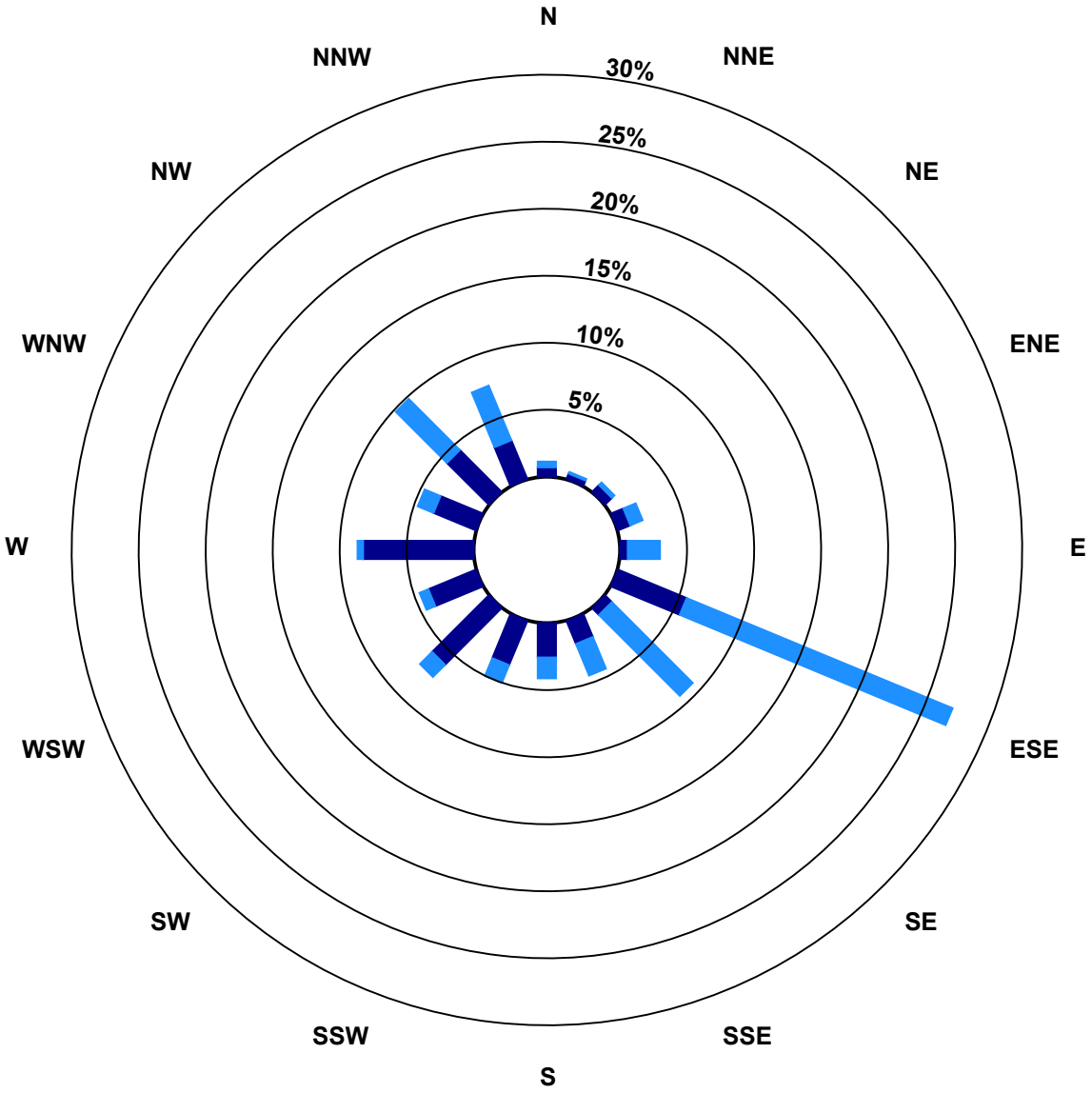
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Athabasca Valley



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

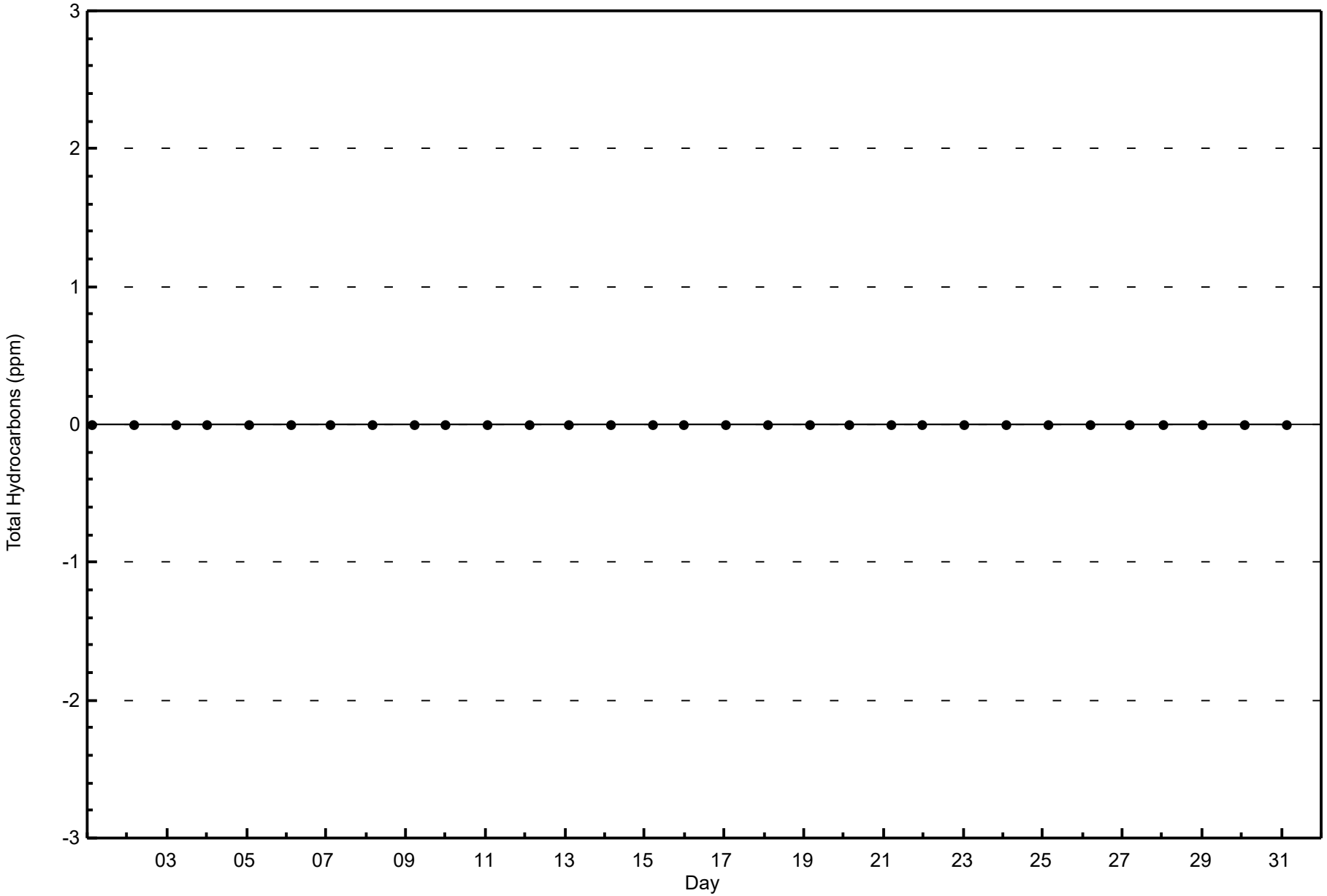
Total Number of Valid Hours: 703

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Athabasca Valley - October 2025

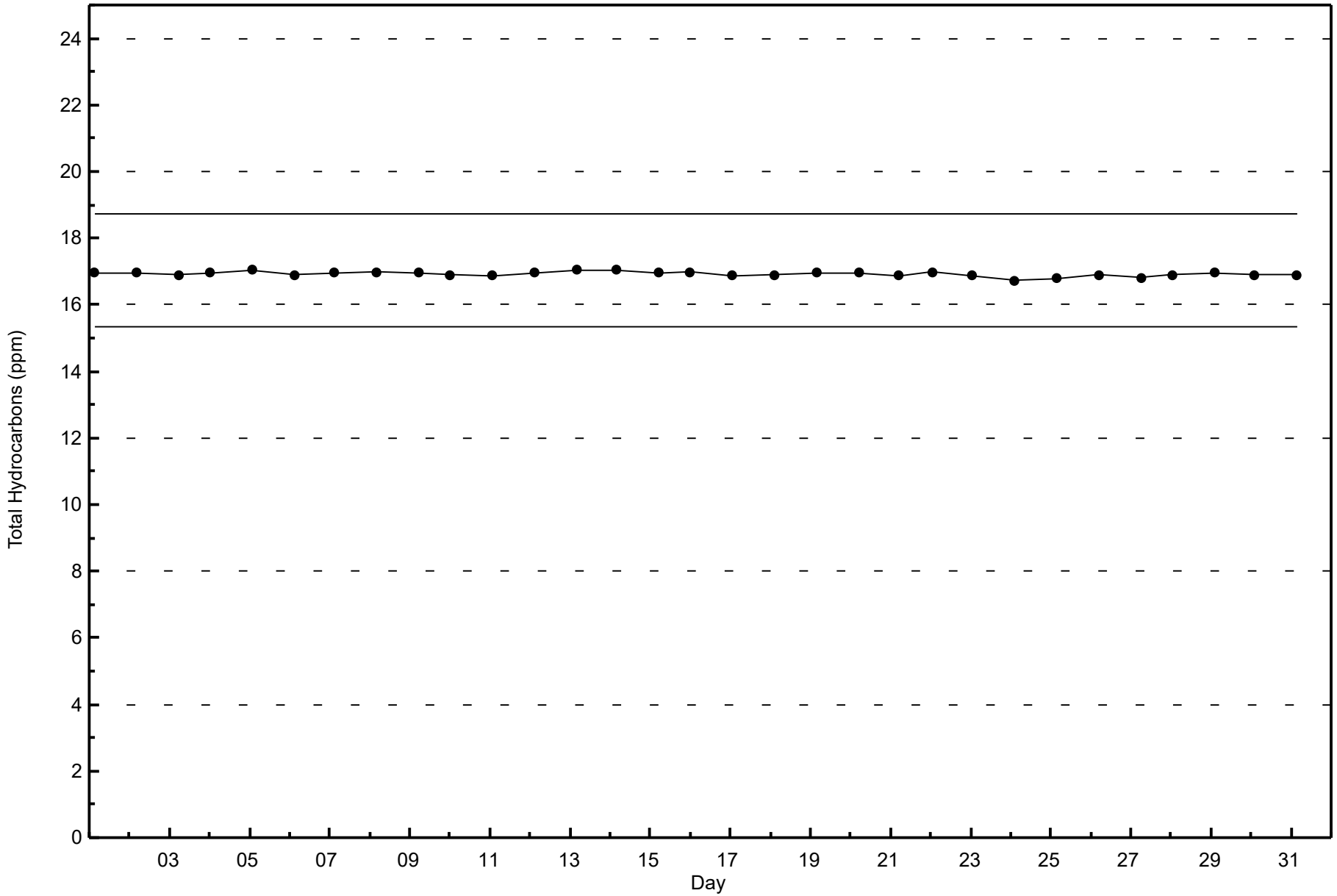


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Athabasca Valley - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

Athabasca Valley - October 2025

Maximum Value: 0.567 ppm on Oct 16 14:00

Maximum Daily Average: 0.030 ppm on Oct 16

Minimum Value: 0.000 ppm on Oct 1 01:00

Minimum Daily Average: 0.000 ppm on Oct 1

Maximum Diurnal Average: 0.019 ppm at hour 14

Minimum Diurnal Average: 0.000 ppm at hour 4

Monthly Average: 0.003 ppm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.0 P_{99} = 0.1

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	37
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.001	0.294	0.000	0.000	0.000	M	M	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.014	0.294
3-Oct	0.001	0.011	0.000	0.000	0.000	Z	0.000	0.000	0.008	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.011
4-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001
7-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.001	0.000	0.002	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.002	0.000	0.000	0.000	0.002	0.040
8-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
9-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	C	C	C	C	C	C	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	--	0.002
10-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.003	0.000	0.001	0.000	0.000	0.000	0.003
11-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
15-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16-Oct	Z	0.000	0.002	0.000	0.002	0.009	0.017	0.011	0.006	0.000	0.000	0.000	0.000	0.567	0.067	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.004	0.030	0.567
17-Oct	0.002	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.058	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.058
18-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.003	0.000	0.000	0.032	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.003	0.000	0.000	0.000	0.002	0.032
19-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008
20-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
21-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.001	0.000	0.032	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.032
22-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.147	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.147
23-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	M	M	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
24-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
25-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.251	0.171	0.000	0.000	0.003	0.000	0.000	0.018	0.251
26-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007
27-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.016
29-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.006	0.003	0.000	0.006	0.022	0.072	0.088	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.088
	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.003	0.012	0.008	0.003	0.019	0.002	0.000	0.000	0.008	0.006	0.000	0.000	0.000	0.000	0.000	Diurnal Average	
	0.002	0.011	0.002	0.000	0.002	0.009	0.017	0.011	0.058	0.032	0.294	0.147	0.088	0.567	0.067	0.000	0.001	0.251	0.171	0.003	0.003	0.003	0.000	0.004	Diurnal Maximum	

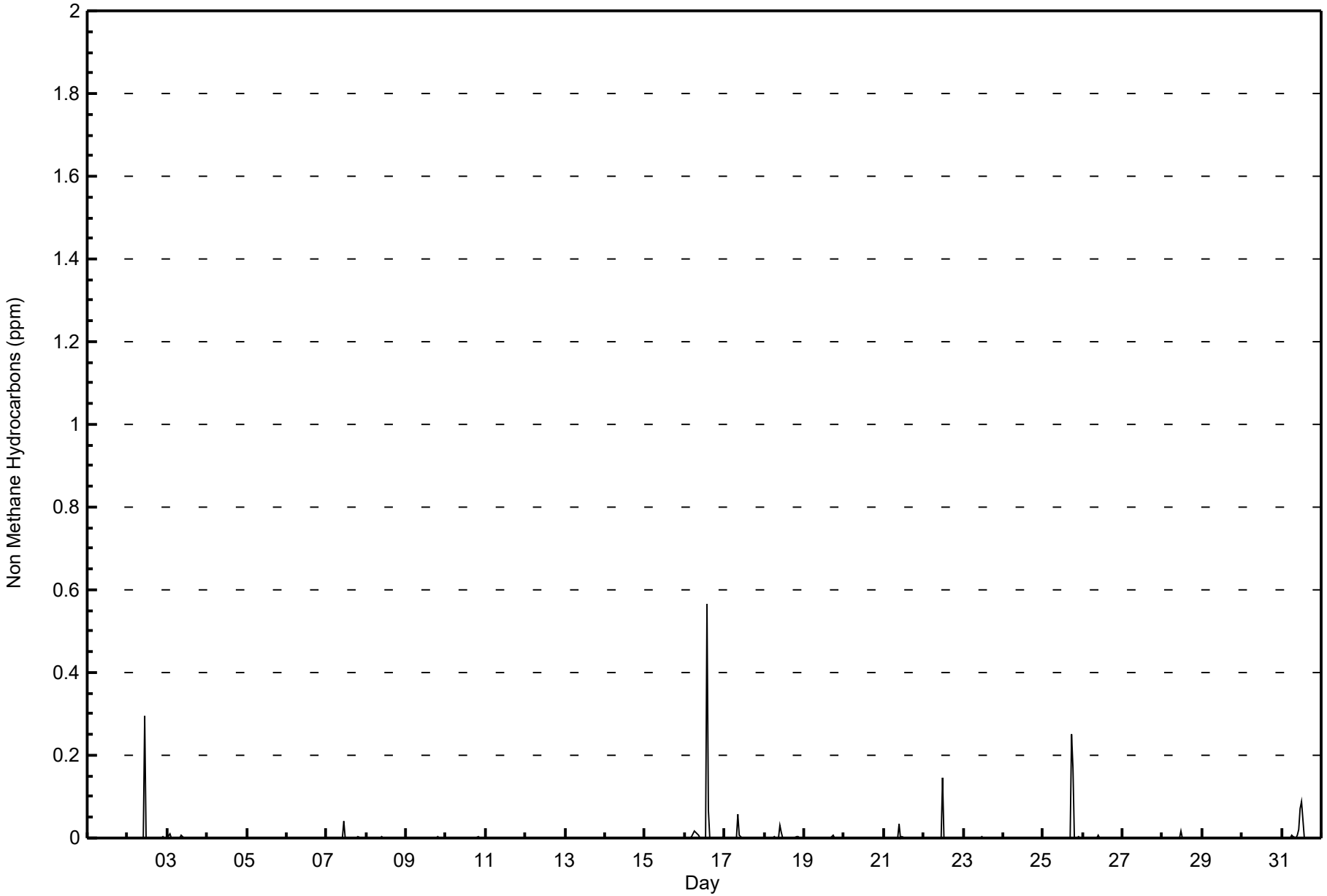
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm

Athabasca Valley - October 2025



Non Methane Hydrocarbons (NMHC) - ppm
Athabasca Valley - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	679	96.59	96.59
0.006 - 0.05	15	2.13	98.72
0.06 - 0.1	5	0.71	99.43
> 0.1	4	0.57	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Athabasca Valley - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.005	8	3	7	13	20	179	60	30	29	35	51	31	59	33	69	52	679
0.006 - 0.05	0	1	0	1	1	5	4	0	0	0	0	0	2	0	0	1	15
0.06 - 0.1	0	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	5
> 0.1	0	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	4
Totals	8	4	7	14	21	190	65	31	29	35	51	32	61	33	69	53	703

Total Number of Valid Hours: 703

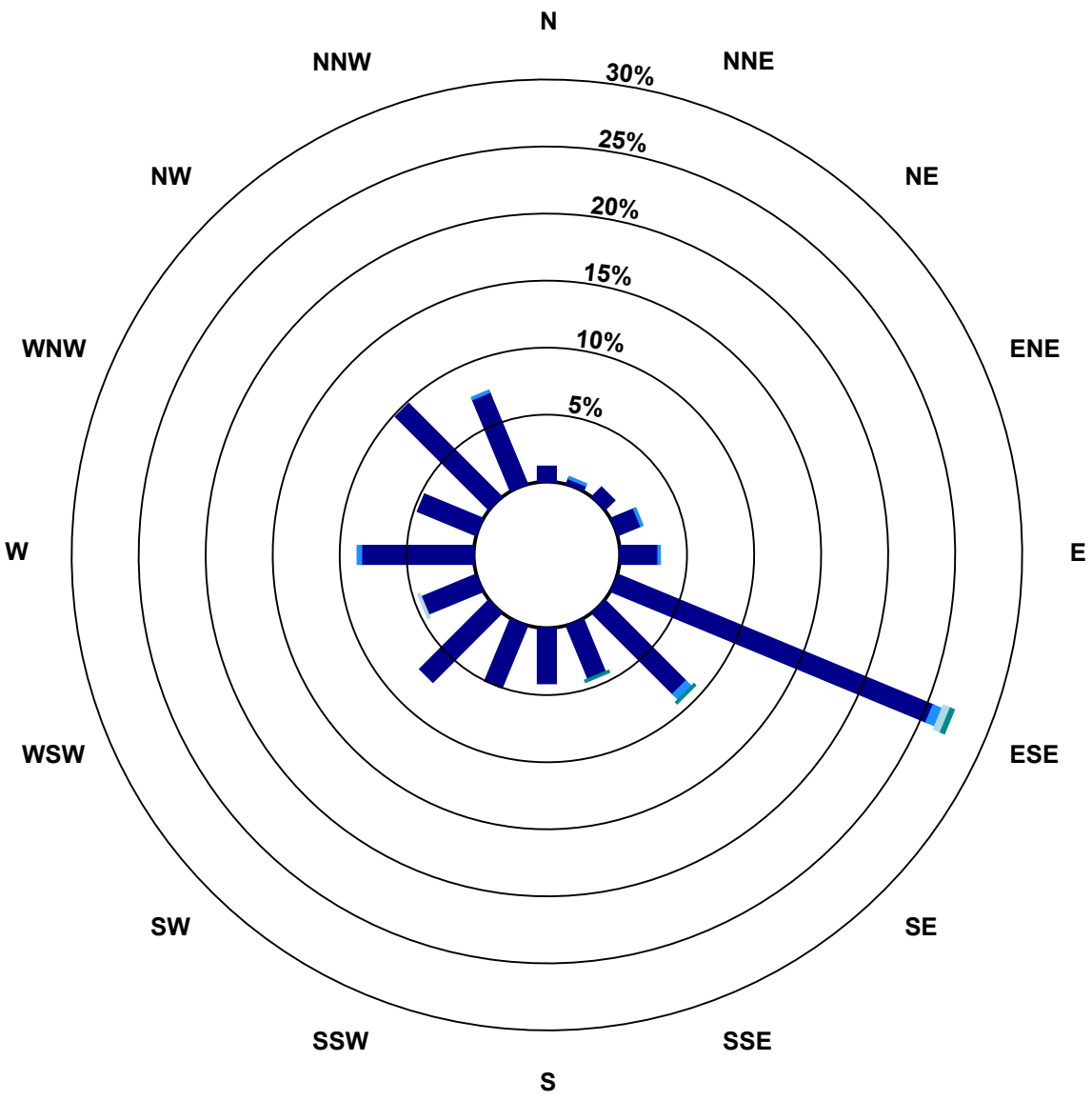
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Non Methane Hydrocarbons (NMHC) - ppm

Athabasca Valley



Classes (ppm)

0 - 0.005

0.006 - 0.05

0.06 - 0.1

> 0.1

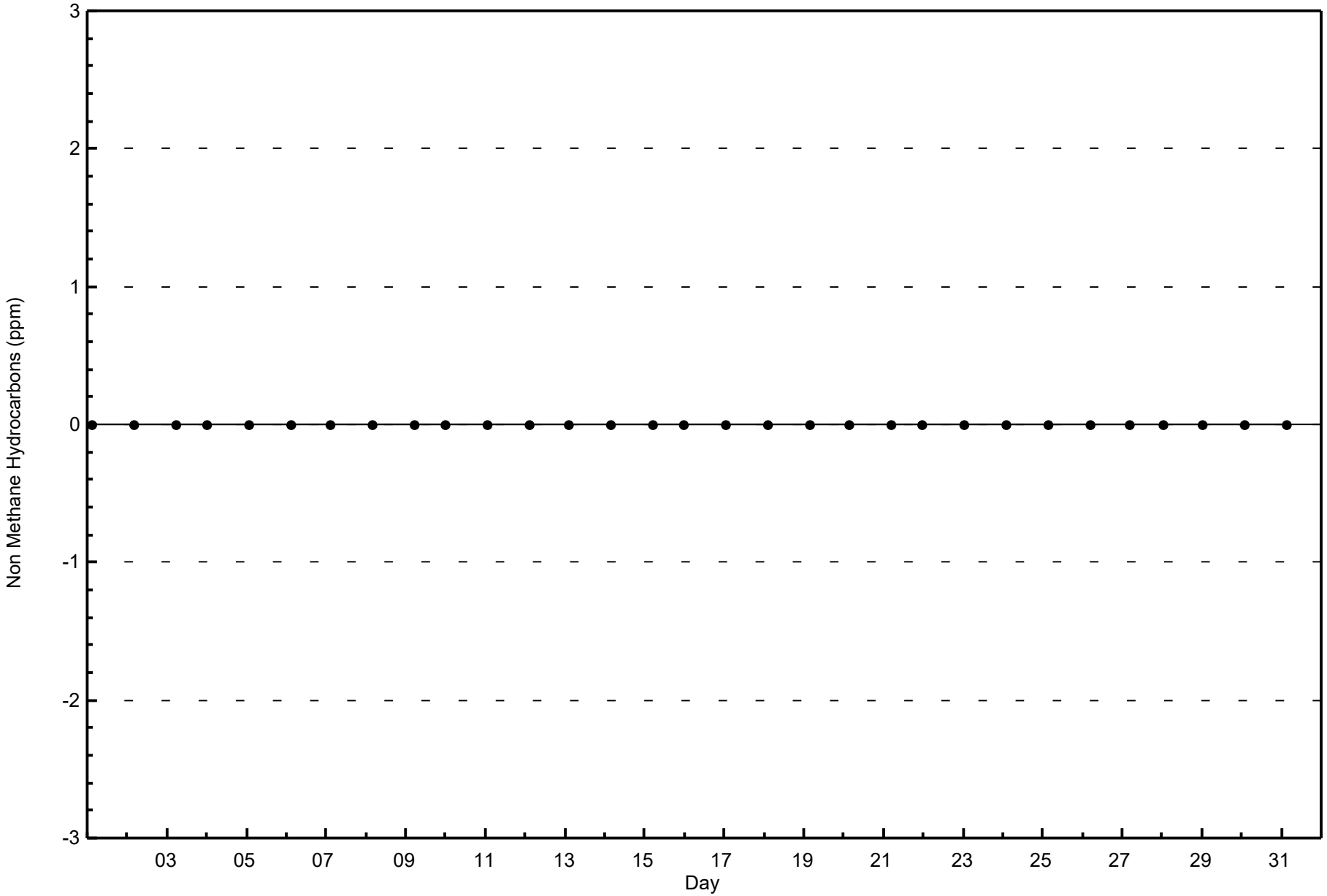
Total Number of Valid Hours: 703

Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Athabasca Valley - October 2025

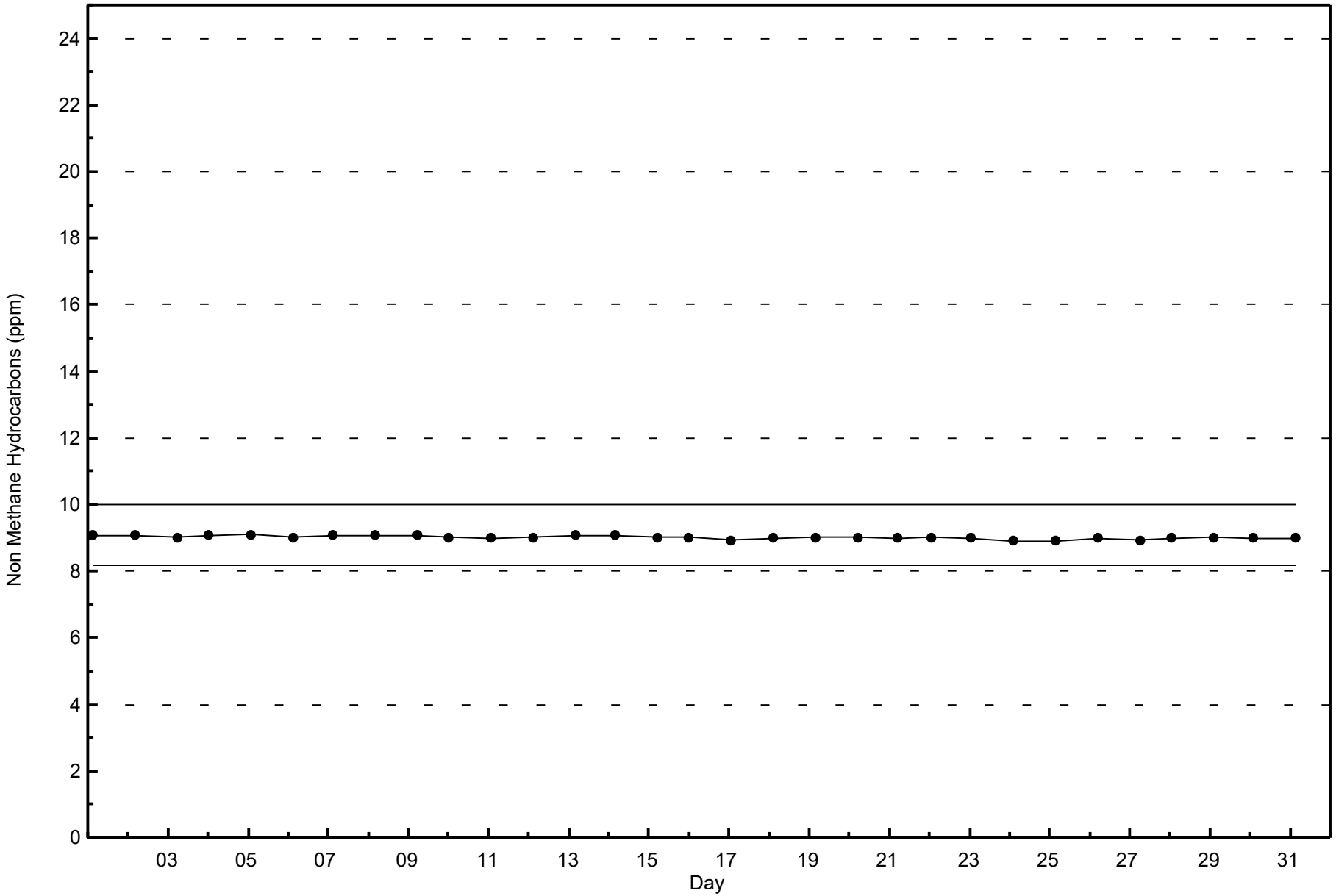


Wood Buffalo Environmental Association

Span Responses

Non Methane Hydrocarbons (NMHC) - ppm

Athabasca Valley - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH_4) - ppm

Athabasca Valley - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 2.4 ppm on Oct 18 23:00

Maximum Daily Average: 2.1 ppm on Oct 16

Minimum Value: 2.0 ppm on Oct 8 06:00

Minimum Daily Average: 2.0 ppm on Oct 17

Maximum Diurnal Average: 2.1 ppm at hour 3

Minimum Diurnal Average: 2.0 ppm at hour 17

Monthly Average: 2.07 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.0 Median = 2.1 Q_3 = 2.1 P_{90} = 2.1 P_{99} = 2.3

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	37
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.2	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
2-Oct	2.1	2.1	2.1	2.2	Z	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	M	M	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
3-Oct	2.2	2.2	2.3	2.3	2.2	Z	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3
4-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5-Oct	2.0	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1
6-Oct	2.0	2.0	Z	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
7-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
8-Oct	2.1	2.3	2.3	2.2	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3
9-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.1	2.1	2.1	C	C	C	C	C	C	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.2	--	2.2
10-Oct	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.1	2.2
11-Oct	2.2	Z	2.1	2.2	2.2	2.2	2.2	2.3	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3
12-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1
13-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
14-Oct	2.1	2.2	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
15-Oct	2.1	2.1	2.2	2.2	2.2	Z	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
16-Oct	Z	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.3
17-Oct	2.2	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2
18-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.3	2.4	2.2	2.1	2.4
19-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.3	2.3	2.1	2.0	2.1	2.1	2.1	2.3
20-Oct	2.1	2.1	2.1	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
21-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1
22-Oct	Z	2.1	2.1	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
23-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	M	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
24-Oct	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
25-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
26-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.3
27-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
28-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
29-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2
30-Oct	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.2
31-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	Diurnal Average	
	2.2	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.1	2.3	2.3	2.2	2.3	2.4	2.2	Diurnal Maximum	

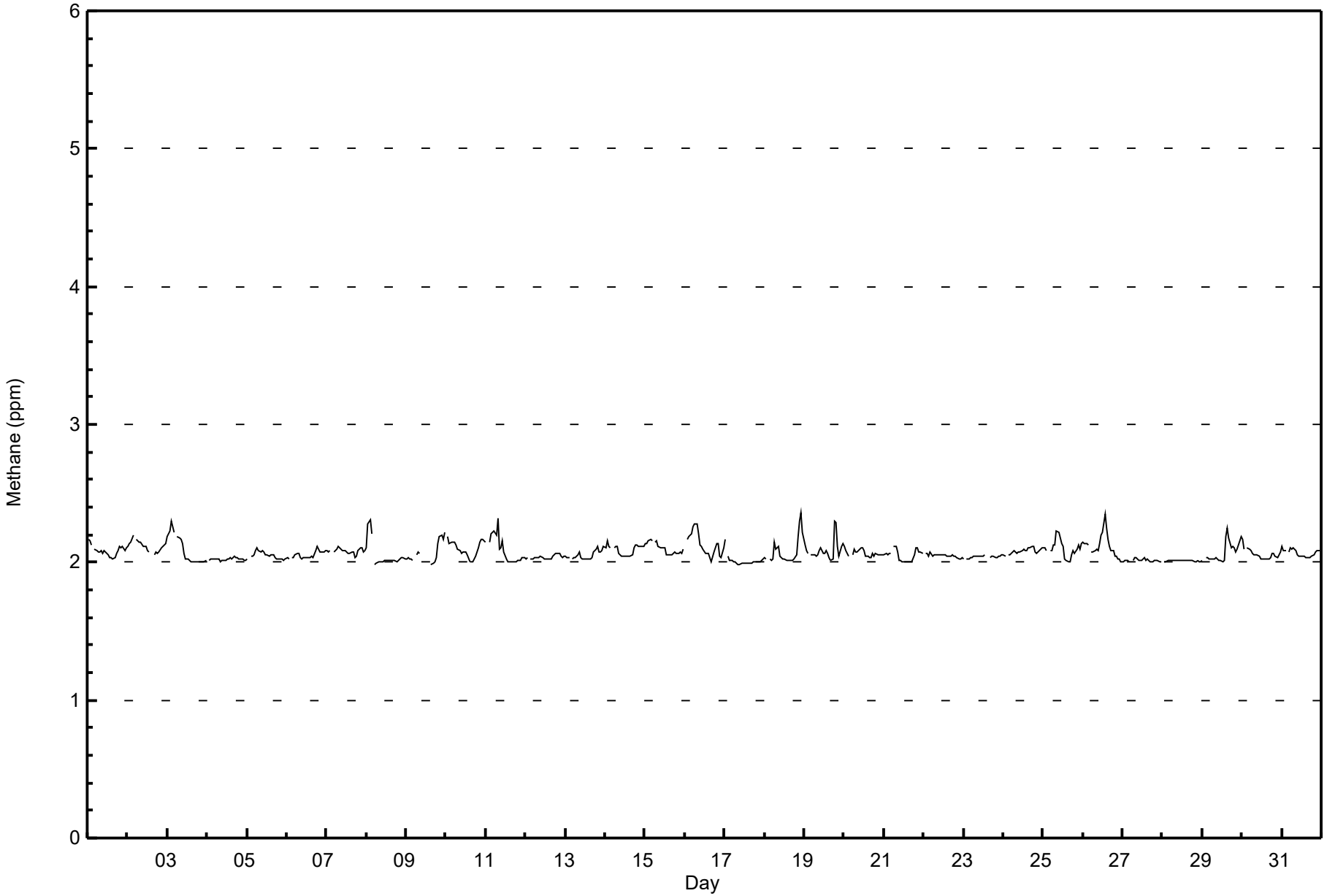
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Methane (CH_4) - ppm

Athabasca Valley - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	334	47.51	47.51
2.1 - 3.0	369	52.49	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Methane (CH_4) - ppm

Athabasca Valley - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	5	3	5	7	5	43	6	13	18	25	42	27	58	24	31	22	334
2.1 - 3.0	3	1	2	7	16	147	59	18	11	10	9	5	3	9	38	31	369
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	8	4	7	14	21	190	65	31	29	35	51	32	61	33	69	53	703

Total Number of Valid Hours: 703

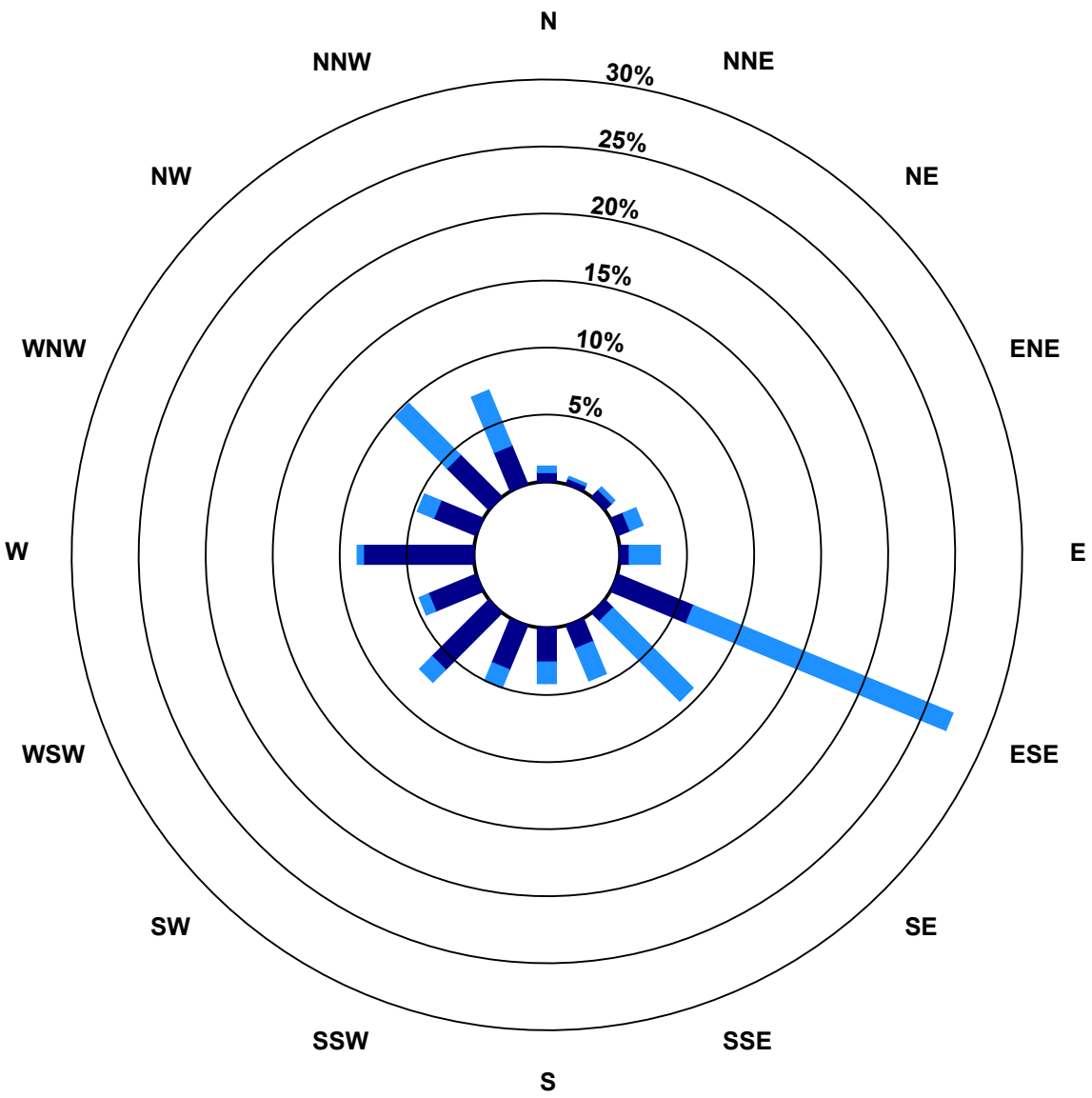
Total Number of Hours: 744

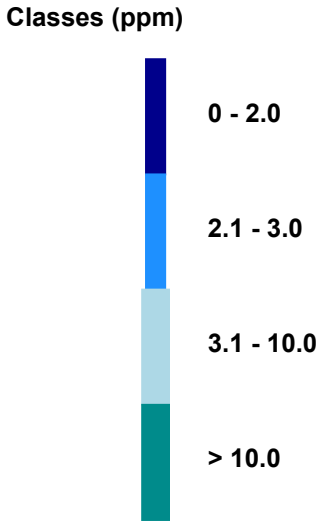
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Methane (CH_4) - ppm

Athabasca Valley





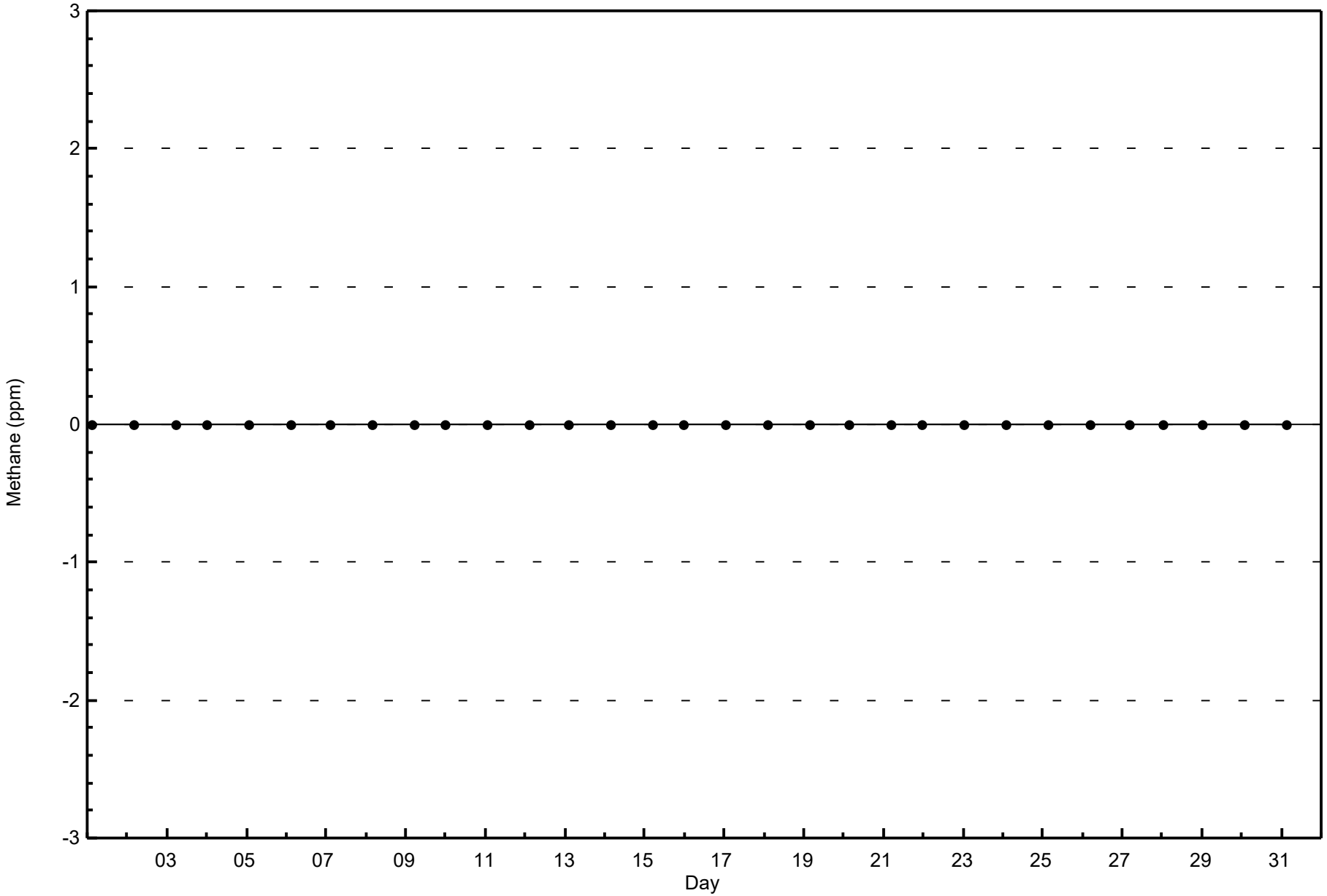
Total Number of Valid Hours: 703

Wood Buffalo Environmental Association

Zero Responses

Methane (CH_4) - ppm

Athabasca Valley - October 2025

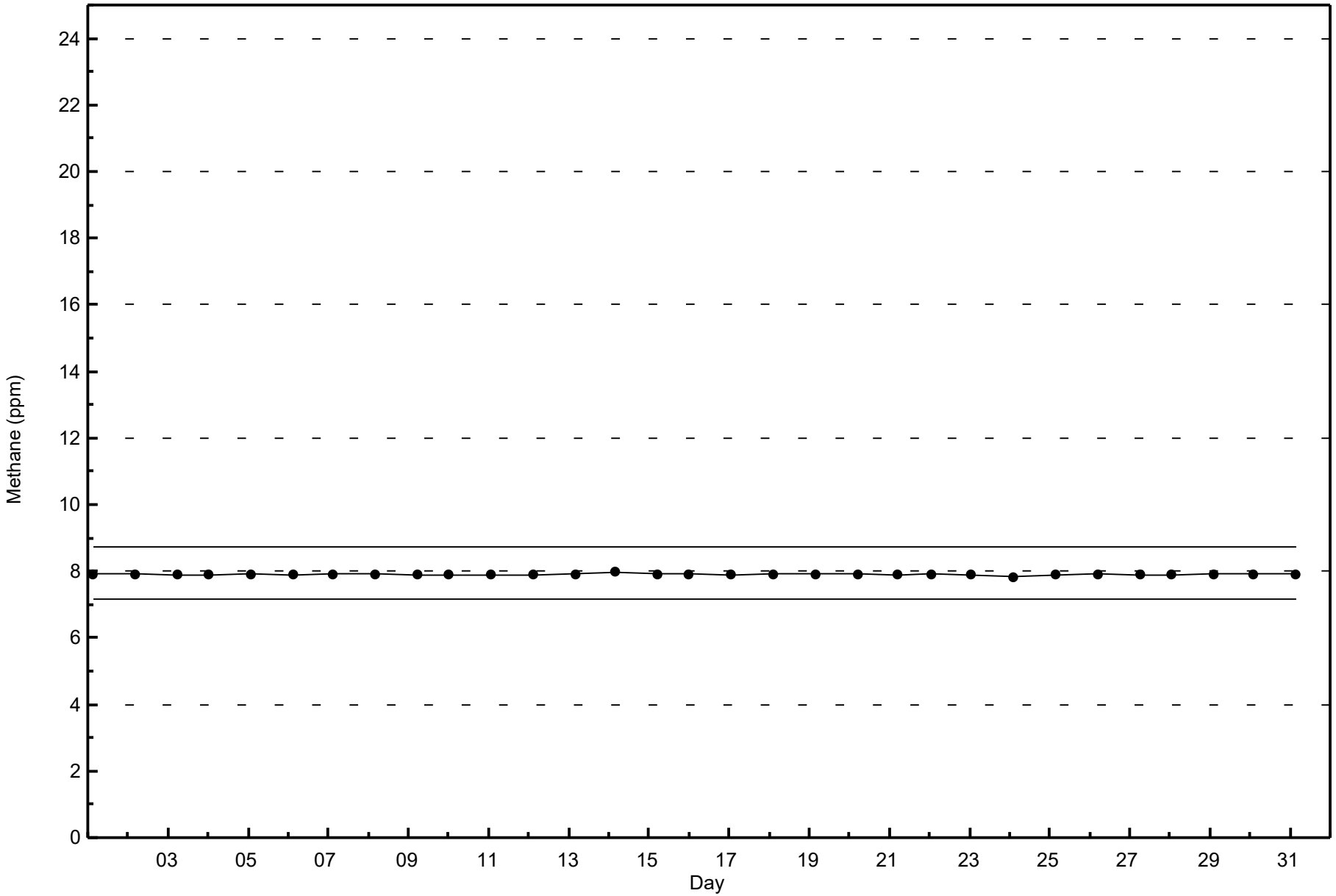


Wood Buffalo Environmental Association

Span Responses

Methane (CH_4) - ppm

Athabasca Valley - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O_3) - ppb

Athabasca Valley - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 38.6 ppb on Oct 10 16:00 Maximum Daily Average: 27.2 ppb on Oct 17

Minimum Value: 0.8 ppb on Oct 19 20:00 Minimum Daily Average: 7.1 ppb on Oct 2
Maximum Diurnal Average: 22.5 ppb at hour 16 Minimum Diurnal Average: 10.8 ppb at hour 8
Monthly Average: 16.22 ppb Percentiles: P_1 = 1.8 P_{10} = 4.9 Q_1 = 9.8 Median = 17.1 Q_3 = 21.7 P_{90} = 26.8 P_{99} = 33.6

Hours in Service:	744
Hours of Data:	696
Hours of Missing Data:	48
Hours of Calibration:	36
Percent Operational Time:	98.4

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	13.6	13.2	15.4	14.3	15.4	Z	16.1	17.1	17.9	21.0	C	C	C	C	C	28.1	23.4	19.9	16.2	12.2	9.5	5.5	7.8	5.4	15.1	28.1
2-Oct	Z	5.3	4.1	2.4	1.3	1.1	1.1	1.8	3.1	4.4	5.3	6.2	9.8	13.0	21.1	18.3	16.1	6.2	10.2	6.9	6.7	4.8	5.7	8.4	7.1	21.1
3-Oct	7.6	Z	5.3	4.7	4.3	3.2	2.9	2.6	4.6	M	M	29.3	31.1	32.8	33.5	34.4	30.6	28.6	27.5	27.7	27.7	25.6	21.2	18.4	19.2	34.4
4-Oct	17.7	16.7	Z	16.2	14.7	14.1	11.5	12.1	18.2	19.6	19.9	23.2	24.1	22.9	19.7	19.9	16.6	11.5	12.4	12.9	17.0	16.3	17.0	17.7	17.0	24.1
5-Oct	16.0	15.7	12.6	Z	10.3	6.4	5.7	6.6	8.8	9.8	11.7	17.3	20.1	21.9	21.4	18.7	19.7	21.8	24.5	25.3	24.9	23.1	23.6	22.0	16.9	25.3
6-Oct	24.0	26.9	23.0	25.7	Z	21.0	20.7	17.1	25.0	25.9	26.6	26.6	26.9	27.0	27.1	26.4	25.8	14.3	13.4	15.6	18.4	18.4	17.9	18.5	22.3	27.1
7-Oct	18.8	19.2	19.2	18.2	17.0	Z	14.5	13.9	14.4	16.0	16.5	16.5	19.2	19.9	20.9	19.3	16.0	18.4	17.7	9.7	12.3	13.5	15.7	10.7	16.4	20.9
8-Oct	Z	4.7	4.5	11.6	34.0	33.7	27.4	22.3	22.1	24.2	25.9	27.9	27.0	27.6	27.8	29.0	29.7	27.9	27.3	24.4	17.6	14.0	12.9	12.0	22.4	34.0
9-Oct	11.5	Z	11.3	11.4	14.0	10.2	8.1	5.2	9.0	14.7	18.3	21.8	M	M	34.4	33.6	32.5	21.4	13.4	3.6	3.2	4.3	4.9	11.3	14.2	34.4
10-Oct	14.7	14.8	Z	12.4	10.9	8.4	7.2	8.9	11.2	15.1	15.4	17.1	18.6	21.3	37.9	38.6	35.8	29.1	26.8	20.9	18.9	18.8	23.4	26.6	19.7	38.6
11-Oct	28.1	28.1	26.7	Z	21.0	15.7	6.7	6.4	21.4	17.2	14.0	15.1	16.9	13.9	14.9	15.0	14.5	15.1	16.4	17.6	18.8	20.7	21.3	22.4	17.7	28.1
12-Oct	23.3	22.5	21.9	22.8	Z	22.0	22.0	22.7	23.2	22.5	22.9	26.1	26.6	26.9	27.7	28.2	22.9	16.5	18.7	18.3	18.4	22.1	22.9	22.5	22.8	28.2
13-Oct	20.8	21.1	23.2	22.0	21.5	Z	18.6	9.8	13.9	22.0	28.2	29.4	29.7	29.3	28.0	27.9	26.9	16.7	16.4	17.3	17.8	16.6	17.4	14.6	21.3	29.7
14-Oct	Z	16.8	17.3	17.2	15.6	13.3	14.6	12.8	18.3	20.4	21.7	23.0	24.7	24.7	26.1	24.5	20.2	9.6	4.6	7.6	7.2	11.2	11.2	11.8	16.3	26.1
15-Oct	12.2	Z	11.4	11.1	9.7	8.5	7.4	8.7	10.0	10.1	10.5	9.3	12.6	25.5	24.6	25.3	19.9	18.0	13.7	15.9	19.1	16.7	17.9	16.6	14.6	25.5
16-Oct	10.5	8.9	Z	8.4	3.9	1.3	2.0	2.9	7.6	13.7	13.2	15.5	18.7	20.4	19.0	26.0	32.7	21.1	18.1	9.8	20.2	30.8	33.6	26.1	15.8	33.6
17-Oct	21.3	24.9	28.1	Z	31.8	31.6	30.6	29.6	29.9	27.1	23.4	25.0	27.2	29.6	32.1	31.1	29.2	24.6	25.8	26.2	26.8	25.8	23.3	21.0	27.2	32.1
18-Oct	18.1	21.9	20.8	19.1	Z	17.9	4.6	6.7	7.0	18.5	20.9	23.0	27.6	31.1	31.6	32.2	28.4	12.5	11.3	10.0	5.5	5.6	5.5	9.3	16.9	32.2
19-Oct	10.7	11.1	11.8	10.6	10.2	Z	8.8	9.2	8.6	4.3	3.4	6.4	6.8	3.9	9.5	15.3	17.9	15.4	2.1	0.8	5.8	9.8	4.6	3.1	8.3	17.9
20-Oct	Z	5.1	6.8	8.4	6.0	8.9	3.6	6.7	6.9	5.8	4.8	4.8	6.6	10.4	7.9	7.7	5.8	3.3	9.8	5.8	8.2	12.3	15.2	15.1	7.6	15.2
21-Oct	13.7	Z	12.9	11.3	8.2	1.7	6.3	3.8	7.9	17.3	20.4	22.5	24.5	25.1	25.2	23.8	20.7	14.9	9.6	1.8	2.0	5.5	4.3	3.6	12.5	25.2
22-Oct	2.9	4.3	Z	5.6	2.6	5.6	5.8	4.4	M	M	M	M	M	M	M	20.6	19.5	17.1	16.4	15.6	16.7	16.6	17.3	17.5	--	20.6
23-Oct	18.8	19.1	19.0	Z	17.8	17.3	16.5	14.1	15.3	15.8	18.2	20.9	22.1	23.1	24.5	24.8	22.3	19.5	19.8	19.8	18.4	17.5	17.3	17.6	19.1	24.8
24-Oct	18.1	17.3	17.3	16.5	Z	13.5	12.8	12.7	12.9	12.2	14.0	16.5	16.9	20.9	22.0	20.1	14.0	9.3	15.3	16.0	15.5	13.4	12.8	11.2	15.3	22.0
25-Oct	11.4	11.8	11.9	6.7	3.5	Z	2.9	3.0	3.4	5.9	8.5	13.9	17.3	30.4	25.0	22.9	23.7	12.6	4.8	5.0	8.4	7.2	6.2	5.6	11.0	30.4
26-Oct	Z	8.2	6.0	5.8	6.4	5.4	2.7	2.9	2.5	3.5	5.0	4.4	6.7	4.7	4.0	5.0	7.9	9.9	13.8	17.2	18.6	20.2	20.3	22.5	8.8	22.5
27-Oct	24.3	Z	25.4	26.9	28.0	27.4	22.6	19.6	19.1	20.0	19.3	19.4	17.1	16.9	18.8	17.6	17.5	18.9	19.0	19.5	20.7	21.6	22.3	22.9	21.1	28.0
28-Oct	21.8	19.3	Z	22.0	21.7	20.9	22.1	21.5	21.4	19.0	20.0	23.6	24.9	23.8	23.6	23.8	21.7	20.6	22.3	22.2	19.7	17.9	17.6	18.4	21.3	24.9
29-Oct	21.6	20.7	20.1	Z	19.3	19.0	18.9	18.6	14.2	16.4	M	19.3	19.1	15.9	2.8	1.8	1.1	2.2	2.6	4.1	7.0	6.6	4.0	2.2	11.7	21.6
30-Oct	4.8	10.0	8.4	6.9	Z	8.2	6.9	7.4	5.9	8.0	17.4	21.4	20.1	19.0	16.8	19.6	21.1	16.7	15.7	17.3	15.2	17.1	14.8	15.1	13.6	21.4
31-Oct	15.5	14.9	16.5	14.5	9.2	Z	5.5	4.4	10.3	14.1	16.3	16.6	18.1	18.7	18.4	18.4	18.5	19.0	19.6	21.4	20.9	20.4	20.3	20.0	16.2	21.4
	16.2	15.5	15.4	13.6	13.8	13.5	11.5	10.8	13.1	15.3	16.4	18.7	20.0	21.5	22.3	22.5	21.1	16.5	15.6	14.5	15.1	15.5	15.5	15.2	Diurnal Average	
	28.1	28.1	28.1	26.9	34.0	33.7	30.6	29.6	29.9	27.1	28.2	29.4	31.1	32.8	37.9	38.6	35.8	29.1	27.5	27.7	27.7	30.8	33.6	26.6	Diurnal Maximum	

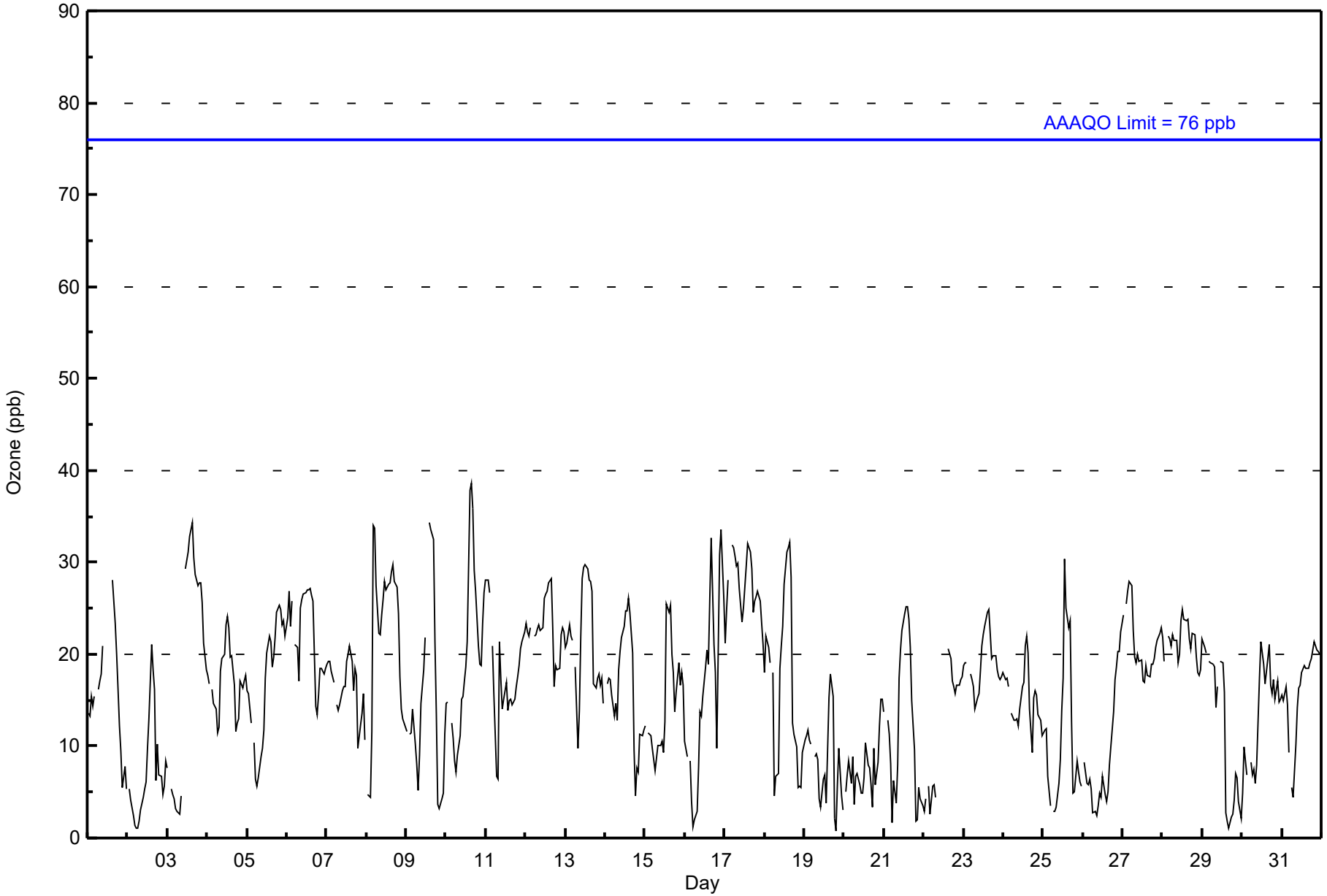
Z - zerospan C - Calibration M - Maintenance
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb

Wood Buffalo Environmental Association

Hourly Averages

Ozone (O_3) - ppb

Athabasca Valley - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	483	69.40	69.40
21 - 50	213	30.60	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 696

Total Number of Hours: 744

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	4	4	5	11	19	167	59	26	19	19	16	9	25	22	47	31	483
21 - 50	4	0	1	4	1	17	6	8	10	16	34	24	36	13	20	19	213
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	8	4	6	15	20	184	65	34	29	35	50	33	61	35	67	50	696

Total Number of Valid Hours: 696

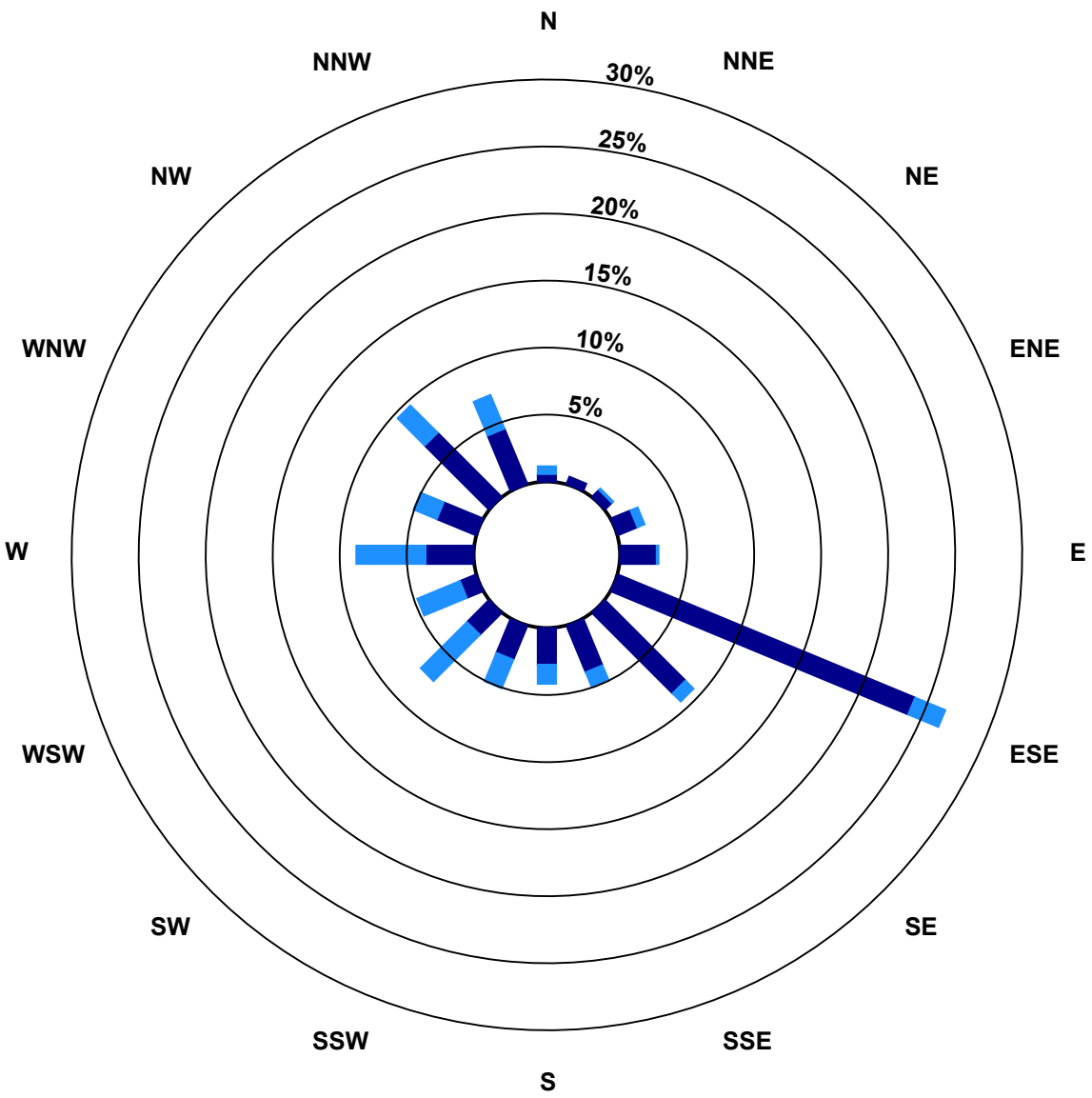
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Ozone (O_3) - ppb

Athabasca Valley



Classes (ppb)

0 - 20

21 - 50

51 - 82

> 83

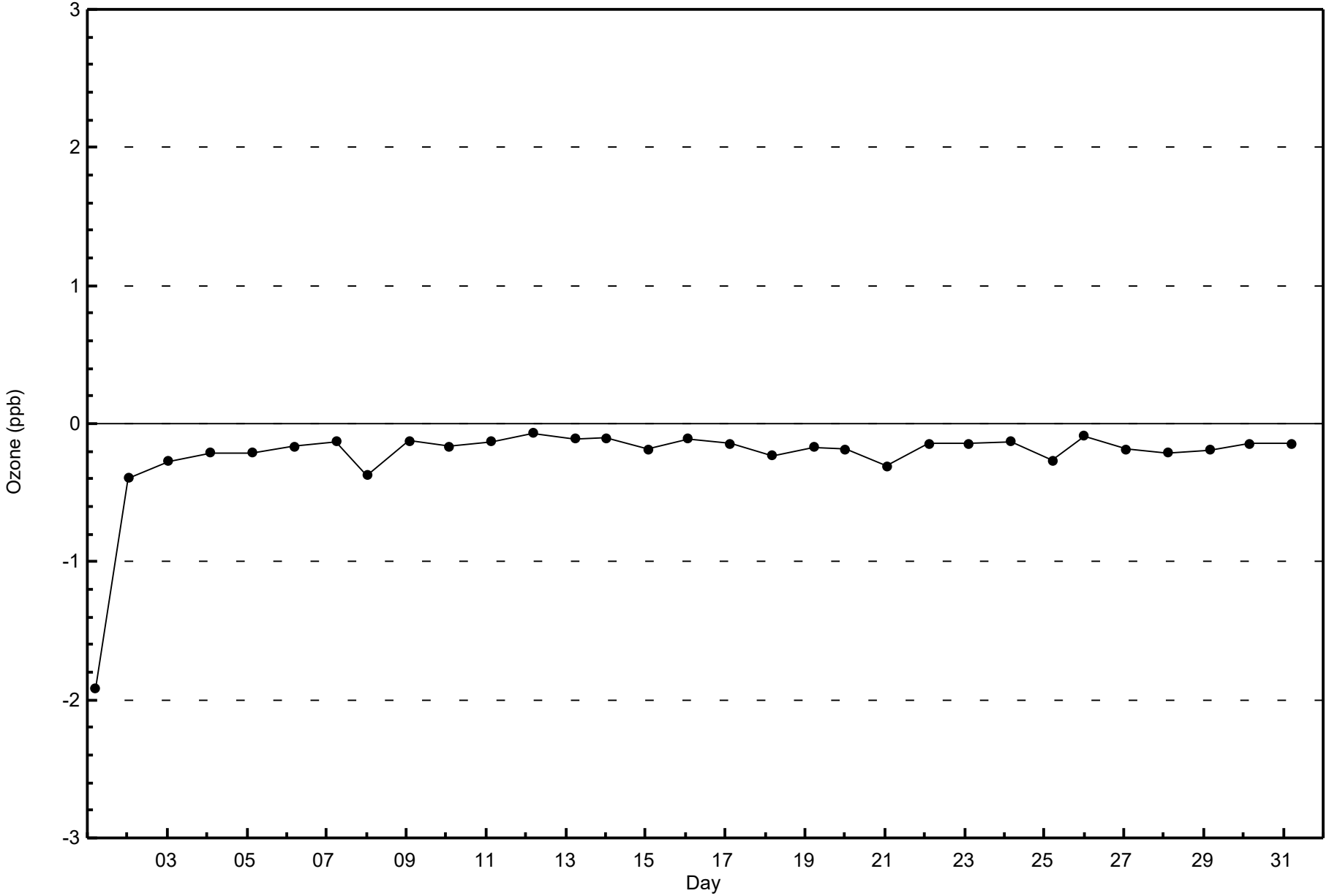
Total Number of Valid Hours: 696

Wood Buffalo Environmental Association

Zero Responses

Ozone (O_3) - ppb

Athabasca Valley - October 2025

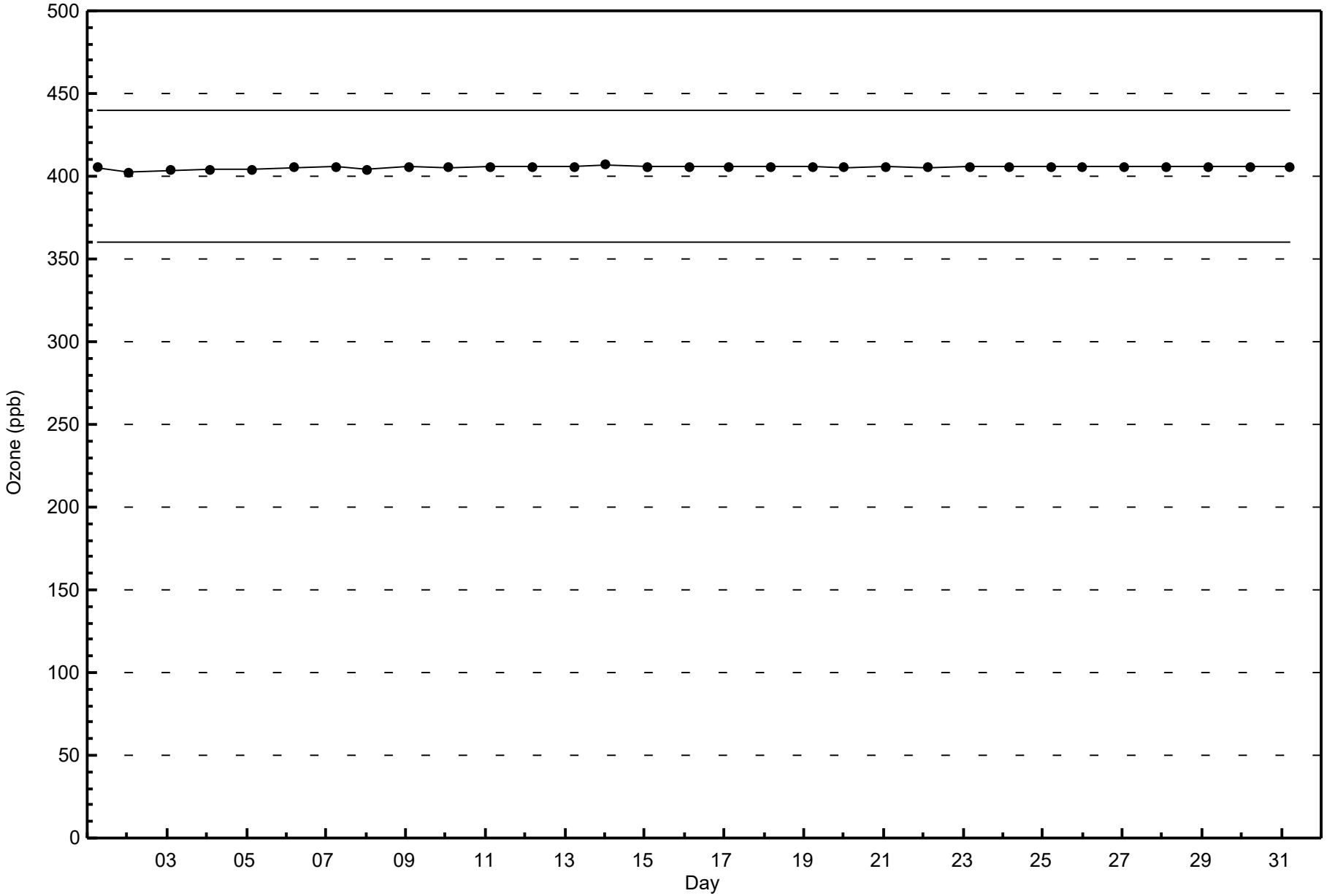


Wood Buffalo Environmental Association

Span Responses

Ozone (O_3) - ppb

Athabasca Valley - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Athabasca Valley - October 2025

Maximum Value: 26.3 ppb on Oct 21 06:00

Maximum Daily Average: 4.9 ppb on Oct 2

Minimum Value: 0.0 ppb on Oct 1 03:00

Minimum Daily Average: 0.2 ppb on Oct 27

Maximum Diurnal Average: 4.7 ppb at hour 8

Minimum Diurnal Average: 0.4 ppb at hour 3

Monthly Average: 1.99 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.3 Median = 0.9 Q_3 = 2.4 P_{90} = 5.1 P_{99} = 12.7

Hours in Service:	744
Hours of Data:	695
Hours of Missing Data:	49
Hours of Calibration:	36
Percent Operational Time:	98.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.4	0.3	0.2	0.1	0.5	0.2	0.4	0.2	0.1	0.1	1.2	0.8	0.5	0.2	0.2	1.2
2-Oct	0.4	0.6	Z	3.3	6.1	9.8	10.7	11.5	9.0	6.6	5.7	M	M	M	M	1.9	2.9	9.6	2.0	4.7	2.8	2.2	2.5	1.4	4.9	11.5
3-Oct	1.0	1.3	1.0	Z	3.7	4.3	5.1	8.3	10.7	9.9	2.2	0.9	0.6	0.6	0.3	0.3	0.7	0.9	0.7	0.2	0.2	0.2	0.1	0.1	2.3	10.7
4-Oct	0.1	0.1	0.2	0.3	Z	0.6	3.5	2.4	0.5	0.4	0.5	0.2	0.3	0.4	0.3	0.2	0.4	0.3	0.1	0.1	0.0	0.1	0.1	0.1	0.5	3.5
5-Oct	0.1	0.1	0.2	0.5	3.3	Z	4.8	4.3	1.6	1.6	2.7	3.7	3.7	0.2	0.2	0.5	0.3	0.2	0.1	0.0	0.1	0.4	0.1	0.2	1.2	4.8
6-Oct	Z	0.0	0.0	0.0	0.0	0.1	0.3	1.5	0.8	1.3	1.4	1.7	2.1	1.7	1.6	1.5	1.3	5.7	1.8	1.5	1.0	0.9	0.5	0.5	1.2	5.7
7-Oct	0.4	Z	0.7	0.8	1.0	1.3	1.2	2.0	2.5	3.0	2.6	3.0	2.1	1.9	1.6	1.6	2.3	1.1	0.8	5.1	0.7	0.6	0.2	0.2	1.6	5.1
8-Oct	0.1	0.3	Z	0.1	0.0	0.0	0.4	0.1	0.1	0.4	0.9	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.2	0.9
9-Oct	0.0	0.2	0.2	Z	0.8	2.9	3.7	14.6	5.8	5.5	3.4	2.3	M	M	0.6	1.2	0.8	4.3	7.5	13.1	6.2	6.8	5.2	0.8	4.1	14.6
10-Oct	0.7	0.4	0.7	0.8	Z	2.3	3.4	3.0	3.1	3.1	5.1	3.7	3.8	5.0	1.9	1.2	1.6	2.0	1.7	1.4	0.6	0.8	0.2	0.1	2.0	5.1
11-Oct	0.1	0.1	0.1	0.1	0.0	Z	4.0	3.8	0.3	1.4	1.6	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.6	4.0
12-Oct	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.3	0.7	0.5	0.4	0.6	0.6	0.4	0.3	0.3	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.7
13-Oct	0.0	Z	0.0	0.0	0.1	2.6	1.1	8.8	6.6	1.3	0.8	0.3	0.6	0.9	1.9	1.2	0.9	2.2	2.1	1.6	1.0	1.1	1.0	1.4	1.6	8.8
14-Oct	0.6	0.7	Z	0.9	1.3	2.3	1.7	3.7	3.1	2.7	2.3	2.2	1.4	1.7	1.1	1.8	2.7	12.3	14.6	6.6	6.1	1.7	0.6	0.7	3.2	14.6
15-Oct	1.1	1.0	1.1	Z	1.7	2.3	2.8	3.0	3.5	4.6	3.7	4.8	7.9	1.0	1.8	1.6	4.3	4.1	4.5	2.2	0.8	1.1	1.1	0.6	2.6	7.9
16-Oct	1.2	0.8	1.4	1.9	Z	8.8	11.3	10.8	8.3	5.1	4.9	3.6	2.6	2.4	2.8	2.4	1.0	1.7	2.6	4.7	1.0	0.9	0.1	0.2	3.5	11.3
17-Oct	0.8	0.1	0.1	0.1	0.3	Z	0.4	0.5	0.3	C	C	C	C	C	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.0	0.2	0.8
18-Oct	Z	0.0	0.1	0.2	1.0	1.8	11.3	15.4	12.7	3.0	2.5	2.1	1.0	0.3	0.3	0.3	0.3	4.8	2.8	2.9	8.6	4.0	3.4	2.6	3.5	15.4
19-Oct	0.8	Z	0.4	0.5	0.9	0.8	1.1	1.0	1.5	7.9	11.0	5.2	6.6	10.7	6.4	1.3	0.7	1.2	15.5	9.2	0.6	0.2	0.2	0.1	3.6	15.5
20-Oct	0.3	0.1	Z	0.0	0.3	0.2	0.9	0.5	1.4	3.5	5.0	6.3	6.0	3.2	3.5	3.6	3.7	6.8	2.5	4.2	3.9	2.1	0.7	0.7	2.6	6.8
21-Oct	0.7	0.8	0.7	Z	1.9	26.3	2.4	22.4	7.1	1.1	0.5	0.4	0.2	0.3	0.2	0.2	0.3	0.7	0.7	2.8	3.4	0.5	2.9	1.2	3.4	26.3
22-Oct	1.4	1.1	1.4	1.1	Z	2.8	2.9	4.8	M	M	M	M	M	M	M	1.2	1.3	1.3	1.3	1.4	1.0	0.8	0.6	0.5	--	4.8
23-Oct	0.4	0.4	0.5	0.5	1.0	Z	1.2	1.8	1.7	2.3	2.5	1.9	2.1	1.8	1.6	1.0	1.3	0.9	1.2	1.0	1.0	0.6	0.5	0.2	1.2	2.5
24-Oct	Z	0.3	0.4	0.6	1.2	1.5	1.5	2.2	2.4	3.9	3.7	3.7	4.5	2.1	1.3	1.6	5.1	8.8	1.3	1.2	0.7	0.6	1.0	0.4	2.2	8.8
25-Oct	0.3	Z	0.1	0.6	2.4	2.4	3.9	6.0	7.8	4.9	2.6	1.5	0.8	0.3	0.5	0.5	0.5	4.4	10.7	11.7	5.3	6.2	6.5	2.1	3.6	11.7
26-Oct	3.9	1.3	Z	1.3	0.3	1.3	4.4	3.5	9.0	9.1	8.4	12.6	8.9	12.3	7.3	3.4	0.6	0.1	0.3	0.3	0.1	0.1	0.1	0.0	3.9	12.6
27-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.3	0.3	0.3	0.3	0.8	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.8
28-Oct	0.0	0.0	0.0	0.0	Z	0.2	0.2	0.2	0.2	0.6	0.6	0.5	0.5	0.2	0.4	0.2	0.4	0.8	0.5	0.4	1.0	1.3	0.5	0.1	0.4	1.3
29-Oct	0.2	0.4	0.5	0.6	0.7	Z	0.5	1.0	1.8	1.2	0.4	0.5	0.7	0.6	11.7	11.5	11.4	0.9	1.7	1.8	0.2	0.0	0.3	0.8	2.2	11.7
30-Oct	Z	0.0	0.0	0.5	1.7	0.1	1.2	1.3	1.8	3.3	1.2	1.1	1.3	1.2	2.2	1.7	1.3	1.2	1.4	1.2	1.5	0.4	0.8	0.6	1.2	3.3
31-Oct	0.5	Z	0.5	0.8	2.6	9.9	4.1	7.1	3.7	3.2	2.6	2.4	2.3	1.9	1.5	1.3	1.0	0.9	0.8	0.7	0.9	0.7	0.5	0.6	2.2	9.9
	0.6	0.4	0.4	0.6	1.2	3.3	2.9	4.7	3.6	3.2	2.8	2.4	2.3	1.9	1.8	1.4	1.6	2.5	2.6	2.6	1.6	1.1	1.0	0.5	Diurnal Average	
	3.9	1.3	1.4	3.3	6.1	26.3	11.3	22.4	12.7	9.9	11.0	12.6	8.9	12.3	11.7	11.5	11.4	12.3	15.5	13.1	8.6	6.8	6.5	2.6	Diurnal Maximum	

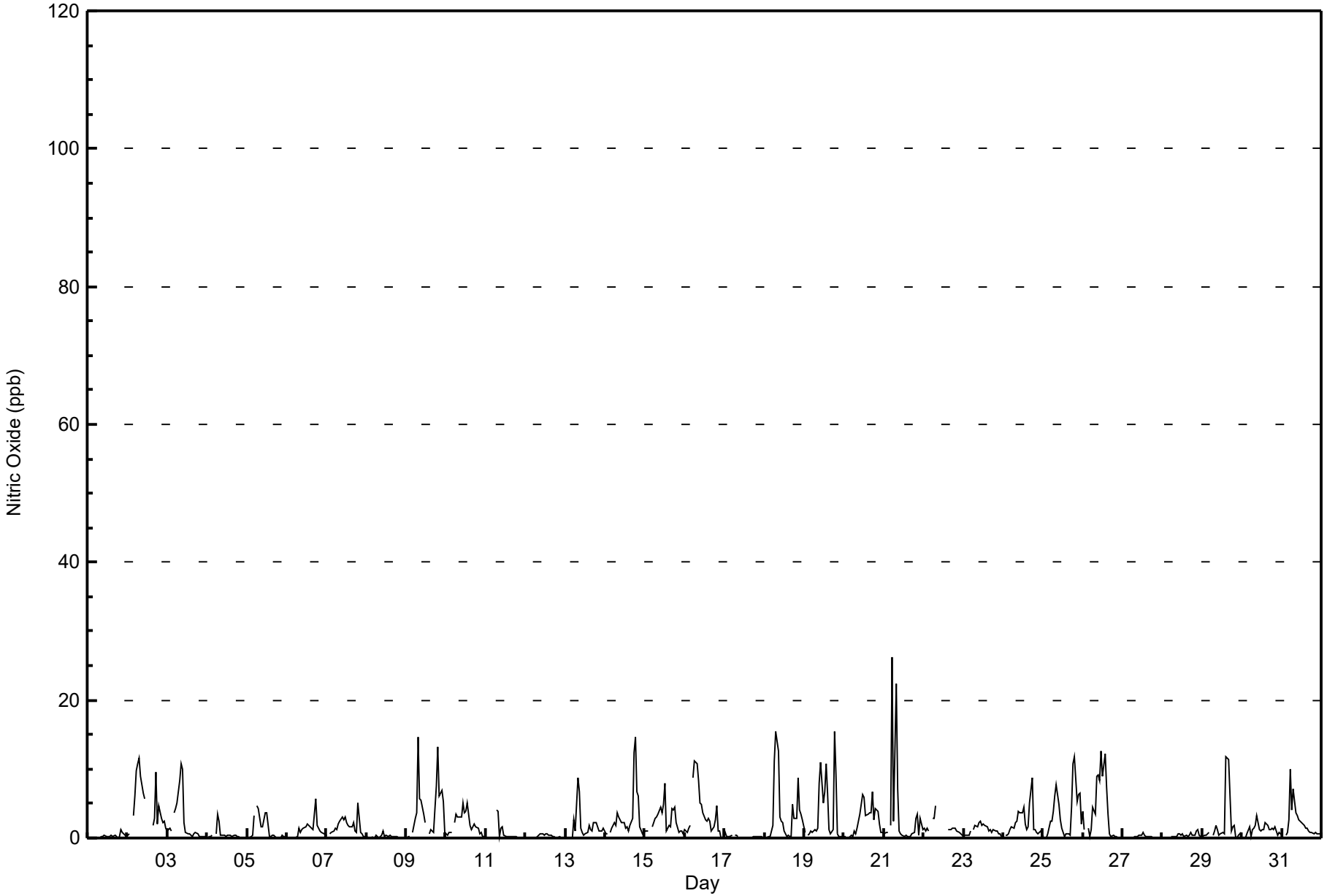
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Athabasca Valley - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	693	99.71	99.71
21 - 40	2	0.29	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 695

Total Number of Hours: 744

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	8	4	7	14	21	185	61	31	29	37	50	31	60	33	71	51	693
21 - 40	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	8	4	7	14	21	185	61	32	29	38	50	31	60	33	71	51	695

Total Number of Valid Hours: 695

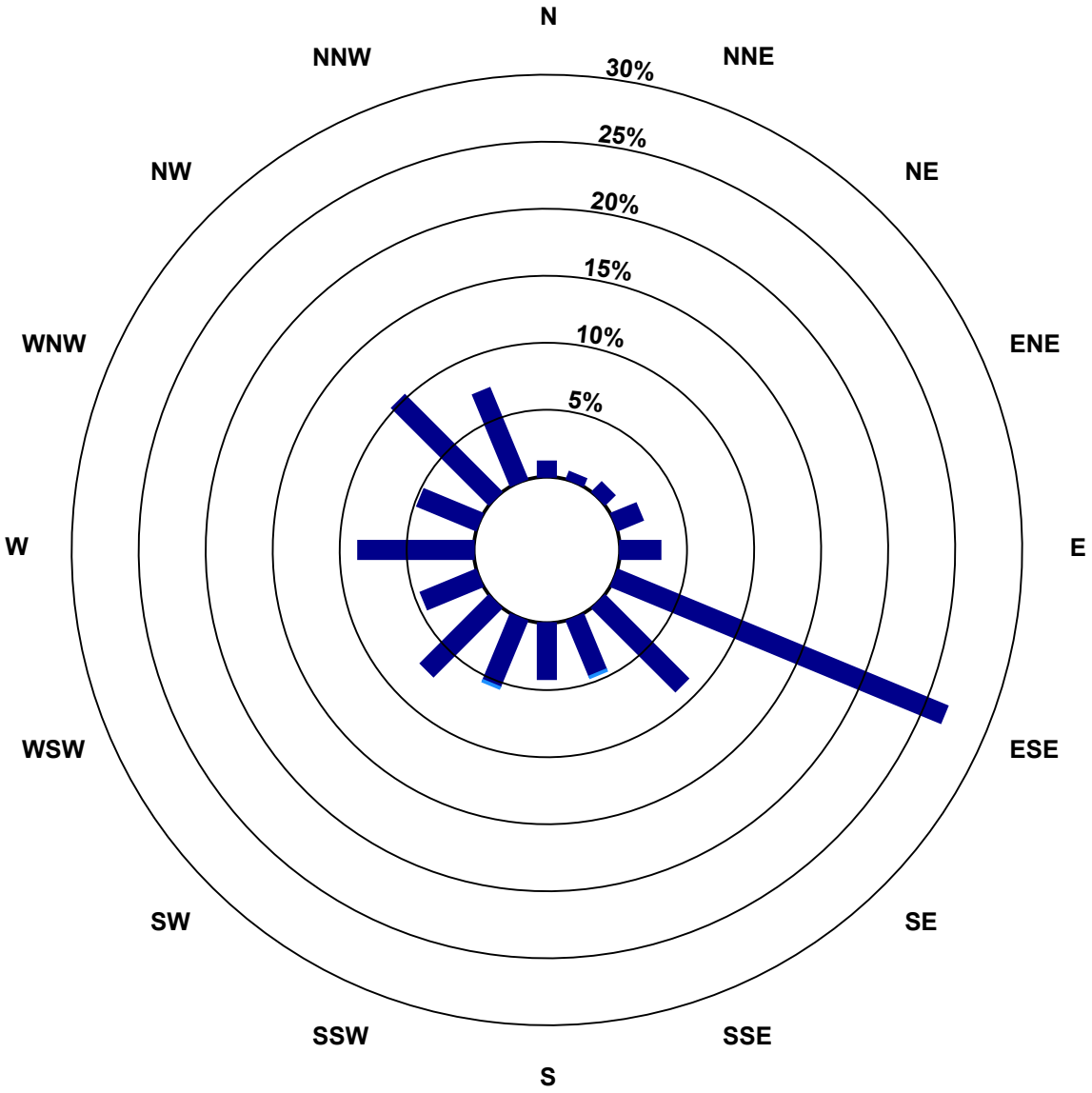
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Athabasca Valley



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

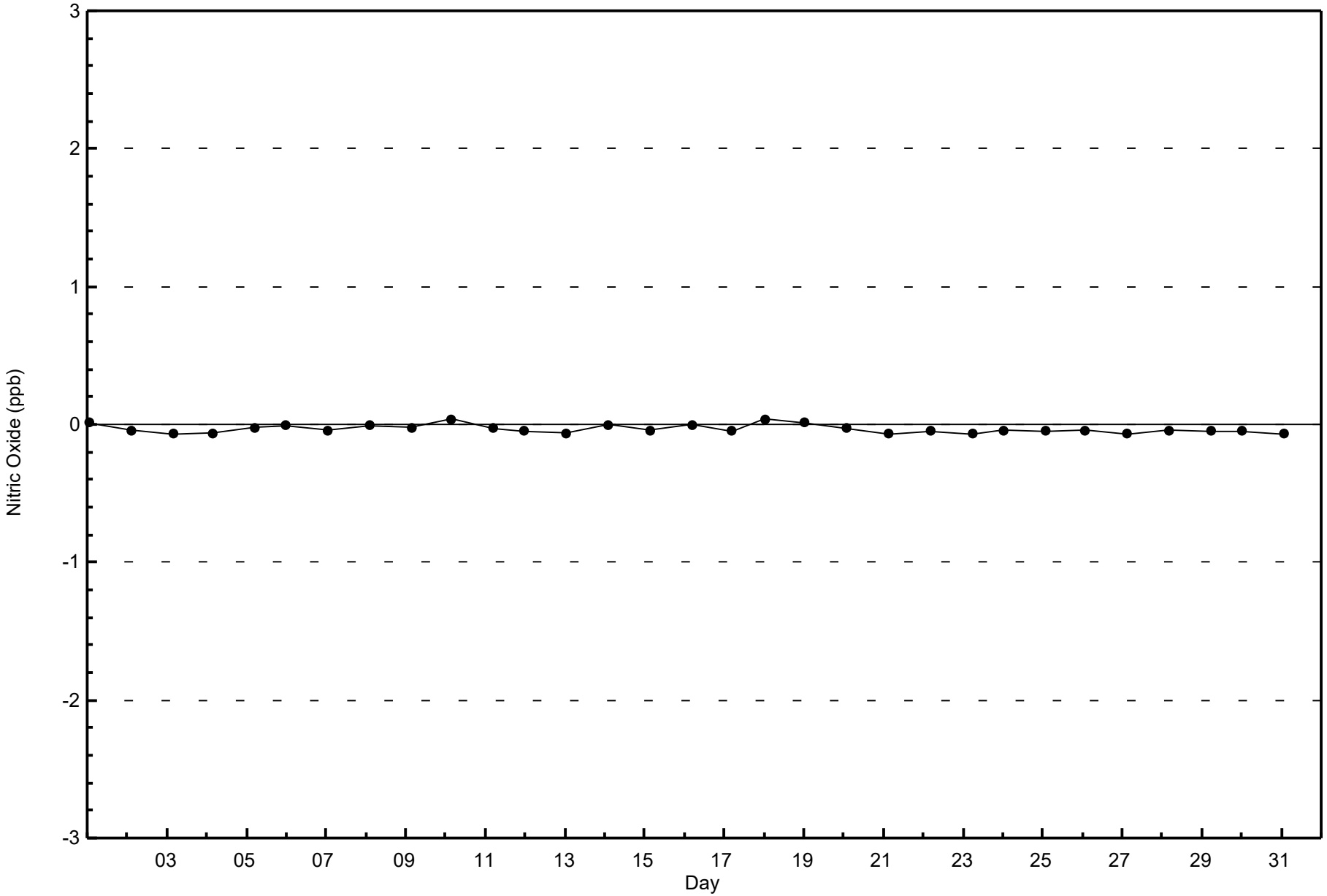
Total Number of Valid Hours: 695

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Athabasca Valley - October 2025

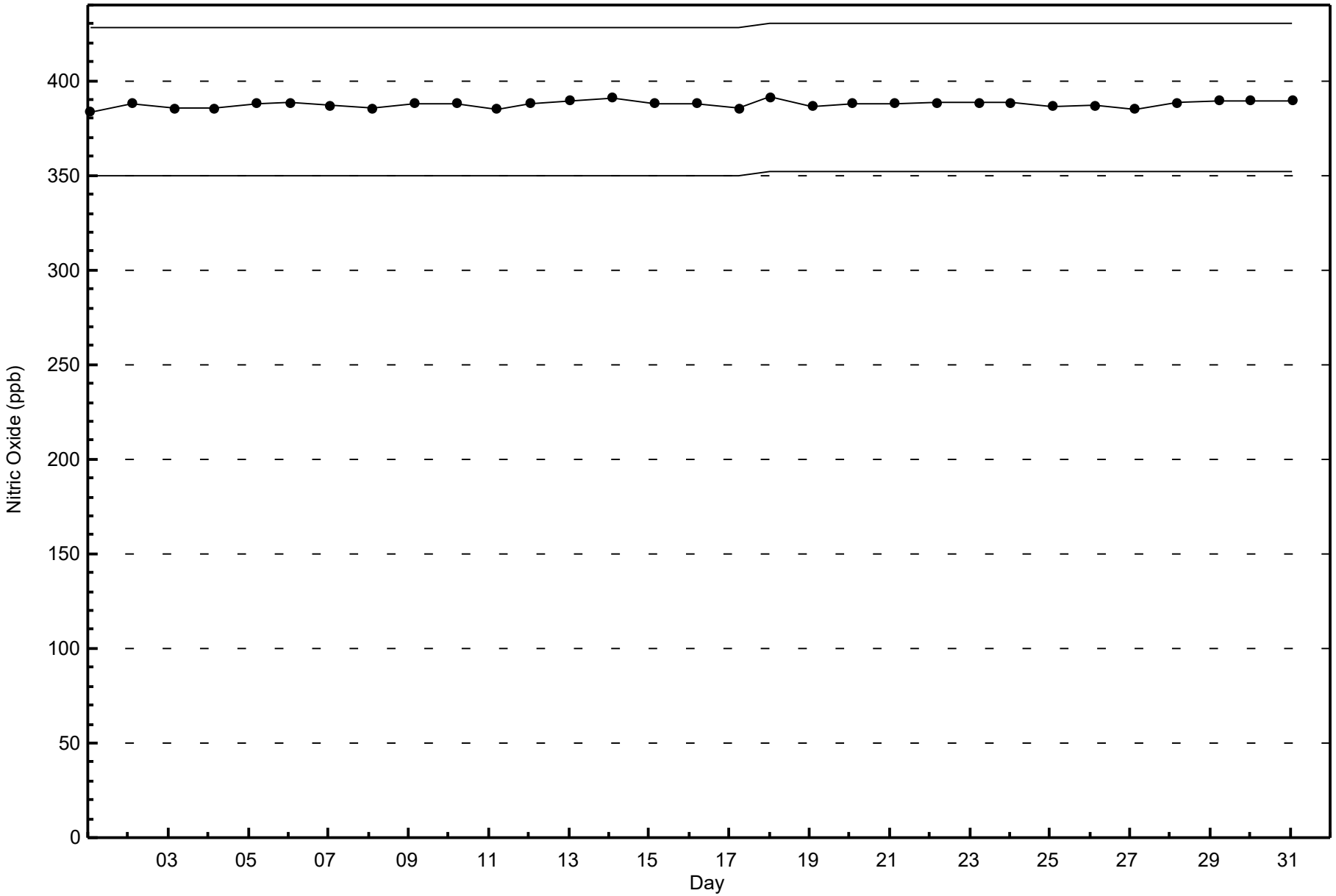


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Athabasca Valley - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Athabasca Valley - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 25.9 ppb on Oct 9 20:00 Maximum Daily Average: 10.4 ppb on Oct 16

Minimum Value: 0.4 ppb on Oct 28 03:00 Minimum Daily Average: 2.0 ppb on Oct 4

Maximum Diurnal Average: 9.0 ppb at hour 18 Minimum Diurnal Average: 3.2 ppb at hour 3

Monthly Average: 5.33 ppb Percentiles: P_1 = 0.6 P_{10} = 1.1 Q_1 = 2.3 Median = 4.1 Q_3 = 7.2 P_{90} = 11.5 P_{99} = 18.4

Hours in Service:	744
Hours of Data:	695
Hours of Missing Data:	49
Hours of Calibration:	36
Percent Operational Time:	98.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	6.5	Z	3.9	4.3	3.9	5.0	2.9	3.7	4.5	3.2	4.2	2.1	2.3	2.2	3.2	2.1	4.4	7.0	8.9	10.4	8.1	6.4	4.2	5.0	4.7	10.4
2-Oct	5.1	3.6	Z	5.6	6.4	6.5	6.3	4.7	3.7	3.5	4.2	M	M	M	M	4.9	6.3	15.9	9.8	11.1	10.3	8.9	7.6	5.5	6.8	15.9
3-Oct	4.3	4.7	3.8	Z	4.9	5.8	5.6	5.3	5.9	6.3	2.4	1.4	1.0	1.3	1.1	0.9	2.7	3.0	2.8	1.4	1.1	0.8	0.7	0.5	2.9	6.3
4-Oct	0.5	0.6	0.6	1.0	Z	2.2	4.2	4.2	1.5	1.3	2.7	0.9	2.0	2.0	3.4	3.5	4.8	2.6	1.9	1.5	1.5	0.9	0.6	0.8	2.0	4.8
5-Oct	0.9	0.7	1.4	1.6	3.7	Z	6.3	4.9	2.8	2.9	2.3	1.8	1.9	0.7	1.1	2.0	2.4	2.6	2.1	1.5	1.4	2.5	1.1	1.7	2.2	6.3
6-Oct	Z	1.9	3.3	1.7	3.2	7.8	6.2	9.2	2.9	2.4	2.4	2.9	3.5	3.3	3.3	3.8	4.5	15.9	15.8	11.9	7.3	5.9	4.4	4.1	5.5	15.9
7-Oct	3.8	Z	2.8	2.9	3.7	5.9	5.9	6.4	5.8	5.1	5.3	5.5	3.4	3.4	3.3	5.7	9.6	7.5	6.7	14.7	8.7	7.0	3.5	6.0	5.8	14.7
8-Oct	7.5	12.7	Z	7.7	0.9	2.5	2.9	1.8	1.0	1.1	1.8	0.6	0.7	0.7	0.8	1.2	1.7	3.0	2.4	1.7	0.7	0.8	0.7	0.6	2.4	12.7
9-Oct	0.7	1.1	0.9	Z	1.3	4.6	5.6	8.4	5.0	3.2	3.0	2.3	M	M	1.6	2.6	3.2	14.2	20.4	25.9	23.5	20.9	16.9	10.2	8.4	25.9
10-Oct	7.3	6.0	4.1	4.0	Z	6.9	7.4	5.5	4.1	3.3	5.2	4.4	5.3	8.2	5.0	4.6	7.5	13.0	14.0	17.4	15.7	15.4	7.7	5.1	7.7	17.4
11-Oct	4.4	3.7	3.5	4.0	2.4	Z	15.9	17.2	3.5	7.4	8.8	6.0	1.7	0.8	0.9	0.9	0.9	1.0	1.0	1.0	0.8	0.6	1.6	1.6	3.9	17.2
12-Oct	Z	0.9	1.1	1.0	1.6	2.5	2.9	2.2	1.2	2.8	2.7	1.2	1.7	1.4	1.2	1.3	3.8	8.5	5.7	5.5	5.1	2.7	2.1	2.9	2.7	8.5
13-Oct	3.0	Z	0.9	1.5	1.9	6.6	3.7	12.2	9.2	1.8	1.0	0.7	0.8	1.1	2.4	2.1	3.4	13.2	12.3	9.8	8.0	8.6	7.1	9.1	5.2	13.2
14-Oct	4.8	5.6	Z	5.3	7.2	8.9	7.3	9.4	5.3	3.3	2.9	2.5	2.3	3.3	2.6	3.5	7.3	18.4	22.9	18.4	17.0	11.1	8.7	7.0	8.0	22.9
15-Oct	5.4	5.4	5.1	Z	6.0	7.1	8.2	6.3	5.1	4.9	4.6	6.8	8.9	2.6	3.5	3.7	9.8	9.9	12.2	8.3	4.7	6.8	6.3	7.3	6.5	12.2
16-Oct	9.9	8.3	10.6	12.3	Z	15.9	15.9	12.3	9.2	6.4	6.1	5.4	4.9	6.1	6.8	8.8	8.0	17.1	17.8	25.4	14.1	7.2	2.8	6.8	10.4	25.4
17-Oct	8.3	2.6	1.2	1.0	1.4	Z	1.5	2.1	2.0	C	C	C	C	C	0.6	1.5	2.9	5.5	4.1	2.7	1.6	1.4	2.4	2.3	2.5	8.3
18-Oct	Z	0.8	1.6	2.0	2.2	5.2	14.1	13.7	12.7	4.8	3.5	3.0	1.8	0.7	1.1	1.6	5.6	17.8	11.8	8.5	14.2	13.8	13.8	8.6	7.1	17.8
19-Oct	5.4	Z	2.7	3.2	3.2	3.7	3.4	2.5	3.9	8.5	9.8	8.0	9.3	11.4	7.7	3.7	1.2	2.8	13.5	12.1	7.5	3.5	6.1	6.1	6.1	13.5
20-Oct	6.4	4.5	Z	2.4	4.8	3.4	10.3	7.1	6.0	7.8	8.9	8.9	8.0	3.4	3.1	3.1	4.6	8.8	6.3	10.4	9.1	6.9	4.1	3.8	6.2	10.4
21-Oct	3.8	3.8	3.1	Z	6.5	12.8	7.2	11.0	7.5	2.0	1.1	1.3	0.9	1.0	0.8	0.8	3.0	7.2	10.5	15.1	11.5	5.2	4.9	3.5	5.4	15.1
22-Oct	5.3	4.1	3.4	2.6	Z	4.3	4.3	6.1	M	M	M	M	M	M	M	3.4	6.1	7.9	6.2	4.7	3.1	2.6	2.2	2.2	--	7.9
23-Oct	1.9	1.6	2.0	2.4	4.6	Z	5.3	7.2	4.7	4.3	3.7	2.9	3.2	3.7	4.1	3.4	5.7	7.4	5.6	3.9	3.5	3.8	4.1	3.8	4.0	7.4
24-Oct	Z	4.5	4.6	5.6	6.9	8.0	7.5	7.2	6.0	6.5	5.4	5.1	6.5	5.2	4.5	6.6	13.4	17.3	8.4	5.8	4.5	5.0	4.5	5.1	6.7	17.3
25-Oct	3.3	Z	3.0	7.4	11.2	9.6	11.6	10.8	10.1	7.7	6.2	3.2	2.1	1.9	1.2	1.3	1.3	12.5	19.1	12.8	11.3	14.5	14.2	13.5	8.3	19.1
26-Oct	12.1	7.8	Z	5.2	2.4	3.0	6.7	6.2	6.9	7.4	6.8	8.7	8.6	11.3	11.6	11.3	7.3	6.6	6.4	3.7	3.6	2.7	2.1	1.8	6.5	12.1
27-Oct	1.2	1.2	1.0	Z	1.6	2.3	2.9	4.4	4.4	2.8	2.3	2.1	4.7	3.6	2.1	3.0	2.2	1.6	1.0	0.8	0.7	0.6	0.5	0.5	2.1	4.7
28-Oct	0.6	0.5	0.4	0.6	Z	1.9	1.5	1.9	2.1	2.7	2.0	1.6	1.3	0.8	1.4	2.4	3.5	3.7	2.1	2.0	4.2	4.7	2.6	1.4	2.0	4.7
29-Oct	1.6	3.8	4.2	2.8	2.7	Z	2.7	2.4	6.6	4.1	0.7	1.6	1.3	2.4	14.0	15.2	15.6	13.8	12.9	10.7	8.7	9.0	11.9	15.1	7.1	15.6
30-Oct	Z	7.3	9.0	10.2	11.6	11.0	7.7	4.6	6.2	3.6	1.7	2.4	3.7	3.6	4.7	5.1	5.6	9.1	9.6	6.8	7.1	3.8	5.2	4.8	6.3	11.6
31-Oct	4.4	Z	3.8	4.9	8.9	13.0	12.5	12.3	6.7	4.5	3.9	4.2	3.8	3.5	3.8	3.6	3.3	3.1	3.0	2.6	3.5	3.8	3.6	3.3	5.2	13.0
	4.6	3.9	3.2	4.0	4.4	6.4	6.7	6.9	5.2	4.3	4.0	3.5	3.5	3.3	3.5	3.8	5.2	9.0	8.9	8.7	7.2	6.1	5.1	4.8	Diurnal Average	
	12.1	12.7	10.6	12.3	11.6	15.9	15.9	17.2	12.7	8.5	9.8	8.9	9.3	11.4	14.0	15.2	15.6	18.4	22.9	25.9	23.5	20.9	16.9	15.1	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

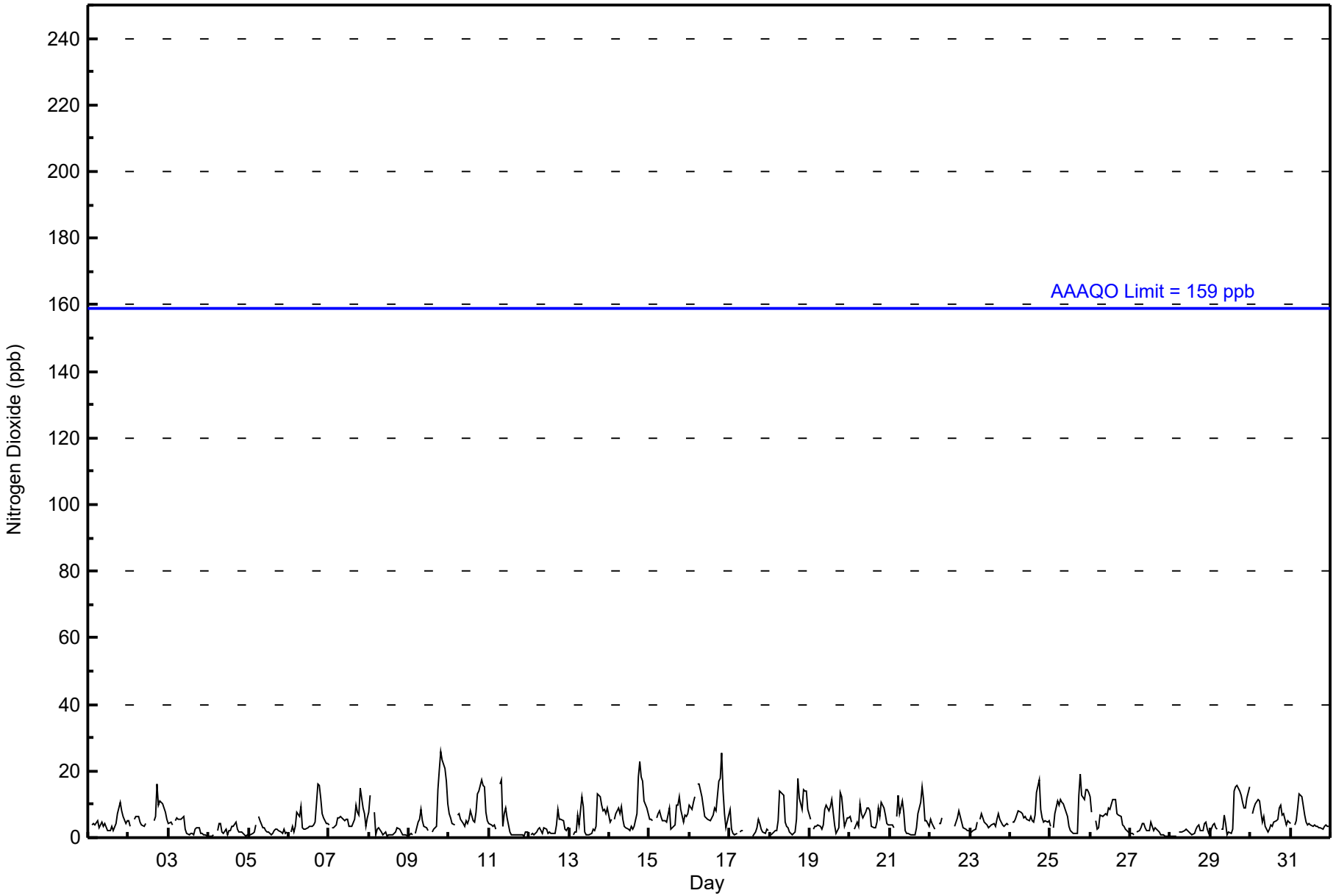
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Athabasca Valley - October 2025



Nitrogen Dioxide (NO_2) - ppb
Athabasca Valley - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	690	99.28	99.28
21 - 40	5	0.72	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 695

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Athabasca Valley - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	8	4	7	14	21	183	58	32	29	38	50	31	60	33	71	51	690
21 - 40	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	5
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	8	4	7	14	21	185	61	32	29	38	50	31	60	33	71	51	695

Total Number of Valid Hours: 695

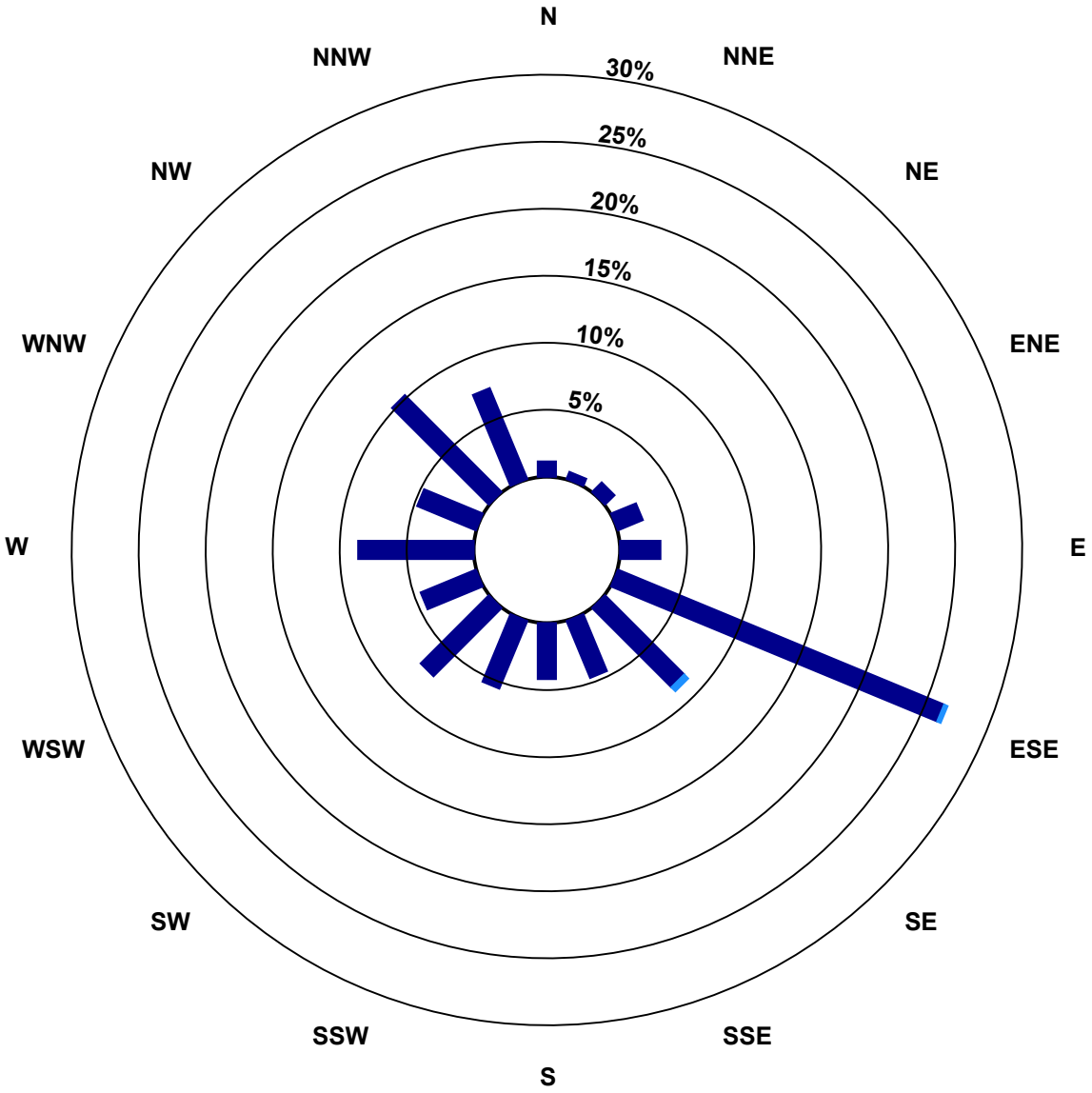
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Athabasca Valley



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

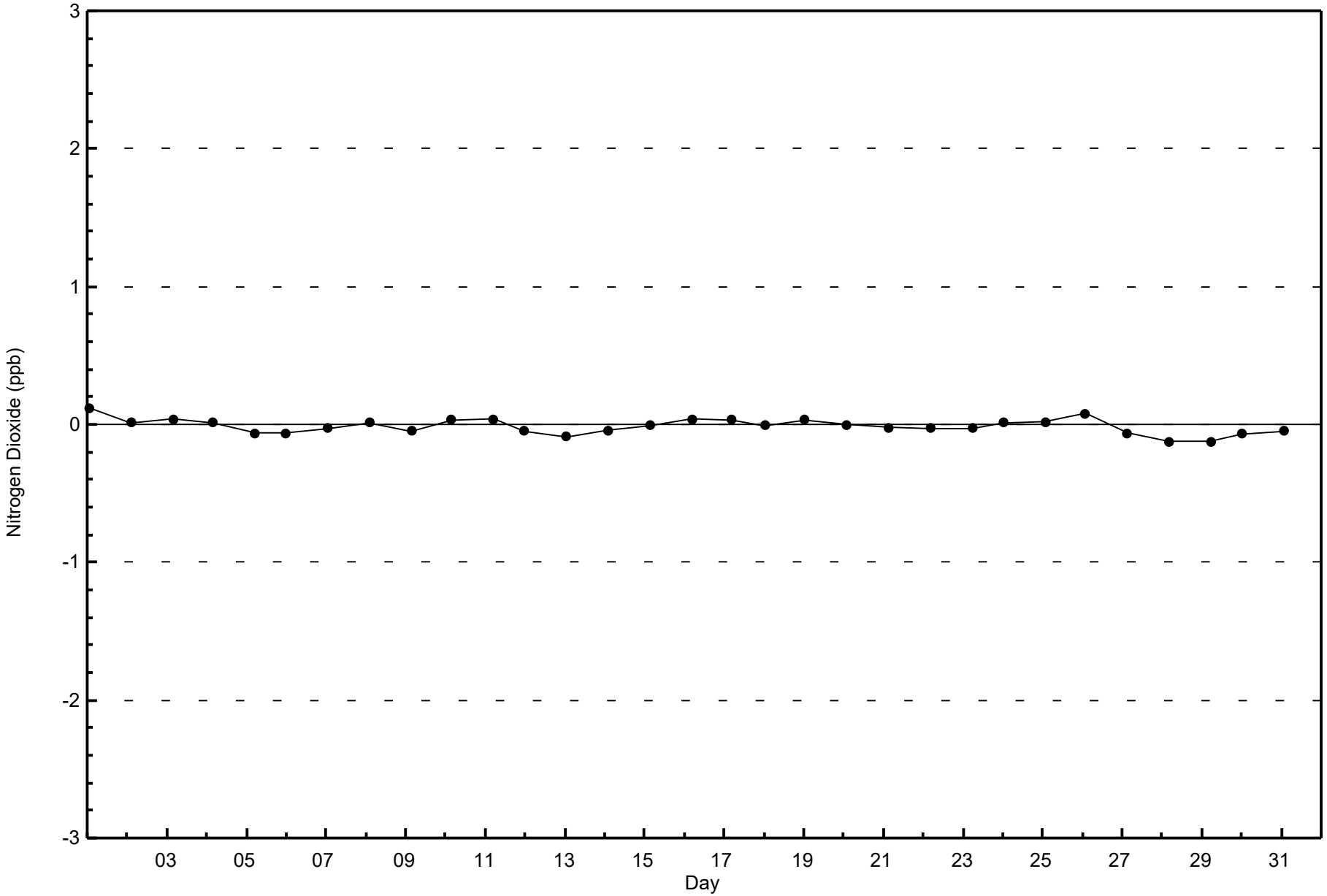
Total Number of Valid Hours: 695

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Athabasca Valley - October 2025

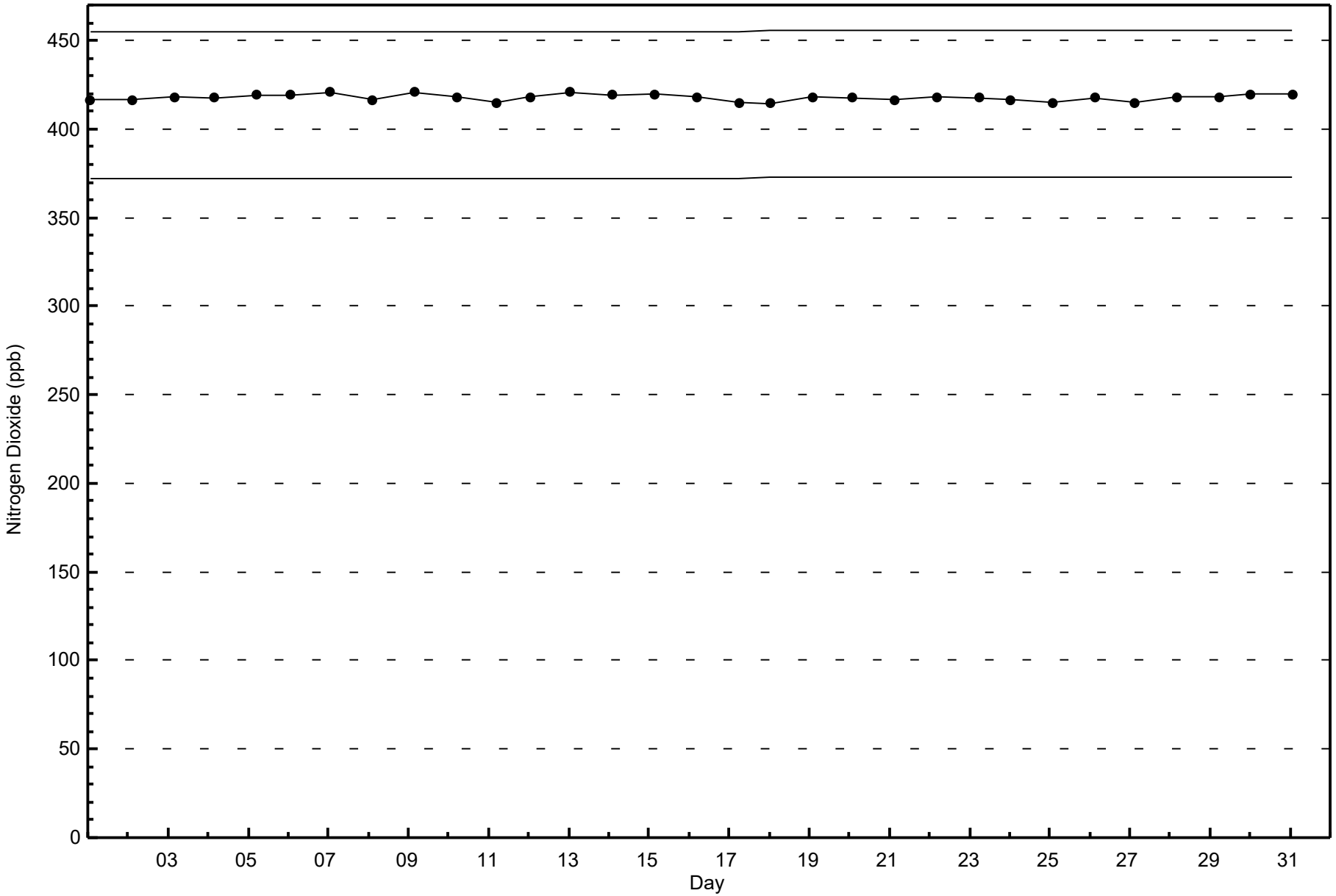


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Athabasca Valley - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Athabasca Valley - October 2025

Maximum Value: 39.1 ppb on Oct 21 06:00

Maximum Daily Average: 13.9 ppb on Oct 16

Minimum Value: 0.4 ppb on Oct 28 03:00

Minimum Daily Average: 2.2 ppb on Oct 27

Maximum Diurnal Average: 11.6 ppb at hour 8

Minimum Diurnal Average: 3.5 ppb at hour 3

Monthly Average: 7.32 ppb

Percentiles: P_1 = 0.6 P_{10} = 1.4 Q_1 = 2.7 Median = 5.3 Q_3 = 9.2 P_{90} = 16.2 P_{99} = 29.7

Hours in Service:	744
Hours of Data:	695
Hours of Missing Data:	49
Hours of Calibration:	36
Percent Operational Time:	98.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	6.5	Z	3.9	4.3	3.9	5.0	2.9	3.8	4.7	3.4	4.6	2.4	2.5	2.3	3.7	2.3	4.8	7.2	9.0	10.5	9.3	7.2	4.7	5.2	5.0	10.5
2-Oct	5.5	4.2	Z	8.9	12.5	16.3	17.0	16.2	12.7	10.1	9.9	M	M	M	M	6.8	9.2	25.5	11.8	15.8	13.1	11.1	10.1	6.9	11.8	25.5
3-Oct	5.3	6.0	4.8	Z	8.6	10.1	10.7	13.6	16.6	16.2	4.6	2.3	1.6	1.9	1.4	1.2	3.4	3.9	3.5	1.6	1.3	1.0	0.8	0.6	5.3	16.6
4-Oct	0.6	0.7	0.8	1.3	Z	2.8	7.7	6.6	2.0	1.7	3.2	1.1	2.3	2.4	3.7	3.7	5.2	2.9	2.0	1.6	1.5	1.0	0.7	0.9	2.5	7.7
5-Oct	1.0	0.8	1.6	2.1	7.0	Z	11.1	9.2	4.4	4.5	5.0	5.5	5.6	0.9	1.3	2.5	2.7	2.8	2.2	1.5	1.5	2.9	1.2	1.9	3.4	11.1
6-Oct	Z	1.9	3.3	1.7	3.2	7.9	6.5	10.7	3.7	3.7	3.8	4.6	5.6	5.0	4.9	5.3	5.8	21.6	17.6	13.4	8.3	6.8	4.9	4.6	6.7	21.6
7-Oct	4.2	Z	3.5	3.7	4.7	7.2	7.1	8.4	8.3	8.1	7.9	8.5	5.5	5.3	4.9	7.3	11.9	8.6	7.5	19.8	9.4	7.6	3.7	6.2	7.4	19.8
8-Oct	7.6	13.0	Z	7.8	0.9	2.5	3.3	1.9	1.1	1.5	2.7	0.9	1.0	1.0	1.1	1.5	2.0	3.1	2.5	1.7	0.7	0.9	0.7	0.6	2.6	13.0
9-Oct	0.7	1.3	1.1	Z	2.1	7.5	9.3	23.0	10.8	8.7	6.4	4.6	M	M	2.2	3.8	4.0	18.5	27.9	39.0	29.7	27.7	22.1	11.0	12.4	39.0
10-Oct	8.0	6.4	4.8	4.8	Z	9.2	10.8	8.5	7.2	6.4	10.3	8.1	9.1	13.2	6.9	5.8	9.1	15.0	15.7	18.8	16.3	16.2	7.9	5.2	9.7	18.8
11-Oct	4.5	3.8	3.6	4.1	2.4	Z	19.9	21.0	3.8	8.8	10.4	6.5	2.0	1.0	1.1	1.1	1.1	1.2	1.1	1.0	0.8	0.6	1.6	1.6	4.5	21.0
12-Oct	Z	0.9	1.1	1.0	1.7	2.5	2.9	2.3	1.5	3.5	3.2	1.6	2.3	2.0	1.6	1.6	4.1	8.8	5.8	5.6	5.2	2.7	2.1	2.9	2.9	8.8
13-Oct	3.0	Z	0.9	1.5	2.0	9.2	4.8	21.0	15.8	3.1	1.8	1.0	1.4	2.0	4.3	3.3	4.3	15.4	14.4	11.4	9.0	9.7	8.1	10.5	6.9	21.0
14-Oct	5.4	6.3	Z	6.2	8.5	11.2	9.0	13.1	8.4	6.0	5.2	4.7	3.7	5.0	3.7	5.3	10.0	30.7	37.5	25.0	23.1	12.8	9.3	7.7	11.2	37.5
15-Oct	6.5	6.4	6.2	Z	7.7	9.4	11.0	9.3	8.6	9.5	8.3	11.6	16.8	3.6	5.3	5.3	14.1	14.0	16.7	10.5	5.5	7.9	7.4	7.9	9.1	16.8
16-Oct	11.1	9.1	12.0	14.2	Z	24.7	27.2	23.1	17.5	11.5	11.0	9.0	7.5	8.5	9.6	11.2	9.0	18.8	20.4	30.1	15.1	8.1	2.9	7.0	13.9	30.1
17-Oct	9.1	2.7	1.3	1.1	1.7	Z	1.9	2.6	2.3	C	C	C	C	C	0.6	1.6	3.0	5.7	4.3	2.8	1.7	1.5	2.6	2.3	2.7	9.1
18-Oct	Z	0.8	1.7	2.2	3.2	7.0	25.4	29.1	25.4	7.8	6.0	5.1	2.8	1.0	1.4	1.9	5.9	22.6	14.6	11.4	22.8	17.8	17.2	11.2	10.6	29.1
19-Oct	6.2	Z	3.1	3.7	4.1	4.5	4.5	3.5	5.4	16.4	20.8	13.2	15.9	22.1	14.1	5.0	1.9	4.0	29.0	21.3	8.1	3.7	6.3	6.2	9.7	29.0
20-Oct	6.7	4.6	Z	2.4	5.1	3.6	11.2	7.6	7.4	11.3	13.9	15.2	14.0	6.6	6.6	6.7	8.3	15.6	8.8	14.6	13.0	9.0	4.8	4.5	8.8	15.6
21-Oct	4.5	4.6	3.8	Z	8.4	39.1	9.6	33.4	14.6	3.1	1.6	1.7	1.1	1.3	1.0	1.0	3.3	7.9	11.2	17.9	14.9	5.7	7.8	4.7	8.8	39.1
22-Oct	6.7	5.2	4.8	3.7	Z	7.1	7.2	10.9	M	M	M	M	M	M	M	4.6	7.4	9.2	7.5	6.1	4.1	3.4	2.8	2.7	--	10.9
23-Oct	2.3	2.0	2.5	2.9	5.6	Z	6.5	9.0	6.4	6.6	6.2	4.8	5.3	5.5	5.7	4.4	7.0	8.3	6.8	4.9	4.5	4.4	4.6	4.0	5.2	9.0
24-Oct	Z	4.8	5.0	6.2	8.1	9.5	9.0	9.4	8.4	10.4	9.1	8.8	11.0	7.3	5.8	8.2	18.5	26.1	9.7	7.0	5.2	5.6	5.5	5.5	8.9	26.1
25-Oct	3.6	Z	3.1	8.0	13.6	12.0	15.5	16.8	17.9	12.6	8.8	4.7	2.9	2.2	1.7	1.8	1.8	16.9	29.8	24.5	16.6	20.7	20.7	15.6	11.8	29.8
26-Oct	16.0	9.1	Z	6.5	2.7	4.3	11.1	9.7	15.9	16.5	15.2	21.3	17.5	23.6	18.9	14.7	7.9	6.7	6.7	4.0	3.7	2.8	2.2	1.8	10.4	23.6
27-Oct	1.2	1.2	1.0	Z	1.6	2.3	3.0	4.5	4.7	3.1	2.6	2.4	5.5	4.1	2.4	3.2	2.3	1.7	1.1	0.9	0.8	0.6	0.5	0.5	2.2	5.5
28-Oct	0.6	0.5	0.4	0.6	Z	2.1	1.7	2.1	2.3	3.3	2.6	2.1	1.8	1.0	1.8	2.6	3.9	4.5	2.6	2.4	5.2	6.0	3.1	1.5	2.4	6.0
29-Oct	1.8	4.2	4.7	3.4	3.4	Z	3.2	3.4	8.4	5.3	1.1	2.1	2.0	3.0	25.7	26.7	27.0	14.7	14.6	12.5	8.9	9.0	12.2	15.9	9.3	27.0
30-Oct	Z	7.3	9.0	10.7	13.3	11.1	8.9	5.9	8.0	6.9	2.9	3.5	5.0	4.8	6.9	6.8	6.9	10.3	11.0	8.0	8.6	4.2	6.0	5.4	7.5	13.3
31-Oct	4.9	Z	4.3	5.7	11.5	22.9	16.6	19.4	10.4	7.7	6.5	6.6	6.1	5.4	5.3	4.9	4.3	4.0	3.8	3.3	4.4	4.5	4.1	3.9	7.4	22.9
	5.1	4.3	3.5	4.6	5.7	9.6	9.6	11.6	8.8	7.5	6.7	5.8	5.8	5.3	5.3	5.2	6.8	11.5	11.5	11.3	8.8	7.2	6.1	5.4	Diurnal Average	
	16.0	13.0	12.0	14.2	13.6	39.1	27.2	33.4	25.4	16.5	20.8	21.3	17.5	23.6	25.7	26.7	27.0	30.7	37.5	39.0	29.7	27.7	22.1	15.9	Diurnal Maximum	

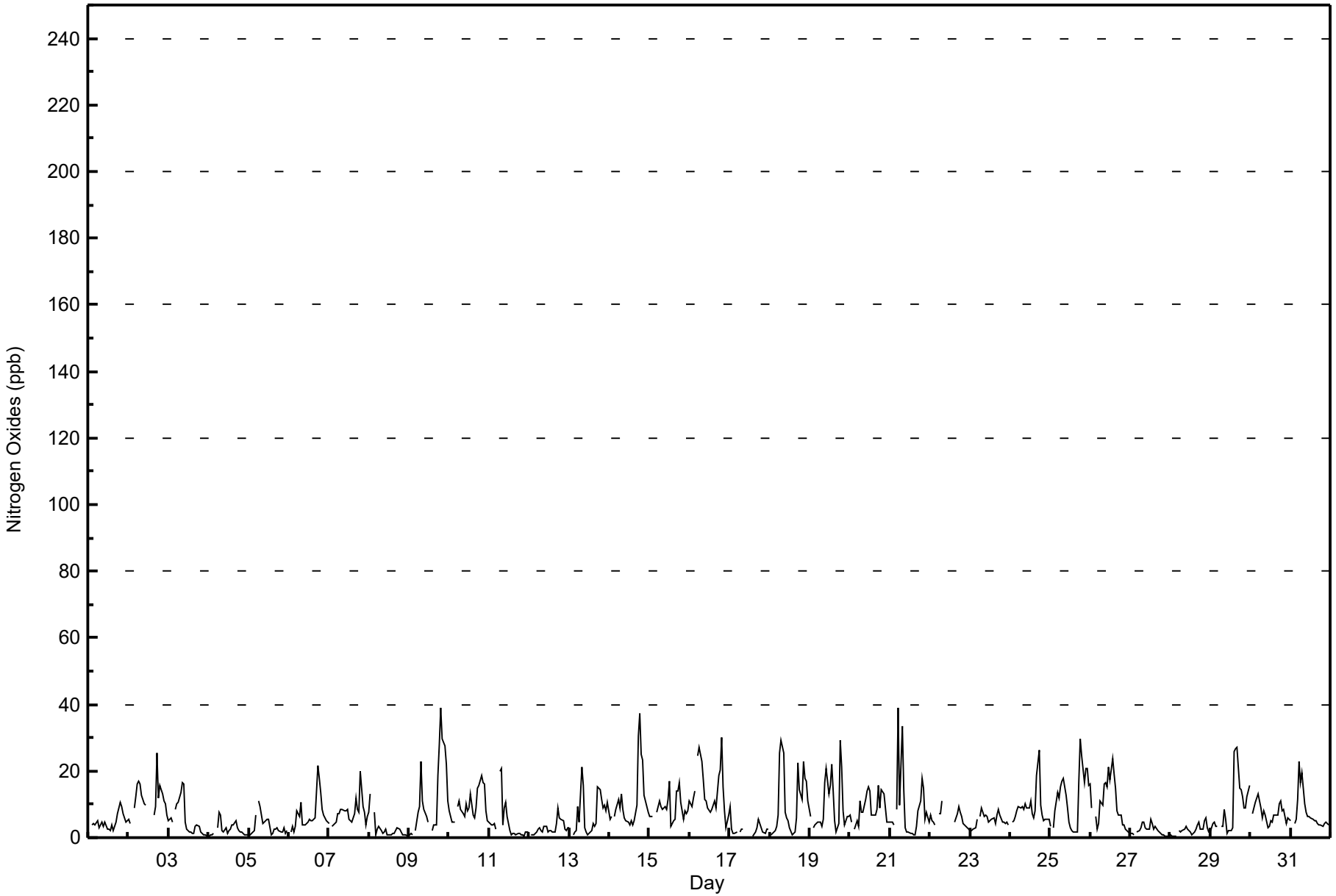
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Athabasca Valley - October 2025



Nitrogen Oxides (NO_X) - ppb
Athabasca Valley - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	655	94.24	94.24
21 - 40	40	5.76	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 695

Total Number of Hours: 744

Nitrogen Oxides (NO_X) - ppb
Athabasca Valley - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	7	4	7	14	21	174	47	30	28	37	49	31	60	33	68	45	655
21 - 40	1	0	0	0	0	11	14	2	1	1	1	0	0	0	3	6	40
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	8	4	7	14	21	185	61	32	29	38	50	31	60	33	71	51	695

Total Number of Valid Hours: 695

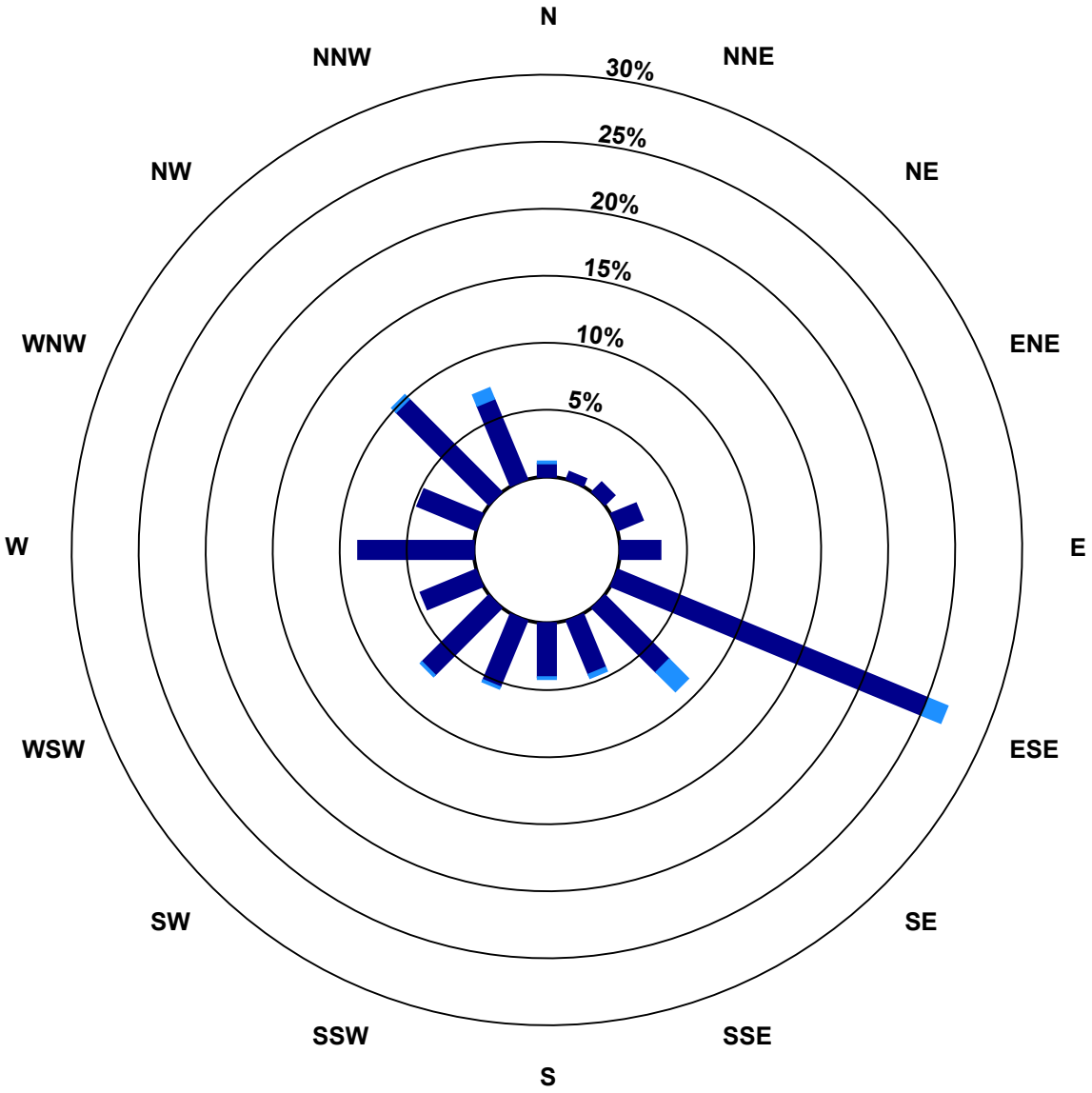
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Athabasca Valley



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

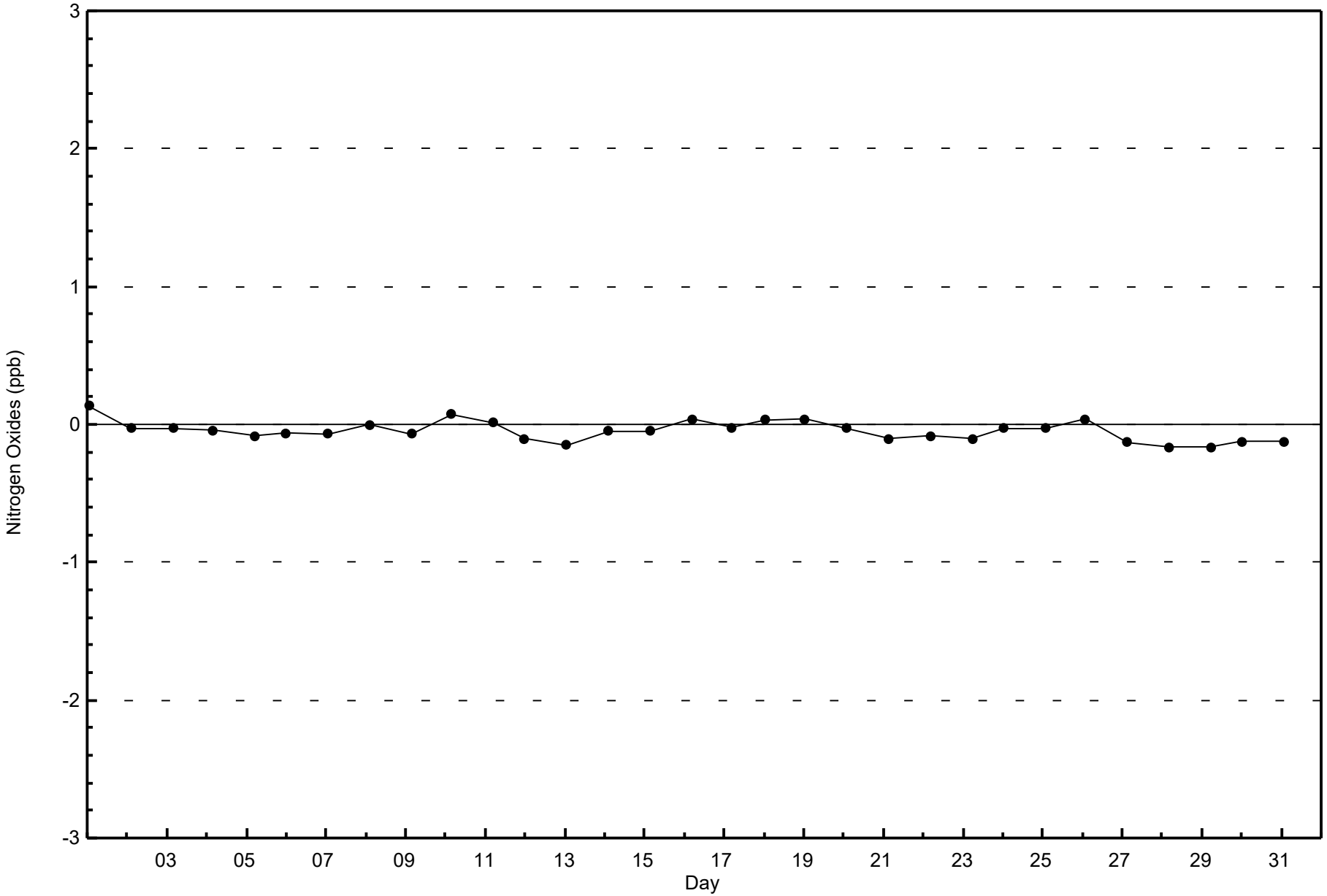
Total Number of Valid Hours: 695

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Athabasca Valley - October 2025



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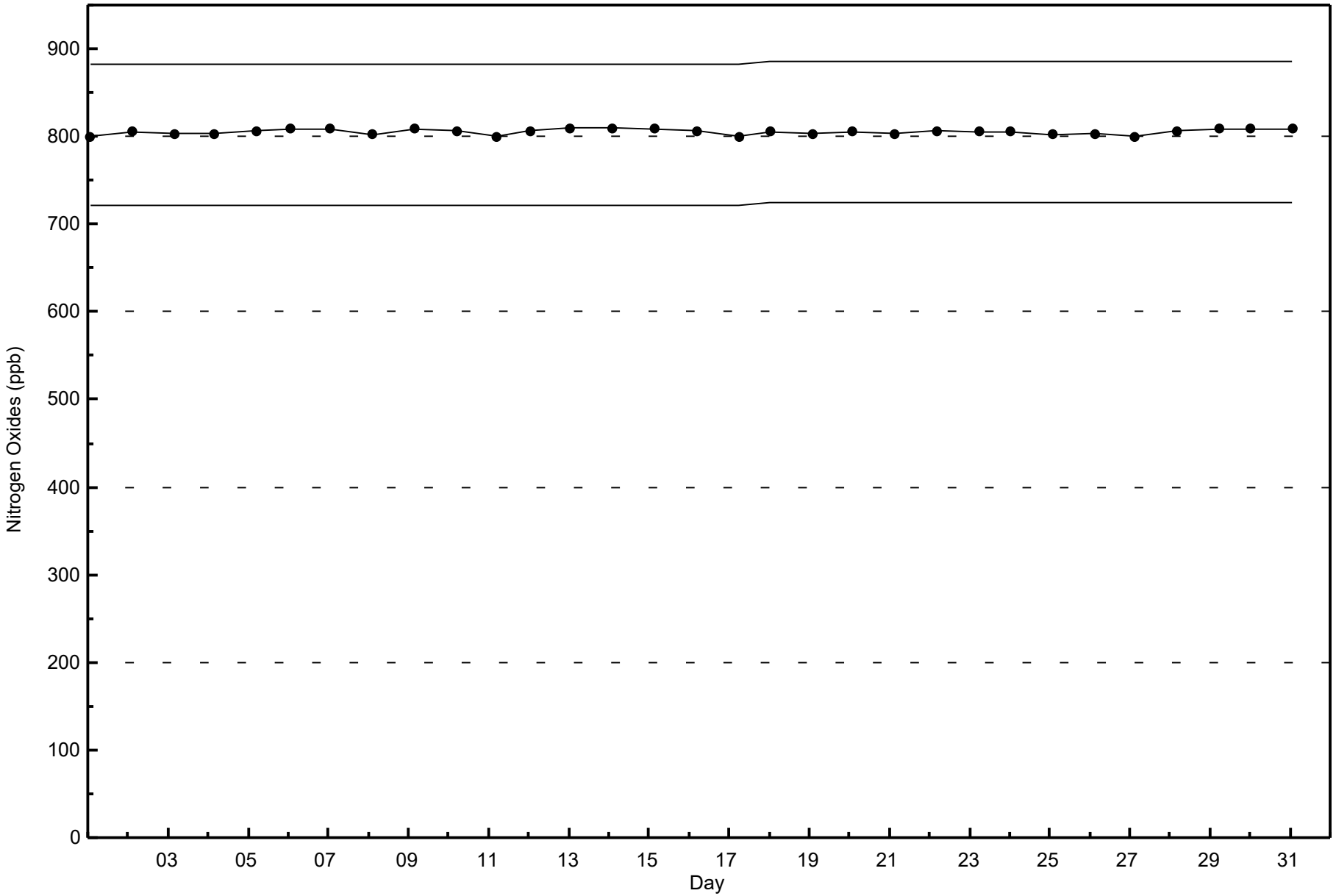
Span Responses

Nitrogen Oxides (NO_X) - ppb

Athabasca Valley - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Athabasca Valley - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 26.6 $\mu g/m^3$ on Oct 1 04:00

Maximum Daily Average: 11.9 $\mu g/m^3$ on Oct 1

Minimum Value: 0.1 $\mu g/m^3$ on Oct 27 23:00

Maximum Diurnal Average: 5.1 $\mu g/m^3$ at hour 9

Monthly Average: 4.29 $\mu g/m^3$

Minimum Daily Average: 0.7 $\mu g/m^3$ on Oct 27

Minimum Diurnal Average: 3.7 $\mu g/m^3$ at hour 23

Percentiles: P_1 = 0.3 P_{10} = 1.0 Q_1 = 2.6 Median = 3.9 Q_3 = 5.5 P_{90} = 7.0 P_{99} = 16.7

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Hours of Calibration:	2
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	20.4	21.8	22.1	26.6	20.7	18.7	14.9	12.7	12.1	11.4	12.8	11.2	9.4	7.0	6.5	5.8	6.3	5.9	6.5	7.0	6.3	7.3	6.2	7.0	11.9	26.6
2-Oct	8.8	6.6	6.2	5.8	5.5	4.9	5.6	5.9	6.0	5.9	6.3	6.4	7.2	6.8	5.0	5.5	6.4	10.2	6.8	7.4	7.8	9.2	8.5	8.5	6.8	10.2
3-Oct	7.9	8.3	8.7	8.8	10.2	11.2	12.7	14.7	15.6	15.6	8.3	M	2.9	2.1	1.8	1.4	1.4	1.5	1.3	1.3	1.5	1.2	1.7	2.1	6.2	15.6
4-Oct	2.6	2.9	3.6	3.9	4.0	3.9	5.1	6.1	3.3	3.2	4.0	3.8	4.5	4.1	4.3	3.2	3.5	1.6	1.0	0.7	0.8	0.8	0.7	0.7	3.0	6.1
5-Oct	0.8	1.1	1.4	1.7	3.0	3.8	4.4	4.6	5.2	8.3	7.1	3.7	7.7	10.6	16.3	20.7	17.0	6.2	2.3	1.5	1.8	1.8	2.2	2.7	5.7	20.7
6-Oct	2.1	1.3	1.9	1.7	1.6	1.7	1.9	2.4	1.5	1.3	1.2	1.6	1.7	2.0	2.4	2.7	2.8	4.9	4.7	4.2	3.1	2.6	2.1	1.2	2.3	4.9
7-Oct	1.2	1.1	1.3	1.5	2.0	2.8	3.3	3.8	4.2	4.3	4.2	4.5	4.0	4.0	4.0	4.5	5.0	4.1	4.0	5.3	4.8	4.2	4.2	4.3	3.6	5.3
8-Oct	4.3	5.6	5.8	5.2	2.2	2.7	4.3	6.3	3.9	3.2	2.9	2.6	3.5	3.4	2.7	3.2	3.6	2.7	1.8	2.1	2.2	2.0	1.5	1.3	3.3	6.3
9-Oct	1.0	1.0	1.0	1.4	2.0	3.1	3.5	7.7	14.2	13.8	8.2	5.6	4.3	C	C	1.3	1.5	2.7	3.9	8.1	7.5	5.0	4.8	4.0	4.8	14.2
10-Oct	2.4	2.7	2.4	2.6	2.8	3.0	3.0	3.1	3.2	3.5	4.0	4.4	4.6	5.5	5.5	5.6	5.9	6.3	6.0	7.9	10.4	9.5	8.3	7.1	5.0	10.4
11-Oct	6.4	6.0	6.1	6.0	5.9	6.4	7.0	10.4	7.0	6.6	6.8	5.1	3.1	2.7	1.3	0.7	0.7	0.6	0.8	0.6	0.4	0.3	0.5	0.7	3.8	10.4
12-Oct	0.5	0.3	0.4	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.7	0.7	0.6	0.6	1.1	1.4	1.5	1.5	1.2	0.8	1.1	0.8	1.5
13-Oct	1.2	0.6	0.5	0.5	0.6	1.0	0.7	1.8	3.4	1.2	2.9	4.0	4.0	3.7	4.0	3.7	3.1	3.8	3.8	3.5	3.1	3.9	4.1	4.8	2.7	4.8
14-Oct	5.2	5.2	4.4	3.9	3.8	4.0	4.1	4.8	5.2	4.9	4.1	3.6	3.2	3.1	2.8	3.0	3.5	5.3	6.9	5.9	5.5	4.4	4.4	4.0	4.4	6.9
15-Oct	3.4	3.4	3.3	3.2	3.4	3.7	3.9	3.8	3.6	3.6	3.9	4.2	4.5	3.4	3.9	4.2	5.0	4.9	4.9	4.3	3.8	3.9	4.3	5.1	4.0	5.1
16-Oct	5.1	5.2	5.8	5.9	5.9	6.0	5.7	5.4	5.3	5.1	6.1	6.0	6.0	4.4	4.4	4.6	3.7	5.1	5.5	7.0	5.4	3.6	2.9	3.2	5.1	7.0
17-Oct	3.6	3.2	2.7	2.5	2.6	3.3	3.7	4.1	2.2	2.1	2.9	3.1	2.7	2.5	1.6	1.7	1.7	3.0	3.4	2.2	1.9	1.5	1.7	2.2	2.6	4.1
18-Oct	3.7	2.2	2.8	3.2	3.1	3.5	4.9	5.7	5.6	4.3	4.1	3.5	3.0	2.6	2.7	2.6	3.0	5.4	5.1	5.4	8.3	7.6	5.9	6.0	4.3	8.3
19-Oct	3.6	2.8	2.6	3.0	4.2	5.0	5.5	5.6	6.5	6.8	6.7	6.4	6.9	7.1	5.2	4.5	3.9	3.9	5.7	5.2	3.9	3.2	3.5	3.7	4.8	7.1
20-Oct	3.7	3.7	4.0	3.5	3.9	3.4	3.9	5.1	3.4	4.3	4.2	6.0	7.3	3.6	4.9	8.3	9.6	9.8	9.4	9.3	8.6	5.6	5.0	5.0	5.6	9.8
21-Oct	5.3	5.4	5.3	5.2	5.0	5.5	4.5	4.8	4.1	3.4	3.2	2.8	2.6	2.3	2.3	2.2	2.8	3.1	4.2	5.3	5.1	3.7	4.0	4.6	4.0	5.5
22-Oct	4.2	3.6	3.4	3.1	3.6	3.1	3.3	3.6	3.7	3.7	3.8	3.9	3.7	3.3	3.3	3.0	3.1	3.7	5.3	7.5	5.3	4.4	4.4	4.4	3.9	7.5
23-Oct	4.3	4.3	4.2	3.8	3.5	3.7	3.8	4.0	4.0	3.8	3.4	2.9	2.9	3.0	3.3	3.5	3.7	4.4	4.8	5.0	5.4	5.2	4.7	3.9	4.0	5.4
24-Oct	3.4	3.4	3.3	3.4	3.5	3.8	4.3	4.6	4.8	5.2	5.1	4.6	4.5	4.0	3.8	4.0	4.7	6.9	6.8	6.2	5.5	6.2	6.7	6.9	4.8	6.9
25-Oct	6.1	6.0	5.9	6.4	6.5	6.4	6.9	7.0	8.2	7.3	5.9	4.7	5.2	3.1	4.2	3.8	3.0	4.3	5.7	5.0	4.4	4.2	4.1	4.4	5.4	8.2
26-Oct	3.4	2.8	2.9	3.1	2.4	2.3	3.0	3.4	4.3	3.9	4.2	5.3	5.3	6.4	5.6	4.5	4.1	3.8	3.2	2.9	2.8	2.4	1.9	1.0	3.5	6.4
27-Oct	0.9	1.0	1.1	0.9	0.7	0.5	0.8	1.1	0.7	0.5	0.5	0.6	2.8	1.2	0.5	0.7	0.6	0.5	0.3	0.3	0.3	0.2	0.1	0.2	0.7	2.8
28-Oct	0.2	0.3	0.3	0.3	0.4	0.5	0.6	0.7	0.9	1.0	0.7	0.6	0.5	0.4	0.7	1.2	1.9	1.7	1.5	1.5	2.0	1.9	1.8	1.9	1.0	2.0
29-Oct	2.3	4.2	4.0	2.2	1.3	1.8	2.4	2.9	3.6	3.4	3.1	3.2	3.2	3.0	5.9	4.8	5.1	4.1	5.2	6.0	4.6	5.5	5.7	8.1	4.0	8.1
30-Oct	7.8	6.1	5.3	5.5	6.4	6.8	5.3	4.7	5.8	4.5	4.4	4.6	5.1	5.3	5.1	5.1	5.5	5.8	6.1	5.5	4.8	4.2	4.3	4.2	5.3	7.8
31-Oct	4.1	4.0	4.6	5.7	5.3	6.7	5.8	6.1	6.1	5.6	5.9	7.3	7.2	7.0	6.6	7.2	6.4	5.8	5.4	4.7	4.6	4.9	5.1	4.7	5.7	7.3
	4.2	4.1	4.1	4.2	4.1	4.3	4.5	5.1	5.1	4.9	4.6	4.2	4.3	3.9	4.0	4.1	4.2	4.3	4.3	4.5	4.3	3.9	3.7	3.8	Diurnal Average	
	20.4	21.8	22.1	26.6	20.7	18.7	14.9	14.7	15.6	15.6	12.8	11.2	9.4	10.6	16.3	20.7	17.0	10.2	9.4	9.3	10.4	9.5	8.5	8.5	Diurnal Maximum	

C - Calibration M - Maintenance

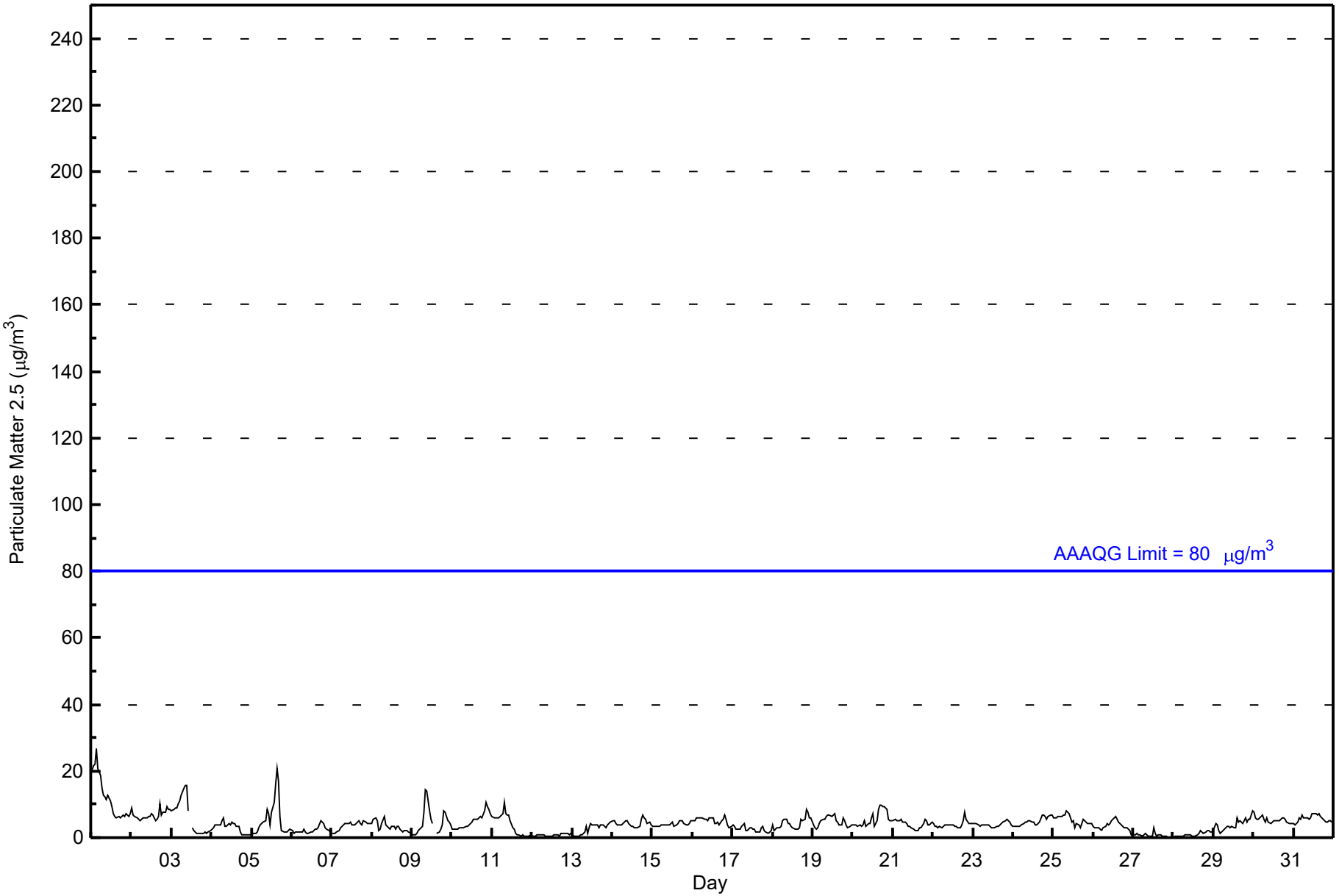
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 $\mu g/m^3$ 24-hr 29 $\mu g/m^3$

Wood Buffalo Environmental Association

Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Athabasca Valley - October 2025



Concentration Ranges ($\mu g/m^3$)	Number of Hours	%	Cumulative %
0 - 5	561	75.71	75.71
6 - 15	169	22.81	98.52
16 - 25	10	1.35	99.87
26 - 80	1	0.13	100.00
> 81.0	0	0.00	100.00

Total Number of Valid Hours: 741

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Athabasca Valley - October 2025

Concentration Ranges ($\mu g/m^3$)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	6	3	6	13	17	152	35	23	22	30	48	29	57	29	50	41	561
6 - 15	2	1	1	2	5	48	34	11	7	10	3	3	4	6	20	12	169
16 - 25	0	0	0	0	0	2	0	0	0	0	1	1	1	0	5	0	10
26 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	8	4	7	15	22	202	69	34	29	40	52	33	62	35	76	53	741

Total Number of Valid Hours: 741

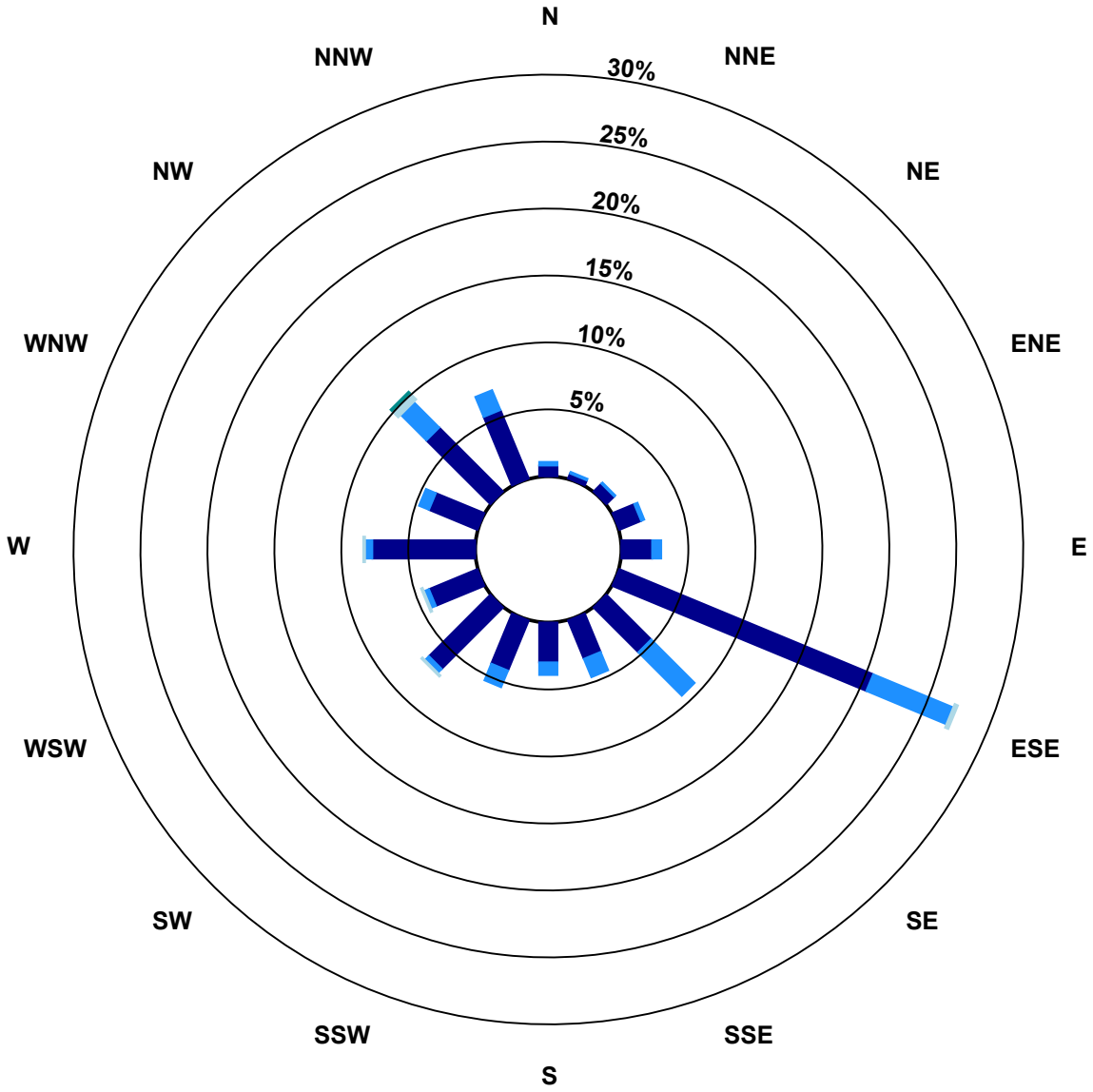
Total Number of Hours: 744

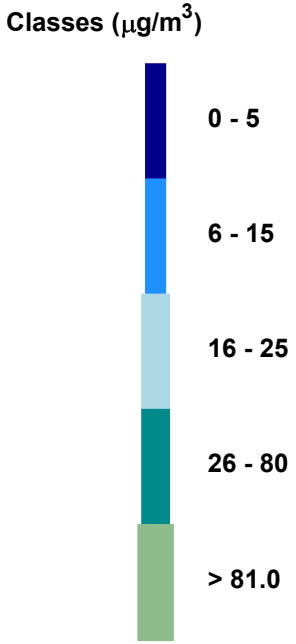
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Athabasca Valley





Total Number of Valid Hours: 741

Wood Buffalo Environmental Association

Summary of Hour Averages

Carbon Monoxide (CO) - ppm

Athabasca Valley - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 0.4 ppm on Oct 9 20:00

Maximum Daily Average: 0.2 ppm on Oct 2

Minimum Value: 0.1 ppm on Oct 6 09:00

Minimum Daily Average: 0.1 ppm on Oct 27

Maximum Diurnal Average: 0.2 ppm at hour 20

Minimum Diurnal Average: 0.1 ppm at hour 3

Monthly Average: 0.14 ppm

Percentiles: P_1 = 0.1 P_{10} = 0.1 Q_1 = 0.1 Median = 0.1 Q_3 = 0.1 P_{90} = 0.2 P_{99} = 0.3

Hours in Service:	744
Hours of Data:	698
Hours of Missing Data:	46
Hours of Calibration:	35
Percent Operational Time:	98.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
2-Oct	0.2	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3
3-Oct	0.2	0.2	0.1	0.2	Z	0.2	0.2	0.3	0.3	0.3	M	M	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3
4-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
6-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2
7-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.2	0.3
8-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
9-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.2	0.2	0.1	M	M	0.1	0.1	0.1	0.2	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.4
10-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.2	0.3
11-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
12-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
13-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2
14-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.3	0.2	0.1	0.1	0.2	0.3
15-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2
16-Oct	0.2	0.1	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.3
17-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2
18-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3
19-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
20-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2
21-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2
22-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	M	M	M	M	M	M	M	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	--	0.2
23-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2
24-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	C	C	C	C	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2
25-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3
26-Oct	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
27-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
28-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
29-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2
31-Oct	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	Diurnal Average	
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.2	0.2	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

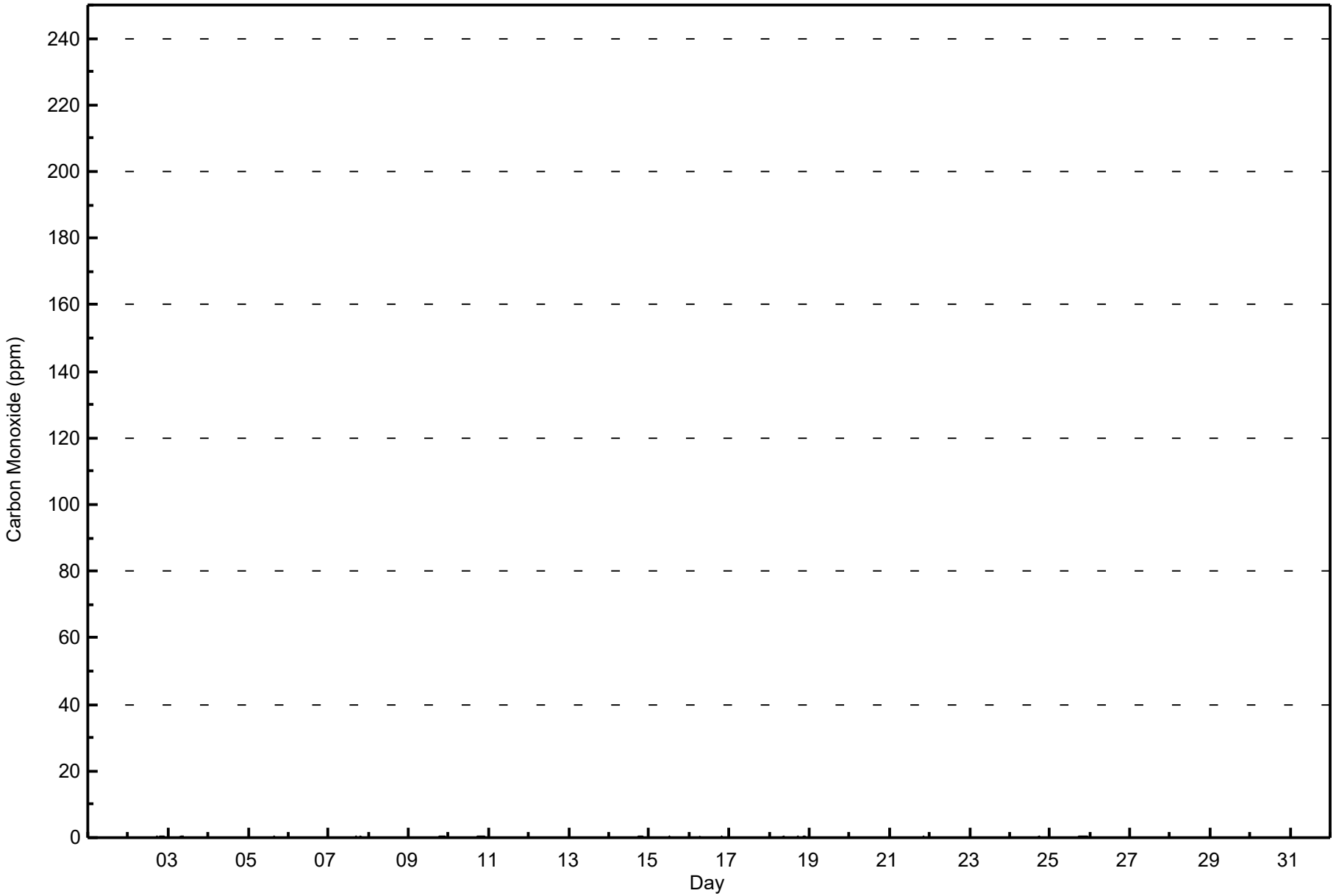
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 13 ppm

Wood Buffalo Environmental Association

Hourly Averages

Carbon Monoxide (CO) - ppm

Athabasca Valley - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.3	697	99.86	99.86
0.4 - 0.5	1	0.14	100.00
0.6 - 0.7	0	0.00	100.00
0.8 - 1.4	0	0.00	100.00
1.5 - 10	0	0.00	100.00
> 10	0	0.00	100.00

Total Number of Valid Hours: 698

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Carbon Monoxide (CO) - ppm

Athabasca Valley - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.3	8	4	7	15	21	185	59	33	29	36	52	31	61	32	72	52	697
0.4 - 0.5	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
0.6 - 0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.8 - 1.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.5 - 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	8	4	7	15	21	185	60	33	29	36	52	31	61	32	72	52	698

Total Number of Valid Hours: 698

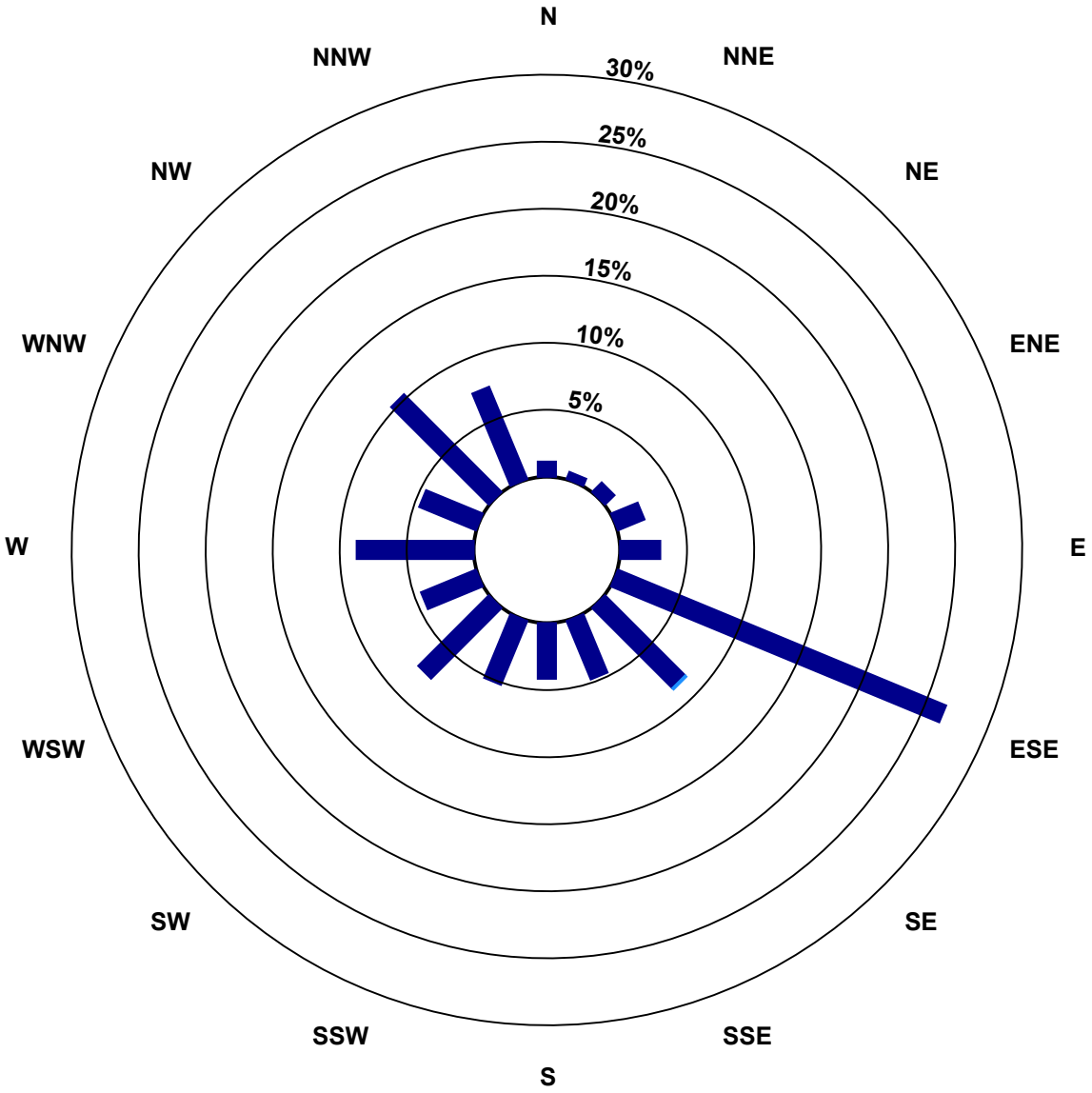
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Carbon Monoxide (CO) - ppm

Athabasca Valley



Classes (ppm)

- 0 - 0.3
- 0.4 - 0.5
- 0.6 - 0.7
- 0.8 - 1.4
- 1.5 - 10
- > 10

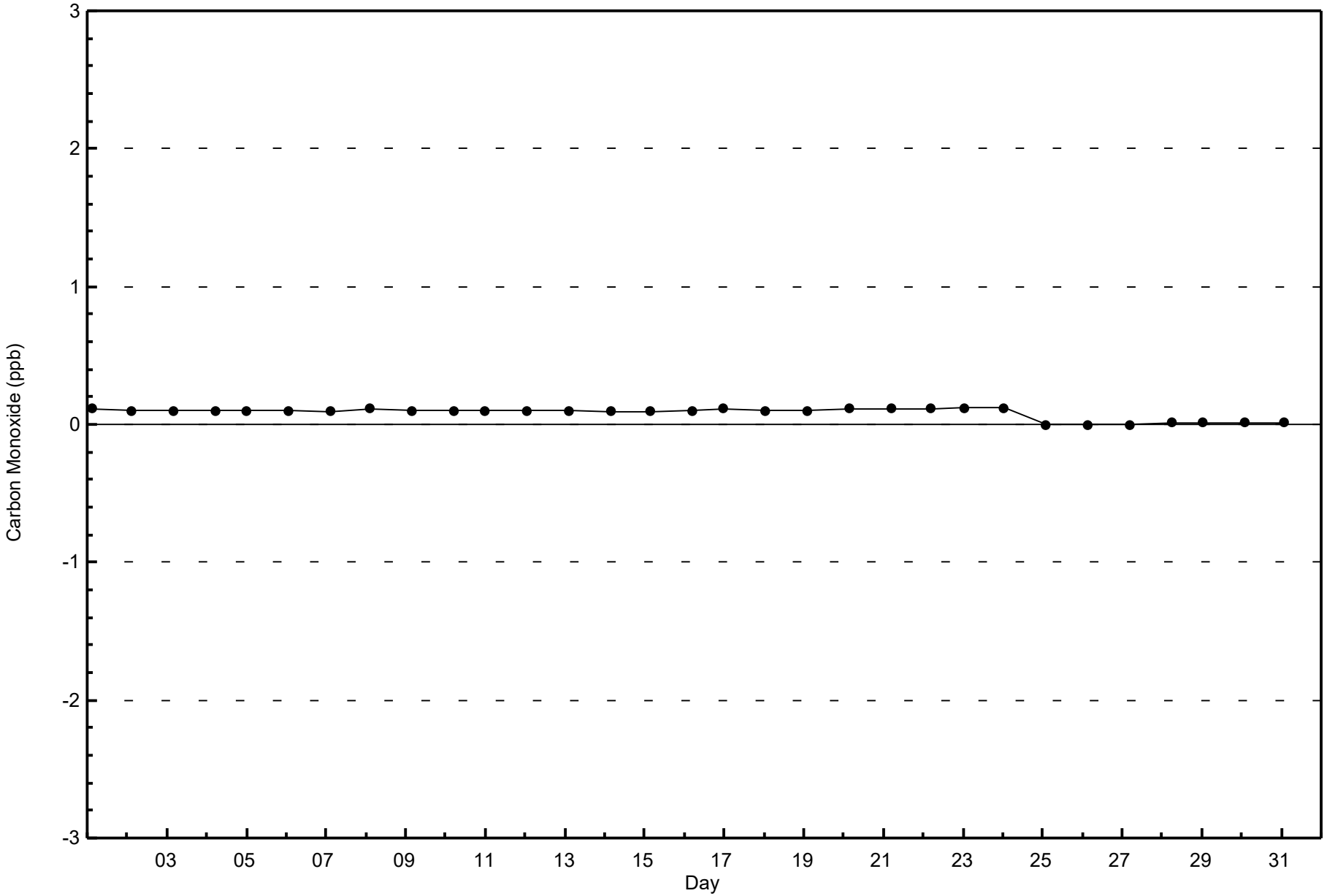
Total Number of Valid Hours: 698

Wood Buffalo Environmental Association

Zero Responses

Carbon Monoxide (CO) - ppb

Athabasca Valley - October 2025

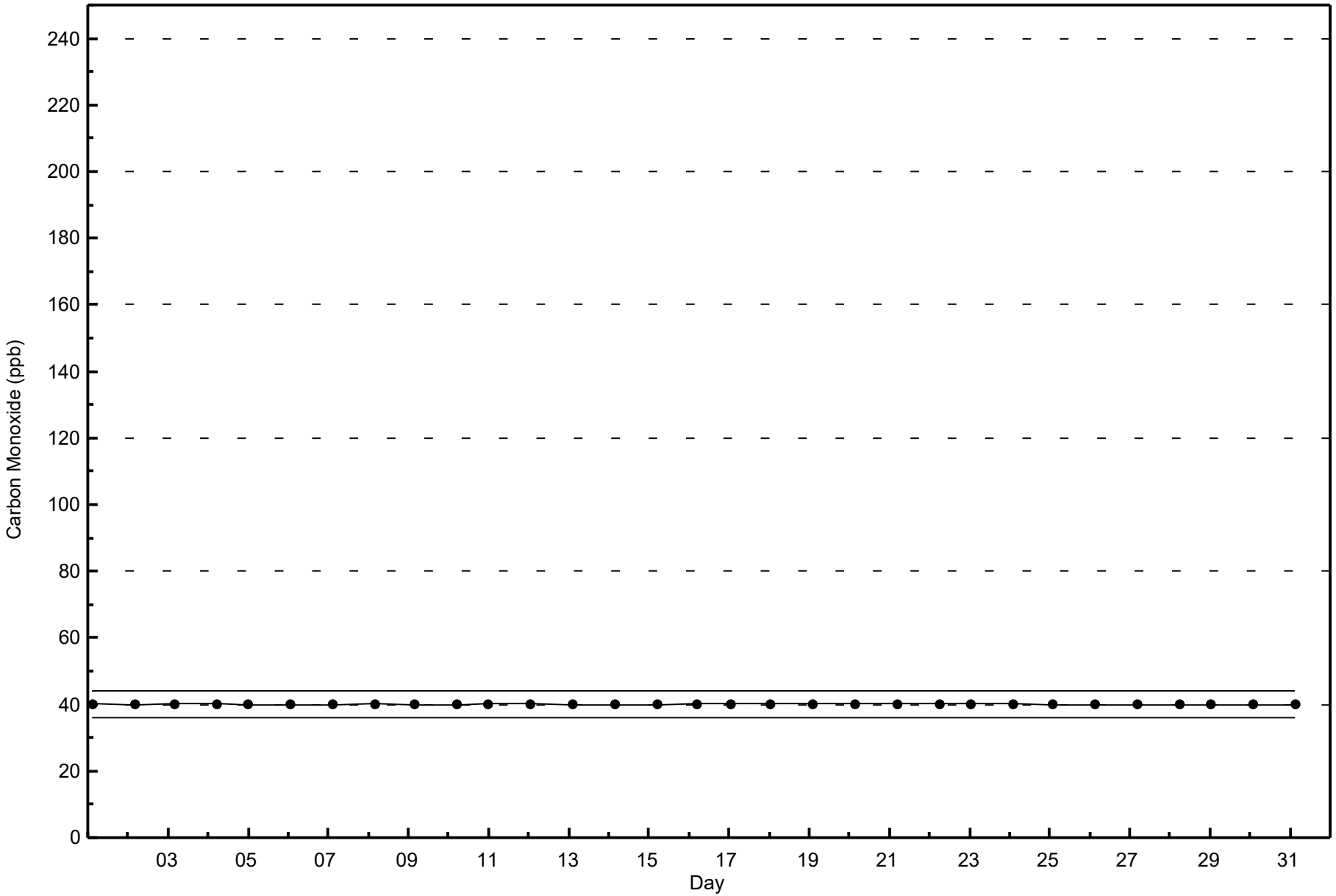


Wood Buffalo Environmental Association

Span Responses

Carbon Monoxide (CO) - ppb

Athabasca Valley - October 2025



Maximum Value: 23.0 C on Oct 10 15:00

Maximum Daily Average: 10.7 C on Oct 3

Minimum Value: -1.7 C on Oct 14 06:00

Minimum Daily Average: 1.0 C on Oct 29

Maximum Diurnal Average: 9.5 C at hour 16

Minimum Diurnal Average: 2.7 C at hour 8

Monthly Average: 5.69 C

Percentiles: P_1 = -1.2 P_{10} = 0.7 Q_1 = 2.2 Median = 4.7 Q_3 = 8.7 P_{90} = 11.9 P_{99} = 18.2

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

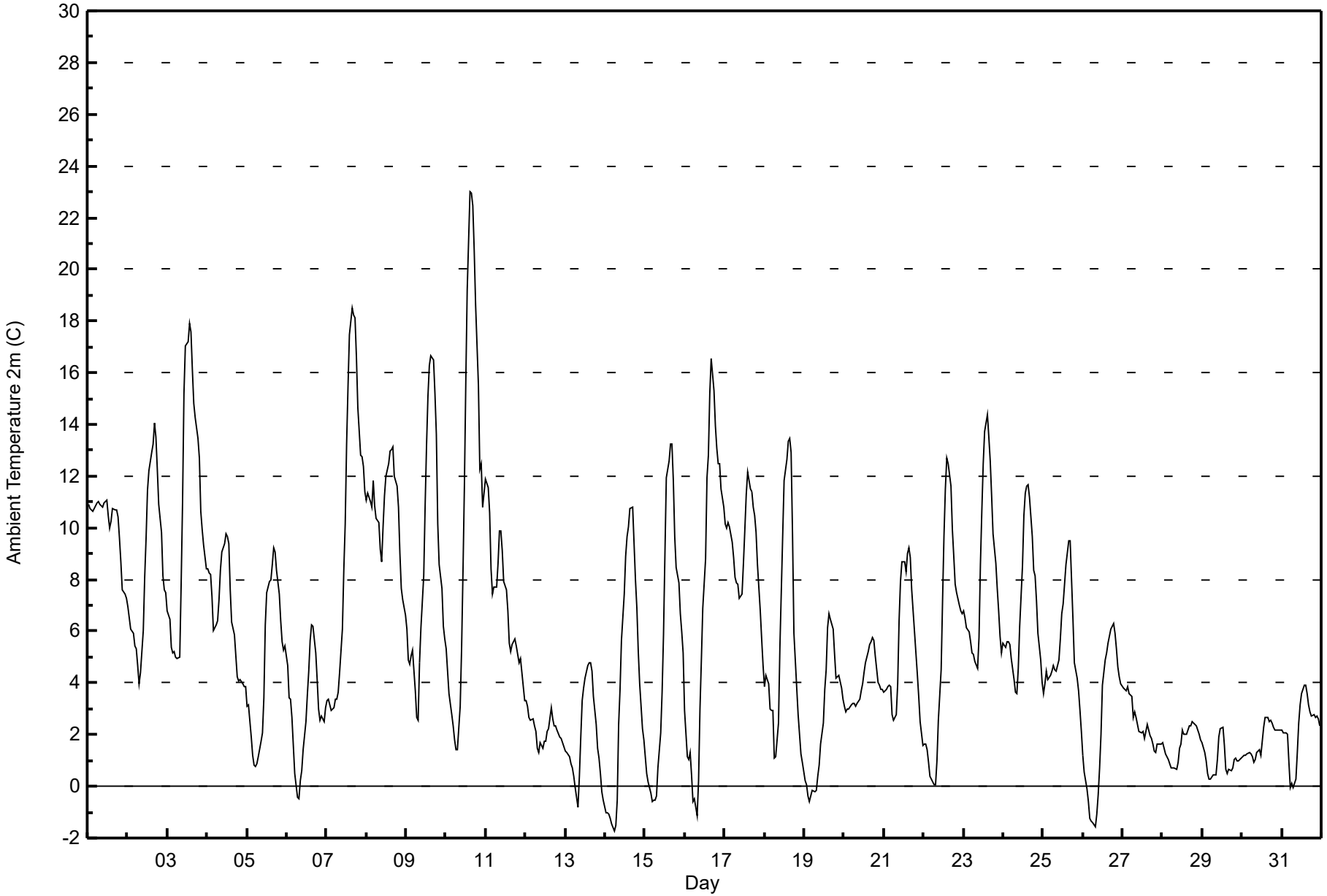
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.9	10.8	10.7	10.6	10.8	11.0	11.0	10.9	10.8	10.8	11.0	11.1	10.5	10.0	10.3	10.8	10.7	10.7	10.4	9.6	8.7	7.6	7.4	7.3	10.2	11.1
2-Oct	6.9	6.5	6.1	5.9	5.4	5.3	4.7	3.9	4.4	6.0	8.1	9.6	11.5	12.2	12.9	13.2	14.0	13.5	12.2	10.9	9.8	8.1	7.6	7.5	8.6	14.0
3-Oct	6.8	6.5	5.4	5.1	5.2	5.0	4.9	5.0	7.8	11.0	15.2	17.0	17.2	17.9	17.6	16.1	14.8	14.3	13.5	12.7	10.6	9.9	9.4	8.4	10.7	17.9
4-Oct	8.4	8.3	8.2	7.3	6.0	6.2	6.4	7.2	8.4	9.1	9.4	9.7	9.7	9.4	7.6	6.4	5.9	5.1	4.2	4.1	4.1	4.0	3.9	3.8	6.8	9.7
5-Oct	3.1	3.1	1.9	1.2	0.8	0.8	0.9	1.2	1.7	2.1	3.4	6.3	7.5	7.9	8.0	8.6	9.2	9.0	8.4	7.5	6.4	5.6	5.3	5.4	4.8	9.2
6-Oct	4.7	3.4	3.4	2.7	1.6	0.5	-0.4	-0.5	0.2	0.6	1.4	2.5	3.5	4.5	5.7	6.3	6.2	5.2	4.1	3.0	2.6	2.7	2.5	3.0	2.9	6.3
7-Oct	3.3	3.4	3.1	3.0	3.1	3.4	3.4	3.7	4.4	6.1	8.4	10.1	13.3	15.5	17.4	18.5	18.2	18.1	16.6	14.6	12.8	12.8	12.4	11.4	9.9	18.5
8-Oct	11.1	11.4	11.0	10.8	11.9	10.9	10.4	10.2	9.2	8.7	10.0	11.2	12.0	12.5	13.0	13.0	13.2	12.0	11.6	10.8	9.0	7.7	7.2	6.6	10.6	13.2
9-Oct	6.1	4.9	4.7	5.1	5.3	3.7	2.7	2.6	4.8	6.1	8.2	10.9	13.2	15.1	16.3	16.7	16.5	15.2	13.6	10.2	8.6	7.7	6.2	5.7	8.7	16.7
10-Oct	5.3	4.5	3.6	2.8	2.3	1.8	1.4	1.4	3.1	5.3	8.3	11.6	15.6	19.2	23.0	23.0	22.5	20.7	18.6	15.5	12.3	12.5	10.8	11.3	10.7	23.0
11-Oct	11.9	11.5	10.6	8.4	7.4	7.7	7.7	8.7	9.9	9.9	9.1	7.9	7.6	6.8	5.5	5.2	5.5	5.7	5.4	5.1	4.8	5.0	4.4	3.3	7.3	11.9
12-Oct	3.3	3.1	2.7	2.6	2.6	2.3	2.1	1.5	1.3	1.7	1.5	1.8	1.7	2.1	2.2	3.0	2.6	2.3	2.3	2.2	1.9	1.8	1.7	1.5	2.2	3.3
13-Oct	1.4	1.3	1.1	0.9	0.7	0.4	0.0	-0.8	0.4	1.9	3.3	3.8	4.2	4.7	4.8	4.8	4.5	3.5	2.4	1.5	1.1	0.5	-0.2	-0.5	1.9	4.8
14-Oct	-1.0	-1.0	-1.1	-1.2	-1.5	-1.7	-1.5	-0.6	2.4	3.7	5.7	7.4	8.9	9.7	10.1	10.7	10.8	9.4	8.0	6.9	5.2	4.0	2.2	1.8	4.1	10.8
15-Oct	1.1	0.5	0.2	-0.3	-0.6	-0.5	-0.5	-0.4	0.7	2.1	3.7	5.9	8.9	11.9	12.6	13.3	13.2	11.9	9.6	8.5	7.9	6.7	6.0	5.1	5.3	13.3
16-Oct	3.0	1.1	1.0	1.3	0.4	-0.6	-0.5	-1.1	0.2	3.0	4.9	6.9	8.8	11.9	12.8	15.2	16.5	15.3	14.0	13.1	12.5	12.5	11.5	10.8	7.3	16.5
17-Oct	10.2	10.0	10.2	10.1	9.5	8.9	8.1	7.9	7.8	7.3	7.5	8.7	9.9	11.3	12.2	11.5	11.4	10.8	10.4	9.8	8.6	6.8	5.7	4.7	9.1	12.2
18-Oct	3.9	4.3	3.9	3.0	2.9	2.9	1.1	1.2	2.4	5.4	7.5	9.7	11.8	12.6	13.3	13.5	12.9	9.8	5.9	3.8	2.8	2.0	1.3	0.9	5.8	13.5
19-Oct	0.2	0.1	-0.4	-0.6	-0.4	-0.2	-0.2	-0.1	0.4	0.8	1.6	2.5	3.7	4.5	6.1	6.7	6.5	6.1	5.1	4.2	4.2	4.3	3.8	3.4	2.6	6.7
20-Oct	3.1	2.9	3.0	3.0	3.2	3.2	3.2	3.1	3.2	3.4	3.7	4.0	4.4	4.8	5.2	5.5	5.6	5.8	5.7	5.0	4.0	3.9	3.7	3.8	4.0	5.8
21-Oct	3.7	3.7	3.9	3.9	3.9	2.8	2.5	2.8	4.0	6.4	7.9	8.7	8.7	8.3	9.0	9.2	8.8	7.6	6.0	5.2	4.3	3.5	2.5	1.6	5.4	9.2
22-Oct	1.6	1.6	1.4	0.9	0.4	0.2	0.0	0.1	1.0	2.6	4.5	7.1	9.6	11.5	12.7	12.5	11.6	9.9	8.9	7.8	7.5	7.0	6.8	6.7	5.6	12.7
23-Oct	6.8	6.5	6.2	6.0	5.6	5.1	5.1	4.8	4.6	5.8	8.6	10.7	12.5	13.7	14.4	13.5	12.6	11.2	9.8	8.6	7.7	6.8	5.8	5.2	8.2	14.4
24-Oct	5.6	5.4	5.6	5.6	5.5	4.9	4.1	3.6	3.6	4.6	6.2	8.5	10.5	11.4	11.6	11.6	11.2	9.6	8.4	8.1	7.2	5.9	4.9	4.0	7.0	11.6
25-Oct	3.6	4.0	4.5	4.1	4.3	4.5	4.7	4.5	4.5	4.9	5.7	6.7	7.0	7.8	8.6	9.5	9.5	8.0	6.5	4.8	4.2	3.7	3.0	2.1	5.4	9.5
26-Oct	1.2	0.6	-0.1	-0.6	-1.2	-1.4	-1.4	-1.5	-1.1	-0.3	0.7	2.0	3.9	4.9	5.2	5.6	5.8	6.1	6.3	5.9	5.3	4.6	4.2	3.9	2.4	6.3
27-Oct	3.8	3.7	3.7	3.9	3.6	3.5	2.7	2.9	2.6	2.4	2.1	2.0	2.1	1.9	2.1	2.4	2.0	1.9	1.6	1.4	1.3	1.6	1.6	1.6	2.4	3.9
28-Oct	1.7	1.5	1.3	1.0	0.9	0.7	0.7	0.7	0.6	1.0	1.5	1.6	2.2	2.0	2.0	2.2	2.3	2.4	2.5	2.4	2.3	2.2	2.0	1.8	1.6	2.5
29-Oct	1.7	1.3	1.0	0.5	0.3	0.3	0.4	0.4	0.5	1.0	1.9	2.2	2.3	1.6	0.7	0.5	0.6	0.6	0.7	1.1	1.1	1.0	1.0	1.1	1.0	2.3
30-Oct	1.1	1.2	1.2	1.2	1.3	1.2	1.2	0.9	1.0	1.3	1.4	1.2	1.8	2.3	2.7	2.7	2.5	2.5	2.4	2.3	2.2	2.2	2.2	2.2	1.8	2.7
31-Oct	2.2	2.1	2.1	2.0	0.9	0.0	0.1	-0.1	0.3	1.3	2.4	3.2	3.6	3.9	3.9	3.6	3.1	2.9	2.7	2.8	2.7	2.7	2.6	2.3	2.2	3.9
	4.4	4.1	3.9	3.6	3.3	3.0	2.7	2.7	3.4	4.4	5.6	6.9	8.0	8.8	9.3	9.5	9.4	8.6	7.7	6.8	5.9	5.4	4.8	4.4	Diurnal Average	
	11.9	11.5	11.0	10.8	11.9	11.0	11.0	10.9	10.8	11.0	15.2	17.0	17.2	19.2	23.0	23.0	22.5	20.7	18.6	15.5	12.8	12.8	12.4	11.4	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Athabasca Valley - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	38	5.11	5.11
0 - 10	563	75.67	80.78
10 - 20	139	18.68	99.46
> 20	4	0.54	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 29.3 inHg on Oct 30 12:00

Maximum Daily Average: 29.3 inHg on Oct 30

Minimum Value: 28.3 inHg on Oct 11 06:00

Minimum Daily Average: 28.5 inHg on Oct 25

Maximum Diurnal Average: 28.9 inHg at hour 9

Minimum Diurnal Average: 28.9 inHg at hour 16

Monthly Average: 28.90 inHg

Percentiles: P_1 = 28.4 P_{10} = 28.5 Q_1 = 28.7 Median = 28.9 Q_3 = 29.1 P_{90} = 29.2 P_{99} = 29.3

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

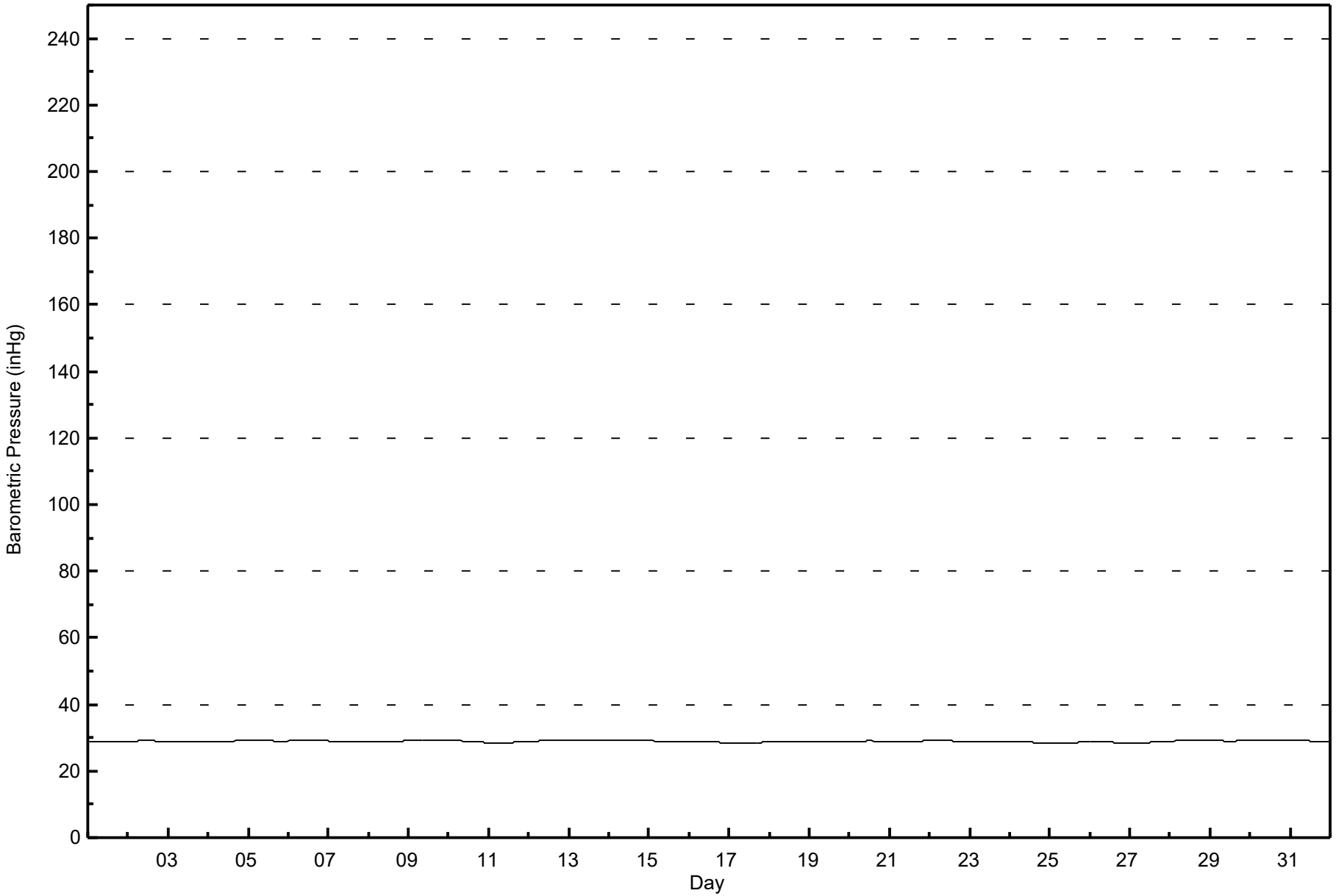
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.9	29.0	28.8	29.0
2-Oct	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1
3-Oct	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.7	28.7	28.8	28.7	28.8	28.8	28.8	28.8	28.8	28.9
4-Oct	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.0	29.2
5-Oct	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1	29.2
6-Oct	29.0	29.1	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.1	29.2
7-Oct	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8	29.0
8-Oct	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.1	29.1	29.1	28.9	29.1
9-Oct	29.1	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2
10-Oct	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	28.9	28.9	28.8	28.7	28.7	28.7	28.7	28.7	28.6	28.6	28.6	28.5	28.5	28.9	29.1
11-Oct	28.5	28.5	28.4	28.4	28.4	28.3	28.3	28.4	28.4	28.4	28.4	28.5	28.5	28.5	28.6	28.6	28.6	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.5	28.8
12-Oct	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.3	29.3	29.1	29.3
13-Oct	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.3	29.3
14-Oct	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2
15-Oct	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.1
16-Oct	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.7	28.7	28.6	28.6	28.6	28.6	28.6	28.5	28.5	28.5	28.5	28.8	28.9
17-Oct	28.5	28.5	28.5	28.5	28.4	28.4	28.4	28.4	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.6	28.6	28.6	28.6	28.6	28.6	28.7	28.5	28.7
18-Oct	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8
19-Oct	28.8	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.6	28.6	28.6	28.7	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.7	28.8
20-Oct	28.8	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	29.0	29.0
21-Oct	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.1	29.1	28.9	29.1
22-Oct	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.1
23-Oct	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9
24-Oct	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.6	28.6	28.6	28.6	28.6	28.6	28.5	28.5	28.5	28.5	28.5	28.5	28.6	28.7
25-Oct	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.5	28.5	28.5	28.6	28.6	28.6	28.7	28.7	28.7	28.7	28.7	28.5	28.7
26-Oct	28.7	28.7	28.8	28.8	28.8	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.6	28.6	28.6	28.6	28.6	28.5	28.5	28.5	28.5	28.5	28.4	28.4	28.6	28.8
27-Oct	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.5	28.5	28.5	28.5	28.6	28.6	28.6	28.7	28.7	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.6	28.9
28-Oct	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.3	29.3	29.3	29.3	29.2	29.2	29.2	29.2	29.2	29.2	29.3
29-Oct	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.1	29.2
30-Oct	29.2	29.2	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3
31-Oct	29.3	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.0	29.0	29.0	28.9	28.9	28.9	28.8	28.8	28.7	28.7	28.7	28.7	28.6	29.0	29.3
	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	Diurnal Average	
	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Barometric Pressure (BP) - inHg

Athabasca Valley - October 2025



Maximum Value: 99.2 % on Oct 29 20:00

Maximum Daily Average: 92.4 % on Oct 26

Minimum Value: 25.4 % on Oct 10 16:00

Minimum Daily Average: 50.2 % on Oct 14

Maximum Diurnal Average: 81.9 % at hour 8

Minimum Diurnal Average: 59.6 % at hour 16

Monthly Average: 72.27 %

Percentiles: P_1 = 32.7 P_{10} = 47.1 Q_1 = 61.6 Median = 74.8 Q_3 = 85.4 P_{90} = 91.8 P_{99} = 97.7

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

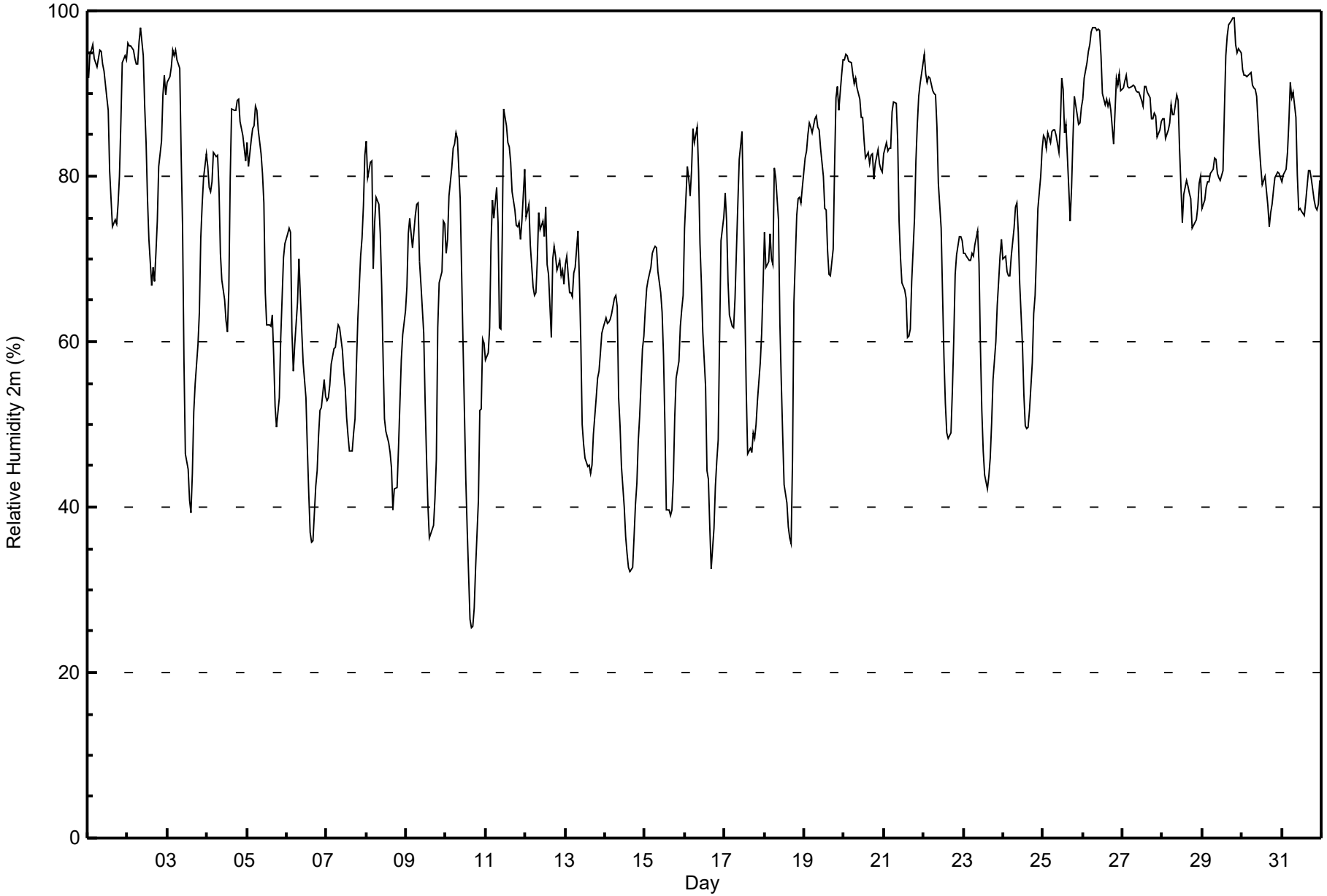
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	91.9	94.9	95.2	95.9	94.3	93.3	94.2	95.2	95.2	93.6	92.7	89.5	87.9	80.6	77.4	73.9	74.7	74.3	76.7	80.0	86.4	93.7	94.5	94.1	88.3	95.9
2-Oct	96.1	95.8	95.8	95.3	94.2	93.5	93.6	96.3	98.0	94.6	88.5	84.1	77.4	72.4	66.8	69.0	67.4	70.7	74.6	81.1	84.3	89.9	92.2	89.9	85.9	98.0
3-Oct	91.3	92.0	93.2	95.3	94.6	95.3	94.1	93.0	82.7	74.1	57.8	46.5	44.6	40.9	39.3	44.0	51.5	54.9	59.6	63.6	72.5	76.6	79.8	82.7	71.7	95.3
4-Oct	81.2	78.7	78.2	79.3	82.8	82.3	82.5	78.5	70.7	67.4	65.1	62.5	61.2	66.2	79.8	88.2	87.9	88.0	89.2	89.3	86.6	84.9	83.5	81.8	79.0	89.3
5-Oct	84.2	81.2	84.4	85.7	86.1	88.4	88.0	85.7	82.6	80.3	76.8	66.0	62.0	62.0	61.9	63.3	58.3	52.2	49.7	53.2	60.4	65.3	70.1	71.8	71.6	88.4
6-Oct	73.0	73.7	73.2	61.2	56.4	59.7	64.7	70.1	65.7	61.4	57.5	53.3	47.1	41.7	37.0	35.7	36.0	42.5	44.4	48.7	51.8	52.1	55.3	53.4	54.8	73.7
7-Oct	52.9	53.2	54.7	57.3	59.1	59.3	60.9	62.0	61.7	58.9	56.3	54.4	50.9	48.7	46.7	46.8	49.0	50.7	57.1	62.7	70.4	72.6	76.4	82.6	58.6	82.6
8-Oct	84.3	79.9	81.6	81.8	68.8	74.4	77.4	76.6	73.1	66.7	58.2	50.8	49.2	47.8	46.6	44.8	39.7	42.2	42.5	47.1	52.5	57.9	60.9	63.8	61.2	84.3
9-Oct	66.7	73.0	75.0	73.1	71.3	75.2	76.7	76.8	69.6	67.0	60.9	52.7	45.9	40.2	36.3	36.7	37.9	41.0	45.8	61.7	67.2	68.5	74.5	74.3	61.2	76.8
10-Oct	70.7	72.4	77.6	81.1	83.3	84.0	85.3	84.5	77.3	68.7	59.9	51.6	43.4	37.3	26.4	25.4	25.5	27.7	32.7	40.9	51.7	51.9	60.4	59.9	57.5	85.3
11-Oct	57.8	58.6	61.8	72.1	77.1	75.0	78.6	74.4	61.6	61.6	72.8	88.1	86.2	84.1	83.6	81.7	78.1	76.0	74.1	73.9	74.5	72.4	74.5	80.9	74.1	88.1
12-Oct	75.1	75.8	76.6	71.7	66.7	65.6	65.9	69.8	75.6	73.5	74.5	72.7	76.3	69.3	68.1	60.5	70.0	71.5	70.3	68.7	69.9	67.9	68.7	67.0	70.5	76.6
13-Oct	69.4	70.3	65.9	66.0	65.5	68.3	68.9	73.5	67.5	60.1	49.9	47.6	46.0	44.9	45.1	44.1	45.0	48.8	53.2	55.5	56.5	58.6	61.0	61.7	58.0	73.5
14-Oct	62.9	62.2	62.4	62.8	63.5	65.3	65.6	64.2	53.2	49.9	44.9	40.0	36.5	34.3	32.7	32.2	32.7	36.4	40.4	42.8	47.9	51.1	59.2	60.7	50.2	65.6
15-Oct	63.8	66.5	67.4	69.0	70.8	71.2	71.5	71.4	68.4	65.9	63.6	58.4	50.0	39.6	39.7	38.9	39.6	43.3	50.9	55.6	57.6	61.8	63.8	65.7	58.9	71.5
16-Oct	73.7	81.2	79.6	77.6	80.8	85.7	84.2	85.9	80.7	71.8	67.1	61.2	54.5	44.4	43.4	37.6	32.6	37.4	42.5	45.5	48.1	60.5	72.2	75.0	63.5	85.9
17-Oct	78.0	74.5	67.2	63.3	61.8	61.6	65.3	70.9	76.6	82.0	85.5	75.8	64.5	54.0	46.5	47.1	46.6	49.0	48.4	50.0	52.9	57.4	61.0	66.8	62.8	85.5
18-Oct	73.3	69.0	69.6	73.1	70.0	69.4	81.0	79.9	74.8	62.2	55.1	48.7	42.7	40.6	37.7	36.3	35.6	45.7	64.8	75.2	77.4	77.4	76.7	78.6	63.1	81.0
19-Oct	82.2	83.0	85.2	86.5	85.9	85.3	86.9	87.2	85.9	85.5	83.4	80.0	76.2	75.9	70.9	68.1	67.9	71.1	81.1	89.5	90.8	88.0	92.2	94.2	82.6	94.2
20-Oct	94.2	94.8	94.6	93.9	93.8	92.4	91.2	91.8	90.6	89.4	87.2	87.1	84.4	82.3	82.9	81.5	82.5	82.6	79.6	81.5	83.2	81.4	80.8	80.5	86.8	94.8
21-Oct	82.7	84.1	83.1	83.4	83.4	87.8	88.9	88.8	84.5	74.5	70.1	67.2	66.3	65.3	60.5	60.8	61.6	67.3	74.9	81.9	86.3	89.7	91.1	93.6	78.2	93.6
22-Oct	94.7	92.4	91.3	92.0	91.8	90.4	90.1	89.8	85.9	79.1	73.8	65.8	58.1	52.6	49.0	48.4	49.0	54.1	60.3	68.1	70.4	72.7	72.7	72.3	73.5	94.7
23-Oct	70.7	70.6	70.4	69.8	69.9	70.6	70.3	71.7	73.4	69.4	59.5	51.8	46.8	43.9	42.2	43.8	45.9	50.1	55.5	60.0	64.5	67.2	70.3	72.4	61.7	73.4
24-Oct	69.9	70.3	68.5	68.0	68.0	70.3	73.7	76.2	76.8	73.2	67.2	59.5	53.6	49.8	49.6	49.7	51.6	57.4	63.3	65.5	70.7	76.2	80.0	83.2	66.3	83.2
25-Oct	84.8	84.6	83.4	85.3	84.0	85.4	85.6	85.5	84.9	82.9	86.2	91.8	90.5	85.3	86.3	78.6	74.5	78.6	84.6	89.7	87.5	86.3	86.5	88.3	85.1	91.8
26-Oct	89.4	91.9	93.8	95.1	95.9	97.4	98.0	97.9	97.6	97.8	97.7	94.6	89.9	88.6	89.4	88.5	89.2	88.0	83.9	87.8	91.8	91.0	92.3	90.4	92.4	98.0
27-Oct	90.7	91.6	92.2	90.8	90.6	90.8	91.0	90.8	90.3	90.2	90.1	89.2	88.4	90.8	90.9	90.2	89.4	87.0	86.9	87.7	87.3	84.7	85.5	86.6	89.3	92.2
28-Oct	87.0	87.0	84.7	85.6	86.4	88.7	87.5	87.4	89.9	89.2	83.4	78.8	74.4	77.9	79.5	78.8	78.0	77.3	73.8	74.5	74.7	76.2	79.1	80.0	81.6	89.9
29-Oct	76.0	77.2	78.6	79.2	79.3	80.3	80.8	82.1	82.0	80.3	79.8	79.4	80.6	88.0	94.7	96.9	98.4	98.9	99.2	99.2	95.9	94.9	95.5	94.9	87.2	99.2
30-Oct	92.9	92.2	92.3	92.0	92.3	92.5	91.0	90.6	90.5	89.6	83.3	81.1	79.0	79.4	80.0	76.4	74.0	75.6	76.6	78.3	79.9	80.5	80.4	79.8	84.2	92.9
31-Oct	79.4	80.1	80.9	83.0	86.7	91.3	89.6	90.2	87.2	80.1	76.0	76.1	75.8	75.2	76.9	78.9	80.7	80.7	79.6	77.1	76.3	76.0	76.5	79.5	80.6	91.3
	78.7	79.1	79.3	79.6	79.2	80.3	81.4	81.9	79.2	75.5	71.8	67.9	64.2	61.4	60.2	59.6	59.7	62.0	65.0	68.9	71.9	73.7	76.4	77.6	Diurnal Average	
	96.1	95.8	95.8	95.9	95.9	97.4	98.0	97.9	98.0	97.8	97.7	94.6	90.5	90.8	94.7	96.9	98.4	98.9	99.2	99.2	95.9	94.9	95.5	94.9	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Athabasca Valley - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Athabasca Valley - October 2025

Maximum Speed: 32 km/h on Oct 27 06:00

Maximum Daily Speed Average: 22.6 km/h on Oct 27

Minimum Speed Value: 0 km/h on Oct 25 02:00

Minimum Daily Speed Average: 2.5 km/h on Oct 20

Maximum Diurnal Speed Average: 6.2 km/h at hour 14

Minimum Diurnal Speed Average: 0.1 km/h at hour 1

Monthly Average Velocity: 1.9 km/h 235.3 deg

Percentiles: P_1 = 2 P_{10} = 4 Q_1 = 6 Median = 10 Q_3 = 15 P_{90} = 20 P_{99} = 28

Hours in Service: 744

Hours of Data: 744

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NW14	NW14	NW16	NW21	NW22	NW20	NNW14	NW18	NW18	NW20	NW17	NW18	NNW18	NW18	NW16	NW13	NW9	WNW7	W8	W5	SW4	ESE1	S3	ESE2	NW12.3	NW22
2-Oct	SE2	SSE2	SSE3	ESE4	ESE6	ESE6	ESE6	ESE8	ESE8	ESE8	ESE5	ESE7	ESE6	ESE8	SE9	SE7	ESE6	SE6	ESE9	SE6	ESE7	ESE5	SE6	SE8	ESE6.0	ESE9
3-Oct	SE8	SE7	S3	SE5	SE7	SE5	SE7	E5	ESE6	ESE7	SSW10	SW19	SW23	SW23	WSW25	SW24	SW13	SSW15	SSW11	SW15	SW16	SW13	SW14	SW15	SSW9.6	WSW25
4-Oct	SW11	SW10	SSW7	S9	SSW11	SSW5	S8	SSW6	NW8	WNW11	WNW11	WNW12	W9	W8	WNW16	NW11	WNW16	NW26	NW20	WNW17	W16	W18	W20	WSW14	W9.4	NW26
5-Oct	WSW11	WSW18	SW5	SSW7	SSW6	SE4	SE6	SE6	SSE7	SE9	SSE8	SW13	WSW15	W19	WSW15	SW6	W12	WSW15	W17	W20	WSW19	S5	SW3	SW6	WSW8.1	W20
6-Oct	NNW17	NNW14	NW13	NNW18	NW18	NW11	N9	NW8	NNW12	N10	NNW7	NNW3	WSW2	SW6	S3	NE3	ENE5	ESE4	ESE8	ESE8	ESE9	ESE7	ESE8	ESE8	N4.1	NW18
7-Oct	ESE8	ESE12	ESE16	ESE14	ESE14	ESE15	ESE12	ESE12	ESE13	ESE14	SE12	ESE11	ESE15	ESE15	ESE14	ESE8	ESE8	ESE11	ESE8	E2	E4	ESE8	ENE4	NNW4	ESE10.2	ESE16
8-Oct	NW8	NW8	NNW5	W5	WNW13	W10	SW11	W17	W19	W17	WSW13	W24	WSW23	W23	WSW20	W19	WSW22	WSW14	WSW11	W22	W24	WSW15	W13	W12	W14.6	W24
9-Oct	W10	SW7	SW9	SW9	SW12	SSE6	SSE6	SE4	SE2	SSW12	SSW15	SSW15	SSW16	SW14	SW16	SSW15	SW11	S6	SSE5	SE4	ESE4	SE4	SE4	ESE6	SSW7.3	SW16
10-Oct	ESE5	ESE8	ESE9	ESE8	ESE7	SE7	SE8	ESE8	ESE7	ESE11	SE10	ESE9	ESE6	SSW3	S16	S16	SSE14	SE10	SE9	ESE9	ESE8	ESE10	ESE9	ESE10	SE8.3	S16
11-Oct	ESE11	ESE12	ESE10	E5	ENE6	ENE2	NW6	NW16	NNW22	NW23	NW18	NW17	WNW24	WNW25	W23	W23	W21	W23	W22	WNW23	WNW26	WNW26	NW28	NW29	WNW13.5	NW29
12-Oct	NW31	NW26	NW23	NW25	NW28	NNW23	NNW26	NNW22	NNW19	NNW16	NNW19	NNW21	NW23	N16	NNW14	N14	NNW17	NW14	NW10	WNW8	NW6	WNW9	WNW7	WNW7	NNW17.1	NW31
13-Oct	WNW7	NW6	WNW12	NW7	W3	SSW6	SW7	ESE2	S6	SSW9	SSW14	SW17	SW15	SSW17	S16	SSE17	SSE13	SE11	SE13	ESE12	SE7	SE9	ESE11	SE11	S6.3	SW17
14-Oct	ESE12	ESE10	ESE11	ESE14	ESE15	ESE13	ESE13	ESE11	SSE12	S16	SSW15	SSW16	SW14	SSW13	SW14	SW13	S8	SE7	SE7	SE10	ESE8	ESE11	ESE9	ESE11	SSE8.9	S16
15-Oct	ESE13	ESE12	ESE13	ESE14	ESE11	ESE11	ESE11	ESE16	ESE17	ESE15	ESE14	ESE10	S4	SW16	SW14	SSW14	SSW9	SSE7	S4	S5	S8	ESE3	SSE5	SE7	SE7.9	ESE17
16-Oct	ESE9	ESE7	ESE7	ESE6	ESE7	ESE6	SE7	ESE7	ESE10	ESE9	SE8	ESE10	ESE11	ESE11	ESE10	SSE8	SSE10	SE9	ESE7	ESE7	ESE5	S8	SSE9	SE6	SE7.6	ESE11
17-Oct	SE8	SSW10	SW14	SW15	SW16	SW14	SW16	WSW15	WSW22	WSW21	SW14	WSW15	WNW19	W24	WNW25	WNW16	W12	WSW10	WSW15	WSW13	SW16	SW9	S7	S4	WSW12.6	WNW25
18-Oct	SSW4	SSW10	SSW6	S6	SSW11	SSW6	ESE4	S5	SE2	E3	ENE6	ENE7	W9	W15	WSW16	W15	W9	SW2	SSW2	ESE1	ESE3	SSE3	SSE4	SE7	SW3.4	WSW16
19-Oct	ESE6	SE6	ESE7	ESE5	ESE7	E6	E3	NE3	N3	NNW4	N2	NNW3	WNW1	NNW3	ENE5	NE6	ENE6	NNE5	NNW9	NNW10	NW6	NNW6	NNW9	NNW12	NNE2.8	NNW12
20-Oct	NW14	NW15	NW13	NW13	NW10	NW11	WNW12	WNW12	NW8	NW6	NW3	NNE1	SSW4	SSW9	SSW7	SSW8	S4	SE5	SE6	SSE6	SSE7	SE8	ESE11	ESE11	WNW2.5	NW15
21-Oct	ESE12	ESE10	ESE14	ESE13	SE9	SSE3	NE2	SSW2	NW3	W9	W13	W16	W19	W19	WNW17	NW10	NW12	NW9	NNW7	NNW5	NE3	ENE4	E2	E2	WNW2.5	W19
22-Oct	E4	E5	ESE7	NNE3	SE6	ESE8	ESE9	SE8	SE7	ESE7	ESE8	ESE5	ESE6	ESE8	ESE11	ESE13	ESE13	ESE10	ESE11	ESE10	ESE14	ESE14	ESE14	ESE13	ESE8.8	ESE14
23-Oct	ESE16	ESE17	ESE12	ESE13	ESE11	ESE11	SE13	ESE12	ESE12	ESE12	ESE12	ESE13	ESE11	ESE10	ESE12	ESE13	ESE12	ESE12	ESE11	ESE13	ESE11	SE8	E5	E4	ESE11.5	ESE17
24-Oct	ESE7	E6	ESE8	ESE13	ESE17	ESE16	ESE11	ESE10	ESE9	ESE8	SE8	SE12	SE11	ESE10	E12	ESE9	ESE5	ESE4	ESE9	ESE10	ESE8	ESE5	E3	E2	ESE8.8	ESE17
25-Oct	E4	SSE0	WNW2	NW8	NNW7	NNW7	NW4	SSW5	SSW7	S6	S3	SW16	SW19	WSW19	SW21	WSW17	SW13	SE5	SE4	SE3	E5	ESE5	SE4	ESE6	SW4.3	SW21
26-Oct	ESE5	ESE5	SE4	ESE6	ENE5	ENE5	E4	ENE4	NNW3	NNW7	NNW8	NNW8	NNW13	NNW13	NNW15	NNW15	NNW14	NNW15	NNW12	N12	N15	NNW16	NNW17	NNW19	NNW7.7	NNW19
27-Oct	NNW19	NNW23	NW26	NW27	NW29	NW32	NW26	NW28	NW27	NW28	NW28	NW29	NW25	W17	WNW19	WNW16	WNW19	W22	W26	W26	W25	W25	W26	W23	WNW22.6	NW32
28-Oct	W22	W22	W29	W27	W24	WSW23	W25	W19	W15	W12	W18	W20	W22	WNW17	WSW15	W10	WSW9	SW8	SW10	SW9	SW6	S7	S7	S6	WSW14.9	W29
29-Oct	SSE10	SSE8	SE9	ESE12	ESE11	E9	E8	ENE7	ENE2	ENE5	NE8	NE3	NNE6	NNW7	NW12	NNW10	NW10	NNW10	NW10	NW9	NW11	NNW11	NW7	NW9	NNE3.0	ESE12
30-Oct	NW7	WNW6	WNW5	SW4	SW4	WNW3	WSW5	WSW6	WSW3	SW6	WSW12	SW9	SSE4	SSE6	S5	SSW8	S8	SSE5	SE6	SSE6	SSE6	SSE4	SSE5	SSE6	SSW3.7	WSW12
31-Oct	SE6	SE7	SE7	SE8	SE5	SE6	ESE7	SE7	SE9	SE12	ESE15	ESE17	ESE20	ESE21	ESE23	ESE21	ESE20	ESE22	ESE20	ESE23	ESE17	ESE14	ESE16	ESE15	ESE14.0	ESE23
	E0.1	SW0.5	SSW0.7	SSE0.4	SW0.9	ESE0.4	SSE0.7	W0.4	WNW1.1	WSW1.3	WSW2.1	WSW4.1	WSW5.5	WSW6.2	WSW6.0	WSW4.3	WSW3.7	SW1.9	SSW1.9	SW2.2	SW2.4	SSW2.0	S1.4	S1.1	Diurnal Average	
	NW31	NW26	W29	W27	NW29	NW32	NW26	NW28	NW27	NW28	NW28	NW29	NW25	WNW25	WNW25	SW24	WSW22	NW26	W26	W26	WNW26	WNW26	NW28	NW29	Diurnal Maximum	

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 8 km/h on Oct 11 08:00

Minimum Value: 1 km/h on Oct 2 22:00

Percentiles: P_1 = 1 P_{10} = 1 Q_1 = 2 Median = 2 Q_3 = 4 P_{90} = 5 P_{99} = 7

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

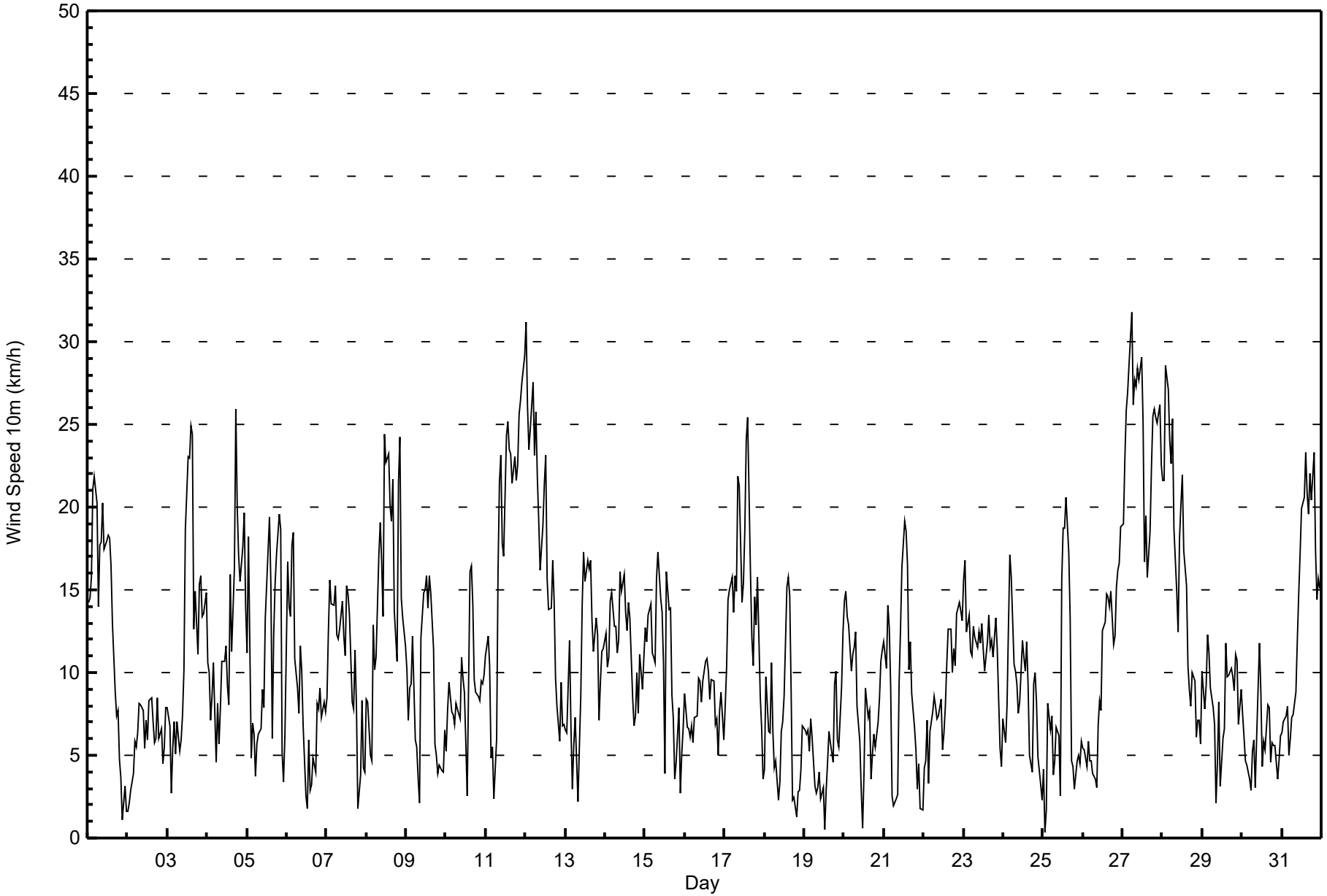
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	3	2	4	4	4	4	3	3	3	3	4	4	6	3	3	3	2	1	1	1	1	1	2	1	6
2-Oct	2	2	1	1	1	1	1	1	2	2	1	1	2	2	3	2	1	1	2	2	2	1	2	2	3
3-Oct	2	2	1	2	2	2	2	2	1	1	7	5	5	7	6	7	4	4	3	6	3	3	3	3	7
4-Oct	2	2	3	2	3	3	3	3	2	2	3	2	3	4	7	3	5	5	4	4	3	3	2	5	7
5-Oct	6	3	2	3	3	2	1	2	3	2	3	3	4	4	4	2	3	3	2	4	4	2	3	2	6
6-Oct	5	4	3	5	5	5	2	3	3	3	2	3	2	2	2	2	2	1	1	2	2	2	2	2	5
7-Oct	2	3	3	3	3	2	2	2	2	3	3	2	5	3	3	2	2	3	4	1	2	2	2	2	5
8-Oct	4	3	2	4	4	4	2	7	5	4	6	5	4	5	4	4	5	4	2	8	5	4	2	3	8
9-Oct	3	1	2	2	2	2	2	1	2	3	3	3	3	4	5	3	3	2	1	1	3	2	1	3	5
10-Oct	2	3	2	2	2	2	2	2	2	3	2	2	2	4	6	4	4	2	2	2	1	2	2	2	6
11-Oct	2	3	3	2	1	1	3	8	6	6	4	5	5	5	5	3	3	3	3	5	4	4	5	7	8
12-Oct	8	5	5	6	5	6	7	7	5	4	6	5	6	4	4	4	5	3	2	1	2	2	1	2	8
13-Oct	1	2	2	2	1	1	2	1	4	2	3	5	5	4	5	4	3	2	2	3	4	2	2	3	5
14-Oct	2	2	2	3	3	3	2	3	3	5	5	5	3	3	3	3	3	2	1	2	2	2	1	2	5
15-Oct	2	2	2	2	2	2	2	3	4	4	3	4	4	4	3	3	4	2	2	3	4	1	3	2	4
16-Oct	2	2	2	2	2	1	2	2	2	2	1	2	2	3	2	4	3	2	1	1	1	4	4	1	4
17-Oct	1	3	2	3	3	3	3	3	4	5	3	4	6	5	5	5	3	1	4	2	2	4	2	2	6
18-Oct	2	2	2	2	2	4	1	2	2	2	1	2	5	4	4	4	3	1	1	1	2	1	1	1	5
19-Oct	2	2	2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	3	2	3
20-Oct	3	2	2	2	2	2	2	2	2	3	2	1	2	2	2	3	1	2	2	2	1	2	2	2	3
21-Oct	2	2	2	2	3	2	2	1	1	4	3	3	4	5	4	3	2	2	2	1	1	2	1	1	5
22-Oct	2	2	2	2	3	3	2	2	2	2	2	2	2	2	3	3	3	3	3	3	4	3	3	3	4
23-Oct	4	4	3	4	3	3	3	2	2	3	3	3	3	2	3	3	3	2	3	3	3	3	2	2	4
24-Oct	2	2	2	3	3	3	4	3	3	2	2	3	2	2	3	3	3	2	2	2	4	2	1	1	4
25-Oct	2	2	2	2	3	2	1	2	3	3	2	5	4	6	5	5	4	1	2	1	1	2	1	2	6
26-Oct	2	2	2	2	1	1	1	1	2	4	3	2	3	3	3	3	4	4	5	4	4	4	4	5	5
27-Oct	5	5	4	5	5	5	4	4	5	5	5	5	6	3	4	3	4	4	4	4	4	4	4	4	6
28-Oct	4	4	5	4	4	3	4	4	2	3	4	4	4	4	3	3	2	2	2	2	1	1	2	1	5
29-Oct	3	2	2	3	3	3	3	2	3	3	2	2	1	2	2	2	2	2	2	2	2	2	2	1	3
30-Oct	1	1	1	1	1	1	2	2	1	2	4	3	2	1	2	3	2	1	1	1	2	1	1	1	4
31-Oct	2	2	2	2	2	2	2	2	3	3	4	4	5	5	5	5	4	5	5	6	4	3	3	3	6
	8	5	5	6	5	6	7	8	6	6	7	5	6	7	7	7	5	5	5	8	5	4	5	7	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Athabasca Valley - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	134	18.01	18.01
6 - 11	307	41.26	59.27
12 - 19	219	29.44	88.71
20 - 28	78	10.48	99.19
29 - 38	6	0.81	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Athabasca Valley - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	2	3	5	10	17	22	16	14	11	7	6	3	3	4	3	8	134
6 - 11	2	1	2	5	4	111	49	16	14	20	18	5	9	10	25	16	307
12 - 19	4	0	0	0	1	61	4	4	4	14	26	18	23	15	22	23	219
20 - 28	0	0	0	0	0	8	0	0	0	0	4	7	26	6	21	6	78
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	0	6
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	8	4	7	15	22	202	69	34	29	41	54	33	62	35	76	53	744

Total Number of Valid Hours: 744

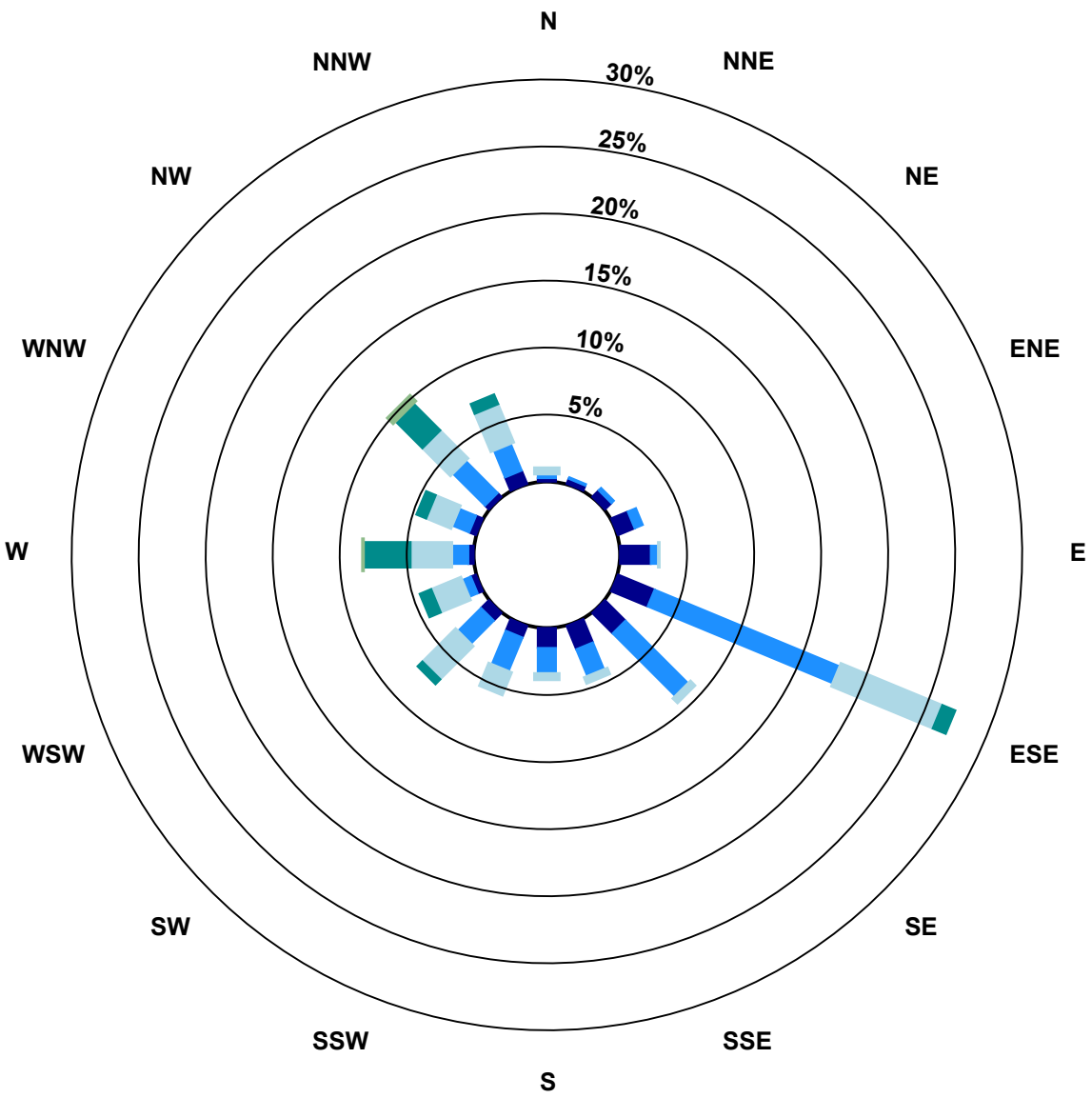
Total Number of Hours: 744

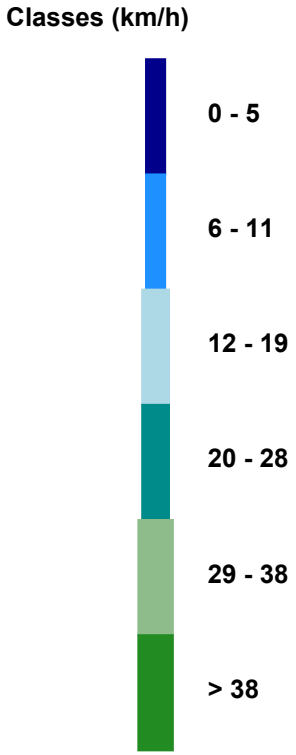
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Athabasca Valley





Total Number of Valid Hours: 744

Direction of Maximum Speed: 323 deg on Oct 27 06:00

Direction of Maximum Daily Speed Average: 300.1 deg on Oct 27

Direction of Minimum Speed: 151 deg on Oct 25 02:00

Direction of Minimum Daily Speed Average: 2.5 deg on Oct 20

Monthly Average Direction: 235.3 deg

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	323	323	325	324	323	323	327	323	320	321	320	325	327	322	320	323	310	286	270	275	215	106	181	114	319.2
2-Oct	135	147	147	119	116	113	113	110	119	115	122	116	117	119	137	135	117	129	118	124	122	120	129	129	121.9
3-Oct	138	145	188	129	132	128	125	96	103	115	210	214	218	222	245	236	217	195	199	234	228	234	229	223	209.2
4-Oct	215	215	198	184	197	212	191	201	325	300	303	295	271	263	301	308	300	319	309	303	279	260	262	256	275.2
5-Oct	257	252	223	205	203	134	128	143	153	142	152	214	247	269	257	230	260	257	261	262	254	174	236	216	236.4
6-Oct	337	345	326	346	321	326	4	319	345	354	343	328	248	223	175	50	66	109	111	115	118	121	117	118	358.2
7-Oct	114	120	120	121	122	120	115	114	119	119	124	123	108	107	102	103	114	114	104	96	79	103	60	335	112.9
8-Oct	324	322	330	264	282	265	232	274	274	268	247	261	256	260	258	260	253	258	248	269	269	257	263	271	265.0
9-Oct	264	224	220	218	230	159	148	136	125	192	194	203	199	215	224	211	215	186	159	138	115	129	134	122	199.2
10-Oct	119	117	120	121	122	126	128	122	119	117	129	123	121	213	182	170	153	140	132	118	114	121	109	115	132.2
11-Oct	117	112	110	87	65	69	323	324	328	319	319	316	294	282	270	271	266	263	267	286	287	292	314	317	296.3
12-Oct	323	321	321	322	322	340	332	333	337	340	342	328	322	358	348	2	330	316	319	303	324	290	291	290	328.2
13-Oct	286	308	296	304	277	194	215	123	177	197	205	227	220	198	189	160	152	129	124	121	140	124	119	124	179.5
14-Oct	116	115	119	121	121	122	118	123	165	191	197	203	215	202	220	215	184	136	130	126	119	116	103	107	151.9
15-Oct	114	110	113	119	115	119	117	123	120	119	123	120	173	235	214	212	200	159	177	188	190	121	168	142	142.7
16-Oct	120	118	119	109	107	106	125	114	119	116	124	119	121	121	118	166	165	128	114	123	110	177	162	137	127.0
17-Oct	146	208	220	220	221	218	231	246	257	257	235	258	284	274	287	295	280	258	253	243	235	215	182	180	247.9
18-Oct	198	209	204	185	200	197	111	176	131	101	59	60	261	266	251	265	263	229	200	115	108	155	158	126	214.3
19-Oct	117	128	103	115	117	97	80	38	355	342	8	345	297	336	57	56	60	30	340	327	325	333	335	329	23.6
20-Oct	323	322	316	319	310	305	302	300	318	325	319	21	211	203	201	208	190	136	144	150	151	138	116	121	285.5
21-Oct	115	117	119	123	129	160	41	198	310	261	275	262	279	272	292	320	305	322	334	331	44	66	97	87	282.3
22-Oct	95	98	116	32	139	114	114	126	125	114	123	121	116	112	109	106	110	117	121	120	113	116	118	112	114.6
23-Oct	111	113	117	119	117	122	126	123	115	123	119	110	109	110	112	105	103	104	113	111	117	134	100	89	114.0
24-Oct	116	96	111	116	119	120	116	119	118	123	129	125	139	111	101	112	113	115	111	119	114	106	91	100	116.1
25-Oct	97	151	287	322	337	342	311	196	205	173	169	224	234	255	231	239	226	146	138	126	92	119	135	112	224.8
26-Oct	121	118	127	111	69	74	85	69	332	335	332	335	330	332	333	331	333	337	346	352	350	345	345	341	348.3
27-Oct	336	327	324	326	324	323	309	317	317	314	313	311	306	276	289	282	282	277	270	272	269	269	265	266	300.1
28-Oct	263	264	263	262	262	256	260	264	267	264	262	259	260	285	254	272	244	225	230	222	219	174	177	175	256.0
29-Oct	162	147	124	108	108	94	81	75	72	70	50	53	18	343	325	328	322	328	326	309	325	327	314	307	12.4
30-Oct	304	291	293	235	223	293	256	255	250	216	246	226	156	154	181	195	181	157	142	155	167	161	148	148	207.9
31-Oct	137	125	139	133	131	125	120	126	132	125	111	110	110	109	108	110	113	110	111	112	122	122	111	117	115.9
	87.3	219.0	197.5	161.1	214.6	121.4	166.1	269.8	299.5	250.7	240.9	244.7	252.8	250.8	247.2	239.1	238.1	226.4	213.2	230.4	223.7	192.6	190.0	170.6	
	Diurnal Average																								

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 101 deg on Oct 20 12:00

Minimum Value: 7 deg on Oct 18 11:00

Percentiles: P_1 = 8 P_{10} = 11 Q_1 = 13 Median = 17 Q_3 = 25 P_{90} = 45 P_{99} = 85

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

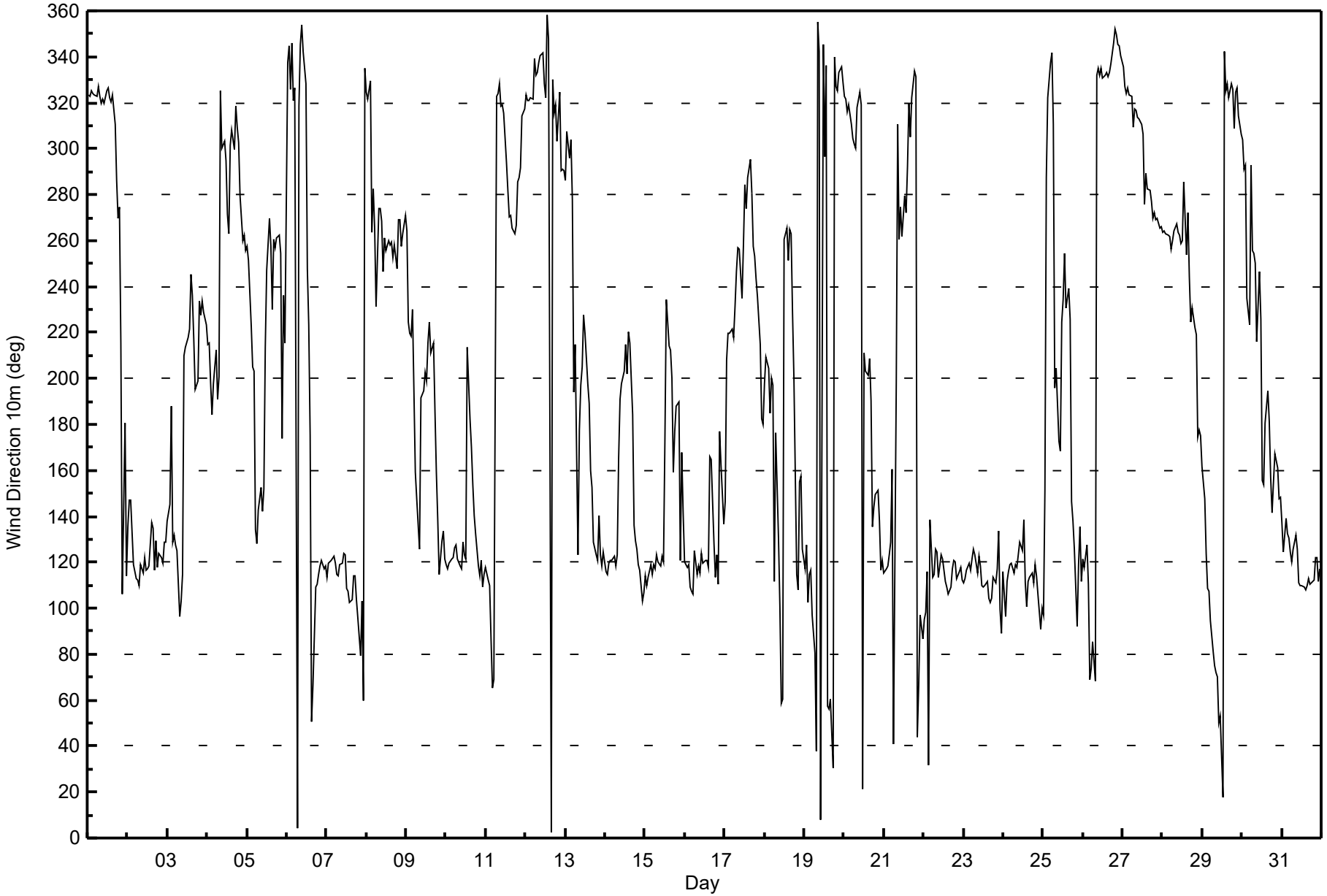
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	10	12	12	10	10	9	15	11	10	9	10	12	17	10	11	13	15	16	9	23	16	81	71	66	81
2-Oct	74	70	49	29	22	25	24	14	14	14	26	17	25	20	22	26	31	16	16	25	18	13	19	14	74
3-Oct	20	27	63	24	22	39	23	27	20	14	65	16	15	16	15	13	17	14	13	17	12	13	12	10	65
4-Oct	14	13	35	25	15	66	26	37	30	18	23	18	34	35	14	19	13	10	12	12	14	8	8	14	66
5-Oct	23	12	52	29	45	49	18	27	45	21	35	14	27	11	17	31	13	12	8	11	11	41	84	44	84
6-Oct	22	20	20	20	14	31	16	27	23	25	42	91	92	40	73	67	21	32	13	17	16	18	16	17	92
7-Oct	14	12	10	12	11	10	13	13	13	13	14	13	12	13	15	16	16	15	30	56	61	21	54	53	61
8-Oct	31	34	38	53	21	21	14	18	15	12	24	13	15	12	16	16	15	17	14	13	14	13	13	14	53
9-Oct	16	14	13	11	16	33	31	47	75	11	13	14	12	21	19	14	13	28	18	54	26	44	27	20	75
10-Oct	29	15	13	18	18	19	17	20	20	19	20	17	32	99	20	20	17	16	16	10	8	9	10	13	99
11-Oct	13	14	27	45	15	63	33	13	14	12	11	10	13	12	12	11	9	9	10	14	9	9	14	13	63
12-Oct	11	9	10	10	10	20	16	21	18	18	23	16	15	20	20	19	23	10	20	13	31	9	19	24	31
13-Oct	18	25	12	21	60	18	24	57	36	17	18	16	18	20	21	16	15	14	12	14	40	13	13	10	60
14-Oct	12	12	12	12	12	12	12	16	22	18	17	16	16	15	15	16	30	19	13	11	21	12	14	11	30
15-Oct	11	13	12	10	14	16	16	11	13	14	12	30	65	17	13	13	24	28	69	69	62	70	59	26	70
16-Oct	16	21	26	36	33	24	15	18	12	13	13	16	14	15	13	48	21	14	14	17	28	32	25	15	48
17-Oct	15	19	9	10	10	13	12	22	10	13	11	16	18	16	14	12	12	12	13	12	8	30	27	68	68
18-Oct	60	11	19	17	9	53	23	48	68	65	7	18	75	19	15	13	10	42	55	80	64	43	29	18	80
19-Oct	33	28	24	31	21	26	41	20	40	19	41	44	94	37	45	15	22	27	14	9	16	17	17	12	94
20-Oct	9	8	11	12	12	10	12	18	16	28	53	101	30	12	15	22	30	39	25	24	23	21	15	13	101
21-Oct	12	12	13	13	17	81	94	52	58	21	24	18	16	15	16	22	10	16	19	14	38	40	79	75	94
22-Oct	51	31	26	63	27	24	22	19	23	26	18	29	26	21	21	16	12	14	16	17	16	15	17	15	63
23-Oct	14	15	17	18	15	20	15	14	15	19	16	13	17	18	16	15	15	13	16	14	18	23	35	44	44
24-Oct	27	34	21	14	10	12	25	18	22	21	20	14	16	23	17	21	53	46	20	16	45	32	50	64	64
25-Oct	32	97	70	15	24	16	49	58	14	30	72	15	15	17	11	17	14	37	45	55	30	27	34	24	97
26-Oct	26	60	45	25	23	20	38	45	60	41	19	20	13	15	13	14	16	17	36	22	19	18	18	18	60
27-Oct	17	13	9	11	9	9	11	9	9	9	10	9	11	12	10	12	12	10	11	11	11	10	9	9	17
28-Oct	9	9	9	9	8	9	8	9	10	12	10	11	12	13	17	15	16	13	13	12	19	16	13	18	19
29-Oct	14	22	20	18	17	22	24	22	85	51	15	80	17	19	11	12	11	11	15	14	9	11	12	9	85
30-Oct	9	12	18	18	33	30	23	31	50	13	24	18	42	22	34	23	21	19	20	13	24	25	18	17	50
31-Oct	16	18	18	21	23	24	16	20	18	17	16	15	15	13	14	14	15	14	14	15	16	17	13	14	24
	74	97	70	63	60	81	94	58	85	65	72	101	94	99	73	67	53	46	69	80	64	81	84	75	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Athabasca Valley - October 2025



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS08
FORT CHIPEWYAN
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT CHIPEWYAN (AMS08)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	701	35	43	98.92	-	-	5.6	0	1.2	0
TRS (ppb) Average	701	35	43	98.92	0.5	0	0.5	-	0.4	-
O3(ppb) Average	702	34	42	98.92	-	-	36.7	0	27.1	-
NO2(ppb) Average	651	36	93	92.34	-	-	13.1	0	3.2	-
NO(ppb) Average	651	36	93	92.34	-	-	3	-	0.4	-
NOX(ppb) Average	651	36	93	92.34	-	-	13.6	-	3.6	-
PM2.5(ug/m3) Average	733	3	11	98.92	-	-	57.9	0	21.3	0
Temperature 2 m (C) Average	744	0	0	100	-	-	16.6	-	10.1	-
Relative Humidity (%) Average	744	0	0	100	-	-	98.8	-	94.3	-
Wind Speed 10 m (km/h) Average	744	0	0	100	-	-	37	-	25	-
Wind Direction 10 m (deg) Average	744	0	0	100	-		-	-	-	-
PC(mm) Total	742	0	2	99.73	-	-	1.9	-	8.2	-
Leaf Wetness (% of range) Average	744	0	0	100	-	-	56.3	-	20.1	-
Global Solar Radiation (W/m2) Average	744	0	0	100	-	-	459.4	-	133.1	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT CHIPEWYAN (AMS08)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2(ppb) Average	701	0.2	0.5	-	0	0	0	0	0.1	0.6	5.6
TRS (ppb) Average	701	0.19	0.1	-	0.1	0.1	0.1	0.2	0.2	0.3	0.5
O3(ppb) Average	702	21.75	5.4	-	5.5	14.2	18.6	22	25.3	28.3	36.7
NO2(ppb) Average	651	1.02	1.5	-	0	0.2	0.2	0.4	1	2.8	13.1
NO(ppb) Average	651	0.11	0.3	-	0	0	0	0	0.1	0.3	3
NOX(ppb) Average	651	1.12	1.6	-	0.1	0.2	0.2	0.4	1.2	3.2	13.6
PM2.5(ug/m3) Average	733	4.02	4.7	-	0.2	0.8	1.6	3.2	4.8	7.4	57.9
Temperature 2 m (C) Average	744	3.52	4.2	-	-6.1	-1.6	0.2	3.2	6.2	9.3	16.6
Relative Humidity (%) Average	744	80.37	14.7	-	34.2	59.6	70.4	84.6	92.6	96	98.8
Wind Speed 10 m (km/h) Average	744	14.6	7	-	2	6	9	14	19	23	37
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-
Precipitation (mm) Total	742	-	-	32.25	-	-	-	0	0	0.1	1.9
Leaf Wetness (% of range) Average	744	6.16	9.6	-	0.9	1.4	1.6	2	5.4	17.2	56.3
Global Solar Radiation (W/m2) Average	744	54.9	101.7	-	0	0	0	0	60.9	202.9	459.4

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT CHIPEWYAN (AMS08)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
ALL PARAMETERS	17 Oct 2025 14:00	17 Oct 2025 15:00	2	Station power failure
ALL PARAMETERS	31 Oct 2025 09:00	31 Oct 2025 14:00	6	Station power failure
NO2	15 Oct 2025 05:00	17 Oct 2025 05:00	49	Unstable Operation - Out-of-compliance daily QA
Precipitation Collector	17 Oct 2025 14:00	17 Oct 2025 14:00	1	DAS Failure - data not recorded
Precipitation Collector	31 Oct 2025 09:00	31 Oct 2025 09:00	1	DAS Failure - data not recorded

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Fort Chipewyan - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 5.6 ppb on Oct 10 20:00 Maximum Daily Average: 1.2 ppb on Oct 7

Minimum Value: 0.0 ppb on Oct 1 07:00 Minimum Daily Average: 0.0 ppb on Oct 27

Maximum Diurnal Average: 0.4 ppb at hour 18 Minimum Diurnal Average: 0.1 ppb at hour 4

Monthly Average: 0.20 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.1 P_{90} = 0.6 P_{99} = 2.2

Hours in Service:	744
Hours of Data:	701
Hours of Missing Data:	43
Hours of Calibration:	35
Percent Operational Time:	98.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.0	0.6	4.9	2.9	1.5	0.6	0.4	0.4	0.4	0.5	4.9
3-Oct	0.4	0.4	0.3	0.2	0.2	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
4-Oct	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
5-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.4	0.0	0.1	2.0	1.4	1.2	0.3	2.0
7-Oct	1.9	1.4	1.6	Z	1.1	1.9	1.8	1.5	1.6	1.5	1.3	1.2	1.2	2.1	1.2	0.6	0.6	0.7	0.3	0.3	0.4	1.5	1.7	0.3	1.2	2.1
8-Oct	0.1	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
9-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.2	1.5	0.8	1.1	0.7	0.6	0.6	0.3	0.5	2.5	3.3	5.6	1.4	1.0	1.0	0.8	1.0	5.6
11-Oct	0.6	Z	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
12-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.1	0.1	0.0	0.3
14-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2
15-Oct	0.2	0.4	0.4	0.5	0.6	Z	0.6	0.6	0.8	0.8	1.0	0.9	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0
16-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	0.0	0.0	0.3	1.0	1.8	1.0	0.4	0.2	0.2	0.3	1.8
17-Oct	0.2	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	PF	PF	0.0	0.0	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.6
18-Oct	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
19-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1
21-Oct	0.0	0.1	0.3	0.3	0.2	Z	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
22-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.9	0.3	0.3	0.3	0.2	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.9
23-Oct	0.0	Z	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.5	0.9	0.9	0.7	0.9	1.3	0.6	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.3	1.3
24-Oct	0.2	0.3	Z	0.3	0.3	0.4	0.5	0.6	1.0	1.9	1.6	1.5	1.3	1.6	2.1	2.3	1.4	0.6	0.4	0.2	0.1	0.1	0.1	0.1	0.8	2.3
25-Oct	0.1	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
26-Oct	0.1	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
27-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.3	0.8	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.8
30-Oct	0.0	0.0	Z	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
31-Oct	0.0	0.1	0.0	Z	0.1	2.2	3.7	1.8	PF	PF	PF	PF	PF	PF	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	--	3.7
	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.4	0.3	0.3	0.1	0.2	0.2	0.1	Diurnal Average	
	1.9	1.4	1.6	0.5	1.1	2.2	3.7	1.8	1.6	1.9	1.6	1.5	1.3	2.1	2.1	2.3	1.4	4.9	3.3	5.6	1.4	2.0	1.7	1.2	Diurnal Maximum	

Z - zerospan C - Calibration PF - Power Failure

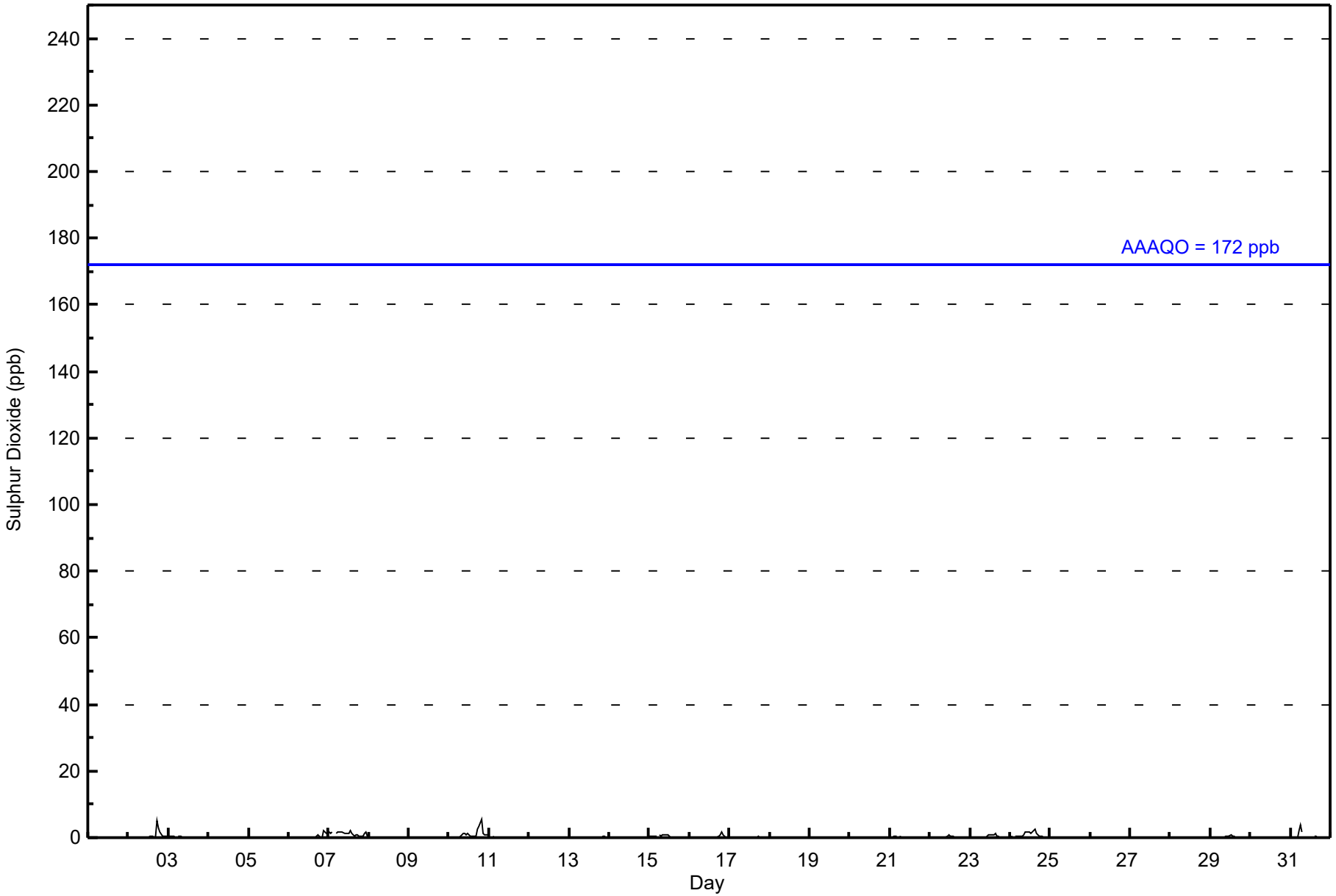
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Fort Chipewyan - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	701	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 701

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Fort Chipewyan - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	13	10	22	19	48	31	32	58	74	35	27	44	105	70	69	44	701
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	13	10	22	19	48	31	32	58	74	35	27	44	105	70	69	44	701

Total Number of Valid Hours: 701

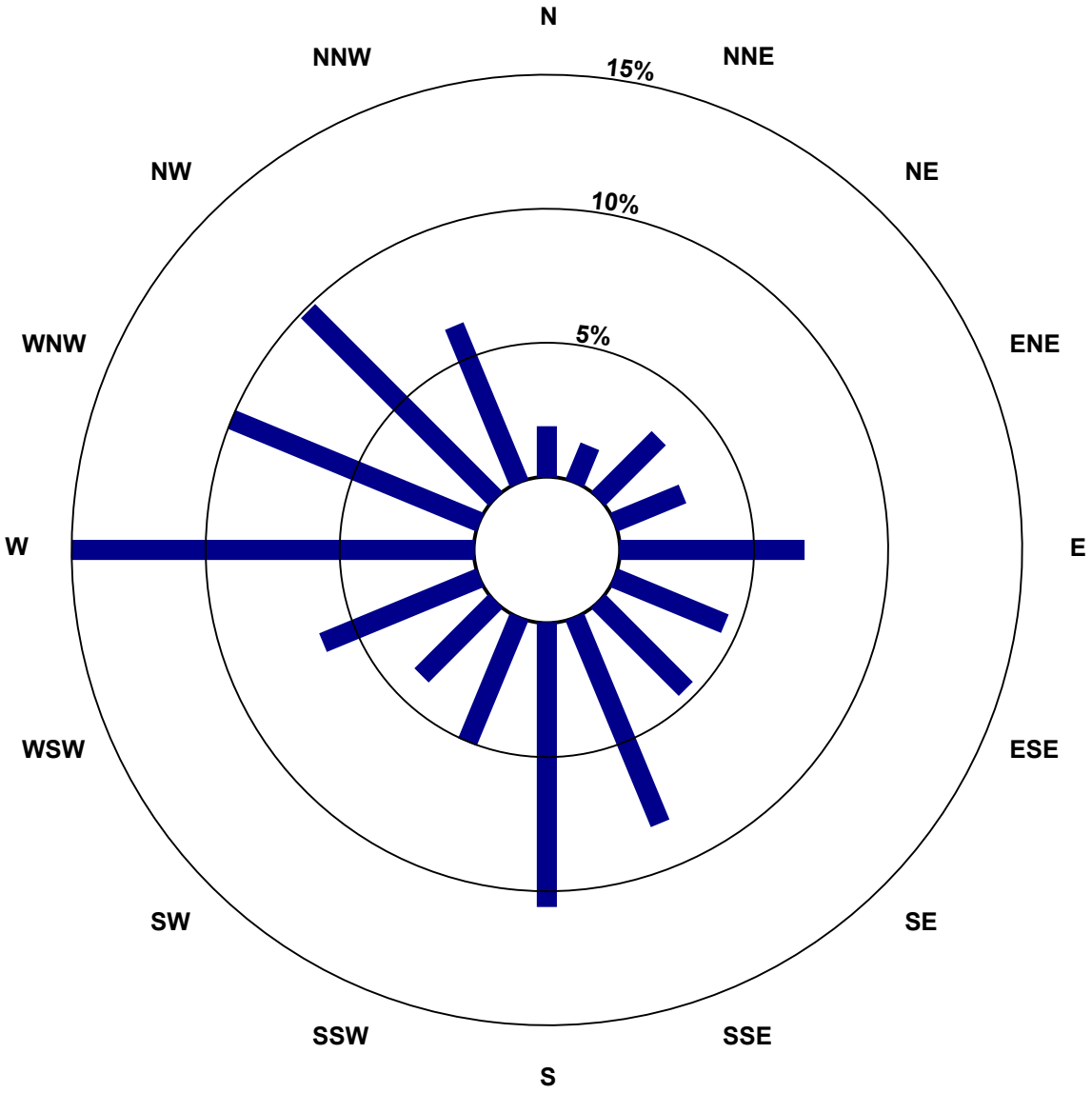
Total Number of Hours: 744

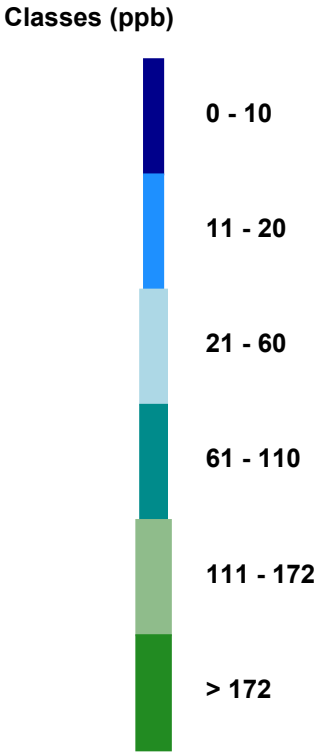
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Fort Chipewyan





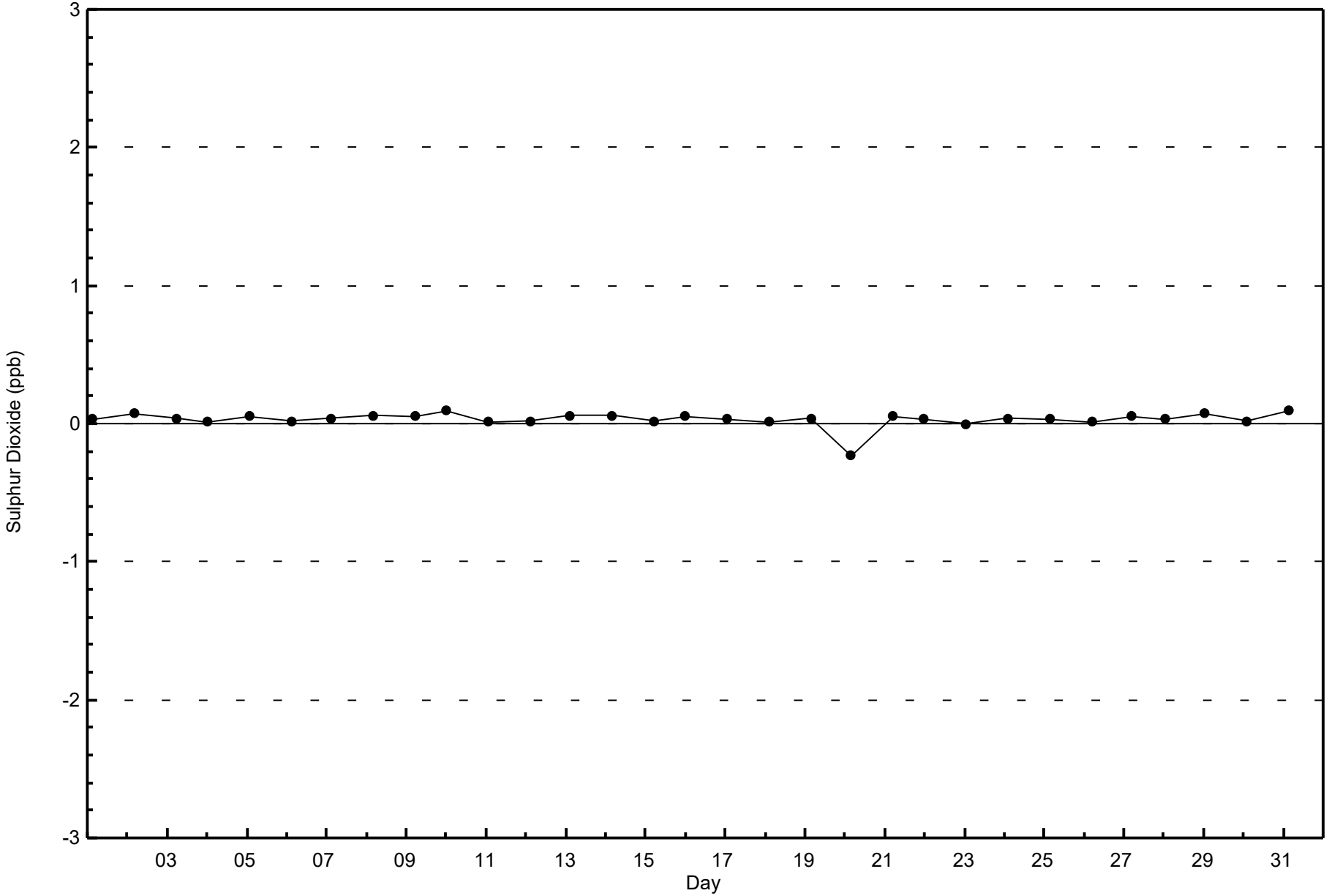
Total Number of Valid Hours: 701

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Fort Chipewyan - October 2025

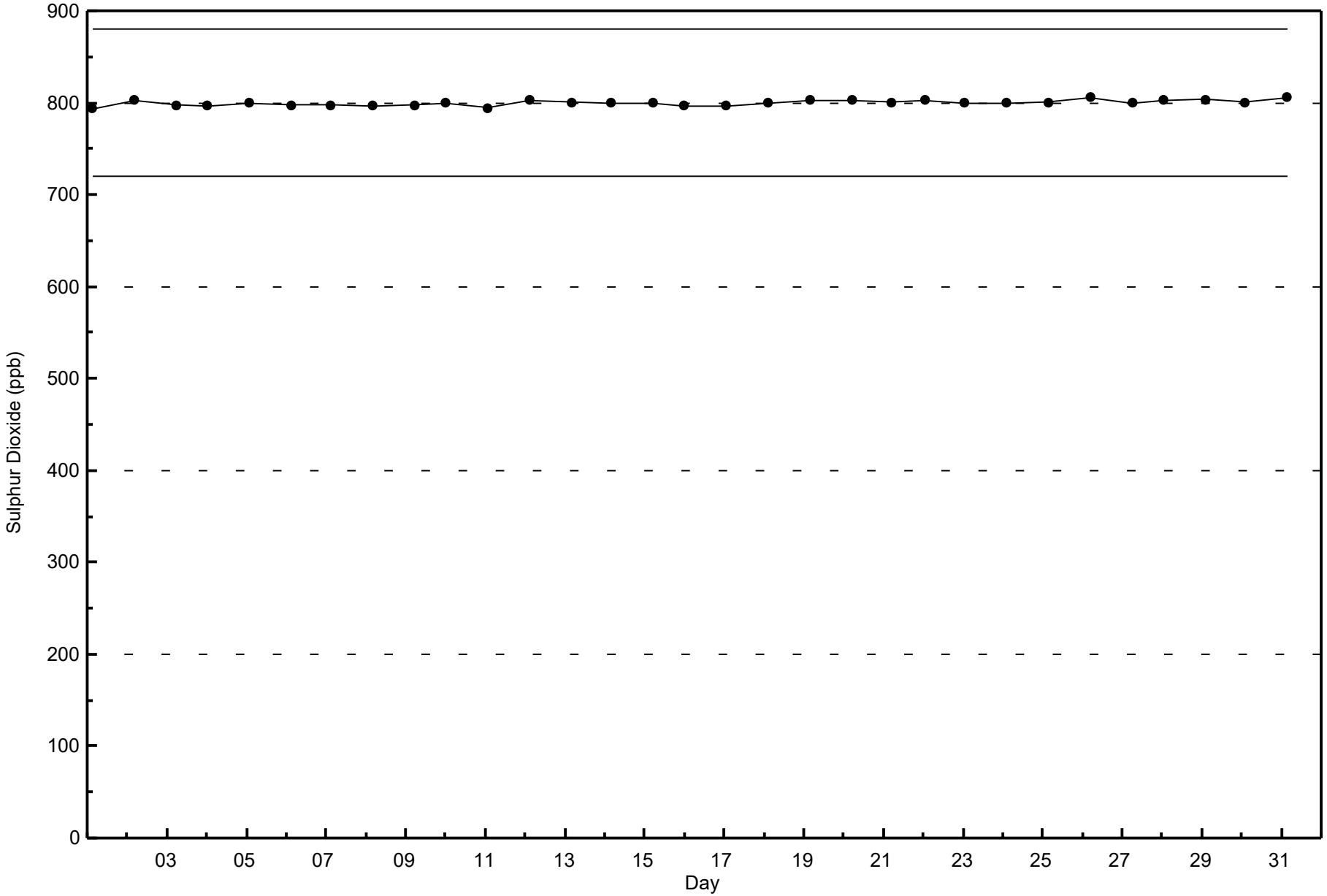


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Fort Chipewyan - October 2025



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Fort Chipewyan - October 2025

Number of Exceedences (AAAQG): 30-Min: 0

Maximum Value: 0.5 ppb on Oct 3 06:30

Maximum Daily Average: 0.4 ppb on Oct 15

Minimum Value: 0.0 ppb on Oct 16 12:00

Minimum Daily Average: 0.1 ppb on Oct 20

Maximum Diurnal Average: 0.2 ppb at hour 4

Minimum Diurnal Average: 0.2 ppb at hour 21

Monthly Average: 0.19 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.1 Q_1 = 0.1 Median = 0.2 Q_3 = 0.2 P_{90} = 0.3 P_{99} = 0.4

Periods in Service:	1488
Periods of Valid Data:	1403
Periods of Invalid Data:	85
Periods of Calibration:	70
Percent Operational Time:	99.0

Period Ending At (MST)

Day	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
1-Oct	0.3	0.3	0.3	0.3	Z	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.4
	0.3	0.3	0.3	0.3	SP	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3		
2-Oct	0.3	0.2	0.3	0.3	0.2	Z	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.4
	0.2	0.2	0.3	0.3	0.3	SP	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.4		
3-Oct	Z	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.5
	SP	0.4	0.5	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3		
4-Oct	0.3	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	0.3	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1		
5-Oct	0.2	0.2	Z	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2
	0.2	0.2	SP	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1		
6-Oct	0.1	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.2	0.2	0.1	0.3
	0.1	0.1	0.1	SP	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.3		
7-Oct	0.3	0.2	0.2	0.2	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3
	0.3	0.2	0.2	0.2	SP	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.2		
8-Oct	0.2	0.2	0.2	0.2	0.3	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3
	0.2	0.3	0.2	0.2	0.3	SP	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3		
9-Oct	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
10-Oct	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.5	0.3	0.3	0.3	0.3	0.3	0.5
	0.2	SP	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.5	0.3	0.3	0.3	0.3		
11-Oct	0.3	0.3	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3
	0.3	0.3	SP	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1		
12-Oct	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.1	0.1	0.1	SP	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
13-Oct	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3
	0.2	0.2	0.2	0.2	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3		
14-Oct	0.3	0.2	0.2	0.2	0.3	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3
	0.3	0.2	0.3	0.3	0.3	SP	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3		
15-Oct	Z	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5
	SP	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		

Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Fort Chipewyan - October 2025

Day	Period Ending At (MST) 00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
16-Oct	0.3	Z	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.3	UO	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.4
	0.3	SP	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.3	0.2	0.2	0.2		
17-Oct	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	PF	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3
	0.2	0.2	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	PF	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1		
18-Oct	0.2	0.1	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	0.1	0.1	0.2	SP	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2		
19-Oct	0.1	0.2	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.2	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
20-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2		
21-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2
	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1		
22-Oct	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	SP	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1		
23-Oct	0.1	0.1	Z	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	C	C	C	C	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	SP	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	C	C	C	C	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
24-Oct	0.1	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	0.1	0.2	0.2	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2		
25-Oct	0.2	0.1	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.4
	0.2	0.2	0.2	0.2	SP	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
26-Oct	0.2	0.2	0.2	0.2	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.2	0.2	0.2	0.1	0.2	SP	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
27-Oct	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2
	SP	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
28-Oct	0.1	Z	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.1	SP	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1		
29-Oct	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.2	0.2	SP	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
30-Oct	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	SP	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
31-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.3	PF	PF	PF	PF	PF	PF	0.3	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2	--	0.3
	0.1	0.2	0.1	0.1	SP	0.2	0.2	0.3	PF	PF	PF	PF	PF	PF	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2		
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.3	0.4	0.5	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.5	0.4	0.4	0.3	0.4	Diurnal Maximum	

Z - zerospan C - Calibration UO - Unstable Operation PF - Power Failure SP - Span

Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb

Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

Fort Chipewyan - October 2025

Maximum Value: 0.5 ppb on Oct 3 07:00

Maximum Daily Average: 0.4 ppb on Oct 15

Minimum Value: 0.1 ppb on Oct 16 16:00

Minimum Daily Average: 0.1 ppb on Oct 20

Maximum Diurnal Average: 0.2 ppb at hour 4

Minimum Diurnal Average: 0.2 ppb at hour 21

Monthly Average: 0.19 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.1 Q_1 = 0.1 Median = 0.2 Q_3 = 0.2 P_{90} = 0.3 P_{99} = 0.4

Hours in Service:	744
Hours of Data:	701
Hours of Missing Data:	43
Hours of Calibration:	35
Percent Operational Time:	98.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.3	0.3	0.3	0.3	Z	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.4
2-Oct	0.2	0.2	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.4
3-Oct	Z	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.5
4-Oct	0.3	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
5-Oct	0.2	0.2	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.2
6-Oct	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2
7-Oct	0.3	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3
8-Oct	0.2	0.2	0.2	0.2	0.3	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3
9-Oct	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
10-Oct	0.2	Z	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.5	0.3	0.3	0.3	0.3	0.3	0.5
11-Oct	0.3	0.3	Z	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3
12-Oct	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
13-Oct	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3
14-Oct	0.3	0.2	0.3	0.2	0.3	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3
15-Oct	Z	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
16-Oct	0.3	Z	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.4
17-Oct	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	PF	PF	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2
18-Oct	0.1	0.1	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3
19-Oct	0.2	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
20-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
21-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
22-Oct	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
23-Oct	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	C	C	C	C	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
24-Oct	0.1	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
25-Oct	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.4
26-Oct	0.2	0.2	0.2	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
27-Oct	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
28-Oct	0.1	Z	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2
29-Oct	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
30-Oct	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
31-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.3	PF	PF	PF	PF	PF	PF	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	--	0.3
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.5	0.4	0.3	0.3	0.4	Diurnal Maximum	

Z - zerospan C - Calibration PF - Power Failure

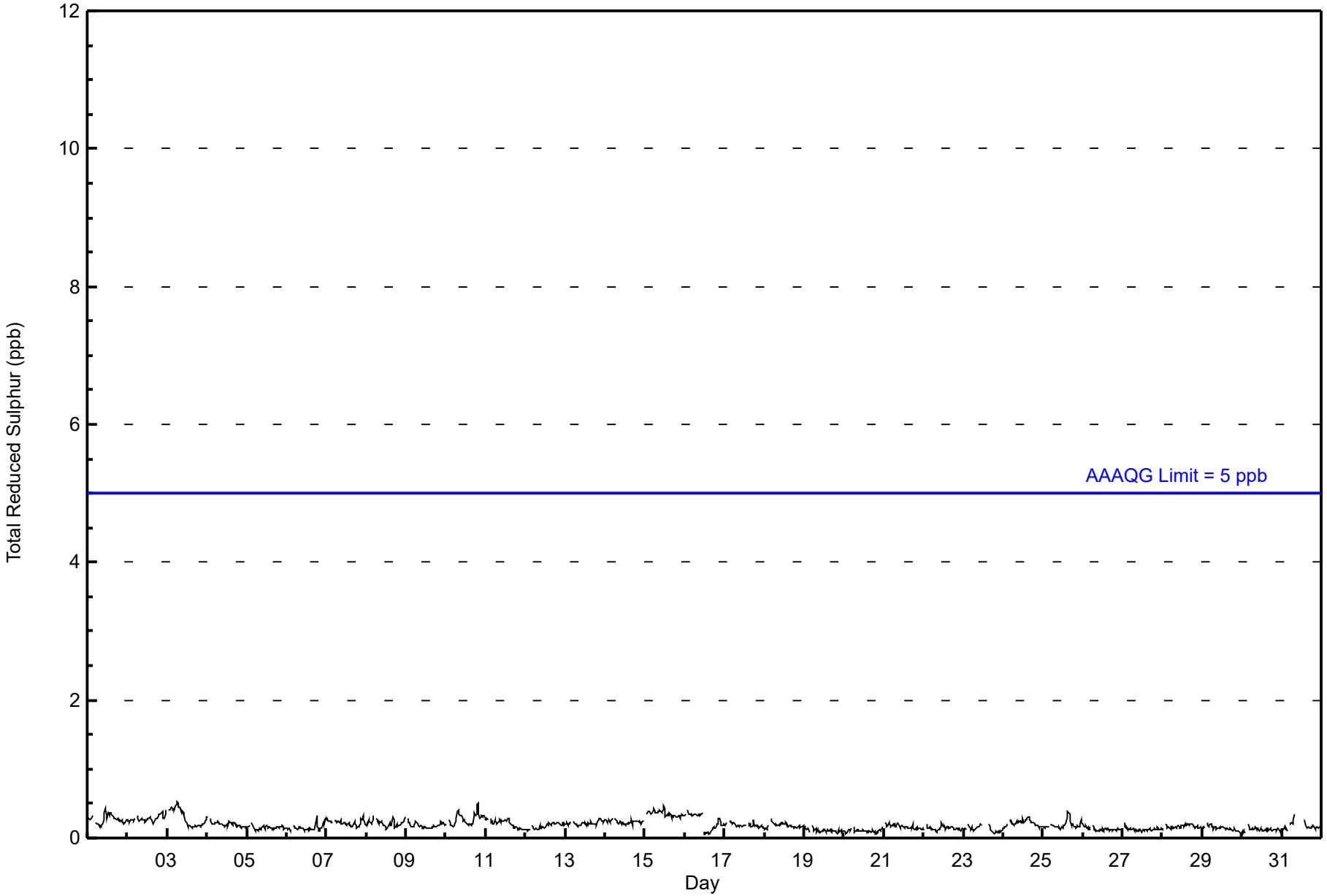
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA

Wood Buffalo Environmental Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Fort Chipewyan - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	701	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 701

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Reduced Sulphur (TRS) - ppb

Fort Chipewyan - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	13	9	22	17	50	33	32	55	69	38	28	46	102	72	69	46	701
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	13	9	22	17	50	33	32	55	69	38	28	46	102	72	69	46	701

Total Number of Valid Hours: 701

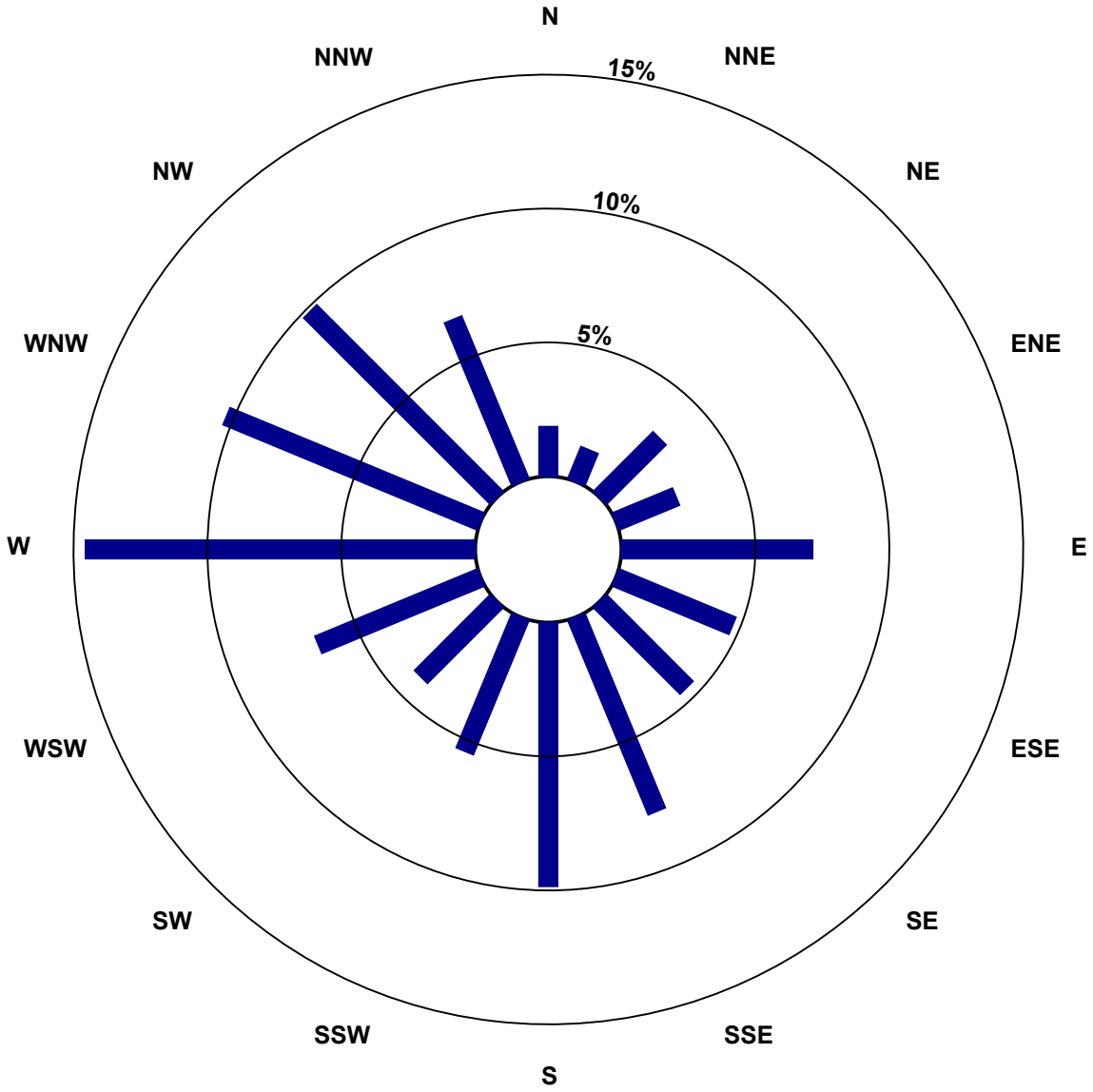
Total Number of Hours: 744

Wood Buffalo Environmental Association

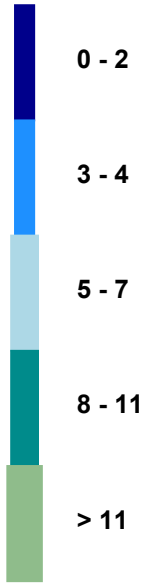
Wind Rose Oct 2025

Total Reduced Sulphur (TRS) - ppb

Fort Chipewyan



Classes (ppb)



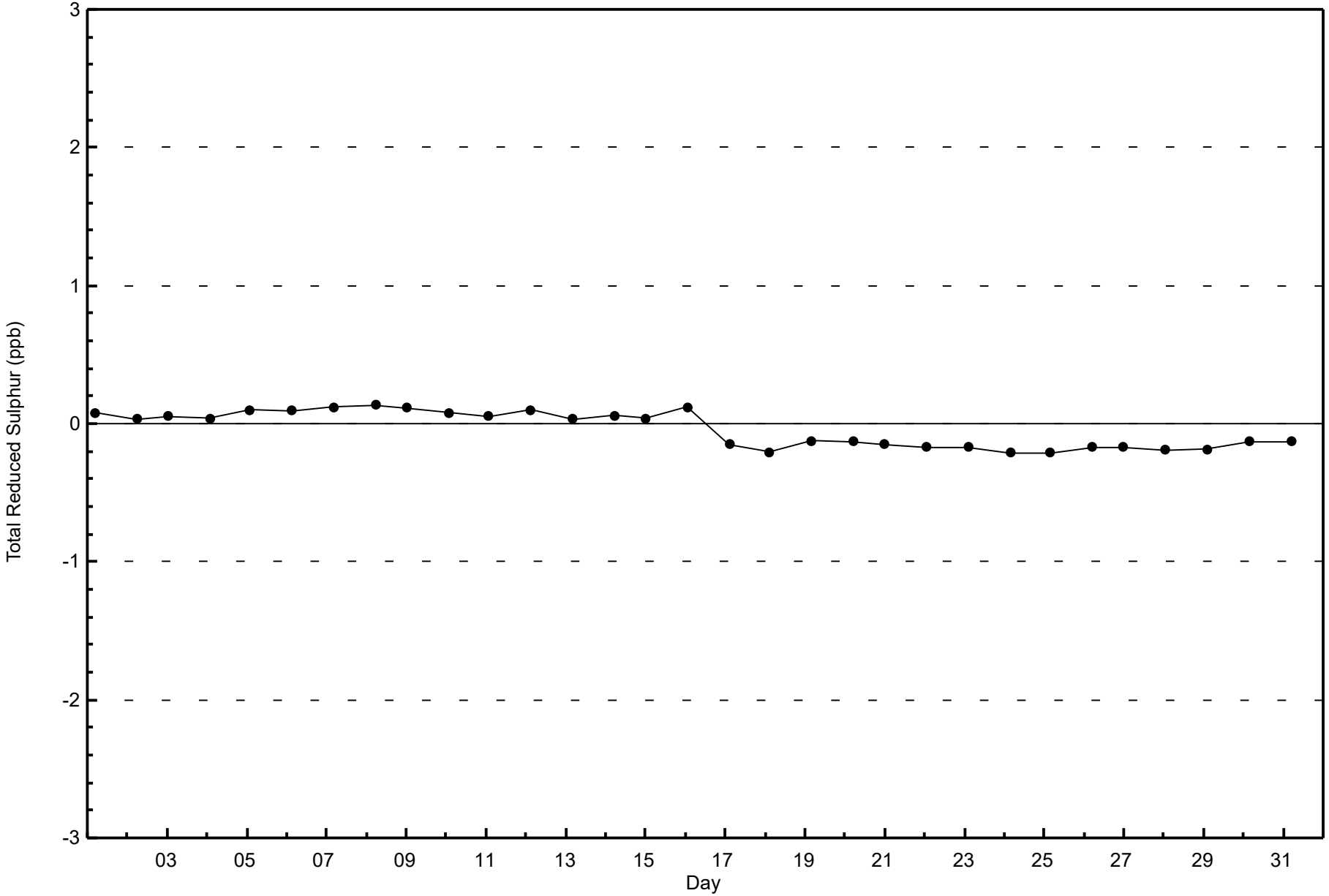
Total Number of Valid Hours: 701

Wood Buffalo Environmental Association

Zero Responses

Total Reduced Sulphur (TRS) - ppb

Fort Chipewyan - October 2025

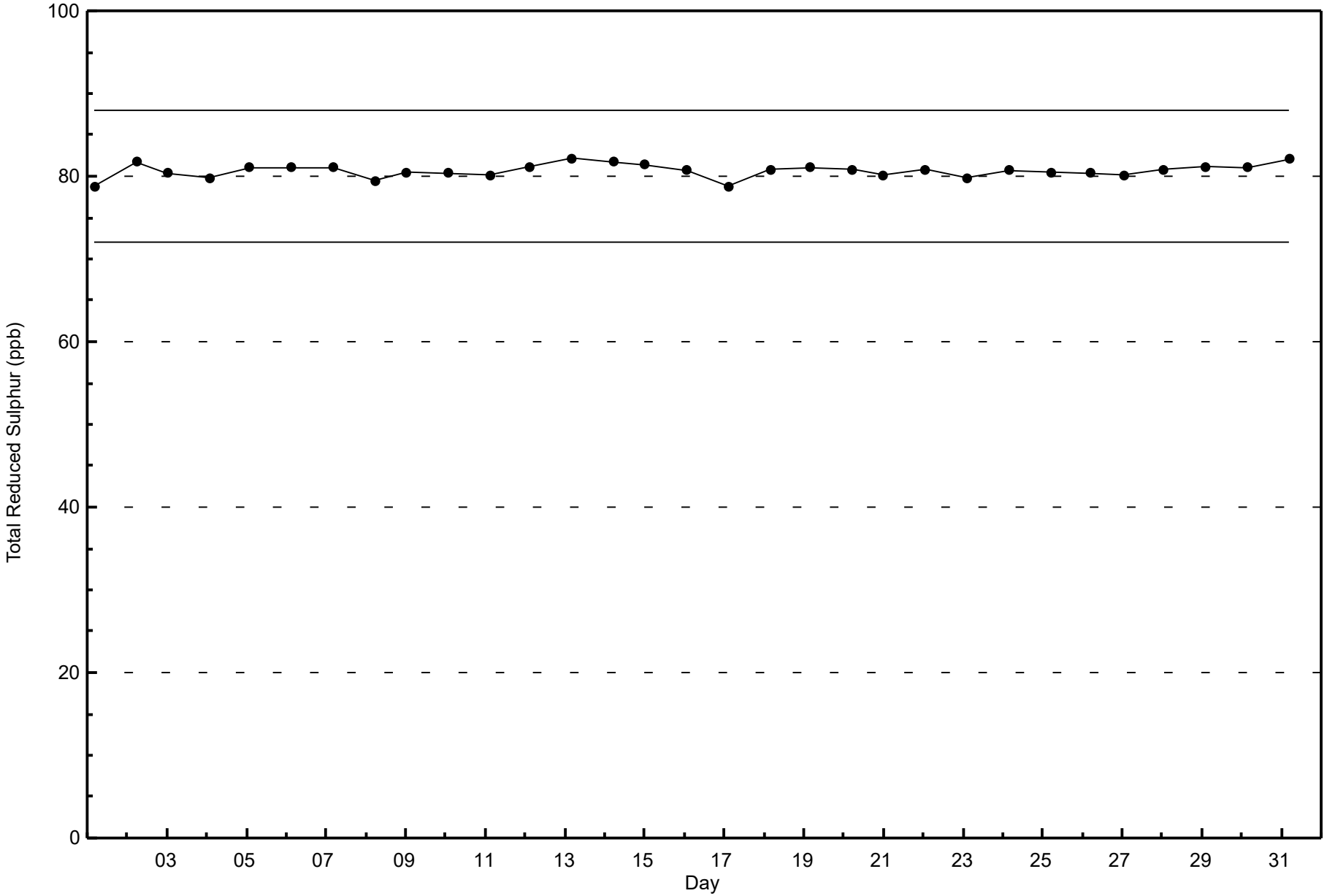


Wood Buffalo Environmental Association

Span Responses

Total Reduced Sulphur (TRS) - ppb

Fort Chipewyan - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Fort Chipewyan - October 2025

Maximum Value: 3.0 ppb on Oct 3 09:00

Maximum Daily Average: 0.4 ppb on Oct 10

Minimum Value: 0.0 ppb on Oct 1 01:00

Minimum Daily Average: 0.0 ppb on Oct 19

Maximum Diurnal Average: 0.4 ppb at hour 10

Minimum Diurnal Average: 0.0 ppb at hour 23

Monthly Average: 0.11 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.1 P_{90} = 0.3 P_{99} = 1.6

Hours in Service:	744
Hours of Data:	651
Hours of Missing Data:	93
Hours of Calibration:	36
Percent Operational Time:	92.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.3	0.1	1.2	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.2
2-Oct	0.0	0.1	Z	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.9	1.6	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.6
3-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.2	1.4	3.0	2.6	1.8	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.0
4-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
5-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
6-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.9	0.2	0.2	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.9
7-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.6	0.6	0.9	0.6	0.6	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9
8-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
9-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	1.6	2.4	2.1	1.3	0.8	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.4
11-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
12-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
14-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
15-Oct	0.0	0.1	0.5	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	0.5
16-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
17-Oct	UO	UO	UO	UO	UO	Z	0.0	C	C	C	C	C	C	PF	PF	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	--	0.2
18-Oct	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
19-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.5	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.4
21-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.7	0.6	0.8	0.7	0.5	0.3	0.2	0.1	0.1	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.8
22-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.2	0.0	0.0	0.1	1.1	1.1	0.5	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.1
23-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.1	0.3	0.5	0.6	1.4	0.6	0.4	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	1.4
24-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.9	1.1	0.9	0.5	0.8	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.1
25-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
26-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	1.6	0.5	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.6
27-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.3	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.3
29-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1
30-Oct	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
31-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	PF	PF	PF	PF	PF	PF	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.2
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.4	0.2	0.2	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.0	0.1	0.5	0.0	0.1	0.0	0.2	1.6	3.0	2.6	1.8	1.1	1.2	1.4	1.6	0.6	0.4	0.7	0.3	0.1	0.1	0.1	0.0	0.0	Diurnal Maximum	

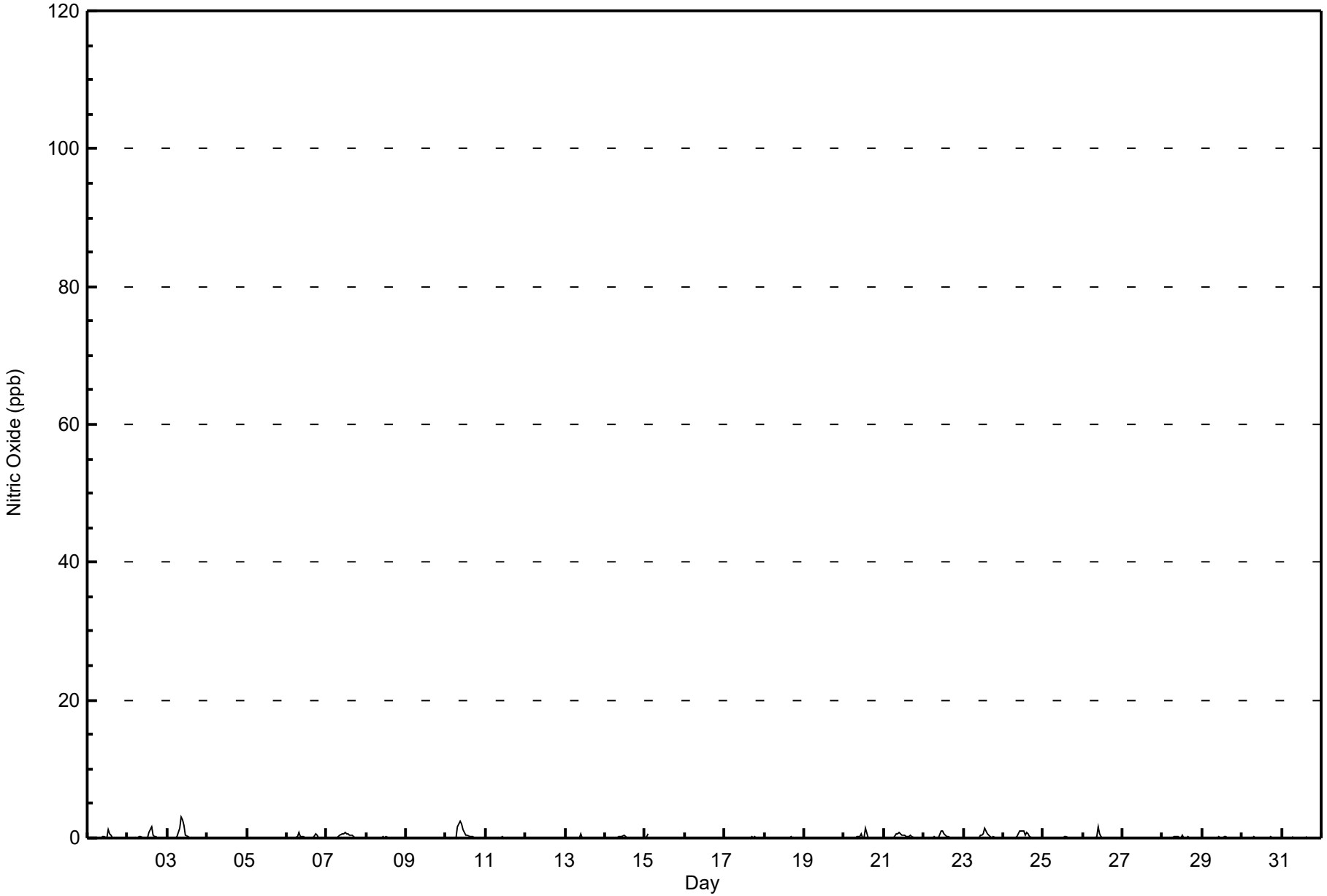
Z - zerospan C - Calibration UO - Unstable Operation PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Fort Chipewyan - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	651	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 651

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Fort Chipewyan - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	14	9	22	19	42	28	31	55	65	36	27	41	81	65	71	45	651
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	14	9	22	19	42	28	31	55	65	36	27	41	81	65	71	45	651

Total Number of Valid Hours: 651

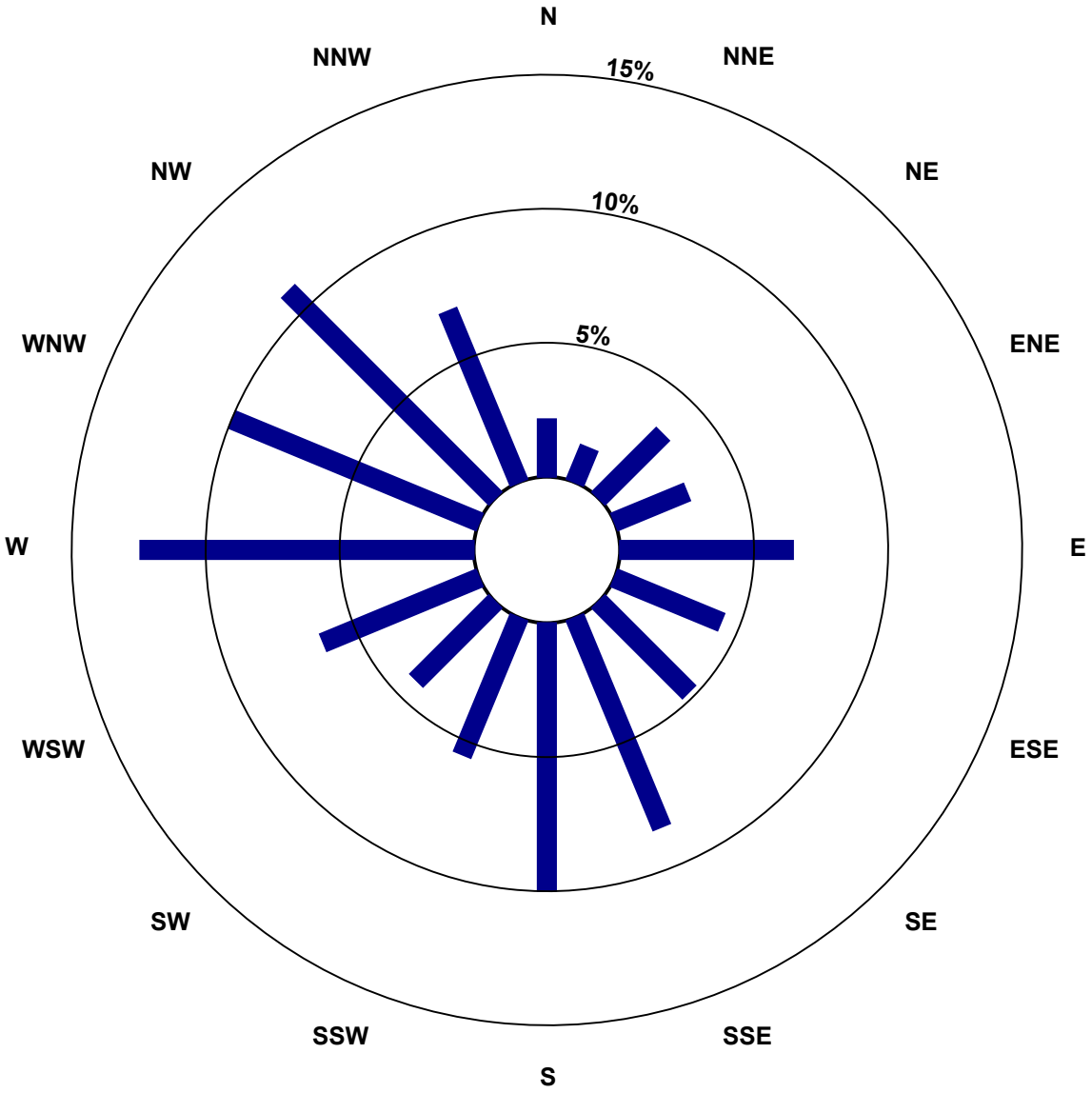
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Fort Chipewyan



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

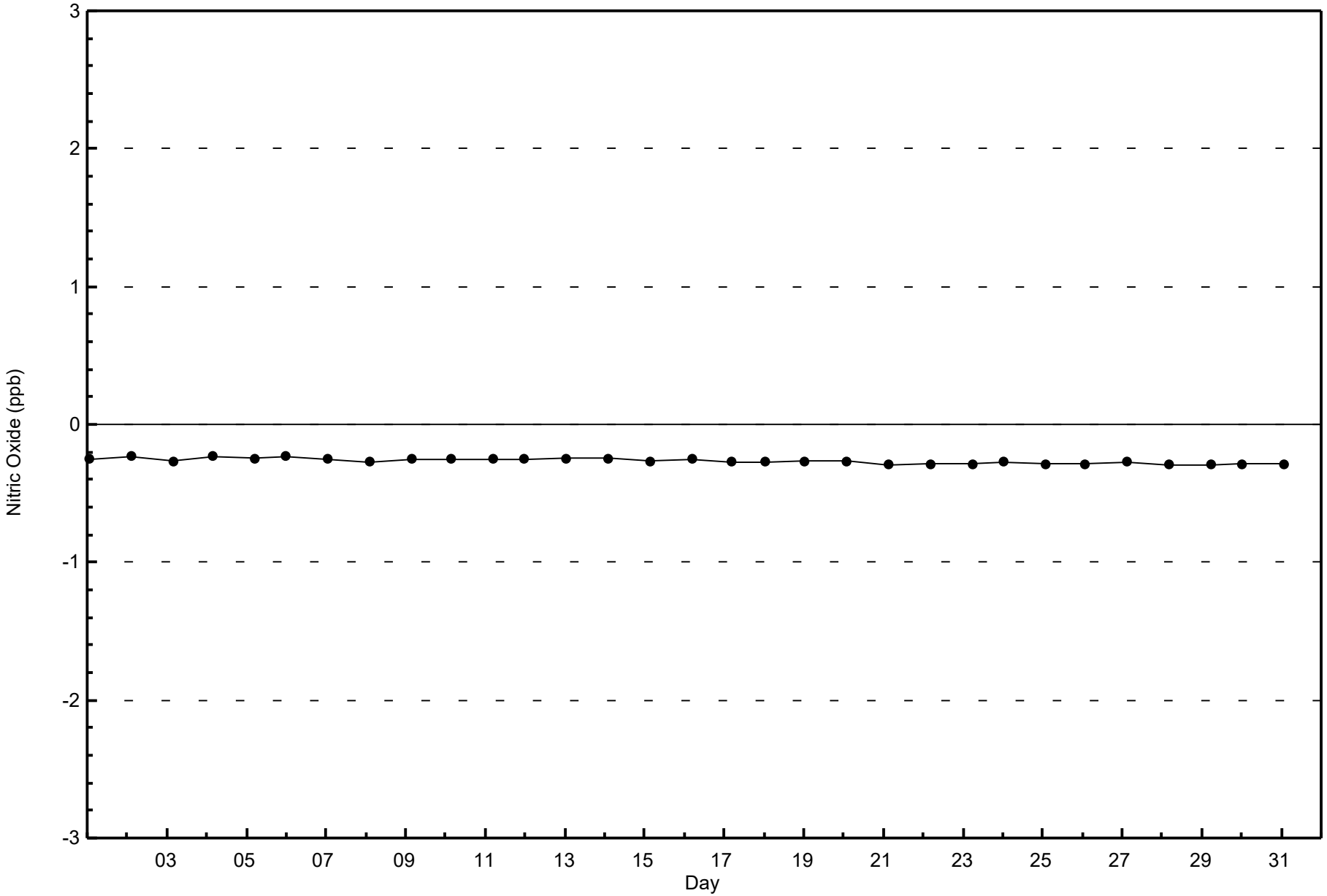
Total Number of Valid Hours: 651

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Fort Chipewyan - October 2025

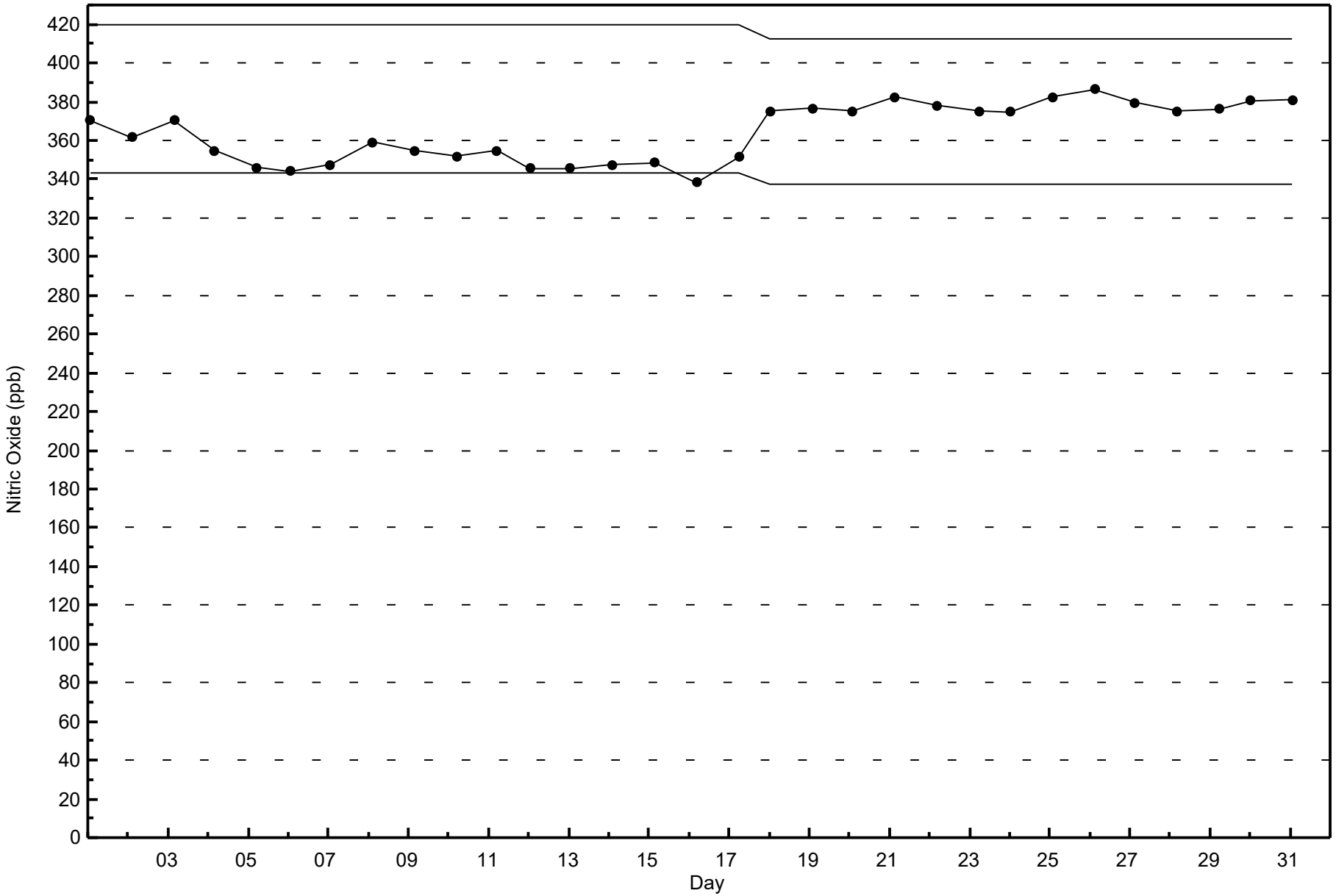


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Fort Chipewyan - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Fort Chipewyan - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 13.1 ppb on Oct 15 03:00 Maximum Daily Average: 3.2 ppb on Oct 10

Minimum Value: 0.0 ppb on Oct 13 10:00 Minimum Daily Average: 0.2 ppb on Oct 27
Maximum Diurnal Average: 1.5 ppb at hour 3 Minimum Diurnal Average: 0.6 ppb at hour 12
Monthly Average: 1.02 ppb Percentiles: P_1 = 0.1 P_{10} = 0.2 Q_1 = 0.2 Median = 0.4 Q_3 = 1.0 P_{90} = 2.8 P_{99} = 7.6

Hours in Service:	744
Hours of Data:	651
Hours of Missing Data:	93
Hours of Calibration:	36
Percent Operational Time:	92.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.6	Z	0.5	0.5	0.4	0.3	0.3	0.4	0.4	0.8	1.0	0.6	1.4	1.0	0.9	0.4	0.5	0.4	0.4	0.4	0.8	0.5	0.4	0.3	0.6	1.4
2-Oct	0.5	0.6	Z	0.6	0.4	0.2	0.8	0.8	0.5	0.4	0.3	0.3	0.4	2.3	3.4	1.4	1.6	3.5	4.2	5.1	5.8	5.5	5.4	8.6	2.3	8.6
3-Oct	7.3	7.3	7.4	Z	7.7	8.2	7.7	5.4	4.8	3.9	2.3	1.0	0.7	0.4	0.4	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.4	2.9	8.2
4-Oct	0.3	0.3	0.3	0.2	Z	0.2	0.2	0.4	0.3	0.3	0.4	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4
5-Oct	0.2	0.2	0.3	0.2	0.2	Z	0.5	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.5
6-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.7	2.9	0.5	0.5	0.3	0.2	0.2	0.2	0.1	0.1	0.1	2.7	1.5	0.2	0.6	3.3	4.8	4.5	1.1	4.8
7-Oct	4.7	Z	3.6	3.3	3.0	3.5	3.6	3.2	2.8	2.0	1.6	2.0	2.0	2.6	2.4	2.3	3.0	3.5	2.3	2.1	2.5	6.1	5.7	2.1	3.0	6.1
8-Oct	0.7	0.7	Z	0.6	0.6	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.7
9-Oct	0.3	0.3	0.3	Z	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.3
10-Oct	0.2	1.1	0.7	0.9	Z	2.0	5.3	9.0	5.4	3.6	2.1	1.6	1.5	1.5	1.5	1.1	1.8	5.1	6.2	8.9	3.6	3.7	3.9	3.5	3.2	9.0
11-Oct	2.6	1.9	1.2	1.0	0.8	Z	0.4	0.3	0.4	0.4	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.5	2.6
12-Oct	Z	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.3	0.2	0.2	0.3
13-Oct	0.2	Z	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.2	0.7	0.4	0.2	0.3	0.7	3.0	3.0	2.2	1.8	0.7	3.0
14-Oct	2.0	2.5	Z	4.1	4.4	3.5	3.3	2.3	2.0	1.5	1.5	1.1	0.6	0.6	0.5	0.6	0.8	1.4	1.6	1.6	1.9	1.8	2.6	3.0	2.0	4.4
15-Oct	2.8	7.3	13.1	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	13.1
16-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
17-Oct	UO	UO	UO	UO	UO	Z	0.7	C	C	C	C	C	C	PF	PF	0.1	0.6	1.6	2.3	1.6	0.3	0.4	0.4	0.2	--	2.3
18-Oct	Z	0.4	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.7	0.7	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.7
19-Oct	0.1	Z	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.7	0.2	0.1	0.3	0.4	0.1	0.1	0.2	0.7
20-Oct	0.1	0.1	Z	0.1	0.2	0.3	0.3	0.4	0.8	0.4	0.3	0.2	0.2	0.7	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.6	1.7	2.6	0.4	2.6
21-Oct	2.9	2.5	2.4	Z	2.0	2.0	2.1	2.9	3.3	2.5	1.5	1.1	0.9	0.5	0.5	0.5	1.1	0.5	0.3	0.3	0.3	0.3	0.3	0.3	1.3	3.3
22-Oct	0.3	0.3	0.2	0.2	Z	0.2	0.3	0.2	0.2	0.2	1.3	1.3	0.8	0.7	0.8	0.8	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.4	1.3
23-Oct	0.2	0.2	0.3	0.2	0.2	Z	0.3	0.3	0.6	0.8	1.0	1.1	1.3	1.5	1.9	2.2	1.4	0.9	0.8	0.6	0.5	0.5	0.4	0.5	0.8	2.2
24-Oct	Z	1.0	0.9	1.3	1.7	1.7	1.7	1.9	1.8	2.1	2.6	2.3	2.5	2.8	3.7	4.7	4.1	2.1	1.6	1.1	0.8	0.6	0.5	0.5	1.9	4.7
25-Oct	0.4	Z	0.4	0.4	0.5	0.6	0.7	1.3	0.8	0.5	0.5	0.5	0.6	2.4	2.7	1.0	0.8	0.8	0.6	0.4	0.6	0.6	0.4	0.4	0.8	2.7
26-Oct	0.4	0.4	Z	0.5	0.5	0.4	0.4	1.1	1.3	2.6	0.8	0.5	0.4	0.3	0.4	0.3	1.4	1.0	1.2	0.7	0.1	0.1	0.2	0.3	0.7	2.6
27-Oct	0.1	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
28-Oct	0.2	0.2	0.2	0.2	Z	0.3	0.3	0.5	0.4	0.4	0.3	0.3	0.7	0.2	0.3	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.7
29-Oct	0.3	0.2	0.2	1.1	1.3	Z	0.2	0.5	0.7	0.7	0.5	0.4	0.8	1.3	1.3	0.7	1.0	0.5	0.7	0.8	1.0	0.5	0.4	0.4	0.7	1.3
30-Oct	Z	0.3	0.3	0.3	0.4	0.4	0.6	1.1	0.7	0.6	0.6	0.6	0.5	0.4	0.3	0.3	0.3	0.4	0.9	0.8	0.4	0.4	0.5	0.6	0.5	1.1
31-Oct	0.9	Z	3.1	2.5	4.0	6.1	5.0	3.3	PF	PF	PF	PF	PF	PF	1.0	1.0	0.7	0.7	0.7	0.6	0.4	0.5	0.6	0.8	--	6.1
	1.2	1.2	1.5	0.8	1.2	1.3	1.3	1.4	1.1	1.0	0.8	0.6	0.7	0.8	0.9	0.7	0.8	1.0	1.0	1.0	0.9	1.1	1.1	1.1	Diurnal Average	
	7.3	7.3	13.1	4.1	7.7	8.2	7.7	9.0	5.4	3.9	2.6	2.3	2.5	2.8	3.7	4.7	4.1	5.1	6.2	8.9	5.8	6.1	5.7	8.6	Diurnal Maximum	

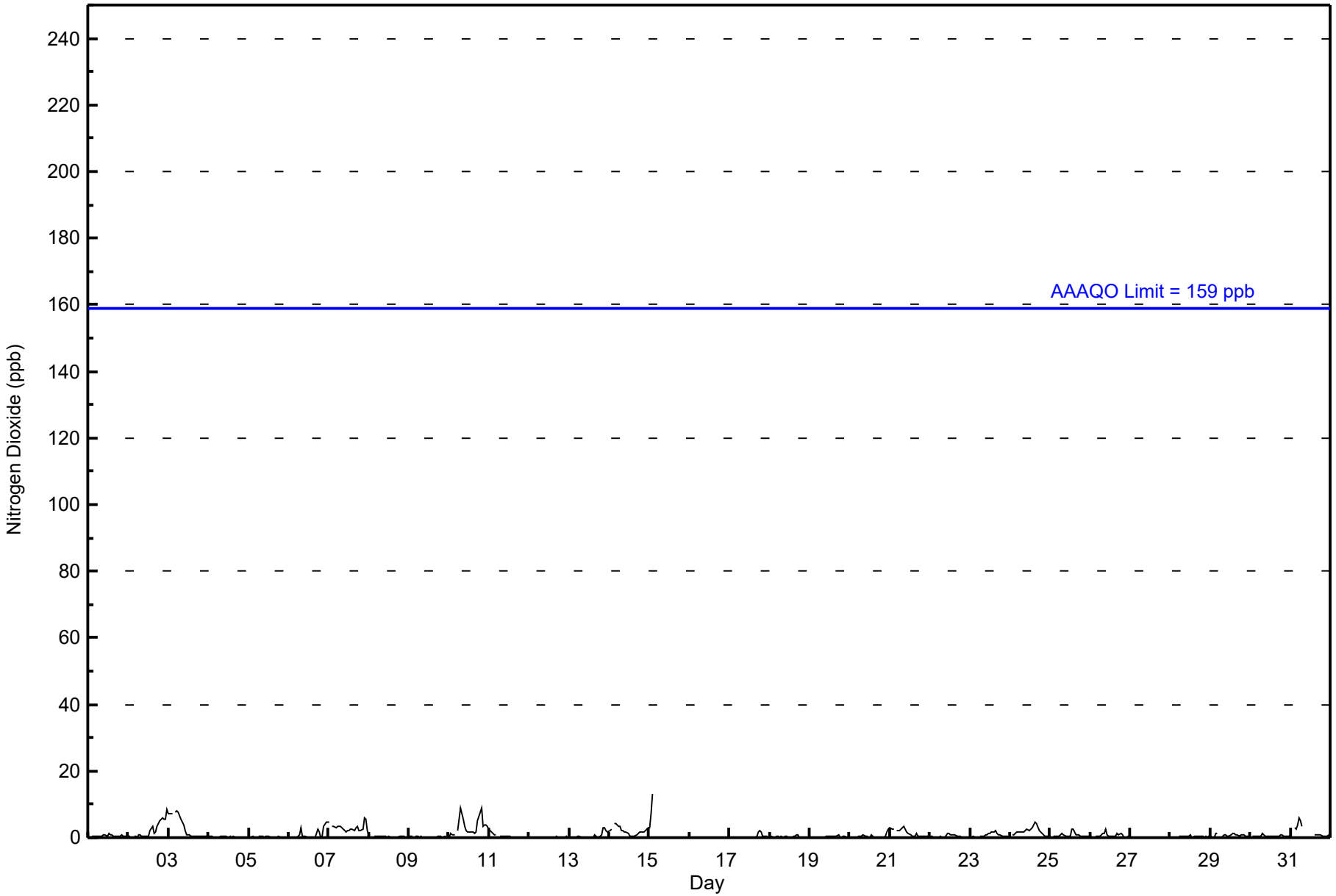
Z - zerospan C - Calibration UO - Unstable Operation PF - Power Failure
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Fort Chipewyan - October 2025



Nitrogen Dioxide (NO_2) - ppb
Fort Chipewyan - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	651	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 651

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Fort Chipewyan - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	14	9	22	19	42	28	31	55	65	36	27	41	81	65	71	45	651
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	14	9	22	19	42	28	31	55	65	36	27	41	81	65	71	45	651

Total Number of Valid Hours: 651

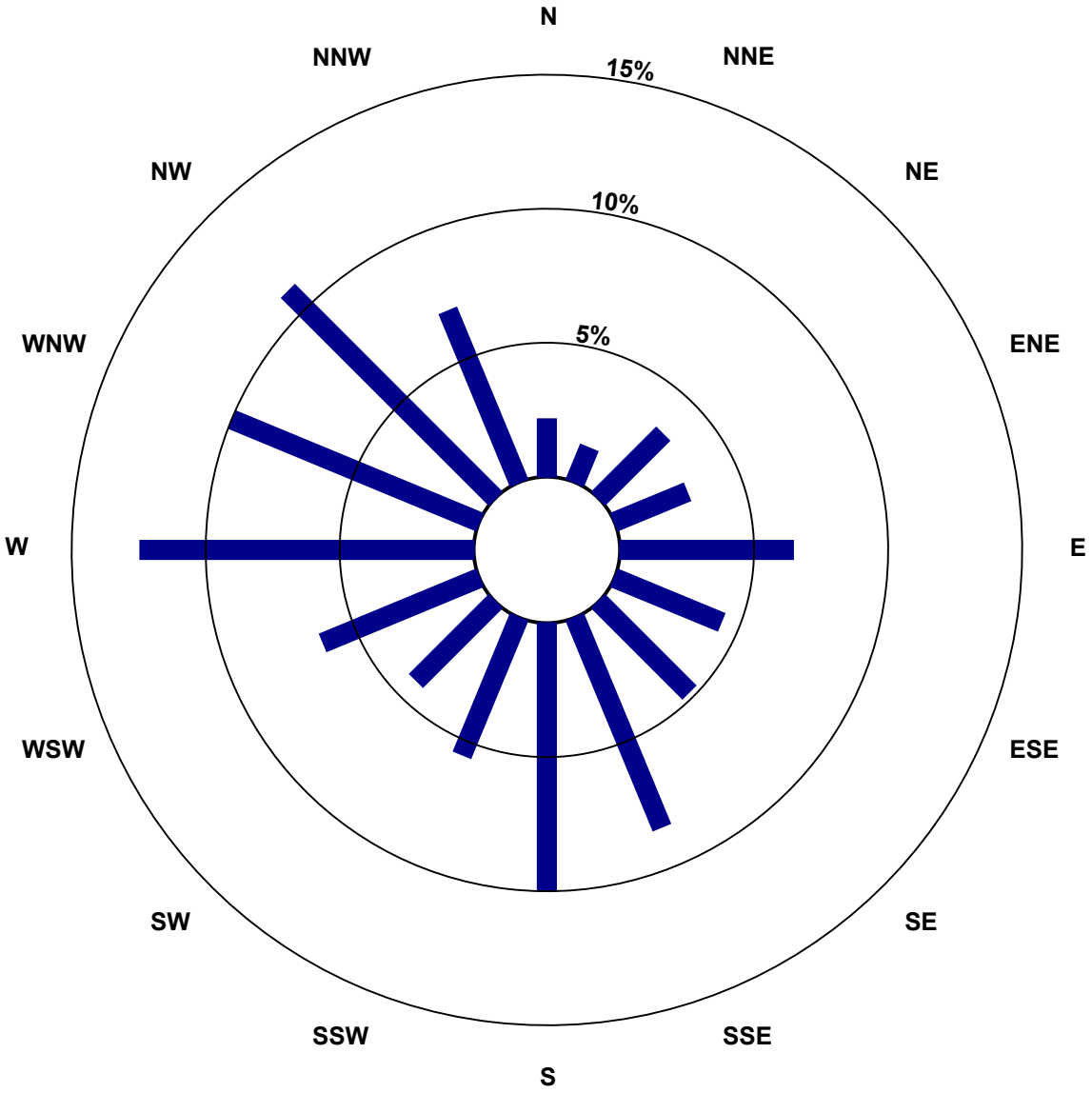
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Fort Chipewyan



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

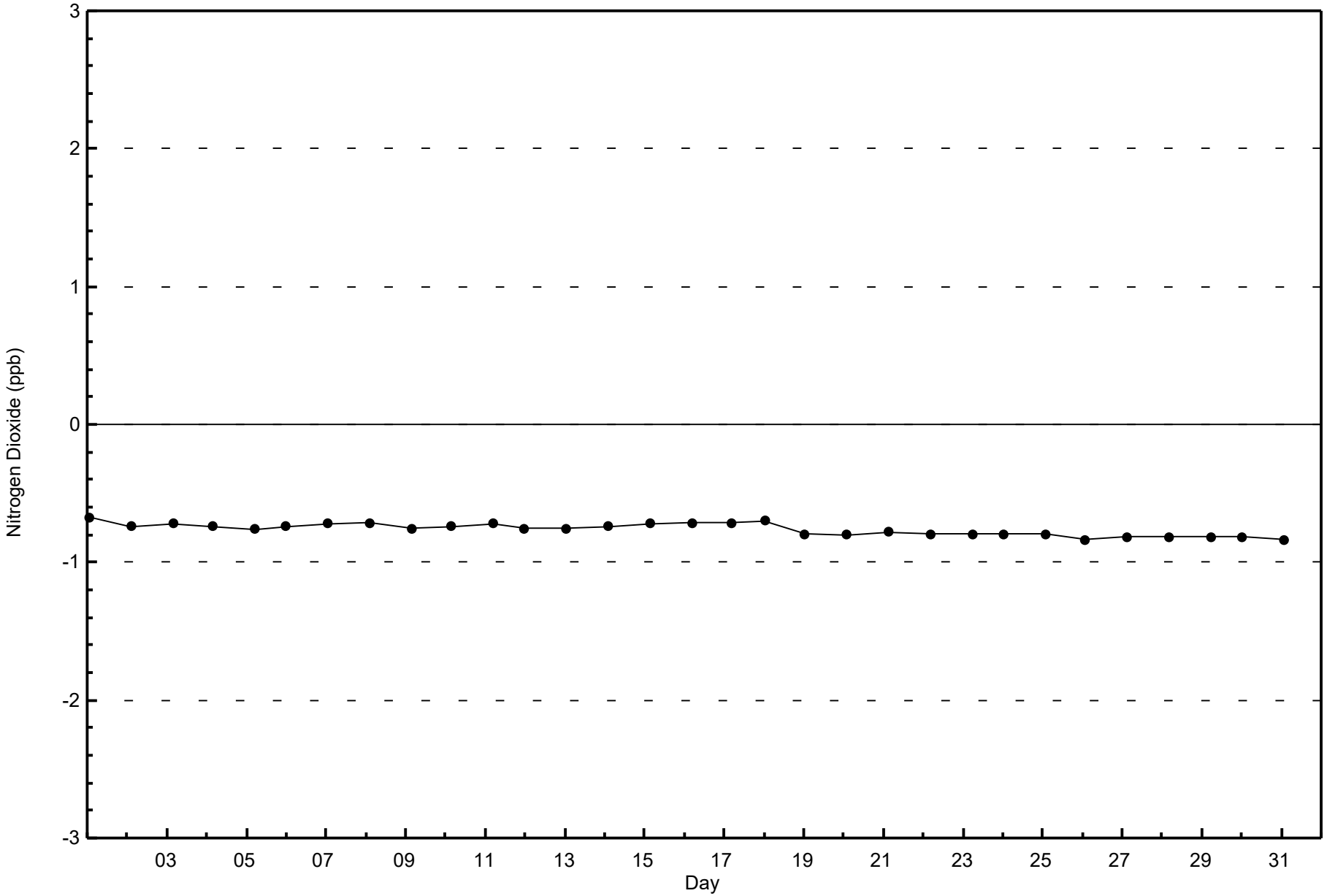
Total Number of Valid Hours: 651

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Fort Chipewyan - October 2025

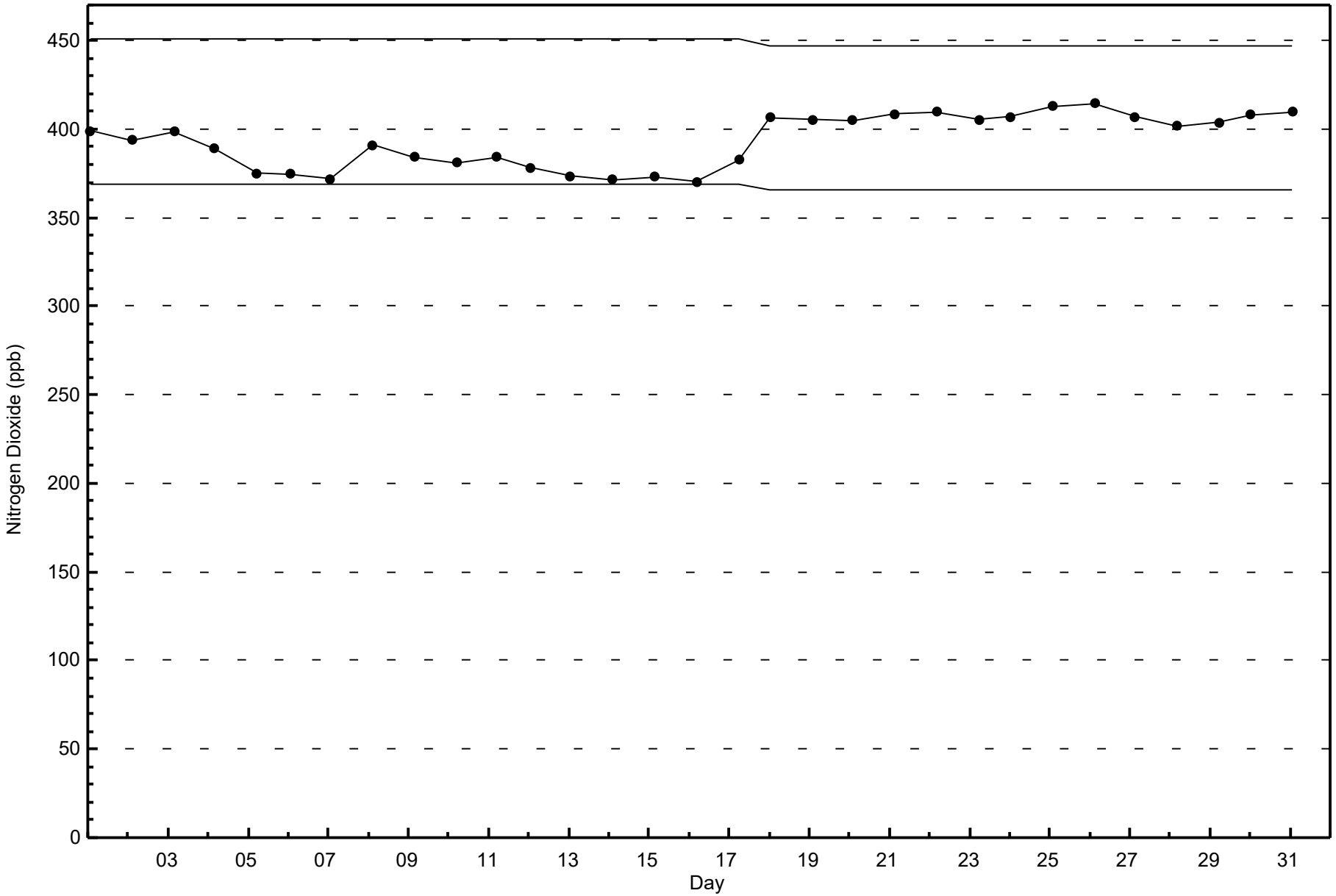


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Fort Chipewyan - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Fort Chipewyan - October 2025

Maximum Value: 13.6 ppb on Oct 15 03:00

Maximum Daily Average: 3.6 ppb on Oct 10

Minimum Value: 0.1 ppb on Oct 27 19:00

Minimum Daily Average: 0.2 ppb on Oct 27

Maximum Diurnal Average: 1.6 ppb at hour 8

Minimum Diurnal Average: 0.8 ppb at hour 4

Monthly Average: 1.12 ppb

Percentiles: $P_1 = 0.1$ $P_{10} = 0.2$ $Q_1 = 0.2$ Median = 0.4 $Q_3 = 1.2$ $P_{90} = 3.2$ $P_{99} = 7.8$

Hours in Service:	744
Hours of Data:	651
Hours of Missing Data:	93
Hours of Calibration:	36
Percent Operational Time:	92.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.6	Z	0.5	0.5	0.4	0.3	0.3	0.5	0.4	1.0	1.3	0.7	2.6	1.6	1.3	0.4	0.5	0.4	0.4	0.4	0.8	0.5	0.4	0.3	0.7	2.6
2-Oct	0.5	0.7	Z	0.6	0.4	0.2	0.8	0.9	0.7	0.5	0.3	0.3	0.4	3.2	5.0	1.7	1.7	3.6	4.2	5.1	5.8	5.5	5.4	8.6	2.4	8.6
3-Oct	7.3	7.3	7.4	Z	7.7	8.2	7.9	6.8	7.8	6.5	4.1	1.3	0.9	0.4	0.4	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.4	3.4	8.2
4-Oct	0.3	0.3	0.3	0.2	Z	0.2	0.2	0.5	0.3	0.4	0.5	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5
5-Oct	0.2	0.2	0.3	0.2	0.2	Z	0.5	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.1	0.3	0.5
6-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.9	3.8	0.7	0.7	0.6	0.2	0.3	0.2	0.1	0.1	0.1	3.4	1.8	0.2	0.6	3.3	4.8	4.5	1.2	4.8
7-Oct	4.7	Z	3.6	3.3	3.0	3.5	3.7	3.4	3.2	2.6	2.2	2.9	2.6	3.2	2.8	2.6	3.2	3.6	2.3	2.1	2.5	6.1	5.7	2.1	3.3	6.1
8-Oct	0.7	0.7	Z	0.6	0.6	0.4	0.5	0.4	0.3	0.3	0.5	0.2	0.6	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.7
9-Oct	0.3	0.3	0.3	Z	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.3
10-Oct	0.2	1.1	0.7	0.9	Z	2.0	5.3	10.6	7.8	5.7	3.4	2.4	1.9	1.9	1.8	1.3	1.9	5.2	6.2	8.9	3.6	3.7	3.9	3.5	3.6	10.6
11-Oct	2.6	1.9	1.2	1.0	0.8	Z	0.4	0.3	0.4	0.4	0.7	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.5	2.6
12-Oct	Z	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.3	0.2	0.2	0.3
13-Oct	0.2	Z	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.7	0.2	0.2	0.2	0.2	0.2	0.7	0.4	0.2	0.3	0.7	3.0	3.0	2.2	1.8	0.7	3.0
14-Oct	2.0	2.5	Z	4.1	4.4	3.5	3.3	2.4	2.2	1.7	1.8	1.4	0.9	0.7	0.6	0.6	0.8	1.4	1.6	1.6	1.9	1.8	2.6	3.0	2.0	4.4
15-Oct	2.8	7.4	13.6	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	13.6
16-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
17-Oct	UO	UO	UO	UO	UO	Z	0.7	C	C	C	C	C	C	PF	PF	0.1	0.7	1.6	2.5	1.6	0.3	0.4	0.4	0.2	--	2.5
18-Oct	Z	0.4	0.2	0.2	0.4	0.3	0.2	0.4	0.3	0.5	0.3	0.2	0.2	0.2	0.3	0.3	0.8	0.7	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.8
19-Oct	0.1	Z	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.7	0.2	0.1	0.3	0.4	0.1	0.1	0.3	0.7
20-Oct	0.1	0.1	Z	0.1	0.2	0.3	0.3	0.5	1.0	0.5	0.8	0.2	0.2	2.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.6	1.7	2.6	0.5	2.6
21-Oct	2.9	2.5	2.4	Z	2.0	2.0	2.2	3.6	3.9	3.3	2.2	1.6	1.2	0.7	0.6	0.6	1.5	0.6	0.4	0.3	0.3	0.3	0.3	0.3	1.6	3.9
22-Oct	0.3	0.3	0.2	0.2	Z	0.2	0.5	0.2	0.2	0.3	2.4	2.4	1.3	1.0	1.1	0.9	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.6	2.4
23-Oct	0.2	0.2	0.3	0.2	0.2	Z	0.4	0.3	0.6	0.9	1.3	1.6	1.9	2.9	2.5	2.6	1.5	0.9	0.9	0.6	0.5	0.5	0.4	0.5	1.0	2.9
24-Oct	Z	1.0	0.9	1.3	1.7	1.7	1.7	1.9	2.0	2.7	3.5	3.4	3.4	3.3	4.5	5.3	4.3	2.1	1.6	1.1	0.8	0.6	0.5	0.5	2.2	5.3
25-Oct	0.4	Z	0.4	0.4	0.5	0.6	0.7	1.3	0.8	0.5	0.5	0.5	0.7	2.7	3.0	1.0	0.8	0.8	0.6	0.4	0.6	0.6	0.4	0.4	0.8	3.0
26-Oct	0.4	0.4	Z	0.5	0.5	0.4	0.4	1.1	1.5	4.2	1.3	0.6	0.5	0.4	0.4	0.3	1.4	1.0	1.2	0.7	0.1	0.1	0.2	0.3	0.8	4.2
27-Oct	0.1	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
28-Oct	0.2	0.2	0.2	0.2	Z	0.3	0.4	0.6	0.6	0.5	0.4	0.3	1.0	0.3	0.4	0.6	0.3	0.3	0.4	0.4	0.2	0.3	0.2	0.3	0.4	1.0
29-Oct	0.3	0.2	0.2	1.1	1.3	Z	0.2	0.5	0.7	0.8	0.6	0.5	0.9	1.4	1.4	0.7	1.0	0.5	0.7	0.9	1.1	0.6	0.4	0.4	0.7	1.4
30-Oct	Z	0.4	0.4	0.3	0.4	0.4	0.6	1.3	0.7	0.6	0.7	0.7	0.5	0.4	0.3	0.3	0.3	0.6	0.9	0.8	0.4	0.4	0.5	0.6	0.6	1.3
31-Oct	0.9	Z	3.1	2.5	4.0	6.1	5.0	3.5	PF	PF	PF	PF	PF	PF	1.1	1.1	0.7	0.7	0.7	0.6	0.4	0.5	0.6	0.8	--	6.1
	1.2	1.2	1.5	0.8	1.2	1.3	1.3	1.6	1.4	1.4	1.1	0.9	0.9	1.1	1.1	0.8	0.8	1.1	1.0	1.0	0.9	1.1	1.1	1.1	Diurnal Average	
	7.3	7.4	13.6	4.1	7.7	8.2	7.9	10.6	7.8	6.5	4.1	3.4	3.4	3.3	5.0	5.3	4.3	5.2	6.2	8.9	5.8	6.1	5.7	8.6	Diurnal Maximum	

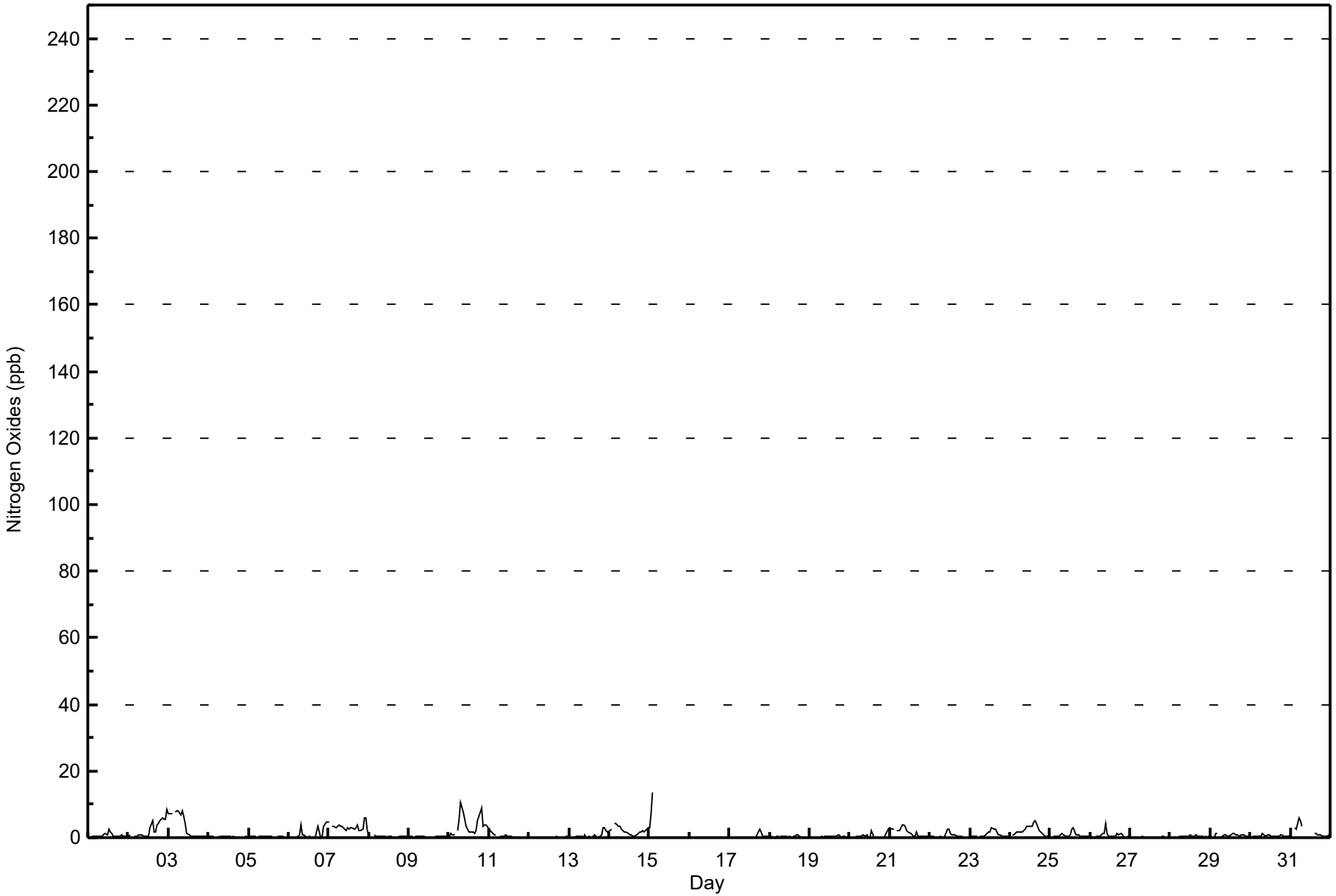
Z - zerospan C - Calibration UO - Unstable Operation PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Fort Chipewyan - October 2025



Nitrogen Oxides (NO_X) - ppb
Fort Chipewyan - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	651	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 651

Total Number of Hours: 744

Nitrogen Oxides (NO_X) - ppb
Fort Chipewyan - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	14	9	22	19	42	28	31	55	65	36	27	41	81	65	71	45	651
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	14	9	22	19	42	28	31	55	65	36	27	41	81	65	71	45	651

Total Number of Valid Hours: 651

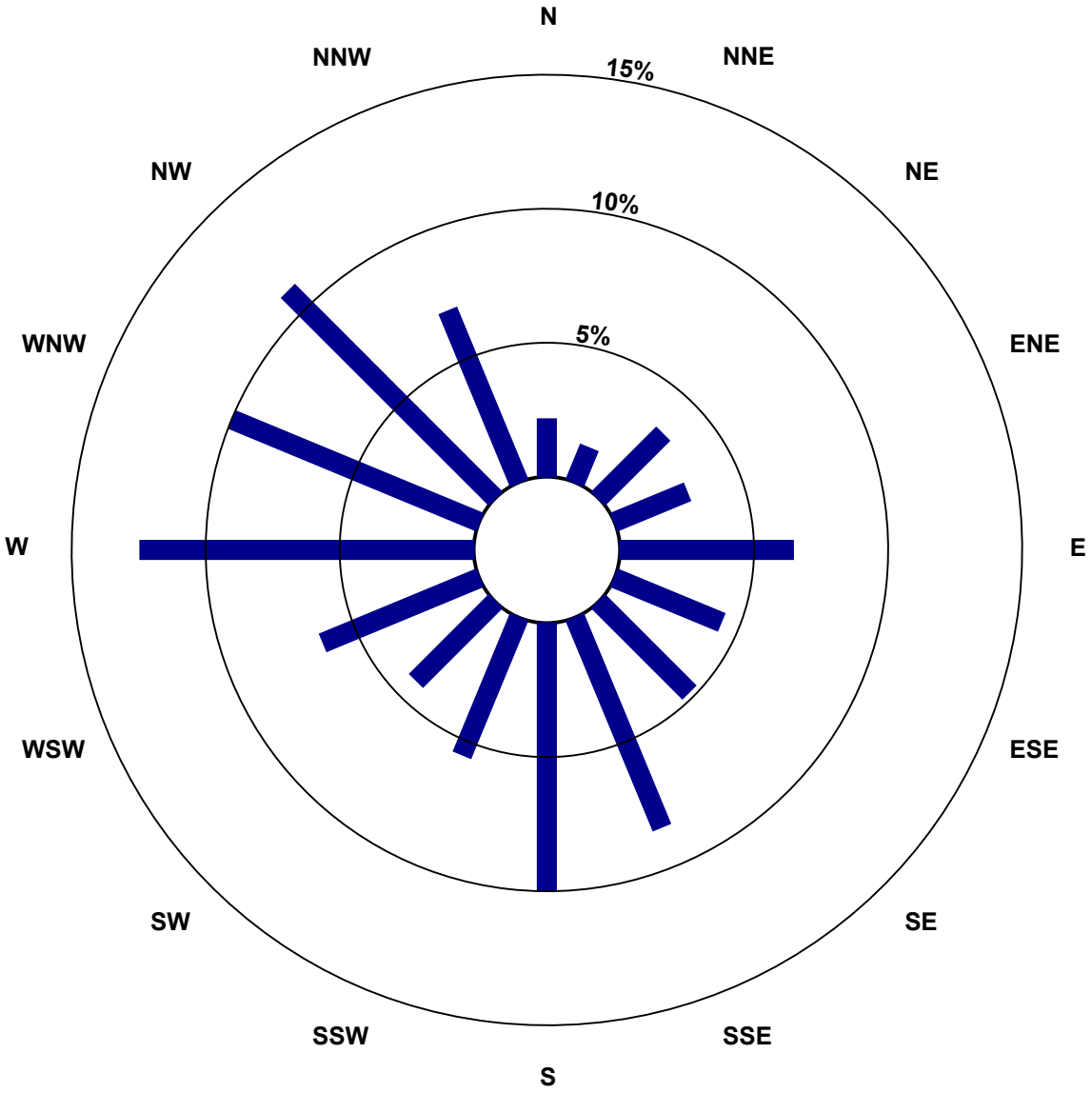
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Fort Chipewyan



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

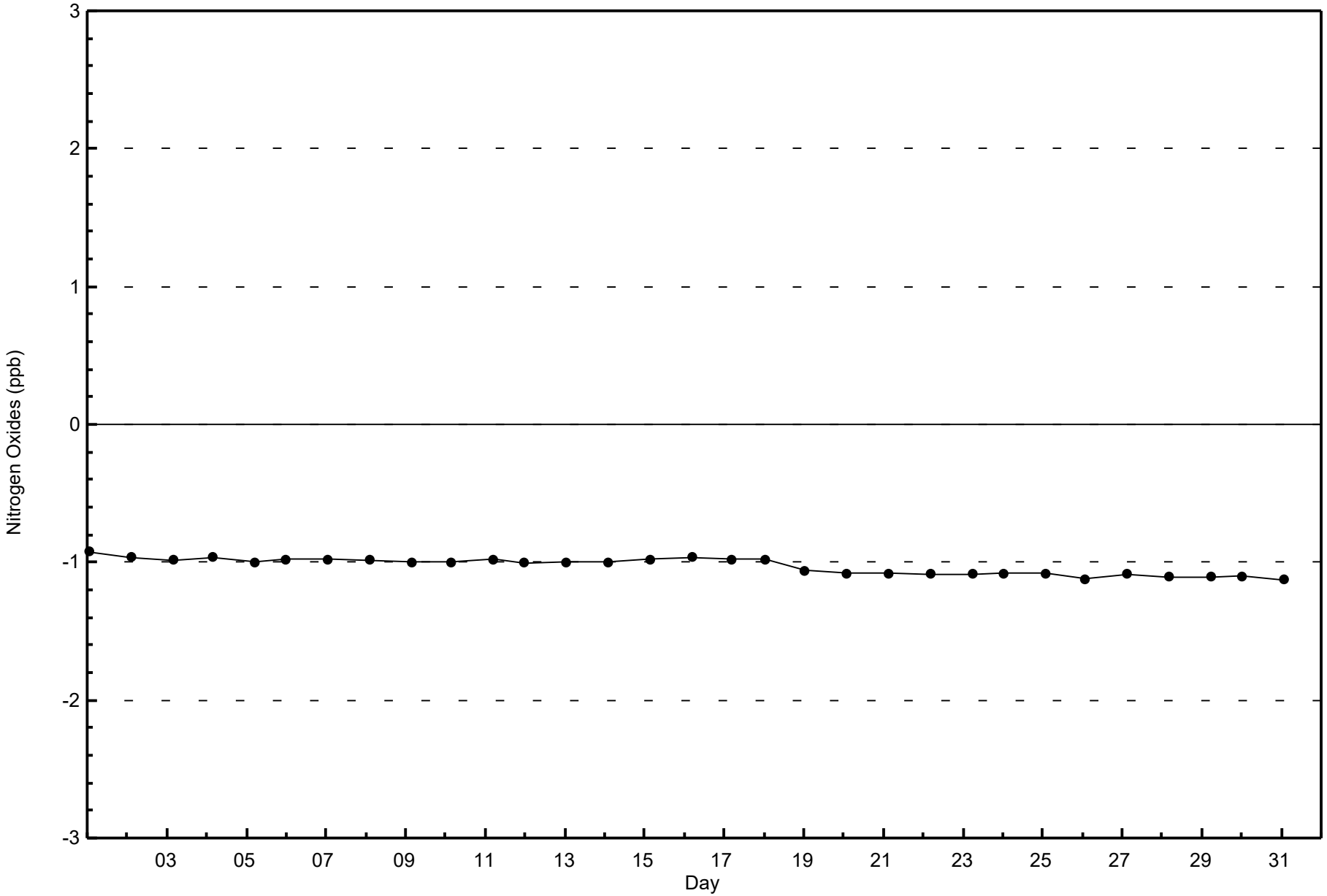
Total Number of Valid Hours: 651

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Fort Chipewyan - October 2025

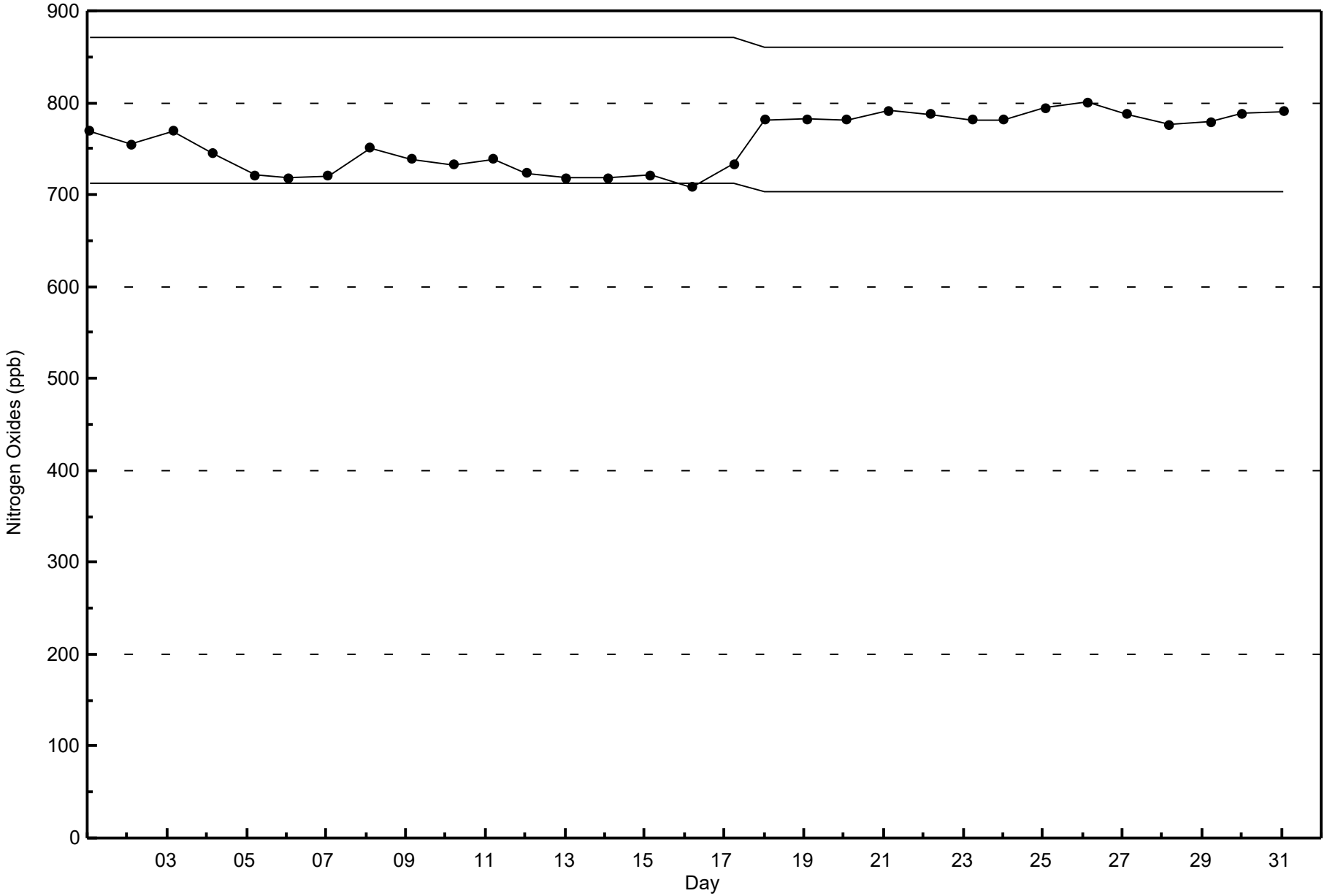


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Fort Chipewyan - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O_3) - ppb

Fort Chipewyan - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 36.7 ppb on Oct 15 16:00

Maximum Daily Average: 27.1 ppb on Oct 12

Minimum Value: 5.5 ppb on Oct 15 03:00

Minimum Daily Average: 13.5 ppb on Oct 21

Maximum Diurnal Average: 25.0 ppb at hour 16

Minimum Diurnal Average: 18.9 ppb at hour 8

Monthly Average: 21.75 ppb

Percentiles: P_1 = 8.9 P_{10} = 14.2 Q_1 = 18.6 Median = 22.0 Q_3 = 25.3 P_{90} = 28.3 P_{99} = 35.3

Hours in Service:	744
Hours of Data:	702
Hours of Missing Data:	42
Hours of Calibration:	34
Percent Operational Time:	98.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	16.9	17.2	16.3	15.0	15.6	Z	17.6	17.2	18.3	17.9	15.2	14.8	15.6	18.0	19.6	21.8	22.0	23.0	22.9	21.7	20.5	17.7	20.0	21.4	18.5	23.0
2-Oct	Z	18.8	16.3	17.8	19.8	22.4	19.7	15.9	16.7	18.6	22.6	25.8	26.1	23.4	21.5	28.5	25.9	20.9	18.0	16.2	14.5	12.6	12.0	8.1	19.2	28.5
3-Oct	8.1	Z	7.5	8.0	8.9	8.8	9.3	11.4	13.7	17.0	20.9	24.9	27.5	29.0	27.8	26.6	25.7	25.3	28.3	29.7	29.4	24.9	23.6	24.3	20.0	29.7
4-Oct	23.4	22.5	Z	23.2	24.8	26.7	25.8	23.9	23.2	21.1	19.6	18.4	16.0	13.8	17.1	19.4	21.4	20.4	22.1	23.9	25.9	26.4	26.7	27.0	22.3	27.0
5-Oct	26.9	25.5	24.0	Z	20.2	19.7	19.4	18.8	13.6	13.5	14.0	19.4	22.0	21.6	24.7	24.2	22.3	21.6	20.5	30.3	28.5	27.5	28.6	29.3	22.4	30.3
6-Oct	28.4	27.6	26.8	25.8	Z	24.4	22.5	20.1	22.3	24.3	28.5	30.7	30.7	31.1	31.2	30.4	30.0	30.6	32.0	28.3	25.9	22.0	20.7	21.3	26.8	32.0
7-Oct	20.5	21.4	21.2	21.8	21.6	Z	19.0	19.3	19.5	20.4	21.2	21.3	21.6	20.7	20.5	20.5	19.0	17.9	19.4	18.7	17.8	13.0	12.1	14.5	19.3	21.8
8-Oct	Z	13.7	12.1	12.8	14.1	16.9	19.3	21.3	22.1	24.1	26.0	26.4	26.0	24.3	21.8	18.9	15.8	12.2	11.2	10.2	9.6	13.1	16.2	15.8	17.6	26.4
9-Oct	13.5	Z	11.3	13.4	15.5	17.0	18.7	18.5	19.1	20.2	22.8	24.1	25.8	26.4	27.9	29.6	30.2	30.0	30.6	30.1	29.0	29.6	29.5	27.5	23.5	30.6
10-Oct	28.4	22.1	Z	18.7	21.0	21.2	13.9	11.6	15.7	18.3	19.6	22.2	32.0	33.9	35.3	36.5	36.6	30.9	27.6	22.9	28.7	26.9	26.3	27.7	25.1	36.6
11-Oct	29.2	27.6	25.9	Z	24.0	22.2	19.6	17.8	15.3	14.3	12.9	17.0	20.6	21.2	24.1	24.6	23.7	21.8	22.8	24.6	25.7	25.9	24.3	23.2	22.1	29.2
12-Oct	24.6	25.3	26.0	26.2	Z	25.6	26.6	27.6	29.3	31.7	31.7	30.8	28.3	27.0	26.8	26.4	26.4	27.0	27.4	27.6	26.9	26.3	24.2	22.9	27.1	31.7
13-Oct	21.7	23.3	21.2	20.2	18.4	Z	18.1	19.1	20.3	22.8	26.1	29.5	31.4	30.7	30.5	28.8	28.6	28.4	28.5	27.7	24.1	22.9	23.9	24.2	24.8	31.4
14-Oct	Z	23.1	21.9	20.7	20.1	20.7	20.5	21.6	22.0	22.5	22.2	22.9	24.8	26.6	28.9	29.6	28.3	22.4	22.2	21.8	20.5	19.7	18.1	16.0	22.5	29.6
15-Oct	15.2	Z	5.5	8.9	11.8	12.6	13.2	14.3	16.2	18.0	19.7	21.2	27.1	32.3	34.6	36.7	36.6	36.2	36.3	35.3	34.2	34.9	34.6	34.1	24.8	36.7
16-Oct	32.8	31.4	Z	28.7	26.4	24.5	24.2	23.0	23.6	24.8	25.2	25.7	25.4	25.6	25.9	26.0	25.1	25.1	25.6	23.6	23.8	23.8	24.8	22.9	25.6	32.8
17-Oct	19.4	20.1	24.5	Z	21.9	18.6	16.3	16.3	18.1	18.9	22.0	23.2	24.4	PF	PF	26.6	27.2	26.0	22.8	21.2	23.2	21.4	19.6	17.7	21.4	27.2
18-Oct	15.8	14.2	16.8	19.2	Z	20.7	18.1	16.6	16.7	16.6	20.2	24.2	23.9	23.5	23.6	23.5	22.8	22.0	23.2	24.1	24.8	24.9	25.1	25.3	21.1	25.3
19-Oct	24.9	24.8	24.9	24.7	24.0	Z	23.0	22.4	21.6	20.8	19.9	20.2	20.8	21.0	21.5	22.1	22.4	21.4	21.3	21.3	20.6	19.3	19.1	19.3	21.8	24.9
20-Oct	Z	18.4	17.0	16.7	15.6	14.0	14.0	17.6	18.1	20.4	21.7	22.4	22.9	23.3	24.0	24.3	24.3	23.7	20.6	19.2	16.0	13.5	11.8	10.3	18.7	24.3
21-Oct	10.8	Z	11.1	13.2	14.1	13.5	12.7	10.7	9.9	10.0	10.5	10.7	11.2	13.0	14.3	16.2	15.9	16.7	16.5	16.8	17.0	16.3	14.4	14.1	13.5	17.0
22-Oct	13.8	15.9	Z	16.3	14.5	14.3	13.5	14.7	15.7	16.2	16.1	17.9	19.1	20.4	21.0	21.3	21.7	21.7	20.6	21.2	22.3	23.1	24.4	24.1	18.7	24.4
23-Oct	24.3	25.2	26.1	Z	26.1	25.9	26.4	26.1	C	C	C	24.4	25.1	25.3	25.6	26.3	25.5	24.7	25.3	25.3	24.5	23.9	23.4	23.5	25.1	26.4
24-Oct	24.3	25.7	26.0	25.7	Z	25.5	24.8	24.0	23.7	23.6	24.0	25.4	26.1	25.7	24.7	23.6	22.7	22.9	23.1	22.7	21.1	20.3	19.9	20.1	23.7	26.1
25-Oct	20.0	19.5	18.9	18.3	17.6	Z	16.0	14.8	14.5	16.0	15.5	14.2	13.2	13.1	15.8	17.8	20.2	22.2	23.3	24.6	24.9	23.1	20.8	20.3	18.5	24.9
26-Oct	Z	19.7	19.2	18.5	15.8	16.3	17.0	15.2	13.1	10.7	15.4	19.8	24.4	26.3	27.1	25.8	23.6	26.0	26.2	28.1	31.1	31.3	32.0	30.8	22.3	32.0
27-Oct	30.5	Z	28.3	28.1	27.1	25.7	23.9	23.1	23.9	24.7	24.9	24.7	23.7	22.6	21.7	21.1	20.5	20.1	19.6	19.1	19.5	19.9	20.2	20.6	23.2	30.5
28-Oct	21.1	21.6	Z	21.7	21.7	21.8	21.9	22.0	22.1	22.0	22.2	21.8	20.4	21.2	22.3	22.7	23.1	23.8	24.0	22.9	22.0	21.4	20.8	19.5	21.9	24.0
29-Oct	18.2	20.4	21.4	Z	18.7	20.2	23.3	23.0	21.9	22.9	25.0	25.5	27.6	26.6	23.8	25.9	25.0	21.3	20.0	22.5	13.9	13.0	12.3	11.7	21.0	27.6
30-Oct	9.8	8.5	9.0	11.5	Z	19.8	20.9	19.2	19.2	18.9	19.2	18.3	19.3	21.9	24.0	24.0	23.6	22.1	22.2	23.9	24.4	23.7	22.3	19.9	19.4	24.4
31-Oct	19.0	16.4	19.6	20.5	18.7	Z	17.2	18.9	PF	PF	PF	PF	PF	PF	23.6	24.0	24.7	25.5	26.6	27.4	28.2	27.9	27.4	26.2	--	28.2
	20.8	21.2	19.2	19.1	19.2	20.0	19.2	18.9	19.0	19.7	20.9	22.3	23.4	23.8	24.4	25.0	24.5	23.7	23.6	23.7	23.2	22.3	21.9	21.4	Diurnal Average	
	32.8	31.4	28.3	28.7	27.1	26.7	26.6	27.6	29.3	31.7	31.7	30.8	32.0	33.9	35.3	36.7	36.6	36.2	36.3	35.3	34.2	34.9	34.6	34.1	Diurnal Maximum	

Z - zerospan C - Calibration PF - Power Failure

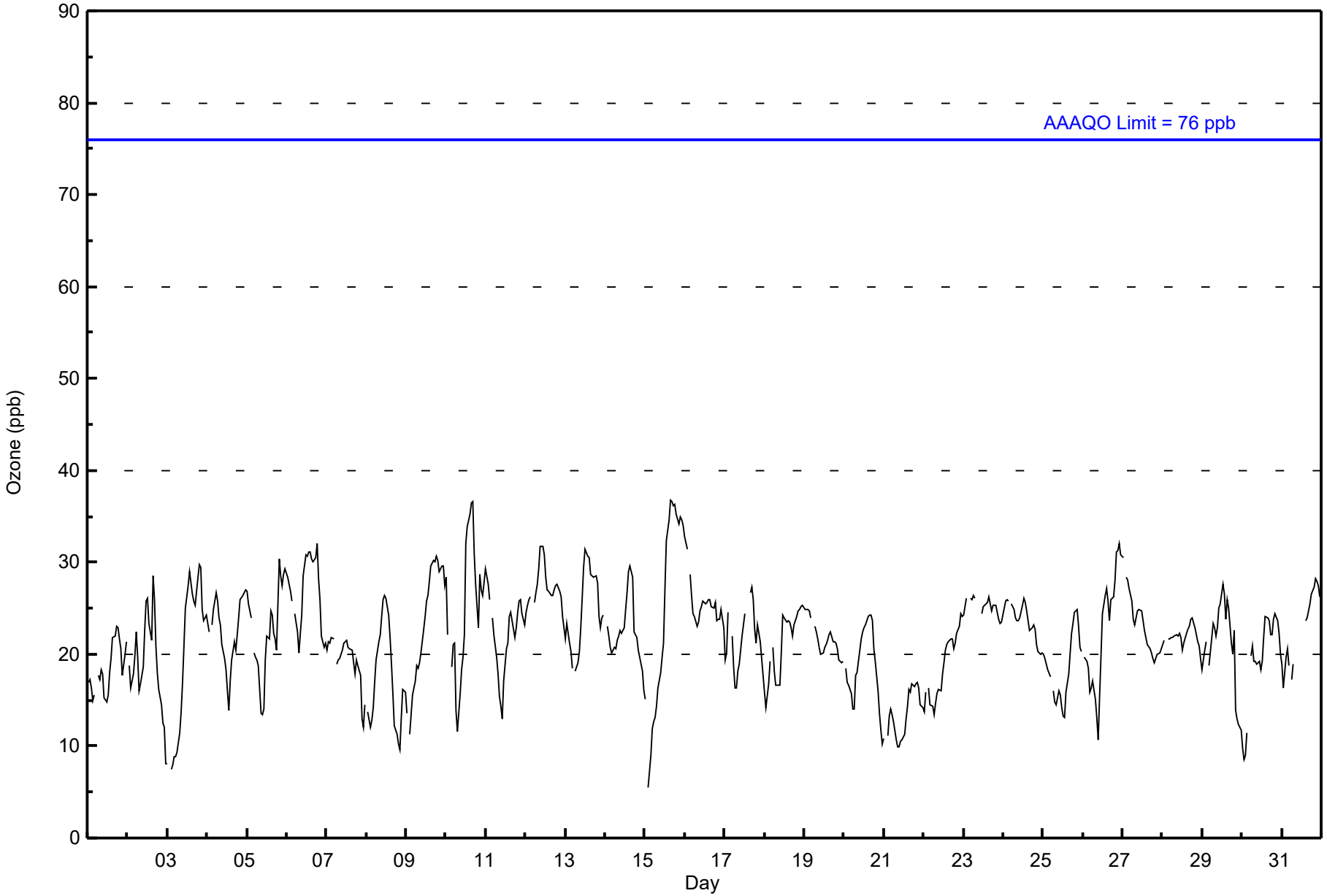
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb

Wood Buffalo Environmental Association

Hourly Averages

Ozone (O_3) - ppb

Fort Chipewyan - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	264	37.61	37.61
21 - 50	438	62.39	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 702

Total Number of Hours: 744

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	2	2	5	7	20	16	11	16	16	12	14	20	36	32	33	22	264
21 - 50	10	8	16	10	30	16	22	43	51	27	13	26	66	38	38	24	438
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	12	10	21	17	50	32	33	59	67	39	27	46	102	70	71	46	702

Total Number of Valid Hours: 702

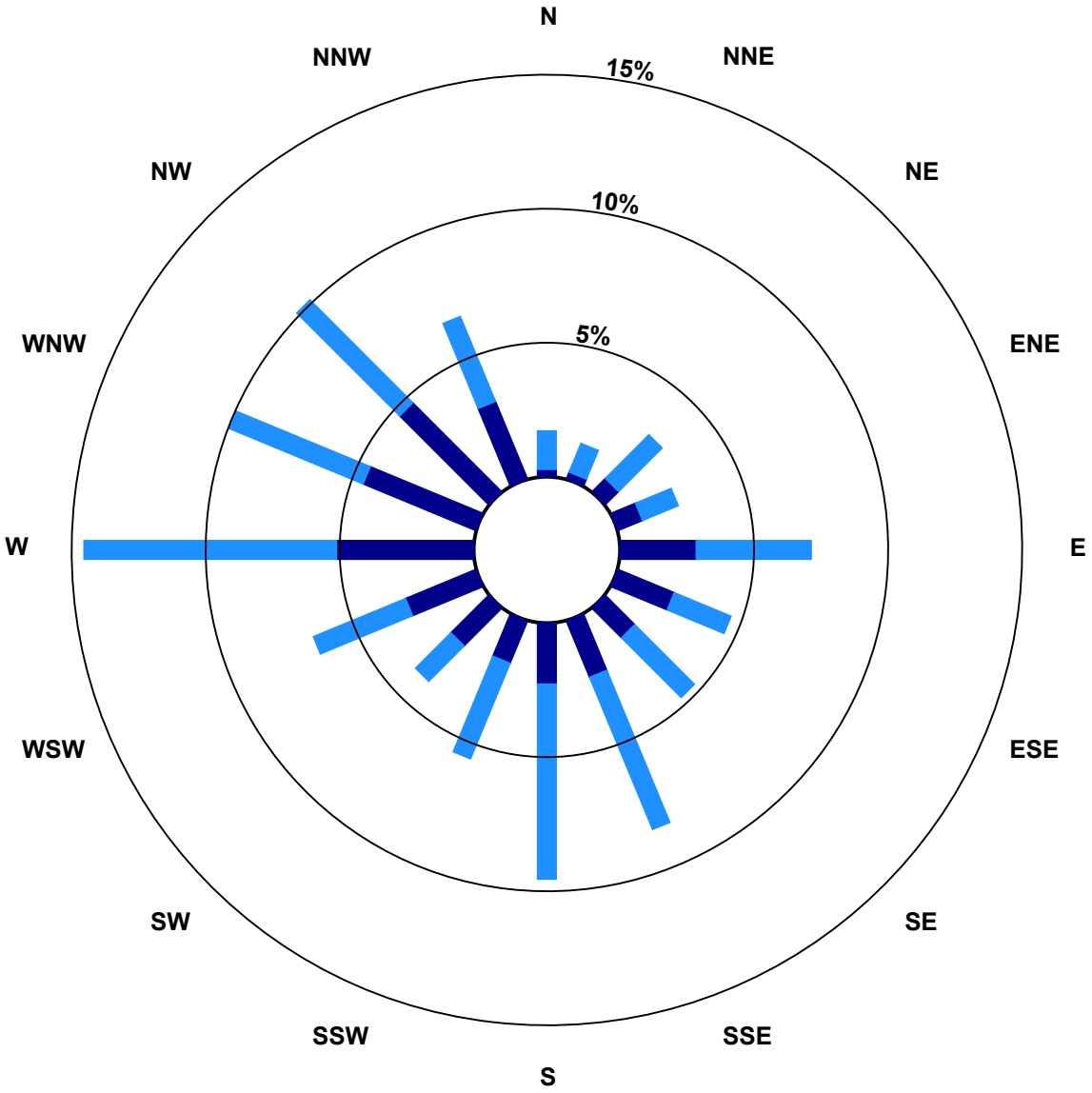
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Ozone (O_3) - ppb

Fort Chipewyan



Classes (ppb)

0 - 20

21 - 50

51 - 82

> 83

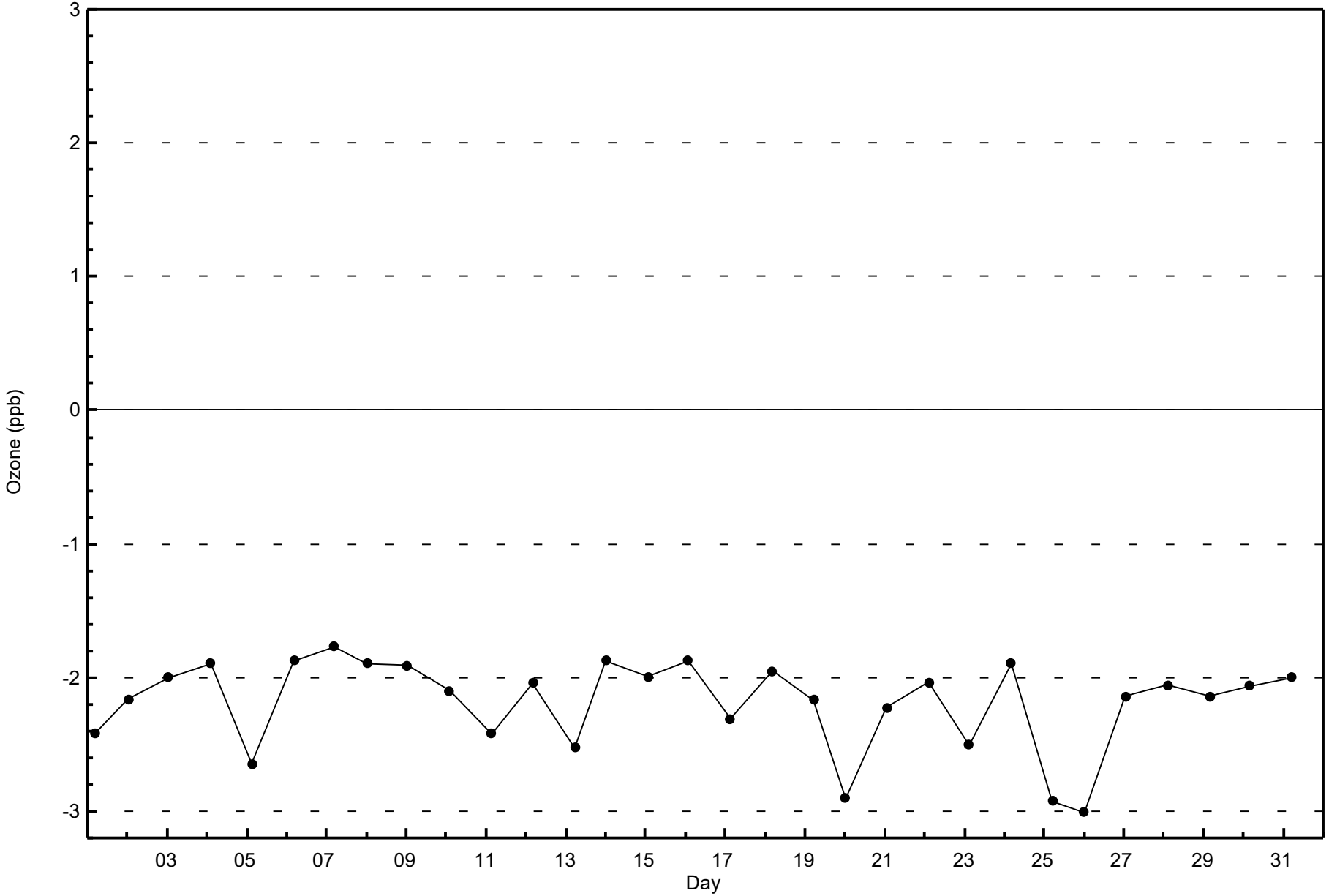
Total Number of Valid Hours: 702

Wood Buffalo Environmental Association

Zero Responses

Ozone (O_3) - ppb

Fort Chipewyan - October 2025

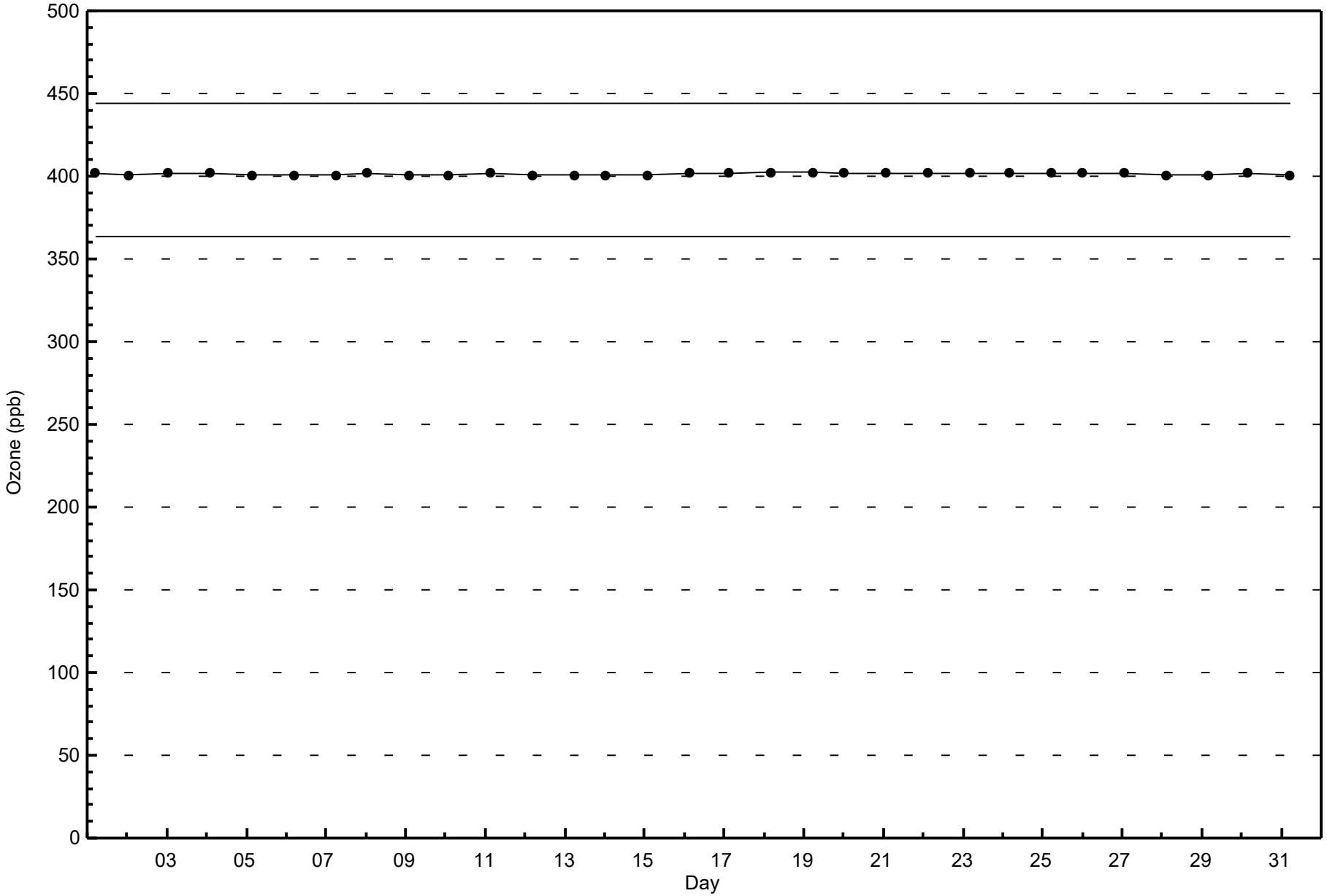


Wood Buffalo Environmental Association

Span Responses

Ozone (O_3) - ppb

Fort Chipewyan - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort Chipewyan - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 57.9 $\mu g/m^3$ on Oct 1 11:00

Maximum Daily Average: 21.3 $\mu g/m^3$ on Oct 1

Minimum Value: 0.2 $\mu g/m^3$ on Oct 27 10:00

Minimum Daily Average: 0.7 $\mu g/m^3$ on Oct 28

Maximum Diurnal Average: 5.1 $\mu g/m^3$ at hour 11

Minimum Diurnal Average: 3.2 $\mu g/m^3$ at hour 17

Monthly Average: 4.02 $\mu g/m^3$

Percentiles: P_1 = 0.3 P_{10} = 0.8 Q_1 = 1.6 Median = 3.2 Q_3 = 4.8 P_{90} = 7.4 P_{99} = 28.5

Hours in Service:	744
Hours of Data:	733
Hours of Missing Data:	11
Hours of Calibration:	3
Percent Operational Time:	98.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	34.5	29.4	31.1	42.1	26.2	10.8	8.8	8.1	7.7	21.2	57.9	43.4	22.3	26.6	30.8	16.5	14.3	12.1	11.6	12.2	16.3	11.8	7.8	6.8	21.3	57.9
2-Oct	6.7	6.6	6.6	6.6	6.6	6.9	6.8	6.0	6.1	8.7	6.3	6.2	6.3	7.9	7.1	5.0	6.4	8.5	9.2	8.6	8.2	8.2	7.7	7.6	7.1	9.2
3-Oct	7.4	8.4	9.3	10.6	10.4	10.3	10.3	10.8	10.7	10.1	9.5	8.2	5.8	2.6	2.5	2.5	2.5	2.6	2.4	2.2	1.9	2.1	2.0	1.7	6.1	10.8
4-Oct	1.6	1.6	2.0	3.0	3.3	2.7	2.8	3.3	2.4	1.1	1.1	1.5	1.2	2.2	1.8	1.8	2.0	2.4	2.0	2.0	2.2	3.3	3.5	3.9	2.3	3.9
5-Oct	5.3	6.3	6.2	5.0	3.3	2.7	2.4	1.8	1.6	1.7	2.0	2.3	3.0	2.3	1.4	1.2	1.3	1.3	1.7	2.8	1.7	1.9	3.3	0.6	2.6	6.3
6-Oct	0.5	0.6	0.8	0.8	0.6	0.9	1.9	2.1	2.8	2.1	0.7	0.5	0.4	0.4	0.4	0.4	0.4	7.6	32.2	5.7	2.1	3.1	3.4	3.2	3.1	32.2
7-Oct	4.0	2.9	2.7	2.7	2.8	3.3	3.8	3.9	4.4	4.7	4.8	4.7	4.5	4.2	4.0	4.0	4.2	4.3	4.1	4.1	4.3	6.4	6.7	5.5	4.2	6.7
8-Oct	6.5	8.8	9.1	7.5	6.5	5.3	4.5	3.6	2.9	2.3	1.9	1.8	2.0	2.0	1.1	0.8	0.5	0.5	1.1	1.4	1.5	1.0	0.5	1.1	3.1	9.1
9-Oct	1.6	1.2	0.6	0.8	1.0	1.3	1.7	1.5	1.5	1.2	1.2	1.4	1.5	1.4	1.3	1.2	1.3	1.3	1.3	1.9	1.9	2.3	1.5	2.2	1.4	2.3
10-Oct	1.6	1.9	1.8	1.6	2.5	5.5	8.7	8.5	6.8	6.0	6.3	6.0	3.5	3.3	3.3	3.3	4.1	6.2	7.7	9.6	7.9	7.9	8.1	7.6	5.4	9.6
11-Oct	7.2	7.2	5.2	4.6	4.4	4.3	4.4	3.4	3.2	3.9	3.9	2.1	0.9	0.6	0.9	0.7	0.7	0.3	0.4	1.2	2.2	1.9	1.7	0.9	2.8	7.2
12-Oct	0.8	0.7	1.1	2.4	2.7	2.8	1.1	1.7	2.7	3.2	1.7	0.8	0.5	0.6	0.6	1.1	1.1	0.9	1.1	0.9	1.6	1.3	3.1	2.7	1.6	3.2
13-Oct	1.4	1.3	1.3	1.0	1.0	0.9	0.8	0.8	0.7	0.9	1.3	1.1	1.0	1.2	1.3	2.0	2.9	3.7	3.1	3.2	5.2	4.3	4.0	3.8	2.0	5.2
14-Oct	3.6	3.5	3.5	3.5	3.5	3.3	3.4	3.4	3.5	3.4	3.5	3.3	3.3	3.9	4.8	4.6	4.3	4.0	4.2	4.2	4.5	4.4	5.1	5.6	3.9	5.6
15-Oct	5.6	7.2	9.0	7.5	6.0	5.8	6.1	6.7	6.0	5.6	4.9	4.5	5.0	6.3	5.0	3.5	2.7	2.5	2.5	2.2	2.0	1.6	2.0	2.2	4.7	9.0
16-Oct	1.7	1.7	0.7	1.1	1.2	0.8	0.7	0.9	0.8	0.4	0.3	0.3	0.3	0.5	0.6	1.2	3.0	3.8	4.0	6.5	8.5	7.2	5.1	5.0	2.4	8.5
17-Oct	5.7	7.1	6.4	5.7	5.9	6.0	5.5	4.6	3.9	3.5	3.1	3.0	3.1	PF	PF	3.6	3.4	14.5	9.9	7.3	4.1	4.4	5.6	3.9	5.5	14.5
18-Oct	3.9	3.9	3.7	3.8	4.1	4.1	3.9	3.7	3.6	3.6	3.3	3.0	3.2	3.3	3.3	3.2	3.2	4.9	3.7	2.9	2.8	3.0	3.1	3.6	3.5	4.9
19-Oct	4.2	4.3	4.0	3.8	4.1	3.9	3.2	3.5	2.9	2.7	2.9	2.7	3.2	3.4	4.1	4.7	3.9	2.0	1.0	1.0	1.1	1.1	1.2	1.4	2.9	4.7
20-Oct	1.4	1.5	1.3	2.1	6.9	7.5	3.0	2.6	1.6	1.5	1.3	1.2	1.2	2.2	1.2	1.0	0.7	0.6	0.8	0.9	1.3	2.4	3.7	4.6	2.2	7.5
21-Oct	5.3	5.4	6.0	5.8	5.5	5.5	6.4	6.4	6.7	5.4	4.2	8.0	12.1	7.2	5.0	3.3	2.6	1.7	2.5	2.5	3.0	2.3	2.1	1.6	4.8	12.1
22-Oct	1.6	1.5	1.6	1.7	2.1	2.3	2.4	2.6	2.7	2.7	3.1	3.0	2.8	2.9	3.0	3.2	3.0	3.0	3.1	2.9	2.8	2.9	2.8	3.0	2.6	3.2
23-Oct	3.7	3.3	3.0	2.9	2.8	2.9	3.0	3.0	3.1	3.1	3.3	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.3	3.4	3.6	3.8	4.0	3.9	3.3	4.0
24-Oct	3.6	3.5	3.5	3.6	3.6	3.8	4.0	3.9	4.0	4.0	4.1	4.2	4.2	4.2	4.3	4.5	4.5	4.2	3.9	4.0	4.3	4.4	4.5	5.0	4.1	5.0
25-Oct	5.2	5.3	5.1	5.0	5.0	5.0	4.7	4.8	4.6	4.8	5.0	4.9	4.8	4.9	4.6	7.5	7.4	5.1	4.2	2.8	5.4	5.1	4.0	2.3	4.9	7.5
26-Oct	2.3	2.4	2.6	2.8	2.9	2.8	2.6	2.8	2.9	3.7	3.1	2.9	2.7	2.1	2.7	2.9	3.0	2.6	2.1	2.1	1.8	2.0	1.7	1.5	2.5	3.7
27-Oct	1.7	1.7	1.8	1.4	1.0	0.8	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.5	0.8	1.6	1.7	1.7	1.5	0.9	0.8	1.8
28-Oct	0.6	0.5	0.4	0.4	0.8	0.4	0.5	0.5	0.3	0.4	0.6	1.1	0.8	1.0	1.0	0.8	0.7	1.0	0.9	0.8	0.8	0.8	0.6	0.6	0.7	1.1
29-Oct	0.6	0.5	0.5	0.5	0.7	0.9	1.2	1.4	2.0	3.0	3.4	3.8	5.8	4.8	4.4	3.7	3.7	3.5	3.4	3.5	6.7	8.5	3.8	2.9	3.1	8.5
30-Oct	2.5	2.6	3.8	7.4	5.9	4.1	3.7	5.3	7.7	6.7	8.1	8.6	6.7	C	C	C	3.5	3.1	3.4	4.8	4.0	3.5	3.8	4.2	4.9	8.6
31-Oct	5.0	7.3	7.9	6.4	5.7	6.9	7.6	6.5	PF	PF	PF	PF	PF	PF	5.6	5.7	5.1	4.6	4.6	4.4	3.6	3.7	3.9	4.2	5.5	7.9
	4.4	4.5	4.6	5.0	4.5	4.0	3.9	3.8	3.7	4.1	5.1	4.6	3.9	3.8	3.8	3.2	3.2	3.8	4.4	3.7	3.8	3.8	3.6	3.4	Diurnal Average	
	34.5	29.4	31.1	42.1	26.2	10.8	10.3	10.8	10.7	21.2	57.9	43.4	22.3	26.6	30.8	16.5	14.3	14.5	32.2	12.2	16.3	11.8	8.1	7.6	Diurnal Maximum	

C - Calibration PF - Power Failure

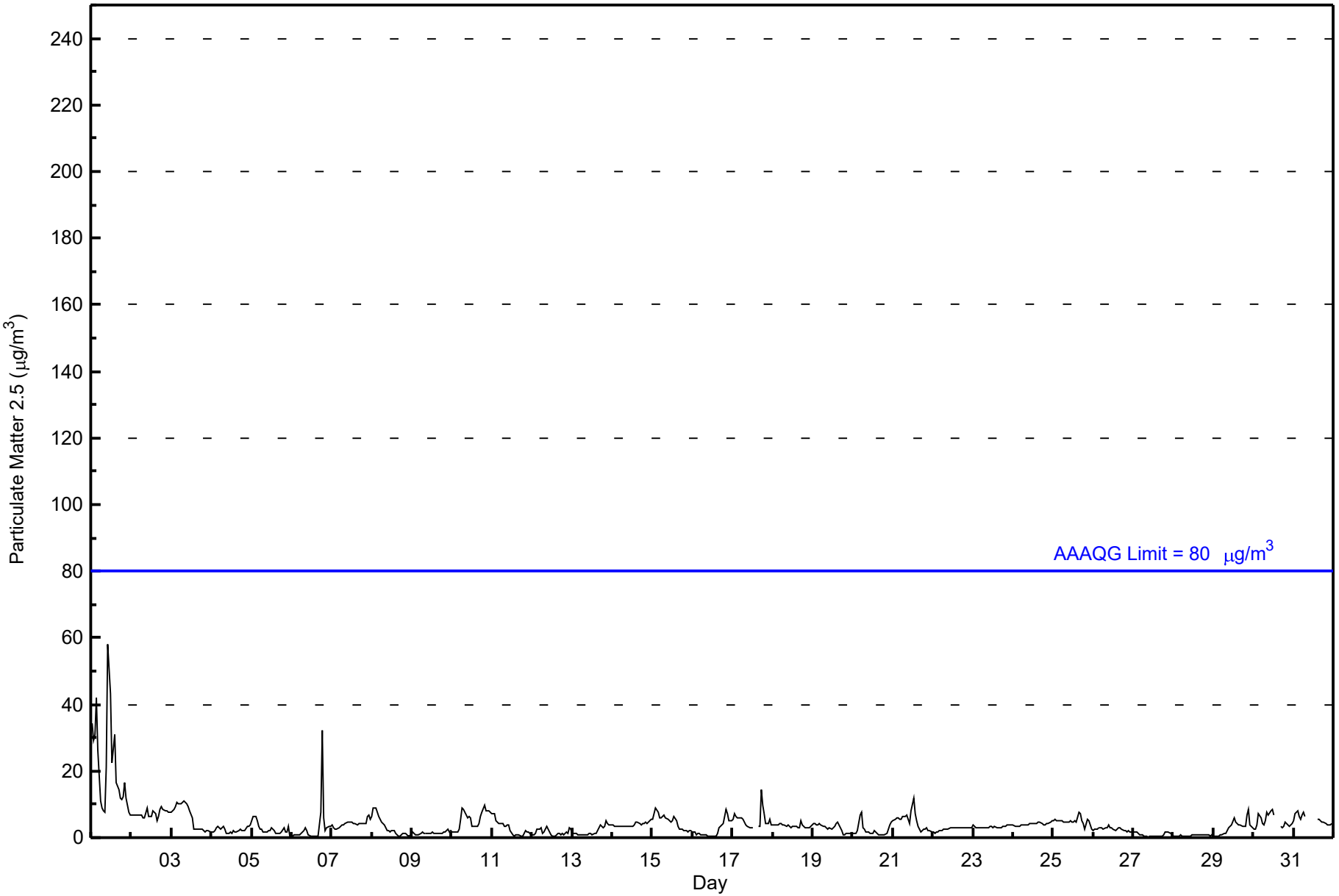
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 $\mu g/m^3$ 24-hr 29 $\mu g/m^3$

Wood Buffalo Environmental Association

Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort Chipewyan - October 2025



Concentration Ranges ($\mu g/m^3$)	Number of Hours	%	Cumulative %
0 - 5	587	80.08	80.08
6 - 15	132	18.01	98.09
16 - 25	4	0.55	98.64
26 - 80	10	1.36	100.00
> 81.0	0	0.00	100.00

Total Number of Valid Hours: 733

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort Chipewyan - October 2025

Concentration Ranges ($\mu g/m^3$)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	14	9	22	18	43	26	29	47	49	27	17	39	93	64	56	34	587
6 - 15	0	1	0	1	9	7	4	14	25	11	10	7	13	10	13	7	132
16 - 25	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	1	4
26 - 80	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	6	10
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	14	10	22	19	52	33	34	61	74	38	27	46	107	74	74	48	733

Total Number of Valid Hours: 733

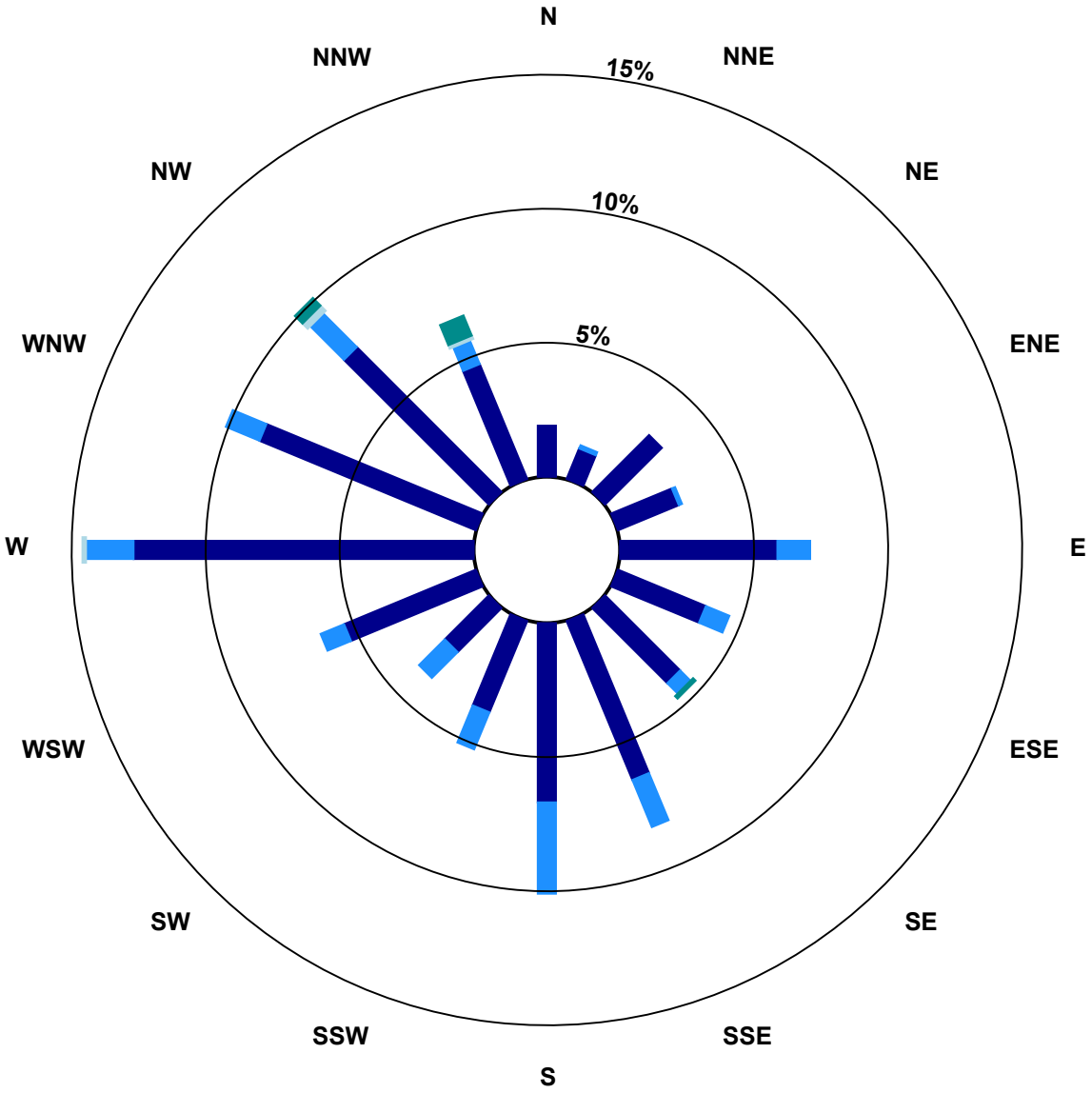
Total Number of Hours: 744

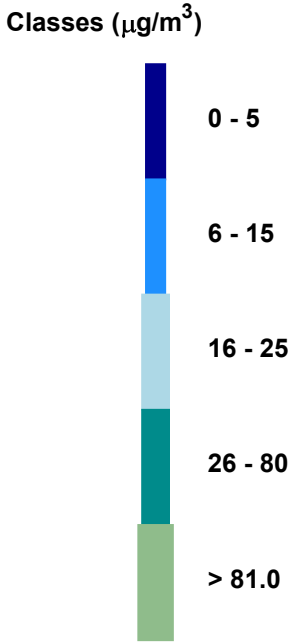
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort Chipewyan





Total Number of Valid Hours: 733

Maximum Value: 16.6 C on Oct 10 16:00

Maximum Daily Average: 10.1 C on Oct 3

Minimum Value: -6.1 C on Oct 13 07:00

Minimum Daily Average: -2.1 C on Oct 28

Maximum Diurnal Average: 5.9 C at hour 16

Minimum Diurnal Average: 1.6 C at hour 7

Monthly Average: 3.52 C

Percentiles: P_1 = -4.6 P_{10} = -1.6 Q_1 = 0.2 Median = 3.2 Q_3 = 6.2 P_{90} = 9.3 P_{99} = 14.1

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

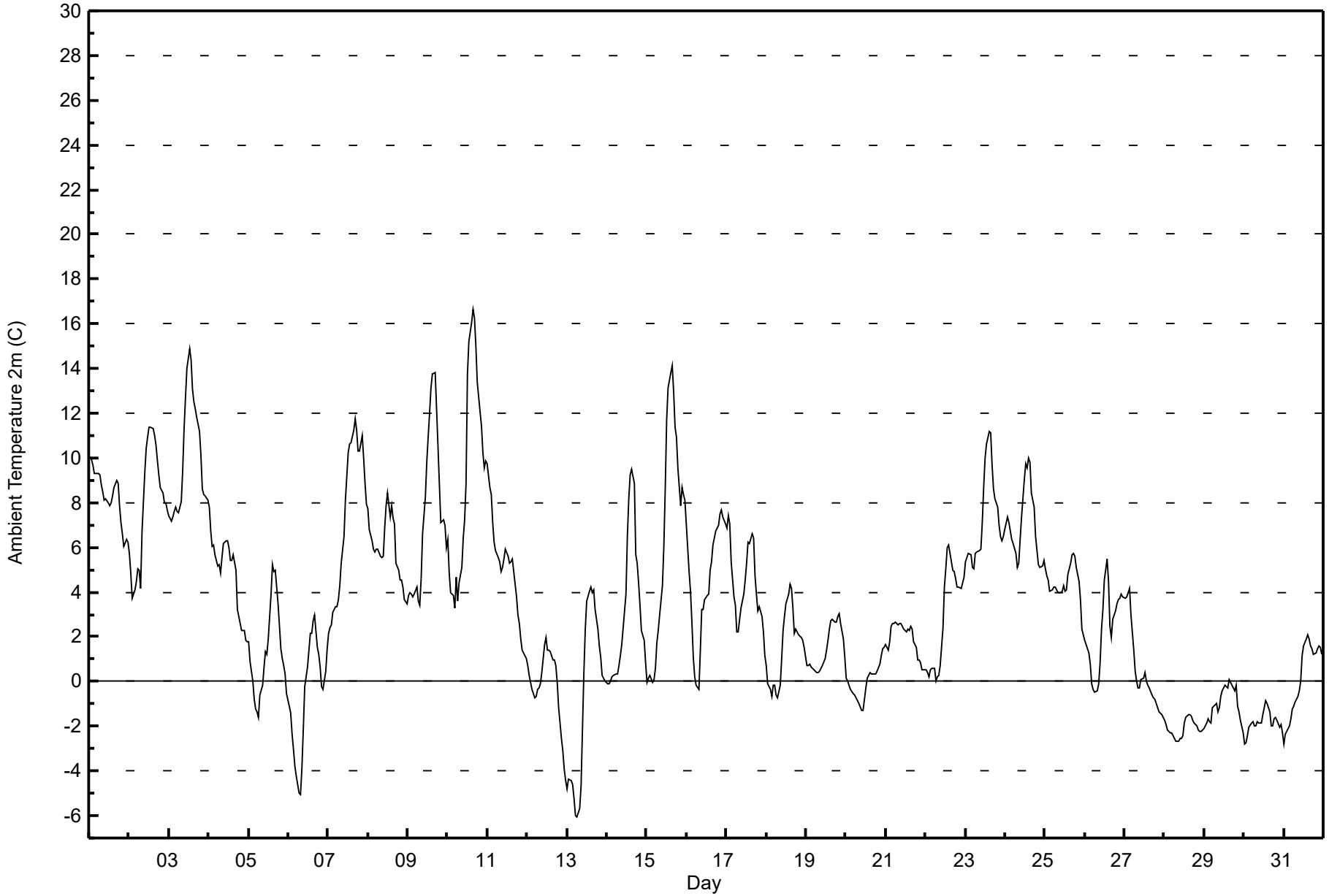
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.0	9.9	9.7	9.3	9.3	9.3	9.3	8.8	8.5	8.1	8.1	8.0	7.9	8.0	8.3	8.7	9.0	8.9	7.8	7.1	6.6	6.1	6.4	6.2	8.3	10.0
2-Oct	5.7	4.9	3.7	4.1	4.5	5.0	5.0	4.2	6.7	9.4	10.4	11.0	11.4	11.4	11.3	11.0	10.5	9.9	9.3	8.7	8.4	8.0	8.0	7.7	7.9	11.4
3-Oct	7.4	7.2	7.4	7.6	7.8	7.6	7.5	8.1	9.4	11.3	12.7	14.0	14.9	14.4	13.0	12.5	12.2	11.8	11.2	10.1	8.6	8.4	8.3	8.1	10.1	14.9
4-Oct	7.8	6.7	6.0	6.1	5.7	5.2	5.2	4.9	5.6	6.1	6.3	6.3	6.0	5.4	5.4	5.6	5.0	3.3	2.9	2.6	2.3	2.3	1.9	1.8	4.8	7.8
5-Oct	1.8	0.9	0.0	-0.8	-1.2	-1.4	-1.6	-0.6	-0.2	0.7	1.4	1.2	1.9	3.9	5.2	4.9	5.0	4.2	3.5	1.5	1.0	0.7	0.3	-0.6	1.3	5.2
6-Oct	-1.1	-1.4	-2.3	-3.1	-3.8	-4.3	-5.0	-5.1	-3.8	-2.1	-0.2	0.7	1.4	2.2	2.2	2.7	2.9	1.6	1.2	0.7	-0.2	-0.3	0.5	1.5	-0.6	2.9
7-Oct	2.1	2.4	2.5	3.1	3.4	3.3	3.7	4.3	5.3	6.5	8.1	9.2	10.2	10.6	10.7	11.2	11.7	11.2	10.3	10.3	11.0	10.0	8.9	7.9	7.4	11.7
8-Oct	7.7	6.8	6.3	5.9	5.8	5.9	5.9	5.6	5.6	5.6	6.9	7.9	8.4	7.4	7.9	7.3	7.0	5.3	5.0	4.5	4.5	4.2	3.7	3.5	6.0	8.4
9-Oct	3.8	4.0	3.9	3.8	3.9	4.2	3.6	3.4	4.6	6.6	8.2	9.8	10.9	12.0	13.1	13.8	13.8	12.2	10.5	8.8	7.1	7.2	7.0	6.0	7.6	13.8
10-Oct	6.4	4.8	4.0	3.9	3.3	4.6	3.6	4.4	5.1	6.4	7.3	8.9	13.8	15.2	16.1	16.6	16.3	15.0	13.4	12.1	11.4	10.3	9.5	9.9	9.3	16.6
11-Oct	9.7	8.7	8.4	7.1	6.2	5.8	5.5	5.4	4.9	5.1	5.5	5.9	5.6	5.3	5.3	5.5	4.9	3.8	3.0	2.6	1.9	1.4	1.3	1.0	5.0	9.7
12-Oct	0.7	0.3	-0.1	-0.3	-0.7	-0.7	-0.4	-0.3	-0.1	0.4	1.6	2.0	1.4	1.4	1.3	1.0	1.0	0.7	0.0	-1.1	-2.6	-3.1	-3.9	-4.5	-0.3	2.0
13-Oct	-4.8	-4.3	-4.4	-4.6	-5.2	-6.0	-6.1	-5.7	-4.7	-2.1	0.4	2.3	3.6	4.1	4.2	4.0	4.1	3.2	2.3	1.6	1.1	0.3	0.2	0.0	-0.7	4.2
14-Oct	-0.1	-0.1	0.0	0.2	0.3	0.3	0.3	0.7	1.1	1.7	2.4	3.9	6.5	8.2	9.2	9.5	8.9	5.7	5.3	4.4	3.4	2.3	1.8	0.9	3.2	9.5
15-Oct	-0.1	0.1	0.3	0.0	0.1	0.6	1.7	2.3	3.0	4.3	6.1	8.6	11.7	13.1	13.8	14.1	12.9	11.4	10.9	9.6	7.9	8.7	8.4	8.1	6.6	14.1
16-Oct	7.0	4.9	4.1	2.7	1.1	0.2	-0.1	-0.3	1.4	3.2	3.2	3.7	3.9	3.9	5.0	5.3	6.1	6.7	6.9	7.0	7.5	7.7	7.4	7.0	4.4	7.7
17-Oct	6.9	7.4	7.0	5.4	3.8	3.4	2.2	2.2	2.8	3.3	3.9	4.5	5.3	6.2	6.2	6.6	6.4	4.7	3.9	3.2	3.4	2.9	2.2	1.1	4.4	7.4
18-Oct	0.7	-0.1	-0.3	-0.7	-0.1	-0.2	-0.6	-0.7	-0.2	1.0	2.3	2.9	3.5	3.9	4.4	4.2	3.3	2.2	2.3	2.1	2.1	2.0	1.9	1.5	1.6	4.4
19-Oct	0.7	0.7	0.8	0.7	0.6	0.5	0.4	0.4	0.4	0.6	0.7	1.0	1.4	1.8	2.3	2.7	2.8	2.7	2.6	2.9	3.0	2.6	1.9	1.1	1.5	3.0
20-Oct	0.1	0.0	-0.1	-0.4	-0.6	-0.6	-0.7	-0.9	-1.0	-1.3	-1.3	-0.8	-0.3	0.2	0.4	0.3	0.3	0.3	0.4	0.5	0.8	1.2	1.5	1.5	0.0	1.5
21-Oct	1.7	1.4	1.8	2.5	2.6	2.6	2.7	2.5	2.6	2.6	2.4	2.4	2.2	2.3	2.3	2.5	2.4	1.8	1.6	1.0	1.0	0.9	0.5	0.5	1.9	2.7
22-Oct	0.5	0.4	0.2	0.5	0.6	0.6	0.0	0.2	0.3	0.7	2.4	4.2	5.0	6.0	6.1	5.7	5.0	4.9	4.6	4.2	4.2	4.2	4.4	4.7	2.9	6.1
23-Oct	5.4	5.6	5.7	5.6	5.1	5.0	5.7	5.8	5.9	5.9	7.1	8.7	10.0	10.6	11.2	11.1	9.7	8.6	8.2	7.8	7.0	6.5	6.3	6.5	7.3	11.2
24-Oct	6.8	7.3	7.1	6.8	6.4	6.1	5.7	5.1	5.3	6.4	7.4	9.1	9.7	9.6	10.0	9.8	8.4	7.8	6.5	5.8	5.2	5.1	5.2	5.4	7.0	10.0
25-Oct	5.0	4.7	4.5	4.1	4.1	4.3	4.2	4.1	4.0	4.0	4.0	4.3	4.1	4.1	4.8	5.3	5.7	5.7	5.6	5.1	4.5	3.7	2.3	2.1	4.3	5.7
26-Oct	1.8	1.7	1.3	0.8	-0.1	-0.3	-0.5	-0.4	-0.1	0.8	2.4	3.2	4.6	5.5	4.5	2.5	2.0	2.8	3.1	3.5	3.7	3.7	3.9	3.8	2.3	5.5
27-Oct	3.7	3.8	4.0	4.1	3.0	1.4	0.4	0.0	-0.3	-0.3	0.1	0.2	0.4	0.0	-0.2	-0.3	-0.6	-0.7	-0.8	-1.0	-1.2	-1.3	-1.5	-1.6	0.5	4.1
28-Oct	-1.7	-1.9	-2.1	-2.3	-2.3	-2.4	-2.6	-2.6	-2.7	-2.5	-2.6	-2.4	-1.9	-1.6	-1.5	-1.5	-1.5	-1.7	-1.8	-2.0	-2.1	-2.2	-2.2	-2.1	-2.1	-1.5
29-Oct	-2.1	-1.9	-1.6	-1.8	-1.8	-1.2	-1.0	-1.0	-1.4	-1.2	-0.7	-0.4	-0.2	-0.2	-0.3	0.1	0.0	-0.3	-0.4	-0.2	-1.1	-1.4	-1.8	-2.3	-1.0	0.1
30-Oct	-2.8	-2.7	-2.4	-2.0	-1.9	-1.8	-2.0	-2.0	-1.8	-1.8	-1.9	-1.5	-1.2	-0.9	-1.0	-1.4	-2.0	-2.0	-1.7	-1.6	-1.7	-2.0	-1.9	-2.3	-1.8	-0.9
31-Oct	-2.8	-2.4	-2.1	-2.0	-1.7	-1.2	-1.1	-0.9	-0.7	-0.4	0.0	1.1	1.6	1.9	2.1	1.9	1.6	1.4	1.2	1.3	1.5	1.6	1.5	1.2	0.2	2.1
	2.8	2.6	2.4	2.1	1.9	1.8	1.6	1.7	2.1	2.9	3.7	4.5	5.3	5.7	5.9	5.9	5.6	4.9	4.5	4.0	3.6	3.3	3.0	2.8	Diurnal Average	
	10.0	9.9	9.7	9.3	9.3	9.3	9.3	8.8	9.4	11.3	12.7	14.0	14.9	15.2	16.1	16.6	16.3	15.0	13.4	12.1	11.4	10.3	9.5	9.9	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Fort Chipewyan - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	167	22.45	22.45
0 - 10	522	70.16	92.61
10 - 20	55	7.39	100.00
> 20	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 98.8 % on Oct 19 08:00

Maximum Daily Average: 94.3 % on Oct 19

Minimum Value: 34.2 % on Oct 15 16:00

Minimum Daily Average: 56.2 % on Oct 15

Maximum Diurnal Average: 87.0 % at hour 7

Minimum Diurnal Average: 71.5 % at hour 16

Monthly Average: 80.37 %

Percentiles: P_1 = 39.6 P_{10} = 59.6 Q_1 = 70.4 Median = 84.6 Q_3 = 92.6 P_{90} = 96.0 P_{99} = 98.1

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

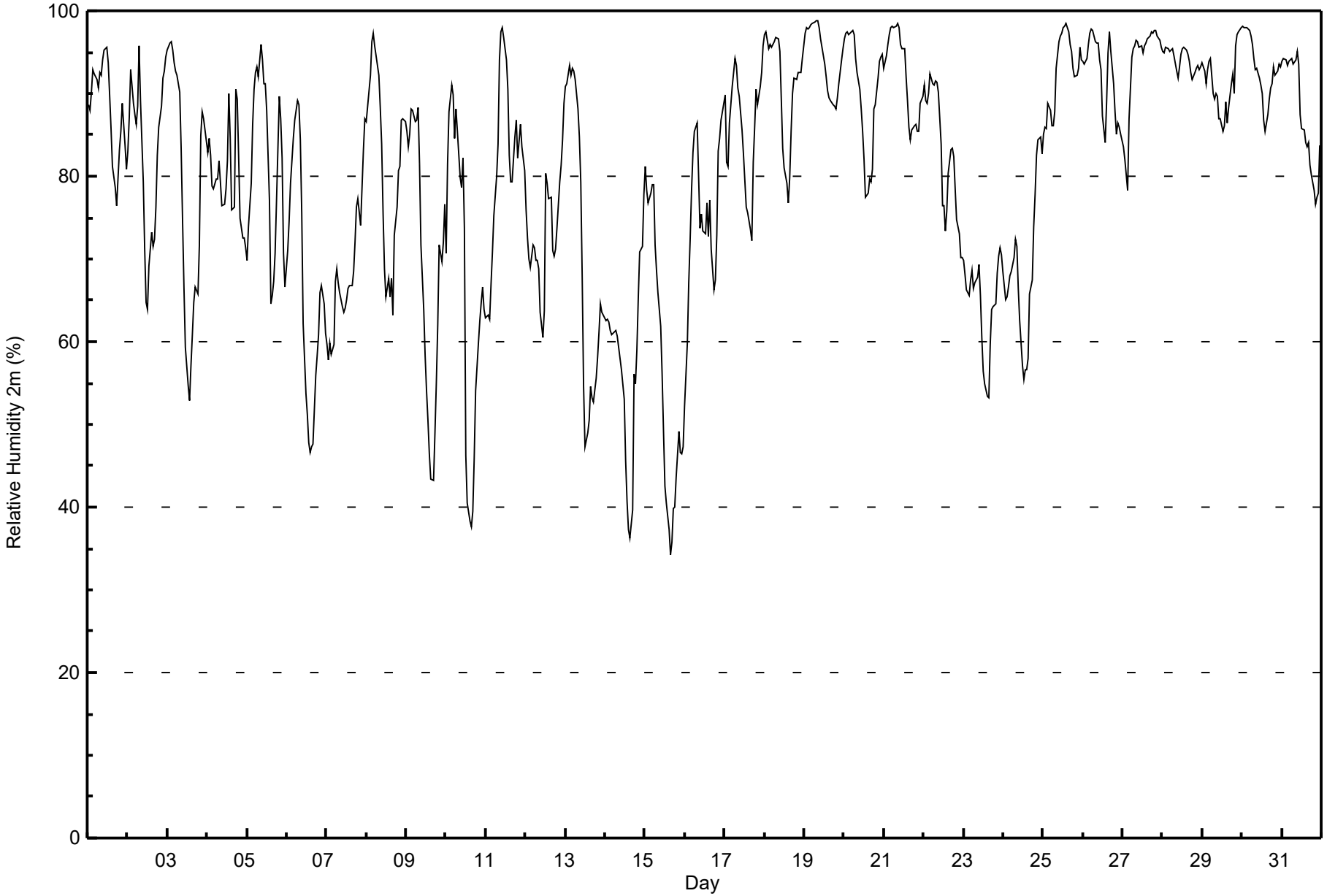
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	88.6	87.9	90.2	92.9	92.3	91.8	90.7	92.5	92.2	94.1	95.3	95.6	93.8	89.9	85.8	81.1	78.6	76.4	79.8	83.2	85.5	88.8	83.8	80.8	88.0	95.6
2-Oct	83.0	87.1	93.0	88.8	87.5	86.3	88.5	95.7	89.1	79.4	71.2	64.7	63.9	69.1	73.2	71.5	72.3	76.3	82.6	85.9	88.4	91.9	92.7	94.5	82.4	95.7
3-Oct	95.2	96.0	96.3	95.3	93.7	92.7	92.1	90.2	83.3	74.7	66.7	59.3	54.7	52.8	57.1	60.9	64.8	66.6	65.7	71.7	84.9	87.9	86.9	84.2	78.1	96.3
4-Oct	82.9	84.6	82.6	78.8	78.5	79.6	79.7	81.8	79.3	76.5	76.7	78.4	81.8	90.0	84.6	75.9	76.3	90.4	89.4	82.3	75.0	72.5	72.6	71.4	80.1	90.4
5-Oct	69.8	73.8	79.2	86.4	90.5	92.6	93.3	92.1	96.0	94.1	91.2	91.1	88.0	76.9	64.6	65.5	67.3	70.7	77.0	89.6	86.9	82.2	70.7	66.6	81.5	96.0
6-Oct	71.0	74.5	79.1	81.9	84.6	86.7	89.2	88.6	84.5	75.6	62.2	53.7	51.1	47.8	46.5	47.3	47.6	56.0	58.3	60.8	65.9	66.8	64.6	61.0	66.9	89.2
7-Oct	59.6	57.8	59.9	58.6	59.7	67.3	68.8	67.0	65.9	64.3	63.5	64.0	65.1	66.5	66.8	66.8	68.6	72.0	76.3	77.3	74.0	78.7	83.2	86.9	68.3	86.9
8-Oct	86.5	88.4	92.3	96.3	97.3	95.8	94.6	92.3	88.4	83.9	75.6	68.9	65.3	67.6	65.4	67.6	63.2	72.9	76.4	80.7	81.2	86.8	86.9	86.6	81.7	97.3
9-Oct	85.4	83.5	85.1	88.1	87.9	86.5	86.8	88.4	81.5	71.7	63.9	58.3	54.0	50.5	46.4	43.3	43.2	49.1	55.1	62.0	71.7	69.7	72.1	76.5	69.2	88.4
10-Oct	70.7	81.5	87.8	91.0	89.8	84.5	88.1	85.3	79.8	78.7	82.2	73.7	46.2	40.6	38.3	37.6	39.5	45.9	54.1	59.9	62.5	64.7	66.6	64.0	67.2	91.0
11-Oct	62.9	63.2	62.8	66.9	70.9	75.3	80.0	83.8	94.1	97.5	97.9	96.7	94.0	90.5	82.6	79.4	79.4	84.8	86.8	82.2	84.2	86.3	83.5	80.7	81.9	97.9
12-Oct	76.0	72.5	70.1	69.1	71.6	71.4	69.8	69.8	68.9	63.6	60.5	63.8	80.4	79.1	77.2	77.4	71.0	70.4	71.1	73.7	79.3	81.4	84.4	88.7	73.4	88.7
13-Oct	90.9	91.2	93.3	92.2	93.0	92.8	91.8	88.1	84.7	79.3	67.9	54.5	47.3	48.9	50.6	54.6	53.2	52.8	55.6	58.1	61.2	64.6	63.6	63.2	70.5	93.3
14-Oct	62.5	62.7	62.3	61.4	60.8	61.1	61.3	60.7	59.2	58.0	56.6	53.0	45.6	40.7	37.3	36.2	39.7	56.0	54.8	59.0	65.2	70.8	71.5	77.7	57.3	77.7
15-Oct	81.2	78.3	76.8	78.0	79.1	78.9	71.7	68.7	65.9	61.9	56.2	49.1	42.6	40.4	37.3	34.2	35.8	39.9	40.0	43.6	49.2	46.6	46.5	47.3	56.2	81.2
16-Oct	52.1	59.9	67.2	72.4	78.3	82.8	85.4	86.4	80.2	73.8	75.4	73.4	73.0	76.8	72.8	77.2	71.1	66.3	67.4	72.9	83.1	84.6	86.7	88.8	75.3	88.8
17-Oct	89.9	81.6	81.1	86.5	90.8	92.5	94.2	93.4	90.7	89.6	85.6	82.6	79.4	76.2	75.6	73.6	72.2	81.7	85.9	90.6	88.6	90.9	92.5	95.8	85.9	95.8
18-Oct	97.1	97.4	95.4	96.0	95.6	95.9	96.3	96.8	96.5	95.2	89.4	83.4	81.0	79.2	76.8	79.8	85.4	89.9	91.8	91.7	92.5	92.6	92.5	94.3	90.9	97.4
19-Oct	97.3	98.0	97.8	97.9	98.3	98.5	98.7	98.8	98.8	98.1	96.6	94.6	93.6	92.1	90.4	89.5	89.2	88.7	88.6	88.1	89.5	91.1	94.0	95.5	94.3	98.8
20-Oct	96.7	97.3	97.4	97.2	97.4	97.7	97.2	94.2	92.6	90.6	88.2	85.4	82.0	77.4	77.9	79.6	79.3	80.9	88.2	88.6	91.9	94.0	94.4	94.8	90.0	97.7
21-Oct	93.0	94.6	96.0	97.1	97.9	98.1	97.9	98.1	98.4	97.9	96.0	95.4	95.4	92.0	89.1	86.0	84.5	85.6	86.2	86.3	85.4	85.4	88.8	89.7	92.3	98.4
22-Oct	91.0	89.1	88.8	90.1	92.4	91.3	91.1	91.6	91.4	90.2	84.0	76.4	76.5	73.5	75.8	80.4	83.3	83.4	82.4	78.4	74.7	73.0	70.1	70.2	82.9	92.4
23-Oct	69.8	68.1	66.2	65.7	67.5	68.6	66.4	67.1	67.8	69.3	65.5	60.5	56.4	54.8	53.3	53.2	59.6	63.8	64.2	64.7	68.3	70.4	71.4	70.5	64.7	71.4
24-Oct	68.5	65.1	65.5	66.6	68.0	68.4	70.1	72.3	71.5	66.5	62.5	57.2	55.3	56.7	56.6	58.0	65.7	67.4	73.9	77.8	82.6	84.4	84.7	82.8	68.7	84.7
25-Oct	85.0	86.0	85.8	88.8	88.0	86.0	86.1	87.8	93.0	96.4	97.0	97.3	98.0	98.1	98.5	97.4	96.0	95.1	93.1	92.0	92.2	93.0	95.6	94.1	92.5	98.5
26-Oct	93.9	93.6	94.2	96.0	97.3	97.8	97.6	96.2	96.1	96.1	94.0	92.9	87.3	84.1	88.9	95.0	97.5	95.0	91.1	87.8	85.0	86.4	85.9	85.0	92.3	97.8
27-Oct	83.5	82.0	80.1	78.3	86.9	94.4	95.4	95.8	96.4	96.2	95.6	95.8	94.9	95.7	96.1	96.6	97.0	97.4	97.3	97.7	97.7	97.0	96.5	95.6	93.3	97.7
28-Oct	95.0	95.0	95.6	95.5	95.2	95.2	95.4	94.6	92.7	91.8	93.2	94.8	95.4	95.7	95.3	94.7	93.9	92.6	91.7	92.6	93.0	93.4	92.9	93.3	94.1	95.7
29-Oct	93.7	92.7	91.2	92.8	93.9	94.2	90.0	89.3	90.0	89.7	86.9	86.9	85.3	86.0	89.0	86.5	88.3	91.2	92.4	89.9	95.8	97.1	97.5	98.0	91.2	98.0
30-Oct	98.1	98.0	98.0	98.0	97.7	97.0	95.9	94.3	92.9	93.1	91.8	91.0	90.0	86.8	85.5	87.5	89.4	90.7	91.2	93.2	92.2	92.8	93.6	93.3	93.0	98.1
31-Oct	93.9	94.2	94.0	93.4	94.0	94.1	94.2	93.6	94.1	95.0	93.5	87.4	85.8	85.5	84.0	83.6	84.1	81.4	80.2	78.3	76.7	77.5	78.0	83.8	87.5	95.0
	82.7	83.1	84.0	85.1	86.3	87.0	87.0	86.9	85.7	83.3	80.1	76.8	74.3	73.0	71.6	71.5	72.2	75.2	77.1	78.7	80.8	82.0	82.1	82.4	Diurnal Average	
	98.1	98.0	98.0	98.0	98.3	98.5	98.7	98.8	98.8	98.1	97.9	97.3	98.0	98.1	98.5	97.4	97.5	97.4	97.3	97.7	97.7	97.1	97.5	98.0	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Fort Chipewyan - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	10	1.34	1.34
40 - 60	70	9.41	10.75
60 - 80	224	30.11	40.86
80 - 100	440	59.14	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 56.3 % on Oct 3 06:00

Maximum Daily Average: 20.1 % on Oct 27

Minimum Value: 0.9 % on Oct 6 12:00

Minimum Daily Average: 1.4 % on Oct 15

Maximum Diurnal Average: 10.1 % at hour 5

Minimum Diurnal Average: 3.2 % at hour 16

Monthly Average: 6.16 %

Percentiles: P_1 = 1.1 P_{10} = 1.4 Q_1 = 1.6 Median = 2.0 Q_3 = 5.4 P_{90} = 17.2 P_{99} = 49.0

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

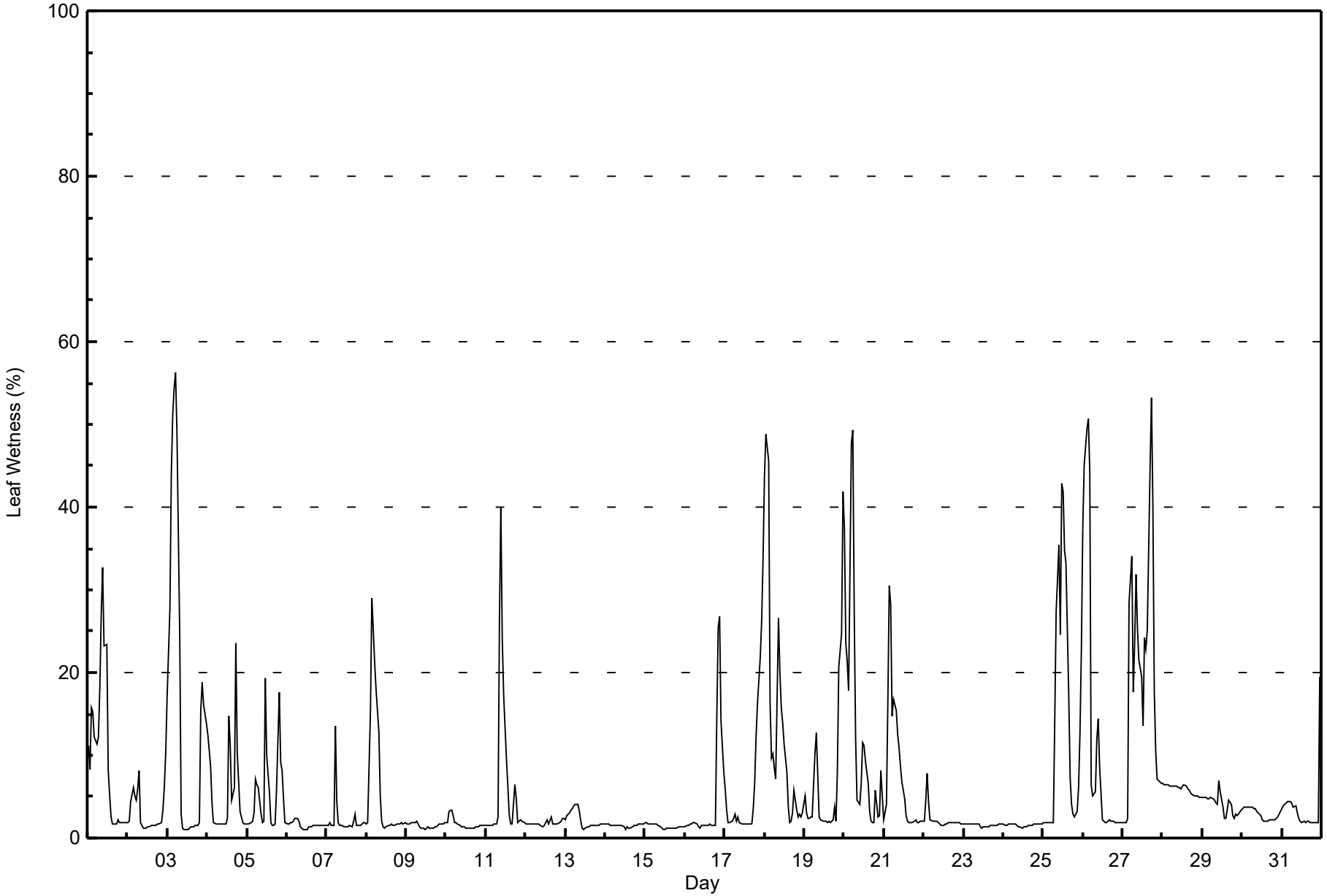
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	11.2	8.4	15.8	15.2	12.1	11.3	12.1	18.2	26.9	32.8	23.1	23.3	8.2	5.2	2.5	1.7	1.7	1.7	2.3	1.9	1.8	1.9	1.9	1.8	10.1	32.8
2-Oct	1.9	2.0	4.5	6.0	5.1	4.5	5.9	8.1	1.8	1.2	1.2	1.2	1.3	1.4	1.5	1.5	1.5	1.6	1.7	1.8	1.9	3.4	6.1	10.3	3.2	10.3
3-Oct	17.1	27.8	44.0	51.2	54.4	56.3	49.2	24.4	2.8	1.2	1.1	1.0	1.1	1.2	1.3	1.4	1.4	1.4	1.5	1.9	15.5	18.8	16.1	13.8	16.9	56.3
4-Oct	12.6	10.6	8.6	4.2	1.9	1.8	1.7	1.7	1.6	1.6	1.7	1.8	2.4	14.7	11.2	4.6	6.1	23.5	10.3	6.7	3.2	1.8	1.7	1.7	5.7	23.5
5-Oct	1.7	1.7	1.8	2.1	3.1	7.0	6.4	6.0	2.8	1.8	2.1	19.2	9.9	5.4	1.8	1.5	1.6	1.7	5.7	17.6	9.1	8.1	4.7	1.9	5.2	19.2
6-Oct	1.7	1.7	1.8	1.8	2.0	2.4	2.3	2.1	1.4	1.2	1.0	0.9	1.1	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.5	1.6	2.4
7-Oct	1.6	1.5	1.9	1.5	1.5	13.5	4.4	1.8	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.0	2.8	1.6	1.6	1.6	1.7	1.9	1.9	2.3	13.5
8-Oct	1.8	1.8	15.3	28.9	25.2	21.2	18.0	12.9	5.1	2.0	1.3	1.2	1.3	1.5	1.5	1.7	1.5	1.6	1.6	1.7	1.7	1.9	1.8	1.8	6.4	28.9
9-Oct	1.8	1.8	1.8	1.8	1.8	1.8	2.0	1.7	1.4	1.2	1.1	1.1	1.2	1.3	1.3	1.2	1.2	1.3	1.4	1.5	1.7	1.7	1.7	1.8	1.5	2.0
10-Oct	1.8	1.9	3.2	3.4	2.8	1.9	1.9	1.7	1.5	1.4	1.4	1.3	1.1	1.2	1.1	1.1	1.1	1.2	1.3	1.4	1.5	1.5	1.6	1.5	1.7	3.4
11-Oct	1.5	1.5	1.5	1.6	1.6	1.6	1.7	2.6	26.5	40.0	24.1	17.3	9.5	6.3	2.6	1.7	1.7	6.4	4.7	1.9	2.1	2.3	2.0	1.8	6.9	40.0
12-Oct	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.5	1.3	1.5	1.8	2.2	1.7	2.5	1.7	1.7	1.7	1.8	1.9	2.0	2.3	2.4	1.8	2.5
13-Oct	2.3	2.6	3.0	3.3	3.6	3.9	4.1	4.0	3.2	2.1	1.2	1.1	1.2	1.4	1.4	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.7	1.6	2.2	4.1
14-Oct	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.3	1.1	1.3	1.2	1.2	1.3	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.5	1.8
15-Oct	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.6	1.4	1.2	1.0	1.0	1.2	1.1	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.4	1.8
16-Oct	1.4	1.5	1.6	1.7	1.7	1.8	1.9	1.7	1.3	1.2	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.5	1.5	14.5	25.4	26.8	14.1	8.0	4.9	26.8
17-Oct	5.9	3.5	1.9	1.9	2.0	2.4	2.9	2.0	2.6	1.9	1.8	1.7	1.6	1.6	1.6	1.6	1.7	3.5	6.6	12.2	16.3	21.8	26.2	33.9	6.6	33.9
18-Oct	43.7	48.8	45.7	16.3	9.7	10.1	8.4	7.1	26.6	20.0	15.8	13.9	11.4	8.0	3.7	1.9	2.0	3.1	5.8	3.4	2.6	2.8	2.5	3.1	13.2	48.8
19-Oct	5.1	3.0	2.4	2.4	2.5	2.5	10.2	12.8	7.6	2.6	2.1	2.1	2.0	2.0	1.9	2.0	1.9	2.1	3.8	2.0	8.1	20.7	24.7	41.9	7.0	41.9
20-Oct	37.4	23.5	21.3	17.7	47.8	49.3	27.5	12.1	4.5	4.0	6.5	11.5	11.2	9.3	6.6	3.2	2.0	1.9	1.9	5.7	2.5	2.7	8.1	5.2	13.5	49.3
21-Oct	2.2	4.1	16.6	30.5	28.4	14.7	16.7	15.4	12.5	10.9	8.7	6.7	4.8	2.7	2.0	1.9	1.9	1.9	2.0	2.2	1.9	1.9	2.0	2.0	8.1	30.5
22-Oct	2.1	4.4	7.8	4.4	2.2	2.1	2.1	2.1	2.1	1.9	1.6	1.5	1.6	1.7	1.7	1.8	1.9	1.9	1.9	1.8	1.8	1.8	1.7	1.7	2.3	7.8
23-Oct	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.3	1.2	1.3	1.4	1.4	1.4	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7
24-Oct	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.5	1.3	1.3	1.2	1.3	1.4	1.4	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.6	1.8
25-Oct	1.8	1.8	1.8	1.8	1.9	1.9	1.9	13.8	27.3	35.4	24.7	42.9	41.9	34.7	33.2	17.0	7.2	4.0	2.9	2.5	3.2	6.0	12.6	22.7	14.4	42.9
26-Oct	37.4	45.1	49.4	50.6	44.3	6.5	5.1	5.7	11.8	14.4	8.6	5.5	2.3	1.9	1.9	2.0	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	12.8	50.6
27-Oct	1.9	1.9	1.9	2.4	28.5	34.0	17.7	23.5	31.8	25.3	21.6	19.4	13.5	24.2	22.9	25.2	44.8	53.2	40.2	17.8	10.6	7.2	6.8	6.7	20.1	53.2
28-Oct	6.6	6.5	6.4	6.4	6.3	6.3	6.3	6.2	6.2	6.1	6.1	6.0	6.3	6.4	6.3	6.0	5.7	5.4	5.3	5.1	5.1	5.0	5.0	4.9	5.9	6.6
29-Oct	4.9	4.9	4.8	4.8	4.8	4.9	4.8	4.5	4.2	4.0	6.9	5.6	3.7	2.4	2.4	3.4	4.6	4.0	2.7	2.4	2.8	2.7	2.9	3.3	4.0	6.9
30-Oct	3.6	3.7	3.8	3.8	3.8	3.8	3.7	3.6	3.5	3.2	2.8	2.6	2.3	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.5	2.9	3.2	2.9	3.8
31-Oct	3.5	3.9	4.2	4.4	4.5	4.4	4.2	3.8	3.9	3.1	2.4	2.0	1.9	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	19.5	3.5	19.5
	7.2	7.4	9.1	9.0	10.1	9.0	7.5	6.7	7.4	7.4	5.7	6.5	4.9	4.9	4.1	3.2	3.6	4.6	4.0	4.0	4.4	5.2	5.3	6.7	Diurnal Average	
	43.7	48.8	49.4	51.2	54.4	56.3	49.2	24.4	31.8	40.0	24.7	42.9	41.9	34.7	33.2	25.2	44.8	53.2	40.2	17.8	25.4	26.8	26.2	41.9	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Leaf Wetness (LW) - %

Fort Chipewyan - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 0.3	0	0.00	0.00
0.4 - 0.5	0	0.00	0.00
0.6 - 0.7	0	0.00	0.00
0.8 - 1.4	97	13.04	13.04
1.5 - 10	506	68.01	81.05
> 10	121	16.26	97.31

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 1.9 mm on Oct 25 13:00

Maximum Daily Total: 8.2 mm on Oct 25

Minimum Value: 0.0 mm on Oct 1 02:00

Minimum Daily Total: 0.0 mm on Oct 2

Maximum Diurnal Total: 3.9 mm at hour 10

Minimum Diurnal Total: 0.1 mm at hour 2

Monthly Total: 32.25 mm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.1 P_{99} = 1.1

Hours in Service:	744
Hours of Data:	742
Hours of Missing Data:	2
Hours of Calibration:	0
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.0	0.2	0.1	0.0	0.0	0.1	0.3	0.4	1.1	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	1.1
2-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1
4-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.7
5-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.1	1.0
6-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7-Oct	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
8-Oct	0.0	0.0	0.4	1.5	0.6	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	1.5
9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.6	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	3.4	1.6
12-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1
13-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.6	0.1	0.0	1.3	0.6
17-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	DF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9	1.0	0.9
20-Oct	0.4	0.1	0.1	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.4
21-Oct	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.3
22-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.8	0.2	1.3	1.9	1.9	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2	1.9
26-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27-Oct	0.0	0.0	0.0	0.0	0.8	0.8	0.1	0.3	0.7	0.4	0.2	0.2	0.1	0.4	0.3	0.4	0.3	0.4	0.2	0.3	0.1	0.1	0.0	0.0	6.1	0.8
28-Oct	0.0	0.0	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.2
29-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7
30-Oct	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
31-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	DF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5
	0.5	0.1	0.8	1.9	1.9	1.3	0.6	0.8	2.6	3.9	2.2	2.4	2.1	2.6	2.0	0.5	0.4	1.1	0.3	1.5	0.7	0.6	0.3	1.3	Diurnal Average	
	0.4	0.1	0.4	1.5	0.8	0.8	0.2	0.3	1.1	1.6	0.7	1.3	1.9	1.9	1.5	0.4	0.3	0.7	0.2	1.0	0.4	0.6	0.2	0.9	Diurnal Maximum	

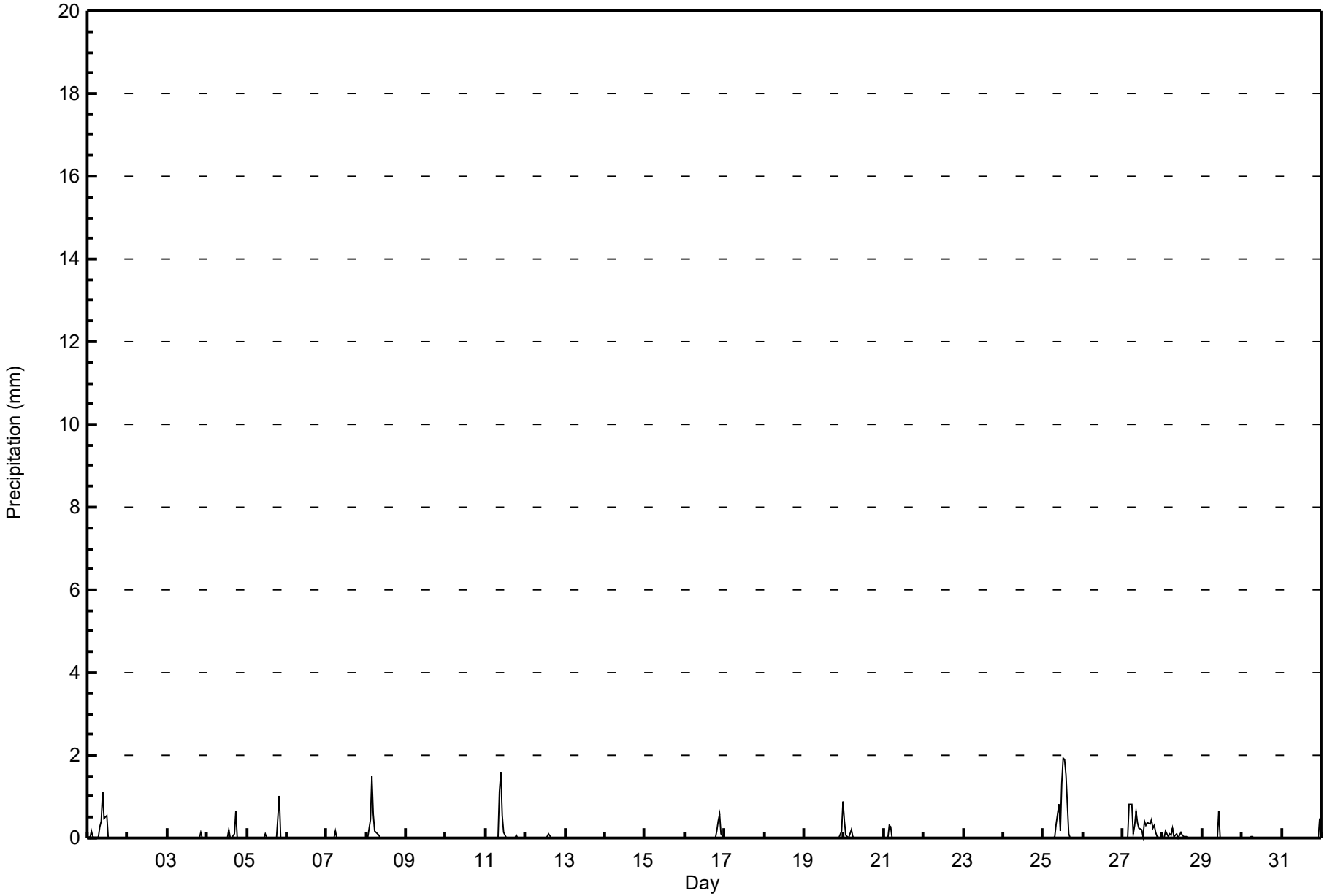
DF - DAS Failure

Wood Buffalo Environmental Association

Hourly Averages

Precipitation (PC) - mm

Fort Chipewyan - October 2025



Concentration Ranges (mm)	Number of Hours	%	Cumulative %
0 - 0.3	712	95.96	95.96
0.4 - 0.5	11	1.48	97.44
0.6 - 0.7	6	0.81	98.25
0.8 - 1.4	8	1.08	99.33
1.5 - 10	4	0.54	99.87
> 10	0	0.00	99.87

Total Number of Valid Hours: 742

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Global Radiation (GR) - W/m2

Fort Chipewyan - October 2025

Maximum Value: 459.4 W/m2 on Oct 6 13:00

Maximum Daily Average: 133.1 W/m2 on Oct 6

Minimum Value: 0.0 W/m2 on Oct 1 01:00

Minimum Daily Average: 8.0 W/m2 on Oct 25

Maximum Diurnal Average: 217.1 W/m2 at hour 13

Minimum Diurnal Average: 0.0 W/m2 at hour 2

Monthly Average: 54.90 W/m2

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 60.9 P_{90} = 202.9 P_{99} = 412.1

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

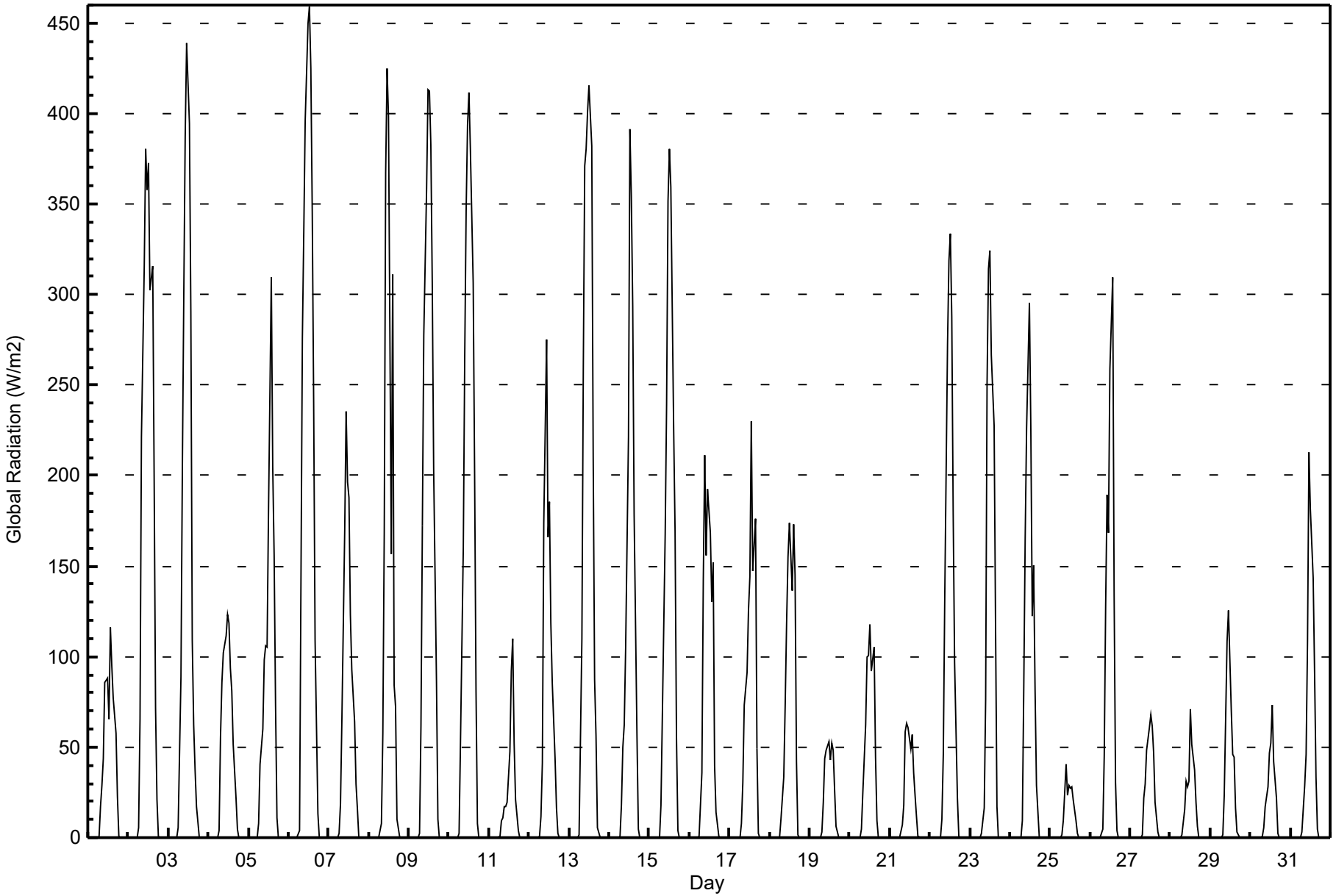
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.9	16.9	28.7	43.7	85.4	88.5	65.2	116.2	95.4	76.9	57.4	22.8	0.5	0.0	0.0	0.0	0.0	0.0	29.1	116.2
2-Oct	0.0	0.0	0.0	0.0	0.0	0.0	5.5	65.6	221.4	315.6	380.6	357.8	372.5	302.4	315.6	198.8	71.5	20.8	0.5	0.0	0.0	0.0	0.0	0.0	109.5	380.6
3-Oct	0.0	0.0	0.0	0.0	0.0	0.0	5.6	89.0	204.8	299.6	387.2	438.7	394.8	290.0	109.2	62.5	37.6	17.3	0.1	0.0	0.0	0.0	0.0	0.0	97.4	438.7
4-Oct	0.0	0.0	0.0	0.0	0.0	0.0	4.1	55.3	85.9	101.8	111.2	122.8	118.9	93.4	81.1	51.2	22.1	4.3	0.1	0.0	0.0	0.0	0.0	0.0	35.5	122.8
5-Oct	0.0	0.0	0.0	0.0	0.0	0.0	8.1	40.4	59.8	98.0	105.9	105.1	179.6	309.8	205.3	155.7	73.0	10.6	0.0	0.0	0.0	0.0	0.0	0.0	56.3	309.8
6-Oct	0.0	0.0	0.0	0.0	0.0	0.0	4.2	142.1	275.9	334.2	396.1	449.9	459.4	425.1	345.4	240.3	109.0	13.6	0.0	0.0	0.0	0.0	0.0	0.0	133.1	459.4
7-Oct	0.0	0.0	0.0	0.0	0.0	0.0	2.7	18.8	65.8	170.0	235.5	196.7	188.0	123.2	92.5	63.5	29.5	15.3	0.0	0.0	0.0	0.0	0.0	0.0	50.1	235.5
8-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.3	7.5	57.9	168.7	366.9	425.2	398.2	156.9	311.4	84.1	72.3	10.1	0.0	0.0	0.0	0.0	0.0	0.0	85.8	425.2
9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	2.6	61.5	172.3	277.4	358.4	413.3	412.4	383.1	306.1	203.2	85.8	9.9	0.0	0.0	0.0	0.0	0.0	0.0	111.9	413.3
10-Oct	0.0	0.0	0.0	0.0	0.0	0.0	2.3	53.2	160.5	264.8	345.8	394.0	411.7	380.2	306.3	202.2	81.4	8.1	0.0	0.0	0.0	0.0	0.0	0.0	108.8	411.7
11-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.4	9.7	11.3	17.2	16.8	19.5	47.5	91.7	110.1	52.5	21.4	4.0	0.0	0.0	0.0	0.0	0.0	0.0	16.8	110.1
12-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.5	11.8	41.3	174.0	274.9	166.5	185.6	118.2	86.0	43.7	16.3	2.1	0.0	0.0	0.0	0.0	0.0	0.0	46.7	274.9
13-Oct	0.0	0.0	0.0	0.0	0.0	0.0	1.6	109.9	260.0	371.0	380.5	401.0	415.3	381.7	210.7	87.2	56.1	5.7	0.0	0.0	0.0	0.0	0.0	0.0	111.7	415.3
14-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.4	17.6	49.6	62.0	105.2	221.6	391.0	354.6	293.9	178.6	56.9	5.1	0.0	0.0	0.0	0.0	0.0	0.0	72.4	391.0
15-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.4	17.8	67.7	167.7	239.6	351.6	380.2	359.7	226.4	169.2	55.4	3.6	0.0	0.0	0.0	0.0	0.0	0.0	85.0	380.2
16-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.8	35.9	142.6	211.3	156.2	192.7	168.7	130.6	151.7	39.6	13.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	51.9	211.3
17-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.2	7.7	30.4	73.0	91.4	125.6	143.9	230.1	147.3	176.6	49.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	44.9	230.1
18-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.1	10.1	33.7	73.6	118.3	155.2	174.0	136.3	173.3	144.9	41.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0	44.3	174.0
19-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	19.7	43.9	48.4	52.9	43.0	52.2	48.7	26.7	6.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	14.4	52.9
20-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	24.9	62.7	99.7	100.6	117.5	92.2	105.2	44.3	9.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	27.6	117.5
21-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	17.9	58.5	63.5	60.6	49.3	56.7	36.2	23.5	11.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	16.0	63.5
22-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	45.9	130.5	273.2	319.2	333.5	288.0	179.4	96.8	21.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	70.8	333.5
23-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	16.0	76.1	250.7	314.3	324.5	266.4	227.9	118.6	17.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	67.3	324.5
24-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	82.3	165.0	225.9	295.2	226.3	122.2	150.7	82.2	28.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	57.8	295.2
25-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	9.0	40.6	23.3	28.5	27.1	28.4	20.9	9.4	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	40.6
26-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	45.5	128.1	189.3	168.6	258.6	309.6	134.6	30.2	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.0	309.6
27-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	21.9	29.5	48.2	60.7	67.5	61.7	47.0	19.7	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	67.5
28-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	15.9	31.3	28.3	31.5	71.1	51.6	37.1	19.2	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	71.1
29-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	23.4	65.6	108.4	125.5	70.0	46.0	44.3	16.3	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	125.5
30-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	5.7	17.4	28.4	46.8	51.9	73.2	42.0	22.1	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1	73.2
31-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	28.6	45.8	108.3	212.8	181.5	143.4	91.1	33.4	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.5	212.8
	0.0	0.0	0.0	0.0	0.0	0.0	1.3	26.5	75.0	132.9	182.3	207.8	217.1	192.7	152.7	89.4	34.6	5.2	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.0	0.0	0.0	0.0	0.0	0.0	8.1	142.1	275.9	371.0	396.1	449.9	459.4	425.1	345.4	240.3	109.0	22.8	0.5	0.0	0.0	0.0	0.0	0.0	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Global Radiation (GR) - W/m2

Fort Chipewyan - October 2025



Concentration Ranges (W/m2)	Number of Hours	%	Cumulative %
0 - 20	482	64.78	64.78
21 - 100	121	16.26	81.05
101 - 300	96	12.90	93.95
301 - 600	45	6.05	100.00
601 - 900	0	0.00	100.00
> 900	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Fort Chipewyan - October 2025

Maximum Speed: 37 km/h on Oct 31 19:00

Maximum Daily Speed Average: 24.2 km/h on Oct 23

Minimum Speed Value: 2 km/h on Oct 26 10:00

Minimum Daily Speed Average: 2.1 km/h on Oct 20

Maximum Diurnal Speed Average: 5.8 km/h at hour 15

Minimum Diurnal Speed Average: 1.5 km/h at hour 3

Monthly Average Velocity: 3.3 km/h 211.9 deg

Percentiles: $P_1 = 3$ $P_{10} = 6$ $Q_1 = 9$ Median = 14 $Q_3 = 19$ $P_{90} = 23$ $P_{99} = 30$

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NNW11	NNW9	NNW9	NNW11	NNW11	NNW11	NNW11	NNW12	NNW12	NNW10	NNW9	NW8	NW11	NW13	NW13	NW11	NW6	NW7	WNW4	W5	W6	WNW9	NW8	NW8	NW9.0	NW13
2-Oct	NW8	NW8	NW7	NNW6	NNW3	NNE3	E3	SW4	SSW5	S8	S15	S20	S23	S23	S25	S22	SSE15	SE14	SE14	SSE17	S17	S15	S17	S16	S9.8	S25
3-Oct	S13	S11	S12	S15	SSW16	SSW15	SSW20	SSW22	SSW21	SSW23	SSW23	SSW25	SW21	WSW22	W22	WSW17	WSW14	WSW15	WSW18	W16	WSW11	WSW11	WSW12	W10	SW14.7	SSW25
4-Oct	W11	W14	WNW14	NW12	WNW12	WNW12	WNW15	WNW15	WNW17	NW17	WNW16	WNW16	WNW17	WNW16	NW18	NW18	NW20	NW17	NW15	WNW15	WNW13	WNW12	W13	W14	WNW14.6	NW20
5-Oct	WNW15	WNW13	WNW10	W10	W8	W7	W6	WSW6	WSW5	WSW5	NW4	NE4	ESE8	S8	SW8	W12	W10	WSW8	WNW11	NNW10	NW11	NW12	NW14	NW15	WNW6.9	NW15
6-Oct	NW16	NW16	NW16	NW18	NW11	NW8	WNW7	WNW7	WNW8	WNW7	W4	W7	W9	SW10	SW12	SSW7	SSW10	SSE14	SE17	SSE20	SSE20	SSE17	SSE13	S16	SW4.0	SSE20
7-Oct	S18	S15	SSE12	SSE14	SSE12	S16	SSE17	SSE15	SSE16	SE14	SSE16	SSE17	SSE20	SSE22	SSE19	SSE17	SSE16	SE10	E10	SSE7	SW11	SW5	SW8	WSW10	SSE12.7	SSE22
8-Oct	W17	W17	W15	WNW17	W17	W15	W15	W17	W17	W20	W20	W21	WSW24	W24	WSW25	WSW20	W23	W20	W22	W21	W20	W18	WNW20	WNW15	W18.8	WSW25
9-Oct	W14	W13	W12	W14	W14	WSW13	WSW15	SW15	WSW16	WSW18	WSW21	WSW21	W22	W20	W19	W17	W12	W9	W8	WNW7	WSW3	W5	W4	W7	WSW12.9	W22
10-Oct	NW5	E6	ENE5	E9	E12	ESE16	ESE13	E16	ESE16	E16	E20	E21	SSE23	SSE26	SSE28	SSE27	S25	S26	S20	S18	S18	SW12	SW10	SW12	SSE11.6	SSE28
11-Oct	W9	NW13	NW9	WNW9	NW9	NW13	NW12	NW14	NW15	NW11	W12	WNW16	WNW16	WNW19	NW23	WNW21	NW21	NW21	NW21	NW23	NNW22	NNW20	NNW20	NNW19	NW15.7	WNW23
12-Oct	NNW18	NNW17	NNW16	NNW13	NNW13	NNW12	NNW12	NNW13	NNW13	NNW17	NNW13	NNW11	NNW14	NNW12	NW12	NW13	NW12	NW12	NW12	NW11	NNW9	NNW9	NW8	W8	NNW12.2	NNW18
13-Oct	W8	WSW9	WSW10	SW11	SW11	SW12	SW11	SW14	SSW13	SSW13	SSW16	SSW20	SSW22	S22	SSW22	S21	S19	S24	S28	SSW21	SSW22	SSW18	S23	S23	SSW16.4	S28
14-Oct	S22	S22	S28	S28	SSW26	SSW23	SSW22	SSW24	SSW26	SSW21	SSW21	SSW22	SW17	WSW14	WSW14	WSW12	SW8	S10	SSW7	S5	E6	ESE7	E6	E8	SSW14.5	S28
15-Oct	ENE8	ESE9	ESE12	ESE13	ESE12	ESE14	SSE12	SSE13	SE13	S19	S22	SSW22	SW22	WSW20	WSW20	WSW25	W25	W19	W19	W14	W14	W17	W20	W20	SW9.1	W25
16-Oct	WNW16	W8	W7	W9	W10	WNW11	W11	WNW11	W7	SSW4	SE8	ESE9	E13	E19	E22	E20	E19	E18	E13	S8	SSE20	S27	S19	SSW13	SSE3.4	S27
17-Oct	SW11	WSW11	W13	W15	W10	W7	W9	W12	WNW8	W7	WNW10	W9	W11	W9	W11	W11	W8	S2	E2	SSW3	W4	SW2	W8	WNW9	W7.8	W15
18-Oct	WNW10	NW9	NNW12	NW9	WNW9	WNW7	W7	W7	W9	WNW7	NW4	NW5	WNW3	SSW3	WSW3	ESE5	E10	E10	E16	ESE21	E23	E23	E26	E28	ENE3.2	E28
19-Oct	E30	E33	E30	E29	ENE25	E26	ENE25	ENE25	ENE28	E27	ENE22	ENE19	ENE18	ENE14	NE12	NE12	NE12	NE11	NE10	NNE9	NE9	NNE11	N9	N9	ENE17.5	E33
20-Oct	N10	NNW9	NNW9	NNW9	NW6	NW7	NW5	NW8	NW8	NW9	NW4	WSW4	S5	WSW4	SE4	SE6	S6	SE10	ESE17	ESE18	ESE19	ESE17	SE15	SE15	ESE2.1	ESE19
21-Oct	SE13	E10	E8	SSE8	S10	SSW5	WSW4	WNW6	WNW8	NW10	NW13	NW12	NW13	NW14	NW11	WNW10	WNW10	WNW9	WNW8	WNW6	NW8	WNW5	WSW5	WSW5	WNW4.6	NW14
22-Oct	SW4	SSE5	S4	S11	S13	SE13	SE13	ESE16	ESE20	ESE19	SE14	SE16	ESE17	ESE18	ESE17	ESE15	E16	E18	ESE22	ESE26	SE29	SE28	SE28	SE26	SE15.9	SE29
23-Oct	SE28	SE28	SE30	SE25	SE22	SE21	SSE23	SSE23	S26	S28	S29	S26	S26	S27	S28	SSE22	SSE18	SSE21	SSE26	SSE25	SSE23	SSE23	SSE25	SSE23	SSE24.2	SE30
24-Oct	SSE23	SSE26	SSE21	SSE18	SSE17	SSE19	S18	S21	S22	S20	S17	S20	SSE19	S16	S16	SSE12	ESE14	SE13	E14	E16	E18	E17	E15	E17	SSE15.1	SSE26
25-Oct	E22	E22	E20	E17	E15	NE7	NE8	ENE6	NE7	E11	SW2	W6	W12	WNW13	W14	W18	W20	W18	W19	W20	W17	W13	WSW11	WSW12	WNW2.8	E22
26-Oct	SW10	WSW10	W7	W6	WNW5	S5	SSW5	ENE5	NE2	NE2	E9	ENE14	ENE16	ENE20	NE19	NE22	NNE19	NE21	NNE21	NE24	NE26	NE27	NE23	NNE16	NE9.9	NE27
27-Oct	N14	N15	N17	NNE20	NNE22	N20	N20	N19	N18	N18	N17	N16	N15	NNW15	NNW15	NNW14	NNW15	NNW15	NNW15	NNW13	NNW14	NW14	NW13	NW14	N15.5	NNE22
28-Oct	NW14	NW15	NW16	NW17	WNW16	WNW16	WNW16	WNW17	WNW17	WNW17	WNW16	WNW17	WNW17	W17	W18	WNW16	W18	W18	WNW16	WNW11	W9	W7	W7	WSW6	WNW14.3	W18
29-Oct	WSW3	SSW6	SSE5	E6	ENE8	ESE13	ESE15	ESE15	ESE15	ESE18	ESE17	E19	E18	NE10	NE9	E11	ENE8	NNE6	NNE8	NE4	WNW8	NNW7	NNW7	NW7	E6.7	E19
30-Oct	WNW8	WNW7	WNW5	WNW6	WNW6	W7	W9	W8	WSW10	WSW12	WSW13	SW9	SW11	SW14	SW14	SSW13	SSW12	S10	S14	S16	S14	SSE8	SE10	SSE11	SW7.5	S16
31-Oct	S11	S16	S15	SSE15	SSE17	S21	SSE20	SSE22	SSE24	SSE25	SSE22	SSE24	SSE26	SSE29	SSE31	SE26	SE27	SE29	SE37	SE35	S21	S31	SSE30	S32	SSE23.7	SE37
	WSW2.5	WSW1.7	WSW1.5	WSW1.8	SW1.8	SSW2.6	SW3.3	SW3.3	SSW3.6	SSW3.9	SSW4.6	SSW4.9	SSW5.5	SW5.5	SW5.8	SW4.9	SW3.5	SSW2.7	S2.7	S3.3	SSW3.4	S2.9	SSW3.2	SSW3.5	Diurnal Average	
	E30	E33	SE30	E29	SSW26	ENE26	ENE25	ENE25	ENE28	S28	S29	S26	SSE26	SSE29	SSE31	SSE27	SE27	SE29	SE37	SE35	SE29	S31	SSE30	S32	Diurnal Maximum	

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 8 km/h on Oct 31 21:00

Minimum Value: 1 km/h on Oct 1 20:00

Percentiles: P_1 = 1 P_{10} = 2 Q_1 = 2 Median = 3 Q_3 = 4 P_{90} = 5 P_{99} = 7

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

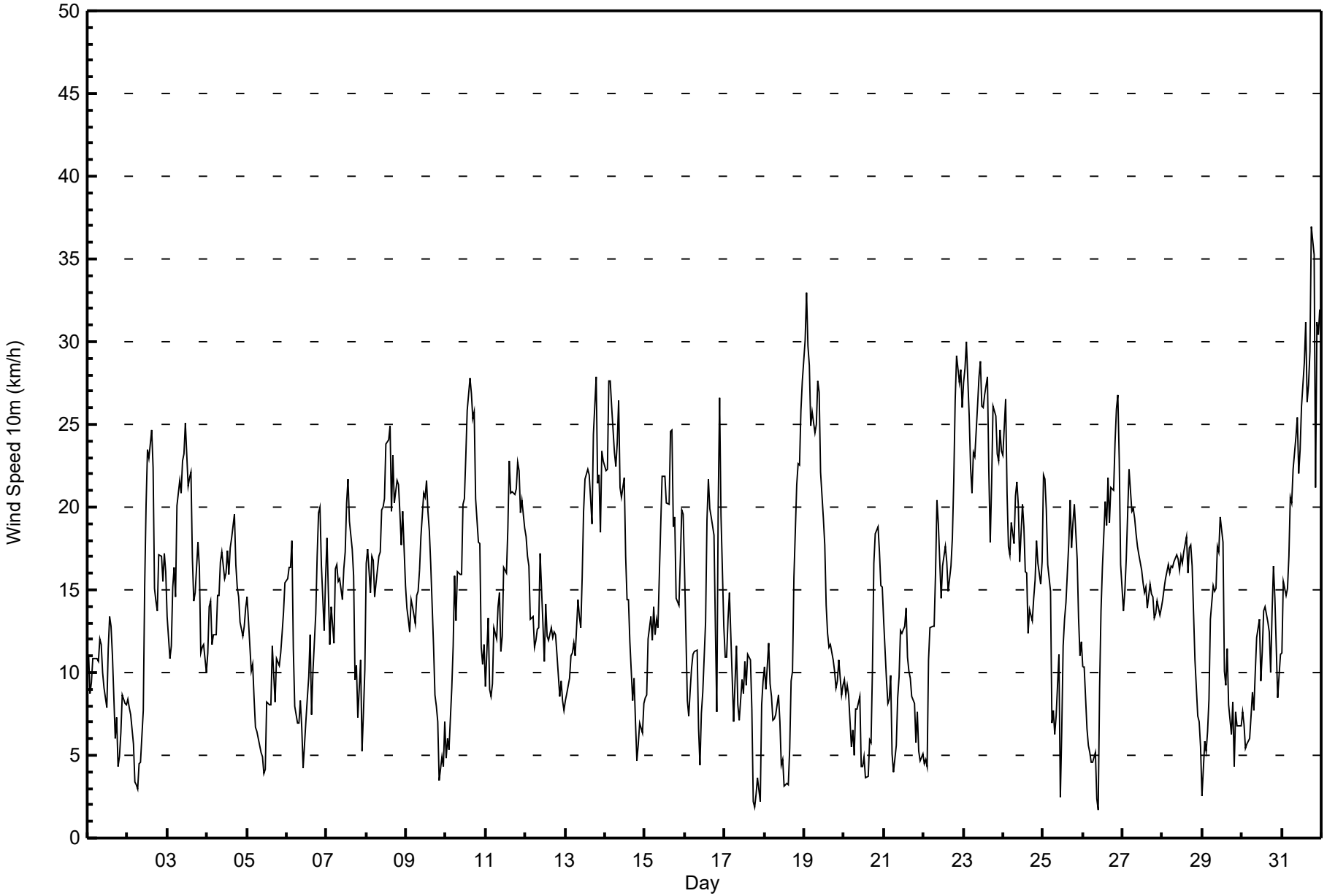
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	2	2	3	3	3	3	4	3	3	3	4	4	4	4	2	3	1	1	1	1	1	1	4
2-Oct	1	1	1	1	2	1	2	2	1	3	4	4	4	4	3	3	3	2	2	3	2	3	2	3	4
3-Oct	2	2	2	2	3	3	3	3	3	4	4	4	5	6	6	4	3	4	4	4	4	2	3	2	6
4-Oct	3	3	3	3	4	3	4	3	5	5	5	5	5	5	6	5	6	6	5	4	4	3	2	3	6
5-Oct	3	3	2	2	2	1	1	2	2	2	2	1	2	2	2	3	2	2	7	5	3	5	5	5	7
6-Oct	5	5	5	5	5	3	2	1	2	2	2	3	3	4	3	3	3	2	2	2	3	3	2	2	5
7-Oct	2	3	2	2	3	3	3	3	3	3	3	3	4	4	3	4	3	2	1	5	4	2	2	3	5
8-Oct	3	4	4	4	3	3	3	4	4	5	5	5	6	6	6	6	6	5	5	5	5	5	4	4	6
9-Oct	3	3	3	3	3	4	3	3	3	5	5	6	5	5	5	5	3	2	1	1	1	2	2	1	6
10-Oct	3	2	2	1	2	1	1	2	2	2	2	3	5	5	5	4	4	4	2	2	3	3	3	3	5
11-Oct	3	4	3	2	2	3	4	5	4	4	3	5	4	5	6	6	7	7	8	8	8	7	7	7	8
12-Oct	7	6	6	5	5	4	4	4	6	6	5	4	6	5	5	4	4	3	4	3	2	2	2	1	7
13-Oct	1	2	2	2	1	2	3	3	3	2	2	3	4	3	3	3	4	3	4	4	4	3	3	3	4
14-Oct	3	3	4	4	4	4	3	4	4	4	3	4	3	3	4	3	2	1	2	3	2	1	1	1	4
15-Oct	2	3	3	2	2	2	2	3	2	4	4	4	5	5	5	6	6	5	5	3	3	4	5	4	6
16-Oct	4	2	2	2	2	2	2	2	2	2	3	2	3	2	3	2	2	3	2	2	5	3	4	2	5
17-Oct	2	2	3	4	2	2	4	2	3	1	2	2	2	3	3	2	3	1	2	1	1	2	1	1	4
18-Oct	1	2	3	3	2	3	2	2	2	2	1	2	2	2	2	2	2	1	3	2	2	2	3	3	3
19-Oct	3	3	3	3	3	3	4	3	3	4	4	3	3	3	3	2	3	2	2	2	3	3	2	3	4
20-Oct	3	3	3	3	1	2	3	3	2	2	2	3	2	2	1	1	1	3	1	1	1	2	1	2	3
21-Oct	2	2	1	2	1	2	1	1	2	3	3	4	4	4	3	3	2	2	3	1	2	2	2	1	4
22-Oct	1	1	1	4	2	2	2	2	2	3	2	2	1	2	2	2	1	1	2	4	3	3	4	3	4
23-Oct	3	3	4	3	3	3	4	4	4	4	4	5	3	4	4	6	2	3	4	4	3	3	3	4	6
24-Oct	4	4	4	3	3	3	3	3	4	5	5	3	3	3	2	2	1	3	2	2	2	2	1	2	5
25-Oct	2	2	2	3	3	2	2	2	2	5	2	3	3	3	3	4	5	5	5	4	5	3	2	3	5
26-Oct	2	2	1	1	2	2	2	2	2	2	4	2	4	4	4	6	6	6	5	5	6	6	6	5	6
27-Oct	4	5	5	6	7	7	6	6	6	6	5	5	5	5	5	4	5	5	5	5	5	5	5	4	7
28-Oct	4	4	4	4	4	4	4	4	5	4	4	4	4	4	4	4	4	4	4	3	2	2	1	2	5
29-Oct	1	2	2	1	1	1	2	1	1	2	2	2	3	2	2	2	2	1	2	3	1	2	2	2	3
30-Oct	2	2	1	2	2	2	3	2	3	3	4	2	2	2	3	3	2	2	2	4	2	2	2	2	4
31-Oct	2	3	2	3	3	4	4	4	4	4	4	4	4	4	4	3	3	4	5	5	8	4	5	5	8
	7	6	6	6	7	7	6	6	6	6	5	6	6	6	6	6	7	7	8	8	8	7	7	7	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Fort Chipewyan - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	56	7.53	7.53
6 - 11	209	28.09	35.62
12 - 19	300	40.32	75.94
20 - 28	164	22.04	97.98
29 - 38	15	2.02	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Fort Chipewyan - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	0	1	4	2	2	1	1	2	5	6	5	10	5	5	6	1	56
6 - 11	3	4	8	5	13	4	5	4	10	4	13	12	45	32	28	19	209
12 - 19	9	2	4	5	21	24	13	28	25	9	9	15	42	34	35	25	300
20 - 28	2	3	6	7	12	4	10	30	31	20	2	9	17	3	5	3	164
29 - 38	0	0	0	0	4	0	5	3	3	0	0	0	0	0	0	0	15
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	14	10	22	19	52	33	34	67	74	39	29	46	109	74	74	48	744

Total Number of Valid Hours: 744

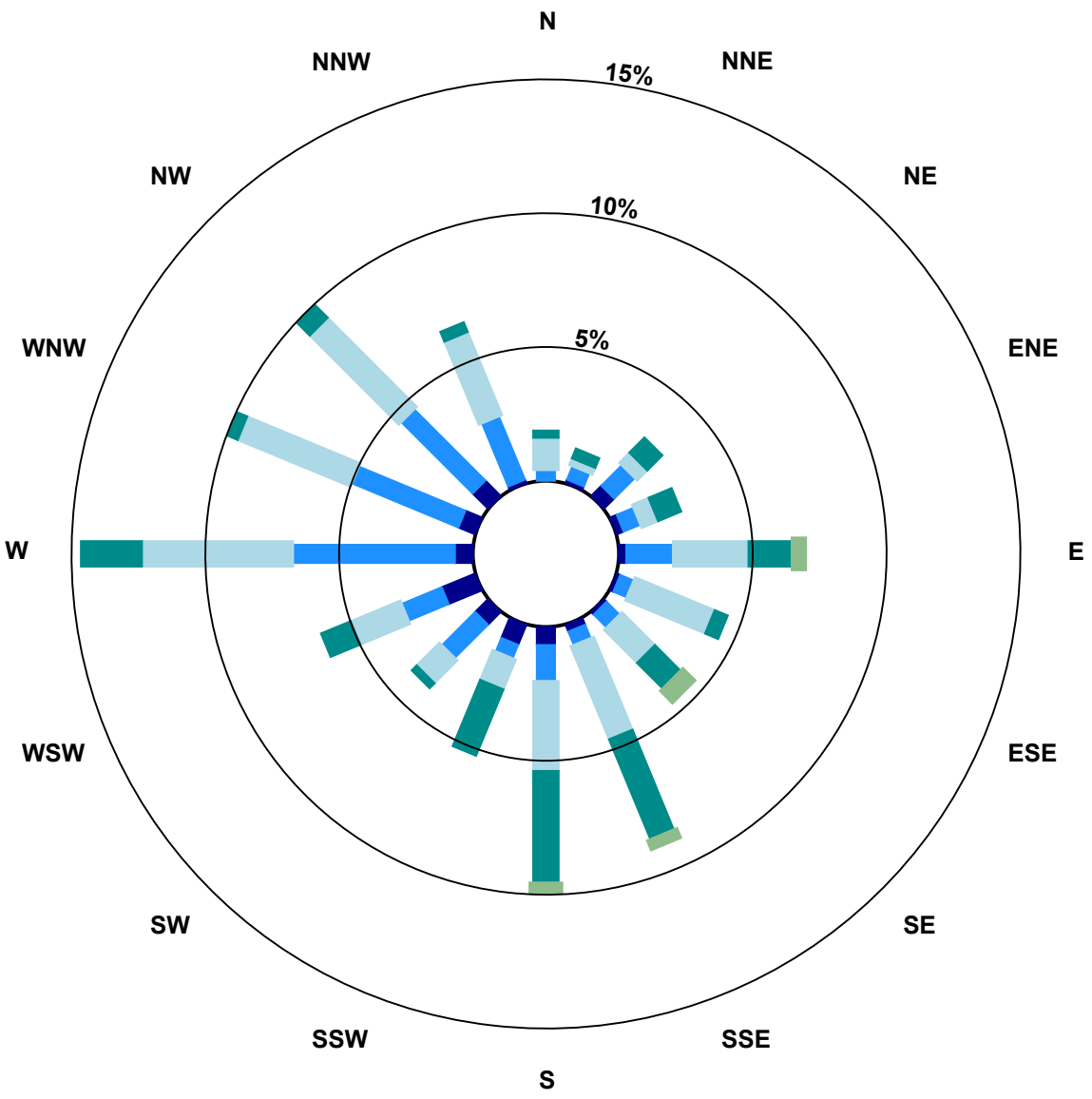
Total Number of Hours: 744

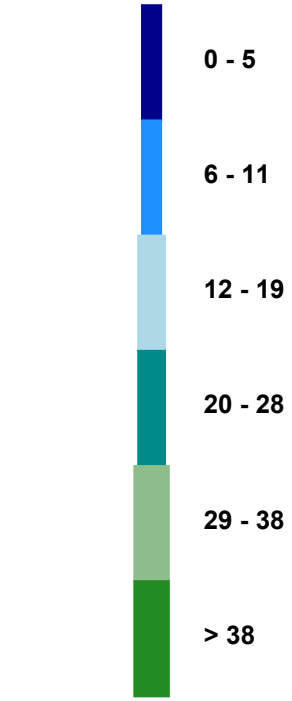
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Fort Chipewyan





Total Number of Valid Hours: 744

Direction of Maximum Speed: 135 deg on Oct 31 19:00
Direction of Maximum Daily Speed Average: 157.0 deg on Oct 23

Direction of Minimum Speed: 53 deg on Oct 26 10:00
Direction of Minimum Daily Speed Average: 2.1 deg on Oct 20

Monthly Average Direction: 211.9 deg

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	332	344	334	337	345	342	336	337	339	332	327	325	316	325	325	317	310	316	282	273	281	286	310	321	324.6
2-Oct	323	313	309	330	346	18	83	226	205	172	171	173	174	175	180	181	159	146	141	164	169	179	178	180	175.2
3-Oct	172	172	185	190	197	197	193	192	198	201	203	213	232	257	260	250	242	242	249	263	251	246	252	271	221.1
4-Oct	272	274	288	304	302	292	295	283	292	304	300	298	299	297	308	308	309	313	308	302	299	287	279	281	296.6
5-Oct	284	282	283	278	279	265	260	244	237	243	308	38	117	170	227	261	266	254	284	331	307	323	321	315	282.4
6-Oct	310	315	316	314	318	316	299	301	290	296	271	270	262	233	223	206	197	153	145	147	148	150	154	169	231.3
7-Oct	175	169	167	159	156	169	161	159	162	145	153	155	162	160	152	153	167	142	96	151	230	217	230	256	163.6
8-Oct	260	277	270	282	279	269	271	272	265	263	264	263	254	261	247	253	262	262	263	262	265	278	284	284	266.1
9-Oct	276	271	261	266	264	253	241	228	238	247	248	254	263	263	265	264	265	260	267	283	240	260	271	264	257.7
10-Oct	304	81	62	81	98	114	103	95	109	93	90	89	157	164	167	168	177	189	190	182	187	216	216	233	150.3
11-Oct	272	318	308	303	309	314	320	320	322	314	280	302	300	297	304	301	315	318	322	326	329	331	332	330	314.1
12-Oct	330	329	333	337	334	329	328	332	341	338	339	328	328	331	323	312	305	308	314	321	327	343	316	275	326.5
13-Oct	263	250	241	230	227	227	222	217	212	201	200	200	211	189	201	188	190	187	185	196	197	199	191	189	202.4
14-Oct	188	188	187	190	195	201	198	196	195	201	202	200	216	238	251	252	233	187	201	186	91	104	89	84	197.4
15-Oct	73	116	117	109	118	116	152	154	141	169	180	207	235	244	243	246	263	265	267	269	279	262	269	274	222.5
16-Oct	283	281	280	266	274	282	279	285	262	209	130	103	85	83	80	83	83	85	94	183	168	171	190	209	147.1
17-Oct	224	244	260	276	278	268	267	277	290	270	282	274	267	272	274	265	270	188	82	209	261	231	270	291	267.1
18-Oct	292	313	334	316	294	296	271	276	280	282	304	306	296	201	258	118	96	79	100	103	100	93	89	92	70.4
19-Oct	90	89	89	83	77	79	76	78	78	82	72	72	72	60	46	44	41	35	37	31	34	22	0	3	69.3
20-Oct	349	342	345	336	314	309	311	315	308	310	307	242	180	255	142	137	175	134	113	116	117	119	126	135	107.3
21-Oct	138	98	101	162	182	209	242	282	291	309	307	304	310	307	305	295	292	301	300	293	304	284	242	238	285.7
22-Oct	221	156	187	172	170	141	139	120	112	119	128	133	120	122	115	104	86	88	111	123	126	128	132	132	125.0
23-Oct	129	130	136	146	145	145	159	165	170	173	175	172	171	169	169	167	150	151	157	162	162	156	153	153	157.0
24-Oct	154	164	159	162	155	164	174	178	182	180	170	171	167	171	173	164	117	128	97	96	91	90	94	92	149.9
25-Oct	85	85	82	79	81	50	45	63	45	80	219	269	277	284	268	268	268	268	266	265	268	271	242	247	286.1
26-Oct	235	248	269	260	290	189	208	60	55	53	94	74	57	64	50	37	30	36	30	34	36	39	35	15	38.3
27-Oct	6	8	9	13	15	0	355	352	353	353	354	350	354	346	341	336	333	331	332	330	330	326	322	319	348.8
28-Oct	316	313	310	305	303	301	296	296	298	298	293	286	283	276	276	282	278	281	285	291	275	280	264	250	291.0
29-Oct	254	197	163	81	75	112	102	106	115	114	110	101	89	49	42	97	74	16	31	50	292	331	335	310	87.7
30-Oct	299	300	295	303	282	267	265	277	254	237	240	228	224	217	229	201	212	178	181	180	184	168	134	147	219.6
31-Oct	181	175	171	164	164	174	166	163	160	156	157	151	157	152	148	141	128	138	135	140	175	171	168	172	156.4
	244.2	237.2	239.8	239.9	229.1	212.2	215.5	214.5	209.4	201.4	201.3	203.2	213.2	218.6	225.7	222.0	229.7	202.6	184.4	183.3	192.8	187.1	199.2	213.4	
	Diurnal Average																								

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 79 deg on Oct 26 10:00

Minimum Value: 4 deg on Oct 20 21:00

Percentiles: P_1 = 5 P_{10} = 8 Q_1 = 10 Median = 14 Q_3 = 19 P_{90} = 26 P_{99} = 58

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

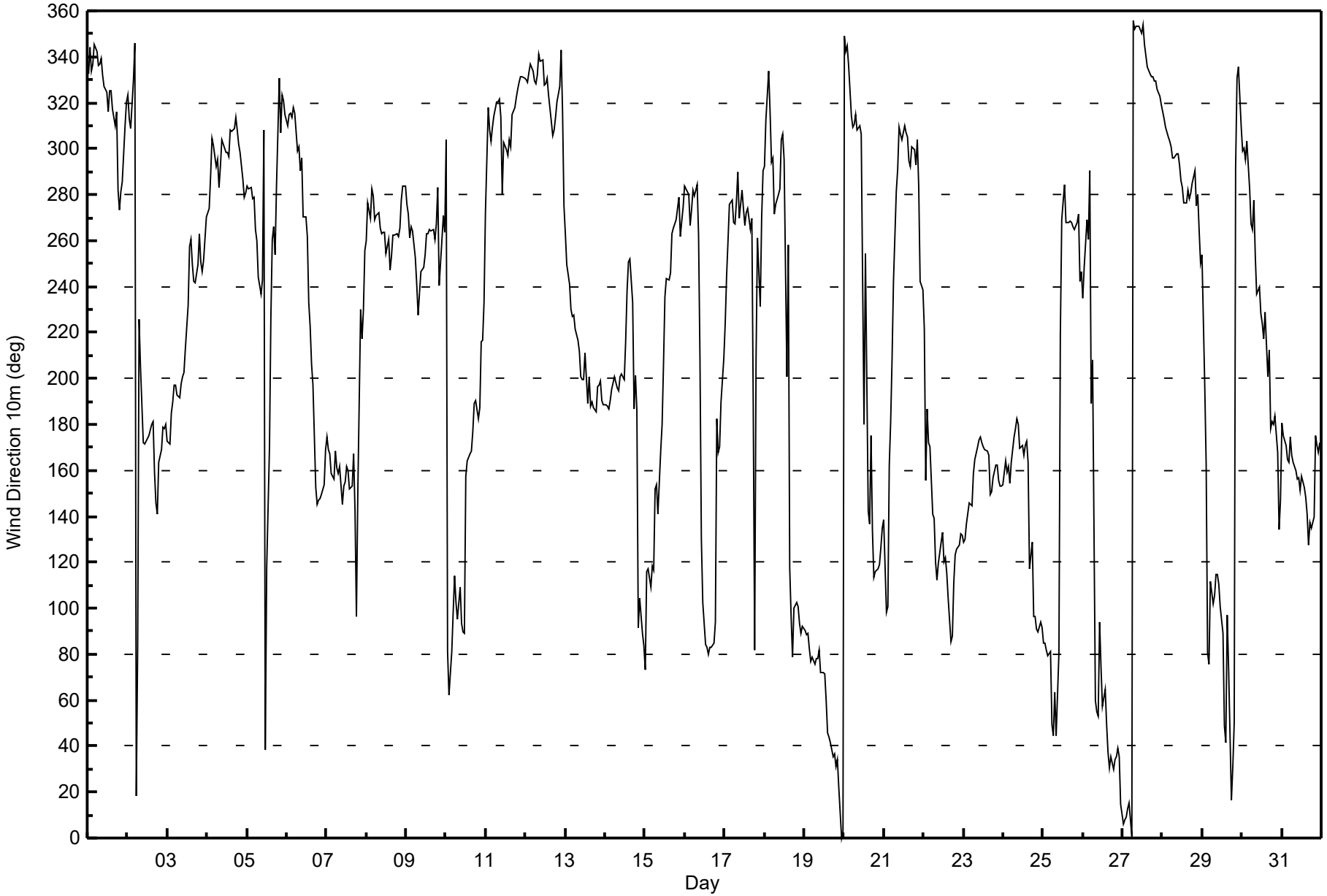
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	14	16	14	15	18	17	19	20	21	22	25	26	21	21	23	25	23	21	20	9	8	9	12	13	26
2-Oct	12	11	10	18	42	29	43	37	21	17	10	11	10	9	8	11	14	9	10	12	8	9	9	8	43
3-Oct	10	12	11	8	9	9	8	8	9	9	10	10	21	17	16	15	14	15	14	17	17	14	15	15	21
4-Oct	14	12	15	18	16	15	16	14	17	19	18	18	17	17	20	18	20	21	19	16	16	15	13	14	21
5-Oct	14	14	13	10	11	10	14	19	18	29	42	44	14	30	31	17	15	13	26	28	17	30	25	22	44
6-Oct	20	20	20	18	25	23	20	13	15	26	61	37	34	30	19	28	26	9	6	8	8	10	12	9	61
7-Oct	8	10	10	13	21	10	11	14	11	12	12	11	11	10	10	10	9	28	12	46	36	28	19	20	46
8-Oct	14	15	17	13	13	13	14	14	14	14	14	15	17	17	17	16	15	14	14	14	14	15	15	15	17
9-Oct	15	15	14	15	14	15	13	10	14	16	16	17	15	16	15	15	15	12	10	14	33	26	36	26	36
10-Oct	34	19	23	8	14	7	10	8	9	7	7	8	18	11	10	8	9	8	9	7	9	10	12	14	34
11-Oct	16	18	26	15	12	17	20	22	21	22	17	18	18	16	17	17	21	22	24	25	24	26	25	25	26
12-Oct	25	25	26	26	27	24	26	24	28	24	31	31	28	27	31	21	18	17	21	20	15	15	23	13	31
13-Oct	14	14	16	10	9	10	13	11	9	10	11	11	14	12	14	8	7	7	8	10	10	8	7	7	16
14-Oct	7	8	7	8	8	9	8	8	8	9	8	8	12	20	18	16	25	9	17	42	33	10	15	20	42
15-Oct	18	26	17	11	9	10	13	15	15	10	10	12	16	15	15	14	15	15	14	14	13	15	14	14	26
16-Oct	15	19	30	17	14	13	13	12	31	49	13	17	7	6	6	6	6	11	7	51	12	7	13	10	51
17-Oct	10	14	14	15	13	19	14	13	22	14	16	19	16	24	16	16	16	27	27	33	31	41	12	9	41
18-Oct	7	13	17	19	19	30	14	15	14	15	25	39	77	69	69	46	7	9	6	5	5	6	5	5	77
19-Oct	7	6	8	9	8	9	9	8	7	8	10	9	9	15	13	11	12	13	13	15	15	18	20	22	22
20-Oct	19	23	20	20	21	17	16	17	17	18	45	53	50	51	37	37	21	22	5	5	4	7	6	10	53
21-Oct	11	17	16	20	7	16	19	16	15	22	20	19	19	18	19	16	16	17	18	15	20	20	25	14	25
22-Oct	28	22	27	15	14	9	17	8	5	7	10	10	5	10	11	14	4	5	9	7	5	6	7	6	28
23-Oct	6	6	8	9	8	10	10	10	9	9	8	8	9	8	8	10	7	7	9	9	9	10	10	10	10
24-Oct	11	11	11	11	12	11	9	8	9	10	13	9	10	10	8	20	11	24	8	8	6	5	7	8	24
25-Oct	6	5	6	6	10	32	15	14	13	14	64	19	15	13	16	15	15	15	14	13	14	15	23	15	64
26-Oct	11	17	13	10	40	21	17	62	63	79	12	11	10	10	14	13	16	15	13	14	14	13	15	20	79
27-Oct	21	20	22	21	19	23	22	23	23	22	24	22	26	23	24	25	24	24	25	24	26	24	23	23	26
28-Oct	22	20	17	17	18	16	15	15	16	15	16	14	14	13	14	14	14	15	14	15	18	14	16	18	22
29-Oct	25	20	22	20	11	8	9	11	6	6	7	6	15	16	13	18	22	20	20	54	10	20	20	22	54
30-Oct	13	14	16	17	18	18	16	15	17	14	15	15	14	12	15	16	22	14	11	11	12	14	19	15	22
31-Oct	11	9	10	12	11	10	11	11	10	9	11	10	10	9	8	10	7	8	8	9	28	8	9	8	28
	34	26	30	26	42	32	43	62	63	79	64	53	77	69	69	46	26	28	27	54	36	41	36	26	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Fort Chipewyan - October 2025



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS09
BARGE LANDING
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BARGE LANDING (AMS09)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	707	35	37	99.73	-	-	11.6	0	2.4	0
TRS(ppb) Average	705	37	39	99.73	2.0	0	2	0	0.8	0
THC(ppm) Average	704	35	40	99.33	-	-	4	-	2.2	-
NMHC(ppm) Average	704	35	40	99.33	-	-	0.332	-	0.087	-
CH4(ppm) Average	704	35	40	99.33	-	-	3.9	-	2.2	0
NO2 (ppb) Average	708	36	36	100	-	-	22.3	0	13.8	-
NO (ppb) Average	708	36	36	100	-	-	109.4	-	16.4	-
NOX (ppb) Average	708	36	36	100	-	-	120.3	-	28	-
PM2.5(ug/m3) Average	742	2	2	100	-	-	43	0	12.4	0
Temperature (C) Average	744	0	0	100	-	-	21.2	-	10	-
Relative Humidity (%) Average	744	0	0	100	-	-	100	-	96.8	-
Barometric Pressure (inHg) Average	744	0	0	100	-	-	29.2	-	29.2	-
Wind Speed 20 m (km/h) Average	744	0	0	100	-	-	32	-	21	-
Wind Direction 20 m (deg) Average	744	0	0	100	-	-	0	-	0	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BARGE LANDING (AMS09)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

						Percentile					
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	707	0.46	1.3	-	0	0	0	0.1	0.3	0.9	11.6
TRS(ppb) Average	705	0.43	0.3	-	0.2	0.2	0.3	0.3	0.5	0.8	2
THC(ppm) Average	704	2.04	0.2	-	1.9	1.9	1.9	2	2.1	2.2	4
NMHC(ppm) Average	704	0.015	0.037	-	0	0	0	0	0	0.1	0.332
CH4(ppm) Average	704	2.02	0.2	-	1.9	1.9	1.9	2	2	2.2	3.9
NO2 (ppb) Average	708	5.77	5	-	0.1	0.2	1.1	4.9	9.2	13.1	22.3
NO (ppb) Average	708	4.31	10.5	-	0	0	0	0.4	3.4	11.4	109.4
NOX (ppb) Average	708	10.08	13.7	-	0.1	0.2	1.3	5.8	13.8	23	120.3
PM2.5(ug/m3) Average	742	5.46	4.6	-	0.1	0.7	2.4	4.7	6.9	10.2	43
Temperature (C) Average	744	4.45	4.6	-	-4.7	-0.8	0.6	3.5	7.7	11.1	21.2
Relative Humidity (%) Average	744	78.78	18.2	-	30.1	50.8	66	82.3	95.3	99.3	100
Barometric Pressure (inHg) Average	744	28.8	0.2	-	28.3	28.5	28.6	28.8	29	29.1	29.2
Wind Speed 20 m (km/h) Average	744	11.3	5	-	1	5	7	10	14	18	32
Wind Direction 20 m (deg) Average	744	229.7	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BARGE LANDING (AMS09)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
ALL GASEOUS ANALYZERS (except for NO2)	20 Oct 2025 12:00	20 Oct 2025 13:00	2	Maintenance - sample manifold cleaned
THC/ NMHC/ CH4	24 Oct 2025 10:00	24 Oct 2025 12:00	3	Maintenance - replaced support gas cylinder

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Barge Landing - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 11.6 ppb on Oct 23 13:00 Maximum Daily Average: 2.4 ppb on Oct 23

Minimum Value: 0.0 ppb on Oct 1 21:00 Minimum Daily Average: 0.0 ppb on Oct 4
Maximum Diurnal Average: 1.7 ppb at hour 13 Minimum Diurnal Average: 0.1 ppb at hour 6
Monthly Average: 0.46 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.3 P_{90} = 0.9 P_{99} = 7.3

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	35
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.2	0.1	0.1	Z	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.2
2-Oct	0.0	0.0	0.0	0.0	Z	0.2	0.1	0.0	0.0	0.0	0.2	0.4	0.2	0.6	0.5	0.4	0.6	0.5	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.6
3-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.4	0.3	0.2	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
4-Oct	Z	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
5-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
6-Oct	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.5	3.7	8.3	1.9	0.8	0.6	0.4	0.4	0.4	0.4	0.8	8.3
7-Oct	0.4	1.1	1.0	Z	0.6	0.5	0.7	1.0	0.9	1.8	3.1	2.0	5.1	5.9	3.8	3.6	1.1	0.6	0.4	0.6	0.4	0.3	0.2	0.3	1.5	5.9
8-Oct	0.4	0.3	0.2	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
9-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2
10-Oct	Z	0.4	0.3	0.3	0.3	0.4	0.3	0.5	0.7	0.7	2.5	7.4	11.3	6.0	2.5	1.2	0.5	0.7	0.8	0.9	1.6	1.5	0.9	0.7	1.8	11.3
11-Oct	0.5	Z	0.4	0.3	0.3	0.5	0.4	0.3	0.4	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.5
12-Oct	0.1	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
13-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.9	0.4	1.1	1.2	0.9	0.7	0.8	0.3	1.2
14-Oct	0.6	0.3	0.4	0.4	Z	0.4	0.6	0.5	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.1	0.2	0.5	0.3	0.3	0.4	0.5	0.8	0.9	0.4	0.9
15-Oct	1.2	0.9	0.8	2.1	3.0	Z	2.9	1.6	1.2	1.0	2.0	1.3	0.4	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.9	3.0
16-Oct	Z	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.4	1.0	4.7	6.7	4.5	2.0	1.3	0.8	0.6	0.3	1.1	1.0	0.9	0.3	0.3	1.2	6.7
17-Oct	0.2	Z	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
18-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1
19-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.1	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
20-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	M	M	0.1	0.3	0.2	0.1	0.1	0.1	0.3	0.2	0.2	0.4	0.9	0.1	0.9
21-Oct	0.6	0.4	0.2	0.2	0.4	Z	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.0	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.6
22-Oct	Z	0.1	0.0	0.1	0.1	0.1	0.2	0.5	0.3	0.5	1.3	5.2	3.5	11.5	4.9	5.1	2.6	1.1	0.4	0.2	0.2	0.1	0.1	0.1	1.7	11.5
23-Oct	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.8	2.8	6.7	9.4	11.6	8.7	9.6	1.5	0.5	0.3	0.2	0.2	0.1	0.2	0.5	0.9	2.4	11.6
24-Oct	0.2	0.2	Z	0.1	0.2	0.2	0.4	0.2	0.2	0.3	0.3	1.6	6.6	6.7	2.8	1.3	0.8	0.5	0.3	0.2	0.2	0.2	0.1	0.1	1.0	6.7
25-Oct	0.0	0.1	0.2	Z	0.2	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.4
26-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.2	0.1	0.1	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.4
27-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2
28-Oct	Z	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
29-Oct	0.0	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1
30-Oct	0.1	0.0	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
31-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.1	0.7	2.2	1.7	1.5	1.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.5	0.8	0.4	2.2
	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.2	0.2	0.3	0.7	1.2	1.7	1.5	0.9	0.6	0.6	0.3	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	1.2	1.1	1.0	2.1	3.0	0.5	2.9	1.6	1.2	2.8	6.7	9.4	11.6	11.5	9.6	5.1	8.3	1.9	0.8	1.1	1.6	1.5	0.9	0.9	Diurnal Maximum	

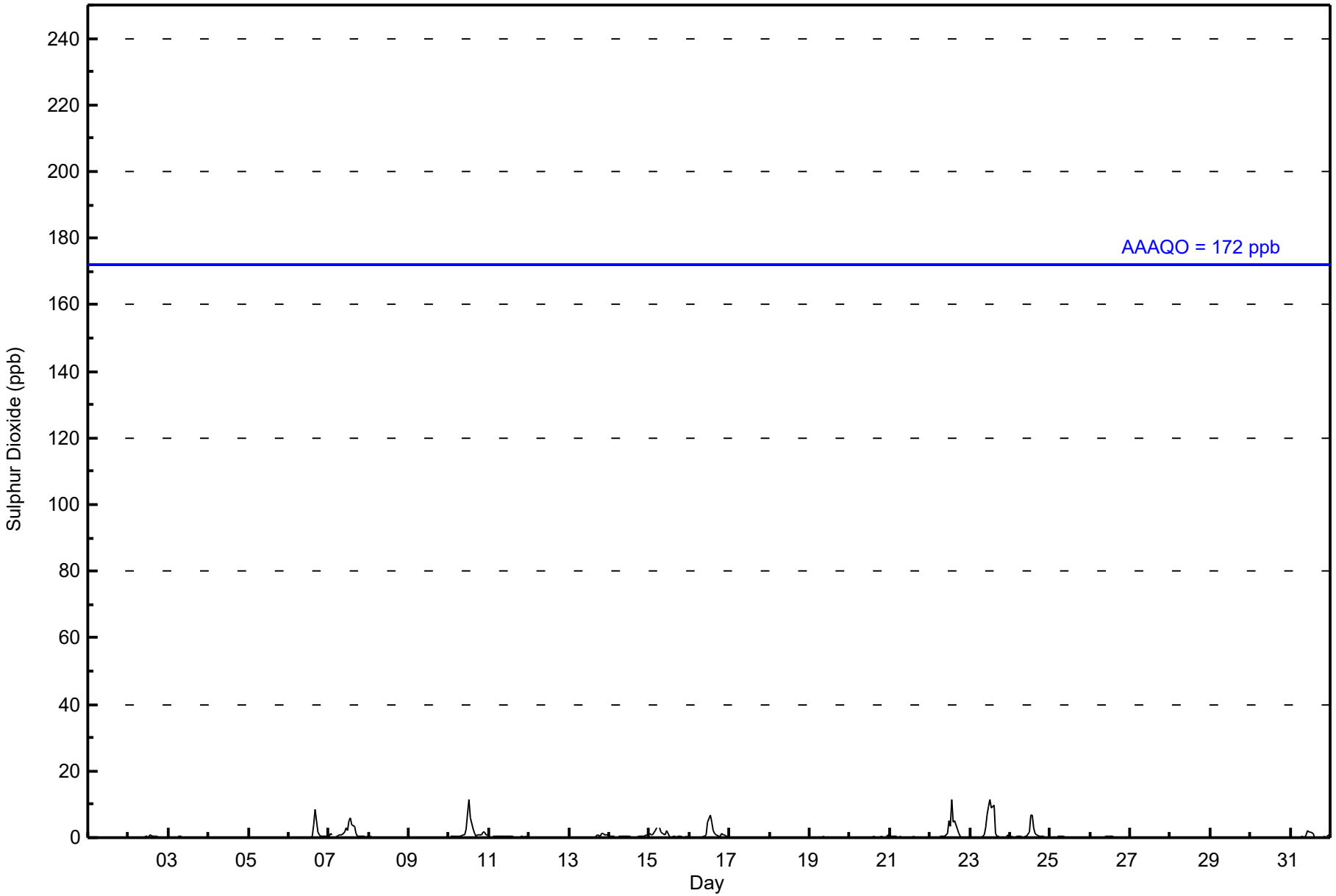
Z - zerospan C - Calibration M - Maintenance
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Barge Landing - October 2025



Sulphur Dioxide (SO_2) - ppb
Barge Landing - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	704	99.58	99.58
11 - 20	3	0.42	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Barge Landing - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	64	14	7	6	8	16	57	131	72	59	56	53	41	29	15	76	704
11 - 20	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	64	14	7	6	8	16	57	134	72	59	56	53	41	29	15	76	707

Total Number of Valid Hours: 707

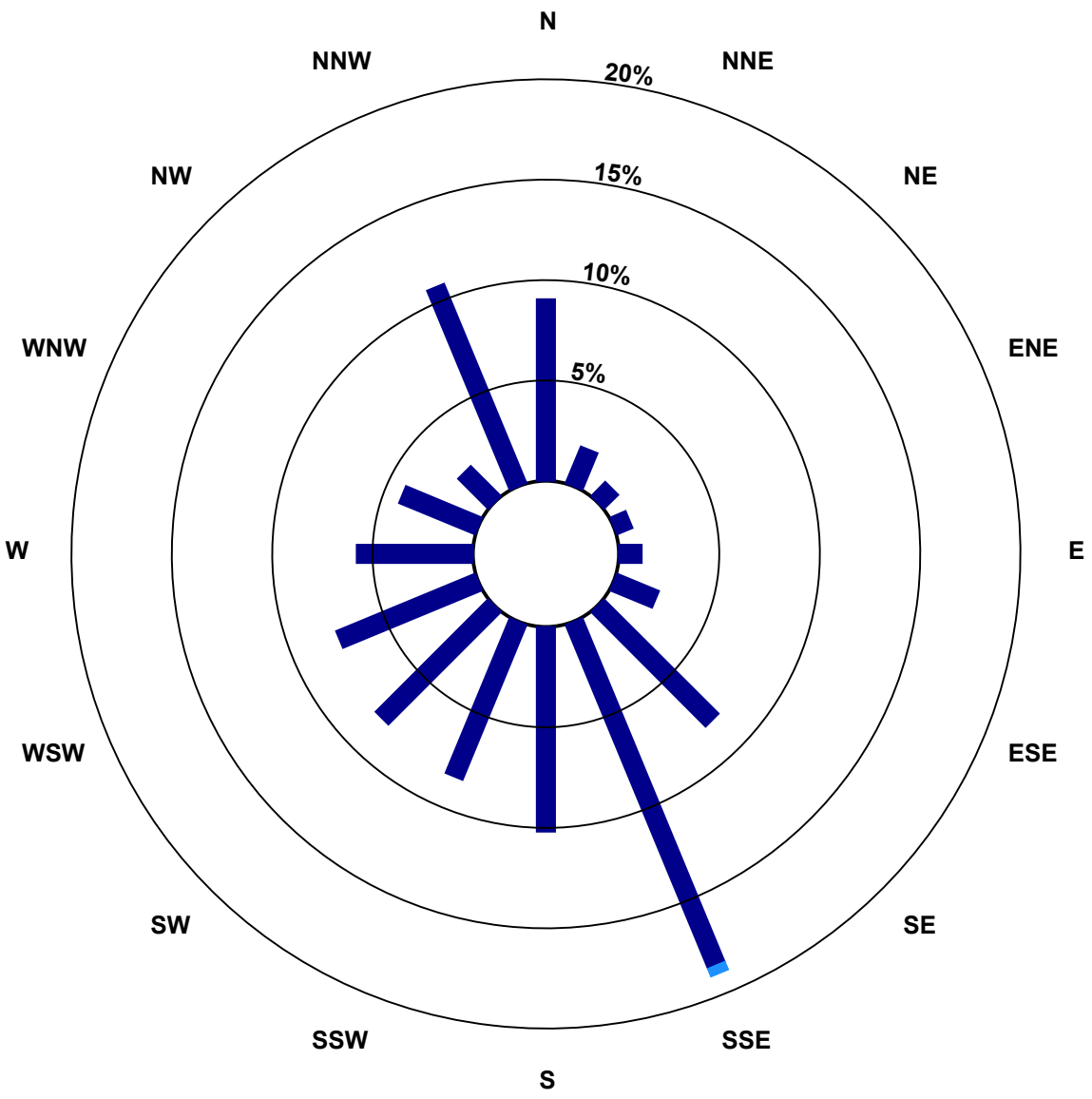
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Barge Landing



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

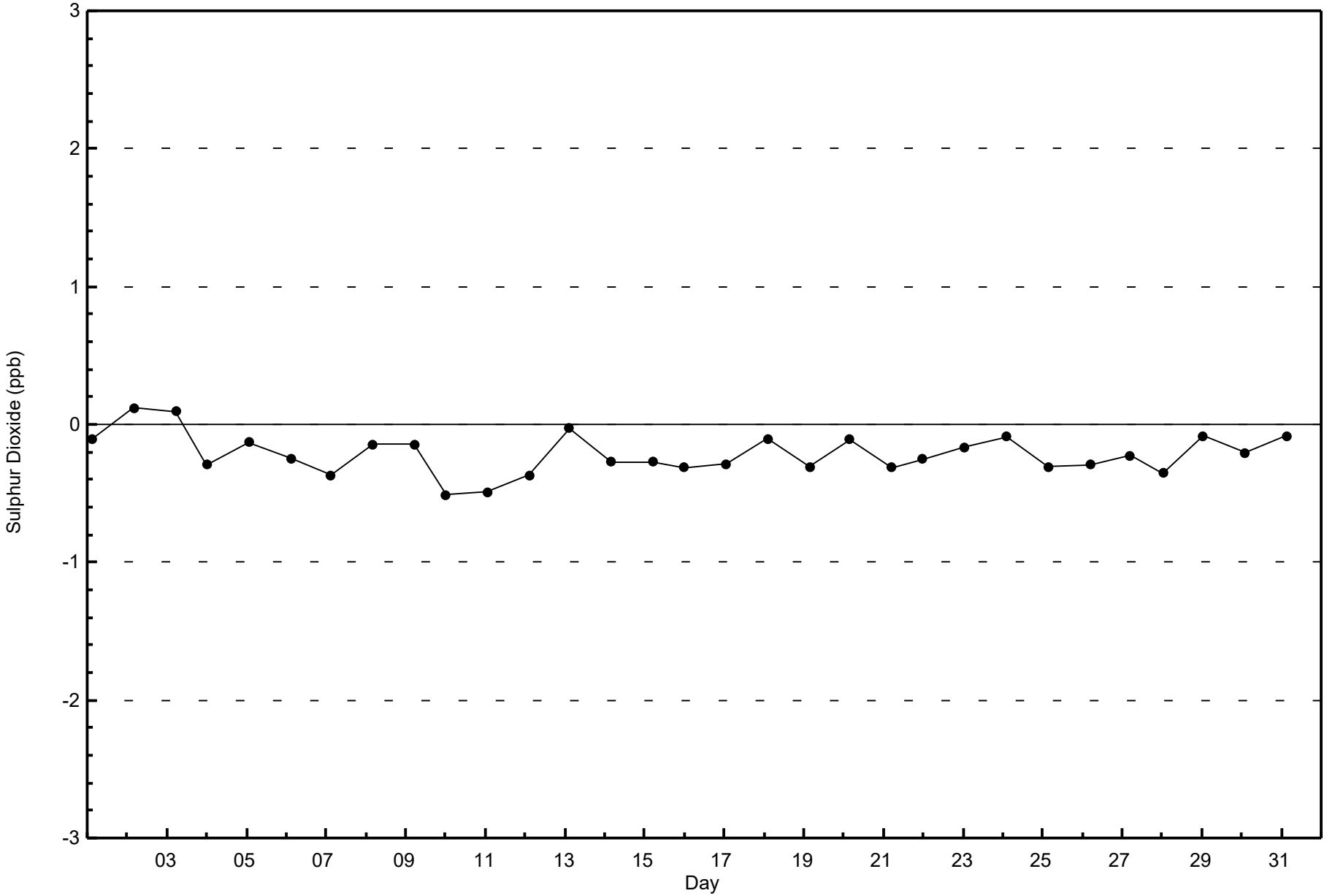
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Barge Landing - October 2025

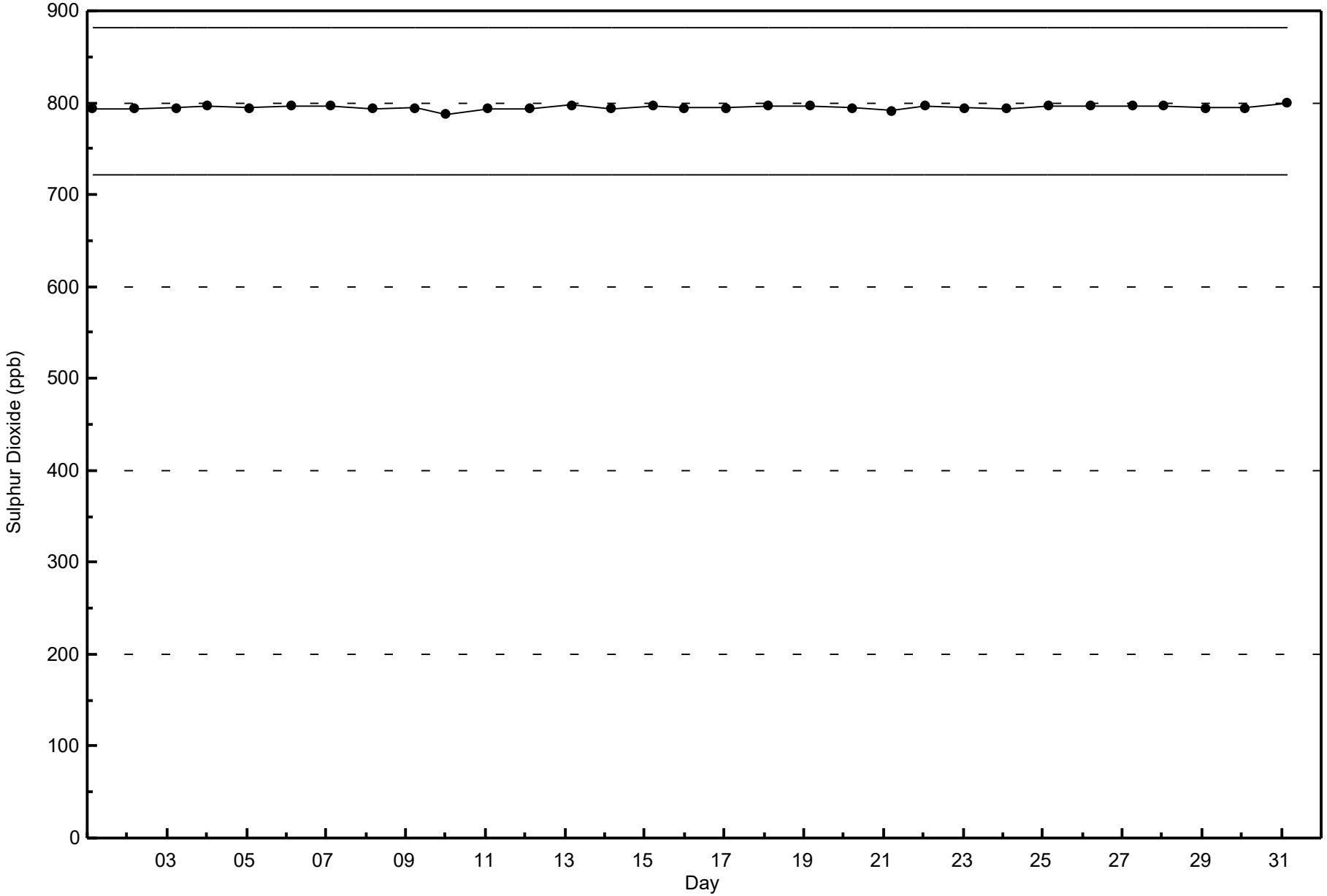


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Barge Landing - October 2025



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Barge Landing - October 2025

Number of Exceedences (AAAQG): 30-Min: 0

Maximum Value: 2.0 ppb on Oct 2 12:00

Maximum Daily Average: 0.8 ppb on Oct 2

Minimum Value: 0.2 ppb on Oct 5 00:00

Minimum Daily Average: 0.2 ppb on Oct 28

Maximum Diurnal Average: 0.5 ppb at hour 12

Minimum Diurnal Average: 0.3 ppb at hour 19

Monthly Average: 0.42 ppb

Percentiles: P_1 = 0.2 P_{10} = 0.2 Q_1 = 0.3 Median = 0.3 Q_3 = 0.5 P_{90} = 0.8 P_{99} = 1.7

Periods in Service:	1488
Periods of Valid Data:	1410
Periods of Invalid Data:	78
Periods of Calibration:	74
Percent Operational Time:	99.7

Period Ending At (MST)

Day	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
1-Oct	0.5	0.6	0.6	0.5	Z	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.6	0.6	0.5	0.4	0.3	0.4	0.7
	0.5	0.6	0.5	0.5	SP	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.7	0.5	0.4	0.3	0.3		
2-Oct	0.3	0.3	0.2	0.3	0.2	Z	0.5	0.7	1.2	1.9	1.6	2.0	1.9	1.3	0.7	0.4	0.3	0.3	0.4	0.6	1.3	1.3	0.8	0.7	0.8	2.0
	0.3	0.3	0.4	0.2	0.3	SP	0.6	0.8	1.3	1.8	1.8	2.0	1.3	1.2	0.5	0.3	0.3	0.3	0.4	1.9	1.5	0.8	0.7	0.6		
3-Oct	Z	1.1	1.0	0.9	0.8	0.9	1.3	1.1	0.7	0.8	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.5	1.3
	SP	1.1	1.0	0.9	0.8	1.1	1.1	0.9	0.8	0.7	0.5	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2		
4-Oct	0.2	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.6
	0.2	SP	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.6	0.3	0.2	0.2	0.2		
5-Oct	0.2	0.2	Z	0.3	0.2	0.2	0.3	0.3	0.4	0.4	0.7	0.5	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.7
	0.2	0.2	SP	0.2	0.2	0.3	0.3	0.3	0.5	0.4	0.7	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3		
6-Oct	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.4	0.4	0.6	0.4	0.5	0.7	0.4	0.8
	0.3	0.3	0.3	SP	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.4	0.7	0.3	0.5	0.5	0.8		
7-Oct	0.7	0.8	0.8	0.7	Z	0.6	0.7	1.0	0.6	0.5	0.6	0.6	0.4	0.5	0.5	0.7	0.6	0.2	0.2	0.4	0.5	0.6	0.6	0.9	0.6	2.0
	0.8	0.7	0.8	0.5	SP	0.7	0.9	0.9	0.5	0.5	0.5	0.4	0.3	0.5	0.7	0.9	0.3	0.2	0.3	0.5	0.6	0.6	0.7	2.0		
8-Oct	1.7	1.2	1.9	1.4	0.6	Z	0.3	0.3	0.3	C	C	C	C	C	C	0.7	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	--	1.9
	1.3	1.5	1.9	0.9	0.4	SP	0.4	0.3	C	C	C	C	C	C	0.7	0.7	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
9-Oct	Z	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.6	0.5	0.5	0.3	0.6
	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.6	0.6	0.5	0.5		
10-Oct	0.6	Z	0.9	1.2	0.9	1.3	0.8	1.0	1.3	0.8	0.4	0.8	1.0	0.5	0.4	0.5	0.4	0.6	0.5	0.5	0.6	0.6	0.7	0.8	0.8	1.5
	0.7	SP	1.5	1.0	1.2	1.2	0.7	1.2	0.9	0.5	0.6	1.5	0.6	0.4	0.5	0.4	0.5	0.7	0.5	0.5	0.6	0.6	0.7	0.8		
11-Oct	0.9	0.8	Z	0.6	0.4	1.7	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.3	0.2	0.2	0.4	1.7
	1.0	0.6	SP	0.4	1.1	0.7	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.4	0.2	0.2	0.2		
12-Oct	0.2	0.2	0.2	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
	0.2	0.2	0.2	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2		
13-Oct	0.2	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.3
	0.2	0.2	0.2	0.2	SP	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3		
14-Oct	0.3	0.3	0.3	0.3	0.3	Z	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.5	0.5	0.7	0.4	1.0
	0.3	0.3	0.3	0.3	0.3	SP	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.5	0.5	0.7	1.0		
15-Oct	Z	1.0	0.8	1.7	1.8	1.3	1.0	1.6	1.1	0.6	0.5	0.6	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.4	0.3	0.3	0.7	2.0
	SP	0.9	0.9	2.0	1.5	1.2	1.7	1.2	0.7	0.6	0.8	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.5	0.3	0.3	0.3		

Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Barge Landing - October 2025

Day	Period Ending At (MST) 00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
16-Oct	0.3	Z	0.4	0.3	0.3	0.3	0.3	0.7	0.8	1.0	0.9	1.1	0.8	0.8	0.4	0.7	0.8	0.6	0.4	0.3	0.3	0.5	0.3	0.5	0.6	1.4
	0.4	SP	0.3	0.3	0.3	0.4	0.5	0.8	0.8	0.8	0.9	1.4	0.8	0.7	0.4	0.8	0.7	0.6	0.3	0.3	0.4	0.6	0.3	0.4		
17-Oct	0.4	0.4	Z	0.4	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.5
	0.5	0.3	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.4	0.3	0.2	0.3	0.3		
18-Oct	0.2	0.2	0.3	Z	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.4
	0.3	0.3	0.3	SP	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4		
19-Oct	0.4	0.3	0.3	0.3	Z	0.4	0.4	0.4	0.6	DF	1.3	0.8	0.6	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	1.3
	0.4	0.3	0.4	0.3	SP	0.4	0.5	0.4	0.7	0.8	0.9	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.4	0.4		
20-Oct	0.5	0.3	0.3	0.3	0.3	Z	0.3	0.3	0.4	0.4	0.3	M	M	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.5	0.4	0.5
	0.3	0.3	0.3	0.3	0.3	SP	0.3	0.3	0.4	0.5	0.3	M	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4		
21-Oct	Z	0.6	0.5	0.7	0.7	0.5	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.3	1.0	0.3	0.3	0.4	0.4	0.3	0.3	0.4	1.5
	SP	0.5	0.7	0.7	0.6	0.5	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	1.5	0.3	0.3	0.3	0.4	0.4	0.3	0.3		
22-Oct	0.3	Z	0.3	0.3	0.3	0.3	0.4	0.7	0.4	0.4	0.5	0.5	0.4	0.5	0.6	0.7	0.7	1.8	0.6	0.3	0.3	0.3	0.2	0.3	0.5	1.8
	0.3	SP	0.3	0.3	0.4	0.3	0.4	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.8	0.7	1.3	1.4	0.3	0.3	0.3	0.3	0.3	0.2		
23-Oct	0.3	0.2	Z	0.4	0.3	0.3	0.3	0.3	0.6	0.5	0.8	0.7	0.7	0.4	0.8	0.5	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.5	0.4	0.8
	0.3	0.3	SP	0.3	0.3	0.3	0.3	0.4	0.6	0.6	0.8	0.6	0.5	0.5	0.8	0.3	0.3	0.2	0.3	0.2	0.2	0.3	0.4	0.3		
24-Oct	0.2	0.3	0.5	Z	0.7	0.8	0.8	0.8	0.5	0.6	0.6	0.6	0.9	1.2	0.6	0.5	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.3	0.5	1.2
	0.2	0.4	0.5	SP	0.8	0.8	1.2	0.6	0.7	0.6	0.5	0.9	0.9	0.7	0.5	0.5	0.6	0.4	0.3	0.3	0.3	0.2	0.3	0.2		
25-Oct	0.2	0.2	0.4	0.4	Z	0.5	0.8	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.8
	0.3	0.4	0.4	0.4	SP	0.7	0.7	0.5	0.5	0.6	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3		
26-Oct	0.4	0.4	0.3	0.3	0.3	Z	0.6	0.6	0.5	0.6	0.8	0.8	0.8	0.8	0.7	0.5	0.5	0.5	0.4	0.4	0.3	0.4	0.3	0.3	0.5	0.8
	0.5	0.4	0.4	0.4	0.5	SP	0.5	0.5	0.5	0.8	0.8	0.7	0.8	0.6	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.4	0.3	0.3		
27-Oct	Z	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.4
	SP	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2		
28-Oct	0.2	Z	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	0.3	SP	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
29-Oct	0.2	0.3	Z	0.4	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.3	0.3	0.3	0.4	0.2	0.3	0.3	0.2	0.4	0.3	0.3	0.3	0.5
	0.2	0.2	SP	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.5	0.4	0.3	0.3	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3		
30-Oct	0.3	0.3	0.7	Z	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.7
	0.3	0.3	0.5	SP	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2		
31-Oct	0.2	0.2	0.2	0.2	Z	0.4	0.3	0.3	0.3	0.4	0.6	0.5	0.5	0.6	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.8
	0.2	0.2	0.2	0.3	SP	0.3	0.3	0.3	0.3	0.8	0.5	0.6	0.6	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.5	0.5		
	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	Diurnal Average	
	1.7	1.5	1.9	2.0	1.8	1.7	1.7	1.6	1.3	1.9	1.8	2.0	1.9	1.3	0.8	0.9	1.5	1.8	0.6	1.9	1.5	1.3	0.8	2.0	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance DF - DAS Failure SP - Span

Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb

Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

Barge Landing - October 2025

Maximum Value: 2.0 ppb on Oct 2 12:00

Maximum Daily Average: 0.8 ppb on Oct 2

Minimum Value: 0.2 ppb on Oct 13 03:00

Minimum Daily Average: 0.2 ppb on Oct 28

Maximum Diurnal Average: 0.5 ppb at hour 12

Minimum Diurnal Average: 0.3 ppb at hour 19

Monthly Average: 0.43 ppb

Percentiles: P_1 = 0.2 P_{10} = 0.2 Q_1 = 0.3 Median = 0.3 Q_3 = 0.5 P_{90} = 0.8 P_{99} = 1.6

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	37
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.5	0.6	0.6	0.5	Z	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.6	0.5	0.4	0.3	0.3	0.4	0.6
2-Oct	0.3	0.3	0.3	0.2	0.3	Z	0.6	0.8	1.3	1.8	1.7	2.0	1.6	1.2	0.6	0.4	0.3	0.3	0.4	1.2	1.4	1.1	0.8	0.6	0.8	2.0
3-Oct	Z	1.1	1.0	0.9	0.8	1.0	1.2	1.0	0.7	0.7	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.5	1.2
4-Oct	0.2	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.3	0.4
5-Oct	0.2	0.2	Z	0.3	0.2	0.3	0.3	0.3	0.5	0.4	0.7	0.5	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.7
6-Oct	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.4	0.5	0.4	0.4	0.5	0.8	0.4	0.8
7-Oct	0.8	0.8	0.8	0.6	Z	0.7	0.8	0.9	0.5	0.5	0.5	0.5	0.3	0.5	0.6	0.8	0.5	0.2	0.2	0.4	0.5	0.6	0.7	1.5	0.6	1.5
8-Oct	1.5	1.4	1.9	1.2	0.5	Z	0.3	0.3	C	C	C	C	C	C	0.8	0.7	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	--	1.9
9-Oct	Z	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.6	0.5	0.5	0.3	0.6
10-Oct	0.6	Z	1.2	1.1	1.0	1.2	0.8	1.1	1.1	0.6	0.5	1.1	0.8	0.4	0.5	0.5	0.5	0.6	0.5	0.5	0.6	0.6	0.7	0.8	0.8	1.2
11-Oct	0.9	0.7	Z	0.5	0.8	1.2	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.3	0.2	0.2	0.4	1.2
12-Oct	0.2	0.2	0.2	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
13-Oct	0.2	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3
14-Oct	0.3	0.3	0.3	0.3	0.3	Z	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.5	0.6	0.9	0.4	0.9
15-Oct	Z	0.9	0.9	1.8	1.6	1.2	1.4	1.4	0.9	0.6	0.7	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.4	0.3	0.3	0.7	1.8
16-Oct	0.3	Z	0.3	0.3	0.3	0.4	0.4	0.7	0.8	0.9	0.9	1.2	0.8	0.7	0.4	0.7	0.7	0.6	0.4	0.3	0.4	0.5	0.3	0.5	0.6	1.2
17-Oct	0.4	0.4	Z	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.4
18-Oct	0.2	0.3	0.3	Z	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.4
19-Oct	0.4	0.3	0.4	0.3	Z	0.4	0.5	0.4	0.6	0.7	1.1	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	1.1
20-Oct	0.4	0.3	0.3	0.3	0.3	Z	0.3	0.3	0.4	0.5	0.3	M	M	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5
21-Oct	Z	0.5	0.6	0.7	0.6	0.5	0.4	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.9	0.7	0.3	0.3	0.4	0.4	0.3	0.3	0.4	0.9
22-Oct	0.3	Z	0.3	0.3	0.3	0.3	0.4	0.7	0.4	0.4	0.5	0.5	0.4	0.5	0.7	0.7	1.0	1.6	0.5	0.3	0.3	0.3	0.3	0.2	0.5	1.6
23-Oct	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.6	0.5	0.8	0.6	0.6	0.5	0.8	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.4	0.4	0.4	0.8
24-Oct	0.2	0.3	0.5	Z	0.7	0.8	1.0	0.7	0.6	0.6	0.5	0.8	0.9	1.0	0.6	0.5	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.3	0.5	1.0
25-Oct	0.2	0.3	0.4	0.4	Z	0.6	0.7	0.6	0.5	0.6	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.7
26-Oct	0.5	0.4	0.3	0.4	0.4	Z	0.6	0.6	0.5	0.7	0.8	0.8	0.8	0.7	0.6	0.5	0.5	0.5	0.4	0.3	0.3	0.4	0.3	0.3	0.5	0.8
27-Oct	Z	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4
28-Oct	0.2	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
29-Oct	0.2	0.2	Z	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.5	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.5
30-Oct	0.3	0.3	0.6	Z	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.6
31-Oct	0.2	0.2	0.2	0.3	Z	0.3	0.3	0.3	0.3	0.6	0.6	0.5	0.6	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.6
	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	Diurnal Average	
	1.5	1.4	1.9	1.8	1.6	1.2	1.4	1.4	1.3	1.8	1.7	2.0	1.6	1.2	0.8	0.8	1.0	1.6	0.5	1.2	1.4	1.1	0.8	1.5	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

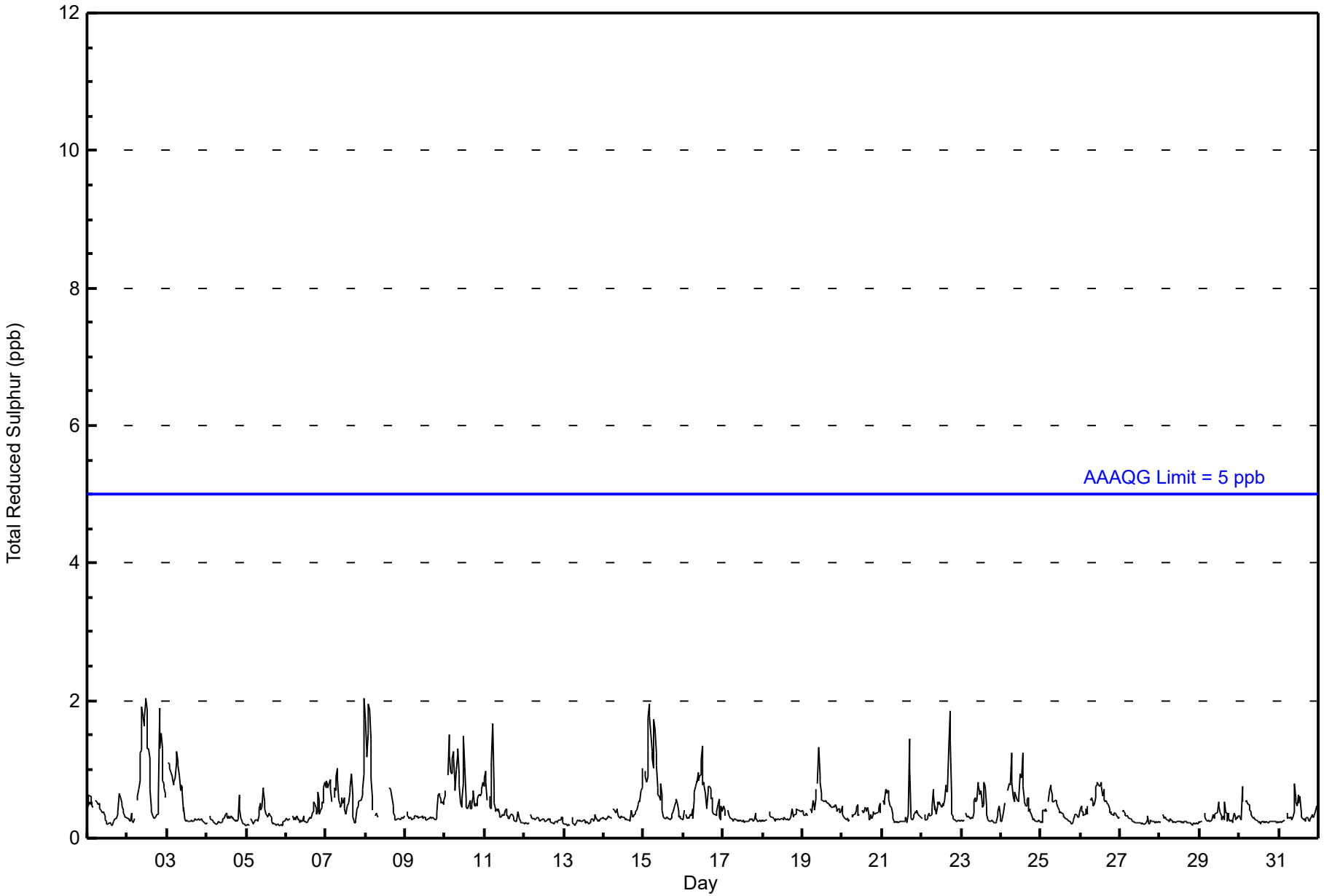
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA

Wood Buffalo Environmental Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Barge Landing - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	705	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Reduced Sulphur (TRS) - ppb

Barge Landing - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	66	13	6	6	8	17	60	134	73	60	56	48	41	28	16	73	705
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	66	13	6	6	8	17	60	134	73	60	56	48	41	28	16	73	705

Total Number of Valid Hours: 705

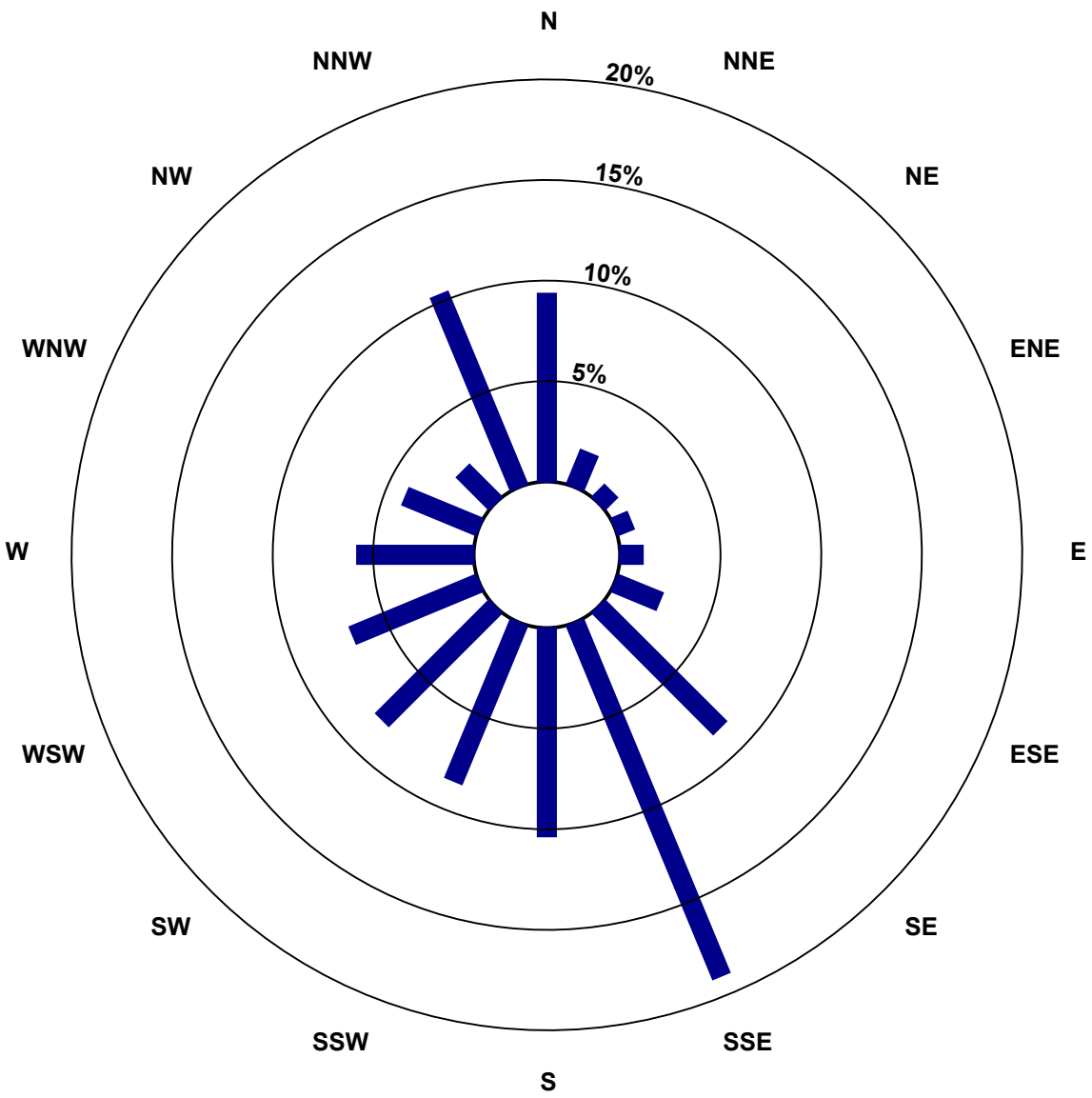
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Reduced Sulphur (TRS) - ppb

Barge Landing



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

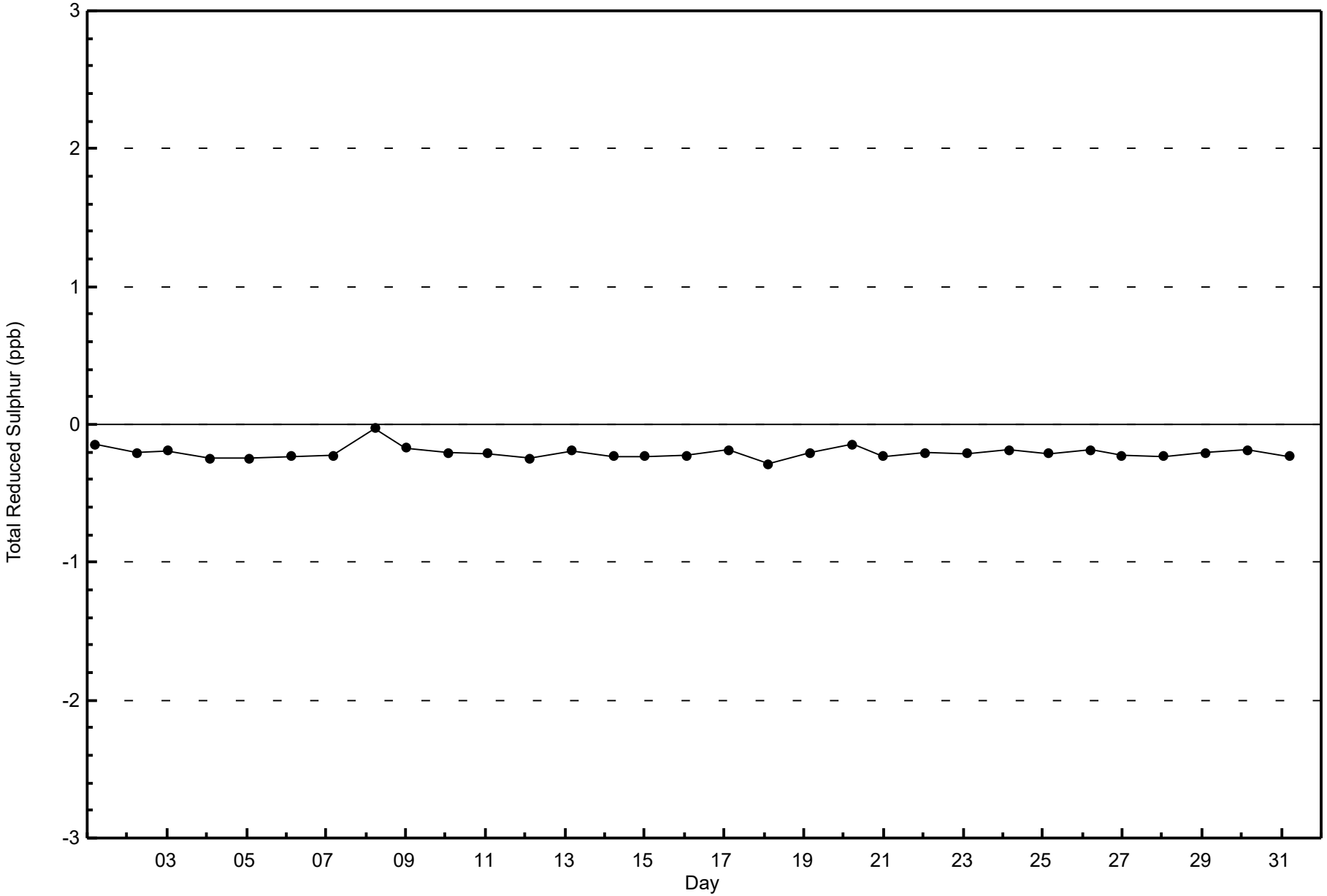
Total Number of Valid Hours: 705

Wood Buffalo Environmental Association

Zero Responses

Total Reduced Sulphur (TRS) - ppb

Barge Landing - October 2025

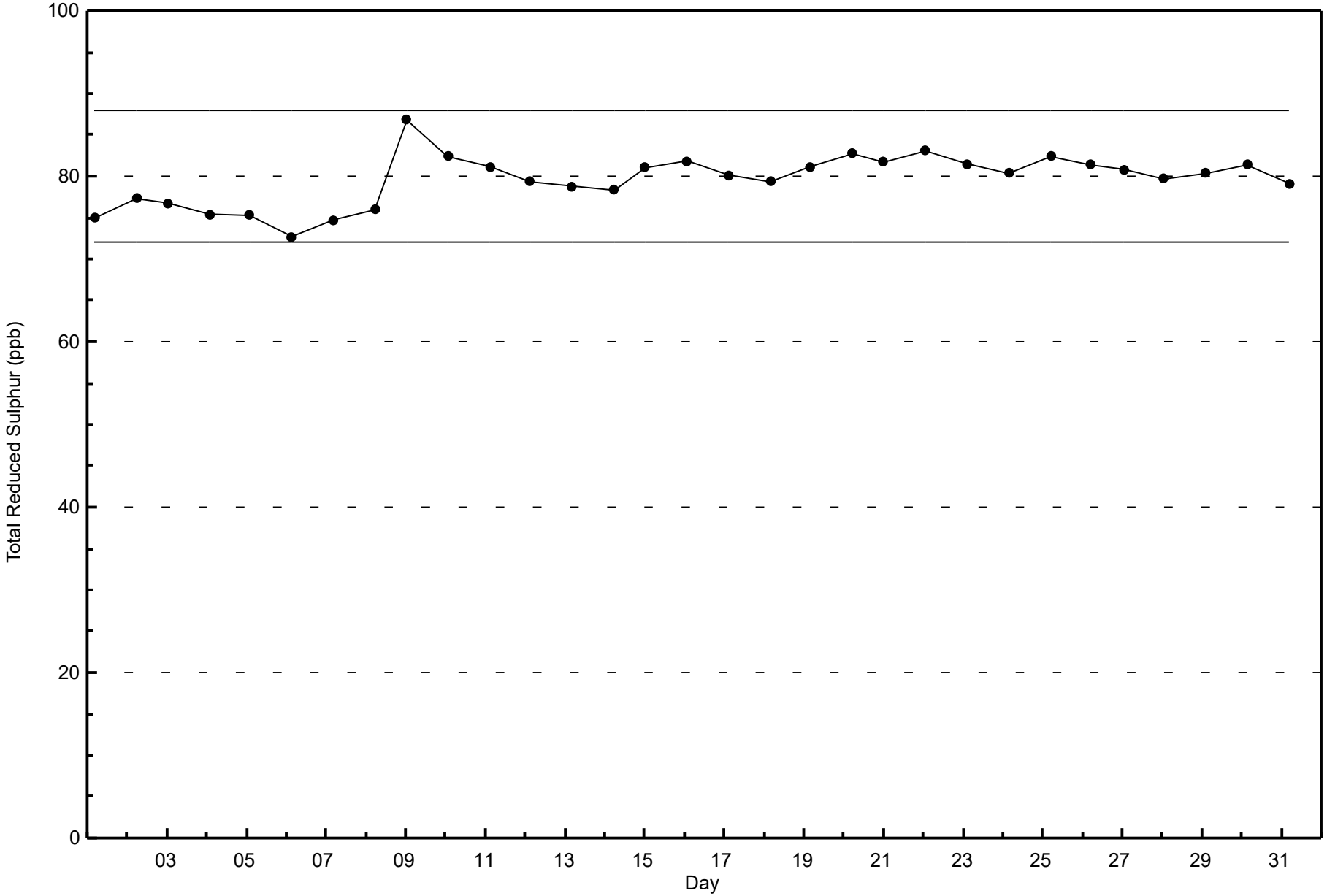


Wood Buffalo Environmental Association

Span Responses

Total Reduced Sulphur (TRS) - ppb

Barge Landing - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Barge Landing - October 2025

Maximum Value: 4.0 ppm on Oct 8 01:00

Maximum Daily Average: 2.2 ppm on Oct 19

Minimum Value: 1.9 ppm on Oct 27 11:00

Minimum Daily Average: 1.9 ppm on Oct 27

Maximum Diurnal Average: 2.1 ppm at hour 1

Minimum Diurnal Average: 2.0 ppm at hour 16

Monthly Average: 2.04 ppm

Percentiles: P_1 = 1.9 P_{10} = 1.9 Q_1 = 1.9 Median = 2.0 Q_3 = 2.1 P_{90} = 2.2 P_{99} = 2.9

Hours in Service:	744
Hours of Data:	704
Hours of Missing Data:	40
Hours of Calibration:	35
Percent Operational Time:	99.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.1	2.1	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.2
2-Oct	2.1	2.0	2.0	2.0	Z	2.0	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.3
3-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.1	2.1	C	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1
4-Oct	Z	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.1	2.0	1.9	2.0	2.2
5-Oct	1.9	Z	1.9	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.1	2.2	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.3
6-Oct	2.0	2.0	Z	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.1
7-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.2	2.3	2.3	2.4	3.5	2.1	3.5
8-Oct	4.0	3.6	3.5	2.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	4.0
9-Oct	1.9	1.9	1.9	1.9	1.9	Z	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.6	2.9	2.6	2.3	2.1	2.9
10-Oct	Z	2.1	2.2	2.2	2.2	2.3	2.1	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.5
11-Oct	2.1	Z	2.1	2.2	2.5	3.0	2.3	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	3.0
12-Oct	1.9	1.9	Z	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0
13-Oct	2.0	2.0	1.9	Z	1.9	1.9	1.9	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	1.9	1.9	2.0	2.0	2.0	2.1
14-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.1
15-Oct	2.1	2.1	2.1	2.1	2.0	Z	2.0	2.1	2.1	2.1	2.0	2.1	2.0	2.0	1.9	1.9	1.9	2.0	2.1	2.2	2.3	2.1	2.1	2.1	2.1	2.3
16-Oct	Z	2.2	2.0	2.0	2.1	2.0	2.1	2.3	2.3	2.4	2.2	2.2	2.2	2.0	1.9	1.9	2.0	2.1	2.3	2.2	2.3	2.3	2.0	2.0	2.1	2.4
17-Oct	2.1	Z	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1
18-Oct	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.3	2.2	2.2	2.0	2.3
19-Oct	2.2	2.1	2.1	Z	2.1	2.2	2.3	2.4	2.7	2.5	2.2	2.2	2.3	2.3	2.2	2.4	2.4	2.3	2.2	2.2	2.1	2.3	2.3	2.0	2.2	2.7
20-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.0	M	M	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1
21-Oct	2.0	2.0	2.0	2.0	2.1	Z	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.1	2.0	2.1	2.2	2.1	2.1	2.1	2.0	2.2
22-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.8	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.8
23-Oct	1.9	Z	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.1	2.0	2.1
24-Oct	1.9	2.0	Z	2.2	2.2	2.2	2.2	2.2	2.1	M	M	M	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2
25-Oct	2.0	2.2	2.3	Z	2.6	2.7	2.7	2.5	2.4	2.4	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.2	2.3	2.2	2.7
26-Oct	2.3	2.3	2.2	2.2	Z	2.2	2.2	2.3	2.4	2.9	3.0	2.7	2.3	2.2	2.1	2.0	2.0	2.2	2.1	2.0	2.0	2.0	1.9	1.9	2.2	3.0
27-Oct	1.9	1.9	1.9	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
28-Oct	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0
29-Oct	2.0	Z	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.2	2.3	2.1	2.1	2.0	2.0	2.0	2.1	2.0	1.9	1.9	1.9	1.9	2.0	2.3
30-Oct	2.0	2.0	Z	2.3	2.1	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.3
31-Oct	1.9	1.9	1.9	Z	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0
	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	Diurnal Average	
	4.0	3.6	3.5	2.9	2.6	3.0	2.7	2.5	2.7	2.9	3.0	2.7	2.3	2.3	2.2	2.4	2.5	2.8	2.3	2.2	2.6	2.9	2.6	3.5	Diurnal Maximum	

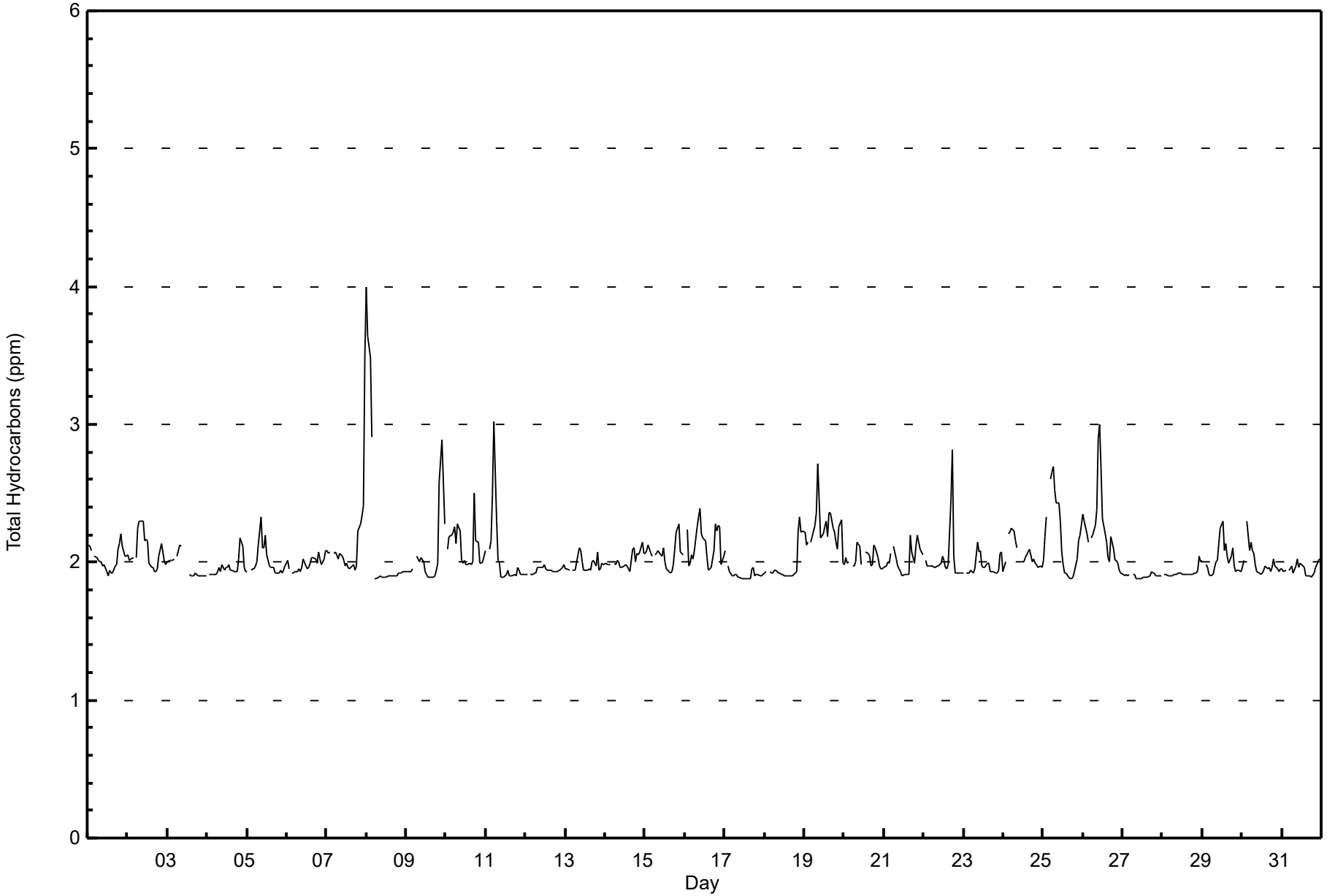
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Barge Landing - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	502	71.31	71.31
2.1 - 3.0	198	28.13	99.43
3.1 - 10.0	4	0.57	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Barge Landing - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	39	9	1	3	4	10	34	78	47	47	50	48	40	25	12	55	502
2.1 - 3.0	25	5	6	3	4	6	23	53	25	12	6	5	0	4	2	19	198
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	4
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	64	14	7	6	8	16	57	131	72	59	56	53	41	29	15	76	704

Total Number of Valid Hours: 704

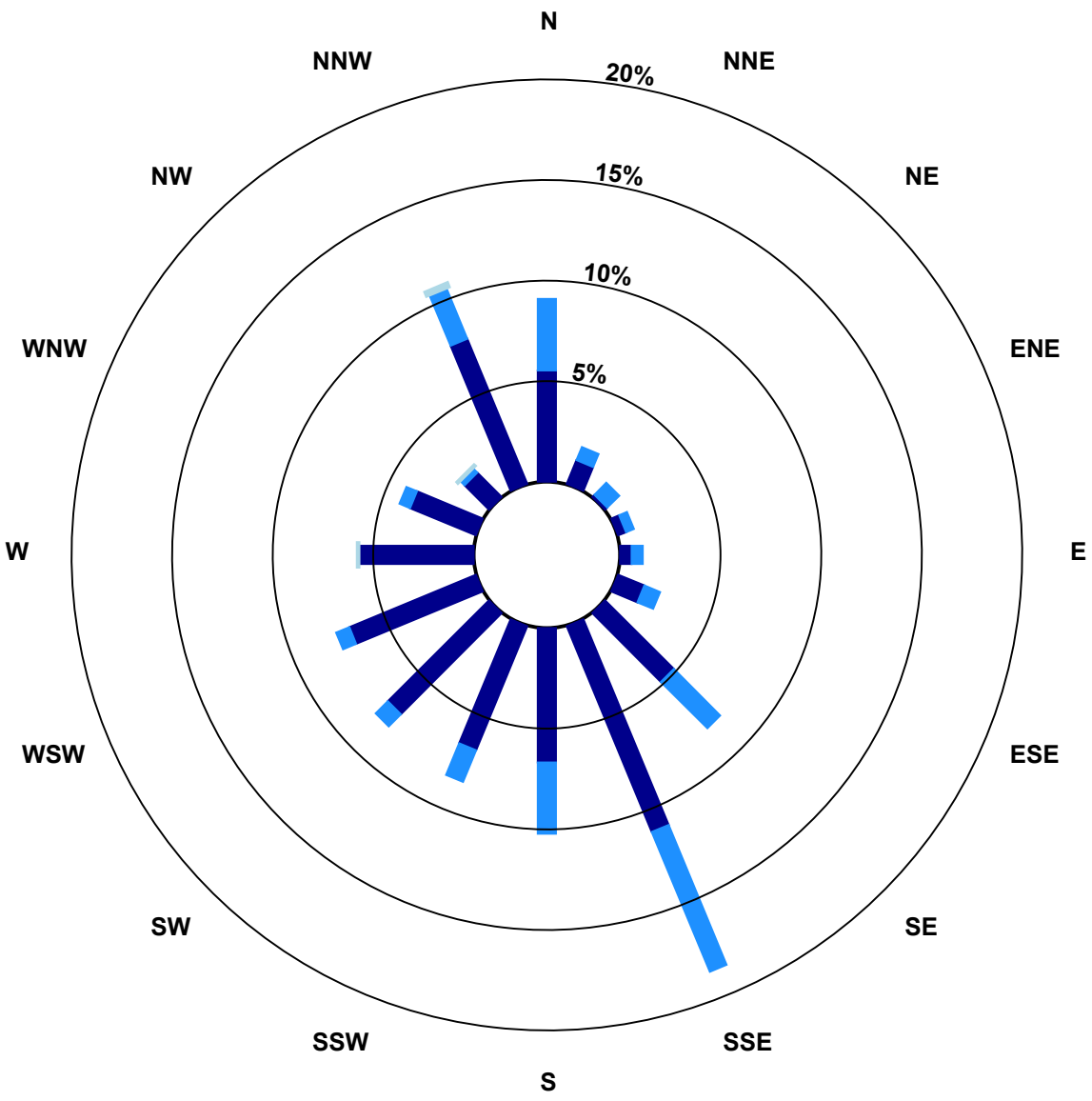
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Barge Landing



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

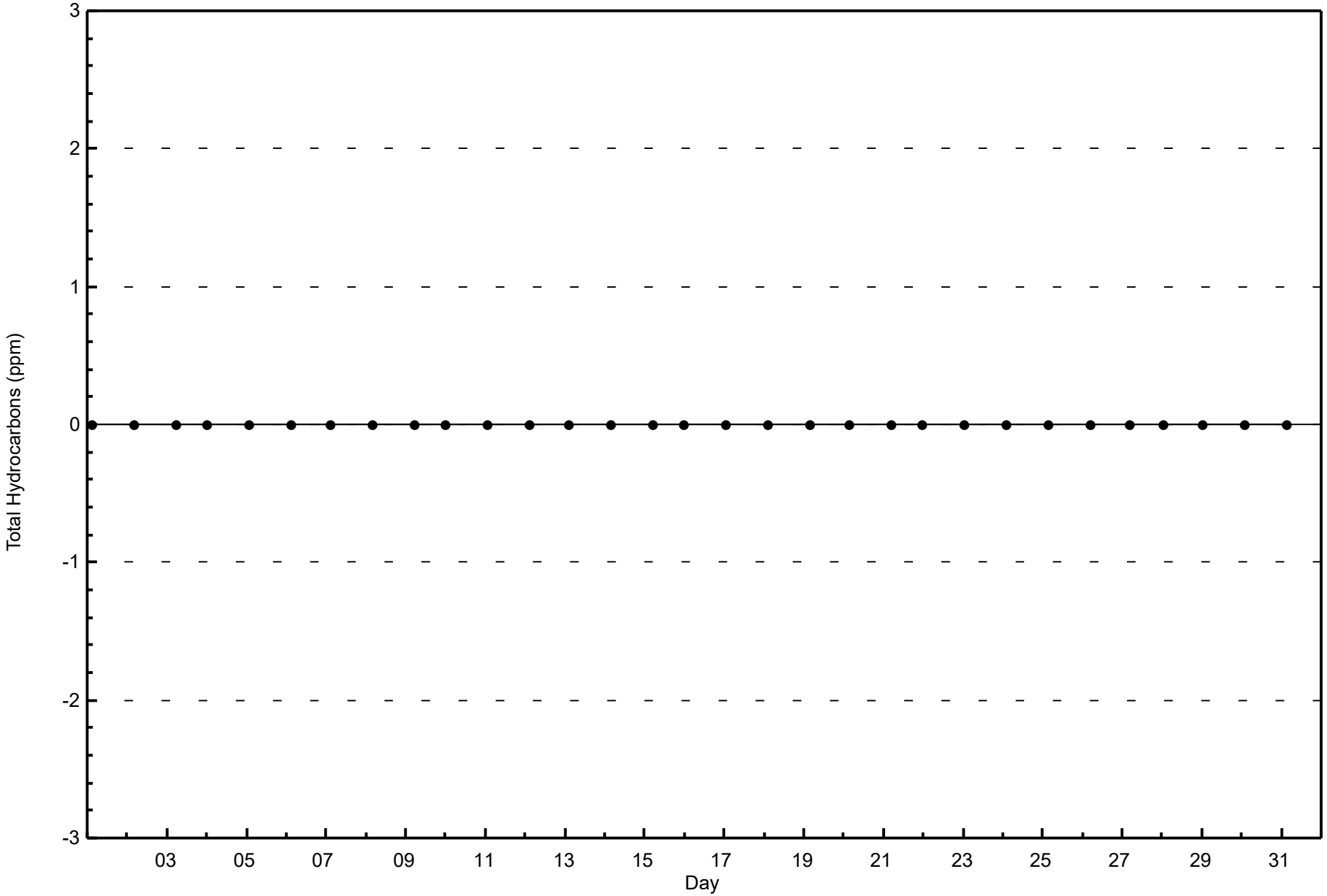
Total Number of Valid Hours: 704

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Barge Landing - October 2025

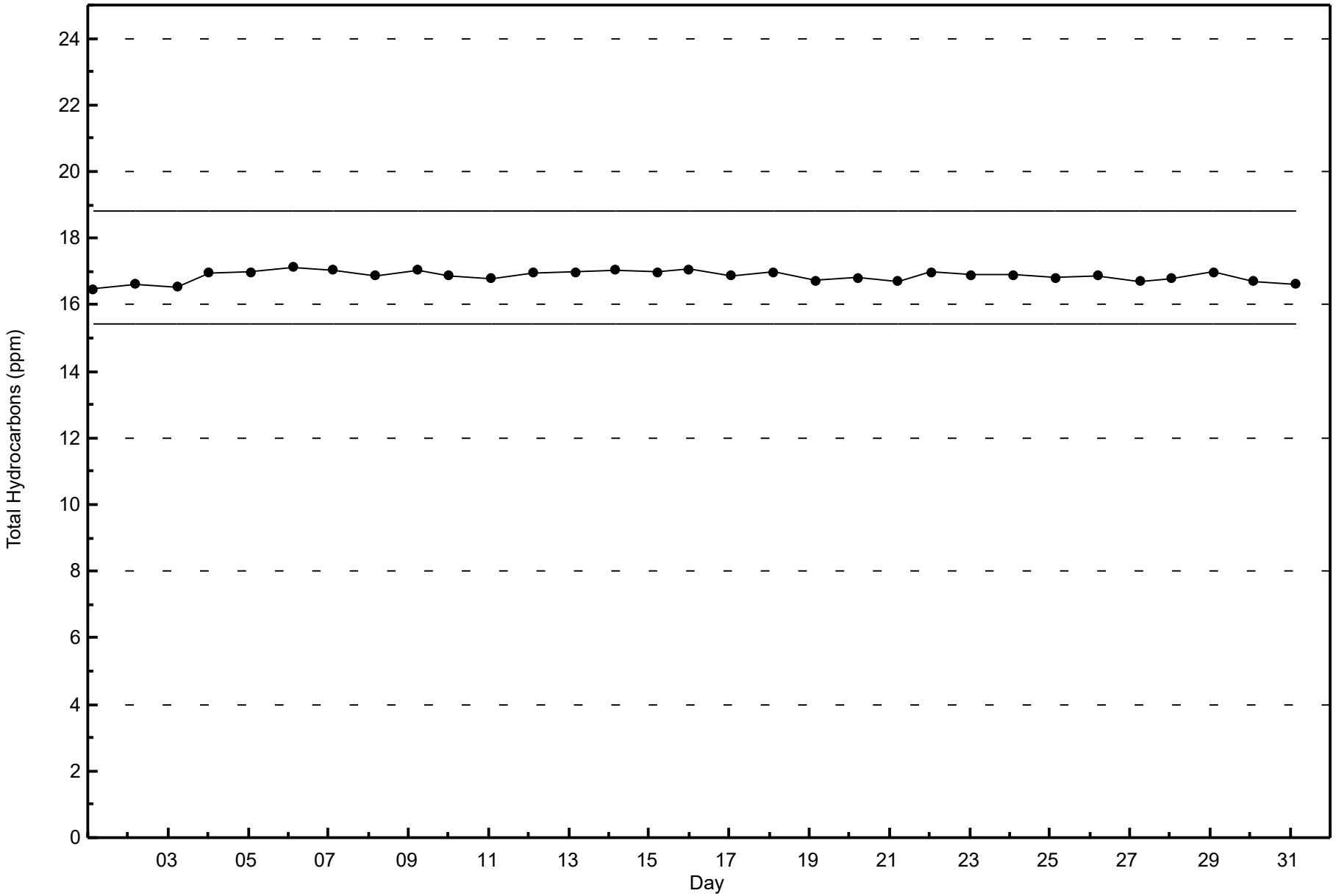


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Barge Landing - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

Barge Landing - October 2025

Maximum Value: 0.332 ppm on Oct 19 23:00

Maximum Daily Average: 0.087 ppm on Oct 19

Minimum Value: 0.000 ppm on Oct 1 02:00

Minimum Daily Average: 0.000 ppm on Oct 17

Maximum Diurnal Average: 0.023 ppm at hour 23

Minimum Diurnal Average: 0.008 ppm at hour 5

Monthly Average: 0.015 ppm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.1 P_{99} = 0.2

Hours in Service:	744
Hours of Data:	704
Hours of Missing Data:	40
Hours of Calibration:	35
Percent Operational Time:	99.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.066	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.046	0.006	0.023	0.000	0.000	0.000	0.006	0.066
2-Oct	0.000	0.000	0.000	0.000	Z	0.032	0.012	0.021	0.047	0.078	0.039	0.038	0.049	0.002	0.000	0.001	0.000	0.000	0.000	0.037	0.076	0.029	0.000	0.000	0.020	0.078
3-Oct	0.000	0.000	0.002	0.000	0.001	Z	0.000	0.031	0.041	C	C	C	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.041
4-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.034
5-Oct	0.000	Z	0.000	0.000	0.000	0.001	0.000	0.000	0.054	0.034	0.044	0.108	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.108
6-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.041	0.000	0.000	0.000	0.000	0.015	0.043	0.028	0.000	0.054	0.027	0.003	0.022	0.061	0.013	0.061
7-Oct	0.050	0.004	0.000	Z	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.018	0.000	0.000	0.023	0.025	0.022	0.030	0.088	0.011	0.088
8-Oct	0.102	0.095	0.056	0.048	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.013	0.102
9-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.075	0.149	0.117	0.098	0.019	0.149
10-Oct	Z	0.021	0.044	0.021	0.024	0.048	0.013	0.014	0.022	0.003	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.082	0.030	0.000	0.000	0.000	0.000	0.000	0.014	0.082
11-Oct	0.002	Z	0.003	0.002	0.031	0.210	0.129	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.210
12-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.016	0.000	0.021	0.021	0.034	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.034
13-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.023	0.049	0.023	0.091	0.000	0.000	0.000	0.000	0.008	0.091
14-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.030	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.042	0.000	0.000	0.000	0.020	0.075	0.016	0.009	0.075
15-Oct	0.010	0.026	0.032	0.001	0.001	Z	0.001	0.000	0.001	0.000	0.002	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.028	0.025	0.032	0.001	0.000	0.000	0.008	0.034
16-Oct	Z	0.022	0.000	0.000	0.000	0.000	0.011	0.047	0.054	0.065	0.078	0.035	0.009	0.000	0.000	0.000	0.001	0.011	0.032	0.054	0.063	0.046	0.000	0.000	0.023	0.078
17-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.008	0.000	0.008
19-Oct	0.013	0.000	0.000	Z	0.000	0.000	0.006	0.032	0.110	0.009	0.000	0.000	0.000	0.000	0.012	0.293	0.301	0.213	0.186	0.124	0.075	0.273	0.332	0.020	0.087	0.332
20-Oct	0.019	0.073	0.043	0.000	Z	0.000	0.000	0.000	0.125	0.053	0.000	M	M	0.041	0.054	0.048	0.001	0.000	0.030	0.059	0.008	0.000	0.000	0.000	0.026	0.125
21-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.095	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.095
22-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.039	0.030	0.002	0.000	0.000	0.029	0.042	0.001	0.000	0.000	0.000	0.000	0.000	0.006	0.042
23-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.011	0.083	0.047	0.023	0.000	0.005	0.003	0.003	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.032	0.030	0.011	0.083
24-Oct	0.000	0.011	Z	0.042	0.049	0.048	0.046	0.021	0.004	M	M	M	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.049
25-Oct	0.000	0.007	0.042	Z	0.038	0.069	0.105	0.064	0.050	0.057	0.040	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.016	0.035	0.056	0.025	0.105
26-Oct	0.094	0.076	0.056	0.039	Z	0.038	0.045	0.042	0.086	0.057	0.064	0.050	0.007	0.092	0.120	0.034	0.000	0.178	0.125	0.070	0.103	0.080	0.042	0.017	0.066	0.178
27-Oct	0.016	0.012	0.011	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.016
28-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.019	0.000	0.001	0.019
29-Oct	0.000	Z	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.002	0.048	0.140	0.191	0.081	0.090	0.006	0.000	0.000	0.092	0.000	0.001	0.000	0.000	0.000	0.028	0.191
30-Oct	0.001	0.000	Z	0.130	0.067	0.088	0.052	0.055	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.130
31-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.015	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.001	0.000	0.002	0.000	0.022	0.019	0.002	0.003	0.022
	0.014	0.013	0.011	0.011	0.008	0.021	0.015	0.013	0.022	0.015	0.014	0.017	0.010	0.008	0.009	0.013	0.017	0.021	0.019	0.018	0.016	0.021	0.023	0.013	Diurnal Average	
	0.102	0.095	0.056	0.130	0.067	0.210	0.129	0.064	0.125	0.078	0.078	0.140	0.191	0.092	0.120	0.293	0.301	0.213	0.186	0.124	0.103	0.273	0.332	0.098	Diurnal Maximum	

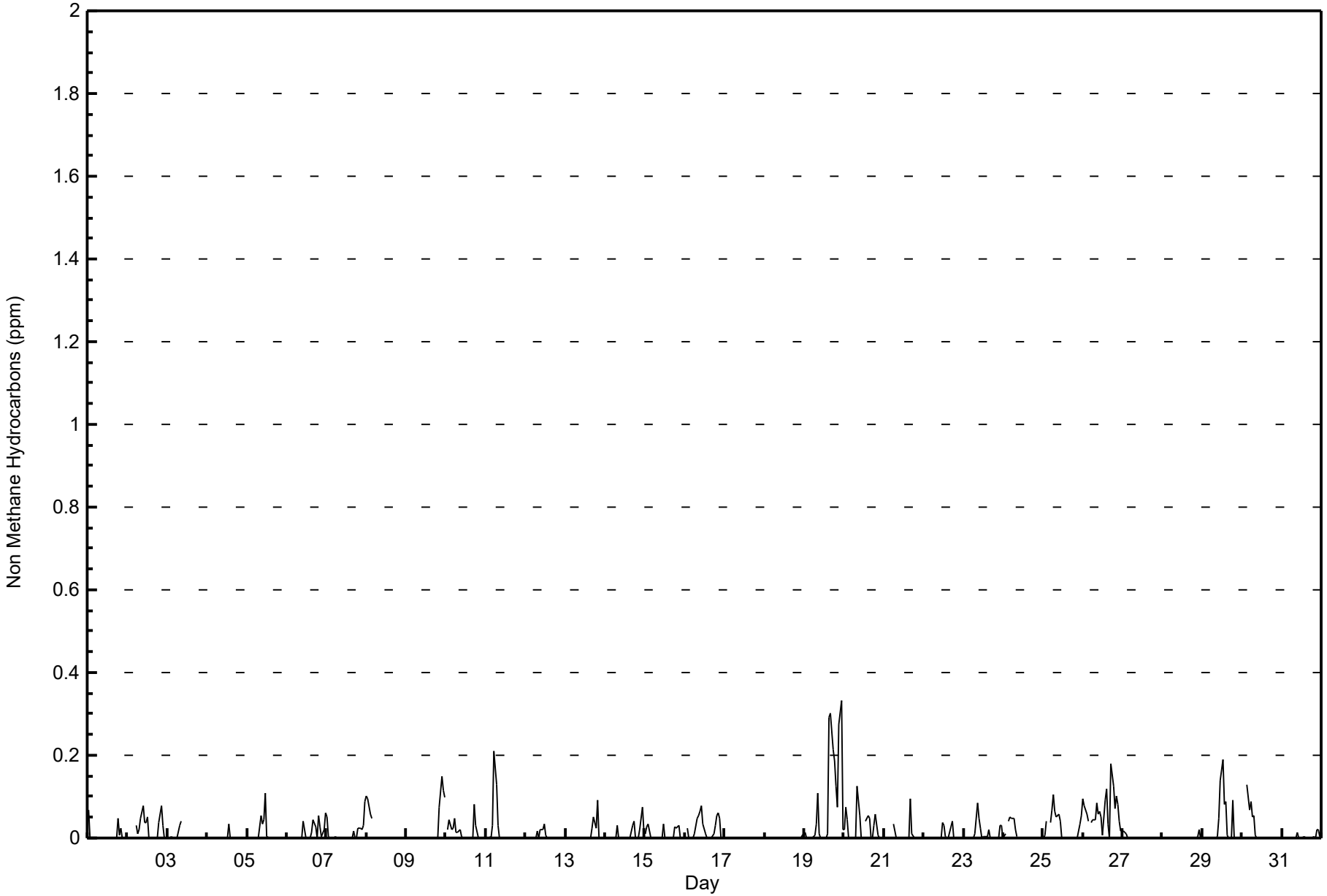
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm

Barge Landing - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Barge Landing - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	509	72.30	72.30
0.006 - 0.05	134	19.03	91.34
0.06 - 0.1	52	7.39	98.72
> 0.1	9	1.28	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Barge Landing - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.005	23	5	1	5	7	11	33	84	44	53	53	49	40	27	12	62	509
0.006 - 0.05	21	5	5	1	1	5	16	36	25	6	1	3	0	1	2	6	134
0.06 - 0.1	13	3	1	0	0	0	8	11	3	0	2	1	1	1	1	7	52
> 0.1	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9
Totals	64	14	7	6	8	16	57	131	72	59	56	53	41	29	15	76	704

Total Number of Valid Hours: 704

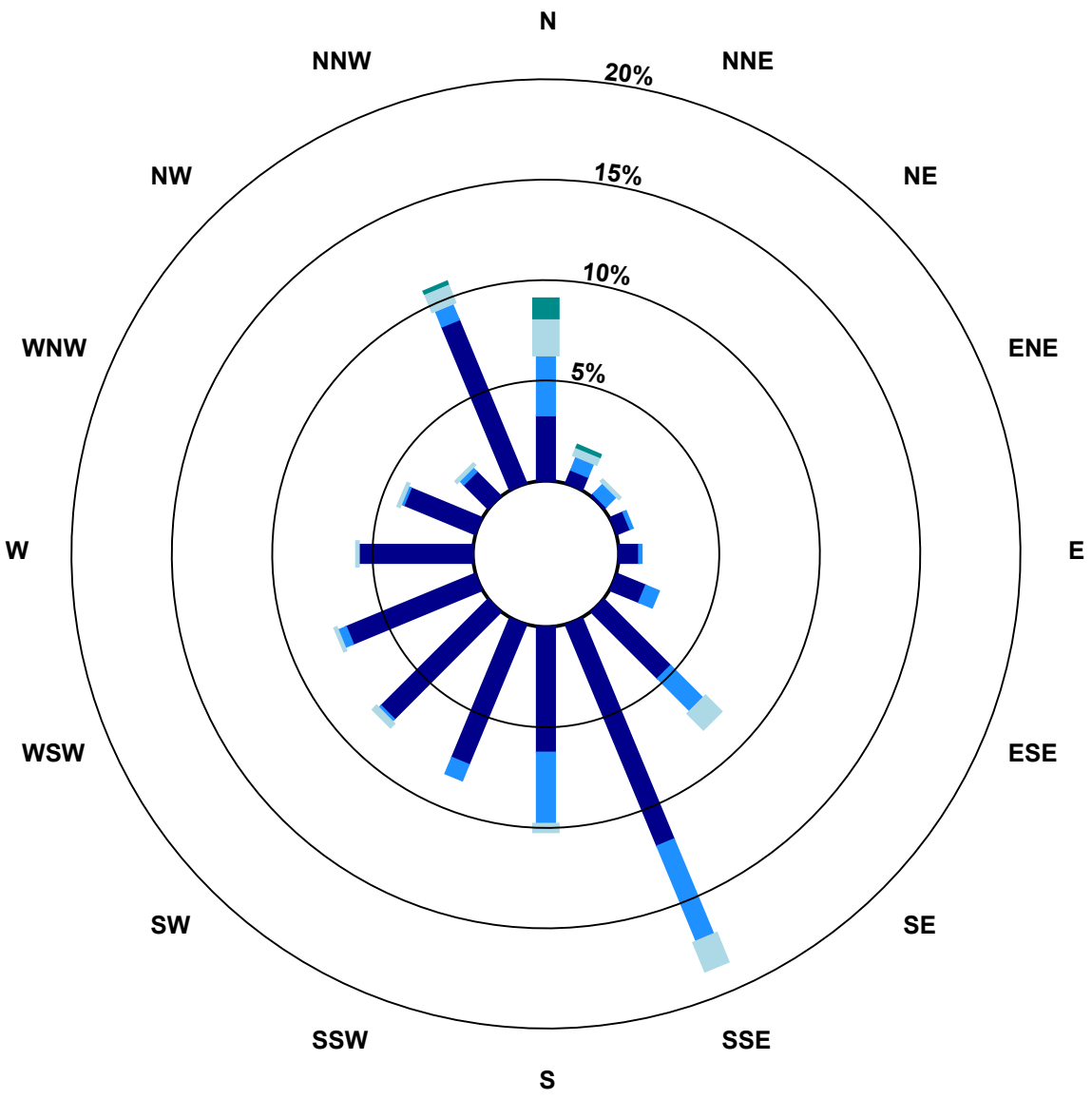
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Non Methane Hydrocarbons (NMHC) - ppm

Barge Landing



Classes (ppm)

0 - 0.005

0.006 - 0.05

0.06 - 0.1

> 0.1

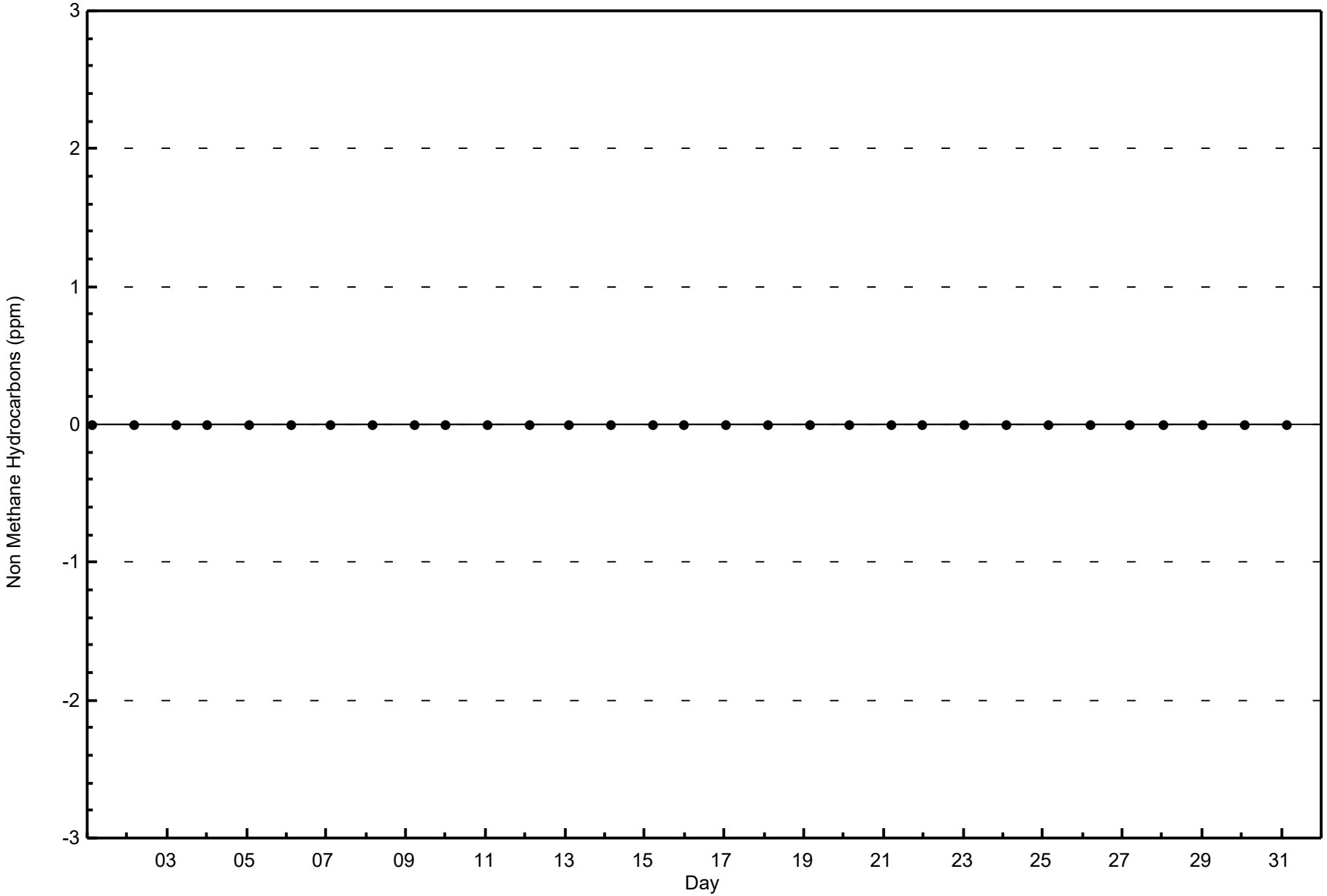
Total Number of Valid Hours: 704

Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Barge Landing - October 2025

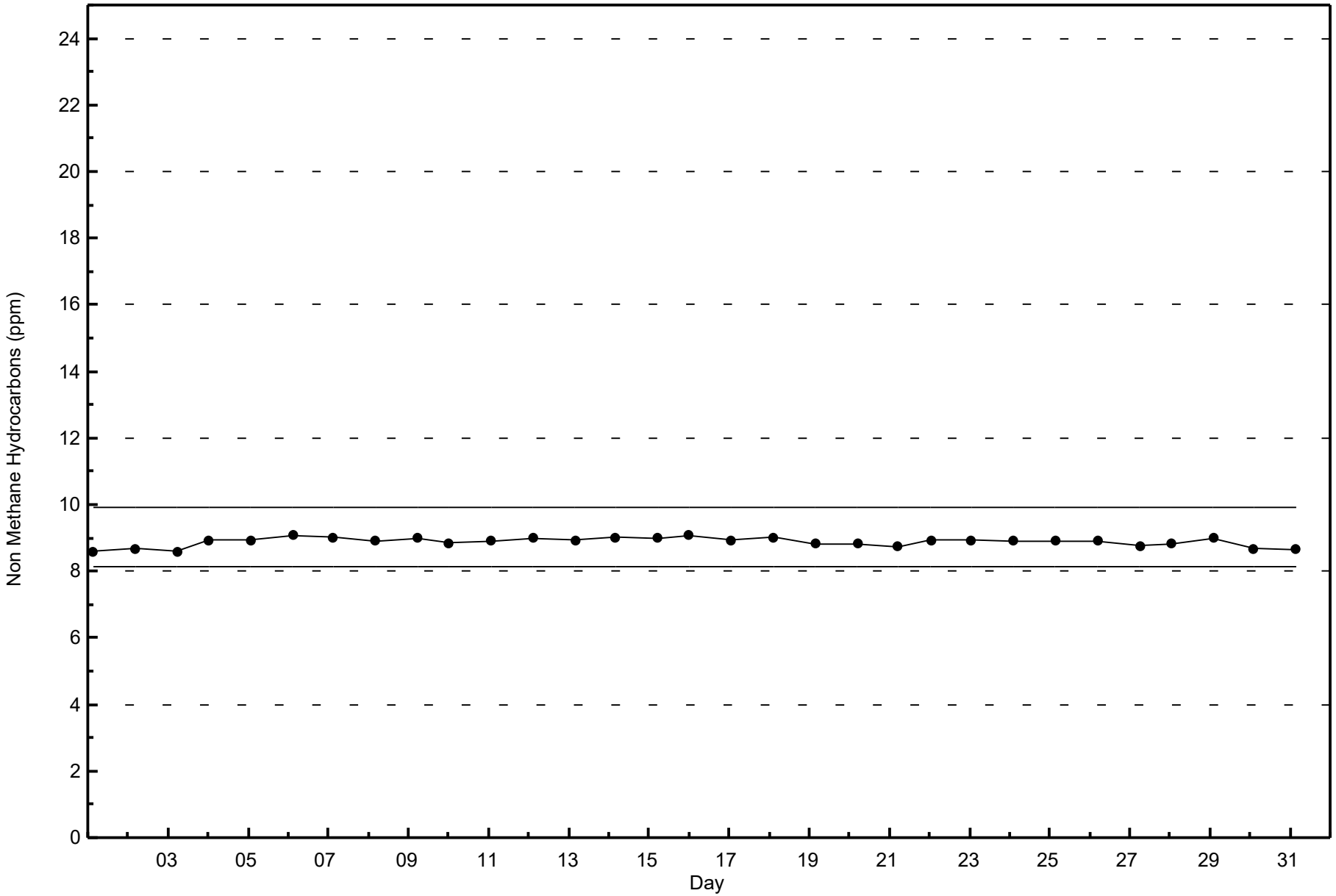


Wood Buffalo Environmental Association

Span Responses

Non Methane Hydrocarbons (NMHC) - ppm

Barge Landing - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH_4) - ppm

Barge Landing - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 3.9 ppm on Oct 8 01:00 Maximum Daily Average: 2.2 ppm on Oct 26

Minimum Value: 1.9 ppm on Oct 27 11:00 Minimum Daily Average: 1.9 ppm on Oct 27

Maximum Diurnal Average: 2.1 ppm at hour 1 Minimum Diurnal Average: 1.9 ppm at hour 16

Monthly Average: 2.02 ppm Percentiles: P_1 = 1.9 P_{10} = 1.9 Q_1 = 1.9 Median = 2.0 Q_3 = 2.0 P_{90} = 2.2 P_{99} = 2.8

Hours in Service:	744
Hours of Data:	704
Hours of Missing Data:	40
Hours of Calibration:	35
Percent Operational Time:	99.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.1	2.1	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.2	2.1	2.0	2.0	2.0	2.2
2-Oct	2.1	2.0	2.0	2.0	Z	2.0	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.3
3-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.1	2.1	C	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1
4-Oct	Z	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.1	2.0	1.9	2.0	2.2
5-Oct	1.9	Z	1.9	2.0	2.0	2.0	2.0	2.1	2.3	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.3
6-Oct	2.0	2.0	Z	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
7-Oct	2.0	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.2	2.3	2.3	2.4	3.4	2.1	3.4
8-Oct	3.9	3.5	3.4	2.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	3.9
9-Oct	1.9	1.9	1.9	1.9	1.9	Z	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.5	2.7	2.5	2.2	2.0	2.7
10-Oct	Z	2.1	2.1	2.2	2.2	2.2	2.1	2.3	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.4	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.4
11-Oct	2.1	Z	2.1	2.2	2.5	2.8	2.2	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.8
12-Oct	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0
13-Oct	2.0	2.0	1.9	Z	1.9	1.9	1.9	2.1	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	1.9	1.9	2.0	2.0	2.0	2.1
14-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.1
15-Oct	2.1	2.1	2.1	2.1	2.0	Z	2.0	2.1	2.1	2.1	2.0	2.1	2.0	2.0	1.9	1.9	1.9	2.0	2.1	2.2	2.2	2.1	2.1	2.1	2.0	2.2
16-Oct	Z	2.2	2.0	2.0	2.1	2.0	2.1	2.2	2.3	2.3	2.1	2.1	2.1	2.0	1.9	1.9	2.0	2.1	2.2	2.2	2.2	2.2	2.0	2.0	2.1	2.3
17-Oct	2.1	Z	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1
18-Oct	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	2.3	2.2	2.2	2.0	2.3
19-Oct	2.2	2.1	2.1	Z	2.1	2.2	2.3	2.3	2.6	2.4	2.2	2.2	2.3	2.3	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.6
20-Oct	2.0	2.0	1.9	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.0	M	M	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1
21-Oct	2.0	2.0	2.0	2.0	2.1	Z	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.1	2.0	2.1	2.2	2.1	2.1	2.1	2.0	2.2
22-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.4	2.8	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.8
23-Oct	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.1
24-Oct	1.9	2.0	Z	2.2	2.2	2.2	2.2	2.1	2.1	M	M	M	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2
25-Oct	2.0	2.2	2.3	Z	2.6	2.6	2.6	2.5	2.4	2.4	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.2	2.2	2.6
26-Oct	2.3	2.2	2.2	2.1	Z	2.1	2.1	2.2	2.3	2.8	2.9	2.6	2.3	2.1	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.2	2.9
27-Oct	1.9	1.9	1.9	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
28-Oct	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0
29-Oct	2.0	Z	2.0	2.0	1.9	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.1
30-Oct	2.0	2.0	Z	2.2	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.2
31-Oct	1.9	1.9	1.9	Z	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	2.0
	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	Diurnal Average	
	3.9	3.5	3.4	2.9	2.6	2.8	2.6	2.5	2.6	2.8	2.9	2.6	2.3	2.3	2.2	2.1	2.4	2.8	2.2	2.2	2.5	2.7	2.5	3.4	Diurnal Maximum	

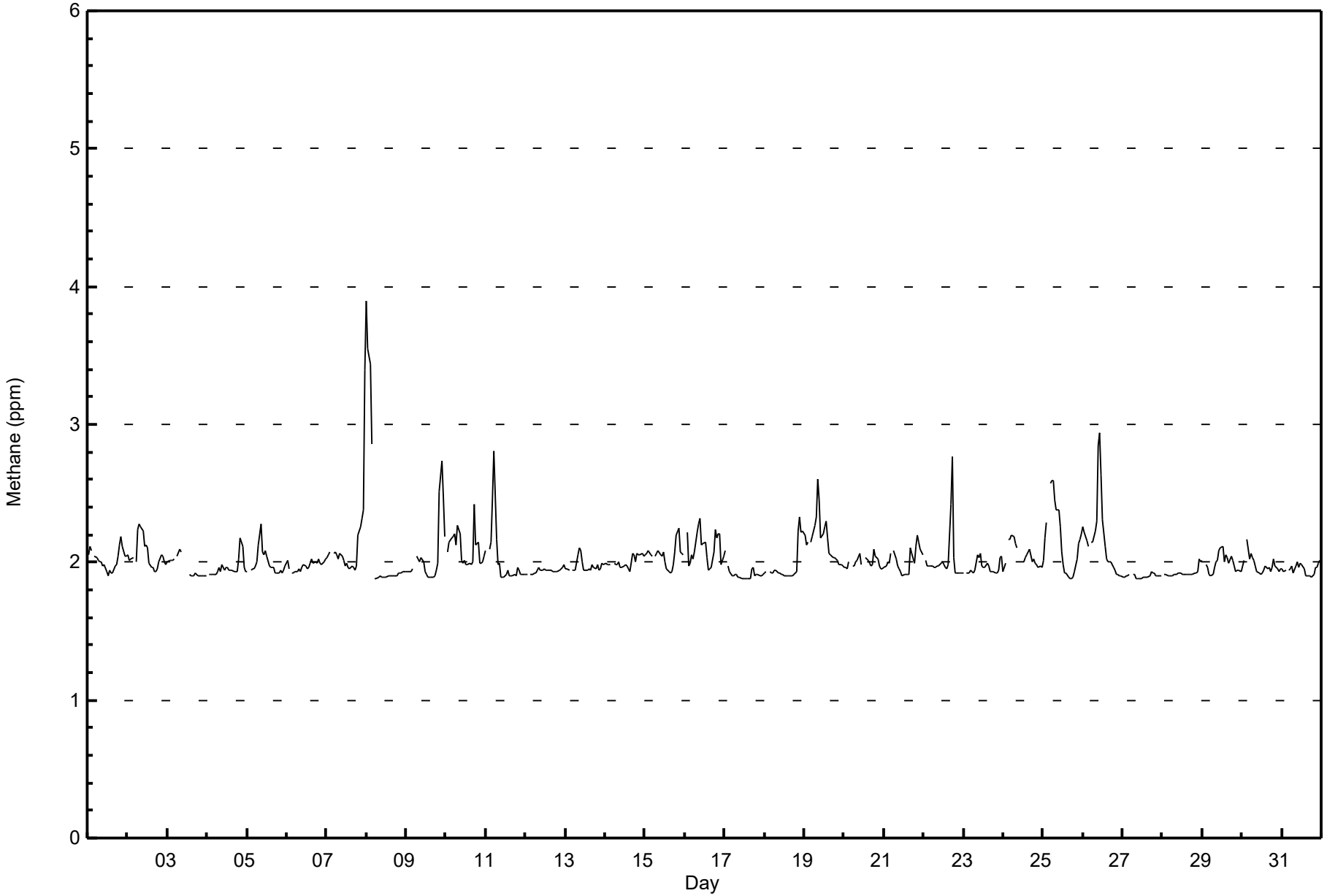
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Methane (CH_4) - ppm

Barge Landing - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	531	75.43	75.43
2.1 - 3.0	169	24.01	99.43
3.1 - 10.0	4	0.57	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Methane (CH_4) - ppm

Barge Landing - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	50	9	1	4	4	10	41	84	48	48	50	48	40	25	12	57	531
2.1 - 3.0	14	5	6	2	4	6	16	47	24	11	6	5	0	4	2	17	169
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	4
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	64	14	7	6	8	16	57	131	72	59	56	53	41	29	15	76	704

Total Number of Valid Hours: 704

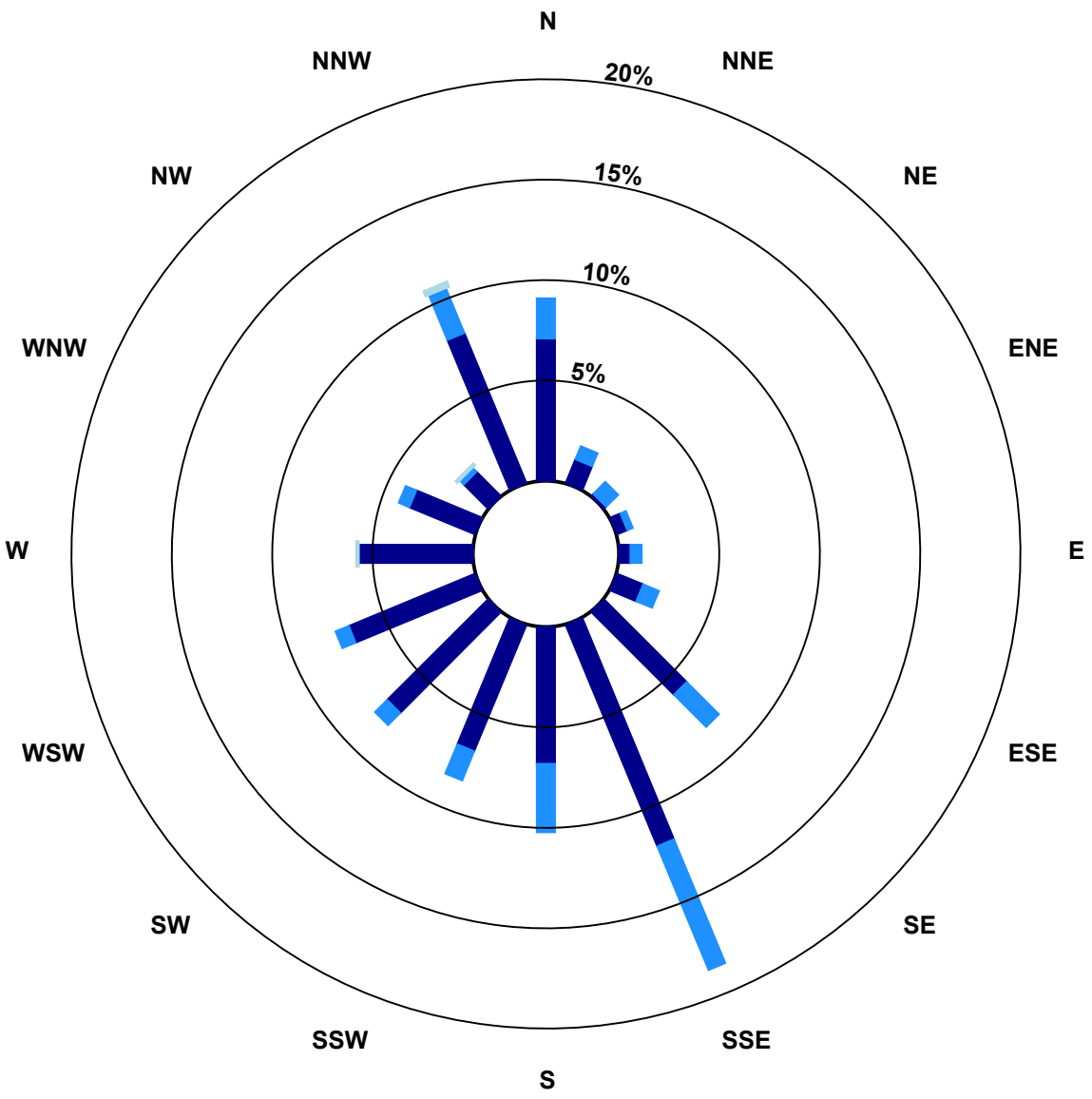
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Methane (CH_4) - ppm

Barge Landing



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

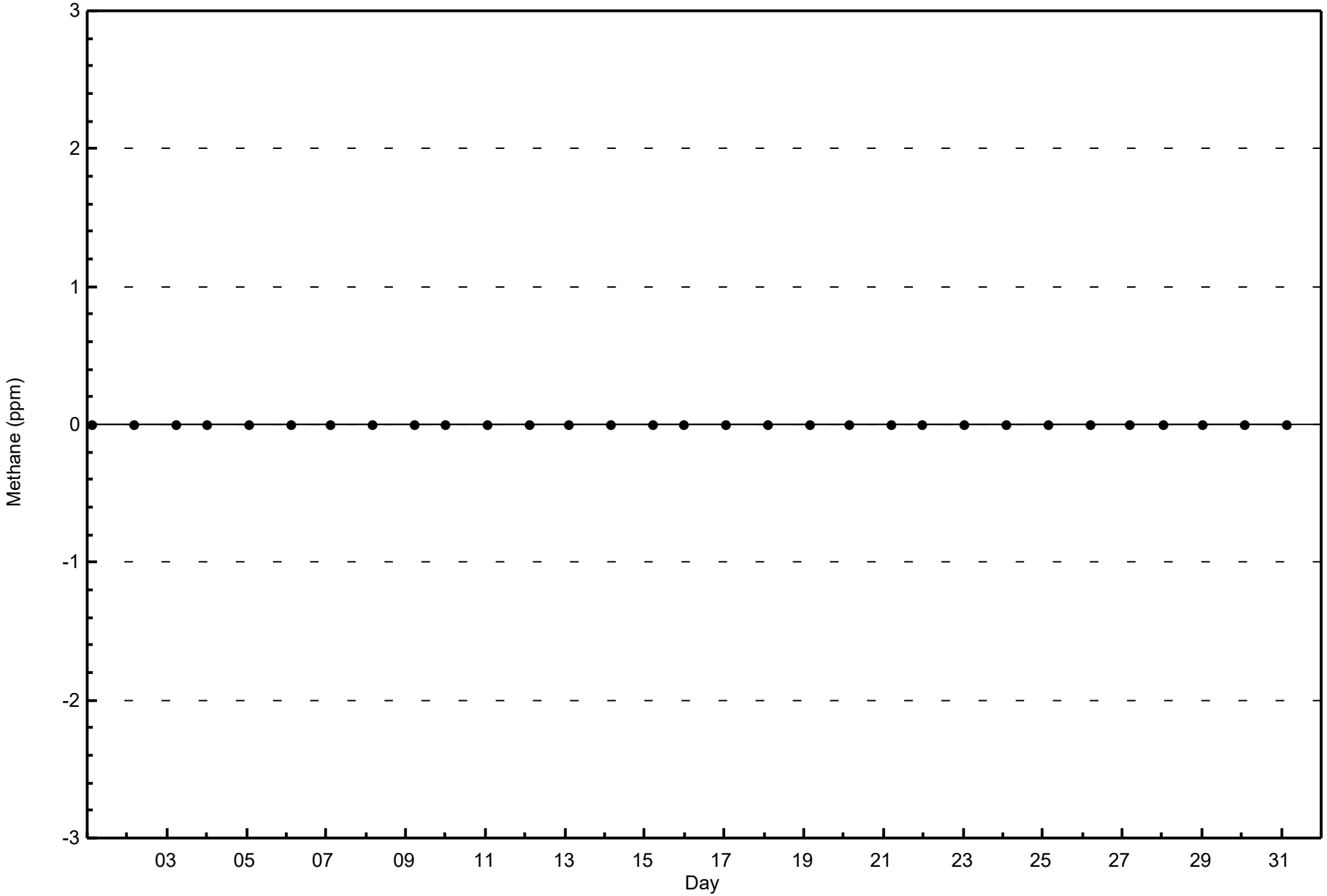
Total Number of Valid Hours: 704

Wood Buffalo Environmental Association

Zero Responses

Methane (CH_4) - ppm

Barge Landing - October 2025

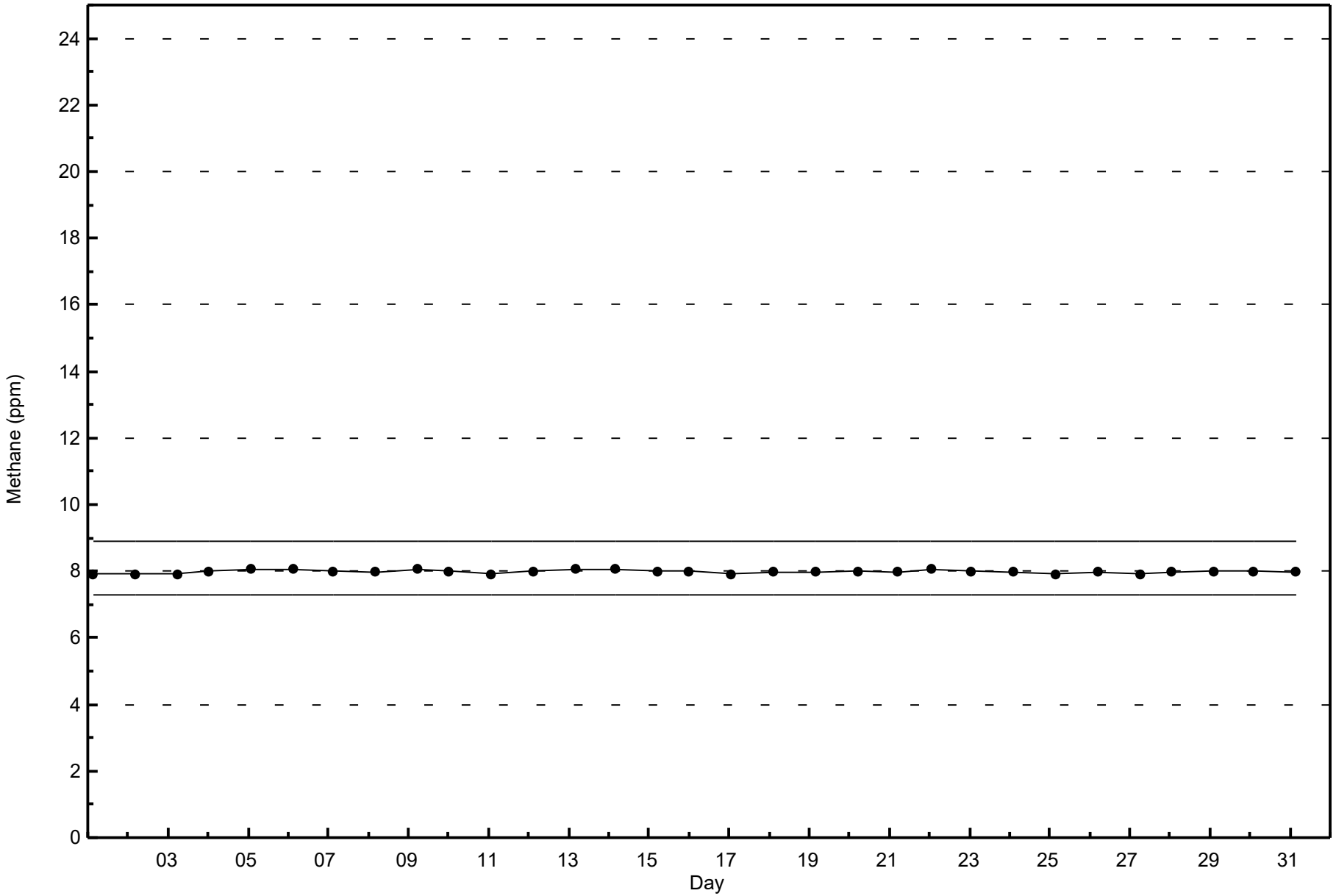


Wood Buffalo Environmental Association

Span Responses

Methane (CH_4) - ppm

Barge Landing - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Barge Landing - October 2025

Maximum Value: 109.4 ppb on Oct 22 08:00

Maximum Daily Average: 16.4 ppb on Oct 22

Minimum Value: 0.0 ppb on Oct 3 17:00

Minimum Daily Average: 0.0 ppb on Oct 27

Maximum Diurnal Average: 12.0 ppb at hour 7

Minimum Diurnal Average: 0.7 ppb at hour 3

Monthly Average: 4.31 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.4 Q_3 = 3.4 P_{90} = 11.4 P_{99} = 51.8

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.9	Z	0.1	0.2	0.0	0.3	0.1	0.1	0.3	0.7	0.6	0.4	0.2	0.7	0.3	0.4	1.4	1.6	5.4	1.6	5.3	5.8	1.5	1.0	1.3	5.8
2-Oct	1.5	0.3	Z	2.6	16.9	35.3	28.7	13.4	11.4	11.8	11.7	14.4	7.1	3.3	1.5	0.2	0.4	1.5	4.9	2.2	2.6	0.8	0.6	0.1	7.5	35.3
3-Oct	0.7	0.6	0.7	Z	7.7	24.6	27.2	9.0	3.8	1.8	0.9	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	27.2
4-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.2	0.2	1.5	0.4	0.8	0.5	1.7	0.6	0.3	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.0	0.3	1.7
5-Oct	0.0	0.0	0.0	0.0	0.5	Z	3.3	5.2	7.8	3.0	3.2	2.8	2.9	0.4	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.3	7.8
6-Oct	Z	0.0	0.1	0.0	0.0	0.0	0.1	0.4	0.4	3.3	3.8	3.3	1.6	1.6	1.9	1.7	2.4	1.7	3.1	0.6	0.6	0.3	0.3	0.3	1.2	3.8
7-Oct	0.3	Z	0.8	0.2	0.1	2.4	2.0	6.3	3.2	2.5	2.7	2.0	2.7	3.0	2.0	2.0	1.9	1.9	3.3	6.6	8.4	13.8	9.5	50.3	5.6	50.3
8-Oct	59.6	44.8	Z	20.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	59.6
9-Oct	0.0	0.0	0.0	Z	0.1	0.2	8.1	9.3	3.8	6.7	4.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	3.3	2.4	0.8	0.5	0.4	1.7	9.3
10-Oct	0.4	0.4	2.1	9.7	Z	29.8	37.9	51.1	14.3	3.7	2.6	5.2	4.1	1.7	1.0	0.6	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.2	7.2	51.1
11-Oct	0.4	0.2	0.1	3.1	6.2	Z	0.8	0.9	2.8	0.1	0.4	0.2	0.1	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	6.2
12-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.6	0.9	1.6	3.2	1.0	0.7	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	3.2
13-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	2.4	5.9	4.8	1.6	0.1	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.7	5.9
14-Oct	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.7	0.5	0.7	0.6	0.9	0.6	0.9	0.4	0.1	0.2	1.0	1.7	1.2	0.7	0.9	0.5	1.0	0.6	1.7
15-Oct	0.3	0.7	0.7	Z	1.2	2.7	9.4	8.4	5.7	5.2	4.1	2.3	1.3	0.2	0.1	0.1	0.1	3.8	6.9	7.0	4.1	1.0	1.4	0.7	2.9	9.4
16-Oct	4.9	4.5	0.0	0.1	Z	19.3	11.4	22.9	12.2	8.0	5.6	9.4	9.2	2.9	1.1	0.8	6.0	1.0	0.1	0.1	0.1	0.0	0.0	0.0	5.2	22.9
17-Oct	0.1	0.1	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.3	0.1	0.0	6.5	0.1	0.0	0.0	0.0	0.3	6.5
18-Oct	Z	0.2	1.3	0.6	0.0	0.0	1.3	0.2	2.3	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	10.1	12.3	4.2	11.1	14.8	10.2	7.2	3.3	14.8
19-Oct	10.0	Z	4.6	6.1	1.9	4.1	22.9	14.5	52.7	48.3	25.3	25.9	34.6	33.9	18.4	12.3	13.9	11.0	12.8	9.3	7.2	1.4	0.6	0.3	16.2	52.7
20-Oct	0.2	0.1	Z	1.1	0.6	0.6	1.1	3.4	12.0	14.3	C	C	C	C	C	5.3	0.3	0.0	0.0	0.0	0.3	0.2	0.3	0.1	2.2	14.3
21-Oct	0.1	0.3	0.5	Z	0.8	1.5	1.8	0.4	3.5	0.9	0.4	0.1	0.1	0.1	0.3	0.2	7.9	3.9	2.4	10.6	23.8	27.8	17.8	17.5	5.3	27.8
22-Oct	11.5	6.3	0.4	3.8	Z	20.7	44.6	109.4	51.9	12.9	9.3	8.1	4.3	5.7	3.5	3.4	23.3	48.1	9.6	0.4	0.1	0.2	0.1	0.1	16.4	109.4
23-Oct	0.0	0.1	0.0	0.1	0.3	Z	1.5	1.6	1.7	7.0	9.1	5.7	4.8	3.9	4.0	3.6	1.3	0.6	0.4	0.1	0.1	0.2	0.6	0.2	2.0	9.1
24-Oct	Z	0.3	0.5	1.0	35.3	25.6	82.4	34.9	32.7	19.7	9.2	8.8	6.9	6.3	3.9	4.1	31.5	8.5	10.7	0.2	0.5	1.8	1.2	0.3	14.2	82.4
25-Oct	1.5	Z	2.5	5.2	11.6	28.8	43.1	16.8	8.2	9.1	3.5	0.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.7	0.3	0.2	5.8	43.1
26-Oct	0.2	2.1	Z	3.3	13.7	11.8	40.0	13.7	16.6	65.5	82.8	57.3	30.3	16.0	9.0	5.6	3.8	4.0	0.4	0.1	0.0	0.0	0.0	0.0	16.4	82.8
27-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28-Oct	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.3	0.1	0.7	0.3	0.1	0.8
29-Oct	0.2	0.3	0.1	0.5	0.4	Z	0.6	2.3	14.2	3.3	7.8	7.2	6.6	4.5	5.0	2.2	1.0	1.3	0.6	0.1	0.0	0.0	0.1	0.0	2.5	14.2
30-Oct	Z	0.3	4.2	6.3	0.3	1.4	4.0	0.6	0.3	0.1	0.0	0.2	0.1	1.4	0.9	0.3	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.9	6.3
31-Oct	0.0	Z	0.0	0.1	0.0	0.3	0.5	2.0	1.6	7.5	10.1	5.9	5.2	3.3	1.2	1.0	0.3	0.4	0.1	0.1	0.0	0.1	0.1	0.1	1.7	10.1
	3.6	2.5	0.7	2.5	3.8	8.1	12.0	10.7	8.8	7.9	6.7	5.5	4.2	3.1	1.9	1.4	3.1	3.3	2.4	1.8	2.2	2.3	1.5	2.6	Diurnal Average	
	59.6	44.8	4.6	20.5	35.3	35.3	82.4	109.4	52.7	65.5	82.8	57.3	34.6	33.9	18.4	12.3	31.5	48.1	12.8	10.6	23.8	27.8	17.8	50.3	Diurnal Maximum	

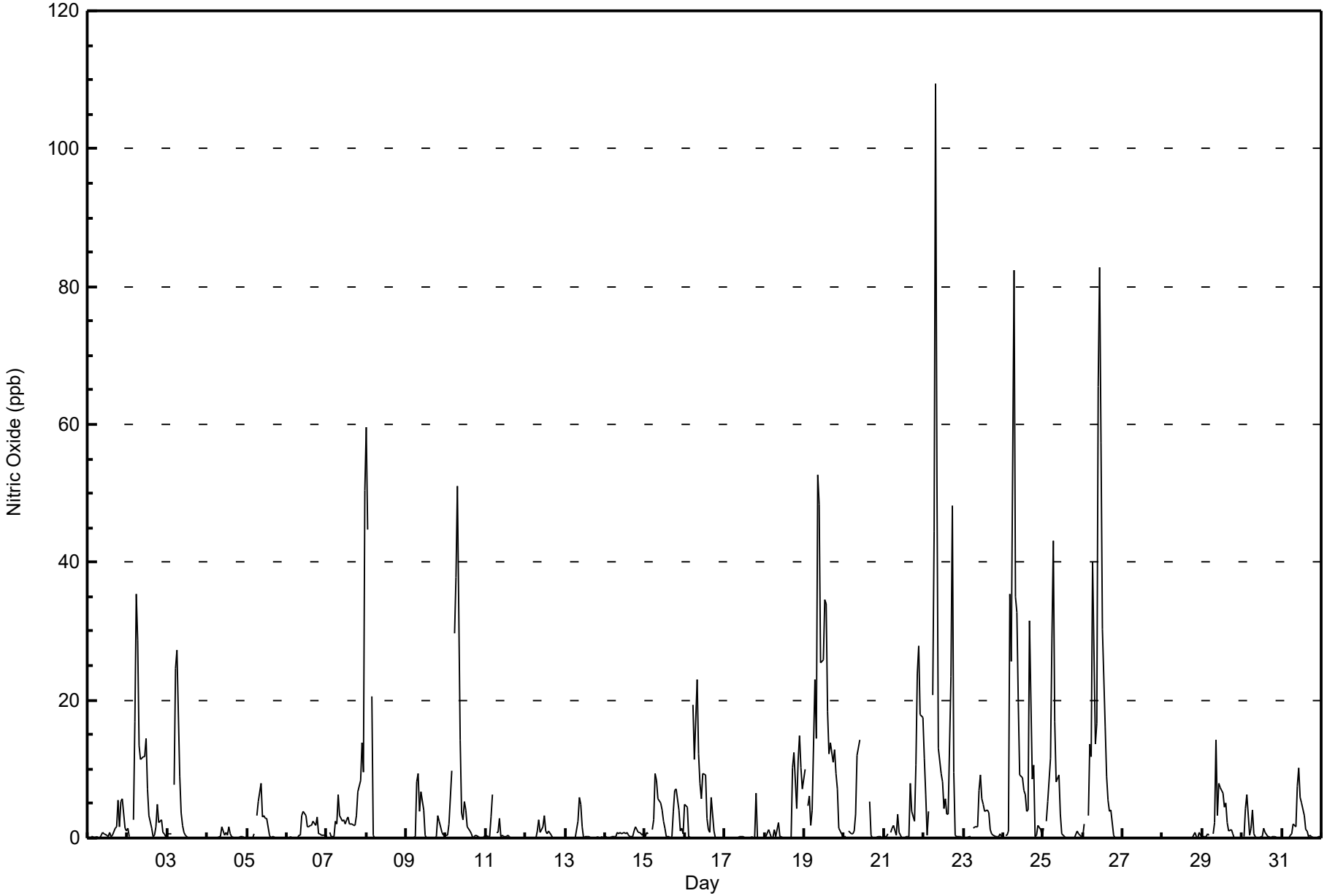
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Barge Landing - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	669	94.49	94.49
21 - 40	24	3.39	97.88
11 - 80	12	1.69	99.58
81 - 159	3	0.42	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Barge Landing - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	63	13	5	6	6	13	50	125	70	60	58	52	41	28	14	65	669
21 - 40	1	0	2	0	1	2	4	5	4	0	0	0	0	0	0	5	24
11 - 80	0	0	0	0	0	2	2	1	0	0	0	0	1	0	1	5	12
81 - 159	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	65	13	7	6	7	17	57	131	75	60	58	52	42	28	15	75	708

Total Number of Valid Hours: 708

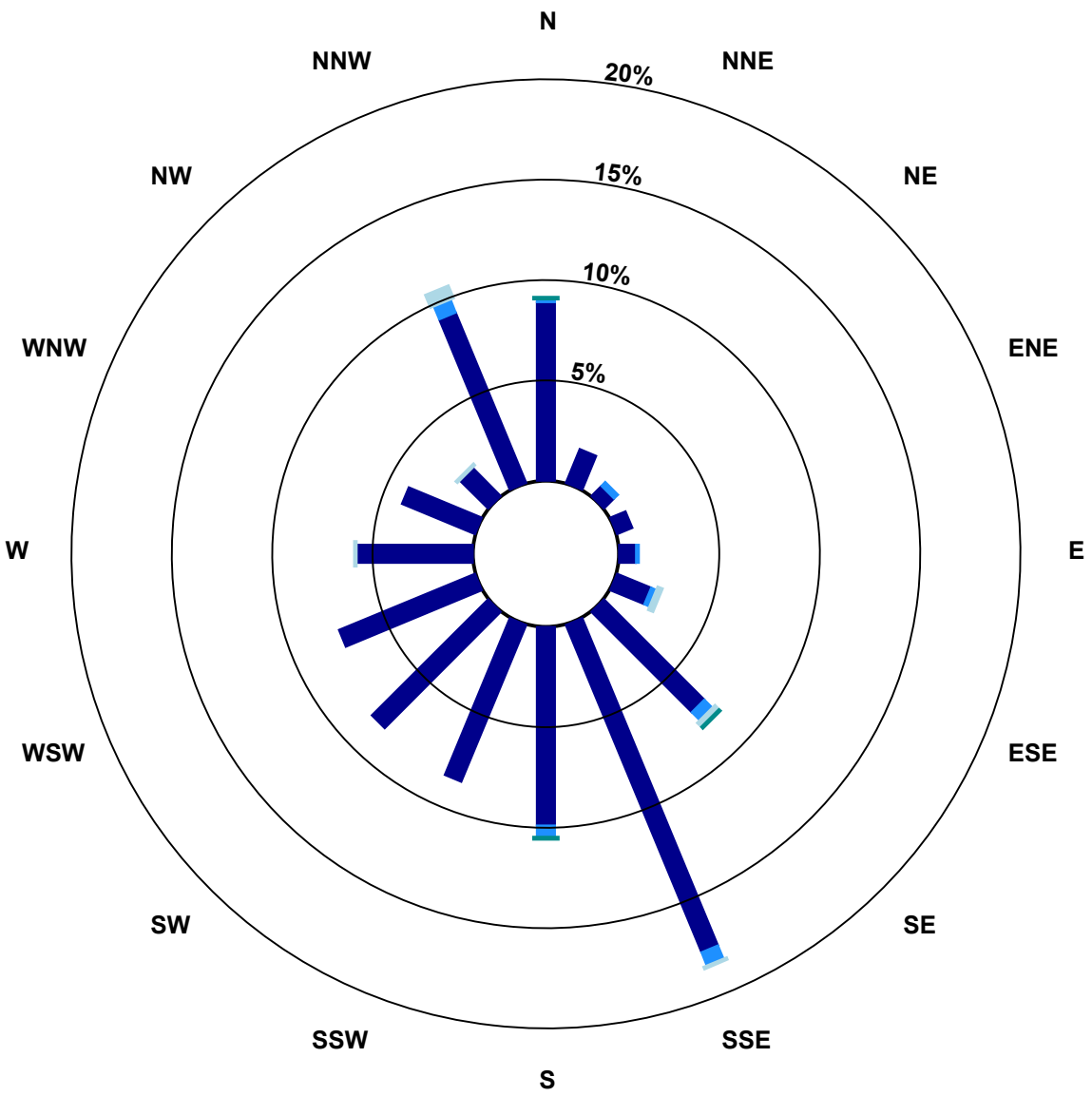
Total Number of Hours: 744

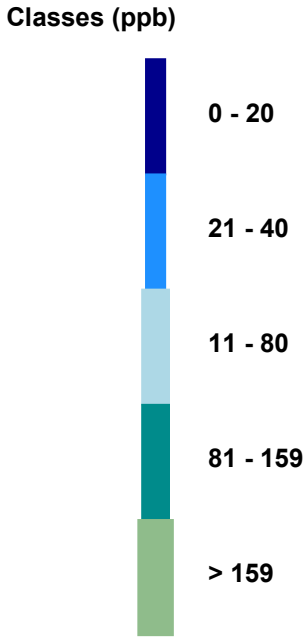
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Barge Landing





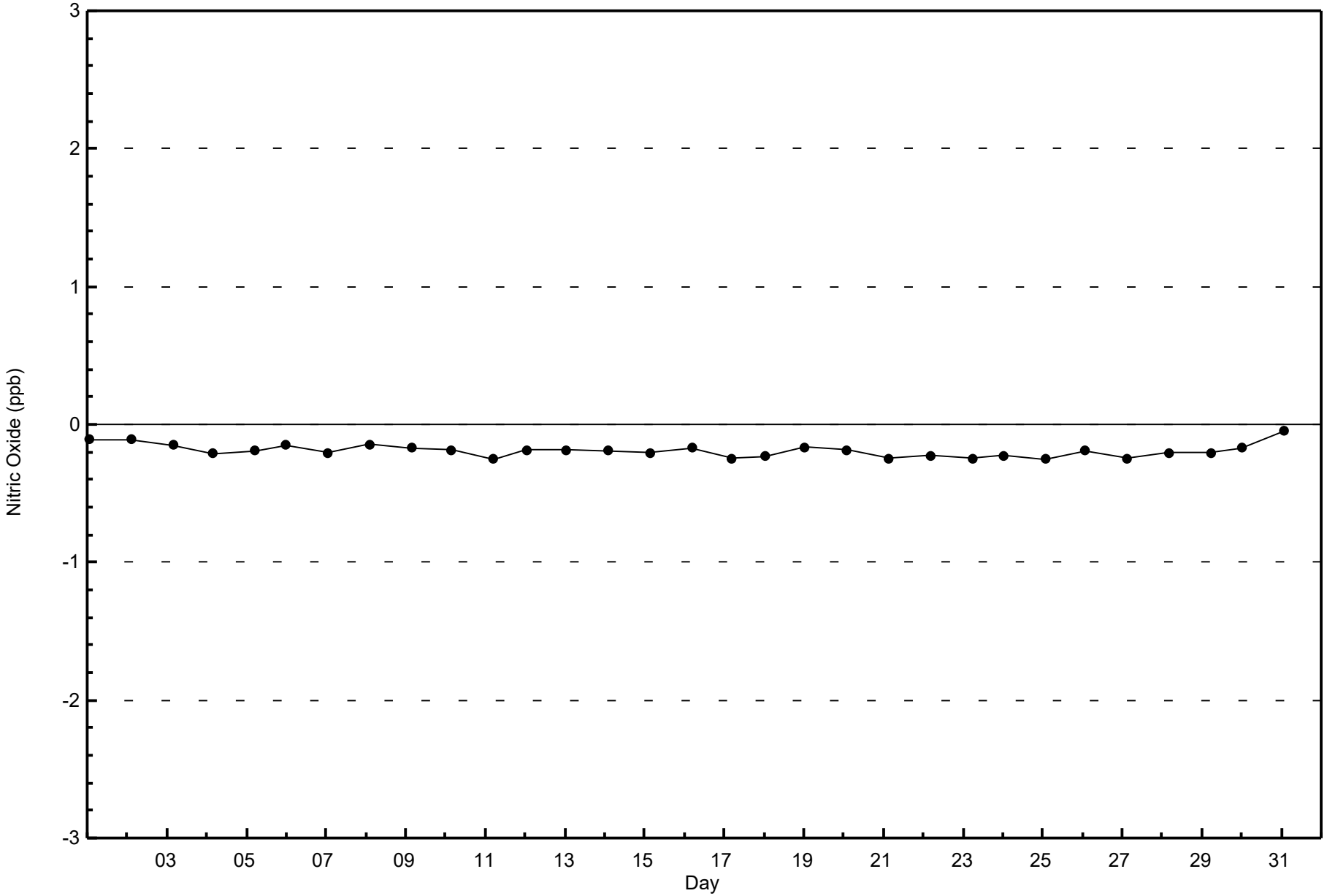
Total Number of Valid Hours: 708

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Barge Landing - October 2025

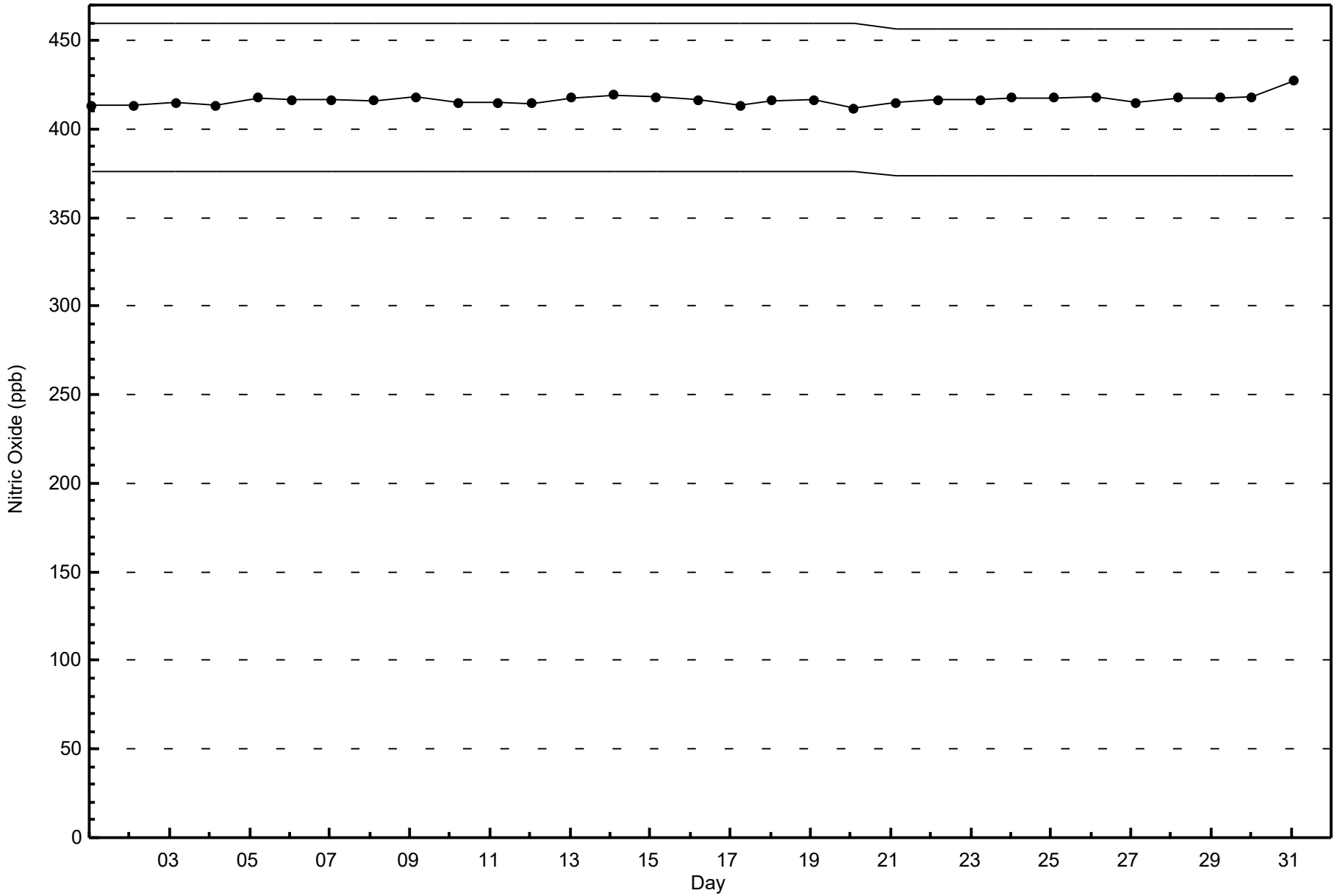


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Barge Landing - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Barge Landing - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 22.3 ppb on Oct 24 07:00
Maximum Daily Average: 13.8 ppb on Oct 24

Minimum Value: 0.1 ppb on Oct 4 00:00
Minimum Daily Average: 0.8 ppb on Oct 27
Maximum Diurnal Average: 8.1 ppb at hour 8
Minimum Diurnal Average: 3.9 ppb at hour 15
Monthly Average: 5.77 ppb
Percentiles: P_1 = 0.1 P_{10} = 0.2 Q_1 = 1.1 Median = 4.9 Q_3 = 9.2 P_{90} = 13.1 P_{99} = 18.4

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	16.1	Z	9.9	10.9	6.5	5.5	4.2	4.1	5.0	5.1	3.2	2.6	1.6	3.5	2.3	3.6	11.0	12.7	15.6	13.3	13.0	9.6	6.4	5.6	7.4	16.1
2-Oct	3.9	3.3	Z	2.6	3.4	5.0	4.8	3.0	4.1	5.8	6.8	6.7	7.5	8.2	5.7	2.0	3.1	6.2	6.5	8.9	12.7	8.1	8.5	6.2	5.8	12.7
3-Oct	8.1	9.7	9.1	Z	6.5	6.6	9.0	8.3	5.9	3.0	1.9	1.6	0.5	0.4	0.4	0.5	0.5	1.5	0.3	0.3	0.3	0.2	0.2	0.1	3.3	9.7
4-Oct	0.1	0.1	0.1	0.1	Z	0.3	1.1	1.7	0.7	2.2	1.0	2.7	2.3	5.7	2.9	2.3	0.2	0.2	0.3	1.9	7.2	7.3	2.0	0.3	1.9	7.3
5-Oct	0.2	0.2	0.2	0.1	1.0	Z	6.8	6.6	5.9	3.0	3.0	3.1	3.0	0.9	0.4	0.9	1.6	0.2	0.1	0.2	1.0	0.9	2.4	7.0	2.1	7.0
6-Oct	Z	3.7	8.7	0.2	0.2	1.3	3.6	5.0	2.3	6.7	6.6	5.6	2.9	3.2	4.3	5.4	10.2	13.5	16.0	13.6	8.7	6.5	10.6	13.8	6.6	16.0
7-Oct	14.5	Z	17.6	9.1	6.2	11.2	13.9	16.0	9.3	7.0	6.7	5.6	5.1	5.1	5.1	8.2	9.8	6.8	9.7	15.2	14.7	13.6	11.7	14.2	10.3	17.6
8-Oct	13.4	13.2	Z	9.5	2.2	0.5	0.4	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.4	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	1.8	13.4
9-Oct	0.2	0.2	0.2	Z	3.4	9.7	10.3	8.9	4.2	5.0	4.2	0.8	0.3	0.2	0.2	0.3	0.5	1.3	4.8	18.4	14.8	8.5	7.6	7.0	4.8	18.4
10-Oct	7.8	8.8	15.3	16.4	Z	16.6	16.6	16.7	12.5	5.9	5.0	8.4	7.8	4.5	4.1	4.0	1.6	7.3	7.6	5.0	6.2	5.7	5.6	5.8	8.5	16.7
11-Oct	7.3	8.9	6.5	9.6	11.7	Z	14.5	10.3	11.9	0.8	1.7	0.5	0.8	1.6	0.2	0.2	0.2	0.2	0.1	2.2	2.9	0.1	0.1	0.1	4.0	14.5
12-Oct	Z	0.2	0.1	0.1	0.3	1.6	1.8	8.2	10.2	4.0	5.5	8.2	4.4	3.1	3.5	2.7	0.7	0.2	0.6	1.3	0.5	0.5	1.8	3.1	2.7	10.2
13-Oct	0.5	Z	0.3	0.6	0.4	0.3	1.3	11.8	11.1	7.6	3.0	0.3	0.7	0.7	0.5	0.5	1.5	2.3	2.7	5.6	4.6	4.1	4.8	3.8	3.0	11.8
14-Oct	4.0	3.9	Z	4.7	4.7	4.8	6.7	7.1	3.0	2.1	1.9	1.8	2.0	2.1	1.6	0.8	2.9	8.0	8.8	7.3	8.3	8.7	10.1	9.5	5.0	10.1
15-Oct	9.6	9.5	9.1	Z	12.8	12.5	14.8	14.4	10.4	8.8	7.6	5.8	3.6	1.2	1.0	0.9	2.7	14.7	19.7	21.0	18.0	11.6	13.9	11.6	10.2	21.0
16-Oct	14.4	15.7	2.4	5.2	Z	15.5	13.3	18.5	12.9	12.9	11.2	14.4	15.8	9.5	5.8	7.9	15.5	9.4	4.7	3.6	4.4	3.1	4.0	3.8	9.7	18.5
17-Oct	5.2	6.3	5.8	2.8	0.6	Z	0.5	0.5	0.3	0.4	0.3	0.3	0.2	0.1	0.1	0.1	4.4	4.7	0.3	11.7	2.9	0.6	0.2	1.1	2.1	11.7
18-Oct	Z	6.3	7.0	5.6	2.5	4.6	8.1	3.4	2.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.6	12.8	15.9	16.5	17.2	15.9	13.4	11.4	6.3	17.2
19-Oct	11.5	Z	11.2	9.6	6.9	6.0	7.3	6.3	10.4	11.3	10.2	11.3	12.1	13.1	12.2	10.9	10.8	10.2	10.6	10.1	9.3	8.0	6.8	6.6	9.7	13.1
20-Oct	5.4	4.7	Z	10.1	8.8	8.5	9.7	10.5	10.5	10.1	C	C	C	C	C	6.6	3.9	3.6	2.1	1.8	3.0	4.3	5.4	4.9	6.3	10.5
21-Oct	2.5	6.7	9.1	Z	10.1	8.4	8.6	4.5	2.7	1.1	0.5	0.3	0.2	0.4	1.0	1.0	10.6	8.3	8.0	10.6	10.3	8.1	5.9	5.1	5.4	10.6
22-Oct	5.5	5.9	4.0	4.1	Z	6.5	10.0	10.9	9.0	7.2	5.9	5.8	4.5	7.9	7.4	10.9	13.9	15.4	10.0	1.4	0.7	0.8	0.9	0.7	6.5	15.4
23-Oct	0.9	1.0	1.3	2.3	4.0	Z	5.4	9.3	8.2	10.3	12.4	9.2	8.6	8.3	10.0	12.2	5.1	2.5	2.8	1.2	1.4	5.3	12.3	11.1	6.3	12.4
24-Oct	Z	10.9	17.8	15.8	20.4	20.7	22.3	18.0	17.2	14.9	12.4	12.9	12.7	14.7	13.8	12.1	21.1	16.4	13.7	4.7	5.1	7.9	6.9	5.8	13.8	22.3
25-Oct	5.6	Z	6.4	8.0	12.6	14.2	13.5	10.5	9.2	8.8	6.8	3.0	1.4	0.9	0.7	0.4	0.3	0.4	0.5	3.3	6.1	7.6	7.2	5.3	5.8	14.2
26-Oct	7.2	9.1	Z	9.2	9.7	8.5	11.1	6.7	6.6	12.0	13.8	13.4	12.0	10.9	10.5	11.5	11.5	14.0	8.8	4.4	2.5	2.4	1.4	2.5	8.7	14.0
27-Oct	1.4	0.4	0.4	Z	2.5	2.8	3.1	2.8	0.8	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.5	2.0	1.0	0.2	0.1	0.1	0.1	0.1	0.8	3.1
28-Oct	0.2	0.2	0.2	0.1	Z	0.2	0.1	0.4	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.7	0.7	4.7	4.6	4.0	6.5	4.7	1.3	6.5
29-Oct	6.2	4.2	3.5	5.9	3.5	Z	5.5	10.0	16.9	11.0	12.5	13.4	12.4	10.6	14.0	8.5	8.4	12.5	11.2	7.6	1.8	1.5	4.1	1.8	8.1	16.9
30-Oct	Z	4.8	9.7	13.9	13.6	14.4	11.9	9.4	3.4	1.0	0.8	0.5	0.5	5.0	5.3	3.1	3.0	1.7	4.6	6.7	3.8	3.2	2.2	2.3	5.4	14.4
31-Oct	2.2	Z	1.8	3.8	2.5	6.6	5.6	7.7	5.3	8.4	10.0	8.3	7.8	7.1	3.0	3.0	2.7	2.6	1.7	2.1	4.1	5.1	7.7	9.2	5.1	10.0
	5.9	5.5	6.1	6.2	6.0	7.4	7.9	8.1	6.9	5.7	5.2	4.9	4.4	4.3	3.9	3.9	5.1	6.2	6.1	6.6	6.1	5.3	5.5	5.3	Diurnal Average	
	16.1	15.7	17.8	16.4	20.4	20.7	22.3	18.5	17.2	14.9	13.8	14.4	15.8	14.7	14.0	12.2	21.1	16.4	19.7	21.0	18.0	15.9	13.9	14.2	Diurnal Maximum	

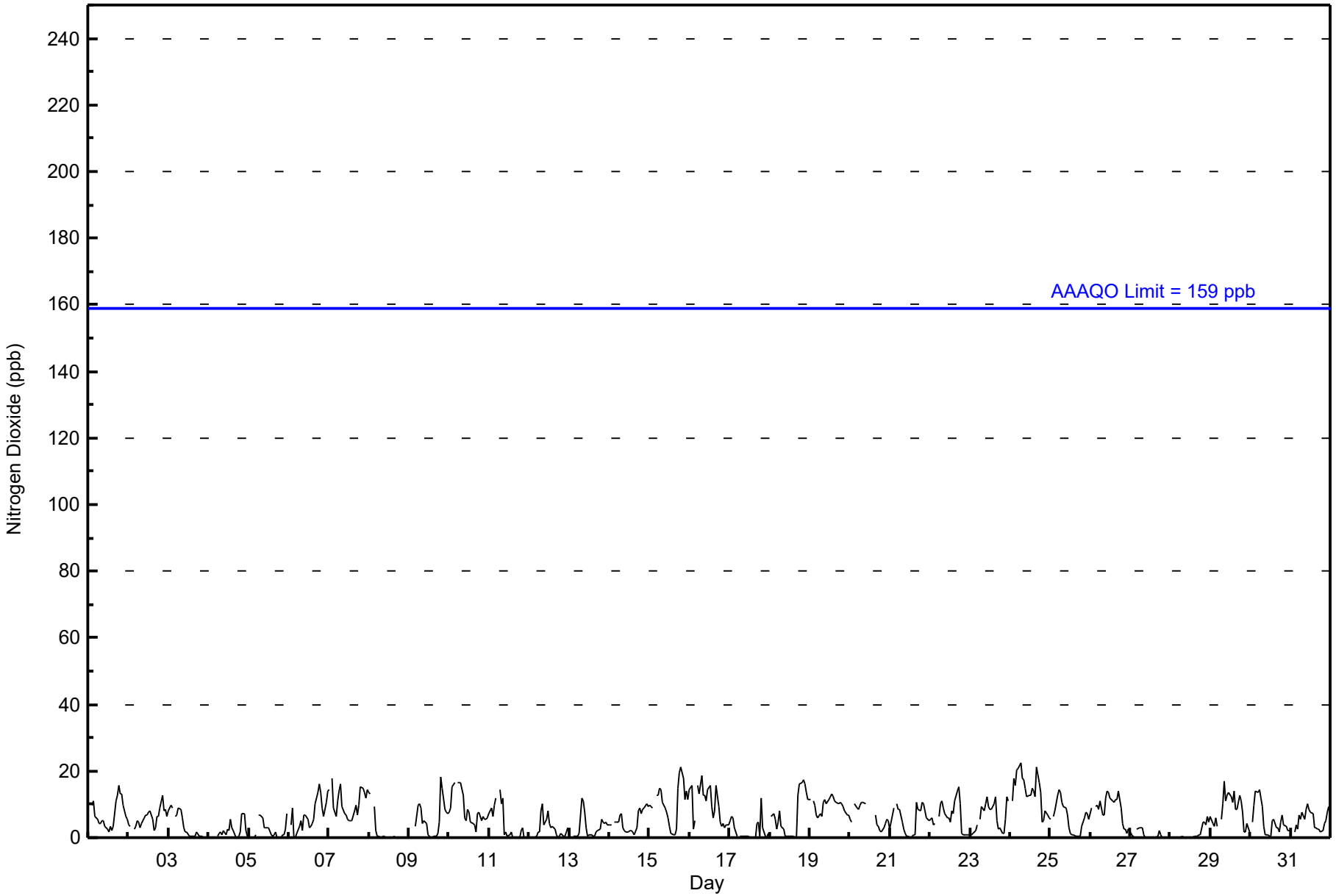
Z - zerospan C - Calibration
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Barge Landing - October 2025



Nitrogen Dioxide (NO_2) - ppb
Barge Landing - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	704	99.44	99.44
21 - 40	4	0.56	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Barge Landing - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	65	13	7	6	7	16	57	131	73	59	58	52	42	28	15	75	704
21 - 40	0	0	0	0	0	1	0	0	2	1	0	0	0	0	0	0	4
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	65	13	7	6	7	17	57	131	75	60	58	52	42	28	15	75	708

Total Number of Valid Hours: 708

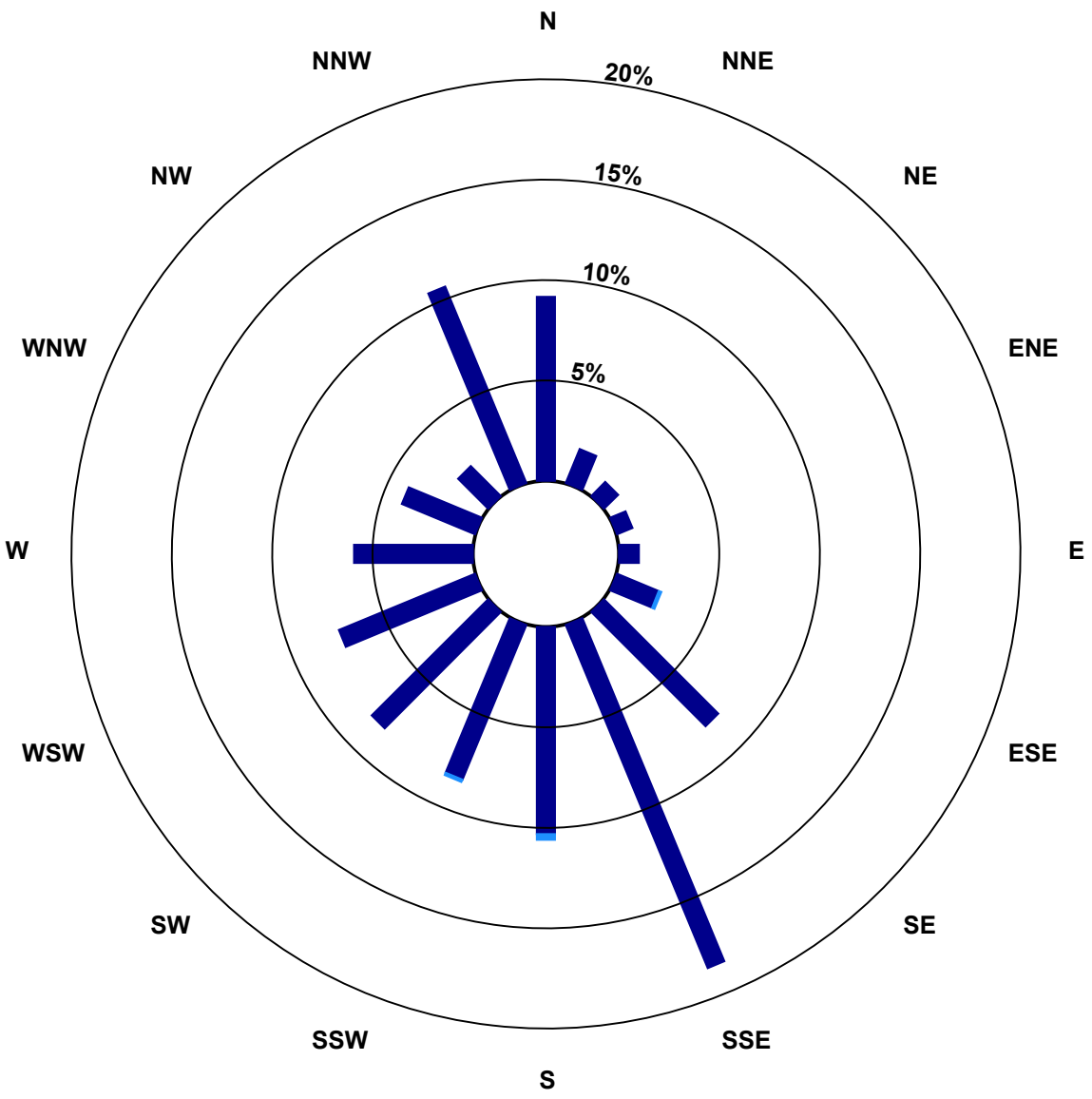
Total Number of Hours: 744

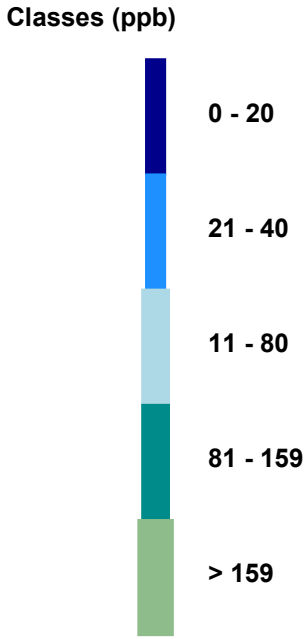
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Barge Landing





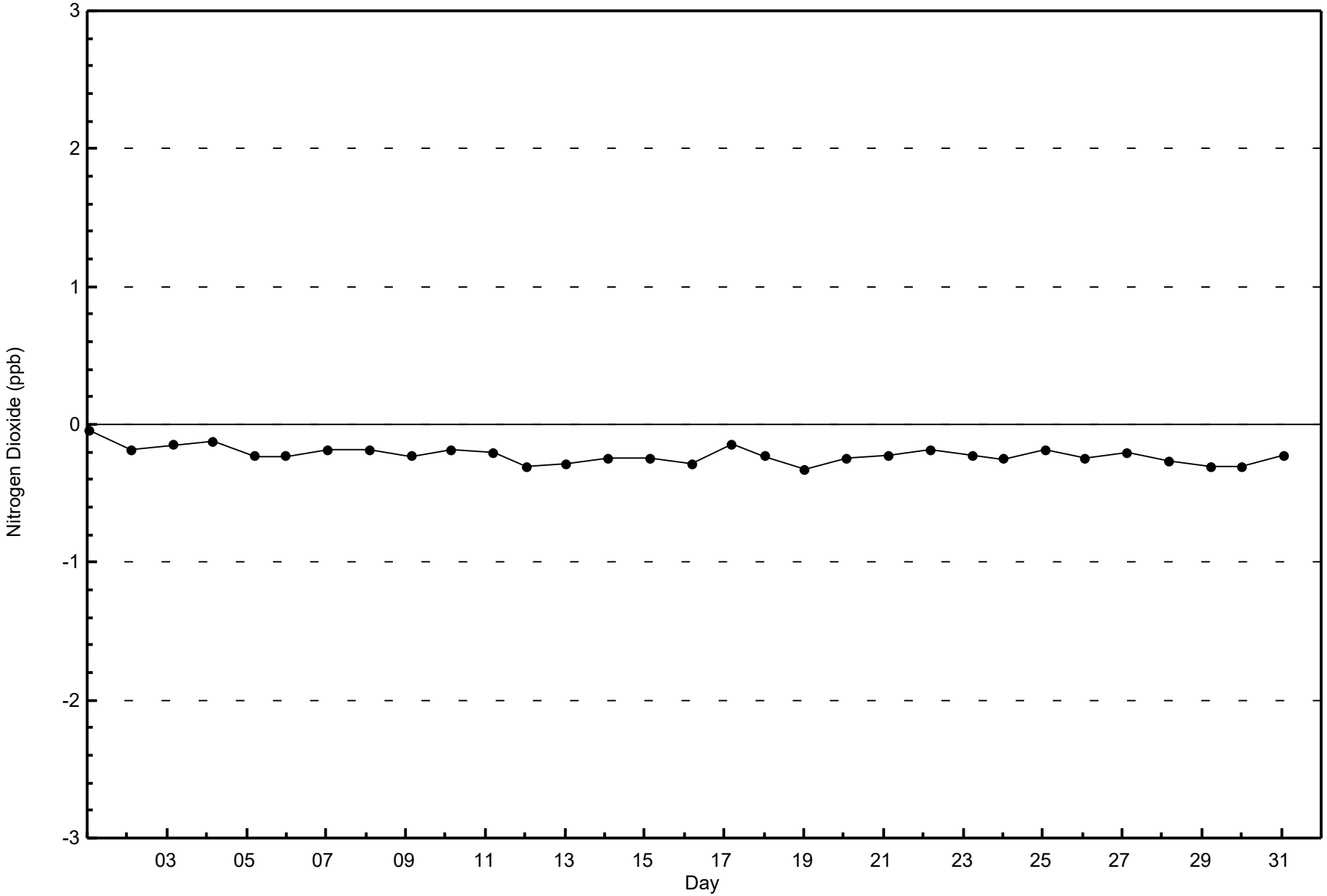
Total Number of Valid Hours: 708

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Barge Landing - October 2025

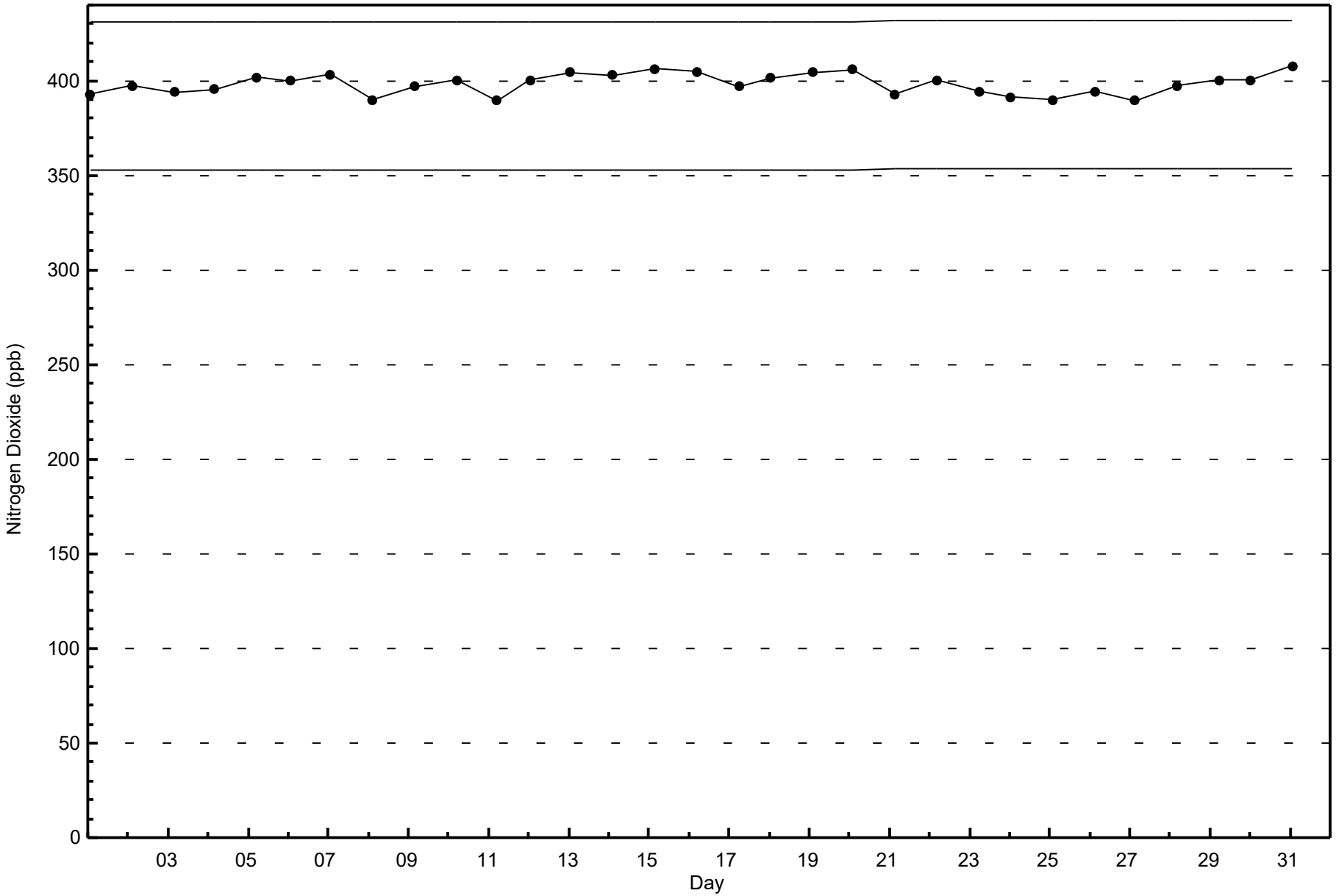


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Barge Landing - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Barge Landing - October 2025

Maximum Value: 120.3 ppb on Oct 22 08:00

Maximum Daily Average: 28.0 ppb on Oct 24

Minimum Value: 0.1 ppb on Oct 28 00:00

Minimum Daily Average: 0.8 ppb on Oct 27

Maximum Diurnal Average: 20.0 ppb at hour 7

Minimum Diurnal Average: 5.4 ppb at hour 16

Monthly Average: 10.08 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.2 Q_1 = 1.3 Median = 5.8 Q_3 = 13.8 P_{90} = 23.0 P_{99} = 64.4

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	17.0	Z	10.0	11.1	6.5	5.8	4.3	4.2	5.3	5.8	3.8	3.0	1.8	4.2	2.6	4.0	12.4	14.3	21.0	14.9	18.3	15.4	7.9	6.6	8.7	21.0
2-Oct	5.4	3.6	Z	5.2	20.3	40.3	33.5	16.4	15.5	17.6	18.5	21.1	14.6	11.5	7.2	2.2	3.5	7.7	11.4	11.1	15.3	8.9	9.1	6.3	13.3	40.3
3-Oct	8.8	10.3	9.8	Z	14.2	31.2	36.2	17.3	9.7	4.8	2.8	2.1	0.6	0.5	0.4	0.5	0.5	1.5	0.3	0.3	0.3	0.2	0.2	0.1	6.6	36.2
4-Oct	0.1	0.1	0.1	0.1	Z	0.3	1.1	1.9	0.9	3.7	1.4	3.5	2.8	7.4	3.5	2.6	0.2	0.2	0.3	2.0	7.4	7.5	2.1	0.3	2.2	7.5
5-Oct	0.2	0.2	0.2	0.1	1.5	Z	10.1	11.8	13.7	6.0	6.2	5.9	5.9	1.3	0.4	1.0	1.8	0.2	0.1	0.2	1.0	0.9	2.4	7.1	3.4	13.7
6-Oct	Z	3.7	8.8	0.2	0.2	1.3	3.7	5.4	2.7	10.0	10.4	8.9	4.5	4.8	6.2	7.1	12.6	15.2	19.1	14.2	9.3	6.8	10.9	14.1	7.8	19.1
7-Oct	14.8	Z	18.4	9.3	6.3	13.6	15.9	22.3	12.5	9.5	9.4	7.6	7.8	8.1	7.1	10.2	11.7	8.7	13.0	21.8	23.1	27.4	21.2	64.5	15.8	64.5
8-Oct	73.0	58.0	Z	30.0	2.6	0.5	0.4	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.4	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	7.3	73.0
9-Oct	0.2	0.2	0.2	Z	3.5	9.9	18.4	18.2	8.0	11.7	8.2	1.2	0.3	0.2	0.2	0.3	0.5	1.3	4.9	21.7	17.2	9.3	8.1	7.4	6.6	21.7
10-Oct	8.2	9.2	17.4	26.1	Z	46.4	54.5	67.8	26.8	9.6	7.6	13.6	11.9	6.2	5.1	4.6	1.7	7.5	7.9	5.1	6.3	5.8	5.7	6.0	15.7	67.8
11-Oct	7.7	9.1	6.6	12.7	17.9	Z	15.3	11.2	14.7	0.9	2.1	0.7	0.9	2.0	0.4	0.2	0.2	0.2	0.1	2.2	2.9	0.1	0.1	0.1	4.7	17.9
12-Oct	Z	0.2	0.1	0.1	0.3	1.6	1.8	9.1	12.8	4.9	7.1	11.4	5.4	3.8	4.5	3.2	0.7	0.2	0.6	1.3	0.5	0.5	1.8	3.1	3.3	12.8
13-Oct	0.5	Z	0.3	0.6	0.4	0.3	1.3	14.2	17.0	12.4	4.6	0.4	1.0	0.9	0.6	0.6	1.6	2.3	2.7	5.7	4.7	4.2	5.0	3.9	3.7	17.0
14-Oct	4.1	4.0	Z	4.8	4.8	5.0	6.9	7.8	3.5	2.8	2.5	2.7	2.6	3.0	2.0	0.9	3.1	9.0	10.5	8.5	9.0	9.6	10.6	10.5	5.6	10.6
15-Oct	9.9	10.2	9.8	Z	14.0	15.2	24.2	22.8	16.1	14.0	11.7	8.1	4.9	1.4	1.1	1.0	2.8	18.5	26.6	28.0	22.1	12.6	15.3	12.3	13.2	28.0
16-Oct	19.3	20.2	2.4	5.3	Z	34.8	24.7	41.4	25.1	20.9	16.8	23.8	25.0	12.4	6.9	8.7	21.5	10.4	4.8	3.7	4.5	3.1	4.0	3.8	14.9	41.4
17-Oct	5.3	6.4	5.9	2.8	0.6	Z	0.5	0.5	0.3	0.6	0.5	0.4	0.2	0.1	0.1	0.1	4.7	4.8	0.3	18.2	3.0	0.6	0.2	1.1	2.5	18.2
18-Oct	Z	6.5	8.3	6.2	2.5	4.6	9.4	3.6	4.7	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.6	22.9	28.2	20.7	28.3	30.7	23.6	18.6	9.6	30.7
19-Oct	21.5	Z	15.8	15.7	8.8	10.1	30.2	20.8	63.1	59.6	35.5	37.2	46.7	47.0	30.6	23.2	24.7	21.2	23.4	19.4	16.5	9.4	7.4	6.9	25.9	63.1
20-Oct	5.6	4.8	Z	11.2	9.4	9.1	10.8	13.9	22.5	24.4	C	C	C	C	C	11.9	4.2	3.6	2.1	1.8	3.3	4.5	5.7	5.0	8.5	24.4
21-Oct	2.6	7.0	9.6	Z	10.9	9.9	10.4	4.9	6.2	2.0	0.9	0.4	0.3	0.5	1.3	1.2	18.5	12.2	10.4	21.2	34.1	35.9	23.7	22.6	10.7	35.9
22-Oct	17.0	12.2	4.4	7.9	Z	27.2	54.6	120.3	60.9	20.1	15.2	13.9	8.8	13.6	10.9	14.3	37.2	63.5	19.6	1.8	0.8	1.0	1.0	0.8	22.9	120.3
23-Oct	0.9	1.1	1.3	2.4	4.3	Z	6.9	10.9	9.9	17.3	21.5	14.9	13.4	12.2	14.0	15.8	6.4	3.1	3.2	1.3	1.5	5.5	12.9	11.3	8.4	21.5
24-Oct	Z	11.2	18.3	16.8	55.7	46.3	104.7	52.9	49.9	34.6	21.6	21.7	19.6	21.0	17.7	16.2	52.6	24.9	24.4	4.9	5.6	9.7	8.1	6.1	28.0	104.7
25-Oct	7.1	Z	8.9	13.2	24.2	43.0	56.6	27.3	17.4	17.9	10.3	3.6	1.8	1.1	0.7	0.4	0.3	0.4	0.5	3.3	7.2	8.3	7.5	5.5	11.6	56.6
26-Oct	7.4	11.2	Z	12.5	23.4	20.3	51.1	20.4	23.2	77.5	96.6	70.7	42.3	26.9	19.5	17.1	15.3	18.0	9.2	4.6	2.5	2.4	1.4	2.5	25.0	96.6
27-Oct	1.4	0.4	0.4	Z	2.5	2.8	3.1	2.8	0.8	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.5	2.0	1.0	0.2	0.1	0.1	0.1	0.1	0.8	3.1
28-Oct	0.2	0.2	0.2	0.1	Z	0.3	0.1	0.5	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.7	0.7	5.5	4.9	4.1	7.2	5.0	1.4	7.2
29-Oct	6.4	4.5	3.6	6.4	3.9	Z	6.1	12.3	31.1	14.3	20.3	20.6	19.0	15.1	19.0	10.7	9.4	13.8	11.8	7.7	1.8	1.5	4.2	1.8	10.7	31.1
30-Oct	Z	5.1	13.9	20.2	13.9	15.8	15.9	10.0	3.7	1.1	0.8	0.7	0.6	6.4	6.2	3.4	3.1	1.8	4.7	6.9	3.9	3.3	2.3	2.3	6.3	20.2
31-Oct	2.2	Z	1.8	3.9	2.5	6.9	6.1	9.7	6.9	15.9	20.1	14.2	13.0	10.4	4.2	4.0	3.0	3.0	1.8	2.2	4.1	5.2	7.8	9.3	6.9	20.1
	9.5	8.0	6.8	8.7	9.8	15.5	20.0	18.8	15.7	13.6	11.9	10.4	8.5	7.4	5.8	5.4	8.2	9.5	8.5	8.4	8.4	7.6	7.0	7.9	Diurnal Average	
	73.0	58.0	18.4	30.0	55.7	46.4	104.7	120.3	63.1	77.5	96.6	70.7	46.7	47.0	30.6	23.2	52.6	63.5	28.2	28.0	34.1	35.9	23.7	64.5	Diurnal Maximum	

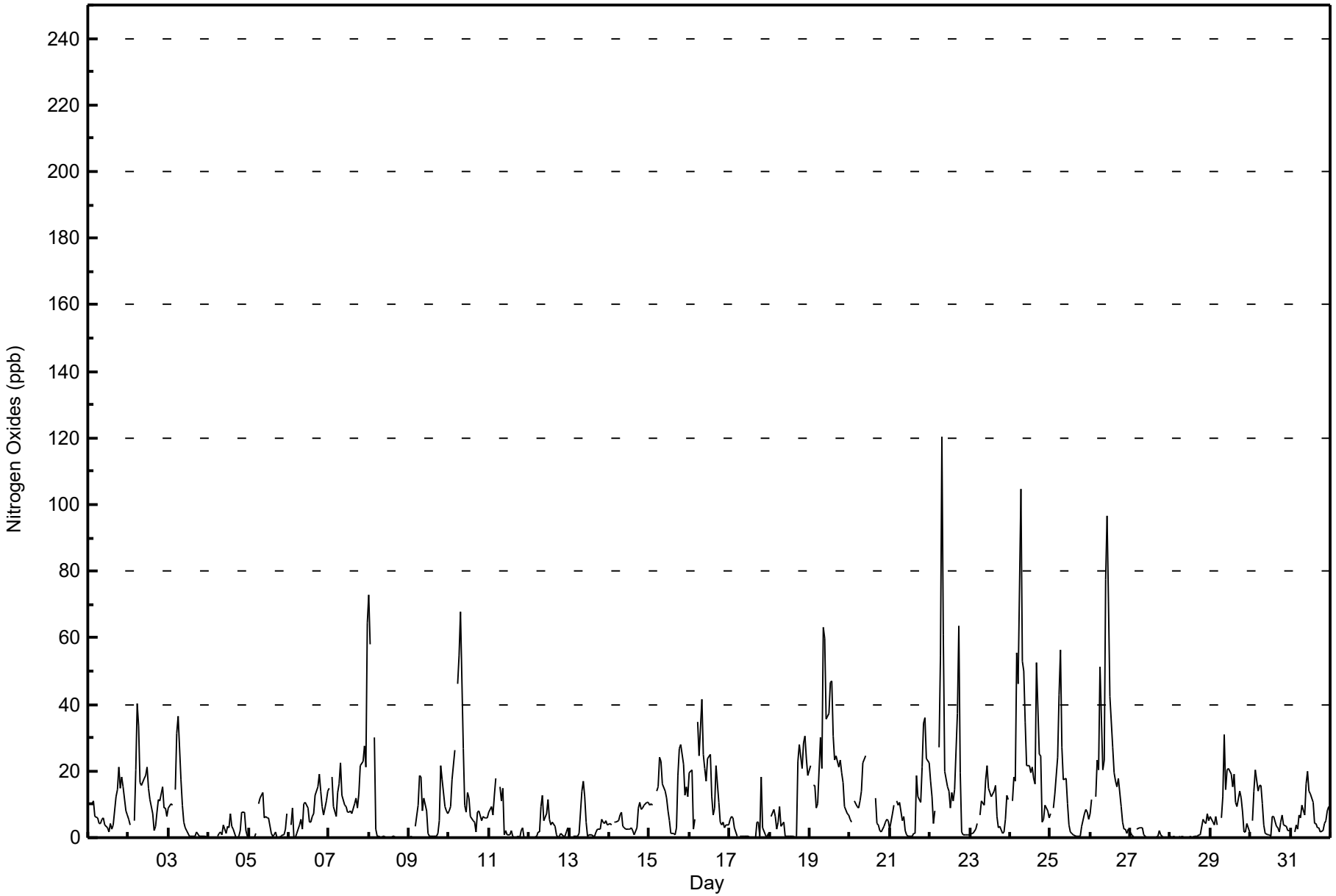
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Barge Landing - October 2025



Nitrogen Oxides (NO_X) - ppb
Barge Landing - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	614	86.72	86.72
21 - 40	66	9.32	96.05
11 - 80	25	3.53	99.58
81 - 159	3	0.42	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	55	12	4	3	4	9	46	114	62	56	56	50	41	28	14	60	614
21 - 40	9	1	2	3	3	5	5	14	9	4	2	2	0	0	0	7	66
11 - 80	0	0	1	0	0	3	5	3	3	0	0	0	1	0	1	8	25
81 - 159	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	65	13	7	6	7	17	57	131	75	60	58	52	42	28	15	75	708

Total Number of Valid Hours: 708

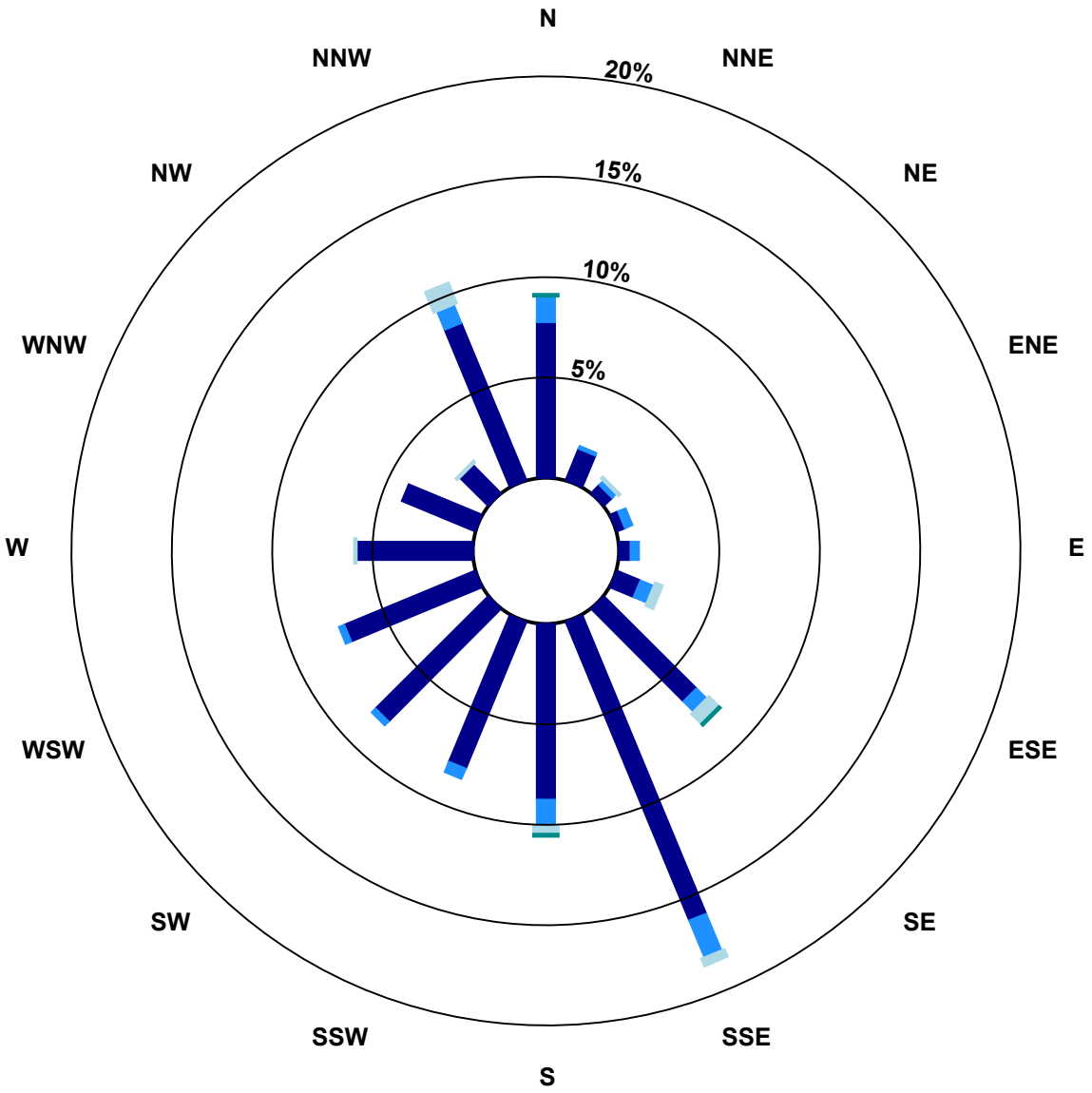
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Barge Landing



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

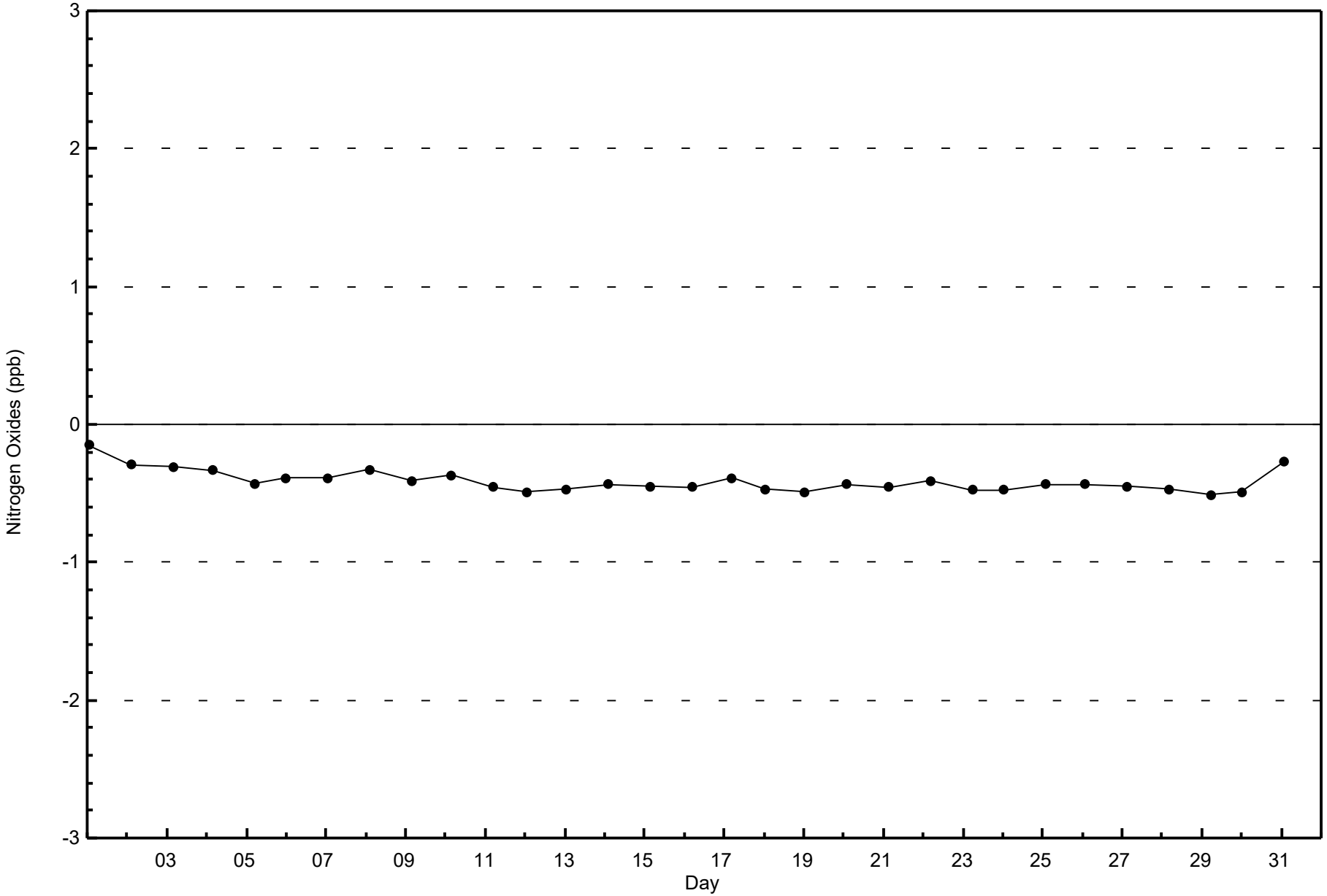
Total Number of Valid Hours: 708

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Barge Landing - October 2025

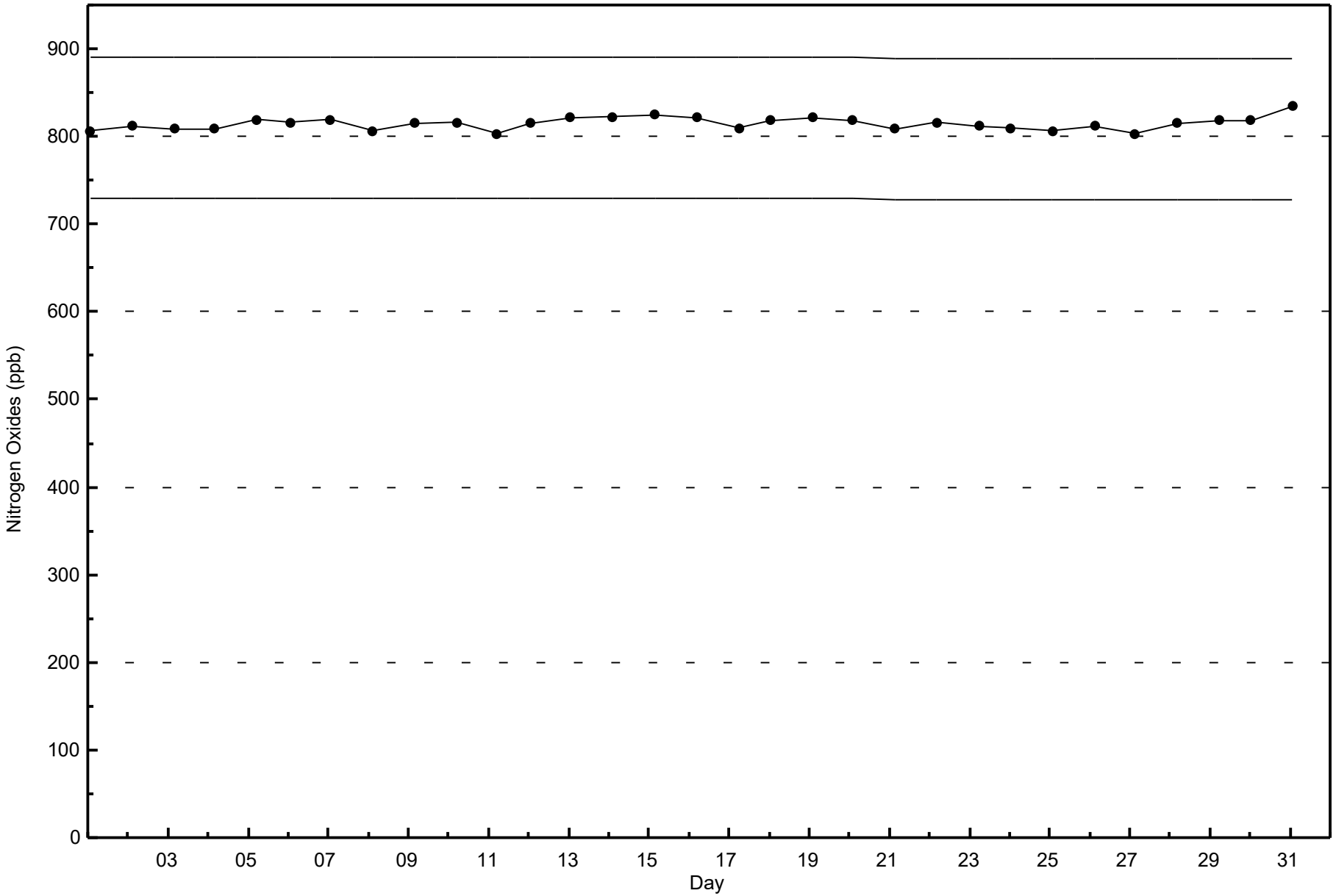


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Barge Landing - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Barge Landing - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 43.0 $\mu g/m^3$ on Oct 22 08:00

Maximum Daily Average: 12.4 $\mu g/m^3$ on Oct 1

Minimum Value: 0.1 $\mu g/m^3$ on Oct 28 04:00

Minimum Daily Average: 0.4 $\mu g/m^3$ on Oct 27

Maximum Diurnal Average: 7.8 $\mu g/m^3$ at hour 8

Minimum Diurnal Average: 4.5 $\mu g/m^3$ at hour 24

Monthly Average: 5.46 $\mu g/m^3$

Percentiles: $P_1 = 0.1$ $P_{10} = 0.7$ $Q_1 = 2.4$ Median = 4.7 $Q_3 = 6.9$ $P_{90} = 10.2$ $P_{99} = 20.4$

Hours in Service:	744
Hours of Data:	742
Hours of Missing Data:	2
Hours of Calibration:	2
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	19.7	20.8	21.3	19.5	17.5	15.4	15.2	15.8	19.5	17.8	13.7	7.8	5.5	5.2	5.2	5.0	6.4	6.9	8.5	8.8	9.4	13.1	10.9	9.4	12.4	21.3
2-Oct	8.1	7.0	8.4	10.3	13.4	18.2	11.8	6.0	8.1	11.8	15.6	15.0	9.5	5.7	5.3	4.9	5.6	6.8	9.3	8.1	7.4	8.6	9.8	10.0	9.4	18.2
3-Oct	10.1	10.5	12.0	12.8	14.5	19.9	19.3	15.3	11.1	7.4	4.7	3.2	3.4	4.6	5.0	5.4	4.1	4.5	3.5	3.0	2.5	2.5	2.6	2.4	7.7	19.9
4-Oct	2.9	3.5	3.7	3.9	4.2	4.0	3.6	3.2	3.0	3.2	3.8	4.2	3.9	4.3	3.3	2.8	0.8	0.3	1.0	2.1	2.2	2.0	1.3	1.0	2.8	4.3
5-Oct	0.9	0.8	1.0	1.2	1.9	4.6	5.3	6.2	8.0	7.8	6.9	7.3	9.8	15.1	19.1	9.8	2.8	2.0	2.0	1.8	2.4	2.3	1.8	2.0	5.1	19.1
6-Oct	2.0	1.6	2.3	1.1	1.1	1.1	1.0	1.2	0.7	1.4	2.0	1.8	1.3	1.7	2.4	3.7	7.4	6.3	7.1	7.2	5.2	4.5	5.7	7.1	3.2	7.4
7-Oct	6.5	6.0	6.0	4.1	3.7	5.4	5.4	6.1	6.2	6.9	6.2	4.4	4.9	5.2	4.4	5.4	6.9	5.1	5.6	6.4	6.9	7.4	6.5	7.2	5.8	7.4
8-Oct	7.7	7.4	6.7	5.7	3.0	2.4	2.8	3.2	3.2	2.8	2.1	2.2	2.7	2.8	2.9	2.7	2.1	2.1	1.6	1.0	1.1	1.1	0.9	0.6	3.0	7.7
9-Oct	0.7	0.7	0.7	0.5	0.8	1.7	4.1	5.7	5.6	5.2	6.1	5.6	6.4	4.3	5.8	5.9	6.4	7.5	4.2	8.8	7.2	5.6	4.7	4.4	4.5	8.8
10-Oct	5.2	6.5	10.4	14.1	14.7	19.3	14.8	22.2	12.7	6.2	6.4	6.6	7.7	6.7	6.7	7.5	9.9	13.0	8.9	6.1	7.1	6.6	6.8	7.2	9.7	22.2
11-Oct	9.5	9.5	7.9	8.7	9.5	14.0	10.2	7.4	8.0	3.9	3.2	2.2	2.5	1.9	0.6	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.4	4.2	14.0
12-Oct	0.3	0.4	0.6	0.6	0.6	0.4	0.5	0.9	0.9	0.6	0.7	1.0	0.9	1.0	0.7	0.7	0.7	0.5	0.5	0.9	0.5	0.7	0.9	1.1	0.7	1.1
13-Oct	0.6	0.7	0.6	0.7	0.6	0.6	0.6	1.7	3.0	3.7	3.5	5.6	6.6	6.3	5.4	4.5	3.9	3.2	3.0	4.0	4.4	4.9	4.4	4.4	3.2	6.6
14-Oct	4.3	4.8	5.4	5.3	5.5	4.9	5.0	5.3	5.6	5.2	4.8	5.1	5.4	4.3	4.1	3.0	4.3	6.3	5.5	5.5	6.2	8.4	7.3	6.6	5.3	8.4
15-Oct	9.9	8.3	8.3	6.4	7.1	7.0	7.3	7.6	7.2	6.7	6.4	5.4	4.6	5.5	6.2	5.9	6.1	10.7	14.0	14.4	12.8	7.7	6.9	5.9	7.8	14.4
16-Oct	6.7	7.6	4.7	5.0	6.8	10.0	9.4	18.6	17.6	16.9	15.5	16.2	17.1	17.0	7.9	8.3	9.5	9.1	5.6	5.3	5.1	4.8	3.9	3.5	9.7	18.6
17-Oct	3.5	3.7	4.1	5.0	5.0	4.8	4.6	3.7	2.0	1.7	1.9	2.0	2.3	2.0	1.5	1.4	1.5	1.7	1.2	7.6	3.2	1.8	1.2	2.0	2.9	7.6
18-Oct	4.7	6.1	6.8	3.9	1.1	1.0	3.3	1.2	3.1	2.0	1.7	1.5	1.2	1.2	1.1	1.1	1.2	9.2	11.8	10.3	10.0	9.2	9.7	9.8	4.7	11.8
19-Oct	10.2	7.0	7.5	7.6	6.0	6.1	5.9	5.5	4.9	5.9	5.9	7.6	8.3	7.4	5.6	6.0	4.5	3.6	3.7	3.2	2.9	2.7	2.7	3.1	5.6	10.2
20-Oct	2.9	2.5	2.0	1.5	1.5	1.3	1.4	1.9	2.3	2.6	2.5	3.0	C	C	5.8	6.8	4.8	4.4	5.5	5.1	6.4	6.2	4.8	4.7	3.6	6.8
21-Oct	4.4	5.5	6.0	5.8	6.2	6.1	5.0	4.0	4.0	3.8	3.6	2.1	2.4	2.0	1.8	1.9	4.6	4.7	3.9	4.0	5.0	10.3	9.6	9.5	4.8	10.3
22-Oct	7.5	6.4	4.2	7.7	14.6	19.2	20.5	43.0	26.4	7.2	6.1	8.1	6.0	5.5	4.9	9.1	7.4	8.5	9.1	5.0	4.0	3.6	3.4	3.7	10.1	43.0
23-Oct	3.8	3.8	3.9	3.8	3.6	5.0	4.6	6.2	6.7	7.0	9.3	7.2	7.4	8.0	8.9	9.2	4.7	3.8	3.9	3.9	4.4	7.0	10.4	8.5	6.0	10.4
24-Oct	4.3	8.5	17.4	15.2	20.3	23.0	30.2	18.3	15.0	14.5	11.9	9.3	7.5	9.7	10.5	10.0	18.8	12.3	11.0	5.8	5.0	5.1	6.1	5.8	12.3	30.2
25-Oct	6.0	6.0	6.7	7.3	6.8	10.5	12.7	8.9	7.4	7.1	6.4	4.7	3.8	2.2	2.6	3.8	3.3	2.7	2.0	2.6	3.4	3.8	4.3	4.1	5.4	12.7
26-Oct	4.8	5.1	4.9	5.0	5.0	4.6	5.1	4.1	4.8	5.6	6.2	6.3	5.5	5.0	4.8	4.4	4.2	3.8	2.4	2.3	2.4	1.9	1.8	1.6	4.2	6.3
27-Oct	1.8	1.4	1.0	0.9	0.8	0.6	0.6	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.4	1.8
28-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.4	0.3	0.5	0.7	0.6	0.7	1.8	1.5	1.6	2.4	2.5	0.7	2.5
29-Oct	2.3	3.0	3.2	3.8	3.9	4.0	3.9	3.5	4.3	3.4	3.7	3.9	3.7	3.6	3.6	3.1	2.9	3.0	3.1	3.3	3.0	3.1	2.8	2.9	3.4	4.3
30-Oct	3.3	3.3	3.6	4.4	4.7	5.5	6.6	6.6	4.7	3.8	3.9	4.0	3.9	4.8	4.5	4.5	5.3	5.4	5.3	5.5	5.6	5.2	4.0	3.7	4.7	6.6
31-Oct	3.9	4.5	4.6	5.4	5.9	6.2	6.6	6.8	6.1	7.0	6.5	6.9	8.1	7.4	6.9	6.2	5.8	5.5	4.8	4.7	4.9	5.3	5.3	5.4	5.9	8.1
	5.1	5.3	5.7	5.7	6.1	7.3	7.3	7.8	6.9	5.8	5.5	5.2	5.1	5.0	4.8	4.7	4.7	5.0	4.8	4.8	4.6	4.7	4.6	4.5	Diurnal Average	
	19.7	20.8	21.3	19.5	20.3	23.0	30.2	43.0	26.4	17.8	15.6	16.2	17.1	17.0	19.1	10.0	18.8	13.0	14.0	14.4	12.8	13.1	10.9	10.0	Diurnal Maximum	

C - Calibration

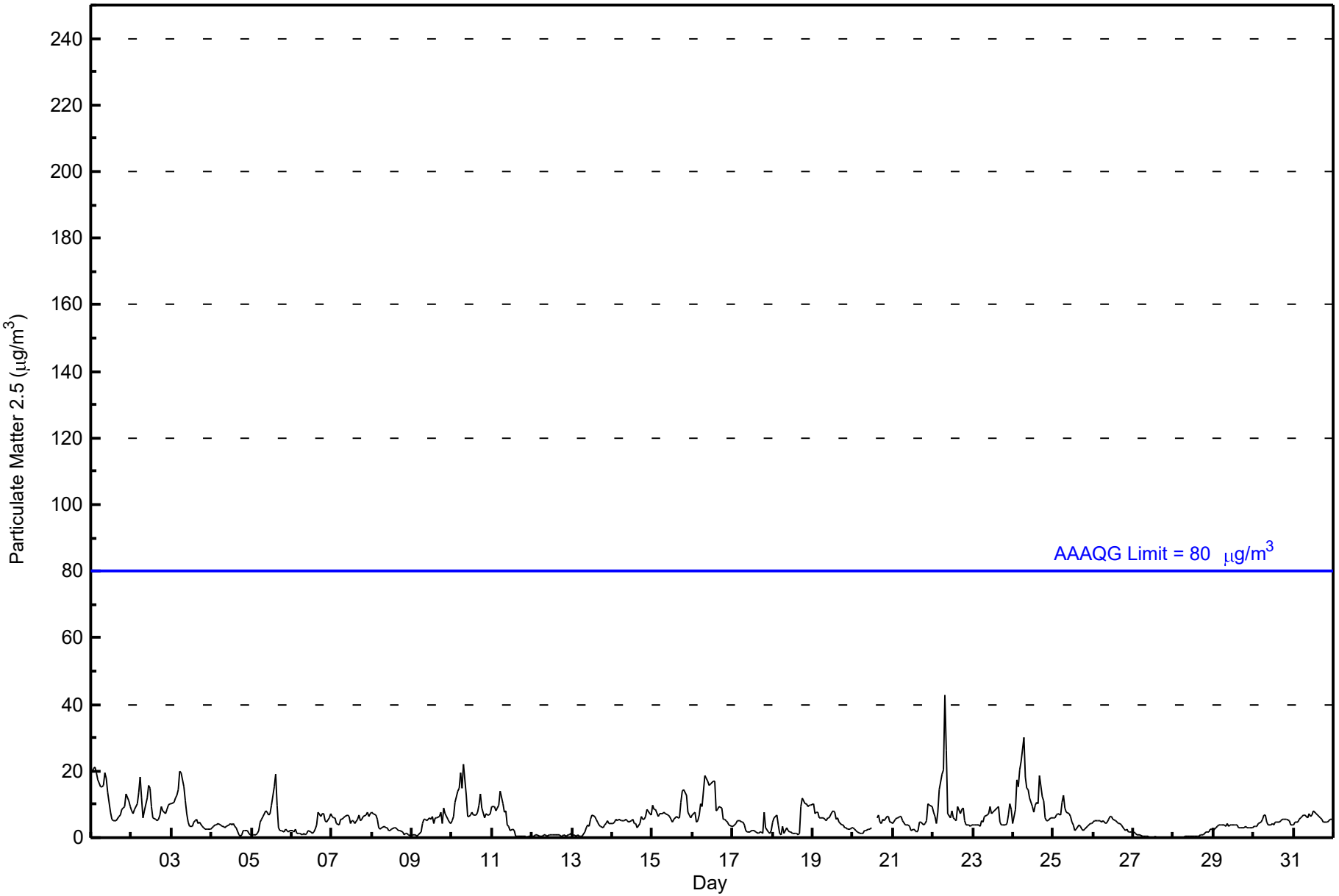
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 $\mu g/m^3$ 24-hr 29 $\mu g/m^3$

Wood Buffalo Environmental Association

Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Barge Landing - October 2025



Concentration Ranges ($\mu g/m^3$)	Number of Hours	%	Cumulative %
0 - 5	448	60.38	60.38
6 - 15	263	35.44	95.82
16 - 25	28	3.77	99.60
26 - 80	3	0.40	100.00
> 81.0	0	0.00	100.00

Total Number of Valid Hours: 742

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Barge Landing - October 2025

Concentration Ranges ($\mu g/m^3$)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	54	12	5	4	2	6	26	46	28	45	39	47	41	27	12	54	448
6 - 15	12	2	2	2	6	10	32	82	43	17	21	7	2	2	4	19	263
16 - 25	2	0	0	0	0	3	1	11	4	1	0	0	0	0	0	6	28
26 - 80	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	3
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	68	14	7	6	8	19	61	139	76	63	60	54	43	29	16	79	742

Total Number of Valid Hours: 742

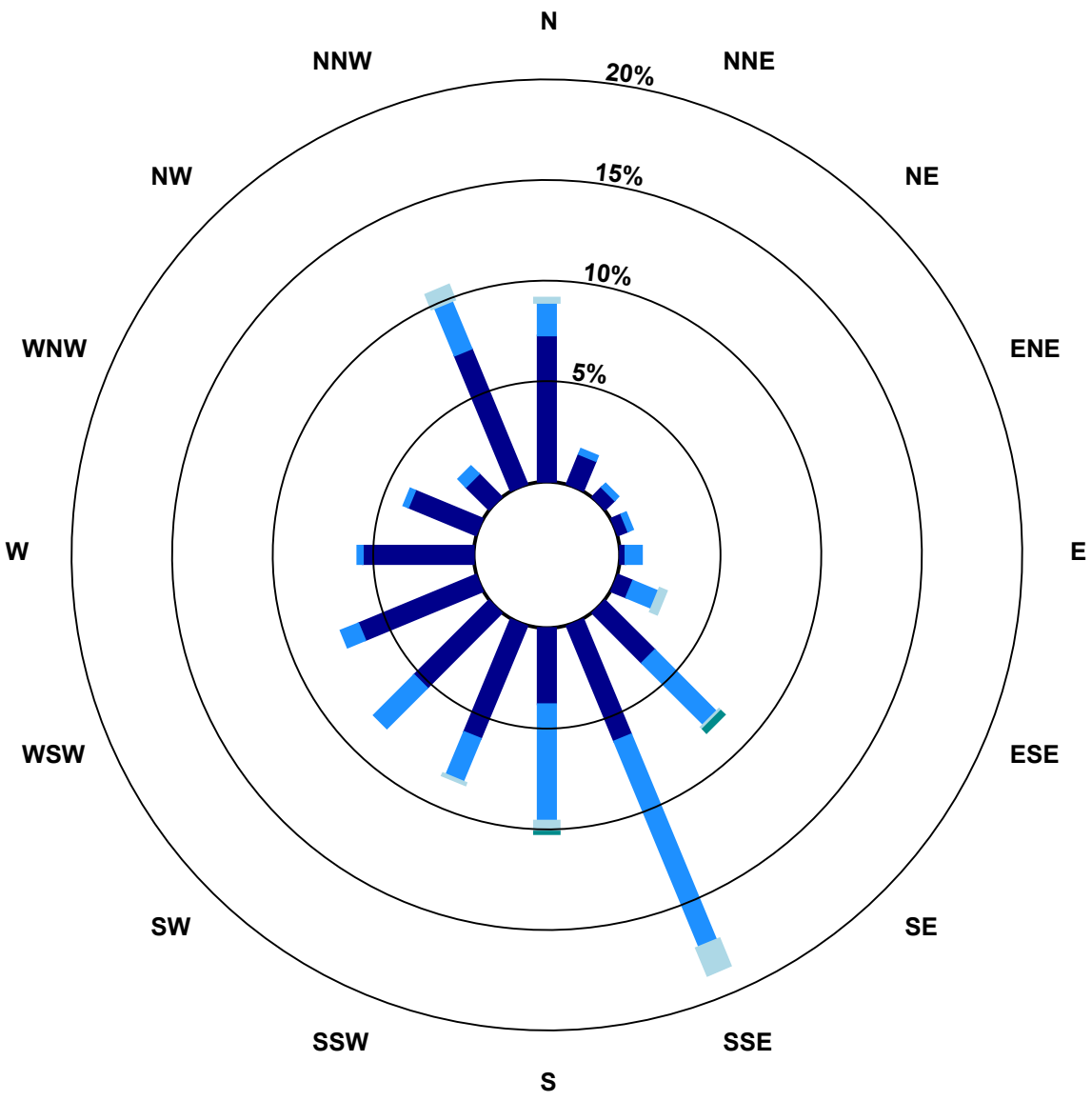
Total Number of Hours: 744

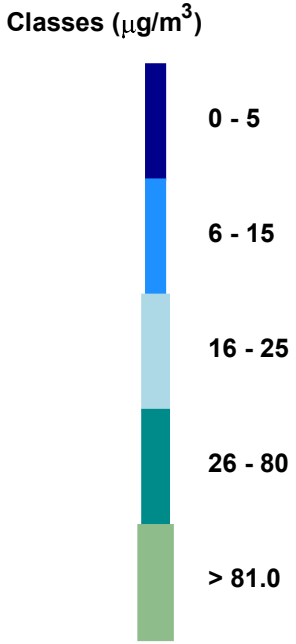
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Barge Landing





Total Number of Valid Hours: 742

Maximum Value: 21.2 C on Oct 10 16:00

Maximum Daily Average: 10.0 C on Oct 3

Minimum Value: -4.7 C on Oct 13 07:00

Minimum Daily Average: -0.3 C on Oct 28

Maximum Diurnal Average: 8.6 C at hour 16

Minimum Diurnal Average: 1.6 C at hour 7

Monthly Average: 4.45 C

Percentiles: P_1 = -2.7 P_{10} = -0.8 Q_1 = 0.6 Median = 3.5 Q_3 = 7.7 P_{90} = 11.1 P_{99} = 16.3

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

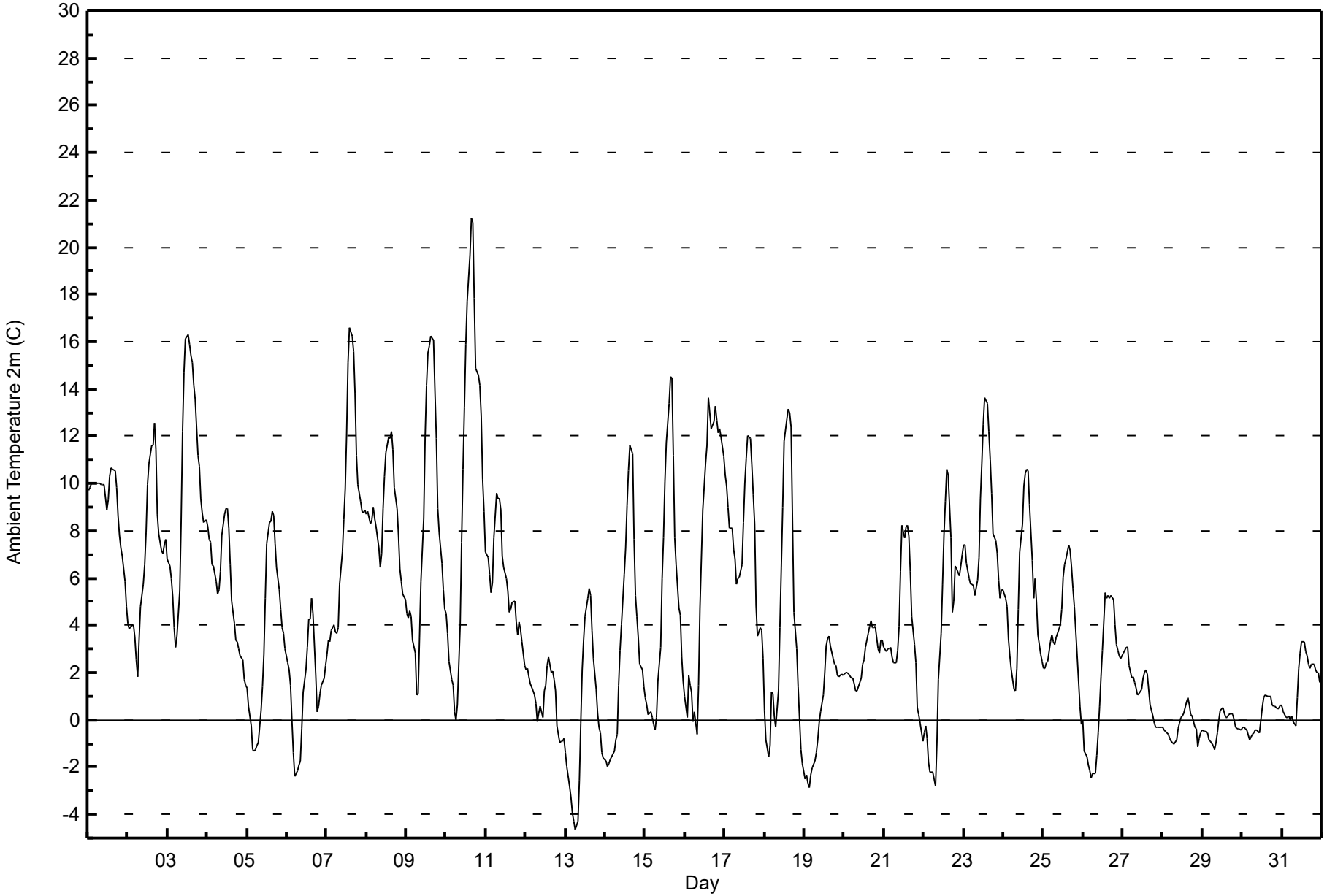
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	9.7	9.8	10.0	10.0	10.0	10.0	10.0	10.0	9.9	9.9	9.9	8.9	9.3	10.3	10.6	10.6	10.6	9.9	8.6	7.8	7.3	6.9	5.8	4.8	9.2	10.6
2-Oct	4.1	3.8	4.0	4.0	3.5	2.5	1.8	3.4	4.8	5.7	6.6	7.9	9.9	10.9	11.6	11.6	12.6	11.4	8.7	7.9	7.2	7.1	7.4	7.6	6.9	12.6
3-Oct	6.8	6.5	6.0	5.2	3.9	3.0	3.5	5.5	8.4	12.2	14.7	16.1	16.3	15.9	15.4	15.1	14.1	13.6	11.2	10.7	9.4	8.8	8.4	8.5	10.0	16.3
4-Oct	8.2	7.7	7.5	6.6	6.5	5.9	5.3	5.5	6.3	7.8	8.7	8.9	8.9	8.1	6.6	5.0	4.1	3.4	3.3	3.0	2.7	2.5	1.7	1.5	5.7	8.9
5-Oct	1.4	0.6	-0.3	-1.3	-1.3	-1.3	-1.1	-1.0	0.4	1.4	2.7	5.2	7.5	8.3	8.4	8.8	8.6	7.5	6.4	5.5	4.7	3.9	3.7	3.0	3.4	8.8
6-Oct	2.4	2.1	1.5	0.0	-1.4	-2.4	-2.1	-1.9	-1.7	-0.3	1.1	2.1	3.0	4.3	4.2	5.2	4.5	1.9	0.3	0.6	1.1	1.4	1.8	2.3	1.2	5.2
7-Oct	2.8	3.3	3.3	3.8	4.0	3.7	3.7	3.9	5.7	7.1	8.5	9.8	12.1	15.1	16.6	16.3	15.6	13.8	11.2	10.0	9.2	8.8	8.8	8.9	8.6	16.6
8-Oct	8.7	8.8	8.3	8.5	9.0	8.5	8.2	7.3	6.5	7.1	9.0	10.3	11.3	12.0	11.9	12.2	11.4	9.8	8.9	7.8	6.4	5.9	5.3	5.1	8.7	12.2
9-Oct	4.5	4.3	4.6	4.4	3.4	2.8	1.1	1.1	3.5	5.8	8.5	12.0	14.2	15.5	15.8	16.3	16.1	13.9	11.9	8.9	7.9	6.7	5.5	4.7	8.1	16.3
10-Oct	4.5	3.6	2.5	1.7	1.5	0.3	0.0	0.6	4.0	7.5	10.6	13.2	15.9	17.7	19.7	21.2	21.1	17.8	14.9	14.6	14.2	12.9	10.2	8.8	10.0	21.2
11-Oct	7.1	6.9	6.2	5.4	5.8	7.7	9.6	9.3	9.4	8.9	7.0	6.5	6.0	5.4	4.5	4.6	5.0	5.0	4.1	3.6	4.2	3.8	3.3	2.3	5.9	9.6
12-Oct	2.1	2.2	1.8	1.5	1.2	1.0	0.7	0.0	0.3	0.6	0.1	1.2	1.5	2.3	2.6	2.0	2.1	1.7	1.2	-0.2	-1.0	-0.9	-0.9	-0.8	0.9	2.6
13-Oct	-1.4	-2.0	-2.8	-3.3	-3.9	-4.3	-4.7	-4.3	-2.6	-0.2	2.1	3.4	4.4	5.1	5.6	5.2	3.8	2.6	1.3	0.3	-0.3	-0.6	-1.4	-1.6	0.0	5.6
14-Oct	-1.7	-2.0	-1.9	-1.7	-1.5	-1.3	-0.8	-0.6	1.5	2.9	4.0	6.1	7.3	9.1	10.5	11.6	11.3	7.6	5.3	4.4	3.5	2.4	2.1	1.4	3.3	11.6
15-Oct	0.9	0.6	0.2	0.3	0.1	-0.2	-0.5	0.1	1.6	3.1	6.0	7.7	10.1	11.7	13.4	14.5	14.4	11.2	7.7	6.6	4.7	4.4	2.7	1.7	5.1	14.5
16-Oct	1.0	0.1	1.9	1.5	1.2	-0.1	0.4	-0.6	1.4	4.8	6.8	8.9	10.8	11.6	13.6	13.0	12.4	12.6	13.3	12.7	12.2	12.3	12.0	11.1	7.3	13.6
17-Oct	10.4	9.9	9.0	8.1	8.1	7.2	6.8	5.8	5.9	6.0	6.6	8.3	10.0	11.1	12.0	11.9	10.8	9.5	8.3	4.8	3.5	3.9	3.8	2.6	7.7	12.0
18-Oct	0.4	-0.8	-1.6	-1.1	1.2	1.1	0.2	-0.3	1.2	3.9	6.4	9.0	11.8	12.7	13.1	13.0	12.4	8.4	4.6	3.0	1.4	0.1	-1.3	-1.8	4.0	13.1
19-Oct	-2.5	-2.3	-2.7	-2.9	-2.4	-2.1	-1.7	-1.4	-0.9	-0.1	0.4	1.1	2.0	3.1	3.4	3.6	3.1	2.6	2.4	2.3	1.9	1.8	1.9	1.9	0.5	3.6
20-Oct	1.9	2.0	2.0	1.9	1.8	1.8	1.5	1.2	1.2	1.6	1.7	2.3	2.5	3.1	3.7	4.0	4.2	3.9	3.9	3.9	3.0	2.8	3.4	3.4	2.6	4.2
21-Oct	3.1	2.9	3.0	3.0	3.1	2.6	2.4	2.4	3.0	4.0	6.3	8.3	7.7	8.2	8.3	7.7	6.2	4.3	3.2	2.4	0.5	0.2	-0.2	-0.9	3.8	8.3
22-Oct	-0.6	-0.2	-0.8	-1.8	-2.2	-2.2	-2.5	-2.8	-1.0	1.7	3.7	5.7	7.8	9.2	10.6	10.4	7.7	4.5	5.0	6.5	6.4	6.1	6.5	7.0	3.5	10.6
23-Oct	7.4	7.4	6.6	6.0	5.7	5.7	5.7	5.2	5.9	6.9	9.3	10.8	12.5	13.6	13.4	12.2	11.0	9.6	7.9	7.6	7.1	5.9	5.1	5.5	8.1	13.6
24-Oct	5.5	5.1	4.8	3.4	2.7	2.1	1.3	1.2	2.2	4.6	7.1	8.3	9.9	10.4	10.6	10.5	9.1	6.8	5.2	6.0	5.0	3.6	2.8	2.5	5.4	10.6
25-Oct	2.1	2.2	2.4	2.5	3.3	3.6	3.3	3.2	3.5	3.8	4.0	4.7	6.1	6.6	6.8	7.4	7.1	6.4	5.5	4.8	2.7	1.6	0.5	-0.2	3.9	7.4
26-Oct	0.0	-1.3	-1.6	-1.9	-2.2	-2.5	-2.2	-2.2	-1.5	-0.6	0.6	1.8	3.0	5.4	5.1	5.3	5.2	5.3	5.1	4.0	3.2	3.0	2.7	2.6	1.5	5.4
27-Oct	2.8	3.0	3.1	3.0	2.3	1.8	1.8	1.6	1.3	1.1	1.1	1.3	1.7	2.0	2.1	2.0	0.6	0.4	0.1	-0.1	-0.3	-0.3	-0.3	-0.3	1.3	3.1
28-Oct	-0.3	-0.4	-0.5	-0.6	-0.8	-0.9	-1.0	-1.0	-0.9	-0.4	-0.1	0.1	0.1	0.3	0.8	0.9	0.7	0.2	0.2	-0.3	-0.4	-1.1	-0.8	-0.6	-0.3	0.9
29-Oct	-0.4	-0.5	-0.5	-0.5	-0.8	-0.9	-1.1	-1.2	-1.0	-0.5	0.0	0.4	0.5	0.3	0.1	0.1	0.2	0.3	0.2	0.0	-0.3	-0.4	-0.4	-0.4	-0.3	0.5
30-Oct	-0.3	-0.3	-0.4	-0.4	-0.8	-0.8	-0.6	-0.6	-0.4	-0.4	-0.5	0.0	0.5	1.0	1.0	1.0	1.0	1.0	0.6	0.6	0.6	0.5	0.5	0.6	0.1	1.0
31-Oct	0.6	0.3	0.1	0.1	0.1	0.0	0.2	-0.1	-0.3	0.9	2.2	2.8	3.3	3.3	2.9	2.7	2.4	2.2	2.3	2.3	2.1	2.0	2.0	1.6	1.5	3.3
	2.9	2.7	2.4	2.1	2.0	1.7	1.6	1.6	2.5	3.8	5.0	6.2	7.4	8.2	8.6	8.6	8.0	6.7	5.6	4.9	4.2	3.7	3.3	3.0	Diurnal Average	
	10.4	9.9	10.0	10.0	10.0	10.0	10.0	10.0	9.9	12.2	14.7	16.1	16.3	17.7	19.7	21.2	21.1	17.8	14.9	14.6	14.2	12.9	12.0	11.1	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Barge Landing - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	134	18.01	18.01
0 - 10	510	68.55	86.56
10 - 20	98	13.17	99.73
> 20	2	0.27	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 100.0 % on Oct 2 01:00

Maximum Daily Average: 96.8 % on Oct 28

Minimum Value: 30.1 % on Oct 14 16:00

Minimum Daily Average: 54.8 % on Oct 14

Maximum Diurnal Average: 89.1 % at hour 8

Minimum Diurnal Average: 63.7 % at hour 16

Monthly Average: 78.78 %

Percentiles: P_1 = 35.8 P_{10} = 50.8 Q_1 = 66.0 Median = 82.3 Q_3 = 95.3 P_{90} = 99.3 P_{99} = 100.0

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

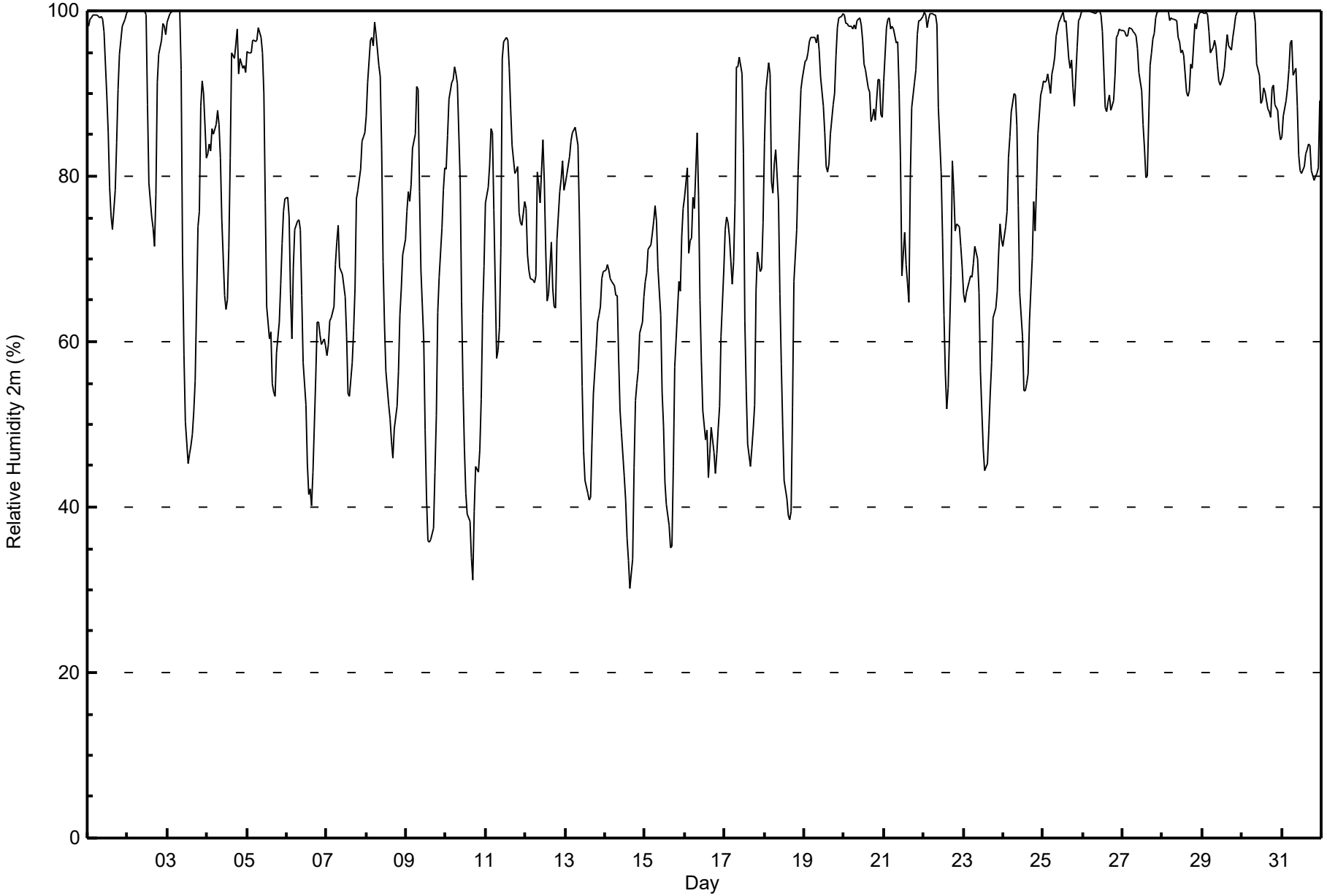
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	98.1	99.1	99.2	99.4	99.5	99.5	99.3	99.2	99.4	99.0	97.5	89.7	85.3	78.6	75.3	73.5	78.2	84.2	90.4	94.7	96.5	98.1	98.9	99.7	93.0	99.7
2-Oct	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.4	88.6	79.2	75.2	73.7	71.5	77.8	91.3	94.7	96.4	98.4	98.2	97.2	93.4	100.0
3-Oct	98.6	99.6	99.8	100.0	100.0	100.0	100.0	100.0	92.8	70.5	58.5	50.4	45.3	46.4	47.4	48.8	51.6	55.2	74.0	75.8	88.5	91.6	90.0	82.3	77.8	100.0
4-Oct	82.7	84.0	83.0	85.7	85.0	86.3	88.0	86.3	82.1	74.8	65.6	63.9	65.1	71.3	82.1	95.0	94.2	95.9	97.8	92.3	94.3	93.1	93.5	92.6	84.8	97.8
5-Oct	95.1	94.9	94.9	96.5	96.5	96.3	96.4	98.1	96.7	94.9	90.1	76.7	64.3	60.3	61.2	55.0	53.8	53.4	58.7	62.5	66.9	71.8	75.8	77.3	78.7	98.1
6-Oct	77.5	75.1	65.8	60.4	69.0	73.6	74.6	74.8	73.6	65.5	57.5	52.4	45.3	41.6	42.1	40.2	44.3	55.8	62.4	62.3	60.9	59.6	60.3	59.5	60.6	77.5
7-Oct	58.2	59.7	62.5	62.8	64.2	69.2	72.1	74.0	69.1	68.1	66.7	65.3	60.7	53.7	53.4	57.4	61.3	66.5	77.2	78.3	80.9	84.2	84.8	85.3	68.2	85.3
8-Oct	87.4	91.3	96.5	96.8	95.7	98.7	97.1	93.4	92.0	83.1	69.7	62.2	56.5	52.4	50.7	48.0	45.9	49.4	52.3	56.5	63.2	66.5	70.5	72.4	72.8	98.7
9-Oct	75.8	78.1	77.0	79.0	83.4	85.1	90.9	90.5	78.2	68.7	60.2	49.3	41.1	35.9	35.8	36.1	37.4	44.3	51.1	63.5	67.8	73.8	78.3	81.0	65.1	90.9
10-Oct	80.8	84.8	89.3	91.4	91.8	93.2	92.4	91.1	79.4	64.9	54.6	47.2	41.7	39.2	38.3	33.9	31.2	39.4	45.0	44.3	46.9	53.1	63.4	69.2	62.8	93.2
11-Oct	76.8	78.7	81.3	85.8	85.3	75.9	57.9	59.0	61.6	71.3	94.3	96.3	96.9	96.5	93.0	88.1	83.7	80.3	80.6	81.2	75.7	74.3	74.1	77.0	80.2	96.9
12-Oct	76.1	70.6	68.7	67.7	67.4	67.1	67.9	80.5	78.9	76.9	84.4	79.3	71.1	64.9	65.8	72.0	66.4	64.2	64.0	72.4	78.2	79.6	81.9	78.3	72.7	84.4
13-Oct	79.1	80.2	82.3	84.2	85.3	85.7	85.9	83.7	75.0	64.8	54.6	46.8	43.1	41.6	40.8	41.1	47.9	53.7	59.2	62.3	63.2	64.2	67.7	68.5	65.0	85.9
14-Oct	68.7	69.3	68.7	67.7	67.3	66.8	65.5	65.7	57.9	51.7	49.1	43.8	40.9	36.3	33.5	30.1	33.6	44.7	52.8	55.0	56.6	61.0	62.4	65.5	54.8	69.3
15-Oct	67.3	68.3	71.3	71.7	73.1	74.6	76.5	74.6	68.9	63.2	54.0	49.8	43.1	40.4	37.9	35.0	35.3	44.9	57.0	60.3	67.4	66.1	72.8	76.1	60.4	76.5
16-Oct	77.4	81.0	70.7	72.1	72.6	77.5	76.1	85.2	77.7	65.1	57.6	51.7	48.1	49.3	43.6	46.4	49.6	46.6	44.0	46.4	49.6	52.2	60.6	68.6	61.2	85.2
17-Oct	73.5	75.0	74.4	72.7	67.0	69.7	76.8	93.3	93.2	94.5	92.4	82.7	62.5	54.0	47.6	45.0	47.1	49.6	52.3	66.3	70.9	68.6	68.8	74.4	69.7	94.5
18-Oct	84.1	90.3	93.7	92.4	79.4	77.9	81.5	83.2	76.9	65.8	57.3	49.8	43.3	41.0	39.1	38.5	39.4	52.1	67.3	73.6	80.7	85.7	90.5	91.9	69.8	93.7
19-Oct	93.9	94.0	94.8	96.3	96.8	96.7	96.7	96.1	97.1	95.2	92.0	88.4	85.2	81.2	80.5	81.5	85.1	88.6	90.0	94.5	98.1	99.1	99.4	99.6	92.5	99.6
20-Oct	99.5	98.5	98.4	98.1	98.2	97.9	98.2	97.8	98.8	99.1	98.3	96.4	93.5	92.8	90.7	90.1	86.6	87.2	88.2	86.7	91.7	91.8	87.5	87.1	93.9	99.5
21-Oct	91.4	98.0	98.9	99.1	97.7	98.1	97.7	96.1	96.3	90.6	81.9	67.9	73.2	69.4	67.1	64.8	79.4	88.2	91.4	92.9	97.1	98.8	98.9	99.3	88.9	99.3
22-Oct	99.8	99.4	98.0	99.0	99.6	99.7	99.5	99.4	98.3	88.4	80.6	72.5	63.2	56.1	51.9	54.4	68.0	81.9	78.3	73.4	74.2	73.9	71.5	69.1	81.3	99.8
23-Oct	65.8	64.7	65.9	67.3	67.9	67.8	69.4	71.6	70.0	65.9	56.4	51.6	47.1	44.3	45.3	49.3	53.6	57.4	62.9	64.1	66.0	70.6	74.2	72.3	62.1	74.2
24-Oct	71.5	73.8	75.8	82.3	84.7	87.7	89.9	89.9	86.2	76.5	65.9	60.7	54.1	54.1	54.9	56.0	62.5	70.2	77.0	73.4	78.7	85.2	89.8	90.5	74.6	90.5
25-Oct	91.5	91.3	91.5	92.5	90.0	92.3	93.2	94.5	97.0	98.7	99.0	99.5	99.8	98.6	98.9	94.3	93.1	94.0	90.7	88.4	95.5	98.8	99.1	99.9	95.1	99.9
26-Oct	100.0	100.0	100.0	100.0	99.9	99.8	99.8	99.6	99.8	100.0	100.0	99.5	97.5	88.3	87.8	89.0	89.8	88.1	89.2	92.2	96.8	97.1	97.7	97.6	96.2	100.0
27-Oct	97.6	97.5	96.9	97.0	98.1	97.8	97.4	97.2	97.0	95.5	92.6	90.4	86.2	83.3	79.8	80.1	93.4	94.9	96.6	97.3	99.2	99.8	100.0	100.0	94.4	100.0
28-Oct	100.0	100.0	100.0	100.0	98.8	99.2	99.0	98.9	98.7	96.7	96.3	94.9	95.3	94.6	90.2	89.6	90.3	93.6	93.1	98.4	97.8	99.0	99.6	99.9	96.8	100.0
29-Oct	99.9	99.7	99.8	99.5	97.4	95.0	95.6	96.4	95.6	93.4	91.6	91.0	92.1	93.0	95.2	97.1	95.8	95.3	96.8	98.0	99.4	99.9	100.0	100.0	96.6	100.0
30-Oct	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.6	93.6	92.3	88.8	89.1	90.8	90.2	88.1	87.7	87.0	90.7	91.0	88.6	88.0	85.5	84.3	93.1	100.0
31-Oct	84.8	87.4	89.2	90.7	92.9	96.1	96.4	92.3	93.1	88.5	82.5	80.6	80.4	81.2	82.8	83.3	83.8	83.8	80.7	79.4	80.1	80.4	81.0	89.1	85.8	96.4
	85.6	86.6	86.7	87.4	87.2	87.9	88.1	89.1	86.5	81.4	77.2	72.2	67.7	64.8	63.8	63.7	65.9	69.9	74.3	76.5	79.6	81.4	83.1	84.0	Diurnal Average	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.5	99.8	98.6	98.9	97.1	95.8	95.9	97.8	98.4	99.4	99.9	100.0	100.0	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Barge Landing - October 2025



Maximum Value: 29.2 inHg on Oct 30 11:00

Maximum Daily Average: 29.2 inHg on Oct 30

Minimum Value: 28.3 inHg on Oct 25 07:00

Minimum Daily Average: 28.4 inHg on Oct 25

Maximum Diurnal Average: 28.8 inHg at hour 9

Minimum Diurnal Average: 28.8 inHg at hour 15

Monthly Average: 28.80 inHg

Percentiles: P_1 = 28.3 P_{10} = 28.5 Q_1 = 28.6 Median = 28.8 Q_3 = 29.0 P_{90} = 29.1 P_{99} = 29.2

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

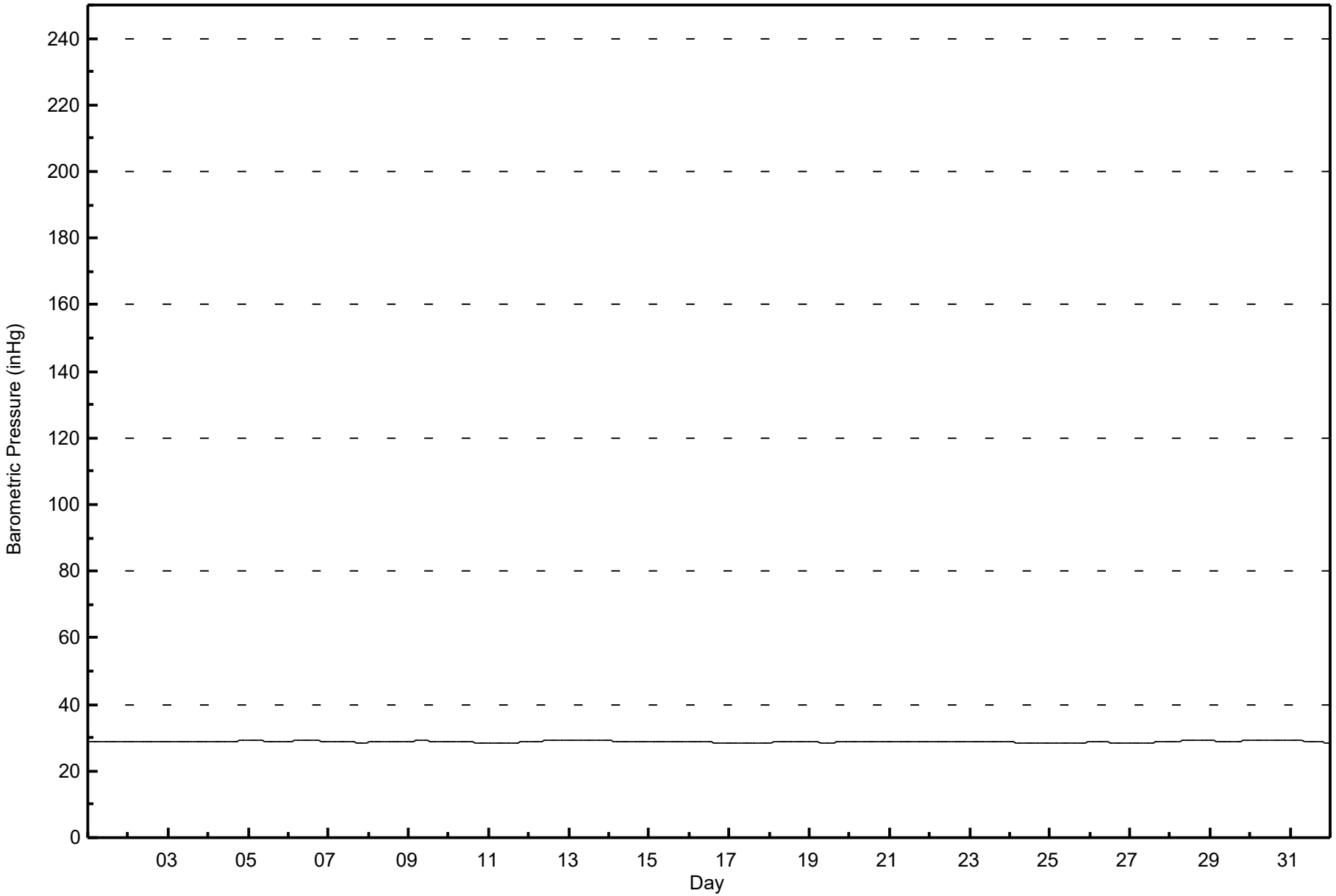
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	28.7	28.7	28.7	28.7	28.6	28.6	28.6	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.7	28.9
2-Oct	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.9	29.0
3-Oct	28.8	28.8	28.8	28.8	28.8	28.8	28.7	28.7	28.7	28.7	28.7	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.7	28.8
4-Oct	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	28.9	29.1
5-Oct	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.1
6-Oct	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	28.9	29.0	29.1
7-Oct	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.7	28.7	28.7	28.7	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.7	28.9
8-Oct	28.6	28.6	28.6	28.6	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	29.0	29.0	28.8	29.0
9-Oct	29.0	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1
10-Oct	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.8	28.8	28.7	28.7	28.6	28.6	28.6	28.5	28.5	28.5	28.5	28.5	28.4	28.4	28.7	29.0
11-Oct	28.4	28.4	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.4	28.4	28.4	28.4	28.5	28.5	28.5	28.6	28.6	28.6	28.7	28.7	28.7	28.8	28.5	28.8
12-Oct	28.8	28.8	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2	29.2	29.2	29.0	29.2
13-Oct	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2
14-Oct	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
15-Oct	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9
16-Oct	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.7	28.7	28.6	28.6	28.6	28.5	28.5	28.5	28.5	28.4	28.4	28.4	28.4	28.4	28.6	28.8
17-Oct	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.5	28.5	28.5	28.5	28.5	28.5	28.6	28.4	28.6
18-Oct	28.6	28.6	28.6	28.6	28.6	28.6	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7
19-Oct	28.7	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.7	28.7	28.7	28.7	28.7	28.7	28.6	28.7
20-Oct	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.9	28.9
21-Oct	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	28.8	29.0
22-Oct	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.9	29.0
23-Oct	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.6	28.7	28.8
24-Oct	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.4	28.4	28.4	28.4	28.4	28.5	28.6
25-Oct	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.3	28.4	28.4	28.4	28.5	28.5	28.5	28.5	28.6	28.6	28.6	28.6	28.4	28.6
26-Oct	28.6	28.6	28.6	28.7	28.7	28.7	28.7	28.7	28.7	28.6	28.6	28.6	28.6	28.6	28.5	28.5	28.5	28.5	28.5	28.5	28.4	28.4	28.4	28.4	28.6	28.7
27-Oct	28.4	28.3	28.3	28.3	28.4	28.4	28.4	28.4	28.4	28.4	28.5	28.5	28.5	28.6	28.6	28.6	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.6	28.8
28-Oct	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2
29-Oct	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.0	29.1
30-Oct	29.1	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2
31-Oct	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.8	28.8	28.7	28.7	28.7	28.6	28.6	28.6	28.6	28.5	28.9	29.2
	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	Diurnal Average	
	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Barometric Pressure (BP) - inHg

Barge Landing - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 20m (WS20) - km/h

Barge Landing - October 2025

Maximum Speed: 32 km/h on Oct 26 22:00

Maximum Daily Speed Average: 19.6 km/h on Oct 27

Minimum Speed Value: 1 km/h on Oct 19 04:00

Minimum Daily Speed Average: 1.4 km/h on Oct 20

Maximum Diurnal Speed Average: 5.6 km/h at hour 13

Minimum Diurnal Speed Average: 0.9 km/h at hour 7

Monthly Average Velocity: 2.7 km/h 212.2 deg

Percentiles: P_1 = 2 P_{10} = 5 Q_1 = 7 Median = 10 Q_3 = 14 P_{90} = 18 P_{99} = 29

Hours in Service: 744

Hours of Data: 744

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	N10	NNW13	NNW14	NNW15	NNW16	NNW16	NNW16	NNW16	NNW15	N15	NNW19	NNW18	NNW14	NNW12	NNW10	N10	N6	N5	ENE4	E1	NE5	ENE4	SW5	SW7	NNW10.0	NNW19
2-Oct	WSW4	WSW5	SW5	S4	SE3	S5	SE6	S6	SE8	SE8	SSE6	ESE5	SE6	SSE12	S11	S8	S4	SSE7	SE11	SSE12	SSE13	SSE14	SSE13	S10	SSE6.9	SSE14
3-Oct	SSE13	SSE14	SSE12	SSE7	S7	SSE8	SSE10	S12	S13	S14	SSW16	SW18	SW23	WSW22	SW22	WSW20	SW15	SW14	WNW11	WSW14	WSW13	WSW8	WSW7	WSW14	SW11.3	SW23
4-Oct	WSW9	W8	W6	W9	WSW11	W6	WNW8	W6	W4	NW4	NNW11	N6	NW8	N15	NNW13	NNW15	NNW22	NNW13	NW10	NW13	WNW7	WNW7	W7	W6	NW7.7	NNW22
5-Oct	WNW4	SW8	WSW10	SW6	SW7	S5	SSW7	SSE8	S7	SSE7	SSE8	SW4	SW5	SW9	SSW9	W10	W9	W13	W10	W8	SSW4	W5	NNW9	N20	WSW4.3	N20
6-Oct	N14	N13	N17	NNW18	NNW12	N10	N9	N10	NNW8	NNE8	NNE6	N4	WSW4	S8	SSW9	S10	SE10	ESE11	SE11	SE11	SE11	SE9	SE9	SE9	NE1.9	NNW18
7-Oct	SE9	SSE10	SSE9	SSE10	S7	SSE8	SSE10	S11	SSE14	S14	SSE17	SSE15	SSE17	SSE14	SSE17	SE11	SE10	SE7	SSE4	NNW11	N7	SW2	NNW7	NNW10	SSE7.3	SSE17
8-Oct	W7	NNW9	NW8	WSW6	W7	WSW7	W11	W11	WSW9	SW8	SW11	WSW16	WSW17	WSW16	SW19	WSW14	W21	WNW13	W15	W22	W15	W12	WNW11	WNW12	W11.2	W22
9-Oct	W6	WSW8	SW9	SSW10	SW11	SSW12	S8	S9	SSW10	S12	S14	SW14	SW18	SW20	SW22	SW16	SW14	SW11	SSW10	S9	S9	SSE8	SSE11	SSE12	SSW10.7	SW22
10-Oct	SSE11	SSE8	SSE10	SSE12	SSE9	SE10	SE10	SSE9	SSE8	S8	S14	SSE14	SSE16	SSE18	SSE17	S15	S16	S12	SSE17	SSE17	SSE15	SSE5	SE5	E4	SSE11.3	SSE18
11-Oct	E8	ESE9	N2	E8	NNE6	NNE14	N18	N14	NNW15	NNW18	NNW16	NNW14	NW8	WNW14	W17	WNW15	WNW12	WNW15	WNW14	NW17	NNW19	NNW21	NNW20	NNW24	NNW10.6	NNW24
12-Oct	NNW20	NNW21	NNW21	NNW24	NNW24	N22	N20	N12	N13	N16	N16	NNE14	N20	N20	N21	N15	NNW14	NNW16	NNW14	NNW9	NW7	NNW6	WNW5	WNW7	NNW15.2	NNW24
13-Oct	NW8	WNW6	WSW6	SW7	SSW5	SSW7	SSW8	SSW9	SSW8	SSW10	SSW14	SW18	SSW19	SSW18	S19	S19	S16	S15	S16	SSE17	SSE16	SSE19	SSE17	SSE17	S11.4	SSE19
14-Oct	SSE15	SSE15	SSE17	SSE16	SSE14	SSE18	S13	S12	SSW18	SSW21	SSW20	S20	SSW18	SSW18	SSW12	SW14	S10	SSE12	SSE14	SSE15	SSE10	SSE13	SSE14	SSE14	S14.1	SSW21
15-Oct	SSE13	SSE12	SSE13	SSE14	SSE13	SSE12	SSE14	S12	S12	S12	SSE15	SSW12	SSW13	SW17	SW15	SW14	SW12	SSW9	S8	SSW10	SW4	SSW8	SSW6	WSW6	S10.3	SW17
16-Oct	S5	SSW9	SW8	SW6	SW7	SSW7	S10	SSE10	SSE8	SSE9	SSE10	SSE14	SSE11	SSE13	SSE12	S6	S8	S13	S14	SSE14	SSE13	SSW13	SSW15	S14	S9.8	SSW15
17-Oct	S13	SSW12	SW12	SW10	WSW12	WSW11	WSW12	WSW10	WSW14	WSW15	WSW10	WSW8	WNW13	W18	WNW20	WNW16	WNW15	NW16	WNW11	WSW3	W3	W7	W8	SW7	W9.9	WNW20
18-Oct	SSW7	SSW6	S5	SSW7	SW13	SW14	SW8	SW7	SW10	WSW10	SW7	SSW7	SSW8	SW12	WSW13	WSW13	SW9	SW7	S2	SE5	SE5	SSW3	SE4	ESE6	SW6.7	SW14
19-Oct	ESE10	SE4	SSE2	N1	NNW5	N5	NE6	N5	NNW8	NNW8	NNW8	NNW9	NNW10	NNW11	N10	N12	N11	N11	N9	N10	N11	N10	N9	N10	N6.7	N12
20-Oct	N12	NNE14	N11	NNW10	N10	NNW10	NNW11	N6	NNW5	NE3	E4	ESE5	SSW5	SSE7	SE9	SSE8	SSW9	S10	S11	S11	SSE11	SE12	SSE15	SSE12	SE1.4	SSE15
21-Oct	SSE13	SSE12	SSE12	SSE13	SSE12	SSE10	S8	SSW9	S5	SSW8	SW7	WNW18	WSW13	WSW12	NW7	NW14	NNE8	NE11	NE10	NE7	E4	SSE4	SE5	SE7	S3.1	WNW18
22-Oct	SE7	ESE7	SE4	ESE8	SE8	ESE8	ESE7	SE7	SE5	SSE6	S9	S10	S7	SSE8	SSE8	S4	N6	ESE7	SE13	SE17	SE17	SE16	SE17	SE20	SE8.4	SE20
23-Oct	SE24	SE22	SSE18	SSE16	SSE15	SE15	SE15	SSE12	SSE12	SSE10	SSE16	SSE15	SSE13	SSE15	SE16	SE15	SE16	SE18	SE15	SE19	SE17	SSE13	SE12	SE13	SSE15.2	SE24
24-Oct	SSE14	S9	S8	S6	S7	S9	S9	SSE11	S10	SSE10	SSE13	SSE14	S12	S8	S4	SW2	ESE6	E10	E11	ESE12	ESE10	ESE7	SSE7	S4	SSE7.7	SSE14
25-Oct	SE3	NNW1	NW2	NW8	NNW13	SE10	SE4	WSW7	WNW4	WNW6	WSW7	SW8	WSW12	W13	SW13	WSW19	WSW11	SW10	SSW12	SW11	S10	S9	SSE7	SE7	SW5.3	WSW19
26-Oct	SE7	SE8	SSE11	SE7	ESE4	NNE5	NE7	N6	NNW6	NNW10	N8	NW6	NNW11	N12	N19	N15	N18	N21	N28	N31	N32	N32	N30	N30	N12.3	N32
27-Oct	N32	N28	N28	N28	NNW28	N28	NNW29	NNW27	NNW28	NNW30	NNW28	NNW27	NNW26	NNW26	NNW24	NNW18	NW12	WNW10	WNW7	WNW12	W10	W10	W8	W7	NNW19.6	N32
28-Oct	W6	WNW5	W5	W11	W9	W9	W10	WSW7	W9	W8	WSW8	WSW11	WSW11	W11	SW10	WSW12	WSW10	SW8	WSW7	SSW5	SSE5	S5	SSE5	SSE7	WSW6.8	WSW12
29-Oct	SSE7	SE7	SE8	SE9	ESE8	ESE10	ENE7	ENE8	ENE7	NNE8	N11	NNE10	NNW6	NNW12	N10	NNE13	NNE14	NNE12	N9	NNW10	NNW8	NNW8	WNW2	NNW5	NNE5.0	NNE14
30-Oct	NW5	NNE3	N3	NE5	SE1	SW3	SSE4	SSW4	WSW8	WSW10	WSW11	WSW8	SSW7	S6	SSW8	SSW11	SSW10	SW9	SSW9	SSW9	SSW10	SSW11	SSW12	SSW12	SSW5.9	SSW12
31-Oct	SSW12	SSW12	SW12	SSW10	SW12	SSW6	SSE8	S14	S11	SSE13	SSE19	SSE17	SSE19	SSE23	SSE22	SSE20	SSE22	SSE23	SSE25	SSE19	SSE22	SSE20	SSE17	SSE15	SSE15.2	SSE25
	SSE2.2	S1.8	SSW2.0	SSW1.8	WSW2.2	SSW1.6	S0.9	SSW2.2	SW2.7	SW2.7	SSW3.6	SW4.3	SW5.6	SW5.5	SW5.3	WSW4.9	WSW3.5	SW2.2	S2.5	SSW2.8	S2.8	S3.1	S3.1	S2.0	Diurnal Average	
	N32	N28	N28	N28	NNW28	N28	NNW29	NNW27	NNW28	NNW30	NNW28	NNW27	NNW26	NNW26	NNW24	SSE20	NNW22	SSE23	N28	N31	N32	N32	N30	N30	Diurnal Maximum	

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 9 km/h on Oct 27 01:00

Minimum Value: 1 km/h on Oct 22 07:00

Percentiles: P_1 = 1 P_{10} = 1 Q_1 = 2 Median = 3 Q_3 = 4 P_{90} = 5 P_{99} = 8

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

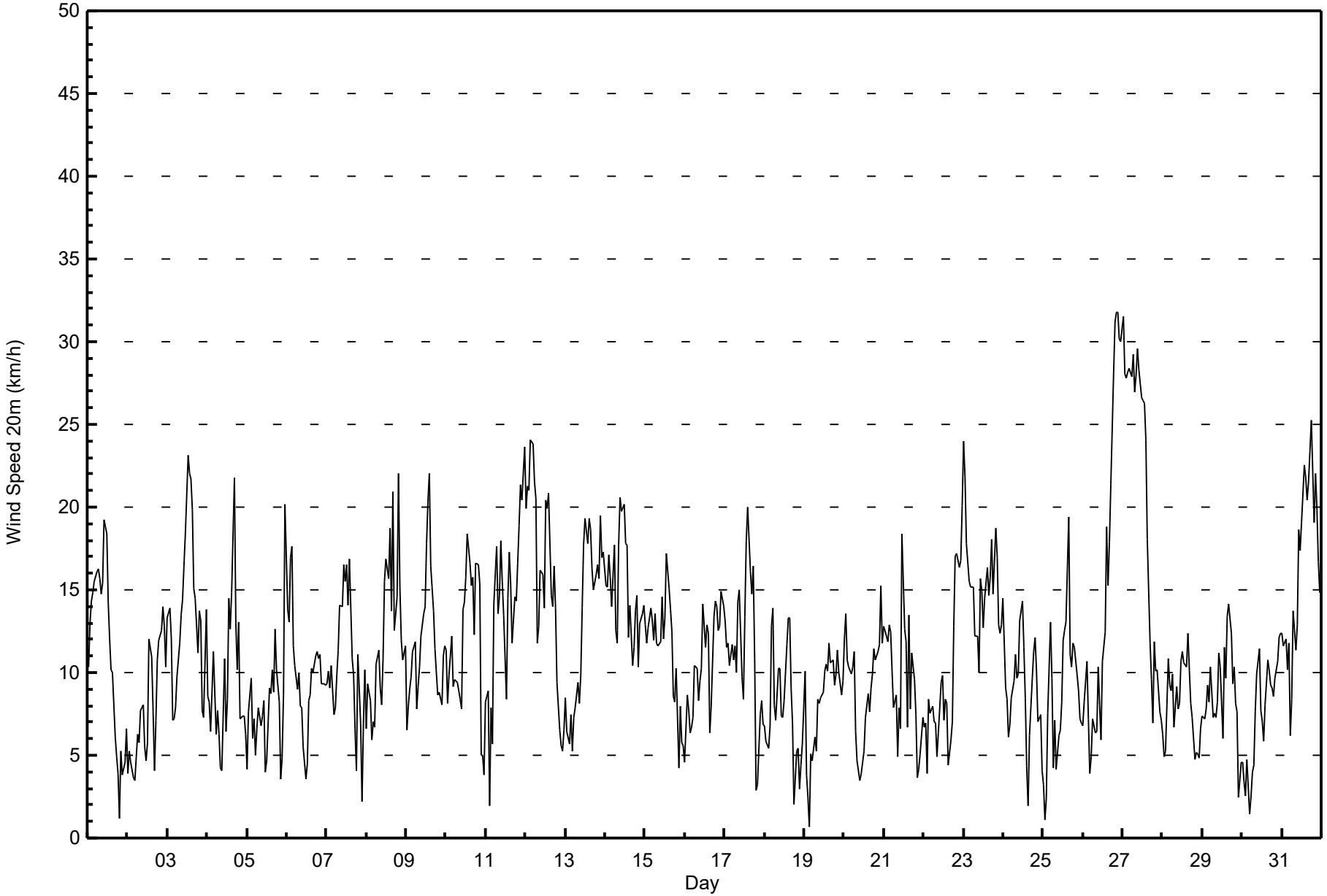
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	3	3	4	4	5	4	4	4	4	6	5	5	4	3	3	2	1	1	1	2	3	1	1	6
2-Oct	1	3	2	1	1	2	1	2	2	2	2	1	2	2	3	3	1	2	1	1	1	2	2	2	3
3-Oct	2	2	2	2	1	1	2	2	3	5	5	5	7	6	7	6	5	4	5	4	5	3	3	3	7
4-Oct	3	4	3	4	3	2	2	2	2	2	4	2	3	4	4	5	6	6	3	4	2	2	2	2	6
5-Oct	2	2	2	3	2	2	1	1	2	2	3	2	2	3	3	4	3	3	3	2	2	2	7	6	7
6-Oct	5	4	6	6	3	3	2	3	3	3	3	2	2	3	3	3	3	2	1	1	1	1	1	1	6
7-Oct	2	2	2	2	2	2	2	2	3	4	4	4	4	4	4	4	2	2	1	3	3	2	2	3	4
8-Oct	2	4	3	3	4	2	3	3	2	2	4	4	4	5	5	4	7	4	5	7	5	4	3	4	7
9-Oct	2	4	2	2	2	2	2	2	3	3	3	4	5	6	5	4	4	3	2	2	2	1	1	2	6
10-Oct	1	1	2	1	2	1	1	2	2	2	4	3	4	4	4	4	4	2	2	2	2	3	3	1	4
11-Oct	2	2	2	2	3	4	5	4	5	4	4	4	3	5	5	5	4	5	4	5	6	6	6	8	8
12-Oct	7	6	6	7	7	7	7	3	4	6	5	4	6	7	6	5	4	5	4	2	1	1	1	2	7
13-Oct	2	1	2	2	1	2	1	2	2	3	5	5	6	5	6	5	4	3	3	3	3	3	2	3	6
14-Oct	3	2	3	3	3	3	3	3	5	6	5	6	5	5	4	4	3	2	1	1	1	1	1	2	6
15-Oct	2	1	1	2	2	2	2	2	4	3	4	4	4	4	4	4	3	2	1	2	2	2	1	3	4
16-Oct	3	2	2	2	2	2	2	1	1	2	3	3	3	3	4	2	1	3	3	3	2	4	3	3	4
17-Oct	3	3	2	3	4	3	2	2	3	3	3	3	4	5	6	5	4	4	4	1	2	2	2	1	6
18-Oct	1	1	1	2	2	2	3	2	2	2	2	2	3	4	4	3	2	1	1	2	2	2	2	2	4
19-Oct	1	2	2	1	1	2	1	2	2	1	2	2	2	3	3	4	3	3	3	2	3	2	2	2	4
20-Oct	4	4	3	3	3	2	3	3	2	3	2	1	2	2	2	1	2	2	2	2	2	3	3	3	4
21-Oct	2	2	2	3	2	2	2	2	1	2	2	6	3	3	3	5	4	3	2	1	2	1	2	1	6
22-Oct	2	2	3	1	1	1	1	1	1	2	3	3	2	3	2	2	2	3	2	4	4	3	4	4	4
23-Oct	5	5	4	3	3	3	3	3	3	4	4	3	3	3	4	3	3	4	3	3	3	2	2	2	5
24-Oct	3	2	3	2	1	1	1	2	1	3	3	3	3	4	2	1	2	2	1	2	1	2	1	1	4
25-Oct	2	2	2	2	5	4	1	2	1	3	2	2	4	4	4	5	3	3	3	2	2	2	1	1	5
26-Oct	2	2	2	1	2	2	2	2	2	2	4	3	3	5	5	4	4	6	7	8	8	9	8	8	9
27-Oct	9	8	8	8	7	8	8	7	7	8	7	7	7	7	7	5	4	2	3	3	3	2	2	2	9
28-Oct	1	2	3	3	2	2	2	1	2	3	3	3	3	3	2	3	2	2	2	1	2	2	2	1	3
29-Oct	1	1	1	1	2	2	2	2	2	3	3	3	3	3	3	3	4	3	3	2	2	1	2	1	4
30-Oct	2	1	1	1	2	2	1	1	2	3	4	2	2	1	2	3	3	2	2	2	2	2	3	3	4
31-Oct	3	3	3	2	4	2	3	3	3	4	5	5	5	5	5	5	5	6	7	5	6	4	4	3	7
	9	8	8	8	7	8	8	7	7	8	7	7	7	7	7	6	7	6	7	8	8	9	8	8	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 20m (WS20) - km/h

Barge Landing - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	86	11.56	11.56
6 - 11	341	45.83	57.39
12 - 19	257	34.54	91.94
20 - 28	52	6.99	98.92
29 - 38	8	1.08	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 20m (WS20) - km/h

Barge Landing - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	7	2	3	2	4	4	11	7	12	7	7	4	4	5	2	5	86
6 - 11	25	6	4	4	4	14	31	44	39	35	29	29	30	11	9	27	341
12 - 19	18	6	0	0	0	1	16	81	24	20	21	18	7	12	5	28	257
20 - 28	12	0	0	0	0	0	3	8	1	2	3	3	2	1	0	17	52
29 - 38	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	68	14	7	6	8	19	61	140	76	64	60	54	43	29	16	79	744

Total Number of Valid Hours: 744

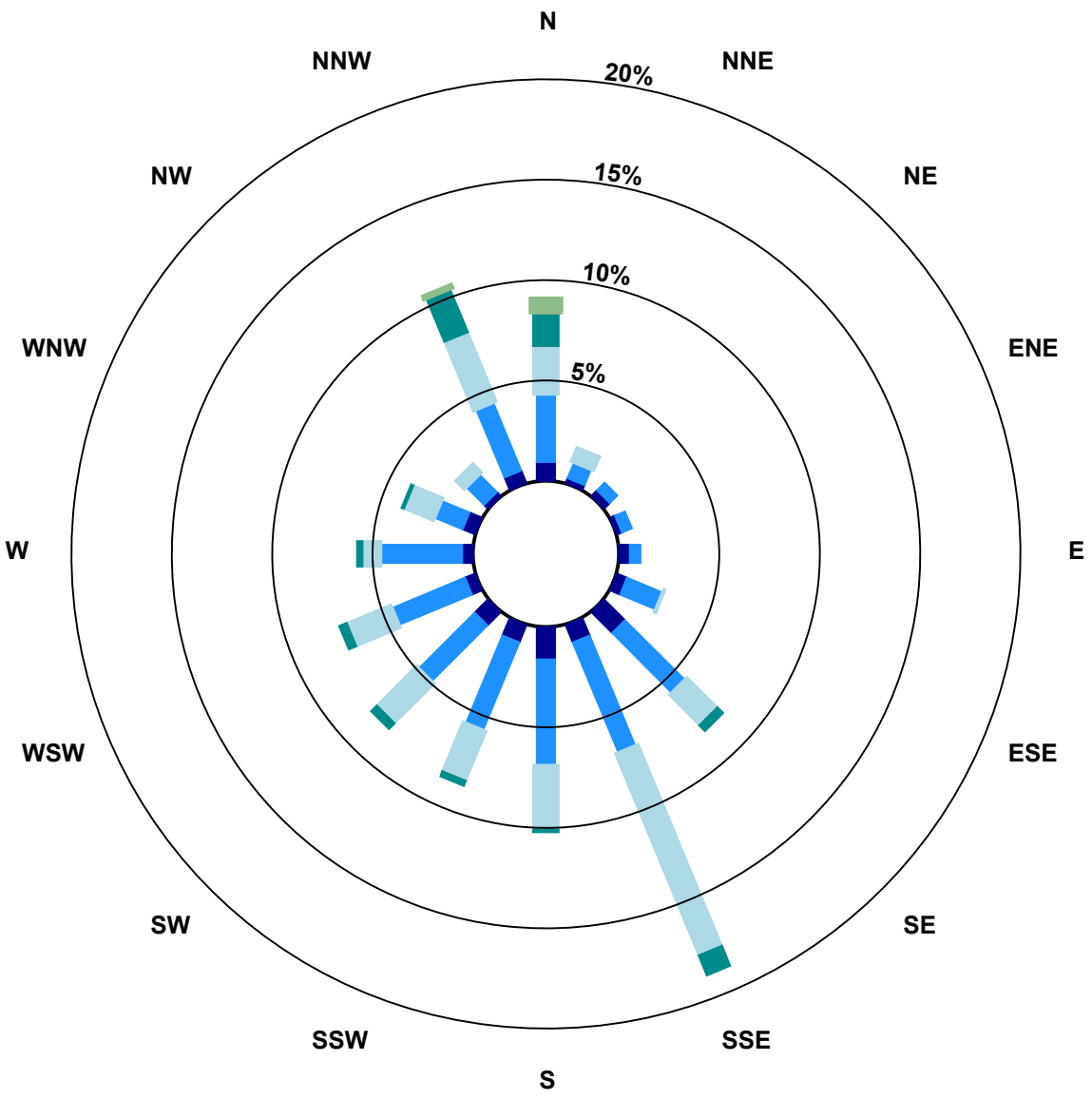
Total Number of Hours: 744

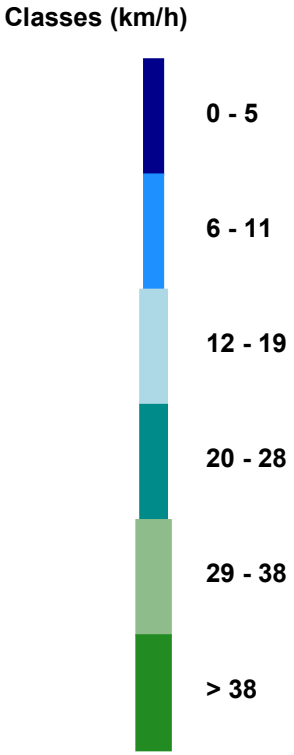
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 20m (WS20) - km/h

Barge Landing





Total Number of Valid Hours: 744

Direction of Maximum Speed: 0 deg on Oct 26 22:00
Direction of Maximum Daily Speed Average: 340.5 deg on Oct 27

Direction of Minimum Speed: 3 deg on Oct 19 04:00

Direction of Minimum Daily Speed Average: 1.4 deg on Oct 20

Monthly Average Direction: 212.2 deg

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	355	344	344	348	346	348	346	345	346	352	345	345	343	346	339	355	358	3	58	90	44	63	235	235	347.7
2-Oct	252	251	227	189	135	174	139	171	144	146	152	118	128	154	173	185	188	161	143	147	154	160	164	179	162.3
3-Oct	163	163	160	159	186	165	164	171	181	190	194	215	229	239	236	239	232	224	283	242	255	244	243	256	214.2
4-Oct	250	269	268	263	252	276	297	276	259	312	333	359	323	10	339	340	337	336	321	316	298	282	277	268	309.3
5-Oct	293	228	238	232	216	186	194	164	169	148	155	224	225	235	210	278	276	280	281	266	213	273	344	2	244.5
6-Oct	357	358	354	338	330	352	356	350	344	26	15	354	249	178	202	184	144	121	131	132	146	143	145	143	40.8
7-Oct	143	148	156	163	178	156	161	170	168	169	166	163	161	157	158	145	125	129	153	335	358	214	329	338	158.3
8-Oct	263	327	323	245	269	239	277	263	244	233	236	244	249	243	229	258	271	288	280	278	277	272	289	297	265.3
9-Oct	261	245	227	206	214	207	174	181	209	190	191	215	232	229	233	232	234	220	207	191	183	168	165	159	210.2
10-Oct	157	154	159	160	147	141	142	153	159	175	173	163	161	157	159	176	190	173	157	157	156	162	139	84	160.2
11-Oct	97	117	354	89	29	13	4	358	340	336	337	333	315	282	277	282	286	295	291	307	327	332	338	345	328.9
12-Oct	343	339	338	342	342	350	352	2	353	359	5	12	357	358	352	352	345	339	345	340	325	335	283	297	347.4
13-Oct	306	284	248	223	210	213	202	196	205	194	207	229	204	196	184	187	178	169	171	164	168	162	161	158	189.6
14-Oct	160	162	160	166	167	162	172	180	195	195	195	189	195	200	212	215	189	158	148	149	152	158	161	153	176.0
15-Oct	160	160	158	164	162	159	160	174	169	172	166	192	208	223	221	214	217	211	176	201	227	212	211	242	186.9
16-Oct	191	196	215	214	232	203	177	151	149	157	161	158	163	162	161	182	169	186	172	160	166	195	196	190	176.6
17-Oct	189	196	229	229	245	245	256	243	244	249	239	239	283	278	282	295	299	305	289	248	273	275	269	221	259.0
18-Oct	201	199	183	210	231	225	220	223	223	237	220	206	195	228	247	239	224	226	173	133	125	194	124	107	214.2
19-Oct	114	136	158	3	342	351	41	356	335	336	327	331	333	335	351	360	358	1	357	357	351	355	354	356	353.7
20-Oct	7	12	353	346	349	346	339	1	348	34	81	119	205	161	143	158	206	187	185	181	155	146	153	162	132.0
21-Oct	151	156	157	163	162	166	184	209	184	207	214	290	250	247	314	319	12	49	56	56	91	164	130	127	181.3
22-Oct	128	102	129	106	130	121	120	130	125	157	178	185	188	168	163	175	351	107	129	135	137	136	138	138	138.7
23-Oct	135	144	150	152	149	146	146	158	151	159	163	161	168	155	142	136	137	142	143	140	143	151	146	136	147.2
24-Oct	148	175	176	191	185	176	172	158	169	159	161	161	175	174	190	217	117	93	93	102	110	120	157	187	153.1
25-Oct	129	335	311	325	337	132	125	250	285	292	253	223	252	261	228	244	253	216	210	220	182	172	158	129	230.7
26-Oct	141	136	152	128	111	16	46	2	337	337	359	320	337	1	359	352	354	1	1	3	2	0	357	357	2.5
27-Oct	360	358	360	355	347	349	346	344	346	344	342	341	343	343	346	343	324	294	288	284	278	274	274	268	340.5
28-Oct	279	283	266	281	276	269	274	257	270	264	252	258	247	261	235	238	242	231	245	200	149	172	167	156	249.3
29-Oct	165	128	137	128	107	118	77	60	63	20	359	15	340	340	360	30	20	17	352	329	327	338	290	327	26.3
30-Oct	326	21	358	54	145	224	159	193	240	242	248	237	201	184	201	201	213	225	199	201	212	203	205	207	213.6
31-Oct	211	210	222	210	219	211	167	169	175	162	160	162	161	152	147	150	154	147	152	162	156	157	162	159	165.6
	159.6	175.5	207.3	207.4	240.0	197.5	187.6	201.7	220.3	223.7	211.2	223.6	230.5	228.1	227.9	242.1	246.0	215.6	186.3	191.7	172.8	185.3	185.5	183.1	
	Diurnal Average																								

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 88 deg on Oct 19 04:00

Minimum Value: 4 deg on Oct 29 08:00

Percentiles: P_1 = 6 P_{10} = 10 Q_1 = 13 Median = 17 Q_3 = 21 P_{90} = 32 P_{99} = 70

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

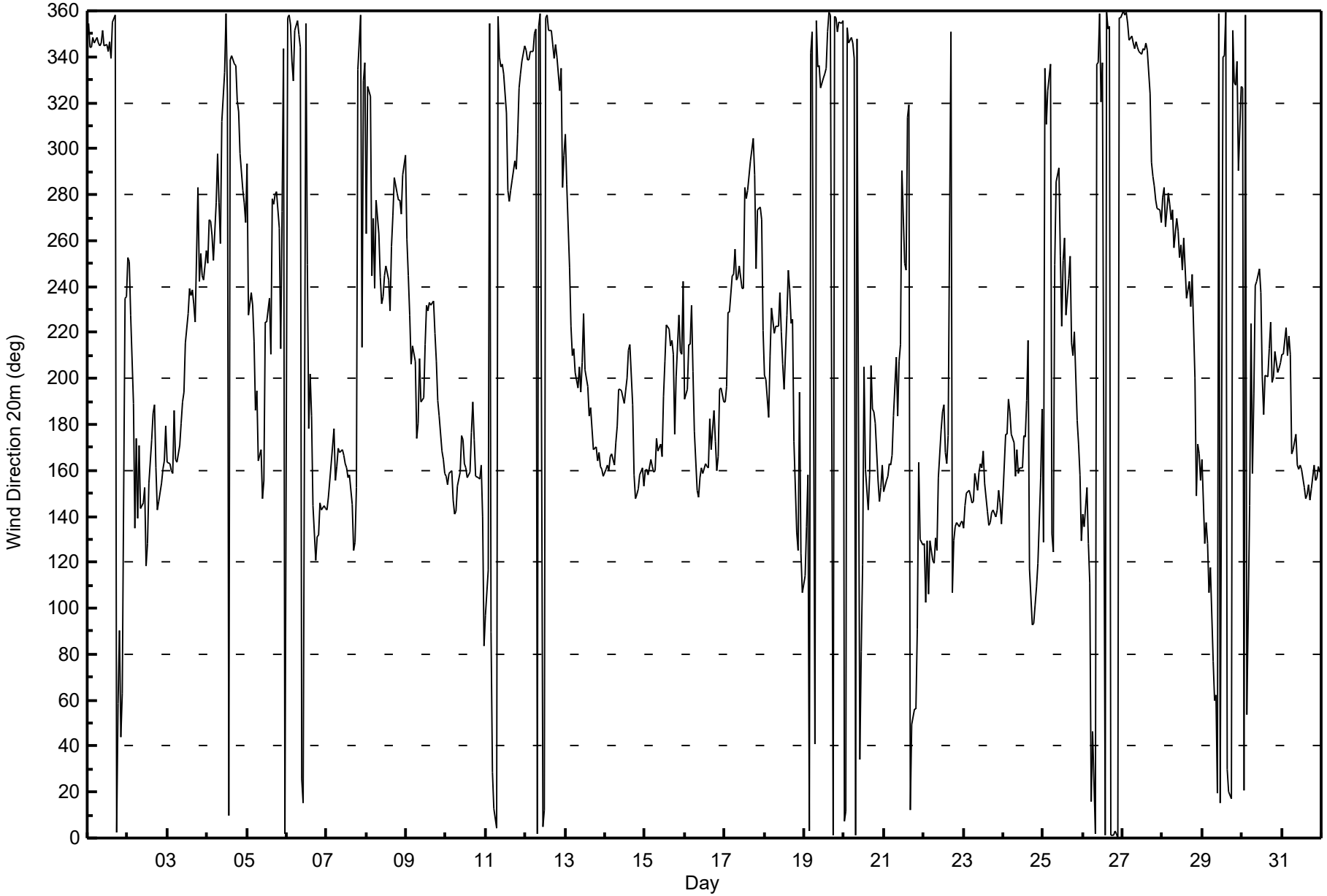
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	14	14	14	15	16	16	15	15	16	18	18	16	16	17	17	18	17	15	33	60	30	75	12	10	75
2-Oct	35	29	31	28	22	32	25	43	16	14	20	24	33	14	18	28	27	10	5	5	7	7	10	10	43
3-Oct	7	7	7	14	22	18	9	11	16	22	20	19	18	18	18	17	18	17	24	15	17	23	24	15	24
4-Oct	27	31	54	28	16	37	21	15	29	46	18	37	28	21	20	17	16	20	16	18	15	20	17	34	54
5-Oct	40	15	15	35	22	38	21	24	24	15	30	57	68	25	23	36	18	16	19	21	53	60	41	18	68
6-Oct	17	17	20	15	14	15	15	17	20	28	58	62	73	36	32	31	14	6	5	6	7	8	10	10	73
7-Oct	12	11	14	11	19	12	9	11	14	15	15	14	14	18	15	16	11	13	34	10	50	74	15	24	74
8-Oct	32	27	23	30	56	16	23	16	16	20	21	17	20	22	19	19	17	17	17	18	19	17	16	16	56
9-Oct	25	35	19	17	13	13	22	12	21	19	18	22	19	18	17	18	16	15	12	14	22	7	9	6	35
10-Oct	6	14	7	9	9	7	15	12	17	25	17	16	16	13	13	19	15	10	6	8	9	21	59	41	59
11-Oct	16	12	76	31	60	18	18	21	17	15	15	17	24	17	15	16	18	16	18	16	15	16	17	16	76
12-Oct	16	16	16	16	16	19	18	17	17	23	18	18	19	19	19	19	16	15	16	16	13	19	11	16	23
13-Oct	13	14	24	15	22	13	11	12	17	20	22	19	20	22	19	19	16	13	14	11	11	10	9	10	24
14-Oct	11	9	10	11	11	10	14	16	17	18	17	18	19	17	23	18	18	9	7	5	8	8	8	6	23
15-Oct	7	6	7	9	9	9	8	14	22	15	17	17	22	14	18	15	16	17	12	13	55	15	31	37	55
16-Oct	56	14	31	21	14	24	17	5	11	15	17	13	19	13	16	25	10	16	15	14	12	21	15	15	56
17-Oct	15	16	13	14	16	15	13	11	13	13	19	26	22	18	19	16	14	15	15	42	44	27	25	25	44
18-Oct	17	14	29	27	9	7	18	18	12	13	21	20	29	27	27	17	14	9	61	36	47	49	31	34	61
19-Oct	7	31	41	88	15	26	32	38	12	10	18	14	13	15	16	21	19	16	16	18	13	16	17	16	88
20-Oct	17	14	17	18	18	16	14	22	24	64	31	31	30	19	16	16	14	15	14	14	10	11	13	18	64
21-Oct	10	10	12	11	11	10	16	15	29	18	31	18	19	18	45	20	28	18	15	8	43	18	22	13	45
22-Oct	20	21	44	7	14	8	7	5	14	21	21	26	37	24	19	27	23	21	10	11	12	10	10	11	44
23-Oct	11	13	12	13	12	11	11	12	13	27	17	15	20	14	12	11	11	10	10	10	10	10	12	9	27
24-Oct	9	25	18	20	9	7	9	9	15	14	13	13	17	21	29	62	24	9	8	8	12	8	19	21	62
25-Oct	53	86	79	15	12	17	38	19	37	45	24	14	19	15	14	15	22	16	14	14	24	20	15	12	86
26-Oct	17	18	15	12	15	34	19	29	14	10	48	52	17	33	18	16	17	17	19	17	19	18	18	19	52
27-Oct	18	19	19	18	16	18	16	16	21	18	18	20	22	22	24	22	17	17	18	15	16	15	14	14	24
28-Oct	15	18	21	15	16	13	13	13	12	17	24	17	13	16	18	14	11	14	13	32	41	26	18	10	41
29-Oct	14	8	10	13	11	11	18	4	10	38	27	16	29	15	18	16	17	13	21	14	12	14	47	36	47
30-Oct	17	33	36	23	72	63	25	22	17	20	17	26	17	24	14	15	18	15	14	15	14	15	16	17	72
31-Oct	15	20	14	18	17	21	21	13	16	13	13	15	15	13	14	13	13	13	13	15	13	12	13	11	21
	56	86	79	88	72	63	38	43	37	64	58	62	73	36	45	62	28	21	61	60	55	75	59	41	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 20m (WD20) - deg

Barge Landing - October 2025



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS11
LOWER CAMP
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - LOWER CAMP (AMS11)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	706	36	38	99.73	26.4	0	3.4	0
H2S (ppb) Average	706	36	38	99.73	7.1	0	1.2	0
THC (ppm) Average	706	36	38	99.73	3.7	-	2.7	-
CH4(ppm) Average	706	36	38	99.73	3.3	-	2.4	-
NMHC(ppm) Average	706	36	38	99.73	0.782	-	0.245	-
Temperature (C) Average	743	0	1	99.87	22.6	-	11.5	-
Relative Humidity (%) Average	743	0	1	99.87	100	-	93.5	-
Barometric Pressure (inHg) Average	744	0	0	100	29.4	-	29.4	-
Wind Speed 10 m (km/h) Average	734	3	10	99.06	39	-	22	-
Wind Direction 10 m (deg) Average	734	3	10	99.06	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - LOWER CAMP (AMS11)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	706	0.81	1.9	-	0	0	0.1	0.3	0.7	1.8	26.4
H2S (ppb) Average	706	0.41	0.5	-	0	0.1	0.2	0.3	0.5	0.9	7.1
THC (ppm) Average	706	2.23	0.3	-	1.9	2	2.1	2.1	2.3	2.6	3.7
CH4(ppm) Average	706	2.15	0.2	-	1.9	2	2	2.1	2.2	2.4	3.3
NMHC(ppm) Average	706	0.08	0.123	-	0	0	0	0	0.1	0.2	0.782
Temperature 2 m (C) Average	743	5.55	4.4	-	-2	0.6	1.9	4.8	8.5	11.4	22.6
Relative Humidity (%) Average	743	76.78	16.3	-	28.7	51.7	66.1	80.4	90.3	96.1	100
Barometric Pressure (inHg) Average	744	28.98	0.2	-	28.4	28.6	28.8	29	29.2	29.3	29.4
Wind Speed 10 m (km/h) Average	734	11.1	7	-	0	3	6	11	15	19	39
Wind Direction 10 m (deg) Average	734	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - LOWER CAMP (AMS11)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
ALL GASEOUS ANALYZERS	15 Oct 2025 12:00	15 Oct 2025 13:00	2	Maintenance - sample manifold cleaned
Relative Humidity / Temperature	14 Oct 2025 14:00	14 Oct 2025 14:00	1	Maintenance - sensor replaced
Wind Speed, Wind Direction	18 Oct 2025 20:00	18 Oct 2025 22:00	3	Flat line in sensor output signal - Sensor frozen
Wind Speed, Wind Direction	26 Oct 2025 07:00	26 Oct 2025 10:00	4	Flat line in sensor output signal - Sensor frozen

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Lower Camp - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 26.4 ppb on Oct 6 14:00

Maximum Daily Average: 3.4 ppb on Oct 8

Minimum Value: 0.0 ppb on Oct 1 02:00

Minimum Daily Average: 0.0 ppb on Oct 27

Maximum Diurnal Average: 1.7 ppb at hour 14

Minimum Diurnal Average: 0.3 ppb at hour 1

Monthly Average: 0.81 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.3 Q_3 = 0.7 P_{90} = 1.8 P_{99} = 9.9

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	36
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
2-Oct	0.0	0.1	0.0	0.0	0.1	Z	0.1	0.2	0.1	0.3	0.1	0.0	0.1	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
3-Oct	Z	0.0	0.3	0.4	2.6	1.6	0.4	0.5	0.5	0.5	0.6	0.8	0.8	0.7	1.1	3.1	1.7	2.4	3.0	0.7	0.5	0.4	0.4	0.6	1.0	3.1
4-Oct	0.8	Z	0.3	0.1	0.2	1.0	1.3	1.9	0.7	0.4	0.2	0.2	0.1	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.9
5-Oct	0.5	0.0	Z	0.4	2.2	1.0	0.8	0.6	0.6	0.8	0.7	0.3	0.3	1.0	0.4	0.6	1.8	0.2	0.1	1.3	0.6	0.6	0.8	0.2	0.7	2.2
6-Oct	0.1	0.1	0.0	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	11.3	26.4	13.1	2.8	2.3	1.3	1.2	0.8	0.7	0.4	0.3	0.3	2.7	26.4
7-Oct	0.3	0.4	1.2	0.8	Z	0.6	0.4	1.1	2.6	1.5	2.2	1.3	1.1	1.4	1.9	1.3	0.5	0.4	0.4	0.7	1.0	0.5	0.5	0.4	1.0	2.6
8-Oct	0.5	0.4	0.3	0.2	1.1	Z	0.7	0.9	2.4	1.3	0.5	0.5	0.6	0.4	0.6	0.4	1.5	13.0	10.0	4.5	12.9	8.6	13.8	3.5	3.4	13.8
9-Oct	Z	4.7	7.2	4.8	3.8	1.7	1.5	1.8	2.0	0.9	0.7	1.0	0.5	0.3	0.5	0.4	0.6	2.9	1.9	0.5	0.2	0.2	0.2	0.2	1.7	7.2
10-Oct	0.1	Z	0.1	0.1	0.0	0.0	0.0	0.5	0.3	0.6	0.4	0.6	0.9	1.1	0.8	0.6	0.3	0.3	0.4	0.7	0.7	0.5	0.8	0.7	0.5	1.1
11-Oct	0.7	0.3	Z	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.0	0.2	0.7
12-Oct	0.1	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1
13-Oct	0.0	0.1	0.0	1.0	Z	3.0	3.3	1.8	0.7	0.9	0.7	0.5	0.5	0.3	0.1	0.1	0.3	0.1	0.1	0.1	0.0	0.3	0.5	0.7	0.7	3.3
14-Oct	0.8	0.9	0.8	0.6	0.6	Z	0.8	0.7	0.7	1.2	C	C	C	C	C	0.4	0.1	0.0	0.1	0.2	0.4	0.4	0.5	0.5	0.5	1.2
15-Oct	Z	0.6	1.2	1.1	1.2	1.9	1.6	1.1	1.5	1.5	2.6	M	M	1.0	2.0	3.3	1.3	1.3	0.4	0.7	1.2	1.1	2.3	1.8	1.5	3.3
16-Oct	1.2	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.3	0.3	0.3	0.6	0.3	0.2	0.1	0.1	0.3	0.3	0.2	0.3	1.2
17-Oct	0.5	0.8	Z	0.6	0.2	1.7	3.2	1.2	1.6	1.7	0.0	3.0	6.0	4.9	2.2	0.3	0.2	0.1	0.0	0.3	0.1	0.2	0.3	0.2	1.3	6.0
18-Oct	0.2	1.0	0.9	Z	0.6	2.1	1.2	1.4	1.6	1.2	4.2	6.0	1.8	0.5	0.6	1.8	4.4	1.6	0.6	0.2	0.2	0.2	0.3	0.4	1.4	6.0
19-Oct	0.3	0.3	0.2	0.3	Z	0.3	0.1	0.7	0.3	0.3	0.4	0.5	0.5	0.5	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.3	0.7
20-Oct	0.1	0.1	0.1	0.1	0.0	Z	0.1	0.1	0.0	0.1	0.0	0.1	0.3	0.6	0.3	0.4	0.4	0.4	0.0	0.0	0.1	1.0	2.7	0.4	0.3	2.7
21-Oct	Z	0.2	0.1	0.0	0.2	0.2	0.2	0.1	0.8	0.5	7.7	2.1	0.9	3.5	1.2	1.6	0.1	0.0	0.1	0.1	0.1	0.0	0.2	0.3	0.9	7.7
22-Oct	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.2	0.5	0.3	0.4	0.3	0.3	0.2	0.4	0.2	0.2	0.1	1.0	0.3	0.1	2.8	1.2	0.3	0.4	2.8
23-Oct	0.5	6.1	Z	3.9	0.6	0.4	0.2	0.4	0.3	0.4	0.7	2.2	0.6	0.5	0.3	0.2	0.2	0.2	0.1	0.2	0.5	1.4	1.1	0.4	0.9	6.1
24-Oct	0.3	0.3	0.3	Z	0.3	0.4	0.9	0.6	0.3	0.3	0.3	0.3	0.5	0.4	0.5	0.3	0.7	0.5	0.5	0.3	0.2	0.2	0.2	0.2	0.4	0.9
25-Oct	0.1	0.1	0.1	0.1	Z	0.3	0.3	0.7	1.0	0.4	0.7	0.4	0.5	1.7	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.7
26-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
27-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28-Oct	0.0	Z	0.0	3.2	2.6	2.4	4.0	0.6	0.0	0.4	1.6	0.6	0.4	0.6	1.2	1.6	1.4	0.4	1.2	0.3	0.3	0.6	0.4	0.4	1.1	4.0
29-Oct	0.3	0.2	Z	0.1	0.8	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.8
30-Oct	0.1	0.0	0.1	Z	0.1	0.2	0.2	0.1	0.2	0.8	0.6	0.6	0.3	0.2	0.2	0.5	0.3	0.8	0.4	0.4	0.5	0.7	0.6	0.4	0.4	0.8
31-Oct	0.8	0.6	0.3	0.2	Z	0.1	0.0	0.0	0.0	0.3	1.6	1.9	3.4	2.4	1.4	1.9	8.8	5.5	6.5	15.8	6.7	1.9	2.0	1.6	2.8	15.8
	0.3	0.7	0.5	0.7	0.7	0.8	0.7	0.6	0.6	0.5	0.9	0.8	1.1	1.7	1.0	0.7	0.9	1.0	0.9	0.9	0.9	0.7	1.0	0.5	Diurnal Average	
	1.2	6.1	7.2	4.8	3.8	3.0	4.0	1.9	2.6	1.7	7.7	6.0	11.3	26.4	13.1	3.3	8.8	13.0	10.0	15.8	12.9	8.6	13.8	3.5	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

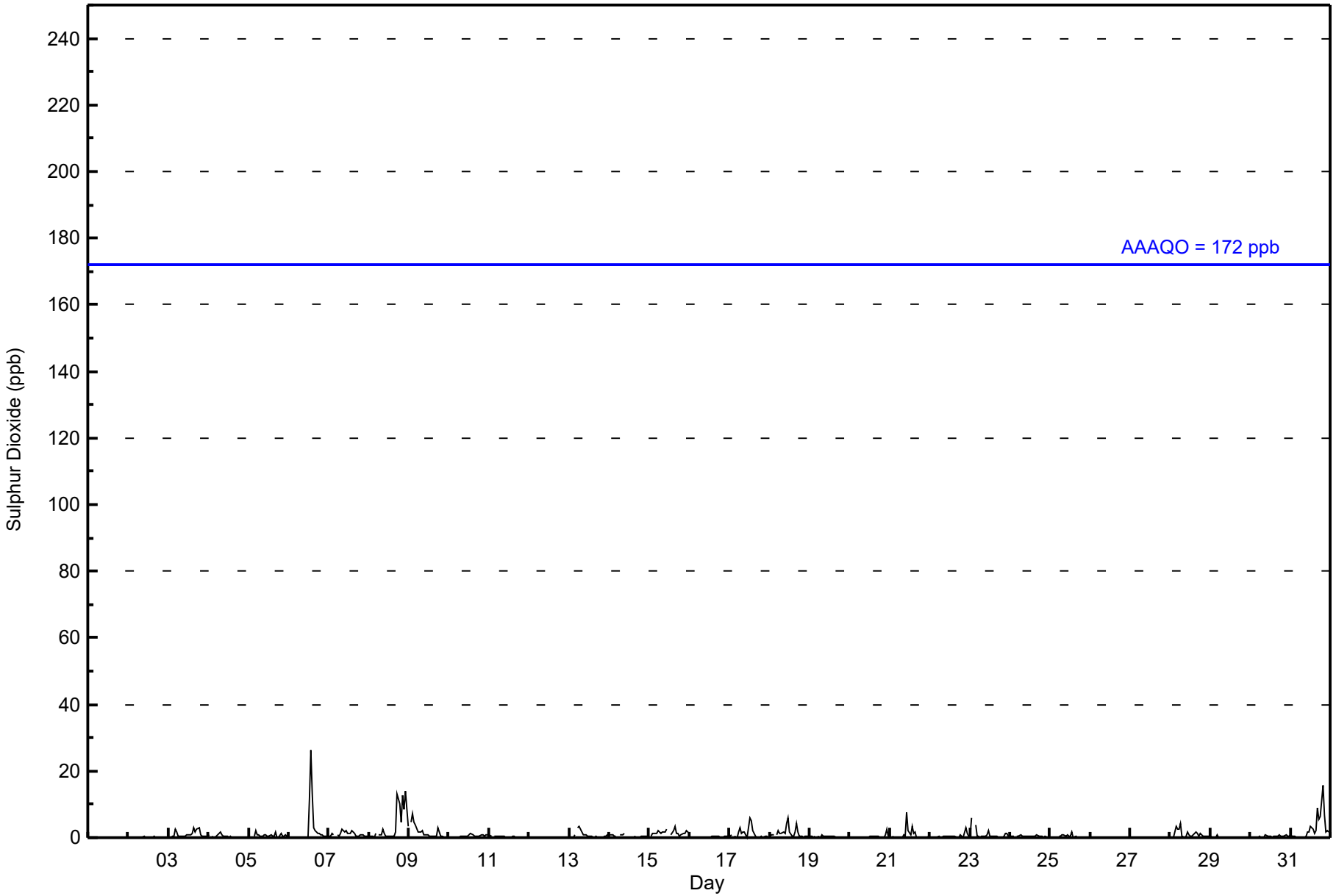
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Lower Camp - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	699	99.01	99.01
11 - 20	6	0.85	99.86
21 - 60	1	0.14	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Lower Camp - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	42	20	3	7	8	19	182	58	19	16	28	38	57	65	62	65	689
11 - 20	0	0	0	0	0	1	1	0	0	0	0	0	0	4	0	0	6
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	42	20	3	7	8	20	183	58	19	16	28	38	57	69	63	65	696

Total Number of Valid Hours: 696

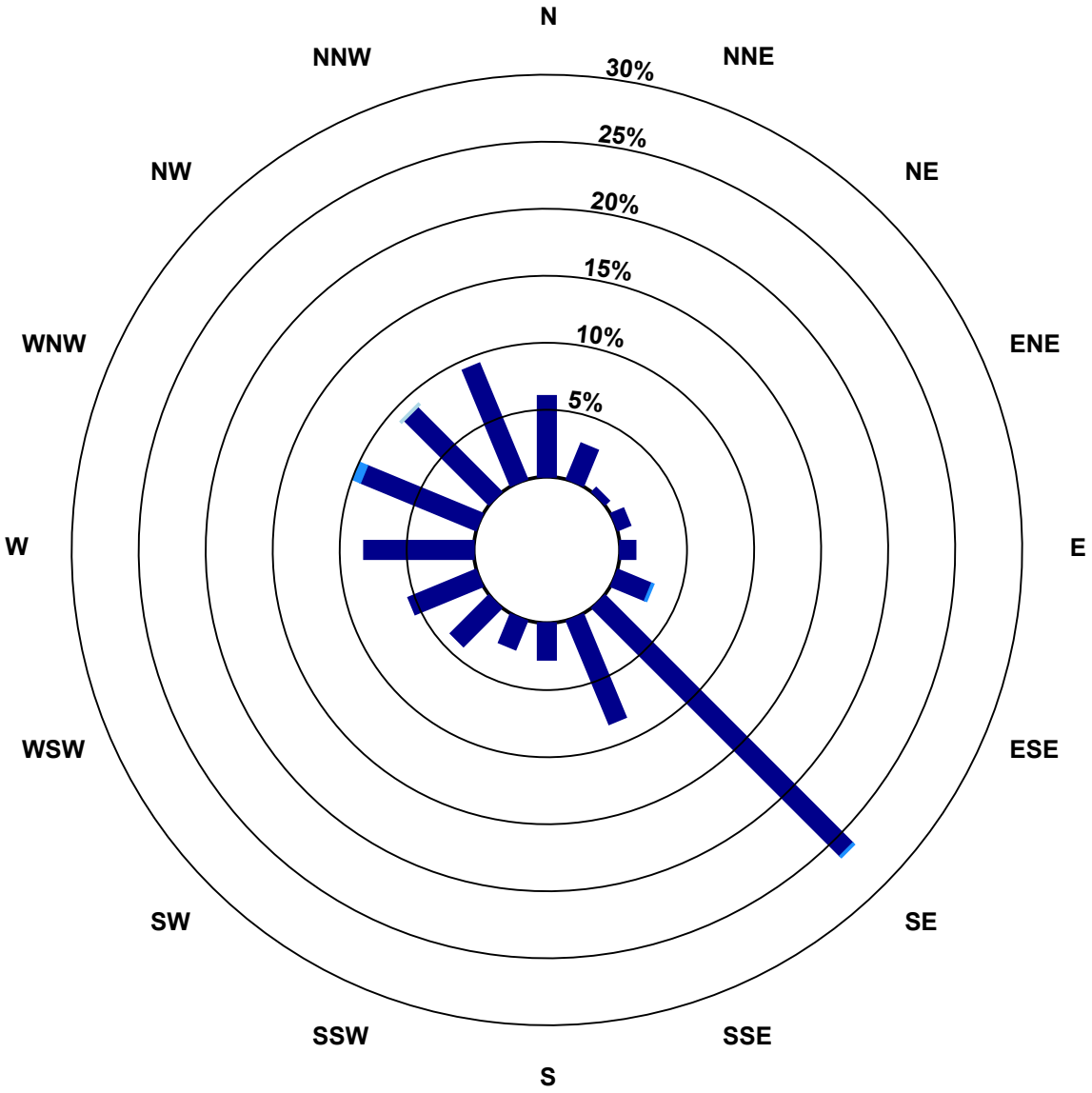
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Lower Camp



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

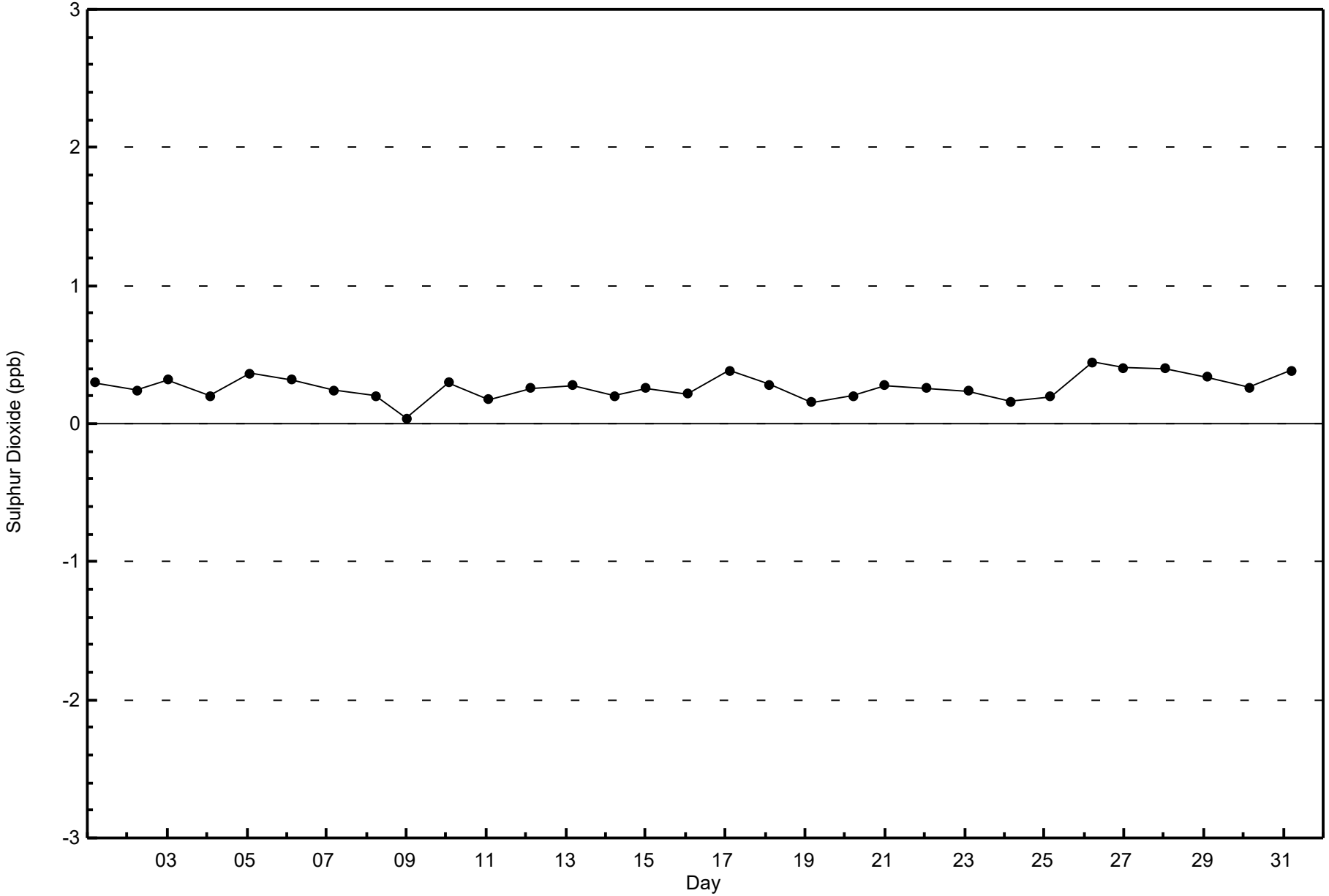
Total Number of Valid Hours: 696

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Lower Camp - October 2025

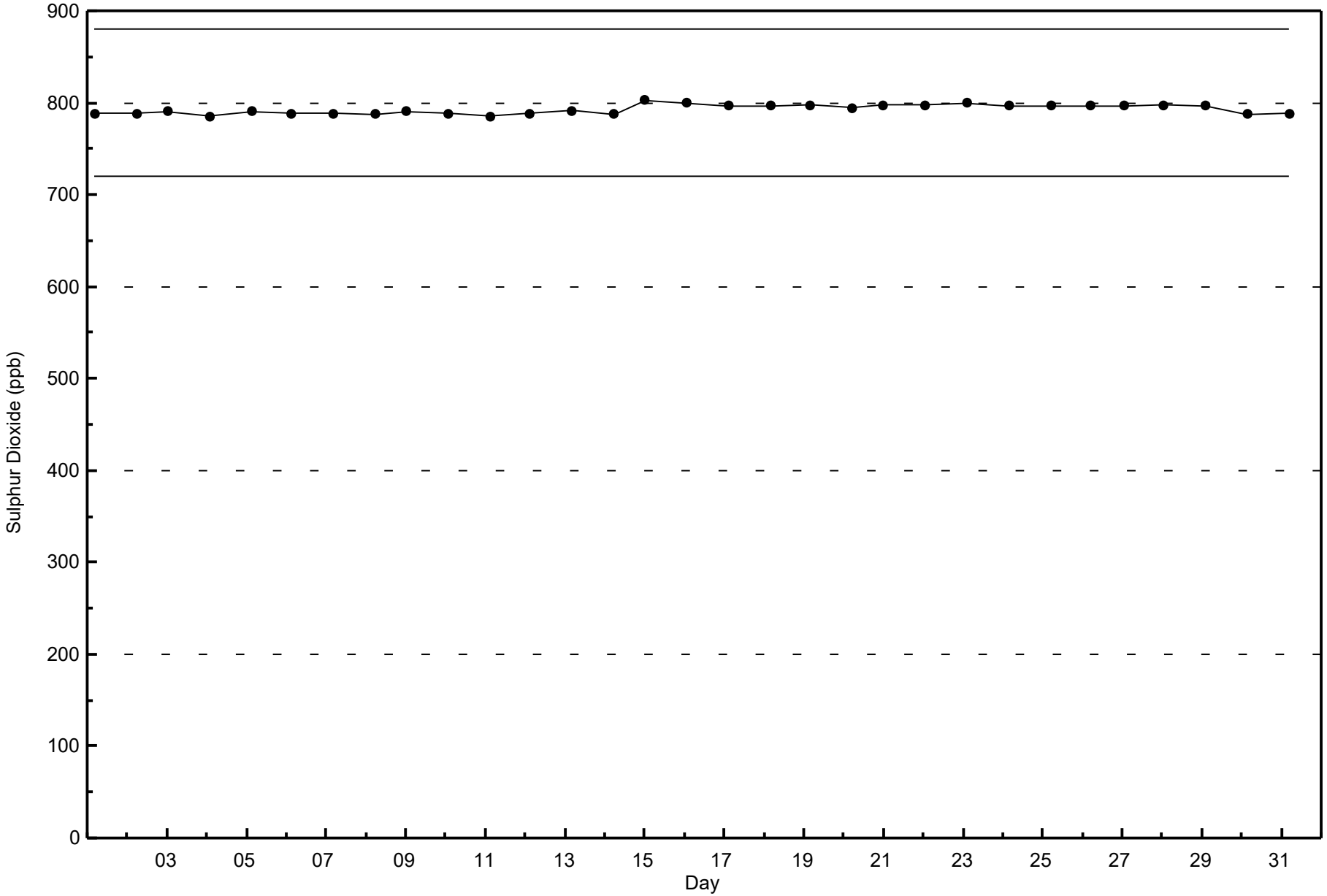


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Lower Camp - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H_2S) - ppb

Lower Camp - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 7.1 ppb on Oct 1 20:00

Maximum Daily Average: 1.2 ppb on Oct 7

Minimum Value: 0.0 ppb on Oct 10 18:00

Minimum Daily Average: 0.1 ppb on Oct 27

Maximum Diurnal Average: 0.7 ppb at hour 5

Minimum Diurnal Average: 0.2 ppb at hour 14

Monthly Average: 0.41 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.2 Median = 0.3 Q_3 = 0.5 P_{90} = 0.9 P_{99} = 1.9

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	36
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.6	1.0	0.9	0.9	0.5	Z	0.3	0.6	0.5	0.5	0.3	0.4	0.3	0.2	0.1	0.4	0.3	0.5	0.1	7.1	1.5	0.6	2.1	0.4	0.9	7.1
2-Oct	Z	0.7	0.8	0.9	1.2	1.2	1.1	1.0	0.6	0.8	1.3	1.2	1.4	0.4	0.1	0.1	0.1	0.2	0.5	0.7	0.5	0.7	0.8	0.9	0.7	1.4
3-Oct	0.9	Z	0.7	0.9	1.2	1.0	0.9	0.8	0.5	0.2	0.1	0.4	0.4	0.3	0.5	1.5	0.4	1.3	1.9	0.1	0.1	0.1	0.1	0.1	0.6	1.9
4-Oct	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.5	0.6	0.2	0.2	0.2	0.1	0.2	0.1	0.4	0.4	0.3	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.6
5-Oct	0.3	0.4	1.0	Z	3.5	0.2	0.3	0.4	0.8	0.4	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.1	0.2	0.1	0.1	0.3	0.2	0.4	3.5
6-Oct	0.1	0.2	0.1	0.2	Z	0.5	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.4	0.5	0.3	0.4	0.5	0.3	0.5
7-Oct	0.4	0.5	0.6	0.6	0.6	Z	0.7	0.6	0.8	0.8	0.7	0.8	0.5	0.3	1.0	2.0	5.8	5.4	0.5	0.9	1.1	1.1	0.9	1.4	1.2	5.8
8-Oct	Z	1.8	0.7	0.7	0.6	0.6	0.2	0.3	0.2	0.1	0.1	C	C	C	C	C	0.2	0.3	0.2	0.2	0.4	0.2	0.3	0.3	0.4	1.8
9-Oct	0.3	Z	0.2	1.2	0.8	0.2	0.3	0.4	0.6	0.3	0.5	0.4	0.2	0.1	0.1	0.1	0.2	0.9	0.8	0.6	0.3	0.3	0.8	0.6	0.4	1.2
10-Oct	0.7	0.8	Z	0.7	0.6	0.7	0.5	0.8	0.7	0.5	0.2	0.3	0.4	0.3	0.3	0.0	0.0	0.0	0.0	0.2	0.8	0.7	1.1	1.1	0.5	1.1
11-Oct	0.7	1.0	1.4	Z	0.8	1.5	0.3	0.2	0.3	0.5	0.4	0.2	0.3	0.4	0.4	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.2	0.2	0.4	1.5
12-Oct	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.3	0.2	0.2	0.3
13-Oct	0.2	0.3	0.2	0.2	3.7	Z	1.3	0.2	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	3.7
14-Oct	Z	0.4	0.2	0.2	0.3	0.7	0.3	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.5	0.4	0.5	0.7	0.4	0.3	0.7
15-Oct	0.4	Z	0.6	0.7	0.6	1.1	1.1	0.5	0.5	0.7	1.8	M	M	0.3	0.6	1.0	0.2	0.3	0.4	0.6	0.3	0.7	0.9	0.8	0.7	1.8
16-Oct	0.8	0.5	Z	0.5	0.4	0.5	0.5	0.5	0.6	0.4	0.2	0.2	0.4	0.4	0.4	0.4	0.4	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.8
17-Oct	0.3	0.2	0.1	Z	0.1	0.2	0.3	0.4	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.4	0.1	0.3	0.5	0.3	0.2	0.5
18-Oct	0.2	0.1	0.2	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.3	0.2	0.3	0.2	0.2	0.3	0.6	0.7	0.2	0.7
19-Oct	0.7	0.7	0.9	0.7	1.2	Z	0.4	0.6	0.5	0.5	1.0	1.2	1.1	1.2	1.1	0.7	0.4	0.3	0.5	0.4	0.5	0.2	0.1	0.1	0.6	1.2
20-Oct	Z	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.3	0.7	0.9	0.2	0.3	0.9
21-Oct	0.4	Z	0.3	0.2	0.3	0.6	0.8	0.5	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.2	0.2	0.2	0.1	0.3	0.5	0.3	0.8
22-Oct	1.5	0.9	Z	0.5	0.4	0.6	0.4	0.5	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.7	0.4	0.4	0.3	0.2	0.4	0.2	0.2	0.4	1.5
23-Oct	0.2	0.3	0.3	Z	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.2	0.3	0.3	0.2	0.3	0.2	0.3	1.6	1.0	0.2	0.3	1.6
24-Oct	0.3	0.3	0.2	0.2	Z	0.3	0.4	0.6	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.2	0.3	0.6	0.8	1.1	0.8	0.5	1.3	1.2	0.5	1.3
25-Oct	0.7	1.4	1.3	0.4	0.4	Z	1.2	1.2	0.5	0.9	0.3	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.4	0.7	0.3	0.5	1.4
26-Oct	Z	0.4	0.3	0.3	0.5	0.5	0.4	0.3	0.4	0.5	0.6	0.8	0.7	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.8
27-Oct	0.1	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2
28-Oct	0.1	0.1	Z	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.3	0.1	0.3
29-Oct	0.2	0.3	0.3	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.3
30-Oct	0.4	0.2	0.2	0.2	Z	0.1	0.1	0.3	0.2	0.2	0.1	0.2	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.4
31-Oct	0.2	0.1	0.1	0.1	0.1	Z	0.1	0.2	0.3	0.2	0.2	0.5	0.5	0.2	0.2	0.4	0.7	0.3	1.3	1.8	0.5	0.2	0.4	0.6	0.4	1.8
	0.4	0.5	0.5	0.4	0.7	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.4	0.4	0.3	0.6	0.3	0.4	0.5	0.4	Diurnal Average	
	1.5	1.8	1.4	1.2	3.7	1.5	1.3	1.2	0.8	0.9	1.8	1.2	1.4	1.2	1.1	2.0	5.8	5.4	1.9	7.1	1.5	1.6	2.1	1.4	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

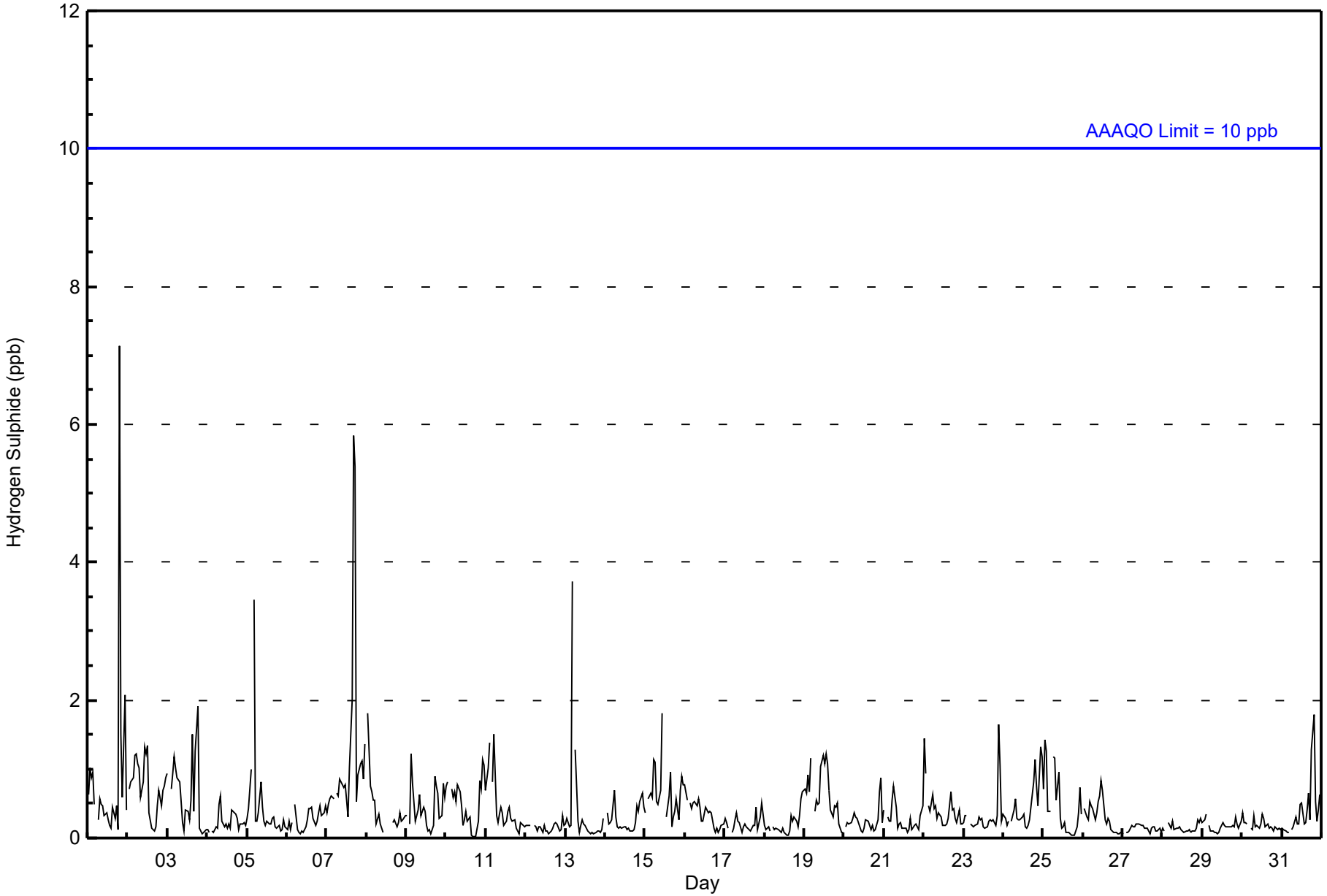
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Lower Camp - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	701	99.29	99.29
3 - 4	2	0.28	99.58
5 - 7	3	0.42	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Lower Camp - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	39	21	3	7	7	20	183	57	21	19	25	37	52	70	63	67	691
3 - 4	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
5 - 7	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	3
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	39	21	3	7	7	22	183	57	21	19	26	38	53	70	63	67	696

Total Number of Valid Hours: 696

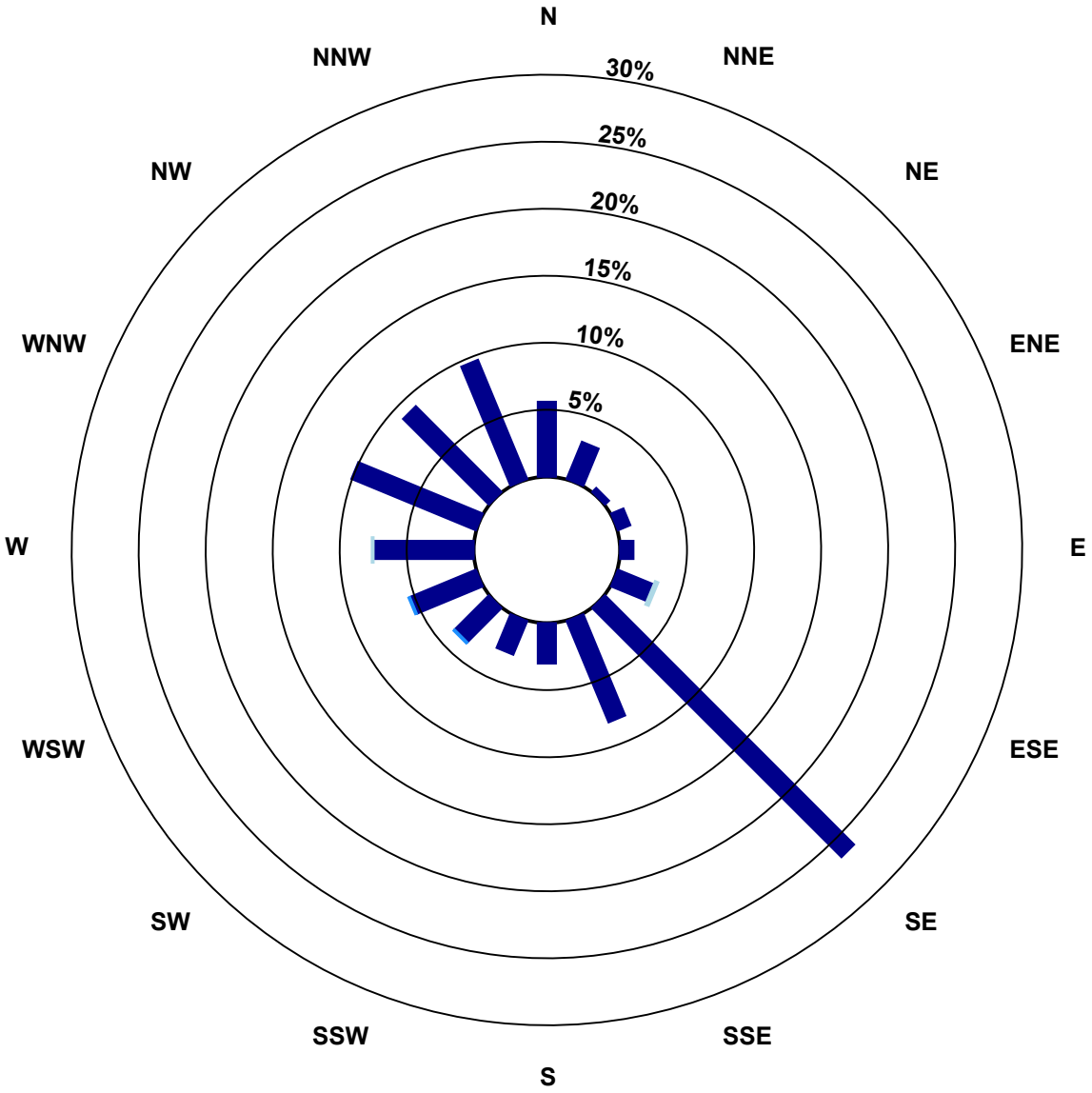
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H_2S) - ppb

Lower Camp



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

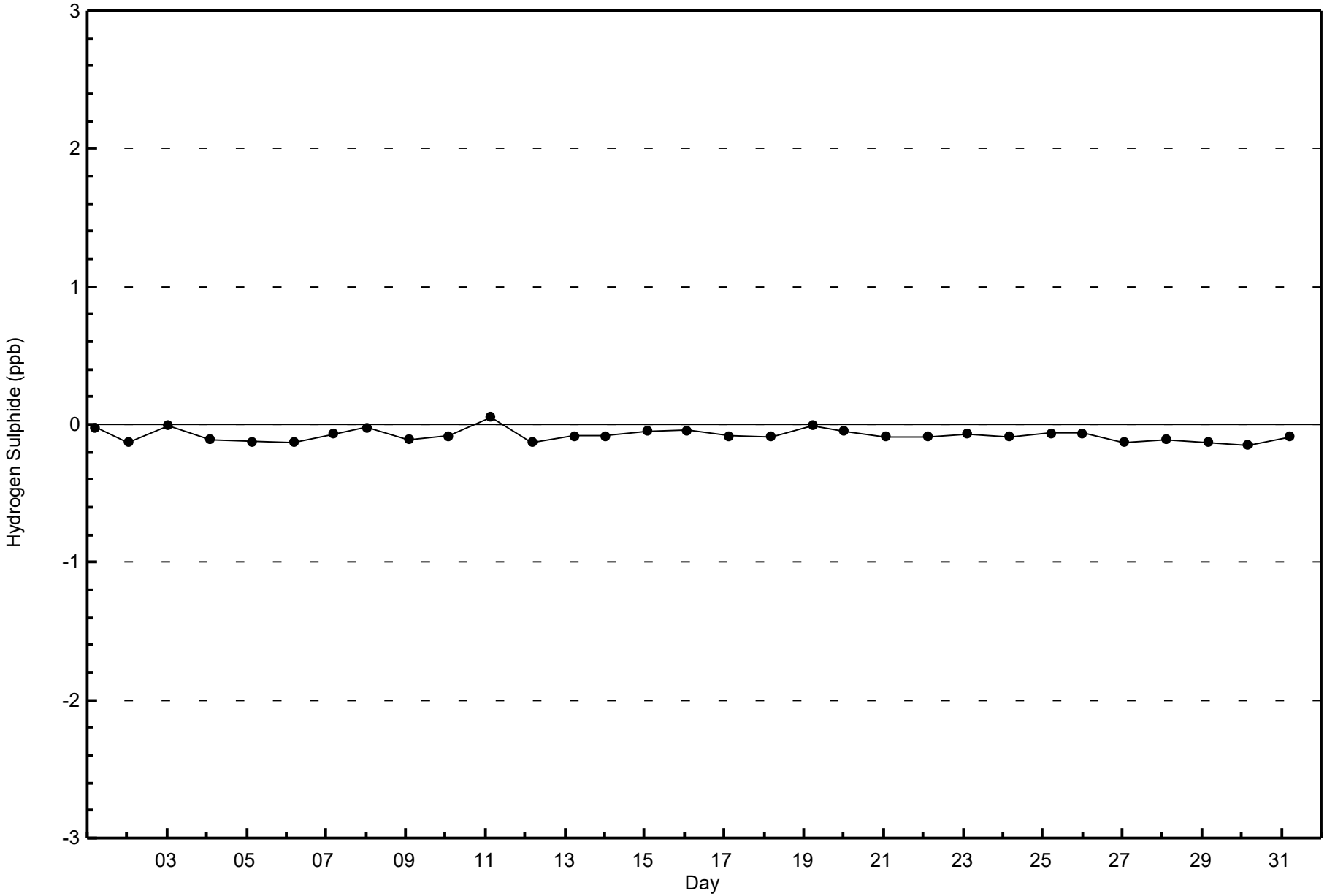
Total Number of Valid Hours: 696

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Lower Camp - October 2025

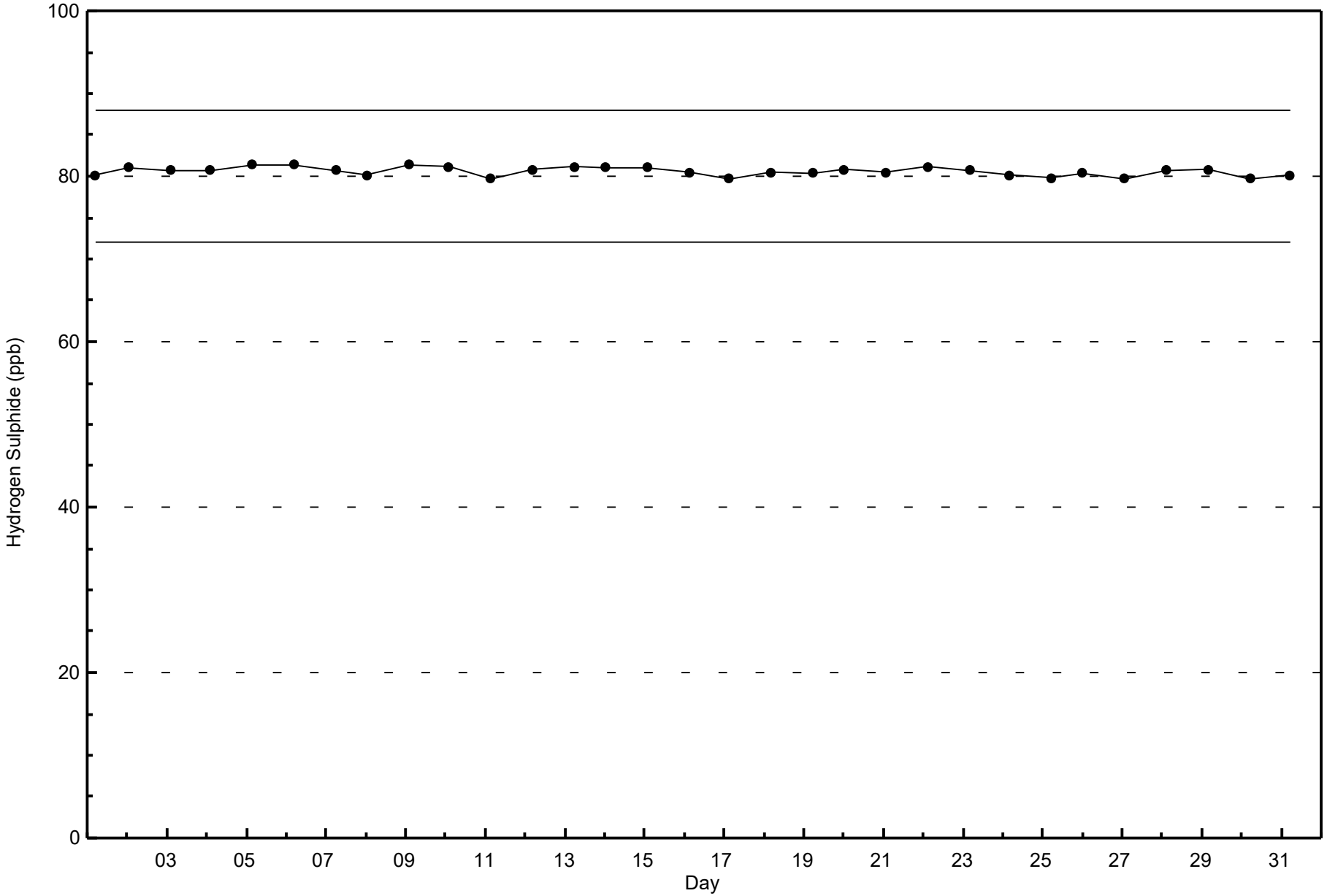


Wood Buffalo Environmental Association

Span Responses

Hydrogen Sulphide (H_2S) - ppb

Lower Camp - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Lower Camp - October 2025

Maximum Value: 3.7 ppm on Oct 8 02:00

Maximum Daily Average: 2.7 ppm on Oct 19

Minimum Value: 1.9 ppm on Oct 9 16:00

Minimum Daily Average: 2.0 ppm on Oct 12

Maximum Diurnal Average: 2.3 ppm at hour 1

Minimum Diurnal Average: 2.1 ppm at hour 15

Monthly Average: 2.23 ppm

Percentiles: P_1 = 1.9 P_{10} = 2.0 Q_1 = 2.1 Median = 2.1 Q_3 = 2.3 P_{90} = 2.6 P_{99} = 3.4

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	36
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.1	2.2	2.3	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.3
2-Oct	2.1	2.2	2.2	2.3	2.8	Z	2.4	2.4	2.2	2.2	2.9	2.8	2.4	2.1	2.0	2.0	2.0	2.0	2.2	2.4	2.3	2.4	2.6	2.6	2.3	2.9
3-Oct	Z	2.5	2.4	2.4	2.5	2.5	2.5	2.3	2.3	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.0	2.0	2.2	2.5
4-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.6	2.7	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.2	2.1	2.7
5-Oct	2.2	2.1	Z	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.3	2.5	2.1	2.0	2.0	2.1	2.0	2.1	2.5
6-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.2	2.1	2.1	2.0	2.0	2.0	2.2	2.2	2.1	2.2	2.2	2.0	2.2
7-Oct	2.1	2.2	2.2	2.3	Z	2.3	2.2	2.1	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.4	3.4	3.0	2.3	2.4	2.4	2.5	3.1	3.5	2.4	3.5
8-Oct	3.5	3.7	3.1	2.9	2.7	Z	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.2	2.0	2.0	2.2	2.0	2.1	2.1	2.3	3.7
9-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.4	2.4	2.5	2.4	2.1	2.1	2.5
10-Oct	2.4	Z	2.4	2.4	2.5	2.3	2.2	2.1	2.3	2.2	2.0	2.1	2.0	2.0	2.0	2.2	2.2	2.1	2.0	2.0	2.1	2.0	2.1	2.6	2.2	2.6
11-Oct	2.6	2.7	Z	3.5	3.2	3.2	2.4	2.2	2.0	2.1	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.0	2.2	2.3	2.1	2.0	2.0	2.0	2.3	3.5
12-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
13-Oct	2.4	2.5	2.4	2.1	Z	2.0	2.0	2.0	2.0	2.1	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5
14-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.1	C	C	C	C	C	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.1	2.3
15-Oct	Z	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.3	2.2	M	M	2.4	2.1	2.1	2.1	3.1	3.1	2.6	2.2	2.3	2.1	2.2	2.4	3.1
16-Oct	2.2	Z	2.6	2.4	2.4	2.6	2.4	2.3	2.8	2.5	2.3	2.4	2.3	2.2	2.1	2.2	2.3	2.4	2.3	2.1	2.2	2.2	2.5	2.6	2.4	2.8
17-Oct	2.9	2.4	Z	2.1	2.1	2.1	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.7	3.0	2.5	2.4	2.4	2.4	2.4	2.3	3.0
18-Oct	2.4	2.1	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.5	2.8	3.1	3.2	2.3	3.2
19-Oct	3.0	2.9	2.9	2.8	Z	2.9	3.0	2.6	2.5	2.7	3.2	3.5	3.2	3.5	3.3	2.7	2.3	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.7	3.5
20-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.2	2.3	2.2	2.1	2.1	2.1	2.4	2.2	2.2	2.1	2.3	2.1	2.1	2.3	2.2	2.1	2.1	2.1	2.4
21-Oct	Z	2.2	2.3	2.5	2.5	2.3	2.4	2.3	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.5
22-Oct	2.3	Z	2.5	2.6	2.5	2.6	2.4	2.5	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.5	3.1	2.4	2.4	2.2	2.2	2.2	2.2	2.3	2.3	3.1
23-Oct	2.2	2.2	Z	2.3	2.4	2.3	2.3	2.3	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.4	2.4	2.4	2.5	2.3	2.4	2.3	2.2	2.2	2.3	2.5
24-Oct	2.3	2.4	2.2	Z	2.5	2.6	2.5	2.6	2.6	2.3	2.2	2.6	2.7	2.1	2.1	2.4	2.6	2.8	3.0	2.9	2.6	3.1	3.4	3.0	2.6	3.4
25-Oct	3.2	3.3	3.0	2.5	Z	2.7	2.9	2.9	2.9	3.2	2.6	2.3	2.2	2.2	2.1	2.1	2.1	2.0	2.1	2.1	2.3	2.4	2.4	2.5	2.5	3.3
26-Oct	2.5	2.5	2.6	2.4	2.6	Z	2.5	2.3	2.3	2.5	2.7	3.0	2.7	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.3	3.0
27-Oct	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.2
28-Oct	2.1	Z	2.2	2.2	2.2	2.1	2.3	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.5	2.4	2.3	2.2	2.5
29-Oct	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.3	2.1	2.3
30-Oct	2.3	2.3	2.3	Z	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.3
31-Oct	2.1	2.2	2.3	2.3	Z	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.3
	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	Diurnal Average	
	3.5	3.7	3.1	3.5	3.2	3.2	3.0	2.9	2.9	3.2	3.2	3.5	3.2	3.5	3.3	2.7	3.4	3.1	3.1	2.9	2.6	3.1	3.4	3.5	Diurnal Maximum	

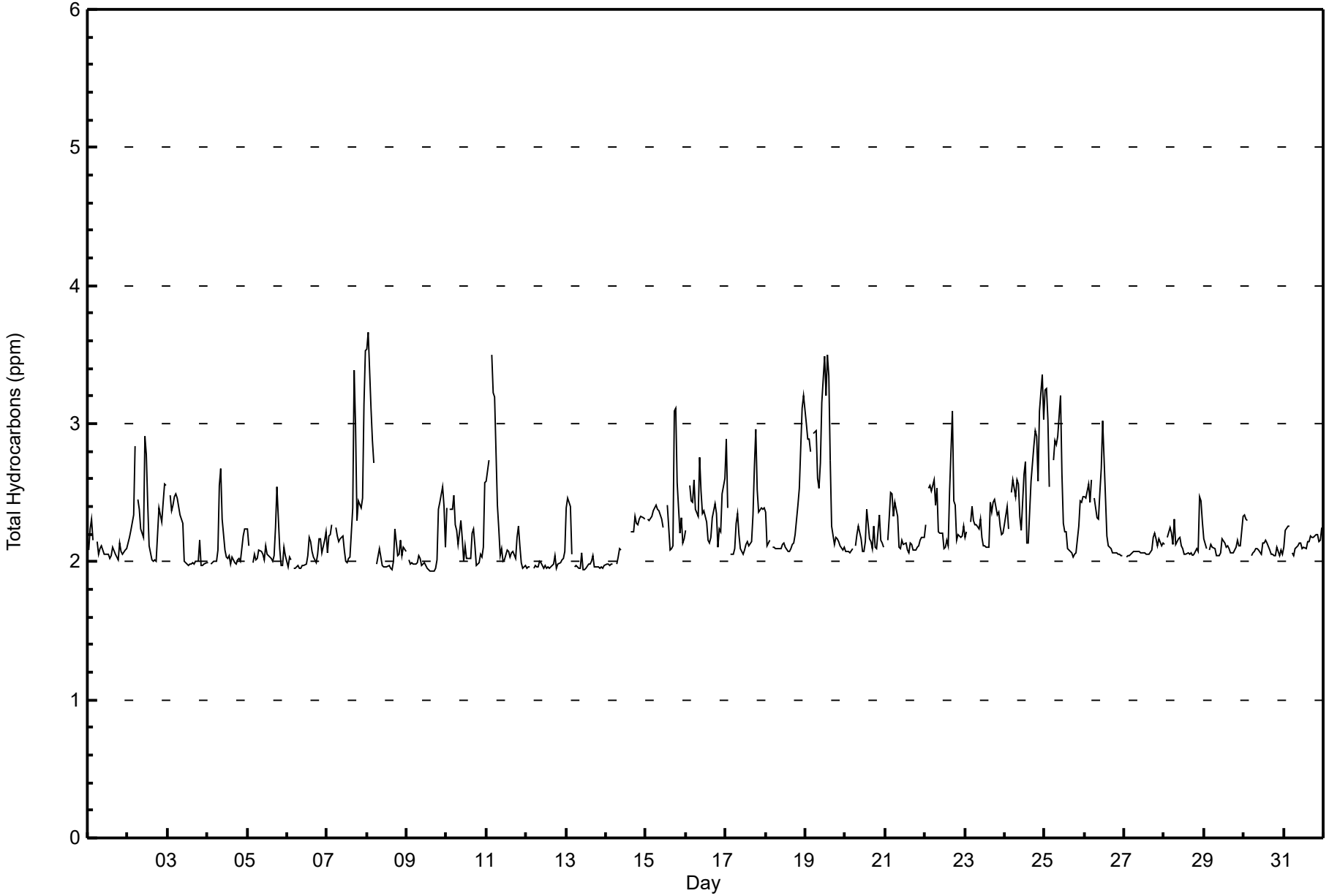
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Lower Camp - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	176	24.93	24.93
2.1 - 3.0	506	71.67	96.60
3.1 - 10.0	24	3.40	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Lower Camp - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	19	7	0	2	2	0	22	14	6	4	16	22	23	6	14	19	176
2.1 - 3.0	23	13	3	3	6	18	159	43	13	12	11	16	32	57	46	41	496
3.1 - 10.0	0	0	0	2	0	2	2	1	0	0	1	0	2	6	3	5	24
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	42	20	3	7	8	20	183	58	19	16	28	38	57	69	63	65	696

Total Number of Valid Hours: 696

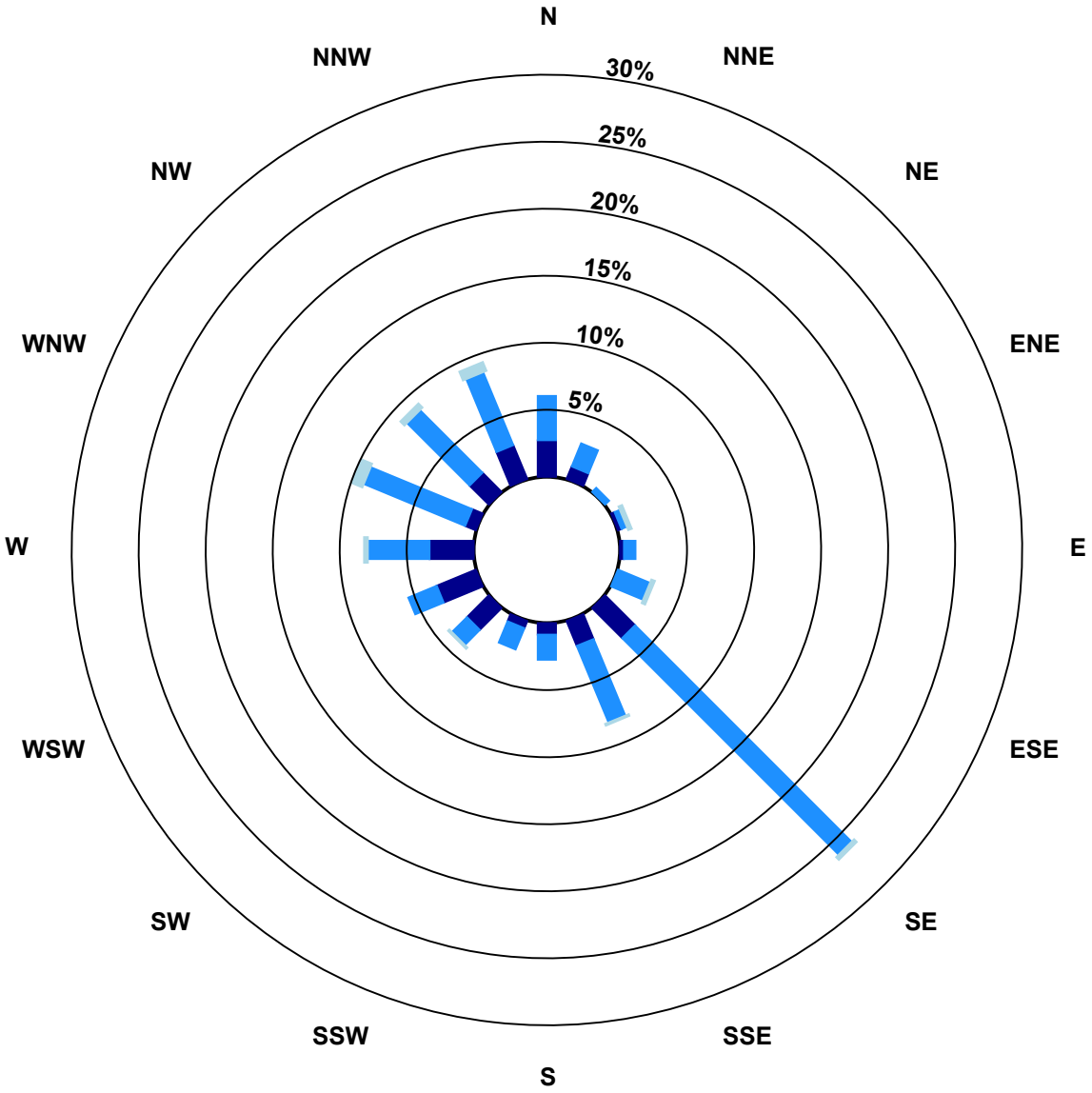
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Lower Camp



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

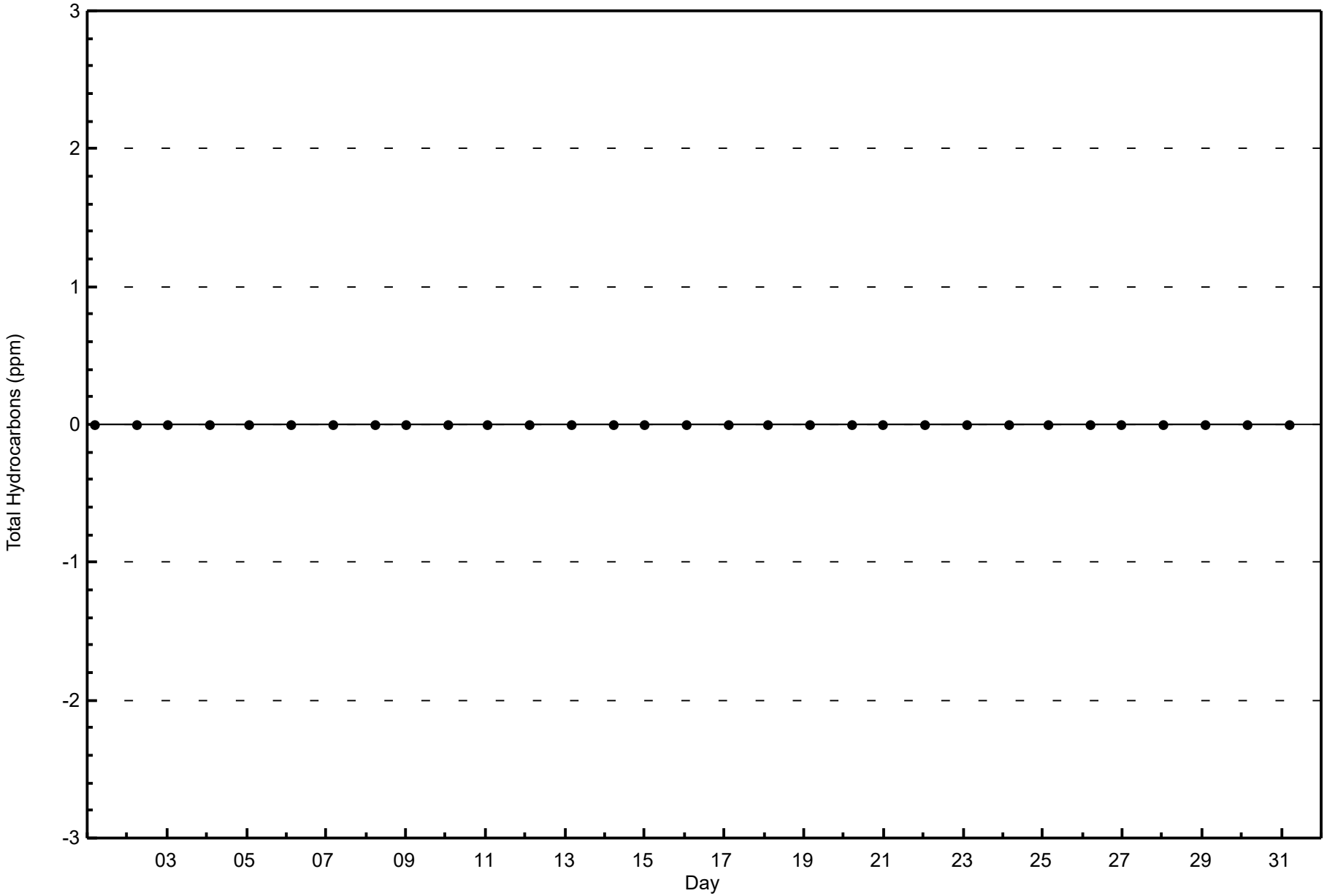
Total Number of Valid Hours: 696

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Lower Camp - October 2025

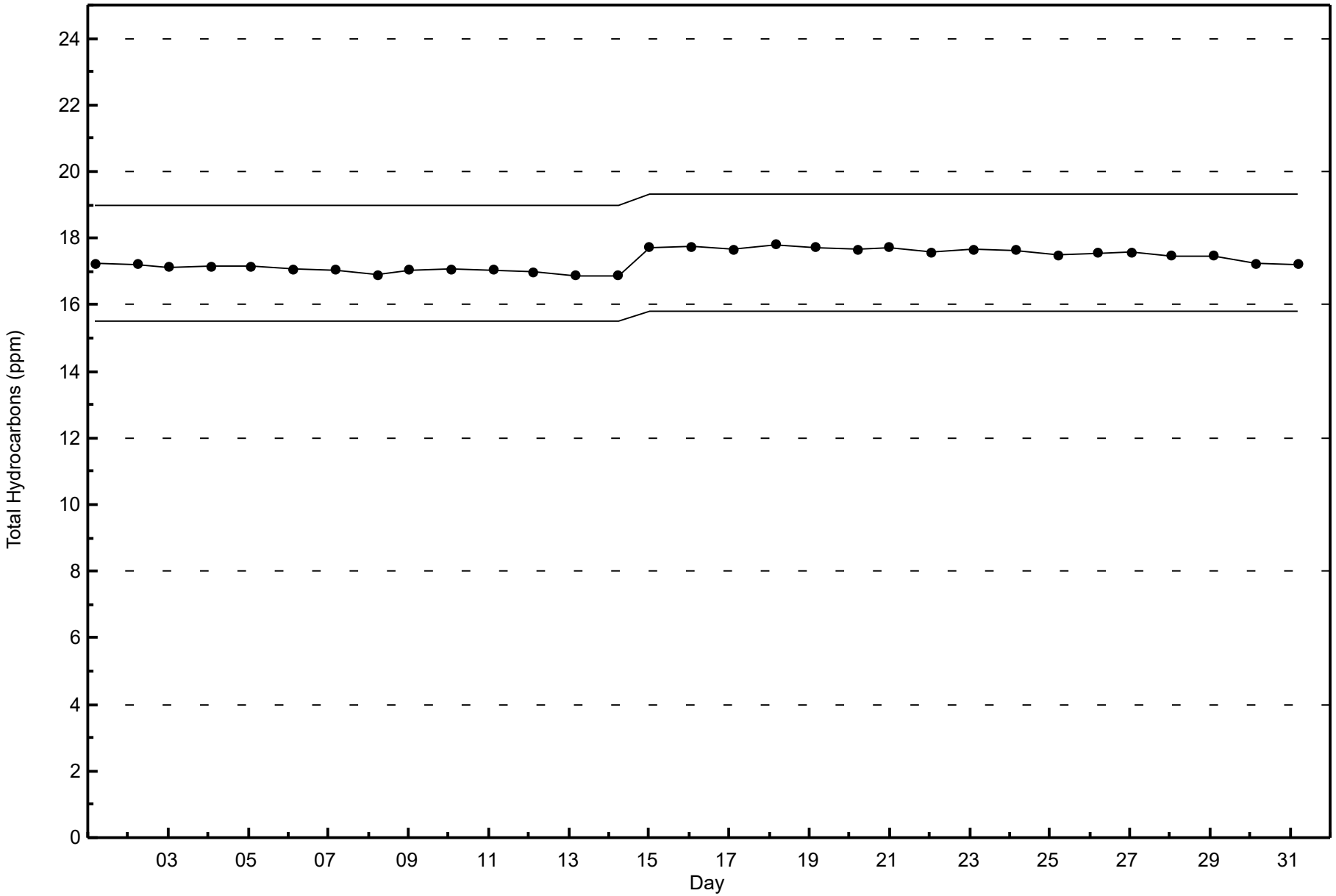


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Lower Camp - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH_4) - ppm

Lower Camp - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 3.3 ppm on Oct 11 04:00

Maximum Daily Average: 2.4 ppm on Oct 19

Minimum Value: 1.9 ppm on Oct 9 16:00

Minimum Daily Average: 2.0 ppm on Oct 12

Maximum Diurnal Average: 2.2 ppm at hour 1

Minimum Diurnal Average: 2.1 ppm at hour 15

Monthly Average: 2.15 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.0 Median = 2.1 Q_3 = 2.2 P_{90} = 2.4 P_{99} = 3.0

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	36
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.1	2.2	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.2
2-Oct	2.1	2.2	2.2	2.3	2.3	Z	2.2	2.2	2.1	2.1	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3
3-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.2
4-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.4	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.1	2.4
5-Oct	2.1	2.1	Z	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.2	2.5	2.0	2.0	2.0	2.1	2.0	2.1	2.5
6-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
7-Oct	2.0	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.7	2.5	2.0	2.2	2.3	2.4	2.9	3.1	2.2	3.1
8-Oct	3.0	3.1	2.7	2.6	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	3.1
9-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.4	2.4	2.5	2.1	2.0	2.0	2.5
10-Oct	2.1	Z	2.2	2.2	2.3	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.4	2.1	2.4
11-Oct	2.4	2.4	Z	3.3	3.1	3.1	2.4	2.2	2.0	2.1	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.2	3.3
12-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
13-Oct	2.2	2.3	2.3	2.0	Z	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3
14-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.1	C	C	C	C	C	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.3
15-Oct	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	M	M	2.1	2.1	2.1	2.1	2.8	2.8	2.5	2.2	2.3	2.1	2.1	2.2	2.8
16-Oct	2.2	Z	2.3	2.2	2.2	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.3	2.4	2.3	2.1	2.2	2.2	2.5	2.6	2.2	2.6
17-Oct	2.8	2.4	Z	2.1	2.1	2.1	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.5	2.6	2.4	2.3	2.3	2.3	2.3	2.3	2.8
18-Oct	2.3	2.1	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.5	2.6	2.8	2.8	2.2	2.8
19-Oct	2.6	2.5	2.5	2.4	Z	2.7	2.7	2.5	2.4	2.5	2.8	3.0	2.8	2.8	2.7	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	3.0
20-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2
21-Oct	Z	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.3
22-Oct	2.2	Z	2.3	2.3	2.3	2.4	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.7	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.7
23-Oct	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.3
24-Oct	2.1	2.2	2.1	Z	2.2	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.3	2.1	2.1	2.2	2.4	2.6	2.8	2.8	2.4	2.7	2.8	2.7	2.4	2.8
25-Oct	3.0	3.1	2.9	2.5	Z	2.6	2.7	2.7	2.7	2.9	2.5	2.3	2.2	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.4	3.1
26-Oct	2.3	2.3	2.3	2.2	2.2	Z	2.3	2.2	2.2	2.4	2.5	2.7	2.5	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.2	2.7
27-Oct	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.2
28-Oct	2.1	Z	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.4	2.3	2.2	2.1	2.4
29-Oct	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2
30-Oct	2.2	2.2	2.2	Z	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.2
31-Oct	2.1	2.2	2.3	2.2	Z	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.3
	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.2	Diurnal Average	
	3.0	3.1	2.9	3.3	3.1	3.1	2.7	2.7	2.7	2.9	2.8	3.0	2.8	2.8	2.7	2.4	2.7	2.8	2.8	2.8	2.5	2.7	2.9	3.1	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

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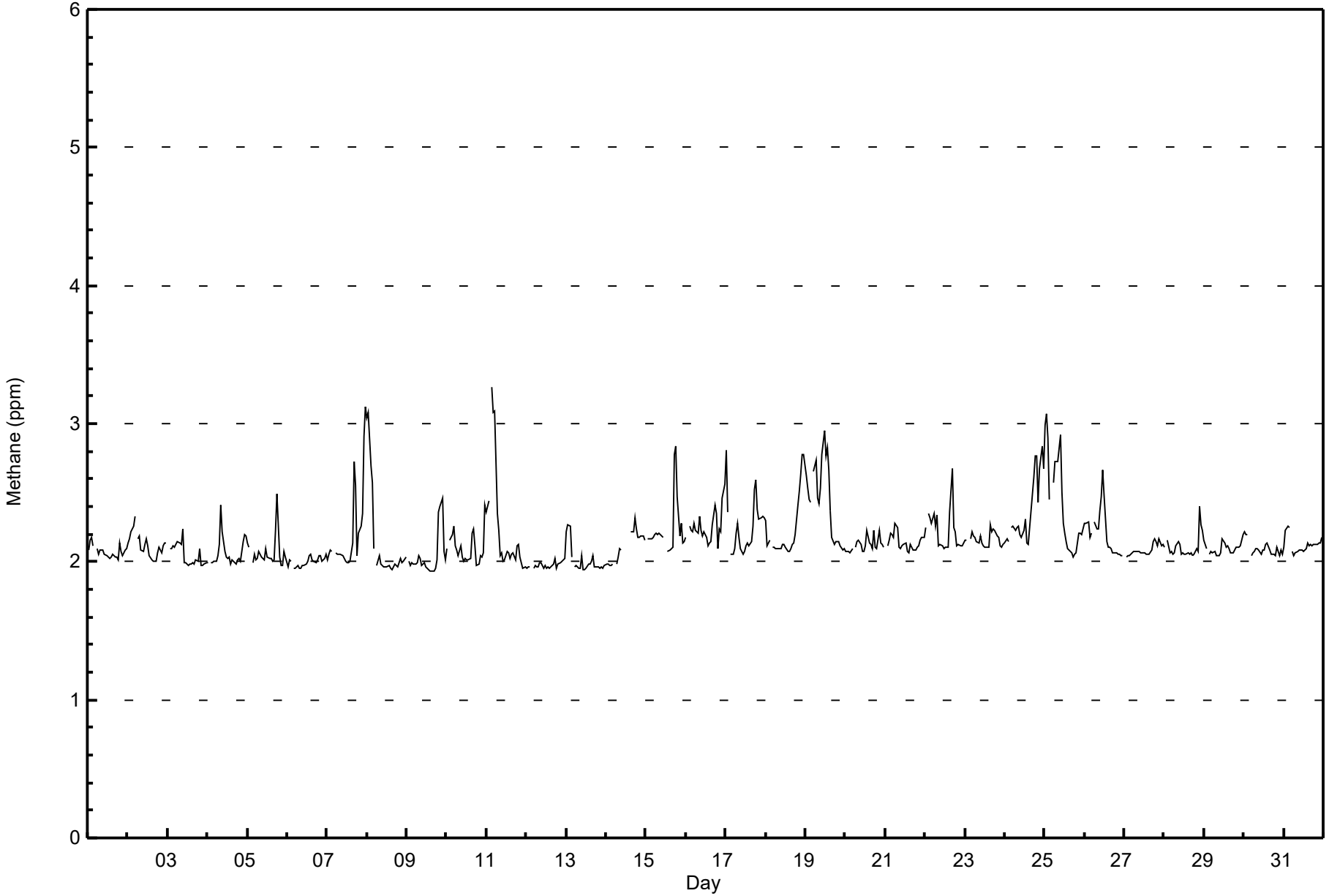
Hourly Averages

Methane (CH_4) - ppm

Lower Camp - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	210	29.75	29.75
2.1 - 3.0	490	69.41	99.15
3.1 - 10.0	6	0.85	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

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Frequency Distribution

Methane (CH_4) - ppm

Lower Camp - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	19	7	0	2	2	3	37	14	6	5	16	24	25	12	16	22	210
2.1 - 3.0	23	13	3	5	6	17	146	44	13	11	12	14	31	53	47	42	480
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	1	6
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	42	20	3	7	8	20	183	58	19	16	28	38	57	69	63	65	696

Total Number of Valid Hours: 696

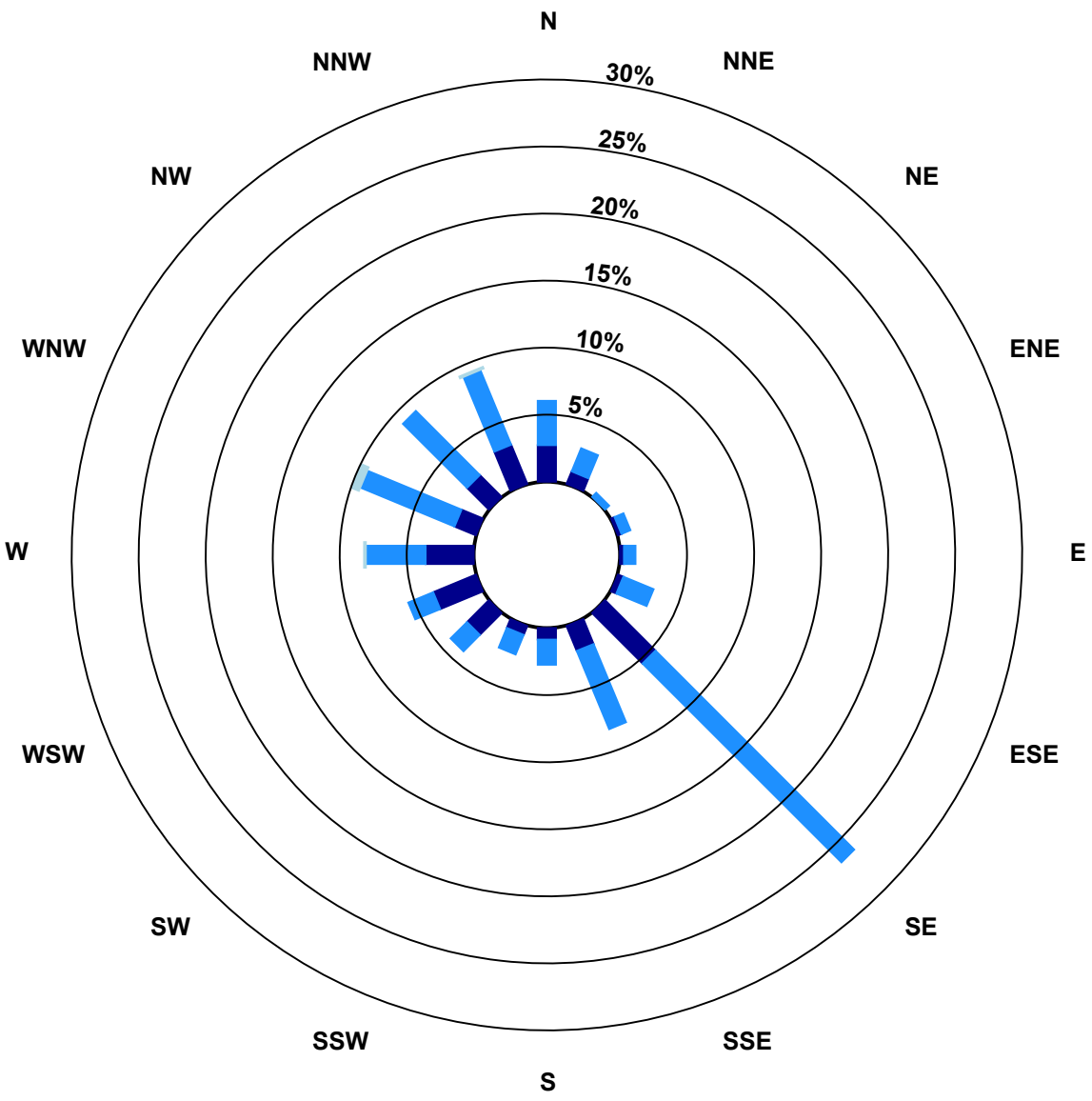
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Methane (CH_4) - ppm

Lower Camp



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

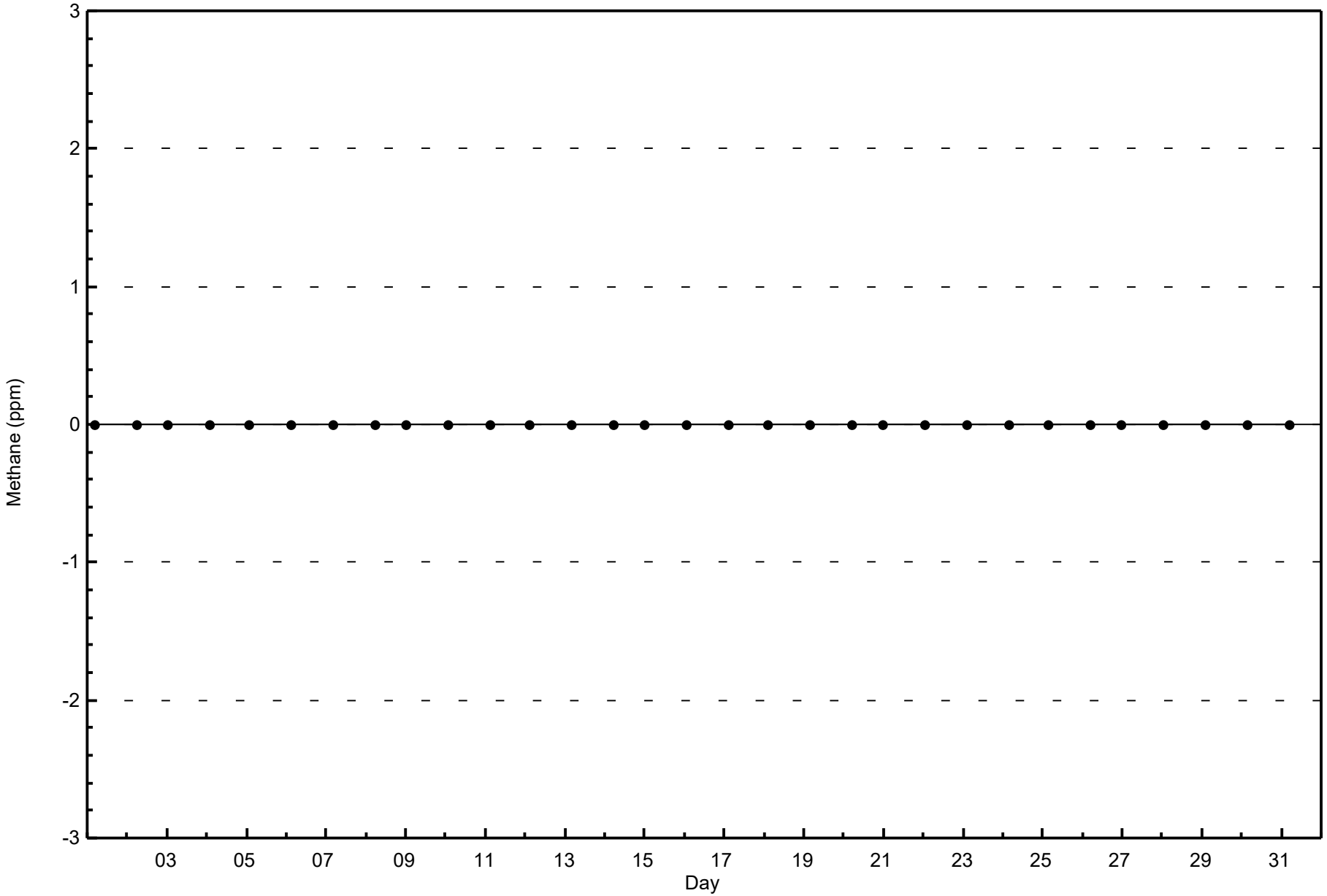
Total Number of Valid Hours: 696

Wood Buffalo Environmental Association

Zero Responses

Methane (CH_4) - ppm

Lower Camp - October 2025



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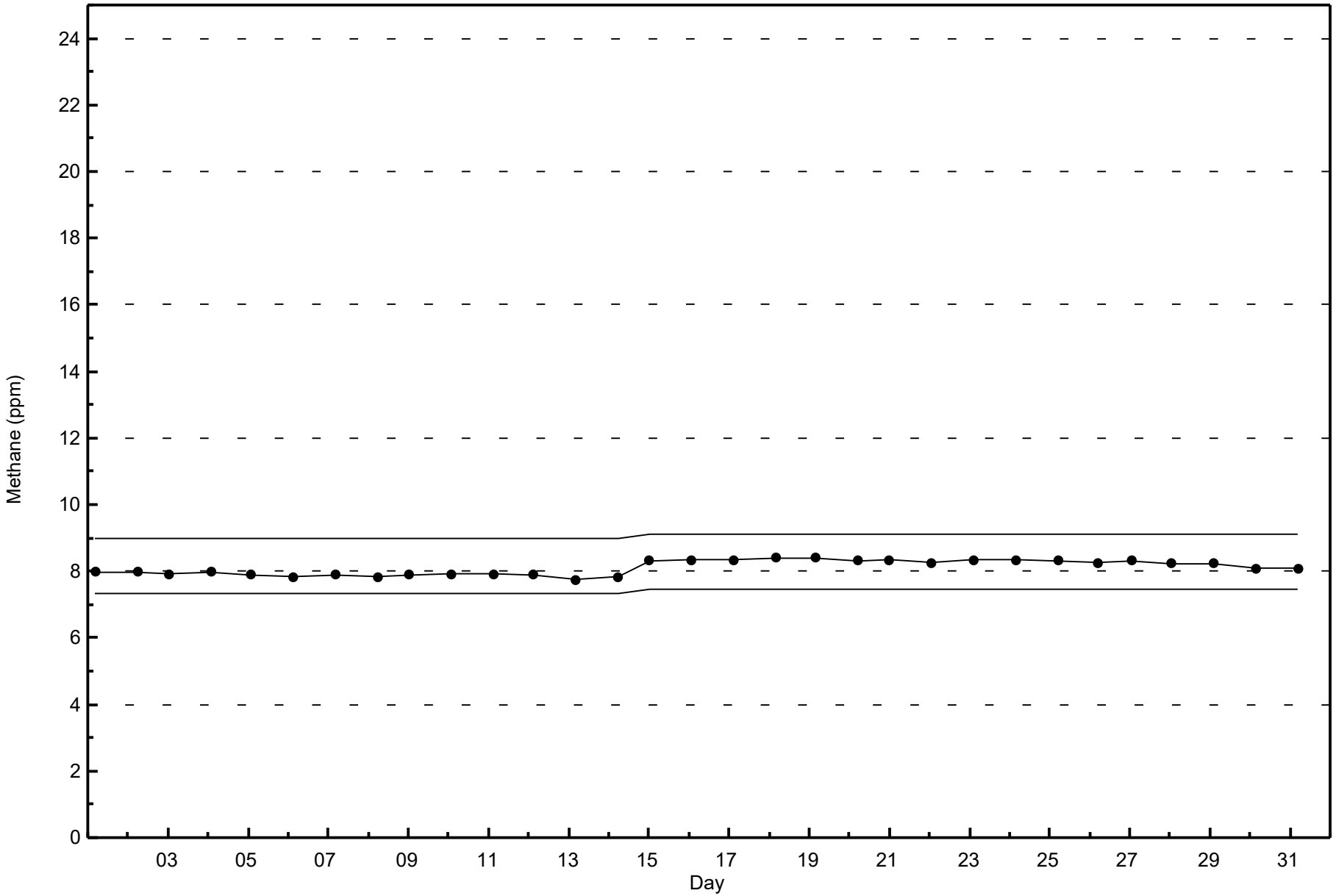
Span Responses

Methane (CH_4) - ppm

Lower Camp - October 2025



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Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

Lower Camp - October 2025

Maximum Value: 0.782 ppm on Oct 2 11:00

Maximum Daily Average: 0.245 ppm on Oct 19

Minimum Value: 0.000 ppm on Oct 1 01:00

Minimum Daily Average: 0.003 ppm on Oct 12

Maximum Diurnal Average: 0.152 ppm at hour 5

Minimum Diurnal Average: 0.030 ppm at hour 15

Monthly Average: 0.080 ppm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.1 P_{90} = 0.2 P_{99} = 0.5

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	36
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.000	0.076	0.130	0.046	Z	0.048	0.000	0.015	0.028	0.009	0.001	0.009	0.014	0.002	0.006	0.052	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.130
2-Oct	0.000	0.011	0.015	0.084	0.510	Z	0.284	0.194	0.161	0.100	0.782	0.605	0.304	0.072	0.000	0.000	0.000	0.000	0.134	0.289	0.216	0.316	0.430	0.415	0.214	0.782
3-Oct	Z	0.384	0.273	0.296	0.367	0.359	0.310	0.206	0.181	0.042	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.057	0.000	0.000	0.000	0.000	0.108	0.384
4-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.037	0.430	0.267	0.089	0.005	0.000	0.001	0.013	0.000	0.024	0.002	0.000	0.000	0.000	0.000	0.042	0.033	0.055	0.043	0.430
5-Oct	0.111	0.010	Z	0.000	0.000	0.000	0.000	0.011	0.035	0.034	0.007	0.022	0.026	0.007	0.000	0.000	0.027	0.025	0.055	0.054	0.000	0.000	0.025	0.013	0.020	0.111
6-Oct	0.000	0.021	0.010	Z	0.001	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.042	0.134	0.098	0.059	0.024	0.004	0.041	0.117	0.120	0.061	0.132	0.168	0.045	0.168
7-Oct	0.050	0.132	0.113	0.186	Z	0.184	0.125	0.082	0.114	0.148	0.052	0.001	0.000	0.027	0.025	0.253	0.654	0.429	0.250	0.227	0.122	0.108	0.234	0.407	0.171	0.654
8-Oct	0.506	0.580	0.414	0.303	0.622	Z	0.006	0.051	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.039	0.258	0.079	0.052	0.129	0.057	0.098	0.040	0.143	0.622
9-Oct	Z	0.016	0.010	0.000	0.000	0.000	0.000	0.004	0.000	0.002	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.027	0.030	0.082	0.321	0.095	0.026	0.321
10-Oct	0.291	Z	0.224	0.183	0.218	0.148	0.139	0.083	0.184	0.133	0.001	0.095	0.006	0.006	0.003	0.001	0.002	0.000	0.000	0.007	0.010	0.000	0.042	0.163	0.084	0.291
11-Oct	0.219	0.291	Z	0.239	0.148	0.098	0.058	0.012	0.003	0.032	0.005	0.000	0.012	0.013	0.005	0.010	0.013	0.001	0.059	0.123	0.078	0.000	0.000	0.000	0.062	0.291
12-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.003	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.020	0.000	0.000	0.000	0.005	0.006	0.043	0.003	0.043
13-Oct	0.172	0.201	0.144	0.028	Z	0.003	0.000	0.000	0.000	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.025	0.201
14-Oct	0.002	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.001	C	C	C	C	C	0.001	0.001	0.005	0.034	0.097	0.136	0.140	0.138	0.146	0.039	0.146
15-Oct	Z	0.137	0.133	0.168	0.194	0.196	0.210	0.184	0.162	0.120	0.067	M	M	0.337	0.000	0.000	0.006	0.312	0.275	0.099	0.022	0.047	0.000	0.017	0.128	0.337
16-Oct	0.050	Z	0.300	0.217	0.213	0.307	0.143	0.129	0.431	0.286	0.160	0.149	0.114	0.037	0.005	0.038	0.045	0.014	0.000	0.001	0.000	0.006	0.039	0.036	0.118	0.431
17-Oct	0.076	0.029	Z	0.000	0.000	0.000	0.067	0.065	0.020	0.000	0.000	0.010	0.014	0.011	0.000	0.000	0.080	0.163	0.359	0.147	0.053	0.069	0.053	0.075	0.056	0.359
18-Oct	0.053	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.021	0.194	0.337	0.430	0.045	0.430
19-Oct	0.375	0.357	0.436	0.360	Z	0.269	0.216	0.139	0.110	0.178	0.374	0.531	0.438	0.674	0.686	0.361	0.081	0.000	0.027	0.023	0.009	0.000	0.000	0.000	0.245	0.686
20-Oct	0.000	0.000	0.000	0.000	0.002	Z	0.012	0.045	0.106	0.037	0.000	0.000	0.031	0.155	0.037	0.022	0.000	0.030	0.000	0.001	0.121	0.018	0.005	0.000	0.027	0.155
21-Oct	Z	0.048	0.160	0.298	0.295	0.154	0.156	0.079	0.000	0.000	0.040	0.005	0.003	0.005	0.000	0.007	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.055	0.298
22-Oct	0.021	Z	0.183	0.233	0.236	0.244	0.149	0.192	0.107	0.079	0.087	0.000	0.003	0.048	0.010	0.160	0.427	0.199	0.193	0.036	0.068	0.065	0.064	0.115	0.127	0.427
23-Oct	0.025	0.056	Z	0.119	0.189	0.107	0.090	0.118	0.105	0.130	0.042	0.000	0.004	0.001	0.000	0.164	0.151	0.192	0.230	0.146	0.189	0.139	0.089	0.080	0.103	0.230
24-Oct	0.131	0.236	0.094	Z	0.256	0.336	0.245	0.346	0.306	0.131	0.044	0.400	0.413	0.006	0.001	0.113	0.214	0.219	0.187	0.138	0.145	0.415	0.525	0.355	0.229	0.525
25-Oct	0.252	0.192	0.137	0.087	Z	0.164	0.160	0.130	0.185	0.285	0.128	0.002	0.010	0.079	0.000	0.000	0.000	0.000	0.000	0.000	0.055	0.238	0.242	0.234	0.112	0.285
26-Oct	0.192	0.182	0.277	0.254	0.384	Z	0.167	0.081	0.063	0.126	0.208	0.356	0.256	0.040	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.113	0.384
27-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.033	0.038	0.025	0.000	0.000	0.000	0.010	0.005	0.038
28-Oct	0.016	Z	0.021	0.181	0.129	0.069	0.242	0.013	0.029	0.042	0.066	0.024	0.000	0.003	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.065	0.166	0.053	0.049	0.242
29-Oct	0.005	0.000	Z	0.033	0.045	0.044	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.045	0.007	0.000	0.137	0.015	0.137
30-Oct	0.121	0.117	0.099	Z	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.051	0.056	0.028	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.121
31-Oct	0.000	0.001	0.000	0.011	Z	0.000	0.000	0.026	0.040	0.052	0.054	0.019	0.028	0.004	0.014	0.026	0.062	0.054	0.051	0.064	0.068	0.010	0.020	0.065	0.029	0.068
	0.103	0.118	0.122	0.128	0.152	0.105	0.092	0.085	0.087	0.067	0.071	0.079	0.061	0.057	0.030	0.042	0.060	0.063	0.065	0.056	0.053	0.067	0.097	0.102	Diurnal Average	
	0.506	0.580	0.436	0.360	0.622	0.359	0.310	0.430	0.431	0.286	0.782	0.605	0.438	0.674	0.686	0.361	0.654	0.429	0.359	0.289	0.216	0.415	0.525	0.430	Diurnal Maximum	

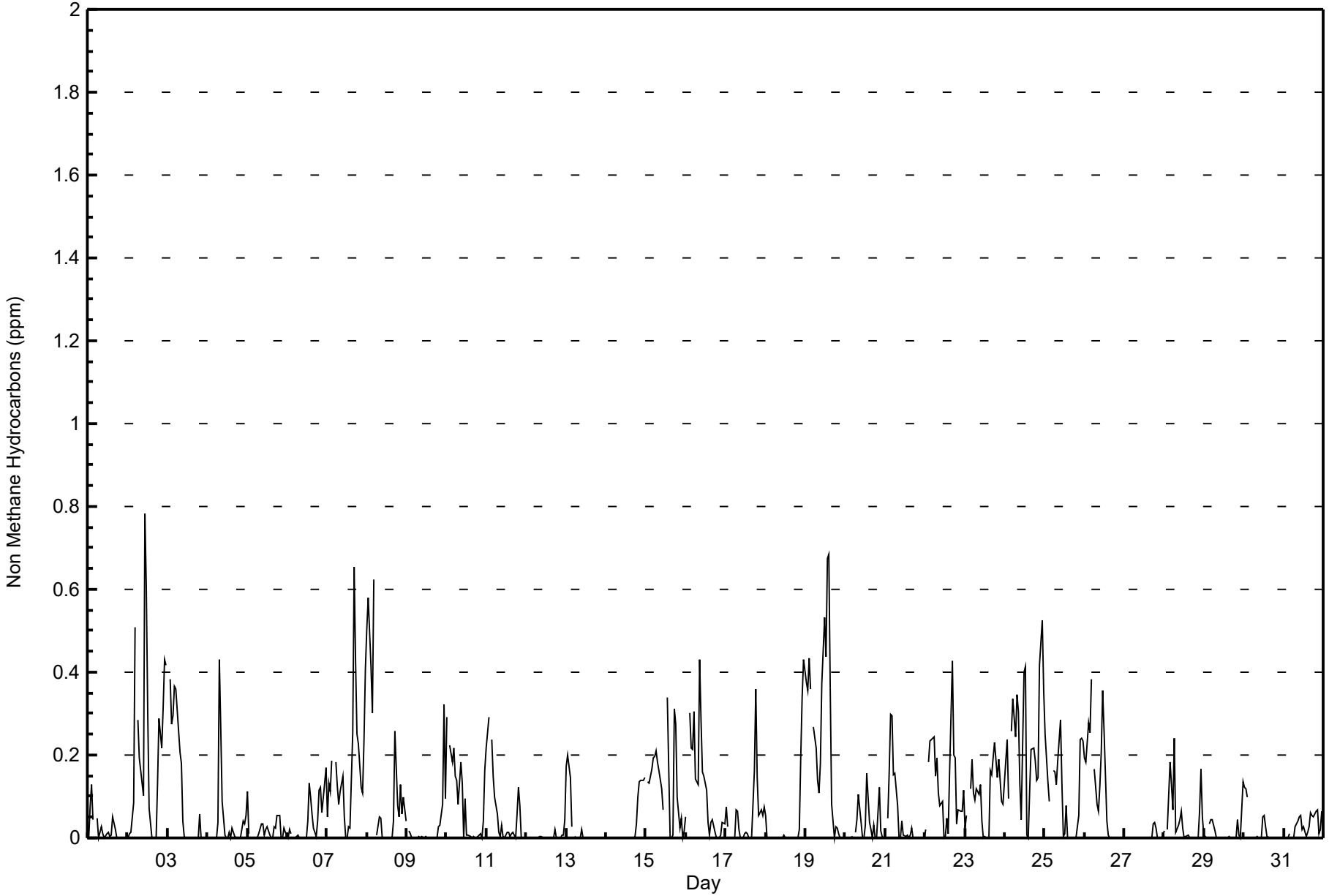
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm

Lower Camp - October 2025



Non Methane Hydrocarbons (NMHC) - ppm
Lower Camp - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	300	42.49	42.49
0.006 - 0.05	150	21.25	63.74
0.06 - 0.1	116	16.43	80.17
> 0.1	140	19.83	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Lower Camp - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.005	34	12	2	4	6	0	24	29	11	12	24	35	37	13	20	34	297
0.006 - 0.05	5	4	0	1	1	4	37	15	4	4	1	3	12	22	20	16	149
0.06 - 0.1	2	3	0	0	0	7	56	4	2	0	1	0	6	18	11	3	113
> 0.1	1	1	1	2	1	9	66	10	2	0	2	0	2	16	12	12	137
Totals	42	20	3	7	8	20	183	58	19	16	28	38	57	69	63	65	696

Total Number of Valid Hours: 696

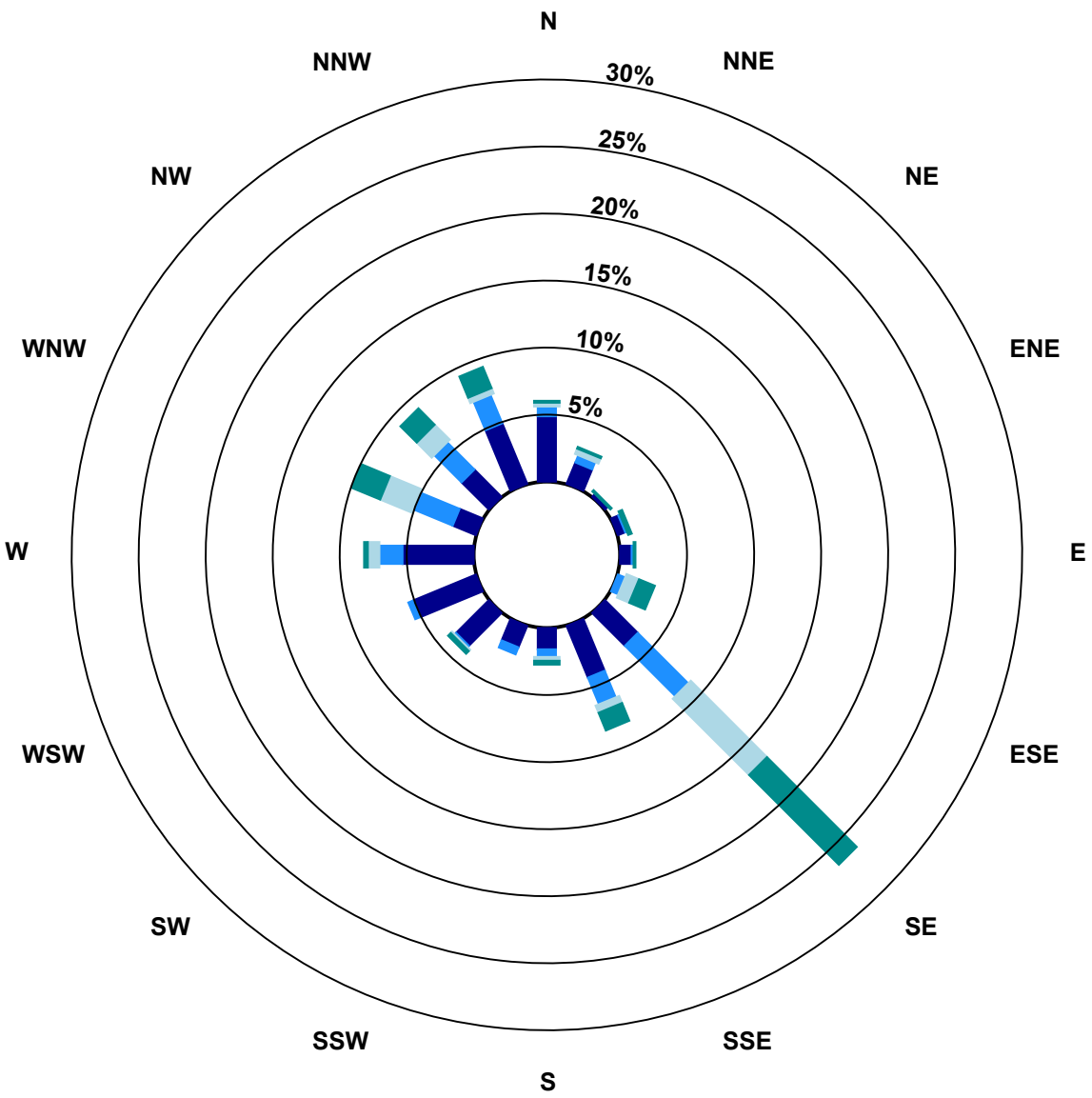
Total Number of Hours: 744

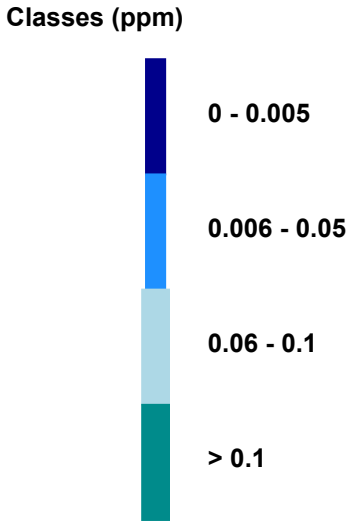
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Non Methane Hydrocarbons (NMHC) - ppm

Lower Camp





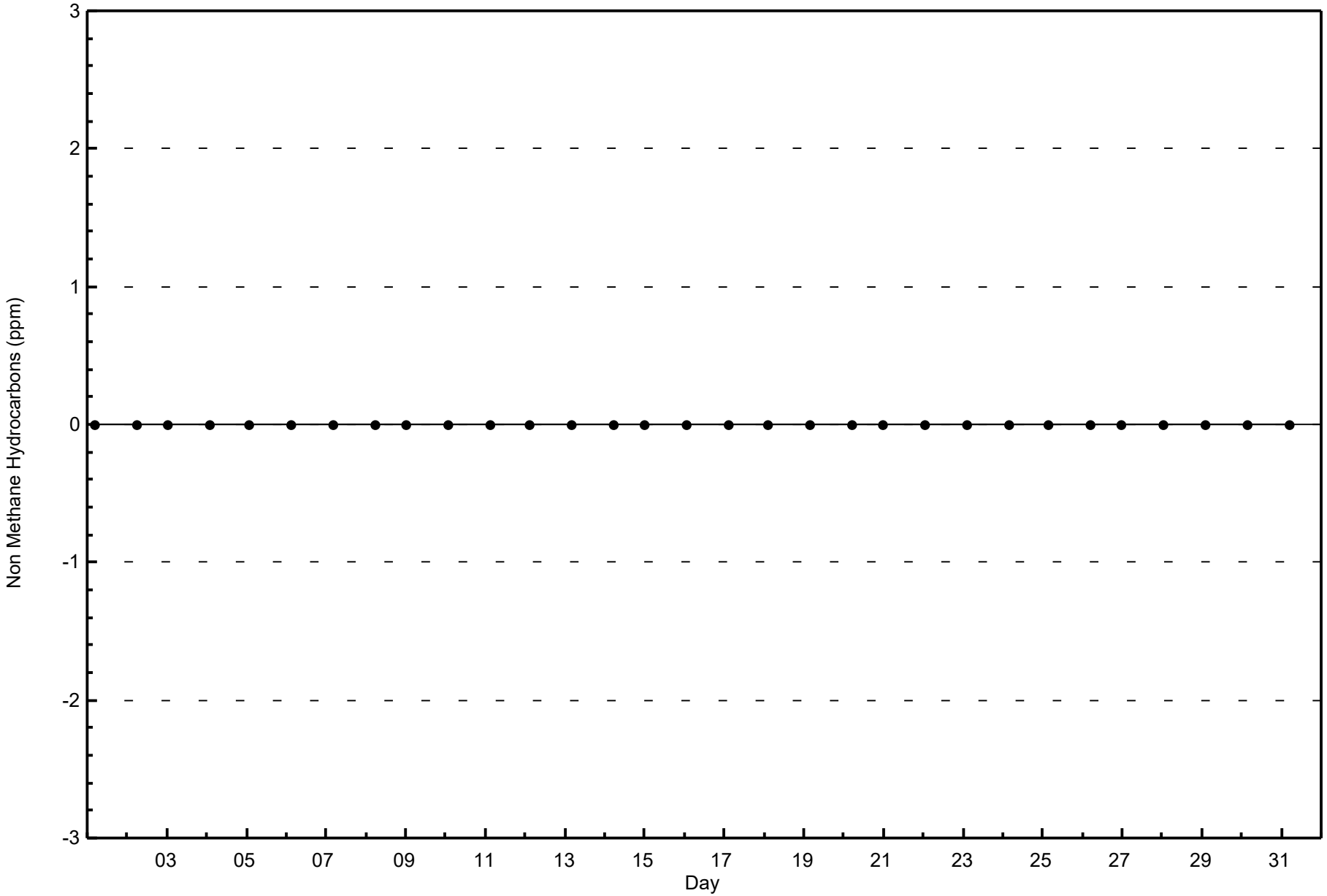
Total Number of Valid Hours: 696

Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Lower Camp - October 2025

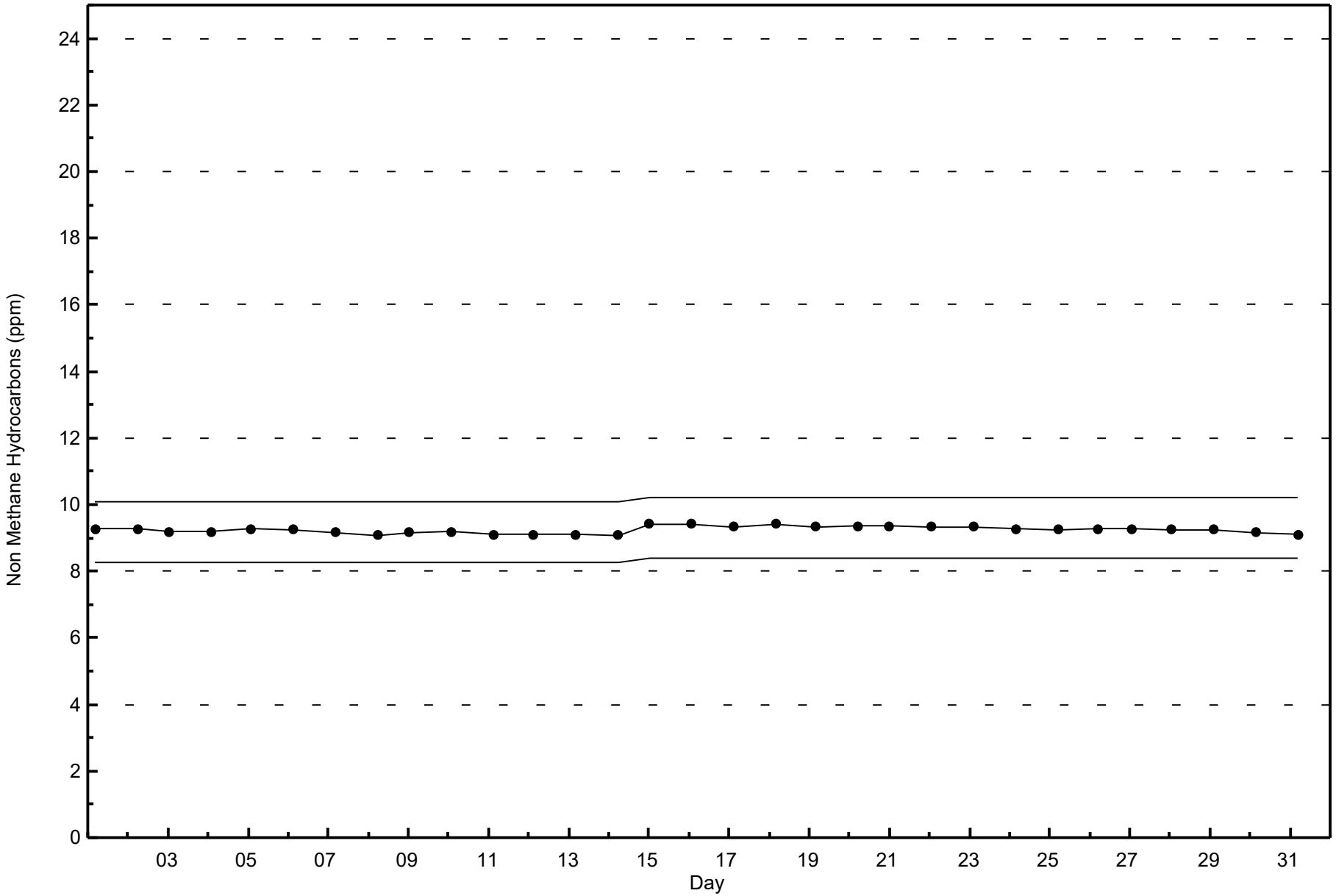


Wood Buffalo Environmental Association

Span Responses

Non Methane Hydrocarbons (NMHC) - ppm

Lower Camp - October 2025



Maximum Value: 22.6 C on Oct 10 16:00

Maximum Daily Average: 11.5 C on Oct 3

Minimum Value: -2.0 C on Oct 13 08:00

Minimum Daily Average: 0.7 C on Oct 29

Maximum Diurnal Average: 9.1 C at hour 16

Minimum Diurnal Average: 3.0 C at hour 7

Monthly Average: 5.55 C

Percentiles: P_1 = -0.8 P_{10} = 0.6 Q_1 = 1.9 Median = 4.8 Q_3 = 8.5 P_{90} = 11.4 P_{99} = 17.1

Hours in Service:	744
Hours of Data:	743
Hours of Missing Data:	1
Hours of Calibration:	0
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.5	10.4	10.6	10.6	10.7	10.9	11.0	11.0	10.9	10.8	11.0	10.6	10.4	10.6	11.0	11.2	10.9	10.6	10.0	9.2	8.1	8.0	7.2	6.2	10.1	11.2
2-Oct	5.8	5.8	5.7	5.8	5.4	4.9	5.1	5.4	6.3	8.2	8.8	9.9	11.4	11.9	12.6	13.5	13.7	12.6	10.7	9.4	9.3	8.9	8.6	8.1	8.6	13.7
3-Oct	7.7	7.5	7.7	7.4	7.3	7.0	6.5	7.6	10.3	13.9	15.8	17.1	17.3	17.0	16.2	15.7	14.6	14.2	13.8	11.6	10.6	10.0	9.8	9.6	11.5	17.3
4-Oct	9.3	9.2	9.1	8.2	7.4	7.5	7.3	7.6	8.3	9.2	9.4	9.3	9.7	9.1	7.0	6.6	5.5	4.5	4.3	4.3	4.2	4.4	4.1	4.1	7.1	9.7
5-Oct	4.2	3.3	1.9	1.6	0.8	0.8	1.0	1.4	2.0	2.8	4.3	6.4	7.4	8.6	8.8	8.6	8.4	8.6	7.7	7.3	6.5	6.1	5.9	4.8	5.0	8.8
6-Oct	3.6	3.3	3.1	1.9	0.5	-0.3	-0.8	-0.4	-0.1	0.2	1.3	2.4	3.2	3.8	5.2	5.7	5.1	4.2	3.4	3.1	3.6	4.0	3.9	3.8	2.6	5.7
7-Oct	4.0	4.4	4.7	4.8	4.8	4.8	4.6	4.6	6.0	7.2	9.3	11.1	13.2	16.0	16.9	15.7	13.8	13.8	14.4	13.6	12.5	11.4	10.7	10.1	9.7	16.9
8-Oct	9.8	9.3	9.2	9.1	10.4	9.8	9.9	9.4	8.5	8.2	9.4	11.0	11.7	12.3	12.8	12.3	12.4	11.3	10.9	9.7	8.0	7.2	6.9	6.7	9.8	12.8
9-Oct	6.2	5.9	6.4	6.4	4.8	3.8	2.9	3.7	5.1	7.0	9.1	12.4	14.6	15.3	16.3	16.8	16.6	13.5	9.6	7.8	6.4	5.9	6.9	6.2	8.7	16.8
10-Oct	5.9	5.1	4.3	4.0	3.4	2.8	2.5	3.3	5.3	7.7	9.6	12.5	15.7	17.4	20.2	22.6	21.7	19.5	18.2	16.8	16.2	15.7	14.5	10.9	11.5	22.6
11-Oct	10.3	10.1	9.5	7.5	7.2	7.0	8.6	9.5	9.8	10.1	8.7	7.7	7.2	6.5	5.8	6.0	6.2	6.3	5.8	5.1	4.9	4.9	4.5	3.7	7.2	10.3
12-Oct	2.9	3.0	2.9	2.7	2.4	2.3	1.9	1.2	1.1	1.7	1.1	0.8	1.6	2.6	3.3	2.9	2.5	2.7	2.4	1.9	1.2	1.1	1.2	1.2	2.0	3.3
13-Oct	1.1	0.7	0.3	0.3	-0.7	-1.6	-2.0	-2.0	-0.5	1.8	3.4	4.3	5.2	6.2	6.1	5.5	4.4	3.5	2.4	1.6	1.5	1.0	0.6	0.7	1.8	6.2
14-Oct	0.5	0.5	0.4	0.4	0.4	0.3	0.8	1.2	2.7	4.0	5.4	7.2	9.0	M	10.6	10.7	10.1	8.1	7.1	5.9	4.9	4.1	3.6	3.2	4.4	10.7
15-Oct	3.2	2.9	2.3	1.7	1.3	1.3	0.9	0.9	2.2	4.0	6.7	7.5	11.1	12.2	14.0	15.0	14.3	10.4	7.5	7.4	6.0	5.5	6.5	4.8	6.2	15.0
16-Oct	3.2	2.2	1.5	1.6	1.3	1.0	0.3	0.3	2.9	4.8	5.8	8.0	10.0	12.6	11.7	12.5	13.5	14.7	14.2	13.7	13.1	12.6	11.7	10.9	7.7	14.7
17-Oct	10.4	10.6	10.7	10.3	9.4	8.5	8.1	7.4	7.2	6.9	7.3	9.0	10.5	11.1	12.0	12.1	11.4	10.5	9.4	6.4	3.8	3.2	3.9	2.5	8.4	12.1
18-Oct	2.0	3.8	2.7	2.7	3.5	2.7	2.3	2.2	3.5	5.1	7.3	9.6	11.5	12.3	13.0	13.2	11.7	7.3	4.6	2.6	1.3	0.4	-0.3	-0.6	5.2	13.2
19-Oct	-0.8	-0.8	-0.7	-0.8	-0.5	-0.4	-0.5	-0.3	0.0	0.6	1.4	2.1	2.9	4.0	4.4	4.5	4.4	4.1	3.4	3.1	3.0	2.8	2.8	2.7	1.7	4.5
20-Oct	2.6	2.7	2.7	2.8	2.8	2.8	2.8	2.5	2.5	2.8	3.1	3.3	3.9	4.6	5.2	5.5	5.4	5.1	4.4	4.3	3.2	4.4	4.7	4.8	3.7	5.5
21-Oct	4.4	4.1	3.6	3.7	3.8	3.5	2.3	1.9	4.1	5.1	7.2	8.2	7.8	8.1	8.7	9.0	7.7	5.9	4.8	4.1	3.0	2.1	1.5	0.6	4.8	9.0
22-Oct	0.9	1.1	1.2	0.6	0.3	-0.5	-1.0	-0.8	2.0	3.5	5.3	6.7	8.3	9.5	11.0	10.5	8.6	7.4	7.6	7.5	6.7	6.9	6.7	6.6	4.9	11.0
23-Oct	6.9	7.1	6.9	6.4	5.3	5.3	5.7	5.2	5.9	6.8	8.7	10.3	11.9	11.9	11.3	11.1	9.9	8.9	7.7	6.7	6.4	7.0	7.0	5.6	7.7	11.9
24-Oct	5.5	5.5	5.3	4.6	4.8	5.4	5.1	4.1	4.4	5.9	7.0	7.9	10.2	10.4	11.0	10.3	9.4	6.9	5.4	4.8	5.3	5.6	4.7	4.1	6.4	11.0
25-Oct	3.8	3.9	3.5	3.6	3.5	3.9	3.8	4.2	4.9	4.9	5.6	6.6	7.4	7.4	7.9	8.3	8.8	7.7	7.0	6.1	3.3	3.1	2.4	1.7	5.1	8.8
26-Oct	0.7	-0.2	0.0	0.3	0.2	-0.5	-0.7	-0.7	-0.5	0.0	1.1	2.2	3.8	5.3	5.7	5.8	6.2	6.4	6.0	5.4	4.4	4.0	3.9	3.7	2.6	6.4
27-Oct	3.7	3.6	3.7	3.6	3.6	3.0	2.6	2.5	2.3	2.0	1.7	1.8	2.0	2.5	2.6	2.8	1.5	1.3	1.2	0.9	0.7	0.8	0.8	0.9	2.2	3.7
28-Oct	0.9	0.7	1.0	0.9	0.5	0.1	0.1	0.1	0.2	0.3	0.9	1.1	1.1	1.6	1.7	1.8	1.5	2.0	2.0	1.7	1.6	1.0	0.8	1.2	1.0	2.0
29-Oct	0.9	0.8	1.0	1.1	0.8	0.5	0.2	0.0	-0.1	0.5	0.7	1.0	1.3	1.2	0.7	0.5	1.0	1.0	0.9	0.8	0.5	0.5	0.6	0.6	0.7	1.3
30-Oct	0.6	0.7	0.6	0.4	0.1	-0.1	0.0	0.1	0.5	1.0	1.2	1.3	1.8	1.9	1.9	2.1	1.9	1.9	1.7	1.6	1.6	1.5	1.5	1.6	1.1	2.1
31-Oct	1.6	1.7	1.7	1.8	1.7	1.5	0.6	-0.3	0.7	1.7	2.9	3.1	3.9	3.7	3.5	3.2	3.2	2.9	3.0	3.2	2.8	2.6	2.8	2.5	2.3	3.9
	4.3	4.2	4.0	3.7	3.5	3.2	3.0	3.0	3.8	4.8	5.8	6.8	8.0	8.6	9.0	9.1	8.6	7.7	6.8	6.1	5.3	5.1	4.9	4.3	Diurnal Average	
	10.5	10.6	10.7	10.6	10.7	10.9	11.0	11.0	10.9	13.9	15.8	17.1	17.3	17.4	20.2	22.6	21.7	19.5	18.2	16.8	16.2	15.7	14.5	10.9	Diurnal Maximum	

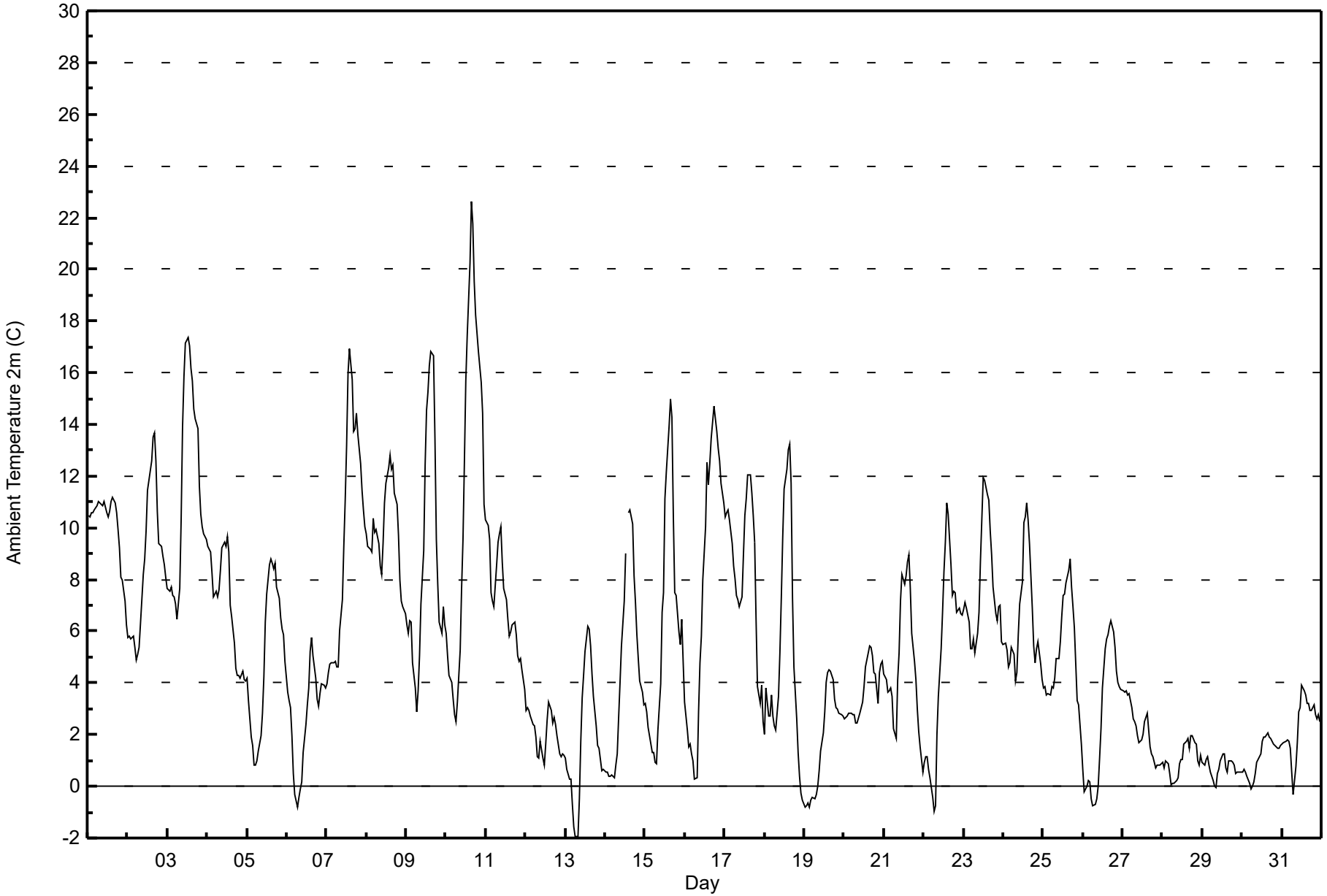
M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Lower Camp - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	32	4.31	4.31
0 - 10	580	78.06	82.37
10 - 20	128	17.23	99.60
> 20	3	0.40	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

Lower Camp - October 2025

Maximum Value: 100.0 % on Oct 2 02:00

Maximum Daily Average: 93.5 % on Oct 26

Minimum Value: 28.7 % on Oct 10 16:00

Minimum Daily Average: 52.1 % on Oct 14

Maximum Diurnal Average: 85.8 % at hour 8

Minimum Diurnal Average: 63.1 % at hour 16

Monthly Average: 76.78 %

Percentiles: P_1 = 36.0 P_{10} = 51.7 Q_1 = 66.1 Median = 80.4 Q_3 = 90.3 P_{90} = 96.1 P_{99} = 99.9

Hours in Service:	744
Hours of Data:	743
Hours of Missing Data:	1
Hours of Calibration:	0
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	95.2	97.6	97.6	97.8	97.3	96.5	96.2	96.2	96.9	96.3	94.0	90.2	82.3	80.2	76.7	75.3	77.5	81.1	86.4	92.8	97.7	97.0	97.2	99.3	91.5	99.3
2-Oct	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	96.3	91.7	86.3	80.1	74.5	68.4	68.4	70.7	76.3	87.4	94.5	94.2	94.7	95.1	96.5	90.6	100.0
3-Oct	97.3	97.2	96.2	97.2	95.9	95.9	97.3	92.4	83.0	65.8	55.3	49.7	45.8	45.2	47.6	49.1	55.5	55.9	57.5	77.5	82.7	84.3	82.6	83.2	74.6	97.3
4-Oct	83.7	82.6	81.1	83.7	86.8	82.8	81.5	80.7	76.3	72.2	68.4	67.7	65.9	71.7	89.4	90.4	89.6	90.5	93.3	90.3	87.4	82.7	79.9	79.5	81.6	93.3
5-Oct	81.2	80.6	89.7	89.0	89.7	89.8	90.5	92.4	90.4	89.3	81.8	69.3	65.5	62.5	61.9	65.0	67.8	55.4	59.4	59.5	65.3	70.1	70.7	75.6	75.5	92.4
6-Oct	79.2	76.4	71.0	56.8	63.0	69.2	76.3	76.5	72.1	69.5	61.4	57.0	51.5	50.6	45.0	47.0	48.1	47.1	53.4	62.3	61.3	61.2	62.7	63.8	61.8	79.2
7-Oct	64.8	63.6	63.7	64.9	66.2	67.7	71.0	72.7	69.8	69.0	66.3	63.2	59.7	55.1	54.3	61.9	71.0	70.0	67.8	71.6	76.6	81.5	83.3	85.0	68.4	85.0
8-Oct	86.6	92.4	95.6	97.5	87.7	90.8	88.9	83.1	79.6	76.6	70.8	61.0	57.3	53.6	49.7	51.2	46.7	49.2	50.1	54.8	60.8	64.8	67.3	69.9	70.2	97.5
9-Oct	72.4	74.4	71.3	72.5	78.9	81.3	82.6	78.9	73.3	68.0	66.3	51.1	42.4	39.9	37.3	36.9	37.7	48.1	71.1	85.7	89.2	91.8	79.1	83.3	67.2	91.8
10-Oct	83.0	85.6	86.7	84.6	86.8	90.5	92.2	89.1	80.0	71.2	63.9	55.5	45.1	45.2	37.6	28.7	28.9	32.7	35.7	40.6	44.8	47.3	53.2	66.2	61.5	92.2
11-Oct	69.1	71.8	74.2	85.5	86.9	87.2	73.1	65.7	62.5	63.4	82.6	92.4	92.5	89.2	83.1	80.3	78.9	74.4	75.3	77.5	78.5	74.2	71.6	73.5	77.6	92.5
12-Oct	79.1	75.0	68.2	66.9	67.4	69.2	68.1	80.8	83.0	75.6	82.7	89.5	79.6	69.4	65.6	72.6	74.8	71.4	63.7	69.3	71.0	71.1	69.5	73.0	73.2	89.5
13-Oct	72.4	73.0	72.4	70.7	75.0	79.1	78.1	77.0	70.1	60.6	51.7	48.9	45.7	42.1	42.5	44.6	48.6	52.5	56.2	58.7	58.4	59.6	61.8	61.2	60.9	79.1
14-Oct	62.7	61.8	61.4	61.7	61.1	65.3	60.9	60.1	55.5	51.3	46.9	43.0	36.4	M	32.7	34.0	35.9	42.2	45.7	50.1	53.3	57.7	58.3	60.7	52.1	65.3
15-Oct	59.6	60.5	65.3	71.3	71.3	71.5	73.9	71.7	67.9	64.6	56.6	56.7	40.1	39.4	36.5	34.3	36.1	48.0	61.5	60.4	65.9	67.9	62.4	68.7	58.8	73.9
16-Oct	75.6	81.7	86.3	82.1	82.7	83.6	87.3	86.9	78.0	70.5	69.2	62.7	55.3	46.1	51.6	48.5	43.9	37.7	39.9	41.9	45.7	59.8	69.9	75.8	65.1	87.3
17-Oct	77.2	70.5	62.0	59.1	59.9	63.9	70.0	83.5	86.4	89.3	86.7	77.7	62.9	53.3	47.1	44.9	47.3	49.2	50.8	67.6	81.5	84.8	80.7	87.2	68.5	89.3
18-Oct	86.6	73.2	81.2	79.8	72.5	73.5	74.0	74.3	69.7	63.1	55.5	49.3	44.1	41.4	38.9	37.9	43.8	63.4	75.4	86.4	89.7	91.6	94.1	95.1	68.9	95.1
19-Oct	96.3	96.4	96.3	96.9	97.3	96.9	95.2	92.2	91.5	89.9	88.2	86.6	84.1	80.7	79.2	79.0	80.0	83.5	91.0	92.6	93.9	95.3	95.4	95.4	90.6	97.3
20-Oct	96.4	95.1	95.3	94.5	93.9	93.6	92.9	94.7	95.0	91.9	87.7	87.3	84.6	83.1	84.1	81.3	81.1	83.1	87.1	86.8	93.0	83.8	78.7	77.4	88.4	96.4
21-Oct	85.3	90.7	96.2	95.0	92.0	89.8	94.3	96.1	86.8	83.9	78.4	68.2	68.7	66.1	63.8	60.4	65.8	81.4	83.9	85.0	90.1	93.9	95.8	97.6	83.7	97.6
22-Oct	98.2	97.7	96.6	97.0	96.4	97.1	98.0	97.6	88.8	83.8	75.7	68.0	64.0	58.7	53.9	57.0	69.4	73.3	72.6	72.6	76.9	75.7	76.8	77.4	80.1	98.2
23-Oct	74.8	71.3	70.7	71.8	75.1	76.6	75.7	77.5	75.2	71.2	63.9	54.9	50.0	53.2	56.8	57.0	62.3	64.6	69.1	74.4	74.3	71.9	70.4	77.5	68.3	77.5
24-Oct	77.3	75.9	77.3	80.0	77.4	72.1	73.0	79.6	79.1	74.8	71.9	67.1	56.9	56.4	53.3	58.7	60.4	72.3	80.6	84.7	83.5	81.5	84.6	87.7	73.6	87.7
25-Oct	88.8	90.0	90.8	90.2	91.3	92.3	93.4	91.4	89.2	90.7	92.9	95.3	93.5	91.9	91.7	84.7	78.4	81.7	79.5	76.6	94.1	94.7	96.0	96.7	89.8	96.7
26-Oct	97.9	98.7	99.0	98.1	98.0	98.8	99.3	98.9	98.1	97.6	96.5	94.4	91.4	87.0	86.8	87.4	87.1	85.3	86.4	88.6	92.2	92.5	92.7	92.3	93.5	99.3
27-Oct	92.1	92.2	92.6	92.5	92.5	92.9	92.8	92.3	92.2	91.9	91.4	90.0	88.3	82.9	80.7	77.7	90.6	93.5	92.7	93.3	94.2	93.9	94.5	94.2	90.9	94.5
28-Oct	93.5	94.6	90.8	88.4	91.7	96.3	96.7	96.6	96.5	95.7	89.2	88.5	88.6	80.2	79.6	79.3	85.1	80.4	81.1	83.2	83.2	88.3	91.2	87.6	88.6	96.7
29-Oct	90.8	91.4	85.9	83.1	86.8	85.9	86.5	88.4	89.4	85.9	89.2	88.6	87.1	89.8	94.2	96.4	94.1	94.6	94.6	95.5	97.0	96.7	96.5	96.4	91.0	97.0
30-Oct	96.6	96.1	96.2	96.4	95.2	94.9	96.9	97.7	96.5	91.7	83.4	83.4	82.8	83.2	85.1	81.5	83.2	83.8	85.2	82.9	84.5	82.1	81.9	81.0	88.4	97.7
31-Oct	81.2	82.2	83.0	84.6	86.8	88.0	88.7	94.1	91.6	85.7	81.7	82.4	79.8	81.7	82.5	83.9	83.3	83.9	81.6	79.1	80.8	81.6	81.0	86.3	84.0	94.1
	83.7	83.6	83.7	83.5	84.0	84.9	85.3	85.8	82.7	78.9	75.5	71.8	66.8	65.1	63.1	63.1	65.3	68.0	71.5	75.4	78.8	79.8	79.8	82.1	Diurnal Average	
	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.6	96.5	95.3	93.5	91.9	94.2	96.4	94.1	94.6	94.6	95.5	97.7	97.0	97.2	99.3	Diurnal Maximum	

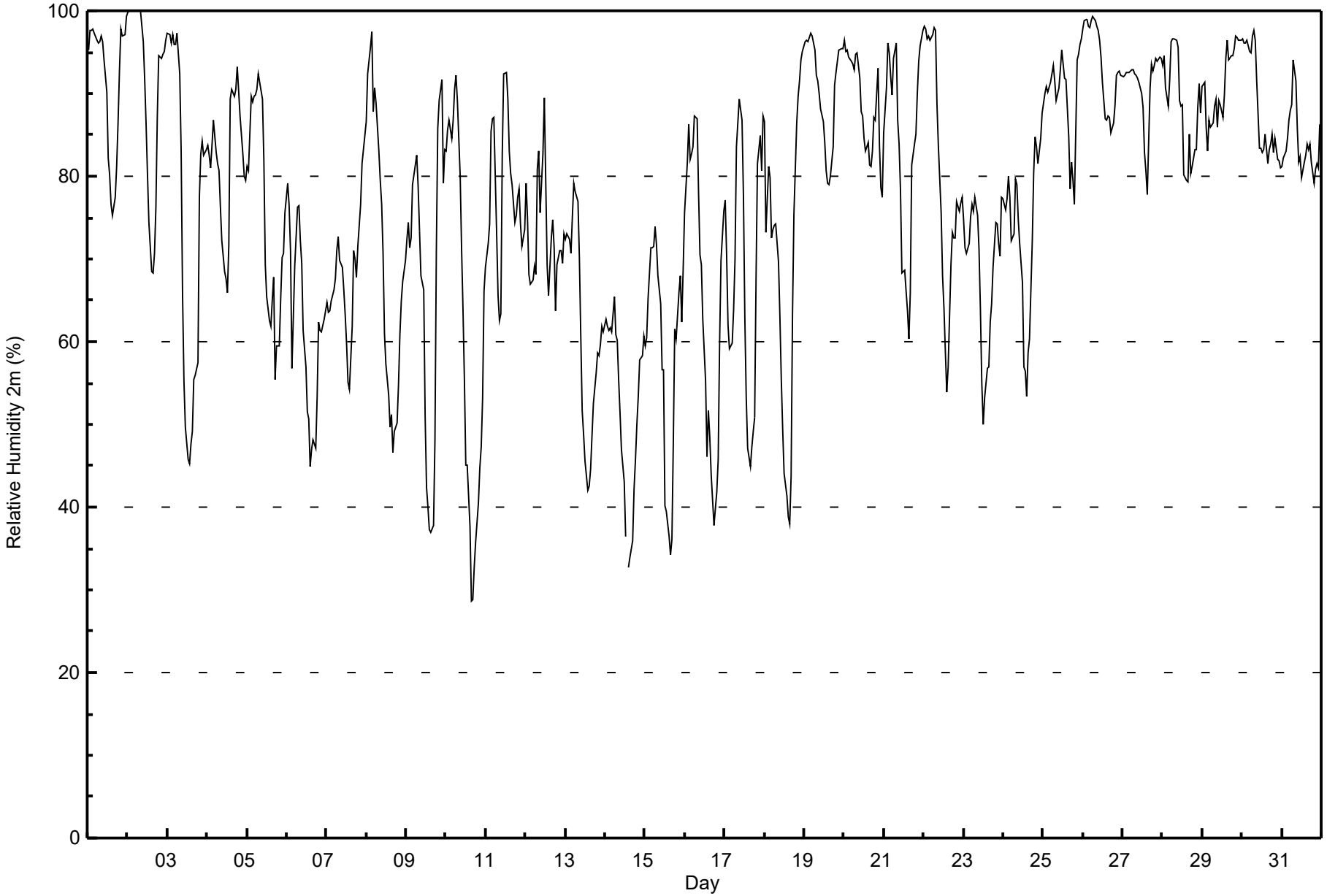
M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Lower Camp - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Barometric Pressure (BP) - inHg

Lower Camp - October 2025

Maximum Value: 29.4 inHg on Oct 30 11:00

Maximum Daily Average: 29.4 inHg on Oct 30

Minimum Value: 28.4 inHg on Oct 25 07:00

Minimum Daily Average: 28.6 inHg on Oct 25

Maximum Diurnal Average: 29.0 inHg at hour 9

Minimum Diurnal Average: 29.0 inHg at hour 16

Monthly Average: 28.98 inHg

Percentiles: P_1 = 28.5 P_{10} = 28.6 Q_1 = 28.8 Median = 29.0 Q_3 = 29.2 P_{90} = 29.3 P_{99} = 29.4

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

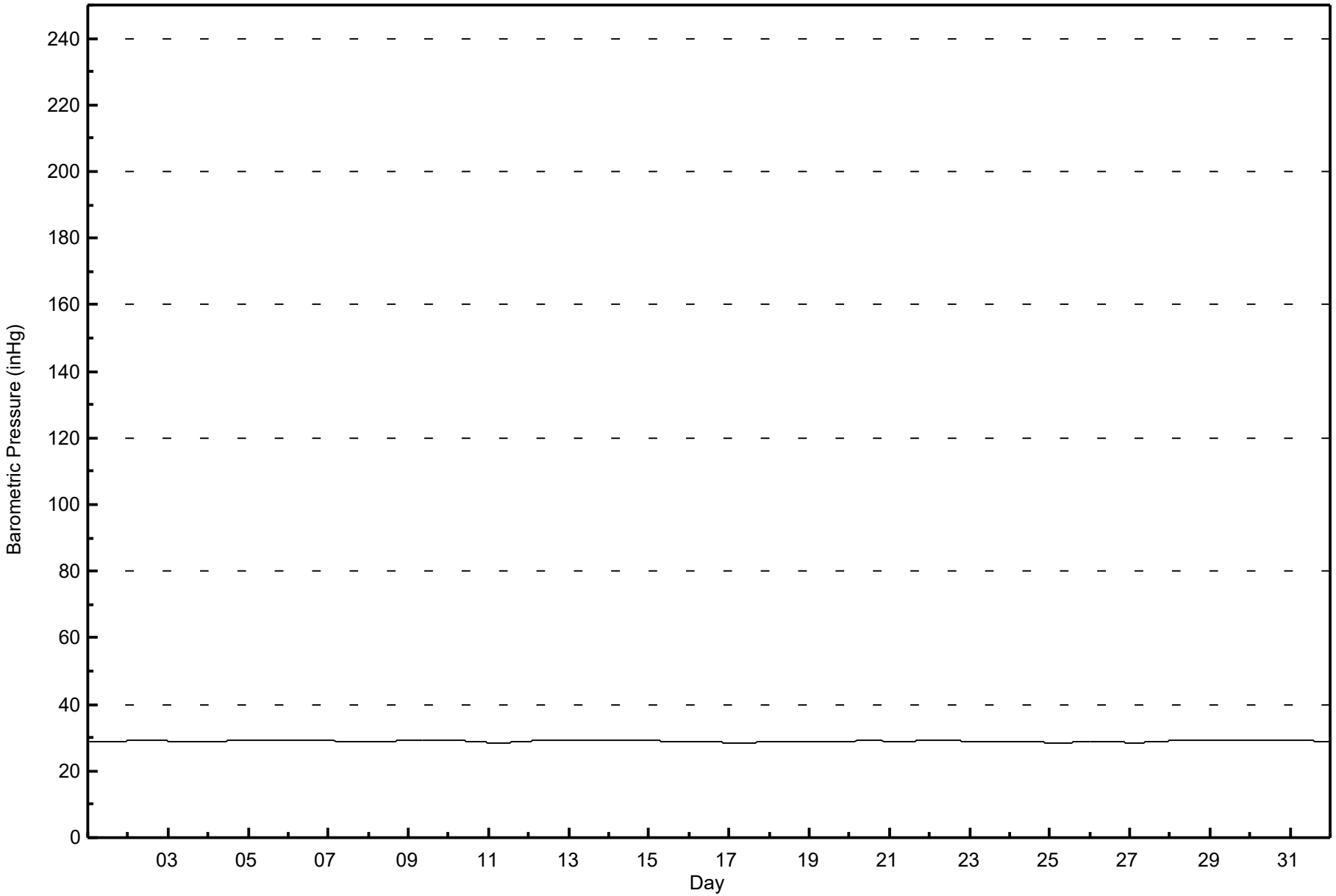
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	29.0
2-Oct	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.1	29.1
3-Oct	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.9	29.0
4-Oct	28.8	28.8	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.3	29.3	29.3	29.3	29.1	29.3
5-Oct	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2	29.3
6-Oct	29.2	29.2	29.2	29.2	29.2	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.2	29.3
7-Oct	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.7	28.7	28.7	28.8	28.8	28.8	28.9	29.1
8-Oct	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.2	29.2	29.0	29.2
9-Oct	29.2	29.2	29.2	29.2	29.2	29.2	29.3	29.3	29.3	29.3	29.3	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.3
10-Oct	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.0	29.0	28.9	28.9	28.8	28.8	28.7	28.7	28.7	28.7	28.7	28.6	28.6	28.6	28.9	29.2
11-Oct	28.6	28.5	28.5	28.5	28.5	28.4	28.5	28.5	28.5	28.5	28.5	28.6	28.6	28.6	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.6	28.9
12-Oct	29.0	29.0	29.0	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.4	29.4	29.2	29.4
13-Oct	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.4
14-Oct	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2
15-Oct	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1
16-Oct	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.8	28.8	28.7	28.7	28.7	28.7	28.7	28.6	28.6	28.6	28.6	28.5	28.8	29.0
17-Oct	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.7	28.7	28.7	28.7	28.7	28.7	28.6	28.7
18-Oct	28.8	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9
19-Oct	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.7	28.7	28.8	28.8	28.8	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.8	28.9
20-Oct	28.9	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	28.9	29.0	29.1
21-Oct	28.9	28.9	28.9	28.9	28.8	28.8	28.9	28.9	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.1	29.1	29.1	29.1	29.1	29.2	29.2	29.0	29.2
22-Oct	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.1	29.2
23-Oct	29.0	28.9	28.9	28.9	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.8	28.8	28.8	28.9	29.0
24-Oct	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.7	28.7	28.7	28.7	28.7	28.7	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.7	28.8
25-Oct	28.5	28.5	28.5	28.5	28.5	28.5	28.4	28.5	28.5	28.5	28.5	28.5	28.5	28.6	28.6	28.6	28.6	28.7	28.7	28.7	28.8	28.8	28.8	28.8	28.6	28.8
26-Oct	28.8	28.8	28.8	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.7	28.7	28.7	28.7	28.7	28.6	28.6	28.6	28.6	28.6	28.5	28.7	28.9
27-Oct	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.6	28.6	28.6	28.6	28.7	28.7	28.7	28.8	28.8	28.9	28.9	28.9	28.9	29.0	29.0	29.0	29.0	28.7	29.0
28-Oct	29.1	29.1	29.1	29.1	29.2	29.2	29.2	29.2	29.2	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.3
29-Oct	29.3	29.2	29.2	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.2	29.2	29.2	29.3	29.3	29.3	29.3	29.2	29.3
30-Oct	29.3	29.3	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.3	29.4	29.4
31-Oct	29.3	29.3	29.3	29.3	29.3	29.3	29.3	29.2	29.2	29.2	29.2	29.1	29.1	29.1	29.0	29.0	28.9	28.9	28.8	28.8	28.8	28.8	28.8	28.7	29.1	29.3
	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	Diurnal Average	
	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	29.4	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Barometric Pressure (BP) - inHg

Lower Camp - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Lower Camp - October 2025

Maximum Speed: 39 km/h on Oct 31 19:00

Maximum Daily Speed Average: 20.7 km/h on Oct 31

Minimum Speed Value: 0 km/h on Oct 18 18:00

Minimum Daily Speed Average: 1.1 km/h on Oct 20

Maximum Diurnal Speed Average: 3.9 km/h at hour 13

Minimum Diurnal Speed Average: 0.2 km/h at hour 8

Monthly Average Velocity: 1.5 km/h 215.5 deg

Percentiles: $P_1 = 1$ $P_{10} = 3$ $Q_1 = 6$ Median = 11 $Q_3 = 15$ $P_{90} = 19$ $P_{99} = 32$

Hours in Service:	744
Hours of Data:	734
Hours of Missing Data:	10
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NW10	NW7	NW7	NW8	NNW11	NNW12	NNW11	NW12	NNW10	NW11	NNW12	NW14	NNW12	N12	N11	NW9	NNW9	NW5	NNW2	W2	WNW1	W4	WNW1	NE1	NNW7.8	NW14
2-Oct	NE1	ESE2	NNE1	ESE2	SE4	ESE4	SE9	SE6	ESE11	SE8	SE9	SE9	SE10	SE8	SSE8	SSE8	SSE6	SSE7	SE8	SE10	SE11	SE10	SE9	SE9	SE6.8	ESE11
3-Oct	ESE8	SE11	SE12	ESE10	SE9	SE12	SE13	SE14	SE11	SSE8	SSW12	SW15	WSW18	WSW23	WSW21	SW18	SSW8	SW11	WSW12	W13	W17	WSW17	W14	W14	SSW8.0	WSW23
4-Oct	W15	WSW16	WSW15	WSW16	WSW12	W18	W17	W9	NW7	WNW9	NW10	N8	N6	NW8	NNE9	NNW13	NNW17	NW18	NW12	WNW14	NW10	WNW14	WNW12	NW9	WNW10.2	NW18
5-Oct	WNW12	NNW5	WSW12	WSW9	SW8	S4	SSE4	SE8	SE8	ESE11	SE10	SSE8	WSW8	W10	W10	WSW13	NNW3	WNW11	WNW11	W15	WSW16	W11	WNW10	NNW15	WSW5.1	WSW16
6-Oct	N13	NNW9	N17	NNW19	NW12	NW9	NNE8	NNE11	N12	NNE11	N6	E2	WNW5	NW6	ESE4	ESE11	SE10	SSE7	SSE7	SE9	SE9	SE12	ESE15	SE11	NE3.4	NNW19
7-Oct	SE11	SE12	SE11	SE10	SE10	SSE6	SE10	SE12	SE12	SE13	SE12	SSE12	SE12	SE13	SE12	SE13	ESE14	ESE13	SE12	SSE3	ESE2	WNW1	WNW6	WNW6	SE8.8	ESE14
8-Oct	NW3	WNW6	WNW3	WNW2	WNW11	W8	W13	WNW14	W15	W13	WSW13	W16	W18	W17	W16	WSW11	W19	W14	W16	WNW20	WNW20	W15	WNW15	WNW16	W12.7	WNW20
9-Oct	WNW12	W11	W15	WSW11	SSW6	SW5	SW8	S5	SW6	SW6	SE13	WSW7	WSW16	WSW19	WSW16	WSW13	WSW11	SW5	W1	ESE2	E0	ESE2	SE9	SE11	SW6.1	WSW19
10-Oct	SE11	SE9	SE8	SE6	SE5	SE11	ESE11	SE14	ESE12	SE13	SE14	SE13	SE15	SE14	SE13	S12	SSE11	SSE8	SSE10	SE12	SE13	SE12	SE10	S0	SE10.6	SE15
11-Oct	SE8	SE9	WSW1	WNW2	W2	WNW6	WNW9	NW6	NW11	NW15	NW14	NW15	WNW15	WNW23	WNW26	WNW22	WNW16	WNW20	WNW21	WNW20	WNW19	NW18	NNW19	NNW23	NW12.2	WNW26
12-Oct	NNW18	NNW17	NNW19	NNW19	NNW20	NNW20	NNW21	N16	NNW11	NNW15	N16	N14	NNW17	N19	N19	N17	NW12	N11	NNW11	NNW8	NW9	WNW6	NW6	NNW4	NNW13.9	NNW21
13-Oct	NNW8	NW8	NW5	W10	WSW6	SW8	SW8	SW7	SW7	S8	SW12	WSW15	SW10	S10	S11	S12	S9	SSE10	SSE7	SSE10	SE14	SE15	SE14	SE16	S6.1	SE16
14-Oct	SE15	SE16	SE19	SE19	SE16	SE16	SE11	SSE8	SSE9	S11	SSW13	S9	SSW11	SSW11	S8	SSE8	SSE8	SSE7	SSE10	SE10	SE9	SE13	SE14	SE12	SSE10.9	SE19
15-Oct	SE14	SE11	SE16	ESE13	SE14	SE14	SE14	SE13	SE17	SE18	SE19	SE12	SW11	C	C	C	SSW4	SSE2	ENE2	SW5	SSE1	NW2	WSW1	SSE3	SE8.6	SE19
16-Oct	SE4	SSE5	SE9	SSE9	SSE9	SSE11	SSE12	SE12	SE14	SE16	SE15	SE19	SE15	SSE11	SSE15	SSE11	SSE8	S7	S8	SSE9	SSE10	SSW11	S11	S10	SSE10.5	SE19
17-Oct	S7	SW9	WSW15	WSW16	W17	W15	W15	WNW14	WNW17	W18	W18	W14	WNW18	NW19	NW23	NW19	NW17	NW15	NW11	NNE1	ENE2	N3	N4	N3	WNW11.0	NW23
18-Oct	W3	W9	E2	WNW4	WSW14	WSW12	WSW11	SW4	SW7	WSW12	W7	W9	W11	W12	W11	W8	WSW5	W0	SE2	UO	UO	UO	NNW1	ENE1	WSW6.2	WSW14
19-Oct	NE1	NNE1	NNW1	NNW1	NW3	WNW4	WNW6	NW4	WNW5	WNW5	NNW6	NNW6	NW6	NNW6	NW6	NW7	NNW7	NW6	NW6	NW5	NNW8	NNW8	N8	N11	NNW4.9	N11
20-Oct	N10	N9	NNW7	NNW8	NNW8	NNW8	NNW7	NNW10	NNE5	NNE3	N5	E3	SE4	SE5	SSE9	SSW6	SW5	SSE4	SSE7	SSE8	SE11	SSE15	SSE16	SSE9	ESE1.1	SSE16
21-Oct	SE11	SSE13	SE12	SE11	SE13	SE11	SSE5	SSE4	WSW8	W8	WNW10	WNW18	WNW16	W16	W17	WNW15	NNW12	NNE9	N4	N2	SE1	E1	SW0	N1	WSW2.3	WNW18
22-Oct	NW1	NW1	NW2	S1	E2	NW2	NNE1	NW4	SE10	SE13	SE12	SE12	SE12	SE11	SE10	SE10	SE18	SE16	SE26	SE24	SE25	SE31	SE27	SE26	SE11.3	SE31
23-Oct	SE31	SE33	SE31	SE25	SE19	SE23	SE24	SE17	SE18	SE17	SE20	SSE15	SSE13	SE16	SE18	SE12	SE20	SE23	SE19	SE17	SE17	SE16	SSE17	SE19	SE19.9	SE33
24-Oct	SE16	SE17	SE15	SE15	SE11	SSE10	SSE9	ESE6	SE5	SE11	SE15	SE12	SE9	SE10	SE6	SE10	SE2	WNW3	NW2	NNW2	SE8	ESE2	SE1	NNW2	SE7.7	SE17
25-Oct	W2	NNW3	NW6	NNW6	NW2	SW0	WNW3	WNW4	NNW3	SW1	W8	W14	W18	WNW16	W17	W20	W15	WSW6	WSW10	WSW5	SE4	SE8	SSE5	SE5	W5.5	W20
26-Oct	N2	SE2	SE6	SE7	SE2	WNW4	UO	UO	UO	UO	NW5	NNW8	NNW7	NNW10	N10	NNW8	NNW10	NNE18	N20	NNE20	NNE25	NNE24	NNE24	N25	N10.0	N25
27-Oct	NNE25	N25	N22	N22	N24	N22	NNW21	NNW21	NNW23	NNW24	NNW24	NNW23	NNW23	NNW22	NNW23	NNW17	NW16	WNW19	NW20	WNW21	WNW22	WNW21	WNW20	WNW18	NNW19.7	NNE25
28-Oct	WNW19	NW14	NW19	WNW21	WNW21	WNW18	WNW15	NW13	NW13	NW12	WNW15	WNW15	W15	WNW18	W14	W12	WSW6	W9	WNW4	SW4	SW2	SSE5	SE3	NE2	WNW11.0	WNW21
29-Oct	ENE2	SE5	SE11	SE18	SE23	SE17	E11	ENE8	ENE8	NNE6	N13	N8	N6	N8	N9	NNE8	N9	N8	NNW6	NW10	NNW10	NW8	NW7	NW5	NE3.6	SE23
30-Oct	NW6	WNW4	NW3	NE3	E6	NNE1	ENE2	E1	SW3	WSW9	WSW11	WSW8	S4	SSE6	S4	SSW5	SSW4	SSW3	SSW4	SW5	SW4	SW6	SSW5	SSW5	SW2.7	WSW11
31-Oct	SSW5	SSW5	S5	S6	S6	S8	SSE9	SSE6	SE13	SE16	SE23	SE26	SE26	SE33	SE36	SE39	SE33	SE38	SE39	SE33	SE26	SE30	SE25	SE20	SE20.7	SE39
	E0.3	SSE1.2	S1.2	S1.1	SSW1.4	SSW1.5	SSW1.4	ENE0.2	SSE0.9	SSW1.6	SSW2.1	WSW2.5	WSW3.9	W3.9	WSW3.5	WSW3.4	WSW1.9	SW1.1	SSW1.7	SSW1.9	S1.6	S2.5	SSE2.0	ESE0.8		Diurnal Average	
	SE31	SE33	SE31	SE25	N24	SE23	SE24	NNW21	NNW23	NNW24	NNW24	SE26	SE26	SE33	SE36	SE39	SE33	SE38	SE39	SE33	SE26	SE31	SE27	SE26		Diurnal Maximum	

C - Calibration UO - Unstable Operation

All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Lower Camp - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 8 km/h on Oct 31 20:00

Minimum Value: 1 km/h on Oct 30 03:00

Percentiles: $P_1 = 1$ $P_{10} = 2$ $Q_1 = 2$ Median = 3 $Q_3 = 4$ $P_{90} = 5$ $P_{99} = 6$

Hours in Service:	744
Hours of Data:	734
Hours of Missing Data:	10
Hours of Calibration:	3
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	2	2	3	3	3	3	3	3	3	5	3	3	3	2	2	2	2	2	1	1	1	1	5
2-Oct	1	2	1	2	2	3	2	4	2	3	2	2	3	3	3	3	2	3	2	2	2	2	2	2	4
3-Oct	2	3	2	2	2	3	3	3	3	3	4	5	6	7	7	6	4	4	4	5	4	3	3	3	7
4-Oct	3	3	3	4	4	4	4	4	2	2	3	2	2	5	5	4	4	5	3	3	3	4	4	3	5
5-Oct	3	4	4	4	2	1	1	4	3	4	3	3	4	3	3	4	2	3	2	3	3	4	4	5	5
6-Oct	3	3	5	4	5	3	2	3	3	2	3	1	2	2	3	3	4	2	2	2	2	3	3	2	5
7-Oct	2	3	3	3	3	2	2	3	3	3	4	4	3	3	3	3	2	5	3	3	3	3	2	2	5
8-Oct	2	2	2	4	5	4	3	4	3	3	3	4	4	4	4	3	5	5	4	5	5	4	4	3	5
9-Oct	3	2	3	3	2	2	2	2	3	3	3	3	4	4	4	3	3	3	1	1	1	2	3	2	4
10-Oct	2	2	2	1	2	2	3	2	2	2	2	2	4	2	4	4	4	2	2	3	4	3	4	2	4
11-Oct	2	2	3	2	2	2	3	2	3	4	3	3	3	6	5	4	4	4	5	4	4	5	6	7	7
12-Oct	5	5	6	5	5	6	6	5	3	5	4	4	4	5	5	5	3	3	3	2	2	1	1	2	6
13-Oct	2	2	2	3	2	2	2	2	2	3	4	3	4	4	4	4	3	3	2	3	4	4	3	4	4
14-Oct	4	4	4	5	4	3	5	3	3	4	5	4	5	4	3	3	2	2	3	2	3	2	2	2	5
15-Oct	2	2	3	2	2	2	3	3	5	3	3	4	4	C	C	C	2	2	2	2	3	3	3	2	5
16-Oct	2	2	1	2	2	3	3	3	2	2	2	3	3	3	3	2	2	3	3	3	3	5	4	3	5
17-Oct	3	4	4	4	3	3	3	3	4	4	5	3	4	5	5	4	5	2	3	2	1	1	1	2	5
18-Oct	5	5	2	5	3	3	3	3	4	4	2	2	3	3	3	3	1	2	2	UO	UO	UO	1	2	5
19-Oct	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	3	2	1	2	2	2	3	3
20-Oct	3	3	2	2	2	2	2	3	2	1	1	1	1	3	3	2	2	1	2	2	3	4	5	4	5
21-Oct	4	3	2	2	4	3	1	1	3	2	3	4	3	4	4	3	3	3	2	2	1	1	2	1	4
22-Oct	2	2	2	1	1	2	1	2	3	2	4	4	3	2	2	5	3	3	4	4	3	5	4	3	5
23-Oct	4	4	4	6	4	3	3	3	3	4	3	4	3	3	3	4	4	3	3	3	4	4	4	3	6
24-Oct	4	4	3	4	3	2	3	3	2	2	2	3	2	3	2	5	3	1	2	2	5	3	3	2	5
25-Oct	2	2	2	2	3	1	2	2	2	2	4	3	4	5	4	4	5	3	3	3	2	2	2	3	5
26-Oct	1	1	2	2	1	1	UO	UO	UO	UO	3	2	2	2	3	2	3	4	4	5	5	5	5	5	5
27-Oct	5	5	5	5	6	6	5	5	6	6	6	5	5	5	5	4	5	4	3	4	4	4	4	4	6
28-Oct	4	3	5	4	5	3	3	3	2	3	3	3	4	4	3	4	2	3	2	2	1	1	2	2	5
29-Oct	2	3	5	4	5	6	2	2	2	3	3	4	1	2	2	3	2	2	2	2	2	2	2	1	6
30-Oct	1	2	1	2	1	2	2	2	3	3	4	4	2	2	2	2	2	1	2	2	2	2	2	2	4
31-Oct	2	2	2	2	2	3	3	2	3	3	6	6	6	5	5	5	8	5	6	8	6	4	4	5	8
	5	5	6	6	6	6	6	5	6	6	6	6	6	7	7	6	8	5	6	8	6	5	6	7	
	Diurnal Maximum																								

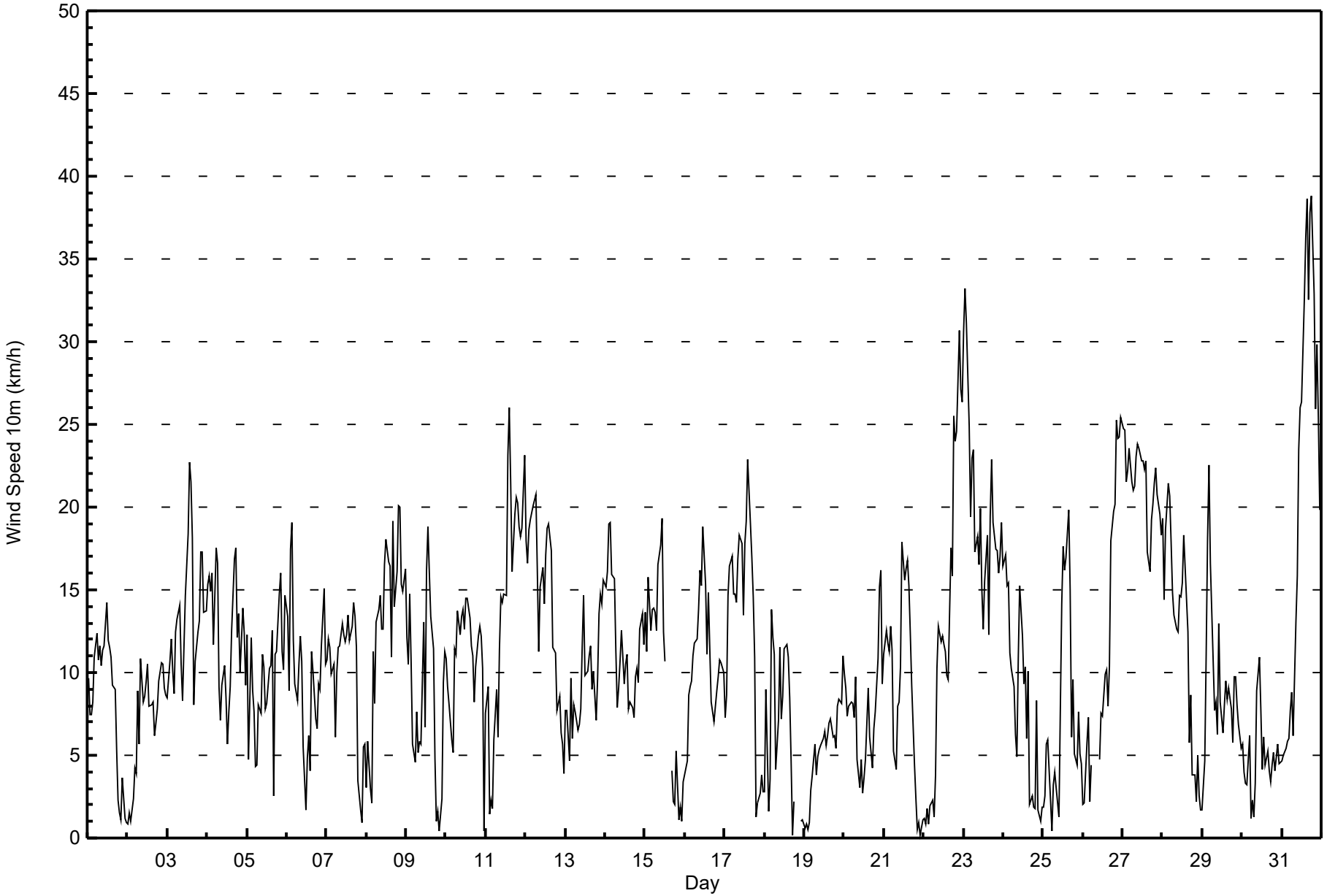
C - Calibration UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Lower Camp - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	152	20.71	20.71
6 - 11	271	36.92	57.63
12 - 19	237	32.29	89.92
20 - 28	62	8.45	98.37
29 - 38	10	1.36	99.73
> 38	2	0.27	100.00

Total Number of Valid Hours: 734

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Lower Camp - October 2025

Wind Speed	**Wind Direction**																
Ranges (km/h)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	8	8	4	5	7	8	16	11	7	10	12	4	7	17	17	11	152
6 - 11	16	7	0	2	1	9	61	39	13	7	14	15	16	14	28	29	271
12 - 19	11	1	0	0	0	5	85	9	2	2	3	22	34	27	20	16	237
20 - 28	7	5	0	0	0	0	18	0	0	0	0	2	1	14	2	13	62
29 - 38	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	10
> 38	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Totals	42	21	4	7	8	22	192	59	22	19	29	43	58	72	67	69	734

Total Number of Valid Hours: 734

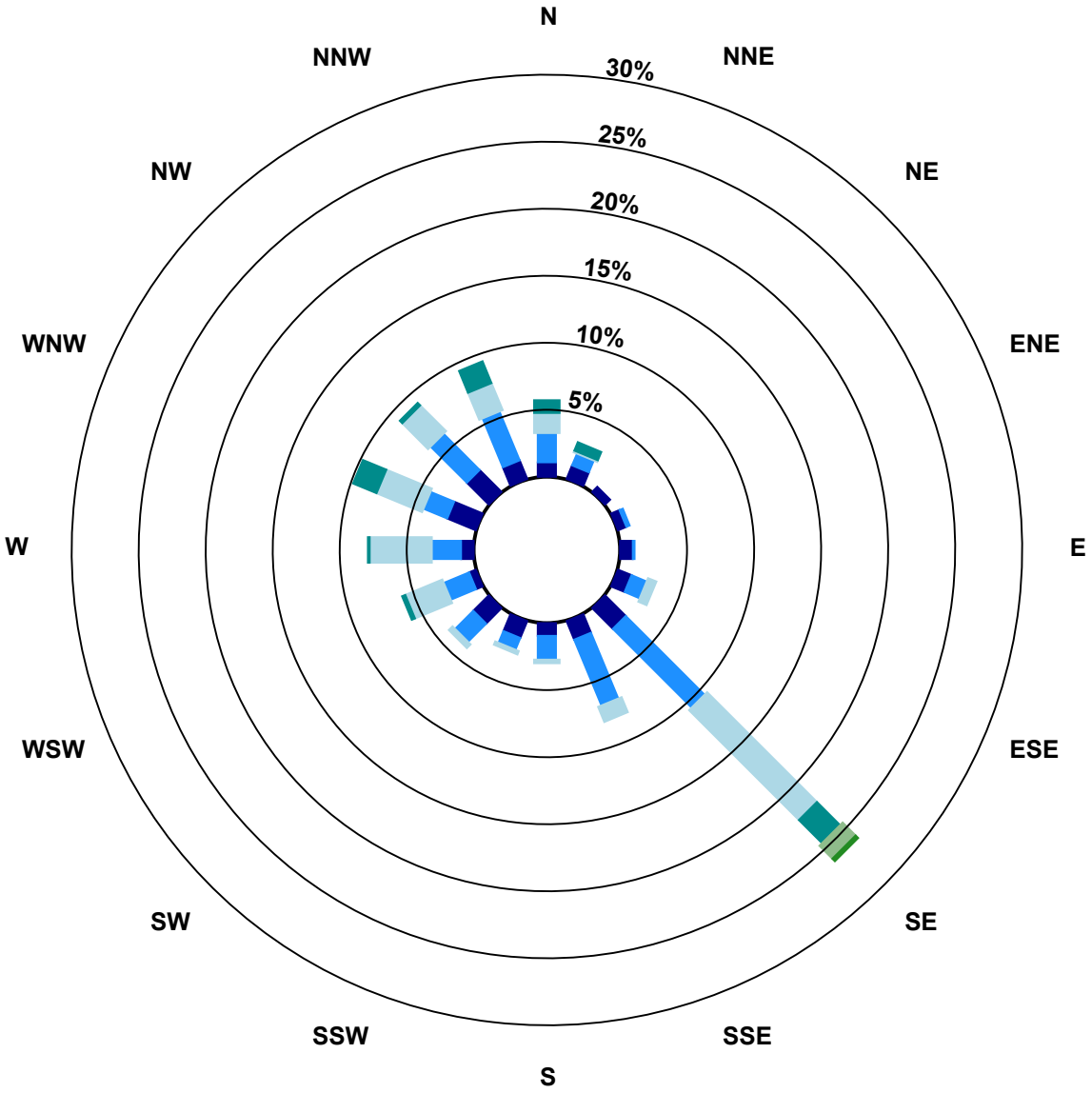
Total Number of Hours: 744

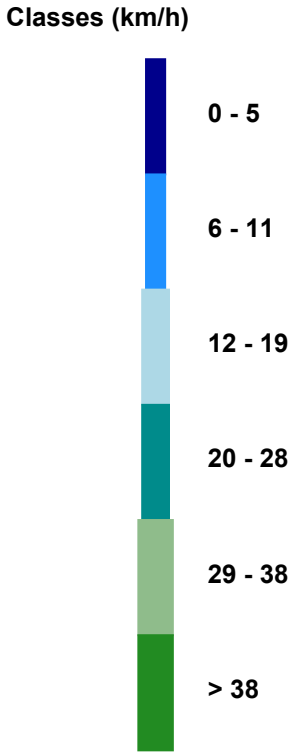
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Lower Camp





Total Number of Valid Hours: 734

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Lower Camp - October 2025

Direction of Maximum Speed: 142 deg on Oct 31 19:00
Direction of Maximum Daily Speed Average: 145.2 deg on Oct 31

Direction of Minimum Speed: 279 deg on Oct 18 18:00
Direction of Minimum Daily Speed Average: 1.1 deg on Oct 20

Monthly Average Direction: 215.5 deg

Hours in Service:	744
Hours of Data:	734
Hours of Missing Data:	10
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	309	308	322	319	327	330	333	321	327	325	331	326	342	351	353	325	335	321	335	267	297	274	286	50	327.6
2-Oct	52	106	22	113	130	112	124	140	118	138	140	137	128	145	168	149	150	165	138	133	131	133	136	128	135.4
3-Oct	121	129	132	117	132	138	136	131	130	165	207	218	243	250	247	227	206	219	241	274	265	255	260	263	212.1
4-Oct	261	258	258	253	257	264	259	279	312	299	304	349	5	323	20	334	328	326	309	299	309	293	300	306	294.5
5-Oct	285	327	245	258	228	186	153	133	129	122	132	149	252	260	261	256	343	302	301	265	256	267	283	347	257.6
6-Oct	3	345	355	332	314	322	16	12	11	14	357	83	292	318	102	119	131	162	156	127	127	127	122	124	35.3
7-Oct	124	126	131	141	143	151	134	138	140	138	145	148	138	132	139	134	122	121	139	166	118	303	285	293	137.0
8-Oct	313	301	292	298	291	268	267	302	273	261	252	264	263	277	261	256	274	281	272	288	289	275	286	298	276.7
9-Oct	290	260	272	245	213	216	223	181	224	216	133	254	253	251	257	256	246	221	268	102	94	116	141	136	235.2
10-Oct	134	133	132	133	132	131	123	125	121	128	135	132	138	133	143	171	165	152	147	142	144	146	139	180	138.1
11-Oct	134	135	237	299	279	301	291	317	323	325	323	312	303	290	288	291	293	287	296	297	299	316	332	334	303.9
12-Oct	328	330	329	330	334	347	340	359	348	342	353	350	346	353	2	360	322	352	329	345	308	303	306	341	340.9
13-Oct	329	324	315	273	248	228	227	218	217	191	229	250	227	177	171	170	173	152	156	147	142	143	143	143	189.7
14-Oct	140	140	139	139	140	134	145	155	164	182	192	178	211	203	188	167	156	156	148	141	132	134	137	136	152.9
15-Oct	138	141	135	116	128	129	130	139	135	128	131	133	223	C	C	C	194	160	65	222	151	316	253	151	138.4
16-Oct	132	150	146	149	152	149	147	146	140	144	142	144	143	164	150	152	166	171	169	165	164	194	183	179	154.5
17-Oct	178	227	245	251	264	274	278	301	282	277	260	276	302	310	305	305	307	304	304	17	66	4	351	359	285.2
18-Oct	269	262	96	291	256	248	240	231	234	254	259	276	272	262	267	274	247	279	143	UO	UO	UO	338	73	257.8
19-Oct	46	20	333	342	315	297	292	305	296	300	327	340	325	334	313	321	334	324	323	312	331	345	356	5	327.7
20-Oct	359	357	347	348	342	346	334	328	17	32	9	92	128	146	149	203	214	162	156	155	140	154	157	165	112.5
21-Oct	142	153	141	142	140	146	151	151	245	270	290	300	302	279	269	290	344	32	1	354	131	79	230	350	255.9
22-Oct	314	316	307	176	101	305	16	307	143	139	145	144	139	142	146	139	129	134	140	143	133	139	138	136	138.7
23-Oct	138	140	139	139	132	134	134	138	138	146	146	150	149	140	145	143	133	129	128	131	131	143	147	133	138.0
24-Oct	134	131	132	133	140	155	148	120	130	141	141	144	143	141	146	135	145	299	315	327	129	114	142	333	137.6
25-Oct	270	329	315	332	322	216	295	298	339	224	281	265	274	288	268	273	270	240	239	251	135	142	150	137	269.6
26-Oct	350	127	127	138	133	295	UO	UO	UO	UO	309	343	340	348	2	337	347	15	9	26	12	17	15	9	9.3
27-Oct	13	11	5	4	2	349	343	344	340	337	339	337	337	338	337	332	321	302	305	303	302	299	300	299	334.7
28-Oct	300	312	306	289	293	293	292	308	312	304	290	288	279	286	281	275	251	271	287	224	227	155	141	34	290.6
29-Oct	62	140	141	130	138	130	101	62	62	20	9	9	350	359	2	13	2	1	333	319	328	321	319	310	40.6
30-Oct	320	301	312	47	83	14	68	93	220	241	256	238	185	166	172	198	200	212	210	217	222	216	205	207	220.7
31-Oct	201	192	181	170	179	171	157	150	145	142	143	144	145	140	141	141	144	141	142	144	144	140	143	142	145.2
	92.7	155.7	172.7	190.4	200.8	207.1	200.1	63.5	162.7	197.8	204.9	236.4	255.4	260.9	248.4	240.6	237.3	221.3	207.9	207.0	183.2	176.2	165.9	111.6	
	Diurnal Average																								

C - Calibration UO - Unstable Operation

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 99 deg on Oct 7 21:00

Minimum Value: 6 deg on Oct 16 10:00

Percentiles: P_1 = 7 P_{10} = 11 Q_1 = 14 Median = 19 Q_3 = 30 P_{90} = 55 P_{99} = 93

Hours in Service:	744
Hours of Data:	734
Hours of Missing Data:	10
Hours of Calibration:	3
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	15	15	18	17	16	18	20	17	18	17	19	21	23	22	20	17	19	21	28	66	50	43	54	80	80
2-Oct	81	91	82	66	37	67	24	50	19	30	17	16	17	36	36	29	28	29	18	11	17	16	17	18	91
3-Oct	19	15	15	20	20	13	13	11	19	36	30	27	24	16	19	21	31	30	25	25	14	13	13	14	36
4-Oct	13	12	11	13	17	13	14	22	15	17	19	27	43	37	23	24	17	15	19	12	17	18	20	31	43
5-Oct	20	47	12	24	26	34	24	33	40	22	23	46	62	19	18	20	59	14	12	14	13	24	14	23	62
6-Oct	20	28	21	20	17	14	21	19	20	17	48	86	49	34	74	14	18	25	26	21	23	18	13	16	86
7-Oct	17	14	17	20	23	28	14	17	17	16	25	26	21	16	19	13	9	22	14	72	99	98	23	35	99
8-Oct	31	38	61	51	29	17	23	18	14	15	16	18	15	15	16	15	13	14	13	16	14	13	15	15	61
9-Oct	18	16	14	18	29	26	21	43	40	49	12	59	16	15	15	14	15	26	62	62	74	52	24	12	74
10-Oct	10	12	14	16	32	11	20	13	10	10	10	12	18	11	22	29	26	21	19	19	21	21	41	92	92
11-Oct	16	16	84	64	59	25	26	25	16	16	15	12	12	11	12	11	13	12	10	11	11	16	19	21	84
12-Oct	16	18	17	18	19	21	21	21	22	21	21	22	21	24	19	22	25	21	16	31	12	14	17	37	37
13-Oct	17	14	34	16	17	17	19	22	24	34	27	16	43	38	34	30	30	21	24	17	16	16	16	16	43
14-Oct	16	15	13	14	17	14	26	30	37	35	36	37	34	35	40	28	21	19	17	19	15	8	10	9	40
15-Oct	11	12	11	13	12	10	12	16	13	11	11	20	33	C	C	C	34	52	57	40	86	84	98	56	98
16-Oct	38	19	10	12	12	11	14	9	7	6	8	7	16	24	11	11	24	24	23	19	19	33	31	26	38
17-Oct	33	37	16	16	13	14	13	11	14	12	12	21	13	14	13	12	11	11	15	70	46	47	30	61	70
18-Oct	92	50	68	82	18	14	21	65	77	21	21	22	16	16	19	17	25	93	67	UO	UO	UO	51	71	93
19-Oct	51	51	77	66	18	15	13	25	21	16	18	22	19	27	18	17	24	35	26	28	17	20	21	18	77
20-Oct	19	20	20	19	20	24	19	15	30	32	33	39	39	61	22	35	34	24	17	19	14	18	20	35	61
21-Oct	18	18	12	11	13	11	20	22	27	19	16	14	13	18	14	18	21	19	51	67	89	66	97	78	97
22-Oct	84	98	89	91	65	76	80	55	16	10	20	23	13	10	14	25	7	10	8	9	7	8	7	6	98
23-Oct	6	7	7	10	10	8	6	10	9	10	8	15	20	8	8	16	8	7	9	10	12	16	16	11	20
24-Oct	15	12	13	12	18	15	17	33	22	9	6	15	15	14	32	35	91	58	72	73	32	87	94	49	94
25-Oct	88	53	36	30	85	96	55	38	48	69	52	13	14	14	14	13	17	35	23	46	35	21	31	54	96
26-Oct	52	63	27	22	85	17	UO	UO	UO	UO	42	19	27	20	22	22	20	16	17	19	15	15	13	15	85
27-Oct	13	14	17	18	19	20	18	19	18	16	16	16	15	17	15	16	12	12	11	11	11	11	11	11	20
28-Oct	11	11	12	12	12	11	11	12	12	18	12	16	13	16	14	14	37	21	51	60	70	30	57	70	70
29-Oct	70	43	28	12	9	22	11	25	21	69	15	36	29	19	18	28	21	21	29	12	11	11	13	16	70
30-Oct	21	18	24	55	19	39	35	66	63	19	19	36	43	27	30	35	34	33	24	30	27	32	27	31	66
31-Oct	26	29	31	26	28	29	23	30	18	13	10	11	12	7	7	7	12	8	8	11	12	8	9	12	31
	92	98	89	91	85	96	80	66	77	69	52	86	62	61	74	35	91	93	72	73	99	98	98	92	
	Diurnal Maximum																								

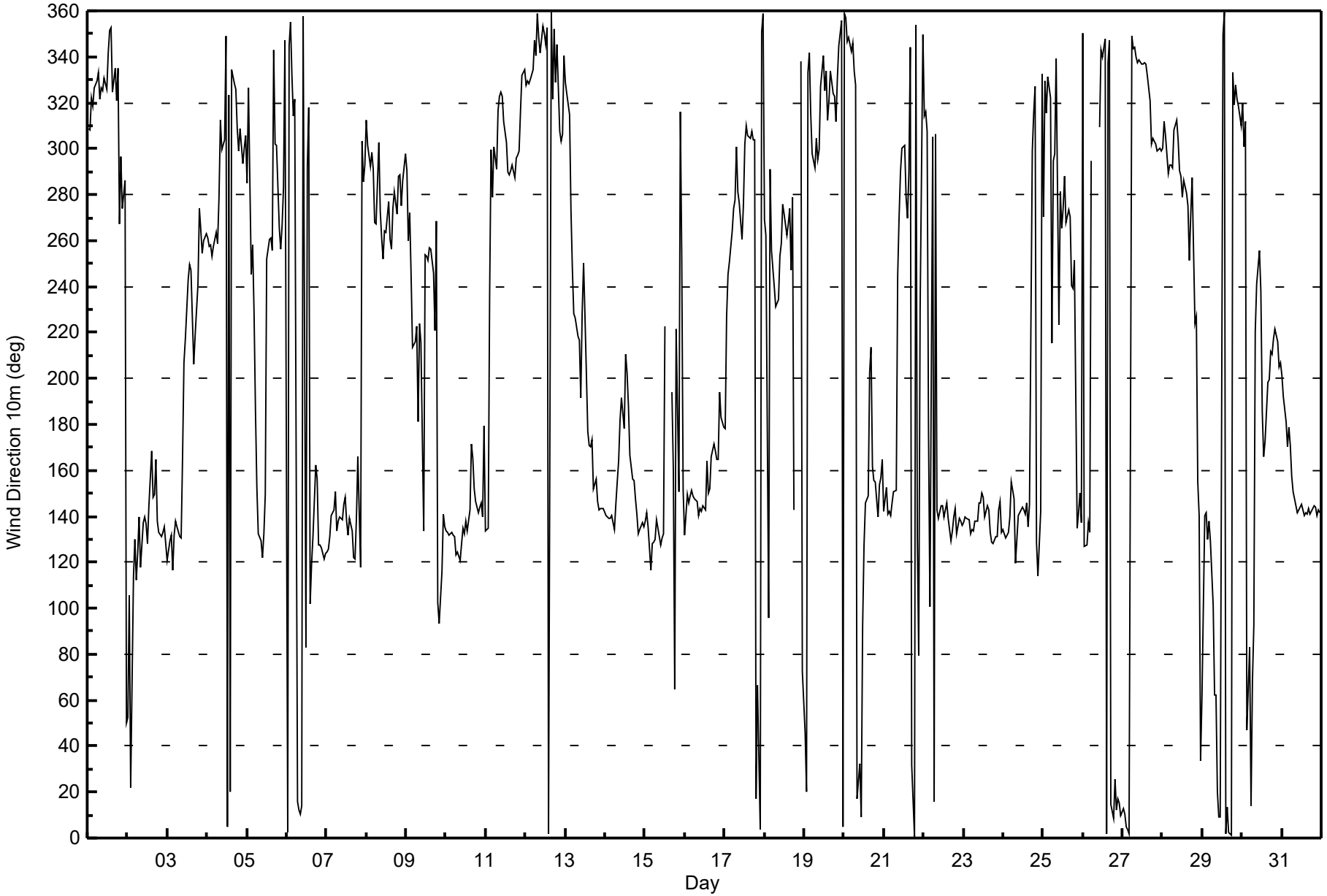
C - Calibration UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Lower Camp - October 2025



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS13
FORT MCKAY SOUTH
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT McKAY SOUTH (AMS13)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	709	35	35	100	-	-	18.9	0	3.6	0
TRS(ppb) Average	708	36	36	100	1.5	0	1.2	0	0.7	0
THC(ppm) Average	709	35	35	100	-	-	3.5	-	2.5	-
NMHC(ppm) Average	709	35	35	100	-	-	0.543	-	0.118	-
CH4(ppm) Average	709	35	35	100	-	-	3.1	-	2.4	-
O3(ppb) Average	710	34	34	100	-	-	40.5	0	26.4	-
NO2(ppb) Average	678	34	66	95.7	-	-	24.8	0	8.7	-
NO(ppb) Average	678	34	66	95.7	-	-	68.1	-	10.4	-
NOX(ppb) Average	678	34	66	95.7	-	-	82.1	-	16.7	-
PM2.5(ug/m3) Average	743	1	1	100	-	-	20.8	0	9.3	0
ET(C) Average	744	0	0	100	-	-	21.6	-	9	-
RH(%) Average	733	0	11	98.52	-	-	100	-	95.9	-
WS(km/h) Average	741	0	3	99.6	-	-	29	-	18	-
WD(deg) Average	741	0	3	99.6	-	-	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT McKAY SOUTH (AMS13)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2(ppb) Average	709	0.97	1.9	-	0	0.3	0.4	0.5	0.7	1.4	18.9
TRS(ppb) Average	708	0.42	0.2	-	0.2	0.3	0.3	0.4	0.5	0.6	1.2
THC(ppm) Average	709	2.19	0.2	-	1.9	2	2.1	2.1	2.2	2.4	3.5
NMHC(ppm) Average	709	0.037	0.063	-	0	0	0	0	0.1	0.1	0.543
CH4(ppm) Average	709	2.15	0.2	-	1.9	2	2	2.1	2.2	2.4	3.1
O3(ppb) Average	710	15.67	9.1	-	2.2	3.3	7	16.1	22.8	27.2	40.5
NO2(ppb) Average	678	4.18	4	-	0.1	0.2	0.9	3.2	5.9	9.9	24.8
NO(ppb) Average	678	1.83	5.7	-	0	0	0	0.1	1.2	4.6	68.1
NOX(ppb) Average	678	6.01	8.1	-	0.1	0.2	1.2	3.7	7.6	14.1	82.1
PM2.5(ug/m3) Average	743	4.15	3	-	0.1	0.6	2	3.9	5.4	7.2	20.8
Temperature 2 m (C) Average	744	3.94	4.8	-	-5.4	-1.3	0.2	3	7.1	10.6	21.6
Relative Humidity (%) Average	733	79.7	17.3	-	30.9	52.8	68.7	84.2	94.4	98.4	100
Wind Speed 10 m (km/h) Average	741	8.3	5	-	0	2	4	7	11	16	29
Wind Direction 10 m (deg) Average	741	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT McKAY SOUTH (AMS13)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
NO2/NO/NOx	19 Oct 2025 10:00	19 Oct 2025 10:00	1	Power Failure
NO2/NO/NOx	19 Oct 2025 11:00	20 Oct 2025 10:00	24	Unstable Operation - flatline in analyzer output signal
NO2/NO/NOx	20 Oct 2025 11:00	20 Oct 2025 11:00	1	Maintenance - analyzer rebooted
NO2/NO/NOx	21 Oct 2025 09:00	21 Oct 2025 14:00	6	Maintenance - replaced sample pump
Relative Humidity	02 Oct 2025 07:00	02 Oct 2025 11:00	5	Sensor operated out of range
Relative Humidity	03 Oct 2025 03:00	03 Oct 2025 08:00	6	Sensor operated out of range
Wind Speed, Wind Direction	30 Oct 2025 05:00	30 Oct 2025 07:00	3	Unstable Operation - flatline in analyzer output signal

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Fort McKay South - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 18.9 ppb on Oct 7 13:00

Maximum Daily Average: 3.6 ppb on Oct 7

Minimum Value: 0.0 ppb on Oct 6 11:00

Minimum Daily Average: 0.2 ppb on Oct 28

Maximum Diurnal Average: 2.5 ppb at hour 13

Minimum Diurnal Average: 0.5 ppb at hour 4

Monthly Average: 0.97 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.3 Q_1 = 0.4 Median = 0.5 Q_3 = 0.7 P_{90} = 1.4 P_{99} = 11.4

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.5	0.5	0.5	0.6	0.6	Z	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.5	0.6
2-Oct	Z	0.3	0.2	0.3	0.2	0.3	0.3	0.7	0.5	0.5	0.4	0.5	0.6	0.8	1.4	0.6	0.7	0.6	0.4	0.4	0.4	0.4	0.4	0.3	0.5	1.4
3-Oct	0.4	Z	0.4	0.4	0.4	0.3	0.4	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.6	0.5	0.5	0.5	0.4	0.4	0.5	0.7
4-Oct	0.3	0.4	Z	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.5	0.4	0.5	0.5	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5
5-Oct	0.4	0.4	0.4	Z	0.3	0.3	0.4	0.4	0.4	0.4	0.7	0.6	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.8
6-Oct	0.5	0.5	0.5	0.6	Z	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.4	1.2	5.0	6.2	1.5	0.2	0.1	0.2	0.1	0.2	0.3	0.8	6.2
7-Oct	0.5	0.6	0.6	1.1	0.6	Z	0.7	0.7	1.6	7.6	8.9	10.0	18.9	13.7	3.8	2.0	2.2	1.6	1.2	1.0	1.3	1.4	1.4	1.5	3.6	18.9
8-Oct	Z	0.9	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.6	0.9
9-Oct	0.4	Z	0.3	0.3	0.3	0.2	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.4
10-Oct	0.2	0.3	Z	0.4	0.3	0.3	0.4	0.3	0.7	4.6	11.5	7.9	11.5	10.7	10.3	1.3	1.0	1.0	1.0	1.2	1.2	1.2	0.8	0.7	3.0	11.5
11-Oct	0.6	0.6	0.6	Z	0.6	1.2	0.9	0.8	0.7	1.2	0.8	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.7	0.9	0.8	0.7	1.2
12-Oct	1.0	0.8	0.5	0.5	Z	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.5	0.5	0.3	0.4	0.5	1.0
13-Oct	0.4	0.4	0.4	0.4	0.5	Z	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.5	0.5	0.5	0.5	2.5	4.2	1.8	1.6	0.8	4.2
14-Oct	Z	1.0	0.8	0.7	0.5	0.5	0.6	0.4	0.3	C	C	C	C	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.4	1.0
15-Oct	0.4	Z	0.6	0.5	0.5	0.5	0.6	0.5	0.7	14.9	3.5	2.2	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.7	0.7	0.7	0.7	0.6	1.5	14.9
16-Oct	0.7	0.7	Z	0.6	0.5	0.5	0.5	0.5	0.6	0.8	1.3	4.2	8.1	1.6	1.4	1.0	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.7	1.2	8.1
17-Oct	0.7	0.6	0.6	Z	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.5	0.5	0.7	0.5	0.3	0.4	0.5	0.7
18-Oct	0.3	0.3	0.3	0.3	Z	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.5	0.3	0.3	0.4	0.4	0.5	0.7	0.4	0.7
19-Oct	0.6	0.5	0.5	0.5	0.5	Z	0.4	0.6	1.1	2.3	2.0	1.0	0.9	1.0	0.8	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.7	2.3
20-Oct	Z	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.2	0.2	0.4	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.5	1.3	0.4	1.3
21-Oct	1.0	Z	0.8	0.8	1.0	0.9	0.7	0.7	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.5	0.4	0.4	0.4	0.4	0.6	1.0
22-Oct	0.4	0.4	Z	0.3	0.3	0.3	0.3	0.2	0.3	0.5	1.4	2.6	11.6	15.0	2.0	1.3	1.3	1.0	0.6	0.6	0.7	0.8	6.1	4.0	2.3	15.0
23-Oct	6.0	8.7	13.0	Z	1.8	2.5	2.6	1.1	0.8	1.0	4.2	5.6	5.8	5.2	7.3	5.4	1.1	1.4	1.1	2.2	2.4	1.1	0.8	1.0	3.6	13.0
24-Oct	0.9	0.9	0.9	0.9	Z	0.9	1.0	0.9	0.8	2.6	5.8	3.7	6.6	1.5	1.3	1.5	1.1	0.7	0.6	0.5	0.4	0.4	0.4	0.3	1.5	6.6
25-Oct	0.3	0.4	0.4	0.4	0.6	Z	0.6	0.7	1.2	0.9	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.5	0.6	1.2
26-Oct	Z	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.9	1.5	1.4	1.0	0.8	0.6	0.5	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.5	1.5
27-Oct	0.4	Z	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6
28-Oct	0.5	0.5	Z	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5
29-Oct	0.2	0.3	0.3	Z	0.4	0.5	0.4	0.5	0.5	0.6	0.7	0.7	0.7	0.6	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.7
30-Oct	0.4	0.4	0.3	0.3	Z	0.2	0.1	0.1	0.2	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4
31-Oct	0.4	0.4	0.5	0.5	0.5	Z	0.9	4.5	1.3	0.6	0.6	0.7	0.7	1.5	3.3	3.3	1.3	2.8	3.6	2.2	0.7	0.8	0.6	0.6	1.4	4.5
	0.7	0.8	1.0	0.5	0.5	0.5	0.5	0.6	0.6	1.5	1.7	1.6	2.5	2.0	1.4	1.0	0.9	0.7	0.6	0.6	0.6	0.6	0.7	0.7	Diurnal Average	
	6.0	8.7	13.0	1.1	1.8	2.5	2.6	4.5	1.6	14.9	11.5	10.0	18.9	15.0	10.3	5.4	6.2	2.8	3.6	2.2	2.5	4.2	6.1	4.0	Diurnal Maximum	

Z - zerospan C - Calibration

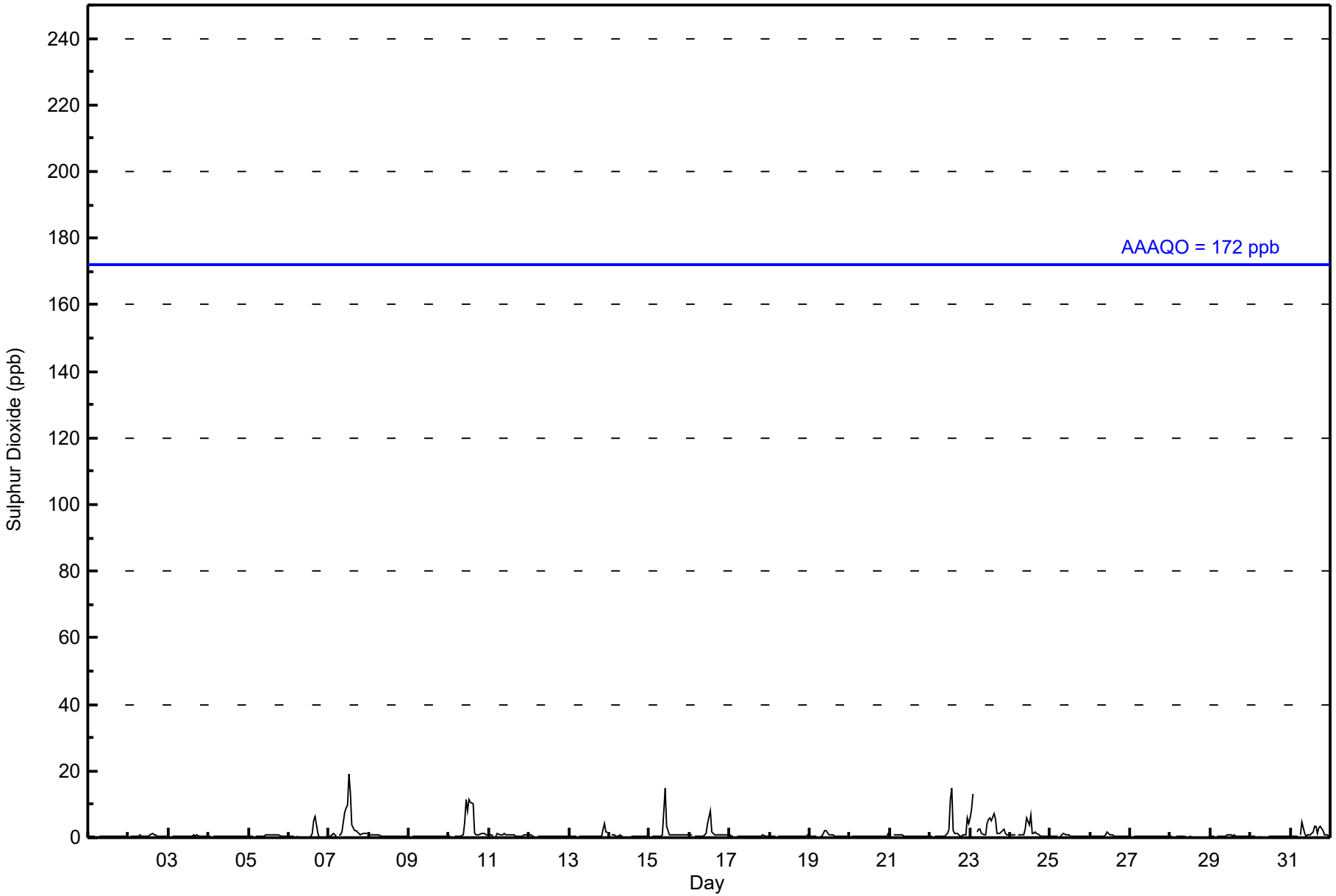
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Fort McKay South - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	700	98.73	98.73
11 - 20	9	1.27	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Fort McKay South - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	89	12	2	0	1	2	8	57	134	82	57	76	47	62	17	52	698
11 - 20	0	0	0	0	0	0	0	7	2	0	0	0	0	0	0	0	9
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	89	12	2	0	1	2	8	64	136	82	57	76	47	62	17	52	707

Total Number of Valid Hours: 707

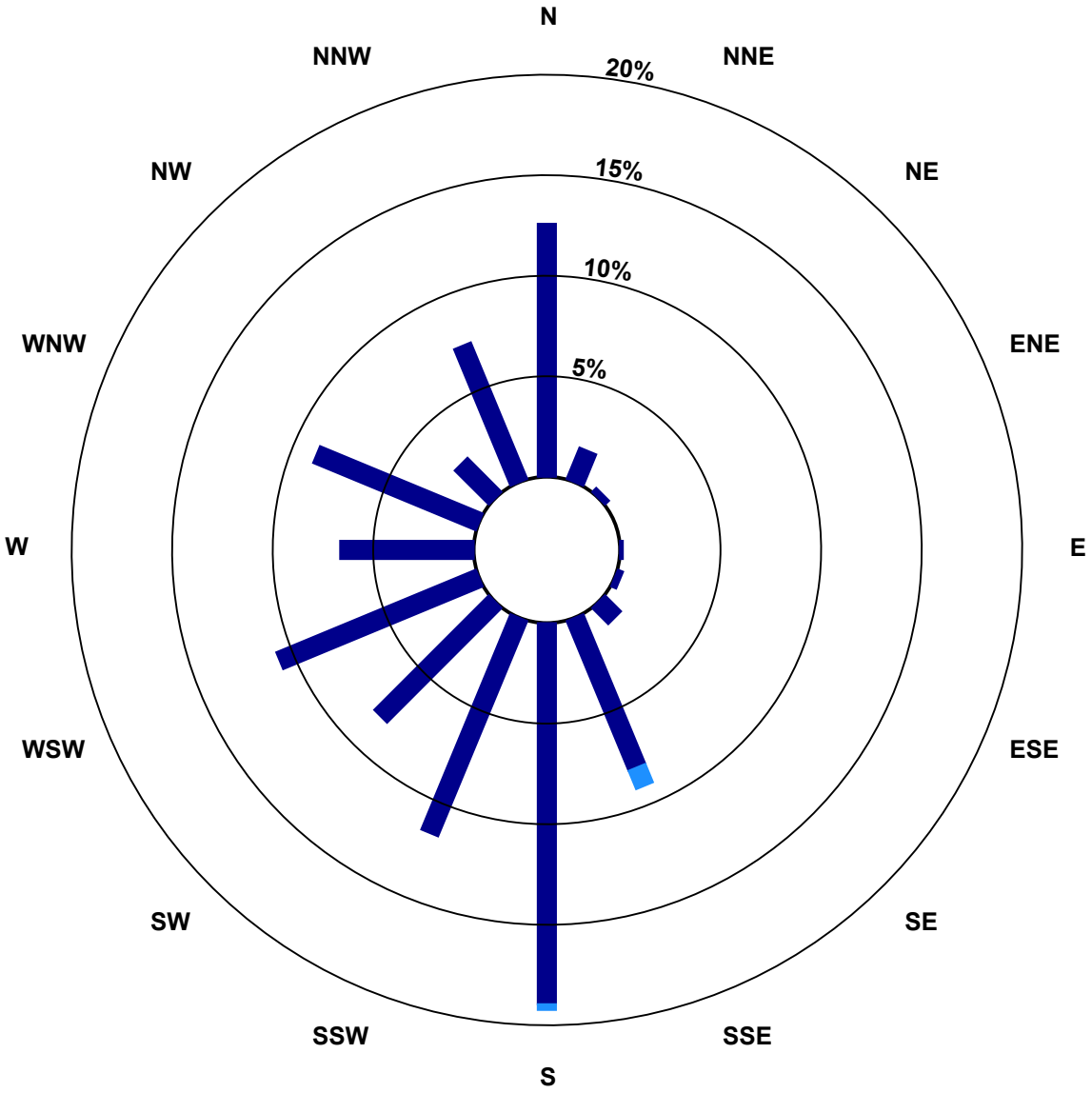
Total Number of Hours: 744

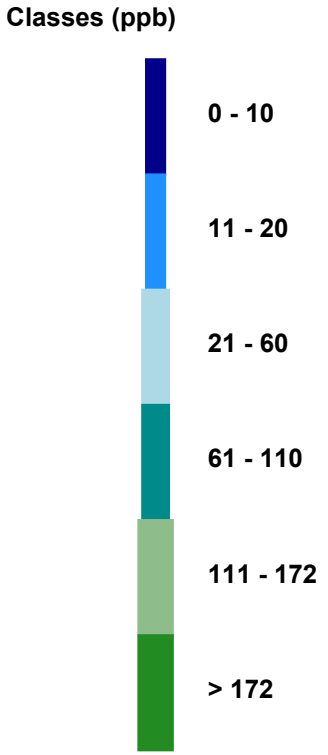
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Fort McKay South





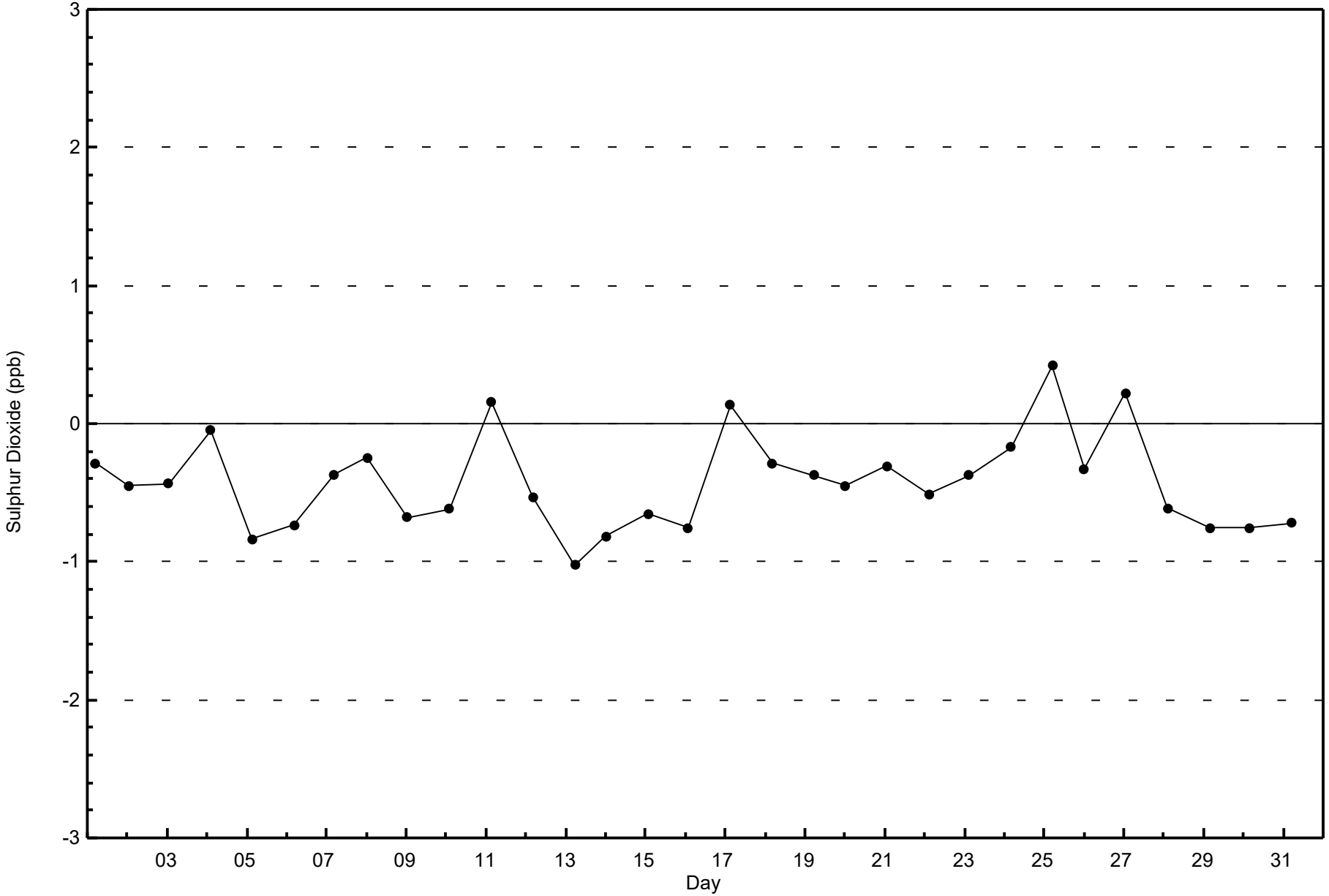
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Fort McKay South - October 2025

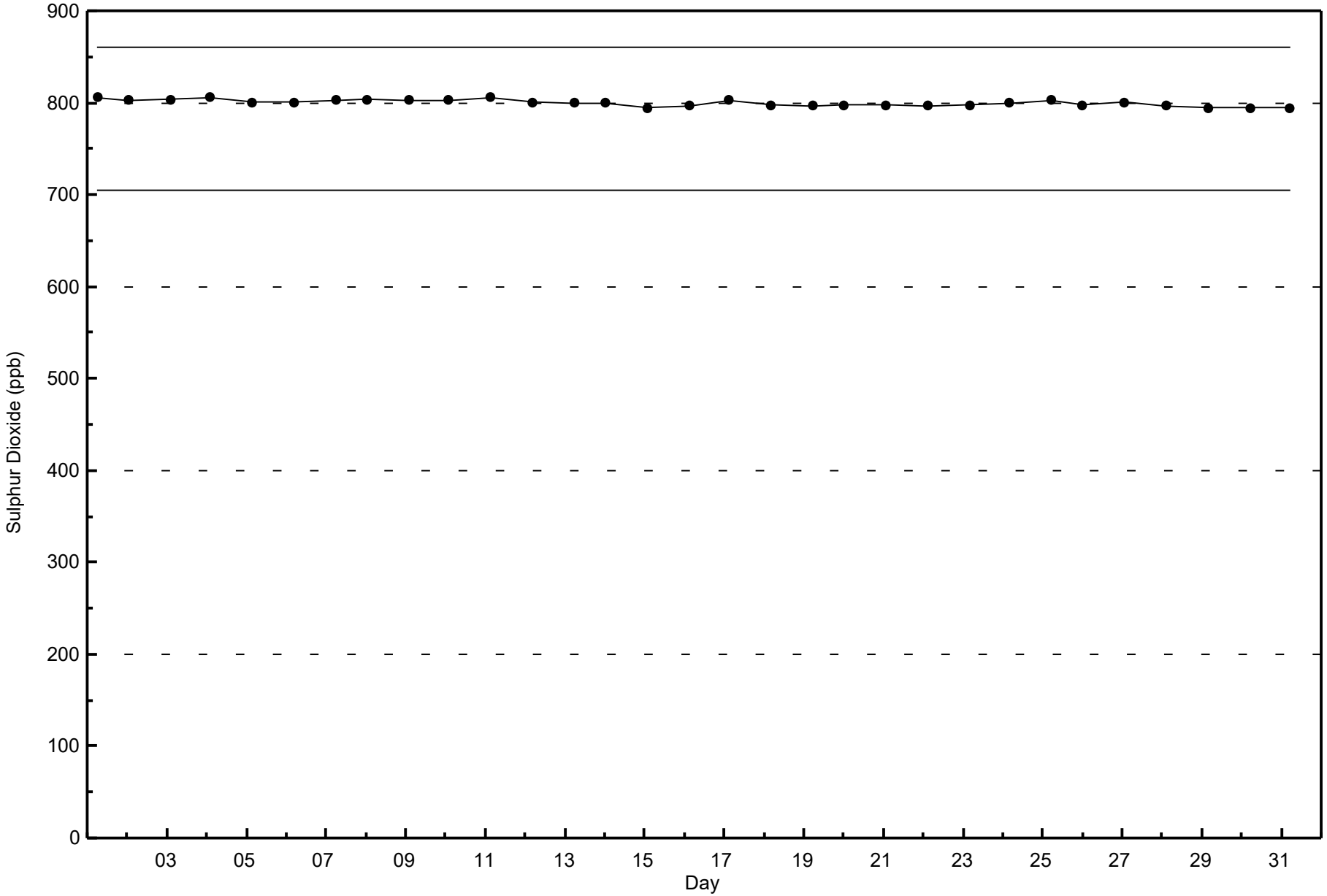


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Fort McKay South - October 2025

Number of Exceedences (AAAQG): 30-Min: 0

Maximum Value: 1.5 ppb on Oct 16 12:30

Maximum Daily Average: 0.7 ppb on Oct 16

Minimum Value: 0.2 ppb on Oct 22 01:30

Minimum Daily Average: 0.3 ppb on Oct 8

Maximum Diurnal Average: 0.5 ppb at hour 10

Minimum Diurnal Average: 0.4 ppb at hour 5

Monthly Average: 0.42 ppb

Percentiles: P_1 = 0.2 P_{10} = 0.3 Q_1 = 0.3 Median = 0.4 Q_3 = 0.5 P_{90} = 0.6 P_{99} = 1.1

Periods in Service:	1488
Periods of Valid Data:	1416
Periods of Invalid Data:	72
Periods of Calibration:	71
Percent Operational Time:	99.9

Period Ending At (MST)

Day	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
1-Oct	Z	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.5
	SP	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3		
2-Oct	0.2	Z	0.3	0.3	0.2	0.2	0.2	0.5	0.9	1.2	1.1	1.0	0.9	0.7	0.5	0.4	0.4	0.4	0.4	0.5	0.6	0.5	0.4	0.3	0.5	1.2
	0.2	SP	0.3	0.2	0.2	0.2	0.4	1.0	1.1	1.1	1.1	1.0	0.8	0.5	0.5	0.4	0.5	0.4	0.4	0.4	0.6	0.5	0.4	0.3		
3-Oct	0.3	0.3	Z	0.3	0.2	0.2	0.4	0.7	0.5	0.8	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.9
	0.3	0.2	SP	0.3	0.2	0.2	0.4	0.9	0.4	0.5	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3		
4-Oct	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.8
	0.3	0.3	0.3	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.4	0.4	0.6	0.4	0.4	0.3	0.3	0.3	0.3	0.3		
5-Oct	0.3	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.6	0.4	0.6	0.5	0.5	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.6
	0.3	0.3	0.3	0.3	SP	0.3	0.3	0.5	0.5	0.5	0.6	0.4	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4		
6-Oct	0.4	0.3	0.4	0.6	0.6	Z	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.7	0.5	0.5	0.5	0.4	0.6	0.4	0.4	0.8
	0.3	0.3	0.5	0.5	0.6	SP	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.6	0.5	0.5	0.4	0.8	0.5	0.4		
7-Oct	Z	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.4	C	C	C	C	0.5	0.4	0.4	0.7	0.7	0.5	0.4	0.9	0.9	0.7	0.8	0.5	0.9
	SP	0.3	0.3	0.3	0.3	0.4	0.3	0.4	C	C	C	C	C	0.4	0.4	0.6	0.9	0.6	0.4	0.5	0.7	0.8	0.7	0.8		
8-Oct	0.8	Z	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.8
	0.6	SP	0.5	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3		
9-Oct	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.6	0.7	0.4	0.9
	0.3	0.3	SP	0.3	0.3	0.2	0.3	0.3	0.4	0.3	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.6	0.9		
10-Oct	0.7	0.6	0.5	Z	0.4	0.5	0.5	0.4	0.4	0.6	1.0	0.6	0.5	0.5	0.5	0.7	0.5	0.8	0.9	0.8	0.7	0.6	0.5	0.5	0.6	1.0
	0.6	0.5	0.5	SP	0.4	0.5	0.4	0.4	0.6	0.8	0.6	0.6	0.5	0.5	0.5	0.5	0.5	1.0	0.7	0.8	0.5	0.6	0.5	0.6		
11-Oct	0.6	0.5	0.6	0.6	Z	0.8	0.7	0.4	0.4	1.0	0.5	0.9	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.6	0.6	0.5	1.1
	0.6	0.5	0.6	0.5	SP	1.1	0.4	0.4	0.5	0.8	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.5	0.5	0.6		
12-Oct	0.7	0.7	0.5	0.5	0.3	Z	0.3	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.4	0.5	0.3	0.3	0.4	0.8
	0.7	0.8	0.4	0.3	0.4	SP	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.6	0.4	0.4	0.4	0.3	0.4		
13-Oct	Z	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.5	0.3	0.6	0.6	0.7	0.5	0.4	0.8
	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.8	0.5	0.5		
14-Oct	0.5	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.4	0.6
	0.5	SP	0.4	0.4	0.4	0.3	0.4	0.6	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.4	0.5	0.6		
15-Oct	0.5	0.5	Z	0.5	0.5	0.5	0.6	0.4	0.5	0.9	0.5	0.6	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.9
	0.6	0.5	SP	0.5	0.5	0.5	0.5	0.5	0.5	0.8	0.5	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.5		

Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Fort McKay South - October 2025

Day	Period Ending At (MST) 00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
16-Oct	0.5	0.4	0.3	Z	0.4	0.4	0.4	0.4	0.4	1.1	1.1	1.0	1.5	0.6	0.4	0.4	0.4	0.7	0.8	0.9	1.2	0.8	0.4	1.0	0.7	1.5
	0.4	0.4	0.4	SP	0.4	0.4	0.4	0.4	0.7	1.1	1.2	1.3	0.9	0.5	0.4	0.5	0.5	0.9	0.6	0.7	0.7	0.5	0.4	0.7		
17-Oct	0.9	0.4	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.9
	0.5	0.4	0.4	0.4	SP	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3		
18-Oct	0.3	0.3	0.3	0.3	0.3	Z	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.4	0.5
	0.3	0.3	0.3	0.3	0.3	SP	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.5	0.4		
19-Oct	Z	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.5	PF	0.9	1.1	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	1.1
	SP	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.7	0.9	0.9	0.9	0.7	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3		
20-Oct	0.4	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.7	0.5	0.4	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.8
	0.4	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.7	0.8	0.4	0.4	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4		
21-Oct	0.3	0.4	Z	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.8
	0.3	0.4	SP	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2		
22-Oct	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.8	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.6	0.6	0.4	0.8
	0.2	0.2	0.2	SP	0.2	0.2	0.2	0.2	0.2	0.4	0.6	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.4	0.3	0.3	0.5	0.6	0.6		
23-Oct	0.7	0.6	0.7	0.9	Z	0.5	0.5	0.5	0.4	0.6	0.5	0.4	0.4	0.5	0.6	0.6	0.5	0.6	0.6	0.8	0.8	0.6	0.4	0.5	0.6	0.9
	0.6	0.8	0.7	0.9	SP	0.7	0.7	0.4	0.5	0.5	0.5	0.4	0.4	0.5	0.8	0.5	0.6	0.6	0.6	0.8	0.5	0.5	0.4	0.6		
24-Oct	0.5	0.6	0.6	0.5	0.5	Z	0.5	0.6	0.5	0.6	0.8	0.5	0.5	0.5	0.5	0.5	0.7	0.6	0.5	0.4	0.4	0.4	0.3	0.3	0.5	0.8
	0.5	0.6	0.5	0.5	0.5	SP	0.6	0.6	0.6	0.8	0.6	0.5	0.5	0.4	0.5	0.7	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.3		
25-Oct	Z	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.8	0.6	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.4	0.8
	SP	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.5	0.4	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.3	0.2		
26-Oct	0.3	Z	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.7	0.8	0.8	0.7	0.7	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.8
	0.2	SP	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.8	0.8	0.8	0.7	0.7	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.4	0.4		
27-Oct	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
	0.4	0.4	SP	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
28-Oct	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
	0.3	0.3	0.3	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3		
29-Oct	0.3	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5
	0.3	0.3	0.3	0.4	SP	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
30-Oct	0.3	0.3	0.2	0.3	0.5	Z	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.5
	0.3	0.3	0.2	0.4	0.5	SP	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
31-Oct	Z	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.8	0.5	0.6	0.6	1.0	0.4	0.5	0.4	0.4	0.5	1.1
	SP	0.3	0.4	0.4	0.3	0.4	0.3	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.4	0.5	1.1	0.4	0.4	0.8	0.4	0.4		
	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	Diurnal Average	
	0.9	0.8	0.7	0.9	0.6	1.1	0.7	1.0	1.1	1.2	1.2	1.3	1.5	0.7	0.8	0.8	0.9	1.0	1.1	1.0	1.2	0.9	0.7	1.0	Diurnal Maximum	

Z - zerospan C - Calibration PF - Power Failure SP - Span

Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb

Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

Fort McKay South - October 2025

Maximum Value: 1.2 ppb on Oct 16 11:00

Maximum Daily Average: 0.7 ppb on Oct 16

Minimum Value: 0.2 ppb on Oct 22 01:00

Minimum Daily Average: 0.3 ppb on Oct 8

Maximum Diurnal Average: 0.5 ppb at hour 10

Minimum Diurnal Average: 0.4 ppb at hour 5

Monthly Average: 0.42 ppb

Percentiles: P_1 = 0.2 P_{10} = 0.3 Q_1 = 0.3 Median = 0.4 Q_3 = 0.5 P_{90} = 0.6 P_{99} = 1.0

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	Z	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.5
2-Oct	0.2	Z	0.3	0.3	0.2	0.2	0.3	0.8	1.0	1.2	1.1	1.0	0.8	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.6	0.5	0.4	0.3	0.5	1.2
3-Oct	0.3	0.3	Z	0.3	0.2	0.2	0.4	0.8	0.5	0.6	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.8
4-Oct	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.4	0.4	0.5	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.6
5-Oct	0.3	0.3	0.3	0.3	Z	0.3	0.3	0.4	0.6	0.5	0.6	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.6
6-Oct	0.3	0.3	0.4	0.6	0.6	Z	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.5	0.5	0.5	0.6	0.5	0.4	0.4	0.6
7-Oct	Z	0.3	0.3	0.3	0.3	0.4	0.3	0.3	C	C	C	C	C	0.5	0.4	0.5	0.8	0.7	0.5	0.4	0.8	0.8	0.7	0.8	0.5	0.8
8-Oct	0.7	Z	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.7
9-Oct	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.6	0.8	0.4	0.8
10-Oct	0.7	0.6	0.5	Z	0.4	0.5	0.4	0.4	0.5	0.7	0.8	0.6	0.5	0.5	0.5	0.6	0.5	0.9	0.8	0.8	0.6	0.6	0.5	0.5	0.6	0.9
11-Oct	0.6	0.5	0.6	0.6	Z	0.9	0.6	0.4	0.4	0.9	0.6	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.5	0.5	0.6	0.5	0.9
12-Oct	0.7	0.7	0.5	0.4	0.3	Z	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.4	0.7
13-Oct	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.6	0.7	0.6	0.5	0.4	0.7
14-Oct	0.5	Z	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.4	0.6
15-Oct	0.5	0.5	Z	0.5	0.5	0.5	0.5	0.5	0.5	0.9	0.5	0.5	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.9
16-Oct	0.5	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.5	1.1	1.2	1.1	1.2	0.6	0.4	0.4	0.5	0.8	0.7	0.8	1.0	0.6	0.4	0.9	0.7	1.2
17-Oct	0.7	0.4	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.7
18-Oct	0.3	0.3	0.3	0.3	0.3	Z	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.4	0.5
19-Oct	Z	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.6	0.9	0.9	1.0	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	1.0
20-Oct	0.4	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.7	0.4	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.7
21-Oct	0.3	0.4	Z	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.6
22-Oct	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.5	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.5	0.6	0.6	0.4	0.6
23-Oct	0.6	0.7	0.7	0.9	Z	0.6	0.6	0.5	0.4	0.6	0.5	0.4	0.4	0.5	0.7	0.6	0.6	0.6	0.6	0.8	0.7	0.5	0.4	0.5	0.6	0.9
24-Oct	0.5	0.6	0.6	0.5	0.5	Z	0.5	0.6	0.5	0.7	0.7	0.5	0.5	0.5	0.5	0.6	0.7	0.6	0.5	0.4	0.4	0.4	0.3	0.3	0.5	0.7
25-Oct	Z	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.7	0.6	0.4	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.4	0.7
26-Oct	0.3	Z	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.7	0.8	0.8	0.7	0.7	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.8
27-Oct	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
28-Oct	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3
29-Oct	0.3	0.3	0.3	0.4	Z	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
30-Oct	0.3	0.3	0.2	0.3	0.5	Z	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5
31-Oct	Z	0.3	0.3	0.4	0.3	0.3	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.8	0.5	0.6	0.8	0.7	0.4	0.6	0.4	0.4	0.5	0.8
	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	Diurnal Average	
	0.7	0.7	0.7	0.9	0.6	0.9	0.6	0.8	1.0	1.2	1.2	1.1	1.2	0.7	0.7	0.8	0.8	0.9	0.8	0.8	1.0	0.8	0.7	0.9	Diurnal Maximum	

Z - zerospan C - Calibration

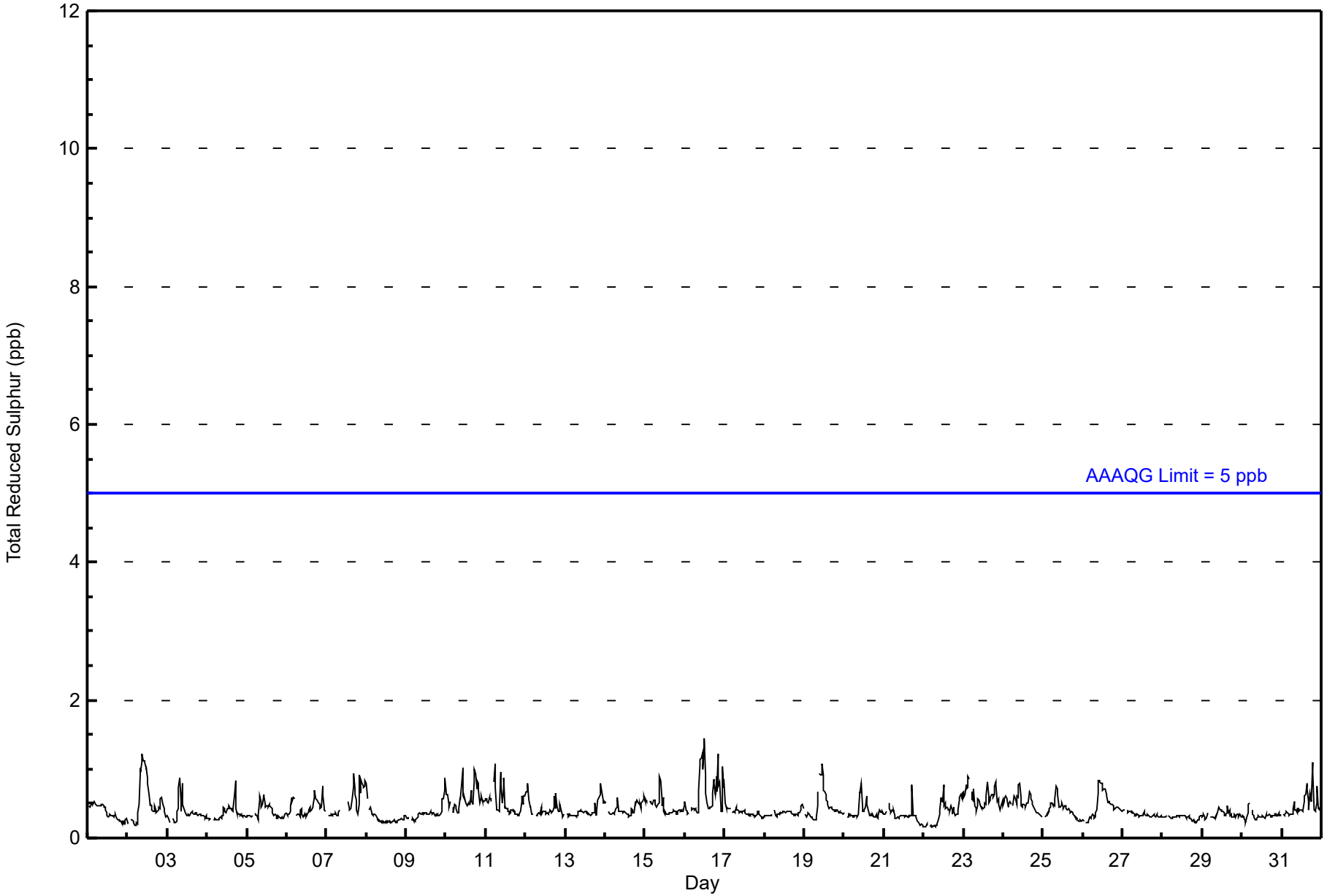
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA

Wood Buffalo Environmental Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Total Reduced Sulphur (TRS) - ppb

Fort McKay South - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	708	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Reduced Sulphur (TRS) - ppb

Fort McKay South - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	90	12	2	0	1	1	9	65	132	84	58	74	49	62	16	51	706
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	90	12	2	0	1	1	9	65	132	84	58	74	49	62	16	51	706

Total Number of Valid Hours: 706

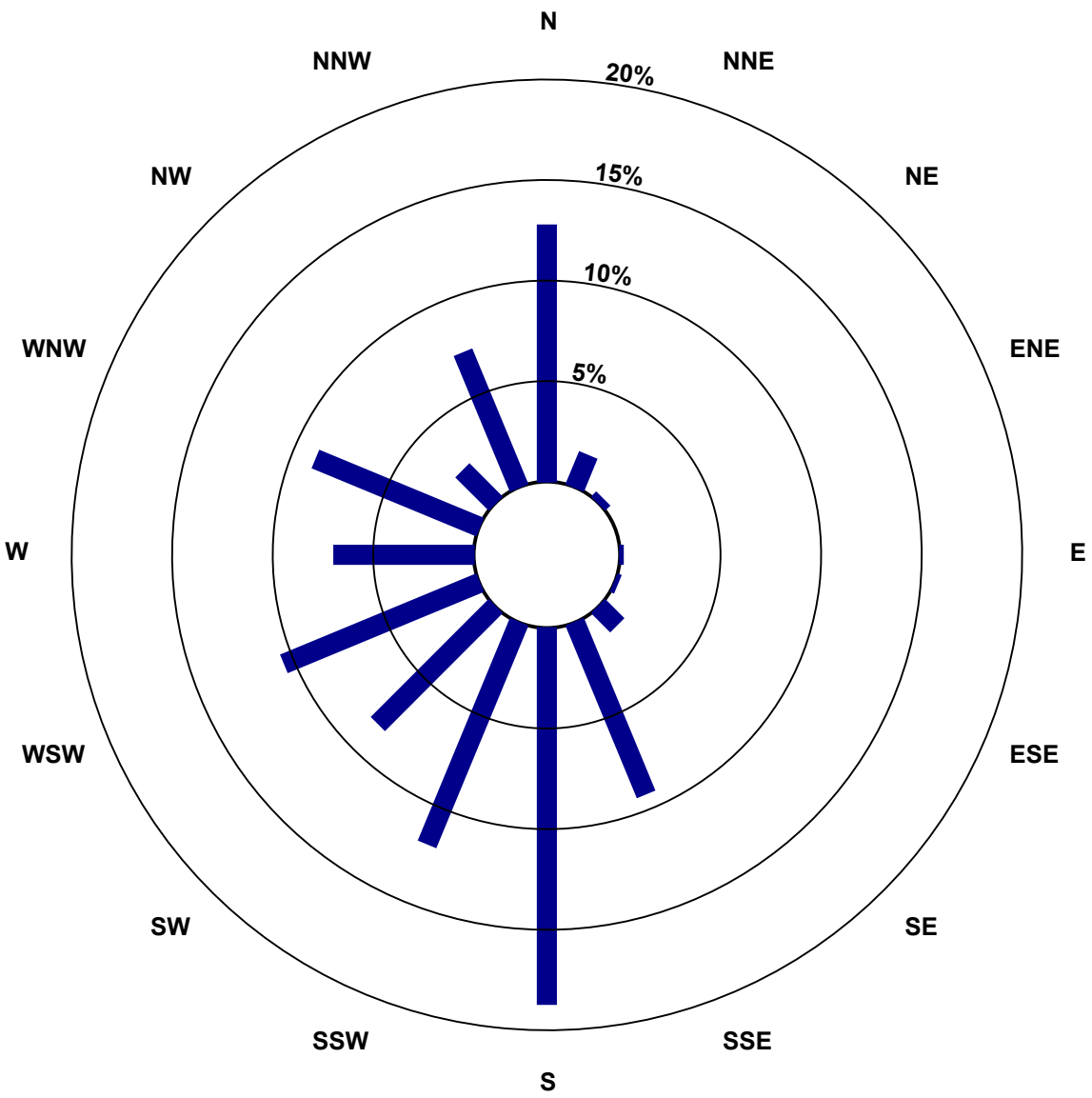
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Reduced Sulphur (TRS) - ppb

Fort McKay South



Classes (ppb)

- 0 - 2
- 3 - 4
- 5 - 7
- 8 - 11
- > 11

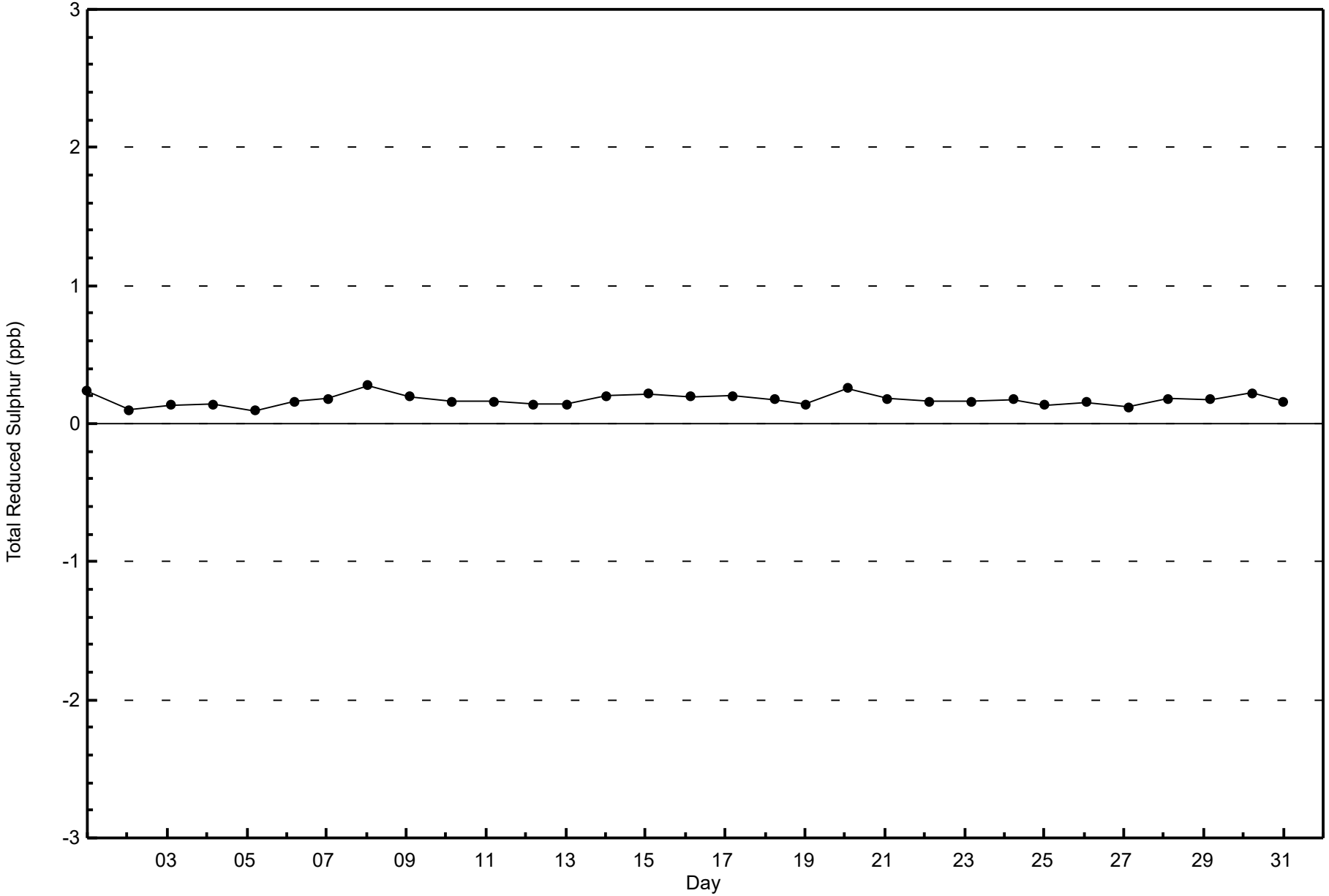
Total Number of Valid Hours: 706

Wood Buffalo Environmental Association

Zero Responses

Total Reduced Sulphur (TRS) - ppb

Fort McKay South - October 2025

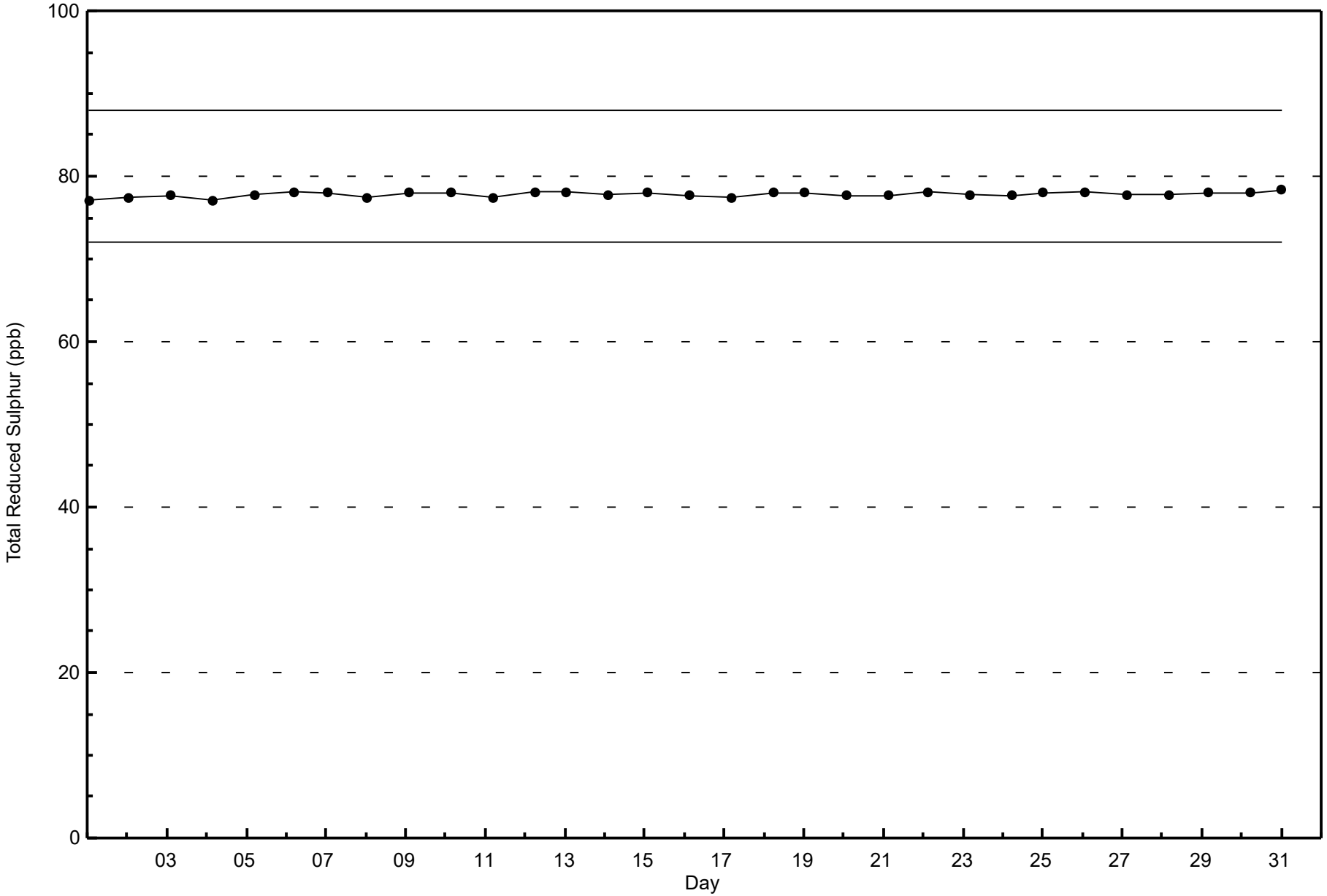


Wood Buffalo Environmental Association

Span Responses

Total Reduced Sulphur (TRS) - ppb

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Fort McKay South - October 2025

Maximum Value: 3.5 ppm on Oct 19 10:00

Maximum Daily Average: 2.5 ppm on Oct 10

Minimum Value: 1.9 ppm on Oct 28 15:00

Minimum Daily Average: 2.0 ppm on Oct 28

Maximum Diurnal Average: 2.3 ppm at hour 10

Minimum Diurnal Average: 2.1 ppm at hour 15

Monthly Average: 2.19 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.1 Median = 2.1 Q_3 = 2.2 P_{90} = 2.4 P_{99} = 3.1

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.3	2.4	2.3	2.3	2.2	Z	2.2	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.4
2-Oct	Z	2.1	2.1	2.1	2.1	2.2	2.3	2.8	2.6	2.5	2.5	2.4	2.2	2.2	2.2	2.1	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.8
3-Oct	2.2	Z	2.4	2.4	2.3	2.5	2.9	2.6	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.9
4-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
5-Oct	2.1	2.1	2.1	Z	2.1	2.2	2.2	2.3	2.4	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4
6-Oct	2.1	2.1	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.3
7-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.2	2.2	2.3	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.8	3.2	3.2	3.3	2.3	3.3
8-Oct	Z	2.5	2.3	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.5
9-Oct	2.1	Z	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.4	2.6	2.2	2.6
10-Oct	2.7	2.7	Z	3.1	2.6	2.6	2.7	2.7	2.4	2.3	2.6	2.2	2.2	2.2	2.2	2.4	2.1	2.6	2.7	3.4	2.8	2.4	2.6	2.5	2.5	3.4
11-Oct	2.4	2.4	2.4	Z	2.5	3.1	2.5	2.2	2.3	2.2	2.1	2.4	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.3	3.1
12-Oct	2.2	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.2	2.1	2.1	2.2
13-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.2	2.2	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	3.0	3.2	2.8	2.7	2.3	3.2
14-Oct	Z	2.2	2.2	2.1	2.2	2.2	2.2	2.3	2.1	C	C	C	C	2.1	2.1	2.1	2.1	2.2	2.3	2.5	2.6	2.5	2.4	2.4	2.2	2.6
15-Oct	2.4	Z	2.4	2.6	2.6	2.6	2.4	2.5	2.4	2.9	2.3	2.4	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.3	2.9
16-Oct	2.5	2.4	Z	2.6	2.4	2.4	2.4	2.4	2.5	2.5	2.4	2.3	2.3	2.2	2.2	2.4	2.3	2.4	2.3	2.5	2.4	2.3	2.1	2.3	2.4	2.6
17-Oct	2.2	2.2	2.2	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2
18-Oct	2.1	2.1	2.1	2.1	Z	2.5	2.3	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.5	2.7	2.2	2.7
19-Oct	2.6	2.4	2.4	2.4	2.4	Z	2.3	2.3	2.7	3.5	3.2	2.5	2.4	2.5	2.3	2.2	2.2	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.4	3.5
20-Oct	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.1	2.3	2.3	2.1	2.1	2.3	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.3
21-Oct	2.0	Z	2.0	2.3	2.1	2.3	2.4	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4
22-Oct	2.0	2.0	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.2	2.2	2.2	2.1	2.0	2.0	2.1	2.1	2.2	2.0	2.0	2.1	2.1	2.2	2.1	2.2
23-Oct	2.2	2.2	2.1	Z	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.2	2.2	2.2	2.2	2.3	2.1	2.0	2.2	2.1	2.1	2.3
24-Oct	2.0	2.1	2.1	2.0	Z	2.4	2.5	2.6	2.5	2.6	2.4	2.1	2.2	2.1	2.2	2.4	2.5	2.4	2.3	2.2	2.2	2.1	2.1	2.0	2.3	2.6
25-Oct	2.0	2.1	2.2	2.3	2.6	Z	2.6	2.6	3.0	2.6	2.2	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	3.0
26-Oct	Z	2.2	2.2	2.2	2.4	2.4	2.4	2.4	2.4	2.8	3.1	2.9	2.5	2.3	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.3	3.1
27-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
28-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.1	2.1	2.0	2.1
29-Oct	2.1	2.1	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.3	2.1	2.1	2.2	2.1	2.2	2.1	2.0	2.1	2.2	2.3	2.3	2.1	2.3
30-Oct	2.3	2.3	2.2	2.2	Z	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.3
31-Oct	2.0	2.0	2.1	2.1	2.0	Z	2.0	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.0	2.1	2.0	2.1	2.1	2.1	2.3
	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	Diurnal Average	
	2.7	2.7	2.4	3.1	2.6	3.1	2.9	2.8	3.0	3.5	3.2	2.9	2.5	2.5	2.3	2.4	2.5	2.6	2.7	3.4	3.0	3.2	3.2	3.3	Diurnal Maximum	

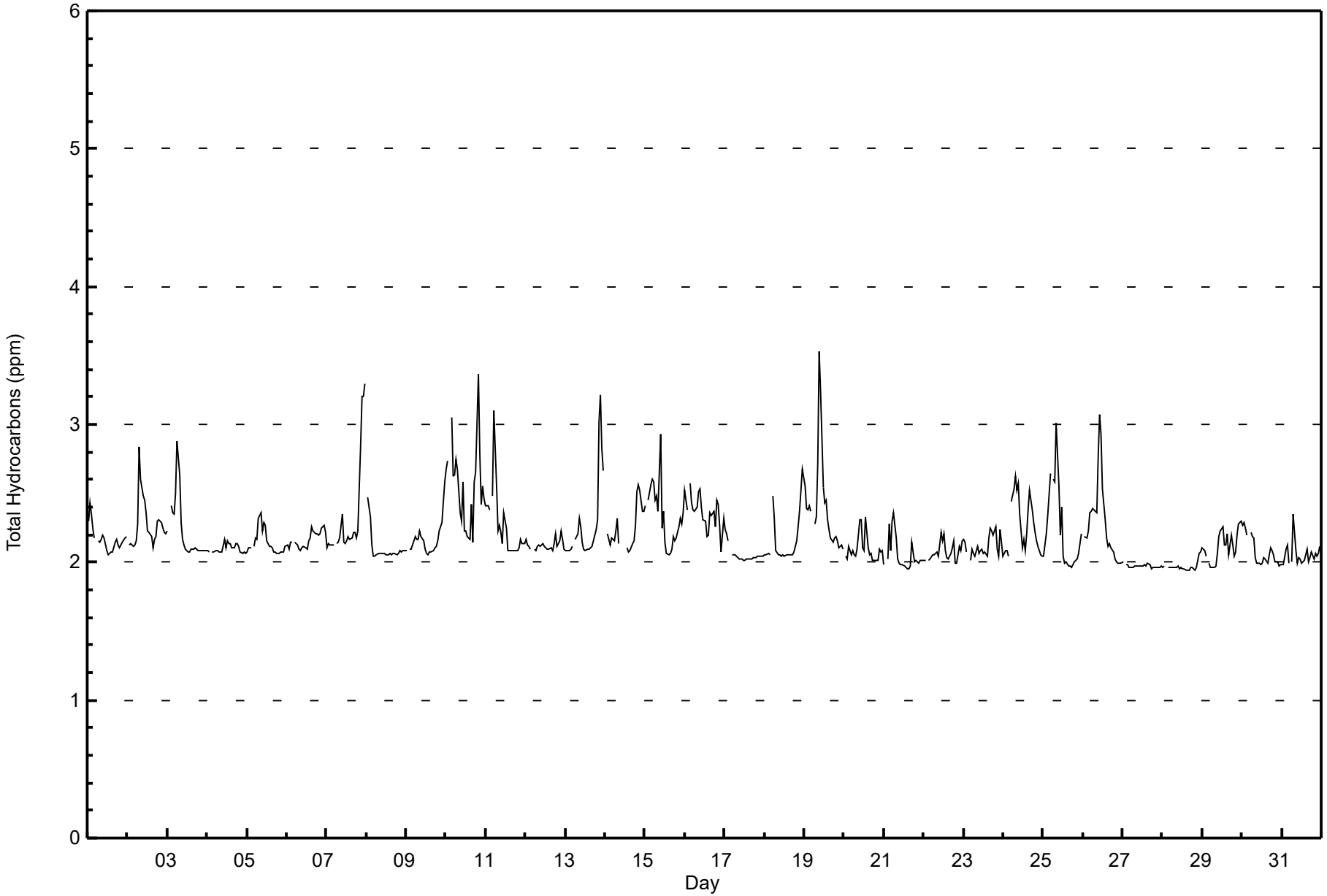
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm

Fort McKay South - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	154	21.72	21.72
2.1 - 3.0	545	76.87	98.59
3.1 - 10.0	10	1.41	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Fort McKay South - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	22	3	1	0	1	1	2	8	20	19	11	21	18	19	4	4	154
2.1 - 3.0	63	9	1	0	0	1	6	55	115	62	46	54	29	42	13	47	543
3.1 - 10.0	4	0	0	0	0	0	0	1	1	1	0	1	0	1	0	1	10
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	89	12	2	0	1	2	8	64	136	82	57	76	47	62	17	52	707

Total Number of Valid Hours: 707

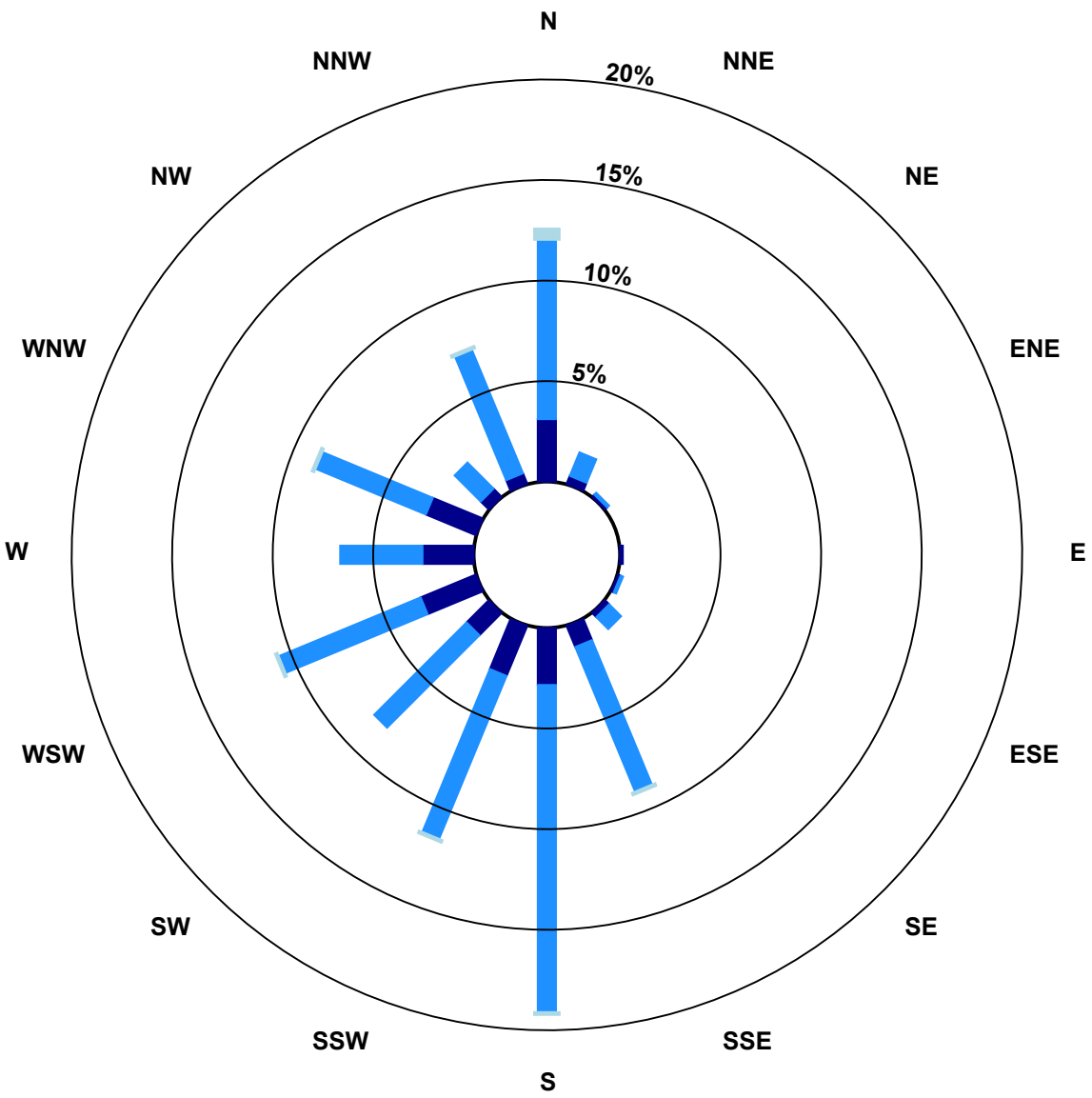
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Fort McKay South



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

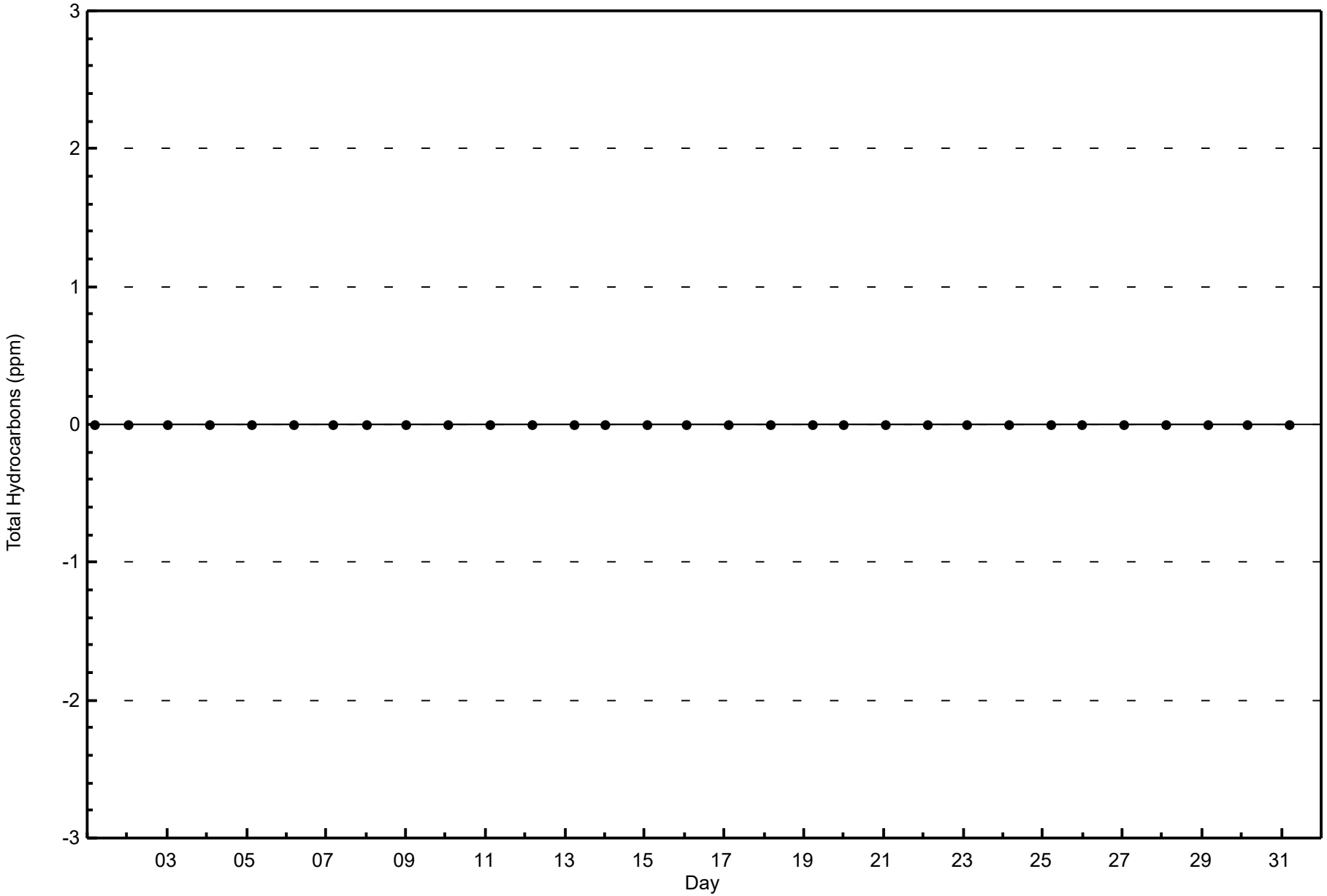
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Fort McKay South - October 2025

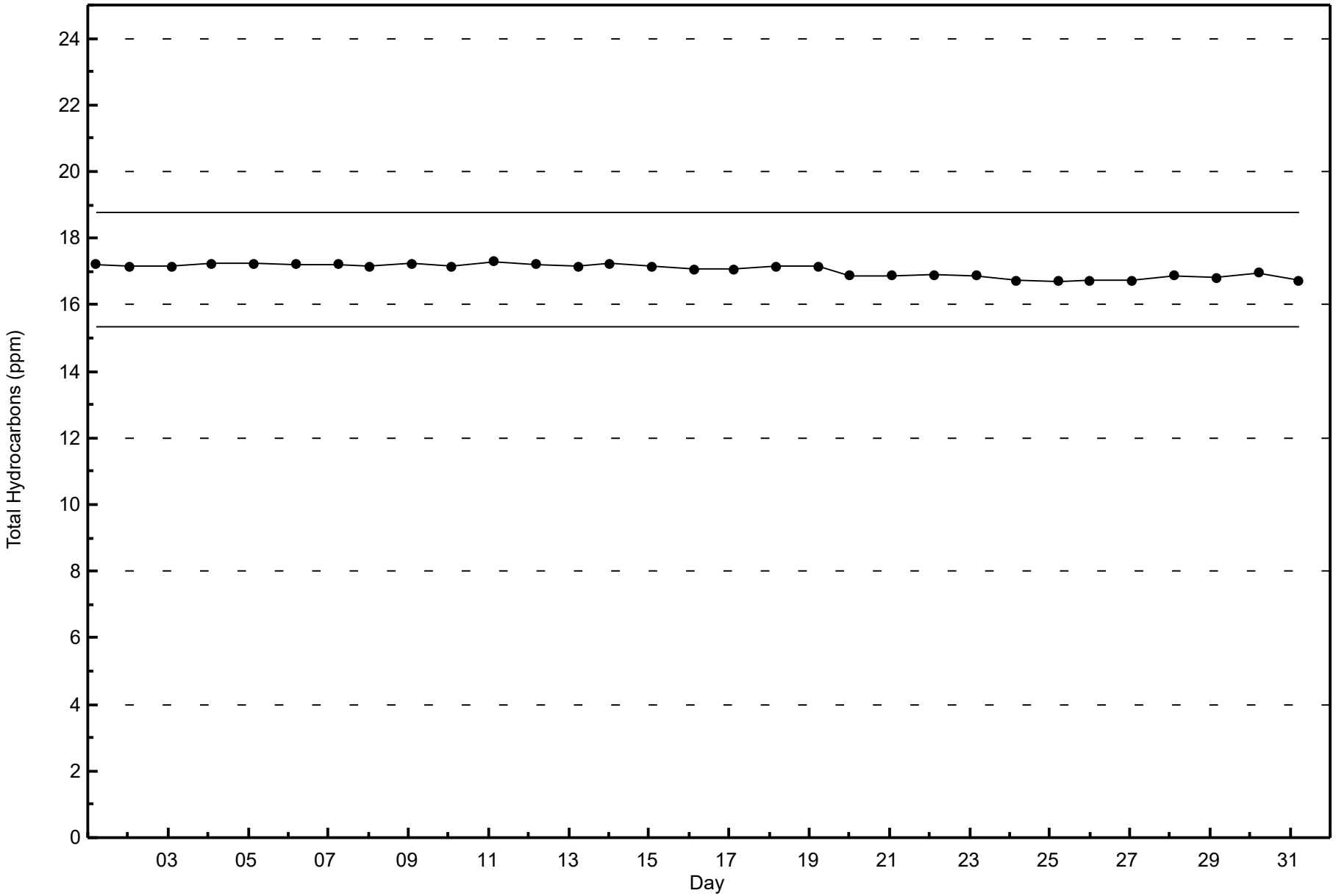


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

Fort McKay South - October 2025

Maximum Value: 0.543 ppm on Oct 13 22:00

Maximum Daily Average: 0.118 ppm on Oct 10

Minimum Value: 0.000 ppm on Oct 1 12:00

Minimum Daily Average: 0.000 ppm on Oct 28

Maximum Diurnal Average: 0.068 ppm at hour 10

Minimum Diurnal Average: 0.019 ppm at hour 15

Monthly Average: 0.037 ppm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.1 P_{90} = 0.1 P_{99} = 0.3

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.077	0.078	0.057	0.035	0.011	Z	0.016	0.014	0.026	0.039	0.025	0.000	0.001	0.000	0.000	0.000	0.025	0.040	0.020	0.011	0.011	0.017	0.018	0.019	0.024	0.078
2-Oct	Z	0.002	0.001	0.000	0.000	0.000	0.020	0.102	0.137	0.122	0.090	0.077	0.063	0.046	0.054	0.004	0.021	0.038	0.081	0.059	0.051	0.048	0.046	0.052	0.048	0.137
3-Oct	0.057	Z	0.093	0.080	0.070	0.110	0.232	0.121	0.045	0.017	0.008	0.002	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.036	0.232
4-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.003	0.009	0.022	0.029	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.029
5-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.013	0.035	0.010	0.092	0.054	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.009	0.092
6-Oct	0.000	0.000	0.005	0.000	Z	0.001	0.000	0.000	0.000	0.000	0.003	0.003	0.000	0.002	0.003	0.054	0.055	0.061	0.064	0.064	0.064	0.077	0.055	0.007	0.022	0.077
7-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.002	0.033	0.069	0.008	0.006	0.020	0.018	0.016	0.034	0.051	0.058	0.046	0.044	0.106	0.159	0.191	0.229	0.047	0.229
8-Oct	Z	0.103	0.078	0.016	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.103
9-Oct	0.000	Z	0.000	0.000	0.000	0.001	0.001	0.001	0.003	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.004	0.007	0.046	0.065	0.006	0.065
10-Oct	0.080	0.108	Z	0.376	0.130	0.134	0.155	0.149	0.077	0.082	0.184	0.039	0.058	0.034	0.033	0.084	0.005	0.057	0.063	0.317	0.256	0.091	0.126	0.082	0.118	0.376
11-Oct	0.061	0.057	0.055	Z	0.063	0.197	0.140	0.040	0.036	0.014	0.002	0.051	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.010	0.001	0.000	0.033	0.197
12-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.001	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.030	0.000	0.024	0.040	0.022	0.000	0.006	0.040
13-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.027	0.044	0.445	0.543	0.308	0.245	0.070	0.543
14-Oct	Z	0.057	0.045	0.008	0.034	0.033	0.069	0.071	0.000	C	C	C	C	0.000	0.000	0.000	0.001	0.013	0.041	0.217	0.254	0.229	0.131	0.095	0.068	0.254
15-Oct	0.092	Z	0.058	0.092	0.142	0.174	0.147	0.166	0.119	0.345	0.081	0.104	0.005	0.001	0.000	0.000	0.000	0.013	0.004	0.003	0.008	0.020	0.003	0.023	0.070	0.345
16-Oct	0.069	0.030	Z	0.095	0.059	0.067	0.063	0.040	0.064	0.118	0.113	0.083	0.079	0.046	0.038	0.051	0.053	0.039	0.034	0.054	0.043	0.020	0.002	0.046	0.057	0.118
17-Oct	0.034	0.021	0.004	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.000	0.000	0.003	0.034
18-Oct	0.000	0.000	0.000	0.000	Z	0.011	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.020	0.042	0.003	0.042
19-Oct	0.016	0.000	0.015	0.028	0.009	Z	0.010	0.029	0.202	0.477	0.305	0.127	0.101	0.112	0.076	0.102	0.075	0.079	0.082	0.099	0.098	0.055	0.053	0.046	0.095	0.477
20-Oct	Z	0.021	0.008	0.031	0.003	0.014	0.003	0.004	0.026	0.149	0.100	0.041	0.043	0.114	0.066	0.020	0.000	0.000	0.000	0.006	0.007	0.008	0.001	0.030	0.030	0.149
21-Oct	0.000	Z	0.001	0.120	0.028	0.137	0.135	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.071	0.001	0.001	0.000	0.000	0.001	0.000	0.024	0.137
22-Oct	0.000	0.000	Z	0.000	0.001	0.014	0.025	0.026	0.028	0.007	0.105	0.089	0.125	0.044	0.016	0.027	0.037	0.042	0.047	0.000	0.005	0.070	0.045	0.071	0.036	0.125
23-Oct	0.058	0.057	0.017	Z	0.000	0.036	0.026	0.008	0.009	0.026	0.038	0.027	0.015	0.035	0.018	0.044	0.100	0.118	0.116	0.093	0.032	0.002	0.041	0.035	0.041	0.118
24-Oct	0.007	0.015	0.021	0.005	Z	0.151	0.184	0.193	0.193	0.261	0.205	0.013	0.033	0.016	0.070	0.118	0.160	0.124	0.094	0.070	0.053	0.030	0.007	0.005	0.088	0.261
25-Oct	0.011	0.043	0.063	0.071	0.094	Z	0.084	0.101	0.186	0.106	0.046	0.061	0.005	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.005	0.038	0.186
26-Oct	Z	0.001	0.002	0.034	0.073	0.071	0.074	0.069	0.069	0.178	0.218	0.238	0.157	0.128	0.097	0.065	0.064	0.060	0.068	0.014	0.007	0.000	0.003	0.001	0.074	0.238
27-Oct	0.001	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
28-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002
29-Oct	0.001	0.003	0.000	Z	0.005	0.000	0.000	0.000	0.000	0.003	0.090	0.125	0.147	0.070	0.033	0.110	0.024	0.180	0.095	0.016	0.000	0.025	0.050	0.067	0.045	0.180
30-Oct	0.071	0.072	0.068	0.065	Z	0.091	0.104	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.023	0.104
31-Oct	0.000	0.000	0.000	0.002	0.000	Z	0.001	0.158	0.046	0.002	0.002	0.004	0.003	0.006	0.027	0.041	0.000	0.011	0.024	0.002	0.002	0.000	0.004	0.011	0.015	0.158
	0.024	0.026	0.023	0.041	0.028	0.050	0.048	0.045	0.043	0.068	0.058	0.038	0.030	0.022	0.019	0.024	0.022	0.033	0.030	0.036	0.047	0.047	0.038	0.038	Diurnal Average	
	0.092	0.108	0.093	0.376	0.142	0.197	0.232	0.193	0.202	0.477	0.305	0.238	0.157	0.128	0.097	0.118	0.160	0.180	0.116	0.317	0.445	0.543	0.308	0.245	Diurnal Maximum	

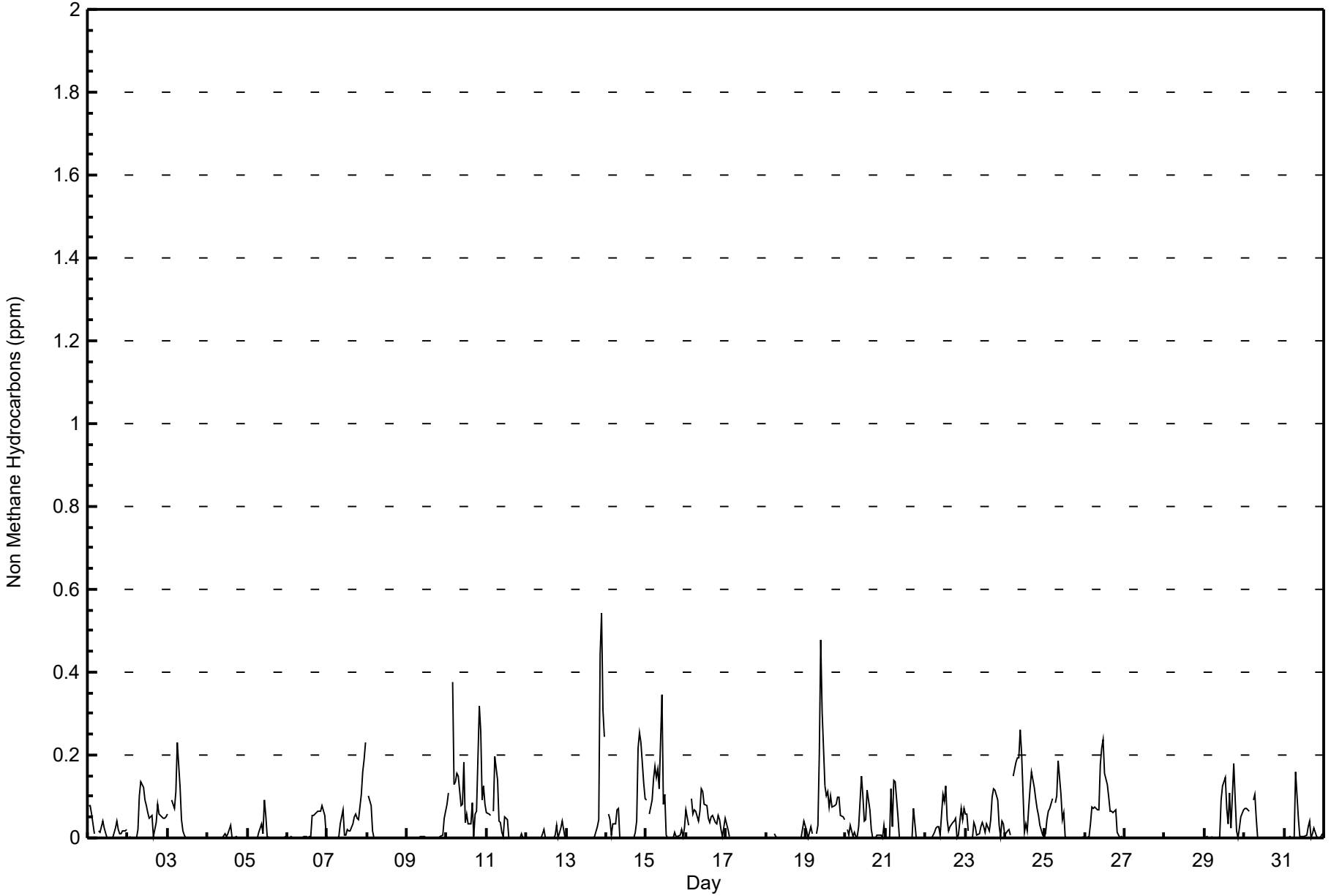
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Fort McKay South - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	362	51.06	51.06
0.006 - 0.05	174	24.54	75.60
0.06 - 0.1	136	19.18	94.78
> 0.1	37	5.22	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Fort McKay South - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.005	39	5	2	0	1	1	0	10	41	52	43	57	34	43	11	23	362
0.006 - 0.05	22	1	0	0	0	0	3	28	46	17	7	15	8	7	3	17	174
0.06 - 0.1	21	5	0	0	0	1	5	20	35	10	6	3	4	11	3	10	134
> 0.1	7	1	0	0	0	0	0	6	14	3	1	1	1	1	0	2	37
Totals	89	12	2	0	1	2	8	64	136	82	57	76	47	62	17	52	707

Total Number of Valid Hours: 707

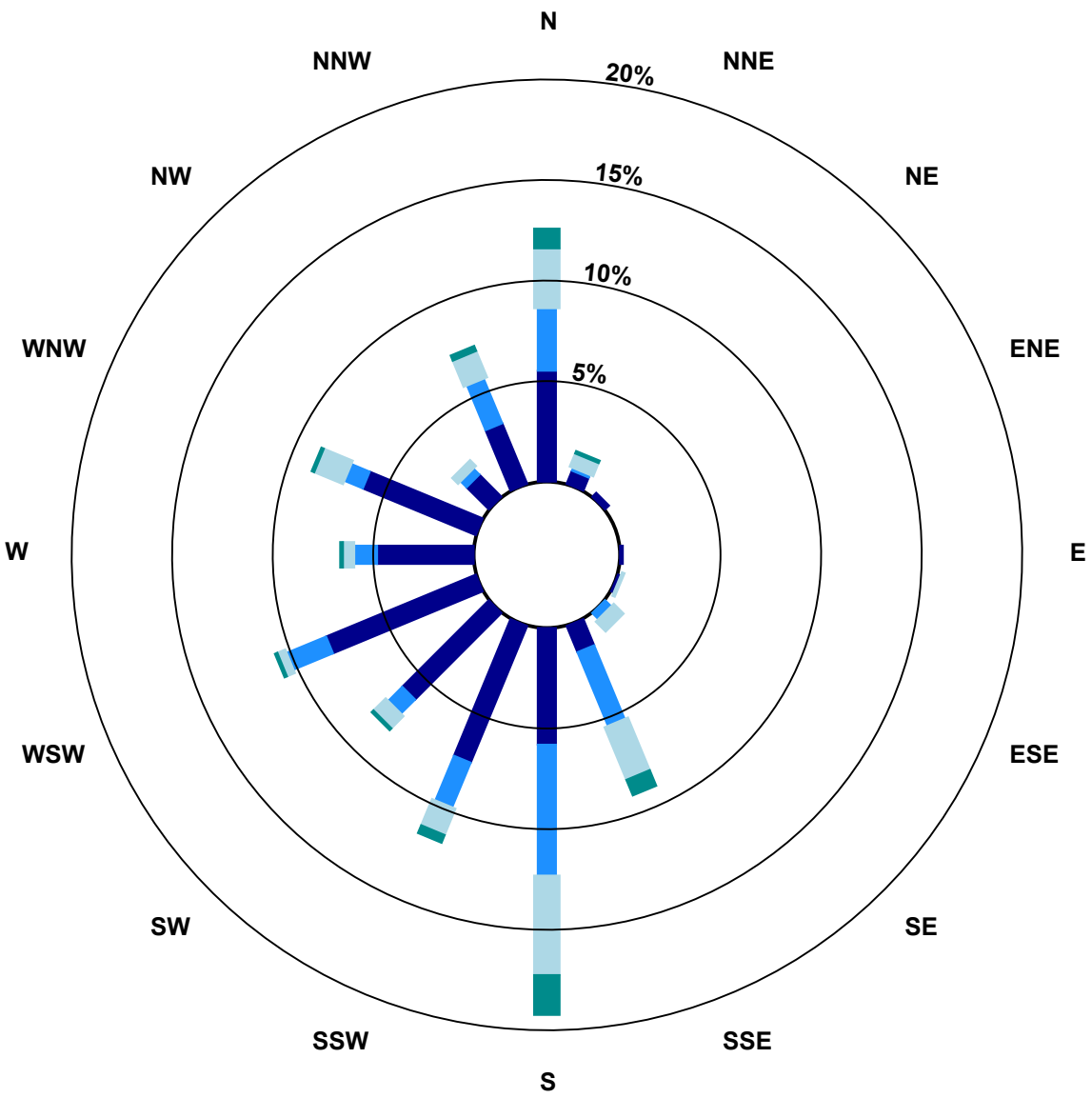
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Non Methane Hydrocarbons (NMHC) - ppm

Fort McKay South



Classes (ppm)

0 - 0.005

0.006 - 0.05

0.06 - 0.1

> 0.1

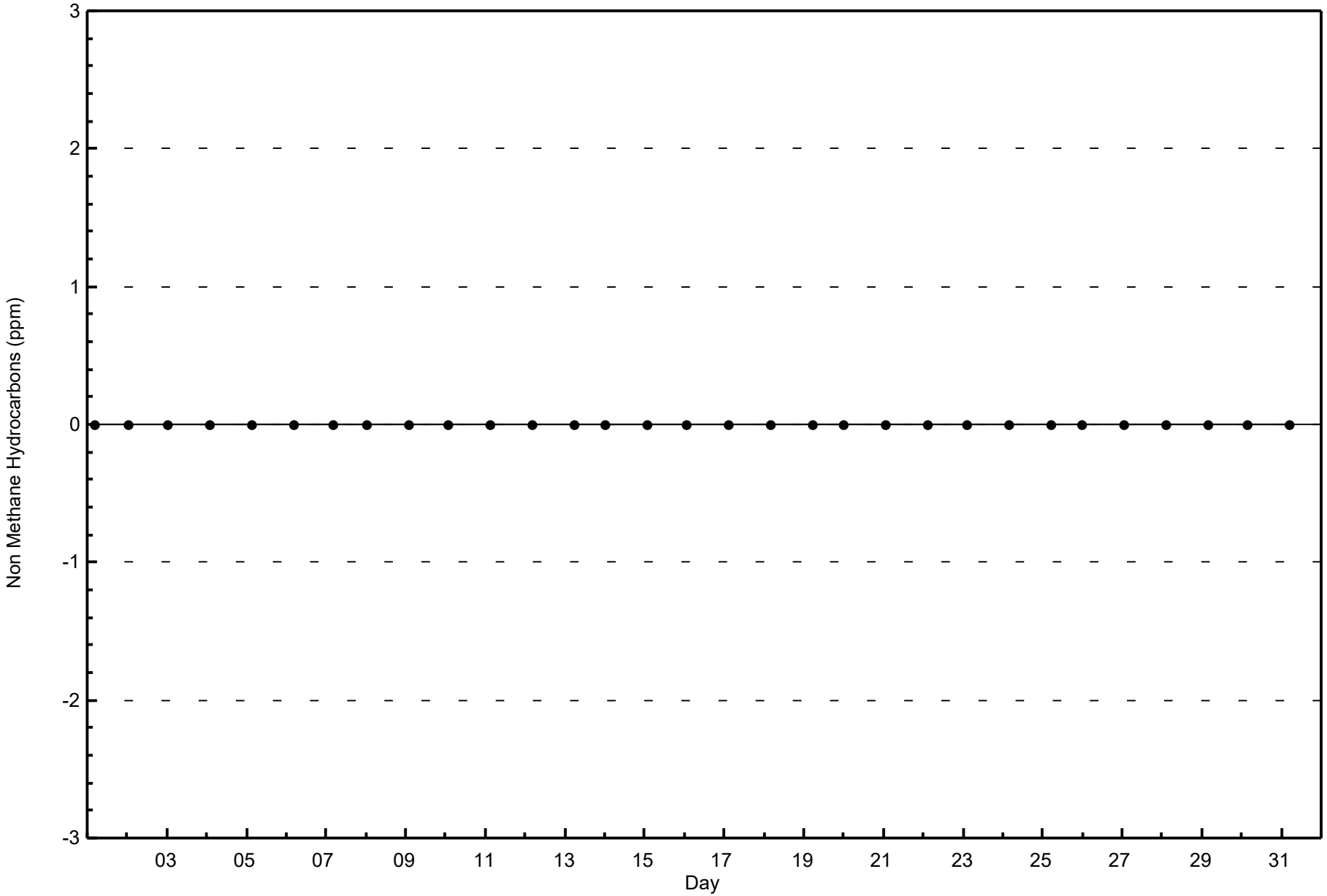
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Fort McKay South - October 2025

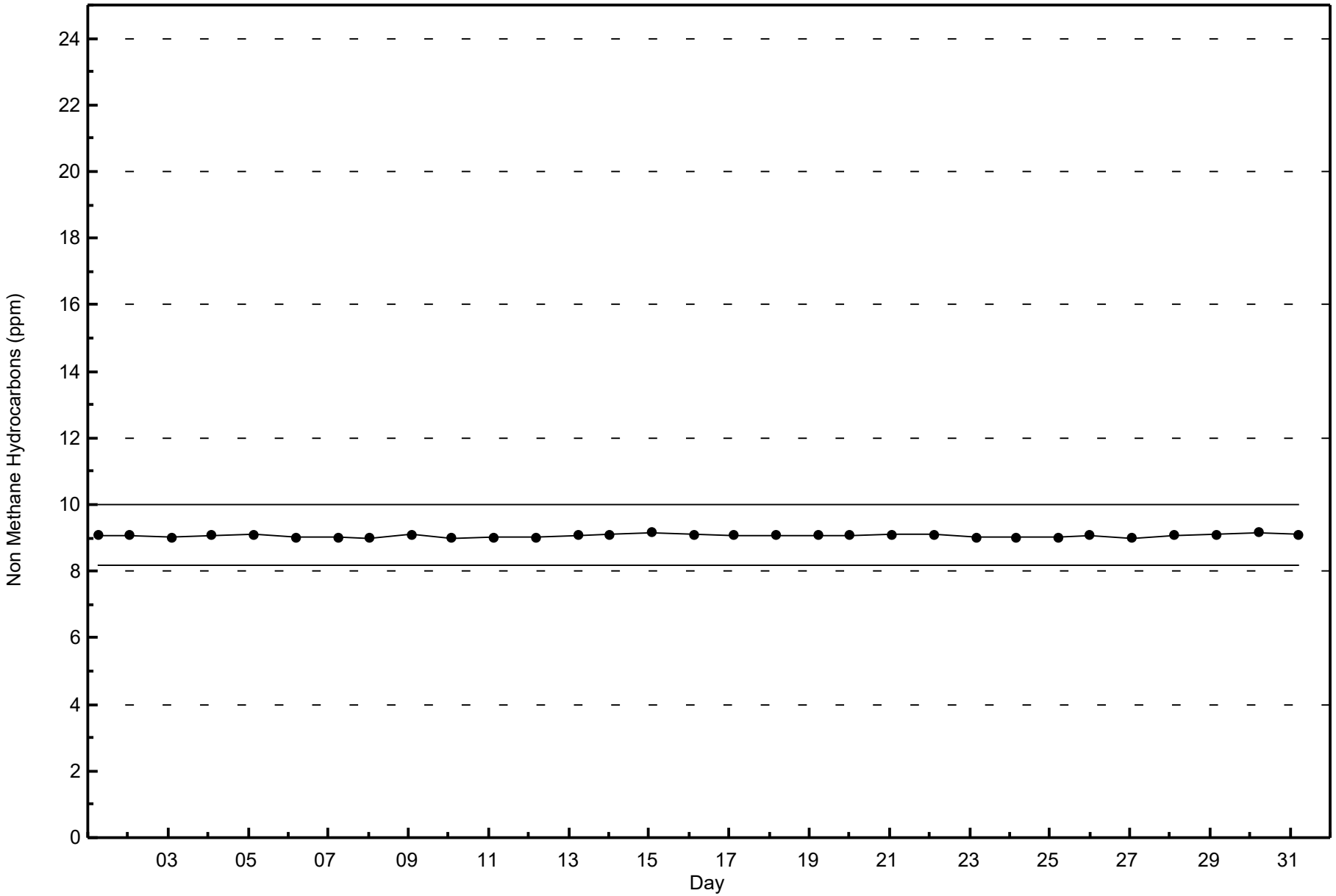


Wood Buffalo Environmental Association

Span Responses

Non Methane Hydrocarbons (NMHC) - ppm

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH_4) - ppm

Fort McKay South - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 3.1 ppm on Oct 8 00:00 Maximum Daily Average: 2.4 ppm on Oct 10

Minimum Value: 1.9 ppm on Oct 28 15:00 Minimum Daily Average: 2.0 ppm on Oct 28

Maximum Diurnal Average: 2.2 ppm at hour 8 Minimum Diurnal Average: 2.1 ppm at hour 15

Monthly Average: 2.15 ppm Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.0 Median = 2.1 Q_3 = 2.2 P_{90} = 2.4 P_{99} = 2.9

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.2	2.4	2.3	2.2	2.2	Z	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.4
2-Oct	Z	2.1	2.1	2.1	2.1	2.2	2.3	2.7	2.5	2.4	2.4	2.3	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.7
3-Oct	2.2	Z	2.3	2.3	2.3	2.4	2.6	2.5	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.6
4-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
5-Oct	2.1	2.1	2.1	Z	2.1	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3
6-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2
7-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.3	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.2	2.1	2.2	2.7	3.0	3.0	3.1	2.3	3.1
8-Oct	Z	2.4	2.2	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4
9-Oct	2.1	Z	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.4	2.5	2.2	2.5
10-Oct	2.6	2.6	Z	2.7	2.5	2.5	2.6	2.5	2.3	2.2	2.4	2.2	2.2	2.2	2.1	2.3	2.1	2.5	2.6	3.0	2.5	2.3	2.4	2.4	2.4	3.0
11-Oct	2.4	2.4	2.3	Z	2.4	2.9	2.4	2.2	2.2	2.2	2.1	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.9
12-Oct	2.2	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.2
13-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.2	2.2	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.6	2.7	2.5	2.4	2.2	2.7
14-Oct	Z	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.1	C	C	C	C	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.2	2.3	2.2	2.3
15-Oct	2.3	Z	2.4	2.5	2.5	2.4	2.3	2.3	2.2	2.6	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.6
16-Oct	2.5	2.3	Z	2.5	2.4	2.3	2.3	2.4	2.5	2.4	2.3	2.2	2.2	2.1	2.2	2.3	2.3	2.3	2.2	2.4	2.4	2.2	2.1	2.3	2.3	2.5
17-Oct	2.2	2.2	2.2	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2
18-Oct	2.1	2.1	2.1	2.1	Z	2.5	2.3	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.5	2.6	2.2	2.6
19-Oct	2.5	2.4	2.4	2.4	2.4	Z	2.3	2.3	2.5	3.0	2.9	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.3	3.0
20-Oct	Z	2.0	2.0	2.1	2.0	2.1	2.0	2.0	2.1	2.2	2.2	2.1	2.0	2.2	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2
21-Oct	2.0	Z	2.0	2.2	2.1	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2
22-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.0	2.1
23-Oct	2.1	2.1	2.1	Z	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.1	2.0	2.2	2.1	2.1	2.2
24-Oct	2.0	2.1	2.1	2.0	Z	2.3	2.4	2.4	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.3	2.4	2.3	2.2	2.1	2.1	2.1	2.0	2.0	2.2	2.4
25-Oct	2.0	2.1	2.1	2.3	2.6	Z	2.5	2.5	2.8	2.4	2.2	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.8
26-Oct	Z	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.6	2.9	2.7	2.4	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.9
27-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
28-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.0	2.1	2.1	2.0	2.1
29-Oct	2.1	2.1	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.2	2.2	2.2	2.1	2.2
30-Oct	2.2	2.2	2.2	2.1	Z	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.2
31-Oct	2.0	2.0	2.1	2.1	2.0	Z	2.0	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.2
	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	Diurnal Average	
	2.6	2.6	2.4	2.7	2.6	2.9	2.6	2.7	2.8	3.0	2.9	2.7	2.4	2.3	2.2	2.3	2.4	2.5	2.6	3.0	2.7	3.0	3.0	3.1	Diurnal Maximum	

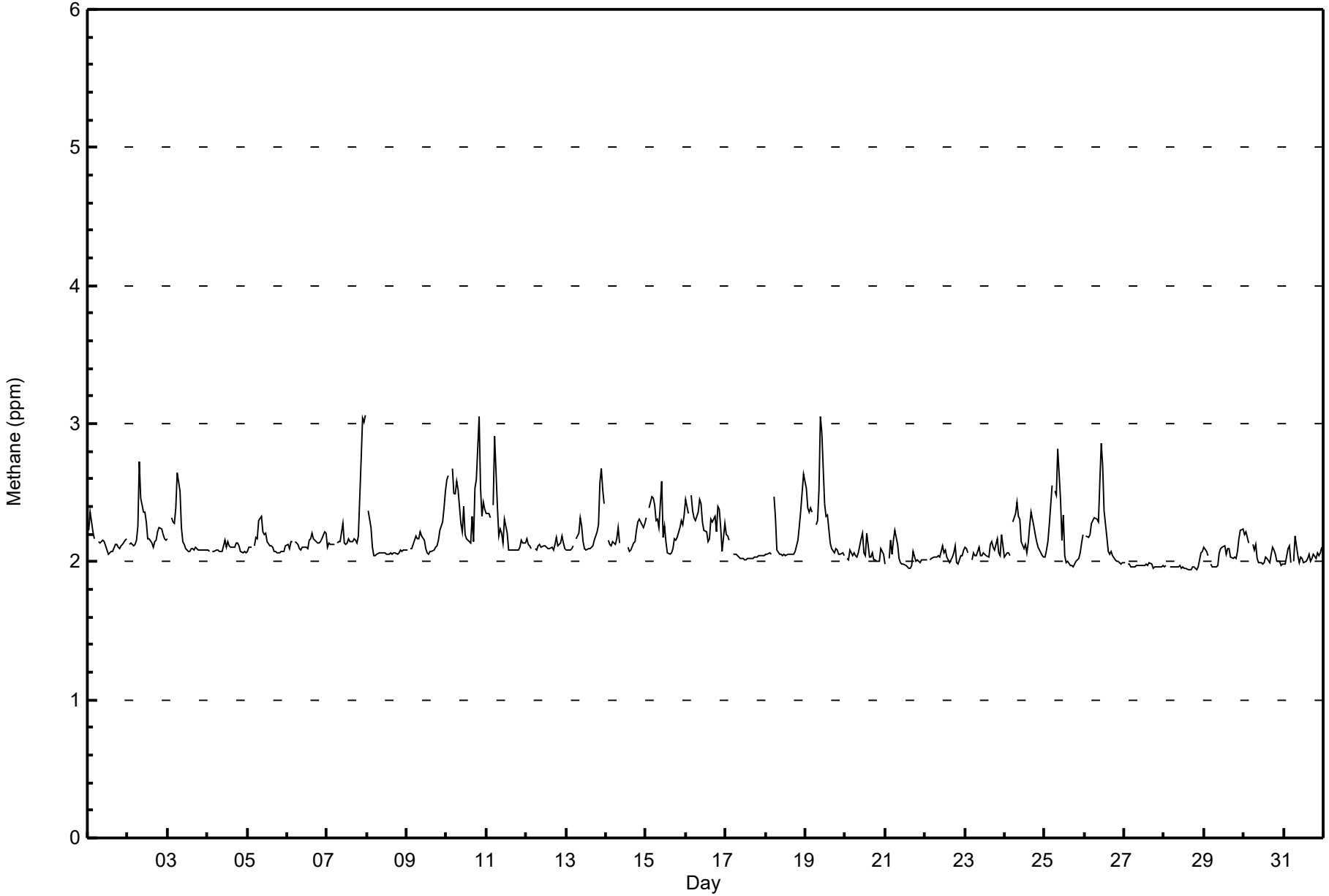
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Methane (CH_4) - ppm

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Methane (CH_4) - ppm

Fort McKay South - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	181	25.53	25.53
2.1 - 3.0	527	74.33	99.86
3.1 - 10.0	1	0.14	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Methane (CH_4) - ppm

Fort McKay South - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	28	4	1	0	1	1	2	17	24	19	11	22	21	20	4	6	181
2.1 - 3.0	61	8	1	0	0	1	6	47	112	63	46	54	26	42	13	45	525
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	89	12	2	0	1	2	8	64	136	82	57	76	47	62	17	52	707

Total Number of Valid Hours: 707

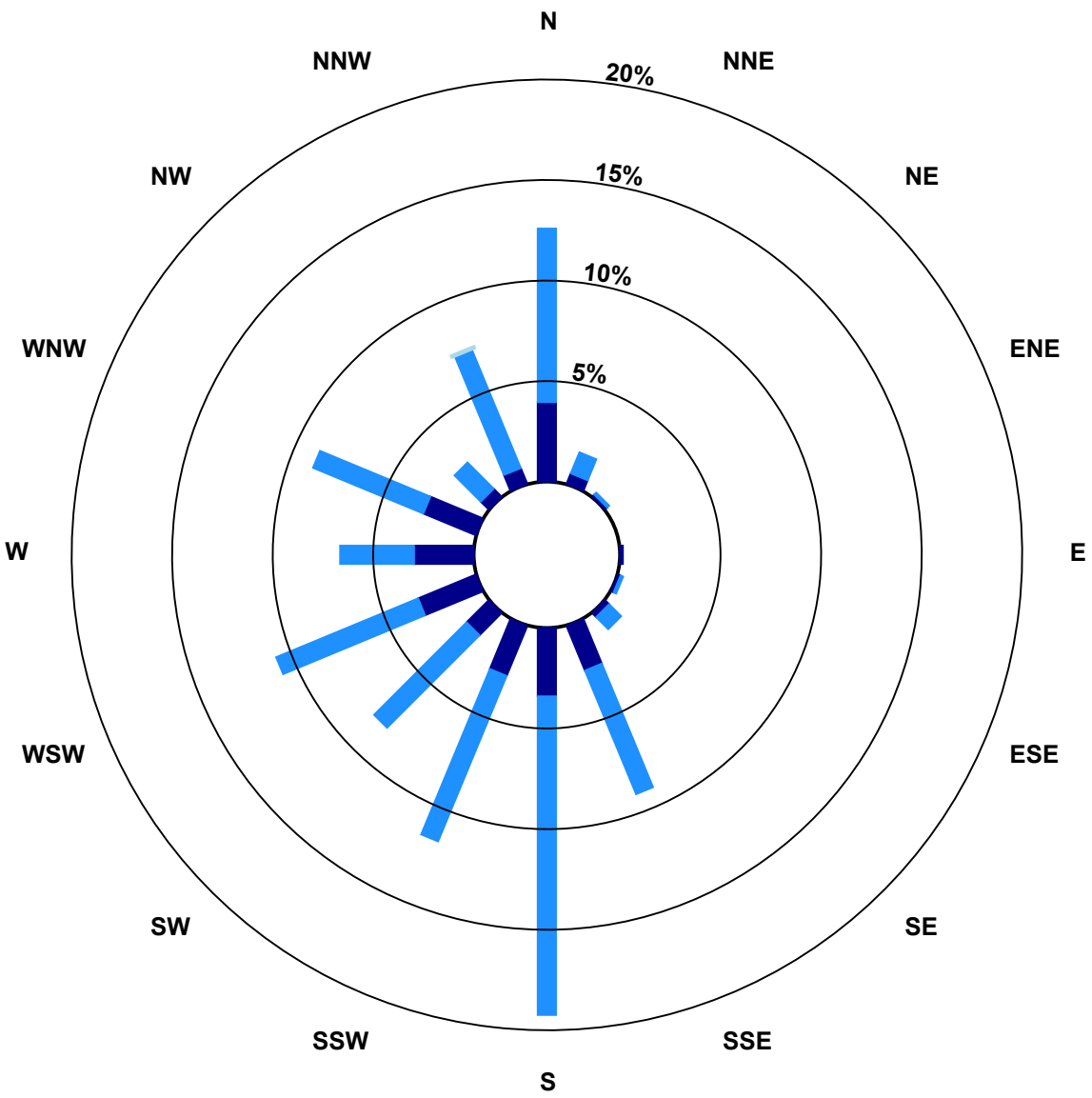
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Methane (CH_4) - ppm

Fort McKay South



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

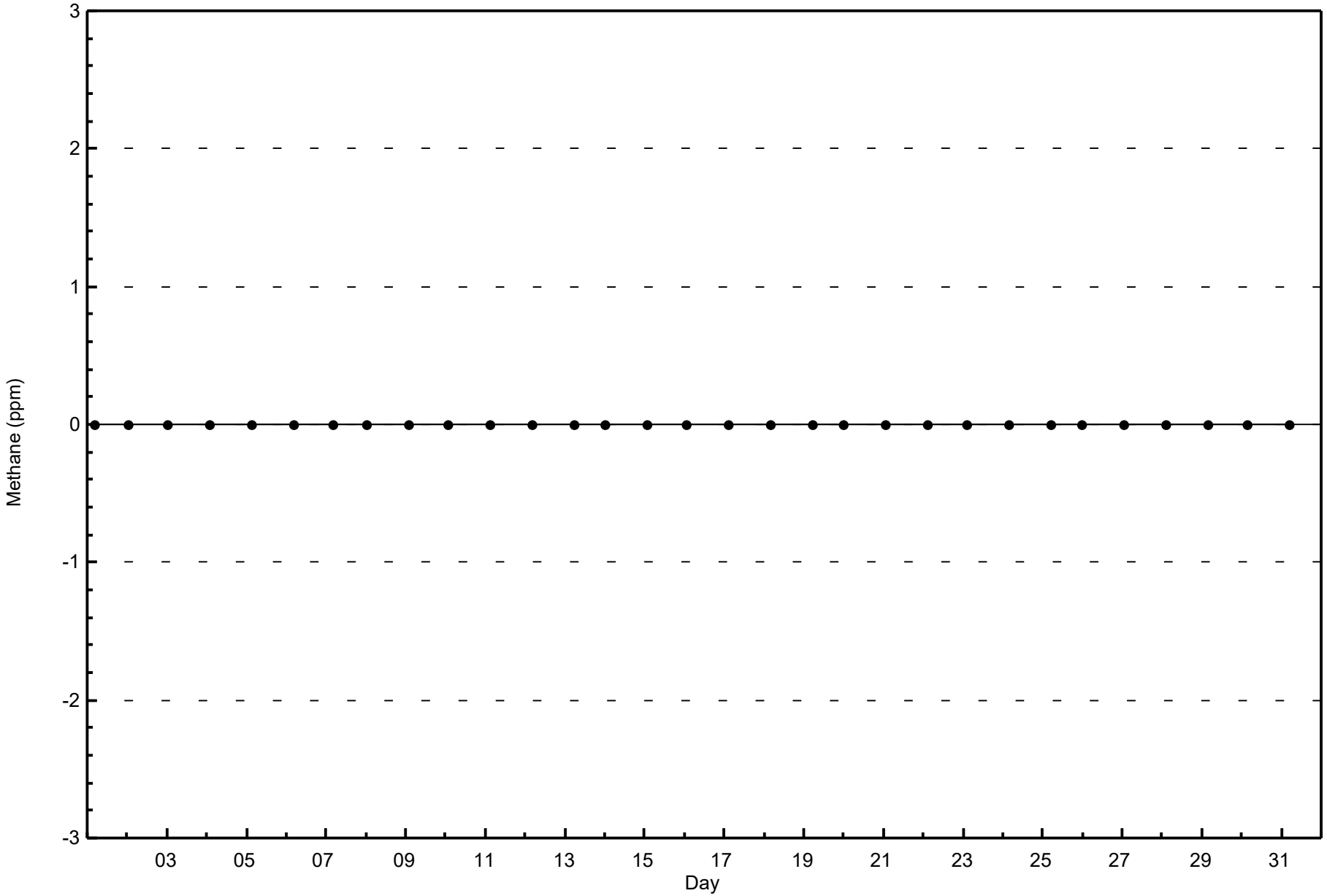
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Methane (CH_4) - ppm

Fort McKay South - October 2025

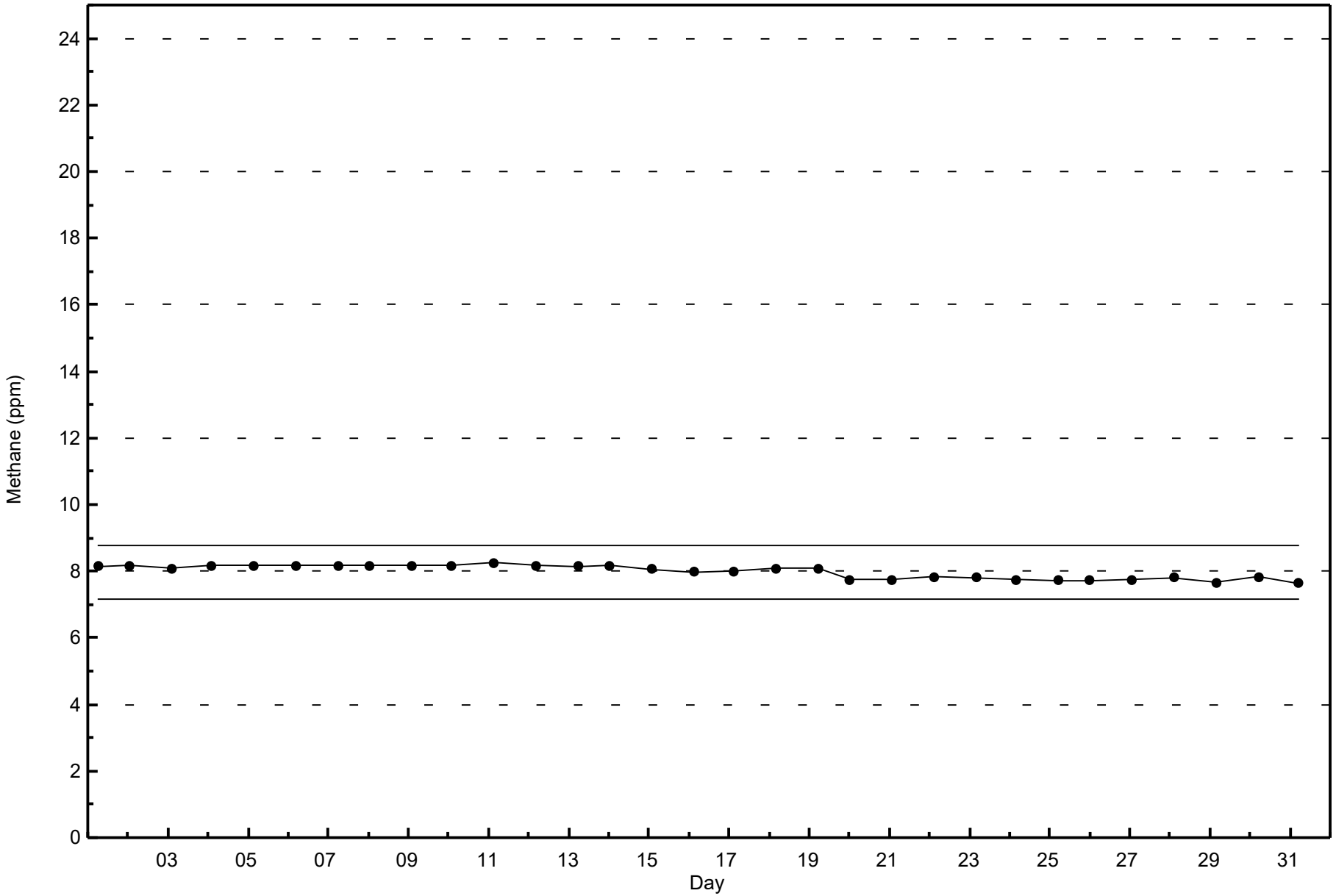


Wood Buffalo Environmental Association

Span Responses

Methane (CH_4) - ppm

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O_3) - ppb

Fort McKay South - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 40.5 ppb on Oct 10 17:00

Maximum Daily Average: 26.4 ppb on Oct 17

Minimum Value: 2.2 ppb on Oct 22 03:00

Minimum Daily Average: 3.5 ppb on Oct 19

Maximum Diurnal Average: 23.3 ppb at hour 15

Minimum Diurnal Average: 11.0 ppb at hour 7

Monthly Average: 15.67 ppb

Percentiles: P_1 = 2.4 P_{10} = 3.3 Q_1 = 7.0 Median = 16.1 Q_3 = 22.8 P_{90} = 27.2 P_{99} = 35.2

Hours in Service:	744
Hours of Data:	710
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	7.9	Z	6.7	12.9	16.6	18.5	16.7	16.9	15.8	14.4	17.1	27.4	28.8	29.3	29.0	29.0	19.7	8.2	3.3	2.6	2.6	2.5	2.5	4.2	14.5	29.3
2-Oct	2.7	4.3	Z	5.3	2.6	2.4	2.3	3.0	3.9	5.4	4.5	6.8	12.5	18.9	23.4	22.8	21.7	8.2	4.6	5.6	6.7	6.7	7.9	3.8	8.1	23.4
3-Oct	3.3	2.8	4.3	Z	2.6	2.7	3.2	5.3	11.0	20.0	23.1	29.0	32.1	32.8	32.3	31.9	30.2	26.9	29.3	27.4	23.6	21.1	20.8	20.1	19.0	32.8
4-Oct	18.4	17.1	16.3	15.1	Z	16.3	16.2	15.3	15.5	19.7	20.2	25.2	22.9	24.4	19.7	17.0	13.5	11.9	14.6	20.4	18.4	17.5	18.1	16.7	17.8	25.2
5-Oct	15.1	12.5	13.8	13.7	10.5	Z	2.6	3.6	6.6	8.7	10.0	15.8	17.3	20.1	20.5	21.1	17.4	23.0	17.9	23.0	24.8	23.5	21.9	25.5	16.0	25.5
6-Oct	Z	27.0	20.5	26.8	24.3	20.0	17.4	24.8	26.4	27.2	C	C	C	27.5	28.2	26.9	24.0	13.5	6.3	4.6	4.4	3.5	13.1	23.3	19.5	28.2
7-Oct	24.4	Z	22.4	19.0	20.0	14.2	16.1	14.9	13.4	11.5	15.9	17.1	16.2	19.5	21.7	19.1	13.9	8.3	5.8	4.6	2.7	2.7	2.9	2.8	13.4	24.4
8-Oct	5.1	8.1	Z	15.7	27.7	28.1	23.3	19.7	19.1	21.0	24.0	24.3	25.0	26.5	28.3	30.1	31.4	28.9	25.8	20.3	14.8	13.6	12.7	13.2	21.2	31.4
9-Oct	12.5	11.1	14.9	Z	4.5	3.9	2.8	4.7	6.5	10.7	16.4	23.0	30.8	36.8	35.8	36.9	35.4	26.7	13.8	6.9	4.8	4.0	4.4	4.3	15.3	36.9
10-Oct	5.4	4.8	3.7	3.2	Z	3.1	2.8	3.4	10.9	16.0	17.6	24.1	25.6	26.5	29.5	40.4	40.5	34.1	20.4	22.3	23.3	22.5	11.5	9.8	17.4	40.5
11-Oct	9.5	6.8	6.0	5.3	5.0	Z	12.5	18.2	14.1	21.6	20.4	12.7	13.7	15.7	15.5	15.6	15.7	19.0	21.2	21.1	21.4	20.0	22.6	25.1	15.6	25.1
12-Oct	Z	24.7	26.2	25.7	25.9	25.7	27.0	22.1	19.5	25.4	23.2	22.5	28.0	29.0	27.0	25.1	24.9	25.2	24.5	26.6	22.4	15.1	9.5	22.7	23.8	29.0
13-Oct	23.3	Z	19.5	19.7	20.5	19.9	9.5	5.8	11.8	17.5	25.1	29.9	30.5	30.8	31.2	31.8	29.4	28.2	27.2	26.1	25.5	22.5	22.8	19.2	22.9	31.8
14-Oct	18.3	18.1	Z	17.6	14.2	16.4	15.6	17.6	21.5	22.2	23.2	23.7	25.0	25.9	29.0	29.0	24.2	13.4	10.9	10.8	11.9	10.6	14.6	14.8	18.6	29.0
15-Oct	10.4	13.4	14.7	Z	7.7	7.7	7.2	6.1	8.2	12.2	13.3	19.6	23.0	29.4	31.8	32.1	27.2	21.0	16.8	8.8	7.6	6.1	7.1	7.6	14.7	32.1
16-Oct	4.1	3.5	3.3	4.4	Z	8.8	3.9	3.5	6.1	13.0	15.4	18.5	16.5	23.9	28.6	23.2	14.2	31.9	32.6	31.1	34.1	34.3	35.2	30.3	18.3	35.2
17-Oct	26.2	22.3	20.3	26.1	32.6	Z	29.1	25.0	27.0	25.1	24.4	25.2	30.4	31.7	34.0	35.7	34.9	33.7	22.3	16.9	21.9	26.5	17.3	17.2	26.4	35.7
18-Oct	Z	21.4	22.0	23.2	21.2	3.7	8.4	20.8	22.7	23.1	25.6	27.0	29.4	30.9	32.0	33.3	26.8	14.2	7.9	3.8	2.6	2.7	2.8	2.8	17.7	33.3
19-Oct	2.6	Z	2.5	2.6	2.7	2.6	2.8	2.7	3.0	3.4	3.3	3.4	4.3	4.7	4.8	4.3	3.8	3.2	2.8	2.5	3.6	3.4	5.7	5.3	3.5	5.7
20-Oct	6.8	11.3	Z	6.0	7.6	5.6	7.1	5.7	5.1	4.1	4.1	7.9	9.2	8.4	8.6	10.3	10.6	9.0	8.0	10.1	7.9	10.5	16.2	14.4	8.5	16.2
21-Oct	15.2	14.4	13.9	Z	11.5	7.3	3.9	6.4	10.1	11.9	15.2	18.6	20.8	24.1	25.4	25.0	24.4	6.9	10.9	5.5	3.0	2.6	2.5	2.4	12.2	25.4
22-Oct	2.2	2.2	2.2	2.4	Z	2.2	2.5	2.4	3.0	5.3	9.7	13.6	14.0	16.1	20.5	15.7	7.2	3.0	6.5	19.7	18.0	17.8	16.5	18.8	9.6	20.5
23-Oct	18.0	17.3	14.9	11.3	17.5	Z	4.4	14.1	16.0	18.1	20.2	22.8	22.4	24.4	24.7	19.1	16.4	20.5	19.7	9.9	11.2	18.2	19.7	17.3	17.3	24.7
24-Oct	Z	20.8	18.8	11.2	14.6	15.5	11.6	8.5	9.4	10.2	12.7	20.0	20.7	23.7	19.3	17.3	10.3	5.8	5.1	4.9	4.7	4.9	4.4	3.6	12.1	23.7
25-Oct	3.4	Z	3.2	2.8	3.1	2.7	2.8	3.2	3.3	5.7	8.5	7.4	21.6	28.3	23.2	24.4	23.8	24.1	15.8	6.9	5.1	3.2	2.9	3.0	9.9	28.3
26-Oct	3.0	3.0	Z	2.7	2.8	2.9	3.0	2.7	3.2	3.4	3.9	4.4	5.8	8.0	11.1	10.6	9.1	11.2	16.3	19.9	24.2	26.2	26.2	26.5	10.0	26.5
27-Oct	27.6	29.7	31.4	Z	29.7	27.4	25.8	25.4	25.2	24.3	23.8	23.6	23.3	22.7	22.8	19.9	19.7	19.0	18.6	19.3	20.2	20.8	20.9	21.3	23.6	31.4
28-Oct	22.3	22.1	21.4	20.6	Z	20.5	22.2	23.0	22.9	23.6	21.8	23.9	23.1	23.2	23.5	24.3	20.5	16.8	12.6	9.1	7.0	3.6	4.2	9.7	18.3	24.3
29-Oct	7.6	7.0	7.1	14.1	17.8	Z	17.0	12.4	13.0	8.8	11.7	12.3	9.0	10.4	6.8	8.4	13.3	11.2	8.5	11.7	11.7	5.2	3.3	2.4	10.0	17.8
30-Oct	Z	2.4	2.6	4.3	5.2	5.3	5.9	9.5	14.2	19.2	19.3	22.7	20.5	16.3	18.9	21.8	18.0	10.6	10.7	13.9	18.5	22.4	22.0	20.3	14.1	22.7
31-Oct	20.2	Z	16.2	15.2	17.5	10.3	15.1	13.5	9.1	14.7	16.4	18.2	19.0	18.8	14.7	13.6	16.7	15.6	16.1	20.4	23.4	21.2	21.8	20.9	16.9	23.4
	12.1	13.1	13.4	12.6	14.1	11.3	11.0	11.6	12.8	15.1	16.3	19.0	20.7	22.9	23.3	23.1	20.6	17.2	14.7	14.1	13.9	13.4	13.3	13.8	Diurnal Average	
	27.6	29.7	31.4	26.8	32.6	28.1	29.1	25.4	27.0	27.2	25.6	29.9	32.1	36.8	35.8	40.4	40.5	34.1	32.6	31.1	34.1	34.3	35.2	30.3	Diurnal Maximum	

Z - zerospan C - Calibration

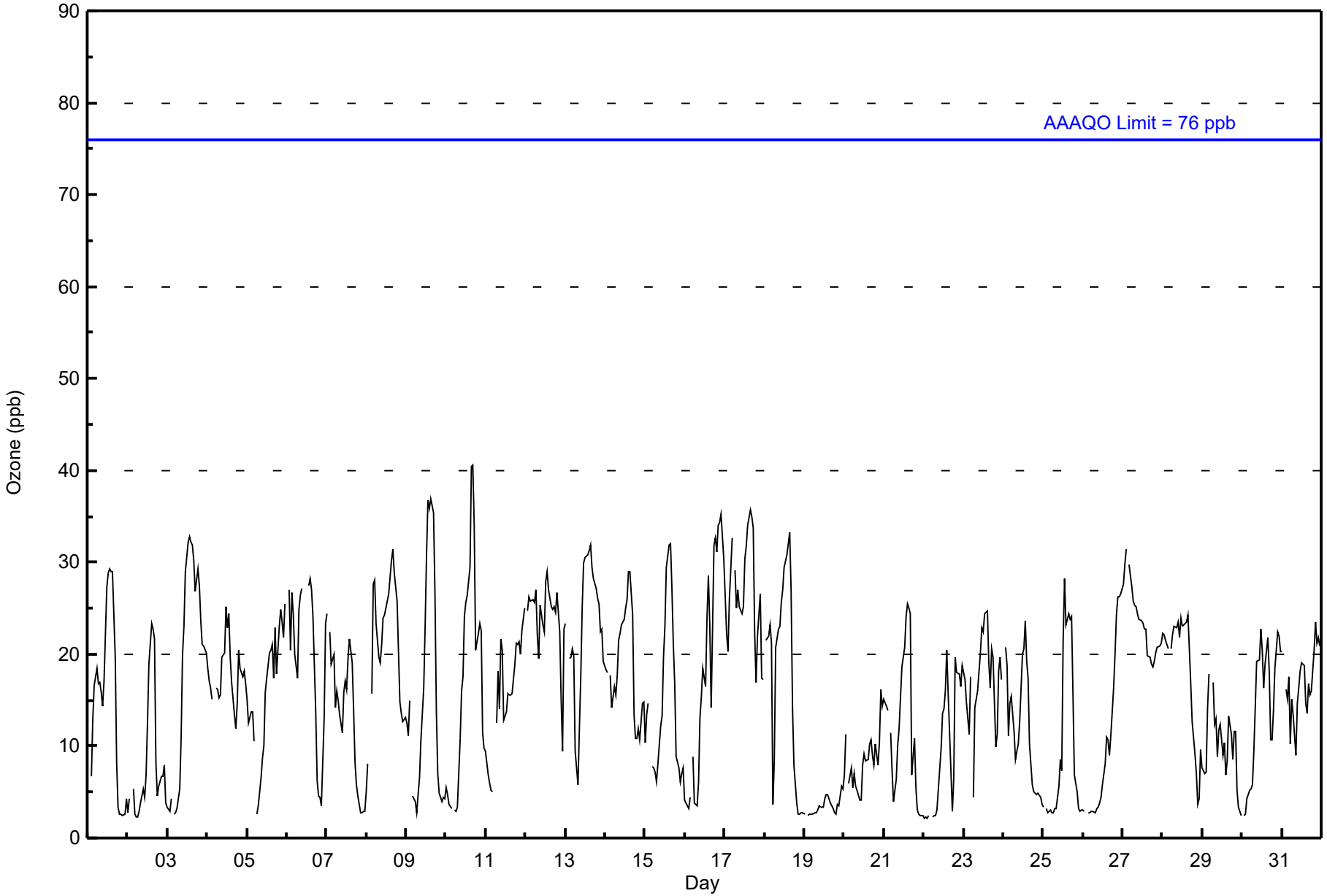
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb

Wood Buffalo Environmental Association

Hourly Averages

Ozone (O_3) - ppb

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Ozone (O_3) - ppb

Fort McKay South - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	471	66.34	66.34
21 - 50	239	33.66	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 710

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Ozone (O_3) - ppb

Fort McKay South - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	51	10	1	0	0	2	8	48	101	58	33	42	29	42	11	32	468
21 - 50	38	1	0	0	0	0	1	16	33	28	27	33	18	20	6	18	239
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	89	11	1	0	0	2	9	64	134	86	60	75	47	62	17	50	707

Total Number of Valid Hours: 707

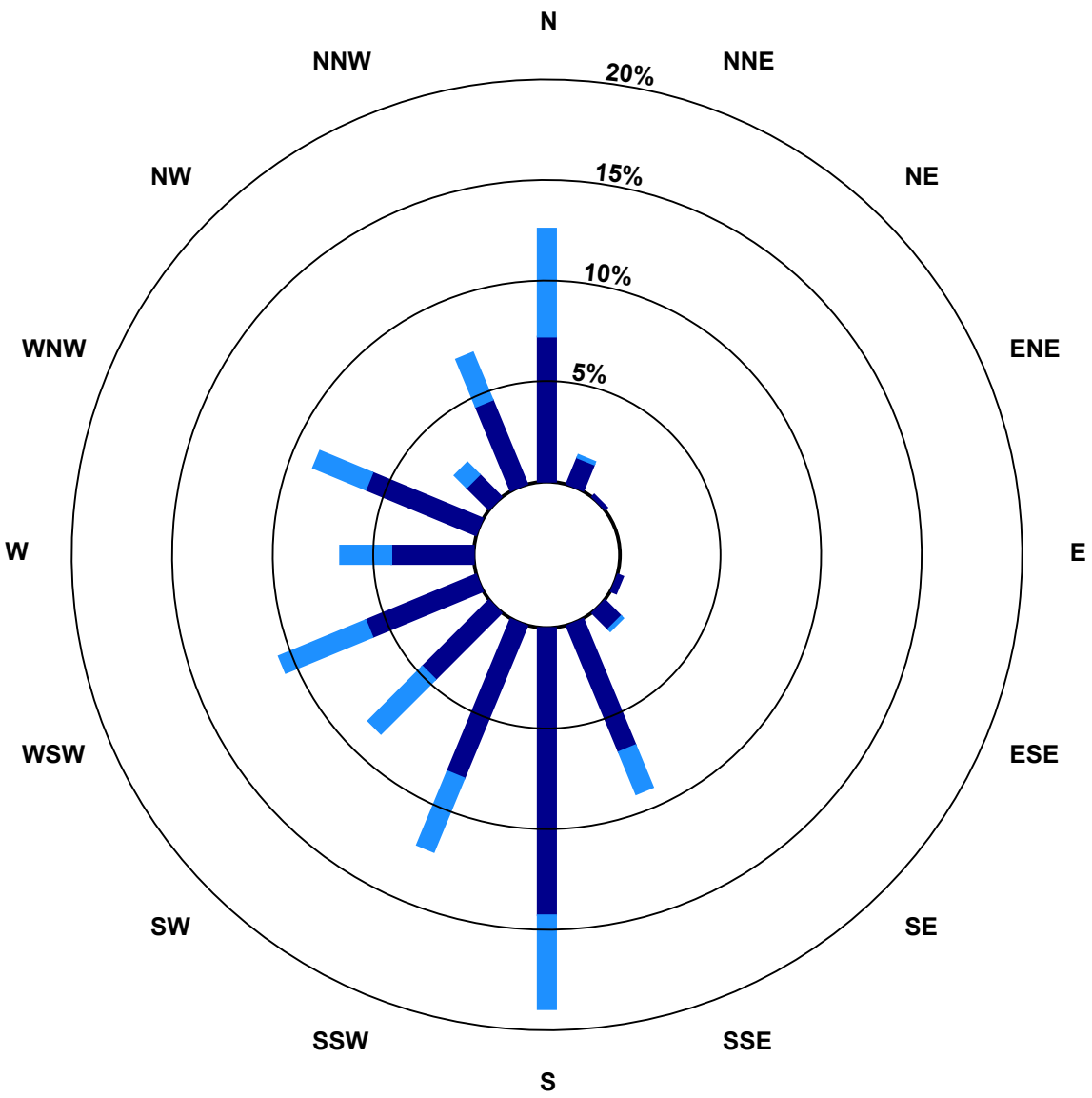
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Ozone (O_3) - ppb

Fort McKay South



Classes (ppb)

- 0 - 20
- 21 - 50
- 51 - 82
- > 83

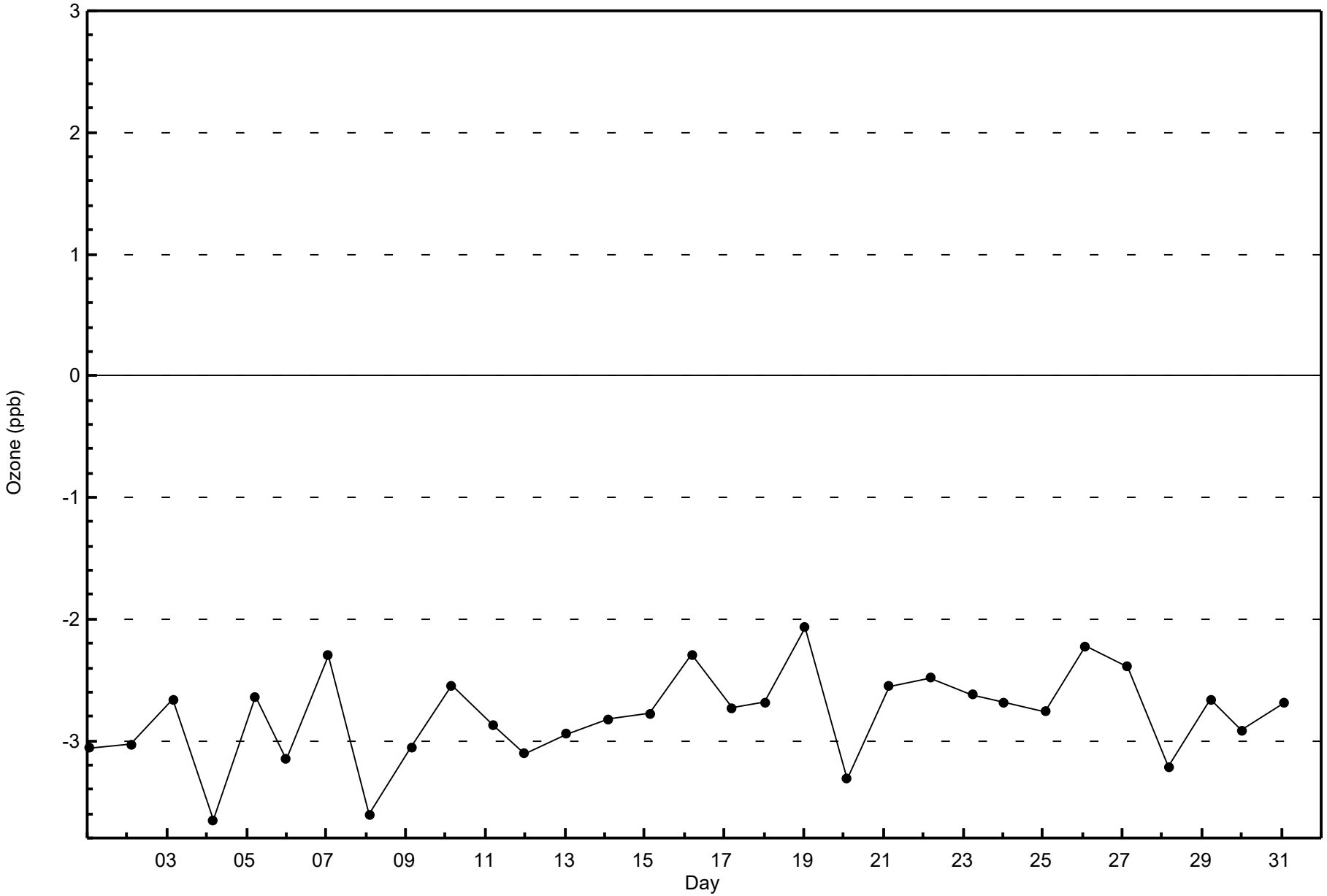
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Ozone (O_3) - ppb

Fort McKay South - October 2025

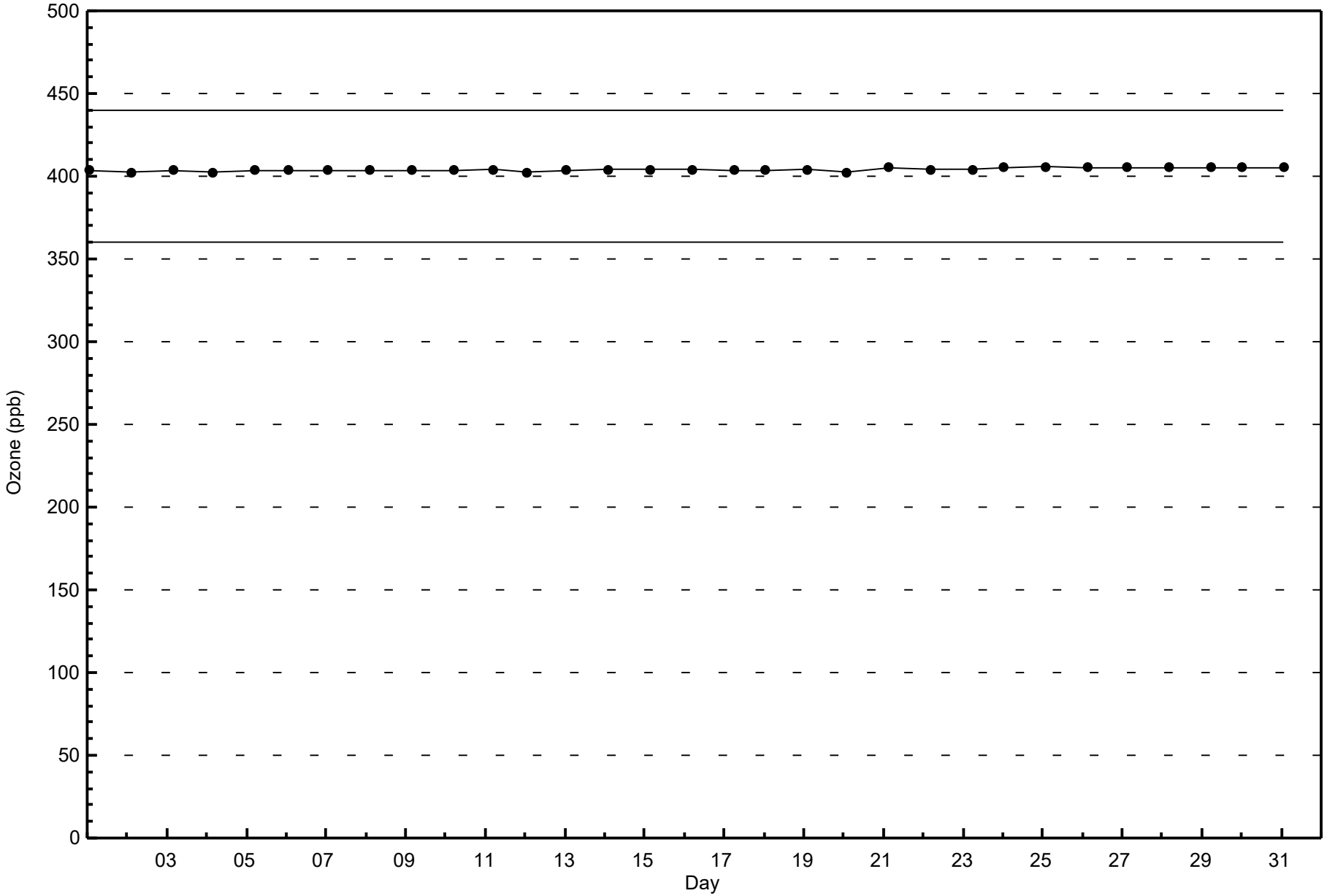


Wood Buffalo Environmental Association

Span Responses

Ozone (O_3) - ppb

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Fort McKay South - October 2025

Maximum Value: 68.1 ppb on Oct 26 11:00

Maximum Daily Average: 10.4 ppb on Oct 26

Minimum Value: 0.0 ppb on Oct 4 23:00

Minimum Daily Average: 0.0 ppb on Oct 28

Maximum Diurnal Average: 5.2 ppb at hour 11

Minimum Diurnal Average: 0.2 ppb at hour 19

Monthly Average: 1.83 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 1.2 P_{90} = 4.6 P_{99} = 32.9

Hours in Service:	744
Hours of Data:	678
Hours of Missing Data:	66
Hours of Calibration:	34
Percent Operational Time:	95.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.2	2.7	0.2	Z	0.0	0.0	0.0	0.1	0.2	0.5	0.7	0.1	0.1	0.3	0.1	0.2	0.5	0.4	0.2	0.2	0.2	0.2	0.3	0.1	0.3	2.7
2-Oct	0.2	0.1	0.0	0.0	Z	2.1	8.1	26.4	13.5	7.4	6.3	4.6	1.9	0.8	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	3.2	26.4
3-Oct	0.2	0.3	0.1	0.2	0.2	Z	2.0	4.2	4.1	1.4	1.3	0.5	0.3	0.1	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.7	4.2
4-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.0	0.5	1.0	0.6	0.6	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0
5-Oct	0.0	Z	0.0	0.0	0.1	4.1	3.8	5.6	3.0	1.9	3.2	3.0	1.8	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	5.6
6-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.2	1.2	1.8	1.8	1.4	2.5	1.9	1.9	1.3	0.5	0.1	0.2	0.2	0.6	0.3	0.0	0.7	2.5
7-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.8	3.0	7.3	3.0	2.5	5.2	3.3	1.3	1.3	1.1	0.5	0.2	2.8	20.9	33.7	34.9	32.9	6.7	34.9
8-Oct	11.9	1.9	0.2	0.1	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	11.9
9-Oct	0.0	0.0	0.0	0.0	0.4	Z	1.6	5.9	11.4	7.0	4.6	1.6	0.3	0.0	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	1.5	11.4
10-Oct	Z	0.2	0.2	0.2	0.4	0.8	0.8	1.0	3.8	6.9	8.6	3.3	2.9	2.5	1.9	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.0	1.5	8.6
11-Oct	0.0	Z	0.1	0.1	0.3	30.5	5.9	0.5	2.5	0.5	0.3	1.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	30.5
12-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.4	1.0	0.3	1.3	1.8	0.7	0.7	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.8
13-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.3	3.6	6.5	5.4	1.7	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.8	6.5
14-Oct	0.1	0.0	0.0	0.0	Z	0.1	0.1	0.2	0.5	0.9	0.8	1.0	0.6	1.0	0.5	0.7	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.3	1.0
15-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.5	2.6	4.0	4.7	1.9	1.7	0.2	0.1	0.3	0.5	0.2	0.0	0.1	0.7	1.9	1.4	1.0	1.0	4.7
16-Oct	Z	4.0	3.2	1.7	2.1	0.2	2.0	7.9	12.4	9.2	8.0	6.8	6.4	1.7	0.6	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	12.4
17-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	5.8	14.5	1.1	0.0	0.0	0.9	14.5
18-Oct	0.0	0.0	Z	0.0	0.1	13.4	7.5	0.1	0.3	1.0	0.4	0.5	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.8	4.9	7.2	16.2	24.1	3.4	24.1
19-Oct	18.5	9.9	7.2	Z	6.7	4.7	4.0	9.0	43.1	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	43.1
20-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	C	C	C	C	0.9	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	--	0.9
21-Oct	0.1	0.1	0.1	0.3	0.1	Z	0.4	1.1	M	M	M	M	M	M	0.2	0.2	0.2	1.4	0.1	0.1	0.1	0.1	0.1	0.1	--	1.4
22-Oct	Z	0.2	0.5	0.6	1.2	2.7	3.2	2.6	3.3	11.1	7.3	3.4	7.5	5.2	1.5	1.1	1.8	2.9	3.2	0.1	0.1	0.1	0.1	0.1	2.6	11.1
23-Oct	0.1	Z	0.1	0.2	0.1	0.5	1.7	0.4	0.7	2.1	3.1	2.3	2.9	2.5	1.4	1.6	1.0	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.9	3.1
24-Oct	0.1	0.0	Z	0.1	0.0	0.1	0.1	0.4	1.4	10.4	10.5	2.6	2.9	1.1	1.5	1.2	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	1.5	10.5
25-Oct	0.1	0.2	0.2	Z	7.3	7.8	7.2	5.4	20.7	7.6	1.0	3.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.2	0.3	2.7	20.7
26-Oct	0.2	0.2	0.2	0.4	Z	1.2	1.7	2.4	8.3	38.6	68.1	60.6	33.1	16.6	4.5	1.7	0.8	0.2	0.1	0.1	0.0	0.0	0.0	0.0	10.4	68.1
27-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
28-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.0	0.2
29-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.3	4.9	5.2	3.2	5.0	2.3	4.6	3.2	0.5	0.1	0.1	0.1	0.0	1.4	2.7	4.6	1.7	5.2
30-Oct	3.5	5.0	Z	0.6	0.2	0.0	0.1	0.2	0.2	0.1	0.4	0.0	0.5	1.0	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	5.0
31-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	2.5	2.0	2.2	1.5	1.4	2.1	3.5	2.3	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.8	3.5
	1.4	1.0	0.5	0.2	0.8	2.7	1.7	2.6	5.0	4.7	5.2	3.9	2.8	1.6	0.9	0.7	0.4	0.3	0.2	0.4	1.4	1.6	1.9	2.1	Diurnal Average	
	18.5	9.9	7.2	1.7	7.3	30.5	8.1	26.4	43.1	38.6	68.1	60.6	33.1	16.6	4.6	3.2	1.8	2.9	3.2	5.8	20.9	33.7	34.9	32.9	Diurnal Maximum	

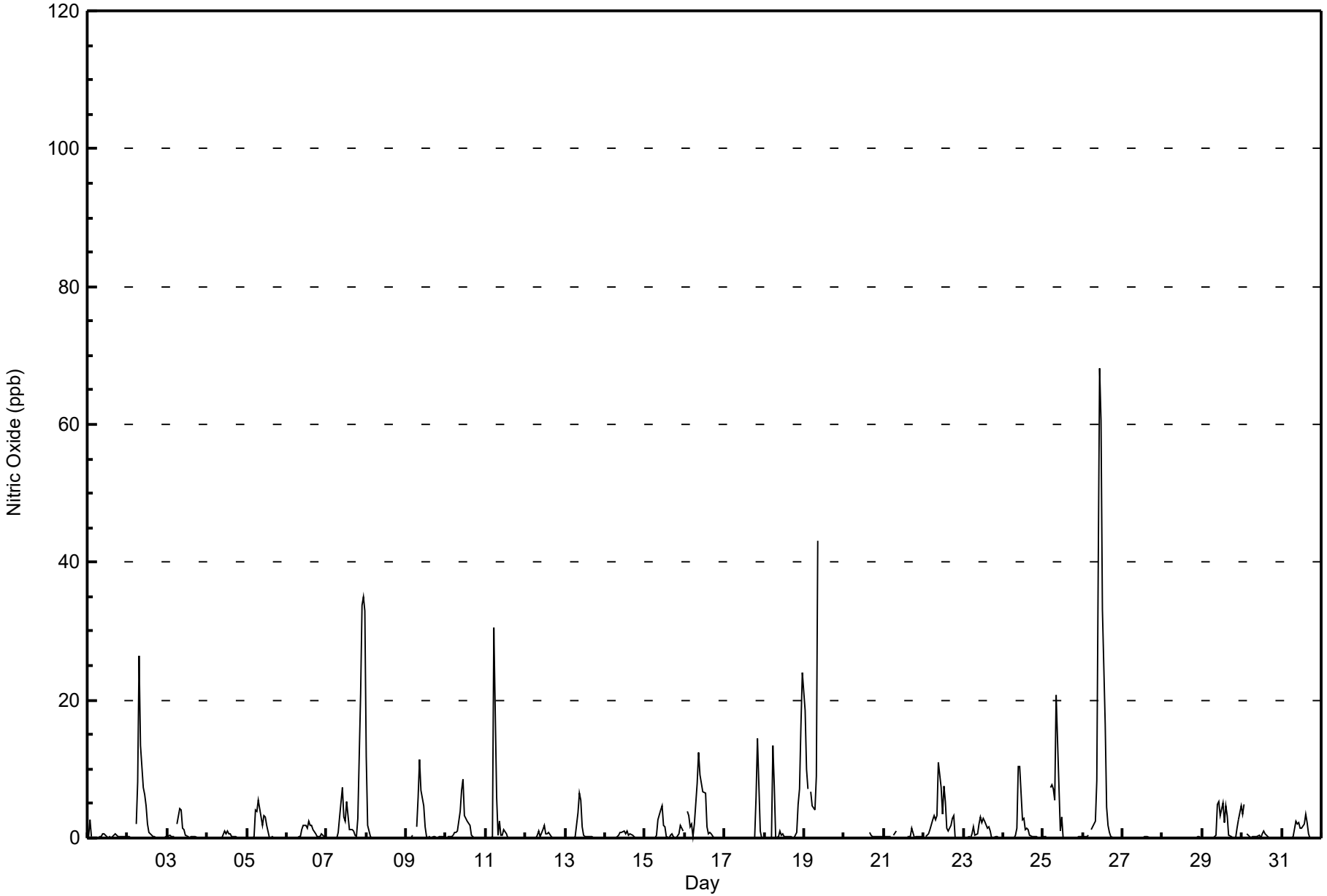
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb

Fort McKay South - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	665	98.08	98.08
21 - 40	10	1.47	99.56
11 - 80	3	0.44	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 678

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Fort McKay South - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	64	10	2	0	1	2	8	62	131	87	59	68	48	56	18	46	662
21 - 40	2	1	0	0	0	0	0	0	1	0	1	1	1	2	0	1	10
11 - 80	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	68	11	2	0	1	2	8	62	132	87	60	69	49	58	18	48	675

Total Number of Valid Hours: 675

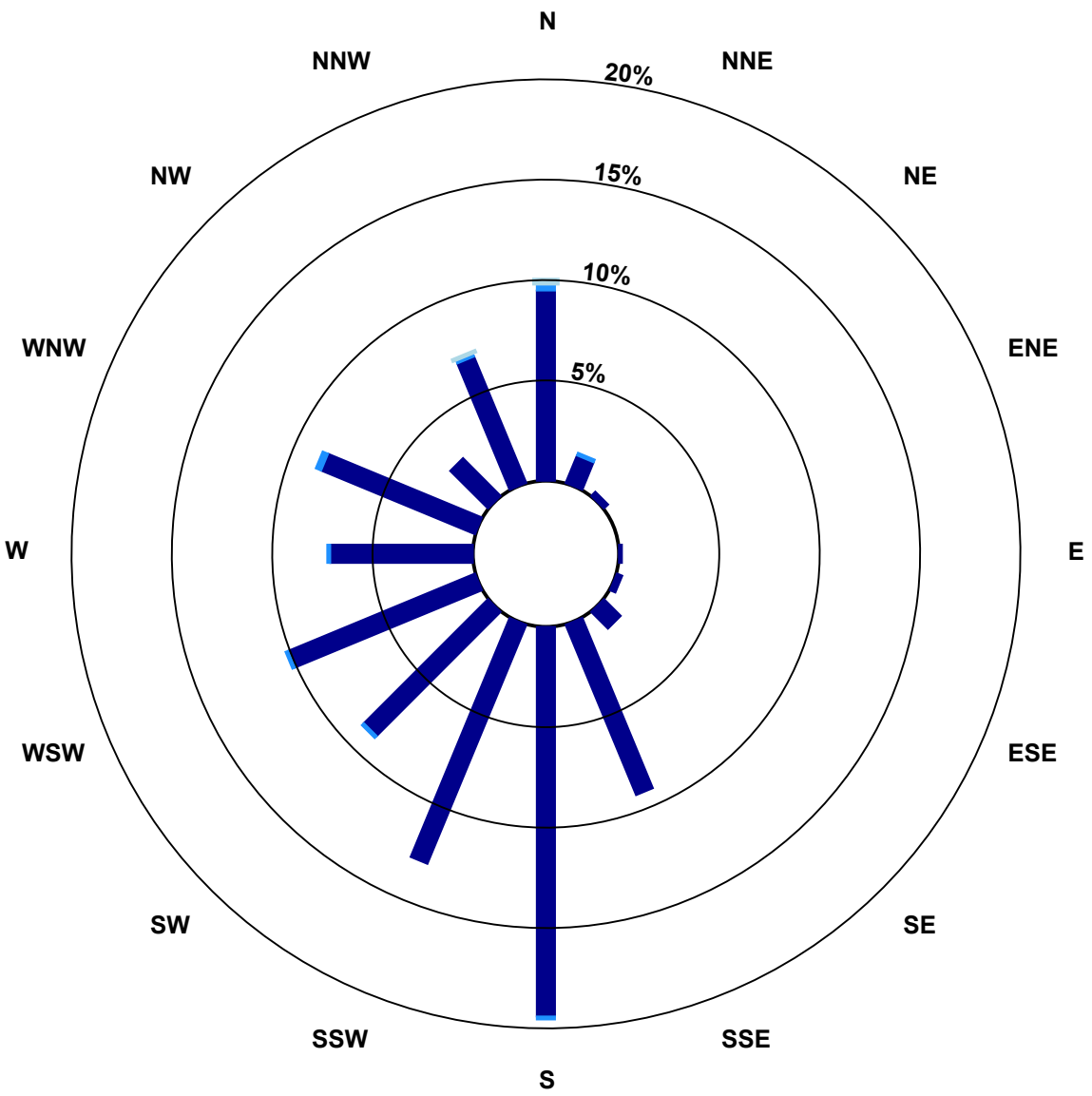
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Fort McKay South



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

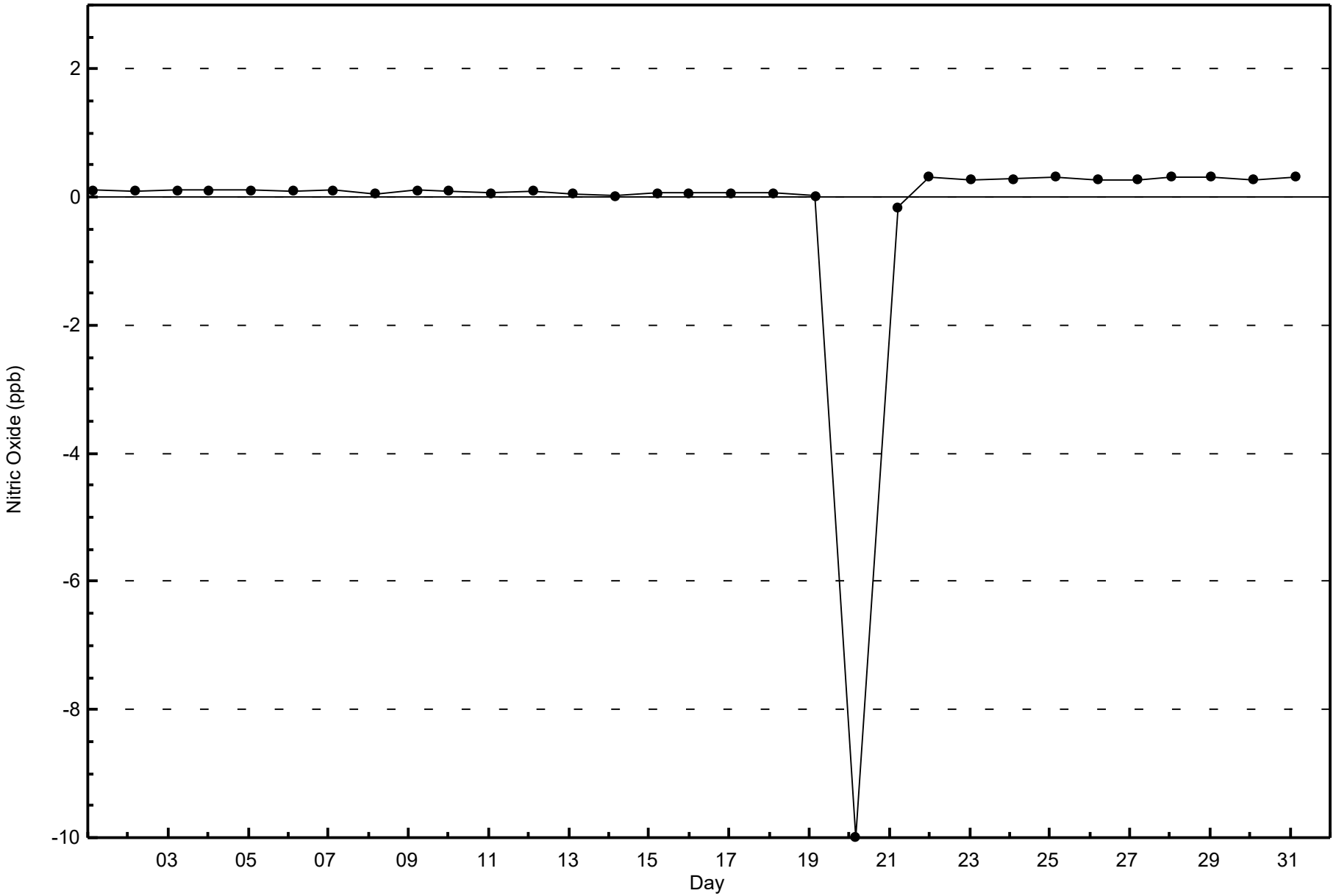
Total Number of Valid Hours: 675

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Fort McKay South - October 2025

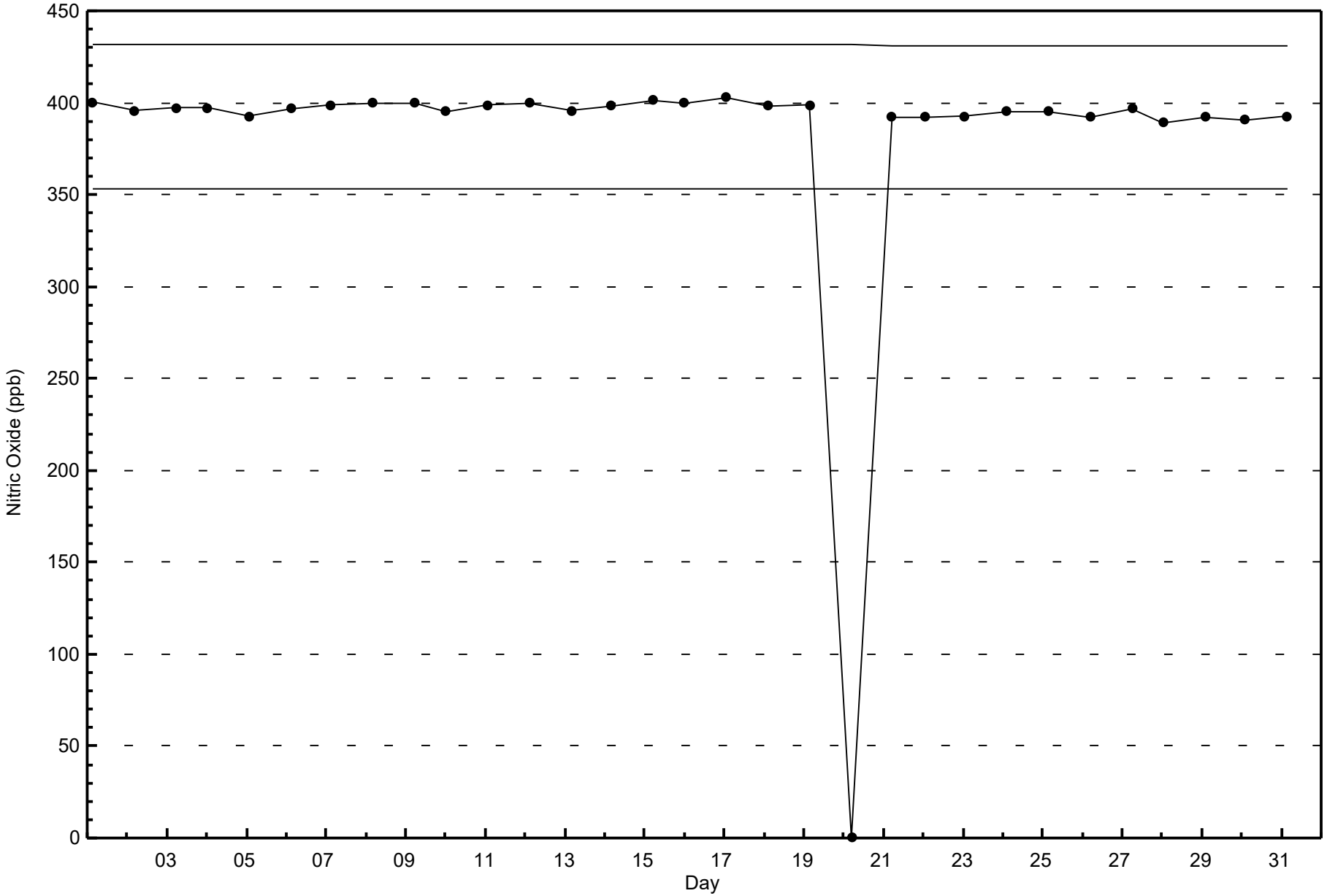


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Fort McKay South - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 24.8 ppb on Oct 15 23:00

Maximum Daily Average: 8.7 ppb on Oct 16

Minimum Value: 0.1 ppb on Oct 4 22:00

Minimum Daily Average: 0.7 ppb on Oct 27

Maximum Diurnal Average: 5.5 ppb at hour 6

Minimum Diurnal Average: 3.1 ppb at hour 14

Monthly Average: 4.18 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.2 Q_1 = 0.9 Median = 3.2 Q_3 = 5.9 P_{90} = 9.9 P_{99} = 16.1

Hours in Service:	744
Hours of Data:	678
Hours of Missing Data:	66
Hours of Calibration:	34
Percent Operational Time:	95.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	12.5	18.6	13.8	Z	3.6	1.8	3.3	2.7	3.3	4.3	3.2	0.9	0.5	1.3	0.7	1.6	5.3	3.3	1.1	0.7	0.7	0.7	0.4	1.8	3.7	18.6
2-Oct	0.6	0.6	0.7	0.6	Z	0.9	1.1	3.4	5.2	5.6	6.4	5.8	5.5	3.6	2.3	1.4	1.2	0.6	1.9	4.0	3.7	3.1	2.3	1.3	2.7	6.4
3-Oct	1.0	0.6	1.9	0.8	0.5	Z	2.2	5.6	5.6	2.7	2.4	1.6	1.2	0.9	1.8	1.9	3.4	5.3	0.9	0.4	0.3	0.3	0.2	0.2	1.8	5.6
4-Oct	Z	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	4.0	2.1	4.2	4.0	4.5	2.0	1.5	3.2	2.9	2.0	0.4	0.1	0.1	0.2	1.5	4.5
5-Oct	0.2	Z	0.3	0.2	3.2	9.6	6.1	6.2	3.7	3.5	2.9	2.8	1.9	0.4	0.4	1.1	0.2	0.2	0.2	0.2	0.2	0.2	0.4	5.0	2.1	9.6
6-Oct	7.0	0.6	Z	3.1	4.0	4.4	3.0	1.8	1.3	3.2	4.1	3.2	2.5	4.5	4.2	5.2	7.4	8.1	6.1	5.3	4.9	10.0	6.5	2.6	4.5	10.0
7-Oct	2.1	2.8	2.2	Z	2.2	4.6	4.6	6.3	8.9	11.7	7.0	5.7	6.7	4.8	3.6	6.4	8.3	5.3	2.7	2.8	7.4	6.4	6.0	11.1	5.6	11.7
8-Oct	10.4	5.9	3.7	0.6	Z	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.1	10.4
9-Oct	0.2	0.2	0.2	1.4	9.8	Z	8.4	7.8	7.5	5.3	5.0	2.7	0.9	0.2	1.1	0.6	1.4	5.6	7.1	9.5	8.5	5.8	6.4	6.8	4.5	9.8
10-Oct	Z	4.0	2.8	4.1	3.0	3.2	1.9	1.4	6.4	9.1	10.5	5.7	5.5	5.5	5.7	2.4	2.4	4.2	3.8	4.5	4.8	4.6	2.5	2.4	4.4	10.5
11-Oct	2.4	Z	2.2	1.9	2.0	16.7	15.9	10.4	13.3	4.0	2.1	7.1	3.8	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.4	4.5	3.2	1.5	4.0	16.7
12-Oct	2.2	1.3	Z	0.4	0.2	0.3	0.4	4.6	6.4	2.2	5.7	7.3	3.4	3.1	3.4	2.0	1.0	2.2	3.8	1.1	5.2	6.3	2.4	0.3	2.8	7.3
13-Oct	0.1	0.1	0.1	Z	1.0	1.1	8.5	10.8	10.5	7.4	3.1	0.9	0.6	0.4	0.4	0.6	1.4	1.3	0.9	1.4	1.4	3.1	1.9	3.3	2.6	10.8
14-Oct	3.7	5.1	4.2	3.8	Z	4.3	5.5	3.4	2.5	2.3	1.9	2.0	1.9	2.2	1.8	2.7	3.2	3.2	4.6	4.1	3.5	3.6	4.8	5.8	3.5	5.8
15-Oct	4.7	4.7	5.5	5.0	3.8	Z	4.5	3.3	5.9	7.7	8.0	5.4	4.2	1.1	0.9	2.3	6.4	10.7	9.8	9.3	15.1	22.1	24.8	22.3	8.2	24.8
16-Oct	Z	15.8	14.4	11.6	15.9	8.3	10.0	9.6	8.5	12.2	12.0	9.9	12.2	5.9	3.9	8.1	9.5	4.0	4.5	6.1	4.0	4.6	4.2	5.7	8.7	15.9
17-Oct	6.5	Z	9.7	5.6	1.1	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	12.9	1.2	0.4	1.9	1.9	12.9
18-Oct	5.0	3.3	Z	1.5	3.4	21.0	14.8	1.8	1.0	2.4	0.8	1.2	0.5	0.4	0.5	0.5	1.5	2.3	3.6	9.6	11.2	10.9	9.2	8.7	5.0	21.0
19-Oct	6.4	5.0	4.5	Z	3.3	2.4	3.1	4.0	9.0	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	9.0
20-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	C	C	C	C	4.2	4.6	3.2	2.4	1.3	2.3	2.7	2.2	3.5	--	4.6
21-Oct	1.9	2.4	2.4	4.4	3.7	Z	3.8	4.0	M	M	M	M	M	M	0.5	0.6	0.7	8.8	2.2	2.8	1.4	0.9	0.6	0.4	--	8.8
22-Oct	Z	0.6	1.1	0.6	0.7	0.7	0.7	0.8	0.7	4.4	4.8	3.3	6.5	6.5	3.7	4.6	4.8	5.5	6.8	2.7	2.8	4.3	6.9	4.9	3.4	6.9
23-Oct	7.2	Z	11.5	14.0	5.6	14.3	20.4	10.1	7.9	6.1	5.4	4.3	5.3	5.2	6.2	11.6	13.3	5.3	5.5	13.6	12.5	5.2	4.1	6.2	8.7	20.4
24-Oct	7.5	4.6	Z	13.8	10.3	7.1	7.2	6.5	5.1	12.7	12.5	5.5	6.8	5.3	8.6	6.4	4.1	3.4	3.6	3.0	2.4	1.7	1.1	1.1	6.1	13.8
25-Oct	1.1	1.1	1.4	Z	9.8	11.3	6.2	9.3	12.3	7.2	4.7	9.0	1.0	0.5	0.6	0.3	0.6	0.4	1.8	2.3	4.2	3.6	3.8	3.3	4.2	12.3
26-Oct	3.5	3.1	2.8	2.6	Z	2.7	4.2	2.9	3.3	8.8	14.0	15.8	13.3	10.7	9.0	8.4	10.0	8.5	7.2	5.1	3.0	2.5	2.2	2.2	6.3	15.8
27-Oct	2.1	1.5	1.3	1.7	0.6	Z	0.5	0.3	0.3	0.2	0.2	0.3	0.3	0.7	0.8	3.8	1.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7	3.8
28-Oct	Z	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2	1.7	1.5	1.2	1.9	8.2	6.2	7.4	1.4	8.2
29-Oct	7.1	Z	2.2	2.4	2.1	1.6	1.8	5.2	5.9	12.1	10.6	10.2	11.0	8.1	13.2	11.7	7.0	9.1	9.8	6.1	6.1	12.7	13.8	12.5	7.9	13.8
30-Oct	13.4	11.8	Z	9.0	14.4	12.4	10.0	7.5	1.9	1.2	2.4	0.4	1.6	5.1	4.1	3.6	4.5	7.5	7.8	6.6	4.8	3.1	3.1	3.9	6.1	14.4
31-Oct	2.8	2.0	4.8	Z	2.7	7.1	2.9	3.2	7.6	3.9	3.5	2.9	2.9	4.9	10.2	11.5	7.6	9.4	9.7	5.8	2.2	5.3	3.8	3.0	5.2	11.5
	4.5	3.9	3.8	3.7	4.1	5.5	5.1	4.5	5.0	5.0	4.9	4.2	3.7	3.1	3.2	3.5	3.8	4.1	3.8	3.7	4.3	4.6	4.1	4.3	Diurnal Average	
	13.4	18.6	14.4	14.0	15.9	21.0	20.4	10.8	13.3	12.7	14.0	15.8	13.3	10.7	13.2	11.7	13.3	10.7	9.8	13.6	15.1	22.1	24.8	22.3	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation PF - Power Failure

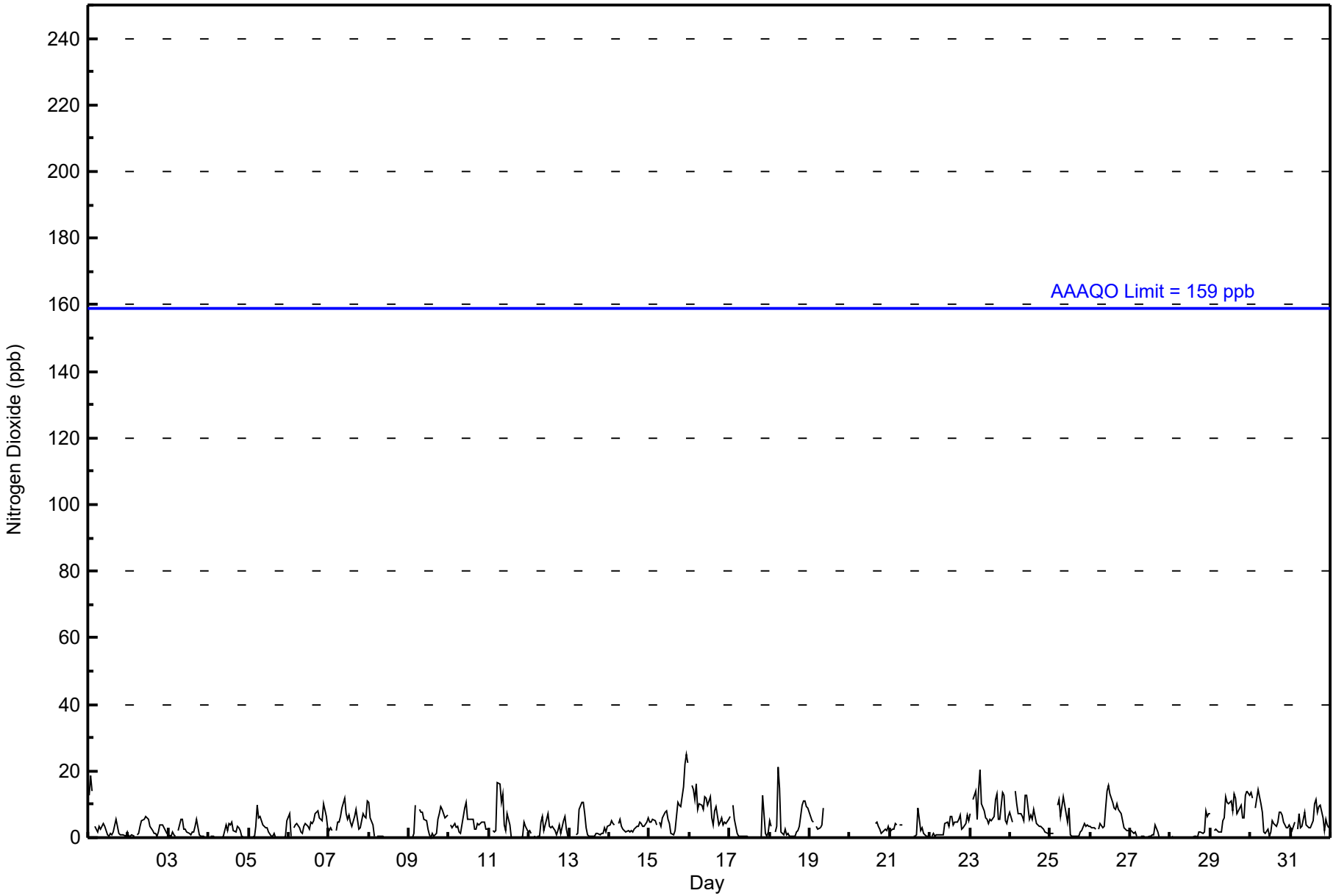
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Fort McKay South - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	674	99.41	99.41
21 - 40	4	0.59	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 678

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Fort McKay South - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	68	11	2	0	1	2	8	62	132	87	60	65	49	58	18	48	671
21 - 40	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	68	11	2	0	1	2	8	62	132	87	60	69	49	58	18	48	675

Total Number of Valid Hours: 675

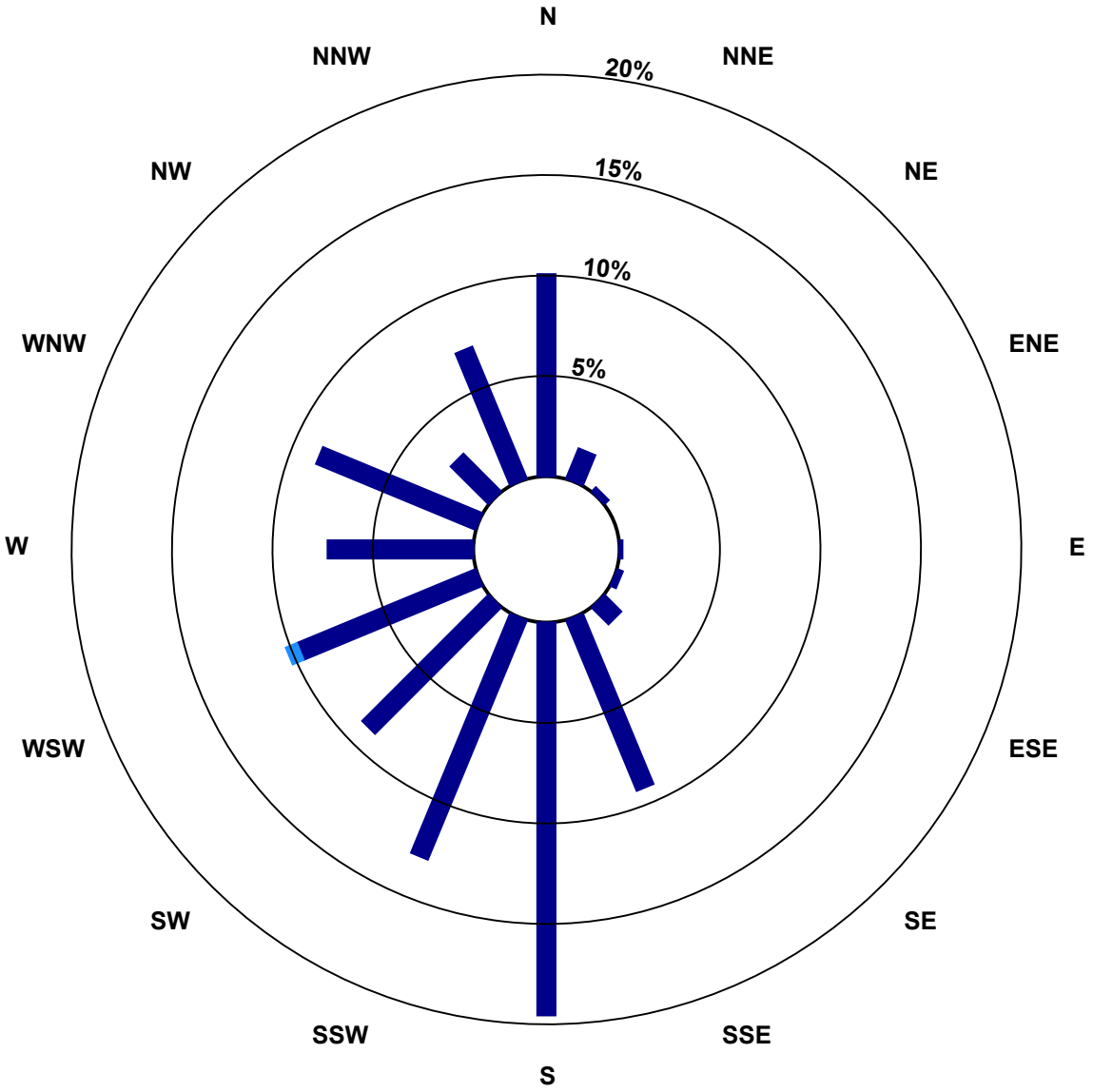
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Fort McKay South



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

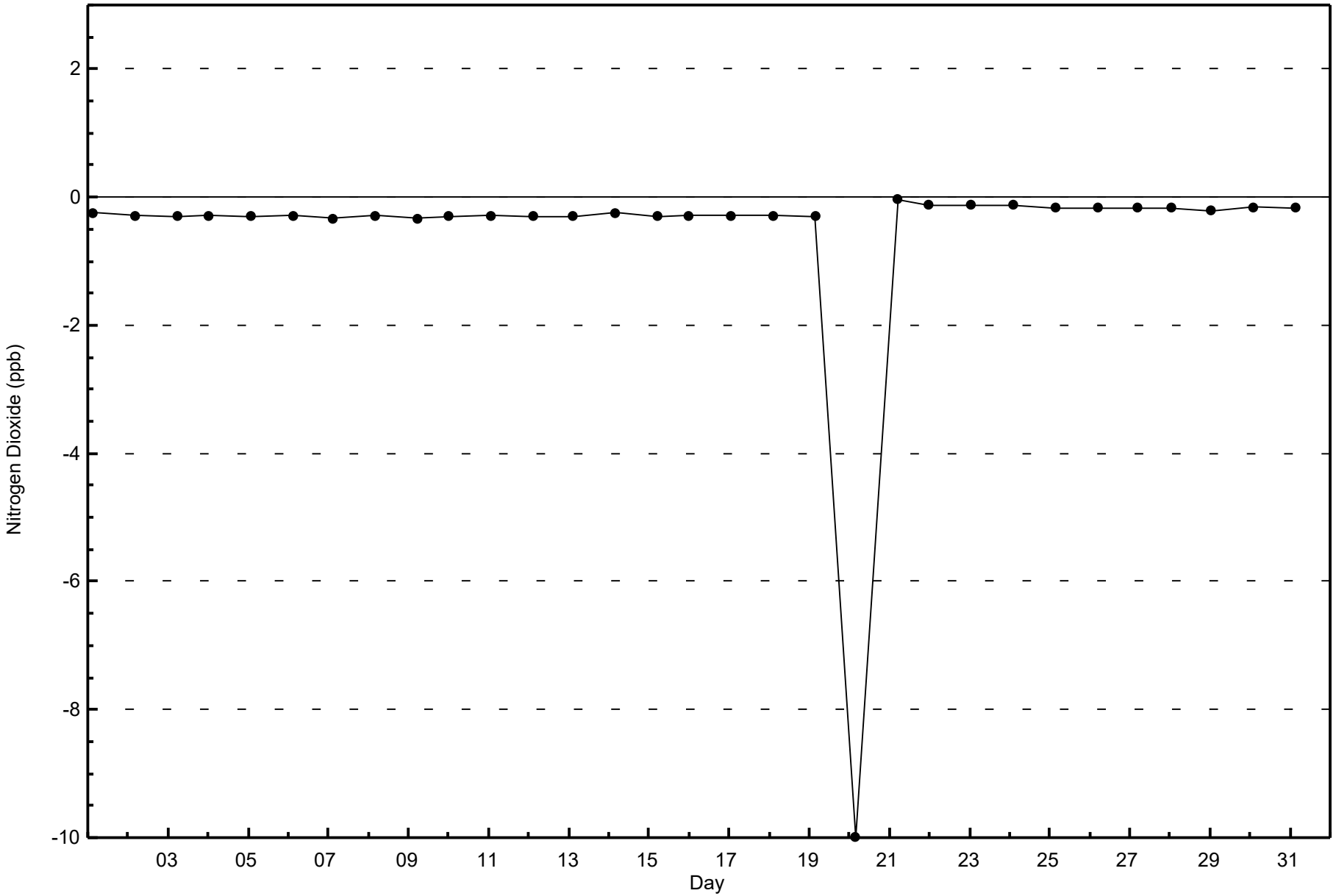
Total Number of Valid Hours: 675

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Fort McKay South - October 2025

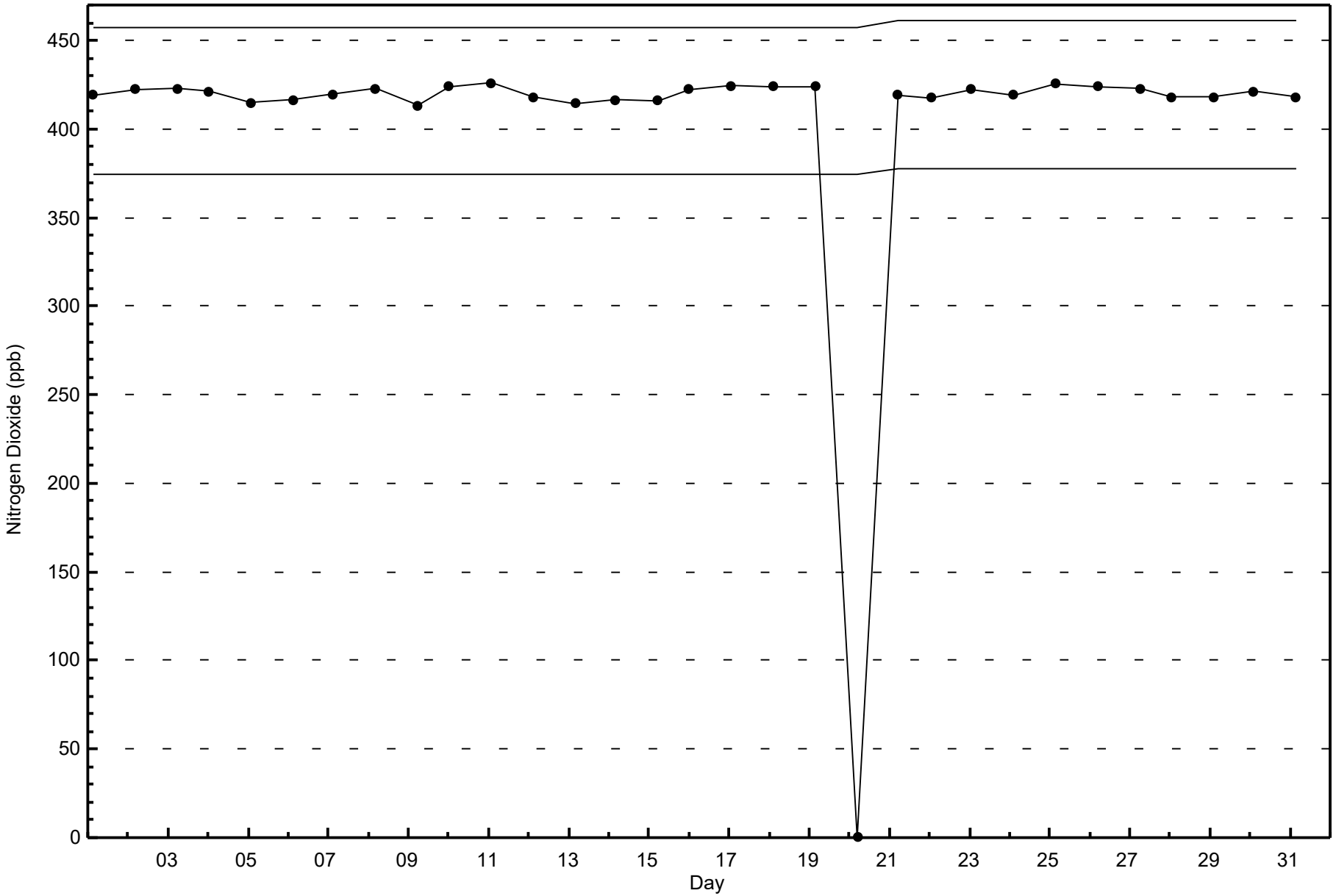


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Fort McKay South - October 2025

Maximum Value: 82.1 ppb on Oct 26 11:00

Maximum Daily Average: 16.7 ppb on Oct 26

Minimum Value: 0.1 ppb on Oct 27 22:00

Minimum Daily Average: 0.8 ppb on Oct 27

Maximum Diurnal Average: 10.1 ppb at hour 11

Minimum Diurnal Average: 3.9 ppb at hour 4

Monthly Average: 6.01 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.2 Q_1 = 1.2 Median = 3.7 Q_3 = 7.6 P_{90} = 14.1 P_{99} = 41.6

Hours in Service:	744
Hours of Data:	678
Hours of Missing Data:	66
Hours of Calibration:	34
Percent Operational Time:	95.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	12.7	21.3	14.0	Z	3.6	1.8	3.3	2.8	3.5	4.8	3.9	1.0	0.6	1.6	0.8	1.8	5.8	3.7	1.3	0.9	0.9	0.9	0.7	1.9	4.1	21.3
2-Oct	0.8	0.7	0.7	0.6	Z	3.0	9.2	29.8	18.7	13.0	12.7	10.4	7.4	4.4	2.6	1.5	1.3	0.7	2.0	4.1	3.8	3.2	2.4	1.4	5.8	29.8
3-Oct	1.2	0.9	2.0	1.0	0.7	Z	4.2	9.8	9.7	4.1	3.7	2.1	1.5	1.0	2.0	2.0	3.6	5.4	0.9	0.4	0.3	0.3	0.2	0.2	2.5	9.8
4-Oct	Z	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.4	5.0	2.6	5.2	4.6	5.1	2.2	1.6	3.3	2.9	2.0	0.4	0.1	0.1	0.2	1.6	5.2
5-Oct	0.2	Z	0.3	0.2	3.3	13.7	9.9	11.8	6.7	5.4	6.1	5.8	3.7	0.4	0.4	1.3	0.2	0.2	0.2	0.2	0.2	0.2	0.4	5.0	3.3	13.7
6-Oct	7.0	0.6	Z	3.1	4.0	4.4	3.0	2.0	1.5	4.4	5.9	5.0	3.9	7.0	6.1	7.1	8.7	8.6	6.2	5.5	5.1	10.6	6.8	2.6	5.2	10.6
7-Oct	2.1	2.8	2.2	Z	2.2	4.6	4.6	7.1	11.9	19.0	10.0	8.2	11.9	8.1	4.9	7.7	9.4	5.8	2.9	5.6	28.3	40.1	40.9	44.0	12.4	44.0
8-Oct	22.3	7.8	3.9	0.7	Z	0.5	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.7	22.3
9-Oct	0.2	0.2	0.2	1.4	10.2	Z	10.0	13.7	18.9	12.3	9.6	4.3	1.2	0.2	1.4	0.7	1.5	5.7	7.2	9.6	8.7	6.0	6.6	7.0	5.9	18.9
10-Oct	Z	4.2	3.0	4.3	3.4	4.0	2.7	2.4	10.2	16.0	19.1	9.0	8.4	8.0	7.6	2.7	2.6	4.3	3.9	4.6	4.8	4.6	2.6	2.4	5.9	19.1
11-Oct	2.4	Z	2.3	2.0	2.3	47.2	21.8	10.9	15.8	4.5	2.4	8.4	4.4	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.4	4.5	3.2	1.5	5.9	47.2
12-Oct	2.2	1.3	Z	0.4	0.2	0.3	0.4	5.0	7.4	2.5	7.0	9.1	4.1	3.8	4.2	2.2	1.1	2.2	3.8	1.1	5.2	6.3	2.4	0.3	3.1	9.1
13-Oct	0.1	0.1	0.1	Z	1.0	1.1	8.8	14.4	17.0	12.8	4.8	1.3	0.8	0.6	0.5	0.7	1.5	1.4	1.0	1.4	1.5	3.2	2.0	3.3	3.5	17.0
14-Oct	3.8	5.1	4.2	3.8	Z	4.4	5.6	3.6	3.0	3.2	2.7	3.0	2.5	3.2	2.3	3.4	3.6	3.3	4.7	4.1	3.5	3.6	4.8	5.8	3.8	5.8
15-Oct	4.7	4.7	5.5	5.0	3.8	Z	4.5	3.8	8.5	11.7	12.7	7.3	5.9	1.3	1.0	2.6	6.9	10.9	9.8	9.4	15.8	24.0	26.2	23.3	9.1	26.2
16-Oct	Z	19.8	17.6	13.3	18.0	8.5	12.0	17.5	20.9	21.4	20.0	16.7	18.6	7.6	4.5	8.9	10.1	4.0	4.5	6.1	4.0	4.6	4.2	5.7	11.7	21.4
17-Oct	6.5	Z	9.7	5.6	1.1	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	5.9	27.4	2.3	0.4	1.9	2.8	27.4
18-Oct	5.0	3.3	Z	1.5	3.5	34.4	22.3	1.9	1.3	3.4	1.2	1.7	0.7	0.5	0.6	0.6	1.7	2.4	3.7	10.4	16.1	18.1	25.4	32.8	8.4	34.4
19-Oct	24.9	14.9	11.7	Z	10.0	7.1	7.1	13.0	52.1	PF	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	52.1
20-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	C	C	C	C	5.1	5.0	3.4	2.6	1.4	2.4	2.8	2.3	3.6	--	5.1
21-Oct	2.0	2.5	2.5	4.7	3.8	Z	4.2	5.1	M	M	M	M	M	M	0.7	0.8	0.9	10.2	2.3	2.9	1.5	1.0	0.7	0.5	--	10.2
22-Oct	Z	0.8	1.6	1.2	1.9	3.4	3.9	3.4	4.0	15.5	12.1	6.7	14.0	11.7	5.2	5.7	6.6	8.4	10.0	2.8	2.9	4.4	7.0	5.0	6.0	15.5
23-Oct	7.3	Z	11.6	14.2	5.7	14.8	22.1	10.5	8.6	8.2	8.5	6.6	8.2	7.7	7.6	13.2	14.3	5.4	5.6	13.8	12.6	5.2	4.1	6.2	9.7	22.1
24-Oct	7.6	4.6	Z	13.9	10.3	7.2	7.3	6.9	6.5	23.1	23.0	8.1	9.7	6.4	10.1	7.6	4.6	3.6	3.7	3.1	2.5	1.8	1.2	1.2	7.6	23.1
25-Oct	1.2	1.3	1.6	Z	17.1	19.1	13.4	14.7	33.0	14.8	5.7	12.0	1.1	0.6	0.7	0.4	0.7	0.4	1.8	2.4	4.3	3.8	4.0	3.6	6.9	33.0
26-Oct	3.7	3.3	3.0	3.0	Z	3.9	5.9	5.3	11.6	47.4	82.1	76.4	46.4	27.3	13.5	10.2	10.8	8.7	7.3	5.2	3.0	2.5	2.2	2.2	16.7	82.1
27-Oct	2.1	1.5	1.3	1.7	0.6	Z	0.5	0.3	0.3	0.3	0.3	0.3	0.4	0.8	0.9	4.1	1.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.8	4.1
28-Oct	Z	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2	1.7	1.5	1.2	1.9	8.4	6.4	7.5	1.4	8.4
29-Oct	7.1	Z	2.2	2.4	2.1	1.6	1.8	5.4	6.2	17.0	15.8	13.4	16.0	10.4	17.8	14.9	7.5	9.2	9.9	6.2	6.1	14.1	16.5	17.1	9.6	17.8
30-Oct	16.9	16.8	Z	9.6	14.6	12.4	10.1	7.7	2.1	1.3	2.8	0.4	2.1	6.1	4.6	3.8	4.6	7.5	7.8	6.6	4.8	3.1	3.1	3.9	6.6	16.9
31-Oct	2.8	2.0	4.8	Z	2.7	7.1	2.9	3.4	10.1	5.9	5.7	4.4	4.3	7.0	13.7	13.8	8.1	9.5	9.8	5.8	2.2	5.3	3.8	3.0	6.0	13.8
	5.9	4.8	4.3	3.9	4.9	8.2	6.8	7.1	10.0	9.7	10.1	8.0	6.6	4.7	4.1	4.2	4.2	4.4	3.9	4.1	5.7	6.2	6.0	6.4	Diurnal Average	
	24.9	21.3	17.6	14.2	18.0	47.2	22.3	29.8	52.1	47.4	82.1	76.4	46.4	27.3	17.8	14.9	14.3	10.9	10.0	13.8	28.3	40.1	40.9	44.0	Diurnal Maximum	

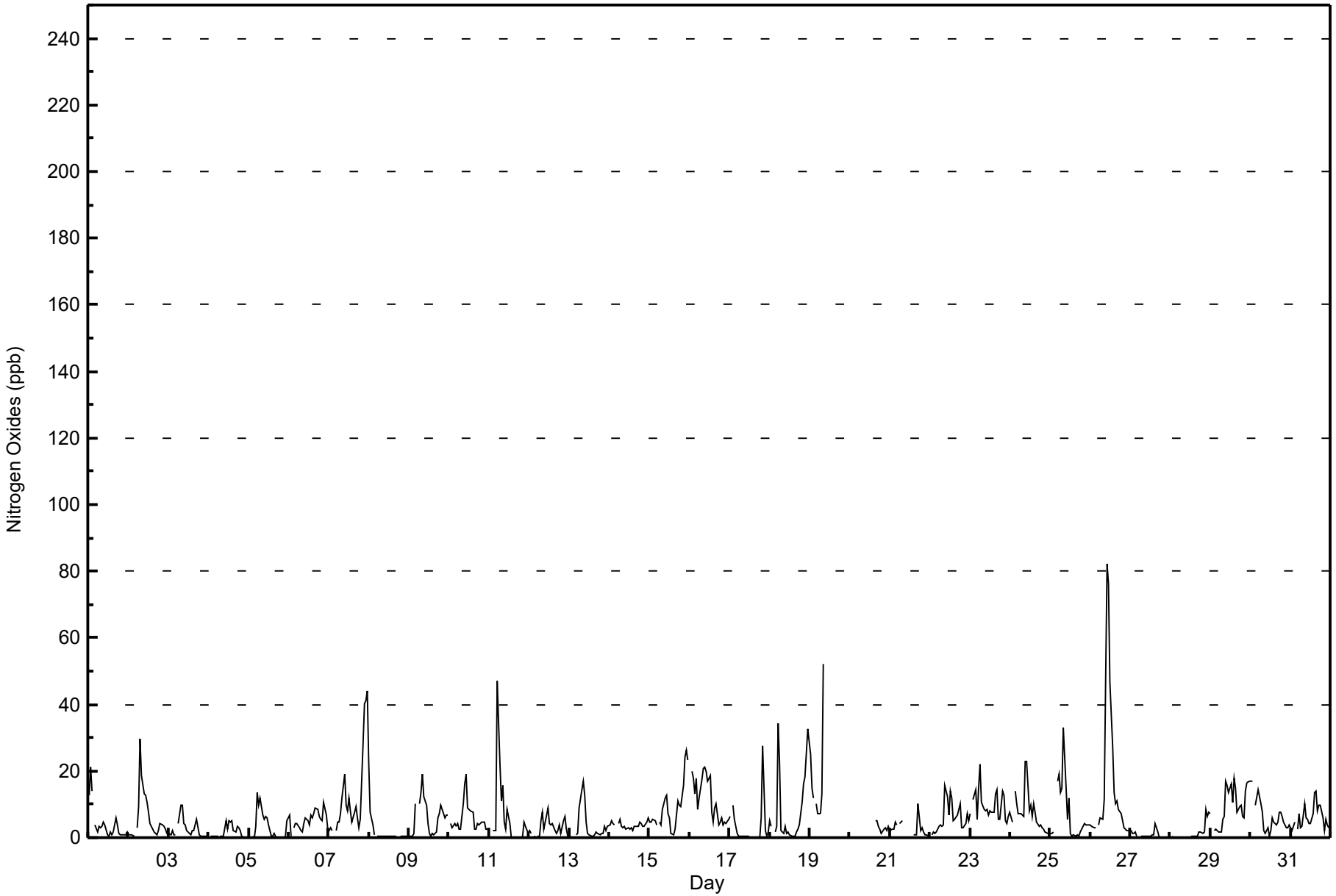
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Fort McKay South - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	648	95.58	95.58
21 - 40	22	3.24	98.82
11 - 80	7	1.03	99.85
81 - 159	1	0.15	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 678

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Fort McKay South - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	62	10	2	0	1	2	7	60	129	87	57	64	47	54	18	45	645
21 - 40	2	0	0	0	0	0	1	2	3	0	3	5	2	3	0	1	22
11 - 80	3	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	7
81 - 159	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	68	11	2	0	1	2	8	62	132	87	60	69	49	58	18	48	675

Total Number of Valid Hours: 675

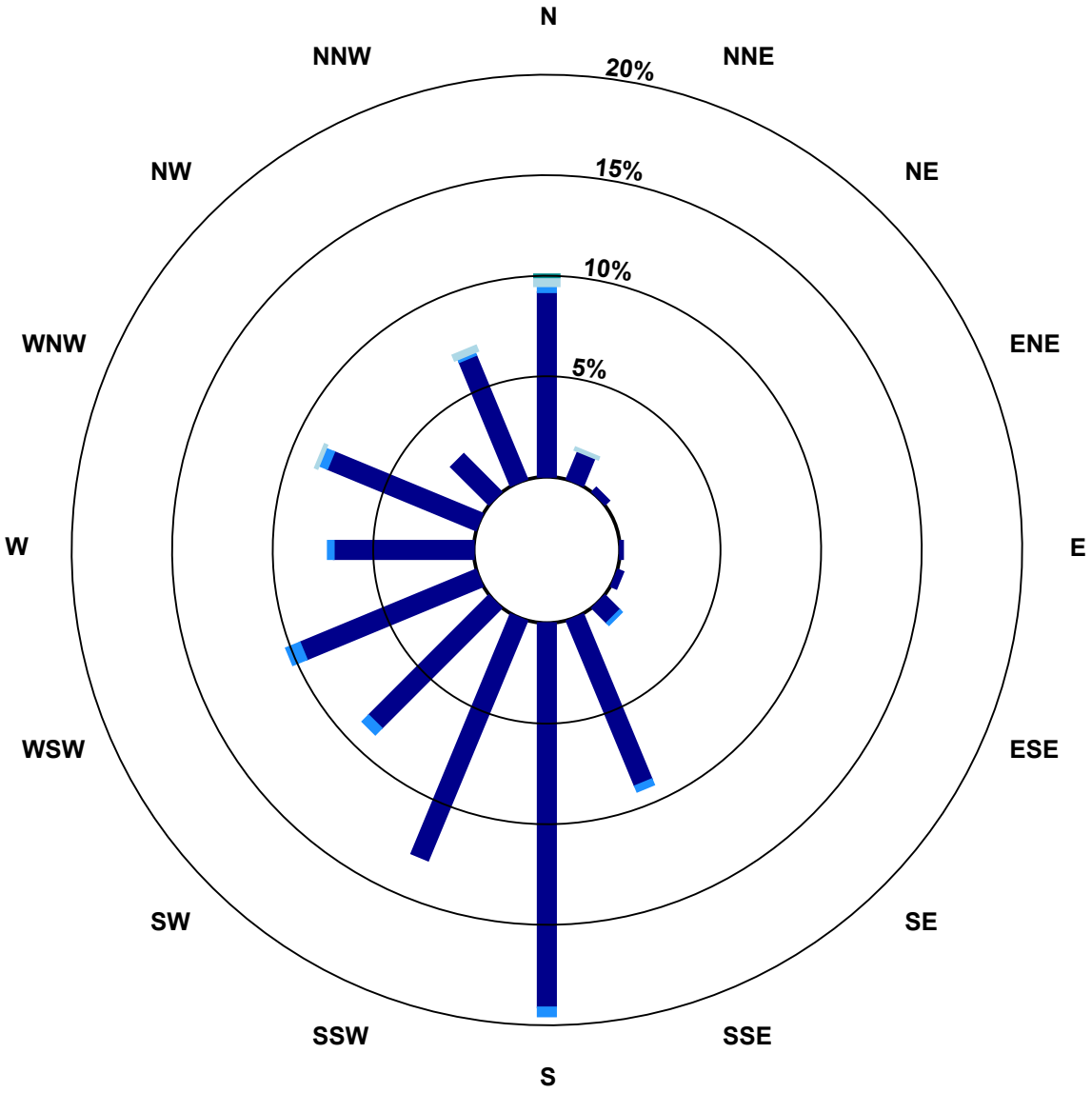
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Fort McKay South



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

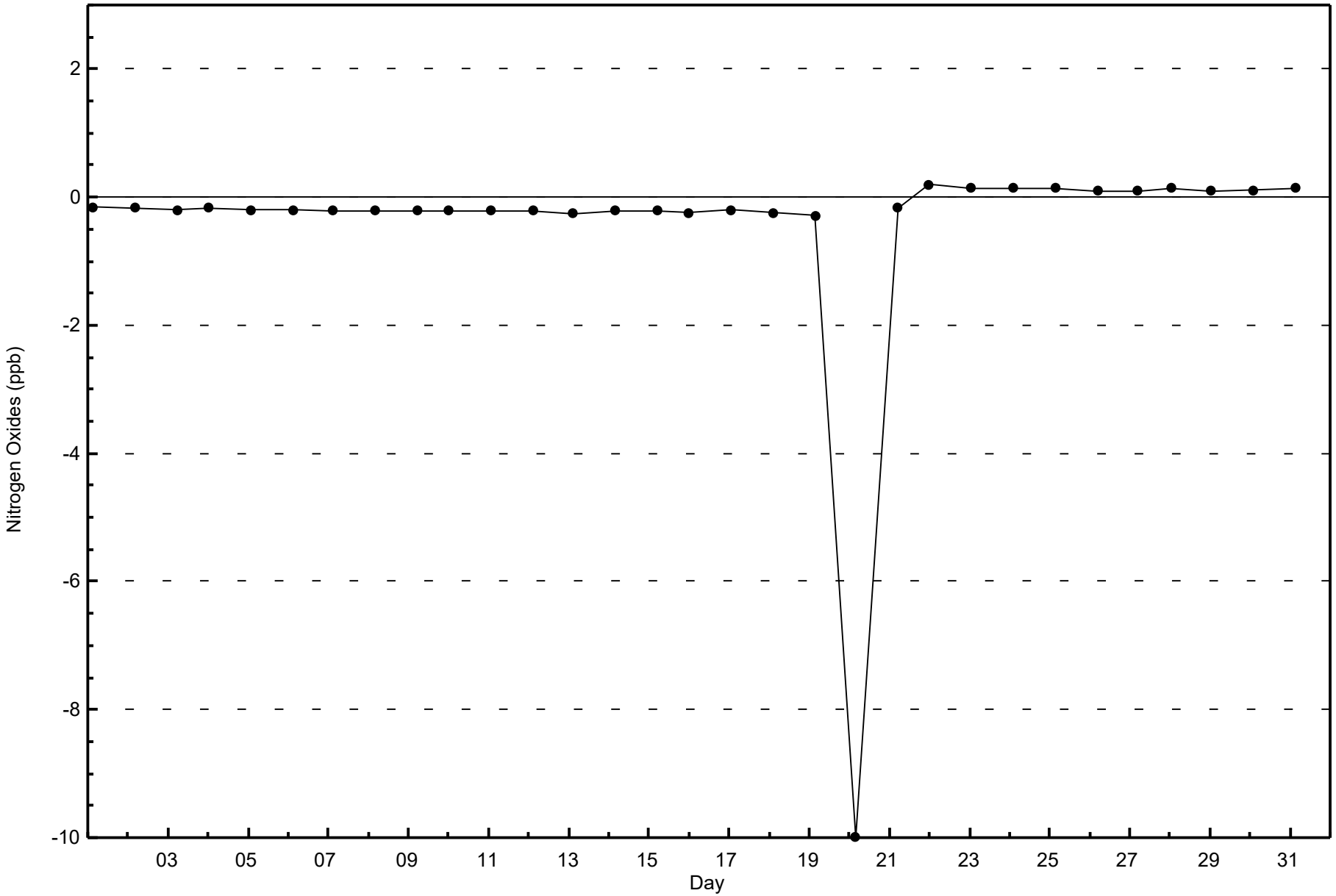
Total Number of Valid Hours: 675

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Fort McKay South - October 2025

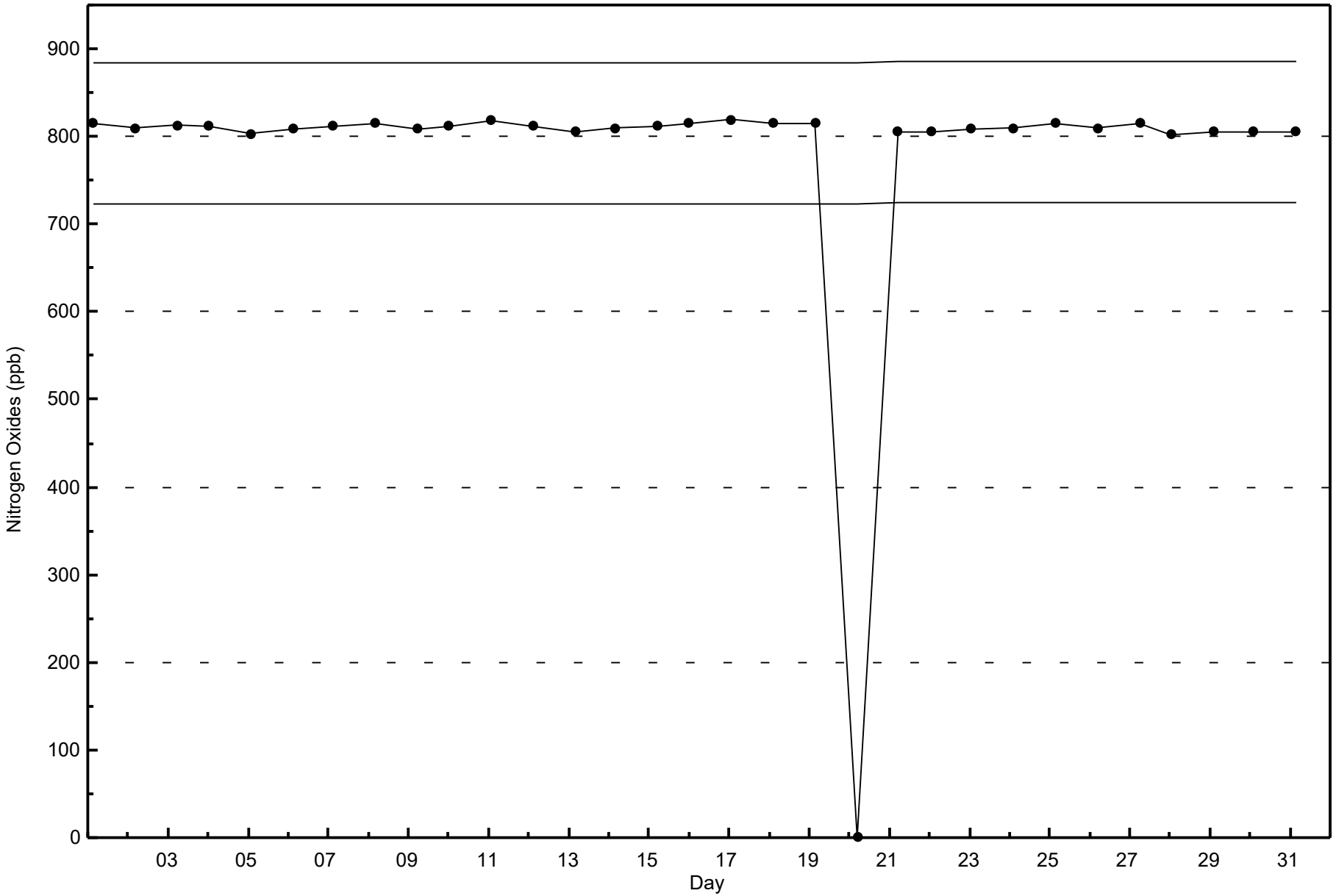


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort McKay South - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 20.8 $\mu g/m^3$ on Oct 7 10:00

Maximum Daily Average: 9.3 $\mu g/m^3$ on Oct 1

Minimum Value: 0.1 $\mu g/m^3$ on Oct 28 03:00

Minimum Daily Average: 0.4 $\mu g/m^3$ on Oct 27

Maximum Diurnal Average: 5.5 $\mu g/m^3$ at hour 10

Minimum Diurnal Average: 3.4 $\mu g/m^3$ at hour 24

Monthly Average: 4.15 $\mu g/m^3$

Percentiles: $P_1 = 0.1$ $P_{10} = 0.6$ $Q_1 = 2.0$ Median = 3.9 $Q_3 = 5.4$ $P_{90} = 7.2$ $P_{99} = 15.5$

Hours in Service:	744
Hours of Data:	743
Hours of Missing Data:	1
Hours of Calibration:	1
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	16.8	16.3	17.0	15.9	14.2	11.9	12.0	11.9	15.2	15.7	11.7	6.5	4.3	4.0	4.1	3.9	4.9	4.9	4.8	4.8	5.1	5.3	5.7	6.0	9.3	17.0
2-Oct	5.3	4.3	3.9	4.2	4.5	4.6	5.0	4.5	8.5	12.0	13.4	8.8	5.2	4.4	4.3	3.8	4.4	4.6	5.2	6.2	6.3	6.4	7.1	7.9	6.0	13.4
3-Oct	8.5	7.8	8.2	8.5	8.2	8.1	11.5	11.5	8.1	5.0	3.9	2.7	3.0	3.2	4.0	4.4	4.3	5.4	3.4	2.6	2.1	2.1	2.2	2.6	5.5	11.5
4-Oct	3.4	3.9	3.9	4.3	4.3	4.0	3.3	3.1	2.8	2.8	4.4	3.9	4.0	3.4	3.5	2.6	1.0	0.5	0.5	1.2	1.2	1.0	0.9	0.7	2.7	4.4
5-Oct	0.6	0.8	1.0	1.1	1.4	2.6	3.6	4.8	5.4	6.7	6.5	7.7	13.3	16.1	16.8	9.9	3.3	2.0	1.7	1.4	1.3	1.6	1.5	1.7	4.7	16.8
6-Oct	1.9	1.1	2.1	1.7	1.7	2.0	1.7	0.7	0.6	0.8	1.1	1.2	1.1	2.2	2.3	3.6	4.5	5.7	4.2	4.1	3.9	5.9	4.3	1.8	2.5	5.9
7-Oct	1.5	2.0	1.9	3.7	2.5	4.7	3.8	3.9	6.4	20.8	9.3	5.0	7.5	5.3	4.1	5.7	7.4	5.8	4.5	4.1	5.9	6.0	6.0	6.0	5.6	20.8
8-Oct	5.7	4.9	4.2	2.9	2.2	2.1	2.7	3.0	2.7	2.3	1.8	2.6	2.9	2.7	2.7	2.4	1.7	1.9	1.6	1.0	0.9	1.0	1.0	0.7	2.4	5.7
9-Oct	0.7	0.8	0.6	0.6	1.8	1.6	3.0	4.8	5.1	4.9	6.0	7.0	7.0	4.2	6.2	5.9	5.9	6.8	6.9	7.7	6.4	4.6	4.1	4.0	4.4	7.7
10-Oct	3.4	3.0	2.8	3.1	3.0	2.9	3.0	3.4	6.1	9.2	12.4	6.9	6.8	6.7	7.9	10.8	9.3	8.2	8.8	7.2	6.5	6.4	5.5	5.5	6.2	12.4
11-Oct	5.5	5.5	6.1	6.2	5.8	8.9	8.1	6.6	6.6	3.9	2.9	2.7	2.5	1.4	0.6	0.4	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.3	3.2	8.9
12-Oct	0.3	0.4	0.6	0.5	0.4	0.3	0.3	0.5	0.6	0.5	0.5	0.7	0.6	0.7	0.6	0.5	0.5	0.6	1.0	0.6	1.2	1.4	1.1	0.5	0.6	1.4
13-Oct	0.4	0.5	0.5	0.5	0.4	0.5	0.8	1.5	2.7	2.8	3.7	6.1	5.9	5.2	4.5	3.7	3.4	3.5	2.8	3.2	4.5	5.0	4.9	4.1	3.0	6.1
14-Oct	4.0	3.8	3.8	3.8	3.9	3.7	4.0	4.8	4.5	4.9	4.8	4.7	5.1	4.0	3.5	4.3	4.9	5.7	7.4	4.6	4.3	4.2	4.3	4.1	4.5	7.4
15-Oct	4.1	4.4	4.6	4.1	4.0	4.2	4.1	4.0	4.2	5.2	5.5	4.4	4.6	5.1	5.4	5.4	7.9	8.8	10.6	8.4	9.2	8.7	5.9	5.3	5.7	10.6
16-Oct	6.0	5.6	5.3	6.0	6.4	6.6	8.0	7.1	8.7	14.9	14.5	11.5	11.3	11.5	6.4	7.0	7.1	5.2	4.6	5.6	5.7	4.4	3.6	3.6	7.4	14.9
17-Oct	3.4	3.8	4.2	4.6	4.4	4.4	4.1	3.2	1.6	1.5	1.6	1.9	1.8	1.7	1.4	1.1	1.0	1.0	1.0	1.5	2.7	1.9	0.9	0.9	2.3	4.6
18-Oct	1.0	1.0	0.8	0.7	0.8	2.3	2.1	1.2	1.6	1.8	1.5	1.4	1.2	1.3	1.2	0.9	1.9	2.2	2.5	4.1	5.0	5.1	5.3	5.2	2.2	5.3
19-Oct	4.6	4.1	4.9	4.4	3.5	3.1	4.2	4.2	5.8	8.3	7.2	5.5	6.0	6.6	4.8	4.4	3.9	3.0	2.8	2.7	2.5	2.5	2.3	2.8	4.3	8.3
20-Oct	2.8	2.6	2.2	1.6	1.3	1.1	1.0	0.9	1.1	2.2	3.1	3.2	2.7	5.3	4.6	3.8	3.8	4.1	4.9	4.6	5.5	5.6	4.4	4.7	3.2	5.6
21-Oct	4.1	4.6	5.0	5.7	5.4	5.1	4.5	3.8	3.7	3.8	3.5	2.7	2.3	1.9	1.6	1.7	2.5	4.3	3.8	3.8	3.6	3.5	3.4	3.3	3.6	5.7
22-Oct	3.3	3.4	3.7	3.5	3.4	3.4	3.3	3.2	3.3	4.8	4.7	4.2	7.2	6.3	3.7	5.2	4.2	5.0	5.4	6.4	4.7	5.6	6.1	5.8	4.6	7.2
23-Oct	6.9	9.3	11.2	9.7	5.0	7.1	8.1	5.3	3.7	3.9	5.2	3.8	5.2	6.0	6.4	15.1	14.1	8.9	8.3	11.9	10.2	5.9	4.2	4.4	7.5	15.1
24-Oct	5.4	5.0	5.1	9.5	6.6	4.7	4.6	5.6	5.0	7.5	9.1	5.8	7.5	4.8	6.9	6.3	5.2	5.2	5.5	5.3	4.7	4.2	4.0	4.8	5.8	9.5
25-Oct	5.5	5.4	5.5	5.7	6.1	6.4	6.1	6.8	7.4	6.2	4.5	4.9	3.3	1.9	3.0	3.8	2.9	2.1	1.9	2.3	2.5	2.5	2.7	2.9	4.3	7.4
26-Oct	3.0	2.9	3.1	3.1	3.3	3.0	3.8	3.2	3.1	4.0	5.5	6.2	5.5	4.9	4.0	3.6	3.3	3.2	2.5	2.2	2.4	1.7	1.5	1.4	3.4	6.2
27-Oct	1.6	1.4	1.1	0.9	0.5	0.4	0.5	0.4	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	1.6
28-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.3	0.3	0.5	0.6	0.7	0.7	0.7	0.7	1.0	1.2	1.7	0.5	1.7
29-Oct	2.0	2.3	2.0	2.6	2.9	2.9	3.3	3.4	3.6	3.7	3.6	3.7	3.8	3.5	3.3	3.4	2.9	3.0	3.4	3.5	3.1	3.1	3.0	3.0	3.1	3.8
30-Oct	3.3	3.1	3.0	3.7	4.4	5.1	5.8	5.4	3.6	3.8	4.0	3.8	C	4.0	4.0	4.5	5.2	5.2	5.1	5.2	5.1	4.6	3.7	3.6	4.3	5.8
31-Oct	4.0	4.2	4.8	5.5	5.6	6.2	6.2	6.3	6.3	5.6	5.6	5.6	6.4	6.3	6.5	6.5	6.0	5.4	5.5	4.6	4.2	4.4	4.7	4.7	5.5	6.5
	3.8	3.8	4.0	4.1	3.8	4.0	4.3	4.2	4.5	5.5	5.2	4.4	4.6	4.4	4.2	4.4	4.1	4.0	3.9	3.9	3.9	3.7	3.4	3.4	Diurnal Average	
	16.8	16.3	17.0	15.9	14.2	11.9	12.0	11.9	15.2	20.8	14.5	11.5	13.3	16.1	16.8	15.1	14.1	8.9	10.6	11.9	10.2	8.7	7.1	7.9	Diurnal Maximum	

C - Calibration

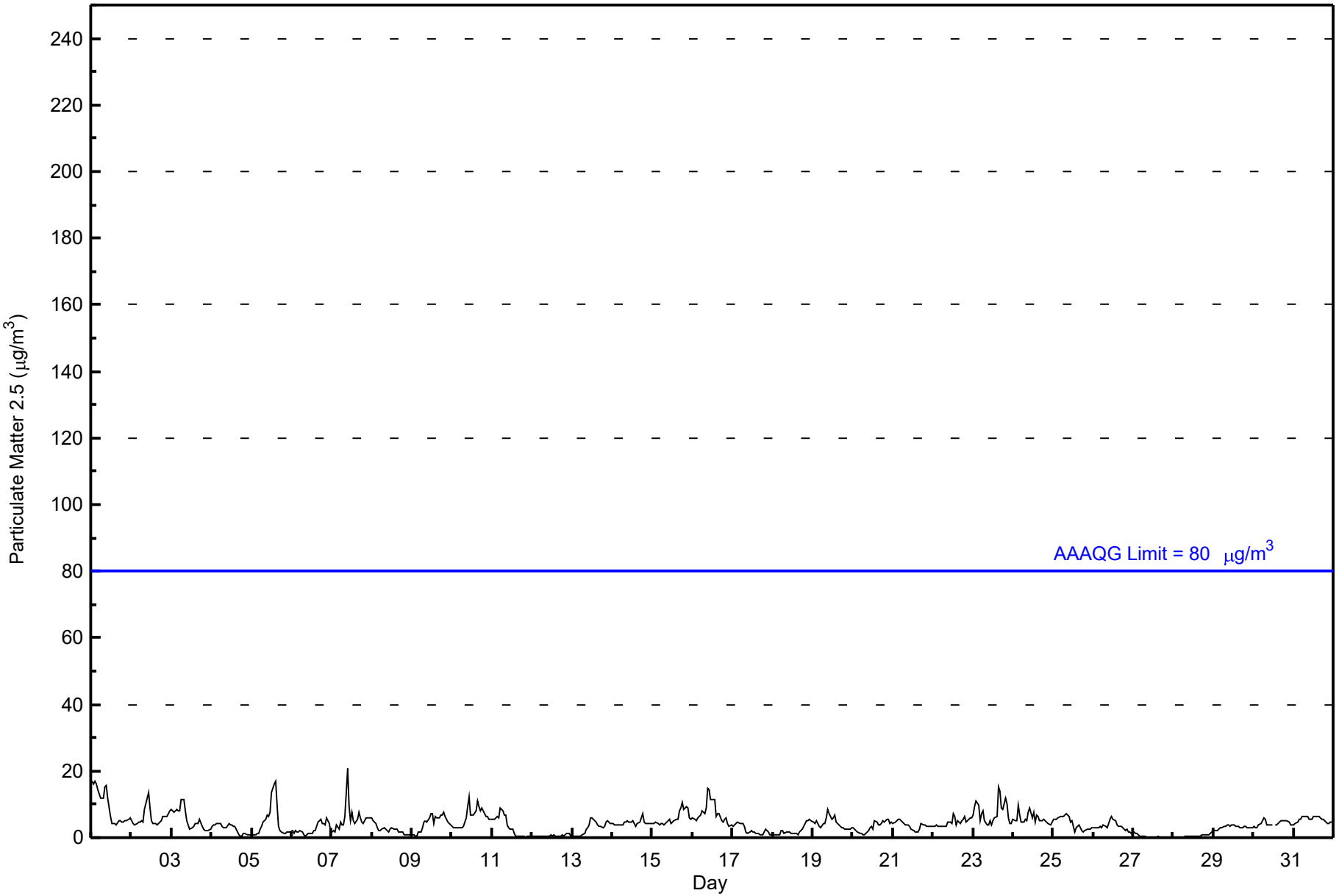
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 $\mu g/m^3$ 24-hr 29 $\mu g/m^3$

Wood Buffalo Environmental Association

Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort McKay South - October 2025

Concentration Ranges ($\mu g/m^3$)	Number of Hours	%	Cumulative %
0 - 5	564	75.91	75.91
6 - 15	171	23.01	98.92
16 - 25	8	1.08	100.00
26 - 80	0	0.00	100.00
> 81.0	0	0.00	100.00

Total Number of Valid Hours: 743

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort McKay South - October 2025

Concentration Ranges ($\mu g/m^3$)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	75	11	2	0	1	1	4	26	94	70	43	66	48	57	18	46	562
6 - 15	16	1	0	0	0	1	5	40	46	19	17	11	3	7	0	4	170
16 - 25	2	0	0	0	0	0	0	0	1	0	1	1	0	0	0	3	8
26 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	93	12	2	0	1	2	9	66	141	89	61	78	51	64	18	53	740

Total Number of Valid Hours: 740

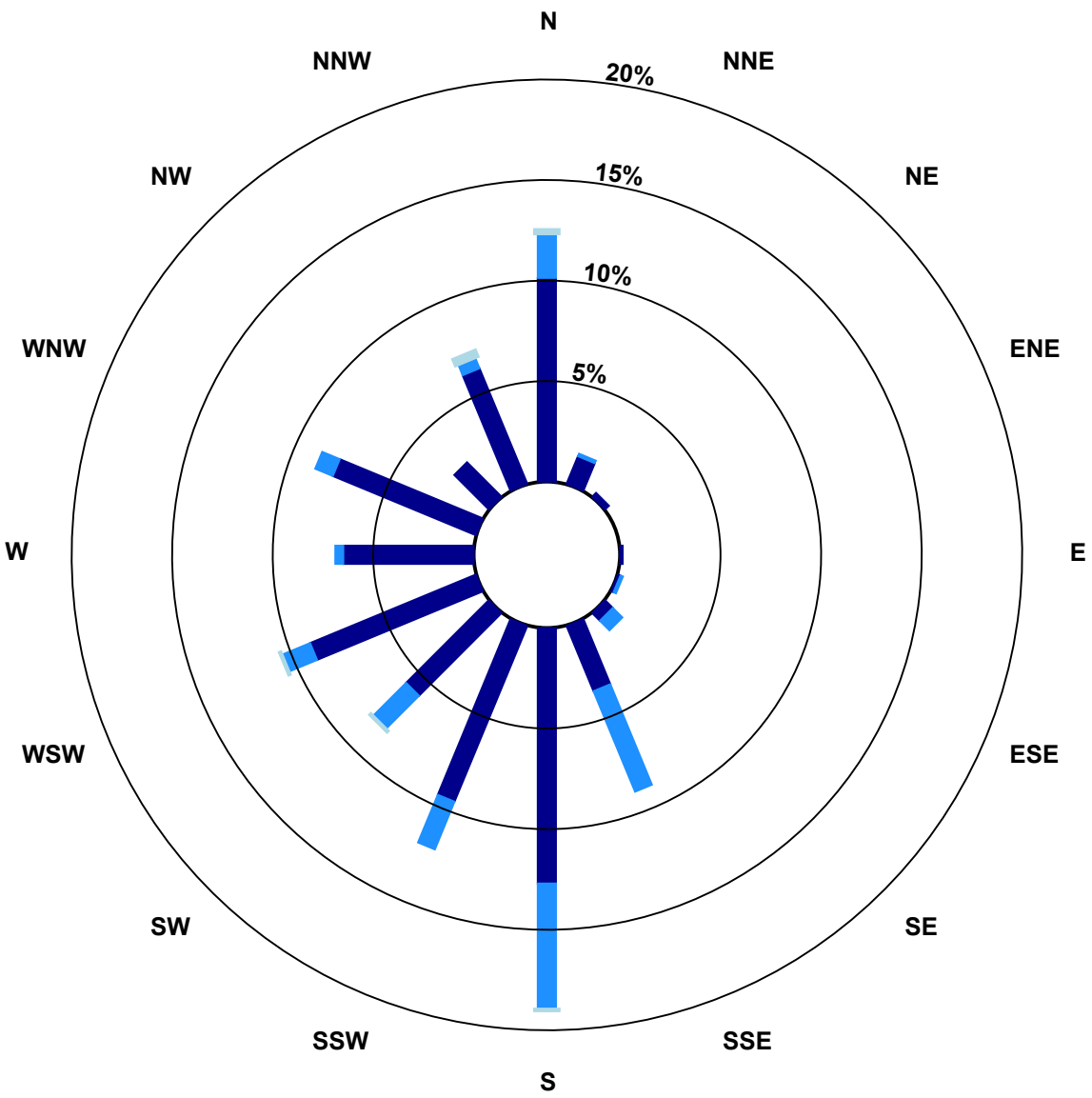
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort McKay South



Classes ($\mu g/m^3$)

0 - 5

6 - 15

16 - 25

26 - 80

> 81.0

Total Number of Valid Hours: 740

Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

Fort McKay South - October 2025

Maximum Value: 21.6 C on Oct 10 16:00

Maximum Daily Average: 9.0 C on Oct 3

Minimum Value: -5.4 C on Oct 13 08:00

Minimum Daily Average: -0.4 C on Oct 29

Maximum Diurnal Average: 8.5 C at hour 16

Minimum Diurnal Average: 0.9 C at hour 7

Monthly Average: 3.94 C

Percentiles: P_1 = -4.0 P_{10} = -1.3 Q_1 = 0.2 Median = 3.0 Q_3 = 7.1 P_{90} = 10.6 P_{99} = 16.3

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

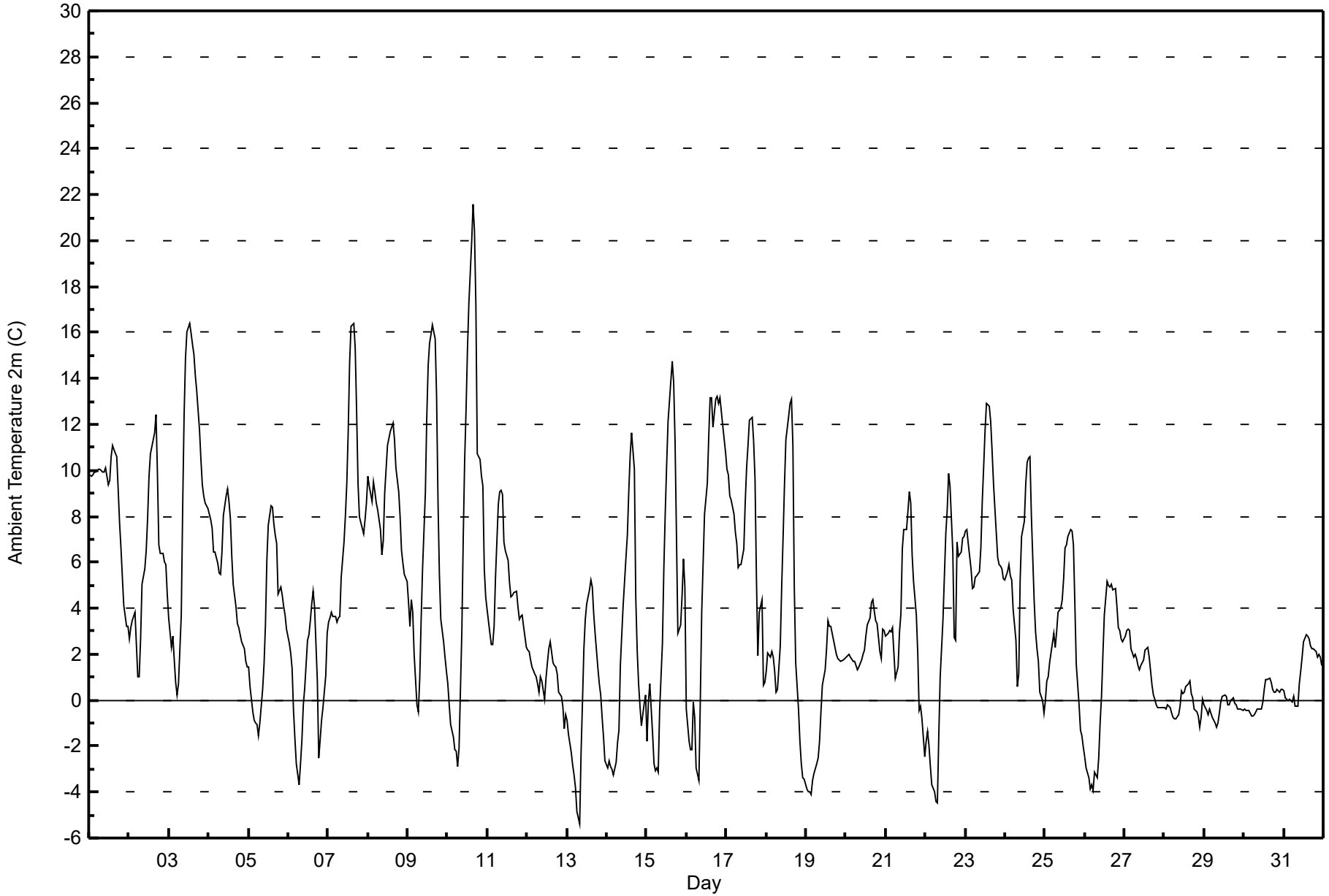
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	9.8	9.7	9.8	9.9	9.9	10.0	10.0	10.0	9.9	9.9	10.1	9.4	9.6	10.6	11.1	10.9	10.6	9.2	7.7	6.6	5.3	4.1	3.2	3.2	8.8	11.1
2-Oct	2.7	3.2	3.5	3.8	2.4	1.0	1.0	2.7	5.0	5.7	6.5	7.9	9.8	10.7	11.3	11.6	12.4	9.9	6.8	6.4	6.4	6.0	5.9	4.6	6.1	12.4
3-Oct	3.6	2.3	2.8	1.7	0.8	0.2	0.7	3.7	8.4	12.4	14.8	16.0	16.4	16.0	15.5	15.1	14.1	13.5	11.8	10.5	9.4	8.9	8.6	8.3	9.0	16.4
4-Oct	8.1	7.9	7.5	6.4	6.5	6.0	5.6	5.5	6.4	8.0	8.9	9.2	8.6	7.9	6.3	5.0	4.1	3.3	3.2	2.9	2.5	2.2	1.7	1.5	5.6	9.2
5-Oct	1.4	0.6	-0.5	-0.9	-1.0	-1.1	-1.5	-1.0	0.5	1.6	3.3	6.1	7.6	8.5	8.4	7.7	7.2	6.8	4.6	4.9	4.6	4.1	3.7	3.1	3.3	8.5
6-Oct	2.5	2.1	1.4	-0.4	-1.6	-2.7	-3.7	-2.8	-1.7	-0.2	0.5	2.6	2.8	3.5	4.2	4.8	4.0	0.8	-2.5	-1.7	-0.9	-0.4	1.1	2.9	0.6	4.8
7-Oct	3.4	3.6	3.8	3.6	3.7	3.4	3.6	3.7	5.3	6.9	8.1	9.4	11.7	14.7	16.3	16.4	15.3	12.6	9.4	7.9	7.5	7.2	7.8	8.6	8.1	16.4
8-Oct	9.7	9.3	8.6	9.5	9.1	8.6	8.3	7.4	6.4	7.0	9.0	10.1	11.1	11.7	11.9	12.1	11.3	10.1	9.1	7.9	6.5	5.9	5.5	5.2	8.8	12.1
9-Oct	4.2	3.2	4.4	3.8	2.0	-0.2	-0.5	1.0	3.5	5.7	9.0	12.3	14.5	15.5	15.9	16.3	15.7	13.2	8.7	5.5	3.5	2.5	1.9	1.3	6.8	16.3
10-Oct	0.7	-0.2	-1.0	-1.6	-2.1	-2.2	-2.9	-2.1	2.9	7.0	10.4	12.6	15.2	17.3	20.0	21.6	20.4	17.2	10.7	10.5	9.8	9.3	5.7	4.5	7.7	21.6
11-Oct	3.9	2.9	2.4	2.4	3.2	5.4	8.5	9.1	9.1	8.9	6.8	6.5	6.1	5.1	4.5	4.5	4.7	4.7	4.1	3.5	3.7	3.7	3.2	2.3	5.0	9.1
12-Oct	2.2	2.1	1.7	1.5	1.1	1.0	0.7	0.4	1.0	0.9	0.0	0.9	1.6	2.2	2.5	1.6	1.5	1.4	1.1	0.3	0.2	-0.3	-1.2	-0.6	1.0	2.5
13-Oct	-0.9	-1.5	-2.3	-2.8	-3.2	-3.8	-4.8	-5.4	-2.3	-0.1	2.3	3.5	4.2	4.8	5.2	4.9	3.7	2.9	1.4	0.7	0.2	-0.8	-1.6	-2.6	0.1	5.2
14-Oct	-2.9	-2.7	-2.9	-3.0	-3.2	-2.7	-1.9	-1.3	1.5	2.8	4.2	6.2	7.2	9.1	10.7	11.6	10.1	4.4	2.2	0.7	-0.3	-1.1	-0.1	0.2	2.0	11.6
15-Oct	-1.8	-0.1	0.7	-1.5	-2.8	-3.1	-3.0	-3.1	-0.4	2.5	5.7	8.2	10.2	12.1	13.9	14.7	13.8	11.3	7.2	2.9	3.3	4.6	6.2	4.9	4.4	14.7
16-Oct	-0.4	-1.8	-2.1	-2.2	-0.1	-0.8	-3.0	-3.5	0.0	3.8	6.0	8.1	9.4	11.5	13.2	13.2	11.9	13.1	13.2	12.9	13.2	12.6	12.0	10.8	6.3	13.2
17-Oct	10.0	9.8	8.9	8.7	8.1	7.3	6.8	5.8	5.9	5.9	6.6	8.6	10.1	11.1	12.2	12.3	11.2	9.6	5.3	1.9	3.9	4.4	0.7	0.8	7.3	12.3
18-Oct	1.3	2.1	1.9	2.1	1.9	1.3	0.4	0.5	2.4	4.9	7.1	9.4	11.3	12.4	12.9	13.1	11.1	4.9	1.6	-0.4	-1.8	-2.8	-3.4	-3.5	3.8	13.1
19-Oct	-3.8	-4.0	-4.0	-4.1	-3.5	-3.2	-2.8	-2.5	-1.8	-0.5	0.6	1.3	2.2	3.5	3.2	3.2	2.9	2.3	2.0	1.8	1.8	1.7	1.8	1.8	0.0	3.5
20-Oct	1.9	1.9	2.0	1.9	1.7	1.7	1.5	1.3	1.5	1.7	2.0	2.2	2.8	3.3	3.6	4.2	4.4	3.9	3.5	3.3	2.1	1.8	3.1	3.1	2.5	4.4
21-Oct	2.8	2.9	3.0	3.0	3.2	2.1	1.0	1.5	2.9	3.8	6.6	7.4	7.4	8.2	9.1	8.6	6.3	5.2	3.7	2.0	-0.4	-0.2	-0.8	-2.4	3.6	9.1
22-Oct	-1.8	-1.4	-2.0	-2.9	-3.7	-4.0	-4.4	-4.5	-1.5	1.0	3.5	5.4	7.2	8.3	9.9	9.3	6.4	2.7	2.6	6.9	6.3	6.4	7.0	7.1	2.7	9.9
23-Oct	7.4	7.4	6.8	5.7	4.9	4.9	5.4	5.4	5.6	6.7	8.7	10.2	11.8	12.9	12.8	12.1	10.8	9.5	8.3	6.2	5.9	5.9	5.7	5.3	7.8	12.9
24-Oct	5.3	5.6	5.9	5.4	5.2	4.0	2.6	0.6	1.1	5.2	7.1	7.8	9.5	10.3	10.6	10.6	8.0	4.3	3.0	2.2	1.7	0.4	0.0	-0.6	4.8	10.6
25-Oct	0.0	0.8	1.0	1.6	2.5	2.9	2.3	3.0	3.8	4.0	4.4	5.3	6.6	6.7	7.1	7.4	7.3	6.8	4.2	1.6	-0.2	-1.3	-1.6	-2.0	3.1	7.4
26-Oct	-2.5	-2.9	-3.4	-3.9	-3.7	-3.9	-3.2	-3.4	-2.5	-1.0	0.2	2.0	3.7	5.1	5.0	4.9	5.0	4.8	4.8	4.1	3.2	3.0	2.7	2.5	0.9	5.1
27-Oct	2.8	3.0	3.1	3.1	2.2	1.9	2.0	1.8	1.5	1.3	1.5	1.7	2.2	2.2	2.3	1.9	0.6	0.2	0.1	-0.2	-0.3	-0.3	-0.3	-0.3	1.4	3.1
28-Oct	-0.3	-0.4	-0.2	-0.3	-0.6	-0.8	-0.8	-0.8	-0.6	-0.3	0.4	0.3	0.4	0.6	0.7	0.8	0.3	0.1	-0.4	-0.5	-0.7	-1.2	-0.7	0.1	-0.2	0.8
29-Oct	-0.2	-0.5	-0.6	-0.4	-0.6	-0.7	-1.0	-1.2	-1.0	-0.6	-0.1	0.1	0.2	0.2	-0.2	-0.2	0.0	0.1	-0.2	-0.2	-0.4	-0.4	-0.4	-0.4	-0.4	0.2
30-Oct	-0.4	-0.4	-0.5	-0.5	-0.7	-0.7	-0.6	-0.5	-0.4	-0.4	-0.4	-0.1	0.5	0.9	0.9	1.0	0.8	0.5	0.3	0.4	0.4	0.4	0.5	0.5	0.1	1.0
31-Oct	0.4	0.1	0.0	0.0	0.0	-0.1	0.2	-0.3	-0.3	0.7	1.3	1.9	2.6	2.8	2.8	2.6	2.4	2.2	2.2	2.1	1.9	2.0	1.9	1.5	1.3	2.8
	2.2	2.1	1.9	1.6	1.3	1.0	0.9	1.0	2.3	3.7	5.0	6.2	7.2	8.1	8.5	8.5	7.7	6.2	4.5	3.7	3.2	2.9	2.6	2.3	Diurnal Average	
	10.0	9.8	9.8	9.9	9.9	10.0	10.0	10.0	9.9	12.4	14.8	16.0	16.4	17.3	20.0	21.6	20.4	17.2	13.2	12.9	13.2	12.6	12.0	10.8	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C

Fort McKay South - October 2025

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	171	22.98	22.98
0 - 10	480	64.52	87.50
10 - 20	91	12.23	99.73
> 20	2	0.27	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

Fort McKay South - October 2025

Maximum Value: 100.0 % on Oct 2 00:00

Maximum Daily Average: 95.9 % on Oct 29

Minimum Value: 30.9 % on Oct 14 16:00

Minimum Daily Average: 61.7 % on Oct 14

Maximum Diurnal Average: 88.8 % at hour 8

Minimum Diurnal Average: 63.8 % at hour 15

Monthly Average: 79.70 %

Percentiles: P_1 = 37.1 P_{10} = 52.8 Q_1 = 68.7 Median = 84.2 Q_3 = 94.4 P_{90} = 98.4 P_{99} = 100.0

Hours in Service:	744
Hours of Data:	733
Hours of Missing Data:	11
Hours of Calibration:	0
Percent Operational Time:	98.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	96.3	97.8	98.3	98.9	98.9	98.8	98.3	97.9	98.2	98.3	96.8	86.2	81.7	74.9	70.9	69.6	76.7	90.2	96.0	97.6	98.4	99.4	99.8	100.0	92.5	100.0
2-Oct	100.0	100.0	100.0	100.0	99.9	100.0	OR	OR	OR	OR	OR	95.9	85.7	77.9	74.4	74.6	74.3	86.8	96.5	98.8	98.9	98.9	98.9	99.7	92.7	100.0
3-Oct	100.0	100.0	OR	OR	OR	OR	OR	OR	86.5	68.0	58.1	50.3	45.8	46.1	48.2	49.3	52.7	56.3	69.3	78.2	88.0	88.7	85.2	84.1	69.7	100.0
4-Oct	84.1	84.3	85.0	87.8	84.9	85.4	85.1	84.8	81.2	71.9	65.7	62.2	71.3	79.4	90.6	94.7	94.2	95.9	94.0	90.5	91.7	90.7	89.2	92.1	84.9	95.9
5-Oct	91.9	94.1	94.0	94.1	93.9	95.1	97.4	97.9	94.4	90.6	86.8	70.3	64.6	59.4	60.9	68.7	73.4	61.8	73.1	65.9	69.0	73.1	75.0	76.6	80.1	97.9
6-Oct	77.2	74.4	73.1	62.8	67.0	75.3	82.8	77.6	74.2	64.8	60.0	52.4	48.6	45.2	42.5	42.4	46.5	63.8	81.5	83.2	83.7	82.8	70.0	55.8	66.2	83.7
7-Oct	53.5	55.2	56.7	61.4	63.8	69.7	71.1	73.4	70.2	69.5	68.0	66.1	61.7	55.1	53.6	56.2	62.8	76.5	88.1	92.0	91.3	92.8	91.3	88.1	70.3	92.8
8-Oct	83.5	88.7	95.2	90.3	94.3	96.4	92.6	90.3	89.8	82.5	69.8	63.3	57.9	53.5	50.7	48.1	45.3	49.1	52.2	56.3	62.3	65.7	69.0	71.7	71.6	96.4
9-Oct	76.4	82.0	78.3	81.7	87.3	92.3	94.2	88.4	77.7	69.6	59.2	48.7	40.7	36.4	37.6	37.1	39.1	47.9	65.4	79.0	86.6	89.3	91.0	92.9	69.9	94.2
10-Oct	94.9	96.3	96.7	98.1	98.1	98.6	98.7	98.7	86.4	67.9	56.3	48.5	43.0	40.8	37.5	31.2	32.9	41.5	66.2	61.9	63.9	66.9	82.1	86.9	70.6	98.7
11-Oct	88.2	91.1	92.4	92.8	92.6	86.7	65.8	60.6	62.0	71.0	94.4	95.8	96.1	94.0	91.8	89.0	86.3	81.7	81.2	81.6	79.6	74.2	73.9	77.9	83.3	96.1
12-Oct	74.8	69.4	67.6	68.3	67.7	67.8	66.4	73.0	73.1	71.9	87.3	80.9	70.1	64.3	66.6	76.3	72.5	65.2	63.6	68.2	68.0	73.3	83.9	75.5	71.5	87.3
13-Oct	73.9	76.8	79.4	80.9	80.4	82.1	86.1	89.2	76.2	64.9	54.3	47.0	43.9	42.7	41.8	42.5	48.1	52.6	58.5	59.4	61.8	66.8	69.8	74.5	64.7	89.2
14-Oct	76.0	73.2	73.8	74.3	76.7	74.2	71.7	70.4	58.1	52.5	48.6	43.7	40.9	36.3	32.5	30.9	38.6	61.4	68.0	74.2	78.1	79.6	74.4	72.2	61.7	79.6
15-Oct	82.9	72.6	68.5	79.8	86.1	88.3	88.5	90.2	81.4	69.4	55.9	48.1	43.2	40.3	37.1	34.8	37.4	44.8	59.2	75.5	72.6	65.0	56.3	59.9	64.1	90.2
16-Oct	83.9	87.0	87.3	89.2	78.8	84.2	91.5	92.9	83.0	70.8	62.8	55.3	53.8	49.5	45.4	47.6	58.0	46.2	44.9	46.4	45.6	53.7	62.6	71.3	66.3	92.9
17-Oct	75.4	75.4	73.5	68.1	65.8	68.4	76.9	91.2	94.5	95.6	93.2	81.9	62.9	54.8	47.3	43.1	45.1	48.7	66.0	79.0	69.1	66.1	80.8	82.0	71.0	95.6
18-Oct	78.7	75.6	76.3	74.5	74.1	76.7	79.6	79.0	71.2	62.0	55.5	49.8	44.9	42.2	40.2	38.1	45.5	69.6	81.0	85.5	88.9	91.6	93.4	93.6	69.5	93.6
19-Oct	94.0	95.3	95.7	96.1	95.8	95.8	95.7	95.7	94.7	92.8	89.8	87.5	82.9	77.8	79.6	81.3	84.1	88.5	91.6	94.4	97.4	98.6	98.9	99.0	91.8	99.0
20-Oct	98.8	98.7	97.6	97.8	97.1	97.1	96.2	95.4	95.5	94.8	93.8	92.7	90.3	89.7	89.1	87.1	84.0	87.1	90.3	90.0	93.8	95.2	88.4	88.4	92.9	98.8
21-Oct	91.9	95.3	96.5	96.7	93.6	96.7	98.9	97.7	91.9	89.6	81.9	77.4	75.6	68.6	62.7	61.8	68.2	83.3	88.7	91.9	95.5	96.3	96.4	97.9	87.3	98.9
22-Oct	98.4	98.4	98.4	98.9	98.9	98.7	98.3	98.0	92.9	89.2	82.3	73.9	65.9	60.3	55.0	59.5	74.6	85.8	86.8	71.9	75.2	74.4	71.1	70.4	82.4	98.9
23-Oct	67.9	66.5	66.5	70.0	73.5	73.7	74.3	71.6	70.9	67.1	59.3	54.0	50.1	47.1	47.3	50.6	54.7	59.9	62.9	70.7	71.6	72.4	73.2	74.0	64.6	74.3
24-Oct	74.1	72.7	70.8	72.1	71.8	76.8	82.0	89.0	87.6	73.6	65.0	62.1	56.1	53.1	54.2	58.3	71.5	84.6	87.7	90.1	91.6	93.8	94.0	95.4	76.2	95.4
25-Oct	95.0	93.8	93.8	93.2	93.2	94.1	96.8	94.8	94.6	96.2	97.6	98.9	97.8	97.1	96.9	92.7	89.8	86.9	93.5	97.0	99.3	99.9	100.0	100.0	95.5	100.0
26-Oct	99.9	99.6	99.1	98.8	98.8	98.6	99.3	98.9	99.4	99.9	99.5	97.4	93.3	87.5	87.1	88.5	88.8	89.6	90.2	92.0	96.2	95.9	96.5	96.8	95.5	99.9
27-Oct	96.6	95.9	95.5	96.0	96.0	96.3	95.6	95.1	95.0	93.0	88.2	85.8	82.4	82.8	79.7	81.9	92.8	96.0	95.5	97.1	98.9	99.2	99.6	99.6	93.1	99.6
28-Oct	99.1	99.0	97.1	94.7	95.3	97.1	96.0	95.1	94.2	91.8	89.8	90.6	93.7	91.0	90.0	89.0	91.6	92.9	97.2	98.4	98.9	99.6	99.6	94.2	94.8	99.6
29-Oct	95.8	97.8	98.8	95.4	93.1	93.6	94.5	95.7	94.6	92.8	90.0	90.3	92.5	93.3	96.4	98.9	97.1	96.8	98.4	98.5	99.2	99.2	99.4	99.6	95.9	99.6
30-Oct	99.5	99.8	100.0	100.0	99.3	99.7	100.0	98.8	96.4	94.2	92.2	89.5	89.3	90.0	88.5	86.8	89.7	92.7	92.9	92.2	89.4	87.8	87.0	86.7	93.4	100.0
31-Oct	87.3	89.9	91.6	92.3	95.0	97.0	95.9	93.4	92.2	87.3	84.2	83.1	82.7	82.4	82.9	83.7	84.8	84.1	82.5	81.6	82.3	81.1	82.2	88.4	87.0	97.0
	86.8	87.0	86.6	86.8	87.1	88.5	88.6	88.8	85.3	80.1	76.2	71.9	68.0	64.9	63.8	64.3	67.8	73.2	79.4	81.9	83.4	84.3	84.9	85.3	Diurnal Average	
	100.0	100.0	100.0	100.0	99.9	100.0	100.0	98.9	99.4	99.9	99.5	98.9	97.8	97.1	96.9	98.9	97.1	96.8	98.4	98.8	99.3	99.9	100.0	100.0	Diurnal Maximum	

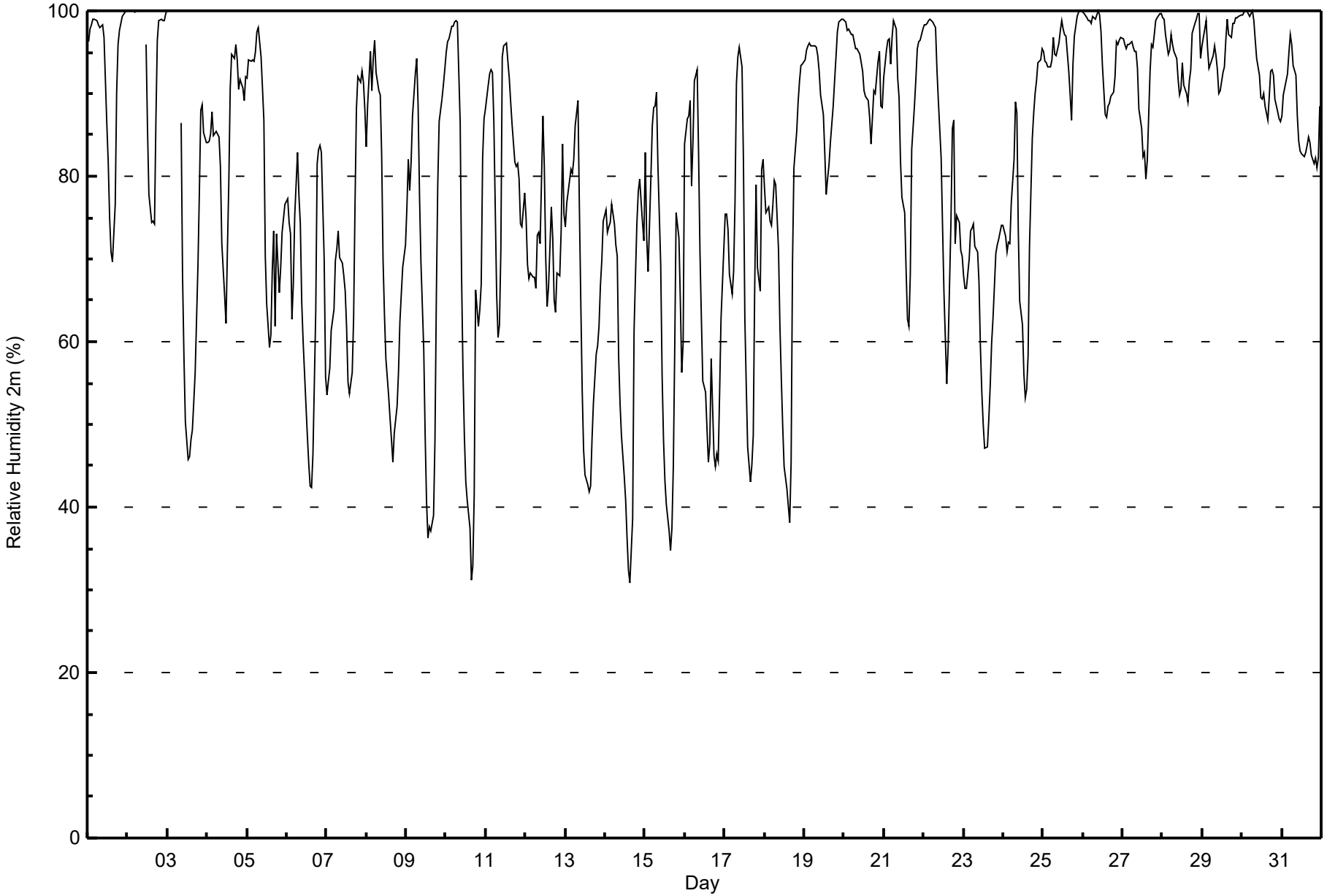
OR - Out of Range

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Fort McKay South - October 2025

Maximum Speed: 29 km/h on Oct 26 22:00

Maximum Daily Speed Average: 16.4 km/h on Oct 27

Minimum Speed Value: 0 km/h on Oct 7 21:00

Minimum Daily Speed Average: 0.6 km/h on Oct 20

Maximum Diurnal Speed Average: 3.8 km/h at hour 13

Minimum Diurnal Speed Average: 1.4 km/h at hour 1

Monthly Average Velocity: 2.4 km/h 235.6 deg

Percentiles: $P_1 = 1$ $P_{10} = 2$ $Q_1 = 4$ Median = 7 $Q_3 = 11$ $P_{90} = 16$ $P_{99} = 26$

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NNW7	NNW9	NNW9	N13	N14	N15	N16	N15	N14	N14	N16	N15	NNW11	N11	N9	N10	N5	WSW1	SW2	WSW2	WSW2	WSW3	WSW3	SW3	NNW8.2	N16
2-Oct	NW0	WSW2	S3	S1	WSW2	SW2	SW3	S5	SE6	SSE7	S5	SSE7	SSE6	SSE10	S11	S6	SSW5	SSW3	SSW4	SSW5	SSW6	S7	S6	WSW3	S4.3	S11
3-Oct	SW4	SSW5	SSW3	SW3	SW3	S3	S4	S7	SSW9	SSW16	SSW16	SSW17	SW16	SW15	SW15	SW13	SW11	SSW9	WNW6	SW8	WSW8	WSW8	WSW8	W9	SW8.2	SSW17
4-Oct	WSW9	W8	W7	W9	W9	W7	W7	W7	WNW2	NW7	NNW7	NNW8	N7	N8	NNW9	N11	NNW15	NNW9	NNW9	NW9	WNW6	WNW7	WNW7	W6	NW6.5	NNW15
5-Oct	W6	WSW7	WSW9	WSW8	SSW4	SSE3	SSE3	SSW5	S4	S5	SSE7	SSW9	WSW5	WSW7	SW7	WSW6	WNW4	WNW6	WNW5	W5	WSW8	WNW4	WNW6	N18	WSW3.8	N18
6-Oct	N13	N9	NNW14	NNW10	NNW9	NW6	NNW6	NNW8	NNW6	N8	NNE5	NE4	S6	S8	S9	S10	SSE8	S4	SW3	SSW1	SSW1	ESE1	S6	S11	NNW1.2	NNW14
7-Oct	S14	S7	S8	S8	S6	S7	S7	S8	S10	S12	S15	S16	SSE16	SSE16	SSE13	SSE8	SSE5	S1	WSW2	NNW4	WNW0	WSW2	WNW1	NNW5	S6.9	SSE16
8-Oct	WNW3	NW5	W3	W5	W8	WSW5	WNW7	W6	WSW6	WSW7	WSW10	WSW12	WSW11	WSW12	SW11	SW11	W11	WNW7	WNW7	WNW11	WNW8	WNW7	WNW6	WNW6	W6.9	WSW12
9-Oct	SW4	SSW5	SW4	S5	S6	S6	S6	SSW6	SSW8	S10	SSW11	SW11	SW13	SW15	SW13	SW11	SW10	SSW6	SSW4	SSW2	SSW5	WNW1	SSW3	S4	SSW6.7	SW15
10-Oct	S4	SSW3	SW2	SSW3	S3	S3	SW3	S3	SSE7	SSE7	SSE11	SSE13	SSE14	SSE14	SSE15	S15	SSW13	S8	S6	SSE7	SSE6	S5	WNW3	WNW3	S6.5	S15
11-Oct	W2	WNW2	WSW2	SW1	NNW2	N7	N12	N10	NNW9	NNW18	NNW12	NNW9	NW6	WNW11	WNW9	WNW7	WNW6	NW11	NW11	NW12	NW11	NNW17	NNW19	NNW19	NNW8.6	NNW19
12-Oct	NNW17	NNW20	N19	N19	N20	N16	N16	N12	N10	N12	N13	N11	N18	N19	N17	NNW10	NNW9	NNW9	NNW9	NNW7	NNW7	NW3	W3	WNW7	N12.2	NNW20
13-Oct	WNW7	W6	WSW6	WSW7	WSW6	SW6	SSW4	S5	SSW6	SSW9	SSW12	SW14	SSW16	SSW16	S18	S18	S14	S14	S12	S13	S11	S11	S9	SSE8	SSW9.2	S18
14-Oct	SSE9	S10	S10	S8	S7	S10	S8	S8	SSW15	SSW17	SSW19	S18	SSW16	SSW16	SW12	SSW10	S8	S5	S6	S5	S4	S6	S7	S7	S9.9	SSW19
15-Oct	S9	S7	S8	SSW4	SSW2	S3	S3	SSW5	S8	S11	SSE12	S11	SSW11	SW10	SW10	SSW10	SSW8	SW6	SSW5	SW5	WSW5	WSW9	WSW9	WSW4	SSW6.7	SSE12
16-Oct	S1	SSW4	SSW4	S1	WSW5	SE2	S3	SW2	S3	SE7	SE9	SE10	SSE12	SSE10	SSE11	S8	S4	S10	S12	S11	S13	SSW12	SSW11	S9	S6.6	S13
17-Oct	S7	SSW10	SW7	SW11	WSW9	W6	WSW6	WSW7	WSW8	WSW9	WSW8	W7	WNW12	WNW12	WNW12	NW12	NW9	NW8	W3	WSW4	W6	W5	SSW2	WSW7	W6.3	NW12
18-Oct	WSW5	WSW9	WSW10	WSW13	WSW10	WSW9	SW8	WSW11	WSW12	WSW8	WSW7	SW7	SW9	SW10	WSW10	WSW8	SW5	WSW5	W2	SW3	W2	SW3	WNW2	SW2	WSW6.8	WSW13
19-Oct	SW1	WNW1	WSW1	WNW2	W1	WNW1	NNW3	NNW3	N4	N5	N4	N6	N9	N10	N11	N9	N10	N11	N8	N9	N12	N11	N11	N11	N6.1	N12
20-Oct	N11	N9	N9	N9	N9	NNW8	NNW10	N5	NNW4	NNE4	NNW1	SE5	S6	SSE6	SSE7	SSW6	SSW8	S8	S8	S7	S7	S9	SSE14	S7	S0.6	SSE14
21-Oct	S9	S10	S9	S8	S9	S5	S4	SSW4	SW6	WSW5	WSW8	W9	W8	WSW10	WNW7	NNW11	N10	NNE8	NNE5	SW0	WSW3	WSW2	SW1	WSW2	SW3.0	NNW11
22-Oct	WNW1	W0	W1	WSW2	W2	WSW2	W1	W2	WNW0	SE4	SSE9	SSW8	S7	SSE9	SE8	SSE3	N4	NNW3	S5	SSE14	SSE12	SSE12	SSE15	SSE18	SSE4.7	SSE18
23-Oct	SSE23	SSE20	SSE14	S11	SSW9	S9	S9	S14	S13	S12	SSE16	SSE16	SSE13	SSE14	SSE15	SSE11	SSE9	SSE12	S13	S8	S10	S11	S14	S11	SSE12.5	SSE23
24-Oct	S10	SSW10	S12	SSW9	S11	S7	SSW7	S3	S4	SSE8	SSE12	S13	SSE11	S8	SSE4	SW2	S1	WNW2	W2	WNW2	WNW2	WSW2	W2	WNW2	S5.3	S13
25-Oct	WNW1	NW2	W1	N3	NNE7	S5	SW1	WSW5	W3	WNW5	W7	WSW7	W9	W6	SW7	WSW13	WSW8	SSW6	S6	SSW5	SSW4	SW3	WSW2	W2	WSW3.6	WSW13
26-Oct	W2	SW3	SSW3	W2	WNW2	NNW3	NNW4	NW4	WNW1	NNE5	N7	NNW6	N10	N14	N17	N16	N17	N18	N23	N25	N28	N29	N27	N26	N11.3	N29
27-Oct	N27	N27	N27	N25	N26	N24	N24	N24	N22	N25	N26	N22	N19	N18	NNW15	NNW13	NW9	WNW9	WNW9	WNW9	WNW8	WNW8	W6	W5	N16.4	N27
28-Oct	WNW6	WNW4	W5	W5	WNW5	W5	WNW5	WNW5	WNW4	WNW5	W4	W5	W7	W6	SW7	WSW7	SSW4	SSW4	SW3	SSW4	S3	S2	SSW2	SSW4	WSW3.8	SW7
29-Oct	SSE4	SSE2	SSE2	SE4	ESE4	E4	NE3	NNE5	NNE5	N7	N9	N7	NNW5	N8	N9	NNE8	NNE10	N8	NNW7	NNW8	NNW6	NNW4	WNW2	NW1	N4.0	NNE10
30-Oct	NNW3	WNW1	WNW1	NNE2	UO	UO	UO	SSW4	WSW3	SW5	WSW6	SW6	S4	SSW5	SSW7	SSW9	SSW6	SSW4	SSW6	SSW6	SSW7	SSW8	SSW8	SSW8	SSW4.5	SSW9
31-Oct	SSW9	SSW8	SW7	SSW8	SW7	SSW5	S8	S10	S7	S16	SSE19	S18	S17	SSE21	SSE19	SSE21	S23	SSE22	SSE19	S19	S18	S19	S16	S12	S14.1	S23
	WSW1.4	WSW1.9	WSW2.1	W2.4	W2.6	W1.7	WNW2.0	W1.9	SW2.1	SW2.0	SSW2.9	SSW3.7	SW3.8	SW3.7	SSW3.8	SW3.6	WSW2.6	WSW2.2	WSW2.0	WSW2.4	WSW2.6	SW2.4	SW2.4	WSW2.0	Diurnal Average	
	N27	N27	N27	N25	N26	N24	N24	N24	N22	N25	N26	N22	N19	SSE21	SSE19	SSE21	S23	SSE22	N23	N25	N28	N29	N27	N26	Diurnal Maximum	

UO - Unstable Operation

All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Fort McKay South - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 7 km/h on Oct 26 22:00

Minimum Value: 1 km/h on Oct 6 19:00

Percentiles: $P_1 = 1$ $P_{10} = 1$ $Q_1 = 1$ Median = 2 $Q_3 = 3$ $P_{90} = 4$ $P_{99} = 6$

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Hours of Calibration:	0
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	3	2	3	3	3	4	4	3	3	5	5	3	3	3	3	2	1	1	1	1	1	1	1	5
2-Oct	1	2	1	1	1	1	1	2	2	2	1	2	3	3	2	2	2	1	1	1	1	2	2	1	3
3-Oct	1	1	1	1	1	1	1	2	4	4	4	5	6	5	6	5	3	2	4	3	4	3	3	3	6
4-Oct	3	3	3	3	3	2	2	3	1	3	3	3	3	4	3	4	4	3	4	3	2	2	2	2	4
5-Oct	2	2	2	2	2	1	1	1	2	1	2	3	2	3	2	3	1	2	1	2	3	2	3	5	5
6-Oct	4	3	4	4	3	2	3	2	2	3	2	2	3	3	3	2	2	1	1	1	1	1	2	2	4
7-Oct	2	2	2	2	2	1	2	2	2	3	3	3	3	3	4	3	1	1	1	1	1	1	1	2	4
8-Oct	2	2	2	2	3	2	3	2	2	3	4	4	4	4	4	5	5	3	3	4	4	3	2	2	5
9-Oct	1	1	1	1	1	1	1	1	3	3	3	3	4	5	4	4	4	2	2	1	1	1	1	1	5
10-Oct	1	1	1	1	1	1	1	1	1	2	3	3	3	4	3	4	3	2	1	1	1	2	1	1	4
11-Oct	1	1	1	1	2	2	3	2	2	5	4	3	3	4	4	2	2	3	3	4	3	5	6	6	6
12-Oct	6	6	6	5	5	4	5	3	2	4	4	3	6	5	4	4	4	2	2	2	2	2	1	2	6
13-Oct	2	2	2	2	1	1	1	1	2	3	4	4	5	4	5	4	3	3	2	2	2	2	1	1	5
14-Oct	2	2	2	2	2	3	2	2	4	4	5	4	4	5	4	3	3	1	2	1	1	2	1	1	5
15-Oct	2	2	2	1	1	2	1	1	3	2	3	4	3	4	3	3	2	1	1	1	2	3	2	3	4
16-Oct	2	1	2	1	3	2	1	1	1	2	2	3	3	3	3	1	2	2	2	3	3	3	3	2	3
17-Oct	2	2	2	3	3	2	2	2	3	3	3	3	4	4	5	6	4	3	1	1	2	2	1	3	6
18-Oct	3	3	3	4	2	2	2	3	4	3	3	2	3	3	4	3	1	1	1	1	1	2	1	1	4
19-Oct	1	1	1	1	1	1	1	2	1	1	1	2	2	2	2	2	3	3	3	2	2	2	2	2	3
20-Oct	2	2	2	2	2	1	2	3	1	1	1	1	1	1	2	3	2	1	1	1	1	2	2	3	3
21-Oct	3	2	2	3	3	2	2	1	2	2	3	3	3	4	3	4	2	2	2	1	1	2	1	1	4
22-Oct	1	1	2	1	1	1	1	1	1	2	3	2	2	2	2	2	2	1	3	3	2	3	4	4	4
23-Oct	5	5	3	2	2	2	2	3	2	2	3	3	2	3	4	2	2	2	3	2	2	2	2	2	5
24-Oct	2	2	2	2	2	2	2	2	2	3	3	3	2	3	1	1	1	1	1	1	1	1	1	1	3
25-Oct	1	2	1	1	4	4	1	2	2	2	3	2	3	3	4	5	3	2	2	2	2	1	2	2	5
26-Oct	1	1	2	1	1	1	2	1	1	2	3	3	3	3	4	4	4	4	6	7	7	7	7	6	7
27-Oct	7	6	7	6	6	6	6	6	6	6	7	6	5	5	4	3	3	3	3	3	2	2	2	2	7
28-Oct	2	1	2	2	2	1	2	2	2	2	2	2	3	2	2	2	2	1	1	1	2	1	2	1	3
29-Oct	2	1	2	1	1	1	1	1	2	2	3	3	2	2	2	2	3	2	1	2	2	1	1	1	3
30-Oct	1	1	1	1	UO	UO	UO	1	1	2	3	2	1	1	2	2	2	1	1	1	2	2	2	3	3
31-Oct	2	2	2	3	2	1	3	3	2	3	4	4	5	5	4	4	5	5	5	5	4	4	4	2	5
	7	6	7	6	6	6	6	6	6	6	7	6	6	5	6	6	5	5	6	7	7	7	7	6	
	Diurnal Maximum																								

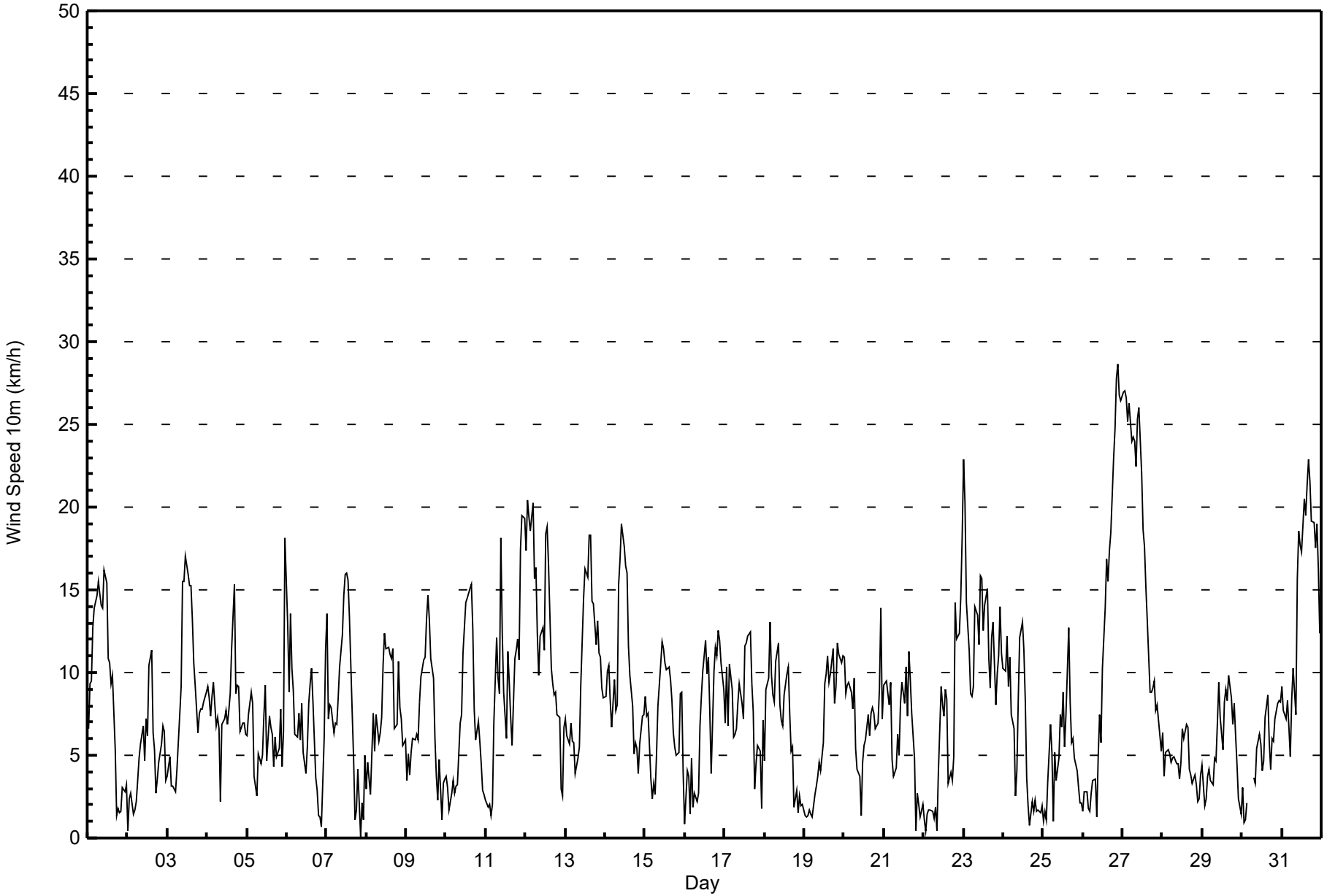
UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Fort McKay South - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h

Fort McKay South - October 2025

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	246	33.20	33.20
6 - 11	342	46.15	79.35
12 - 19	127	17.14	96.49
20 - 28	25	3.37	99.87
29 - 38	1	0.13	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 741

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Fort McKay South - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	7	7	2	0	1	2	4	8	37	39	28	30	28	34	6	13	246
6 - 11	37	5	0	0	0	0	5	26	76	37	24	43	23	27	10	29	342
12 - 19	30	0	0	0	0	0	0	27	28	13	9	5	0	3	2	10	127
20 - 28	18	0	0	0	0	0	0	5	1	0	0	0	0	0	0	1	25
29 - 38	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	93	12	2	0	1	2	9	66	142	89	61	78	51	64	18	53	741

Total Number of Valid Hours: 741

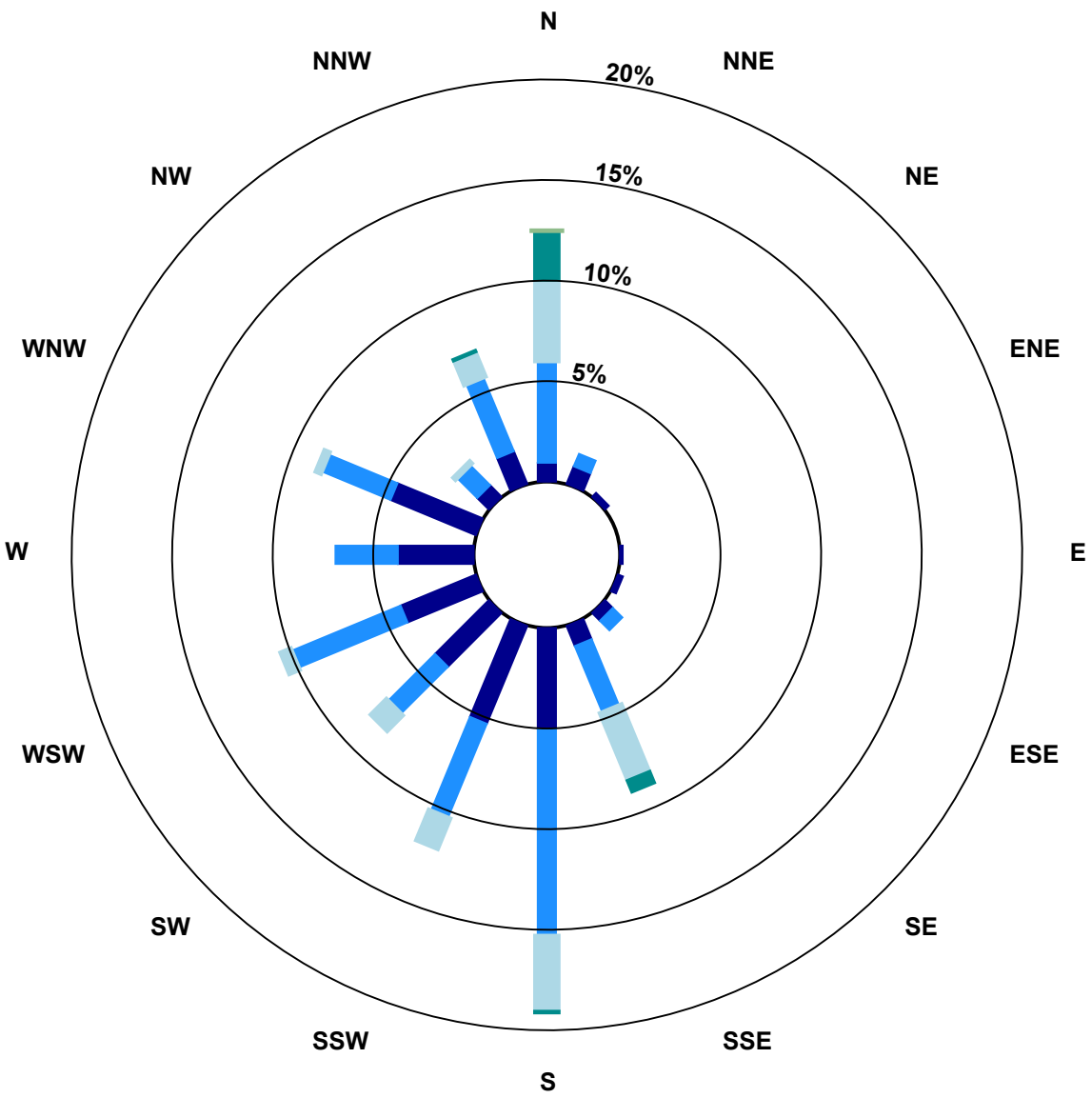
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Fort McKay South



Classes (km/h)

0 - 5

6 - 11

12 - 19

20 - 28

29 - 38

> 38

Total Number of Valid Hours: 741

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Fort McKay South - October 2025

Direction of Maximum Speed: 8 deg on Oct 26 22:00
Direction of Maximum Daily Speed Average: 348.8 deg on Oct 27

Direction of Minimum Speed: 282 deg on Oct 7 21:00
Direction of Minimum Daily Speed Average: 0.6 deg on Oct 20

Monthly Average Direction: 235.6 deg

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	341	345	341	354	353	355	352	350	353	353	352	351	345	358	350	3	356	257	224	252	256	241	246	222	347.6
2-Oct	314	245	185	186	247	219	228	181	141	153	171	154	148	161	179	186	195	209	193	197	201	188	179	243	181.4
3-Oct	219	199	198	220	226	179	173	172	193	194	197	206	223	228	222	223	221	206	286	233	256	245	249	260	217.8
4-Oct	257	268	273	269	260	265	274	277	301	310	342	340	352	358	341	355	343	338	327	320	292	288	289	264	307.2
5-Oct	279	253	255	250	210	161	156	193	179	169	161	197	240	245	223	258	286	300	284	259	250	299	303	3	249.9
6-Oct	1	350	347	339	329	315	338	339	347	10	12	54	181	187	181	177	153	171	229	200	204	111	177	173	328.5
7-Oct	169	169	180	176	186	188	186	178	169	169	170	169	162	152	148	156	163	169	257	346	282	253	293	347	169.8
8-Oct	290	320	267	271	263	247	297	270	242	240	246	246	243	242	230	230	265	294	300	299	293	287	292	298	264.8
9-Oct	228	205	215	189	182	183	189	195	202	190	195	214	225	232	221	227	223	205	198	201	203	282	204	184	209.0
10-Oct	186	200	222	192	187	185	220	191	166	152	158	155	158	155	166	188	193	190	177	162	158	173	288	297	173.6
11-Oct	269	284	250	230	338	357	356	357	337	347	338	330	307	294	287	297	291	305	305	315	325	344	345	346	328.0
12-Oct	348	348	349	350	349	352	353	358	8	360	7	11	6	6	5	346	340	343	339	339	332	314	266	286	351.9
13-Oct	292	277	257	247	250	235	210	179	202	197	206	218	199	198	187	187	183	182	184	181	183	175	176	168	198.3
14-Oct	168	178	176	186	190	180	187	186	193	194	194	191	192	196	215	210	185	186	178	191	184	175	172	189	189.2
15-Oct	183	180	184	205	192	187	186	205	190	189	168	187	207	230	228	208	207	221	212	217	249	239	244	248	206.0
16-Oct	180	197	194	176	255	130	189	219	173	145	145	145	154	152	157	170	186	191	182	183	188	193	193	187	175.5
17-Oct	185	199	214	224	242	259	256	252	247	245	238	275	299	294	299	308	318	313	268	250	263	276	199	243	262.3
18-Oct	240	252	250	253	255	246	235	248	244	242	253	225	232	233	240	239	217	245	268	234	264	228	289	234	243.3
19-Oct	235	298	254	290	278	300	327	336	3	5	6	10	9	355	353	350	359	354	355	354	358	356	354	356	353.4
20-Oct	2	2	356	349	349	342	343	349	336	13	344	132	175	153	152	201	200	190	180	184	187	172	164	171	187.3
21-Oct	170	169	169	180	184	186	181	204	230	237	250	267	259	247	290	331	351	23	25	222	242	249	217	248	232.9
22-Oct	290	273	269	248	267	253	276	267	282	146	162	196	170	147	145	166	8	342	173	152	158	159	156	154	163.0
23-Oct	154	159	168	178	193	186	179	176	169	172	161	156	152	152	151	150	161	163	174	187	181	188	177	178	167.3
24-Oct	183	193	189	192	181	178	200	186	183	166	168	169	165	171	156	232	177	302	274	302	283	255	264	297	184.5
25-Oct	289	323	277	353	12	187	221	255	276	288	259	244	260	274	231	245	251	206	178	198	196	232	246	262	246.9
26-Oct	267	215	197	260	299	346	340	318	300	13	6	342	356	2	6	1	1	357	4	10	8	8	4	5	1.3
27-Oct	5	6	8	2	356	357	355	356	353	355	355	353	353	350	348	342	319	296	298	295	286	283	281	280	348.8
28-Oct	295	286	279	274	283	276	288	292	291	282	262	280	264	259	230	239	212	205	220	208	188	184	208	209	256.8
29-Oct	166	162	168	133	111	86	50	20	31	5	5	7	337	354	359	15	14	9	345	330	327	334	290	326	5.8
30-Oct	330	288	293	32	UO	UO	UO	198	243	228	244	231	184	193	199	201	208	199	194	199	209	199	205	206	210.1
31-Oct	207	213	217	204	217	208	183	177	171	175	166	171	171	164	160	165	174	165	165	176	173	175	174	179	175.3
	243.4	246.3	252.4	263.6	275.9	268.3	290.3	260.6	232.0	220.8	205.8	207.9	214.7	217.3	213.7	231.2	242.1	242.8	238.5	237.5	236.9	235.0	226.3	248.2	
	Diurnal Average																								

UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Fort McKay South - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 100 deg on Oct 7 21:00

Minimum Value: 6 deg on Oct 18 18:00

Percentiles: P_1 = 9 P_{10} = 13 Q_1 = 16 Median = 21 Q_3 = 31 P_{90} = 45 P_{99} = 85

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Hours of Calibration:	0
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	18	17	17	17	18	18	18	17	18	18	19	20	20	20	21	19	20	61	44	26	50	24	17	33	61
2-Oct	92	48	26	86	40	28	13	21	26	19	22	18	28	16	14	23	30	18	11	13	13	14	23	28	92
3-Oct	23	15	20	19	36	34	18	18	27	18	18	23	26	26	27	25	24	21	43	29	33	27	30	31	43
4-Oct	30	33	31	27	27	28	25	44	69	30	31	35	39	33	22	18	18	18	22	20	19	21	20	25	69
5-Oct	27	18	22	21	44	39	32	27	31	21	26	30	64	45	29	33	26	23	23	25	26	58	42	19	64
6-Oct	18	17	18	19	16	16	23	19	29	30	44	77	55	35	29	20	18	33	17	63	44	84	13	10	84
7-Oct	9	17	13	12	13	12	12	12	12	13	14	12	16	15	18	18	14	65	59	31	100	52	85	45	100
8-Oct	77	44	67	33	30	34	32	30	27	32	34	30	33	30	31	29	37	34	26	30	32	35	42	30	77
9-Oct	41	28	36	13	17	9	11	20	22	22	26	26	27	29	27	24	23	16	15	19	15	74	33	19	74
10-Oct	22	23	65	17	18	13	18	22	17	15	19	18	17	17	14	16	13	9	9	8	14	49	36	55	65
11-Oct	53	57	50	67	70	20	16	19	16	18	17	19	27	24	27	30	33	21	20	21	18	18	20	18	70
12-Oct	17	18	19	18	18	18	19	17	20	24	20	20	20	19	20	23	20	16	17	16	14	34	25	20	34
13-Oct	19	22	19	20	17	17	13	15	25	21	26	25	23	21	17	15	12	11	11	11	11	10	8	7	26
14-Oct	7	13	9	13	18	13	16	12	17	17	16	18	17	19	27	23	15	11	24	11	21	17	20	11	27
15-Oct	14	19	20	18	33	34	29	20	17	10	15	15	26	28	27	23	18	15	17	20	28	23	13	75	75
16-Oct	99	33	37	86	58	83	22	42	38	14	16	26	15	14	14	13	22	13	11	12	14	15	16	15	99
17-Oct	14	19	18	19	26	33	24	23	26	24	24	39	29	32	30	27	19	19	37	14	23	27	71	22	71
18-Oct	62	23	26	20	22	17	14	19	20	29	43	42	31	33	30	31	16	6	41	42	55	30	49	47	62
19-Oct	51	47	52	42	34	31	36	36	28	27	17	35	16	15	16	15	19	14	18	14	15	15	16	16	52
20-Oct	15	15	16	14	18	14	16	23	21	34	59	33	20	19	18	25	16	10	15	16	9	12	9	18	59
21-Oct	13	12	13	18	14	15	28	29	29	31	31	27	33	30	46	30	15	27	18	91	17	49	61	20	91
22-Oct	83	97	82	41	40	31	30	41	66	63	22	34	33	25	23	58	21	19	46	12	11	12	14	13	97
23-Oct	12	13	13	14	12	16	13	14	11	15	14	14	15	14	15	12	9	9	13	12	9	12	11	11	16
24-Oct	12	12	10	13	9	11	20	53	30	19	14	14	15	15	40	65	89	37	45	34	46	35	49	58	89
25-Oct	68	60	72	34	40	38	82	25	49	28	33	23	27	44	29	28	32	30	19	20	70	26	42	45	82
26-Oct	50	33	39	42	51	32	24	17	61	20	25	50	16	16	16	17	17	18	19	19	18	18	19	19	61
27-Oct	18	20	18	19	19	18	18	18	19	19	18	19	18	18	17	17	23	20	20	22	25	24	24	25	25
28-Oct	23	26	31	28	24	22	23	25	28	32	39	42	30	31	20	26	35	29	39	27	30	31	50	41	50
29-Oct	26	64	54	34	28	35	39	18	24	14	18	38	33	19	16	15	18	16	19	16	16	13	31	63	64
30-Oct	35	77	30	41	UO	UO	UO	21	28	31	41	29	25	21	15	15	15	16	14	15	16	13	15	16	77
31-Oct	17	21	19	17	22	28	15	11	11	13	12	14	14	13	12	12	12	14	14	13	12	12	11	11	28
	99	97	82	86	70	83	82	53	69	63	59	77	64	45	46	65	89	65	59	91	100	84	85	75	
	Diurnal Maximum																								

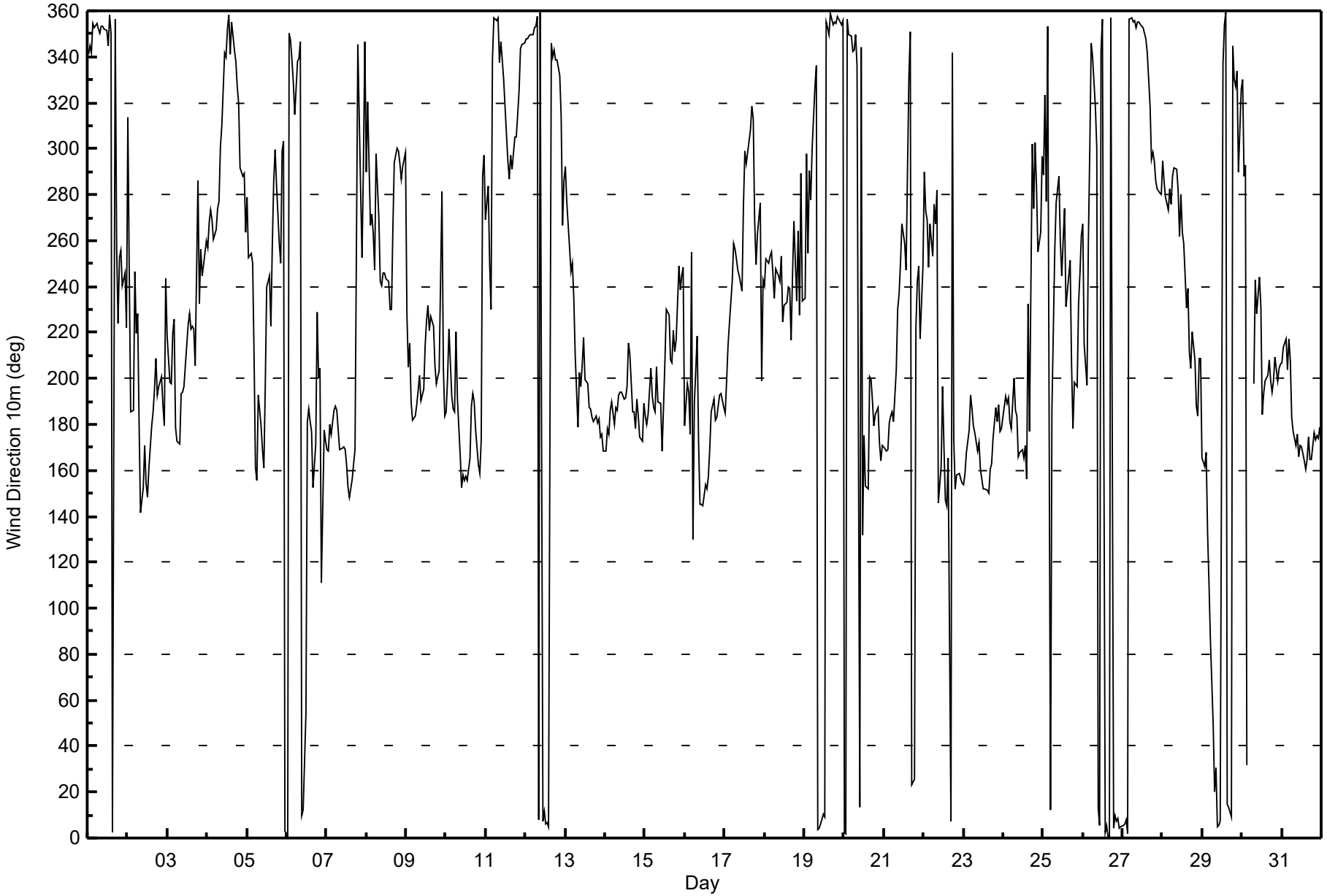
UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Fort McKay South - October 2025



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS14
ANZAC
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ANZAC (AMS14)
OCTOBER 2025

MONTHLY SUMMARY for
AMD SECTION III.B.1(c)

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	706	35	38	99.6	-	-	4.1	0	1.1	0
TRS(ppb) Average	703	37	41	99.46	1.4	0	1	-	0.3	-
THC(ppm) Average	705	35	39	99.46	-	-	2.2	-	2	-
NMHC(ppm) Average	705	35	39	99.46	-	-	0.01	-	0.001	-
CH4(ppm) Average	705	35	39	99.46	-	-	2.2	-	2	-
NO2(ppb) Average	705	37	39	99.73	-	-	9.9	0	3.5	-
NO(ppb) Average	705	37	39	99.73	-	-	9.8	-	1	-
NOX(ppb) Average	705	37	39	99.73	-	-	16.2	-	4	-
O3(ppb) Average	706	35	38	99.6	-	-	41.9	0	31.2	-
PM2.5(ug/m3) Average	742	1	2	99.87	-	-	22.4	0	9.1	0
AT 2m(C) Average	744	0	0	100	-	-	21	-	11.5	-
RH(%) Average	744	0	0	100	-	-	99.6	-	97.8	-
WS(km/h) Average	744	0	0	100	-	-	32	-	21	-
WD(deg) Average	744	0	0	100	-	-	-	-	-	-
Leaf Wetness (% of range) Average	738	0	6	99.19	-	-	96.2	-	41.2	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ANZAC (AMS14)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2(ppb) Average	706	0.33	0.4	-	0	0	0	0.2	0.4	0.8	4.1
TRS(ppb) Average	703	0.17	0.1	-	0.1	0.1	0.1	0.1	0.2	0.3	1
THC(ppm) Average	705	1.95	0	-	1.9	1.9	1.9	1.9	2	2	2.2
NMHC (ppm) Average	705	0	0.001	-	0	0	0	0	0	0	0.01
CH4(ppm) Average	705	1.95	0	-	1.9	1.9	1.9	1.9	2	2	2.2
NO2(ppb) Average	705	1.52	1.4	-	0.1	0.3	0.5	1.1	2	3.3	9.9
NO(ppb) Average	705	0.33	0.8	-	0	0	0	0.1	0.3	0.9	9.8
NOX(ppb) Average	705	1.85	1.9	-	0.1	0.3	0.6	1.3	2.4	4.1	16.2
O3(ppb) Average	706	20.6	6.9	-	0.1	11.5	16.9	20.7	24.8	28.7	41.9
PM2.5(ug/m3) Average	742	3.09	2.3	-	0.1	0.7	1.7	2.7	3.9	5.7	22.4
Temperature 2 m (C) Average	744	4.58	4.8	-	-3.4	-0.7	0.3	4	8	11	21
Relative Humidity (%) Average	744	75.39	18.8	-	25.8	47	60.7	78.5	92.6	97.5	99.6
Wind Speed 20 m (km/h) Average	744	13.1	5	-	1	7	9	12	16	20	32
Wind Direction 20 m (deg) Average	744	234	-	-	-	-	-	-	-	-	-
Leaf Wetness (% of range) Average	738	5.9	13.8	-	0	0	0	0	1.9	25.2	96.2

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ANZAC (AMS14)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
THC/NMHC/CH4, SO2	06 Oct 2025 13:00	06 Oct 2025 13:00	1	Maintenance - verify daily QA response
TRS	06 Oct 2025 13:00	06 Oct 2025 14:00	2	Maintenance - verify daily QA response
O3	06 Oct 2025 14:00	06 Oct 2025 14:00	1	Maintenance - verify daily QA response
ALL GASEOUS ANALYZERS	18 Oct 2025 11:00	18 Oct 2025 11:00	1	Maintenance - reset the modem
N2, O3, PM2.5, S02, TRS	17 Oct 2025 18:00	17 Oct 2025 18:00	1	Station power failure
THC/NMHC/CH4	17 Oct 2025 18:00	17 Oct 2025 19:00	2	Station power failure

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Anzac - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 4.1 ppb on Oct 24 14:00

Maximum Daily Average: 1.1 ppb on Oct 24

Minimum Value: 0.0 ppb on Oct 1 05:00

Minimum Daily Average: 0.0 ppb on Oct 26

Maximum Diurnal Average: 0.6 ppb at hour 14

Minimum Diurnal Average: 0.2 ppb at hour 2

Monthly Average: 0.33 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.2 Q_3 = 0.4 P_{90} = 0.8 P_{99} = 1.9

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	35
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9	0.8	0.5	0.2	0.1	0.0	0.1	0.9
2-Oct	0.1	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.6	0.7	0.4	0.4	0.3	0.3	0.4	0.8	0.6	0.1	0.0	0.0	0.1	0.1	0.0	0.2	0.8
3-Oct	0.0	0.2	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.3	0.4	0.3	0.2	0.2	0.1	0.1	0.4	0.3	0.1	0.1	0.0	0.1	0.0	0.1	0.4
4-Oct	Z	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.5	0.8	1.4	2.6	1.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.3	2.6
5-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2
6-Oct	0.0	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.6	M	1.6	1.4	1.1	0.8	1.1	0.6	0.5	0.5	0.7	0.8	0.9	0.5	1.6
7-Oct	0.7	0.5	0.4	Z	0.5	0.5	0.3	0.4	0.5	0.6	1.9	1.7	1.5	0.4	0.3	0.2	0.4	0.2	0.2	0.6	0.8	0.9	0.6	0.6	0.6	1.9
8-Oct	0.4	0.2	0.4	0.2	Z	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.4
9-Oct	0.1	0.1	0.0	0.0	0.2	Z	0.3	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.4	0.3	0.2	0.3	0.4	0.3	0.3	0.5	0.2	0.5
10-Oct	Z	0.5	0.6	0.4	0.2	0.1	0.1	0.2	0.4	0.5	0.6	0.4	0.2	0.2	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.0	0.1	0.3	0.6
11-Oct	0.5	Z	0.7	1.3	1.2	0.9	0.6	0.6	0.5	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	1.3
12-Oct	0.2	0.2	Z	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.2
13-Oct	0.1	0.2	0.1	Z	0.1	0.6	0.1	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.4	1.4	1.9	0.3	1.9
14-Oct	0.5	0.1	1.1	0.7	Z	0.6	0.8	0.6	0.9	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.2	0.3	0.3	0.4	0.3	0.3	0.5	1.1
15-Oct	0.3	0.3	0.3	0.3	0.4	Z	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.6	0.2	0.2	0.2	1.6	0.4	0.4	0.8	1.1	1.0	0.3	0.5	1.6
16-Oct	Z	0.1	0.3	0.9	0.8	0.6	0.7	0.2	0.4	C	C	C	C	0.3	0.5	0.6	0.6	0.5	0.5	0.5	0.6	0.5	0.7	0.5	0.5	0.9
17-Oct	0.5	Z	0.9	0.9	0.6	0.7	0.5	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	PF	0.3	0.0	0.2	0.2	0.2	0.2	0.4	0.9
18-Oct	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.0	0.1	M	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.2
19-Oct	0.1	0.0	0.1	Z	0.3	0.6	0.5	0.1	0.0	0.0	0.2	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.6
20-Oct	0.2	0.2	0.1	0.2	Z	0.1	0.2	0.3	1.0	1.7	2.8	1.6	1.6	0.4	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.3	0.5	2.8
21-Oct	0.3	0.3	0.3	0.1	0.0	Z	0.3	0.4	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.1	0.2	0.2	0.1	0.4
22-Oct	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.6	0.6	0.8	0.5	1.0	1.3	0.6	0.4	1.1	0.4	0.5	1.7	0.8	1.2	0.3	0.3	0.6	1.7
23-Oct	0.5	Z	0.3	0.2	0.3	0.6	0.7	0.5	0.5	0.5	0.7	1.6	1.7	3.0	1.6	0.6	0.5	0.4	0.5	0.4	0.4	0.5	0.9	1.1	0.8	3.0
24-Oct	1.2	1.4	Z	1.7	1.5	1.1	0.8	0.7	0.9	1.2	1.4	1.6	1.3	4.1	2.8	1.0	0.6	0.7	0.4	0.2	0.2	0.7	0.6	0.1	1.1	4.1
25-Oct	1.6	0.0	0.9	Z	0.1	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.3	0.4	0.2	1.6
26-Oct	0.0	0.0	0.1	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
27-Oct	0.0	0.0	0.1	0.1	0.1	Z	0.1	0.2	0.3	0.2	0.3	0.3	1.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.1
28-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.3	0.1	0.2	0.2	0.2	0.2	0.4	0.1	0.4
29-Oct	0.2	Z	0.5	1.0	1.8	0.6	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.4	1.8
30-Oct	0.4	0.7	Z	1.2	1.1	2.2	1.2	0.4	0.3	0.3	0.3	0.3	0.4	0.8	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.2	0.2	0.2	0.5	2.2
31-Oct	0.1	0.1	0.1	Z	0.2	0.1	0.2	0.4	0.4	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.5
	0.3	0.2	0.3	0.4	0.4	0.4	0.3	0.2	0.3	0.3	0.5	0.5	0.5	0.6	0.4	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	Diurnal Average	
	1.6	1.4	1.1	1.7	1.8	2.2	1.2	0.7	1.0	1.7	2.8	1.7	2.6	4.1	2.8	1.1	1.1	1.6	0.9	1.7	1.5	1.4	1.4	1.9	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance PF - Power Failure

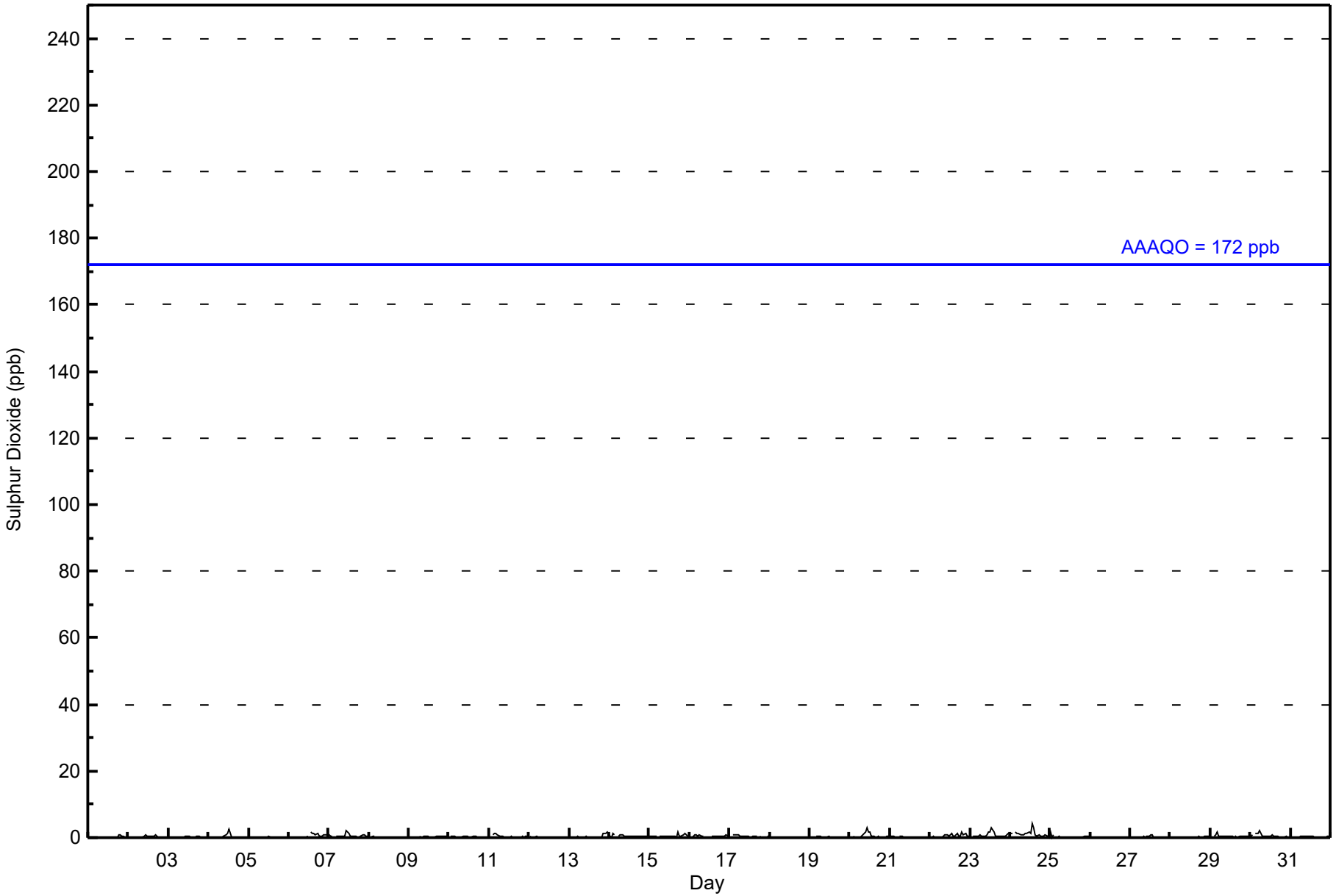
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Anzac - October 2025



Sulphur Dioxide (SO_2) - ppb
Anzac - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	706	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Anzac - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	17	6	5	10	7	29	62	87	56	45	48	46	47	118	82	41	706
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	6	5	10	7	29	62	87	56	45	48	46	47	118	82	41	706

Total Number of Valid Hours: 706

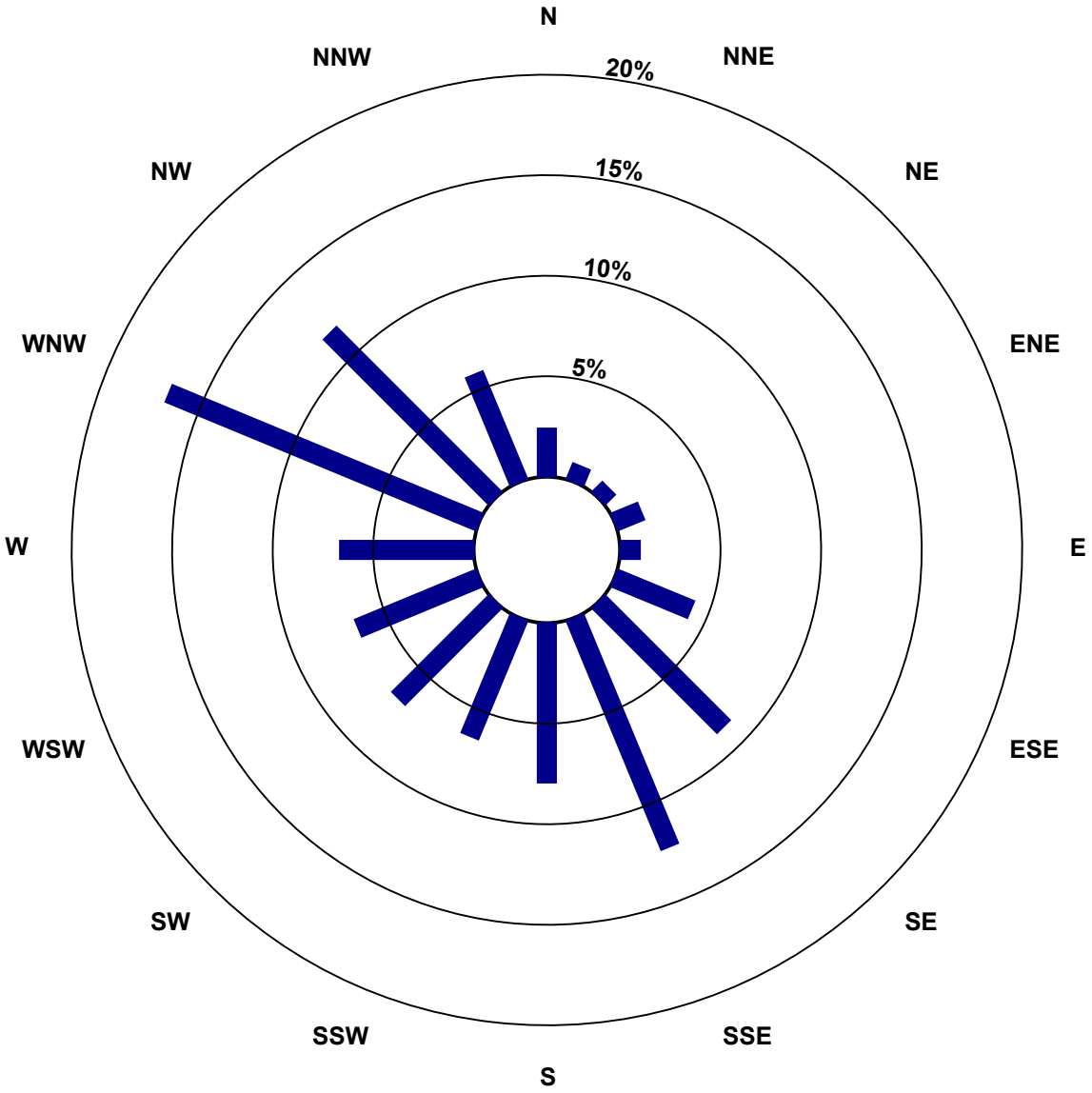
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Anzac



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

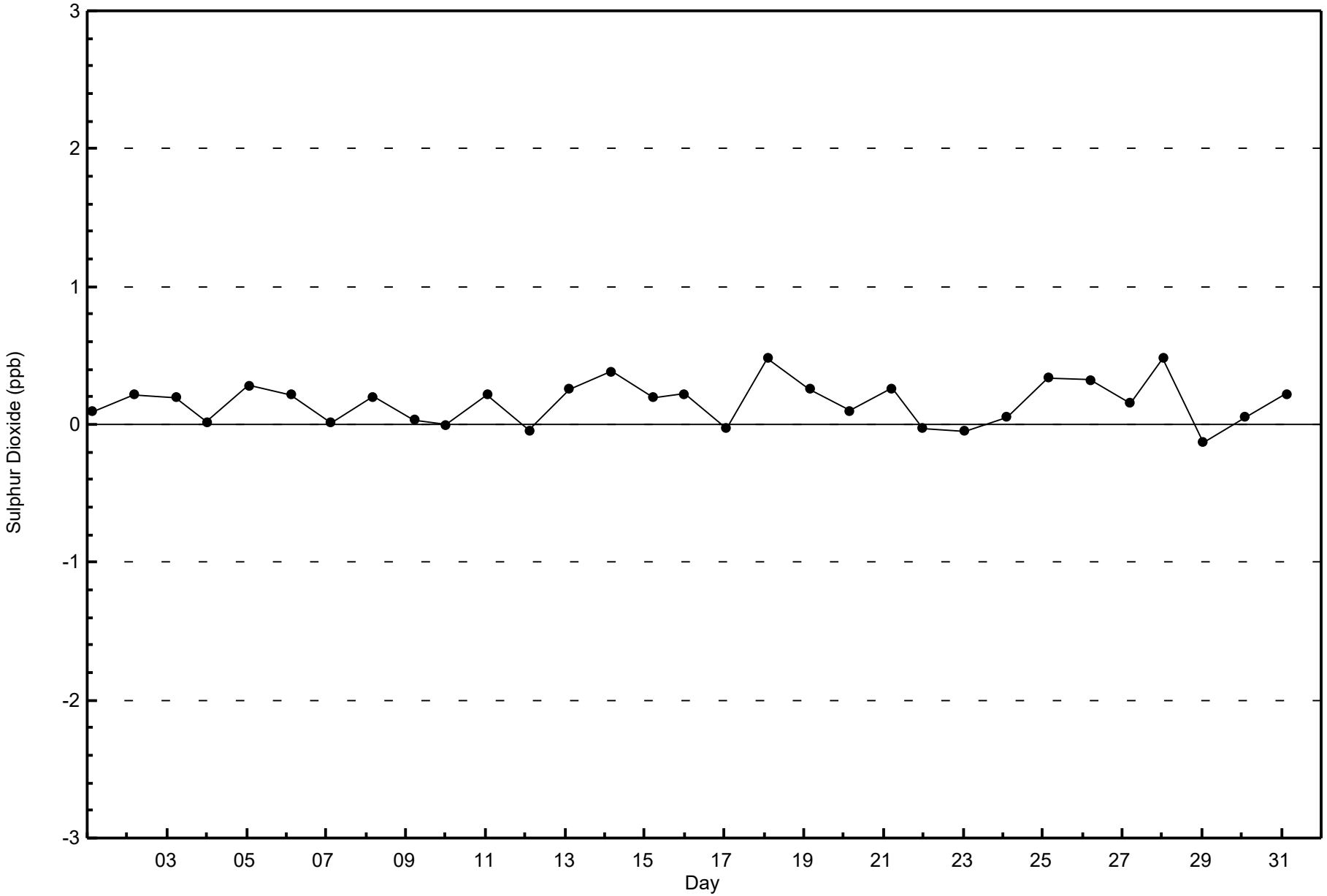
Total Number of Valid Hours: 706

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Anzac - October 2025

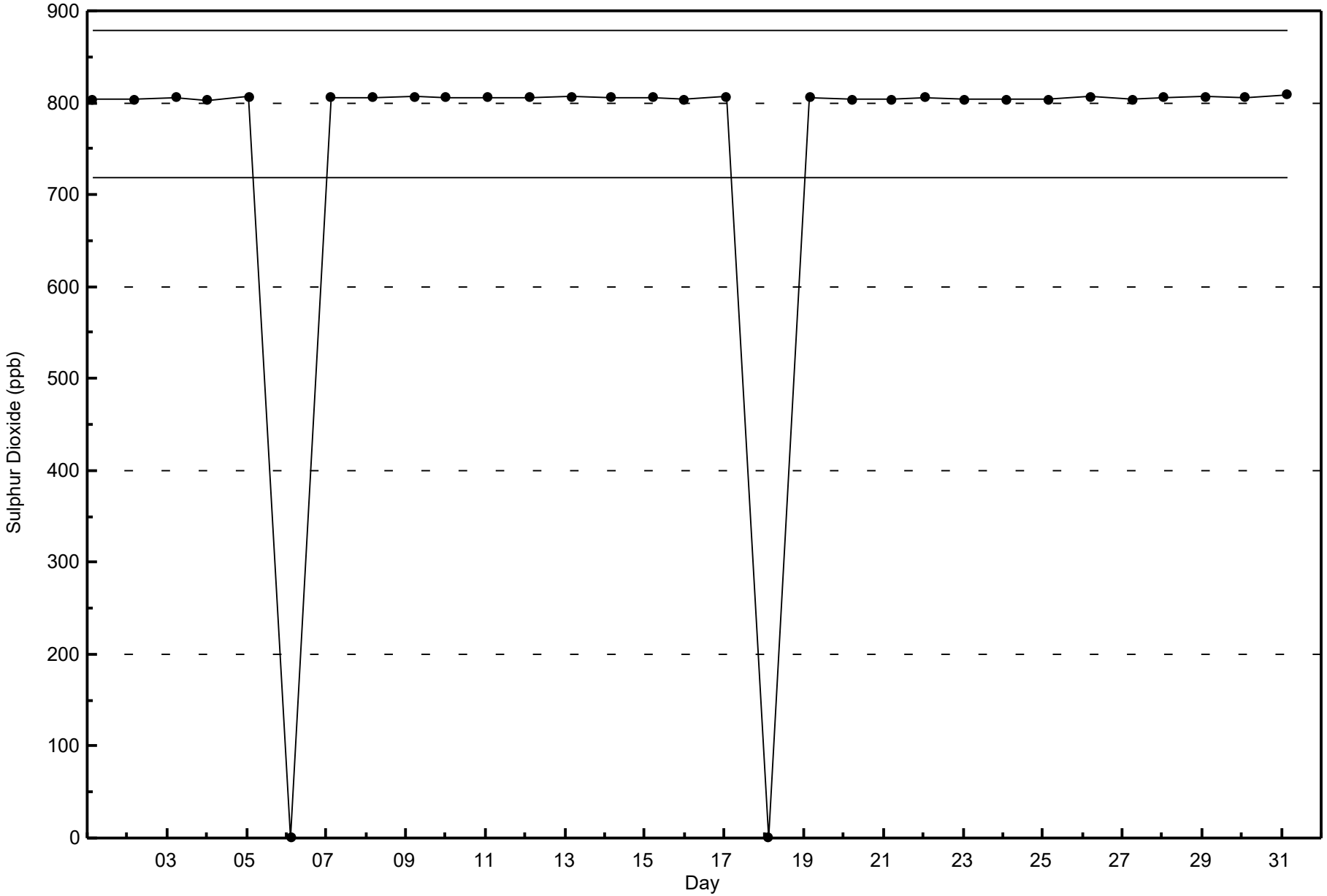


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Anzac - October 2025



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Anzac - October 2025

Number of Exceedences (AAAQG): 30-Min: 0

Maximum Value: 1.4 ppb on Oct 8 08:00

Maximum Daily Average: 0.3 ppb on Oct 24

Minimum Value: 0.1 ppb on Oct 19 23:00

Minimum Daily Average: 0.1 ppb on Oct 16

Maximum Diurnal Average: 0.3 ppb at hour 6

Minimum Diurnal Average: 0.1 ppb at hour 17

Monthly Average: 0.17 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.1 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.3 P_{99} = 0.7

Periods in Service:	1488
Periods of Valid Data:	1406
Periods of Invalid Data:	82
Periods of Calibration:	75
Percent Operational Time:	99.5

Period Ending At (MST)

Day	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
1-Oct	0.2	0.2	0.6	0.6	Z	0.4	0.3	0.3	0.3	0.2	0.4	0.2	0.2	0.2	0.1	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.7
	0.2	0.4	0.7	0.4	SP	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.2		
2-Oct	0.2	0.2	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2
	0.2	0.1	0.1	0.2	0.1	SP	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1		
3-Oct	Z	0.3	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
	SP	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
4-Oct	0.1	Z	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.3
	0.1	SP	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.1		
5-Oct	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	SP	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	PF	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
6-Oct	0.1	0.2	0.1	Z	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	M	0.3	0.3	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.2	0.5
	0.1	0.5	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	M	M	0.3	0.2	0.2	0.3	0.3	0.1	0.1	0.1	0.1	0.1		
7-Oct	0.2	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.2	0.1	0.5	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.2	0.5
	0.1	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.5	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.5		
8-Oct	0.6	0.3	0.2	0.1	0.1	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	1.4
	0.6	0.1	0.2	0.1	0.1	SP	0.1	1.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2		
9-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
10-Oct	0.1	Z	0.2	0.2	0.1	1.1	0.5	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.2	1.1
	0.1	SP	0.2	0.1	0.8	0.9	0.5	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1		
11-Oct	0.2	0.2	Z	0.5	0.6	1.0	0.7	0.5	0.4	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.3	1.0
	0.3	0.2	SP	0.8	0.6	0.9	0.6	0.2	0.5	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.1		
12-Oct	0.2	0.1	0.1	Z	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.5
	0.2	0.1	0.1	SP	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.5	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
13-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3
	0.1	0.2	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1		
14-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	0.1	0.1	SP	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
15-Oct	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5
	SP	0.2	0.1	0.1	0.1	0.1	0.1	0.5	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1		

Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Anzac - October 2025

Day	Period Ending At (MST) 00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
16-Oct	0.1	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	SP	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
17-Oct	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	PF	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	SP	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	PF	0.1	0.1	0.1	0.1	0.1	0.1		
18-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	M	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
19-Oct	0.1	0.1	0.2	0.4	Z	0.5	0.2	0.3	0.1	0.1	0.2	0.4	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.5
	0.2	0.2	0.3	0.4	SP	0.4	0.2	0.4	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2		
20-Oct	0.1	0.1	0.3	0.1	0.2	Z	0.2	0.2	0.3	0.4	0.5	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.5
	0.1	0.1	0.1	0.1	0.2	SP	0.2	0.2	0.4	0.4	0.4	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
21-Oct	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2
	SP	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.2		
22-Oct	0.2	Z	0.2	0.1	0.1	0.2	0.5	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.1	0.1	0.7	0.3	0.7	0.1	0.1	0.2	0.8
	0.3	SP	0.2	0.1	0.1	0.8	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.1	0.1	0.3	0.1	0.2	0.5	0.6	0.2	0.1	0.1		
23-Oct	0.1	0.7	Z	0.2	0.1	0.1	0.7	0.5	0.2	0.2	0.4	0.2	0.3	0.4	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.9
	0.5	0.7	SP	0.1	0.1	0.6	0.9	0.2	0.2	0.2	0.2	0.5	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2		
24-Oct	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.4	0.3	0.4	0.2	0.8	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.7	0.5	0.2	0.3	0.9
	0.2	0.2	0.2	SP	0.3	0.2	0.2	0.2	0.4	0.4	0.4	0.3	0.3	0.6	0.4	0.2	0.2	0.2	0.2	0.1	0.6	0.9	0.2	0.1		
25-Oct	0.2	0.1	0.9	0.1	Z	0.5	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.9
	0.8	0.1	0.2	0.1	SP	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1		
26-Oct	0.2	0.1	0.2	0.2	0.2	Z	0.5	0.5	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.6
	0.1	0.4	0.2	0.2	0.2	SP	0.6	0.3	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2		
27-Oct	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3
	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2		
28-Oct	0.2	Z	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	C	C	C	C	C	C	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	--	0.3
	0.2	SP	0.2	0.2	0.2	0.1	0.1	0.1	0.1	C	C	C	C	C	C	C	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
29-Oct	0.1	0.1	Z	0.4	0.4	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.5
	0.1	0.1	SP	0.5	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2		
30-Oct	0.2	0.4	0.4	Z	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
	0.3	0.4	0.3	SP	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
31-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.3
	0.1	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.3		
	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	Diurnal Average	
	0.8	0.7	0.9	0.8	0.8	1.1	0.9	1.4	0.5	0.4	0.5	0.5	0.4	0.8	0.5	0.3	0.3	0.4	0.3	0.7	0.6	0.9	0.5	0.5	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance PF - Power Failure SP - Span

Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb

Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

Anzac - October 2025

Maximum Value: 1.0 ppb on Oct 10 06:00

Maximum Daily Average: 0.3 ppb on Oct 24

Minimum Value: 0.1 ppb on Oct 19 23:00

Minimum Daily Average: 0.1 ppb on Oct 18

Maximum Diurnal Average: 0.3 ppb at hour 6

Minimum Diurnal Average: 0.1 ppb at hour 17

Monthly Average: 0.17 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.1 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.3 P_{99} = 0.7

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	37
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.2	0.3	0.7	0.5	Z	0.4	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.3	0.2	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.7
2-Oct	0.2	0.2	0.1	0.2	0.1	Z	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2
3-Oct	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
4-Oct	0.1	Z	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.2	0.3
5-Oct	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
6-Oct	0.1	0.3	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	M	M	0.3	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.3
7-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.2	0.1	0.5	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.5	0.2	0.5
8-Oct	0.6	0.2	0.2	0.1	0.1	Z	0.2	0.8	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.8
9-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
10-Oct	0.1	Z	0.2	0.1	0.5	1.0	0.5	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	1.0
11-Oct	0.2	0.2	Z	0.7	0.6	0.9	0.7	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.3	0.9
12-Oct	0.2	0.1	0.1	Z	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3
13-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2
14-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
15-Oct	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.4
16-Oct	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
17-Oct	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	PF	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
18-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	M	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19-Oct	0.2	0.2	0.3	0.4	Z	0.5	0.2	0.3	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.5
20-Oct	0.1	0.1	0.2	0.1	0.2	Z	0.2	0.2	0.3	0.4	0.4	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
21-Oct	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2
22-Oct	0.2	Z	0.2	0.1	0.1	0.5	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.2	0.1	0.2	0.6	0.4	0.5	0.1	0.1	0.2	0.6
23-Oct	0.3	0.7	Z	0.1	0.1	0.4	0.8	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.8
24-Oct	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.7	0.4	0.2	0.2	0.2	0.2	0.1	0.4	0.8	0.4	0.2	0.3	0.8
25-Oct	0.5	0.1	0.5	0.1	Z	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.5
26-Oct	0.1	0.3	0.2	0.2	0.2	Z	0.6	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.6
27-Oct	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3
28-Oct	0.2	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	C	C	C	C	C	C	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	--	0.3
29-Oct	0.1	0.1	Z	0.4	0.4	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.4
30-Oct	0.2	0.4	0.4	Z	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
31-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.3
	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	Diurnal Average	
	0.6	0.7	0.7	0.7	0.6	1.0	0.8	0.8	0.4	0.4	0.5	0.4	0.4	0.7	0.4	0.3	0.3	0.4	0.3	0.6	0.4	0.8	0.4	0.5	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance PF - Power Failure

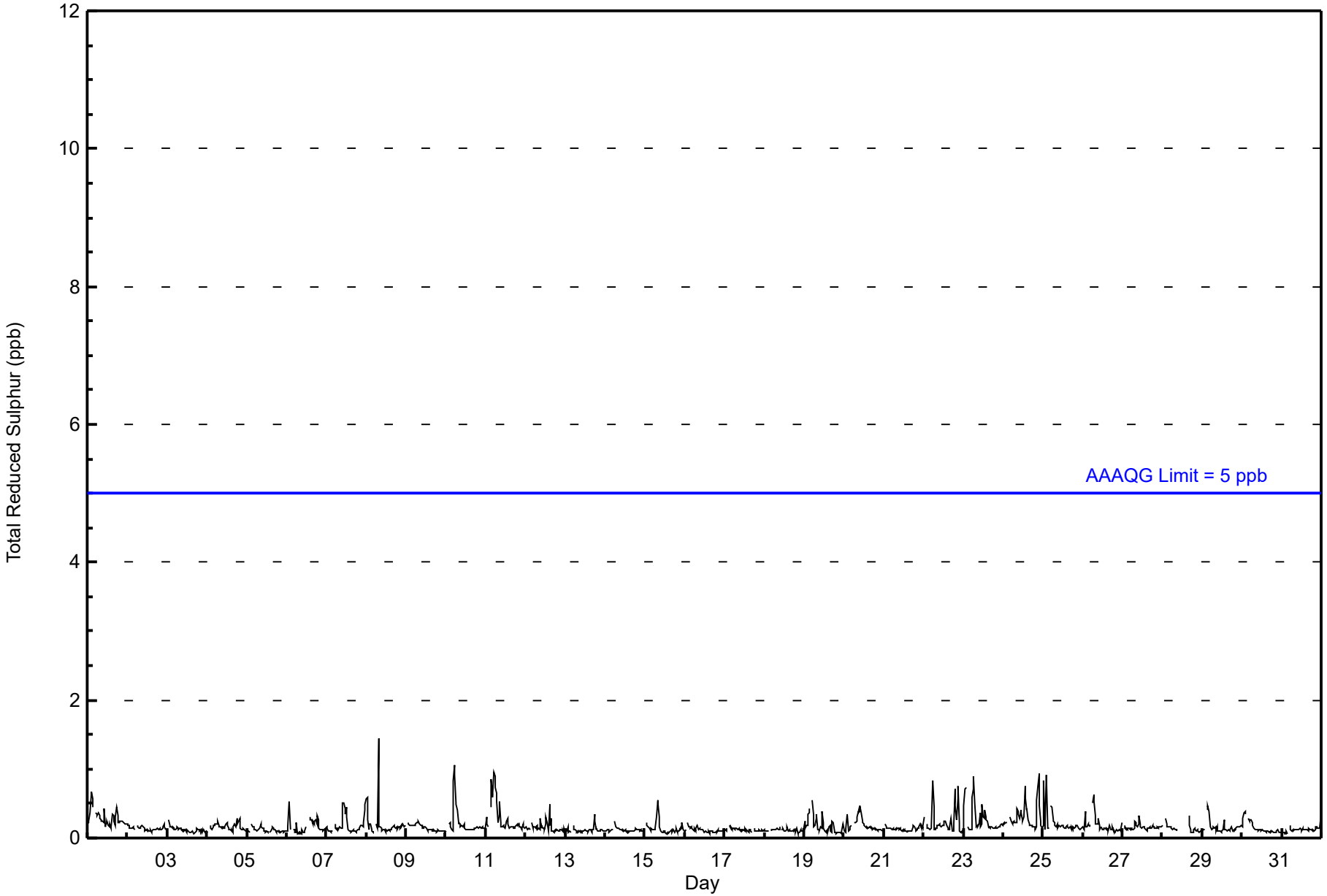
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA

Wood Buffalo Environmental Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Anzac - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	703	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Reduced Sulphur (TRS) - ppb

Anzac - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	17	6	5	11	7	28	60	90	58	44	51	44	49	110	82	41	703
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	6	5	11	7	28	60	90	58	44	51	44	49	110	82	41	703

Total Number of Valid Hours: 703

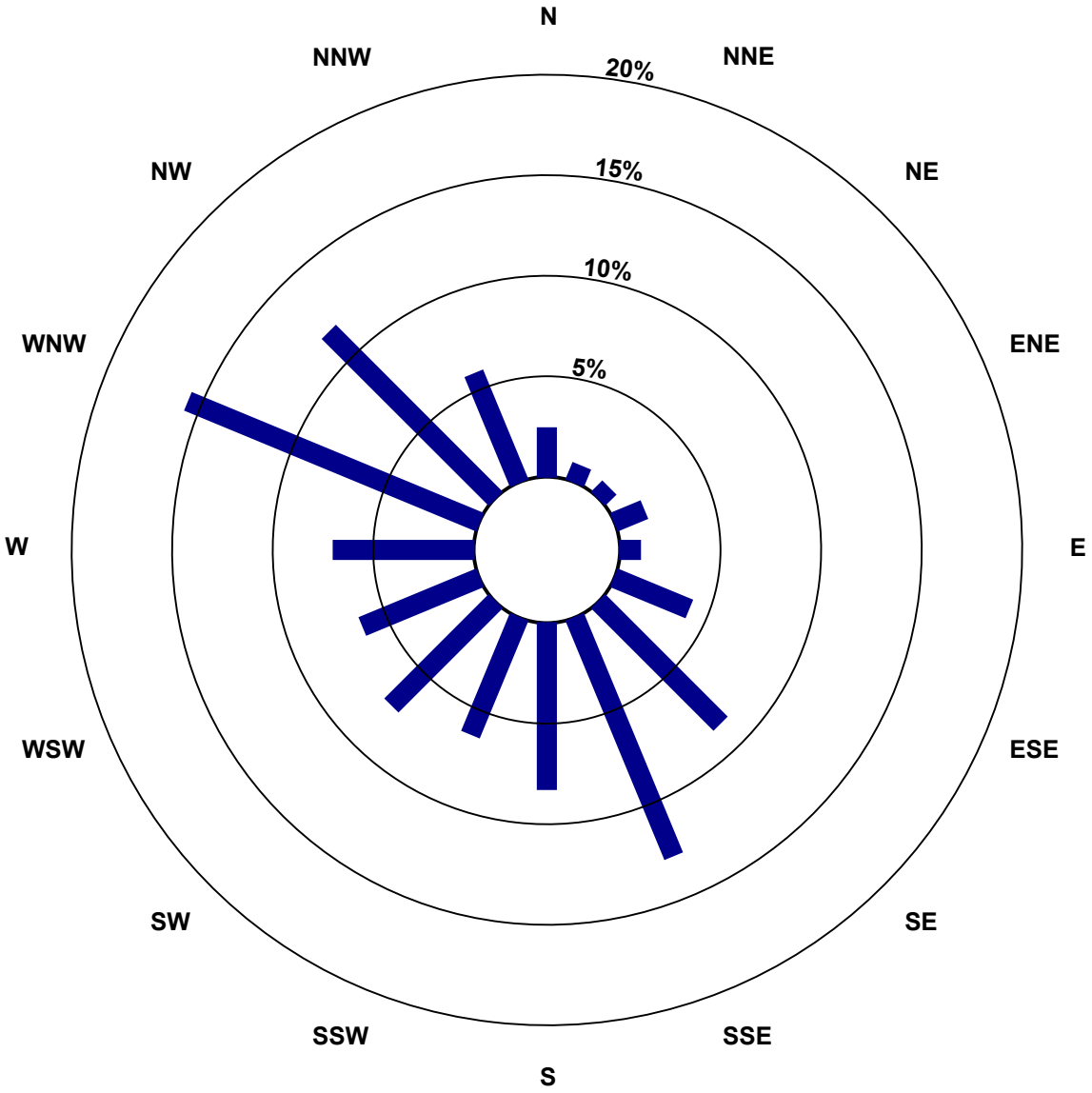
Total Number of Hours: 744

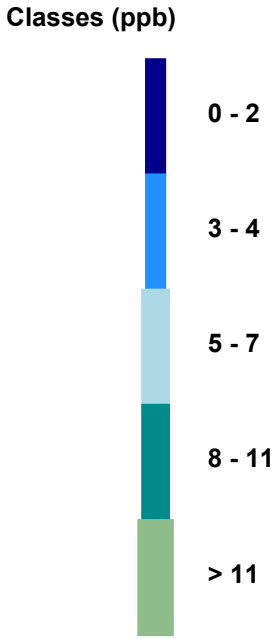
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Reduced Sulphur (TRS) - ppb

Anzac





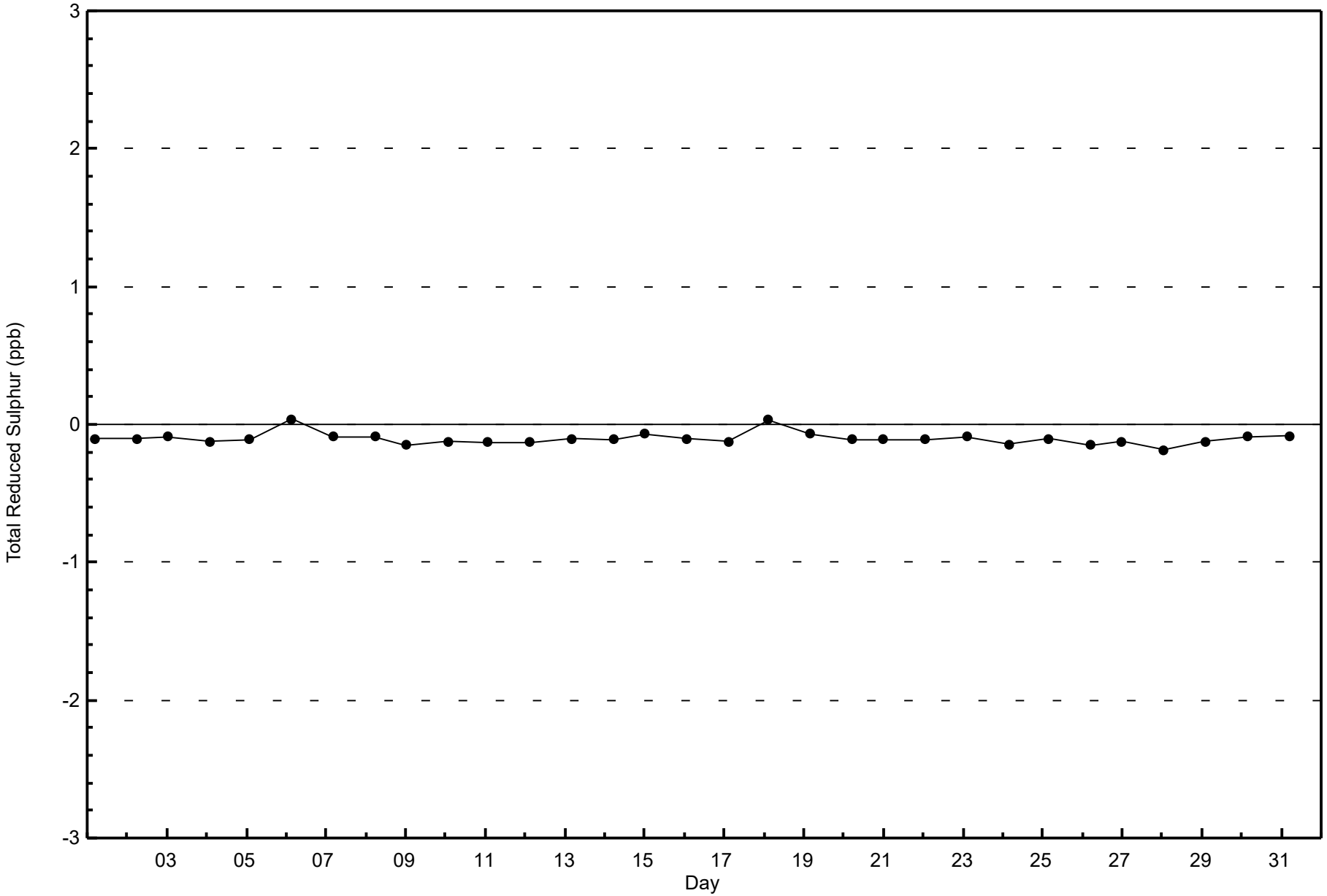
Total Number of Valid Hours: 703

Wood Buffalo Environmental Association

Zero Responses

Total Reduced Sulphur (TRS) - ppb

Anzac - October 2025

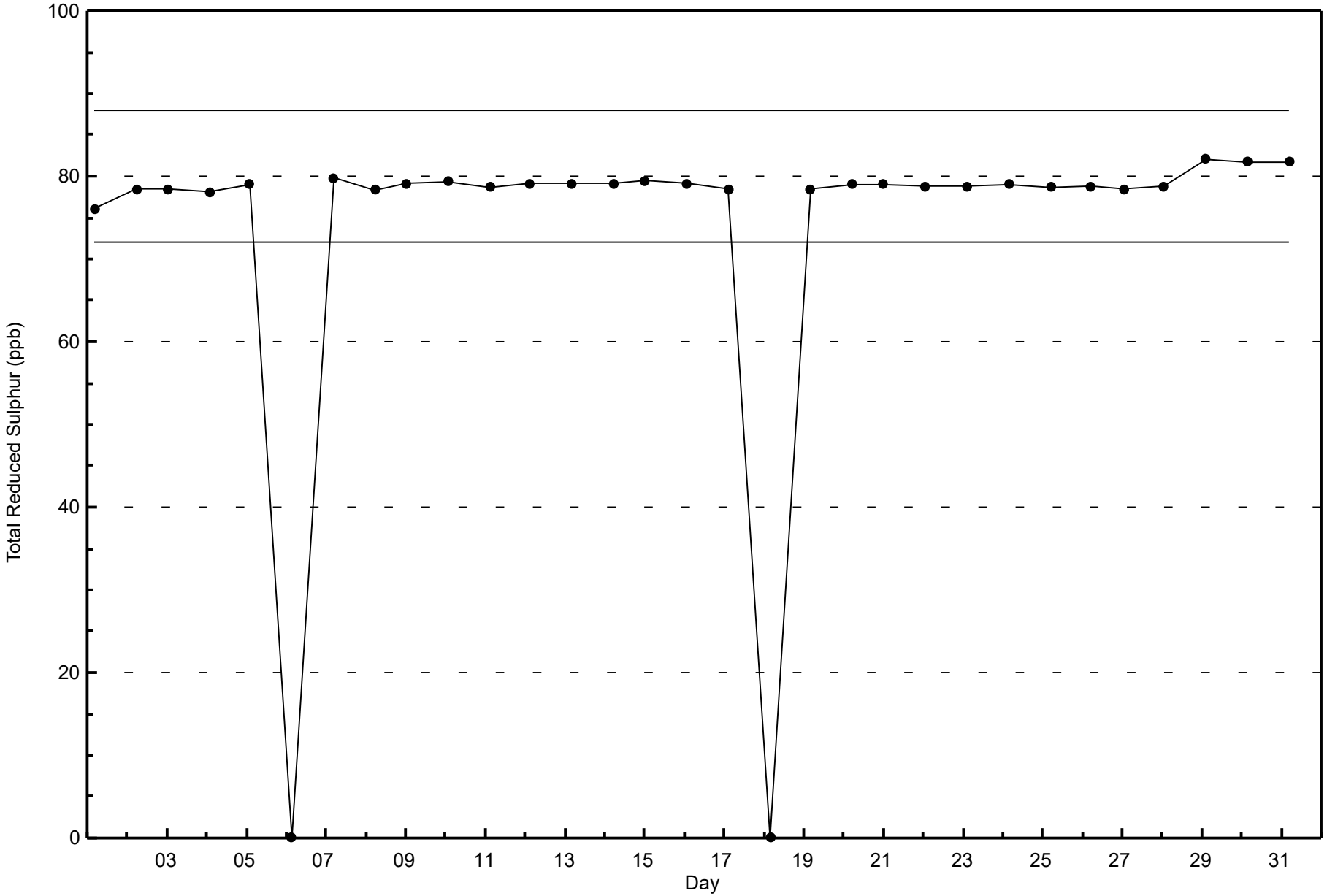


Wood Buffalo Environmental Association

Span Responses

Total Reduced Sulphur (TRS) - ppb

Anzac - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Anzac - October 2025

Maximum Value: 2.2 ppm on Oct 11 09:00

Maximum Daily Average: 2.0 ppm on Oct 24

Minimum Value: 1.9 ppm on Oct 8 07:00

Minimum Daily Average: 1.9 ppm on Oct 17

Maximum Diurnal Average: 2.0 ppm at hour 6

Minimum Diurnal Average: 1.9 ppm at hour 15

Monthly Average: 1.95 ppm

Percentiles: P_1 = 1.9 P_{10} = 1.9 Q_1 = 1.9 Median = 1.9 Q_3 = 2.0 P_{90} = 2.0 P_{99} = 2.1

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	35
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.0	2.0	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
2-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0
4-Oct	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0
5-Oct	1.9	Z	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0
6-Oct	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	M	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	2.0
7-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0
8-Oct	2.1	2.0	2.0	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1
9-Oct	1.9	1.9	1.9	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
10-Oct	Z	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.1
11-Oct	2.0	Z	2.0	2.0	2.1	2.1	2.2	2.1	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2
12-Oct	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0
13-Oct	1.9	2.0	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0
14-Oct	1.9	1.9	1.9	1.9	Z	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0
15-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0
16-Oct	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	C	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0
17-Oct	2.0	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	PF	PF	1.9	1.9	1.9	1.9	1.9	1.9	2.0
18-Oct	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	M	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
19-Oct	2.0	2.1	2.1	Z	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1
20-Oct	1.9	1.9	1.9	1.9	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0
21-Oct	2.0	2.0	2.0	2.0	2.0	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	1.9	2.0
22-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0
23-Oct	1.9	Z	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
24-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
25-Oct	2.0	2.0	2.0	Z	2.0	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1
26-Oct	1.9	1.9	2.0	2.0	Z	1.9	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1
27-Oct	1.9	1.9	1.9	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
28-Oct	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0
29-Oct	1.9	Z	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	2.0
30-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	2.0	2.0	1.9	2.0	1.9	2.0	2.0
31-Oct	1.9	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	2.0
	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	Diurnal Average	
	2.1	2.1	2.1	2.0	2.1	2.1	2.2	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	Diurnal Maximum	

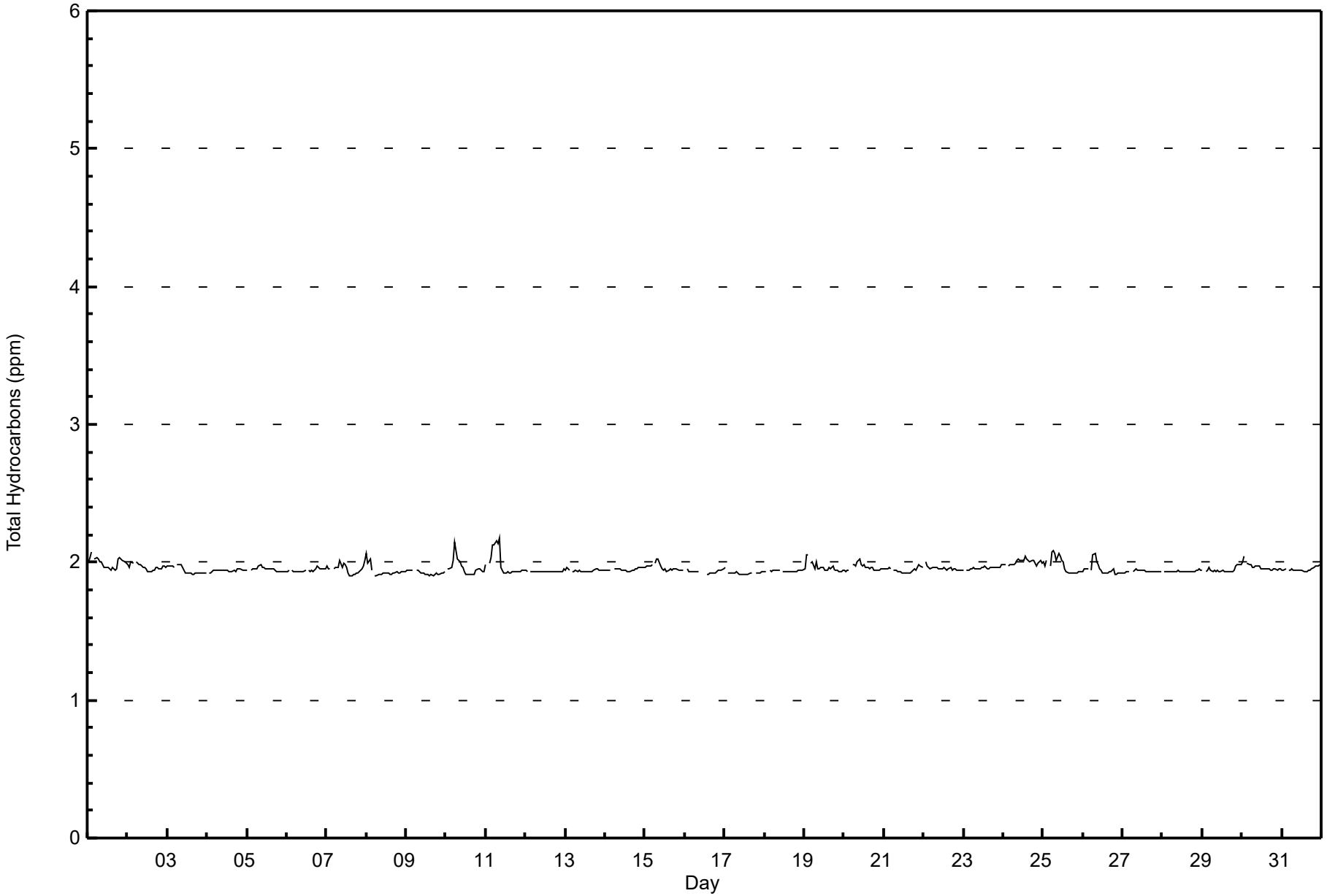
Z - zerospan C - Calibration M - Maintenance PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Anzac - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	688	97.59	97.59
2.1 - 3.0	17	2.41	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Anzac - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	17	6	5	10	6	28	58	84	54	45	48	46	45	116	79	41	688
2.1 - 3.0	0	0	0	0	1	1	4	3	2	0	0	0	2	1	3	0	17
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	6	5	10	7	29	62	87	56	45	48	46	47	117	82	41	705

Total Number of Valid Hours: 705

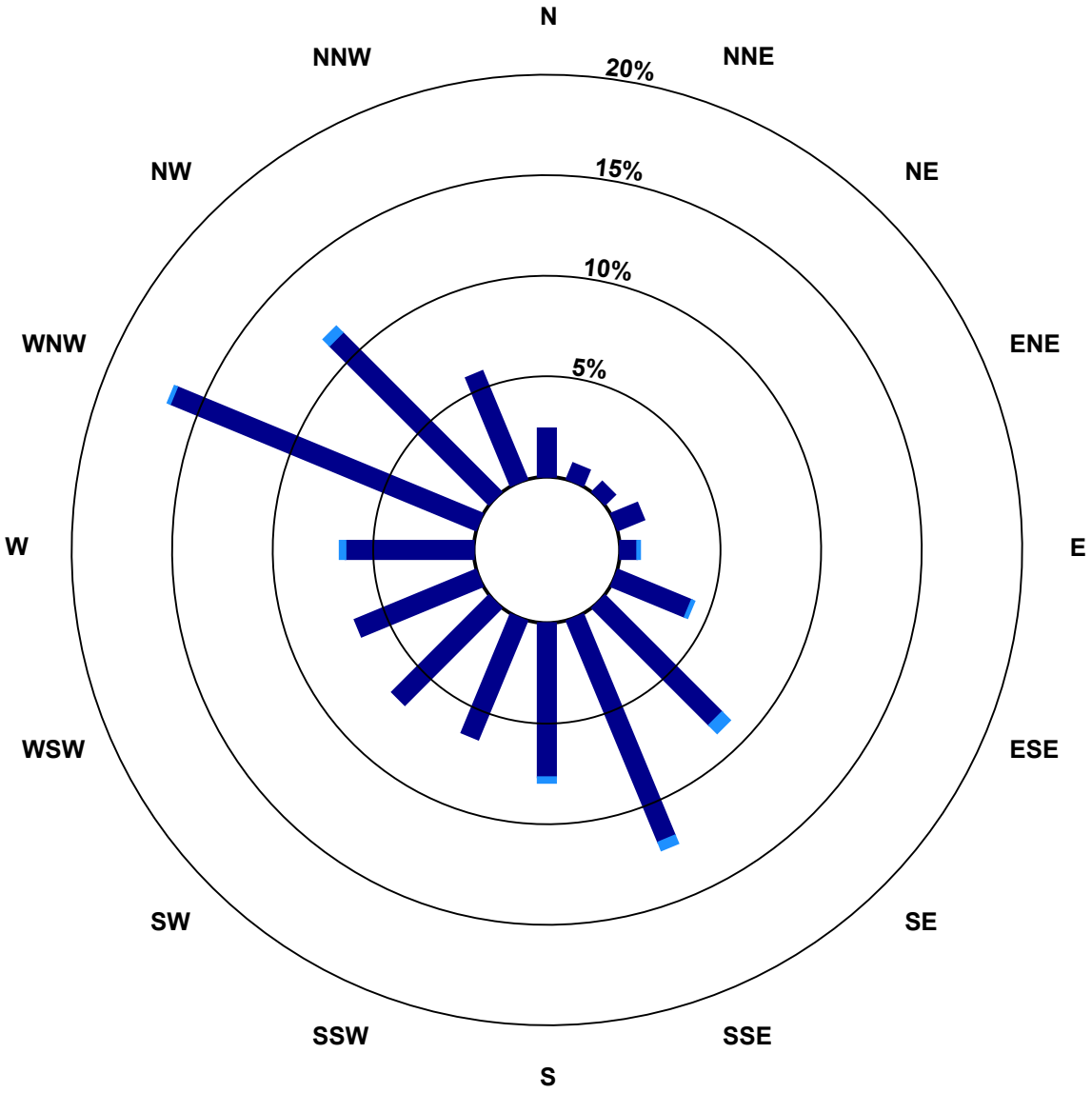
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Anzac



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

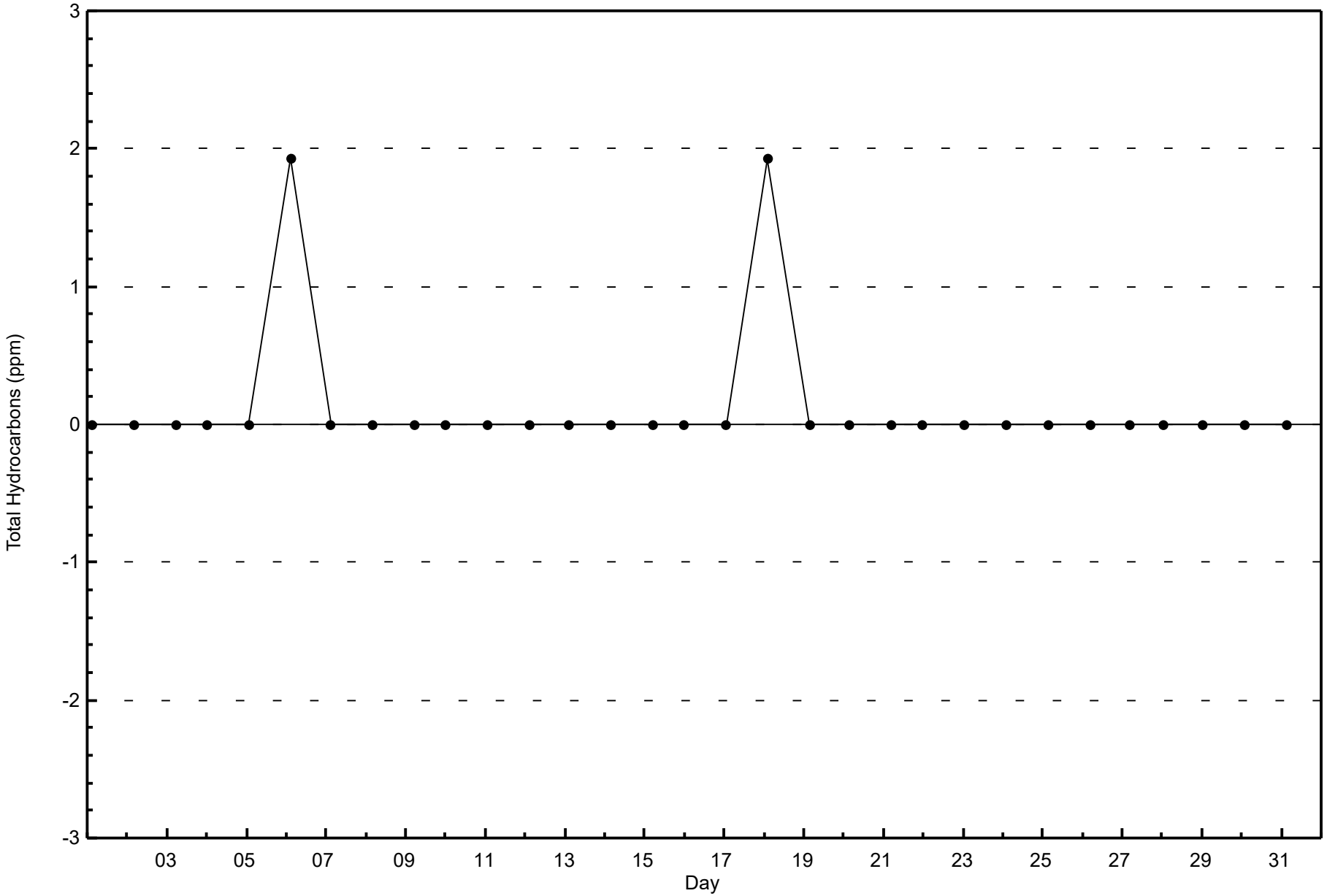
Total Number of Valid Hours: 705

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Anzac - October 2025

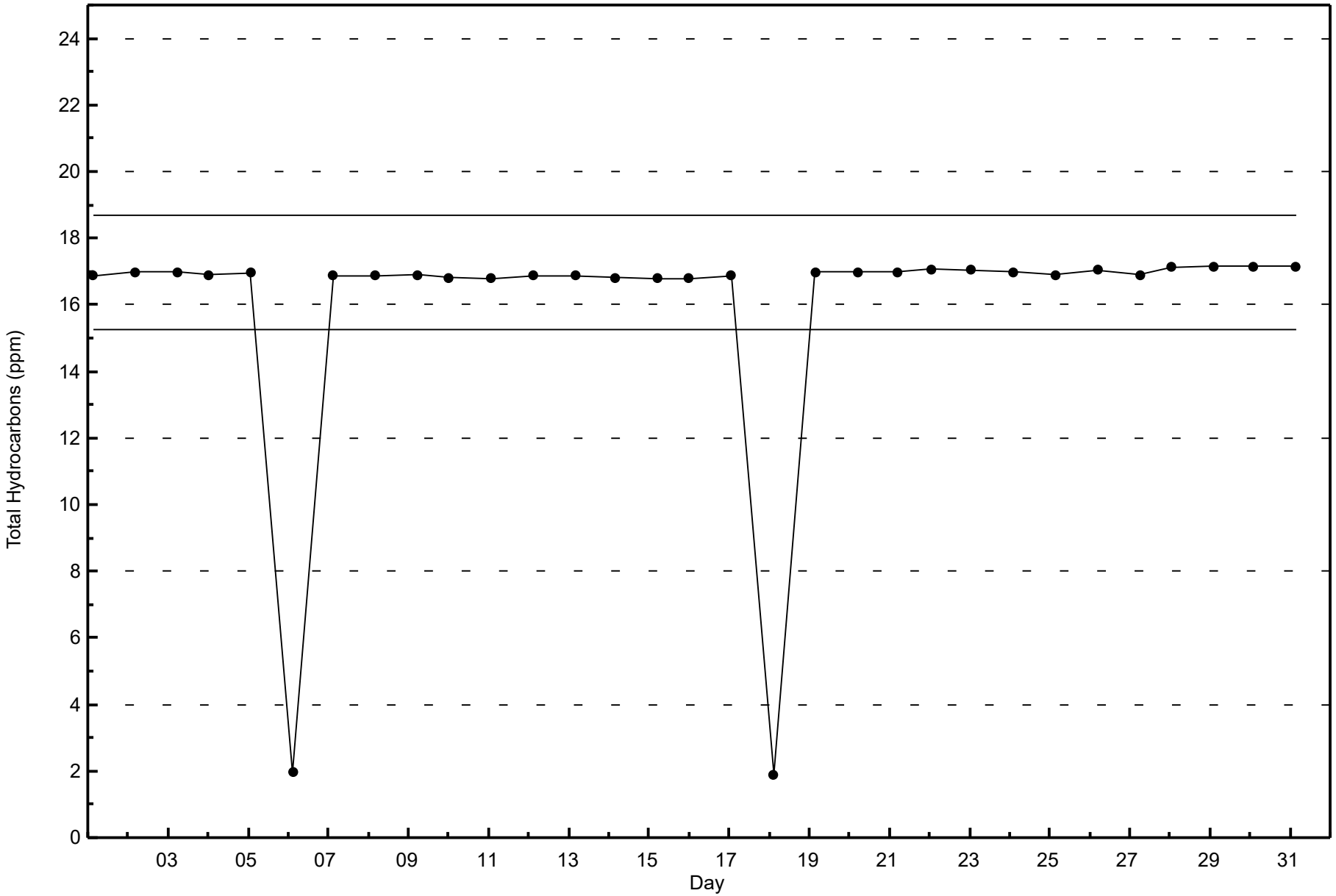


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Anzac - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

Anzac - October 2025

Maximum Value: 0.010 ppm on Oct 26 09:00

Maximum Daily Average: 0.001 ppm on Oct 26

Minimum Value: 0.000 ppm on Oct 1 01:00

Minimum Daily Average: 0.000 ppm on Oct 1

Maximum Diurnal Average: 0.001 ppm at hour 8

Minimum Diurnal Average: 0.000 ppm at hour 1

Monthly Average: 0.000 ppm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.0 P_{99} = 0.0

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	35
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005
6-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	M	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
7-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	C	C	C	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	PF	PF	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	M	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.002
22-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009
26-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.010	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.010
27-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Diurnal Average	
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.010	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	Diurnal Maximum	

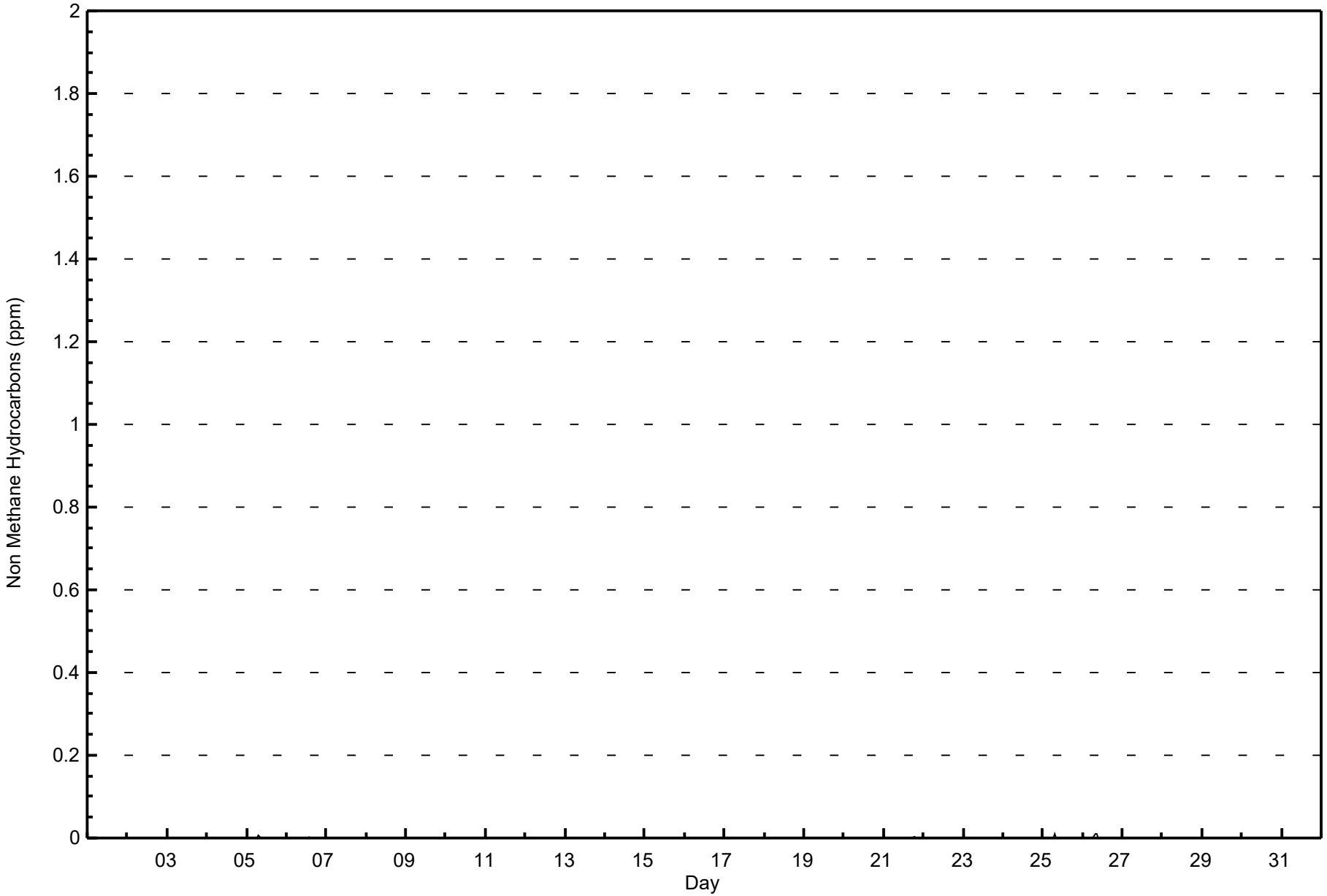
Z - zerospan C - Calibration M - Maintenance PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm

Anzac - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Anzac - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	702	99.57	99.57
0.006 - 0.05	3	0.43	100.00
0.06 - 0.1	0	0.00	100.00
> 0.1	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.005	17	6	5	10	7	29	60	87	56	45	48	46	47	116	82	41	702
0.006 - 0.05	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3
0.06 - 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	6	5	10	7	29	62	87	56	45	48	46	47	117	82	41	705

Total Number of Valid Hours: 705

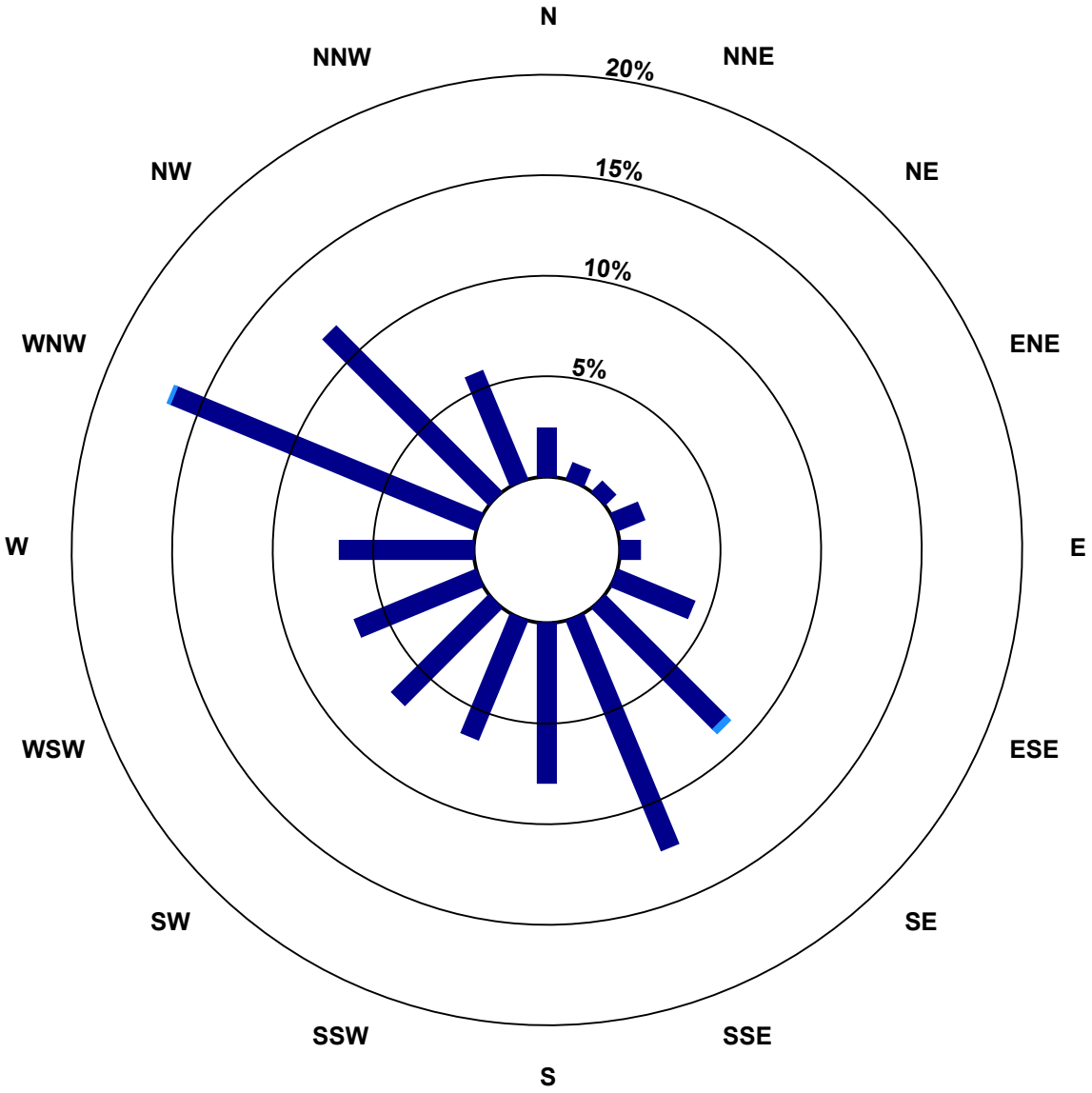
Total Number of Hours: 744

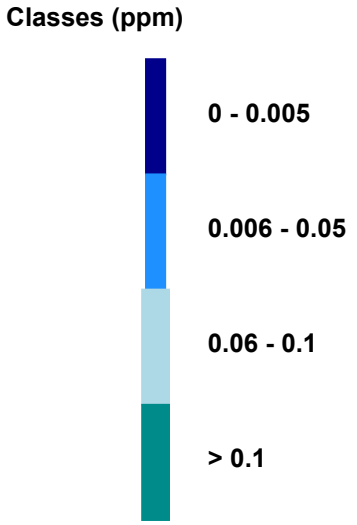
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Non Methane Hydrocarbons (NMHC) - ppm

Anzac





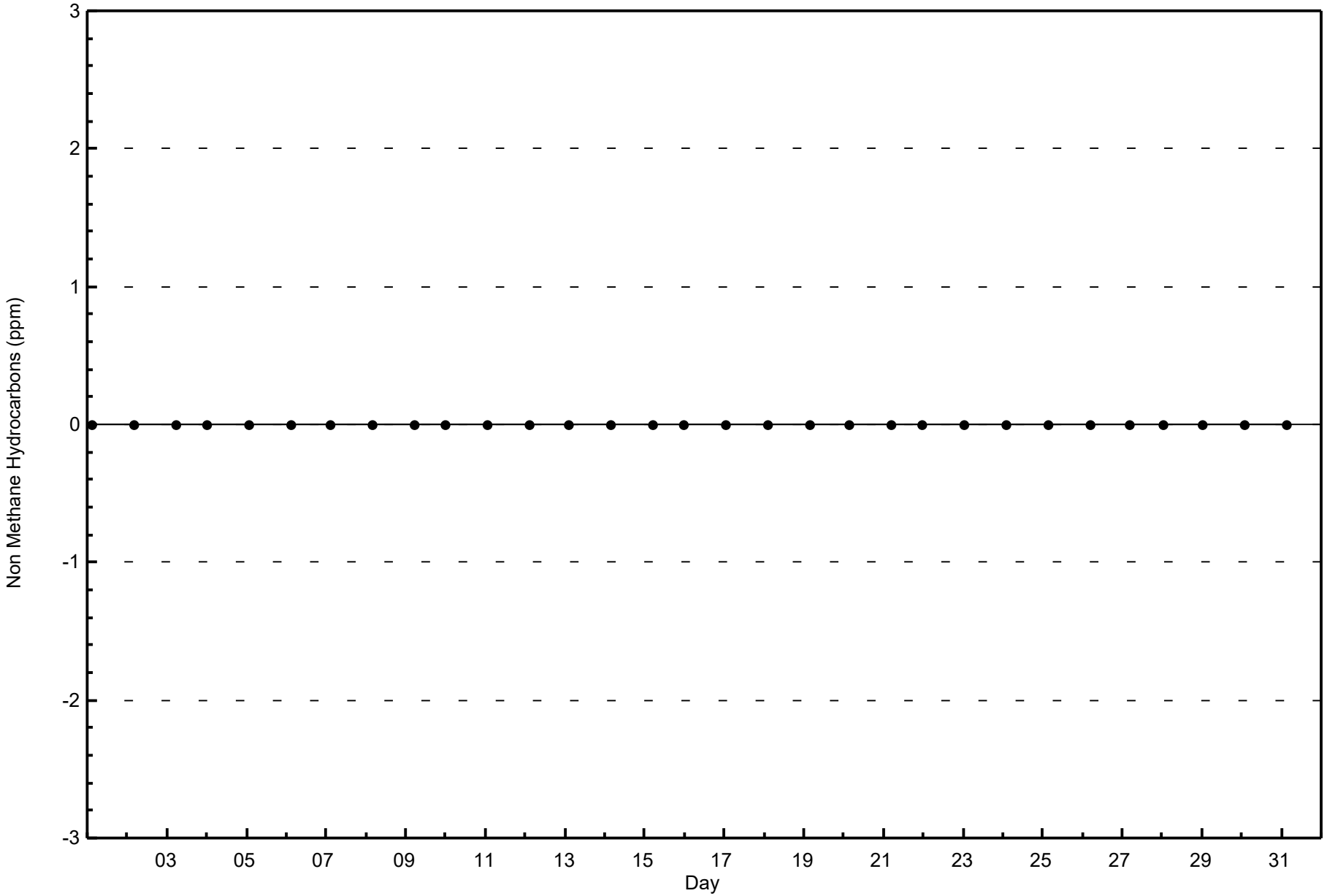
Total Number of Valid Hours: 705

Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Anzac - October 2025

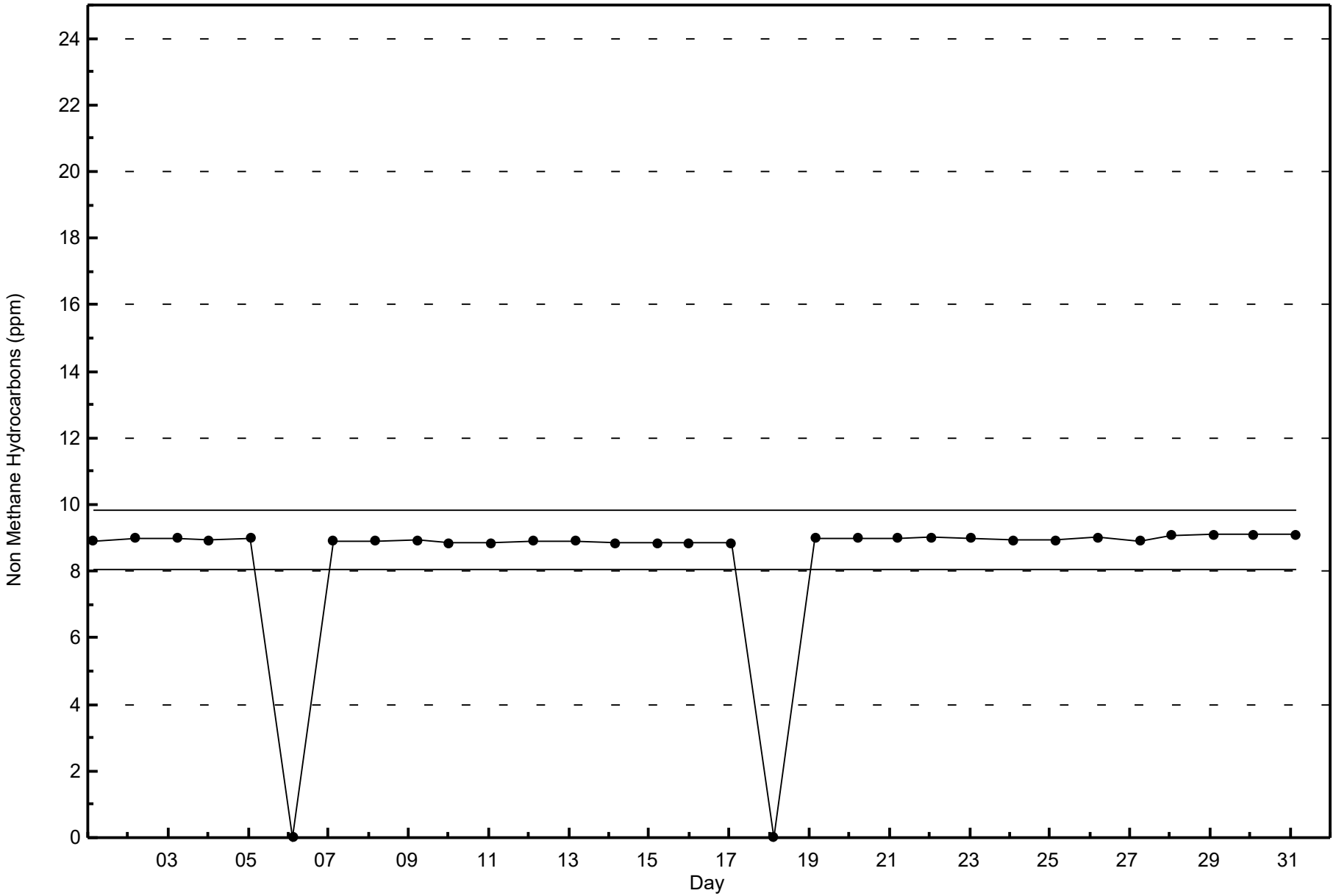


Wood Buffalo Environmental Association

Span Responses

Non Methane Hydrocarbons (NMHC) - ppm

Anzac - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH_4) - ppm

Anzac - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 2.2 ppm on Oct 11 09:00

Maximum Daily Average: 2.0 ppm on Oct 24

Minimum Value: 1.9 ppm on Oct 8 07:00

Minimum Daily Average: 1.9 ppm on Oct 17

Maximum Diurnal Average: 2.0 ppm at hour 6

Minimum Diurnal Average: 1.9 ppm at hour 15

Monthly Average: 1.95 ppm

Percentiles: P_1 = 1.9 P_{10} = 1.9 Q_1 = 1.9 Median = 1.9 Q_3 = 2.0 P_{90} = 2.0 P_{99} = 2.1

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	35
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.0	2.0	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
2-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0
4-Oct	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0
5-Oct	1.9	Z	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0
6-Oct	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	M	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	2.0
7-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0
8-Oct	2.1	2.0	2.0	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1
9-Oct	1.9	1.9	1.9	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
10-Oct	Z	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	1.9	1.9	1.9	2.0	2.1
11-Oct	2.0	Z	2.0	2.0	2.1	2.1	2.2	2.1	2.2	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2
12-Oct	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0
13-Oct	1.9	2.0	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0
14-Oct	1.9	1.9	1.9	1.9	Z	1.9	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0
15-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0
16-Oct	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	C	C	C	C	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0
17-Oct	2.0	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	PF	PF	1.9	1.9	1.9	1.9	1.9	1.9	2.0
18-Oct	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	M	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
19-Oct	2.0	2.1	2.1	Z	2.0	2.0	1.9	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	2.0	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1
20-Oct	1.9	1.9	1.9	1.9	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0
21-Oct	2.0	2.0	2.0	2.0	2.0	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	2.0	2.0	2.0	1.9	2.0
22-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.0
23-Oct	1.9	Z	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
24-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
25-Oct	2.0	2.0	2.0	Z	2.0	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1
26-Oct	1.9	1.9	2.0	2.0	Z	1.9	2.1	2.1	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1
27-Oct	1.9	1.9	1.9	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
28-Oct	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0
29-Oct	1.9	Z	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	1.9	2.0
30-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	1.9	1.9	2.0	2.0	1.9	2.0	1.9	2.0	2.0
31-Oct	1.9	1.9	1.9	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	1.9	2.0
	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	Diurnal Average	
	2.1	2.1	2.1	2.0	2.1	2.1	2.2	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	Diurnal Maximum	

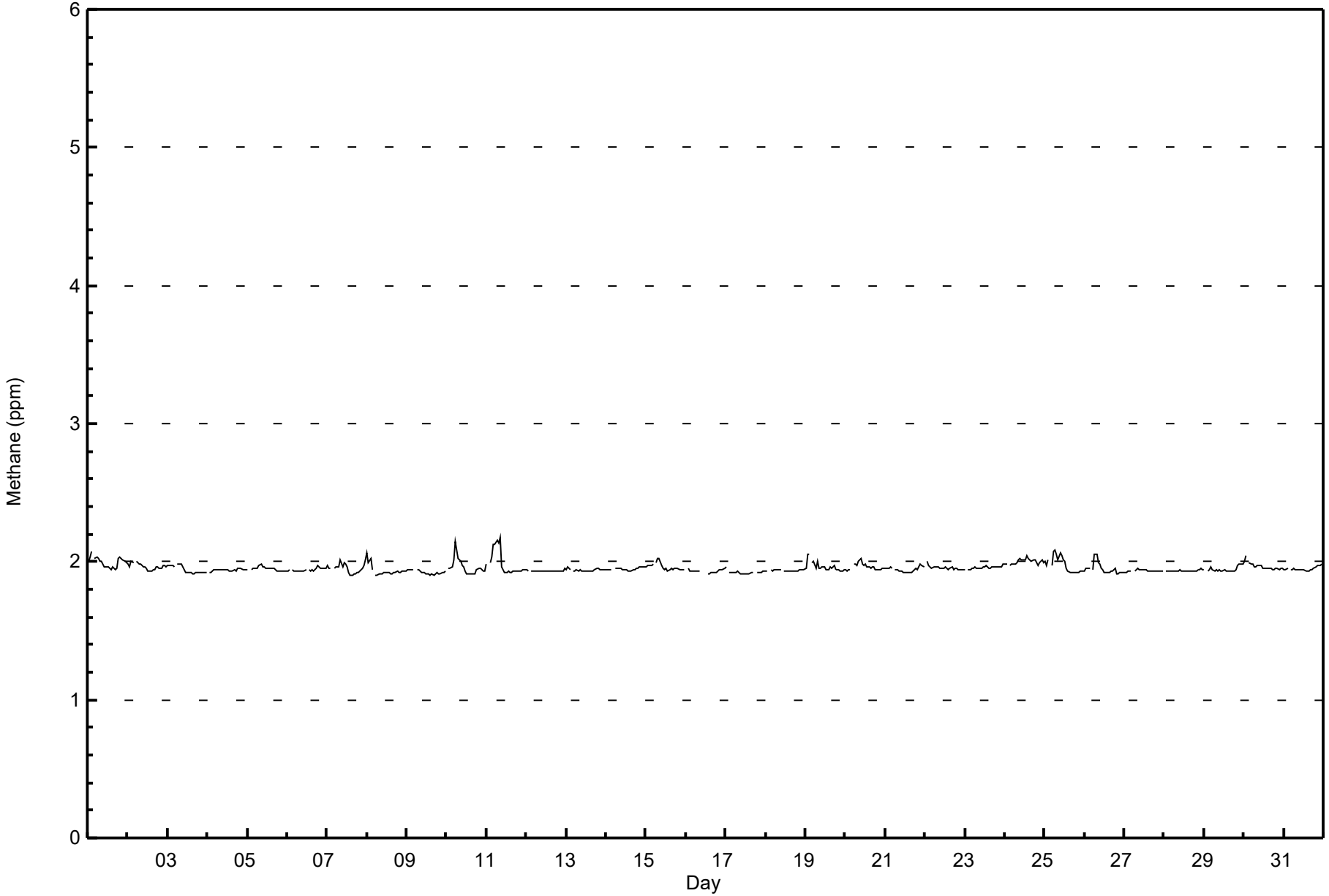
Z - zerospan C - Calibration M - Maintenance PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Methane (CH_4) - ppm

Anzac - October 2025



Methane (CH_4) - ppm
Anzac - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	688	97.59	97.59
2.1 - 3.0	17	2.41	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Methane (CH_4) - ppm

Anzac - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	17	6	5	10	6	28	58	84	54	45	48	46	45	116	79	41	688
2.1 - 3.0	0	0	0	0	1	1	4	3	2	0	0	0	2	1	3	0	17
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	6	5	10	7	29	62	87	56	45	48	46	47	117	82	41	705

Total Number of Valid Hours: 705

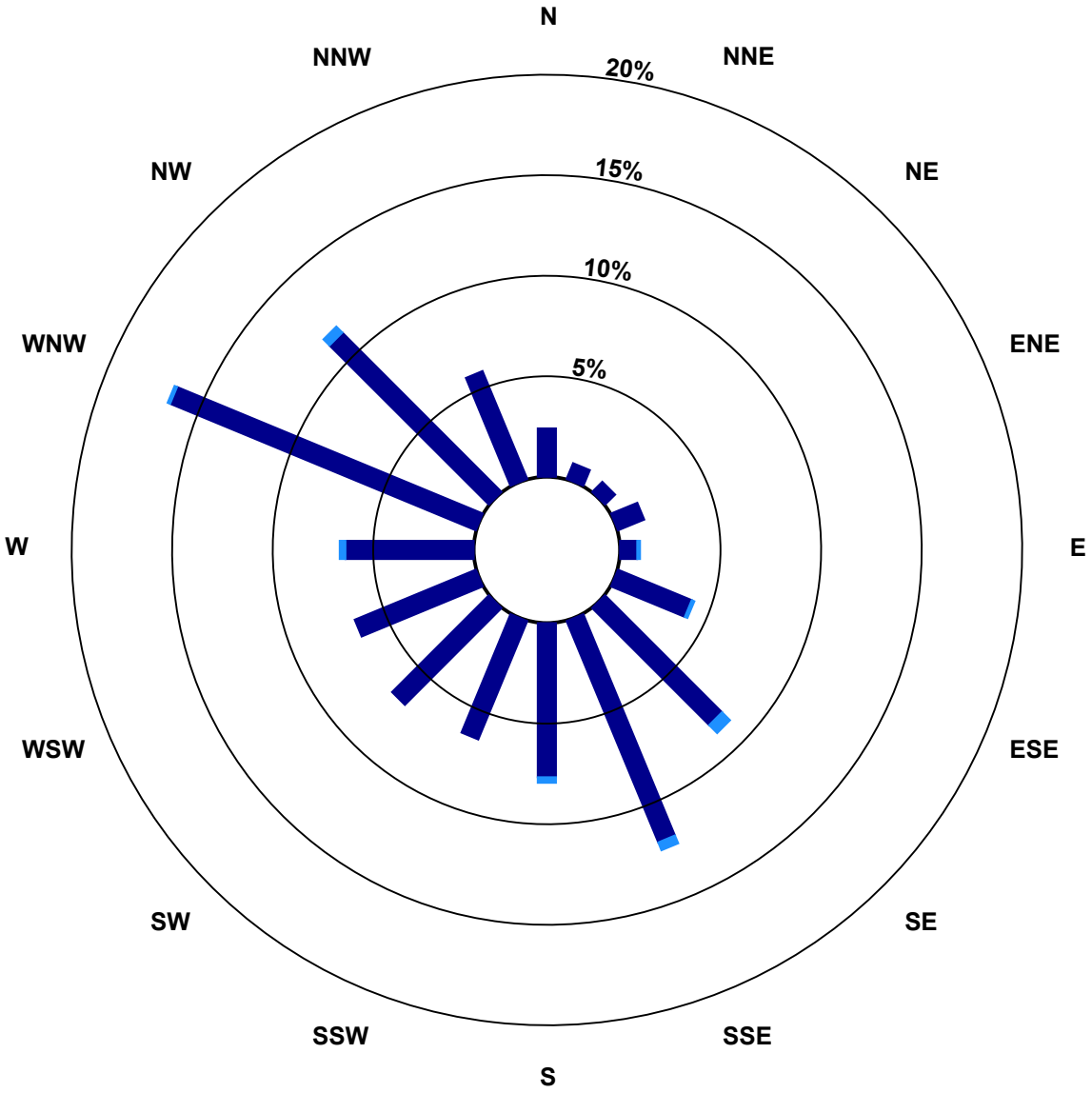
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Methane (CH_4) - ppm

Anzac



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

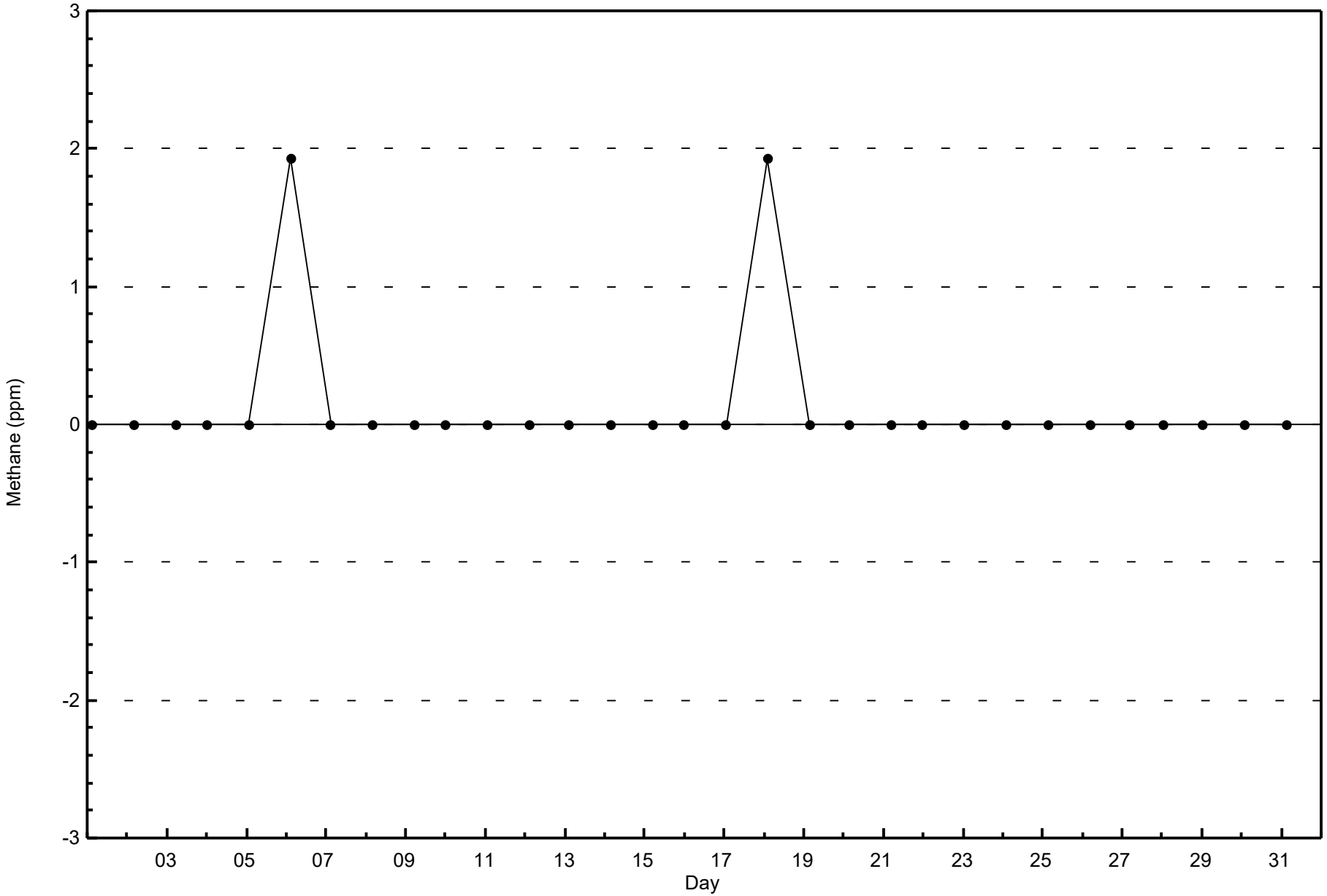
Total Number of Valid Hours: 705

Wood Buffalo Environmental Association

Zero Responses

Methane (CH_4) - ppm

Anzac - October 2025

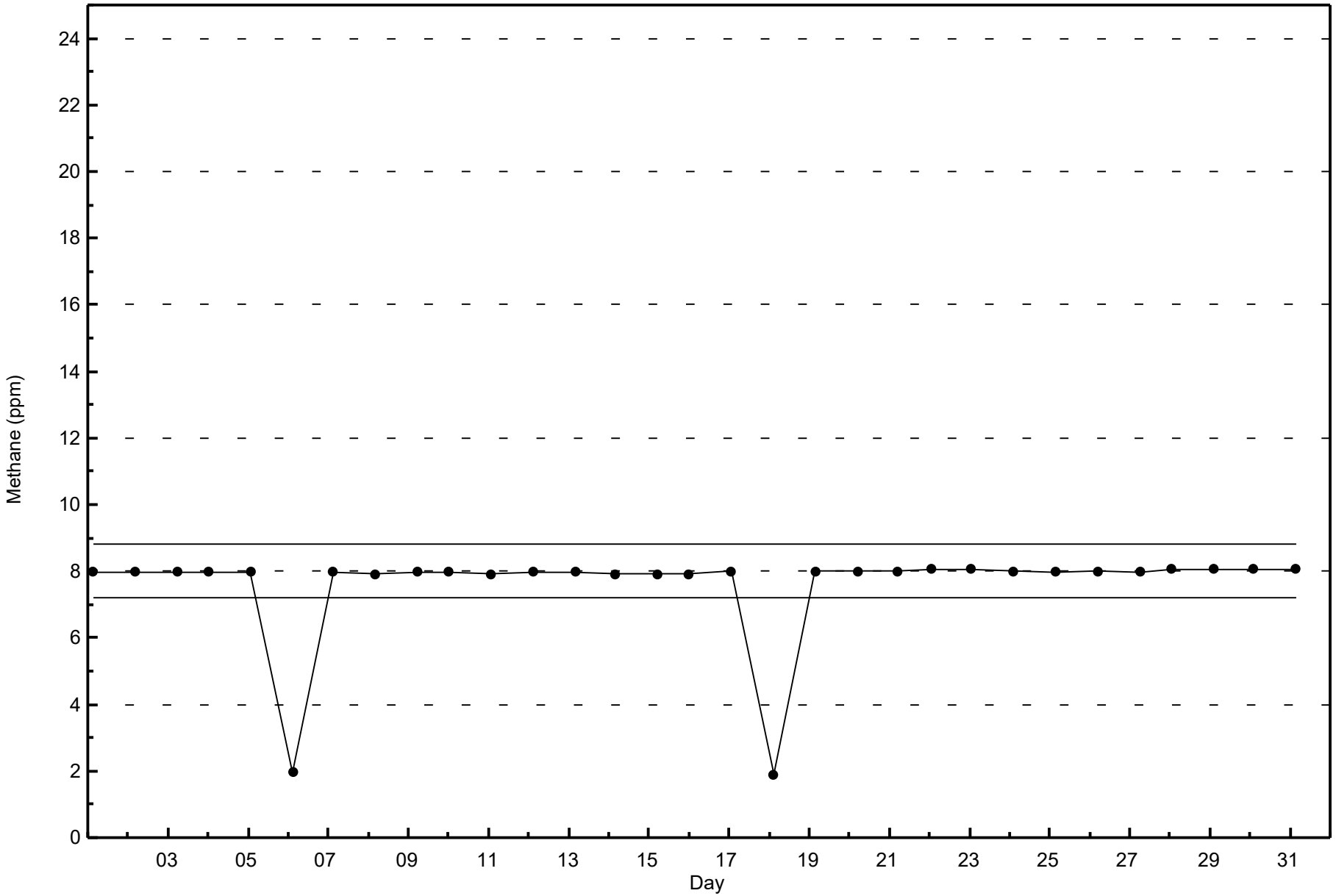


Wood Buffalo Environmental Association

Span Responses

Methane (CH_4) - ppm

Anzac - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Anzac - October 2025

Maximum Value: 9.8 ppb on Oct 10 06:00

Maximum Daily Average: 1.0 ppb on Oct 10

Minimum Value: 0.0 ppb on Oct 2 20:00

Minimum Daily Average: 0.0 ppb on Oct 12

Maximum Diurnal Average: 0.7 ppb at hour 11

Minimum Diurnal Average: 0.1 ppb at hour 22

Monthly Average: 0.33 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.3 P_{90} = 0.9 P_{99} = 4.2

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	37
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.0	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.2	0.1	0.3	0.4	0.1	0.4
2-Oct	0.1	0.1	Z	0.1	0.2	0.1	0.2	3.7	0.6	0.5	0.5	0.3	0.1	0.1	0.1	0.1	0.1	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.3	3.7
3-Oct	0.0	0.0	0.0	Z	0.2	0.0	0.0	0.4	0.4	0.4	0.3	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.3	0.0	0.0	0.1	0.1	0.4
4-Oct	0.1	0.0	0.0	0.0	Z	0.0	0.3	0.2	0.1	0.2	1.1	0.5	0.5	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.5	0.2	0.0	0.3	0.2	1.1
5-Oct	0.0	0.1	0.0	0.0	4.2	Z	0.1	0.9	0.3	0.5	0.6	0.4	0.4	0.3	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.4	4.2
6-Oct	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.3	0.2	0.3	0.8	0.9	1.6	1.5	1.2	0.3	0.1	1.3	0.0	0.3	0.0	0.0	0.8	0.4	1.6
7-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.6	1.0	0.9	0.8	1.6	1.2	1.1	2.6	0.5	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.5	2.6
8-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.4	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.4
9-Oct	0.1	0.0	0.2	Z	0.2	0.8	0.6	0.5	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.8
10-Oct	0.7	1.3	3.1	1.6	Z	9.8	0.0	1.9	1.3	1.2	1.1	0.5	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	9.8
11-Oct	0.0	0.0	0.0	0.0	0.1	Z	0.2	0.1	0.7	0.4	0.5	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.7
12-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
13-Oct	0.0	Z	0.1	0.0	6.6	0.1	0.1	0.3	0.1	0.0	0.2	0.1	0.1	0.1	0.2	0.1	0.0	1.9	0.7	0.9	0.2	0.0	0.0	0.0	0.5	6.6
14-Oct	0.0	0.0	Z	0.0	3.3	0.1	0.8	0.6	0.4	0.4	0.3	0.3	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.3	3.3
15-Oct	0.0	1.7	1.2	Z	0.1	0.0	0.0	1.3	0.9	0.7	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.9	0.0	6.5	0.3	0.7	6.5
16-Oct	1.0	0.1	0.0	0.0	Z	0.1	0.0	1.8	0.6	0.6	0.4	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	1.8
17-Oct	0.3	0.4	0.2	0.0	0.0	Z	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.2	0.1	0.1	0.1	PF	0.5	0.1	0.0	0.2	0.0	0.1	0.1	0.5
18-Oct	Z	0.1	0.1	0.0	0.3	0.2	0.2	0.1	0.1	0.1	M	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.9	0.1	1.7	1.0	4.5	0.5	4.5
19-Oct	3.9	Z	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.9
20-Oct	0.1	0.0	Z	0.0	0.2	0.1	0.2	0.2	1.2	3.2	2.2	1.2	1.4	0.6	0.5	0.5	0.1	0.2	0.4	0.3	0.1	0.0	0.0	0.0	0.6	3.2
21-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.7	0.6	0.2	0.2	C	C	C	C	C	C	0.0	8.6	6.4	0.0	0.0	0.0	0.0	0.0	--	8.6
22-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	1.7	1.6	0.9	0.9	1.3	1.0	0.3	0.2	0.2	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.4	1.7
23-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.4	0.5	1.1	1.0	2.2	0.9	0.1	0.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	2.2
24-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.5	1.0	1.2	1.2	1.3	3.1	1.3	0.3	0.2	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.5	3.1
25-Oct	0.5	Z	0.1	0.0	0.0	0.0	0.2	0.3	0.4	0.4	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.6	0.1	0.0	0.0	0.2	0.6
26-Oct	0.0	1.3	Z	0.6	0.1	0.1	0.1	0.6	0.6	0.5	0.2	0.1	0.6	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.2	1.3
27-Oct	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.1	0.3	0.4	5.2	0.5	0.6	0.4	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.4	5.2
28-Oct	0.0	0.1	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	3.5	0.2	0.1	0.2	0.3	0.1	0.3	0.3	0.0	0.0	0.1	0.3	3.5
29-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.7	1.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	1.0
30-Oct	Z	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.5	0.5	0.6	1.1	0.4	0.3	0.8	0.4	0.1	0.3	0.1	0.0	0.0	0.0	0.0	0.2	0.3	1.1
31-Oct	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.2	0.4	0.6	0.8	1.0	0.6	0.6	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.7
	0.3	0.2	0.2	0.1	0.6	0.5	0.2	0.5	0.4	0.5	0.7	0.4	0.4	0.6	0.3	0.2	0.1	0.4	0.4	0.1	0.2	0.1	0.3	0.2	Diurnal Average	
	3.9	1.7	3.1	1.6	6.6	9.8	0.8	3.7	1.7	3.2	5.2	1.2	1.4	3.5	1.7	1.2	0.3	8.6	6.4	0.9	1.1	1.7	6.5	4.5	Diurnal Maximum	

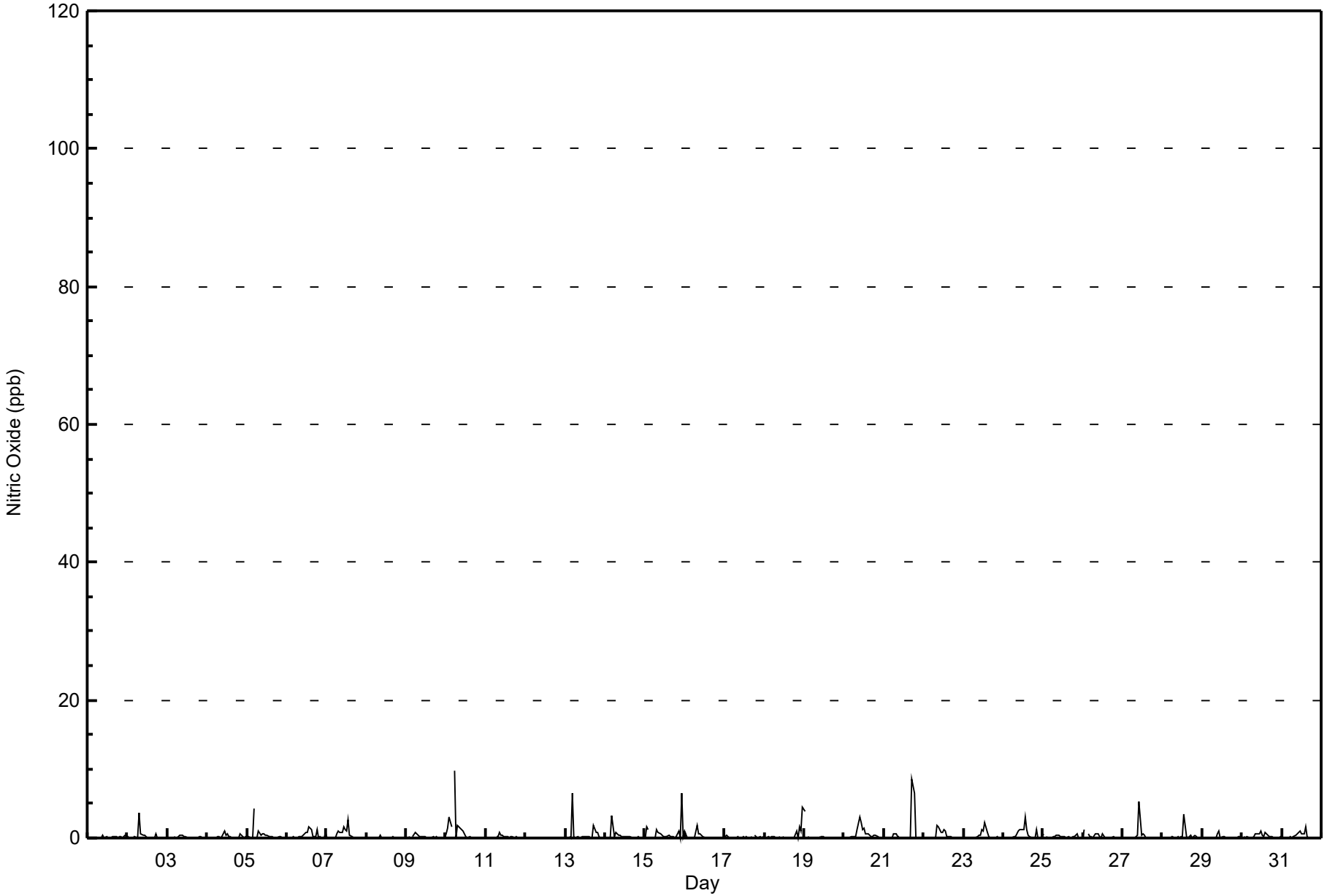
Z - zerospan C - Calibration M - Maintenance PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Anzac - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	16	6	5	11	7	28	62	87	57	47	49	46	48	116	79	41	705
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	6	5	11	7	28	62	87	57	47	49	46	48	116	79	41	705

Total Number of Valid Hours: 705

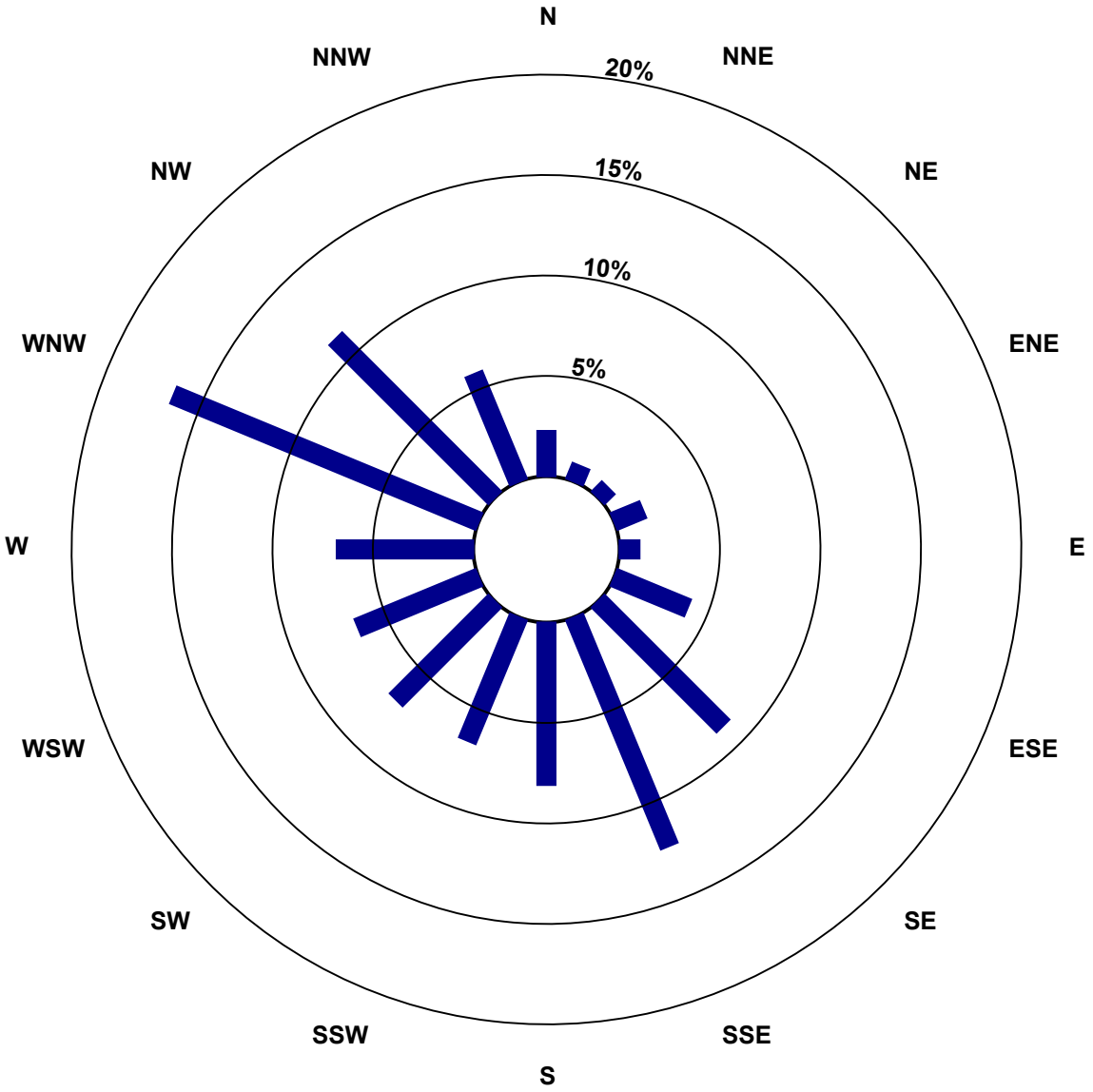
Total Number of Hours: 744

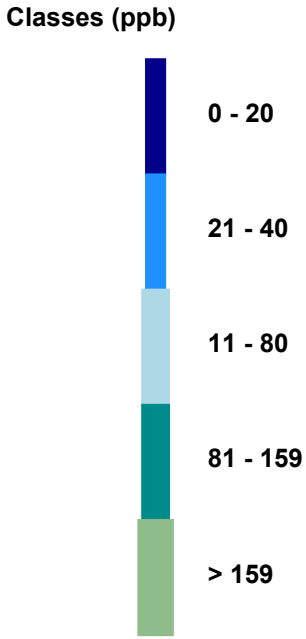
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Anzac





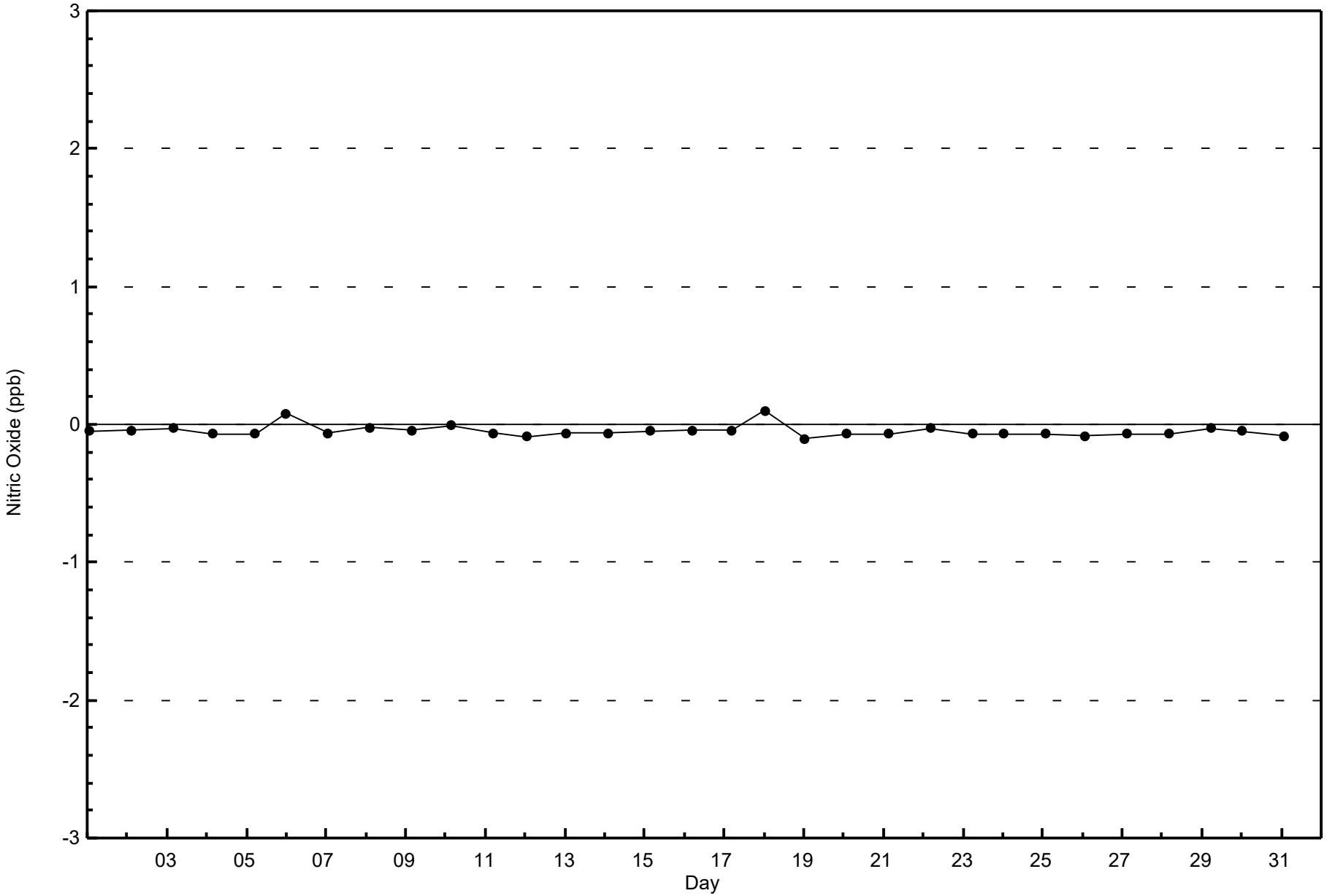
Total Number of Valid Hours: 705

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Anzac - October 2025

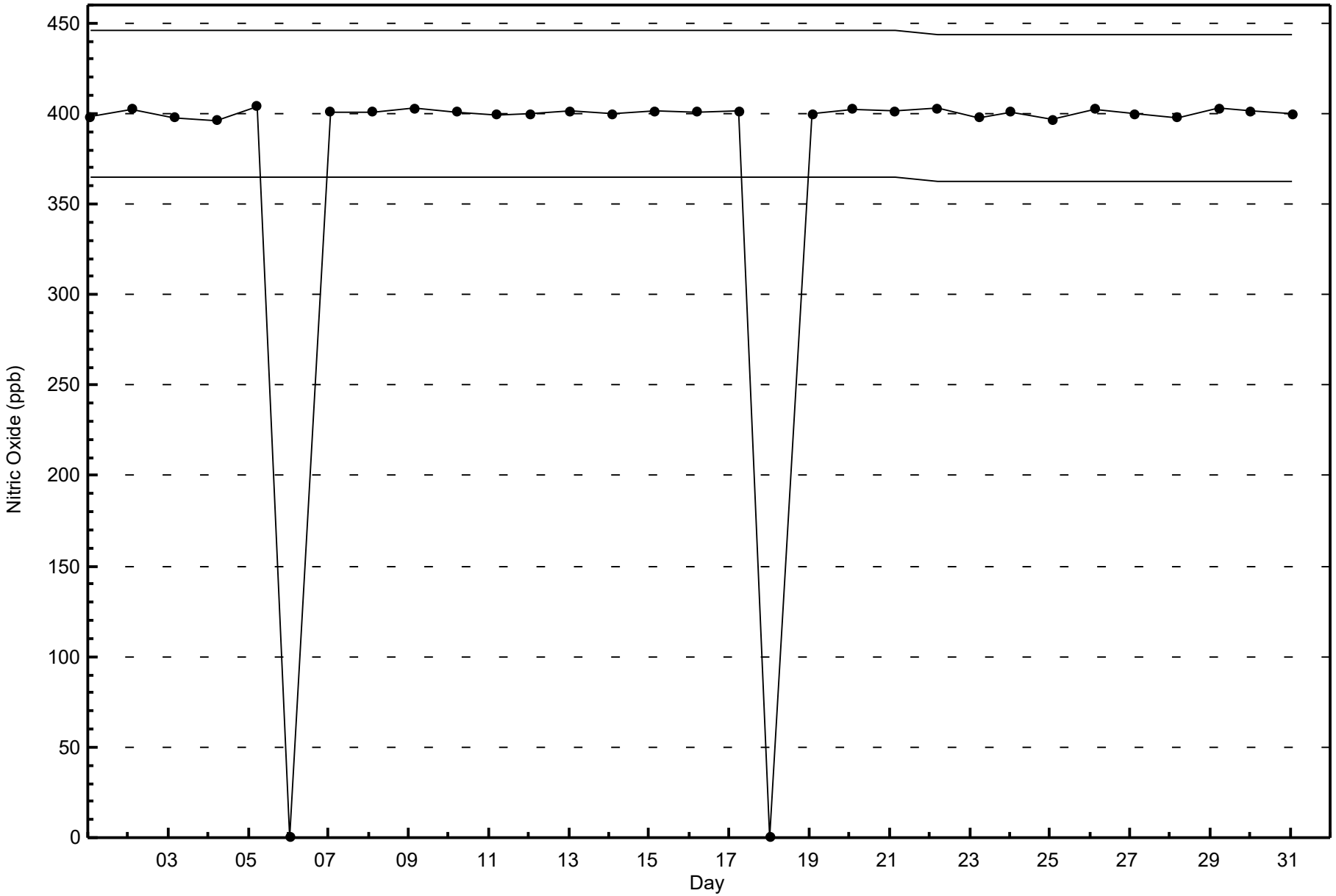


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Anzac - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Anzac - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 9.9 ppb on Oct 30 02:00

Maximum Daily Average: 3.5 ppb on Oct 24

Minimum Value: 0.1 ppb on Oct 11 22:00

Minimum Daily Average: 0.5 ppb on Oct 28

Maximum Diurnal Average: 2.2 ppb at hour 5

Minimum Diurnal Average: 0.9 ppb at hour 16

Monthly Average: 1.52 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.3 Q_1 = 0.5 Median = 1.1 Q_3 = 2.0 P_{90} = 3.3 P_{99} = 6.5

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	37
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.0	Z	4.8	2.8	2.4	3.1	2.6	1.7	1.1	1.6	1.0	1.1	0.9	0.8	0.9	1.4	1.1	1.7	3.3	3.3	3.2	2.7	2.7	2.3	2.1	4.8
2-Oct	1.5	0.9	Z	1.4	1.5	1.1	0.9	1.2	1.0	1.0	1.5	1.0	0.7	0.9	0.8	1.0	1.4	4.2	1.9	0.8	0.9	1.1	1.5	1.2	1.3	4.2
3-Oct	1.3	1.3	1.1	Z	1.2	1.4	1.6	1.9	1.5	1.2	1.0	0.6	0.5	0.5	0.6	0.6	0.7	0.7	0.9	0.9	0.5	0.5	0.3	0.4	0.9	1.9
4-Oct	0.3	0.3	0.3	0.3	Z	0.6	0.6	0.6	0.3	0.4	1.9	1.4	1.7	0.8	0.4	0.2	1.5	0.6	1.5	1.3	0.8	0.4	0.2	0.4	0.7	1.9
5-Oct	0.2	0.3	0.2	0.2	1.8	Z	1.3	2.2	1.2	1.3	1.4	0.6	0.8	0.6	0.4	0.5	0.5	0.3	0.3	0.5	0.3	0.2	0.3	0.3	0.7	2.2
6-Oct	Z	0.5	0.4	1.7	0.7	0.5	0.5	1.0	0.9	0.5	0.6	1.5	1.7	3.8	2.5	2.7	1.8	3.3	3.7	2.2	2.2	1.7	1.7	2.7	1.7	3.8
7-Oct	1.7	Z	1.5	1.4	1.8	1.8	3.3	3.4	4.2	2.6	3.9	3.7	2.3	1.6	1.1	0.8	1.3	0.8	1.1	2.4	2.7	3.1	2.5	2.6	2.2	4.2
8-Oct	2.9	1.8	Z	1.4	0.6	0.7	0.5	0.5	0.6	0.3	0.3	0.3	0.3	0.2	0.2	0.3	1.0	0.5	1.2	0.8	0.3	0.3	0.3	0.3	0.7	2.9
9-Oct	0.2	0.3	0.4	Z	0.5	0.9	1.0	0.8	0.5	0.6	0.5	0.6	0.4	0.3	0.3	0.5	1.2	1.0	3.3	0.7	0.7	0.9	0.8	1.0	0.8	3.3
10-Oct	1.4	2.5	3.1	2.5	Z	6.4	2.2	3.8	3.8	3.0	2.6	1.8	0.9	0.7	0.9	0.8	0.9	1.2	1.7	1.8	1.6	1.3	1.0	1.2	2.0	6.4
11-Oct	2.1	2.0	2.2	4.4	4.6	Z	3.6	2.7	8.6	3.1	3.1	1.9	1.7	1.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.8	1.4	2.0	8.6
12-Oct	Z	1.0	0.8	0.5	0.4	0.2	0.4	0.1	0.1	0.3	0.2	0.3	0.2	0.4	0.5	0.5	0.5	0.4	0.6	0.8	0.8	0.7	0.8	2.6	0.6	2.6
13-Oct	0.7	Z	0.9	0.3	5.2	0.7	0.5	0.8	0.4	0.4	0.4	0.5	0.6	0.5	0.5	0.3	0.5	2.0	2.7	2.0	1.4	1.8	1.9	1.8	1.2	5.2
14-Oct	1.1	1.2	Z	0.9	4.3	1.5	1.8	1.7	1.3	1.2	1.0	0.9	0.8	0.8	0.9	1.0	1.3	1.7	2.1	2.5	2.9	2.9	2.6	2.6	1.7	4.3
15-Oct	2.7	3.6	3.5	Z	3.2	3.6	3.6	4.3	3.2	2.3	1.8	1.7	1.7	1.5	1.7	1.8	1.9	2.4	2.5	2.4	2.7	1.9	6.7	1.5	2.7	6.7
16-Oct	3.5	1.8	1.2	1.3	Z	2.0	1.4	2.0	1.7	2.1	1.4	1.0	0.5	0.6	0.7	0.9	0.9	0.7	0.7	1.0	1.3	1.0	1.4	1.2	1.3	3.5
17-Oct	1.5	1.4	0.9	0.6	0.5	Z	0.7	0.7	0.7	0.4	0.3	0.4	0.3	0.5	0.3	0.4	0.8	PF	0.4	0.5	0.3	0.6	0.3	0.4	0.6	1.5
18-Oct	Z	0.3	0.4	0.3	0.6	0.5	0.6	0.6	0.5	0.5	M	0.3	0.3	0.2	0.2	0.2	0.4	1.5	1.3	5.2	2.3	2.3	2.0	3.1	1.1	5.2
19-Oct	4.5	Z	6.5	1.0	2.9	3.2	1.9	0.4	0.4	0.5	1.6	1.3	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	1.2	6.5
20-Oct	0.3	0.3	Z	1.0	3.6	4.8	3.8	2.8	5.4	6.6	5.1	4.5	3.6	1.9	1.6	1.9	2.0	1.7	1.2	0.8	0.6	0.5	0.8	1.2	2.4	6.6
21-Oct	1.8	1.7	1.6	Z	1.7	1.5	1.8	1.4	0.9	0.6	C	C	C	C	C	C	0.3	6.3	5.7	2.0	2.7	2.8	2.4	1.8	--	6.3
22-Oct	2.3	4.0	3.5	1.9	Z	1.1	1.5	1.9	3.3	2.5	1.5	1.6	2.4	2.2	1.1	1.2	2.4	0.8	2.6	3.4	1.3	1.9	0.4	0.6	2.0	4.0
23-Oct	0.7	2.6	0.3	0.9	0.7	Z	1.7	1.5	1.2	1.5	1.2	2.2	2.3	4.9	2.6	1.4	1.9	2.3	1.6	1.4	2.3	1.8	2.1	4.1	1.9	4.9
24-Oct	Z	3.3	3.3	3.1	3.3	3.3	3.0	3.9	3.8	3.6	3.2	3.5	3.5	7.2	5.6	3.8	3.8	4.9	4.2	1.7	1.5	2.1	3.1	1.3	3.5	7.2
25-Oct	6.5	Z	3.2	0.7	0.9	1.3	0.9	1.7	1.3	1.9	1.8	1.4	1.0	0.7	0.6	0.6	0.6	0.8	0.9	0.9	1.4	1.1	0.9	2.7	1.5	6.5
26-Oct	1.1	1.9	Z	2.5	3.2	7.7	4.3	4.5	3.7	2.5	0.7	0.3	0.6	0.3	0.2	0.2	0.3	1.2	2.3	0.2	0.2	0.2	0.1	0.1	1.7	7.7
27-Oct	0.1	0.1	0.5	Z	0.6	0.8	0.9	1.9	2.2	1.6	5.1	1.9	2.0	1.3	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.9	5.1
28-Oct	0.2	0.2	0.1	0.1	Z	0.6	0.6	0.3	0.3	0.4	0.3	0.4	0.4	1.4	0.5	0.3	0.6	1.5	0.4	1.0	0.9	0.6	0.5	0.5	0.5	1.5
29-Oct	0.5	1.5	1.0	2.0	4.9	Z	0.5	0.4	0.4	0.6	1.2	0.4	1.2	1.1	0.3	0.3	0.2	0.2	0.2	0.8	5.1	4.3	3.9	5.0	1.6	5.1
30-Oct	Z	9.9	9.5	6.2	4.4	5.0	2.7	1.5	1.3	1.2	0.9	1.7	1.3	1.1	2.4	1.3	1.4	1.3	1.1	0.8	1.3	1.1	0.9	0.9	2.6	9.9
31-Oct	0.6	Z	1.3	1.2	1.0	1.2	2.1	2.2	1.4	1.4	1.5	1.7	1.3	1.5	1.8	1.2	1.2	0.9	0.6	0.7	1.1	1.3	1.5	1.8	1.3	2.2
	1.6	1.8	2.0	1.6	2.2	2.1	1.7	1.8	1.8	1.5	1.6	1.4	1.2	1.3	1.0	0.9	1.1	1.5	1.6	1.4	1.4	1.3	1.4	1.5	Diurnal Average	
	6.5	9.9	9.5	6.2	5.2	7.7	4.3	4.5	8.6	6.6	5.1	4.5	3.6	7.2	5.6	3.8	3.8	6.3	5.7	5.2	5.1	4.3	6.7	5.0	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance PF - Power Failure

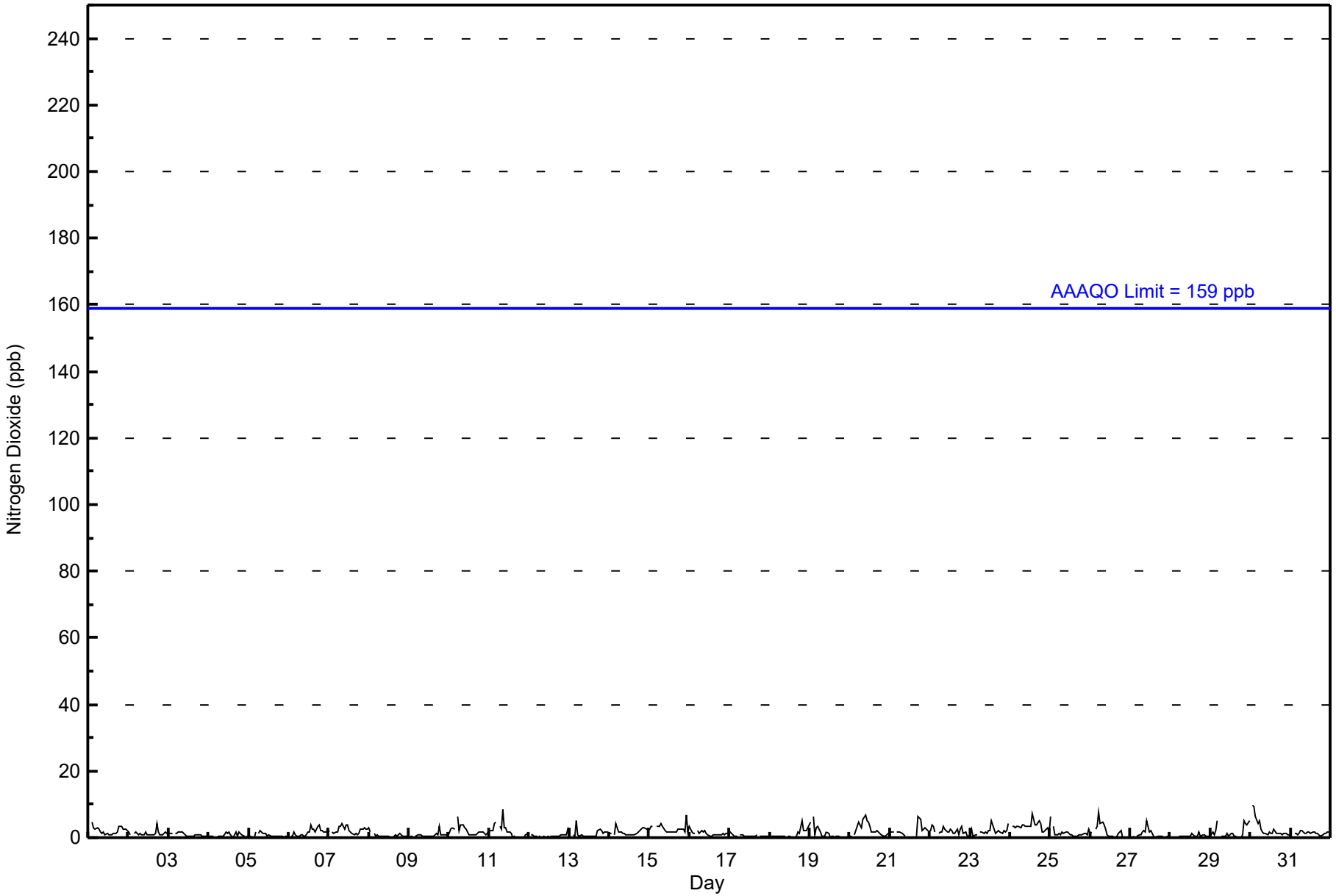
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Anzac - October 2025



Nitrogen Dioxide (NO_2) - ppb
Anzac - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Anzac - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	16	6	5	11	7	28	62	87	57	47	49	46	48	116	79	41	705
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	6	5	11	7	28	62	87	57	47	49	46	48	116	79	41	705

Total Number of Valid Hours: 705

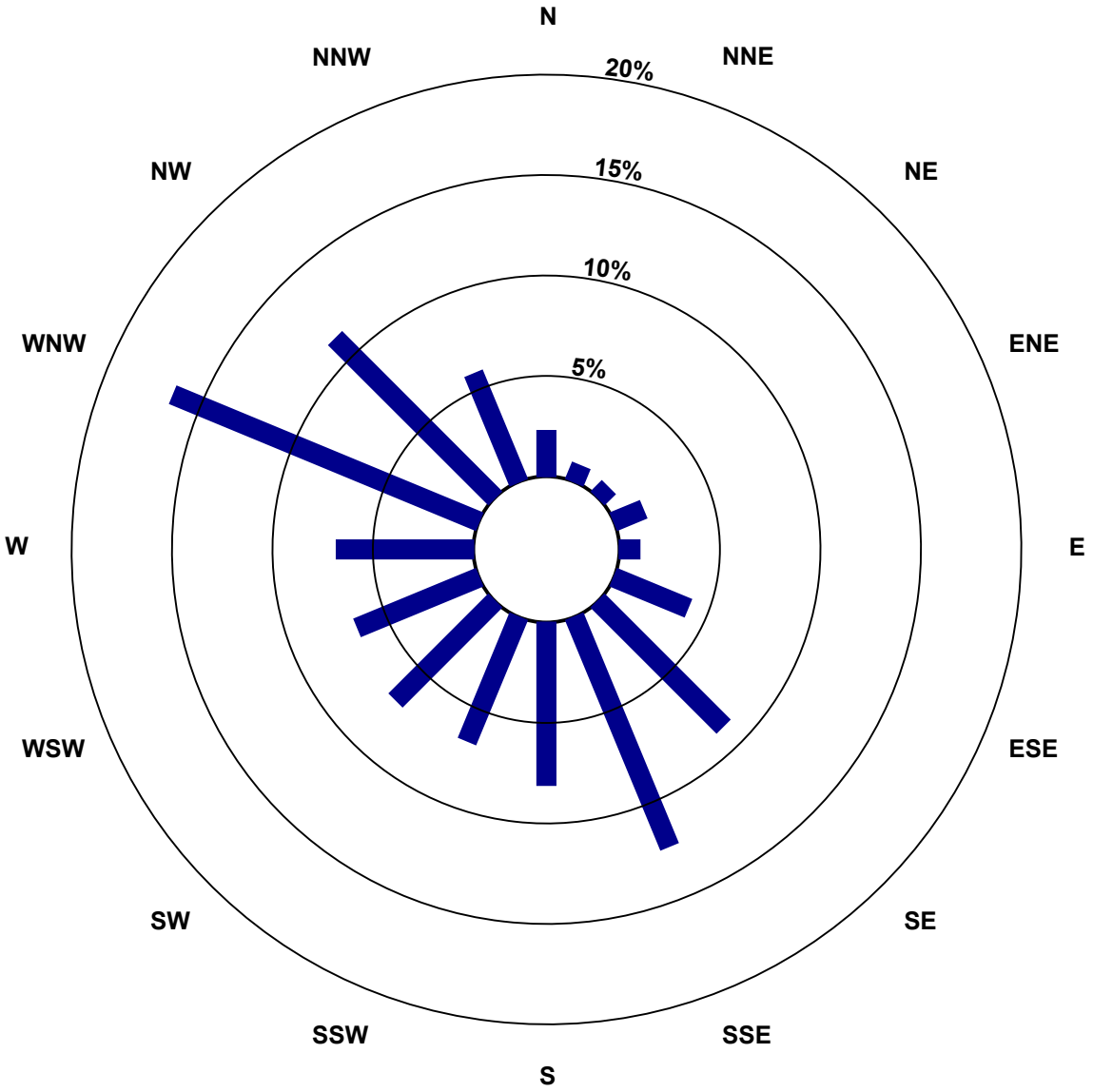
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Anzac



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

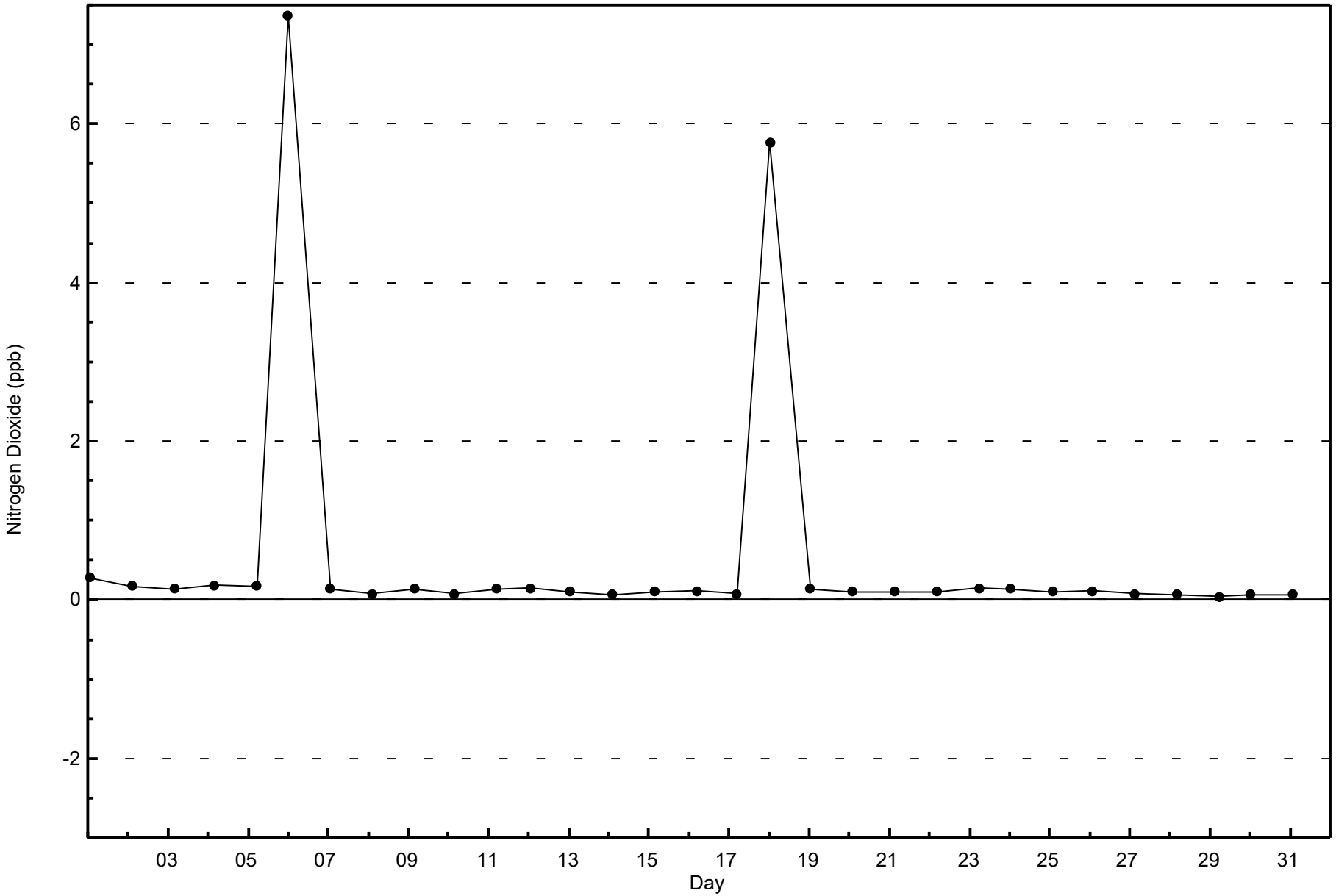
Total Number of Valid Hours: 705

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Anzac - October 2025

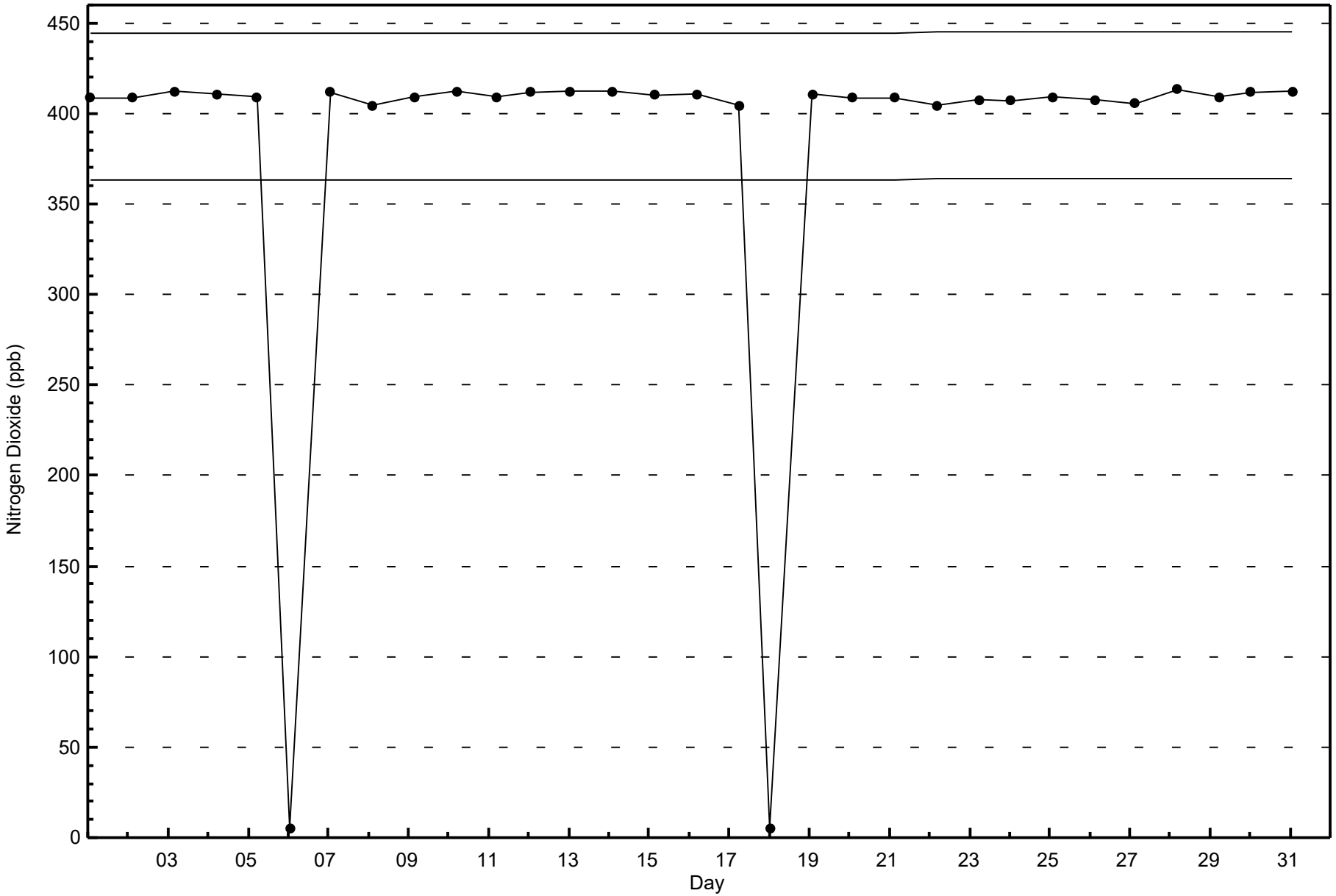


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Anzac - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Anzac - October 2025

Maximum Value: 16.2 ppb on Oct 10 06:00

Maximum Daily Average: 4.0 ppb on Oct 24

Minimum Value: 0.1 ppb on Oct 12 09:00

Minimum Daily Average: 0.6 ppb on Oct 12

Maximum Diurnal Average: 2.8 ppb at hour 5

Minimum Diurnal Average: 1.1 ppb at hour 16

Monthly Average: 1.85 ppb

Percentiles: P_1 = 0.2 P_{10} = 0.3 Q_1 = 0.6 Median = 1.3 Q_3 = 2.4 P_{90} = 4.1 P_{99} = 10.0

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	37
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.0	Z	4.9	2.8	2.4	3.1	2.6	1.8	1.2	2.0	1.0	1.3	0.9	0.9	1.0	1.5	1.2	1.8	3.3	3.5	3.4	2.8	3.0	2.7	2.2	4.9
2-Oct	1.6	1.0	Z	1.5	1.7	1.2	1.1	4.9	1.6	1.5	2.0	1.3	0.8	1.0	0.9	1.1	1.5	4.8	2.0	0.8	0.9	1.1	1.5	1.2	1.6	4.9
3-Oct	1.3	1.3	1.1	Z	1.4	1.4	1.6	2.3	1.9	1.6	1.3	0.7	0.6	0.6	0.7	0.6	0.8	0.7	0.9	1.0	0.8	0.5	0.3	0.5	1.0	2.3
4-Oct	0.4	0.3	0.3	0.3	Z	0.6	0.9	0.8	0.4	0.6	3.0	1.9	2.2	1.0	0.6	0.3	1.6	0.7	1.5	1.3	1.3	0.6	0.2	0.7	0.9	3.0
5-Oct	0.2	0.4	0.2	0.2	6.0	Z	1.4	3.1	1.5	1.8	2.0	1.0	1.2	0.9	0.5	0.6	0.5	0.3	0.3	0.6	0.4	0.2	0.3	0.3	1.0	6.0
6-Oct	Z	0.5	0.4	1.7	0.8	0.5	0.5	1.2	1.2	0.7	0.9	2.3	2.6	5.4	4.0	3.9	2.1	3.4	5.0	2.2	2.5	1.7	1.7	3.5	2.1	5.4
7-Oct	1.7	Z	1.5	1.4	1.8	1.8	3.9	4.4	5.1	3.4	5.5	4.9	3.4	4.2	1.6	0.9	1.4	0.8	1.2	2.4	2.7	3.1	2.5	2.6	2.7	5.5
8-Oct	2.9	1.8	Z	1.4	0.6	0.7	0.6	0.6	1.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.2	0.5	1.2	0.8	0.3	0.3	0.4	0.3	0.7	2.9
9-Oct	0.3	0.3	0.6	Z	0.7	1.7	1.6	1.3	0.6	0.8	0.6	0.8	0.5	0.4	0.4	0.6	1.4	1.0	3.4	0.7	0.7	0.9	0.8	1.0	0.9	3.4
10-Oct	2.1	3.8	6.2	4.1	Z	16.2	2.2	5.7	5.1	4.2	3.7	2.3	1.0	0.8	1.0	0.8	0.9	1.2	1.7	1.8	1.6	1.3	1.0	1.2	3.0	16.2
11-Oct	2.1	2.0	2.2	4.4	4.7	Z	3.8	2.8	9.3	3.5	3.6	2.1	1.9	1.3	0.3	0.5	0.3	0.3	0.3	0.3	0.3	0.1	0.8	1.4	2.1	9.3
12-Oct	Z	1.0	0.8	0.5	0.4	0.2	0.4	0.1	0.1	0.3	0.3	0.4	0.2	0.5	0.6	0.5	0.5	0.4	0.6	0.8	0.8	0.7	0.8	2.6	0.6	2.6
13-Oct	0.7	Z	1.0	0.3	11.8	0.8	0.6	1.1	0.5	0.4	0.6	0.6	0.7	0.6	0.7	0.4	0.5	3.9	3.4	2.9	1.6	1.8	1.9	1.8	1.7	11.8
14-Oct	1.1	1.2	Z	0.9	7.6	1.6	2.6	2.3	1.7	1.6	1.3	1.2	1.1	1.0	1.0	1.2	1.4	1.8	2.2	2.5	3.0	2.9	2.6	2.6	2.0	7.6
15-Oct	2.7	5.3	4.7	Z	3.3	3.6	3.6	5.6	4.1	3.0	2.1	1.9	1.9	1.8	2.0	2.1	2.1	2.5	2.6	2.5	3.6	1.9	13.2	1.8	3.4	13.2
16-Oct	4.5	1.9	1.2	1.3	Z	2.1	1.4	3.8	2.3	2.7	1.8	1.2	0.5	0.6	0.8	0.9	0.9	0.7	0.7	1.0	1.4	1.0	1.4	1.2	1.5	4.5
17-Oct	1.8	1.8	1.1	0.6	0.5	Z	0.8	0.7	0.8	0.4	0.4	0.5	0.3	0.7	0.4	0.5	0.9	PF	0.9	0.6	0.3	0.8	0.3	0.5	0.7	1.8
18-Oct	Z	0.4	0.5	0.3	0.9	0.7	0.8	0.7	0.6	0.6	M	0.4	0.4	0.3	0.3	0.3	0.4	1.6	1.3	6.1	2.4	4.0	3.0	7.6	1.5	7.6
19-Oct	8.4	Z	6.8	1.1	2.9	3.2	1.9	0.4	0.4	0.6	1.9	1.5	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	1.4	8.4
20-Oct	0.4	0.3	Z	1.0	3.8	4.9	4.0	3.0	6.6	9.8	7.3	5.7	5.0	2.5	2.1	2.4	2.1	1.9	1.6	1.1	0.7	0.5	0.8	1.2	3.0	9.8
21-Oct	1.8	1.7	1.6	Z	1.7	1.5	2.5	2.0	1.1	0.8	C	C	C	C	C	C	0.3	14.9	12.1	2.0	2.7	2.8	2.4	1.8	--	14.9
22-Oct	2.3	4.0	3.5	1.9	Z	1.1	1.5	2.0	5.0	4.1	2.4	2.5	3.7	3.2	1.4	1.4	2.6	0.8	2.7	3.5	1.3	2.0	0.4	0.6	2.3	5.0
23-Oct	0.7	2.6	0.3	0.9	0.7	Z	1.7	1.5	1.3	1.9	1.7	3.3	3.3	7.1	3.5	1.5	2.0	2.3	1.6	1.4	2.6	1.8	2.1	4.1	2.2	7.1
24-Oct	Z	3.3	3.3	3.1	3.3	3.3	3.2	4.2	4.3	4.6	4.4	4.7	4.8	10.3	6.9	4.1	4.0	4.9	4.2	1.7	2.6	2.1	3.1	1.3	4.0	10.3
25-Oct	7.0	Z	3.3	0.7	0.9	1.3	1.1	2.0	1.7	2.3	2.0	1.5	1.2	0.9	0.7	0.7	0.7	0.9	1.0	1.1	2.0	1.2	0.9	2.7	1.6	7.0
26-Oct	1.1	3.2	Z	3.1	3.3	7.8	4.4	5.1	4.3	3.0	0.9	0.4	1.2	0.3	0.2	0.2	0.3	1.2	2.6	0.2	0.2	0.2	0.1	0.1	1.9	7.8
27-Oct	0.1	0.1	0.5	Z	0.7	0.8	0.9	2.0	2.5	2.0	10.3	2.4	2.6	1.7	0.4	0.3	0.3	0.3	0.4	0.4	0.2	0.3	0.3	0.2	1.3	10.3
28-Oct	0.2	0.3	0.2	0.2	Z	0.8	0.8	0.4	0.4	0.5	0.4	0.5	0.5	4.9	0.7	0.4	0.8	1.8	0.5	1.3	1.2	0.6	0.5	0.6	0.8	4.9
29-Oct	0.5	1.5	1.0	2.0	4.9	Z	0.5	0.4	0.4	1.3	2.2	0.4	1.4	1.2	0.3	0.3	0.2	0.2	0.2	0.9	5.1	4.3	4.0	5.1	1.7	5.1
30-Oct	Z	10.0	9.6	6.3	4.4	5.1	2.8	1.7	1.8	1.7	1.5	2.8	1.7	1.4	3.2	1.7	1.5	1.6	1.2	0.8	1.3	1.1	0.9	1.1	2.8	10.0
31-Oct	0.6	Z	1.3	1.2	1.0	1.3	2.1	2.4	1.8	2.0	2.3	2.7	1.9	2.1	3.5	1.4	1.2	0.9	0.6	0.7	1.1	1.3	1.5	1.8	1.6	3.5
	1.8	2.0	2.2	1.7	2.8	2.6	1.9	2.3	2.3	2.1	2.3	1.8	1.6	1.9	1.3	1.1	1.2	2.0	2.0	1.5	1.6	1.4	1.7	1.8	Diurnal Average	
	8.4	10.0	9.6	6.3	11.8	16.2	4.4	5.7	9.3	9.8	10.3	5.7	5.0	10.3	6.9	4.1	4.0	14.9	12.1	6.1	5.1	4.3	13.2	7.6	Diurnal Maximum	

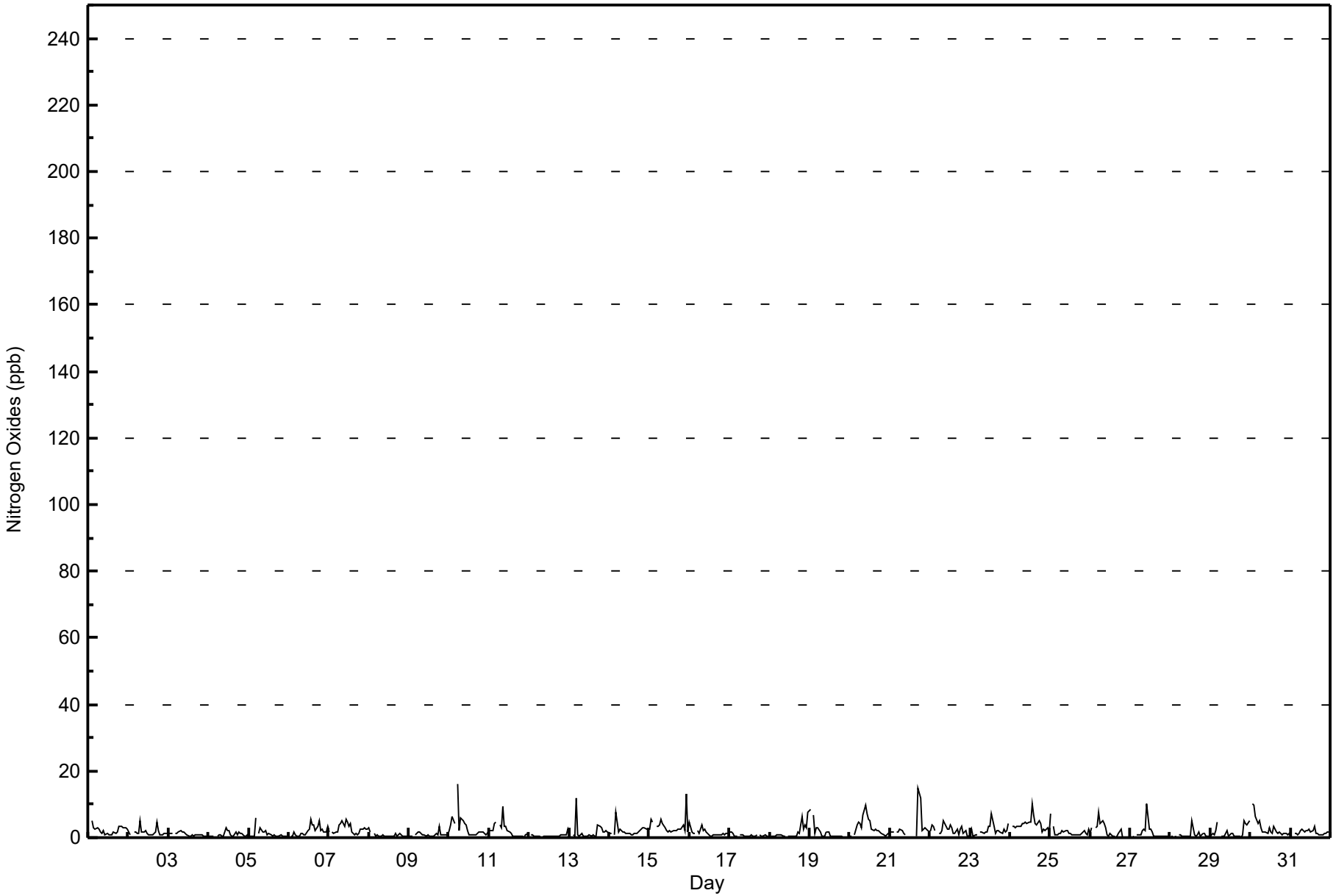
Z - zerospan C - Calibration M - Maintenance PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Anzac - October 2025



Nitrogen Oxides (NO_X) - ppb
Anzac - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Anzac - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	16	6	5	11	7	28	62	87	57	47	49	46	48	116	79	41	705
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	6	5	11	7	28	62	87	57	47	49	46	48	116	79	41	705

Total Number of Valid Hours: 705

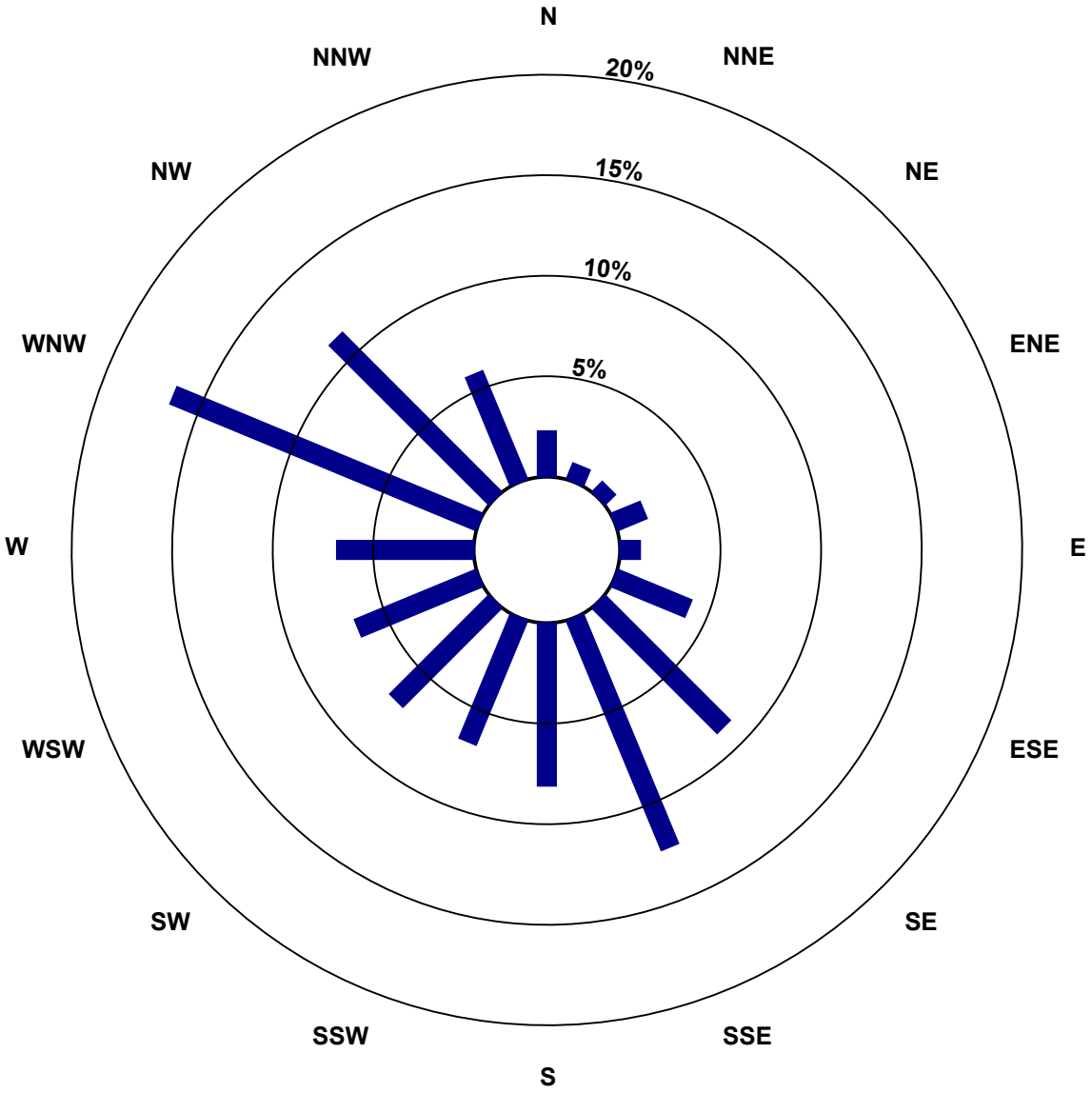
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Anzac



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

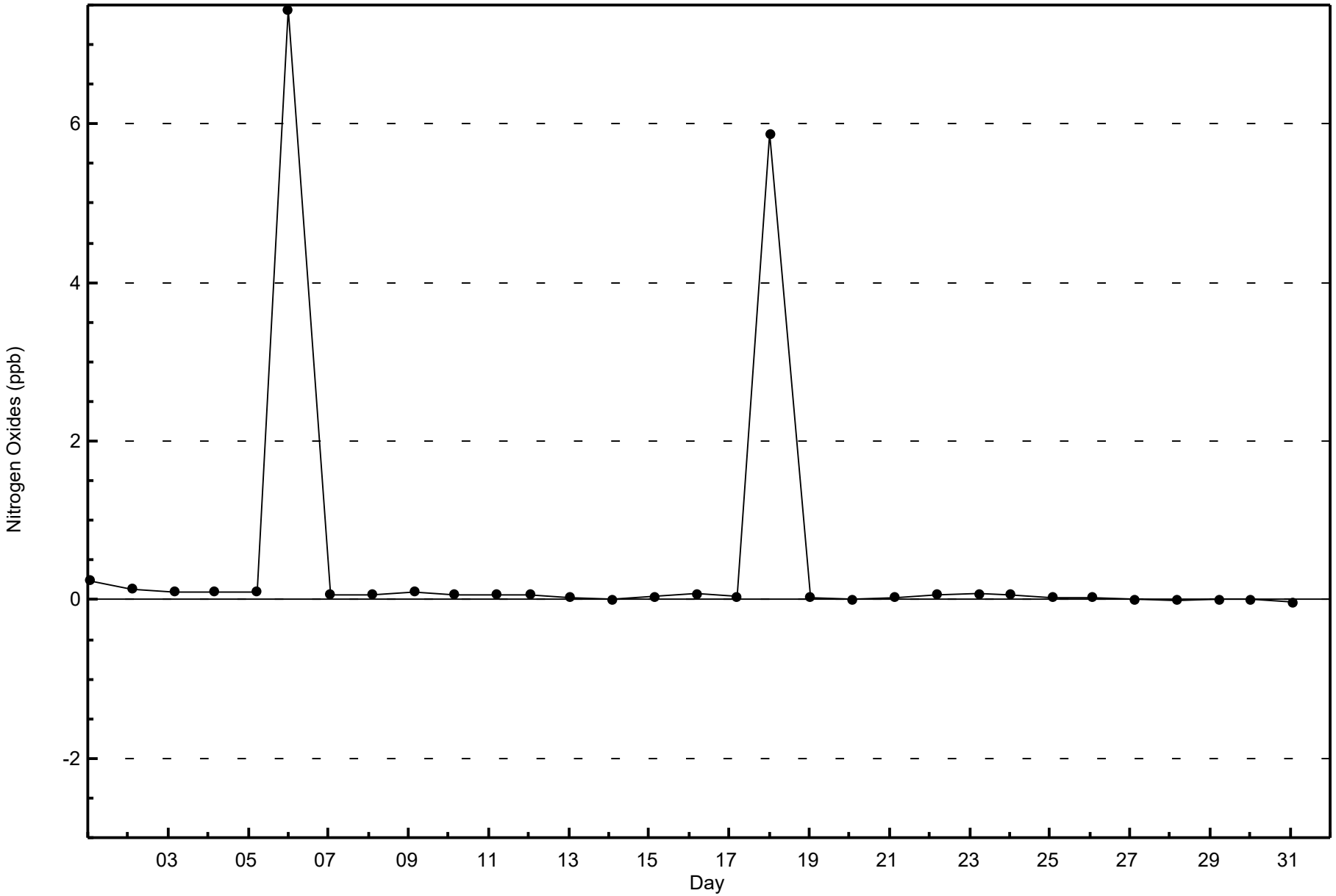
Total Number of Valid Hours: 705

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Anzac - October 2025

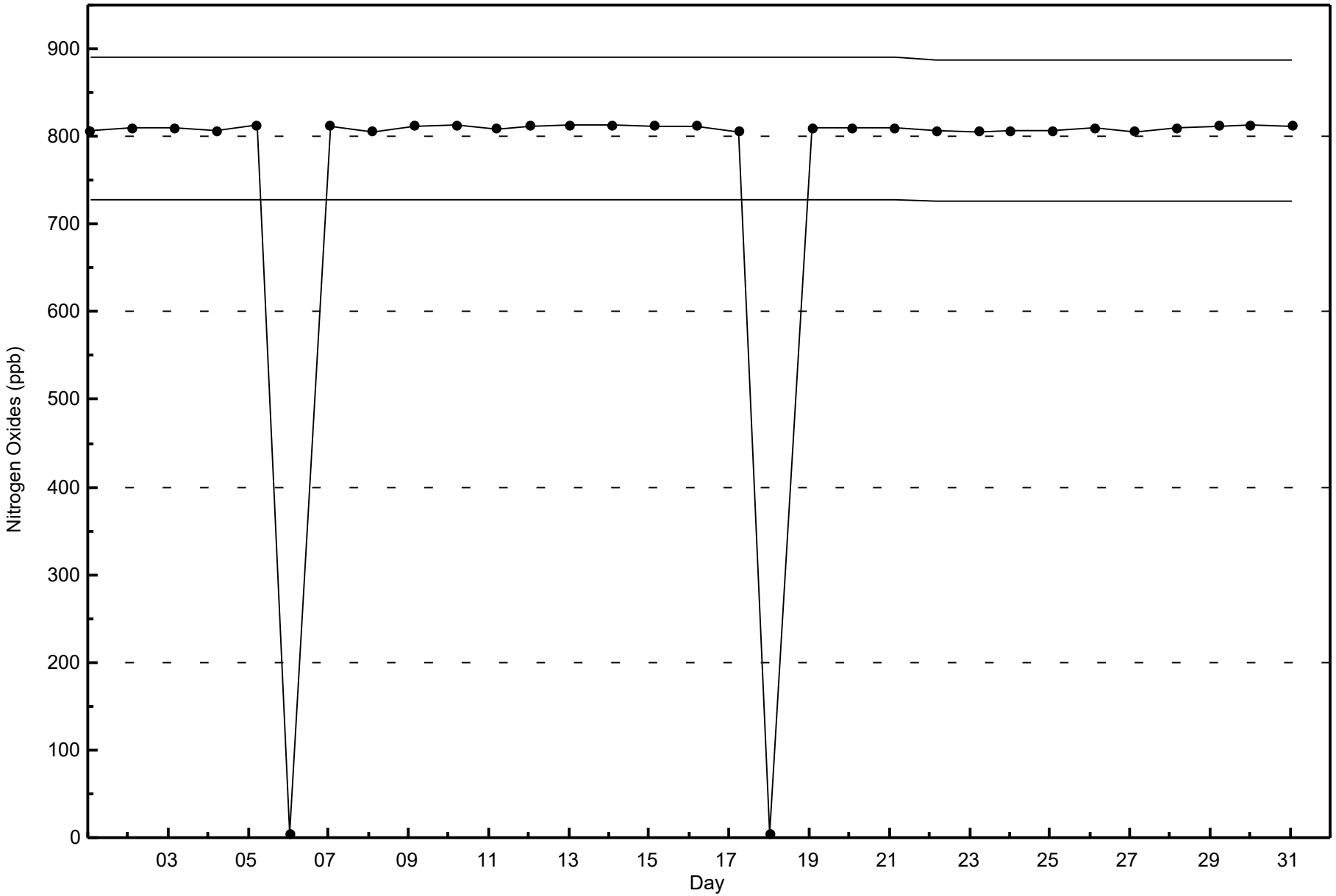


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Anzac - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O_3) - ppb

Anzac - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 41.9 ppb on Oct 10 17:00

Maximum Daily Average: 31.2 ppb on Oct 16

Minimum Value: 0.1 ppb on Oct 2 07:00

Minimum Daily Average: 10.4 ppb on Oct 20

Maximum Diurnal Average: 24.9 ppb at hour 15

Minimum Diurnal Average: 16.9 ppb at hour 8

Monthly Average: 20.60 ppb

Percentiles: P_1 = 3.9 P_{10} = 11.5 Q_1 = 16.9 Median = 20.7 Q_3 = 24.8 P_{90} = 28.7 P_{99} = 37.5

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	35
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	14.3	10.0	7.7	8.3	8.1	Z	9.4	11.4	13.1	17.5	C	C	C	C	25.0	21.7	23.9	21.9	18.0	16.3	14.8	13.3	9.2	11.4	14.5	25.0
2-Oct	Z	4.2	0.7	0.6	1.2	1.5	0.1	2.4	7.6	13.9	15.1	17.6	22.2	23.4	22.6	20.9	19.9	13.9	15.0	18.2	12.9	14.6	11.5	13.8	11.9	23.4
3-Oct	22.6	Z	20.0	19.3	19.7	21.4	19.8	18.1	18.2	22.0	27.2	31.9	33.2	33.6	33.2	34.8	32.9	31.2	28.3	25.7	26.9	25.6	24.0	22.2	25.7	34.8
4-Oct	22.4	24.5	Z	22.7	21.1	20.2	18.7	17.1	16.1	16.4	16.9	18.6	19.7	21.0	21.9	20.7	20.5	20.3	12.9	11.4	10.3	14.7	12.7	14.2	18.0	24.5
5-Oct	16.8	14.6	14.7	Z	13.4	11.4	8.2	7.7	9.2	12.9	14.9	19.1	22.4	20.1	19.4	20.7	18.6	25.3	25.0	23.3	24.3	25.1	25.5	24.7	18.1	25.5
6-Oct	21.5	23.3	23.6	20.9	Z	24.9	22.8	21.9	23.7	24.6	25.5	25.5	27.0	M	25.9	26.0	25.8	22.8	17.3	21.0	20.1	21.2	22.8	22.6	23.2	27.0
7-Oct	21.8	21.7	22.6	21.0	19.3	Z	14.3	16.1	15.9	18.2	17.1	16.8	18.3	20.8	24.1	25.6	24.8	28.1	26.5	25.3	23.2	22.2	21.9	18.3	21.0	28.1
8-Oct	Z	18.7	13.9	21.0	27.6	31.1	31.6	25.7	21.3	24.3	25.7	27.2	27.9	27.5	27.4	28.9	30.1	29.5	28.2	27.0	24.3	16.7	14.2	13.0	24.5	31.6
9-Oct	12.3	Z	12.2	13.4	14.7	14.3	13.7	16.4	18.2	22.1	24.5	29.6	33.0	35.8	36.3	33.7	32.1	30.0	25.4	28.8	28.9	28.3	27.0	27.5	24.3	36.3
10-Oct	27.2	26.2	Z	20.5	19.9	11.6	12.0	12.7	16.0	20.1	22.1	29.8	37.6	39.1	40.2	41.4	41.9	39.7	38.1	36.2	37.3	37.3	37.4	36.0	29.6	41.9
11-Oct	30.5	29.3	29.7	Z	23.6	22.3	18.0	24.2	16.7	18.5	17.4	18.4	16.9	14.9	13.6	14.1	13.7	12.6	13.4	13.9	15.3	16.7	16.7	19.2	18.7	30.5
12-Oct	20.2	19.8	19.6	20.4	Z	20.6	20.5	19.8	22.5	22.8	21.2	21.4	24.5	23.7	25.0	25.2	24.8	23.7	20.8	21.3	20.8	20.7	21.2	17.6	21.7	25.2
13-Oct	20.4	19.1	20.4	19.9	19.4	Z	20.3	19.8	19.2	25.8	28.1	28.5	29.2	29.3	29.5	29.3	28.5	22.9	21.3	23.3	22.9	22.8	22.9	23.1	23.7	29.5
14-Oct	Z	23.2	23.3	23.2	21.9	22.3	21.6	21.5	21.4	22.0	24.0	25.0	26.6	27.4	29.3	28.6	27.0	24.6	22.6	20.7	19.7	19.2	19.5	18.5	23.2	29.3
15-Oct	17.7	Z	16.3	16.5	15.4	13.3	12.9	12.3	12.1	19.5	26.5	28.5	27.6	28.6	27.2	25.8	26.0	23.6	22.9	24.5	25.2	26.4	23.2	28.4	21.8	28.6
16-Oct	26.9	26.6	Z	26.3	26.5	26.3	24.8	19.9	22.7	26.4	29.2	32.5	36.3	35.9	36.6	35.7	36.3	36.9	36.8	37.7	36.6	35.4	33.6	30.7	31.2	37.7
17-Oct	29.3	30.5	32.7	Z	34.4	33.8	32.5	30.1	27.8	27.6	26.1	24.1	24.6	25.1	27.5	28.4	27.2	PF	27.9	27.5	27.2	26.0	25.8	25.2	28.2	34.4
18-Oct	24.2	24.1	24.6	25.4	Z	25.6	25.2	24.4	24.8	24.2	M	26.6	28.0	30.2	30.5	32.1	32.3	30.1	27.1	19.2	22.9	21.5	22.7	19.7	25.7	32.3
19-Oct	15.8	10.8	10.5	18.9	19.0	Z	19.0	18.3	18.5	18.7	18.4	19.6	20.5	22.1	20.8	19.9	18.0	16.5	15.4	14.6	12.3	11.0	10.7	9.2	16.5	22.1
20-Oct	Z	9.9	9.7	9.6	4.9	2.0	3.9	5.7	4.7	4.3	6.2	9.1	8.3	10.1	11.9	11.8	9.1	11.8	17.3	20.7	19.8	17.8	15.9	15.5	10.4	20.7
21-Oct	15.9	Z	17.4	16.9	18.8	19.3	19.3	20.2	22.9	21.8	22.1	22.4	22.3	22.4	22.9	22.1	21.2	12.4	8.6	13.8	13.3	10.2	7.4	6.9	17.4	22.9
22-Oct	7.9	7.7	Z	10.5	11.3	12.4	11.2	8.8	8.1	11.5	16.1	18.0	18.5	21.3	24.1	23.5	21.3	18.7	16.0	16.4	16.9	15.1	16.7	17.7	15.2	24.1
23-Oct	18.8	17.0	18.9	Z	18.9	19.2	20.9	19.9	19.9	20.8	21.8	21.6	23.0	21.8	25.2	26.8	25.7	25.1	25.7	23.5	21.8	21.9	20.9	17.7	21.6	26.8
24-Oct	17.0	17.1	17.8	18.8	Z	18.3	17.0	15.0	15.7	14.9	17.2	18.6	20.3	16.7	18.9	20.7	20.4	18.6	19.0	20.2	20.8	19.4	16.3	17.7	18.1	20.8
25-Oct	11.3	16.2	13.4	14.8	14.7	Z	10.8	8.9	9.5	13.8	19.9	22.8	22.2	30.5	26.3	23.5	24.3	25.9	29.5	29.3	25.1	27.9	24.2	19.9	20.2	30.5
26-Oct	Z	17.5	20.2	14.0	8.9	4.9	13.1	15.1	14.2	16.9	21.3	20.7	23.3	25.2	27.5	25.2	22.8	18.7	20.0	27.8	26.1	26.7	25.4	24.0	20.0	27.8
27-Oct	22.8	Z	21.6	22.8	22.9	25.0	26.0	21.9	18.6	19.1	17.2	17.0	17.0	17.1	16.2	16.2	17.0	17.0	17.0	17.2	17.9	19.4	20.3	21.1	19.5	26.0
28-Oct	19.5	17.5	Z	19.7	21.1	21.1	22.0	22.1	21.7	20.5	21.7	21.1	21.0	23.1	23.2	23.8	22.7	23.1	22.7	19.8	20.6	19.7	21.2	23.7	21.4	23.8
29-Oct	22.7	19.7	19.4	Z	15.2	17.5	17.3	17.7	18.0	17.9	17.7	19.1	17.1	17.5	18.4	17.3	18.2	18.4	18.0	16.4	9.3	10.2	10.6	9.3	16.7	22.7
30-Oct	8.3	4.8	5.6	10.5	Z	12.4	13.7	10.9	8.8	8.3	9.6	16.9	21.6	24.4	22.8	25.5	25.3	24.8	23.3	22.3	19.6	20.3	22.4	23.3	16.8	25.5
31-Oct	22.0	20.9	20.1	17.7	16.6	Z	15.9	16.5	17.3	17.4	17.7	18.7	19.5	19.3	19.0	19.4	19.8	21.2	20.9	22.4	22.9	22.7	22.5	22.1	19.7	22.9
	19.6	18.3	17.6	17.5	17.6	18.1	17.3	16.9	16.9	18.9	20.3	22.2	23.7	24.4	24.9	24.8	24.2	23.0	22.0	22.1	21.3	21.0	20.2	19.8	Diurnal Average	
	30.5	30.5	32.7	26.3	34.4	33.8	32.5	30.1	27.8	27.6	29.2	32.5	37.6	39.1	40.2	41.4	41.9	39.7	38.1	37.7	37.3	37.3	37.4	36.0	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance PF - Power Failure

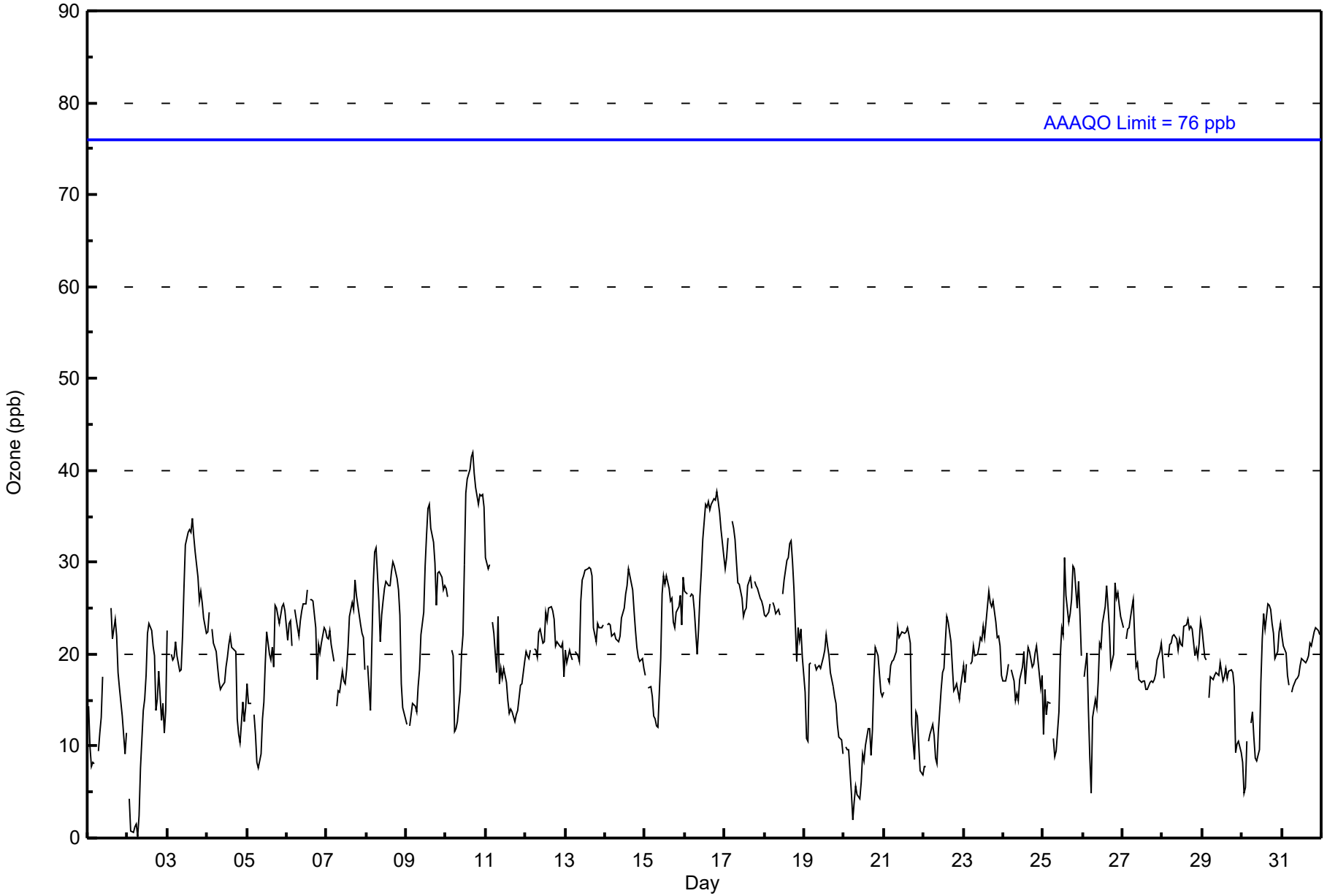
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb

Wood Buffalo Environmental Association

Hourly Averages

Ozone (O_3) - ppb

Anzac - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	344	48.73	48.73
21 - 50	362	51.27	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Ozone (O_3) - ppb

Anzac - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	5	3	4	4	5	20	45	53	27	12	19	8	13	42	63	21	344
21 - 50	11	3	1	7	1	8	18	33	31	34	31	37	37	73	18	19	362
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	6	5	11	6	28	63	86	58	46	50	45	50	115	81	40	706

Total Number of Valid Hours: 706

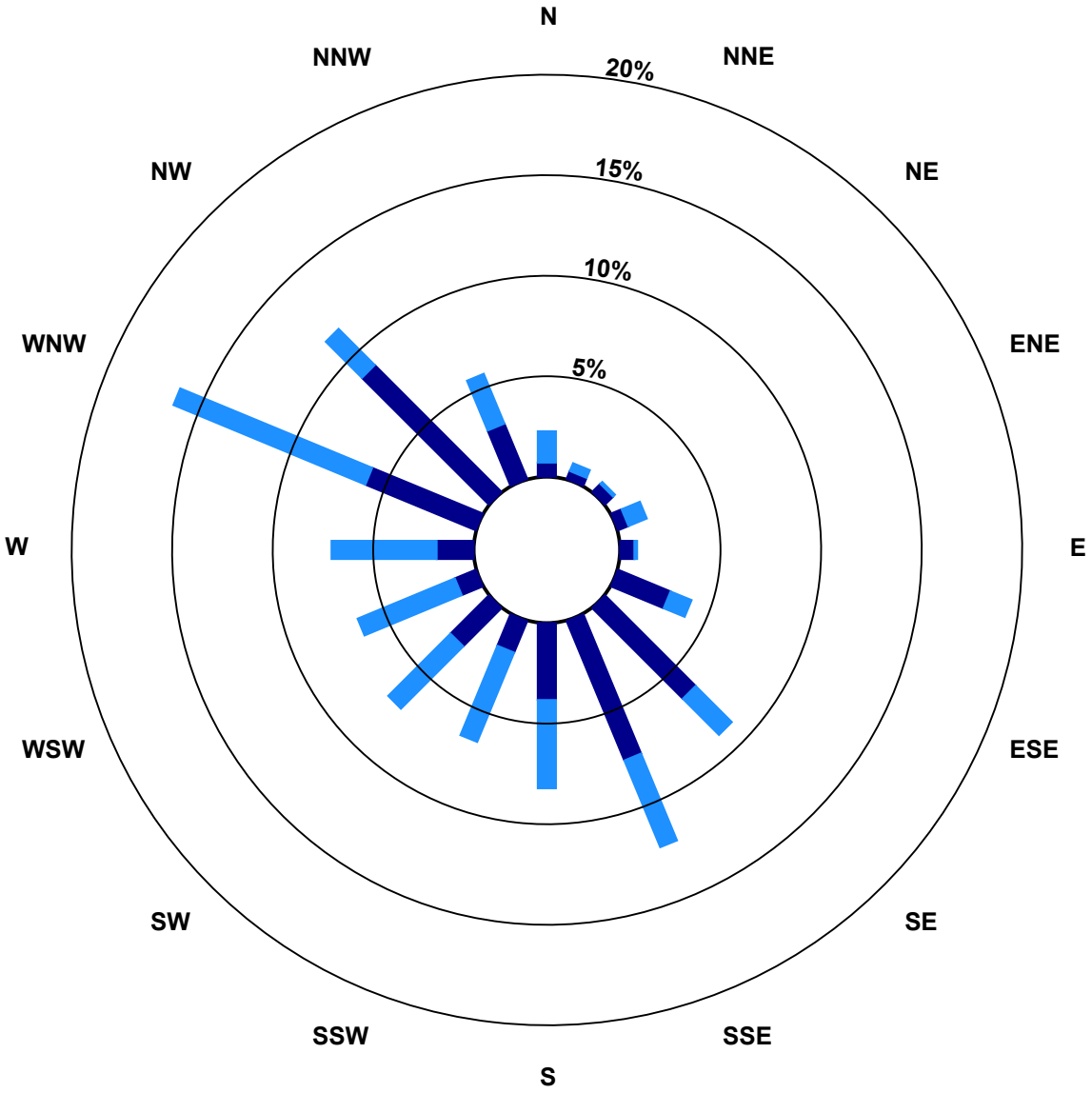
Total Number of Hours: 744

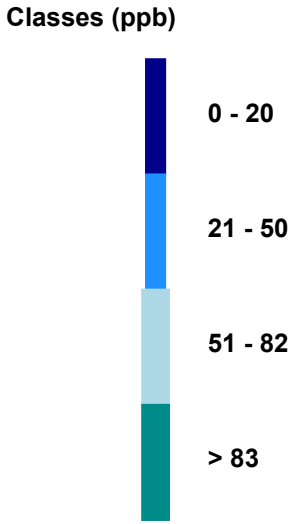
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Ozone (O_3) - ppb

Anzac





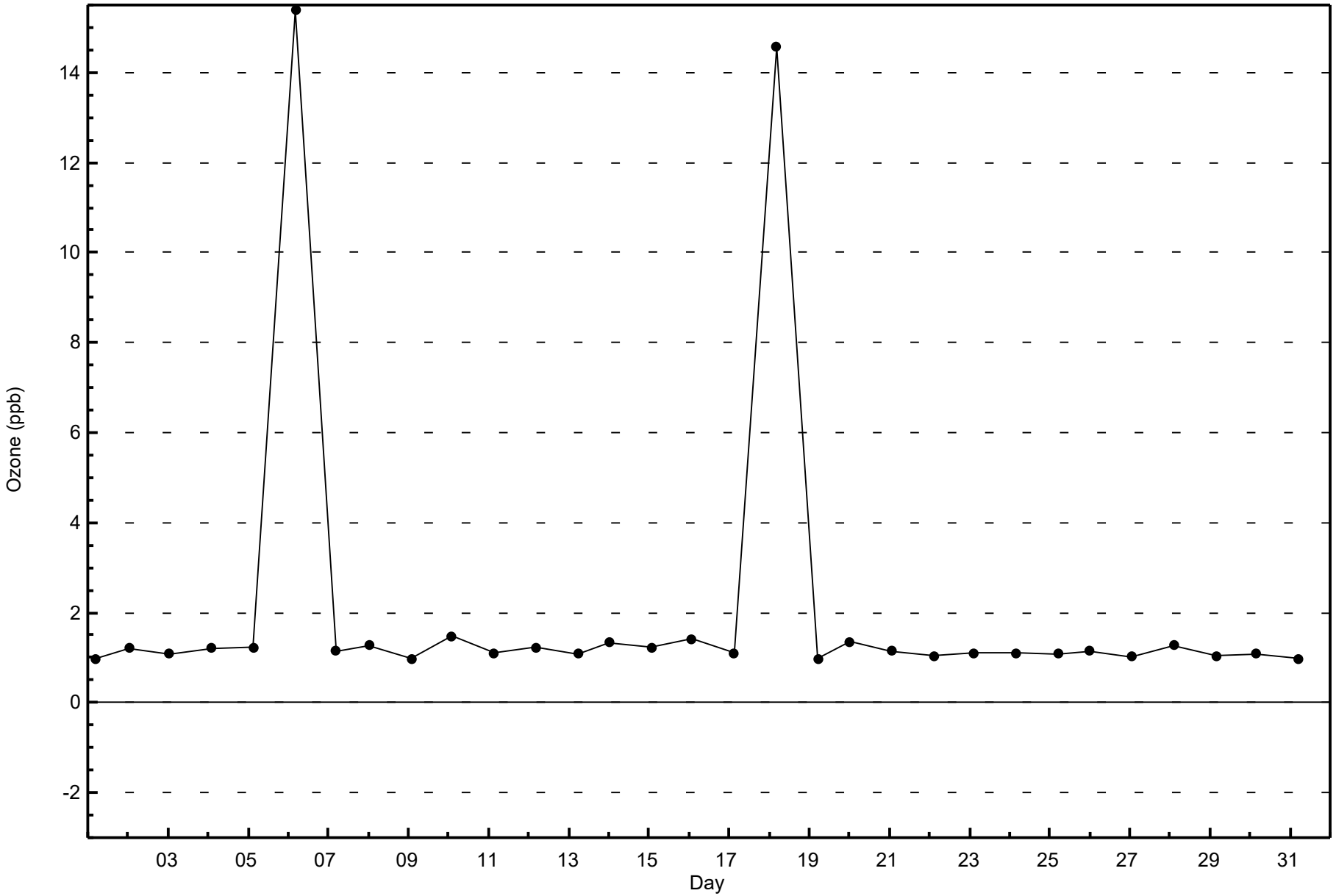
Total Number of Valid Hours: 706

Wood Buffalo Environmental Association

Zero Responses

Ozone (O_3) - ppb

Anzac - October 2025

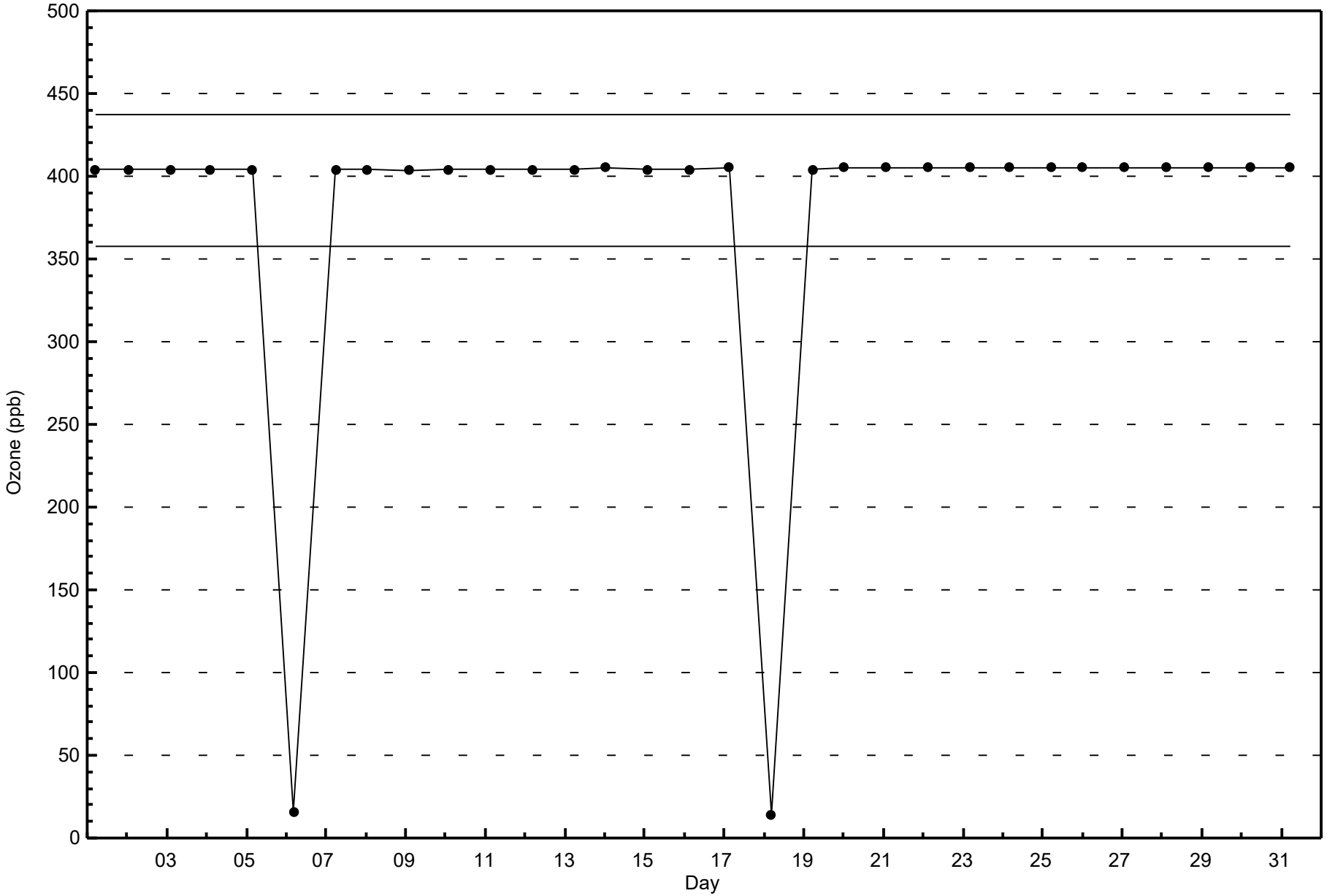


Wood Buffalo Environmental Association

Span Responses

Ozone (O_3) - ppb

Anzac - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Anzac - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 22.4 $\mu g/m^3$ on Oct 1 05:00

Maximum Daily Average: 9.1 $\mu g/m^3$ on Oct 1

Minimum Value: 0.1 $\mu g/m^3$ on Oct 27 17:00

Minimum Daily Average: 0.3 $\mu g/m^3$ on Oct 27

Maximum Diurnal Average: 3.8 $\mu g/m^3$ at hour 6

Minimum Diurnal Average: 2.5 $\mu g/m^3$ at hour 15

Monthly Average: 3.09 $\mu g/m^3$

Percentiles: P_1 = 0.2 P_{10} = 0.7 Q_1 = 1.7 Median = 2.7 Q_3 = 3.9 P_{90} = 5.7 P_{99} = 12.1

Hours in Service:	744
Hours of Data:	742
Hours of Missing Data:	2
Hours of Calibration:	1
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	14.4	13.7	12.3	16.1	22.4	20.9	14.2	8.7	5.7	6.1	5.6	5.8	6.5	5.5	4.5	6.4	5.4	5.4	6.0	6.4	6.1	6.3	6.8	7.2	9.1	22.4
2-Oct	7.6	6.9	6.3	6.0	6.1	5.0	4.4	3.7	3.9	3.8	3.8	3.8	3.2	3.4	3.3	3.9	3.7	4.3	5.2	7.2	7.0	6.7	6.5	7.2	5.1	7.6
3-Oct	11.3	11.3	10.6	9.7	8.4	8.8	11.9	10.7	9.3	6.5	4.1	2.5	1.7	1.6	1.7	1.3	1.0	1.0	0.9	0.9	1.0	1.1	1.3	1.5	5.0	11.9
4-Oct	2.1	1.7	2.2	3.1	5.7	8.0	8.9	7.4	5.9	4.2	3.8	4.4	4.5	3.8	3.3	3.2	2.8	2.1	1.5	0.8	0.5	0.6	0.7	0.5	3.4	8.9
5-Oct	1.0	1.2	1.2	1.3	2.3	2.1	2.4	3.1	2.8	3.6	3.5	2.4	1.6	1.5	2.2	5.9	6.0	3.8	2.6	2.2	1.9	1.8	2.1	2.5	2.5	6.0
6-Oct	3.0	1.9	1.2	1.5	1.2	0.8	0.8	0.8	0.8	0.7	0.6	1.4	1.2	8.0	C	1.8	1.2	1.2	1.3	1.3	1.0	0.9	0.9	1.3	1.5	8.0
7-Oct	1.6	2.3	2.7	2.9	3.0	3.1	3.3	3.3	3.4	3.3	3.5	3.6	3.5	2.7	2.3	2.2	2.3	2.1	2.3	2.5	3.0	3.9	4.0	4.8	3.0	4.8
8-Oct	6.8	4.0	3.9	3.2	3.4	3.6	3.2	6.2	5.1	3.4	2.5	2.4	1.7	2.2	3.1	2.9	7.2	5.9	6.2	3.6	2.5	1.3	1.5	1.4	3.6	7.2
9-Oct	1.5	1.4	2.2	1.7	1.6	2.0	3.0	5.8	4.4	3.1	2.6	1.8	0.9	0.9	0.7	0.7	1.1	0.9	1.4	1.1	0.8	0.9	1.2	1.6	1.8	5.8
10-Oct	2.5	3.0	3.2	3.1	3.3	4.0	4.0	4.0	3.7	3.7	4.0	4.3	4.3	4.1	3.9	3.8	3.4	3.6	4.5	4.6	4.9	5.1	5.0	5.2	4.0	5.2
11-Oct	5.6	5.6	5.7	5.8	5.9	5.9	6.1	6.3	7.8	4.7	7.3	4.7	2.7	2.4	1.1	0.9	0.7	0.5	0.4	0.4	0.4	0.3	0.4	0.6	3.4	7.8
12-Oct	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.6	0.8	0.7	0.6	0.5	0.6	0.6	0.6	0.6	1.3	0.5	1.3
13-Oct	0.8	1.1	0.6	0.4	0.6	0.6	0.4	0.5	0.6	0.6	1.7	1.1	1.8	1.1	3.0	2.3	2.6	3.0	3.3	4.7	3.3	5.7	5.1	4.5	2.1	5.7
14-Oct	3.5	3.4	3.2	3.2	3.8	3.8	3.9	3.8	4.0	3.6	3.0	2.8	2.6	2.4	2.0	2.0	2.2	2.4	2.6	2.7	2.9	3.0	2.9	3.1	3.0	4.0
15-Oct	3.2	3.4	3.2	3.1	3.3	3.3	3.3	4.8	3.6	3.1	2.1	1.9	1.7	2.1	2.8	2.9	3.0	3.1	3.1	3.4	4.0	5.4	5.7	4.7	3.3	5.7
16-Oct	3.6	4.3	4.1	3.6	3.4	3.1	2.9	2.6	2.4	2.6	2.1	2.8	2.3	2.3	2.4	2.6	2.7	2.6	2.3	2.0	2.2	2.3	2.7	2.7	2.8	4.3
17-Oct	2.6	2.3	2.1	1.8	1.9	2.3	2.9	3.8	3.1	1.9	2.2	2.4	2.5	2.4	2.1	1.8	1.9	PF	1.6	1.5	1.7	2.0	1.3	1.4	2.2	3.8
18-Oct	1.8	2.1	2.0	2.2	2.5	2.7	3.6	4.1	4.3	4.3	3.9	3.0	2.7	2.2	2.6	2.5	2.4	2.6	3.3	2.7	3.3	2.3	1.9	3.0	2.8	4.3
19-Oct	1.6	1.9	1.8	1.5	1.7	2.0	1.9	2.3	10.5	13.6	8.8	6.4	5.5	4.0	3.9	3.1	3.0	2.9	2.7	2.6	2.6	2.9	2.6	2.5	3.8	13.6
20-Oct	2.5	2.6	2.7	3.1	3.3	3.3	3.6	3.4	3.7	3.9	3.2	3.5	3.9	2.5	2.5	2.9	3.5	5.5	5.7	4.1	4.3	3.7	4.2	4.5	3.6	5.7
21-Oct	4.7	4.2	3.7	3.5	3.1	2.7	2.4	2.2	2.5	2.5	2.4	2.2	2.4	2.3	2.2	2.4	2.5	3.0	3.5	3.0	2.7	2.7	2.8	2.9	2.9	4.7
22-Oct	3.1	3.2	2.8	2.6	2.6	2.6	2.8	2.8	2.8	2.7	2.2	2.1	2.0	1.9	1.6	1.5	1.4	3.9	5.7	4.0	4.0	4.4	3.8	3.1	2.9	5.7
23-Oct	2.9	2.9	3.0	2.7	2.4	2.4	2.3	2.3	2.0	1.9	1.8	2.1	2.0	2.5	2.5	2.5	2.6	2.9	2.6	2.7	2.9	2.7	2.7	2.8	2.5	3.0
24-Oct	2.8	2.8	3.0	3.1	3.2	3.2	3.2	3.3	3.5	3.3	3.3	3.2	3.2	3.4	3.2	3.0	3.2	3.4	3.2	3.5	3.5	3.4	3.6	3.6	3.3	3.6
25-Oct	5.1	6.2	6.2	5.4	5.2	5.0	5.1	4.9	5.0	4.4	3.9	3.1	3.6	3.0	3.6	4.1	3.3	2.2	2.2	1.2	1.3	1.1	1.6	1.2	3.7	6.2
26-Oct	1.1	1.3	1.1	1.1	1.2	1.2	1.4	1.4	1.1	1.3	1.6	1.7	2.0	1.7	1.4	1.8	1.7	2.1	2.1	1.3	1.2	1.0	0.9	0.5	1.4	2.1
27-Oct	0.3	0.2	0.3	0.3	0.2	0.4	0.4	0.3	0.5	0.5	0.9	0.5	0.9	0.6	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.2	0.3	0.1	0.3	0.9
28-Oct	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.9	0.4	0.4	1.4	0.4	1.9	0.8	1.1	1.7	4.0	1.9	1.4	1.1	1.0	1.4	2.7	1.0	4.0
29-Oct	2.9	1.5	1.1	1.6	1.6	1.6	1.9	2.6	2.6	2.7	2.6	2.6	2.9	2.8	2.4	1.9	2.3	2.0	1.9	2.1	2.1	2.9	4.1	3.8	2.4	4.1
30-Oct	3.9	4.9	5.7	5.9	5.4	6.3	4.8	4.3	4.4	4.8	4.4	4.3	4.1	3.8	4.2	4.1	4.5	4.1	4.0	3.7	3.4	3.2	3.2	2.9	4.3	6.3
31-Oct	3.0	3.5	3.9	4.2	4.9	5.5	5.0	4.5	4.3	5.1	5.9	5.5	5.4	4.9	5.3	5.0	4.8	4.4	3.9	3.7	4.1	4.2	4.0	3.6	4.5	5.9
	3.5	3.4	3.3	3.4	3.7	3.8	3.7	3.7	3.7	3.4	3.2	2.9	2.7	2.7	2.5	2.6	2.7	2.9	2.9	2.6	2.6	2.7	2.8	2.9	Diurnal Average	
	14.4	13.7	12.3	16.1	22.4	20.9	14.2	10.7	10.5	13.6	8.8	6.4	6.5	8.0	5.3	6.4	7.2	5.9	6.2	7.2	7.0	6.7	6.8	7.2	Diurnal Maximum	

C - Calibration PF - Power Failure

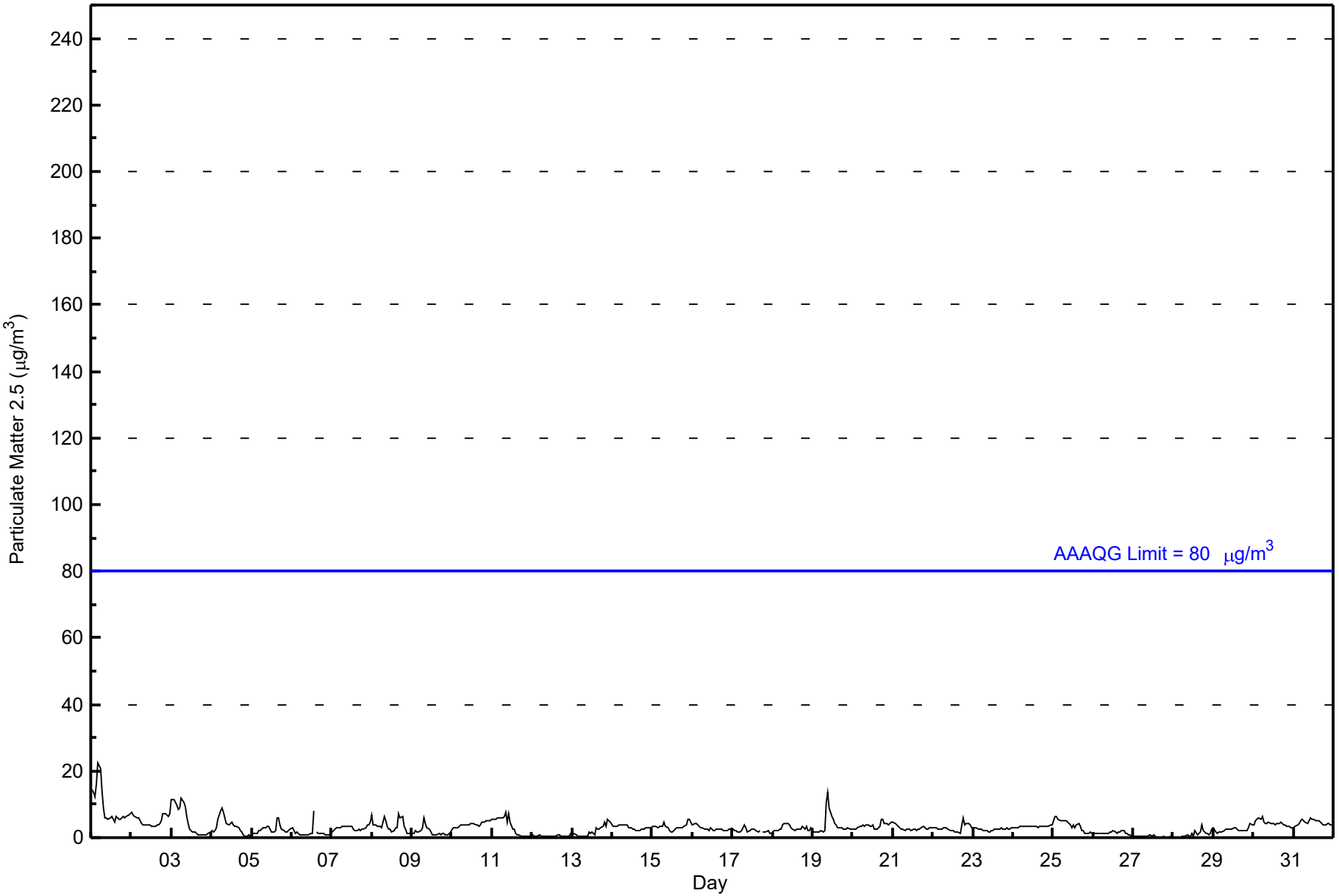
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 $\mu g/m^3$ 24-hr 29 $\mu g/m^3$

Wood Buffalo Environmental Association

Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Anzac - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Anzac - October 2025

Concentration Ranges ($\mu g/m^3$)	Number of Hours	%	Cumulative %
0 - 5	660	88.95	88.95
6 - 15	79	10.65	99.60
16 - 25	3	0.40	100.00
26 - 80	0	0.00	100.00
> 81.0	0	0.00	100.00

Total Number of Valid Hours: 742

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Anzac - October 2025

Concentration Ranges ($\mu g/m^3$)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	17	6	5	10	6	23	60	87	56	41	45	44	46	109	64	41	660
6 - 15	0	0	0	1	1	6	6	5	4	7	6	3	5	13	20	2	79
16 - 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3
26 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	6	5	11	7	29	66	92	60	48	51	47	51	122	86	44	742

Total Number of Valid Hours: 742

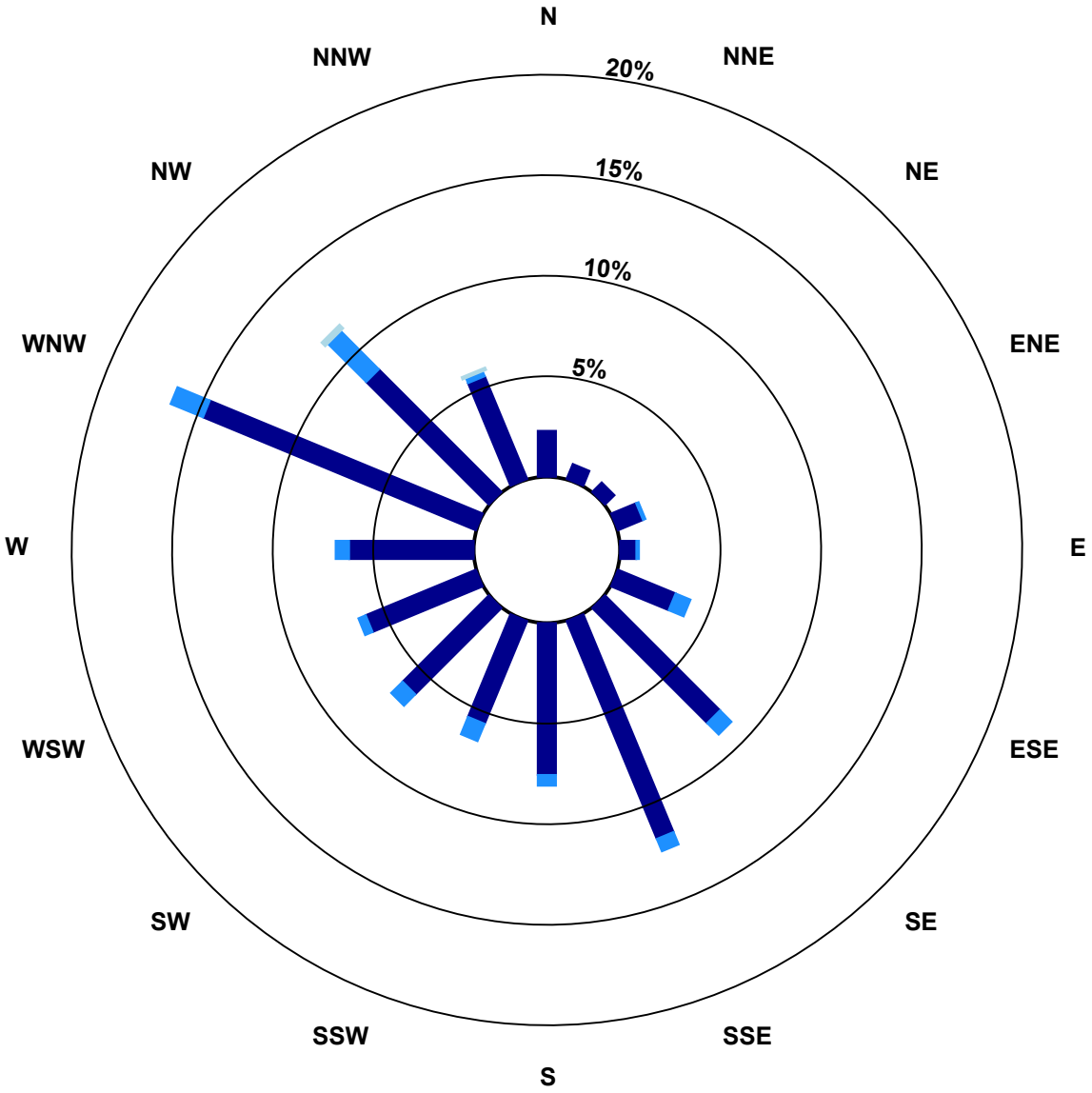
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Anzac



Classes ($\mu g/m^3$)

0 - 5

6 - 15

16 - 25

26 - 80

> 81.0

Total Number of Valid Hours: 742

Maximum Value: 21.0 C on Oct 10 15:00

Maximum Daily Average: 11.5 C on Oct 10

Minimum Value: -3.4 C on Oct 6 07:00

Minimum Daily Average: -1.0 C on Oct 29

Maximum Diurnal Average: 8.0 C at hour 15

Minimum Diurnal Average: 1.8 C at hour 7

Monthly Average: 4.58 C

Percentiles: P_1 = -2.3 P_{10} = -0.7 Q_1 = 0.3 Median = 4.0 Q_3 = 8.0 P_{90} = 11.0 P_{99} = 18.4

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

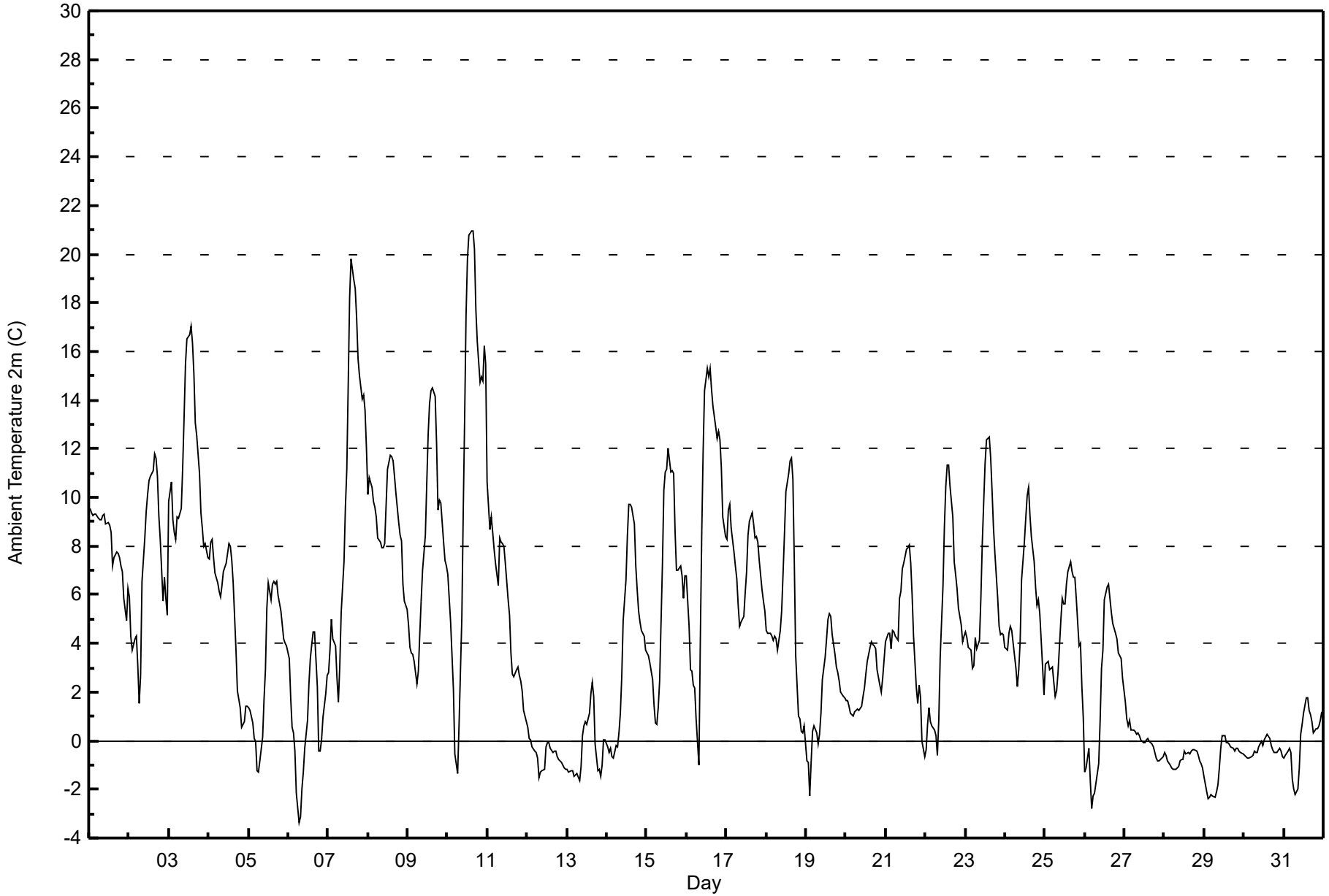
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	9.6	9.4	9.2	9.3	9.3	9.1	9.1	9.1	9.3	9.3	8.9	9.0	8.9	8.5	7.2	7.5	7.8	7.7	7.5	7.2	6.9	5.9	4.9	6.3	8.2	9.6
2-Oct	5.9	4.3	3.7	4.2	4.3	3.1	1.5	2.7	6.5	8.3	9.4	10.1	10.7	10.9	11.1	11.8	11.6	10.9	9.3	8.3	5.7	6.7	5.8	5.2	7.2	11.8
3-Oct	9.8	10.7	9.1	8.5	8.3	9.2	9.2	9.6	11.2	13.3	15.4	16.5	16.7	17.1	16.3	15.1	13.0	12.5	11.0	9.4	8.7	8.0	8.1	7.5	11.4	17.1
4-Oct	7.5	8.2	8.3	7.5	6.9	6.5	6.1	5.9	6.4	6.9	7.3	7.7	8.1	8.0	7.4	6.5	3.7	2.1	1.7	1.3	0.5	0.8	1.4	1.4	5.3	8.3
5-Oct	1.3	1.2	0.7	0.1	0.0	-1.2	-1.3	-0.8	0.2	1.7	2.9	5.4	6.5	5.8	6.5	6.5	6.5	6.5	6.0	5.4	4.8	4.2	4.0	3.9	3.2	6.5
6-Oct	3.4	1.7	0.6	0.3	-0.4	-2.1	-3.4	-3.2	-2.0	-1.3	-0.3	0.8	2.3	3.4	4.0	4.4	4.5	2.2	-0.4	-0.4	0.0	1.0	2.0	2.7	0.8	4.5
7-Oct	2.8	3.7	5.0	4.2	3.9	2.6	1.6	3.1	5.3	7.3	9.6	11.1	14.6	18.2	19.8	18.9	18.6	17.4	15.7	15.0	14.1	14.2	13.5	12.0	10.5	19.8
8-Oct	10.1	10.8	10.4	9.9	9.6	9.2	8.3	8.2	7.9	7.9	8.1	9.7	11.1	11.8	11.7	11.5	10.9	10.2	9.0	8.4	8.2	6.4	5.7	5.4	9.2	11.8
9-Oct	4.8	3.9	3.6	3.5	3.3	2.3	2.8	4.3	5.7	7.0	8.5	10.6	12.6	13.9	14.4	14.5	14.1	12.2	9.5	9.9	9.8	8.2	7.4	7.2	8.1	14.5
10-Oct	6.9	5.9	4.9	2.1	-0.5	-1.0	-1.3	0.6	5.0	9.4	13.2	17.5	19.8	20.8	21.0	20.9	20.2	17.7	16.4	14.7	15.0	14.8	16.2	15.5	11.5	21.0
11-Oct	10.6	8.7	9.2	8.6	7.9	7.3	6.4	8.3	8.1	8.1	8.0	7.3	5.8	5.2	3.6	2.7	2.7	2.9	3.0	2.7	2.5	2.1	1.3	0.8	5.6	10.6
12-Oct	0.6	0.1	0.0	-0.3	-0.4	-0.5	-0.7	-1.5	-1.3	-1.2	-1.2	-0.3	-0.1	-0.1	-0.3	-0.5	-0.4	-0.5	-0.7	-0.8	-0.9	-1.0	-1.1	-1.2	-0.6	0.6
13-Oct	-1.2	-1.3	-1.2	-1.2	-1.4	-1.4	-1.3	-1.6	-1.1	0.2	0.6	0.8	0.7	1.2	2.0	2.4	1.8	-0.2	-1.2	-1.2	-1.4	-1.0	0.0	0.0	-0.3	2.4
14-Oct	-0.2	-0.5	-0.3	-0.7	-0.7	-0.2	-0.2	0.3	1.1	2.6	4.9	6.6	8.4	9.7	9.7	9.6	8.9	7.2	6.2	5.3	4.9	4.6	4.3	3.7	4.0	9.7
15-Oct	3.6	3.5	3.2	2.5	1.5	0.7	0.6	1.4	2.5	7.2	10.3	11.0	11.2	12.0	11.0	11.1	11.0	8.6	7.0	7.0	7.2	6.8	5.9	6.8	6.4	12.0
16-Oct	6.8	4.7	2.9	2.8	2.3	2.2	0.9	-1.0	4.1	8.5	11.9	14.4	15.3	14.9	15.3	14.5	13.7	12.9	12.4	12.7	12.3	11.2	9.2	8.4	8.9	15.3
17-Oct	8.3	9.5	9.7	8.7	7.8	7.2	6.7	5.6	4.7	4.9	5.1	6.1	7.0	8.5	9.0	9.4	8.9	8.3	8.4	8.2	7.4	6.2	5.7	5.3	7.4	9.7
18-Oct	4.6	4.4	4.4	4.3	4.2	4.3	4.2	3.7	4.6	5.3	6.9	8.5	10.2	11.0	11.5	11.6	10.8	7.4	3.5	1.0	0.9	0.4	0.3	0.6	5.4	11.6
19-Oct	-0.8	-0.9	-2.3	-0.9	0.4	0.6	0.3	-0.1	0.3	1.1	2.5	3.4	4.2	5.0	5.2	5.1	4.4	3.6	3.0	2.8	2.5	2.0	1.8	1.7	1.9	5.2
20-Oct	1.7	1.6	1.4	1.1	1.0	1.2	1.2	1.3	1.3	1.4	1.8	2.2	2.7	3.3	3.8	4.1	4.0	3.9	3.8	2.9	2.3	2.0	2.6	3.3	2.3	4.1
21-Oct	4.1	4.4	4.4	3.8	4.5	4.5	4.3	4.1	5.9	6.2	7.1	7.3	7.9	7.9	8.1	7.3	6.0	4.3	2.2	1.5	2.3	1.8	0.0	-0.6	4.5	8.1
22-Oct	-0.4	0.7	1.4	0.8	0.6	0.4	0.2	-0.6	0.9	3.4	6.4	8.8	10.5	11.3	11.3	10.5	9.2	7.4	6.8	6.3	5.4	4.8	4.1	4.3	4.8	11.3
23-Oct	4.4	4.2	3.9	3.7	3.0	3.1	4.2	3.8	4.1	5.8	8.1	9.8	11.4	12.3	12.5	11.6	10.2	8.8	7.7	5.8	4.7	4.3	4.4	4.3	6.5	12.5
24-Oct	3.9	3.7	4.4	4.7	4.6	4.0	3.0	2.2	2.9	4.1	6.6	8.1	9.1	10.1	10.4	9.3	8.4	7.4	6.3	5.6	5.8	5.2	3.0	1.9	5.6	10.4
25-Oct	3.1	3.2	3.3	2.9	3.0	2.4	1.8	2.1	2.8	4.9	5.8	5.6	5.6	6.4	6.9	7.4	6.9	6.7	6.7	5.8	3.9	4.0	2.2	0.9	4.4	7.4
26-Oct	-1.3	-1.1	-0.3	-1.6	-2.8	-2.3	-2.1	-1.4	-0.9	0.8	3.0	3.7	5.8	6.3	6.4	5.9	5.2	4.8	4.4	4.2	3.6	3.5	3.3	2.6	2.1	6.4
27-Oct	1.6	0.9	0.6	0.8	0.5	0.5	0.4	0.2	0.3	0.2	0.0	-0.1	-0.1	0.0	0.1	0.0	-0.1	-0.2	-0.5	-0.7	-0.9	-0.8	-0.7	-0.7	0.1	1.6
28-Oct	-0.5	-0.6	-0.8	-1.0	-1.1	-1.2	-1.2	-1.2	-1.1	-0.8	-0.8	-0.7	-0.4	-0.6	-0.5	-0.6	-0.4	-0.3	-0.4	-0.4	-0.6	-0.8	-1.0	-1.1	-0.8	-0.3
29-Oct	-1.4	-2.1	-2.4	-2.3	-2.2	-2.3	-2.3	-2.1	-1.8	-1.1	-0.3	0.2	0.2	-0.1	-0.1	-0.2	-0.3	-0.3	-0.4	-0.3	-0.3	-0.4	-0.5	-0.5	-1.0	0.2
30-Oct	-0.6	-0.6	-0.7	-0.7	-0.6	-0.6	-0.4	-0.5	-0.5	-0.3	0.0	-0.2	0.0	0.1	0.3	0.1	-0.2	-0.4	-0.5	-0.5	-0.5	-0.3	-0.4	-0.6	-0.4	0.3
31-Oct	-0.7	-0.6	-0.4	-0.3	-0.5	-1.6	-2.0	-2.2	-2.0	-1.1	0.3	0.7	1.2	1.7	1.7	1.3	1.1	0.8	0.3	0.5	0.5	0.6	0.8	1.2	0.0	1.7
	3.5	3.3	3.1	2.8	2.4	2.1	1.8	1.9	2.9	4.2	5.5	6.5	7.4	7.9	8.0	7.8	7.2	6.2	5.3	4.8	4.4	4.0	3.7	3.5	Diurnal Average	
	10.6	10.8	10.4	9.9	9.6	9.2	9.2	9.6	11.2	13.3	15.4	17.5	19.8	20.8	21.0	20.9	20.2	17.7	16.4	15.0	15.0	14.8	16.2	15.5	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Anzac - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	164	22.04	22.04
0 - 10	482	64.78	86.83
10 - 20	94	12.63	99.46
> 20	4	0.54	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

Anzac - October 2025

Maximum Value: 99.6 % on Oct 1 06:00

Maximum Daily Average: 97.8 % on Oct 27

Minimum Value: 25.8 % on Oct 10 17:00

Minimum Daily Average: 45.4 % on Oct 14

Maximum Diurnal Average: 84.4 % at hour 8

Minimum Diurnal Average: 64.3 % at hour 15

Monthly Average: 75.39 %

Percentiles: P_1 = 30.3 P_{10} = 47.0 Q_1 = 60.7 Median = 78.5 Q_3 = 92.6 P_{90} = 97.5 P_{99} = 99.3

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

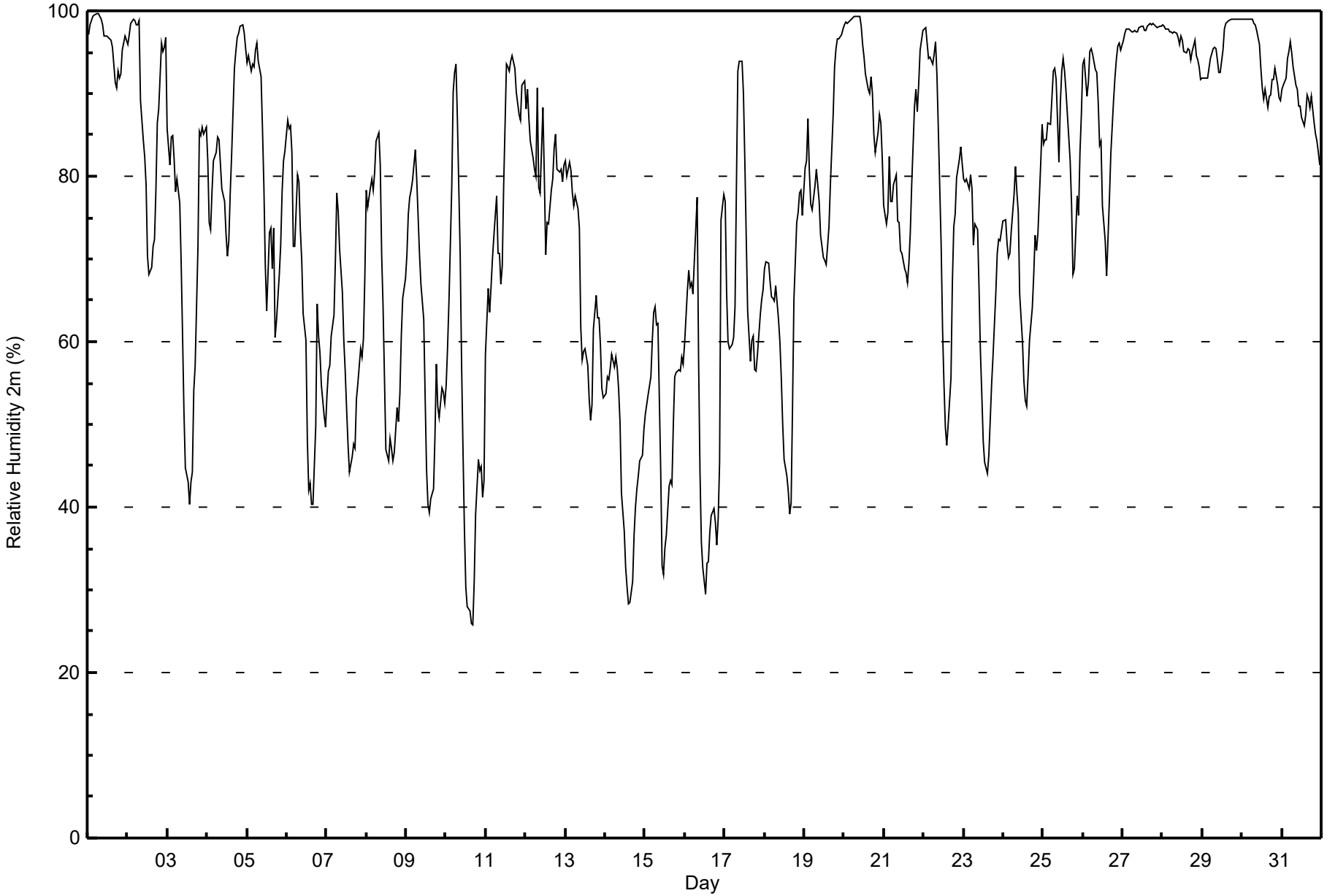
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	97.2	98.4	98.9	99.3	99.5	99.6	99.6	99.3	98.9	98.3	97.0	96.9	96.8	96.6	96.5	95.6	91.4	90.7	92.7	91.8	92.4	95.3	97.0	96.5	96.5	99.6
2-Oct	95.9	97.1	98.5	99.0	98.8	98.3	98.3	98.8	89.1	84.4	82.4	78.9	70.4	68.2	69.1	71.5	72.4	78.4	86.5	88.2	96.1	95.1	95.6	96.7	87.8	99.0
3-Oct	85.7	81.4	84.8	84.9	82.0	78.1	79.6	76.9	69.6	60.8	51.5	44.7	43.1	40.3	43.1	44.3	54.1	57.2	71.5	85.4	85.0	86.0	85.1	85.9	69.2	86.0
4-Oct	81.8	74.5	73.5	78.1	81.9	82.9	84.7	84.4	81.5	78.4	77.0	73.0	70.3	72.1	77.9	82.5	93.0	95.2	96.8	97.2	98.1	98.3	97.2	95.4	84.4	98.3
5-Oct	93.8	94.6	92.6	93.5	93.2	95.2	96.1	93.9	92.1	85.8	78.9	69.3	63.7	73.2	73.8	68.9	73.8	60.6	62.6	68.2	71.7	78.1	81.9	83.1	80.8	96.1
6-Oct	86.7	85.8	86.2	83.0	71.6	71.6	80.1	79.3	73.6	69.9	63.4	60.2	48.2	42.0	42.9	40.3	40.3	49.8	64.6	60.7	58.7	54.7	50.9	49.7	63.1	86.7
7-Oct	53.5	56.4	57.2	60.7	63.1	69.8	77.9	75.7	71.2	66.0	60.1	56.4	51.9	47.6	44.2	46.2	47.6	47.1	53.0	54.9	59.2	58.2	60.4	67.8	58.6	77.9
8-Oct	78.3	76.3	78.7	79.6	78.2	80.6	84.2	85.3	81.3	70.5	64.2	55.6	47.0	45.7	48.3	47.2	45.5	46.6	52.1	50.3	53.8	60.7	65.2	67.6	64.3	85.3
9-Oct	70.5	75.4	77.4	78.4	79.5	83.2	79.7	75.2	70.5	67.0	62.7	53.4	44.6	40.3	39.3	41.1	42.3	48.4	57.3	52.2	50.9	54.4	53.9	52.5	60.4	83.2
10-Oct	54.7	59.3	64.9	78.8	90.2	92.5	93.6	86.9	70.6	57.3	47.0	37.5	30.3	28.0	27.5	26.0	25.8	31.0	39.1	45.8	44.4	44.9	41.3	43.2	52.5	93.6
11-Oct	58.4	66.4	63.6	66.6	70.0	72.7	77.7	70.7	70.6	67.0	69.1	78.8	93.6	93.2	92.7	93.8	94.7	93.1	90.1	88.9	87.4	86.8	91.1	91.5	80.4	94.7
12-Oct	88.1	90.6	87.0	84.2	82.2	80.9	80.1	90.7	78.6	78.0	88.3	80.0	70.5	74.5	74.3	78.4	79.6	83.4	85.2	80.9	80.5	80.8	79.3	81.4	81.5	90.7
13-Oct	81.9	80.0	81.7	80.7	77.9	76.5	77.6	76.2	73.8	61.8	57.8	58.8	59.1	57.1	53.0	50.6	52.4	61.5	65.5	62.9	62.9	59.7	54.5	53.2	65.7	81.9
14-Oct	53.7	55.7	55.4	56.7	58.5	56.9	58.1	56.9	54.2	50.1	41.7	37.2	32.6	30.3	28.4	28.5	30.9	36.6	40.0	42.2	43.8	45.7	46.3	49.3	45.4	58.5
15-Oct	51.2	52.5	53.6	55.8	60.1	63.6	64.2	62.1	62.1	44.4	32.9	31.8	35.0	36.7	42.6	43.2	42.7	50.0	55.8	56.3	56.6	56.5	58.1	57.4	51.0	64.2
16-Oct	59.6	66.1	68.6	66.6	67.1	65.7	69.9	77.5	58.1	44.5	35.7	32.6	29.5	33.3	33.4	36.9	39.0	39.9	38.2	35.5	38.6	45.4	74.8	77.8	51.4	77.8
17-Oct	77.0	65.9	59.9	59.1	59.7	60.5	64.2	78.8	92.7	93.9	93.8	90.0	81.8	72.5	63.8	57.6	60.2	60.7	56.6	56.4	58.4	63.2	65.2	66.2	69.1	93.9
18-Oct	68.8	69.6	69.5	67.3	65.5	65.2	64.9	66.8	62.7	60.1	55.6	50.0	45.7	43.8	41.8	39.1	40.6	52.0	65.2	74.4	75.5	78.0	78.3	75.3	61.5	78.3
19-Oct	81.1	81.9	87.0	80.6	76.6	75.9	78.8	80.9	78.9	76.9	73.0	70.2	69.9	69.3	71.5	73.9	79.0	87.5	93.3	95.4	96.6	96.7	97.1	97.8	82.1	97.8
20-Oct	98.4	98.7	98.4	98.6	98.9	99.2	99.3	99.3	99.4	99.3	98.2	95.9	94.4	92.4	90.5	90.0	92.0	90.0	85.1	82.9	85.3	87.4	86.4	82.2	93.4	99.4
21-Oct	76.5	74.2	75.6	82.4	76.9	77.0	79.0	80.1	74.6	74.3	71.1	70.6	68.7	68.4	67.1	69.4	73.2	79.0	88.5	90.6	87.8	91.3	95.3	97.6	78.7	97.6
22-Oct	97.8	97.9	96.1	94.3	94.4	93.6	94.8	96.4	92.3	85.7	71.7	61.6	55.0	49.6	47.5	49.9	55.6	67.1	73.9	75.4	79.9	82.1	83.6	81.6	78.2	97.9
23-Oct	79.6	79.3	79.6	78.5	80.2	78.5	71.7	74.3	73.6	66.7	58.8	53.6	47.9	45.4	44.1	46.2	50.5	55.0	58.3	66.0	70.7	72.3	72.2	73.4	65.7	80.2
24-Oct	74.6	74.8	71.8	70.2	70.7	73.3	77.7	81.2	78.1	75.6	65.8	60.0	55.3	52.9	52.1	55.9	60.2	64.1	68.0	72.9	71.1	73.0	81.5	86.3	69.5	86.3
25-Oct	83.9	84.5	84.3	86.4	86.3	89.5	92.7	93.0	91.7	81.6	88.7	92.8	94.2	92.8	90.4	84.8	81.8	76.5	68.1	68.8	77.6	75.2	82.8	87.5	84.8	94.2
26-Oct	93.6	94.1	89.6	91.4	95.2	95.4	94.7	92.9	92.6	88.9	83.7	84.2	76.4	72.2	68.0	72.6	77.3	82.7	89.4	92.0	94.3	95.8	96.1	95.3	87.9	96.1
27-Oct	96.5	97.3	97.8	97.7	97.8	97.5	97.5	97.6	97.5	97.4	98.0	98.1	98.1	97.6	97.6	98.1	98.4	98.3	98.4	98.3	98.2	98.1	98.1	98.1	97.8	98.4
28-Oct	98.3	98.2	97.7	97.8	97.5	97.4	97.2	97.4	97.3	96.8	96.0	96.9	96.4	95.0	95.0	95.4	95.3	94.1	95.1	96.5	94.6	94.1	93.2	91.6	96.0	98.3
29-Oct	91.8	91.9	91.9	91.9	93.0	94.3	95.4	95.5	95.4	94.1	92.6	92.5	95.2	97.8	98.4	98.7	98.8	98.9	99.0	99.0	99.0	99.0	99.0	99.0	95.9	99.0
30-Oct	98.9	98.9	99.0	99.0	99.0	99.0	99.0	98.5	98.3	97.7	95.9	93.1	90.7	89.3	90.5	88.3	89.7	89.9	91.8	91.7	93.0	91.0	89.4	89.2	94.2	99.0
31-Oct	90.5	91.0	91.8	94.2	95.2	96.3	94.9	93.2	91.0	90.5	88.5	88.4	87.1	86.2	87.5	89.9	89.3	88.3	89.7	86.5	85.1	84.2	82.9	81.4	89.3	96.3
	80.6	80.9	81.1	81.8	82.0	82.6	84.0	84.4	81.0	76.2	72.3	69.1	65.9	64.7	64.3	64.7	66.7	69.5	73.3	74.5	75.7	76.8	78.5	79.1	Diurnal Average	
	98.9	98.9	99.0	99.3	99.5	99.6	99.6	99.3	99.4	99.3	98.2	98.1	98.1	97.8	98.4	98.7	98.8	98.9	99.0	99.0	99.0	99.0	99.0	99.0	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Anzac - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	32	4.30	4.30
40 - 60	143	19.22	23.52
60 - 80	223	29.97	53.49
80 - 100	346	46.51	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Leaf Wetness (LW) - %

Anzac - October 2025

Maximum Value: 96.2 % on Oct 27 11:00

Maximum Daily Average: 41.2 % on Oct 27

Minimum Value: 0.0 % on Oct 1 21:00

Minimum Daily Average: 0.0 % on Oct 7

Maximum Diurnal Average: 9.9 % at hour 13

Minimum Diurnal Average: 3.1 % at hour 21

Monthly Average: 5.90 %

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 1.9 P_{90} = 25.2 P_{99} = 58.5

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Hours of Calibration:	0
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	40.9	46.6	34.1	33.3	21.7	39.7	36.5	51.4	49.8	30.0	21.9	20.8	28.0	24.4	22.0	19.2	3.7	1.9	1.0	0.5	0.0	2.5	9.2	8.8	22.8	51.4
2-Oct	9.1	13.2	20.5	23.0	27.7	39.1	50.2	58.7	60.3	32.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	19.6	38.0	51.6	18.7	60.3
3-Oct	44.9	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.5	14.6	19.5	7.8	2.7	0.8	4.8	44.9
4-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	46.3	57.5	42.7	38.7	OR	49.3	16.8	6.8	11.2	57.5
5-Oct	3.6	2.2	1.3	4.2	8.3	0.0	0.0	0.0	2.6	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	1.2	8.3
6-Oct	9.8	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	9.8
7-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8-Oct	0.0	0.0	0.0	0.0	0.0	13.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	13.3
9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-Oct	0.0	0.0	0.0	0.0	0.0	0.6	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.3
11-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	37.9	40.0	35.1	30.4	26.7	6.7	1.7	0.0	0.0	1.0	6.0	16.4	8.7	40.0
12-Oct	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.8
13-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	30.6	11.9	2.1	30.6
17-Oct	4.7	0.0	0.0	0.0	0.0	0.0	0.0	17.1	35.5	31.3	32.3	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	35.5
18-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.8	34.7	37.9	27.3	22.9	27.7	36.9	8.9	37.9
20-Oct	25.1	19.3	19.0	17.4	20.7	18.3	23.1	23.9	21.4	20.9	8.6	9.9	13.1	3.9	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2	25.1
21-Oct	0.0	0.0	14.8	15.7	6.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	7.5	1.9	15.7
22-Oct	15.0	20.8	21.6	22.1	27.7	34.2	33.5	0.6	14.2	24.6	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	34.2
23-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.5	36.9	34.7	32.6	15.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	36.9
26-Oct	2.1	0.0	0.0	0.0	0.0	0.1	0.4	0.4	0.3	15.0	8.7	5.0	0.0	0.0	0.0	0.0	0.0	0.0	40.8	38.9	32.9	28.6	29.5	27.4	9.6	40.8
27-Oct	24.6	31.9	68.2	56.4	OR	OR	OR	OR	OR	82.6	96.2	91.4	82.6	73.3	58.1	49.4	39.9	12.2	2.6	2.5	2.5	2.5	2.5	2.5	41.2	96.2
28-Oct	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.5	3.0	7.0	40.6	23.8	7.5	3.5	2.6	2.4	2.2	2.1	1.9	1.8	1.7	1.6	5.3	40.6
29-Oct	1.5	1.4	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.4	1.6	16.7	40.8	41.0	35.6	37.0	20.3	3.7	1.8	1.3	1.2	1.2	1.2	1.2	8.9	41.0
30-Oct	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	0.9	7.0	44.9	34.5	27.4	24.9	31.9	25.4	10.7	0.6	0.1	0.1	0.1	0.0	0.0	0.0	9.0	44.9
31-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.2	51.3	31.5	1.5	0.0	2.6	1.9	1.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	3.8	51.3
	6.1	4.9	5.9	5.7	3.9	5.0	4.9	5.3	6.3	8.1	9.7	8.6	9.9	8.5	6.7	5.4	4.9	3.6	4.8	4.4	3.1	4.7	5.4	5.7	Diurnal Average	
	44.9	46.6	68.2	56.4	27.7	39.7	50.2	58.7	60.3	82.6	96.2	91.4	82.6	73.3	58.1	49.4	46.3	57.5	42.7	38.9	32.9	49.3	38.0	51.6	Diurnal Maximum	

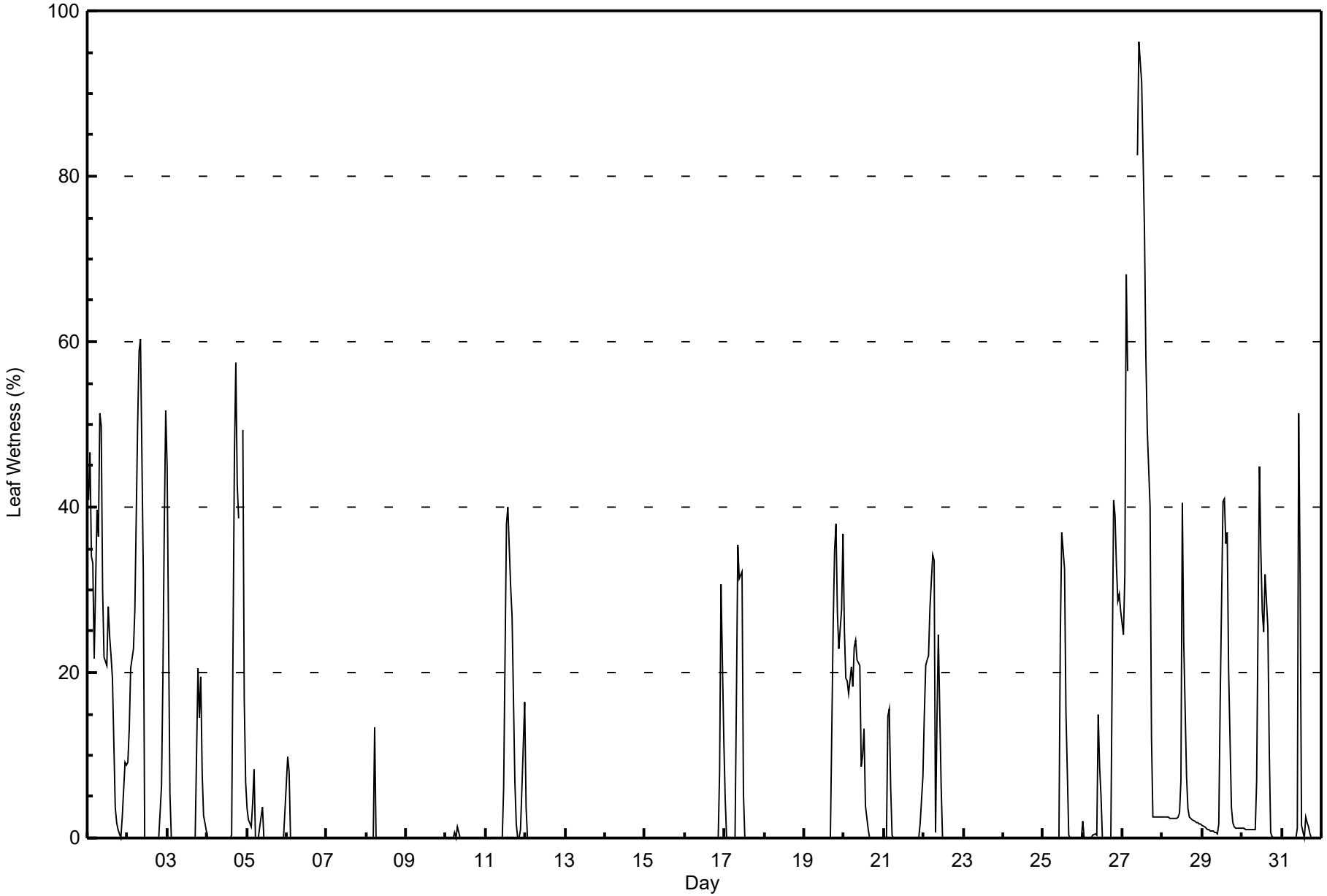
OR - Out of Range

Wood Buffalo Environmental Association

Hourly Averages

Leaf Wetness (LW) - %

Anzac - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 0.3	502	68.02	68.02
0.4 - 0.5	7	0.95	68.97
0.6 - 0.7	5	0.68	69.65
0.8 - 1.4	28	3.79	73.44
1.5 - 10	74	10.03	83.47
> 10	122	16.53	100.00

Total Number of Valid Hours: 738

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 20m (WS20) - km/h

Anzac - October 2025

Maximum Speed: 32 km/h on Oct 31 20:00

Maximum Daily Speed Average: 20.7 km/h on Oct 12

Minimum Speed Value: 1 km/h on Oct 8 01:00

Minimum Daily Speed Average: 3.9 km/h on Oct 29

Maximum Diurnal Speed Average: 6.8 km/h at hour 14

Minimum Diurnal Speed Average: 3.4 km/h at hour 2

Monthly Average Velocity: 4.6 km/h 256.9 deg

Percentiles: P_1 = 4 P_{10} = 7 Q_1 = 9 Median = 12 Q_3 = 16 P_{90} = 20 P_{99} = 28

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	WNW10	NW8	NW9	NNW10	NW12	NW12	NW13	NW12	NW14	NW15	NW16	NW14	NNW17	NW17	NNW15	NW13	NW13	NW11	NW10	NW10	NW9	NW8	WNW7	WNW7	NW11.6	NW17
2-Oct	WNW6	NW5	W6	WSW4	SW4	SSW5	S6	S7	S6	SSE7	S8	S9	SSE10	S11	SSE9	SSE7	SSE9	SSE9	SSW10	S8	SSE9	SSE11	SSE10	S11	S6.4	S11
3-Oct	SSW12	SSW13	WSW5	SW8	S10	SSW11	SW16	SW12	SW14	SW14	SW12	WSW20	WSW22	WSW23	WSW21	WSW23	WSW14	WSW11	WSW11	WSW16	W19	W16	W20	W14	WSW13.9	WSW23
4-Oct	W14	W18	W21	W19	WNW18	W19	WNW18	WNW18	WNW18	WNW15	WNW12	WNW11	NW13	W13	W15	WNW15	NNW18	NW14	NNW19	NNW17	NW14	NW15	NW16	NW16	WNW15.2	W21
5-Oct	NW15	WNW15	WNW12	WNW14	W10	SW6	SW7	SSW7	SSW7	SW7	SW8	SW13	W19	W21	WNW16	WNW15	WNW10	W16	W16	WNW15	WNW17	WNW18	W17	WNW17	W11.8	W21
6-Oct	NW14	N19	NNW14	NNW18	N21	N18	N10	NW8	NNW14	NNW11	NW10	WNW10	W9	WNW7	NW6	WNW3	ENE5	ESE8	SE8	SSE10	SSE13	SSE14	SSE12	SSE12	NNW4.1	N21
7-Oct	SSE11	SSE13	S14	SSE12	SSE11	SSE9	SSE8	SSE7	SE7	SE9	SE8	SE9	SE10	S12	SSW15	S15	S12	S11	S12	S12	S14	SSE10	SE6	E3	SSE9.8	S15
8-Oct	S1	WNW13	NW16	WNW19	WNW18	WNW17	WNW19	WNW20	WNW22	WNW21	WNW19	W18	WNW18	WNW18	W17	W17	W17	WNW16	W9	WSW10	WNW20	WNW22	WNW23	WNW20	WNW16.7	WNW23
9-Oct	WNW18	WNW14	WNW15	W18	W17	W10	W13	W17	WNW16	WNW18	WNW16	W16	W15	W14	W15	W13	WSW13	WSW10	SW9	WSW11	SW10	SW8	SW9	SW8	W12.6	WNW18
10-Oct	SSW9	SSW9	SSW9	S6	SSE7	SSE6	SSE7	S11	SSE10	SSE10	SSE12	S11	SSW16	SSW18	S20	SSW17	S15	SSE12	SSE17	SSE13	SSE15	SE13	SSE17	SSE13	S11.3	SSW20
11-Oct	E7	ENE14	ESE13	SE7	ESE6	SE5	S5	NW15	NW20	NNW29	NNW24	NNW27	NNW24	NW24	WNW27	WNW25	WNW21	WNW21	WNW20	WNW19	NW19	NW20	NNW18	NNW27	NW13.6	NNW29
12-Oct	NNW27	NNW29	NNW30	NNW32	NNW31	NNW29	NNW24	N24	N30	N22	N16	NNW23	N25	NNW21	N20	N16	NNW13	NNW16	NNW15	NNW15	NNW12	NNW11	NNW10	NW10	NNW20.7	NNW32
13-Oct	NW11	NW9	NW9	NW10	NW8	NW9	WNW7	SW6	SW6	SW9	WSW12	WSW13	SW15	SSW14	SSW13	SSW17	SSW13	S7	S13	S11	S11	SSW10	SW15	SSW12	SW7.7	SSW17
14-Oct	SSE11	SE9	S11	S10	SSW17	SSW13	SSW10	SSW11	SSW12	SSW16	SSW11	SW15	SW15	SW16	SW16	SW16	WSW13	SW10	SW13	SW12	WSW13	WSW12	WSW11	SW8	SW11.5	SSW17
15-Oct	WSW11	SW10	SW9	SSW9	SSE9	S12	SSE10	SSE7	S9	S8	S10	SSW11	SW14	W14	W15	W10	WSW9	SW9	SW9	WSW13	WSW11	SW10	WSW9	WNW12	SW8.4	W15
16-Oct	W10	WSW8	WSW9	WSW8	WSW9	WSW8	SW7	SW6	S8	S8	SSE7	S9	SW14	SSW15	SSW17	SSW18	S17	S12	S11	SSW14	SSW13	SSW11	SW11	S11	SSW9.6	SSW18
17-Oct	S10	WSW15	WSW20	WSW24	W20	W21	W21	W20	WNW19	WNW22	WNW20	WNW20	WNW18	WNW18	WNW20	WNW17	WNW12	WNW11	WNW15	WNW15	WNW16	WNW15	WNW16	WNW16	W16.4	WSW24
18-Oct	WNW15	WNW15	WNW17	WNW15	WNW13	W15	W17	W16	WNW19	WNW17	WNW13	WNW13	WNW13	WNW15	WNW14	WNW12	WNW8	W5	SSW7	SW5	SW6	SSW6	SSW7	S9	W10.9	WNW19
19-Oct	SSE8	SSE10	SE8	SE11	SE10	ESE11	ESE12	ESE13	ESE12	ESE11	SE9	SE11	ESE11	SE12	ESE10	ESE9	E10	E9	E8	ENE8	ENE10	ENE9	NE7	N4	ESE8.5	ESE13
20-Oct	NNW8	NNW10	N9	NNW11	NW10	NW11	NW11	NW12	NW12	NW11	NW10	WNW9	WNW7	WNW9	W5	SSW4	S6	SSW7	SSW9	S8	S11	S11	S15	S14	W4.2	S15
21-Oct	S15	S16	S16	S9	SW12	SW12	SW13	WSW13	W16	WNW18	WNW16	WNW13	NW14	NW16	NNW14	NNW13	NNW8	WNW5	WNW5	NNW8	N7	NNW4	ENE2	ESE6	W5.8	WNW18
22-Oct	SSE8	SE9	SE12	SSE13	SE15	SE12	SE15	SSE14	SSE15	SSE14	SSE11	SSE10	SE10	ESE13	SE16	SSE16	SE12	ESE14	SE17	SE17	SE18	SE18	SE15	SE14	SE13.3	SE18
23-Oct	SE17	SE19	SE19	SSE17	SSE13	SE14	SE13	SSE12	SSE10	SE12	SSE12	SE12	SE10	ESE14	SE16	SE15	SE13	SSE12	SSE15	SSE14	SSE15	SSE17	SSE15	SSE15	SE14.1	SE19
24-Oct	SSE17	SSE15	SSE15	SSE15	SSE18	SSE15	SSE16	SSE9	SE7	ESE6	ESE8	E8	ESE10	SE12	SE12	SE14	SSE17	SSE15	SSE12	SSE11	SE14	SE12	ESE9	ESE11	SE11.9	SSE18
25-Oct	SE12	SE12	ESE11	SE8	SE11	E8	W1	WNW9	WNW12	W17	W25	W25	WNW24	WNW25	W23	W19	W20	WSW19	WSW16	WSW11	WSW10	WSW8	SW7	SSW8	WSW9.2	W25
26-Oct	SSE4	S10	S10	SSE9	SE4	SE5	SE9	SE7	SE5	SE7	ESE8	ENE8	ENE12	ENE14	ENE16	ENE11	N9	NW9	NE9	NE17	NNE18	NNE17	NNE19	N21	ENE6.0	N21
27-Oct	NNW19	NNW16	NW13	NW14	NW16	NW20	NW21	NW21	NW22	NW25	NW20	NW7	NW15	NW21	NW20	NW17	NW19	NW22	NW22	NW23	NW22	NW22	NW21	NW23	NW18.9	NW25
28-Oct	NW20	WNW23	WNW23	WNW21	WNW22	WNW22	WNW22	WNW20	WNW19	WNW22	WNW20	NW18	WNW17	WNW20	WNW20	WNW17	WNW14	WNW13	W12	W9	WSW7	SSW5	SW6	S6	WNW15.5	WNW23
29-Oct	S9	SSE12	SE13	SE14	SE13	ESE11	ESE12	ESE11	ESE12	ESE11	ESE10	ESE7	NW3	NE8	NE9	NNE8	NNE8	NNE6	N7	NW7	NW9	NNW9	NNW8	NW7	E3.9	SE14
30-Oct	NW7	NW8	NW8	NW7	NW4	NW5	WNW6	WNW8	WNW9	WNW9	WNW7	WNW8	WSW8	WSW6	SW5	WSW11	SW9	SW7	S7	S6	S7	SSW7	SW7	SSW8	W5.2	WSW11
31-Oct	S5	SSE6	SSE9	S10	S11	SSE9	SSE12	SSE15	SSE15	SSE19	SSE19	SSE20	SSE21	SE17	SE19	SE24	SSE26	SSE24	SSE25	SSE32	SSE28	SSE20	SE13	SE15	SSE17.1	SSE32
	WSW3.5	W3.4	WSW4.0	W4.4	WSW4.0	W3.6	WSW4.5	W5.1	W5.3	W5.4	W5.0	W5.6	W6.8	W6.8	W6.2	WSW6.0	WSW4.7	WSW4.4	SW4.3	SW4.5	SW4.4	WSW3.9	WSW4.0	WSW3.5	Diurnal Average	
	NNW27	NNW29	NNW30	NNW32	NNW31	NNW29	NNW24	N24	N30	NNW29	W25	NNW27	N25	WNW25	WNW27	WNW25	SSE26	SSE24	SSE25	SSE32	SSE28	NW22	WNW23	NNW27	Diurnal Maximum	

All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 20m (WS20) - km/h

Anzac - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 9 km/h on Oct 27 13:00

Minimum Value: 1 km/h on Oct 16 08:00

Percentiles: P_1 = 1 P_{10} = 2 Q_1 = 2 Median = 3 Q_3 = 4 P_{90} = 5 P_{99} = 7

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

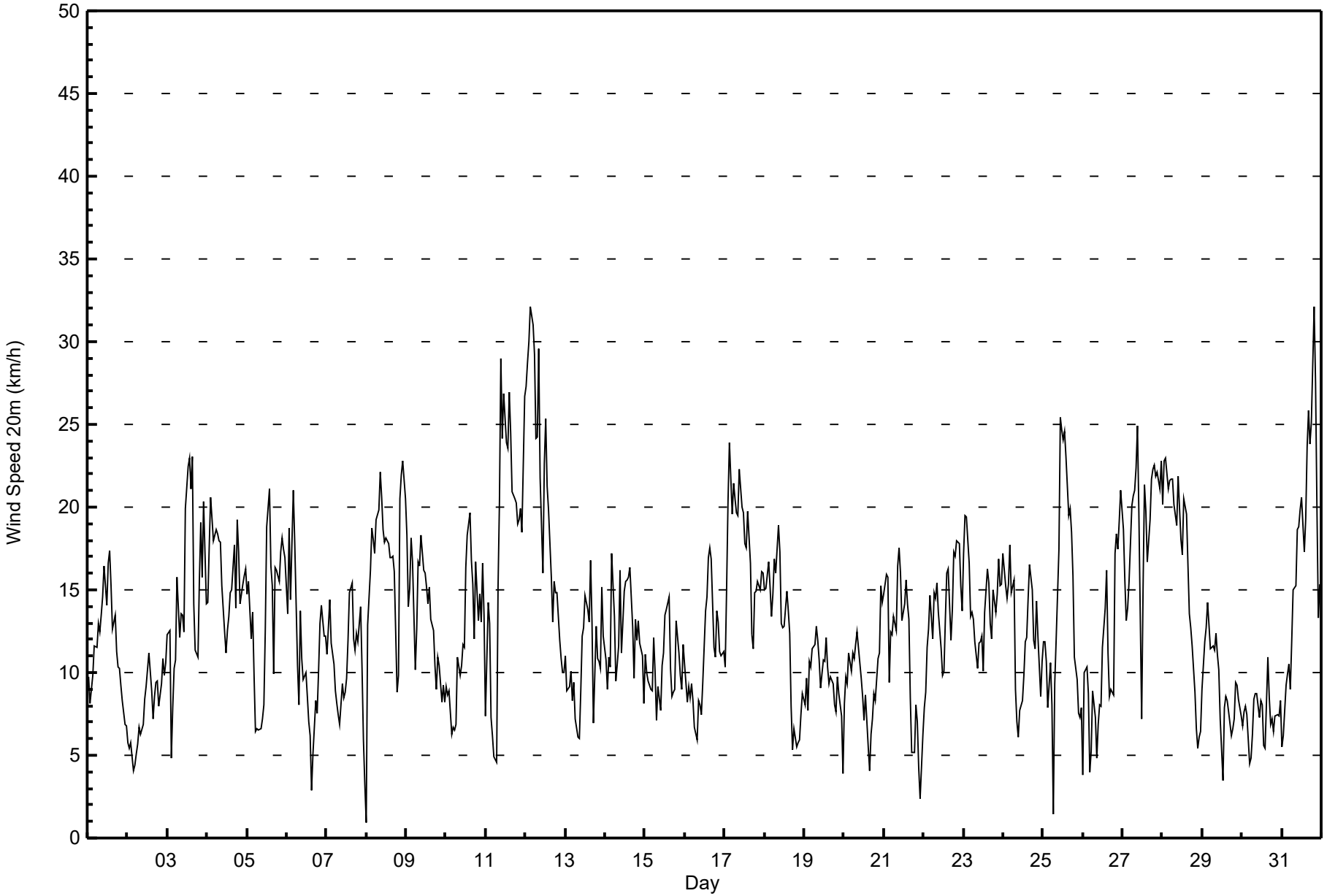
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	2	2	2	2	3	3	3	4	4	3	4	5	5	3	3	2	2	2	2	2	1	1	5
2-Oct	1	1	1	1	1	1	1	1	2	1	2	3	3	2	2	3	2	2	2	2	2	1	2	3	3
3-Oct	3	3	3	2	3	3	4	4	3	3	4	7	6	8	6	7	5	3	4	5	6	5	5	4	8
4-Oct	4	5	6	5	5	5	4	5	4	4	3	2	3	3	4	5	5	4	7	4	3	4	4	4	7
5-Oct	3	4	3	4	4	1	1	1	1	2	3	4	6	5	5	4	4	5	4	4	5	5	4	4	6
6-Oct	3	5	4	4	5	5	3	2	3	3	3	3	3	2	2	2	1	2	2	2	1	2	3	3	5
7-Oct	2	2	2	3	2	2	2	2	1	2	2	2	2	4	5	5	2	3	2	2	2	2	5	2	5
8-Oct	2	3	4	5	4	5	5	5	6	5	4	5	5	5	4	5	5	5	3	3	6	7	6	5	7
9-Oct	5	4	4	5	4	3	3	4	4	5	4	4	4	4	4	3	4	3	2	2	2	1	2	1	5
10-Oct	2	1	2	1	1	1	1	2	2	2	2	4	5	6	6	5	4	2	3	3	3	3	4	5	6
11-Oct	3	4	3	4	2	2	1	6	6	7	7	6	5	6	8	7	5	6	5	5	4	5	5	6	8
12-Oct	7	6	6	7	7	7	6	6	7	5	4	5	7	5	4	5	4	5	3	4	3	2	2	2	7
13-Oct	2	2	2	2	2	2	2	1	2	3	4	4	4	4	4	5	5	2	2	3	3	4	4	3	5
14-Oct	3	2	4	3	6	4	4	5	4	5	4	5	5	5	5	5	4	3	4	4	3	2	2	2	6
15-Oct	2	2	2	2	2	1	2	2	3	3	4	4	4	4	5	3	2	2	2	2	2	1	2	3	5
16-Oct	2	1	1	1	1	1	1	1	1	1	1	4	4	4	5	5	3	3	3	4	3	4	3	2	5
17-Oct	2	4	6	6	5	6	5	5	5	5	5	5	5	4	5	5	3	3	4	4	3	3	4	4	6
18-Oct	3	3	4	4	3	4	4	4	5	4	3	3	3	4	3	4	2	1	1	1	1	1	2	1	5
19-Oct	1	1	1	3	2	3	3	2	2	2	2	3	3	3	3	2	2	2	2	2	2	2	1	1	3
20-Oct	3	2	2	2	2	2	2	3	3	3	2	3	2	3	2	1	1	2	2	3	3	2	2	3	3
21-Oct	2	3	4	4	3	3	3	3	5	4	3	3	4	4	3	3	3	1	1	1	1	2	2	1	5
22-Oct	2	2	2	3	2	2	2	2	2	3	3	2	2	3	4	4	3	3	4	3	4	3	3	3	4
23-Oct	3	4	4	3	4	2	3	2	2	3	3	3	2	3	3	3	2	2	3	2	2	2	2	2	4
24-Oct	3	3	3	3	3	3	3	4	2	1	2	2	2	2	3	3	3	3	3	2	3	3	3	3	4
25-Oct	2	2	3	2	3	2	2	2	4	5	7	7	6	6	7	6	5	4	4	4	2	2	2	2	7
26-Oct	1	2	1	3	1	2	2	1	2	2	2	2	4	3	4	4	3	3	6	4	5	4	5	5	6
27-Oct	4	3	3	3	4	4	4	5	5	5	8	7	9	5	5	4	4	5	5	5	5	5	5	5	9
28-Oct	5	5	5	5	6	6	6	5	4	5	5	4	4	6	5	5	3	3	3	3	2	2	2	2	6
29-Oct	2	2	3	3	3	3	3	2	2	2	2	3	2	2	2	2	2	2	1	2	2	2	2	1	3
30-Oct	1	2	2	2	1	1	2	2	2	2	2	2	2	2	2	3	3	2	1	1	2	2	2	2	3
31-Oct	1	2	2	1	2	1	2	3	3	4	4	4	4	4	4	5	6	5	5	7	6	4	3	3	7
	7	6	6	7	7	7	6	6	7	7	8	7	9	8	8	7	6	6	7	7	6	7	6	6	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 20m (WS20) - km/h

Anzac - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	31	4.17	4.17
6 - 11	290	38.98	43.15
12 - 19	326	43.82	86.96
20 - 28	89	11.96	98.92
29 - 38	8	1.08	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 20m (WS20) - km/h

Anzac - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	1	0	0	2	1	0	4	1	3	3	3	2	3	3	4	1	31
6 - 11	5	3	4	5	6	20	23	38	41	23	28	23	8	21	31	11	290
12 - 19	4	3	1	4	0	9	38	45	16	21	20	14	31	69	33	18	326
20 - 28	6	0	0	0	0	0	1	7	0	1	0	8	9	30	19	8	89
29 - 38	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	6	8
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	6	5	11	7	29	66	92	60	48	51	47	51	123	87	44	744

Total Number of Valid Hours: 744

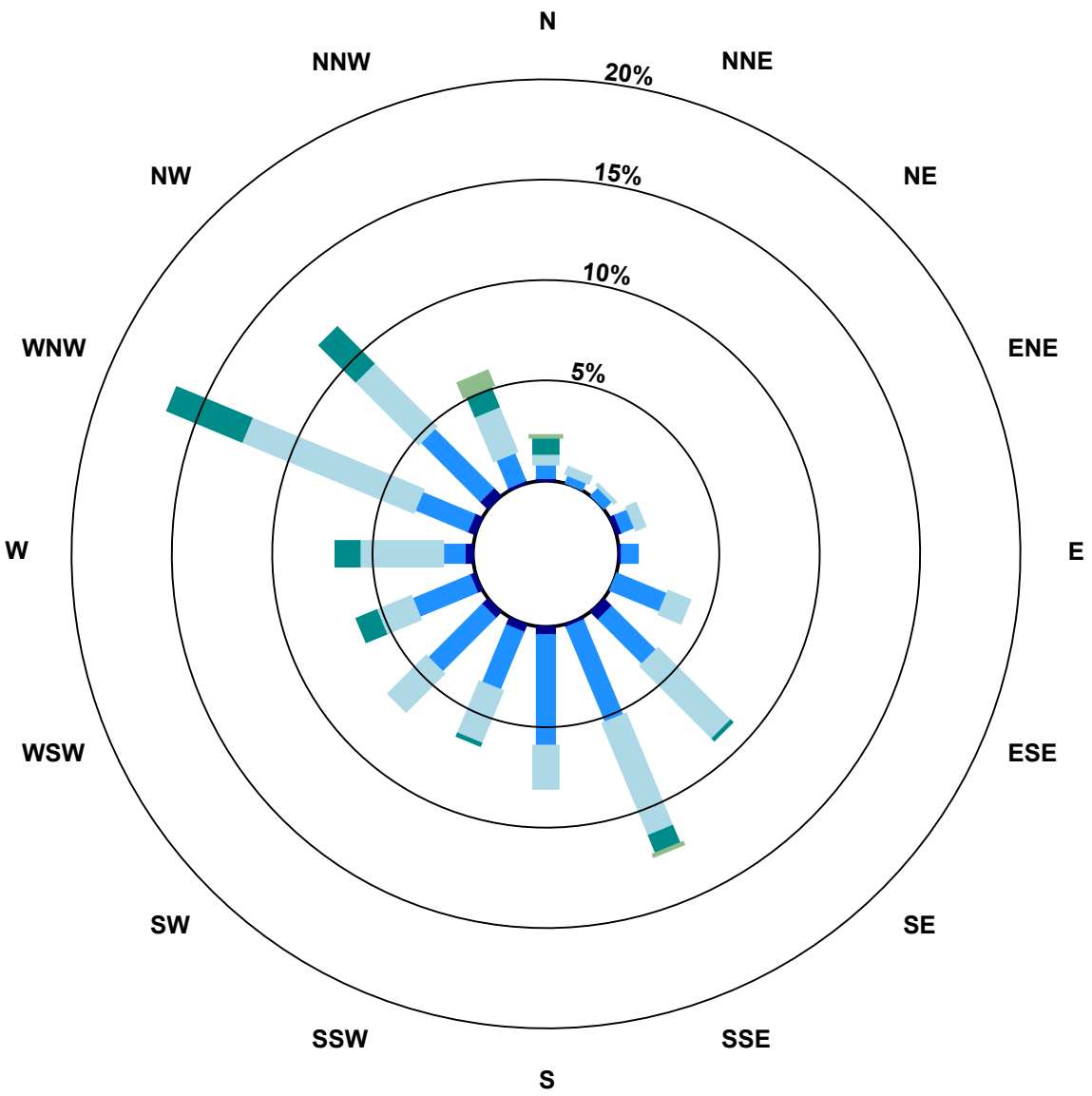
Total Number of Hours: 744

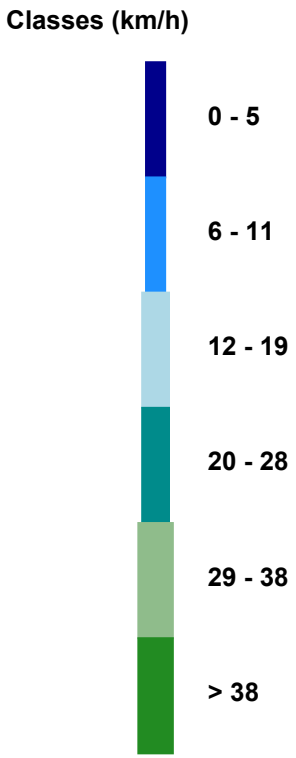
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 20m (WS20) - km/h

Anzac





Total Number of Valid Hours: 744

Direction of Maximum Speed: 152 deg on Oct 31 20:00
Direction of Maximum Daily Speed Average: 345.4 deg on Oct 12

Direction of Minimum Speed: 187 deg on Oct 8 01:00

Direction of Minimum Daily Speed Average: 3.9 deg on Oct 29

Monthly Average Direction: 256.9 deg

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	298	312	315	331	314	312	309	318	317	316	323	321	328	324	329	319	321	309	306	312	315	316	299	302	316.6
2-Oct	299	307	268	248	226	204	179	171	170	166	174	176	168	174	160	156	162	168	200	191	163	160	158	185	180.2
3-Oct	202	206	237	224	191	210	229	236	231	227	233	252	248	244	252	256	239	241	239	245	265	264	278	273	242.4
4-Oct	270	274	276	280	282	280	283	282	293	299	300	299	310	280	277	287	335	316	335	328	314	312	306	310	296.4
5-Oct	305	298	300	298	279	214	214	203	212	218	218	228	261	277	285	285	294	278	277	292	288	288	281	295	276.1
6-Oct	305	350	343	342	350	354	350	326	329	338	310	285	267	293	316	294	76	108	130	157	164	160	153	155	333.5
7-Oct	161	167	174	167	160	157	157	151	144	139	127	127	144	176	201	189	173	185	182	176	170	152	140	91	164.7
8-Oct	187	294	306	297	302	299	291	290	298	295	291	281	287	287	280	281	271	287	265	237	299	294	293	293	289.6
9-Oct	301	297	286	281	280	260	259	277	285	283	286	280	273	273	278	271	253	239	225	240	227	227	224	229	269.6
10-Oct	207	205	210	182	156	154	166	172	164	154	149	188	212	207	191	195	191	157	153	157	165	146	147	167	175.6
11-Oct	84	58	111	146	123	130	187	305	322	335	343	335	327	308	302	302	297	299	300	300	308	315	337	340	321.5
12-Oct	339	342	343	343	344	347	343	351	352	356	353	346	356	343	358	350	335	342	342	342	338	341	335	321	345.4
13-Oct	314	315	311	313	308	309	292	233	216	236	244	240	221	211	204	209	203	188	180	188	169	206	217	201	229.4
14-Oct	162	146	186	169	197	211	203	213	200	198	213	218	230	221	226	227	240	217	228	228	239	249	243	232	214.4
15-Oct	237	236	218	199	166	179	168	158	169	181	188	209	233	260	275	270	256	226	232	250	239	236	251	286	226.0
16-Oct	278	257	240	245	242	240	230	217	174	174	160	177	216	201	195	192	184	177	174	213	202	204	217	179	205.0
17-Oct	188	244	253	258	259	261	274	281	282	291	290	288	289	288	292	300	296	293	296	299	298	296	291	292	280.6
18-Oct	294	290	289	285	287	281	281	281	286	289	288	285	282	287	290	292	286	261	195	219	235	213	209	187	277.8
19-Oct	160	151	127	129	146	114	108	104	117	121	138	126	121	126	115	113	98	96	91	77	59	57	53	8	111.5
20-Oct	340	348	351	330	323	316	310	311	311	308	310	300	290	293	281	201	180	194	212	184	175	175	175	180	278.2
21-Oct	177	172	184	185	225	228	228	242	274	287	288	297	310	324	330	343	330	297	288	343	350	346	61	111	272.2
22-Oct	154	139	142	148	144	138	145	161	167	167	161	153	128	120	143	150	133	121	133	144	140	140	140	140	143.7
23-Oct	139	140	142	149	150	135	144	152	153	144	150	138	142	120	140	144	146	148	150	156	160	157	154	147	145.7
24-Oct	153	156	153	153	153	151	153	152	129	102	117	101	121	133	140	145	150	153	150	147	144	138	115	111	142.3
25-Oct	135	143	122	139	124	80	274	292	295	279	278	273	285	283	266	268	261	257	253	238	237	257	230	195	258.1
26-Oct	163	171	176	166	127	135	137	145	142	131	119	57	58	69	72	63	357	322	42	40	25	15	17	11	60.8
27-Oct	348	334	315	314	316	322	322	317	320	322	318	317	315	313	311	312	313	308	308	306	307	306	305	304	315.0
28-Oct	304	302	302	300	299	295	296	297	296	291	303	306	298	294	291	299	294	294	278	268	238	204	218	189	293.2
29-Oct	169	159	146	141	136	123	106	111	114	121	117	116	304	47	51	33	30	13	11	307	317	329	328	314	97.8
30-Oct	304	311	307	311	324	315	296	289	285	288	295	293	258	237	219	244	235	222	179	182	182	205	214	210	259.6
31-Oct	177	152	159	171	170	161	166	161	152	156	154	150	148	145	141	144	152	150	147	152	156	149	139	145	152.1
	256.1	262.0	254.6	259.7	254.8	259.7	252.7	262.9	275.5	275.6	271.3	267.4	269.7	267.7	261.8	254.7	248.8	244.0	228.4	233.1	235.6	241.8	246.9	248.6	
	Diurnal Average																								

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 88 deg on Oct 25 07:00

Minimum Value: 3 deg on Oct 26 03:00

Percentiles: P_1 = 7 P_{10} = 11 Q_1 = 13 Median = 15 Q_3 = 18 P_{90} = 22 P_{99} = 52

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

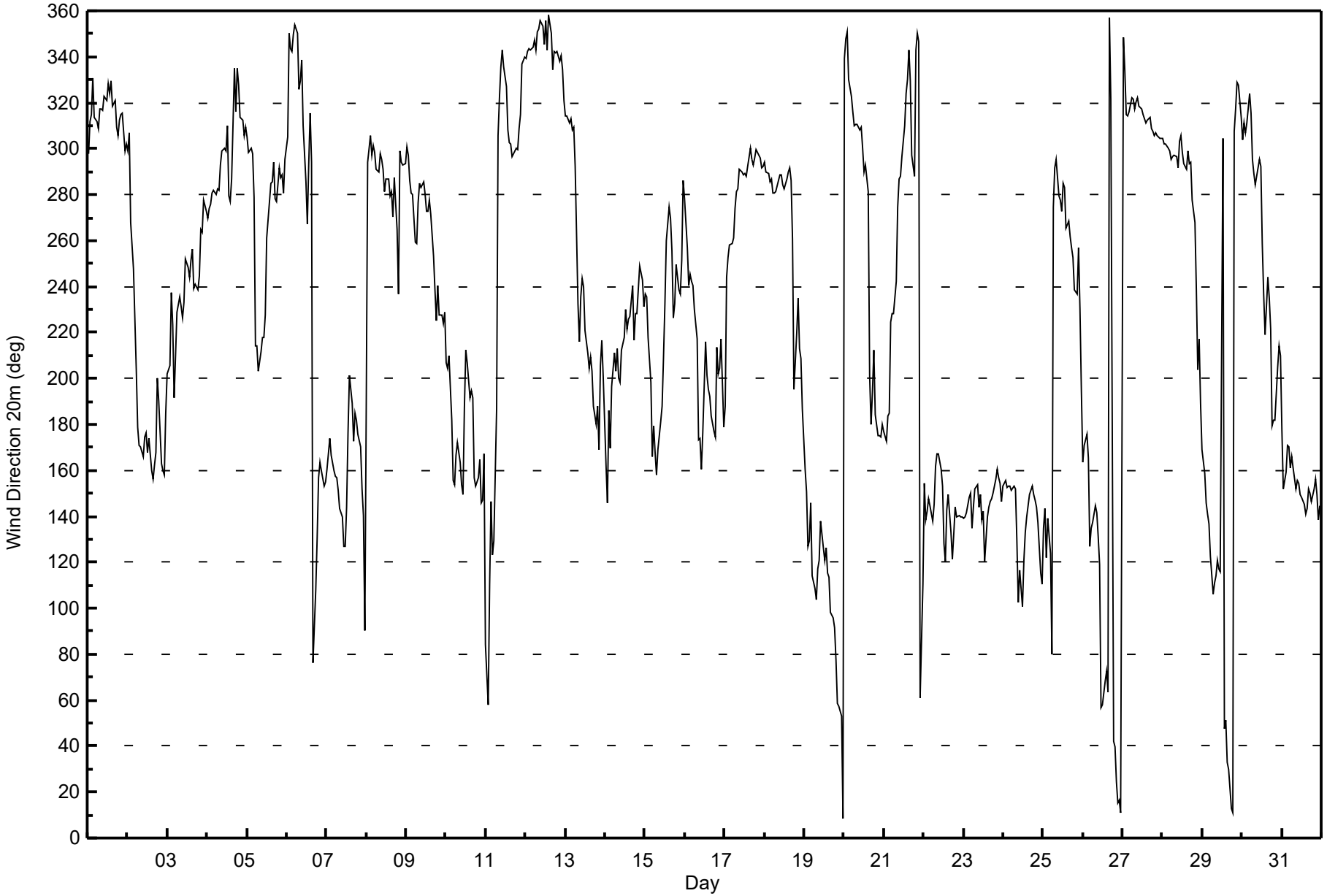
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	14	16	13	16	14	15	13	14	14	13	15	17	16	15	18	16	13	14	13	12	12	11	11	10	18
2-Oct	12	13	17	35	9	15	9	10	14	19	18	22	17	16	15	21	15	9	15	18	7	8	8	17	35
3-Oct	18	18	50	21	18	23	17	18	16	17	22	21	20	20	18	18	17	16	15	16	19	18	17	16	50
4-Oct	18	17	17	16	16	16	17	17	16	16	18	19	19	20	17	23	15	15	20	14	13	14	15	14	23
5-Oct	15	15	16	15	29	18	11	11	14	16	20	22	20	17	18	17	25	16	19	16	16	15	16	17	29
6-Oct	16	24	17	14	15	15	15	15	15	25	35	30	28	36	39	75	22	8	13	7	6	7	11	11	75
7-Oct	9	8	9	11	9	9	11	11	20	16	19	19	18	32	22	18	12	14	12	9	8	16	77	61	77
8-Oct	73	13	13	16	15	15	15	15	16	17	17	17	18	18	17	18	18	17	21	23	19	17	15	16	73
9-Oct	16	17	17	16	15	16	15	16	17	16	17	15	17	18	16	17	18	14	12	14	15	10	13	12	18
10-Oct	19	18	11	21	14	8	14	5	11	11	13	33	19	21	17	19	16	13	12	14	14	15	16	18	33
11-Oct	28	13	22	43	32	33	42	16	14	14	14	14	14	15	14	14	16	16	15	15	15	14	23	14	43
12-Oct	14	14	14	14	14	14	14	15	16	16	16	16	17	19	19	19	15	14	12	14	12	13	13	13	19
13-Oct	12	14	12	14	13	13	27	18	23	21	21	23	20	21	22	19	19	15	8	14	16	18	17	18	27
14-Oct	19	28	23	21	18	19	51	29	22	17	28	22	20	21	18	18	17	15	15	19	15	13	13	13	51
15-Oct	12	12	15	17	8	9	13	17	18	27	32	22	21	27	19	16	23	13	19	10	11	10	18	15	32
16-Oct	11	22	10	11	8	6	10	7	11	10	18	35	20	19	16	16	13	13	25	18	17	29	25	9	35
17-Oct	21	18	15	14	16	15	16	17	17	16	17	16	16	15	16	16	15	16	15	14	13	13	14	14	21
18-Oct	15	14	15	15	16	16	15	15	16	16	16	16	18	16	16	16	16	29	10	18	15	16	10	7	29
19-Oct	10	8	16	16	10	10	10	10	14	13	15	15	16	15	18	20	18	13	12	18	11	12	12	33	33
20-Oct	24	13	15	13	15	13	14	13	15	15	16	17	17	18	24	27	10	17	17	31	16	13	10	16	31
21-Oct	12	13	14	26	18	16	14	16	17	15	14	16	19	17	17	16	19	12	13	18	9	19	24	27	27
22-Oct	10	10	12	10	10	11	11	9	8	11	15	19	23	19	16	12	16	12	13	12	13	12	13	13	23
23-Oct	13	12	12	11	16	12	14	11	12	13	16	17	20	17	15	13	11	10	9	10	8	8	10	10	20
24-Oct	10	10	12	10	10	11	10	25	20	17	17	18	16	17	16	13	11	10	10	12	13	13	15	13	25
25-Oct	17	13	14	14	16	24	88	22	20	17	16	15	17	17	18	15	14	13	13	17	16	24	25	13	88
26-Oct	50	10	3	12	13	22	14	14	55	18	20	17	19	13	14	14	19	20	52	15	16	14	15	16	55
27-Oct	15	14	13	14	14	12	12	13	12	13	11	12	12	13	13	13	13	14	14	13	13	13	14	13	15
28-Oct	15	14	14	15	15	16	16	15	15	14	14	15	16	15	15	16	16	16	17	21	23	23	16	19	23
29-Oct	13	15	12	14	14	13	14	13	13	17	16	19	61	26	13	14	17	16	15	18	14	13	14	14	61
30-Oct	14	14	14	15	28	20	17	16	17	15	16	22	19	32	24	17	17	22	11	12	11	15	15	15	32
31-Oct	22	25	13	9	10	11	9	10	10	10	11	12	12	12	12	12	12	13	12	12	11	13	16	16	25
	73	28	50	43	32	33	88	29	55	27	35	35	61	36	39	75	25	29	52	31	23	29	77	61	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 20m (WD20) - deg

Anzac - October 2025



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS17
WAPASU
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - WAPASU (AMS17)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	707	35	37	99.73	17	0	5.2	0
H2S (ppb) Average	706	36	38	99.73	6.2	0	0.4	0
THC (ppm) Average	707	35	37	99.73	3.9	-	2.4	-
O3 (ppb) Average	707	35	37	99.73	40.6	0	32.1	-
NO2 (ppb) Average	707	37	37	100	17.1	0	5.1	-
NO (ppb) Average	707	37	37	100	53.5	-	4.1	-
NOX (ppb) Average	707	37	37	100	70.6	-	9	-
PM2.5 (ug/m3) Average	741	3	3	100	30.1	0	14.5	0
Temperature 2 m (C) Average	744	0	0	100	19.5	-	11.6	-
Relative Humidity (%) Average	672	0	72	90.32	100	-	98.1	-
Wind Speed 10 m (km/h) Average	622	0	122	83.6	29	-	16	-
Wind Direction 10 m (deg) Average	622	0	122	83.6	-	-	-	-
Precipitation (mm) Total	742	2	2	100	3.5	-	19.2	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - WAPASU (AMS17)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	707	0.53	1.8	-	0	0	0	0	0.3	1	17
H2S (ppb) Average	706	0.12	0.3	-	0	0	0	0.1	0.2	0.2	6.2
THC (ppm) Average	707	2.29	0.1	-	2.1	2.2	2.2	2.3	2.3	2.4	3.9
O3 (ppb) Average	707	19.13	7.4	-	0.6	8.7	14.7	20.2	23.9	27.2	40.6
NO2 (ppb) Average	707	2.7	2.7	-	0.1	0.5	0.9	1.6	3.8	6.1	17.1
NO (ppb) Average	707	0.61	2.9	-	0	0	0	0	0.3	1.2	53.5
NOX (ppb) Average	707	3.3	4.9	-	0.1	0.5	0.9	1.8	4.1	7.1	70.6
PM2.5 (ug/m3) Average	741	4.82	3.7	-	0.1	1	2.8	4	6	9.1	30.1
Temperature 2 m (C) Average	744	3.8	4.6	-	-5	-1.6	-0.4	3.4	6.9	10	19.5
Relative Humidity (%) Average	672	79.85	18.1	-	35.3	53.9	65.6	84.9	96.6	100	100
Wind Speed 10 m (km/h) Average	622	10.5	5	-	1	5	7	10	13	17	29
Wind Direction 10 m (deg) Average	622	-	-	-	-	-	-	-	-	-	-
Precipitation (mm) Total	742	-	-	96.2	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - WAPASU (AMS17)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Start	End	(Hours)	Notes
ALL GASEOUS ANALYZERS (except NO2)	30 Oct 2025 15:00	30 Oct 2025 16:00	2	Maintenance - sample manifold cleaned
Relative Humidity	02 Oct 2025 05:00	02 Oct 2025 08:00	4	Sensor operated out of range
Relative Humidity	20 Oct 2025 05:00	20 Oct 2025 13:00	9	Sensor operated out of range
Relative Humidity	27 Oct 2025 09:00	28 Oct 2025 01:00	17	Sensor operated out of range
Relative Humidity	28 Oct 2025 14:00	29 Oct 2025 03:00	14	Sensor operated out of range
Relative Humidity	29 Oct 2025 13:00	30 Oct 2025 06:00	18	Sensor operated out of range
Relative Humidity	30 Oct 2025 11:00	30 Oct 2025 13:00	3	Sensor operated out of range
Relative Humidity	30 Oct 2025 15:00	30 Oct 2025 16:00	2	Sensor operated out of range
Relative Humidity	30 Oct 2025 20:00	31 Oct 2025 00:00	5	Sensor operated out of range
Wind Speed, Wind Direction	02 Oct 2025 00:00	02 Oct 2025 00:00	1	Flat line in sensor output signal
Wind Speed, Wind Direction	05 Oct 2025 04:00	05 Oct 2025 09:00	6	Flat line in sensor output signal
Wind Speed, Wind Direction	10 Oct 2025 10:00	10 Oct 2025 11:00	2	Maintenance - station operator activities
Wind Speed, Wind Direction	12 Oct 2025 00:00	13 Oct 2025 10:00	35	Flat line in sensor output signal
Wind Speed, Wind Direction	21 Oct 2025 21:00	22 Oct 2025 07:00	11	Flat line in sensor output signal
Wind Speed, Wind Direction	28 Oct 2025 10:00	29 Oct 2025 11:00	26	Flat line in sensor output signal
Wind Speed, Wind Direction	29 Oct 2025 17:00	31 Oct 2025 09:00	41	Flat line in sensor output signal

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Wapasu - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 17.0 ppb on Oct 9 12:00 Maximum Daily Average: 5.2 ppb on Oct 9

Minimum Value: 0.0 ppb on Oct 1 07:00 Minimum Daily Average: 0.0 ppb on Oct 12
Maximum Diurnal Average: 1.9 ppb at hour 12 Minimum Diurnal Average: 0.1 ppb at hour 1
Monthly Average: 0.53 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.3 P_{90} = 1.0 P_{99} = 9.4

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	35
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.1	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
2-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.5	0.6	1.0	0.1	0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0
3-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	2.8	3.1	3.5	3.6	1.8	1.5	0.2	1.3	0.5	0.8	1.4	0.0	0.0	0.0	0.0	0.0	0.9	3.6
4-Oct	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
5-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.9	1.0	2.3	0.3	0.0	0.0	2.5	6.2	3.7	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.8	6.2
6-Oct	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1	5.3	5.6	0.9	0.9	0.7	0.4	0.4	0.5	0.7	5.6
7-Oct	0.4	0.3	0.4	Z	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.3	0.4
8-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.2
9-Oct	0.0	0.0	0.0	0.0	0.0	Z	7.8	14.6	15.6	14.2	13.7	17.0	9.7	9.5	6.5	1.5	0.6	2.1	0.9	1.6	1.3	1.4	1.4	1.1	5.2	17.0
10-Oct	Z	2.0	1.5	0.3	0.2	0.2	0.1	0.3	0.5	0.4	0.4	0.4	0.3	0.1	0.3	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.0
11-Oct	0.0	Z	0.1	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
12-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	1.1	5.5	2.6	4.1	1.9	0.5	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.4	0.7	0.7	5.5
14-Oct	0.6	0.7	0.9	0.7	Z	0.8	0.9	0.7	0.8	0.8	0.8	0.8	1.0	1.6	3.2	3.4	1.1	0.3	0.3	0.2	0.2	0.3	0.4	0.4	0.9	3.4
15-Oct	0.3	0.5	0.5	0.1	0.3	Z	0.4	0.5	0.6	0.5	C	C	C	C	7.2	7.9	3.5	0.2	0.0	1.1	0.9	1.1	0.5	0.3	1.4	7.9
16-Oct	Z	1.0	0.8	0.9	0.8	1.1	1.9	2.1	4.4	6.5	6.6	13.2	1.2	0.4	0.8	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.0	1.9	13.2
17-Oct	0.1	Z	1.3	3.0	3.6	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.6
18-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.3	0.9	0.5	0.1	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9
19-Oct	0.0	0.0	0.0	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
20-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.4
21-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.9	0.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9
22-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
23-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
24-Oct	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
25-Oct	0.1	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8	0.9	0.3	0.4	0.2	0.9
26-Oct	0.1	0.0	0.2	0.5	Z	0.0	0.0	0.5	1.0	0.2	0.5	2.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.1
27-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
29-Oct	0.3	Z	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	2.4	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	3.5
30-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	8.9	5.7	7.2	M	M	1.8	1.6	2.8	4.2	0.8	0.9	0.0	0.0	2.0	8.9
31-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	0.1	0.2	0.2	0.2	0.2	0.1	0.4	0.7	1.0	1.2	1.3	1.9	0.9	0.8	0.9	0.7	0.4	0.4	0.2	0.3	0.2	0.2	0.1	0.1	Diurnal Average	
	0.6	2.0	1.5	3.0	3.6	1.1	7.8	14.6	15.6	14.2	13.7	17.0	9.7	9.5	7.2	7.9	5.3	5.6	2.8	4.2	1.3	1.4	1.4	1.1	Diurnal Maximum	

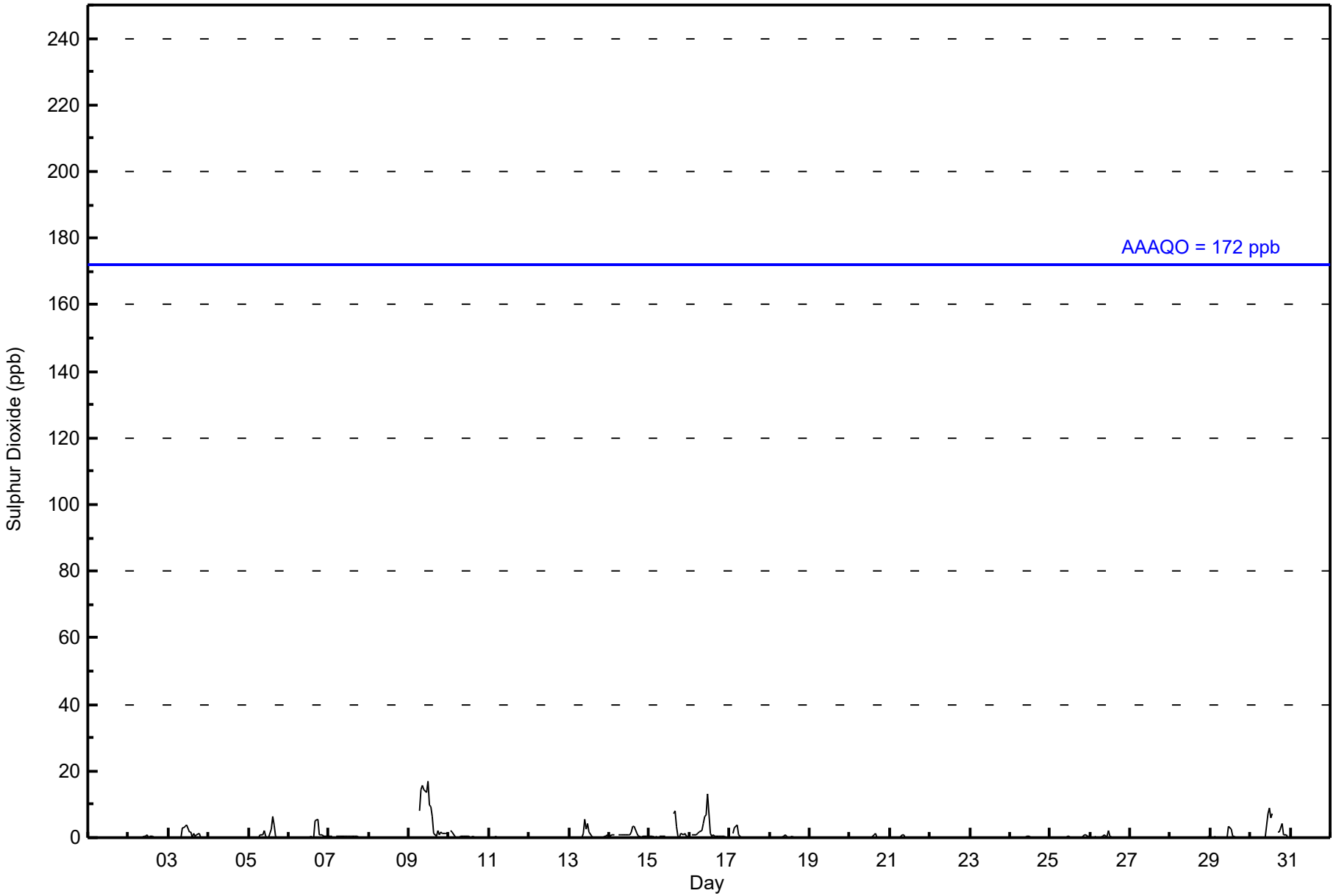
Z - zerospan C - Calibration M - Maintenance
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Wapasu - October 2025



Sulphur Dioxide (SO_2) - ppb
Wapasu - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	701	99.15	99.15
11 - 20	6	0.85	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Wapasu - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	44	19	6	3	7	13	32	141	99	27	53	44	20	11	14	54	587
11 - 20	0	0	0	0	0	0	0	0	1	1	4	0	0	0	0	0	6
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	44	19	6	3	7	13	32	141	100	28	57	44	20	11	14	54	593

Total Number of Valid Hours: 593

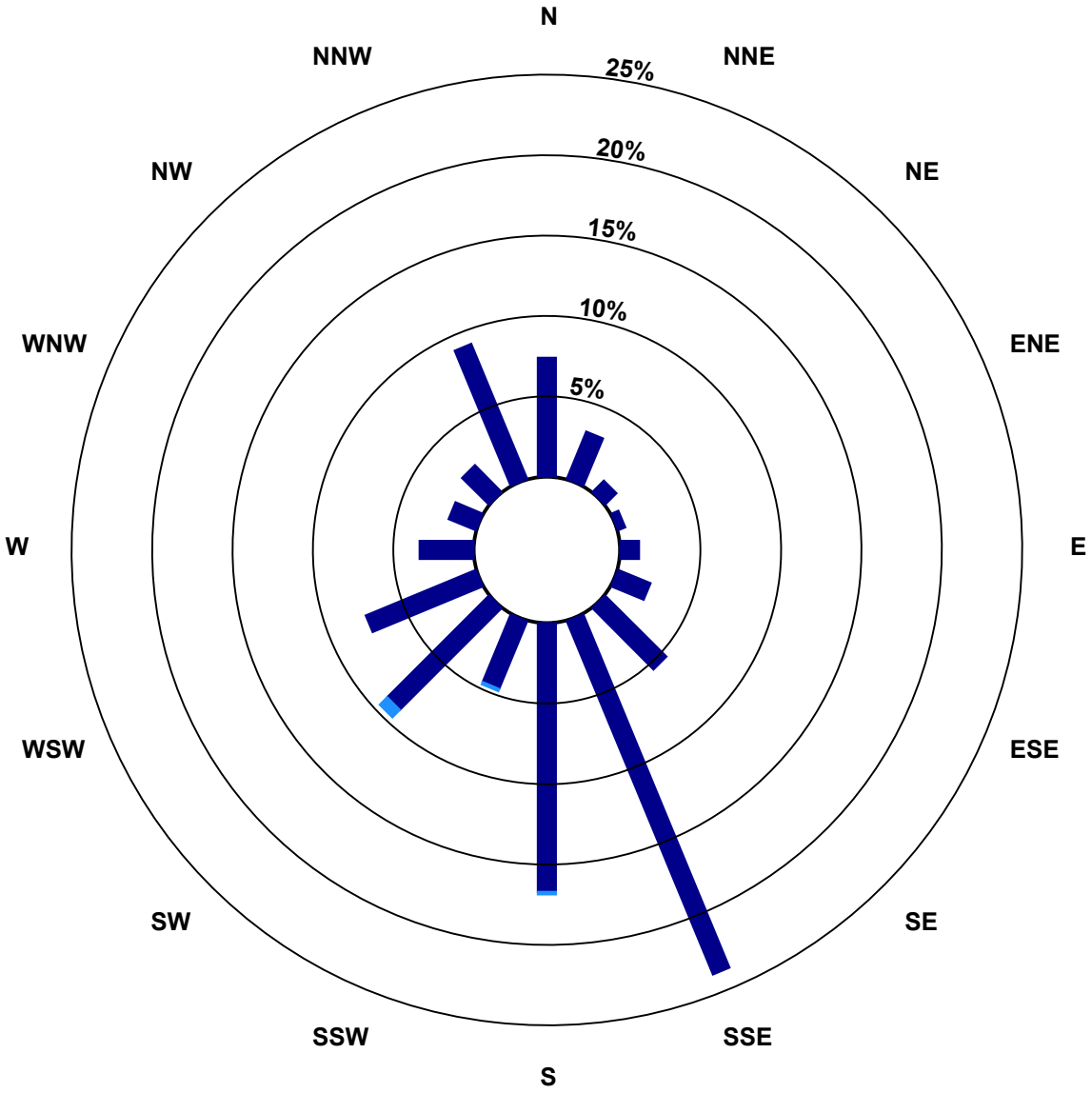
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Wapasu



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

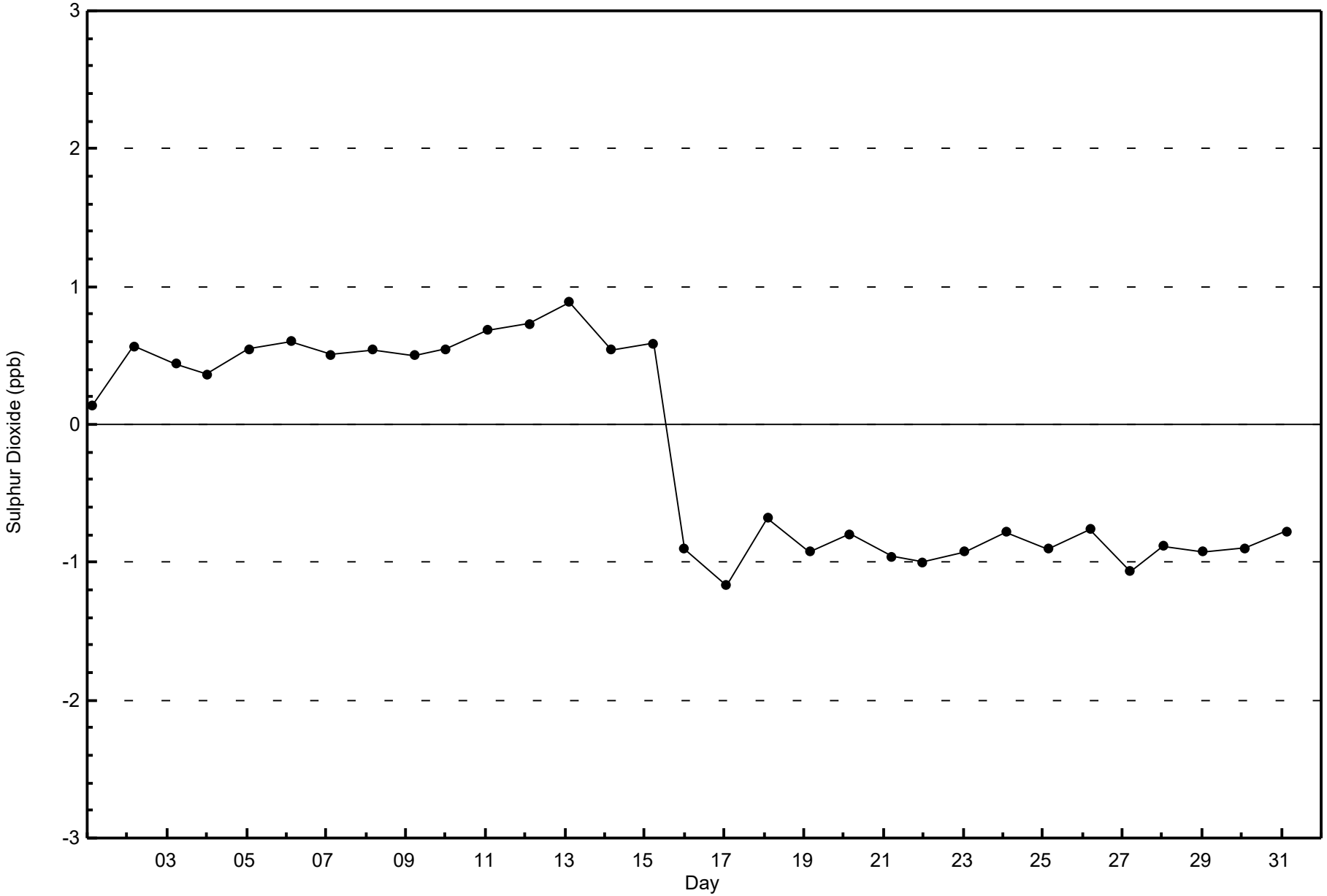
Total Number of Valid Hours: 593

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Wapasu - October 2025

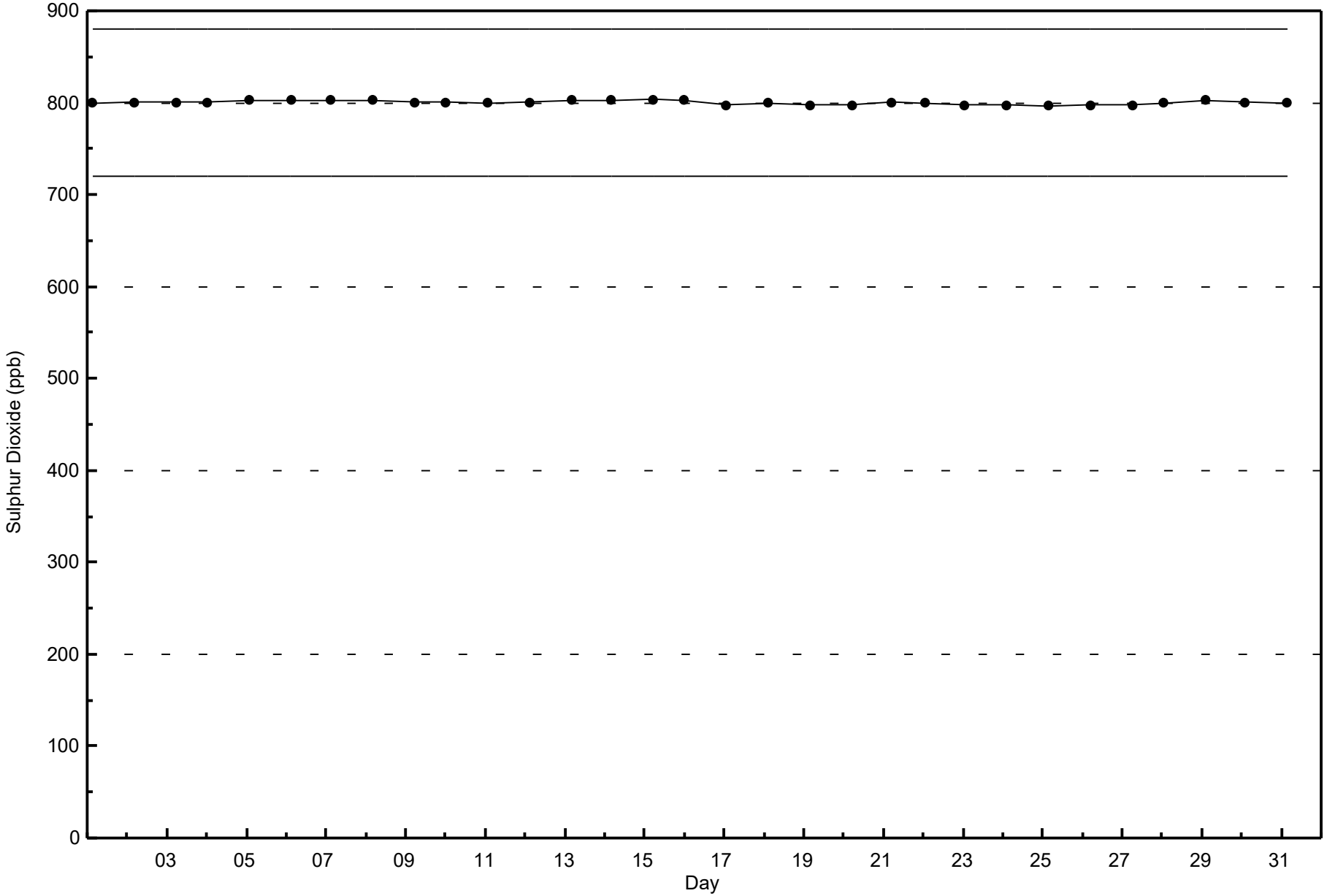


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Wapasu - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H_2S) - ppb

Wapasu - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 6.2 ppb on Oct 13 06:00 Maximum Daily Average: 0.4 ppb on Oct 13

Minimum Value: 0.0 ppb on Oct 1 11:00 Minimum Daily Average: 0.0 ppb on Oct 21
Maximum Diurnal Average: 0.4 ppb at hour 6 Minimum Diurnal Average: 0.1 ppb at hour 14
Monthly Average: 0.12 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.2 P_{99} = 0.5

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	36
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.2	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2
2-Oct	0.2	0.2	0.5	0.4	0.3	Z	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.5
3-Oct	Z	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.1	0.0	0.2	0.5	0.1	0.1	0.0	0.0	0.1	0.1	0.5
4-Oct	0.2	Z	0.2	0.2	0.4	0.5	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.1	0.5
5-Oct	0.0	0.0	Z	0.1	0.0	0.0	0.2	0.4	0.4	0.3	0.1	0.0	0.0	0.2	0.5	0.2	0.1	0.1	0.1	0.1	0.4	0.2	0.2	0.0	0.1	0.5
6-Oct	0.1	0.1	0.2	Z	0.3	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.4	0.6	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.6
7-Oct	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
8-Oct	0.2	0.4	0.3	0.2	0.5	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.5
9-Oct	Z	0.2	0.1	0.1	0.1	0.1	0.2	0.5	0.5	0.5	0.5	0.6	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.2	0.0	0.2	0.6
10-Oct	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1
11-Oct	0.1	0.1	Z	0.2	0.1	0.5	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5
12-Oct	0.0	0.3	0.2	Z	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.4	0.3	0.2	0.3	0.2	0.1	0.4
13-Oct	0.2	0.1	0.3	0.2	Z	6.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.4	6.2
14-Oct	0.1	0.0	0.0	0.1	0.0	Z	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2
15-Oct	Z	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.3	0.2	0.1	0.0	0.1	0.2	0.3	0.2	0.1	0.2	0.3
16-Oct	0.2	Z	0.2	0.1	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.3
17-Oct	0.1	0.1	Z	0.4	0.3	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.4
18-Oct	0.0	0.0	0.0	Z	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.3
19-Oct	0.2	0.2	0.3	0.2	Z	0.4	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.1	0.4
20-Oct	0.0	0.0	0.0	0.0	0.1	Z	0.1	0.2	0.1	0.1	C	C	C	C	C	0.3	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.3
21-Oct	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
22-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1
23-Oct	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.2
24-Oct	0.0	0.0	0.1	Z	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
25-Oct	0.1	0.1	0.0	0.0	Z	0.2	0.1	0.1	0.1	0.2	0.8	0.6	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.3	0.2	0.1	0.1	0.2	0.8
26-Oct	0.1	0.1	0.2	0.3	0.2	Z	0.2	0.4	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
27-Oct	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.2
28-Oct	0.1	Z	0.2	0.1	0.1	0.1	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.3
29-Oct	0.0	0.0	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.2	0.2	0.1	0.1	0.2
30-Oct	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.1	0.2	0.1	0.3	0.3	0.2	0.2	M	M	0.4	0.2	0.3	0.3	0.2	0.2	0.1	0.2	0.2	0.4
31-Oct	0.2	0.1	0.1	0.2	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.2	0.4	0.5	0.4	0.5	6.2	0.4	0.5	0.5	0.5	0.8	0.6	0.4	0.2	0.5	0.3	0.4	0.6	0.5	0.4	0.4	0.3	0.3	0.2	Diurnal Maximum	

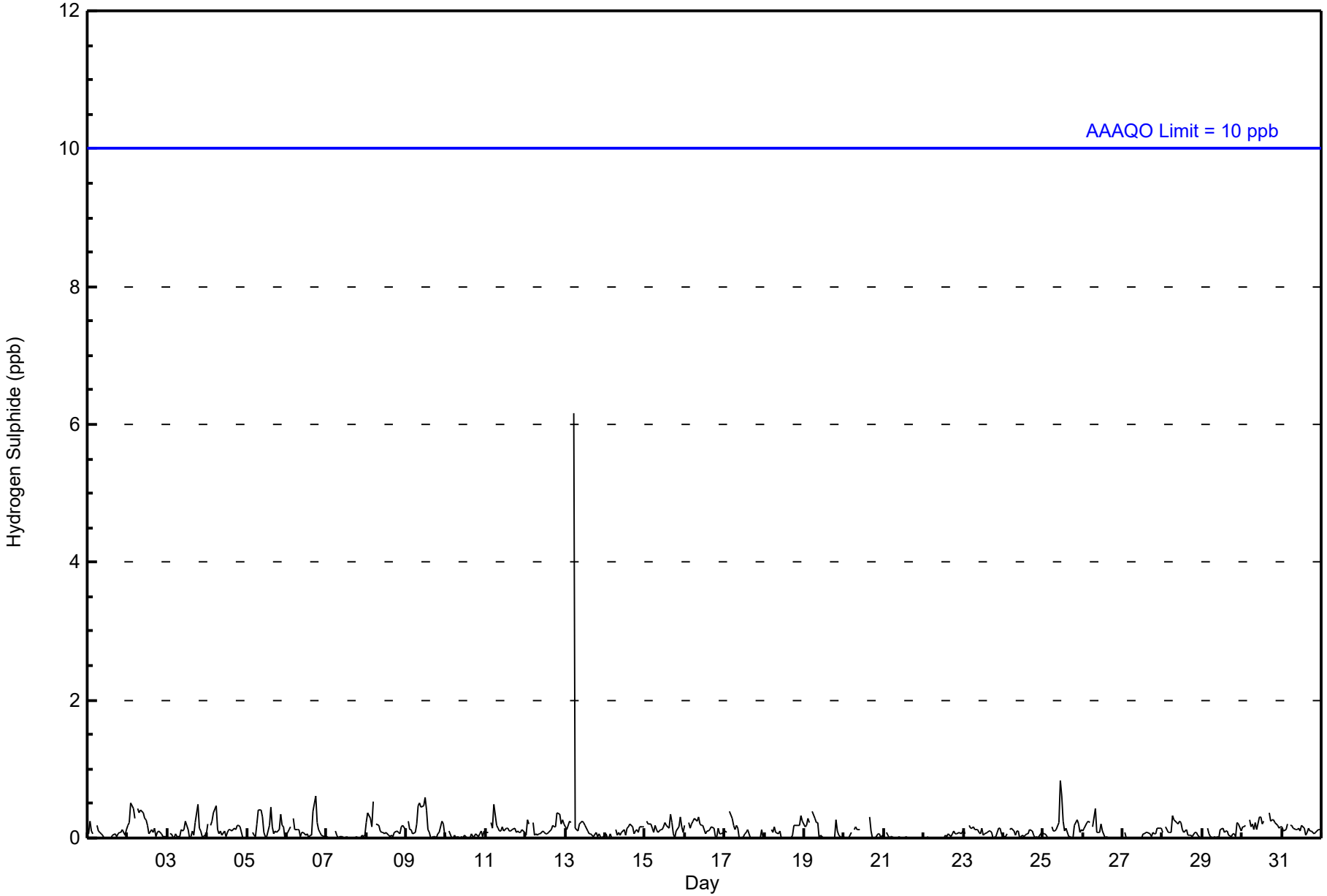
Z - zerospan C - Calibration M - Maintenance
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Wapasu - October 2025



Hydrogen Sulphide (H_2S) - ppb
Wapasu - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	705	99.86	99.86
3 - 4	0	0.00	99.86
5 - 7	1	0.14	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Wapasu - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	42	19	5	3	6	13	33	139	103	28	60	43	18	11	14	55	592
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	42	19	5	3	6	13	33	139	103	28	60	43	18	11	14	55	592

Total Number of Valid Hours: 592

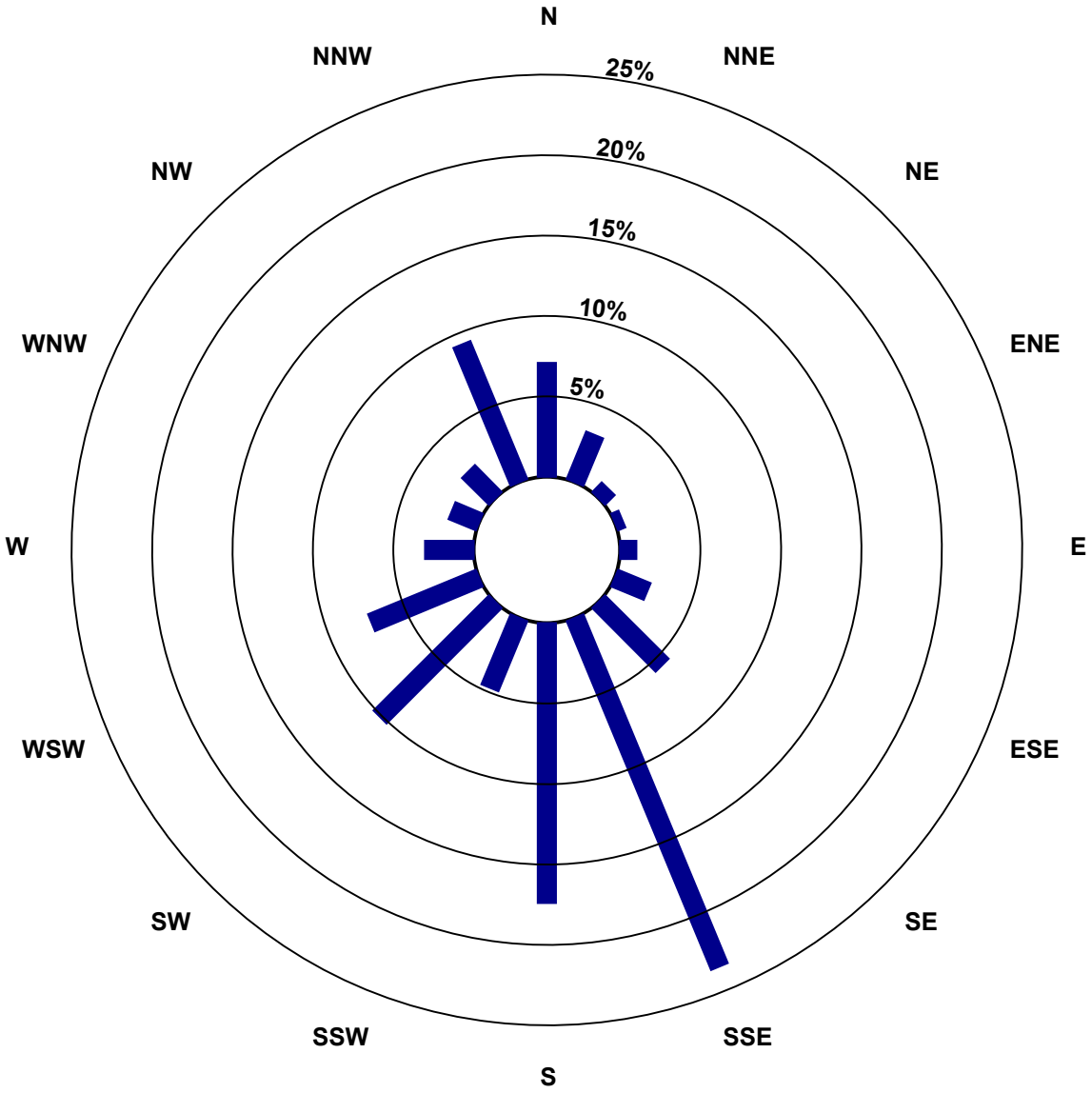
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H_2S) - ppb

Wapasu



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

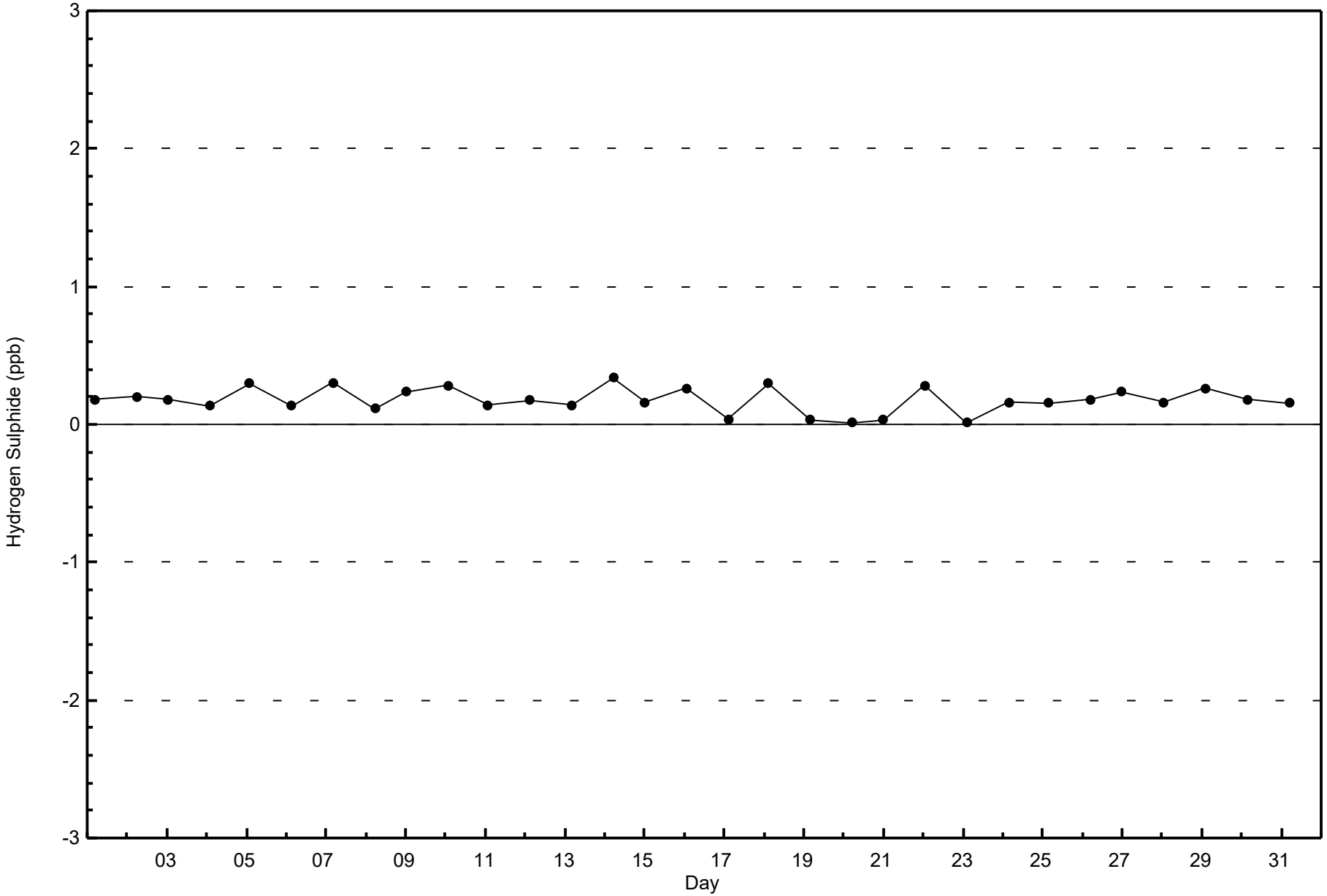
Total Number of Valid Hours: 592

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Wapasu - October 2025

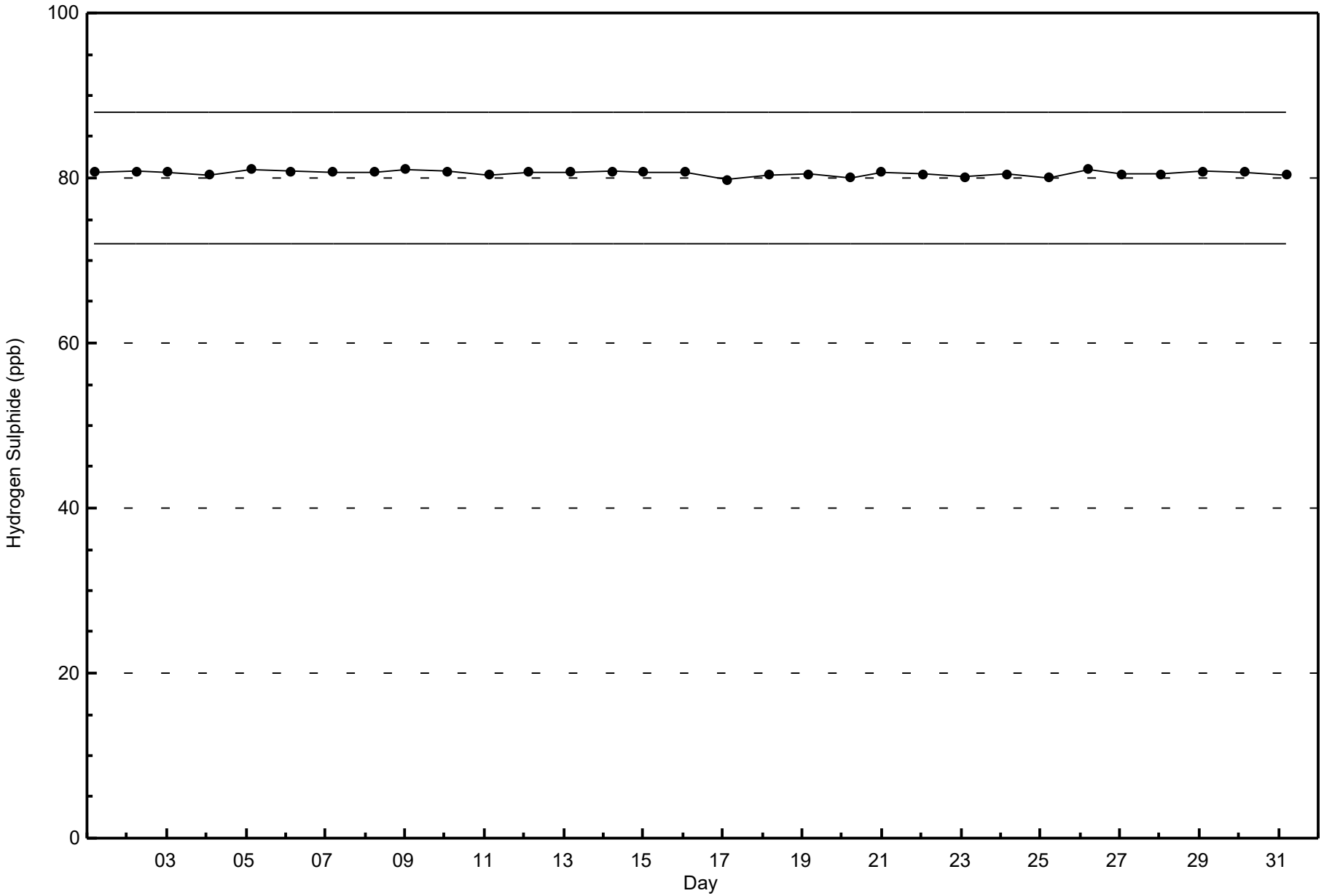


Wood Buffalo Environmental Association

Span Responses

Hydrogen Sulphide (H_2S) - ppb

Wapasu - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Wapasu - October 2025

Maximum Value: 3.9 ppm on Oct 25 11:00

Maximum Daily Average: 2.4 ppm on Oct 2

Minimum Value: 2.1 ppm on Oct 29 11:00

Minimum Daily Average: 2.2 ppm on Oct 19

Maximum Diurnal Average: 2.4 ppm at hour 6

Minimum Diurnal Average: 2.2 ppm at hour 17

Monthly Average: 2.29 ppm

Percentiles: P_1 = 2.2 P_{10} = 2.2 Q_1 = 2.2 Median = 2.3 Q_3 = 2.3 P_{90} = 2.4 P_{99} = 2.7

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	35
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.3	2.5	2.4	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.5	2.3	2.5
2-Oct	2.6	2.5	2.8	2.9	Z	2.6	2.6	2.7	2.7	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.9
3-Oct	2.3	2.3	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.5
4-Oct	Z	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4
5-Oct	2.2	Z	2.3	2.3	2.3	2.3	2.5	2.5	2.5	2.4	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.4	2.5	2.8	2.4	2.4	2.2	2.4	2.8
6-Oct	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.4
7-Oct	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3
8-Oct	2.4	2.6	2.6	2.6	Z	3.5	2.4	2.4	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.4	3.5
9-Oct	2.6	2.5	2.3	2.3	2.3	Z	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.6
10-Oct	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
11-Oct	2.3	Z	2.3	2.3	2.3	2.7	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.7
12-Oct	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.4	2.5	2.3	2.5
13-Oct	2.4	2.4	2.5	Z	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.5
14-Oct	2.3	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.4	2.3	2.4
15-Oct	2.3	2.4	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	C	C	C	C	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.4
16-Oct	Z	2.5	2.5	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.5
17-Oct	2.2	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.6	2.7	2.3	2.7
18-Oct	2.6	2.6	Z	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.6
19-Oct	2.3	2.3	2.3	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
20-Oct	2.2	2.2	2.2	2.3	Z	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.3	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.4
21-Oct	2.2	2.2	2.2	2.2	2.2	Z	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.4	2.3	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.3	2.4
22-Oct	Z	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
23-Oct	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
24-Oct	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
25-Oct	2.3	2.3	2.2	Z	2.3	2.3	2.2	2.2	2.2	2.4	3.9	3.5	2.5	2.4	2.4	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	3.9
26-Oct	2.3	2.2	2.3	2.3	Z	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
27-Oct	2.2	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
28-Oct	Z	2.2	2.2	2.2	2.2	2.2	2.4	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.3	2.4
29-Oct	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.4	2.3	2.2	2.2	2.4
30-Oct	2.3	2.3	Z	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	M	M	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.3
31-Oct	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	Diurnal Average	
	2.6	2.6	2.8	2.9	2.5	3.5	2.6	2.7	2.7	2.6	3.9	3.5	2.5	2.4	2.4	2.4	2.3	2.4	2.4	2.5	2.8	2.4	2.6	2.7	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

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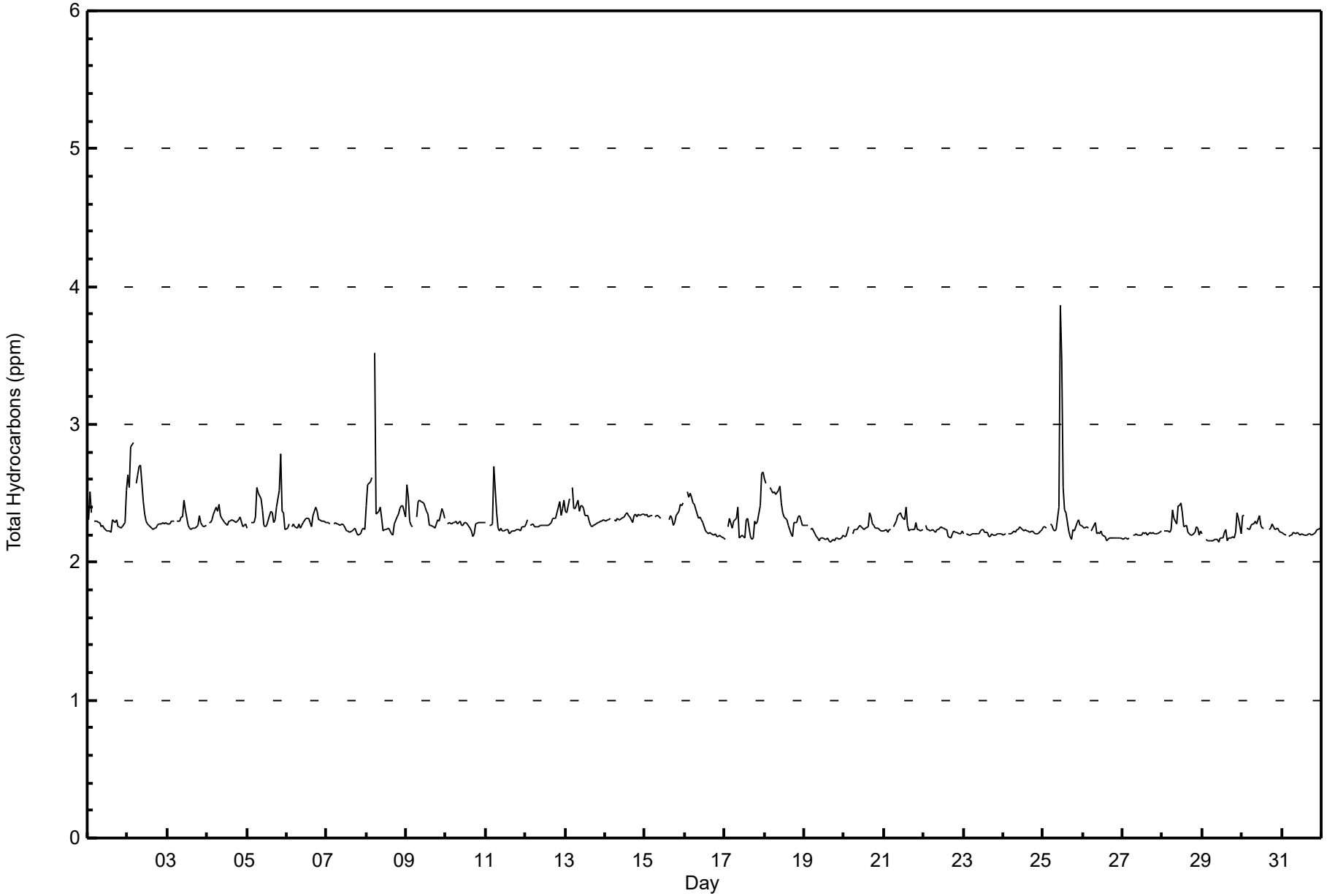
Hourly Averages

Total Hydrocarbons (THC) - ppm

Wapasu - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm

Wapasu - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	0	0.00	0.00
2.1 - 3.0	704	99.58	99.58
3.1 - 10.0	3	0.42	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Wapasu - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.1 - 3.0	44	19	6	3	7	13	32	141	100	28	57	42	19	11	14	54	590
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	44	19	6	3	7	13	32	141	100	28	57	44	20	11	14	54	593

Total Number of Valid Hours: 593

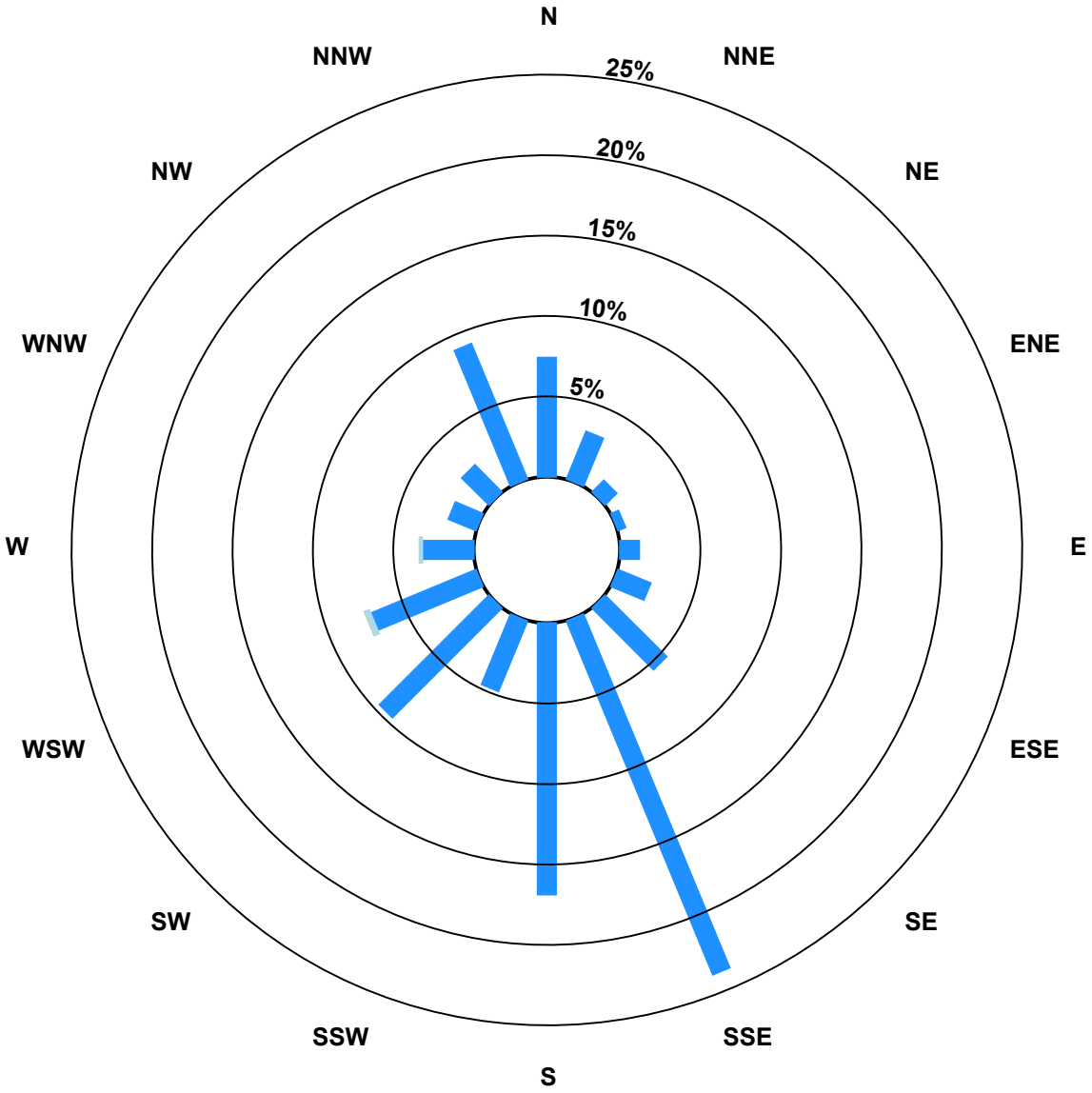
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Wapasu



Classes (ppm)

- 0 - 2.0
- 2.1 - 3.0
- 3.1 - 10.0
- > 10.0

Total Number of Valid Hours: 593

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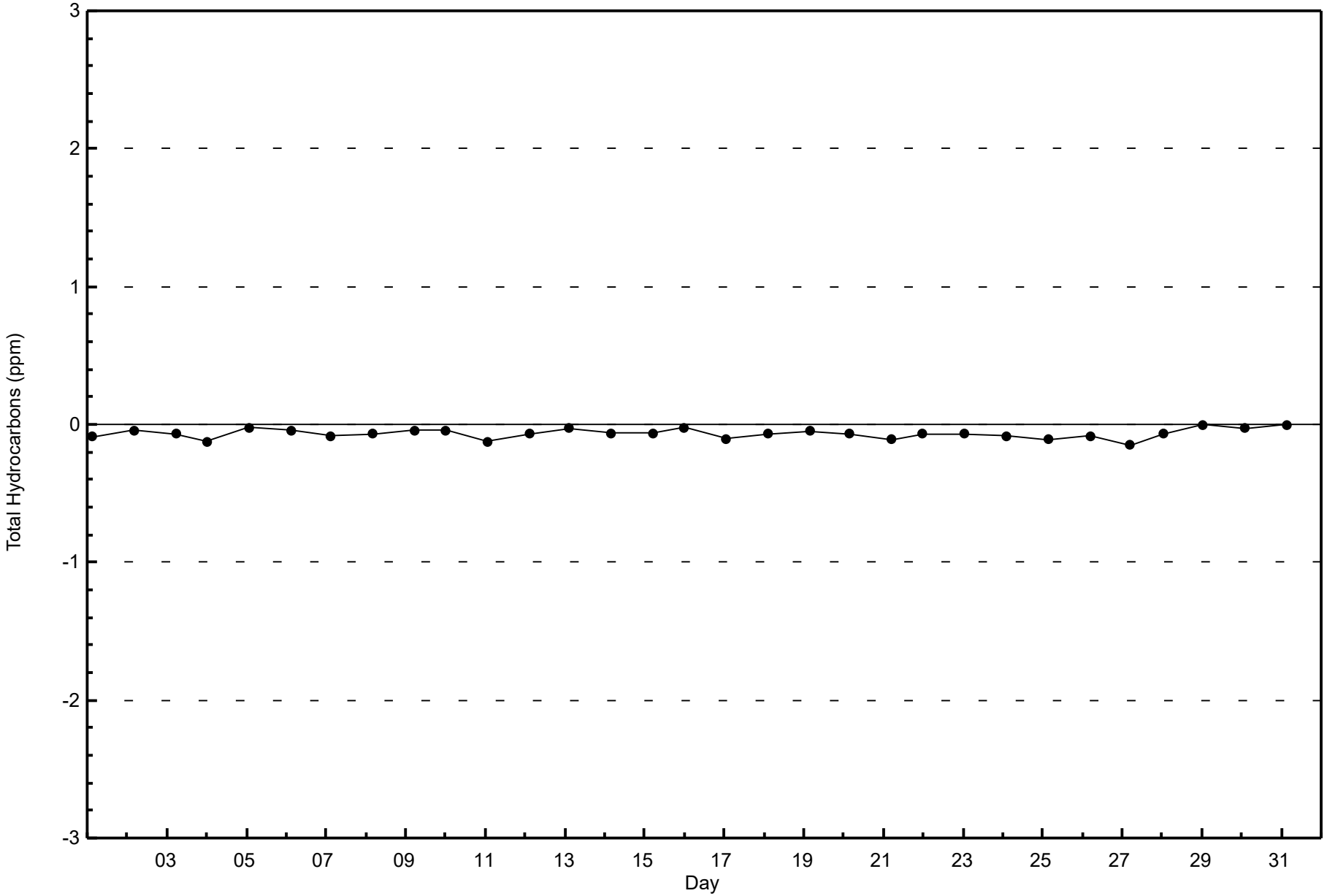
Zero Responses

Total Hydrocarbons (THC) - ppm

Wapasu - October 2025



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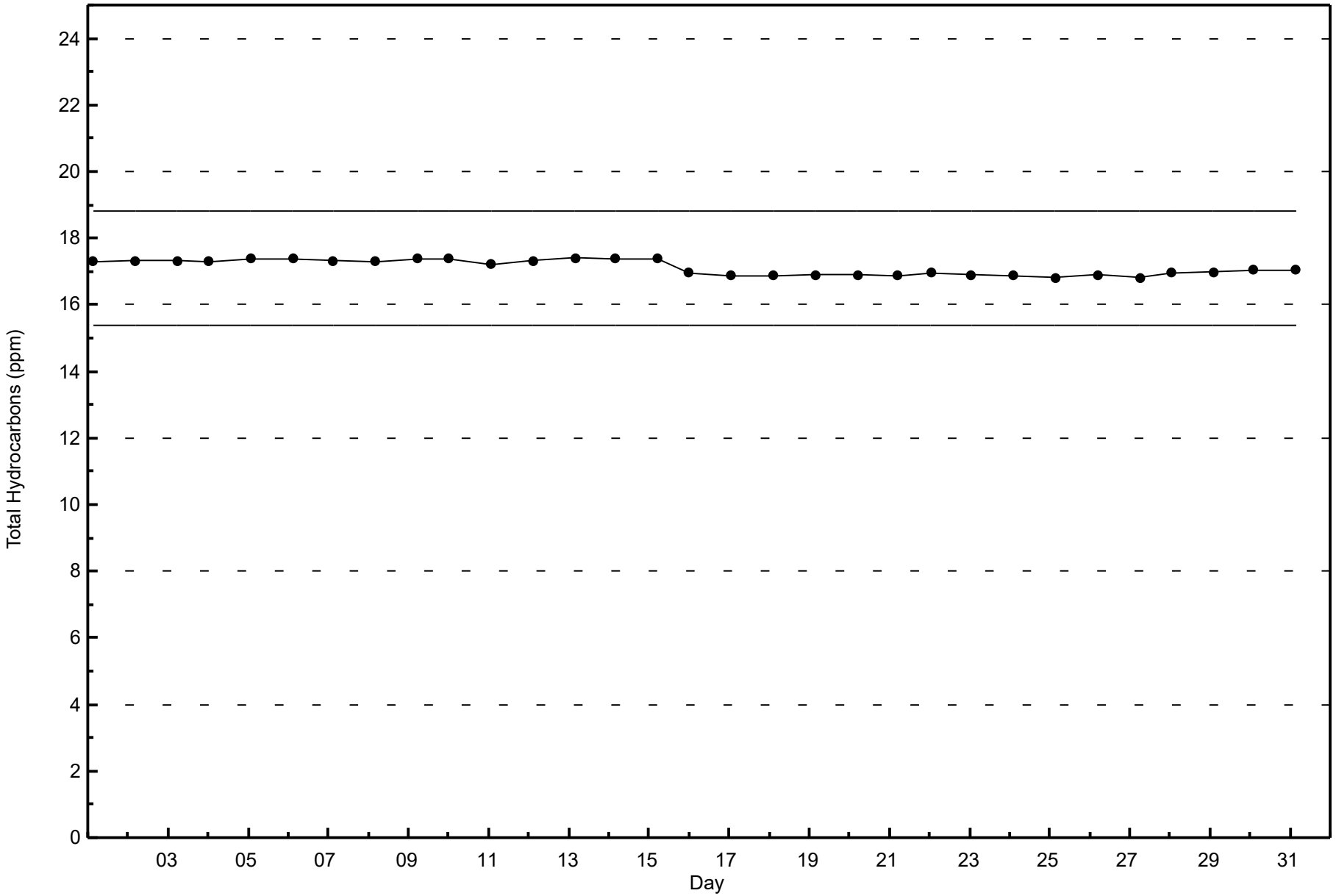
Span Responses

Total Hydrocarbons (THC) - ppm

Wapasu - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O_3) - ppb

Wapasu - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 40.6 ppb on Oct 10 17:00
Maximum Daily Average: 32.1 ppb on Oct 10

Minimum Value: 0.6 ppb on Oct 2 04:00
Minimum Daily Average: 10.4 ppb on Oct 20
Maximum Diurnal Average: 23.3 ppb at hour 15
Minimum Diurnal Average: 16.3 ppb at hour 4
Monthly Average: 19.13 ppb
Percentiles: P_1 = 1.2 P_{10} = 8.7 Q_1 = 14.7 Median = 20.2 Q_3 = 23.9 P_{90} = 27.2 P_{99} = 37.2

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	35
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	12.9	5.1	12.8	13.6	14.4	Z	16.9	18.2	20.2	18.3	18.8	25.0	26.3	25.2	25.4	18.8	15.9	13.2	13.7	15.0	13.4	6.3	3.9	0.9	15.4	26.3
2-Oct	Z	3.6	0.7	0.6	0.8	0.9	1.1	3.1	6.7	11.5	C	C	C	C	17.0	17.2	19.1	18.7	16.6	15.7	15.5	16.0	18.1	18.0	10.6	19.1
3-Oct	18.3	Z	19.5	17.6	17.1	16.9	16.4	16.2	16.8	20.8	22.8	23.7	29.5	32.0	32.6	31.4	31.2	28.0	26.1	19.7	18.5	17.6	16.7	15.6	22.0	32.6
4-Oct	14.2	14.4	Z	11.1	9.3	6.9	6.3	10.2	17.7	19.5	20.3	22.7	23.1	17.5	14.9	11.8	9.7	13.9	16.0	16.6	16.1	19.6	19.7	15.4	15.1	23.1
5-Oct	18.2	16.8	11.2	Z	11.4	8.9	6.0	7.8	7.7	9.0	12.3	13.3	16.1	17.1	13.4	16.5	18.9	13.8	4.8	3.3	3.4	13.1	15.8	26.2	12.4	26.2
6-Oct	24.0	21.5	22.4	24.9	Z	25.7	24.5	24.0	26.6	25.7	26.4	26.9	27.6	30.2	32.3	30.4	24.1	17.5	18.2	24.0	25.8	26.0	26.0	25.6	25.2	32.3
7-Oct	25.8	26.0	25.1	24.1	23.5	Z	22.1	20.9	21.7	22.3	22.2	21.7	21.6	22.2	23.1	22.5	20.9	21.0	24.2	24.3	23.2	22.6	22.2	19.1	22.7	26.0
8-Oct	Z	1.6	2.6	1.9	1.3	2.1	19.6	15.0	13.4	15.3	20.7	24.9	25.0	24.7	24.8	26.2	26.4	23.1	18.5	17.4	10.6	5.5	4.7	6.9	14.4	26.4
9-Oct	0.9	Z	11.3	12.1	13.6	13.7	10.6	5.2	9.0	11.1	15.4	18.0	21.9	29.3	31.6	35.1	34.9	31.8	29.9	28.7	23.7	20.8	18.0	18.5	19.3	35.1
10-Oct	19.7	21.5	Z	24.0	25.2	24.7	24.5	26.8	28.4	30.7	31.9	33.4	34.0	33.7	36.3	37.9	40.6	39.7	38.2	38.6	38.6	37.5	37.3	36.1	32.1	40.6
11-Oct	34.9	34.3	34.5	Z	29.1	5.4	21.6	23.2	18.4	17.8	16.0	13.5	13.9	15.3	18.3	13.4	14.6	15.5	17.9	19.7	21.7	22.4	21.5	21.2	20.2	34.9
12-Oct	18.7	17.4	17.9	21.3	Z	22.7	23.3	24.2	23.3	24.0	24.7	25.4	26.9	26.7	26.1	22.7	19.0	19.2	18.3	16.8	14.1	20.0	11.9	16.7	20.9	26.9
13-Oct	16.7	10.7	4.9	6.8	5.3	Z	14.7	13.9	18.4	20.4	24.0	27.1	27.8	28.8	28.5	28.9	27.8	27.2	27.2	27.3	26.4	25.8	25.7	24.8	21.3	28.9
14-Oct	Z	22.8	22.5	22.9	23.0	22.8	22.6	21.8	21.4	21.6	21.2	21.8	23.7	23.0	24.7	24.2	23.9	20.8	19.1	20.3	21.0	20.2	19.2	19.0	21.9	24.7
15-Oct	18.6	Z	17.9	17.7	17.8	18.5	17.4	17.9	20.5	22.4	22.9	23.9	23.1	23.6	23.7	22.8	23.3	21.8	22.6	19.2	18.3	21.4	22.5	23.2	20.9	23.9
16-Oct	21.2	18.8	Z	17.6	16.8	17.9	13.2	15.5	14.5	22.4	23.0	27.7	32.7	32.7	34.0	30.7	29.9	29.9	32.4	33.8	34.9	34.2	32.1	31.6	26.0	34.9
17-Oct	29.1	24.9	20.7	Z	25.4	26.4	25.7	19.7	15.4	22.3	20.6	19.3	20.9	20.3	21.7	24.0	23.5	16.5	9.6	16.1	12.2	7.6	2.2	1.2	18.5	29.1
18-Oct	1.2	3.7	8.2	9.6	Z	9.2	8.6	10.5	13.3	16.7	20.8	24.5	26.0	28.5	28.8	28.8	27.2	17.8	9.1	6.2	4.7	3.6	9.9	12.1	14.3	28.8
19-Oct	11.9	19.2	24.0	23.5	21.2	Z	20.1	23.5	24.8	23.8	24.0	23.4	22.7	22.6	21.9	20.9	19.7	16.0	20.0	10.9	10.5	11.1	9.7	8.0	18.9	24.8
20-Oct	Z	8.6	8.9	5.4	4.5	11.5	10.6	11.6	12.3	11.5	11.9	14.4	13.4	10.4	8.7	6.2	7.8	7.9	6.8	7.9	11.2	14.1	16.4	16.6	10.4	16.6
21-Oct	16.6	Z	16.4	14.9	13.2	13.2	11.8	8.5	9.5	9.9	9.5	10.2	10.6	11.0	15.9	14.3	12.5	11.0	7.5	2.3	4.4	7.8	8.9	9.5	10.9	16.6
22-Oct	10.9	11.5	Z	11.1	13.9	13.6	15.2	16.1	15.8	16.6	17.7	20.2	22.3	23.9	24.4	25.0	23.5	21.5	16.3	17.8	20.2	21.9	24.0	24.6	18.6	25.0
23-Oct	26.1	28.1	28.3	Z	27.3	26.2	25.0	23.4	22.1	21.9	22.6	24.8	25.5	26.4	27.0	26.6	25.6	24.0	24.4	23.6	23.6	24.7	24.6	24.9	25.1	28.3
24-Oct	26.8	26.7	26.7	25.9	Z	25.4	24.1	23.0	23.3	23.4	24.7	25.5	26.7	26.2	25.6	23.5	21.4	17.1	19.9	22.0	22.1	21.0	20.9	20.3	23.6	26.8
25-Oct	17.2	15.6	16.8	16.0	13.5	Z	13.7	9.1	6.7	8.2	1.2	1.4	7.3	13.8	22.0	23.0	20.9	21.2	19.5	18.1	15.4	14.0	12.2	12.5	13.9	23.0
26-Oct	Z	6.9	2.9	9.7	2.1	9.6	11.0	20.0	23.4	18.5	23.8	20.9	21.3	22.0	20.3	18.3	21.1	23.1	22.3	22.6	21.9	22.4	24.9	26.2	18.1	26.2
27-Oct	27.3	Z	28.3	29.5	30.3	29.8	25.9	23.4	20.6	21.0	20.3	19.5	18.6	18.9	21.2	22.2	22.1	21.7	21.3	20.9	21.0	20.3	19.7	19.4	22.8	30.3
28-Oct	20.3	20.6	Z	22.8	22.3	20.3	15.1	18.3	20.3	13.7	15.7	15.3	18.2	21.3	20.6	20.2	21.3	21.9	21.5	19.8	18.7	21.1	20.9	17.7	19.5	22.8
29-Oct	17.0	18.0	18.5	Z	23.9	24.7	23.6	22.9	22.2	22.3	23.1	20.8	18.3	13.4	11.6	15.4	16.7	17.5	15.8	14.7	11.6	5.9	6.1	15.3	17.4	24.7
30-Oct	6.9	8.1	8.2	16.4	Z	13.7	15.9	18.3	16.6	22.5	18.2	18.0	22.7	19.8	M	M	17.5	20.6	16.8	16.7	18.7	19.6	18.4	21.3	16.9	22.7
31-Oct	20.6	21.3	21.9	22.3	21.4	Z	18.5	18.3	18.1	18.3	19.2	19.6	20.7	21.7	22.8	23.2	23.7	24.6	25.7	26.4	26.4	26.0	25.0	24.2	22.2	26.4
	18.3	16.4	16.7	16.3	16.4	16.4	16.9	17.1	17.7	18.8	19.9	20.9	22.3	22.7	23.3	22.7	22.1	20.6	19.4	18.9	18.3	18.4	18.0	18.5	Diurnal Average	
	34.9	34.3	34.5	29.5	30.3	29.8	25.9	26.8	28.4	30.7	31.9	33.4	34.0	33.7	36.3	37.9	40.6	39.7	38.2	38.6	38.6	37.5	37.3	36.1	Diurnal Maximum	

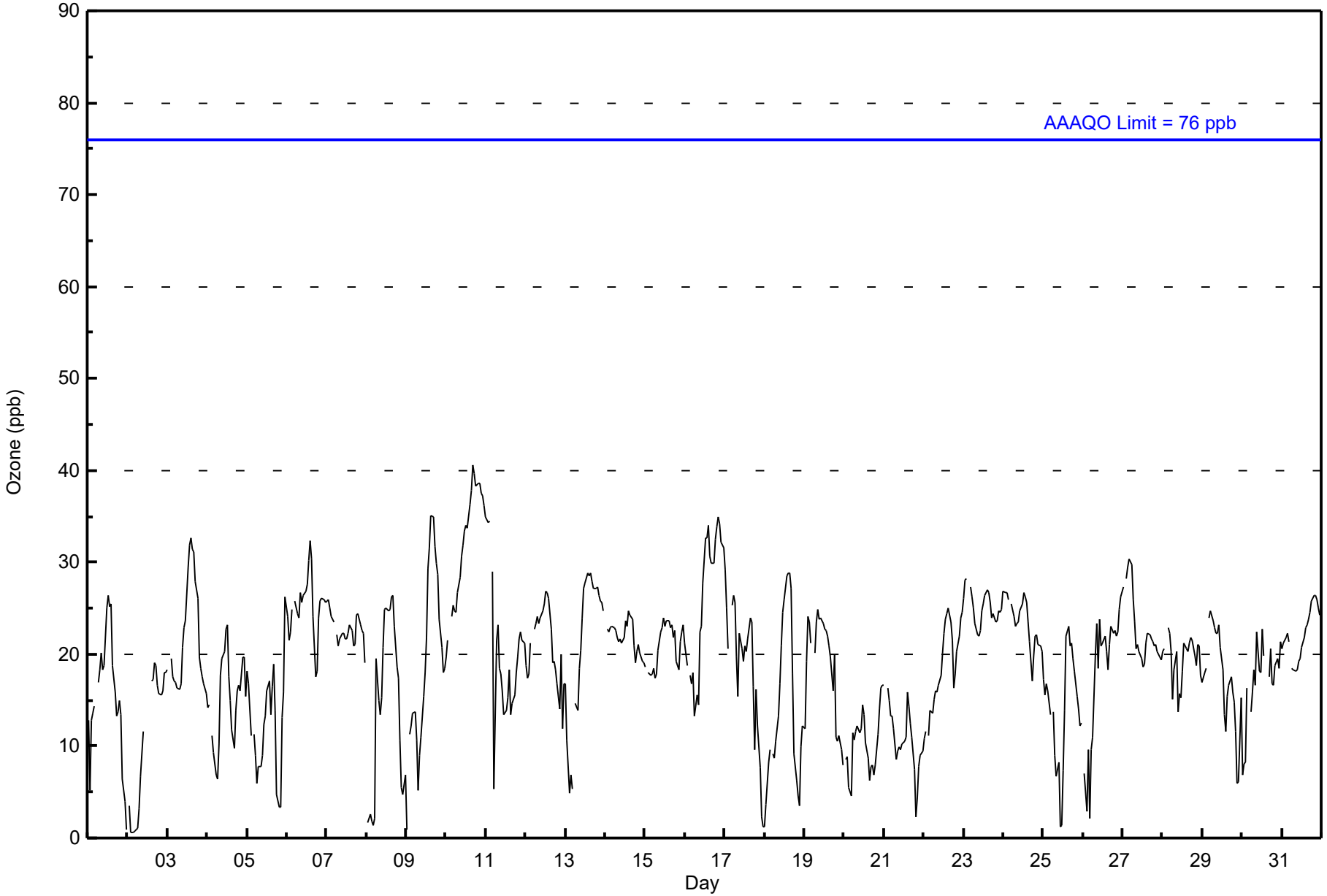
Z - zerospan C - Calibration M - Maintenance
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb

Wood Buffalo Environmental Association

Hourly Averages

Ozone (O_3) - ppb

Wapasu - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	368	52.05	52.05
21 - 50	339	47.95	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Ozone (O_3) - ppb

Wapasu - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	25	11	2	2	5	5	20	47	45	10	24	23	17	10	9	38	293
21 - 50	18	8	4	0	2	8	12	88	59	18	37	20	3	1	5	18	301
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	43	19	6	2	7	13	32	135	104	28	61	43	20	11	14	56	594

Total Number of Valid Hours: 594

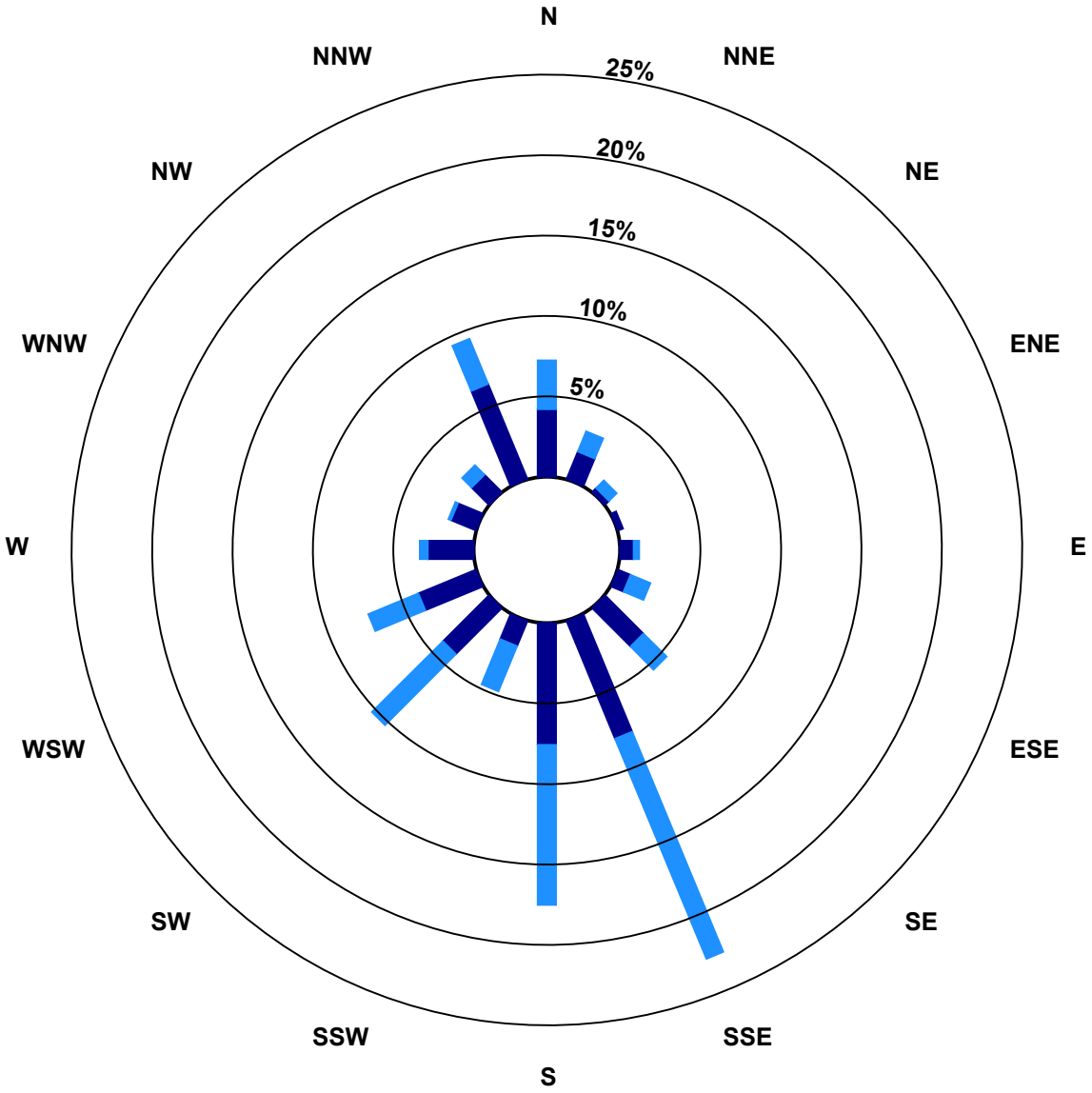
Total Number of Hours: 744

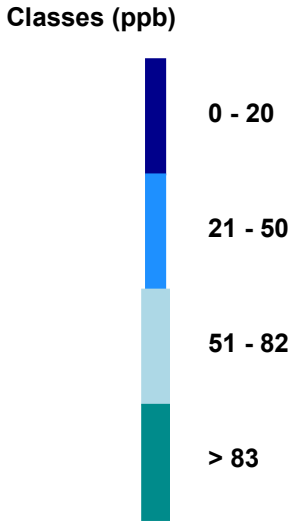
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Ozone (O_3) - ppb

Wapasu





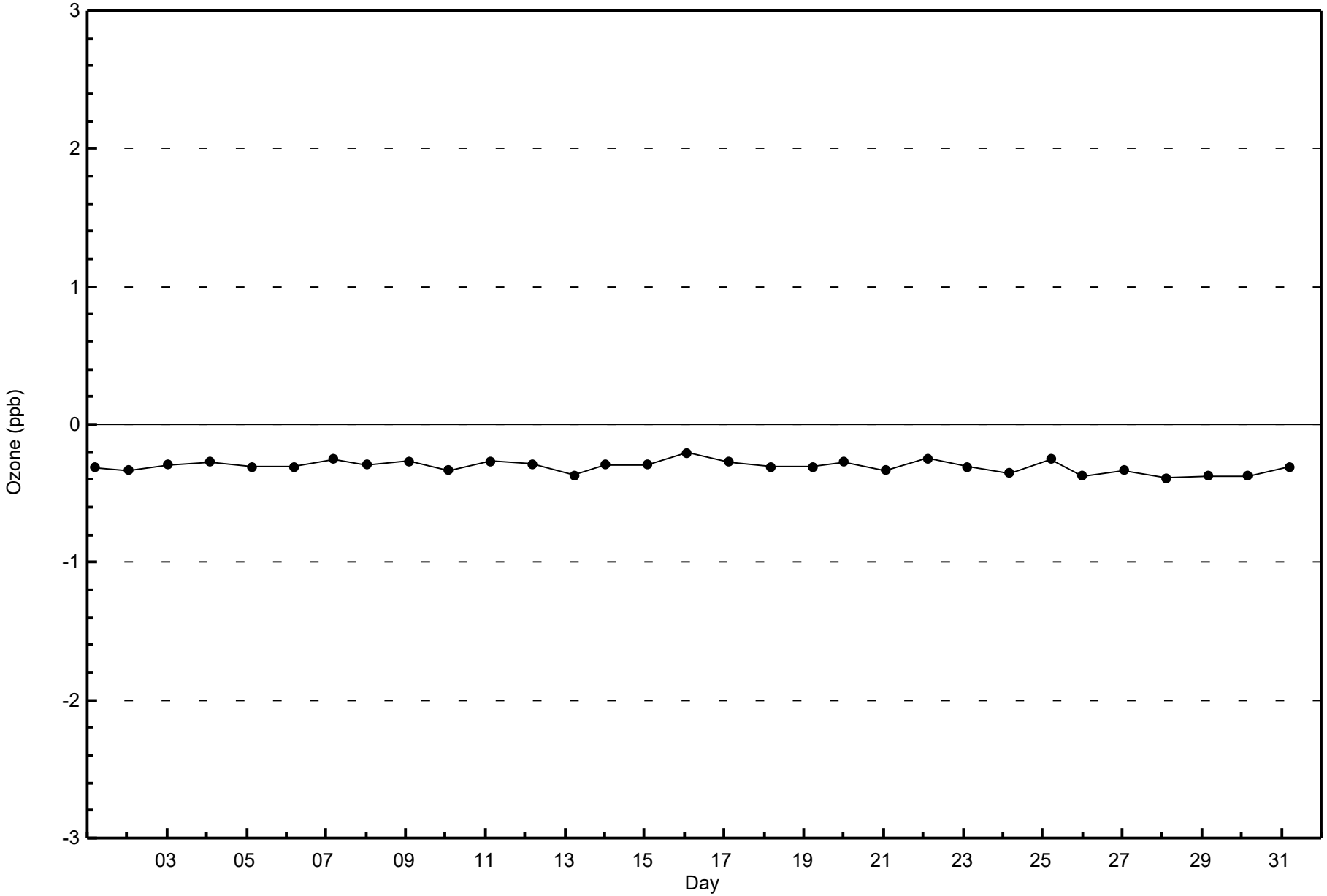
Total Number of Valid Hours: 594

Wood Buffalo Environmental Association

Zero Responses

Ozone (O_3) - ppb

Wapasu - October 2025

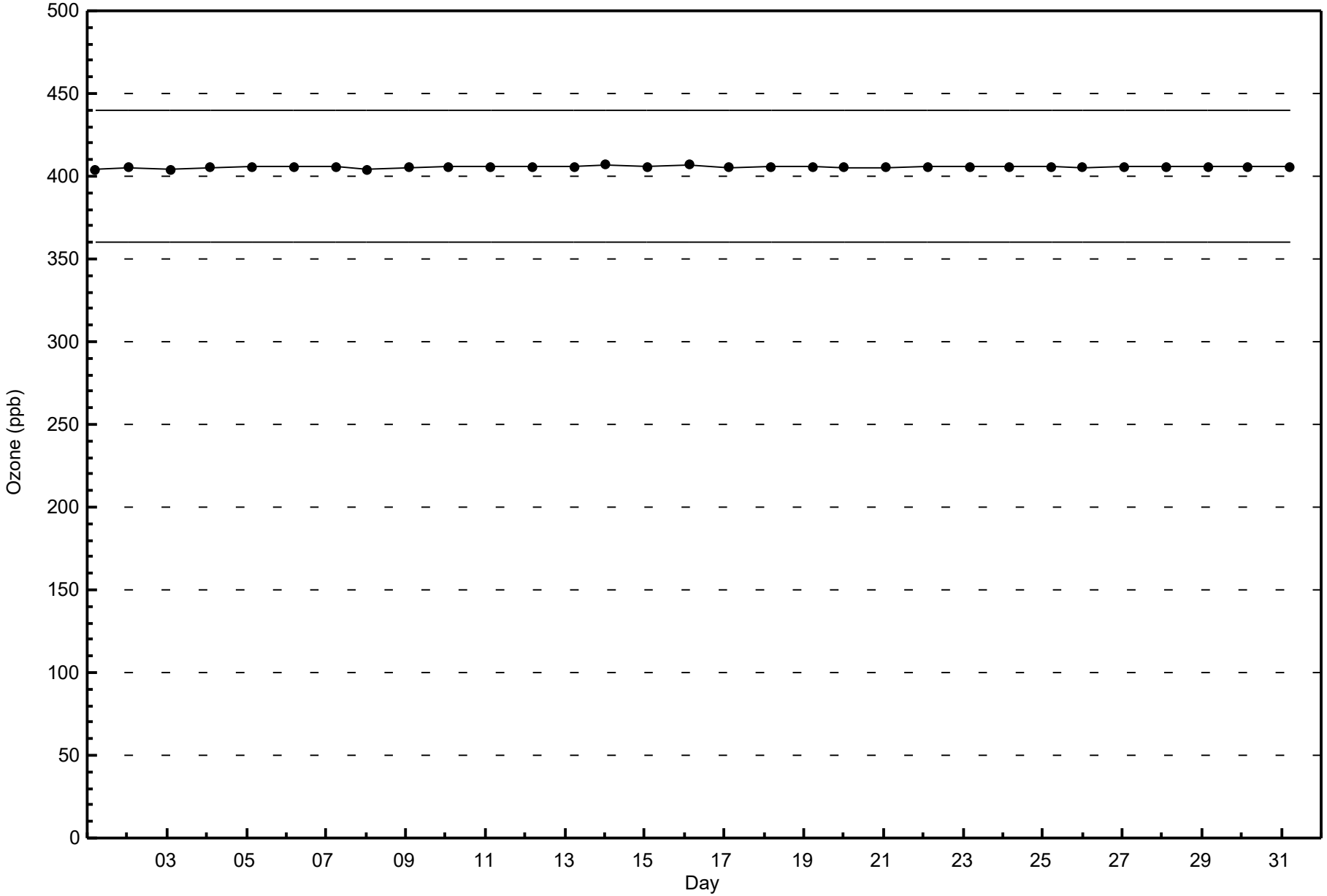


Wood Buffalo Environmental Association

Span Responses

Ozone (O_3) - ppb

Wapasu - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Wapasu - October 2025

Maximum Value: 53.5 ppb on Oct 25 11:00

Maximum Daily Average: 4.1 ppb on Oct 25

Minimum Value: 0.0 ppb on Oct 1 21:00

Minimum Daily Average: 0.1 ppb on Oct 19

Maximum Diurnal Average: 2.6 ppb at hour 11

Minimum Diurnal Average: 0.0 ppb at hour 19

Monthly Average: 0.61 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.3 P_{90} = 1.2 P_{99} = 6.7

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.3	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.5
2-Oct	0.1	3.5	Z	15.0	6.7	1.6	2.2	8.0	4.8	1.5	1.1	0.5	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	15.0
3-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	1.3	1.3	2.0	2.3	0.6	0.2	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.4	2.3
4-Oct	0.1	0.0	0.0	0.0	Z	0.0	0.2	0.5	0.5	0.5	0.7	0.3	0.2	0.8	0.6	0.7	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8
5-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.3	1.2	2.4	3.2	0.6	0.3	0.6	2.2	2.1	1.0	0.2	0.1	0.0	0.2	1.8	0.0	0.1	0.0	0.7	3.2
6-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.6	1.4	1.1	0.3	0.2	0.3	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.4
7-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
8-Oct	0.6	2.7	Z	0.2	27.9	29.3	0.1	0.2	0.7	1.1	0.3	0.4	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	2.8	29.3
9-Oct	3.5	1.5	0.0	Z	0.0	0.0	0.5	5.6	4.7	5.1	4.9	5.9	3.5	0.9	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	5.9
10-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
11-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.3	0.3	0.2	0.2	0.4	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
12-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
13-Oct	0.0	Z	0.1	0.1	0.5	0.0	0.1	0.6	1.9	3.8	2.5	1.3	1.1	0.6	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	3.8
14-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.3	0.8	1.3	1.5	1.7	1.7	1.5	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.7
15-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.4	0.4	0.5	1.0	2.1	1.4	2.1	2.0	0.6	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.5	2.1
16-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.7	4.8	1.9	1.6	1.7	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	4.8
17-Oct	0.0	0.0	0.1	0.2	0.1	Z	0.0	0.1	0.4	0.1	0.2	0.3	0.5	1.4	1.0	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.6	0.4	0.3	1.4
18-Oct	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.6	2.6	3.2	2.3	1.6	1.1	0.7	0.4	0.3	0.1	0.0	0.0	0.1	0.5	2.7	1.3	0.1	0.8	3.2
19-Oct	0.1	Z	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1
20-Oct	0.0	0.0	Z	0.1	0.1	0.0	0.0	0.1	0.3	1.2	1.4	0.9	0.7	0.6	0.9	1.7	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.7
21-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.7	1.2	0.9	0.8	0.8	1.5	2.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.5
22-Oct	0.0	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.3	0.4	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.4
23-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
24-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.4	0.4	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
25-Oct	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.4	1.0	3.7	53.5	31.2	2.0	0.6	0.3	0.1	0.1	0.0	0.0	0.0	0.5	0.1	0.0	0.0	4.1	53.5
26-Oct	0.0	0.9	Z	0.5	7.2	0.5	0.0	0.0	0.1	1.1	0.3	1.2	1.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	7.2
27-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.5	0.8	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8
28-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.1	0.3	3.1	2.7	3.8	3.0	0.7	0.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	3.8
29-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	1.0	0.9	1.5	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.0	0.2	1.5
30-Oct	Z	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.4	0.4	1.7	C	C	C	C	C	C	0.0	0.2	0.2	0.0	0.1	0.0	0.0	--	1.7
31-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.4	0.4	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
	0.2	0.4	0.0	0.6	1.7	1.2	0.1	0.6	1.0	1.2	2.6	2.0	0.9	0.6	0.5	0.4	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.0	Diurnal Average	
	3.5	3.5	0.4	15.0	27.9	29.3	2.2	8.0	4.8	5.1	53.5	31.2	3.5	2.5	2.1	2.0	1.2	0.4	0.2	0.2	1.8	2.7	1.3	0.4	Diurnal Maximum	

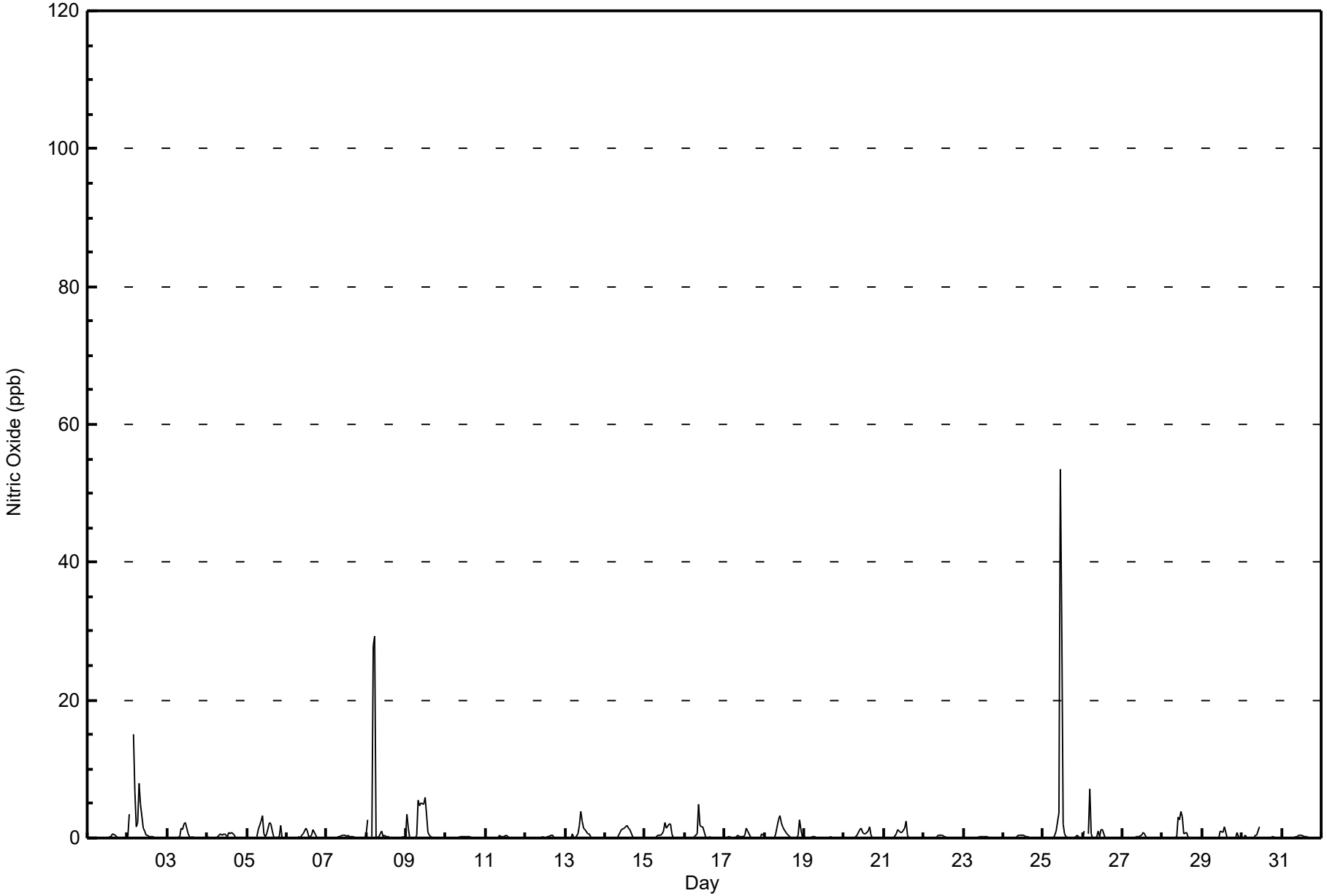
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Wapasu - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	703	99.43	99.43
21 - 40	3	0.42	99.86
11 - 80	1	0.14	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Wapasu - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	41	20	6	3	7	13	32	139	104	29	60	41	19	11	15	54	594
21 - 40	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	41	20	6	3	7	13	32	139	104	29	60	44	20	11	15	54	598

Total Number of Valid Hours: 598

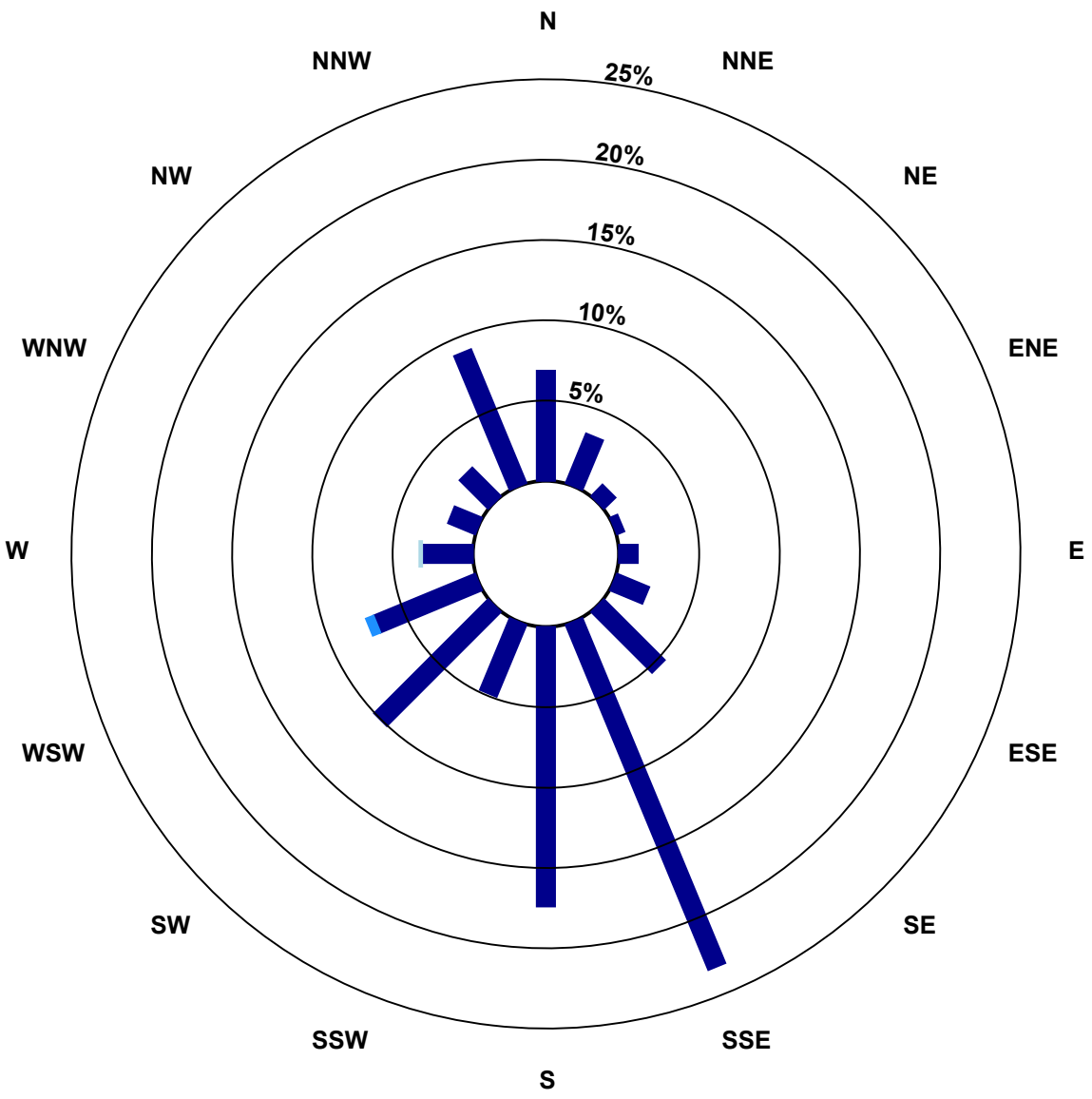
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Wapasu



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

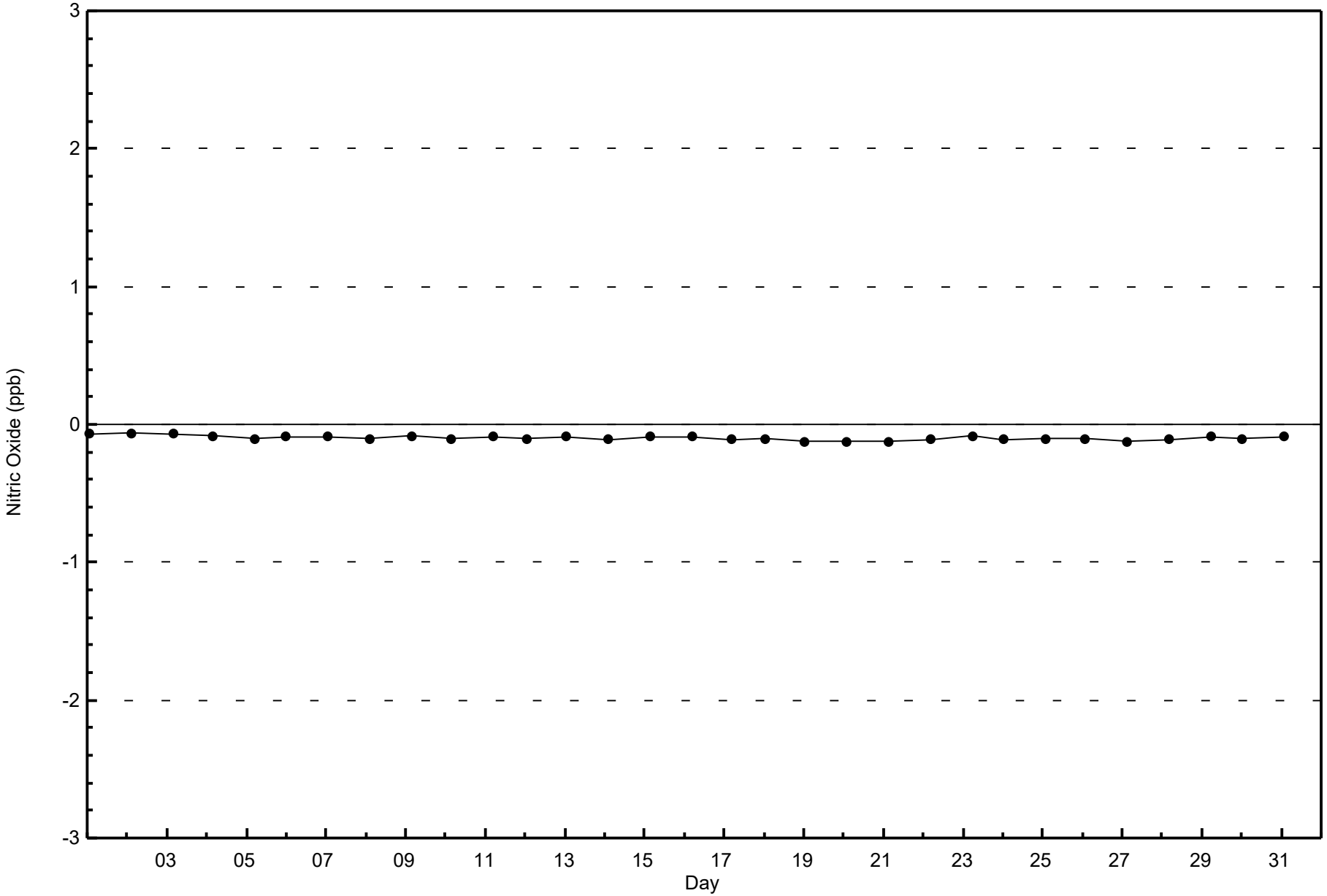
Total Number of Valid Hours: 598

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Wapasu - October 2025

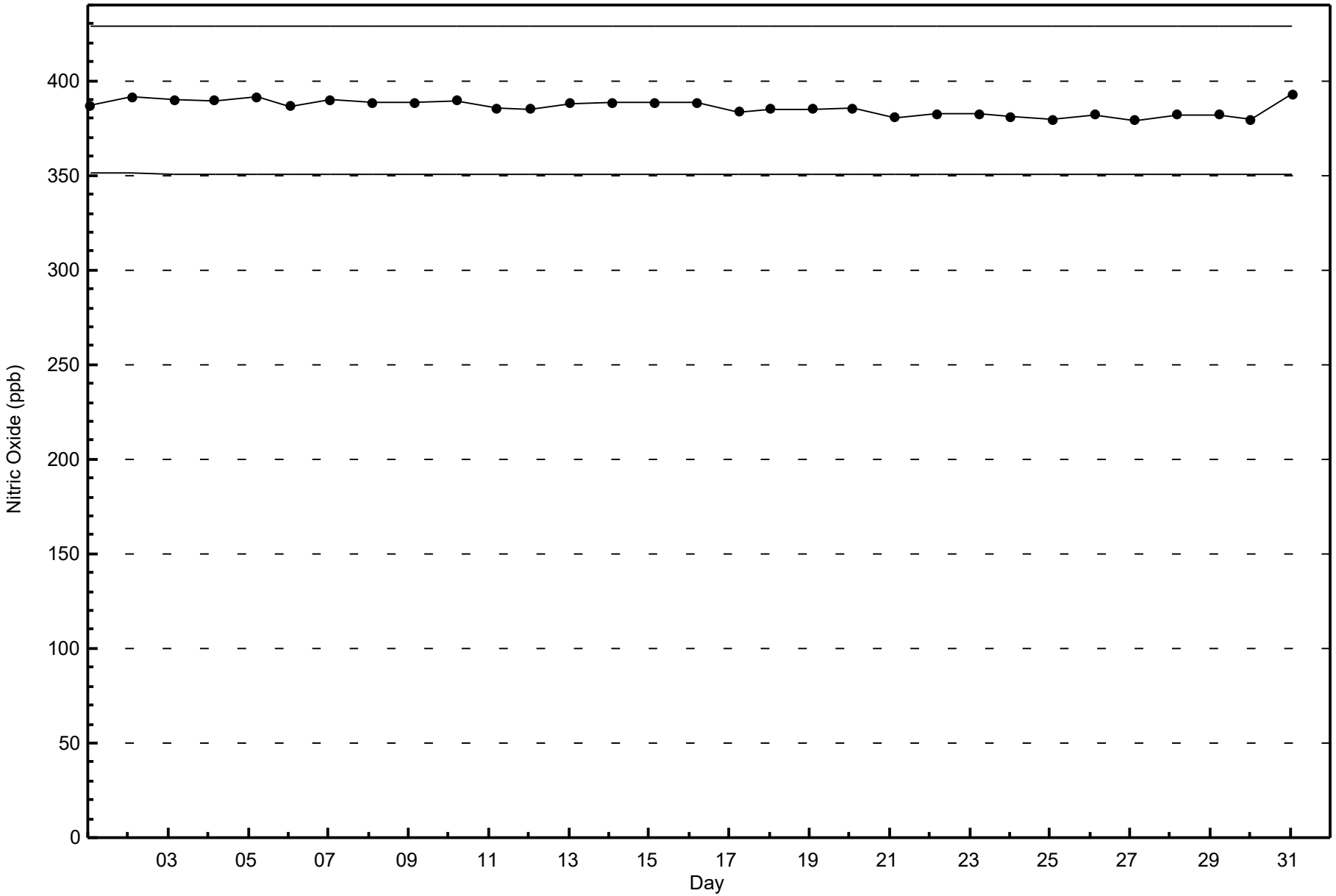


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Wapasu - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Wapasu - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 17.1 ppb on Oct 25 11:00 Maximum Daily Average: 5.1 ppb on Oct 18

Minimum Value: 0.1 ppb on Oct 27 20:00 Minimum Daily Average: 0.7 ppb on Oct 23
Maximum Diurnal Average: 3.6 ppb at hour 5 Minimum Diurnal Average: 1.9 ppb at hour 16
Monthly Average: 2.70 ppb Percentiles: P_1 = 0.2 P_{10} = 0.5 Q_1 = 0.9 Median = 1.6 Q_3 = 3.8 P_{90} = 6.1 P_{99} = 12.8

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.5	Z	2.8	0.5	1.1	1.5	0.6	0.6	0.7	1.4	0.9	0.5	0.7	0.9	1.4	4.8	4.5	4.1	0.9	0.4	0.3	0.4	1.4	1.2	1.4	4.8
2-Oct	0.6	6.0	Z	7.2	8.9	8.7	9.8	8.3	5.3	2.5	2.6	2.2	1.5	1.4	1.4	1.1	1.2	0.9	1.1	1.2	1.4	1.1	0.8	0.8	3.3	9.8
3-Oct	1.1	1.1	1.2	Z	1.0	1.0	1.3	1.4	3.1	2.8	4.0	4.7	1.8	1.3	0.7	1.8	1.3	2.6	3.9	3.7	2.2	2.1	0.8	1.5	2.0	4.7
4-Oct	3.4	1.2	1.4	1.5	Z	2.3	5.3	4.8	3.3	3.3	3.9	2.0	0.8	3.3	2.3	3.4	3.5	2.7	2.4	2.6	3.2	0.5	0.6	0.2	2.5	5.3
5-Oct	0.5	1.1	0.6	1.6	1.1	Z	6.7	4.5	4.5	4.6	1.2	0.7	1.0	3.2	5.4	3.5	1.1	1.8	1.7	5.6	15.1	4.6	4.6	0.4	3.3	15.1
6-Oct	Z	3.9	3.4	1.1	3.0	1.4	1.7	2.6	0.6	1.8	1.6	2.2	1.8	0.6	0.6	1.2	7.2	9.6	5.7	2.6	1.8	1.3	1.0	1.0	2.5	9.6
7-Oct	0.9	Z	0.8	0.8	1.0	1.1	1.6	2.1	1.7	1.5	1.3	1.4	1.4	1.3	1.2	1.6	1.9	3.2	1.3	1.0	0.9	1.0	1.2	1.4	1.4	3.2
8-Oct	8.2	12.8	Z	6.6	11.3	14.7	4.6	4.8	6.5	3.8	0.6	0.8	0.4	0.6	0.4	0.3	0.6	3.8	5.5	3.9	4.3	5.7	6.0	3.6	4.8	14.7
9-Oct	10.2	8.3	1.2	Z	0.9	2.4	4.7	9.0	5.5	4.9	5.5	7.5	5.6	2.3	1.7	0.9	1.2	1.8	1.3	2.0	2.4	3.9	6.1	5.6	4.1	10.2
10-Oct	4.8	3.1	2.8	1.2	Z	1.0	1.2	1.0	1.1	1.1	1.2	1.0	0.9	1.2	1.2	1.2	0.9	0.9	0.9	1.2	1.4	1.6	1.5	1.5	1.5	4.8
11-Oct	1.5	1.3	1.3	1.4	2.3	Z	5.4	1.6	3.5	2.4	2.1	1.9	3.1	2.3	0.4	0.4	0.7	1.0	0.3	0.2	0.4	0.3	1.9	3.7	1.7	5.4
12-Oct	Z	4.0	4.3	2.0	1.5	1.4	0.9	0.9	0.4	0.5	0.8	0.4	0.3	0.8	1.5	2.7	4.8	5.1	5.7	6.9	10.0	2.3	9.0	2.3	3.0	10.0
13-Oct	0.8	Z	13.2	9.6	10.3	3.6	5.5	4.2	5.0	6.1	4.4	2.6	2.3	1.5	1.6	1.2	1.3	0.7	0.4	0.3	0.5	0.5	0.6	0.8	3.3	13.2
14-Oct	1.3	1.6	Z	1.2	1.1	1.0	1.0	1.2	1.3	2.2	3.1	3.3	3.2	4.4	3.5	4.0	2.6	3.8	4.3	2.9	1.8	2.0	2.5	2.5	2.4	4.4
15-Oct	2.6	2.8	2.7	Z	2.5	2.4	3.4	3.0	2.8	2.5	2.4	3.7	5.3	4.3	5.5	7.6	6.4	5.1	3.3	6.1	5.7	5.7	5.7	5.7	4.2	7.6
16-Oct	7.0	8.3	6.2	7.2	Z	6.8	12.3	9.8	12.8	5.4	5.4	4.9	1.1	0.6	1.0	1.8	1.3	1.9	0.9	1.0	0.9	1.3	2.1	2.0	4.4	12.8
17-Oct	1.6	2.7	6.1	7.4	3.9	Z	2.4	4.2	7.9	1.4	2.2	2.1	1.3	4.1	3.6	1.3	1.7	0.6	0.8	1.4	4.1	8.2	11.7	5.8	3.8	11.7
18-Oct	Z	3.2	3.9	6.3	6.2	4.8	6.0	6.5	7.1	5.8	4.1	3.2	2.5	1.8	1.5	1.6	1.4	1.6	2.9	5.0	9.0	11.4	13.5	8.2	5.1	13.5
19-Oct	6.6	Z	0.7	2.4	5.6	7.2	6.6	2.4	0.7	0.8	0.6	0.7	0.5	0.4	0.4	0.7	3.0	0.5	0.3	4.0	0.9	0.3	0.3	1.0	2.0	7.2
20-Oct	0.5	0.7	Z	5.1	6.9	1.4	2.2	3.9	3.0	4.4	4.0	2.5	2.4	2.8	3.8	7.6	5.6	3.7	3.3	2.2	0.7	0.6	0.6	0.8	3.0	7.6
21-Oct	0.8	0.8	1.0	Z	1.4	1.4	2.0	5.7	5.4	3.0	2.6	2.3	4.0	7.1	3.6	0.5	0.7	0.9	0.5	0.5	1.6	1.3	0.3	0.2	2.1	7.1
22-Oct	0.3	1.2	3.1	1.0	Z	0.4	0.4	0.6	0.7	0.8	0.8	0.7	0.5	0.5	0.5	0.5	0.6	1.7	3.2	2.5	1.4	0.7	0.5	0.4	1.0	3.2
23-Oct	0.4	0.4	0.4	0.3	0.3	Z	0.5	0.6	0.9	1.0	0.9	0.9	0.8	0.7	0.8	0.9	0.8	0.6	0.5	0.5	0.5	0.6	0.9	1.1	0.7	1.1
24-Oct	Z	1.2	1.3	1.4	1.4	1.3	1.5	1.6	1.8	1.7	1.6	1.6	1.5	1.4	1.6	1.7	1.3	2.2	2.5	0.9	0.7	0.6	0.8	1.2	1.4	2.5
25-Oct	4.2	Z	2.8	1.8	2.5	3.1	1.2	5.0	5.9	6.1	17.1	15.7	9.3	5.0	6.1	1.4	1.4	0.8	2.4	2.7	7.1	5.3	3.1	3.1	4.9	17.1
26-Oct	2.4	6.6	Z	7.3	16.9	4.7	1.4	3.9	2.2	6.2	1.3	3.8	3.6	0.4	0.3	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	2.8	16.9
27-Oct	0.2	0.2	0.2	Z	0.2	0.4	0.5	0.5	2.9	1.9	1.5	2.3	3.3	3.1	1.2	0.3	0.2	0.2	0.3	0.1	0.1	0.2	0.4	1.1	0.9	3.3
28-Oct	0.1	0.1	0.1	0.1	Z	1.5	7.0	4.6	3.0	8.5	7.4	8.5	5.9	2.0	2.9	2.1	1.7	1.2	0.6	1.8	2.5	2.4	1.9	2.1	3.0	8.5
29-Oct	2.4	1.0	1.1	0.3	1.3	Z	0.7	0.4	0.4	0.6	0.4	2.6	3.8	4.3	3.1	0.7	0.2	0.2	0.4	0.9	2.7	11.1	11.7	2.9	2.3	11.7
30-Oct	Z	11.2	12.2	3.3	1.5	2.5	4.0	3.1	4.1	3.2	6.8	C	C	C	C	C	C	3.9	6.4	5.7	1.9	3.0	2.6	2.4	--	12.2
31-Oct	2.8	Z	1.2	0.6	0.6	1.2	0.9	0.9	1.0	1.0	0.7	0.9	1.0	0.8	0.8	1.1	1.1	0.7	0.5	0.5	0.6	0.8	0.9	1.0	0.9	2.8
	2.5	3.4	2.9	3.0	3.6	3.0	3.3	3.3	3.4	3.0	3.0	2.9	2.4	2.1	2.0	1.9	2.0	2.2	2.1	2.3	2.8	2.6	3.1	2.1	Diurnal Average	
	10.2	12.8	13.2	9.6	16.9	14.7	12.3	9.8	12.8	8.5	17.1	15.7	9.3	7.1	6.1	7.6	7.2	9.6	6.4	6.9	15.1	11.4	13.5	8.2	Diurnal Maximum	

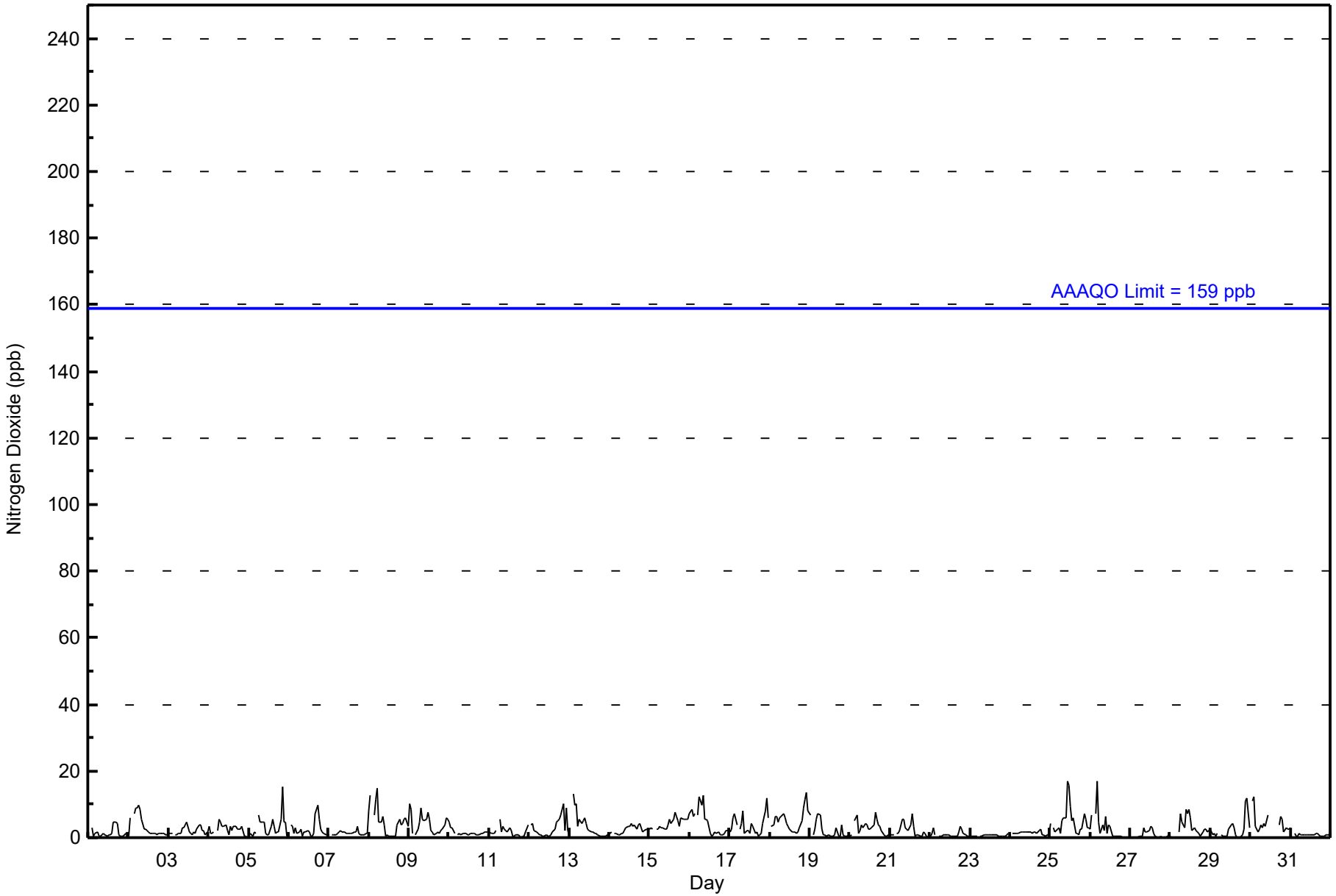
Z - zerospan C - Calibration
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Wapasu - October 2025



Nitrogen Dioxide (NO_2) - ppb
Wapasu - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Wapasu - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	41	20	6	3	7	13	32	139	104	29	60	44	20	11	15	54	598
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	41	20	6	3	7	13	32	139	104	29	60	44	20	11	15	54	598

Total Number of Valid Hours: 598

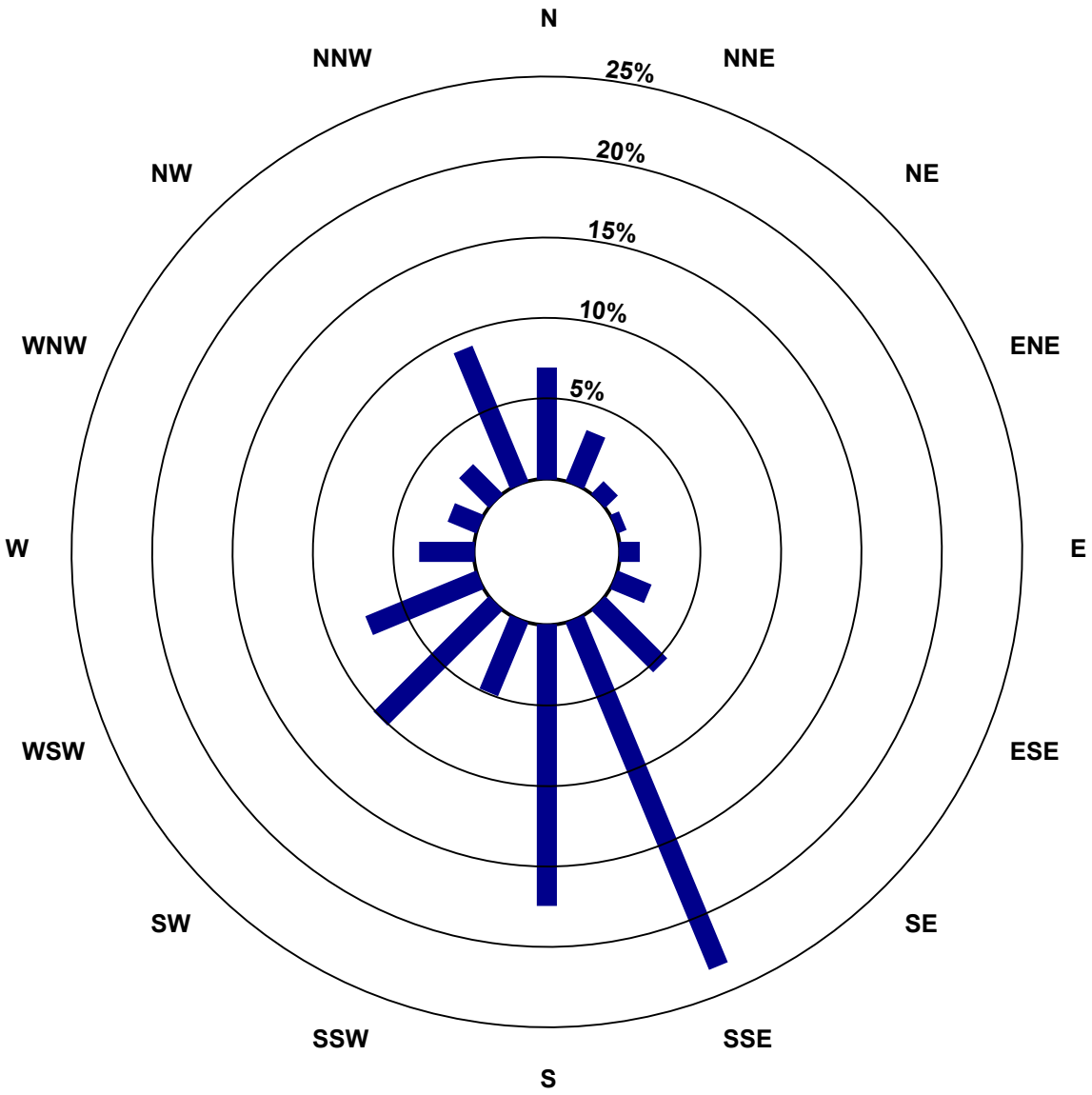
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Wapasu



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

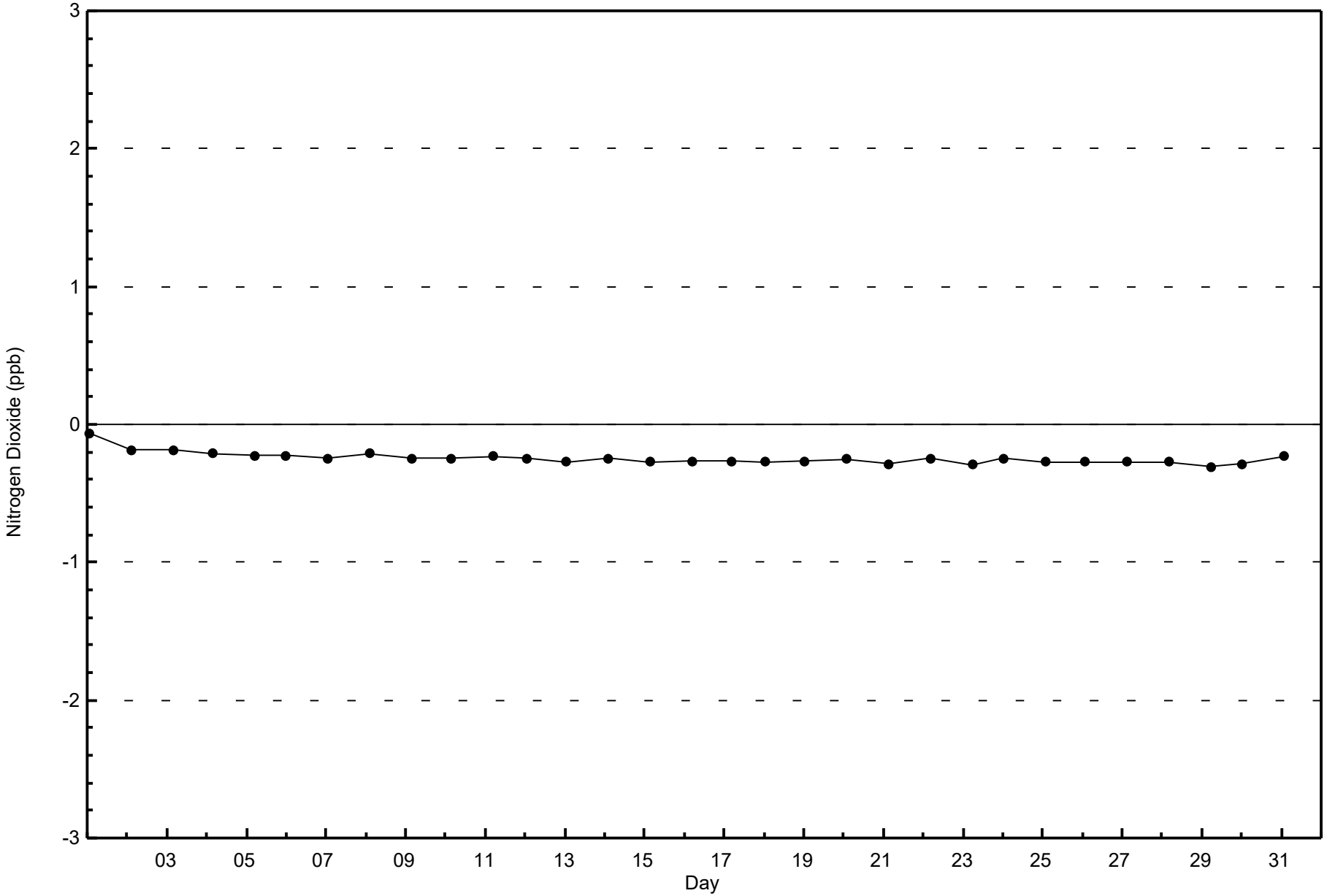
Total Number of Valid Hours: 598

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Wapasu - October 2025

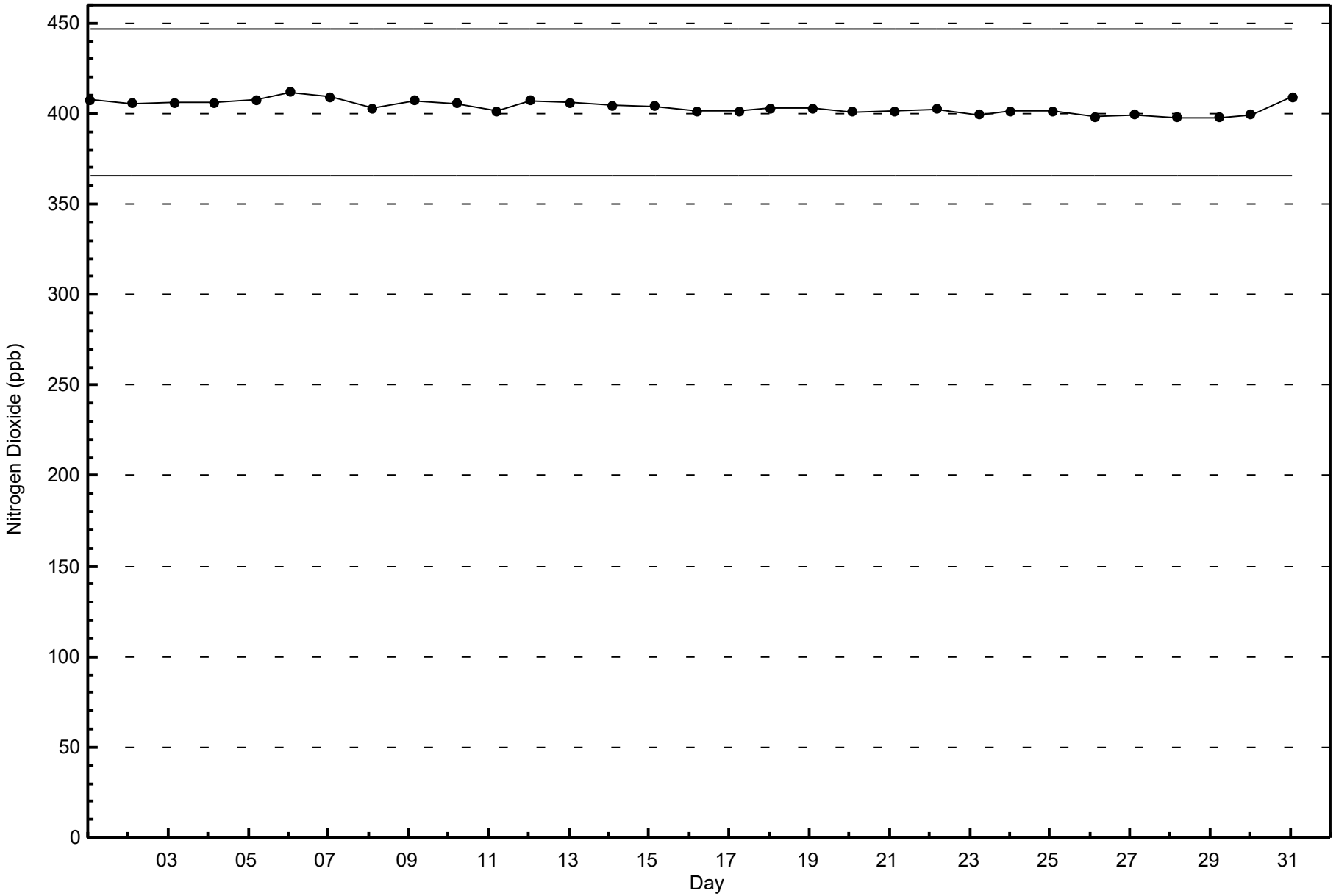


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Wapasu - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Wapasu - October 2025

Maximum Value: 70.6 ppb on Oct 25 11:00

Maximum Daily Average: 9.0 ppb on Oct 25

Minimum Value: 0.1 ppb on Oct 28 01:00

Minimum Daily Average: 0.7 ppb on Oct 23

Maximum Diurnal Average: 5.6 ppb at hour 11

Minimum Diurnal Average: 2.1 ppb at hour 19

Monthly Average: 3.30 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.5$ $Q_1 = 0.9$ Median = 1.8 $Q_3 = 4.1$ $P_{90} = 7.1$ $P_{99} = 16.9$

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.5	Z	2.8	0.5	1.1	1.5	0.6	0.6	0.7	1.5	1.0	0.5	0.8	1.0	1.7	5.3	4.8	4.2	0.9	0.4	0.3	0.4	1.5	1.3	1.5	5.3
2-Oct	0.7	9.5	Z	22.2	15.6	10.3	12.0	16.3	10.1	4.0	3.7	2.7	1.8	1.6	1.6	1.2	1.2	0.9	1.1	1.2	1.4	1.1	0.8	0.8	5.3	22.2
3-Oct	1.1	1.1	1.2	Z	1.0	1.0	1.3	1.5	4.4	4.1	6.0	7.0	2.4	1.5	0.7	1.9	1.3	2.7	4.0	3.7	2.2	2.1	0.8	1.6	2.4	7.0
4-Oct	3.5	1.2	1.4	1.5	Z	2.3	5.5	5.3	3.8	3.8	4.6	2.3	1.0	4.1	2.9	4.1	3.9	2.8	2.4	2.6	3.2	0.5	0.6	0.2	2.8	5.5
5-Oct	0.5	1.1	0.6	1.6	1.1	Z	7.0	5.7	6.9	7.8	1.8	1.0	1.6	5.4	7.5	4.5	1.3	1.9	1.7	5.8	16.9	4.6	4.7	0.4	4.0	16.9
6-Oct	Z	3.9	3.4	1.1	3.0	1.4	1.7	2.7	0.7	2.2	2.2	3.6	2.9	0.9	0.8	1.5	8.4	10.0	5.7	2.6	1.8	1.3	1.0	1.0	2.8	10.0
7-Oct	0.9	Z	0.8	0.8	1.0	1.1	1.6	2.3	2.0	1.8	1.7	1.7	1.7	1.6	1.5	1.8	2.0	3.3	1.3	1.0	0.9	1.0	1.2	1.4	1.5	3.3
8-Oct	8.8	15.5	Z	6.8	39.2	44.0	4.7	5.0	7.2	4.9	0.9	1.2	0.5	0.8	0.5	0.4	0.6	3.8	5.5	3.9	4.3	5.8	6.1	3.7	7.6	44.0
9-Oct	13.7	9.8	1.2	Z	0.9	2.4	5.2	14.6	10.2	10.0	10.4	13.4	9.1	3.2	2.1	1.0	1.3	1.8	1.3	2.0	2.4	3.9	6.1	5.6	5.7	14.6
10-Oct	4.8	3.1	2.8	1.2	Z	1.0	1.2	1.1	1.3	1.3	1.5	1.3	1.1	1.4	1.4	1.3	0.9	0.9	0.9	1.2	1.4	1.6	1.5	1.5	1.5	4.8
11-Oct	1.5	1.3	1.3	1.4	2.3	Z	5.5	1.7	3.8	2.7	2.3	2.1	3.5	2.6	0.4	0.4	0.8	1.0	0.3	0.2	0.4	0.3	1.9	3.7	1.8	5.5
12-Oct	Z	4.0	4.3	2.0	1.5	1.4	0.9	0.9	0.5	0.6	0.9	0.5	0.4	0.9	1.7	3.1	5.2	5.2	5.7	6.9	10.0	2.3	9.0	2.3	3.1	10.0
13-Oct	0.8	Z	13.3	9.7	10.8	3.6	5.6	4.8	6.9	9.9	6.9	3.9	3.4	2.1	2.2	1.5	1.4	0.7	0.4	0.3	0.5	0.5	0.6	0.8	3.9	13.3
14-Oct	1.3	1.6	Z	1.2	1.1	1.0	1.0	1.3	1.6	3.0	4.4	4.8	4.9	6.1	5.0	5.2	2.9	3.8	4.3	2.9	1.8	2.0	2.5	2.5	2.9	6.1
15-Oct	2.6	2.8	2.7	Z	2.5	2.4	3.4	3.2	3.2	2.9	2.9	4.7	7.4	5.7	7.6	9.6	7.0	5.2	3.3	6.2	5.7	5.7	5.7	5.7	4.7	9.6
16-Oct	7.0	8.3	6.2	7.2	Z	6.8	12.4	10.5	17.6	7.3	7.0	6.6	1.3	0.7	1.1	1.9	1.3	1.9	0.9	1.0	0.9	1.3	2.1	2.0	4.9	17.6
17-Oct	1.6	2.7	6.2	7.6	4.0	Z	2.4	4.3	8.3	1.5	2.4	2.4	1.8	5.5	4.6	1.5	1.8	0.6	0.8	1.4	4.1	8.3	12.3	6.2	4.0	12.3
18-Oct	Z	3.3	3.9	6.3	6.2	4.8	6.1	7.1	9.7	9.0	6.4	4.8	3.6	2.5	1.9	1.9	1.5	1.6	2.9	5.1	9.5	14.1	14.8	8.3	5.9	14.8
19-Oct	6.7	Z	0.7	2.4	5.7	7.3	6.7	2.5	0.8	0.9	0.6	0.8	0.6	0.4	0.4	0.8	3.1	0.5	0.3	4.1	0.9	0.3	0.3	1.0	2.1	7.3
20-Oct	0.5	0.7	Z	5.2	7.0	1.4	2.2	4.0	3.3	5.6	5.4	3.4	3.1	3.4	4.7	9.3	6.0	3.8	3.3	2.2	0.7	0.6	0.6	0.8	3.4	9.3
21-Oct	0.8	0.8	1.0	Z	1.4	1.4	2.0	6.4	6.6	3.9	3.4	3.1	5.5	9.6	3.9	0.6	0.7	0.9	0.5	0.5	1.6	1.3	0.3	0.2	2.5	9.6
22-Oct	0.3	1.3	3.1	1.0	Z	0.4	0.4	0.6	0.9	1.1	1.2	1.1	0.7	0.6	0.6	0.5	0.6	1.7	3.3	2.6	1.4	0.7	0.5	0.4	1.1	3.3
23-Oct	0.4	0.4	0.4	0.3	0.3	Z	0.5	0.6	1.0	1.1	1.2	1.1	1.0	0.9	0.9	1.0	0.8	0.6	0.5	0.5	0.5	0.6	0.9	1.1	0.7	1.2
24-Oct	Z	1.2	1.3	1.4	1.4	1.3	1.5	1.7	2.0	2.0	2.0	2.0	1.9	1.6	1.8	1.9	1.4	2.2	2.5	0.9	0.7	0.6	0.8	1.2	1.5	2.5
25-Oct	4.2	Z	2.9	1.8	2.5	3.1	1.2	5.4	6.9	9.8	70.6	46.9	11.3	5.6	6.4	1.5	1.5	0.8	2.4	2.7	7.6	5.4	3.1	3.1	9.0	70.6
26-Oct	2.4	7.5	Z	7.8	24.1	5.2	1.4	3.9	2.3	7.3	1.6	5.0	4.8	0.5	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	3.3	24.1
27-Oct	0.2	0.2	0.2	Z	0.2	0.4	0.5	0.5	3.1	2.1	1.7	2.8	4.1	3.7	1.4	0.3	0.2	0.2	0.3	0.1	0.1	0.2	0.4	1.1	1.1	4.1
28-Oct	0.1	0.1	0.1	0.1	Z	1.5	7.1	4.7	3.3	11.6	10.1	12.3	8.9	2.7	3.8	2.4	1.8	1.2	0.6	1.8	2.5	2.4	1.9	2.1	3.6	12.3
29-Oct	2.4	1.0	1.1	0.3	1.3	Z	0.7	0.4	0.4	0.6	0.5	3.6	4.7	5.8	3.9	0.8	0.2	0.2	0.4	0.9	2.7	11.8	12.0	2.9	2.5	12.0
30-Oct	Z	11.4	12.6	3.3	1.5	2.5	4.0	3.1	4.5	3.6	8.5	C	C	C	C	C	C	3.9	6.6	5.9	1.9	3.1	2.6	2.4	--	12.6
31-Oct	2.8	Z	1.2	0.6	0.6	1.2	0.9	0.9	1.1	1.3	1.1	1.3	1.4	1.0	1.0	1.2	1.1	0.7	0.5	0.5	0.6	0.8	0.9	1.0	1.0	2.8
	2.7	3.8	2.9	3.7	5.3	4.2	3.5	4.0	4.4	4.2	5.6	4.9	3.2	2.8	2.5	2.3	2.2	2.2	2.1	2.3	2.9	2.7	3.2	2.2	Diurnal Average	
	13.7	15.5	13.3	22.2	39.2	44.0	12.4	16.3	17.6	11.6	70.6	46.9	11.3	9.6	7.6	9.6	8.4	10.0	6.6	6.9	16.9	14.1	14.8	8.3	Diurnal Maximum	

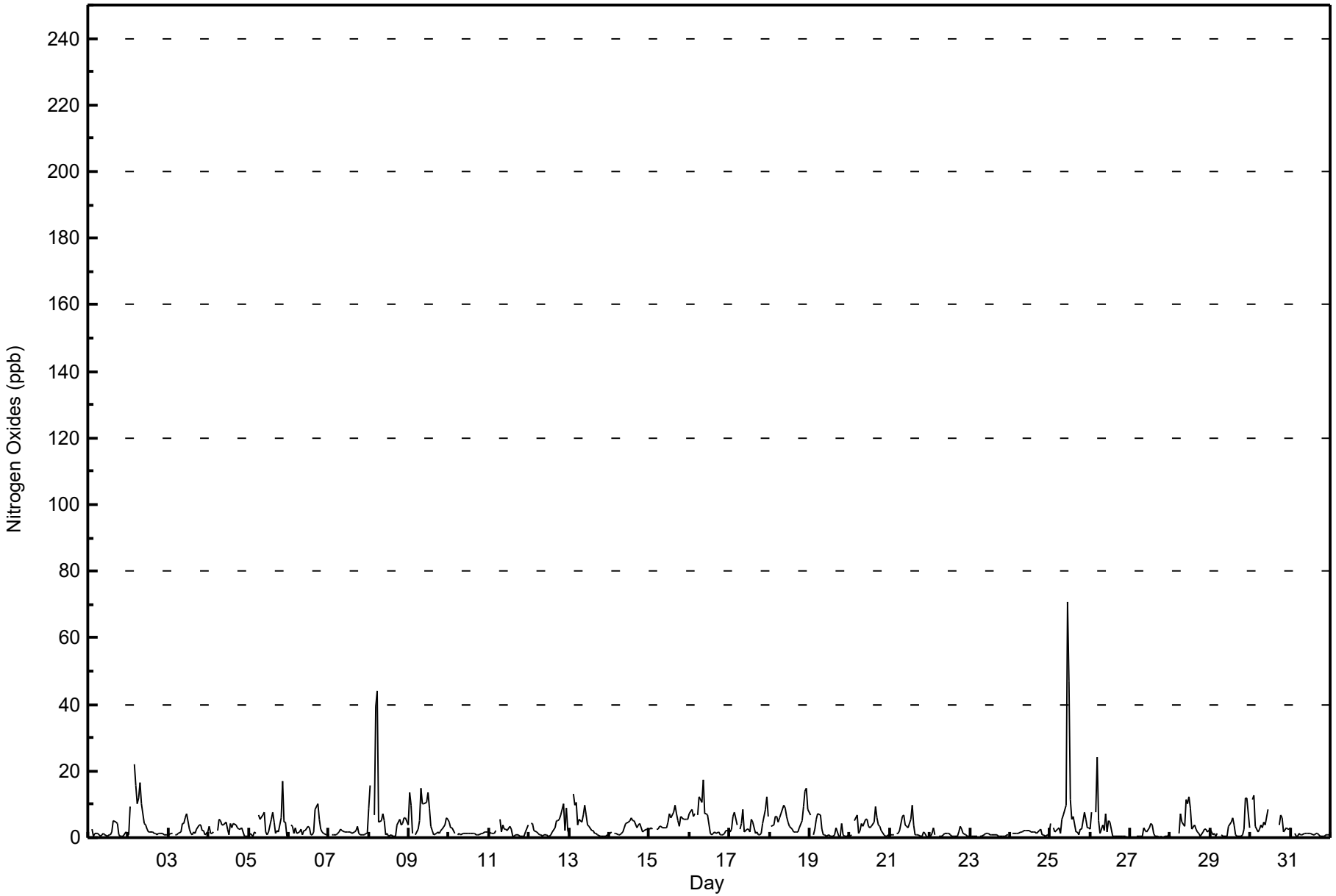
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Wapasu - October 2025



Nitrogen Oxides (NO_X) - ppb
Wapasu - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	701	99.15	99.15
21 - 40	3	0.42	99.58
11 - 80	3	0.42	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Wapasu - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	41	20	6	3	7	13	31	138	104	29	60	41	19	11	15	54	592
21 - 40	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	3
11 - 80	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	41	20	6	3	7	13	32	139	104	29	60	44	20	11	15	54	598

Total Number of Valid Hours: 598

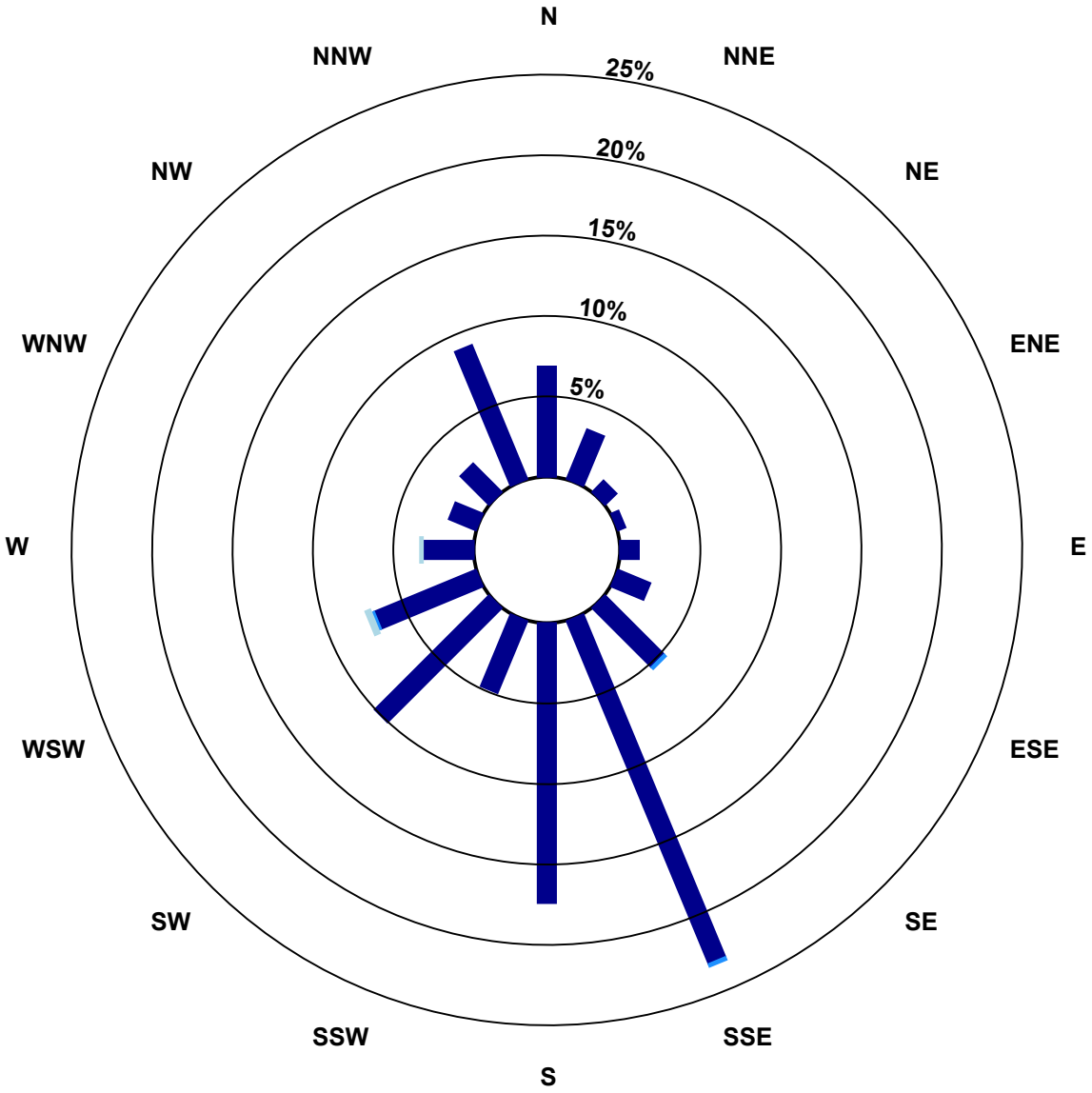
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Wapasu



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

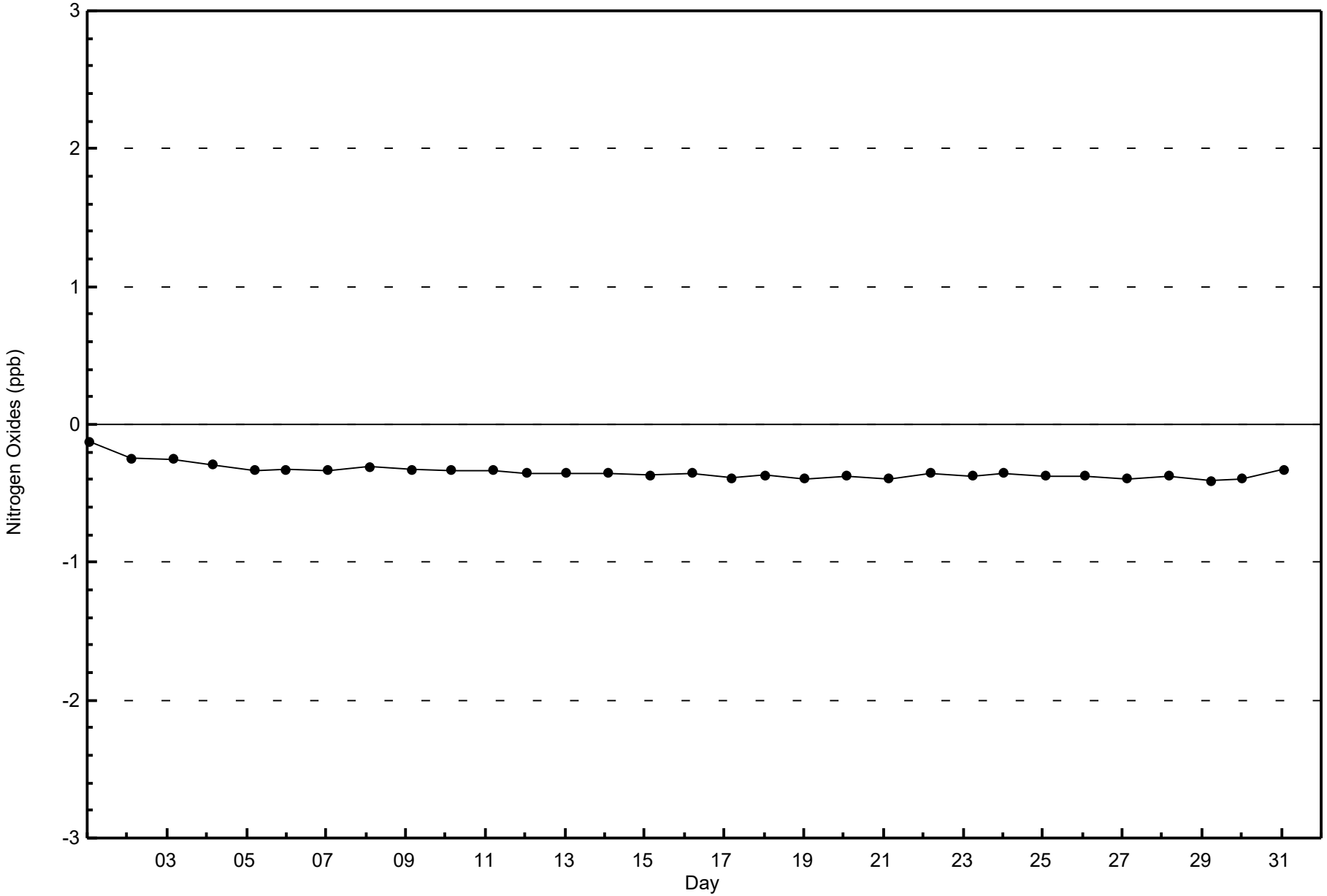
Total Number of Valid Hours: 598

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Wapasu - October 2025

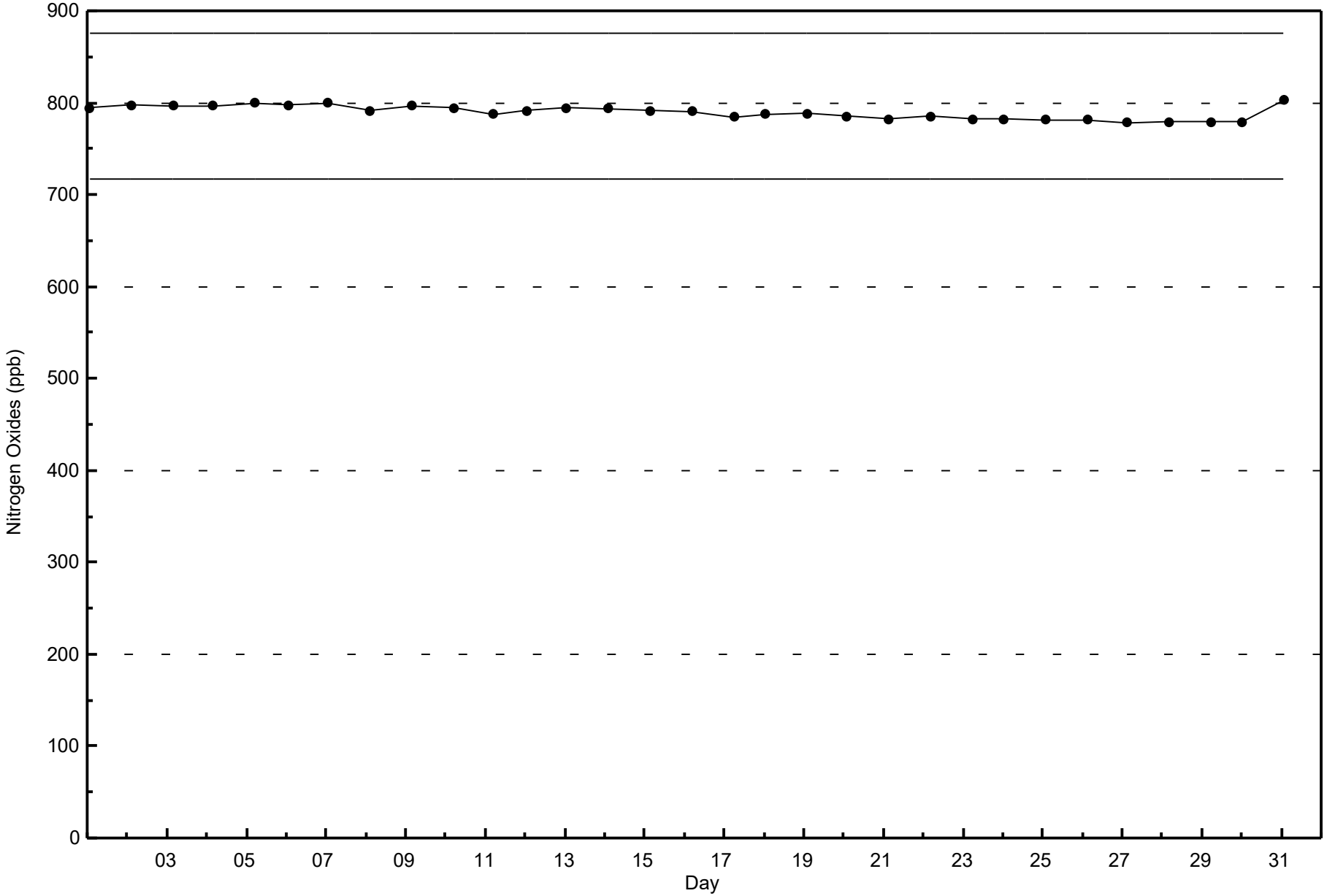


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Wapasu - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Wapasu - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 30.1 $\mu g/m^3$ on Oct 1 03:00

Maximum Daily Average: 14.5 $\mu g/m^3$ on Oct 1

Minimum Value: 0.1 $\mu g/m^3$ on Oct 28 01:00

Minimum Daily Average: 0.4 $\mu g/m^3$ on Oct 27

Maximum Diurnal Average: 5.6 $\mu g/m^3$ at hour 10

Minimum Diurnal Average: 4.1 $\mu g/m^3$ at hour 24

Monthly Average: 4.82 $\mu g/m^3$

Percentiles: P_1 = 0.1 P_{10} = 1.0 Q_1 = 2.8 Median = 4.0 Q_3 = 6.0 P_{90} = 9.1 P_{99} = 16.5

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Hours of Calibration:	3
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	25.5	27.3	30.1	24.3	18.2	13.6	13.7	12.6	12.3	13.3	14.1	8.4	5.2	7.9	8.3	10.8	9.4	10.0	12.3	15.2	15.0	14.5	13.8	12.3	14.5	30.1
2-Oct	11.9	13.6	10.9	9.2	9.2	9.0	9.0	10.8	13.0	15.6	16.6	15.3	13.2	12.3	11.2	10.5	7.7	7.0	6.4	6.9	7.0	8.3	9.7	9.9	10.6	16.6
3-Oct	9.9	11.9	14.1	13.9	14.3	14.6	14.2	12.9	10.9	8.8	6.5	5.5	3.5	3.6	3.5	4.1	4.4	4.6	3.4	4.0	3.8	3.5	3.1	2.9	7.6	14.6
4-Oct	3.1	3.2	3.8	4.0	4.1	4.2	4.4	3.8	4.3	5.7	4.2	3.9	4.0	3.6	4.2	3.9	2.4	1.9	3.2	4.1	4.2	3.5	3.0	2.4	3.7	5.7
5-Oct	1.9	1.5	1.9	2.0	1.8	1.9	4.6	8.5	8.3	6.9	3.9	4.5	4.6	9.0	17.2	21.8	14.0	14.5	15.0	10.6	5.3	3.3	2.9	1.8	7.0	21.8
6-Oct	1.9	2.3	1.6	1.4	1.1	0.7	0.7	0.8	0.9	1.3	1.0	1.4	1.3	0.7	0.8	1.0	3.1	4.8	3.5	2.3	1.8	1.3	0.9	1.1	1.6	4.8
7-Oct	1.4	1.8	2.6	3.1	3.3	3.5	3.7	3.9	3.9	3.9	4.0	3.8	3.7	3.7	3.9	4.1	4.4	4.7	4.1	4.1	5.1	5.4	5.6	5.3	3.9	5.6
8-Oct	6.0	6.7	6.5	6.6	8.4	8.0	3.6	4.6	4.4	4.2	3.5	2.8	2.7	2.9	3.1	3.2	3.2	3.6	3.8	2.8	2.5	2.7	2.4	1.6	4.2	8.4
9-Oct	2.3	2.2	1.3	0.9	0.8	2.6	4.3	8.3	8.0	7.0	6.7	10.5	15.9	12.5	9.3	8.0	7.7	6.5	5.0	4.8	4.9	6.1	5.2	3.6	6.0	15.9
10-Oct	3.3	2.7	2.9	2.1	3.5	4.3	4.1	4.3	4.2	3.7	3.4	3.3	4.1	5.6	6.1	6.0	5.7	5.8	5.0	5.3	5.4	5.8	6.0	6.3	4.5	6.3
11-Oct	6.4	6.2	6.3	7.5	7.8	12.8	9.3	7.9	8.2	6.9	4.5	2.5	2.5	2.6	1.6	0.9	0.5	0.4	0.4	0.3	0.3	0.2	0.4	0.9	4.0	12.8
12-Oct	0.9	1.1	1.2	0.8	0.6	0.6	0.5	0.6	0.5	0.5	0.8	0.8	1.0	1.1	0.7	0.7	1.1	1.1	1.0	1.0	1.0	0.8	1.2	1.1	0.9	1.2
13-Oct	0.8	1.3	2.0	1.7	2.4	1.5	1.8	4.5	5.4	6.6	3.4	4.5	6.8	7.0	6.2	4.9	4.7	3.8	3.4	3.2	3.3	3.5	4.8	4.3	3.8	7.0
14-Oct	5.4	5.9	5.8	4.8	4.6	4.7	5.1	7.0	9.1	16.4	9.1	5.8	5.4	5.4	4.8	4.6	5.2	6.2	5.8	5.0	3.5	3.6	3.7	3.8	5.9	16.4
15-Oct	3.9	4.2	4.0	4.3	4.4	4.1	4.2	4.2	4.6	4.9	3.7	4.1	5.3	6.8	7.0	8.0	11.2	10.9	7.9	8.2	9.5	10.0	8.4	7.3	6.3	11.2
16-Oct	6.8	7.9	8.0	9.7	9.9	8.8	9.4	11.0	11.7	11.4	11.3	8.0	3.9	5.3	5.3	3.9	3.6	5.0	4.0	3.7	3.6	3.7	3.5	2.9	6.8	11.7
17-Oct	2.9	3.2	4.0	5.5	6.7	6.0	5.8	5.9	5.9	3.4	3.0	3.0	2.9	3.3	3.3	3.0	2.6	2.4	2.6	2.6	3.6	4.3	3.7	3.5	3.9	6.7
18-Oct	3.2	3.1	2.7	3.1	3.3	3.4	4.1	4.4	4.1	3.2	2.8	2.4	2.7	2.1	1.8	2.3	2.2	1.8	2.4	3.5	4.8	6.0	6.2	3.9	3.3	6.2
19-Oct	3.4	2.8	2.7	2.7	3.4	3.5	3.2	3.6	3.9	3.2	3.1	2.9	2.8	2.8	2.8	2.8	3.0	3.0	2.7	3.2	3.3	3.4	3.4	2.5	3.1	3.9
20-Oct	2.1	1.6	0.9	1.1	1.2	0.7	0.4	0.8	0.6	1.6	3.3	3.1	2.9	3.3	5.5	7.6	7.1	6.3	7.0	8.4	7.2	6.5	5.6	5.2	3.8	8.4
21-Oct	5.7	5.9	5.7	5.8	6.2	5.8	5.4	6.1	6.1	5.7	5.8	5.0	4.8	4.3	3.2	3.2	4.8	4.4	4.5	4.4	4.1	3.8	3.3	3.2	4.9	6.2
22-Oct	3.1	3.3	3.2	3.0	3.0	3.0	3.0	3.0	3.2	3.5	3.6	3.3	3.3	3.4	3.9	4.1	4.1	4.1	4.7	5.3	4.7	4.2	4.1	4.2	3.7	5.3
23-Oct	4.2	3.6	3.2	3.3	3.4	3.5	3.5	3.7	3.9	3.8	3.8	3.4	3.5	3.7	3.6	3.6	3.7	3.8	4.5	5.3	5.1	4.1	4.1	3.9	3.8	5.3
24-Oct	3.7	3.9	4.0	4.1	4.2	4.3	4.6	4.8	4.8	4.8	4.7	4.7	4.5	4.4	4.5	4.6	4.8	5.0	5.2	6.2	6.8	6.6	6.3	5.9	4.9	6.8
25-Oct	6.0	6.2	6.2	6.6	6.2	6.3	6.4	7.2	6.8	7.2	11.1	11.8	7.4	4.8	3.9	3.9	5.0	4.2	5.0	5.4	4.9	5.6	4.7	5.1	6.2	11.8
26-Oct	4.8	5.4	7.2	7.8	7.3	4.1	3.2	4.5	3.9	3.5	3.4	3.5	2.9	2.7	2.8	2.9	2.8	2.6	2.5	1.7	2.1	1.9	1.5	1.4	3.6	7.8
27-Oct	1.3	1.0	0.8	0.5	0.4	0.3	0.2	0.1	0.3	0.3	0.2	0.3	0.5	0.5	0.5	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	1.3
28-Oct	0.1	0.1	0.1	0.1	0.1	0.1	1.0	0.9	0.3	1.0	0.9	1.3	1.2	1.4	1.8	1.0	0.6	0.8	0.9	1.2	1.7	1.7	1.3	3.5	1.0	3.5
29-Oct	3.3	2.1	2.4	2.4	2.0	2.8	4.2	2.9	3.0	3.1	2.8	2.7	3.2	3.3	3.3	3.2	3.1	3.1	3.4	3.4	3.3	2.6	3.5	2.9	3.0	4.2
30-Oct	3.4	4.7	5.3	4.8	4.7	4.4	4.3	3.5	3.6	4.6	10.6	8.9	10.9	C	C	C	7.8	7.4	8.1	9.4	7.3	7.6	7.1	6.3	6.4	10.9
31-Oct	6.2	5.2	4.5	4.8	5.5	7.3	7.4	7.5	8.0	8.4	7.2	7.8	8.1	7.8	6.7	6.2	6.0	5.7	5.3	5.1	5.3	5.7	6.6	7.0	6.5	8.4
	4.7	4.9	5.0	4.9	4.9	4.9	4.8	5.3	5.4	5.6	5.3	4.8	4.7	4.6	4.7	4.8	4.7	4.7	4.6	4.7	4.5	4.5	4.4	4.1	Diurnal Average	
	25.5	27.3	30.1	24.3	18.2	14.6	14.2	12.9	13.0	16.4	16.6	15.3	15.9	12.5	17.2	21.8	14.0	14.5	15.0	15.2	15.0	14.5	13.8	12.3	Diurnal Maximum	

C - Calibration

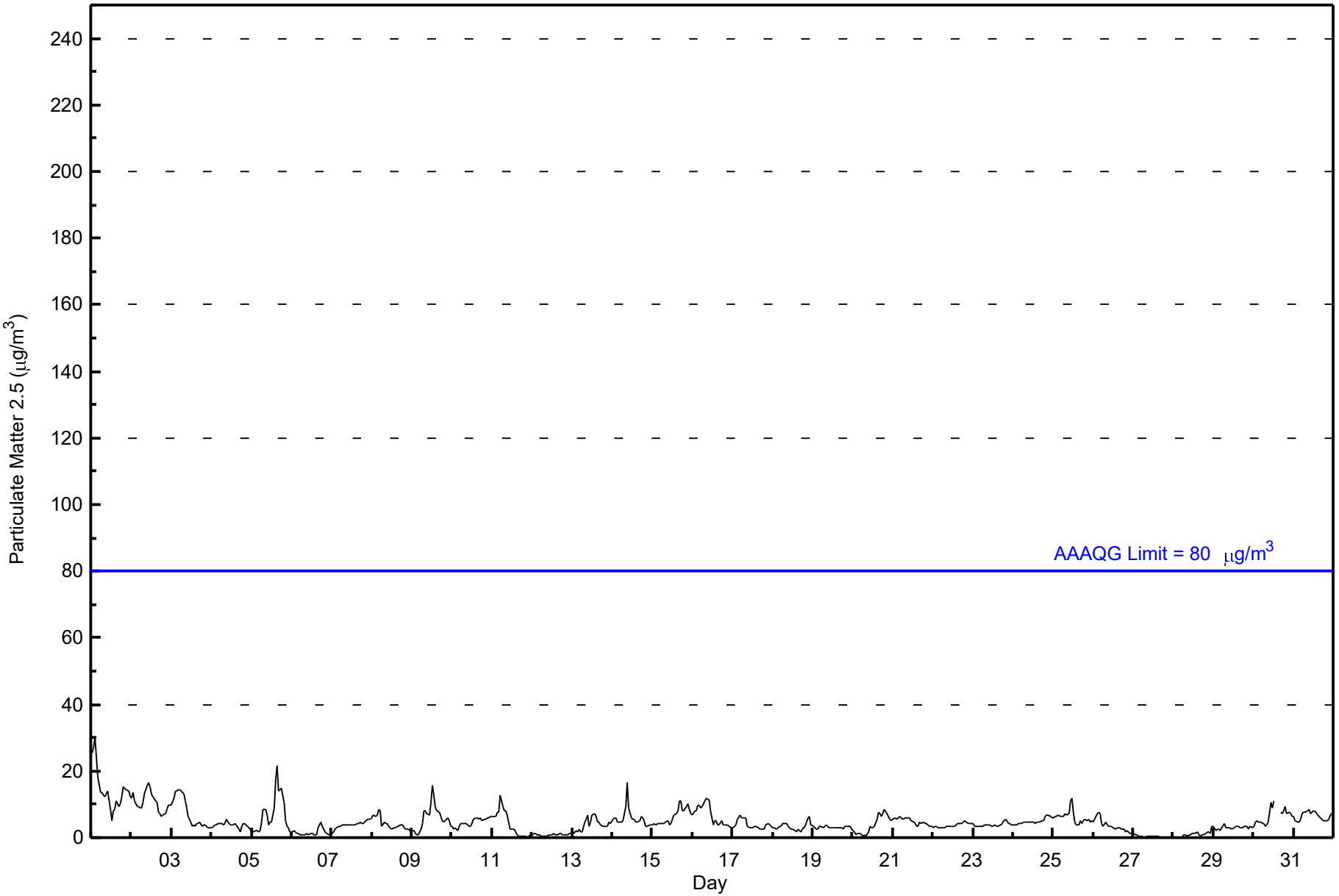
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 $\mu g/m^3$ 24-hr 29 $\mu g/m^3$

Wood Buffalo Environmental Association

Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Wapasu - October 2025



Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Wapasu - October 2025

Concentration Ranges ($\mu g/m^3$)	Number of Hours	%	Cumulative %
0 - 5	523	70.58	70.58
6 - 15	207	27.94	98.52
16 - 25	9	1.21	99.73
26 - 80	2	0.27	100.00
> 81.0	0	0.00	100.00

Total Number of Valid Hours: 741

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Wapasu - October 2025

Concentration Ranges ($\mu g/m^3$)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	24	16	6	2	6	12	25	94	62	17	34	31	18	10	15	52	424
6 - 15	18	2	0	1	1	1	9	52	44	12	25	14	2	1	0	5	187
16 - 25	2	1	0	0	0	0	0	1	1	1	3	0	0	0	0	0	9
26 - 80	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	45	20	6	3	7	13	34	147	107	30	62	45	20	11	15	57	622

Total Number of Valid Hours: 622

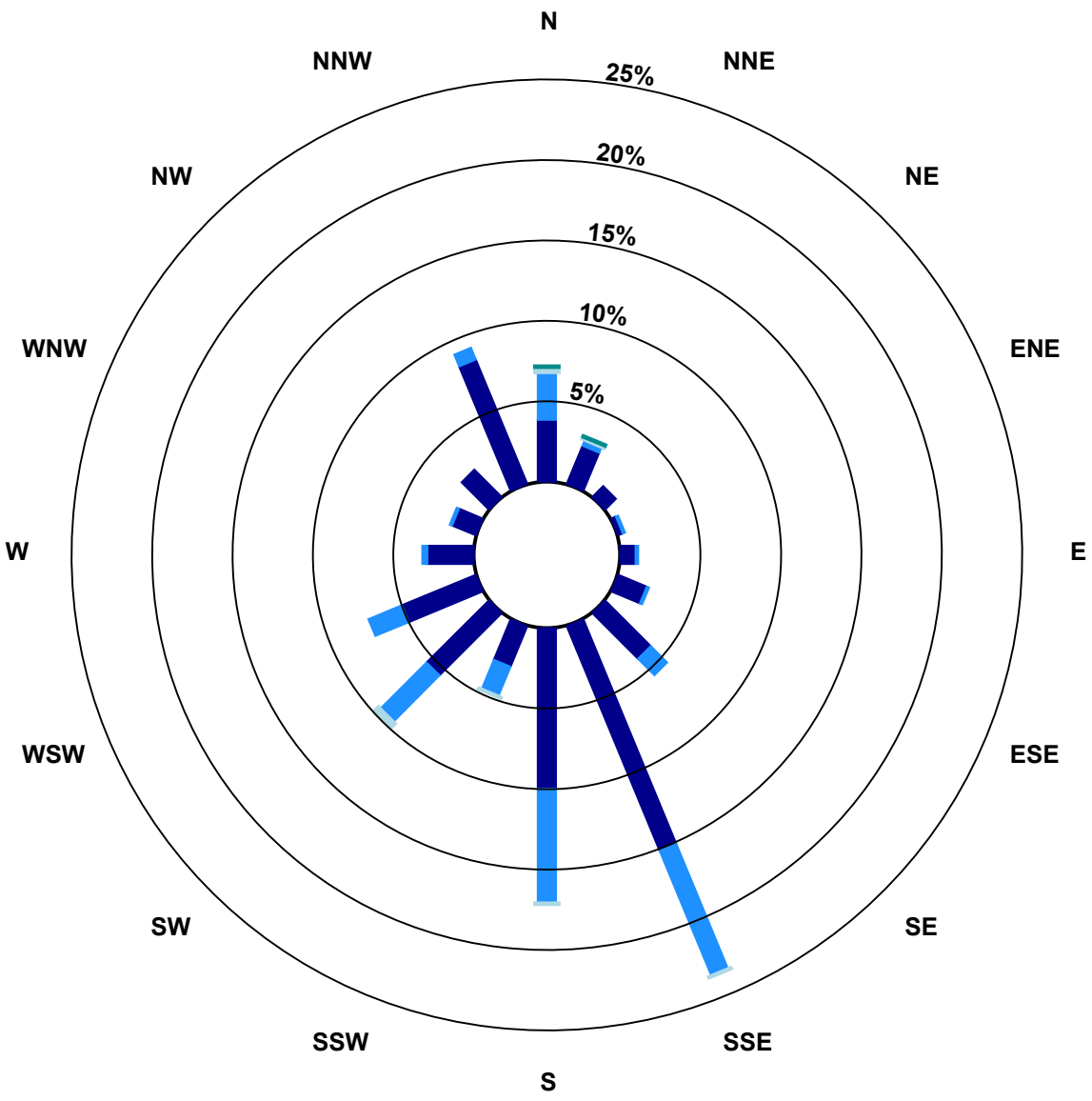
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Wapasu



Classes ($\mu g/m^3$)

0 - 5

6 - 15

16 - 25

26 - 80

> 81.0

Total Number of Valid Hours: 622

Maximum Value: 19.5 C on Oct 10 16:00

Maximum Daily Average: 11.6 C on Oct 10

Minimum Value: -5.0 C on Oct 13 08:00

Minimum Daily Average: -1.5 C on Oct 28

Maximum Diurnal Average: 6.8 C at hour 15

Minimum Diurnal Average: 1.8 C at hour 7

Monthly Average: 3.80 C

Percentiles: P_1 = -3.2 P_{10} = -1.6 Q_1 = -0.4 Median = 3.4 Q_3 = 6.9 P_{90} = 10.0 P_{99} = 14.9

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

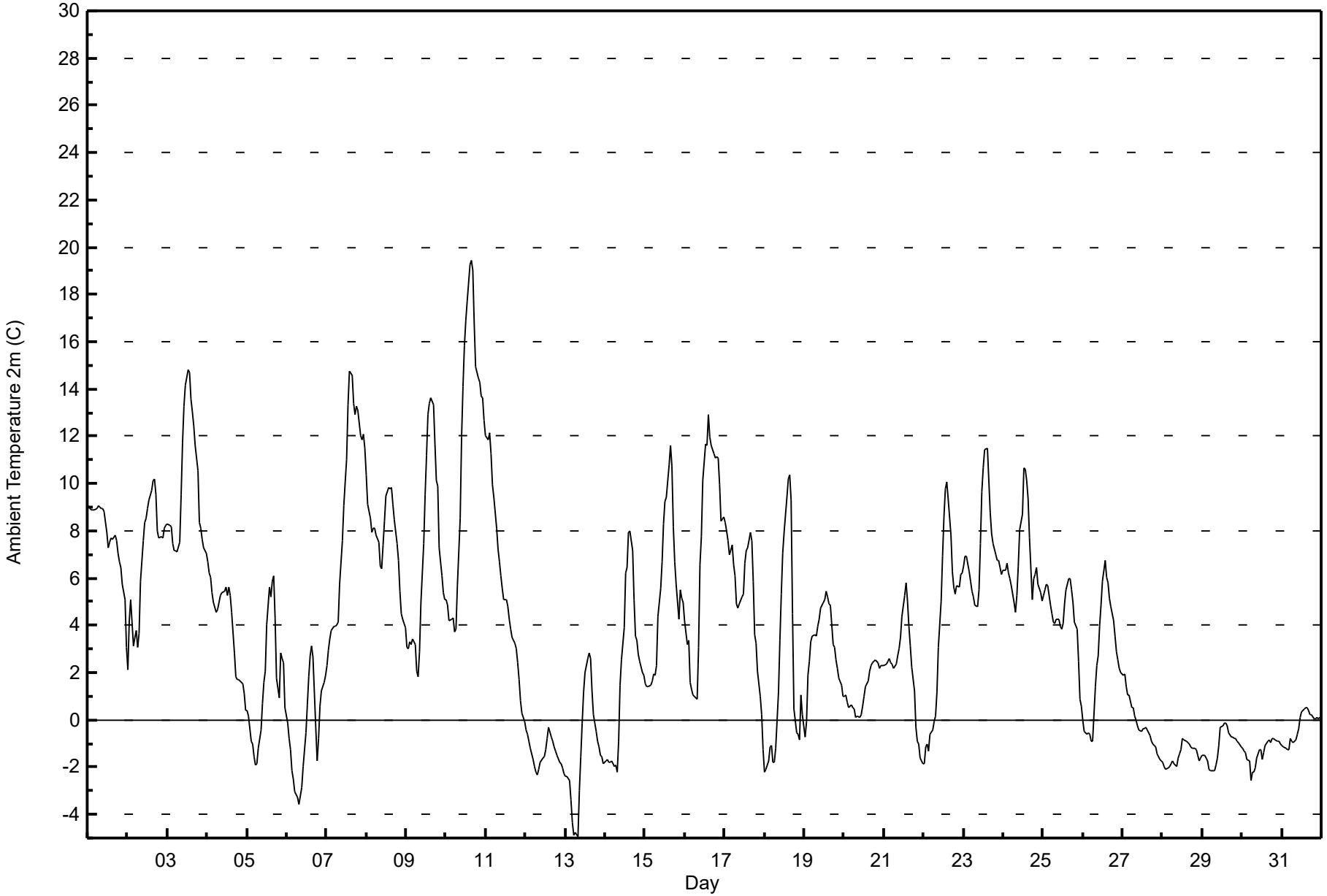
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	9.0	9.0	8.9	8.9	8.9	8.9	9.1	9.0	8.9	9.0	8.8	7.9	7.3	7.5	7.7	7.6	7.8	7.6	7.0	6.7	6.5	5.7	5.1	3.1	7.7	9.1
2-Oct	2.1	4.2	5.1	3.1	3.5	3.8	3.1	3.6	5.8	7.6	8.3	8.5	8.9	9.3	9.7	10.1	10.2	9.5	8.0	7.7	7.8	7.7	8.1	8.2	6.8	10.2
3-Oct	8.3	8.2	8.2	7.4	7.1	7.1	7.1	7.5	9.5	11.7	13.3	14.2	14.8	14.7	13.6	13.0	12.4	11.6	10.6	8.3	8.1	7.6	7.3	7.1	10.0	14.8
4-Oct	6.7	6.2	6.1	5.4	4.9	4.5	4.7	5.0	5.3	5.4	5.4	5.6	5.3	5.6	5.3	4.6	2.8	1.8	1.7	1.7	1.6	1.5	1.1	0.4	4.1	6.7
5-Oct	0.4	0.2	-0.9	-1.0	-1.5	-1.9	-1.9	-1.2	-0.4	0.7	1.6	2.1	4.0	5.6	5.2	5.9	6.1	4.3	1.8	0.9	2.8	2.6	2.4	0.5	1.6	6.1
6-Oct	-0.1	-0.8	-1.3	-2.2	-2.5	-3.1	-3.3	-3.5	-3.2	-2.8	-2.0	-0.5	0.6	1.8	2.7	3.1	2.6	-0.3	-1.7	-0.8	0.6	1.3	1.6	1.9	-0.5	3.1
7-Oct	2.3	2.9	3.4	3.8	3.9	3.9	4.0	4.1	5.7	7.6	9.1	10.0	11.0	13.3	14.7	14.6	13.4	12.9	13.3	13.1	12.0	11.8	12.1	11.5	8.9	14.7
8-Oct	10.3	9.1	8.5	7.9	8.1	8.1	7.8	7.5	6.5	6.4	7.4	8.4	9.4	9.9	9.8	9.8	9.1	8.5	7.4	6.7	5.4	4.5	4.3	3.9	7.7	10.3
9-Oct	3.1	3.0	3.3	3.2	3.4	3.2	2.1	1.8	2.9	5.0	7.4	9.5	11.2	12.9	13.4	13.6	13.3	11.7	10.1	9.9	7.3	6.1	5.4	5.1	7.0	13.6
10-Oct	5.1	4.9	4.2	4.3	4.3	3.7	3.8	5.7	8.6	12.0	14.1	15.8	16.9	17.7	19.2	19.5	19.0	16.8	14.9	14.5	14.3	13.7	13.6	12.7	11.6	19.5
11-Oct	12.1	11.8	12.1	11.2	10.0	9.4	8.1	7.2	6.7	6.1	5.5	5.1	5.1	4.8	4.2	3.8	3.5	3.3	3.0	2.4	1.7	0.8	0.3	-0.1	5.8	12.1
12-Oct	-0.4	-0.6	-0.9	-1.2	-1.7	-2.0	-2.2	-2.3	-2.1	-1.8	-1.6	-1.5	-1.2	-0.8	-0.3	-0.7	-0.9	-1.2	-1.3	-1.5	-1.8	-1.9	-2.0	-2.3	-1.4	-0.3
13-Oct	-2.4	-2.4	-2.6	-3.4	-4.3	-4.9	-4.8	-5.0	-3.0	-1.6	-0.1	1.1	2.0	2.6	2.9	2.6	1.2	0.2	-0.5	-0.9	-1.2	-1.5	-1.6	-1.9	-1.2	2.9
14-Oct	-1.7	-1.7	-1.8	-1.8	-1.7	-2.0	-1.9	-2.2	-0.9	1.4	2.6	3.9	6.2	6.5	8.0	8.0	7.1	5.1	3.5	3.4	2.8	2.5	2.0	1.9	2.0	8.0
15-Oct	1.5	1.4	1.4	1.5	1.6	2.0	1.9	2.3	4.4	5.5	6.7	8.3	9.3	9.4	10.8	11.6	10.7	8.2	6.7	5.7	4.3	5.5	5.1	5.0	5.4	11.6
16-Oct	4.2	3.2	3.3	1.6	1.3	1.1	1.0	0.9	3.1	6.6	7.8	10.1	11.7	11.6	12.9	12.0	11.6	11.2	11.1	11.1	11.1	10.0	8.4	8.6	7.3	12.9
17-Oct	8.3	8.0	7.6	7.0	7.4	6.6	6.1	4.9	4.7	4.9	5.2	5.3	6.7	7.2	7.3	7.9	7.6	5.9	3.6	3.2	2.1	1.0	0.2	-1.3	5.3	8.3
18-Oct	-2.2	-2.1	-1.7	-1.1	-1.1	-1.8	-1.8	-1.2	1.2	3.4	5.3	7.0	7.9	9.4	10.2	10.4	9.3	4.5	0.5	-0.6	-0.6	-0.8	1.1	0.2	2.3	10.4
19-Oct	-0.7	-0.1	1.9	2.5	3.3	3.6	3.6	3.5	3.9	4.3	4.7	5.0	5.1	5.4	5.2	4.9	4.8	3.2	3.1	2.5	2.2	1.8	1.4	1.0	3.2	5.4
20-Oct	1.0	1.0	0.7	0.5	0.6	0.5	0.5	0.1	0.2	0.1	0.2	0.6	1.0	1.4	1.7	2.1	2.3	2.4	2.5	2.5	2.4	2.2	2.3	2.3	1.3	2.5
21-Oct	2.3	2.3	2.5	2.6	2.4	2.4	2.2	2.4	2.7	3.0	3.5	4.4	5.3	5.8	5.0	3.9	3.1	2.2	1.3	-0.3	-0.9	-1.0	-1.6	-1.9	2.2	5.8
22-Oct	-1.8	-1.2	-1.0	-1.3	-0.6	-0.4	-0.1	0.1	1.2	3.1	5.0	6.9	8.6	9.8	10.1	9.4	7.8	6.3	5.6	5.3	5.7	5.6	6.1	6.2	4.0	10.1
23-Oct	6.5	6.9	6.9	6.3	5.9	5.4	5.2	4.9	4.8	5.5	7.4	9.7	10.7	11.4	11.5	10.1	8.8	7.9	7.4	7.0	6.8	6.7	6.5	6.2	7.3	11.5
24-Oct	6.3	6.3	6.7	6.2	6.0	5.7	5.0	4.5	5.2	6.5	8.1	8.7	10.7	10.6	10.1	9.4	7.7	5.1	6.0	6.2	6.4	5.8	5.4	5.0	6.8	10.7
25-Oct	5.2	5.5	5.7	5.7	4.8	4.5	4.1	4.1	4.3	4.2	4.0	3.9	4.1	4.9	5.5	6.0	6.0	5.5	4.9	4.2	3.9	2.4	0.8	0.6	4.4	6.0
26-Oct	0.0	-0.5	-0.6	-0.5	-0.6	-0.9	-0.9	1.4	2.3	2.7	4.0	4.9	5.9	6.7	6.0	5.8	5.2	4.8	4.2	3.5	2.9	2.5	2.2	2.0	2.6	6.7
27-Oct	1.9	1.9	1.4	1.1	1.1	0.5	0.5	0.2	0.0	-0.2	-0.5	-0.5	-0.4	-0.4	-0.3	-0.4	-0.7	-0.9	-1.0	-1.1	-1.2	-1.4	-1.7	-1.8	-0.2	1.9
28-Oct	-1.8	-2.0	-2.1	-2.0	-2.0	-1.8	-1.7	-1.8	-1.9	-1.6	-1.4	-1.2	-0.8	-0.8	-0.9	-1.0	-1.0	-1.1	-1.2	-1.2	-1.3	-1.5	-1.7	-1.6	-1.5	-0.8
29-Oct	-1.5	-1.5	-1.6	-1.8	-2.1	-2.2	-2.2	-2.1	-1.9	-1.6	-1.1	-0.3	-0.3	-0.1	-0.2	-0.2	-0.6	-0.7	-0.7	-0.8	-0.8	-0.9	-1.0	-1.2	-1.1	-0.1
30-Oct	-1.2	-1.3	-1.4	-1.7	-1.7	-2.5	-2.2	-2.2	-2.0	-1.6	-1.3	-1.3	-1.7	-1.4	-1.1	-0.9	-0.9	-1.0	-0.8	-0.8	-0.8	-0.9	-0.9	-1.0	-1.4	-0.8
31-Oct	-1.1	-1.2	-1.2	-1.2	-1.3	-0.8	-0.9	-1.0	-0.8	-0.6	-0.4	0.1	0.3	0.4	0.5	0.5	0.4	0.2	0.2	0.1	0.0	0.1	0.1	0.1	-0.3	0.5
	2.6	2.6	2.6	2.3	2.2	2.0	1.8	1.9	2.6	3.6	4.4	5.2	6.0	6.5	6.8	6.7	6.1	5.0	4.2	3.8	3.5	3.2	3.0	2.6	Diurnal Average	
	12.1	11.8	12.1	11.2	10.0	9.4	9.1	9.0	9.5	12.0	14.1	15.8	16.9	17.7	19.2	19.5	19.0	16.8	14.9	14.5	14.3	13.7	13.6	12.7	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Wapasu - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	204	27.42	27.42
0 - 10	465	62.50	89.92
10 - 20	75	10.08	100.00
> 20	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

Wapasu - October 2025

Maximum Value: 100.0 % on Oct 1 05:00

Maximum Daily Average: 98.1 % on Oct 1

Minimum Value: 35.3 % on Oct 10 12:00

Minimum Daily Average: 53.3 % on Oct 10

Maximum Diurnal Average: 86.9 % at hour 8

Minimum Diurnal Average: 67.4 % at hour 15

Monthly Average: 79.85 %

Percentiles: P_1 = 38.8 P_{10} = 53.9 Q_1 = 65.6 Median = 84.9 Q_3 = 96.6 P_{90} = 100.0 P_{99} = 100.0

Hours in Service:	744
Hours of Data:	672
Hours of Missing Data:	72
Hours of Calibration:	0
Percent Operational Time:	90.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	97.4	99.0	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.0	95.4	93.8	92.9	95.5	96.7	96.9	96.9	97.1	97.2	98.8	99.8	100.0	98.1	100.0
2-Oct	100.0	100.0	100.0	100.0	OR	OR	OR	OR	100.0	100.0	93.7	88.9	87.3	84.2	84.1	84.3	82.5	84.8	88.9	89.3	90.2	92.7	91.9	91.6	91.7	100.0
3-Oct	91.0	91.4	91.2	92.2	92.3	91.8	91.2	88.4	78.4	67.6	60.5	57.7	51.5	48.5	51.9	55.2	58.0	64.1	72.1	92.8	94.5	97.8	98.9	98.5	78.2	98.9
4-Oct	96.2	96.4	95.9	97.0	97.4	98.1	98.1	96.5	91.6	87.0	85.0	82.5	87.5	81.9	83.5	88.6	96.7	98.4	99.1	98.7	98.0	95.0	92.9	96.1	93.2	99.1
5-Oct	92.8	91.8	96.0	96.8	97.9	98.1	98.2	97.9	97.0	94.7	91.3	89.6	82.0	73.5	77.7	74.8	72.9	81.9	92.3	93.2	83.2	81.7	85.8	93.5	88.9	98.2
6-Oct	94.4	94.8	88.6	86.7	87.2	88.1	89.6	89.7	84.3	82.7	77.6	67.0	59.5	50.5	40.5	42.2	46.0	57.6	65.0	58.5	54.7	53.9	52.4	51.6	69.3	94.8
7-Oct	51.6	53.3	57.7	60.6	62.5	65.0	67.4	69.9	69.6	69.2	66.3	66.1	65.3	59.7	56.5	58.4	64.3	65.8	66.0	66.8	69.7	70.4	69.1	73.1	64.3	73.1
8-Oct	80.1	88.5	96.3	98.5	99.3	99.4	98.9	99.2	96.2	94.4	83.2	68.3	63.1	60.9	59.9	57.5	58.9	57.8	57.1	61.2	68.5	73.7	76.3	78.8	78.2	99.4
9-Oct	83.6	85.1	83.7	84.4	84.3	85.4	88.9	88.5	82.1	74.9	65.6	56.9	52.0	45.0	43.6	42.7	44.4	51.3	56.7	57.2	66.6	71.6	74.4	76.1	68.6	88.9
10-Oct	75.6	74.8	76.4	73.9	70.2	73.6	73.4	69.0	59.5	46.7	41.1	35.3	35.5	37.4	37.0	36.6	35.5	39.5	43.6	43.4	45.9	50.4	51.1	54.6	53.3	76.4
11-Oct	56.7	57.5	55.9	58.8	64.2	68.6	68.4	69.2	75.3	81.4	91.8	98.4	98.5	98.4	97.6	98.1	96.5	95.0	92.8	93.1	95.7	98.3	99.5	99.9	83.7	99.9
12-Oct	99.8	100.0	99.8	96.4	93.6	92.8	91.0	88.7	89.7	88.3	87.7	88.3	85.2	83.7	83.9	95.1	96.1	96.3	92.5	90.9	89.7	90.3	92.0	93.3	91.9	100.0
13-Oct	94.4	92.4	92.8	93.3	95.2	93.8	90.7	92.0	83.5	78.0	70.3	63.2	58.8	55.9	54.9	54.9	60.1	64.7	67.6	68.9	68.2	68.1	66.5	67.1	74.8	95.2
14-Oct	65.6	65.0	65.2	65.3	65.1	66.5	66.9	68.9	65.0	57.7	55.1	51.2	43.2	43.3	38.9	38.8	42.7	49.9	55.2	55.7	57.8	59.0	60.3	60.0	56.8	68.9
15-Oct	61.0	62.0	62.6	63.6	63.4	62.1	62.0	60.3	52.2	47.7	46.0	44.1	44.1	46.0	44.3	43.5	47.1	55.5	60.7	63.7	68.1	62.7	62.8	61.9	56.1	68.1
16-Oct	63.0	66.5	64.7	71.3	72.4	73.0	73.2	75.2	67.1	55.0	53.1	43.7	38.6	42.9	40.5	42.6	46.0	49.2	50.3	51.1	51.5	62.7	84.5	86.8	59.4	86.8
17-Oct	88.1	88.0	86.2	83.5	74.8	75.2	76.7	90.7	98.0	98.8	98.9	98.5	93.5	86.6	80.7	73.7	70.3	81.2	89.6	83.1	83.7	87.3	89.0	95.5	86.3	98.9
18-Oct	97.5	97.7	96.8	94.4	93.5	95.8	94.5	92.5	83.1	75.2	66.9	58.8	55.6	50.2	48.4	48.2	52.2	68.9	83.0	85.7	89.0	88.8	79.0	80.7	78.2	97.7
19-Oct	86.0	82.8	74.7	72.1	68.7	68.2	68.1	69.8	70.7	71.0	69.6	69.1	68.7	67.1	68.1	71.0	73.1	82.4	88.8	96.4	98.5	99.4	99.8	100.0	78.5	100.0
20-Oct	100.0	100.0	100.0	100.0	OR	OR	OR	OR	OR	OR	OR	OR	OR	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.4	98.5	95.5	93.9	--	100.0
21-Oct	94.3	95.4	96.3	96.0	95.1	94.8	95.1	95.2	94.1	95.0	95.0	93.9	90.7	86.5	89.7	95.2	96.3	98.0	98.6	99.5	100.0	100.0	100.0	99.5	95.6	100.0
22-Oct	98.6	97.7	97.7	97.9	97.0	96.6	95.7	94.2	90.9	87.1	81.1	72.7	63.9	57.3	55.5	57.8	64.8	71.8	77.7	79.4	77.2	76.1	71.6	69.8	80.4	98.6
23-Oct	66.2	61.0	59.9	62.2	63.6	65.8	68.2	71.5	72.7	70.2	62.7	54.3	52.2	50.3	49.9	54.2	58.9	63.4	64.8	67.2	68.1	67.0	67.3	68.2	62.9	72.7
24-Oct	67.2	66.6	64.4	65.5	66.0	66.8	69.6	71.5	68.6	64.0	58.0	56.1	50.9	52.8	55.2	59.0	65.4	76.1	74.7	73.7	72.4	76.0	76.5	77.2	66.4	77.2
25-Oct	75.5	74.7	75.9	77.6	81.7	84.2	86.5	87.0	86.9	87.4	92.3	97.3	99.2	100.0	100.0	100.0	99.4	98.4	96.1	95.5	92.5	94.2	97.4	98.2	90.7	100.0
26-Oct	98.4	99.4	99.7	99.4	99.5	98.9	99.3	93.9	90.1	88.7	85.2	83.3	80.0	78.3	85.2	89.0	86.9	85.7	91.9	95.1	98.7	99.5	99.7	99.8	92.7	99.8
27-Oct	99.5	99.5	99.5	99.6	99.8	100.0	100.0	100.0	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	--	100.0
28-Oct	OR	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	--	100.0
29-Oct	OR	OR	OR	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	OR	--	100.0
30-Oct	OR	OR	OR	OR	OR	OR	100.0	100.0	100.0	100.0	OR	OR	OR	100.0	OR	OR	100.0	100.0	100.0	OR	OR	OR	OR	OR	--	100.0
31-Oct	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.6	99.3	98.9	98.5	95.2	94.1	92.9	91.0	90.4	89.9	89.5	90.3	91.1	96.7	100.0
	84.8	85.6	85.4	86.2	85.2	85.8	86.6	86.9	84.4	81.5	77.8	74.4	70.4	69.1	67.4	68.6	71.6	76.0	79.0	79.5	80.3	81.6	82.4	83.6	Diurnal Average	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	100.0	100.0	100.0	100.0	Diurnal Maximum	

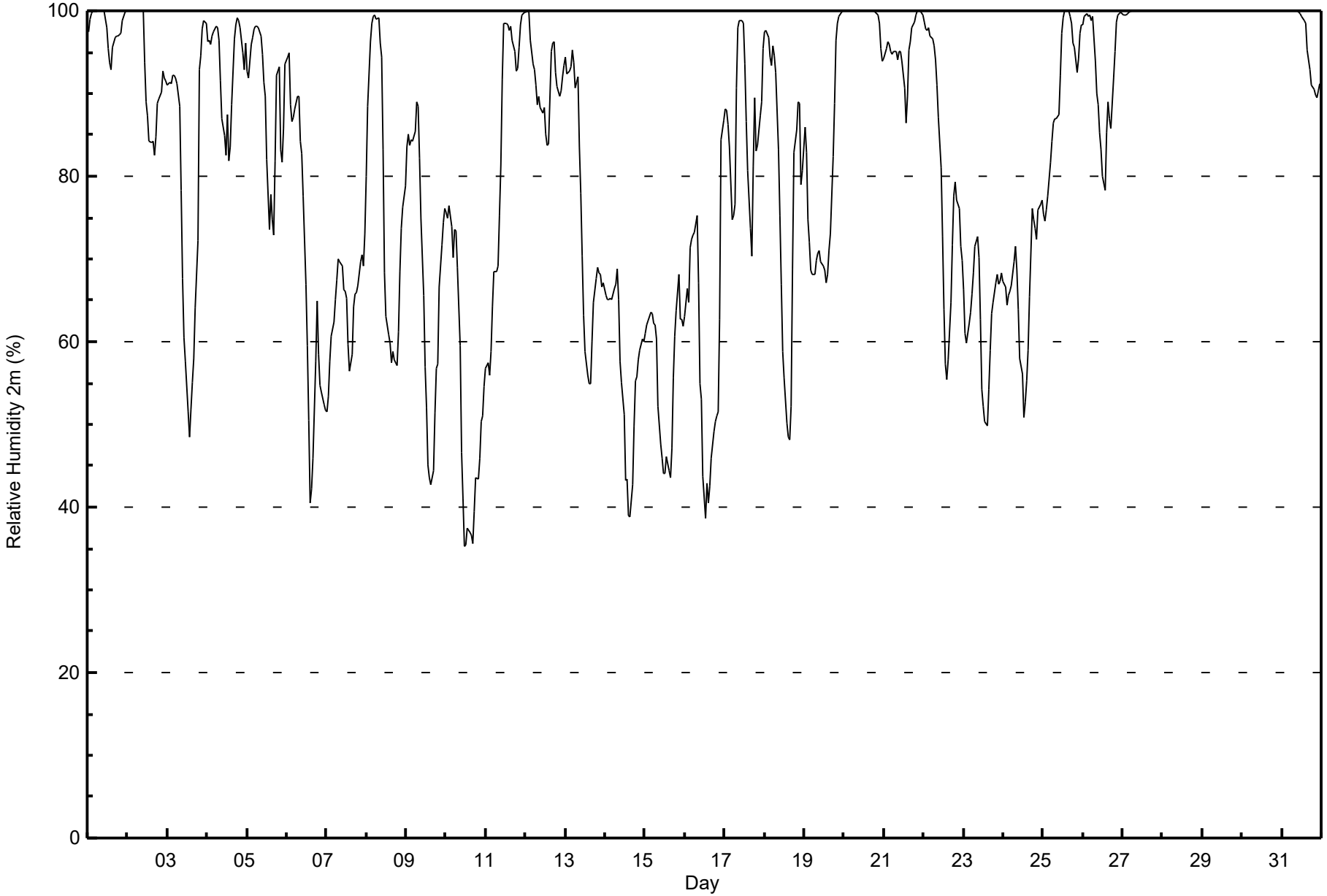
OR - Out of Range

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Wapasu - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	10	1.49	1.49
40 - 60	108	16.07	17.56
60 - 80	177	26.34	43.90
80 - 100	307	45.68	89.58

Total Number of Valid Hours: 672

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Precipitation (PC) - mm

Wapasu - October 2025

Maximum Value: 3.5 mm on Oct 26 23:00

Maximum Daily Total: 19.2 mm on Oct 27

Minimum Value: 0.0 mm on Oct 1 13:00

Minimum Daily Total: 0.0 mm on Oct 2

Maximum Diurnal Total: 8.0 mm at hour 14

Minimum Diurnal Total: 1.1 mm at hour 10

Monthly Total: 96.20 mm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.4 P_{99} = 2.7

Hours in Service:	744
Hours of Data:	742
Hours of Missing Data:	2
Hours of Calibration:	2
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.1	2.1	2.0	1.3	0.6	0.2	1.3	0.6	0.5	0.1	0.9	0.8	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	2.1
2-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.8	0.7	0.0	0.3	2.2	0.8
4-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.3	1.1	1.2	0.9	0.4	0.1	0.0	0.0	0.0	4.1	1.2
5-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6-Oct	0.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.7
7-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8-Oct	0.0	0.8	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.8
9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.6	3.3	2.7	1.2	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.4	0.2	10.4	3.3
12-Oct	0.4	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.9
13-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.5	0.3
17-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.5	0.5	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	1.5
18-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	0.3	0.1	0.0	0.0	1.7	1.0
20-Oct	0.0	0.1	0.3	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.3
21-Oct	0.1	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	0.5	0.0	0.2	0.6	0.1	0.0	0.0	0.0	0.0	0.0	2.6	0.6
22-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.2	2.0	2.8	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	3.2
26-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.1	2.9	3.5	3.5	12.8	3.5
27-Oct	2.7	1.5	1.4	0.7	1.2	0.9	1.2	0.9	1.0	0.5	0.6	0.5	0.4	0.3	0.1	0.3	0.3	0.7	0.5	1.0	0.6	0.7	0.5	0.9	19.2	2.7
28-Oct	0.9	0.9	0.8	0.6	0.5	1.5	0.5	0.2	0.1	0.0	0.0	0.0	0.1	3.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.6	3.0
29-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.1	0.0	0.7	0.4
30-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5.5	7.7	5.2	3.4	2.3	2.6	3.1	3.1	3.3	1.1	2.4	3.7	7.0	8.0	6.7	3.2	1.7	2.6	2.0	3.2	4.3	5.0	4.7	4.8	Diurnal Average	
	2.7	2.1	2.0	1.3	1.2	1.5	1.3	1.4	1.5	0.5	0.9	1.6	3.3	3.0	2.8	2.1	1.1	1.2	0.9	1.0	2.1	2.9	3.5	3.5	Diurnal Maximum	

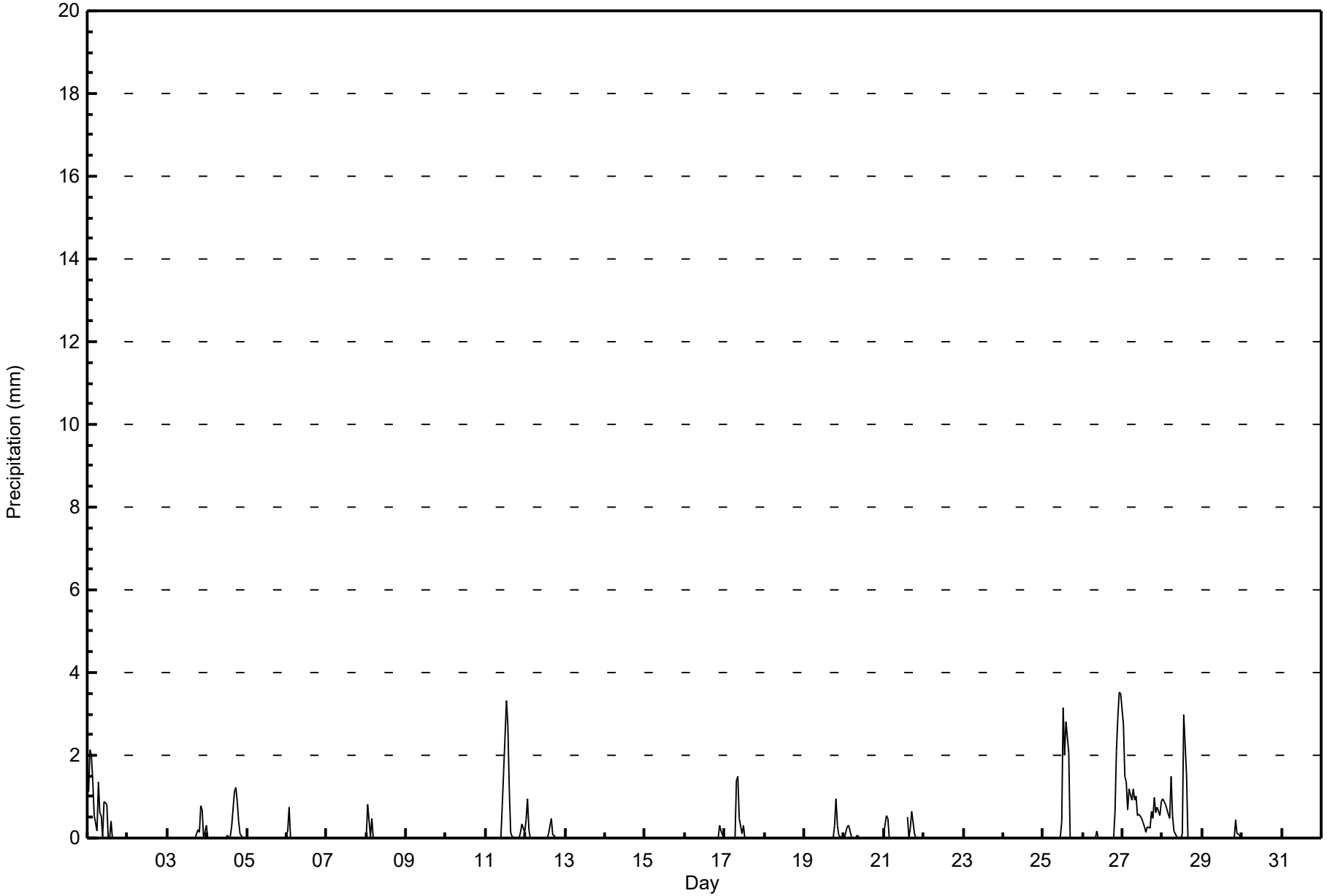
C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Precipitation (PC) - mm

Wapasu - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Wapasu - October 2025

Maximum Speed: 29 km/h on Oct 31 20:00

Maximum Daily Speed Average: 16.2 km/h on Oct 23

Minimum Speed Value: 1 km/h on Oct 8 00:00

Minimum Daily Speed Average: 0.7 km/h on Oct 20

Maximum Diurnal Speed Average: 5.8 km/h at hour 13

Minimum Diurnal Speed Average: 3.0 km/h at hour 8

Monthly Average Velocity: 3.9 km/h 188.4 deg

Percentiles: P_1 = 2 P_{10} = 5 Q_1 = 7 Median = 10 Q_3 = 13 P_{90} = 17 P_{99} = 23

Hours in Service: 744

Hours of Data: 622

Hours of Missing Data: 122

Percent Operational Time: 83.6

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	N5	N9	NNE7	NNE7	N11	N12	N13	N14	N14	N15	N16	N15	N12	N11	N9	NNW10	NNW9	N7	NNE4	NNE5	NNW4	NNW2	N2	UO	N9.2	N16
2-Oct	WSW3	WSW3	WSW2	SSE3	SSE5	SSE5	SSE6	SE5	SSE6	S8	SSE8	SSE8	S8	SSE9	SSE10	S10	S8	S8	SSE9	SSE11	S11	S10	S11	SSE11	S7.0	SSE11
3-Oct	SSE12	SSE11	S10	SSE10	SSE11	S9	S9	S11	SSW11	SSW13	SW16	SW19	SW21	SW22	WSW19	SW15	SW17	SW11	WSW11	WSW6	WSW6	WSW6	WSW8	SW7	SSW10.7	SW22
4-Oct	SW8	SW7	SW8	SW5	SSW4	SW4	WNW3	NNW5	NNW10	N10	NNW10	NW7	NNW8	NNW12	N12	NNW14	NNW17	NNW17	NNW17	NNW14	NNW13	NNW11	NNW8	NW4	NNW7.3	NNW17
5-Oct	NW5	NW3	SW1	UO	UO	UO	UO	UO	UO	SSE7	S8	S8	SSW8	SW10	SW8	SW8	WSW7	SW5	SW2	WSW4	WSW6	W5	NNW12	N11	WSW3.5	NNW12
6-Oct	NNW9	N12	NNW14	NNW17	NNW14	N15	N11	NNW12	N9	NNW9	NNW7	NW4	WSW3	WSW6	WSW7	SW8	SW7	SSE5	SSE7	SSE9	SSE12	SSE12	SSE13	SSE13	NW2.4	NNW17
7-Oct	SSE11	SSE12	S12	S11	S11	S11	S12	S12	S12	S12	S12	S12	SSE12	S12	S14	SSE12	SE13	SE14	SSE15	SSE14	SSE10	SSE10	SSE9	ESE1	SSE11.2	SSE15
8-Oct	ENE1	ESE2	NNW3	WNW1	WSW5	WSW4	WSW8	W9	W9	W10	WSW10	WSW13	WSW12	WSW13	WSW13	WSW12	WSW8	WNW12	WNW10	W12	W12	W10	W9	W7	W7.9	WSW13
9-Oct	W6	WSW8	WSW8	SW8	SW10	SW11	SW14	SW10	SW13	SSW11	SW12	SW14	SW16	SW18	SW17	SW16	SW12	SW8	SW7	SW9	S5	S5	SSE7	SSE7	SW9.9	SW18
10-Oct	SSE7	SSE7	SSE7	SSE8	SSE8	SE8	SSE8	SSE12	SSE15	M	M	S13	S14	S14	S15	S13	S12	S11	SSE11	SSE13	S12	SSE13	SSE13	SSE9	SSE10.8	SSE15
11-Oct	SSE8	SSE10	SSE11	SSE5	E3	N8	N11	N14	N15	N20	N20	N18	NNW18	NNW15	NNW15	NW11	NW10	NW9	NW11	NNW16	NNW21	NNW22	NNW20	UO	NNW9.9	NNW22
12-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	---	---
13-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	SW14	SW15	SW15	SSW15	SSW15	SSW16	SSW12	S11	S12	S12	S12	S14	SSW14	S14	---	SSW16
14-Oct	SSW14	S14	S15	S15	S14	S14	S15	S15	S14	SSW17	SSW19	SSW17	SSW18	SW17	SW17	SW16	SSW11	S7	S8	S8	SSE8	SSE9	S8	S10	SSW12.8	SSW19
15-Oct	SSE9	SSE9	S11	S11	S10	S10	S10	S12	S15	S15	S15	SSW15	SW18	SW16	SW13	SW11	SSW9	S7	S7	S5	SSW6	SW7	SW9	SW8	SSW10.1	SW18
16-Oct	SSW7	S7	S6	S6	S7	S6	S8	S7	SSE8	S7	S7	S9	S11	S11	S11	SSE11	SSE12	S11	S9	S10	S12	S11	S11	SSW11	S8.8	SSE12
17-Oct	S10	S7	SSW7	SSW8	SW14	SW9	WSW7	WSW5	WSW7	WSW8	W10	WSW9	WSW9	W7	W6	W6	NW6	NW4	W3	WNW4	WNW3	W4	WSW3	S3	WSW5.5	SW14
18-Oct	SSE4	SSE4	S5	S6	SSE6	SSE6	SSE6	S6	SSW6	SSW6	SSW5	SW6	SW11	WSW8	WSW10	SW10	SW7	S3	SE6	SE5	SSE7	SE6	SSE7	SE5	S5.1	SW11
19-Oct	SE6	SE6	ESE9	SE10	SE10	SE10	SE11	SE12	SE13	SE13	SE11	SE11	ESE11	ESE11	ESE11	SE5	E4	E9	E8	E4	NNE6	NNE6	NNE5	N7	ESE7.1	SE13
20-Oct	N6	N7	N8	NNW7	NNW7	N8	N7	NNW8	NNW7	NNW8	NNW6	NE3	W2	WSW5	SSW5	S7	S8	S8	S9	S9	S9	S10	SSE13	SSE12	WSW0.7	SSE13
21-Oct	SSE13	SSE13	SSE12	SSE12	SSE11	S10	S7	SSW8	SW10	SW8	WSW8	WSW7	W5	WNW4	NNW7	N7	N6	NNE6	ENE3	ESE2	UO	UO	UO	UO	S3.7	SSE13
22-Oct	UO	UO	UO	UO	UO	UO	UO	SSE8	SSE9	SSE12	SSE12	S12	SSE11	S10	SSE11	SSE11	SSE9	SE11	SE16	SE18	SE20	SE19	SSE21	SSE21	---	SSE21
23-Oct	SSE22	SSE24	SSE22	SSE21	SSE20	SSE18	SSE16	SSE14	SSE15	SSE14	SSE14	S13	S11	S12	SSE13	SSE12	SSE15	SSE16	SSE17	SSE16	SSE17	SSE16	SSE18	SSE17	SSE16.2	SSE24
24-Oct	SSE17	SSE17	SSE18	SSE16	SSE15	SSE16	SSE14	SSE14	SSE13	SSE13	S11	SSE11	SSE9	SSE9	SSE9	SSE8	SSE4	ESE5	SSE9	SSE12	SSE12	SSE12	SSE13	SSE11	SSE11.9	SSE18
25-Oct	SE9	SE7	SSE7	SW2	N6	SE6	SE7	SE5	WSW3	W5	W7	WSW10	WSW8	W9	WSW12	WSW16	WSW12	SW13	SW10	SW9	SSW8	S6	SSE6	SSE6	SW5.1	WSW16
26-Oct	SSE6	SE5	SSE6	SE6	SE7	E3	ENE5	ESE10	ESE12	SE11	ESE9	ESE7	NE6	NE8	NNE10	NE11	NE11	NE12	NNE13	NNE12	NNE13	NNE14	NNE16	NNE15	ENE6.3	NNE16
27-Oct	NNE15	NNE15	NNE15	N15	N15	N14	N15	N16	N15	N17	NNW18	NNW18	NNW17	NNW19	NNW20	NNW19	NNW17	NNW17	NNW17	NW14	NNW15	NNW17	NNW15	NNW16	NNW15.7	NNW20
28-Oct	NNW14	NW12	NW12	NNW12	NNW8	NNW8	WNW8	WNW9	WNW7	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	---	NNW14
29-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	E3	SE2	NW2	NNE5	NNE6	UO	UO	UO	UO	UO	UO	UO	UO	---	NNE6
30-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	---	---
31-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	SSE14	SSE18	SSE19	SSE20	SSE19	SSE21	SSE24	SSE23	SSE25	SSE28	SSE29	SSE24	SSE22	SSE20	SSE18	---	SSE29
	SSE4.1	SSE4.0	S4.1	S3.9	S3.6	S3.1	S3.0	S3.0	S3.2	SSW3.6	SSW4.4	SSW5.1	SSW5.8	SW5.6	SW5.1	SSW5.0	SSW4.0	S3.3	S3.9	S4.4	S4.1	S4.1	S4.1	SSE5.0	Diurnal Average	
	SSE22	SSE24	SSE22	SSE21	SSE20	SSE18	SSE16	N16	N15	N20	N20	SW19	SW21	SW22	SSE21	SSE24	SSE23	SSE25	SSE28	SSE29	SSE24	NNW22	SSE21	SSE21	Diurnal Maximum	

M - Maintenance UO - Unstable Operation

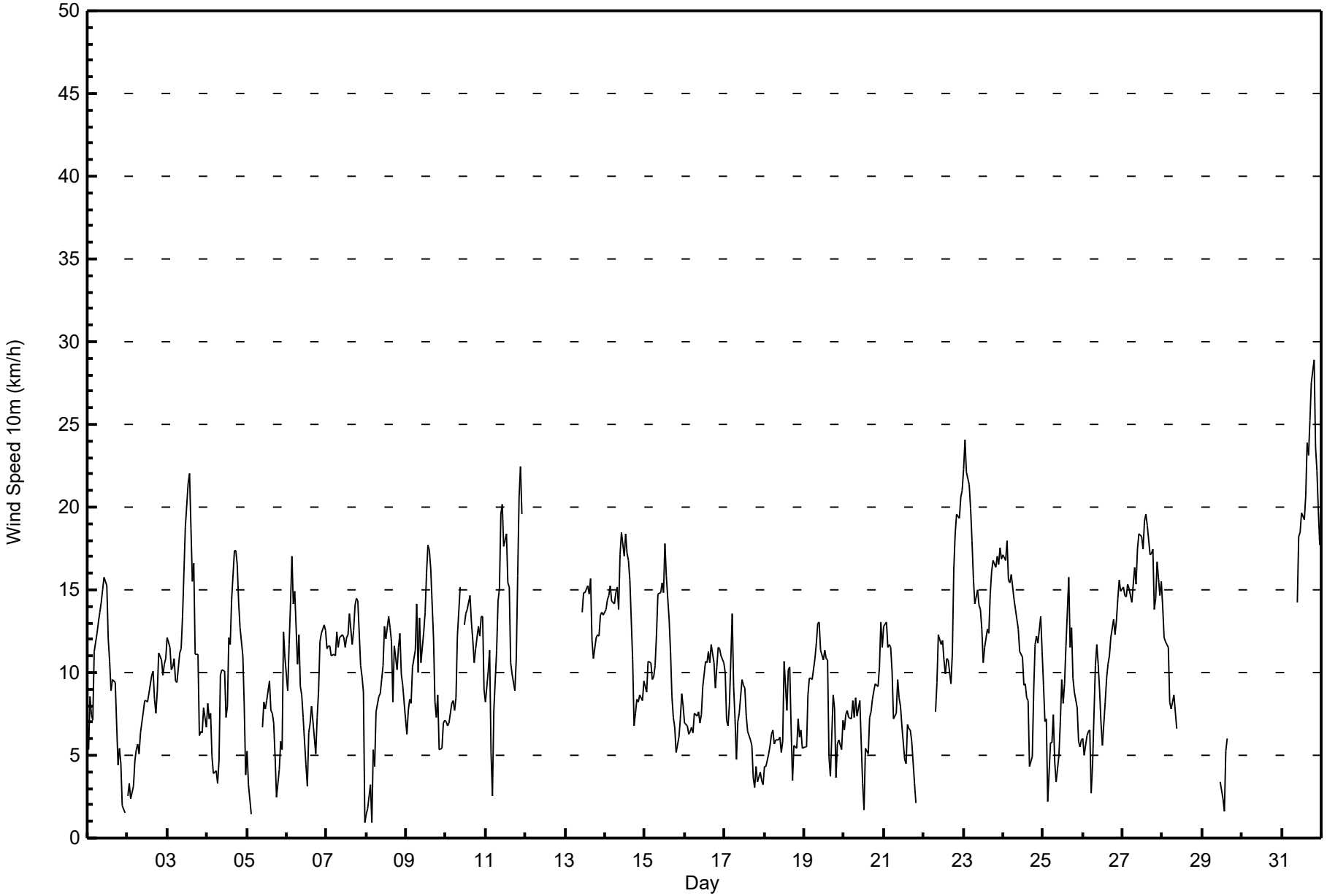
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Wapasu - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	81	13.02	13.02
6 - 11	298	47.91	60.93
12 - 19	217	34.89	95.82
20 - 28	25	4.02	99.84
29 - 38	1	0.16	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 622

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Wapasu - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	2	4	1	3	5	5	6	8	6	3	6	11	6	5	6	4	81
6 - 11	20	7	4	0	2	7	19	63	64	15	30	25	12	5	6	19	298
12 - 19	21	9	1	0	0	1	8	59	37	12	24	9	2	1	3	30	217
20 - 28	2	0	0	0	0	0	1	16	0	0	2	0	0	0	0	4	25
29 - 38	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	45	20	6	3	7	13	34	147	107	30	62	45	20	11	15	57	622

Total Number of Valid Hours: 622

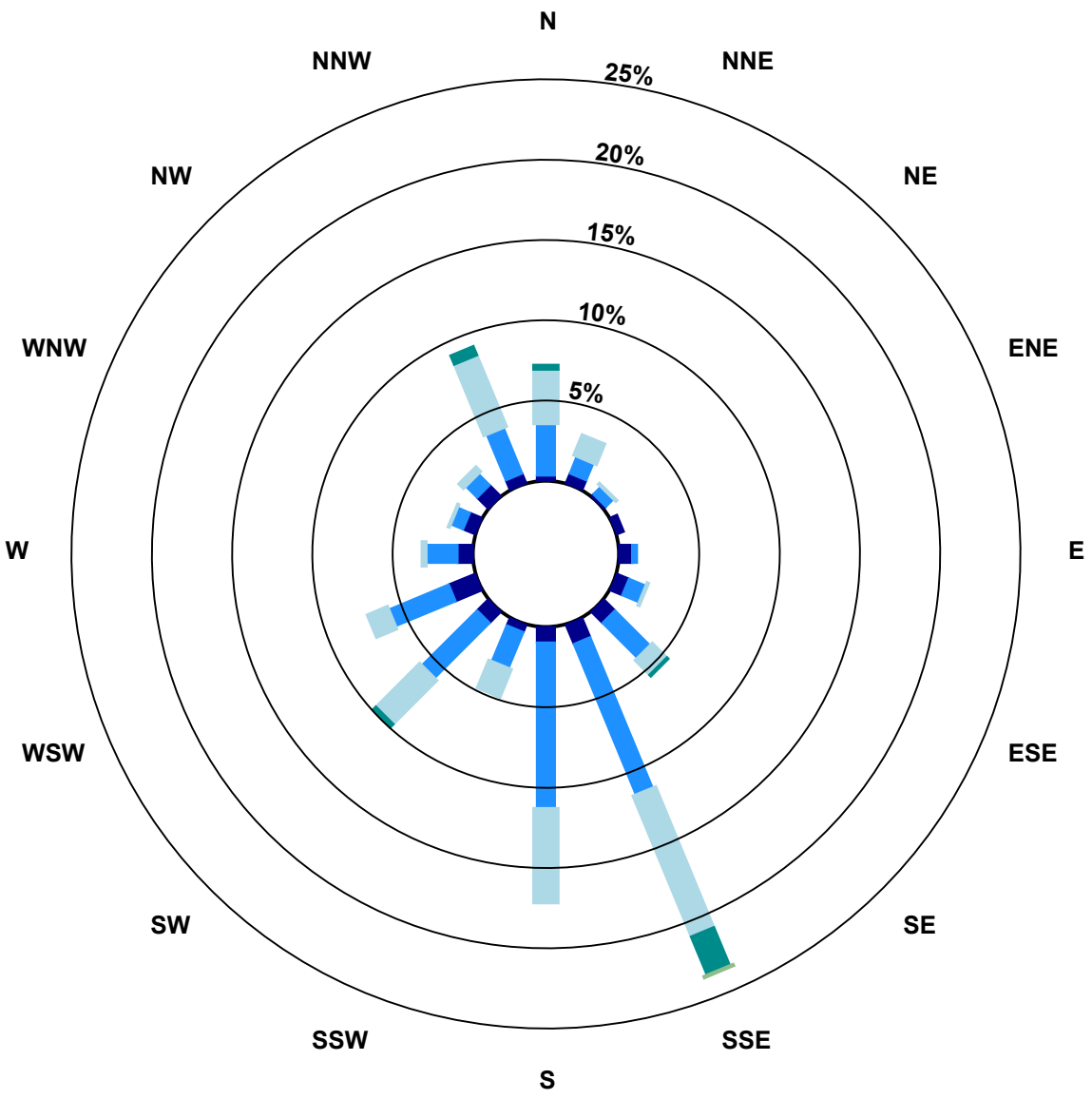
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Wapasu



Classes (km/h)

0 - 5

6 - 11

12 - 19

20 - 28

29 - 38

> 38

Total Number of Valid Hours: 622

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 8 km/h on Oct 31 20:00

Minimum Value: 1 km/h on Oct 18 02:00

Percentiles: P_1 = 1 P_{10} = 1 Q_1 = 2 Median = 3 Q_3 = 4 P_{90} = 5 P_{99} = 7

Hours in Service:	744
Hours of Data:	622
Hours of Missing Data:	122
Hours of Calibration:	0
Percent Operational Time:	83.6

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	3	2	3	2	3	4	4	4	4	5	5	5	4	3	3	2	2	2	2	2	1	1	1	UO	5
2-Oct	1	1	1	1	1	1	1	1	2	3	3	3	3	3	4	4	3	3	2	3	3	3	3	3	4
3-Oct	4	4	3	3	3	3	2	4	4	5	5	6	6	7	5	5	5	4	5	2	2	2	2	2	7
4-Oct	2	2	2	2	1	1	2	2	4	3	3	3	2	3	3	4	6	6	5	4	3	3	3	2	6
5-Oct	2	2	1	UO	UO	UO	UO	UO	UO	2	3	2	3	3	2	2	2	2	1	2	2	2	5	4	5
6-Oct	3	5	3	3	3	5	3	3	3	2	2	2	2	3	3	3	2	1	2	2	3	4	4	4	5
7-Oct	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	3	4	4	4	3	4	3	3	4
8-Oct	2	2	3	2	3	2	2	3	3	3	3	3	4	4	3	4	3	4	4	4	4	4	3	3	4
9-Oct	2	2	2	2	2	3	3	3	4	3	4	4	4	5	4	5	4	2	2	2	1	1	1	1	5
10-Oct	1	1	1	1	2	1	2	3	4	M	M	4	4	5	5	4	4	3	3	4	4	4	4	3	5
11-Oct	2	3	3	2	2	3	4	4	5	5	6	5	5	5	6	3	3	3	4	5	6	6	6	UO	6
12-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
13-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	4	4	4	5	5	5	4	4	4	4	4	5	4	5	5
14-Oct	5	5	5	5	5	5	5	5	5	6	6	6	6	5	5	5	4	2	2	2	2	2	2	3	6
15-Oct	2	2	3	3	3	3	3	4	5	5	6	5	6	4	4	4	3	2	2	2	2	2	2	2	6
16-Oct	1	2	2	1	1	2	2	2	2	2	2	3	4	4	4	3	3	3	3	4	4	4	4	3	4
17-Oct	3	2	2	3	4	2	2	2	2	2	3	3	3	2	2	2	2	2	1	2	1	1	1	1	4
18-Oct	1	1	1	1	1	1	1	1	2	2	2	2	3	2	3	3	2	1	1	1	1	1	1	1	3
19-Oct	1	1	2	2	2	2	3	3	3	3	3	3	3	3	3	4	2	3	4	2	2	2	2	2	4
20-Oct	2	3	2	1	2	3	3	3	2	2	2	1	1	2	2	2	3	3	3	3	3	3	4	4	4
21-Oct	3	4	4	3	3	3	3	3	3	2	2	2	1	2	3	2	2	2	1	1	UO	UO	UO	UO	4
22-Oct	UO	UO	UO	UO	UO	UO	UO	4	3	4	4	4	4	3	4	3	2	3	4	5	5	5	6	6	6
23-Oct	6	7	7	6	6	5	4	4	4	4	4	4	3	4	4	3	4	4	5	4	5	4	4	4	7
24-Oct	5	5	5	4	4	4	4	4	4	4	4	4	3	3	2	3	2	2	3	3	3	3	3	3	5
25-Oct	2	3	3	2	2	2	2	1	2	2	2	3	2	4	4	4	4	3	2	2	3	2	1	1	4
26-Oct	1	1	1	1	1	1	2	2	3	3	3	3	2	3	3	4	3	4	4	4	5	5	6	5	6
27-Oct	6	5	5	5	5	4	5	5	6	6	5	5	5	5	5	5	5	4	4	4	4	4	4	5	6
28-Oct	4	4	4	3	2	2	3	3	3	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	4
29-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	3	2	2	2	2	UO	UO	UO	UO	UO	UO	UO	UO	3
30-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
31-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	6	5	5	6	6	6	7	6	7	8	8	7	7	6	5	8
	6	7	7	6	6	5	5	5	6	6	6	6	6	7	6	7	6	7	8	8	7	7	6	6	
	Diurnal Maximum																								

M - Maintenance UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Wapasu - October 2025

Direction of Maximum Speed: 151 deg on Oct 31 20:00
Direction of Maximum Daily Speed Average: 156.8 deg on Oct 23

Direction of Minimum Speed: 118 deg on Oct 8 00:00

Direction of Minimum Daily Speed Average: 0.7 deg on Oct 20

Monthly Average Direction: 188.4 deg

Hours in Service:	744
Hours of Data:	622
Hours of Missing Data:	122
Percent Operational Time:	83.6

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	352	359	29	12	0	360	6	5	1	358	3	3	0	357	352	348	342	351	25	17	340	329	350	UO	0.2
2-Oct	248	250	240	147	155	149	148	145	153	171	168	166	173	167	168	184	190	183	168	163	169	169	170	164	170.1
3-Oct	165	167	177	164	168	169	170	174	201	205	215	218	231	236	244	234	229	223	244	238	253	258	244	223	212.7
4-Oct	219	227	230	220	193	217	292	330	347	349	338	324	337	343	355	346	345	345	339	337	337	334	332	316	329.8
5-Oct	309	309	233	UO	UO	UO	UO	UO	UO	162	171	181	209	227	231	229	245	234	227	239	254	263	347	9	241.1
6-Oct	348	351	344	339	340	352	352	345	2	344	328	309	238	255	250	233	219	161	155	160	161	162	162	160	319.8
7-Oct	164	167	171	171	169	173	172	171	176	179	178	172	168	170	172	161	141	144	149	151	152	164	153	118	164.5
8-Oct	69	106	327	283	250	245	250	259	278	263	243	244	245	248	243	251	249	283	286	279	278	277	281	280	262.5
9-Oct	260	244	242	236	235	231	225	214	220	210	216	223	221	235	235	232	234	224	224	221	169	169	163	154	223.0
10-Oct	163	152	157	151	151	144	148	150	153	M	M	178	185	185	189	180	182	172	166	168	171	166	164	167	167.5
11-Oct	167	152	154	166	96	358	4	2	352	349	350	351	344	336	332	310	304	307	316	330	336	337	339	UO	340.1
12-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
13-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	226	234	220	210	203	200	199	187	180	184	188	188	192	189	--
14-Oct	192	188	190	186	186	183	186	188	185	200	206	203	210	215	227	217	199	176	175	171	164	166	169	170	193.3
15-Oct	167	168	172	176	176	180	172	175	177	188	187	204	218	225	222	214	196	186	184	186	210	214	226	222	194.3
16-Oct	210	187	182	175	170	177	170	170	166	178	175	183	177	179	176	162	162	172	179	170	172	183	190	198	177.2
17-Oct	191	186	194	198	223	229	243	245	257	255	259	245	248	262	271	275	323	324	280	293	286	276	252	183	243.4
18-Oct	150	166	178	178	165	155	165	187	204	208	209	227	231	237	237	226	233	191	144	142	147	142	149	141	188.8
19-Oct	131	124	123	132	133	132	134	128	125	125	129	127	120	121	120	124	91	86	92	90	13	28	22	359	114.2
20-Oct	6	2	355	344	345	2	355	348	346	341	346	40	279	248	213	190	187	189	189	188	182	173	156	165	246.6
21-Oct	157	160	166	162	162	172	186	209	221	226	238	254	262	295	339	10	10	20	63	103	UO	UO	UO	UO	188.6
22-Oct	UO	UO	UO	UO	UO	UO	UO	151	164	166	168	174	168	169	162	150	147	144	139	139	142	143	149	152	--
23-Oct	153	153	152	150	154	158	158	158	161	159	168	171	179	183	166	152	147	151	150	149	155	155	158	153	156.8
24-Oct	148	151	153	154	158	159	164	165	166	167	170	163	166	158	160	151	161	114	156	150	155	151	150	149	156.5
25-Oct	142	141	151	225	7	131	130	145	239	265	276	250	249	262	252	237	243	233	225	223	212	183	155	166	216.9
26-Oct	153	140	152	145	144	92	75	118	121	124	114	110	46	37	31	40	42	45	15	20	16	22	21	21	59.9
27-Oct	23	22	16	7	4	360	359	356	352	349	347	345	343	343	342	336	333	333	331	325	328	334	335	339	347.7
28-Oct	328	326	321	327	327	333	293	288	288	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
29-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	93	125	326	25	31	UO	UO	UO	UO	UO	UO	UO	UO	--
30-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
31-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	153	151	156	160	158	154	152	154	154	151	151	160	165	167	163	--
	167.0	163.0	169.3	169.2	173.1	169.8	175.2	173.4	187.5	195.4	206.0	205.3	213.0	222.5	219.5	210.5	206.2	182.3	173.8	173.0	180.2	178.2	172.6	166.7	
	Diurnal Average																								

M - Maintenance UO - Unstable Operation

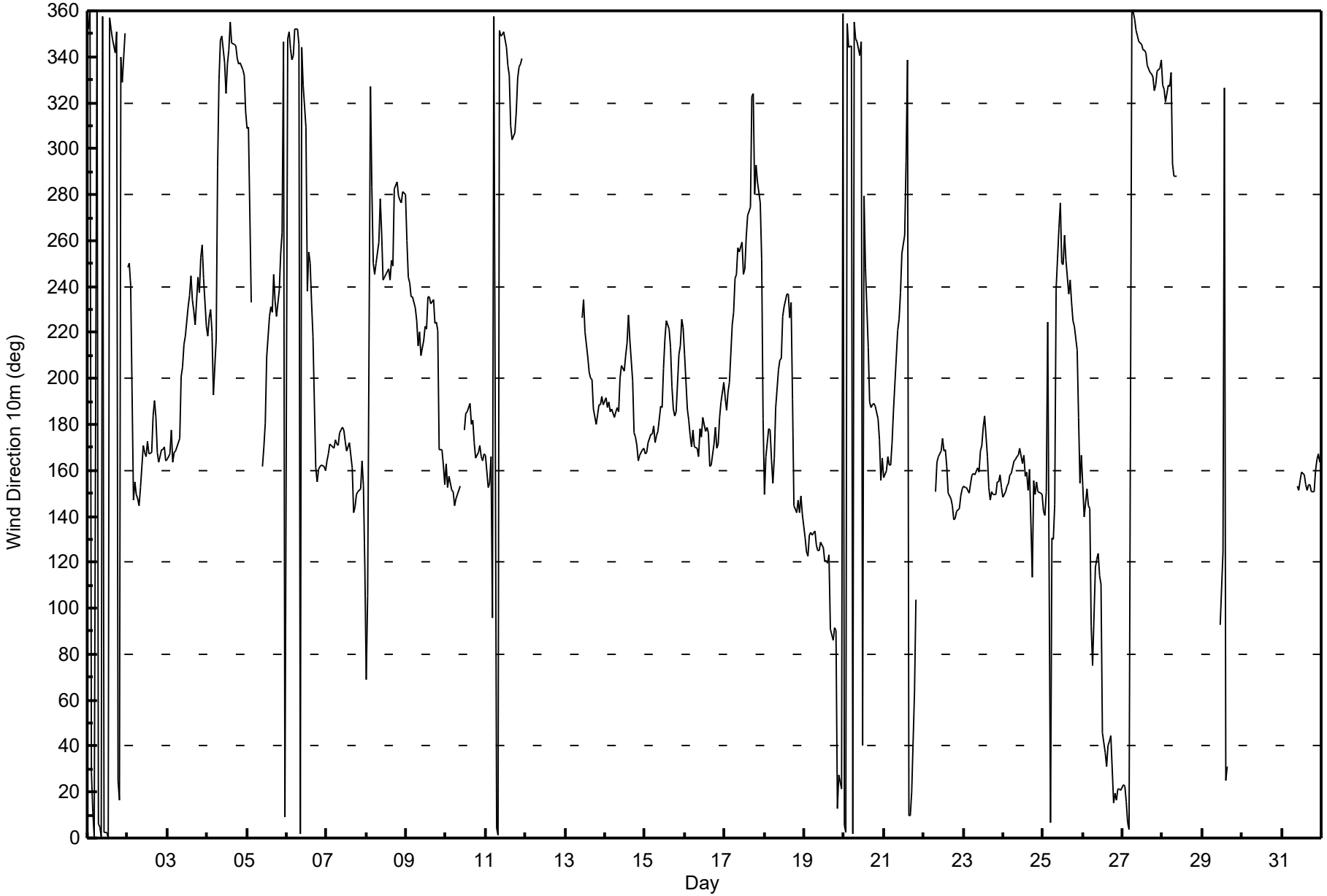
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Wapasu - October 2025



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Wapasu - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 89 deg on Oct 8 00:00

Minimum Value: 6 deg on Oct 18 21:00

Percentiles: P_1 = 10 P_{10} = 17 Q_1 = 19 Median = 24 Q_3 = 28 P_{90} = 31 P_{99} = 73

Hours in Service:	744
Hours of Data:	622
Hours of Missing Data:	122
Hours of Calibration:	0
Percent Operational Time:	83.6

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	27	27	29	29	27	28	30	30	27	25	27	29	27	25	22	21	18	23	30	29	19	31	38	UO	38
2-Oct	21	27	38	14	17	12	12	19	27	29	28	26	30	28	26	30	28	27	22	20	24	24	25	22	38
3-Oct	24	25	28	23	23	22	23	27	30	27	23	21	20	21	22	21	17	20	39	21	25	26	20	20	39
4-Oct	18	19	18	48	20	23	49	22	23	21	19	25	19	20	23	20	20	19	18	19	19	19	16	27	49
5-Oct	29	36	37	UO	UO	UO	UO	UO	UO	21	26	27	27	24	19	19	24	18	21	19	23	25	28	32	37
6-Oct	27	24	19	16	18	23	22	18	27	22	33	67	73	50	41	31	32	21	14	18	21	22	23	22	73
7-Oct	25	25	27	28	25	28	25	27	29	27	29	27	28	28	28	25	17	19	18	19	22	31	20	89	89
8-Oct	72	64	65	74	64	54	25	26	31	26	22	24	30	24	22	27	25	30	30	27	31	29	29	29	74
9-Oct	26	19	19	17	17	17	16	22	18	23	22	20	20	20	21	20	18	16	17	17	15	16	12	14	26
10-Oct	15	10	11	14	17	12	15	19	19	M	M	30	29	30	28	29	30	25	21	24	26	24	25	22	30
11-Oct	23	20	18	52	63	28	29	27	21	22	22	22	20	21	19	25	28	27	24	19	18	19	21	UO	63
12-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
13-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	18	20	22	25	28	29	27	29	27	30	31	29	30	30	31
14-Oct	29	28	31	31	29	29	29	30	30	28	25	27	23	22	18	22	27	21	21	21	17	20	26	23	31
15-Oct	19	21	28	25	26	29	24	27	27	28	31	27	22	18	18	24	30	25	23	28	32	17	13	13	32
16-Oct	18	22	25	15	16	21	17	18	19	27	25	28	29	27	27	24	21	26	30	28	28	30	30	29	30
17-Oct	27	29	29	29	17	16	21	24	25	26	26	24	24	26	31	26	30	28	28	32	30	28	26	26	32
18-Oct	14	8	17	17	20	10	24	20	23	25	40	39	21	30	22	18	15	36	7	9	6	23	8	12	40
19-Oct	14	10	15	16	15	16	17	17	19	19	19	19	20	21	21	78	60	29	24	44	30	28	30	27	78
20-Oct	28	27	21	15	16	28	31	23	19	20	30	53	69	27	35	28	29	28	27	28	27	26	21	29	69
21-Oct	21	22	25	23	22	27	29	25	18	18	18	31	30	32	38	29	28	29	20	43	UO	UO	UO	UO	43
22-Oct	UO	UO	UO	UO	UO	UO	UO	18	26	25	28	27	27	27	27	21	16	16	17	17	20	19	20	20	28
23-Oct	21	22	21	20	22	21	21	22	22	23	27	28	30	30	26	19	19	19	19	18	20	20	20	19	30
24-Oct	20	20	20	23	23	21	28	25	25	24	31	27	27	25	25	27	34	24	27	20	19	19	17	18	34
25-Oct	17	33	39	75	38	43	20	30	48	30	32	23	23	27	27	20	21	17	18	18	25	27	13	17	75
26-Oct	11	14	12	10	13	56	40	15	17	17	22	38	31	33	28	25	26	23	30	32	32	32	32	33	56
27-Oct	33	31	31	28	27	27	25	24	22	20	19	19	19	18	17	18	18	19	18	19	19	18	18	19	33
28-Oct	19	19	21	19	17	18	28	27	25	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	28
29-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	85	66	74	33	30	UO	UO	UO	UO	UO	UO	UO	UO	85
30-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
31-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	19	19	21	22	23	22	20	21	21	21	20	24	24	25	23	25
	72	64	65	75	64	56	49	30	48	30	40	85	73	74	41	78	60	36	39	44	32	32	38	89	
	Diurnal Maximum																								

M - Maintenance UO - Unstable Operation

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS18
STONY MOUNTAIN
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - STONY MOUNTAIN (AMS18)
OCTOBER 2025

MONTHLY SUMMARY for
AMD SECTION III.B.1(c)

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	708	36	36	100	-	-	4.4	0	1.3	0
TRS(ppb) Average	707	37	37	100	0.8	0	0.8	-	0.5	-
THC(ppm) Average	709	35	35	100	-	-	2.3	-	2.1	-
NMHC(ppm) Average	709	35	35	100	-	-	0.151	-	0.007	-
CH4(ppm) Average	709	35	35	100	-	-	2.2	-	2.1	-
O3 (ppb) Average	709	35	35	100	-	-	40	0	31.5	-
NO2 (ppb) Average	707	37	37	100	-	-	7.6	0	2.9	-
NO (ppb) Average	707	37	37	100	-	-	3.5	-	0.3	-
NOX (ppb) Average	707	37	37	100	-	-	7.6	-	3.1	-
PM2.5 (ug/m3) Average	739	3	5	99.73	-	-	26.4	0	8.9	0
Temperature 2 m (C) Average	744	0	0	100	-	-	19.7	-	11.3	-
Relative Humidity (%) Average	744	0	0	100	-	-	99.6	-	98.3	-
Wind Speed 20 m (km/h) Average	744	0	0	100	-	-	27	-	20	-
Wind Direction 20 m (deg) Average	744	0	0	100	-	-	-	-	-	-
Precipitation (mm) Total	742	2	2	100	-	-	6.9	-	23	-
Leaf Wetness (% of range) Average	737	0	7	99.06	-	-	92.8	-	45.1	-
Global Solar Radiation (W/m2) Average	744	0	0	100	-	-	559.7	-	143	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - STONY MOUNTAIN (AMS18)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	708	0.29	0.4	-	0	0	0.1	0.2	0.4	0.7	4.4
TRS (ppb) Average	707	0.39	0.1	-	0.3	0.3	0.4	0.4	0.4	0.5	0.8
THC (ppm) Average	709	2.08	0	-	2	2	2.1	2.1	2.1	2.1	2.3
NMHC(ppm) Average	709	0	0.006	-	0	0	0	0	0	0	0.151
CH4(ppm) Average	709	2.08	0	-	2	2	2.1	2.1	2.1	2.1	2.2
O3 (ppb) Average	709	23.67	6.2	-	6.3	15.4	19.6	23.6	27.8	32.1	40
NO2 (ppb) Average	707	1.03	1	-	0	0.1	0.3	0.7	1.4	2.5	7.6
NO (ppb) Average	707	0.08	0.2	-	0	0	0	0	0.1	0.2	3.5
NOX (ppb) Average	707	1.11	1.1	-	0	0.1	0.3	0.7	1.6	2.7	7.6
PM2.5 (ug/m3) Average	739	2.93	2.5	-	0	0.7	1.4	2.6	3.8	5.1	26.4
Temperature 2 m (C) Average	744	4.21	4.8	-	-4	-1.5	0.2	3.7	7.6	10.7	19.7
Relative Humidity (%) Average	744	74.56	19.2	-	27.4	47.2	60	76.4	92.4	98	99.6
Wind Speed 20 m (km/h) Average	744	13	5	-	1	7	9	13	16	18	27
Wind Direction 20 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-
Precipitation (mm) Total	742	-	-	73.93	-	-	-	-	-	-	-
Surface Wetness (% of range) Average	737	7.42	13.5	-	0.3	1.1	1.3	1.6	5.7	23.4	92.8
Global Solar Radiation (W/m2) Average	744	68.89	126.4	-	0	0.1	0.2	0.5	69.3	279.5	559.7

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - STONY MOUNTAIN (AMS18)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Period Start	Period End	Duration (Hours)	Notes
PM2.5	22 Oct 2025 13:00	22 Oct 2025 14:00	2	Maintenance - ethernet cable replaced
Surface Leaf Wetness	05 Oct 2025 00:00	05 Oct 2025 01:00	2	Sensor operated out of range
Surface Leaf Wetness	05 Oct 2025 11:00	05 Oct 2025 11:00	1	Sensor operated out of range
Surface Leaf Wetness	27 Oct 2025 01:00	27 Oct 2025 04:00	4	Sensor operated out of range

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Stony Mountain - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 4.4 ppb on Oct 15 12:00

Maximum Daily Average: 1.3 ppb on Oct 15

Minimum Value: 0.0 ppb on Oct 3 19:00

Minimum Daily Average: 0.0 ppb on Oct 27

Maximum Diurnal Average: 0.4 ppb at hour 10

Minimum Diurnal Average: 0.2 ppb at hour 18

Monthly Average: 0.29 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.2 Q_3 = 0.4 P_{90} = 0.7 P_{99} = 1.7

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.2	0.2	0.2	0.2	Z	0.1	0.2	0.3	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.4	0.7	0.6	0.4	0.3	0.7
2-Oct	0.5	0.3	0.2	0.1	0.1	Z	0.1	0.2	0.2	0.5	0.6	0.6	0.6	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.6
3-Oct	Z	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
4-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.2	0.3	0.2	0.2	0.1	0.3
5-Oct	0.2	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
6-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.3	0.5	0.8	0.7	0.4	0.2	0.2	0.2	0.2	0.3	0.5	0.5	0.5	0.4	0.2	0.1	0.1	0.1	0.3	0.8
7-Oct	0.1	0.2	0.4	0.3	Z	0.2	0.2	0.2	0.4	0.8	0.7	0.4	0.2	0.2	0.2	0.3	0.6	0.4	0.3	0.4	0.6	0.4	0.3	0.3	0.4	0.8
8-Oct	0.3	0.3	0.1	0.1	0.0	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3
9-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.2	0.1	0.3
10-Oct	0.2	Z	1.5	0.8	0.6	0.4	0.3	0.4	0.4	0.5	0.5	0.4	0.6	0.6	0.5	0.4	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	1.5
11-Oct	0.4	0.4	Z	0.4	0.6	0.5	0.3	0.2	0.3	0.3	1.0	1.7	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.3	1.7
12-Oct	0.1	0.2	0.3	Z	0.4	0.7	0.7	1.2	0.9	1.1	0.7	0.6	2.2	1.0	1.6	1.6	1.0	0.5	0.1	0.0	0.4	0.4	0.2	0.3	0.7	2.2
13-Oct	0.4	0.2	0.5	0.1	Z	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	1.4	1.6	1.4	0.3	0.1	0.1	0.3	1.6
14-Oct	0.1	0.0	0.0	0.0	0.1	Z	0.1	0.1	0.0	0.3	0.4	0.1	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.4
15-Oct	Z	0.3	0.7	0.8	1.1	1.1	0.9	0.9	1.6	3.8	3.2	4.4	1.5	1.3	1.5	1.7	1.7	1.5	0.9	0.4	0.4	0.4	0.5	0.4	1.3	4.4
16-Oct	0.4	Z	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.1	0.1	0.1	0.0	0.2	0.3	0.2	0.1	0.4	0.2	0.2	0.1	0.2	0.4
17-Oct	0.1	0.1	Z	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.2
18-Oct	0.2	0.2	0.1	Z	0.3	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
19-Oct	0.1	0.1	0.3	0.8	Z	0.7	1.0	0.6	0.5	0.2	0.3	0.2	0.2	0.1	0.3	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.3	1.0
20-Oct	0.1	0.1	0.1	0.1	0.0	Z	0.0	0.4	0.8	0.4	0.5	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.6	1.1	1.4	0.3	1.4
21-Oct	Z	0.7	0.5	0.4	0.5	0.5	0.4	0.3	0.3	0.2	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.3	0.7
22-Oct	0.2	Z	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.5	0.3	0.5	0.3	0.3	0.4	0.3	0.4	0.6	0.5	0.4	0.5	0.6	0.3	0.6
23-Oct	0.6	0.5	Z	0.4	0.5	0.4	0.4	0.4	0.5	0.5	C	C	C	C	C	0.4	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.3	0.3	0.6
24-Oct	0.4	0.3	0.3	Z	0.4	0.5	0.4	0.5	0.5	1.2	0.6	0.5	1.0	1.2	0.8	0.8	0.5	0.5	0.7	0.9	1.0	0.9	1.7	1.1	0.7	1.7
25-Oct	0.9	0.4	0.3	0.1	Z	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.9
26-Oct	0.0	0.0	0.4	1.2	0.8	Z	0.3	0.5	0.3	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2
27-Oct	Z	0.0	0.0	0.1	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3
28-Oct	0.1	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1
29-Oct	0.2	1.2	Z	1.0	0.9	0.4	0.3	0.2	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.3	0.2	0.4	0.3	1.2
30-Oct	0.7	0.4	0.4	Z	0.7	0.9	0.8	0.8	0.9	1.0	1.3	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	1.3
31-Oct	0.1	0.1	0.2	0.1	Z	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.2	0.4	0.4	0.4	0.5	0.6	0.6	0.4	0.4	0.3	0.3	0.3	0.6
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	Diurnal Average	
	0.9	1.2	1.5	1.2	1.1	1.1	1.0	1.2	1.6	3.8	3.2	4.4	2.2	1.3	1.6	1.7	1.7	1.5	1.4	1.6	1.4	0.9	1.7	1.4	Diurnal Maximum	

Z - zerospan C - Calibration

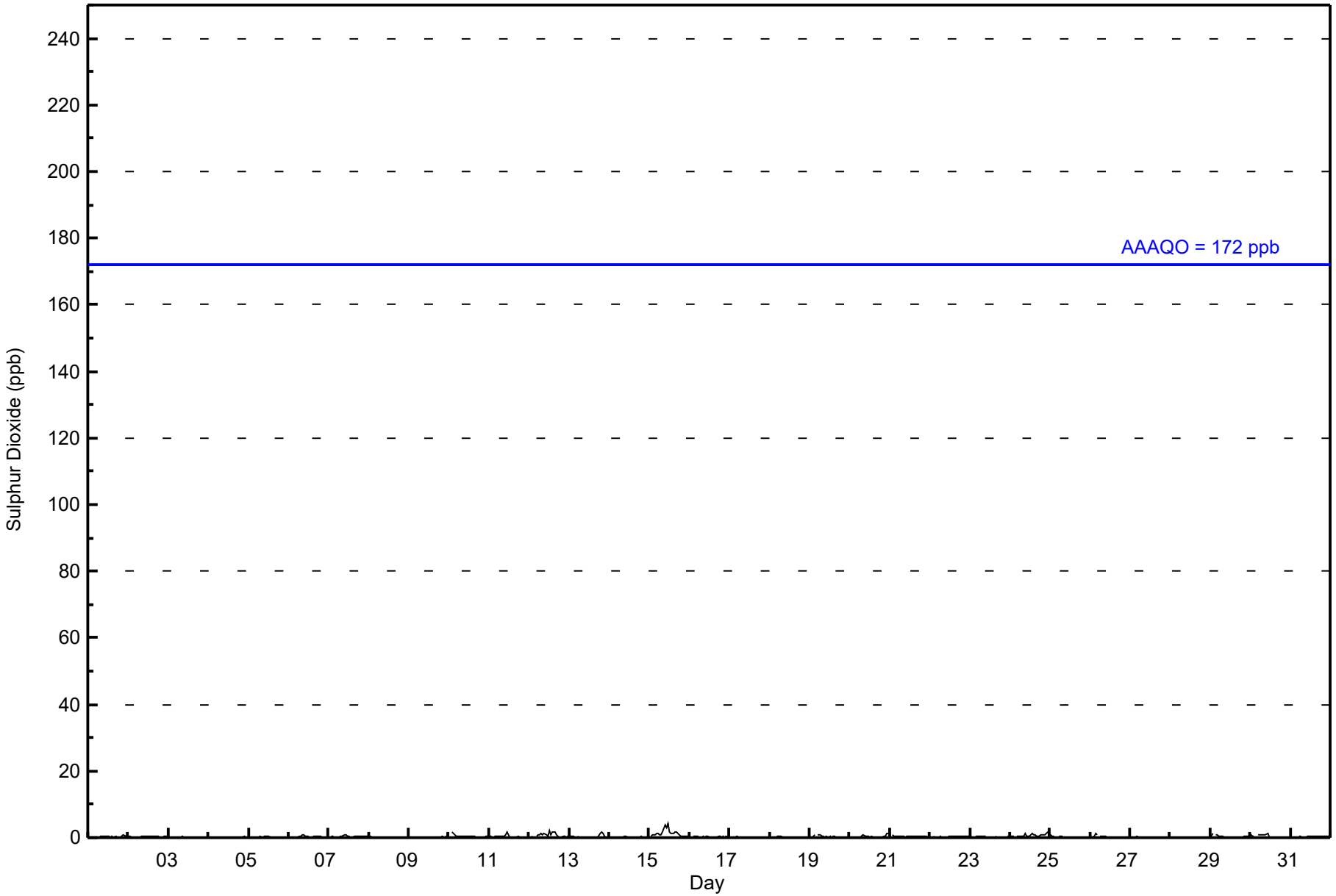
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Stony Mountain - October 2025



Sulphur Dioxide (SO_2) - ppb
Stony Mountain - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	708	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Stony Mountain - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	11	8	13	14	11	8	11	37	85	108	68	44	78	92	76	44	708
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	8	13	14	11	8	11	37	85	108	68	44	78	92	76	44	708

Total Number of Valid Hours: 708

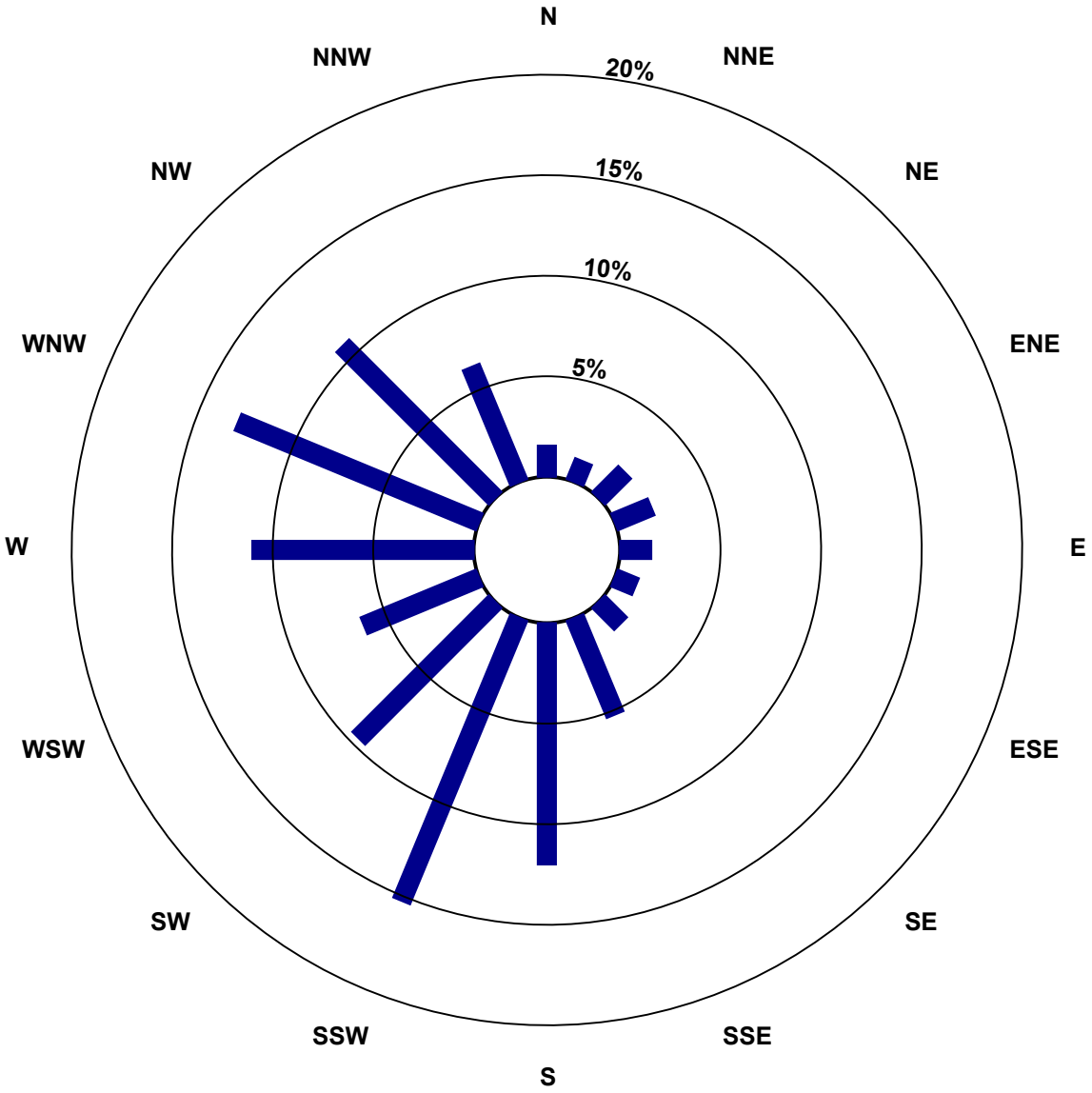
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Stony Mountain



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

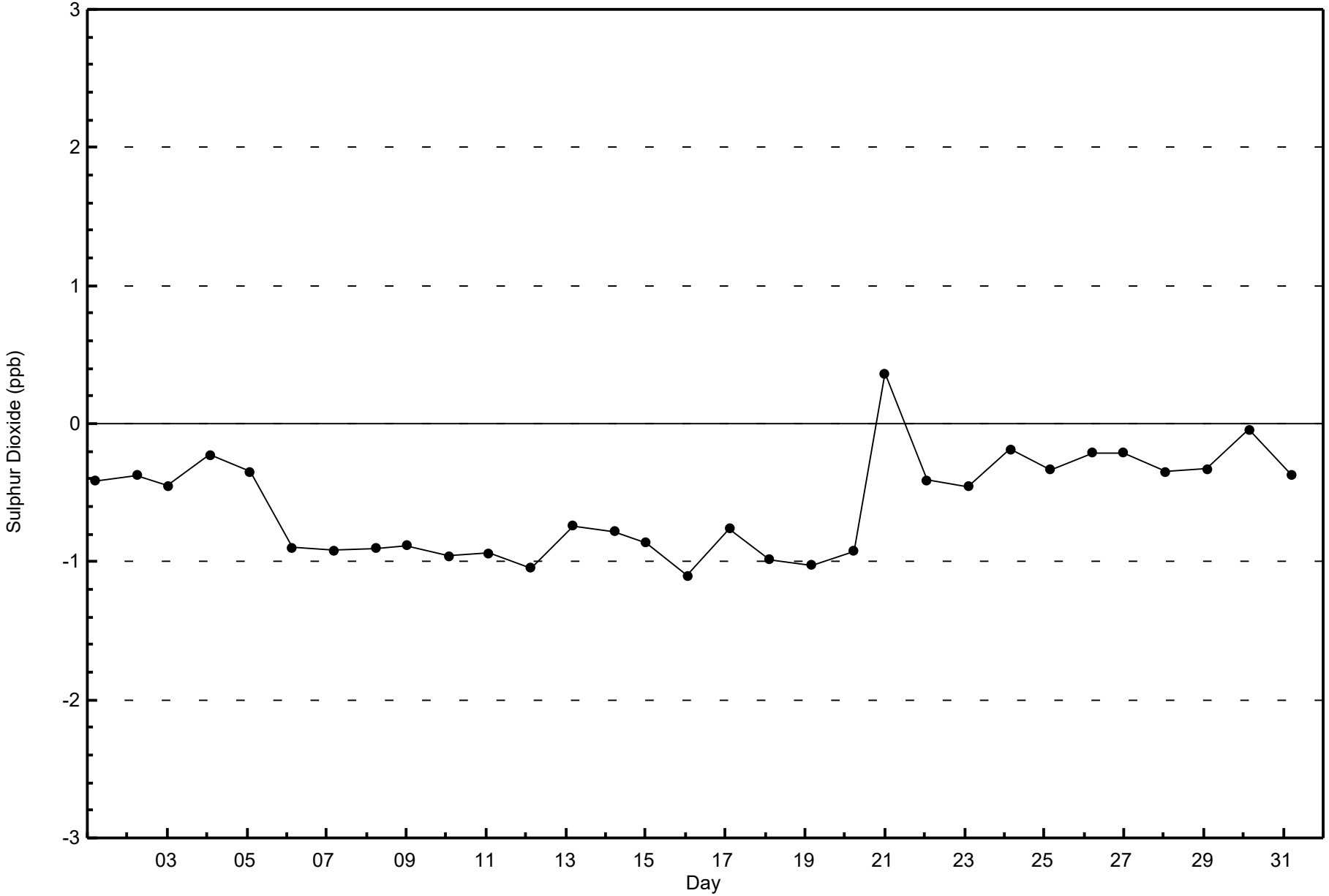
Total Number of Valid Hours: 708

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Stony Mountain - October 2025

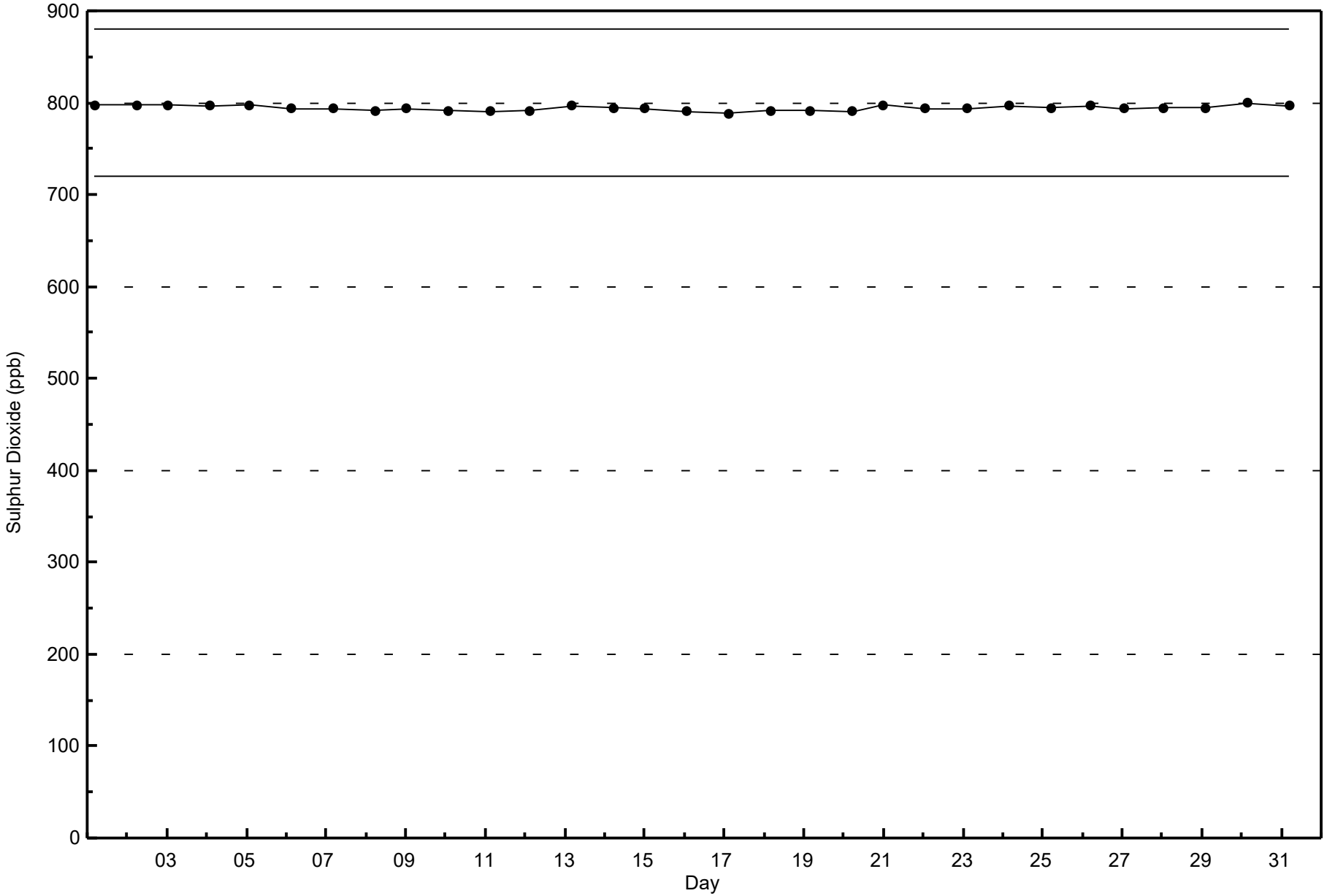


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Stony Mountain - October 2025



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Stony Mountain - October 2025

Number of Exceedences (AAAQG): 30-Min: 0

Maximum Value: 0.8 ppb on Oct 1 08:30

Maximum Daily Average: 0.5 ppb on Oct 1

Minimum Value: 0.3 ppb on Oct 5 06:00

Minimum Daily Average: 0.3 ppb on Oct 14

Maximum Diurnal Average: 0.4 ppb at hour 9

Minimum Diurnal Average: 0.4 ppb at hour 19

Monthly Average: 0.39 ppb

Percentiles: P_1 = 0.3 P_{10} = 0.3 Q_1 = 0.4 Median = 0.4 Q_3 = 0.4 P_{90} = 0.5 P_{99} = 0.6

Periods in Service:	1488
Periods of Valid Data:	1413
Periods of Invalid Data:	75
Periods of Calibration:	75
Percent Operational Time:	100.0

Period Ending At (MST)

Day	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
1-Oct	0.6	0.6	0.5	0.5	0.5	Z	0.5	0.7	0.8	0.7	0.6	0.6	0.5	0.4	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.8
	0.6	0.5	0.5	0.5	0.5	SP	0.5	0.8	0.8	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.5	0.4	0.5	0.4	0.4		
2-Oct	Z	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	SP	0.4	0.4	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4		
3-Oct	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
	0.4	SP	0.4	0.5	0.5	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4		
4-Oct	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
	0.3	0.4	SP	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
5-Oct	0.3	0.3	0.3	Z	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.3	0.4
	0.3	0.3	0.4	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4		
6-Oct	0.3	0.4	0.3	0.3	Z	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
	0.4	0.3	0.4	0.3	SP	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
7-Oct	0.3	0.3	0.4	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5
	0.3	0.4	0.3	0.4	0.4	SP	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		
8-Oct	Z	0.5	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.5
	SP	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3		
9-Oct	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.4
	0.4	SP	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3		
10-Oct	0.3	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	0.4	0.4	SP	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4		
11-Oct	0.4	0.4	0.4	Z	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.5
	0.4	0.4	0.4	SP	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.3	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3		
12-Oct	0.3	0.3	0.3	0.3	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.4	0.4
	0.3	0.3	0.3	0.4	SP	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4		
13-Oct	0.4	0.3	0.4	0.4	0.4	Z	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
	0.4	0.4	0.4	0.4	0.4	SP	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
14-Oct	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
15-Oct	0.3	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5
	0.4	SP	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4		

Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Stony Mountain - October 2025

Day	Period Ending At (MST) 00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
16-Oct	0.3	0.4	Z	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
	0.4	0.4	SP	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4		
17-Oct	0.4	0.4	0.4	Z	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
	0.4	0.4	0.4	SP	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4		
18-Oct	0.4	0.4	0.4	0.4	Z	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4
	0.4	0.4	0.4	0.4	SP	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4		
19-Oct	0.4	0.4	0.4	0.4	0.5	Z	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
	0.4	0.4	0.4	0.4	0.5	SP	0.4	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4		
20-Oct	Z	0.4	0.3	0.4	0.3	0.4	0.4	0.4	0.5	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6
	SP	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.4	0.4		
21-Oct	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
	0.4	SP	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3		
22-Oct	0.3	0.4	Z	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
	0.4	0.4	SP	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3		
23-Oct	0.4	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5
	0.3	0.4	0.4	SP	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4		
24-Oct	0.4	0.4	0.5	0.5	Z	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6
	0.4	0.4	0.5	0.5	SP	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5		
25-Oct	0.5	0.5	0.5	0.4	0.5	Z	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6
	0.5	0.5	0.5	0.4	0.6	SP	0.4	0.4	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4		
26-Oct	Z	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6
	SP	0.4	0.4	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4		
27-Oct	0.4	Z	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.5
	0.4	SP	0.3	0.4	0.4	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4		
28-Oct	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4
	0.4	0.4	SP	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4		
29-Oct	0.3	0.4	0.3	Z	0.4	0.3	0.3	0.3	0.3	0.4	C	C	C	C	C	C	C	0.4	0.3	0.4	0.4	0.3	0.3	0.4	--	0.4
	0.4	0.4	0.4	SP	0.4	0.4	0.3	0.3	0.4	0.3	C	C	C	C	C	C	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4		
30-Oct	0.4	0.5	0.4	0.4	Z	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.5
	0.5	0.4	0.4	0.4	SP	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4		
31-Oct	0.4	0.4	0.4	0.4	0.4	Z	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
	0.4	0.4	0.4	0.4	0.4	SP	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4		
	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	Diurnal Average	
	0.6	0.6	0.5	0.6	0.6	0.5	0.5	0.8	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	Diurnal Maximum	

Z - zerospan C - Calibration SP - Span

Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb

Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

Stony Mountain - October 2025

Maximum Value: 0.8 ppb on Oct 1 09:00

Maximum Daily Average: 0.5 ppb on Oct 1

Minimum Value: 0.3 ppb on Oct 6 23:00

Minimum Daily Average: 0.3 ppb on Oct 14

Maximum Diurnal Average: 0.4 ppb at hour 9

Minimum Diurnal Average: 0.4 ppb at hour 19

Monthly Average: 0.39 ppb

Percentiles: P_1 = 0.3 P_{10} = 0.3 Q_1 = 0.4 Median = 0.4 Q_3 = 0.4 P_{90} = 0.5 P_{99} = 0.5

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.6	0.5	0.5	0.5	0.5	Z	0.5	0.7	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.4	0.5	0.8
2-Oct	Z	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
3-Oct	0.4	Z	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
4-Oct	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
5-Oct	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.4
6-Oct	0.4	0.3	0.3	0.3	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
7-Oct	0.3	0.3	0.4	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5
8-Oct	Z	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.5
9-Oct	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4
10-Oct	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
11-Oct	0.4	0.4	0.4	Z	0.4	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.5
12-Oct	0.3	0.3	0.3	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4
13-Oct	0.4	0.4	0.4	0.4	0.4	Z	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
14-Oct	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
15-Oct	0.3	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.5
16-Oct	0.4	0.4	Z	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
17-Oct	0.4	0.4	0.4	Z	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
18-Oct	0.4	0.4	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
19-Oct	0.4	0.4	0.4	0.4	0.5	Z	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
20-Oct	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6
21-Oct	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
22-Oct	0.4	0.4	Z	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.5
23-Oct	0.3	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
24-Oct	0.4	0.4	0.5	0.5	Z	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
25-Oct	0.5	0.5	0.5	0.4	0.5	Z	0.5	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
26-Oct	Z	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
27-Oct	0.4	Z	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4
28-Oct	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
29-Oct	0.4	0.4	0.4	Z	0.4	0.4	0.3	0.3	0.3	0.4	C	C	C	C	C	C	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.4	--	0.4
30-Oct	0.4	0.4	0.4	0.4	Z	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
31-Oct	0.4	0.4	0.4	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	Diurnal Average	
	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	Diurnal Maximum	

Z - zerospan C - Calibration

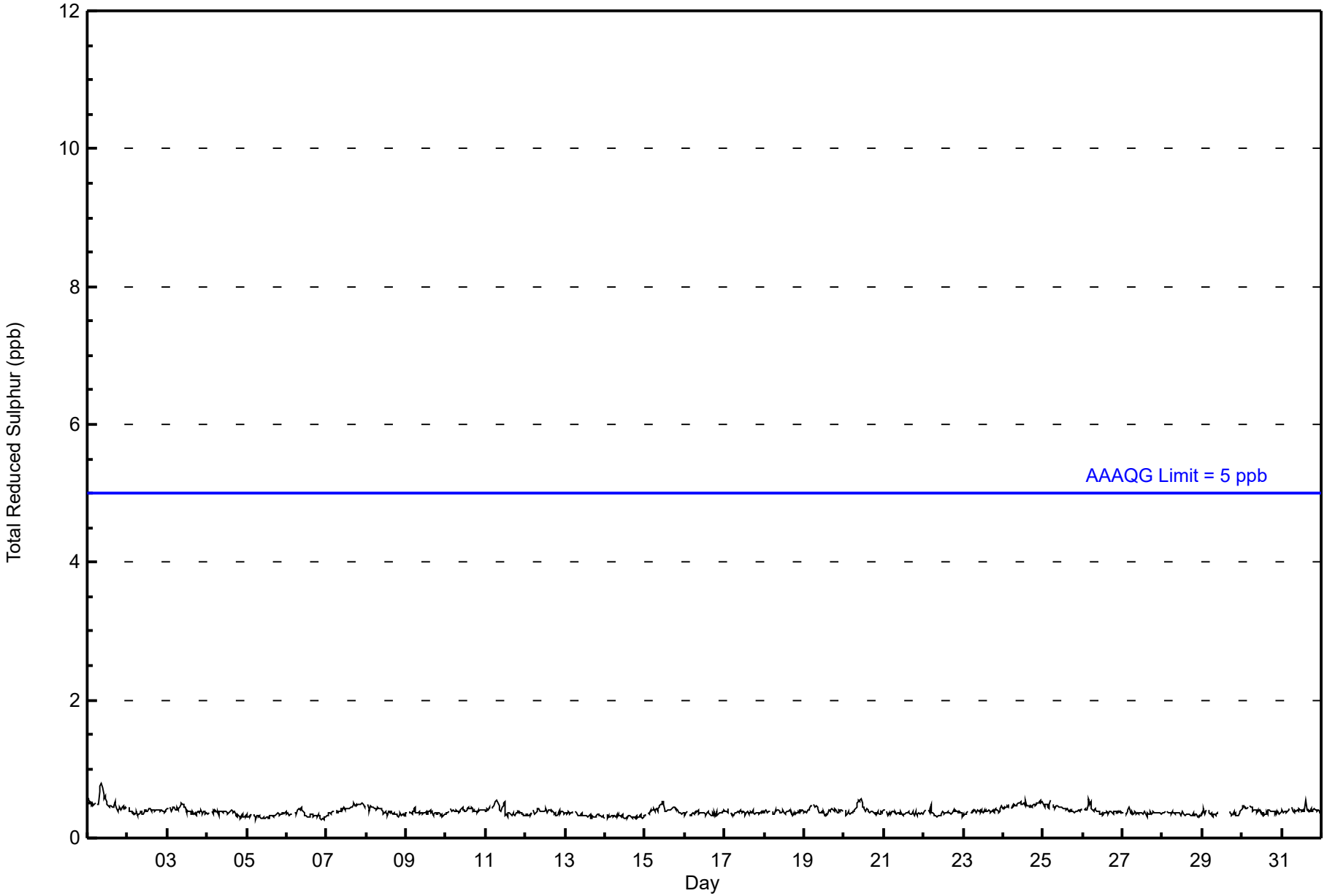
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA

Wood Buffalo Environmental Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Stony Mountain - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	707	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Reduced Sulphur (TRS) - ppb

Stony Mountain - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	7	8	12	14	11	8	11	39	90	108	67	44	76	90	79	43	707
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	7	8	12	14	11	8	11	39	90	108	67	44	76	90	79	43	707

Total Number of Valid Hours: 707

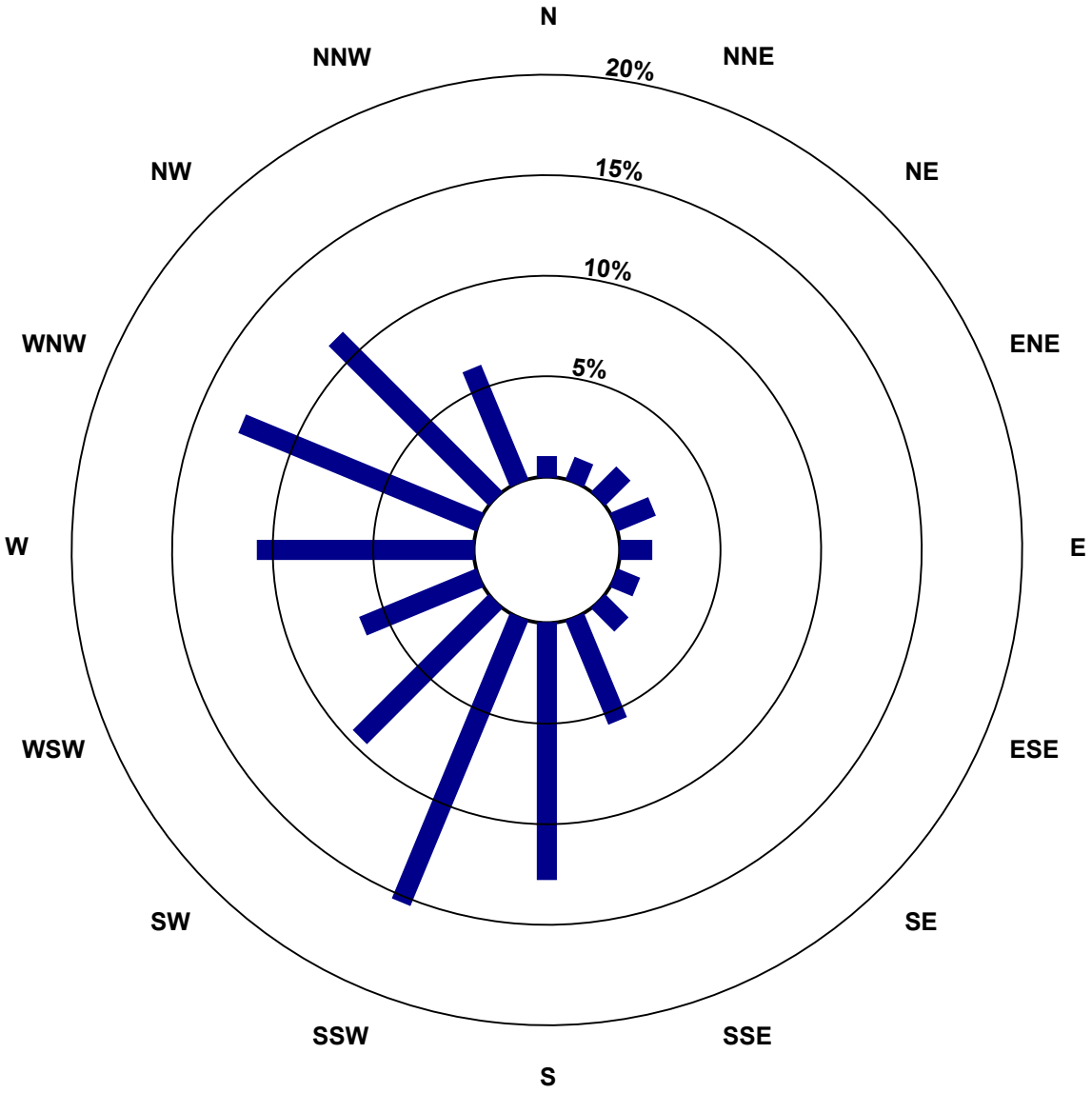
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Reduced Sulphur (TRS) - ppb

Stony Mountain



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

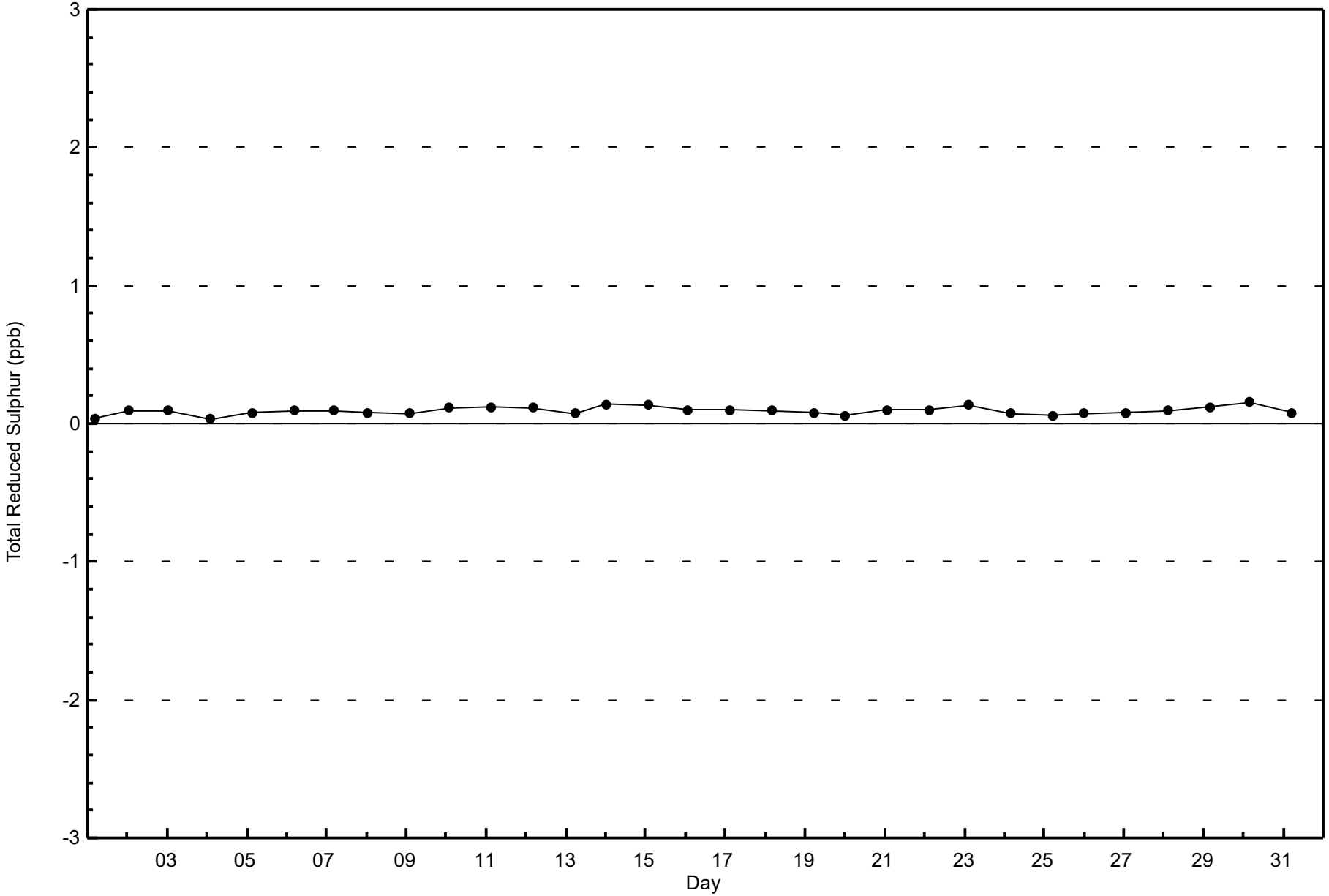
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Total Reduced Sulphur (TRS) - ppb

Stony Mountain - October 2025

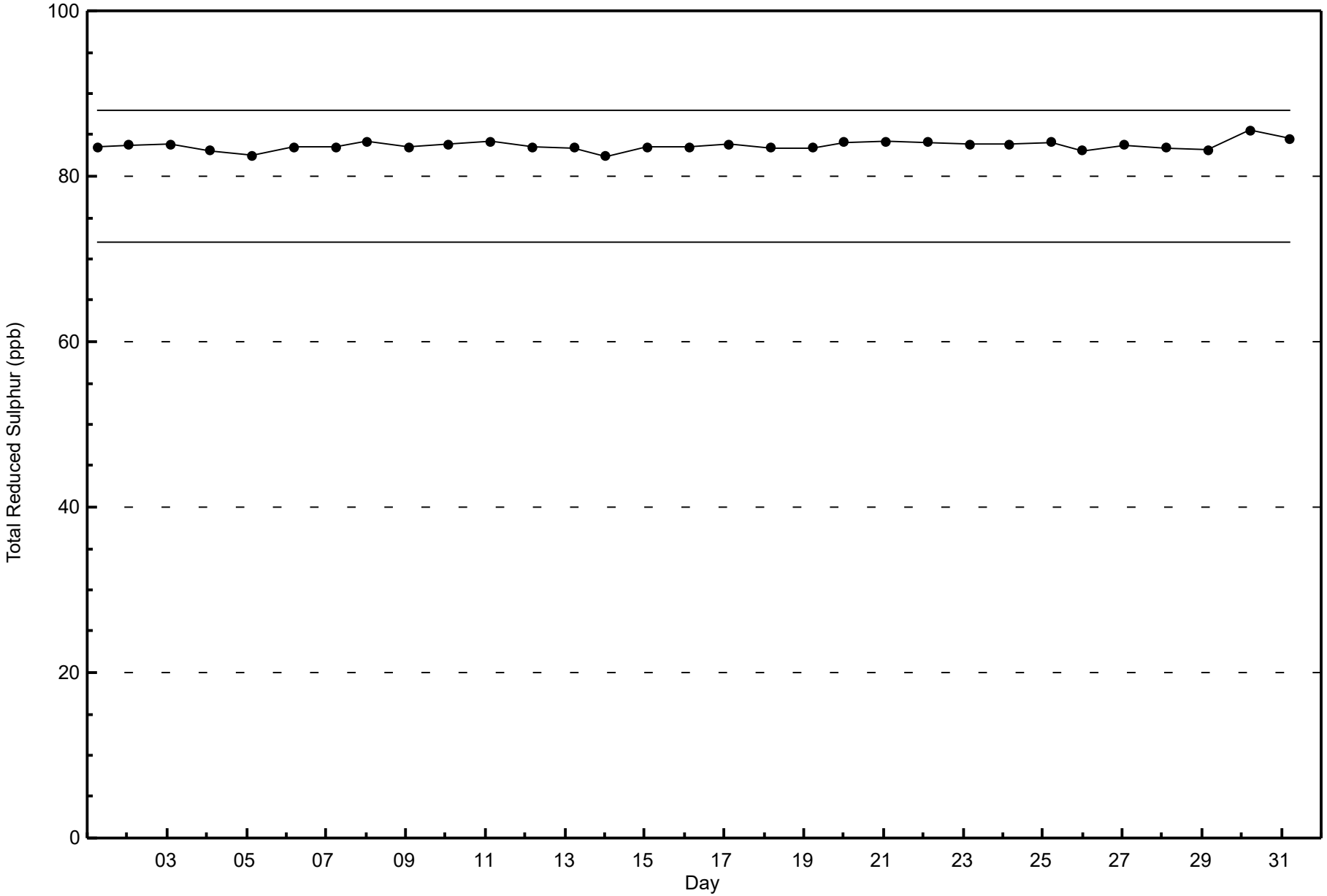


Wood Buffalo Environmental Association

Span Responses

Total Reduced Sulphur (TRS) - ppb

Stony Mountain - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Stony Mountain - October 2025

Maximum Value: 2.3 ppm on Oct 11 12:00

Maximum Daily Average: 2.1 ppm on Oct 24

Minimum Value: 2.0 ppm on Oct 17 11:00

Minimum Daily Average: 2.0 ppm on Oct 17

Maximum Diurnal Average: 2.1 ppm at hour 10

Minimum Diurnal Average: 2.1 ppm at hour 21

Monthly Average: 2.08 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.1 Median = 2.1 Q_3 = 2.1 P_{90} = 2.1 P_{99} = 2.2

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.2	2.1	2.1	2.1	Z	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
2-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
3-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1
4-Oct	2.0	Z	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
5-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
6-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
7-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
8-Oct	2.1	2.1	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
9-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
10-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
11-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3
12-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
13-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
14-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
15-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
16-Oct	2.1	Z	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1
17-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
18-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
19-Oct	2.0	2.0	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
20-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
21-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
22-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
23-Oct	2.1	2.1	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	C	C	C	C	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
24-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.2
25-Oct	2.2	2.2	2.2	2.1	Z	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.2
26-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1
27-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
28-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
29-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2
30-Oct	2.2	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
31-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	Diurnal Average	
	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	Diurnal Maximum	

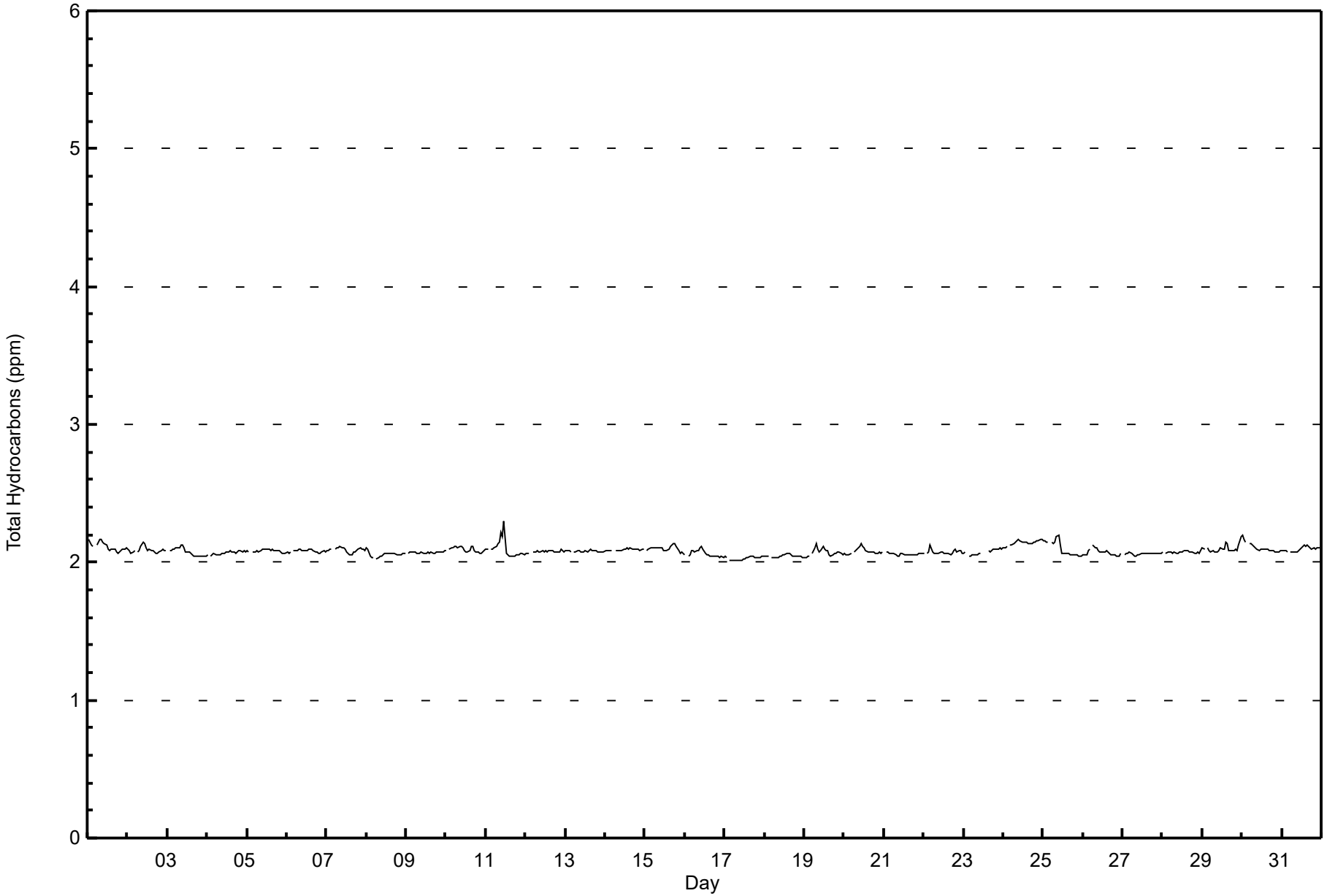
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Stony Mountain - October 2025



Total Hydrocarbons (THC) - ppm
Stony Mountain - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	90	12.69	12.69
2.1 - 3.0	619	87.31	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Stony Mountain - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	1	0	0	1	0	1	0	3	8	4	8	15	12	26	10	1	90
2.1 - 3.0	10	8	13	13	11	7	11	34	78	104	60	29	66	66	66	43	619
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	8	13	14	11	8	11	37	86	108	68	44	78	92	76	44	709

Total Number of Valid Hours: 709

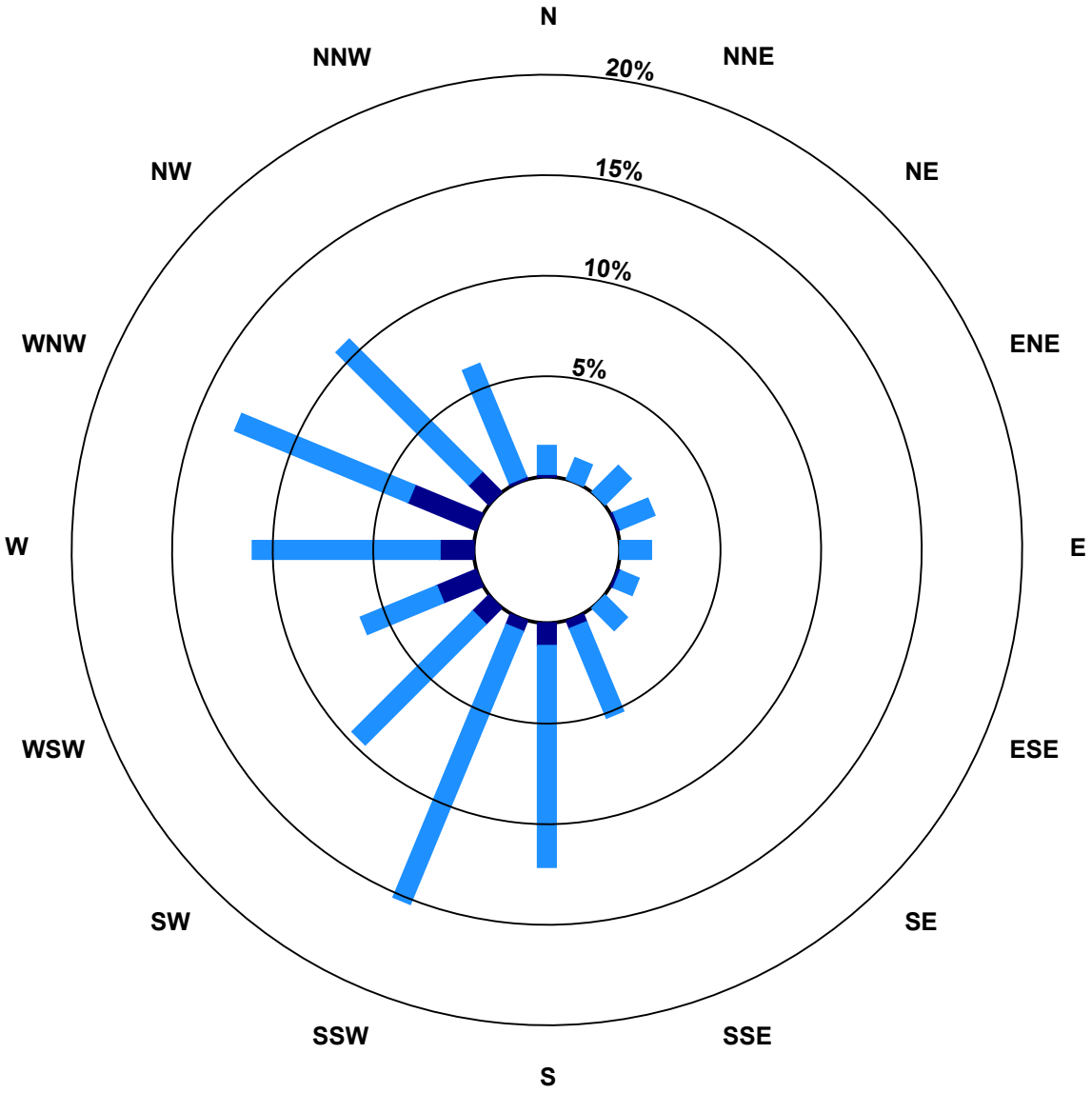
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Stony Mountain



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

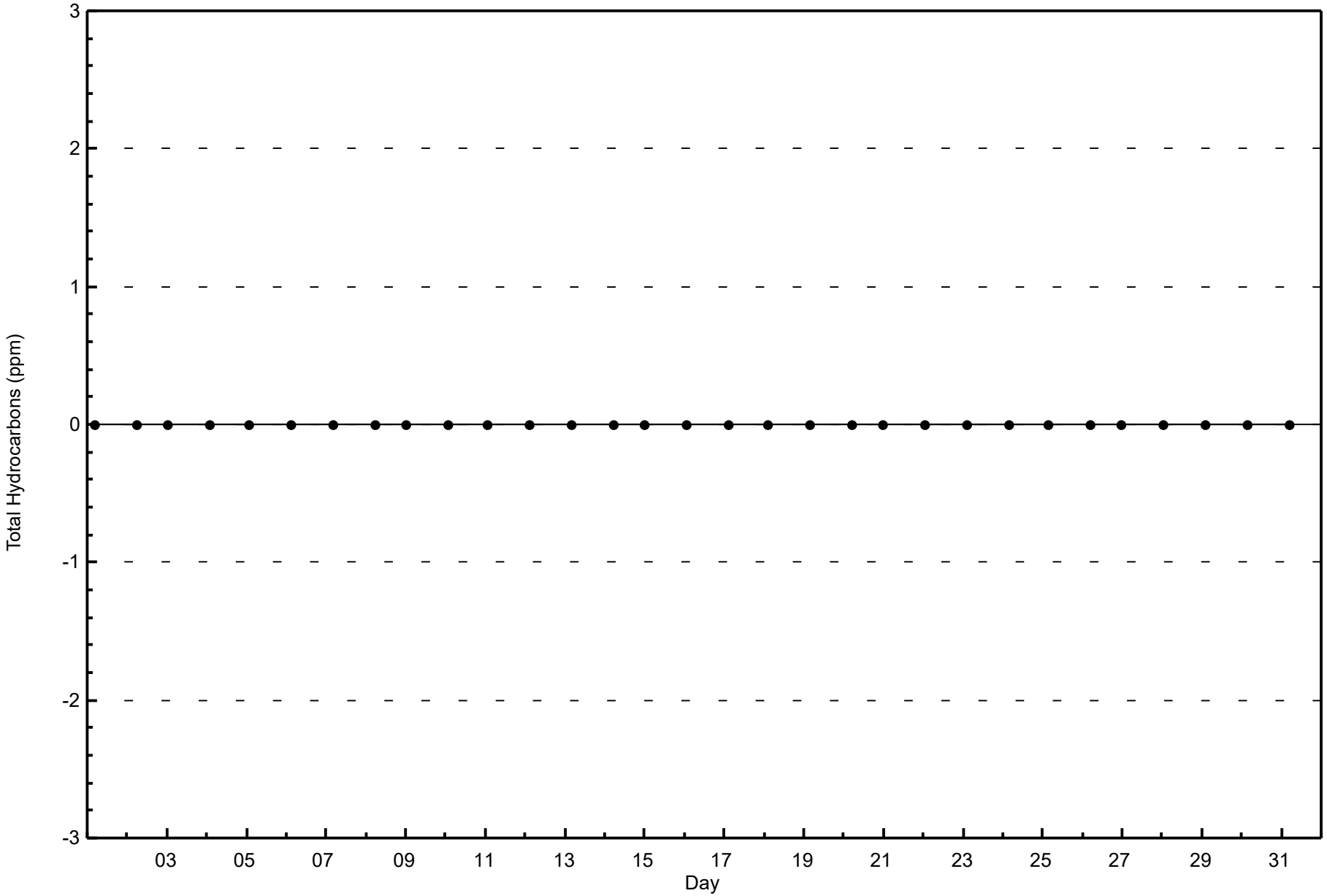
Total Number of Valid Hours: 709

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Stony Mountain - October 2025

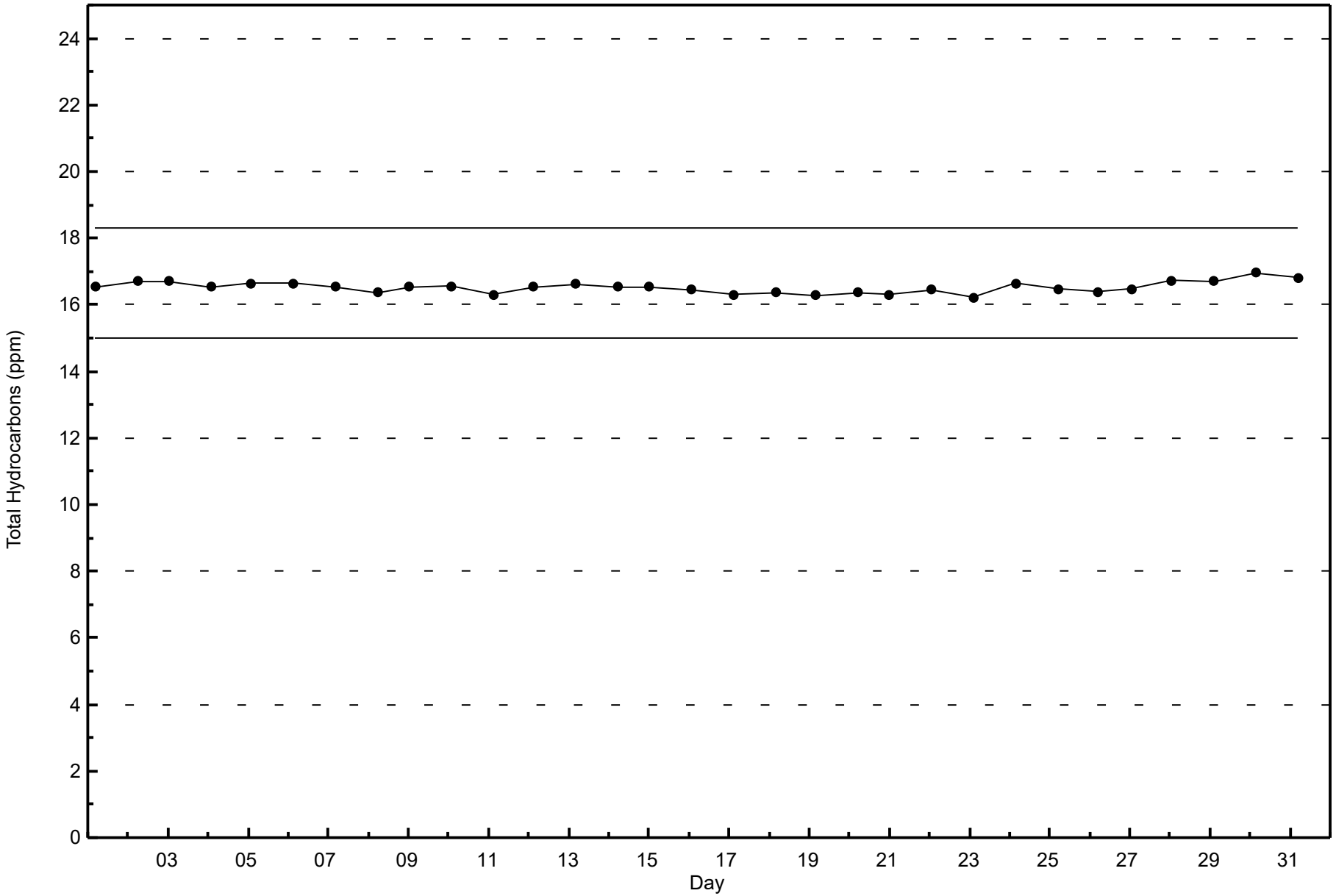


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Stony Mountain - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

Stony Mountain - October 2025

Maximum Value: 0.151 ppm on Oct 11 12:00

Maximum Daily Average: 0.007 ppm on Oct 11

Minimum Value: 0.000 ppm on Oct 1 01:00

Minimum Daily Average: 0.000 ppm on Oct 1

Maximum Diurnal Average: 0.005 ppm at hour 12

Minimum Diurnal Average: 0.000 ppm at hour 1

Monthly Average: 0.000 ppm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.0 P_{99} = 0.0

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.151	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.151
12-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.003	0.001	0.009
22-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	C	C	C	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25-Oct	0.000	0.000	0.011	0.000	Z	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.011
26-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Diurnal Average	
	0.000	0.000	0.011	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.151	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.003	Diurnal Maximum	

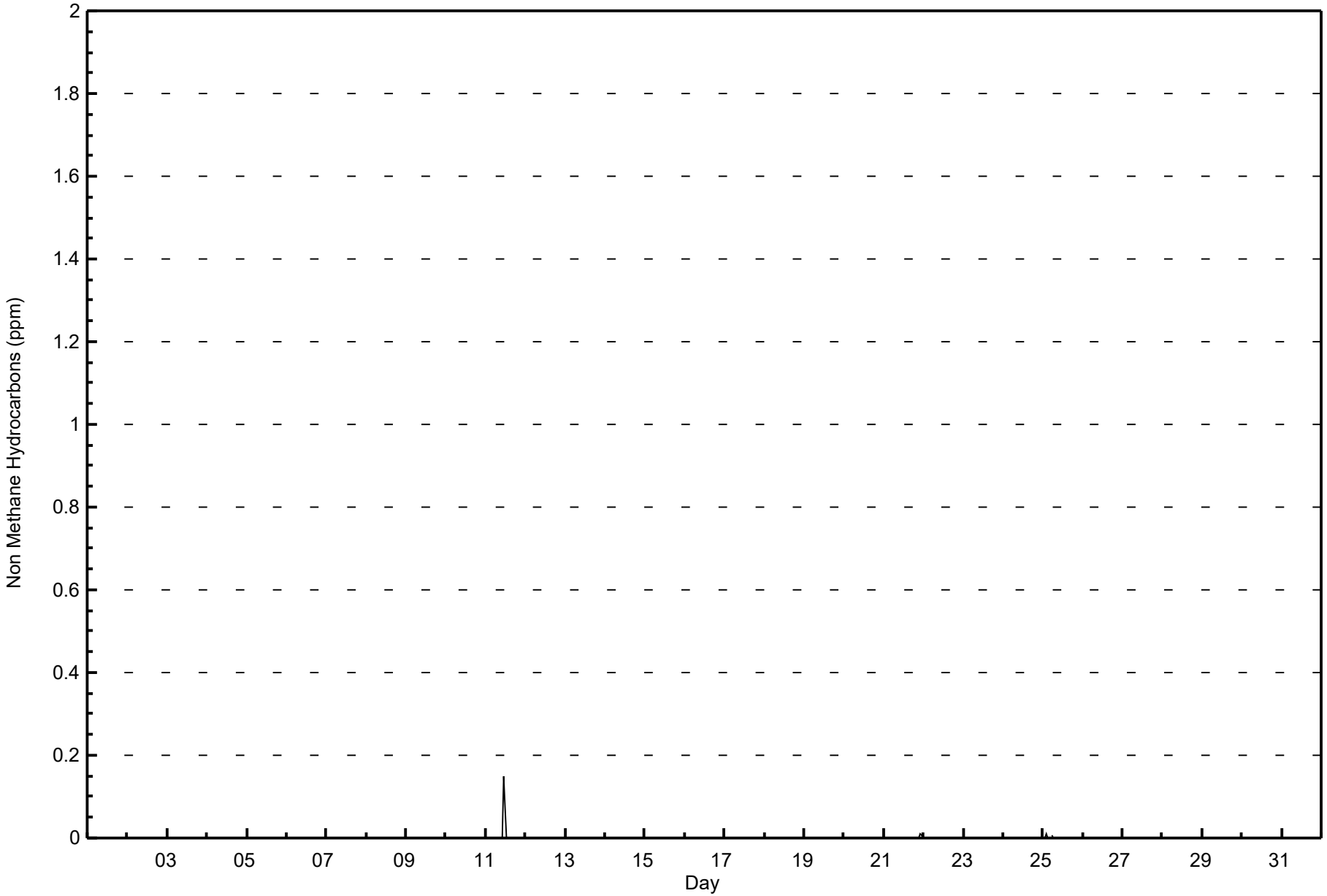
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm

Stony Mountain - October 2025



Non Methane Hydrocarbons (NMHC) - ppm
Stony Mountain - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	705	99.44	99.44
0.006 - 0.05	3	0.42	99.86
0.06 - 0.1	0	0.00	99.86
> 0.1	1	0.14	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Stony Mountain - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.005	11	8	13	14	10	8	11	37	86	108	67	44	78	91	75	44	705
0.006 - 0.05	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	3
0.06 - 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Totals	11	8	13	14	11	8	11	37	86	108	68	44	78	92	76	44	709

Total Number of Valid Hours: 709

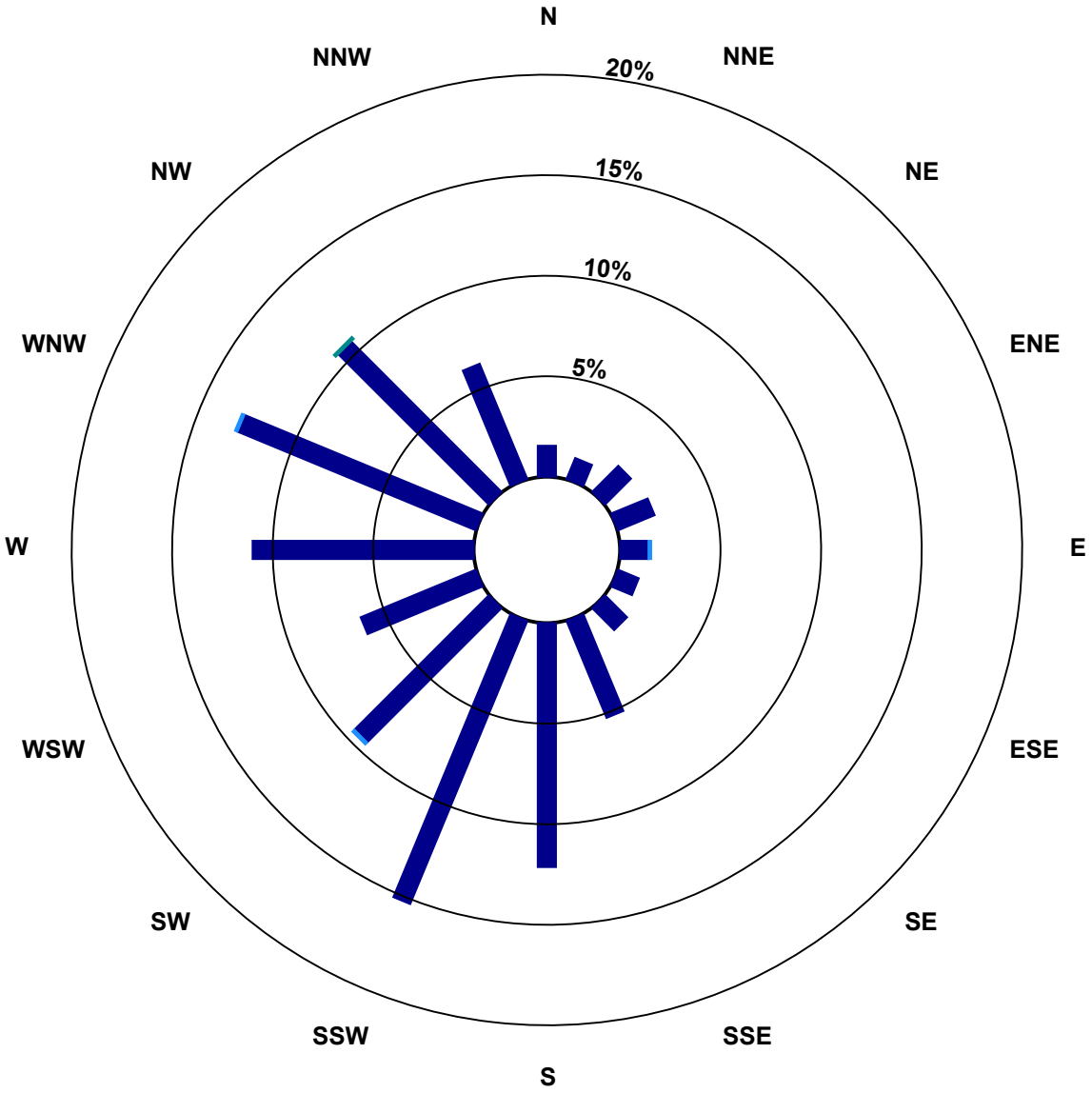
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Non Methane Hydrocarbons (NMHC) - ppm

Stony Mountain



Classes (ppm)

0 - 0.005

0.006 - 0.05

0.06 - 0.1

> 0.1

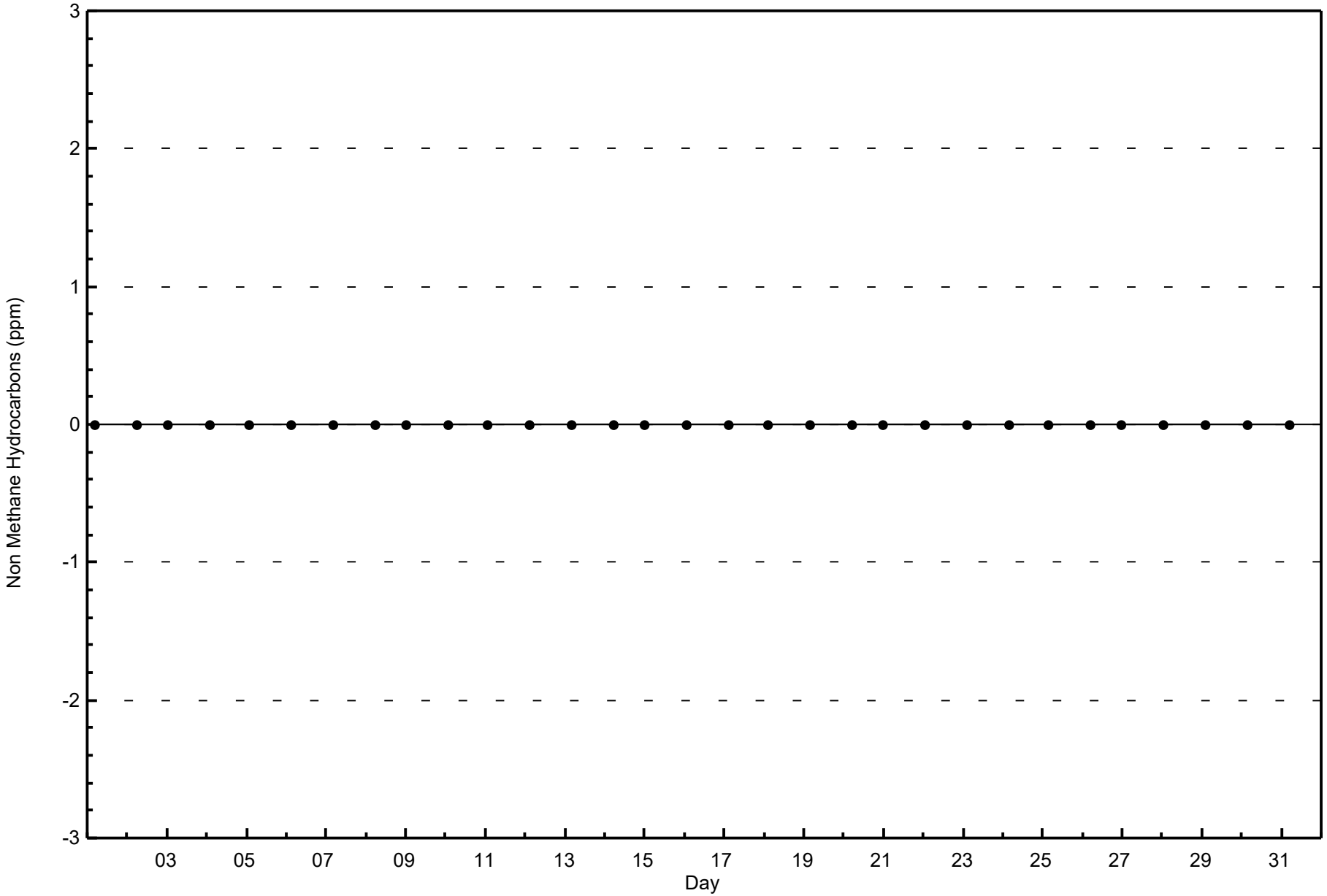
Total Number of Valid Hours: 709

Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Stony Mountain - October 2025



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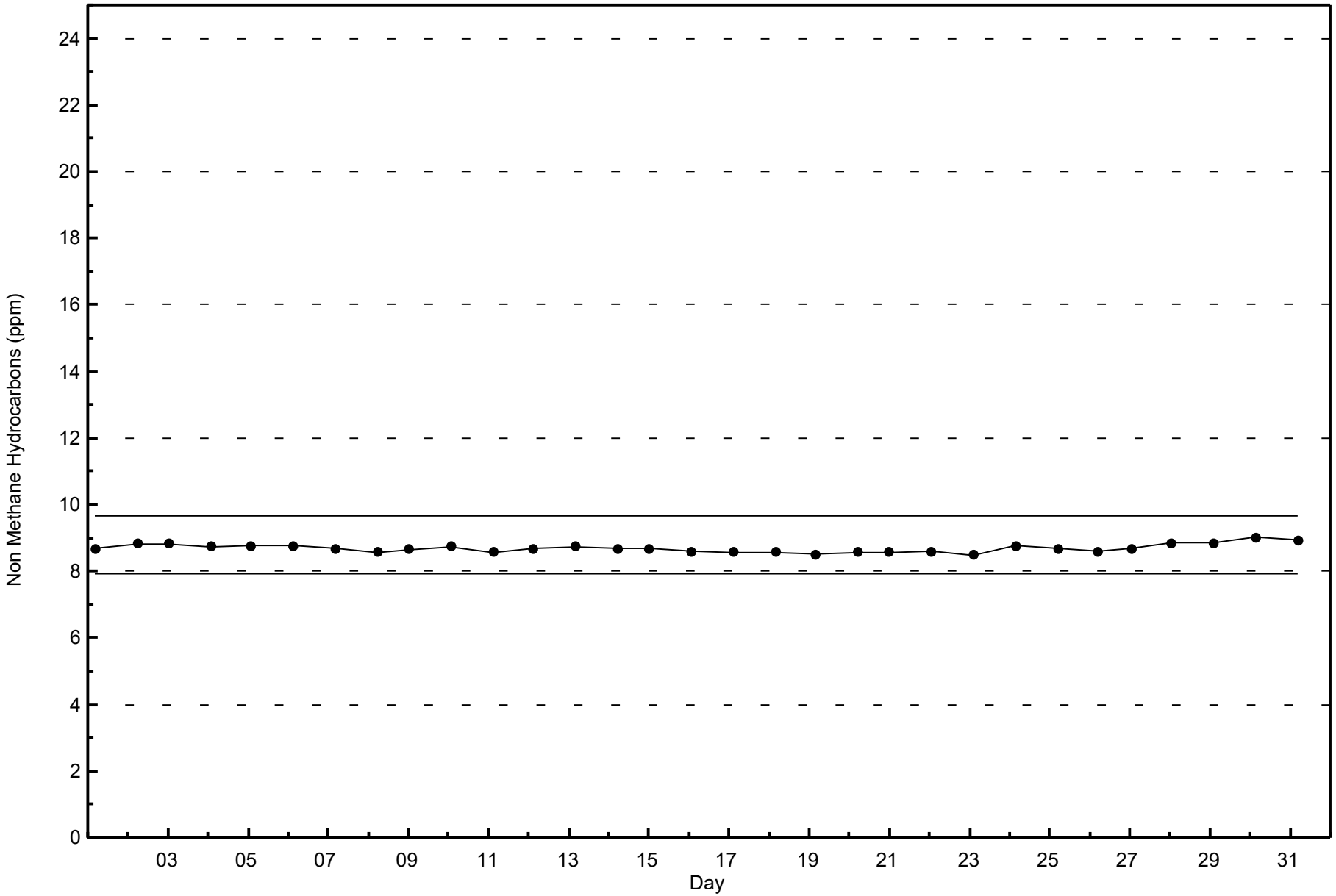
Span Responses

Non Methane Hydrocarbons (NMHC) - ppm

Stony Mountain - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH_4) - ppm

Stony Mountain - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 2.2 ppm on Oct 11 10:00

Maximum Daily Average: 2.1 ppm on Oct 24

Minimum Value: 2.0 ppm on Oct 17 11:00

Minimum Daily Average: 2.0 ppm on Oct 17

Maximum Diurnal Average: 2.1 ppm at hour 10

Minimum Diurnal Average: 2.1 ppm at hour 21

Monthly Average: 2.08 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.1 Median = 2.1 Q_3 = 2.1 P_{90} = 2.1 P_{99} = 2.2

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.2	2.1	2.1	2.1	Z	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
2-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
3-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1
4-Oct	2.0	Z	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
5-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
6-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
7-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
8-Oct	2.1	2.1	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
9-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
10-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
11-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
12-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
13-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
14-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
15-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
16-Oct	2.1	Z	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1
17-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
18-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
19-Oct	2.0	2.0	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
20-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
21-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
22-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
23-Oct	2.1	2.1	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	C	C	C	C	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
24-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.2
25-Oct	2.2	2.2	2.1	2.1	Z	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.2
26-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1
27-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
28-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
29-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2
30-Oct	2.2	2.2	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
31-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	Diurnal Average	
	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	Diurnal Maximum	

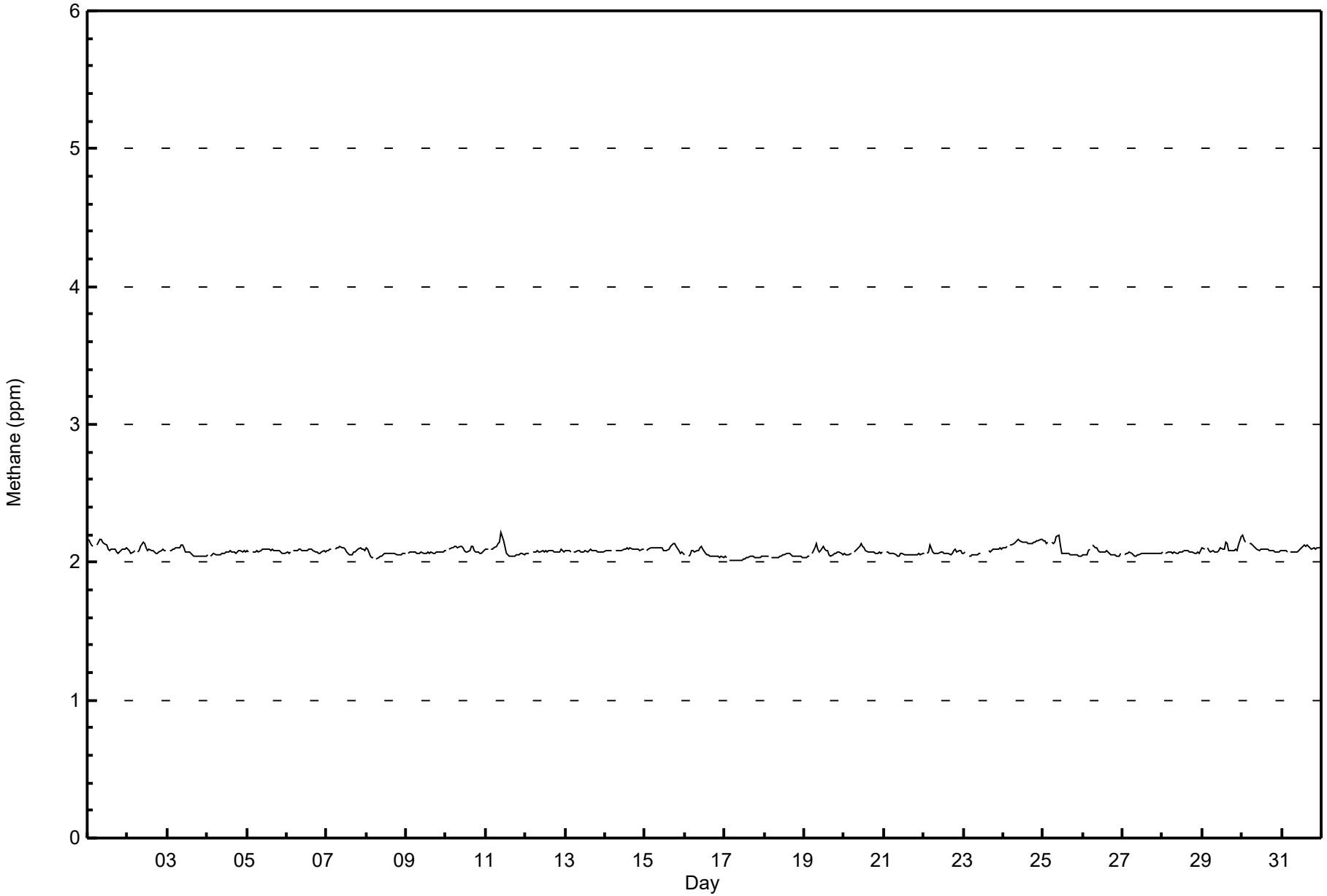
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Methane (CH_4) - ppm

Stony Mountain - October 2025



Methane (CH_4) - ppm
Stony Mountain - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	90	12.69	12.69
2.1 - 3.0	619	87.31	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Methane (CH_4) - ppm

Stony Mountain - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	1	0	0	1	0	1	0	3	8	4	8	15	12	26	10	1	90
2.1 - 3.0	10	8	13	13	11	7	11	34	78	104	60	29	66	66	66	43	619
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	8	13	14	11	8	11	37	86	108	68	44	78	92	76	44	709

Total Number of Valid Hours: 709

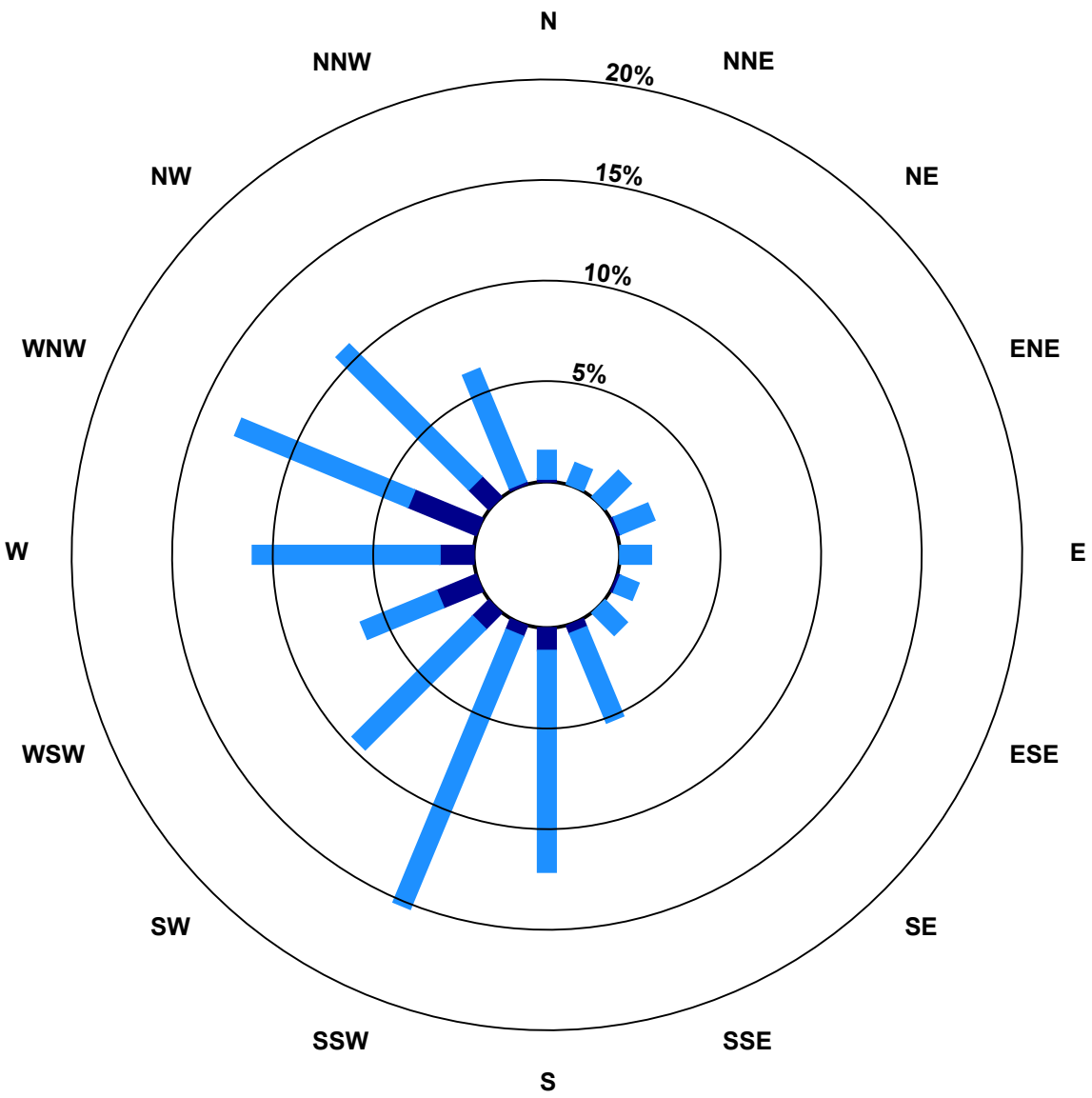
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Methane (CH_4) - ppm

Stony Mountain



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

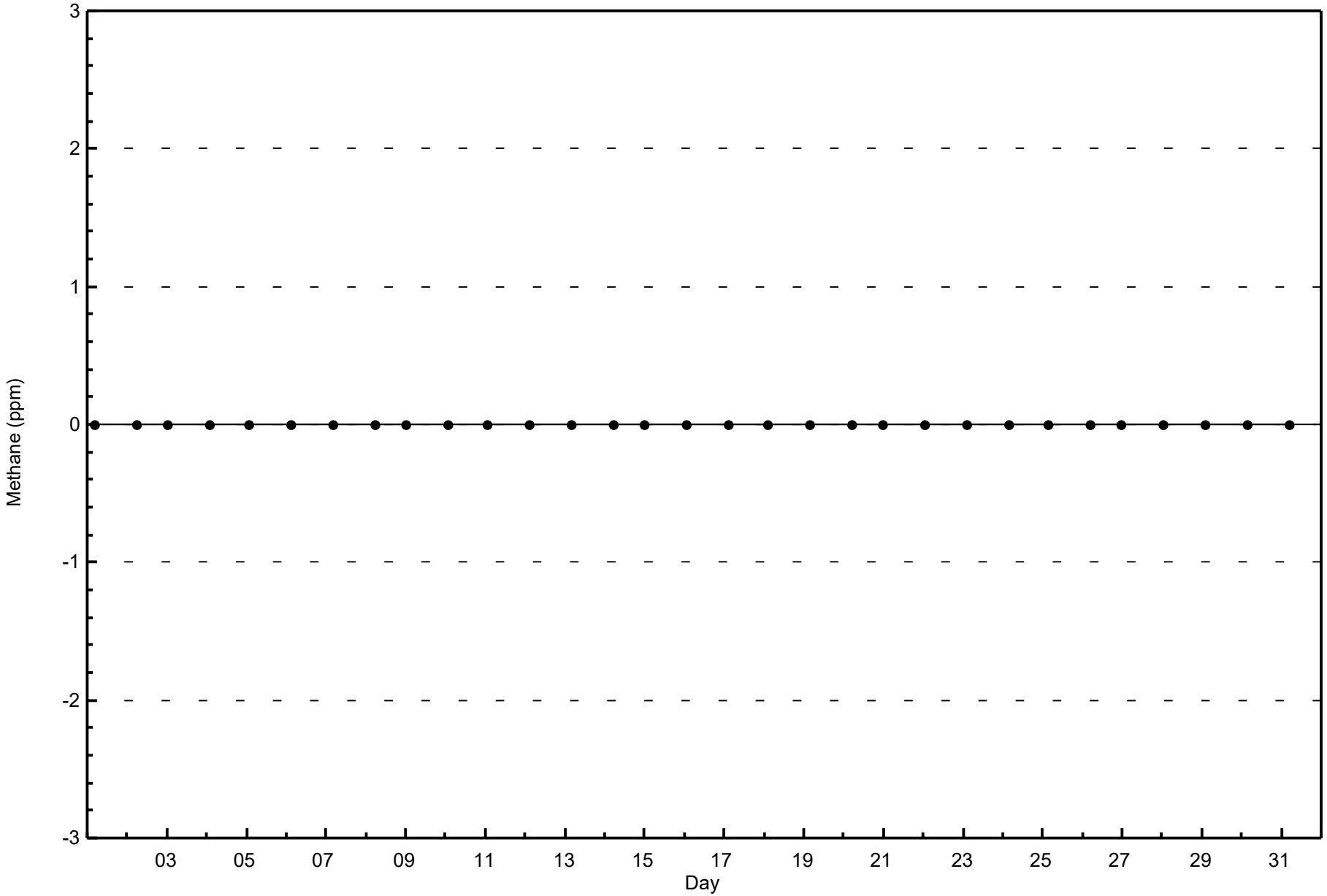
Total Number of Valid Hours: 709

Wood Buffalo Environmental Association

Zero Responses

Methane (CH_4) - ppm

Stony Mountain - October 2025

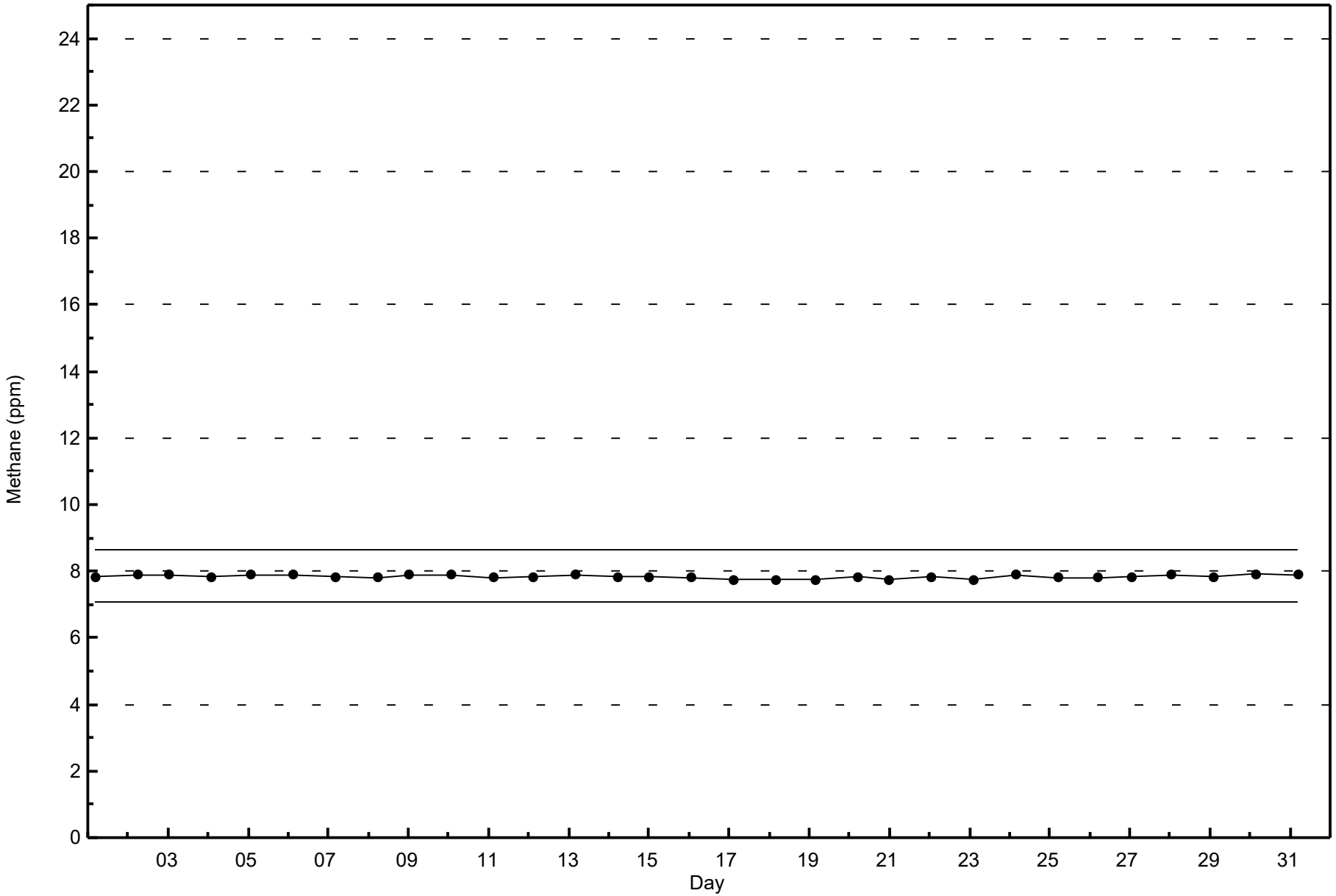


Wood Buffalo Environmental Association

Span Responses

Methane (CH_4) - ppm

Stony Mountain - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Stony Mountain - October 2025

Maximum Value: 3.5 ppb on Oct 18 07:00

Maximum Daily Average: 0.3 ppb on Oct 15

Minimum Value: 0.0 ppb on Oct 1 20:00

Minimum Daily Average: 0.0 ppb on Oct 13

Maximum Diurnal Average: 0.3 ppb at hour 11

Minimum Diurnal Average: 0.0 ppb at hour 18

Monthly Average: 0.08 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.1 P_{90} = 0.2 P_{99} = 0.9

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.3	0.3	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
2-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
3-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
4-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
6-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
7-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5	0.5	0.4	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
8-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
10-Oct	0.1	0.0	0.0	0.0	Z	0.1	0.1	0.2	0.5	0.6	0.5	0.3	0.2	0.2	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6
11-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.0	0.1	0.8	0.4	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8
12-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
13-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
15-Oct	0.0	0.0	0.1	Z	0.1	0.1	0.1	0.3	1.1	1.5	1.6	0.8	0.4	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.3	1.6
16-Oct	0.1	0.1	0.0	0.1	Z	0.1	0.1	0.1	0.3	0.5	0.5	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
17-Oct	0.1	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
18-Oct	Z	0.0	0.0	0.0	0.0	0.0	3.5	2.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	3.5
19-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.8	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.8
20-Oct	0.0	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.7	0.9	1.4	1.0	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.4
21-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
22-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.2	0.2	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
23-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
24-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.7	0.6	0.4	0.5	0.5	0.5	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.7
25-Oct	0.1	Z	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
26-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
27-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28-Oct	0.1	0.1	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
29-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
30-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
31-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	C	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.3
	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.1	0.1	0.1	0.1	0.1	0.1	3.5	2.2	1.1	1.5	1.6	1.0	0.5	0.5	0.5	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Maximum	

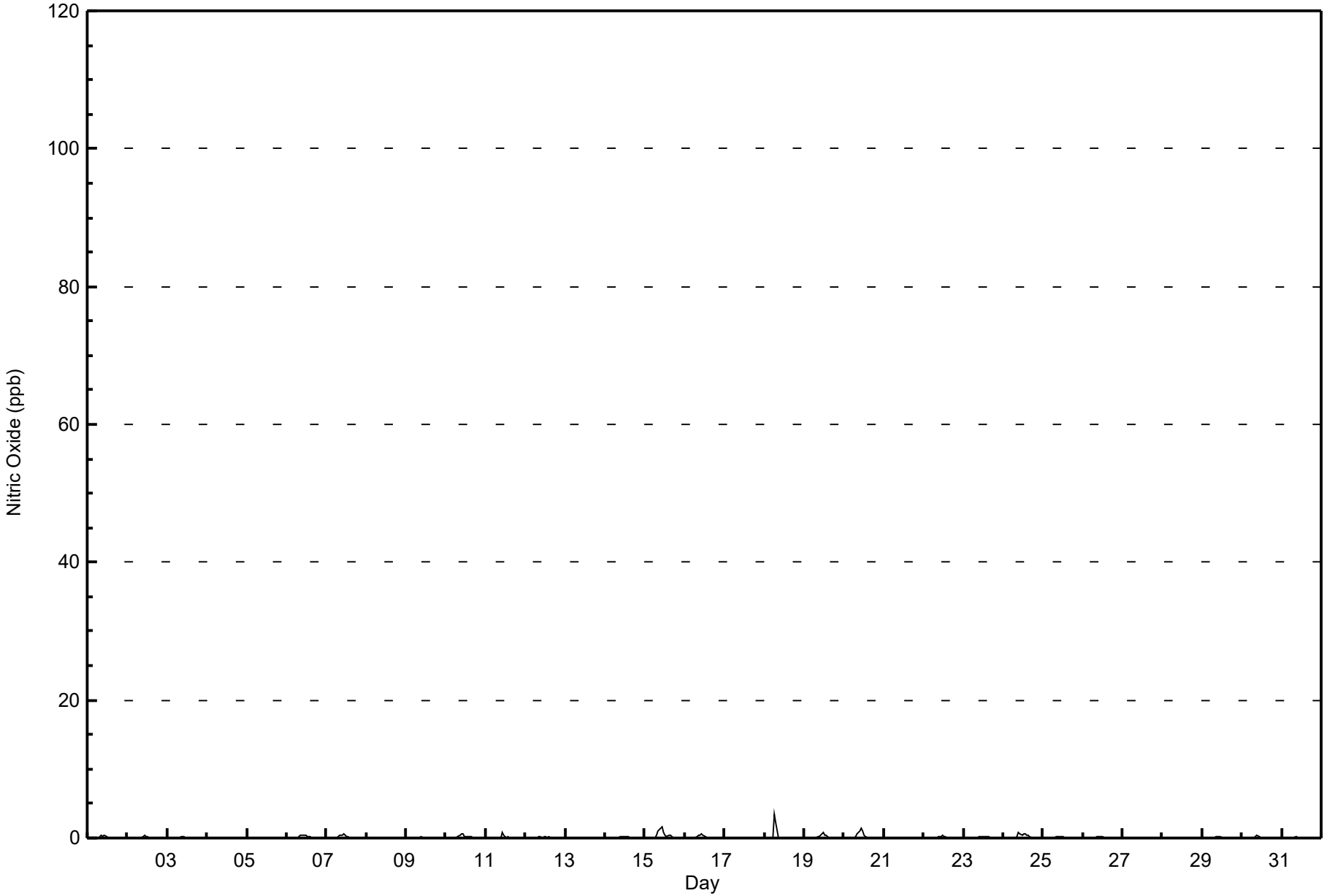
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Stony Mountain - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Stony Mountain - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	10	8	12	14	11	9	11	35	89	106	67	43	80	91	76	45	707
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	8	12	14	11	9	11	35	89	106	67	43	80	91	76	45	707

Total Number of Valid Hours: 707

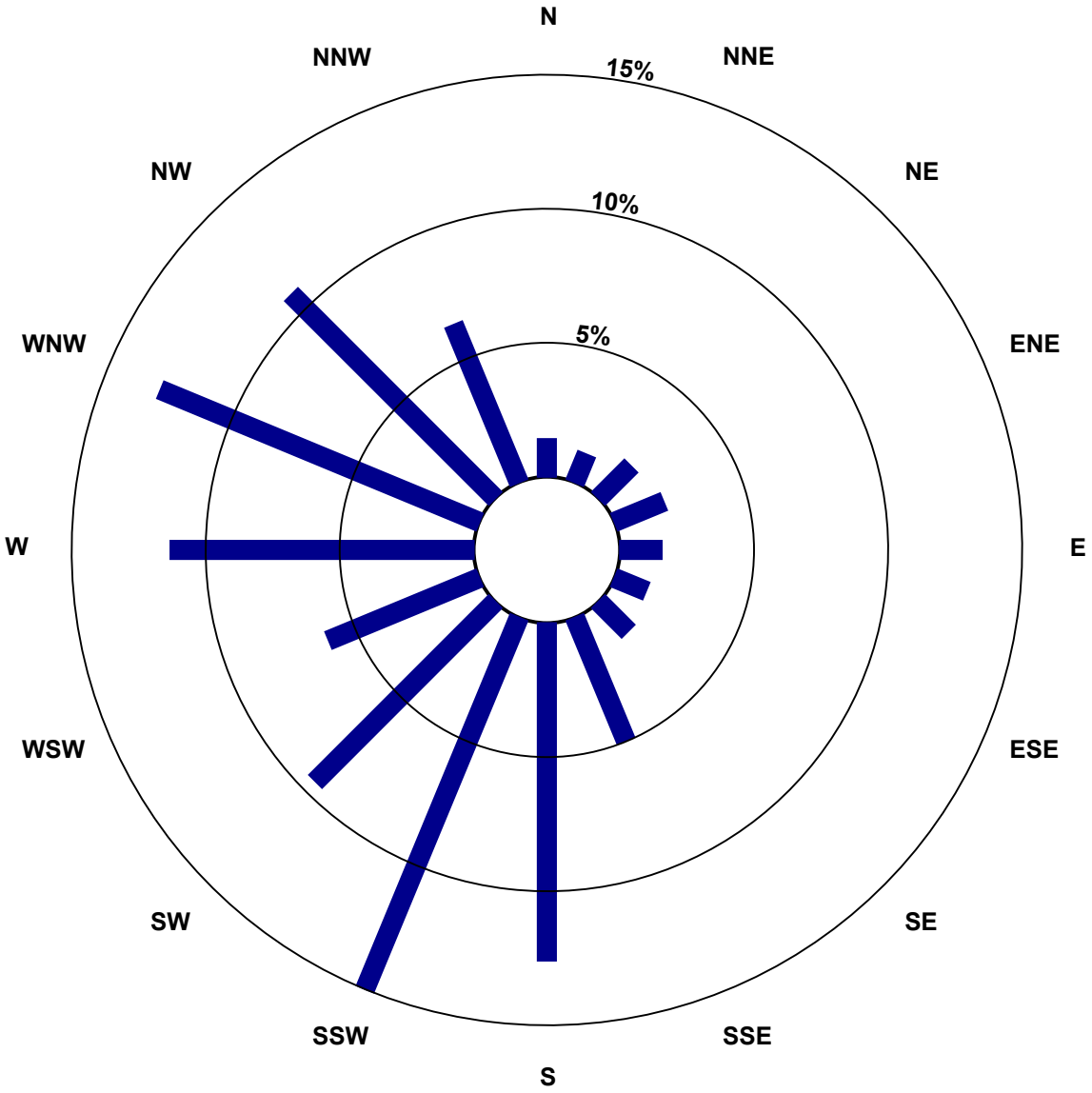
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Stony Mountain



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

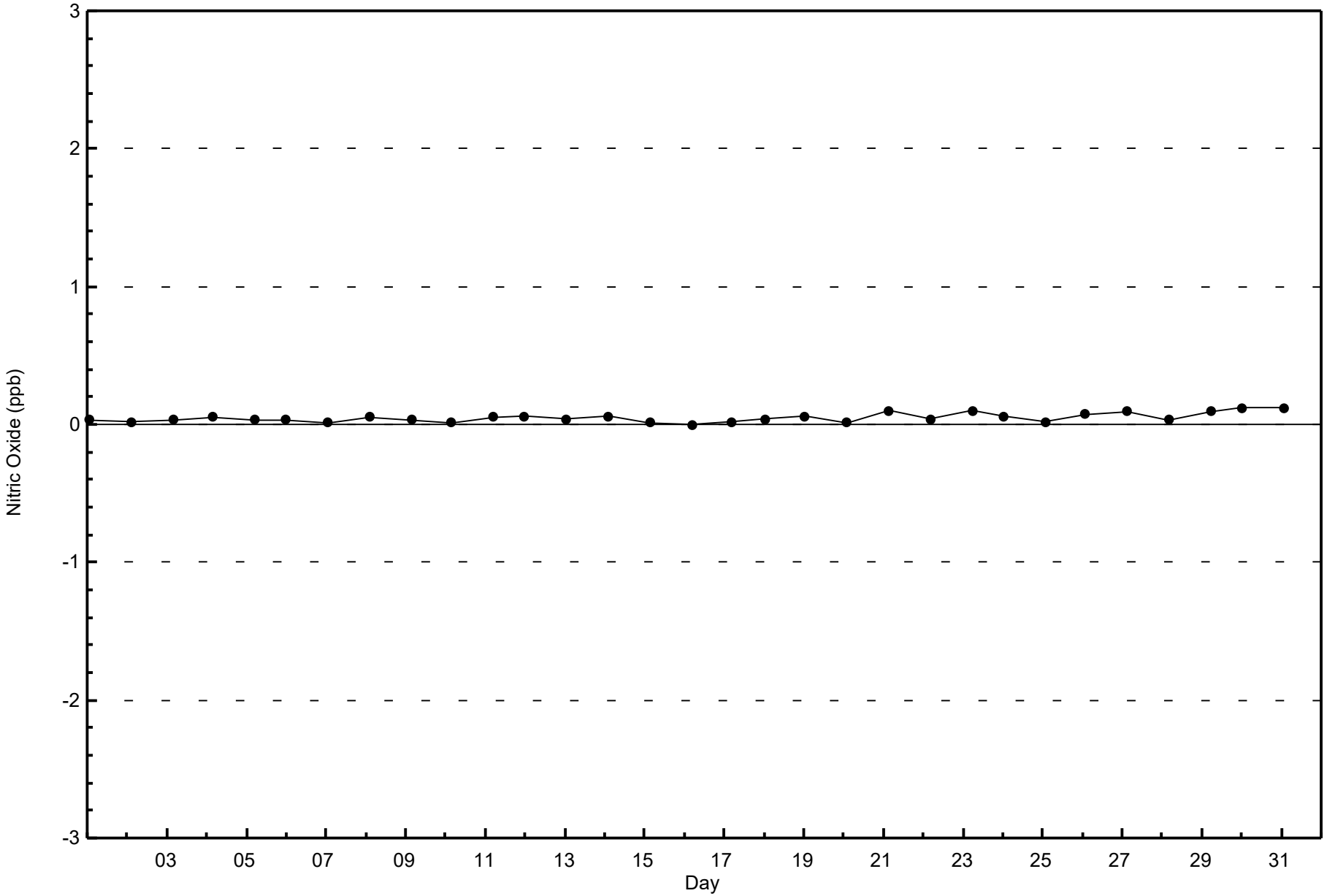
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Stony Mountain - October 2025

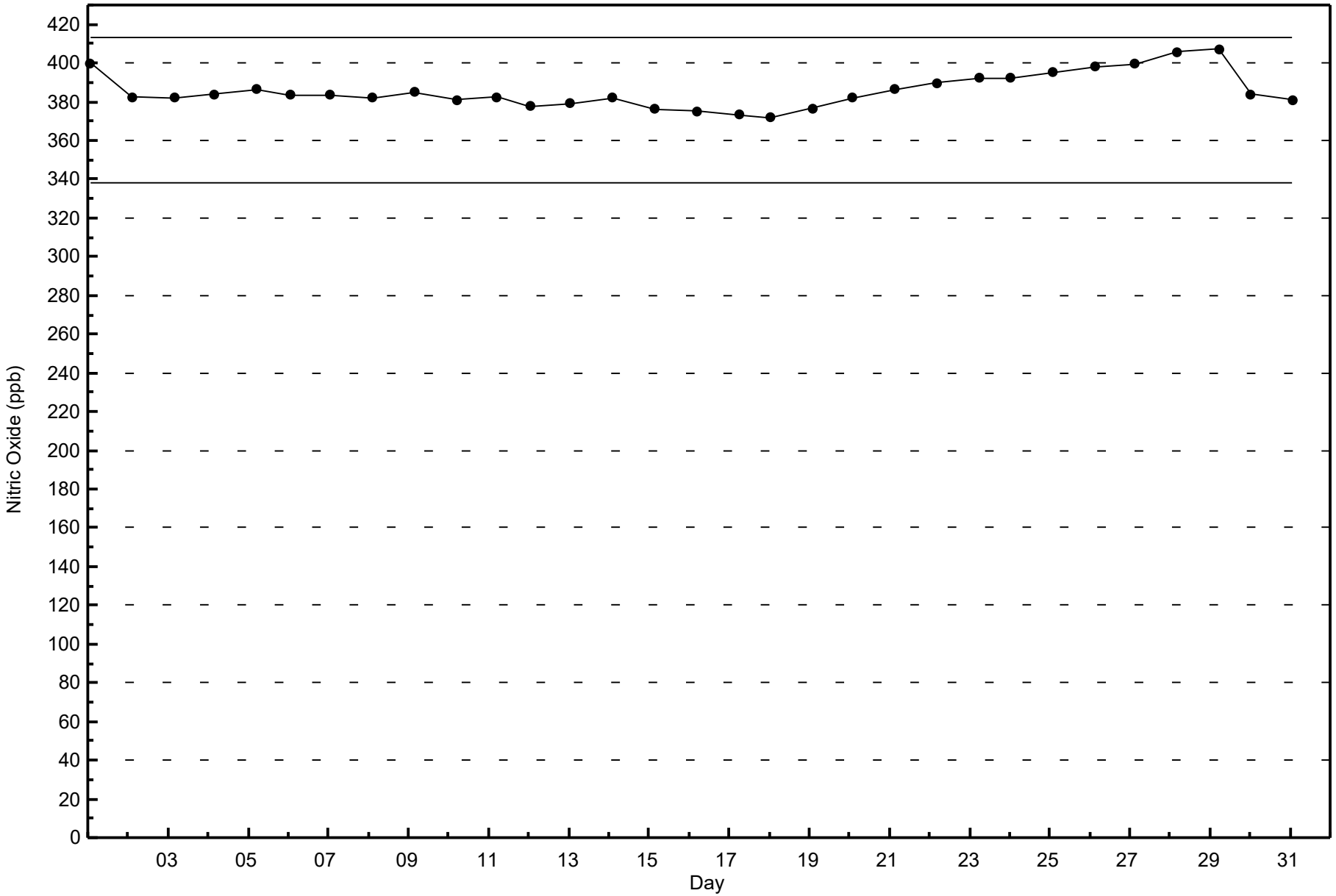


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Stony Mountain - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Stony Mountain - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 7.6 ppb on Oct 30 00:00

Maximum Daily Average: 2.9 ppb on Oct 24

Minimum Value: 0.0 ppb on Oct 8 14:00

Minimum Daily Average: 0.1 ppb on Oct 28

Maximum Diurnal Average: 1.5 ppb at hour 4

Minimum Diurnal Average: 0.6 ppb at hour 15

Monthly Average: 1.03 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.3 Median = 0.7 Q_3 = 1.4 P_{90} = 2.5 P_{99} = 4.3

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.5	Z	1.2	1.1	0.8	0.9	1.3	2.9	3.2	2.5	2.4	1.7	0.9	0.7	0.7	0.6	0.9	0.7	0.5	1.1	1.6	1.9	1.9	2.2	1.5	3.2
2-Oct	2.0	1.1	Z	0.8	0.5	0.4	0.5	0.6	0.7	0.9	1.0	0.9	0.8	0.6	0.5	0.4	0.4	0.4	0.5	0.5	0.7	0.6	0.7	0.7	0.7	2.0
3-Oct	0.6	0.6	0.7	Z	1.0	0.8	0.9	0.9	1.0	1.1	0.8	0.5	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.5	1.1
4-Oct	0.3	0.3	0.2	0.3	Z	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.5	0.2	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.5
5-Oct	0.2	0.1	0.1	0.1	0.1	Z	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.1	0.1	0.2	0.2	0.3
6-Oct	Z	0.3	0.3	0.4	0.6	0.6	1.1	1.8	1.8	1.2	0.9	0.8	0.7	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.6	1.0	0.8	1.8
7-Oct	1.3	Z	2.0	4.4	2.1	1.6	1.6	1.8	1.7	1.9	1.7	1.2	0.8	0.6	0.4	0.7	1.3	1.4	1.8	2.8	3.0	2.1	1.9	1.7	1.7	4.4
8-Oct	1.9	1.4	Z	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.3	1.9
9-Oct	0.4	0.3	0.3	Z	0.5	0.4	0.3	0.4	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.5	0.4	0.4	0.5	0.6	0.7	1.6	0.4	1.6
10-Oct	2.3	3.0	4.2	3.3	Z	2.6	2.8	3.0	2.5	2.4	2.1	1.4	1.4	1.5	1.5	2.3	2.1	1.5	1.1	1.1	1.4	1.4	2.3	3.3	2.2	4.2
11-Oct	1.7	1.9	1.9	5.0	2.3	Z	1.9	1.8	1.7	1.3	2.9	4.1	0.5	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	1.2	5.0
12-Oct	Z	0.2	0.6	0.8	1.0	1.4	1.4	1.9	1.7	1.3	1.1	0.8	1.6	1.0	1.2	1.1	1.4	1.5	0.6	0.6	1.1	2.1	0.8	0.3	1.1	2.1
13-Oct	0.3	Z	0.6	0.3	0.4	0.3	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.1	0.1	0.2	0.1	0.1	0.4	0.5	0.4	1.0	0.4	0.3	0.3	1.0
14-Oct	0.5	0.6	Z	0.8	0.8	0.9	0.9	1.0	0.9	0.8	0.7	0.6	0.6	0.6	0.5	0.5	0.7	0.8	0.9	1.0	1.0	1.0	1.0	1.0	0.8	1.0
15-Oct	1.0	1.2	1.7	Z	2.5	2.8	2.9	3.1	3.3	3.1	3.0	2.4	1.7	1.4	1.4	2.0	2.4	2.9	3.3	3.1	2.0	1.1	1.1	1.0	2.2	3.3
16-Oct	0.7	0.7	0.8	0.7	Z	1.3	1.1	1.5	1.4	1.4	1.3	1.2	0.7	0.6	0.3	0.3	0.5	0.9	0.7	0.8	1.1	0.8	1.1	0.9	0.9	1.5
17-Oct	0.8	1.0	0.9	0.4	0.3	Z	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.3	1.0
18-Oct	Z	0.3	0.2	0.3	0.4	0.4	2.5	1.9	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.8	0.8	0.5	2.5
19-Oct	0.4	Z	0.8	4.6	4.1	2.4	3.4	2.7	2.1	2.4	2.4	4.0	3.5	2.8	1.9	0.8	0.9	1.6	1.0	0.7	1.1	0.6	0.8	0.6	2.0	4.6
20-Oct	0.7	0.2	Z	0.3	0.2	0.5	0.8	2.5	3.7	3.5	4.3	2.7	1.7	0.8	0.5	0.5	0.6	0.5	0.6	0.7	0.9	1.3	1.1	3.6	1.4	4.3
21-Oct	2.4	2.0	1.2	Z	1.2	1.1	1.0	0.8	0.5	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.7	0.7	2.4
22-Oct	1.2	1.3	1.6	1.4	Z	0.5	0.5	0.5	0.5	0.4	0.3	0.9	0.4	0.4	0.2	0.3	0.4	0.5	1.1	2.2	2.0	1.4	1.5	1.1	0.9	2.2
23-Oct	1.1	1.0	0.8	0.8	1.1	Z	1.1	1.1	1.3	1.1	1.0	1.0	1.0	1.0	1.0	1.4	1.1	1.1	1.2	1.7	2.3	2.4	2.1	1.8	1.3	2.4
24-Oct	Z	1.9	1.9	1.9	2.1	2.2	2.3	2.5	2.5	3.6	2.3	2.0	2.8	2.6	2.8	3.4	2.6	2.5	3.6	4.6	4.7	3.8	3.8	3.6	2.9	4.7
25-Oct	3.0	Z	2.4	2.7	2.9	2.6	2.1	1.9	2.0	1.4	0.9	0.5	0.5	0.6	0.4	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	1.2	3.0
26-Oct	0.5	0.6	Z	1.4	2.3	2.9	2.6	2.6	2.5	1.8	1.6	1.9	1.8	1.2	1.3	0.7	0.8	0.8	0.3	0.3	0.2	0.3	0.4	0.5	1.3	2.9
27-Oct	0.2	0.6	0.9	Z	1.7	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	1.7
28-Oct	0.0	0.0	0.1	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.2	0.2	0.3	0.4	0.7	0.1	0.7
29-Oct	1.0	2.1	1.5	3.8	3.5	Z	1.5	1.4	1.5	1.5	1.3	1.0	0.6	0.5	0.5	0.5	0.6	0.9	1.2	1.2	1.6	1.8	3.6	7.6	1.8	7.6
30-Oct	Z	5.7	4.0	3.3	3.5	3.6	2.7	2.1	1.4	1.1	0.8	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.4	5.7
31-Oct	0.4	Z	0.6	0.4	0.4	1.1	1.0	0.7	0.7	0.8	C	C	C	C	C	C	2.3	2.4	2.3	2.2	1.4	1.4	1.3	1.2	--	2.4
	1.1	1.1	1.2	1.5	1.4	1.3	1.3	1.4	1.3	1.2	1.1	1.1	0.8	0.7	0.6	0.6	0.7	0.8	0.8	0.9	1.0	0.9	1.0	1.2	Diurnal Average	
	3.0	5.7	4.2	5.0	4.1	3.6	3.4	3.1	3.7	3.6	4.3	4.1	3.5	2.8	2.8	3.4	2.6	2.9	3.6	4.6	4.7	3.8	3.8	7.6	Diurnal Maximum	

Z - zerospan C - Calibration

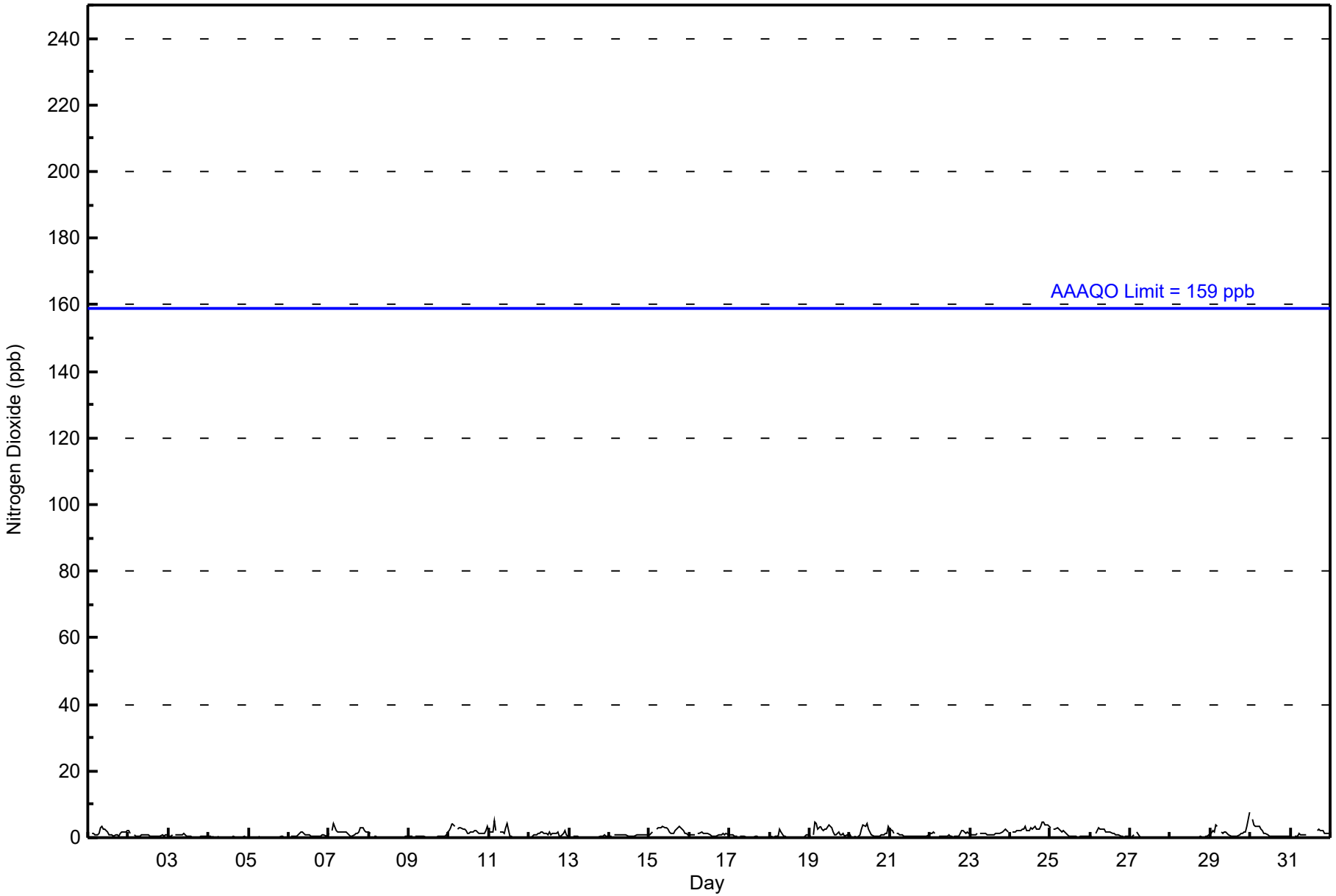
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Stony Mountain - October 2025



Nitrogen Dioxide (NO_2) - ppb
Stony Mountain - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Stony Mountain - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	10	8	12	14	11	9	11	35	89	106	67	43	80	91	76	45	707
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	8	12	14	11	9	11	35	89	106	67	43	80	91	76	45	707

Total Number of Valid Hours: 707

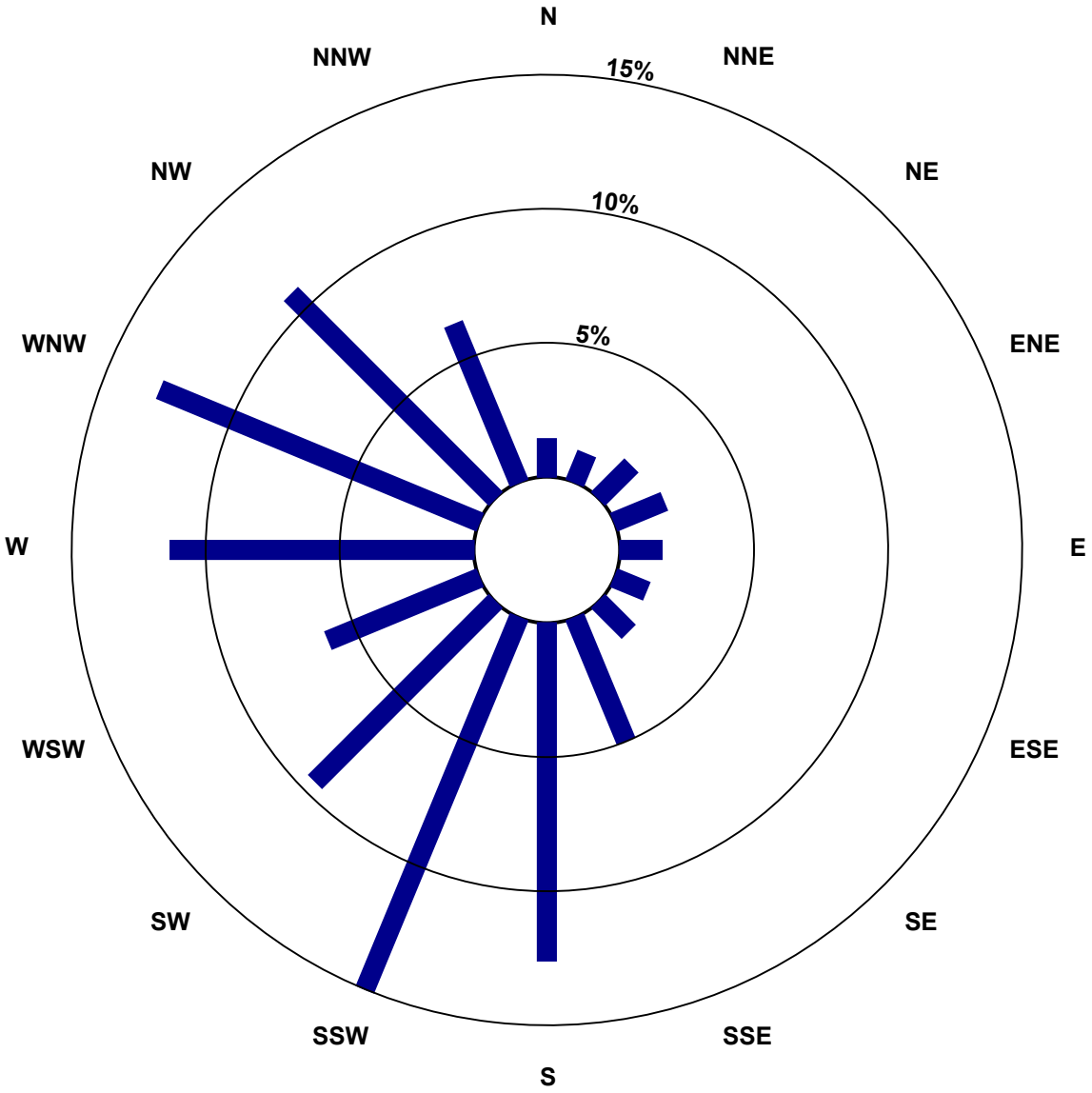
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Stony Mountain



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

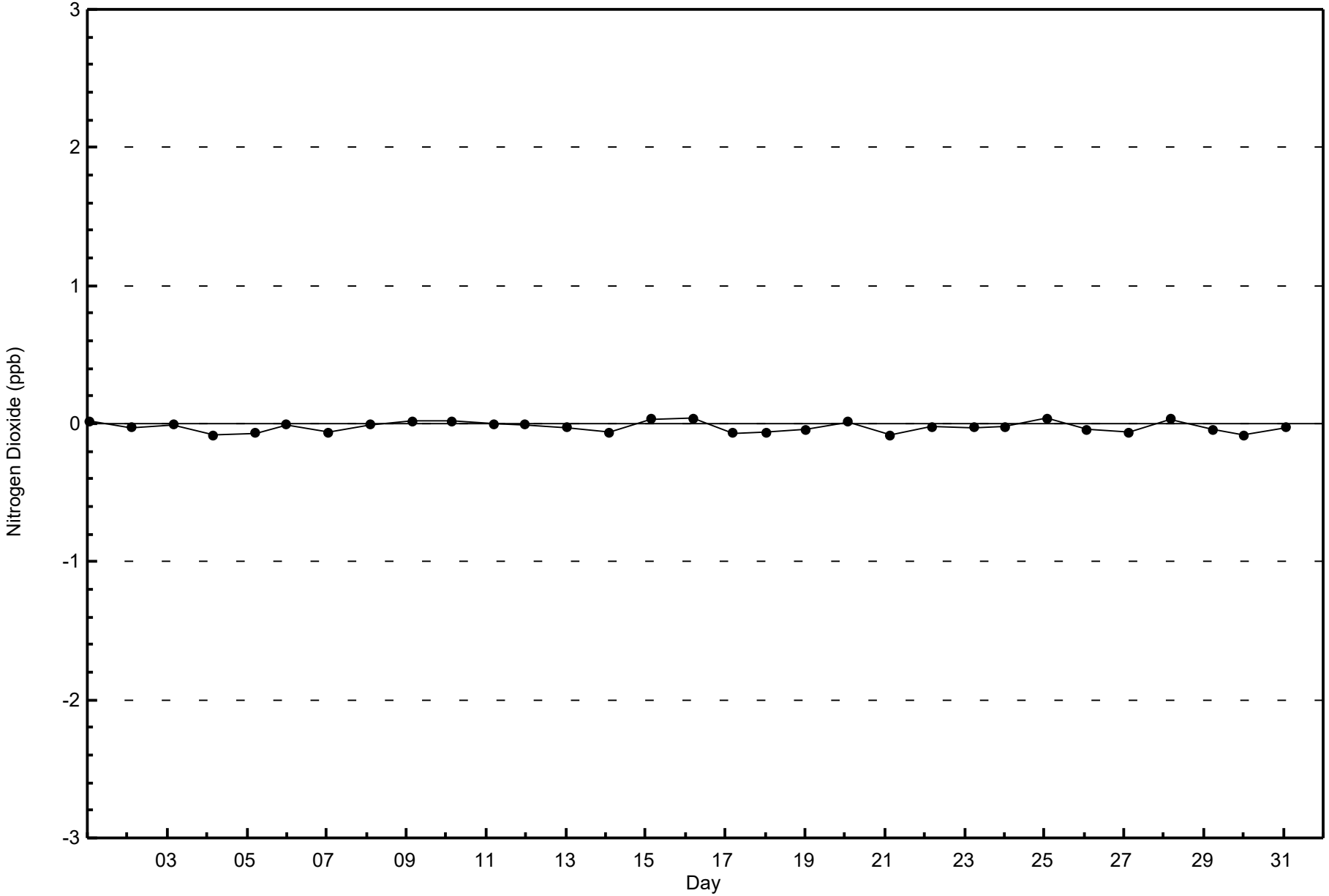
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Stony Mountain - October 2025

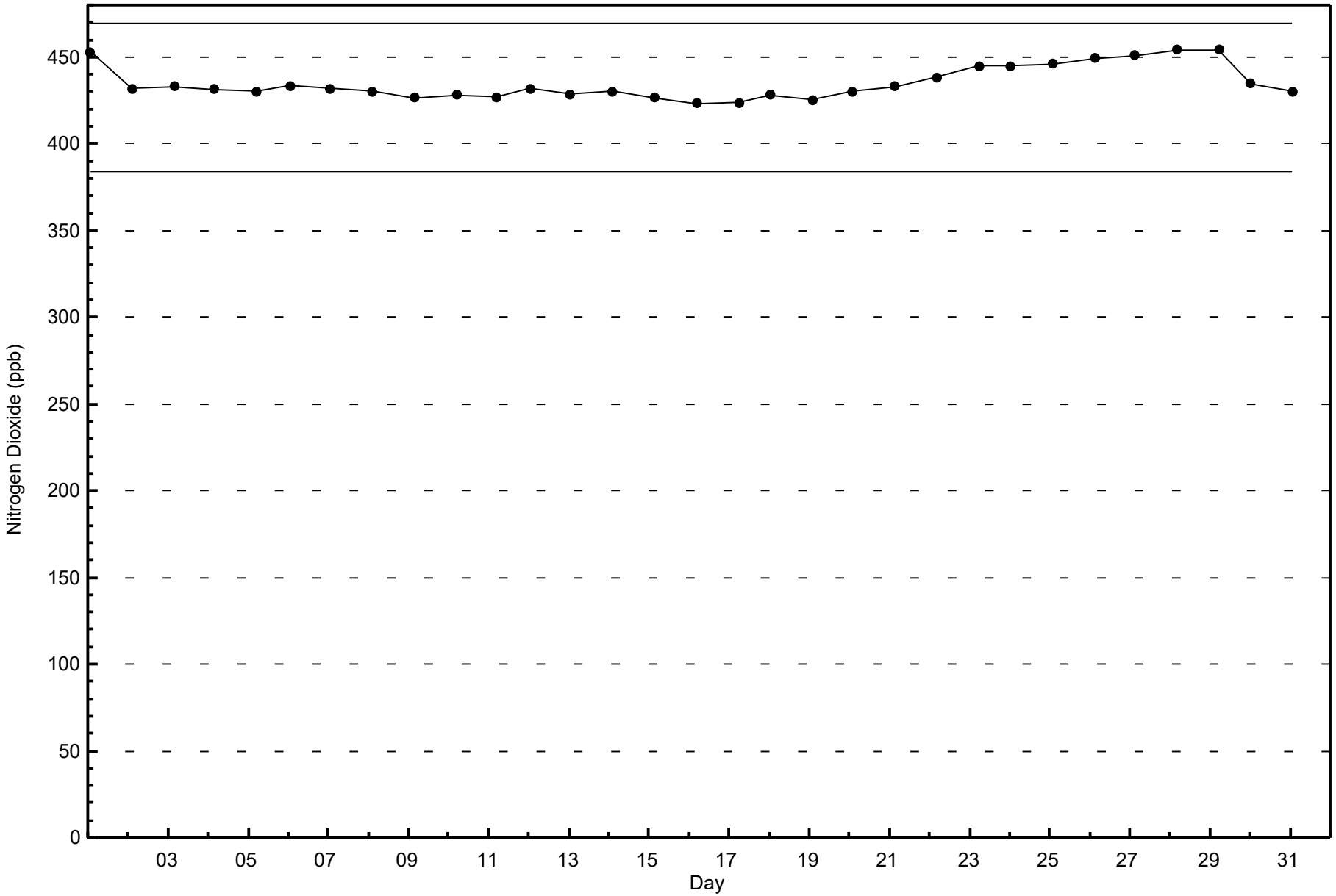


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Stony Mountain - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Stony Mountain - October 2025

Maximum Value: 7.6 ppb on Oct 30 00:00

Maximum Daily Average: 3.1 ppb on Oct 24

Minimum Value: 0.0 ppb on Oct 8 16:00

Minimum Daily Average: 0.2 ppb on Oct 28

Maximum Diurnal Average: 1.5 ppb at hour 4

Minimum Diurnal Average: 0.7 ppb at hour 15

Monthly Average: 1.11 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.3 Median = 0.7 Q_3 = 1.6 P_{90} = 2.7 P_{99} = 4.7

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.5	Z	1.2	1.1	0.8	0.9	1.4	3.0	3.6	2.8	2.7	1.9	1.0	0.7	0.8	0.6	0.9	0.7	0.5	1.1	1.6	1.9	1.9	2.2	1.6	3.6
2-Oct	2.0	1.1	Z	0.8	0.5	0.4	0.5	0.6	0.8	1.1	1.4	1.1	1.0	0.7	0.5	0.4	0.4	0.4	0.5	0.5	0.7	0.6	0.7	0.7	0.8	2.0
3-Oct	0.6	0.6	0.7	Z	1.0	0.8	0.9	1.0	1.2	1.3	1.0	0.6	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.6	1.3
4-Oct	0.3	0.3	0.2	0.3	Z	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.5	0.2	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.5
5-Oct	0.2	0.1	0.1	0.1	0.1	Z	0.3	0.2	0.2	0.1	0.3	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.1	0.1	0.2	0.2	0.3
6-Oct	Z	0.3	0.3	0.4	0.6	0.6	1.1	1.9	2.3	1.7	1.3	1.2	1.0	0.7	0.6	0.6	0.5	0.6	0.6	0.6	0.7	0.7	0.6	1.0	0.9	2.3
7-Oct	1.3	Z	2.0	4.4	2.1	1.6	1.6	1.9	2.1	2.4	2.2	1.6	1.0	0.7	0.5	0.7	1.4	1.4	1.8	2.8	3.0	2.1	1.9	1.7	1.8	4.4
8-Oct	1.9	1.4	Z	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.3	1.9
9-Oct	0.4	0.3	0.3	Z	0.5	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.5	0.4	0.4	0.5	0.6	0.7	1.6	0.4	1.6
10-Oct	2.4	3.0	4.2	3.3	Z	2.7	2.9	3.2	3.0	3.0	2.6	1.7	1.6	1.7	1.7	2.6	2.2	1.5	1.1	1.1	1.4	1.4	2.3	3.3	2.3	4.2
11-Oct	1.7	1.9	1.9	5.0	2.3	Z	1.9	1.9	1.7	1.4	3.7	4.5	0.5	0.7	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	1.3	5.0
12-Oct	Z	0.2	0.6	0.8	1.0	1.4	1.4	1.9	1.8	1.4	1.2	0.9	1.8	1.1	1.3	1.2	1.4	1.5	0.6	0.6	1.1	2.1	0.8	0.3	1.1	2.1
13-Oct	0.3	Z	0.6	0.3	0.4	0.3	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.1	0.1	0.2	0.1	0.1	0.4	0.5	0.4	1.0	0.4	0.3	0.3	1.0
14-Oct	0.5	0.6	Z	0.8	0.8	0.9	0.9	1.0	1.0	1.0	0.9	0.8	0.8	0.8	0.6	0.6	0.7	0.8	0.9	1.0	1.0	1.0	1.0	1.0	0.8	1.0
15-Oct	1.0	1.2	1.8	Z	2.6	2.9	3.0	3.4	4.4	4.6	4.6	3.2	2.1	1.6	1.7	2.3	2.6	3.0	3.4	3.2	2.1	1.2	1.2	1.0	2.5	4.6
16-Oct	0.8	0.8	0.8	0.8	Z	1.4	1.2	1.6	1.7	1.9	1.8	1.6	0.9	0.7	0.3	0.3	0.5	0.9	0.7	0.8	1.1	0.8	1.1	0.9	1.0	1.9
17-Oct	0.9	1.0	0.9	0.4	0.3	Z	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.4	1.0
18-Oct	Z	0.3	0.2	0.3	0.4	0.4	6.0	4.1	0.5	0.4	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.8	0.8	0.7	6.0
19-Oct	0.4	Z	0.8	4.6	4.1	2.4	3.4	2.7	2.2	2.7	2.8	4.8	3.9	3.1	2.1	0.8	0.9	1.6	1.0	0.7	1.1	0.6	0.8	0.7	2.1	4.8
20-Oct	0.7	0.3	Z	0.4	0.3	0.6	0.9	2.7	4.4	4.4	5.7	3.7	2.1	1.0	0.6	0.6	0.6	0.5	0.6	0.7	0.9	1.3	1.1	3.6	1.6	5.7
21-Oct	2.4	2.0	1.2	Z	1.2	1.1	1.0	0.8	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.7	0.7	2.4
22-Oct	1.2	1.3	1.6	1.4	Z	0.5	0.5	0.5	0.6	0.6	0.5	1.3	0.5	0.5	0.2	0.3	0.4	0.5	1.1	2.2	2.0	1.4	1.5	1.1	0.9	2.2
23-Oct	1.1	1.0	0.8	0.8	1.1	Z	1.1	1.1	1.4	1.3	1.3	1.3	1.2	1.2	1.2	1.5	1.1	1.1	1.2	1.7	2.3	2.4	2.1	1.8	1.4	2.4
24-Oct	Z	1.9	1.9	1.9	2.1	2.2	2.3	2.6	2.8	4.3	2.9	2.4	3.3	3.1	3.3	3.8	2.7	2.6	3.7	4.7	4.8	3.9	3.9	3.7	3.1	4.8
25-Oct	3.1	Z	2.5	2.8	3.0	2.6	2.1	2.0	2.1	1.7	1.1	0.6	0.6	0.7	0.5	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	1.2	3.1
26-Oct	0.5	0.6	Z	1.4	2.3	2.9	2.6	2.6	2.6	2.0	1.8	2.1	1.9	1.3	1.3	0.7	0.8	0.8	0.3	0.3	0.2	0.3	0.4	0.5	1.3	2.9
27-Oct	0.2	0.6	0.9	Z	1.7	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.3	1.7
28-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.3	0.4	0.7	0.2	0.7
29-Oct	1.0	2.1	1.5	3.8	3.5	Z	1.5	1.4	1.7	1.8	1.5	1.1	0.7	0.6	0.6	0.6	0.6	0.9	1.2	1.2	1.6	1.8	3.6	7.6	1.8	7.6
30-Oct	Z	5.7	4.0	3.3	3.5	3.6	2.7	2.1	1.5	1.4	1.1	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.4	5.7
31-Oct	0.4	Z	0.6	0.4	0.4	1.1	1.0	0.8	0.8	1.1	C	C	C	C	C	C	2.3	2.4	2.3	2.2	1.4	1.4	1.3	1.2	--	2.4
	1.1	1.1	1.2	1.5	1.4	1.3	1.4	1.5	1.5	1.5	1.5	1.3	1.0	0.8	0.7	0.7	0.7	0.8	0.8	0.9	1.0	0.9	1.0	1.2	Diurnal Average	
	3.1	5.7	4.2	5.0	4.1	3.6	6.0	4.1	4.4	4.6	5.7	4.8	3.9	3.1	3.3	3.8	2.7	3.0	3.7	4.7	4.8	3.9	3.9	7.6	Diurnal Maximum	

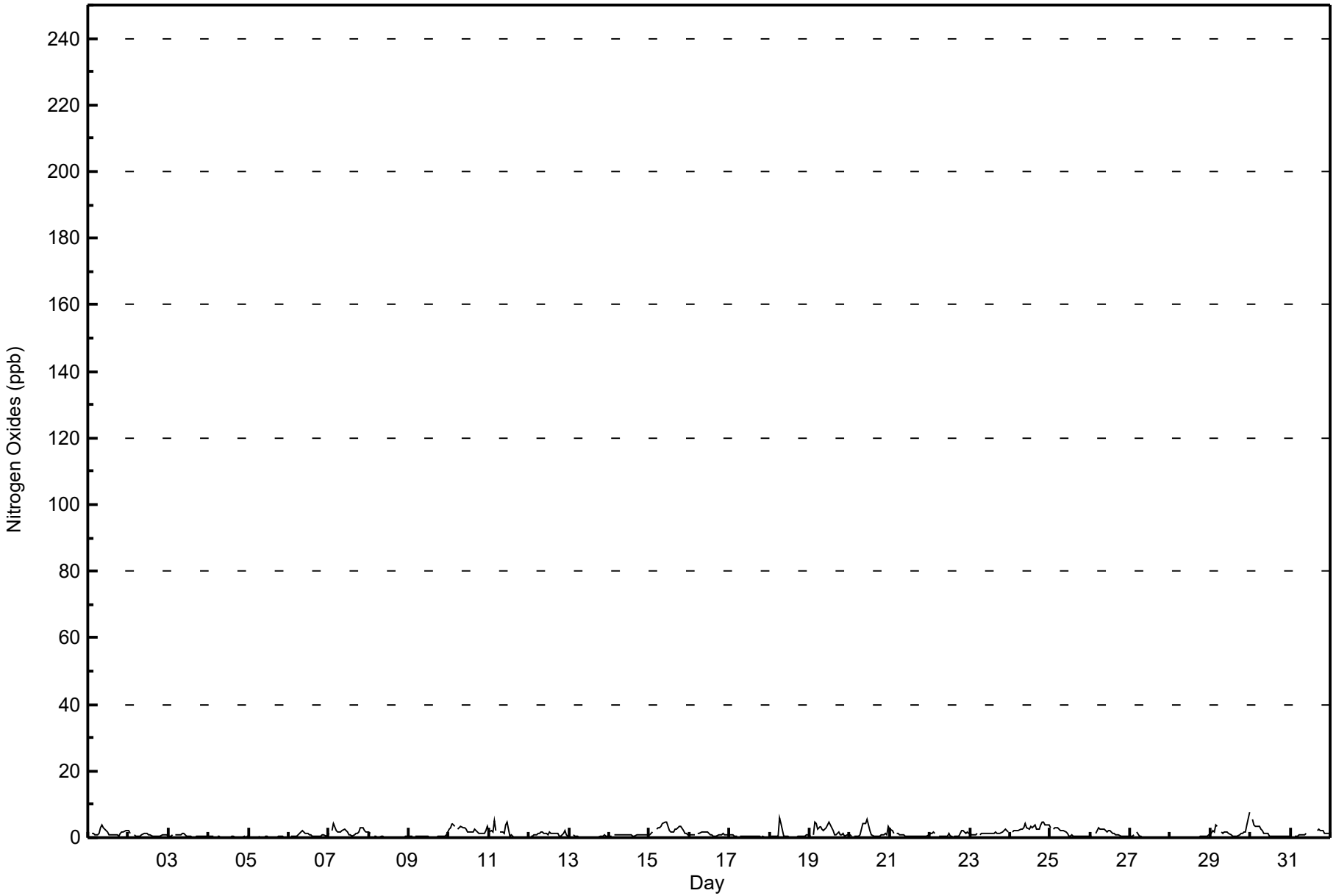
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Stony Mountain - October 2025



Nitrogen Oxides (NO_X) - ppb
Stony Mountain - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Nitrogen Oxides (NO_X) - ppb
Stony Mountain - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	10	8	12	14	11	9	11	35	89	106	67	43	80	91	76	45	707
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	8	12	14	11	9	11	35	89	106	67	43	80	91	76	45	707

Total Number of Valid Hours: 707

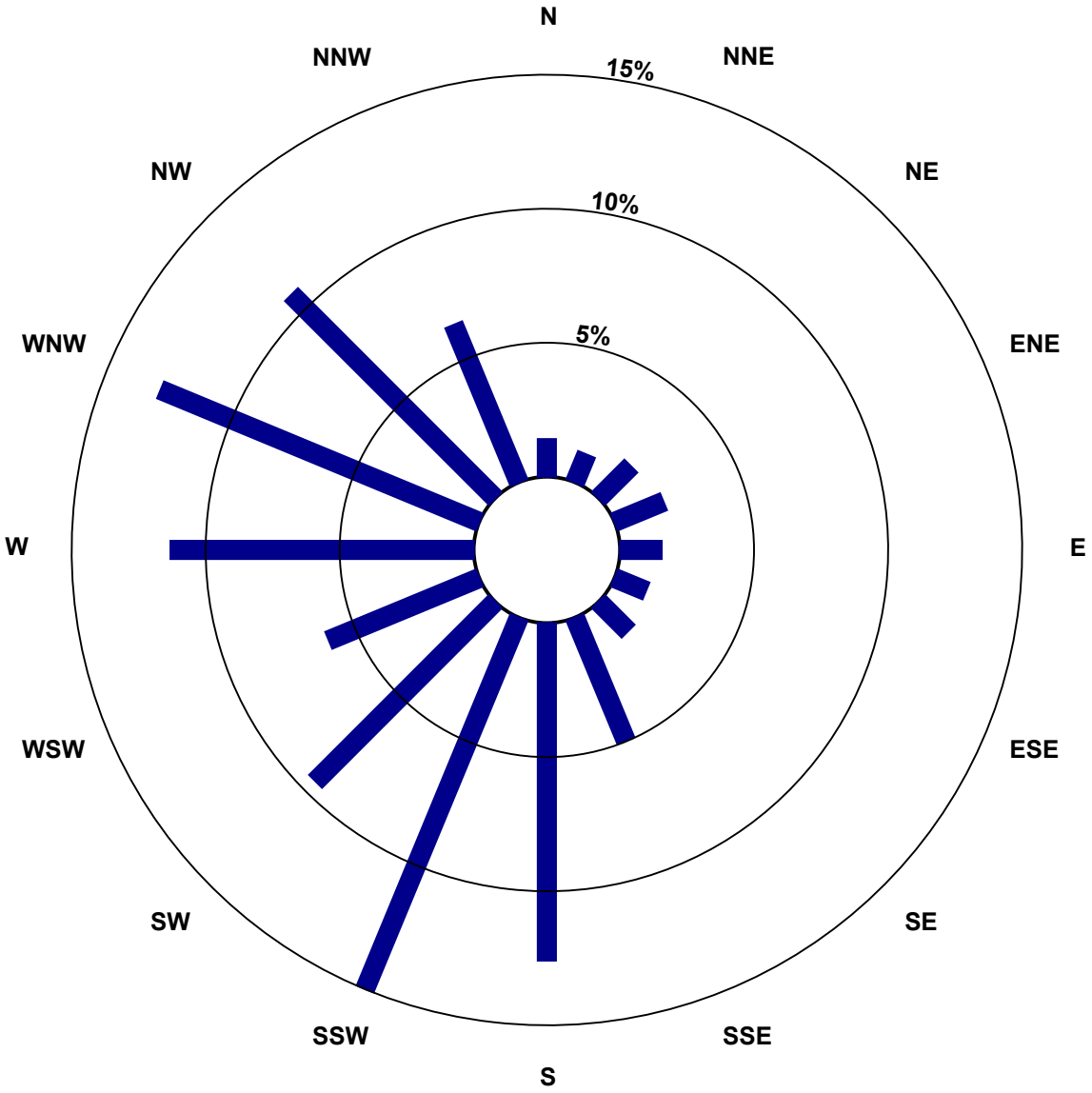
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Stony Mountain



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

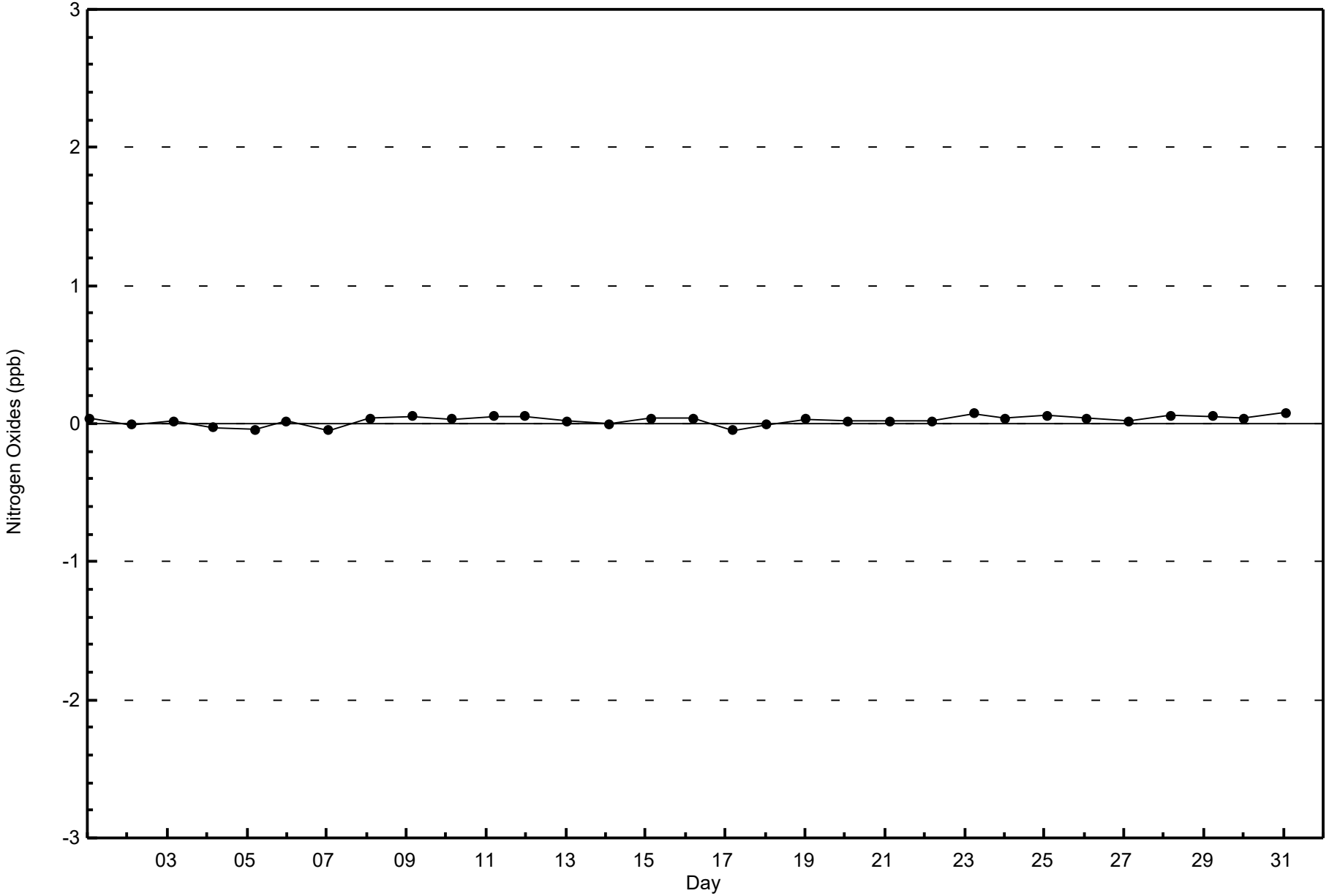
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Stony Mountain - October 2025

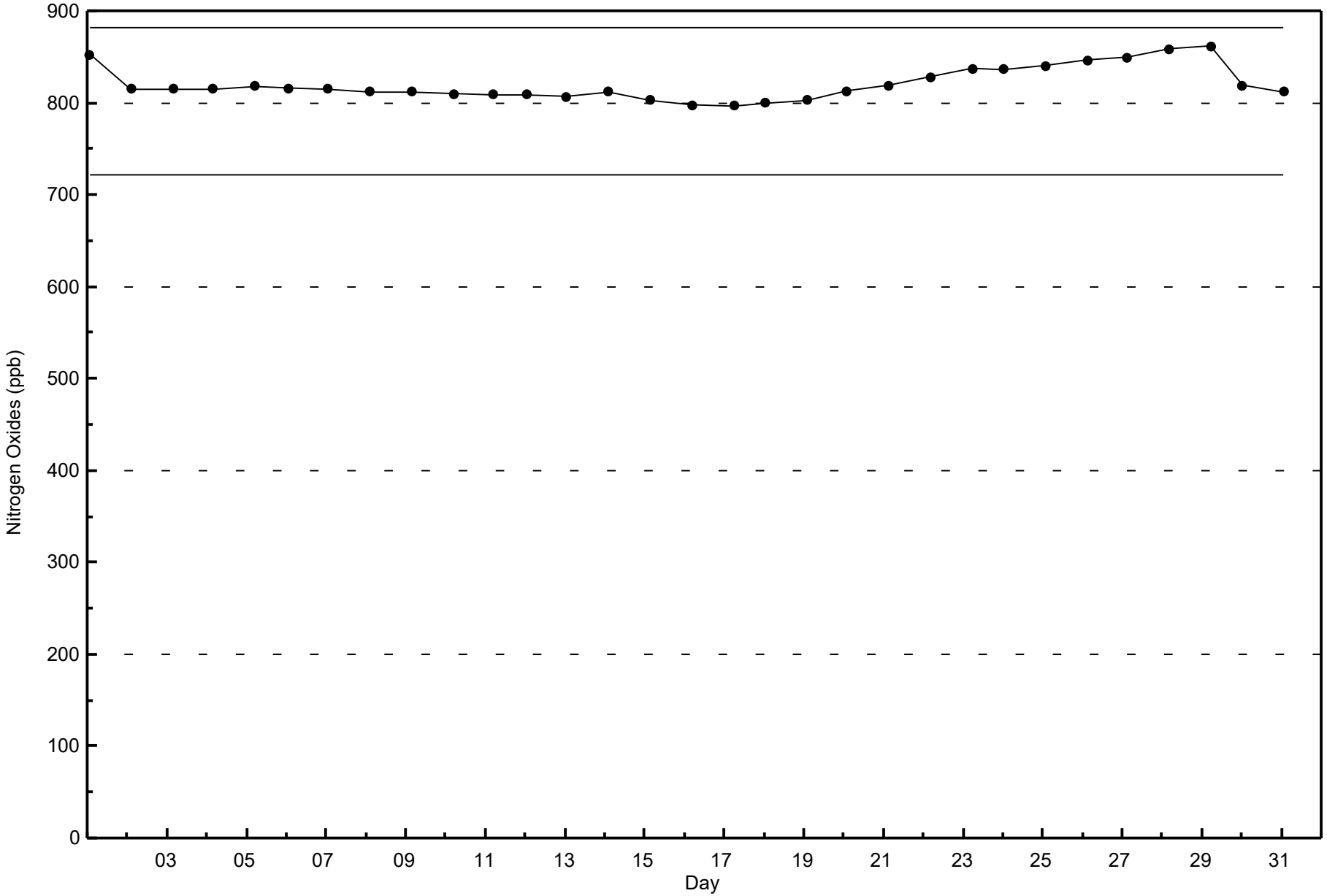


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Stony Mountain - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O_3) - ppb

Stony Mountain - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 40.0 ppb on Oct 10 15:00

Maximum Daily Average: 31.5 ppb on Oct 10

Minimum Value: 6.3 ppb on Oct 30 01:00

Minimum Daily Average: 14.3 ppb on Oct 29

Maximum Diurnal Average: 27.1 ppb at hour 17

Minimum Diurnal Average: 20.5 ppb at hour 5

Monthly Average: 23.67 ppb

Percentiles: P_1 = 9.7 P_{10} = 15.4 Q_1 = 19.6 Median = 23.6 Q_3 = 27.8 P_{90} = 32.1 P_{99} = 36.9

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	Z	12.1	13.9	12.6	11.6	9.7	8.6	8.1	9.4	12.0	12.6	14.5	19.6	21.0	17.4	17.5	17.5	20.5	19.8	18.8	16.9	15.8	13.4	15.1	14.7	21.0
2-Oct	15.1	Z	15.4	12.6	10.2	11.9	13.0	15.2	13.2	12.7	15.6	22.0	28.1	26.1	25.9	26.3	27.0	25.2	27.6	25.7	22.1	21.5	21.0	20.7	19.7	28.1
3-Oct	22.0	21.2	Z	20.3	20.7	19.9	19.2	17.9	19.1	21.0	24.0	29.1	30.9	33.9	34.4	33.8	34.4	31.1	28.8	29.1	27.2	26.9	27.5	26.7	26.1	34.4
4-Oct	27.5	26.7	27.2	Z	23.9	24.0	23.8	23.7	22.6	22.4	22.0	22.7	23.7	24.5	20.0	18.9	20.9	17.2	12.9	10.7	12.3	15.5	16.0	17.4	20.7	27.5
5-Oct	17.2	17.5	17.2	16.6	Z	17.2	16.7	16.2	13.6	13.5	15.7	18.1	22.2	26.6	28.4	29.4	30.9	29.5	27.7	27.2	27.0	26.2	25.8	25.7	22.0	30.9
6-Oct	24.8	24.6	22.5	19.1	19.3	Z	21.0	21.5	23.8	26.5	27.0	27.3	28.2	29.6	31.2	32.0	33.1	32.3	31.5	28.7	25.2	22.2	22.6	23.4	26.0	33.1
7-Oct	Z	24.4	23.6	21.8	23.8	24.1	23.7	23.3	23.0	22.6	22.3	23.7	25.6	26.2	28.4	29.7	30.3	29.0	27.0	25.1	25.5	27.6	28.0	27.7	25.5	30.3
8-Oct	26.5	Z	32.0	34.0	35.0	35.5	33.1	27.9	24.2	25.6	27.3	29.6	31.1	32.2	32.6	31.9	31.2	30.5	29.3	29.2	30.8	30.6	29.9	28.7	30.4	35.5
9-Oct	26.8	23.0	Z	21.2	20.0	20.5	21.5	21.4	21.8	23.4	27.8	31.8	31.5	30.7	32.0	31.1	31.2	30.0	31.3	31.7	32.1	32.2	31.8	29.4	27.6	32.2
10-Oct	27.3	25.2	23.0	Z	25.3	24.2	23.1	23.5	24.8	26.4	30.5	34.5	37.3	39.3	40.0	36.9	37.3	36.4	35.7	36.0	35.2	35.6	34.8	33.1	31.5	40.0
11-Oct	34.3	33.0	31.5	28.0	Z	29.1	27.7	27.6	28.4	24.8	21.6	20.5	19.3	16.7	14.7	16.0	17.4	17.1	16.1	16.3	17.1	17.7	17.8	19.4	22.3	34.3
12-Oct	20.0	20.1	20.9	20.1	19.7	Z	20.7	21.1	21.8	22.8	23.4	24.4	23.5	23.5	24.0	25.3	25.1	25.3	25.4	23.9	22.4	19.2	20.5	21.8	22.4	25.4
13-Oct	Z	22.3	22.9	23.9	24.7	23.9	23.1	22.5	23.6	26.4	29.2	29.4	29.9	31.0	30.7	30.5	29.7	28.1	26.3	25.6	25.4	25.3	26.2	25.5	26.4	31.0
14-Oct	25.2	Z	24.4	24.0	23.8	23.0	22.8	23.4	23.6	24.0	24.7	24.7	24.7	25.1	25.6	26.0	25.3	24.2	23.1	21.8	20.9	20.5	20.1	19.7	23.5	26.0
15-Oct	19.2	18.2	Z	15.8	14.9	14.3	14.0	14.6	15.2	16.9	18.5	24.3	27.0	28.7	27.6	25.4	23.2	22.7	21.9	21.5	25.5	30.4	29.6	31.0	21.8	31.0
16-Oct	32.6	32.9	32.3	Z	20.5	19.3	23.5	19.6	21.5	21.8	23.8	27.8	32.9	36.8	39.2	39.6	39.1	36.6	36.6	36.5	34.8	33.8	34.1	33.1	30.8	39.6
17-Oct	31.9	33.0	33.0	34.2	Z	33.2	32.2	30.3	28.4	27.5	27.5	28.4	28.4	28.3	28.7	29.0	29.1	29.3	29.0	29.4	29.1	28.9	28.9	28.3	29.8	34.2
18-Oct	28.0	27.6	27.4	27.2	26.8	Z	25.0	25.0	25.4	26.1	27.9	30.4	32.3	33.1	33.2	33.1	33.1	32.9	31.8	31.2	31.3	30.4	30.0	31.0	29.6	33.2
19-Oct	Z	29.9	28.2	22.8	22.1	23.9	21.4	21.9	23.8	22.5	22.4	17.7	18.6	16.9	20.5	30.2	30.2	21.6	18.7	18.8	15.8	16.0	18.9	20.3	21.9	30.2
20-Oct	21.0	Z	15.0	13.3	13.4	13.0	13.0	10.7	10.7	12.2	11.3	14.0	17.4	20.5	20.9	21.5	19.5	18.2	16.0	18.0	15.9	15.1	14.6	12.7	15.6	21.5
21-Oct	14.7	15.4	Z	17.1	18.1	18.8	20.2	20.4	21.6	24.6	25.9	27.2	27.6	27.7	28.9	28.3	27.8	26.9	25.5	25.8	25.2	24.8	24.5	21.9	23.4	28.9
22-Oct	19.6	18.3	18.5	Z	16.3	16.7	18.7	20.0	19.5	20.5	21.9	C	C	C	C	32.3	32.0	31.3	29.5	26.7	25.6	25.2	25.9	27.7	23.5	32.3
23-Oct	27.9	27.5	27.1	27.1	Z	25.5	24.2	23.5	24.1	24.3	25.5	27.1	29.0	30.7	32.7	33.1	33.1	29.9	27.1	24.6	22.7	21.8	22.3	21.7	26.6	33.1
24-Oct	22.9	24.1	24.5	24.8	24.5	Z	23.7	22.1	21.9	21.6	23.9	26.2	26.6	27.0	26.3	26.2	24.8	23.5	21.3	18.2	17.4	19.6	19.7	19.3	23.0	27.0
25-Oct	Z	15.8	19.0	16.0	16.6	19.1	20.4	20.4	20.6	21.3	24.0	29.9	30.5	28.6	30.9	33.8	35.1	35.4	34.4	35.2	34.9	35.0	35.2	36.8	27.4	36.8
26-Oct	35.1	Z	34.7	33.1	28.7	22.4	19.6	22.0	22.7	21.1	20.6	21.6	17.2	19.0	19.2	18.5	19.6	23.0	24.2	25.0	26.2	25.2	22.6	21.8	23.6	35.1
27-Oct	21.1	19.2	Z	19.0	18.8	19.5	20.0	20.4	20.1	18.5	16.8	17.0	17.6	17.3	17.9	18.0	17.9	18.6	19.4	20.0	21.3	22.2	21.7	21.8	19.3	22.2
28-Oct	19.7	22.1	23.1	Z	24.4	24.6	24.0	23.4	25.2	23.7	22.0	21.2	22.7	24.0	24.5	23.5	22.3	21.5	22.7	22.1	22.6	22.1	18.0	17.5	22.5	25.2
29-Oct	15.3	14.8	15.6	13.1	Z	16.8	15.0	15.9	16.1	15.5	14.4	12.7	14.6	15.3	15.3	15.3	14.8	14.0	14.8	13.7	13.3	13.4	11.1	7.2	14.3	16.8
30-Oct	6.3	8.3	9.1	9.8	10.6	Z	12.7	15.0	16.6	19.4	26.1	26.5	27.1	26.2	24.7	26.6	26.9	28.5	26.9	25.7	23.4	21.6	21.6	22.5	20.1	28.5
31-Oct	Z	20.2	20.2	19.7	20.4	19.7	19.8	20.6	21.8	21.6	21.6	21.8	21.6	20.9	21.1	20.5	21.2	22.2	23.2	24.0	25.7	25.9	25.4	24.7	21.9	25.9
	23.3	22.2	23.2	21.0	20.5	21.2	20.8	20.6	20.9	21.4	22.5	24.2	25.6	26.2	26.6	27.1	27.1	26.2	25.3	24.7	24.2	24.1	23.9	23.7	Diurnal Average	
	35.1	33.0	34.7	34.2	35.0	35.5	33.1	30.3	28.4	27.5	30.5	34.5	37.3	39.3	40.0	39.6	39.1	36.6	36.6	36.5	35.2	35.6	35.2	36.8	Diurnal Maximum	

Z - zerospan C - Calibration

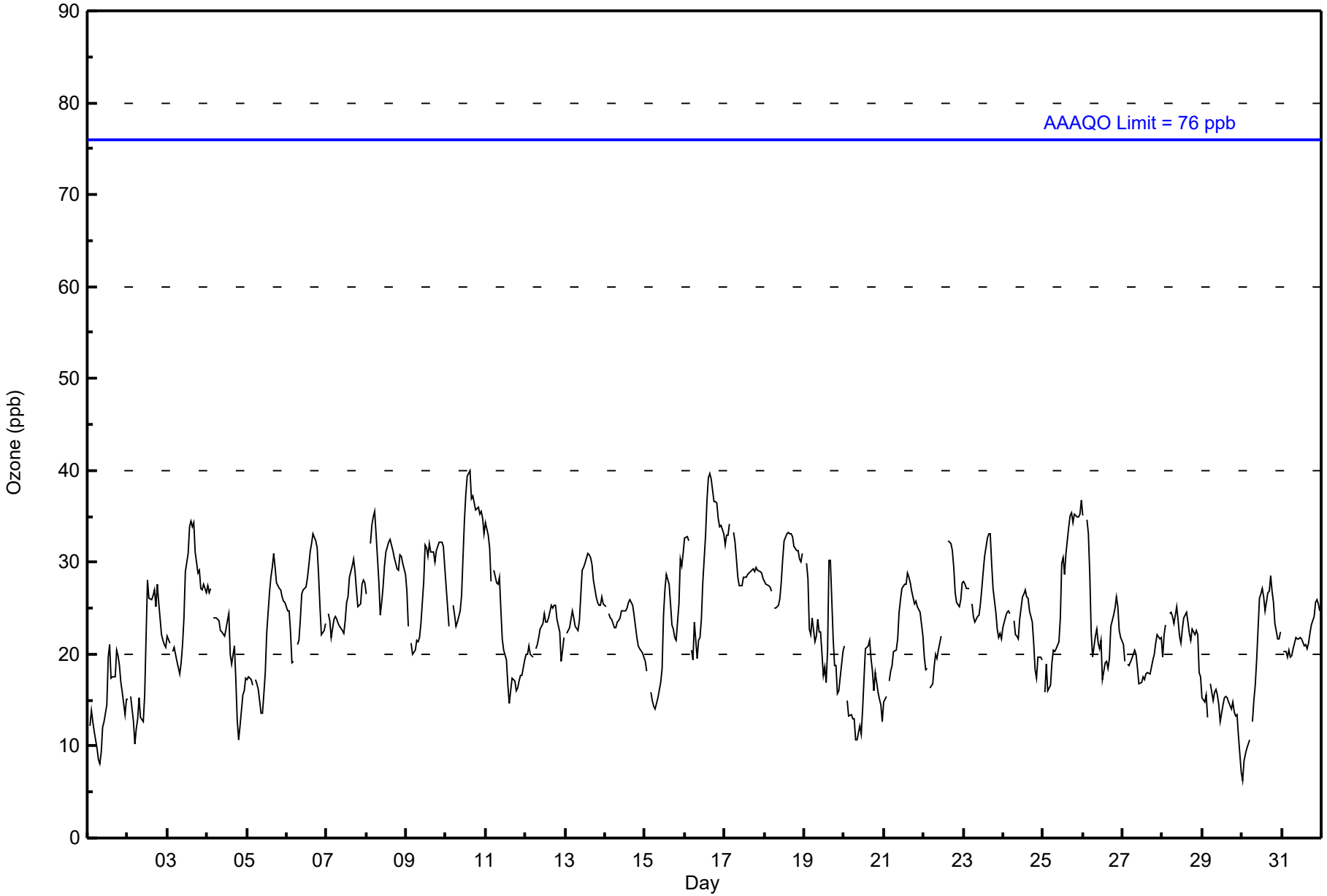
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb

Wood Buffalo Environmental Association

Hourly Averages

Ozone (O_3) - ppb

Stony Mountain - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	216	30.47	30.47
21 - 50	493	69.53	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Ozone (O_3) - ppb

Stony Mountain - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	6	4	7	10	6	4	6	2	10	32	16	5	5	31	51	21	216
21 - 50	5	3	6	4	4	5	5	37	75	76	52	38	73	60	27	23	493
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	7	13	14	10	9	11	39	85	108	68	43	78	91	78	44	709

Total Number of Valid Hours: 709

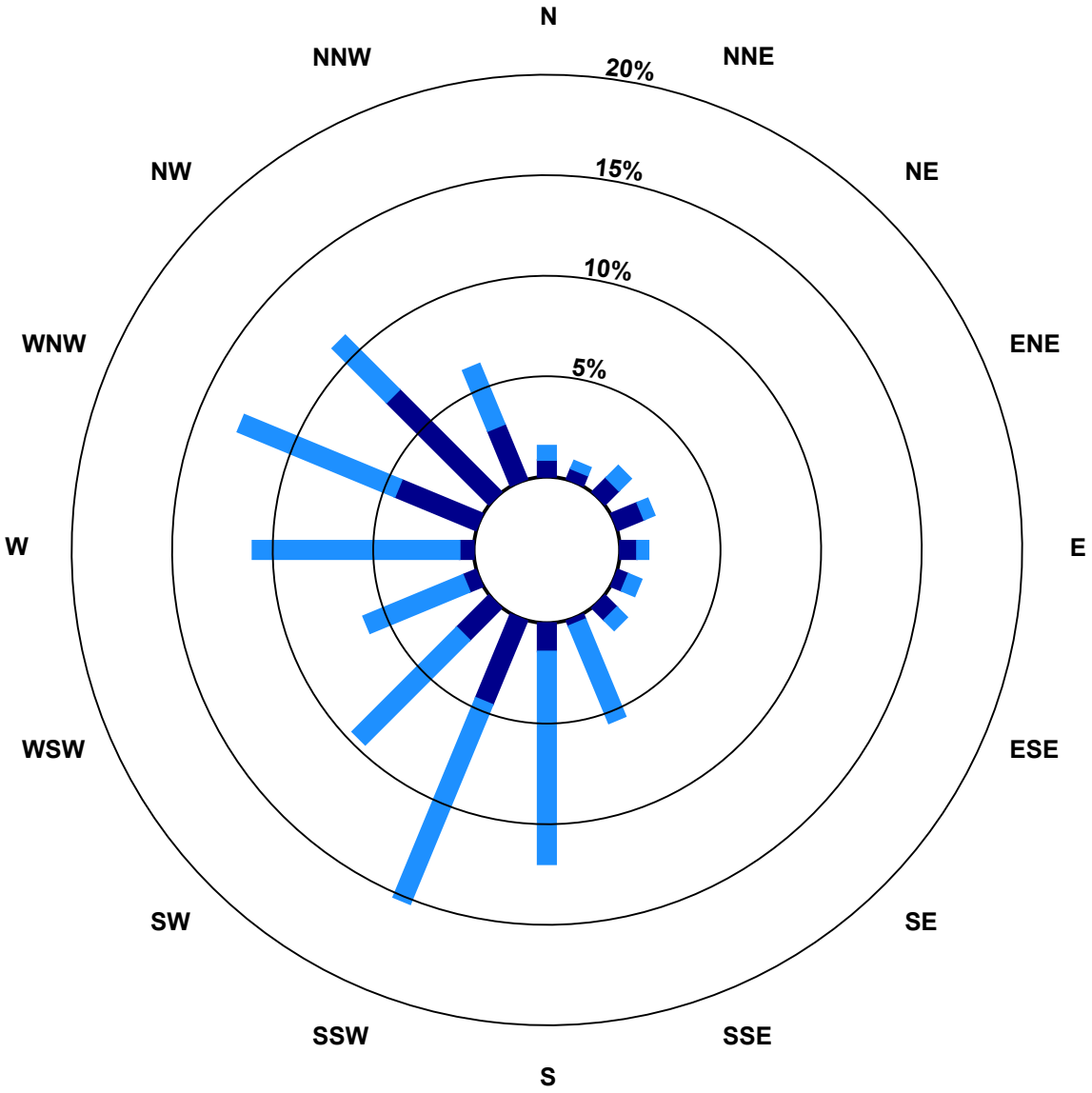
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Ozone (O_3) - ppb

Stony Mountain



Classes (ppb)

0 - 20

21 - 50

51 - 82

> 83

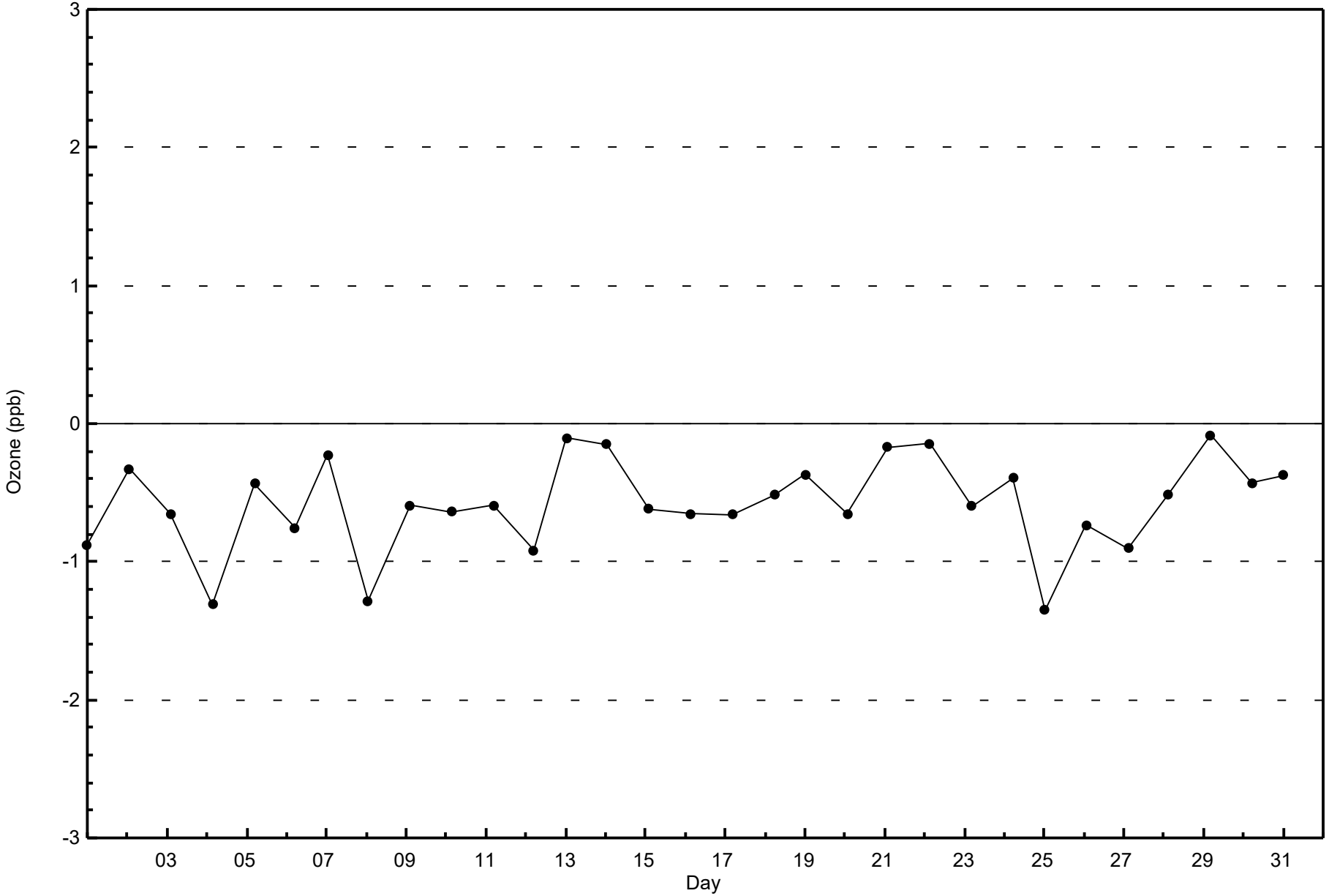
Total Number of Valid Hours: 709

Wood Buffalo Environmental Association

Zero Responses

Ozone (O_3) - ppb

Stony Mountain - October 2025

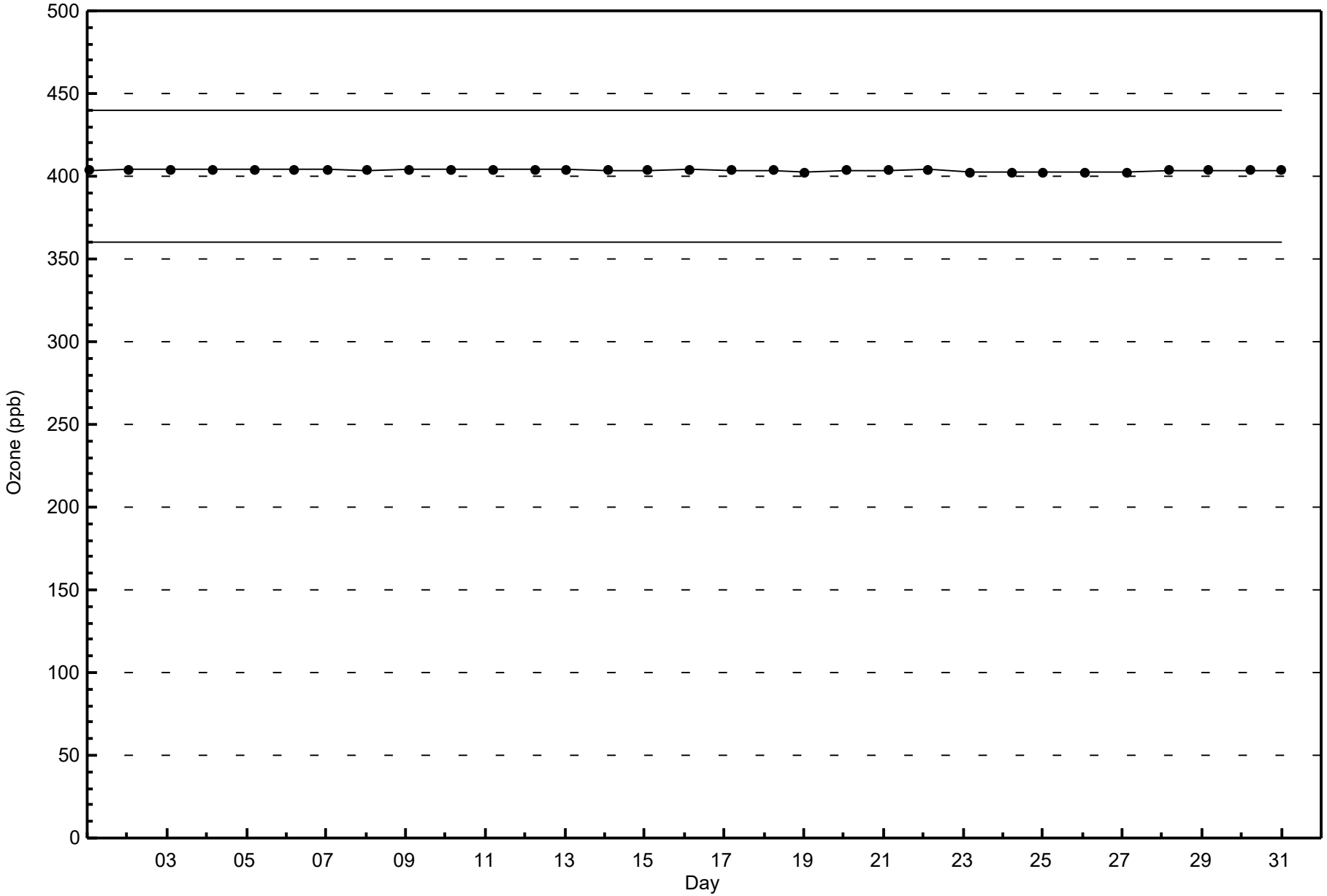


Wood Buffalo Environmental Association

Span Responses

Ozone (O_3) - ppb

Stony Mountain - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Stony Mountain - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 26.4 $\mu g/m^3$ on Oct 1 01:00

Maximum Daily Average: 8.9 $\mu g/m^3$ on Oct 1

Minimum Value: 0.0 $\mu g/m^3$ on Oct 27 14:00

Minimum Daily Average: 0.1 $\mu g/m^3$ on Oct 27

Maximum Diurnal Average: 3.8 $\mu g/m^3$ at hour 1

Minimum Diurnal Average: 2.1 $\mu g/m^3$ at hour 16

Monthly Average: 2.93 $\mu g/m^3$

Percentiles: P_1 = 0.0 P_{10} = 0.7 Q_1 = 1.4 Median = 2.6 Q_3 = 3.8 P_{90} = 5.1 P_{99} = 12.7

Hours in Service:	744
Hours of Data:	739
Hours of Missing Data:	5
Hours of Calibration:	3
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	26.4	19.9	17.0	19.0	17.4	15.7	14.0	9.2	6.5	4.5	3.5	3.5	3.8	3.4	3.5	3.6	3.6	3.9	4.1	5.4	6.4	6.7	6.5	5.5	8.9	26.4
2-Oct	4.9	4.3	3.8	3.7	3.6	3.4	3.7	3.7	4.6	4.8	4.3	3.8	3.3	4.6	5.4	6.0	6.0	6.0	6.1	6.1	6.3	6.3	6.5	8.0	5.0	8.0
3-Oct	9.3	9.3	9.7	10.6	11.3	10.8	10.8	11.2	13.1	12.0	8.8	5.0	4.0	2.6	1.9	1.5	0.7	0.7	0.9	0.8	0.6	0.7	0.7	0.8	5.7	13.1
4-Oct	1.0	1.2	1.5	3.0	4.3	3.3	2.1	1.8	3.0	3.6	3.8	3.8	3.8	3.6	3.8	3.3	2.4	2.1	0.7	0.3	0.1	0.2	0.5	1.3	2.3	4.3
5-Oct	1.5	1.5	1.6	2.3	2.7	2.4	3.3	3.3	3.0	3.0	2.5	1.8	1.3	0.9	0.7	0.8	0.9	1.3	5.5	5.7	2.4	2.4	2.8	3.5	2.4	5.7
6-Oct	3.6	3.9	3.8	4.0	3.6	2.0	3.0	3.4	2.9	2.0	1.1	0.7	0.6	0.6	0.8	1.2	1.2	1.4	1.6	1.7	2.0	2.5	2.6	2.8	2.2	4.0
7-Oct	3.1	3.2	3.2	3.4	3.5	3.7	4.0	4.1	4.1	4.1	3.7	3.1	2.8	2.5	2.0	2.3	2.9	3.4	4.0	4.1	4.6	8.4	10.1	9.0	4.1	10.1
8-Oct	9.2	5.9	4.2	4.2	4.4	3.6	2.3	2.9	4.4	5.2	4.4	3.3	2.5	1.2	1.0	1.1	1.3	1.1	1.0	1.0	0.8	0.8	1.0	1.2	2.8	9.2
9-Oct	1.4	1.7	1.7	1.8	2.7	6.7	4.2	2.0	1.0	0.9	0.7	0.6	0.7	0.7	0.5	0.5	0.6	1.0	1.2	1.7	2.2	2.6	2.7	3.1	1.8	6.7
10-Oct	3.6	4.0	4.4	4.6	4.9	5.2	5.7	5.7	5.5	5.5	5.0	4.6	4.5	4.4	4.4	4.8	4.2	4.6	5.2	5.0	4.9	5.1	6.1	5.5	4.9	6.1
11-Oct	5.7	5.7	5.9	6.0	6.2	6.7	6.3	6.5	6.1	5.8	4.8	4.8	3.6	1.5	1.0	1.1	2.1	2.3	1.6	1.0	1.0	0.8	0.6	0.3	3.6	6.7
12-Oct	0.2	0.2	0.4	0.5	0.8	1.4	1.5	1.7	1.3	1.8	1.7	1.5	2.5	2.1	2.4	2.2	2.0	1.6	0.8	0.7	0.9	1.2	1.0	0.5	1.3	2.5
13-Oct	0.5	0.8	0.9	0.9	1.1	1.1	1.0	0.8	0.9	0.8	1.0	0.8	3.1	2.5	2.4	1.8	1.3	1.8	3.0	3.3	3.0	2.7	2.9	3.1	1.7	3.3
14-Oct	3.4	3.4	3.3	3.5	3.7	3.7	3.6	3.7	3.9	4.0	3.7	3.3	2.9	2.6	2.0	1.9	2.1	2.3	2.3	2.5	2.7	2.8	2.8	2.9	3.0	4.0
15-Oct	3.0	3.2	3.8	3.9	4.2	4.4	4.3	4.4	4.6	4.2	3.8	2.7	2.2	2.0	2.0	2.2	2.3	2.5	2.5	2.6	2.6	2.6	2.6	2.5	3.1	4.6
16-Oct	2.5	2.6	2.8	3.0	2.8	2.9	3.5	3.1	3.1	3.0	3.0	2.9	3.0	2.9	2.0	1.5	1.9	2.6	2.7	2.7	2.6	2.6	2.9	2.8	2.7	3.5
17-Oct	2.9	2.8	2.4	2.3	2.2	2.4	2.4	1.3	0.8	0.8	2.4	1.8	1.9	2.2	2.4	2.5	2.9	2.8	2.9	2.8	2.7	2.5	2.7	2.7	2.3	2.9
18-Oct	3.1	3.1	2.9	1.7	1.4	1.7	2.5	2.7	2.0	2.1	2.0	1.5	1.1	0.8	0.7	0.7	0.8	0.9	1.1	1.5	1.8	1.8	2.0	2.0	1.7	3.1
19-Oct	1.9	1.8	1.8	1.9	2.2	2.3	2.4	2.4	2.2	2.1	2.0	2.3	2.0	2.1	2.4	1.4	1.2	5.4	7.7	7.5	7.4	6.2	5.0	3.9	3.2	7.7
20-Oct	3.2	1.3	1.3	1.4	1.6	1.5	1.9	2.5	2.8	3.0	3.1	2.8	2.7	3.1	3.1	3.1	3.6	4.4	3.8	4.3	4.5	4.2	4.3	4.7	3.0	4.7
21-Oct	4.1	3.6	3.5	3.3	3.1	2.9	2.4	2.0	1.7	1.2	1.1	1.2	1.4	1.6	1.5	1.5	1.7	1.6	1.5	1.6	1.5	1.6	1.6	1.9	2.0	4.1
22-Oct	2.5	2.6	2.7	2.8	2.5	1.7	1.3	1.2	1.1	1.1	1.1	1.1	M	M	0.7	0.7	0.7	0.8	0.9	1.0	0.9	1.0	1.7	1.4	1.4	2.8
23-Oct	1.2	1.1	1.2	1.3	1.6	1.8	1.7	1.8	2.1	2.0	2.1	2.2	2.1	2.4	2.5	2.4	2.4	2.4	2.6	2.6	2.7	2.8	2.9	2.9	2.1	2.9
24-Oct	3.1	3.4	3.5	3.4	3.3	3.2	3.3	3.2	3.2	3.2	3.0	2.9	3.1	3.0	3.1	3.1	3.2	3.2	3.3	3.5	3.8	4.0	4.3	4.4	3.4	4.4
25-Oct	4.7	4.6	4.7	4.5	4.5	4.9	4.9	4.8	4.2	4.3	4.6	2.2	1.7	2.4	1.2	1.2	1.7	1.4	1.0	0.6	0.6	0.6	0.7	0.6	2.8	4.9
26-Oct	0.7	0.7	0.7	0.8	1.1	1.5	1.4	1.1	1.6	3.0	4.1	3.7	3.5	3.5	3.1	2.9	2.5	2.0	1.6	1.3	0.9	0.6	0.6	0.4	1.8	4.1
27-Oct	0.2	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2
28-Oct	0.1	0.2	0.2	0.2	0.3	0.5	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.8	1.0	2.0	1.0	0.5	0.7	0.9	1.1	1.6	1.6	2.1	0.7	2.1
29-Oct	2.4	2.6	3.2	3.2	3.1	2.9	2.8	2.7	2.6	2.6	2.7	2.7	2.6	2.2	2.1	2.3	2.3	2.3	1.6	1.2	1.5	1.3	1.6	2.5	2.4	3.2
30-Oct	2.9	2.6	2.5	2.6	3.0	3.6	4.1	4.1	4.2	4.4	4.8	4.1	3.9	4.4	4.6	4.3	3.9	3.7	3.5	3.2	3.0	3.0	3.2	3.6	3.6	4.8
31-Oct	3.9	4.1	4.4	4.3	4.5	5.2	5.6	5.5	5.0	5.2	5.4	5.1	5.1	C	C	C	5.0	4.7	5.4	5.7	4.4	3.8	3.7	3.7	4.7	5.7
	3.8	3.4	3.3	3.5	3.6	3.6	3.6	3.3	3.3	3.2	3.0	2.6	2.5	2.3	2.1	2.1	2.2	2.4	2.6	2.7	2.6	2.7	2.8	2.9	Diurnal Average	
	26.4	19.9	17.0	19.0	17.4	15.7	14.0	11.2	13.1	12.0	8.8	5.1	5.1	4.6	5.4	6.0	6.0	6.0	7.7	7.5	7.4	8.4	10.1	9.0	Diurnal Maximum	

C - Calibration M - Maintenance

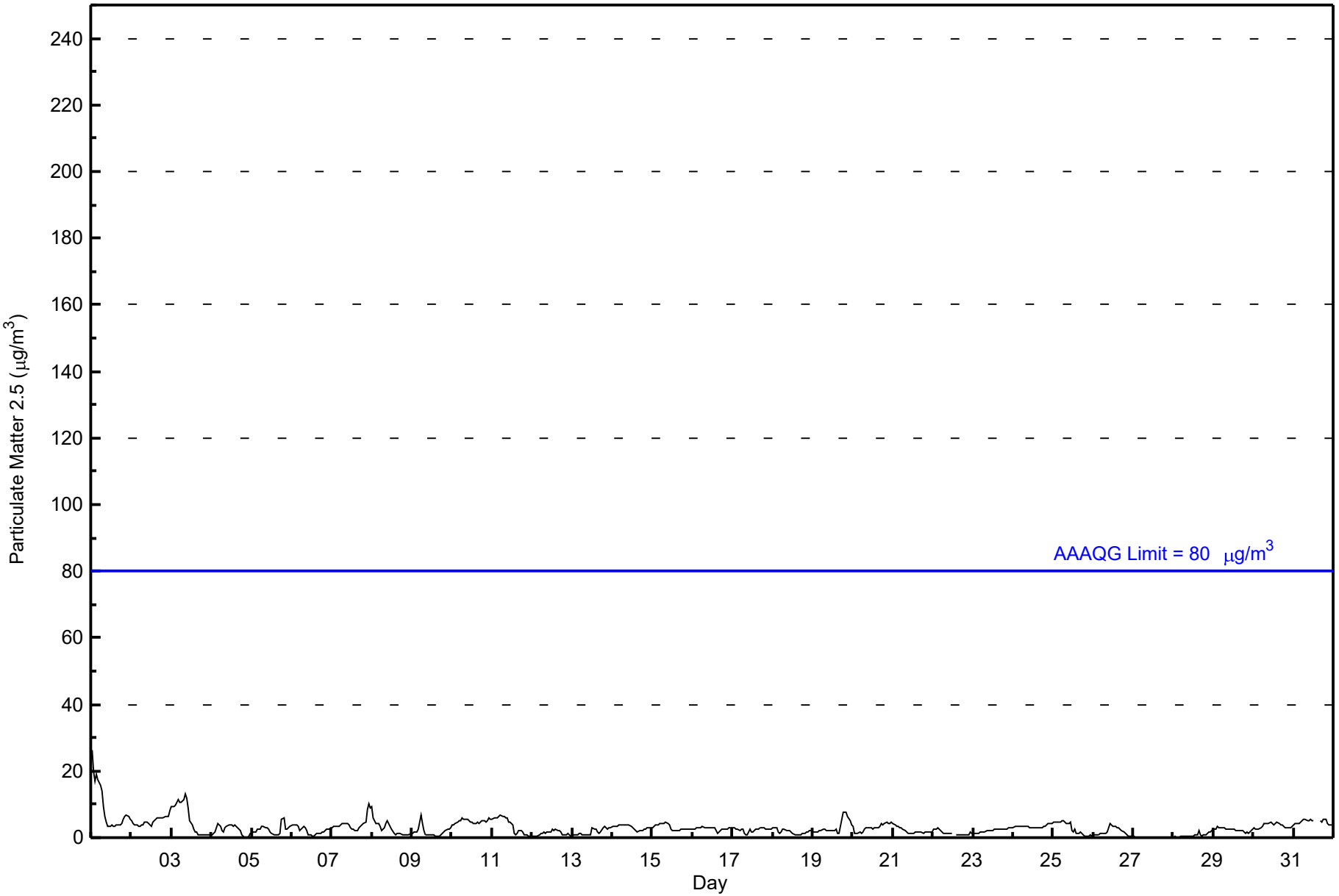
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 $\mu g/m^3$ 24-hr 29 $\mu g/m^3$

Wood Buffalo Environmental Association

Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Stony Mountain - October 2025



Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Stony Mountain - October 2025

Concentration Ranges ($\mu g/m^3$)	Number of Hours	%	Cumulative %
0 - 5	679	91.88	91.88
6 - 15	54	7.31	99.19
16 - 25	5	0.68	99.86
26 - 80	1	0.14	100.00
> 81.0	0	0.00	100.00

Total Number of Valid Hours: 739

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Stony Mountain - October 2025

Concentration Ranges ($\mu g/m^3$)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	10	7	11	12	12	9	12	36	84	92	63	45	79	92	71	44	679
6 - 15	0	0	2	2	0	0	0	1	9	20	6	0	3	2	8	1	54
16 - 25	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	2	5
26 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	8	13	14	12	9	12	37	93	112	69	45	82	94	81	47	739

Total Number of Valid Hours: 739

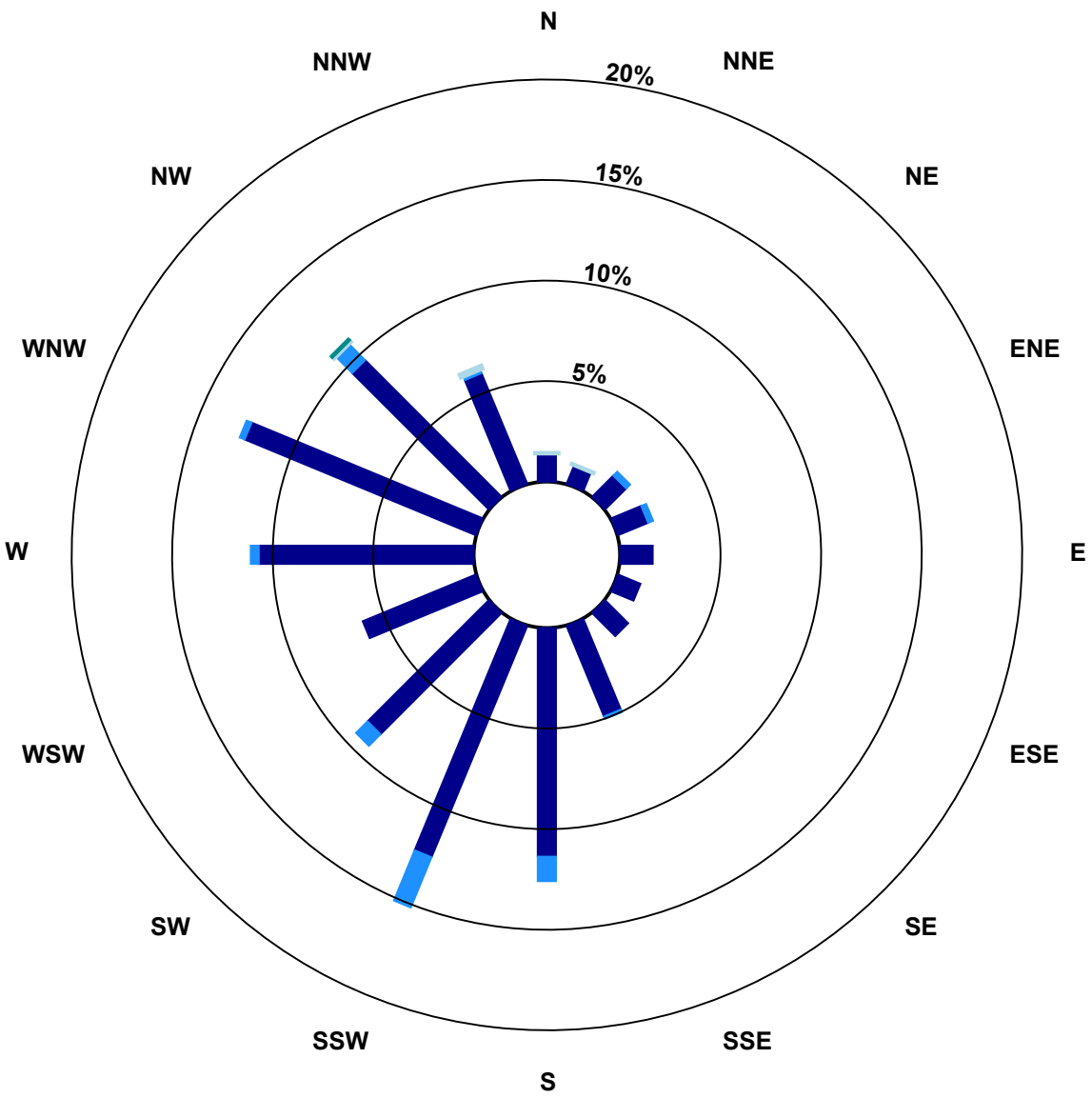
Total Number of Hours: 744

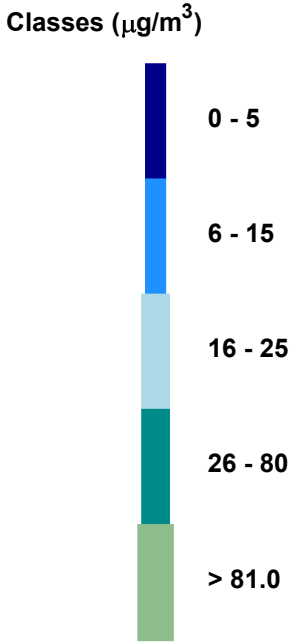
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Stony Mountain





Total Number of Valid Hours: 739

Maximum Value: 19.7 C on Oct 10 15:00

Maximum Daily Average: 11.3 C on Oct 10

Minimum Value: -4.0 C on Oct 14 07:00

Minimum Daily Average: -1.6 C on Oct 13

Maximum Diurnal Average: 7.7 C at hour 15

Minimum Diurnal Average: 1.8 C at hour 7

Monthly Average: 4.21 C

Percentiles: P_1 = -3.4 P_{10} = -1.5 Q_1 = 0.2 Median = 3.7 Q_3 = 7.6 P_{90} = 10.7 P_{99} = 17.6

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

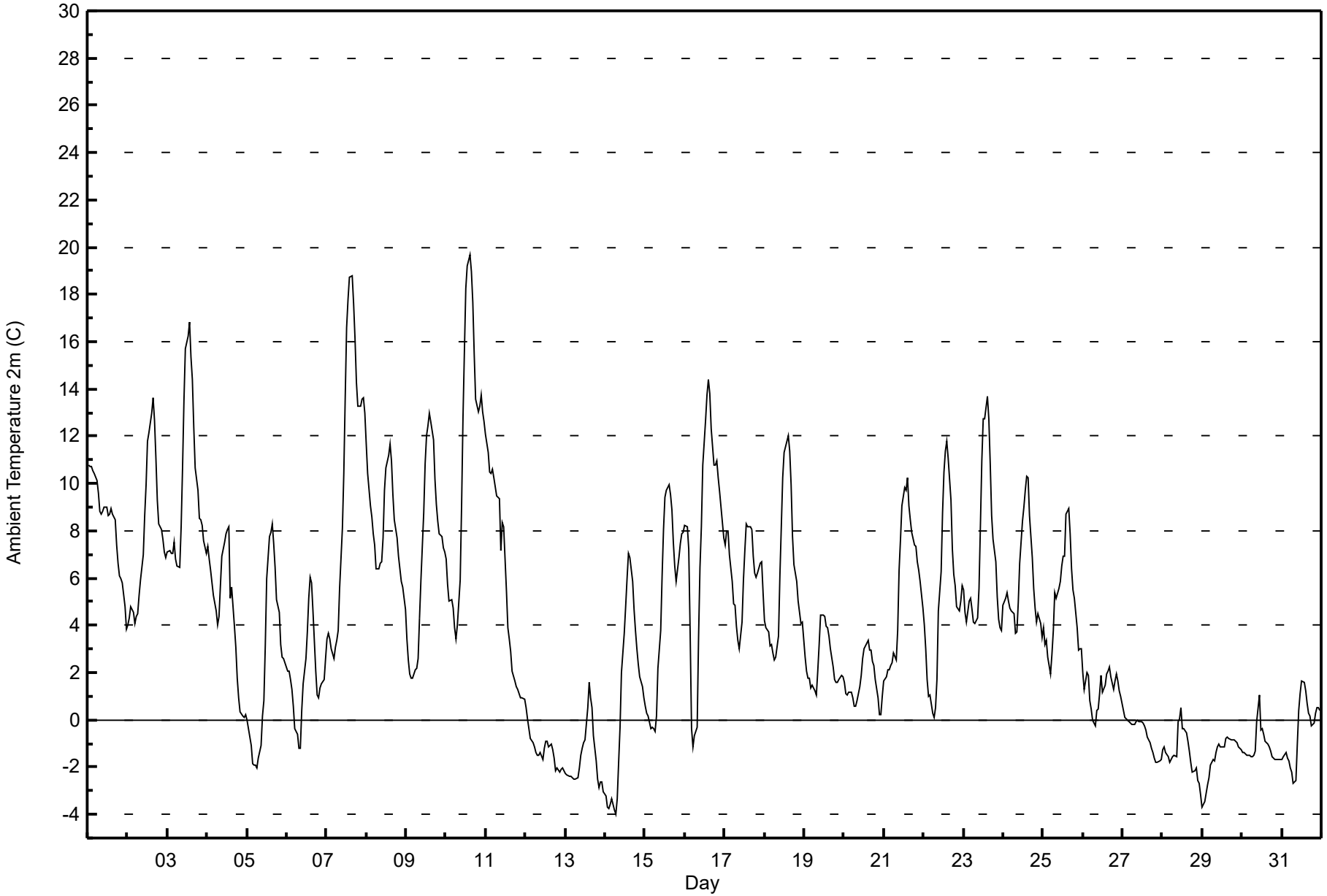
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.8	10.7	10.7	10.6	10.4	10.1	9.6	8.8	8.7	8.8	9.0	9.0	8.7	8.7	9.0	8.7	8.5	7.4	6.6	6.1	6.0	5.8	4.8	3.8	8.4	10.8
2-Oct	4.0	4.3	4.8	4.5	4.1	4.4	4.5	5.3	5.9	7.0	8.6	9.9	11.8	12.2	13.0	13.6	12.7	11.1	9.3	8.3	8.0	7.7	7.1	6.9	7.9	13.6
3-Oct	7.1	7.2	7.1	7.0	7.5	6.8	6.5	6.4	8.2	10.6	13.5	15.7	16.2	16.8	15.3	14.4	12.4	10.7	9.7	8.5	8.5	8.2	7.6	7.0	10.0	16.8
4-Oct	7.4	6.8	6.3	5.8	5.3	4.6	4.0	4.4	5.7	6.9	7.5	7.9	8.1	8.1	5.2	5.6	4.0	3.0	1.8	0.9	0.4	0.2	0.1	0.2	4.6	8.1
5-Oct	0.0	-0.4	-1.1	-1.9	-1.9	-1.9	-2.0	-1.6	-1.1	0.2	0.8	3.1	6.0	7.7	7.9	8.3	7.5	6.5	5.1	4.5	3.2	2.7	2.6	2.4	2.4	8.3
6-Oct	2.0	2.1	1.7	1.3	0.6	-0.4	-0.6	-1.2	-1.2	0.4	1.5	2.6	3.7	5.1	6.1	5.8	4.6	2.1	1.0	0.9	1.3	1.5	1.7	2.6	1.9	6.1
7-Oct	3.4	3.7	3.4	3.0	2.6	3.1	3.4	3.8	5.6	8.1	10.4	13.6	16.6	17.8	18.8	18.8	17.6	16.1	14.3	13.2	13.3	13.6	13.6	13.0	10.4	18.8
8-Oct	11.7	10.4	9.1	8.6	7.9	7.4	6.4	6.4	6.6	6.7	7.7	9.7	10.7	11.2	11.7	11.0	9.5	8.4	7.7	6.9	6.4	5.8	5.6	4.7	8.3	11.7
9-Oct	3.4	2.6	2.0	1.7	1.8	2.1	2.2	2.6	4.3	5.9	8.8	10.8	12.0	12.4	13.0	12.6	11.9	10.2	9.1	8.4	7.9	7.7	7.3	7.1	7.0	13.0
10-Oct	6.8	5.7	5.0	5.1	4.7	3.9	3.4	4.0	5.9	9.1	12.8	15.6	18.3	19.2	19.7	19.0	17.6	15.5	13.6	13.0	13.3	13.7	13.1	12.6	11.3	19.7
11-Oct	12.1	11.3	10.5	10.4	10.6	10.2	9.5	9.4	9.4	7.1	8.4	8.1	5.4	3.9	3.4	2.9	2.0	1.6	1.4	1.3	1.1	0.9	0.9	0.9	6.0	12.1
12-Oct	0.5	0.0	-0.4	-0.8	-0.9	-1.1	-1.4	-1.5	-1.5	-1.4	-1.7	-1.2	-0.9	-0.9	-1.1	-1.1	-1.2	-1.6	-2.1	-2.1	-2.2	-2.1	-2.0	-2.1	-1.3	0.5
13-Oct	-2.3	-2.3	-2.4	-2.4	-2.5	-2.5	-2.5	-2.5	-2.0	-1.5	-1.2	-1.0	-0.9	0.5	1.6	1.0	0.5	-0.7	-1.8	-2.5	-2.9	-2.7	-2.6	-3.0	-1.6	1.6
14-Oct	-3.2	-3.7	-3.8	-3.6	-3.4	-3.8	-4.0	-3.3	-1.8	-0.3	2.0	3.6	4.8	6.0	7.0	6.9	5.8	4.7	3.8	3.0	2.4	1.8	1.4	1.0	1.0	7.0
15-Oct	0.6	0.3	0.1	-0.4	-0.3	-0.4	-0.5	0.2	2.2	3.8	6.1	8.1	9.4	9.7	9.9	9.6	8.9	7.5	6.5	5.9	6.9	7.5	7.9	7.9	4.9	9.9
16-Oct	8.2	8.2	7.2	3.7	-0.4	-1.1	-0.7	-0.3	3.5	6.5	8.2	10.8	12.7	13.7	14.4	13.8	12.3	10.8	10.8	11.0	10.3	9.7	9.0	7.7	7.9	14.4
17-Oct	7.4	8.0	8.0	7.0	5.8	4.9	4.9	4.0	3.4	3.0	4.2	5.9	7.2	8.3	8.1	8.2	8.1	6.9	6.2	6.0	6.2	6.6	6.7	5.4	6.3	8.3
18-Oct	4.2	3.9	3.7	3.1	3.2	2.8	2.5	2.6	3.6	6.1	8.1	10.2	11.3	11.8	12.1	11.4	9.9	7.8	6.6	5.9	5.0	4.5	4.1	4.1	6.2	12.1
19-Oct	2.6	2.1	1.8	1.7	1.4	1.5	1.2	1.1	2.1	3.2	4.4	4.4	4.4	3.9	3.9	3.6	3.0	2.2	1.7	1.6	1.6	1.7	1.9	1.8	2.4	4.4
20-Oct	1.6	1.1	1.0	1.1	1.2	0.9	0.6	0.6	0.8	1.4	1.9	2.6	3.0	3.2	3.3	3.0	2.9	2.5	2.3	1.7	1.0	0.2	0.2	1.0	1.6	3.3
21-Oct	1.6	1.8	2.1	2.1	2.3	2.4	2.8	2.5	3.8	6.3	7.6	9.1	9.8	9.7	10.3	9.1	8.5	7.9	7.4	7.4	6.7	6.3	5.9	4.7	5.8	10.3
22-Oct	4.0	3.0	1.7	1.0	1.1	0.3	0.1	0.5	1.7	4.6	6.3	8.8	10.5	11.4	11.8	11.1	9.3	7.2	6.2	5.7	4.8	4.6	5.0	5.7	5.3	11.8
23-Oct	5.5	4.5	4.1	5.0	5.2	4.7	4.1	4.1	4.3	5.6	8.2	11.0	12.7	12.7	13.7	12.7	10.9	8.6	7.6	6.7	5.2	4.3	3.9	3.8	7.0	13.7
24-Oct	4.9	5.2	5.4	5.1	4.7	4.6	4.5	3.6	3.7	4.9	6.6	8.4	9.0	9.7	10.3	10.3	8.7	6.9	5.6	4.8	4.2	4.5	4.1	3.5	6.0	10.3
25-Oct	3.9	3.2	3.4	2.7	2.0	2.8	3.8	5.4	5.1	5.5	5.8	6.5	6.9	6.9	8.7	8.9	7.9	6.4	5.5	5.2	3.9	2.9	3.0	3.0	5.0	8.9
26-Oct	2.0	1.3	2.0	1.9	0.8	0.5	0.0	-0.3	0.4	0.4	1.1	1.9	1.1	1.5	1.9	2.0	2.2	1.8	1.3	1.7	2.0	1.6	1.2	1.0	1.3	2.2
27-Oct	0.4	0.1	0.0	0.0	-0.1	-0.2	-0.2	-0.2	-0.1	0.0	-0.1	-0.1	-0.1	-0.2	-0.5	-0.8	-1.0	-1.2	-1.4	-1.6	-1.8	-1.8	-1.8	-1.7	-0.6	0.4
28-Oct	-1.3	-1.2	-1.4	-1.6	-1.8	-1.7	-1.5	-1.5	-1.5	-0.1	0.0	0.5	-0.3	-0.4	-0.5	-0.9	-1.3	-1.8	-2.2	-2.2	-2.0	-2.6	-2.7	-3.2	-1.4	0.5
29-Oct	-3.7	-3.5	-3.1	-2.7	-2.5	-1.9	-1.7	-1.7	-1.4	-1.1	-1.0	-1.1	-1.1	-1.2	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.9	-1.0	-1.1	-1.2	-1.5	-0.8
30-Oct	-1.4	-1.4	-1.5	-1.5	-1.5	-1.6	-1.5	-1.5	-1.3	-0.1	1.1	-0.5	-0.4	-0.6	-0.9	-1.0	-1.2	-1.3	-1.5	-1.6	-1.7	-1.7	-1.7	-1.7	-1.2	1.1
31-Oct	-1.7	-1.6	-1.4	-1.6	-1.7	-2.0	-2.2	-2.7	-2.6	-1.0	0.4	1.1	1.6	1.6	1.2	0.7	0.3	0.2	-0.3	-0.1	0.3	0.5	0.5	0.4	-0.4	1.6
	3.3	3.0	2.8	2.5	2.1	1.9	1.8	1.8	2.6	3.8	5.1	6.3	7.0	7.4	7.7	7.4	6.5	5.4	4.5	4.1	3.8	3.6	3.5	3.2	Diurnal Average	
	12.1	11.3	10.7	10.6	10.6	10.2	9.6	9.4	9.4	10.6	13.5	15.7	18.3	19.2	19.7	19.0	17.6	16.1	14.3	13.2	13.3	13.7	13.6	13.0	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Stony Mountain - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	177	23.79	23.79
0 - 10	471	63.31	87.10
10 - 20	96	12.90	100.00
> 20	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 99.6 % on Oct 1 06:00

Maximum Daily Average: 98.3 % on Oct 1

Minimum Value: 27.4 % on Oct 10 14:00

Minimum Daily Average: 53.2 % on Oct 10

Maximum Diurnal Average: 84.3 % at hour 7

Minimum Diurnal Average: 61.4 % at hour 15

Monthly Average: 74.56 %

Percentiles: P_1 = 33.4 P_{10} = 47.2 Q_1 = 60.0 Median = 76.4 Q_3 = 92.4 P_{90} = 98.0 P_{99} = 99.4

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

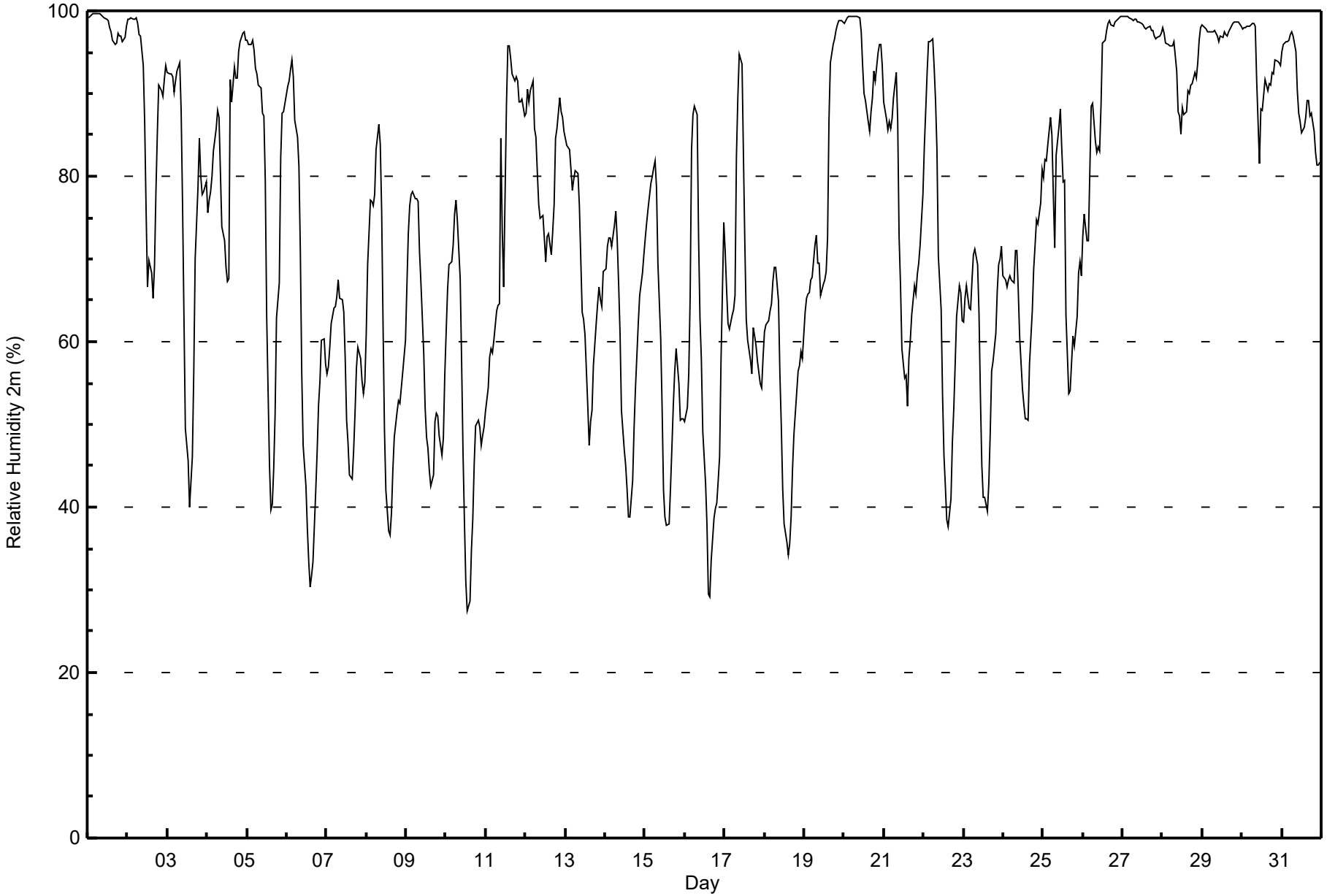
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	99.2	99.4	99.5	99.6	99.6	99.6	99.6	99.6	99.5	99.3	99.2	99.0	98.9	97.9	97.4	96.5	96.0	96.1	97.4	97.0	97.0	96.3	96.8	98.2	98.3	99.6
2-Oct	99.0	99.0	99.1	98.9	99.0	99.1	98.4	97.2	96.9	93.4	86.4	75.9	66.6	69.8	68.3	65.3	69.1	78.0	85.1	90.9	90.3	89.7	91.6	93.3	87.5	99.1
3-Oct	92.5	92.3	92.4	92.0	90.1	91.6	92.7	93.7	88.0	76.6	63.1	49.5	45.6	40.0	43.1	46.1	56.2	70.0	78.6	84.7	80.0	77.7	78.2	79.3	74.7	93.7
4-Oct	75.6	77.1	78.2	80.0	83.1	85.8	88.0	87.2	80.5	73.9	72.3	69.0	67.3	67.7	91.7	89.0	93.2	91.9	91.8	95.1	96.2	97.3	97.5	96.5	84.4	97.5
5-Oct	96.4	96.0	95.9	96.5	95.2	93.1	92.3	91.0	90.7	87.6	87.3	79.6	63.1	45.1	39.7	40.4	44.7	51.2	62.9	67.2	82.1	87.6	87.8	88.8	77.6	96.5
6-Oct	90.8	91.5	92.8	94.1	92.1	86.7	84.7	81.1	71.0	56.3	47.5	42.5	37.5	33.5	30.3	31.7	33.4	42.1	46.8	52.3	55.2	60.2	60.3	57.3	61.3	94.1
7-Oct	56.2	56.9	59.2	62.2	64.1	64.3	65.4	67.5	65.3	65.0	63.5	57.9	50.5	47.9	44.0	43.4	46.8	51.3	56.8	59.4	57.9	55.3	53.7	55.1	57.1	67.5
8-Oct	61.0	69.3	77.2	76.9	76.4	77.8	83.3	86.3	83.9	75.8	61.9	49.4	42.1	37.1	36.6	39.3	44.5	48.6	51.5	52.8	52.5	54.4	56.3	60.2	60.6	86.3
9-Oct	66.8	73.1	76.5	77.9	78.2	77.2	77.3	77.0	70.9	67.1	58.6	52.1	48.5	47.2	44.5	42.5	43.9	50.4	51.4	51.0	48.6	46.3	48.3	55.9	59.6	78.2
10-Oct	61.2	66.2	69.3	69.7	71.6	75.4	77.1	74.6	67.6	57.8	46.8	38.5	31.0	27.4	28.6	34.8	38.6	45.3	49.8	50.5	49.6	47.5	48.7	49.6	53.2	77.1
11-Oct	51.5	54.3	58.2	59.1	58.7	60.2	63.8	64.4	64.5	84.6	73.3	66.7	88.7	95.7	95.8	94.3	92.4	91.5	92.0	91.5	89.0	89.0	89.4	87.2	77.3	95.8
12-Oct	87.7	90.5	88.9	90.4	91.6	85.8	84.8	80.5	76.6	74.9	75.2	72.6	69.7	72.8	73.0	70.5	73.4	76.6	84.5	85.8	89.6	87.8	87.1	85.4	81.5	91.6
13-Oct	84.5	83.7	83.2	80.9	78.2	79.6	80.7	80.3	76.4	69.9	63.6	62.8	60.8	52.2	47.5	50.3	51.7	57.1	62.3	64.6	66.6	65.1	64.2	68.6	68.1	84.5
14-Oct	68.8	71.6	72.6	72.6	71.6	74.1	75.8	72.2	67.0	61.0	51.8	47.0	45.0	42.3	38.8	38.7	43.3	49.4	54.4	58.3	62.2	65.6	68.4	70.6	60.1	75.8
15-Oct	72.6	74.5	76.1	79.2	80.1	81.0	81.8	78.6	69.5	60.3	52.1	42.0	38.7	37.7	38.0	42.4	47.2	52.3	56.4	59.1	54.8	50.5	50.7	50.6	59.4	81.8
16-Oct	50.3	52.1	56.1	65.4	83.1	87.4	88.5	87.5	72.7	62.9	57.7	49.1	42.9	37.8	29.4	29.2	33.5	38.7	39.9	40.5	43.2	46.1	57.6	74.3	55.3	88.5
17-Oct	70.8	66.3	62.1	61.4	63.2	63.8	65.6	82.3	89.4	94.7	93.5	82.5	71.8	62.7	60.2	57.8	56.1	61.7	60.7	59.6	57.6	54.9	54.3	58.1	67.1	94.7
18-Oct	61.3	62.1	62.6	63.8	64.6	67.2	69.0	68.9	64.9	56.1	49.8	42.2	38.0	35.7	34.2	35.6	38.8	44.5	48.9	53.8	56.5	57.1	58.8	58.0	53.8	69.0
19-Oct	63.5	65.2	65.8	66.0	67.4	67.8	71.7	73.0	69.4	69.5	65.6	67.0	67.4	68.5	72.5	86.7	93.8	96.0	96.7	97.6	98.3	98.8	98.9	98.6	78.6	98.9
20-Oct	98.5	98.8	99.1	99.3	99.3	99.3	99.4	99.4	99.4	99.1	97.5	93.4	90.1	89.2	86.5	85.4	87.9	89.5	92.8	91.5	95.0	96.0	95.9	93.3	94.8	99.4
21-Oct	89.0	86.9	85.6	86.7	85.7	86.9	89.4	92.6	86.7	72.6	67.0	59.2	55.5	55.9	52.3	58.0	60.2	63.2	66.7	65.7	68.2	69.5	71.8	77.8	73.0	92.6
22-Oct	83.5	88.0	92.6	96.2	96.2	96.6	93.2	89.2	83.2	70.3	63.9	53.5	46.2	42.5	38.4	37.6	41.0	47.7	51.9	57.3	63.1	66.8	65.9	62.5	67.8	96.6
23-Oct	62.3	65.2	66.8	64.1	63.9	67.4	70.6	71.2	69.3	63.5	53.4	45.1	41.2	41.2	39.6	42.8	49.0	56.4	57.6	61.0	66.1	69.3	70.0	71.5	59.5	71.5
24-Oct	68.0	67.4	66.6	67.5	67.9	67.4	67.1	70.9	71.0	66.2	60.5	54.2	52.3	50.8	50.8	50.5	57.3	63.7	68.9	71.8	74.8	74.3	76.8	80.9	65.3	80.9
25-Oct	79.9	82.0	81.9	83.7	87.1	84.9	77.8	71.4	82.5	86.0	88.1	83.4	79.3	79.6	63.3	53.7	54.0	57.4	60.7	59.5	63.1	68.3	69.6	68.0	73.5	88.1
26-Oct	72.7	75.4	72.1	72.2	80.3	88.4	88.8	84.2	82.8	83.5	83.1	88.4	96.2	96.5	97.7	98.5	98.8	98.3	98.1	98.6	98.8	99.1	99.2	99.3	89.6	99.3
27-Oct	99.3	99.3	99.3	99.3	99.2	98.9	98.9	99.0	98.9	98.6	98.6	98.5	98.3	98.1	97.8	97.9	98.1	97.6	97.6	96.9	96.7	96.8	97.0	97.2	98.2	99.3
28-Oct	98.0	97.2	96.1	95.9	95.7	95.8	95.8	96.2	92.8	87.9	87.3	85.2	88.3	87.4	87.9	90.4	90.1	91.0	91.2	92.6	91.9	93.7	96.4	97.9	92.6	98.0
29-Oct	98.4	98.0	97.8	97.5	97.5	97.4	97.5	97.6	97.3	97.0	96.3	97.0	96.8	97.4	97.1	96.9	97.5	98.1	98.5	98.7	98.7	98.7	98.6	98.2	97.7	98.7
30-Oct	97.8	98.0	98.0	98.1	98.1	98.3	98.4	98.5	98.1	91.6	81.5	88.2	87.9	89.8	91.7	90.3	91.1	91.0	92.6	92.4	94.0	93.8	93.7	93.4	93.6	98.5
31-Oct	95.1	95.9	96.2	96.3	96.4	97.1	97.4	97.0	95.1	90.4	87.6	86.6	85.2	85.9	87.1	89.1	89.2	87.3	87.6	85.5	82.8	81.3	81.3	81.7	89.8	97.4
	79.1	80.4	81.2	82.0	83.1	83.7	84.3	84.2	81.3	77.2	72.1	67.0	64.2	62.4	61.4	62.1	64.9	68.8	72.0	73.6	74.9	75.3	76.3	77.7	Diurnal Average	
	99.3	99.4	99.5	99.6	99.6	99.6	99.6	99.6	99.5	99.3	99.2	99.0	98.9	98.1	97.8	98.5	98.8	98.3	98.5	98.7	98.8	99.1	99.2	99.3	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Stony Mountain - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Precipitation (PC) - mm

Stony Mountain - October 2025

Maximum Value: 6.9 mm on Oct 28 12:00

Maximum Daily Total: 23.0 mm on Oct 26

Minimum Value: 0.0 mm on Oct 1 04:00

Minimum Daily Total: 0.0 mm on Oct 6

Maximum Diurnal Total: 12.2 mm at hour 12

Minimum Diurnal Total: 0.3 mm at hour 6

Monthly Total: 73.93 mm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.1 P_{99} = 2.1

Hours in Service:	744
Hours of Data:	742
Hours of Missing Data:	2
Hours of Calibration:	2
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.7	1.0	0.1	0.0	0.0	0.1	0.0	0.2	0.1	0.1	0.4	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	1.0
2-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
3-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.0	0.0	0.9	0.5
4-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.0	0.8	0.0	0.0	0.0	1.0	0.1	0.0	0.0	2.5	1.0
5-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.1
6-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	2.6	1.8	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	2.6
12-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.2
17-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.4
18-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.6	0.7	0.7	0.6	0.7	0.3	0.6	0.8	5.2	0.8
20-Oct	0.4	0.6	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.6
21-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.1	1.8	2.6	2.4	4.0	2.6	2.0	1.4	1.4	1.1	0.7	23.0	4.0
27-Oct	0.9	0.7	0.4	1.1	0.4	0.2	1.1	0.7	0.4	0.8	1.0	1.0	1.3	0.8	0.8	0.6	0.5	0.1	0.3	0.0	0.0	0.1	0.0	0.1	13.0	1.3
28-Oct	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	6.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	6.9
29-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.9	2.2	1.7	0.9	0.3	0.6	0.2	0.2	0.2	0.1	0.2	0.1	0.0	9.8	2.9
30-Oct	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
31-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2.1	2.4	0.6	1.2	0.5	0.3	1.1	1.0	0.9	1.7	2.4	12.2	7.6	5.5	4.5	3.8	4.9	4.9	4.2	3.4	3.3	2.0	2.1	1.6	Diurnal Average	
	0.9	1.0	0.4	1.1	0.4	0.2	1.1	0.7	0.4	0.8	1.0	6.9	2.6	1.8	1.8	2.6	2.4	4.0	2.6	2.0	1.4	1.4	1.1	0.8	Diurnal Maximum	

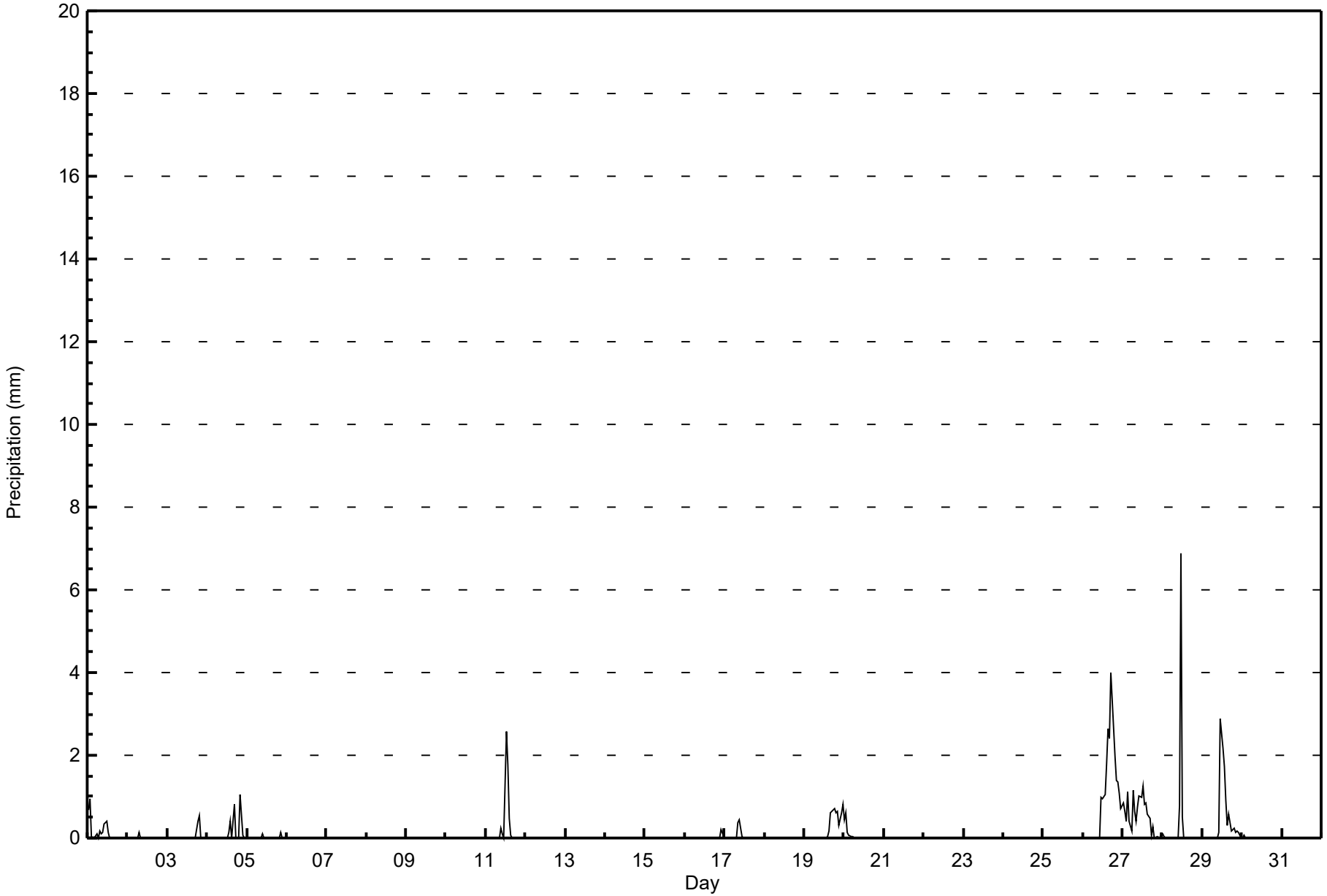
C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Precipitation (PC) - mm

Stony Mountain - October 2025



Concentration Ranges (mm)	Number of Hours	%	Cumulative %
0 - 0.3	683	92.05	92.05
0.4 - 0.5	13	1.75	93.80
0.6 - 0.7	13	1.75	95.55
0.8 - 1.4	21	2.83	98.38
1.5 - 10	12	1.62	100.00
> 10	0	0.00	100.00

Total Number of Valid Hours: 742

Total Number of Hours: 744

Maximum Value: 92.8 % on Oct 4 23:00

Maximum Daily Average: 45.1 % on Oct 27

Minimum Value: 0.3 % on Oct 10 15:00

Minimum Daily Average: 1.1 % on Oct 10

Maximum Diurnal Average: 10.6 % at hour 23

Minimum Diurnal Average: 5.8 % at hour 16

Monthly Average: 7.42 %

Percentiles: P_1 = 0.6 P_{10} = 1.1 Q_1 = 1.3 Median = 1.6 Q_3 = 5.7 P_{90} = 23.4 P_{99} = 73.2

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	35.4	39.2	21.7	18.0	21.2	26.1	18.7	30.6	28.7	29.7	36.9	41.2	29.1	16.0	10.2	8.5	7.6	12.5	16.4	14.3	11.6	10.4	19.6	22.5	21.9	41.2
2-Oct	22.0	21.6	19.7	18.9	19.5	18.3	18.1	22.1	14.0	7.6	4.5	1.6	1.2	1.3	1.3	1.2	1.4	2.2	9.5	23.0	30.2	32.8	34.2	36.6	15.1	36.6
3-Oct	28.8	28.1	25.9	21.9	17.7	20.8	22.9	25.1	18.7	11.3	2.7	1.2	0.9	0.7	1.0	1.1	1.8	10.3	26.1	18.4	8.0	7.3	5.8	3.3	12.9	28.8
4-Oct	1.7	1.7	1.7	1.7	1.8	2.0	2.2	1.9	1.8	1.6	1.5	1.4	1.4	6.5	24.1	10.1	33.5	14.6	11.8	25.9	40.5	75.2	92.8	OR	15.5	92.8
5-Oct	OR	21.9	8.5	8.3	8.3	8.2	8.2	8.2	8.2	13.6	OR	13.4	2.6	1.1	1.2	1.1	1.2	1.3	1.4	2.8	26.0	10.5	5.2	2.5	7.4	26.0
6-Oct	2.3	2.5	4.4	5.7	2.3	1.9	1.8	1.7	1.6	1.6	1.5	1.1	0.9	0.5	0.5	0.7	0.9	1.2	1.2	1.3	1.3	1.4	1.4	1.4	1.7	5.7
7-Oct	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.1	0.9	0.7	0.6	0.6	0.9	1.1	1.2	1.3	1.2	1.2	1.2	1.3	1.2	1.4
8-Oct	1.3	1.4	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.5	1.4	1.1	0.9	0.7	0.6	0.8	1.0	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.6
9-Oct	1.4	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.4	1.1	0.9	0.8	0.7	0.8	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.6
10-Oct	1.3	1.4	1.5	1.5	1.5	1.6	1.7	1.6	1.5	1.4	1.2	0.9	0.6	0.4	0.3	0.4	0.7	1.0	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.7
11-Oct	1.2	1.2	1.3	1.3	1.2	1.3	1.3	1.3	3.3	21.4	6.3	1.8	46.0	46.9	35.1	12.7	7.4	6.8	5.5	3.8	2.2	1.7	1.9	1.7	8.9	46.9
12-Oct	1.7	2.0	1.8	1.9	2.1	1.7	1.7	1.7	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.8	2.6	3.8	3.4	3.0	2.3	1.9	3.8
13-Oct	1.9	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.5	1.4	1.4	1.4	1.1	0.9	1.1	1.2	1.3	1.3	1.4	1.5	1.4	1.4	1.5	1.5	1.9
14-Oct	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.3	1.2	1.0	0.9	0.8	0.8	1.0	1.1	1.2	1.2	1.3	1.4	1.4	1.4	1.3	1.5
15-Oct	1.4	1.5	1.5	1.6	1.6	1.6	1.7	1.6	1.5	1.4	1.2	1.1	1.0	1.0	0.9	0.9	1.0	1.2	1.2	1.3	1.3	1.2	1.2	1.2	1.3	1.7
16-Oct	1.2	1.2	1.3	1.4	2.5	5.7	12.1	18.2	6.0	1.4	1.3	1.1	0.8	0.8	0.6	0.7	0.9	0.9	0.9	0.9	1.0	1.2	16.8	12.1	3.8	18.2
17-Oct	2.5	1.3	1.3	1.3	1.4	1.4	1.4	4.0	27.3	36.2	21.4	6.0	2.0	1.2	1.2	1.3	1.6	6.8	1.3	1.3	1.3	1.3	1.3	1.3	5.3	36.2
18-Oct	1.4	1.3	1.4	1.4	1.4	1.4	1.5	1.4	1.3	1.3	1.2	1.0	0.8	0.7	0.6	0.6	0.9	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.2	1.5
19-Oct	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.3	10.0	33.9	44.3	36.5	36.3	36.7	37.5	32.4	39.6	39.8	15.3	44.3
20-Oct	35.1	40.9	26.5	27.6	27.1	23.0	20.4	22.8	24.6	15.0	11.8	4.3	2.3	1.7	1.6	1.6	1.7	1.9	2.1	5.0	17.8	28.2	29.3	22.1	16.4	40.9
21-Oct	14.1	8.5	11.0	5.5	1.9	1.9	2.0	4.2	3.1	1.7	1.6	1.4	1.1	1.1	1.0	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.5	1.6	3.0	14.1
22-Oct	1.7	6.5	20.5	29.7	34.5	17.6	4.7	5.1	9.8	13.8	3.9	1.3	1.0	0.8	0.7	0.8	1.1	1.2	1.2	1.3	1.4	1.4	1.4	1.4	6.8	34.5
23-Oct	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.3	1.1	0.8	0.7	0.5	0.7	1.1	1.3	1.4	1.4	1.5	1.5	1.6	1.6	1.3	1.6
24-Oct	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.3	1.2	1.1	1.0	1.0	1.0	1.3	1.5	1.5	1.6	1.7	1.8	2.4	2.4	1.5	2.4
25-Oct	1.7	1.7	1.7	1.8	1.9	2.2	1.7	1.5	9.7	8.2	16.9	4.4	1.5	1.5	1.2	1.1	1.3	1.4	1.4	1.4	1.5	1.6	1.6	1.7	2.9	16.9
26-Oct	1.8	2.8	2.0	2.0	2.4	2.2	2.0	1.8	1.7	1.6	1.6	31.6	33.8	34.1	41.4	43.8	43.5	51.7	47.1	42.1	41.7	43.5	38.4	38.2	23.0	51.7
27-Oct	OR	OR	OR	OR	85.4	69.0	47.7	30.3	38.1	69.7	83.4	92.7	92.3	90.8	75.7	36.8	12.3	11.3	11.2	11.1	11.1	11.1	11.1	11.1	45.1	92.7
28-Oct	11.2	11.2	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.3	12.4	8.4	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.9	1.9	2.1	2.3	2.4	6.5	12.4
29-Oct	2.5	2.6	2.7	2.8	2.8	2.9	3.0	3.0	3.1	3.1	2.9	2.7	2.6	2.6	2.6	2.6	2.7	2.9	3.0	3.2	3.3	3.5	3.5	3.4	2.9	3.5
30-Oct	3.4	3.5	3.5	3.4	3.4	3.4	3.5	3.5	3.5	3.3	5.6	3.0	2.7	2.1	2.0	1.9	1.9	1.9	1.9	2.0	2.1	2.1	2.0	2.0	2.8	5.6
31-Oct	2.1	2.2	2.3	2.4	2.5	2.6	2.8	3.0	3.2	3.4	5.6	9.9	8.0	15.3	11.0	8.4	5.7	2.0	1.8	1.8	1.7	1.7	1.6	1.6	4.3	15.3
	6.4	7.2	6.2	6.1	8.6	7.7	6.6	7.0	7.6	8.8	7.9	7.8	7.9	7.7	7.5	5.8	6.0	5.9	6.4	6.9	8.4	9.3	10.6	7.4	Diurnal Average	
	35.4	40.9	26.5	29.7	85.4	69.0	47.7	30.6	38.1	69.7	83.4	92.7	92.3	90.8	75.7	43.8	44.3	51.7	47.1	42.1	41.7	75.2	92.8	39.8	Diurnal Maximum	

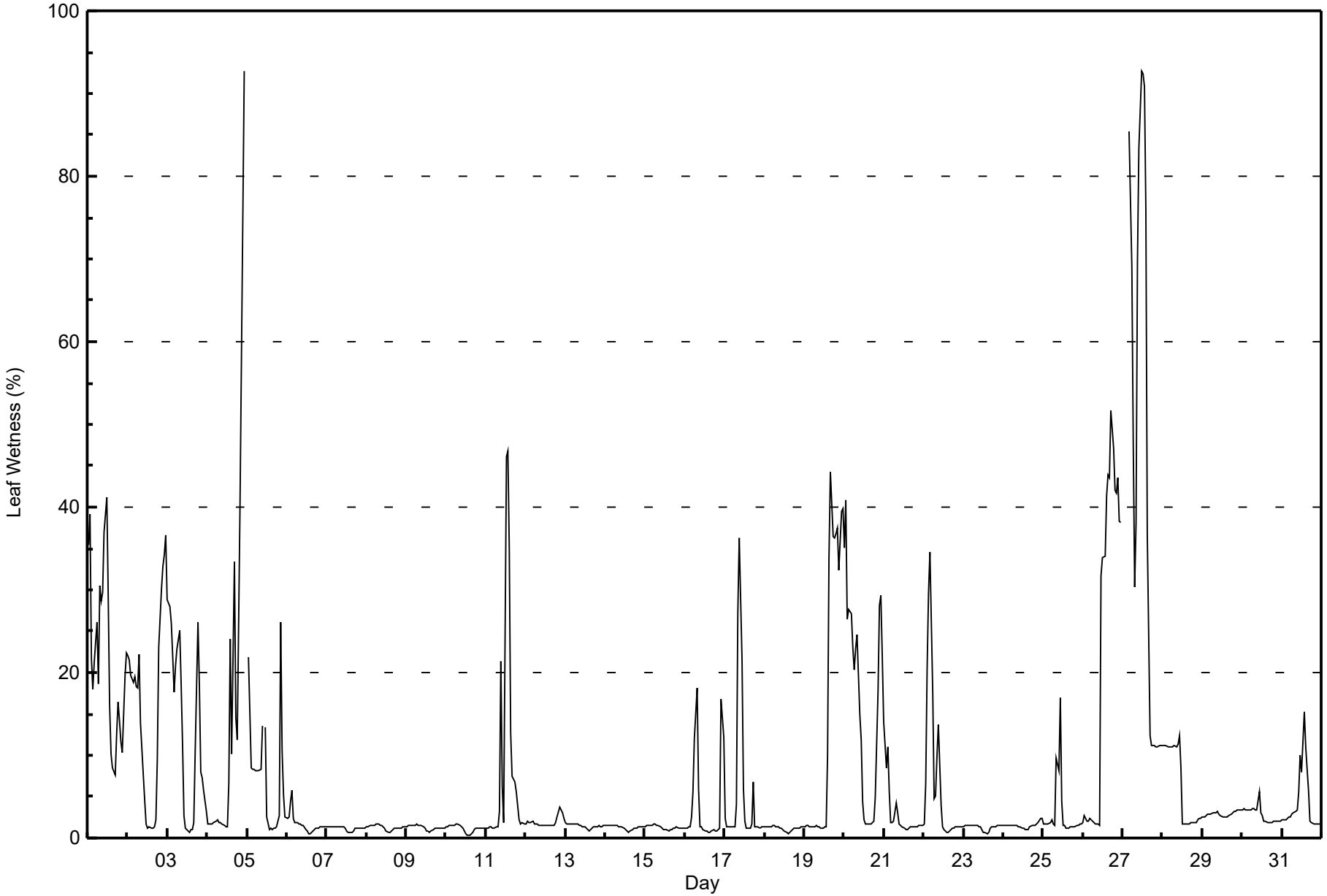
OR - Out of Range

Wood Buffalo Environmental Association

Hourly Averages

Leaf Wetness (LW) - %

Stony Mountain - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 0.3	1	0.14	0.14
0.4 - 0.5	5	0.68	0.81
0.6 - 0.7	18	2.44	3.26
0.8 - 1.4	248	33.65	36.91
1.5 - 10	274	37.18	74.08
> 10	154	20.90	94.98

Total Number of Valid Hours: 737

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Global Radiation (GR) - W/m2

Stony Mountain - October 2025

Maximum Value: 559.7 W/m2 on Oct 6 13:00

Maximum Daily Average: 143.0 W/m2 on Oct 6

Minimum Value: 0.0 W/m2 on Oct 1 01:00

Minimum Daily Average: 4.0 W/m2 on Oct 29

Maximum Diurnal Average: 281.1 W/m2 at hour 13

Minimum Diurnal Average: 0.2 W/m2 at hour 4

Monthly Average: 68.89 W/m2

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.2 Median = 0.5 Q_3 = 69.3 P_{90} = 279.5 P_{99} = 510.5

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

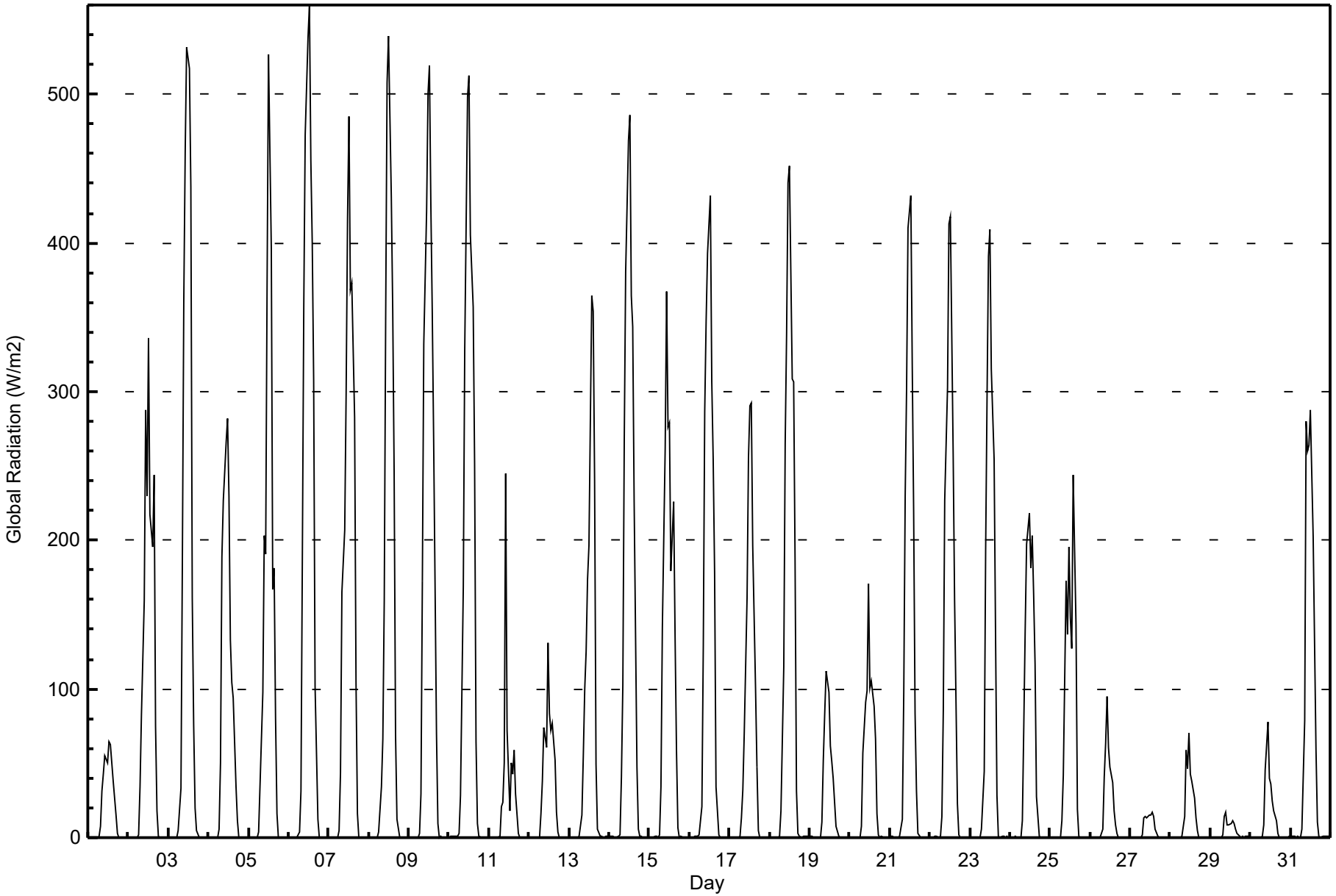
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.9	7.2	31.1	42.8	55.5	50.3	64.2	62.3	49.9	37.5	14.8	3.2	0.1	0.0	0.0	0.1	0.0	0.1	17.5	64.2
2-Oct	0.0	0.0	0.0	0.0	0.0	0.0	2.3	34.0	82.7	159.4	287.3	229.8	335.7	216.9	195.5	244.1	74.7	18.5	0.6	0.1	0.1	0.0	0.1	0.1	78.4	335.7
3-Oct	0.1	0.1	0.1	0.1	0.1	0.1	4.4	33.1	187.1	360.8	461.1	531.8	517.2	437.3	161.7	75.9	19.7	4.8	0.1	0.0	0.1	0.1	0.1	0.1	116.5	531.8
4-Oct	0.1	0.1	0.1	0.1	0.2	0.1	5.3	49.8	189.2	227.1	265.7	281.9	229.4	132.6	104.3	94.2	34.0	11.7	0.1	0.0	0.0	0.0	0.0	0.0	67.8	281.9
5-Oct	0.0	0.0	0.1	0.1	0.1	0.1	3.8	34.9	97.7	202.7	190.4	370.8	526.9	395.5	167.2	181.2	81.0	15.8	0.2	0.0	0.1	0.1	0.1	0.1	94.5	526.9
6-Oct	0.1	0.2	0.1	0.1	0.1	0.1	3.6	31.2	191.2	358.2	473.0	537.8	559.7	455.7	399.5	307.9	101.3	11.9	0.2	0.1	0.1	0.0	0.0	0.0	143.0	559.7
7-Oct	0.0	0.0	0.1	0.2	0.2	0.2	4.8	43.8	165.0	207.1	299.0	416.9	485.3	368.6	373.1	283.0	104.3	15.9	0.4	0.2	0.1	0.1	0.2	0.3	115.4	485.3
8-Oct	0.3	0.0	0.0	0.0	0.0	0.0	3.9	34.0	66.2	159.9	348.0	507.4	538.9	431.1	355.2	245.8	69.1	12.0	0.3	0.3	0.3	0.3	0.2	0.1	115.6	538.9
9-Oct	0.1	0.1	0.1	0.1	0.2	0.2	3.2	29.7	172.7	332.1	421.2	499.9	519.1	426.1	354.4	266.2	70.0	9.5	0.4	0.5	0.3	0.2	0.4	0.3	129.5	519.1
10-Oct	0.5	0.5	0.5	0.5	0.5	0.5	3.0	28.8	168.8	327.5	411.7	498.8	512.9	404.8	356.4	251.1	64.5	9.3	0.5	0.4	0.4	0.4	0.4	0.4	126.8	512.9
11-Oct	0.4	0.3	0.3	0.2	0.3	0.2	0.8	21.2	23.4	49.9	245.1	72.6	17.6	50.3	42.9	58.5	29.7	3.0	0.1	0.1	0.1	0.1	0.1	0.1	25.7	245.1
12-Oct	0.1	0.1	0.2	0.1	0.1	0.0	0.3	16.3	38.0	73.8	60.7	131.4	83.6	72.0	76.8	51.9	17.3	4.2	0.1	0.1	0.1	0.1	0.1	0.1	26.2	131.4
13-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.5	15.2	54.6	99.8	125.6	173.3	196.7	364.8	354.0	240.5	48.9	6.1	0.6	0.5	0.3	0.4	0.5	0.5	70.2	364.8
14-Oct	0.7	0.6	0.6	0.5	0.4	0.6	1.9	40.7	102.8	265.8	380.9	469.3	485.8	364.3	343.7	227.1	47.0	5.6	0.5	0.5	0.4	0.4	0.3	0.4	114.2	485.8
15-Oct	0.5	0.4	0.5	0.5	0.5	0.4	1.8	34.3	141.9	261.6	367.4	276.3	278.9	179.5	226.2	135.3	59.1	6.4	0.4	0.6	0.3	0.4	0.4	0.4	82.2	367.4
16-Oct	0.3	0.2	0.2	0.5	0.5	0.6	1.6	20.8	129.2	286.8	347.7	393.2	432.1	307.1	254.8	178.7	34.0	2.3	0.3	0.2	0.2	0.2	0.0	0.3	99.7	432.1
17-Oct	0.4	0.4	0.1	0.1	0.3	0.2	0.5	13.1	32.4	70.4	161.8	255.1	290.4	292.7	196.6	100.3	47.7	5.0	0.1	0.1	0.0	0.0	0.0	0.1	61.1	292.7
18-Oct	0.1	0.1	0.0	0.2	0.1	0.1	0.8	18.1	115.3	264.3	338.6	440.1	451.6	308.6	306.1	185.6	31.6	3.3	0.6	0.4	0.5	0.6	0.5	0.6	102.8	451.6
19-Oct	0.6	0.5	0.4	0.2	0.1	0.1	0.4	10.8	52.4	83.1	111.7	97.9	61.8	51.4	39.5	23.3	7.7	0.7	0.3	0.3	0.3	0.3	0.3	0.3	22.7	111.7
20-Oct	0.3	0.3	0.3	0.2	0.2	0.2	0.3	7.3	56.5	90.9	98.7	171.3	100.9	105.6	88.3	66.3	16.0	2.1	0.4	0.5	0.4	0.4	0.3	0.4	33.7	171.3
21-Oct	0.6	0.5	0.4	0.5	0.4	0.4	0.7	12.7	97.3	229.8	302.3	410.4	431.6	318.3	219.6	83.8	31.5	2.5	0.1	0.0	0.0	0.0	0.0	0.1	89.3	431.6
22-Oct	0.0	0.4	0.4	0.6	0.5	0.3	0.8	14.5	85.4	226.5	302.3	412.6	417.6	337.8	257.4	159.2	22.5	1.9	0.4	0.4	0.3	0.3	0.1	0.2	93.4	417.6
23-Oct	0.2	0.3	0.2	0.1	0.3	0.2	0.3	5.9	44.3	193.6	296.8	391.5	408.9	315.3	254.7	137.9	28.3	1.2	0.4	0.5	0.5	0.4	0.5	0.4	86.8	408.9
24-Oct	0.4	0.3	0.4	0.5	0.4	0.4	0.4	11.1	74.5	139.7	197.3	218.4	181.2	203.6	163.5	116.8	27.8	1.0	0.2	0.2	0.3	0.2	0.2	0.1	55.8	218.4
25-Oct	0.0	0.0	0.0	0.0	0.0	0.2	0.3	11.4	41.4	173.2	136.9	195.5	148.0	127.3	243.8	143.0	19.2	1.1	0.4	0.4	0.4	0.4	0.4	0.2	51.8	243.8
26-Oct	0.5	0.4	0.4	0.1	0.2	0.1	0.1	5.9	41.3	63.2	95.2	60.4	47.8	37.5	18.1	8.2	2.5	0.2	0.2	0.2	0.2	0.2	0.2	0.1	16.0	95.2
27-Oct	0.1	0.0	0.0	0.0	0.1	0.1	0.2	1.6	13.4	14.1	12.9	14.8	15.1	16.6	14.3	5.4	1.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	4.6	16.6
28-Oct	0.3	0.3	0.3	0.2	0.2	0.3	0.3	1.3	14.4	59.0	46.2	69.9	42.4	38.3	27.0	12.8	4.6	0.0	0.2	0.2	0.3	0.2	0.3	0.2	13.3	69.9
29-Oct	0.2	0.2	0.3	0.3	0.4	0.4	0.4	1.5	14.4	17.4	8.6	8.5	9.7	11.2	9.3	5.8	3.0	0.5	0.5	0.5	0.4	0.5	0.5	0.5	4.0	17.4
30-Oct	0.5	0.4	0.4	0.4	0.4	0.4	0.4	1.2	8.5	45.7	78.2	39.6	36.3	24.4	17.6	11.7	2.6	0.4	0.4	0.4	0.5	0.5	0.5	0.5	11.3	78.2
31-Oct	0.5	0.6	0.6	0.4	0.5	0.4	0.3	5.3	78.6	279.7	260.3	263.7	287.9	202.6	130.0	58.9	10.2	0.6	0.5	0.6	0.5	0.5	0.5	0.5	66.0	287.9
	0.3	0.2	0.2	0.2	0.2	0.2	1.6	19.2	84.3	173.1	231.9	273.9	281.1	227.7	187.1	129.0	36.3	5.2	0.3	0.3	0.2	0.2	0.2	0.3	Diurnal Average	
	0.7	0.6	0.6	0.6	0.5	0.6	5.3	49.8	191.2	360.8	473.0	537.8	559.7	455.7	399.5	307.9	104.3	18.5	0.6	0.6	0.5	0.6	0.5	0.6	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Global Radiation (GR) - W/m2

Stony Mountain - October 2025



Concentration Ranges (W/m2)	Number of Hours	%	Cumulative %
0 - 20	488	65.59	65.59
21 - 100	98	13.17	78.76
101 - 300	93	12.50	91.26
301 - 600	65	8.74	100.00
601 - 900	0	0.00	100.00
> 900	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 20m (WS20) - km/h

Stony Mountain - October 2025

Maximum Speed: 27 km/h on Oct 14 11:00

Maximum Daily Speed Average: 19.6 km/h on Oct 14

Minimum Speed Value: 1 km/h on Oct 2 05:00

Minimum Daily Speed Average: 2.0 km/h on Oct 6

Maximum Diurnal Speed Average: 7.8 km/h at hour 13

Minimum Diurnal Speed Average: 5.1 km/h at hour 18

Monthly Average Velocity: 6.6 km/h 242.9 deg

Percentiles: $P_1 = 4$ $P_{10} = 7$ $Q_1 = 9$ Median = 13 $Q_3 = 16$ $P_{90} = 18$ $P_{99} = 24$

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NW9	NNW8	NNE8	N7	NNW6	NW8	NW9	NW10	NW11	NW12	NNW11	NW11	NNW12	NNW8	NNW9	NNW8	NW9	NNW9	NNW6	NW7	NW7	WNW7	WNW7	NW7	NW8.2	NW12
2-Oct	WNW8	WNW7	NW6	NW5	NNW1	SSW6	SSW7	SSW7	S7	S7	SSE6	S7	SSE7	SSW7	SSW5	SW8	SW7	SW6	SW7	S7	SSW10	SSW12	SSW13	SSW14	SSW5.8	SSW14
3-Oct	SSW15	SSW16	SSW16	SSW16	SSW15	SSW17	SSW17	SSW16	SW15	SSW14	SW11	SW13	SW14	WSW16	WSW15	W14	W12	WSW5	WSW9	WSW13	WSW14	W13	WSW12	WSW12	SW12.6	SSW17
4-Oct	W13	W13	W14	W15	W15	W15	WNW16	WNW15	WNW13	NW14	NW11	NW11	NW11	NW11	NW11	NW13	NW17	WNW18	WNW18	NW18	NW17	NW16	NW14	NW14	WNW13.4	NW18
5-Oct	NW12	NW11	WNW7	W9	W9	WSW8	WSW9	SW11	SW9	SSW11	SW12	SSW14	SW17	WSW19	W17	W15	WNW17	WNW15	NW10	NNW11	WNW9	WNW9	W11	WNW12	W9.9	WSW19
6-Oct	WNW11	WNW13	WNW11	NW11	N10	NNW9	NNW11	N11	N11	N8	N6	NNE4	WNW2	SE5	SSW5	SSW6	SSW7	S7	SSE8	SSE9	S10	S11	S12	S14	W2.0	S14
7-Oct	S14	S15	S15	S16	S16	SSW18	SSW18	SSW17	SSW18	SSW17	SSW15	SSW16	SSW15	SSW16	SSW18	SSW16	S15	S15	S14	S15	S16	S15	S14	SSW13	SSW15.5	SSW18
8-Oct	W9	NW17	NW18	NW22	NW19	NW16	WNW15	WNW16	WNW17	WNW17	WNW18	NW19	WNW18	WNW17	WNW17	WNW14	W13	W10	W9	W12	WSW13	WSW15	W16	W16	WNW14.7	NW22
9-Oct	W14	W14	W16	W15	W16	W16	W14	W14	W15	W13	W12	W12	WSW13	SW15	SW15	WSW16	SW11	SW10	SW12	SW15	SW16	SW15	SW17	SW17	WSW13.3	SW17
10-Oct	SW17	SW15	SW15	SW16	SW15	SSW14	SSW14	SSW15	SSW18	SSW18	S17	SSW16	S16	S17	S16	S17	S14	SSE13	S16	S17	S20	S21	S20	S20	SSW16.0	S21
11-Oct	S18	S14	S13	S12	SSW15	SSW13	SSW13	W9	NW12	NW17	NNW19	NW17	WNW17	NW17	NW19	NW23	NW20	NW19	NW18	NW17	NW16	NW16	NW18	NNW18	WNW10.4	NW23
12-Oct	NNW19	NNW18	NNW17	NNW16	NNW15	NNW18	NNW18	NNW22	NNW19	NNW19	NNW19	NNW19	NNW17	NNW17	NNW16	NNW15	NNW14	NNW14	NNW10	NNW9	NNW9	NNW9	NNW11	NNW10	NNW15.4	NNW22
13-Oct	NNW7	NW8	NW8	NW6	NW6	W5	W5	W5	W5	WSW5	SW8	SW10	SW12	SW10	SSW12	SSW14	SSW12	SW11	SSW11	SSW11	S13	SSW17	SSW18	SSW17	SW7.5	SSW18
14-Oct	SSW17	S16	SSW17	SSW18	SSW17	S21	SSW18	SSW21	SSW26	SSW26	SSW27	SSW25	SSW23	SW20	SW19	SW17	SSW17	SSW18	SSW18	SW19	SW20	SSW19	SW19	SW18	SSW19.6	SSW27
15-Oct	SSW19	SSW18	SSW17	SSW16	SSW17	SSW19	SSW16	SSW19	SSW23	SSW24	SSW20	SSW20	SSW20	SSW20	SW17	SW15	WSW11	WSW11	WSW14	WSW14	W14	W13	W14	W14	SW15.9	SSW24
16-Oct	W16	W16	W15	WSW10	SW8	WSW10	WNW2	SW8	SW16	SSW14	SSW14	SSW15	S15	S17	S17	S17	S13	S14	SSW15	SSW16	S12	S11	WSW14	SSW11	SSW11.3	S17
17-Oct	SW13	WSW15	WSW17	WSW16	WSW15	WSW14	WSW17	W18	WNW20	WNW20	WNW19	WNW19	WNW19	WNW20	WNW19	WNW16	WNW17	WNW15	WNW14	WNW16	WNW15	NW16	NW16	WNW13	W15.4	WNW20
18-Oct	WNW15	WNW17	WNW17	W18	W17	W18	W17	W18	W15	WNW13	WNW13	WNW15	W15	WNW16	WNW14	W11	WSW7	WSW7	SW9	SW10	SW11	SW11	SW11	SSW9	W12.2	W18
19-Oct	S10	S10	SSE11	S13	SSE11	SE10	ESE10	ESE9	E9	E8	E7	ENE8	NE7	NNE6	E6	ESE9	ENE8	NNE7	ENE9	ENE8	NE7	NE8	ENE10	ENE10	E6.0	SSE13
20-Oct	NE9	NNE9	N7	NNW6	NNW7	NNW9	NW9	NW9	WNW9	WNW10	WNW11	WNW7	W9	W9	W9	SW8	SW8	SSW8	SSW11	SSW15	S16	S16	SSW16	S16	WSW4.8	SSW16
21-Oct	S17	S18	SSW19	SSW19	SSW17	SW16	SW16	SW15	WSW13	W15	W17	W17	W17	W15	W16	W13	W10	W9	W9	W11	W10	W8	WNW7	ENE4	WSW11.1	SSW19
22-Oct	E7	SE6	ESE6	SE8	SSW8	W4	SW11	SW11	SW11	SSW8	S9	S11	S12	S11	S13	SSE13	SSE10	SSE12	SSE15	SSE18	SSE17	SSE17	SSE17	SSE16	SSE9.7	SSE18
23-Oct	SSE13	SE12	SSE14	SSE18	S12	S12	S12	S12	SSW11	SSW10	S9	SSW6	SSE4	S7	S7	S8	S10	S11	S14	S14	S15	S15	S16	S16	S11.1	SSE18
24-Oct	S18	S18	S19	S17	S19	S18	S18	SSW16	SSW14	S15	SSW9	S8	S8	SSE8	SE7	SSE11	SSE11	SSE13	SSE13	SSE13	S12	SE11	SE10	ESE7	S12.3	S19
25-Oct	E9	NE6	E7	ENE5	S5	SW9	WSW13	WSW18	W25	W24	W23	W22	W21	W19	W17	W16	W15	WSW11	SW13	WSW13	WSW10	SW10	SW10	WSW4	W10.7	W25
26-Oct	S9	SSE10	SE8	ESE10	ESE11	E11	ENE9	ENE10	ENE11	NE12	NE11	NE11	NNE10	NE13	NE12	NE10	NNE10	NE16	NE13	NNE11	N9	NNW10	NW10	NW13	NE7.0	NE16
27-Oct	NW14	WNW12	WNW12	WNW13	WNW14	WNW15	WNW15	WNW15	WNW16	WNW15	WNW16	WNW17	WNW18	WNW19	WNW18	WNW17	WNW17	WNW16	WNW15	NW16	NW16	NW15	WNW14	WNW12	WNW15.3	WNW19
28-Oct	WNW15	WNW17	WNW18	WNW18	NW17	NW19	WNW16	WNW15	WNW17	WNW17	WNW17	WNW16	WNW17	WNW16	WNW14	W12	W11	WSW8	W7	WSW5	SW7	SW5	SE5	SE8	WNW11.5	NW19
29-Oct	SE8	ESE9	ESE9	E9	E9	E11	ENE9	ENE11	E9	ENE6	N4	NNW4	N5	N7	NNW5	NNW6	NW8	NW7	NW9	NW10	NW11	NW11	NW12	NW11	NNE3.5	NW12
30-Oct	NW11	NW9	NW8	NW9	NW7	NW8	NW7	NW6	WNW7	WNW7	WNW8	W6	W6	WSW5	WSW6	WSW6	SW7	SW8	SW7	SW5	SSW5	SW6	SSW6	SSW7	W5.3	NW11
31-Oct	S6	S7	SSW11	S14	S16	S15	S15	S15	S15	S15	SSE17	SSE18	S18	SSE17	SSE17	SSE19	SSE17	SSE19	SSE24	SSE25	SSE23	S22	S24	S22	S16.9	SSE25
	WSW6.1	WSW5.9	WSW5.7	WSW5.9	SW6.4	WSW6.8	WSW7.0	WSW7.4	WSW7.6	WSW7.1	WSW6.8	WSW7.2	WSW7.8	WSW7.5	WSW7.3	WSW6.8	WSW6.1	WSW5.1	SW5.7	SW6.5	SW6.9	SW6.8	SW7.1	SW6.4	Diurnal Average	
	SSW19	NNW18	SSW19	NW22	NW19	S21	NNW18	NNW22	SSW26	SSW26	SSW27	SSW25	SSW23	WNW20	WNW19	NW23	NW20	NW19	SSE24	SSE25	SSE23	S22	S24	S22	Diurnal Maximum	

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 8 km/h on Oct 14 11:00

Minimum Value: 1 km/h on Oct 2 04:00

Percentiles: P_1 = 1 P_{10} = 2 Q_1 = 3 Median = 4 Q_3 = 5 P_{90} = 6 P_{99} = 8

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

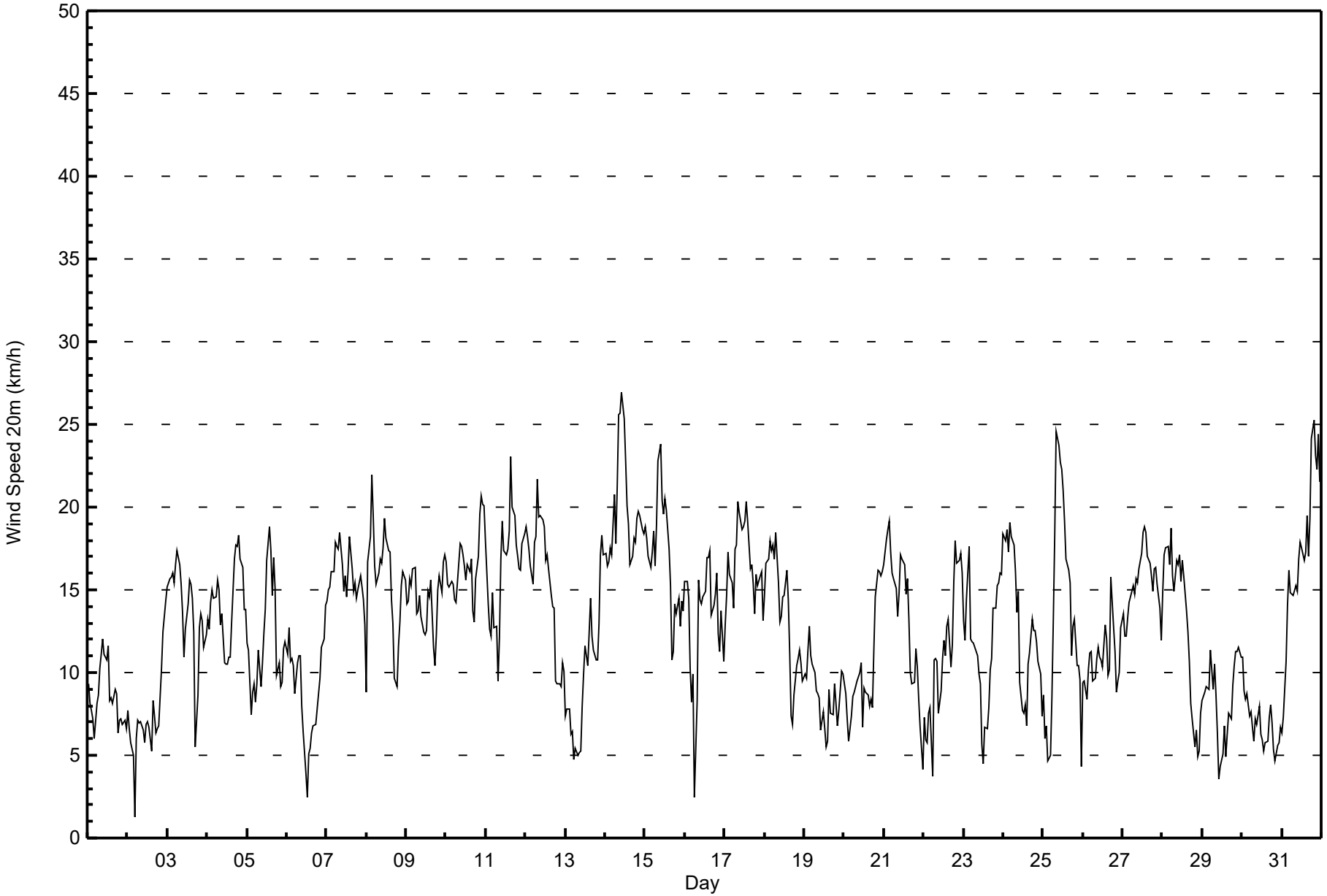
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	3	2	2	2	3	3	3	3	4	3	3	4	3	3	3	3	4	2	1	2	1	1	1	4
2-Oct	1	1	1	1	1	1	2	1	2	3	2	2	3	2	2	3	2	1	1	1	2	3	3	3	3
3-Oct	3	4	4	4	4	4	4	4	4	4	4	5	5	6	6	5	5	1	3	4	4	6	3	4	6
4-Oct	4	4	4	5	5	5	5	4	4	5	4	4	4	4	4	4	6	6	6	6	5	5	4	4	6
5-Oct	3	3	3	3	3	2	2	3	2	3	3	4	6	6	6	5	6	5	4	4	3	3	4	4	6
6-Oct	3	4	3	3	4	3	3	4	4	3	2	2	2	2	3	3	2	1	1	1	2	2	2	3	4
7-Oct	3	4	3	4	4	4	4	4	5	5	4	5	5	6	6	5	5	4	3	4	4	3	4	3	6
8-Oct	3	5	6	6	6	5	5	5	6	6	6	6	6	6	6	5	5	3	3	4	4	4	5	4	6
9-Oct	4	4	4	4	5	5	5	4	5	5	4	4	4	5	5	5	4	3	3	4	4	4	4	4	5
10-Oct	4	3	3	4	4	3	3	4	4	4	5	5	5	5	5	5	4	3	3	4	4	5	4	5	5
11-Oct	5	3	3	3	3	4	3	4	4	6	7	6	6	6	6	7	6	6	6	5	5	5	5	6	7
12-Oct	6	6	6	6	6	7	7	8	6	7	6	7	6	6	6	5	5	5	3	3	3	3	4	3	8
13-Oct	2	2	2	2	2	1	2	2	1	2	3	3	4	4	5	5	4	3	3	2	3	5	5	5	5
14-Oct	5	4	4	5	5	6	6	6	8	8	8	8	7	7	6	5	6	5	5	5	5	5	5	5	8
15-Oct	4	4	4	4	4	4	4	5	7	7	7	7	7	6	5	5	4	3	3	3	4	3	4	3	7
16-Oct	4	4	5	3	2	2	3	5	3	4	4	4	4	5	6	5	3	3	4	5	2	2	5	2	6
17-Oct	3	5	5	5	4	4	6	6	7	6	6	6	7	7	6	6	6	6	4	5	5	5	5	4	7
18-Oct	4	4	5	5	5	5	5	5	5	4	4	5	5	6	5	4	2	1	1	2	2	2	2	2	6
19-Oct	1	1	2	3	2	2	2	1	2	2	2	2	2	2	3	3	2	2	2	2	2	2	3	3	3
20-Oct	3	3	2	2	2	2	3	2	3	3	3	2	3	3	3	3	3	2	4	4	3	4	3	3	4
21-Oct	4	4	5	5	5	4	4	4	4	5	6	6	6	5	5	4	4	3	3	3	3	2	2	2	6
22-Oct	1	1	2	1	2	3	2	2	2	2	3	3	4	4	4	4	3	2	3	4	4	4	5	5	5
23-Oct	4	2	3	4	4	2	2	2	3	3	3	2	2	3	2	2	2	2	3	3	3	3	3	3	4
24-Oct	4	4	4	4	4	4	4	4	4	4	3	3	2	2	2	3	3	2	2	2	3	2	2	1	4
25-Oct	2	1	1	2	1	3	5	7	8	8	7	8	7	7	6	6	5	3	4	4	2	2	1	2	8
26-Oct	1	1	1	2	3	2	2	2	2	3	3	3	3	3	3	3	3	5	4	4	3	3	3	3	5
27-Oct	3	3	4	4	4	4	5	5	5	5	5	5	6	6	6	5	5	5	4	5	5	4	4	4	6
28-Oct	4	5	5	5	5	6	5	6	5	5	5	5	5	5	4	4	3	3	3	2	2	2	2	2	6
29-Oct	2	2	2	2	2	3	2	3	2	3	2	1	2	2	2	2	2	2	3	3	3	3	3	3	3
30-Oct	3	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	3	3	2	2	1	1	1	2	3
31-Oct	1	1	3	3	4	3	3	3	3	4	4	5	5	5	5	5	4	6	7	7	7	7	6	6	7
	6	6	6	6	6	7	7	8	8	8	8	8	7	7	6	7	6	6	7	7	7	7	6	6	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 20m (WS20) - km/h

Stony Mountain - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	30	4.03	4.03
6 - 11	273	36.69	40.73
12 - 19	404	54.30	95.03
20 - 28	37	4.97	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 20m (WS20) - km/h

Stony Mountain - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	2	1	0	2	0	0	2	1	1	3	2	5	5	2	1	3	30
6 - 11	9	7	8	12	12	9	9	13	21	24	33	15	20	17	41	23	273
12 - 19	0	0	5	0	0	0	1	23	65	73	32	25	52	72	36	20	404
20 - 28	0	0	0	0	0	0	0	3	8	12	2	0	5	3	3	1	37
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	8	13	14	12	9	12	40	95	112	69	45	82	94	81	47	744

Total Number of Valid Hours: 744

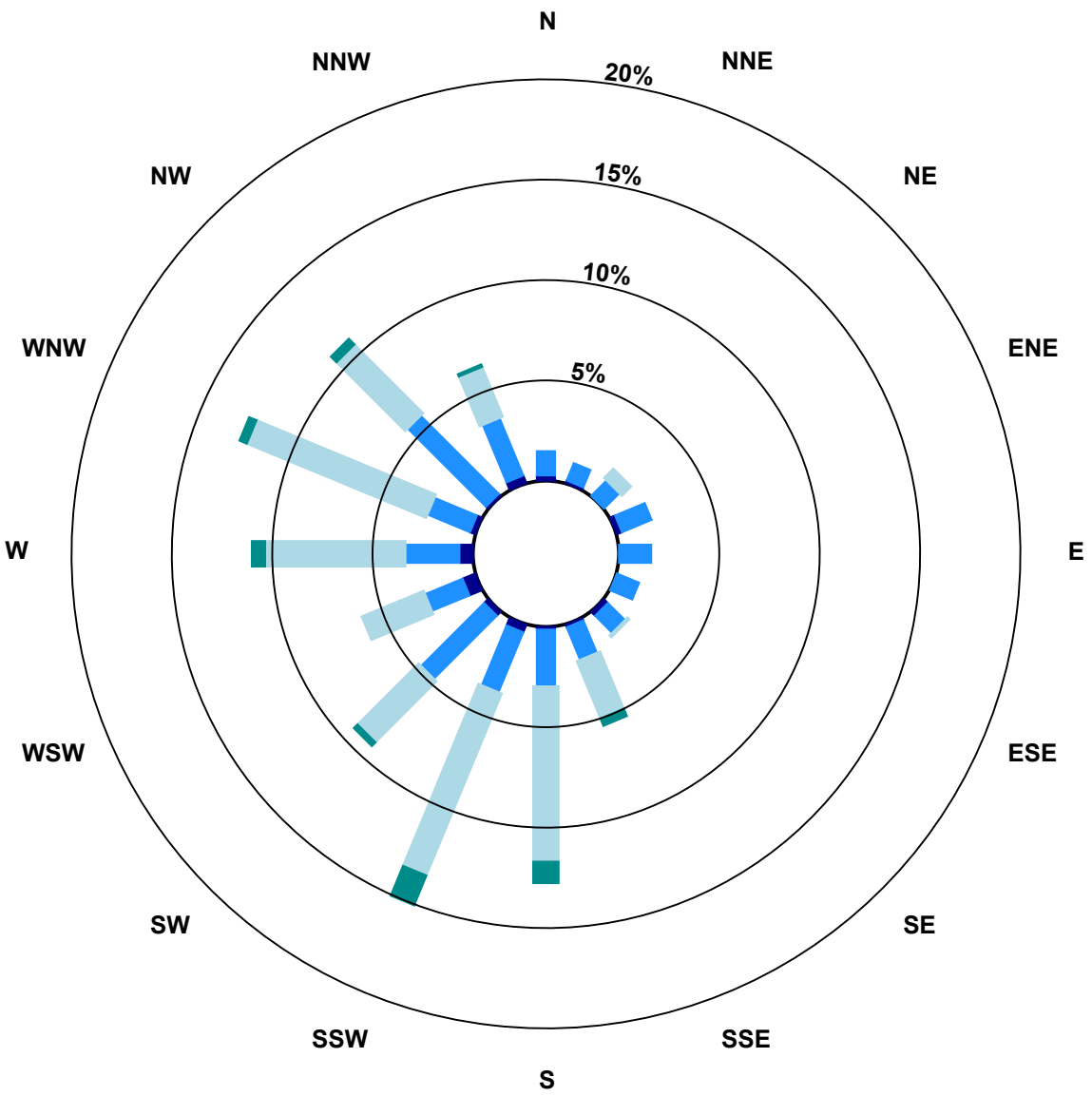
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 20m (WS20) - km/h

Stony Mountain



Classes (km/h)

0 - 5

6 - 11

12 - 19

20 - 28

29 - 38

> 38

Total Number of Valid Hours: 744

Direction of Maximum Speed: 207 deg on Oct 14 11:00
Direction of Maximum Daily Speed Average: 206.3 deg on Oct 14

Direction of Minimum Speed: 348 deg on Oct 2 05:00

Direction of Minimum Daily Speed Average: 2.0 deg on Oct 6

Monthly Average Direction: 242.9 deg

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	323	343	18	358	330	315	318	312	319	325	327	322	334	342	334	330	325	342	329	317	306	293	291	306	325.8
2-Oct	292	303	313	313	348	198	211	205	191	179	164	172	159	195	209	228	217	216	219	184	198	205	207	204	209.7
3-Oct	207	210	207	205	204	202	207	210	214	212	214	235	235	250	248	260	276	246	252	252	244	270	256	254	229.6
4-Oct	270	259	274	274	271	276	285	285	297	306	305	306	307	309	323	321	309	300	300	312	316	317	314	318	298.1
5-Oct	313	308	293	272	270	258	240	235	218	207	215	213	234	246	265	274	290	299	315	331	291	288	281	285	267.5
6-Oct	283	282	302	324	351	344	331	352	3	351	359	15	296	133	201	197	196	177	159	158	177	177	181	185	267.6
7-Oct	182	182	187	189	191	202	202	204	196	199	196	205	207	205	207	195	181	174	172	173	177	176	183	195	191.4
8-Oct	271	306	307	309	314	306	300	299	297	301	303	304	291	284	297	293	279	273	261	259	250	243	267	272	290.0
9-Oct	277	281	281	276	270	269	262	260	263	270	279	264	250	234	227	237	234	221	226	224	226	229	226	226	250.7
10-Oct	225	217	214	214	215	209	207	205	198	193	191	192	191	182	184	174	172	168	178	184	186	186	189	188	193.9
11-Oct	188	184	180	188	195	207	201	278	312	318	333	319	299	312	310	314	314	310	313	315	313	317	323	331	295.9
12-Oct	332	337	343	342	342	345	343	343	342	346	345	345	348	337	334	338	339	345	346	334	333	345	333	333	340.8
13-Oct	329	323	308	314	313	276	275	262	261	244	230	221	218	217	212	202	203	216	200	193	190	192	196	197	221.6
14-Oct	198	190	192	193	200	191	200	202	203	211	207	212	209	216	214	214	204	206	211	215	214	213	216	215	206.3
15-Oct	213	211	210	207	212	208	200	201	205	210	207	207	211	213	228	231	245	243	238	242	262	264	262	262	220.9
16-Oct	267	272	270	250	227	247	297	222	219	210	204	201	186	188	190	189	183	176	194	204	180	179	238	212	211.8
17-Oct	218	248	245	252	242	241	254	270	290	294	292	287	289	291	290	293	288	295	285	286	296	305	309	298	279.2
18-Oct	284	284	283	280	279	279	275	274	278	290	287	284	280	289	290	278	258	246	220	224	223	214	214	204	269.6
19-Oct	189	175	162	169	150	135	116	117	101	91	86	64	50	20	83	105	61	33	61	67	48	50	68	59	98.9
20-Oct	43	20	8	341	329	329	317	307	299	300	302	290	274	268	264	225	231	199	203	198	191	191	192	191	251.9
21-Oct	191	190	200	199	211	215	221	225	237	263	273	276	269	279	273	274	268	266	259	270	273	280	292	77	243.3
22-Oct	92	144	118	142	200	260	226	226	218	207	173	181	187	175	173	160	154	150	148	152	147	149	147	151	165.8
23-Oct	147	144	152	159	176	176	181	180	209	196	174	208	155	176	174	174	169	169	178	184	183	176	185	183	174.8
24-Oct	184	181	183	180	177	188	190	195	193	186	198	176	188	156	141	165	165	164	157	168	170	141	128	110	174.5
25-Oct	98	40	80	77	171	231	250	253	271	276	273	280	273	265	273	276	260	248	231	243	239	232	222	258	259.9
26-Oct	180	163	139	105	105	90	69	62	68	48	45	53	23	42	51	43	23	42	34	13	355	330	324	314	47.6
27-Oct	309	303	301	297	291	293	295	299	297	300	299	297	300	300	302	301	301	300	301	305	309	306	303	299	300.4
28-Oct	300	298	299	302	305	305	301	300	299	298	292	295	288	286	285	280	272	257	280	241	235	232	145	133	289.8
29-Oct	139	121	112	99	99	96	68	75	83	77	351	347	351	4	343	342	325	319	324	323	319	318	311	310	18.0
30-Oct	310	314	314	315	316	309	312	310	299	299	284	262	259	251	240	241	234	230	233	219	207	216	210	213	272.6
31-Oct	183	187	197	191	187	184	180	172	171	172	165	167	169	166	160	157	151	157	161	166	166	171	177	179	170.5
	237.7	244.0	241.1	238.4	236.1	238.9	243.2	247.2	250.5	256.4	258.2	256.4	253.6	252.8	252.6	247.4	249.9	239.5	228.0	230.1	228.6	227.9	230.3	229.0	
	Diurnal Average																								

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 86 deg on Oct 6 12:00

Minimum Value: 10 deg on Oct 26 03:00

Percentiles: P_1 = 11 P_{10} = 15 Q_1 = 17 Median = 19 Q_3 = 22 P_{90} = 26 P_{99} = 56

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

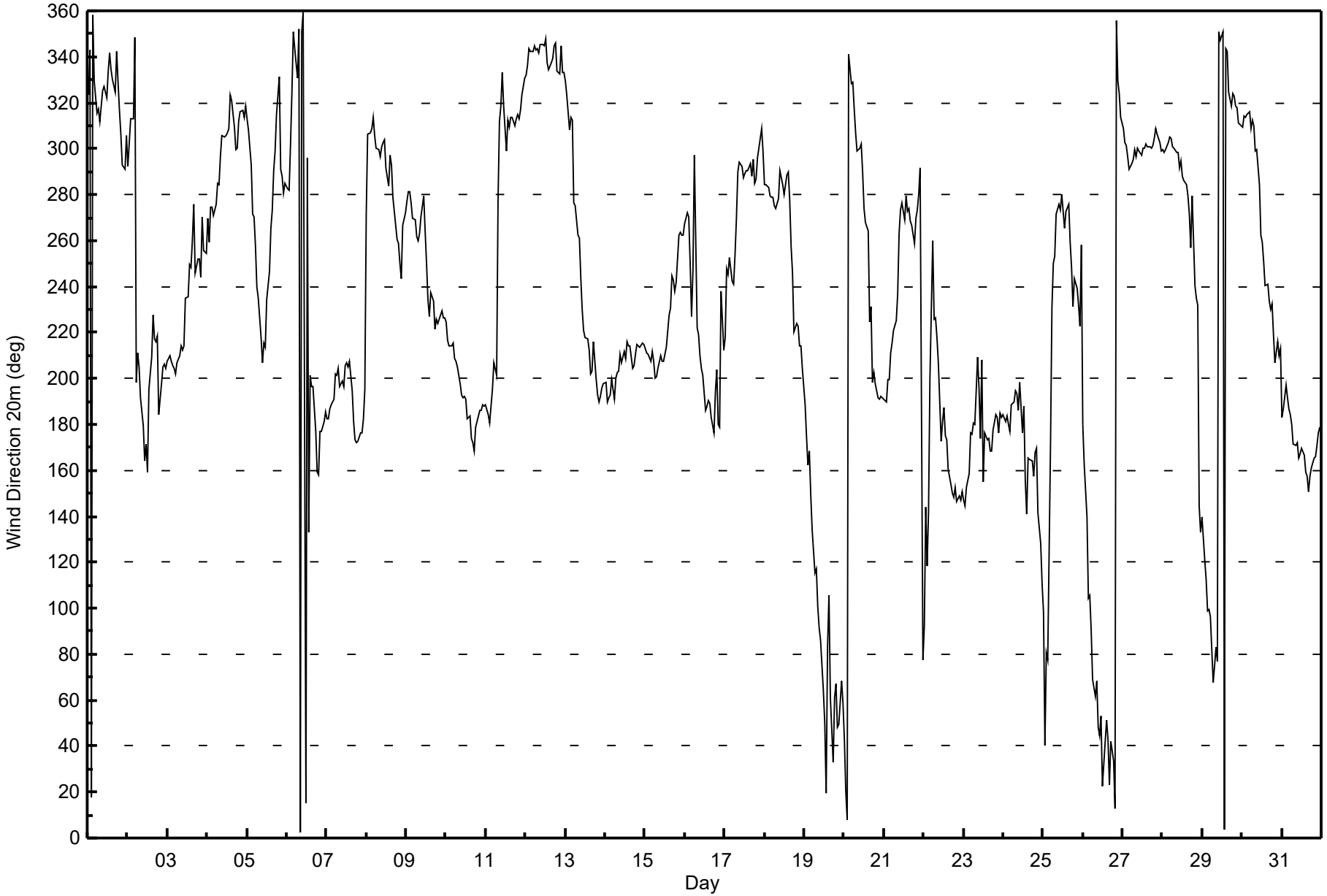
Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	15	24	22	28	21	20	21	22	19	19	19	22	22	27	22	23	22	23	18	14	16	18	15	12	28
2-Oct	13	15	13	14	74	14	18	17	23	27	33	30	33	33	43	32	25	16	12	18	14	15	17	16	74
3-Oct	17	18	17	18	17	18	18	19	21	21	29	32	33	31	28	27	30	22	25	26	23	31	22	22	33
4-Oct	21	23	21	21	22	23	20	20	22	24	26	27	24	26	20	19	21	21	21	18	19	18	18	17	27
5-Oct	19	19	23	22	23	22	22	19	19	19	19	23	26	28	25	25	24	24	23	19	35	23	19	20	35
6-Oct	19	21	20	21	23	23	19	25	25	35	44	86	85	55	56	44	27	12	11	10	14	14	13	15	86
7-Oct	17	17	15	17	16	17	17	17	18	20	22	23	26	27	24	25	23	19	17	18	17	17	17	35	35
8-Oct	29	22	18	17	18	20	21	20	21	23	21	22	25	24	24	22	22	21	20	23	20	20	23	20	29
9-Oct	19	20	18	19	21	22	24	23	24	25	24	29	31	28	28	23	24	19	17	16	18	17	17	17	31
10-Oct	16	15	14	16	17	15	14	16	17	19	21	21	24	24	25	23	21	17	15	15	15	17	16	17	25
11-Oct	17	17	16	14	16	21	19	45	21	19	20	23	22	19	19	19	18	19	18	18	18	18	17	18	45
12-Oct	19	20	21	21	21	22	21	22	20	22	21	23	22	21	22	20	20	21	19	17	18	20	18	18	23
13-Oct	17	18	19	19	21	21	20	22	23	32	30	31	25	35	34	25	25	21	20	18	16	21	19	18	35
14-Oct	19	17	19	19	20	18	21	20	20	20	22	22	23	23	24	22	22	17	18	17	16	17	16	17	24
15-Oct	17	16	18	17	18	16	18	18	19	19	21	22	22	21	26	26	23	19	17	18	20	16	19	18	26
16-Oct	19	21	21	18	16	18	75	19	15	18	19	22	22	22	24	22	20	15	20	20	16	14	28	15	75
17-Oct	16	22	23	24	21	19	24	21	21	19	20	21	21	21	21	23	22	23	19	18	19	20	18	18	24
18-Oct	18	18	18	18	19	18	18	18	21	22	22	22	25	24	24	29	21	11	17	12	13	13	13	14	29
19-Oct	11	15	13	14	16	15	15	11	13	15	18	17	23	30	50	22	21	18	18	16	17	22	17	18	50
20-Oct	19	20	19	21	15	18	16	18	19	19	19	28	22	22	28	25	27	20	20	18	15	15	16	15	28
21-Oct	17	16	17	18	19	19	18	18	22	25	22	24	24	27	23	21	22	19	19	20	18	19	15	57	57
22-Oct	12	11	18	13	29	59	13	12	15	24	25	27	28	34	26	22	17	13	15	15	16	15	17	19	59
23-Oct	18	15	12	16	19	17	15	14	20	22	25	42	69	41	34	24	14	13	16	15	14	14	13	13	69
24-Oct	15	16	16	16	15	16	15	16	19	17	28	26	24	24	23	19	17	13	13	13	13	14	12	12	28
25-Oct	17	33	20	40	21	18	21	24	20	20	20	22	21	22	24	22	22	20	20	17	21	13	12	50	50
26-Oct	14	11	10	11	15	14	28	22	18	15	16	16	20	17	15	17	19	18	19	20	23	18	16	15	28
27-Oct	15	16	16	17	18	18	20	20	19	19	20	20	18	19	19	19	18	19	19	19	17	17	17	20	20
28-Oct	18	19	19	18	18	19	19	19	17	18	19	19	20	20	20	22	24	27	30	28	22	21	25	18	30
29-Oct	15	16	13	14	13	15	14	16	17	19	38	21	19	22	23	22	16	17	21	16	16	15	17	17	38
30-Oct	16	17	15	16	19	17	17	23	20	18	22	27	34	28	27	26	20	22	24	25	17	18	21	21	34
31-Oct	19	17	18	17	18	17	16	15	16	18	17	19	19	20	19	18	17	19	17	18	19	20	19	19	20
	29	33	23	40	74	59	75	45	25	35	44	86	85	55	56	44	30	27	30	28	35	31	28	57	
	Diurnal Maximum																								

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 20m (WD20) - deg

Stony Mountain - October 2025



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS19
FIREBAG
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FIREBAG (AMS19)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	708	35	36	99.87	24.3	0	5.6	0
H2S (ppb) Average	707	37	37	100	1.8	0	0.3	0
THC (ppm) Average	708	35	36	99.87	3.2	-	2.4	-
NO2 (ppb) Average	706	37	38	99.87	17.8	0	6	-
NO (ppb) Average	706	37	38	99.87	26	-	3.4	-
NOX (ppb) Average	706	37	38	99.87	42.6	-	9.4	-
Temperature 2 m (C) Average	744	0	0	100	18.3	-	11.1	-
Relative Humidity (%) Average	744	0	0	100	98	-	97.1	-
Wind Speed 10 m (km/h) Average	682	0	62	91.67	38	-	28	-
Wind Direction 10 m (deg) Average	682	0	62	91.67	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FIREBAG (AMS19)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	708	0.73	2.1	-	0	0	0	0.2	0.4	1.4	24.3
H2S (ppb) Average	707	0.13	0.2	-	0	0	0.1	0.1	0.1	0.2	1.8
THC (ppm) Average	708	2.25	0.1	-	2.1	2.2	2.2	2.2	2.3	2.3	3.2
NO2 (ppb) Average	706	2.55	2.7	-	0.1	0.3	0.8	1.7	3.2	5.9	17.8
NO (ppb) Average	706	0.63	2	-	0	0	0	0.1	0.5	1.4	26
NOX (ppb) Average	706	3.17	4.2	-	0.1	0.3	1	2.1	3.8	6.8	42.6
Temperature 2 m (C) Average	744	3.38	4.4	-	-5.5	-1.9	-0.3	3	6.4	9.2	18.3
Relative Humidity (%) Average	744	79.8	16.6	-	34.3	55	67.2	85.8	94.2	96.6	98
Wind Speed 10 m (km/h) Average	682	15.8	6	-	3	8	11	15	21	24	38
Wind Direction 10 m (deg) Average	682	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FIREBAG (AMS19)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
NO2, SO2, THC	07 Oct 2025 16:00	07 Oct 2025 16:00	1	Maintenance - sample manifold cleaned
Wind Speed, Wind Direction	05 Oct 2025 05:00	05 Oct 2025 09:00	5	Flat line in sensor output signal
Wind Speed, Wind Direction	11 Oct 2025 23:00	13 Oct 2025 12:00	38	Flat line in sensor output signal
Wind Speed, Wind Direction	20 Oct 2025 07:00	20 Oct 2025 13:00	7	Flat line in sensor output signal
Wind Speed, Wind Direction	21 Oct 2025 22:00	22 Oct 2025 08:00	11	Flat line in sensor output signal
Wind Speed, Wind Direction	30 Oct 2025 06:00	30 Oct 2025 06:00	1	Flat line in sensor output signal

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Firebag - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 24.3 ppb on Oct 29 12:00

Maximum Daily Average: 5.6 ppb on Oct 9

Minimum Value: 0.0 ppb on Oct 1 06:00

Minimum Daily Average: 0.0 ppb on Oct 27

Maximum Diurnal Average: 2.3 ppb at hour 12

Minimum Diurnal Average: 0.2 ppb at hour 23

Monthly Average: 0.73 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.2 Q_3 = 0.4 P_{90} = 1.4 P_{99} = 10.3

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
2-Oct	0.0	0.0	0.0	0.1	0.0	Z	0.1	0.1	0.2	0.4	0.3	0.1	0.1	0.5	0.3	0.4	0.4	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.2	0.5
3-Oct	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.6	0.4	0.9	0.9	0.7	1.1	0.5	0.9	0.3	0.4	0.2	0.1	0.1	0.2	0.0	0.4	1.1
4-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
5-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.4	2.9	3.6	5.4	0.4	0.1	0.1	0.1	2.5	3.9	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.9	5.4
6-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.1	C	C	C	C	0.0	1.9	3.9	0.9	0.6	0.4	0.1	0.2	0.3	0.5	3.9
7-Oct	0.2	0.2	0.2	0.3	Z	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.5	M	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.5
8-Oct	0.2	0.2	0.2	0.2	0.3	Z	0.2	0.2	0.1	0.1	0.3	0.4	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.4
9-Oct	Z	0.1	0.1	0.0	0.1	4.8	8.1	13.4	17.0	14.6	9.2	13.6	8.2	8.2	9.7	6.2	6.0	3.9	1.5	1.3	0.8	0.7	0.7	0.9	5.6	17.0
10-Oct	1.0	Z	1.5	0.6	0.1	0.2	0.2	0.4	0.6	0.4	0.5	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.4	1.5
11-Oct	0.3	0.4	Z	0.5	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
12-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13-Oct	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.6	1.6	5.2	1.6	1.6	0.8	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.3	0.8	1.0	0.6	5.2
14-Oct	0.8	1.2	1.0	0.6	0.7	Z	0.9	0.8	0.9	0.9	0.8	0.6	0.4	0.3	0.3	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	1.2
15-Oct	Z	0.9	0.8	0.6	0.8	0.8	0.9	1.1	1.1	0.9	0.9	0.7	1.0	3.5	4.6	4.6	3.3	0.7	0.6	0.8	1.7	2.7	1.4	0.9	1.5	4.6
16-Oct	0.6	Z	1.4	2.0	1.7	2.4	4.1	4.6	6.0	4.8	2.6	8.1	0.7	0.4	0.9	0.6	0.4	0.3	0.3	0.3	0.3	0.5	0.4	0.3	1.9	8.1
17-Oct	0.2	0.2	Z	0.9	1.7	2.1	1.0	0.4	0.2	0.2	0.4	0.3	0.5	0.4	0.8	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.5	2.1
18-Oct	0.1	0.1	0.2	Z	0.3	0.3	0.7	1.0	0.9	0.5	0.4	0.3	0.5	0.7	0.2	1.0	0.7	1.3	0.3	0.6	0.3	0.2	0.1	0.1	0.5	1.3
19-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.9	6.1	4.8	2.8	0.8	0.3	0.4	0.7	0.3	0.2	0.2	0.2	0.8	6.1
20-Oct	0.1	0.1	0.2	0.1	0.2	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	4.3	2.9	0.4	0.2	0.1	0.1	0.1	0.2	0.1	0.0	0.4	4.3
21-Oct	Z	0.1	0.1	0.1	0.1	0.2	0.1	0.8	1.1	0.3	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1
22-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.2	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
23-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.3	0.4	0.2	0.4
24-Oct	0.4	0.5	0.5	Z	0.5	0.4	0.4	0.4	0.3	0.4	0.6	0.5	0.5	0.5	0.5	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.6
25-Oct	0.3	0.2	0.1	0.1	Z	1.8	0.2	0.1	0.1	0.1	0.6	1.2	0.6	0.2	0.1	0.0	0.0	0.0	0.6	1.1	0.9	1.2	1.7	1.5	0.6	1.8
26-Oct	1.1	1.4	1.6	1.3	0.3	Z	1.0	1.6	1.5	0.7	10.3	8.7	2.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	10.3
27-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.1	2.0
29-Oct	2.6	1.1	Z	0.2	0.1	0.0	0.0	0.0	0.1	0.4	16.7	24.3	9.4	1.1	0.5	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	2.5	24.3
30-Oct	0.1	0.0	0.1	Z	0.0	0.0	0.0	0.2	0.1	0.2	7.1	4.1	9.7	10.7	2.8	1.6	0.1	0.2	0.8	1.6	1.2	1.0	0.1	0.1	1.8	10.7
31-Oct	0.0	0.0	0.1	0.1	Z	0.1	0.2	0.3	0.2	0.3	0.4	0.4	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.4
	0.3	0.3	0.3	0.3	0.3	0.6	0.6	1.0	1.2	1.2	1.8	2.3	1.3	1.2	1.2	0.9	0.6	0.4	0.2	0.3	0.2	0.3	0.2	0.3	Diurnal Average	
	2.6	1.4	1.6	2.0	1.7	4.8	8.1	13.4	17.0	14.6	16.7	24.3	9.7	10.7	9.7	6.2	6.0	3.9	1.5	1.6	1.7	2.7	1.7	2.0	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

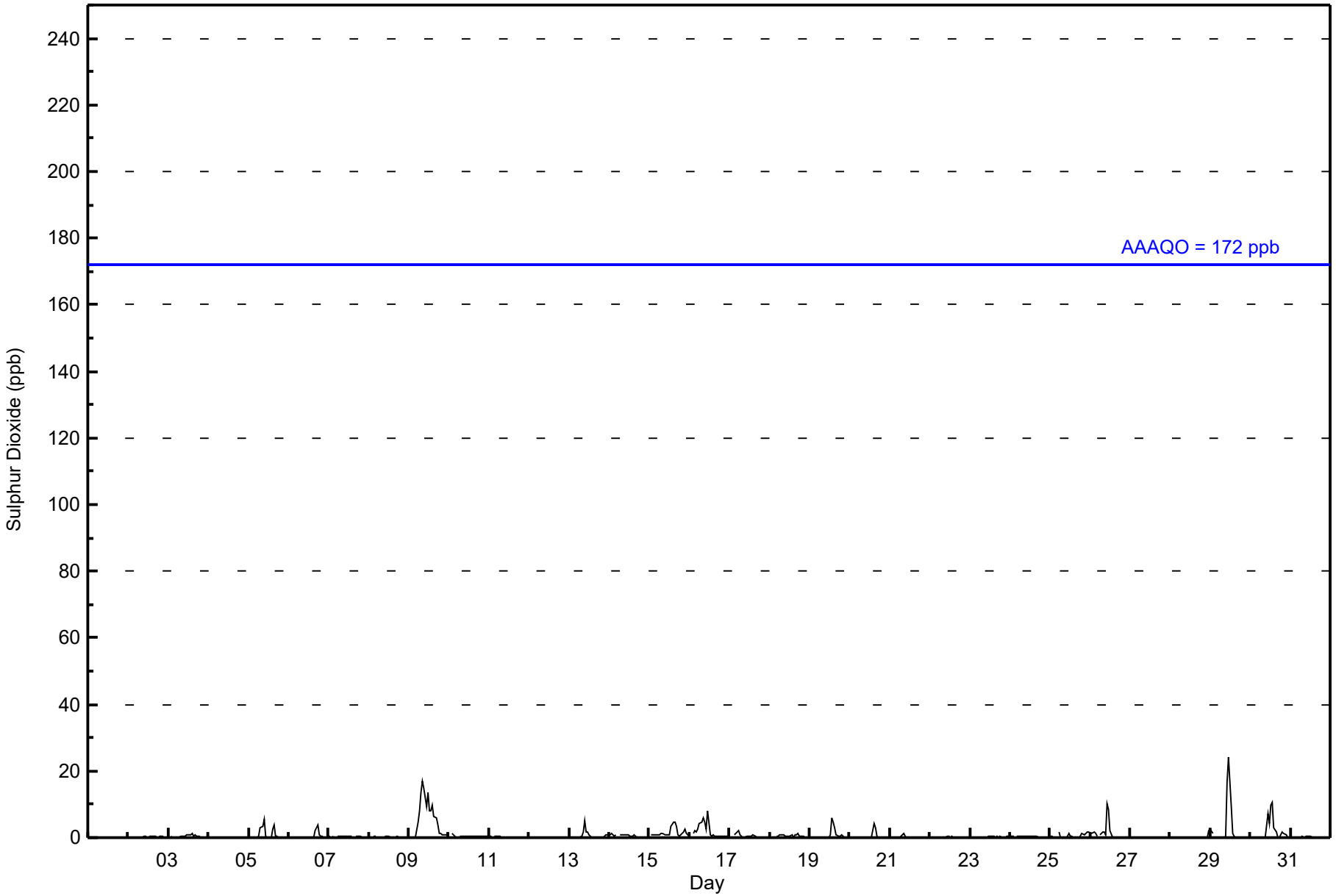
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Firebag - October 2025



Sulphur Dioxide (SO_2) - ppb
Firebag - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	701	99.01	99.01
11 - 20	6	0.85	99.86
21 - 60	1	0.14	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Firebag - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	74	25	11	3	4	18	23	48	91	84	68	52	49	46	18	28	642
11 - 20	0	0	0	0	0	1	0	0	0	0	0	5	0	0	0	0	6
21 - 60	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	74	25	11	3	4	20	23	48	91	84	68	57	49	46	18	28	649

Total Number of Valid Hours: 649

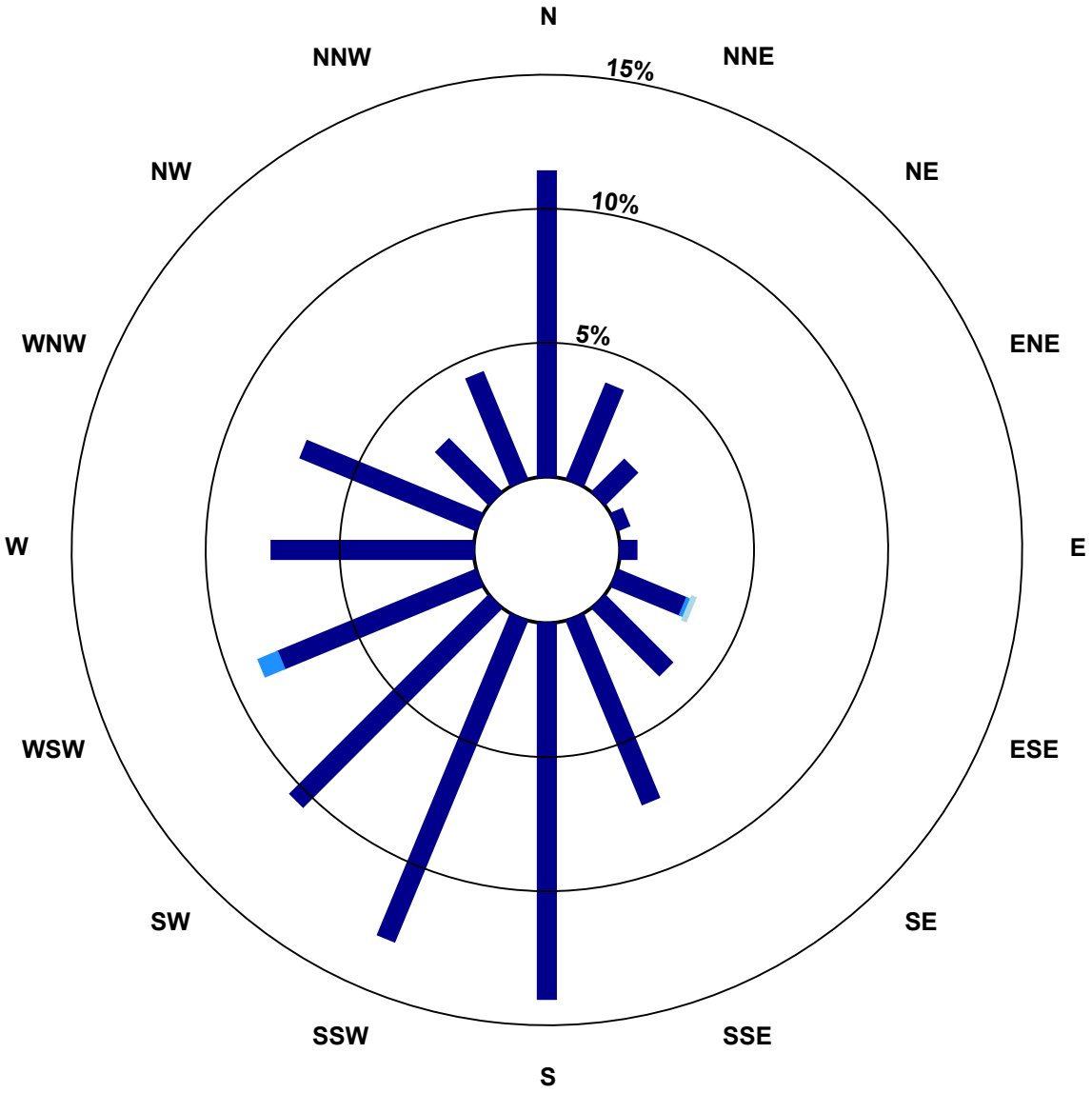
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Firebag



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

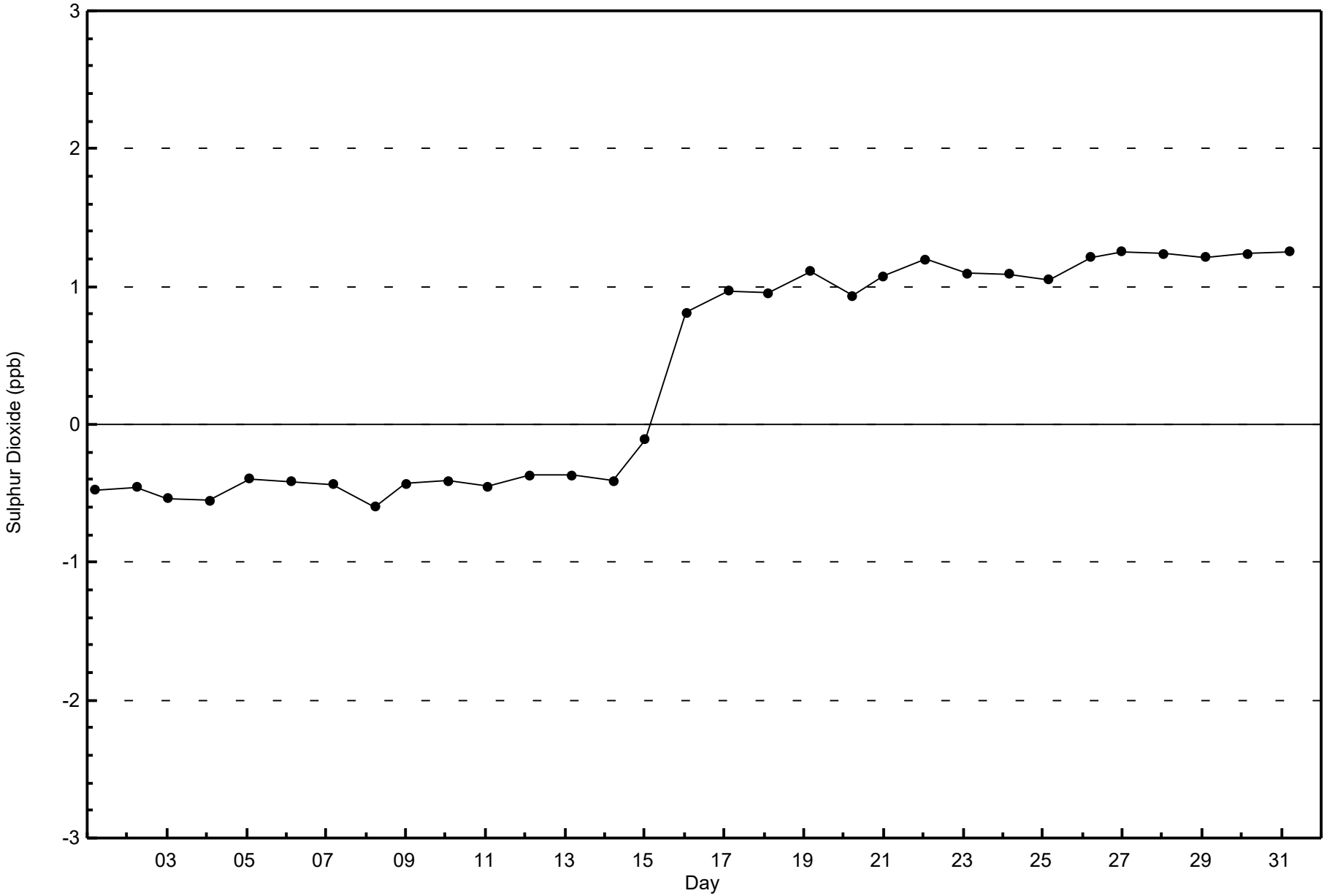
Total Number of Valid Hours: 649

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Firebag - October 2025

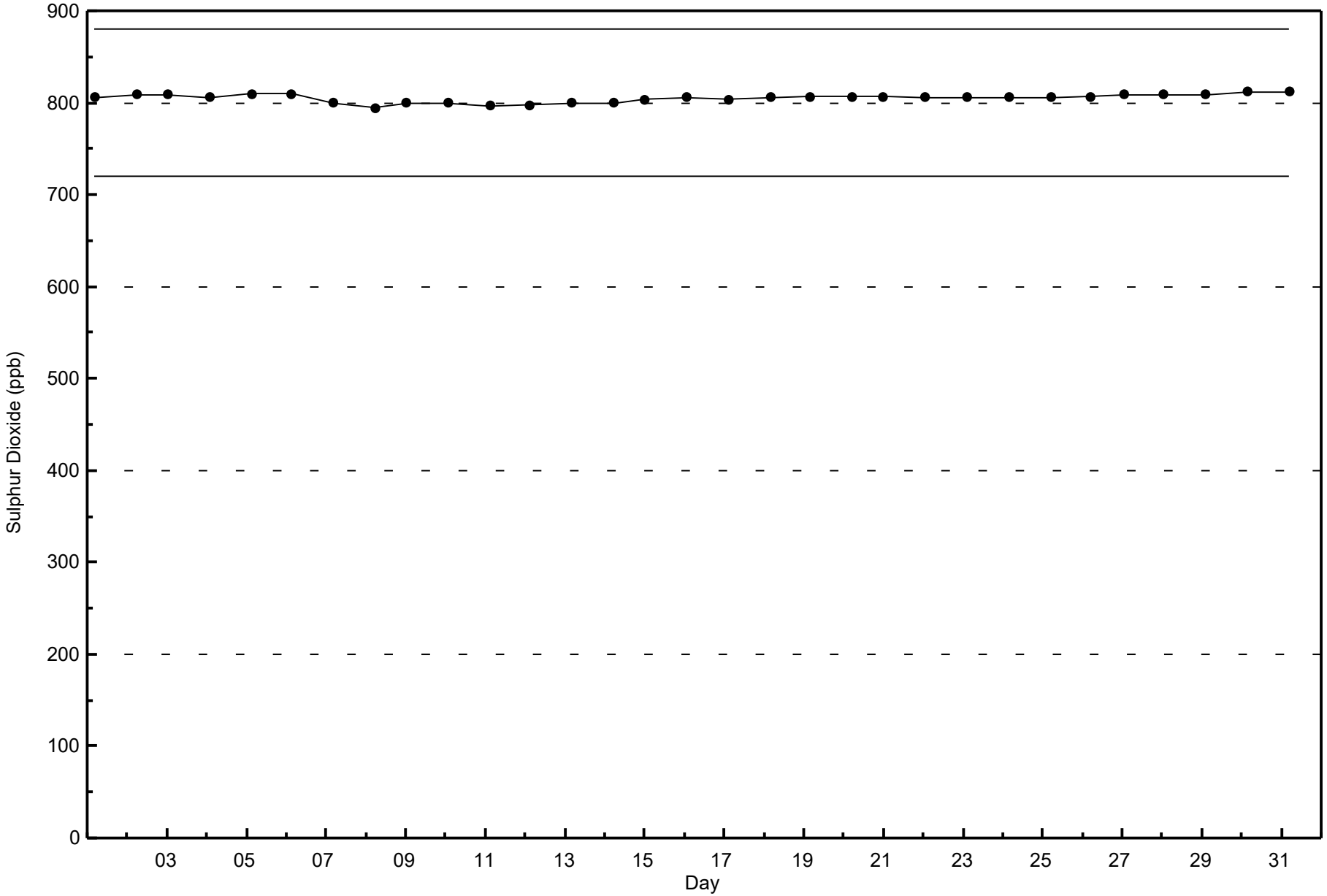


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Firebag - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H_2S) - ppb

Firebag - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 1.8 ppb on Oct 19 19:00

Maximum Daily Average: 0.3 ppb on Oct 19

Minimum Value: 0.0 ppb on Oct 8 15:00

Minimum Daily Average: 0.0 ppb on Oct 27

Maximum Diurnal Average: 0.2 ppb at hour 13

Minimum Diurnal Average: 0.1 ppb at hour 23

Monthly Average: 0.13 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.1 P_{90} = 0.2 P_{99} = 0.8

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.2	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.1	0.3
2-Oct	Z	0.2	0.5	0.8	0.5	0.3	0.3	0.5	0.5	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.8
3-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2
4-Oct	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
5-Oct	0.2	0.1	0.1	Z	0.1	0.1	0.3	0.7	0.5	0.4	0.1	0.1	0.1	0.1	0.4	0.5	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.7
6-Oct	0.1	0.1	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.5
7-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	C	C	C	C	C	C	0.2	0.1	0.0	0.1	0.0	0.1	0.1	--	0.2
8-Oct	Z	0.3	0.4	0.4	0.4	0.6	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.6
9-Oct	0.3	Z	0.2	0.1	0.1	0.1	0.3	0.5	0.5	0.4	0.3	0.4	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.1	0.2	0.5
10-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2
12-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
13-Oct	0.3	0.1	0.1	0.2	0.2	Z	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
14-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.2
16-Oct	0.2	0.2	Z	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
17-Oct	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.1	0.3
18-Oct	0.2	0.1	0.0	0.1	Z	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
19-Oct	0.2	0.2	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.3	0.6	1.8	1.3	1.6	0.0	0.0	0.0	0.3	1.8
20-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
21-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.7	0.1	0.7
22-Oct	0.9	0.1	Z	0.1	0.2	0.2	0.2	0.3	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.9
23-Oct	0.0	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
24-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25-Oct	0.1	0.1	0.1	0.2	0.3	Z	0.1	0.1	0.1	0.1	0.5	0.6	0.3	0.2	0.2	0.1	0.1	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.6
26-Oct	Z	0.2	0.2	0.1	0.1	0.1	0.5	0.4	0.2	0.1	0.9	0.7	1.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0
27-Oct	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1
28-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
29-Oct	0.2	0.2	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.7	1.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2	1.2
30-Oct	0.0	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.3
31-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.9	0.3	0.5	0.8	0.5	0.6	0.5	0.7	0.5	0.4	0.9	0.7	1.2	0.3	0.4	0.5	0.3	0.6	1.8	1.3	1.6	0.3	0.2	0.7	Diurnal Maximum	

Z - zerospan C - Calibration

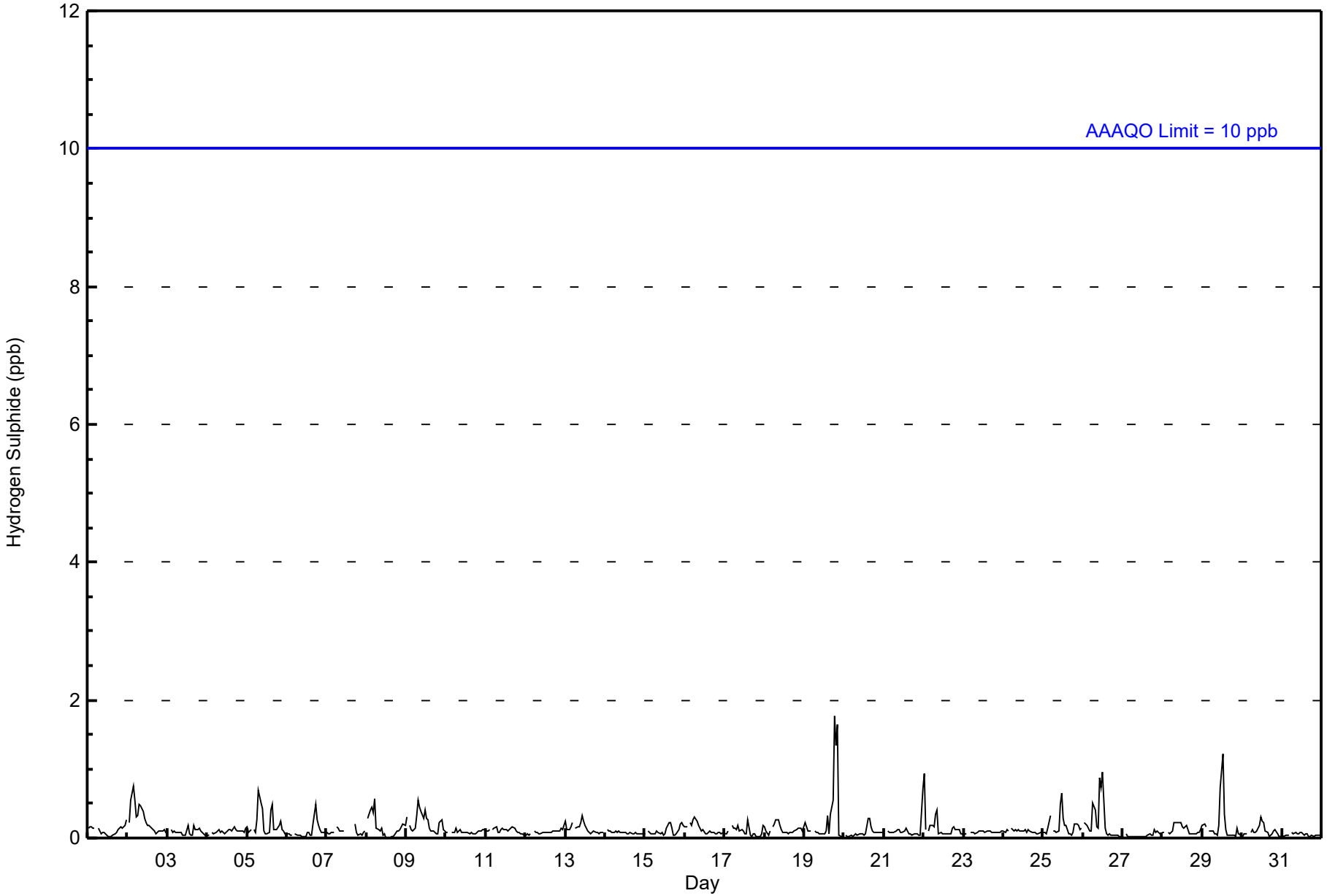
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Firebag - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	707	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Firebag - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	74	25	10	4	4	19	24	47	89	82	67	61	47	48	19	28	648
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	74	25	10	4	4	19	24	47	89	82	67	61	47	48	19	28	648

Total Number of Valid Hours: 648

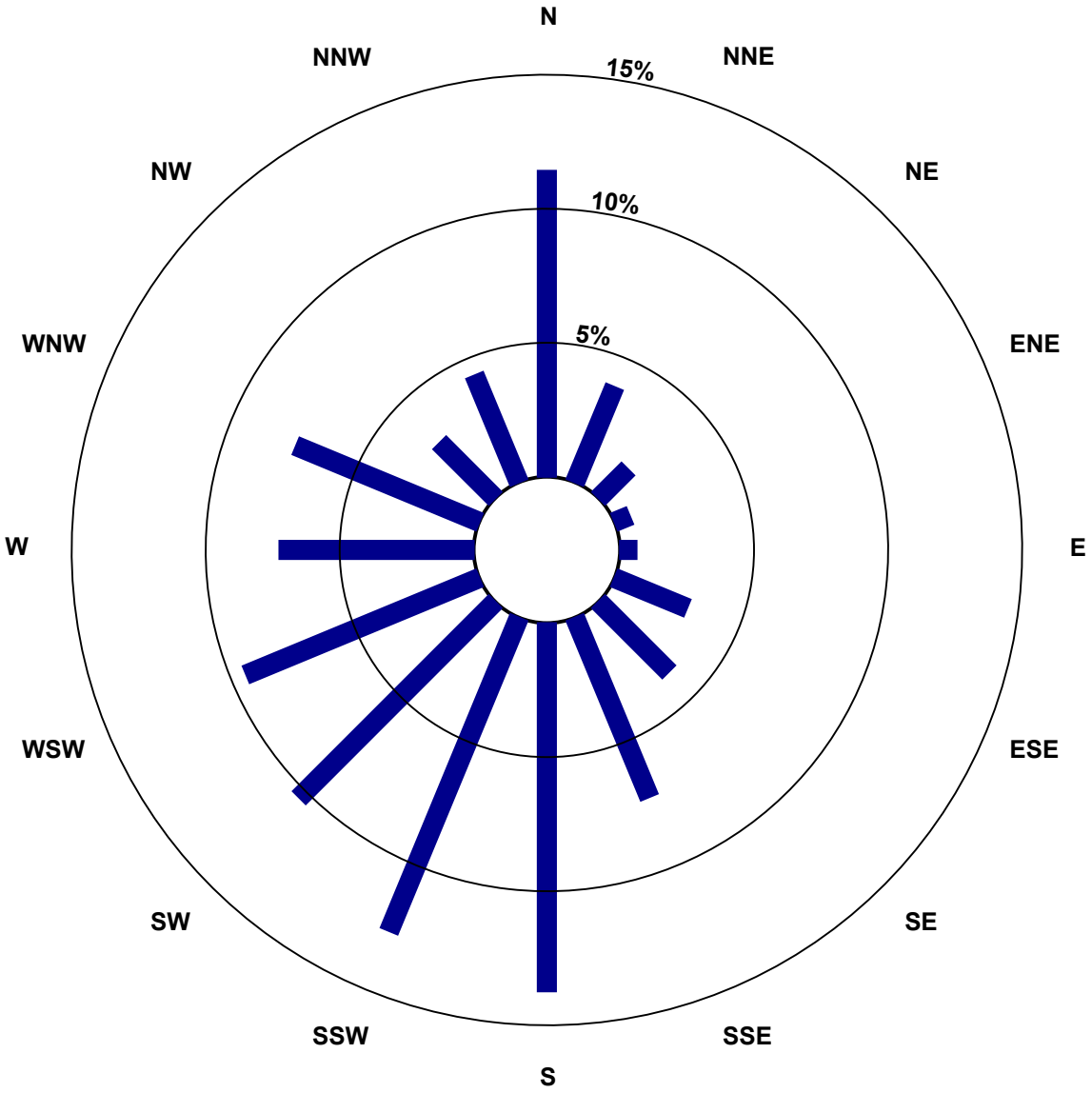
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H_2S) - ppb

Firebag



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

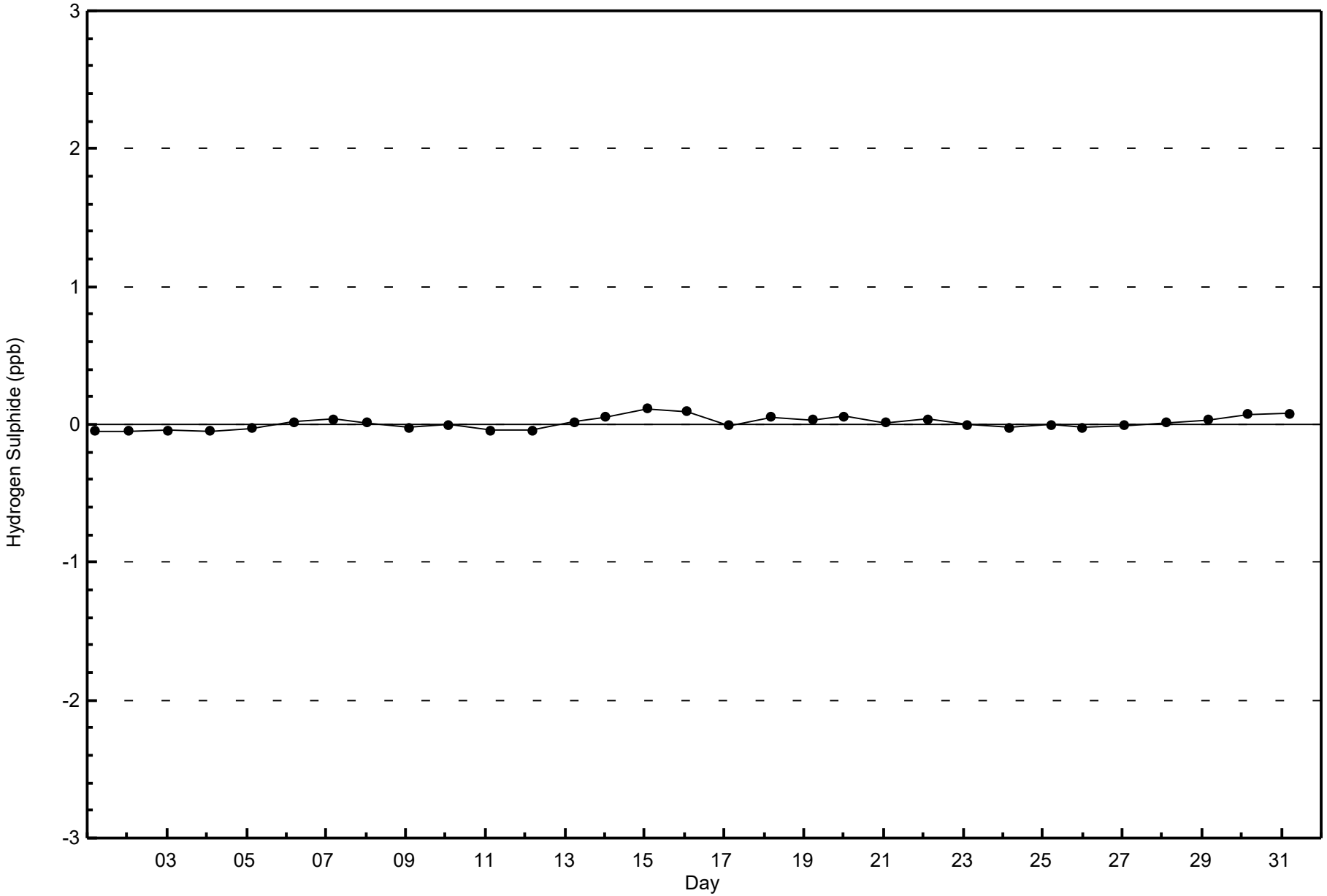
Total Number of Valid Hours: 648

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Firebag - October 2025

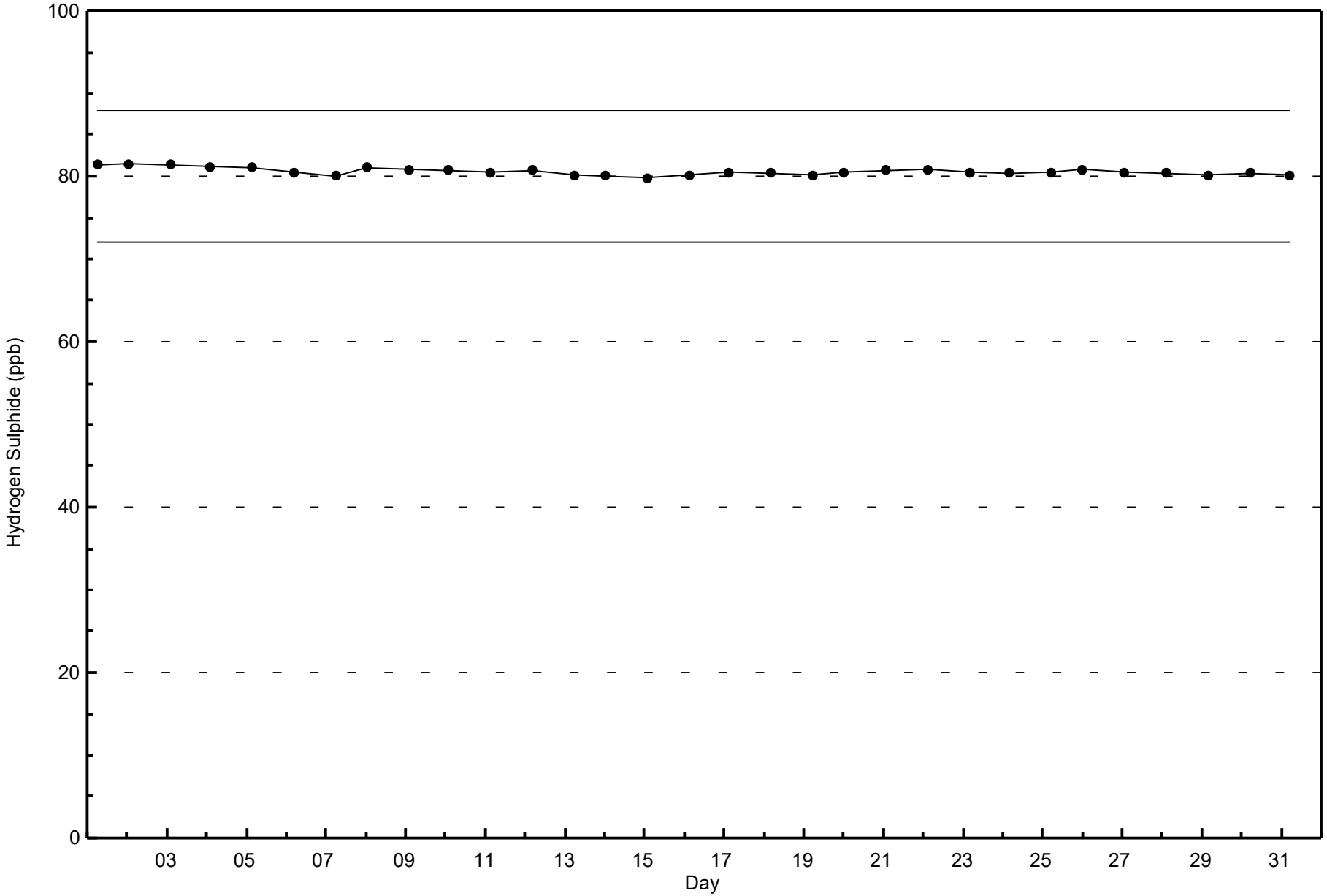


Wood Buffalo Environmental Association

Span Responses

Hydrogen Sulphide (H_2S) - ppb

Firebag - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Firebag - October 2025

Maximum Value: 3.2 ppm on Oct 25 12:00

Maximum Daily Average: 2.4 ppm on Oct 18

Minimum Value: 2.1 ppm on Oct 1 13:00

Minimum Daily Average: 2.2 ppm on Oct 27

Maximum Diurnal Average: 2.3 ppm at hour 4

Minimum Diurnal Average: 2.2 ppm at hour 16

Monthly Average: 2.25 ppm

Percentiles: P_1 = 2.1 P_{10} = 2.2 Q_1 = 2.2 Median = 2.2 Q_3 = 2.3 P_{90} = 2.3 P_{99} = 2.6

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.2	2.2	2.3	2.3	Z	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.3	2.2	2.3
2-Oct	2.5	2.2	2.7	2.8	2.7	Z	2.5	2.6	2.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.8
3-Oct	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.2	2.2	2.2	2.1	2.1	2.2	2.2
4-Oct	2.2	Z	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3
5-Oct	2.3	2.2	Z	2.3	2.2	2.2	2.4	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.3	2.4	2.6	2.3	2.3	2.2	2.3	2.6
6-Oct	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	C	C	C	C	2.3	2.3	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.2	2.4
7-Oct	2.3	2.3	2.2	2.3	Z	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	M	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3
8-Oct	2.4	2.5	2.6	2.7	2.7	Z	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.7
9-Oct	Z	2.4	2.3	2.2	2.2	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.4
10-Oct	2.2	Z	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.4
11-Oct	2.3	2.3	Z	2.3	2.3	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.4
12-Oct	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.3
13-Oct	2.4	2.3	2.3	2.3	Z	2.4	2.3	2.4	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4
14-Oct	2.2	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.3
15-Oct	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.3	2.4
16-Oct	2.4	Z	2.5	2.5	2.4	2.4	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.5
17-Oct	2.2	2.2	Z	2.3	2.3	2.2	2.3	2.3	2.4	2.2	2.2	2.2	2.2	2.2	2.4	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.6	2.3	2.6
18-Oct	2.5	2.4	2.4	Z	2.5	2.4	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.5	2.6	2.5	2.5	2.4	2.4	2.6
19-Oct	2.4	2.4	2.4	2.4	Z	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.4
20-Oct	2.2	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
21-Oct	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.3
22-Oct	2.3	Z	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.3
23-Oct	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.2	2.2
24-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3
25-Oct	2.3	2.3	2.3	2.3	Z	2.3	2.2	2.3	2.3	2.3	2.8	3.2	2.6	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.3	3.2
26-Oct	2.2	2.3	2.5	2.3	2.3	Z	2.4	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.5
27-Oct	Z	2.1	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
28-Oct	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.4
29-Oct	2.3	2.3	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.3
30-Oct	2.2	2.2	2.2	Z	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
31-Oct	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	Diurnal Average	
	2.5	2.5	2.7	2.8	2.7	2.4	2.5	2.6	2.5	2.4	2.8	3.2	2.6	2.3	2.4	2.3	2.3	2.4	2.4	2.5	2.6	2.5	2.5	2.6	Diurnal Maximum	

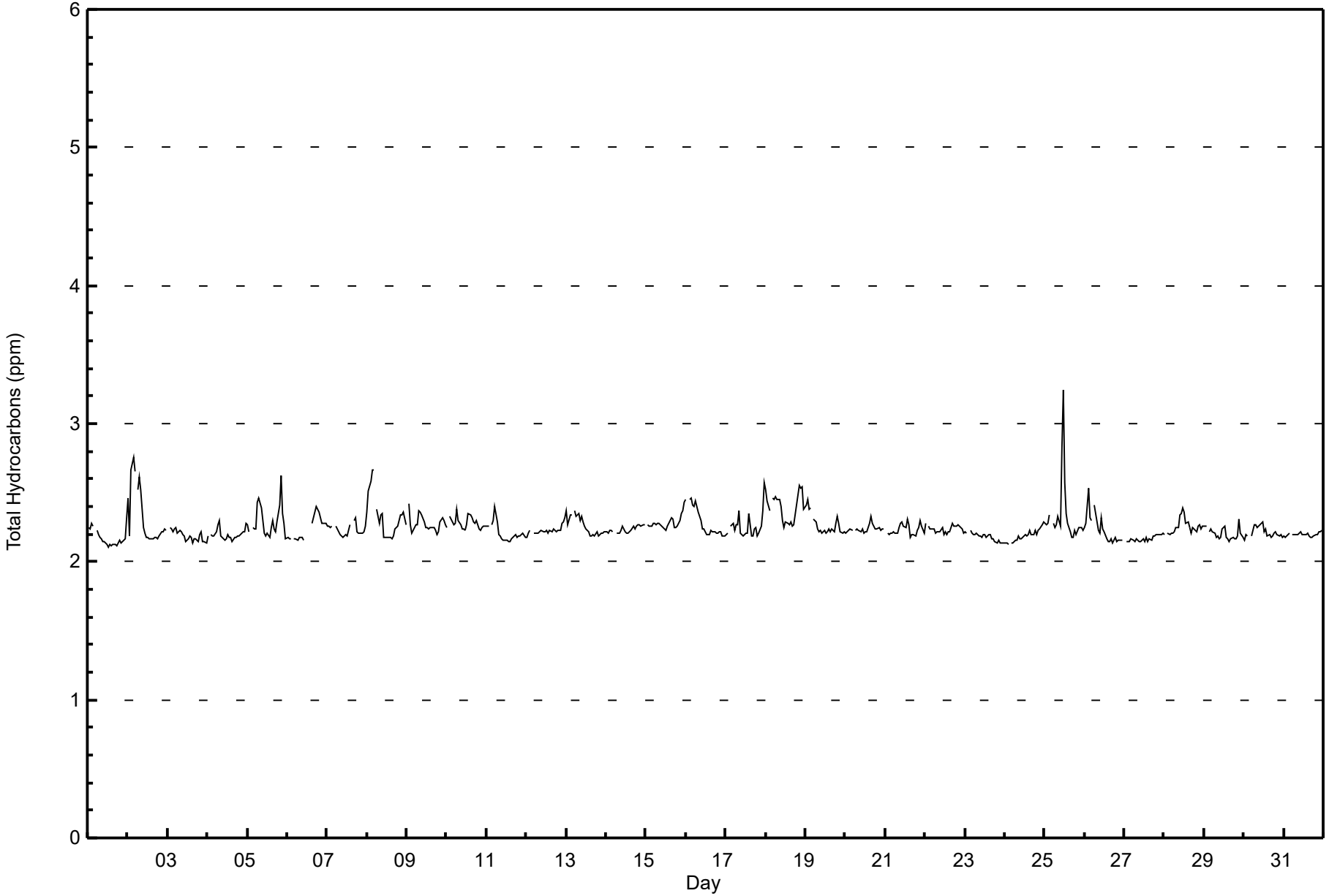
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Firebag - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	0	0.00	0.00
2.1 - 3.0	707	99.86	99.86
3.1 - 10.0	1	0.14	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Firebag - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.1 - 3.0	74	25	11	3	4	20	23	48	91	84	68	57	49	45	18	28	648
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	74	25	11	3	4	20	23	48	91	84	68	57	49	46	18	28	649

Total Number of Valid Hours: 649

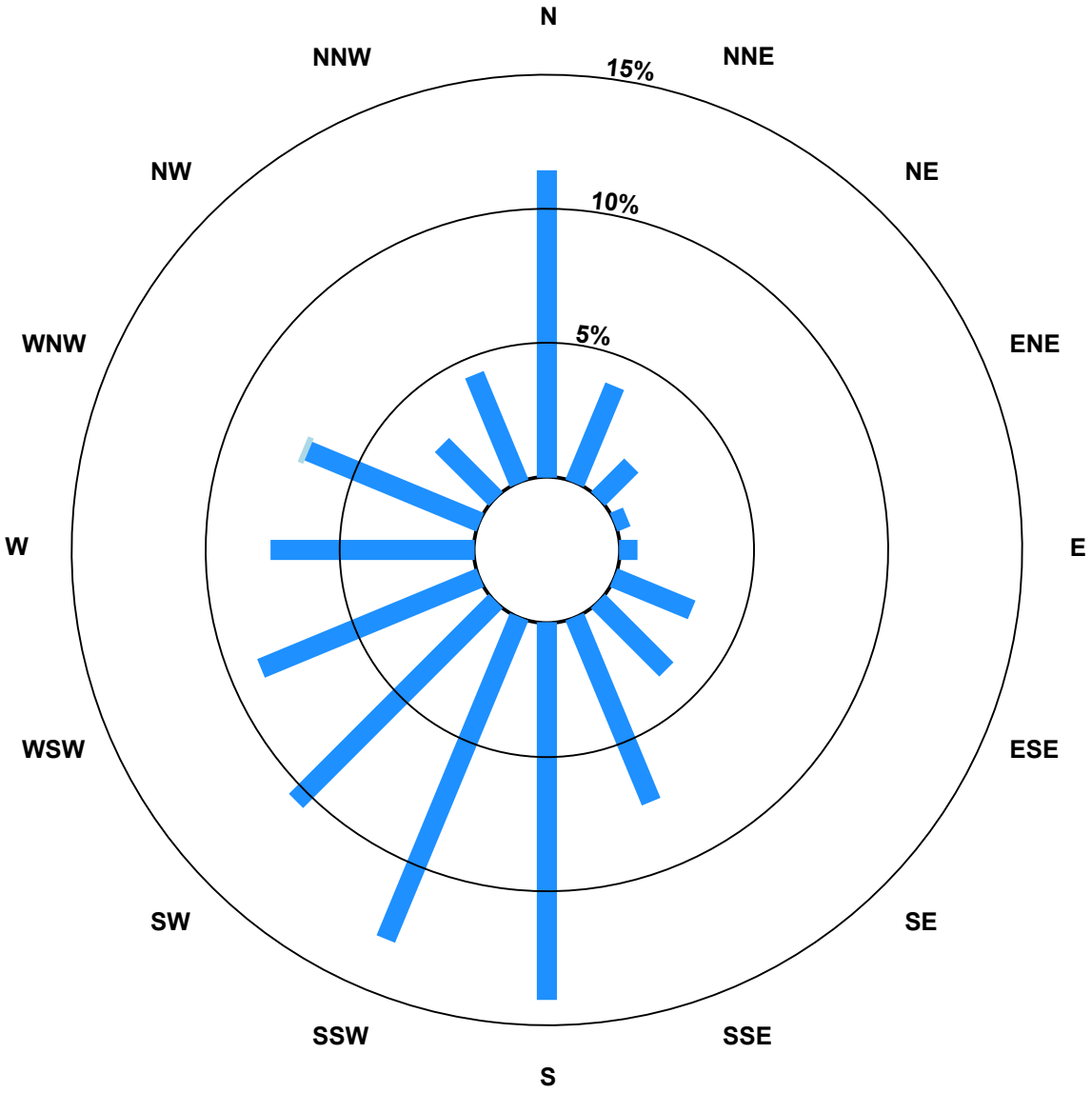
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Firebag



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

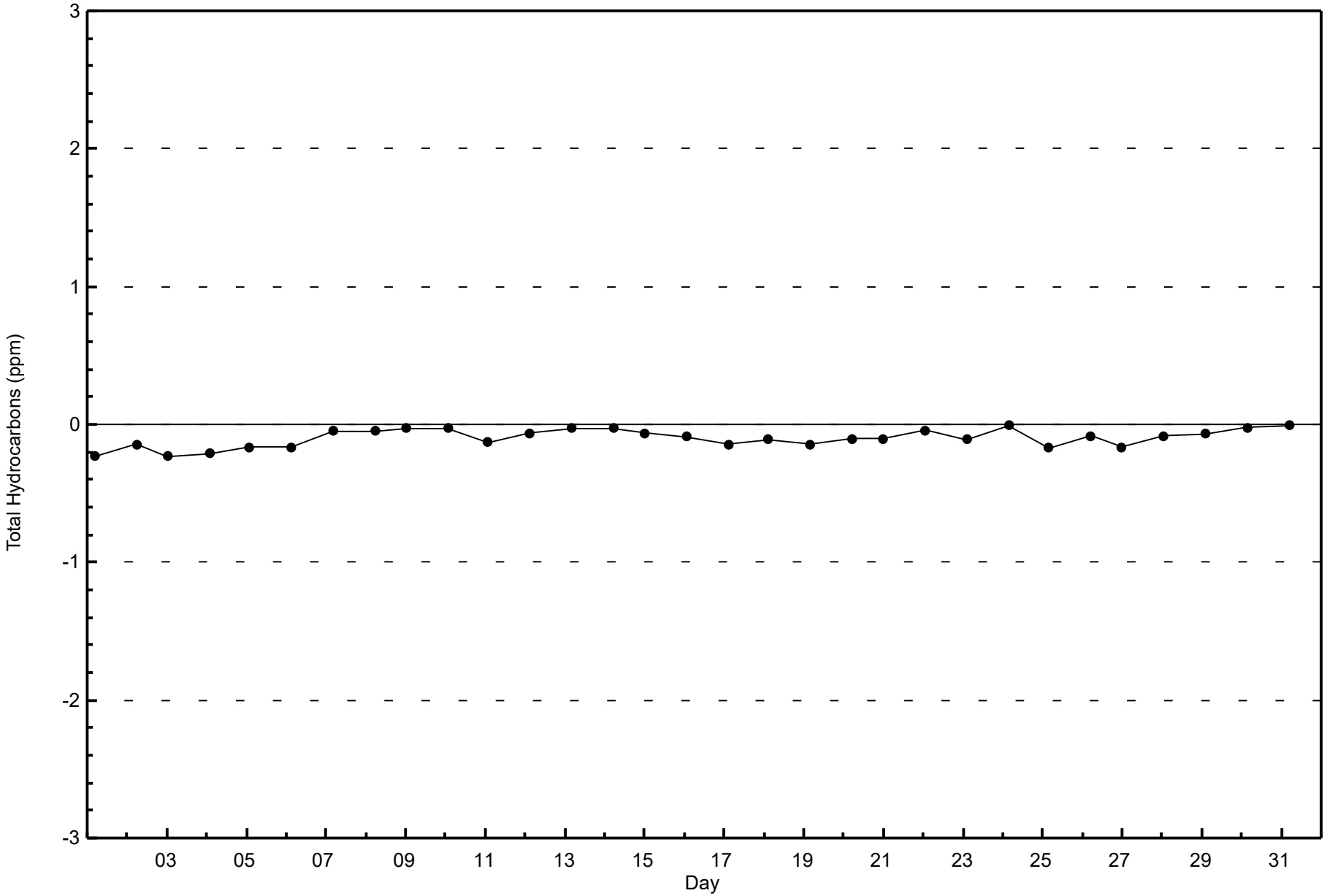
Total Number of Valid Hours: 649

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Firebag - October 2025

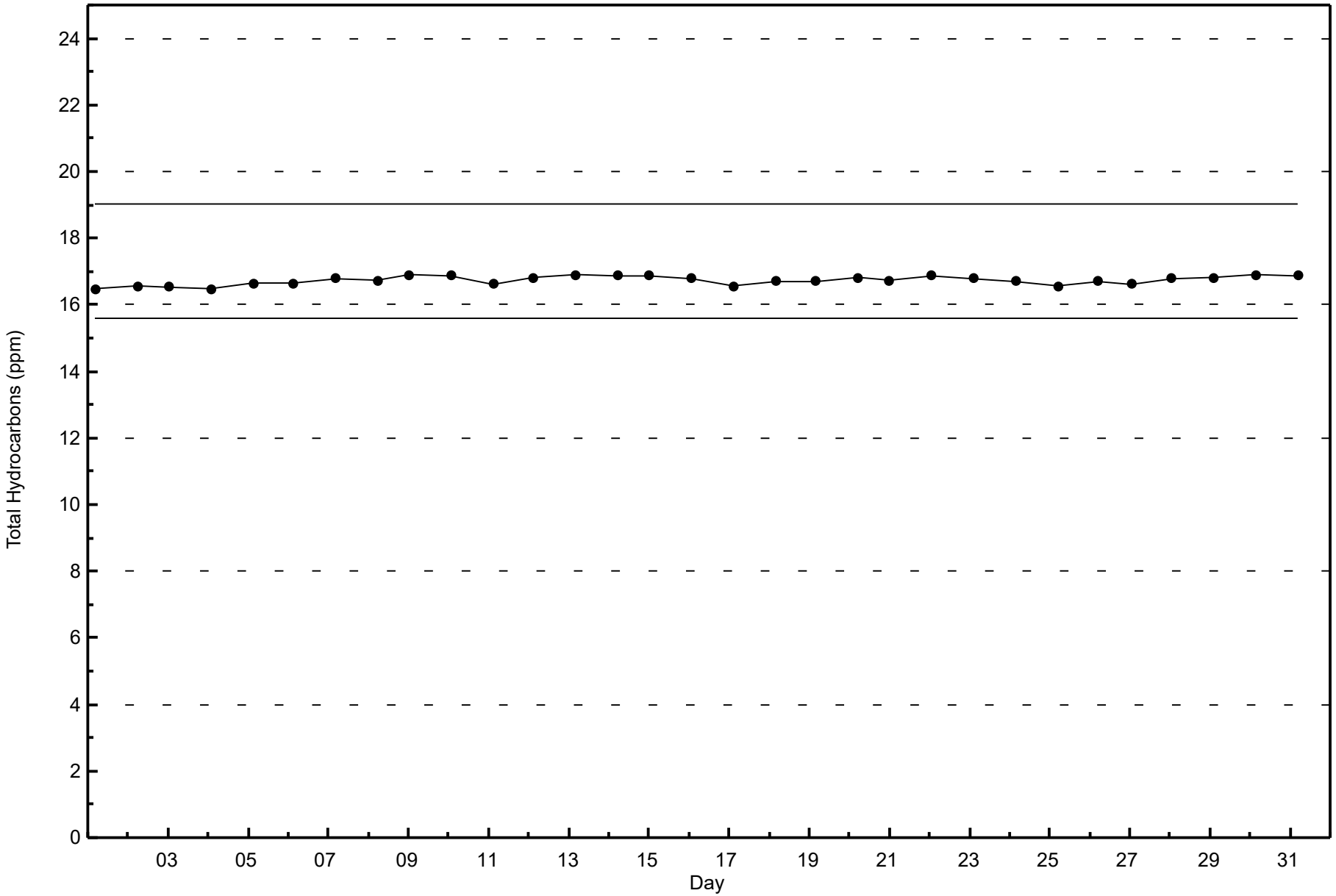


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Firebag - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Firebag - October 2025

Maximum Value: 26.0 ppb on Oct 25 12:00

Maximum Daily Average: 3.4 ppb on Oct 2

Minimum Value: 0.0 ppb on Oct 12 08:00

Minimum Daily Average: 0.0 ppb on Oct 12

Maximum Diurnal Average: 1.6 ppb at hour 12

Minimum Diurnal Average: 0.1 ppb at hour 24

Monthly Average: 0.63 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.5 P_{90} = 1.4 P_{99} = 6.5

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	37
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Oct	1.9	0.0	16.3	Z	14.9	5.1	4.0	15.6	5.7	1.9	1.0	0.6	0.4	0.3	0.3	0.6	0.4	0.0	0.6	2.7	1.6	1.4	2.0	0.2	3.4	16.3
3-Oct	0.1	1.1	0.5	0.3	Z	0.9	0.1	1.3	0.4	0.7	0.6	0.5	0.3	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3
4-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.4	0.3	0.0	0.2	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
5-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.2	1.8	3.3	5.1	1.2	0.6	0.2	0.6	1.5	1.4	0.2	0.1	0.0	0.2	1.0	0.1	0.0	0.0	0.8	5.1
6-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.6	0.9	0.1	0.2	0.3	7.8	2.2	1.9	0.4	0.2	0.1	0.2	0.7	7.8
7-Oct	0.0	0.1	Z	0.2	1.8	2.5	3.3	0.7	0.5	0.4	0.7	0.6	0.4	0.5	0.4	M	0.4	0.2	0.5	0.4	0.3	0.2	0.1	0.1	0.7	3.3
8-Oct	0.1	1.0	4.8	Z	5.7	24.8	0.2	0.3	0.6	1.1	0.8	0.5	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	1.8	24.8
9-Oct	2.4	0.9	0.0	0.0	Z	0.0	0.1	1.5	3.2	2.9	2.1	2.2	1.6	1.2	0.8	0.4	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.9	3.2
10-Oct	0.0	0.0	0.0	0.1	0.2	Z	2.5	0.3	2.1	1.3	0.4	0.3	0.5	0.3	0.4	0.3	0.1	0.6	0.1	0.0	0.1	0.4	0.0	0.0	0.4	2.5
11-Oct	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
12-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
13-Oct	0.1	0.0	Z	0.1	0.1	0.1	0.1	0.4	1.0	2.4	2.0	1.0	0.4	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.4
14-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.5	0.5	0.4	0.5	0.6	0.6	0.5	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6
15-Oct	0.2	0.0	0.1	0.0	Z	0.0	0.1	0.4	0.5	0.4	0.5	0.5	0.7	1.1	1.3	1.0	0.6	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.4	1.3
16-Oct	0.0	0.0	0.0	0.1	0.0	Z	0.1	0.5	1.4	1.1	0.4	0.7	0.1	0.2	0.5	0.5	0.4	0.1	0.0	0.0	0.2	0.0	0.0	0.1	0.3	1.4
17-Oct	Z	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.6	0.2	0.4	0.5	0.9	1.0	1.7	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.3	1.7
18-Oct	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.4	1.7	2.7	1.7	0.9	1.1	0.7	0.4	0.4	0.2	0.1	1.4	0.1	0.0	0.1	0.2	0.4	0.6	2.7
19-Oct	0.2	0.5	Z	0.8	0.8	0.7	0.5	0.5	0.4	0.5	0.9	0.8	0.2	0.4	0.6	1.0	0.3	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.4	1.0
20-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.1	0.2	0.4	1.3	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	1.4
21-Oct	0.0	0.1	0.0	0.1	Z	0.0	0.3	0.1	0.4	1.5	1.0	0.8	1.0	1.9	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.9
22-Oct	0.4	0.6	0.3	0.5	1.0	Z	2.5	0.6	0.5	0.8	1.3	1.1	0.2	0.3	0.2	0.6	0.9	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.6	2.5
23-Oct	Z	0.2	0.2	0.6	0.7	1.7	1.0	0.8	0.7	0.6	0.7	0.5	0.5	0.2	0.4	0.3	0.4	0.6	0.4	0.2	0.2	0.2	0.2	0.1	0.5	1.7
24-Oct	0.2	Z	0.2	0.2	0.4	1.0	0.2	0.2	0.2	0.4	0.6	0.6	0.6	0.4	0.3	0.5	0.5	0.2	0.7	0.5	0.4	0.3	0.2	0.2	0.4	1.0
25-Oct	0.2	0.3	Z	0.3	0.2	0.4	0.5	0.4	0.8	0.8	18.5	26.0	3.0	0.8	0.4	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	2.3	26.0
26-Oct	0.1	0.2	0.6	Z	1.3	0.6	0.4	0.4	0.5	0.6	1.7	2.6	1.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.5	2.6
27-Oct	0.0	0.0	0.0	0.1	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
28-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.5	3.2	3.7	4.1	3.3	1.4	1.6	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.8	4.1
29-Oct	Z	6.6	4.1	2.4	0.5	3.7	0.8	0.6	0.5	C	C	C	C	C	C	0.1	0.0	0.0	0.0	0.0	0.1	1.7	0.0	0.1	--	6.6
30-Oct	0.1	Z	0.1	0.0	0.0	0.0	0.1	0.1	0.3	1.1	1.9	1.8	1.7	1.6	0.5	0.3	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.4	1.9
31-Oct	0.0	0.1	Z	0.1	0.2	0.2	0.5	2.4	1.1	0.9	0.8	0.8	0.6	0.4	0.5	0.7	0.5	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.5	2.4
	0.2	0.5	1.1	0.2	1.1	1.6	0.6	1.0	0.9	1.0	1.5	1.6	0.8	0.6	0.5	0.4	0.2	0.4	0.2	0.2	0.2	0.2	0.1	0.1	Diurnal Average	
	2.4	6.6	16.3	2.4	14.9	24.8	4.0	15.6	5.7	5.1	18.5	26.0	3.3	1.9	1.7	1.4	0.9	7.8	2.2	2.7	1.6	1.7	2.0	0.4	Diurnal Maximum	

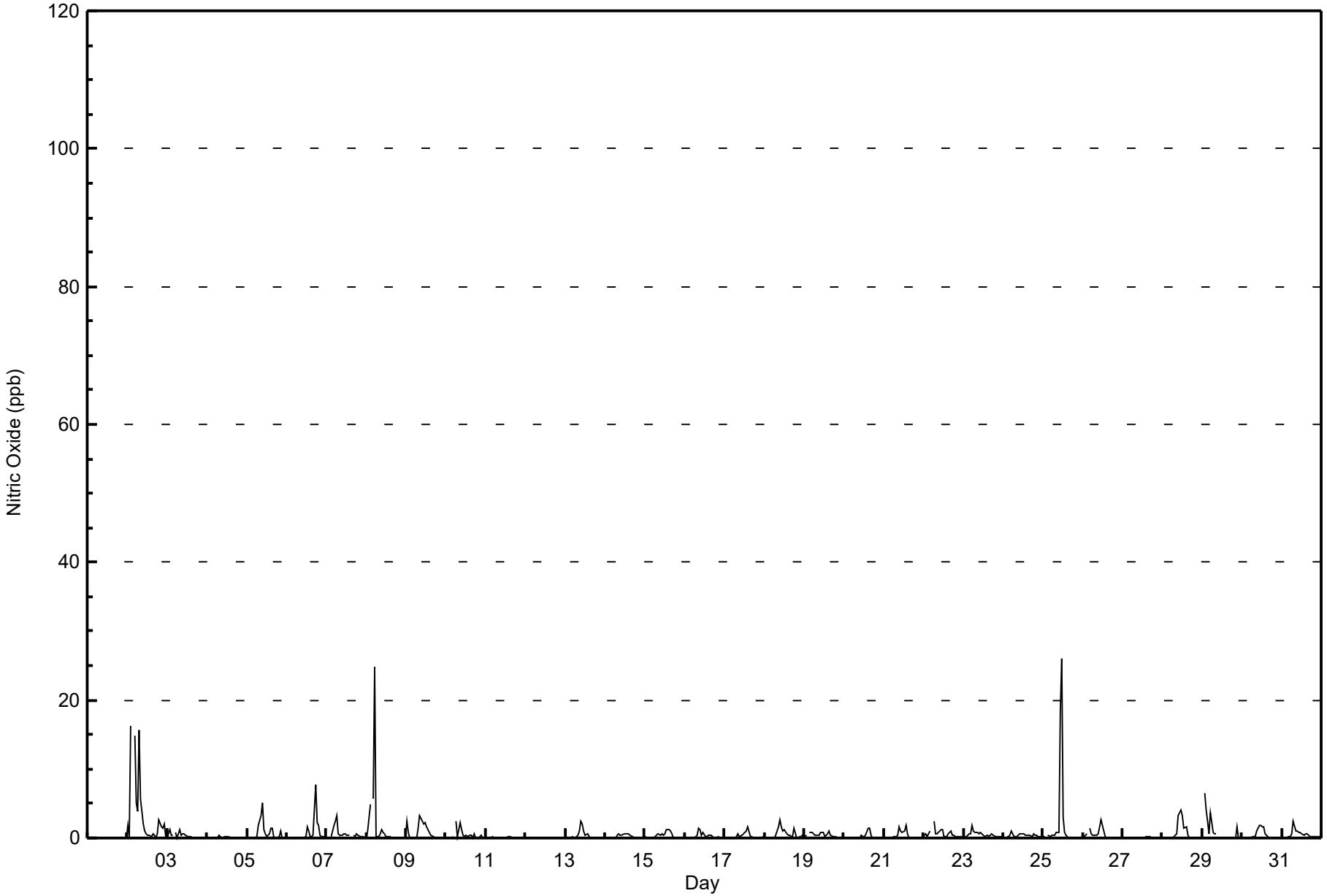
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Firebag - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	704	99.72	99.72
21 - 40	2	0.28	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Firebag - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	75	24	11	3	4	16	23	47	92	83	67	62	45	47	18	28	645
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	75	24	11	3	4	16	23	47	92	83	67	62	45	49	18	28	647

Total Number of Valid Hours: 647

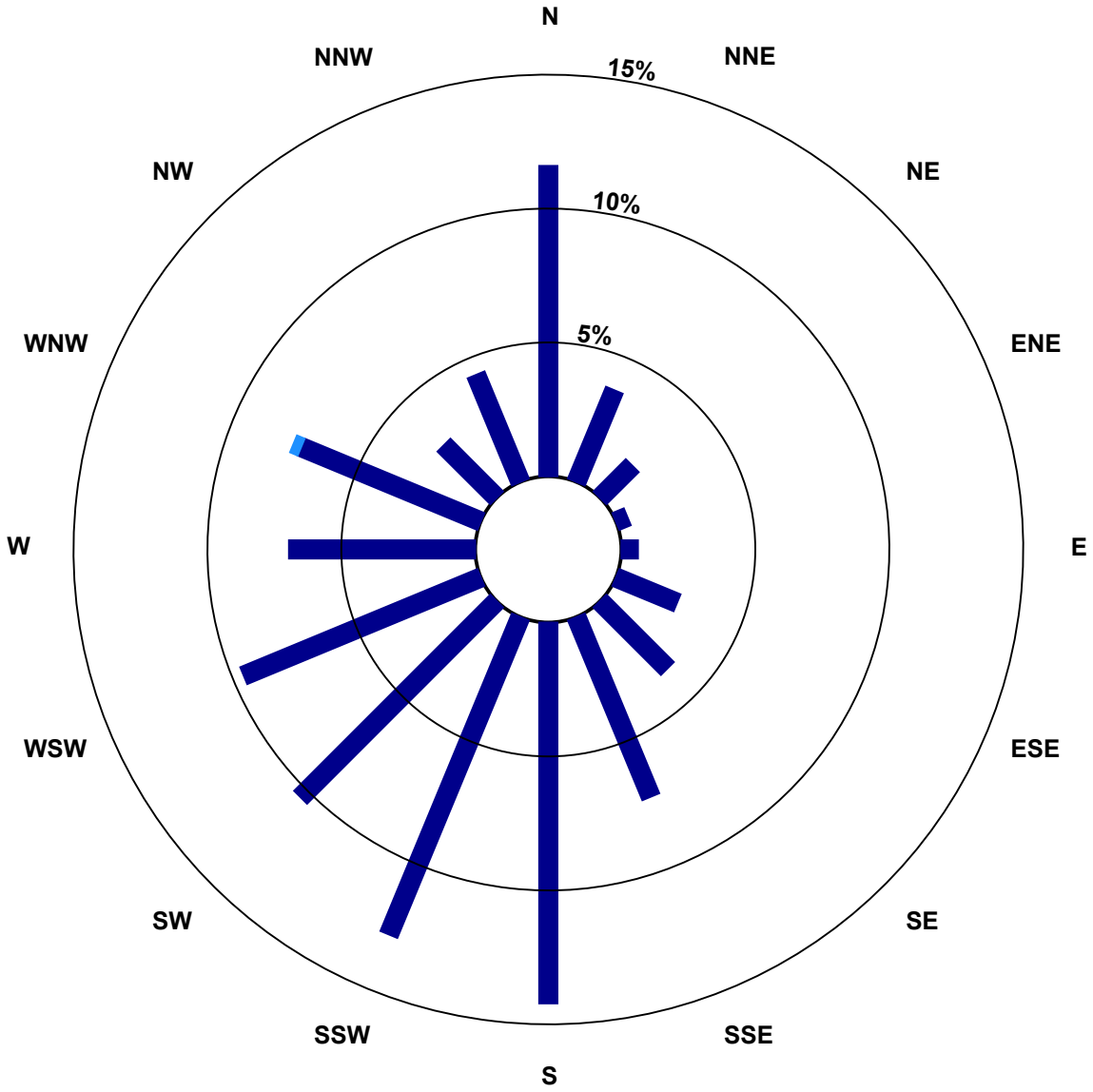
Total Number of Hours: 744

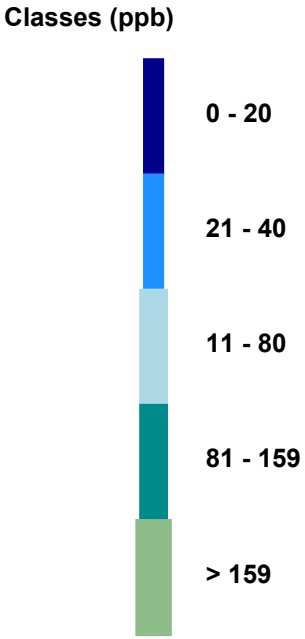
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Firebag





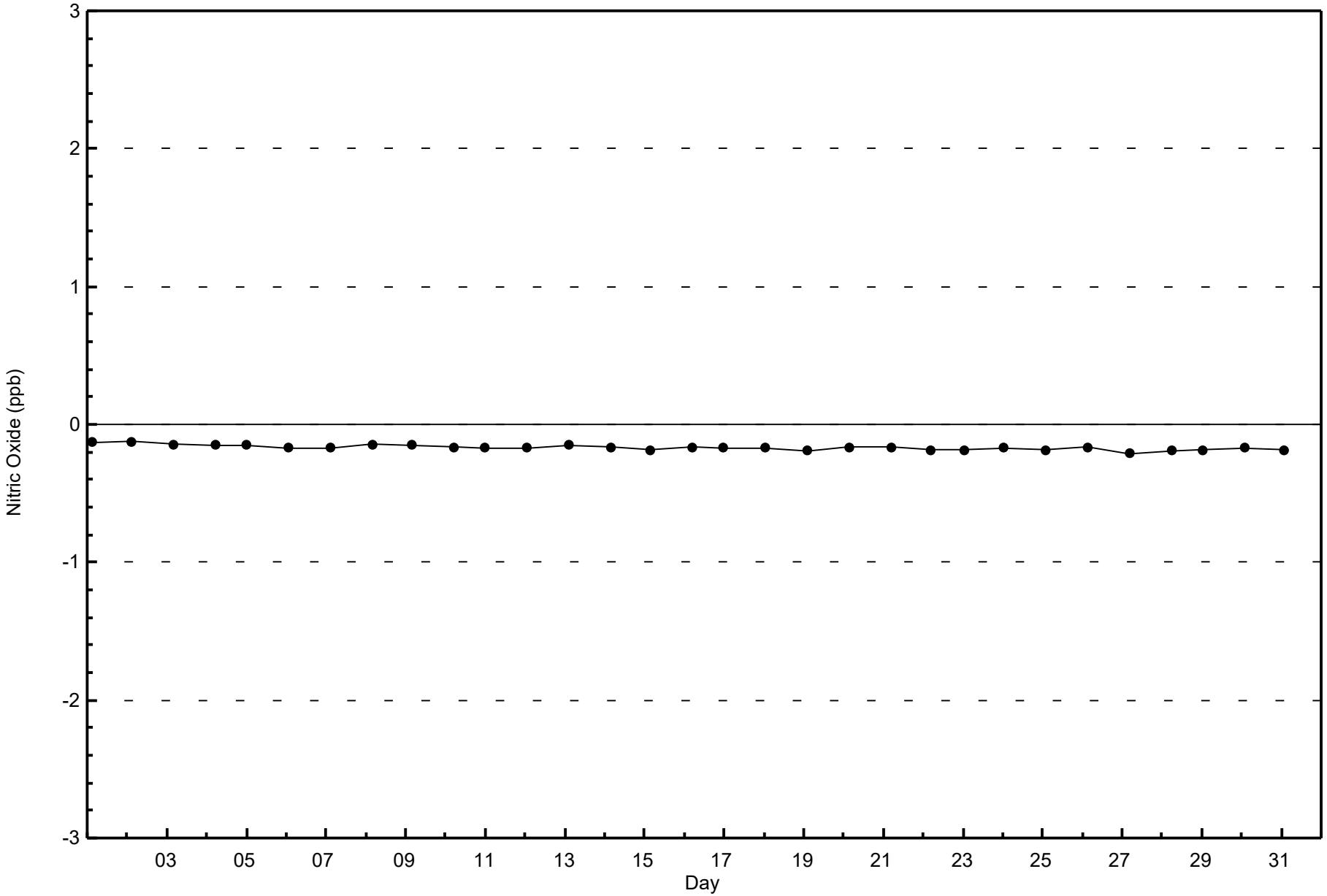
Total Number of Valid Hours: 647

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Firebag - October 2025

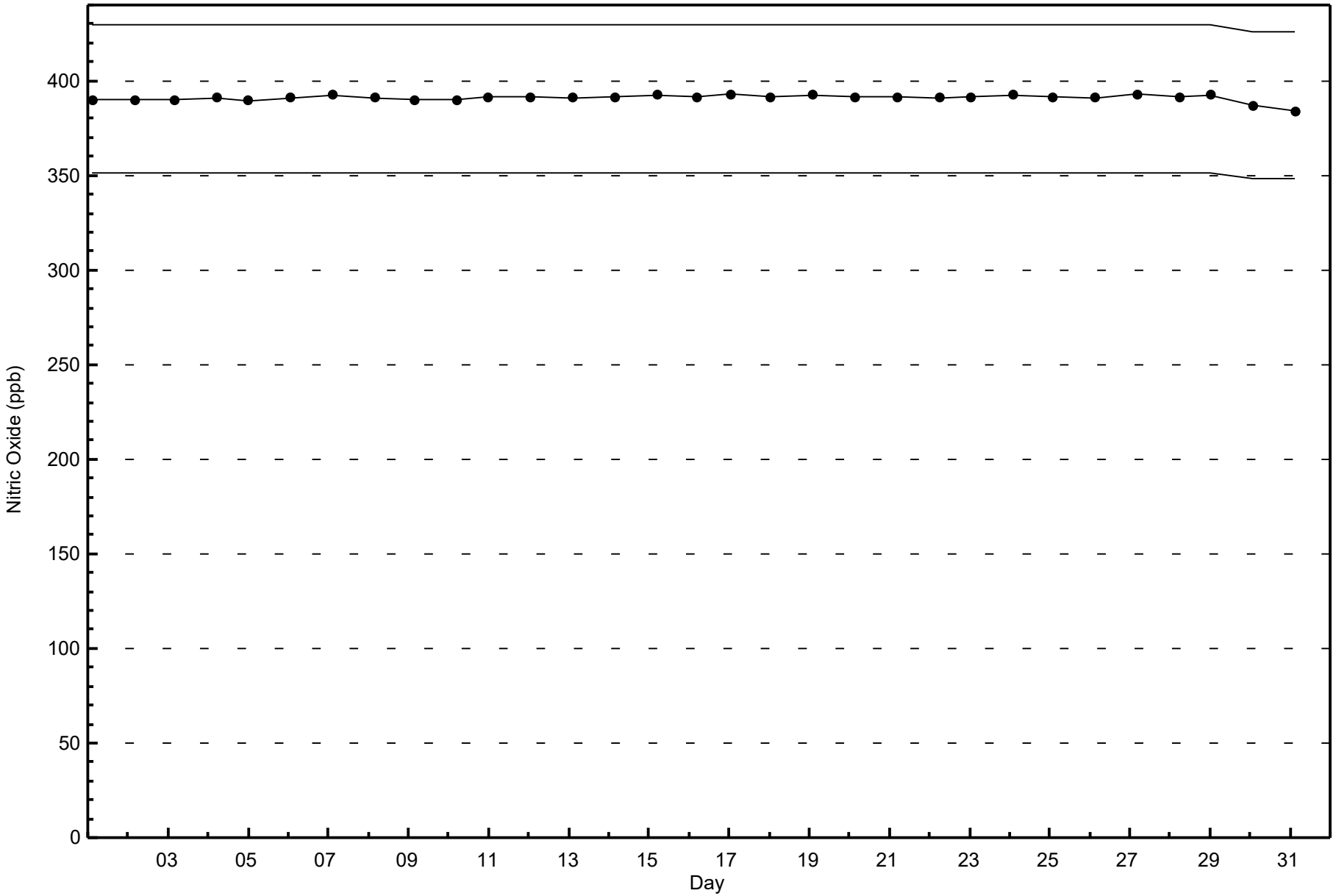


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Firebag - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Firebag - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 17.8 ppb on Oct 18 00:00

Maximum Daily Average: 6.0 ppb on Oct 2

Minimum Value: 0.1 ppb on Oct 12 05:00

Minimum Daily Average: 0.8 ppb on Oct 1

Maximum Diurnal Average: 3.7 ppb at hour 7

Minimum Diurnal Average: 1.7 ppb at hour 16

Monthly Average: 2.55 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.3 Q_1 = 0.8 Median = 1.7 Q_3 = 3.2 P_{90} = 5.9 P_{99} = 13.6

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	37
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.6	0.6	Z	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.3	0.3	0.5	0.8	0.5	0.3	0.3	0.3	0.3	1.0	7.6	0.8	7.6
2-Oct	14.0	2.3	14.9	Z	12.3	12.5	13.6	12.5	6.2	3.5	2.4	2.0	1.4	1.5	1.4	2.6	2.1	1.1	4.0	7.2	6.0	5.0	7.8	2.1	6.0	14.9
3-Oct	1.3	5.4	3.0	2.8	Z	3.3	1.4	1.9	1.3	1.4	1.3	1.2	1.0	0.8	1.2	0.7	1.3	1.1	1.8	2.8	2.3	2.3	1.6	0.6	1.8	5.4
4-Oct	1.8	1.5	1.5	1.3	1.0	Z	5.1	5.8	2.1	0.4	0.8	1.8	2.3	0.8	0.3	0.2	0.4	0.5	0.4	0.5	0.5	2.1	2.0	4.2	1.6	5.8
5-Oct	Z	0.6	1.8	2.6	1.3	1.4	6.5	5.9	6.0	6.1	2.0	0.8	0.3	1.0	3.9	4.1	1.2	1.0	2.6	8.5	14.4	6.3	3.8	0.2	3.6	14.4
6-Oct	0.2	Z	0.3	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	2.4	1.7	0.4	0.6	2.5	11.9	11.0	6.8	2.2	2.2	2.2	2.3	2.1	11.9
7-Oct	1.0	0.9	Z	3.2	2.9	5.9	7.6	3.5	2.0	1.3	1.6	1.7	1.6	1.3	1.4	M	2.2	1.8	2.1	1.8	3.5	1.7	2.1	3.1	2.5	7.6
8-Oct	4.5	11.5	15.0	Z	13.1	14.4	8.3	4.8	6.2	6.4	1.6	1.1	0.5	0.5	0.4	0.5	0.8	3.0	5.1	4.1	5.2	5.4	5.9	3.2	5.3	15.0
9-Oct	9.5	8.0	1.8	0.6	Z	2.5	4.8	5.6	4.1	3.3	2.8	3.8	3.2	2.9	2.3	1.8	2.8	2.1	1.0	1.2	2.9	5.7	6.9	5.6	3.7	9.5
10-Oct	4.2	2.5	4.3	1.9	1.8	Z	11.4	2.0	6.1	3.3	1.4	1.1	1.3	1.2	1.4	1.6	0.9	2.3	1.1	1.3	1.5	2.6	1.8	1.7	2.6	11.4
11-Oct	Z	1.7	1.9	1.9	3.3	3.7	3.5	0.8	0.5	0.5	0.4	0.3	0.3	0.6	1.3	1.6	0.3	0.6	0.2	0.9	1.1	1.1	0.4	0.2	1.2	3.7
12-Oct	0.2	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.5	0.5	3.6	2.4	9.2	0.8	9.2
13-Oct	10.9	2.1	Z	10.0	9.6	6.7	4.0	3.4	2.8	3.8	3.4	1.9	1.1	1.2	0.5	0.3	0.3	0.5	0.4	0.4	0.5	0.5	0.7	1.2	2.9	10.9
14-Oct	1.7	1.8	1.7	Z	1.3	1.1	1.2	1.8	1.6	1.3	1.3	1.5	1.6	1.6	1.7	1.4	2.3	2.9	3.1	1.9	1.6	1.8	2.2	2.4	1.8	3.1
15-Oct	2.6	2.7	2.3	2.3	Z	2.3	2.5	3.1	2.6	2.4	2.2	1.9	2.0	3.4	3.7	3.8	5.5	3.4	3.6	3.4	4.9	5.5	5.1	5.1	3.3	5.5
16-Oct	4.6	5.5	6.7	10.4	8.3	Z	8.0	7.7	5.4	3.3	1.9	2.4	0.6	0.7	1.4	2.6	2.5	1.1	0.7	0.8	2.0	1.2	1.4	1.2	3.5	10.4
17-Oct	Z	1.7	3.2	4.2	3.8	2.8	2.5	4.3	8.4	3.1	3.4	3.7	2.3	3.0	5.6	1.4	1.8	6.3	7.2	1.2	1.5	5.6	10.2	17.8	4.6	17.8
18-Oct	13.3	Z	9.1	6.8	6.1	5.6	6.2	5.6	5.1	4.7	3.2	1.9	2.4	1.8	1.4	2.1	2.4	3.1	5.1	5.5	3.7	4.4	6.6	6.2	4.9	13.3
19-Oct	3.5	3.2	Z	2.9	3.0	3.0	1.8	1.7	1.0	1.3	1.3	1.6	0.8	1.1	1.9	2.1	1.9	1.3	2.2	3.2	1.1	0.3	0.3	0.3	1.8	3.5
20-Oct	0.3	0.2	0.2	Z	0.3	0.2	0.1	0.3	0.3	0.2	1.1	0.4	0.8	1.9	4.9	7.4	5.7	2.4	1.6	0.8	0.7	0.6	0.8	1.0	1.4	7.4
21-Oct	1.0	0.9	1.0	1.5	Z	1.5	1.8	2.5	3.4	4.0	3.1	2.8	3.1	5.7	5.1	0.5	0.5	0.6	0.5	0.4	0.4	0.3	0.3	0.4	1.8	5.7
22-Oct	2.1	2.2	0.8	1.4	1.5	Z	2.6	1.8	1.4	1.1	1.4	1.3	0.6	0.6	0.6	1.7	2.4	1.2	0.9	0.8	0.6	0.6	0.6	0.6	1.3	2.6
23-Oct	Z	0.6	0.6	1.2	1.3	2.7	2.5	2.1	1.6	1.6	1.3	1.0	1.0	0.8	1.1	1.6	2.1	1.5	1.1	0.8	0.7	0.9	1.1	1.3	1.3	2.7
24-Oct	1.5	Z	2.1	2.2	2.2	2.5	1.8	1.9	1.6	1.5	1.6	1.9	1.8	1.9	1.9	2.2	2.3	1.5	1.6	1.1	1.1	1.2	1.2	1.9	1.8	2.5
25-Oct	1.8	1.7	Z	1.9	1.4	1.8	1.7	2.2	2.5	2.8	12.3	16.6	11.3	6.0	4.9	1.3	1.2	1.4	4.9	3.9	3.4	3.8	4.0	3.0	4.2	16.6
26-Oct	3.9	5.1	6.0	Z	5.9	4.9	6.2	4.2	2.3	2.1	4.6	5.8	5.1	0.7	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.2	0.2	0.2	2.6	6.2
27-Oct	0.2	0.2	0.2	0.1	Z	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.4	1.2	3.5	2.0	2.1	2.7	1.5	2.4	2.2	2.0	0.9	3.5
28-Oct	1.9	2.4	0.6	0.3	0.5	Z	1.7	3.7	3.1	7.7	7.5	7.8	5.8	3.5	3.7	2.1	0.5	0.6	3.2	2.8	3.1	4.0	1.2	3.9	3.1	7.8
29-Oct	Z	8.7	7.2	4.5	1.5	4.4	1.7	1.3	1.1	C	C	C	C	C	C	0.1	0.1	0.1	0.1	0.1	0.6	9.0	2.3	0.4	--	9.0
30-Oct	1.4	Z	1.5	0.5	0.3	0.3	2.3	3.9	2.1	3.9	5.4	4.9	4.7	4.7	2.2	2.2	1.4	1.4	1.7	2.1	2.2	1.6	1.1	1.5	2.3	5.4
31-Oct	1.2	0.9	Z	1.1	1.1	1.2	1.7	2.9	2.0	1.8	1.6	1.6	1.1	1.0	1.5	1.7	1.4	1.0	0.8	0.8	0.8	1.1	1.2	1.2	1.3	2.9
	3.4	2.9	3.5	2.6	3.3	3.3	3.7	3.2	2.7	2.5	2.4	2.5	2.0	1.7	1.9	1.7	1.7	1.9	2.3	2.2	2.3	2.7	2.6	3.0	Diurnal Average	
	14.0	11.5	15.0	10.4	13.1	14.4	13.6	12.5	8.4	7.7	12.3	16.6	11.3	6.0	5.6	7.4	5.7	11.9	11.0	8.5	14.4	9.0	10.2	17.8	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

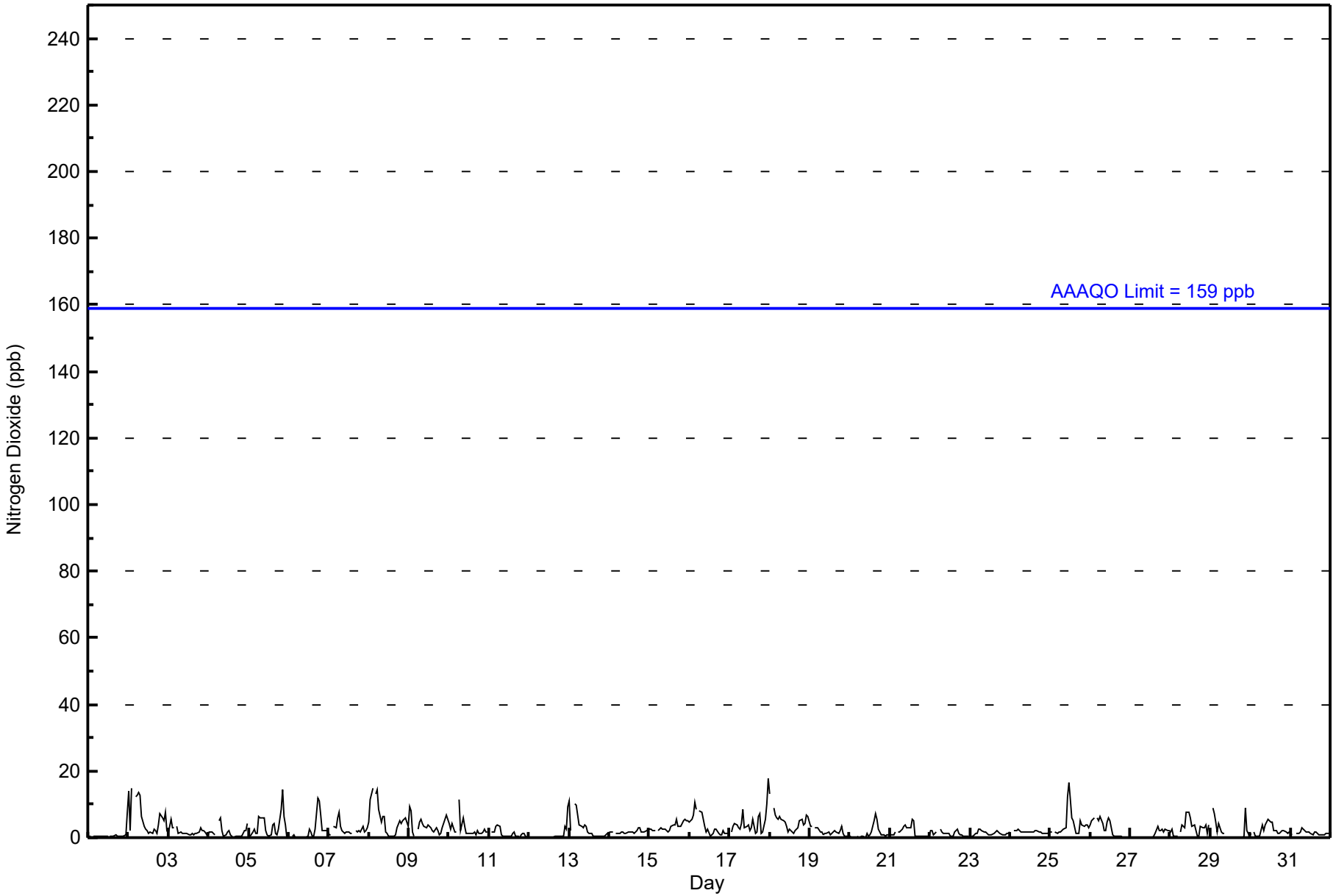
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Firebag - October 2025



Nitrogen Dioxide (NO_2) - ppb
Firebag - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	706	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Firebag - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	75	24	11	3	4	16	23	47	92	83	67	62	45	49	18	28	647
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	75	24	11	3	4	16	23	47	92	83	67	62	45	49	18	28	647

Total Number of Valid Hours: 647

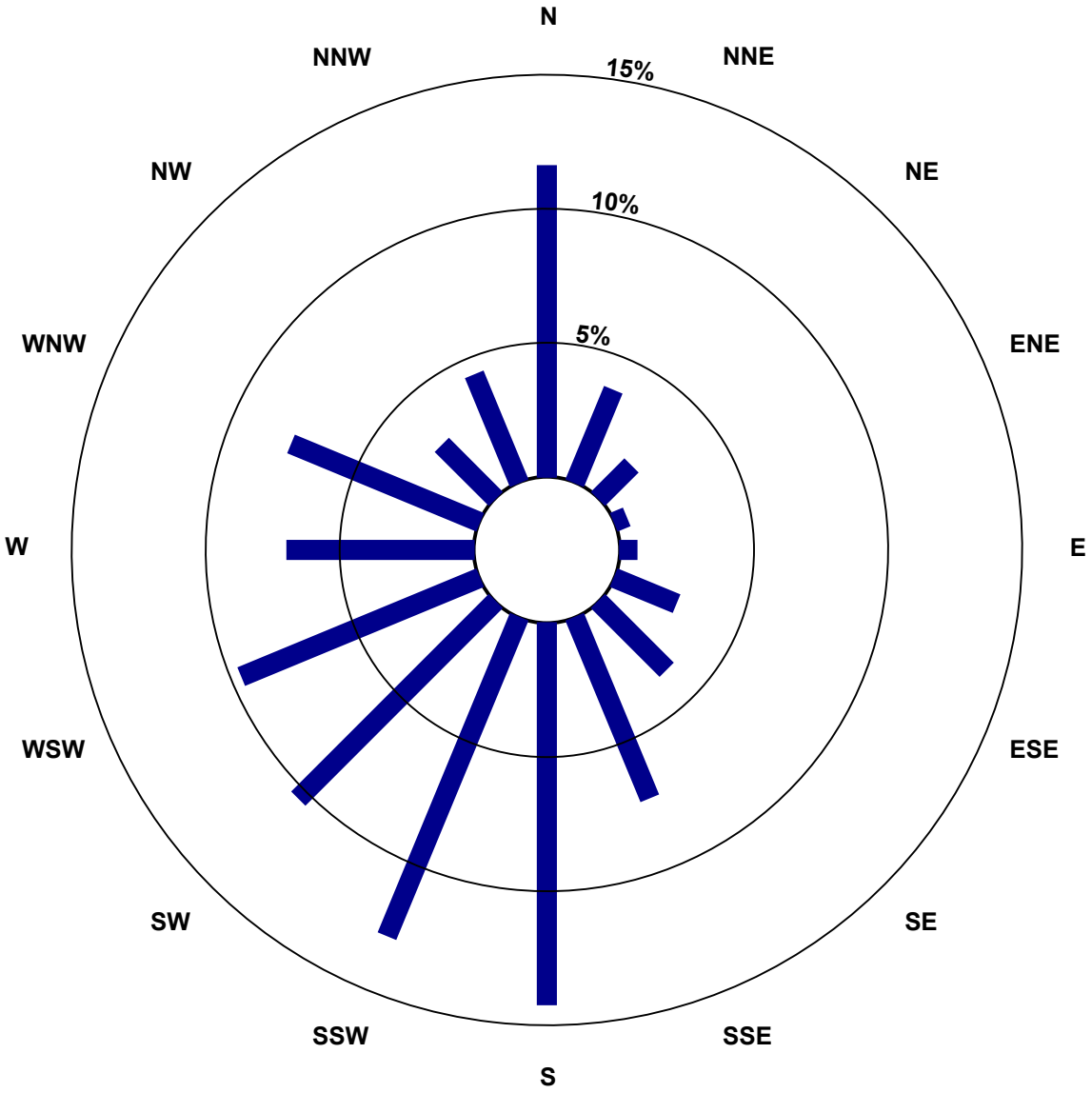
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Firebag



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

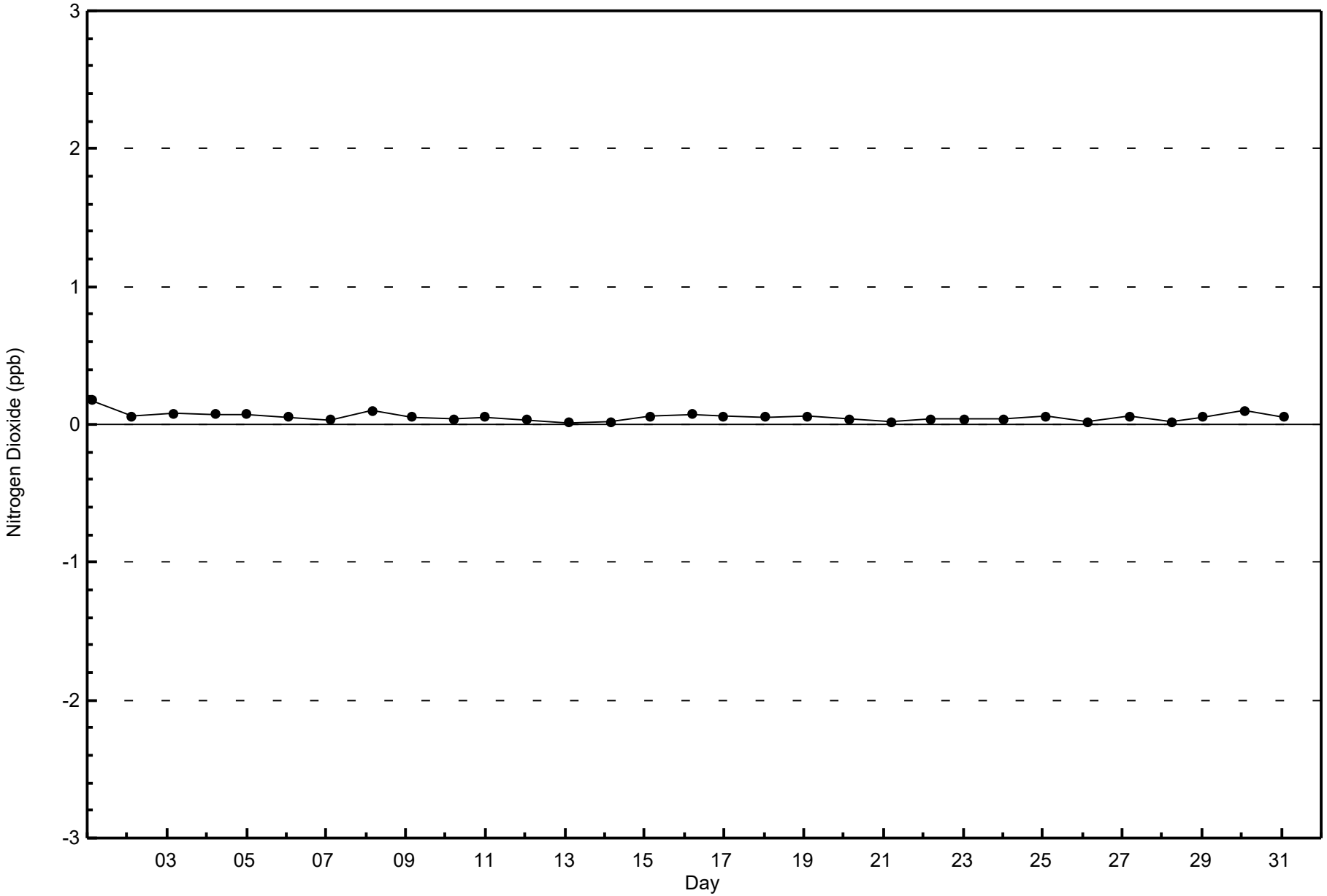
Total Number of Valid Hours: 647

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Firebag - October 2025

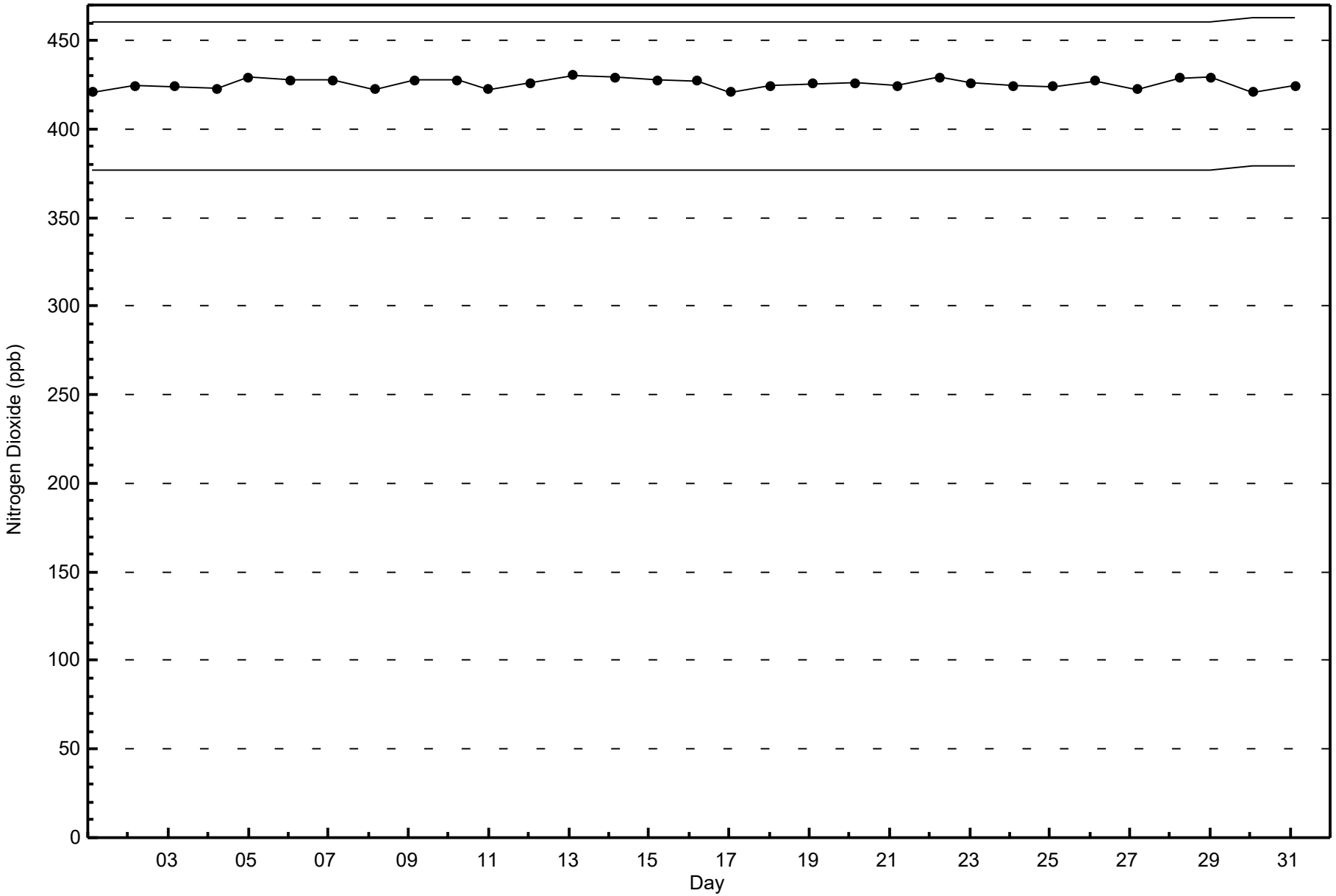


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Firebag - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Firebag - October 2025

Maximum Value: 42.6 ppb on Oct 25 12:00

Maximum Daily Average: 9.4 ppb on Oct 2

Minimum Value: 0.1 ppb on Oct 12 07:00

Minimum Daily Average: 0.8 ppb on Oct 1

Maximum Diurnal Average: 4.9 ppb at hour 6

Minimum Diurnal Average: 2.0 ppb at hour 17

Monthly Average: 3.17 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.3 Q_1 = 1.0 Median = 2.1 Q_3 = 3.8 P_{90} = 6.8 P_{99} = 19.7

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	37
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.6	0.6	Z	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.3	0.3	0.5	0.8	0.5	0.3	0.3	0.3	0.3	1.0	7.6	0.8	7.6
2-Oct	15.9	2.3	31.2	Z	27.2	17.6	17.6	28.1	11.9	5.4	3.4	2.6	1.8	1.8	1.7	3.2	2.5	1.1	4.6	9.9	7.6	6.4	9.8	2.3	9.4	31.2
3-Oct	1.4	6.5	3.5	3.1	Z	4.2	1.5	3.2	1.7	2.1	1.9	1.7	1.3	0.9	1.3	0.8	1.4	1.1	1.8	2.8	2.3	2.3	1.6	0.6	2.1	6.5
4-Oct	1.8	1.5	1.5	1.3	1.0	Z	5.2	6.2	2.4	0.4	1.0	2.1	2.6	1.0	0.4	0.3	0.4	0.5	0.4	0.5	0.5	2.1	2.0	4.2	1.7	6.2
5-Oct	Z	0.6	1.8	2.6	1.3	1.4	6.7	7.7	9.3	11.2	3.2	1.4	0.5	1.6	5.4	5.5	1.4	1.1	2.6	8.7	15.4	6.4	3.8	0.2	4.3	15.4
6-Oct	0.2	Z	0.3	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	4.0	2.6	0.5	0.8	2.8	19.7	13.2	8.7	2.6	2.4	2.3	2.5	2.8	19.7
7-Oct	1.0	1.0	Z	3.4	4.7	8.4	10.9	4.2	2.5	1.7	2.3	2.3	2.0	1.8	1.8	M	2.6	2.0	2.6	2.2	3.8	1.9	2.2	3.2	3.1	10.9
8-Oct	4.6	12.5	19.8	Z	18.8	39.2	8.5	5.1	6.8	7.5	2.4	1.6	0.7	0.7	0.5	0.6	0.9	3.0	5.1	4.1	5.2	5.5	6.0	3.2	7.0	39.2
9-Oct	11.9	8.9	1.8	0.6	Z	2.5	4.9	7.1	7.3	6.2	4.9	6.0	4.8	4.1	3.1	2.2	3.1	2.2	1.0	1.2	2.9	5.8	6.9	5.6	4.6	11.9
10-Oct	4.2	2.5	4.3	2.0	2.0	Z	13.9	2.3	8.2	4.6	1.8	1.4	1.8	1.5	1.8	1.9	1.0	2.9	1.2	1.3	1.6	3.0	1.8	1.7	3.0	13.9
11-Oct	Z	1.7	1.9	1.9	3.4	3.7	3.5	0.8	0.5	0.5	0.4	0.3	0.3	0.7	1.4	1.7	0.3	0.6	0.2	0.9	1.1	1.1	0.4	0.2	1.2	3.7
12-Oct	0.2	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.5	0.5	3.6	2.4	9.3	0.8	9.3
13-Oct	11.0	2.1	Z	10.1	9.7	6.8	4.1	3.8	3.8	6.2	5.4	2.9	1.5	1.7	0.6	0.3	0.3	0.5	0.4	0.4	0.5	0.5	0.7	1.2	3.2	11.0
14-Oct	1.7	1.8	1.7	Z	1.3	1.1	1.2	2.3	2.1	1.7	1.8	2.1	2.2	2.1	2.3	1.8	2.6	3.0	3.1	1.9	1.6	1.8	2.2	2.4	2.0	3.1
15-Oct	2.8	2.7	2.4	2.3	Z	2.3	2.6	3.5	3.1	2.8	2.7	2.4	2.7	4.5	5.0	4.8	6.1	3.5	3.7	3.5	5.0	5.6	5.1	5.2	3.7	6.1
16-Oct	4.6	5.5	6.7	10.5	8.3	Z	8.1	8.2	6.8	4.4	2.3	3.1	0.7	0.9	1.9	3.1	2.9	1.2	0.7	0.8	2.2	1.2	1.4	1.3	3.8	10.5
17-Oct	Z	1.8	3.3	4.3	3.9	2.8	2.6	4.4	9.0	3.3	3.8	4.2	3.2	4.0	7.3	1.7	1.9	6.4	7.3	1.2	1.5	5.6	10.2	17.9	4.8	17.9
18-Oct	13.4	Z	9.2	6.8	6.1	5.6	6.2	6.0	6.8	7.4	4.9	2.8	3.5	2.5	1.8	2.5	2.6	3.2	6.5	5.6	3.7	4.5	6.8	6.6	5.4	13.4
19-Oct	3.7	3.7	Z	3.7	3.8	3.7	2.3	2.2	1.4	1.8	2.2	2.4	1.0	1.5	2.5	3.1	2.2	1.6	2.5	3.3	1.1	0.3	0.3	0.3	2.2	3.8
20-Oct	0.3	0.2	0.2	Z	0.3	0.2	0.1	0.3	0.3	0.3	1.5	0.5	1.0	2.3	6.2	8.8	6.1	2.4	1.6	0.8	0.7	0.6	0.9	1.1	1.6	8.8
21-Oct	1.0	1.0	1.0	1.6	Z	1.5	2.1	2.6	3.8	5.5	4.1	3.6	4.1	7.6	5.7	0.6	0.5	0.6	0.5	0.4	0.4	0.3	0.3	0.4	2.1	7.6
22-Oct	2.5	2.8	1.1	1.9	2.5	Z	5.1	2.4	1.9	1.9	2.7	2.4	0.8	0.9	0.8	2.3	3.3	1.5	1.2	1.1	0.8	0.8	0.8	0.8	1.8	5.1
23-Oct	Z	0.8	0.8	1.8	2.0	4.4	3.5	2.9	2.3	2.2	2.0	1.5	1.5	1.0	1.5	1.9	2.5	2.1	1.5	1.0	0.9	1.1	1.3	1.4	1.8	4.4
24-Oct	1.7	Z	2.3	2.4	2.6	3.5	2.0	2.1	1.8	1.9	2.2	2.5	2.4	2.3	2.2	2.7	2.8	1.7	2.3	1.6	1.5	1.5	1.4	2.1	2.2	3.5
25-Oct	2.0	2.0	Z	2.2	1.6	2.2	2.2	2.6	3.3	3.6	30.8	42.6	14.3	6.8	5.3	1.4	1.3	1.4	5.0	3.9	3.4	3.9	4.0	3.0	6.5	42.6
26-Oct	4.0	5.3	6.6	Z	7.2	5.5	6.6	4.6	2.8	2.7	6.3	8.4	7.0	1.0	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	3.1	8.4
27-Oct	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.5	1.4	3.7	2.0	2.1	2.7	1.5	2.4	2.2	2.0	1.0	3.7
28-Oct	1.9	2.4	0.6	0.3	0.5	Z	1.7	3.8	3.6	10.9	11.2	11.9	9.1	4.9	5.3	2.6	0.6	0.7	3.2	2.8	3.1	4.0	1.2	4.0	3.9	11.9
29-Oct	Z	15.3	11.3	6.9	2.0	8.1	2.5	1.9	1.6	C	C	C	C	C	C	0.2	0.1	0.1	0.1	0.1	0.7	10.7	2.3	0.5	--	15.3
30-Oct	1.5	Z	1.6	0.5	0.3	0.3	2.4	4.0	2.4	5.0	7.3	6.7	6.4	6.3	2.7	2.5	1.5	1.4	1.7	2.2	2.3	1.6	1.2	1.5	2.8	7.3
31-Oct	1.2	1.0	Z	1.2	1.3	1.4	2.2	5.3	3.1	2.7	2.4	2.4	1.7	1.4	2.0	2.4	1.9	1.3	1.0	1.0	0.9	1.3	1.4	1.4	1.8	5.3
	3.7	3.3	4.6	2.8	4.3	4.9	4.2	4.1	3.6	3.5	3.9	4.1	2.8	2.3	2.4	2.1	2.0	2.2	2.5	2.4	2.5	2.9	2.7	3.0	Diurnal Average	
	15.9	15.3	31.2	10.5	27.2	39.2	17.6	28.1	11.9	11.2	30.8	42.6	14.3	7.6	7.3	8.8	6.1	19.7	13.2	9.9	15.4	10.7	10.2	17.9	Diurnal Maximum	

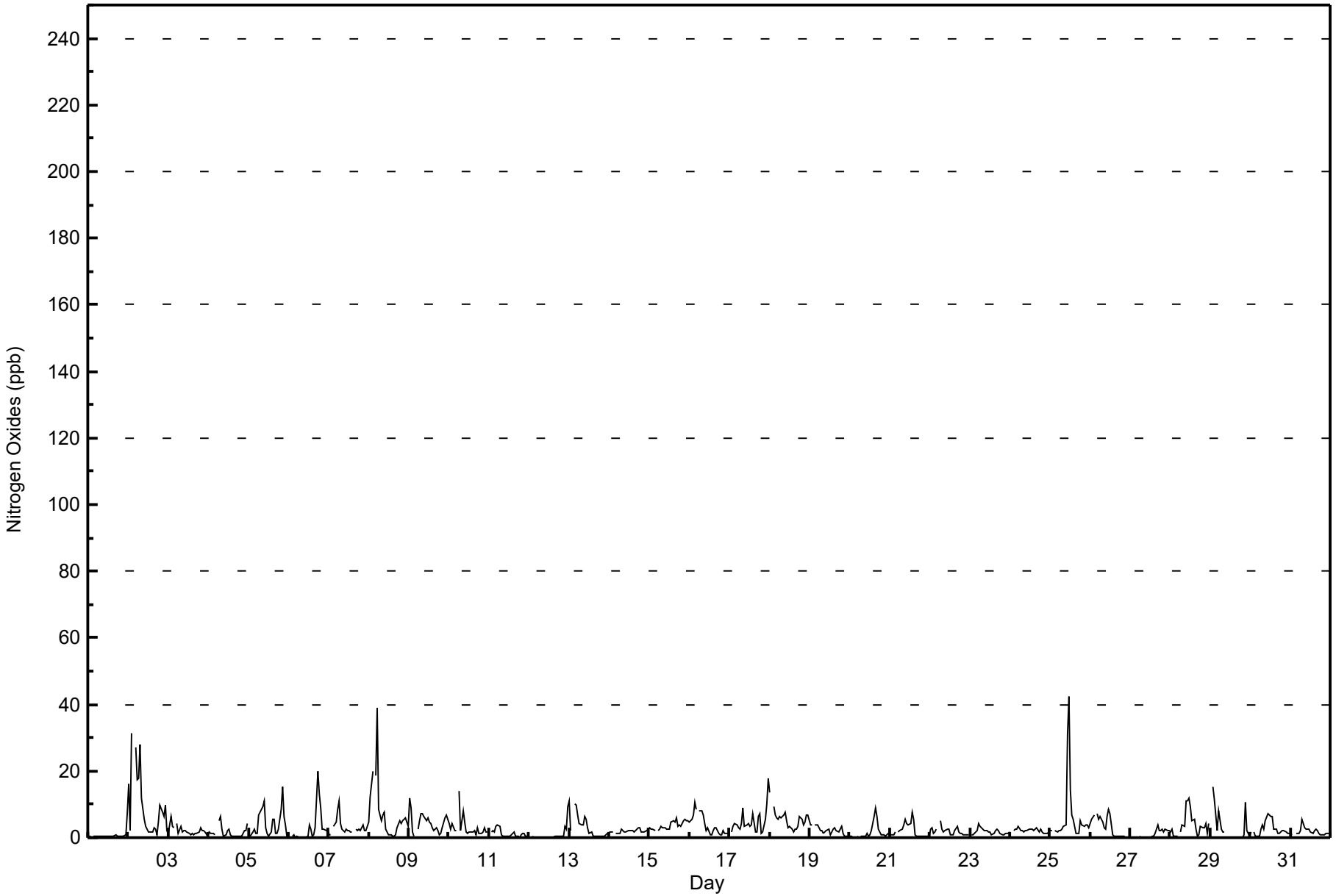
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Firebag - October 2025



Nitrogen Oxides (NO_X) - ppb
Firebag - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	700	99.15	99.15
21 - 40	5	0.71	99.86
11 - 80	1	0.14	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Nitrogen Oxides (NO_X) - ppb
Firebag - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	75	24	11	3	4	16	23	47	91	83	67	61	45	45	18	28	641
21 - 40	0	0	0	0	0	0	0	0	1	0	0	1	0	3	0	0	5
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	75	24	11	3	4	16	23	47	92	83	67	62	45	49	18	28	647

Total Number of Valid Hours: 647

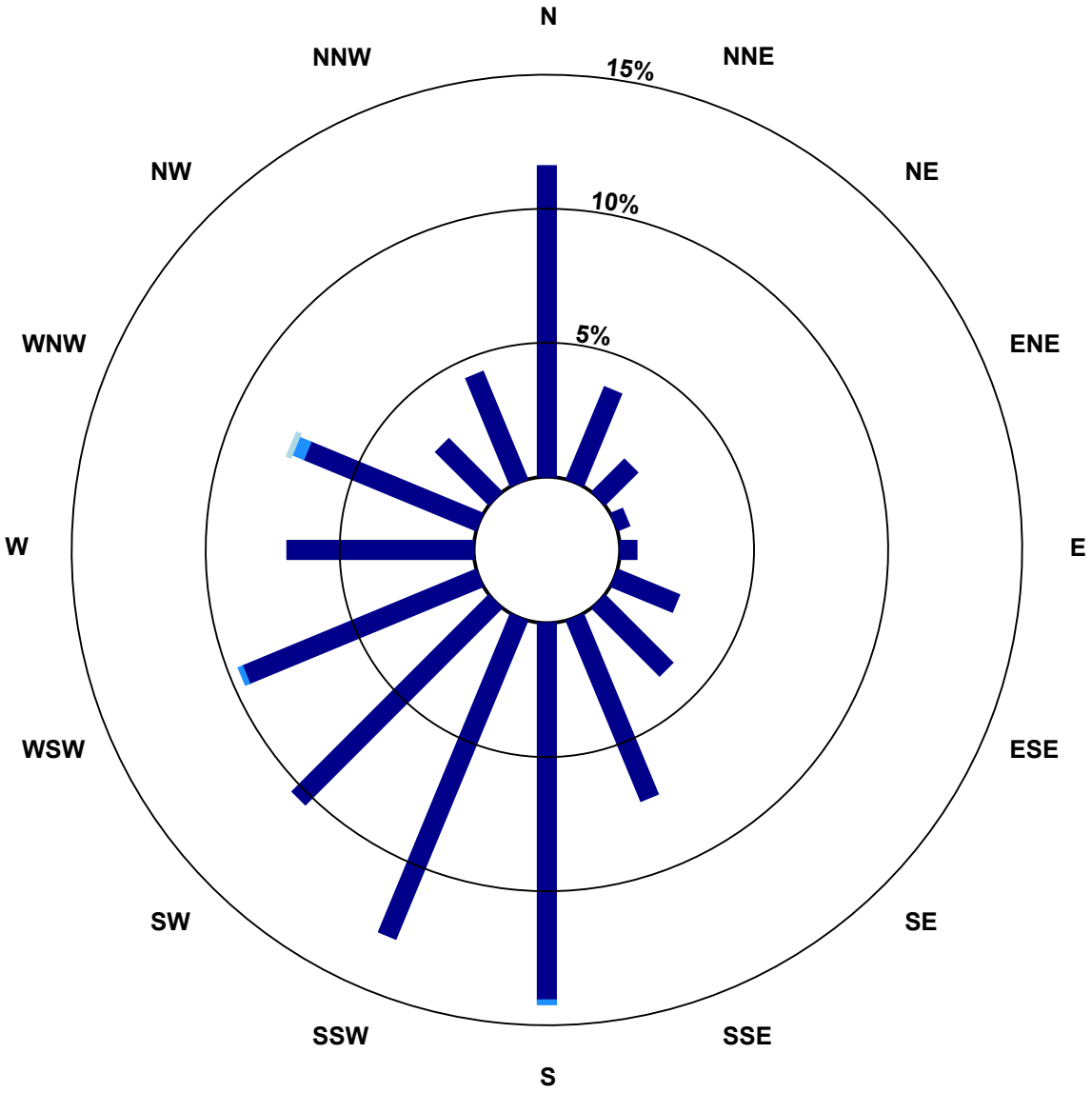
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Firebag



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

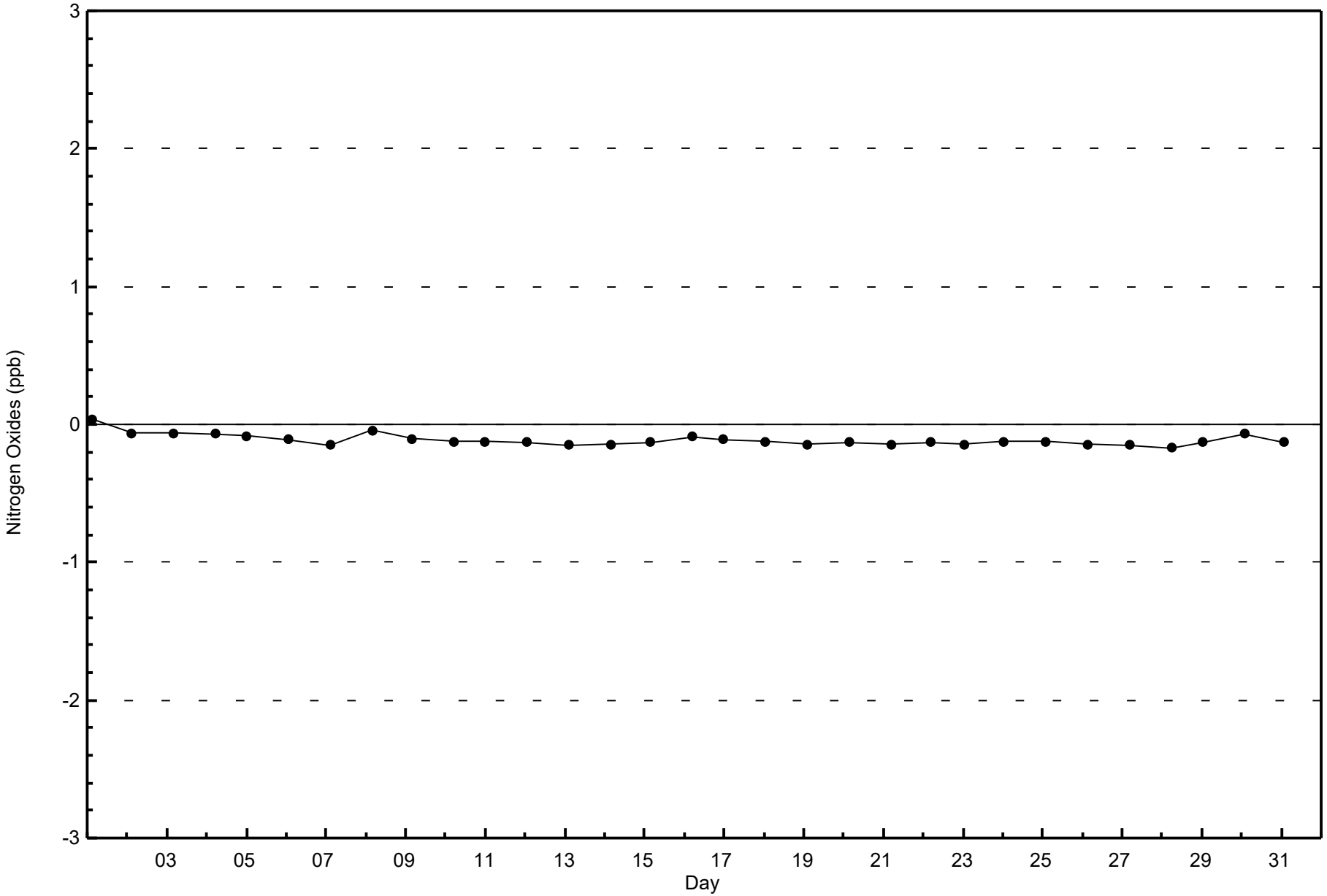
Total Number of Valid Hours: 647

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Firebag - October 2025

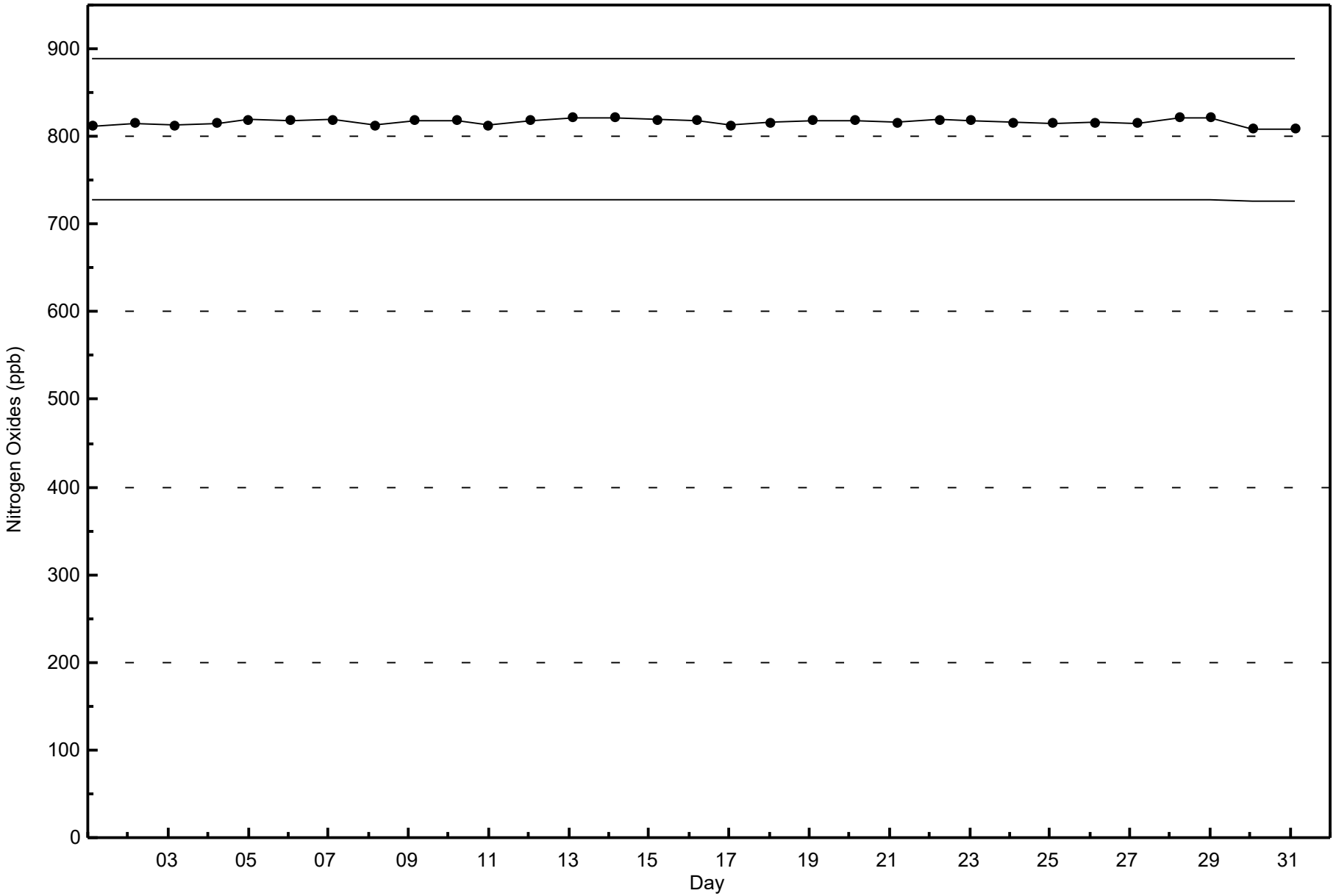


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Firebag - October 2025



Maximum Value: 18.3 C on Oct 10 17:00

Maximum Daily Average: 11.1 C on Oct 10

Minimum Value: -5.5 C on Oct 13 07:00

Minimum Daily Average: -2.1 C on Oct 12

Maximum Diurnal Average: 5.9 C at hour 16

Minimum Diurnal Average: 1.5 C at hour 7

Monthly Average: 3.38 C

Percentiles: P_1 = -3.7 P_{10} = -1.9 Q_1 = -0.3 Median = 3.0 Q_3 = 6.4 P_{90} = 9.2 P_{99} = 14.2

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

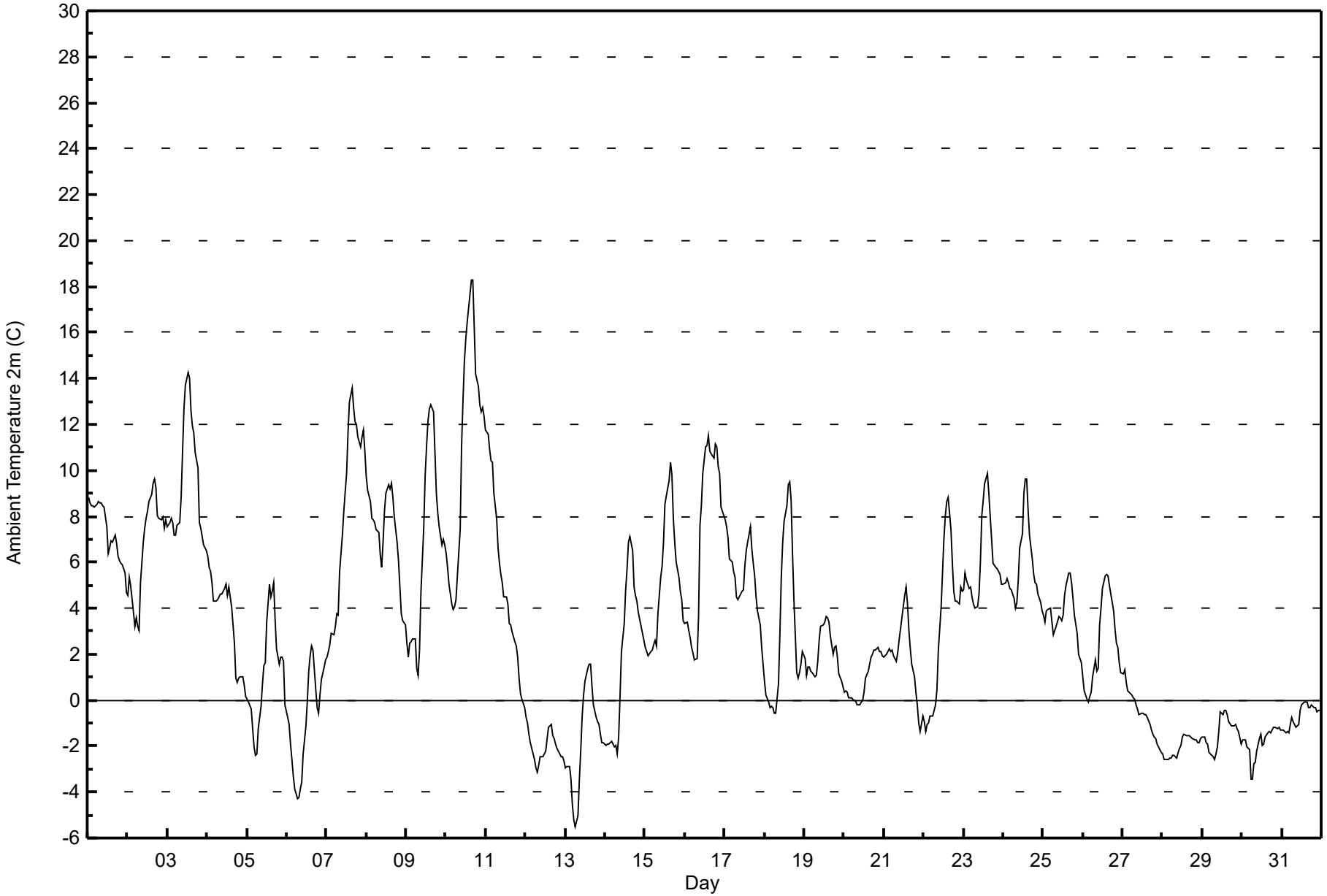
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	8.8	8.6	8.5	8.4	8.4	8.5	8.7	8.6	8.6	8.5	8.4	7.6	6.4	6.6	6.9	6.9	7.2	6.8	6.3	6.1	5.9	5.9	5.5	4.7	7.4	8.8
2-Oct	4.5	5.4	5.0	3.8	3.2	3.6	3.2	3.1	5.1	6.9	7.5	7.9	8.2	8.6	8.9	9.4	9.7	9.2	8.0	7.9	7.8	8.0	7.5	7.9	6.7	9.7
3-Oct	7.6	7.7	7.9	7.8	7.2	7.2	7.6	7.7	8.8	10.8	12.7	13.7	14.3	14.0	12.6	11.9	11.6	10.8	10.1	7.7	7.5	7.1	6.8	6.5	9.5	14.3
4-Oct	6.2	5.8	5.6	5.1	4.3	4.3	4.4	4.5	4.6	4.6	4.9	5.0	4.5	4.9	4.5	4.1	2.5	1.0	0.8	1.0	1.0	1.0	0.6	0.1	3.6	6.2
5-Oct	0.0	-0.1	-0.4	-1.2	-2.0	-2.4	-2.3	-1.3	-0.3	0.7	1.5	1.6	3.4	5.0	4.5	4.8	5.1	3.5	2.3	1.6	1.9	1.9	1.7	-0.2	1.2	5.1
6-Oct	-0.8	-1.0	-1.9	-2.6	-3.3	-3.9	-4.3	-4.3	-3.9	-3.5	-2.4	-1.1	0.0	1.2	1.9	2.4	2.1	0.5	-0.3	-0.6	0.2	0.9	1.4	1.8	-0.9	2.4
7-Oct	1.9	2.1	2.4	2.9	2.8	3.2	3.8	3.7	5.6	7.2	8.2	9.1	9.8	11.6	13.0	13.6	12.7	12.1	12.0	11.5	11.0	11.4	11.7	10.8	8.1	13.6
8-Oct	9.8	9.2	8.7	7.9	7.8	7.7	7.4	7.3	6.4	5.8	6.9	8.2	9.0	9.4	9.2	9.4	8.8	7.9	6.9	6.1	4.9	3.8	3.5	3.3	7.3	9.8
9-Oct	2.5	1.9	2.5	2.5	2.7	2.7	1.4	1.1	2.2	4.7	7.5	9.7	11.0	12.1	12.7	12.8	12.6	10.8	9.0	8.2	7.6	6.7	7.0	6.7	6.6	12.8
10-Oct	6.4	5.7	5.0	4.2	3.9	4.1	4.4	5.4	7.4	11.1	13.0	14.7	15.7	16.5	17.7	18.3	18.3	16.3	14.2	13.6	12.9	12.6	12.7	12.4	11.1	18.3
11-Oct	11.7	11.6	10.9	10.4	10.3	9.0	7.9	6.6	6.0	5.5	5.1	4.5	4.5	4.2	3.3	3.3	3.0	2.6	2.4	1.8	1.0	0.3	0.0	-0.3	5.2	11.7
12-Oct	-0.8	-1.0	-1.5	-1.8	-2.3	-2.6	-3.0	-3.1	-2.8	-2.5	-2.5	-2.3	-2.2	-1.7	-1.2	-1.0	-1.5	-1.7	-1.9	-2.1	-2.3	-2.5	-2.5	-2.6	-2.1	-0.8
13-Oct	-2.9	-2.9	-2.9	-3.4	-4.5	-5.2	-5.5	-5.0	-3.4	-2.1	-0.7	0.3	0.8	1.4	1.6	1.6	0.6	-0.2	-0.8	-1.0	-1.1	-1.5	-1.8	-1.8	-1.7	1.6
14-Oct	-2.0	-1.9	-1.9	-1.8	-1.8	-2.0	-2.0	-2.3	-1.6	0.1	2.1	3.3	4.8	5.7	6.9	7.1	6.5	4.9	4.5	4.3	3.8	3.5	2.9	2.6	1.9	7.1
15-Oct	2.3	2.1	2.0	2.1	2.2	2.4	2.6	2.4	3.7	5.3	5.8	6.8	8.5	8.9	9.5	10.3	9.8	7.9	6.9	6.0	5.3	4.7	4.4	3.5	5.2	10.3
16-Oct	3.4	3.4	3.0	2.7	2.3	2.1	1.8	1.8	3.7	7.6	8.5	9.9	11.0	11.1	11.5	10.9	10.7	10.5	11.1	11.0	10.1	9.9	8.4	8.0	7.3	11.5
17-Oct	7.8	7.6	7.0	6.2	6.0	5.6	5.4	4.5	4.4	4.5	4.7	4.8	5.9	6.5	6.9	7.6	6.6	5.9	5.4	4.5	3.9	3.3	2.3	1.6	5.4	7.8
18-Oct	0.8	0.2	-0.1	-0.3	-0.2	-0.3	-0.6	-0.6	0.7	2.9	5.3	6.9	7.8	8.5	9.4	9.5	8.7	6.4	4.4	1.2	1.0	1.2	1.6	2.1	3.2	9.5
19-Oct	1.8	1.1	1.5	1.4	1.3	1.2	1.0	1.1	1.7	2.6	3.2	3.3	3.4	3.6	3.6	3.4	2.8	2.0	2.3	2.4	1.9	1.1	0.9	0.6	2.0	3.6
20-Oct	0.3	0.4	0.3	0.1	0.1	0.1	0.0	0.0	-0.2	-0.2	-0.1	-0.1	0.3	1.0	1.3	1.6	1.9	2.0	2.2	2.2	2.3	2.1	2.1	1.9	0.9	2.3
21-Oct	1.9	2.0	2.1	2.2	2.1	2.2	2.0	1.7	2.0	2.6	3.1	3.6	4.6	4.9	4.2	3.1	2.2	1.6	1.0	0.4	-0.2	-1.0	-1.4	-0.7	1.9	4.9
22-Oct	-0.9	-1.3	-1.0	-1.0	-0.7	-0.7	-0.4	-0.2	0.5	2.2	4.1	5.6	7.1	8.1	8.6	8.8	7.4	5.9	4.8	4.3	4.3	4.2	4.9	4.8	3.3	8.8
23-Oct	4.8	5.5	5.2	4.9	4.9	4.5	4.2	4.0	4.1	4.6	6.0	8.0	8.7	9.4	9.9	9.0	8.0	7.0	6.0	5.8	5.7	5.6	5.4	5.1	6.1	9.9
24-Oct	5.1	5.1	5.3	5.1	4.9	4.8	4.5	4.0	4.3	5.2	6.6	7.2	9.0	9.6	9.6	8.3	7.2	6.1	5.4	5.1	5.0	4.6	4.2	3.9	5.8	9.6
25-Oct	3.7	3.4	3.9	3.9	4.0	3.4	2.9	3.1	3.2	3.6	3.6	3.5	3.7	4.6	5.0	5.5	5.6	5.1	4.4	3.7	2.9	2.0	1.8	1.6	3.7	5.6
26-Oct	1.0	0.4	0.0	-0.1	0.2	0.4	1.0	1.8	1.3	1.4	3.3	4.0	4.8	5.4	5.5	5.4	5.0	4.6	3.9	3.1	2.5	2.3	1.6	1.2	2.5	5.5
27-Oct	1.2	1.3	0.8	0.4	0.4	0.2	0.1	0.1	-0.2	-0.4	-0.6	-0.6	-0.6	-0.6	-0.6	-0.8	-1.1	-1.3	-1.5	-1.6	-1.7	-1.9	-2.1	-2.3	-0.6	1.3
28-Oct	-2.3	-2.6	-2.6	-2.6	-2.5	-2.5	-2.4	-2.4	-2.5	-2.3	-2.1	-2.0	-1.6	-1.5	-1.5	-1.5	-1.6	-1.6	-1.7	-1.7	-1.7	-1.8	-1.8	-1.7	-2.0	-1.5
29-Oct	-1.6	-1.6	-1.8	-1.9	-2.3	-2.4	-2.5	-2.6	-2.3	-2.0	-1.4	-0.5	-0.7	-0.5	-0.4	-0.6	-0.9	-1.1	-1.1	-1.1	-1.1	-1.2	-1.4	-1.9	-1.5	-0.4
30-Oct	-1.7	-1.7	-1.8	-2.0	-2.2	-3.4	-3.5	-2.8	-2.7	-2.2	-1.7	-1.5	-2.0	-1.9	-1.6	-1.4	-1.4	-1.4	-1.3	-1.2	-1.1	-1.2	-1.2	-1.3	-1.8	-1.1
31-Oct	-1.3	-1.3	-1.4	-1.4	-1.4	-1.1	-0.8	-0.9	-1.2	-1.1	-1.1	-0.5	-0.2	-0.1	-0.1	-0.1	-0.3	-0.3	-0.2	-0.3	-0.3	-0.5	-0.4	-0.4	-0.7	-0.1
	2.6	2.4	2.3	2.0	1.8	1.6	1.5	1.5	2.0	3.0	3.9	4.5	5.2	5.7	5.9	5.9	5.5	4.6	4.0	3.5	3.3	3.0	2.8	2.5	Diurnal Average	
	11.7	11.6	10.9	10.4	10.3	9.0	8.7	8.6	8.8	11.1	13.0	14.7	15.7	16.5	17.7	18.3	18.3	16.3	14.2	13.6	12.9	12.6	12.7	12.4	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Firebag - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	212	28.49	28.49
0 - 10	475	63.84	92.34
10 - 20	57	7.66	100.00
> 20	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

Firebag - October 2025

Maximum Value: 98.0 % on Oct 2 05:00

Maximum Daily Average: 97.1 % on Oct 27

Minimum Value: 34.3 % on Oct 10 17:00

Minimum Daily Average: 52.8 % on Oct 10

Maximum Diurnal Average: 85.5 % at hour 8

Minimum Diurnal Average: 71.2 % at hour 15

Monthly Average: 79.80 %

Percentiles: P_1 = 39.2 P_{10} = 55.0 Q_1 = 67.2 Median = 85.8 Q_3 = 94.2 P_{90} = 96.6 P_{99} = 98.0

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

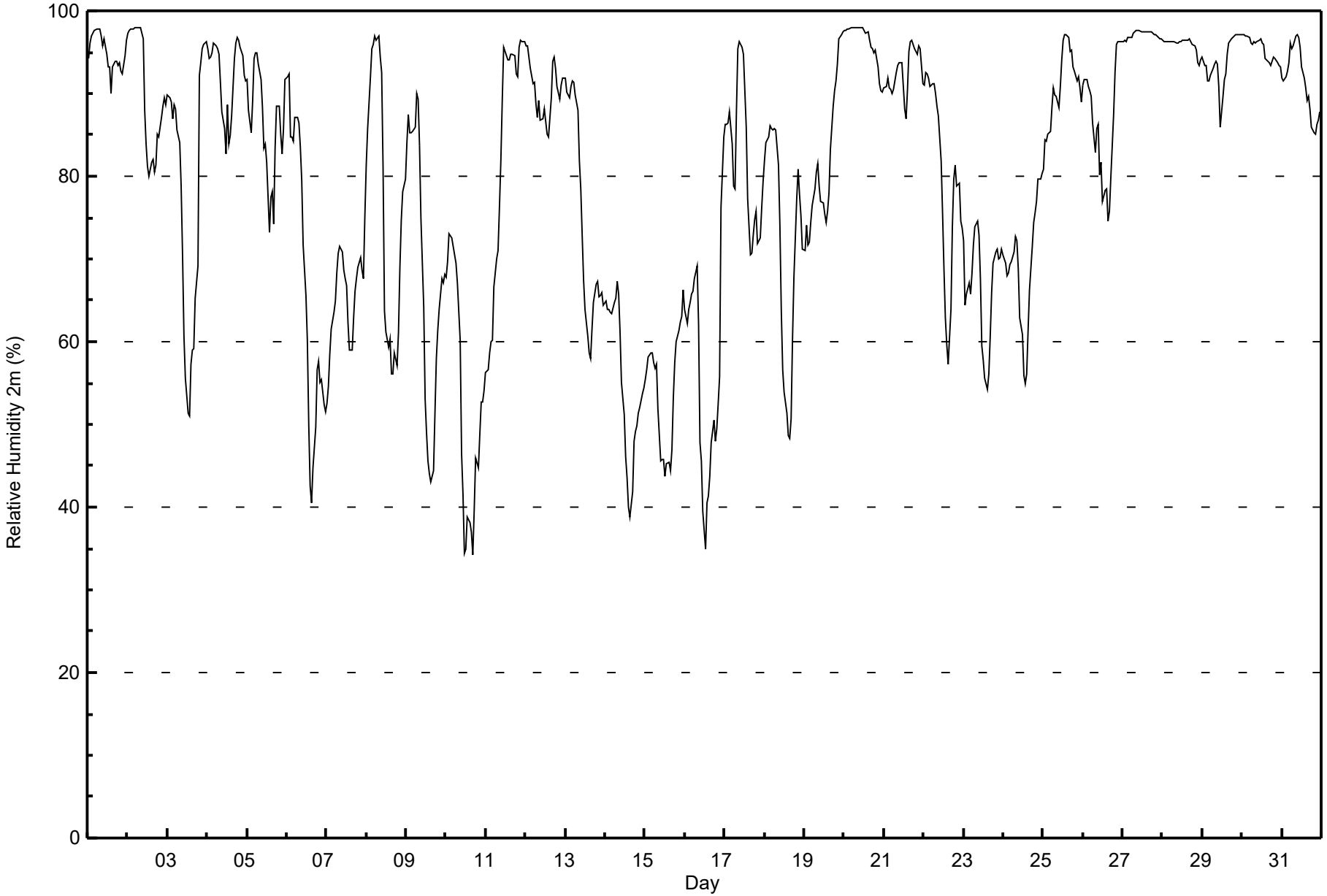
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	94.3	96.1	96.9	97.3	97.6	97.8	97.9	97.8	96.9	95.8	96.6	94.7	93.2	93.2	90.0	93.2	94.0	94.0	93.4	93.7	92.7	92.4	94.6	96.5	95.0	97.9
2-Oct	97.3	97.6	97.7	97.8	98.0	98.0	98.0	98.0	98.0	96.6	88.0	83.9	81.3	80.0	81.8	82.0	80.4	81.3	85.0	84.7	87.1	88.4	89.6	88.6	90.0	98.0
3-Oct	89.9	89.6	89.0	87.0	88.6	88.1	85.6	84.0	78.8	70.5	60.6	55.7	51.3	51.0	57.3	59.0	59.1	65.2	69.2	92.2	93.7	95.5	95.9	96.4	77.2	96.4
4-Oct	95.4	94.3	94.4	94.9	96.1	95.8	95.5	94.8	91.4	87.8	85.8	82.8	88.6	84.0	84.8	87.3	94.3	96.1	96.7	96.5	95.6	94.7	92.3	91.5	92.1	96.7
5-Oct	91.8	87.9	85.3	89.2	94.2	94.9	94.9	93.6	91.7	88.3	83.4	83.9	81.7	73.2	77.5	78.1	74.2	83.3	88.5	88.5	85.2	82.8	85.8	91.7	86.2	94.9
6-Oct	92.0	92.3	84.7	84.8	84.3	87.1	87.1	86.4	83.5	79.5	71.7	65.6	60.2	49.9	42.5	40.4	44.7	49.7	56.6	57.6	55.0	55.3	52.4	51.5	67.3	92.3
7-Oct	52.5	54.6	58.5	61.5	63.6	64.8	68.3	70.6	71.5	70.9	68.6	67.6	66.8	62.2	59.0	59.0	62.8	66.1	67.6	69.0	70.2	68.6	67.5	75.1	65.3	75.1
8-Oct	81.3	85.8	92.1	95.5	95.9	96.9	96.5	96.9	94.4	92.5	81.1	63.7	61.3	59.3	60.4	56.1	56.1	58.6	57.2	61.2	68.9	74.7	78.2	79.7	76.8	96.9
9-Oct	84.1	87.5	85.3	85.2	85.5	85.9	90.0	89.3	83.7	74.9	64.2	53.0	49.0	45.6	44.0	43.1	44.4	51.4	57.9	61.3	63.9	67.6	67.1	68.1	68.0	90.0
10-Oct	67.7	69.7	73.1	72.5	71.6	70.6	69.5	67.2	60.2	46.5	41.6	34.4	34.9	38.9	38.2	36.9	34.3	39.6	45.9	44.8	48.8	52.6	52.8	54.0	52.8	73.1
11-Oct	56.2	56.6	58.6	60.1	60.2	66.6	69.9	71.1	76.2	81.9	89.2	95.5	94.6	94.0	94.1	94.7	94.7	94.6	92.4	92.1	95.6	96.5	96.4	96.3	82.4	96.5
12-Oct	95.8	95.8	94.4	93.1	91.1	91.4	88.8	87.2	89.2	86.9	87.0	88.2	86.6	85.1	84.8	89.4	94.0	94.4	93.0	90.8	89.3	91.1	91.8	91.9	90.5	95.8
13-Oct	91.8	90.1	89.5	90.9	91.5	91.3	89.8	87.9	81.9	78.5	72.9	67.4	63.8	60.7	58.7	57.9	61.5	64.7	67.0	67.2	65.4	65.6	65.9	64.5	74.4	91.8
14-Oct	64.9	64.0	63.8	63.6	63.3	64.7	65.2	67.2	65.7	61.2	55.0	51.3	46.1	43.6	40.0	38.8	41.9	48.0	49.2	49.8	51.4	52.1	53.8	54.3	55.0	67.2
15-Oct	55.5	56.6	58.2	58.7	58.7	57.5	56.8	57.2	51.9	45.5	45.8	45.7	43.7	45.3	45.4	44.3	46.9	53.2	57.4	60.0	61.3	62.4	63.1	66.3	54.1	66.3
16-Oct	63.9	62.2	63.9	64.8	65.7	66.1	67.7	69.2	62.2	47.9	45.5	39.5	35.0	40.5	41.3	43.7	47.8	50.4	48.0	49.5	52.5	55.8	76.3	84.7	56.0	84.7
17-Oct	86.3	86.3	86.4	87.8	84.0	78.9	78.4	87.8	95.5	96.3	95.6	94.8	90.4	86.0	77.3	70.5	70.7	72.8	74.8	75.7	71.8	72.6	76.2	79.4	82.3	96.3
18-Oct	81.9	84.1	84.8	86.1	85.8	85.6	85.8	85.6	81.3	74.1	63.7	56.6	53.8	51.4	48.7	48.4	50.8	60.4	67.7	77.3	80.8	77.8	75.2	71.2	71.6	86.1
19-Oct	71.0	74.0	71.8	72.0	74.4	76.4	78.4	80.5	81.5	78.7	77.0	76.8	75.4	74.4	75.7	77.9	83.3	88.4	90.3	91.5	93.6	96.6	97.2	97.4	81.4	97.4
20-Oct	97.6	97.7	97.8	97.8	97.9	97.9	97.9	98.0	98.0	98.0	98.0	98.0	97.6	97.3	97.5	96.4	95.7	95.5	95.0	95.2	93.2	91.2	90.3	90.2	96.2	98.0
21-Oct	90.7	90.8	91.8	90.7	90.5	90.1	90.6	92.6	93.4	93.7	93.8	93.8	88.1	87.0	90.6	95.0	96.3	96.5	95.5	95.1	94.8	95.8	95.4	91.2	92.6	96.5
22-Oct	91.0	92.5	92.3	91.9	90.9	91.1	91.2	90.0	88.5	87.3	81.8	75.5	68.8	62.9	59.6	57.3	63.9	73.9	79.7	81.3	78.9	79.1	74.6	73.7	79.9	92.5
23-Oct	72.2	64.4	65.8	67.1	65.8	68.3	71.8	73.8	74.6	72.8	67.6	59.5	57.7	55.6	54.2	56.0	60.7	65.9	69.5	70.8	71.3	70.0	70.2	71.2	66.5	74.6
24-Oct	70.5	69.5	68.0	68.3	69.3	69.7	70.9	72.8	72.1	68.9	62.9	60.8	56.0	55.0	56.2	61.3	66.3	71.5	74.4	75.6	76.9	79.7	79.7	80.4	69.0	80.4
25-Oct	80.9	84.3	84.3	85.0	85.4	88.4	90.6	89.9	89.7	88.3	90.9	94.1	96.4	97.2	97.1	96.8	95.1	95.3	93.1	92.7	91.5	92.0	90.7	89.0	90.8	97.2
26-Oct	91.0	91.7	91.7	90.8	90.4	89.6	86.5	82.9	85.7	86.3	80.3	81.7	77.0	78.2	78.5	74.5	75.7	79.8	87.4	92.5	96.0	96.3	96.3	96.3	86.6	96.3
27-Oct	96.2	96.4	96.3	96.7	96.8	96.8	97.3	97.5	97.6	97.7	97.6	97.5	97.5	97.5	97.5	97.5	97.5	97.4	97.3	97.2	97.1	96.9	96.7	96.5	97.1	97.7
28-Oct	96.4	96.2	96.2	96.2	96.2	96.2	96.3	96.3	96.2	96.2	96.2	96.3	96.4	96.5	96.4	96.4	96.5	96.3	96.0	95.7	95.3	93.8	93.4	94.1	95.9	96.5
29-Oct	94.5	93.3	93.4	91.5	91.5	92.2	93.0	93.5	93.8	93.6	90.8	85.9	89.7	91.6	92.4	94.8	96.0	96.5	96.9	97.0	97.1	97.1	97.2	97.1	93.8	97.2
30-Oct	97.1	97.1	97.0	96.9	96.8	96.2	95.9	96.3	96.1	96.3	96.5	96.5	96.1	95.9	94.3	93.9	93.7	93.4	93.9	94.5	94.2	93.7	93.3	93.2	95.4	97.1
31-Oct	91.9	91.6	92.0	92.7	93.7	96.1	95.5	95.7	97.0	97.1	96.8	95.7	93.2	91.9	90.7	89.1	89.6	88.1	85.9	85.2	85.0	86.3	86.7	87.8	91.5	97.1
	83.3	83.6	83.7	84.1	84.4	84.9	85.2	85.5	84.4	81.6	78.3	75.4	73.3	71.8	71.2	71.3	73.0	76.2	78.1	79.9	80.5	81.1	81.8	82.6	Diurnal Average	
	97.6	97.7	97.8	97.8	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	97.6	97.5	97.5	97.5	97.5	97.4	97.3	97.2	97.1	97.1	97.2	97.4	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Firebag - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	11	1.48	1.48
40 - 60	106	14.25	15.73
60 - 80	189	25.40	41.13
80 - 100	438	58.87	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Firebag - October 2025

Maximum Speed: 38 km/h on Oct 31 20:00

Maximum Daily Speed Average: 26.7 km/h on Oct 31

Minimum Speed Value: 3 km/h on Oct 30 05:00

Minimum Daily Speed Average: 3.8 km/h on Oct 6

Maximum Diurnal Speed Average: 8.2 km/h at hour 14

Minimum Diurnal Speed Average: 4.4 km/h at hour 18

Monthly Average Velocity: 5.7 km/h 218.6 deg

Percentiles: P_1 = 4 P_{10} = 8 Q_1 = 11 Median = 15 Q_3 = 21 P_{90} = 24 P_{99} = 32

Hours in Service:	744
Hours of Data:	682
Hours of Missing Data:	62
Percent Operational Time:	91.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NNE11	N11	NNE12	NNE13	N16	N19	NNE20	NNE23	NNE25	N22	N23	N25	N18	N15	N14	N13	N13	N13	N11	N12	N11	N8	N7	NNW7	N15.0	NNE25
2-Oct	NW6	NW8	WNW7	W4	WSW3	SW4	SSW4	S4	SSW10	SSW13	SSW13	SSW15	S16	S16	S16	SSW19	SSW18	SSW14	SSW14	SSW16	SSW17	SSW17	SSW16	SSW18	SSW10.5	SSW19
3-Oct	S16	SSW16	SSW16	SSW16	SSW16	SSW14	SSW16	SSW20	SW19	SW19	SW25	WSW25	WSW28	WSW25	W22	WSW19	WSW20	WSW15	WSW15	W9	W11	WNW12	W11	W9	SW15.4	WSW28
4-Oct	WSW9	WSW11	W10	WSW10	W6	W6	NW8	NNW11	N16	N14	N14	NNW11	NNW10	N15	N14	N18	N20	N21	N21	N23	N21	NNW17	N13	NNW11	NNW11.5	N23
5-Oct	NW9	NW9	NW7	WNW8	UO	UO	UO	UO	UO	SW11	SSW13	SSW15	SW14	WSW14	W13	W12	W11	W7	WNW5	W7	WNW9	WNW9	N17	NNE20	W7.0	NNE20
6-Oct	N14	N18	N22	N24	N23	N20	N17	N15	N12	N11	N9	NW8	WNW7	WSW7	WSW9	SW9	WSW10	SSW9	S11	S12	S17	S18	S19	S19	NW3.8	N24
7-Oct	S18	S17	S17	S17	S17	SSW17	SSW17	S18	SSW20	SSW22	SSW21	S20	S20	S22	S23	S20	SSE17	SSE15	SSE18	SSE18	SSE15	S16	S13	S3	S17.1	S23
8-Oct	N3	N4	NNW6	NW7	WNW7	WNW4	WNW11	WNW11	WNW14	WNW12	WNW12	WNW15	W15	WNW17	W14	W17	W15	WNW15	NW14	WNW14	WNW18	WNW15	WNW14	NW12	WNW11.5	WNW18
9-Oct	WNW11	W10	W11	W12	W13	W15	WSW15	WSW15	WSW17	WSW18	WSW19	WSW20	WSW21	WSW23	W20	WSW21	W15	WSW9	WSW10	WSW10	SW8	SW9	SW11	SW11	WSW13.9	WSW23
10-Oct	SW12	SSW8	SSW7	S10	S9	S10	SSE11	S16	S18	S20	S21	SSW23	SSW25	SSW25	SSW28	SSW28	SSW28	S19	S19	SSW25	S23	S22	S21	S17	S18.1	SSW28
11-Oct	S15	S16	S15	S12	S7	N7	N17	N21	N23	N24	N26	N23	N23	N28	N26	NNW20	NW17	NW15	NNW17	NNW24	NNW27	N25	UO	UO	NNW13.2	N28
12-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
13-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	SW21	SW22	SW25	SSW26	SW19	SSW21	SSW23	SSW23	SSW24	SSW26	SW24	SW25	----	SSW26
14-Oct	SSW23	SSW25	SSW26	SSW28	SSW28	SSW27	SSW29	SSW28	SSW28	SW28	SW31	SW29	SW27	SW27	WSW26	WSW22	SW18	SW12	SW16	SW14	SW14	SSW16	SSW16	SSW17	SW22.8	SW31
15-Oct	SSW16	SSW16	SSW19	SSW19	SSW19	SW17	SSW17	SSW22	SSW23	SSW28	SSW27	SW24	WSW26	WSW22	WSW18	SW18	SW16	SW14	SW15	WSW14	WSW12	W11	W11	WSW6	SW17.1	SSW28
16-Oct	WSW10	WSW12	SW11	SW10	SW10	SW13	SW13	SW11	SSW10	SW9	SW10	SSW15	SSW21	SSW21	S19	S17	S18	SSW18	SSW20	SSW17	S18	SSW21	SSW22	SW20	SSW14.5	SSW22
17-Oct	SW19	SW18	SW14	SW12	WSW14	WSW13	W9	WNW8	WNW10	WNW12	WNW14	WNW14	W15	WNW13	WNW13	WNW10	NW8	NNW8	NW8	NW9	NW9	WNW8	WNW8	WNW7	W9.6	SW19
18-Oct	W7	W8	WSW9	WSW9	WSW11	WSW10	WSW9	WSW11	WSW11	WSW8	WNW9	WNW8	W12	W10	W13	W12	WSW9	SW7	SSW7	S4	SSW6	S5	S7	SSE6	WSW7.5	W13
19-Oct	SE6	SE10	SE12	SE11	SE11	SE11	SE12	ESE13	ESE14	SE14	ESE13	ESE13	ESE16	ESE15	ESE14	SE12	ESE9	E12	E11	E8	ENE6	NNE8	NE10	NNE9	ESE9.8	ESE16
20-Oct	N8	N9	N10	N9	N10	N11	UO	UO	UO	UO	UO	UO	UO	W8	WSW9	SW11	SW13	SW16	SW17	SW18	SW17	SSW20	S19	S21	----	S21
21-Oct	S18	S20	S19	S19	S18	SSW16	SW14	WSW13	WSW13	WSW13	W12	W10	NW11	WNW8	NNW8	NNE10	NNE10	N10	NNE6	N5	NNE7	UO	UO	UO	SW5.3	S20
22-Oct	UO	UO	UO	UO	UO	UO	UO	UO	S17	S19	S21	S22	S18	S18	S18	SSE17	SSE13	SE17	SE19	SE21	SE21	SE21	SSE23	SSE26	----	SSE26
23-Oct	SSE25	SSE27	SSE27	SSE24	SSE24	S24	S23	S22	S22	S22	S21	S20	S20	SSW19	S20	S18	SSE17	SSE18	SSE18	SSE21	SSE21	SSE21	S24	S22	SSE21.3	SSE27
24-Oct	SSE21	SSE21	SSE22	S22	S22	S23	S22	S20	S19	S19	S21	S18	SSE16	S15	SSE15	SSE15	SSE12	SE14	SSE15	SSE16	SSE15	SSE13	SSE15	S14	SSE17.4	S23
25-Oct	SE11	SE11	SE12	SE5	ENE6	ESE9	ESE9	SE5	S6	WNW5	WNW13	WNW17	WNW16	WNW15	WNW18	W22	W19	W19	W16	W12	W8	SW9	SW9	SW11	WSW6.3	W22
26-Oct	SSW7	SSE5	SSE6	SSE6	SSE9	SE8	ESE10	ESE12	ESE13	ESE13	ESE15	ESE14	E17	ENE17	NE18	NE20	NE19	NE20	NNE22	NNE19	NNE22	NNE26	NNE26	NNE26	ENE10.8	NNE26
27-Oct	NNE24	NNE24	NNE24	NNE23	NNE24	NNE23	NNE22	N23	N23	N24	N24	N23	N22	N24	N25	N25	N24	NNW23	NNW23	NNW22	NNW23	N23	NNW21	NNW22	N22.6	N25
28-Oct	NNW24	NNW22	NNW20	NNW24	NNW18	NNW16	NNW14	NW16	NW15	WNW12	WNW14	WNW13	WNW14	WNW16	WNW14	W14	W14	W13	WNW10	W8	WSW6	WSW8	SW8	SW8	NW12.2	NNW24
29-Oct	SSW8	SSE9	SSE10	SSE14	SE14	SSE19	SE16	SE16	SE17	ESE19	ESE16	ESE17	ESE15	SW3	ENE8	NE12	NE14	NE12	NE11	NE8	N6	N9	N8	N8	ESE7.4	ESE19
30-Oct	NNW8	N7	N8	N7	NE3	UO	NW4	W7	W6	W9	WSW10	WSW12	W15	WSW14	WSW15	SW14	WSW15	WSW13	SW11	SW12	SW12	SW14	SW18	SW19	WSW8.6	SW19
31-Oct	SW20	SW21	SSW22	SSW21	SSW22	SW23	SSW21	S21	S21	S24	SSE26	S28	S31	S31	SSE31	SSE31	SSE35	SSE38	SSE35	SSE38	SSE37	S36	S33	S29	S26.7	SSE38
	SSW4.9	SSW4.8	SSW4.9	SSW5.1	SSW5.0	SSW5.1	SSW4.9	SSW4.6	SW5.3	SW5.9	SW6.6	SW7.2	SW8.0	WSW8.2	SW7.0	SW6.9	SW5.9	SW4.4	SW4.7	SSW4.7	SW4.7	SW5.7	SSW6.8	SSW6.3		Diurnal Average
	SSE25	SSE27	SSE27	SSW28	SSW28	SSW27	SSW29	SSW28	SSW28	SSW28	SW31	SW29	S31	S31	SSE31	SSE31	SSE35	SSE38	SSE35	SSE38	SSE37	S36	S33	S29		Diurnal Maximum

UO - Unstable Operation

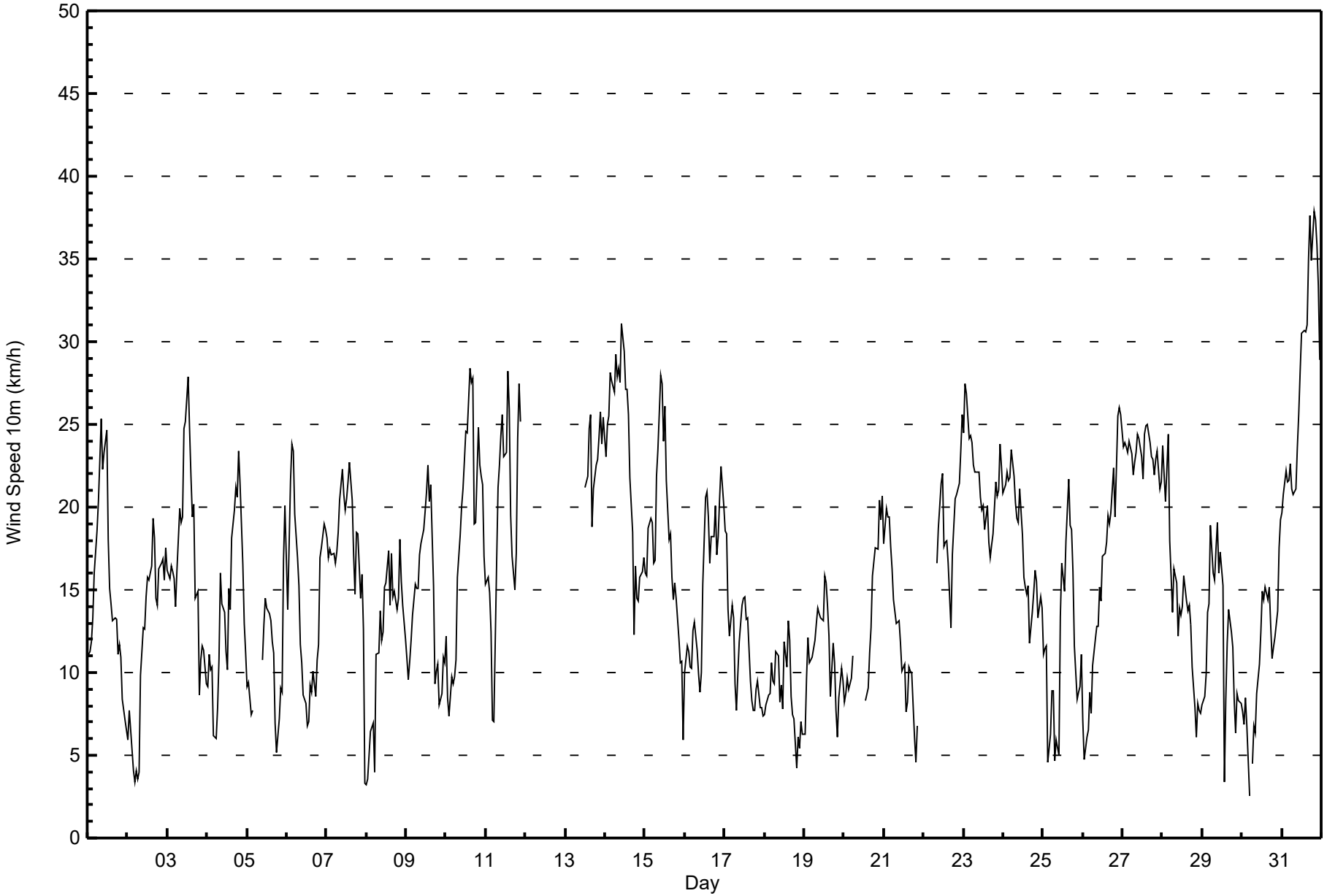
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Firebag - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	20	2.93	2.93
6 - 11	182	26.69	29.62
12 - 19	282	41.35	70.97
20 - 28	183	26.83	97.80
29 - 38	15	2.20	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 682

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Firebag - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	3	0	1	0	0	0	2	1	4	1	2	1	1	3	1	0	20
6 - 11	22	7	3	3	2	4	8	7	7	10	20	24	24	19	13	9	182
12 - 19	21	3	5	1	2	16	12	21	46	36	33	24	22	27	6	7	282
20 - 28	32	16	2	0	0	0	3	14	35	40	13	13	2	0	0	13	183
29 - 38	0	0	0	0	0	0	0	7	5	1	2	0	0	0	0	0	15
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	78	26	11	4	4	20	25	50	97	88	70	62	49	49	20	29	682

Total Number of Valid Hours: 682

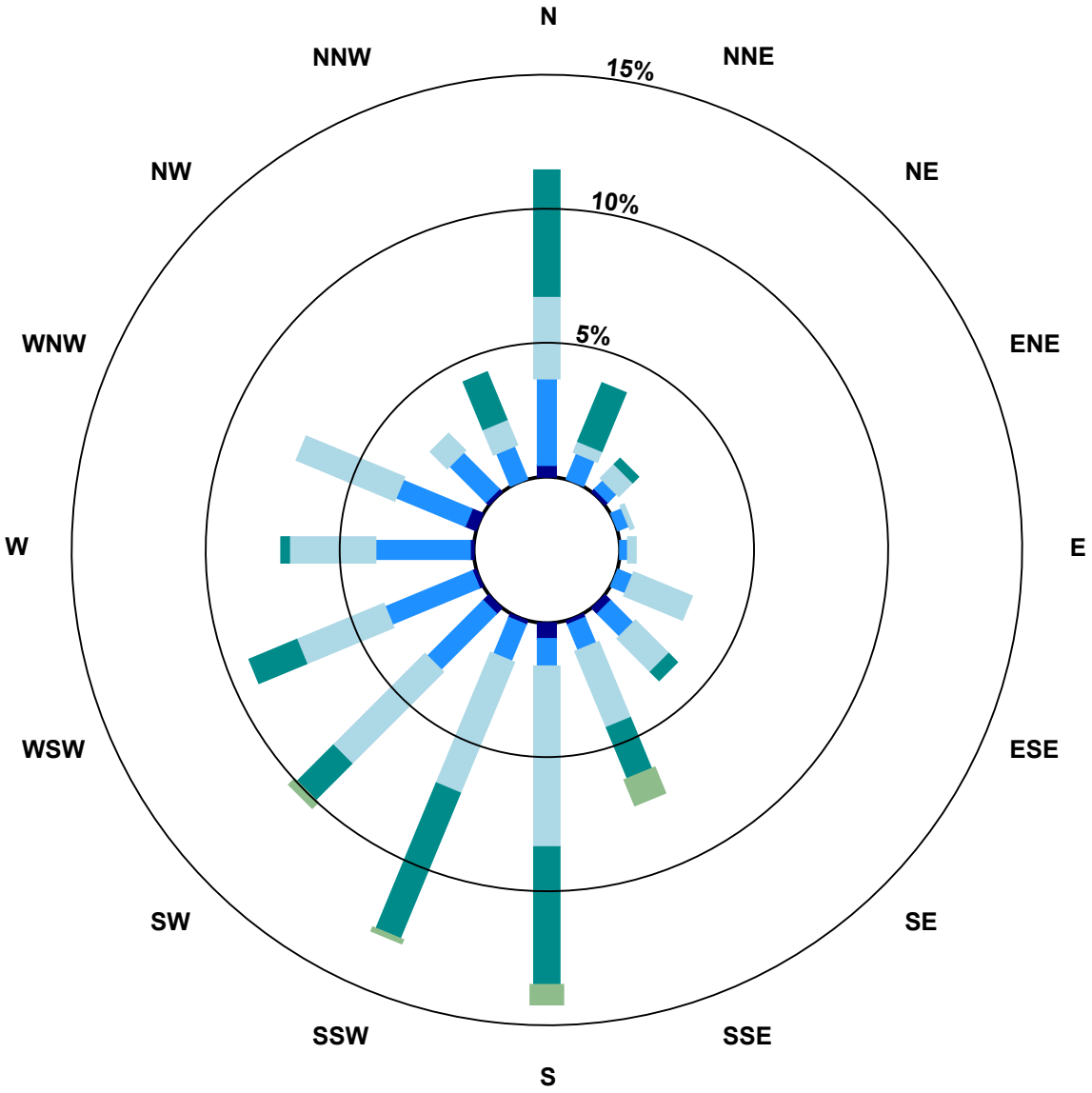
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Firebag



Classes (km/h)

0 - 5

6 - 11

12 - 19

20 - 28

29 - 38

> 38

Total Number of Valid Hours: 682

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Firebag - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 7 km/h on Oct 11 15:00

Minimum Value: 1 km/h on Oct 19 00:00

Percentiles: $P_1 = 1$ $P_{10} = 2$ $Q_1 = 2$ Median = 3 $Q_3 = 4$ $P_{90} = 5$ $P_{99} = 7$

Hours in Service:	744
Hours of Data:	682
Hours of Missing Data:	62
Hours of Calibration:	0
Percent Operational Time:	91.7

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	3	3	4	4	5	5	5	5	5	6	4	4	3	3	3	3	2	3	2	2	1	1	6
2-Oct	1	2	2	1	1	1	1	1	2	2	2	2	3	3	3	3	3	2	2	3	2	2	2	2	3
3-Oct	2	2	3	2	2	2	2	3	4	4	5	5	6	6	7	5	5	3	3	2	3	3	3	3	7
4-Oct	2	2	3	2	2	2	2	3	4	4	4	3	3	4	3	5	5	6	5	5	6	4	3	3	6
5-Oct	3	2	2	2	UO	UO	UO	UO	UO	2	2	2	3	3	3	2	3	1	1	2	2	2	6	6	6
6-Oct	4	5	5	7	6	5	4	4	3	3	3	2	2	3	3	3	2	2	1	2	2	3	3	3	7
7-Oct	2	2	2	3	2	2	3	2	4	3	3	3	3	3	3	3	3	3	3	3	2	2	4	3	4
8-Oct	3	2	2	2	2	4	3	3	5	4	3	4	5	5	4	5	4	4	4	5	6	5	4	4	6
9-Oct	3	2	2	3	3	3	3	3	3	3	4	4	4	5	5	5	4	1	1	1	1	1	1	2	5
10-Oct	2	3	2	1	1	1	2	2	3	3	3	3	4	4	4	5	5	3	3	3	3	3	3	2	5
11-Oct	2	2	3	2	2	3	5	5	5	6	6	6	5	7	7	5	5	4	4	6	7	7	UO	UO	7
12-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
13-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	4	4	4	5	4	3	3	4	4	4	4	4	5
14-Oct	4	4	4	4	4	5	5	5	5	5	6	5	6	5	5	5	4	2	2	2	2	2	2	2	6
15-Oct	2	2	3	3	3	3	3	3	4	5	5	5	5	4	4	4	3	2	2	3	2	2	1	3	5
16-Oct	1	1	2	2	2	2	3	2	1	2	2	4	3	3	3	2	2	3	3	4	3	4	4	4	4
17-Oct	3	3	3	2	2	2	3	2	3	3	4	4	3	4	4	3	2	1	2	2	2	2	1	1	4
18-Oct	2	2	2	1	1	1	2	1	2	2	3	2	4	3	3	4	2	1	2	1	1	1	1	1	4
19-Oct	2	3	2	2	2	2	2	2	2	2	2	2	3	3	3	3	2	2	3	2	2	2	2	2	3
20-Oct	2	2	2	2	2	3	UO	UO	UO	UO	UO	UO	UO	3	2	2	3	3	3	3	3	3	3	3	3
21-Oct	3	3	3	3	2	2	3	2	2	2	2	2	2	2	3	2	2	2	2	1	1	UO	UO	UO	3
22-Oct	UO	UO	UO	UO	UO	UO	UO	UO	5	3	4	4	3	3	2	3	2	3	3	4	4	4	5	4	5
23-Oct	4	5	5	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	4	3	3	3	3	5
24-Oct	3	4	4	4	3	3	3	2	3	3	3	3	3	2	3	3	2	3	3	3	2	2	2	2	4
25-Oct	2	3	3	2	4	3	2	2	1	3	3	4	4	4	5	5	6	4	3	3	2	1	2	2	6
26-Oct	1	1	1	2	2	2	2	2	2	2	3	3	4	3	4	4	3	4	4	4	5	6	6	5	6
27-Oct	5	5	5	5	5	5	5	5	5	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	6
28-Oct	6	5	5	5	4	4	3	5	4	4	3	4	4	4	4	3	3	3	2	1	2	1	2	2	6
29-Oct	1	2	1	3	3	3	3	3	4	3	3	3	3	4	3	2	2	2	2	2	1	2	2	2	4
30-Oct	2	1	2	2	2	UO	2	2	2	3	3	3	3	3	4	3	3	3	2	2	2	3	3	4	4
31-Oct	4	4	4	4	3	4	3	3	3	4	5	5	5	5	5	5	7	6	6	7	6	6	5	5	7
	6	5	5	7	6	5	5	5	5	6	6	6	6	7	7	5	7	6	6	7	7	7	6	6	
	Diurnal Maximum																								

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Firebag - October 2025

Direction of Maximum Speed: 161 deg on Oct 31 20:00
Direction of Maximum Daily Speed Average: 178.2 deg on Oct 31

Direction of Minimum Speed: 47 deg on Oct 30 05:00

Direction of Minimum Daily Speed Average: 3.8 deg on Oct 6

Monthly Average Direction: 218.6 deg

Hours in Service:	744
Hours of Data:	682
Hours of Missing Data:	62
Percent Operational Time:	91.7

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	12	6	30	18	9	9	14	14	14	11	10	11	11	8	5	1	2	4	6	10	10	356	350	344	9.4
2-Oct	307	310	293	271	241	232	206	187	203	200	197	195	176	184	175	197	200	204	199	192	195	198	194	192	199.8
3-Oct	185	193	204	199	199	202	204	209	226	227	233	238	242	256	261	253	247	240	247	278	274	287	278	263	233.4
4-Oct	246	255	266	256	264	281	307	348	352	0	349	336	340	352	3	1	359	357	358	354	356	347	349	338	340.9
5-Oct	323	321	322	290	UO	UO	UO	UO	UO	214	201	208	225	255	262	263	269	270	289	278	282	287	357	14	276.9
6-Oct	5	0	0	358	1	358	1	0	357	357	352	312	285	247	247	232	242	203	184	184	179	187	190	187	321.2
7-Oct	178	176	177	188	185	193	193	188	198	205	196	186	183	182	176	181	157	147	151	160	167	179	182	187	180.4
8-Oct	352	11	341	324	294	298	286	288	300	294	286	285	275	282	278	271	269	294	306	298	300	297	300	306	292.8
9-Oct	288	275	273	265	264	263	253	250	248	246	246	247	249	258	259	255	261	253	258	245	224	221	215	218	252.4
10-Oct	220	212	195	185	186	174	166	175	169	170	187	192	195	201	200	194	200	191	189	192	188	184	186	189	189.8
11-Oct	188	188	180	185	183	356	10	8	3	359	359	5	1	351	349	337	320	325	327	345	347	352	UO	UO	348.3
12-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
13-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	229	228	216	213	224	206	203	207	212	210	214	216	--
14-Oct	212	210	210	206	210	205	209	213	213	219	223	226	225	235	244	237	228	224	221	214	216	213	208	206	217.8
15-Oct	208	213	206	211	208	214	208	203	205	207	209	220	237	253	242	236	228	226	232	241	254	263	262	240	222.8
16-Oct	244	239	233	232	222	222	220	219	207	230	214	212	201	193	183	171	174	192	209	203	179	204	212	214	205.8
17-Oct	219	218	227	227	243	258	272	286	285	295	297	287	280	290	292	298	314	332	307	310	308	300	294	283	274.8
18-Oct	272	264	257	249	248	244	244	244	255	258	294	293	273	268	269	260	246	218	210	181	193	182	190	164	248.2
19-Oct	135	127	131	136	128	128	124	120	119	124	121	121	116	120	120	129	119	80	89	90	57	33	45	19	111.1
20-Oct	5	9	5	356	358	3	UO	UO	UO	UO	UO	UO	UO	268	248	230	221	218	217	224	215	207	182	180	--
21-Oct	183	179	183	183	190	206	226	240	253	255	259	274	319	293	330	27	17	7	20	356	15	UO	UO	UO	231.0
22-Oct	UO	UO	UO	UO	UO	UO	UO	UO	172	176	180	184	184	178	173	161	150	143	144	143	144	144	152	158	--
23-Oct	153	155	156	153	163	172	175	175	182	175	181	184	178	192	173	172	160	160	156	159	163	168	180	174	168.7
24-Oct	164	163	167	170	173	177	176	181	182	177	181	172	163	170	158	150	158	143	153	147	153	158	162	169	166.7
25-Oct	146	137	135	132	60	114	123	137	180	290	288	285	284	291	287	265	279	264	259	262	227	226	222	228	250.4
26-Oct	198	160	163	162	150	132	112	117	123	120	108	109	94	66	48	54	55	45	20	24	21	28	26	25	63.8
27-Oct	27	26	20	16	16	14	12	10	7	6	3	2	0	358	356	355	351	348	347	343	343	349	344	345	1.8
28-Oct	338	339	331	336	337	338	334	317	311	301	302	300	295	290	296	276	271	275	284	278	258	247	218	214	307.0
29-Oct	193	167	164	158	142	152	143	126	128	119	119	109	102	234	71	45	45	47	47	39	355	354	8	1	106.9
30-Oct	348	358	0	6	47	UO	304	280	273	261	248	251	259	248	246	234	241	240	234	229	218	227	220	226	249.1
31-Oct	222	214	209	206	200	215	201	183	176	170	167	170	177	176	168	164	160	163	160	161	168	175	181	178	178.2
	212.5	206.3	205.2	210.4	205.6	211.2	210.4	212.4	214.7	215.9	222.8	225.6	227.1	240.8	236.2	228.3	228.9	217.7	215.9	213.4	214.3	216.5	208.1	207.5	
	Diurnal Average																								

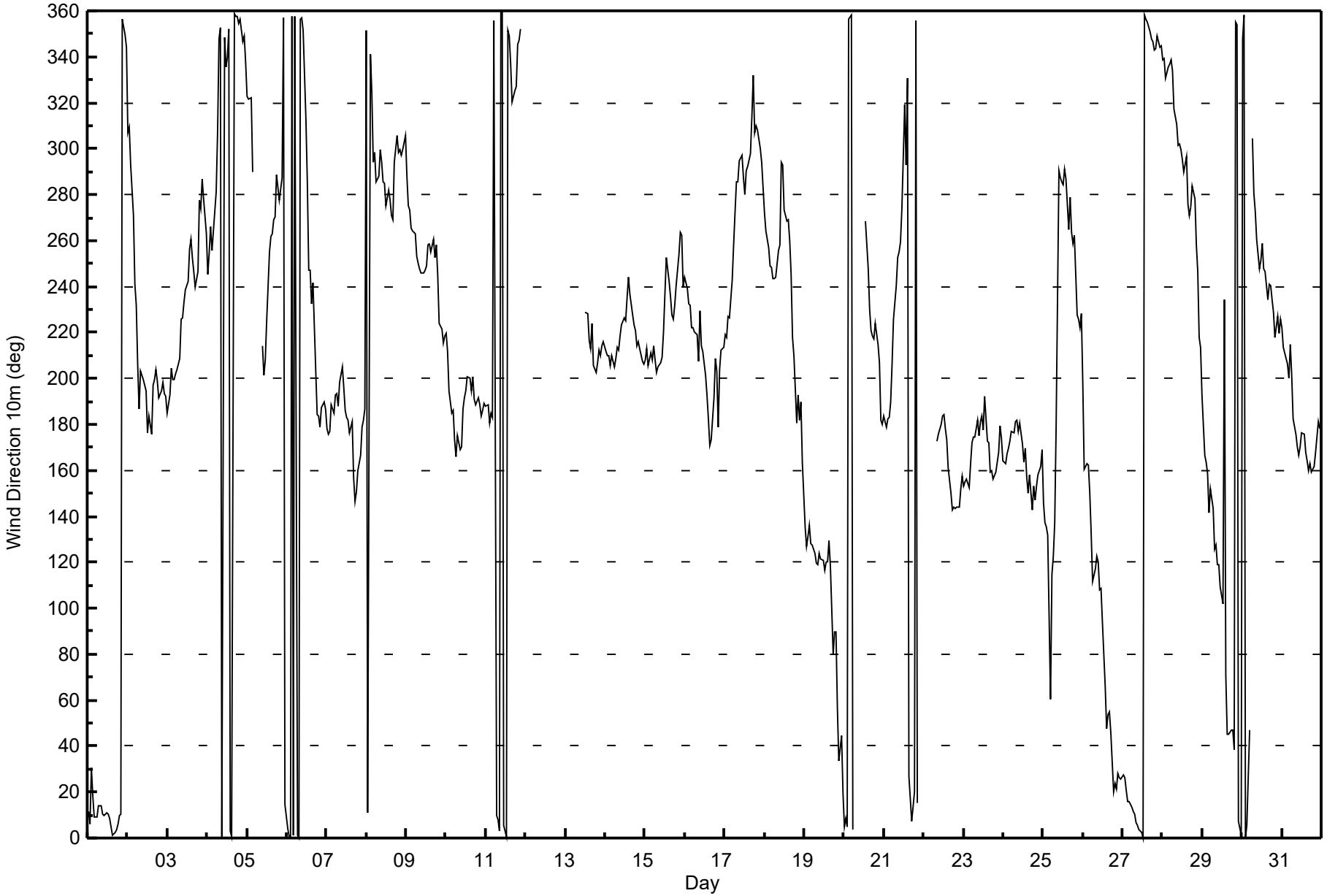
UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Firebag - October 2025



Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 82 deg on Oct 29 14:00

Minimum Value: 6 deg on Oct 18 06:00

Percentiles: P_1 = 8 P_{10} = 9 Q_1 = 10 Median = 12 Q_3 = 15 P_{90} = 20 P_{99} = 52

Hours in Service:	744
Hours of Data:	682
Hours of Missing Data:	62
Hours of Calibration:	0
Percent Operational Time:	91.7

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	14	15	13	12	14	14	15	15	15	15	15	15	14	14	14	14	13	13	14	15	13	14	15	10	15
2-Oct	20	21	22	22	27	21	16	23	11	16	14	13	10	13	13	11	11	8	8	8	8	8	8	8	27
3-Oct	9	11	16	10	8	9	8	10	13	13	15	15	15	15	14	15	13	12	28	24	15	20	18	14	28
4-Oct	13	13	16	11	15	16	29	12	14	14	14	20	15	14	15	15	15	13	13	14	14	13	14	12	29
5-Oct	16	18	18	19	UO	UO	UO	UO	UO	11	10	12	14	18	16	15	15	15	13	12	17	19	26	15	26
6-Oct	15	15	14	15	15	14	14	14	19	17	34	32	46	52	33	34	21	23	9	9	9	9	9	10	52
7-Oct	8	9	9	10	10	11	9	10	10	9	11	10	11	11	11	10	13	11	10	11	10	9	12	78	78
8-Oct	65	55	32	17	22	75	19	20	22	22	22	22	23	21	22	19	19	24	21	22	22	22	22	21	75
9-Oct	19	15	15	14	14	14	11	13	13	14	17	14	15	15	16	14	13	11	10	10	11	10	7	9	19
10-Oct	8	10	8	8	8	9	8	9	10	11	11	10	11	11	11	10	9	10	8	8	8	8	9	8	11
11-Oct	8	8	10	9	20	52	15	15	15	15	15	16	14	14	14	15	17	16	15	16	13	14	UO	UO	52
12-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
13-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	14	15	12	12	13	9	9	10	10	10	11	10	15
14-Oct	10	10	10	9	10	10	10	11	10	12	11	11	12	15	14	14	11	11	10	10	10	10	8	7	15
15-Oct	8	10	8	9	9	11	9	9	9	10	11	14	14	14	13	13	11	9	11	10	10	11	10	34	34
16-Oct	13	9	9	10	10	10	9	10	7	18	12	11	11	9	12	10	10	11	9	13	12	9	10	11	18
17-Oct	11	11	11	10	13	12	16	17	18	20	20	19	18	19	19	20	21	14	15	14	15	15	11	11	21
18-Oct	14	9	9	8	8	6	10	9	13	14	29	28	23	24	22	17	18	8	15	8	11	23	7	13	29
19-Oct	18	13	11	11	12	10	11	10	10	11	11	11	9	12	15	19	38	11	15	11	27	15	12	14	38
20-Oct	11	11	12	12	11	11	UO	UO	UO	UO	UO	UO	UO	19	21	13	12	11	11	11	11	9	13	12	21
21-Oct	11	9	10	9	10	10	13	11	11	11	13	19	18	21	34	13	15	11	11	15	10	UO	UO	UO	34
22-Oct	UO	UO	UO	UO	UO	UO	UO	UO	10	9	9	11	11	12	12	12	11	11	11	11	11	11	11	11	12
23-Oct	11	11	11	11	12	11	9	9	9	10	9	13	9	12	12	11	11	11	10	10	11	11	8	9	13
24-Oct	10	10	10	10	10	8	8	8	9	9	9	11	14	13	10	12	11	11	12	12	12	10	12	10	14
25-Oct	16	13	19	37	45	22	13	40	22	57	21	16	17	20	21	14	17	12	11	18	13	12	13	11	57
26-Oct	8	14	17	15	12	12	10	11	11	11	11	13	13	12	11	10	10	12	12	12	12	13	12	11	17
27-Oct	12	11	13	14	13	14	14	14	15	16	14	14	14	13	14	12	12	12	11	12	12	12	12	12	16
28-Oct	12	12	14	13	12	13	15	16	18	20	19	20	19	18	18	15	13	14	16	15	16	12	15	14	20
29-Oct	11	17	12	13	13	11	12	12	12	12	16	11	10	82	29	11	10	10	11	23	12	12	11	12	82
30-Oct	12	12	11	12	19	UO	31	19	20	16	16	13	14	13	12	12	14	14	12	15	10	13	10	11	31
31-Oct	11	12	11	10	9	11	11	9	9	9	10	10	9	10	10	10	10	11	11	10	12	10	10	9	12
	65	55	32	37	45	75	31	40	22	57	34	32	46	82	34	34	38	24	28	24	27	23	26	78	
	Diurnal Maximum																								

UO - Unstable Operation

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS20
MACKAY RIVER
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MACKAY RIVER (AMS20)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	710	34	34	100	12.8	0	1.2	0
H2S (ppb) Average	708	36	36	100	1	0	0.2	0
THC (ppm) Average	710	34	34	100	3	-	2.4	-
NO2 (ppb) Average	685	40	59	97.45	17.1	0	5	-
NO (ppb) Average	685	40	59	97.45	19.9	-	3.2	-
NOX (ppb) Average	685	40	59	97.45	37	-	8.3	-
Temperature 2 m (C) Average	744	0	0	100	20	-	10.1	-
Relative Humidity (%) Average	744	0	0	100	99.5	-	98.1	-
Wind Speed 10 m (km/h) Average	681	0	63	91.53	18	-	11	-
Wind Direction 10 m (deg) Average	681	0	63	91.53	-	-	-	-
Precipitation (mm) Total	744	0	0	100	7.4	-	25.5	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MACKAY RIVER (AMS20)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	710	0.22	0.8	-	0	0	0	0.1	0.2	0.4	12.8
H2S (ppb) Average	708	0.09	0.1	-	0	0	0	0.1	0.1	0.1	1
THC (ppm) Average	710	2.25	0.1	-	2.1	2.2	2.2	2.2	2.3	2.3	3
NO2 (ppb) Average	685	1.05	2.2	-	0	0.1	0.1	0.4	1	2	17.1
NO (ppb) Average	685	0.24	1.4	-	0	0	0	0	0	0.2	19.9
NOX (ppb) Average	685	1.29	3.4	-	0	0.1	0.1	0.4	1.1	2.3	37
Temperature 2 m (C) Average	744	3.81	4.8	-	-5.1	-1.5	0	2.8	6.9	10.7	20
Relative Humidity (%) Average	744	78.36	18.5	-	30.7	49.1	64.5	83.6	95	97.9	99.5
Wind Speed 10 m (km/h) Average	681	7.5	3	-	0	4	5	7	10	12	18
Wind Direction 10 m (deg) Average	681	-	-	-	-	-	-	-	-	-	-
Precipitation (mm) Total	744	-	-	82.3	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION -MACKAY RIVER (AMS20)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
NO2	08 Oct 2025 13:00	09 Oct 2025 07:00	19	Maintenance - to repalce dryer
Wind Speed, Wind Direction	02 Oct 2025 07:00	02 Oct 2025 07:00	1	Flat line in sensor output signal - Sensor frozen
Wind Speed, Wind Direction	05 Oct 2025 00:00	05 Oct 2025 10:00	11	Flat line in sensor output signal - Sensor frozen
Wind Speed, Wind Direction	27 Oct 2025 16:00	28 Oct 2025 12:00	21	Flat line in sensor output signal - Sensor frozen
Wind Speed, Wind Direction	28 Oct 2025 17:00	29 Oct 2025 15:00	23	Flat line in sensor output signal - Sensor frozen
Wind Speed, Wind Direction	30 Oct 2025 03:00	30 Oct 2025 07:00	5	Flat line in sensor output signal - Sensor frozen
Wind Speed, Wind Direction	30 Oct 2025 10:00	30 Oct 2025 11:00	2	Flat line in sensor output signal - Sensor frozen

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Mackay River - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 12.8 ppb on Oct 27 12:00

Maximum Daily Average: 1.2 ppb on Oct 27

Minimum Value: 0.0 ppb on Oct 1 06:00

Minimum Daily Average: 0.0 ppb on Oct 18

Maximum Diurnal Average: 0.6 ppb at hour 12

Minimum Diurnal Average: 0.1 ppb at hour 5

Monthly Average: 0.22 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.4 P_{99} = 3.6

Hours in Service:	744
Hours of Data:	710
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.1	0.2	0.2	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.2
2-Oct	0.1	0.1	0.1	0.1	0.0	Z	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
3-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
4-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.0	0.0	0.0	0.1	1.3	0.0	3.8	7.9	1.8	0.1	0.1	0.1	0.1	0.7	7.9
5-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1
6-Oct	0.6	0.3	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.0	0.1	0.3	0.4	0.4	0.2	0.2	0.2	0.6
7-Oct	0.0	0.1	0.1	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.1	0.6
8-Oct	0.2	4.7	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.3	4.7
9-Oct	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
10-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.7	0.7	0.8	0.5	0.1	0.1	0.1	0.1	0.2	0.8
11-Oct	0.0	0.1	Z	0.1	0.0	0.2	0.2	1.2	3.6	0.1	1.9	3.2	0.2	0.2	0.0	0.1	0.1	0.0	0.0	1.2	1.7	6.1	0.2	0.1	0.9	6.1
12-Oct	0.1	0.0	0.1	Z	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.4	0.2	0.0	0.0	0.0	0.0	3.9	1.3	0.2	0.1	0.1	0.3	3.9
13-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Oct	0.0	0.0	0.0	0.2	0.4	Z	0.4	0.4	0.3	0.2	0.3	0.2	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.4
15-Oct	Z	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.2	0.3
16-Oct	0.2	Z	0.1	0.0	0.0	0.0	0.0	C	C	C	0.0	0.0	0.0	0.0	0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
17-Oct	0.0	0.0	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
18-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-Oct	0.0	0.0	0.1	0.3	Z	0.5	0.2	0.3	0.4	0.3	0.2	0.1	0.1	0.1	0.0	0.2	0.7	2.1	2.0	1.3	1.1	1.4	1.1	0.2	0.6	2.1
20-Oct	0.1	0.1	0.1	0.0	0.0	Z	0.1	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
21-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
22-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.1	0.2	0.2	0.3	0.1	0.4
23-Oct	0.3	0.2	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.5	0.5	0.5	0.6	0.4	0.2	0.2	0.2	0.6
24-Oct	0.3	0.3	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.4	0.4	0.6	0.5	0.3	0.4	0.7	0.3	0.3	0.4	0.3	0.3	0.7
25-Oct	0.3	0.4	0.4	0.4	Z	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.4
26-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.3	0.3	0.7	2.7	2.1	0.7	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	2.7
27-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.4	0.6	1.8	5.7	2.1	12.8	2.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	1.2	12.8
28-Oct	0.1	Z	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.2
29-Oct	0.0	0.0	Z	0.1	0.1	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.6	1.2	1.2	0.8	0.3	0.7	0.2	0.5	0.4	0.7	0.5	0.4	1.2
30-Oct	0.2	0.2	0.3	Z	0.2	0.7	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.7
31-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.2	0.3	0.4	0.3	0.3	0.1	0.1	0.0	0.1	0.1	0.1	0.4	0.2	0.1	0.2	0.1	0.0	0.1	0.4
	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.6	0.2	0.2	0.2	0.2	0.1	0.3	0.4	0.4	0.2	0.3	0.2	0.1	Diurnal Average	
	0.6	4.7	0.4	0.4	0.4	0.7	0.4	1.2	3.6	5.7	2.1	12.8	2.4	2.7	2.1	1.3	0.8	3.8	7.9	3.9	1.7	6.1	1.1	0.5	Diurnal Maximum	

Z - zerospan C - Calibration

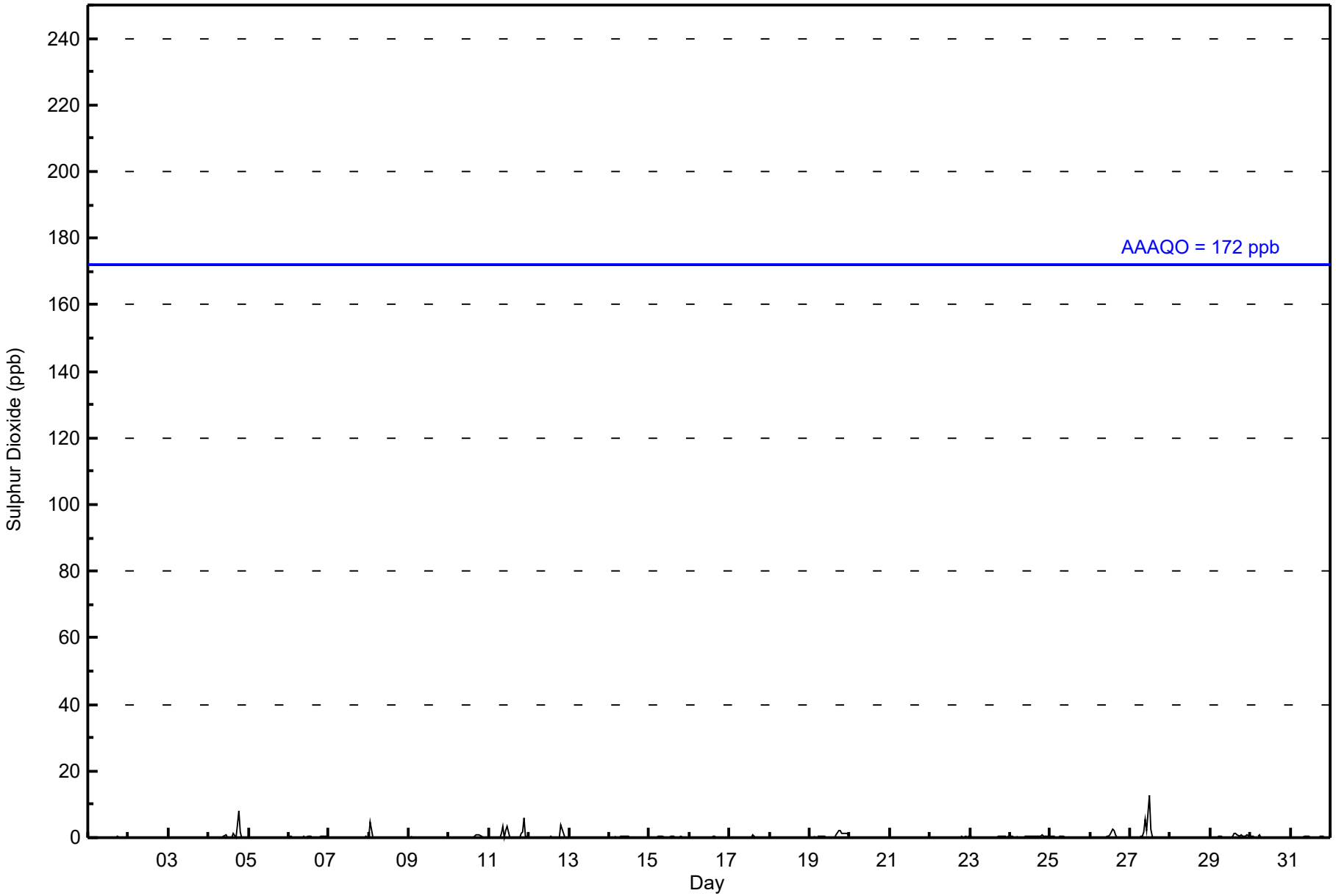
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Mackay River - October 2025



Sulphur Dioxide (SO_2) - ppb
Mackay River - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	709	99.86	99.86
11 - 20	1	0.14	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 710

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Mackay River - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	16	28	5	4	6	22	56	56	119	66	44	56	55	47	35	35	650
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	28	5	4	6	22	56	56	119	66	44	56	55	47	36	35	651

Total Number of Valid Hours: 651

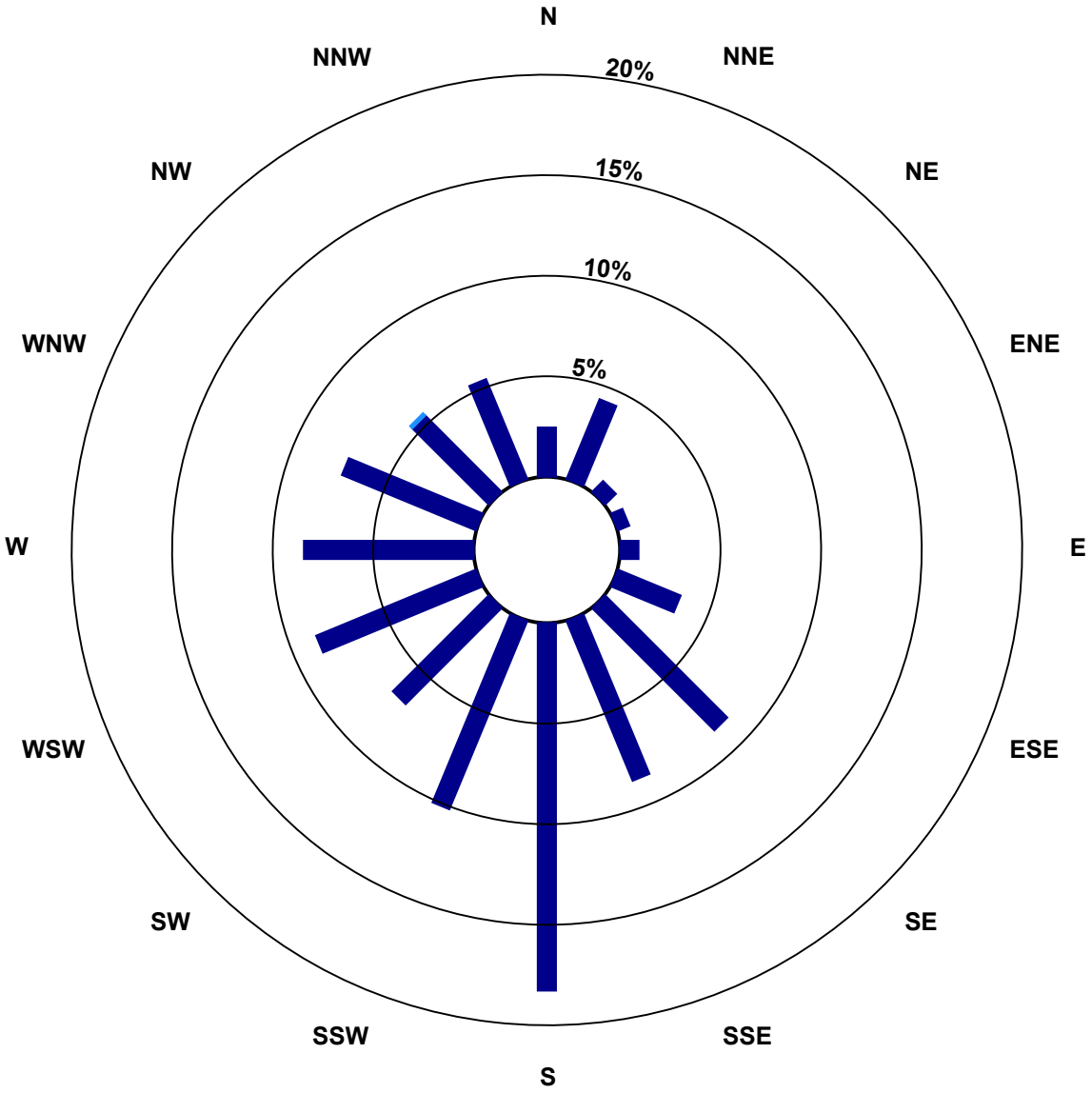
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Mackay River



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

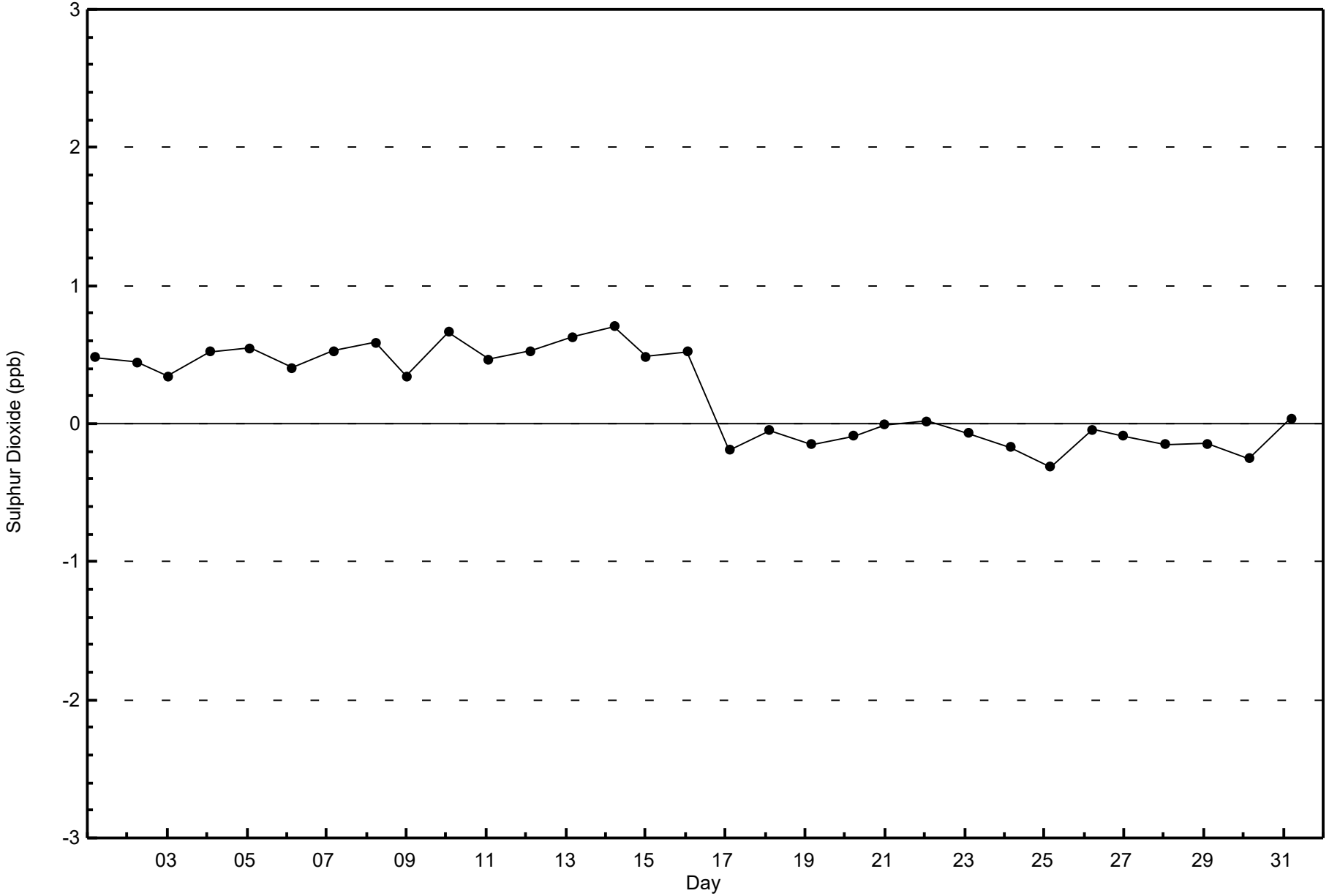
Total Number of Valid Hours: 651

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Mackay River - October 2025

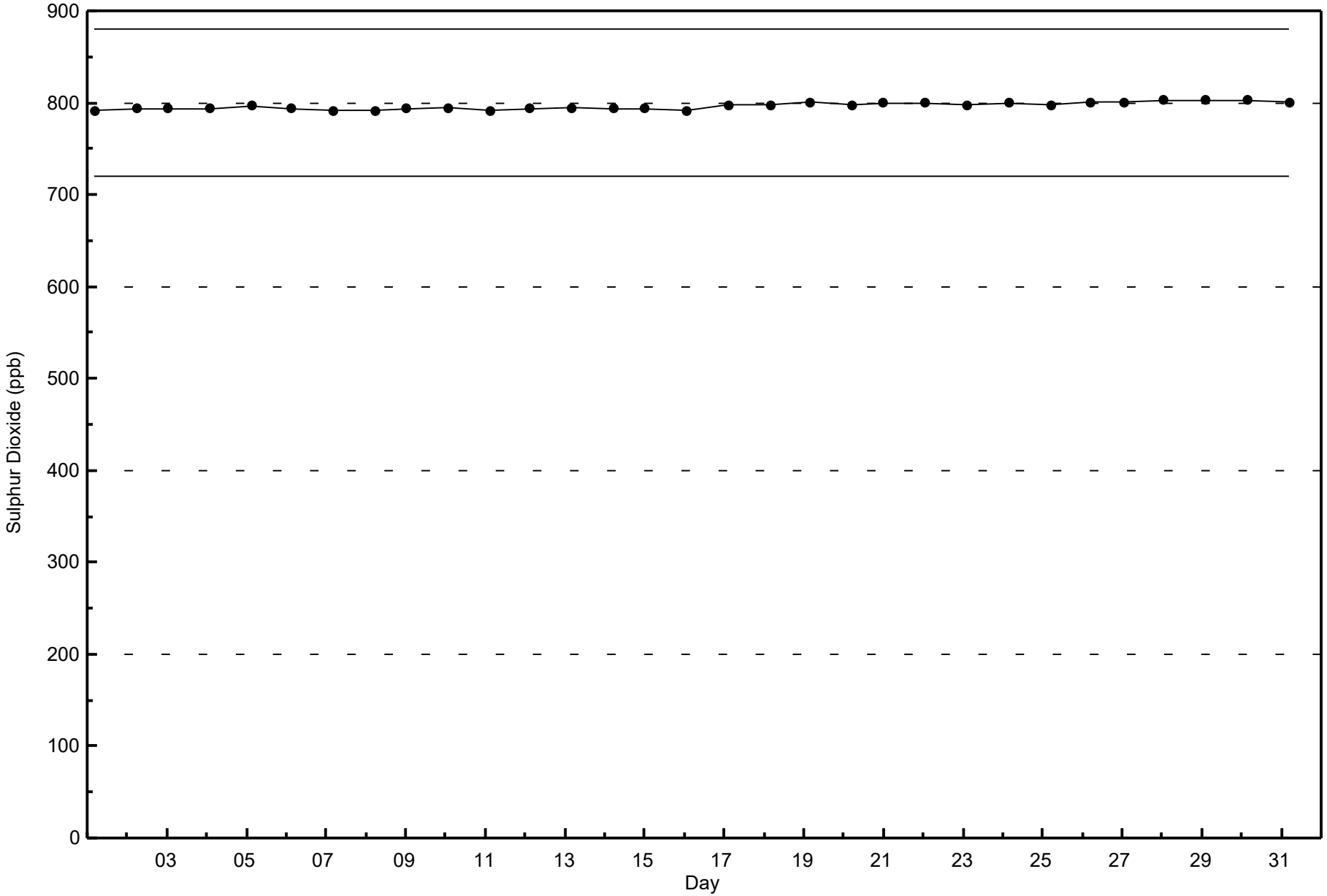


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Mackay River - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H_2S) - ppb

Mackay River - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 1.0 ppb on Oct 4 19:00

Maximum Daily Average: 0.2 ppb on Oct 11

Minimum Value: 0.0 ppb on Oct 17 19:00

Minimum Daily Average: 0.0 ppb on Oct 17

Maximum Diurnal Average: 0.1 ppb at hour 18

Minimum Diurnal Average: 0.1 ppb at hour 24

Monthly Average: 0.09 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.1 P_{90} = 0.1 P_{99} = 0.5

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.2	0.2	0.4	0.4	0.2	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
2-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1
3-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
4-Oct	0.0	0.1	Z	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.7	1.0	0.2	0.0	0.0	0.0	0.0	0.1	1.0
5-Oct	0.0	0.0	0.1	Z	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2
6-Oct	0.4	0.1	0.2	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
7-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
8-Oct	Z	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
9-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
10-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11-Oct	0.1	0.1	0.1	Z	0.1	0.5	0.3	0.4	0.3	0.1	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.1	0.1	0.2	0.5
12-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.7	0.2	0.1	0.1	0.1	0.1	0.7
13-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
14-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1
15-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	C	C	C	C	C	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
16-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
17-Oct	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
18-Oct	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
19-Oct	0.0	0.0	0.0	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.7	0.4	0.5	0.3	0.2	0.3	0.2	0.1	0.2	0.7
20-Oct	Z	0.2	0.2	0.1	0.1	0.1	0.2	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.6
21-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.2	0.0	0.1	0.1	0.1	0.2	0.1	0.4
22-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
24-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25-Oct	0.1	0.1	0.1	0.1	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2
26-Oct	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.3	0.2	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
27-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
28-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1
29-Oct	0.0	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.2
30-Oct	0.0	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
31-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.4	0.2	0.4	0.4	0.2	0.5	0.3	0.6	0.3	0.4	0.3	0.3	0.4	0.4	0.3	0.2	0.7	0.7	1.0	0.7	0.2	0.4	0.2	0.2	Diurnal Maximum	

Z - zerospan C - Calibration

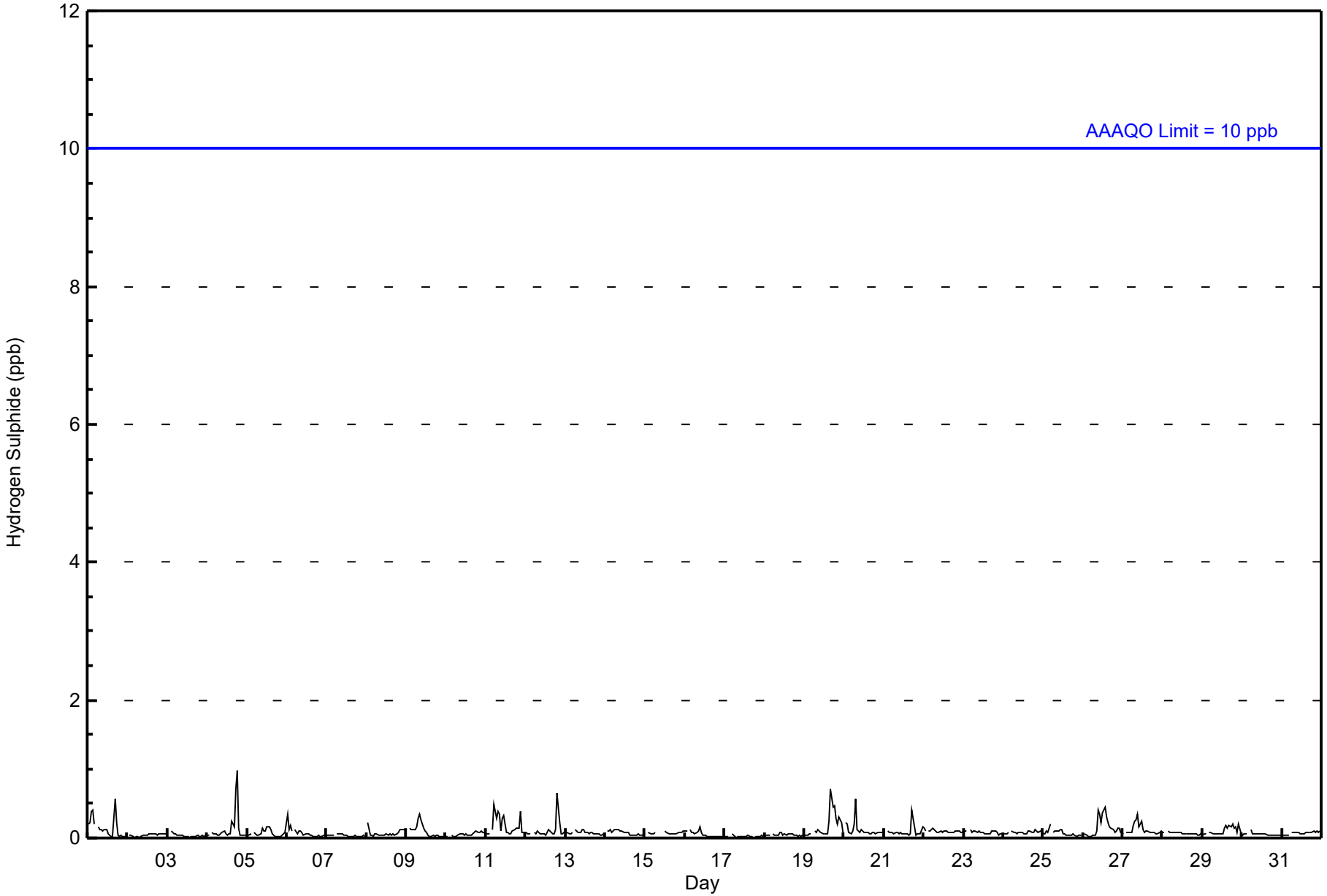
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Mackay River - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	708	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Mackay River - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	18	27	5	5	6	23	54	56	118	63	46	56	54	47	36	35	649
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	18	27	5	5	6	23	54	56	118	63	46	56	54	47	36	35	649

Total Number of Valid Hours: 649

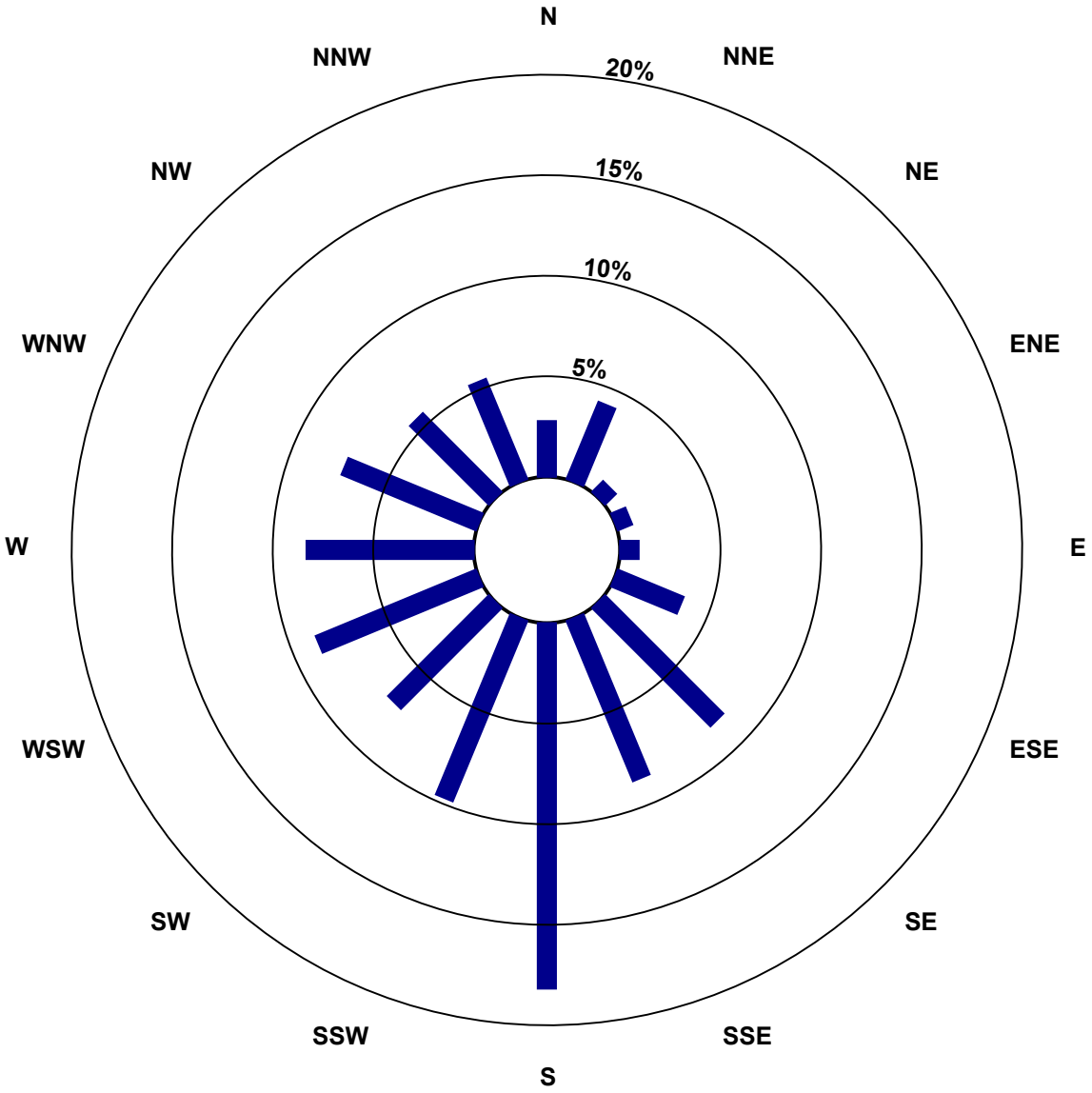
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H_2S) - ppb

Mackay River



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

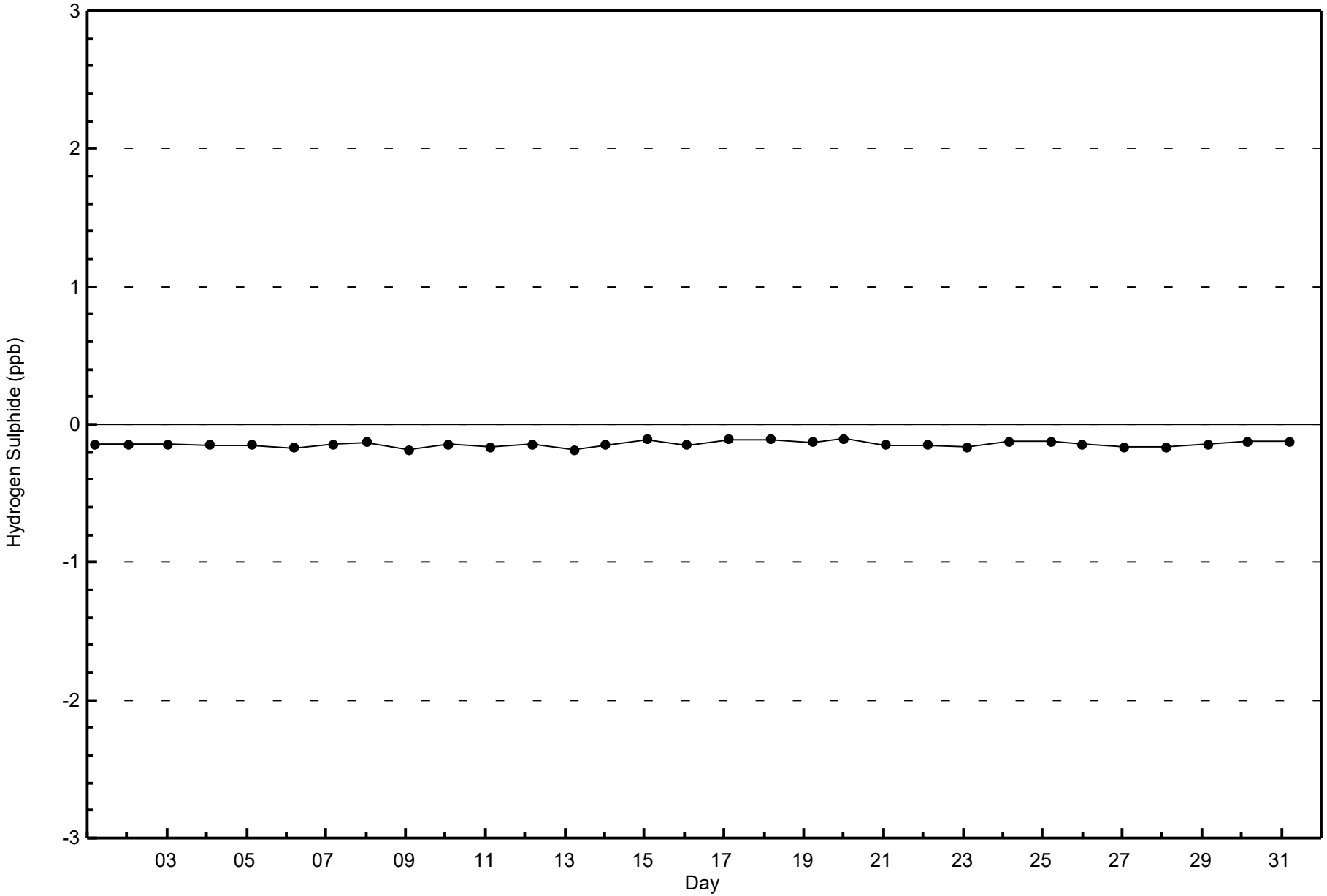
Total Number of Valid Hours: 649

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Mackay River - October 2025

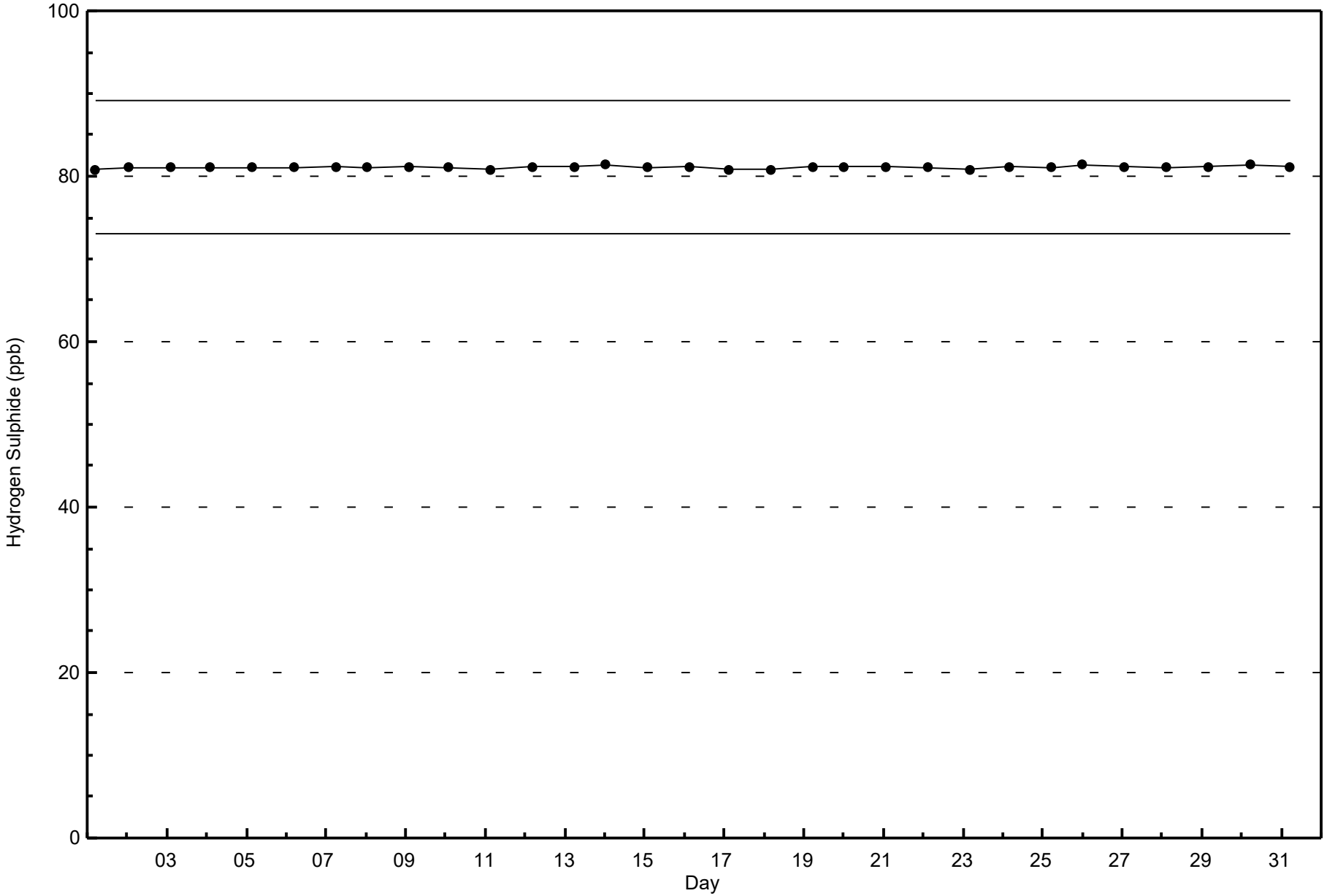


Wood Buffalo Environmental Association

Span Responses

Hydrogen Sulphide (H_2S) - ppb

Mackay River - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Mackay River - October 2025

Maximum Value: 3.0 ppm on Oct 19 17:00

Maximum Daily Average: 2.4 ppm on Oct 26

Minimum Value: 2.1 ppm on Oct 7 16:00

Minimum Daily Average: 2.2 ppm on Oct 7

Maximum Diurnal Average: 2.3 ppm at hour 8

Minimum Diurnal Average: 2.2 ppm at hour 24

Monthly Average: 2.25 ppm

Percentiles: P_1 = 2.1 P_{10} = 2.2 Q_1 = 2.2 Median = 2.2 Q_3 = 2.3 P_{90} = 2.3 P_{99} = 2.7

Hours in Service:	744
Hours of Data:	710
Hours of Missing Data:	34
Hours of Calibration:	34
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.4	2.4	2.5	2.3	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.5
2-Oct	2.2	2.2	2.3	2.3	2.3	Z	2.4	2.5	2.5	2.5	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.5
3-Oct	Z	2.2	2.2	2.3	2.2	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.2	2.3
4-Oct	2.2	Z	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.1	2.2	2.2	2.3
5-Oct	2.2	2.2	Z	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
6-Oct	2.3	2.3	2.3	Z	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.3
7-Oct	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.2
8-Oct	2.2	2.3	2.2	2.1	2.1	Z	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
9-Oct	Z	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.1	2.2	2.2	2.1	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
10-Oct	2.2	Z	2.2	2.2	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.4
11-Oct	2.2	2.2	Z	2.3	2.3	2.8	2.7	2.7	2.4	2.2	2.3	2.3	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.4	2.2	2.2	2.3	2.8
12-Oct	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.2	2.2	2.2	2.3	2.5	2.3	2.3	2.3	2.3	2.2	2.5
13-Oct	2.3	2.2	2.2	2.2	Z	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
14-Oct	2.2	2.2	2.2	2.2	2.2	Z	2.2	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.2	2.3
15-Oct	Z	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
16-Oct	2.2	Z	2.2	2.2	2.2	2.2	2.2	C	C	C	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2
17-Oct	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
18-Oct	2.2	2.2	2.2	Z	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.3
19-Oct	2.3	2.3	2.3	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.6	3.0	2.8	2.7	2.6	2.6	2.5	2.5	2.3	2.4	3.0
20-Oct	2.2	2.3	2.3	2.2	2.3	Z	2.3	2.6	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.6
21-Oct	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.4	2.3	2.2	2.2	2.2	2.2	2.3	2.2	2.4
22-Oct	2.4	Z	2.3	2.3	2.4	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.4
23-Oct	2.3	2.3	Z	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
24-Oct	2.3	2.3	2.3	Z	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.4
25-Oct	2.4	2.3	2.3	2.4	Z	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4
26-Oct	2.2	2.2	2.3	2.3	2.3	Z	2.3	2.3	2.5	2.8	2.8	2.5	2.8	3.0	2.7	2.5	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.4	3.0
27-Oct	Z	2.2	2.2	2.2	2.2	2.2	2.4	2.4	2.5	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.5
28-Oct	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.3
29-Oct	2.2	2.2	Z	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.3	2.2	2.2	2.4	2.5	2.5	2.6	2.5	2.5	2.4	2.4	2.3	2.4	2.2	2.3	2.6
30-Oct	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
31-Oct	2.3	2.3	2.3	2.3	Z	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	Diurnal Average	
	2.4	2.4	2.5	2.4	2.4	2.8	2.7	2.7	2.5	2.8	2.8	2.5	2.8	3.0	2.7	2.6	3.0	2.8	2.7	2.6	2.6	2.5	2.5	2.3	Diurnal Maximum	

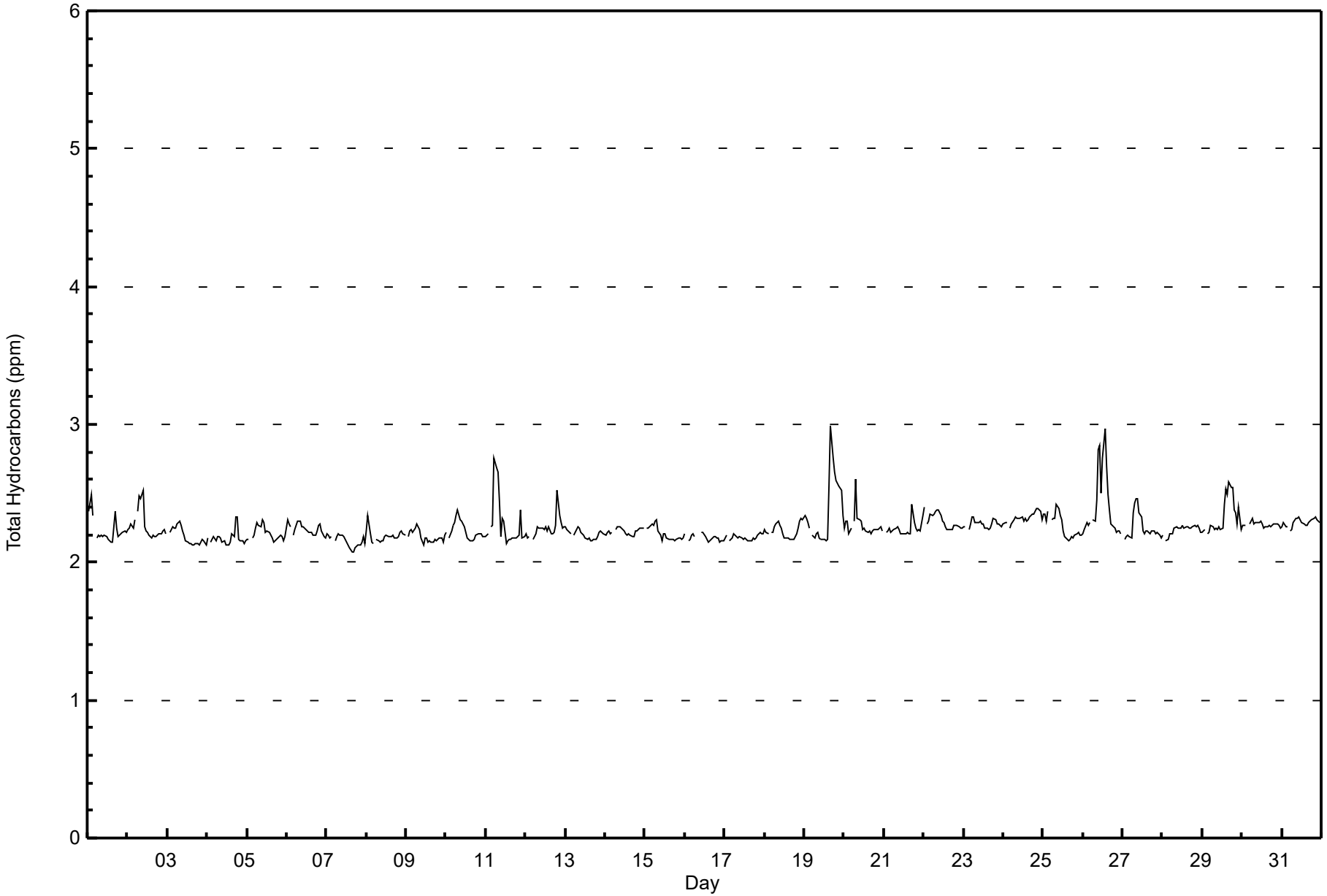
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Mackay River - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	0	0.00	0.00
2.1 - 3.0	710	100.00	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 710

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Mackay River - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.1 - 3.0	16	28	5	4	6	22	56	56	119	66	44	56	55	47	36	35	651
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	28	5	4	6	22	56	56	119	66	44	56	55	47	36	35	651

Total Number of Valid Hours: 651

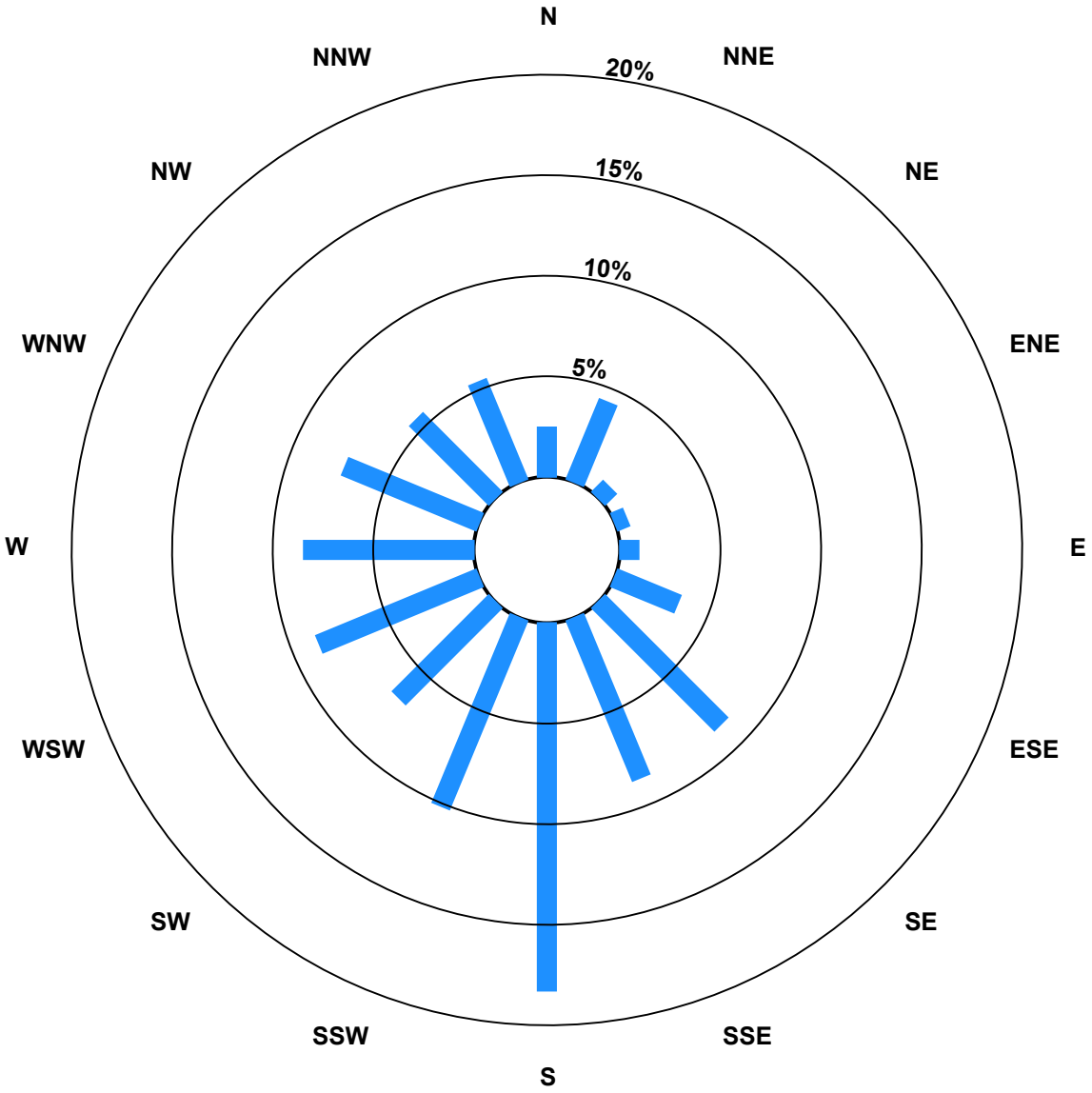
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Mackay River



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

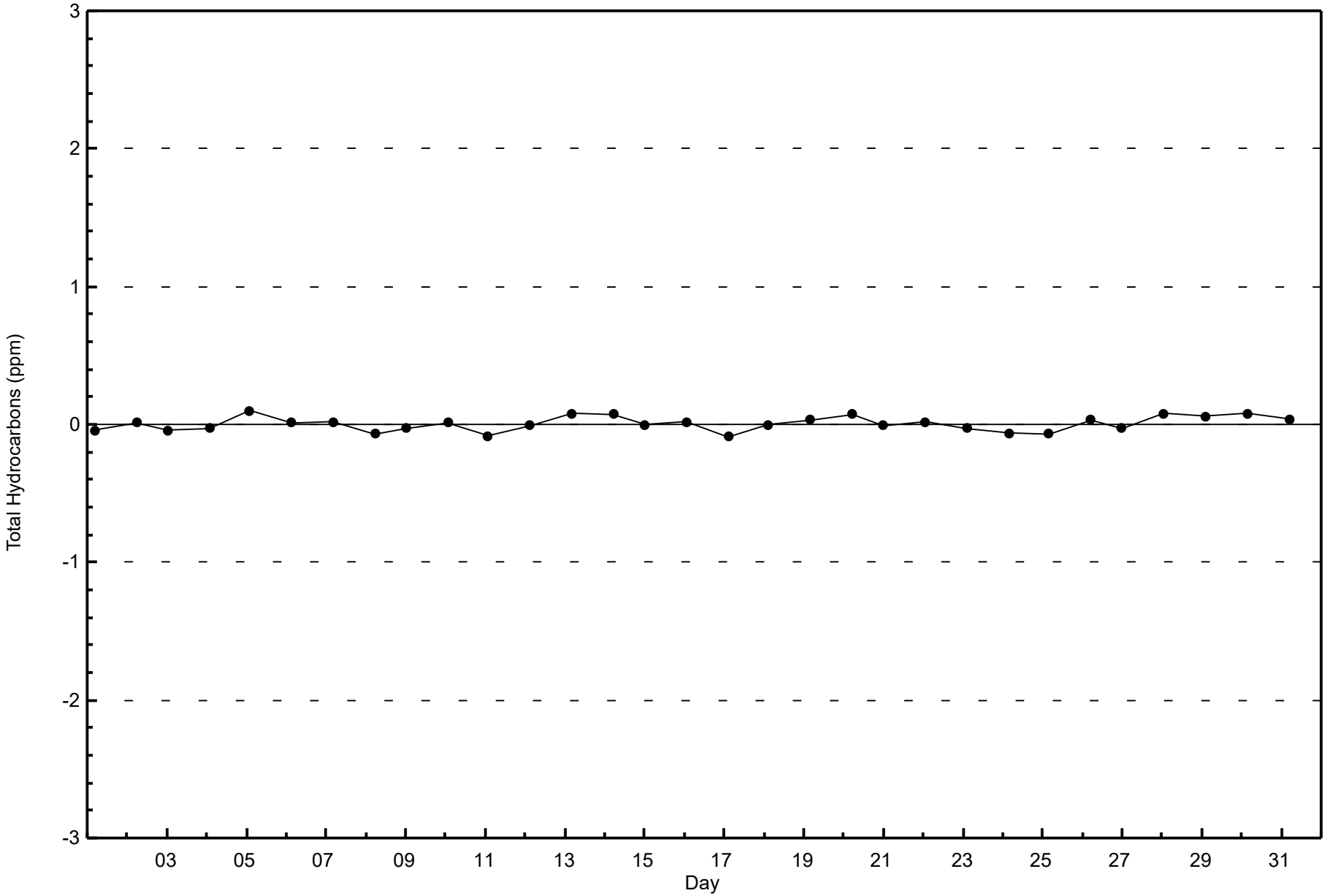
Total Number of Valid Hours: 651

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Mackay River - October 2025

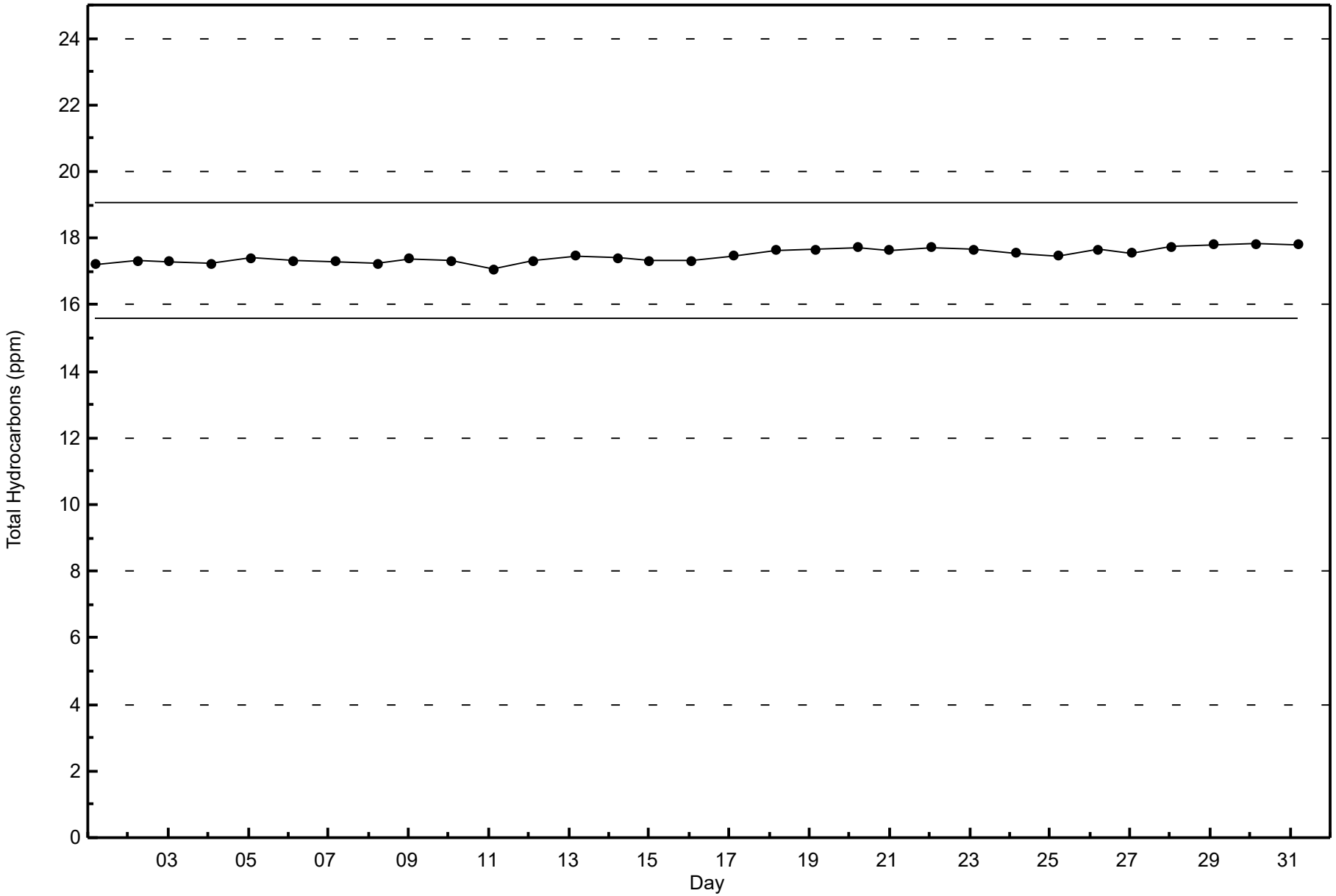


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Mackay River - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Mackay River - October 2025

Maximum Value: 19.9 ppb on Oct 19 17:00

Maximum Daily Average: 3.2 ppb on Oct 19

Minimum Value: 0.0 ppb on Oct 1 05:00

Minimum Daily Average: 0.0 ppb on Oct 28

Maximum Diurnal Average: 0.8 ppb at hour 17

Minimum Diurnal Average: 0.0 ppb at hour 4

Monthly Average: 0.24 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.2 P_{99} = 6.8

Hours in Service:	744
Hours of Data:	685
Hours of Missing Data:	59
Hours of Calibration:	40
Percent Operational Time:	97.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
2-Oct	0.0	0.1	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
4-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.0	1.0	1.4	0.3	0.0	0.0	0.0	0.0	0.1	1.4
5-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
6-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
7-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
8-Oct	0.0	0.4	0.0	Z	0.0	0.0	C	C	C	C	C	C	M	M	M	M	M	M	M	M	M	M	M	M	--	0.4
9-Oct	M	M	M	M	M	M	M	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.0
10-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
11-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.3	0.0	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.7	0.0	0.0	0.1	0.7
12-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
13-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.3	0.4	0.5	0.5	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
15-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.5	0.4	0.4	0.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
16-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	6.5	19.9	12.5	9.2	7.4	6.7	5.2	5.5	1.2	3.2	19.9
20-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.3	0.8	0.5	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8
21-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
22-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
23-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
24-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
25-Oct	0.0	0.0	Z	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
26-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.9	3.3	2.7	1.8	8.0	19.4	9.3	2.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	19.4
27-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.3	0.8	0.4	2.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.7
28-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	1.5	4.2	3.6	3.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.6	4.2
30-Oct	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
31-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.6	0.5	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.3	0.4	0.7	0.5	0.4	0.8	0.5	0.4	0.3	0.2	0.2	0.2	0.0	Diurnal Average	
	0.0	0.4	0.1	0.0	0.1	0.1	0.1	0.4	0.9	3.3	2.7	2.7	8.0	19.4	9.3	6.5	19.9	12.5	9.2	7.4	6.7	5.2	5.5	1.2	Diurnal Maximum	

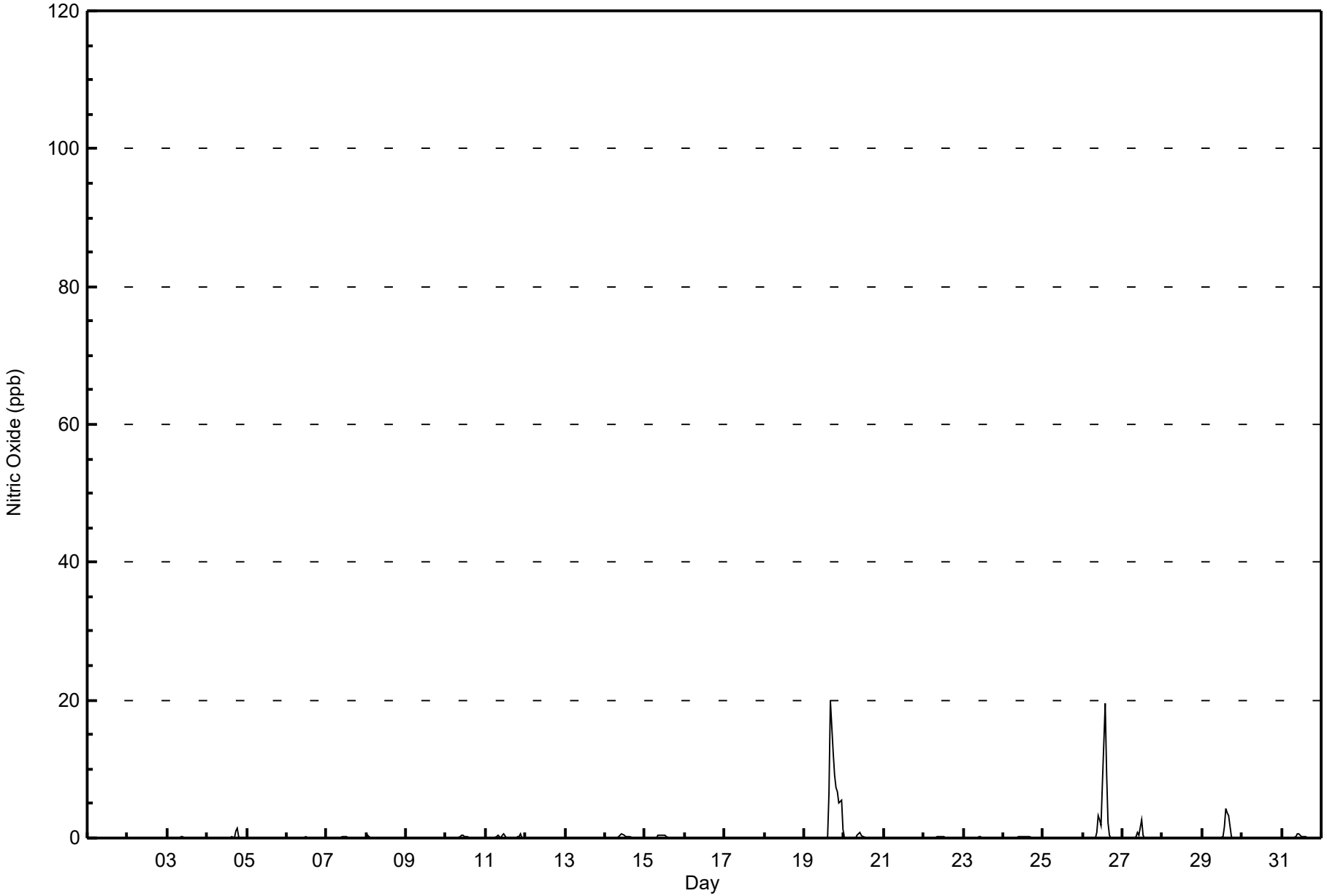
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Mackay River - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	685	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 685

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Mackay River - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	16	27	5	5	6	23	52	57	123	62	40	49	44	43	34	39	625
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	27	5	5	6	23	52	57	123	62	40	49	44	43	34	39	625

Total Number of Valid Hours: 625

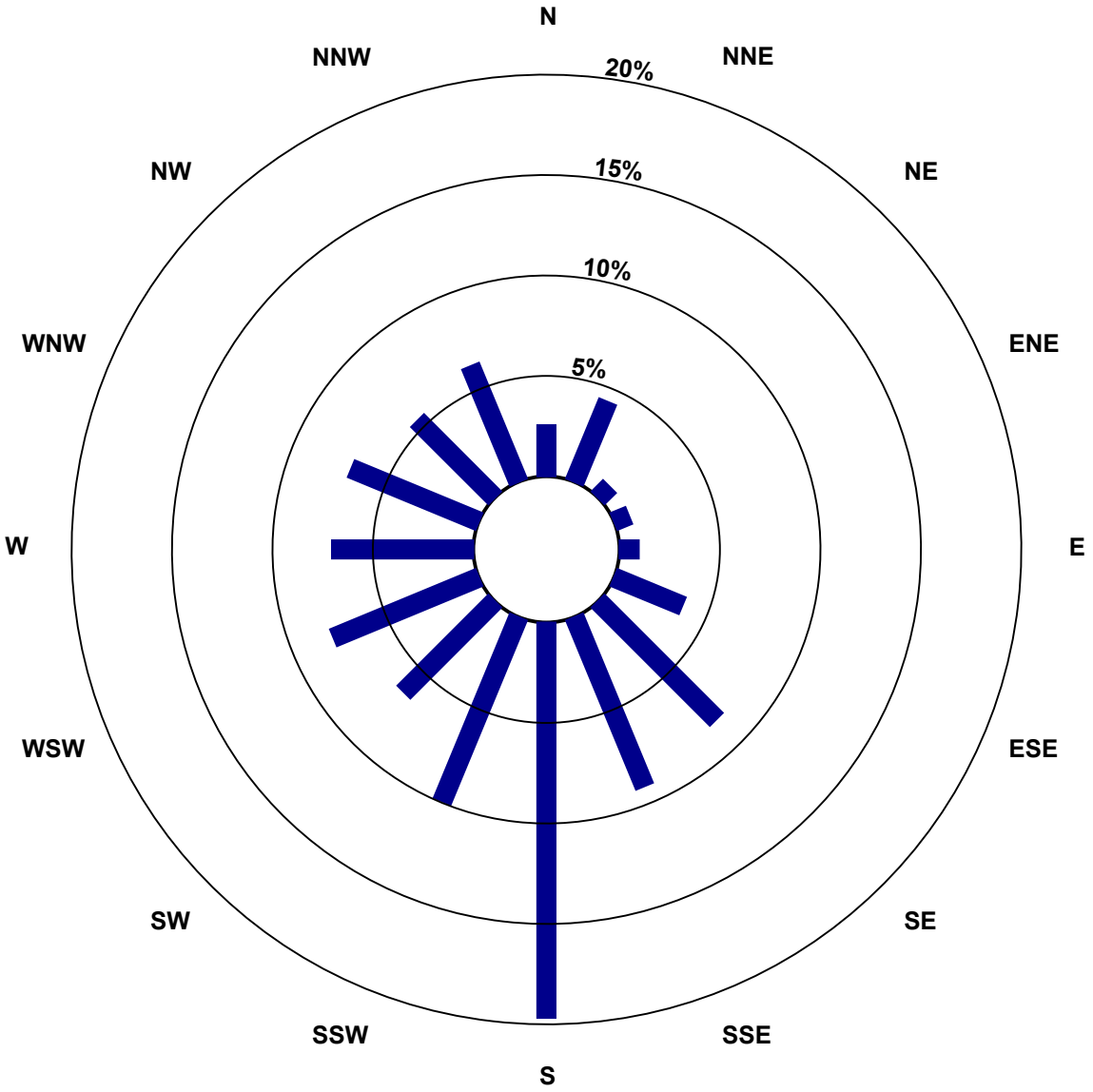
Total Number of Hours: 744

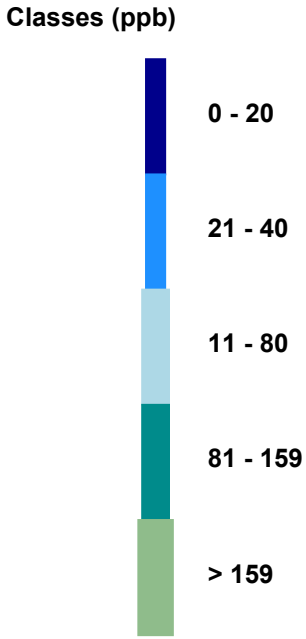
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Mackay River





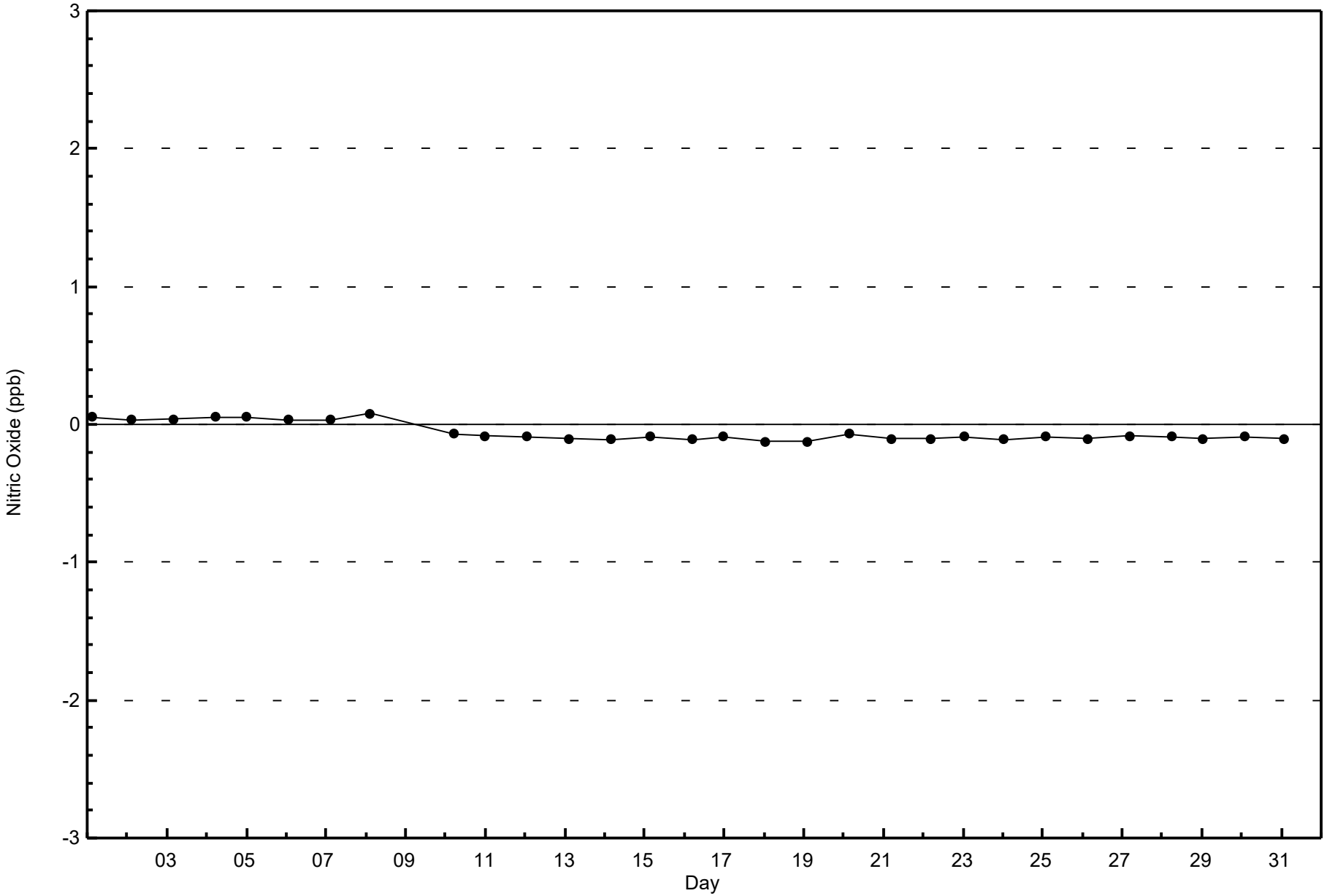
Total Number of Valid Hours: 625

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Mackay River - October 2025

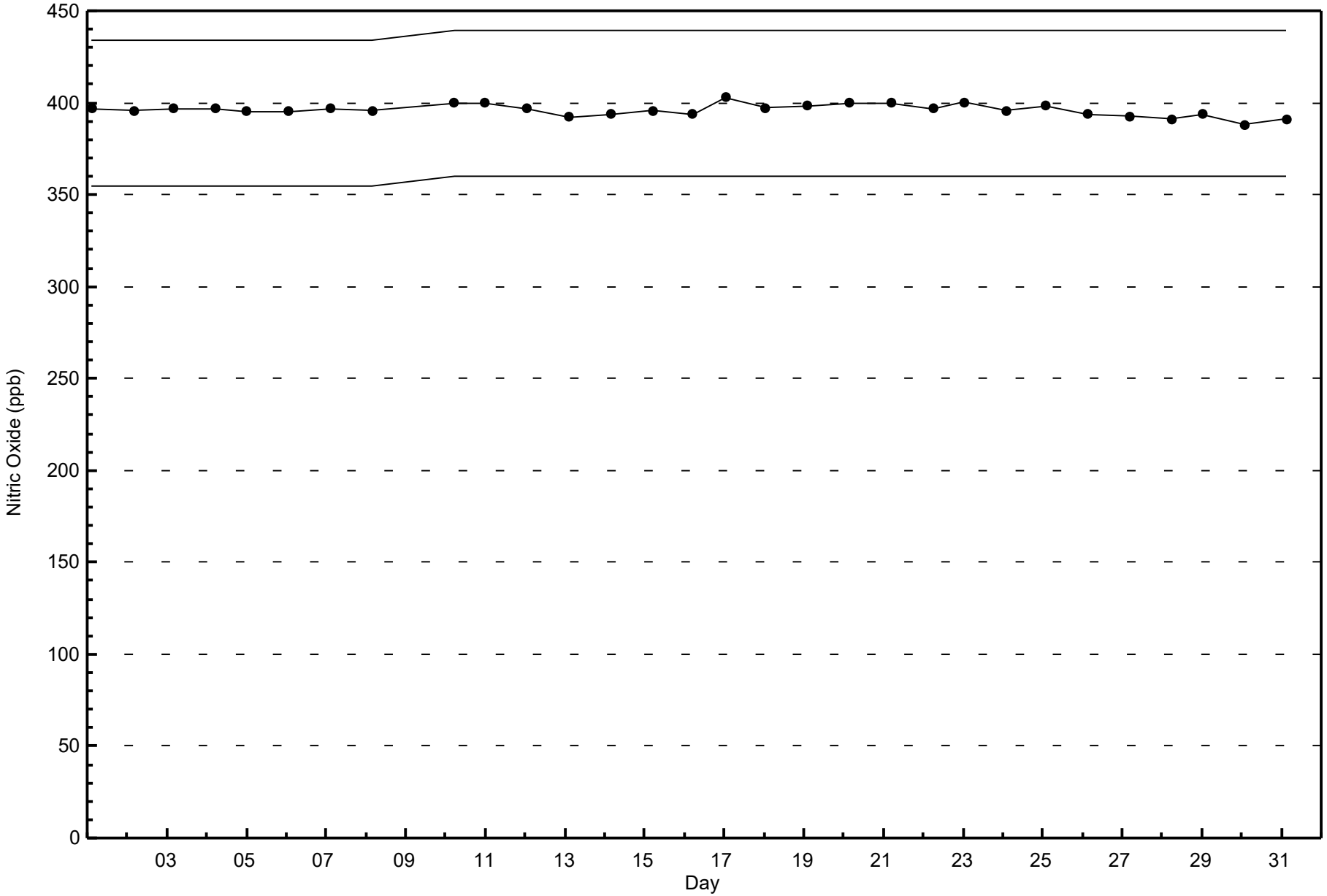


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Mackay River - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Mackay River - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 17.1 ppb on Oct 19 17:00

Maximum Daily Average: 5.0 ppb on Oct 19

Minimum Value: 0.0 ppb on Oct 2 00:00

Minimum Daily Average: 0.1 ppb on Oct 28

Maximum Diurnal Average: 1.8 ppb at hour 17

Minimum Diurnal Average: 0.7 ppb at hour 4

Monthly Average: 1.05 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.1 Median = 0.4 Q_3 = 1.0 P_{90} = 2.0 P_{99} = 11.5

Hours in Service:	744
Hours of Data:	685
Hours of Missing Data:	59
Hours of Calibration:	40
Percent Operational Time:	97.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	6.3	6.0	Z	3.9	1.6	0.6	0.3	0.3	0.2	0.2	0.5	0.6	0.2	0.1	0.1	0.1	0.2	0.4	0.1	0.1	0.1	0.1	0.1	0.0	1.0	6.3
2-Oct	0.1	0.0	0.0	Z	0.0	0.1	0.0	0.0	0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.2	0.5
3-Oct	0.6	0.7	0.7	0.7	Z	0.7	0.6	0.4	0.5	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.7
4-Oct	0.2	0.2	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.3	0.3	0.1	0.1	0.1	0.2	0.9	0.1	1.5	3.5	0.9	0.0	0.1	0.0	0.0	0.4	3.5
5-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.4
6-Oct	0.7	Z	0.5	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.1	0.2	0.3	0.5	0.5	0.4	0.2	0.7
7-Oct	0.4	0.4	Z	0.5	0.6	0.7	0.8	0.9	1.0	1.1	0.9	0.8	0.6	0.5	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.5	0.5	0.6	1.1
8-Oct	1.0	3.0	0.4	Z	0.3	0.3	C	C	C	C	C	C	M	M	M	M	M	M	M	M	M	M	M	M	--	3.0
9-Oct	M	M	M	M	M	M	M	C	C	C	C	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	--	0.2
10-Oct	0.2	0.2	0.1	0.1	0.1	Z	0.3	0.6	1.1	1.3	1.1	1.0	1.0	0.9	0.9	0.9	1.3	1.6	1.9	1.4	1.0	0.9	0.9	0.8	0.9	1.9
11-Oct	Z	0.7	0.6	0.6	0.4	0.6	7.1	9.1	1.6	0.4	1.0	1.5	0.2	0.2	0.0	0.0	0.1	0.1	0.0	0.6	0.8	2.3	0.0	0.0	1.2	9.1
12-Oct	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.1	0.1	0.1	1.5	0.6	0.1	0.1	0.1	0.2	1.5
13-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.2	0.4
14-Oct	0.8	1.0	1.3	Z	1.6	1.7	1.7	1.6	1.5	1.4	1.3	1.1	1.0	1.0	0.9	0.9	1.0	0.8	0.9	0.9	1.0	1.1	1.2	1.5	1.2	1.7
15-Oct	1.6	1.6	1.8	1.9	Z	2.4	2.7	3.1	2.8	2.6	2.3	2.0	1.4	1.0	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.4	0.3	0.3	1.4	3.1
16-Oct	0.4	0.3	0.3	0.3	0.2	Z	0.3	0.2	0.4	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.7	0.8	0.8	0.9	0.8	0.8	0.7	0.7	0.5	0.9
17-Oct	Z	0.8	0.6	0.4	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.8
18-Oct	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2
19-Oct	0.1	0.1	Z	0.6	0.5	0.5	0.6	1.1	1.6	1.3	1.3	0.9	0.9	0.9	0.8	9.7	17.1	14.4	12.1	10.9	10.3	10.0	10.6	8.9	5.0	17.1
20-Oct	5.4	5.1	4.4	Z	5.1	5.1	4.1	3.3	2.7	1.8	1.9	1.2	0.6	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.6	1.9	5.4
21-Oct	0.7	0.7	1.0	1.3	Z	0.7	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.4	0.2	0.2	0.1	0.1	0.3	3.2	0.5	3.2
22-Oct	4.0	2.3	1.8	0.9	1.3	Z	1.3	1.0	0.6	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.6	1.8	1.2	1.1	1.0	1.0	1.0	4.0
23-Oct	Z	1.0	0.9	0.9	0.8	0.8	0.8	0.7	0.8	0.7	0.6	0.6	0.5	0.3	0.2	0.3	0.9	2.6	2.3	1.6	0.9	0.9	0.9	0.9	0.9	2.6
24-Oct	1.1	Z	1.4	1.3	1.4	1.4	1.4	1.4	1.5	1.4	1.3	1.2	1.2	1.4	1.5	2.2	2.7	2.4	2.4	3.3	2.5	2.0	2.0	1.7	1.7	3.3
25-Oct	1.5	1.5	Z	1.4	2.3	1.2	1.0	1.0	2.3	2.3	1.6	1.2	0.5	0.3	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.9	2.3
26-Oct	0.1	0.1	0.1	Z	0.2	0.2	0.1	0.2	4.7	8.5	5.8	4.2	10.2	16.9	15.6	11.4	8.1	4.5	3.0	2.1	1.9	2.3	1.9	0.6	4.5	16.9
27-Oct	0.1	0.1	0.1	0.1	Z	0.5	0.4	0.5	0.9	1.9	0.8	4.3	1.0	0.3	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.5	4.3
28-Oct	0.1	0.1	0.1	0.1	0.2	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
29-Oct	Z	0.2	0.3	0.3	0.6	1.2	1.0	1.0	1.1	0.7	0.5	0.4	0.7	4.9	9.8	10.8	15.1	13.9	9.5	5.3	3.7	0.7	0.8	0.4	3.6	15.1
30-Oct	0.3	Z	0.8	0.8	0.8	0.9	0.7	0.6	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.9
31-Oct	0.6	0.7	Z	0.7	0.6	0.9	1.3	1.2	1.4	1.5	1.3	1.0	0.8	0.8	0.9	1.1	1.4	1.5	1.5	1.3	1.2	1.3	1.3	1.3	1.1	1.5
	1.1	1.1	0.7	0.7	0.7	0.8	1.0	1.0	1.0	1.1	0.9	0.9	0.8	1.1	1.2	1.4	1.8	1.6	1.4	1.2	1.0	0.9	0.9	0.8	Diurnal Average	
	6.3	6.0	4.4	3.9	5.1	5.1	7.1	9.1	4.7	8.5	5.8	4.3	10.2	16.9	15.6	11.4	17.1	14.4	12.1	10.9	10.3	10.0	10.6	8.9	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

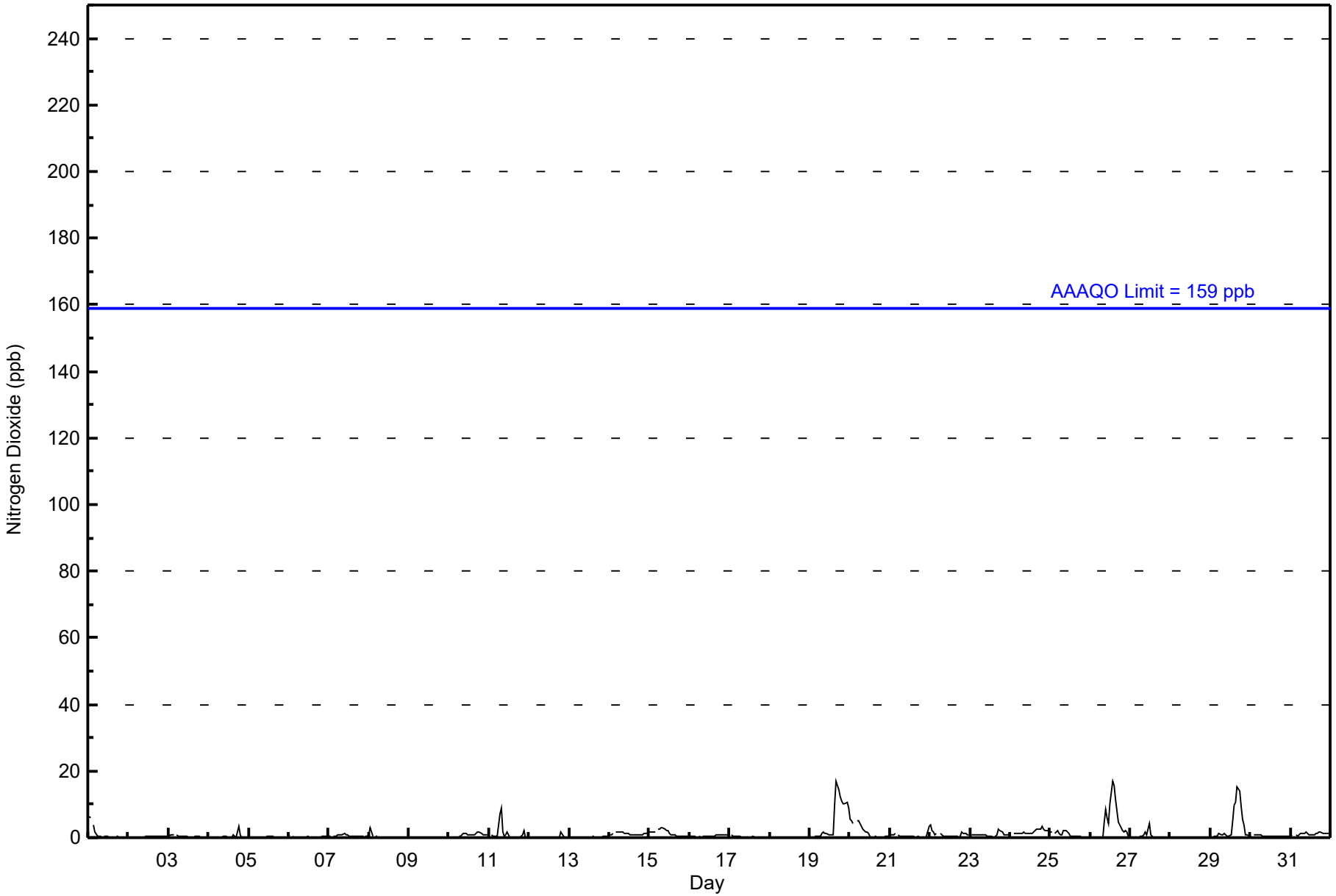
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Mackay River - October 2025



Nitrogen Dioxide (NO_2) - ppb
Mackay River - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	685	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 685

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Mackay River - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	16	27	5	5	6	23	52	57	123	62	40	49	44	43	34	39	625
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	27	5	5	6	23	52	57	123	62	40	49	44	43	34	39	625

Total Number of Valid Hours: 625

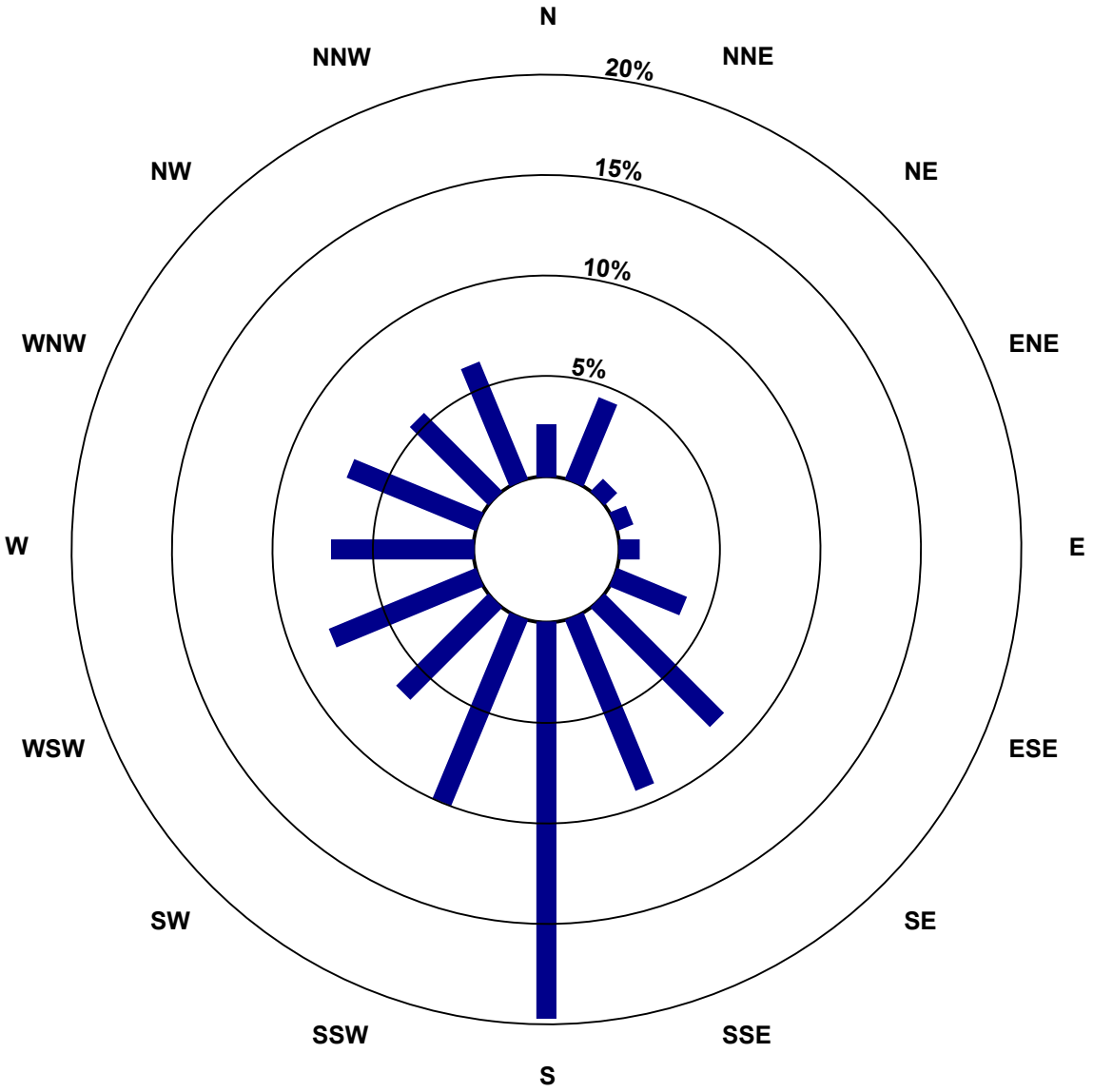
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Mackay River



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

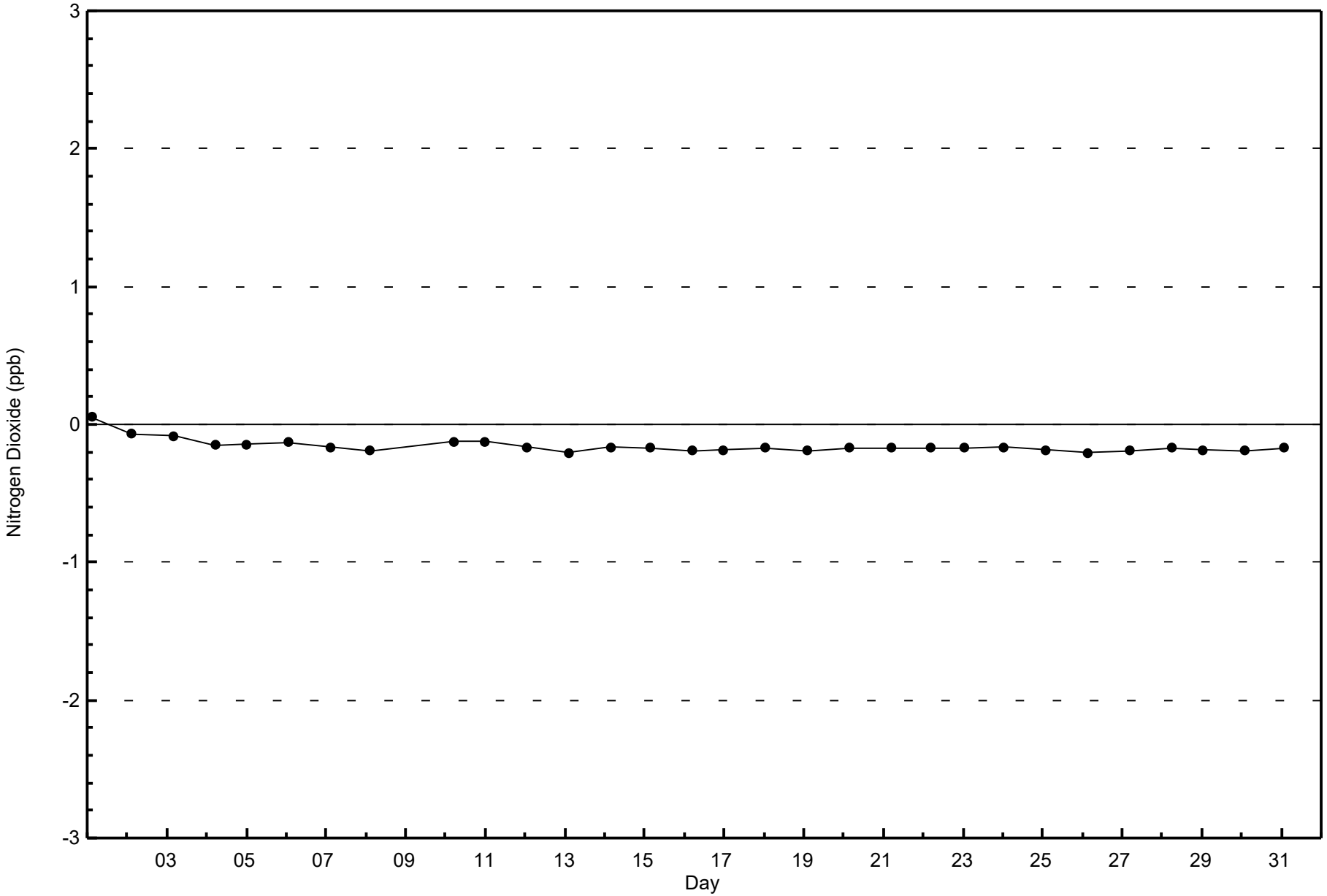
Total Number of Valid Hours: 625

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Mackay River - October 2025

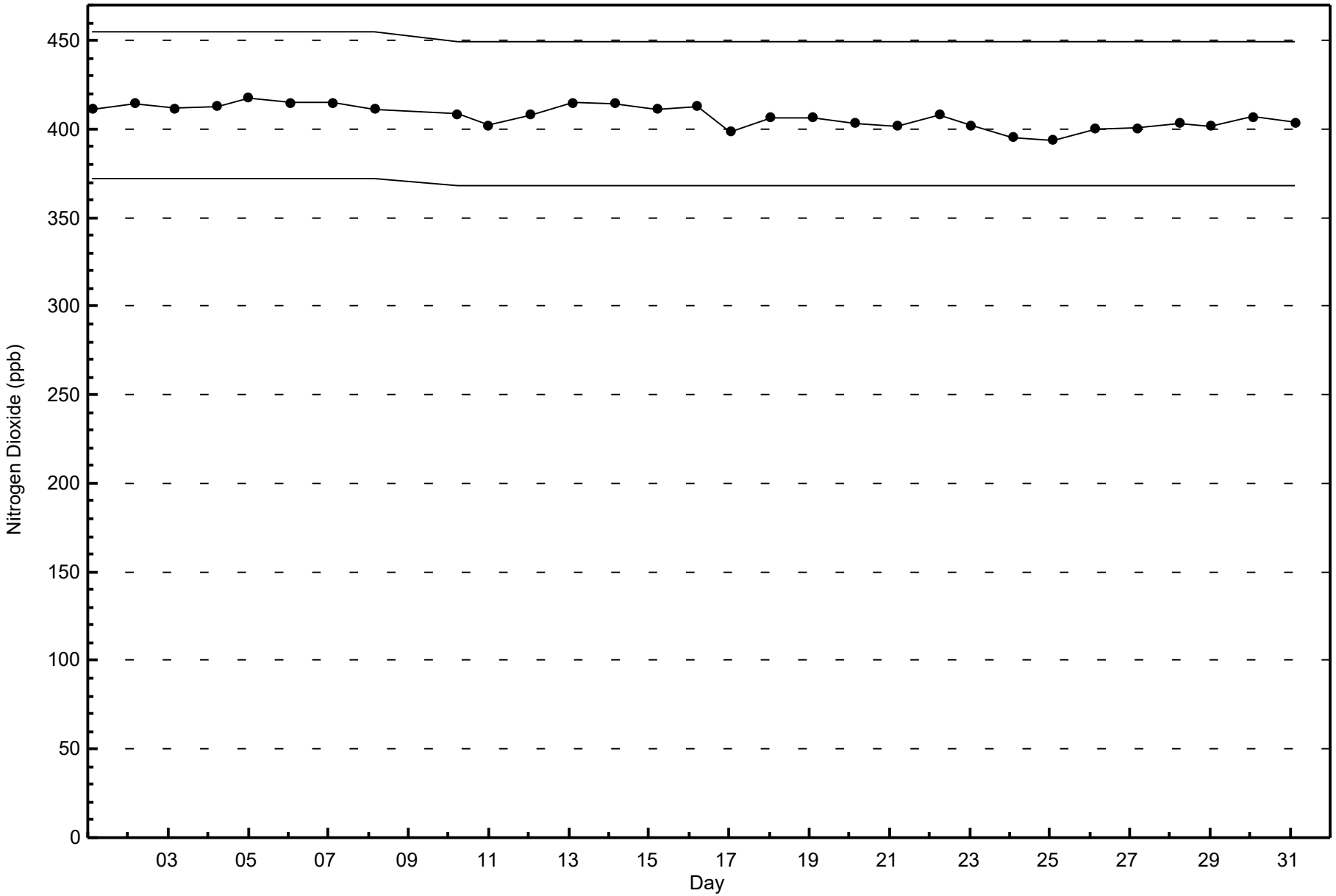


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Mackay River - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Mackay River - October 2025

Maximum Value: 37.0 ppb on Oct 19 17:00

Maximum Daily Average: 8.3 ppb on Oct 19

Minimum Value: 0.0 ppb on Oct 12 01:00

Minimum Daily Average: 0.1 ppb on Oct 28

Maximum Diurnal Average: 2.5 ppb at hour 17

Minimum Diurnal Average: 0.7 ppb at hour 4

Monthly Average: 1.29 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.1 Median = 0.4 Q_3 = 1.1 P_{90} = 2.3 P_{99} = 18.2

Hours in Service:	744
Hours of Data:	685
Hours of Missing Data:	59
Hours of Calibration:	40
Percent Operational Time:	97.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	6.3	6.0	Z	3.9	1.6	0.6	0.3	0.3	0.2	0.2	0.5	0.6	0.2	0.1	0.1	0.1	0.2	0.4	0.1	0.1	0.1	0.1	0.1	0.1	1.0	6.3
2-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.0	0.0	0.1	0.2	0.3	0.3	0.4	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.3	0.5
3-Oct	0.6	0.7	0.7	0.7	Z	0.7	0.6	0.5	0.6	0.6	0.5	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.7
4-Oct	0.2	0.2	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.4	0.4	0.1	0.1	0.1	0.2	1.1	0.1	2.5	4.9	1.2	0.0	0.1	0.0	0.0	0.5	4.9
5-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.4
6-Oct	0.7	Z	0.5	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.4	0.3	0.2	0.2	0.1	0.1	0.0	0.1	0.2	0.3	0.5	0.5	0.4	0.2	0.7
7-Oct	0.4	0.4	Z	0.5	0.6	0.7	0.8	0.9	1.1	1.2	1.1	1.0	0.8	0.6	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.5	0.5	0.6	1.2
8-Oct	1.0	3.4	0.4	Z	0.3	0.3	C	C	C	C	C	C	M	M	M	M	M	M	M	M	M	M	M	M	--	3.4
9-Oct	M	M	M	M	M	M	M	C	C	C	C	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	--	0.2
10-Oct	0.2	0.2	0.1	0.1	0.1	Z	0.3	0.6	1.3	1.6	1.4	1.3	1.2	1.0	1.0	1.0	1.3	1.6	1.9	1.4	1.0	0.9	0.9	0.8	0.9	1.9
11-Oct	Z	0.7	0.6	0.6	0.4	0.6	7.2	9.5	1.9	0.4	1.3	2.0	0.2	0.2	0.0	0.0	0.1	0.1	0.0	0.8	1.1	3.0	0.0	0.0	1.3	9.5
12-Oct	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.1	0.1	0.1	1.6	0.6	0.1	0.1	0.1	0.2	1.6
13-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.2	0.4
14-Oct	0.8	1.0	1.3	Z	1.6	1.7	1.7	1.7	1.8	1.8	1.8	1.6	1.3	1.2	1.1	1.0	1.1	0.8	0.9	0.9	1.0	1.1	1.2	1.5	1.3	1.8
15-Oct	1.6	1.6	1.8	1.9	Z	2.4	2.7	3.2	3.3	3.0	2.7	2.4	1.8	1.1	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.4	0.3	0.3	1.5	3.3
16-Oct	0.4	0.3	0.3	0.3	0.2	Z	0.3	0.2	0.4	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.7	0.8	0.8	0.9	0.8	0.8	0.7	0.7	0.5	0.9
17-Oct	Z	0.8	0.6	0.4	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.8
18-Oct	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2
19-Oct	0.1	0.1	Z	0.6	0.5	0.5	0.6	1.1	1.7	1.4	1.4	1.0	1.0	1.0	0.9	16.2	37.0	26.9	21.3	18.3	17.0	15.2	16.1	10.1	8.3	37.0
20-Oct	5.4	5.1	4.4	Z	5.1	5.1	4.1	3.4	3.0	2.6	2.4	1.5	0.8	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.6	2.0	5.4
21-Oct	0.7	0.7	1.0	1.3	Z	0.7	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.4	0.2	0.2	0.1	0.1	0.3	3.2	0.6	3.2
22-Oct	4.0	2.3	1.8	0.9	1.3	Z	1.3	1.1	0.9	0.7	0.6	0.6	0.5	0.4	0.3	0.3	0.3	0.2	0.6	1.8	1.2	1.1	1.0	1.0	1.1	4.0
23-Oct	Z	1.0	0.9	0.9	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.7	0.5	0.3	0.2	0.3	0.9	2.6	2.3	1.6	0.9	0.9	0.9	0.9	0.9	2.6
24-Oct	1.1	Z	1.4	1.3	1.4	1.4	1.4	1.4	1.6	1.6	1.6	1.5	1.4	1.6	1.6	2.4	2.8	2.4	2.4	3.3	2.5	2.0	2.0	1.7	1.8	3.3
25-Oct	1.5	1.5	Z	1.4	2.4	1.2	1.0	1.0	2.4	2.4	1.7	1.2	0.5	0.3	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.9	2.4
26-Oct	0.1	0.1	0.1	Z	0.2	0.2	0.1	0.2	5.6	11.8	8.5	6.0	18.2	36.3	24.9	13.7	8.4	4.5	3.0	2.1	1.9	2.3	1.9	0.6	6.5	36.3
27-Oct	0.1	0.1	0.1	0.1	Z	0.5	0.4	0.5	1.2	2.7	1.2	7.0	1.5	0.3	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.7	7.0
28-Oct	0.1	0.1	0.1	0.1	0.2	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
29-Oct	Z	0.2	0.3	0.3	0.6	1.2	1.0	1.0	1.1	0.8	0.6	0.4	0.8	6.4	14.0	14.4	18.4	14.1	9.6	5.3	3.7	0.7	0.8	0.4	4.2	18.4
30-Oct	0.3	Z	0.8	0.8	0.8	1.0	0.7	0.6	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.5	1.0
31-Oct	0.6	0.7	Z	0.7	0.6	0.9	1.3	1.2	1.6	2.0	1.9	1.5	1.0	1.0	1.1	1.2	1.4	1.5	1.5	1.3	1.2	1.3	1.3	1.3	1.2	2.0
	1.1	1.1	0.7	0.7	0.8	0.9	1.0	1.1	1.1	1.3	1.1	1.1	1.2	1.8	1.7	1.9	2.5	2.1	1.8	1.5	1.2	1.1	1.0	0.9	Diurnal Average	
	6.3	6.0	4.4	3.9	5.1	5.1	7.2	9.5	5.6	11.8	8.5	7.0	18.2	36.3	24.9	16.2	37.0	26.9	21.3	18.3	17.0	15.2	16.1	10.1	Diurnal Maximum	

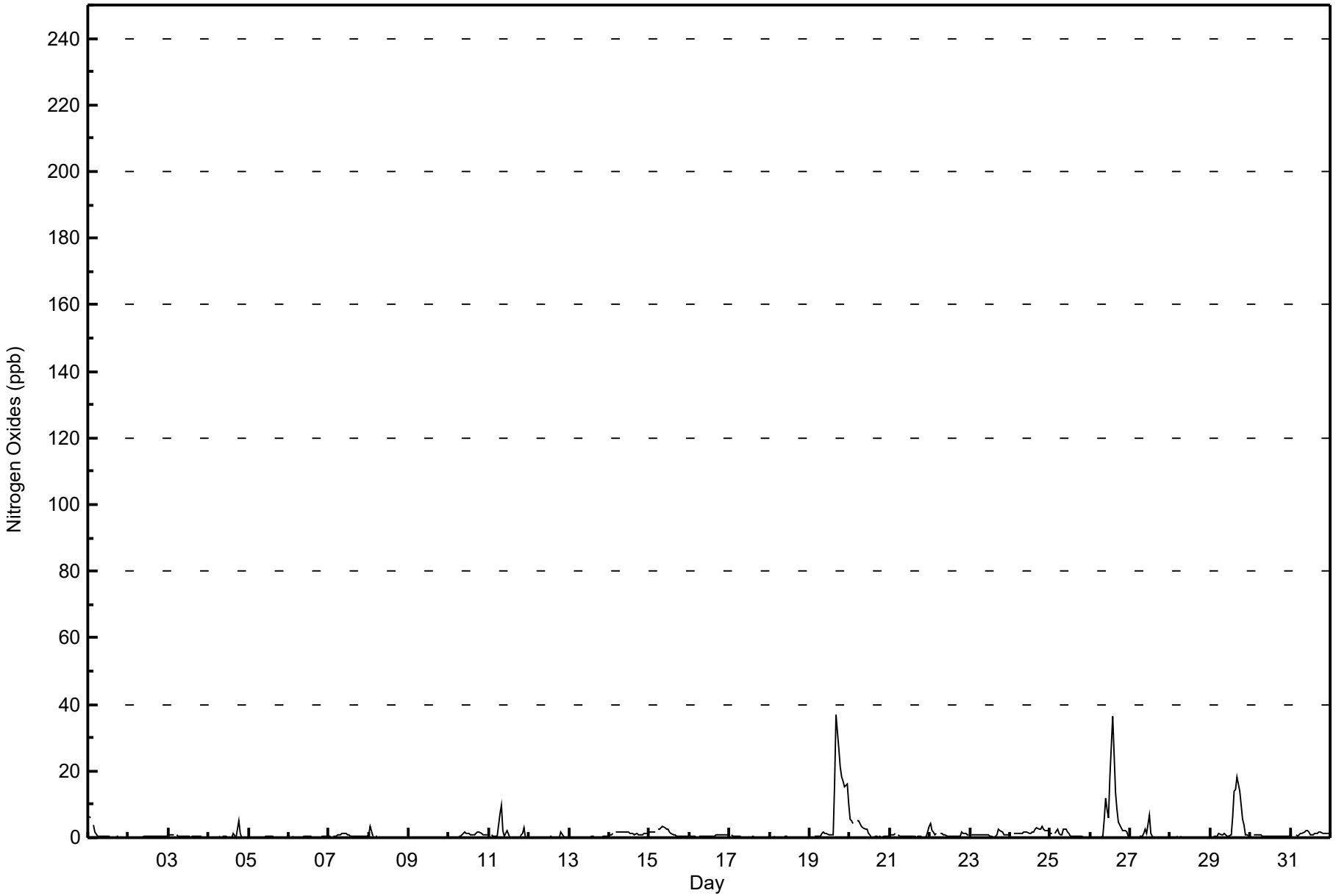
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Mackay River - October 2025



Nitrogen Oxides (NO_X) - ppb
Mackay River - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	680	99.27	99.27
21 - 40	5	0.73	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 685

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Mackay River - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	16	22	5	5	6	23	52	57	123	62	40	49	44	43	34	39	620
21 - 40	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	27	5	5	6	23	52	57	123	62	40	49	44	43	34	39	625

Total Number of Valid Hours: 625

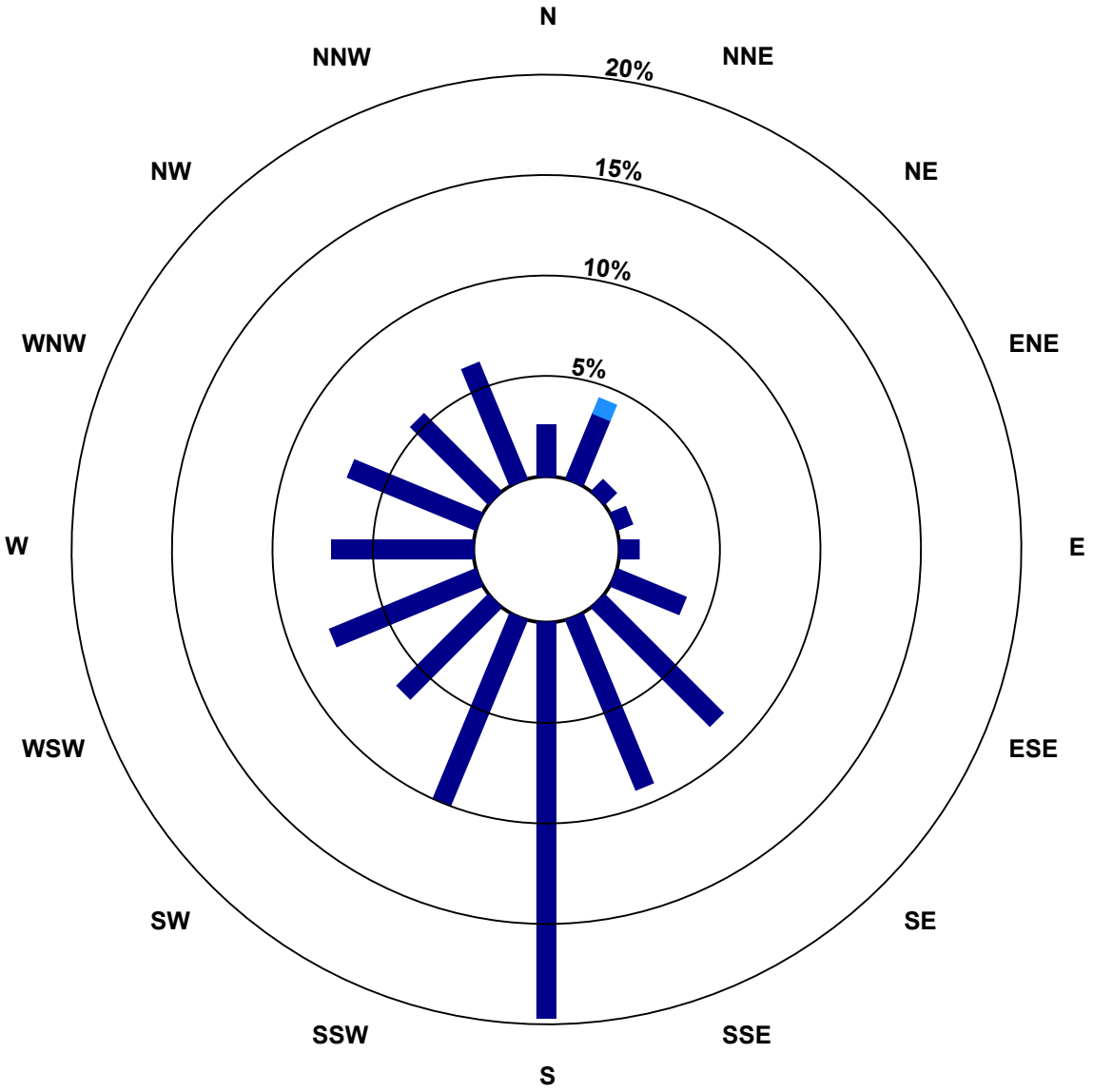
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Mackay River



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

Total Number of Valid Hours: 625

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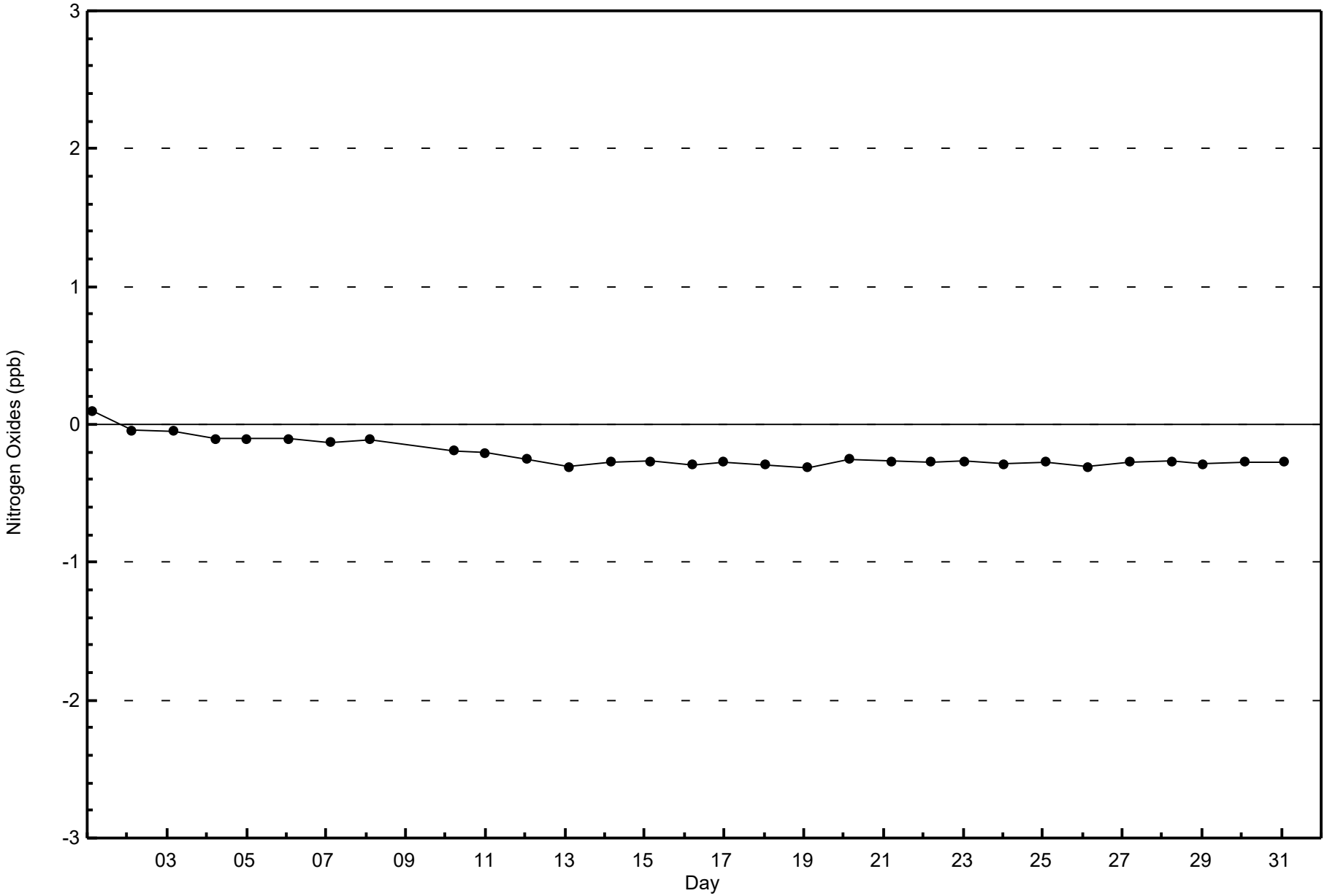
Zero Responses

Nitrogen Oxides (NO_X) - ppb

Mackay River - October 2025

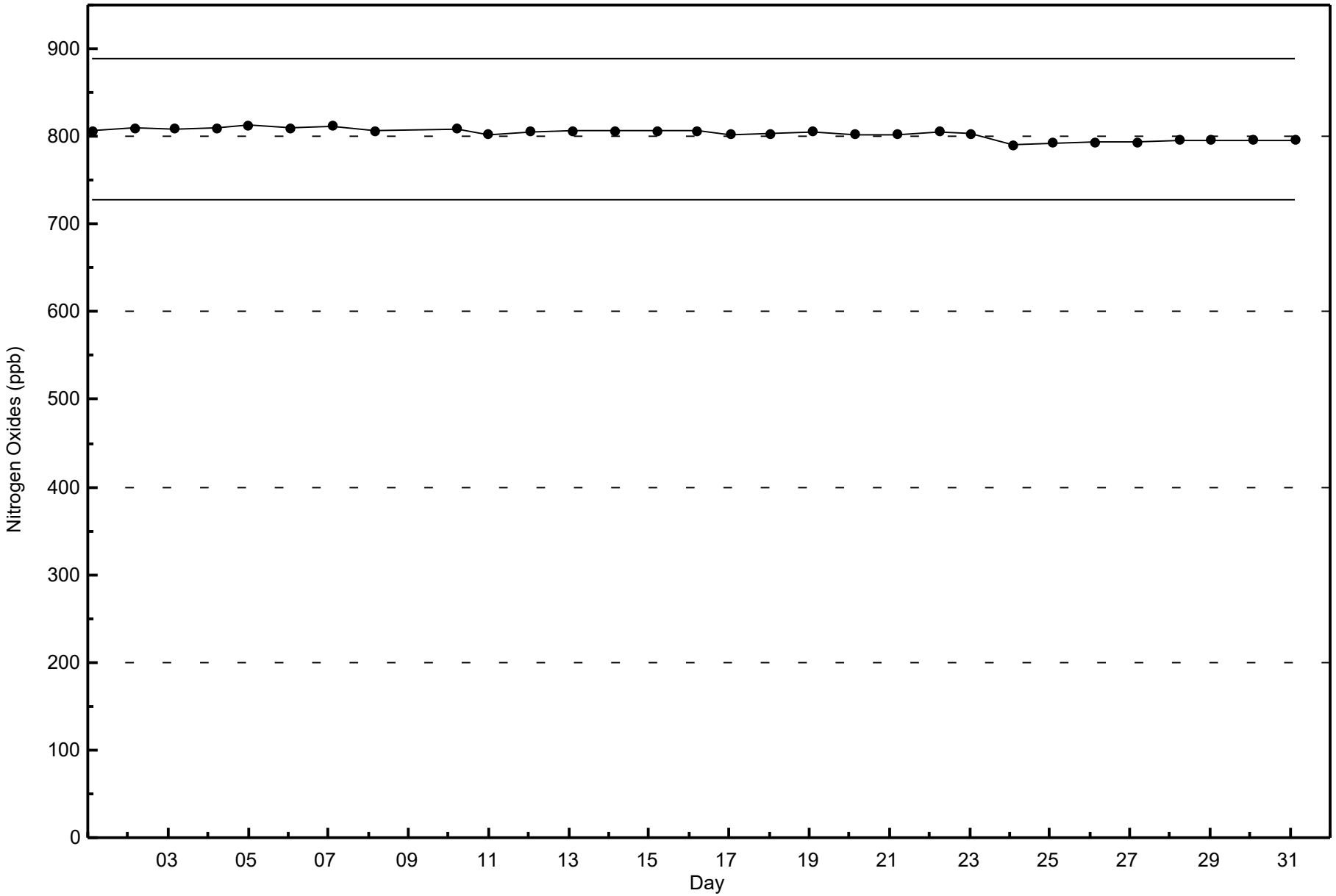


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Mackay River - October 2025



Maximum Value: 20.0 C on Oct 10 16:00

Maximum Daily Average: 10.1 C on Oct 7

Minimum Value: -5.1 C on Oct 13 08:00

Minimum Daily Average: -1.4 C on Oct 29

Maximum Diurnal Average: 7.7 C at hour 15

Minimum Diurnal Average: 1.0 C at hour 7

Monthly Average: 3.81 C

Percentiles: P_1 = -3.0 P_{10} = -1.5 Q_1 = 0.0 Median = 2.8 Q_3 = 6.9 P_{90} = 10.7 P_{99} = 17.0

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

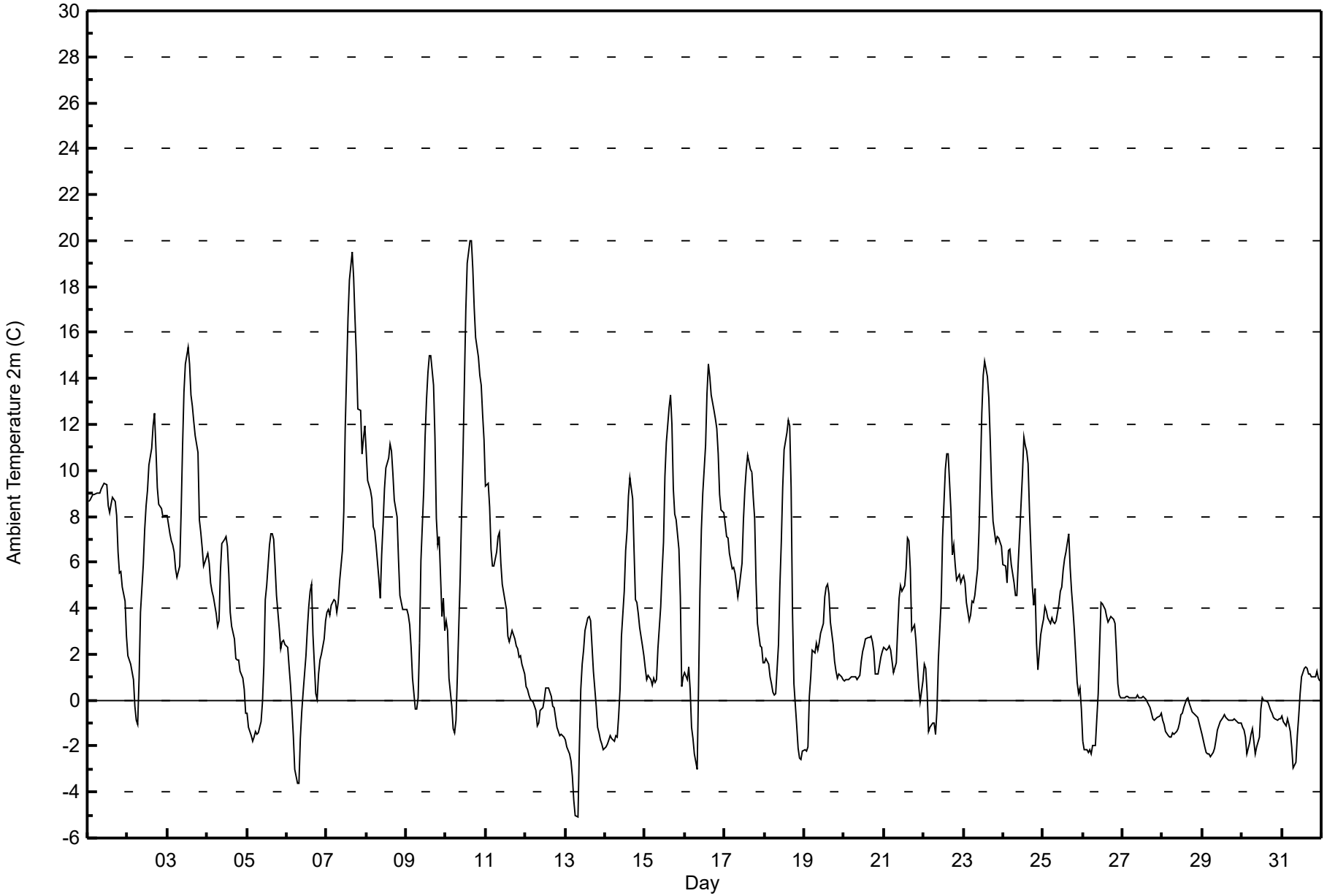
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	8.7	8.7	8.8	9.0	9.0	9.0	9.0	9.0	9.2	9.3	9.4	9.4	8.5	8.1	8.6	8.9	8.6	8.0	6.5	5.6	5.6	4.9	4.3	2.8	7.9	9.4
2-Oct	2.0	1.8	1.5	0.9	-0.2	-0.9	-1.1	1.0	3.8	5.9	7.4	8.4	9.1	10.2	10.9	11.9	12.5	11.0	9.3	8.5	8.3	8.0	8.1	8.1	6.1	12.5
3-Oct	8.1	7.3	7.0	6.8	6.5	5.7	5.4	5.9	8.2	11.0	13.4	14.6	15.4	14.6	13.3	12.8	12.1	11.5	10.8	7.9	7.3	6.6	5.8	6.2	9.3	15.4
4-Oct	6.4	6.0	5.1	4.8	4.5	3.8	3.2	3.4	5.6	6.8	7.0	7.1	6.7	5.5	3.8	3.2	2.7	1.8	1.8	1.8	1.3	1.0	0.5	-0.5	3.9	7.1
5-Oct	-0.6	-1.2	-1.6	-1.8	-1.6	-1.4	-1.5	-1.4	-1.0	-0.1	1.5	4.4	5.0	6.7	7.2	7.2	7.0	5.9	4.6	3.1	2.3	2.5	2.6	2.4	2.1	7.2
6-Oct	2.3	1.4	0.7	-0.4	-1.6	-3.0	-3.6	-3.6	-1.7	-0.5	0.3	1.9	3.1	4.1	4.7	5.0	2.9	0.3	0.0	1.1	1.7	2.0	2.7	3.5	1.0	5.0
7-Oct	3.8	4.0	3.7	4.1	4.3	4.3	3.8	4.3	5.2	6.5	8.2	11.8	14.3	16.6	18.3	19.5	18.4	16.5	14.9	12.7	12.6	10.7	11.4	11.9	10.1	19.5
8-Oct	10.8	9.6	9.2	8.8	7.6	7.3	6.8	5.3	4.4	6.3	7.7	9.2	10.1	10.6	11.1	10.8	9.8	8.7	8.0	6.2	4.5	4.2	3.9	3.9	7.7	11.1
9-Oct	3.9	3.7	3.3	2.3	0.9	-0.4	-0.4	0.1	2.5	6.1	9.1	11.5	13.1	14.2	15.0	15.0	13.7	11.4	7.9	6.7	7.1	3.6	4.4	3.0	6.6	15.0
10-Oct	3.5	3.0	0.9	-0.3	-1.3	-1.4	-0.9	1.1	5.3	8.1	10.7	13.8	16.9	19.0	20.0	20.0	18.8	17.1	15.8	14.9	14.2	13.7	12.4	11.3	9.9	20.0
11-Oct	9.3	9.4	8.4	6.6	5.8	5.8	6.4	7.1	7.3	6.0	5.1	4.7	3.9	2.8	2.5	2.8	3.1	2.7	2.4	2.2	1.9	1.9	1.6	1.1	4.6	9.4
12-Oct	0.6	0.5	0.2	0.0	-0.1	-0.3	-0.5	-1.1	-1.0	-0.4	-0.3	0.0	0.5	0.5	0.5	0.2	-0.2	-0.3	-0.8	-1.2	-1.5	-1.5	-1.6	-1.6	-0.4	0.6
13-Oct	-1.7	-2.0	-2.3	-2.7	-3.3	-4.3	-5.1	-5.1	-2.0	0.5	1.6	2.2	3.0	3.6	3.6	3.5	2.3	1.2	-0.2	-1.2	-1.4	-1.7	-1.9	-2.1	-0.7	3.6
14-Oct	-2.1	-1.9	-1.7	-1.5	-1.6	-1.8	-1.6	-1.6	-0.7	0.5	2.8	4.8	6.5	7.3	8.9	9.7	8.8	6.5	4.4	4.3	3.8	3.1	2.3	2.0	2.5	9.7
15-Oct	1.4	0.9	1.1	0.9	0.7	0.9	0.8	0.9	2.2	4.1	5.6	6.9	9.8	11.2	12.7	13.3	12.0	9.2	8.1	7.8	6.6	4.5	0.6	1.0	5.1	13.3
16-Oct	1.2	0.9	1.5	0.5	-1.2	-1.7	-2.3	-3.0	0.6	4.8	7.4	9.0	11.1	13.4	14.6	14.1	13.3	12.6	12.3	11.8	10.7	9.0	8.3	8.2	6.5	14.6
17-Oct	7.7	7.1	7.0	6.4	5.7	5.8	5.6	5.0	4.5	4.9	5.9	7.8	9.1	10.1	10.6	10.1	9.9	8.8	7.9	5.1	3.3	2.4	2.3	1.6	6.4	10.6
18-Oct	1.6	1.8	1.6	1.0	0.7	0.4	0.2	0.3	2.4	5.0	6.9	9.3	10.9	11.6	12.2	11.9	9.3	3.8	0.7	-1.1	-2.1	-2.5	-2.6	-2.2	3.4	12.2
19-Oct	-2.2	-2.2	-2.0	0.2	1.0	2.2	2.1	2.5	2.2	2.5	2.9	3.3	4.5	4.9	5.0	4.6	3.4	2.4	1.7	1.2	0.9	1.1	1.0	0.9	1.8	5.0
20-Oct	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.0	0.9	1.1	1.7	2.1	2.4	2.7	2.7	2.7	2.8	2.5	2.1	1.2	1.2	1.5	1.8	2.1	1.6	2.8
21-Oct	2.3	2.2	2.2	2.4	2.1	1.7	1.2	1.6	3.1	4.5	5.0	4.8	5.0	5.7	7.0	6.9	5.7	3.0	3.3	2.6	1.6	0.6	-0.1	0.9	3.1	7.0
22-Oct	1.6	1.4	0.3	-1.4	-1.1	-1.0	-1.0	-1.5	-0.5	1.7	4.3	7.1	8.6	10.0	10.7	10.7	8.2	6.3	6.8	5.9	5.2	5.5	5.1	5.3	4.1	10.7
23-Oct	5.4	5.1	4.2	3.5	3.7	4.3	4.2	4.6	5.7	7.4	9.9	12.5	14.1	14.7	14.1	13.2	11.4	9.2	7.8	6.9	7.1	7.1	6.9	6.7	7.9	14.7
24-Oct	5.9	5.8	5.1	6.5	6.6	5.9	5.1	4.5	4.6	6.0	7.2	9.9	11.5	11.1	10.9	10.3	8.2	5.0	4.1	4.9	2.5	1.3	2.9	3.2	6.2	11.5
25-Oct	3.5	4.1	3.9	3.6	3.4	3.6	3.4	3.3	3.5	4.2	4.7	4.9	5.7	6.1	6.5	7.2	5.8	4.8	3.9	3.0	0.8	0.3	0.6	-0.4	3.8	7.2
26-Oct	-1.8	-2.2	-2.2	-2.3	-2.2	-2.3	-2.0	-2.0	-0.8	0.3	2.3	4.3	4.2	4.0	3.6	3.4	3.5	3.6	3.5	3.3	2.1	0.7	0.3	0.1	0.9	4.3
27-Oct	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	-0.1	-0.3	-0.6	-0.8	-0.9	-0.8	-0.8	-0.7	-0.6	-0.2	0.2
28-Oct	-0.9	-1.1	-1.4	-1.6	-1.6	-1.6	-1.4	-1.5	-1.3	-1.2	-1.0	-0.7	-0.6	-0.3	0.0	0.1	-0.1	-0.3	-0.5	-0.6	-0.7	-0.7	-1.0	-1.3	-0.9	0.1
29-Oct	-1.5	-2.0	-2.3	-2.3	-2.3	-2.5	-2.3	-2.1	-1.7	-1.3	-1.1	-0.9	-0.7	-0.6	-0.7	-0.8	-0.9	-0.9	-0.9	-0.8	-0.9	-0.9	-1.0	-1.0	-1.4	-0.6
30-Oct	-1.2	-1.3	-1.6	-2.4	-1.9	-1.5	-1.2	-1.8	-2.3	-2.0	-1.6	-0.4	0.1	0.0	0.0	-0.1	-0.3	-0.4	-0.6	-0.7	-0.8	-0.9	-0.8	-0.8	-1.0	0.1
31-Oct	-0.7	-0.9	-1.1	-0.8	-1.1	-1.4	-2.0	-3.0	-2.7	-1.5	-0.7	0.3	1.0	1.4	1.5	1.4	1.2	1.1	1.0	1.0	1.0	1.3	0.9	0.8	-0.1	1.5
	2.5	2.3	2.0	1.7	1.4	1.2	1.0	1.1	2.1	3.4	4.6	5.9	6.9	7.4	7.7	7.7	6.9	5.6	4.7	4.0	3.4	2.9	2.6	2.5	Diurnal Average	
	10.8	9.6	9.2	9.0	9.0	9.0	9.0	9.0	9.2	11.0	13.4	14.6	16.9	19.0	20.0	20.0	18.8	17.1	15.8	14.9	14.2	13.7	12.4	11.9	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Mackay River - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	184	24.73	24.73
0 - 10	473	63.58	88.31
10 - 20	85	11.42	99.73
> 20	2	0.27	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 99.5 % on Oct 31 06:00

Maximum Daily Average: 98.1 % on Oct 27

Minimum Value: 30.7 % on Oct 23 15:00

Minimum Daily Average: 52.8 % on Oct 14

Maximum Diurnal Average: 87.4 % at hour 8

Minimum Diurnal Average: 64.5 % at hour 16

Monthly Average: 78.36 %

Percentiles: P_1 = 35.3 P_{10} = 49.1 Q_1 = 64.5 Median = 83.6 Q_3 = 95.0 P_{90} = 97.9 P_{99} = 99.3

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

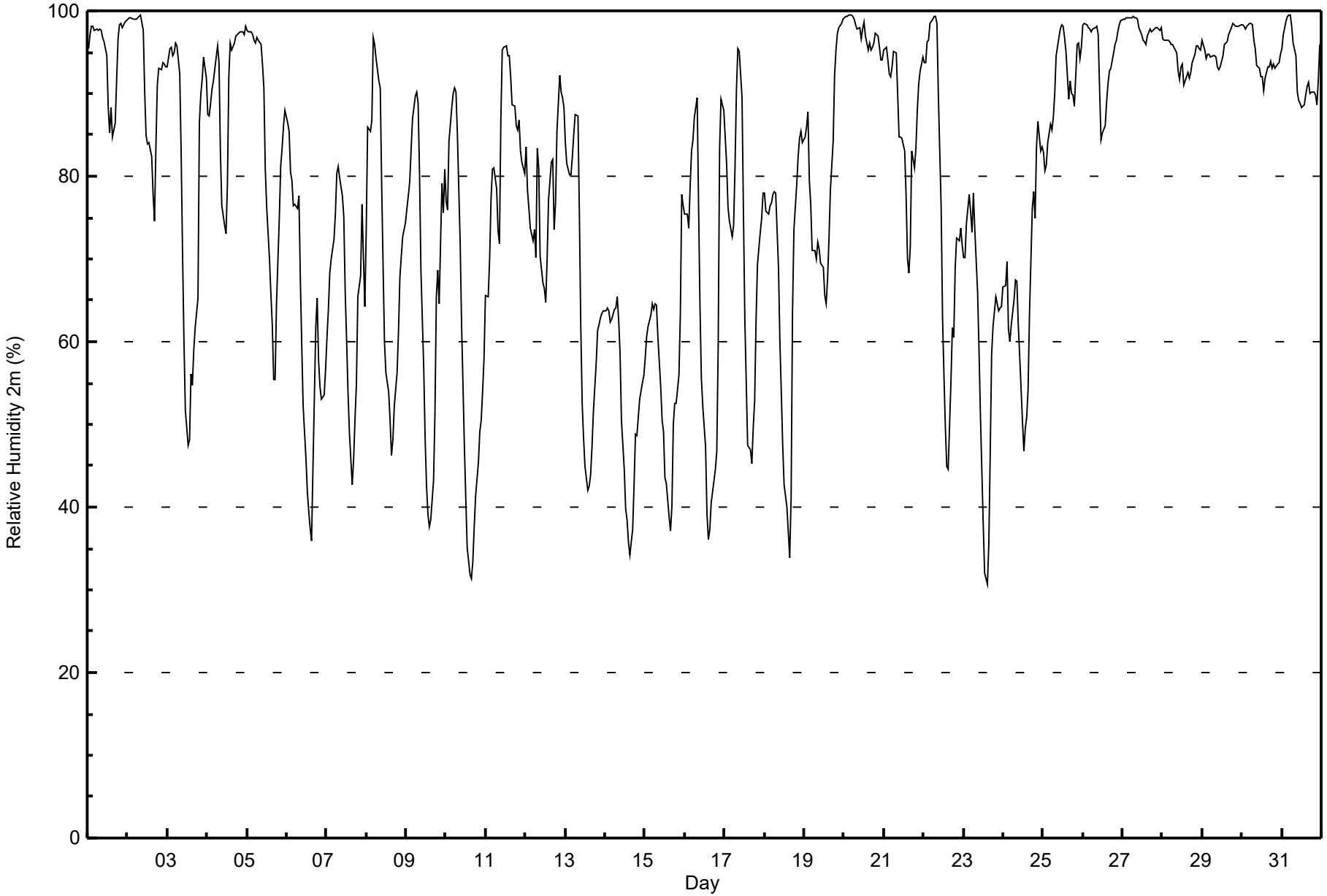
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	95.4	97.1	98.1	98.2	97.6	97.8	97.6	97.8	97.6	96.9	96.2	94.6	88.4	85.3	88.3	84.8	86.4	91.7	96.6	98.3	98.5	98.0	98.6	98.8	94.9	98.8
2-Oct	99.0	99.1	99.1	99.0	98.9	99.0	99.1	99.3	99.4	97.7	90.2	84.9	83.9	84.1	82.3	77.9	74.5	83.5	90.9	93.1	92.8	93.8	93.6	93.2	92.0	99.4
3-Oct	93.2	95.5	95.6	94.5	95.0	96.2	95.8	92.4	82.9	70.7	60.2	51.6	47.4	48.2	56.1	54.7	59.0	61.7	65.3	86.5	89.9	91.6	94.4	91.9	77.9	96.2
4-Oct	87.4	87.3	88.8	90.5	91.5	94.4	95.8	93.7	82.9	76.4	74.0	73.1	78.9	92.1	96.1	95.2	96.1	97.0	97.2	97.3	97.5	97.4	97.1	98.1	90.7	98.1
5-Oct	97.6	97.4	97.4	97.1	96.4	96.1	96.8	96.5	96.0	93.6	90.8	80.8	76.3	70.0	65.8	62.0	55.3	55.4	64.5	74.9	81.2	83.4	86.1	88.0	83.3	97.6
6-Oct	86.5	85.5	80.5	79.4	76.5	76.6	76.1	77.6	67.7	59.6	52.2	46.0	41.9	39.5	37.4	35.9	44.8	61.7	65.2	57.8	54.5	53.1	53.6	56.6	61.1	86.5
7-Oct	60.5	63.9	68.4	70.0	72.4	75.3	80.3	81.2	79.9	77.6	75.0	66.0	60.1	53.8	49.0	42.6	45.7	50.6	54.9	65.4	67.9	76.5	70.2	64.2	65.5	81.2
8-Oct	73.6	85.9	85.5	86.7	96.8	95.9	94.2	91.5	90.7	79.0	69.3	60.1	56.3	53.9	50.4	46.2	48.2	52.2	56.2	61.1	67.8	70.4	72.6	74.4	71.6	96.8
9-Oct	76.0	77.6	79.3	83.3	87.0	89.6	90.1	88.8	80.3	68.6	56.8	48.2	42.5	39.2	37.6	38.5	43.2	51.3	65.5	68.7	64.6	79.2	75.5	80.9	67.2	90.1
10-Oct	76.9	76.0	84.2	88.2	90.0	90.6	90.2	85.1	71.8	62.1	54.8	47.3	41.1	35.1	31.8	31.3	33.4	37.7	41.4	45.4	49.2	50.5	54.1	57.9	59.4	90.6
11-Oct	65.5	65.4	70.0	77.3	80.8	81.0	78.5	73.3	71.9	86.8	95.2	95.6	95.8	94.5	94.6	92.1	88.7	88.4	86.1	85.7	86.8	83.0	81.6	80.4	83.3	95.8
12-Oct	83.6	78.2	76.1	73.8	72.1	73.5	70.2	83.5	81.0	70.3	67.1	66.5	64.8	70.1	77.2	81.7	82.1	73.6	76.9	85.5	92.2	90.2	89.5	88.3	77.8	92.2
13-Oct	84.0	81.6	80.2	80.2	82.3	85.1	87.4	87.2	75.4	61.9	52.6	48.3	44.9	42.0	42.6	44.0	47.2	51.6	57.5	61.4	62.0	62.9	63.4	63.7	64.6	87.4
14-Oct	63.8	64.0	63.7	62.3	62.7	64.0	64.1	65.4	62.7	58.7	50.6	44.6	39.9	38.5	35.7	34.2	37.2	42.8	48.8	48.6	50.8	53.0	55.0	55.9	52.8	65.4
15-Oct	58.1	60.7	61.8	63.2	64.6	63.9	64.6	64.3	60.5	54.5	50.6	49.1	43.6	42.9	38.8	37.2	40.3	50.0	52.5	52.6	55.9	63.3	77.7	76.4	56.1	77.7
16-Oct	75.5	75.4	73.8	78.8	83.1	84.5	87.1	89.5	76.6	64.5	55.7	52.3	47.3	39.2	36.1	37.3	40.6	43.2	44.5	46.8	59.5	83.3	89.3	87.9	64.6	89.5
17-Oct	84.7	81.6	76.2	74.5	72.7	74.1	81.2	90.3	95.5	95.2	89.5	75.6	62.7	55.1	47.4	47.0	45.3	49.6	52.9	62.5	69.4	73.2	74.9	78.0	71.2	95.5
18-Oct	78.0	75.8	75.4	76.5	76.8	77.9	78.1	77.9	69.0	59.9	53.9	47.5	42.7	40.0	37.0	34.0	41.2	63.5	73.5	79.0	82.4	84.5	85.4	84.0	66.4	85.4
19-Oct	84.8	85.9	87.8	79.5	76.7	71.0	71.0	70.1	72.0	71.2	69.4	68.9	65.6	64.6	67.6	72.4	78.3	84.3	92.2	95.2	97.4	98.0	98.5	99.0	80.1	99.0
20-Oct	99.2	99.3	99.4	99.4	99.5	99.4	98.9	98.3	97.8	98.0	96.6	97.7	98.7	96.9	95.2	96.1	95.3	95.7	96.1	97.2	96.9	95.6	94.1	94.1	97.3	99.5
21-Oct	95.2	95.6	94.1	92.3	92.0	93.2	95.1	94.9	89.8	84.8	84.7	84.6	83.0	77.6	70.1	68.3	71.5	83.0	81.1	83.3	88.0	91.2	92.7	94.5	86.7	95.6
22-Oct	93.7	93.8	96.2	96.4	98.6	99.1	99.3	99.4	98.5	89.9	76.2	62.9	56.0	49.6	44.9	44.6	55.3	61.7	60.6	68.7	72.5	72.2	73.8	71.7	76.5	99.4
23-Oct	70.1	70.2	74.2	77.8	75.7	73.2	77.9	73.5	65.9	59.0	51.2	44.5	38.0	32.0	30.7	35.7	46.7	58.4	61.8	65.5	64.5	63.8	64.1	64.2	59.9	77.9
24-Oct	66.5	66.8	69.6	61.5	59.9	62.1	65.0	67.5	67.4	62.0	58.3	50.4	46.9	49.4	50.8	54.2	63.3	76.1	78.1	75.0	83.6	86.7	83.1	83.6	66.2	86.7
25-Oct	82.9	80.7	81.3	84.1	86.3	85.5	87.2	90.1	94.6	96.8	97.8	98.3	98.1	96.8	95.0	89.3	91.5	89.9	89.9	88.5	96.0	96.0	94.3	95.7	91.1	98.3
26-Oct	98.3	98.5	98.3	97.9	97.8	97.5	97.9	98.0	98.2	97.2	90.5	84.3	85.2	86.1	89.0	91.3	92.7	93.0	95.0	96.0	96.5	97.5	98.4	98.7	94.7	98.7
27-Oct	99.0	99.0	99.1	99.1	99.2	99.2	99.3	99.2	99.2	98.9	98.0	97.2	96.5	96.3	96.0	96.9	97.8	97.5	97.6	97.8	98.0	97.9	97.6	98.1	98.1	99.3
28-Oct	96.6	96.5	96.4	96.4	96.3	95.9	96.0	95.7	94.9	92.7	91.7	93.2	93.5	91.1	92.0	92.5	91.9	92.6	93.7	94.7	95.8	95.8	95.4	95.3	94.4	96.6
29-Oct	96.5	95.3	94.3	94.7	94.7	94.4	94.5	94.6	94.4	93.3	92.9	93.2	94.6	95.9	96.1	96.3	97.1	97.9	98.4	98.3	98.1	98.1	98.2	98.3	95.8	98.4
30-Oct	98.3	98.1	97.8	98.2	98.6	98.5	98.3	96.5	95.5	93.4	93.1	92.0	92.1	90.4	91.9	93.3	93.3	94.0	93.1	93.6	93.0	93.5	93.7	94.8	94.8	98.6
31-Oct	95.5	97.2	98.8	99.3	99.4	99.5	98.1	96.1	94.6	90.1	89.1	88.9	88.3	88.7	89.9	90.9	91.4	90.1	90.2	90.2	89.8	88.7	91.8	96.0	93.0	99.5
	84.4	84.7	85.2	85.5	86.2	86.6	87.3	87.4	84.0	79.4	75.0	70.6	67.6	65.8	64.9	64.5	66.9	71.6	74.8	77.9	80.4	82.7	83.5	83.9	Diurnal Average	
	99.2	99.3	99.4	99.4	99.5	99.5	99.3	99.4	99.4	98.9	98.0	98.3	98.7	96.9	96.1	96.9	97.8	97.9	98.4	98.3	98.5	98.1	98.6	99.0	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Mackay River - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	28	3.76	3.76
40 - 60	111	14.92	18.68
60 - 80	194	26.08	44.76
80 - 100	411	55.24	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Precipitation (PC) - mm

Mackay River - October 2025

Maximum Value: 7.4 mm on Oct 27 05:00

Maximum Daily Total: 25.5 mm on Oct 27

Minimum Value: 0.0 mm on Oct 1 11:00

Minimum Daily Total: 0.0 mm on Oct 2

Maximum Diurnal Total: 7.8 mm at hour 5

Minimum Diurnal Total: 1.2 mm at hour 7

Monthly Total: 82.30 mm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.1 P_{99} = 2.5

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

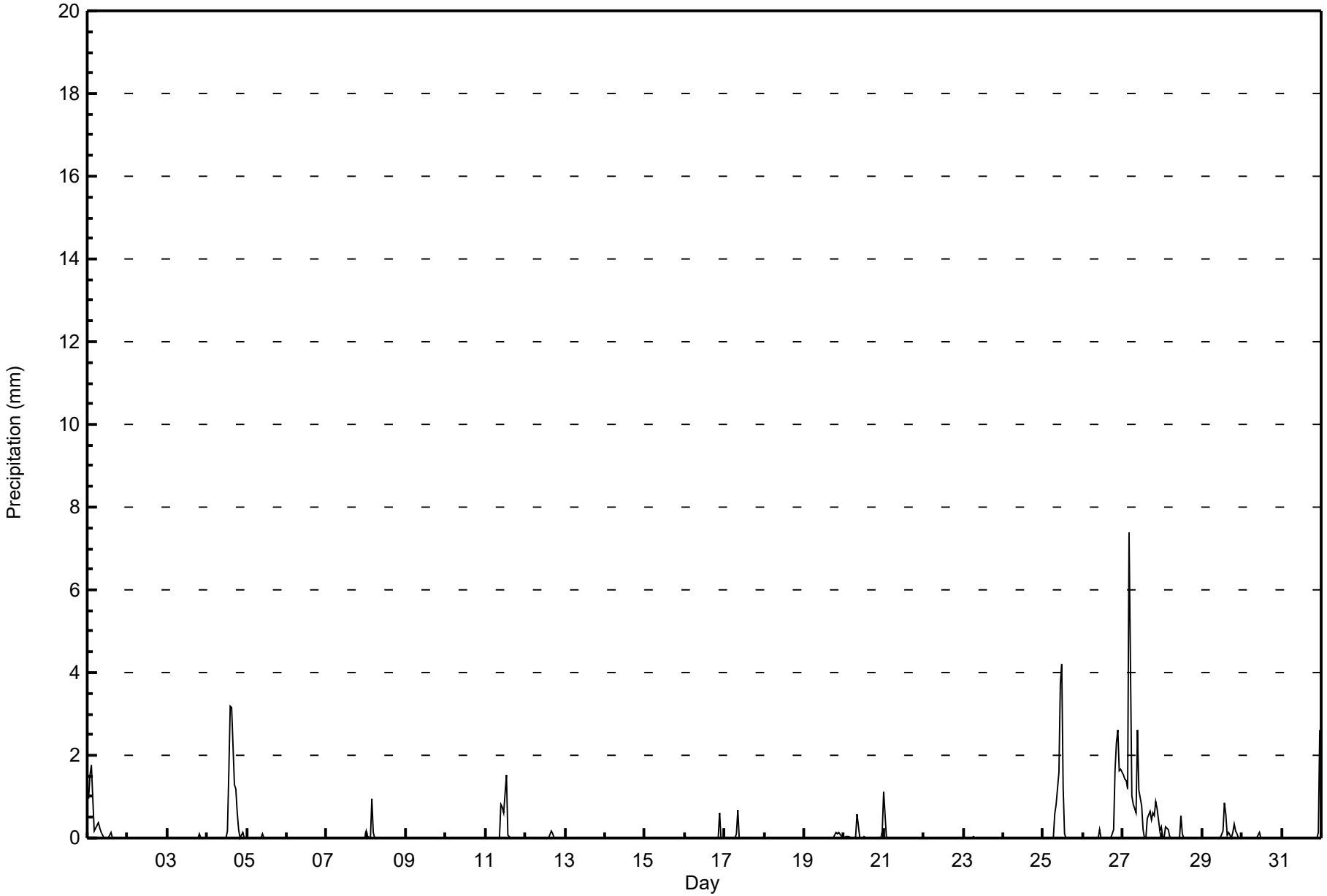
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.9	1.5	1.8	1.0	0.2	0.3	0.4	0.3	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	1.8
2-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1
4-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.6	3.2	3.2	1.3	1.2	0.6	0.2	0.0	0.1	0.0	0.0	11.5	3.2
5-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
6-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8-Oct	0.2	0.0	0.0	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.0
9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.7	0.6	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	1.5
12-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2
13-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	0.6
17-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.7
18-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.5	0.1
20-Oct	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.6	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0	0.6
21-Oct	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
22-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
24-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.8	1.6	3.7	4.2	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3	4.2
26-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.6	2.3	2.6	1.6	1.7	10.3	2.6
27-Oct	1.5	1.4	1.4	1.2	7.4	1.0	0.8	0.7	0.6	2.6	1.2	0.8	0.2	0.0	0.0	0.5	0.6	0.4	0.6	0.5	0.9	0.7	0.2	0.3	25.5	7.4
28-Oct	0.1	0.0	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.6
29-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9	0.6	0.1	0.1	0.0	0.1	0.4	0.2	0.1	0.0	0.0	2.5	0.9
30-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
31-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.6	2.7	2.6
	3.8	3.0	3.4	3.4	7.8	1.3	1.2	1.7	2.8	5.2	5.9	6.1	3.4	2.7	3.9	3.9	2.2	1.6	1.6	2.9	3.4	4.3	2.0	4.7	Diurnal Average	
	1.5	1.5	1.8	1.2	7.4	1.0	0.8	0.7	0.8	2.6	3.7	4.2	1.5	1.6	3.2	3.2	1.3	1.2	0.6	1.6	2.3	2.6	1.6	2.6	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Precipitation (PC) - mm

Mackay River - October 2025



Concentration Ranges (mm)	Number of Hours	%	Cumulative %
0 - 0.3	690	92.74	92.74
0.4 - 0.5	4	0.54	93.28
0.6 - 0.7	14	1.88	95.16
0.8 - 1.4	18	2.42	97.58
1.5 - 10	18	2.42	100.00
> 10	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Mackay River - October 2025

Maximum Speed: 18 km/h on Oct 26 21:00

Maximum Daily Speed Average: 11.1 km/h on Oct 14

Minimum Speed Value: 0 km/h on Oct 11 03:00

Minimum Daily Speed Average: 0.1 km/h on Oct 6

Maximum Diurnal Speed Average: 4.8 km/h at hour 14

Minimum Diurnal Speed Average: 1.8 km/h at hour 19

Monthly Average Velocity: 2.9 km/h 220.0 deg

Percentiles: P_1 = 1 P_{10} = 4 Q_1 = 5 Median = 7 Q_3 = 10 P_{90} = 12 P_{99} = 15

Hours in Service: 744

Hours of Data: 681

Hours of Missing Data: 63

Percent Operational Time: 91.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	N7	N8	N8	N11	N11	NNW11	NNW11	NNW10	NNW10	NNW10	NNW10	N10	NNE9	N6	N5	NNW6	NW5	W2	WSW1	WSW1	WSW3	NW2	W1	S1	NNW6.0	N11
2-Oct	SSE2	WSW1	SE1	SE2	SSE2	SSE3	UO	SSE4	SE4	SSE4	S7	SSE8	S7	S8	S7	SSE6	S6	SSE5	SE5	SSE5	SSE6	S7	S8	S10	SSE5.0	S10
3-Oct	S9	S9	S10	S11	S9	S8	S9	S10	SSW11	SSW12	SW12	SW13	WSW13	WSW13	SW10	SW10	SW11	SW9	WSW10	WSW7	WSW8	WSW6	WSW6	WSW7	SW8.9	WSW13
4-Oct	WSW7	WSW7	WSW7	WSW6	WSW6	WSW5	W5	WNW6	WNW7	WNW9	WNW8	NNW5	W4	WNW6	NW4	NW10	NW13	NW12	NW10	WNW7	WNW9	WNW8	W6	UO	WNW6.5	NW13
5-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	SSW8	WSW9	W9	W8	W8	W8	WNW9	W7	W6	W4	WSW4	WSW6	SW5	WNW5	----	WNW9
6-Oct	NNW7	NNE7	NNW6	NNW8	NNW8	NNW6	NNW6	NNW4	NNW6	NNE6	E3	S3	SW3	S5	S6	SSW7	S4	SE3	SE4	SE5	SE7	SE6	SSE6	SSE7	ENE0.1	NNW8
7-Oct	SSE8	SSE8	SSE6	SSE7	S8	SSE7	S8	S10	S11	S11	S10	S9	S10	S10	S10	S10	S8	S6	SSW4	S5	S4	NNW1	WNW6	W8	S6.8	S11
8-Oct	WNW5	WNW7	W7	W8	W4	WSW6	WNW10	W8	WSW6	WSW8	W9	W10	WSW10	WSW11	WSW10	W10	W9	WSW6	W10	W11	WNW9	W7	WNW7	WNW10	W8.0	W11
9-Oct	WNW8	W7	WSW6	SW6	SW6	SSW6	SW7	SW6	SW6	SW6	SW9	SW9	SW10	SW12	WSW11	SW9	SW8	SSW5	SSW5	SSW6	SSW6	S5	S7	SSE7	SW6.4	SW12
10-Oct	S7	S7	S5	SE4	SE4	SSE5	SSE6	SSE6	S7	S10	S10	S9	S11	S15	S14	S13	S12	S9	S10	S11	S10	S11	SSE7	S6	S8.5	S15
11-Oct	SSE5	SSE6	SE0	SE0	SSE1	NW4	NW8	NW8	NW14	NW13	NW14	NW10	WNW12	WNW14	WNW10	WNW11	WNW11	WNW10	WNW11	WNW14	WNW12	NW14	NW15	NW15	NW8.4	NW15
12-Oct	NW15	NW15	NNW14	NNW14	NNW15	NNW13	NNW13	NW12	NW11	NNW14	NNW14	NNW12	NNW12	NNW12	NNW11	NNW8	NW9	NNW10	NW8	NW8	WNW4	WNW4	WSW2	W4	NW10.2	NW15
13-Oct	WNW5	WNW4	WSW4	SW4	SW4	SSW4	S5	S6	S7	SSW8	SW11	SW11	SSW12	SSW13	S13	S12	SSW10	SSW10	S7	S7	S8	S8	S9	S10	SSW7.3	S13
14-Oct	S12	S12	S13	S12	SSW12	S13	S15	SSW14	SSW14	SSW15	SSW15	SSW13	SSW12	SSW11	SSW11	SSW10	SSW8	SSW6	S7	S9	S9	S9	S10	S10	SSW11.1	SSW15
15-Oct	S10	S9	S12	S11	S10	S11	S12	S12	S12	S12	SSW12	SSW10	SW9	WSW9	SW8	SW7	SSW6	SSW6	SSW7	SSW8	SSW7	SSW4	SSW3	SW5	SSW8.5	S12
16-Oct	SW5	SW5	WSW4	WSW4	WSW3	S6	SSE5	SSE4	SSE5	S6	S7	S8	S8	S11	S13	SSW13	S11	SSW11	S8	S11	S11	SSW12	S10	SSW9	S7.5	S13
17-Oct	SSW8	SW9	SW8	SW8	SW7	WSW8	W8	W8	W8	W8	W9	W10	W11	WNW11	WNW16	WNW14	WNW14	WNW9	WNW8	W4	W4	W5	W5	W5	W7.7	WNW16
18-Oct	WSW6	WSW7	WSW7	WSW7	WSW7	WSW6	WSW6	WSW6	WSW7	W7	WSW8	WSW8	W9	W9	W9	W7	W3	SE3	SE3	SE3	SE4	SE4	SSE4	SE5	WSW4.6	W9
19-Oct	SSE4	SE4	ESE5	ESE6	ESE5	ESE7	ESE6	E5	E7	E6	E6	E7	ENE7	ENE7	NE7	NE6	NNE7	NNE7	NNE7	NNE6	NNE7	NNE7	NNE7	NNE8	ENE5.0	NNE8
20-Oct	NNE6	N6	N6	N7	NNE6	NNW4	NW5	WNW3	SSW1	SSW3	S4	SSW5	SSW5	SW5	SW6	SSW6	S6	S6	S6	SSE6	SSE8	SSE10	S10	SSE7	SSW2.0	S10
21-Oct	SSE5	SSE5	S7	S9	SSW9	SSW7	SW6	WSW6	W7	W8	W8	WSW8	W8	WNW9	W8	WNW8	WNW6	NW3	N5	NNW3	NNE1	SE2	SE3	SE5	WSW3.6	SSW9
22-Oct	SE6	ESE5	SE5	ENE3	SE6	SE6	SE6	SSE5	SSE5	S7	S6	S7	SSE8	SSE9	SSE9	SSE8	SE5	ESE6	ESE9	ESE10	ESE11	ESE12	ESE11	ESE9	SE6.7	ESE12
23-Oct	SE10	SE11	SE9	SE8	SE8	SE6	SSE5	SSE6	S7	S8	S7	S6	SW6	S6	S7	SE6	SE6	ESE8	SE8	SE8	SE8	SSE8	SSE8	SE8	SSE6.8	SE11
24-Oct	SE8	SE7	SE7	S9	S9	S9	SSW10	S9	S7	S5	S7	S7	SSE5	SE6	ESE3	ESE6	ENE3	ESE2	ESE4	ESE4	ESE3	ESE3	ESE6	ESE4	SSE5.1	SSW10
25-Oct	ESE5	SE4	SE3	N4	NNW3	SSE4	SW3	WSW4	W6	WSW7	WSW8	W8	W8	WSW10	WSW10	WSW8	SW8	SW8	SW7	SSW6	S5	S7	SSW6	SSE4	SW4.2	WSW10
26-Oct	SE3	SSE4	SSE5	SE4	SE2	ENE2	NE2	NNE3	NNE4	NNE6	NE7	NE7	NNE9	NNE10	NNE10	NNE12	NNE14	NNE15	NNE18	NNE17	NNE18	N13	N12	N11	NNE7.2	NNE18
27-Oct	N9	NNW7	NNW6	NNW7	NW7	NW7	NW8	NW8	NW9	NW10	NW11	NW11	WNW12	WNW12	WNW14	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	WNW14
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	W9	WNW8	W6	W5	UO	UO	UO	UO	UO	UO	UO	UO	----	W9
29-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	NNE7	NNE5	N4	NW6	NNW7	NNW6	NNW5	NW4	WNW2	----	NNW7
30-Oct	W2	W1	UO	UO	UO	UO	UO	WNW5	WNW4	UO	UO	SSW4	SSW5	SW6	SW5	SW5	SW5	SW3	SSW4	SSW4	SW4	SSW4	SSW5	SW4	----	SW6
31-Oct	SSW5	SW5	SSW3	S6	S7	S8	S8	SSE7	SSE8	SSE9	SSE9	SE9	SE9	SE11	SE13	SE11	SE11	SE13	SE12	SE8	SSE7	S7	SSE6	SSE7	SSE7.7	SE13
	SSW2.0	SSW2.0	SSW2.3	SSW2.2	SSW2.2	SSW2.7	SW2.8	SW3.1	SW3.2	SW3.7	SW4.3	SW4.2	WSW4.6	SW4.8	SW4.6	SW3.6	SW2.9	SW2.1	SSW1.8	SSW2.1	SSW2.4	SSW2.5	SSW2.8	SSW2.6	Diurnal Average	
	NW15	NW15	NNW14	NNW14	NNW15	S13	SSW15	SSW14	SSW14	SSW15	SSW15	SW13	WSW13	S15	WNW16	WNW14	WNW14	NNE15	NNE18	NNE17	NNE18	NW14	NW15	NW15	Diurnal Maximum	

UO - Unstable Operation

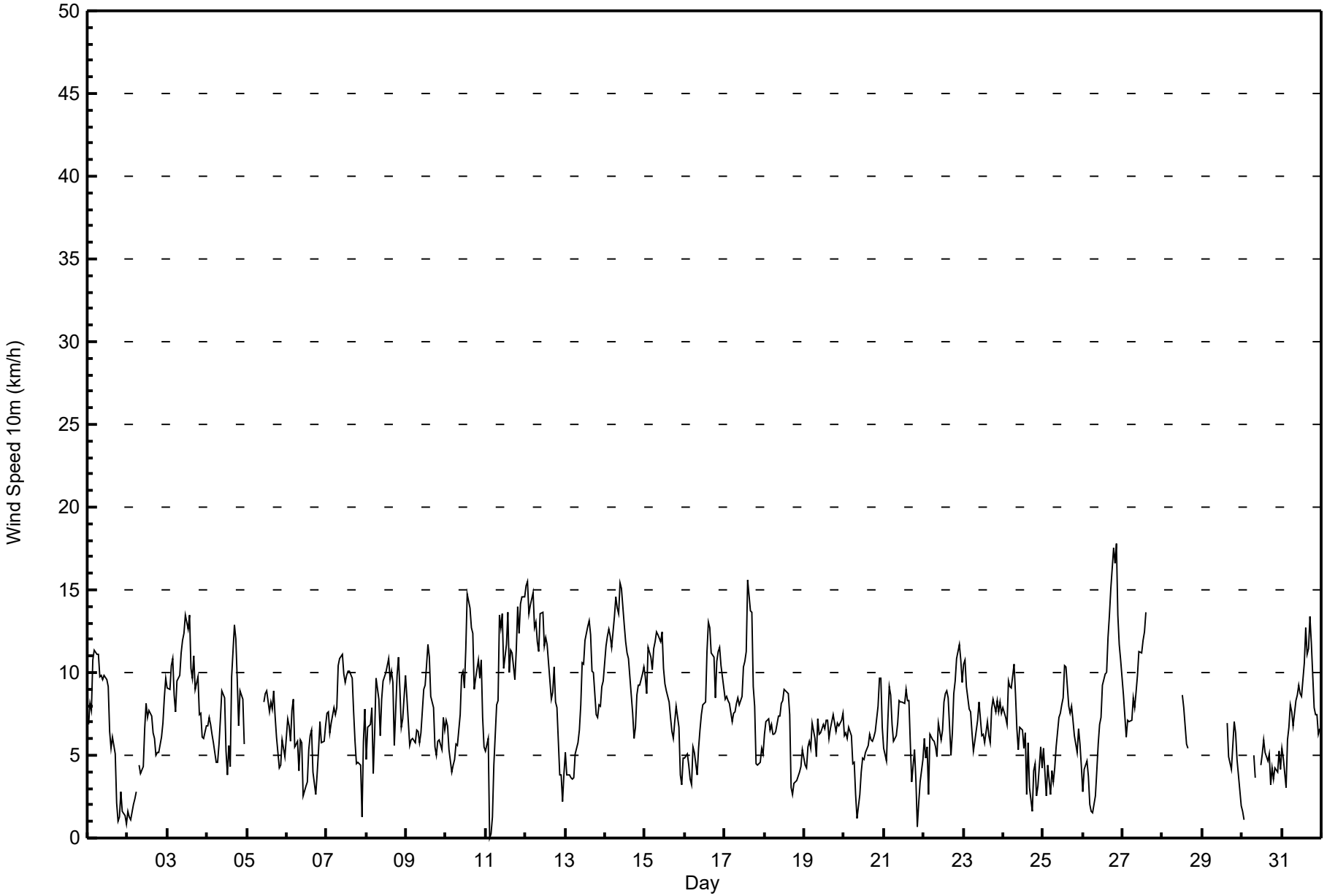
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Mackay River - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	176	25.84	25.84
6 - 11	426	62.56	88.40
12 - 19	79	11.60	100.00
20 - 28	0	0.00	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 681

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Mackay River - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	4	4	1	3	2	11	27	26	11	20	15	12	16	10	7	7	176
6 - 11	12	18	4	2	4	12	28	34	99	32	29	45	39	28	18	22	426
12 - 19	2	6	0	0	0	1	3	0	17	14	3	2	0	10	11	10	79
20 - 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	18	28	5	5	6	24	58	60	127	66	47	59	55	48	36	39	681

Total Number of Valid Hours: 681

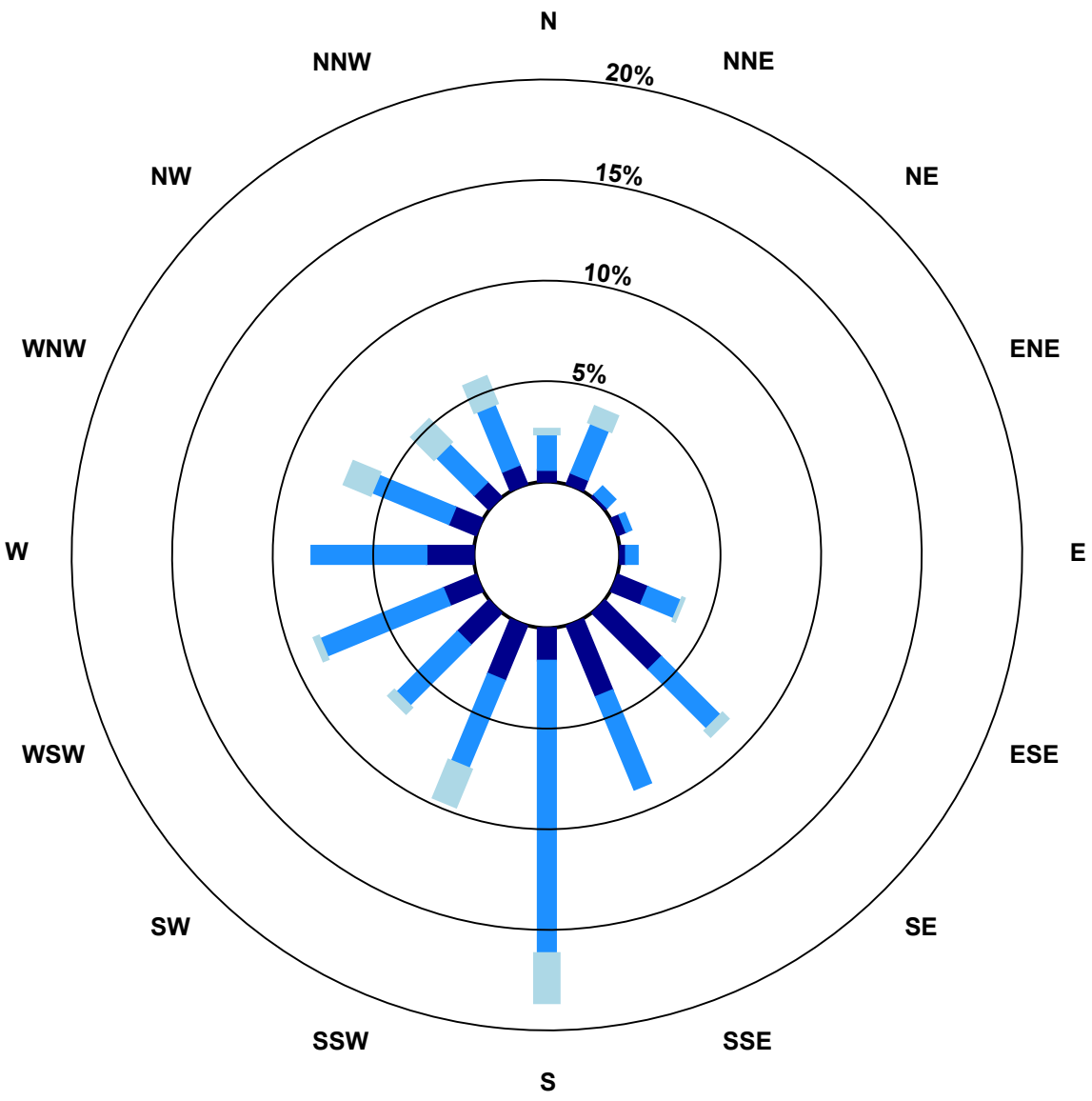
Total Number of Hours: 744

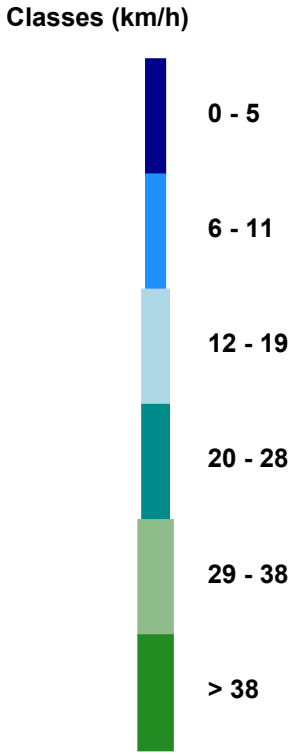
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Mackay River





Total Number of Valid Hours: 681

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Mackay River - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 6 km/h on Oct 17 15:00

Minimum Value: 0 km/h on Oct 18 18:00

Percentiles: $P_1 = 1$ $P_{10} = 1$ $Q_1 = 2$ Median = 2 $Q_3 = 3$ $P_{90} = 4$ $P_{99} = 6$

Hours in Service:	744
Hours of Data:	681
Hours of Missing Data:	63
Hours of Calibration:	0
Percent Operational Time:	91.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	2	3	3	3	3	3	3	3	3	3	3	2	2	2	2	1	1	1	1	1	1	1	3
2-Oct	1	1	1	1	0	1	UO	1	1	1	2	2	2	3	2	2	2	2	1	2	2	2	2	3	3
3-Oct	3	2	3	3	2	2	2	3	3	4	5	5	6	6	5	4	4	4	5	4	3	3	2	3	6
4-Oct	3	3	3	2	2	2	2	2	2	3	3	2	2	4	2	4	6	4	3	2	3	3	2	UO	6
5-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	3	4	4	3	3	3	3	3	2	2	2	2	2	2	4
6-Oct	3	3	2	2	3	2	2	1	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2	3
7-Oct	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	2	1	2	2	1	2	4	3	4
8-Oct	2	2	3	3	2	3	4	4	3	3	4	4	5	5	4	5	4	2	5	5	3	3	3	4	5
9-Oct	3	3	2	2	2	2	2	2	2	3	3	3	4	5	5	4	3	2	1	1	2	1	1	1	5
10-Oct	1	1	1	1	0	1	1	1	2	3	3	3	4	5	4	4	4	3	3	3	3	3	3	2	5
11-Oct	1	2	2	2	1	2	2	2	5	4	5	3	4	5	4	4	4	3	4	5	4	5	5	5	5
12-Oct	5	5	4	4	5	4	4	4	4	5	4	3	4	3	3	3	4	3	3	3	2	1	1	2	5
13-Oct	2	2	2	1	1	1	1	1	2	3	4	4	5	4	4	4	4	3	2	2	2	2	3	3	5
14-Oct	3	3	4	3	4	4	5	4	4	5	6	5	4	4	4	3	3	1	1	2	2	2	2	2	6
15-Oct	3	2	3	3	2	3	3	3	4	3	4	3	4	4	3	3	2	1	2	2	2	2	1	1	4
16-Oct	1	2	1	1	1	1	1	1	2	2	2	2	3	4	4	5	3	3	3	3	4	4	3	3	5
17-Oct	2	3	3	3	3	3	3	3	4	3	4	4	5	5	6	5	5	4	3	2	2	2	2	2	6
18-Oct	2	3	3	3	3	2	2	3	3	3	3	3	4	4	4	4	3	0	1	1	1	1	1	1	4
19-Oct	1	1	1	1	1	1	1	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	3
20-Oct	2	2	2	2	2	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2	3
21-Oct	2	1	2	2	2	2	2	2	3	3	3	3	3	3	3	4	2	1	2	1	1	1	1	1	4
22-Oct	2	1	2	1	2	1	1	1	1	2	2	2	2	3	3	3	1	2	2	2	3	3	3	3	3
23-Oct	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	3
24-Oct	2	2	2	3	3	2	3	2	2	2	2	2	2	2	2	2	1	1	2	1	1	1	1	2	3
25-Oct	2	2	3	4	2	2	1	2	2	3	3	3	3	5	4	4	3	3	2	2	1	1	2	3	5
26-Oct	1	2	1	1	2	1	1	2	1	2	2	2	3	3	4	4	4	5	6	6	6	5	4	4	6
27-Oct	3	3	2	2	2	2	3	2	2	3	3	3	3	4	4	UO	UO	UO	UO	UO	UO	UO	UO	UO	4
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	3	3	2	2	UO	UO	UO	UO	UO	UO	UO	UO	3
29-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	2	2	2	2	2	2	2	1	2	2
30-Oct	2	1	UO	UO	UO	UO	UO	2	2	UO	UO	2	2	2	3	3	2	2	2	1	1	1	2	2	3
31-Oct	2	2	1	2	3	3	2	2	2	2	3	2	3	3	4	3	3	4	4	3	3	3	2	2	4
	5	5	4	4	5	4	5	4	5	5	6	5	6	6	6	5	6	5	6	6	6	5	5	5	
	Diurnal Maximum																								

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Mackay River - October 2025

Direction of Maximum Speed: 16 deg on Oct 26 21:00
Direction of Maximum Daily Speed Average: 193.8 deg on Oct 14

Direction of Minimum Speed: 126 deg on Oct 11 03:00
Direction of Minimum Daily Speed Average: 0.1 deg on Oct 6

Monthly Average Direction: 220.0 deg

Hours in Service:	744
Hours of Data:	681
Hours of Missing Data:	63
Percent Operational Time:	91.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	3	356	353	360	353	343	339	344	340	339	348	357	13	4	352	343	316	276	251	253	243	305	276	172	346.1
2-Oct	158	239	135	142	150	149	UO	150	132	152	169	159	180	176	170	164	180	151	143	163	165	174	181	186	166.4
3-Oct	186	187	181	184	188	184	185	189	196	209	214	228	241	241	231	227	217	226	238	249	244	254	238	238	215.0
4-Oct	255	245	252	249	249	252	266	284	285	294	303	339	265	286	311	317	323	313	309	292	289	291	281	UO	289.1
5-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	200	243	259	266	277	279	289	278	281	273	242	238	235	292	--
6-Oct	338	14	332	330	333	339	341	327	342	28	83	190	214	191	188	197	180	146	125	135	135	139	157	159	61.3
7-Oct	158	160	159	158	170	167	172	185	183	186	180	178	179	169	183	191	180	180	197	188	187	332	291	279	181.5
8-Oct	300	294	279	275	264	254	287	275	251	255	259	263	250	250	248	262	268	246	277	278	286	276	282	287	269.0
9-Oct	288	273	253	236	220	201	217	217	227	231	231	234	231	234	242	234	226	205	199	199	204	176	177	168	224.6
10-Oct	176	175	170	143	130	150	147	163	170	176	181	169	179	189	188	186	185	182	176	178	174	172	167	182	175.2
11-Oct	151	147	126	127	156	316	323	315	323	323	314	305	296	297	285	291	291	283	292	300	300	314	323	325	305.1
12-Oct	321	326	329	333	330	327	333	321	320	327	329	341	340	332	327	336	323	331	319	311	296	293	238	269	325.9
13-Oct	283	283	254	230	229	210	184	179	191	207	218	221	203	192	186	191	194	194	184	176	187	185	184	183	199.0
14-Oct	186	190	186	189	192	188	191	193	197	198	204	207	211	209	204	199	195	196	179	184	186	184	186	185	193.8
15-Oct	186	184	186	186	185	189	186	190	184	191	200	210	231	243	236	230	212	200	206	206	206	205	211	226	200.7
16-Oct	226	230	249	250	248	178	165	151	168	170	184	179	169	183	191	194	190	195	185	186	183	199	189	198	190.4
17-Oct	202	215	220	219	228	248	275	271	271	261	264	273	278	282	294	290	291	283	283	268	265	259	265	260	265.4
18-Oct	257	254	255	253	254	249	251	255	258	270	257	258	264	264	265	274	271	136	140	140	141	141	157	146	246.9
19-Oct	155	137	118	119	122	110	105	94	100	92	97	92	76	69	53	51	23	30	32	29	30	31	24	21	70.6
20-Oct	17	359	7	11	18	336	326	299	199	193	186	208	210	222	214	207	190	187	179	161	167	168	174	168	191.7
21-Oct	165	147	174	191	196	209	222	237	259	276	265	253	266	282	280	290	292	314	10	346	17	138	132	134	243.1
22-Oct	133	117	127	76	124	126	138	157	161	172	169	169	168	164	162	150	126	121	118	121	120	117	119	122	136.8
23-Oct	125	127	130	134	135	138	148	166	169	181	180	185	216	188	177	145	124	123	127	136	139	152	149	144	148.8
24-Oct	142	136	141	170	175	182	192	182	185	191	170	170	164	127	107	111	72	102	110	122	119	122	116	112	153.3
25-Oct	110	134	142	355	346	148	221	244	264	257	257	266	275	248	248	253	227	228	217	203	190	182	200	164	230.7
26-Oct	130	153	151	145	132	66	38	23	23	29	56	50	32	28	30	25	24	21	16	23	16	11	0	359	26.7
27-Oct	352	345	338	328	322	318	315	313	314	313	315	307	302	298	298	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	278	285	272	271	UO	UO	UO	UO	UO	UO	UO	UO	--
29-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	23	20	359	316	330	347	337	310	290	--
30-Oct	269	261	UO	UO	UO	UO	UO	291	291	UO	UO	212	212	219	214	220	218	231	213	199	214	201	201	217	--
31-Oct	207	218	204	184	176	176	173	157	160	160	152	136	136	130	132	137	133	134	137	141	158	171	150	162	152.5
	200.8	204.1	204.4	212.4	208.7	205.6	224.0	225.5	228.3	230.6	226.2	228.5	237.0	234.7	232.8	233.0	235.0	218.1	213.6	204.3	197.9	195.4	196.4	199.2	
	Diurnal Average																								

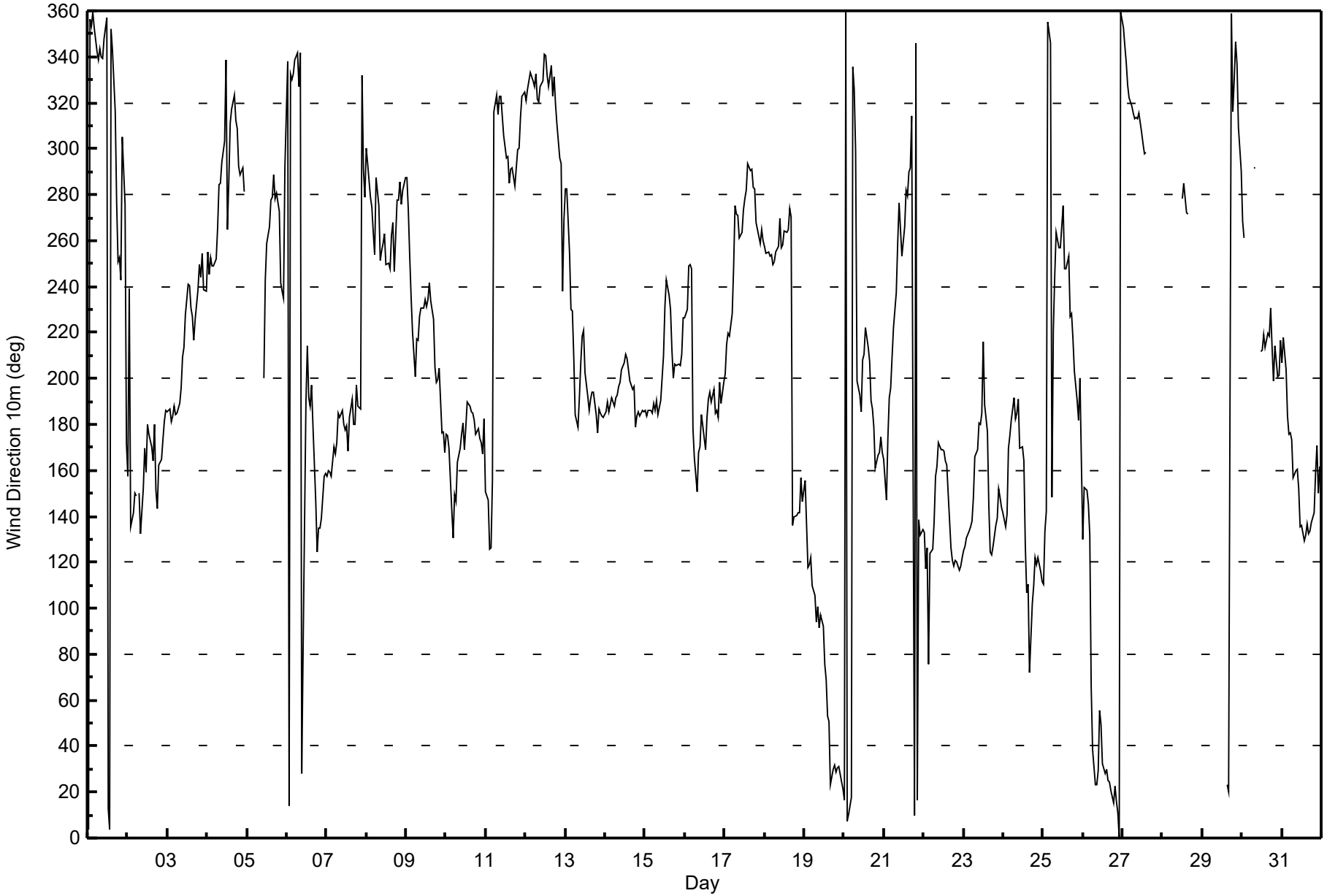
UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Mackay River - October 2025



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Mackay River - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 100 deg on Oct 11 03:00

Minimum Value: 7 deg on Oct 18 20:00

Percentiles: P_1 = 12 P_{10} = 18 Q_1 = 22 Median = 26 Q_3 = 35 P_{90} = 44 P_{99} = 77

Hours in Service:	744
Hours of Data:	681
Hours of Missing Data:	63
Hours of Calibration:	0
Percent Operational Time:	91.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	27	26	25	25	25	25	23	25	24	22	24	26	26	27	30	26	20	45	39	62	35	39	67	53	67
2-Oct	40	67	78	24	22	35	UO	16	16	25	25	25	26	29	30	29	28	22	22	26	26	23	22	19	78
3-Oct	22	19	17	19	20	19	17	20	22	29	33	37	44	39	38	34	31	35	39	47	44	50	41	43	50
4-Oct	52	43	42	43	47	43	44	26	30	26	28	41	62	47	33	32	23	21	19	25	24	25	33	UO	62
5-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	27	44	49	46	38	35	26	35	30	38	45	35	40	25	49
6-Oct	32	31	21	21	23	22	23	19	27	43	83	83	78	65	45	38	28	21	17	20	19	23	27	25	83
7-Oct	26	26	25	26	24	24	22	21	22	21	23	26	26	26	27	27	24	18	44	36	33	68	26	32	68
8-Oct	47	25	36	40	48	43	34	34	49	45	45	51	45	41	43	44	41	46	39	34	31	39	32	29	51
9-Oct	28	41	45	38	30	21	25	24	35	38	34	34	37	39	43	42	34	20	13	15	17	17	13	13	45
10-Oct	13	12	15	20	13	18	12	18	23	24	25	28	27	25	25	26	22	23	25	22	23	25	26	19	28
11-Oct	20	22	100	84	77	28	19	24	24	22	21	23	28	25	30	26	27	32	26	23	24	21	21	23	100
12-Oct	22	21	23	23	21	22	23	21	20	24	23	25	25	26	29	29	23	22	20	21	36	28	44	36	44
13-Oct	31	39	45	26	28	18	14	13	22	33	37	33	34	28	25	24	26	23	22	25	22	23	22	22	45
14-Oct	21	21	20	21	23	22	25	23	24	24	29	32	31	32	28	25	22	20	13	17	16	18	17	17	32
15-Oct	17	17	17	18	18	19	21	21	22	22	25	29	36	43	38	40	25	17	18	19	20	71	32	24	71
16-Oct	26	24	33	29	26	25	16	19	22	19	24	22	26	24	26	25	23	25	26	22	24	23	21	25	33
17-Oct	22	25	28	30	31	44	37	47	43	48	41	40	39	38	28	27	27	32	29	37	34	45	40	45	48
18-Oct	47	42	39	44	43	43	49	42	42	40	46	47	46	48	44	43	55	15	11	7	8	12	23	10	55
19-Oct	15	15	11	13	15	14	16	27	22	30	28	27	31	38	29	33	24	27	24	23	26	24	25	25	38
20-Oct	29	25	24	26	26	31	23	23	69	49	32	29	34	32	31	29	22	22	22	26	25	25	22	27	69
21-Oct	31	30	25	21	19	21	27	46	44	39	42	39	42	40	40	32	26	19	24	28	77	37	26	19	77
22-Oct	20	20	26	37	16	17	24	22	21	21	25	26	27	31	29	24	17	14	17	19	18	18	19	19	37
23-Oct	19	19	20	22	20	24	25	22	24	22	31	38	41	45	28	25	18	18	17	21	25	25	25	24	45
24-Oct	23	21	22	25	25	22	21	21	20	30	25	31	37	35	48	24	28	38	24	21	56	31	16	18	56
25-Oct	17	61	96	64	77	46	32	47	44	46	42	44	37	43	45	54	31	32	23	24	18	15	25	40	96
26-Oct	21	16	17	18	53	36	61	20	22	35	24	27	26	25	24	25	25	25	26	26	26	26	25	24	61
27-Oct	24	22	21	20	18	18	18	19	19	20	20	22	23	25	23	UO	UO	UO	UO	UO	UO	UO	UO	UO	25
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	38	34	44	40	UO	UO	UO	UO	UO	UO	UO	UO	44
29-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	26	27	35	23	22	25	20	21	35	35
30-Oct	37	43	UO	UO	UO	UO	UO	24	30	UO	UO	30	34	32	26	59	31	51	24	29	25	22	22	29	59
31-Oct	33	37	32	22	29	25	25	24	24	24	26	22	21	19	21	22	20	22	21	26	32	27	27	29	37
	52	67	100	84	77	46	61	47	69	49	83	83	78	65	48	59	55	51	44	62	77	71	67	53	
	Diurnal Maximum																								

UO - Unstable Operation

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS21
CONKLIN
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - CONKLIN (AMS21)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	708	35	36	99.87	-	-	3.5	0	0.7	0
TRS(ppb) Average	706	38	38	100	0.5	0	0.5	0	0.3	0
THC(ppm) Average	708	35	36	99.87	-	-	3.4	-	2.5	-
NMHC(ppm) Average	708	35	36	99.87	-	-	0.047	-	0.003	-
CH4(ppm) Average	708	35	36	99.87	-	-	3.4	-	2.5	-
O3 (ppb) Average	709	34	35	99.87	-	-	42.5	0	30.1	-
NO2 (ppb) Average	707	36	37	99.87	-	-	9.2	0	3.8	-
NO (ppb) Average	707	36	37	99.87	-	-	18.2	-	2.1	-
NOX (ppb) Average	707	36	37	99.87	-	-	24.3	-	5.9	-
PM2.5 (ug/m3) Average	744	0	0	100	-	-	29.7	0	9.3	0
Temperature 2 m (C) Average	744	0	0	100	-	-	20.2	-	10.8	-
Relative Humidity (%) Average	732	0	12	98.39	-	-	100	-	99.8	-
Wind Speed 10 m (km/h) Average	738	0	6	99.19	-	-	23	-	13	-
Wind Direction 10 m (deg) Average	738	0	6	99.19	-	-	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - CONKLIN (AMS21)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	708	0.27	0.4	-	0	0	0.1	0.1	0.3	0.6	3.5
TRS (ppb) Average	706	0.16	0.1	-	0.1	0.1	0.1	0.1	0.2	0.2	0.5
THC (ppm) Average	708	2.1	0.1	-	2	2	2	2.1	2.1	2.2	3.4
NMHC(ppm) Average	708	0	0.002	-	0	0	0	0	0	0	0.047
CH4(ppm) Average	708	2.1	0.1	-	2	2	2	2.1	2.1	2.2	3.4
O3 (ppb) Average	709	20.88	8.6	-	1.1	8.8	15.2	21.4	27.2	31.8	42.5
NO2 (ppb) Average	707	1.55	1.2	-	0.1	0.4	0.7	1.2	2	3.1	9.2
NO (ppb) Average	707	0.44	1.3	-	0	0	0	0.1	0.3	0.9	18.2
NOX (ppb) Average	707	1.98	2.2	-	0.1	0.5	0.7	1.4	2.3	4.1	24.3
PM2.5 (ug/m3) Average	744	3.9	3.6	-	0.1	0.9	1.8	3.2	4.6	7.1	29.7
Temperature 2 m (C) Average	744	3.53	5.3	-	-6.5	-2.1	-0.9	2.3	7.3	10.9	20.2
Relative Humidity (%) Average	732	77.28	19.7	-	26.9	46.5	62.7	82.3	94.5	99.7	100
Wind Speed 10 m (km/h) Average	738	6.6	4	-	0	2	4	6	9	12	23
Wind Direction 10 m (deg) Average	738	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - CONKLIN (AMS 21)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
O3, SO2,NMHC, NOx	07 Oct 2025 13:00	07 Oct 2025 13:00	1	Maintenance - sample manifold cleaned
Relative Humidity	02 Oct 2025 01:00	02 Oct 2025 06:00	6	Sensor operated out of range
Relative Humidity	26 Oct 2025 23:00	27 Oct 2025 01:00	3	Sensor operated out of range
Relative Humidity	29 Oct 2025 22:00	30 Oct 2025 00:00	3	Sensor operated out of range
Wind Speed, Wind Direction	05 Oct 2025 04:00	05 Oct 2025 09:00	6	Flat line in sensor output signal

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Conklin - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 3.5 ppb on Oct 24 15:00

Maximum Daily Average: 0.7 ppb on Oct 30

Minimum Value: 0.0 ppb on Oct 2 21:00

Minimum Daily Average: 0.0 ppb on Oct 27

Maximum Diurnal Average: 0.4 ppb at hour 15

Minimum Diurnal Average: 0.2 ppb at hour 6

Monthly Average: 0.27 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.3 P_{90} = 0.6 P_{99} = 1.9

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.1	0.1	0.2	0.2	Z	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.6	0.4	0.4	0.2	0.6
2-Oct	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.5	1.1	0.9	0.4	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.3	1.1
3-Oct	0.0	Z	0.0	0.1	0.1	0.2	0.2	0.4	0.2	0.2	0.2	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.4
4-Oct	0.1	0.2	Z	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.2
5-Oct	0.1	0.0	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
6-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.3	0.4	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.5	0.2	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.5
7-Oct	0.2	0.2	0.2	0.2	0.2	Z	0.3	0.2	0.5	1.2	1.0	0.5	M	0.2	0.3	0.5	0.7	0.5	0.5	0.5	0.5	0.6	0.6	0.3	0.5	1.2
8-Oct	Z	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.3
9-Oct	0.2	Z	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.3	0.1	0.2	0.1	0.3
10-Oct	0.1	0.2	Z	0.7	0.4	0.2	0.1	0.3	0.2	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.4	0.3	0.7
11-Oct	0.6	0.4	0.3	Z	0.2	0.1	0.2	0.3	0.2	0.2	0.6	1.8	0.3	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.3	1.8
12-Oct	0.1	0.1	0.2	0.2	Z	0.4	0.4	0.5	0.4	0.6	0.4	0.1	1.4	1.6	1.5	1.7	1.5	0.5	0.1	0.0	0.2	0.3	0.3	0.2	0.5	1.7
13-Oct	0.4	0.3	0.3	0.3	0.3	Z	0.3	0.1	0.0	0.1	0.0	0.1	0.3	0.3	0.2	0.2	0.3	0.3	0.7	0.6	0.7	0.7	0.5	0.5	0.3	0.7
14-Oct	Z	0.4	0.4	0.4	0.4	0.5	0.4	0.6	0.6	0.3	0.4	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.6
15-Oct	0.1	Z	0.4	0.7	0.6	0.2	0.7	0.3	2.0	3.1	C	C	C	C	1.0	1.2	1.4	1.0	0.5	0.3	0.2	0.1	0.1	0.1	0.7	3.1
16-Oct	0.1	0.1	Z	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.3	0.2	0.3	0.2	0.1	0.1	0.0	0.0	0.4	0.1	0.0	0.1	0.2	0.1	0.4
17-Oct	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
18-Oct	0.2	0.1	0.1	0.1	Z	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
19-Oct	0.0	0.2	0.1	0.2	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
20-Oct	Z	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.5	0.7	0.6	0.6	0.4	0.4	0.5	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.7
21-Oct	0.2	Z	0.2	0.4	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.4
22-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.3	0.1	0.2	0.1	0.2	0.9	1.6	3.1	1.2	1.0	1.9	1.8	0.6	3.1
23-Oct	1.6	1.6	0.9	Z	1.0	0.3	0.2	0.1	0.2	0.4	0.7	0.7	0.6	1.0	1.3	0.6	0.6	0.4	0.3	0.4	0.2	0.3	0.3	0.5	0.6	1.6
24-Oct	0.2	0.2	0.1	0.1	Z	0.0	0.0	0.1	0.1	0.2	0.5	0.6	0.6	1.3	3.5	2.6	1.2	0.3	0.2	0.1	0.2	0.1	0.0	0.1	0.5	3.5
25-Oct	0.1	0.1	0.2	0.1	0.1	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2
26-Oct	Z	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.2
27-Oct	0.1	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
28-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1	0.4	0.0	0.4
29-Oct	2.6	1.1	0.9	Z	0.8	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.3	0.1	0.2	0.2	0.3	0.4	0.4	2.6
30-Oct	0.7	0.7	0.5	0.8	Z	0.6	0.8	0.6	0.8	1.1	1.6	0.5	0.3	0.2	0.2	0.4	0.9	0.9	0.9	0.7	0.9	0.9	0.9	1.0	0.7	1.6
31-Oct	0.5	0.9	0.4	0.2	0.2	Z	0.2	0.1	0.3	0.4	0.6	0.4	0.4	0.4	0.5	1.5	2.1	1.6	1.0	0.3	0.1	0.3	0.2	0.2	0.6	2.1
	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.3	Diurnal Average	
	2.6	1.6	0.9	0.8	1.0	0.6	0.8	0.6	2.0	3.1	1.6	1.8	1.4	1.6	3.5	2.6	2.1	1.6	1.6	3.1	1.2	1.0	1.9	1.8	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

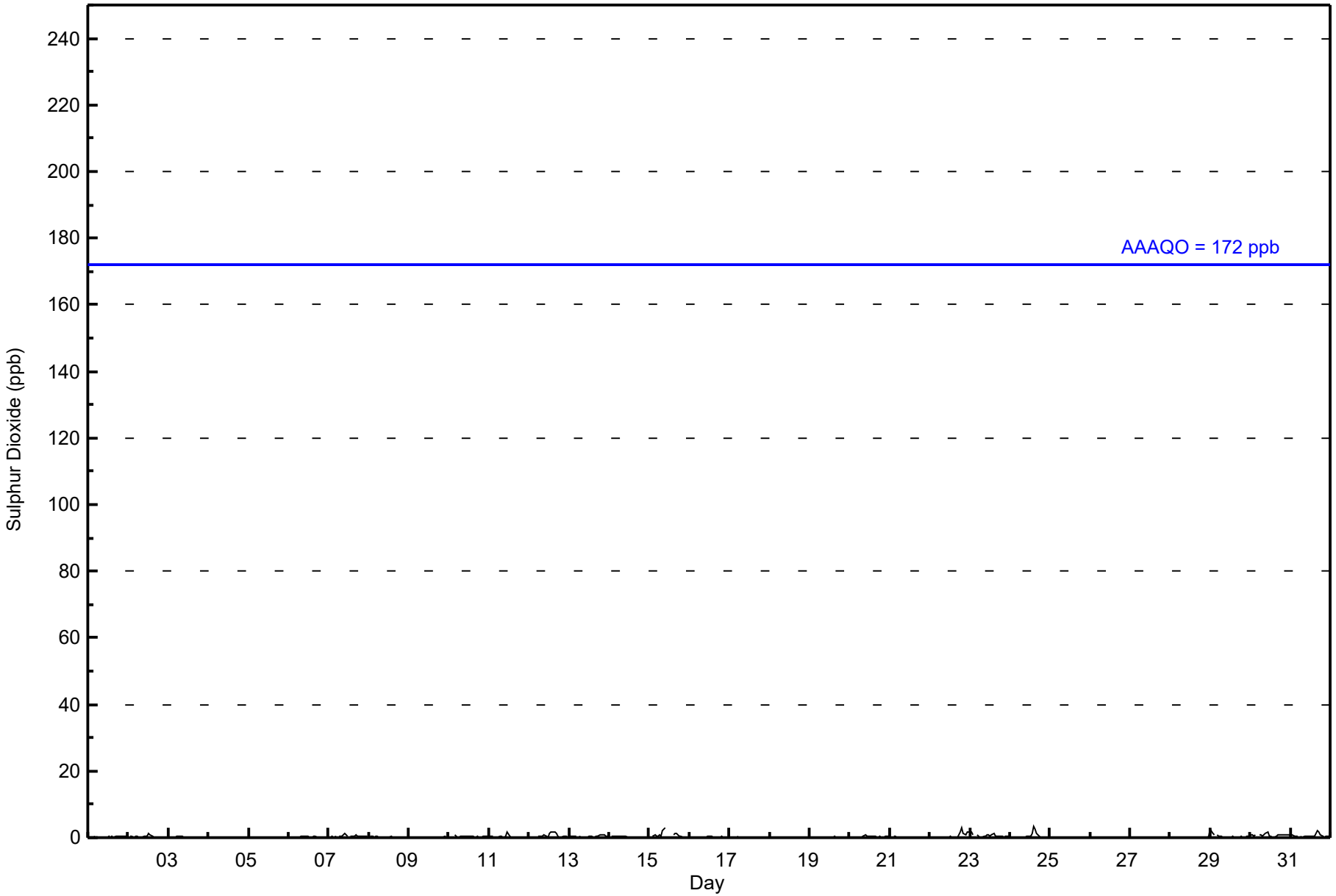
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Conklin - October 2025



Sulphur Dioxide (SO_2) - ppb
Conklin - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	708	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Conklin - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	15	8	4	2	5	9	51	86	83	68	49	24	43	93	102	61	703
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	15	8	4	2	5	9	51	86	83	68	49	24	43	93	102	61	703

Total Number of Valid Hours: 703

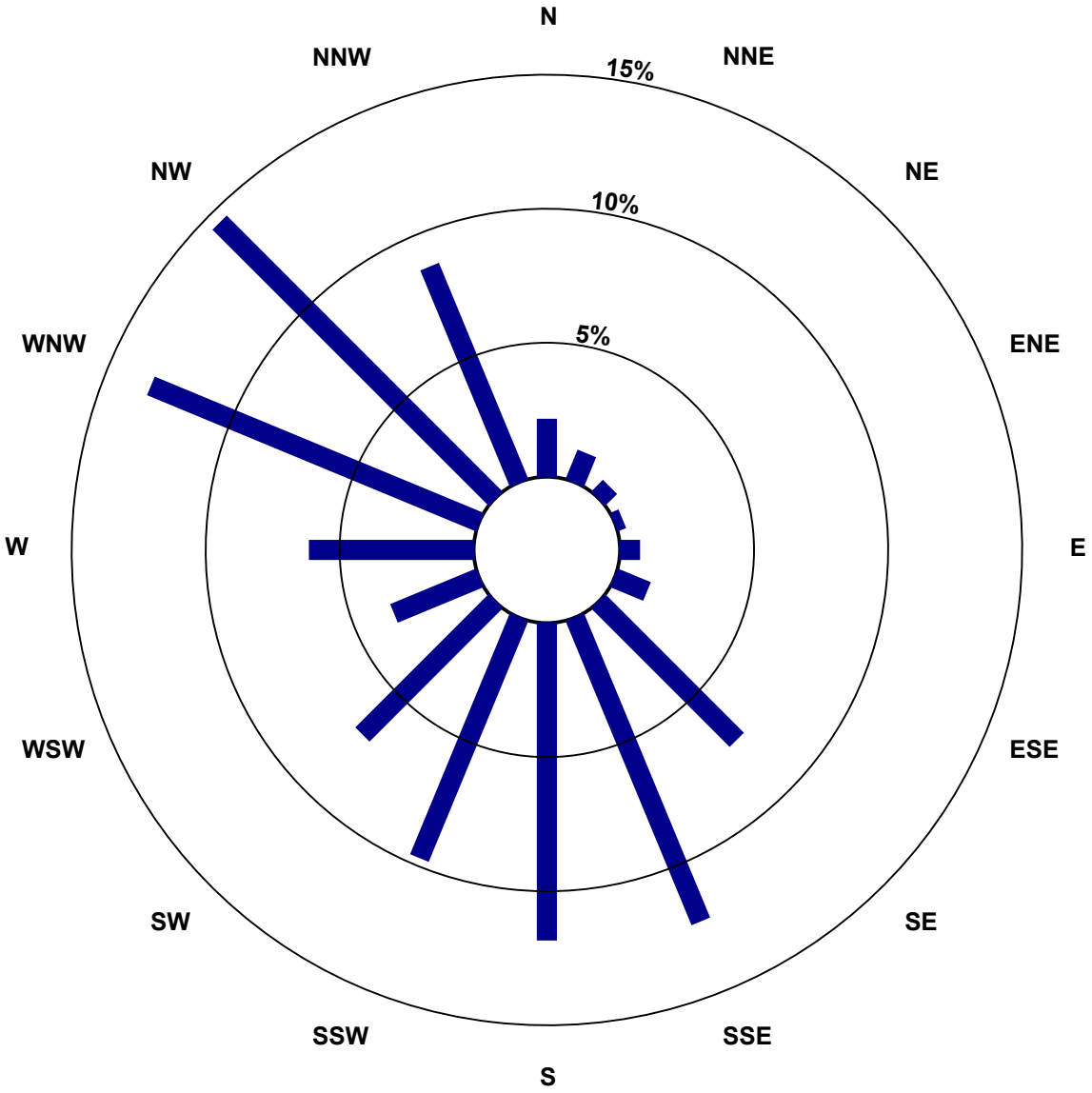
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Conklin



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

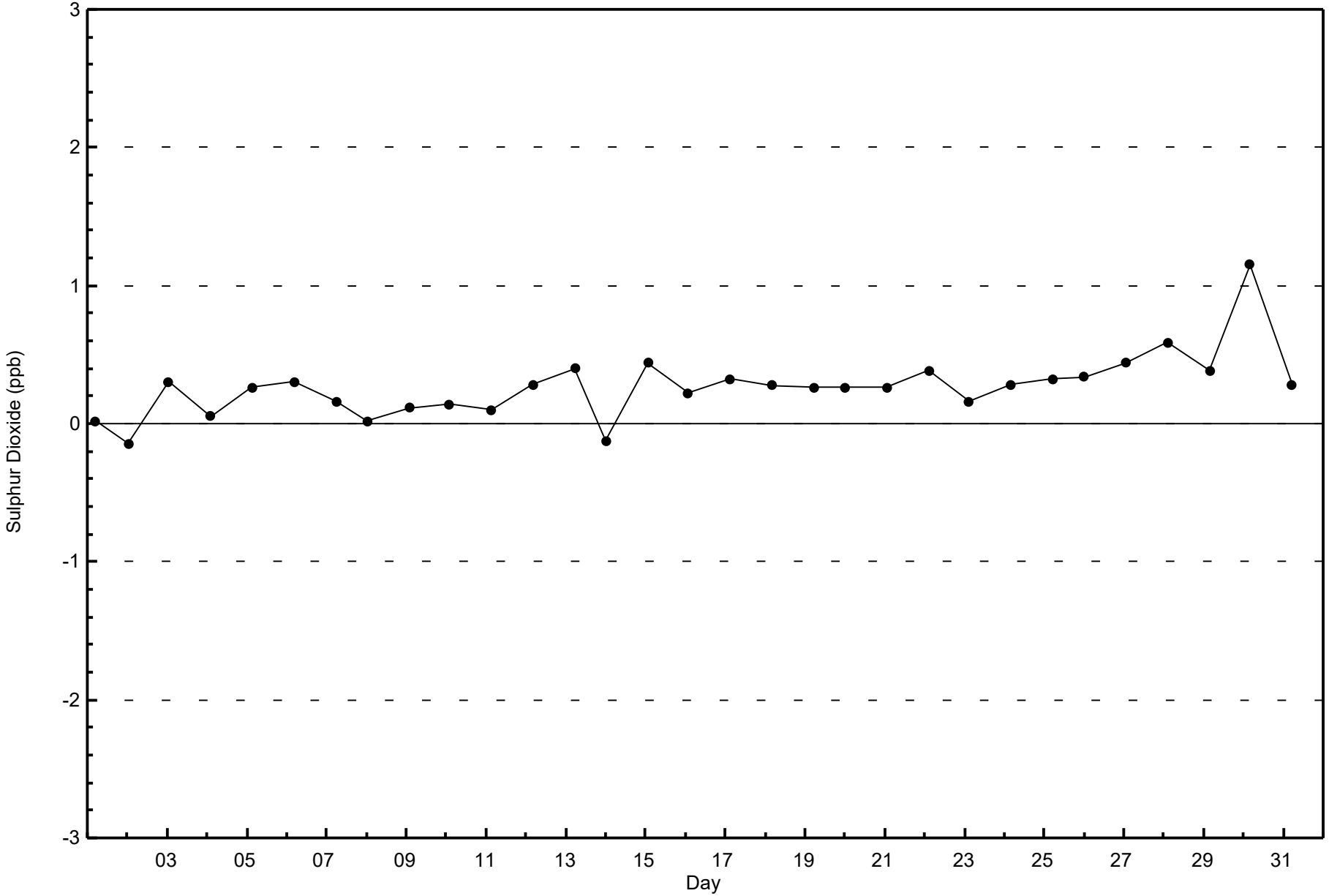
Total Number of Valid Hours: 703

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Conklin - October 2025

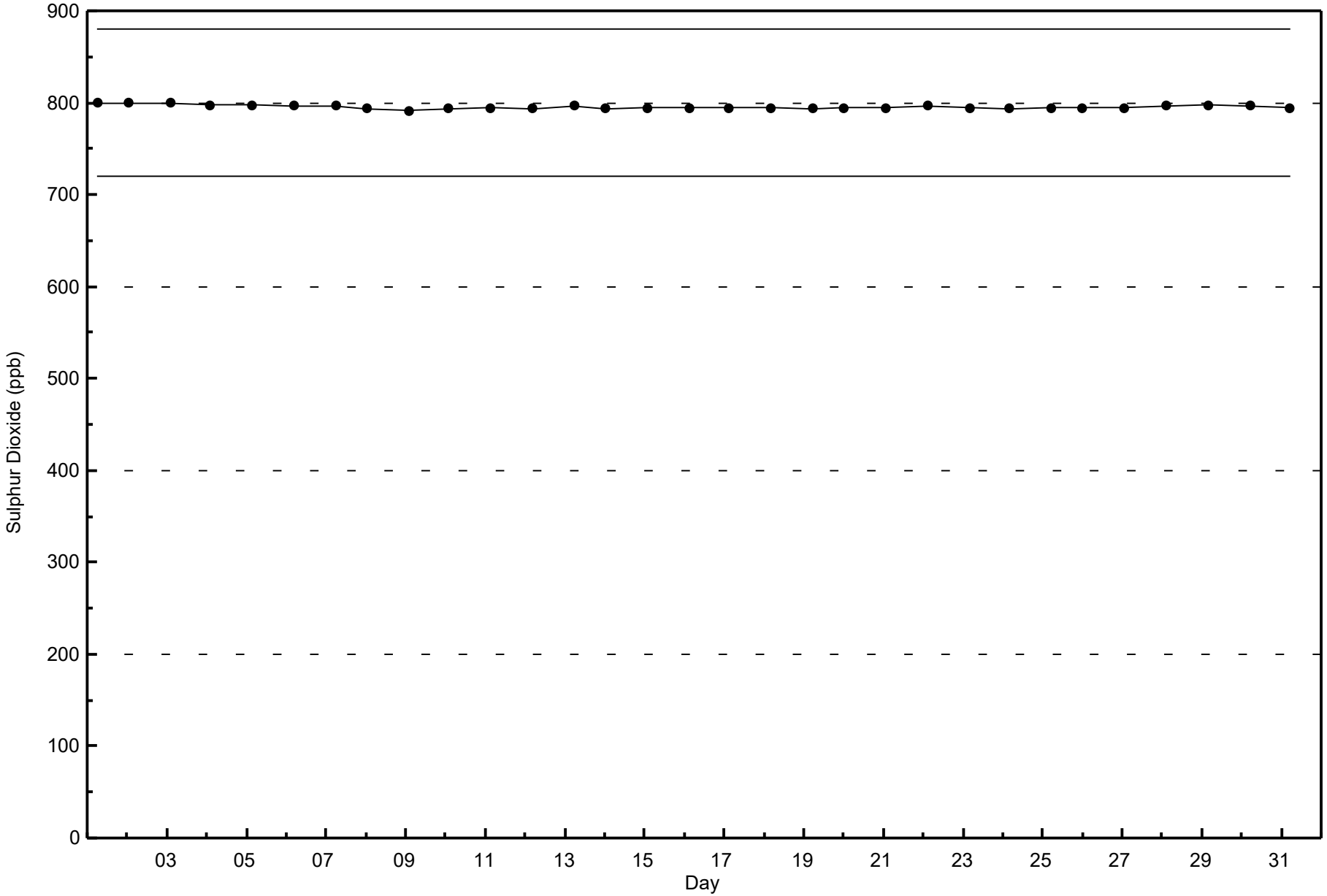


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Conklin - October 2025



Number of Exceedences (AAAQG): 30-Min: 0

Maximum Value: 0.5 ppb on Oct 1 08:00

Maximum Daily Average: 0.3 ppb on Oct 1

Minimum Value: 0.1 ppb on Oct 19 03:30

Minimum Daily Average: 0.1 ppb on Oct 13

Maximum Diurnal Average: 0.2 ppb at hour 10

Minimum Diurnal Average: 0.1 ppb at hour 24

Monthly Average: 0.16 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.1 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.2 P_{99} = 0.3

Periods in Service:	1488
Periods of Valid Data:	1413
Periods of Invalid Data:	75
Periods of Calibration:	75
Percent Operational Time:	100.0

Period Ending At (MST)

Day	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
1-Oct	Z	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.5	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.5
	SP	0.3	0.3	0.3	0.2	0.2	0.2	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2		
2-Oct	0.1	Z	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	0.2	SP	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2		
3-Oct	0.2	0.2	Z	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	0.2	0.2	SP	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1		
4-Oct	0.1	0.2	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2
	0.1	0.1	0.1	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2		
5-Oct	0.2	0.2	0.1	0.2	Z	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	0.2	0.1	0.2	0.1	SP	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2		
6-Oct	0.2	0.2	0.2	0.2	0.2	Z	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3
	0.2	0.2	0.2	0.2	0.2	SP	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.2	0.2		
7-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	C	C	C	C	C	C	C	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	--	0.3
	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	C	C	C	C	C	C	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
8-Oct	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2
	0.2	SP	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
9-Oct	0.1	0.1	Z	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	SP	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
10-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2
	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2		
11-Oct	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	0.2	0.2	0.3	0.2	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2		
12-Oct	0.1	0.1	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
	0.1	0.1	0.2	0.2	0.2	SP	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
13-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1		
14-Oct	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2
	0.1	SP	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1		
15-Oct	0.1	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2
	0.2	0.1	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1		

Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Conklin - October 2025

Day	Period Ending At (MST) 00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
16-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
17-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.1	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
18-Oct	0.1	0.1	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.2	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
19-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.2
	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1		
20-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.3
	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
21-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.2	0.1	SP	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
22-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
23-Oct	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3
	0.2	0.2	0.2	0.3	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2		
24-Oct	0.2	0.2	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3
	0.2	0.2	0.2	0.1	0.1	SP	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
25-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
	SP	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
26-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
27-Oct	0.1	0.1	Z	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	SP	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1			
28-Oct	0.1	0.2	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.2	0.2	0.1	SP	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
29-Oct	0.2	0.2	0.2	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
	0.2	0.1	0.2	0.2	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2		
30-Oct	0.3	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3
	0.2	0.2	0.3	0.2	0.2	SP	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
31-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	SP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	Diurnal Average	
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	Diurnal Maximum	

Z - zerospan C - Calibration SP - Span

Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb

Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

Conklin - October 2025

Maximum Value: 0.5 ppb on Oct 1 09:00

Maximum Daily Average: 0.3 ppb on Oct 1

Minimum Value: 0.1 ppb on Oct 27 02:00

Minimum Daily Average: 0.1 ppb on Oct 13

Maximum Diurnal Average: 0.2 ppb at hour 10

Minimum Diurnal Average: 0.1 ppb at hour 24

Monthly Average: 0.16 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.1 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.2 P_{99} = 0.3

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	38
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	Z	0.3	0.3	0.3	0.3	0.2	0.2	0.4	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.5
2-Oct	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3
3-Oct	0.2	0.2	Z	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
4-Oct	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2
5-Oct	0.2	0.2	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
6-Oct	0.2	0.2	0.2	0.2	0.2	Z	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3
7-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	C	C	C	C	C	C	C	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	--	0.3
8-Oct	0.2	Z	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
9-Oct	0.1	0.1	Z	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
10-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
11-Oct	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3
12-Oct	0.1	0.1	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
13-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
14-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.2
15-Oct	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2
16-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
17-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
18-Oct	0.1	0.1	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
19-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2
20-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3
21-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
23-Oct	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3
24-Oct	0.2	0.2	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3
25-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
26-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
27-Oct	0.1	0.1	Z	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
28-Oct	0.2	0.2	0.1	Z	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
29-Oct	0.2	0.2	0.2	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
30-Oct	0.2	0.2	0.3	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3
31-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	Diurnal Average	
	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	Diurnal Maximum	

Z - zerospan C - Calibration

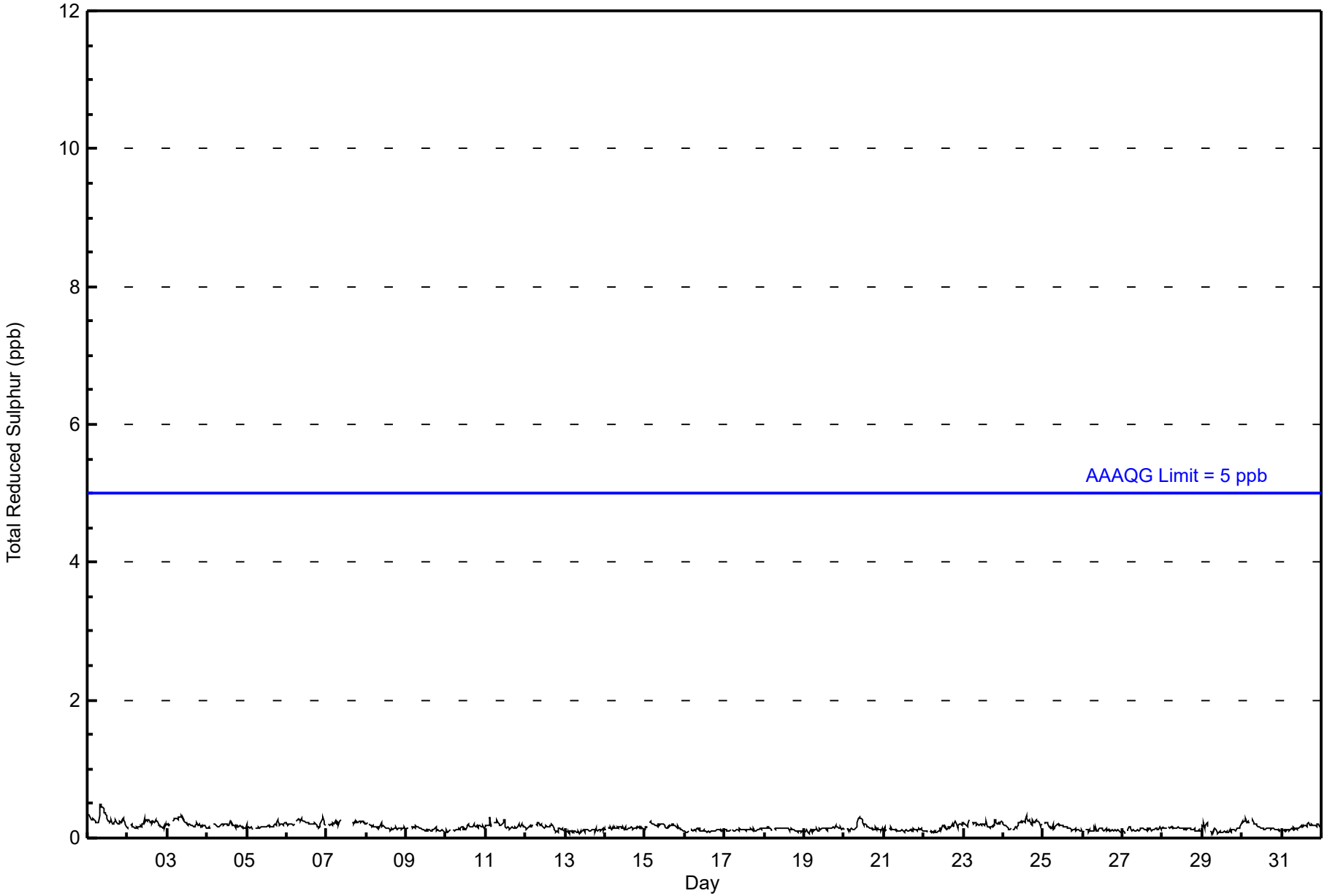
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA

Wood Buffalo Environmental Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Conklin - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	706	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Total Reduced Sulphur (TRS) - ppb

Conklin - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	15	8	4	1	6	9	50	85	80	69	48	25	44	94	101	62	701
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	15	8	4	1	6	9	50	85	80	69	48	25	44	94	101	62	701

Total Number of Valid Hours: 701

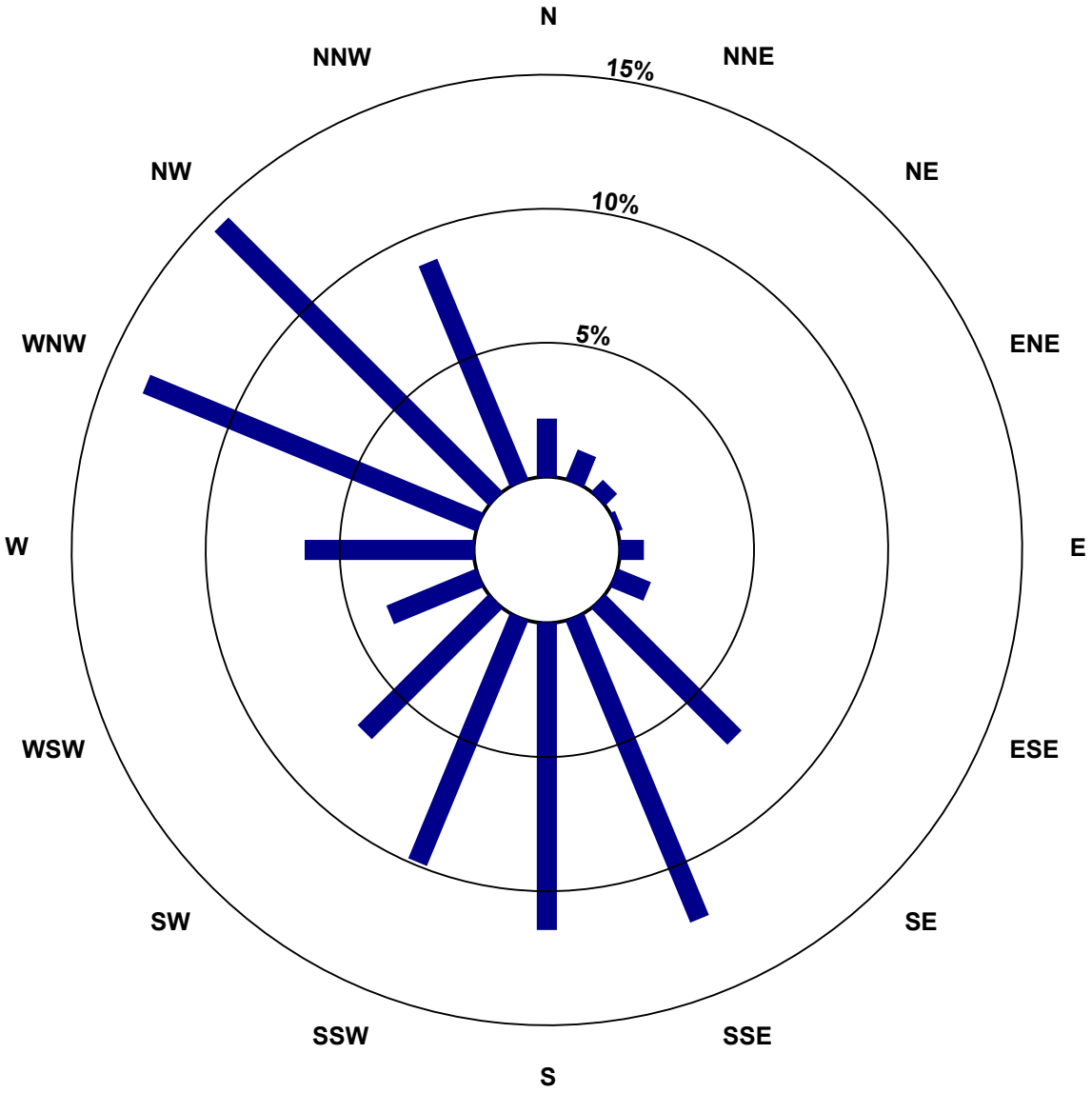
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Reduced Sulphur (TRS) - ppb

Conklin



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

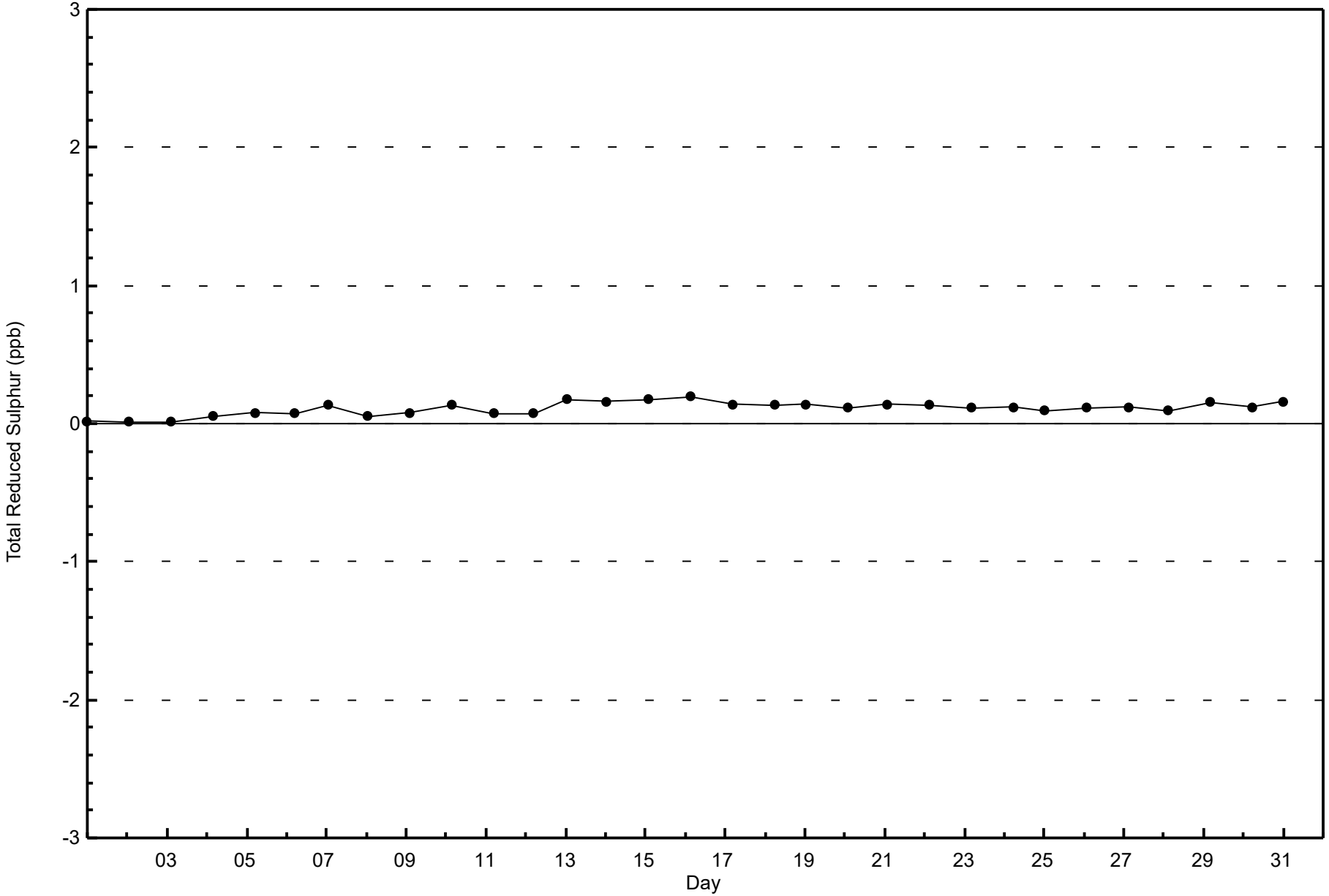
Total Number of Valid Hours: 701

Wood Buffalo Environmental Association

Zero Responses

Total Reduced Sulphur (TRS) - ppb

Conklin - October 2025

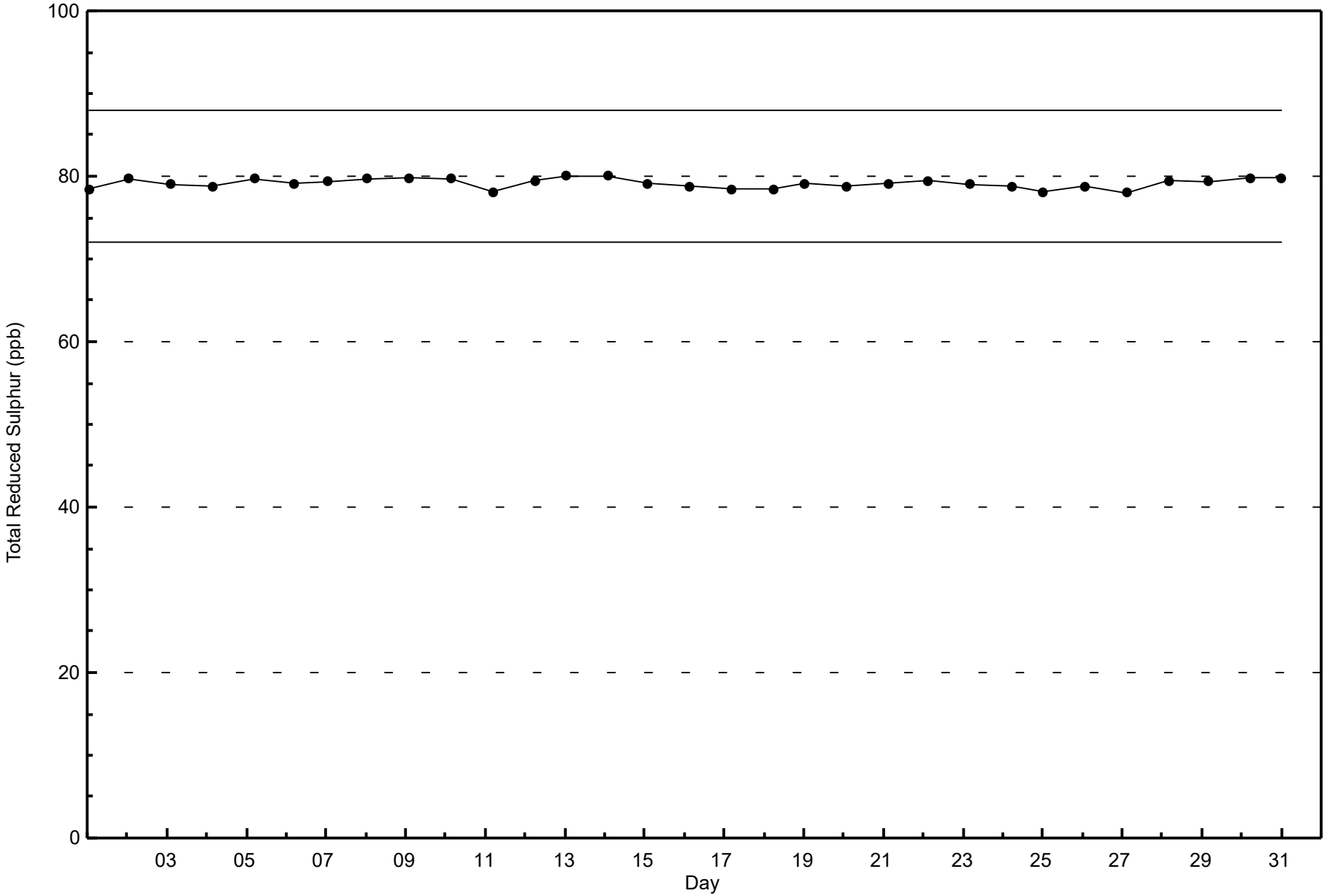


Wood Buffalo Environmental Association

Span Responses

Total Reduced Sulphur (TRS) - ppb

Conklin - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Conklin - October 2025

Maximum Value: 3.4 ppm on Oct 24 21:00

Maximum Daily Average: 2.5 ppm on Oct 24

Minimum Value: 2.0 ppm on Oct 7 15:00

Minimum Daily Average: 2.0 ppm on Oct 8

Maximum Diurnal Average: 2.2 ppm at hour 21

Minimum Diurnal Average: 2.0 ppm at hour 16

Monthly Average: 2.10 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.0 Median = 2.1 Q_3 = 2.1 P_{90} = 2.2 P_{99} = 2.7

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.2	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.2
2-Oct	Z	2.2	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.6	2.6	2.4	2.2	2.2	2.6
3-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1
4-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5-Oct	2.0	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
6-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.3
7-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	M	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2
8-Oct	Z	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1
9-Oct	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.5	2.3	2.1	2.0	2.0	2.1	2.5
10-Oct	2.0	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1
11-Oct	2.1	2.1	2.2	Z	2.3	2.4	2.8	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.8
12-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
13-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.1
14-Oct	Z	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
15-Oct	2.1	Z	2.1	2.1	2.1	2.2	2.1	2.3	2.1	2.1	C	C	C	C	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.4	2.2	2.4
16-Oct	2.2	2.2	Z	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
17-Oct	2.1	2.1	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1
18-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4	2.4	2.3	2.2	2.2	2.1	2.1	2.4
19-Oct	2.2	2.3	2.2	2.2	2.2	Z	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3
20-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
21-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.2
22-Oct	2.1	2.1	Z	2.2	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3
23-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.4	2.3	2.4	2.1	2.2	2.4
24-Oct	2.2	2.4	2.2	2.5	Z	2.5	2.6	2.5	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.9	3.0	3.4	2.9	2.9	2.6	2.5	3.4
25-Oct	2.7	2.4	2.7	2.5	2.5	Z	2.5	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.7
26-Oct	Z	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
27-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
28-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
29-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
30-Oct	2.2	2.2	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
31-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.1	Diurnal Average	
	2.7	2.4	2.7	2.5	2.5	2.5	2.8	2.5	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.9	3.0	3.4	2.9	2.9	2.6	Diurnal Maximum	

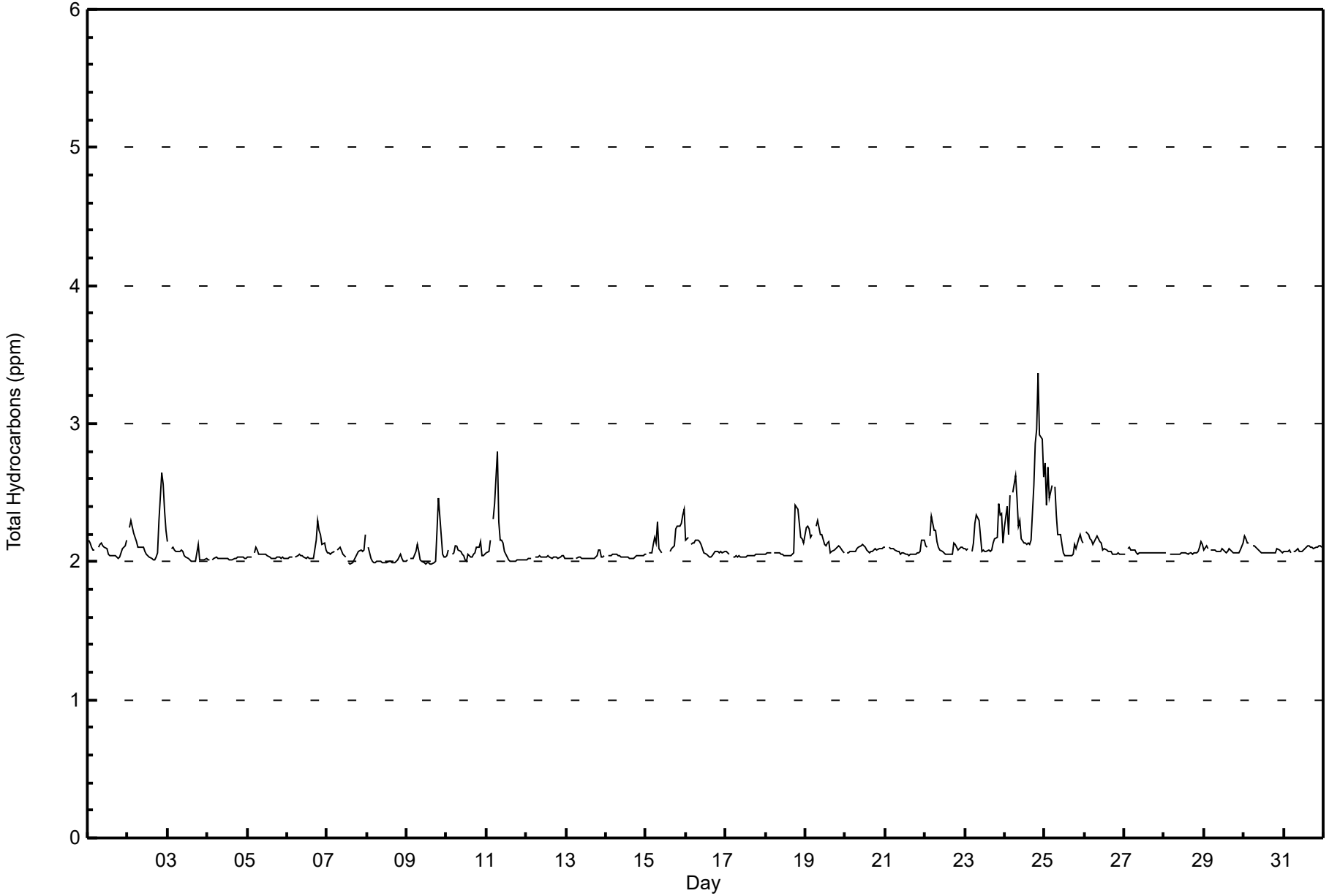
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Conklin - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	238	33.62	33.62
2.1 - 3.0	469	66.24	99.86
3.1 - 10.0	1	0.14	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Conklin - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	2	0	0	0	2	2	0	8	22	29	27	11	19	41	52	23	238
2.1 - 3.0	13	8	4	2	3	7	51	77	61	39	22	13	24	52	50	38	464
3.1 - 10.0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	15	8	4	2	5	9	51	86	83	68	49	24	43	93	102	61	703

Total Number of Valid Hours: 703

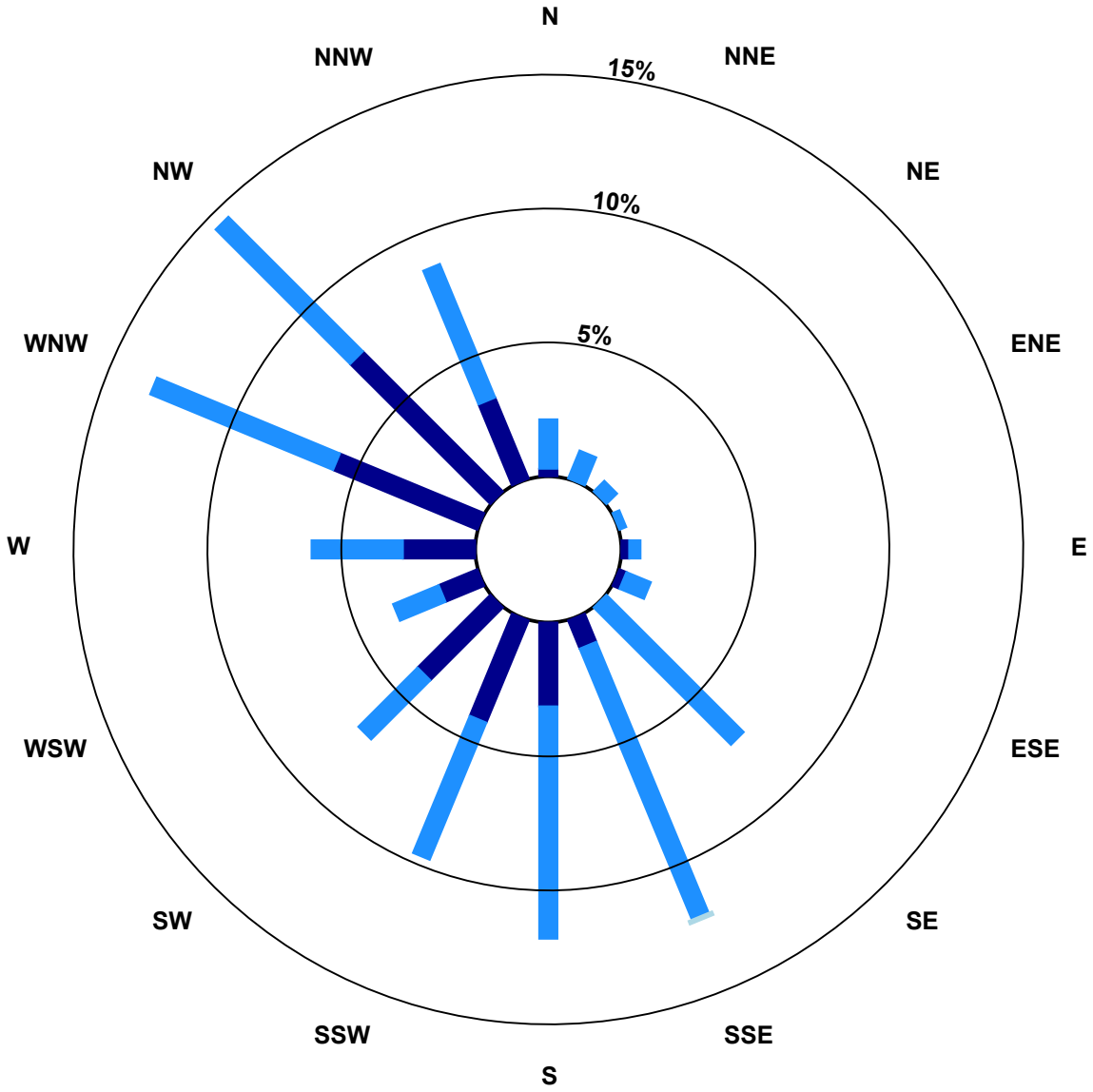
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Conklin



Classes (ppm)

- 0 - 2.0
- 2.1 - 3.0
- 3.1 - 10.0
- > 10.0

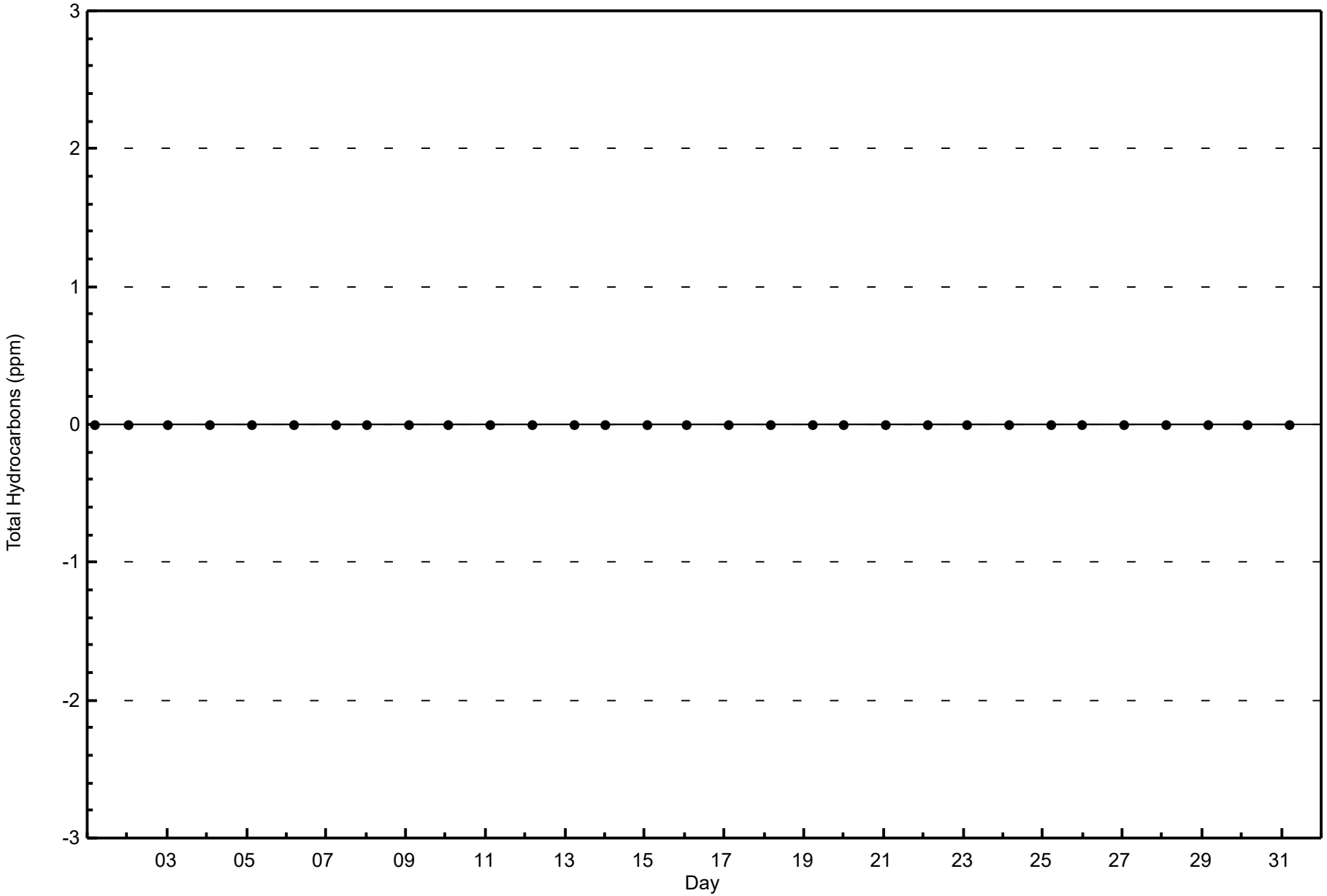
Total Number of Valid Hours: 703

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Conklin - October 2025

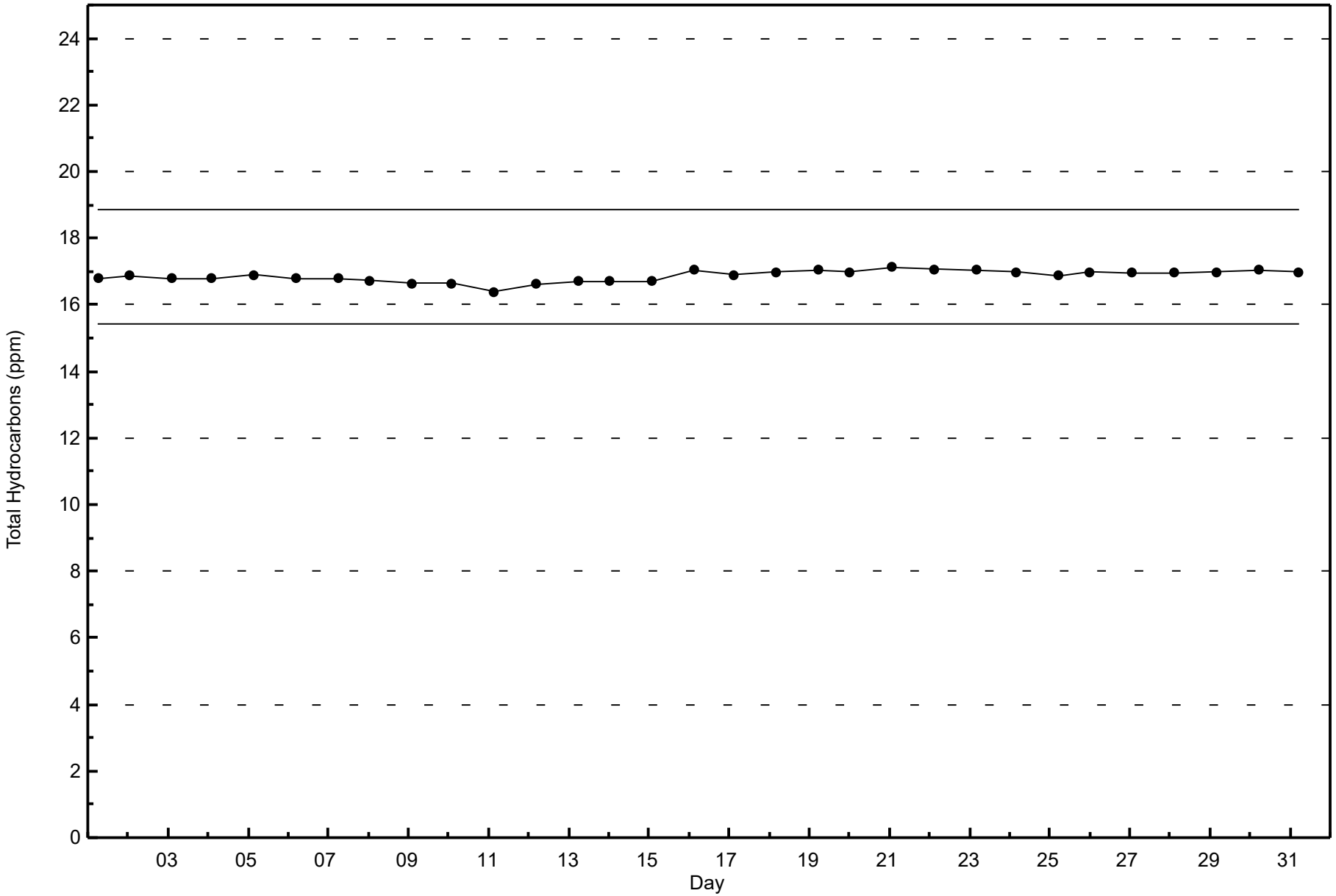


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Conklin - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

Conklin - October 2025

Maximum Value: 0.047 ppm on Oct 10 14:00

Maximum Daily Average: 0.003 ppm on Oct 10

Minimum Value: 0.000 ppm on Oct 1 01:00

Minimum Daily Average: 0.000 ppm on Oct 1

Maximum Diurnal Average: 0.002 ppm at hour 14

Minimum Diurnal Average: 0.000 ppm at hour 3

Monthly Average: 0.000 ppm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.0 P_{99} = 0.0

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	M	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.047	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.047
11-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	C	C	C	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.003
17-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.007
24-Oct	0.000	0.023	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.001	0.023
25-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.003
26-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.000	0.000	0.000	0.001	0.015
31-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Diurnal Average	
	0.000	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.047	0.023	0.000	0.001	0.000	0.004	0.003	0.015	0.003	0.007	0.000	Diurnal Maximum	

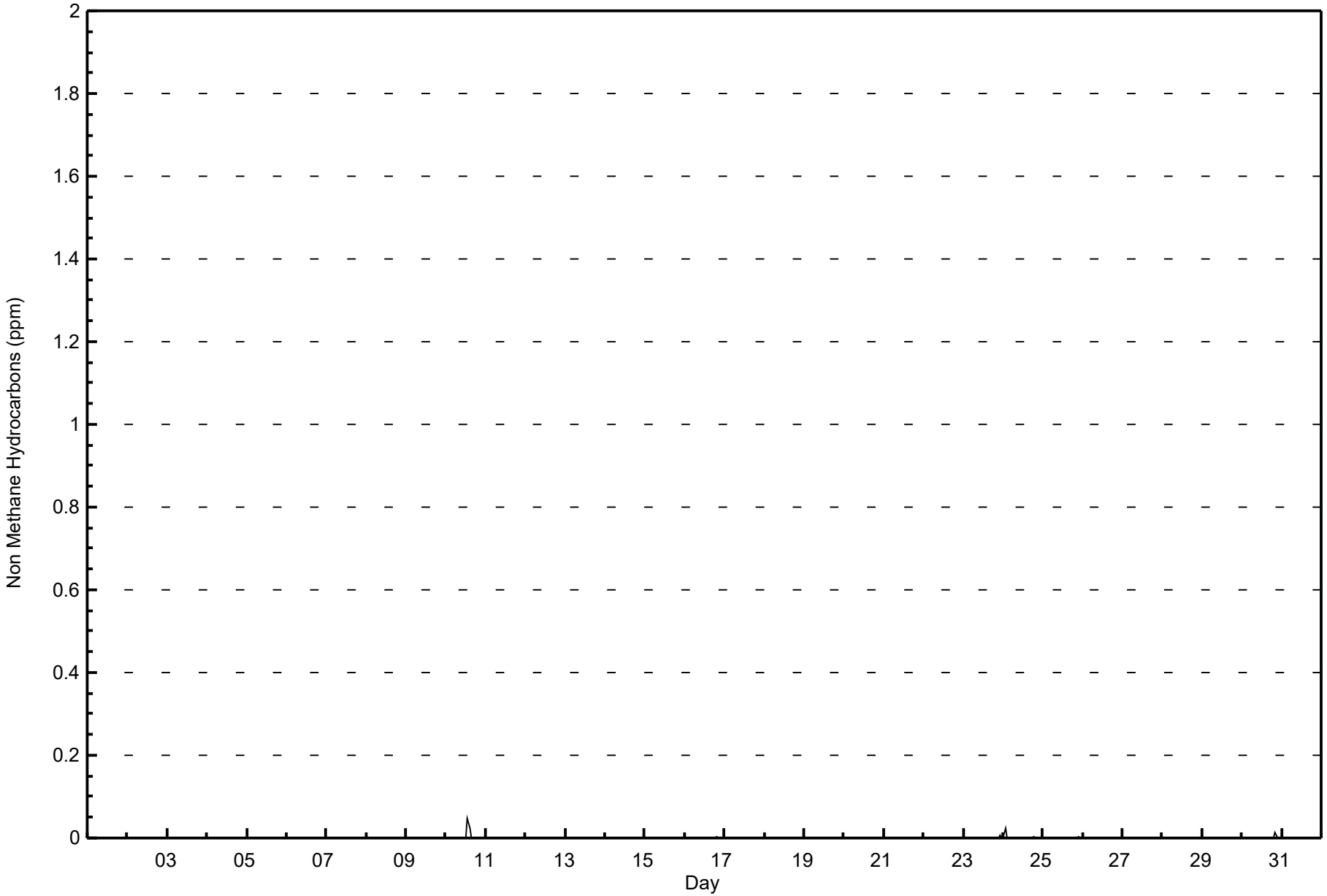
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm

Conklin - October 2025



Non Methane Hydrocarbons (NMHC) - ppm
Conklin - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	703	99.29	99.29
0.006 - 0.05	5	0.71	100.00
0.06 - 0.1	0	0.00	100.00
> 0.1	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Conklin - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.005	15	8	4	2	5	9	51	85	81	67	49	24	43	92	102	61	698
0.006 - 0.05	0	0	0	0	0	0	0	1	2	1	0	0	0	1	0	0	5
0.06 - 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	15	8	4	2	5	9	51	86	83	68	49	24	43	93	102	61	703

Total Number of Valid Hours: 703

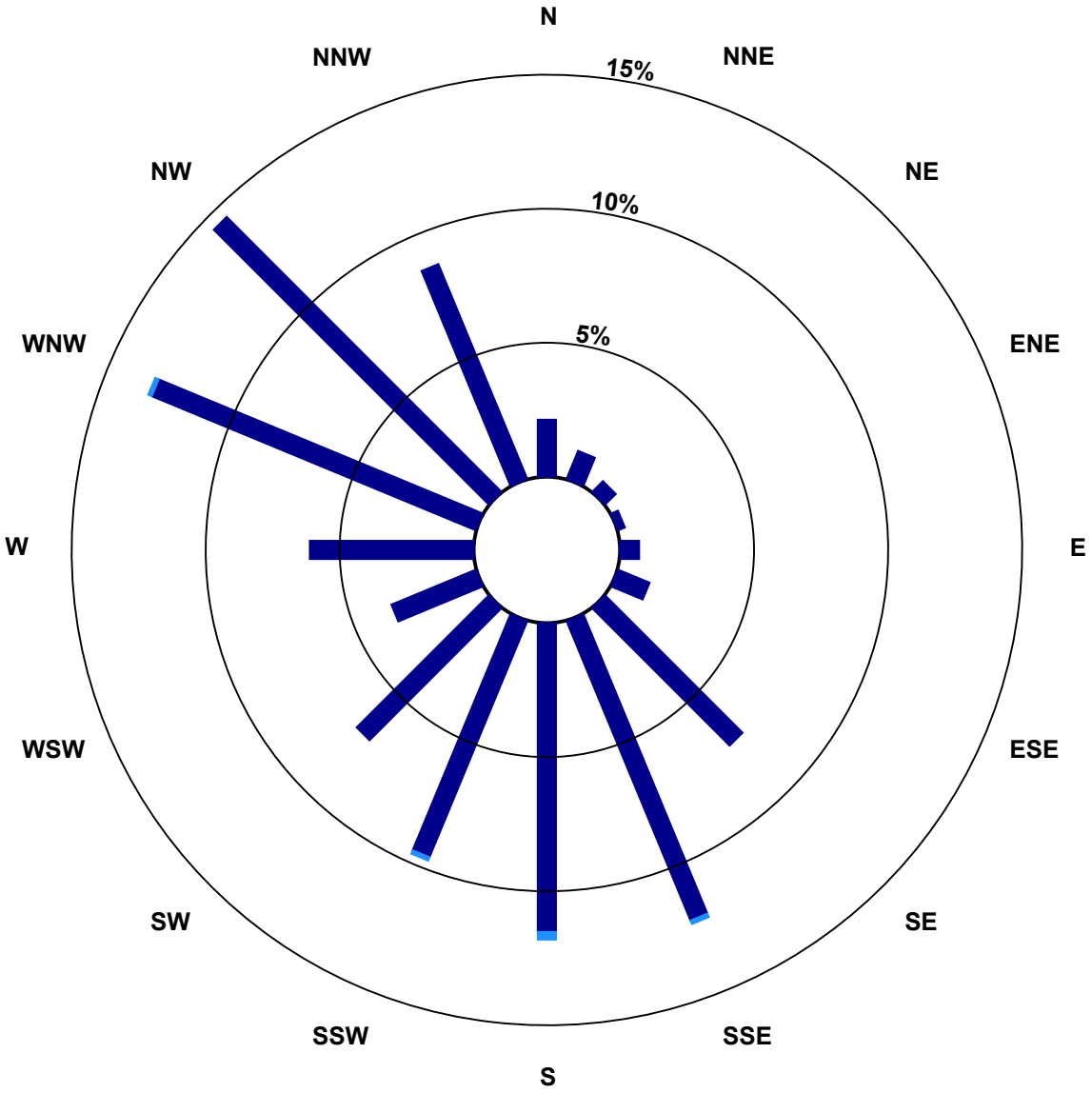
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Non Methane Hydrocarbons (NMHC) - ppm

Conklin



Classes (ppm)

0 - 0.005

0.006 - 0.05

0.06 - 0.1

> 0.1

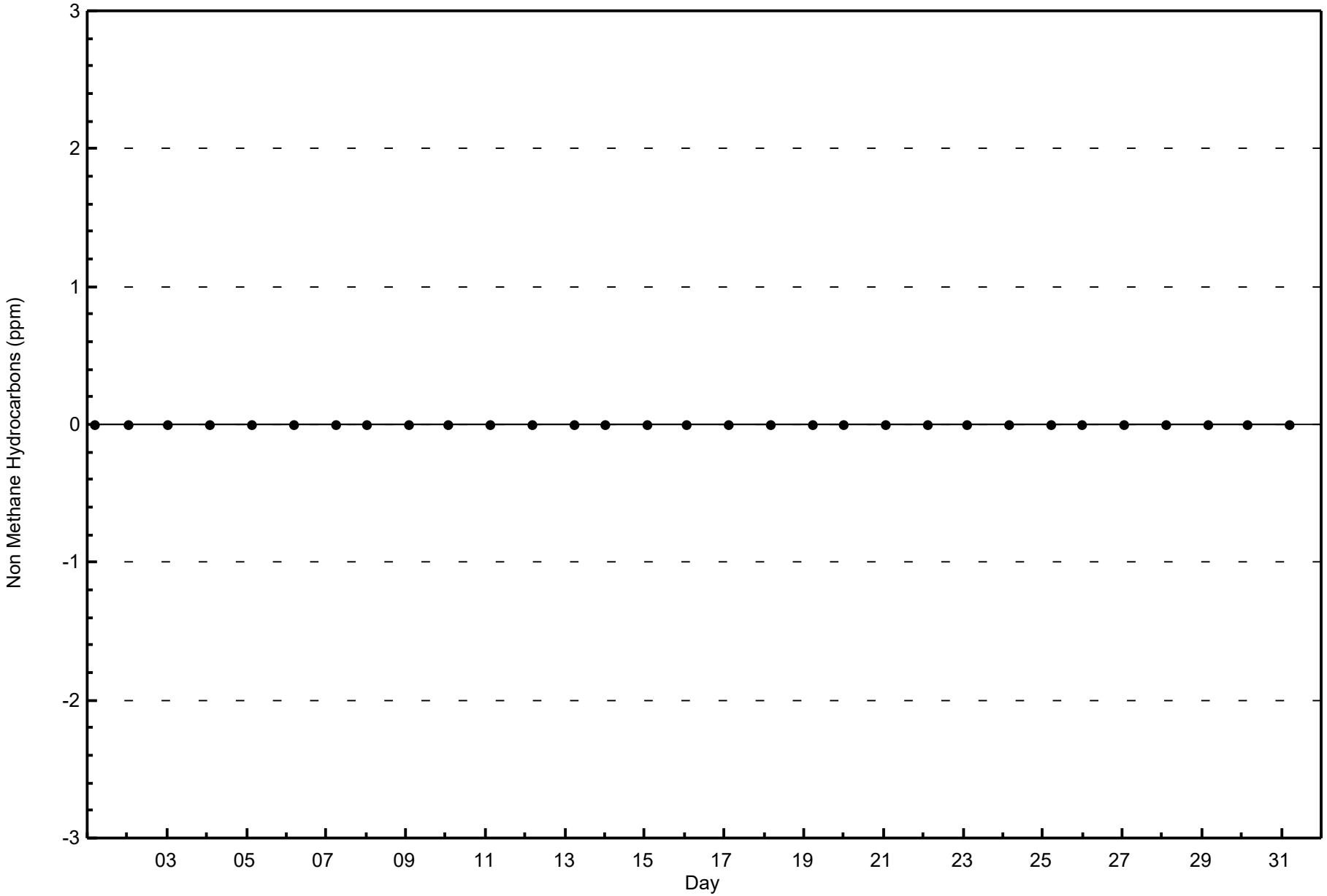
Total Number of Valid Hours: 703

Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Conklin - October 2025

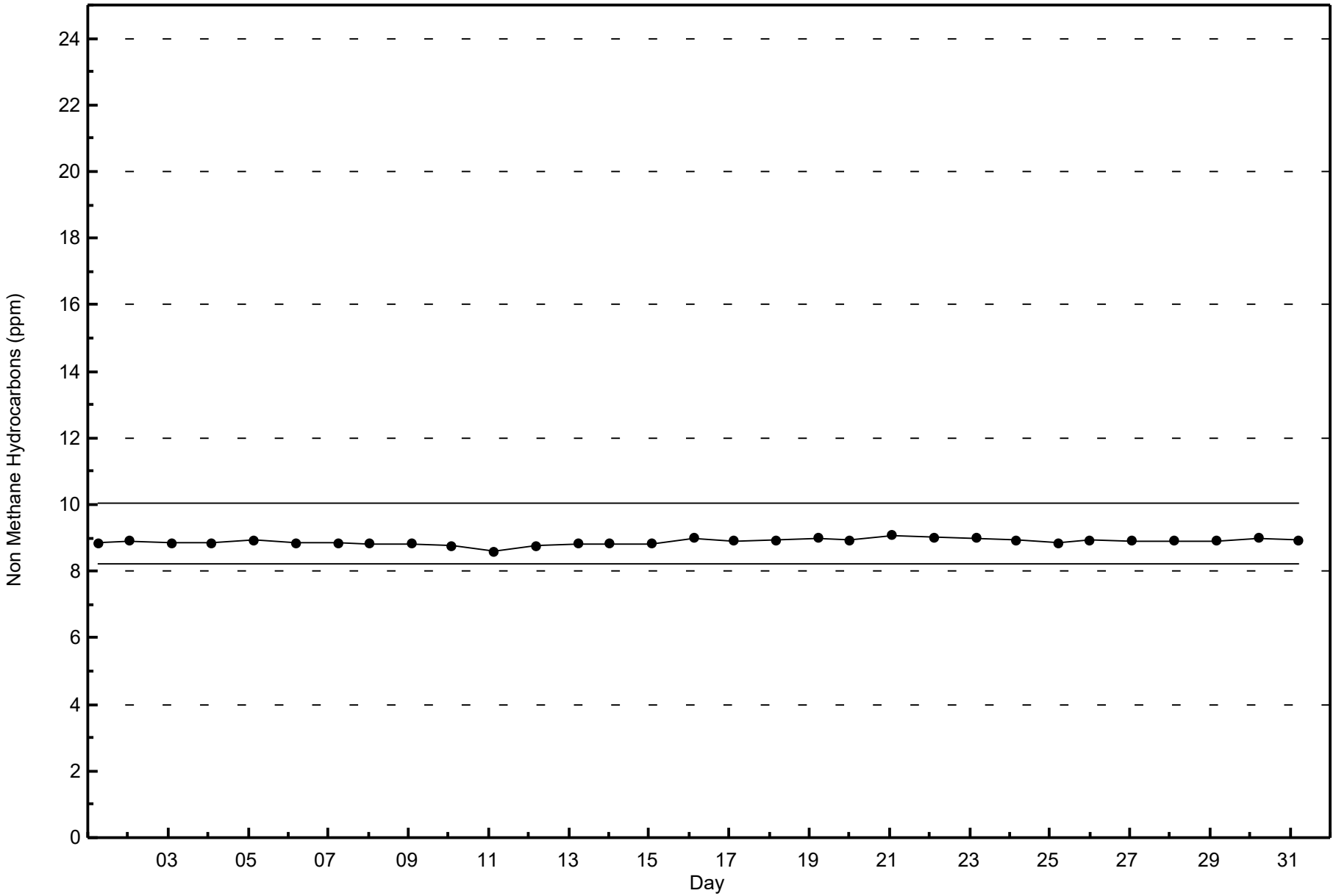


Wood Buffalo Environmental Association

Span Responses

Non Methane Hydrocarbons (NMHC) - ppm

Conklin - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH_4) - ppm

Conklin - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 3.4 ppm on Oct 24 21:00

Maximum Daily Average: 2.5 ppm on Oct 24

Minimum Value: 2.0 ppm on Oct 7 15:00

Minimum Daily Average: 2.0 ppm on Oct 8

Maximum Diurnal Average: 2.2 ppm at hour 21

Minimum Diurnal Average: 2.0 ppm at hour 16

Monthly Average: 2.10 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.0 Median = 2.1 Q_3 = 2.1 P_{90} = 2.2 P_{99} = 2.7

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.2	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.2
2-Oct	Z	2.2	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.6	2.6	2.4	2.2	2.2	2.6
3-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1
4-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5-Oct	2.0	2.0	2.0	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
6-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.3
7-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	2.0	M	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.2
8-Oct	Z	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.1
9-Oct	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.5	2.3	2.1	2.0	2.0	2.1	2.5
10-Oct	2.0	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1
11-Oct	2.1	2.1	2.2	Z	2.3	2.4	2.8	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.8
12-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
13-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.1
14-Oct	Z	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
15-Oct	2.1	Z	2.1	2.1	2.1	2.2	2.1	2.3	2.1	2.1	C	C	C	C	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.4	2.2	2.4
16-Oct	2.2	2.2	Z	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
17-Oct	2.1	2.1	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1
18-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4	2.4	2.3	2.2	2.2	2.1	2.1	2.4
19-Oct	2.2	2.3	2.2	2.2	2.2	Z	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3
20-Oct	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
21-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.2
22-Oct	2.1	2.1	Z	2.2	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3
23-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.4	2.3	2.3	2.1	2.2	2.4
24-Oct	2.2	2.4	2.2	2.5	Z	2.5	2.6	2.5	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.9	3.0	3.4	2.9	2.9	2.6	2.5	3.4
25-Oct	2.7	2.4	2.7	2.5	2.5	Z	2.5	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.2	2.7
26-Oct	Z	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
27-Oct	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
28-Oct	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
29-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
30-Oct	2.2	2.2	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2
31-Oct	2.1	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.1	Diurnal Average	
	2.7	2.4	2.7	2.5	2.5	2.5	2.8	2.5	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.9	3.0	3.4	2.9	2.9	2.6	Diurnal Maximum	

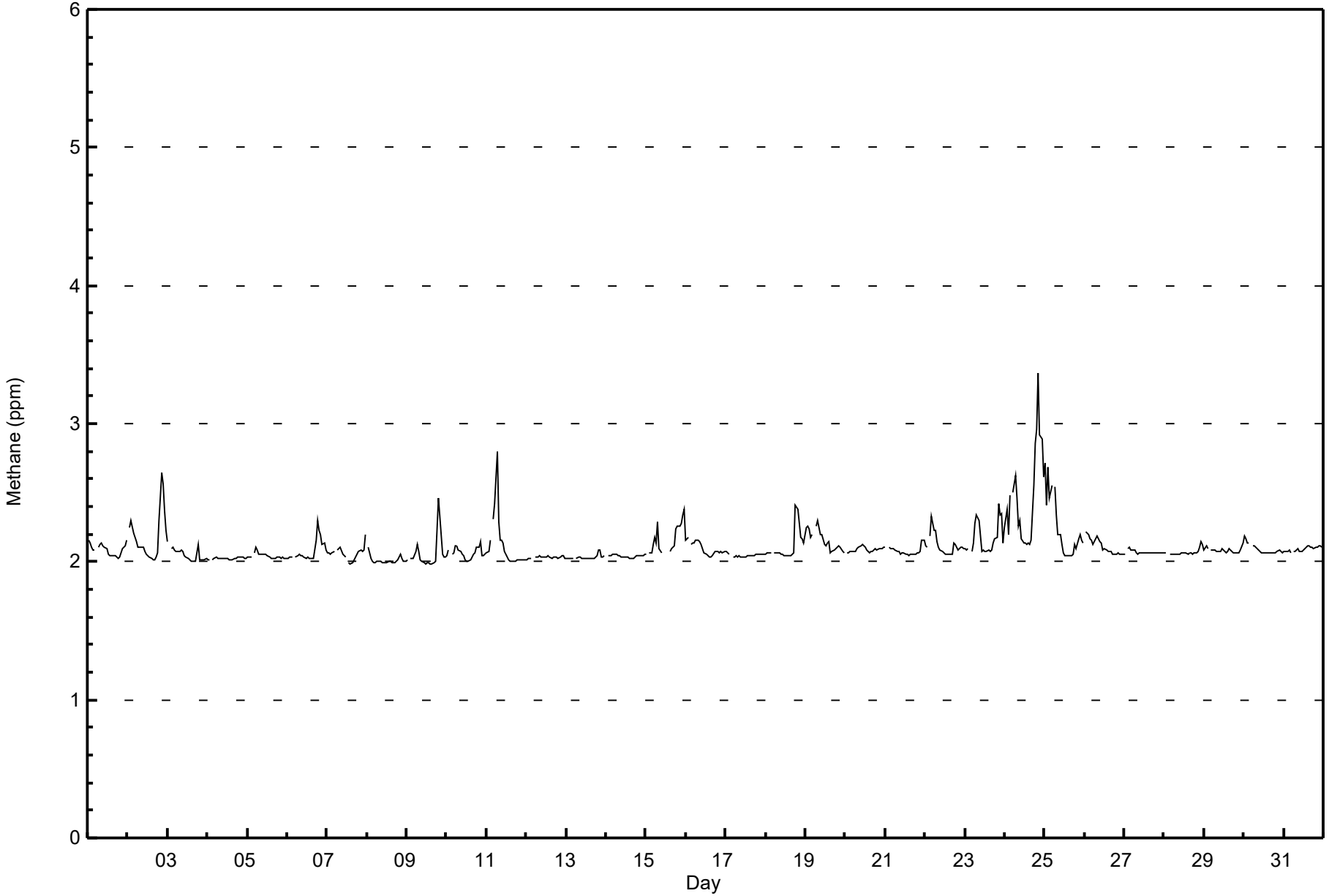
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Methane (CH_4) - ppm

Conklin - October 2025



Methane (CH_4) - ppm
Conklin - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	239	33.76	33.76
2.1 - 3.0	468	66.10	99.86
3.1 - 10.0	1	0.14	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Methane (CH_4) - ppm

Conklin - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	2	0	0	0	2	2	0	8	23	29	27	11	19	41	52	23	239
2.1 - 3.0	13	8	4	2	3	7	51	77	60	39	22	13	24	52	50	38	463
3.1 - 10.0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	15	8	4	2	5	9	51	86	83	68	49	24	43	93	102	61	703

Total Number of Valid Hours: 703

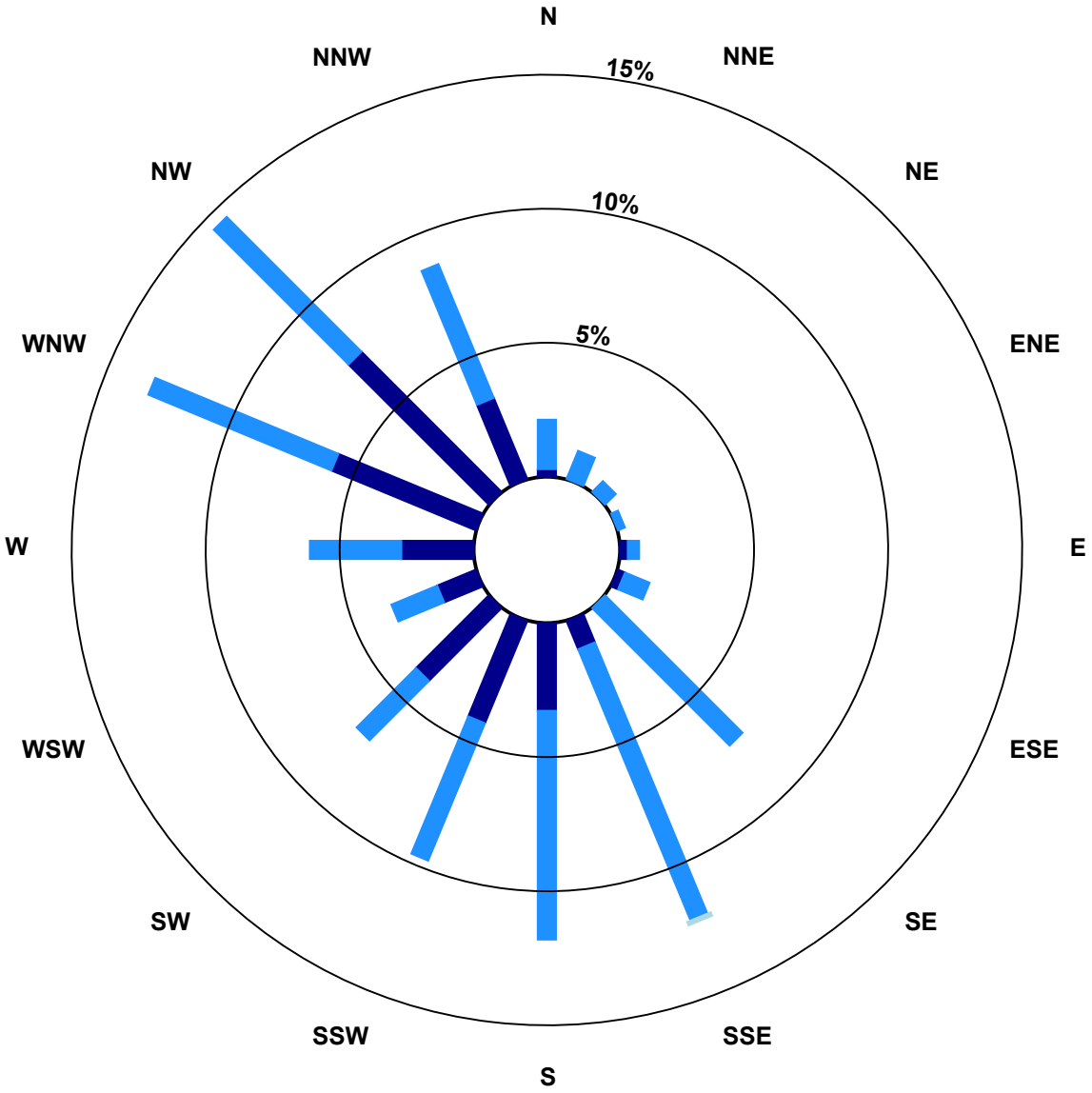
Total Number of Hours: 744

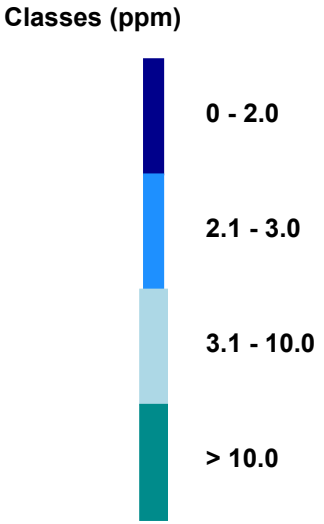
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Methane (CH_4) - ppm

Conklin





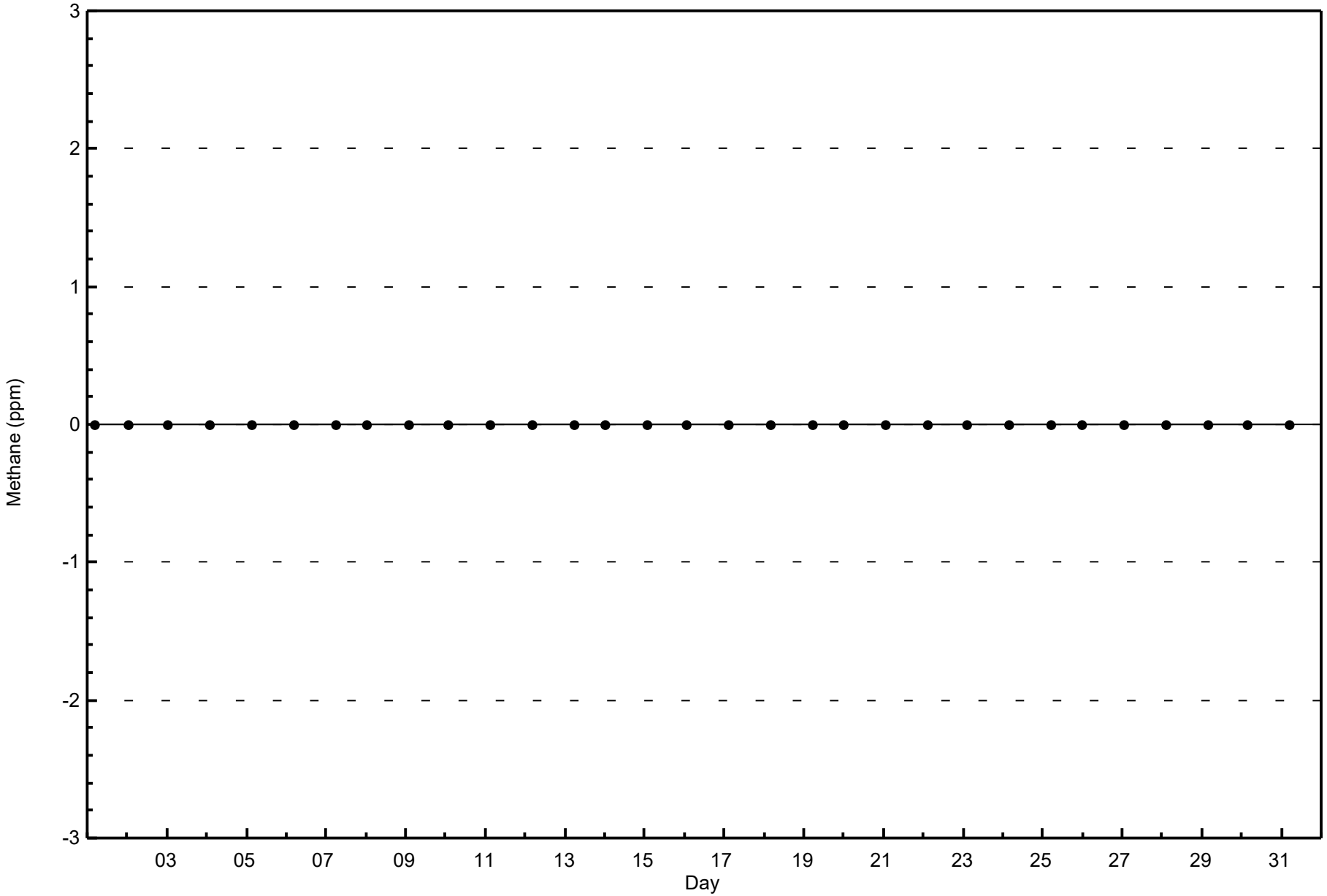
Total Number of Valid Hours: 703

Wood Buffalo Environmental Association

Zero Responses

Methane (CH_4) - ppm

Conklin - October 2025

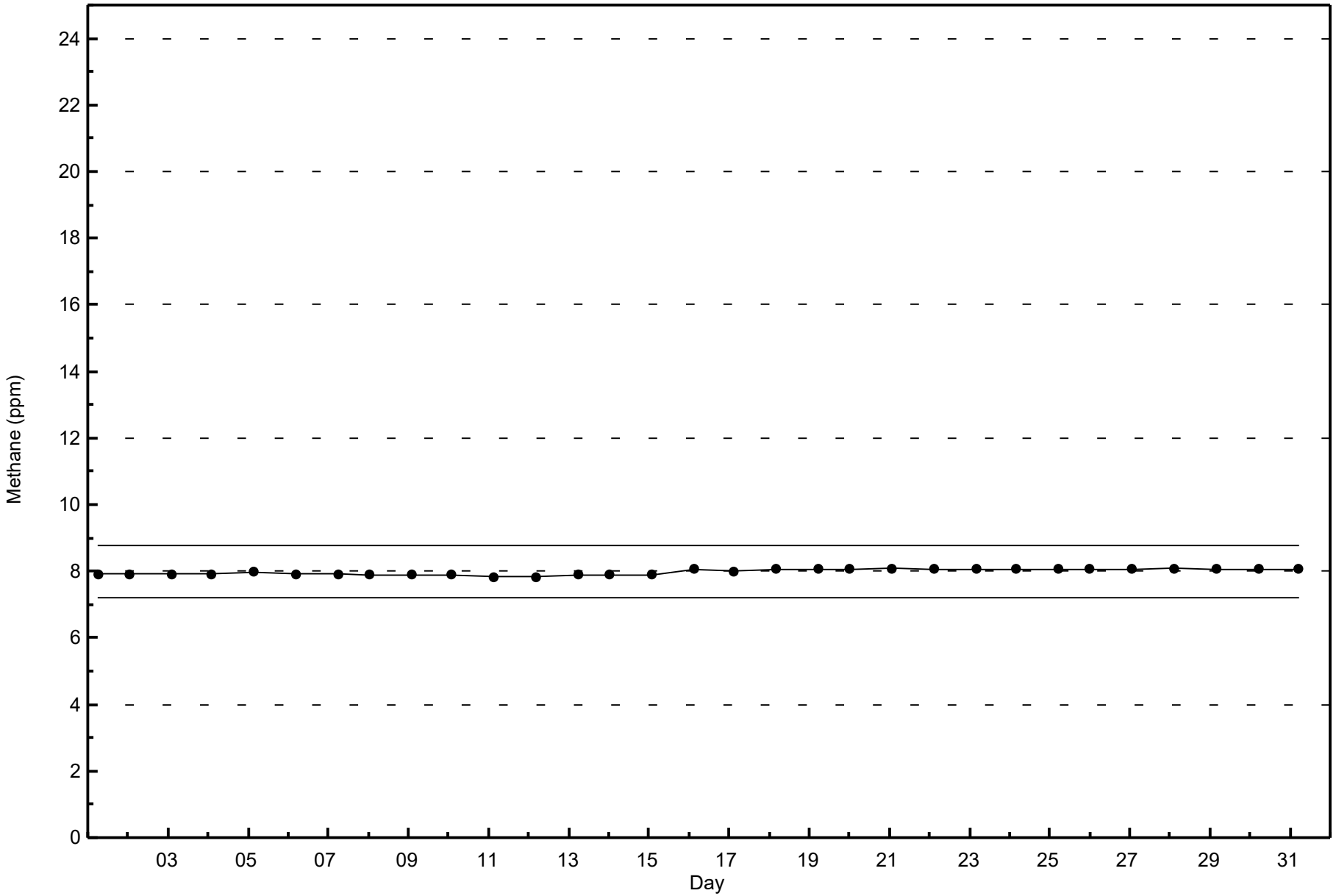


Wood Buffalo Environmental Association

Span Responses

Methane (CH_4) - ppm

Conklin - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Conklin - October 2025

Maximum Value: 18.2 ppb on Oct 25 03:00

Maximum Daily Average: 2.1 ppb on Oct 24

Minimum Value: 0.0 ppb on Oct 1 01:00

Minimum Daily Average: 0.0 ppb on Oct 29

Maximum Diurnal Average: 1.2 ppb at hour 3

Minimum Diurnal Average: 0.1 ppb at hour 18

Monthly Average: 0.44 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.3 P_{90} = 0.9 P_{99} = 5.4

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	2.1	0.2	0.2	0.1	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.1
2-Oct	1.5	7.6	2.5	1.1	Z	0.0	0.1	0.1	0.3	0.6	0.2	0.1	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.7	1.6	0.5	0.7	0.8	7.6
3-Oct	0.5	0.2	0.0	0.1	0.1	Z	0.0	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.5
4-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	1.3
5-Oct	4.4	Z	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.3	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	4.4
6-Oct	0.0	0.0	Z	0.0	0.0	2.6	0.0	0.1	0.5	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.3	2.6
7-Oct	0.1	0.1	0.1	Z	0.1	0.0	0.0	0.1	0.5	0.7	0.6	0.8	M	0.2	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.8
8-Oct	0.0	1.5	0.0	0.0	Z	0.0	0.0	0.0	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.5
9-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.2	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.5	0.7	0.5	4.9	0.0	0.0	0.3	4.9
10-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.6	0.8	0.6	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.8
11-Oct	0.0	Z	8.8	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	8.8
12-Oct	0.0	0.0	Z	0.3	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.2	3.9
13-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.5	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.5
14-Oct	0.0	0.1	0.0	0.0	Z	0.1	1.6	0.4	0.2	0.3	0.6	0.2	0.2	0.1	0.1	0.1	0.0	0.2	0.2	0.2	0.0	0.0	0.0	0.1	0.2	1.6
15-Oct	0.1	0.1	0.2	0.1	0.0	Z	0.2	1.9	2.1	1.7	2.0	1.0	0.5	0.2	0.2	0.3	0.2	0.1	0.2	0.1	0.8	0.0	0.0	0.0	0.5	2.1
16-Oct	Z	0.0	0.0	0.1	0.1	0.1	0.2	2.4	1.3	1.1	0.8	0.4	0.2	2.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.4	2.4
17-Oct	0.0	Z	0.0	9.4	0.0	0.0	0.0	0.0	0.1	3.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.7	0.0	0.0	0.6	9.4
18-Oct	0.0	0.5	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	1.9	0.6	0.6	0.2	0.4	0.3	0.3	1.9
19-Oct	1.0	4.2	0.8	Z	0.0	0.1	0.3	2.1	0.9	0.4	3.4	1.3	0.4	0.2	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	4.2
20-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	1.0	1.5	1.0	1.1	0.7	1.5	0.2	0.0	0.0	0.0	0.2	0.0	0.1	0.3	0.1	2.4	0.4	2.4
21-Oct	0.1	0.1	0.0	0.0	5.4	Z	0.0	0.0	0.4	0.4	1.5	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.4	5.4
22-Oct	Z	0.0	0.0	0.0	1.0	0.9	0.9	0.1	0.6	0.3	0.4	0.5	3.5	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.4	3.5
23-Oct	0.0	Z	0.0	0.0	0.1	0.0	0.0	0.0	0.3	1.3	0.5	0.5	0.4	0.3	0.3	0.2	0.0	0.4	0.0	0.0	0.0	0.6	0.4	0.0	0.2	1.3
24-Oct	0.0	0.0	Z	2.5	3.8	1.7	1.7	0.0	0.5	0.8	0.8	0.8	0.4	0.5	0.7	0.3	0.3	1.1	2.5	5.1	15.7	5.3	3.1	1.3	2.1	15.7
25-Oct	4.0	5.6	18.2	Z	5.1	3.3	3.7	1.3	0.1	0.3	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.2	3.2	0.1	0.7	0.0	0.0	2.0	18.2
26-Oct	0.2	0.8	0.4	0.2	Z	0.2	0.1	0.3	1.6	0.7	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.3	1.8
27-Oct	0.0	0.0	0.0	0.0	0.1	Z	0.2	0.2	0.6	0.4	0.7	0.5	2.0	0.3	0.4	0.4	0.3	0.2	0.2	0.1	0.0	0.0	1.1	0.1	0.4	2.0
28-Oct	Z	0.2	0.1	3.8	0.0	0.0	0.1	0.1	0.2	0.4	0.6	0.4	0.3	0.2	0.2	0.2	1.4	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.4	3.8
29-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
30-Oct	0.0	0.0	Z	0.0	0.0	0.1	2.3	0.2	0.5	0.7	0.7	0.3	0.2	0.2	0.3	2.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.3	2.3
31-Oct	0.0	0.1	0.0	Z	0.0	0.1	0.0	0.0	0.4	0.5	0.9	0.9	0.9	0.9	0.6	0.5	0.2	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.3	0.9
	0.5	0.8	1.2	0.7	0.6	0.4	0.4	0.6	0.5	0.6	0.6	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.2	0.4	0.7	0.5	0.2	0.2	Diurnal Average	
	4.4	7.6	18.2	9.4	5.4	3.3	3.7	7.2	2.1	3.0	3.4	1.3	3.5	2.2	0.9	2.2	1.4	1.1	2.5	5.1	15.7	5.3	3.1	2.4	Diurnal Maximum	

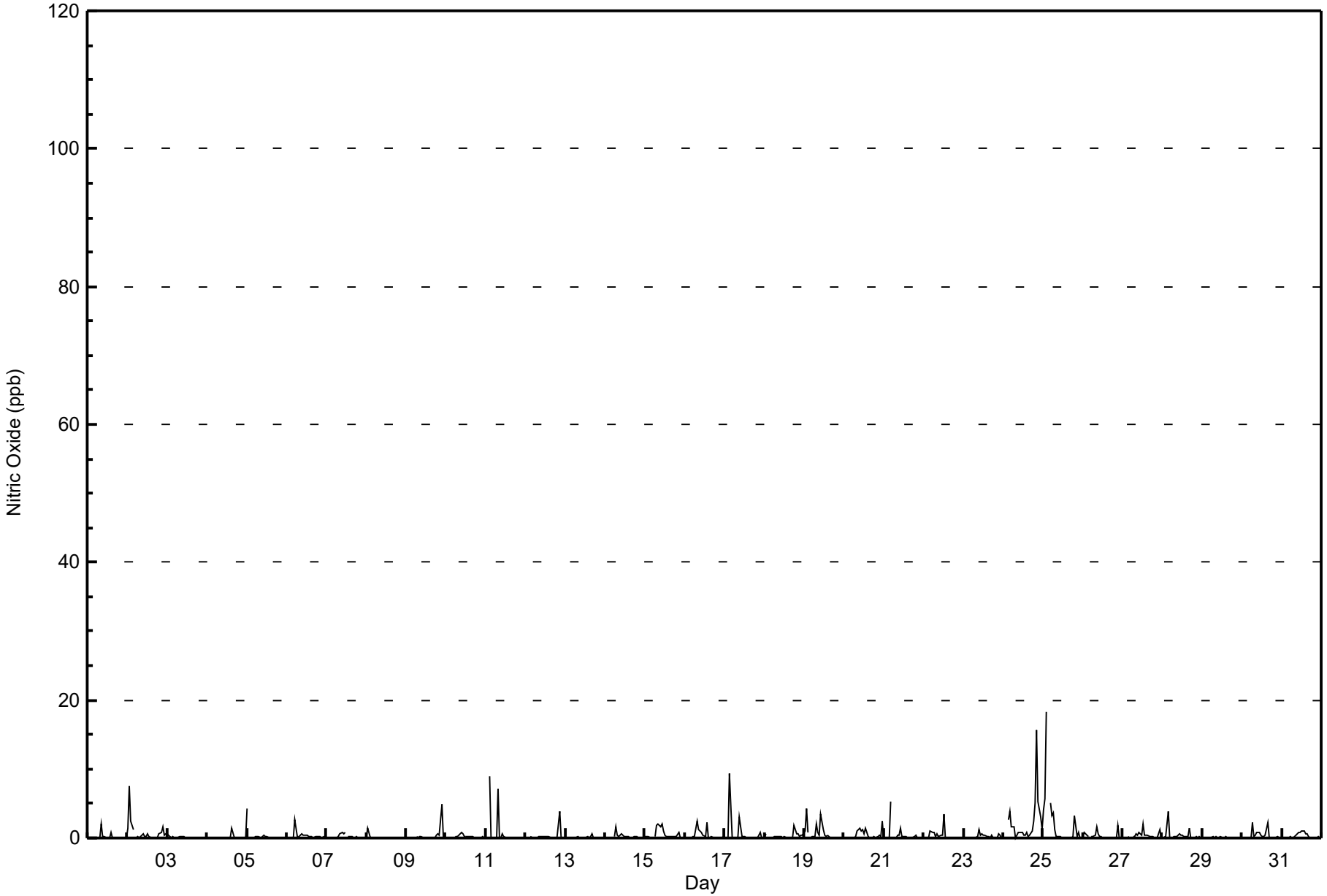
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Conklin - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Conklin - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	16	8	4	2	5	8	51	87	81	74	48	24	44	91	98	60	701
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	8	4	2	5	8	51	87	81	74	48	24	44	91	98	60	701

Total Number of Valid Hours: 701

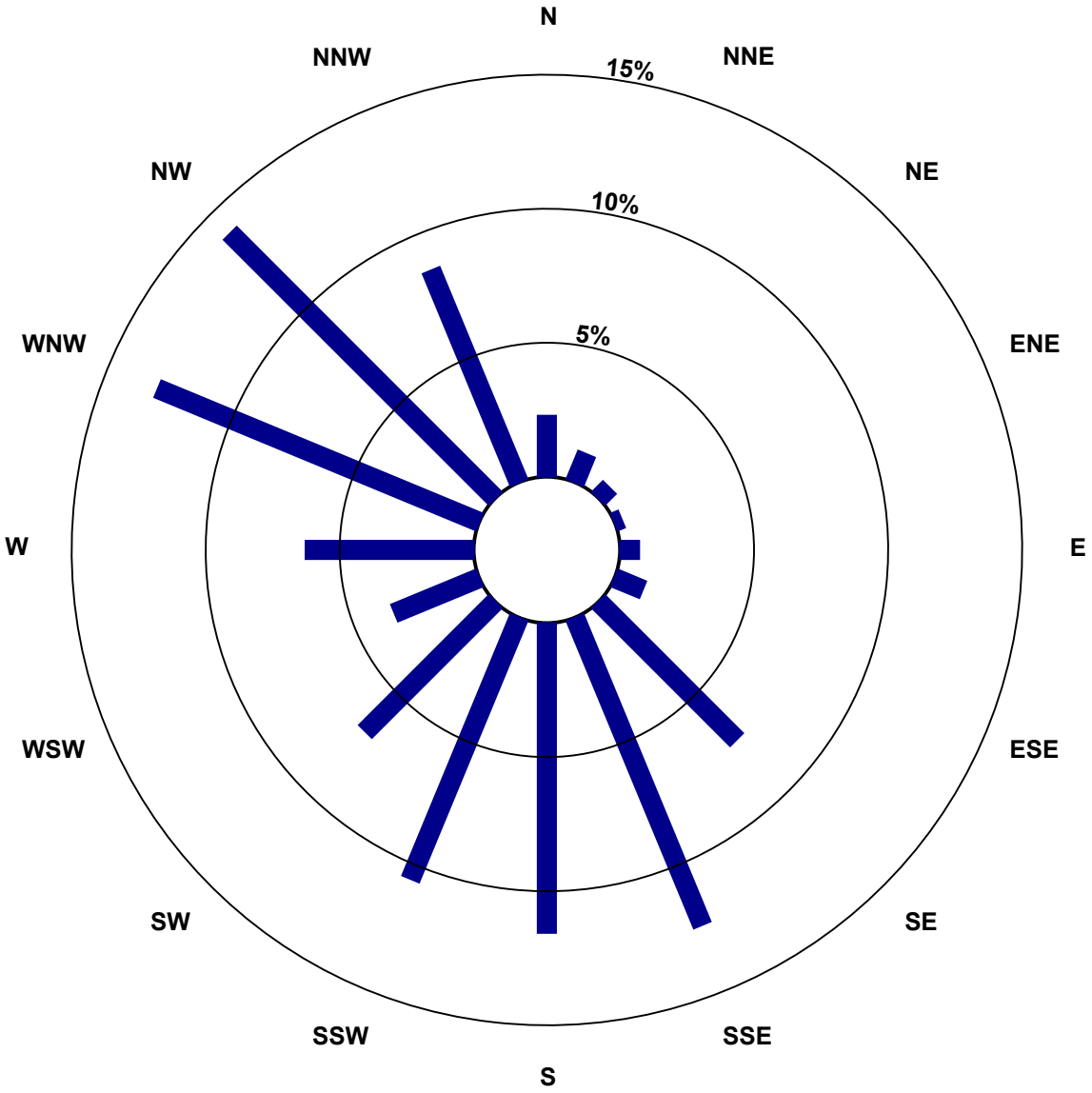
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Conklin



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

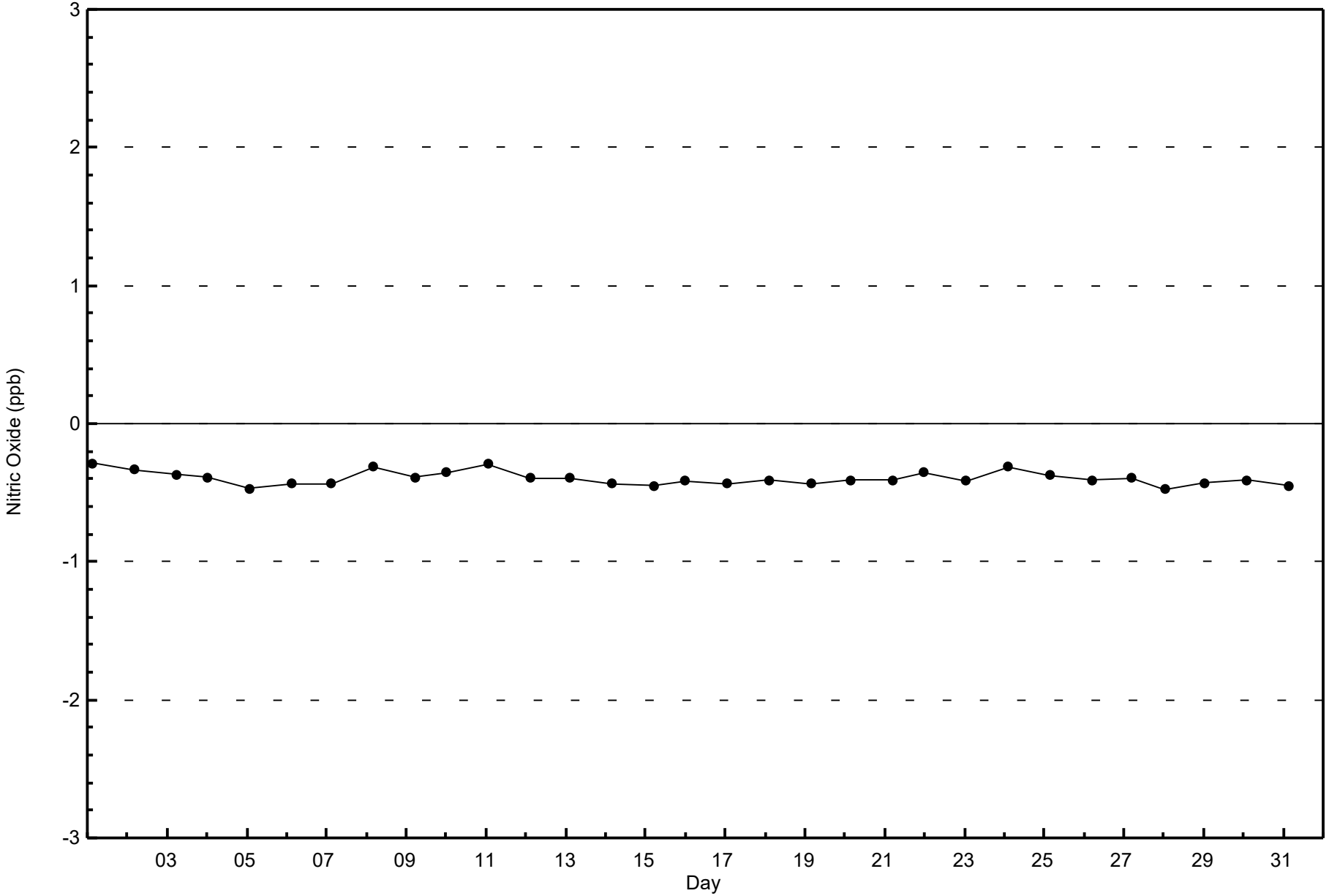
Total Number of Valid Hours: 701

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Conklin - October 2025

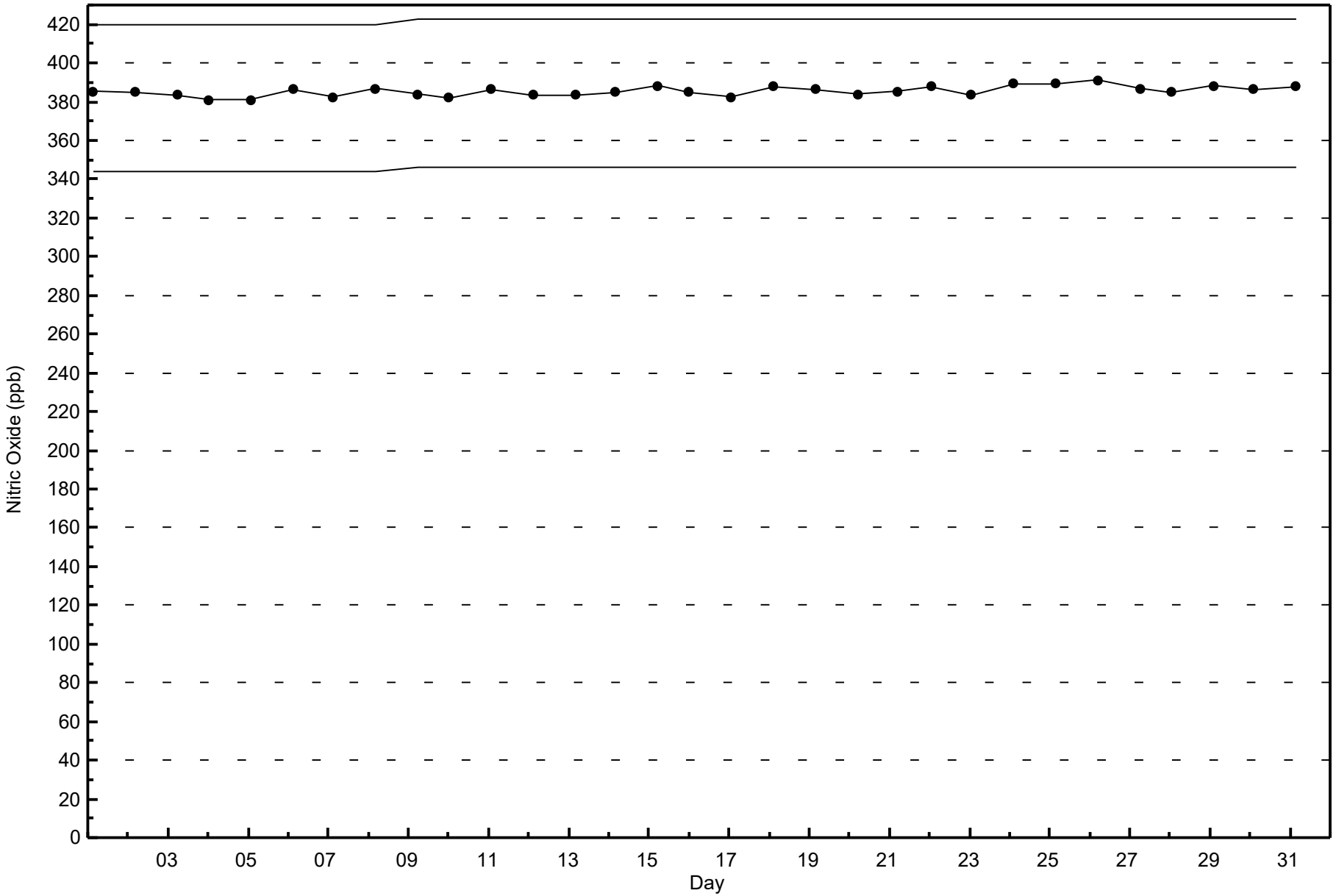


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Conklin - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Conklin - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 9.2 ppb on Oct 30 01:00

Maximum Daily Average: 3.8 ppb on Oct 24

Minimum Value: 0.1 ppb on Oct 8 14:00

Minimum Daily Average: 0.4 ppb on Oct 4

Maximum Diurnal Average: 2.0 ppb at hour 8

Minimum Diurnal Average: 1.0 ppb at hour 14

Monthly Average: 1.55 ppb

Percentiles: P_1 = 0.2 P_{10} = 0.4 Q_1 = 0.7 Median = 1.2 Q_3 = 2.0 P_{90} = 3.1 P_{99} = 6.3

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.0	1.7	1.0	Z	1.8	0.6	0.9	1.9	3.0	2.0	1.7	1.6	0.8	0.7	2.4	0.8	0.7	0.7	0.5	1.0	1.6	1.8	1.4	0.9	1.4	3.0
2-Oct	0.8	1.2	1.8	1.1	Z	0.8	1.4	1.0	1.1	1.6	1.0	0.9	1.7	1.3	0.9	0.5	0.8	1.6	1.1	1.3	1.4	1.7	2.5	2.5	1.3	2.5
3-Oct	1.8	1.1	1.1	1.6	1.6	Z	2.2	1.8	1.2	1.2	1.0	0.7	0.6	0.5	0.4	0.4	0.3	0.7	1.9	0.7	0.5	0.4	0.4	0.5	1.0	2.2
4-Oct	Z	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.6	0.4	0.4	0.5	0.4	0.3	0.2	1.6	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.4	1.6
5-Oct	2.4	Z	0.8	0.6	0.4	0.6	0.6	0.4	0.2	0.4	0.5	0.4	0.3	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.3	1.0	0.4	0.6	0.5	2.4
6-Oct	0.5	0.5	Z	0.5	1.0	2.0	1.1	1.8	1.9	1.4	1.1	0.9	0.8	0.8	0.6	0.6	0.8	2.3	2.3	1.5	1.7	1.3	1.6	1.5	1.2	2.3
7-Oct	1.5	1.4	1.3	Z	1.9	1.9	2.1	1.9	1.9	2.5	2.1	1.8	M	0.8	0.7	0.9	1.3	1.5	2.1	2.4	1.9	2.1	1.7	1.8	1.7	2.5
8-Oct	2.2	2.6	0.8	0.3	Z	0.8	0.5	0.9	C	C	C	C	C	0.1	0.1	0.2	0.3	0.4	0.8	1.3	0.6	0.3	0.2	0.6	0.7	2.6
9-Oct	0.7	0.7	0.6	0.6	0.7	Z	1.3	0.5	0.7	0.5	0.5	0.5	0.3	0.3	0.4	0.3	0.6	0.9	2.7	1.4	2.1	3.6	1.8	1.6	1.0	3.6
10-Oct	Z	1.8	3.1	3.3	3.0	2.1	2.4	2.5	2.2	2.2	2.2	1.5	1.4	1.5	1.7	2.2	2.7	2.3	1.9	1.4	1.9	1.7	2.2	1.7	2.1	3.3
11-Oct	2.1	Z	5.2	4.5	3.8	2.3	2.0	8.3	3.1	2.4	2.5	3.6	1.6	0.7	0.4	0.4	0.3	0.2	0.2	0.4	0.3	0.3	0.2	0.1	2.0	8.3
12-Oct	0.1	0.5	Z	1.5	2.0	2.0	1.5	2.1	2.2	2.0	1.5	1.0	1.9	2.6	2.0	1.5	1.9	1.7	1.0	0.5	5.9	1.6	1.8	0.5	1.7	5.9
13-Oct	0.3	0.5	0.4	Z	0.7	1.1	1.3	1.1	0.7	0.5	0.2	0.4	0.3	0.4	0.4	0.6	0.9	0.5	0.7	0.9	1.1	0.6	0.5	0.7	0.6	1.3
14-Oct	1.0	0.9	0.9	1.0	Z	1.5	1.4	1.9	1.6	1.0	0.8	0.7	0.6	0.7	0.6	0.6	0.8	1.3	1.4	1.6	1.3	1.4	1.3	1.3	1.1	1.9
15-Oct	1.4	1.8	2.1	2.5	2.3	Z	3.8	3.8	4.5	3.3	3.3	2.7	1.9	1.4	1.5	2.1	2.6	3.7	3.8	3.4	3.6	2.5	1.8	1.5	2.7	4.5
16-Oct	Z	1.4	1.3	1.6	2.1	2.5	2.5	4.2	2.7	1.9	1.7	1.4	1.1	1.6	0.5	0.5	1.3	1.8	1.2	1.5	1.1	1.5	1.3	1.6	1.7	4.2
17-Oct	1.0	Z	1.1	0.8	2.2	0.6	0.5	0.7	0.8	3.1	0.8	0.6	0.7	0.6	0.6	0.7	0.8	0.8	1.2	1.1	0.9	1.6	0.4	0.7	1.0	3.1
18-Oct	0.9	1.0	Z	0.9	1.0	0.9	1.1	1.2	1.0	0.8	0.7	0.5	0.7	0.5	0.4	0.7	1.6	3.0	5.1	3.7	3.0	1.2	0.8	1.7	1.4	5.1
19-Oct	5.9	6.4	3.7	Z	2.0	1.9	2.3	3.1	1.3	1.4	6.7	3.7	2.8	2.1	2.7	1.4	0.5	0.9	0.8	0.5	0.5	0.5	0.4	0.2	2.2	6.7
20-Oct	0.2	0.2	0.2	0.6	Z	0.7	0.9	2.5	3.5	3.9	4.0	3.1	2.3	2.3	1.2	0.8	0.8	1.4	1.2	1.1	1.5	1.4	1.1	2.6	1.6	4.0
21-Oct	1.8	1.6	1.8	2.1	1.5	Z	1.6	1.2	1.2	1.3	1.0	0.8	0.8	0.9	0.6	0.7	1.1	1.3	1.8	1.8	1.2	0.9	1.3	1.9	1.3	2.1
22-Oct	Z	1.0	0.8	0.8	1.6	1.5	1.5	0.8	0.9	0.7	1.0	1.2	1.9	0.4	0.5	0.2	0.7	1.5	2.3	3.7	1.5	1.7	2.4	2.1	1.3	3.7
23-Oct	2.0	Z	2.0	2.0	1.5	1.0	1.3	1.3	1.9	2.5	1.4	1.7	1.5	1.7	1.8	1.9	2.0	5.2	2.8	2.3	2.3	3.9	3.9	2.9	2.2	5.2
24-Oct	2.3	2.3	Z	3.4	4.1	4.3	2.9	1.5	1.6	1.9	3.2	2.9	2.4	2.9	4.2	3.0	3.9	3.0	6.3	7.3	8.6	6.3	5.0	4.2	3.8	8.6
25-Oct	3.9	4.1	4.7	Z	4.0	3.3	2.8	2.9	2.2	1.6	1.2	0.8	0.7	0.8	0.6	0.6	0.6	1.3	4.3	3.2	2.1	2.3	0.8	1.0	2.2	4.7
26-Oct	1.0	1.1	1.8	1.0	Z	1.9	2.3	5.0	5.2	3.0	2.2	1.3	1.0	0.8	0.6	0.5	0.5	0.4	0.2	0.2	0.8	2.0	0.6	0.7	1.5	5.2
27-Oct	0.6	0.5	1.0	1.4	2.1	Z	1.2	1.3	1.8	1.3	1.4	1.0	1.9	1.0	1.1	1.3	1.2	0.9	0.8	0.6	0.5	0.6	1.3	0.5	1.1	2.1
28-Oct	Z	0.7	0.5	1.1	0.6	0.5	0.9	1.3	0.9	1.2	1.1	0.9	0.7	0.7	0.9	1.0	1.3	0.9	1.0	0.7	0.8	0.9	1.0	1.3	0.9	1.3
29-Oct	5.0	Z	3.1	4.3	3.3	0.9	1.0	1.2	1.5	1.0	1.1	1.4	0.8	0.5	1.2	1.0	1.0	0.9	1.1	0.9	1.0	0.9	2.5	5.3	1.8	5.3
30-Oct	9.2	7.6	Z	4.1	3.4	4.8	5.0	3.3	2.8	1.7	1.6	1.1	1.0	1.3	1.2	2.5	1.5	1.0	0.5	0.5	0.7	1.6	0.8	0.9	2.5	9.2
31-Oct	0.6	0.6	0.9	Z	0.7	0.8	1.3	0.9	1.7	1.4	1.7	1.5	1.9	2.1	2.1	3.4	3.4	2.7	2.0	1.5	1.5	2.2	1.9	1.7	1.7	3.4
	2.0	1.7	1.6	1.7	1.9	1.6	1.7	2.0	1.9	1.7	1.7	1.4	1.2	1.0	1.1	1.1	1.2	1.5	1.7	1.6	1.7	1.6	1.4	1.5	Diurnal Average	
	9.2	7.6	5.2	4.5	4.1	4.8	5.0	8.3	5.2	3.9	6.7	3.7	2.8	2.9	4.2	3.4	3.9	5.2	6.3	7.3	8.6	6.3	5.0	5.3	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

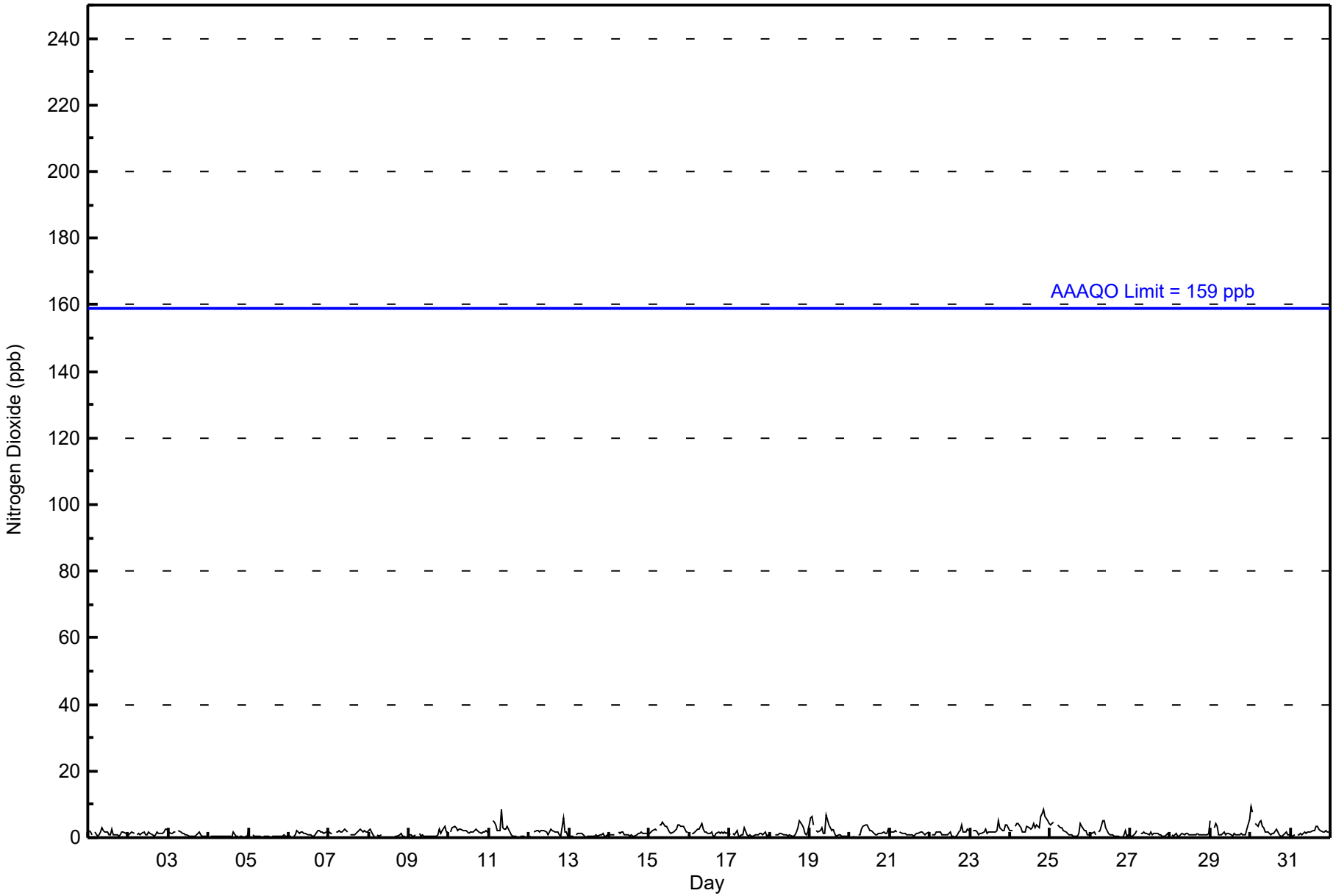
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Conklin - October 2025



Nitrogen Dioxide (NO_2) - ppb
Conklin - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Conklin - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	16	8	4	2	5	8	51	87	81	74	48	24	44	91	98	60	701
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	8	4	2	5	8	51	87	81	74	48	24	44	91	98	60	701

Total Number of Valid Hours: 701

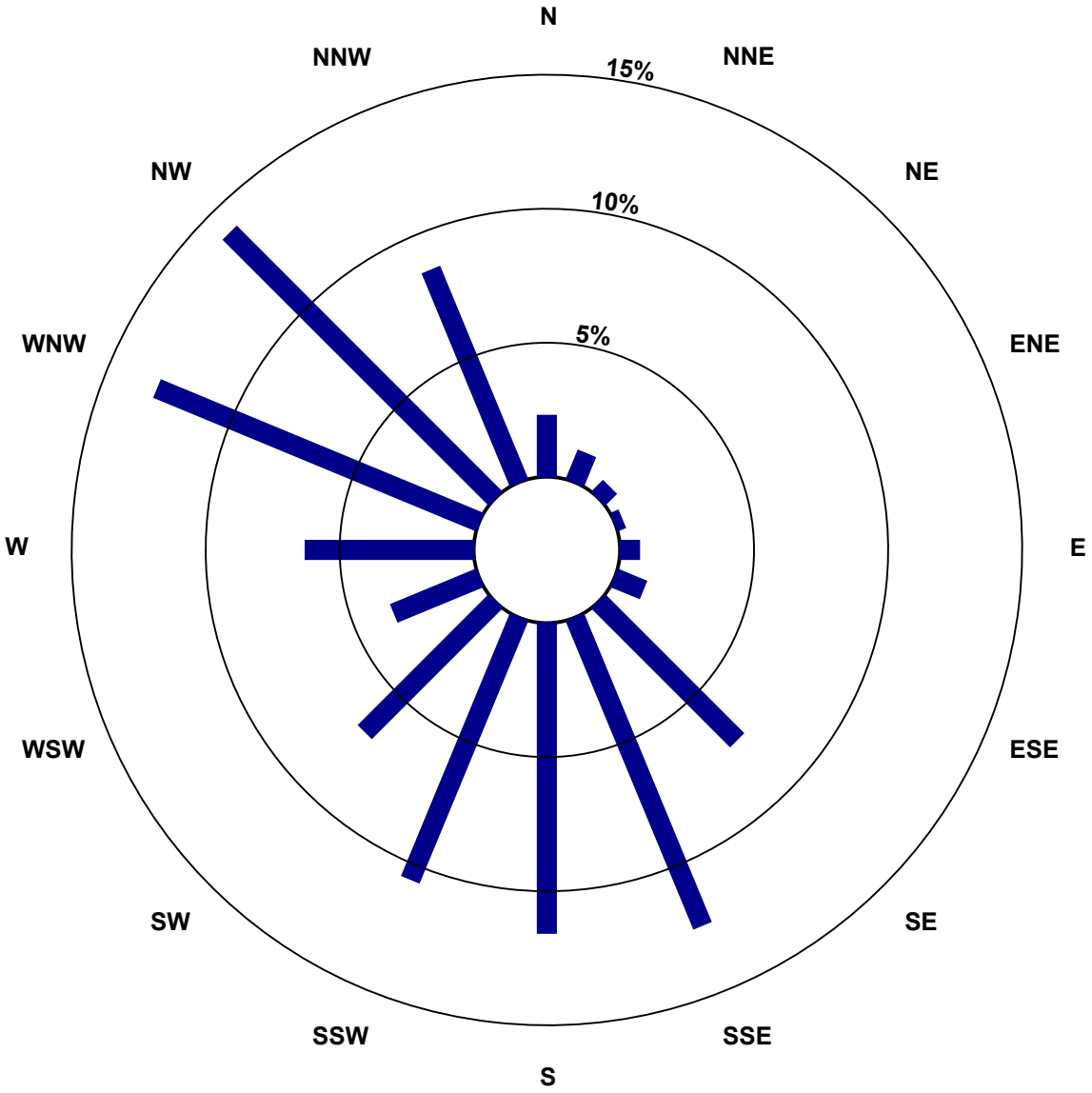
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Conklin



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

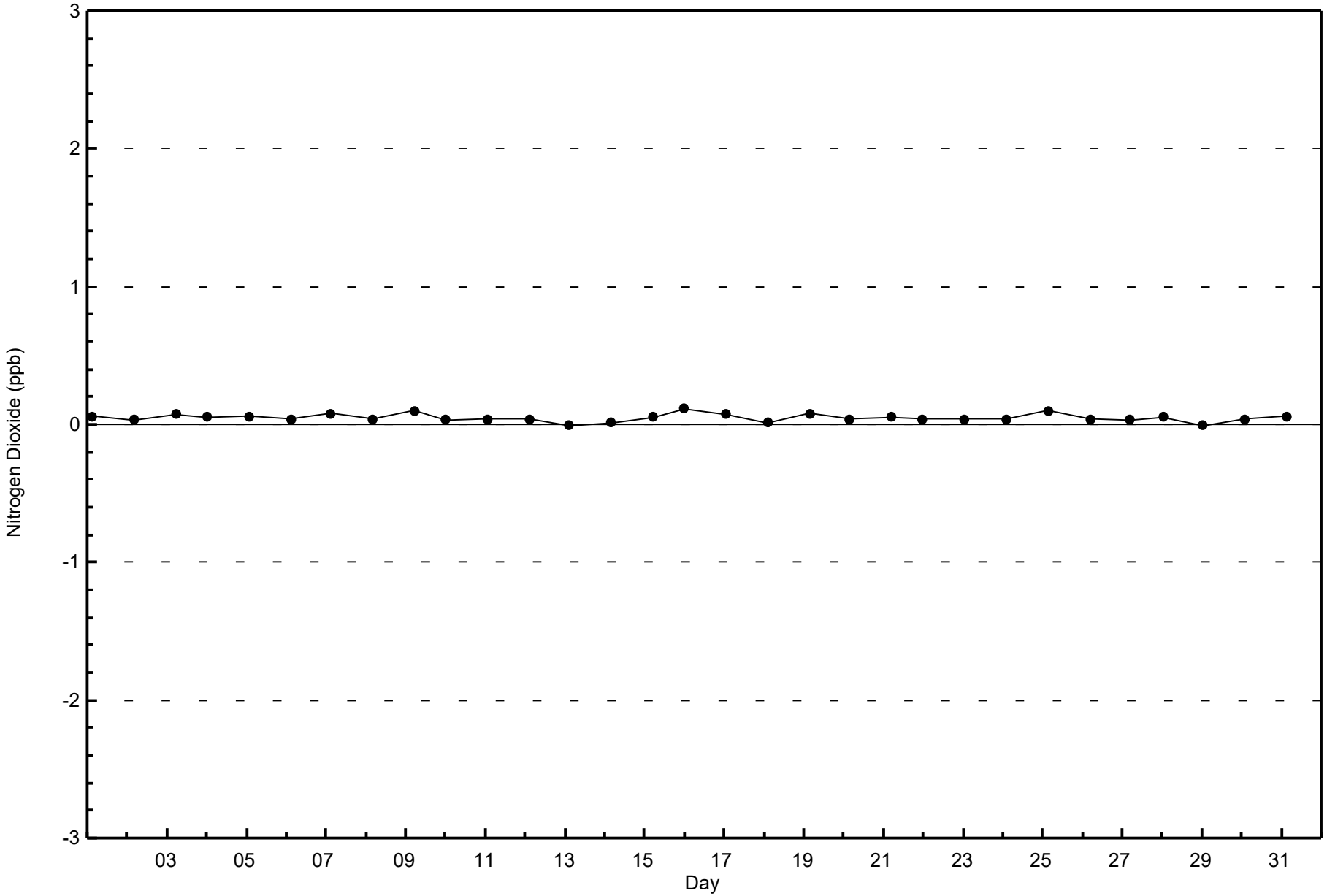
Total Number of Valid Hours: 701

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Conklin - October 2025

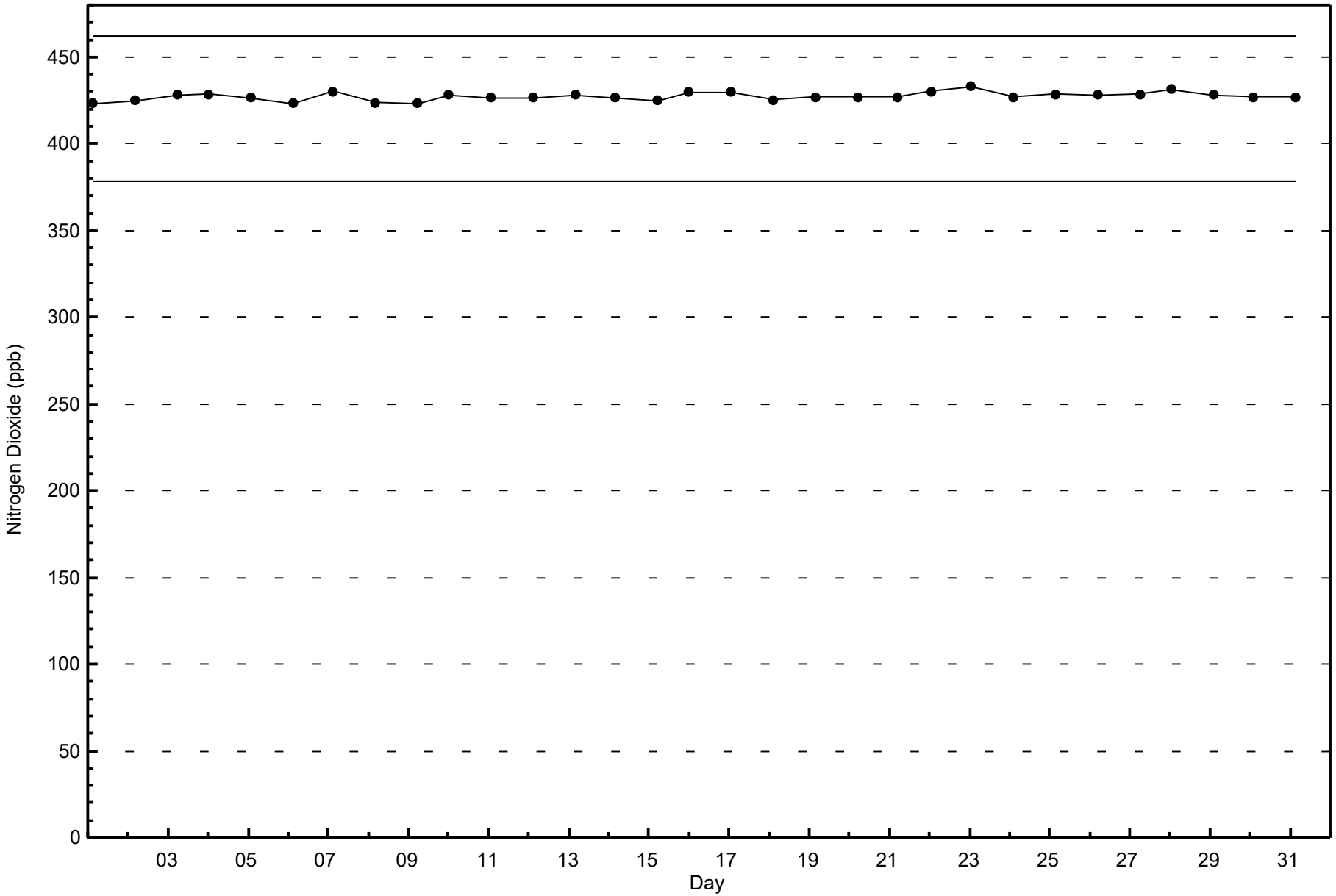


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Conklin - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Conklin - October 2025

Maximum Value: 24.3 ppb on Oct 24 21:00

Maximum Daily Average: 5.9 ppb on Oct 24

Minimum Value: 0.1 ppb on Oct 12 00:00

Minimum Daily Average: 0.5 ppb on Oct 4

Maximum Diurnal Average: 2.8 ppb at hour 3

Minimum Diurnal Average: 1.2 ppb at hour 15

Monthly Average: 1.98 ppb

Percentiles: P_1 = 0.2 P_{10} = 0.5 Q_1 = 0.7 Median = 1.4 Q_3 = 2.3 P_{90} = 4.1 P_{99} = 10.2

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.0	1.7	1.0	Z	1.8	0.6	0.9	1.9	5.1	2.2	1.9	1.7	0.8	0.7	3.3	0.8	0.7	0.7	0.5	1.0	1.6	1.8	1.4	0.9	1.5	5.1
2-Oct	2.3	8.8	4.3	2.2	Z	0.8	1.5	1.1	1.4	2.2	1.2	1.0	2.3	1.5	0.9	0.5	0.8	1.6	1.1	1.9	2.1	3.3	3.0	3.2	2.1	8.8
3-Oct	2.3	1.3	1.1	1.7	1.7	Z	2.2	2.0	1.4	1.4	1.1	0.7	0.6	0.5	0.4	0.4	0.3	0.7	1.9	0.8	0.5	0.4	0.4	0.5	1.0	2.3
4-Oct	Z	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.7	0.4	0.4	0.5	0.4	0.3	0.2	2.9	0.3	0.3	0.2	0.4	0.3	0.2	0.3	0.3	0.5	2.9
5-Oct	6.8	Z	0.8	0.7	0.5	0.7	0.8	0.6	0.3	0.6	0.8	0.6	0.6	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.3	1.0	0.4	0.6	0.8	6.8
6-Oct	0.5	0.5	Z	0.5	1.0	4.6	1.1	1.9	2.4	1.9	1.6	1.3	1.1	1.0	0.8	0.7	0.9	2.4	2.5	1.6	1.9	1.4	1.8	1.6	1.5	4.6
7-Oct	1.6	1.5	1.4	Z	2.0	1.9	2.1	2.0	2.4	3.2	2.7	2.6	M	1.0	0.8	1.0	1.3	1.5	2.3	2.4	1.9	2.1	1.7	1.8	1.9	3.2
8-Oct	2.2	4.1	0.8	0.3	Z	0.8	0.5	0.9	C	C	C	C	C	0.1	0.1	0.2	0.3	0.4	0.8	1.3	0.6	0.3	0.2	0.6	0.8	4.1
9-Oct	0.7	0.7	0.6	0.6	0.7	Z	1.5	0.5	0.8	0.6	0.6	0.5	0.4	0.3	0.5	0.3	0.6	0.9	3.2	2.1	2.6	8.5	1.8	1.6	1.3	8.5
10-Oct	Z	1.8	3.1	3.3	3.0	2.1	2.5	2.7	2.8	3.0	2.8	1.7	1.5	1.7	1.9	2.4	2.9	2.4	1.9	1.4	1.9	1.7	2.4	1.7	2.3	3.3
11-Oct	2.1	Z	14.0	4.5	3.8	2.3	2.0	15.5	3.1	2.4	3.1	3.9	1.6	0.7	0.4	0.4	0.3	0.2	0.2	0.4	0.3	0.3	0.2	0.1	2.7	15.5
12-Oct	0.1	0.5	Z	1.8	2.0	2.0	1.5	2.1	2.3	2.2	1.6	1.1	2.2	2.8	2.2	1.5	1.9	1.7	1.0	0.5	9.8	1.6	1.8	0.5	1.9	9.8
13-Oct	0.3	0.5	0.4	Z	0.7	1.1	1.3	1.3	0.7	0.5	0.2	0.4	0.3	0.5	0.5	0.8	1.4	0.5	0.7	0.9	1.1	0.7	0.5	0.8	0.7	1.4
14-Oct	1.0	1.0	0.9	1.0	Z	1.6	3.0	2.3	1.8	1.3	1.4	0.9	0.8	0.8	0.7	0.7	0.8	1.5	1.6	1.8	1.3	1.4	1.3	1.4	1.3	3.0
15-Oct	1.5	1.9	2.3	2.6	2.3	Z	4.0	5.7	6.6	5.0	5.3	3.7	2.4	1.6	1.7	2.4	2.8	3.8	4.0	3.5	4.4	2.5	1.8	1.5	3.2	6.6
16-Oct	Z	1.4	1.3	1.7	2.2	2.6	2.7	6.6	4.0	3.0	2.5	1.8	1.3	3.8	0.6	0.5	1.4	1.9	1.2	1.5	1.1	1.6	1.3	1.7	2.1	6.6
17-Oct	1.0	Z	1.1	10.2	2.2	0.6	0.5	0.7	0.9	6.1	0.9	0.7	0.8	0.7	0.6	0.7	0.8	0.8	1.3	1.1	0.9	2.3	0.4	0.7	1.6	10.2
18-Oct	0.9	1.5	Z	1.0	1.1	1.0	1.2	1.3	1.2	1.0	0.9	0.6	0.8	0.6	0.4	0.7	1.6	3.0	7.0	4.3	3.6	1.4	1.2	2.0	1.7	7.0
19-Oct	6.9	10.6	4.5	Z	2.0	2.0	2.6	5.2	2.2	1.8	10.1	5.0	3.2	2.3	3.0	1.6	0.5	0.9	0.8	0.5	0.5	0.5	0.4	0.2	2.9	10.6
20-Oct	0.2	0.2	0.2	0.6	Z	0.7	0.9	2.6	4.5	5.4	5.0	4.2	3.0	3.8	1.4	0.8	0.8	1.4	1.4	1.1	1.6	1.7	1.2	5.0	2.1	5.4
21-Oct	1.9	1.7	1.8	2.1	6.9	Z	1.6	1.2	1.6	1.7	2.5	1.0	1.0	1.1	0.6	0.7	1.1	1.3	2.0	2.1	1.2	0.9	1.3	1.9	1.7	6.9
22-Oct	Z	1.0	0.8	0.8	2.6	2.4	2.4	0.9	1.5	1.0	1.4	1.7	5.4	0.4	0.5	0.2	0.8	1.5	2.4	3.7	1.5	1.7	2.4	2.1	1.7	5.4
23-Oct	2.0	Z	2.0	2.0	1.6	1.0	1.3	1.3	2.2	3.8	1.9	2.2	1.9	2.0	2.1	2.1	2.0	5.6	2.8	2.3	2.3	4.5	4.3	2.9	2.4	5.6
24-Oct	2.3	2.3	Z	5.9	7.9	6.0	4.6	1.5	2.1	2.7	4.0	3.7	2.8	3.4	4.9	3.3	4.2	4.1	8.8	12.4	24.3	11.6	8.1	5.5	5.9	24.3
25-Oct	7.9	9.7	22.9	Z	9.1	6.6	6.5	4.2	2.3	1.9	1.4	0.9	0.8	0.8	0.7	0.6	0.6	1.3	4.5	6.4	2.2	3.0	0.8	1.0	4.2	22.9
26-Oct	1.2	1.9	2.2	1.2	Z	2.1	2.4	5.3	6.8	3.7	2.5	1.4	1.1	0.8	0.6	0.5	0.5	0.4	0.2	0.2	0.8	3.8	0.6	0.7	1.8	6.8
27-Oct	0.6	0.5	1.0	1.4	2.2	Z	1.4	1.5	2.4	1.7	2.1	1.5	3.9	1.3	1.5	1.7	1.5	1.1	1.0	0.7	0.5	0.6	2.4	0.6	1.4	3.9
28-Oct	Z	0.9	0.6	4.9	0.6	0.5	1.0	1.4	1.1	1.6	1.7	1.3	1.0	0.9	1.1	1.2	2.7	1.0	1.1	0.7	0.9	1.0	1.2	1.4	1.3	4.9
29-Oct	5.0	Z	3.1	4.3	3.3	0.9	1.2	1.2	1.7	1.1	1.2	1.5	0.8	0.5	1.3	1.1	1.0	0.9	1.1	0.9	1.0	0.9	2.5	5.3	1.8	5.3
30-Oct	9.2	7.6	Z	4.1	3.4	4.9	7.3	3.5	3.3	2.4	2.3	1.4	1.2	1.5	1.5	4.7	1.5	1.0	0.5	0.5	0.7	1.8	0.8	1.0	2.9	9.2
31-Oct	0.6	0.7	0.9	Z	0.7	0.9	1.3	0.9	2.1	1.9	2.6	2.4	2.8	3.0	2.7	3.9	3.6	2.8	2.0	1.5	1.6	2.2	2.0	1.7	2.0	3.9
	2.4	2.5	2.8	2.4	2.5	2.0	2.1	2.6	2.4	2.3	2.3	1.7	1.6	1.3	1.2	1.3	1.3	1.6	1.9	1.9	2.4	2.1	1.6	1.6	Diurnal Average	
	9.2	10.6	22.9	10.2	9.1	6.6	7.3	15.5	6.8	6.1	10.1	5.0	5.4	3.8	4.9	4.7	4.2	5.6	8.8	12.4	24.3	11.6	8.1	5.5	Diurnal Maximum	

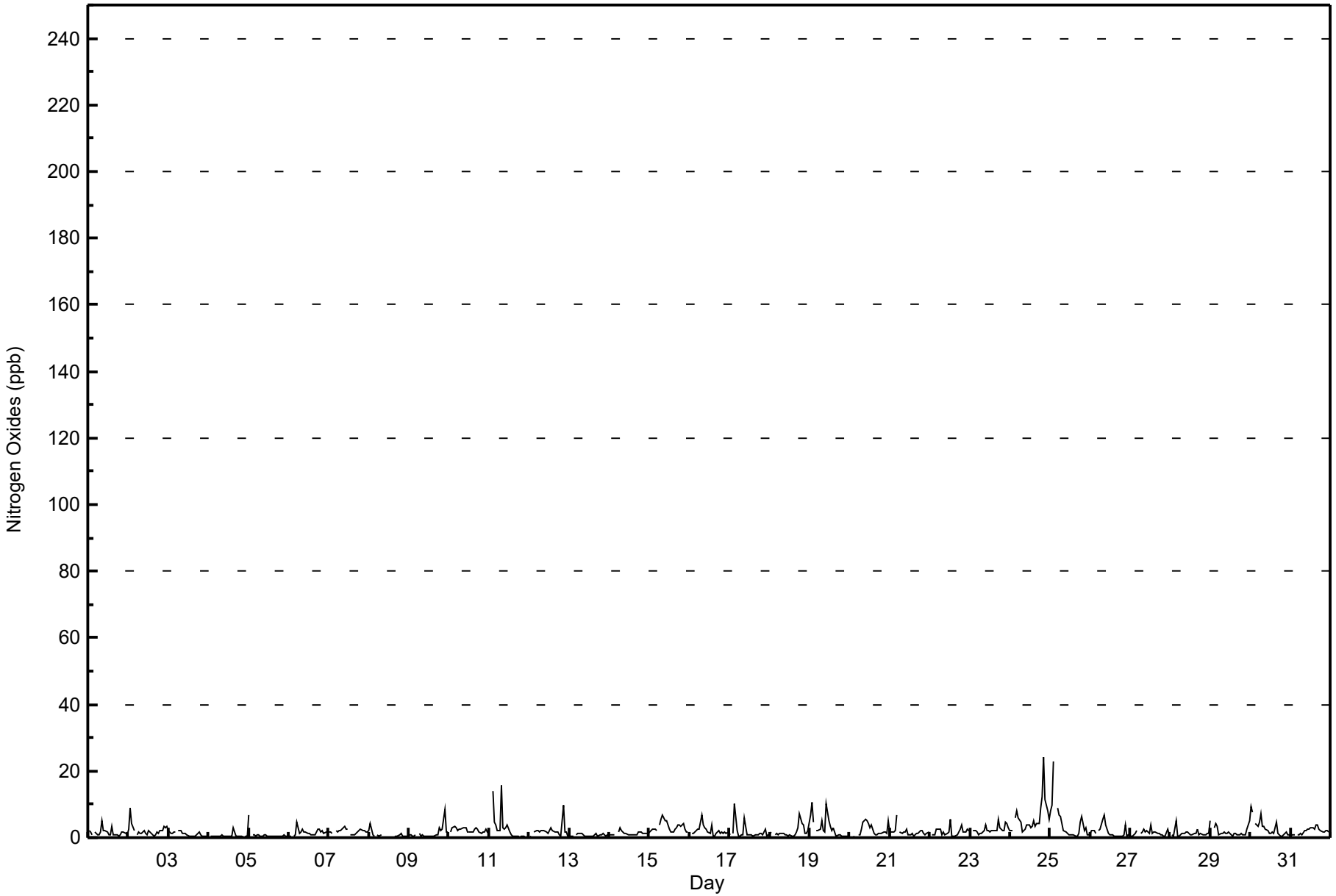
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Conklin - October 2025



Nitrogen Oxides (NO_X) - ppb
Conklin - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	705	99.72	99.72
21 - 40	2	0.28	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Nitrogen Oxides (NO_X) - ppb
Conklin - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	16	8	4	2	5	8	51	85	81	74	48	24	44	91	98	60	699
21 - 40	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	8	4	2	5	8	51	87	81	74	48	24	44	91	98	60	701

Total Number of Valid Hours: 701

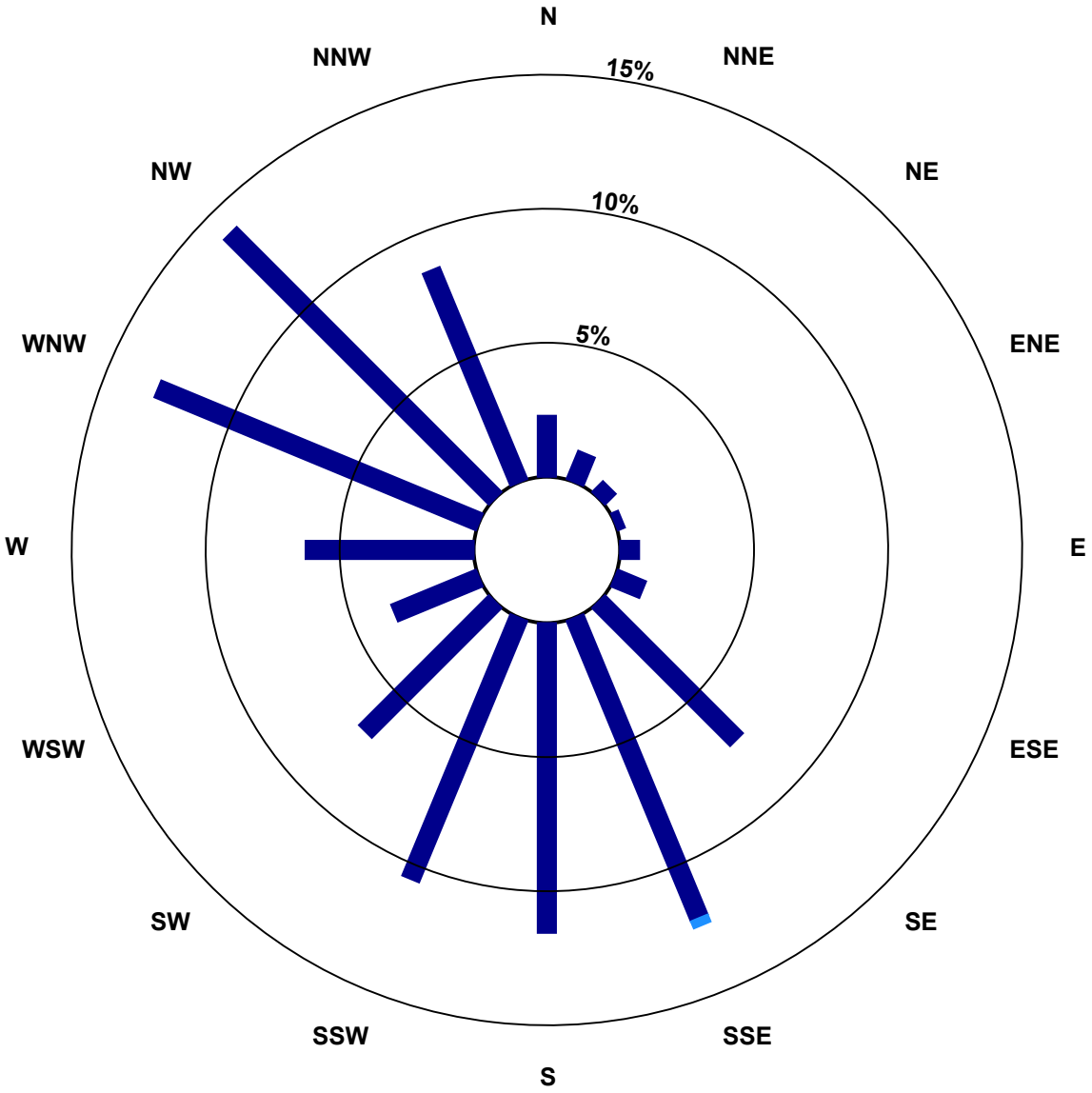
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Conklin



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

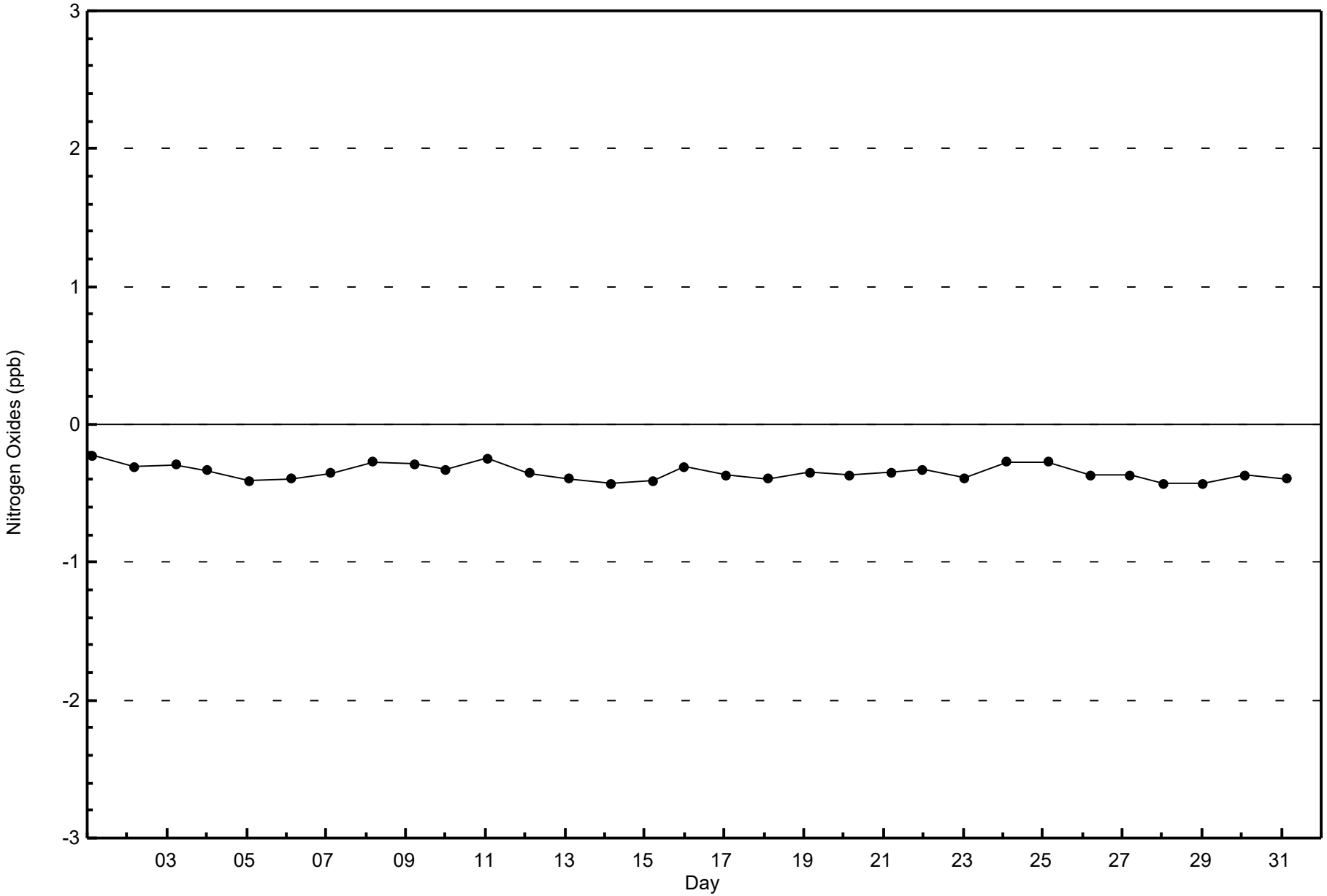
Total Number of Valid Hours: 701

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Conklin - October 2025

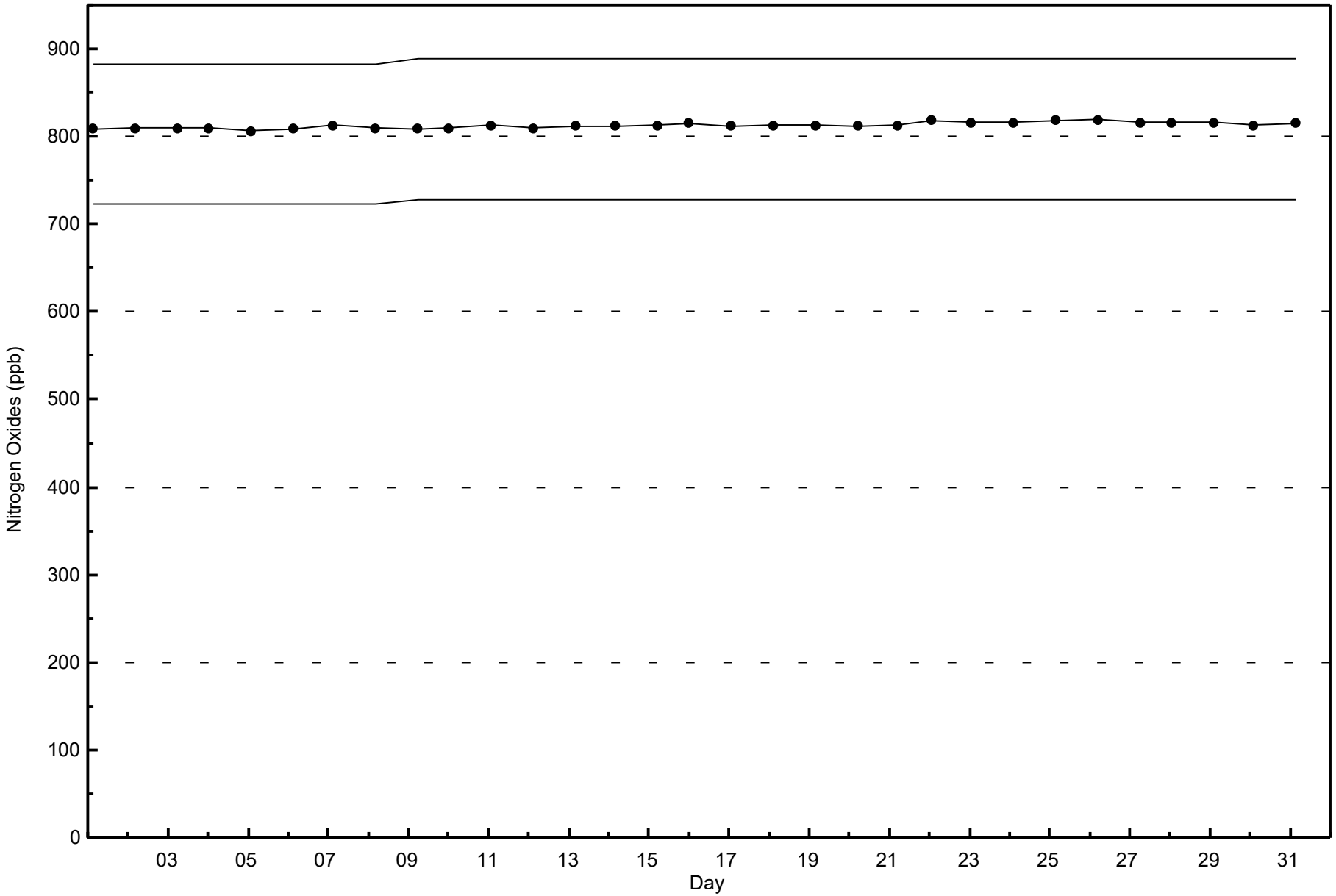


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Conklin - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O_3) - ppb

Conklin - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 42.5 ppb on Oct 10 15:00

Maximum Daily Average: 30.1 ppb on Oct 17

Minimum Value: 1.1 ppb on Oct 2 02:00

Minimum Daily Average: 9.8 ppb on Oct 2

Maximum Diurnal Average: 27.9 ppb at hour 16

Minimum Diurnal Average: 15.3 ppb at hour 6

Monthly Average: 20.88 ppb

Percentiles: P_1 = 1.5 P_{10} = 8.8 Q_1 = 15.2 Median = 21.4 Q_3 = 27.2 P_{90} = 31.8 P_{99} = 38.8

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	34
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	8.2	Z	10.6	10.3	9.5	7.1	6.2	7.1	7.5	10.5	12.1	12.7	18.9	22.4	17.7	18.8	15.9	22.6	18.4	14.9	13.4	14.3	7.8	2.7	12.6	22.6
2-Oct	1.9	1.1	Z	2.3	2.4	3.9	5.1	6.3	6.9	11.9	19.0	C	C	C	28.4	29.6	28.8	20.3	7.9	2.5	1.4	1.7	6.8	7.4	9.8	29.6
3-Oct	10.7	13.8	16.3	Z	18.5	19.6	19.7	19.4	20.3	21.4	25.7	29.8	33.0	35.5	36.0	34.8	36.0	31.9	21.4	28.9	27.4	26.4	28.4	24.7	25.2	36.0
4-Oct	25.9	27.9	28.7	27.5	Z	25.1	23.7	23.3	22.2	22.0	22.3	23.0	23.4	24.4	20.1	17.2	20.1	17.5	12.9	10.4	10.8	13.4	14.7	15.2	20.5	28.7
5-Oct	13.4	15.3	16.6	15.1	13.0	Z	10.7	14.1	14.2	13.7	15.6	18.8	22.7	27.3	28.8	30.3	31.4	30.3	28.2	27.6	28.0	24.4	25.8	26.0	21.4	31.4
6-Oct	Z	24.8	20.6	17.3	18.8	20.4	20.1	21.9	25.2	27.4	27.5	28.2	28.8	30.8	32.3	33.3	33.9	22.2	13.2	11.9	13.5	21.1	22.0	24.0	23.4	33.9
7-Oct	25.4	Z	27.2	26.2	25.2	24.3	23.3	22.5	23.0	23.6	23.3	24.7	M	27.6	29.1	31.0	31.9	29.8	27.7	27.0	27.5	28.6	24.2	17.5	25.9	31.9
8-Oct	19.5	17.9	Z	33.2	34.2	34.4	33.0	28.7	24.5	25.2	27.2	29.8	31.4	32.6	32.7	32.2	31.1	30.6	27.6	23.5	24.0	27.4	29.0	29.9	28.7	34.4
9-Oct	27.6	23.5	21.3	Z	19.4	15.5	12.7	16.5	19.6	24.6	28.6	33.6	33.0	32.4	35.0	33.2	31.8	29.6	16.9	11.1	13.8	25.3	27.5	26.9	24.3	35.0
10-Oct	24.5	19.3	21.5	21.3	Z	13.9	11.3	16.7	19.5	24.3	31.1	37.7	40.1	41.3	42.5	40.6	39.1	36.9	28.3	21.5	18.9	37.0	36.6	35.7	28.7	42.5
11-Oct	35.0	31.6	22.5	15.9	18.6	Z	21.1	16.2	23.0	24.9	22.7	21.4	20.1	16.1	14.4	15.0	16.6	16.4	15.2	15.2	16.1	16.2	17.2	19.3	19.6	35.0
12-Oct	Z	19.2	19.6	20.0	19.8	20.7	20.9	20.8	20.9	21.9	23.5	25.2	24.4	23.1	24.4	25.9	25.8	25.9	25.6	23.9	18.8	20.3	18.8	22.2	22.2	25.9
13-Oct	21.9	Z	21.9	20.9	21.4	21.5	22.2	21.5	21.1	25.4	29.7	30.2	30.3	31.5	31.9	31.7	30.6	29.1	25.3	17.2	14.8	26.0	25.7	24.2	25.0	31.9
14-Oct	25.7	24.9	Z	24.5	22.4	23.2	23.0	22.9	23.8	24.8	25.4	25.6	25.9	26.1	26.7	27.2	26.6	24.5	23.3	21.9	21.7	21.2	20.5	19.6	24.0	27.2
15-Oct	19.3	18.4	16.9	Z	12.9	8.3	8.8	5.5	14.8	18.1	18.0	24.0	27.2	29.8	29.4	27.2	24.7	20.5	14.9	16.5	14.3	12.8	11.5	12.3	17.7	29.8
16-Oct	17.4	16.0	14.5	17.7	Z	15.5	13.2	12.2	13.3	17.5	24.3	30.9	35.4	37.9	40.8	41.0	38.9	36.4	36.5	36.4	37.5	35.4	35.3	33.8	27.7	41.0
17-Oct	32.4	32.6	33.8	34.3	33.1	Z	33.1	31.9	28.5	26.6	27.6	29.5	29.3	29.4	29.7	29.3	29.4	29.7	28.8	29.4	29.0	27.8	28.5	28.0	30.1	34.3
18-Oct	Z	27.7	27.9	27.4	27.3	26.2	26.3	26.3	26.0	26.4	28.3	30.7	33.0	34.0	34.4	34.0	32.3	22.5	11.3	10.0	10.9	12.9	11.6	9.7	24.2	34.4
19-Oct	3.4	Z	4.1	4.7	3.4	3.9	3.1	3.4	3.4	7.7	9.0	12.6	14.2	15.6	16.3	32.9	29.8	19.8	16.5	16.4	10.7	11.8	18.3	19.2	12.2	32.9
20-Oct	20.5	15.9	Z	14.9	13.0	11.8	11.7	9.4	10.3	11.9	13.0	17.1	18.3	19.9	23.0	23.4	22.2	18.0	16.7	19.4	16.7	16.6	15.9	14.8	16.3	23.4
21-Oct	16.0	17.4	18.2	Z	19.0	20.1	22.5	22.0	21.2	25.2	26.7	28.1	28.9	29.1	29.9	29.5	28.7	27.2	25.0	24.8	25.6	24.2	15.3	13.7	23.4	29.9
22-Oct	8.7	8.8	4.2	2.9	Z	2.0	3.0	4.5	9.7	18.8	22.1	26.9	30.3	32.4	33.3	34.2	32.9	26.9	28.0	27.2	28.0	27.1	26.9	27.9	20.3	34.2
23-Oct	28.1	27.5	24.5	24.0	27.6	Z	16.8	12.9	11.9	17.1	26.2	28.3	30.3	30.9	32.2	33.5	33.0	23.2	22.7	23.2	16.6	15.0	14.7	19.9	23.5	33.5
24-Oct	Z	9.7	10.2	5.6	2.8	2.7	2.5	10.1	8.7	12.8	23.1	25.7	27.1	27.1	25.7	26.7	22.4	14.1	8.5	4.1	1.3	1.7	1.3	1.4	12.0	27.1
25-Oct	1.5	Z	1.7	2.2	1.7	1.5	1.2	8.3	20.5	21.8	24.4	30.6	32.7	30.0	31.8	34.5	35.5	34.1	21.3	24.7	20.7	15.6	15.2	11.3	18.4	35.5
26-Oct	8.2	7.0	Z	4.0	4.0	3.3	3.8	5.5	6.1	11.0	15.6	18.4	15.9	17.1	19.1	16.7	16.6	23.1	24.0	24.3	25.4	22.1	20.9	20.3	14.5	25.4
27-Oct	19.9	18.6	17.0	Z	18.8	18.8	19.4	19.6	18.7	18.1	16.2	16.1	16.0	16.4	17.0	17.2	17.1	17.9	18.9	19.5	20.5	21.6	20.7	21.3	18.5	21.6
28-Oct	19.8	21.4	23.4	22.4	Z	24.8	24.1	22.4	24.0	24.4	21.3	21.9	22.7	24.0	24.5	24.2	22.6	21.7	21.4	21.3	17.7	13.3	9.6	10.7	21.0	24.8
29-Oct	12.6	15.5	15.2	13.0	13.2	Z	14.9	15.3	16.4	15.3	13.3	11.7	14.0	14.2	13.7	13.9	13.5	13.1	12.8	13.2	12.2	13.4	11.4	8.4	13.5	16.4
30-Oct	Z	6.4	5.8	7.3	8.3	8.4	9.0	11.9	13.6	19.5	24.7	27.8	28.0	27.9	26.9	26.3	26.6	27.1	28.6	27.3	22.9	19.3	21.5	22.7	19.5	28.6
31-Oct	21.6	Z	19.1	19.6	20.1	20.3	20.3	21.3	20.8	21.9	21.3	21.4	20.8	20.4	20.1	19.6	20.3	21.9	24.1	25.2	26.5	26.0	25.9	25.2	21.9	26.5
	18.0	18.5	17.8	16.7	16.5	15.3	15.7	16.1	17.4	19.9	22.2	24.7	26.1	26.9	27.4	27.9	27.3	24.7	21.0	20.0	18.9	20.0	19.7	19.2	Diurnal Average	
	35.0	32.6	33.8	34.3	34.2	34.4	33.1	31.9	28.5	27.4	31.1	37.7	40.1	41.3	42.5	41.0	39.1	36.9	36.5	36.4	37.5	37.0	36.6	35.7	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

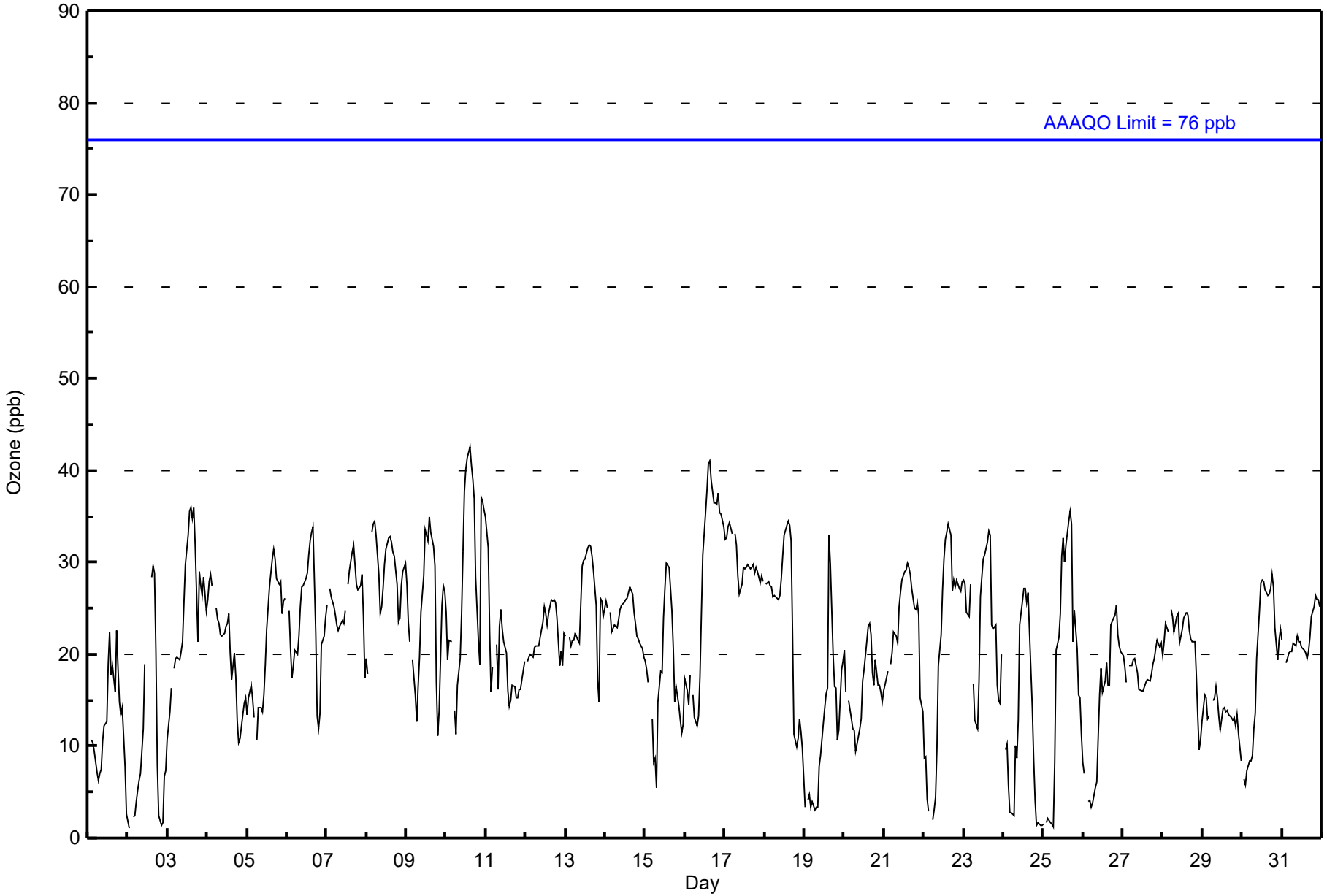
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb

Wood Buffalo Environmental Association

Hourly Averages

Ozone (O_3) - ppb

Conklin - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	321	45.28	45.28
21 - 50	388	54.72	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Ozone (O_3) - ppb

Conklin - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	9	7	2	2	3	3	30	45	32	28	5	3	4	25	78	40	316
21 - 50	6	1	1	0	3	3	20	42	47	46	43	21	38	71	24	22	388
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	15	8	3	2	6	6	50	87	79	74	48	24	42	96	102	62	704

Total Number of Valid Hours: 704

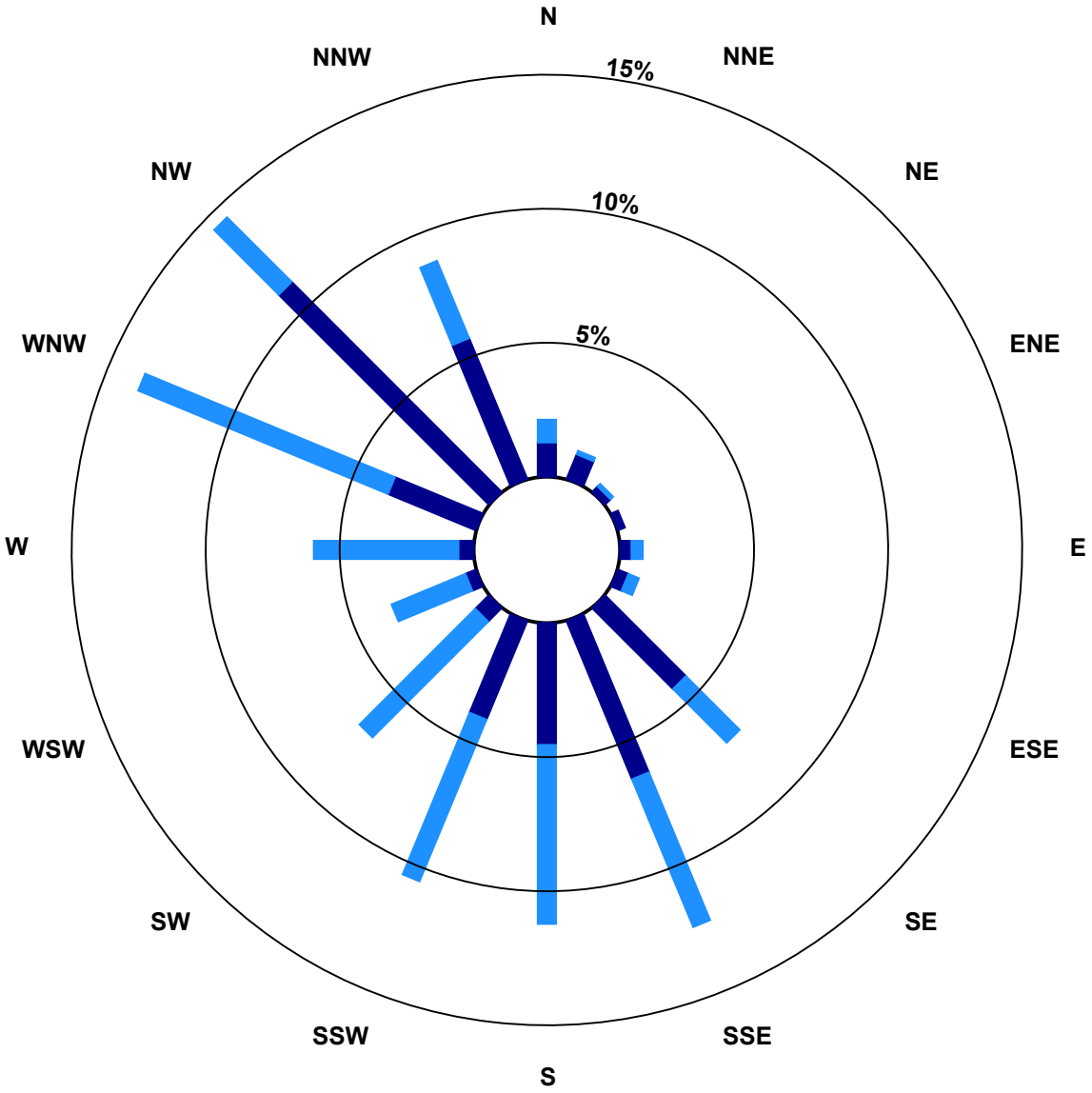
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Ozone (O_3) - ppb

Conklin



Classes (ppb)

0 - 20

21 - 50

51 - 82

> 83

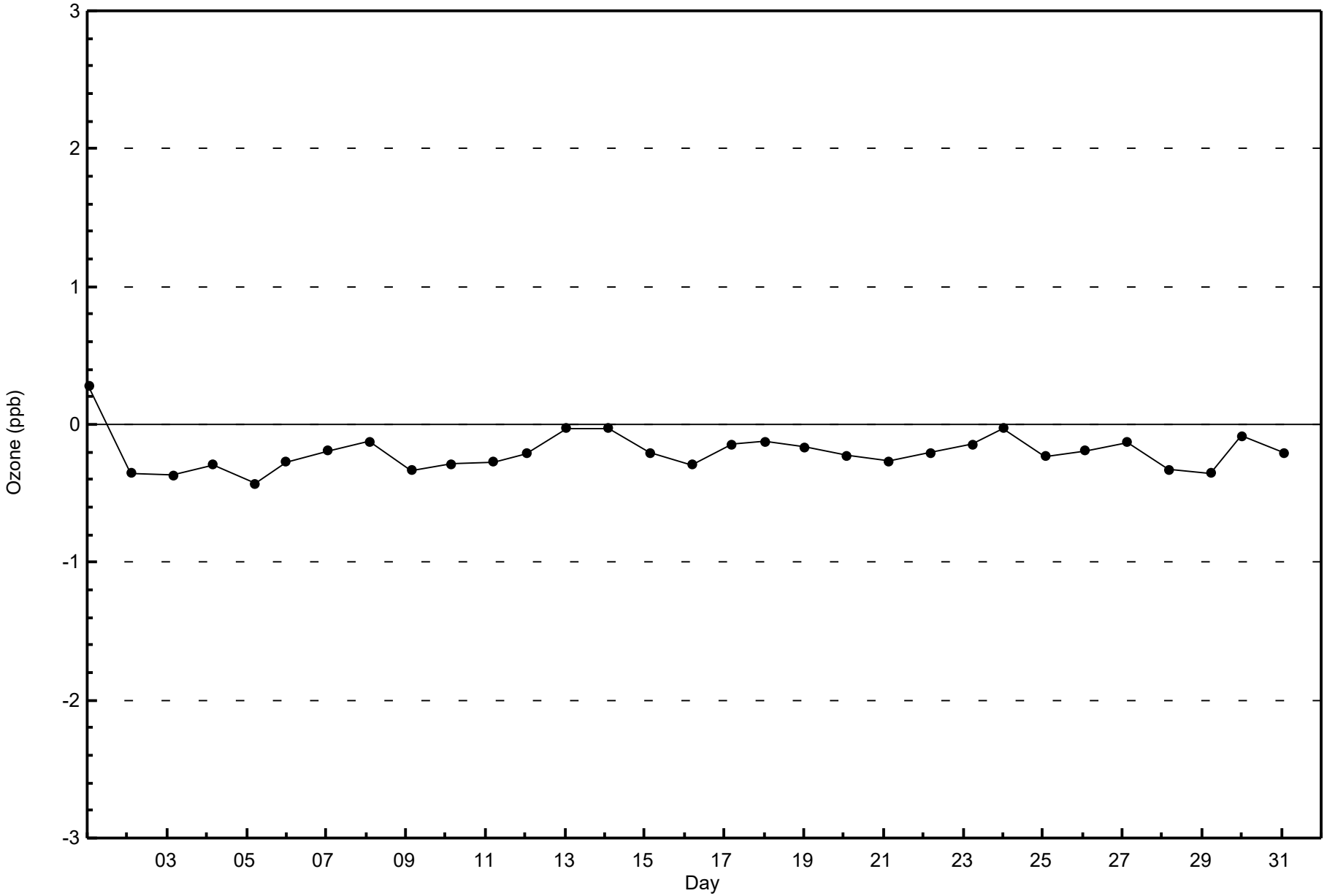
Total Number of Valid Hours: 704

Wood Buffalo Environmental Association

Zero Responses

Ozone (O_3) - ppb

Conklin - October 2025

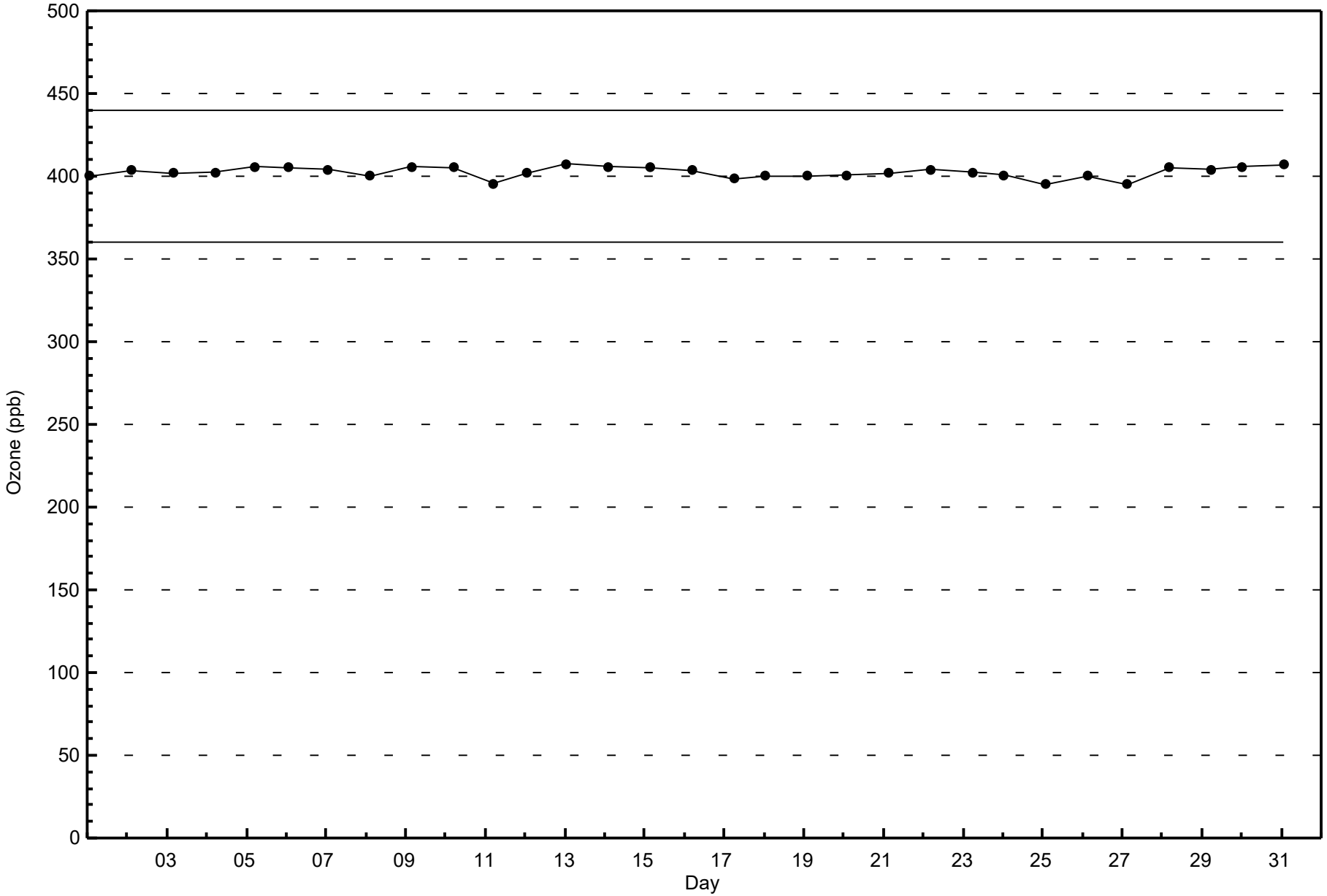


Wood Buffalo Environmental Association

Span Responses

Ozone (O_3) - ppb

Conklin - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Conklin - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 29.7 $\mu g/m^3$ on Oct 24 20:00

Maximum Daily Average: 9.3 $\mu g/m^3$ on Oct 1

Minimum Value: 0.1 $\mu g/m^3$ on Oct 27 20:00

Minimum Daily Average: 0.1 $\mu g/m^3$ on Oct 27

Maximum Diurnal Average: 5.2 $\mu g/m^3$ at hour 2

Minimum Diurnal Average: 2.4 $\mu g/m^3$ at hour 16

Monthly Average: 3.90 $\mu g/m^3$

Percentiles: $P_1 = 0.1$ $P_{10} = 0.9$ $Q_1 = 1.8$ Median = 3.2 $Q_3 = 4.6$ $P_{90} = 7.1$ $P_{99} = 20.4$

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	24.1	20.6	17.1	18.4	19.7	14.8	13.8	10.8	7.3	4.7	3.3	3.4	4.0	4.4	3.6	3.5	4.8	5.6	6.1	5.8	7.8	7.9	6.6	6.3	9.3	24.1
2-Oct	7.6	6.5	5.7	5.5	5.1	5.0	4.5	4.7	4.5	4.3	4.0	4.1	4.0	4.3	5.1	5.9	5.9	6.5	16.3	10.2	7.3	6.5	6.1	14.7	6.4	16.3
3-Oct	15.1	10.3	10.5	10.1	11.1	12.1	11.6	12.1	12.2	11.8	8.6	5.8	3.9	3.0	2.0	1.8	0.8	1.3	1.8	1.0	0.8	0.8	0.7	0.8	6.2	15.1
4-Oct	0.9	1.0	1.3	3.2	4.4	3.5	2.5	2.1	3.1	3.8	4.2	4.5	4.0	3.8	3.8	3.0	2.4	2.3	0.8	1.6	1.0	0.6	0.4	1.6	2.5	4.5
5-Oct	2.0	1.5	1.6	1.8	3.6	3.3	3.9	2.9	3.3	3.9	2.8	2.2	1.8	1.0	0.7	0.7	1.3	1.4	6.1	5.5	2.7	8.7	2.9	4.1	2.9	8.7
6-Oct	4.0	4.0	3.7	3.9	3.5	2.1	2.5	3.1	2.1	1.5	0.9	0.8	0.8	0.8	0.8	1.0	1.7	6.1	3.8	2.6	3.3	5.9	2.8	3.8	2.7	6.1
7-Oct	3.2	3.4	3.4	3.4	3.5	3.8	4.0	4.2	4.4	4.5	3.7	3.2	3.0	2.6	2.3	2.4	3.1	3.8	4.0	4.4	4.6	7.7	9.0	14.8	4.4	14.8
8-Oct	10.3	12.3	4.4	4.4	4.8	4.4	2.8	2.7	4.2	5.3	4.3	3.4	3.1	1.6	1.3	1.2	1.6	1.4	1.8	3.8	5.0	4.3	1.1	1.3	3.8	12.3
9-Oct	1.4	1.7	1.6	1.7	2.3	3.1	4.6	4.7	3.0	0.9	0.7	0.7	0.8	0.8	0.6	0.5	1.3	2.9	5.3	3.9	9.6	3.2	3.1	3.4	2.6	9.6
10-Oct	3.8	2.9	3.9	5.0	4.8	4.1	4.1	5.1	5.3	6.0	5.5	5.3	5.0	5.0	5.1	5.0	6.0	6.1	6.1	21.8	22.5	7.7	6.1	5.9	6.6	22.5
11-Oct	6.0	7.1	22.7	7.4	10.6	8.5	7.4	9.1	9.1	9.5	5.6	4.8	4.1	2.0	1.1	0.9	1.9	2.2	2.4	1.2	0.9	0.8	1.5	2.7	5.4	22.7
12-Oct	2.8	2.7	0.4	0.4	0.6	1.2	1.1	1.3	1.9	1.3	2.0	1.9	3.3	3.8	3.3	2.1	2.2	2.1	2.2	2.7	1.8	1.2	1.2	0.6	1.8	3.8
13-Oct	0.5	0.8	1.0	0.8	0.9	1.1	1.3	1.1	1.1	1.0	0.8	0.9	3.0	3.2	2.5	2.6	1.9	1.5	2.6	5.5	6.7	3.2	5.4	7.2	2.4	7.2
14-Oct	3.5	3.5	4.8	3.8	5.0	4.1	4.0	3.6	4.1	4.2	4.0	3.5	3.0	2.6	2.0	1.8	2.3	2.7	2.5	2.7	3.2	4.4	3.2	3.5	3.4	5.0
15-Oct	4.0	4.5	4.1	4.4	4.1	15.1	5.0	4.4	4.5	4.3	4.5	2.9	2.2	2.2	2.0	2.3	2.6	3.4	3.5	3.0	3.3	3.5	3.2	2.7	4.0	15.1
16-Oct	3.4	3.5	2.8	2.8	3.0	3.6	3.2	3.8	3.3	3.2	3.2	3.0	3.2	3.2	2.2	1.7	2.6	4.3	3.3	2.9	2.8	3.5	3.0	3.0	3.1	4.3
17-Oct	3.0	3.1	2.5	2.4	2.5	2.4	2.5	1.4	1.0	0.7	2.0	2.2	1.9	2.2	2.3	2.7	3.1	3.1	2.9	2.9	3.1	2.9	2.8	2.7	2.4	3.1
18-Oct	3.1	3.3	3.5	2.6	1.4	1.7	1.9	1.9	2.0	2.3	2.1	1.8	1.1	0.9	0.8	2.1	1.9	2.8	5.6	5.1	2.8	1.8	1.8	1.8	2.3	5.6
19-Oct	2.2	3.1	2.7	2.2	3.9	4.0	3.6	3.8	3.0	4.3	3.8	2.6	4.5	10.1	6.7	1.4	1.7	6.0	8.1	10.4	12.2	12.2	6.8	5.5	5.2	12.2
20-Oct	3.2	1.7	1.5	3.4	2.4	1.9	1.5	2.4	2.7	3.6	4.0	3.2	2.7	3.2	3.5	3.1	3.3	6.7	3.8	5.3	5.6	4.4	4.1	4.4	3.4	6.7
21-Oct	3.7	3.5	3.3	3.2	3.1	2.9	2.4	2.1	1.9	1.3	1.4	1.3	1.4	1.6	1.4	1.5	1.6	1.8	2.0	2.0	1.6	2.1	10.5	4.9	2.6	10.5
22-Oct	6.7	11.3	7.6	15.4	7.9	5.2	3.3	5.4	3.8	1.8	1.5	1.8	1.6	1.2	0.9	0.7	1.2	1.6	1.2	1.0	0.9	1.2	1.5	1.3	3.6	15.4
23-Oct	1.0	1.0	2.0	2.8	1.9	2.7	2.4	2.2	3.1	2.8	2.3	2.5	2.5	2.5	2.6	2.9	2.9	3.7	3.5	3.2	5.2	4.0	4.4	4.1	2.8	5.2
24-Oct	3.0	25.0	11.2	10.7	5.4	5.8	4.1	3.2	4.4	4.0	3.5	3.5	3.3	3.3	3.3	3.4	4.2	6.0	5.5	29.7	6.6	11.1	6.9	15.0	7.6	29.7
25-Oct	9.4	10.5	5.8	5.3	5.0	5.0	5.2	7.7	4.4	4.2	4.8	2.4	1.4	2.6	1.5	1.1	1.8	2.1	3.1	2.5	3.8	2.7	3.1	3.3	4.1	10.5
26-Oct	1.9	2.0	6.3	2.4	20.9	15.2	8.1	2.4	5.8	14.9	20.0	4.8	3.6	8.0	7.9	3.8	2.6	2.6	2.4	7.6	1.5	1.1	0.9	0.6	6.1	20.9
27-Oct	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.3
28-Oct	0.1	0.2	0.2	0.3	0.3	0.5	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.7	0.9	1.6	1.7	1.0	0.8	1.5	1.7	1.1	6.4	2.5	1.0	6.4
29-Oct	2.6	3.3	3.6	3.3	3.4	5.6	3.1	3.2	2.8	2.9	2.7	2.9	5.5	2.5	2.1	2.3	3.1	5.0	2.0	2.1	5.2	1.7	1.5	2.0	3.1	5.6
30-Oct	2.9	2.7	2.6	2.6	2.6	3.0	3.9	4.0	4.0	4.6	4.9	4.3	4.0	4.2	4.9	4.6	4.4	4.3	3.6	3.5	3.9	6.7	5.3	5.2	4.0	6.7
31-Oct	4.0	3.8	4.0	4.5	4.8	5.2	6.1	5.4	4.8	5.0	5.1	5.0	5.1	5.0	5.1	5.0	4.9	4.7	5.3	5.5	4.2	3.9	3.8	4.5	4.8	6.1
	4.5	5.2	4.7	4.5	4.9	4.9	4.0	3.9	3.8	4.0	3.8	2.9	2.9	3.0	2.7	2.4	2.6	3.4	3.8	5.2	4.6	4.1	3.7	4.3	Diurnal Average	
	24.1	25.0	22.7	18.4	20.9	15.2	13.8	12.1	12.2	14.9	20.0	5.8	5.5	10.1	7.9	5.9	6.0	6.7	16.3	29.7	22.5	12.2	10.5	15.0	Diurnal Maximum	

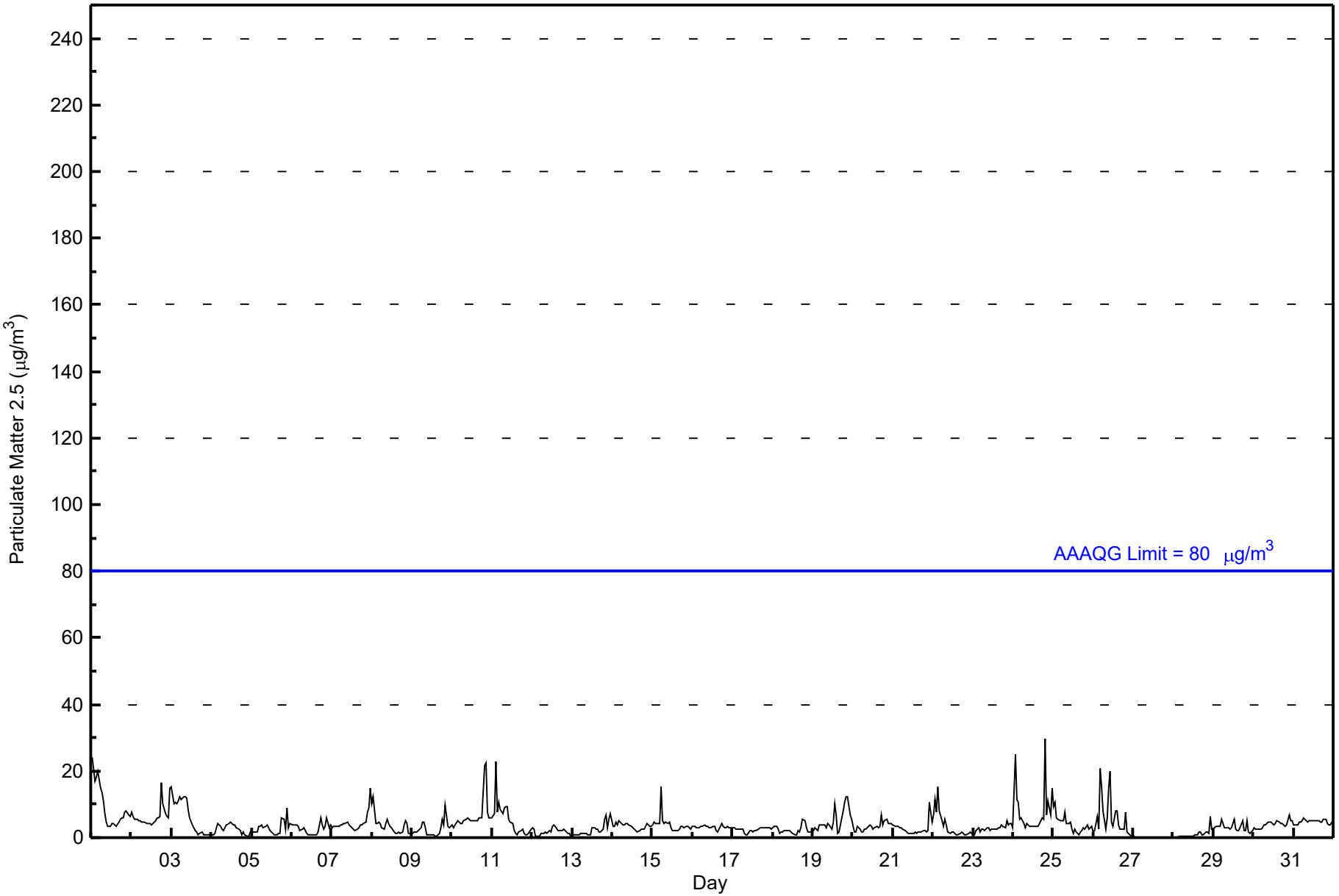
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 $\mu g/m^3$ 24-hr 29 $\mu g/m^3$

Wood Buffalo Environmental Association

Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Conklin - October 2025



Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Conklin - October 2025

Concentration Ranges ($\mu g/m^3$)	Number of Hours	%	Cumulative %
0 - 5	621	83.47	83.47
6 - 15	110	14.78	98.25
16 - 25	12	1.61	99.87
26 - 80	1	0.13	100.00
> 81.0	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Conklin - October 2025

Concentration Ranges ($\mu g/m^3$)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	10	6	0	2	4	7	45	73	65	69	45	24	42	98	87	38	615
6 - 15	5	2	4	0	2	2	6	18	20	8	4	1	2	0	17	19	110
16 - 25	1	0	0	0	0	0	1	0	0	0	0	0	0	1	1	8	12
26 - 80	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	8	4	2	6	9	53	91	85	77	49	25	44	99	105	65	738

Total Number of Valid Hours: 738

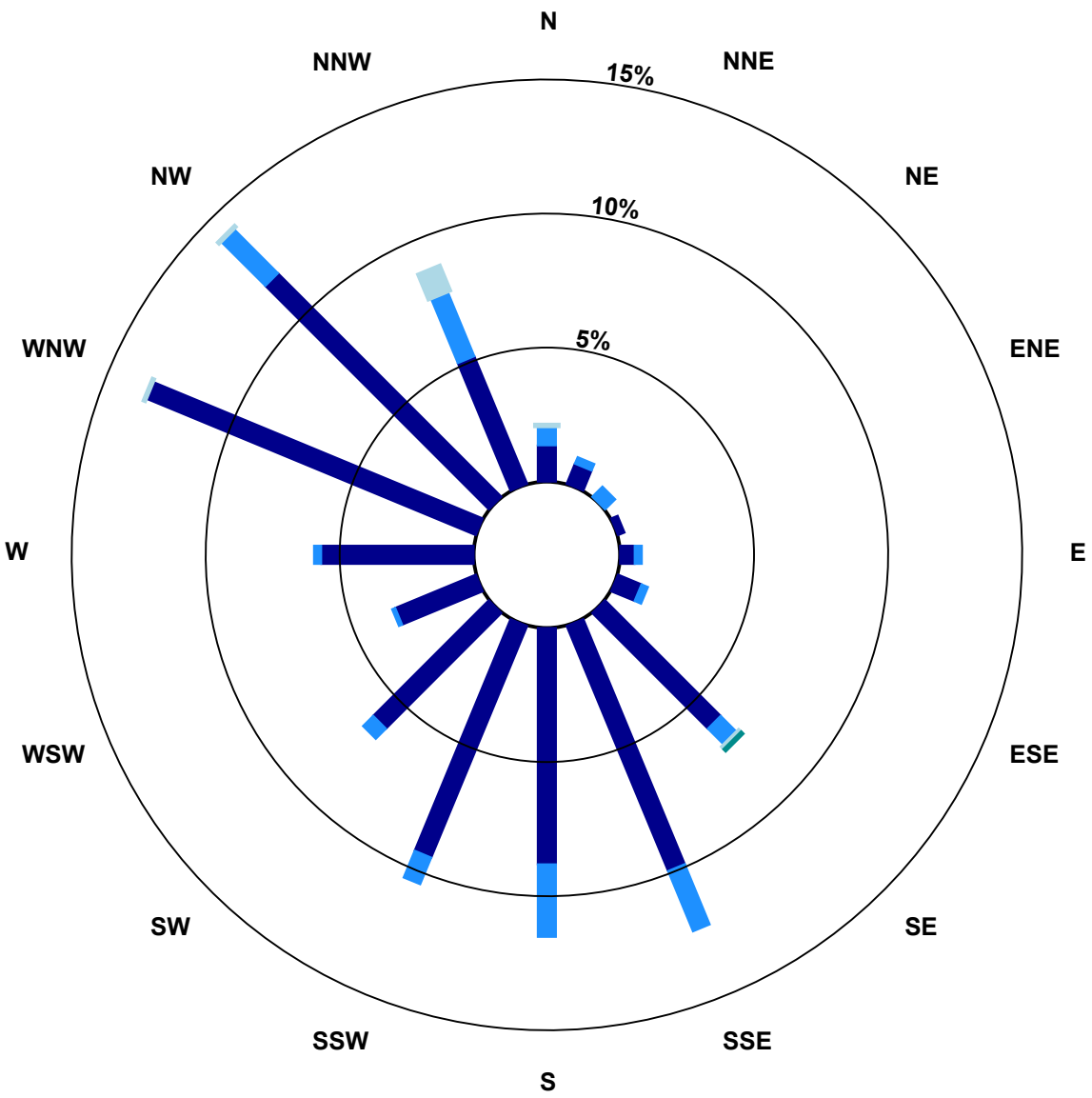
Total Number of Hours: 744

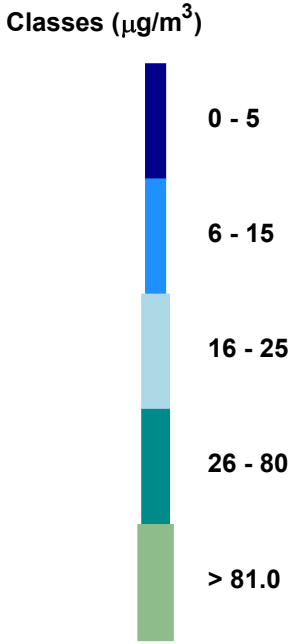
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Conklin





Total Number of Valid Hours: 738

Maximum Value: 20.2 C on Oct 10 15:00

Maximum Daily Average: 10.8 C on Oct 7

Minimum Value: -6.5 C on Oct 26 05:00

Minimum Daily Average: -1.7 C on Oct 13

Maximum Diurnal Average: 8.0 C at hour 15

Minimum Diurnal Average: 0.3 C at hour 7

Monthly Average: 3.53 C

Percentiles: P_1 = -5.0 P_{10} = -2.1 Q_1 = -0.9 Median = 2.3 Q_3 = 7.3 P_{90} = 10.9 P_{99} = 18.5

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

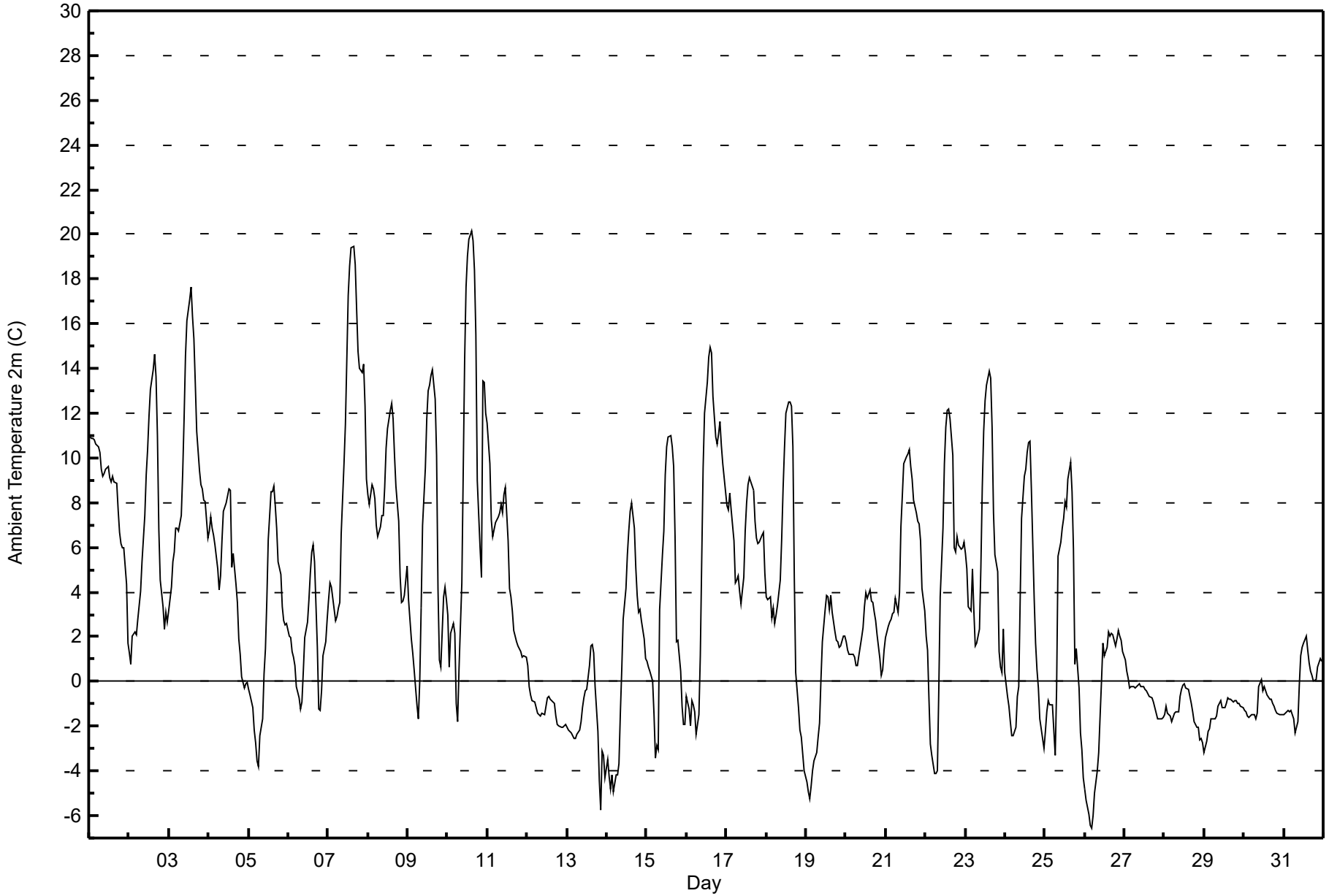
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.9	10.9	10.9	10.8	10.6	10.5	10.2	9.5	9.2	9.3	9.5	9.6	9.1	8.9	9.2	8.9	8.9	7.7	6.7	6.2	6.0	6.0	4.3	1.7	8.6	10.9
2-Oct	1.3	0.8	2.1	2.2	2.1	2.8	3.4	4.0	5.3	7.5	9.2	10.4	11.9	13.0	14.0	14.6	13.7	11.0	6.8	4.5	3.3	2.4	3.1	2.7	6.3	14.6
3-Oct	3.2	4.2	5.4	5.8	6.9	6.9	6.7	7.4	9.3	11.7	14.6	16.1	17.1	17.6	16.3	15.3	13.3	11.2	9.4	8.8	8.6	8.1	8.0	6.4	9.9	17.6
4-Oct	6.7	7.4	6.9	6.5	6.1	5.1	4.1	4.7	6.3	7.6	8.0	8.3	8.6	8.5	5.1	5.7	4.3	3.6	1.9	1.2	0.2	-0.3	-0.1	0.0	4.9	8.6
5-Oct	-0.4	-0.6	-1.2	-2.2	-2.8	-3.6	-3.8	-2.4	-1.6	0.3	1.4	3.6	6.4	8.5	8.5	8.7	7.9	6.9	5.4	4.8	3.4	2.7	2.5	2.6	2.3	8.7
6-Oct	2.0	2.0	1.3	1.1	0.7	-0.2	-0.7	-1.2	-0.9	0.4	2.0	2.6	3.7	4.8	5.8	6.1	5.3	1.5	-1.3	-1.3	-0.4	1.2	1.8	2.8	1.6	6.1
7-Oct	3.6	4.4	4.3	3.7	2.7	2.9	3.3	3.6	6.6	9.7	11.5	14.4	17.3	18.6	19.4	19.5	18.7	16.6	14.8	14.0	13.8	14.2	12.3	9.0	10.8	19.5
8-Oct	8.3	7.9	8.8	8.6	8.2	7.0	6.5	6.9	7.4	7.4	8.7	10.5	11.3	12.1	12.4	11.7	10.1	8.7	7.2	4.7	3.6	3.6	3.8	5.2	7.9	12.4
9-Oct	3.7	2.8	1.9	1.3	0.5	-1.1	-1.6	0.0	3.3	7.0	9.5	11.7	13.0	13.2	13.7	14.0	12.6	10.1	4.1	1.0	0.6	3.8	4.2	3.6	5.5	14.0
10-Oct	3.0	0.6	2.2	2.6	2.1	-1.0	-1.8	0.6	4.4	9.4	14.4	17.6	19.0	19.8	20.2	19.7	18.4	15.5	9.0	6.0	4.7	13.5	13.4	12.0	9.4	20.2
11-Oct	11.6	9.7	7.3	6.5	6.8	7.1	7.3	7.6	7.9	7.6	8.4	8.7	6.3	4.2	3.8	3.2	2.3	1.8	1.6	1.5	1.3	1.1	1.2	1.1	5.2	11.6
12-Oct	0.7	-0.2	-0.6	-0.8	-0.9	-1.1	-1.4	-1.5	-1.6	-1.4	-1.5	-1.1	-0.7	-0.7	-0.8	-0.9	-1.0	-1.5	-1.9	-2.0	-2.0	-2.0	-2.0	-1.9	-1.2	0.7
13-Oct	-2.0	-2.2	-2.3	-2.4	-2.5	-2.6	-2.4	-2.2	-1.8	-1.1	-0.7	-0.4	-0.4	0.7	1.6	1.7	1.3	-0.2	-2.2	-4.4	-5.8	-3.1	-3.3	-4.3	-1.7	1.7
14-Oct	-3.5	-4.2	-4.8	-4.2	-4.9	-4.2	-4.2	-3.7	-1.4	0.6	2.8	4.2	5.6	6.7	7.6	8.0	6.8	5.1	3.8	3.1	3.2	2.7	1.9	1.1	1.2	8.0
15-Oct	0.9	0.7	0.5	0.0	-1.5	-3.5	-2.9	-3.0	3.2	5.7	6.7	9.2	10.5	11.0	11.0	10.5	9.6	6.5	1.8	1.8	0.4	-1.1	-1.9	-1.9	3.1	11.0
16-Oct	-0.7	-1.2	-2.0	-0.9	-1.1	-1.4	-2.4	-1.5	1.1	5.4	9.6	12.0	13.4	14.5	15.0	14.7	12.8	10.9	10.6	11.1	11.6	10.6	9.8	8.5	6.7	15.0
17-Oct	7.8	7.7	8.4	7.6	6.3	4.4	4.5	4.7	4.1	3.4	4.6	6.7	8.0	8.8	9.1	8.8	8.6	7.2	6.4	6.2	6.2	6.5	6.7	4.9	6.6	9.1
18-Oct	3.8	3.7	3.8	2.9	3.3	2.6	3.0	3.4	4.6	6.4	8.6	10.4	12.0	12.5	12.5	12.3	10.5	4.7	0.4	-1.2	-2.2	-2.5	-3.3	-4.0	4.5	12.5
19-Oct	-4.5	-4.9	-5.2	-4.7	-4.0	-3.6	-3.1	-2.5	-1.9	0.1	1.8	3.2	3.8	3.8	3.2	3.9	3.1	2.2	1.8	1.8	1.5	1.6	2.1	2.0	0.1	3.9
20-Oct	1.8	1.4	1.2	1.2	1.2	1.1	0.7	0.7	1.1	2.0	2.4	3.4	4.0	3.7	4.1	3.6	3.6	3.1	2.7	2.1	1.0	0.2	0.5	1.4	2.0	4.1
21-Oct	2.0	2.5	2.7	2.8	3.0	3.1	3.7	3.1	4.0	6.9	8.3	9.8	10.1	10.2	10.4	9.6	9.0	8.1	7.5	7.2	7.0	6.3	4.1	3.2	6.0	10.4
22-Oct	2.1	1.4	-0.8	-2.8	-3.3	-4.1	-4.1	-4.0	-0.4	3.8	6.8	9.7	11.4	12.1	12.2	11.8	10.1	6.0	5.8	6.5	6.1	5.9	6.0	6.2	4.3	12.2
23-Oct	5.8	5.0	3.3	3.1	5.0	3.2	1.6	1.7	2.3	5.1	8.7	11.2	12.5	13.2	13.9	13.6	11.4	7.6	5.7	4.9	1.4	0.6	0.4	2.4	6.0	13.9
24-Oct	0.4	-0.6	-1.1	-1.8	-2.4	-2.4	-2.0	-0.7	-0.2	3.6	7.3	9.2	9.5	10.3	10.7	10.7	8.6	3.7	1.7	0.5	-0.3	-1.7	-2.5	-3.0	2.4	10.7
25-Oct	-2.2	-1.4	-0.9	-1.0	-1.1	-2.2	-3.3	-0.3	5.6	6.2	6.9	7.3	8.0	7.8	9.1	9.8	8.5	5.9	0.8	1.5	-0.3	-2.3	-3.1	-4.3	2.3	9.8
26-Oct	-4.8	-5.3	-5.9	-6.4	-6.5	-6.0	-5.0	-4.0	-3.2	-1.6	0.0	1.7	1.1	1.5	2.2	2.1	2.1	2.1	1.6	1.9	2.3	2.0	1.8	1.4	-1.0	2.3
27-Oct	1.0	0.4	0.1	-0.3	-0.2	-0.2	-0.3	-0.3	-0.2	-0.1	-0.2	-0.2	-0.4	-0.4	-0.5	-0.6	-0.7	-0.9	-1.2	-1.4	-1.6	-1.7	-1.7	-1.6	-0.5	1.0
28-Oct	-1.5	-1.1	-1.4	-1.6	-1.8	-1.6	-1.4	-1.4	-1.3	-0.7	-0.4	-0.2	-0.1	-0.3	-0.3	-0.6	-1.0	-1.3	-1.8	-2.1	-2.0	-2.6	-2.6	-2.8	-1.3	-0.1
29-Oct	-3.2	-2.7	-2.2	-2.1	-1.6	-1.7	-1.7	-1.5	-1.1	-1.0	-0.9	-1.2	-1.1	-1.0	-0.7	-0.8	-0.8	-0.9	-0.8	-0.9	-1.0	-1.0	-1.1	-1.2	-1.3	-0.7
30-Oct	-1.3	-1.4	-1.5	-1.6	-1.5	-1.5	-1.5	-1.7	-1.4	-0.2	0.1	-0.4	-0.2	-0.4	-0.6	-0.8	-0.8	-1.0	-1.1	-1.3	-1.4	-1.5	-1.5	-1.5	-1.1	0.1
31-Oct	-1.5	-1.4	-1.3	-1.3	-1.3	-1.5	-1.7	-2.3	-1.8	-0.2	1.2	1.5	1.7	2.1	1.4	0.8	0.5	0.3	0.0	0.1	0.6	0.9	1.0	0.9	0.0	2.1
	1.8	1.5	1.3	1.1	0.9	0.4	0.3	0.8	2.2	3.9	5.5	6.8	7.5	7.9	8.0	7.9	7.0	5.2	3.5	2.8	2.3	2.4	2.1	1.7	Diurnal Average	
	11.6	10.9	10.9	10.8	10.6	10.5	10.2	9.5	9.3	11.7	14.6	17.6	19.0	19.8	20.2	19.7	18.7	16.6	14.8	14.0	13.8	14.2	13.4	12.0	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Conklin - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	247	33.20	33.20
0 - 10	398	53.49	86.69
10 - 20	98	13.17	99.87
> 20	1	0.13	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

Conklin - October 2025

Maximum Value: 100.0 % on Oct 1 01:00

Maximum Daily Average: 99.8 % on Oct 27

Minimum Value: 26.9 % on Oct 10 14:00

Minimum Daily Average: 56.5 % on Oct 7

Maximum Diurnal Average: 89.1 % at hour 7

Minimum Diurnal Average: 61.0 % at hour 15

Monthly Average: 77.28 %

Percentiles: P_1 = 32.0 P_{10} = 46.5 Q_1 = 62.7 Median = 82.3 Q_3 = 94.5 P_{90} = 99.7 P_{99} = 100.0

Hours in Service:	744
Hours of Data:	732
Hours of Missing Data:	12
Hours of Calibration:	0
Percent Operational Time:	98.4

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0	99.9	99.0	98.5	96.5	97.2	94.5	97.0	97.9	98.8	97.1	99.0	100.0	99.0	100.0
2-Oct	OR	OR	OR	OR	OR	OR	100.0	100.0	98.7	92.2	81.3	75.2	68.2	66.0	64.2	61.4	65.3	80.1	95.7	98.0	97.7	98.1	97.9	98.2	85.4	100.0
3-Oct	98.9	98.6	96.4	95.0	92.5	90.6	90.9	89.7	83.6	73.9	59.9	50.6	43.5	39.2	40.7	44.6	52.1	68.0	85.8	86.1	81.3	81.7	76.7	83.6	75.2	98.9
4-Oct	80.0	74.4	74.8	76.6	78.2	83.0	87.1	86.0	79.3	73.0	71.8	69.3	67.2	68.3	95.7	94.2	95.3	95.7	93.4	95.2	97.7	99.9	99.8	99.4	84.8	99.9
5-Oct	99.3	99.6	98.9	99.3	99.0	99.0	98.6	94.6	92.7	89.3	87.9	81.2	65.2	47.0	40.8	40.8	44.6	50.6	62.7	66.7	82.4	88.1	87.8	87.5	79.3	99.6
6-Oct	90.4	91.3	93.6	95.3	91.5	87.0	85.3	80.1	66.3	54.4	46.6	41.5	37.1	33.0	30.4	29.7	31.7	53.4	73.7	74.9	71.4	59.1	57.8	54.8	63.8	95.3
7-Oct	53.8	52.7	53.8	57.4	61.6	63.6	66.6	68.9	63.3	61.7	61.3	56.0	49.7	46.7	44.0	42.3	44.1	50.0	55.2	56.0	55.6	53.1	61.6	75.8	56.5	75.8
8-Oct	78.0	80.1	78.3	78.4	76.4	80.0	82.4	83.7	81.4	74.3	61.2	48.2	42.0	36.2	36.5	39.0	44.2	47.9	54.4	64.4	66.8	63.8	62.8	58.6	63.3	83.7
9-Oct	66.0	71.8	75.7	78.9	81.8	87.8	90.2	85.3	73.4	63.4	56.8	50.3	46.7	45.6	42.7	40.2	42.8	51.4	73.7	85.1	84.2	67.4	62.2	66.1	66.2	90.2
10-Oct	71.1	82.4	78.8	78.3	80.2	90.8	94.1	87.2	73.3	59.5	45.8	35.0	29.7	26.9	27.9	32.8	36.8	45.2	67.1	76.5	80.6	49.8	48.0	51.9	60.4	94.1
11-Oct	53.3	60.4	71.3	76.2	76.5	75.9	74.9	74.7	72.5	83.5	75.2	65.1	83.4	97.4	97.2	96.1	93.1	92.0	92.1	91.6	89.5	89.6	88.6	86.9	81.5	97.4
12-Oct	86.7	96.6	96.1	94.1	92.2	88.3	86.7	83.4	81.8	78.2	74.7	70.6	69.2	68.6	69.6	69.4	71.6	77.8	82.2	83.7	85.0	86.1	85.8	82.8	81.7	96.6
13-Oct	82.2	83.6	83.7	83.7	81.8	81.6	80.3	79.8	78.2	70.3	62.7	61.4	60.3	53.0	48.2	47.7	48.8	54.2	64.2	78.1	84.1	66.8	66.9	72.2	69.7	84.1
14-Oct	68.9	72.5	76.1	73.8	78.0	75.3	75.1	74.3	67.4	59.1	50.0	46.0	42.0	39.9	37.8	35.3	38.7	46.4	52.5	57.2	58.7	62.1	65.8	69.4	59.3	78.0
15-Oct	70.9	72.3	74.1	77.0	83.4	90.9	89.0	90.5	65.5	53.1	50.3	40.9	37.7	36.2	35.7	39.4	44.6	55.7	72.8	72.8	79.2	85.1	87.7	87.8	66.3	90.9
16-Oct	86.1	87.9	90.6	87.4	88.0	89.1	92.1	90.3	79.8	67.9	54.9	45.4	40.9	35.9	28.2	28.0	33.1	38.1	39.7	40.4	39.1	42.1	51.7	65.3	60.1	92.1
17-Oct	67.6	68.2	61.5	59.3	61.8	67.4	66.3	76.7	87.0	94.9	92.8	80.3	70.6	62.6	57.3	56.9	55.5	62.2	60.9	59.8	58.7	57.2	55.7	61.1	66.8	94.9
18-Oct	63.3	63.1	62.1	64.8	63.8	67.8	67.1	65.7	61.3	55.9	49.4	43.4	37.6	35.3	34.0	34.4	38.5	57.7	74.3	79.7	83.8	85.0	87.9	89.9	61.1	89.9
19-Oct	90.7	91.9	92.8	92.4	93.6	93.8	93.8	93.6	93.5	91.6	82.8	76.8	75.2	71.0	76.0	86.6	94.4	97.7	98.5	98.2	100.0	100.0	100.0	99.5	91.0	100.0
20-Oct	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.5	95.6	90.1	86.0	86.5	83.4	81.2	82.6	86.7	89.6	87.9	92.8	94.0	93.7	90.2	93.2	100.0
21-Oct	86.2	82.1	81.9	82.5	81.6	83.1	84.3	89.2	85.5	70.9	64.7	57.9	54.8	54.2	52.2	56.2	58.2	62.2	65.6	67.3	67.4	70.3	80.8	85.8	71.9	89.2
22-Oct	89.2	91.2	95.4	98.1	98.4	98.2	98.1	98.1	89.8	73.3	62.9	51.3	43.8	40.3	37.8	36.0	39.6	53.2	53.0	54.3	59.5	62.2	62.2	60.3	68.6	98.4
23-Oct	61.1	63.1	69.9	71.8	63.7	72.2	80.6	81.2	81.7	70.3	53.2	44.5	41.2	40.0	38.6	39.7	46.5	59.7	66.1	67.5	81.4	83.7	84.1	76.7	64.1	84.1
24-Oct	85.6	90.2	90.9	92.9	94.3	94.4	93.8	89.4	90.4	80.2	61.7	53.6	52.0	50.3	50.1	50.0	58.7	77.3	84.4	87.6	90.6	93.6	95.5	95.9	79.3	95.9
25-Oct	95.5	94.1	94.0	94.4	95.0	97.0	98.5	94.8	78.9	82.5	81.4	79.2	73.3	75.3	63.1	51.4	52.6	58.5	77.8	76.7	82.2	89.3	92.2	94.9	82.2	98.5
26-Oct	95.1	95.1	97.0	97.2	96.5	96.8	97.0	97.1	96.9	95.4	92.2	93.7	97.9	98.8	99.1	100.0	100.0	99.6	99.4	100.0	100.0	100.0	OR	OR	97.5	100.0
27-Oct	OR	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.8	99.3	99.7	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	99.7	99.2	99.3	99.4	99.5	99.8	100.0
28-Oct	100.0	99.4	98.0	97.9	97.7	98.0	97.6	97.6	95.8	92.1	93.5	91.0	88.7	89.2	88.1	89.9	90.7	90.2	90.7	93.5	94.8	97.0	98.9	98.8	94.5	100.0
29-Oct	100.0	100.0	99.8	98.4	96.5	98.2	97.2	96.7	93.6	94.8	96.5	99.3	100.0	100.0	99.7	99.7	100.0	100.0	100.0	100.0	100.0	OR	OR	OR	98.6	100.0
30-Oct	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	93.6	87.6	87.2	86.8	87.3	87.6	88.4	89.2	90.3	90.1	90.1	93.2	94.5	93.3	92.3	93.8	100.0
31-Oct	93.6	94.2	95.6	96.4	95.8	95.7	96.1	95.8	91.2	85.2	83.2	84.4	85.1	84.6	87.3	88.6	88.5	87.3	85.9	84.6	80.9	79.0	77.6	78.3	88.1	96.4
	83.2	85.2	86.0	86.6	86.7	88.2	89.1	88.5	84.0	78.4	72.2	66.7	63.7	61.7	61.0	61.2	63.8	70.4	77.4	79.7	81.8	79.8	80.0	81.5	Diurnal Average	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	Diurnal Maximum	

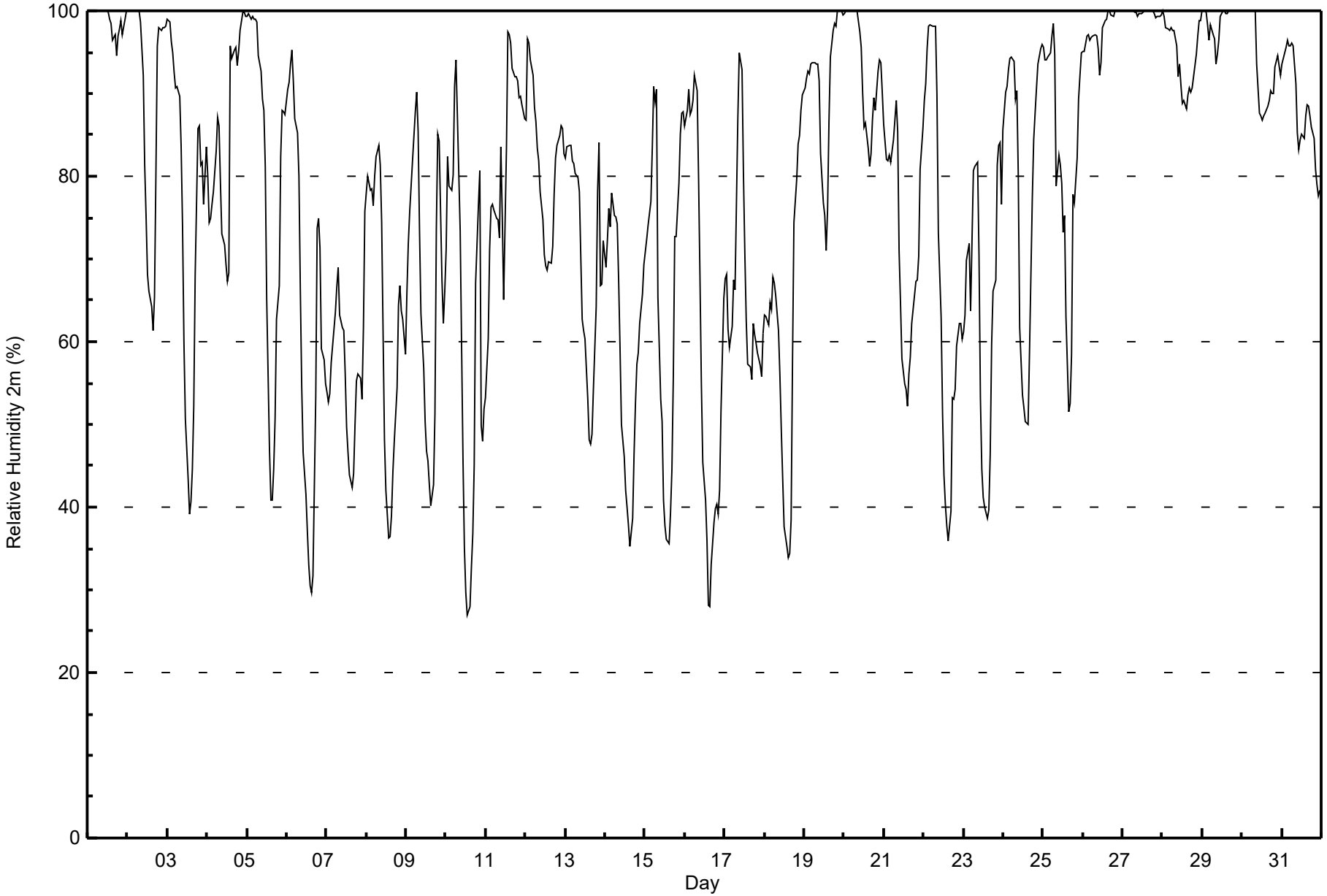
OR - Out of Range

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Conklin - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Conklin - October 2025

Maximum Speed: 23 km/h on Oct 14 12:00

Maximum Daily Speed Average: 12.7 km/h on Oct 12

Minimum Speed Value: 0 km/h on Oct 2 00:00

Minimum Daily Speed Average: 1.2 km/h on Oct 6

Maximum Diurnal Speed Average: 5.5 km/h at hour 13

Minimum Diurnal Speed Average: 1.6 km/h at hour 2

Monthly Average Velocity: 2.8 km/h 239.6 deg

Percentiles: $P_1 = 0$ $P_{10} = 2$ $Q_1 = 4$ Median = 6 $Q_3 = 9$ $P_{90} = 12$ $P_{99} = 17$

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NNW4	NNW4	NNW4	NNW3	NNW3	NW3	NW3	NW5	NW6	NW7	NW7	NW6	NW8	NNW7	NW6	NNW6	NW5	NNW9	NW4	NW3	NW2	NW1	NNW1	NE0	NW4.4	NNW9
2-Oct	SSW2	SSE1	SSE1	SSW1	S2	S3	S3	SSE3	SSE3	SSE3	SE6	SSE4	ESE4	ESE3	SW3	SSW7	SW6	S1	NNW1	SSE1	SSE3	SSE4	S6	S5	S2.7	SSW7
3-Oct	S6	S7	S7	S8	S7	S8	SSW10	SSW11	SSW12	SW10	SW9	SW12	SW14	WSW14	WSW12	W9	WNW7	SW3	SW2	SW6	SW8	WSW7	WSW8	SSW6	SW7.6	WSW14
4-Oct	WSW6	WSW7	WNW7	WNW8	W8	WNW8	WNW7	WNW7	NW7	NW8	NW7	NW7	WNW7	NW7	NW7	NW7	NW7	NW8	NW9	NW9	NW8	NW6	NW6	NW7	WNW7.0	NW9
5-Oct	NW5	NW5	WNW4	UO	UO	UO	UO	UO	UO	SSW6	SW8	SSW10	SW12	WSW14	W12	W9	WNW9	WNW7	NW7	NW6	WNW5	W2	W4	WNW6	W5.8	WSW14
6-Oct	WNW4	WNW5	NW4	NW5	NNW8	NNW6	NW5	N9	N9	NNW7	N5	E1	E1	S4	SSW5	S5	SSW6	SSE2	SSE2	SSE3	S4	S5	S5	S6	WNW1.2	N9
7-Oct	SSE5	S6	S8	S8	S6	SSE7	SSE6	SSE5	SSE7	SSW10	SSW10	SSW12	SSW12	SSW13	SSW15	S15	S10	SSE8	SSE8	SSE9	SSE8	SSE7	NE2	NW0	S7.8	SSW15
8-Oct	NW2	NW6	NW8	NW10	NW10	NW7	NW7	WNW6	WNW7	WNW10	WNW9	WNW10	WNW10	WNW9	WNW8	WNW8	W7	W5	SW5	SW6	SSW6	SW9	WSW9	W8	WNW6.5	WNW10
9-Oct	W6	WNW7	WNW6	WSW5	SW6	SSW5	SSW5	SW6	SW8	W9	WNW7	W8	SW9	SW13	SW13	WSW10	SW9	SSW3	SSE3	SE3	S5	SSW6	SSW8	S8	SW5.7	SW13
10-Oct	SSE5	SSE5	S7	S8	S7	SE6	SE6	SSE7	SSE7	S8	S9	S12	S14	S13	S13	S13	SSE10	SE6	N0	NNW3	N1	S13	S11	SSE8	S7.4	S14
11-Oct	S8	E1	SE1	SE1	S3	S0	SE3	NW4	NNW2	NW9	NW14	NW13	WNW10	NW8	NW10	NW12	NW11	NW10	NW9	NW9	NW8	NW8	NW10	NW12	NW6.0	NNW14
12-Oct	NNW13	NNW13	NNW13	NNW15	NNW14	NNW18	NNW16	NNW18	NNW14	NNW16	NNW18	NNW19	NNW17	NNW15	NNW14	NNW12	NNW13	NNW11	NNW7	NW5	NW6	NW6	NW6	NW7	NNW12.7	NNW19
13-Oct	NW6	NW4	NW4	NW3	NW3	WNW2	WSW3	SW3	SSW3	SW5	SW6	SW8	SSW9	S10	SSW10	SSW11	S9	SW7	SSE4	SE1	E1	SSE9	SSE5	SSW4	SSW3.9	SSW11
14-Oct	SSW7	S5	SSE5	SSE6	S5	SSE8	S7	S10	S13	SSW15	SSW20	SSW23	SSW20	SSW17	SSW16	SW14	SSW13	S9	S7	S8	SSW12	SSW11	SSW9	SSW9	SSW11.0	SSW23
15-Oct	SSW10	S9	SSW9	S7	SE4	ESE3	SE2	SE3	S8	SSW10	SSW14	SSW12	SSW13	SSW13	SW13	SW11	WSW10	SW2	S3	SSW5	SSE4	SE4	SE4	SSE5	SSW6.5	SSW14
16-Oct	SE5	SE5	SSE5	SSE5	S5	S5	SSW4	SSW8	SSE4	SSE6	SSW8	SSW12	SSW14	SSW13	S15	SSW13	SSE6	SSE6	S5	S8	S8	SSW5	SW8	S6	S7.1	S15
17-Oct	SSW7	SW9	SW11	WSW12	SW9	SW8	SW9	W12	WNW10	WNW8	WNW9	WNW10	WNW10	WNW12	WNW11	WNW8	WNW8	WNW7	WNW6	W7	WNW6	WNW6	NW7	WNW5	W7.5	WNW12
18-Oct	W6	WNW7	WNW7	WNW8	WNW9	WNW8	WNW9	WNW11	WNW10	WNW7	WNW7	WNW8	W10	WNW9	WNW9	WNW5	W4	SSW1	S4	SSW7	S5	S6	SSE5	SE3	W5.2	WNW11
19-Oct	SSE3	SE3	SSE3	SSE2	NW1	NNW1	S1	S1	NNW3	NW3	NW5	NNW4	NNW4	NNW5	NNW2	ESE5	N4	NNW5	NNE4	N3	NNW3	NNW3	NE5	NNE4	N1.7	ESE5
20-Oct	N5	N6	N5	NNW4	NW4	NW5	NW5	NW4	WNW5	NW5	NW6	NW5	W6	W7	W6	WSW8	SW6	SSE3	SSE6	S6	S8	S8	S7	S8	W2.6	S8
21-Oct	SSW8	SSW9	SSW12	SSW14	SSW13	SSW11	SW12	SW11	SW12	W11	W11	WNW10	W11	W10	WNW9	W9	W7	W5	SW5	WSW5	W5	WNW2	NNE1	NNE1	WSW6.8	SSW14
22-Oct	NNW2	N1	NNW1	SSE1	SSE3	WSW1	SE3	ESE2	SSE4	S5	S6	S6	SSW10	S10	SSE13	SSE12	SSE8	SSE5	SE8	SE14	SE13	SE12	SE13	SE11	SSE6.1	SE14
23-Oct	SE11	SE7	SE3	SE4	SSE5	SE5	SSE4	SE4	SE1	SE4	SSE7	S5	S2	ESE6	SSW3	SSW7	SSE6	SSE4	S5	S4	S5	S4	SSW6	SW5	SSE4.3	SE11
24-Oct	SSW2	WNW1	NNW1	SE2	SSE2	SE3	SE3	SSE5	E1	SE4	S3	SE6	SSE6	SE6	ESE6	SE9	SE5	SSE5	SSE3	SE1	SSE1	NW1	NNW1	WSW0	SE2.7	SE9
25-Oct	NW0	NNW1	SSE0	NNW2	WSW1	W0	SSW1	SSW4	WSW11	WSW15	W14	W13	W14	W16	W13	W10	W10	WSW4	S3	SW7	S5	SSE5	SSE4	SSE2	WSW5.4	W16
26-Oct	SSE4	SE4	ESE0	NW1	NW1	W1	NW4	NNW3	NNW4	NNW5	NNW8	NNW5	NNW7	N5	N4	NNW4	N4	NNE9	N6	NNW7	NNW7	NW4	NW4	WNW5	NNW3.5	NNE9
27-Oct	NW7	WNW5	WNW5	WNW5	WNW7	WNW8	WNW8	WNW8	WNW8	WNW9	WNW9	WNW9	WNW8	WNW8	WNW7	WNW6	WNW5	WNW5	WNW5	WNW4	WNW5	WNW4	WNW4	WNW4	WNW6.2	WNW9
28-Oct	WNW3	WNW5	WNW6	WNW6	WNW5	NW7	WNW6	WNW5	WNW6	WNW5	WNW5	WNW6	W9	W7	W7	W6	W5	W5	WSW4	SW2	S2	SE1	SSE1	SSE3	WNW4.2	W9
29-Oct	SE6	SE5	ESE4	E4	ENE3	NE3	NNE4	NNE4	ENE4	NNE2	NW3	NNW4	NNW5	N4	NNW3	NNW4	NW4	NW3	NW4	NW6	NW5	NW5	NW5	NW4	N2.3	SE6
30-Oct	NW4	NW3	NW3	NW3	NW3	NW2	NW3	NW3	NW3	WNW4	WNW4	W5	W4	WSW5	SW6	SW5	WSW5	SW4	WSW5	SW4	SSE3	S3	S3	SSW3	W2.7	SW6
31-Oct	SE4	SE3	SE3	SSE6	S9	SSE10	SSE9	SSE8	SE8	SSE8	SSE10	SSE11	SSE11	SSE10	SE12	SE14	SE12	SE12	SSE16	SSE15	SSE13	SSE14	SSE12	SSE9	SSE9.8	SSE16
	SW1.8	WSW1.6	WSW1.9	WSW2.1	WSW2.1	WSW1.7	WSW2.1	WSW2.4	WSW2.7	W3.9	WSW4.3	WSW4.7	WSW5.5	WSW5.1	WSW5.0	SW4.6	WSW3.4	WSW1.7	SW1.7	SW2.1	SSW2.4	SSW2.9	SSW2.5	SW2.1	Diurnal Average	
	NNW13	NNW13	NNW13	NNW15	NNW14	NNW18	NNW16	NNW18	NNW14	NNW16	SSW20	SSW23	SSW20	SSW17	SSW16	S15	SSW13	SE12	SSE16	SSE15	SSE13	SSE14	SSE13	NW12	Diurnal Maximum	

UO - Unstable Operation

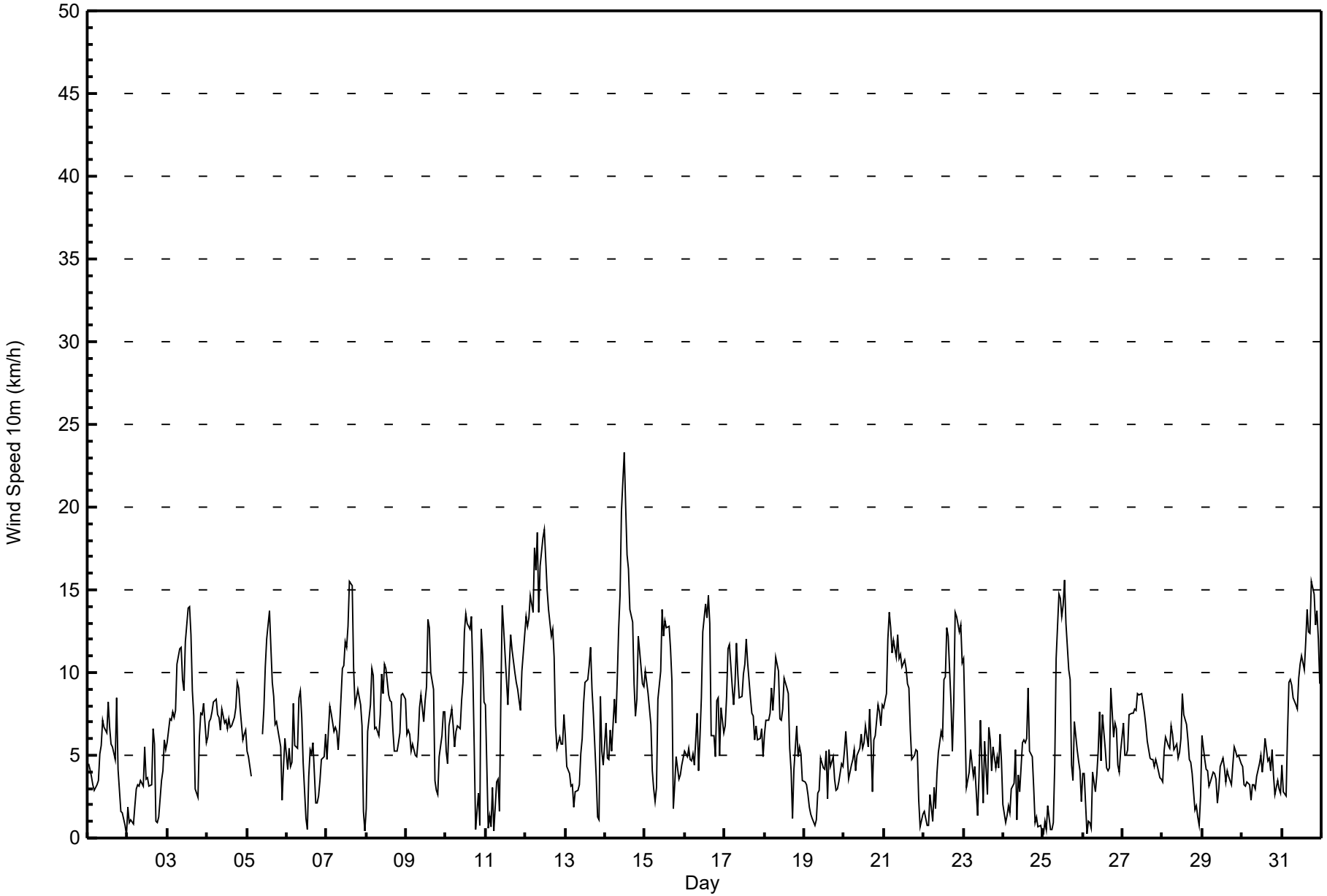
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Conklin - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	328	44.44	44.44
6 - 11	319	43.22	87.67
12 - 19	88	11.92	99.59
20 - 28	3	0.41	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 738

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Conklin - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	12	7	4	2	6	7	32	51	34	19	13	11	12	30	53	35	328
6 - 11	4	1	0	0	0	2	13	33	42	34	27	9	25	68	49	12	319
12 - 19	0	0	0	0	0	0	8	7	9	21	9	5	7	1	3	18	88
20 - 28	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	8	4	2	6	9	53	91	85	77	49	25	44	99	105	65	738

Total Number of Valid Hours: 738

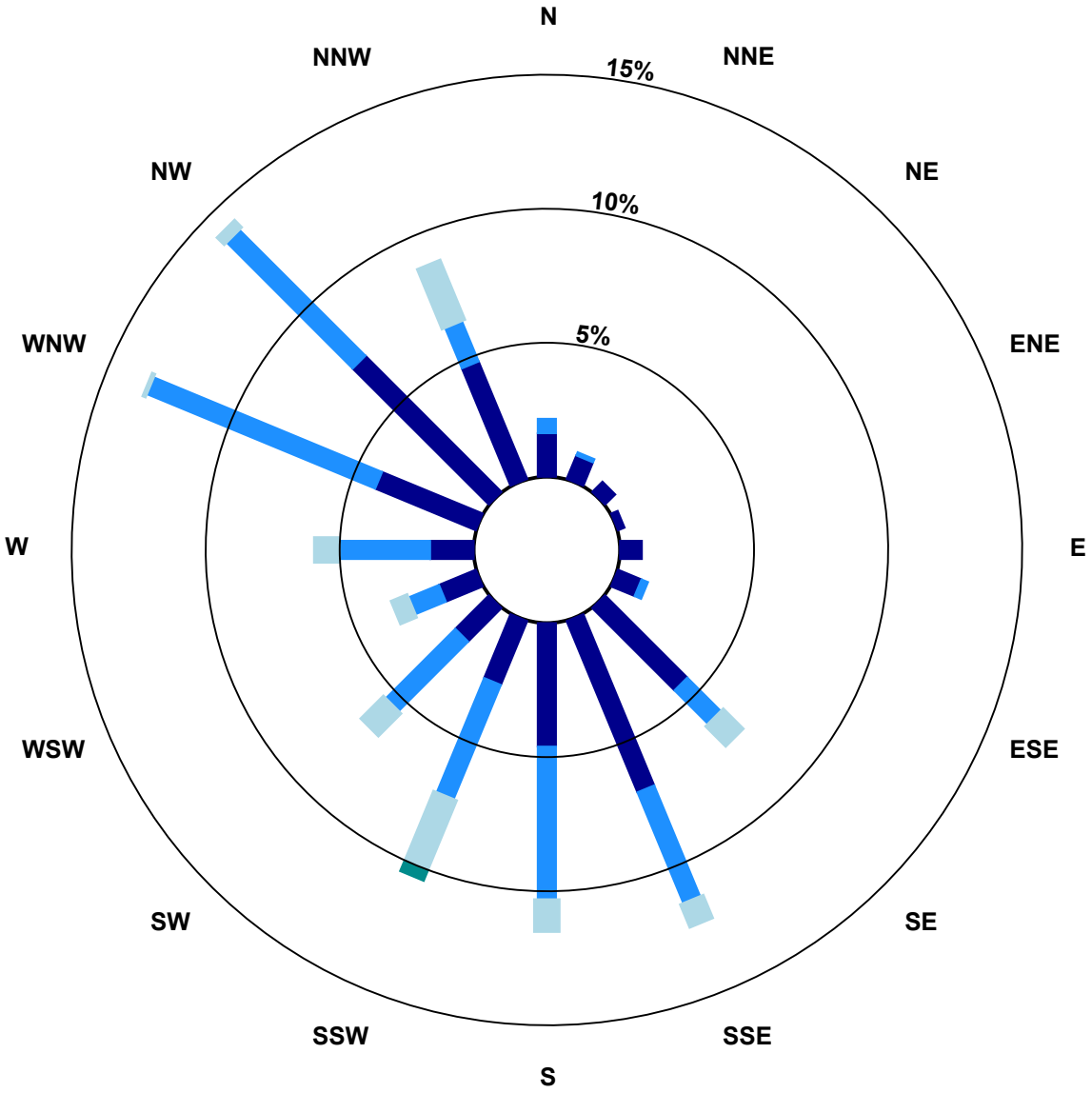
Total Number of Hours: 744

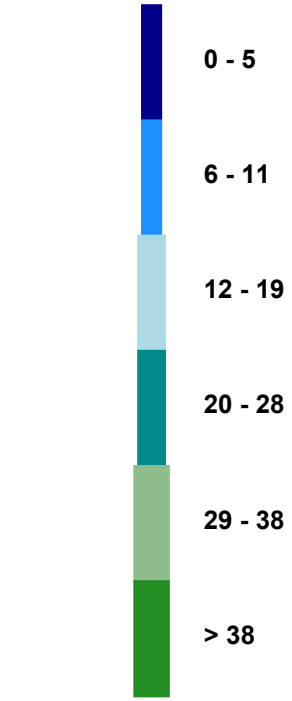
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Conklin





Total Number of Valid Hours: 738

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 7 km/h on Oct 14 11:00

Minimum Value: 0 km/h on Oct 19 02:00

Percentiles: $P_1 = 1$ $P_{10} = 1$ $Q_1 = 1$ Median = 2 $Q_3 = 3$ $P_{90} = 4$ $P_{99} = 6$

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Hours of Calibration:	0
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	1	1	2	1	1	2	2	2	2	3	3	3	3	3	2	3	1	1	1	1	1	1	3
2-Oct	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	3	3	1	1	1	1	1	1	1	3
3-Oct	1	1	2	1	1	2	3	3	3	3	3	3	5	5	5	4	3	1	1	3	2	4	3	2	5
4-Oct	3	3	3	4	4	4	3	3	3	4	3	3	3	3	3	3	3	4	4	4	3	2	2	3	4
5-Oct	2	2	2	UO	UO	UO	UO	UO	UO	2	2	3	4	5	5	4	4	3	3	2	3	1	2	3	5
6-Oct	2	2	2	2	3	2	2	3	3	2	2	2	2	2	3	2	2	1	1	1	1	1	1	1	3
7-Oct	1	2	2	2	1	1	1	2	4	3	3	3	4	4	5	4	3	2	2	3	2	2	1	2	5
8-Oct	2	3	4	4	5	4	3	3	3	4	4	5	4	4	4	4	3	2	1	1	1	2	3	4	5
9-Oct	3	3	3	2	2	1	1	2	3	4	3	4	4	4	4	4	4	2	1	1	1	2	2	2	4
10-Oct	2	1	1	2	2	1	1	1	2	2	3	3	3	4	4	4	4	2	1	1	2	4	3	2	4
11-Oct	2	2	2	2	2	2	1	2	1	4	6	6	4	3	4	5	5	4	3	4	3	3	4	4	6
12-Oct	5	5	4	5	5	6	5	6	4	5	6	6	5	5	5	4	4	5	2	2	2	2	2	2	6
13-Oct	2	2	1	1	1	1	1	1	1	2	2	3	3	4	4	3	4	2	1	1	2	3	2	2	4
14-Oct	2	2	2	2	3	3	3	3	4	5	7	7	6	6	5	4	4	3	2	3	3	3	3	2	7
15-Oct	2	3	3	2	1	2	2	2	4	4	5	5	5	4	4	4	4	1	1	2	1	0	1	1	5
16-Oct	1	1	1	1	2	2	2	3	1	2	3	3	4	4	5	4	2	2	3	3	2	1	3	2	5
17-Oct	2	2	4	4	3	2	4	5	5	4	4	4	5	5	5	4	3	4	3	3	3	3	3	2	5
18-Oct	3	3	3	3	4	3	4	5	5	3	3	3	5	4	4	3	2	1	2	1	2	1	1	1	5
19-Oct	1	0	1	1	1	1	1	1	1	1	1	2	1	1	3	3	1	1	1	1	1	1	2	1	3
20-Oct	1	2	2	1	1	2	2	1	2	2	2	2	3	3	2	3	2	1	2	2	2	2	2	2	3
21-Oct	2	3	3	4	3	3	3	3	4	4	5	5	5	4	4	4	3	1	2	2	2	2	1	1	5
22-Oct	1	2	1	1	1	1	1	1	1	2	2	2	3	3	4	3	2	1	2	3	3	3	3	3	4
23-Oct	2	1	2	2	2	2	1	1	1	3	2	2	2	2	2	2	1	1	1	1	1	1	1	2	3
24-Oct	1	1	1	1	2	1	2	2	1	2	2	2	1	2	2	2	1	1	1	2	1	2	2	1	2
25-Oct	1	1	1	1	1	1	1	3	5	6	6	6	6	7	6	5	4	2	1	2	1	1	1	2	7
26-Oct	1	1	1	1	2	1	2	2	2	2	1	1	2	2	1	1	2	3	2	2	2	1	1	2	3
27-Oct	3	2	2	2	3	3	3	3	3	4	4	3	3	3	3	3	2	2	2	2	2	2	2	1	4
28-Oct	2	2	3	3	3	3	3	2	3	2	2	3	4	3	3	2	2	2	2	1	1	1	1	2	4
29-Oct	1	2	1	1	1	1	1	2	2	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
30-Oct	2	2	1	1	1	1	1	1	1	2	2	3	2	2	2	2	2	2	2	2	1	1	1	1	3
31-Oct	1	1	1	2	3	3	3	2	2	2	3	3	3	3	3	3	4	4	5	4	4	4	3	3	5
	5	5	4	5	5	6	5	6	5	6	7	7	6	7	6	5	5	5	5	4	4	4	4	4	
	Diurnal Maximum																								

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Conklin - October 2025

Direction of Maximum Speed: 202 deg on Oct 14 12:00
Direction of Maximum Daily Speed Average: 335.6 deg on Oct 12

Direction of Minimum Speed: 36 deg on Oct 2 00:00

Direction of Minimum Daily Speed Average: 1.2 deg on Oct 6

Monthly Average Direction: 239.6 deg

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	327	332	347	339	328	322	318	315	317	320	322	317	324	331	324	330	322	330	322	321	309	318	329	36	324.9
2-Oct	202	147	157	209	172	177	172	160	157	159	138	161	107	102	217	198	222	177	331	152	164	150	170	186	169.8
3-Oct	187	183	186	189	188	189	193	195	210	216	226	224	236	243	252	261	282	229	215	235	227	256	244	212	221.4
4-Oct	257	254	286	285	273	286	300	299	305	306	309	304	303	314	321	319	308	309	308	312	314	313	311	314	300.8
5-Oct	310	306	287	UO	UO	UO	UO	UO	UO	196	218	208	227	247	261	280	297	300	314	324	297	280	272	295	267.1
6-Oct	299	302	310	318	342	329	317	356	3	345	357	96	89	186	195	184	195	158	157	160	178	183	185	182	293.2
7-Oct	157	175	177	175	172	166	160	160	168	200	195	197	200	195	192	183	173	156	159	154	161	163	36	311	177.8
8-Oct	319	314	306	307	312	310	307	298	301	302	299	300	302	294	293	285	279	259	220	222	212	215	239	278	286.1
9-Oct	281	283	283	254	230	192	192	216	225	271	286	269	234	225	233	247	222	195	154	144	181	199	192	182	231.2
10-Oct	158	151	174	184	178	145	144	161	159	176	187	184	178	179	173	174	163	142	7	341	8	180	176	160	171.1
11-Oct	177	88	128	136	170	185	131	314	327	318	326	321	293	310	307	312	308	310	312	311	310	312	317	322	310.6
12-Oct	328	335	336	337	339	338	335	337	338	337	337	343	339	339	337	335	334	346	329	318	316	325	325	324	335.6
13-Oct	319	312	309	311	315	285	257	232	213	231	228	214	208	190	202	198	183	218	160	134	95	162	162	193	211.3
14-Oct	194	172	160	168	179	165	189	180	185	206	200	202	208	212	204	225	203	189	181	191	198	196	200	196	196.7
15-Oct	195	191	194	179	132	122	137	134	186	207	200	198	200	205	229	236	240	232	182	203	152	139	131	152	195.6
16-Oct	146	145	155	165	179	172	195	196	148	156	201	205	201	196	190	193	166	157	172	191	179	193	234	186	185.4
17-Oct	201	224	234	247	225	220	222	266	286	289	286	285	287	289	295	298	290	290	282	277	291	302	305	297	270.1
18-Oct	278	288	289	288	287	291	282	282	285	291	293	298	279	286	292	287	262	202	177	194	185	172	151	125	273.8
19-Oct	149	141	155	154	322	346	191	177	331	318	323	339	337	327	343	105	9	347	18	4	329	338	43	24	359.6
20-Oct	358	359	353	333	323	318	314	310	302	307	310	305	278	269	263	239	228	167	168	171	182	188	187	188	264.1
21-Oct	196	195	196	198	199	205	220	222	230	260	272	284	281	278	291	272	269	263	235	257	276	301	33	28	240.5
22-Oct	337	352	327	157	163	257	134	103	155	189	175	171	204	178	154	151	148	149	145	139	135	136	134	138	151.9
23-Oct	127	133	143	142	162	138	152	129	131	135	161	191	191	115	213	198	154	159	183	179	183	184	194	216	160.9
24-Oct	195	292	340	145	156	142	141	161	90	134	184	133	167	128	120	144	135	153	152	144	148	315	341	258	145.2
25-Oct	326	327	160	335	245	266	210	206	258	258	266	277	270	264	272	268	259	239	170	216	184	168	157	147	253.0
26-Oct	158	146	123	310	309	261	326	329	330	328	336	340	342	349	2	332	350	12	8	348	337	320	305	302	339.9
27-Oct	306	301	298	297	290	290	288	292	291	292	289	291	294	296	297	296	298	297	297	301	301	301	297	303	295.0
28-Oct	300	296	298	300	302	304	301	301	300	297	295	299	280	279	276	278	262	263	252	236	172	143	148	161	285.6
29-Oct	139	130	106	91	59	41	13	32	64	17	321	333	343	360	333	330	318	318	318	320	320	318	318	312	353.9
30-Oct	314	316	326	320	320	311	315	317	312	302	293	270	262	250	223	228	239	233	240	216	166	185	187	208	263.7
31-Oct	139	141	141	157	170	161	160	151	146	149	149	152	152	147	138	143	140	145	149	147	155	157	163	165	151.2
	224.0	245.4	249.4	244.1	242.9	241.6	242.4	250.0	254.2	261.0	258.6	251.1	248.4	244.7	243.0	235.9	239.8	245.0	216.4	217.9	208.4	199.7	207.1	215.4	
	Diurnal Average																								

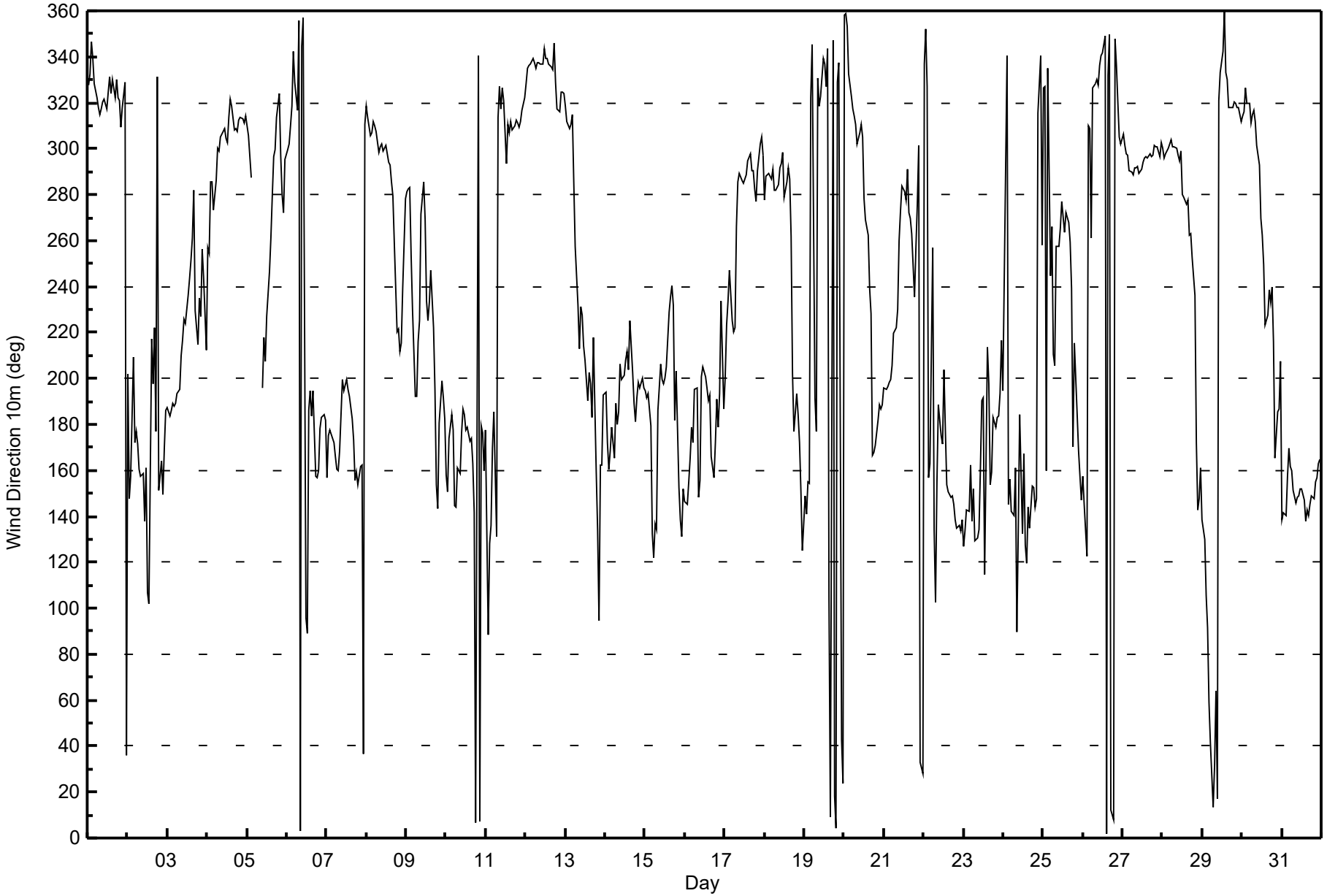
UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Conklin - October 2025



Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 111 deg on Oct 6 13:00

Minimum Value: 6 deg on Oct 18 20:00

Percentiles: P_1 = 12 P_{10} = 17 Q_1 = 20 Median = 28 Q_3 = 37 P_{90} = 54 P_{99} = 93

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Hours of Calibration:	0
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	30	26	27	29	27	26	32	31	27	26	24	28	26	22	26	30	28	20	19	27	57	52	72	91	91
2-Oct	54	81	60	75	32	54	33	25	26	57	23	55	61	69	77	38	25	82	25	64	18	17	10	9	82
3-Oct	12	13	16	16	17	19	17	17	20	25	33	26	29	30	34	39	48	40	51	38	23	44	27	20	51
4-Oct	44	30	41	49	42	44	40	41	41	37	34	39	38	31	24	26	32	32	32	29	28	29	28	26	49
5-Oct	27	33	35	UO	UO	UO	UO	UO	UO	21	23	21	30	35	36	39	39	37	24	22	40	47	44	41	47
6-Oct	41	37	30	22	22	18	23	25	22	31	67	97	111	69	55	47	28	32	15	22	20	14	14	16	111
7-Oct	19	21	18	17	16	15	16	21	25	24	24	23	27	26	21	20	24	17	16	17	19	23	64	93	93
8-Oct	82	23	32	30	24	36	31	42	40	35	36	38	37	39	41	41	37	29	22	22	18	17	27	42	82
9-Oct	43	36	38	48	39	17	15	31	22	39	46	44	45	29	24	32	23	41	18	35	15	26	20	18	48
10-Oct	34	31	18	17	19	17	17	18	20	18	23	22	26	22	22	21	19	26	95	22	84	18	18	20	95
11-Oct	19	86	89	87	31	103	47	79	86	27	23	25	34	28	28	25	28	28	22	24	25	24	20	20	103
12-Oct	19	18	17	18	19	18	18	18	19	17	18	18	19	20	20	19	18	21	21	19	21	19	19	19	21
13-Oct	19	20	23	20	22	42	29	30	32	29	34	34	28	37	30	27	23	24	26	93	77	19	38	63	93
14-Oct	23	29	48	22	45	26	33	21	23	24	21	20	23	23	22	24	21	21	20	20	18	17	17	18	48
15-Oct	18	19	20	21	38	45	94	55	38	34	24	29	26	23	23	29	24	87	49	31	51	21	17	15	94
16-Oct	15	16	20	28	33	38	50	19	35	28	27	21	22	22	22	22	19	14	32	26	17	23	37	19	50
17-Oct	18	19	25	27	20	19	31	33	33	34	38	36	34	34	33	34	34	34	32	31	33	30	27	28	38
18-Oct	33	34	35	34	34	35	33	36	37	34	36	34	36	36	36	39	30	57	21	6	30	21	26	24	57
19-Oct	20	19	19	38	44	73	80	23	12	12	16	27	24	18	68	49	22	14	30	30	17	26	30	30	80
20-Oct	17	18	18	15	20	20	20	25	31	33	27	35	35	38	35	29	29	41	23	27	16	15	18	18	41
21-Oct	19	21	19	19	20	20	22	20	21	32	36	37	36	35	34	32	30	22	21	31	29	62	93	62	93
22-Oct	57	59	83	32	22	71	36	44	29	24	24	39	29	27	22	18	13	12	13	13	12	13	13	15	83
23-Oct	13	15	64	39	31	39	18	15	90	35	29	50	76	41	90	23	16	22	30	23	16	17	19	33	90
24-Oct	69	76	52	57	73	35	21	49	73	61	68	23	24	33	19	18	19	14	24	81	38	91	69	80	91
25-Oct	93	88	73	35	93	82	75	67	31	30	32	31	32	31	34	35	28	41	32	18	28	22	22	63	93
26-Oct	27	15	88	75	84	75	26	46	14	14	12	18	16	20	28	16	30	22	25	17	19	25	27	30	88
27-Oct	28	34	35	33	35	36	36	34	36	34	37	36	36	37	38	41	44	45	45	41	42	42	40	41	45
28-Oct	39	42	42	41	39	36	39	40	40	43	38	40	36	35	34	33	30	29	41	45	33	30	54	53	54
29-Oct	16	22	23	33	43	33	29	30	43	54	21	16	18	19	24	20	27	28	24	22	22	24	27	31	54
30-Oct	31	33	21	23	25	36	27	35	31	38	40	48	43	35	32	32	26	32	32	39	29	18	33	28	48
31-Oct	19	21	32	19	18	18	18	15	15	21	18	19	19	19	16	15	17	19	19	17	19	20	21	25	32
	93	88	89	87	93	103	94	79	90	61	68	97	111	69	90	49	48	87	95	93	84	91	93	93	
	Diurnal Maximum																								

UO - Unstable Operation

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS22
JANVIER
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - JANVIER (AMS22)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	708	35	36	99.87	-	-	2.5	0	0.9	0
TRS(ppb) Average	707	37	37	100	0.7	0	0.6	-	0.3	-
THC(ppm) Average	706	35	38	99.6	-	-	2.2	-	2.1	-
NMHC(ppm) Average	706	35	38	99.6	-	-	0.005	-	0	-
CH4(ppm) Average	706	35	38	99.6	-	-	2.2	-	2.1	-
O3 (ppb) Average	709	34	35	99.87	-	-	42.9	0	29.8	-
NO2 (ppb) Average	707	36	37	99.87	-	-	5.8	0	3	-
NO (ppb) Average	707	36	37	99.87	-	-	3.9	-	0.8	-
NOX (ppb) Average	707	36	37	99.87	-	-	9.1	-	3.6	-
PM2.5 (ug/m3) Average	723	2	21	97.45	-	-	18.9	0	8.6	0
Temperature 2 m (C) Average	744	0	0	100	-	-	20.9	-	11	-
Relative Humidity (%) Average	744	0	0	100	-	-	99.6	-	96.5	-
Wind Speed 20 m (km/h) Average	731	0	13	98.25	-	-	26	-	16	-
Wind Direction 20 m (deg) Average	731	0	13	98.25	-	-	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - JANVIER (AMS22)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	708	0.23	0.4	-	0	0	0	0.1	0.2	0.6	2.5
TRS (ppb) Average	707	0.19	0	-	0.1	0.1	0.2	0.2	0.2	0.2	0.6
THC (ppm) Average	706	2	0	-	1.9	2	2	2	2	2	2.2
NMHC(ppm) Average	706	0	0	-	0	0	0	0	0	0	0.005
CH4(ppm) Average	706	2	0	-	1.9	2	2	2	2	2	2.2
O3 (ppb) Average	709	21.35	7.7	-	2.9	11	15.9	22.1	26.8	30.7	42.9
NO2 (ppb) Average	707	1.23	1	-	0.1	0.3	0.4	0.9	1.7	2.8	5.8
NO (ppb) Average	707	0.27	0.5	-	0	0	0	0.1	0.3	0.8	3.9
NOX (ppb) Average	707	1.5	1.3	-	0.1	0.3	0.5	1.1	2.1	3.4	9.1
PM2.5 (ug/m3) Average	723	3	2.5	-	0.1	0.6	1.4	2.8	3.8	5.3	18.9
Temperature 2 m (C) Average	744	4.61	4.9	-	-3.7	-0.7	0.5	3.5	8.1	11.4	20.9
Relative Humidity (%) Average	744	74.53	18.8	-	24.5	45.8	61.4	78.5	89.7	97.5	99.6
Wind Speed 10 m (km/h) Average	731	9.2	4	-	0	4	6	9	12	15	26
Wind Speed 20 m (km/h) Average	731	258.8	0	-	0						0
Wind Direction 10 m (deg) Average	0	-	-	-	-	-	-	-	-	-	-
Wind Direction 20 m (deg) Average	739	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - JANVIER (AMS22)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
NO2, O3, SO2, THC/NMHC/CH4	28 Oct 2025 15:00	28 Oct 2025 15:00	1	Maintenance - sample manifold cleaned
THC/NMHC/CH4	26 Oct 2025 19:00	26 Oct 2025 19:00	1	Station power failure
THC/NMHC/CH4	29 Oct 2025 18:00	29 Oct 2025 18:00	1	Station power failure
PM2.5	29 Oct 2025 18:00	30 Oct 2025 12:00	19	Station power failure
Wind Speed, Wind Direction 20m	05 Oct 2025 06:00	05 Oct 2025 10:00	5	Flat line in sensor output signal
Wind Speed, Wind Direction 20m	19 Oct 2025 03:00	19 Oct 2025 03:00	1	Flat line in sensor output signal
Wind Speed, Wind Direction 20m	27 Oct 2025 20:00	28 Oct 2025 01:00	6	Flat line in sensor output signal
Wind Speed, Wind Direction 20m	28 Oct 2025 04:00	28 Oct 2025 04:00	1	Flat line in sensor output signal

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Janvier - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 2.5 ppb on Oct 10 12:00

Maximum Daily Average: 0.9 ppb on Oct 10

Minimum Value: 0.0 ppb on Oct 1 02:00

Minimum Daily Average: 0.0 ppb on Oct 3

Maximum Diurnal Average: 0.4 ppb at hour 12

Minimum Diurnal Average: 0.1 ppb at hour 5

Monthly Average: 0.23 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.6 P_{99} = 1.9

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.0	0.2
2-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.2	0.1	0.1	0.2	0.5	1.5	2.0	1.4	0.8	0.8	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.4	2.0
3-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5-Oct	0.1	Z	0.1	0.2	0.0	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.2	0.3
6-Oct	0.0	0.0	Z	0.2	0.2	0.1	0.2	0.1	0.2	0.3	0.2	0.3	0.4	0.5	0.2	0.2	0.1	0.2	0.5	0.4	0.2	0.3	0.6	0.3	0.3	0.6
7-Oct	0.4	0.7	0.7	Z	1.0	1.2	1.1	0.5	1.0	1.9	1.3	0.8	0.4	0.3	0.1	0.3	0.4	0.5	0.3	0.5	0.2	0.2	0.1	0.1	0.6	1.9
8-Oct	0.1	0.0	0.1	0.2	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.0	0.2
9-Oct	0.1	0.0	0.1	0.1	0.1	Z	0.2	0.2	0.3	0.2	0.2	0.1	0.0	0.2	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3
10-Oct	Z	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.8	2.5	2.4	2.5	1.9	1.6	1.2	1.2	0.7	0.5	0.2	0.3	0.3	0.8	0.9	0.8	0.9	2.5
11-Oct	0.9	Z	0.4	0.5	0.2	0.2	0.1	0.1	0.3	0.1	0.5	1.4	1.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.3	1.4
12-Oct	0.1	0.1	Z	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
13-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.3	1.5	2.2	1.3	1.1	0.3	2.2
14-Oct	0.7	0.6	0.4	0.5	Z	0.4	0.4	0.2	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.2	0.7
15-Oct	0.1	0.1	0.1	0.2	0.3	Z	0.4	0.9	1.3	1.1	2.2	2.0	1.5	1.0	0.9	1.0	1.2	1.0	1.1	1.0	0.8	0.7	0.4	0.2	0.8	2.2
16-Oct	Z	0.3	0.3	0.2	0.2	0.3	0.3	0.1	0.2	0.1	0.2	0.1	0.3	0.2	0.3	0.2	0.2	0.5	1.5	1.5	0.9	0.7	0.6	0.5	0.4	1.5
17-Oct	0.2	Z	0.2	0.3	0.4	0.3	0.3	0.3	0.1	0.1	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.4
18-Oct	0.0	0.1	Z	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
19-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20-Oct	0.1	0.0	0.1	0.1	Z	0.2	0.2	0.1	0.0	0.2	0.5	0.8	0.8	0.6	0.3	0.3	0.2	0.1	0.0	0.1	0.0	0.3	0.3	0.5	0.3	0.8
21-Oct	0.6	0.5	0.4	0.3	0.1	Z	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.6
22-Oct	Z	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.3	1.5	1.3	0.3	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.2	1.5
23-Oct	0.1	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.5	1.1	1.2	0.8	0.4	0.5	0.6	0.2	0.3	0.3	0.3	0.6	0.9	1.0	0.4	1.2
24-Oct	0.7	0.5	Z	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.4	C	C	C	C	0.4	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.7
25-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2
26-Oct	0.1	0.1	0.2	0.2	Z	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
27-Oct	0.1	0.1	0.1	0.0	0.1	Z	0.1	0.1	0.2	0.3	0.4	0.5	0.5	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.4	0.2	0.2	0.5
28-Oct	Z	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	M	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2
29-Oct	0.2	Z	0.4	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.4
30-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.3	0.3	0.3	0.7	1.0	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0
31-Oct	0.0	0.0	0.1	Z	0.3	0.3	0.4	0.5	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.4	0.5	0.3	0.3	0.5
	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.9	0.7	0.7	0.5	1.0	1.2	1.1	0.9	1.3	2.5	2.4	2.5	2.0	1.6	1.2	1.2	1.2	1.0	1.5	1.5	1.5	2.2	1.3	1.1	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

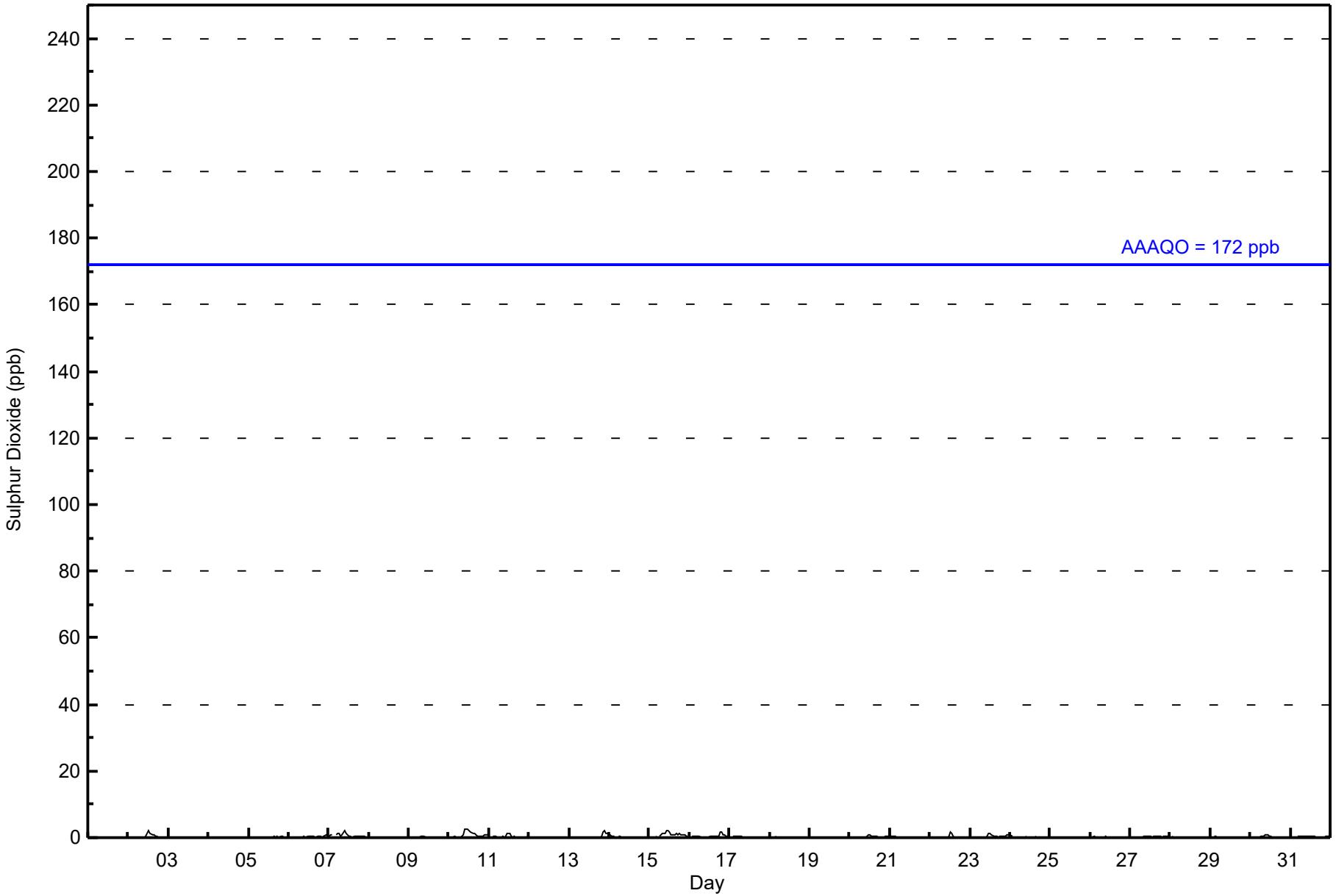
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Janvier - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	708	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Janvier - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	52	58	12	3	3	3	11	39	56	110	108	64	44	79	32	22	696
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	52	58	12	3	3	3	11	39	56	110	108	64	44	79	32	22	696

Total Number of Valid Hours: 696

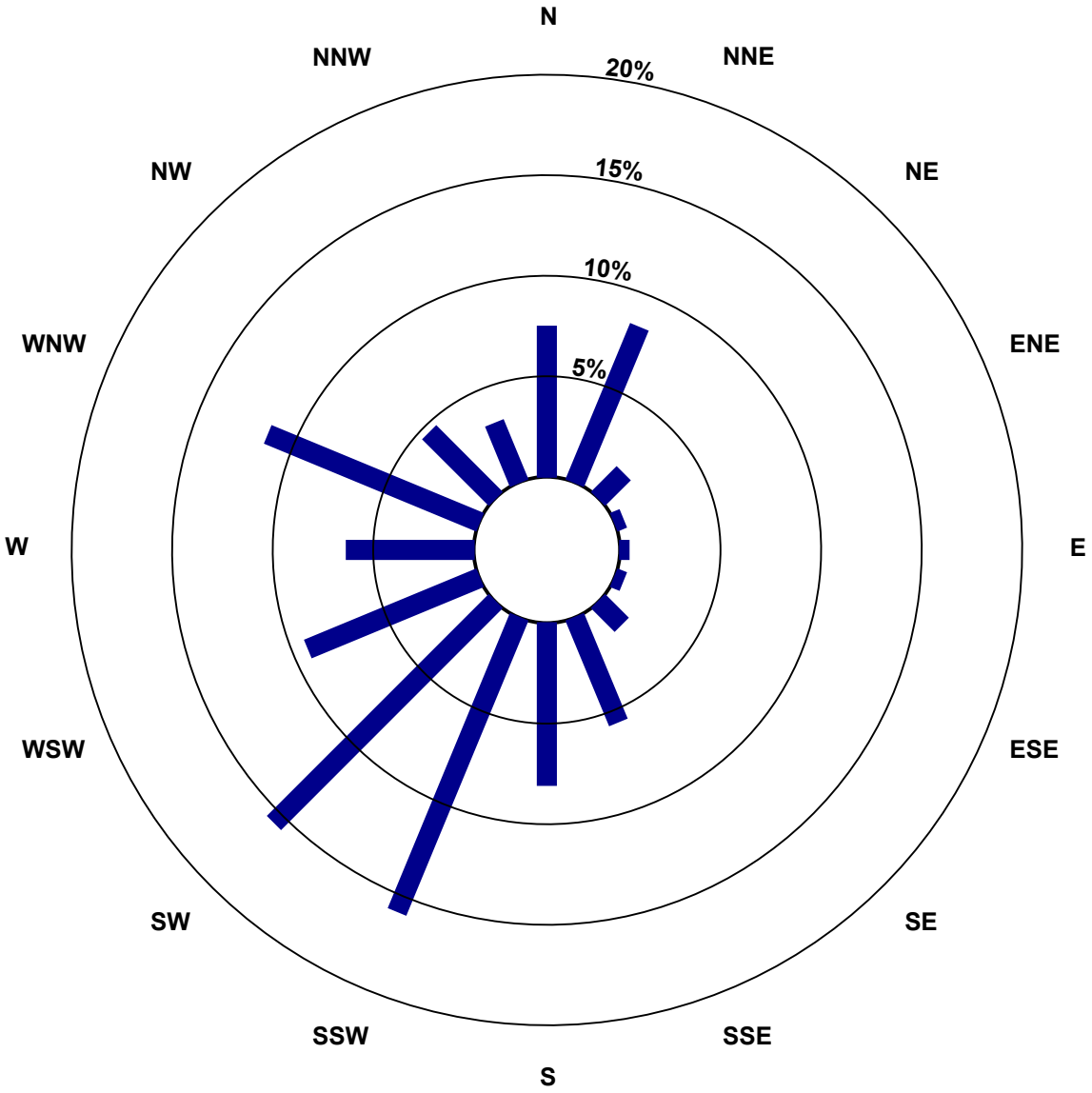
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Janvier



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

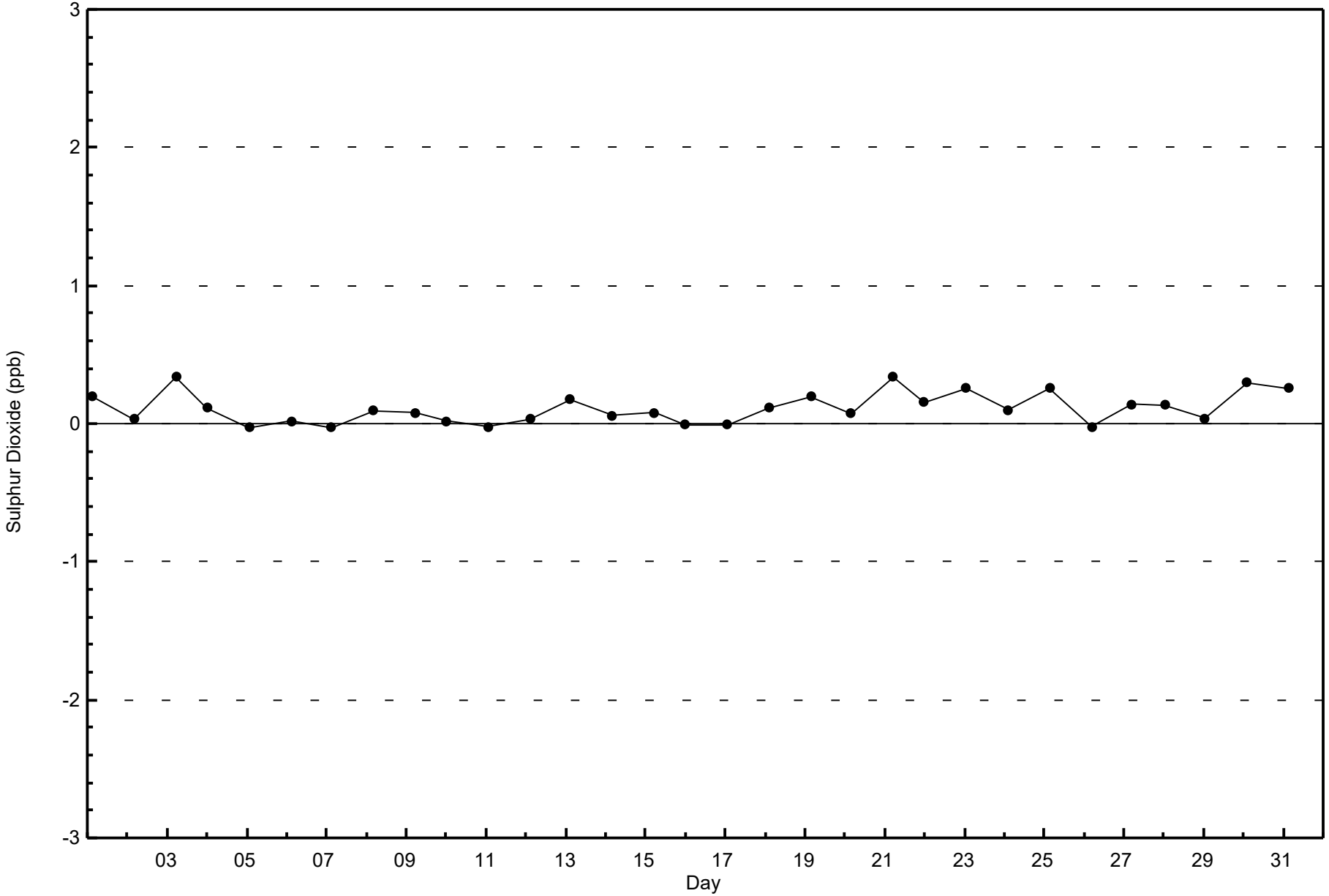
Total Number of Valid Hours: 696

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Janvier - October 2025

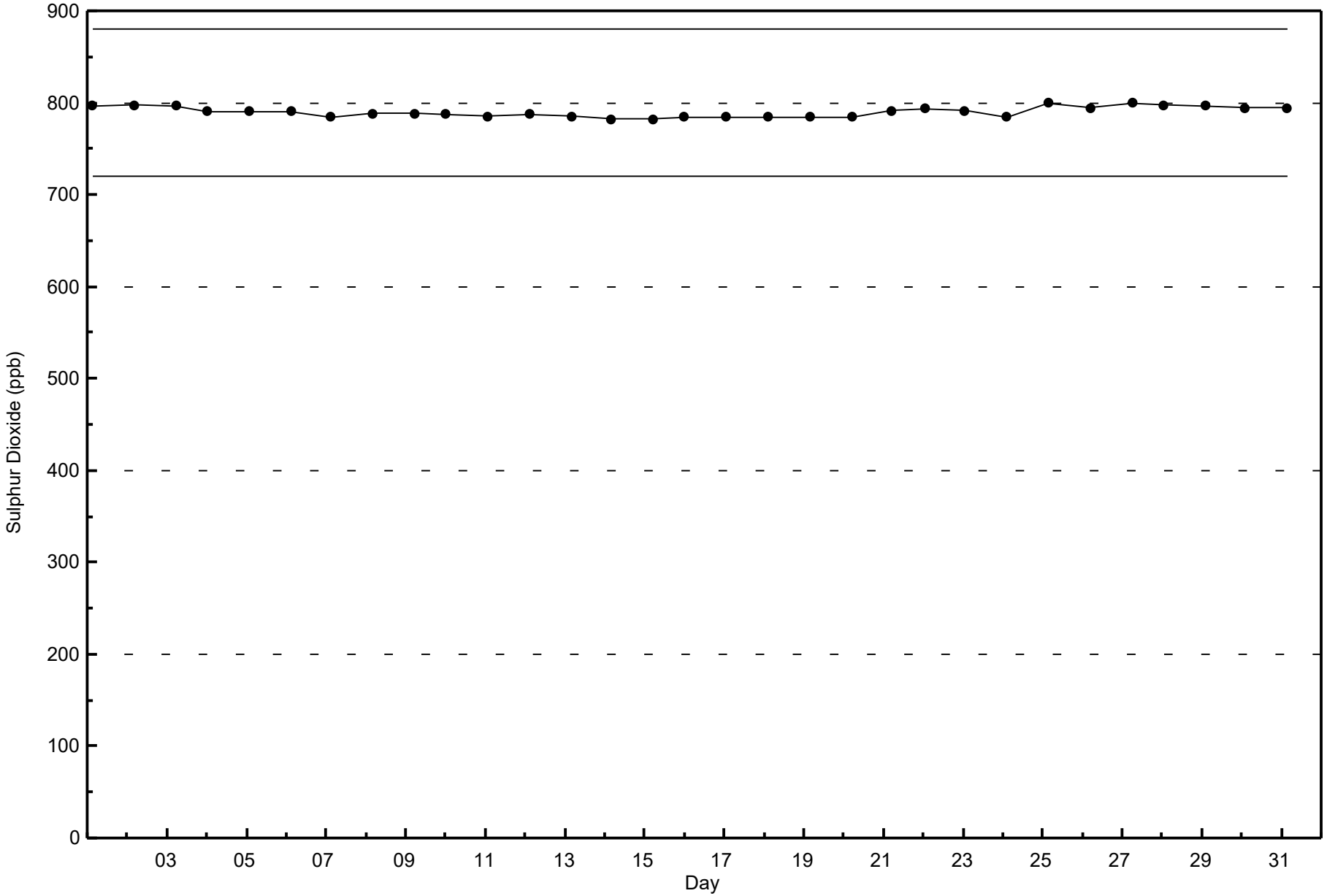


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Janvier - October 2025



Number of Exceedences (AAAQG): 30-Min: 0

Maximum Value: 0.7 ppb on Oct 28 17:30 Maximum Daily Average: 0.3 ppb on Oct 1

Minimum Value: 0.1 ppb on Oct 26 00:30 Minimum Daily Average: 0.1 ppb on Oct 26

Maximum Diurnal Average: 0.2 ppb at hour 12 Minimum Diurnal Average: 0.2 ppb at hour 23

Monthly Average: 0.19 ppb Percentiles: P_1 = 0.1 P_{10} = 0.1 Q_1 = 0.2 Median = 0.2 Q_3 = 0.2 P_{90} = 0.2 P_{99} = 0.3

Periods in Service:	1488
Periods of Valid Data:	1413
Periods of Invalid Data:	75
Periods of Calibration:	73
Percent Operational Time:	99.9

Period Ending At (MST)

Day	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
1-Oct	0.3	0.3	0.3	0.3	Z	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4
	0.3	0.3	0.3	0.3	SP	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
2-Oct	0.2	0.2	0.1	0.1	0.1	Z	0.2	0.1	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.4
	0.1	0.2	0.1	0.1	0.1	SP	0.2	0.2	0.1	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2		
3-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1		
4-Oct	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2
	0.1	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1		
5-Oct	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
	0.1	0.1	SP	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2		
6-Oct	0.2	0.2	0.1	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3
	0.1	0.1	0.2	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2		
7-Oct	0.2	0.2	0.2	0.2	Z	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	0.2	0.2	0.2	0.2	SP	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2		
8-Oct	0.2	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3
	0.2	0.3	0.2	0.2	0.2	SP	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
9-Oct	Z	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2
	SP	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1		
10-Oct	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3
	0.1	SP	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3		
11-Oct	0.3	0.4	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4
	0.3	0.3	SP	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2		
12-Oct	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	0.2	0.2	0.2	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
13-Oct	0.2	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3
	0.2	0.2	0.2	0.2	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2		
14-Oct	0.2	0.1	0.2	0.1	0.2	Z	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.2	0.2	0.2	0.1	0.2	SP	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2		
15-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2		

Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Janvier - October 2025

Day	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
	Period Ending At (MST)																									
16-Oct	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.2	SP	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
17-Oct	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2
	0.2	0.2	SP	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1		
18-Oct	0.1	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.3
	0.2	0.1	0.2	SP	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
19-Oct	0.2	0.1	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
	0.2	0.2	0.2	0.2	SP	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
20-Oct	0.2	0.2	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	0.1	0.1	0.1	0.2	0.2	SP	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2		
21-Oct	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2
	SP	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2		
22-Oct	0.2	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.2	SP	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
23-Oct	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3
	0.2	0.2	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3		
24-Oct	0.3	0.3	0.2	Z	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	0.3	0.2	0.1	SP	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
25-Oct	0.2	0.1	0.1	0.1	Z	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3
	0.1	0.1	0.1	0.1	SP	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
26-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	PF	0.2	0.1	0.1	0.1	0.2	0.1	0.2
	0.1	0.1	0.1	0.1	0.1	SP	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2		
27-Oct	Z	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2
	SP	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2		
28-Oct	0.2	Z	0.3	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	C	C	C	C	C	0.7	0.3	0.2	0.2	0.1	0.1	0.2	--	0.7
	0.2	SP	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	C	C	C	C	C	C	0.4	0.3	0.2	0.2	0.1	0.1	0.2		
29-Oct	0.1	0.2	Z	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	PF	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.1	0.2	SP	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
30-Oct	0.2	0.2	0.2	Z	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
	0.2	0.2	0.2	SP	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
31-Oct	0.2	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3
	0.2	0.2	0.2	0.2	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2		
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.7	0.3	0.3	0.3	0.3	0.3	0.3	Diurnal Maximum	

Z - zerospan C - Calibration PF - Power Failure SP - Span

Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb

Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

Janvier - October 2025

Maximum Value: 0.6 ppb on Oct 28 18:00

Maximum Daily Average: 0.3 ppb on Oct 1

Minimum Value: 0.1 ppb on Oct 26 01:00

Minimum Daily Average: 0.1 ppb on Oct 26

Maximum Diurnal Average: 0.2 ppb at hour 12

Minimum Diurnal Average: 0.2 ppb at hour 23

Monthly Average: 0.19 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.1 Q_1 = 0.2 Median = 0.2 Q_3 = 0.2 P_{90} = 0.2 P_{99} = 0.3

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.3	0.3	0.3	0.3	Z	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4
2-Oct	0.2	0.2	0.1	0.1	0.1	Z	0.2	0.1	0.2	0.2	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.4
3-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
4-Oct	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2
5-Oct	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2
6-Oct	0.1	0.2	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2
7-Oct	0.2	0.2	0.2	0.2	Z	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
8-Oct	0.2	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
9-Oct	Z	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2
10-Oct	0.1	Z	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.3
11-Oct	0.3	0.4	Z	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4
12-Oct	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
13-Oct	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
14-Oct	0.2	0.2	0.2	0.1	0.2	Z	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
15-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3
16-Oct	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
17-Oct	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2
18-Oct	0.1	0.1	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2
19-Oct	0.2	0.1	0.2	0.2	Z	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
20-Oct	0.2	0.2	0.2	0.2	0.2	Z	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.3
21-Oct	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2
22-Oct	0.2	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
23-Oct	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3
24-Oct	0.3	0.3	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
25-Oct	0.2	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
26-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2
27-Oct	Z	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
28-Oct	0.2	Z	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	C	C	C	C	C	C	0.6	0.3	0.2	0.2	0.1	0.1	0.2	--	0.6
29-Oct	0.1	0.2	Z	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
30-Oct	0.2	0.2	0.2	Z	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
31-Oct	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	Diurnal Average	
	0.3	0.4	0.3	0.3	0.2	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.6	0.3	0.3	0.2	0.3	0.3	0.3	Diurnal Maximum	

Z - zerospan C - Calibration

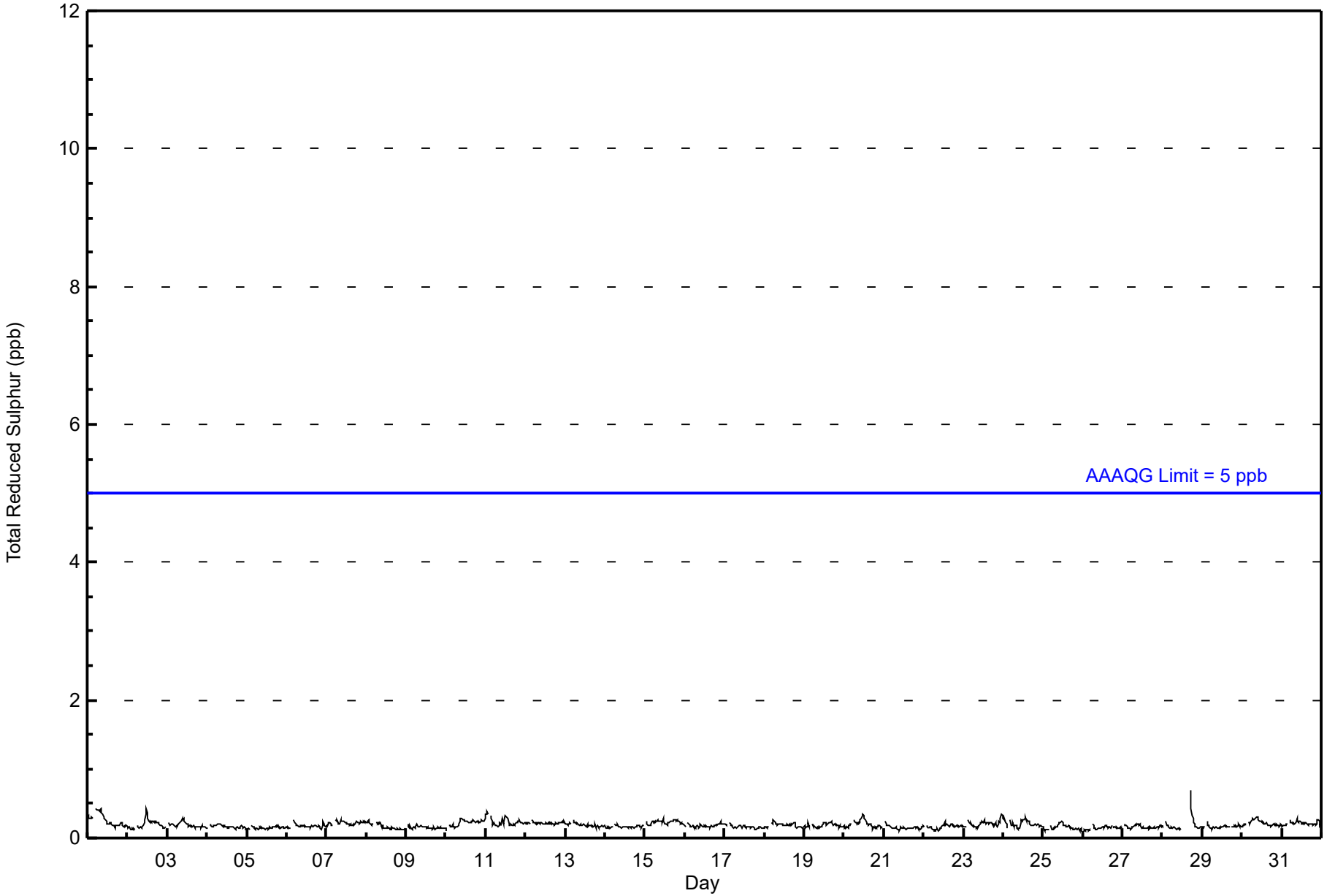
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA

Wood Buffalo Environmental Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Janvier - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	707	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Reduced Sulphur (TRS) - ppb

Janvier - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	48	59	13	3	3	3	12	39	59	110	109	63	44	74	33	22	694
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	48	59	13	3	3	3	12	39	59	110	109	63	44	74	33	22	694

Total Number of Valid Hours: 694

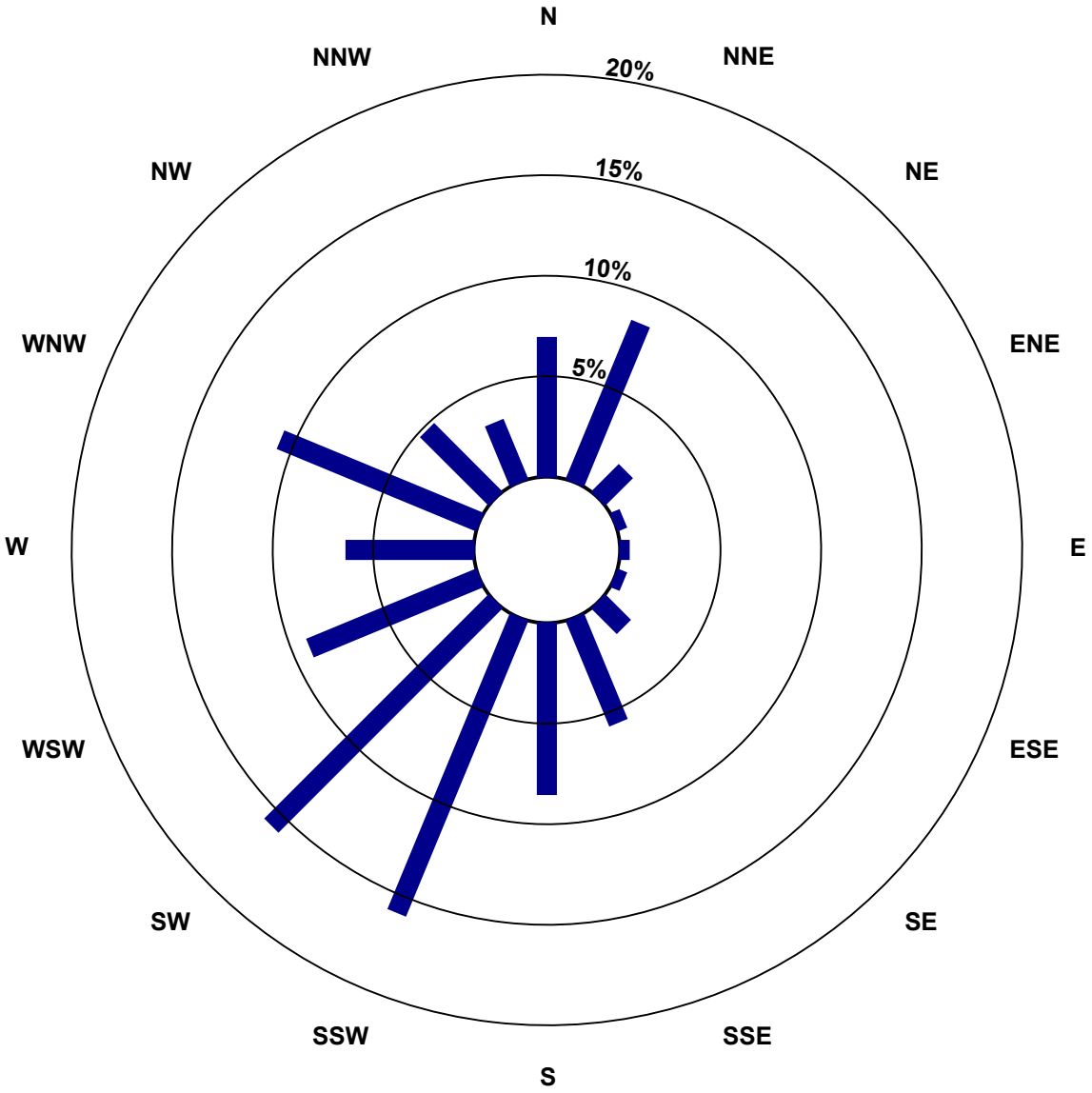
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Reduced Sulphur (TRS) - ppb

Janvier



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

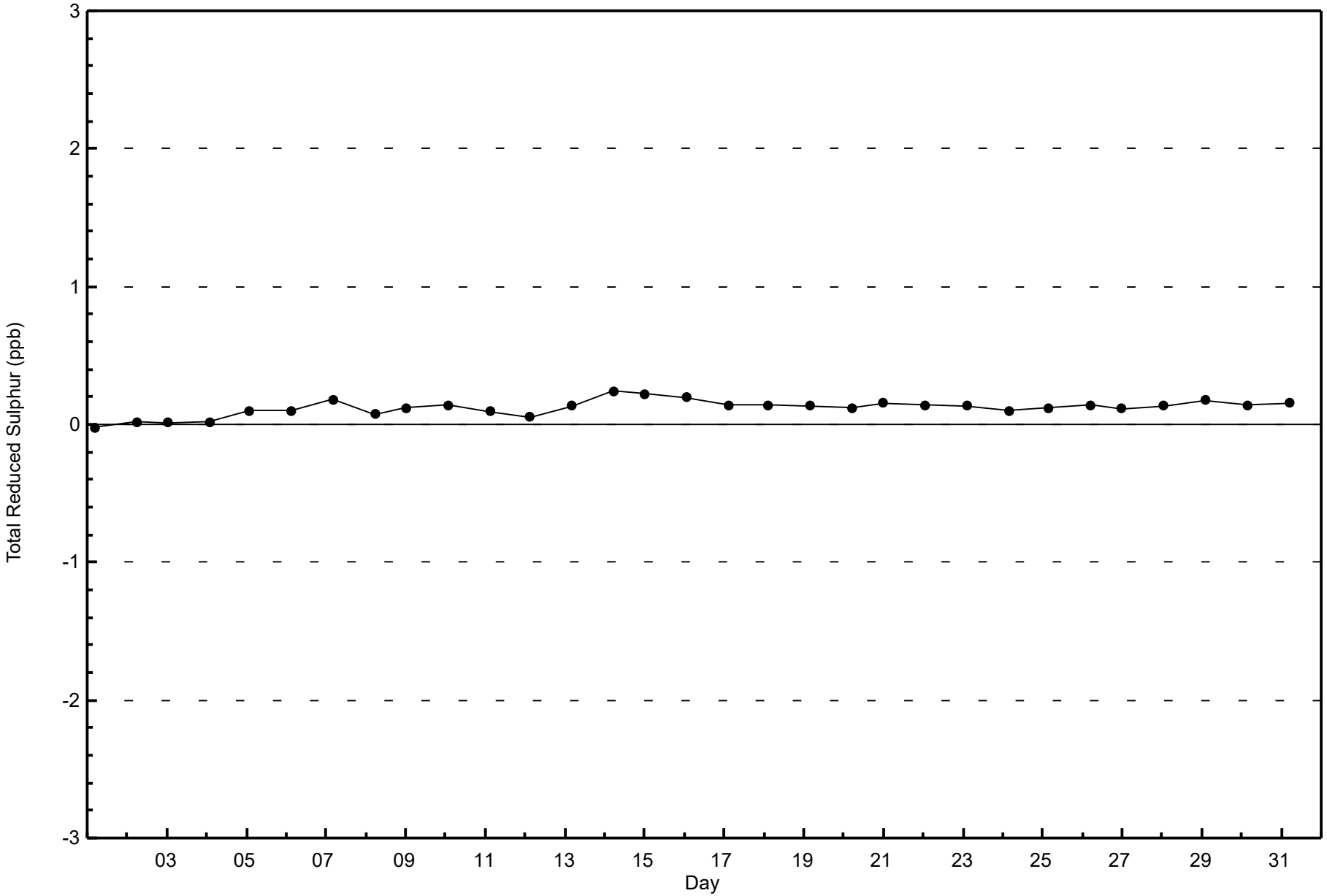
Total Number of Valid Hours: 694

Wood Buffalo Environmental Association

Zero Responses

Total Reduced Sulphur (TRS) - ppb

Janvier - October 2025

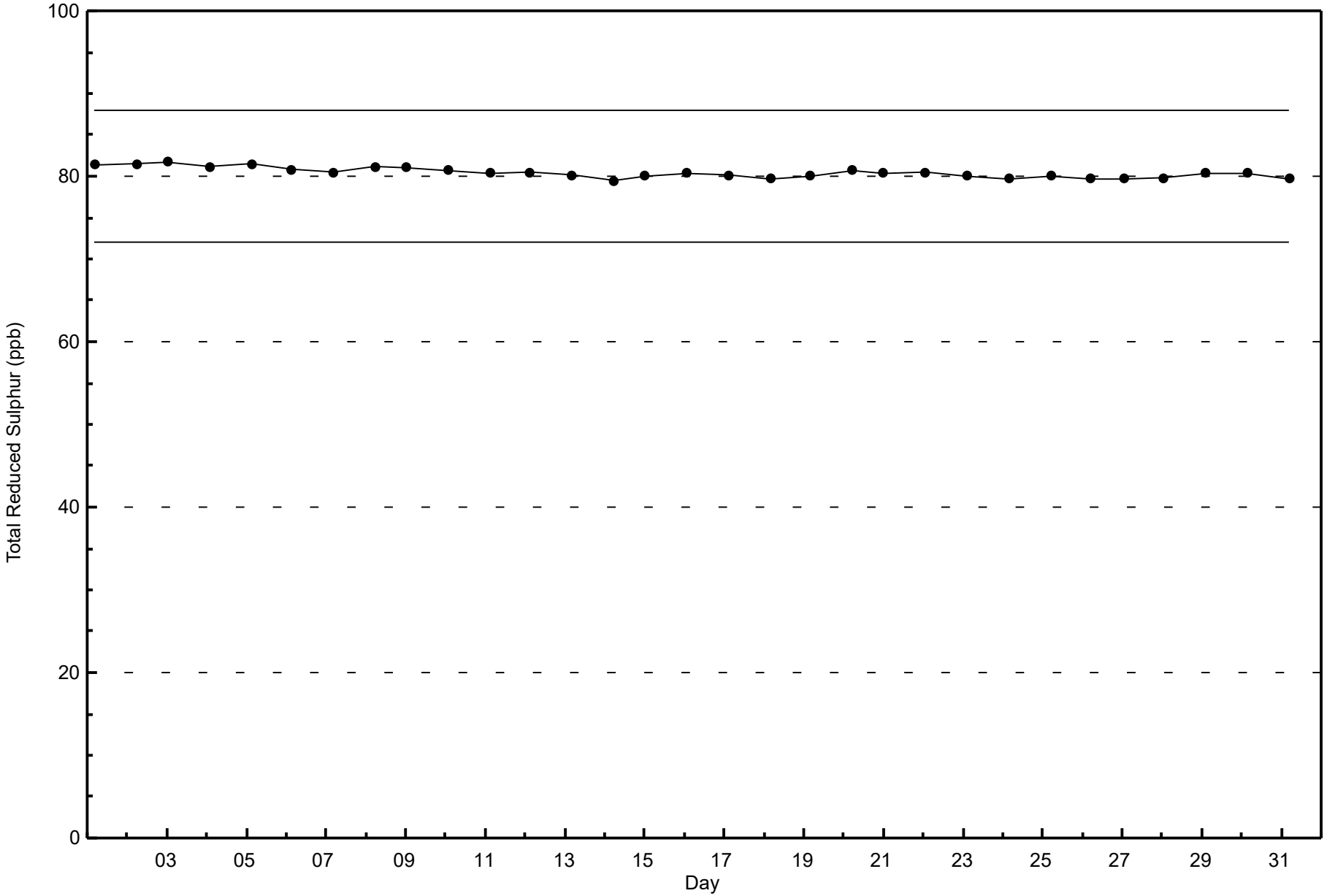


Wood Buffalo Environmental Association

Span Responses

Total Reduced Sulphur (TRS) - ppb

Janvier - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Janvier - October 2025

Maximum Value: 2.2 ppm on Oct 11 08:00

Maximum Daily Average: 2.1 ppm on Oct 25

Minimum Value: 1.9 ppm on Oct 8 07:00

Minimum Daily Average: 2.0 ppm on Oct 8

Maximum Diurnal Average: 2.0 ppm at hour 9

Minimum Diurnal Average: 2.0 ppm at hour 15

Monthly Average: 2.00 ppm

Percentiles: P_1 = 1.9 P_{10} = 2.0 Q_1 = 2.0 Median = 2.0 Q_3 = 2.0 P_{90} = 2.0 P_{99} = 2.1

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	35
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.0	2.0	2.0	Z	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
2-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0
4-Oct	Z	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
7-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
8-Oct	2.0	2.0	2.0	2.0	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0
9-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0
10-Oct	Z	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
11-Oct	2.0	Z	2.1	2.0	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2
12-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
13-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
14-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
15-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1
16-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
17-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
18-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
19-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
20-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
21-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
22-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
23-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
24-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	C	C	C	C	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
25-Oct	2.1	2.2	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2
26-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	PF	2.0	2.0	2.0	2.0	2.0	2.0	2.1
27-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
28-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
29-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	PF	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
30-Oct	2.1	2.0	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
31-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	Diurnal Average	
	2.1	2.2	2.2	2.0	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	Diurnal Maximum	

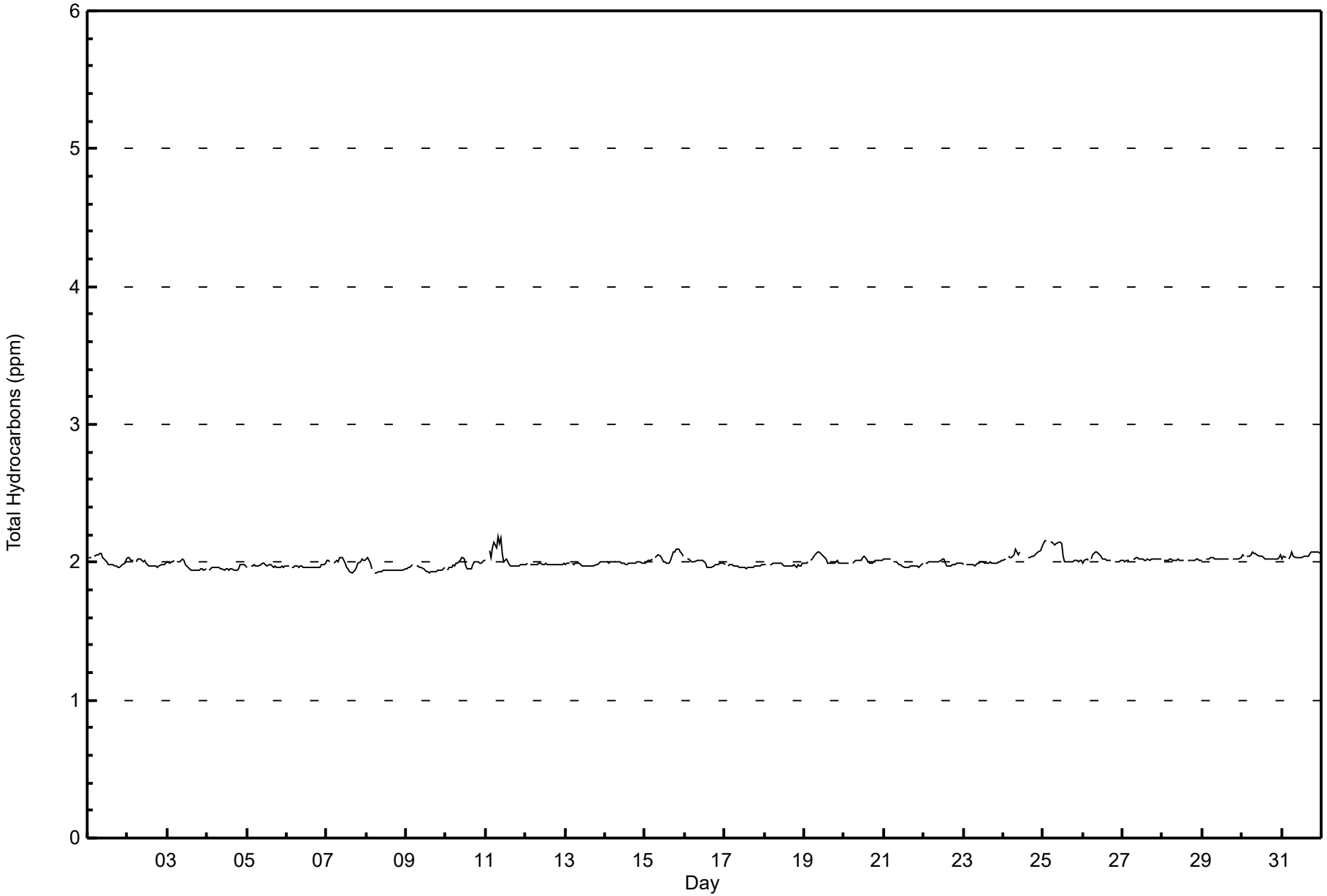
Z - zerospan C - Calibration M - Maintenance PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Janvier - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm

Janvier - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	642	90.93	90.93
2.1 - 3.0	64	9.07	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Janvier - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	49	44	9	3	2	3	10	36	47	101	99	61	42	78	32	14	630
2.1 - 3.0	2	14	2	0	1	0	1	3	9	9	9	3	2	1	0	8	64
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	51	58	11	3	3	3	11	39	56	110	108	64	44	79	32	22	694

Total Number of Valid Hours: 694

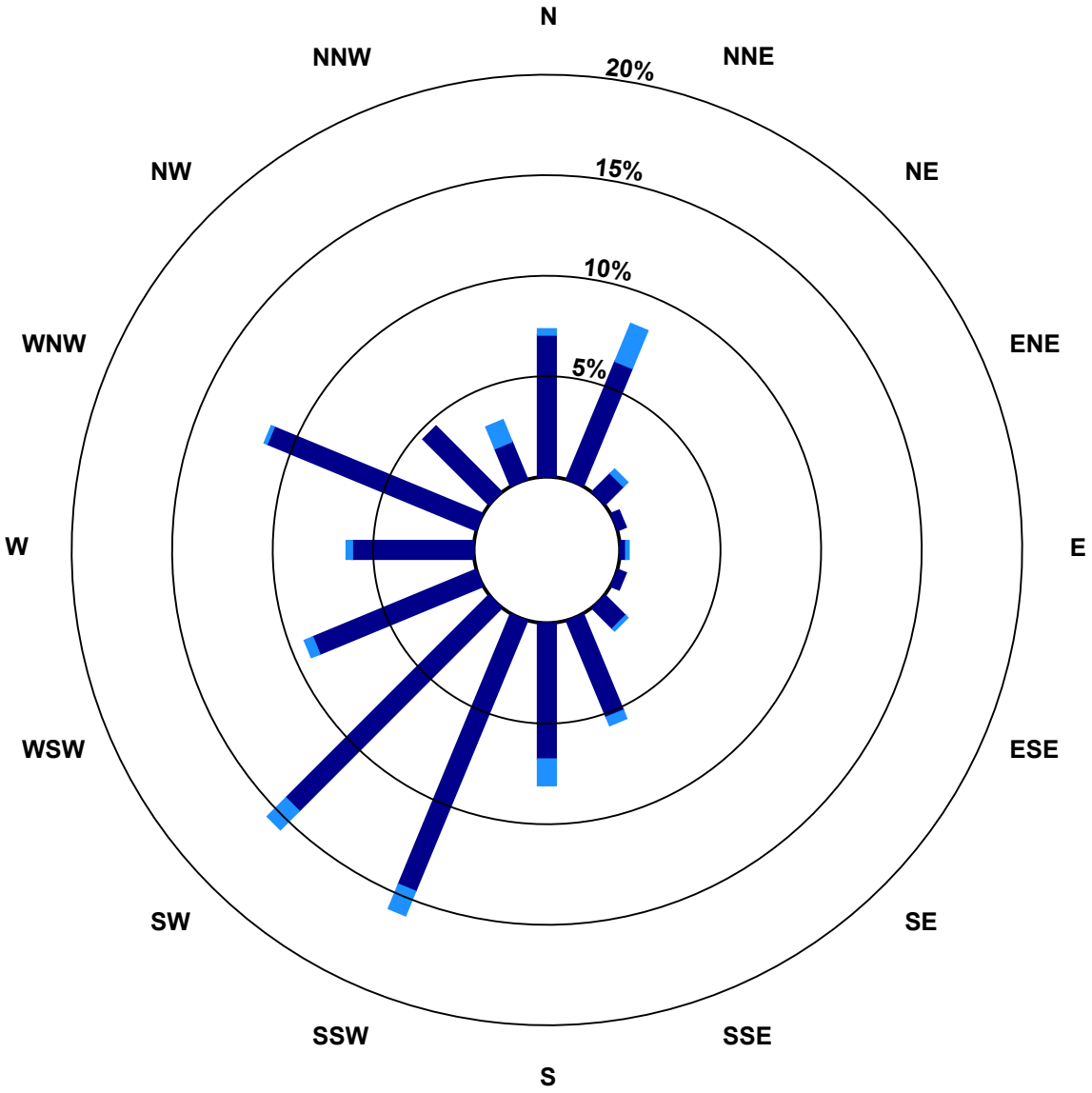
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Janvier



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

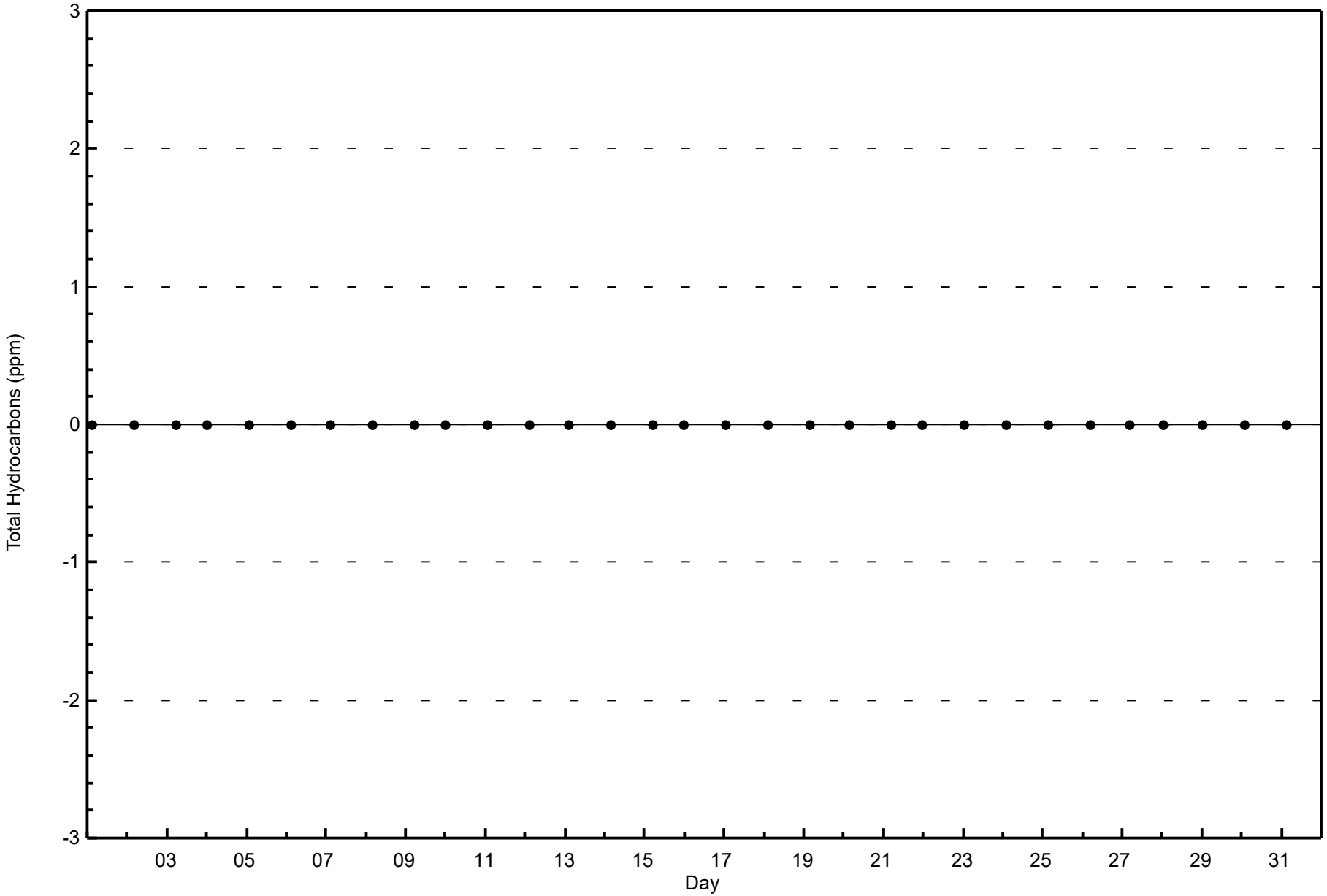
Total Number of Valid Hours: 694

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Janvier - October 2025

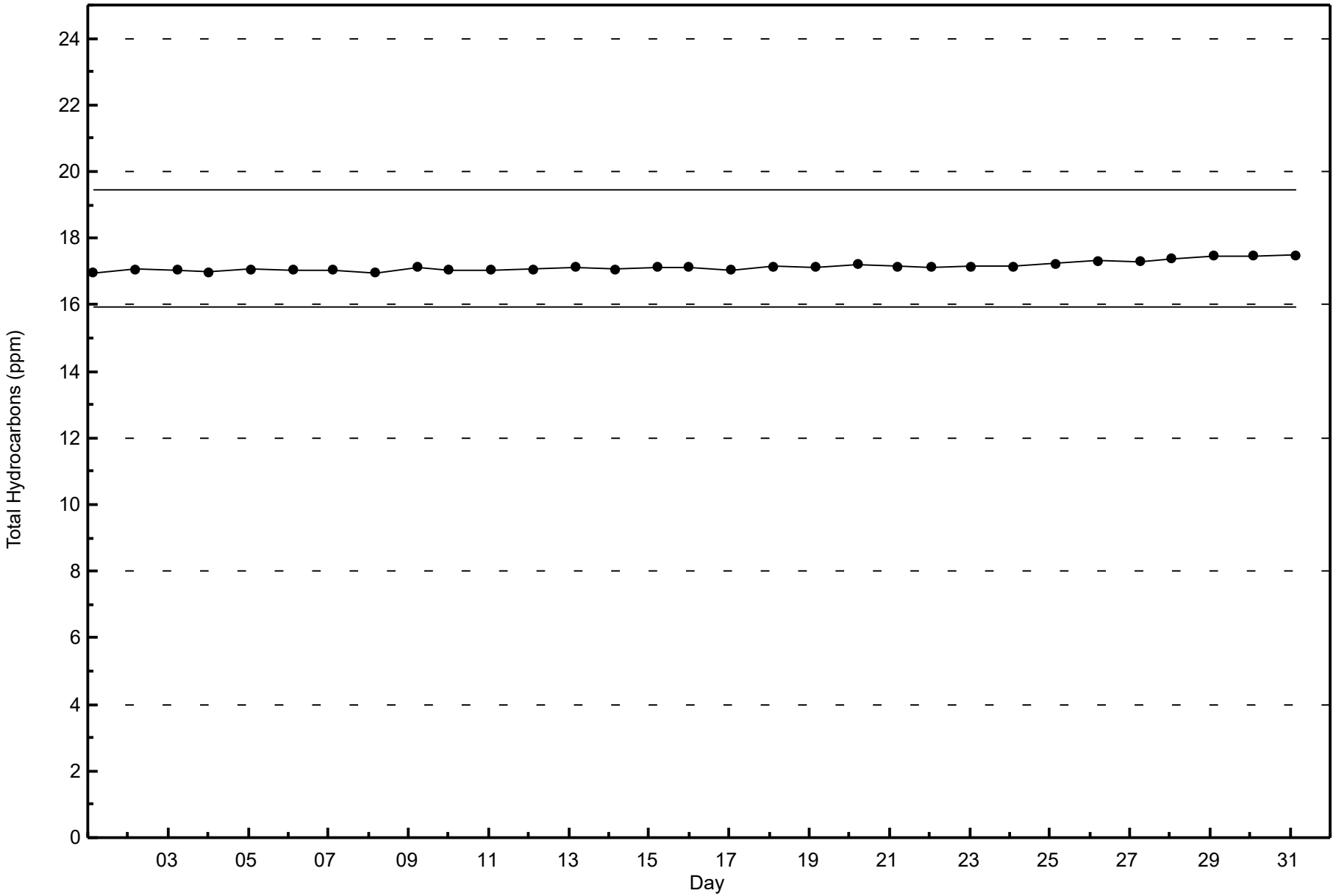


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Janvier - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

Janvier - October 2025

Maximum Value: 0.005 ppm on Oct 2 20:00

Maximum Daily Average: 0.000 ppm on Oct 2

Minimum Value: 0.000 ppm on Oct 1 01:00

Minimum Daily Average: 0.000 ppm on Oct 1

Maximum Diurnal Average: 0.000 ppm at hour 20

Minimum Diurnal Average: 0.000 ppm at hour 1

Monthly Average: 0.000 ppm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.0 P_{90} = 0.0 P_{99} = 0.0

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	35
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.005
3-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001
4-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
11-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	C	C	C	C	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	PF	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	M	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	PF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Diurnal Average	
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.005	0.001	0.000	0.000	0.000	Diurnal Maximum	

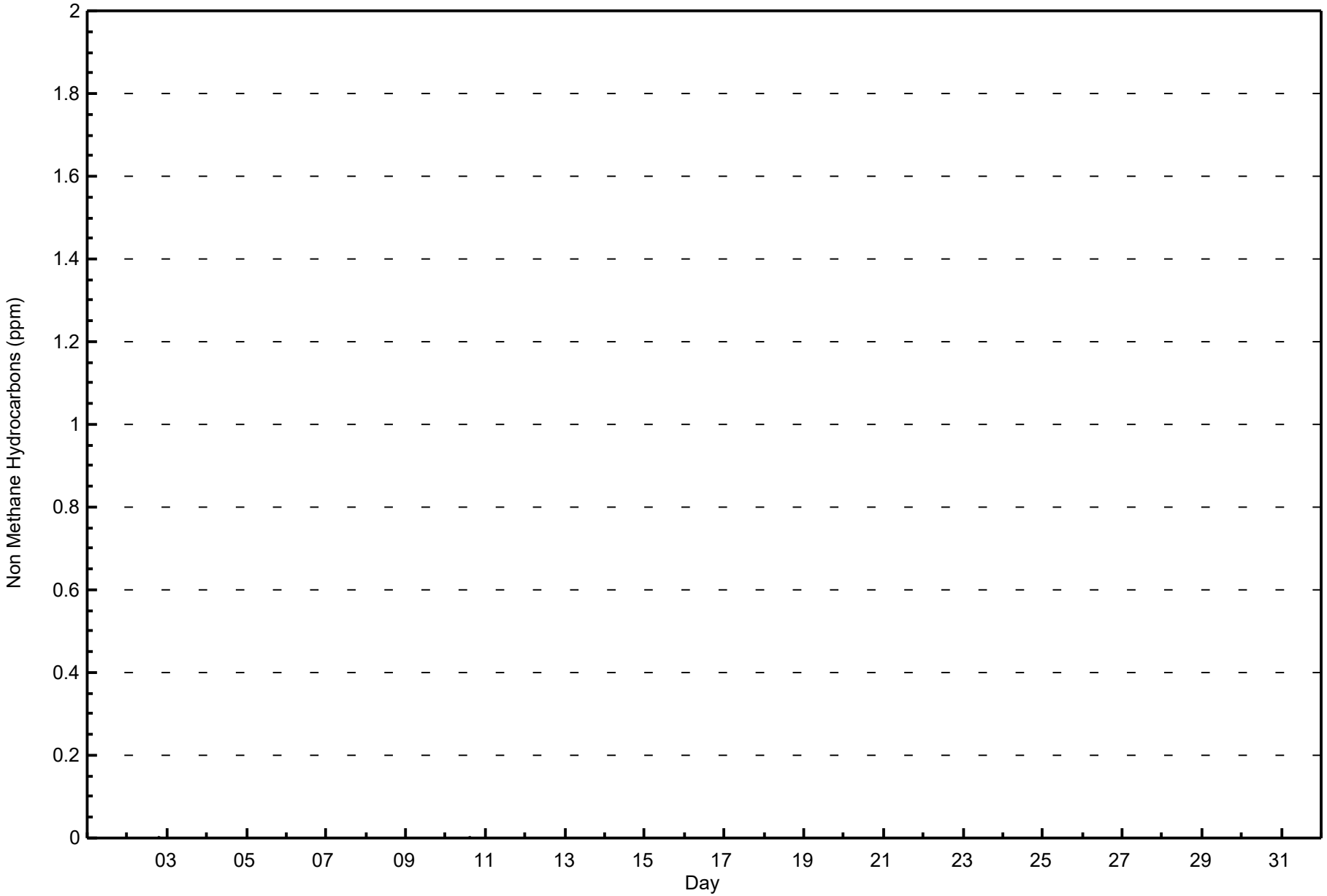
Z - zerospan C - Calibration M - Maintenance PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm

Janvier - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Janvier - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	706	100.00	100.00
0.006 - 0.05	0	0.00	100.00
0.06 - 0.1	0	0.00	100.00
> 0.1	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Janvier - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.005	51	58	11	3	3	3	11	39	56	110	108	64	44	79	32	22	694
0.006 - 0.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.06 - 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	51	58	11	3	3	3	11	39	56	110	108	64	44	79	32	22	694

Total Number of Valid Hours: 694

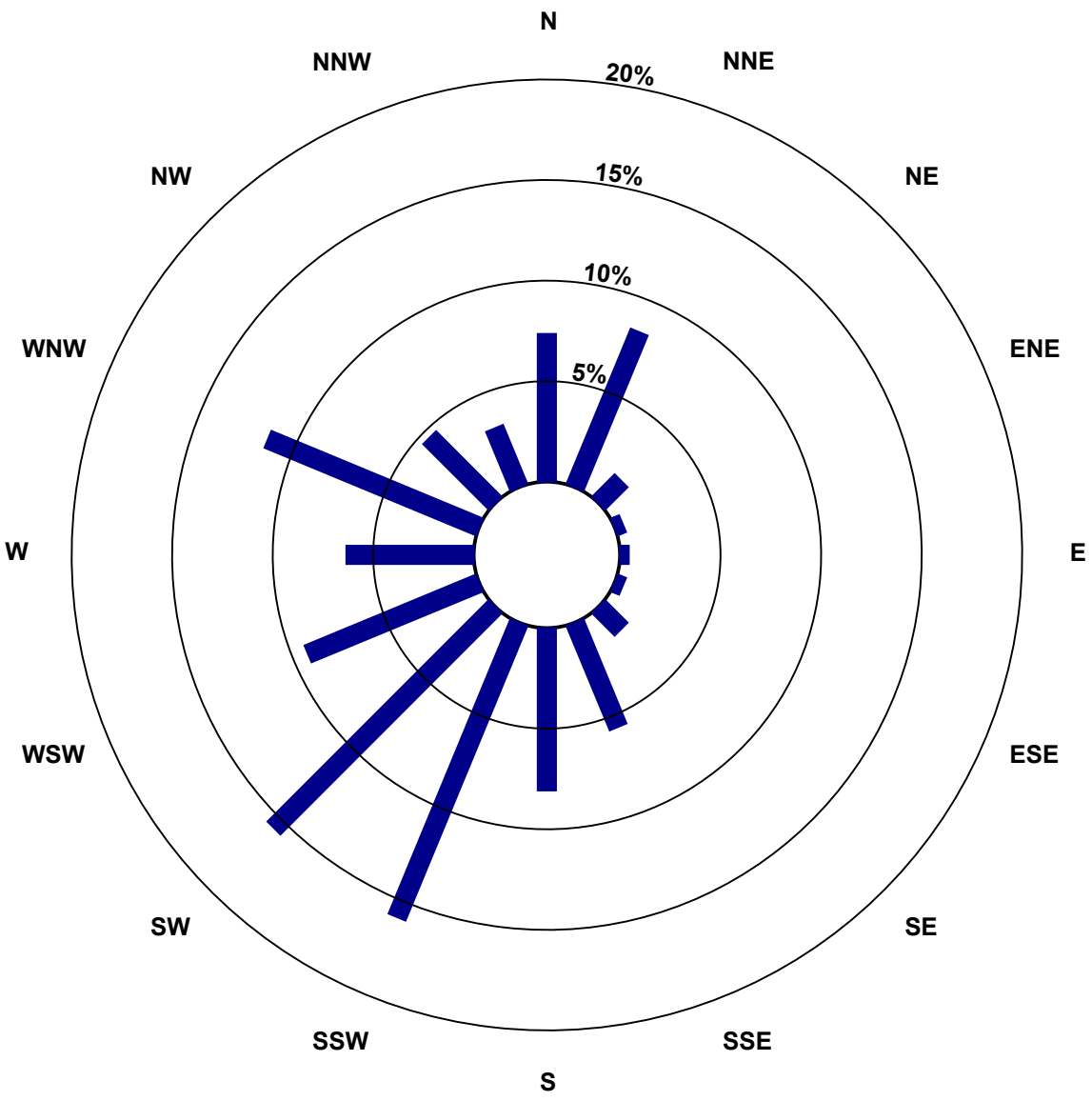
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Non Methane Hydrocarbons (NMHC) - ppm

Janvier



Classes (ppm)

- 0 - 0.005
- 0.006 - 0.05
- 0.06 - 0.1
- > 0.1

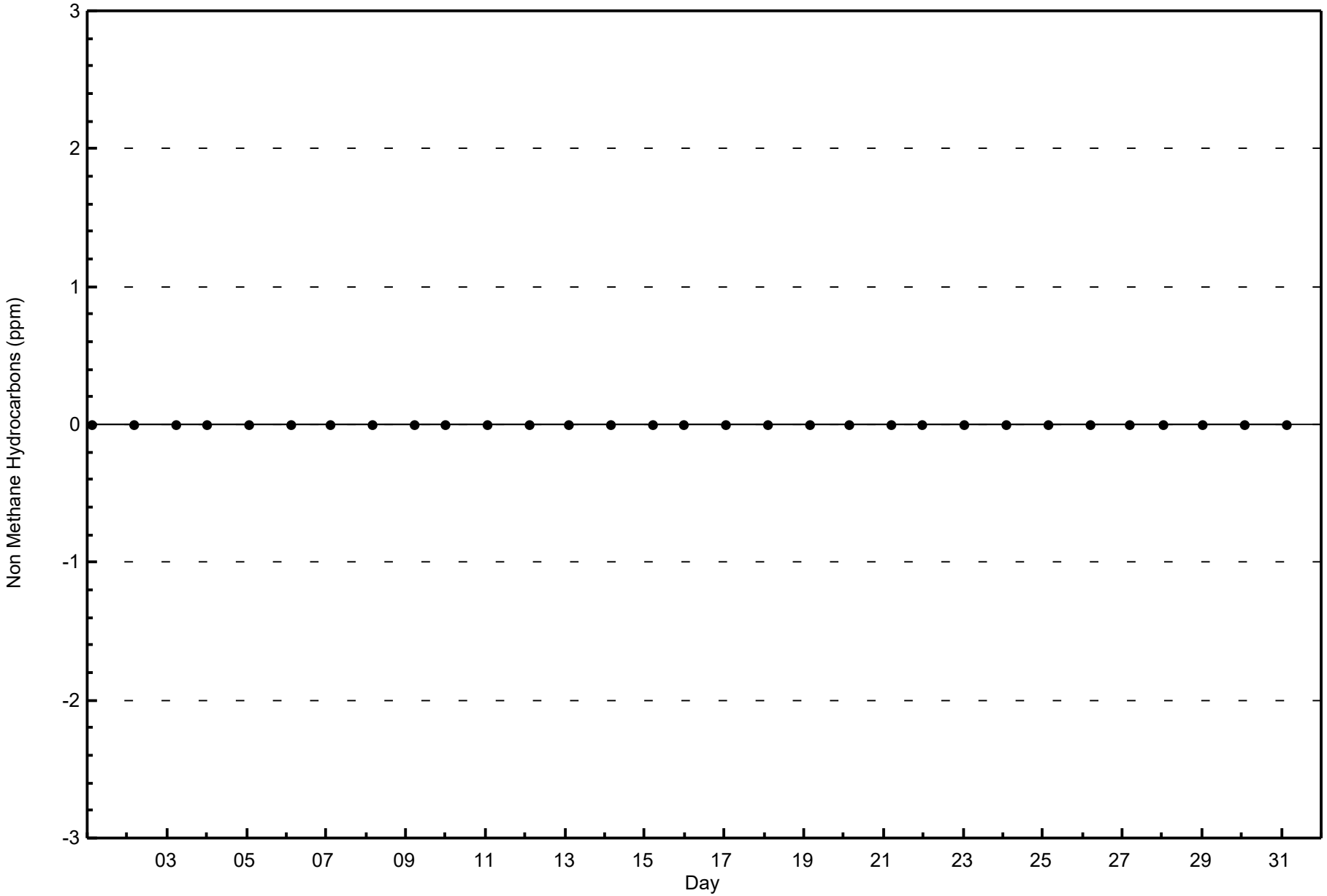
Total Number of Valid Hours: 694

Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Janvier - October 2025

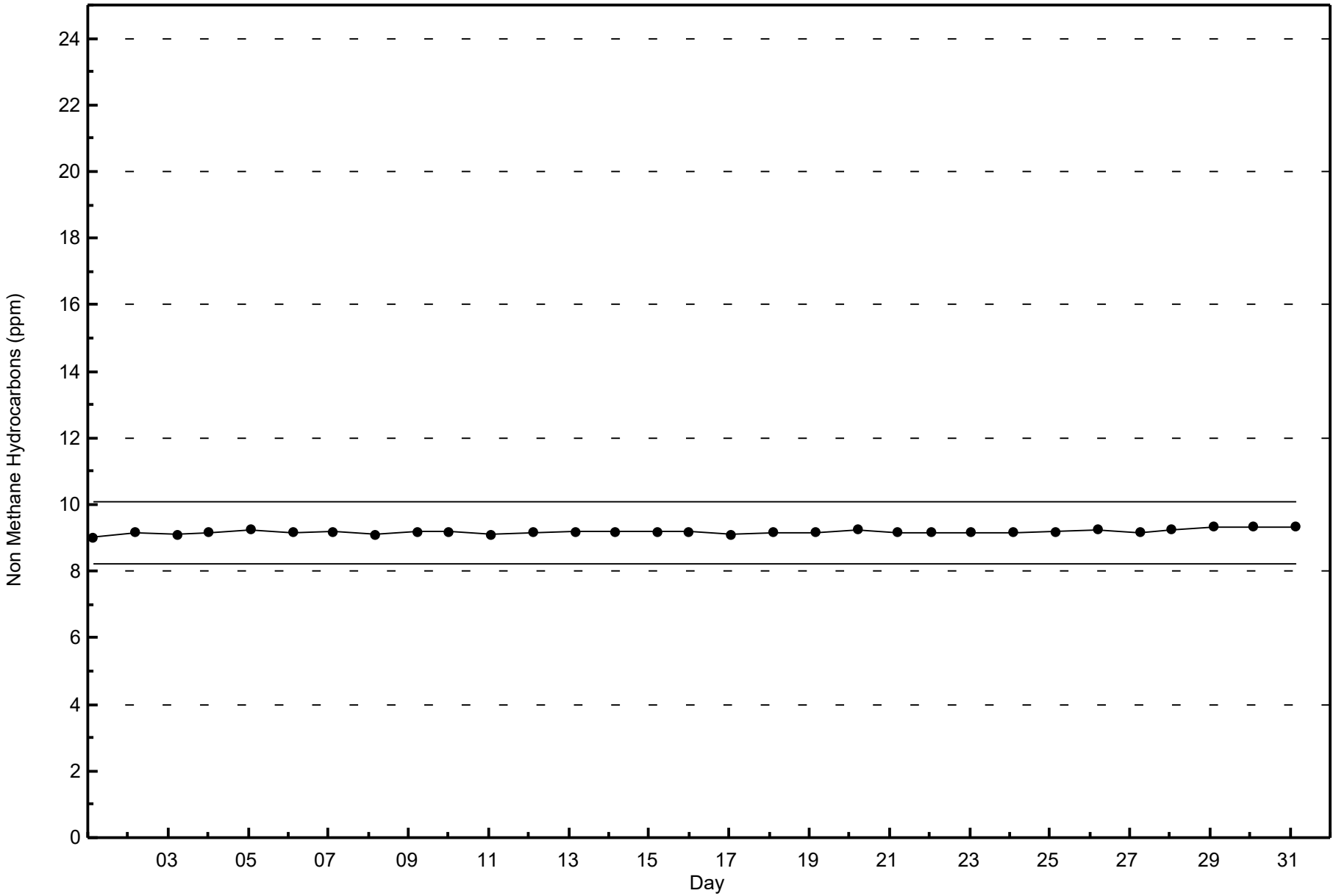


Wood Buffalo Environmental Association

Span Responses

Non Methane Hydrocarbons (NMHC) - ppm

Janvier - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH_4) - ppm

Janvier - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 2.2 ppm on Oct 11 08:00

Maximum Daily Average: 2.1 ppm on Oct 25

Minimum Value: 1.9 ppm on Oct 8 07:00

Minimum Daily Average: 2.0 ppm on Oct 8

Maximum Diurnal Average: 2.0 ppm at hour 9

Minimum Diurnal Average: 2.0 ppm at hour 15

Monthly Average: 2.00 ppm

Percentiles: P_1 = 1.9 P_{10} = 2.0 Q_1 = 2.0 Median = 2.0 Q_3 = 2.0 P_{90} = 2.0 P_{99} = 2.1

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	35
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.0	2.0	2.0	Z	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
2-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.0
4-Oct	Z	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
5-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
6-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
7-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
8-Oct	2.0	2.0	2.0	2.0	Z	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0
9-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.0	2.0	2.0
10-Oct	Z	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
11-Oct	2.0	Z	2.1	2.0	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2
12-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
13-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
14-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
15-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.1
16-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
17-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
18-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
19-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
20-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
21-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
22-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
23-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
24-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	C	C	C	C	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
25-Oct	2.1	2.2	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2
26-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	PF	2.0	2.0	2.0	2.0	2.0	2.0	2.1
27-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
28-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	M	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
29-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	PF	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
30-Oct	2.1	2.0	Z	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
31-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	Diurnal Average	
	2.1	2.2	2.2	2.0	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	Diurnal Maximum	

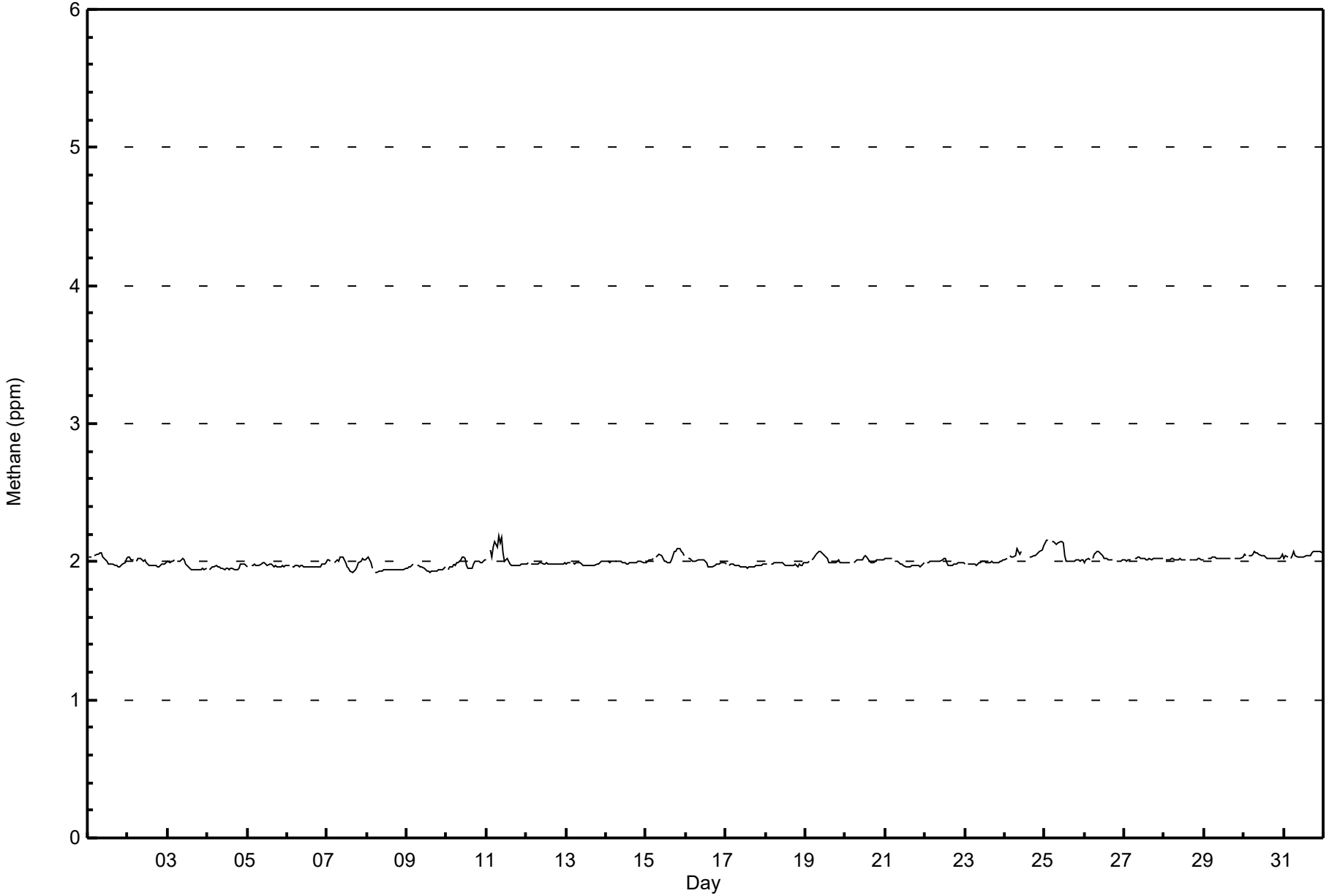
Z - zerospan C - Calibration M - Maintenance PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Methane (CH_4) - ppm

Janvier - October 2025



Methane (CH_4) - ppm

Janvier - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	642	90.93	90.93
2.1 - 3.0	64	9.07	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Methane (CH_4) - ppm

Janvier - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	49	44	9	3	2	3	10	36	47	101	99	61	42	78	32	14	630
2.1 - 3.0	2	14	2	0	1	0	1	3	9	9	9	3	2	1	0	8	64
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	51	58	11	3	3	3	11	39	56	110	108	64	44	79	32	22	694

Total Number of Valid Hours: 694

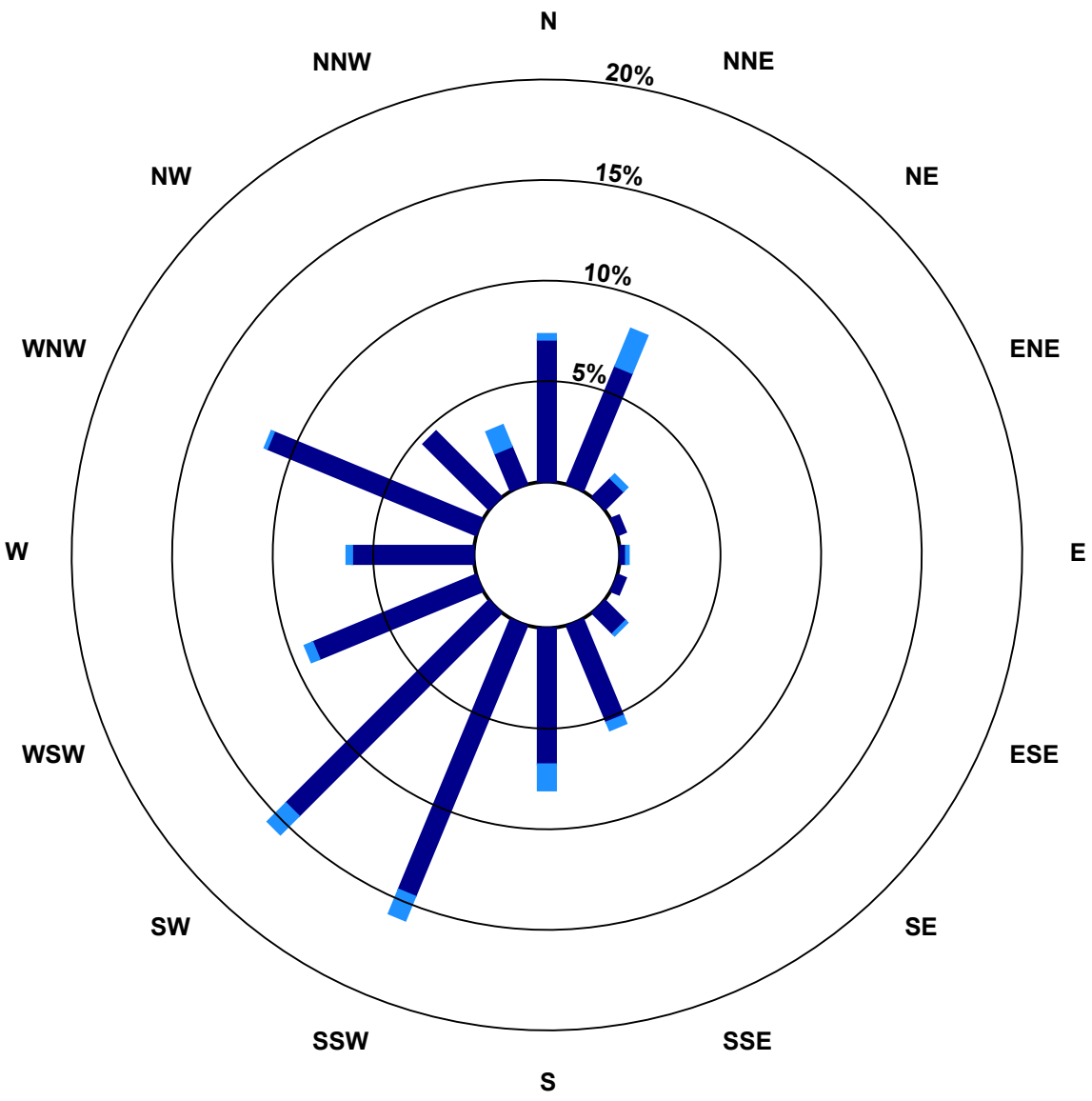
Total Number of Hours: 744

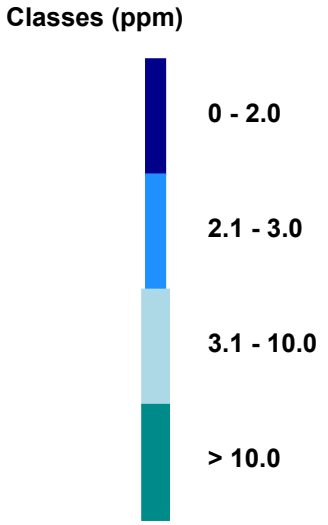
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Methane (CH_4) - ppm

Janvier





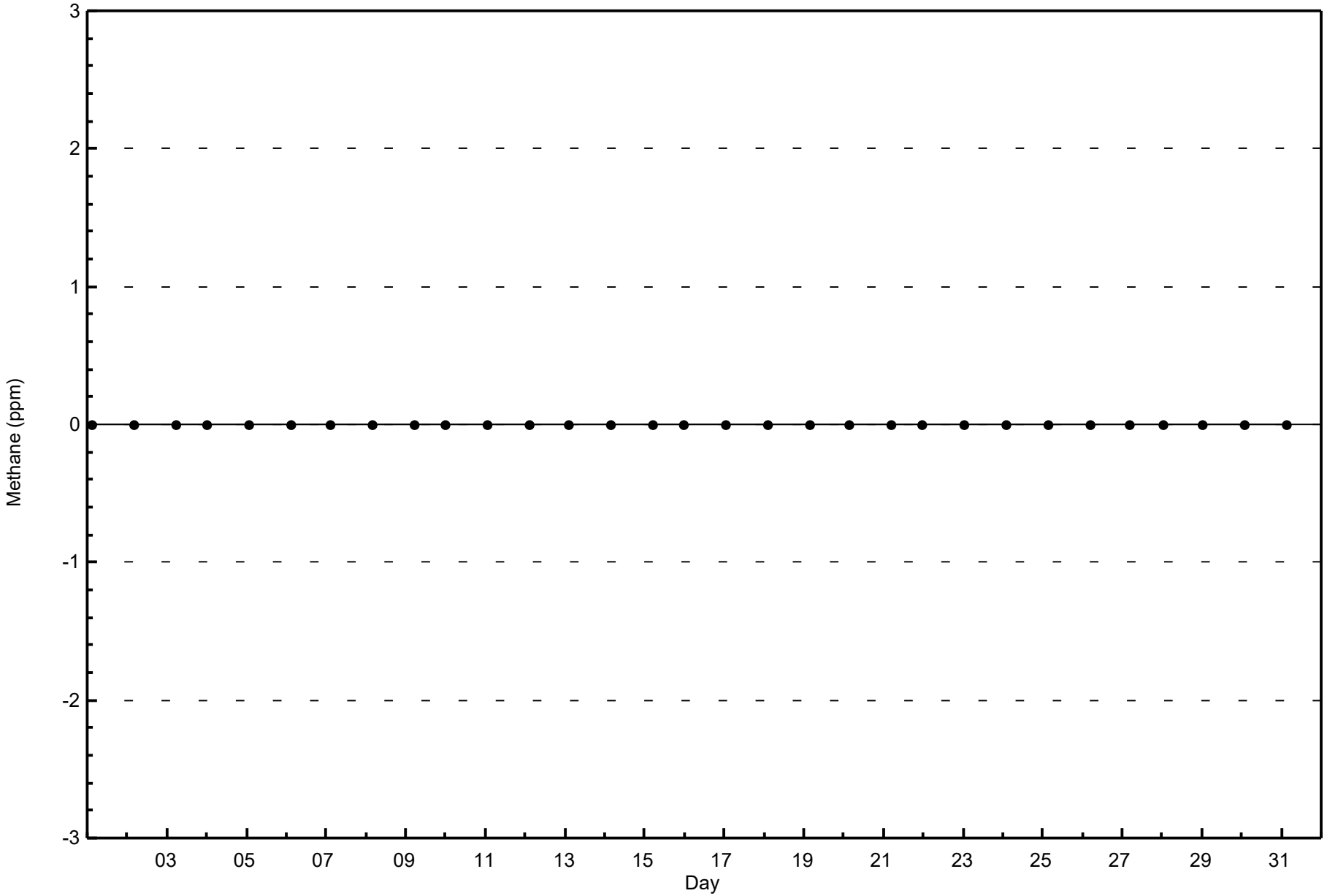
Total Number of Valid Hours: 694

Wood Buffalo Environmental Association

Zero Responses

Methane (CH_4) - ppm

Janvier - October 2025

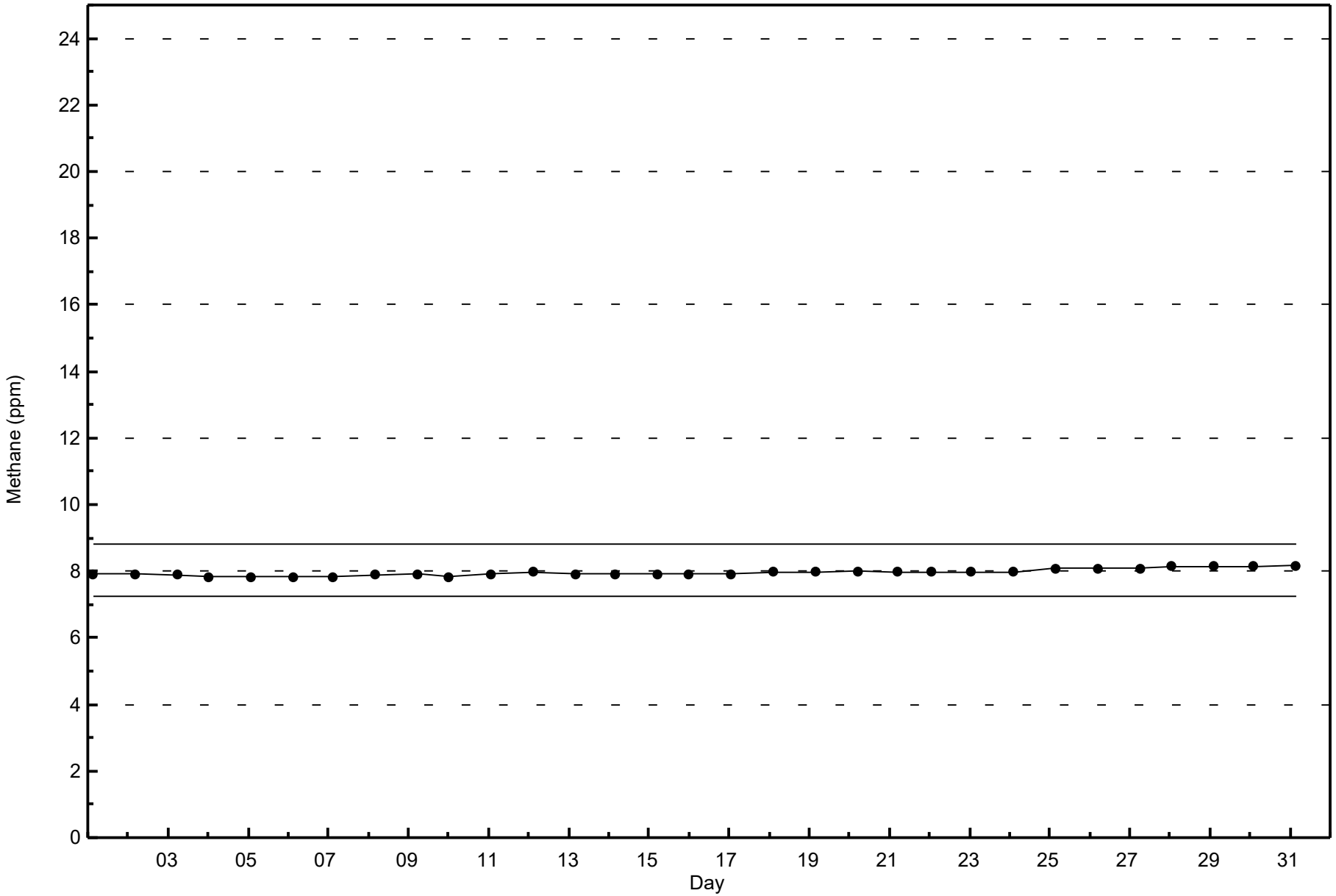


Wood Buffalo Environmental Association

Span Responses

Methane (CH_4) - ppm

Janvier - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Janvier - October 2025

Maximum Value: 3.9 ppb on Oct 30 09:00

Maximum Daily Average: 0.8 ppb on Oct 24

Minimum Value: 0.0 ppb on Oct 3 15:00

Minimum Daily Average: 0.0 ppb on Oct 28

Maximum Diurnal Average: 0.7 ppb at hour 9

Minimum Diurnal Average: 0.1 ppb at hour 2

Monthly Average: 0.27 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.3 P_{90} = 0.8 P_{99} = 2.1

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.9	0.1	0.1	0.1	0.9
2-Oct	0.5	0.2	Z	0.1	0.7	0.9	0.6	1.3	0.7	0.3	0.6	1.1	2.4	0.8	0.6	0.5	0.9	0.6	0.5	1.5	2.1	0.5	0.2	0.5	0.8	2.4
3-Oct	0.2	0.3	0.1	Z	0.4	0.7	0.4	0.3	0.4	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7
4-Oct	0.0	0.2	0.0	0.0	Z	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.2
5-Oct	0.1	0.0	0.0	0.3	0.0	Z	0.0	0.8	0.4	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8
6-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.6	0.5	0.7	0.5	0.9	0.4	0.2	0.2	1.2	0.4	0.2	0.1	0.1	0.1	0.2	0.3	1.2
7-Oct	0.1	Z	0.1	0.0	0.0	0.1	0.3	1.1	1.6	1.5	0.8	0.6	0.4	0.4	0.3	0.3	0.1	0.3	0.4	0.3	0.1	0.2	0.0	0.2	0.4	1.6
8-Oct	0.1	0.2	Z	0.0	0.0	0.0	0.0	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.3	0.0	0.0	0.1	0.0	0.1	0.5
9-Oct	0.0	0.1	0.0	Z	0.1	0.0	0.2	0.8	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.8
10-Oct	0.2	0.0	0.2	0.0	Z	1.1	0.7	1.7	1.8	2.4	2.5	1.9	1.0	0.6	0.5	0.3	0.2	0.1	0.3	0.2	0.5	0.2	0.1	0.1	0.7	2.5
11-Oct	0.1	0.0	0.0	0.1	0.1	Z	0.7	0.2	1.3	0.5	0.9	0.4	0.2	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.3
12-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
13-Oct	0.0	Z	0.0	0.3	0.0	0.0	0.0	1.3	0.1	0.0	0.0	0.1	0.1	0.0	0.2	0.0	0.1	0.2	0.4	0.3	0.2	0.1	0.0	0.0	0.2	1.3
14-Oct	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.1	0.2	0.4	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	1.0	0.2	1.0
15-Oct	0.4	0.0	0.0	Z	0.1	0.1	0.3	3.3	2.0	2.1	1.5	1.0	0.7	0.4	0.2	0.2	0.2	0.2	0.2	1.0	0.3	0.2	0.1	0.1	0.6	3.3
16-Oct	0.0	0.0	0.1	0.2	Z	0.0	0.0	0.4	0.6	1.3	0.6	0.6	0.4	0.2	0.1	0.0	0.1	0.3	0.2	0.1	0.1	0.1	0.0	0.1	0.2	1.3
17-Oct	0.1	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.3
18-Oct	Z	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.2	0.3	0.7	0.6	0.3	1.0	0.1	0.2	1.0
19-Oct	0.8	Z	0.3	0.0	0.3	0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.8
20-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	1.0	0.8	0.6	0.6	0.9	1.2	0.6	0.2	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.3	1.2
21-Oct	0.1	0.1	0.1	Z	0.0	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.5	0.8	0.1	0.1	0.0	0.2	0.8
22-Oct	0.0	0.0	0.2	1.3	Z	0.1	0.5	0.4	1.0	2.0	1.5	1.0	1.3	1.0	0.3	0.7	0.6	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.5	2.0
23-Oct	0.0	0.1	0.0	0.0	0.1	Z	0.6	1.8	0.9	1.7	0.5	C	C	C	C	C	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.5	0.4	1.8
24-Oct	Z	0.2	0.1	0.1	0.1	0.2	1.4	2.1	3.0	1.6	1.6	1.1	0.7	1.4	0.7	0.4	0.7	0.8	0.0	0.2	0.1	1.8	0.5	0.1	0.8	3.0
25-Oct	1.9	Z	0.1	0.2	0.2	0.8	0.4	0.1	0.4	0.3	0.3	0.2	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.2	1.9
26-Oct	0.2	0.1	Z	1.5	0.0	0.2	0.0	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.5
27-Oct	0.0	0.0	0.0	Z	0.0	0.1	0.0	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.2
28-Oct	0.0	0.0	0.0	0.1	Z	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.1	M	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.2
29-Oct	0.1	0.1	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.1	0.1	0.2
30-Oct	Z	0.1	0.8	0.0	0.2	1.3	1.4	0.3	3.9	3.1	0.8	0.5	0.5	0.4	0.2	0.2	0.2	0.1	0.2	0.0	0.0	0.1	0.0	0.1	0.6	3.9
31-Oct	0.0	Z	0.0	0.0	0.0	0.2	0.1	0.1	0.5	0.5	0.9	1.2	1.2	1.0	0.5	0.3	0.1	0.1	0.1	0.3	0.1	0.2	0.1	0.1	0.3	1.2
	0.2	0.1	0.1	0.2	0.1	0.2	0.3	0.6	0.7	0.7	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	Diurnal Average	
	1.9	0.3	0.8	1.5	0.7	1.3	1.4	3.3	3.9	3.1	2.5	1.9	2.4	1.4	0.7	0.7	0.9	1.2	0.5	1.5	2.1	1.8	1.0	1.0	Diurnal Maximum	

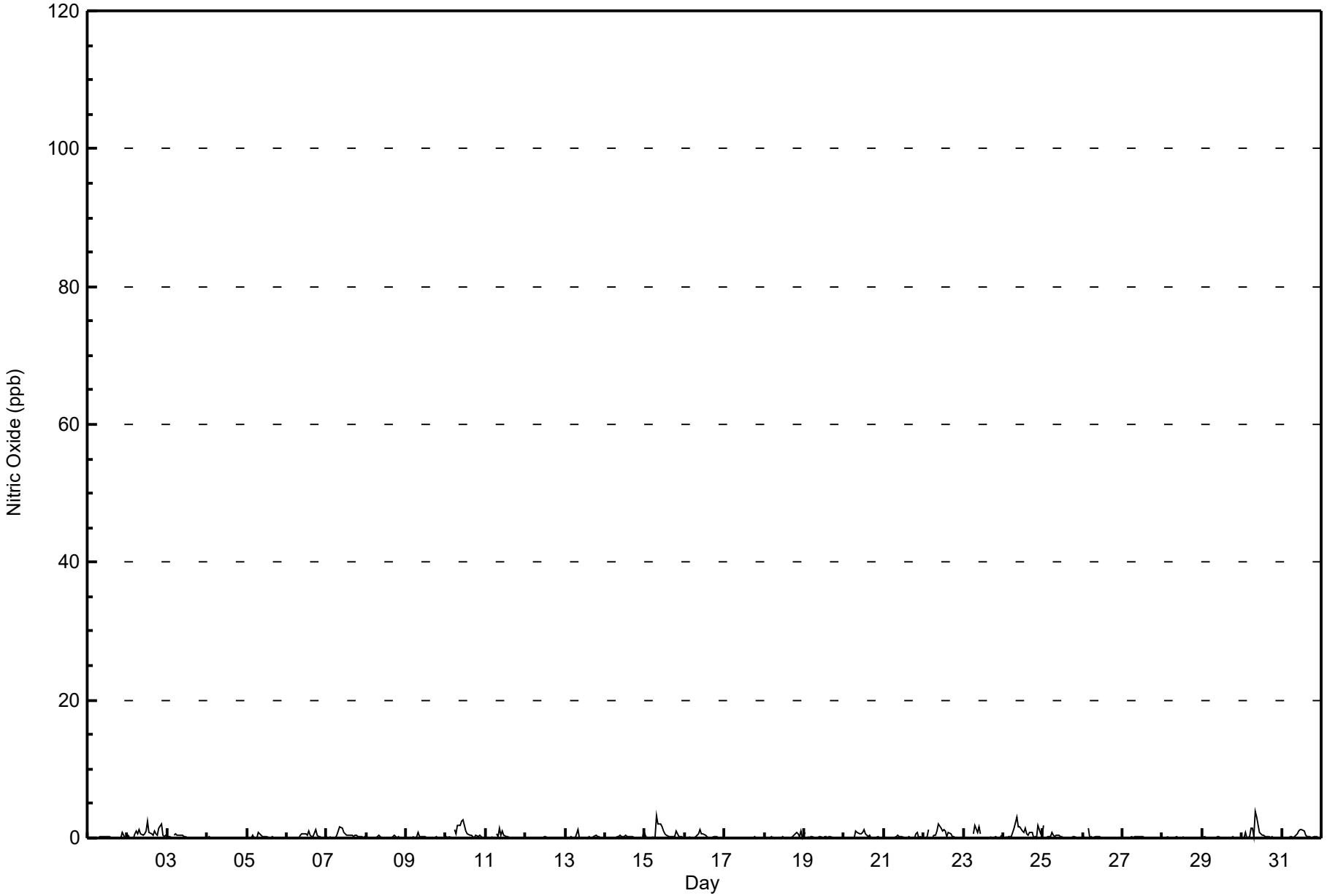
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Janvier - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	50	60	12	3	3	4	12	36	56	110	108	62	46	79	32	22	695
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	50	60	12	3	3	4	12	36	56	110	108	62	46	79	32	22	695

Total Number of Valid Hours: 695

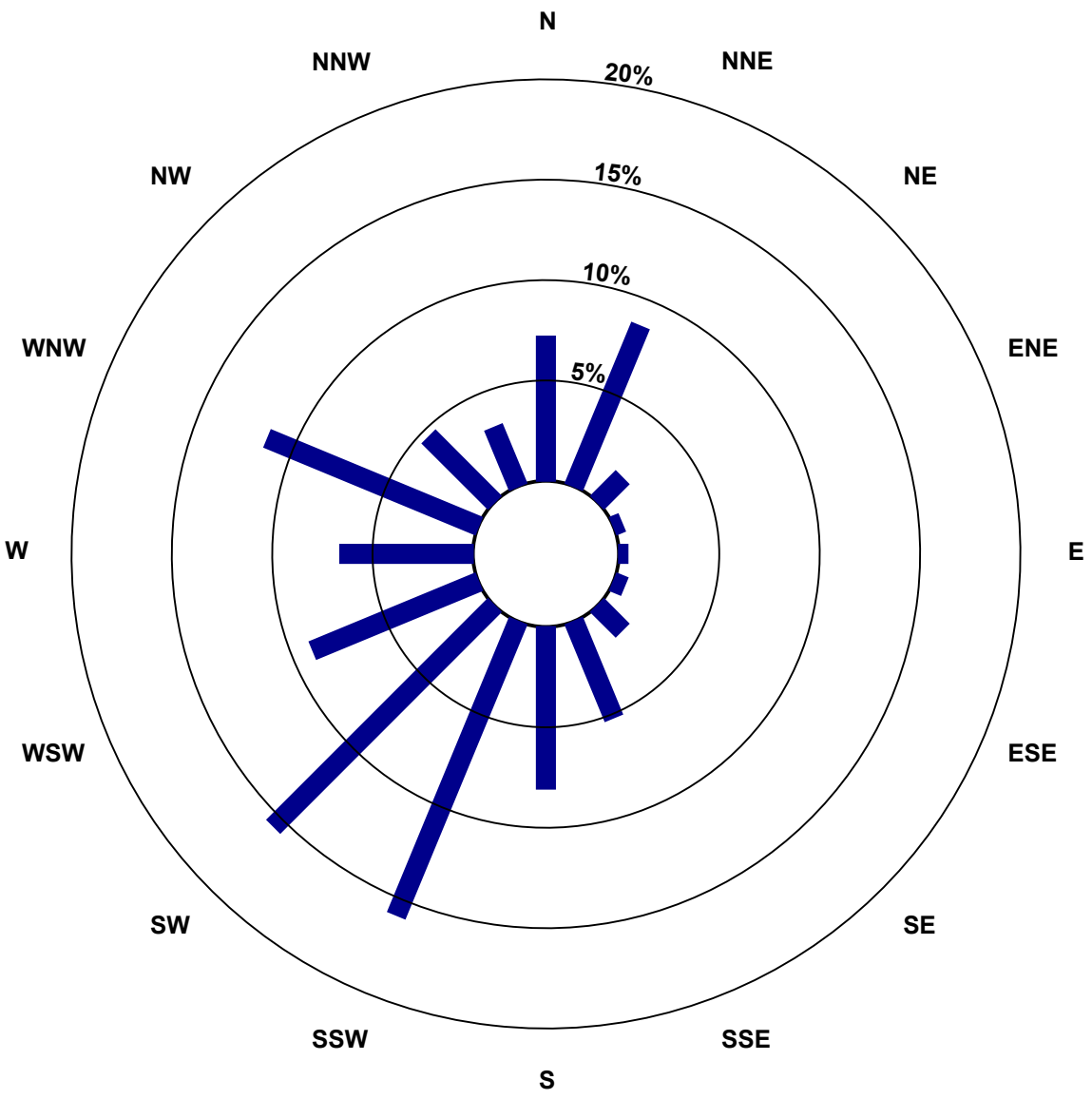
Total Number of Hours: 744

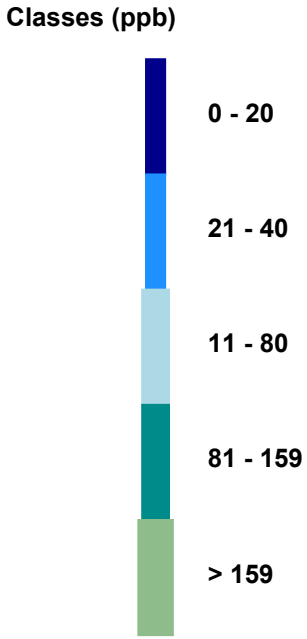
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Janvier





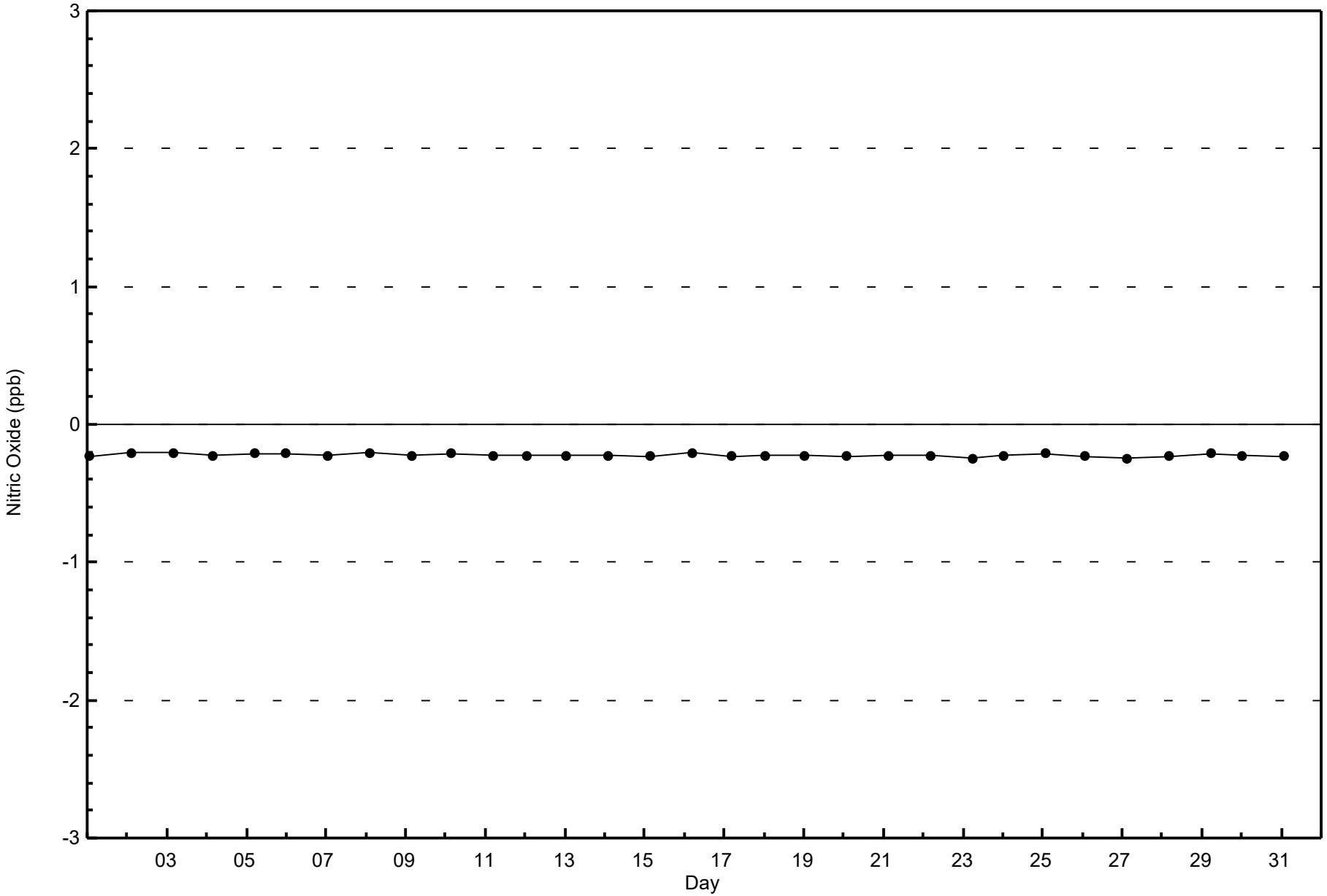
Total Number of Valid Hours: 695

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Janvier - October 2025

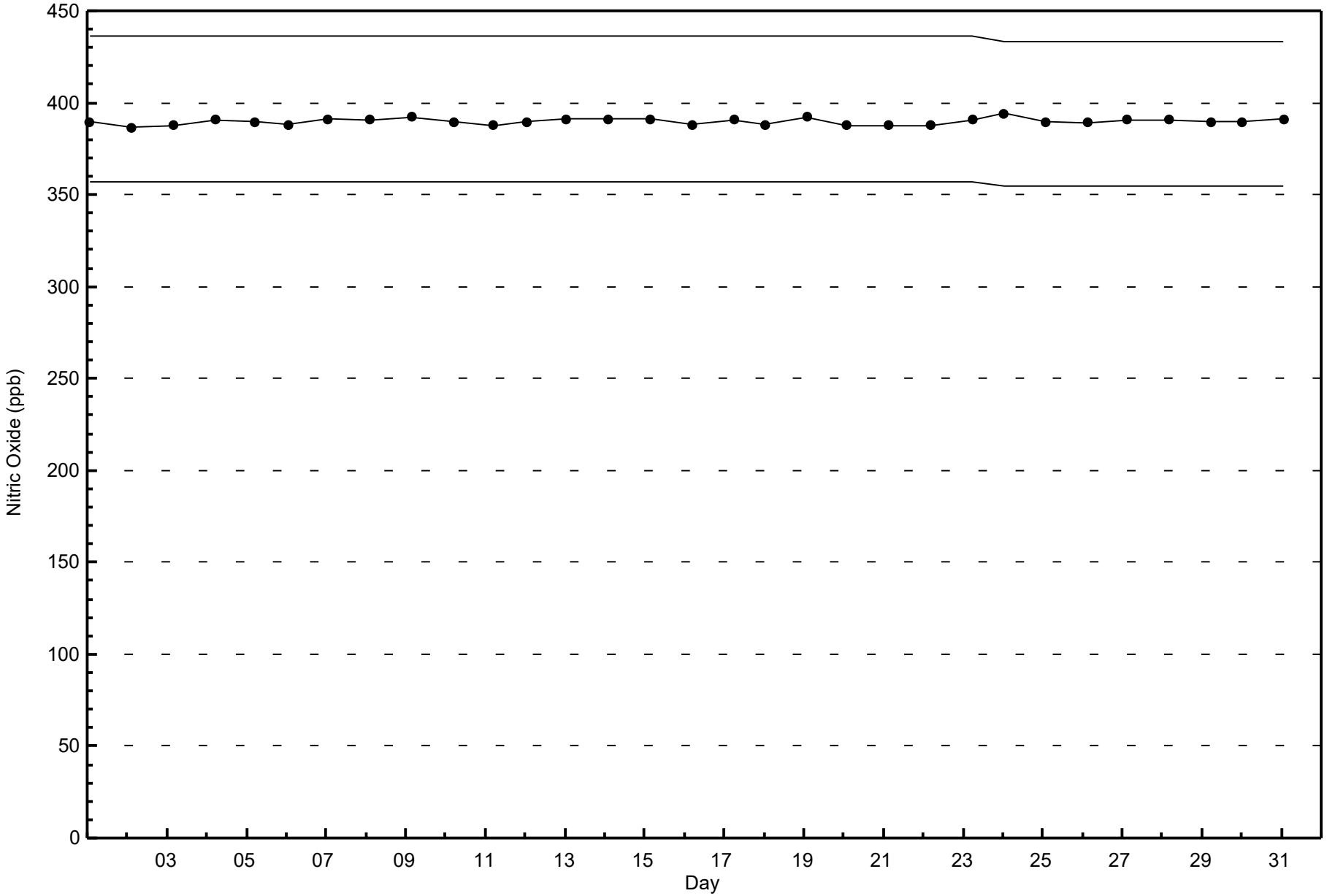


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Janvier - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Janvier - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 5.8 ppb on Oct 15 08:00

Maximum Daily Average: 3.0 ppb on Oct 15

Minimum Value: 0.1 ppb on Oct 4 16:00

Minimum Daily Average: 0.2 ppb on Oct 28

Maximum Diurnal Average: 1.7 ppb at hour 8

Minimum Diurnal Average: 0.7 ppb at hour 16

Monthly Average: 1.23 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.3 Q_1 = 0.4 Median = 0.9 Q_3 = 1.7 P_{90} = 2.8 P_{99} = 4.3

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.9	Z	1.5	1.5	1.5	1.9	2.3	2.5	2.0	1.8	1.4	1.2	1.0	1.1	0.9	0.8	0.9	1.2	0.8	0.8	1.5	1.4	1.0	1.2	1.4	2.5
2-Oct	1.3	1.1	Z	1.0	1.0	1.2	1.1	0.9	0.9	0.9	1.4	2.6	2.8	2.1	1.3	1.2	2.1	2.3	1.6	1.4	1.1	0.6	0.5	1.3	1.4	2.8
3-Oct	1.2	0.8	0.8	Z	1.2	1.0	1.0	1.3	1.3	1.2	1.0	0.7	0.5	0.3	0.2	0.3	0.3	0.3	0.5	0.4	0.4	0.4	0.4	0.4	0.7	1.3
4-Oct	0.5	0.6	0.3	0.2	Z	0.6	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.1	0.1	0.2	0.1	0.3	0.5	0.5	0.3	0.4	0.3	0.6
5-Oct	0.4	0.2	0.3	0.2	0.4	Z	0.8	0.8	0.8	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.2	0.2	0.4	0.8
6-Oct	Z	0.5	0.5	0.3	0.5	0.6	0.6	0.4	1.5	1.4	1.1	1.0	1.0	1.0	0.7	0.6	0.9	2.5	1.8	1.4	1.5	1.5	1.8	1.9	1.1	2.5
7-Oct	1.6	Z	3.1	2.9	3.0	3.4	4.3	2.8	3.6	3.4	2.7	1.7	1.4	1.1	0.9	1.0	1.0	1.7	2.3	2.9	2.0	2.0	1.8	1.8	2.3	4.3
8-Oct	1.8	1.6	Z	0.7	0.4	0.3	0.3	1.8	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.5	0.9	0.4	0.3	0.5	0.6	0.6	1.8
9-Oct	0.5	0.5	0.4	Z	1.2	0.7	0.6	0.7	0.7	0.6	0.5	0.3	0.2	0.2	0.2	0.2	0.3	0.4	1.0	0.8	0.7	0.7	0.7	0.7	0.6	1.2
10-Oct	1.0	0.7	1.7	2.2	Z	3.0	3.1	2.9	3.7	4.4	4.3	4.2	3.2	2.4	2.0	2.2	2.7	3.0	2.2	2.0	3.0	3.8	3.4	3.3	2.8	4.4
11-Oct	4.1	4.0	2.7	2.4	2.1	Z	3.1	2.2	3.4	2.7	3.7	3.1	4.4	2.6	0.7	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.5	1.9	4.4
12-Oct	Z	1.6	0.9	0.6	0.6	0.4	0.3	0.2	0.4	0.4	0.4	0.4	0.7	0.5	0.6	0.5	0.4	0.4	0.8	0.9	0.7	0.8	1.5	1.6	0.7	1.6
13-Oct	1.1	Z	1.5	0.9	0.7	0.6	0.7	2.5	0.7	0.4	0.2	0.3	0.2	0.2	0.4	0.3	0.4	0.7	0.9	0.6	0.8	3.0	2.8	2.5	1.0	3.0
14-Oct	2.1	1.5	Z	1.3	1.7	1.5	1.3	1.3	1.1	1.2	0.8	0.7	0.8	0.6	0.8	0.7	0.7	0.9	1.2	1.2	1.3	1.4	1.3	1.9	1.2	2.1
15-Oct	1.6	1.4	1.5	Z	2.6	2.7	3.3	5.8	4.7	3.6	3.0	2.9	2.8	1.9	1.6	2.0	2.8	3.7	4.0	4.6	3.9	3.5	3.0	2.4	3.0	5.8
16-Oct	2.2	1.9	1.8	1.6	Z	1.7	1.4	1.8	1.7	2.1	1.5	1.4	1.4	1.1	0.8	0.7	0.7	1.7	4.2	3.4	2.4	2.0	2.2	1.8	1.8	4.2
17-Oct	1.1	1.0	1.0	0.9	0.8	Z	0.8	0.7	0.5	0.4	0.5	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.4	0.4	0.5	0.3	0.5	0.5	0.5	1.1
18-Oct	Z	0.6	0.5	0.5	0.7	0.5	0.9	0.7	0.5	0.4	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.6	1.0	1.5	1.1	0.6	1.0	0.8	0.6	1.5
19-Oct	1.7	Z	1.6	1.3	1.8	1.4	1.1	0.9	0.4	0.4	0.4	0.4	1.0	0.7	0.6	1.1	0.9	1.1	0.7	0.6	0.5	0.3	0.4	0.4	0.9	1.8
20-Oct	0.3	0.2	Z	0.4	0.7	2.0	2.5	2.5	2.5	2.3	2.4	3.4	3.9	2.5	1.0	1.1	0.9	0.7	0.8	0.9	0.9	1.8	2.1	3.1	1.7	3.9
21-Oct	3.3	2.8	2.7	Z	2.2	1.4	1.4	1.8	1.4	0.8	0.5	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.9	1.7	3.0	1.3	1.4	1.8	1.3	3.3
22-Oct	1.6	1.4	1.5	3.3	Z	1.5	1.0	1.1	1.1	1.1	1.3	1.2	2.0	2.2	1.0	1.4	1.7	1.1	0.8	0.8	0.7	0.7	0.7	0.5	1.3	3.3
23-Oct	0.4	0.4	0.4	0.5	0.5	Z	1.2	3.4	1.5	1.7	1.2	C	C	C	C	C	2.3	1.2	1.2	1.9	1.7	2.7	3.3	5.6	1.7	5.6
24-Oct	Z	2.9	2.1	2.5	2.5	2.4	3.0	3.4	2.2	1.2	2.6	3.2	3.1	3.9	3.1	2.5	1.6	1.9	1.2	1.8	1.6	3.0	3.4	2.8	2.5	3.9
25-Oct	4.1	Z	1.3	1.2	1.7	1.9	1.6	1.3	1.6	1.9	1.6	1.3	0.5	0.4	0.7	0.5	0.4	0.6	0.8	0.6	0.6	0.7	1.0	1.0	1.2	4.1
26-Oct	0.5	0.7	Z	2.1	1.2	1.5	1.3	1.0	1.0	0.6	0.7	0.5	0.5	0.8	0.6	0.4	1.1	0.7	0.4	0.3	0.3	0.3	0.2	0.2	0.7	2.1
27-Oct	0.2	0.6	1.1	Z	0.5	0.9	0.8	1.1	1.6	1.5	1.4	1.5	0.8	0.3	0.3	0.1	0.2	0.2	0.1	0.1	0.2	0.3	0.2	0.2	0.6	1.6
28-Oct	0.2	0.2	0.2	0.1	Z	0.4	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.3	M	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.5	0.2	0.5
29-Oct	0.3	1.0	1.1	0.8	0.7	Z	0.7	0.6	0.6	0.8	1.4	0.5	0.5	0.7	0.5	0.5	0.5	0.4	0.4	0.5	0.6	0.9	0.9	1.3	0.7	1.4
30-Oct	Z	1.5	2.7	2.0	3.0	2.9	5.1	3.7	2.7	2.5	1.4	1.2	1.4	1.5	1.1	0.7	0.6	0.6	0.7	0.6	0.6	0.4	0.4	0.5	1.6	5.1
31-Oct	0.4	Z	1.0	1.5	1.4	1.8	2.1	2.3	1.7	2.0	1.6	2.0	2.1	1.8	1.8	1.2	0.9	1.1	0.9	1.4	1.1	1.9	2.3	1.8	1.6	2.3
	1.3	1.2	1.3	1.3	1.3	1.5	1.6	1.7	1.5	1.4	1.3	1.3	1.3	1.1	0.8	0.7	0.8	1.0	1.1	1.1	1.1	1.2	1.3	1.4	Diurnal Average	
	4.1	4.0	3.1	3.3	3.0	3.4	5.1	5.8	4.7	4.4	4.3	4.2	4.4	3.9	3.1	2.5	2.8	3.7	4.2	4.6	3.9	3.8	3.4	5.6	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

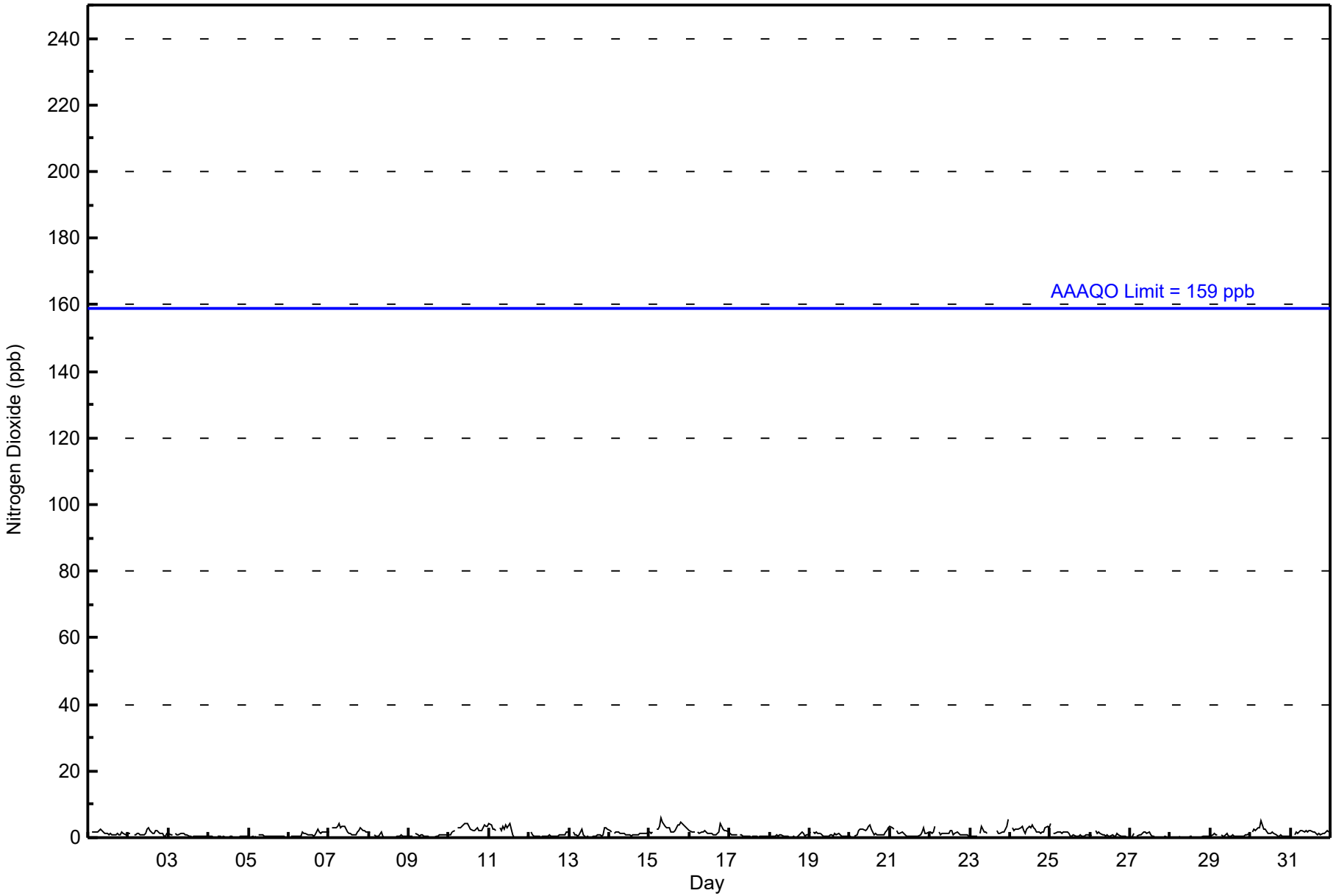
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Janvier - October 2025



Nitrogen Dioxide (NO_2) - ppb

Janvier - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Janvier - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	50	60	12	3	3	4	12	36	56	110	108	62	46	79	32	22	695
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	50	60	12	3	3	4	12	36	56	110	108	62	46	79	32	22	695

Total Number of Valid Hours: 695

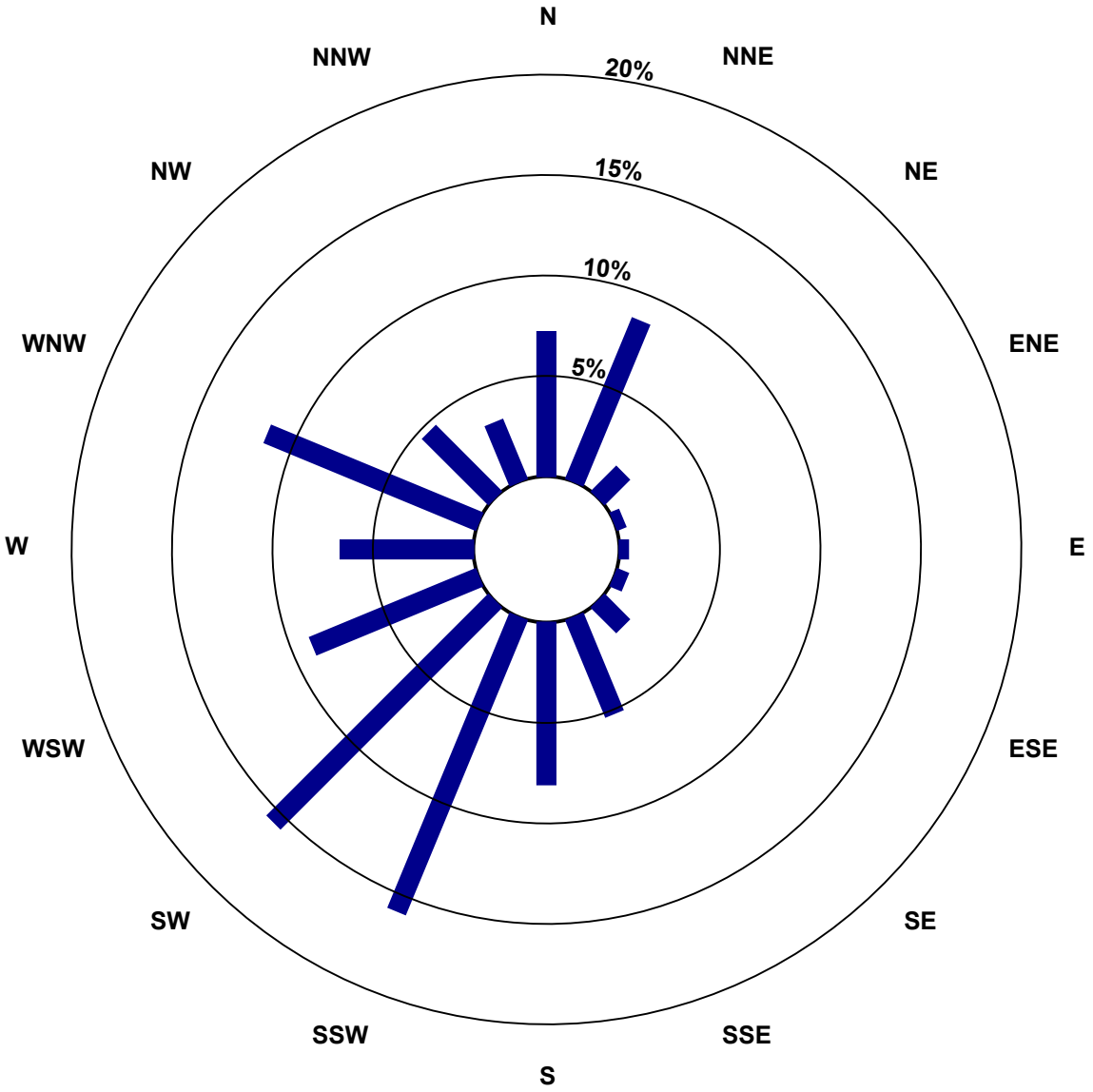
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Janvier



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

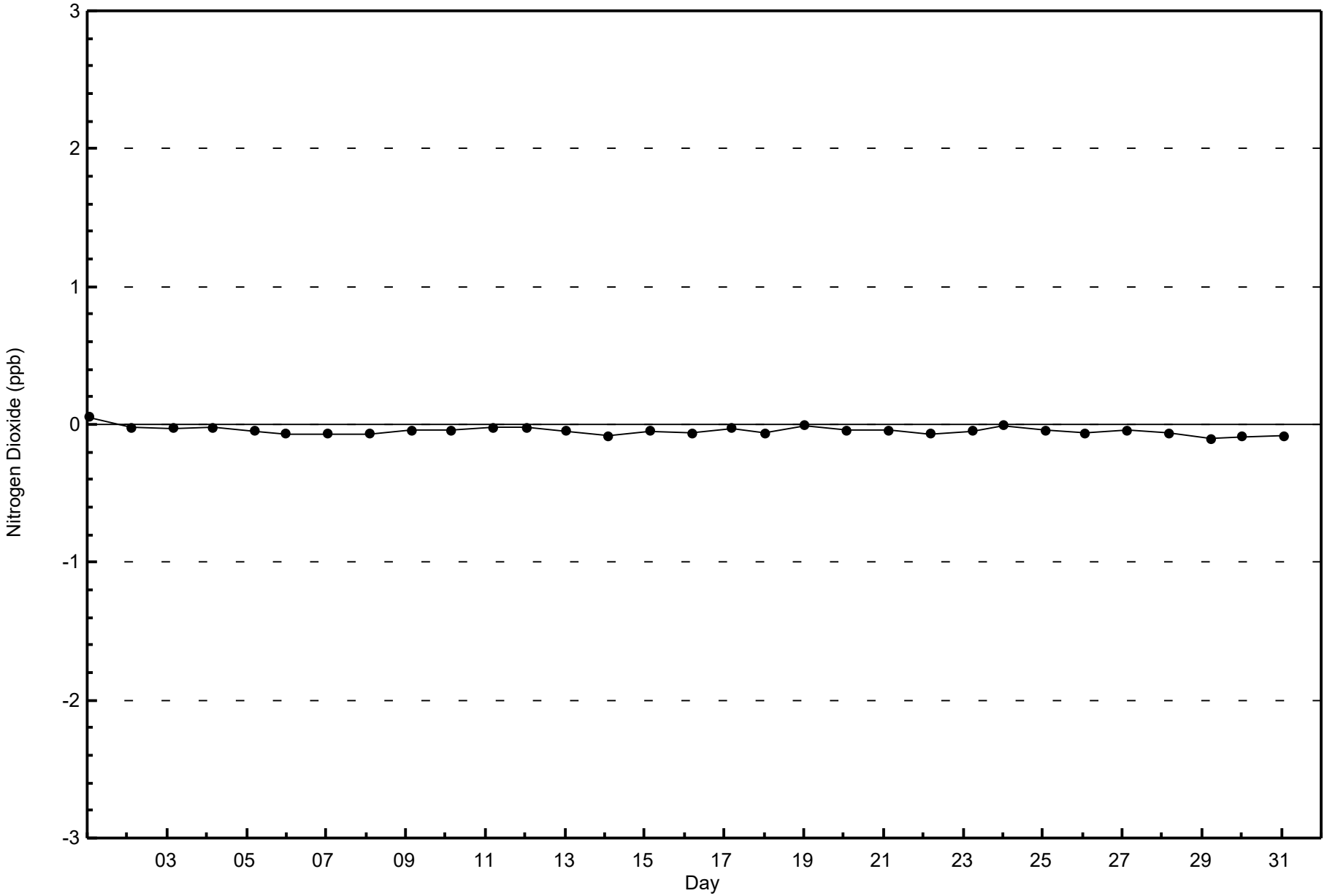
Total Number of Valid Hours: 695

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Janvier - October 2025

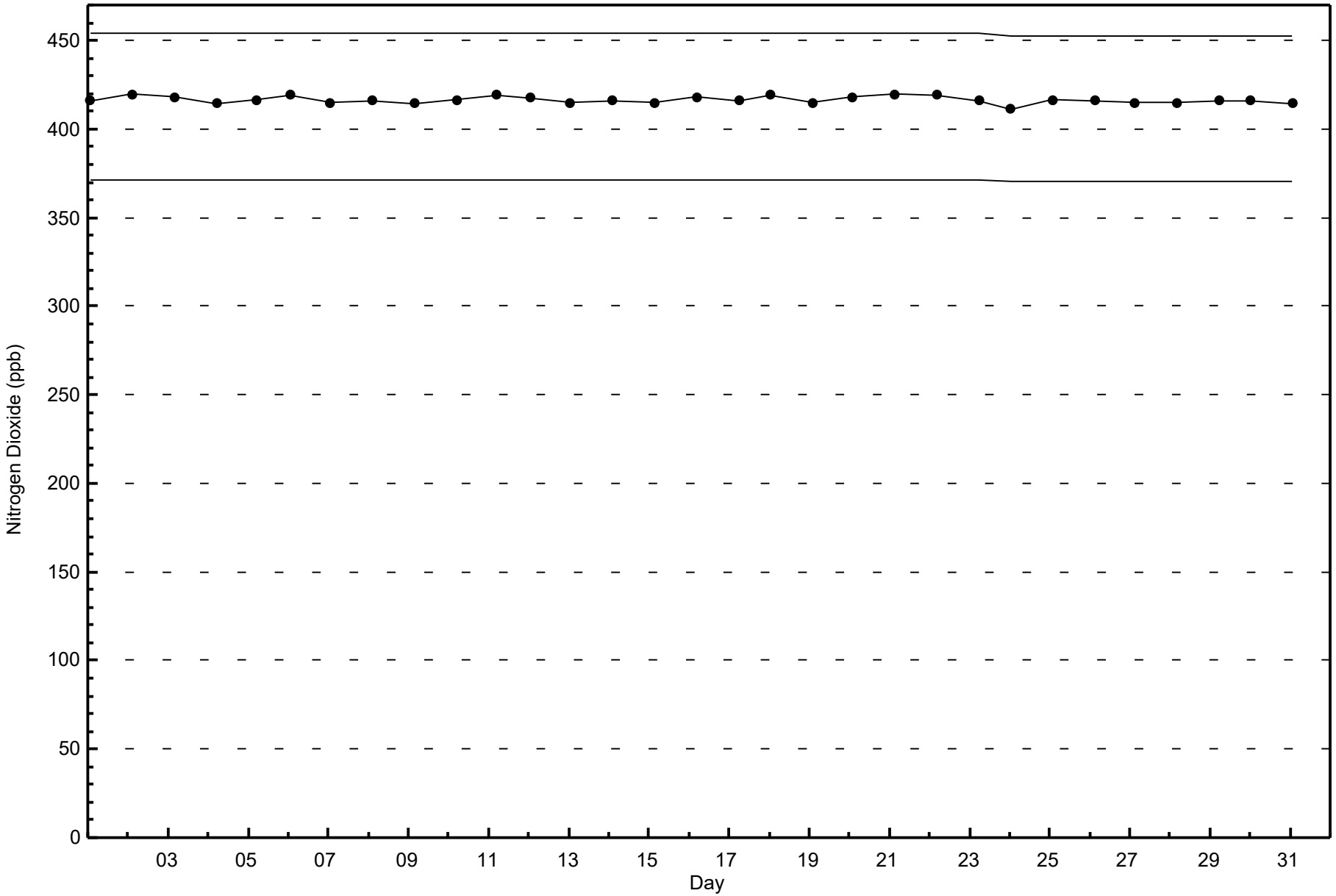


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Janvier - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Janvier - October 2025

Maximum Value: 9.1 ppb on Oct 15 08:00

Maximum Daily Average: 3.6 ppb on Oct 15

Minimum Value: 0.1 ppb on Oct 27 19:00

Minimum Daily Average: 0.3 ppb on Oct 28

Maximum Diurnal Average: 2.3 ppb at hour 8

Minimum Diurnal Average: 0.9 ppb at hour 16

Monthly Average: 1.50 ppb

Percentiles: P_1 = 0.2 P_{10} = 0.3 Q_1 = 0.5 Median = 1.1 Q_3 = 2.1 P_{90} = 3.4 P_{99} = 6.1

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.9	Z	1.5	1.5	1.5	2.0	2.4	2.6	2.2	2.1	1.6	1.3	1.1	1.3	1.0	0.8	0.9	1.2	0.8	0.8	1.6	2.3	1.1	1.3	1.5	2.6
2-Oct	1.8	1.3	Z	1.1	1.7	2.1	1.7	2.2	1.6	1.2	2.0	3.7	5.2	2.9	1.9	1.7	3.0	2.9	2.1	2.9	3.2	1.1	0.7	1.8	2.2	5.2
3-Oct	1.4	1.1	0.9	Z	1.6	1.7	1.4	1.6	1.7	1.5	1.3	0.8	0.5	0.3	0.2	0.3	0.3	0.3	0.5	0.4	0.4	0.4	0.4	0.4	0.8	1.7
4-Oct	0.5	0.8	0.3	0.2	Z	0.7	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.3	0.5	0.6	0.3	0.5	0.4	0.8
5-Oct	0.5	0.2	0.3	0.5	0.4	Z	0.8	1.6	1.2	0.5	0.5	0.4	0.5	0.4	0.4	0.5	0.3	0.4	0.3	0.4	0.3	0.3	0.2	0.2	0.5	1.6
6-Oct	Z	0.5	0.5	0.3	0.5	0.6	0.6	0.5	1.9	2.0	1.6	1.7	1.5	1.9	1.1	0.8	1.1	3.7	2.2	1.6	1.6	1.6	1.9	2.1	1.4	3.7
7-Oct	1.7	Z	3.2	2.9	3.0	3.5	4.6	3.9	5.2	4.9	3.5	2.3	1.8	1.5	1.2	1.3	1.1	2.0	2.7	3.2	2.1	2.2	1.8	2.0	2.7	5.2
8-Oct	1.9	1.8	Z	0.7	0.4	0.3	0.3	2.3	0.7	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.9	0.6	1.2	0.4	0.3	0.6	0.6	0.6	2.3
9-Oct	0.5	0.6	0.4	Z	1.3	0.7	0.8	1.5	1.0	0.8	0.7	0.5	0.3	0.3	0.3	0.3	0.4	0.4	1.1	0.8	0.7	0.8	0.8	0.7	0.7	1.5
10-Oct	1.2	0.7	1.9	2.2	Z	4.1	3.8	4.6	5.5	6.8	6.8	6.1	4.2	3.0	2.5	2.5	2.9	3.1	2.5	2.2	3.5	4.0	3.5	3.4	3.5	6.8
11-Oct	4.2	4.0	2.7	2.5	2.2	Z	3.8	2.4	4.7	3.2	4.6	3.5	4.6	2.8	0.8	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.5	2.1	4.7
12-Oct	Z	1.6	0.9	0.6	0.6	0.4	0.3	0.2	0.4	0.4	0.5	0.5	0.9	0.6	0.7	0.5	0.5	0.4	0.8	0.9	0.7	0.8	1.5	1.6	0.7	1.6
13-Oct	1.1	Z	1.5	1.2	0.7	0.6	0.7	3.8	0.8	0.4	0.2	0.4	0.3	0.2	0.6	0.3	0.5	0.9	1.3	0.9	1.0	3.1	2.8	2.5	1.1	3.8
14-Oct	2.1	1.5	Z	1.3	1.7	1.6	1.3	1.4	1.3	1.6	1.0	0.9	1.1	0.8	1.0	0.8	0.8	1.0	1.3	1.3	1.3	1.5	1.3	2.9	1.3	2.9
15-Oct	2.0	1.4	1.5	Z	2.7	2.8	3.6	9.1	6.7	5.7	4.5	3.9	3.5	2.3	1.8	2.2	3.0	3.9	4.2	5.6	4.2	3.7	3.1	2.5	3.6	9.1
16-Oct	2.2	1.9	1.9	1.8	Z	1.7	1.4	2.2	2.3	3.4	2.1	2.0	1.8	1.3	0.9	0.7	0.8	2.0	4.4	3.5	2.5	2.1	2.2	1.9	2.0	4.4
17-Oct	1.2	1.0	1.0	0.9	0.8	Z	0.8	0.7	0.5	0.5	0.5	0.3	0.3	0.2	0.3	0.4	0.4	0.2	0.7	0.4	0.5	0.4	0.5	0.5	0.6	1.2
18-Oct	Z	0.6	0.5	0.6	0.8	0.6	1.0	0.8	0.6	0.5	0.4	0.4	0.3	0.2	0.4	0.3	0.2	0.8	1.3	2.2	1.7	0.9	2.0	0.9	0.8	2.2
19-Oct	2.5	Z	1.9	1.3	2.1	1.5	1.1	1.0	0.5	0.6	0.5	0.5	1.1	0.9	0.6	1.3	1.2	1.1	0.7	0.6	0.5	0.3	0.5	0.4	1.0	2.5
20-Oct	0.3	0.2	Z	0.4	0.7	2.0	2.5	3.5	3.3	2.9	3.0	4.3	5.1	3.1	1.2	1.6	1.0	0.8	0.9	1.0	1.0	1.9	2.2	3.1	2.0	5.1
21-Oct	3.4	2.9	2.8	Z	2.2	1.5	1.5	2.0	1.7	1.0	0.7	0.6	0.4	0.3	0.3	0.5	0.5	0.5	0.9	2.2	3.8	1.4	1.5	1.8	1.5	3.8
22-Oct	1.6	1.4	1.7	4.6	Z	1.6	1.5	1.5	2.1	3.1	2.8	2.2	3.3	3.2	1.3	2.1	2.3	1.3	0.9	0.9	0.8	0.7	0.8	0.5	1.8	4.6
23-Oct	0.4	0.5	0.4	0.5	0.6	Z	1.8	5.2	2.4	3.4	1.7	C	C	C	C	C	2.5	1.3	1.3	2.0	1.7	2.7	3.3	6.1	2.1	6.1
24-Oct	Z	3.1	2.2	2.6	2.6	2.6	4.4	5.5	5.2	2.8	4.2	4.3	3.8	5.3	3.8	2.9	2.3	2.7	1.2	2.0	1.7	4.8	3.9	2.9	3.3	5.5
25-Oct	6.0	Z	1.4	1.4	1.9	2.7	2.0	1.4	2.0	2.2	1.9	1.5	0.6	0.4	0.8	0.6	0.5	0.6	0.9	0.7	0.6	0.8	1.1	1.0	1.4	6.0
26-Oct	0.7	0.8	Z	3.6	1.2	1.7	1.3	1.2	1.1	0.7	0.9	0.6	0.6	0.9	0.6	0.5	1.1	0.8	0.4	0.3	0.3	0.3	0.2	0.2	0.9	3.6
27-Oct	0.2	0.6	1.1	Z	0.5	1.0	0.8	1.3	1.7	1.6	1.6	1.6	1.0	0.4	0.4	0.2	0.2	0.2	0.1	0.2	0.3	0.4	0.3	0.2	0.7	1.7
28-Oct	0.2	0.2	0.2	0.2	Z	0.4	0.2	0.2	0.4	0.1	0.2	0.2	0.4	0.4	M	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.3	0.6	0.3	0.6
29-Oct	0.4	1.1	1.1	0.8	0.7	Z	0.7	0.6	0.7	0.9	1.6	0.5	0.5	0.8	0.6	0.5	0.5	0.4	0.6	0.5	0.6	1.0	0.9	1.4	0.8	1.6
30-Oct	Z	1.6	3.5	2.0	3.2	4.2	6.5	4.0	6.6	5.6	2.2	1.7	1.9	1.9	1.3	0.9	0.8	0.7	0.9	0.6	0.6	0.5	0.4	0.6	2.3	6.6
31-Oct	0.4	Z	1.0	1.5	1.4	2.0	2.2	2.4	2.2	2.5	2.5	3.2	3.3	2.8	2.3	1.5	1.0	1.2	1.0	1.7	1.2	2.1	2.4	1.9	1.9	3.3
	1.5	1.3	1.4	1.4	1.4	1.7	1.8	2.3	2.2	2.0	1.8	1.7	1.7	1.4	1.0	0.9	1.0	1.2	1.2	1.3	1.3	1.4	1.4	1.5	Diurnal Average	
	6.0	4.0	3.5	4.6	3.2	4.2	6.5	9.1	6.7	6.8	6.8	6.1	5.2	5.3	3.8	2.9	3.0	3.9	4.4	5.6	4.2	4.8	3.9	6.1	Diurnal Maximum	

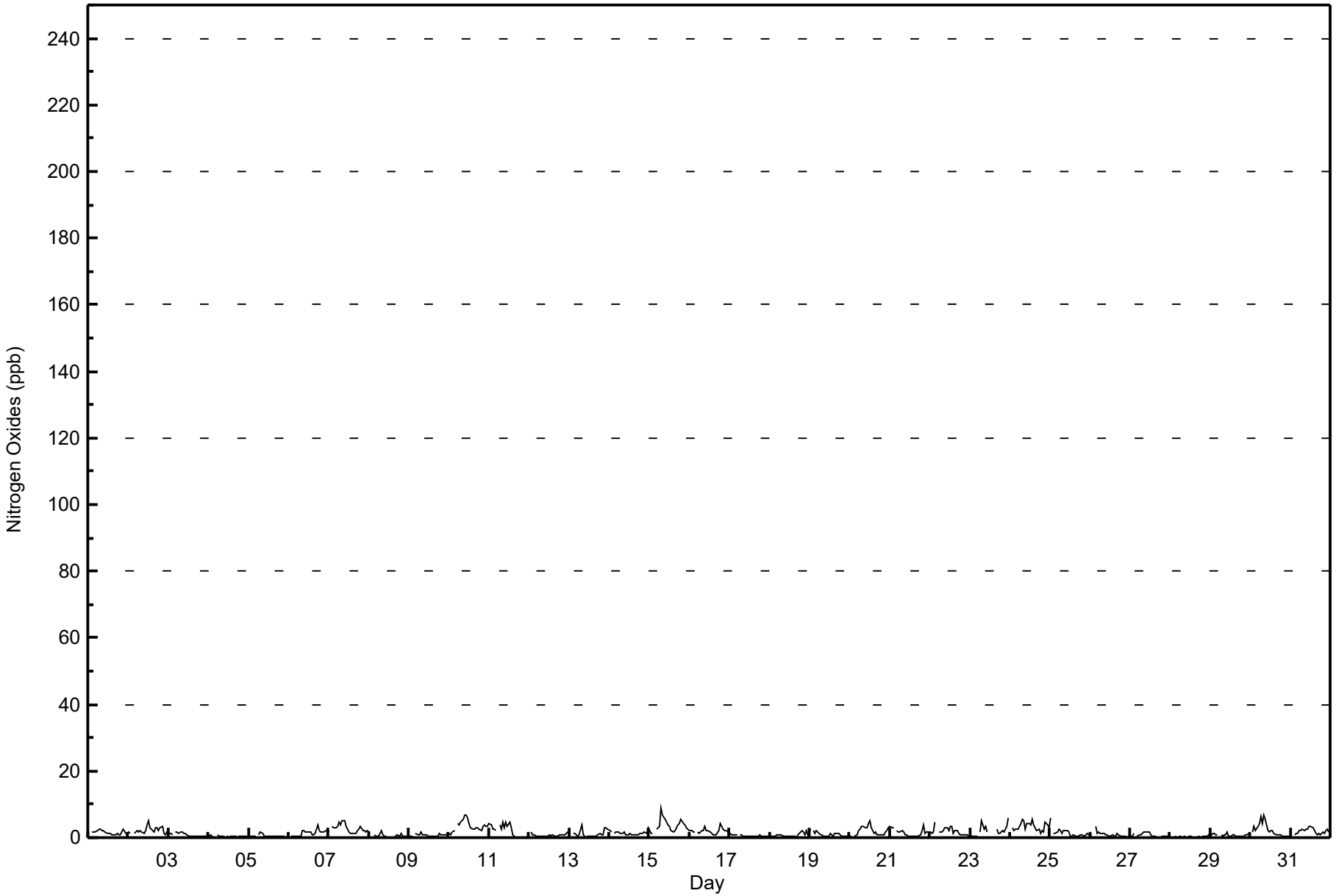
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Janvier - October 2025



Nitrogen Oxides (NO_X) - ppb

Janvier - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Janvier - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	50	60	12	3	3	4	12	36	56	110	108	62	46	79	32	22	695
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	50	60	12	3	3	4	12	36	56	110	108	62	46	79	32	22	695

Total Number of Valid Hours: 695

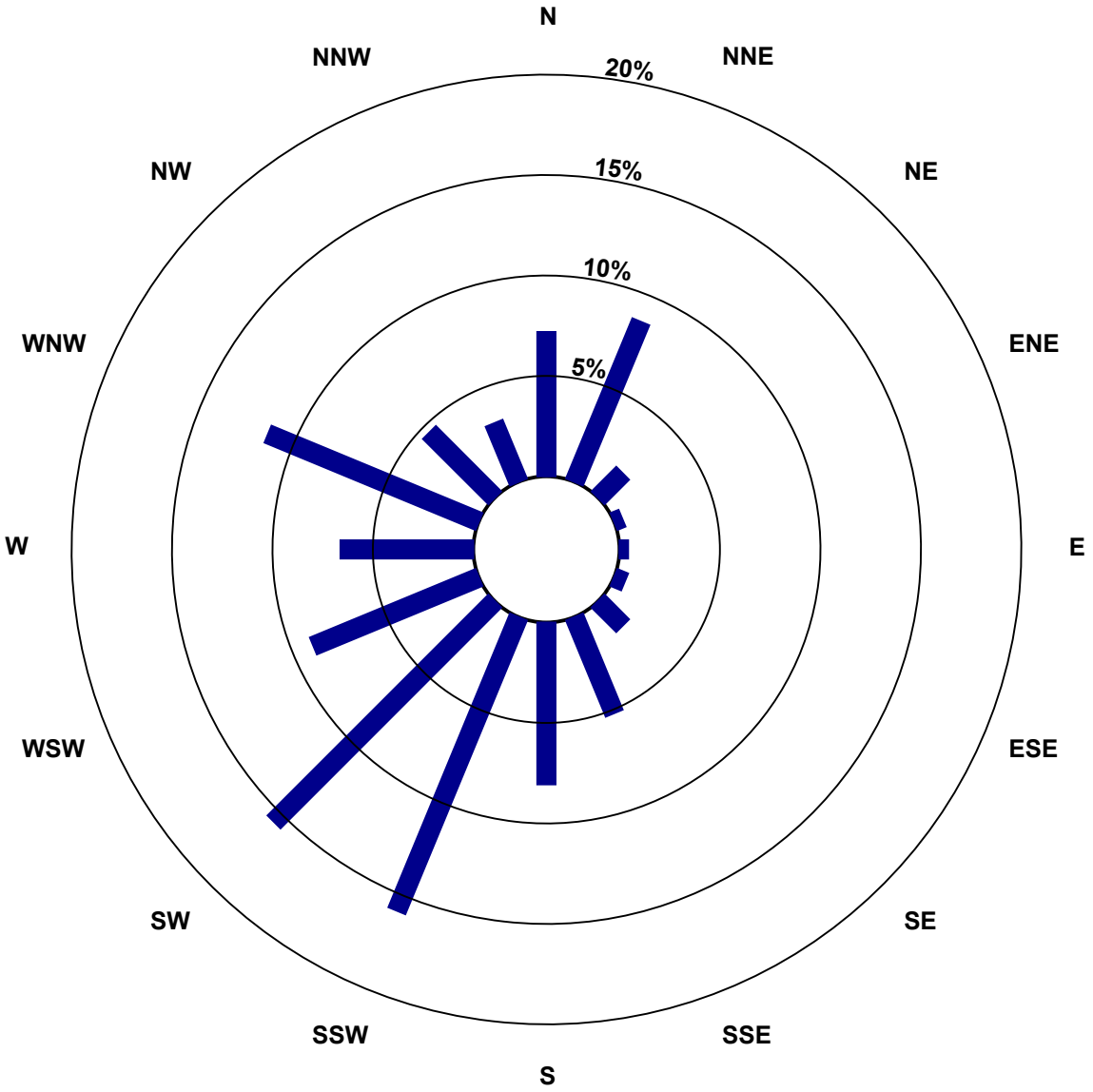
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Janvier



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

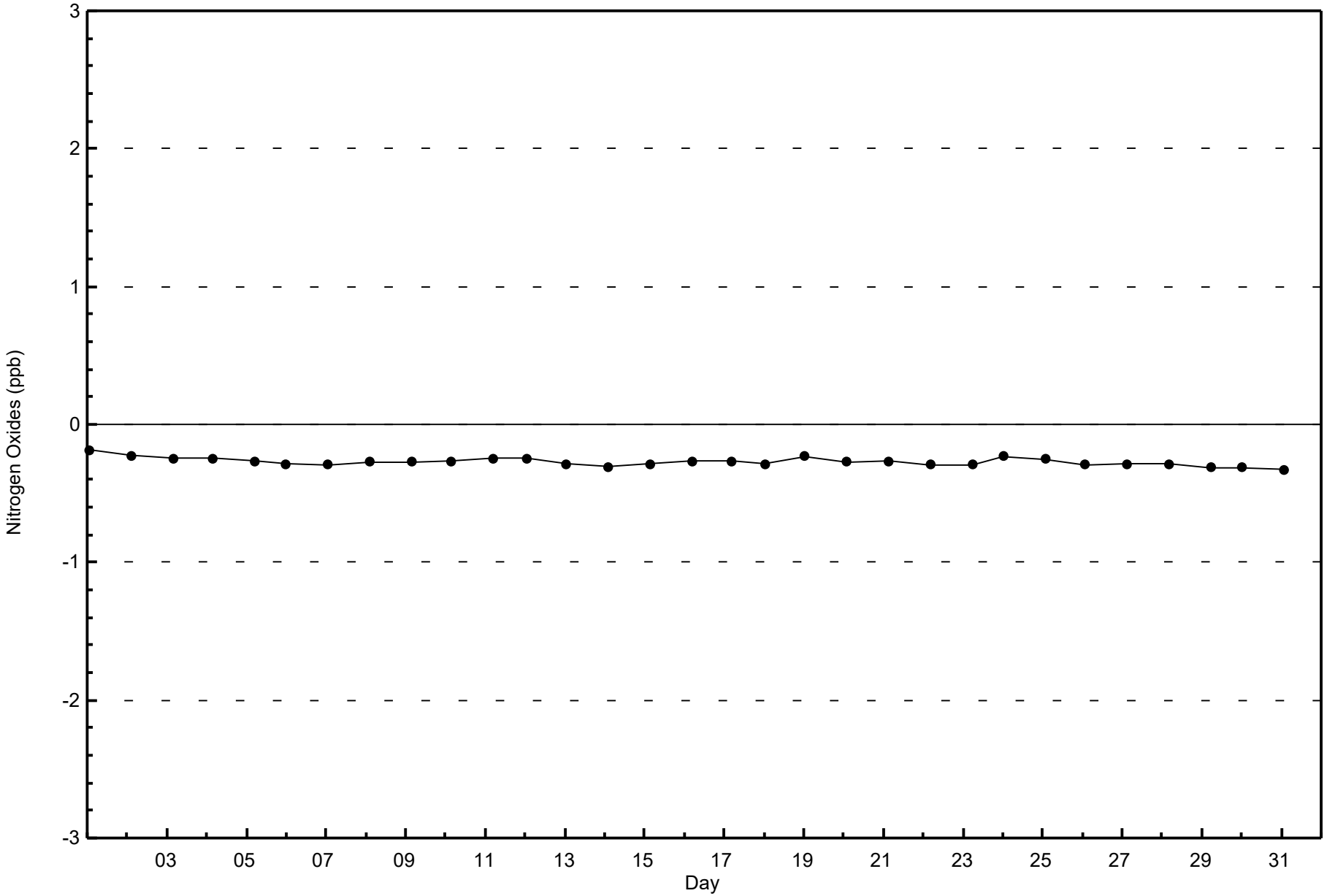
Total Number of Valid Hours: 695

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Janvier - October 2025

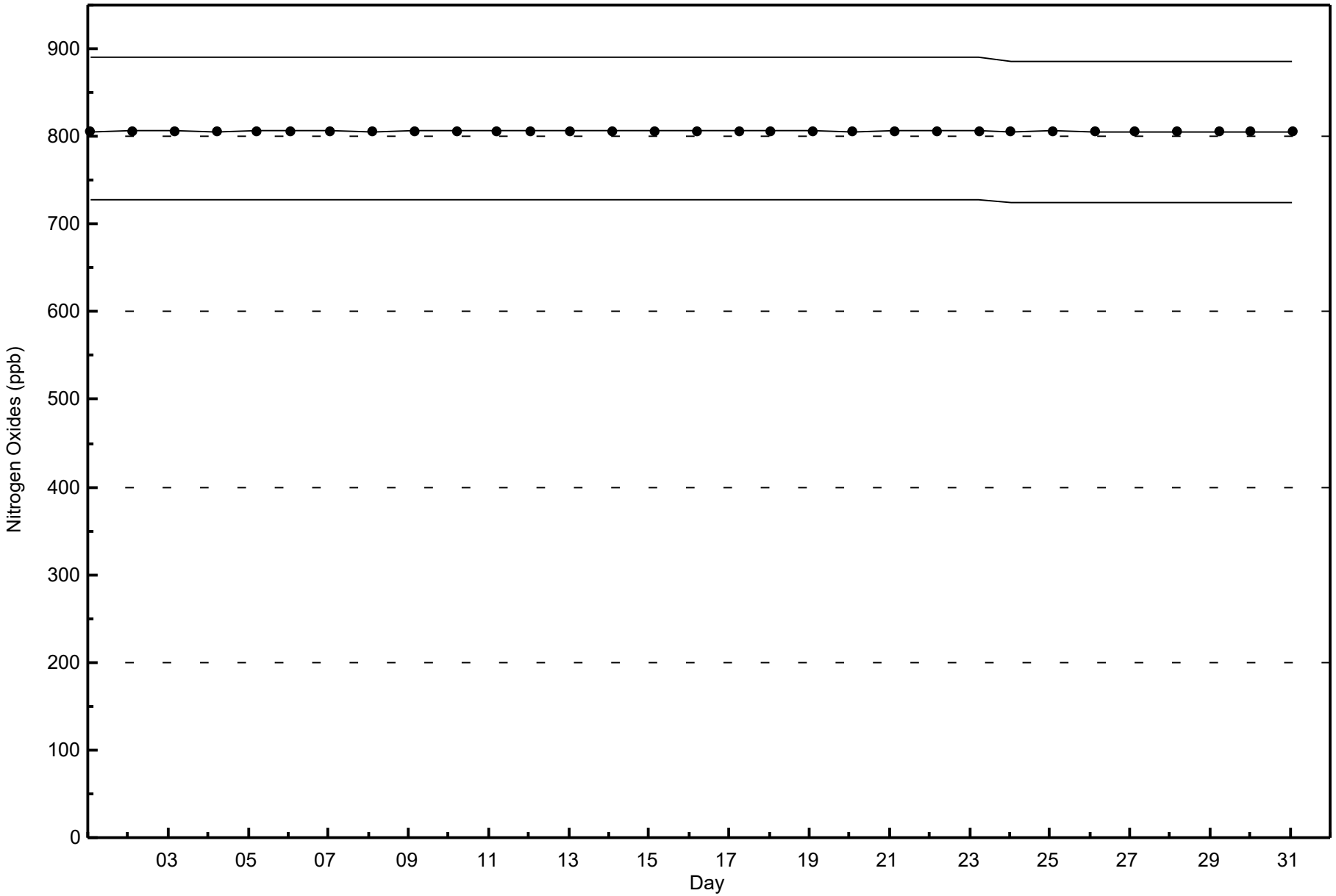


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Janvier - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Ozone (O_3) - ppb

Janvier - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 42.9 ppb on Oct 10 16:00

Maximum Daily Average: 29.8 ppb on Oct 17

Minimum Value: 2.9 ppb on Oct 22 08:00

Minimum Daily Average: 11.5 ppb on Oct 2

Maximum Diurnal Average: 27.8 ppb at hour 16

Minimum Diurnal Average: 15.7 ppb at hour 8

Monthly Average: 21.35 ppb

Percentiles: P_1 = 4.2 P_{10} = 11.0 Q_1 = 15.9 Median = 22.1 Q_3 = 26.8 P_{90} = 30.7 P_{99} = 37.7

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	34
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	12.9	14.4	13.9	13.4	11.3	Z	10.0	7.9	9.4	11.0	11.6	17.2	23.0	21.9	22.3	23.4	27.2	23.4	20.3	18.4	14.8	8.0	7.1	6.3	15.2	27.2
2-Oct	Z	6.2	5.9	5.6	4.2	4.4	6.9	7.3	9.7	11.2	13.7	16.4	17.7	20.8	21.1	24.9	23.6	18.2	14.0	11.6	4.7	3.1	4.2	8.4	11.5	24.9
3-Oct	6.2	Z	6.3	10.4	7.0	6.9	8.6	15.6	18.4	21.3	25.4	29.7	32.5	35.1	37.0	34.5	37.0	35.8	33.3	33.2	31.9	28.2	25.1	22.4	23.6	37.0
4-Oct	19.8	18.4	Z	19.5	18.6	18.3	19.7	19.4	19.2	19.9	21.6	23.9	24.7	24.7	23.7	24.1	25.6	20.6	16.1	17.9	12.5	9.7	12.6	14.3	19.4	25.6
5-Oct	15.0	15.3	15.3	Z	15.0	12.9	11.2	11.7	11.9	12.8	13.8	14.2	16.9	22.7	26.9	28.1	30.9	29.4	28.6	28.3	27.8	27.5	27.1	25.5	20.4	30.9
6-Oct	23.1	19.5	17.3	25.4	Z	24.8	27.2	26.8	26.2	26.6	26.9	27.6	27.8	28.0	29.0	30.2	30.2	26.7	25.2	25.0	19.9	17.9	22.9	14.6	24.7	30.2
7-Oct	20.3	21.8	22.3	24.4	24.5	Z	20.2	17.0	15.4	20.2	22.2	24.2	25.6	26.8	27.5	29.3	30.0	29.1	26.3	25.4	27.0	26.8	23.8	21.6	24.0	30.0
8-Oct	Z	17.1	23.7	29.1	31.6	34.1	36.0	31.2	26.1	25.3	28.1	30.4	30.5	31.7	32.1	31.2	30.8	29.9	29.3	26.0	27.4	28.0	27.0	24.3	28.7	36.0
9-Oct	23.6	Z	20.3	16.5	14.8	12.6	14.1	15.5	18.0	19.4	22.3	28.1	32.6	36.5	37.5	36.0	33.9	31.1	29.9	29.4	28.4	28.4	28.1	28.0	25.4	37.5
10-Oct	22.1	17.3	Z	22.3	20.3	12.4	13.2	11.6	15.9	17.8	19.9	25.7	35.5	40.0	42.5	42.9	40.5	37.6	36.7	35.5	33.6	31.8	30.9	30.7	27.7	42.9
11-Oct	28.2	24.3	15.9	Z	13.6	11.4	9.1	10.0	15.0	15.5	19.5	19.4	18.5	17.8	16.1	13.9	15.2	15.4	14.9	16.0	17.1	17.2	18.5	19.5	16.6	28.2
12-Oct	20.4	21.1	21.3	21.0	Z	22.2	22.1	22.2	21.8	23.6	25.1	24.7	23.5	24.6	26.1	25.8	28.6	28.3	26.4	24.8	23.2	23.2	22.8	20.8	23.6	28.6
13-Oct	23.5	23.0	19.7	20.0	23.2	Z	20.8	16.9	19.4	22.6	30.7	30.4	29.7	30.5	30.8	31.8	31.8	29.8	26.8	26.4	26.3	24.1	23.8	24.1	25.5	31.8
14-Oct	Z	24.9	24.9	24.9	23.8	23.4	23.5	23.7	24.2	24.6	26.1	26.5	27.1	27.3	27.5	27.7	27.3	26.1	24.5	23.1	21.9	20.0	19.9	18.8	24.4	27.7
15-Oct	18.0	Z	17.4	16.1	14.5	11.8	10.6	9.8	11.9	14.5	20.0	23.3	24.6	29.1	29.6	27.5	24.2	22.1	20.1	17.9	17.8	17.8	18.7	19.2	19.0	29.6
16-Oct	19.7	19.6	Z	22.0	22.7	22.9	21.9	20.7	20.9	22.0	24.4	25.0	30.7	37.2	39.2	40.6	39.6	37.1	34.1	34.1	34.0	33.6	32.2	30.7	28.9	40.6
17-Oct	32.9	32.8	32.2	Z	32.1	32.2	32.5	31.7	30.6	29.0	26.4	27.7	C	C	C	29.2	29.4	29.5	28.9	28.7	28.3	28.4	27.5	26.5	29.8	32.9
18-Oct	26.2	25.3	24.4	25.2	Z	24.5	23.9	23.9	24.0	26.1	28.6	30.4	32.5	33.4	34.5	35.5	35.1	32.1	30.3	22.0	26.9	22.7	18.4	16.4	27.1	35.5
19-Oct	14.8	12.4	13.9	7.5	6.7	Z	6.6	9.4	10.9	11.1	13.7	16.2	17.4	18.7	22.3	22.1	20.8	16.9	11.1	11.9	11.7	14.9	13.3	12.4	13.8	22.3
20-Oct	Z	11.1	11.9	12.1	11.5	10.6	9.2	7.5	8.0	11.2	15.6	14.8	15.3	16.0	20.3	20.1	20.3	20.5	20.0	18.0	18.2	16.8	16.7	14.8	14.8	20.5
21-Oct	14.1	Z	15.6	15.2	15.6	16.6	17.4	17.5	19.6	22.9	24.4	26.8	28.6	29.9	30.4	30.4	29.1	27.9	24.1	21.5	17.7	15.3	17.2	16.9	21.5	30.4
22-Oct	15.3	14.6	Z	8.2	6.8	5.9	4.3	2.9	4.0	5.5	11.6	16.2	20.6	27.1	31.4	31.8	31.1	29.1	28.2	28.4	27.6	27.1	26.8	26.9	18.8	31.8
23-Oct	27.3	27.3	27.9	Z	26.3	21.9	19.7	13.8	12.3	12.8	24.8	26.1	27.2	29.3	31.0	31.5	29.8	28.6	27.3	24.5	23.9	21.9	20.5	15.8	24.0	31.5
24-Oct	17.9	12.9	6.6	8.9	Z	6.0	5.5	3.7	3.8	3.6	11.9	20.2	22.1	23.2	25.6	26.2	25.0	21.8	22.2	21.8	21.5	16.3	10.8	11.2	15.2	26.2
25-Oct	7.5	9.8	9.5	8.4	6.5	Z	5.9	10.1	13.1	15.4	20.5	21.0	33.6	37.7	27.2	28.8	30.8	31.0	31.6	30.0	30.1	30.0	29.1	26.5	21.5	37.7
26-Oct	Z	15.2	16.3	8.7	7.8	6.0	10.4	11.4	11.1	13.6	14.7	17.0	19.3	17.8	20.9	24.1	21.2	21.2	25.4	27.6	25.2	23.5	23.3	22.9	17.6	27.6
27-Oct	23.2	Z	22.0	22.6	22.3	19.7	22.0	22.6	20.3	18.9	19.0	18.6	18.4	17.7	17.8	17.6	17.6	17.8	18.3	18.7	18.5	20.4	21.4	22.1	19.9	23.2
28-Oct	22.5	20.0	Z	22.3	23.4	24.0	25.2	25.5	22.5	24.0	24.6	24.6	24.9	25.7	M	26.4	25.0	24.7	26.3	24.4	22.7	21.9	24.1	22.6	24.0	26.4
29-Oct	20.9	19.9	20.4	Z	15.5	12.7	13.0	13.5	15.1	15.4	15.8	16.4	17.0	16.7	16.1	15.3	15.9	16.2	15.4	15.9	16.8	14.8	13.9	13.4	15.9	20.9
30-Oct	11.7	11.8	9.0	9.1	Z	6.2	8.5	7.6	7.2	9.6	15.8	18.5	18.6	18.4	26.6	26.4	27.6	27.6	26.1	25.5	26.9	25.0	23.9	23.0	17.8	27.6
31-Oct	23.4	23.9	22.4	20.7	21.3	Z	18.8	17.9	20.3	20.7	22.5	22.7	22.5	22.5	22.6	23.6	24.2	24.9	26.1	25.5	25.9	25.9	26.0	25.5	23.0	26.1
	19.6	18.5	17.5	16.9	16.9	16.2	16.1	15.7	16.3	17.7	20.7	22.7	24.6	26.3	27.4	27.8	27.7	26.1	24.8	23.8	22.9	21.6	21.2	20.2	Diurnal Average	
	32.9	32.8	32.2	29.1	32.1	34.1	36.0	31.7	30.6	29.0	30.7	30.4	35.5	40.0	42.5	42.9	40.5	37.6	36.7	35.5	34.0	33.6	32.2	30.7	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

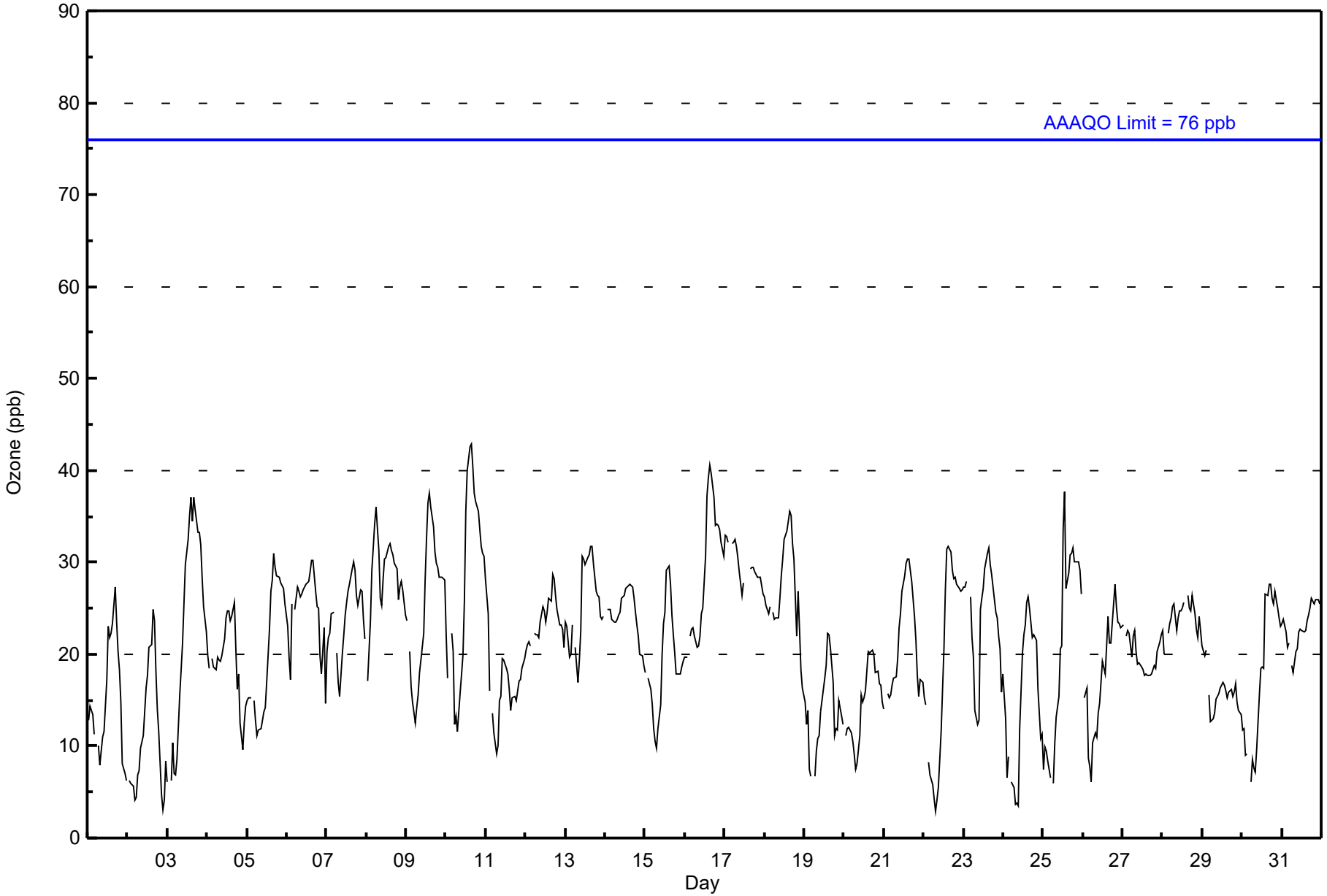
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 76 ppb

Wood Buffalo Environmental Association

Hourly Averages

Ozone (O_3) - ppb

Janvier - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	307	43.30	43.30
21 - 50	402	56.70	100.00
51 - 82	0	0.00	100.00
> 83	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Ozone (O_3) - ppb

Janvier - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	20	48	9	1	1	4	0	10	18	48	47	18	11	23	25	15	298
21 - 50	28	14	3	2	1	0	12	28	40	62	62	44	32	54	9	7	398
51 - 82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	48	62	12	3	2	4	12	38	58	110	109	62	43	77	34	22	696

Total Number of Valid Hours: 696

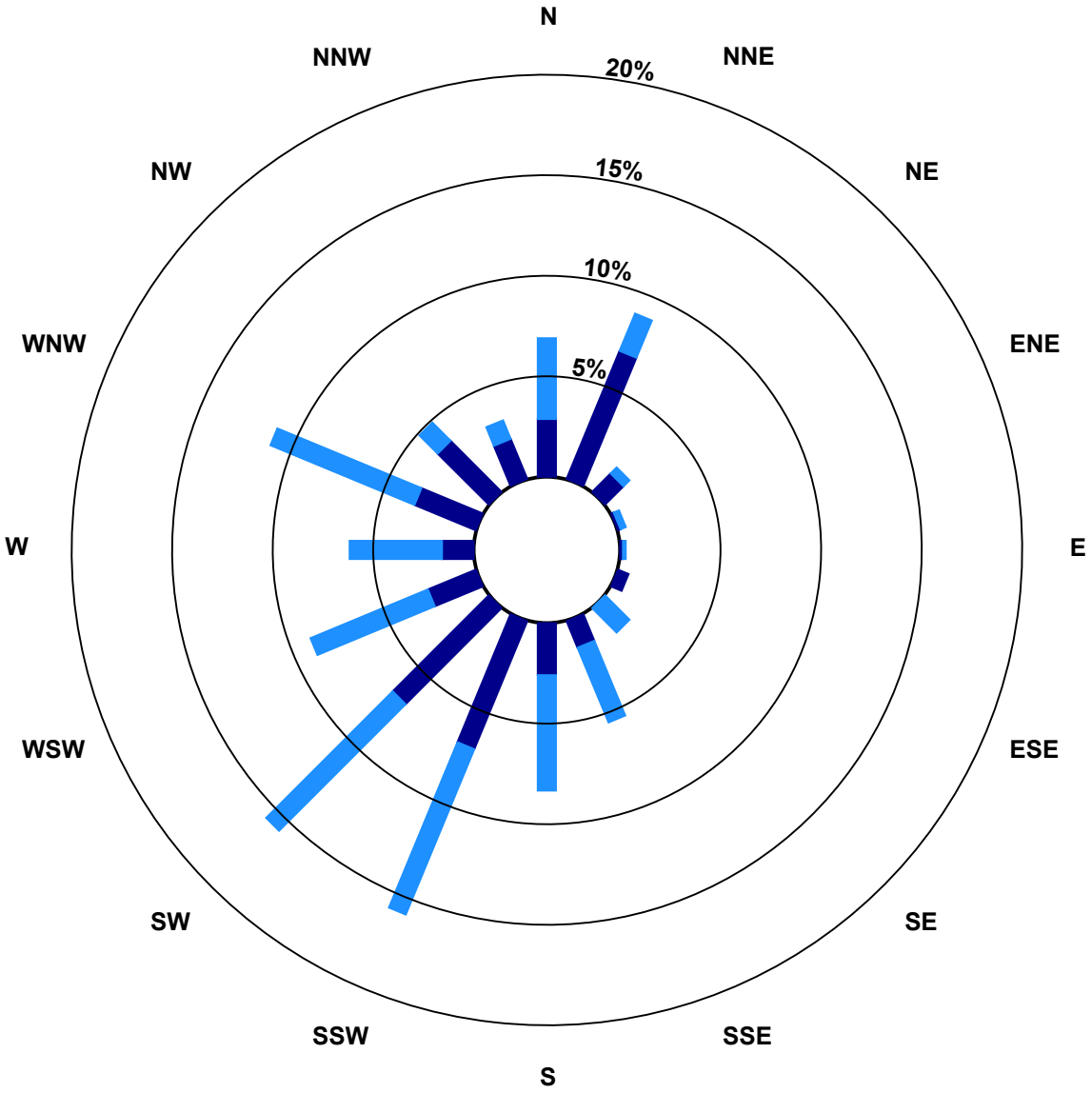
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Ozone (O_3) - ppb

Janvier



Classes (ppb)

0 - 20

21 - 50

51 - 82

> 83

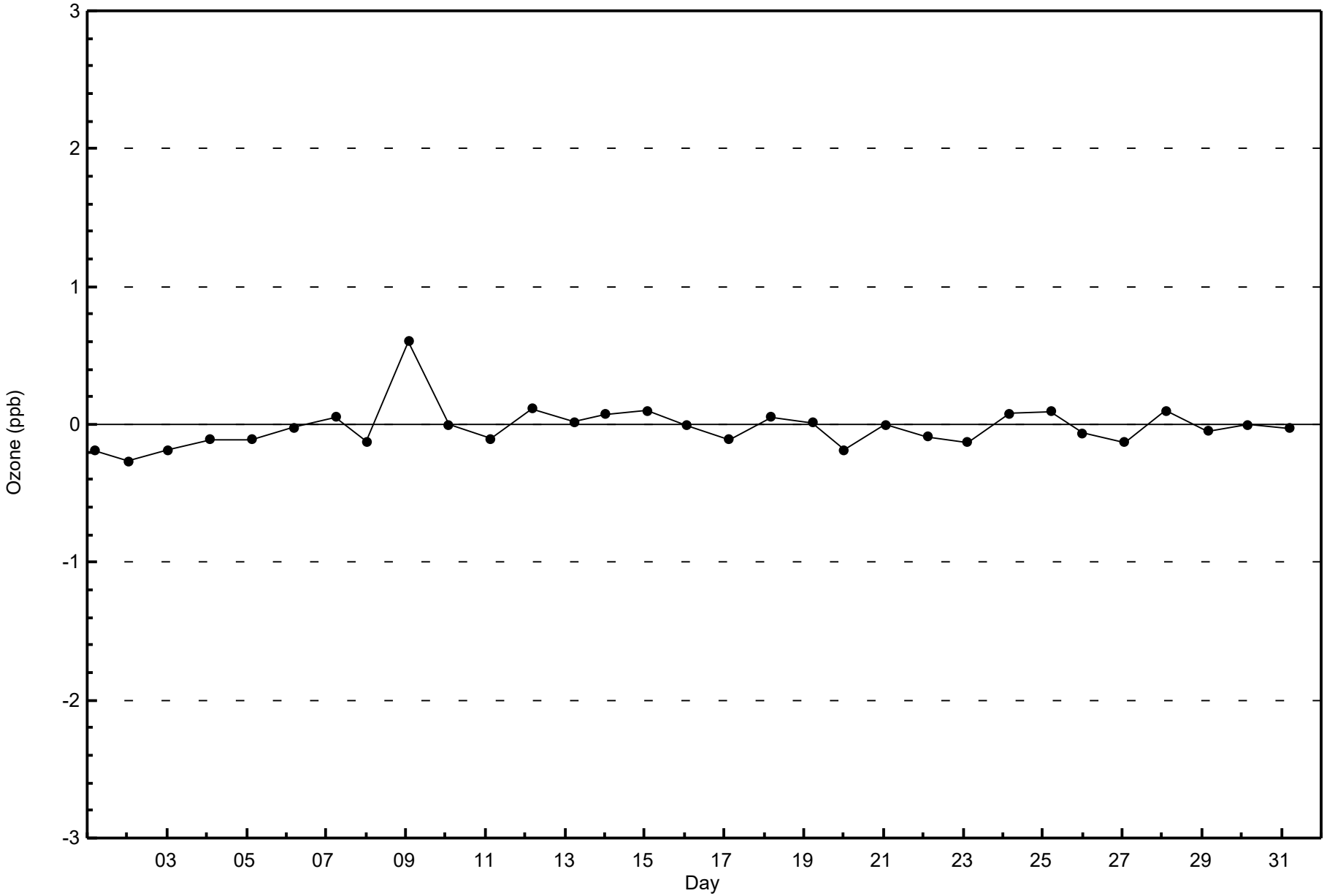
Total Number of Valid Hours: 696

Wood Buffalo Environmental Association

Zero Responses

Ozone (O_3) - ppb

Janvier - October 2025

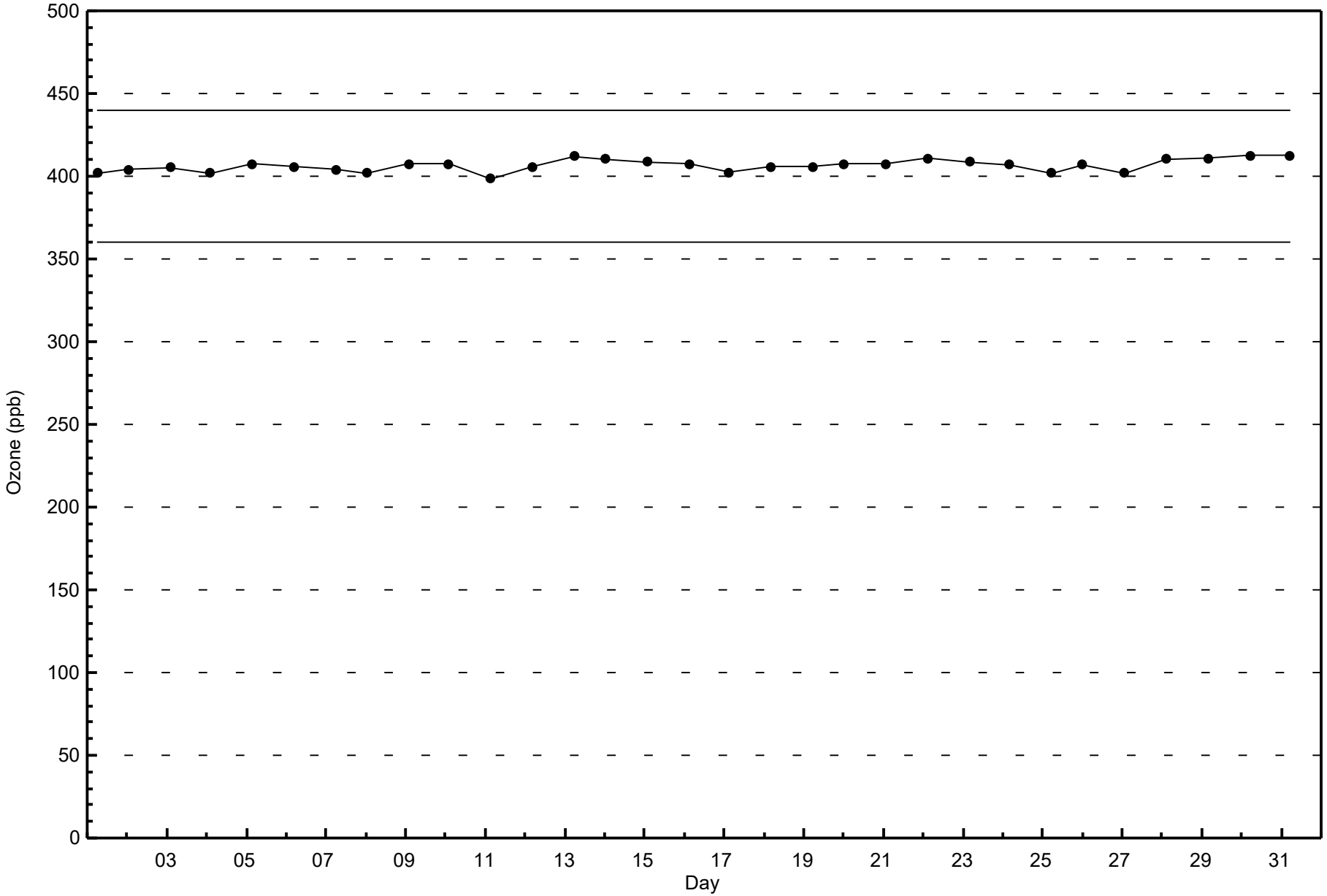


Wood Buffalo Environmental Association

Span Responses

Ozone (O_3) - ppb

Janvier - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Janvier - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 18.9 $\mu g/m^3$ on Oct 1 04:00 Maximum Daily Average: 8.6 $\mu g/m^3$ on Oct 1

Minimum Value: 0.1 $\mu g/m^3$ on Oct 27 19:00 Minimum Daily Average: 0.4 $\mu g/m^3$ on Oct 27

Maximum Diurnal Average: 3.7 $\mu g/m^3$ at hour 8 Minimum Diurnal Average: 2.3 $\mu g/m^3$ at hour 16

Monthly Average: 3.00 $\mu g/m^3$ Percentiles: P_1 = 0.1 P_{10} = 0.6 Q_1 = 1.4 Median = 2.8 Q_3 = 3.8 P_{90} = 5.3 P_{99} = 15.1

Hours in Service:	744
Hours of Data:	723
Hours of Missing Data:	21
Hours of Calibration:	2
Percent Operational Time:	97.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	13.1	16.0	17.9	18.9	17.4	15.2	15.3	15.7	14.8	7.0	3.5	3.3	4.2	3.7	3.6	3.8	3.3	3.7	3.8	3.8	4.2	4.6	5.0	5.3	8.6	18.9
2-Oct	5.1	4.6	3.8	3.6	3.5	3.4	3.4	3.6	3.4	4.2	5.1	5.8	5.3	4.8	5.3	5.3	5.3	10.1	5.4	5.3	5.5	5.4	5.4	5.6	4.9	10.1
3-Oct	5.5	5.7	6.1	7.3	7.3	8.1	8.7	9.8	10.5	11.5	9.3	6.4	3.9	2.5	1.2	1.7	0.8	0.6	0.7	0.7	0.9	0.8	0.6	0.7	4.6	11.5
4-Oct	0.7	0.9	0.9	1.3	3.4	4.1	4.8	5.3	5.3	4.8	4.1	4.0	4.2	3.4	3.3	2.8	1.6	1.1	0.7	0.2	0.2	0.3	0.6	1.2	2.5	5.3
5-Oct	1.3	0.9	0.9	1.0	1.4	1.8	2.2	2.5	3.2	3.5	3.4	2.7	2.4	1.6	1.0	1.1	1.4	4.1	3.9	2.6	2.1	1.9	1.8	1.9	2.1	4.1
6-Oct	2.4	2.5	2.6	1.4	1.1	1.4	1.0	0.6	0.6	0.6	0.6	0.4	0.5	0.6	0.5	0.8	1.5	1.1	1.0	0.8	2.1	2.7	1.7	2.2	1.3	2.7
7-Oct	2.4	2.9	3.4	3.2	3.3	3.4	3.8	3.9	4.1	4.1	3.7	3.2	2.9	2.8	2.3	2.3	2.4	3.0	4.0	4.4	4.3	4.7	5.5	5.3	3.6	5.5
8-Oct	5.8	10.1	5.0	3.9	4.5	3.4	2.7	4.0	4.1	4.3	3.4	2.0	2.5	3.1	2.3	1.7	1.3	1.8	1.4	2.6	1.5	1.1	1.0	1.1	3.1	10.1
9-Oct	1.2	1.4	1.6	1.7	1.7	1.7	2.1	3.4	2.8	1.8	1.2	1.9	1.1	1.3	1.1	0.9	1.1	1.0	1.1	1.4	1.4	1.9	2.3	2.6	1.6	3.4
10-Oct	2.6	2.7	2.9	3.4	3.6	3.6	3.8	3.9	4.5	4.9	4.8	4.9	5.2	4.9	4.2	3.9	4.2	4.6	8.5	5.0	5.3	5.2	5.1	5.1	4.4	8.5
11-Oct	5.2	5.2	6.2	5.9	5.2	5.4	5.5	4.9	5.4	5.3	5.1	5.1	5.2	2.7	1.2	0.5	0.6	0.5	0.7	0.7	0.5	0.9	0.3	0.4	3.3	6.2
12-Oct	0.3	0.4	0.4	0.4	0.5	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.3	0.5	0.7	1.1	1.2	0.9	0.6	0.4	0.5	0.5	0.6	0.5	1.2
13-Oct	0.5	0.6	1.0	0.9	0.7	0.6	0.6	1.1	0.8	0.7	0.9	0.9	1.1	1.0	3.0	3.0	2.9	6.7	11.1	2.4	2.7	2.6	2.9	2.9	2.1	11.1
14-Oct	3.0	3.1	3.2	3.0	3.2	3.3	3.5	3.5	3.7	4.0	3.5	3.2	3.0	2.9	2.8	2.4	2.2	2.3	2.2	2.3	2.3	2.6	2.7	3.1	2.9	4.0
15-Oct	2.9	2.9	3.0	3.3	3.8	3.7	4.0	4.0	3.9	3.6	3.4	2.9	2.5	2.0	2.0	2.2	2.5	4.7	8.1	4.9	3.6	2.8	2.7	2.7	3.4	8.1
16-Oct	2.7	2.7	2.7	2.7	2.7	2.8	2.8	3.0	3.1	3.2	3.2	2.8	2.8	2.8	3.0	2.3	3.6	2.8	3.6	4.0	2.8	2.7	2.7	3.2	2.9	4.0
17-Oct	2.9	2.8	2.8	2.5	2.2	2.3	2.4	2.4	1.4	0.9	0.6	1.9	3.4	3.1	2.9	2.7	2.2	2.0	1.6	1.4	1.2	1.1	1.4	1.4	2.1	3.4
18-Oct	1.5	1.8	2.3	2.3	2.7	5.2	5.7	4.0	3.3	3.2	2.9	2.3	1.3	1.0	1.0	0.7	0.7	4.4	10.0	3.3	1.2	2.1	2.1	3.8	2.9	10.0
19-Oct	13.2	2.6	3.6	3.6	3.4	3.4	2.6	1.8	2.0	2.3	5.6	11.6	16.5	12.3	5.9	5.4	7.1	6.7	6.4	5.6	4.6	3.0	2.8	2.6	5.6	16.5
20-Oct	2.4	2.3	2.0	1.4	1.5	2.4	2.8	2.8	2.8	2.6	2.5	3.1	3.5	3.1	2.9	3.2	3.6	3.1	3.4	3.5	3.8	4.0	3.8	3.9	2.9	4.0
21-Oct	3.6	3.3	3.1	3.0	2.9	2.8	2.8	2.5	2.0	1.4	1.3	1.3	1.1	0.9	1.1	1.2	1.2	1.5	2.3	2.7	2.9	3.2	3.1	3.1	2.3	3.6
22-Oct	3.7	2.8	3.1	6.0	11.2	4.5	3.6	3.9	3.3	3.7	2.4	1.9	1.6	1.2	1.2	1.6	1.5	1.3	1.0	0.9	1.0	1.6	1.8	1.9	2.8	11.2
23-Oct	1.5	1.5	1.5	1.5	1.7	2.4	1.9	2.4	2.1	2.8	2.4	2.2	2.3	2.4	2.5	2.6	2.7	2.6	2.5	3.0	2.8	2.9	2.8	3.9	2.4	3.9
24-Oct	3.1	3.1	3.2	2.9	3.3	4.8	4.8	4.6	6.0	4.1	3.0	3.1	3.2	3.1	3.3	3.0	3.4	3.1	3.0	3.1	3.3	3.4	3.5	3.8	3.6	6.0
25-Oct	4.3	4.1	4.5	5.2	5.5	5.4	5.2	4.6	4.0	4.3	3.7	4.7	3.3	1.3	1.9	1.4	1.0	1.3	1.5	1.6	1.6	1.2	1.0	1.0	3.1	5.5
26-Oct	1.1	1.4	1.1	1.2	1.3	1.5	1.4	1.1	1.3	2.5	2.8	3.1	2.8	2.9	2.6	2.1	1.9	2.5	1.8	1.5	1.6	1.4	1.1	0.9	1.8	3.1
27-Oct	0.6	0.2	0.2	0.3	1.0	0.1	0.4	0.4	0.3	0.3	0.3	1.1	0.5	2.0	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.2	0.4	2.0
28-Oct	0.2	0.1	0.1	0.1	0.2	0.6	0.3	1.0	1.0	0.5	0.5	0.9	C	C	1.0	0.6	0.7	1.5	2.5	2.1	0.8	0.7	1.2	1.5	0.8	2.5
29-Oct	1.4	1.5	1.9	2.1	2.4	2.2	2.9	3.5	3.1	2.8	2.9	3.1	2.5	2.3	2.0	1.5	1.3	PF	PF	PF	PF	PF	PF	PF	--	3.5
30-Oct	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	PF	4.1	4.2	3.8	4.3	4.2	3.9	3.8	4.3	3.9	3.6	2.9	2.8	--	4.3
31-Oct	3.1	3.4	3.5	3.3	3.7	4.2	4.8	5.4	6.0	6.1	5.3	4.9	5.3	5.2	4.8	4.9	4.4	3.9	3.8	4.3	4.3	3.7	3.2	3.0	4.4	6.1
	3.2	3.1	3.1	3.2	3.5	3.5	3.5	3.7	3.6	3.4	3.1	3.2	3.3	2.8	2.4	2.3	2.3	2.9	3.4	2.6	2.4	2.4	2.4	2.6	Diurnal Average	
	13.2	16.0	17.9	18.9	17.4	15.2	15.3	15.7	14.8	11.5	9.3	11.6	16.5	12.3	5.9	5.4	7.1	10.1	11.1	5.6	5.5	5.4	5.5	5.6	Diurnal Maximum	

C - Calibration PF - Power Failure

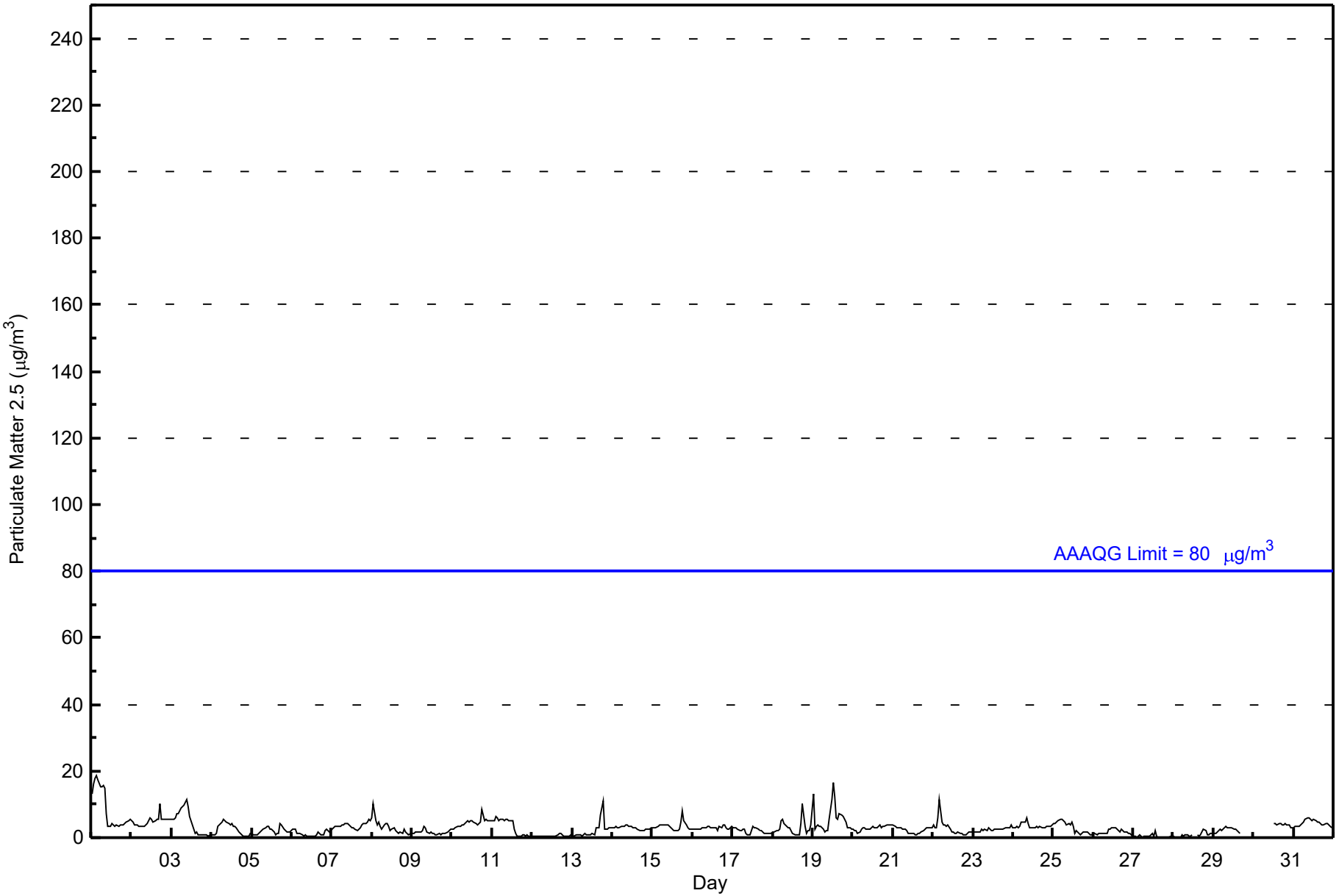
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 $\mu g/m^3$ 24-hr 29 $\mu g/m^3$

Wood Buffalo Environmental Association

Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Janvier - October 2025



Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Janvier - October 2025

Concentration Ranges ($\mu g/m^3$)	Number of Hours	%	Cumulative %
0 - 5	673	93.08	93.08
6 - 15	44	6.09	99.17
16 - 25	6	0.83	100.00
26 - 80	0	0.00	100.00
> 81.0	0	0.00	100.00

Total Number of Valid Hours: 723

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Janvier - October 2025

Concentration Ranges ($\mu g/m^3$)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	41	53	11	2	2	4	12	38	55	105	105	62	44	80	33	13	660
6 - 15	3	5	2	1	1	0	0	2	3	12	8	1	1	0	0	5	44
16 - 25	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6
26 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	47	60	13	3	3	4	12	40	58	117	113	63	45	80	33	19	710

Total Number of Valid Hours: 710

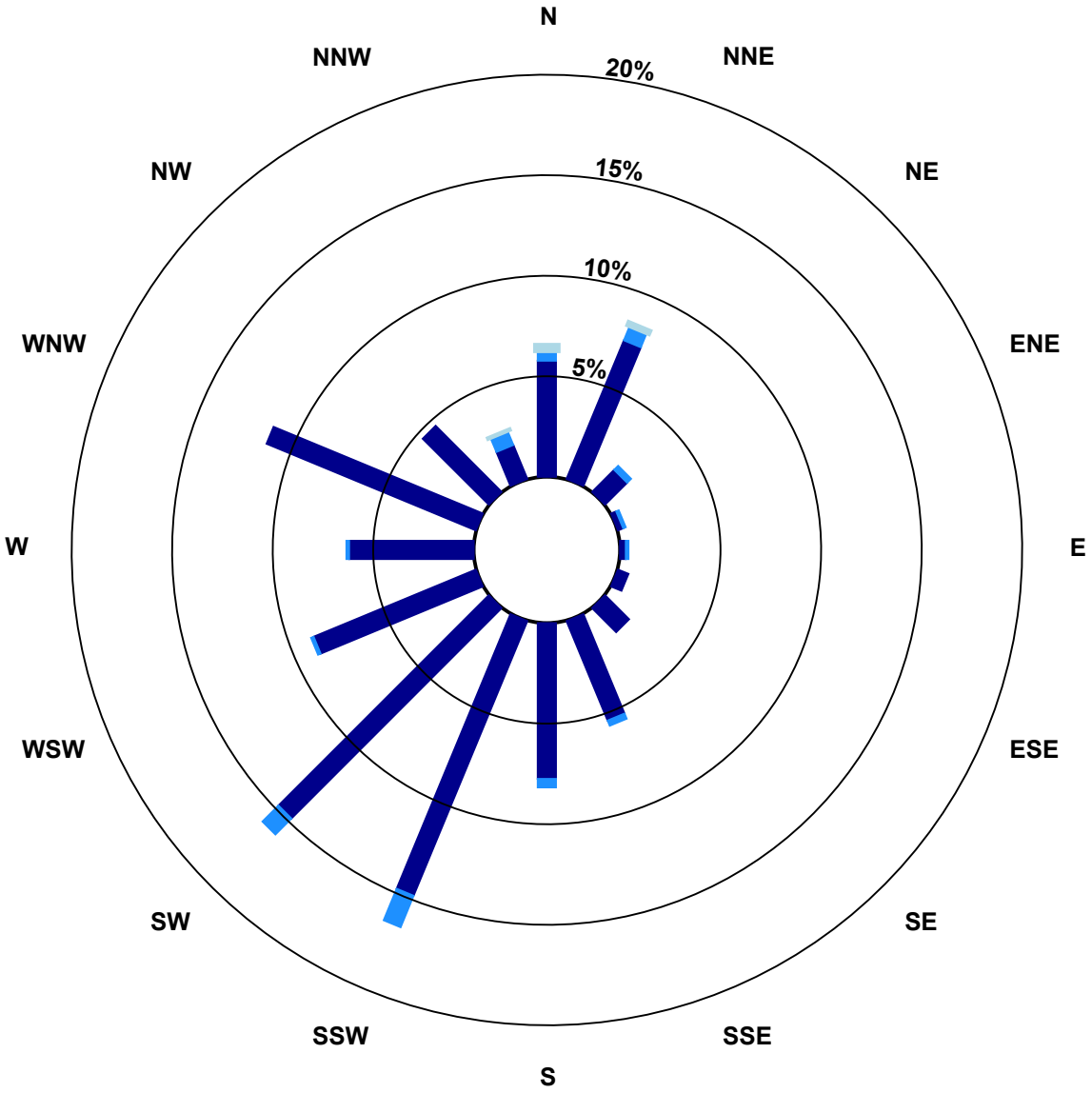
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Janvier



Classes ($\mu g/m^3$)

- 0 - 5
- 6 - 15
- 16 - 25
- 26 - 80
- > 81.0

Total Number of Valid Hours: 710

Maximum Value: 20.9 C on Oct 10 16:00

Maximum Daily Average: 11.0 C on Oct 7

Minimum Value: -3.7 C on Oct 26 06:00

Minimum Daily Average: -0.5 C on Oct 29

Maximum Diurnal Average: 8.9 C at hour 15

Minimum Diurnal Average: 1.3 C at hour 7

Monthly Average: 4.61 C

Percentiles: P_1 = -2.6 P_{10} = -0.7 Q_1 = 0.5 Median = 3.5 Q_3 = 8.1 P_{90} = 11.4 P_{99} = 18.5

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

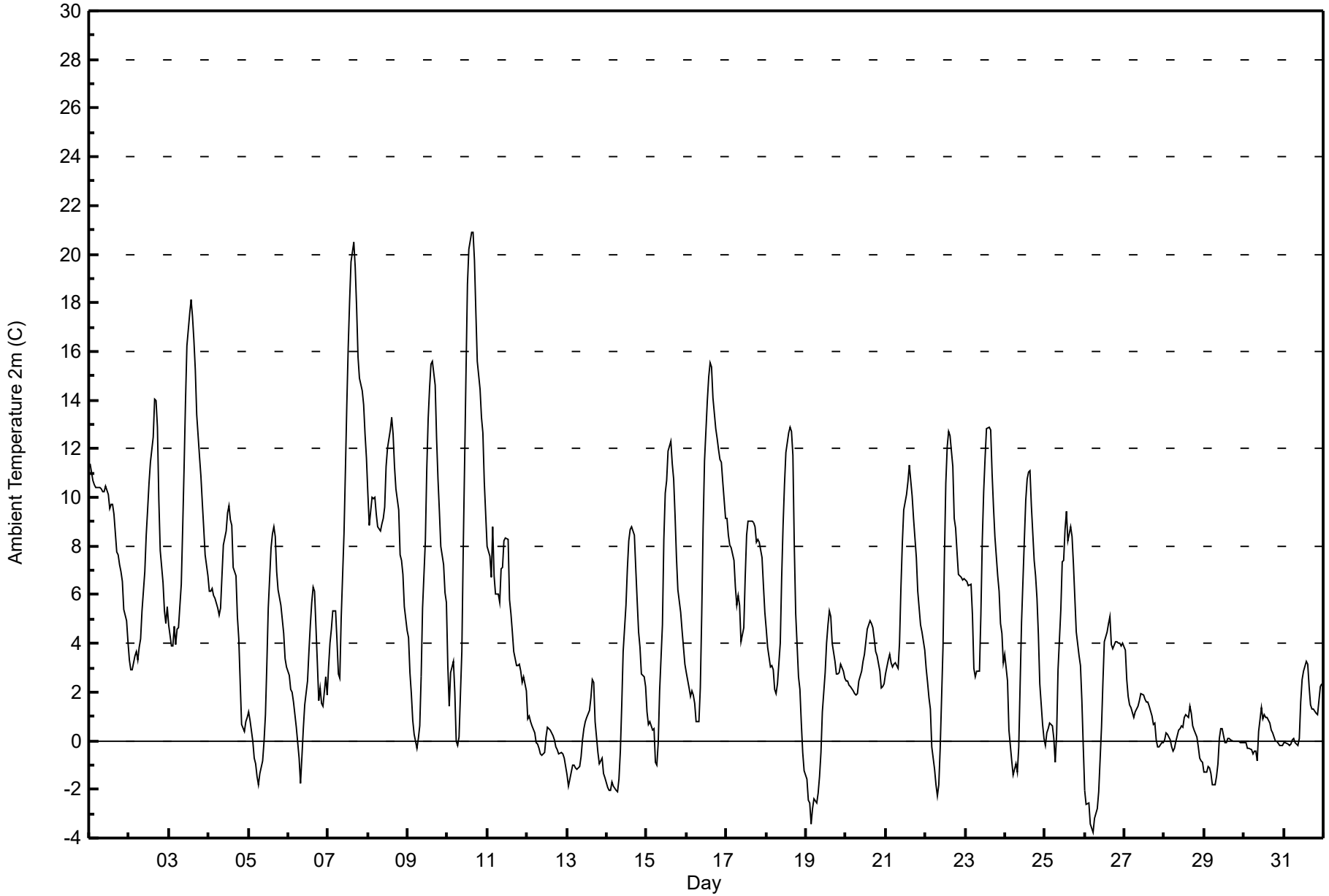
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	11.4	11.0	10.7	10.5	10.4	10.4	10.4	10.4	10.2	10.3	10.4	10.1	9.6	9.7	9.7	9.3	7.8	7.6	7.2	6.9	6.6	5.4	4.9	4.1	9.0	11.4
2-Oct	3.3	2.9	2.9	3.5	3.7	3.3	3.8	4.2	5.3	7.0	8.5	9.5	10.6	11.4	12.5	14.0	14.0	12.9	9.9	7.8	6.5	5.3	4.8	5.5	7.2	14.0
3-Oct	4.7	3.9	3.9	4.7	4.0	4.6	4.7	6.5	8.8	11.2	13.9	16.2	17.5	18.1	17.5	16.5	15.2	13.4	11.7	10.9	9.8	8.7	7.6	6.8	10.0	18.1
4-Oct	6.1	6.1	6.2	5.9	5.8	5.5	5.2	5.4	6.8	8.0	8.6	9.4	9.7	9.1	8.9	7.1	6.8	5.1	4.2	2.4	0.6	0.4	0.8	1.0	5.6	9.7
5-Oct	1.2	0.8	0.0	-0.7	-1.0	-1.5	-1.8	-1.4	-0.8	0.0	1.0	3.1	5.4	7.9	8.5	8.8	8.4	6.9	6.2	5.6	5.0	4.4	3.4	3.0	3.0	8.8
6-Oct	2.7	2.1	2.0	1.6	1.0	0.5	-0.7	-1.7	-0.6	0.5	1.5	2.5	3.7	4.8	5.7	6.3	6.2	3.2	1.6	2.2	1.6	1.4	2.6	1.9	2.2	6.3
7-Oct	3.0	4.0	4.6	5.3	5.3	4.1	2.7	2.6	5.1	8.5	11.1	13.8	16.2	18.1	19.7	20.5	19.5	17.8	15.8	14.9	14.4	13.8	12.6	11.6	11.0	20.5
8-Oct	10.2	8.9	10.0	9.9	10.0	9.3	8.8	8.6	8.9	9.1	9.6	11.3	12.0	12.8	13.3	12.6	11.3	10.3	9.5	7.6	7.4	6.8	5.5	4.5	9.5	13.3
9-Oct	4.2	2.8	1.9	0.8	0.3	-0.3	0.1	0.6	2.6	5.4	8.2	11.1	13.2	14.5	15.5	15.6	14.6	12.4	10.8	9.4	8.0	7.2	6.1	5.7	7.1	15.6
10-Oct	3.1	1.4	2.8	3.3	2.0	0.0	-0.2	0.2	3.7	7.8	11.5	15.3	18.8	20.2	20.9	20.9	19.8	17.6	15.6	14.4	13.3	12.7	10.6	9.3	10.2	20.9
11-Oct	8.0	7.6	6.7	8.8	6.8	6.0	6.0	5.7	7.1	7.1	8.2	8.4	8.3	5.8	5.2	4.5	3.6	3.1	3.1	3.2	2.8	2.4	2.6	2.1	5.5	8.8
12-Oct	0.9	1.0	0.8	0.6	0.3	-0.1	-0.1	-0.3	-0.5	-0.6	-0.5	0.1	0.5	0.5	0.4	0.2	0.0	-0.3	-0.3	-0.6	-0.5	-0.5	-0.7	-1.1	0.0	1.0
13-Oct	-1.4	-1.8	-1.3	-1.0	-1.0	-1.1	-1.2	-1.1	-0.6	0.1	0.5	0.8	1.0	1.2	1.8	2.5	2.4	0.8	-0.5	-1.0	-0.8	-0.7	-1.3	-1.5	-0.2	2.5
14-Oct	-1.9	-2.0	-2.1	-1.7	-1.9	-2.1	-2.1	-1.6	-0.4	1.5	3.7	5.6	7.1	8.2	8.7	8.8	8.4	7.1	5.7	4.5	3.8	2.8	2.6	2.3	2.7	8.8
15-Oct	1.2	0.7	0.8	0.4	0.5	-0.9	-1.0	-0.1	2.1	4.7	8.3	10.2	10.7	11.9	12.3	11.4	10.7	9.3	7.5	6.2	5.3	4.5	3.8	3.1	5.1	12.3
16-Oct	2.8	2.2	1.8	2.0	1.9	1.5	0.8	0.8	2.1	5.2	8.8	11.5	14.0	15.0	15.6	15.3	14.1	12.8	12.4	12.0	11.5	11.4	10.6	9.1	8.1	15.6
17-Oct	9.2	8.5	8.0	7.9	7.4	6.3	5.6	6.0	5.6	4.1	4.6	6.7	8.4	9.0	9.0	9.0	9.0	8.8	8.2	8.3	8.1	7.5	6.4	5.3	7.4	9.2
18-Oct	4.6	3.9	3.0	3.1	2.9	2.1	1.9	2.3	4.0	6.7	8.9	10.5	11.9	12.7	12.9	12.7	11.7	8.0	5.2	2.6	2.1	0.7	-0.5	-1.2	5.5	12.9
19-Oct	-1.6	-2.4	-2.5	-3.4	-2.8	-2.4	-2.6	-2.2	-1.5	-0.5	1.2	2.8	4.0	4.8	5.4	5.1	4.0	3.3	2.7	2.7	2.8	3.1	2.9	2.6	1.1	5.4
20-Oct	2.5	2.5	2.3	2.2	2.0	1.9	1.9	1.9	2.4	2.9	3.2	3.6	4.1	4.6	4.9	4.8	4.7	4.2	3.7	3.5	2.9	2.2	2.2	2.4	3.1	4.9
21-Oct	2.7	3.3	3.5	3.2	3.0	3.1	3.2	3.0	4.0	6.3	8.1	9.5	10.1	10.6	11.3	10.7	10.0	9.2	7.5	6.1	5.5	4.8	4.5	3.7	6.1	11.3
22-Oct	2.9	2.4	1.8	1.3	-0.2	-1.2	-1.8	-2.3	-1.8	-0.3	3.8	7.5	10.6	12.1	12.7	12.5	11.3	9.1	8.8	7.7	6.8	6.7	6.6	6.6	5.1	12.7
23-Oct	6.6	6.6	6.4	6.4	5.2	3.0	2.6	2.9	2.9	5.2	8.2	10.2	11.6	12.8	12.9	12.7	11.0	9.6	8.4	6.8	6.2	4.8	4.4	3.2	7.1	12.9
24-Oct	3.6	2.4	0.5	-0.2	-0.8	-1.4	-0.9	-1.3	-0.3	2.3	4.9	8.3	9.9	10.7	11.1	11.1	9.6	7.4	6.8	5.8	4.3	2.3	0.7	0.1	4.0	11.1
25-Oct	-0.2	0.3	0.5	0.7	0.6	0.1	-0.9	0.3	2.9	5.4	7.3	7.4	8.7	9.4	8.2	8.8	8.4	7.2	5.8	4.4	3.5	3.1	1.6	-0.3	3.9	9.4
26-Oct	-2.0	-2.6	-2.5	-3.4	-3.6	-3.7	-3.2	-2.8	-2.1	-0.8	0.6	2.4	4.1	4.4	4.8	5.1	4.0	3.8	4.1	4.1	4.0	4.0	3.9	4.0	1.1	5.1
27-Oct	3.7	2.5	1.8	1.5	1.3	1.0	1.2	1.3	1.4	1.6	1.9	1.9	1.7	1.6	1.6	1.4	1.0	0.7	0.7	0.0	-0.3	-0.2	-0.1	-0.1	1.2	3.7
28-Oct	0.0	0.3	0.3	0.0	-0.2	-0.4	-0.3	0.0	0.4	0.5	0.6	0.6	1.0	1.1	0.9	1.4	1.1	0.6	0.5	0.1	-0.2	-0.7	-0.8	-0.9	0.2	1.4
29-Oct	-1.3	-1.3	-1.1	-1.1	-1.3	-1.8	-1.8	-1.5	-1.0	0.1	0.5	0.5	-0.1	-0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.5	0.5
30-Oct	-0.1	-0.1	-0.3	-0.3	-0.4	-0.5	-0.4	-0.4	-0.9	0.4	1.4	0.9	1.1	1.0	0.9	0.7	0.5	0.3	0.1	0.0	0.0	-0.2	-0.2	-0.2	0.1	1.4
31-Oct	-0.1	-0.1	-0.2	-0.2	-0.2	0.0	0.1	-0.1	-0.2	0.1	1.6	2.5	2.9	3.3	3.2	2.2	1.5	1.3	1.3	1.1	1.1	1.6	2.2	2.3	1.1	3.3
	2.9	2.5	2.4	2.3	2.0	1.5	1.3	1.5	2.4	3.9	5.5	6.9	8.0	8.6	8.9	8.8	8.1	6.9	5.9	5.2	4.6	4.1	3.6	3.1	Diurnal Average	
	11.4	11.0	10.7	10.5	10.4	10.4	10.4	10.4	10.2	11.2	13.9	16.2	18.8	20.2	20.9	20.9	19.8	17.8	15.8	14.9	14.4	13.8	12.6	11.6	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Janvier - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	140	18.82	18.82
0 - 10	487	65.46	84.27
10 - 20	113	15.19	99.46
> 20	4	0.54	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 99.6 % on Oct 2 04:00

Maximum Daily Average: 96.5 % on Oct 1

Minimum Value: 24.5 % on Oct 10 15:00

Minimum Daily Average: 53.4 % on Oct 14

Maximum Diurnal Average: 86.3 % at hour 7

Minimum Diurnal Average: 58.4 % at hour 16

Monthly Average: 74.53 %

Percentiles: P_1 = 32.4 P_{10} = 45.8 Q_1 = 61.4 Median = 78.5 Q_3 = 89.7 P_{90} = 97.5 P_{99} = 99.2

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

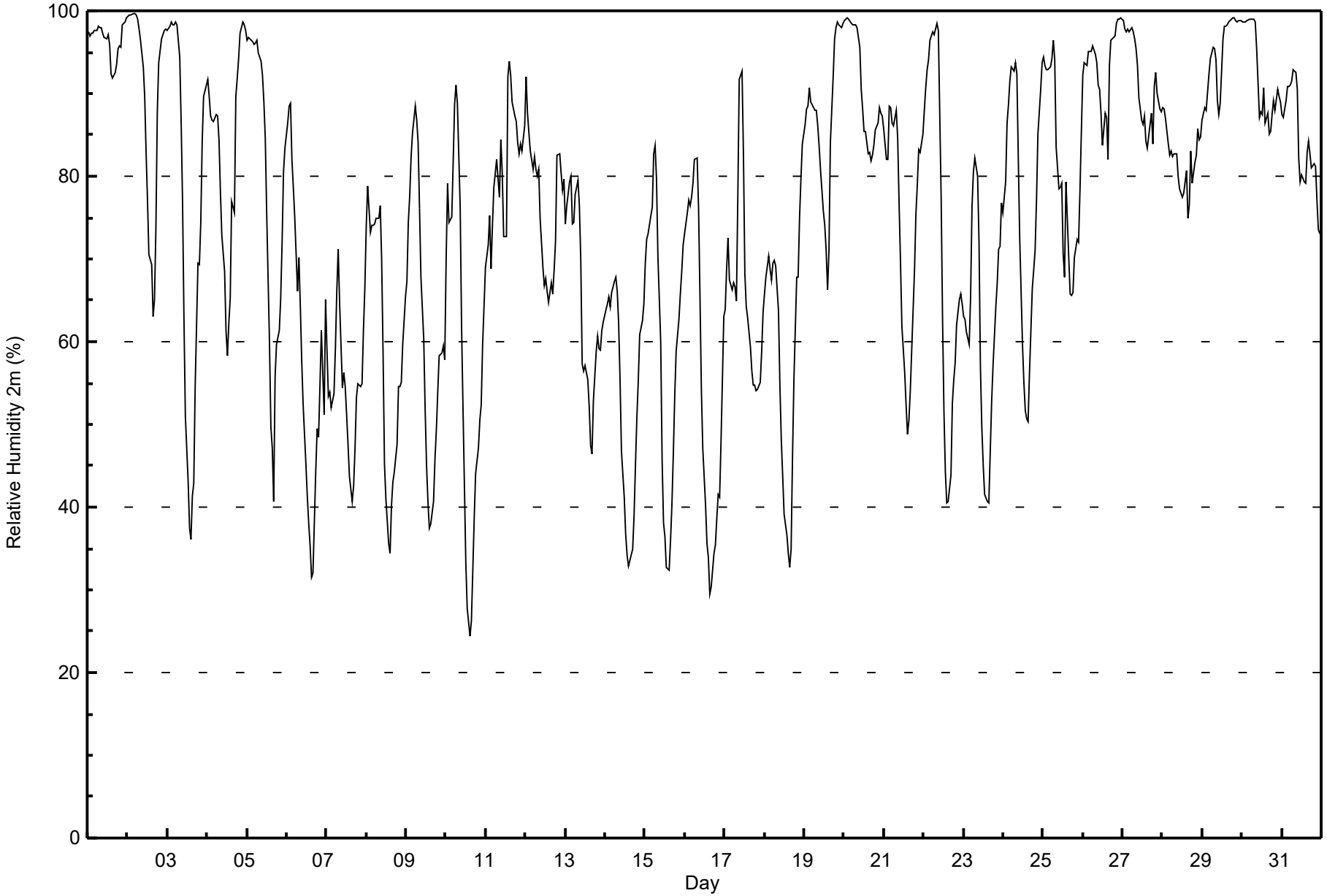
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	97.4	96.9	97.3	97.4	97.7	97.7	98.1	98.0	98.1	97.4	96.9	96.7	97.1	95.9	92.3	91.9	92.6	93.6	95.4	95.8	95.5	98.3	98.7	99.1	96.5	99.1
2-Oct	99.3	99.5	99.6	99.6	99.6	99.5	99.0	97.8	96.4	93.3	89.6	82.9	77.1	70.5	69.3	63.1	65.1	73.8	87.8	93.7	96.6	97.1	97.7	97.9	89.4	99.6
3-Oct	97.7	98.1	98.6	98.3	98.3	98.6	98.3	94.4	86.6	76.9	62.8	51.0	43.0	37.5	36.2	41.3	42.9	54.6	69.5	69.3	74.4	84.2	89.7	91.1	74.7	98.6
4-Oct	91.8	89.7	87.3	86.8	86.6	87.5	87.3	84.4	78.1	72.9	68.4	61.3	58.4	62.2	65.3	76.9	75.6	89.6	91.9	94.3	97.3	98.6	98.3	97.7	82.8	98.6
5-Oct	96.5	96.7	96.5	96.2	95.9	96.1	96.5	94.9	93.8	92.3	89.0	84.5	75.6	59.8	49.6	47.2	40.7	55.8	59.7	61.3	65.2	72.0	80.4	83.4	78.3	96.7
6-Oct	86.4	88.5	88.8	82.0	78.6	75.1	66.1	70.1	64.2	57.6	52.3	45.2	41.3	38.0	35.2	31.6	32.0	44.4	49.5	48.5	54.8	61.4	51.3	65.1	58.7	88.8
7-Oct	59.0	53.3	53.9	52.1	53.7	59.2	66.0	71.1	64.7	54.5	56.3	54.6	51.2	47.7	43.8	40.7	42.5	47.2	53.3	54.9	54.5	55.0	61.4	66.4	54.9	71.1
8-Oct	73.9	78.8	73.3	74.0	74.0	74.2	74.8	74.9	76.5	69.8	58.6	45.3	41.0	35.6	34.4	40.2	43.1	44.2	47.6	54.5	54.6	55.1	59.7	65.4	59.3	78.8
9-Oct	67.3	74.4	77.6	82.4	85.2	88.5	86.8	84.0	76.1	67.8	60.4	51.8	45.2	40.6	37.5	37.9	40.6	45.7	49.4	53.9	58.3	58.7	59.5	57.7	62.0	88.5
10-Oct	70.2	79.1	74.5	75.1	81.8	88.7	91.1	88.8	76.2	61.8	52.0	42.8	33.4	27.7	24.5	26.2	32.4	38.7	44.1	47.2	50.6	52.3	59.6	64.2	57.6	91.1
11-Oct	69.0	71.6	75.2	68.8	74.1	78.6	82.0	79.7	77.4	84.4	80.4	72.7	72.8	92.1	93.9	92.2	89.0	87.2	86.7	84.1	82.7	83.9	83.1	86.0	81.1	93.9
12-Oct	92.0	87.6	85.2	83.0	80.9	82.4	80.9	80.0	80.8	74.9	69.0	66.8	67.6	66.2	64.7	67.1	65.7	68.7	72.1	82.6	82.8	80.4	78.3	79.6	76.6	92.0
13-Oct	74.2	76.4	79.4	80.0	74.3	74.4	77.8	79.5	76.4	69.8	57.3	56.5	57.1	55.5	52.2	47.5	46.5	52.9	58.8	60.7	59.2	59.0	61.4	62.3	64.5	80.0
14-Oct	64.0	64.6	65.5	64.3	65.9	67.3	67.8	66.1	62.2	55.4	46.8	41.2	36.8	34.3	32.9	33.5	34.9	39.0	45.1	50.9	55.3	60.8	62.5	64.6	53.4	67.8
15-Oct	69.6	72.4	73.1	75.3	76.2	82.7	83.8	79.7	70.3	60.1	45.8	38.1	36.4	32.8	32.3	35.9	40.4	46.5	53.4	58.8	62.8	65.8	68.5	71.6	59.7	83.8
16-Oct	73.1	75.6	77.1	76.5	77.5	79.1	82.0	82.3	76.0	65.5	54.2	47.1	40.2	35.6	33.9	29.6	30.3	34.3	35.5	38.7	41.6	41.1	47.8	63.0	55.7	82.3
17-Oct	64.0	68.8	72.6	67.5	66.3	67.1	66.6	64.9	77.7	91.6	92.7	82.7	68.3	64.3	62.8	59.4	56.4	54.7	54.8	54.1	54.2	55.0	58.8	63.5	66.2	92.7
18-Oct	65.8	67.8	70.4	68.8	67.5	69.5	69.9	69.2	63.8	54.8	48.1	43.7	39.2	36.5	34.4	32.7	34.9	46.0	55.4	67.9	67.8	74.9	79.7	83.9	58.9	83.9
19-Oct	86.3	88.2	88.4	90.7	88.9	88.7	88.0	88.0	86.1	83.5	80.7	75.7	74.1	71.0	66.3	71.1	84.1	92.0	96.6	97.9	98.7	98.3	98.0	98.5	86.7	98.7
20-Oct	98.7	99.0	99.2	99.0	98.4	98.3	98.3	98.3	98.0	95.5	90.5	88.2	85.4	85.5	82.7	83.0	81.9	82.6	83.8	85.5	86.5	88.4	87.6	87.4	90.9	99.2
21-Oct	85.8	82.1	82.1	88.4	88.3	86.5	86.1	87.9	84.5	76.7	69.7	61.8	56.3	52.3	48.8	50.4	54.0	59.1	68.6	75.4	79.0	83.2	82.9	85.1	74.0	88.4
22-Oct	88.0	90.7	92.8	94.2	96.4	97.4	97.1	97.7	98.5	97.7	77.4	62.7	51.5	44.2	40.5	40.6	44.0	52.5	55.4	57.5	62.0	65.0	65.8	64.5	72.3	98.5
23-Oct	63.0	62.7	61.2	59.7	65.5	76.3	80.5	82.2	80.0	72.0	56.9	49.7	45.0	41.5	40.7	40.5	46.7	52.6	57.1	64.2	67.1	71.2	71.5	76.7	61.9	82.2
24-Oct	75.6	79.3	86.5	88.6	91.5	93.2	92.8	93.7	92.4	82.3	72.6	59.7	55.1	51.7	50.6	50.3	56.3	66.5	68.6	71.0	77.1	85.1	90.6	93.7	76.0	93.7
25-Oct	94.4	93.4	92.9	92.9	93.2	94.2	96.5	94.1	83.6	78.4	78.7	79.2	70.7	67.8	79.4	70.1	65.8	65.6	66.0	70.2	72.4	72.1	78.3	85.4	80.6	96.5
26-Oct	92.2	93.8	93.4	95.0	95.1	95.1	95.8	94.7	93.8	90.9	90.5	87.7	83.8	87.6	87.1	82.1	93.5	96.4	96.8	97.0	98.6	99.0	99.0	99.1	93.2	99.1
27-Oct	98.8	97.8	97.5	97.8	97.4	97.9	97.5	96.7	95.3	93.3	89.5	86.8	86.3	87.3	84.3	83.4	86.2	87.7	83.9	90.8	92.5	89.9	88.1	87.8	91.4	98.8
28-Oct	88.2	88.2	86.9	83.9	82.5	83.1	82.4	82.7	82.8	80.0	78.5	78.0	77.5	77.9	80.6	74.8	76.6	83.1	79.1	81.8	82.6	85.8	84.4	84.7	81.9	88.2
29-Oct	86.8	88.4	88.0	90.2	92.3	94.3	95.6	95.4	94.0	89.2	87.4	88.8	96.6	98.1	98.2	98.3	98.6	99.0	99.1	99.2	98.8	98.6	98.8	98.8	94.7	99.2
30-Oct	98.7	98.7	98.7	98.8	98.9	99.0	99.1	99.0	98.6	95.4	87.1	87.8	87.4	90.7	86.4	87.6	85.1	85.4	87.5	89.1	88.1	90.5	89.6	89.0	92.3	99.1
31-Oct	87.5	87.1	89.1	90.8	90.9	91.0	91.5	92.8	92.5	90.5	82.2	79.3	80.1	79.3	79.1	82.8	84.2	82.8	81.1	81.6	81.2	77.1	73.6	73.0	84.2	92.8
	82.4	83.5	83.9	83.8	84.3	85.8	86.3	85.9	83.1	78.3	71.7	66.1	62.3	60.2	58.7	58.4	60.1	65.2	68.8	72.0	74.0	76.1	77.6	80.2	Diurnal Average	
	99.3	99.5	99.6	99.6	99.6	99.5	99.1	99.0	98.6	97.7	96.9	96.7	97.1	98.1	98.2	98.3	98.6	99.0	99.1	99.2	98.8	99.0	99.0	99.1	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Janvier - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 20m (WS20) - km/h

Janvier - October 2025

Maximum Speed: 26 km/h on Oct 14 11:00

Maximum Daily Speed Average: 16.1 km/h on Oct 14

Minimum Speed Value: 0 km/h on Oct 11 05:00

Minimum Daily Speed Average: 1.0 km/h on Oct 6

Maximum Diurnal Speed Average: 7.4 km/h at hour 14

Minimum Diurnal Speed Average: 3.1 km/h at hour 1

Monthly Average Velocity: 4.6 km/h 247.6 deg

Percentiles: $P_1 = 1$ $P_{10} = 4$ $Q_1 = 6$ Median = 9 $Q_3 = 12$ $P_{90} = 15$ $P_{99} = 20$

Hours in Service: 744

Hours of Data: 731

Hours of Missing Data: 13

Percent Operational Time: 98.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NNW6	N8	N8	NNE6	N5	NNW4	NNW5	NNW5	NNW5	NNW6	NNW6	NNW9	N10	N10	N12	N12	N9	WNW4	WNW4	WNW5	W4	W5	WSW4	SW5	NNW5.4	N12
2-Oct	SW5	SW6	SW5	SSW3	SSW4	SSW7	SSW8	SW7	SSW6	SW4	SSW5	S5	SSE6	SSE6	SSE8	S7	S4	SSW1	SSE2	S3	SSE3	SSW3	SW6	SSW9	SSW4.7	SSW9
3-Oct	SSW6	SSW6	SW8	SSW9	SSW7	SSW8	SSW8	SW11	SW11	SW12	SW12	SW11	WSW15	WSW18	W17	W15	WSW16	WSW13	WSW10	WSW13	WSW10	W11	SW9	SW10	SW10.6	WSW18
4-Oct	SW9	SW9	WSW10	WSW10	WSW8	SW9	WSW9	W6	NW7	NW11	WNW10	NW8	NW9	NW8	WNW8	NW12	WNW12	WNW12	NW11	NW10	NW6	NW4	NW7	WNW8	WNW7.5	WNW12
5-Oct	NW6	WNW8	WNW7	W7	WSW8	UO	UO	UO	UO	UO	SW9	SW10	SW13	WSW14	W14	WNW15	WNW17	WNW16	WNW10	NW6	W8	W9	W7	WSW10	W9.1	WNW17
6-Oct	WSW9	W4	WNW4	N11	N8	NNE11	N13	N9	N10	N8	NNE7	NNE4	ENE2	SE2	SE3	SSW6	SSW7	S6	SSE8	SSE9	S4	S4	S7	SSW5	N1.0	N13
7-Oct	S5	SSW7	SSW8	SSW10	SSW9	SSW9	SSW7	S6	SSW7	SW7	SSW10	SSW12	SSW12	SSW11	SSW14	SSW15	SSW12	S11	S9	S10	S8	S2	E2	SE3	SSW8.1	SSW15
8-Oct	N3	W2	WNW10	WNW11	NW11	WNW7	WNW11	WNW9	WNW12	WNW17	WNW14	WNW15	WNW17	WNW16	WNW15	WNW15	W13	W9	WSW7	WSW8	SW10	SW10	WSW7	SW7	WNW9.8	WNW17
9-Oct	WSW8	WSW9	WSW10	SW7	SW9	SSW10	SW11	SW14	WSW14	WSW14	WSW14	W12	SW12	WSW16	WSW14	WSW13	SW14	SW12	SW11	SW12	SW11	SW11	SSW9	SW10	SW11.0	WSW16
10-Oct	SSW5	SSW6	SW11	SW9	SSW7	SSW5	SSW9	SW7	SW7	WSW6	WSW6	WSW7	SSW15	SSW17	SSW15	SSW17	SSW17	SSW14	SSW13	SSW13	SSW11	SSW10	S7	SSW6	SSW9.6	SSW17
11-Oct	SSW4	S7	SSW8	SSW7	NNW0	NE2	SSE4	NNW2	S3	WNW3	N15	NNW14	NW11	NW12	NW12	NW13	NW14	NW14	WNW13	NW13	NW13	NW11	NW12	N12	NW6.5	N15
12-Oct	N14	N15	N17	N18	N18	N17	N18	N17	N17	N19	N20	N17	N15	N15	N14	NNE13	N13	N9	NNW8	NNW9	N10	N8	N8	NNW5	N13.6	N20
13-Oct	NNW7	NW6	WNW8	NW7	NW4	W5	W4	SW4	SW5	WSW6	W9	WSW9	WSW11	WSW13	SSW13	SSW12	SW13	SSW9	SSW10	SSW11	SSW15	SSW17	SSW12	SSW13	SW7.4	SSW17
14-Oct	SSW12	SSW13	SSW14	SSW17	SSW16	SSW19	SW16	SW20	SW19	SW20	SW26	SW22	SW21	SW18	WSW18	SW18	SW15	SW15	SW13	SSW13	SSW12	SSW11	SW12	SSW13	SW16.1	SW26
15-Oct	SW10	SW11	SW12	SW11	SW11	SW9	SSW9	SSW10	SSW9	SW13	SW18	SW19	SW19	SW14	SW18	WSW15	SW12	SW12	SW11	SW11	SW10	SW12	SW14	SW14	SW12.5	SW19
16-Oct	SW12	SW11	SSW12	SSW13	SW13	SW13	SSW12	SW13	SW12	SW11	WSW10	SW11	SW11	SW15	SSW14	SSW16	SSW11	S11	SSW10	SSW9	S9	S9	SW8	SSW8	SSW11.1	SSW16
17-Oct	SW9	SW9	SW11	SW12	SW10	SW9	SW13	WSW13	W14	WNW14	W11	WNW16	WNW19	WNW21	WNW17	WNW15	WNW13	WNW12	W12	WNW15	WNW13	WNW11	W8	WNW12	W11.5	WNW21
18-Oct	W10	WSW11	W11	W11	W9	WSW10	WSW10	WSW9	W8	WNW9	WNW12	WNW13	W13	W14	W17	WNW15	WNW9	WSW5	SW4	SSW5	SSW7	SSW6	SSW4	S6	W8.4	W17
19-Oct	SSE3	SSW2	UO	NNW2	NNE2	NE5	NNE3	NNE6	NNE6	NNE6	N6	NNE6	NNE5	N4	NNE5	NE5	ENE7	NE6	NE6	NNE6	NNE6	NE7	NE7	NNE7	NNE4.6	NE7
20-Oct	NNE6	N5	N5	N7	NNE8	N7	N6	NW3	WNW6	NW6	NW7	WNW6	WSW5	W7	W7	WSW6	SW9	SSW11	SSW10	SSW10	SSW12	SSW12	SSW11	SSW10	WSW3.3	SSW12
21-Oct	SSW10	SSW12	SSW14	SSW13	SSW14	SSW11	SW11	SW12	WSW14	WSW15	W16	W16	WNW18	WNW18	W14	WNW14	WNW9	WNW10	NNE8	NNE5	ENE3	ESE2	NNE6	NNE7	WSW6.9	WNW18
22-Oct	NNE4	NNE4	N2	NNE2	NNE2	NNE1	ESE2	WNW2	WNW1	WSW4	SSW4	S3	SSE4	S8	S10	SSE11	SSE8	SE10	SSE13	SSE12	SE12	SSE12	SE10	SSE9	SSE4.5	SSE13
23-Oct	SE9	SE9	SSE7	SSE8	S6	S4	SSE4	SSE4	S2	SSE5	SSE8	S6	SSE6	SSE7	SSE10	SSE8	SSE8	SE10	SE10	SSE6	S7	SSW7	S8	S5	SSE6.6	SE10
24-Oct	SSW7	S5	S2	NNE2	S0	SSW1	SSE4	SSW2	SSE5	SSW4	WSW4	W3	SW2	SSE4	S6	SSE7	S6	SE8	SSE10	SSE5	SE4	E3	NE2	NNE5	SSE3.0	SSE10
25-Oct	NNE3	NNE5	NNE3	NE2	W3	S4	SW7	SSW10	SW11	SW11	WSW18	W18	W21	W23	W20	WSW16	WSW13	SW9	SW9	SSW11	SW9	SW10	SW8	SSE2	WSW8.2	W23
26-Oct	SSE6	SW6	S2	NNE2	NNE2	NNE4	NNE5	NNE9	NNE5	NNE7	NNE8	NNE7	NNE8	NNE8	NNE10	NE12	NNE9	NNE9	NE12	NNE10	NNE9	NNE7	NNE7	N8	NNE6.0	NE12
27-Oct	NNW11	N12	NNW8	NW8	W7	W8	WNW10	WNW12	WNW13	WNW14	NW15	NW15	NW16	WNW17	WNW16	WNW16	WNW15	WNW16	WNW16	UO	UO	UO	UO	UO	WNW12.3	WNW17
28-Oct	UO	WNW13	WNW15	UO	WNW6	WNW4	WNW7	WNW9	WNW15	WNW16	WNW17	WNW19	WNW18	WNW16	WNW14	WNW12	W9	W9	W11	WSW7	WSW7	WSW6	WSW5	S3	WNW10.3	WNW19
29-Oct	SE5	ESE5	ESE5	E6	NE4	NNE5	NNE7	NNE7	NNE7	NE6	NNE3	N5	NNE5	NNE7	NNE5	NNE5	NNE6	N4	N3	NW4	NNW5	N4	N3	NNW3	NNE3.9	NNE7
30-Oct	NNW3	N2	NNE3	N2	W1	NNW2	NNE3	W2	S3	S3	W1	NNE4	WSW1	WSW3	SW6	SW8	SW10	SW10	SW5	SW5	WSW5	S5	S7	SSW9	SW2.6	SW10
31-Oct	SSW9	S8	S9	S9	S10	SSW9	SSW9	S10	S10	S11	S11	S11	S13	S13	SSE11	SSE12	SSE12	S12	S16	S14	S9	S9	SSW11	SSW10	S10.6	S16
	SW3.1	SW3.3	WSW4.3	WSW3.4	WSW3.6	WSW3.3	WSW3.6	WSW4.2	WSW4.8	W5.6	W6.2	W6.3	W6.6	W7.4	WSW7.1	WSW6.6	WSW5.9	WSW5.1	SW4.2	SW4.4	SW4.3	SW4.5	SW3.9	SW4.0	Diurnal Average	
	N14	N15	N17	N18	N18	SSW19	N18	SSW20	SW19	SW20	SW26	SW22	SW21	W23	WSW20	SW18	WNW17	WNW16	S16	WNW15	SSW15	SSW17	SW14	SW14	Diurnal Maximum	

UO - Unstable Operation

All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 8 km/h on Oct 14 11:00

Minimum Value: 1 km/h on Oct 13 08:00

Percentiles: P_1 = 1 P_{10} = 1 Q_1 = 2 Median = 2 Q_3 = 4 P_{90} = 5 P_{99} = 7

Hours in Service:	744
Hours of Data:	731
Hours of Missing Data:	13
Hours of Calibration:	0
Percent Operational Time:	98.3

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	2	2	2	2	2	2	2	2	2	4	4	4	4	4	5	2	1	1	1	1	1	1	5
2-Oct	1	2	1	2	1	1	2	2	1	2	2	2	2	2	3	2	1	1	2	2	1	1	2	1	3
3-Oct	2	1	2	1	2	1	2	3	3	4	4	3	5	6	6	5	6	4	4	5	4	6	2	3	6
4-Oct	2	2	3	3	2	2	2	2	3	4	3	4	3	4	4	5	4	4	4	4	4	1	3	2	5
5-Oct	2	2	2	2	2	UO	UO	UO	UO	UO	2	3	4	4	5	6	6	5	4	3	2	2	2	2	6
6-Oct	2	2	1	4	3	5	5	4	4	3	3	3	2	2	3	3	2	1	2	2	2	2	2	1	5
7-Oct	1	2	3	3	2	1	1	1	1	2	3	4	4	4	5	6	3	3	2	3	2	2	2	2	6
8-Oct	2	3	3	3	4	4	4	3	4	5	5	5	5	5	5	5	4	3	2	2	2	2	2	2	5
9-Oct	2	2	2	1	1	2	2	4	4	4	4	4	4	5	5	4	5	3	2	3	2	2	2	2	5
10-Oct	2	2	2	2	1	2	1	1	2	2	2	3	4	4	5	5	4	3	3	2	2	2	1	1	5
11-Oct	1	2	2	2	2	2	1	2	2	2	6	6	6	5	4	5	5	5	4	4	4	4	5	5	6
12-Oct	6	6	7	7	7	7	7	6	6	7	7	6	6	5	5	5	4	4	3	4	4	3	3	2	7
13-Oct	3	2	2	2	2	2	1	1	1	2	3	4	4	4	4	4	4	2	2	2	3	4	3	4	4
14-Oct	2	3	3	4	4	4	4	5	6	7	8	7	7	6	6	6	5	4	3	2	3	2	2	2	8
15-Oct	2	2	2	2	2	2	2	2	3	5	5	7	5	5	5	5	4	3	3	2	2	2	2	2	7
16-Oct	3	2	2	2	3	2	2	2	3	3	3	3	4	5	4	4	3	3	2	2	2	2	3	2	5
17-Oct	2	2	3	3	3	3	3	4	5	5	3	5	6	6	5	4	4	4	3	4	3	3	2	3	6
18-Oct	2	3	2	3	2	2	2	3	3	3	3	4	5	5	5	5	3	1	1	2	1	1	1	1	5
19-Oct	2	2	UO	1	1	2	2	2	2	2	2	2	2	1	1	2	1	1	1	1	1	1	2	2	2
20-Oct	2	1	1	2	3	2	2	1	2	2	2	2	2	2	3	2	2	3	2	2	3	3	2	2	3
21-Oct	2	3	3	3	3	2	2	2	3	5	5	5	5	5	4	5	2	2	2	2	1	1	2	2	5
22-Oct	1	2	1	2	1	1	1	1	1	3	2	2	2	3	4	3	3	3	4	4	3	4	3	3	4
23-Oct	3	3	2	3	2	2	1	1	3	1	2	2	3	3	3	2	2	2	2	3	3	4	2	3	4
24-Oct	2	2	2	1	1	1	2	2	2	2	1	1	2	3	2	2	2	2	2	2	1	1	2	1	3
25-Oct	1	1	1	1	2	2	3	2	3	3	6	6	7	7	7	5	5	3	2	2	3	2	2	2	7
26-Oct	2	1	2	1	2	2	1	3	1	2	2	2	2	2	2	2	3	2	3	4	3	2	2	3	4
27-Oct	4	5	4	3	2	2	2	3	3	4	6	5	5	5	5	4	4	4	5	UO	UO	UO	UO	UO	6
28-Oct	UO	4	4	UO	6	5	6	6	5	6	6	6	6	5	4	4	3	4	4	2	3	2	2	1	6
29-Oct	1	1	2	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	1	3
30-Oct	1	1	1	1	1	1	1	1	1	2	1	1	2	3	2	2	3	3	1	2	2	2	2	2	3
31-Oct	3	2	2	2	2	3	3	3	3	4	4	3	4	4	4	4	4	4	5	4	3	3	3	3	5
	6	6	7	7	7	7	7	6	6	7	8	7	7	7	7	6	6	5	5	5	4	6	5	5	
	Diurnal Maximum																								

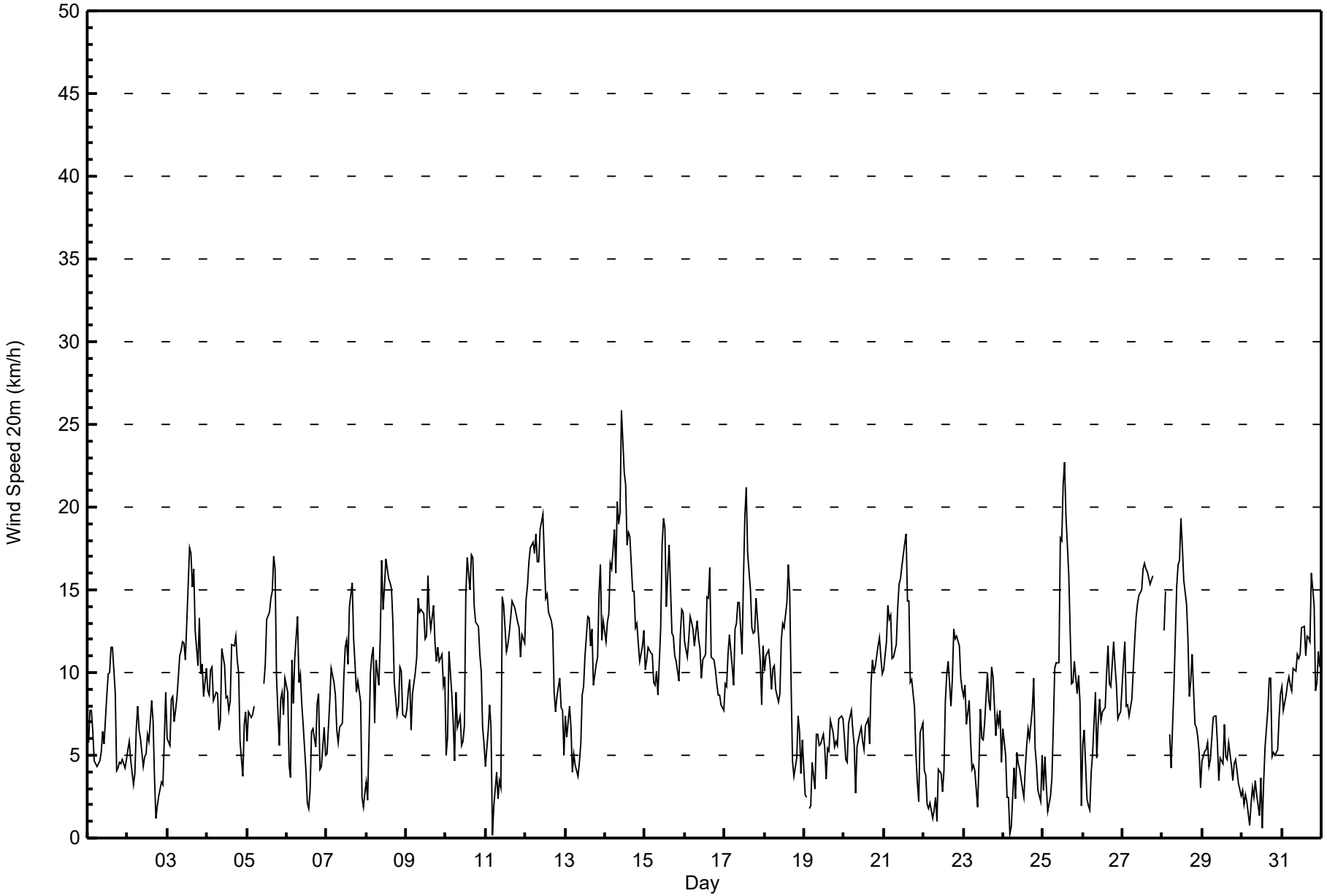
UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 20m (WS20) - km/h

Janvier - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	165	22.57	22.57
6 - 11	348	47.61	70.18
12 - 19	208	28.45	98.63
20 - 28	10	1.37	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 731

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 20m (WS20) - km/h

Janvier - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	13	29	6	2	2	4	5	13	21	16	10	10	10	8	4	12	165
6 - 11	19	33	5	1	1	0	6	22	34	61	62	30	22	24	18	10	348
12 - 19	20	1	2	0	0	0	1	5	5	39	37	23	13	49	12	1	208
20 - 28	1	0	0	0	0	0	0	0	0	1	4	1	2	1	0	0	10
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	53	63	13	3	3	4	12	40	60	117	113	64	47	82	34	23	731

Total Number of Valid Hours: 731

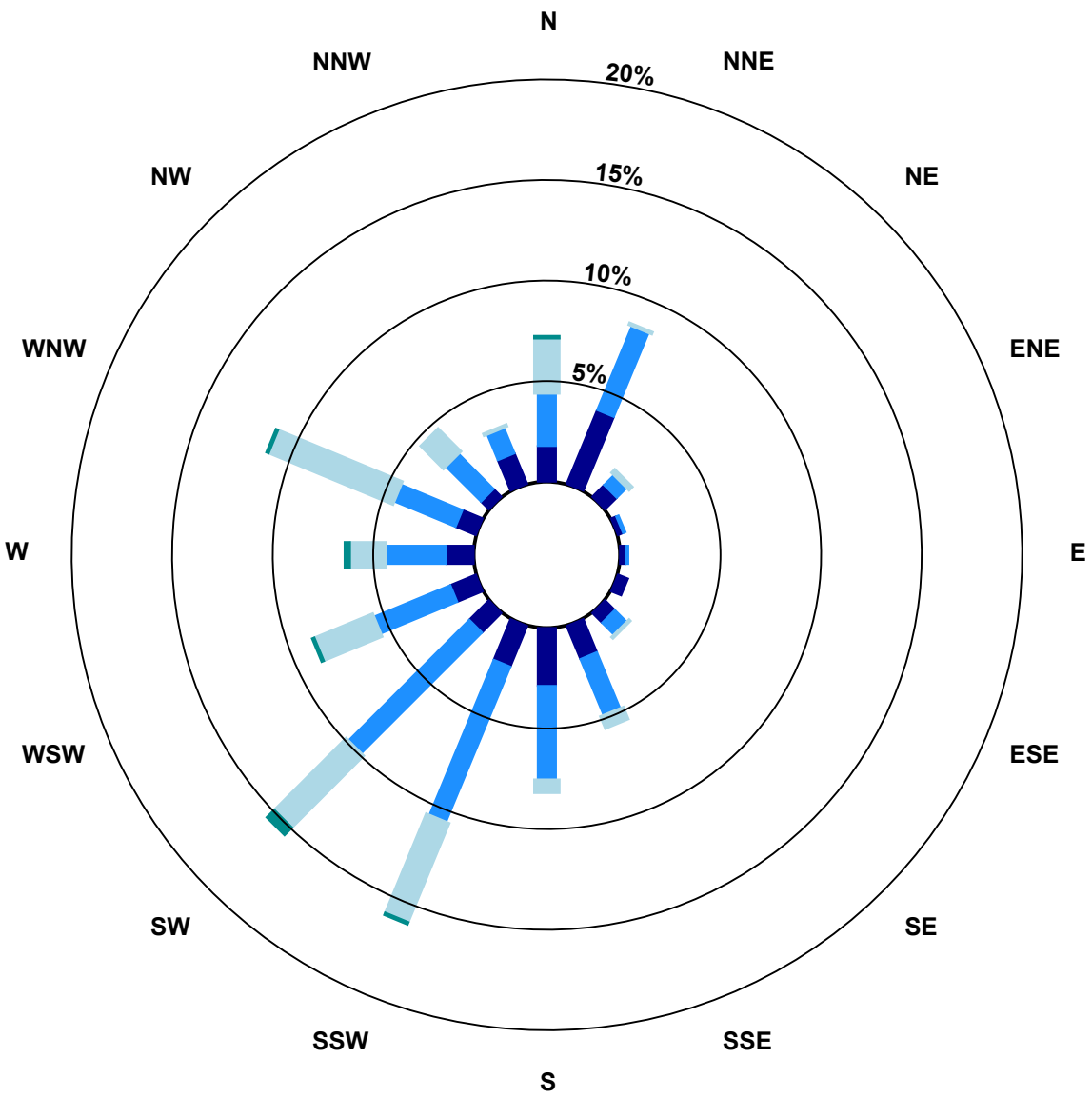
Total Number of Hours: 744

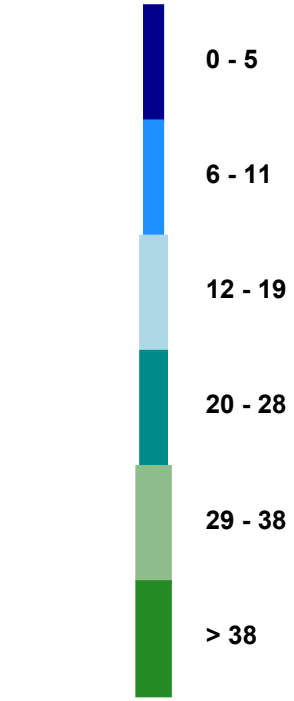
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 20m (WS20) - km/h

Janvier





Total Number of Valid Hours: 731

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 20m (WD20) - deg

Janvier - October 2025

Direction of Maximum Speed: 222 deg on Oct 14 11:00
Direction of Maximum Daily Speed Average: 216.9 deg on Oct 14

Direction of Minimum Speed: 339 deg on Oct 11 05:00

Direction of Minimum Daily Speed Average: 1.0 deg on Oct 6

Monthly Average Direction: 247.6 deg

Hours in Service:	744
Hours of Data:	731
Hours of Missing Data:	13
Percent Operational Time:	98.3

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	347	5	4	16	349	342	348	332	346	338	337	339	349	354	357	2	349	295	300	283	276	268	243	234	339.0
2-Oct	224	222	214	204	198	212	209	215	209	214	202	181	164	156	161	182	179	213	161	174	163	192	217	213	196.5
3-Oct	207	204	218	211	213	212	212	222	225	228	235	233	240	242	259	259	257	239	241	240	237	271	229	234	236.0
4-Oct	227	230	248	258	242	232	255	272	304	306	299	322	322	317	302	313	296	289	309	325	325	305	322	295	288.6
5-Oct	304	290	293	268	244	UO	UO	UO	UO	UO	223	218	225	239	266	285	297	286	294	311	265	263	259	249	266.6
6-Oct	243	274	293	10	355	12	9	5	355	2	13	27	67	135	142	207	212	170	154	152	172	187	191	196	356.0
7-Oct	189	198	204	202	203	204	201	189	198	230	213	211	209	207	212	208	202	183	170	176	186	172	91	145	199.4
8-Oct	8	266	300	292	308	303	293	287	296	299	299	298	296	289	290	287	280	275	252	238	228	236	251	216	283.7
9-Oct	237	238	242	227	215	213	221	232	243	250	245	259	234	248	258	252	236	222	222	220	217	214	206	214	233.4
10-Oct	197	193	221	222	204	202	206	226	217	245	256	237	203	196	194	199	194	198	193	192	203	202	187	205	204.5
11-Oct	197	185	197	193	339	50	162	339	182	285	354	346	323	309	309	308	307	309	300	309	309	314	323	354	310.9
12-Oct	353	353	355	356	358	3	2	6	8	5	6	10	8	3	9	13	10	355	348	345	354	1	350	339	1.2
13-Oct	331	314	303	307	305	280	266	228	228	255	267	254	238	243	212	210	217	202	205	207	194	200	211	206	231.0
14-Oct	203	201	207	208	208	205	218	214	219	221	222	218	226	232	237	226	220	220	215	211	213	212	216	212	216.9
15-Oct	220	217	218	215	217	214	202	197	209	221	217	221	215	225	236	237	233	230	225	223	216	215	215	214	219.7
16-Oct	216	216	213	213	216	216	212	214	216	217	237	234	232	218	213	208	198	191	199	196	176	181	228	205	211.9
17-Oct	215	222	224	236	230	231	220	242	279	283	279	295	294	291	291	295	293	294	277	288	291	284	267	284	272.1
18-Oct	260	254	260	275	264	245	248	253	262	284	297	291	277	278	279	288	286	253	222	204	203	201	195	187	263.0
19-Oct	155	201	UO	346	30	47	29	27	21	15	8	17	24	3	28	44	57	42	40	29	28	45	35	30	31.5
20-Oct	27	7	357	10	12	4	355	310	289	308	314	289	253	267	263	258	219	209	201	206	200	196	197	197	250.1
21-Oct	205	195	197	197	198	206	215	217	239	257	267	276	287	283	280	286	294	296	22	31	78	113	26	32	252.3
22-Oct	18	31	355	25	27	15	117	291	295	245	198	181	151	189	184	160	156	142	152	149	143	147	146	150	154.2
23-Oct	146	144	156	158	189	188	159	152	174	154	168	181	160	166	155	163	151	146	145	165	170	195	177	188	162.2
24-Oct	201	177	184	30	173	195	149	210	167	192	238	276	231	160	178	168	171	137	147	159	125	94	55	29	164.6
25-Oct	15	27	21	37	271	175	216	201	224	232	256	268	278	273	259	258	251	235	216	212	217	221	216	165	246.6
26-Oct	167	218	179	19	33	20	24	29	15	21	27	22	24	25	32	37	26	33	38	33	28	21	12	355	27.0
27-Oct	347	354	339	317	278	270	292	291	298	298	311	310	306	293	297	297	297	299	297	UO	UO	UO	UO	UO	303.7
28-Oct	UO	287	290	UO	294	299	297	293	297	297	296	292	297	293	286	284	271	275	270	257	248	237	248	179	285.0
29-Oct	128	112	102	84	34	12	17	18	26	44	19	352	14	26	21	13	14	4	355	321	344	349	350	339	23.3
30-Oct	338	356	21	351	270	335	15	259	183	180	271	33	244	238	224	220	230	222	227	232	243	182	178	208	226.2
31-Oct	209	183	183	181	189	200	199	188	190	184	184	176	175	177	167	167	168	173	171	170	178	189	195	205	182.2
	231.9	235.0	244.5	244.5	243.8	239.8	243.0	246.5	257.4	268.5	270.2	273.4	263.7	260.2	257.4	255.9	252.0	240.7	227.4	222.2	219.2	219.7	223.5	223.3	
	Diurnal Average																								

UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 93 deg on Oct 6 14:00

Minimum Value: 9 deg on Oct 9 06:00

Percentiles: P_1 = 10 P_{10} = 13 Q_1 = 17 Median = 21 Q_3 = 28 P_{90} = 38 P_{99} = 85

Hours in Service:	744
Hours of Data:	731
Hours of Missing Data:	13
Hours of Calibration:	0
Percent Operational Time:	98.3

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	31	25	25	29	28	28	35	39	36	30	37	38	36	34	30	30	42	29	30	18	20	13	18	11	42
2-Oct	13	17	17	33	25	12	12	20	16	31	31	48	31	37	31	31	38	87	71	42	18	33	17	9	87
3-Oct	13	12	10	11	14	13	14	16	20	23	26	27	28	29	25	24	23	23	24	19	21	26	17	18	29
4-Oct	16	16	21	20	24	17	21	31	29	26	25	40	38	43	37	29	22	18	33	37	29	18	24	17	43
5-Oct	23	16	16	19	21	UO	UO	UO	UO	UO	18	21	23	26	22	25	22	22	38	44	21	20	20	19	44
6-Oct	19	38	37	27	35	31	26	31	39	34	47	65	88	93	85	63	29	20	14	15	27	20	20	13	93
7-Oct	14	18	15	16	16	12	10	15	15	27	22	22	24	30	26	27	17	18	20	21	25	82	75	27	82
8-Oct	50	84	20	17	28	39	21	19	20	21	26	26	25	27	22	21	19	20	17	18	16	17	20	16	84
9-Oct	19	14	15	18	9	9	13	17	19	21	23	28	26	25	27	27	20	17	15	14	12	12	11	11	28
10-Oct	23	20	11	12	10	30	10	12	17	24	28	36	18	19	21	17	16	12	12	12	10	13	16	12	36
11-Oct	17	13	15	26	89	81	48	77	72	75	35	41	35	27	22	24	26	24	20	24	24	24	31	34	89
12-Oct	34	38	37	35	32	31	33	32	29	31	28	27	29	31	26	26	26	32	37	38	33	34	33	36	38
13-Oct	32	24	15	23	33	19	19	13	20	24	26	33	24	20	26	25	22	21	15	14	15	15	17	15	33
14-Oct	13	14	14	16	15	14	16	17	19	20	19	21	22	24	21	21	19	17	14	11	12	11	13	11	24
15-Oct	10	11	11	10	11	9	12	13	22	19	20	22	17	20	21	21	21	15	15	14	14	10	11	10	22
16-Oct	12	10	9	11	12	12	11	12	15	17	21	22	26	21	20	17	17	16	12	24	19	18	40	20	40
17-Oct	15	16	16	18	18	17	16	23	21	19	18	19	19	19	18	17	16	18	15	15	16	15	15	15	23
18-Oct	18	20	15	17	18	16	14	21	28	24	22	24	30	25	23	21	16	18	29	14	10	16	13	16	30
19-Oct	64	42	UO	40	35	17	32	14	18	22	22	17	19	37	17	35	16	11	11	16	17	14	17	17	64
20-Oct	18	21	24	25	24	26	30	37	17	24	32	23	34	21	26	26	17	14	13	14	13	13	14	14	37
21-Oct	12	15	16	14	13	12	12	13	16	21	21	23	21	19	21	18	14	15	37	14	19	28	22	23	37
22-Oct	28	24	61	44	22	48	64	31	77	46	28	79	60	34	28	24	20	17	20	20	19	22	23	25	79
23-Oct	19	20	23	32	22	35	19	19	70	20	24	35	47	46	24	24	16	14	14	28	32	30	19	22	70
24-Oct	18	29	58	59	92	88	16	37	35	35	32	49	69	53	33	24	30	14	15	20	18	32	39	16	92
25-Oct	38	18	27	25	53	39	16	13	18	18	22	23	20	20	21	22	21	18	18	13	18	12	12	65	65
26-Oct	21	9	83	49	63	21	14	21	23	17	14	18	16	20	16	13	18	16	15	19	19	28	23	37	83
27-Oct	40	34	41	29	28	21	16	15	16	17	24	22	20	17	18	17	18	17	18	UO	UO	UO	UO	UO	41
28-Oct	UO	16	17	UO	14	26	15	17	19	20	19	19	19	19	21	21	22	21	23	24	24	22	31	40	40
29-Oct	19	19	28	25	25	19	18	16	25	32	74	35	25	18	21	24	24	26	34	36	37	32	27	34	74
30-Oct	29	27	17	33	20	38	20	39	26	16	63	20	92	76	30	19	25	22	22	23	26	28	20	15	92
31-Oct	17	22	17	17	17	15	18	18	19	21	21	23	23	22	25	24	24	24	24	23	26	20	21	19	26
	64	84	83	59	92	88	64	77	77	75	74	79	92	93	85	63	42	87	71	44	37	82	75	65	
	Diurnal Maximum																								

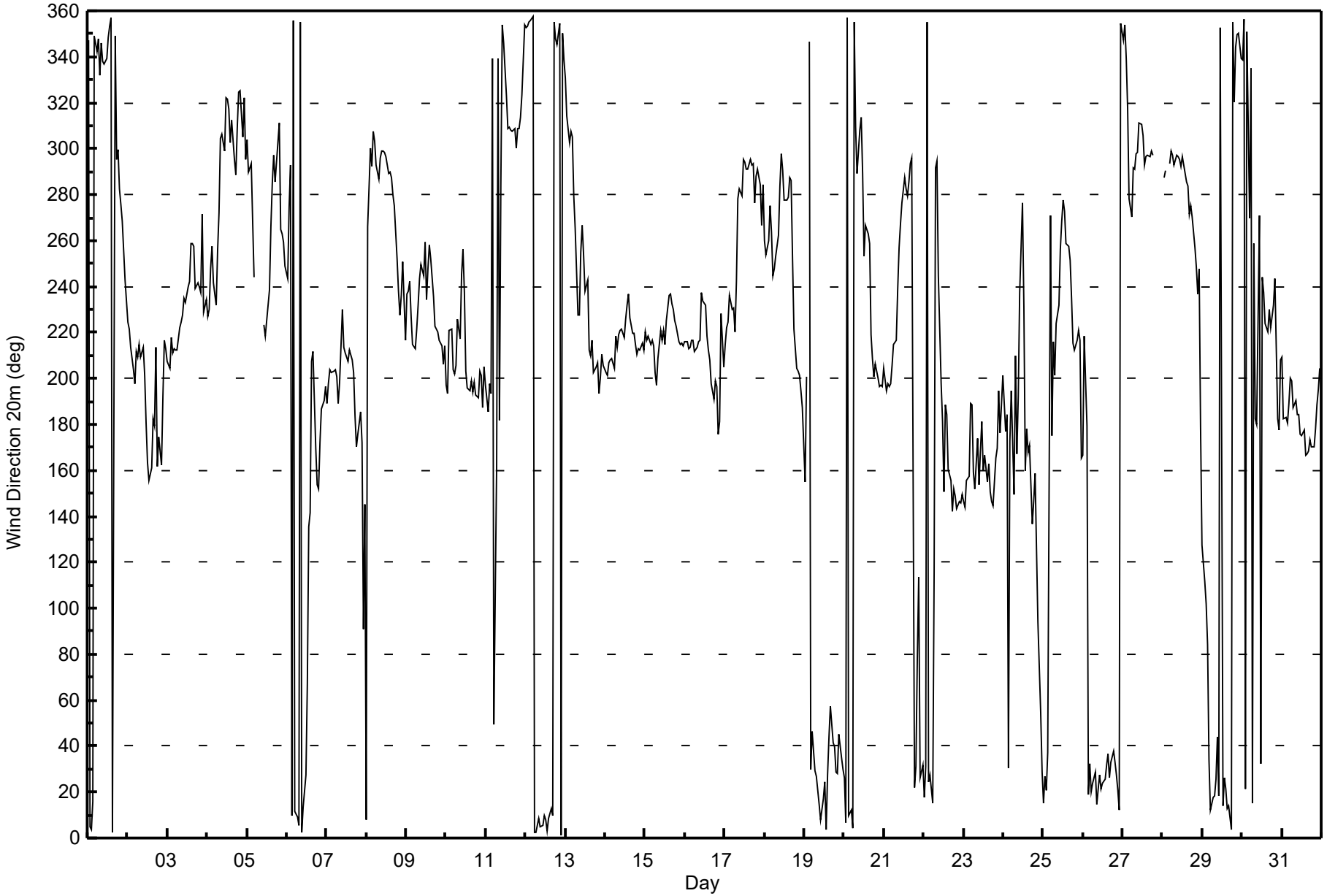
UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 20m (WD20) - deg

Janvier - October 2025



WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS23
FORT HILLS
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT HILLS (AMS23)
OCTOBER 2025

MONTHLY SUMMARY for
AMD SECTION III.B.1(c)

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	708	35	36	99.87	-	-	16	0	3.4	0
TRS(ppb) Average	707	36	37	99.87	3.4	0	2.9	0	0.9	0
THC(ppm) Average	691	35	53	97.58	-	-	6.3	-	3	-
NMHC(ppm) Average	691	35	53	97.58	-	-	1.38	-	0.374	-
CH4(ppm) Average	691	35	53	97.58	-	-	5.1	-	2.7	-
NO2 (ppb) Average	707	37	37	100	-	-	35.2	0	15	-
NO (ppb) Average	707	37	37	100	-	-	342.4	-	69.1	-
NOX (ppb) Average	707	37	37	100	-	-	376.6	-	84.1	-
PM2.5 (ug/m3) Average	742	2	2	100	-	-	34.8	0	10.2	0
Temperature 2 m (C) Average	744	0	0	100	-	-	20.3	-	10.4	-
Relative Humidity (%) Average	744	0	0	100	-	-	98.6	-	91.7	-
Wind Speed 10 m (km/h) Average	744	0	0	100	-	-	39	-	24	-
Wind Direction 10 m (deg) Average	744	0	0	100	-	-	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT HILLS (AMS23)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	708	0.63	1.7	-	0	0	0	0.1	0.4	1.4	16
TRS (ppb) Average	707	0.49	0.3	-	0.2	0.3	0.3	0.4	0.5	0.9	2.9
THC (ppm) Average	691	2.31	0.5	-	1.9	2	2	2.1	2.3	2.9	6.3
NMHC(ppm) Average	691	0.112	0.227	-	0	0	0	0	0.1	0.4	1.38
CH4(ppm) Average	691	2.2	0.3	-	1.9	2	2	2.1	2.2	2.5	5.1
NO2 (ppb) Average	707	8.11	7.2	-	0	0.5	2	6.3	12.6	18.1	35.2
NO (ppb) Average	707	10.94	28.9	-	0	0	0.1	1.4	7.5	29.3	342.4
NOX (ppb) Average	707	19.05	33.8	-	0	0.5	2.4	8.8	19.8	47.9	376.6
PM2.5 (ug/m3) Average	742	4.95	4.4	-	0.1	0.8	2.2	3.9	6.2	9.4	34.8
Temperature 2 m (C) Average	744	4.95	4.2	-	-4.2	0.1	1.6	4.2	7.9	10.6	20.3
Relative Humidity (%) Average	744	76.16	15.5	-	32.8	52.2	66.3	78.6	89.3	94.6	98.6
Wind Speed 10 m (km/h) Average	744	12.3	7	-	0	5	8	11	16	22	39
Wind Direction 10 m (deg) Average	744	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - FORT HILLS (AMS23)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
SO2, THC/NMHC/CH4, TRS	20 Oct 2025 09:00	20 Oct 2025 09:00	1	Maintenance - sample manifold cleaned
THC/NMHC/CH4	25 Oct 2025 19:00	25 Oct 2025 23:00	5	Unstable Operation - excessive baseline noise
THC/NMHC/CH4	26 Oct 2025 01:00	26 Oct 2025 02:00	2	Unstable Operation - excessive baseline noise
THC/NMHC/CH4	26 Oct 2025 06:00	26 Oct 2025 11:00	6	Maintenance - recalibration due to baseline drift
THC/NMHC/CH4	29 Oct 2025 08:00	29 Oct 2025 11:00	4	Maintenance - recalibration to adjust carrier pressure

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Fort Hills - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 16.0 ppb on Oct 24 14:00 Maximum Daily Average: 3.4 ppb on Oct 7

Minimum Value: 0.0 ppb on Oct 1 13:00 Minimum Daily Average: 0.0 ppb on Oct 27
Maximum Diurnal Average: 2.0 ppb at hour 14 Minimum Diurnal Average: 0.2 ppb at hour 8
Monthly Average: 0.63 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.4 P_{90} = 1.4 P_{99} = 10.3

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	35
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.2	0.2	0.2	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.1	0.2
2-Oct	0.0	0.0	0.2	0.2	Z	0.0	0.0	0.0	0.2	0.2	0.2	0.7	1.8	1.7	2.2	1.2	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.4	2.2
3-Oct	0.1	0.0	0.0	0.1	0.2	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.2	0.2	0.6	0.3	0.2	0.7	0.1	0.7
4-Oct	Z	0.4	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.4
5-Oct	0.1	Z	0.2	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.6	1.4	0.3	0.1	0.1	0.2	1.4
6-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	1.0	1.4	0.2	0.3	1.1	7.0	2.5	1.4	1.1	0.8	0.6	0.8	0.8	7.0
7-Oct	1.0	0.6	0.6	Z	1.9	3.1	1.6	0.9	0.9	1.1	1.4	7.9	10.3	11.1	12.4	9.3	3.3	2.7	1.8	1.6	1.5	1.4	1.1	1.1	3.4	12.4
8-Oct	1.3	0.5	0.3	0.3	Z	0.1	0.0	0.1	0.2	0.2	0.2	0.5	0.5	0.4	0.0	0.1	0.3	0.1	0.3	0.0	0.0	0.1	0.1	0.1	0.3	1.3
9-Oct	0.1	0.1	0.1	0.2	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2
10-Oct	Z	0.1	0.1	0.1	0.2	0.2	C	C	C	C	0.4	2.9	7.3	10.3	10.4	6.9	0.4	0.3	0.3	0.7	1.1	1.4	1.2	1.6	2.4	10.4
11-Oct	2.2	Z	0.9	0.9	1.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.2
12-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13-Oct	0.0	0.0	0.2	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.2	0.1	0.4
14-Oct	0.5	0.3	0.6	0.6	Z	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.4	0.5	0.5	0.6	0.6	0.4	0.3	0.6
15-Oct	0.6	0.1	0.1	0.0	0.0	Z	0.1	0.1	0.2	0.4	0.5	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.5	0.2	0.2	0.2	0.6
16-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	11.6	10.1	9.1	5.9	4.7	2.8	0.7	0.3	0.4	0.3	0.2	0.2	2.0	11.6
17-Oct	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.5
18-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.2	0.4	0.5	0.4	0.3	0.1	0.2	0.4	0.2	0.2	0.2	0.1	0.2	0.3	0.2	0.5
19-Oct	0.4	0.2	0.3	Z	0.7	1.7	2.1	1.3	0.6	0.5	0.5	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.5	2.1
20-Oct	0.2	0.2	0.2	0.2	Z	0.2	0.3	0.3	M	0.2	0.2	0.2	0.3	0.1	0.2	0.4	0.4	0.2	0.1	0.1	0.1	0.4	1.1	1.6	0.3	1.6
21-Oct	2.2	1.2	1.4	0.8	0.3	Z	0.1	0.1	0.1	0.1	0.4	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.3	2.2
22-Oct	Z	0.1	0.2	0.6	0.2	0.0	0.0	0.1	0.0	0.5	1.8	1.1	0.4	1.5	2.9	4.3	3.8	2.6	1.3	0.3	0.2	0.2	0.1	0.0	1.0	4.3
23-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.2	1.8	3.3	4.7	5.2	7.5	7.2	12.5	4.5	0.6	0.4	0.2	0.2	0.2	0.1	0.1	1.4	2.2	12.5
24-Oct	1.1	1.5	Z	1.3	1.5	1.2	0.7	0.5	0.4	0.6	2.9	5.6	6.6	16.0	8.5	3.6	2.0	1.6	0.9	0.8	0.4	0.2	0.0	0.1	2.5	16.0
25-Oct	0.0	0.0	0.0	Z	0.6	1.0	1.0	0.5	0.8	1.0	1.0	0.5	0.1	0.0	0.0	0.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.2
26-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.6	1.0	0.4	0.5	0.5	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0
27-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
29-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2
30-Oct	0.2	0.2	Z	0.2	1.5	2.5	0.6	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.3	2.5
31-Oct	0.0	0.0	0.0	Z	0.1	0.0	0.1	0.3	2.2	8.8	2.3	4.5	2.8	1.8	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.9	1.0	1.2	8.8
	0.4	0.2	0.2	0.3	0.4	0.4	0.3	0.2	0.3	0.6	0.6	1.0	1.7	2.0	1.9	1.2	0.6	0.6	0.3	0.3	0.3	0.3	0.3	0.3	Diurnal Average	
	2.2	1.5	1.4	1.3	1.9	3.1	2.1	1.3	2.2	8.8	4.7	7.9	11.6	16.0	12.5	9.3	4.7	7.0	2.5	1.6	1.5	1.4	1.2	1.6	Diurnal Maximum	

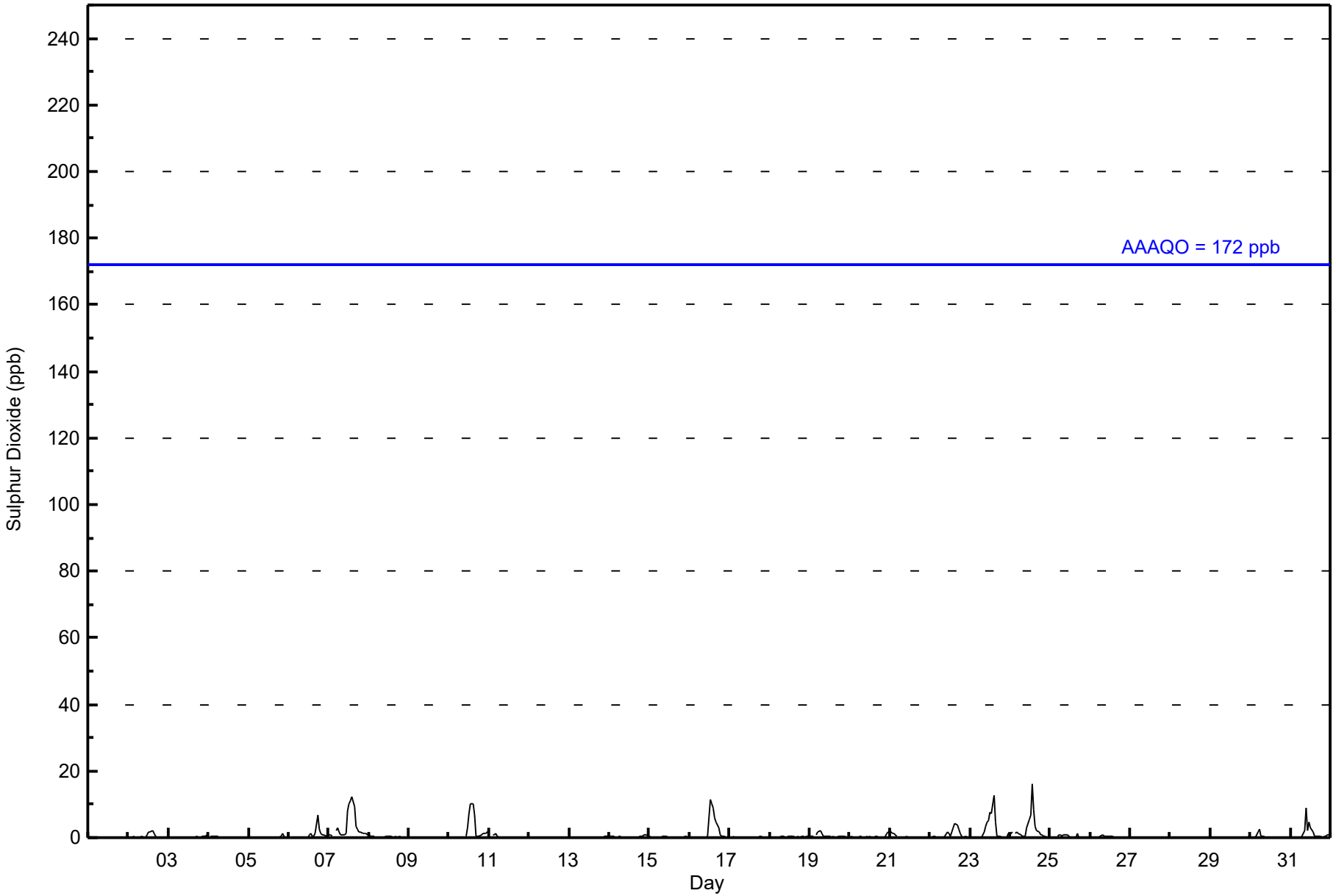
Z - zerospan C - Calibration M - Maintenance
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Fort Hills - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	703	99.29	99.29
11 - 20	5	0.71	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Fort Hills - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	95	19	7	4	6	3	56	113	97	76	50	27	41	35	17	57	703
11 - 20	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	0	5
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	95	19	7	4	6	3	56	116	99	76	50	27	41	35	17	57	708

Total Number of Valid Hours: 708

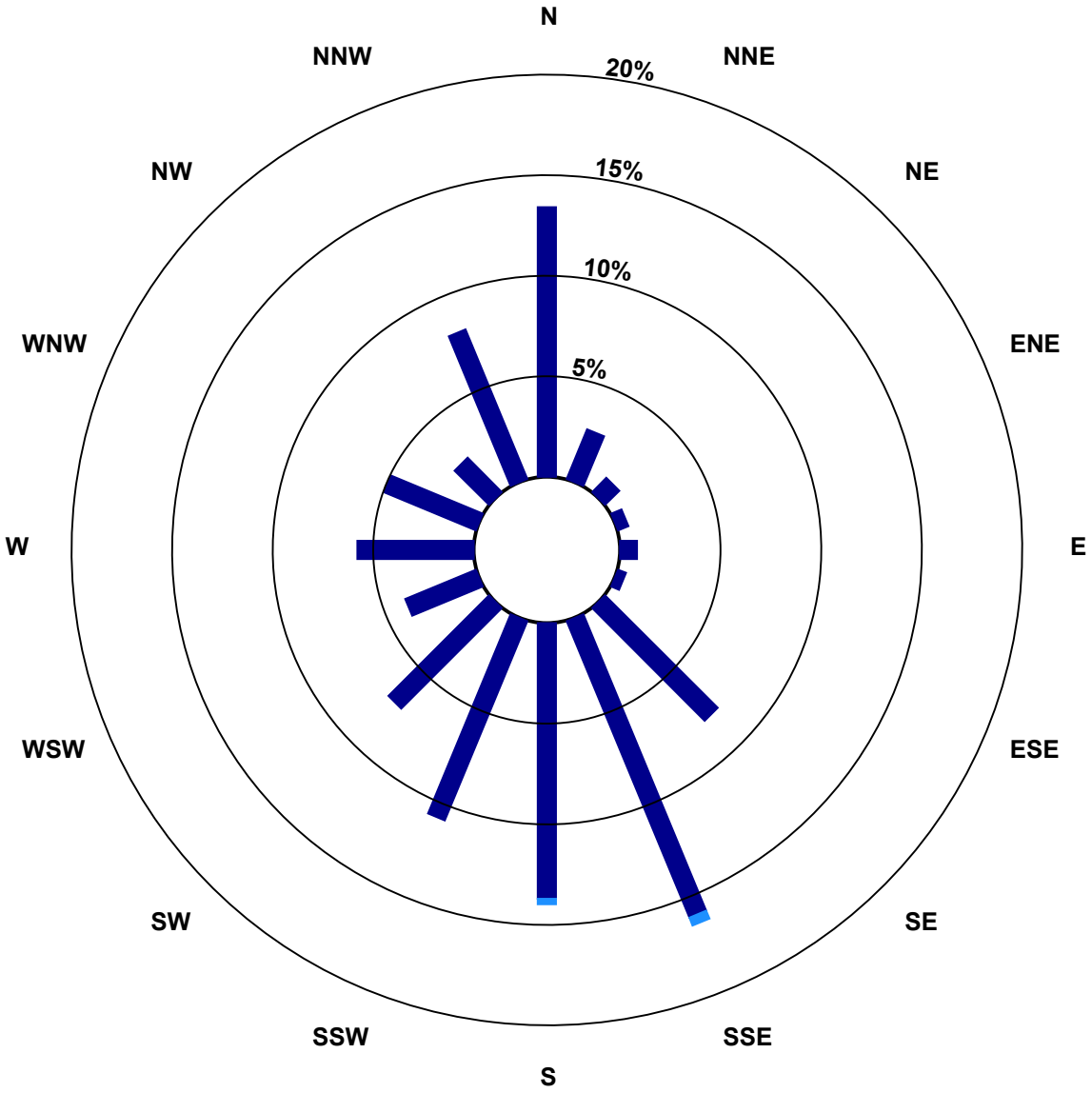
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Fort Hills



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

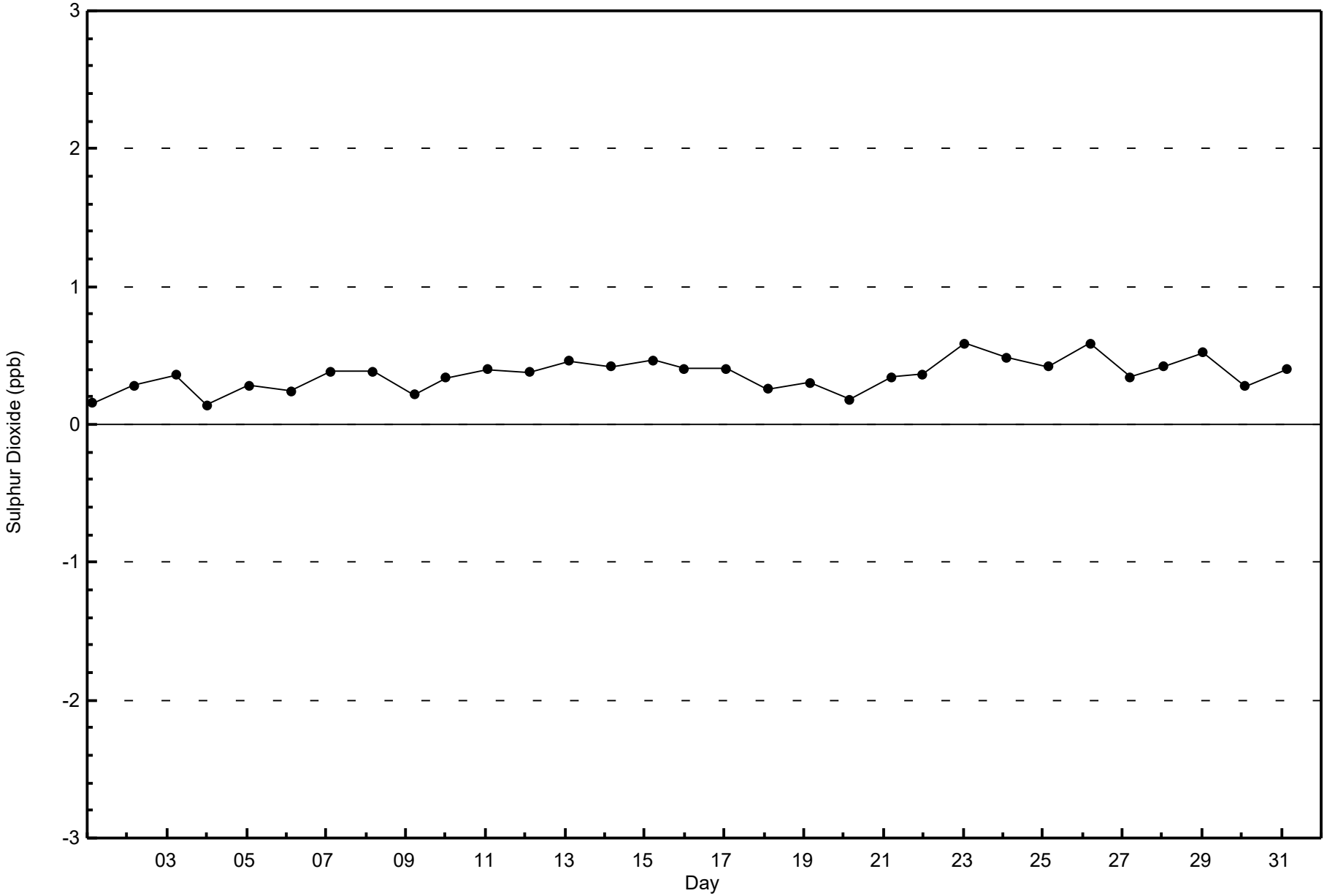
Total Number of Valid Hours: 708

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Fort Hills - October 2025

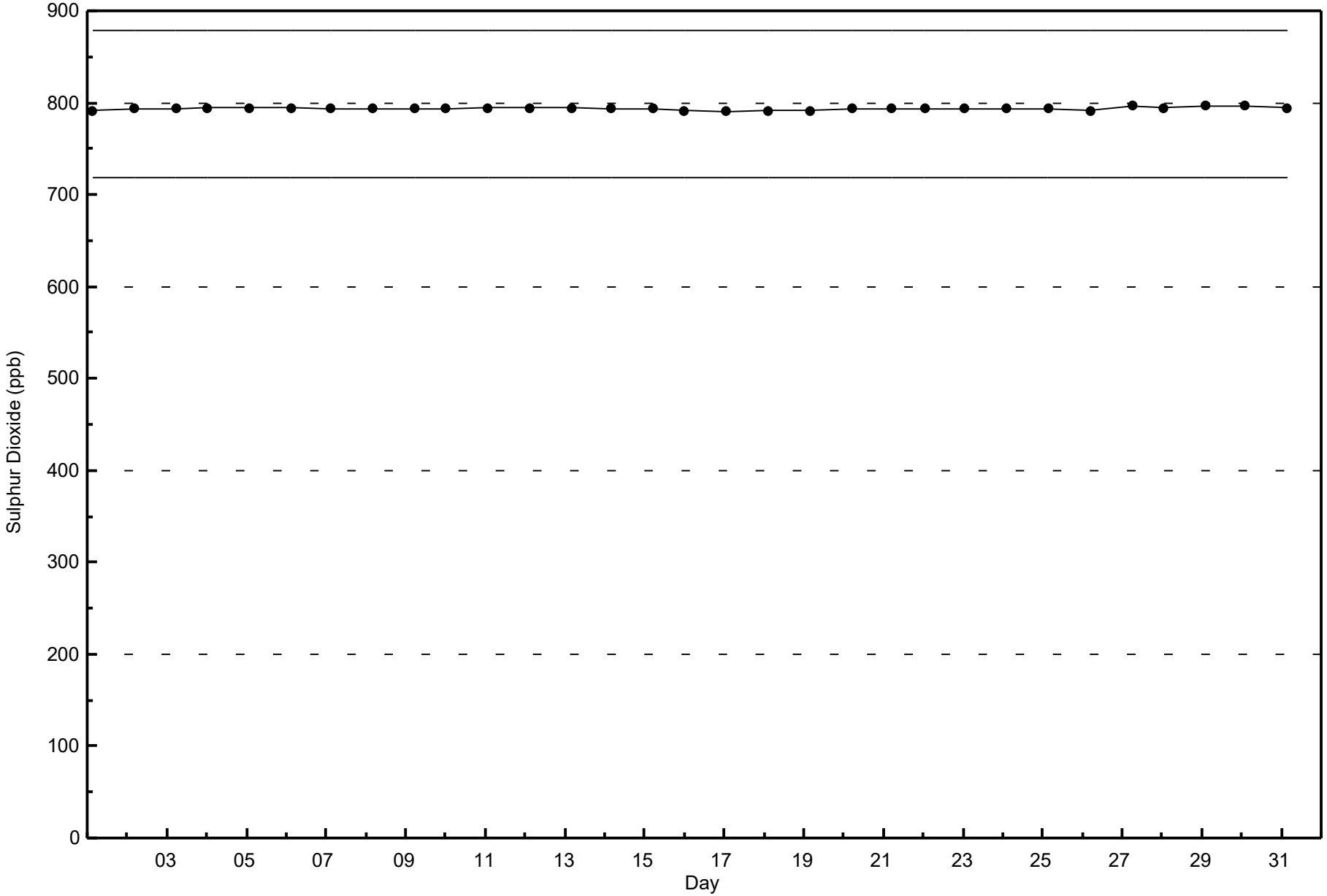


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Fort Hills - October 2025



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Fort Hills - October 2025

Number of Exceedences (AAAQG): 30-Min: 0

Maximum Value: 3.4 ppb on Oct 22 04:00

Maximum Daily Average: 0.8 ppb on Oct 19

Minimum Value: 0.2 ppb on Oct 1 15:00

Minimum Daily Average: 0.3 ppb on Oct 12

Maximum Diurnal Average: 0.7 ppb at hour 4

Minimum Diurnal Average: 0.4 ppb at hour 16

Monthly Average: 0.49 ppb

Percentiles: P_1 = 0.2 P_{10} = 0.3 Q_1 = 0.3 Median = 0.4 Q_3 = 0.5 P_{90} = 0.9 P_{99} = 2.1

Periods in Service:	1488
Periods of Valid Data:	1415
Periods of Invalid Data:	73
Periods of Calibration:	71
Percent Operational Time:	99.9

Day	Period Ending At (MST) 00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
1-Oct	0.4	0.5	0.4	0.4	Z	0.3	0.4	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.9	0.4	0.3	0.9
	0.4	0.4	0.4	0.4	SP	0.4	0.3	0.3	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.7	0.9	0.3		
2-Oct	0.3	0.3	0.4	0.4	0.3	Z	0.2	C	C	C	C	1.9	2.0	1.0	0.9	0.5	0.4	0.4	0.5	0.4	1.2	1.8	1.4	0.9	0.8	2.0
	0.3	0.3	0.5	0.3	0.3	SP	C	C	C	C	C	2.0	1.5	0.9	0.7	0.4	0.3	0.3	0.4	0.5	1.7	1.9	1.0	0.8		
3-Oct	Z	0.6	0.7	0.8	0.8	0.9	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	0.3	0.4	0.8	0.6	0.3	0.5	0.5	0.9
	SP	0.6	0.8	0.8	0.8	0.7	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.7	0.3	0.5	0.3	0.3	0.4		
4-Oct	0.4	Z	0.4	0.3	0.6	0.8	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	1.4
	1.4	SP	0.3	0.3	0.5	0.6	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.2		
5-Oct	0.3	0.2	Z	0.4	0.6	0.2	0.3	0.4	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.2	0.3	0.3	0.3	0.6	0.3	0.3	0.3	0.3	0.7
	0.3	0.3	SP	0.6	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.5	0.7	0.3	0.3	0.3		
6-Oct	0.3	0.3	0.3	Z	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.6	0.4	0.3	0.3	0.5	0.8	0.6	0.8	0.9	0.9	0.8	0.5	1.1
	0.3	0.3	0.3	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.4	0.3	0.3	0.3	0.7	0.7	0.6	1.1	1.0	0.9	0.9		
7-Oct	0.9	0.8	0.5	0.4	Z	0.4	0.4	0.5	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.5	0.7	1.0	1.2	0.9	1.0	1.3	1.0	1.3	0.7	1.3
	0.9	0.7	0.5	0.4	SP	0.5	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.6	0.8	1.0	1.0	0.9	1.2	1.0	1.0	1.1		
8-Oct	1.1	0.9	0.7	0.8	1.0	Z	0.2	0.2	0.2	0.6	0.2	0.2	0.2	0.4	0.5	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.4	0.5	2.4
	1.0	1.6	0.7	2.4	0.8	SP	0.2	0.2	0.4	0.5	0.3	0.3	0.4	0.4	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3		
9-Oct	Z	0.3	0.4	0.5	0.6	0.3	0.8	0.3	0.7	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.5	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.8
	SP	0.3	0.4	0.5	0.4	0.4	0.4	0.4	0.6	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.4		
10-Oct	0.4	Z	0.7	0.9	0.8	0.9	1.3	0.9	0.8	0.7	0.4	0.5	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.6	0.4	0.5	1.1	0.6	0.6	1.4
	0.5	SP	0.8	0.8	0.9	1.0	1.0	0.8	0.8	0.5	0.4	0.6	0.6	0.4	0.4	0.4	0.2	0.3	0.5	0.4	0.4	0.9	0.7	1.4		
11-Oct	2.1	2.7	Z	2.0	1.6	0.8	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.6	2.8
	2.4	2.8	SP	1.4	1.3	0.5	0.4	0.5	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2		
12-Oct	0.2	0.2	0.2	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
	0.2	0.2	0.3	SP	0.3	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
13-Oct	0.3	0.3	0.4	0.8	Z	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4	1.1
	0.3	0.3	0.4	0.6	SP	1.1	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4		
14-Oct	0.4	0.3	0.4	0.4	0.4	Z	0.4	0.3	0.3	0.4	0.5	0.4	0.4	0.3	0.3	0.4	0.5	0.7	0.5	0.9	1.2	0.6	1.0	0.5	0.5	1.2
	0.4	0.3	0.4	0.4	0.4	SP	0.4	0.4	0.3	0.3	0.6	0.3	0.3	0.3	0.4	0.3	0.7	0.4	1.2	1.1	0.7	1.0	0.6	0.6		
15-Oct	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.7	0.6	0.8	0.3	0.9	0.6	0.3	0.3	0.6	0.3	0.3	0.3	2.3	1.8	0.7	0.6	2.6
	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.8	0.6	0.3	0.8	0.9	0.3	0.3	0.3	0.3	0.3	0.3	0.9	2.6	1.1	1.0		

Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Fort Hills - October 2025

Day	00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
	Period Ending At (MST)																									
16-Oct	0.6	Z	0.3	0.3	0.4	0.4	0.5	0.6	0.3	0.4	0.5	0.7	1.1	1.0	0.7	0.5	1.5	1.2	0.4	0.5	0.5	0.5	0.3	0.3	0.6	1.5
	0.8	SP	0.3	0.3	0.5	0.5	0.8	0.5	0.3	0.4	0.6	0.8	1.4	0.8	0.6	0.9	1.4	1.0	0.4	0.4	0.4	0.8	0.3	0.3		
17-Oct	0.3	0.8	Z	0.9	0.4	0.5	0.9	0.5	0.7	0.7	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.9
	0.7	0.7	SP	0.7	0.4	0.9	0.5	0.7	0.5	0.8	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4		
18-Oct	0.4	0.3	0.4	Z	0.2	0.3	0.3	0.3	0.5	0.5	0.4	0.6	0.6	0.5	0.5	0.3	0.3	0.4	0.8	1.1	1.0	0.7	2.4	0.6	0.6	2.4
	0.4	0.3	0.3	SP	0.3	0.3	0.5	1.0	0.6	0.3	0.6	0.6	0.4	0.4	0.3	0.3	0.3	1.1	0.5	1.6	1.7	0.9	0.5	1.5		
19-Oct	1.1	1.3	2.2	2.4	Z	1.0	1.5	1.1	1.5	1.6	0.8	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.8	2.4
	1.8	0.8	2.2	1.3	SP	1.6	1.4	0.9	2.2	1.1	0.7	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
20-Oct	0.3	0.3	0.3	0.3	0.3	Z	0.3	0.3	M	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.7
	0.3	0.3	0.3	0.3	0.3	SP	0.3	0.3	M	0.3	0.3	0.3	0.4	0.7	0.4	0.5	0.4	0.3	0.3	0.2	0.3	0.4	0.4	0.4		
21-Oct	Z	0.3	0.4	0.3	0.4	0.5	0.4	0.3	0.2	0.3	0.7	0.2	0.2	0.2	0.2	0.3	0.3	0.5	0.5	0.3	0.6	0.3	0.5	0.4	0.4	3.0
	SP	0.4	0.4	0.4	0.5	0.4	0.4	0.3	0.2	0.3	0.4	0.2	0.3	0.2	0.2	0.4	0.3	0.5	0.3	0.3	3.0	0.3	0.4	0.5		
22-Oct	0.4	Z	0.6	2.3	0.8	0.3	0.2	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.6	0.5	0.7	1.0	1.5	1.2	0.8	0.6	0.5	0.6	0.7	3.4
	0.5	SP	1.9	3.4	0.4	0.2	0.3	0.4	0.3	0.4	0.4	0.5	0.5	0.6	0.5	0.6	0.7	0.9	0.7	0.9	0.6	0.7	0.5	0.4		
23-Oct	0.4	0.4	Z	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.4	0.5	0.5	0.9	0.9	0.5	0.6	0.4	0.5	0.4	0.3	0.4	0.5	1.2
	0.4	0.3	SP	0.3	0.4	0.3	0.3	0.3	0.5	0.6	0.6	0.4	0.4	0.5	0.7	0.5	1.2	0.6	0.4	0.5	0.5	0.3	0.3	0.4		
24-Oct	0.4	0.4	0.6	Z	0.6	0.6	0.5	0.5	0.5	0.4	0.5	0.6	0.4	0.5	0.5	0.5	0.6	1.8	0.8	1.5	0.8	1.1	0.4	0.3	0.6	1.8
	0.3	0.5	0.6	SP	0.6	0.5	0.5	0.5	0.4	0.6	0.6	0.5	0.4	0.5	0.5	0.6	0.6	0.6	1.4	1.0	1.1	0.5	0.3	0.3		
25-Oct	0.3	0.3	0.3	0.3	Z	0.6	1.0	1.0	1.6	1.3	0.9	0.8	0.6	0.9	0.5	0.4	0.6	0.3	0.3	0.4	0.3	0.2	0.3	0.3	0.6	1.7
	0.5	0.3	0.3	0.3	SP	0.8	1.1	0.9	1.7	1.1	1.1	0.6	1.5	0.7	0.4	0.6	1.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
26-Oct	0.4	0.5	0.4	0.4	0.4	Z	0.9	1.5	0.8	0.7	0.8	1.2	0.9	0.7	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.6	1.5
	0.7	0.4	0.3	0.4	1.3	SP	1.4	1.0	0.7	0.8	0.9	1.0	0.8	0.6	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3		
27-Oct	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	1.2	0.5	0.4	0.3	1.2
	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.4	0.4	0.4		
28-Oct	0.3	Z	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
	0.4	SP	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
29-Oct	0.3	0.3	Z	0.3	0.5	0.3	0.4	0.3	0.5	0.5	0.3	0.3	0.3	0.3	0.5	0.3	0.5	0.5	0.4	0.2	0.2	0.3	0.3	0.4	0.4	0.6
	0.3	0.3	SP	0.3	0.5	0.4	0.3	0.6	0.5	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.6	0.4	0.3	0.2	0.2	0.4	0.3	0.3		
30-Oct	0.3	0.4	0.3	Z	0.4	0.6	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6
	0.3	0.4	0.3	SP	0.4	0.5	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
31-Oct	0.3	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.4	0.4	0.6	0.5	0.6	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.4	0.6
	0.2	0.3	0.2	0.3	SP	0.2	0.3	0.3	0.4	0.4	0.6	0.5	0.6	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.5		
	0.6	0.5	0.5	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.5	0.5	Diurnal Average	
	2.4	2.8	2.2	3.4	1.6	1.6	1.5	1.5	2.2	1.6	1.1	2.0	2.0	1.0	0.9	0.9	1.5	1.8	1.5	1.6	3.0	2.6	2.4	1.5	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance SP - Span

Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb

Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

Fort Hills - October 2025

Maximum Value: 2.9 ppb on Oct 22 04:00

Maximum Daily Average: 0.9 ppb on Oct 19

Minimum Value: 0.2 ppb on Oct 1 15:00

Minimum Daily Average: 0.3 ppb on Oct 12

Maximum Diurnal Average: 0.7 ppb at hour 4

Minimum Diurnal Average: 0.4 ppb at hour 16

Monthly Average: 0.49 ppb

Percentiles: P_1 = 0.2 P_{10} = 0.3 Q_1 = 0.3 Median = 0.4 Q_3 = 0.5 P_{90} = 0.9 P_{99} = 1.9

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.4	0.4	0.4	0.4	Z	0.3	0.4	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.6	0.9	0.3	0.3	0.9
2-Oct	0.3	0.3	0.4	0.4	0.3	Z	C	C	C	C	C	1.9	1.7	1.0	0.8	0.4	0.3	0.4	0.5	0.5	1.5	1.8	1.2	0.8	0.8	1.9
3-Oct	Z	0.6	0.7	0.8	0.8	0.8	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.5	0.4	0.7	0.4	0.3	0.5	0.5	0.8
4-Oct	0.8	Z	0.3	0.3	0.5	0.7	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.8
5-Oct	0.3	0.3	Z	0.5	0.5	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.6	0.3	0.3	0.3	0.3	0.6
6-Oct	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.3	0.3	0.6	0.8	0.6	1.0	0.9	0.9	0.8	0.5	1.0
7-Oct	0.9	0.7	0.5	0.4	Z	0.4	0.4	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.6	0.8	1.0	1.1	0.9	1.1	1.2	1.0	1.2	0.7	1.2
8-Oct	1.1	1.3	0.7	1.6	0.9	Z	0.2	0.2	0.3	0.6	0.2	0.2	0.3	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.5	1.6
9-Oct	Z	0.3	0.4	0.5	0.5	0.3	0.6	0.4	0.7	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.7
10-Oct	0.4	Z	0.7	0.8	0.8	1.0	1.1	0.9	0.8	0.6	0.4	0.5	0.6	0.5	0.4	0.4	0.3	0.3	0.4	0.5	0.4	0.7	0.9	1.0	0.6	1.1
11-Oct	2.3	2.7	Z	1.7	1.4	0.7	0.4	0.5	0.3	0.3	0.3	0.3	0.3	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.6	2.7
12-Oct	0.2	0.2	0.2	Z	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
13-Oct	0.3	0.3	0.4	0.7	Z	0.8	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.8
14-Oct	0.4	0.3	0.4	0.4	0.4	Z	0.4	0.3	0.3	0.4	0.6	0.3	0.3	0.3	0.3	0.4	0.6	0.5	0.8	1.0	0.9	0.8	0.8	0.5	0.5	1.0
15-Oct	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.7	0.6	0.6	0.5	0.9	0.4	0.3	0.3	0.5	0.3	0.3	0.6	2.4	1.5	0.8	0.6	2.4
16-Oct	0.7	Z	0.3	0.3	0.4	0.4	0.6	0.5	0.3	0.4	0.5	0.8	1.3	0.9	0.6	0.7	1.4	1.1	0.4	0.4	0.4	0.6	0.3	0.3	0.6	1.4
17-Oct	0.5	0.8	Z	0.8	0.4	0.7	0.7	0.6	0.6	0.8	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.8
18-Oct	0.4	0.3	0.3	Z	0.3	0.3	0.4	0.7	0.6	0.4	0.5	0.6	0.5	0.4	0.4	0.3	0.3	0.7	0.7	1.3	1.3	0.8	1.5	1.0	0.6	1.5
19-Oct	1.5	1.1	2.2	1.9	Z	1.3	1.4	1.0	1.9	1.4	0.8	0.6	0.6	0.5	0.4	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.9	2.2
20-Oct	0.3	0.3	0.3	0.3	0.3	Z	0.3	0.3	M	0.3	0.3	0.3	0.4	0.6	0.4	0.5	0.4	0.3	0.3	0.2	0.3	0.4	0.4	0.4	0.3	0.6
21-Oct	Z	0.3	0.4	0.3	0.4	0.4	0.4	0.3	0.2	0.3	0.6	0.2	0.2	0.2	0.2	0.3	0.3	0.5	0.4	0.3	1.8	0.3	0.5	0.5	0.4	1.8
22-Oct	0.4	Z	1.3	2.9	0.6	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.7	0.9	1.1	1.0	0.7	0.7	0.5	0.5	0.7	2.9
23-Oct	0.4	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	1.0	0.6	0.5	0.4	0.5	0.4	0.3	0.4	0.5	1.0
24-Oct	0.4	0.4	0.6	Z	0.6	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.6	1.2	1.1	1.2	0.9	0.8	0.4	0.3	0.6	1.2
25-Oct	0.4	0.3	0.3	0.3	Z	0.7	1.1	0.9	1.7	1.2	1.0	0.7	1.0	0.8	0.4	0.5	0.8	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	1.7
26-Oct	0.5	0.4	0.3	0.4	0.8	Z	1.1	1.3	0.7	0.8	0.9	1.1	0.9	0.6	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.6	1.3
27-Oct	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.8	0.4	0.4	0.3	0.8
28-Oct	0.4	Z	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
29-Oct	0.3	0.3	Z	0.3	0.5	0.4	0.3	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.5	0.5	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.5
30-Oct	0.3	0.4	0.3	Z	0.4	0.6	0.4	0.4	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6
31-Oct	0.3	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.5	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.4	0.6
	0.6	0.5	0.5	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.5	0.5	Diurnal Average	
	2.3	2.7	2.2	2.9	1.4	1.3	1.4	1.3	1.9	1.4	1.0	1.9	1.7	1.0	0.8	0.7	1.4	1.2	1.1	1.3	1.8	2.4	1.5	1.2	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

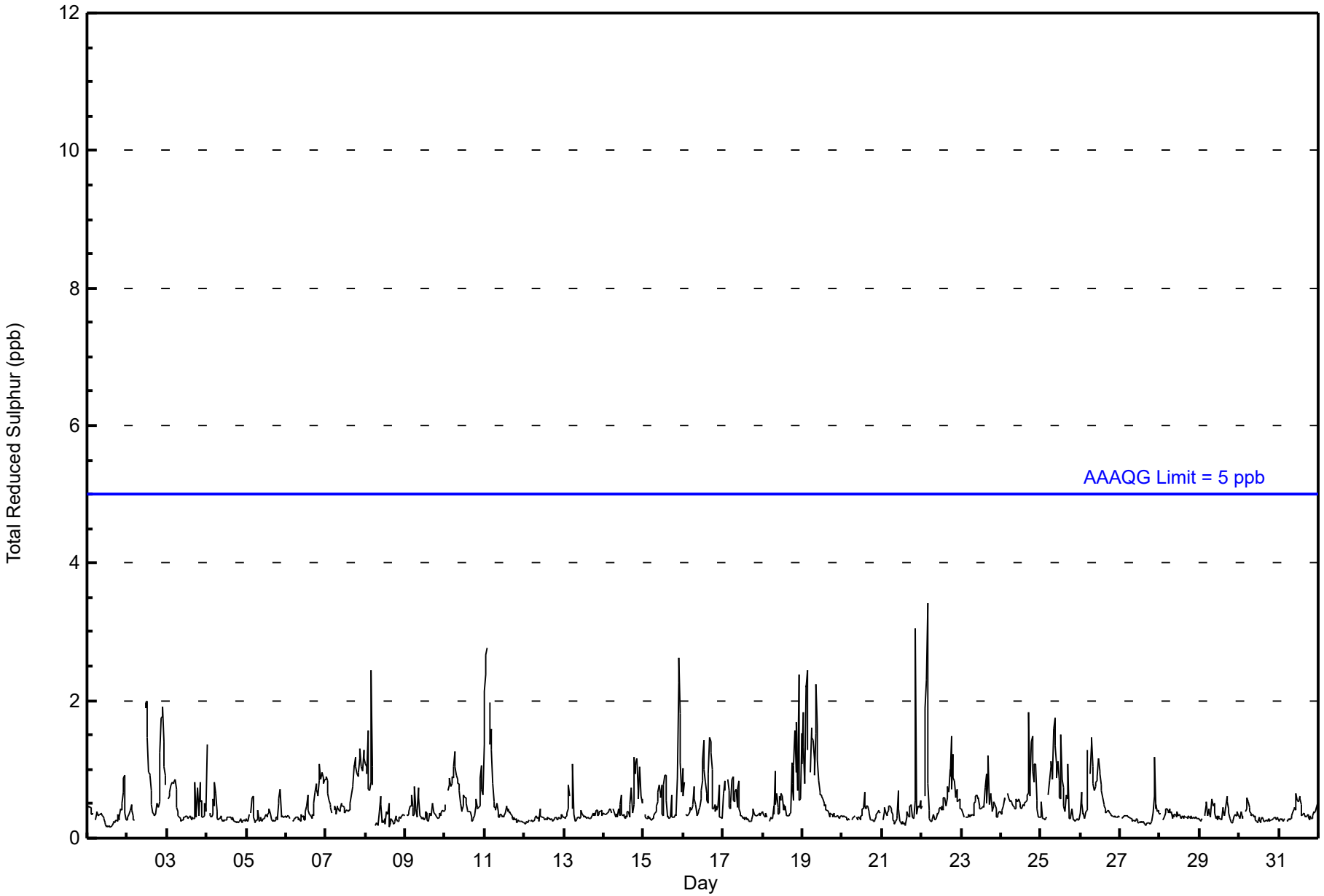
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA

Wood Buffalo Environmental Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Fort Hills - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	705	99.72	99.72
3 - 4	2	0.28	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Reduced Sulphur (TRS) - ppb

Fort Hills - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	94	20	7	4	4	3	57	110	99	80	51	27	40	35	19	55	705
3 - 4	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	94	20	7	4	4	4	57	111	99	80	51	27	40	35	19	55	707

Total Number of Valid Hours: 707

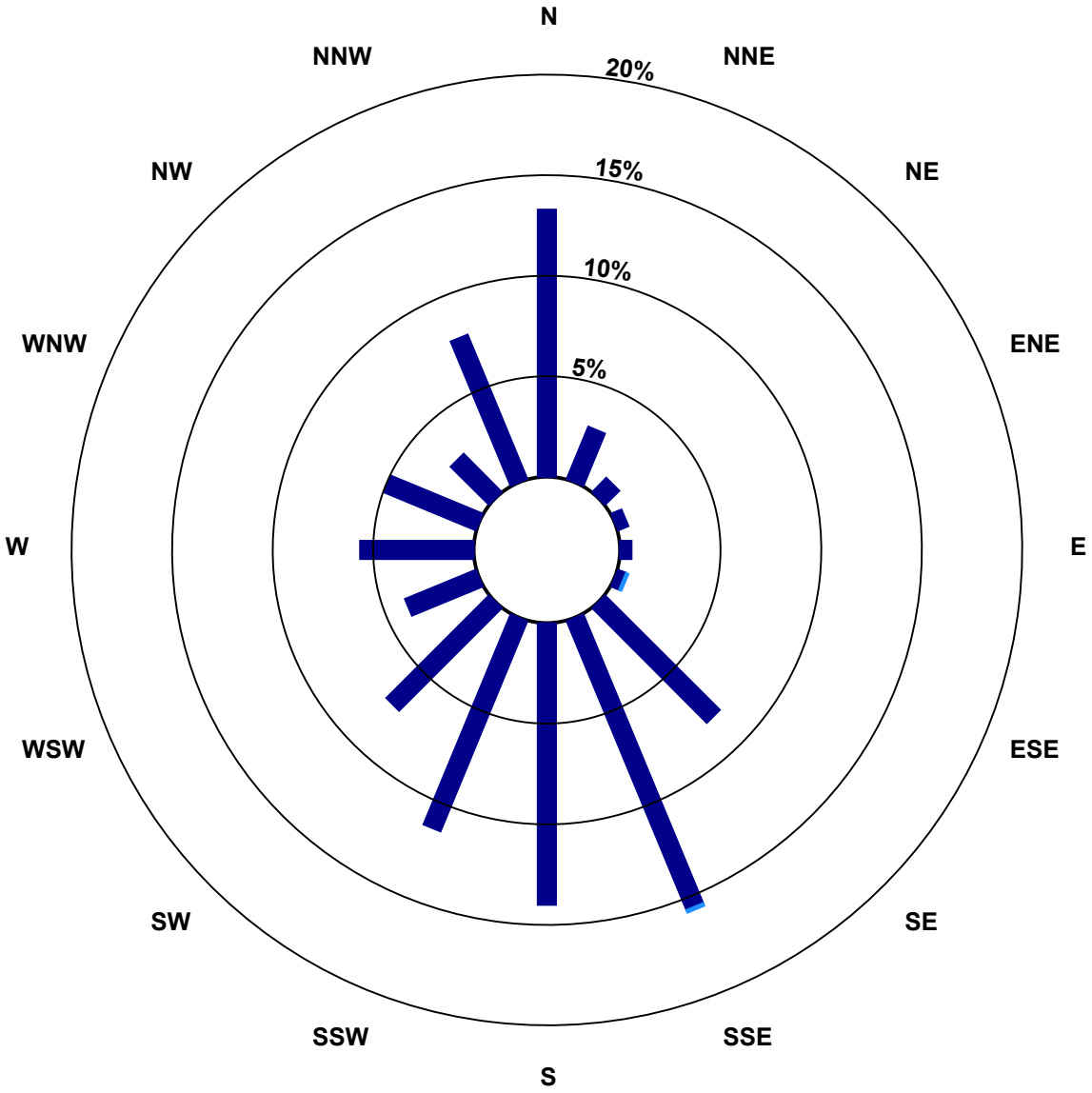
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Reduced Sulphur (TRS) - ppb

Fort Hills



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

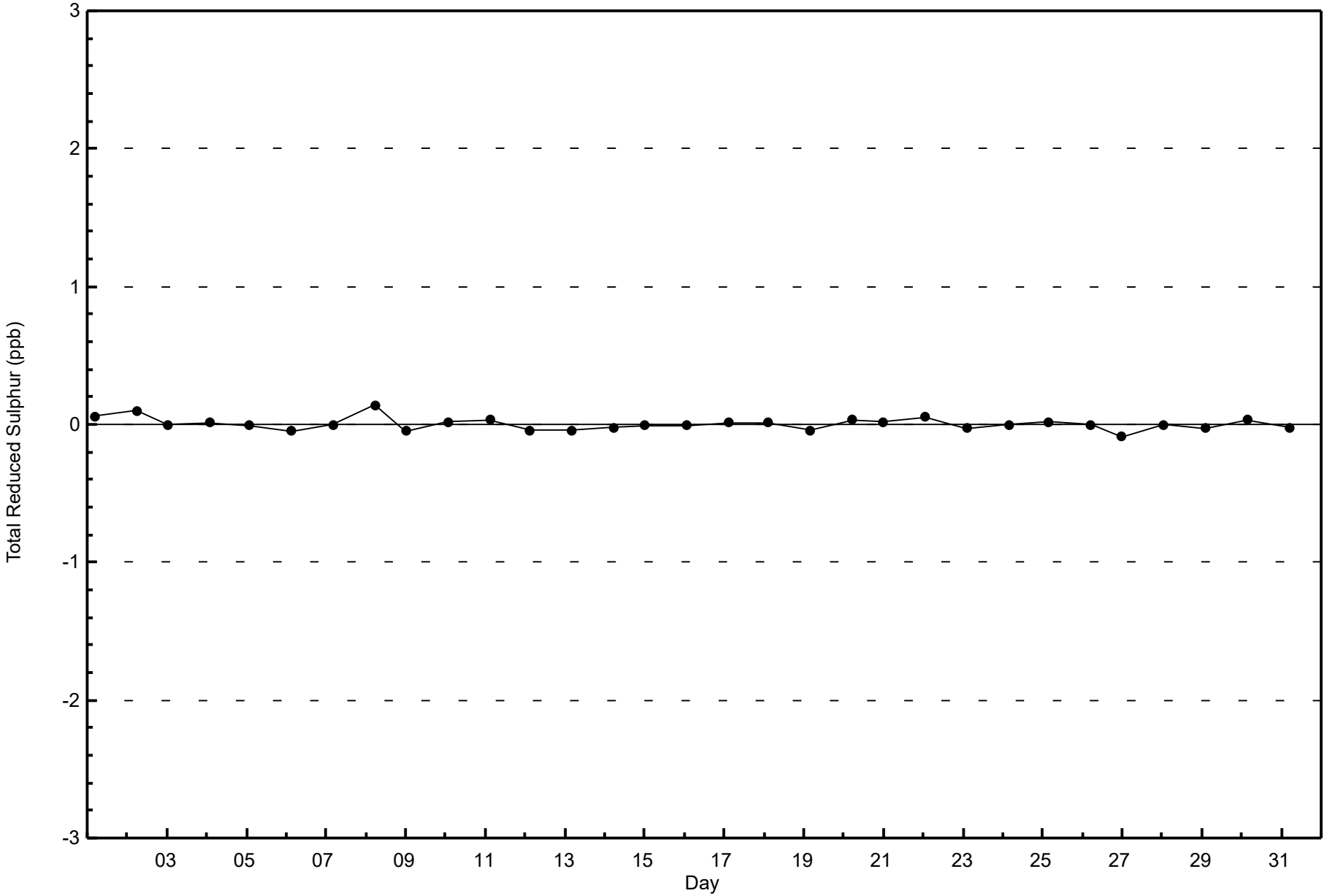
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Total Reduced Sulphur (TRS) - ppb

Fort Hills - October 2025

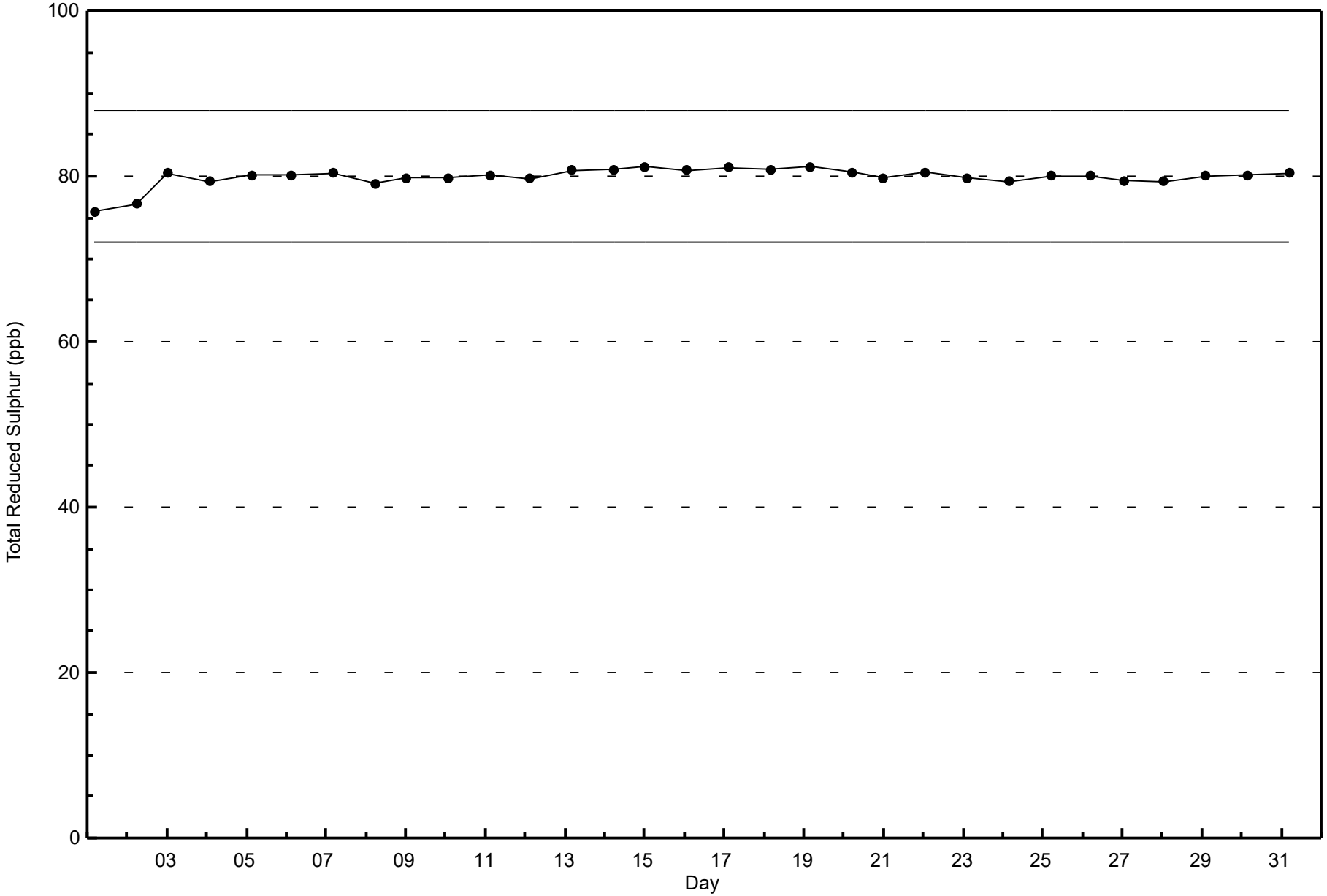


Wood Buffalo Environmental Association

Span Responses

Total Reduced Sulphur (TRS) - ppb

Fort Hills - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Fort Hills - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 6.3 ppm on Oct 19 07:00

Maximum Daily Average: 3.0 ppm on Oct 19

Minimum Value: 1.9 ppm on Oct 23 03:00

Minimum Daily Average: 2.0 ppm on Oct 28

Maximum Diurnal Average: 2.6 ppm at hour 4

Minimum Diurnal Average: 2.1 ppm at hour 15

Monthly Average: 2.31 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.0 Median = 2.1 Q_3 = 2.3 P_{90} = 2.9 P_{99} = 4.4

Hours in Service:	744
Hours of Data:	691
Hours of Missing Data:	53
Hours of Calibration:	35
Percent Operational Time:	97.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.5	2.7	2.3	Z	2.0	2.2	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.2	2.4	2.3	2.3	2.5	2.8	2.1	2.3	2.2	2.2	2.8
2-Oct	2.2	2.5	3.9	4.2	Z	2.1	2.1	2.1	2.9	3.0	3.2	3.0	3.0	2.5	2.1	2.1	2.0	2.1	2.1	2.1	2.4	2.6	2.4	2.3	2.6	4.2
3-Oct	2.2	2.2	2.3	2.4	2.4	Z	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.0	2.0	2.1	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.4
4-Oct	Z	2.3	2.3	2.3	2.7	2.4	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.7
5-Oct	2.0	Z	3.2	2.6	2.8	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.2	2.2	2.0	2.0	2.0	2.0	2.1	2.3	2.0	2.2	2.1	2.2	3.2
6-Oct	2.0	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.2	2.0	2.1	2.1	2.4	2.8	2.3	2.3	2.2	2.3	2.3	2.1	2.8
7-Oct	2.3	2.1	2.1	Z	2.2	2.4	2.2	2.6	2.3	2.6	2.6	2.1	2.1	2.1	2.1	2.2	3.1	5.8	4.3	3.0	3.5	3.6	4.3	3.6	2.8	5.8
8-Oct	3.6	2.6	2.2	3.3	Z	2.4	2.0	2.0	2.1	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	3.6
9-Oct	2.0	2.0	2.0	2.1	2.4	Z	2.7	2.1	2.9	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.2	2.3	2.0	2.0	2.0	2.2	2.1	2.1	2.1	2.9
10-Oct	Z	2.6	2.6	2.5	2.7	2.6	C	C	C	C	2.0	2.3	2.1	2.0	2.1	2.1	2.0	2.0	2.1	2.4	2.2	2.2	2.3	3.0	2.3	3.0
11-Oct	3.9	Z	5.0	4.4	4.5	2.6	2.5	2.6	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	5.0
12-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
13-Oct	2.0	2.0	2.1	Z	2.4	2.8	2.1	2.0	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.2	2.2	2.1	2.1	2.8
14-Oct	2.1	2.1	2.3	2.3	Z	2.4	2.2	2.1	2.1	2.3	2.3	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.9	3.4	2.9	2.5	2.6	2.5	2.4	3.4
15-Oct	2.2	2.1	2.1	2.1	2.1	Z	2.1	2.2	2.4	2.5	2.5	2.3	2.4	2.6	2.3	2.1	2.1	2.3	2.0	2.0	2.3	4.3	3.7	2.7	2.4	4.3
16-Oct	Z	2.2	2.0	2.2	2.2	2.2	2.2	2.1	2.0	2.1	2.3	2.5	2.6	2.2	2.1	2.4	2.9	2.7	2.2	2.2	2.2	2.7	2.0	2.0	2.3	2.9
17-Oct	2.2	Z	3.4	3.5	2.3	2.5	2.7	2.3	2.5	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	3.5
18-Oct	2.0	2.1	Z	2.0	2.0	2.0	2.0	2.4	3.3	2.1	2.2	3.3	2.2	2.6	2.2	2.0	2.0	2.0	2.0	2.3	2.6	2.4	2.7	2.3	2.3	3.3
19-Oct	3.7	3.3	3.2	Z	3.9	5.0	6.3	4.2	3.2	3.3	3.1	3.0	2.9	2.4	2.4	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.2	2.2	3.0	6.3
20-Oct	2.1	2.1	2.2	2.2	Z	2.2	2.2	2.3	M	2.3	2.3	2.2	2.2	2.3	2.2	2.3	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.2	2.3
21-Oct	2.0	2.0	2.1	2.1	2.2	Z	2.4	2.1	2.2	2.2	2.4	2.0	2.0	2.0	2.0	2.4	2.3	2.2	2.0	2.0	2.4	2.6	2.9	2.5	2.2	2.9
22-Oct	Z	2.2	2.8	3.6	2.7	2.1	2.1	2.5	2.0	2.0	2.1	2.3	2.5	2.4	2.4	2.4	2.6	2.8	3.3	3.5	3.3	3.1	2.5	2.4	2.6	3.6
23-Oct	2.3	Z	1.9	1.9	2.0	2.1	2.0	2.0	2.0	2.2	2.0	2.1	2.1	2.0	2.2	2.8	3.9	2.8	2.7	2.2	2.9	2.4	2.0	2.1	2.3	3.9
24-Oct	2.0	2.1	Z	3.3	3.2	2.7	2.5	2.3	2.3	2.4	2.5	2.5	2.1	2.1	2.3	2.8	3.2	3.1	4.2	5.1	4.0	3.4	2.1	2.0	2.8	5.1
25-Oct	2.1	2.1	2.0	Z	4.0	3.6	4.4	4.1	4.3	3.8	3.7	3.5	2.9	2.5	2.5	2.1	2.0	2.1	UO	UO	UO	UO	UO	2.0	3.0	4.4
26-Oct	UO	UO	2.1	2.3	Z	M	M	M	M	M	M	2.8	2.5	2.4	2.2	2.3	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.0	--	2.8
27-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
28-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
29-Oct	2.0	Z	2.0	2.1	2.3	2.1	2.1	M	M	M	M	2.3	2.1	2.0	2.1	2.2	2.1	2.1	2.2	2.0	2.0	2.4	2.4	2.4	2.1	2.4
30-Oct	2.2	2.3	Z	2.3	2.0	2.1	2.2	2.5	2.5	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.5
31-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.3
	2.3	2.2	2.5	2.6	2.5	2.4	2.4	2.3	2.4	2.3	2.3	2.3	2.2	2.2	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.3	2.2	Diurnal Average	
	3.9	3.3	5.0	4.4	4.5	5.0	6.3	4.2	4.3	3.8	3.7	3.5	3.0	2.6	2.5	2.8	3.9	5.8	4.3	5.1	4.0	4.3	4.3	3.6	Diurnal Maximum	

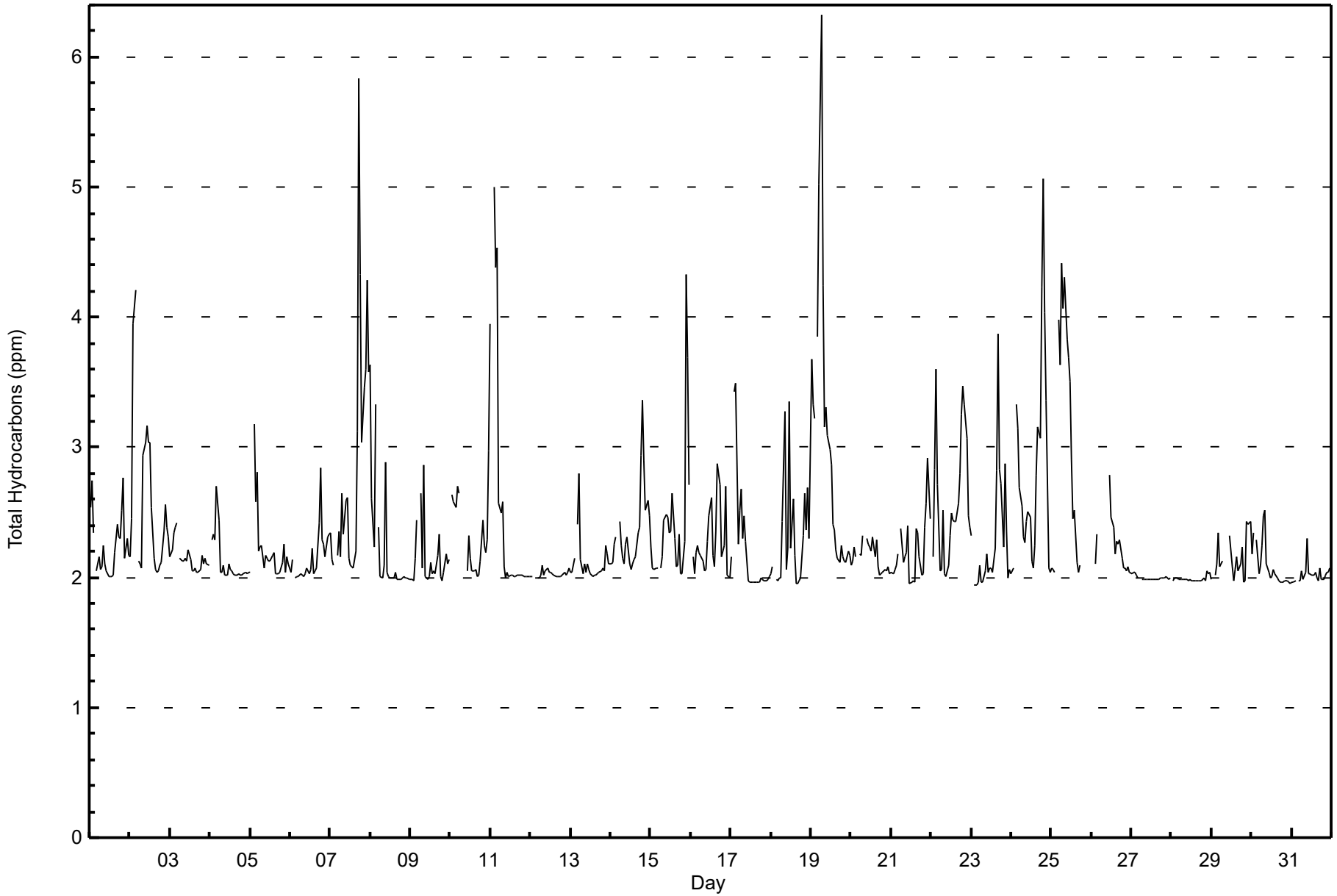
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Fort Hills - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	260	37.63	37.63
2.1 - 3.0	375	54.27	91.90
3.1 - 10.0	56	8.10	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 691

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Fort Hills - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	21	0	1	1	1	1	3	32	29	27	11	15	32	30	12	44	260
2.1 - 3.0	59	16	4	1	4	2	39	75	64	47	35	11	6	4	3	5	375
3.1 - 10.0	9	2	1	1	1	0	12	6	4	2	4	1	3	1	2	7	56
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	89	18	6	3	6	3	54	113	97	76	50	27	41	35	17	56	691

Total Number of Valid Hours: 691

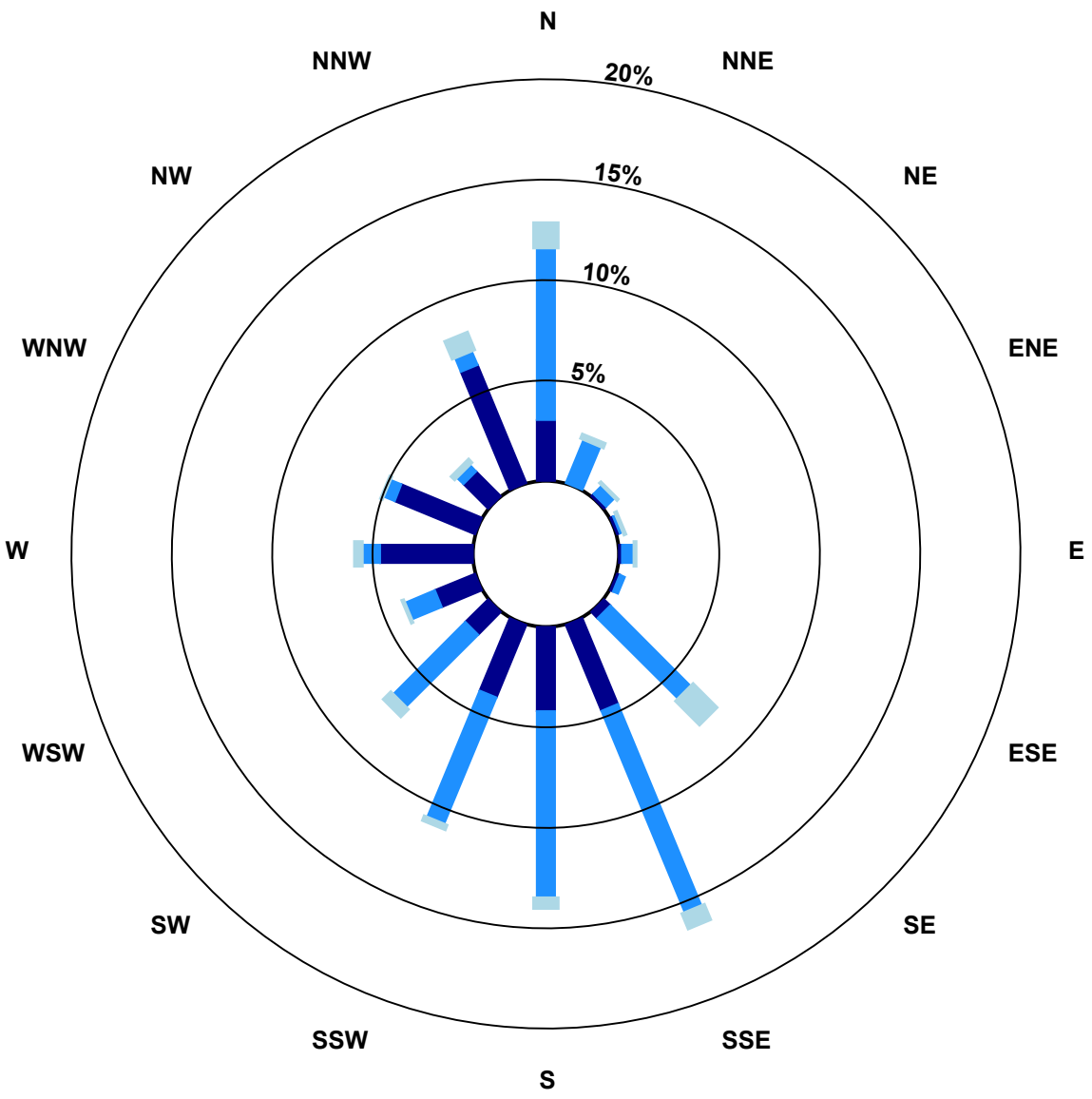
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Fort Hills



Classes (ppm)

- 0 - 2.0
- 2.1 - 3.0
- 3.1 - 10.0
- > 10.0

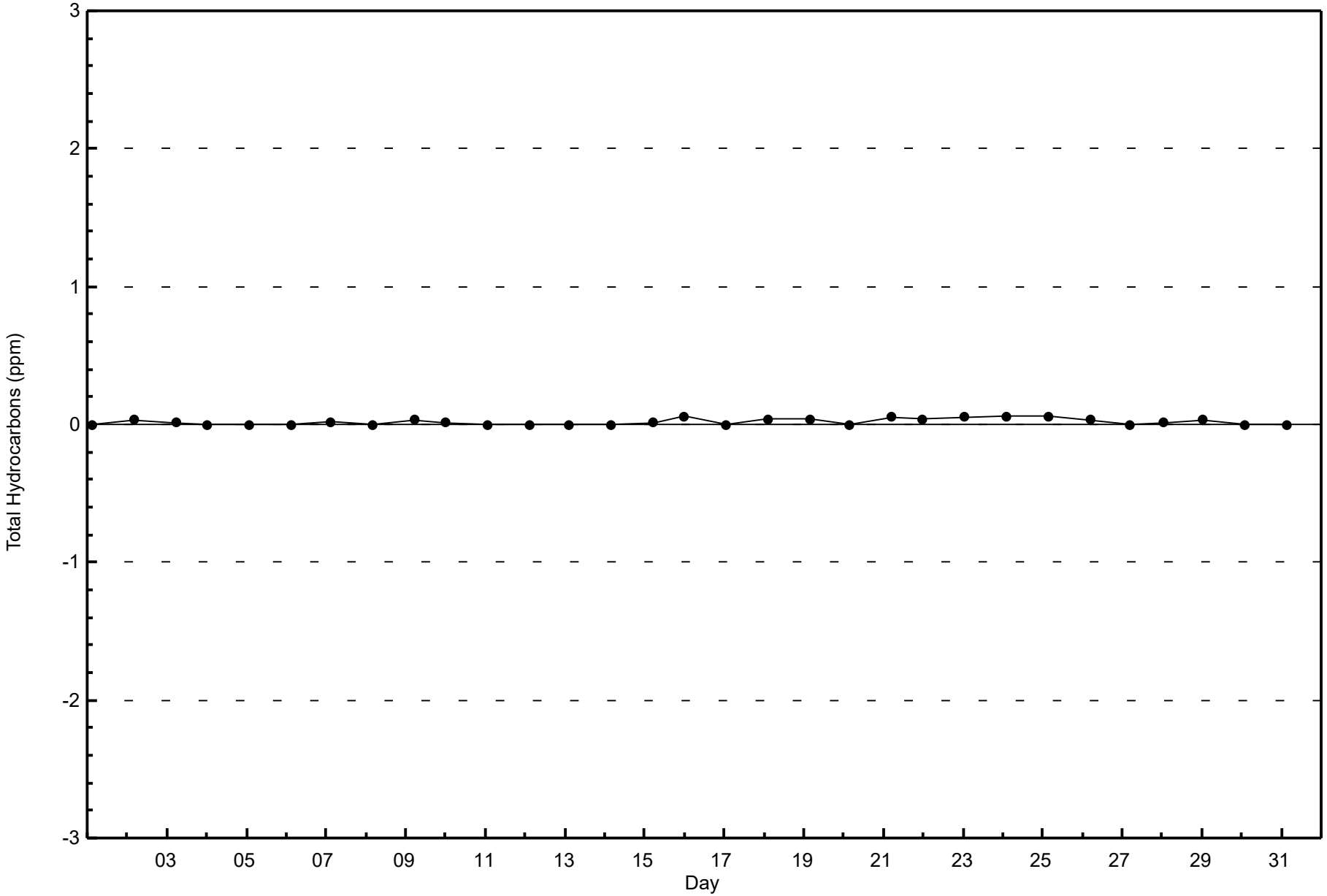
Total Number of Valid Hours: 691

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Fort Hills - October 2025

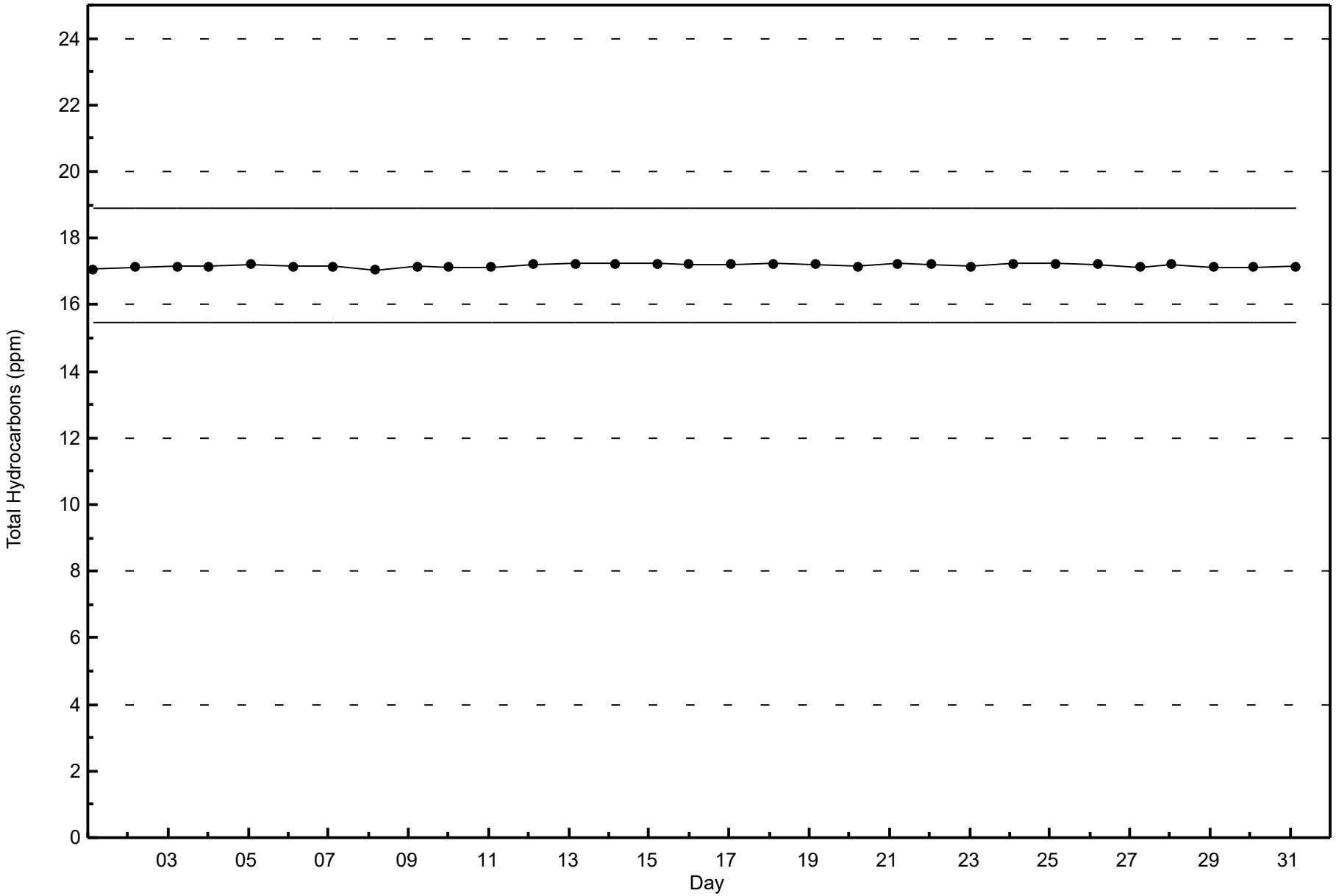


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Fort Hills - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

Fort Hills - October 2025

Maximum Value: 1.380 ppm on Oct 23 17:00

Maximum Daily Average: 0.374 ppm on Oct 25

Minimum Value: 0.000 ppm on Oct 1 05:00

Minimum Daily Average: 0.000 ppm on Oct 12

Maximum Diurnal Average: 0.178 ppm at hour 4

Minimum Diurnal Average: 0.032 ppm at hour 15

Monthly Average: 0.112 ppm

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.1 P_{90} = 0.4 P_{99} = 1.1

Hours in Service:	744
Hours of Data:	691
Hours of Missing Data:	53
Hours of Calibration:	35
Percent Operational Time:	97.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.115	0.185	0.073	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.023	0.047	0.039	0.174	0.110	0.378	0.043	0.050	0.000	0.054	0.378
2-Oct	0.000	0.040	0.343	0.405	Z	0.000	0.000	0.000	0.404	0.382	0.603	0.574	0.639	0.363	0.060	0.000	0.000	0.000	0.000	0.000	0.207	0.350	0.225	0.148	0.206	0.639
3-Oct	0.009	0.043	0.170	0.203	0.213	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.028	0.000	0.034	0.000	0.000	0.032	0.213
4-Oct	Z	0.148	0.161	0.112	0.160	0.184	0.000	0.000	0.003	0.000	0.000	0.036	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.184
5-Oct	0.000	Z	0.178	0.062	0.042	0.000	0.000	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019	0.000	0.000	0.023	0.000	0.016	0.178
6-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.109	0.000	0.000	0.000	0.229	0.497	0.127	0.163	0.064	0.208	0.237	0.071	0.497
7-Oct	0.235	0.044	0.000	Z	0.078	0.230	0.060	0.307	0.150	0.351	0.374	0.039	0.000	0.000	0.000	0.077	0.446	1.230	0.890	0.464	0.583	0.650	0.796	0.648	0.333	1.230
8-Oct	0.683	0.217	0.000	0.279	Z	0.105	0.008	0.000	0.036	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.060	0.683
9-Oct	0.000	0.000	0.000	0.017	0.016	Z	0.054	0.000	0.099	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.014	0.023	0.000	0.000	0.000	0.036	0.000	0.000	0.011	0.099
10-Oct	Z	0.243	0.290	0.302	0.334	0.323	C	C	C	C	0.000	0.171	0.048	0.000	0.000	0.000	0.000	0.000	0.023	0.150	0.022	0.000	0.002	0.570	0.131	0.570
11-Oct	1.045	Z	1.328	0.969	0.998	0.244	0.205	0.266	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.221	1.328
12-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13-Oct	0.000	0.000	0.014	Z	0.006	0.058	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.135	0.072	0.002	0.012	0.135
14-Oct	0.002	0.007	0.122	0.165	Z	0.251	0.108	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.035	0.501	0.688	0.476	0.262	0.292	0.215	0.136	0.688
15-Oct	0.061	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.190	0.168	0.127	0.000	0.019	0.071	0.032	0.000	0.000	0.065	0.000	0.000	0.009	0.485	0.406	0.110	0.076	0.485
16-Oct	Z	0.009	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.016	0.177	0.315	0.000	0.000	0.089	0.272	0.218	0.000	0.000	0.000	0.130	0.000	0.000	0.054	0.315
17-Oct	0.002	Z	0.364	0.312	0.029	0.260	0.401	0.096	0.133	0.160	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.076	0.401
18-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.168	0.877	0.005	0.122	1.174	0.150	0.538	0.160	0.000	0.000	0.000	0.000	0.163	0.250	0.095	0.177	0.064	0.171	1.174
19-Oct	0.659	0.499	0.428	Z	0.806	0.894	1.241	0.780	0.448	0.510	0.450	0.386	0.359	0.171	0.164	0.061	0.049	0.008	0.011	0.000	0.000	0.000	0.003	0.000	0.345	1.241
20-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.097	M	0.151	0.110	0.164	0.085	0.188	0.000	0.120	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.042	0.188
21-Oct	0.000	0.000	0.000	0.008	0.028	Z	0.000	0.000	0.000	0.000	0.090	0.000	0.000	0.000	0.000	0.183	0.174	0.071	0.016	0.000	0.045	0.266	0.306	0.205	0.060	0.306
22-Oct	Z	0.000	0.406	0.783	0.253	0.000	0.000	0.231	0.000	0.000	0.025	0.151	0.169	0.205	0.217	0.196	0.301	0.335	0.540	0.986	0.983	0.728	0.286	0.254	0.306	0.986
23-Oct	0.215	Z	0.000	0.000	0.000	0.020	0.000	0.000	0.010	0.107	0.000	0.020	0.019	0.000	0.135	0.531	1.380	0.553	0.455	0.123	0.670	0.270	0.000	0.007	0.196	1.380
24-Oct	0.000	0.000	Z	0.431	0.412	0.337	0.295	0.100	0.082	0.200	0.278	0.287	0.017	0.005	0.120	0.273	0.329	0.347	1.114	1.347	0.742	0.821	0.000	0.000	0.328	1.347
25-Oct	0.000	0.000	0.000	Z	0.760	0.842	1.130	0.833	0.891	0.764	0.714	0.312	0.211	0.227	0.010	0.000	0.041	0.000	UO	UO	UO	UO	UO	0.000	0.374	1.130
26-Oct	UO	UO	0.000	0.127	Z	M	M	M	M	M	M	0.322	0.247	0.194	0.074	0.108	0.082	0.126	0.024	0.000	0.000	0.000	0.000	0.000	--	0.322
27-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29-Oct	0.000	Z	0.000	0.009	0.211	0.031	0.100	M	M	M	M	0.226	0.012	0.000	0.011	0.117	0.000	0.000	0.003	0.000	0.000	0.000	0.003	0.050	0.041	0.226
30-Oct	0.000	0.156	Z	0.256	0.009	0.000	0.000	0.010	0.063	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.256
31-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.180	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.180
	0.121	0.064	0.149	0.178	0.167	0.151	0.124	0.104	0.126	0.108	0.100	0.130	0.074	0.067	0.032	0.057	0.101	0.106	0.143	0.140	0.151	0.146	0.095	0.081	Diurnal Average	
	1.045	0.499	1.328	0.969	0.998	0.894	1.241	0.833	0.891	0.764	0.714	1.174	0.639	0.538	0.217	0.531	1.380	1.230	1.114	1.347	0.983	0.821	0.796	0.648	Diurnal Maximum	

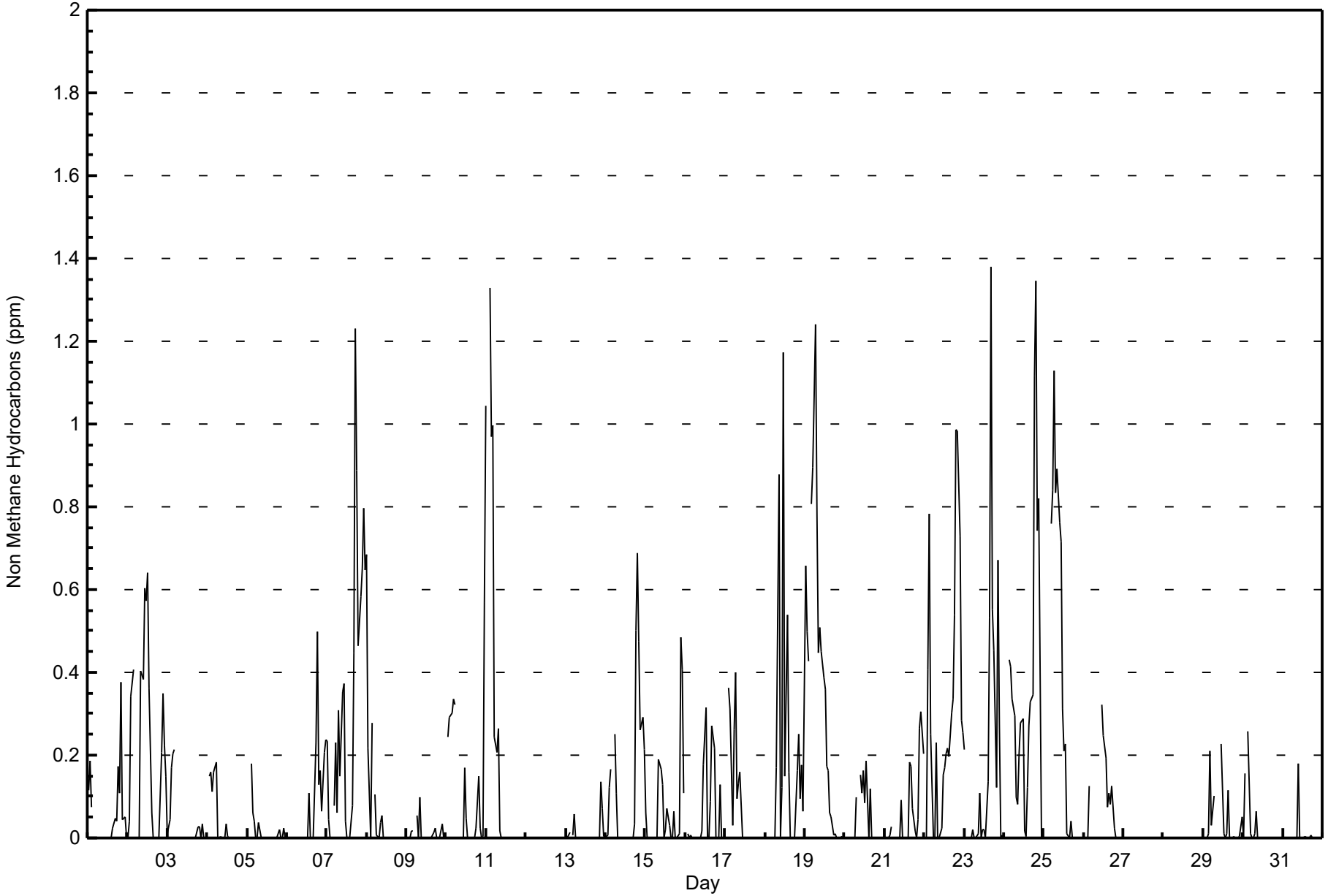
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm

Fort Hills - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Fort Hills - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	404	58.47	58.47
0.006 - 0.05	67	9.70	68.16
0.06 - 0.1	56	8.10	76.27
> 0.1	164	23.73	100.00

Total Number of Valid Hours: 691

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Fort Hills - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.005	50	2	1	0	2	1	9	63	57	56	25	15	33	32	12	46	404
0.006 - 0.05	10	2	1	1	1	0	5	12	9	9	9	4	0	2	1	1	67
0.06 - 0.1	7	3	1	0	0	1	5	9	10	8	8	3	0	0	0	1	56
> 0.1	22	11	3	2	3	1	35	29	21	3	8	5	8	1	4	8	164
Totals	89	18	6	3	6	3	54	113	97	76	50	27	41	35	17	56	691

Total Number of Valid Hours: 691

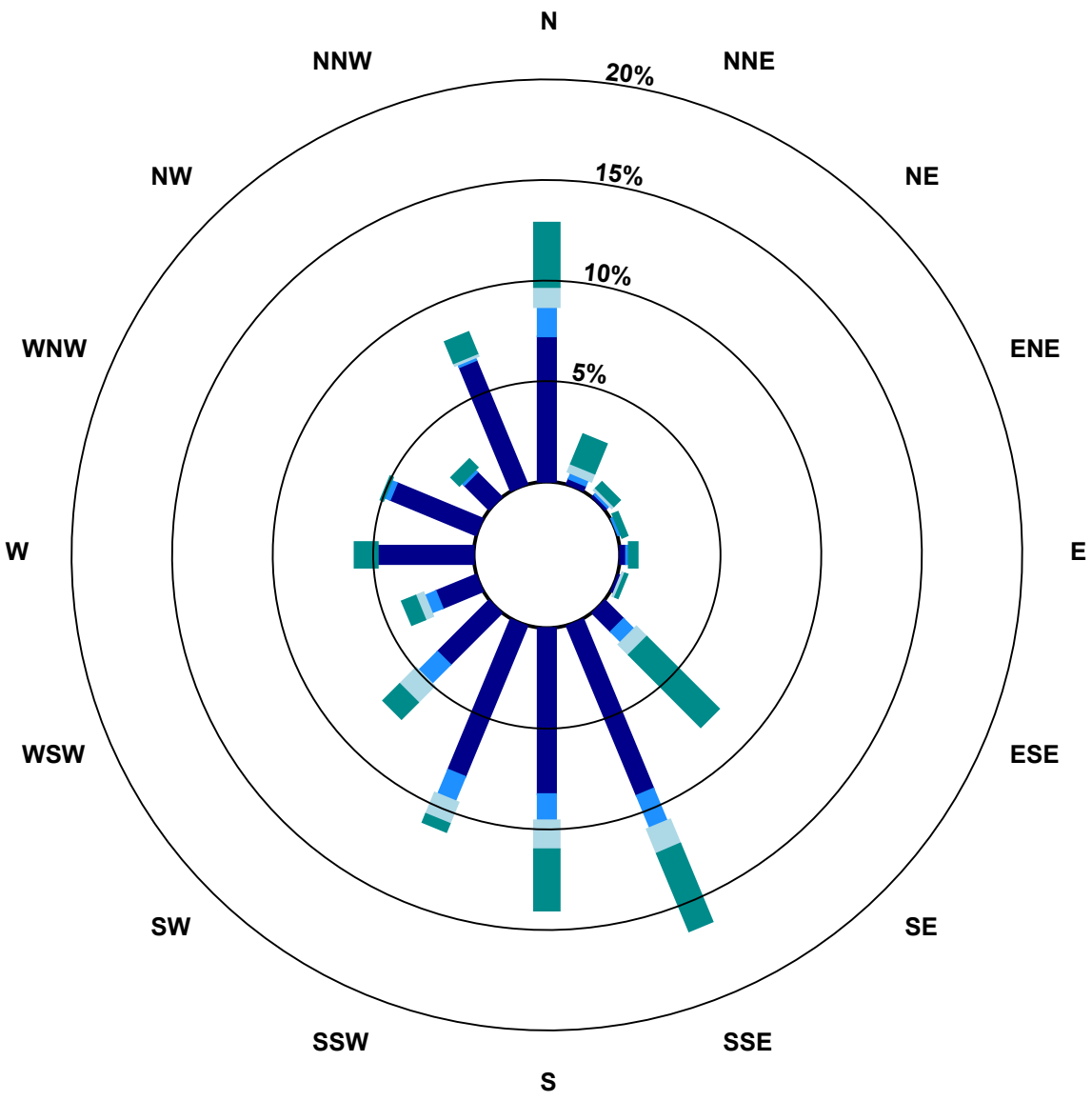
Total Number of Hours: 744

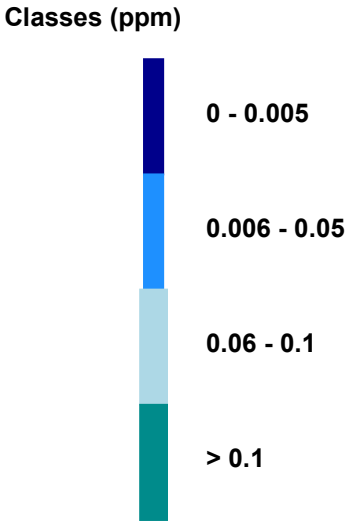
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Non Methane Hydrocarbons (NMHC) - ppm

Fort Hills





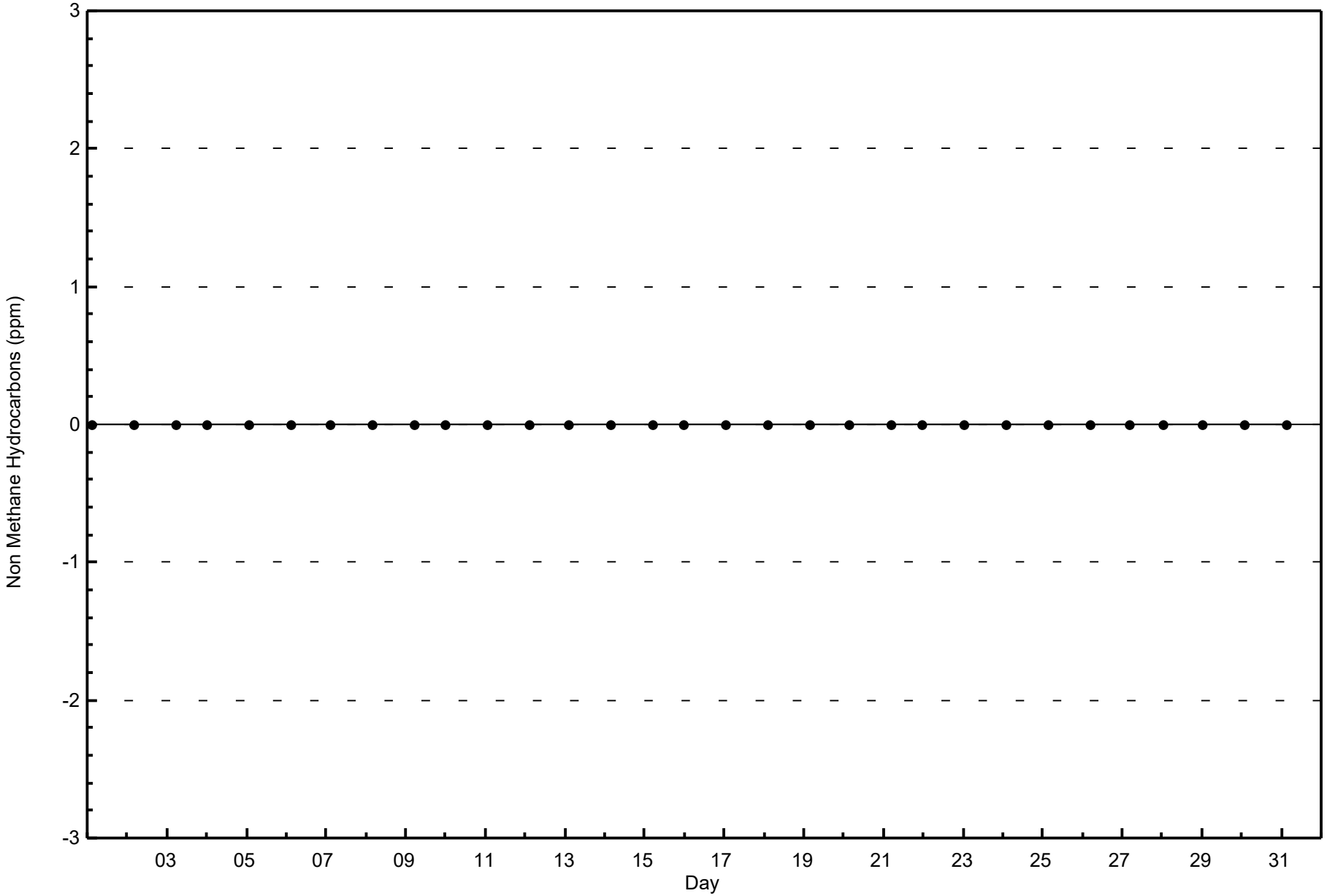
Total Number of Valid Hours: 691

Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Fort Hills - October 2025

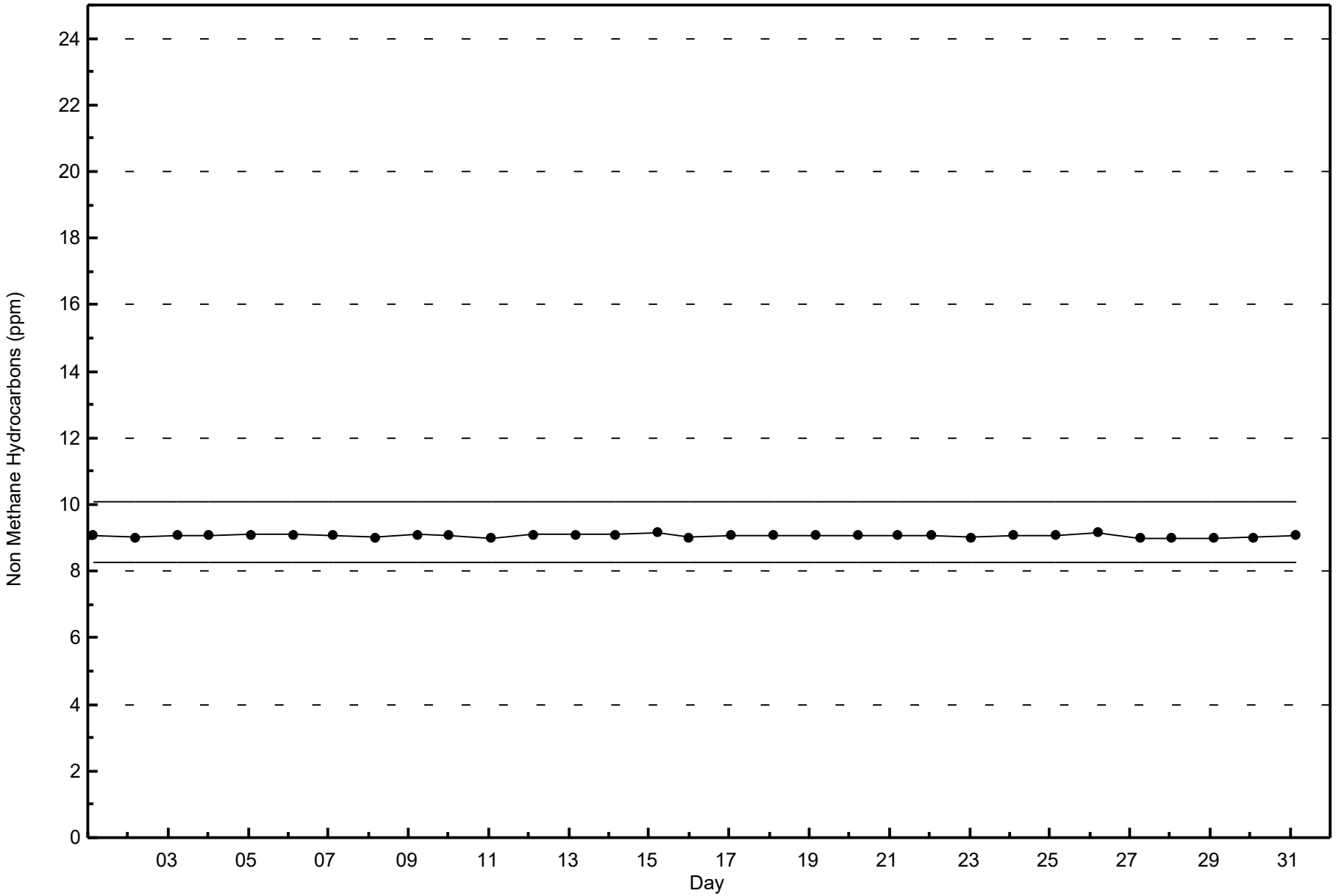


Wood Buffalo Environmental Association

Span Responses

Non Methane Hydrocarbons (NMHC) - ppm

Fort Hills - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH_4) - ppm

Fort Hills - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 5.1 ppm on Oct 19 07:00
Maximum Daily Average: 2.7 ppm on Oct 19

Minimum Value: 1.9 ppm on Oct 23 03:00
Maximum Diurnal Average: 2.4 ppm at hour 4
Monthly Average: 2.20 ppm

Minimum Daily Average: 2.0 ppm on Oct 28
Minimum Diurnal Average: 2.1 ppm at hour 15
Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.0 Median = 2.1 Q_3 = 2.2 P_{90} = 2.5 P_{99} = 3.6

Hours in Service:	744
Hours of Data:	691
Hours of Missing Data:	53
Hours of Calibration:	35
Percent Operational Time:	97.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.4	2.6	2.3	Z	2.0	2.2	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.2	2.4	2.3	2.1	2.4	2.4	2.1	2.2	2.2	2.2	2.6
2-Oct	2.2	2.4	3.6	3.8	Z	2.1	2.1	2.1	2.5	2.7	2.6	2.5	2.4	2.2	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.4	3.8
3-Oct	2.2	2.2	2.2	2.2	2.2	Z	2.1	2.1	2.1	2.2	2.1	2.2	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2
4-Oct	Z	2.1	2.2	2.2	2.5	2.3	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.5
5-Oct	2.0	Z	3.0	2.5	2.8	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.2	2.2	2.0	2.0	2.0	2.0	2.1	2.3	2.0	2.1	2.1	2.2	3.0
6-Oct	2.0	2.1	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.1	2.1	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.3
7-Oct	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.7	4.6	3.4	2.6	2.9	3.0	3.5	2.9	2.5	4.6
8-Oct	3.0	2.4	2.2	3.1	Z	2.3	2.0	2.0	2.1	2.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	3.1
9-Oct	2.0	2.0	2.0	2.1	2.4	Z	2.6	2.1	2.8	2.0	2.0	2.0	2.1	2.0	2.1	2.0	2.2	2.3	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.8
10-Oct	Z	2.4	2.3	2.2	2.4	2.3	C	C	C	C	2.0	2.2	2.1	2.0	2.1	2.1	2.0	2.0	2.1	2.3	2.2	2.2	2.3	2.4	2.2	2.4
11-Oct	2.9	Z	3.7	3.4	3.5	2.3	2.3	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	3.7
12-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
13-Oct	2.0	2.0	2.1	Z	2.4	2.7	2.1	2.0	2.1	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.7
14-Oct	2.1	2.1	2.1	2.1	Z	2.2	2.1	2.1	2.1	2.3	2.3	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.4	2.7	2.4	2.3	2.3	2.3	2.2	2.7
15-Oct	2.2	2.1	2.1	2.1	2.1	Z	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.6	2.3	2.1	2.1	2.3	2.0	2.0	2.3	3.8	3.3	2.6	2.3	3.8
16-Oct	Z	2.2	2.0	2.2	2.2	2.2	2.2	2.1	2.0	2.1	2.3	2.3	2.3	2.2	2.1	2.3	2.6	2.5	2.2	2.2	2.2	2.6	2.0	2.0	2.2	2.6
17-Oct	2.2	Z	3.1	3.2	2.2	2.3	2.3	2.2	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	3.2
18-Oct	2.0	2.1	Z	2.0	2.0	2.0	2.0	2.3	2.4	2.1	2.1	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.2	2.4	2.3	2.5	2.2	2.1	2.5
19-Oct	3.0	2.8	2.8	Z	3.0	4.1	5.1	3.5	2.7	2.8	2.6	2.6	2.5	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.7	5.1
20-Oct	2.1	2.1	2.2	2.2	Z	2.2	2.2	2.2	M	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1	2.2
21-Oct	2.0	2.0	2.1	2.1	2.2	Z	2.4	2.1	2.2	2.2	2.3	2.0	2.0	2.0	2.0	2.2	2.2	2.1	2.0	2.0	2.3	2.3	2.6	2.3	2.1	2.6
22-Oct	Z	2.2	2.4	2.8	2.5	2.1	2.1	2.3	2.0	2.0	2.1	2.2	2.3	2.2	2.2	2.2	2.3	2.5	2.7	2.5	2.3	2.3	2.2	2.1	2.3	2.8
23-Oct	2.1	Z	1.9	1.9	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.1	2.3	2.5	2.3	2.3	2.1	2.2	2.1	2.0	2.1	2.1	2.5
24-Oct	2.0	2.1	Z	2.9	2.7	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.5	2.8	2.7	3.1	3.7	3.3	2.5	2.1	2.0	2.5	3.7
25-Oct	2.1	2.1	2.0	Z	3.2	2.8	3.3	3.2	3.4	3.1	3.0	3.2	2.7	2.2	2.5	2.1	2.0	2.1	UO	UO	UO	UO	UO	2.0	2.6	3.4
26-Oct	UO	UO	2.1	2.2	Z	M	M	M	M	M	M	2.5	2.2	2.2	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	--	2.5
27-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
28-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
29-Oct	2.0	Z	2.0	2.1	2.1	2.1	2.0	M	M	M	M	2.1	2.1	2.0	2.1	2.0	2.1	2.1	2.2	2.0	2.0	2.4	2.4	2.4	2.1	2.4
30-Oct	2.2	2.2	Z	2.0	2.0	2.1	2.2	2.5	2.5	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.5
31-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
	2.2	2.2	2.3	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	Diurnal Average	
	3.0	2.8	3.7	3.8	3.5	4.1	5.1	3.5	3.4	3.1	3.0	3.2	2.7	2.6	2.5	2.5	2.8	4.6	3.4	3.7	3.3	3.8	3.5	2.9	Diurnal Maximum	

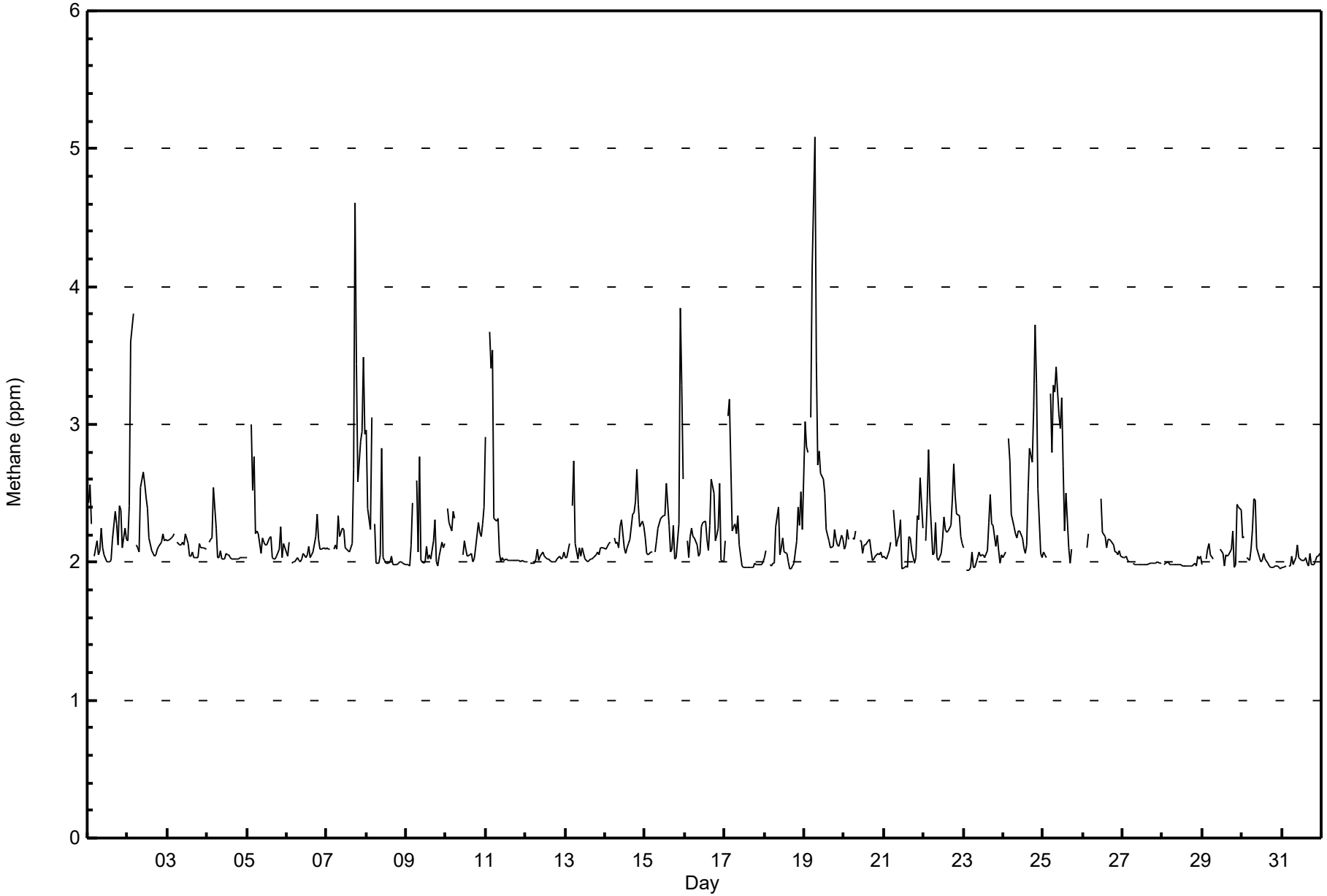
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Methane (CH_4) - ppm

Fort Hills - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	265	38.35	38.35
2.1 - 3.0	401	58.03	96.38
3.1 - 10.0	25	3.62	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 691

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Methane (CH_4) - ppm

Fort Hills - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	21	1	1	1	2	1	4	32	29	27	11	16	33	30	12	44	265
2.1 - 3.0	65	16	5	2	3	2	46	80	66	47	36	11	6	5	4	7	401
3.1 - 10.0	3	1	0	0	1	0	4	1	2	2	3	0	2	0	1	5	25
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	89	18	6	3	6	3	54	113	97	76	50	27	41	35	17	56	691

Total Number of Valid Hours: 691

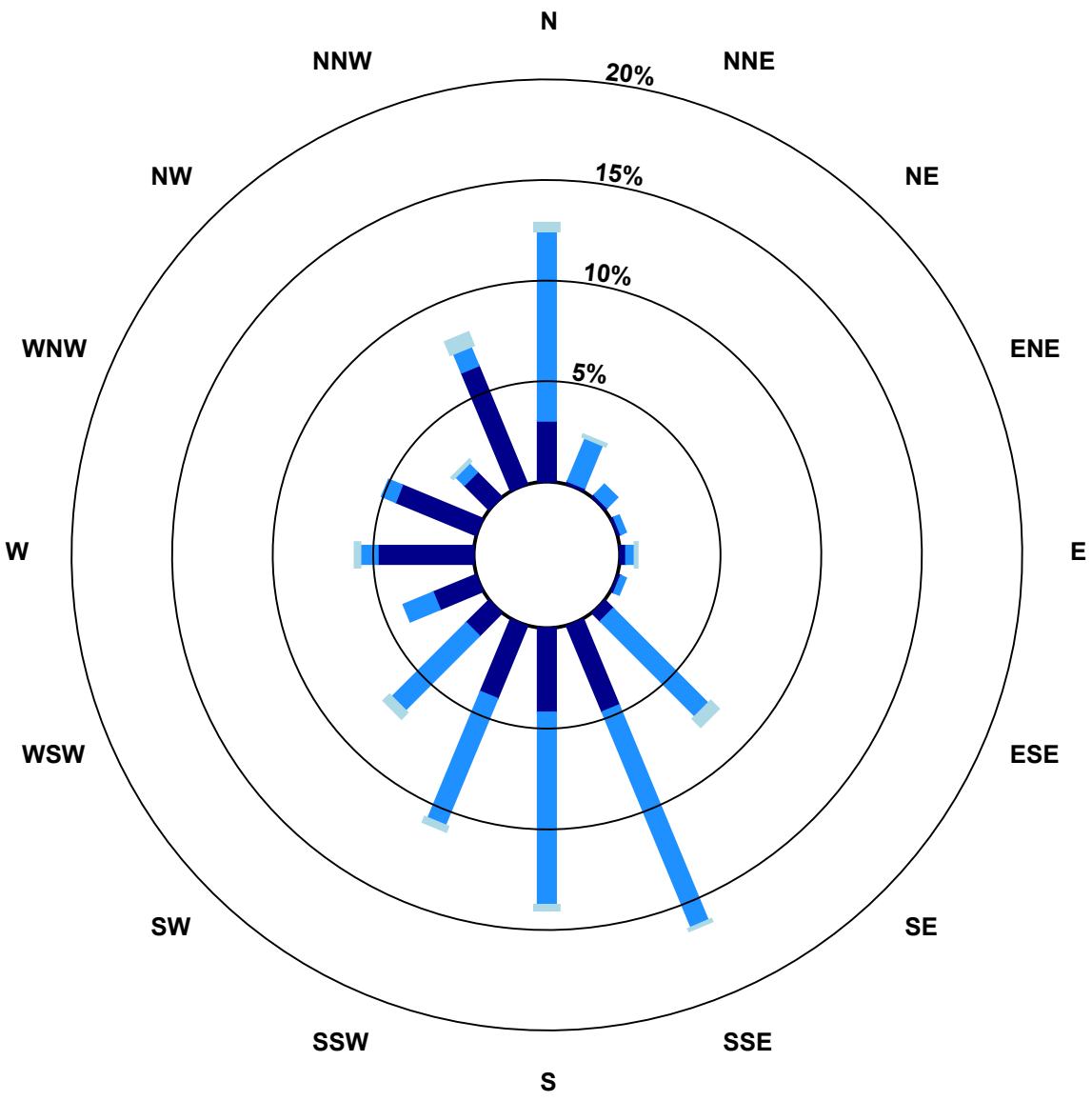
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Methane (CH_4) - ppm

Fort Hills



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

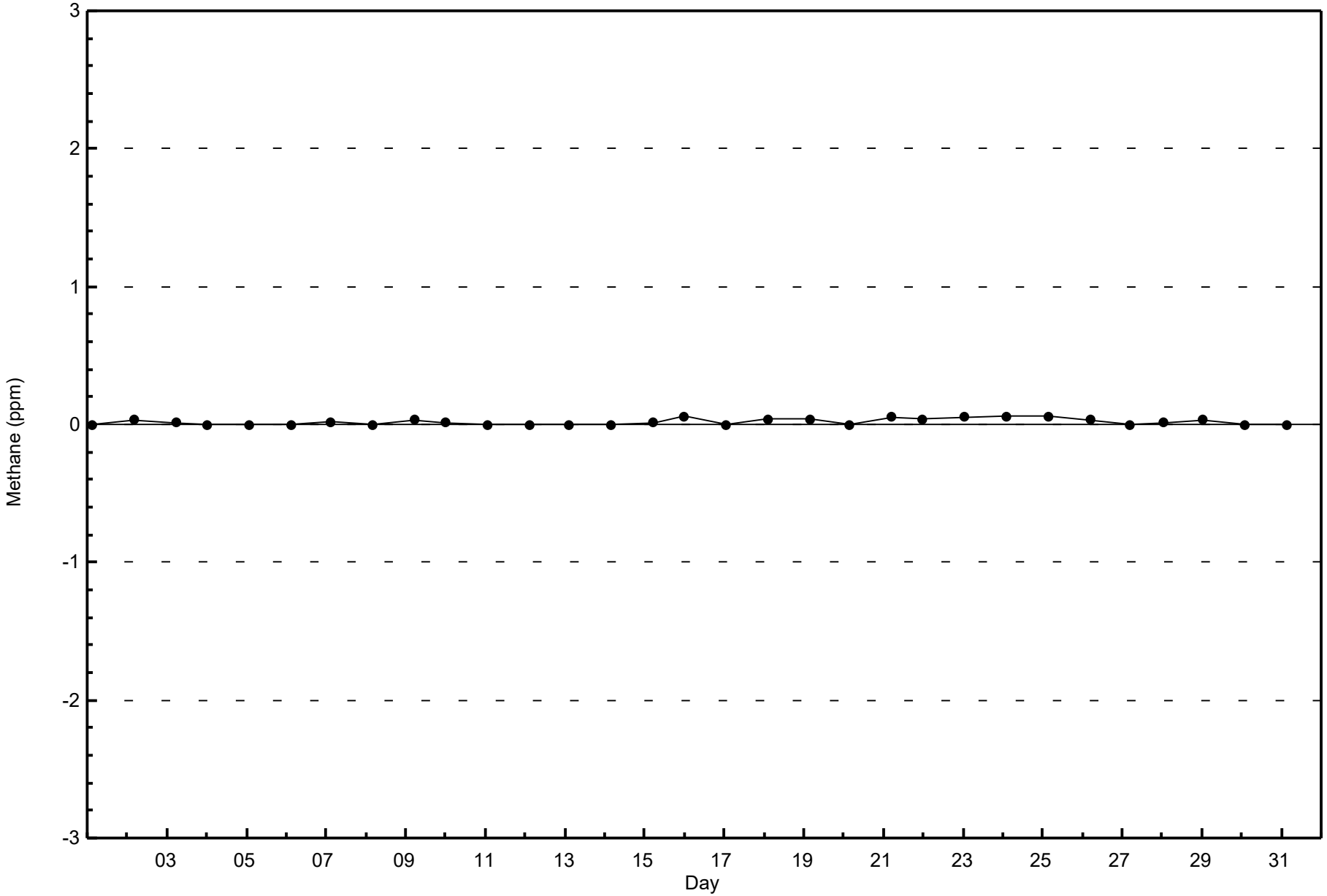
Total Number of Valid Hours: 691

Wood Buffalo Environmental Association

Zero Responses

Methane (CH_4) - ppm

Fort Hills - October 2025



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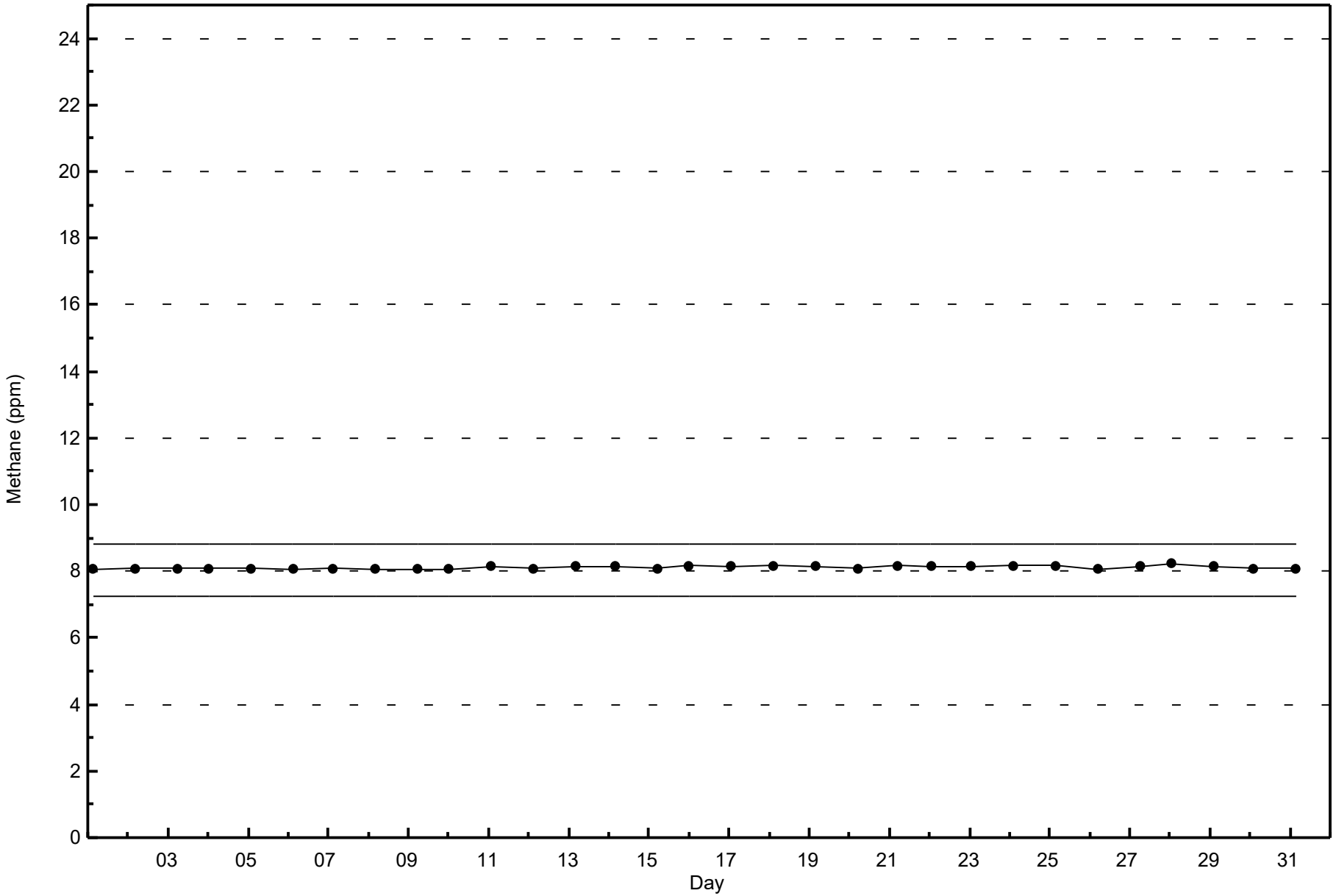
Span Responses

Methane (CH_4) - ppm

Fort Hills - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Fort Hills - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 342.4 ppb on Oct 19 07:00

Maximum Daily Average: 69.1 ppb on Oct 19

Minimum Value: 0.0 ppb on Oct 3 18:00

Minimum Daily Average: 0.1 ppb on Oct 28

Maximum Diurnal Average: 19.6 ppb at hour 7

Minimum Diurnal Average: 3.9 ppb at hour 15

Monthly Average: 10.94 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 1.4 Q_3 = 7.5 P_{90} = 29.3 P_{99} = 141.1

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	12.0	Z	3.0	1.2	0.2	1.1	0.5	0.8	2.8	2.1	0.7	0.0	0.1	0.2	0.2	2.2	3.5	2.8	1.2	11.2	13.0	7.3	6.9	4.2	3.4	13.0
2-Oct	1.5	6.7	Z	46.8	9.9	1.7	1.4	1.8	48.8	29.7	39.5	33.4	46.9	15.2	3.2	0.5	0.2	0.2	1.0	1.5	2.3	4.5	2.6	2.4	13.1	48.8
3-Oct	1.4	1.6	3.3	Z	2.6	5.5	1.7	1.3	1.7	2.1	1.3	1.2	1.0	0.5	0.4	0.3	0.2	0.0	0.0	1.0	0.8	0.8	0.8	0.3	1.3	5.5
4-Oct	3.6	5.8	5.8	8.7	Z	13.3	0.1	0.1	5.2	0.0	0.2	1.6	1.9	2.6	1.1	0.1	0.1	0.2	0.0	0.0	0.1	0.0	0.0	0.0	2.2	13.3
5-Oct	0.0	2.9	31.4	30.3	14.9	Z	0.3	4.9	1.2	4.2	2.9	2.2	2.0	1.3	1.3	0.0	0.0	0.3	0.0	0.3	1.4	0.0	2.2	0.6	4.6	31.4
6-Oct	Z	0.8	0.0	0.1	0.1	0.2	0.0	0.7	0.3	1.5	5.3	2.5	3.7	4.5	2.0	1.7	1.8	11.2	45.5	9.5	0.0	0.0	0.0	0.0	4.0	45.5
7-Oct	0.1	Z	0.0	0.7	0.0	0.0	0.2	2.0	2.0	2.5	1.8	3.1	3.0	3.9	3.7	3.2	27.1	131.6	117.7	78.7	106.7	141.7	88.8	74.2	34.5	141.7
8-Oct	76.2	14.1	Z	27.3	4.3	0.4	0.0	0.0	2.6	12.7	2.8	1.4	0.4	0.8	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	6.3	76.2
9-Oct	0.0	0.0	0.0	Z	2.2	0.0	1.1	1.1	10.9	0.7	0.1	0.5	1.5	1.5	1.0	0.9	1.0	0.4	0.1	0.0	0.3	0.5	0.6	0.6	1.1	10.9
10-Oct	1.5	0.3	2.0	1.4	Z	7.4	5.6	13.1	9.8	4.1	2.2	3.1	3.9	2.8	3.0	1.4	0.0	0.0	4.5	2.6	0.2	0.0	0.0	38.9	4.7	38.9
11-Oct	120.0	177.0	95.8	112.9	145.5	Z	9.4	14.8	1.1	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	29.5	177.0
12-Oct	Z	0.1	0.0	0.2	0.0	0.1	0.5	4.9	0.4	2.6	5.8	3.1	1.7	1.4	1.2	0.4	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2	1.0	5.8
13-Oct	0.0	Z	4.5	10.6	7.6	21.1	0.2	0.0	1.0	0.5	1.2	1.1	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	21.1
14-Oct	0.0	0.0	Z	0.0	0.0	0.2	0.6	1.1	1.4	2.8	3.0	1.2	0.8	1.1	1.4	1.1	1.9	3.1	46.2	44.4	7.6	1.7	2.1	1.8	5.4	46.2
15-Oct	4.2	0.4	1.0	Z	1.6	0.0	0.0	0.6	2.5	4.4	6.4	8.7	5.9	7.9	2.9	0.7	0.3	0.1	0.0	0.0	2.8	71.4	44.9	14.8	7.9	71.4
16-Oct	34.0	2.6	0.0	1.1	Z	0.5	0.1	1.5	0.6	2.3	8.1	9.6	15.6	6.1	3.2	1.8	4.0	2.3	3.2	3.1	3.3	2.7	0.0	0.0	4.6	34.0
17-Oct	0.0	0.1	27.5	23.6	4.6	Z	2.5	3.0	10.2	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	3.2	27.5
18-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.4	35.2	30.8	9.8	15.6	28.9	9.4	11.3	4.0	0.0	0.3	0.0	0.0	18.2	24.2	14.4	15.0	35.7	11.0	35.7
19-Oct	57.4	Z	38.8	78.9	100.1	287.7	342.4	197.2	90.5	77.9	66.2	51.3	44.2	15.0	19.6	13.2	12.3	17.1	17.3	13.6	18.6	15.6	7.5	6.6	69.1	342.4
20-Oct	8.1	10.7	Z	3.2	8.1	1.9	C	C	C	C	C	C	15.3	7.6	6.6	3.8	0.8	0.0	0.0	0.0	0.8	4.3	3.1	1.0	--	15.3
21-Oct	2.7	0.3	1.1	Z	0.4	4.0	5.6	1.4	6.1	9.1	10.7	0.2	0.3	0.1	0.1	18.2	12.0	4.4	0.3	0.2	6.8	9.2	15.0	16.6	5.4	18.2
22-Oct	23.0	11.5	40.6	91.5	Z	1.2	1.5	24.9	10.3	6.5	6.9	10.8	21.5	18.8	17.3	16.5	14.7	20.2	55.9	33.8	48.0	44.6	22.9	17.3	24.3	91.5
23-Oct	13.3	4.8	0.0	0.0	0.2	Z	0.3	0.1	1.6	5.0	7.0	4.4	4.6	7.8	13.5	29.3	49.6	47.8	36.0	14.1	29.3	10.1	0.3	1.7	12.2	49.6
24-Oct	Z	0.4	4.8	28.4	15.1	0.3	0.0	2.5	5.3	5.1	7.2	7.2	4.1	4.2	2.6	10.4	22.6	14.0	66.9	99.6	43.7	30.5	0.5	0.0	16.3	99.6
25-Oct	0.1	Z	0.0	5.0	43.7	44.7	68.3	56.4	72.5	51.4	41.8	39.9	14.9	1.6	1.9	0.7	0.1	0.0	0.2	0.7	0.0	0.5	1.3	0.9	19.4	72.5
26-Oct	0.2	0.6	Z	1.2	3.2	27.2	142.3	192.2	99.9	107.7	83.3	39.5	27.0	23.4	14.7	7.6	4.3	15.0	6.7	0.5	1.4	0.3	0.1	0.0	34.7	192.2
27-Oct	0.0	0.0	0.0	Z	0.1	0.2	0.0	0.1	0.4	0.3	0.2	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
28-Oct	0.0	0.0	0.0	0.1	Z	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.1	0.0	0.0	0.1	0.3
29-Oct	0.0	0.0	0.3	2.1	5.6	Z	0.0	0.2	0.8	13.8	18.8	7.5	10.1	1.4	6.6	2.6	5.2	9.5	6.7	0.1	0.0	21.2	12.9	23.8	6.5	23.8
30-Oct	Z	9.1	5.6	1.0	0.3	1.6	2.0	16.4	19.1	2.8	0.7	0.7	1.3	0.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	19.1
31-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.2	6.6	6.6	3.6	5.5	8.0	3.9	2.0	7.7	2.0	0.0	0.5	0.0	2.9	4.2	2.4	8.0
	13.8	10.0	10.2	18.3	14.2	16.2	19.6	19.3	14.7	12.2	11.6	9.0	7.9	4.8	3.9	3.9	5.3	9.3	13.3	10.7	10.1	12.3	7.4	7.9	Diurnal Average	
	120.0	177.0	95.8	112.9	145.5	287.7	342.4	197.2	99.9	107.7	83.3	51.3	46.9	23.4	19.6	29.3	49.6	131.6	117.7	99.6	106.7	141.7	88.8	74.2	Diurnal Maximum	

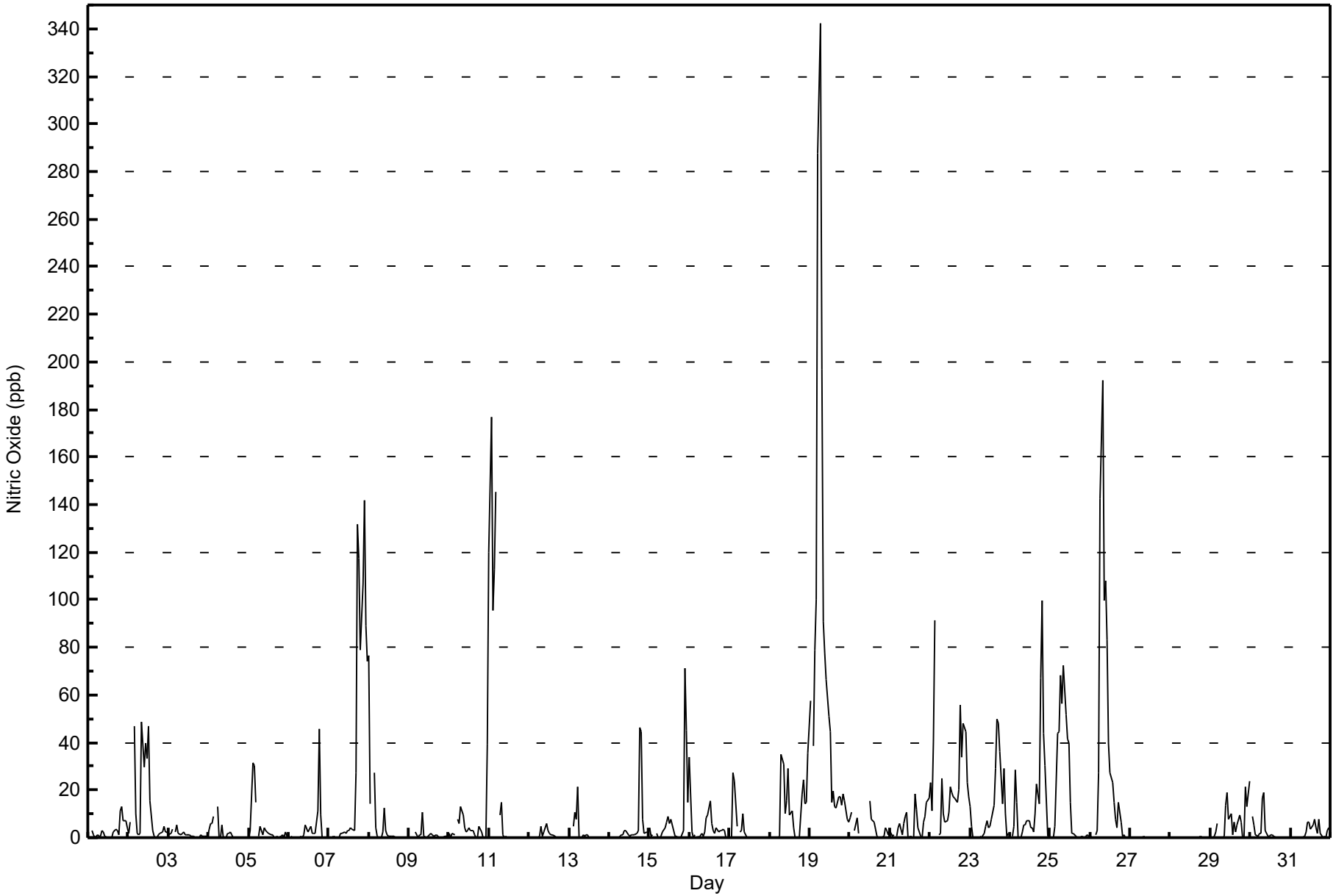
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Fort Hills - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	617	87.27	87.27
21 - 40	36	5.09	92.36
11 - 80	32	4.53	96.89
81 - 159	17	2.40	99.29
> 159	5	0.71	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Fort Hills - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	72	13	7	2	5	2	33	107	97	75	46	25	36	33	16	48	617
21 - 40	7	1	0	0	0	0	11	5	1	3	4	2	0	0	0	2	36
11 - 80	7	0	0	1	0	1	11	4	1	0	1	1	2	1	1	1	32
81 - 159	5	2	0	0	1	0	2	1	0	0	0	0	0	0	2	4	17
> 159	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	5
Totals	93	16	7	3	6	4	57	117	99	78	51	28	38	34	19	57	707

Total Number of Valid Hours: 707

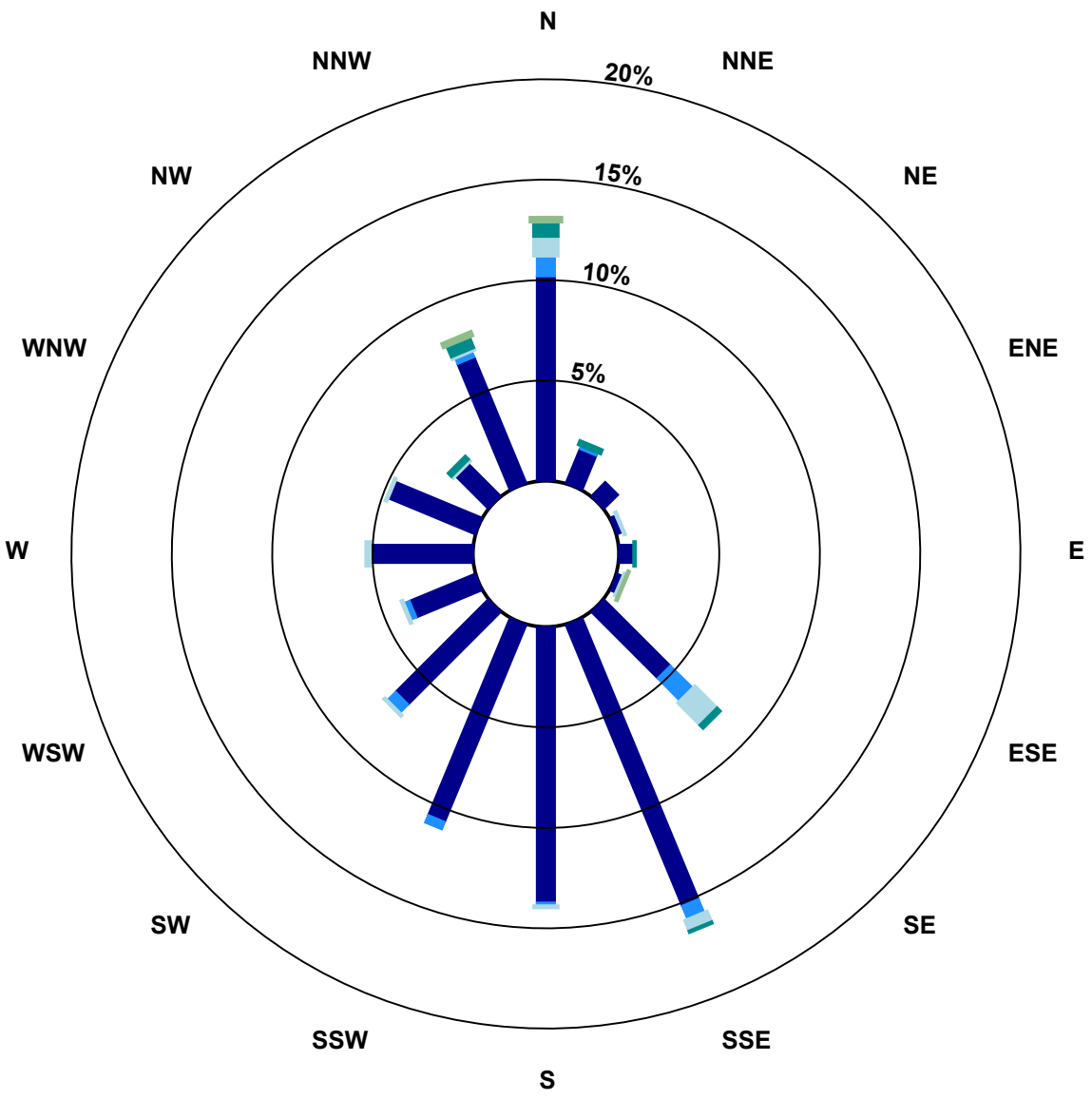
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Fort Hills



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

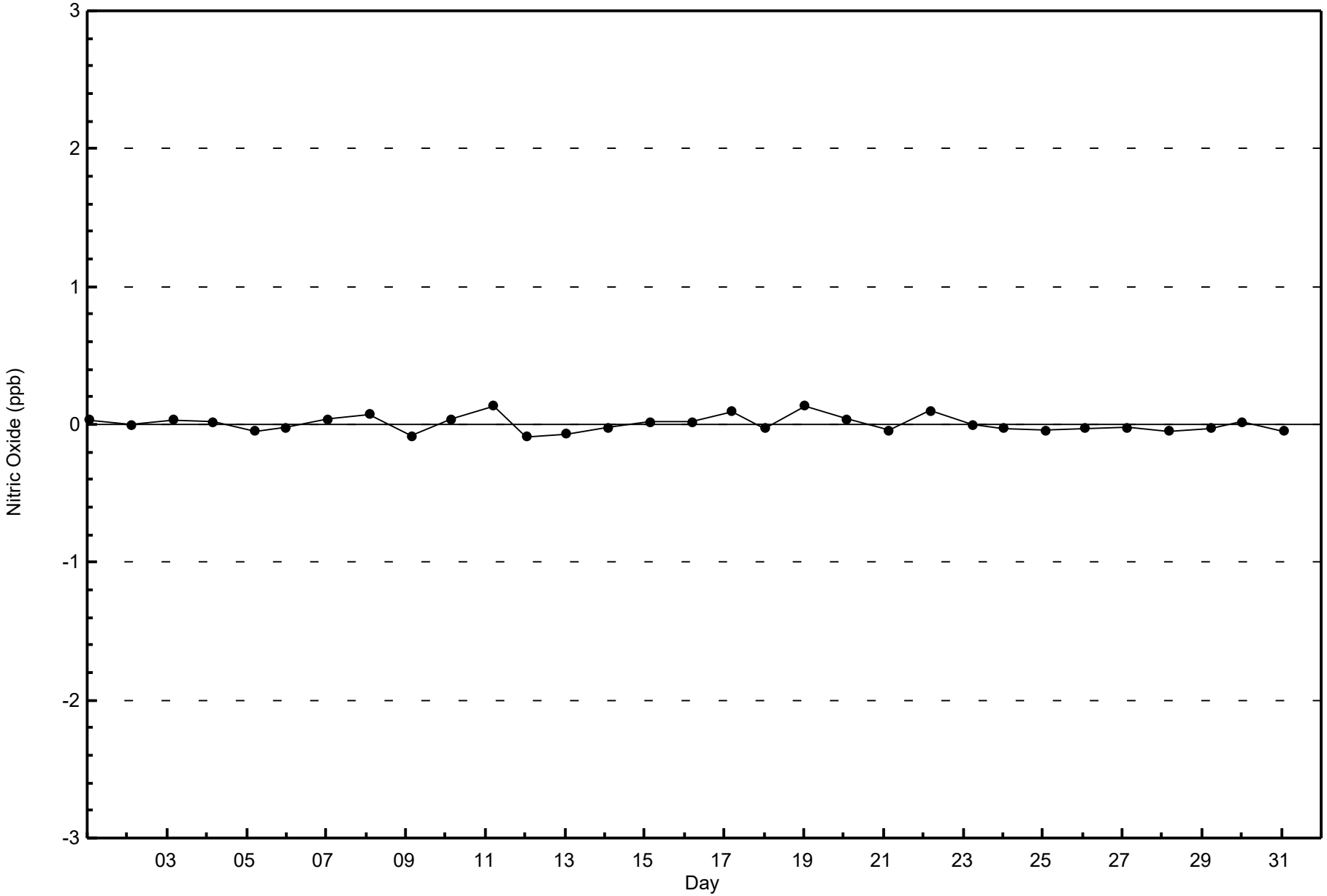
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Fort Hills - October 2025

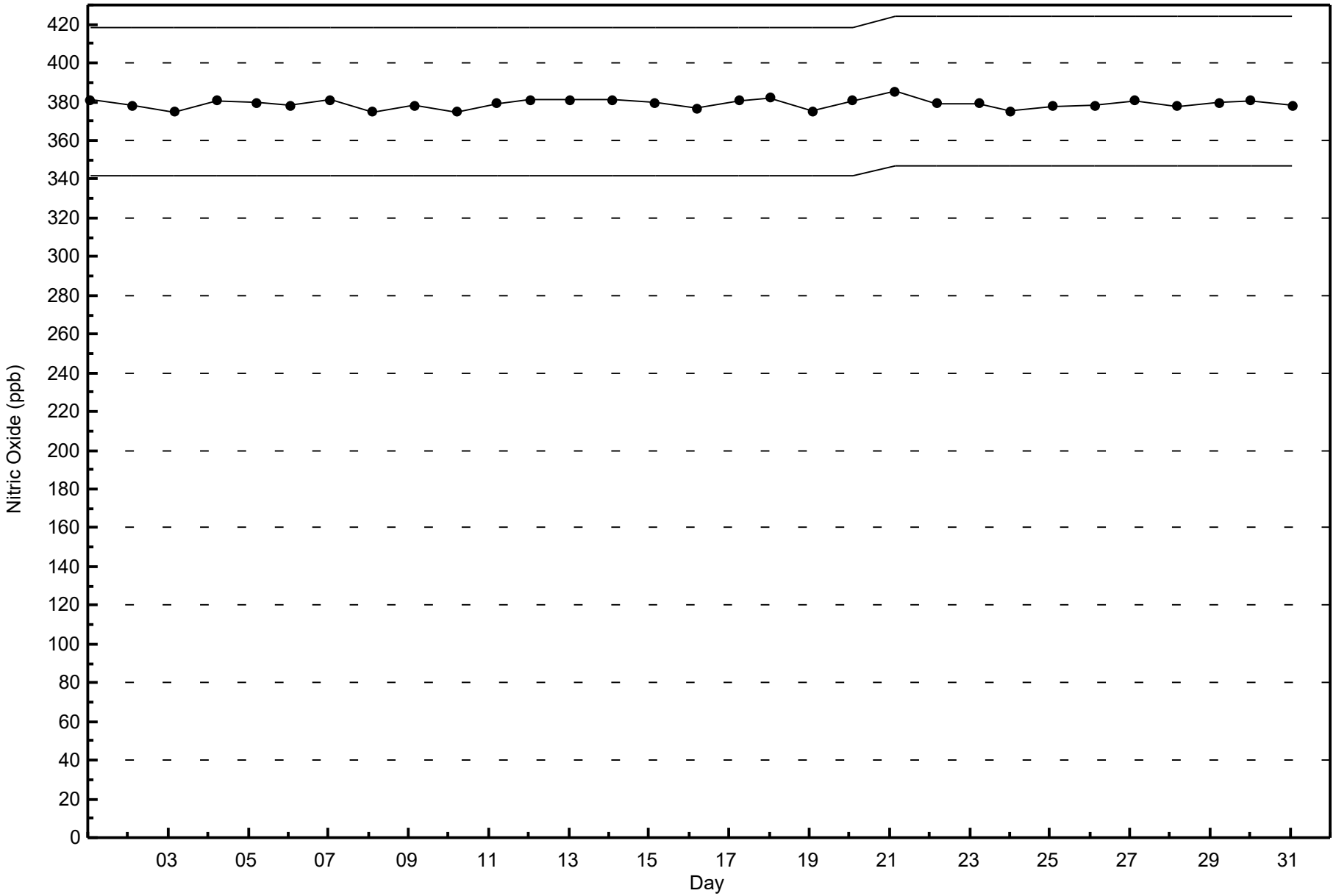


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Fort Hills - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Fort Hills - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 35.2 ppb on Oct 11 02:00 Maximum Daily Average: 15.0 ppb on Oct 19

Minimum Value: 0.0 ppb on Oct 4 19:00 Minimum Daily Average: 1.0 ppb on Oct 27
Maximum Diurnal Average: 10.8 ppb at hour 4 Minimum Diurnal Average: 5.9 ppb at hour 15
Monthly Average: 8.11 ppb Percentiles: P_1 = 0.1 P_{10} = 0.5 Q_1 = 2.0 Median = 6.3 Q_3 = 12.6 P_{90} = 18.1 P_{99} = 29.2

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	20.1	Z	7.6	7.9	4.0	9.6	4.2	6.6	9.8	6.8	3.3	0.7	1.0	1.2	1.4	8.6	13.7	14.1	14.2	17.2	16.4	14.6	10.3	6.5	8.7	20.1
2-Oct	6.3	5.9	Z	10.0	7.0	4.3	3.0	2.1	8.8	9.1	12.3	12.7	16.3	16.5	7.0	3.3	2.5	3.5	5.4	7.6	13.0	15.3	11.0	10.1	8.4	16.5
3-Oct	8.7	8.9	9.7	Z	8.3	10.2	4.8	2.9	1.8	1.7	1.6	2.9	3.2	2.9	3.4	4.2	6.0	3.2	1.9	18.7	13.7	14.7	14.0	13.8	7.0	18.7
4-Oct	15.7	16.0	16.2	16.9	Z	16.2	2.6	1.4	8.0	0.4	0.9	4.5	4.5	5.3	3.0	0.2	0.1	0.3	0.0	0.0	0.4	0.2	0.2	0.4	4.9	16.9
5-Oct	0.2	5.2	16.0	14.6	10.6	Z	3.2	4.9	1.7	4.0	3.0	1.9	1.8	2.0	3.6	0.3	0.2	1.0	0.3	4.5	12.2	0.6	11.3	15.2	5.1	16.0
6-Oct	Z	10.3	2.8	0.6	1.5	1.8	1.5	2.6	0.8	2.6	7.2	3.6	5.2	7.0	3.7	4.2	6.0	24.0	29.3	19.5	15.0	11.0	13.7	14.8	8.2	29.3
7-Oct	16.0	Z	5.9	5.9	6.3	10.8	7.6	7.9	6.3	6.7	5.2	7.6	6.1	5.9	6.5	8.8	17.5	24.1	22.8	21.0	20.1	20.7	18.4	17.8	12.0	24.1
8-Oct	17.6	12.0	Z	10.7	14.9	17.9	0.8	0.9	4.8	11.5	4.2	2.3	0.9	1.7	2.2	3.0	0.7	0.1	0.4	0.2	0.3	0.2	0.2	0.1	4.7	17.9
9-Oct	0.1	0.3	0.2	Z	8.0	1.0	6.9	2.0	6.5	0.7	0.2	0.8	2.4	3.1	3.0	3.7	8.1	7.4	2.3	0.3	3.3	10.4	7.1	9.3	3.8	10.4
10-Oct	10.3	11.5	12.7	14.0	Z	17.4	19.0	16.6	10.7	5.5	3.4	5.3	6.8	6.0	6.2	4.9	2.4	4.2	13.5	9.7	4.7	5.9	8.7	23.4	9.7	23.4
11-Oct	35.0	35.2	29.2	29.0	34.4	Z	24.2	24.9	6.1	1.0	4.4	0.4	0.4	0.3	0.2	0.2	0.0	0.1	0.2	0.0	0.0	0.0	0.1	0.2	9.8	35.2
12-Oct	Z	0.4	0.1	0.3	0.4	0.5	5.0	16.4	1.9	7.4	12.8	6.4	4.1	3.8	3.6	1.0	0.6	0.3	0.7	0.7	0.6	0.5	0.8	0.7	3.0	16.4
13-Oct	0.1	Z	4.7	17.9	19.6	19.6	2.3	0.5	2.4	1.1	1.8	1.9	0.4	0.2	0.3	0.8	1.2	0.9	2.2	3.0	1.6	1.8	2.5	2.7	3.9	19.6
14-Oct	3.2	3.0	Z	4.2	5.7	6.5	8.4	8.9	5.7	5.3	5.1	2.3	1.9	2.5	3.3	4.0	11.9	16.4	17.4	22.1	17.3	11.1	12.1	12.5	8.3	22.1
15-Oct	12.9	2.4	2.6	Z	5.7	2.2	4.3	7.1	6.9	6.0	7.9	8.7	7.3	10.8	6.1	3.0	4.1	7.6	1.3	0.9	10.2	31.9	28.6	23.4	8.8	31.9
16-Oct	25.2	12.0	4.2	10.2	Z	8.6	6.1	7.3	2.7	4.3	11.2	12.4	19.8	13.0	9.0	10.9	20.0	18.1	11.9	9.7	9.0	21.1	2.1	0.6	10.8	25.2
17-Oct	4.5	15.4	27.6	28.1	24.4	Z	12.9	10.3	20.8	12.8	0.9	0.4	0.2	0.4	0.2	0.2	0.2	0.6	1.2	0.6	0.4	1.4	2.1	2.3	7.3	28.1
18-Oct	Z	6.6	5.1	1.6	2.7	2.7	3.3	15.4	17.8	8.0	9.4	21.2	10.4	13.0	5.3	0.2	2.0	3.7	4.1	17.3	23.2	17.9	18.8	17.1	9.9	23.2
19-Oct	20.9	Z	14.4	17.4	17.3	29.2	34.2	22.3	14.3	14.7	15.1	14.4	14.0	10.7	11.1	9.4	8.5	11.0	11.6	10.7	10.6	10.9	10.7	11.4	15.0	34.2
20-Oct	13.9	15.0	Z	11.0	11.1	8.6	C	C	C	C	C	C	11.8	10.4	8.8	7.8	5.7	1.3	3.0	4.5	4.2	5.8	7.1	5.6	--	15.0
21-Oct	7.3	3.8	7.7	Z	6.1	7.7	9.4	6.0	5.5	5.4	7.9	0.7	0.9	0.6	0.6	11.6	10.6	8.4	6.0	4.8	8.2	11.6	10.8	6.2	6.4	11.6
22-Oct	6.6	8.0	11.4	14.5	Z	7.3	8.1	13.7	9.0	5.5	4.8	4.9	7.7	8.3	9.6	12.7	14.2	14.5	19.2	22.1	22.0	23.0	20.4	20.9	12.5	23.0
23-Oct	20.6	9.3	0.9	1.0	9.2	Z	4.0	4.8	10.5	9.2	9.2	6.7	6.9	9.5	15.4	26.5	27.1	24.7	23.1	16.2	24.0	12.1	5.7	11.7	12.5	27.1
24-Oct	Z	11.9	16.9	18.5	19.5	10.2	9.7	12.8	11.5	8.8	10.1	10.6	9.2	12.3	10.8	17.6	22.9	21.1	21.0	23.4	19.7	18.9	6.5	2.8	14.2	23.4
25-Oct	4.1	Z	2.9	7.9	17.6	18.4	17.9	15.6	16.7	15.7	14.2	11.8	13.2	10.9	17.8	6.6	5.6	6.3	2.5	1.6	2.5	2.1	2.4	3.1	9.5	18.4
26-Oct	3.1	5.4	Z	8.9	10.5	12.7	25.3	29.3	16.4	18.2	16.5	12.9	13.3	12.3	12.7	12.6	12.6	15.7	14.2	7.3	10.8	5.6	4.0	3.1	12.3	29.3
27-Oct	2.4	2.5	2.5	Z	1.1	1.1	1.0	1.6	1.1	0.9	0.8	0.6	0.6	0.4	0.4	0.5	0.4	0.2	0.4	0.2	1.4	2.2	0.5	1.1	1.0	2.5
28-Oct	1.7	0.8	0.8	1.5	Z	0.3	0.3	1.4	2.0	1.2	0.4	0.4	0.6	0.8	0.5	0.5	1.0	0.7	0.7	1.2	2.4	7.2	5.2	5.7	1.6	7.2
29-Oct	1.4	1.2	4.9	11.0	18.7	Z	9.0	6.7	8.3	15.8	16.9	12.1	15.3	4.1	13.1	8.4	13.7	15.6	16.5	2.1	2.3	21.7	19.1	21.6	11.3	21.7
30-Oct	Z	17.2	17.6	15.4	12.1	18.6	17.0	19.2	16.0	10.2	4.0	2.9	5.7	5.0	3.7	2.0	1.4	0.8	0.5	0.6	1.1	1.2	1.2	0.5	7.6	19.2
31-Oct	0.5	Z	0.5	0.8	1.4	1.7	4.2	2.5	3.1	4.7	7.7	8.8	6.7	8.1	10.3	6.4	4.1	13.1	5.0	1.3	2.6	4.2	9.0	11.7	5.1	13.1
	9.9	8.8	8.7	10.8	10.7	9.4	8.7	9.2	7.9	6.8	6.7	6.1	6.4	6.1	5.9	5.9	7.3	8.5	8.2	8.0	8.8	9.9	8.5	8.9	Diurnal Average	
	35.0	35.2	29.2	29.0	34.4	29.2	34.2	29.3	20.8	18.2	16.9	21.2	19.8	16.5	17.8	26.5	27.1	24.7	29.3	23.4	24.0	31.9	28.6	23.4	Diurnal Maximum	

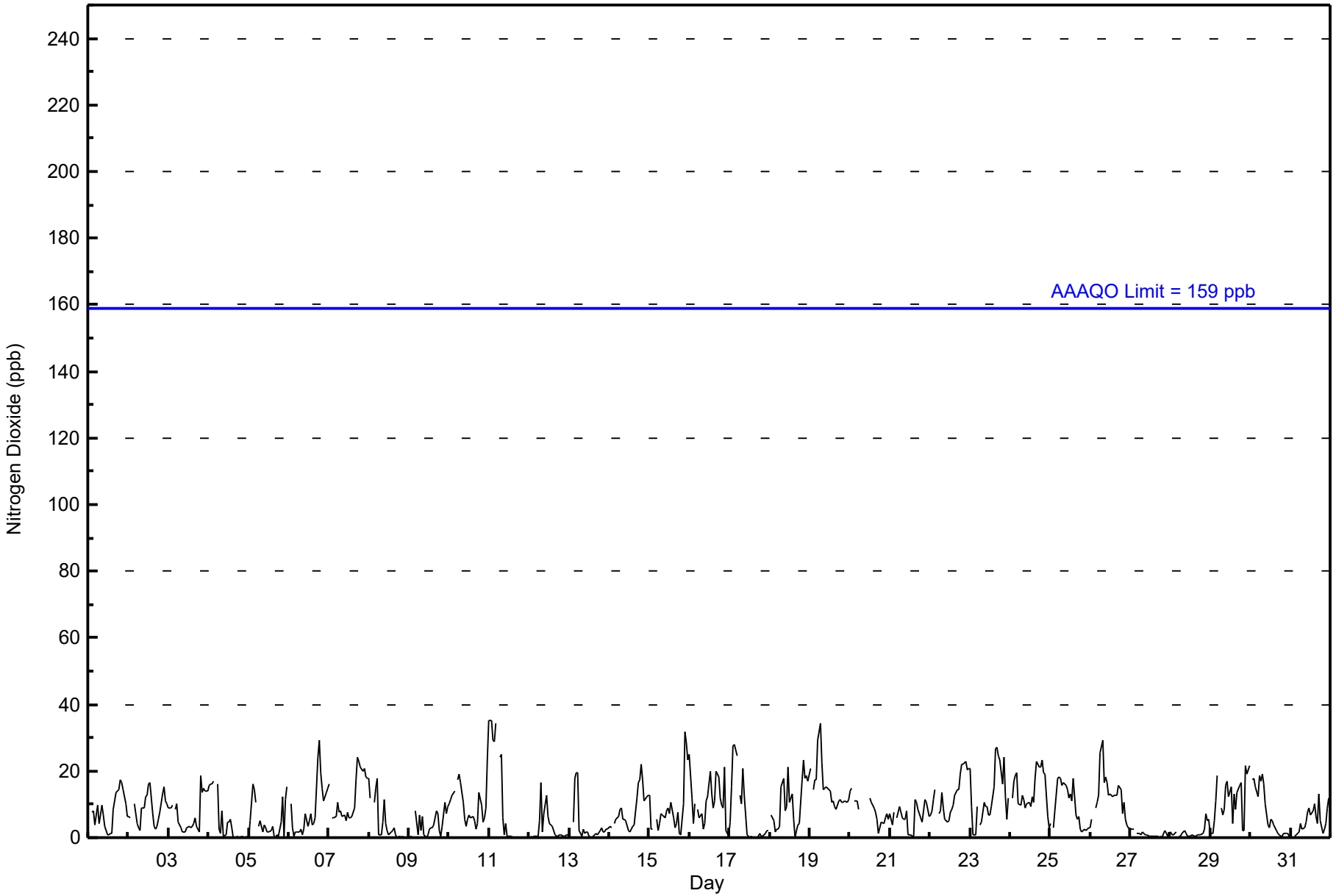
Z - zerospan C - Calibration
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Fort Hills - October 2025



Nitrogen Dioxide (NO_2) - ppb
Fort Hills - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	659	93.21	93.21
21 - 40	48	6.79	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Fort Hills - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	85	13	6	3	5	2	40	114	98	76	47	28	38	34	18	52	659
21 - 40	8	3	1	0	1	2	17	3	1	2	4	0	0	0	1	5	48
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	93	16	7	3	6	4	57	117	99	78	51	28	38	34	19	57	707

Total Number of Valid Hours: 707

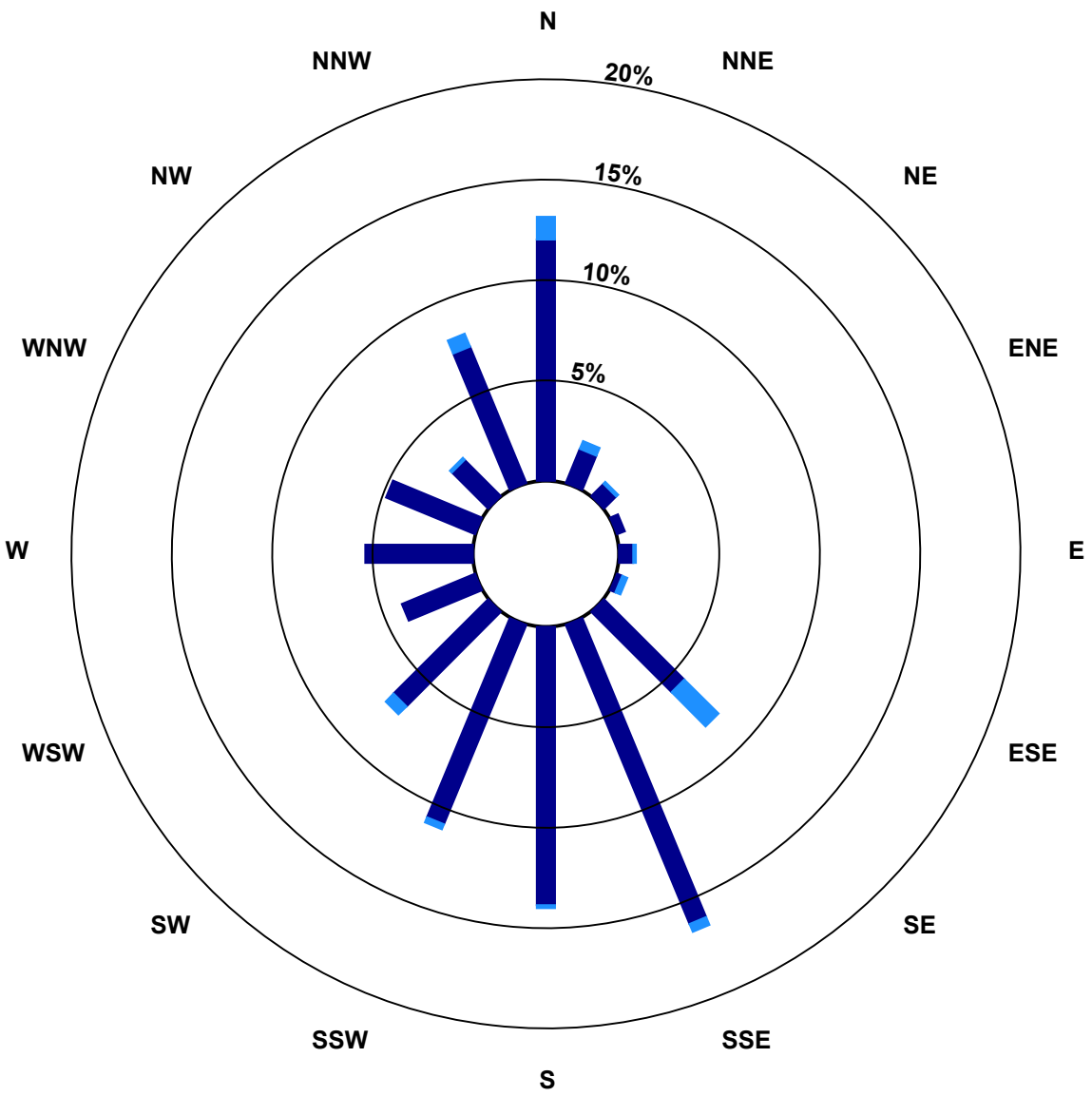
Total Number of Hours: 744

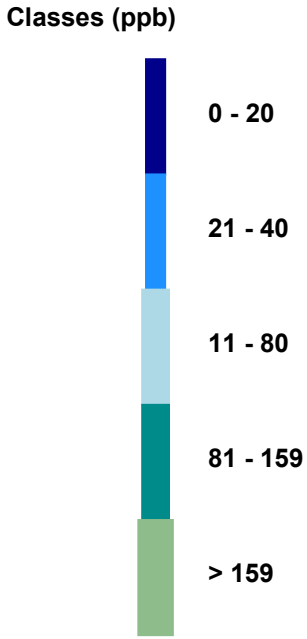
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Fort Hills





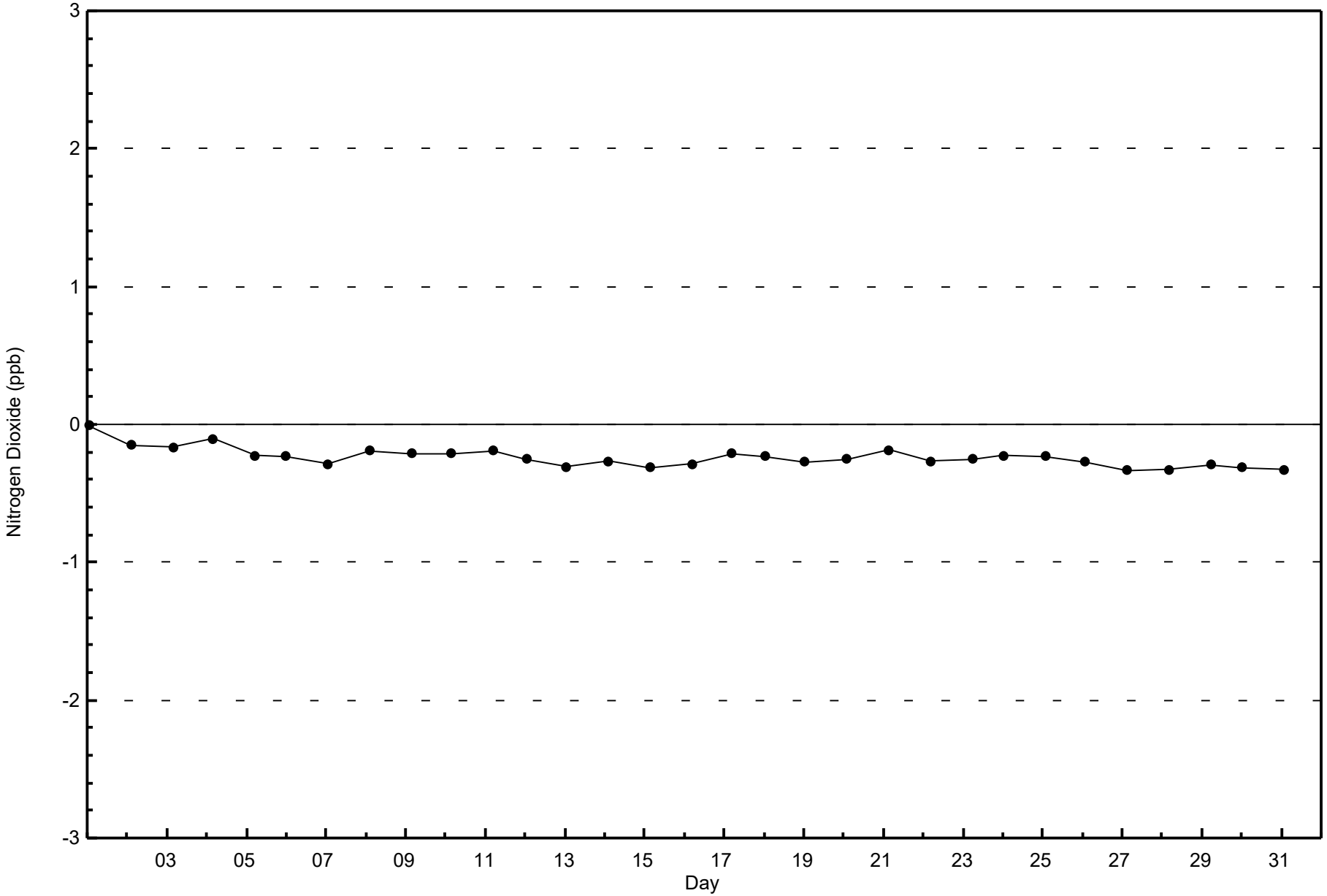
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Fort Hills - October 2025

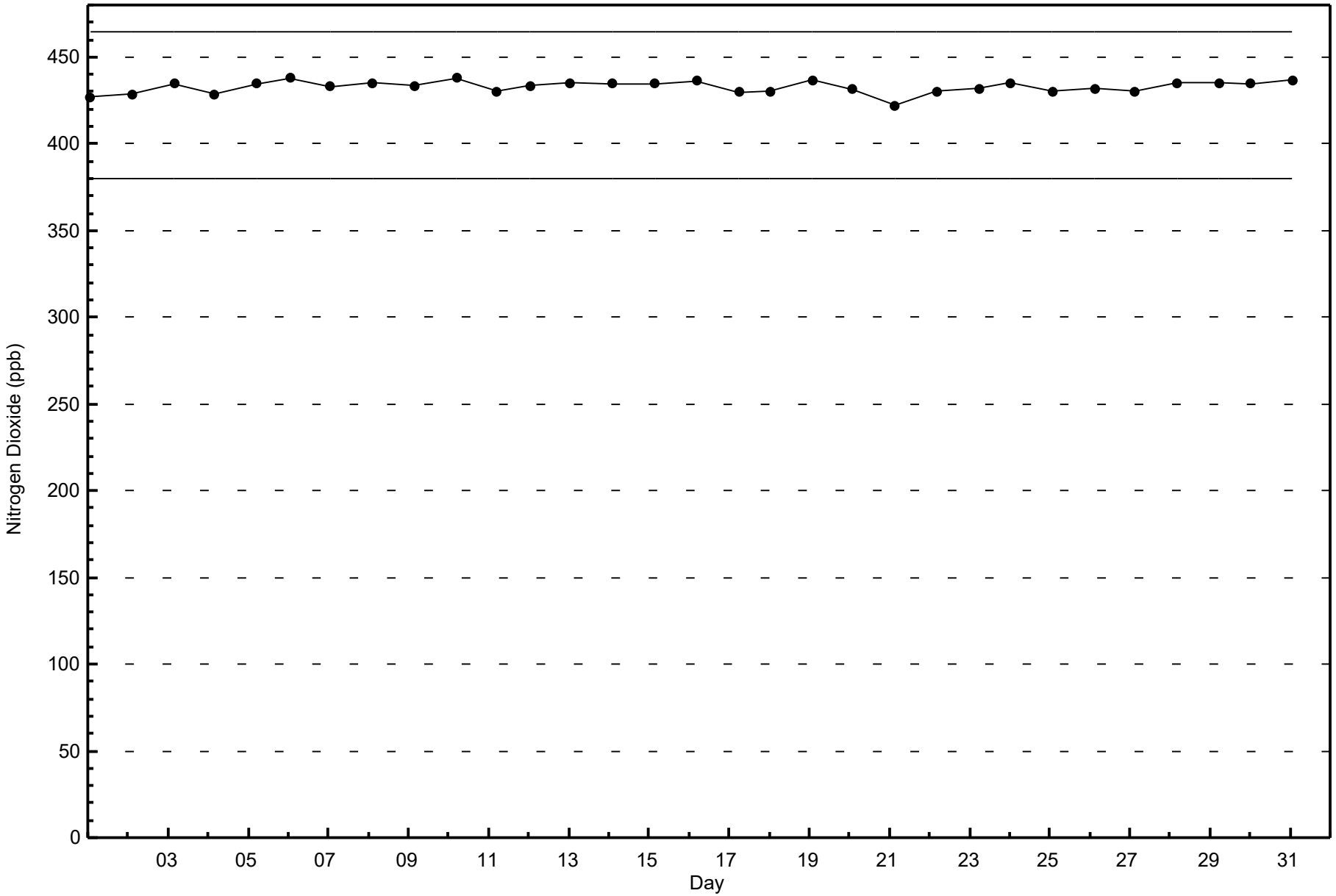


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Fort Hills - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Fort Hills - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 376.6 ppb on Oct 19 07:00
Maximum Daily Average: 84.1 ppb on Oct 19

Minimum Value: 0.0 ppb on Oct 4 20:00
Maximum Diurnal Average: 29.1 ppb at hour 4
Monthly Average: 19.05 ppb
Minimum Daily Average: 1.1 ppb on Oct 27
Minimum Diurnal Average: 9.8 ppb at hour 15
Percentiles: P_1 = 0.1 P_{10} = 0.5 Q_1 = 2.4 Median = 8.8 Q_3 = 19.8 P_{90} = 47.9 P_{99} = 162.0

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	37
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	32.1	Z	10.6	9.1	4.2	10.7	4.7	7.4	12.6	8.9	4.0	0.7	1.1	1.4	1.6	10.8	17.2	16.9	15.4	28.4	29.4	21.9	17.2	10.7	12.0	32.1
2-Oct	7.8	12.6	Z	56.8	16.9	6.0	4.4	3.9	57.6	38.8	51.8	46.1	63.2	31.7	10.2	3.8	2.7	3.7	6.4	9.1	15.3	19.8	13.6	12.5	21.5	63.2
3-Oct	10.1	10.5	13.0	Z	10.9	15.7	6.5	4.2	3.5	3.8	2.9	4.1	4.2	3.4	3.8	4.5	6.2	3.2	1.9	19.7	14.5	15.5	14.8	14.1	8.3	19.7
4-Oct	19.3	21.8	22.0	25.6	Z	29.5	2.7	1.5	13.2	0.4	1.1	6.1	6.4	7.9	4.1	0.3	0.2	0.5	0.0	0.0	0.5	0.2	0.2	0.4	7.1	29.5
5-Oct	0.2	8.1	47.4	44.9	25.5	Z	3.5	9.8	2.9	8.2	5.9	4.1	3.8	3.3	4.9	0.3	0.2	1.3	0.3	4.8	13.6	0.6	13.5	15.8	9.7	47.4
6-Oct	Z	11.1	2.8	0.7	1.6	2.0	1.5	3.3	1.1	4.1	12.5	6.1	8.9	11.5	5.7	5.9	7.8	35.2	74.8	29.0	15.0	11.0	13.7	14.8	12.2	74.8
7-Oct	16.1	Z	5.9	6.6	6.3	10.8	7.8	9.9	8.3	9.2	7.0	10.7	9.1	9.8	10.2	12.0	44.6	155.7	140.5	99.7	126.8	162.4	107.2	92.0	46.5	162.4
8-Oct	93.8	26.1	Z	38.0	19.2	18.3	0.8	0.9	7.4	24.2	7.0	3.7	1.3	2.5	3.0	3.4	0.7	0.1	0.4	0.2	0.3	0.2	0.3	0.1	11.0	93.8
9-Oct	0.1	0.3	0.2	Z	10.2	1.0	8.0	3.1	17.4	1.4	0.3	1.3	3.9	4.6	4.0	4.6	9.1	7.8	2.4	0.3	3.6	10.9	7.7	9.9	4.9	17.4
10-Oct	11.8	11.8	14.7	15.4	Z	24.8	24.6	29.7	20.5	9.6	5.6	8.4	10.7	8.8	9.2	6.3	2.4	4.2	18.0	12.3	4.9	5.9	8.7	62.3	14.4	62.3
11-Oct	155.0	212.2	125.0	141.9	179.9	Z	33.6	39.7	7.2	1.0	5.1	0.4	0.4	0.3	0.2	0.2	0.0	0.1	0.2	0.0	0.0	0.0	0.1	0.4	39.3	212.2
12-Oct	Z	0.5	0.1	0.5	0.4	0.6	5.5	21.3	2.3	10.0	18.6	9.5	5.8	5.2	4.8	1.4	0.7	0.3	0.8	0.7	0.6	0.5	0.8	0.9	4.0	21.3
13-Oct	0.1	Z	9.2	28.5	27.2	40.7	2.5	0.5	3.4	1.6	3.0	3.0	0.6	0.2	0.3	0.9	1.2	0.9	2.2	3.0	1.6	1.8	2.5	2.7	6.0	40.7
14-Oct	3.2	3.0	Z	4.2	5.7	6.7	9.0	10.0	7.1	8.1	8.1	3.5	2.7	3.6	4.7	5.1	13.8	19.5	63.6	66.5	24.9	12.8	14.2	14.3	13.7	66.5
15-Oct	17.1	2.8	3.6	Z	7.3	2.2	4.3	7.7	9.4	10.4	14.3	17.4	13.2	18.7	9.0	3.7	4.4	7.7	1.3	0.9	13.0	103.3	73.5	38.2	16.7	103.3
16-Oct	59.2	14.6	4.2	11.3	Z	9.1	6.2	8.8	3.3	6.6	19.3	22.0	35.4	19.1	12.2	12.7	24.0	20.4	15.1	12.8	12.3	23.8	2.1	0.6	15.4	59.2
17-Oct	4.5	15.5	55.1	51.7	29.0	Z	15.4	13.3	31.0	15.1	0.9	0.4	0.2	0.4	0.2	0.2	0.2	0.6	1.2	0.6	0.4	1.4	2.2	2.4	10.5	55.1
18-Oct	Z	6.6	5.1	1.6	2.7	2.7	3.7	50.6	48.6	17.8	25.0	50.1	19.8	24.3	9.3	0.2	2.3	3.7	4.1	35.5	47.4	32.3	33.8	52.8	20.9	52.8
19-Oct	78.3	Z	53.2	96.3	117.4	316.9	376.6	219.5	104.8	92.6	81.3	65.7	58.2	25.7	30.7	22.6	20.8	28.1	28.9	24.3	29.2	26.5	18.2	18.0	84.1	376.6
20-Oct	22.0	25.7	Z	14.2	19.2	10.5	C	C	C	C	C	C	27.1	18.0	15.4	11.6	6.5	1.3	3.0	4.5	5.0	10.1	10.2	6.6	--	27.1
21-Oct	10.0	4.1	8.8	Z	6.5	11.7	15.0	7.4	11.6	14.5	18.6	0.9	1.2	0.7	0.7	29.8	22.6	12.8	6.3	5.0	15.0	20.8	25.8	22.8	11.8	29.8
22-Oct	29.6	19.5	52.0	106.0	Z	8.5	9.6	38.6	19.3	12.0	11.7	15.7	29.2	27.1	26.9	29.2	28.9	34.7	75.1	55.9	70.0	67.6	43.3	38.2	36.9	106.0
23-Oct	33.9	14.1	0.9	1.0	9.4	Z	4.3	4.9	12.1	14.2	16.2	11.1	11.5	17.3	28.9	55.8	76.7	72.5	59.1	30.3	53.3	22.2	6.0	13.4	24.8	76.7
24-Oct	Z	12.3	21.7	46.9	34.6	10.5	9.7	15.3	16.8	13.9	17.3	17.8	13.3	16.5	13.4	28.0	45.5	35.1	87.9	123.0	63.4	49.4	7.0	2.8	30.5	123.0
25-Oct	4.2	Z	2.9	12.9	61.3	63.1	86.2	72.0	89.2	67.1	56.0	51.7	28.1	12.5	19.7	7.3	5.7	6.3	2.7	2.3	2.5	2.6	3.7	4.0	28.9	89.2
26-Oct	3.3	6.0	Z	10.1	13.7	39.9	167.6	221.5	116.3	125.9	99.8	52.4	40.3	35.7	27.4	20.2	16.9	30.7	20.9	7.8	12.2	5.9	4.1	3.1	47.0	221.5
27-Oct	2.4	2.5	2.5	Z	1.2	1.3	1.0	1.7	1.5	1.2	1.0	0.8	0.7	0.4	0.4	0.6	0.4	0.2	0.4	0.2	1.4	2.2	0.5	1.1	1.1	2.5
28-Oct	1.7	0.8	0.8	1.6	Z	0.3	0.3	1.4	2.1	1.4	0.5	0.5	0.7	0.8	0.5	0.5	1.0	0.7	1.0	1.3	2.4	7.3	5.2	5.7	1.7	7.3
29-Oct	1.4	1.2	5.2	13.1	24.3	Z	9.0	6.9	9.1	29.6	35.7	19.6	25.4	5.5	19.7	11.0	18.9	25.1	23.2	2.2	2.3	42.9	32.0	45.4	17.8	45.4
30-Oct	Z	26.3	23.2	16.4	12.4	20.2	19.0	35.6	35.1	13.0	4.7	3.6	7.0	5.9	4.3	2.0	1.4	0.8	0.5	0.6	1.1	1.2	1.2	0.5	10.3	35.6
31-Oct	0.5	Z	0.5	0.8	1.4	1.7	4.2	2.5	3.4	6.9	14.3	15.4	10.3	13.6	18.3	10.3	6.1	20.8	7.0	1.3	3.1	4.2	11.9	15.9	7.6	20.8
	23.8	18.8	18.9	29.1	24.9	25.6	28.2	28.4	22.6	19.1	18.3	15.1	14.3	10.9	9.8	9.8	12.6	17.8	21.4	18.8	18.9	22.2	16.0	16.9	Diurnal Average	
	155.0	212.2	125.0	141.9	179.9	316.9	376.6	221.5	116.3	125.9	99.8	65.7	63.2	35.7	30.7	55.8	76.7	155.7	140.5	123.0	126.8	162.4	107.2	92.0	Diurnal Maximum	

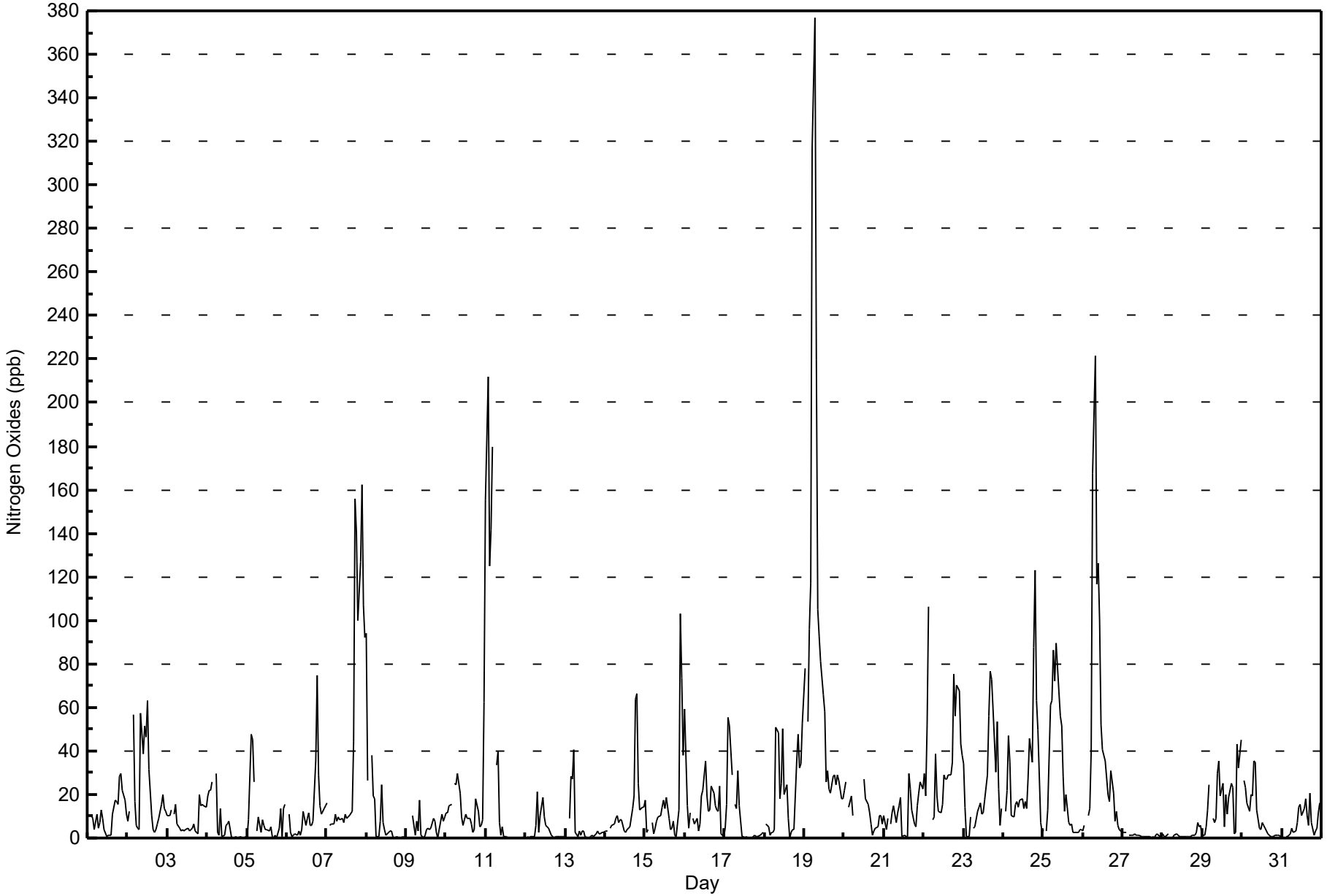
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Fort Hills - October 2025



Nitrogen Oxides (NO_X) - ppb
Fort Hills - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	535	75.67	75.67
21 - 40	90	12.73	88.40
11 - 80	50	7.07	95.47
81 - 159	23	3.25	98.73
> 159	8	1.13	99.86

Total Number of Valid Hours: 707

Total Number of Hours: 744

Nitrogen Oxides (NO_X) - ppb
Fort Hills - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	48	5	4	2	4	1	25	96	92	71	36	23	34	33	14	47	535
21 - 40	27	8	3	0	1	1	9	12	5	4	11	4	2	0	2	1	90
11 - 80	7	1	0	1	0	1	19	8	2	3	3	1	1	0	0	3	50
81 - 159	7	1	0	0	1	0	4	1	0	0	1	0	1	1	2	4	23
> 159	3	1	0	0	0	1	0	0	0	0	0	0	0	0	1	2	8
Totals	92	16	7	3	6	4	57	117	99	78	51	28	38	34	19	57	706

Total Number of Valid Hours: 707

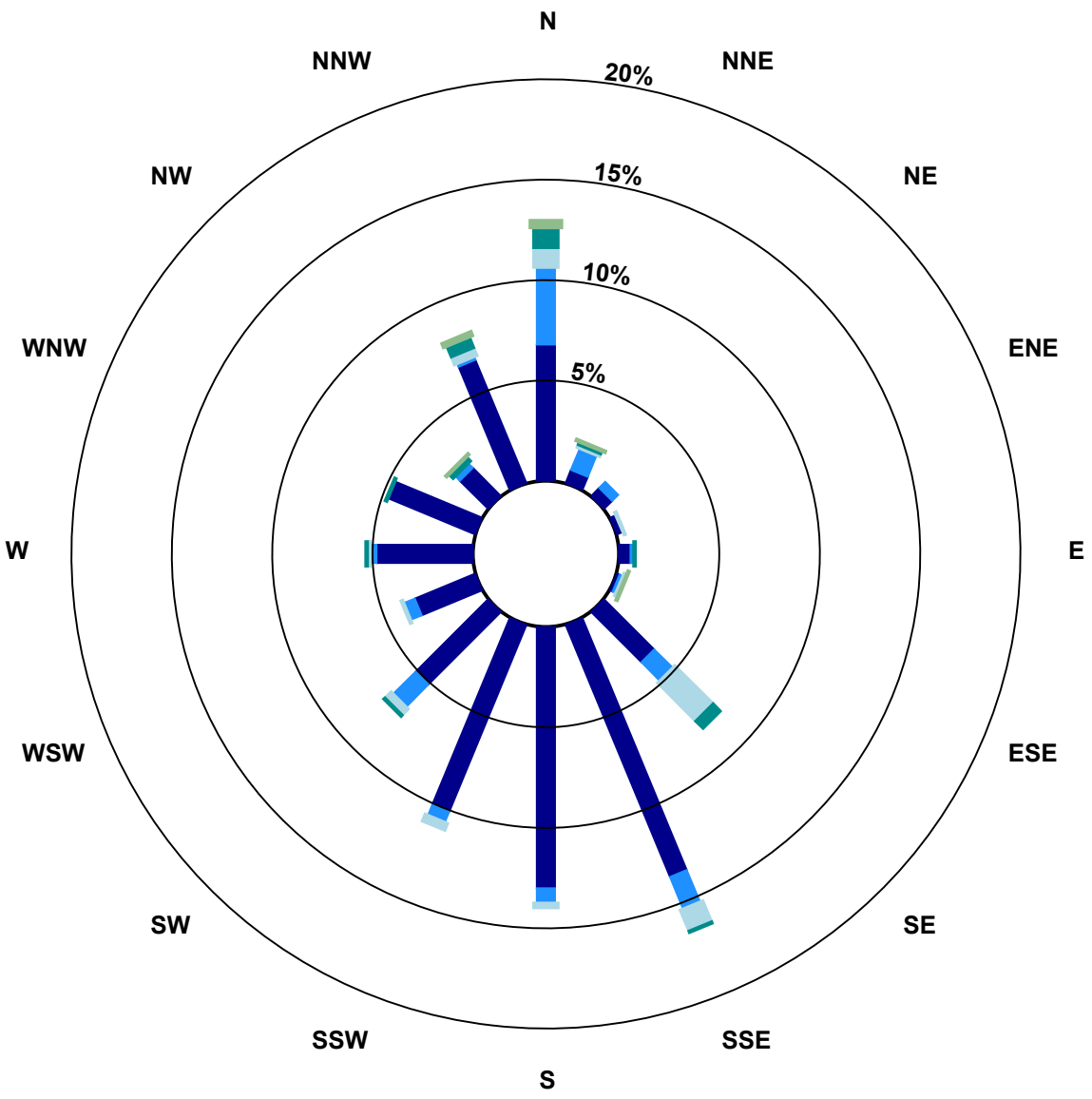
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Fort Hills



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

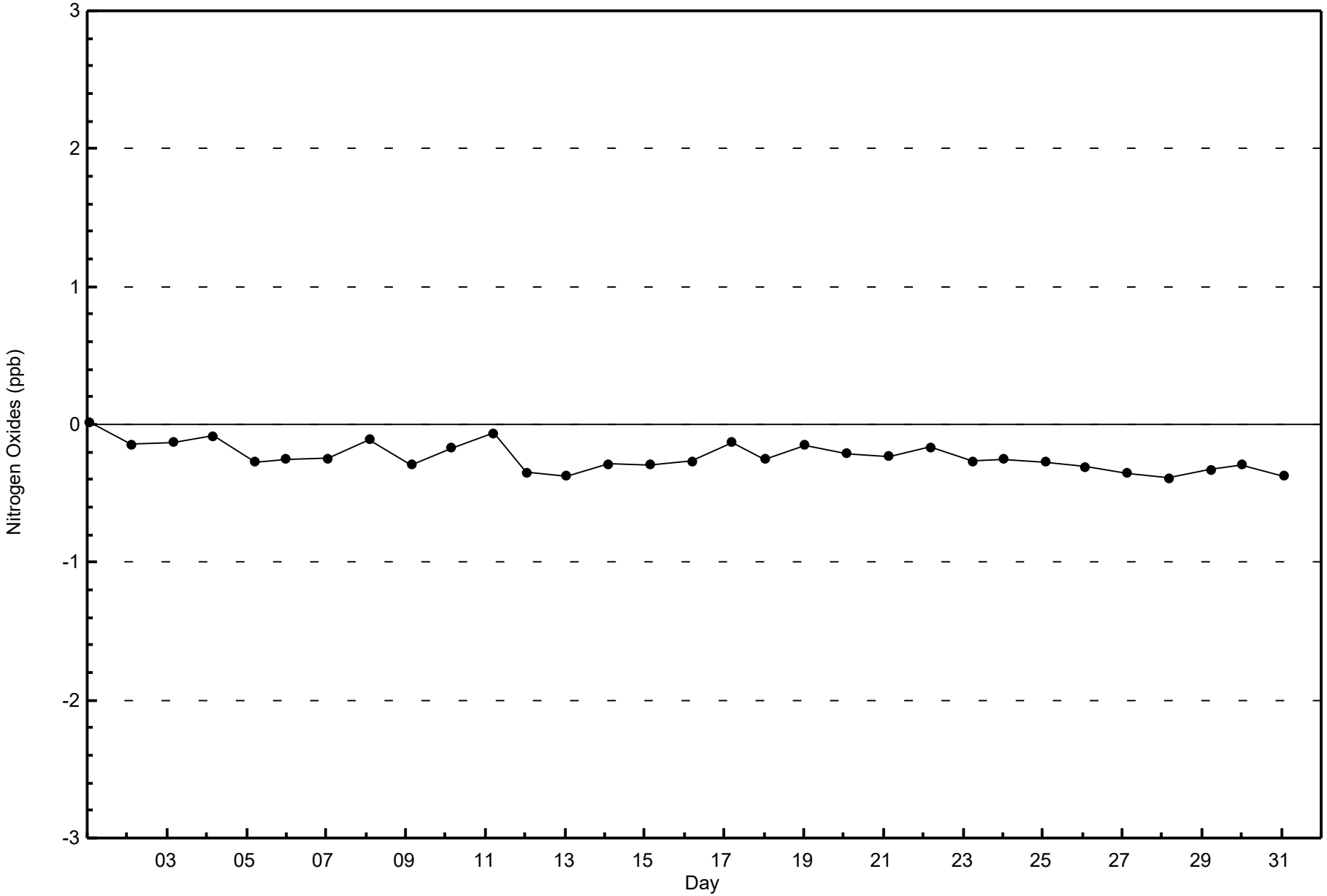
Total Number of Valid Hours: 707

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Fort Hills - October 2025

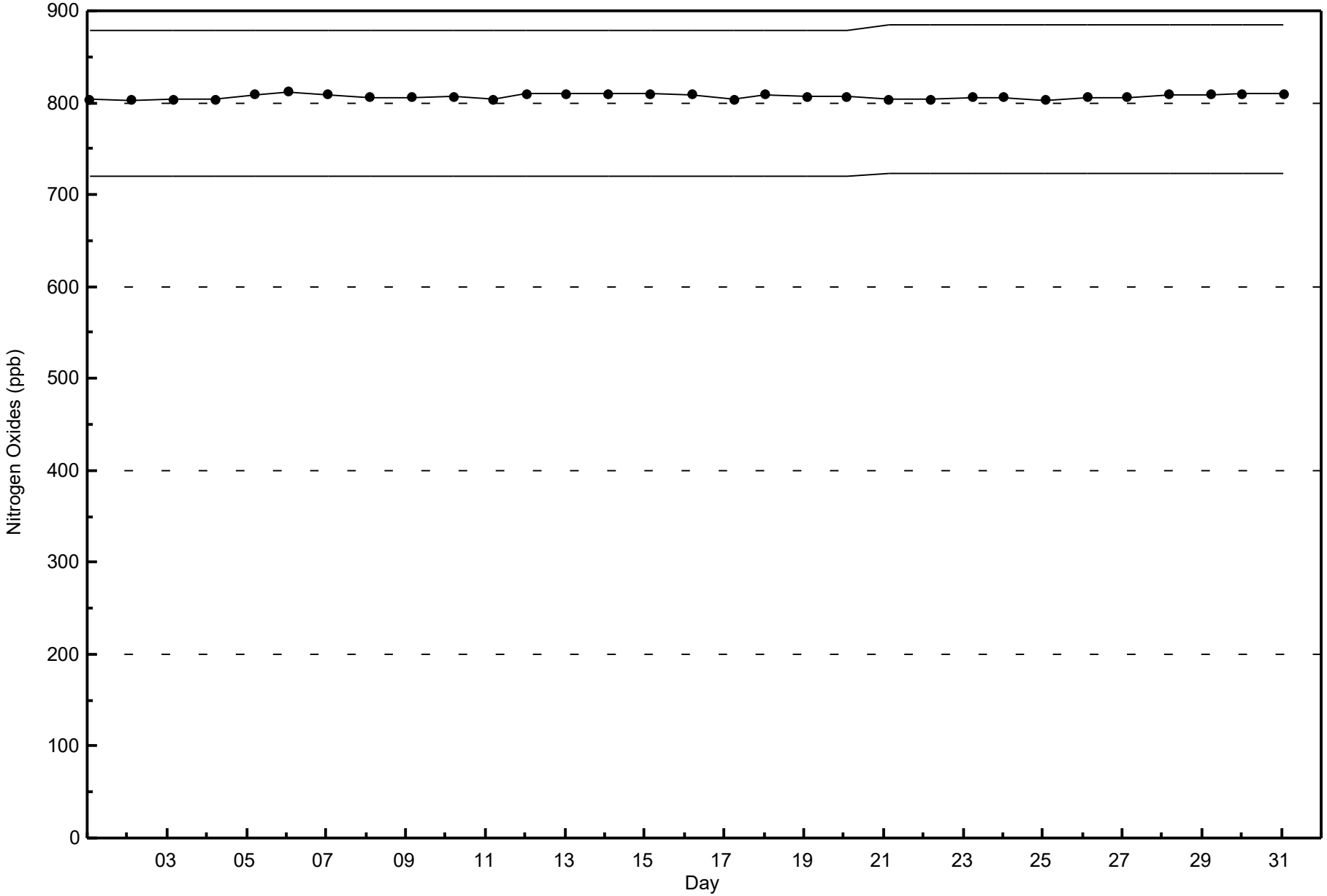


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Fort Hills - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort Hills - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 34.8 $\mu g/m^3$ on Oct 18 18:00

Maximum Daily Average: 10.2 $\mu g/m^3$ on Oct 1

Minimum Value: 0.1 $\mu g/m^3$ on Oct 27 20:00

Minimum Daily Average: 0.5 $\mu g/m^3$ on Oct 28

Maximum Diurnal Average: 7.3 $\mu g/m^3$ at hour 19

Minimum Diurnal Average: 4.0 $\mu g/m^3$ at hour 24

Monthly Average: 4.95 $\mu g/m^3$

Percentiles: $P_1 = 0.2$ $P_{10} = 0.8$ $Q_1 = 2.2$ Median = 3.9 $Q_3 = 6.2$ $P_{90} = 9.4$ $P_{99} = 23.7$

Hours in Service:	744
Hours of Data:	742
Hours of Missing Data:	2
Hours of Calibration:	2
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	15.6	15.1	15.2	15.3	13.9	12.4	12.6	15.8	17.5	13.8	9.2	6.3	5.3	5.1	4.1	5.2	5.9	6.3	6.9	7.9	8.2	10.4	9.1	7.0	10.2	17.5
2-Oct	6.1	5.2	5.8	6.1	5.4	5.2	5.3	4.9	6.2	9.8	13.8	15.8	12.3	7.0	5.4	4.9	5.1	4.7	4.9	5.7	6.4	6.4	7.2	7.9	7.0	15.8
3-Oct	8.7	8.8	9.0	10.7	11.2	11.0	9.0	8.1	8.2	7.4	6.3	4.1	4.9	7.9	7.8	6.6	5.5	4.2	2.0	2.3	2.6	2.6	2.5	2.6	6.4	11.2
4-Oct	2.9	3.1	3.2	3.4	3.5	4.2	2.9	2.6	3.4	3.9	3.2	3.9	2.4	3.2	2.8	2.1	0.6	0.3	0.8	1.6	1.5	1.2	1.0	0.9	2.4	4.2
5-Oct	0.9	1.0	1.8	1.9	1.7	1.3	2.0	3.7	5.0	5.3	6.5	7.2	9.7	12.6	12.9	3.2	2.3	2.2	1.9	2.4	3.7	1.8	3.2	2.1	4.0	12.9
6-Oct	1.7	2.2	1.8	1.6	1.7	1.4	0.9	0.8	0.7	1.3	3.4	2.2	2.4	3.1	1.5	1.8	2.4	13.8	34.7	14.5	6.4	4.9	5.8	6.5	4.9	34.7
7-Oct	6.7	5.3	3.3	3.2	6.5	11.4	8.2	6.3	6.1	6.2	6.2	10.8	6.8	6.6	6.0	6.2	12.0	24.1	17.0	8.2	9.3	10.7	7.9	6.5	8.4	24.1
8-Oct	6.9	5.3	4.9	4.9	3.4	2.9	3.0	3.2	3.0	3.0	1.9	1.9	2.1	2.3	2.6	3.4	2.4	1.1	1.2	0.5	0.9	0.8	0.6	0.4	2.6	6.9
9-Oct	0.5	0.5	0.5	2.3	1.0	0.6	2.2	3.1	4.1	3.7	3.7	2.9	3.3	3.9	4.8	7.6	10.1	8.4	9.2	6.1	3.7	3.4	3.1	3.4	3.8	10.1
10-Oct	3.7	4.3	5.4	6.3	6.4	8.0	11.4	12.0	10.7	6.2	4.5	6.2	8.2	7.2	7.5	7.2	6.1	6.2	16.5	10.5	6.1	6.8	9.0	13.4	7.9	16.5
11-Oct	23.0	29.0	16.3	13.1	12.4	10.0	8.1	10.0	5.8	3.2	2.9	2.2	2.7	1.2	0.4	0.3	0.3	0.3	0.3	0.2	0.1	0.2	0.2	0.3	5.9	29.0
12-Oct	0.3	0.5	0.5	0.6	0.5	0.5	0.4	0.9	0.4	0.6	2.7	0.9	1.1	1.0	1.0	1.7	2.3	2.9	2.2	1.8	0.7	0.5	0.6	0.8	1.1	2.9
13-Oct	0.5	0.6	1.1	1.5	1.7	2.2	0.6	0.6	1.9	4.3	3.9	3.2	2.9	3.2	4.1	3.8	3.7	3.1	3.3	3.7	3.4	3.4	3.7	3.7	2.7	4.3
14-Oct	3.8	3.6	4.4	4.5	4.8	5.2	5.0	4.6	3.7	3.6	3.5	3.3	3.2	3.1	3.6	4.1	5.9	8.0	24.5	29.0	11.2	6.6	7.0	6.6	6.8	29.0
15-Oct	6.0	3.3	3.0	3.4	3.3	3.1	3.4	4.1	4.6	5.2	5.0	4.5	4.0	6.0	6.0	5.5	5.7	6.3	5.6	5.5	5.4	8.7	7.9	6.0	5.1	8.7
16-Oct	5.9	4.0	2.9	3.0	3.0	4.6	5.3	5.1	6.3	7.9	13.7	13.9	19.4	14.1	14.3	13.2	25.3	17.1	8.0	6.6	5.4	4.5	3.1	2.6	8.7	25.3
17-Oct	2.7	3.2	5.8	4.7	5.6	5.9	4.8	2.6	2.7	2.8	2.5	2.2	2.0	1.9	1.6	1.3	1.2	1.3	1.8	1.2	1.4	1.4	1.6	1.8	2.7	5.9
18-Oct	2.0	2.1	1.5	1.1	1.0	1.0	0.9	2.2	4.0	2.1	2.7	9.9	5.6	10.0	4.6	0.8	1.2	34.8	19.8	11.2	10.6	6.0	4.2	4.7	6.0	34.8
19-Oct	7.9	5.7	4.3	6.2	6.1	9.3	13.2	16.2	7.4	5.1	5.5	5.1	5.7	4.2	4.8	3.9	3.0	3.0	2.7	2.8	2.6	2.4	2.6	2.4	5.5	16.2
20-Oct	2.2	1.5	1.0	0.8	0.9	0.8	1.4	C	C	1.5	1.5	2.4	4.1	4.7	5.2	6.4	5.1	3.9	3.7	4.2	4.3	5.4	5.2	5.0	3.2	6.4
21-Oct	5.7	5.2	6.0	6.0	5.4	5.5	5.3	4.4	3.8	3.6	3.6	2.0	1.7	1.5	1.4	3.5	4.1	3.7	3.3	3.3	3.6	3.5	3.5	3.4	3.9	6.0
22-Oct	3.3	3.6	3.9	4.1	3.7	3.2	2.9	3.1	3.8	4.1	5.2	5.0	5.0	6.0	7.3	7.0	7.4	7.0	6.7	5.4	5.6	5.2	5.5	6.4	5.0	7.4
23-Oct	6.9	5.7	3.2	3.0	3.3	3.6	3.4	3.7	5.9	6.6	7.9	6.9	6.9	7.0	13.0	30.8	15.5	21.2	20.8	8.5	14.2	8.8	5.7	7.4	9.2	30.8
24-Oct	6.6	8.1	9.0	7.5	5.9	6.2	6.9	6.7	5.5	5.3	6.8	8.2	8.6	11.3	10.1	7.4	7.0	7.7	11.3	15.1	9.5	9.1	6.1	5.1	8.0	15.1
25-Oct	5.3	5.9	6.0	5.9	7.8	8.5	8.9	8.6	9.4	8.2	7.7	6.2	4.7	3.0	2.2	2.5	2.3	2.1	2.2	2.0	1.8	2.1	2.7	2.8	5.0	9.4
26-Oct	3.0	3.2	3.6	4.7	4.9	4.7	5.7	7.1	5.3	5.3	5.1	4.9	4.6	5.1	4.5	3.4	3.2	3.0	2.3	2.0	2.1	1.7	1.7	1.5	3.9	7.1
27-Oct	1.9	1.5	1.0	0.8	0.5	0.6	0.6	0.6	1.0	0.4	0.1	0.2	0.2	0.2	0.5	0.3	0.2	0.1	0.2	0.1	0.8	1.2	1.2	0.4	0.6	1.9
28-Oct	0.4	0.3	0.1	0.3	0.4	0.1	0.2	0.3	0.3	0.4	1.1	0.4	0.6	0.5	0.4	0.4	0.5	0.7	0.8	0.7	0.6	0.9	0.9	1.2	0.5	1.2
29-Oct	1.4	1.5	2.0	3.3	2.8	2.1	3.1	3.4	3.2	3.3	3.5	3.2	3.8	2.8	2.9	2.9	3.0	3.0	3.0	2.6	2.3	2.6	2.5	3.0	2.8	3.8
30-Oct	3.1	3.5	3.9	4.6	4.9	5.9	4.7	5.4	6.0	4.0	3.6	3.3	3.9	3.9	4.0	3.9	4.4	4.5	4.5	4.4	4.3	4.5	4.5	3.8	4.3	6.0
31-Oct	3.6	3.4	3.4	3.4	3.7	4.1	4.5	5.3	6.6	6.8	6.3	5.8	6.5	6.8	5.6	5.1	5.0	4.8	4.3	4.2	4.4	4.9	5.3	5.6	5.0	6.8
	4.8	4.7	4.3	4.5	4.4	4.7	4.7	5.2	5.1	4.7	5.0	5.0	5.0	5.1	4.9	5.0	5.1	6.8	7.3	5.6	4.6	4.3	4.0	4.0	Diurnal Average	
	23.0	29.0	16.3	15.3	13.9	12.4	13.2	16.2	17.5	13.8	13.8	15.8	19.4	14.1	14.3	30.8	25.3	34.8	34.7	29.0	14.2	10.7	9.1	13.4	Diurnal Maximum	

C - Calibration

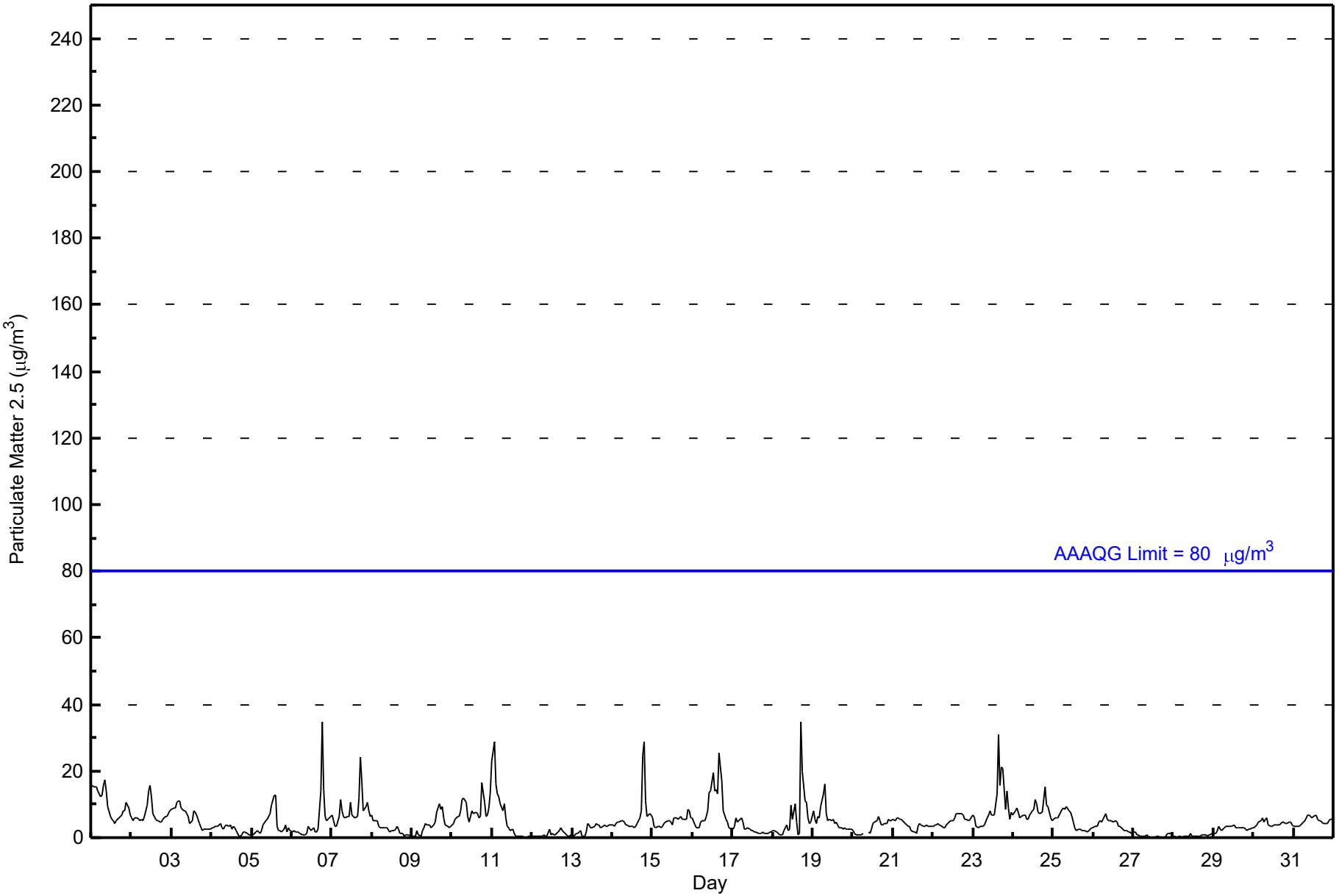
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 $\mu g/m^3$ 24-hr 29 $\mu g/m^3$

Wood Buffalo Environmental Association

Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort Hills - October 2025



Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort Hills - October 2025

Concentration Ranges ($\mu g/m^3$)	Number of Hours	%	Cumulative %
0 - 5	499	67.25	67.25
6 - 15	221	29.78	97.04
16 - 25	17	2.29	99.33
26 - 80	5	0.67	100.00
> 81.0	0	0.00	100.00

Total Number of Valid Hours: 742

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort Hills - October 2025

Concentration Ranges ($\mu g/m^3$)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	74	12	3	3	5	2	25	63	57	59	41	26	35	33	14	47	499
6 - 15	21	7	4	1	0	1	26	57	44	23	13	3	5	2	5	9	221
16 - 25	3	0	0	0	1	0	5	3	2	0	0	0	0	0	0	3	17
26 - 80	0	0	0	0	0	1	3	0	0	0	0	0	1	0	0	0	5
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	98	19	7	4	6	4	59	123	103	82	54	29	41	35	19	59	742

Total Number of Valid Hours: 742

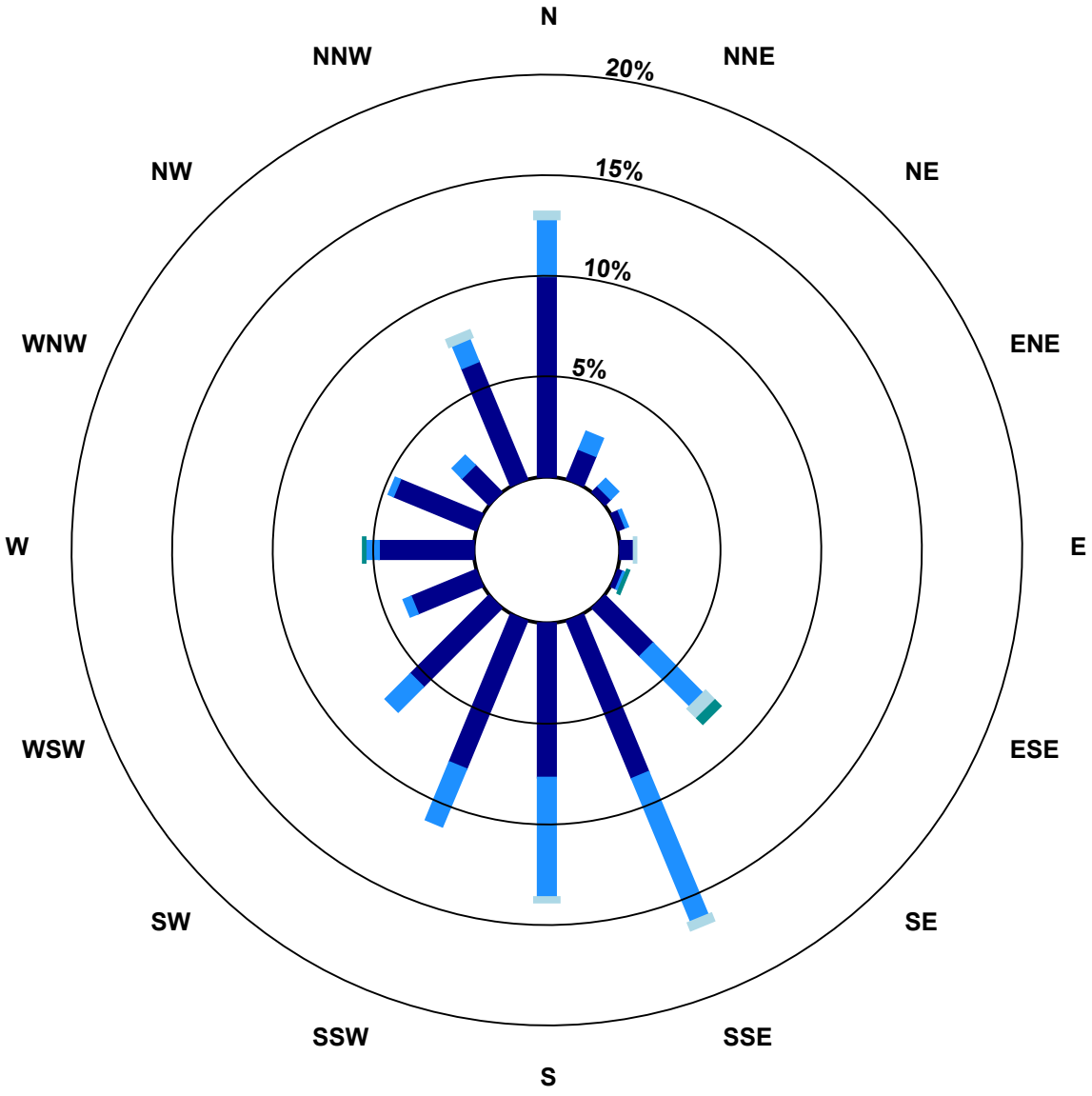
Total Number of Hours: 744

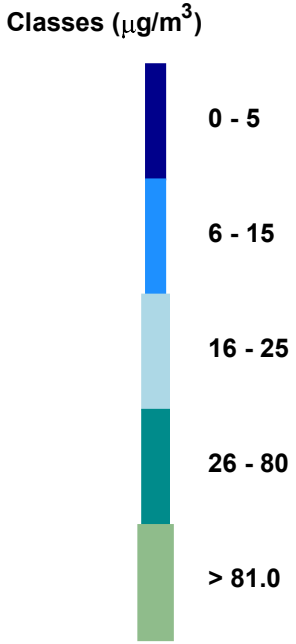
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Fort Hills





Total Number of Valid Hours: 742

Maximum Value: 20.3 C on Oct 10 17:00

Maximum Daily Average: 10.4 C on Oct 10

Minimum Value: -4.2 C on Oct 13 08:00

Minimum Daily Average: 0.3 C on Oct 29

Maximum Diurnal Average: 8.3 C at hour 16

Minimum Diurnal Average: 2.5 C at hour 8

Monthly Average: 4.95 C

Percentiles: P_1 = -1.9 P_{10} = 0.1 Q_1 = 1.6 Median = 4.2 Q_3 = 7.9 P_{90} = 10.6 P_{99} = 15.3

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

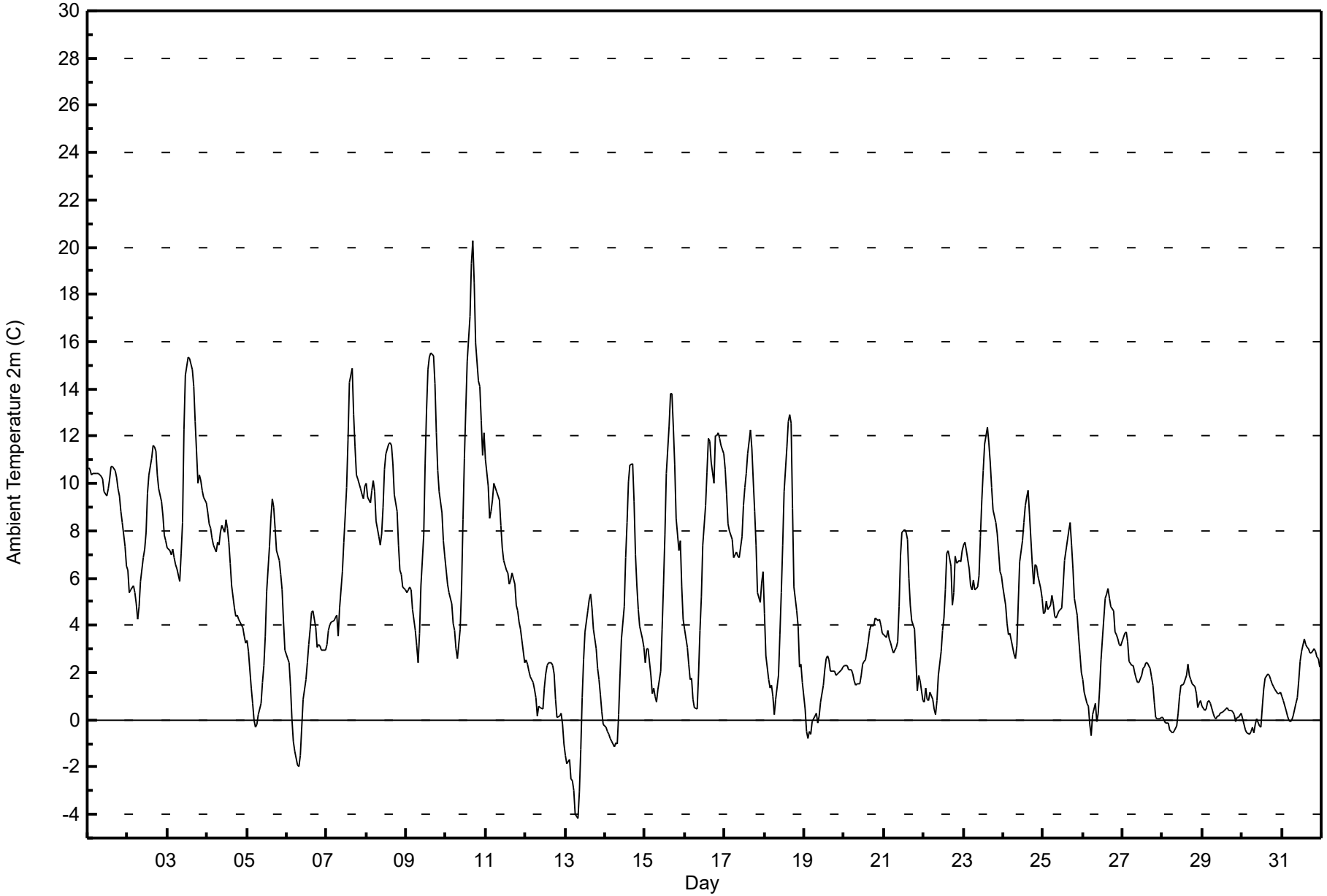
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.7	10.6	10.4	10.4	10.4	10.4	10.4	10.3	10.3	10.2	9.7	9.5	9.8	10.2	10.7	10.7	10.5	10.2	9.8	9.5	8.8	8.3	7.3	6.5	9.8	10.7
2-Oct	6.3	5.4	5.5	5.7	5.4	4.9	4.3	4.8	5.8	6.9	7.2	7.9	9.6	10.4	11.1	11.6	11.6	11.4	10.4	9.7	9.2	8.6	7.8	7.6	7.9	11.6
3-Oct	7.3	7.1	7.0	7.2	6.9	6.6	6.4	5.9	7.1	8.3	12.3	14.6	15.3	15.3	15.1	14.8	14.1	12.6	10.0	10.3	10.2	9.7	9.4	9.2	10.1	15.3
4-Oct	8.8	8.3	8.1	7.7	7.4	7.1	7.5	7.4	7.9	8.2	7.9	8.5	8.1	7.5	6.6	5.7	4.7	4.4	4.4	4.3	4.2	3.9	3.6	3.2	6.5	8.8
5-Oct	3.4	2.9	1.4	0.7	0.0	-0.3	-0.2	0.2	0.7	1.6	2.3	3.5	5.5	7.3	8.5	9.4	9.0	8.1	7.1	6.7	6.2	5.5	4.1	2.9	4.0	9.4
6-Oct	2.6	2.4	1.4	0.0	-0.9	-1.3	-1.9	-2.0	-1.5	-0.3	0.9	1.7	2.4	3.2	3.8	4.6	4.6	3.9	3.1	3.2	3.1	3.0	3.0	2.9	1.7	4.6
7-Oct	3.2	3.8	4.0	4.1	4.2	4.3	4.4	3.6	4.7	6.3	7.5	8.6	9.8	11.8	14.3	14.9	12.9	11.6	10.4	10.2	9.8	9.5	9.4	9.9	8.0	14.9
8-Oct	10.0	9.4	9.2	9.7	10.1	9.6	8.4	7.8	7.4	7.8	9.0	10.6	11.3	11.7	11.7	11.6	10.8	9.6	8.8	7.4	6.3	6.1	5.6	5.5	9.0	11.7
9-Oct	5.4	5.5	5.6	5.5	4.7	3.8	3.1	2.4	3.7	5.7	7.8	10.8	13.1	14.8	15.3	15.5	15.4	14.3	12.1	10.6	9.6	8.8	7.6	6.9	8.7	15.5
10-Oct	6.3	5.7	5.4	4.9	4.1	3.8	3.0	2.6	3.8	5.6	8.4	11.1	13.1	15.2	17.1	19.3	20.3	18.5	15.9	14.3	14.1	12.7	11.2	12.1	10.4	20.3
11-Oct	11.0	9.9	8.5	8.8	9.3	10.0	9.6	9.5	9.3	8.2	7.3	6.7	6.3	6.2	5.7	5.9	6.2	5.7	4.8	4.6	4.1	3.9	3.4	2.4	7.0	11.0
12-Oct	2.6	2.4	2.1	1.8	1.6	1.3	0.9	0.2	0.6	0.5	0.5	1.3	2.0	2.3	2.4	2.4	2.3	1.9	0.9	0.1	0.2	0.3	-0.2	-1.0	1.2	2.6
13-Oct	-1.5	-1.9	-1.7	-2.5	-2.6	-3.0	-4.0	-4.2	-3.1	-1.3	1.0	2.6	3.7	4.6	5.1	5.3	4.7	3.8	3.0	2.2	1.7	1.1	0.3	-0.2	0.6	5.3
14-Oct	-0.3	-0.5	-0.6	-0.8	-0.9	-1.1	-1.0	-1.0	0.2	1.9	3.4	4.8	6.9	8.3	10.0	10.8	10.8	9.2	7.0	5.7	4.6	3.9	3.4	3.1	3.7	10.8
15-Oct	2.4	3.0	3.0	1.9	1.1	1.4	1.0	0.7	1.3	2.1	3.8	5.7	7.8	10.4	12.4	13.8	13.8	12.4	10.8	8.5	7.2	7.6	5.6	4.2	5.9	13.8
16-Oct	3.8	3.1	2.4	1.7	1.7	0.9	0.5	0.5	1.9	3.8	5.2	7.4	9.1	10.5	11.9	11.8	10.9	10.0	12.0	12.0	12.1	11.9	11.6	11.2	7.0	12.1
17-Oct	10.6	9.5	8.3	8.0	7.7	6.9	7.0	7.1	6.9	6.9	7.8	9.0	9.8	10.4	11.3	12.3	11.5	10.1	8.8	7.4	5.4	5.0	5.8	6.3	8.3	12.3
18-Oct	4.5	2.7	1.7	1.3	1.5	1.0	0.2	0.9	1.9	3.6	5.4	7.4	9.7	11.5	12.6	12.9	12.6	9.0	5.6	4.6	4.0	2.2	2.3	1.6	5.0	12.9
19-Oct	0.5	-0.5	-0.8	-0.5	-0.6	-0.1	0.1	0.3	-0.1	0.2	0.8	1.4	2.1	2.6	2.7	2.5	2.1	2.1	2.0	1.9	1.9	2.0	2.1	2.2	1.1	2.7
20-Oct	2.3	2.3	2.3	2.1	2.1	1.9	1.6	1.5	1.5	1.5	1.9	2.4	2.5	2.6	3.3	3.8	4.0	4.0	4.0	4.3	4.2	4.2	4.0	3.7	2.8	4.3
21-Oct	3.6	3.5	3.8	3.4	3.3	3.0	2.9	3.1	3.3	4.8	6.9	8.0	8.1	7.9	7.6	6.0	4.8	4.2	3.9	2.6	1.2	1.9	1.6	0.8	4.2	8.1
22-Oct	0.8	1.4	0.9	0.8	1.1	0.9	0.5	0.2	0.8	1.9	2.9	3.8	4.3	5.5	7.0	7.2	6.5	4.8	5.4	6.9	6.6	6.7	6.7	7.2	3.8	7.2
23-Oct	7.4	7.5	7.2	6.4	5.7	5.5	5.9	5.5	5.6	6.1	7.8	9.3	10.5	11.7	12.4	11.7	10.9	9.8	8.9	8.3	7.9	7.1	6.3	6.1	8.0	12.4
24-Oct	5.6	4.9	4.1	3.6	3.7	3.4	2.8	2.6	3.1	5.0	6.7	7.6	8.3	9.0	9.4	9.7	8.7	6.6	5.7	6.5	6.5	6.1	5.5	5.2	5.8	9.7
25-Oct	4.5	4.5	5.0	4.7	4.8	5.2	4.9	4.4	4.3	4.6	4.7	4.7	5.7	6.7	7.2	8.0	8.4	7.4	6.4	5.1	4.4	3.5	2.8	2.0	5.2	8.4
26-Oct	1.7	1.2	0.7	0.6	-0.2	-0.7	0.2	0.7	-0.1	0.3	1.3	2.5	3.4	5.1	5.3	5.5	5.1	4.8	4.6	3.7	3.6	3.4	3.2	3.1	2.5	5.5
27-Oct	3.5	3.7	3.7	3.3	2.5	2.3	2.3	2.0	1.8	1.6	1.6	1.9	2.2	2.3	2.4	2.4	2.2	1.8	1.5	0.7	0.1	0.0	0.1	0.1	1.9	3.7
28-Oct	0.1	0.0	-0.1	-0.1	-0.4	-0.5	-0.5	-0.5	-0.2	0.3	1.0	1.5	1.5	1.5	1.9	2.3	1.9	1.7	1.5	1.4	1.1	0.5	0.7	0.8	0.7	2.3
29-Oct	0.6	0.4	0.5	0.8	0.8	0.7	0.3	0.1	0.1	0.1	0.1	0.3	0.3	0.4	0.5	0.5	0.4	0.4	0.3	0.2	-0.1	0.1	0.1	0.3	0.3	0.8
30-Oct	0.0	-0.2	-0.5	-0.6	-0.6	-0.5	-0.3	-0.5	-0.2	0.1	-0.2	-0.3	0.5	1.3	1.8	1.9	1.9	1.7	1.5	1.4	1.3	1.1	1.1	1.2	0.5	1.9
31-Oct	1.0	0.8	0.4	0.1	0.0	-0.1	0.0	0.2	0.7	0.9	1.7	2.4	2.9	3.4	3.2	3.0	3.0	2.8	2.8	3.0	2.9	2.7	2.6	2.2	1.8	3.4
	4.1	3.8	3.5	3.3	3.0	2.8	2.6	2.5	2.9	3.7	4.7	5.7	6.6	7.5	8.1	8.3	8.0	7.1	6.2	5.7	5.2	4.9	4.5	4.2	Diurnal Average	
	11.0	10.6	10.4	10.4	10.4	10.4	10.4	10.3	10.3	10.2	12.3	14.6	15.3	15.3	17.1	19.3	20.3	18.5	15.9	14.3	14.1	12.7	11.6	12.1	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Fort Hills - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	61	8.20	8.20
0 - 10	578	77.69	85.89
10 - 20	104	13.98	99.87
> 20	1	0.13	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

Fort Hills - October 2025

Maximum Value: 98.6 % on Oct 2 03:00

Maximum Daily Average: 91.7 % on Oct 26

Minimum Value: 32.8 % on Oct 10 17:00

Minimum Daily Average: 57.6 % on Oct 14

Maximum Diurnal Average: 85.4 % at hour 8

Minimum Diurnal Average: 63.3 % at hour 16

Monthly Average: 76.16 %

Percentiles: P_1 = 37.8 P_{10} = 52.2 Q_1 = 66.3 Median = 78.6 Q_3 = 89.3 P_{90} = 94.6 P_{99} = 98.1

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

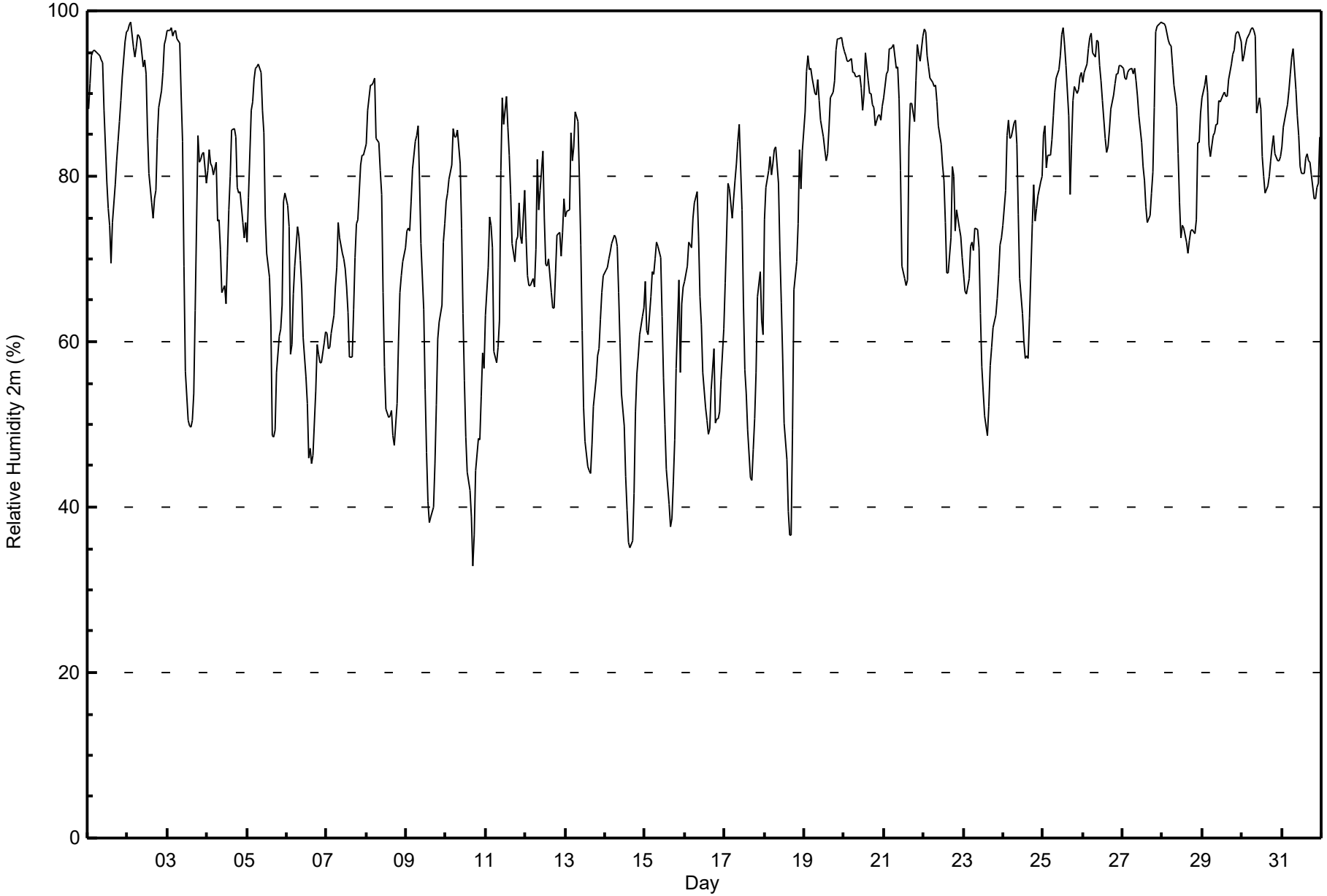
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	88.2	91.3	94.6	95.1	95.3	94.9	94.7	94.6	94.1	93.8	87.9	79.3	76.2	74.1	69.4	74.4	79.0	81.9	84.3	86.6	89.2	92.0	96.3	97.5	87.7	97.5
2-Oct	97.6	98.3	98.6	95.5	94.3	95.6	97.1	96.9	96.4	93.2	94.1	92.4	85.4	80.4	76.8	74.9	77.3	78.4	84.5	88.3	90.3	92.6	95.9	96.7	90.5	98.6
3-Oct	97.6	97.7	98.0	97.0	97.5	97.7	96.7	96.1	89.9	84.3	69.1	56.4	50.5	49.9	49.7	50.5	53.8	63.7	85.0	81.7	82.0	82.8	82.9	79.1	78.7	98.0
4-Oct	80.7	83.3	81.6	81.2	80.1	81.7	74.6	74.8	71.2	65.9	66.7	64.6	70.3	75.9	80.0	85.7	85.7	84.8	78.7	78.0	78.1	74.4	72.6	74.4	76.9	85.7
5-Oct	72.0	77.4	87.9	89.0	91.7	93.1	93.2	93.5	92.6	87.9	85.2	75.0	70.7	67.8	62.2	48.6	48.6	49.3	56.3	60.6	61.5	64.4	77.0	77.9	74.3	93.5
6-Oct	76.5	73.9	58.5	59.6	65.7	69.1	73.9	72.7	69.8	66.5	60.5	55.7	52.6	45.9	47.2	45.3	46.2	54.1	59.7	58.5	57.5	57.4	59.8	61.2	60.3	76.5
7-Oct	61.0	59.1	59.3	61.0	63.2	66.7	68.9	74.4	72.5	70.7	70.1	68.8	66.7	63.5	58.2	58.1	63.8	70.1	74.3	74.8	81.4	82.5	82.5	83.3	68.9	83.3
8-Oct	83.9	88.0	91.0	91.1	91.4	91.9	84.6	84.0	80.7	77.7	65.9	56.9	51.9	50.8	51.0	51.6	48.7	47.4	52.6	60.0	65.9	67.9	69.7	71.3	69.8	91.9
9-Oct	73.4	73.7	73.4	77.0	80.8	84.2	84.9	86.1	79.5	71.9	64.0	54.3	46.6	40.6	38.2	38.7	40.0	45.3	52.3	60.4	62.3	64.5	72.0	74.3	64.1	86.1
10-Oct	77.0	77.9	79.6	81.4	85.8	84.8	84.7	85.6	81.5	73.8	63.4	55.3	48.5	44.2	42.0	38.8	32.8	36.6	44.5	48.3	48.1	53.4	58.6	56.8	61.8	85.8
11-Oct	63.3	69.0	75.1	74.1	71.3	58.9	57.4	59.4	62.5	80.7	89.6	86.3	89.6	86.0	82.5	77.7	71.8	69.6	72.3	72.7	76.8	72.8	71.9	78.2	73.7	89.6
12-Oct	72.5	68.0	66.8	66.7	67.6	66.7	71.2	82.1	76.0	78.3	83.1	74.9	69.3	69.1	70.0	66.0	64.0	64.0	68.4	72.9	73.3	70.3	73.2	77.2	71.3	83.1
13-Oct	75.0	75.7	76.0	85.2	81.9	83.6	87.8	86.6	79.9	71.6	61.3	52.0	48.0	44.9	44.4	44.1	47.7	52.2	55.6	58.3	59.2	62.7	65.9	68.0	65.3	87.8
14-Oct	68.7	69.0	69.9	70.9	71.8	72.9	72.5	71.5	66.0	59.8	53.8	49.8	43.7	39.6	35.8	35.2	36.0	41.7	51.5	56.1	58.3	60.8	63.0	64.0	57.6	72.9
15-Oct	67.2	61.3	60.9	65.4	68.5	68.2	70.0	72.0	71.6	70.2	63.1	55.6	50.0	44.6	40.3	37.6	38.7	43.0	48.1	56.8	67.5	56.2	64.5	66.6	58.7	72.0
16-Oct	67.3	69.1	72.0	71.7	71.4	74.9	76.8	78.2	72.7	65.5	62.0	56.3	52.1	50.5	48.8	49.5	54.2	59.1	50.2	50.6	50.7	51.5	55.3	61.6	61.3	78.2
17-Oct	67.2	72.8	79.1	78.5	74.8	77.3	79.4	81.6	84.3	86.3	75.9	64.5	56.6	53.8	49.4	43.6	43.3	46.9	50.6	56.3	65.4	68.5	62.5	60.8	65.8	86.3
18-Oct	74.8	78.6	80.7	82.3	80.2	81.5	83.2	83.5	79.1	71.1	64.8	58.1	50.1	45.8	39.5	36.6	36.6	49.4	66.3	69.7	74.3	83.2	78.5	83.0	68.0	83.5
19-Oct	87.7	92.7	94.6	92.9	93.1	91.9	89.9	89.9	91.7	89.1	86.7	84.7	83.2	81.8	82.7	85.7	89.4	90.2	91.6	95.3	96.5	96.6	96.8	95.8	90.4	96.8
20-Oct	95.1	94.6	93.9	93.8	94.2	92.6	92.6	92.0	92.1	92.2	90.7	88.1	90.0	94.9	91.5	90.0	90.0	88.6	88.3	86.0	87.3	87.5	86.9	88.5	90.9	95.1
21-Oct	89.4	92.4	92.8	95.4	95.4	95.6	95.9	93.1	93.3	89.3	80.7	69.1	67.6	66.7	67.4	83.5	88.8	88.8	86.5	91.6	96.0	94.8	94.0	96.9	87.7	96.9
22-Oct	97.8	97.4	94.7	93.2	91.8	91.4	90.9	90.9	89.0	86.2	84.0	81.4	79.4	74.5	68.4	68.4	72.5	81.1	80.1	73.4	75.9	73.7	72.7	70.1	82.4	97.8
23-Oct	68.1	66.2	65.8	67.6	71.5	72.0	71.1	73.7	73.6	71.3	63.3	57.0	54.0	51.0	48.7	52.3	57.2	59.4	61.6	63.3	65.3	68.2	71.7	72.6	64.4	73.7
24-Oct	74.0	78.4	84.9	86.7	84.6	84.7	86.4	86.7	83.8	75.5	67.6	63.3	59.9	57.9	58.3	58.0	63.0	74.3	78.9	74.5	76.1	77.6	79.3	80.0	74.8	86.7
25-Oct	85.0	86.2	81.1	82.5	82.6	84.4	87.3	90.2	91.9	92.8	94.6	97.1	98.0	95.9	93.4	87.3	77.8	83.9	89.1	90.9	90.0	90.4	92.0	92.6	89.0	98.0
26-Oct	91.4	92.6	93.6	95.4	96.8	97.2	94.9	94.4	96.4	96.3	93.4	91.5	89.1	84.5	82.8	83.6	85.6	88.1	89.9	91.2	92.4	92.3	93.4	93.4	91.7	97.2
27-Oct	93.1	91.9	91.6	92.6	92.9	93.0	92.3	93.1	91.6	89.6	87.3	84.1	81.2	79.5	76.3	74.3	75.3	77.9	80.5	88.3	97.4	98.2	98.5	98.6	88.3	98.6
28-Oct	98.5	98.5	98.2	96.4	95.9	95.8	93.4	91.1	88.5	82.8	76.8	72.6	74.1	73.7	72.1	70.8	72.2	73.3	73.5	73.1	74.8	84.1	84.0	87.6	83.4	98.5
29-Oct	89.5	91.0	92.1	90.2	83.8	82.4	85.0	85.2	86.3	86.4	89.2	89.0	89.9	90.2	89.7	89.6	91.7	93.5	94.7	95.2	97.2	97.5	97.5	96.3	90.5	97.5
30-Oct	93.8	94.6	95.7	96.6	97.4	97.7	98.0	97.6	97.0	87.7	89.5	88.2	82.4	79.9	78.0	78.8	80.0	81.9	83.6	84.9	82.7	81.8	81.9	82.4	88.0	98.0
31-Oct	83.6	85.9	87.9	88.7	90.3	92.4	94.3	95.5	90.6	87.3	84.9	81.2	80.4	80.4	82.2	82.6	81.9	81.8	80.2	77.3	77.3	78.7	79.1	84.7	84.6	95.5
	81.0	82.1	82.9	83.7	84.0	84.3	84.6	85.4	83.4	80.5	76.4	71.1	68.0	65.7	63.8	63.3	64.3	67.8	71.4	73.4	75.8	76.8	78.4	79.7	Diurnal Average	
	98.5	98.5	98.6	97.0	97.5	97.7	98.0	97.6	97.0	96.3	94.6	97.1	98.0	95.9	93.4	90.0	91.7	93.5	94.7	95.3	97.4	98.2	98.5	98.6	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Fort Hills - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	14	1.88	1.88
40 - 60	116	15.59	17.47
60 - 80	263	35.35	52.82
80 - 100	351	47.18	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Fort Hills - October 2025

Maximum Speed: 39 km/h on Oct 27 01:00

Maximum Daily Speed Average: 22.1 km/h on Oct 27

Minimum Speed Value: 0 km/h on Oct 6 12:00

Minimum Daily Speed Average: 1.1 km/h on Oct 6

Maximum Diurnal Speed Average: 5.3 km/h at hour 13

Minimum Diurnal Speed Average: 1.0 km/h at hour 7

Monthly Average Velocity: 2.5 km/h 215.9 deg

Percentiles: P_1 = 1 P_{10} = 5 Q_1 = 8 Median = 11 Q_3 = 16 P_{90} = 22 P_{99} = 35

Hours in Service: 744

Hours of Data: 744

Hours of Missing Data: 0

Percent Operational Time: 100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	N9	N13	NNW14	N13	N16	N18	N16	N17	N18	N18	N23	NNW17	NNW17	NNW14	N13	N13	N9	NNE6	NE4	N6	NE4	NE3	NW2	WNW6	N11.6	N23
2-Oct	SSW3	WNW3	S4	SSE4	SE5	SSE6	SSE8	SSE9	SSE11	SE10	SSE11	SSE11	SE10	SSE10	S12	S15	S11	S8	SSE10	SSE10	SSE9	SSE7	SE8	SSE8	SSE7.9	S15
3-Oct	SSE7	SSE6	SSE10	SSE13	SSE12	SSE11	SSE10	SSE8	S11	SSW12	SSW18	SSW23	SW24	SW26	SW26	SW27	SW18	W16	WSW7	SW10	SW11	SW8	WSW10	SW11	SSW12.0	SW27
4-Oct	SW11	SW11	SW11	SW11	WSW6	WSW6	NNW10	NNW7	NNW8	NNW13	NNW6	N5	N11	N12	NNW15	NNW16	NNW19	NNW14	NW14	NW10	NW8	NW10	WNW11	W8	NW7.6	NNW19
5-Oct	W6	SW8	SW11	SW10	S8	SSE8	SE8	SSE10	S11	S11	S12	SSW10	SSW13	SSW13	SSW5	WNW13	WNW13	WNW11	W8	WSW11	W10	NNW9	N28	N22	WSW4.4	N28
6-Oct	NNW15	N20	NNW20	NNW14	NNW9	NNW9	WNW5	WNW7	NW8	N6	E4	NE0	SE6	S5	SSE12	S12	SSE13	SSE14	SE14	SSE14	SSE14	S10	S10	S9	SSE1.1	NNW20
7-Oct	SSE9	S10	S9	SSE9	S9	S11	SSE8	S7	S11	S14	S14	S17	S17	SSE16	S14	SW4	NNW7	NNW7	NNW7	N7	N3	NW2	NW5	N8	S5.6	S17
8-Oct	WNW6	N4	WNW4	SW8	SW6	WSW9	WNW12	W7	SW8	SSW12	SW16	WSW17	WSW19	WSW19	SW17	WSW15	W20	W17	W18	W18	W16	W13	W9	WSW7	WSW11.3	W20
9-Oct	W9	WSW8	WSW8	SW8	SSW11	SSW16	SSW13	SSW11	SSW13	SSW17	SSW19	SSW19	SSW20	SW21	SW22	SW21	SW18	SSW13	S9	S9	S7	SE7	SSE8	SSE7	SSW12.1	SW22
10-Oct	SE10	SE9	SE11	SSE8	SE10	SSE12	SSE7	SSE6	S10	SSW11	SSW12	S13	S17	S20	SSE18	S16	S17	SSE13	SSE14	SSE14	SSE15	S7	SE3	SE9	SSE11.2	S20
11-Oct	SE9	ESE5	E5	NNE3	N13	NNE21	NNE18	N14	NNW13	NNW15	NNW17	NNW22	WNW9	WNW14	WNW15	WNW11	WNW11	NW17	NW16	NW18	NNW18	NNW21	NNW24	NNW26	NNW11.9	NNW26
12-Oct	NNW23	NNW24	NNW26	NNW29	NNW23	N28	N21	N11	NNW13	N17	N17	N23	N26	N24	N23	N18	NNW16	NNW13	NNW10	NW6	NNW6	WNW6	WNW4	WNW9	NNW16.7	NNW29
13-Oct	WNW7	W6	WSW6	SSW10	SW10	SSW12	S12	SSW13	SSW14	SSW16	SSW18	SW23	SSW25	SSW23	S25	S23	S19	SSE19	S20	S22	S22	SSE22	S18	S18	SSW15.3	S25
14-Oct	SSE17	S16	S19	S16	SSW10	S9	SSW10	SSW8	SSW10	SSW19	SW23	SSW24	SSW26	SSW22	SW21	SW18	SW13	S8	SE12	SE9	SE8	SE12	SE13	SE15	S13.1	SSW26
15-Oct	SSE13	S17	S18	SSE12	SSE13	S15	SSE15	S14	S13	S12	SSW11	SSW16	SSW16	SW19	SSW19	SSW17	SSW16	SSW12	SSW9	SSW7	SW8	SW11	S7	ESE3	S12.1	SW19
16-Oct	SE9	SSE6	S7	SE8	SSE6	SE8	SE10	SE10	S11	SSE11	SE14	SSE17	SSE14	S14	S11	WSW5	S2	S5	SSE14	SSE13	SSE15	SSW8	S12	SSW12	SSE9.3	SSE17
17-Oct	SSW9	SSW6	SSW6	SW11	SW13	SW10	W7	SW9	SW14	W7	W6	WSW12	W15	W17	WNW16	WNW16	WNW17	WNW12	WNW7	W6	S3	SSE3	NNW5	WNW6	WSW8.1	W17
18-Oct	SW1	S6	SSE7	S8	SSE6	SSE6	ESE4	SE7	SE8	SE8	SE10	SE11	SE12	SE7	W12	W12	WNW7	W3	SE3	NNE1	N4	SW3	N7	SE0	SSE3.1	W12
19-Oct	SSE2	W2	NNE2	NW1	N4	N5	NNW6	NNW9	NNW12	N14	N13	N15	N17	N22	N22	N22	N23	N23	N22	NNE14	N18	N20	N20	N19	N13.2	N23
20-Oct	N17	N18	N17	N18	N17	N16	N13	NNE9	N10	NNE9	N6	ENE3	S6	SSE8	SSE11	SSE12	S10	S11	S12	S13	SSE12	SSE15	SSE15	SSE12	ENE2.5	N18
21-Oct	SSE13	SSE10	S11	SSW9	SSW5	S6	S10	S8	SSW9	SSW11	WSW7	WNW11	WNW8	NW10	NNW12	NNE13	NNE11	NE14	ENE4	SE2	E1	E4	SE1	NW1	SSW1.5	NE14
22-Oct	WSW2	SSE4	E3	SSE6	S6	SSE8	SSE6	SSE8	SSE8	SSE10	S16	SSW11	WSW8	W6	W4	NW4	NNW5	NNE3	SE8	SE12	SE13	SSE15	SSE14	SE19	SSE6.0	SE19
23-Oct	SE25	SSE18	SSE12	S11	SSE10	SSE10	SSE12	S10	SSE10	S9	S18	S17	SSE16	SSE17	SSE18	SE16	SE15	SE19	SE19	SE17	SE18	SSE9	SSE8	SSE8	SSE13.8	SE25
24-Oct	SSW7	SSW4	S3	S7	S8	S10	S9	S10	SSE11	SSE15	SSE18	SSE18	S16	S12	SSW7	WSW4	N1	NE2	SE5	SE6	SE9	SSE9	S8	S5	S7.9	SSE18
25-Oct	SSW2	SSW5	S5	SW4	NNW3	ENE3	SE8	W5	W5	N4	WSW4	SSW10	SW8	SW8	SSW15	SW17	WSW13	S12	S9	SSE11	S10	SSE6	SSE10	SSE9	SSW5.6	SW17
26-Oct	SE9	SE6	SSE8	SSE5	NW0	N3	NNE6	N7	NNW7	N12	N18	N15	N20	N23	N28	N27	N24	N27	N33	N38	N37	N38	N39	N35	N17.2	N39
27-Oct	N39	N37	N37	N34	N34	N32	N31	N30	N31	N32	N30	N28	NNW27	NNW29	NNW27	NNW23	NNW17	NW11	WNW9	WNW9	WSW8	WSW9	WSW6	WSW3	NNW22.1	N39
28-Oct	WSW3	WSW3	WNW3	WNW4	W7	W8	WNW9	W10	W10	W12	W14	W15	W14	W11	W5	WSW15	W12	W9	WNW8	NW6	E1	SSE5	SSE6	S9	W7.1	W15
29-Oct	SSW12	SSE7	SSE6	SSE8	SE10	SE11	SE8	ENE6	NE9	N11	N15	NNE14	N9	NNW14	NNE17	NNE20	NNE22	N19	N14	NNW8	NNW6	NNW3	SW0	N9	NNE5.9	NNE22
30-Oct	N9	NNE7	NNE3	E3	SE6	SSW7	SSW7	SW5	SSW6	SW12	SW14	SW14	SW12	SW14	SSW14	SSW14	SSW14	SSW11	S12	S11	SSW14	SSW16	SSW17	SSW17	SSW8.7	SSW17
31-Oct	SSW18	SSW17	SSW18	SSW17	SSW16	SSW14	SSW11	S9	S16	S15	SSE20	S21	SSE23	SSE26	SSE26	SSE24	SSE23	SSE26	SSE24	SSE21	SSE25	SSE21	SSE21	SSE20	S18.7	SSE26
	S1.5	S1.2	SSW1.6	SSW2.3	SSW1.8	SSW1.5	S1.0	SSW1.4	SW2.7	SW2.7	SSW3.8	SW4.9	SW5.3	SW5.3	SW4.6	WSW4.9	W4.0	WSW1.8	S1.9	SSW2.7	S3.3	S2.5	S1.2	S1.3	Diurnal Average	
	N39	N37	N37	N34	N34	N32	N31	N30	N31	N32	NNW30	N28	NNW27	NNW29	N28	N27	N24	N27	N33	N38	N37	N38	N39	N35	Diurnal Maximum	

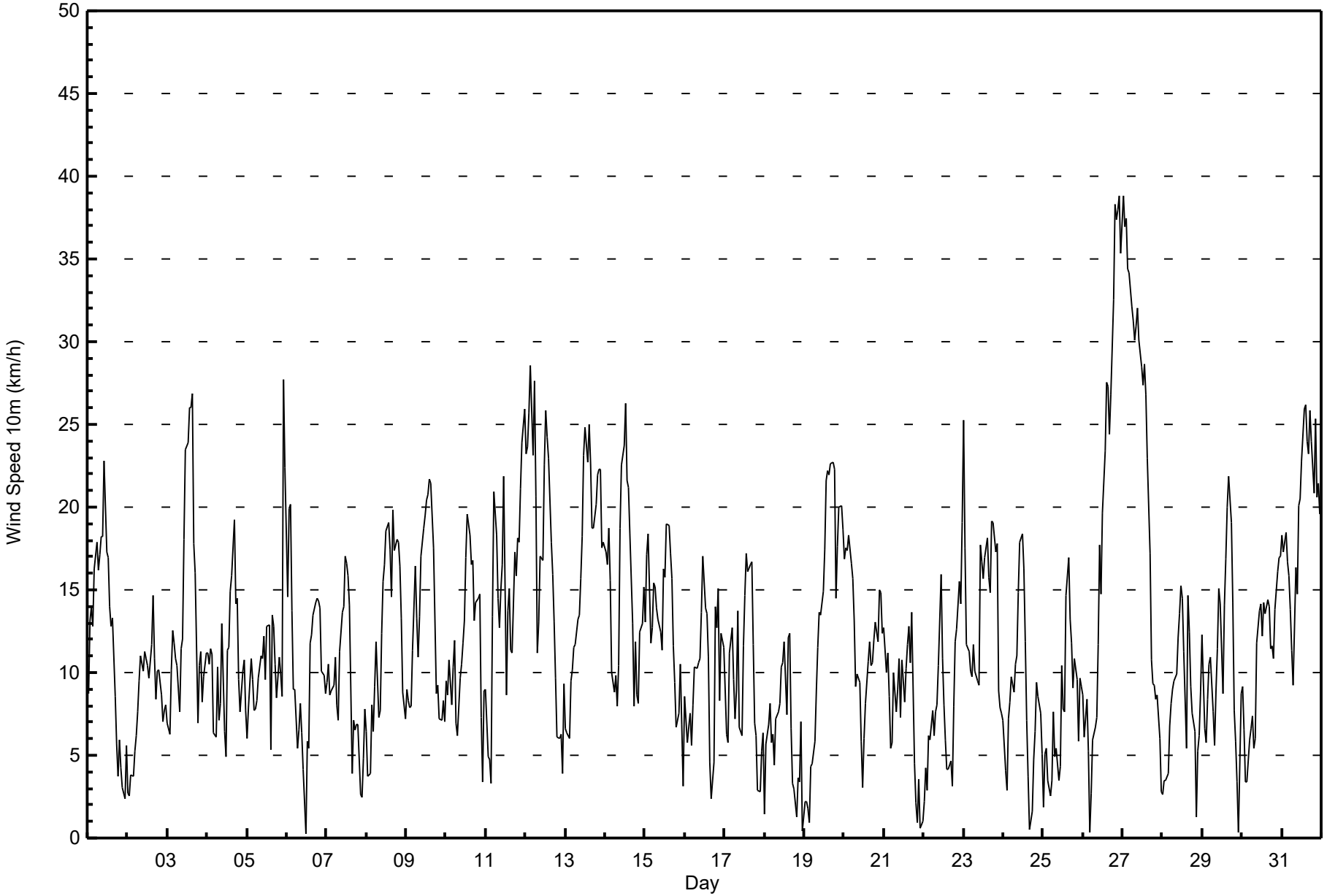
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Fort Hills - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	95	12.77	12.77
6 - 11	299	40.19	52.96
12 - 19	251	33.74	86.69
20 - 28	80	10.75	97.45
29 - 38	17	2.28	99.73
> 38	2	0.27	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Fort Hills - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	9	5	5	3	6	4	7	6	8	6	6	7	6	6	7	4	95
6 - 11	15	7	1	1	0	0	35	61	49	28	23	15	19	20	8	17	299
12 - 19	34	5	1	0	0	0	16	42	39	41	15	7	15	9	4	23	251
20 - 28	25	3	0	0	0	0	1	14	7	7	10	0	1	0	0	12	80
29 - 38	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17
> 38	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Totals	99	20	7	4	6	4	59	123	103	82	54	29	41	35	19	59	744

Total Number of Valid Hours: 744

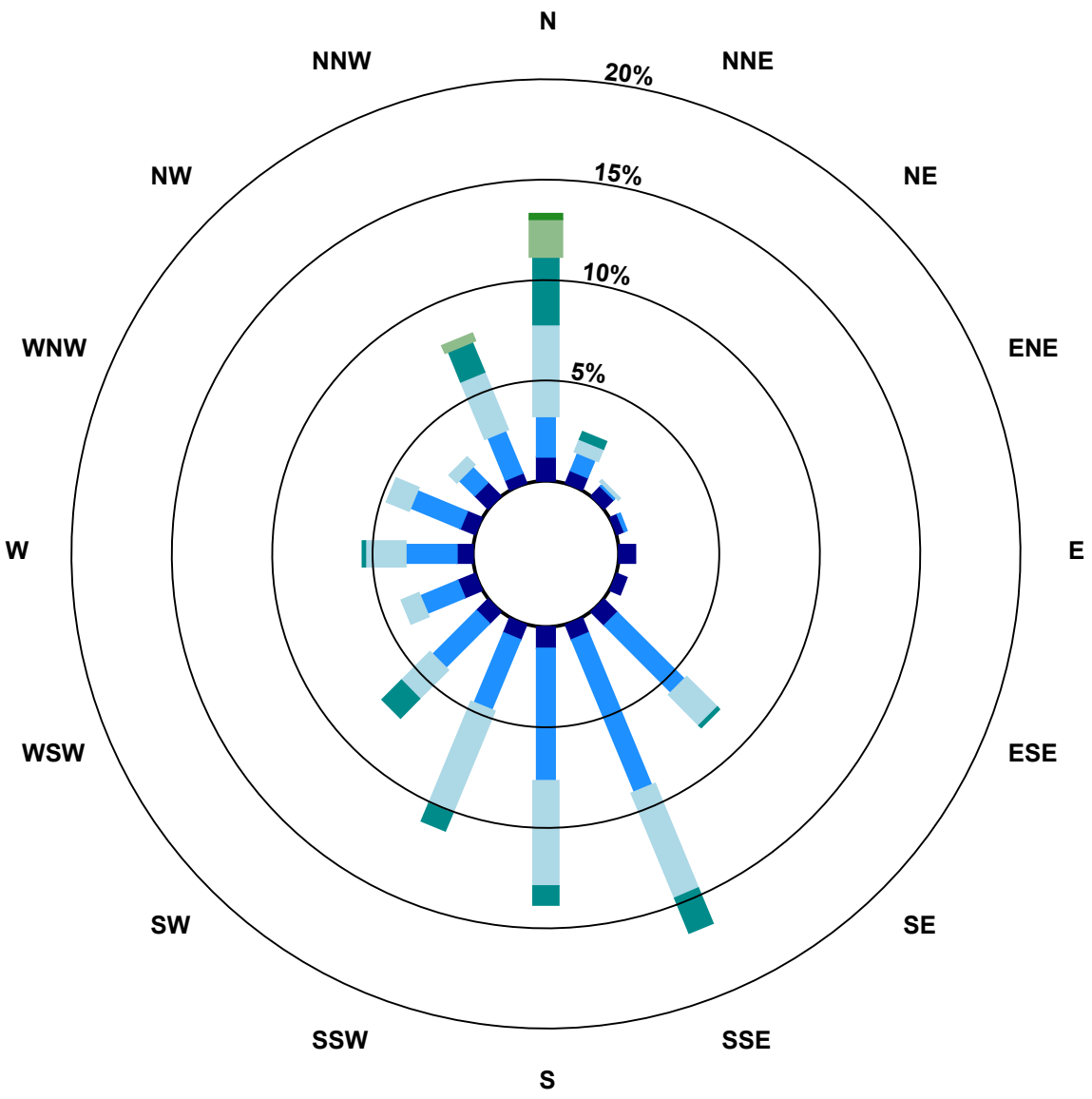
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Fort Hills



Classes (km/h)

0 - 5

6 - 11

12 - 19

20 - 28

29 - 38

> 38

Total Number of Valid Hours: 744

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 7 km/h on Oct 26 23:00

Minimum Value: 1 km/h on Oct 15 21:00

Percentiles: P_1 = 1 P_{10} = 1 Q_1 = 2 Median = 2 Q_3 = 3 P_{90} = 5 P_{99} = 7

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	2	3	3	4	3	3	4	4	5	5	4	3	4	3	2	1	1	1	1	1	2	1	5
2-Oct	1	1	1	1	1	2	2	3	2	1	2	2	2	2	3	3	2	1	1	1	1	1	1	1	3
3-Oct	1	1	3	1	2	1	1	1	2	2	4	5	5	6	5	5	4	5	2	2	3	2	3	2	6
4-Oct	2	2	2	2	2	2	2	2	4	3	2	3	3	3	5	3	4	3	3	3	2	3	3	1	5
5-Oct	1	2	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	2	2	2	4	2	7	5	7
6-Oct	4	5	5	4	3	2	1	1	2	3	2	2	3	3	3	3	2	2	1	1	1	2	1	1	5
7-Oct	1	1	1	1	1	1	2	1	2	2	2	2	2	2	3	2	1	2	2	1	2	2	2	3	3
8-Oct	3	2	2	2	2	2	3	2	1	2	3	3	4	5	4	4	6	4	5	4	4	4	2	2	6
9-Oct	3	2	2	2	3	2	3	2	2	3	2	3	4	4	4	4	5	3	1	1	3	1	2	2	5
10-Oct	2	2	2	2	1	2	2	1	2	2	2	2	3	3	2	3	3	2	1	1	2	4	2	2	4
11-Oct	2	3	3	3	2	5	4	3	5	5	5	4	5	3	3	3	3	5	5	4	5	4	6	6	6
12-Oct	6	5	6	6	5	7	5	3	4	5	3	6	4	5	5	4	4	3	3	2	1	1	1	2	7
13-Oct	2	1	1	1	2	1	2	1	2	2	3	4	4	4	4	3	3	3	2	3	3	3	2	2	4
14-Oct	2	2	2	2	2	2	2	2	2	6	4	4	5	4	4	3	2	2	1	2	2	1	1	1	6
15-Oct	2	3	3	3	3	2	1	3	2	4	3	4	4	3	3	3	3	1	1	2	1	2	2	1	4
16-Oct	2	2	2	2	1	2	1	1	1	2	2	2	3	2	2	2	1	3	2	2	5	2	2	2	5
17-Oct	2	2	3	2	2	1	2	1	3	3	2	3	4	4	4	5	4	3	2	1	1	1	3	2	5
18-Oct	1	1	1	2	1	1	1	2	1	1	1	2	2	3	6	3	2	1	1	1	2	3	1	2	6
19-Oct	2	1	1	1	1	2	2	2	2	3	2	2	3	3	4	5	4	4	4	6	3	3	3	3	6
20-Oct	3	3	3	3	3	3	2	2	2	2	2	1	3	1	2	2	1	1	2	3	1	2	3	2	3
21-Oct	1	2	2	2	1	1	2	2	2	2	2	2	2	2	3	3	2	2	4	1	1	1	1	1	4
22-Oct	2	2	1	2	2	2	1	1	1	2	2	2	2	2	1	1	1	1	4	3	2	2	2	4	4
23-Oct	3	6	2	1	1	1	2	3	1	2	3	2	2	2	2	2	2	2	2	3	4	4	1	2	6
24-Oct	2	2	1	2	1	1	1	2	2	4	2	3	2	2	1	1	1	2	2	1	2	2	2	2	4
25-Oct	1	1	1	3	2	4	3	1	2	2	1	1	2	1	3	4	5	2	2	1	4	2	1	2	5
26-Oct	2	2	2	2	1	2	2	2	2	3	3	4	4	5	4	5	5	5	5	7	6	7	7	6	7
27-Oct	7	7	6	7	7	6	6	6	6	7	7	7	6	6	6	5	4	3	2	2	1	1	2	1	7
28-Oct	1	1	1	2	2	1	2	2	2	2	3	4	3	3	3	3	3	2	1	2	1	1	1	1	4
29-Oct	2	2	1	1	2	3	3	2	2	4	3	2	2	3	3	5	3	3	3	3	1	1	1	2	5
30-Oct	2	2	2	1	1	1	1	2	2	2	3	3	4	3	3	3	3	2	2	2	3	3	3	4	4
31-Oct	3	3	3	3	3	2	2	2	3	2	3	3	4	5	4	3	3	4	4	4	4	3	3	2	5
	7	7	6	7	7	7	6	6	6	7	7	7	6	6	6	5	6	5	5	7	6	7	7	6	
	Diurnal Maximum																								

Direction of Maximum Speed: 2 deg on Oct 27 01:00
Direction of Maximum Daily Speed Average: 347.6 deg on Oct 27

Direction of Minimum Speed: 44 deg on Oct 6 12:00

Direction of Minimum Daily Speed Average: 1.1 deg on Oct 6

Monthly Average Direction: 215.9 deg

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	357	359	345	350	349	355	352	354	359	355	354	347	346	341	350	360	0	23	54	10	42	35	319	292	353.8
2-Oct	213	297	171	147	132	156	160	148	149	144	148	149	143	152	176	182	187	169	157	161	157	157	142	148	158.5
3-Oct	159	160	156	160	159	152	161	167	186	196	203	213	224	226	227	224	233	266	247	227	234	228	237	232	210.4
4-Oct	228	219	223	222	245	254	342	337	346	340	333	355	6	356	348	330	337	332	324	312	309	316	301	280	315.2
5-Oct	279	218	226	225	185	156	132	161	182	178	180	194	197	202	205	300	284	295	267	246	261	332	5	358	238.2
6-Oct	347	0	345	331	330	337	287	289	315	7	82	44	142	169	152	180	161	147	143	151	167	171	179	182	163.8
7-Oct	163	170	173	158	188	183	167	184	176	179	172	173	172	167	174	219	348	348	348	352	9	316	312	8	175.9
8-Oct	296	356	294	218	221	239	293	276	234	211	221	244	258	243	232	237	267	273	271	269	265	265	265	250	254.5
9-Oct	261	250	255	220	206	201	198	193	206	193	192	197	212	224	220	222	220	208	182	184	177	142	147	160	205.8
10-Oct	145	139	142	147	145	151	157	152	177	198	192	186	175	169	161	171	180	168	154	155	160	169	132	128	163.3
11-Oct	131	118	87	31	8	15	14	4	330	335	341	336	303	291	286	285	299	307	304	322	327	336	344	344	334.6
12-Oct	341	340	342	346	343	351	354	354	344	8	6	2	6	4	356	351	343	334	338	325	332	296	301	303	348.5
13-Oct	302	277	243	201	218	207	189	194	196	200	210	221	207	208	188	188	172	168	171	170	175	167	179	173	191.9
14-Oct	167	172	172	173	193	186	192	199	206	209	218	209	210	212	217	214	223	174	141	134	146	139	140	144	188.7
15-Oct	149	169	170	154	163	174	168	171	177	190	199	195	209	214	207	204	206	201	196	196	216	225	175	122	187.7
16-Oct	129	154	171	141	154	135	132	141	171	162	144	152	160	176	172	244	190	178	157	156	160	192	189	193	161.4
17-Oct	208	210	213	214	225	233	271	231	227	278	262	257	266	266	284	290	287	292	285	263	174	164	337	303	258.4
18-Oct	229	173	162	170	162	152	123	141	138	145	125	129	126	131	263	264	285	269	138	12	357	235	354	137	162.4
19-Oct	151	278	23	306	349	355	345	344	347	352	351	357	0	0	7	10	7	8	10	13	1	3	360	4	1.5
20-Oct	9	8	2	1	5	0	6	13	4	19	11	77	179	162	151	156	171	176	170	181	161	157	154	162	70.8
21-Oct	157	164	170	192	196	172	190	173	194	201	239	287	301	313	328	19	16	38	66	143	91	91	138	305	199.1
22-Oct	257	148	101	147	176	165	155	147	149	161	178	207	248	259	275	307	340	15	131	146	145	147	147	145	162.1
23-Oct	145	153	168	169	160	159	162	179	168	187	169	172	167	154	152	146	139	143	145	145	142	165	163	159	156.5
24-Oct	200	194	189	190	186	176	180	172	168	167	164	163	174	183	200	253	358	49	134	131	137	162	169	175	171.6
25-Oct	192	204	182	220	336	74	130	267	263	3	239	200	230	232	207	227	247	189	171	162	187	147	157	149	199.1
26-Oct	132	144	150	160	306	3	16	1	328	350	356	360	359	7	6	0	358	6	8	2	4	4	2	359	4.2
27-Oct	2	5	2	358	356	353	356	352	352	350	349	349	346	347	345	338	333	314	298	294	250	255	255	240	347.6
28-Oct	241	258	290	299	271	271	285	278	264	273	270	276	271	278	267	257	261	277	293	309	87	166	166	177	266.8
29-Oct	194	166	150	152	141	137	129	69	35	7	5	14	350	348	13	21	13	10	359	329	333	337	216	356	19.9
30-Oct	357	29	32	80	142	192	196	230	192	216	215	216	232	215	206	202	202	196	191	188	202	204	201	196	203.6
31-Oct	203	195	200	192	207	205	199	177	173	180	164	169	166	156	150	155	158	151	158	168	162	166	157	157	170.1
	185.7	184.0	200.5	196.6	212.7	195.8	183.6	205.0	214.9	223.1	210.8	220.2	225.1	231.0	229.0	247.7	264.9	258.3	181.2	193.0	183.9	189.2	181.9	180.6	
	Diurnal Average																								

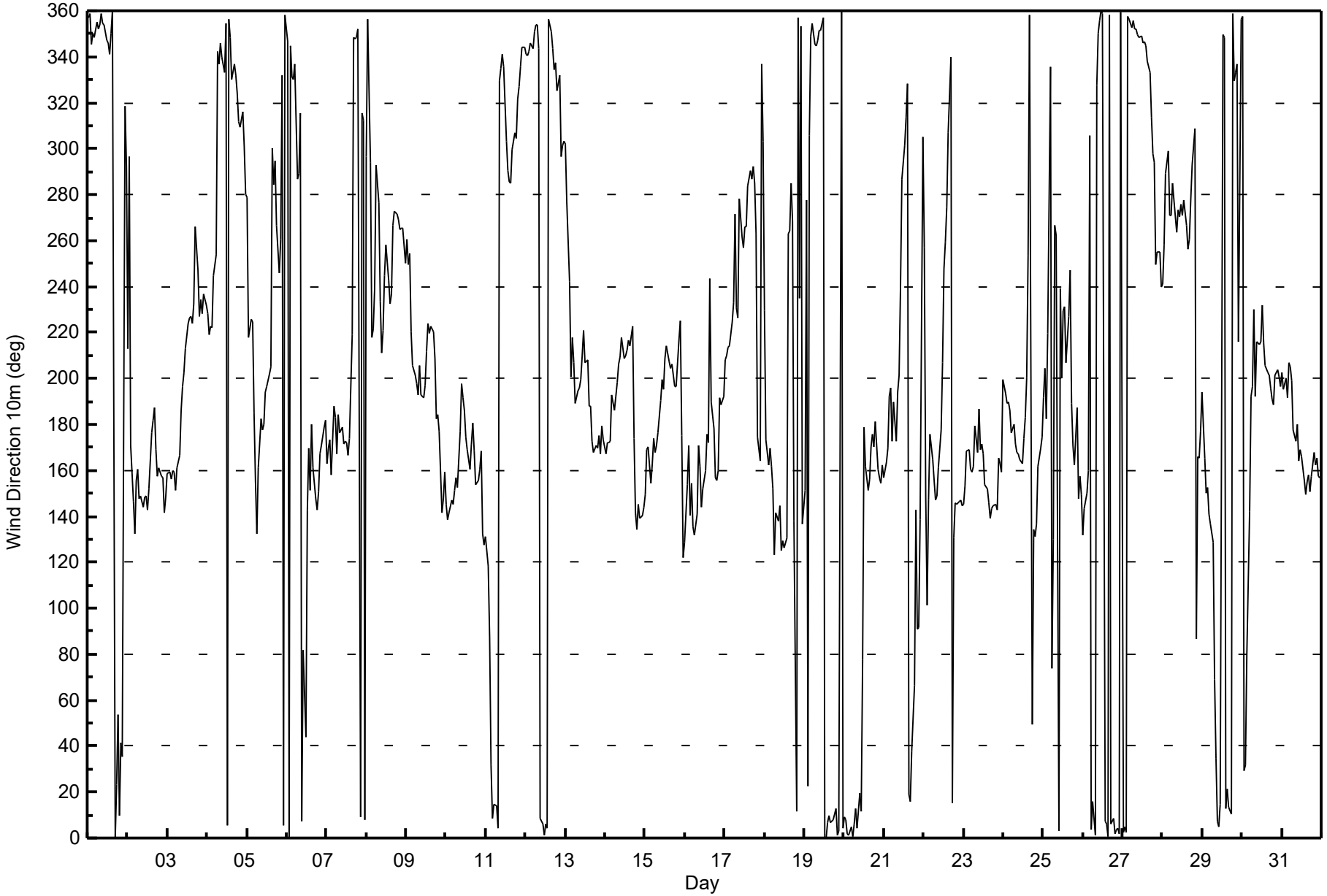
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Fort Hills - October 2025



Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 106 deg on Oct 6 12:00

Minimum Value: 5 deg on Oct 24 05:00

Percentiles: P_1 = 6 P_{10} = 8 Q_1 = 11 Median = 14 Q_3 = 18 P_{90} = 32 P_{99} = 81

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	15	14	12	14	13	14	15	15	14	15	15	15	15	13	19	12	12	14	33	8	14	55	40	11	55
2-Oct	36	26	37	32	23	17	21	24	15	17	10	14	21	15	12	12	8	11	6	8	8	7	10	8	37
3-Oct	9	15	8	6	8	8	8	15	12	12	12	11	13	12	11	11	10	21	26	10	21	15	14	12	26
4-Oct	11	8	11	8	21	38	14	13	17	16	26	45	25	16	16	12	14	13	14	16	13	12	19	16	45
5-Oct	23	17	11	11	27	15	18	24	12	20	14	20	16	14	69	17	16	12	15	15	19	28	13	14	69
6-Oct	16	15	16	12	14	13	31	13	18	37	70	106	54	57	24	23	10	7	6	9	8	10	8	13	106
7-Oct	8	9	13	9	10	8	16	12	8	11	10	9	10	13	19	67	13	23	24	14	32	60	56	32	67
8-Oct	38	48	44	15	23	23	13	29	21	10	12	19	14	15	15	28	16	13	15	15	15	17	14	16	48
9-Oct	17	17	23	18	10	7	16	13	9	10	10	12	13	13	13	11	11	7	13	10	27	11	13	12	27
10-Oct	13	13	10	11	8	6	31	18	9	11	15	15	13	10	10	11	9	10	5	7	5	43	44	9	44
11-Oct	8	68	58	72	12	12	11	18	14	14	14	13	26	15	12	17	18	16	15	13	12	12	15	14	72
12-Oct	14	13	14	15	14	16	16	17	15	20	12	15	14	15	17	15	16	12	12	15	14	12	23	11	23
13-Oct	16	11	42	8	13	12	7	7	10	11	14	11	14	14	12	12	9	8	8	7	8	8	8	7	42
14-Oct	7	7	7	7	18	13	12	22	15	10	9	11	11	11	12	10	7	31	10	12	8	9	7	5	31
15-Oct	9	8	12	9	13	8	8	8	19	17	26	9	13	11	9	9	9	9	8	22	7	8	32	41	41
16-Oct	15	25	28	18	20	18	8	11	11	15	10	7	12	8	24	28	36	21	8	8	31	32	11	9	36
17-Oct	11	12	24	7	8	6	18	14	11	36	17	17	15	15	16	18	14	12	14	12	50	58	63	23	63
18-Oct	79	13	14	16	21	23	40	15	18	13	11	12	13	31	47	15	13	42	41	82	51	60	10	94	94
19-Oct	64	53	42	68	20	21	15	18	13	14	13	12	14	13	12	12	13	11	14	36	12	13	13	12	68
20-Oct	11	11	12	12	12	14	11	10	19	12	25	45	25	22	13	8	10	9	10	9	7	9	10	15	45
21-Oct	11	11	14	13	19	13	8	18	16	10	29	13	17	16	18	21	14	9	45	50	61	29	90	73	90
22-Oct	69	32	35	18	15	7	11	10	10	12	10	26	18	22	27	26	19	18	33	10	7	8	9	7	69
23-Oct	7	9	10	8	5	10	8	13	14	30	12	11	14	9	9	6	7	6	6	9	8	12	14	19	30
24-Oct	19	22	20	7	5	7	12	16	14	12	8	9	10	13	15	38	82	95	21	17	8	14	7	12	95
25-Oct	66	20	22	82	48	72	14	50	35	21	45	14	15	24	10	21	23	12	28	16	7	24	10	15	82
26-Oct	17	15	14	21	80	75	12	17	19	12	14	14	13	13	12	16	15	15	13	16	15	15	17	17	80
27-Oct	15	14	16	17	17	16	17	15	17	14	15	15	13	14	15	12	12	15	16	15	10	12	11	54	54
28-Oct	38	16	28	32	11	12	13	11	15	12	12	14	16	17	43	11	12	16	14	22	76	17	26	14	76
29-Oct	9	26	16	11	10	9	18	26	10	23	14	9	16	14	16	14	9	11	15	19	20	35	92	14	92
30-Oct	16	22	40	39	21	12	22	19	20	14	17	18	12	12	11	10	10	9	11	10	10	9	9	10	40
31-Oct	10	10	13	15	10	15	15	12	9	11	9	12	10	8	8	8	8	7	8	8	9	8	8	7	15
	79	68	58	82	80	75	40	50	35	37	70	106	54	57	69	67	82	95	45	82	76	60	92	94	
	Diurnal Maximum																								

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS25
WASKŌW OHCI PIMÂTISIWIN
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - WASKŌW OHCI PIMÂTISIWIN (AMS25)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2(ppb) Average	709	35	35	100	17.8	0	2.5	0
H2S(ppb) Average	652	35	92	92.34	1.9	0	0.5	0
Temperature 2 m (C) Average	744	0	0	100	20.8	0	9.5	0
Relative Humidity (%) Average	744	0	0	100	99.3	-	94.5	-
Wind Speed 10 m (km/h) Average	721	0	23	96.91	22	0	14	0
Wind Direction 10 m (deg) Average	721	0	23	96.91	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - WASKŌW OHCI PIMÂTISIWIN (AMS25)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	709	0.44	1.4	-	0	0	0	0	0.2	0.9	17.8
H2S (ppb) Average	652	0.19	0.2	-	0	0	0.1	0.1	0.2	0.4	1.9
Temperature 2 m (C) Average	744	4.54	4.6	-	-4.8	-0.5	0.9	3.6	7.6	11	20.8
Relative Humidity (%) Average	744	78.16	17.1	-	30.5	51.5	66.8	82.8	92.9	96.9	99.3
Wind Speed 10 m (km/h) Average	721	5.8	4	-	0	2	3	5	8	11	22
Wind Direction 10 m (deg) Average	721	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - WASKÕW OHCI PIMÂTISIWIN (AMS25)

OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
H2S	19 Oct 2025 06:00	21 Oct 2025 07:00	50	Unstable Operation - inoperable converter
H2S	24 Oct 2025 09:00	24 Oct 2025 09:00	1	Maintenance - sample manifold cleaned
H2S	27 Oct 2025 07:00	27 Oct 2025 12:00	6	Maintenance - recalibration to adjust zero
Wind Speed, Wind Direction	26 Oct 2025 02:00	26 Oct 2025 10:00	9	Flat line in sensor output signal
Wind Speed, Wind Direction	28 Oct 2025 04:00	28 Oct 2025 09:00	6	Flat line in sensor output signal
Wind Speed, Wind Direction	28 Oct 2025 22:00	29 Oct 2025 00:00	3	Flat line in sensor output signal
Wind Speed, Wind Direction	29 Oct 2025 05:00	29 Oct 2025 09:00	5	Flat line in sensor output signal

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Waskow ohci Pimatisiwin - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 17.8 ppb on Oct 16 13:00 Maximum Daily Average: 2.5 ppb on Oct 23

Minimum Value: 0.0 ppb on Oct 1 15:00 Minimum Daily Average: 0.0 ppb on Oct 9
Maximum Diurnal Average: 2.0 ppb at hour 13 Minimum Diurnal Average: 0.1 ppb at hour 3
Monthly Average: 0.44 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.2 P_{90} = 0.9 P_{99} = 6.7

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.2	0.1	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
2-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.0	0.3	0.4	0.3	0.3	0.6	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
3-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2
5-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
6-Oct	0.0	0.0	Z	0.2	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.8	6.8	2.0	0.8	0.2	0.1	0.1	0.1	0.2	0.7	6.8
7-Oct	0.2	0.1	0.2	Z	0.1	0.5	0.2	0.1	0.8	3.5	7.3	2.6	9.3	9.6	4.0	1.8	2.0	0.8	0.3	0.3	0.6	0.6	0.7	0.6	2.0	9.6
8-Oct	0.4	0.1	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
9-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	4.6	5.7	7.9	6.6	6.2	0.8	0.2	0.3	0.2	0.3	0.4	0.7	0.5	0.2	1.6	7.9
11-Oct	0.0	Z	0.0	0.0	0.0	0.4	0.0	0.0	0.1	0.1	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.0	0.1	0.4
12-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.2
13-Oct	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.1	0.0	0.4	0.1	1.0	2.0	1.5	1.6	0.3	2.0
14-Oct	1.1	0.9	0.8	0.7	Z	0.7	0.9	0.6	0.4	0.3	0.4	0.3	0.3	0.2	0.2	0.1	0.2	0.3	0.4	0.3	0.5	0.3	0.4	0.5	0.5	1.1
15-Oct	0.5	0.3	0.2	0.2	0.3	Z	0.2	0.2	0.4	5.9	2.4	1.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.6	5.9
16-Oct	Z	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.9	6.0	17.8	1.9	1.2	1.0	1.0	0.5	0.3	0.3	0.2	0.2	0.1	0.2	1.4	17.8
17-Oct	0.1	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
18-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.4	0.5	0.3	0.1	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
20-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.1	0.6
21-Oct	0.4	0.1	0.1	0.1	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
22-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	3.2	13.5	11.5	4.1	3.5	3.1	1.8	0.8	0.4	0.2	0.2	0.2	0.2	1.9	13.5
23-Oct	0.3	Z	1.1	2.3	3.1	1.4	4.4	2.5	0.9	2.8	3.6	6.5	5.4	5.3	5.7	3.1	0.8	0.5	0.3	0.3	0.6	2.2	0.9	2.5	2.5	6.5
24-Oct	1.1	0.9	Z	0.7	0.4	0.3	C	C	C	C	0.9	1.6	4.5	1.2	0.9	0.9	0.6	0.3	0.3	0.2	0.2	0.0	0.0	0.0	0.8	4.5
25-Oct	0.0	0.0	0.0	Z	0.2	0.1	0.2	0.1	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
26-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.2	0.5	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
27-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
28-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29-Oct	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
30-Oct	0.1	0.0	Z	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
31-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.1	1.3	0.3	0.1	0.2	0.9	0.8	1.7	1.8	1.1	2.3	1.1	0.5	1.8	0.6	3.0	2.0	0.6	0.9	3.0
	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.5	0.7	1.0	2.0	1.3	0.8	0.6	0.6	0.3	0.2	0.1	0.2	0.3	0.2	0.2	Diurnal Average	
	1.1	0.9	1.1	2.3	3.1	1.4	4.4	2.5	0.9	5.9	7.3	6.5	17.8	11.5	6.2	3.8	6.8	2.0	0.8	1.8	1.0	3.0	2.0	2.5	Diurnal Maximum	

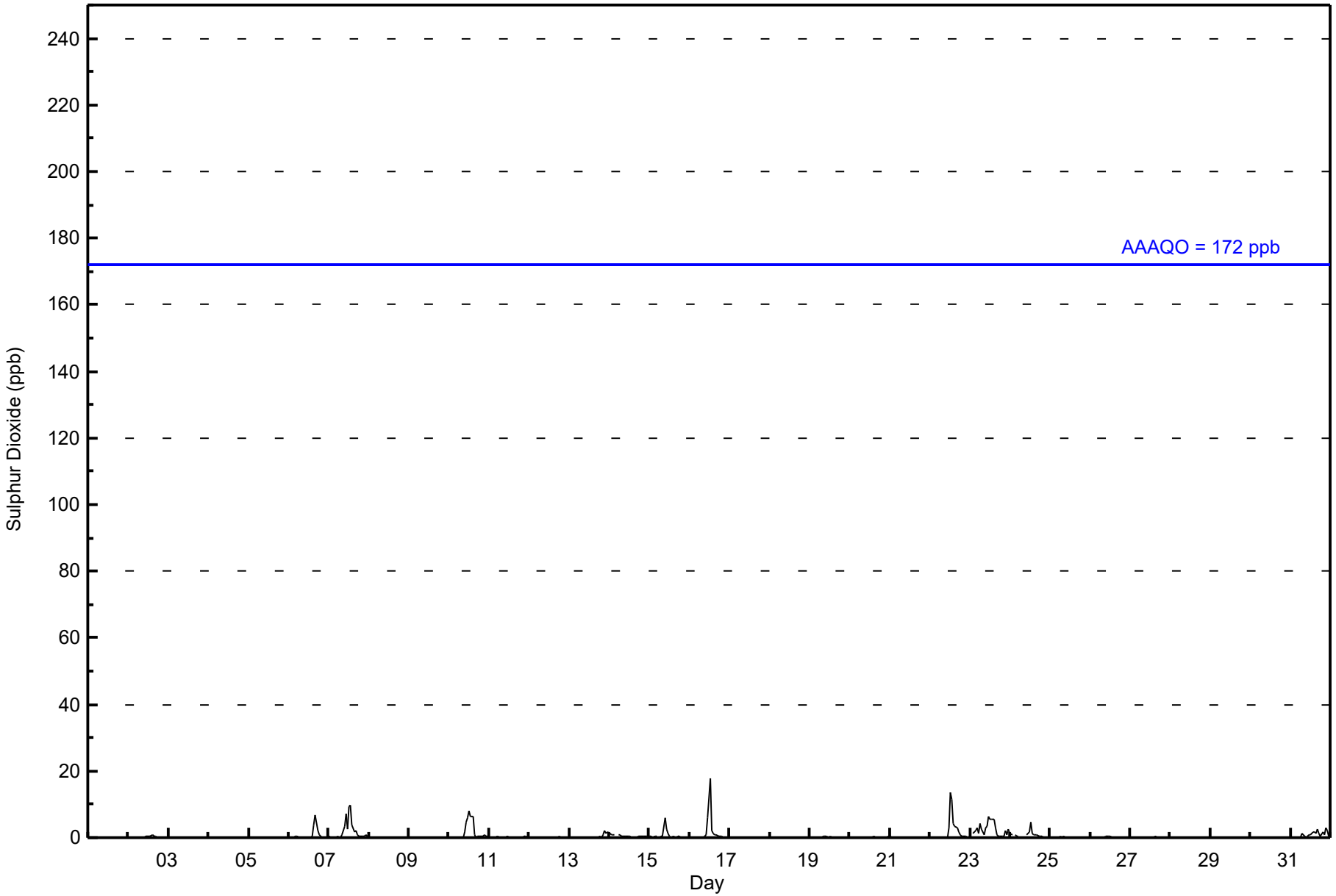
Z - zerospan C - Calibration
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Waskow ohci Pimatisiwin - October 2025



Sulphur Dioxide (SO_2) - ppb

Waskow ohci Pimatisiwin - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	706	99.58	99.58
11 - 20	3	0.42	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Waskow ohci Pimatisiwin - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	63	4	4	1	2	8	40	153	80	39	42	39	50	51	30	78	684
11 - 20	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	3
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	63	4	4	1	2	8	41	155	80	39	42	39	50	51	30	78	687

Total Number of Valid Hours: 687

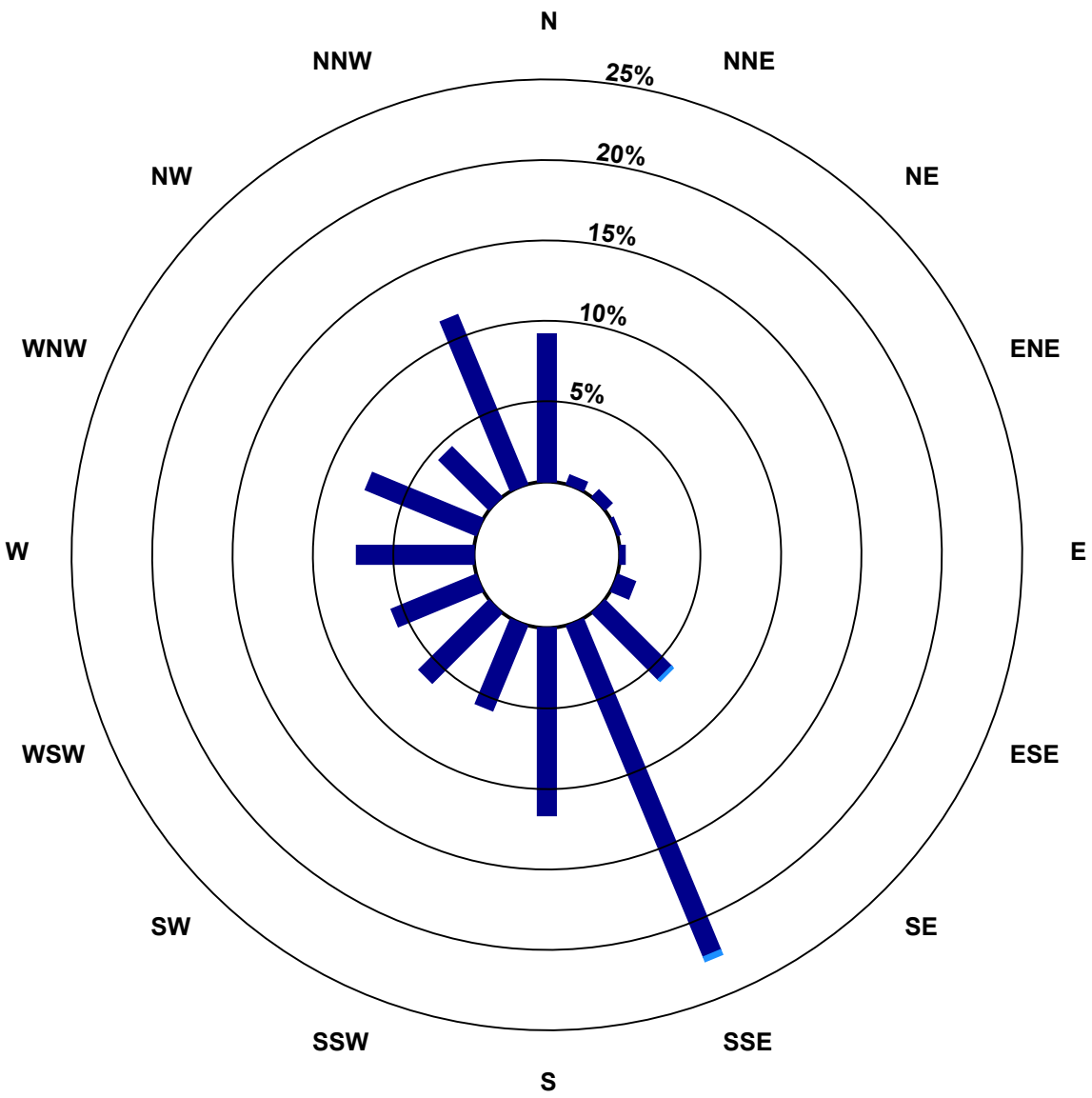
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Waskow ohci Pimatisiwin



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

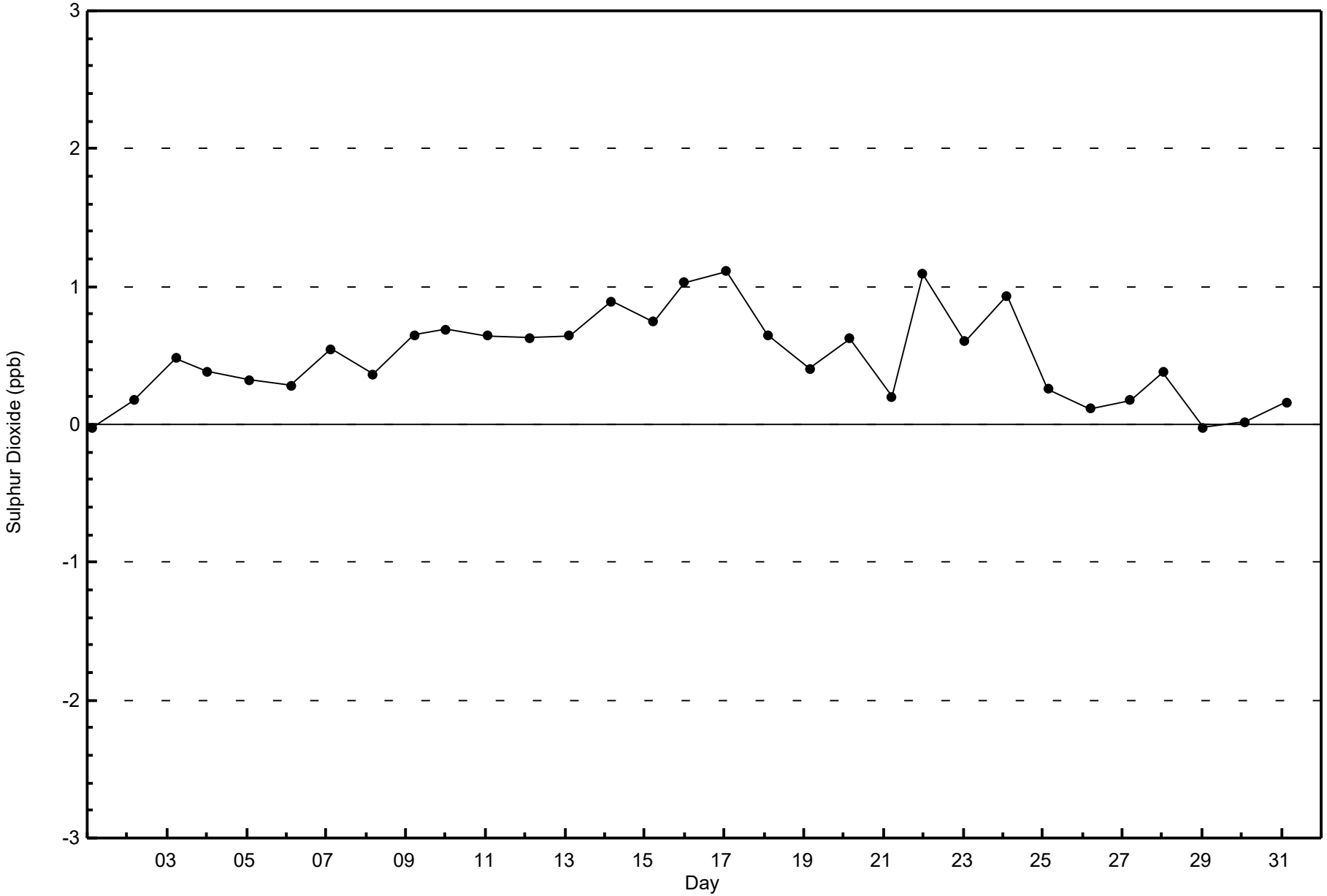
Total Number of Valid Hours: 687

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Waskow ohci Pimatisiwin - October 2025

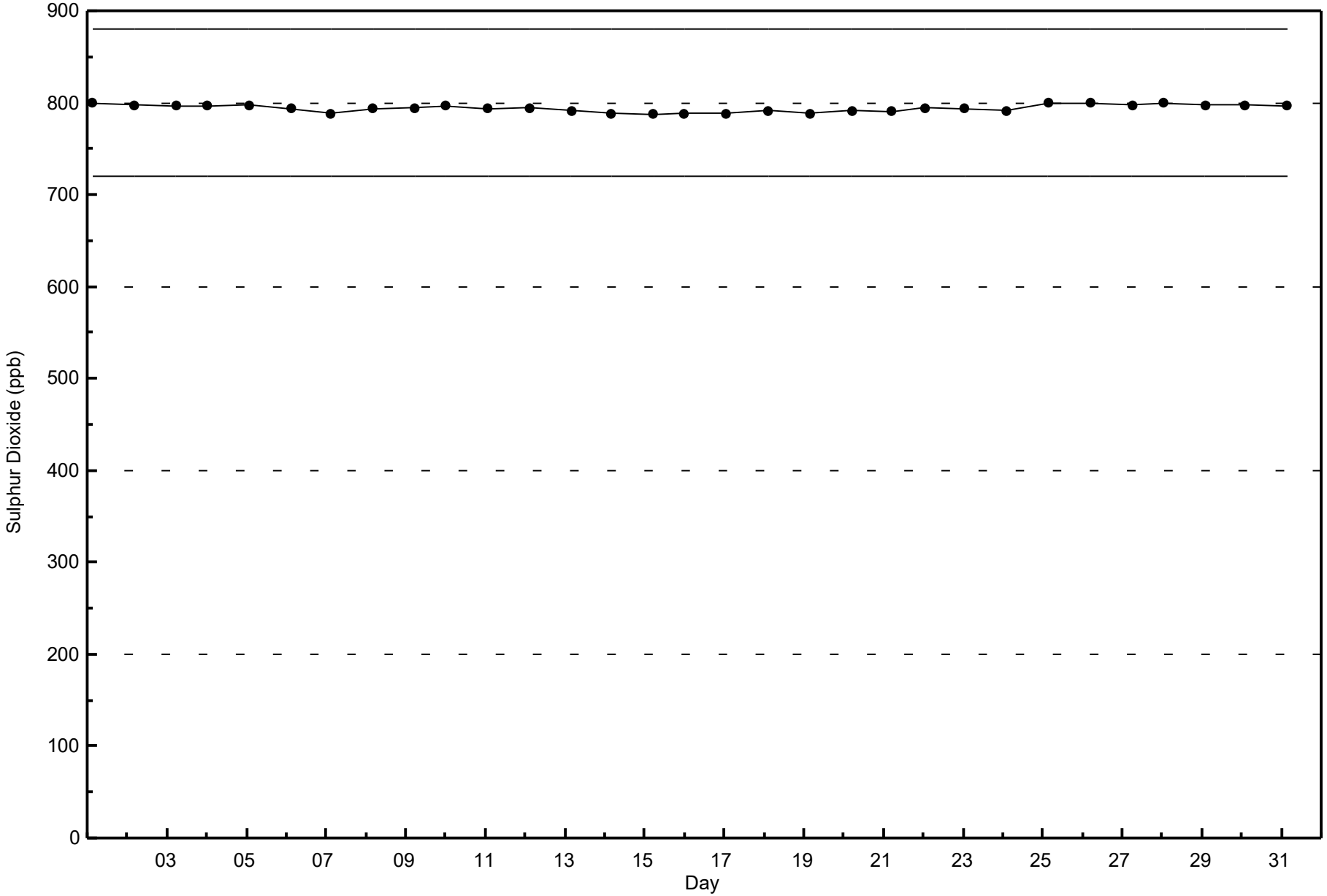


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Waskow ohci Pimatisiwin - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H_2S) - ppb

Waskow ohci Pimatisiwin - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 1.9 ppb on Oct 7 21:00 Maximum Daily Average: 0.5 ppb on Oct 7

Minimum Value: 0.0 ppb on Oct 8 10:00 Minimum Daily Average: 0.0 ppb on Oct 28
Maximum Diurnal Average: 0.3 ppb at hour 12 Minimum Diurnal Average: 0.1 ppb at hour 16
Monthly Average: 0.19 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.4 P_{99} = 1.1

Hours in Service:	744
Hours of Data:	652
Hours of Missing Data:	92
Hours of Calibration:	35
Percent Operational Time:	92.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.3	0.3	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
2-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.4	1.0	1.2	1.0	1.1	1.0	0.6	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.5	0.3	0.2	0.4	1.2
3-Oct	Z	0.4	0.3	0.2	0.2	0.2	0.1	0.3	0.4	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.4
4-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.3
5-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.4	0.2	0.5	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
6-Oct	0.1	0.1	0.3	Z	0.2	0.5	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.5	0.4	0.5	0.7	1.1	1.1	0.6	0.3	1.1
7-Oct	0.4	0.2	0.1	0.1	Z	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.6	0.4	0.3	0.8	1.9	1.6	1.2	1.0	0.5	1.9
8-Oct	0.8	0.5	0.5	0.4	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.8
9-Oct	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.3	0.3	0.5	0.4	0.1	0.5
10-Oct	0.4	Z	0.2	0.2	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.4	0.2	0.2	0.2	0.1	0.2	0.5	0.3	0.2	0.4	0.5	0.5	0.3	0.5
11-Oct	0.5	0.5	Z	0.5	0.5	1.0	0.2	0.2	0.3	0.5	0.2	1.0	0.3	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.6	0.4	0.2	0.3	1.0
12-Oct	0.3	0.2	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.1	0.2	0.3	0.3	0.1	0.1	0.4
13-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.3
14-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.5	0.2	0.5
15-Oct	Z	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.4	0.4	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.4
16-Oct	0.1	Z	0.1	0.2	0.2	0.1	0.2	0.5	0.6	0.7	0.8	1.1	1.1	0.4	0.1	0.3	0.5	0.2	0.3	0.3	0.4	0.2	0.0	0.2	0.4	1.1
17-Oct	0.5	0.1	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.5
18-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19-Oct	0.1	0.1	0.1	0.1	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	0.1
20-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
21-Oct	UO	UO	UO	UO	UO	UO	UO	C	C	C	C	C	C	0.7	0.6	0.3	0.2	0.6	0.2	0.1	0.1	0.1	0.1	0.1	--	0.7
22-Oct	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.4	0.2	0.2	0.3	0.6	1.3	0.6	0.2	0.1	0.1	0.2	0.2	0.2	1.3
23-Oct	0.1	0.1	Z	0.3	0.5	0.3	0.3	0.4	0.2	0.4	0.2	0.3	0.2	0.2	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.5	0.3	0.3	0.2	0.5
24-Oct	0.3	0.5	0.3	Z	0.2	0.2	0.3	0.3	M	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.5
25-Oct	0.1	0.1	0.1	0.2	Z	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
26-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.5	0.6	0.7	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.7
27-Oct	Z	0.1	0.1	0.0	0.0	0.0	M	M	M	M	M	M	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.2
28-Oct	0.0	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1
29-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
30-Oct	0.1	0.1	0.1	Z	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
31-Oct	0.0	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.3	0.2	0.3	0.5	0.3	0.2	0.5
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	Diurnal Average	
	0.8	0.5	0.5	0.5	0.5	1.0	0.3	0.5	1.0	1.2	1.0	1.1	1.1	0.7	0.6	0.4	0.6	1.3	0.6	0.8	1.9	1.6	1.2	1.0	Diurnal Maximum	

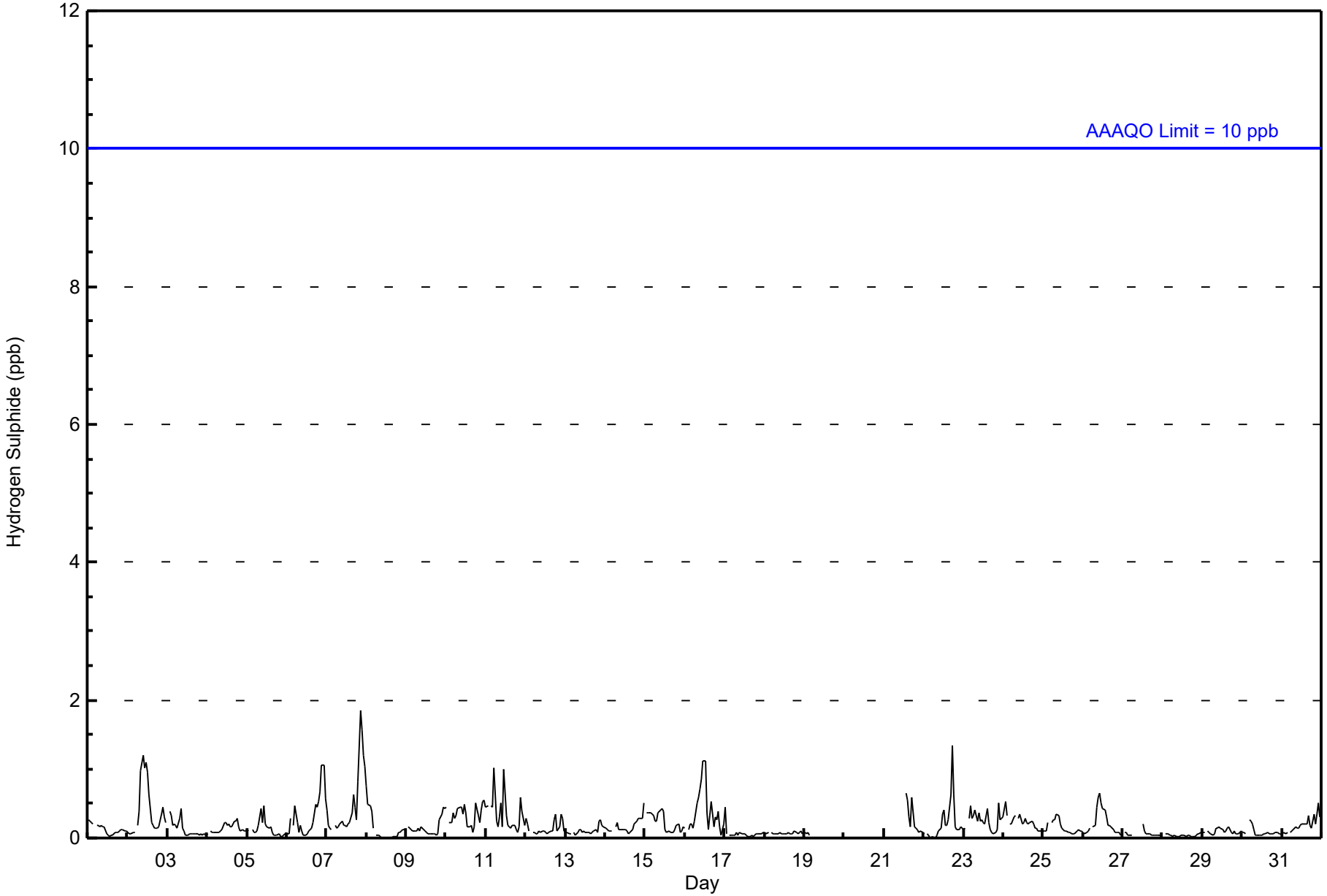
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Waskow ohci Pimatisiwin - October 2025



Hydrogen Sulphide (H_2S) - ppb

Waskow ohci Pimatisiwin - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	652	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 652

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Waskow ohci Pimatisiwin - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	44	3	4	1	2	8	39	142	75	38	41	39	51	50	28	65	630
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	44	3	4	1	2	8	39	142	75	38	41	39	51	50	28	65	630

Total Number of Valid Hours: 630

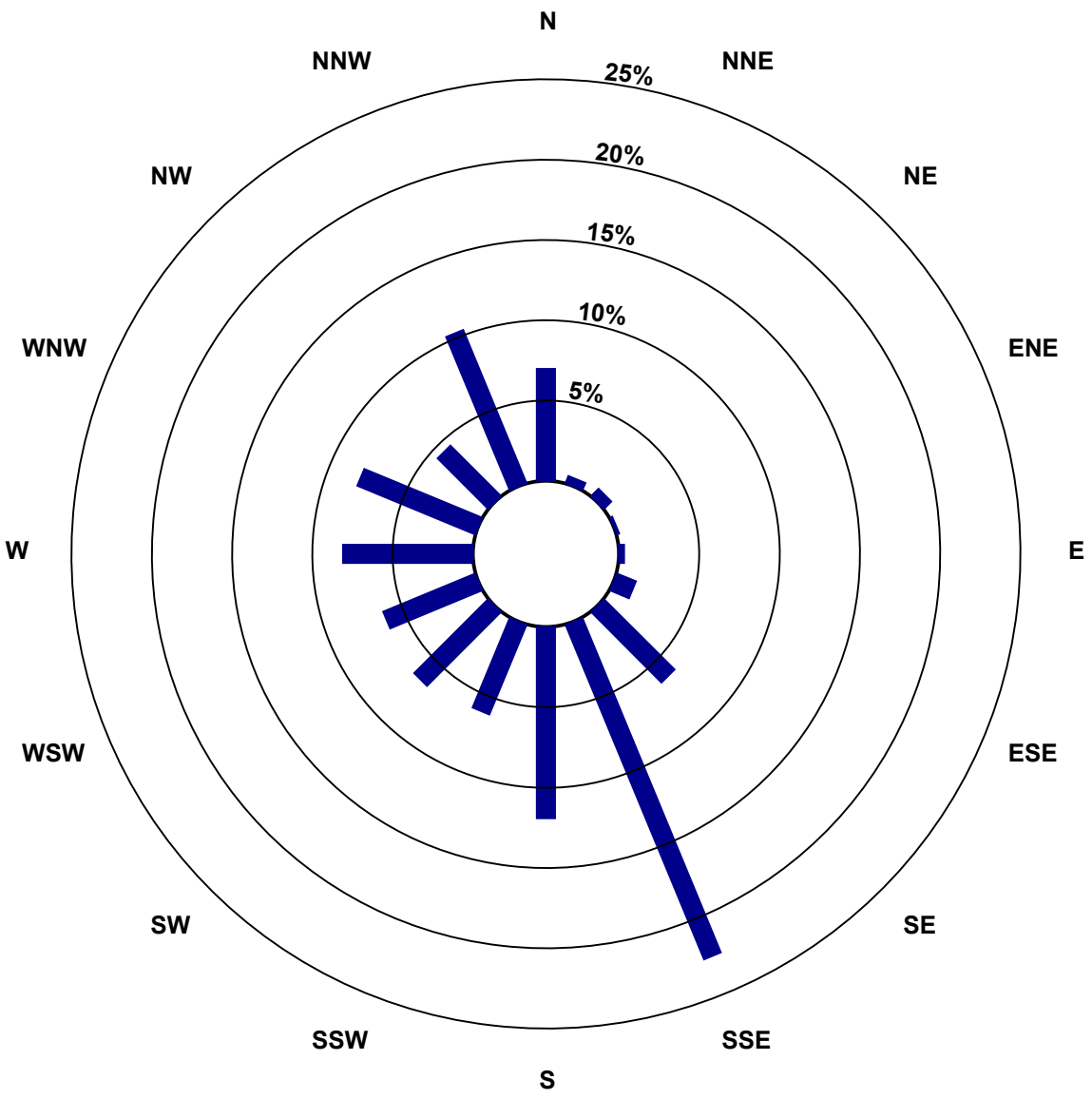
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H_2S) - ppb

Waskow ohci Pimatisiwin



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

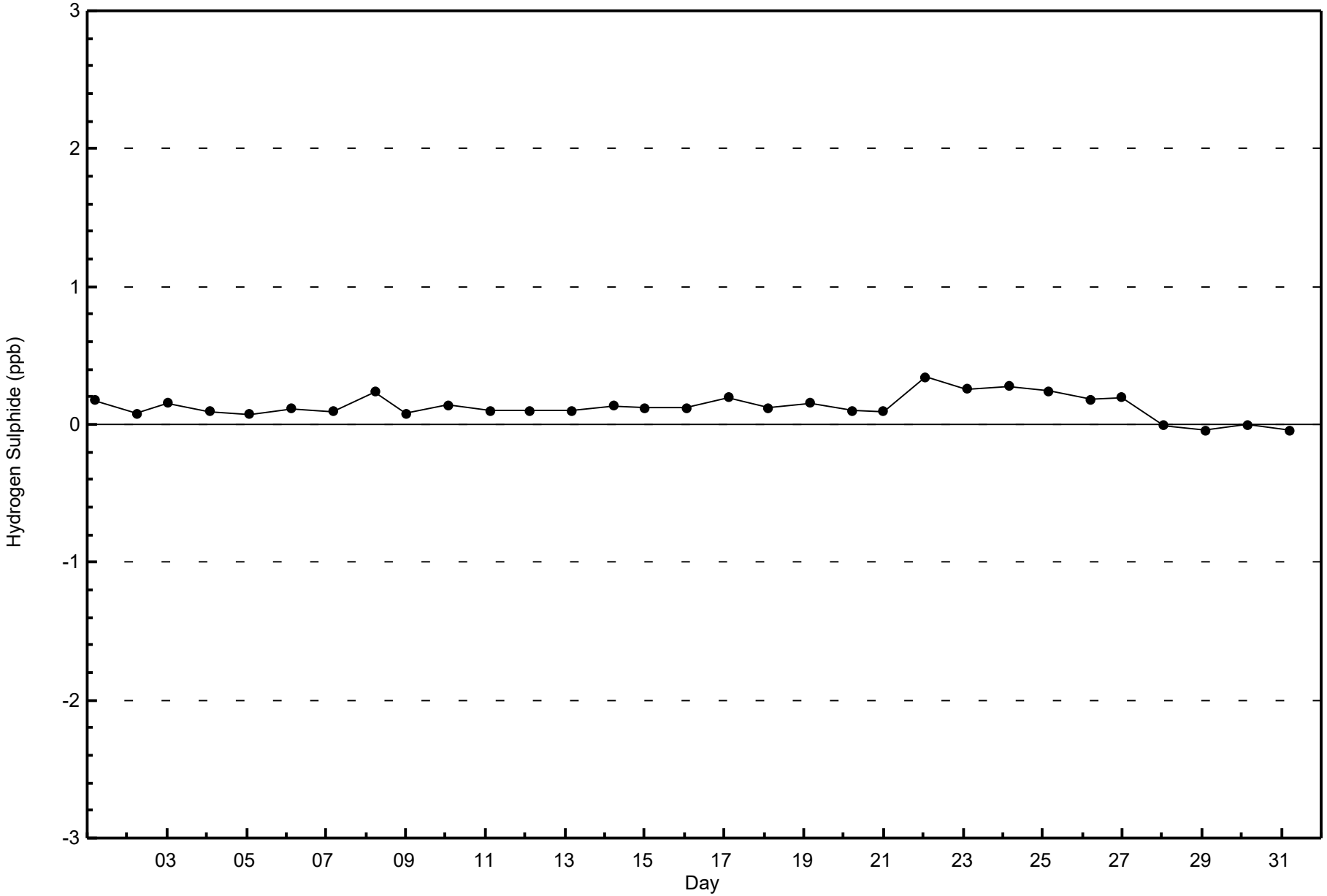
Total Number of Valid Hours: 630

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Waskow ohci Pimatisiwin - October 2025

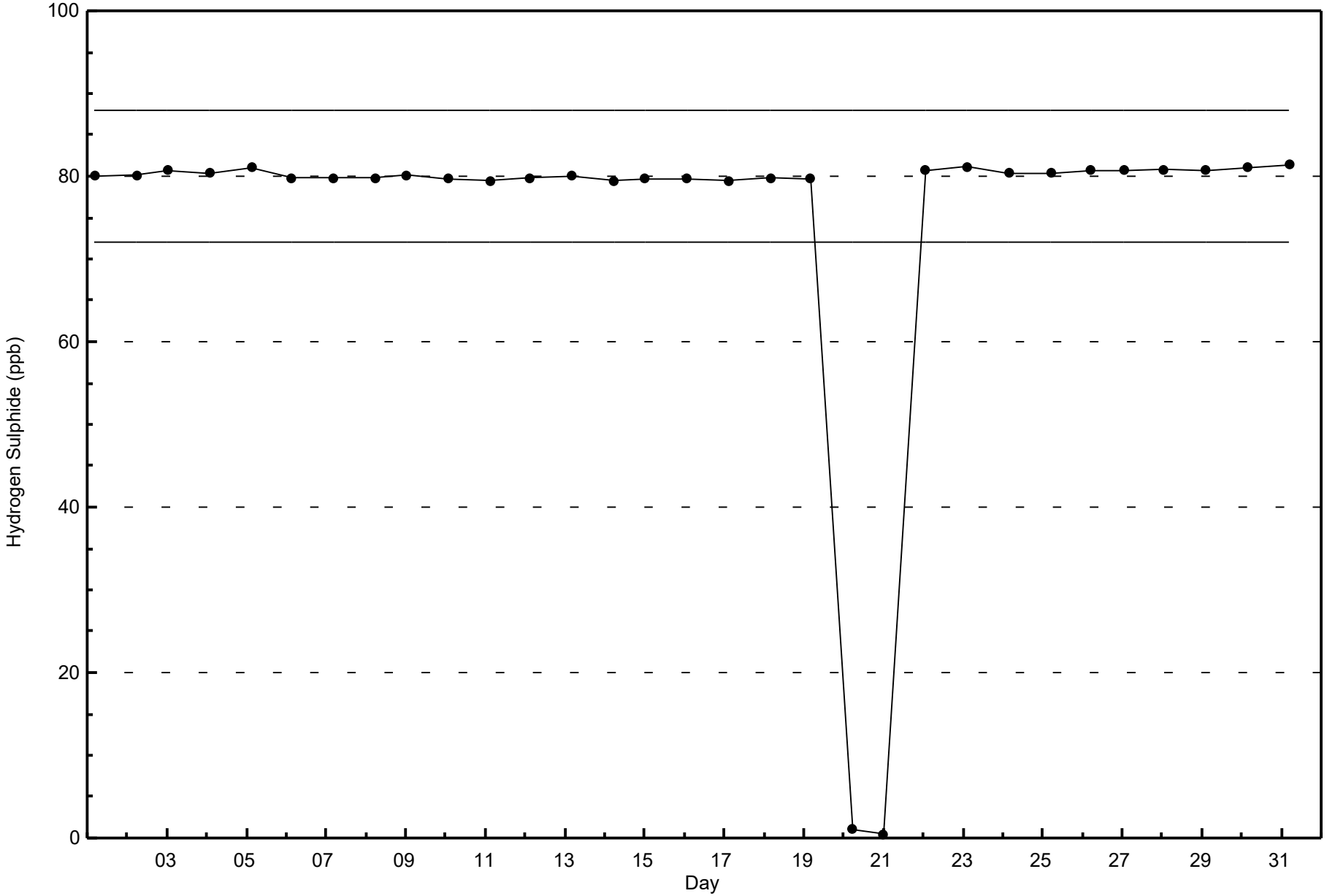


Wood Buffalo Environmental Association

Span Responses

Hydrogen Sulphide (H_2S) - ppb

Waskow ohci Pimatisiwin - October 2025



Maximum Value: 20.8 C on Oct 10 16:00

Maximum Daily Average: 9.5 C on Oct 3

Minimum Value: -4.8 C on Oct 13 08:00

Minimum Daily Average: 0.1 C on Oct 29

Maximum Diurnal Average: 8.7 C at hour 15

Minimum Diurnal Average: 1.7 C at hour 7

Monthly Average: 4.54 C

Percentiles: P_1 = -2.7 P_{10} = -0.5 Q_1 = 0.9 Median = 3.6 Q_3 = 7.6 P_{90} = 11.0 P_{99} = 16.1

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

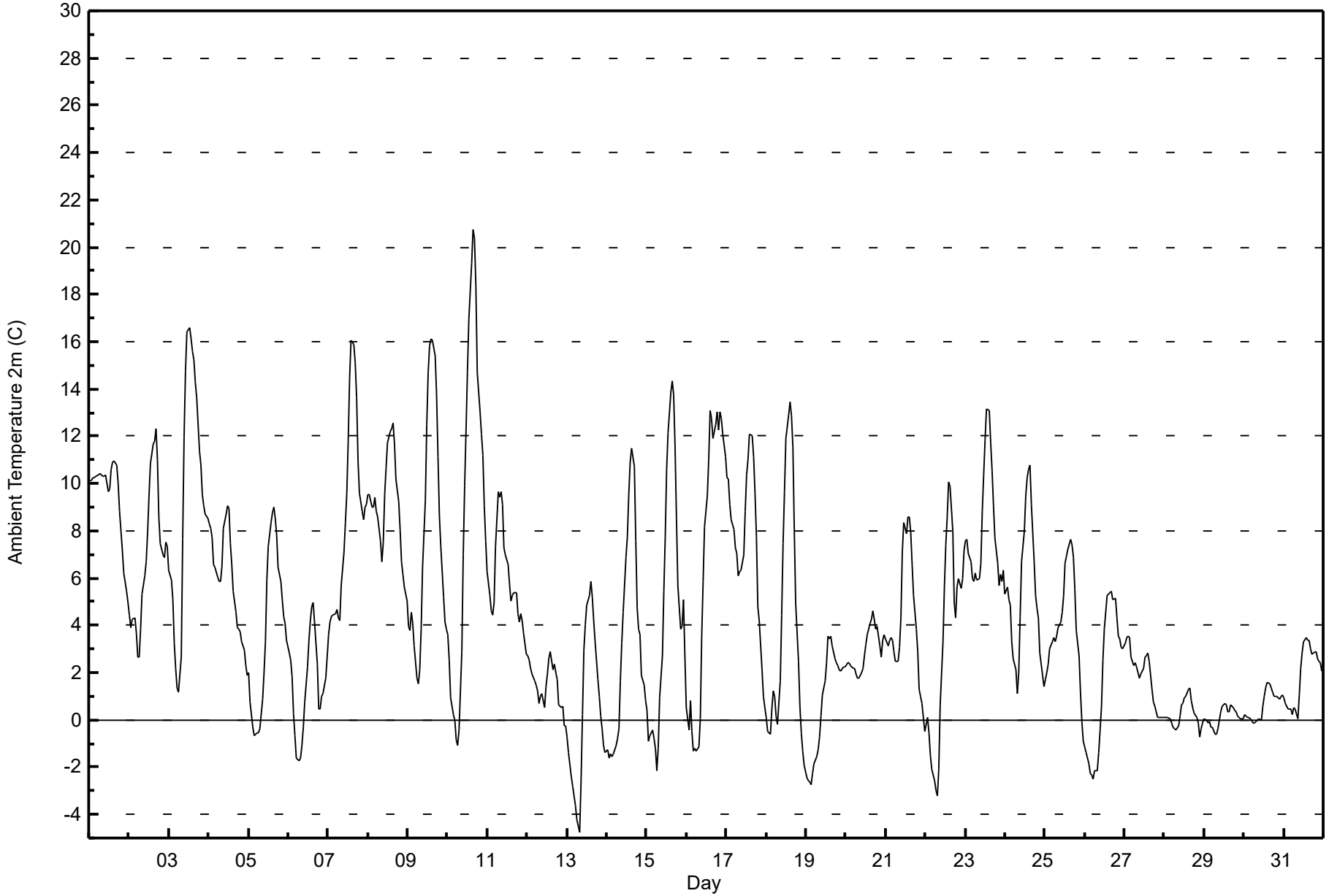
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.2	10.1	10.2	10.2	10.3	10.3	10.4	10.4	10.3	10.3	10.4	9.7	9.8	10.6	10.9	10.9	10.8	10.0	8.8	8.0	7.1	6.2	5.5	4.9	9.4	10.9
2-Oct	4.4	3.9	4.3	4.3	3.7	2.7	2.6	3.8	5.3	6.1	6.7	7.9	9.5	10.8	11.7	11.8	12.3	11.0	8.6	7.5	7.0	6.9	7.5	7.3	7.0	12.3
3-Oct	6.3	5.9	5.1	3.2	2.2	1.3	1.2	2.6	7.6	11.9	14.8	16.4	16.6	16.1	15.6	15.2	14.3	13.7	11.4	10.8	9.5	9.1	8.7	8.5	9.5	16.6
4-Oct	8.3	8.1	7.7	6.6	6.4	6.0	5.9	5.9	6.5	8.1	8.7	9.1	8.9	7.4	6.6	5.4	4.6	3.9	3.9	3.7	3.3	2.9	2.3	1.9	5.9	9.1
5-Oct	2.0	0.8	-0.3	-0.7	-0.6	-0.5	-0.6	-0.4	0.9	2.0	3.3	5.9	7.3	8.3	8.8	9.0	8.5	7.8	6.4	5.8	5.1	4.4	4.1	3.4	3.8	9.0
6-Oct	2.9	2.5	1.8	0.3	-0.7	-1.6	-1.8	-1.6	-1.1	-0.3	0.8	2.3	3.4	4.2	4.8	5.0	4.2	2.4	0.5	0.5	1.0	1.1	1.8	2.7	1.4	5.0
7-Oct	3.6	4.1	4.4	4.4	4.5	4.7	4.3	4.2	5.7	7.1	8.4	9.6	11.8	14.5	16.1	15.9	15.1	13.6	11.0	9.6	8.8	8.5	9.0	9.1	8.7	16.1
8-Oct	9.6	9.5	9.0	9.0	9.4	8.8	8.6	7.6	6.7	7.5	9.6	10.7	11.7	12.2	12.3	12.6	11.7	10.2	9.2	8.1	6.7	6.2	5.6	5.0	9.1	12.6
9-Oct	4.0	3.8	4.6	4.1	3.1	1.8	1.5	2.1	3.8	6.5	9.3	12.5	14.7	15.8	16.1	16.0	15.4	13.7	11.2	8.6	7.3	5.2	4.1	3.9	7.9	16.1
10-Oct	3.6	2.5	0.9	0.2	0.0	-0.8	-1.1	-0.5	2.9	7.0	9.9	12.3	14.7	16.9	19.3	20.8	20.4	18.4	14.7	13.0	12.1	11.2	9.1	7.6	9.0	20.8
11-Oct	6.3	5.3	4.6	4.4	5.0	7.3	9.6	9.4	9.7	9.1	7.3	7.0	6.5	5.8	5.0	5.2	5.4	5.4	4.5	4.2	4.5	4.2	3.6	2.8	5.9	9.7
12-Oct	2.7	2.6	2.2	2.0	1.6	1.5	1.2	0.7	1.0	1.1	0.5	1.4	2.0	2.6	2.9	2.1	2.3	2.0	1.7	0.6	0.5	0.6	-0.2	-0.3	1.5	2.9
13-Oct	-0.8	-1.4	-2.4	-2.8	-3.2	-3.6	-4.2	-4.8	-2.6	0.2	2.9	4.0	4.9	5.3	5.9	5.2	4.2	3.3	1.7	1.0	0.2	-0.4	-1.1	-1.4	0.4	5.9
14-Oct	-1.3	-1.6	-1.4	-1.6	-1.4	-1.1	-0.8	-0.4	1.6	3.3	4.5	6.9	7.8	9.5	10.9	11.5	10.7	7.6	4.7	3.8	3.6	1.9	1.5	0.8	3.4	11.5
15-Oct	0.4	-0.9	-0.7	-0.4	-0.8	-1.2	-2.2	-1.2	0.9	2.7	5.4	7.7	10.6	12.2	13.9	14.4	13.7	11.5	8.5	5.7	3.8	3.9	5.1	2.7	4.8	14.4
16-Oct	0.5	-0.4	0.8	-0.5	-1.3	-1.2	-1.3	-1.1	0.0	3.5	5.8	8.2	9.5	11.0	13.1	12.8	11.9	12.5	13.1	12.3	13.0	12.7	12.1	11.1	6.6	13.1
17-Oct	10.3	10.2	9.1	8.4	8.0	7.3	7.0	6.1	6.2	6.4	7.0	8.8	10.4	11.0	12.1	12.0	11.1	9.6	7.8	4.8	4.2	2.1	1.0	0.5	7.6	12.1
18-Oct	0.1	-0.5	-0.6	0.4	1.2	1.0	0.1	-0.2	1.7	4.4	7.5	9.6	11.9	12.9	13.4	12.8	11.6	8.0	4.9	2.4	0.6	-0.5	-1.3	-1.9	4.2	13.4
19-Oct	-2.5	-2.6	-2.6	-2.8	-2.2	-1.9	-1.5	-1.3	-0.7	0.1	1.1	1.7	2.4	3.6	3.4	3.5	3.1	2.6	2.4	2.3	2.1	2.1	2.2	2.2	0.7	3.6
20-Oct	2.3	2.4	2.4	2.3	2.2	2.2	2.0	1.7	1.7	2.0	2.2	2.7	3.2	3.6	4.1	4.2	4.6	4.2	3.8	3.9	3.1	2.7	3.3	3.6	2.9	4.6
21-Oct	3.4	3.2	3.4	3.5	3.4	2.9	2.5	2.5	3.1	4.3	7.1	8.3	7.9	8.6	8.6	8.0	6.6	5.3	3.8	2.9	1.3	1.0	0.7	-0.5	4.2	8.6
22-Oct	-0.2	0.1	-0.5	-1.5	-2.1	-2.6	-3.0	-3.2	-2.1	0.6	3.3	5.6	7.4	8.6	10.0	9.9	8.0	4.9	4.3	5.6	6.0	5.5	6.0	7.2	3.2	10.0
23-Oct	7.6	7.7	7.1	6.7	6.0	5.9	6.2	5.9	6.0	6.7	8.8	10.4	11.8	13.1	13.1	11.7	10.6	9.0	7.7	6.6	5.7	6.1	5.8	6.3	8.0	13.1
24-Oct	5.3	5.6	5.1	4.8	3.3	2.6	2.1	1.1	2.0	4.3	6.7	8.0	9.5	10.2	10.6	10.8	9.1	6.7	5.3	4.7	4.3	2.9	1.9	1.4	5.3	10.8
25-Oct	1.7	2.0	2.3	3.0	3.3	3.5	3.3	3.5	3.9	4.2	4.6	5.3	6.6	6.9	7.2	7.6	7.4	6.9	5.5	3.8	2.7	1.2	0.0	-0.9	4.0	7.6
26-Oct	-1.1	-1.4	-1.8	-2.3	-2.4	-2.5	-2.1	-2.1	-1.4	-0.4	0.6	2.6	3.8	5.3	5.3	5.4	5.4	5.1	5.2	4.3	3.6	3.4	3.1	3.0	1.6	5.4
27-Oct	3.3	3.5	3.5	3.5	2.6	2.3	2.4	2.3	2.0	1.8	2.0	2.2	2.7	2.7	2.8	2.5	1.3	0.8	0.6	0.3	0.1	0.1	0.1	0.1	1.9	3.5
28-Oct	0.1	0.1	0.1	0.1	-0.1	-0.3	-0.4	-0.4	-0.3	0.2	0.6	0.7	0.9	1.0	1.3	1.3	0.8	0.5	0.3	0.1	-0.2	-0.7	-0.4	-0.1	0.2	1.3
29-Oct	0.1	0.0	-0.1	-0.1	-0.3	-0.3	-0.6	-0.6	-0.4	0.0	0.4	0.6	0.7	0.7	0.4	0.3	0.6	0.5	0.4	0.4	0.2	0.1	0.1	0.0	0.1	0.7
30-Oct	0.2	0.1	0.1	0.1	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.6	1.0	1.4	1.6	1.5	1.4	1.2	1.0	1.0	1.0	0.9	1.0	1.0	0.6	1.6
31-Oct	0.9	0.7	0.4	0.5	0.4	0.2	0.5	0.5	0.0	1.1	2.2	2.8	3.3	3.5	3.4	3.3	3.0	2.8	2.8	2.9	2.6	2.5	2.4	2.1	1.9	3.5
	3.0	2.8	2.5	2.2	2.0	1.8	1.7	1.7	2.6	3.9	5.2	6.5	7.5	8.3	8.7	8.7	8.1	6.9	5.7	4.8	4.2	3.7	3.4	3.0	Diurnal Average	
	10.3	10.2	10.2	10.2	10.3	10.3	10.4	10.4	10.3	11.9	14.8	16.4	16.6	16.9	19.3	20.8	20.4	18.4	14.7	13.0	13.0	12.7	12.1	11.1	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Waskow ohci Pimatisiwin - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	110	14.78	14.78
0 - 10	528	70.97	85.75
10 - 20	104	13.98	99.73
> 20	2	0.27	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 99.3 % on Oct 3 08:00

Maximum Daily Average: 94.5 % on Oct 29

Minimum Value: 30.5 % on Oct 14 16:00

Minimum Daily Average: 56.0 % on Oct 14

Maximum Diurnal Average: 87.7 % at hour 8

Minimum Diurnal Average: 62.8 % at hour 15

Monthly Average: 78.16 %

Percentiles: P_1 = 35.5 P_{10} = 51.5 Q_1 = 66.8 Median = 82.8 Q_3 = 92.9 P_{90} = 96.9 P_{99} = 98.8

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

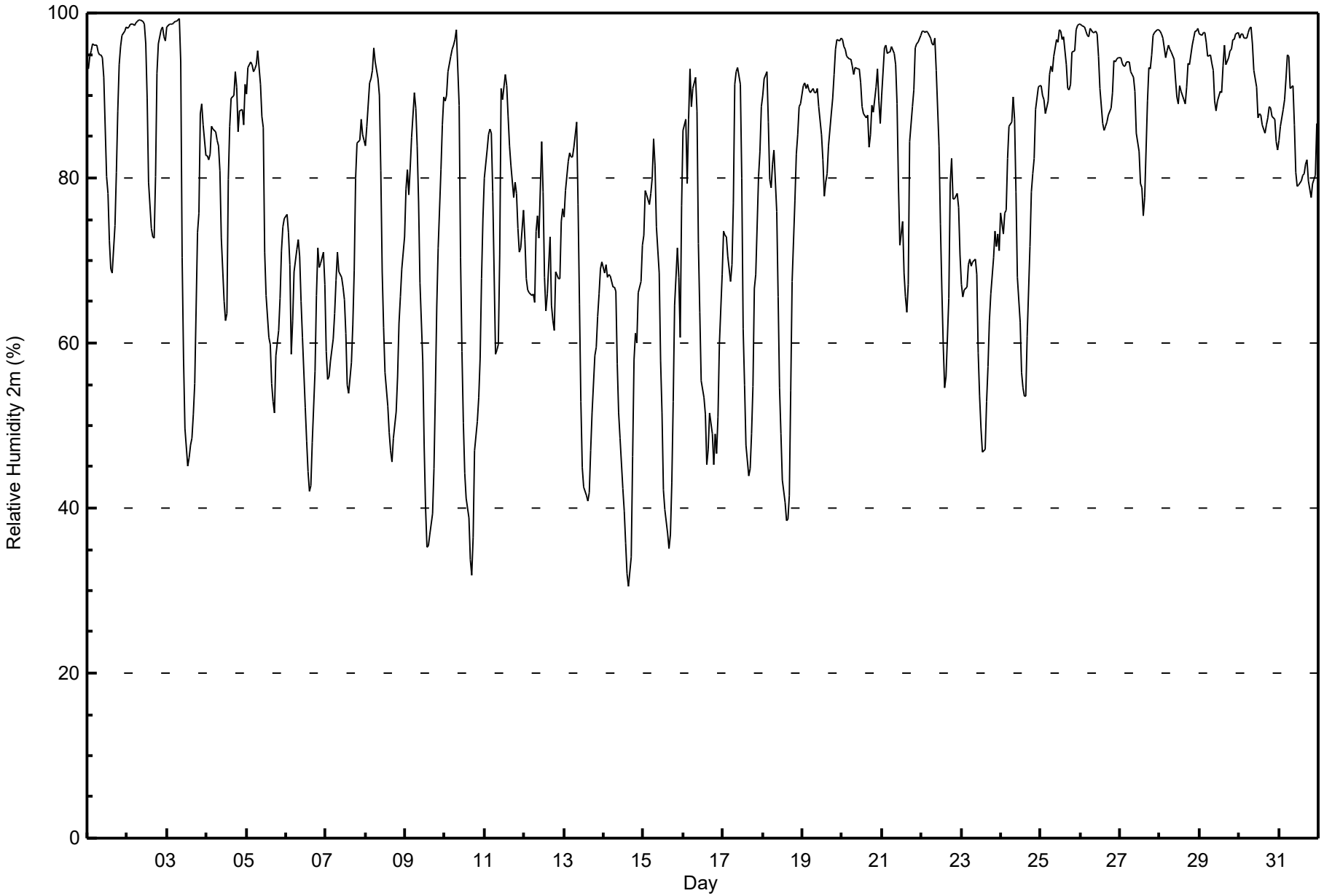
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	93.3	94.7	95.4	96.2	96.1	96.1	95.2	94.9	94.9	94.6	92.1	80.2	78.2	72.5	68.9	68.4	74.2	80.6	88.1	93.8	96.0	97.3	97.8	98.2	89.1	98.2
2-Oct	98.1	98.3	98.6	98.6	98.5	98.7	99.0	99.1	99.1	99.0	98.6	96.3	89.6	79.6	73.8	72.9	72.8	80.2	92.7	96.2	98.0	98.4	97.2	96.6	92.9	99.1
3-Oct	98.3	98.7	98.6	98.7	98.8	98.9	99.0	99.3	94.1	70.3	58.2	49.7	45.1	46.2	47.6	48.5	51.4	55.1	73.4	75.8	87.9	89.0	86.4	82.8	77.2	99.3
4-Oct	82.8	82.1	83.0	86.2	86.0	85.7	84.5	83.9	80.8	72.8	65.1	62.8	63.6	79.8	86.3	89.7	90.0	92.9	91.0	85.6	88.2	88.3	86.4	91.3	82.9	92.9
5-Oct	90.2	93.4	94.1	93.7	92.8	93.2	93.7	95.4	91.3	87.5	86.2	71.1	65.8	60.7	59.9	55.1	52.8	51.6	58.6	61.5	65.4	71.2	74.2	75.1	76.4	95.4
6-Oct	75.6	73.3	69.4	58.7	62.8	68.7	71.4	72.5	70.5	65.1	60.6	52.2	48.1	44.4	42.0	42.7	47.9	56.6	65.8	71.5	69.2	69.6	71.1	67.1	62.4	75.6
7-Oct	59.0	55.5	56.0	57.8	60.5	63.6	67.6	71.0	68.7	67.9	66.7	65.3	61.2	54.9	53.9	57.6	62.3	68.8	80.0	84.2	84.6	87.1	85.2	84.5	67.7	87.1
8-Oct	83.9	86.3	91.4	92.0	93.1	95.8	94.1	92.1	90.0	80.9	68.7	61.8	56.4	52.4	49.2	46.9	45.5	48.5	51.8	56.0	62.4	65.6	69.0	73.0	71.1	95.8
9-Oct	78.6	81.0	78.0	81.2	84.9	90.4	88.5	84.0	77.1	67.3	57.8	47.5	39.9	35.3	35.4	36.9	39.3	44.8	54.0	64.4	71.5	81.0	86.4	89.8	66.4	90.4
10-Oct	89.3	90.0	92.9	94.8	95.6	96.1	96.8	97.9	88.8	70.4	59.0	50.3	44.3	41.2	38.8	33.7	31.9	36.5	47.0	50.5	53.4	58.1	67.7	75.1	66.7	97.9
11-Oct	80.0	83.3	85.2	86.0	85.4	78.4	58.7	59.2	59.9	70.6	90.8	89.6	92.5	91.2	87.5	83.9	81.5	77.6	79.4	78.1	73.9	71.0	71.4	76.0	78.8	92.5
12-Oct	72.6	67.9	66.4	66.2	65.7	66.0	64.9	73.6	75.5	72.8	84.3	78.2	67.9	63.9	65.9	72.9	64.5	62.7	61.6	68.7	67.8	67.8	74.7	76.3	69.5	84.3
13-Oct	75.3	78.5	82.1	83.1	82.6	82.6	83.7	86.8	76.8	64.7	52.9	45.0	42.5	41.6	40.8	41.9	47.0	51.5	58.5	59.6	63.2	66.0	69.0	69.8	64.4	86.8
14-Oct	68.5	69.5	68.0	68.4	68.1	66.7	66.8	66.3	57.5	51.5	48.4	42.3	39.6	35.8	32.0	30.5	34.1	46.2	58.0	61.3	60.0	66.2	67.5	71.9	56.0	71.9
15-Oct	73.1	78.4	78.0	76.7	78.1	80.0	84.7	81.5	74.1	68.4	57.8	51.4	42.2	39.8	36.9	35.1	36.8	43.1	52.9	64.6	71.5	68.0	60.6	76.6	62.9	84.7
16-Oct	85.8	87.1	79.3	87.1	93.2	88.7	90.8	92.3	88.1	72.1	63.8	55.5	53.4	51.3	45.2	47.2	51.5	49.0	45.3	48.9	46.6	51.0	59.9	68.3	66.7	93.2
17-Oct	73.6	73.1	72.9	70.5	67.5	69.5	77.0	91.3	93.0	93.4	91.4	80.0	61.6	55.0	47.7	43.8	44.7	49.0	54.7	66.7	68.3	80.2	83.3	88.6	70.7	93.4
18-Oct	89.9	92.1	92.9	86.8	79.9	78.8	81.7	83.4	75.9	65.6	54.6	49.0	43.4	40.6	38.4	38.7	41.6	54.3	67.4	77.2	82.9	85.3	88.7	89.0	69.9	92.9
19-Oct	91.2	91.4	90.9	91.3	90.7	90.4	90.9	90.4	90.4	90.8	88.6	85.3	82.1	77.7	79.4	80.5	83.9	87.9	89.7	92.6	95.6	96.8	96.6	96.9	89.3	96.9
20-Oct	96.8	96.0	95.5	94.7	94.5	94.5	93.5	92.5	93.4	93.3	93.3	91.5	88.7	87.8	87.4	87.6	83.7	85.3	88.8	87.9	91.0	93.1	89.4	86.7	91.1	96.8
21-Oct	90.1	95.7	96.2	95.2	95.2	95.3	95.9	95.1	93.8	89.0	79.1	71.9	74.7	68.5	65.6	63.7	67.2	84.5	88.6	90.6	95.8	96.3	96.4	97.3	86.7	97.3
22-Oct	97.9	97.8	97.7	97.8	97.7	96.9	96.3	96.1	97.0	93.1	83.9	74.4	66.5	59.8	54.5	55.9	65.5	79.3	82.4	77.5	77.4	78.1	76.4	70.7	82.1	97.9
23-Oct	67.2	65.6	66.5	66.8	69.4	70.1	69.4	69.9	70.1	68.2	58.8	53.5	49.6	46.8	47.2	52.9	57.1	62.7	65.8	70.4	73.6	71.7	73.1	71.2	64.1	73.6
24-Oct	75.7	73.3	75.8	76.1	82.4	86.3	86.8	89.8	87.2	78.3	67.9	62.5	56.4	54.6	53.6	53.5	60.8	71.7	78.3	80.5	82.4	88.3	90.9	91.3	75.2	91.3
25-Oct	91.2	90.0	89.5	87.8	89.3	92.6	93.6	93.0	94.8	96.7	96.4	98.0	97.8	96.7	97.1	93.7	90.9	90.6	91.3	95.2	95.5	97.9	98.4	98.6	94.0	98.6
26-Oct	98.7	98.5	98.3	97.8	97.4	97.2	98.1	97.6	97.7	97.9	97.5	94.7	90.8	86.7	85.8	86.2	86.7	87.7	88.4	90.3	94.2	94.1	94.5	94.6	93.8	98.7
27-Oct	94.6	93.9	93.6	93.6	94.0	94.0	92.9	92.6	92.3	90.5	85.5	83.3	79.3	78.7	75.4	77.6	89.4	93.4	93.3	94.9	97.3	97.6	97.9	98.0	90.6	98.0
28-Oct	97.8	97.5	97.0	94.5	95.5	96.1	95.6	95.2	94.5	92.1	89.8	89.0	91.3	90.6	89.6	89.0	91.0	93.9	93.7	96.1	96.9	97.8	97.9	98.2	94.2	98.2
29-Oct	97.4	97.4	97.7	97.6	96.5	94.7	94.9	93.9	93.1	89.4	88.1	89.3	90.4	90.3	93.5	96.1	93.7	94.5	95.4	95.5	96.8	96.7	97.5	97.7	94.5	97.7
30-Oct	97.0	97.4	97.5	96.9	97.0	97.6	98.1	98.3	96.3	93.1	91.1	87.3	87.8	87.6	86.4	85.5	86.5	87.4	88.7	88.4	87.4	87.1	84.4	83.4	91.2	98.3
31-Oct	84.6	86.2	88.3	89.6	92.0	94.9	94.8	90.9	91.2	86.5	80.7	79.0	79.1	79.7	80.3	80.6	81.7	82.3	79.6	77.7	79.3	79.8	80.3	86.6	84.4	94.9
	85.4	85.9	86.0	85.9	86.5	87.0	87.1	87.7	85.4	80.4	76.1	70.6	66.8	64.2	62.8	62.9	64.8	69.3	74.3	77.5	79.8	81.8	82.9	84.6	Diurnal Average	
	98.7	98.7	98.6	98.7	98.8	98.9	99.0	99.3	99.1	99.0	98.6	98.0	97.8	96.7	97.1	96.1	93.7	94.5	95.4	96.2	98.0	98.4	98.4	98.6	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Waskow ohci Pimatisiwin - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	20	2.69	2.69
40 - 60	110	14.78	17.47
60 - 80	211	28.36	45.83
80 - 100	403	54.17	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Waskow ohci Pimatisiwin - October 2025

Maximum Speed: 22 km/h on Oct 27 11:00

Maximum Daily Speed Average: 13.5 km/h on Oct 27

Minimum Speed Value: 0 km/h on Oct 25 07:00

Minimum Daily Speed Average: 0.7 km/h on Oct 20

Maximum Diurnal Speed Average: 2.1 km/h at hour 16

Minimum Diurnal Speed Average: 0.6 km/h at hour 1

Monthly Average Velocity: 1.0 km/h 256.6 deg

Percentiles: $P_1 = 0$ $P_{10} = 2$ $Q_1 = 3$ Median = 5 $Q_3 = 8$ $P_{90} = 11$ $P_{99} = 20$

Hours in Service:	744
Hours of Data:	721
Hours of Missing Data:	23
Percent Operational Time:	96.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NNW6	NNW8	NNW8	NNW10	NNW11	N12	NNW12	NNW12	NNW12	NNW12	NNW14	NNW14	NNW9	N9	NNW8	N8	N4	NW2	SSE1	W1	WNW1	W3	W3	WSW2	NNW7.0	NNW14
2-Oct	NNW1	WSW1	S1	SSE1	SW1	S1	SSW2	SSE3	SE3	SE4	SSE3	ESE3	ESE2	SE5	SSE6	S4	SSE2	SSE2	SSE2	SE2	SE2	SSE4	SSE4	S2	SSE2.4	SSE6
3-Oct	SSE3	SSE4	S3	SE0	W2	WSW1	WSW1	S4	SSE6	S10	S10	SSW10	SW11	SW10	SW10	SW9	SSW7	SSW7	WNW6	SW6	WSW6	WSW5	WSW4	W6	SSW4.9	SW11
4-Oct	W6	WNW6	W6	W6	W7	W6	WNW6	W6	WNW3	NW6	NNW7	NNW4	NNW8	NNW6	NNW8	NNW10	NNW13	NNW7	NW7	NW8	WNW5	WNW5	WNW6	W5	NW5.7	NNW13
5-Oct	W5	WSW3	W6	W5	SSW3	SSE2	SSE2	S3	S3	S4	SE6	S3	NW2	W5	SSW5	WNW6	WNW5	WNW6	WNW5	W4	W3	WNW3	NNW5	N12	W2.3	N12
6-Oct	N8	N7	NNW11	NNW12	NW10	NW6	NNW6	NNW7	NNW5	N6	ENE4	ESE5	ESE5	SSE5	S5	SSE5	SE4	SE3	SE2	SE2	SSE3	SSE2	SE2	SSE4	N1.6	NNW12
7-Oct	SSE6	SSE7	SSE6	SSE6	S5	SSE5	SSE5	S6	SSE7	SSE6	SSE8	SE7	SSE8	SSE9	SE7	SE4	ESE2	NE1	NW3	NW4	NW1	W2	NW2	NNW4	SSE3.6	SSE9
8-Oct	W2	NNW4	NW0	WNW2	W5	WSW3	WNW5	W4	SW4	SW4	WSW6	WSW8	WSW8	SW8	SW8	WSW7	W10	WNW6	WNW7	WNW11	WNW7	WNW6	WNW4	WNW2	W4.9	WNW11
9-Oct	SSE1	SSW2	S3	S3	S3	S3	SSW4	S4	SSW5	S6	S7	SSW8	SW9	SW10	SW10	SW9	SW6	SSW4	S3	SSE3	SSE3	S2	SSE3	S4	SSW4.4	SW10
10-Oct	S3	S2	SW1	S2	SSE1	S1	SSW2	SSE2	SSE4	SSE4	SSE7	SSE8	SSE9	SSE8	SSE9	SSE9	S9	SSE6	SSE4	SSE4	S4	SW1	W2	WNW3	SSE3.9	SSE9
11-Oct	W1	W3	WNW2	WSW1	NW2	N5	N10	N7	NNW9	NNW15	NNW11	NNW11	NW5	WNW10	WNW10	WNW7	WNW7	WNW9	WNW9	NW12	NW14	NNW16	NNW18	NNW16	NW8.1	NNW18
12-Oct	NNW14	NNW16	NNW15	NNW16	NNW16	NNW13	N14	N9	N7	N9	N9	N8	N14	N13	N12	NNW10	NNW11	NNW10	NNW9	NNW5	NW6	NNW2	WSW1	WNW6	NNW9.8	NNW16
13-Oct	WNW6	W5	W4	WSW4	WSW4	SW4	S2	SSE2	S3	S5	SSW6	SW10	SSW10	S10	S10	S12	SSE9	SSE9	SSE7	SSE8	SSE7	SSE9	SSE7	SSE8	S5.5	S12
14-Oct	SSE8	SSE7	SSE9	S7	SSE7	SSE8	S6	S6	S9	S11	S10	S10	S9	S10	SW9	SSW8	S4	SSE4	SSE4	SSE5	SSE3	SSE4	S4	S4	S6.7	S11
15-Oct	S3	S3	S4	SSE4	SSE4	SSW2	S1	S3	SSE6	SSE6	SSE8	SSE5	SSW7	SSW8	SSW7	SSW7	SSW6	SSW4	SSE2	S3	SW1	WSW3	WSW3	WNW1	S3.8	SSW8
16-Oct	SSE2	S2	SW3	SE2	E2	SE2	S4	SSE3	S4	SSE6	SSE7	SSE8	SSE9	SSE7	SSE7	S3	S2	S6	SSE6	SSE5	SSE8	S6	S7	SSE7	SSE4.7	SSE9
17-Oct	SSE5	SSW4	SSW4	SW5	WSW6	W4	W5	WSW5	WSW6	WSW7	WSW5	W5	WNW10	WNW11	WNW10	WNW11	NW9	NW6	WNW4	W2	WNW3	SE1	S2	SSE2	W4.3	WNW11
18-Oct	S2	ESE2	SE2	SW4	WSW5	WSW5	SSW2	SW2	SW5	WSW6	SSW3	SSE4	SW5	SW7	WSW7	SW7	SSW3	SW2	SW0	WSW1	WSW2	NW1	W1	WSW1	SW2.8	SW7
19-Oct	W1	W2	W2	WNW2	WNW2	NW2	NW2	NW3	NNW3	N4	N3	N4	N7	NNW9	NNW8	NNW8	N9	N8	N7	N8	N8	N8	N9	N8	NNW5.1	NNW9
20-Oct	N7	N7	N6	N8	NNW7	NNW6	NNW8	N5	NNW4	N3	N3	SE3	S4	SE4	SE4	SSE3	S4	SSE4	SSE4	S4	SSE4	SE3	SSE7	SSE6	NNE0.7	NNW8
21-Oct	SSE6	SSE5	SSE7	SSE6	SSE4	S3	SSE3	SSE3	SE2	SSE3	SW3	W9	WSW6	WSW6	NW5	NW12	NNW8	NE5	NE3	NNE1	WSW1	SSW0	E0	SW1	SW1.0	NW12
22-Oct	WNW1	SSW0	W2	SW1	WNW2	W2	WNW2	W3	N0	SSE3	SE5	SSE6	SSE5	SE5	SSE6	SSE3	N3	N3	SSE3	SE6	SE6	SE5	SE7	SE9	SSE2.2	SE9
23-Oct	SE9	SSE11	SSE10	SSE10	SSE8	SSE8	SSE10	SSE8	SSE8	SSE7	SSE9	SSE9	SE7	SE7	SSE9	SE4	SE6	SE5	SSE6	SE5	SE5	SSE7	SSE7	SSE8	SSE7.5	SSE11
24-Oct	SSE5	SSE3	SE3	SSW3	SE3	SSE2	S2	SSE3	SSE2	SSE6	SSE7	SSE7	SSE7	SSE5	S3	SSW1	ESE1	W1	NNW1	NNW1	NNW1	W1	W1	NW3	SSE2.3	SSE7
25-Oct	WNW2	WNW2	W2	NW2	N5	SSE4	SE0	W3	WNW1	NW1	WSW2	SW3	W6	W5	SW5	WSW9	WSW5	S5	S4	SSW2	SSE2	S2	S1	WSW0	WSW2.0	WSW9
26-Oct	WSW1	UO	UO	UO	UO	UO	UO	UO	UO	UO	N7	NNW5	N9	N10	N13	N13	N15	N15	N18	N18	N19	N18	N19	N18	----	N19
27-Oct	N19	N20	N19	N20	N21	NNW19	NNW20	NNW21	NNW20	NNW20	NNW22	NNW18	NNW16	NNW15	NNW15	NNW14	NW8	WNW7	WNW7	WNW8	W6	W5	W4	W4	NNW13.5	NNW22
28-Oct	WNW5	WNW3	WNW3	UO	UO	UO	UO	UO	UO	W3	WSW2	W5	SW4	W4	SW4	SW5	SSW3	SSE3	S1	SSE1	SSE3	UO	UO	UO	----	WNW5
29-Oct	SE2	SE2	SSE2	ESE3	UO	UO	UO	UO	UO	N6	N8	N5	NNW4	NNW8	N7	NNE6	N7	N6	NNW7	NW8	NW5	NNW3	W2	NNW3	N3.7	N8
30-Oct	NNW3	NNW1	NNW2	NNE2	NE1	SSE2	SSE2	SSE2	SW3	SW4	WSW5	SW4	S4	S3	S4	S4	SSW4	SSW4	S3	S3	SSW4	S5	SSW6	S6	SSW2.5	S6
31-Oct	SSW6	SSW6	SW6	SSW6	SSW6	SSW3	S4	SSE7	SSE6	SSE9	SSE10	SSE11	SSE12	SSE12	SE11	SSE12	SSE13	SE12	SSE15	SSE13	SSE11	SSE10	SSE7	SSE8	SSE8.5	SSE15
	WNW0.6	WNW0.8	W1.2	WNW1.3	WNW1.8	WNW1.1	NW1.3	W0.8	SW0.8	SW0.9	S0.8	SSW1.4	SW1.8	SW2.0	SW2.0	WSW2.1	W1.6	W1.0	W0.8	W1.1	WSW0.9	WSW0.8	WSW0.8	W0.7	Diurnal Average	
	N19	N20	N19	N20	N21	NNW19	NNW20	NNW21	NNW20	NNW20	NNW22	NNW18	NNW16	NNW15	NNW15	NNW14	N15	N15	N18	N18	N19	N18	N19	N18	Diurnal Maximum	

UO - Unstable Operation

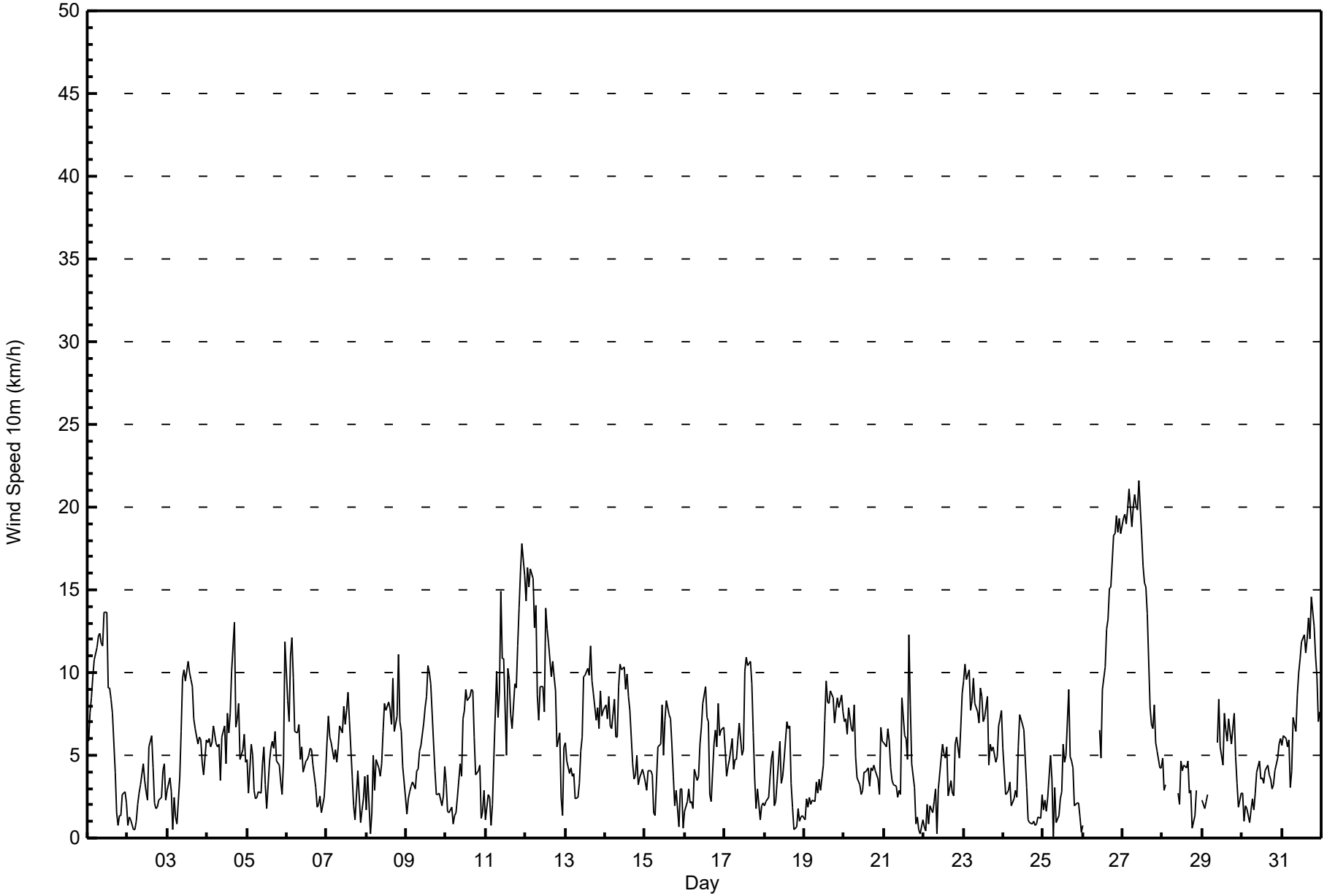
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Waskow ohci Pimatisiwin - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	387	53.68	53.68
6 - 11	273	37.86	91.54
12 - 19	53	7.35	98.89
20 - 28	8	1.11	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 721

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Waskow ohci Pimatisiwin - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	12	2	4	1	2	8	32	76	62	25	26	29	42	27	18	21	387
6 - 11	31	2	0	0	0	0	11	80	21	17	17	13	11	27	10	33	273
12 - 19	17	0	0	0	0	0	1	6	1	0	0	0	0	0	3	25	53
20 - 28	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	8
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	63	4	4	1	2	8	44	162	84	42	43	42	53	54	31	84	721

Total Number of Valid Hours: 721

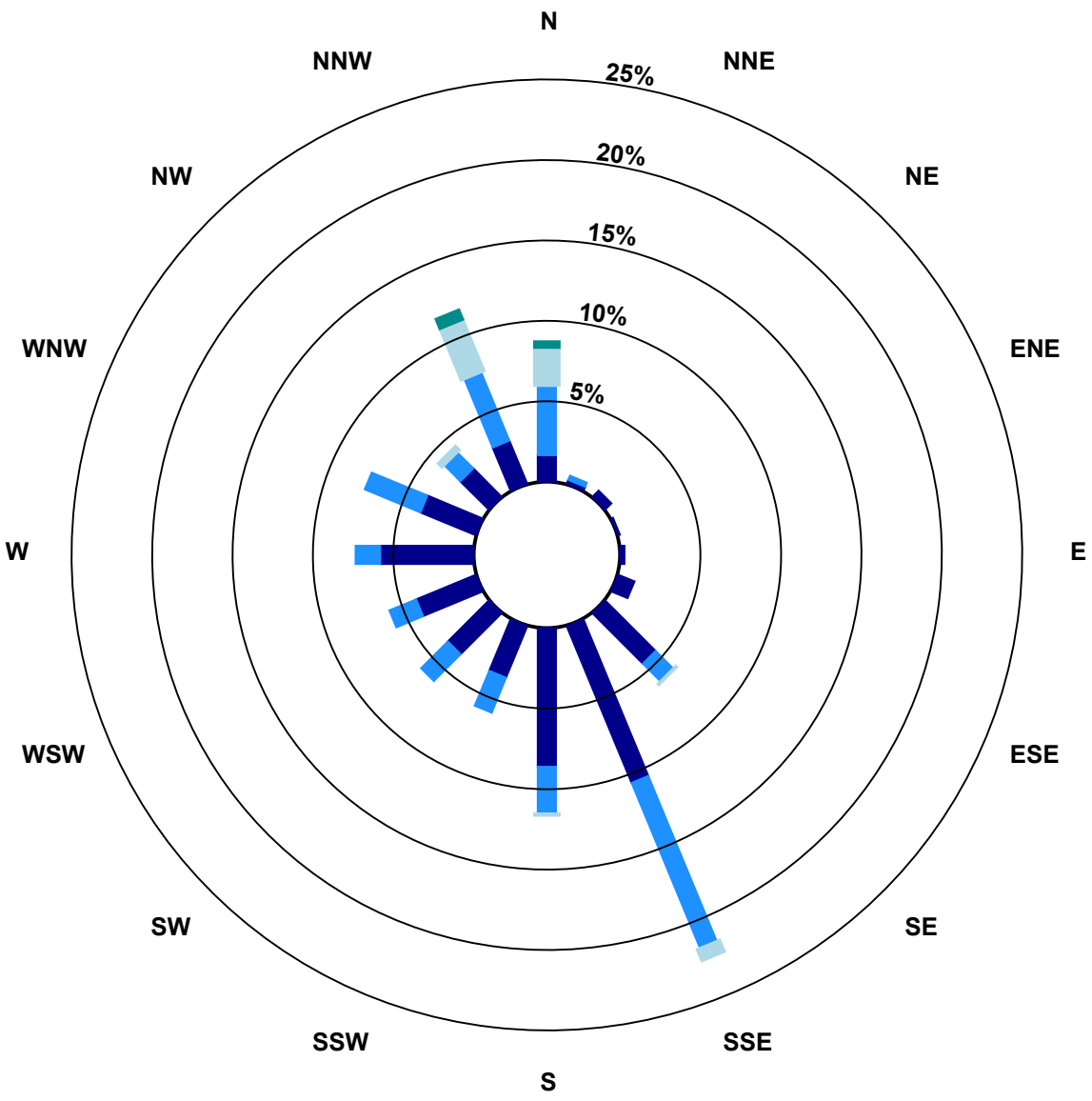
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Waskow ohci Pimatisiwin



Classes (km/h)

0 - 5

6 - 11

12 - 19

20 - 28

29 - 38

> 38

Total Number of Valid Hours: 721

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Waskow ohci Pimatisiwin - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 7 km/h on Oct 27 11:00

Minimum Value: 0 km/h on Oct 29 23:00

Percentiles: P_1 = 1 P_{10} = 1 Q_1 = 1 Median = 2 Q_3 = 3 P_{90} = 4 P_{99} = 6

Hours in Service:	744
Hours of Data:	721
Hours of Missing Data:	23
Hours of Calibration:	0
Percent Operational Time:	96.9

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	1	2	3	3	3	3	4	4	4	3	4	5	3	3	2	3	1	1	1	1	1	1	1	1	5
2-Oct	1	1	1	1	1	1	1	1	1	2	1	1	1	2	2	2	1	1	1	1	1	1	2	1	2
3-Oct	1	1	1	1	1	1	1	1	3	4	4	5	5	5	4	4	3	3	4	3	3	2	2	3	5
4-Oct	2	3	2	2	2	2	2	2	2	2	3	3	3	4	3	4	4	3	3	3	2	2	2	2	4
5-Oct	2	2	2	2	1	1	1	1	1	2	2	2	2	2	2	3	3	2	2	2	2	1	4	4	4
6-Oct	3	2	5	3	3	2	2	2	2	3	2	2	2	3	2	2	2	1	1	1	1	1	1	1	5
7-Oct	2	2	2	2	2	2	1	2	2	3	3	3	3	3	3	1	1	1	1	1	1	1	1	2	3
8-Oct	2	2	1	2	3	1	2	2	2	3	3	3	3	4	4	4	4	3	4	5	3	3	2	2	5
9-Oct	1	1	1	1	1	1	1	1	2	2	2	3	4	4	5	3	2	2	1	1	1	1	1	1	5
10-Oct	1	1	1	1	1	1	1	1	1	1	2	3	3	3	3	3	3	2	1	1	1	1	1	1	3
11-Oct	1	1	1	1	2	2	3	2	3	5	3	3	2	4	4	3	2	4	3	4	4	5	5	5	5
12-Oct	5	5	5	5	5	4	5	3	2	3	3	3	5	5	4	4	4	3	2	2	2	2	1	2	5
13-Oct	2	2	1	2	1	2	1	1	2	2	3	4	4	4	4	4	3	3	2	2	2	3	2	2	4
14-Oct	2	2	3	2	2	3	2	2	3	4	4	4	3	4	3	3	3	1	1	1	1	1	1	2	4
15-Oct	1	1	1	1	1	1	1	1	2	2	3	3	3	4	3	3	2	1	1	1	1	2	1	1	4
16-Oct	1	1	2	1	1	1	1	1	1	2	2	2	3	3	3	1	1	2	2	2	3	3	2	2	3
17-Oct	2	2	2	2	3	2	2	2	2	3	2	3	4	4	4	5	4	3	2	1	1	1	1	1	5
18-Oct	1	1	1	3	2	2	1	1	3	2	2	2	2	3	3	3	1	1	1	1	1	1	1	1	3
19-Oct	1	1	1	1	1	1	1	1	2	1	1	2	2	2	2	2	3	2	2	2	2	2	2	2	3
20-Oct	2	2	2	3	2	2	2	2	1	1	1	1	1	1	1	1	2	1	1	2	1	1	2	2	3
21-Oct	2	2	2	2	2	1	1	1	1	1	3	4	2	3	2	4	3	2	1	1	1	1	1	1	4
22-Oct	1	1	1	1	1	1	0	1	1	1	2	2	2	2	2	2	2	1	2	3	2	2	3	3	3
23-Oct	3	4	3	3	2	3	3	3	3	3	3	3	2	3	3	2	2	2	2	1	2	2	2	3	4
24-Oct	2	1	1	1	1	1	1	1	1	2	3	2	2	2	1	1	1	1	1	1	1	1	1	1	3
25-Oct	1	1	1	1	4	2	1	1	1	1	1	2	3	3	2	4	3	2	1	2	1	1	1	1	4
26-Oct	1	UO	UO	UO	UO	UO	UO	UO	UO	UO	4	2	3	3	4	4	4	5	6	7	7	6	6	6	7
27-Oct	7	6	6	6	6	6	6	6	6	6	7	6	5	4	4	4	3	2	2	3	2	2	2	2	7
28-Oct	2	1	2	UO	UO	UO	UO	UO	UO	2	2	2	2	2	2	2	1	1	1	1	1	UO	UO	UO	2
29-Oct	1	1	1	1	UO	UO	UO	UO	UO	2	2	2	2	2	2	2	2	1	2	2	1	1	0	1	2
30-Oct	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	2	1	1	1	1	2	2	2	2	2
31-Oct	2	3	2	2	3	1	2	3	2	3	4	4	4	5	4	4	5	4	6	5	4	3	2	3	6
	7	6	6	6	6	6	6	6	6	6	7	6	5	5	5	5	5	5	6	7	7	6	6	6	
	Diurnal Maximum																								

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Waskow ohci Pimatisiwin - October 2025

Direction of Maximum Speed: 344 deg on Oct 27 11:00
Direction of Maximum Daily Speed Average: 339.6 deg on Oct 27

Direction of Minimum Speed: 131 deg on Oct 25 07:00

Direction of Minimum Daily Speed Average: 0.7 deg on Oct 20

Monthly Average Direction: 256.6 deg

Hours in Service:	744
Hours of Data:	721
Hours of Missing Data:	23
Percent Operational Time:	96.9

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	332	338	344	347	347	350	347	344	348	348	348	344	338	352	348	359	355	307	163	271	297	259	270	252	343.0
2-Oct	343	239	184	151	228	181	205	157	133	143	151	115	123	145	166	176	165	167	154	125	139	157	156	175	155.4
3-Oct	149	165	180	132	261	248	243	176	168	174	178	200	215	224	221	228	211	205	286	234	250	245	246	260	212.9
4-Oct	260	285	276	272	267	277	282	278	299	307	338	344	344	343	329	346	337	327	321	314	292	285	287	268	307.6
5-Oct	281	240	265	265	204	164	162	186	188	174	146	191	307	259	198	294	292	294	286	274	259	290	328	4	263.0
6-Oct	354	353	339	330	324	326	341	346	348	7	58	109	118	161	176	155	142	143	131	144	164	150	141	158	4.4
7-Oct	155	158	162	165	177	161	166	169	165	160	151	145	147	150	145	131	117	52	309	314	319	263	310	340	158.1
8-Oct	271	330	313	300	273	247	285	262	229	227	237	253	246	230	231	247	271	299	288	294	286	284	298	301	266.9
9-Oct	156	195	175	181	180	180	194	175	197	174	183	206	230	219	230	226	223	197	173	157	161	179	167	173	199.1
10-Oct	174	175	232	182	150	186	192	156	160	152	147	147	148	148	149	168	177	168	149	159	174	236	276	300	162.8
11-Oct	266	275	299	245	321	8	353	353	331	336	330	334	310	291	286	294	297	301	294	310	325	333	334	336	321.9
12-Oct	337	335	334	341	338	345	349	356	5	357	8	11	2	4	1	348	342	335	335	329	318	338	255	285	345.0
13-Oct	288	273	264	252	250	234	185	158	191	182	213	222	195	184	172	171	167	167	164	165	160	159	163	166	187.4
14-Oct	165	166	167	173	167	166	169	171	179	185	181	181	182	182	216	208	187	163	164	168	167	161	173	169	177.3
15-Oct	173	186	186	166	167	205	178	172	168	157	155	167	199	208	212	204	202	200	151	174	225	237	250	300	187.7
16-Oct	166	176	224	139	99	124	175	160	169	157	155	151	158	152	155	177	170	172	160	156	166	184	177	167	162.6
17-Oct	165	195	206	229	257	264	273	251	241	249	243	268	284	288	295	299	309	308	292	259	298	126	181	156	268.0
18-Oct	171	122	132	231	242	246	205	223	236	248	202	161	229	216	246	224	202	214	215	238	256	315	267	253	223.8
19-Oct	276	273	281	287	294	311	321	314	337	353	355	0	353	346	347	343	352	349	352	353	352	357	356	351	344.6
20-Oct	3	1	355	350	344	339	337	349	340	2	352	136	178	142	142	163	183	161	167	174	151	146	149	160	30.8
21-Oct	152	153	159	162	157	172	153	163	135	165	222	278	255	252	309	325	338	41	49	32	258	210	83	231	220.5
22-Oct	301	198	280	227	294	272	298	281	352	159	139	154	151	145	148	151	11	353	149	138	138	137	140	140	148.7
23-Oct	140	151	154	156	154	154	153	164	152	160	153	149	143	145	151	141	144	136	147	137	146	162	155	150	150.6
24-Oct	147	161	141	211	145	155	185	157	150	156	147	152	151	156	184	199	115	260	331	329	340	271	261	310	161.2
25-Oct	302	292	268	324	351	168	131	280	296	322	255	223	261	259	216	239	252	189	176	206	157	191	189	251	240.6
26-Oct	245	UO	UO	UO	UO	UO	UO	UO	UO	UO	2	341	351	358	360	352	350	350	354	2	1	7	358	358	--
27-Oct	358	356	357	352	349	347	345	346	345	344	344	344	346	339	337	330	310	293	289	286	281	281	278	276	339.6
28-Oct	282	285	293	UO	UO	UO	UO	UO	UO	276	248	269	234	269	216	227	197	161	184	151	166	UO	UO	UO	--
29-Oct	145	137	152	117	UO	UO	UO	UO	UO	360	355	354	328	344	359	26	4	356	332	319	321	329	266	327	348.9
30-Oct	331	348	328	21	49	165	165	153	232	216	242	219	175	184	177	184	207	194	179	184	208	178	192	188	196.5
31-Oct	196	196	214	203	202	208	169	161	161	163	152	157	159	150	146	153	155	146	150	159	153	154	154	155	161.2
	281.3	284.4	277.8	290.4	296.3	288.8	309.3	275.8	227.0	225.8	186.1	210.3	224.9	227.1	228.1	256.8	276.0	264.0	273.5	265.0	257.8	252.6	251.6	269.7	
	Diurnal Average																								

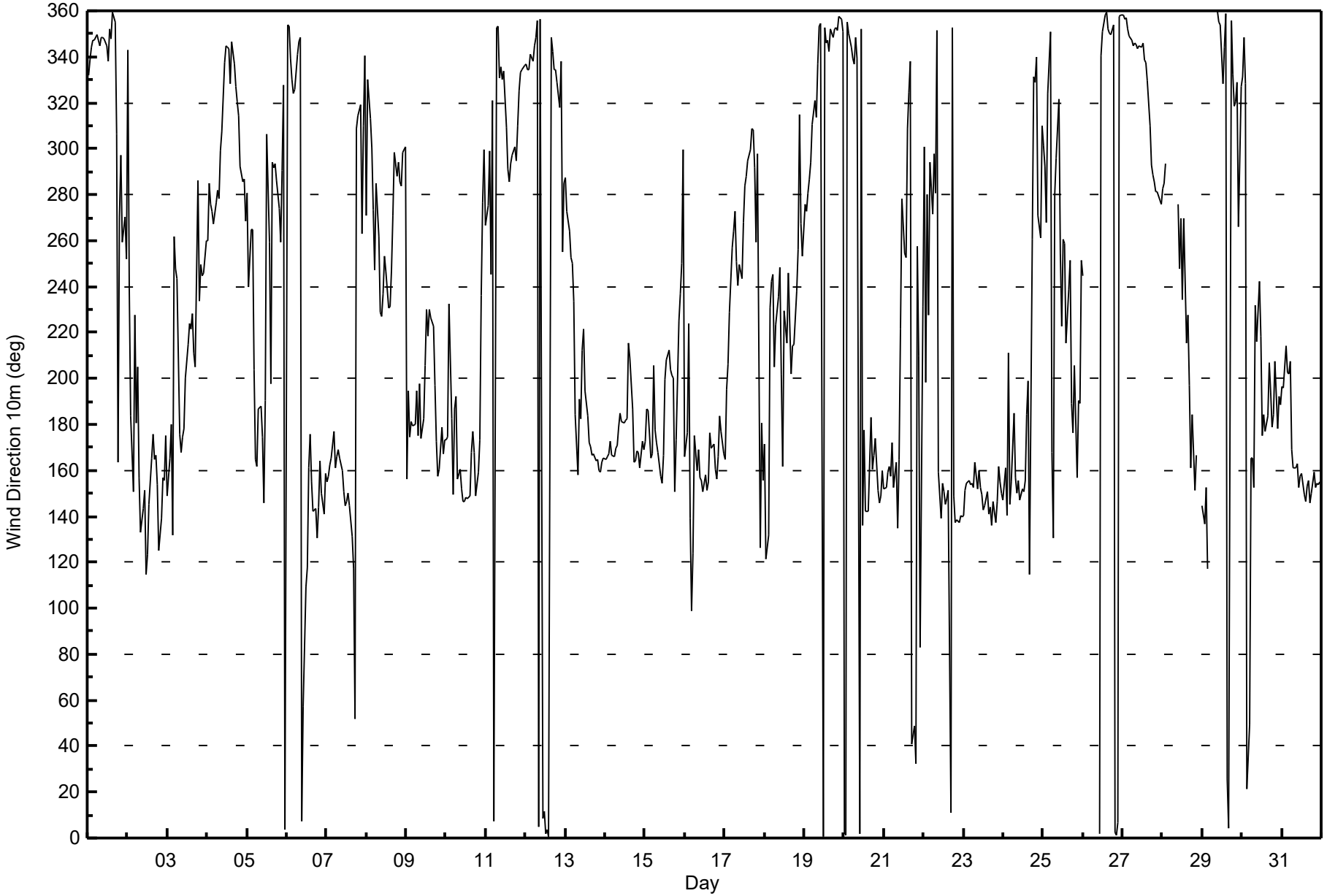
UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Waskow ohci Pimatisiwin - October 2025



Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 101 deg on Oct 28 19:00

Minimum Value: 10 deg on Oct 29 03:00

Percentiles: P_1 = 17 P_{10} = 21 Q_1 = 24 Median = 32 Q_3 = 46 P_{90} = 64 P_{99} = 95

Hours in Service:	744
Hours of Data:	721
Hours of Missing Data:	23
Hours of Calibration:	0
Percent Operational Time:	96.9

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	20	21	21	19	21	20	21	21	20	19	22	22	23	26	23	27	24	68	72	44	79	49	11	31	79
2-Oct	73	58	65	86	87	64	37	44	37	33	35	35	53	31	31	37	75	44	26	34	24	21	35	40	87
3-Oct	26	30	42	78	37	66	72	24	31	34	35	44	47	49	46	47	43	45	48	44	46	57	67	51	78
4-Oct	49	42	37	32	35	34	30	32	57	31	36	64	29	37	26	22	21	22	24	22	26	27	25	33	64
5-Oct	36	62	33	35	42	37	31	49	51	29	34	80	96	65	40	47	36	31	29	40	68	63	53	24	96
6-Oct	27	26	27	19	18	15	24	24	35	44	40	37	43	58	53	38	36	35	31	27	31	32	30	22	58
7-Oct	26	22	28	27	33	23	23	22	31	31	28	33	30	27	30	31	38	49	37	27	87	64	54	54	87
8-Oct	96	43	99	93	44	65	37	53	50	64	53	47	58	48	53	61	45	32	32	33	42	37	40	73	99
9-Oct	71	57	47	26	27	25	30	32	38	37	39	44	50	49	50	41	50	31	26	24	47	43	31	15	71
10-Oct	29	49	47	20	59	58	52	37	26	36	31	27	29	31	25	32	32	28	23	27	20	78	79	43	79
11-Oct	80	26	63	77	83	34	22	27	20	21	19	20	32	31	30	35	30	27	27	22	19	21	21	21	83
12-Oct	20	20	20	21	22	23	21	23	26	29	28	34	26	28	26	23	22	20	21	18	15	48	35	21	48
13-Oct	23	26	17	32	38	41	27	24	45	40	51	47	41	34	33	30	26	24	23	22	20	21	20	23	51
14-Oct	21	21	23	25	22	19	23	25	33	34	30	34	33	35	44	39	40	21	27	22	32	20	21	26	44
15-Oct	25	20	28	26	25	63	65	31	29	22	25	38	46	45	47	36	37	32	37	22	94	59	53	99	99
16-Oct	72	58	68	54	50	45	17	21	21	23	24	24	24	27	31	51	35	28	27	28	25	44	31	29	72
17-Oct	28	59	37	35	47	59	40	31	43	43	49	57	36	34	30	26	21	20	31	29	50	54	54	49	59
18-Oct	46	43	33	61	53	33	86	84	54	47	84	69	61	43	49	43	41	29	80	74	56	81	83	66	86
19-Oct	67	14	26	33	24	17	33	27	56	36	36	34	22	19	18	19	22	19	23	18	19	20	19	20	67
20-Oct	24	23	21	20	24	18	19	22	26	31	51	40	39	30	27	47	30	26	24	30	28	45	26	30	51
21-Oct	27	25	24	26	30	23	23	34	42	43	90	41	39	45	49	22	29	25	24	88	48	97	81	41	97
22-Oct	89	95	73	81	43	42	27	24	77	31	37	36	37	35	34	53	26	28	61	29	28	28	23	23	95
23-Oct	27	25	24	24	23	22	23	26	23	29	26	25	26	26	22	26	22	23	23	20	18	18	21	22	29
24-Oct	23	56	49	41	41	56	34	37	35	22	27	28	24	28	37	60	47	84	68	75	44	78	83	24	84
25-Oct	69	48	80	55	49	45	100	50	86	76	79	71	49	52	45	42	57	42	31	64	69	58	56	95	100
26-Oct	70	UO	UO	UO	UO	UO	UO	UO	UO	UO	31	52	19	23	22	20	18	20	22	25	23	25	23	23	70
27-Oct	23	22	22	22	21	20	21	22	20	22	22	21	22	21	20	18	23	25	24	26	28	31	33	34	34
28-Oct	27	43	45	UO	UO	UO	UO	UO	UO	39	76	42	47	54	39	40	43	28	101	53	52	UO	UO	UO	101
29-Oct	31	39	10	30	UO	UO	UO	UO	UO	24	20	34	38	22	20	25	24	20	19	16	17	21	35	47	47
30-Oct	30	68	40	39	72	57	34	30	43	46	57	63	33	32	30	32	35	37	31	34	31	29	33	35	72
31-Oct	37	34	35	33	39	49	25	23	23	25	23	26	26	23	25	25	23	26	24	26	24	25	26	23	49
	96	95	99	93	87	66	100	84	86	76	90	80	96	65	53	61	75	84	101	88	94	97	83	99	
	Diurnal Maximum																								

UO - Unstable Operation

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS27
JACKFISH 2/3
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - JACKFISH 2/3 (AMS27)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	709	35	35	100	16.6	0	6.3	0
H2S (ppb) Average	703	37	41	99.46	1.3	0	0.2	0
NO2 (ppb) Average	631	33	113	89.25	7.6	0	2.7	-
NO (ppb) Average	631	33	113	89.25	2.7	-	0.9	-
NOX (ppb) Average	631	33	113	89.25	7.9	-	3.6	-
Temperature 2 m (C) Average	744	0	0	100	18.7	-	10.4	-
Relative Humidity (%) Average	744	0	0	100	98.6	-	97.4	-
Wind Speed 10 m (km/h) Average	683	2	61	92.07	19	-	12	-
Wind Direction 10 m (deg) Average	683	2	61	92.07	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - JACKFISH 2/3 (AMS27)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	709	0.86	2.2	-	0	0	0.1	0.2	0.5	1.7	16.6
H2S (ppb) Average	703	0.12	0.1	-	0	0	0.1	0.1	0.1	0.2	1.3
NO2 (ppb) Average	631	1.37	1.1	-	0	0.3	0.6	1	2	2.8	7.6
NO (ppb) Average	631	0.19	0.4	-	0	0	0	0	0.2	0.5	2.7
NOX (ppb) Average	631	1.56	1.3	-	0	0.3	0.6	1.2	2.2	3.3	7.9
Temperature 2 m (C) Average	744	3.97	4.8	-	-4.2	-1.5	0	3.3	7.1	10.5	18.7
Relative Humidity (%) Average	744	74.49	18.6	-	28.2	48	60.6	76.4	91.1	97.1	98.6
Wind Speed 10 m (km/h) Average	683	7.4	3	-	0	4	5	7	9	11	19
Wind Direction 10 m (deg) Average	683	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - JACKFISH 2/3 (AMS27)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
H2S	16 Oct 2025 13:00	16 Oct 2025 13:00	1	Unstable Operation - excessive baseline drift
H2S	22 Oct 2025 06:00	22 Oct 2025 06:00	1	Unstable Operation - excessive baseline drift
H2S	23 Oct 2025 11:00	23 Oct 2025 11:00	1	Unstable Operation - excessive baseline drift
H2S	29 Oct 2025 23:00	29 Oct 2025 23:00	1	Unstable Operation - excessive baseline drift
NO2	20 Oct 2025 04:00	23 Oct 2025 11:00	80	Unstable Operation - span outside AMD criteria
Wind Speed, Wind Direction	05 Oct 2025 06:00	05 Oct 2025 09:00	4	Flat line in sensor output signal - Sensor frozen
Wind Speed, Wind Direction	12 Oct 2025 02:00	12 Oct 2025 12:00	11	Flat line in sensor output signal - Sensor frozen
Wind Speed, Wind Direction	27 Oct 2025 06:00	27 Oct 2025 09:00	4	Flat line in sensor output signal - Sensor frozen
Wind Speed, Wind Direction	27 Oct 2025 15:00	28 Oct 2025 10:00	20	Flat line in sensor output signal - Sensor frozen
Wind Speed, Wind Direction	30 Oct 2025 15:00	31 Oct 2025 09:00	19	Flat line in sensor output signal - Sensor frozen
Wind Speed, Wind Direction	31 Oct 2025 13:00	31 Oct 2025 13:00	1	Maintenance - recalibrate the sensor

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Jackfish 2/3 - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 16.6 ppb on Oct 27 20:00

Maximum Daily Average: 6.3 ppb on Oct 27

Minimum Value: 0.0 ppb on Oct 1 05:00

Minimum Daily Average: 0.0 ppb on Oct 14

Maximum Diurnal Average: 1.3 ppb at hour 23

Minimum Diurnal Average: 0.4 ppb at hour 1

Monthly Average: 0.86 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.2 Q_3 = 0.5 P_{90} = 1.7 P_{99} = 11.9

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.2	0.2	0.2	Z	0.0	0.0	0.0	0.2	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.1	0.2
2-Oct	0.1	0.2	0.0	0.1	Z	0.0	0.0	0.1	0.2	0.5	0.7	0.7	0.7	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.7
3-Oct	0.1	0.1	0.1	0.1	0.2	Z	0.0	0.1	0.3	0.3	0.2	C	C	C	C	0.0	1.0	0.0	0.0	0.0	0.0	0.0	2.8	0.1	0.3	2.8
4-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	7.2	2.4	3.4	4.0	2.3	1.2	0.2	0.3	8.4	9.8	6.7	0.4	0.2	0.1	0.1	2.2	9.8
5-Oct	0.1	Z	2.8	0.8	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.1	0.1	0.0	1.9	8.6	3.2	0.2	0.5	1.2	0.2	0.1	0.9	8.6
6-Oct	0.1	0.2	Z	0.1	0.2	0.0	0.1	0.2	0.4	0.4	0.3	0.2	1.7	2.5	1.2	0.5	0.5	0.2	0.1	0.1	0.2	0.2	0.1	0.4	0.4	2.5
7-Oct	0.5	0.5	0.5	Z	0.4	0.4	0.7	0.9	0.7	0.6	0.4	0.3	0.2	0.2	0.2	0.3	0.6	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.9
8-Oct	2.5	1.3	3.9	5.1	Z	3.4	9.9	2.2	4.8	12.3	8.2	2.8	5.6	1.7	0.4	0.2	7.0	0.4	0.1	0.2	0.1	0.2	0.2	0.1	3.2	12.3
9-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
10-Oct	Z	0.8	1.0	0.5	0.4	0.4	0.3	0.2	0.4	1.1	1.4	0.8	0.8	0.5	0.6	0.3	0.4	0.2	0.2	0.2	0.2	0.3	0.6	0.8	0.5	1.4
11-Oct	0.8	Z	0.4	0.3	0.2	0.3	0.3	0.2	0.3	0.6	0.4	1.0	3.3	2.4	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.5	3.3
12-Oct	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.2	1.0	1.2	0.9	1.4	0.6	0.4	0.1	0.1	0.2	0.3	0.3	0.3	1.4
13-Oct	0.2	0.3	0.4	Z	0.2	0.1	0.3	0.2	0.1	0.1	0.0	0.1	0.4	0.3	0.0	0.0	0.0	0.1	0.4	0.9	0.9	0.3	0.1	0.2	0.2	0.9
14-Oct	0.1	0.1	0.2	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.2
15-Oct	0.1	0.6	0.8	0.9	0.9	Z	0.3	0.4	0.6	0.7	0.2	1.0	1.0	0.5	0.5	0.8	1.2	1.2	1.1	0.7	0.5	0.2	0.2	0.3	0.6	1.2
16-Oct	Z	0.3	0.3	0.3	0.2	0.1	0.1	0.0	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.5	0.4	0.1	0.3	0.2	0.3	0.3	0.2	0.5
17-Oct	0.2	Z	0.4	0.4	0.7	0.6	0.2	0.1	0.2	1.9	0.7	0.6	0.5	0.3	2.2	4.2	1.2	2.4	0.1	0.1	0.1	5.3	16.3	7.3	2.0	16.3
18-Oct	0.3	0.2	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.7	2.8	2.5	0.8	0.9	0.6	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.5	2.8
19-Oct	0.0	0.0	0.1	Z	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.7
20-Oct	0.0	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.5	0.3	0.6	0.6	0.6	0.2	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.3	0.2	0.3	0.2	0.6
21-Oct	0.4	0.5	0.3	0.2	0.2	Z	0.0	0.0	0.1	0.1	0.1	0.4	0.1	2.6	3.3	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.4	3.3
22-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.5	0.6	0.2	0.6
23-Oct	0.6	Z	0.3	0.3	0.2	0.2	0.5	0.4	0.3	0.4	0.4	1.3	1.8	0.6	0.6	0.9	0.6	0.5	0.4	0.4	0.7	0.7	0.8	0.8	0.6	1.8
24-Oct	0.6	0.6	Z	0.5	0.8	0.7	0.6	0.5	0.5	0.7	1.1	1.3	0.6	0.5	0.5	0.7	0.7	1.0	1.2	1.2	0.9	0.6	0.5	0.5	0.7	1.3
25-Oct	0.4	0.4	0.4	Z	0.2	0.3	0.3	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.2	0.4
26-Oct	0.0	0.0	0.0	0.1	Z	1.1	2.7	1.3	0.7	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.4	0.3	2.7
27-Oct	1.5	5.1	2.6	0.3	0.3	Z	0.1	0.9	0.5	0.3	1.8	0.4	4.2	8.6	12.4	11.9	8.7	9.4	9.1	16.6	14.1	11.8	13.9	11.3	6.3	16.6
28-Oct	Z	6.4	5.1	11.1	14.3	11.3	9.8	3.2	7.6	6.7	2.5	7.0	0.5	0.4	0.4	0.4	0.3	0.3	0.7	0.3	0.3	0.4	0.3	0.4	3.9	14.3
29-Oct	0.3	Z	0.7	0.1	0.2	0.4	0.3	1.2	0.7	0.4	0.3	0.4	0.1	0.3	0.3	1.0	0.3	0.1	0.2	0.1	0.1	0.1	0.2	0.4	0.3	1.2
30-Oct	0.8	0.7	Z	0.2	0.4	0.4	0.5	0.5	1.7	2.7	1.5	0.8	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.5	2.7
31-Oct	0.0	0.1	0.1	Z	0.0	0.0	0.3	0.1	0.0	0.0	0.1	0.2	0.3	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.3
	0.4	0.7	0.8	0.9	0.8	0.8	0.9	0.4	0.8	1.3	0.8	0.9	1.0	0.9	0.9	0.8	0.9	1.1	0.9	1.0	0.7	0.8	1.3	0.8	Diurnal Average	
	2.5	6.4	5.1	11.1	14.3	11.3	9.9	3.2	7.6	12.3	8.2	7.0	5.6	8.6	12.4	11.9	8.7	9.4	9.8	16.6	14.1	11.8	16.3	11.3	Diurnal Maximum	

Z - zerospan C - Calibration

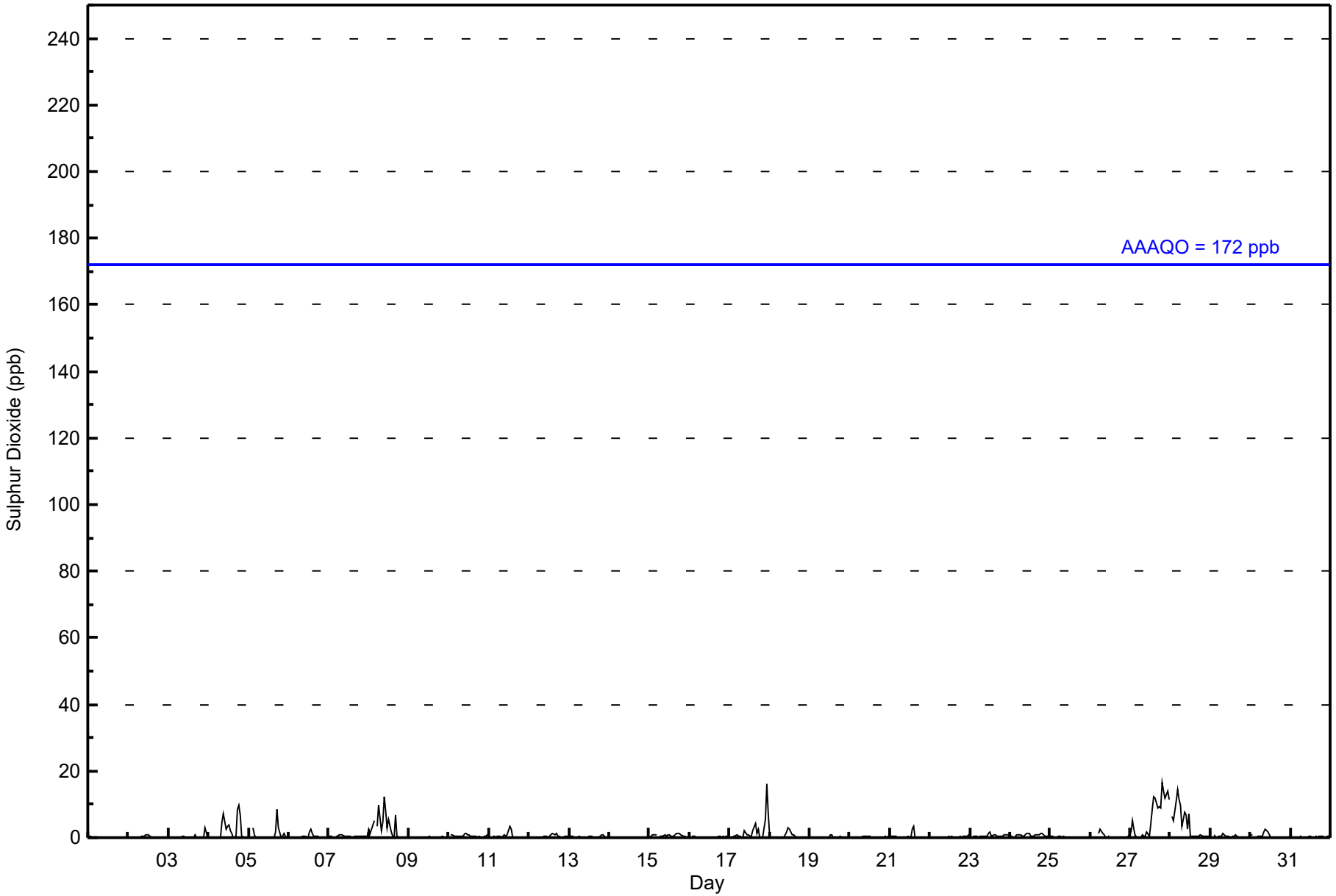
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Jackfish 2/3 - October 2025



Sulphur Dioxide (SO_2) - ppb
Jackfish 2/3 - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	697	98.31	98.31
11 - 20	12	1.69	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Jackfish 2/3 - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	17	9	13	9	10	8	11	25	109	99	85	57	68	51	60	21	652
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	9	13	9	10	8	11	25	109	99	85	57	68	53	60	21	654

Total Number of Valid Hours: 654

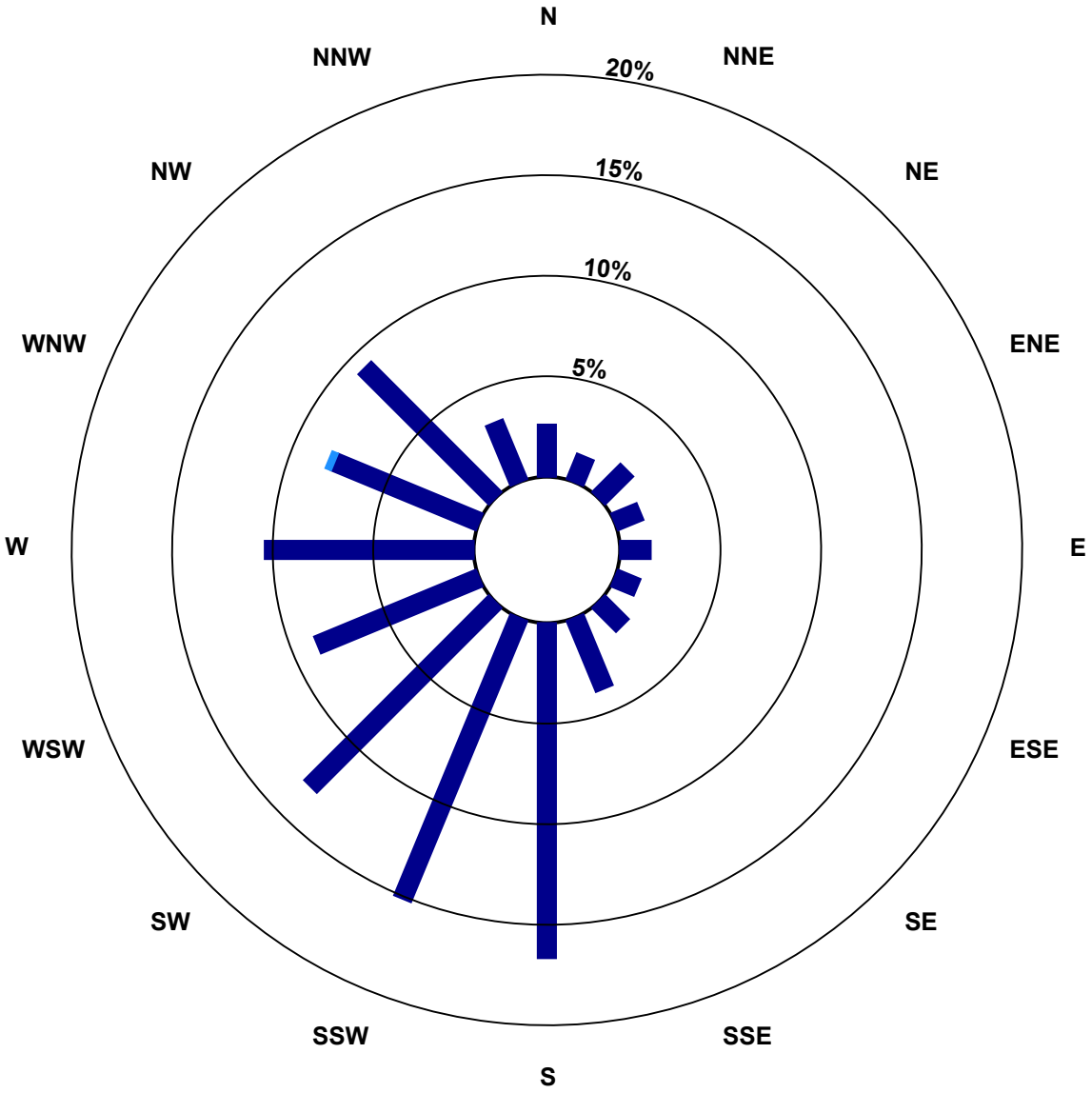
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Jackfish 2/3



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

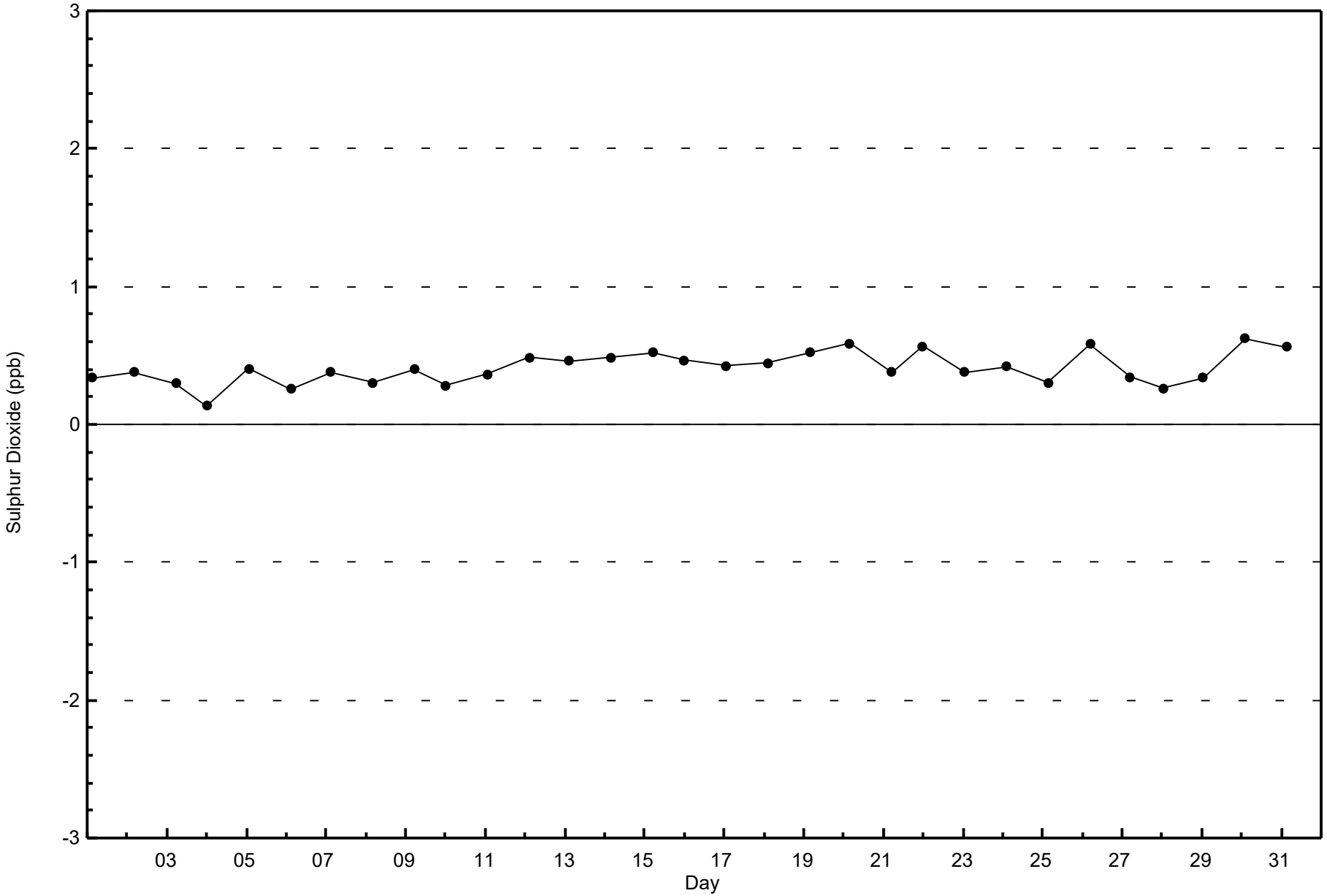
Total Number of Valid Hours: 654

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Jackfish 2/3 - October 2025

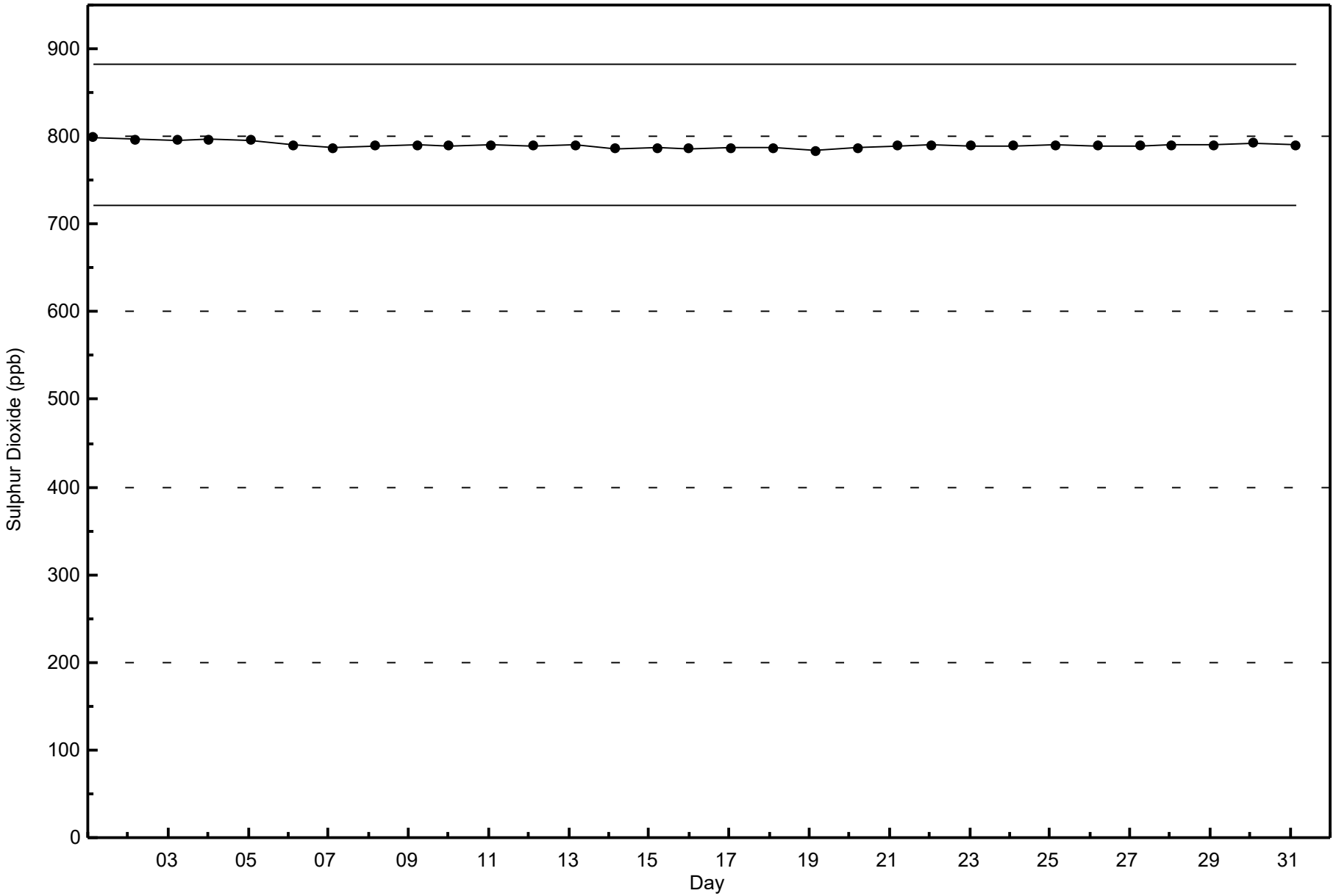


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Jackfish 2/3 - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H2S) - ppb

Jackfish 2/3 - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 1.3 ppb on Oct 28 00:00

Maximum Daily Average: 0.2 ppb on Oct 27

Minimum Value: 0.0 ppb on Oct 22 07:00

Minimum Daily Average: 0.0 ppb on Oct 22

Maximum Diurnal Average: 0.2 ppb at hour 5

Minimum Diurnal Average: 0.1 ppb at hour 20

Monthly Average: 0.12 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.1 P_{90} = 0.2 P_{99} = 0.4

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	37
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.3
2-Oct	0.1	0.4	0.3	0.1	0.2	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
3-Oct	Z	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.2
4-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.3	0.1	0.0	0.0	0.0	0.1	0.4
5-Oct	0.0	0.1	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.3
6-Oct	0.3	0.2	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.3
7-Oct	0.2	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
8-Oct	0.1	0.2	0.2	0.4	0.2	Z	0.2	0.1	0.1	0.3	0.3	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.4
9-Oct	Z	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2
10-Oct	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
11-Oct	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
12-Oct	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2
13-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
14-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
15-Oct	Z	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2
16-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	UO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
17-Oct	0.0	0.1	Z	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.3
18-Oct	0.4	0.3	0.2	Z	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
19-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.7	0.7	0.3	0.7	0.5	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.7
20-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
21-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.2	0.4	0.1	0.1	0.4
22-Oct	0.2	Z	0.1	0.0	0.0	UO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
23-Oct	0.0	0.0	Z	0.2	0.1	0.1	0.0	0.1	0.1	0.1	UO	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
24-Oct	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.2	0.2	C	C	C	C	C	C	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	--	0.3
25-Oct	0.1	0.2	0.3	0.2	Z	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
26-Oct	0.0	0.0	0.0	0.2	0.4	Z	0.3	0.3	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4
27-Oct	Z	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.3	0.3	0.3	0.2	0.1	0.1	0.2	0.4	0.5	0.2	1.3	0.2	1.3
28-Oct	0.1	Z	0.1	0.2	0.4	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.4
29-Oct	0.0	0.1	Z	0.1	0.1	0.1	0.3	0.4	0.2	0.4	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	UO	0.1	0.1	0.4
30-Oct	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
31-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.4	0.4	0.3	0.4	0.4	0.2	0.3	0.4	0.3	0.4	0.3	0.3	0.7	0.7	0.3	0.7	0.5	0.3	0.4	0.3	0.4	0.5	0.4	1.3	Diurnal Maximum	

Z - zerospan C - Calibration UO - Unstable Operation

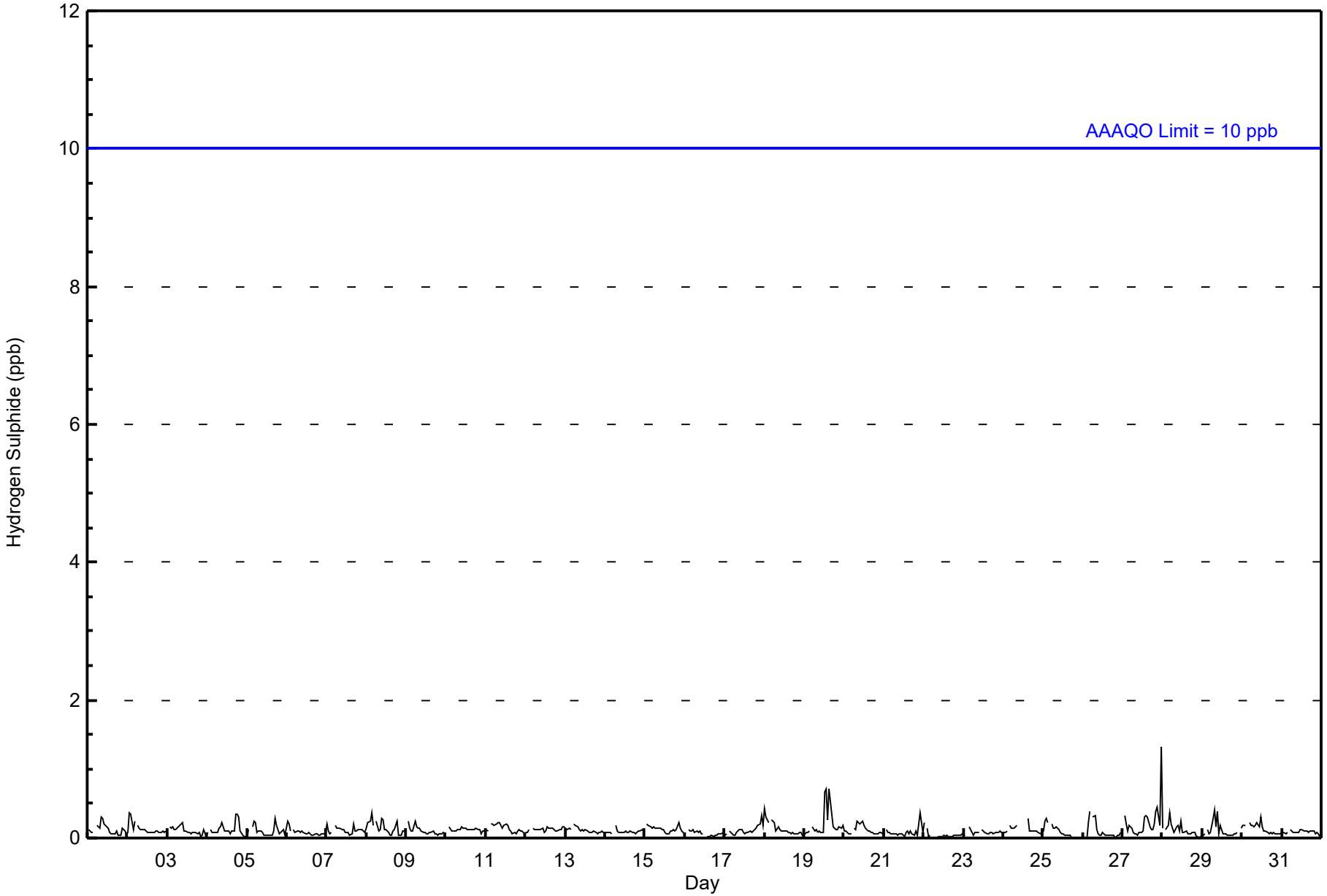
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H2S) - ppb

Jackfish 2/3 - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	703	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H2S) - ppb

Jackfish 2/3 - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	17	10	13	10	10	9	10	23	104	98	84	60	66	52	59	20	645
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	10	13	10	10	9	10	23	104	98	84	60	66	52	59	20	645

Total Number of Valid Hours: 645

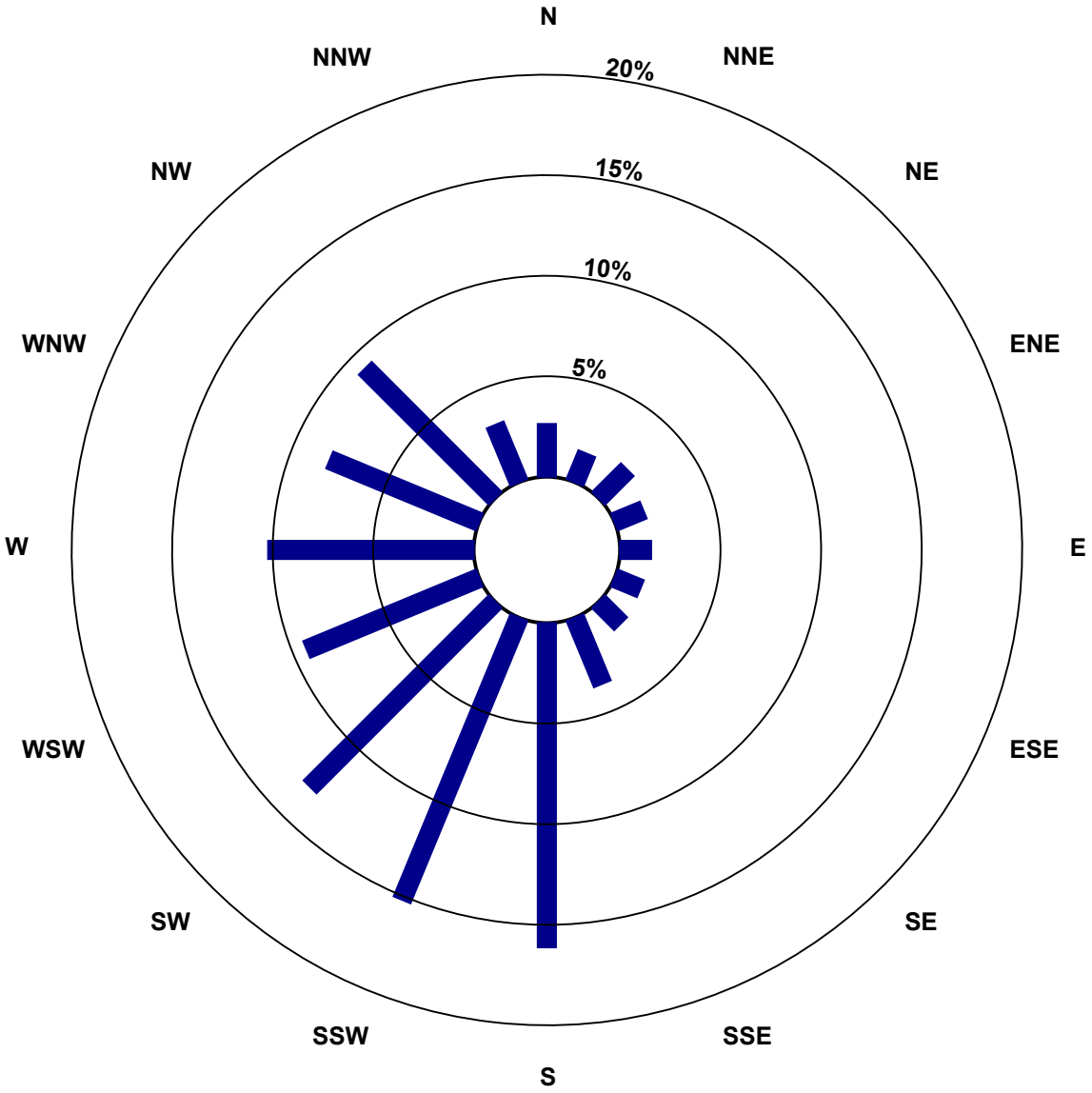
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H2S) - ppb

Jackfish 2/3



Classes (ppb)

- 0 - 2
- 3 - 4
- 5 - 7
- 8 - 11
- > 11

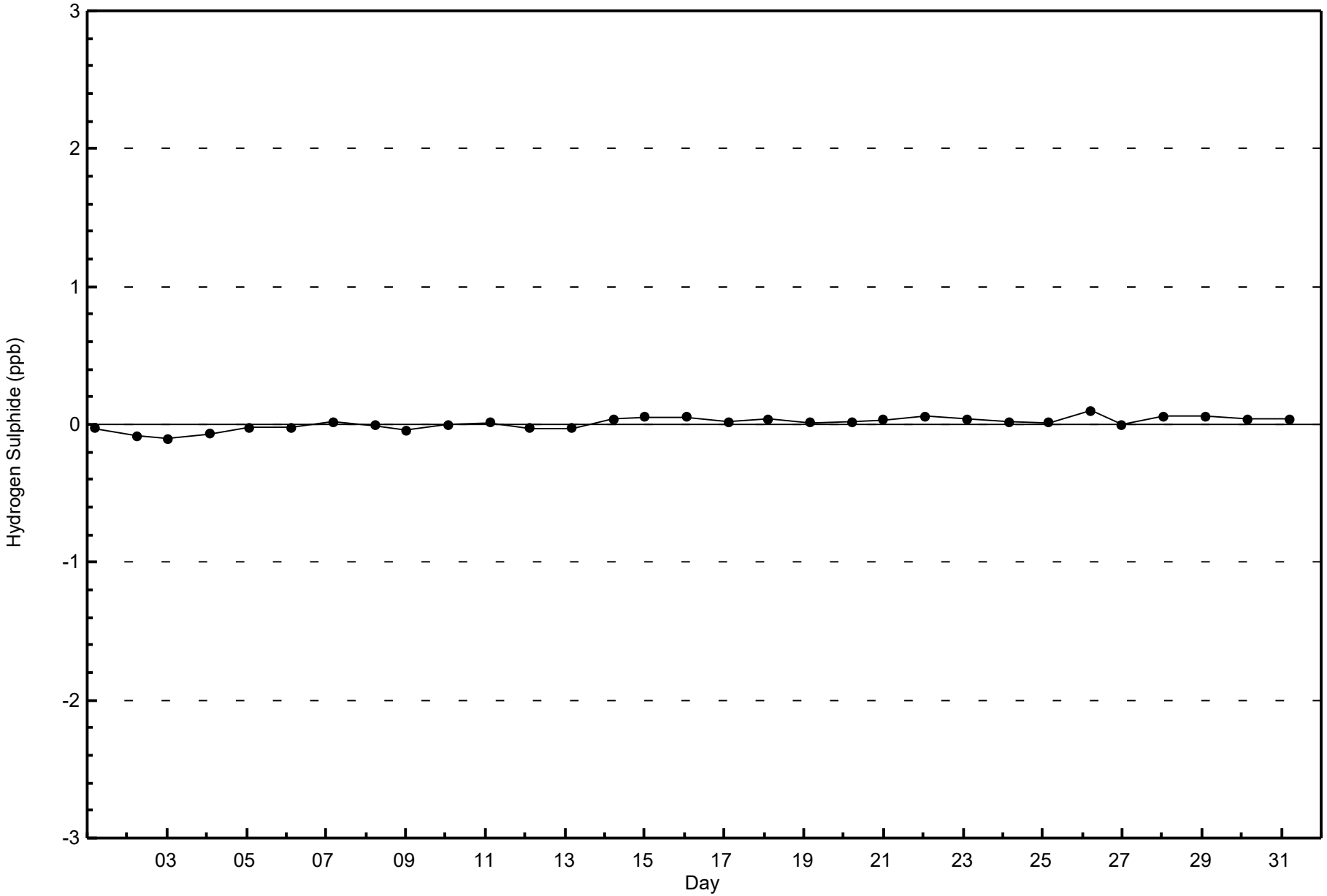
Total Number of Valid Hours: 645

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H2S) - ppb

Jackfish 2/3 - October 2025

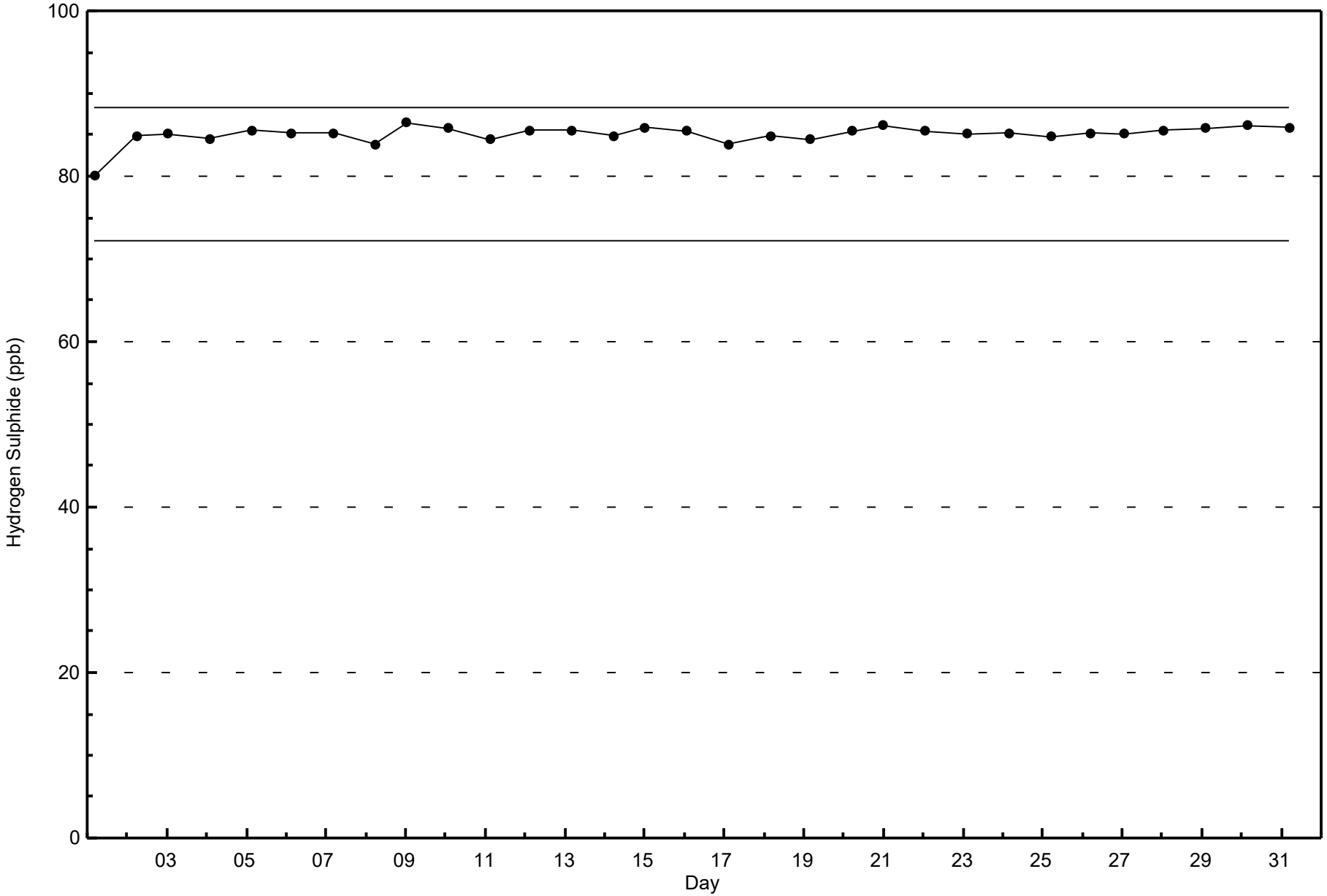


Wood Buffalo Environmental Association

Span Responses

Hydrogen Sulphide (H2S) - ppb

Jackfish 2/3 - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Jackfish 2/3 - October 2025

Maximum Value: 2.7 ppb on Oct 16 06:00

Maximum Daily Average: 0.9 ppb on Oct 27

Minimum Value: 0.0 ppb on Oct 1 01:00

Minimum Daily Average: 0.0 ppb on Oct 19

Maximum Diurnal Average: 0.5 ppb at hour 10

Minimum Diurnal Average: 0.0 ppb at hour 5

Monthly Average: 0.19 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.2 P_{90} = 0.5 P_{99} = 1.8

Hours in Service:	744
Hours of Data:	631
Hours of Missing Data:	113
Hours of Calibration:	33
Percent Operational Time:	89.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.3	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
2-Oct	0.0	0.0	Z	0.0	0.0	2.0	0.0	0.4	0.1	0.4	0.5	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.0
3-Oct	0.0	0.0	0.0	Z	0.0	0.2	0.0	0.5	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.5
4-Oct	0.0	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.8	1.2	0.3	0.3	0.4	0.1	0.0	0.0	0.0	1.5	1.9	1.4	0.0	0.0	0.0	0.0	0.4	1.9
5-Oct	0.0	0.0	0.3	0.0	0.0	Z	0.0	0.2	0.3	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
6-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.5	0.3	0.6	0.7	0.3	0.1	0.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2
7-Oct	0.0	Z	0.0	0.0	0.0	0.2	0.0	0.3	0.8	0.5	0.5	0.4	0.4	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8
8-Oct	0.0	0.0	Z	0.1	0.0	0.1	0.2	0.1	0.4	1.3	1.1	0.3	0.8	0.2	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.3
9-Oct	0.0	0.0	0.0	Z	0.0	0.1	0.1	0.0	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
10-Oct	0.0	0.0	0.0	0.0	Z	0.8	0.2	0.7	0.8	1.7	1.8	0.5	0.7	0.5	0.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.8
11-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.5	0.1	0.1	0.5	0.2	0.6	0.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8
12-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
13-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.4
14-Oct	0.0	0.0	Z	0.0	0.0	0.2	0.0	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.3
15-Oct	0.1	0.4	0.0	Z	0.1	0.4	0.0	0.5	1.0	1.3	1.6	1.1	0.3	0.2	0.2	0.3	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.6	0.4	1.6
16-Oct	0.0	0.0	0.0	0.1	Z	2.7	0.3	0.2	0.6	0.8	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.7
17-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.4	0.4	0.1	0.2	0.2	0.1	0.4	0.4	0.0	0.1	0.0	0.0	0.0	0.2	0.6	0.3	0.2	0.6
18-Oct	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.3	0.3	0.0	0.1	0.1	0.0	0.1	0.1	1.6	0.0	0.0	0.0	0.0	0.1	1.6
19-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
20-Oct	0.0	0.0	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	0.0
21-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
22-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
23-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	C	C	C	C	C	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.2
24-Oct	Z	0.0	0.1	0.0	0.0	0.2	0.2	0.2	0.2	0.4	0.9	1.0	0.4	0.3	0.2	0.3	0.1	0.1	0.0	0.2	0.0	0.0	0.1	0.0	0.2	1.0
25-Oct	0.0	Z	0.0	0.0	0.0	0.6	0.4	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.4	0.0	0.2	0.3	0.0	0.3	1.1	0.2	1.1
26-Oct	0.0	0.0	Z	0.0	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
27-Oct	0.2	0.5	0.3	Z	0.0	0.1	0.1	0.4	0.2	0.3	0.6	0.3	1.3	2.0	2.6	2.3	1.3	1.3	1.2	1.8	1.2	1.1	1.2	0.8	0.9	2.6
28-Oct	0.9	0.8	0.5	1.3	Z	1.0	0.9	0.4	0.9	1.3	0.6	1.8	0.1	0.4	0.1	0.1	0.1	0.0	0.2	0.0	0.0	0.2	0.1	0.0	0.5	1.8
29-Oct	0.0	0.1	0.1	0.1	0.0	Z	0.0	0.1	0.2	0.1	0.1	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
30-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	0.7	0.2	0.1	0.1	0.1	0.0	0.1	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.7
31-Oct	0.0	Z	0.1	0.3	0.1	0.0	0.1	0.1	0.1	0.2	0.4	1.0	1.0	0.7	0.8	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0
	0.1	0.1	0.1	0.1	0.0	0.4	0.1	0.2	0.3	0.5	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	Diurnal Average	
	0.9	0.8	0.5	1.3	0.1	2.7	0.9	0.7	1.0	1.7	1.8	1.8	1.3	2.0	2.6	2.3	1.3	1.5	1.9	1.8	1.2	1.1	1.2	1.1	Diurnal Maximum	

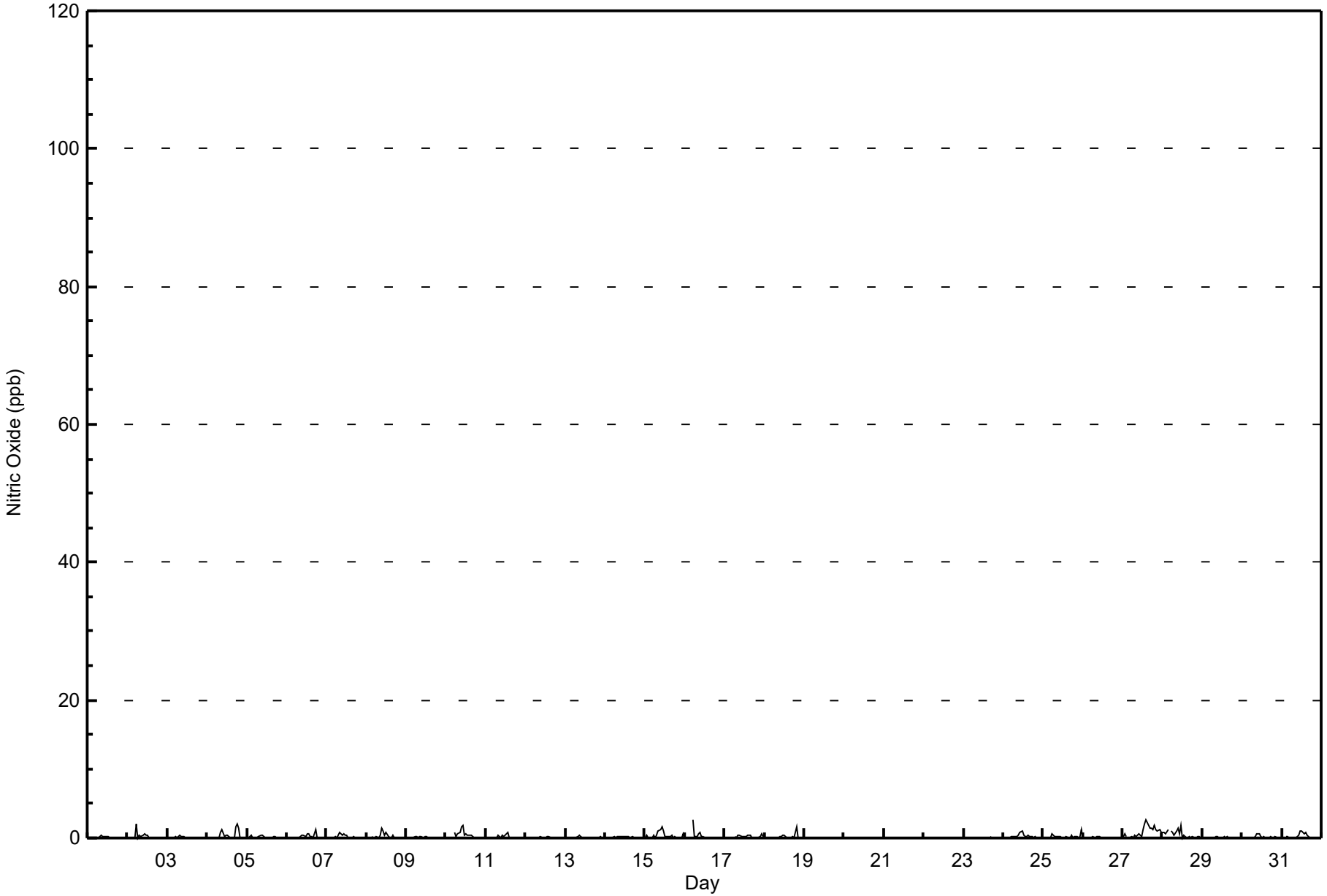
Z - zerospan C - Calibration UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Jackfish 2/3 - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	631	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 631

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Jackfish 2/3 - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	16	7	12	9	9	10	6	15	94	79	84	50	57	51	56	18	573
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	7	12	9	9	10	6	15	94	79	84	50	57	51	56	18	573

Total Number of Valid Hours: 573

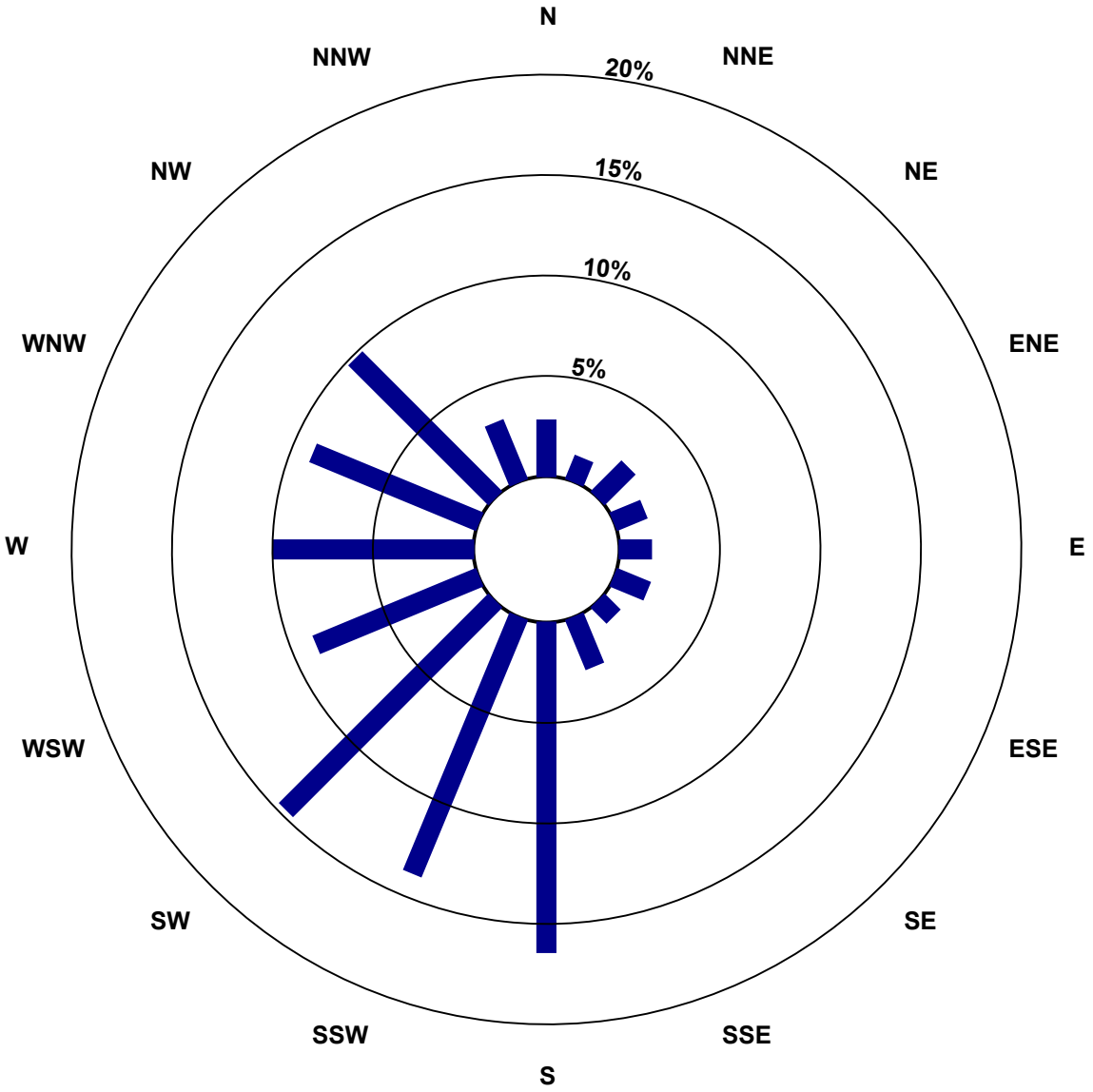
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Jackfish 2/3



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

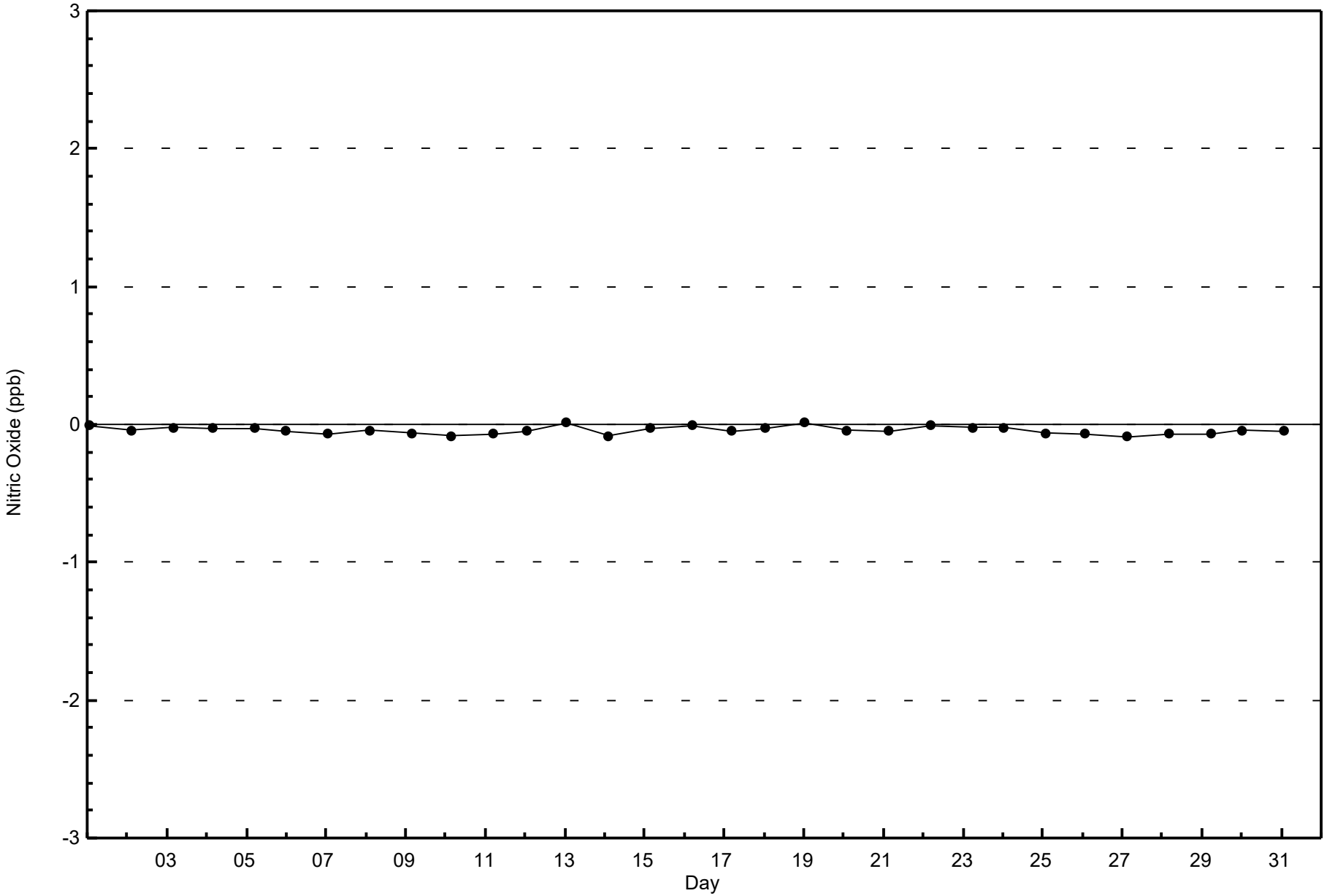
Total Number of Valid Hours: 573

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Jackfish 2/3 - October 2025

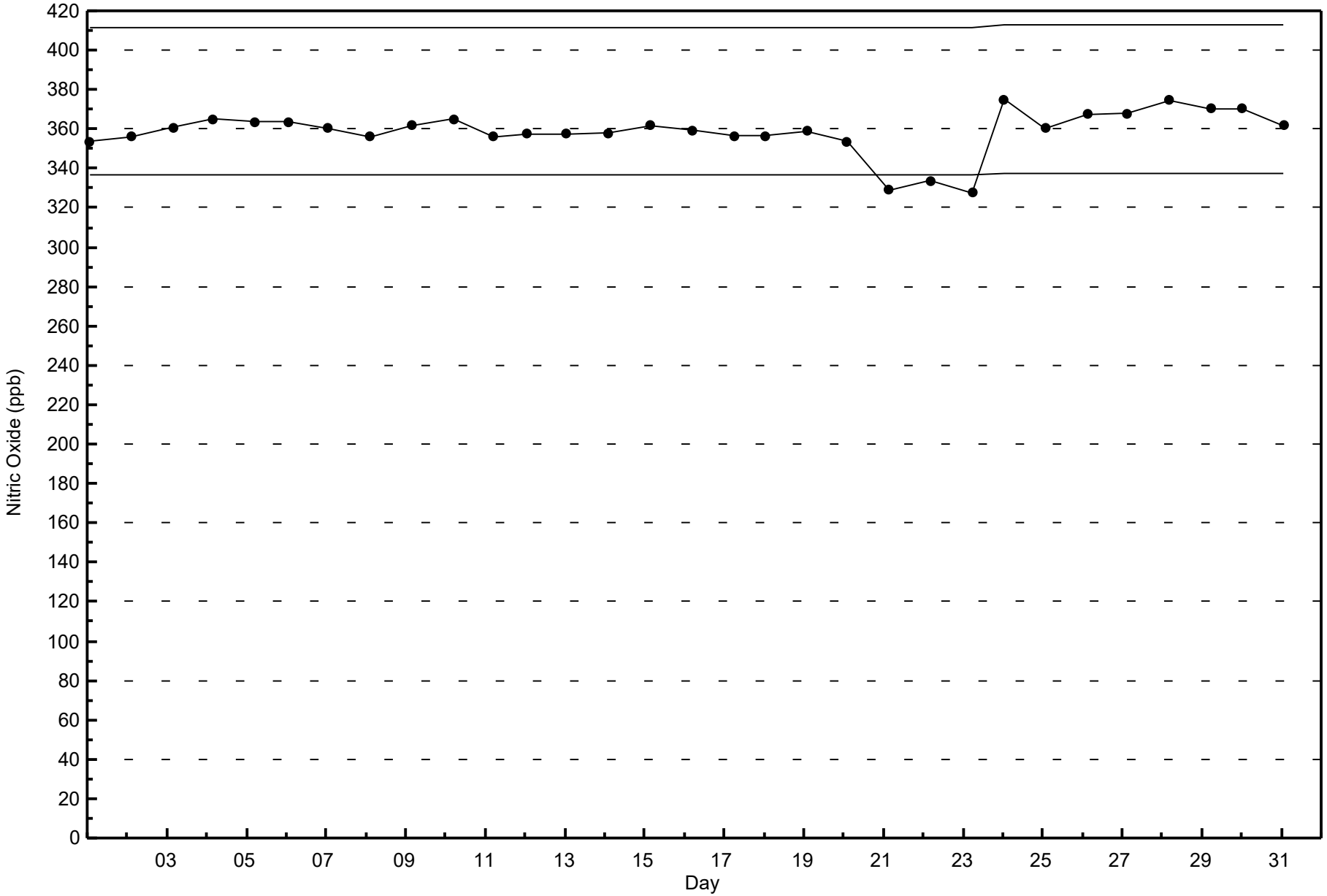


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Jackfish 2/3 - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Jackfish 2/3 - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 7.6 ppb on Oct 30 02:00

Maximum Daily Average: 2.7 ppb on Oct 24

Minimum Value: 0.0 ppb on Oct 5 05:00

Minimum Daily Average: 0.5 ppb on Oct 13

Maximum Diurnal Average: 1.9 ppb at hour 6

Minimum Diurnal Average: 0.9 ppb at hour 15

Monthly Average: 1.37 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.3 Q_1 = 0.6 Median = 1.0 Q_3 = 2.0 P_{90} = 2.8 P_{99} = 4.9

Hours in Service:	744
Hours of Data:	631
Hours of Missing Data:	113
Hours of Calibration:	33
Percent Operational Time:	89.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.6	Z	1.3	1.2	1.2	1.3	1.2	1.3	2.2	2.0	1.5	1.4	1.1	0.7	0.6	0.6	0.5	0.7	0.3	0.4	0.7	1.5	1.4	1.1	1.1	2.2
2-Oct	1.4	1.3	Z	0.7	0.6	1.4	0.7	1.3	1.0	1.0	1.2	1.4	1.1	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.8	1.0	0.8	0.7	0.9	1.4
3-Oct	1.0	1.0	1.2	Z	1.3	1.9	1.3	1.7	1.4	1.2	0.9	0.6	0.6	0.5	0.2	0.5	0.8	0.3	0.3	0.3	0.6	0.6	1.5	0.4	0.9	1.9
4-Oct	0.5	0.3	0.2	0.2	Z	0.7	0.3	0.4	2.0	2.2	0.9	1.4	1.4	0.9	0.5	0.4	0.5	4.2	3.6	2.0	0.1	0.1	0.1	0.1	1.0	4.2
5-Oct	0.1	0.6	1.7	0.5	0.0	Z	0.4	0.9	1.0	0.5	0.3	0.2	0.2	0.1	0.3	0.2	1.1	3.5	1.7	0.3	0.4	0.7	0.1	0.2	0.7	3.5
6-Oct	Z	0.3	0.9	0.4	0.6	0.9	0.8	1.2	1.5	1.2	1.0	0.7	1.2	1.5	0.9	0.6	0.7	5.3	1.4	0.4	0.4	0.5	0.8	1.8	1.1	5.3
7-Oct	2.0	Z	2.3	2.1	2.9	3.2	3.9	4.4	3.1	1.9	1.8	1.2	1.1	0.6	0.5	0.7	1.6	1.8	1.9	2.2	2.0	1.7	1.8	2.0	2.0	4.4
8-Oct	2.9	2.0	Z	2.4	1.1	2.0	4.6	0.9	2.1	4.0	2.5	0.9	1.6	0.5	0.2	0.2	2.6	0.2	0.1	0.2	0.2	0.4	0.4	0.3	1.4	4.6
9-Oct	0.4	0.4	0.3	Z	0.4	0.6	0.5	0.5	0.6	0.5	0.4	0.4	0.5	0.2	0.3	0.3	0.5	0.6	0.4	0.4	0.4	0.5	1.0	1.8	0.5	1.8
10-Oct	2.3	3.0	3.3	2.7	Z	3.4	2.7	2.3	2.6	4.1	4.9	2.1	2.6	2.2	2.4	3.0	2.4	1.5	1.5	1.4	1.3	1.5	2.0	2.5	2.5	4.9
11-Oct	2.8	2.3	2.3	2.1	1.8	Z	2.7	3.1	2.3	2.0	2.2	2.4	3.5	1.8	0.6	0.4	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.0	1.5	3.5
12-Oct	Z	0.5	0.9	0.9	0.9	1.2	1.4	1.3	1.3	1.4	1.0	0.4	0.9	2.0	1.8	1.2	1.4	1.3	0.9	0.4	0.6	1.1	1.7	1.5	1.1	2.0
13-Oct	0.5	Z	0.7	0.5	0.6	1.1	1.0	0.9	0.7	0.5	0.4	0.2	0.5	0.3	0.2	0.4	0.4	0.3	0.1	0.2	0.2	0.6	0.6	0.6	0.5	1.1
14-Oct	0.7	0.7	Z	0.7	0.8	1.0	0.8	1.0	1.0	0.9	0.8	0.6	0.6	0.6	0.5	0.5	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.8	1.0
15-Oct	1.3	2.0	2.2	Z	2.6	3.1	2.7	3.2	3.1	3.4	3.4	2.5	1.5	1.2	1.1	1.6	2.4	2.6	2.8	3.1	3.0	2.3	1.8	2.2	2.4	3.4
16-Oct	2.2	1.9	2.0	2.3	Z	2.0	2.0	1.8	1.6	1.6	0.9	0.9	0.6	0.4	0.3	0.3	0.8	2.2	1.6	1.1	1.6	1.6	2.2	1.3	1.4	2.3
17-Oct	1.3	1.2	1.2	0.7	0.8	Z	0.7	0.5	1.0	1.8	0.7	0.5	0.6	0.4	1.2	1.9	0.7	1.3	0.2	0.2	0.2	2.5	7.3	3.0	1.3	7.3
18-Oct	Z	0.3	0.2	0.2	0.3	0.6	0.5	0.5	0.4	0.8	0.9	1.0	0.9	0.4	0.5	0.4	0.4	0.8	0.8	1.6	0.4	0.4	0.2	0.2	0.6	1.6
19-Oct	0.2	Z	1.1	0.9	1.7	2.1	0.8	1.0	1.0	1.1	0.8	0.7	1.5	1.3	0.7	1.0	0.8	0.3	1.9	0.8	0.2	0.2	0.2	0.1	0.9	2.1
20-Oct	0.2	0.6	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	0.6
21-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
22-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
23-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	C	C	C	C	C	3.7	1.4	0.9	1.5	2.2	2.0	2.1	2.0	--	3.7
24-Oct	Z	1.9	2.4	2.4	2.5	2.7	2.5	2.5	2.0	2.3	3.5	3.9	2.2	2.0	2.1	2.4	2.9	3.9	3.6	4.1	3.6	2.6	2.3	2.1	2.7	4.1
25-Oct	2.2	Z	2.4	2.8	1.7	2.1	2.1	2.3	2.0	1.4	1.1	0.7	0.6	0.7	0.7	0.2	0.5	1.3	0.5	0.7	0.9	0.4	0.8	2.1	1.3	2.8
26-Oct	0.4	0.2	Z	0.8	1.7	1.7	2.7	2.7	2.1	2.3	1.3	1.4	0.3	0.5	0.2	0.3	1.4	0.4	0.9	0.3	0.3	0.4	0.6	1.1	1.0	2.7
27-Oct	1.7	3.9	2.0	Z	1.2	1.0	0.6	1.1	0.8	1.0	1.3	0.5	2.0	2.7	3.9	4.1	3.0	3.3	3.5	5.8	4.8	4.4	5.1	4.6	2.7	5.8
28-Oct	3.1	2.6	2.1	4.4	Z	4.3	4.1	1.5	3.1	2.9	1.1	2.7	0.3	0.6	0.4	0.4	0.5	0.3	1.1	0.4	0.5	1.0	1.0	0.8	1.7	4.4
29-Oct	0.4	1.7	3.5	1.2	0.8	Z	0.9	2.0	1.2	1.1	0.9	1.0	0.9	1.1	0.7	1.4	0.9	0.7	0.9	0.7	0.8	1.0	1.7	4.3	1.3	4.3
30-Oct	Z	7.6	5.7	4.5	3.6	3.1	3.4	2.9	2.4	2.3	1.5	0.7	0.6	0.9	0.9	0.7	0.6	1.0	0.3	0.3	1.0	0.6	0.7	0.3	2.0	7.6
31-Oct	0.3	Z	0.9	1.1	0.8	1.3	2.6	0.9	0.7	0.7	1.0	1.8	2.2	1.9	2.5	2.7	2.3	1.7	1.5	1.5	1.5	1.6	1.8	1.7	1.5	2.7
	1.3	1.7	1.8	1.6	1.3	1.9	1.8	1.6	1.6	1.7	1.4	1.2	1.2	1.0	0.9	1.0	1.3	1.5	1.2	1.1	1.1	1.2	1.5	1.4	Diurnal Average	
	3.1	7.6	5.7	4.5	3.6	4.3	4.6	4.4	3.1	4.1	4.9	3.9	3.5	2.7	3.9	4.1	3.7	5.3	3.6	5.8	4.8	4.4	7.3	4.6	Diurnal Maximum	

Z - zerospan C - Calibration UO - Unstable Operation

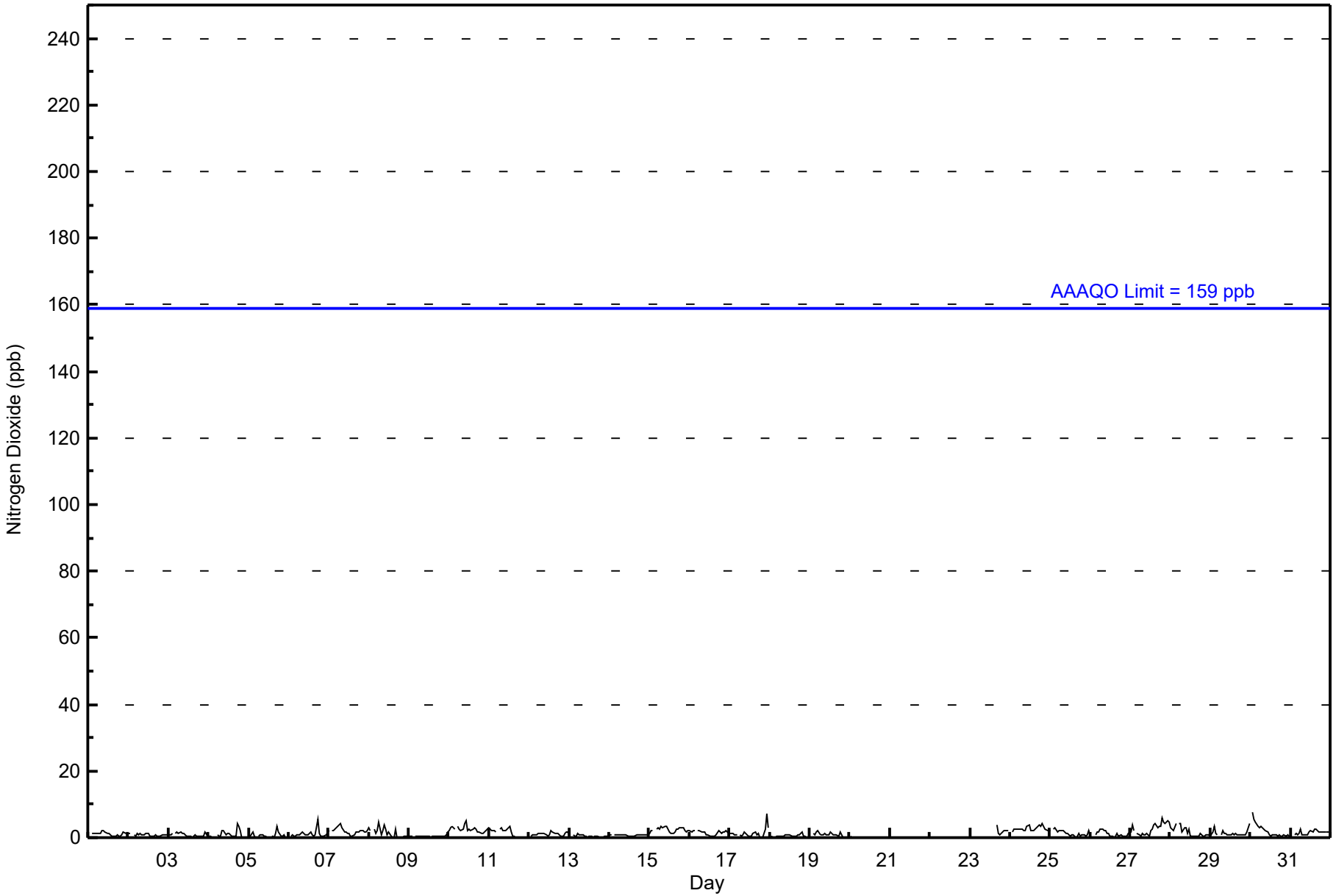
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Jackfish 2/3 - October 2025



Nitrogen Dioxide (NO_2) - ppb
Jackfish 2/3 - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	631	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 631

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Jackfish 2/3 - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	16	7	12	9	9	10	6	15	94	79	84	50	57	51	56	18	573
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	7	12	9	9	10	6	15	94	79	84	50	57	51	56	18	573

Total Number of Valid Hours: 573

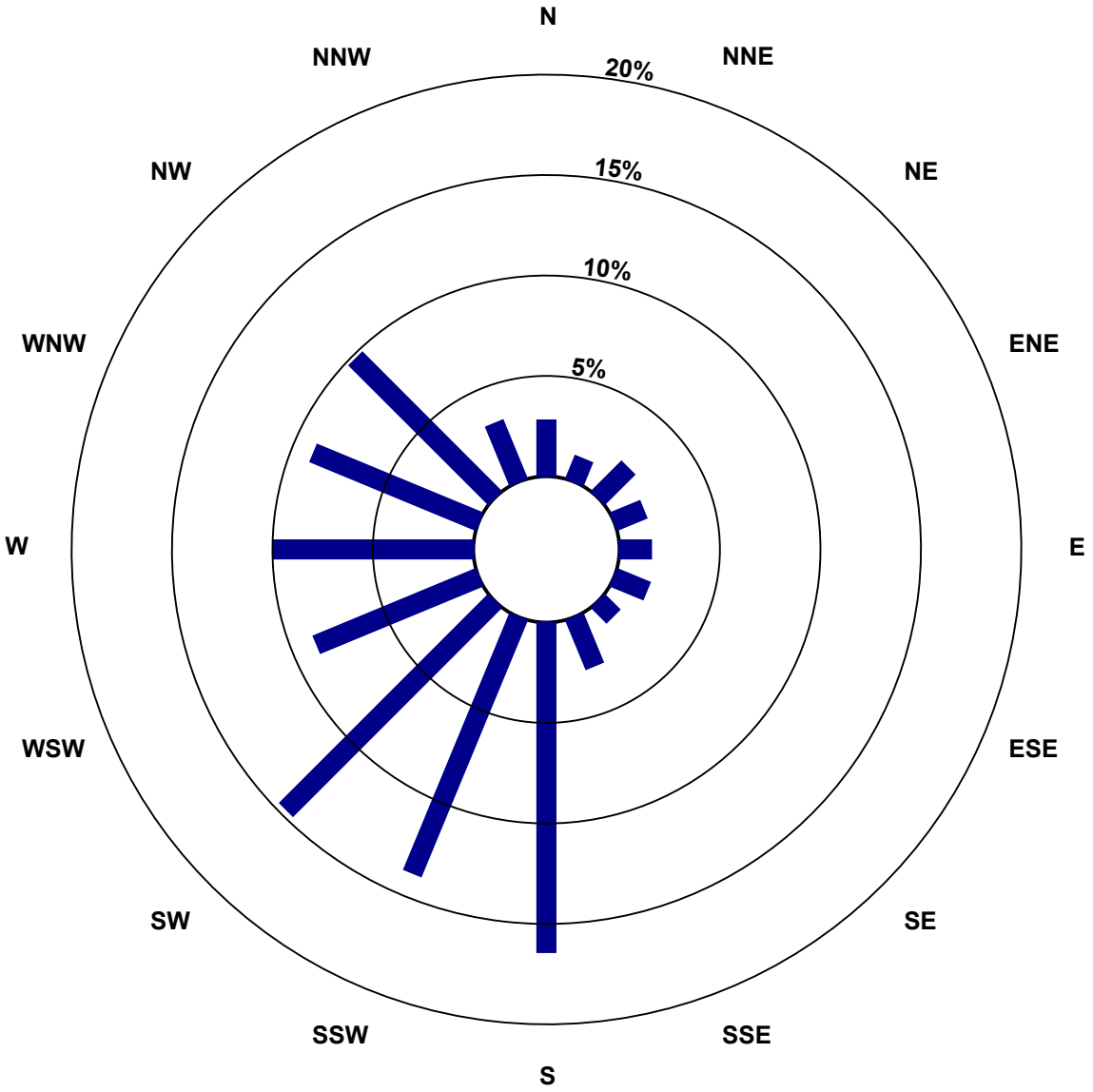
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Jackfish 2/3



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

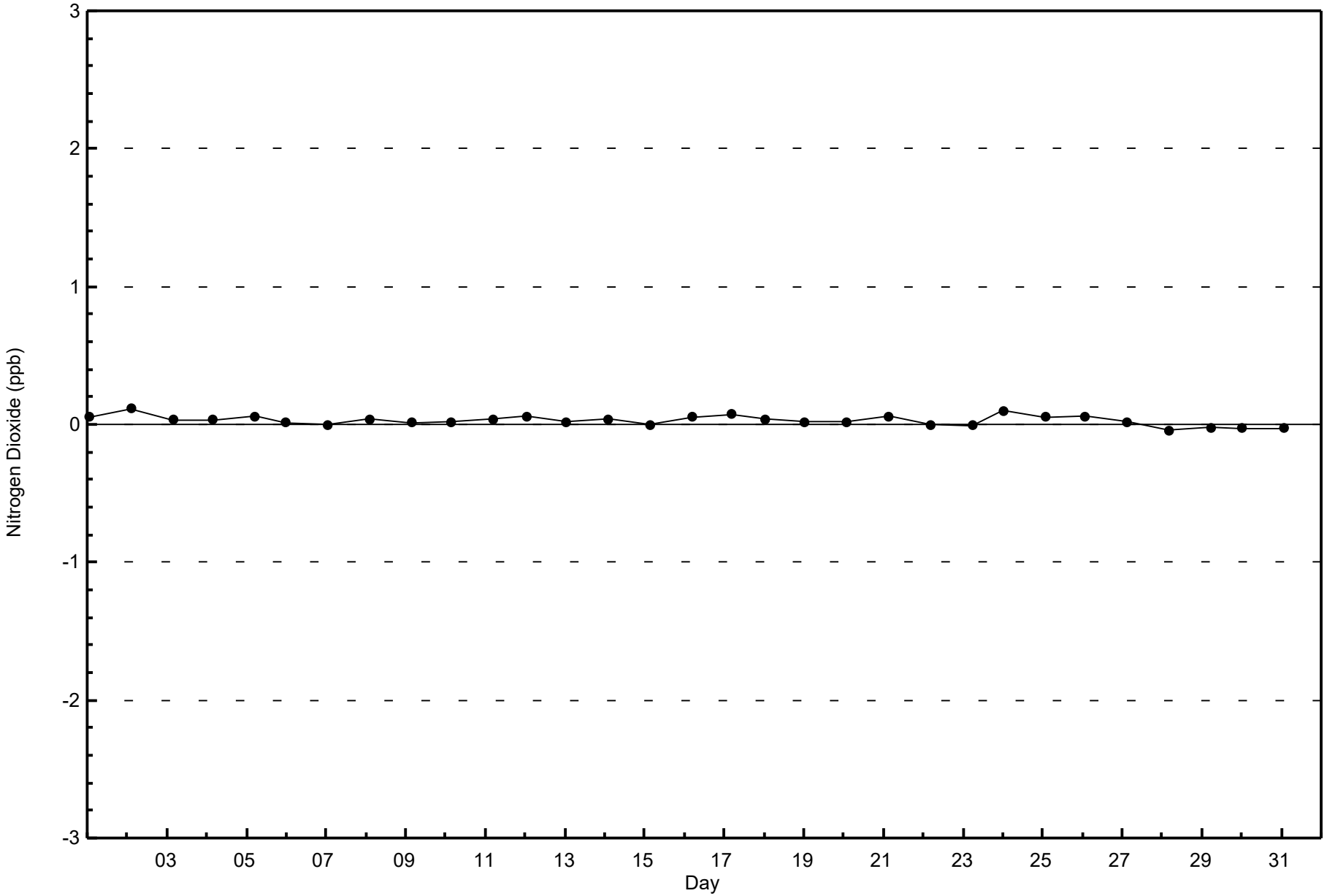
Total Number of Valid Hours: 573

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Jackfish 2/3 - October 2025



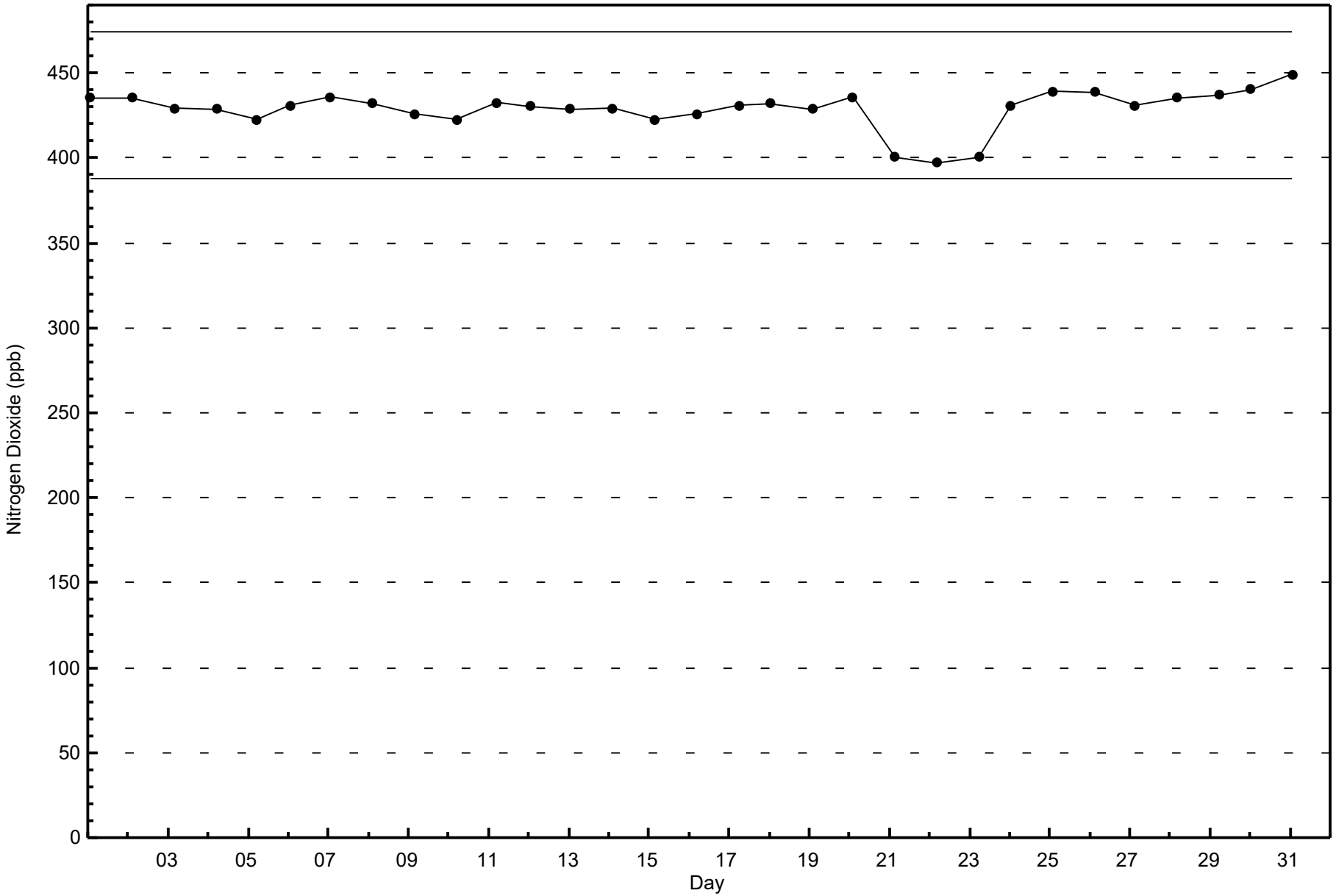
27 - 31

Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Jackfish 2/3 - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Jackfish 2/3 - October 2025

Maximum Value: 7.9 ppb on Oct 17 23:00

Maximum Daily Average: 3.6 ppb on Oct 27

Minimum Value: 0.0 ppb on Oct 5 05:00

Minimum Daily Average: 0.6 ppb on Oct 13

Maximum Diurnal Average: 2.2 ppb at hour 6

Minimum Diurnal Average: 1.1 ppb at hour 21

Monthly Average: 1.56 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.3 Q_1 = 0.6 Median = 1.2 Q_3 = 2.2 P_{90} = 3.3 P_{99} = 6.4

Hours in Service:	744
Hours of Data:	631
Hours of Missing Data:	113
Hours of Calibration:	33
Percent Operational Time:	89.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.6	Z	1.3	1.2	1.2	1.3	1.2	1.5	2.5	2.3	1.7	1.7	1.2	0.7	0.6	0.6	0.5	0.7	0.3	0.4	0.7	1.5	1.4	1.1	1.2	2.5
2-Oct	1.4	1.3	Z	0.7	0.6	3.4	0.7	1.7	1.1	1.4	1.7	1.7	1.4	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.8	1.0	0.8	0.7	1.1	3.4
3-Oct	1.0	1.0	1.2	Z	1.3	2.1	1.3	2.2	1.7	1.4	1.1	0.7	0.7	0.5	0.2	0.5	0.8	0.3	0.3	0.3	0.6	0.6	1.6	0.4	1.0	2.2
4-Oct	0.5	0.3	0.2	0.2	Z	0.8	0.3	0.4	2.8	3.4	1.2	1.7	1.8	1.0	0.5	0.4	0.5	5.7	5.5	3.4	0.1	0.1	0.1	0.1	1.3	5.7
5-Oct	0.1	0.6	2.0	0.5	0.0	Z	0.4	1.1	1.3	1.0	0.4	0.3	0.2	0.1	0.3	0.2	1.2	3.8	1.7	0.3	0.4	0.7	0.1	0.2	0.7	3.8
6-Oct	Z	0.3	0.9	0.4	0.6	0.9	0.8	1.2	1.8	1.6	1.5	1.0	1.8	2.2	1.2	0.7	0.8	6.5	1.4	0.4	0.4	0.5	0.8	1.8	1.3	6.5
7-Oct	2.0	Z	2.3	2.1	2.9	3.4	3.9	4.7	3.9	2.4	2.3	1.6	1.5	0.7	0.5	0.8	1.7	1.8	1.9	2.2	2.0	1.7	1.8	2.0	2.2	4.7
8-Oct	2.9	2.0	Z	2.5	1.1	2.1	4.8	1.0	2.5	5.3	3.6	1.2	2.4	0.7	0.2	0.2	3.0	0.2	0.1	0.2	0.2	0.4	0.4	0.3	1.6	5.3
9-Oct	0.4	0.4	0.3	Z	0.4	0.7	0.6	0.5	0.8	0.6	0.5	0.6	0.7	0.3	0.4	0.4	0.5	0.6	0.4	0.4	0.4	0.5	1.0	1.8	0.6	1.8
10-Oct	2.3	3.0	3.3	2.7	Z	4.2	2.9	3.0	3.4	5.8	6.7	2.6	3.3	2.7	2.9	3.4	2.5	1.5	1.5	1.4	1.3	1.5	2.0	2.5	2.9	6.7
11-Oct	2.8	2.3	2.3	2.1	1.8	Z	2.8	3.6	2.4	2.1	2.7	2.6	4.1	2.6	0.7	0.5	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.0	1.6	4.1
12-Oct	Z	0.5	0.9	0.9	0.9	1.2	1.4	1.3	1.3	1.5	1.1	0.4	1.0	2.2	1.9	1.2	1.4	1.3	0.9	0.4	0.6	1.1	1.7	1.5	1.2	2.2
13-Oct	0.5	Z	0.7	0.5	0.6	1.1	1.1	1.2	1.1	0.6	0.4	0.2	0.5	0.4	0.2	0.4	0.5	0.4	0.1	0.2	0.2	0.7	0.6	0.6	0.6	1.2
14-Oct	0.7	0.7	Z	0.7	0.8	1.2	0.8	1.2	1.2	1.2	1.0	0.7	0.7	0.8	0.7	0.6	0.9	0.7	0.7	0.9	0.8	0.8	0.8	0.9	0.8	1.2
15-Oct	1.4	2.4	2.2	Z	2.7	3.5	2.7	3.7	4.1	4.7	5.0	3.6	1.8	1.4	1.3	1.9	2.8	2.7	2.9	3.1	3.0	2.3	1.8	2.8	2.8	5.0
16-Oct	2.2	1.9	2.0	2.4	Z	4.7	2.3	2.0	2.2	2.4	1.1	1.1	0.6	0.4	0.3	0.3	0.8	2.2	1.6	1.1	1.6	1.6	2.2	1.3	1.7	4.7
17-Oct	1.3	1.2	1.2	0.7	0.8	Z	0.8	0.6	1.4	2.2	0.8	0.7	0.8	0.5	1.6	2.3	0.7	1.4	0.2	0.2	0.2	2.7	7.9	3.3	1.4	7.9
18-Oct	Z	0.3	0.2	0.2	0.3	0.7	0.5	0.5	0.4	1.0	1.1	1.3	1.2	0.4	0.6	0.5	0.4	0.9	0.9	3.2	0.4	0.4	0.2	0.2	0.7	3.2
19-Oct	0.2	Z	1.1	0.9	1.7	2.1	0.8	1.0	1.0	1.1	0.8	0.7	1.6	1.4	0.7	1.0	0.8	0.3	1.9	0.8	0.2	0.2	0.2	0.1	0.9	2.1
20-Oct	0.2	0.6	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	0.6
21-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
22-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
23-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	C	C	C	C	C	3.9	1.4	0.9	1.5	2.2	2.0	2.1	2.0	--	3.9
24-Oct	Z	1.9	2.5	2.4	2.5	2.9	2.7	2.7	2.2	2.7	4.4	4.9	2.6	2.3	2.3	2.7	3.0	4.0	3.6	4.3	3.6	2.6	2.4	2.1	2.9	4.9
25-Oct	2.2	Z	2.4	2.8	1.7	2.7	2.5	2.5	2.2	1.6	1.3	0.7	0.6	0.7	0.9	0.2	0.5	1.7	0.5	0.9	1.2	0.4	1.1	3.2	1.5	3.2
26-Oct	0.4	0.2	Z	0.8	1.8	1.8	2.8	2.7	2.2	2.5	1.4	1.5	0.3	0.5	0.2	0.3	1.4	0.4	0.9	0.3	0.3	0.4	0.6	1.2	1.1	2.8
27-Oct	1.9	4.4	2.3	Z	1.2	1.1	0.7	1.5	1.0	1.3	1.9	0.8	3.3	4.7	6.5	6.4	4.3	4.6	4.7	7.6	6.0	5.5	6.3	5.4	3.6	7.6
28-Oct	4.0	3.4	2.6	5.7	Z	5.3	5.0	1.9	4.0	4.2	1.7	4.5	0.4	1.0	0.5	0.5	0.6	0.3	1.3	0.4	0.5	1.2	1.1	0.8	2.2	5.7
29-Oct	0.4	1.8	3.6	1.3	0.8	Z	0.9	2.1	1.4	1.2	1.0	1.0	1.0	1.3	0.7	1.5	0.9	0.7	0.9	0.7	0.8	1.0	1.7	4.3	1.3	4.3
30-Oct	Z	7.6	5.7	4.5	3.6	3.1	3.4	2.9	2.7	3.0	2.2	0.9	0.7	1.0	1.0	0.7	0.7	1.2	0.3	0.3	1.2	0.6	0.7	0.3	2.1	7.6
31-Oct	0.3	Z	1.0	1.4	0.9	1.3	2.7	1.0	0.8	0.9	1.4	2.8	3.2	2.6	3.3	3.1	2.5	1.7	1.5	1.5	1.5	1.6	1.8	1.7	1.8	3.3
	1.3	1.7	1.8	1.6	1.3	2.2	1.9	1.8	2.0	2.2	1.8	1.5	1.5	1.2	1.1	1.2	1.4	1.7	1.3	1.3	1.1	1.2	1.6	1.5	Diurnal Average	
	4.0	7.6	5.7	5.7	3.6	5.3	5.0	4.7	4.1	5.8	6.7	4.9	4.1	4.7	6.5	6.4	4.3	6.5	5.5	7.6	6.0	5.5	7.9	5.4	Diurnal Maximum	

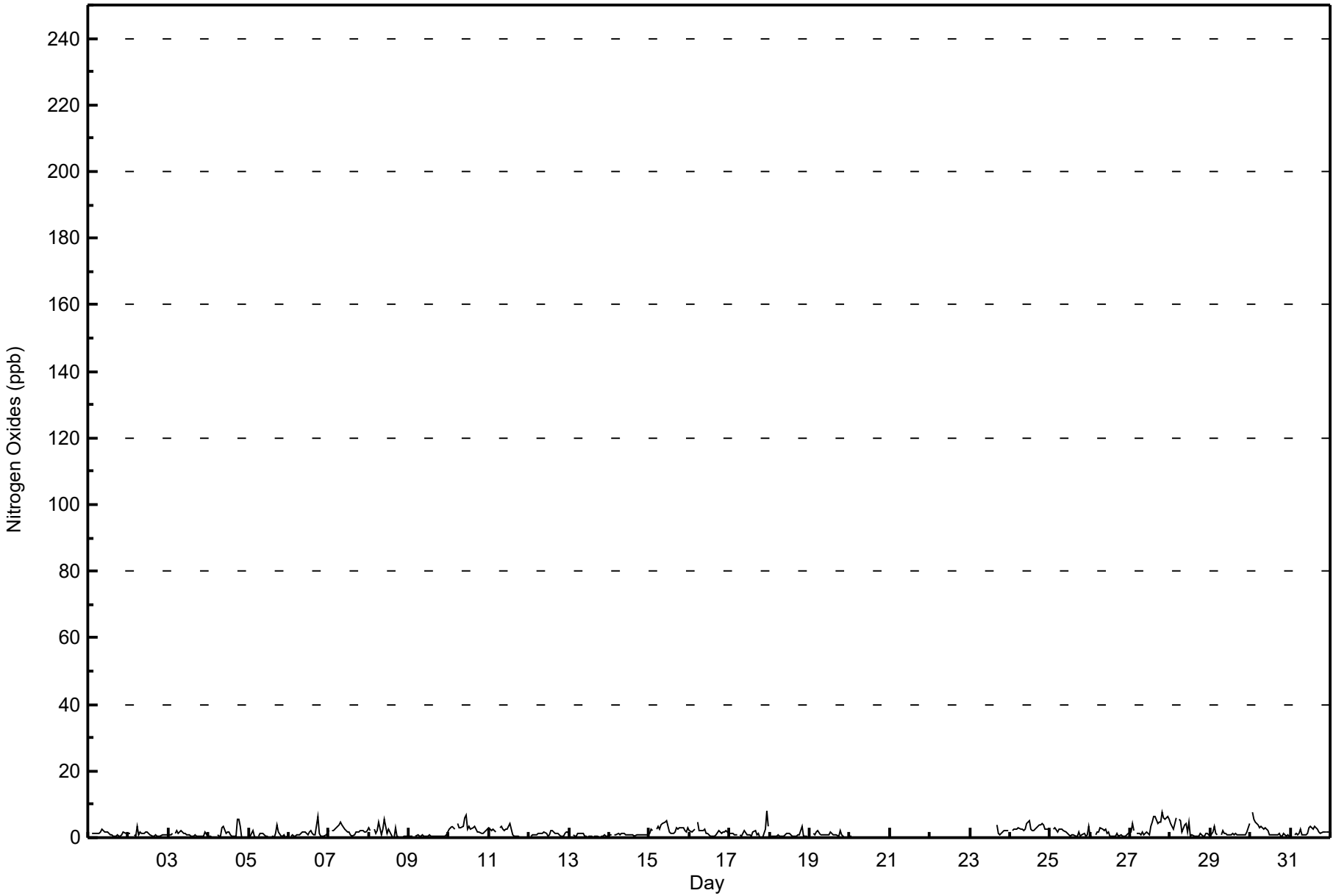
Z - zerospan C - Calibration UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Jackfish 2/3 - October 2025



Nitrogen Oxides (NO_X) - ppb
Jackfish 2/3 - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	631	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 631

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Jackfish 2/3 - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	16	7	12	9	9	10	6	15	94	79	84	50	57	51	56	18	573
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	7	12	9	9	10	6	15	94	79	84	50	57	51	56	18	573

Total Number of Valid Hours: 573

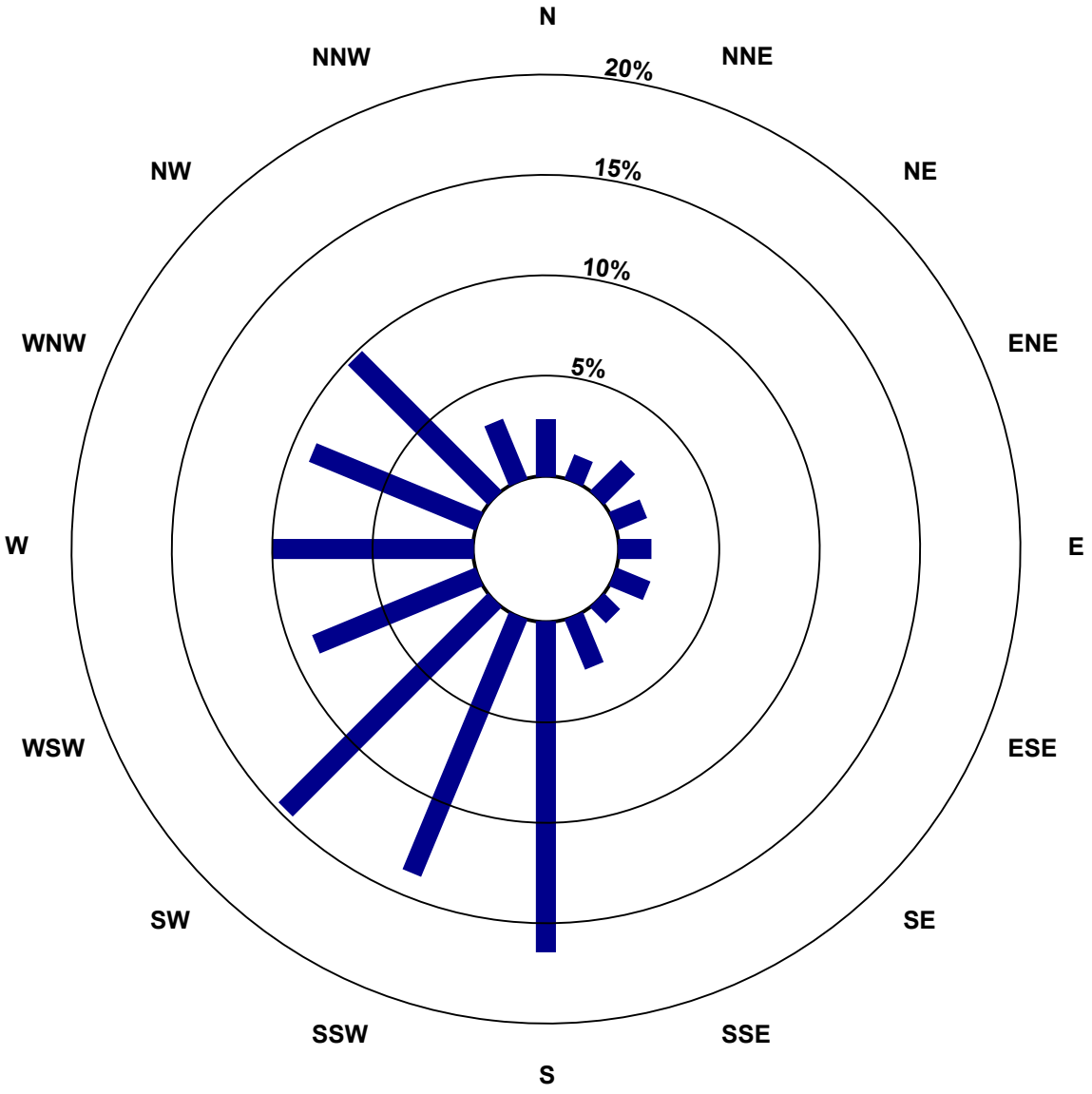
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Jackfish 2/3



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

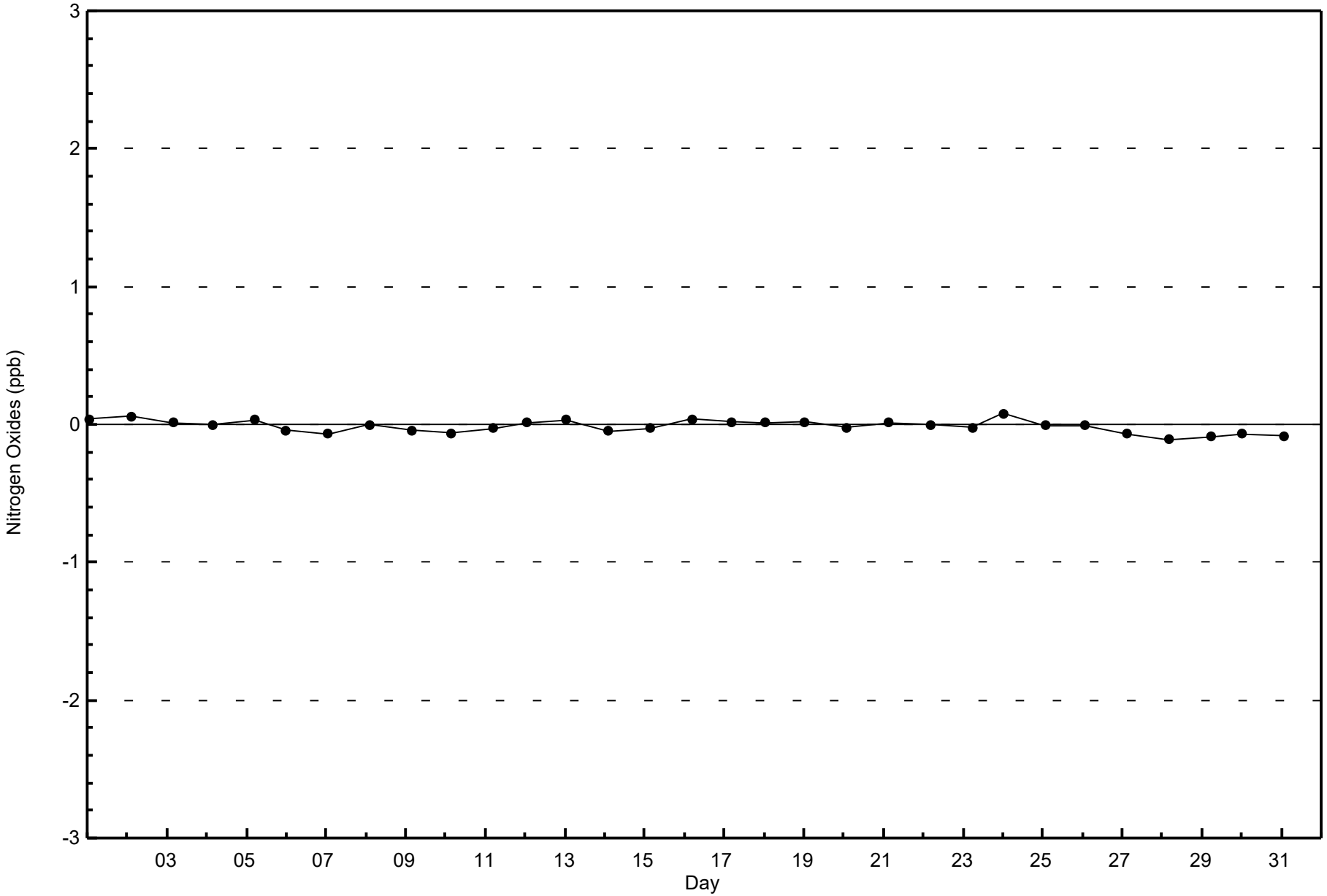
Total Number of Valid Hours: 573

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Jackfish 2/3 - October 2025

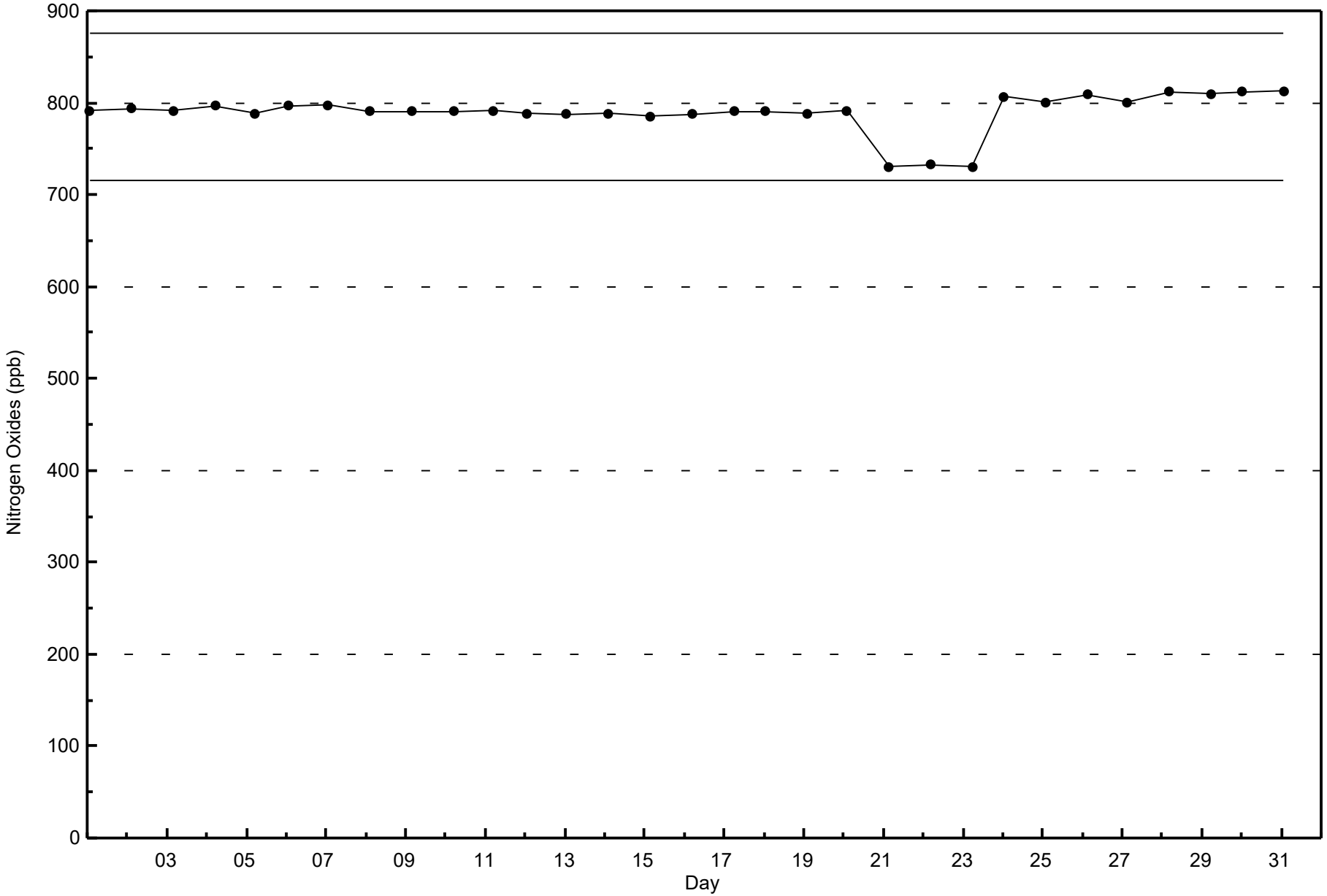


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Jackfish 2/3 - October 2025



Maximum Value: 18.7 C on Oct 7 16:00

Maximum Daily Average: 10.4 C on Oct 10

Minimum Value: -4.2 C on Oct 14 06:00

Minimum Daily Average: -1.8 C on Oct 13

Maximum Diurnal Average: 7.5 C at hour 15

Minimum Diurnal Average: 1.7 C at hour 8

Monthly Average: 3.97 C

Percentiles: P_1 = -3.6 P_{10} = -1.5 Q_1 = 0.0 Median = 3.3 Q_3 = 7.1 P_{90} = 10.5 P_{99} = 17.5

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

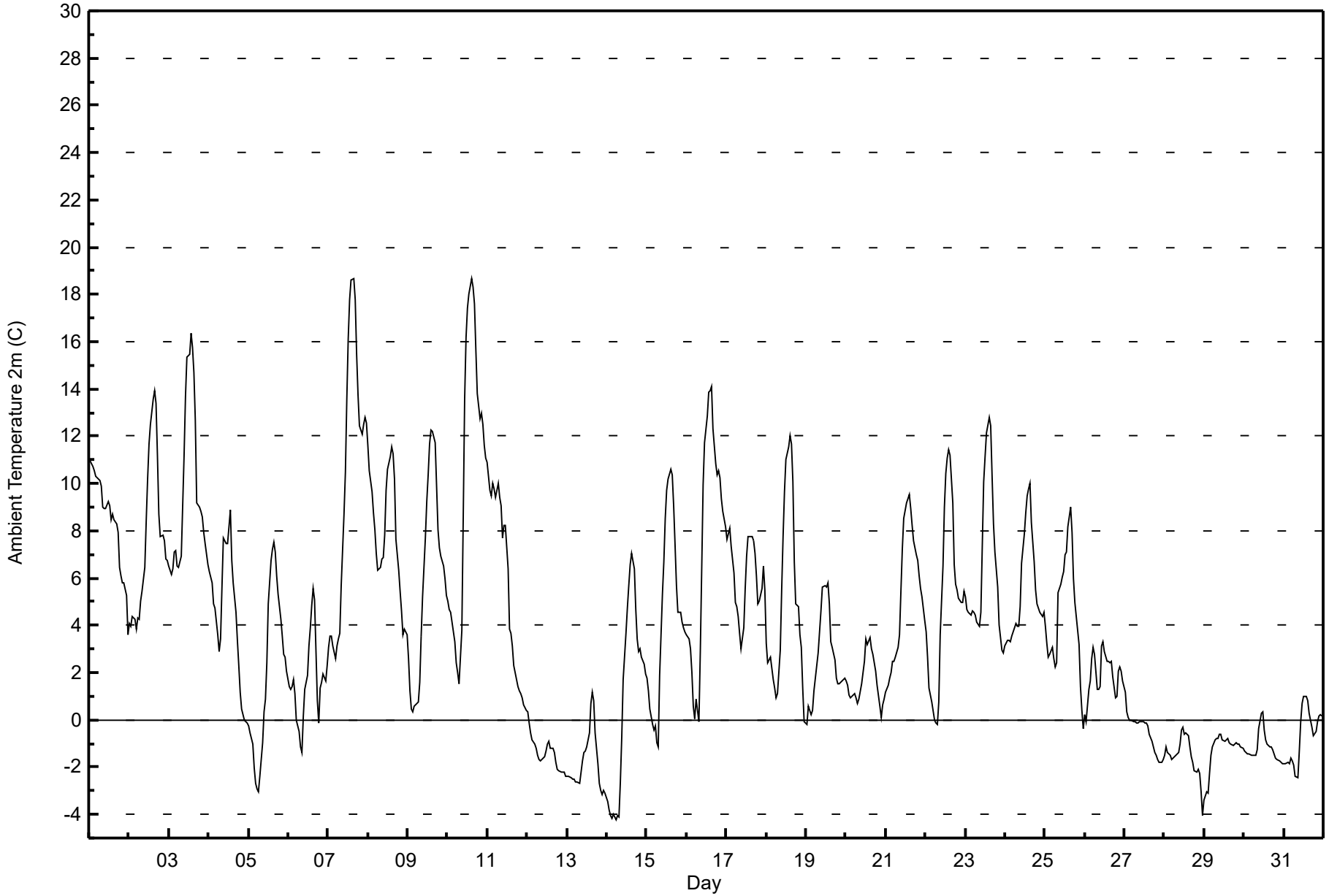
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.9	10.8	10.7	10.5	10.3	10.2	10.1	9.9	9.0	8.9	9.0	9.3	9.0	8.5	8.7	8.5	8.3	7.9	6.5	6.1	5.8	5.8	5.3	3.6	8.5	10.9
2-Oct	4.1	4.0	4.3	4.2	3.8	4.3	4.3	5.0	5.4	6.5	8.4	10.2	11.7	12.5	13.6	14.0	13.4	11.2	8.7	7.8	7.8	7.6	6.8	6.7	7.8	14.0
3-Oct	6.5	6.2	6.4	7.1	7.2	6.5	6.4	6.9	9.1	11.2	13.7	15.4	15.5	16.3	15.7	14.7	12.7	9.2	9.0	8.8	8.6	7.9	7.5	6.6	9.8	16.3
4-Oct	6.3	6.0	5.8	4.9	4.8	3.6	2.9	3.4	5.6	7.7	7.5	7.5	8.2	8.9	6.8	5.8	4.5	3.4	2.3	1.2	0.4	0.0	-0.1	-0.1	4.5	8.9
5-Oct	-0.3	-0.5	-1.0	-2.0	-2.7	-2.9	-3.1	-2.4	-1.0	0.3	0.8	2.4	4.9	6.8	7.2	7.5	7.1	6.1	5.3	4.3	3.5	2.8	2.6	2.1	2.0	7.5
6-Oct	1.4	1.3	1.4	1.7	1.1	0.0	-0.5	-1.2	-1.4	0.1	1.3	1.9	3.1	3.9	4.9	5.5	5.1	0.8	-0.1	1.3	1.6	1.9	1.7	2.3	1.6	5.5
7-Oct	3.1	3.5	3.5	3.1	2.6	3.1	3.4	3.6	5.7	8.7	10.5	13.6	16.1	17.8	18.6	18.7	17.8	15.5	13.7	12.4	12.1	12.5	12.8	12.5	10.2	18.7
8-Oct	11.6	10.5	9.6	8.8	8.1	7.1	6.3	6.4	6.8	6.9	7.8	9.7	10.6	11.1	11.6	11.2	10.2	7.7	6.3	5.5	4.6	3.6	3.8	3.6	7.9	11.6
9-Oct	2.6	1.2	0.5	0.4	0.6	0.7	0.8	1.6	3.6	5.2	7.7	9.2	10.4	11.7	12.3	12.2	11.7	9.9	8.0	7.3	6.9	6.5	6.0	5.3	5.9	12.3
10-Oct	5.0	4.7	4.6	3.7	3.3	2.4	2.0	1.5	3.8	8.6	13.6	16.2	17.4	18.0	18.6	18.3	17.6	15.7	13.8	12.7	13.0	12.5	11.6	11.1	10.4	18.6
11-Oct	10.9	9.7	9.5	10.0	9.8	9.4	10.0	9.4	9.1	7.7	8.3	8.2	6.4	3.9	3.6	3.1	2.3	1.7	1.4	1.2	1.1	0.9	0.6	0.4	5.8	10.9
12-Oct	0.3	-0.2	-0.6	-0.8	-1.0	-1.2	-1.5	-1.7	-1.8	-1.7	-1.6	-1.3	-1.0	-0.9	-1.2	-1.2	-1.4	-1.8	-2.1	-2.2	-2.2	-2.2	-2.2	-2.4	-1.4	0.3
13-Oct	-2.4	-2.4	-2.4	-2.5	-2.5	-2.6	-2.7	-2.7	-2.2	-1.7	-1.4	-1.3	-1.1	-0.6	0.7	1.2	0.8	-0.5	-1.8	-2.7	-3.0	-3.2	-3.0	-3.1	-1.8	1.2
14-Oct	-3.4	-3.8	-4.1	-4.2	-4.0	-4.2	-4.1	-4.1	-2.6	-0.7	1.7	3.7	4.7	5.7	6.6	7.0	6.4	4.6	3.5	2.9	3.0	2.7	2.4	1.9	0.9	7.0
15-Oct	1.8	1.3	0.4	-0.2	-0.4	-0.3	-1.0	-1.2	1.9	5.3	6.7	8.5	9.7	10.2	10.6	10.4	9.1	7.4	5.7	4.6	4.5	4.1	3.9	3.7	4.4	10.6
16-Oct	3.6	3.4	3.0	2.0	0.6	0.0	0.9	-0.1	2.9	6.4	10.0	11.8	12.8	13.9	13.9	14.1	12.3	10.8	10.3	10.6	10.2	9.4	8.8	8.2	7.5	14.1
17-Oct	7.7	7.8	8.1	7.4	6.2	5.0	4.8	4.3	3.7	3.0	3.9	5.5	7.0	7.8	7.8	7.7	7.6	7.0	6.1	4.9	5.0	5.6	6.5	5.5	6.1	8.1
18-Oct	3.3	2.4	2.6	2.2	1.7	1.3	0.9	1.1	3.0	5.5	7.7	9.7	11.0	11.5	12.0	11.7	10.1	6.7	4.9	4.8	3.6	3.0	1.3	-0.1	5.1	12.0
19-Oct	-0.2	0.6	0.4	0.2	0.4	1.2	2.3	2.8	3.7	4.6	5.6	5.7	5.6	5.8	4.9	3.3	3.1	2.5	1.8	1.5	1.5	1.6	1.7	1.7	2.6	5.8
20-Oct	1.7	1.5	1.1	0.9	1.1	1.1	1.0	0.7	0.8	1.5	2.0	2.5	3.4	3.2	3.5	3.0	2.8	2.4	2.0	1.5	0.6	0.1	0.6	0.9	1.7	3.5
21-Oct	1.2	1.5	1.8	2.0	2.5	2.5	2.7	3.0	3.6	5.5	7.2	8.5	9.2	9.4	9.5	8.9	8.2	7.6	7.0	6.7	6.1	5.6	5.2	4.2	5.4	9.5
22-Oct	3.7	2.6	1.4	1.1	0.8	0.0	-0.1	-0.2	0.8	3.6	6.5	9.0	10.4	11.1	11.4	11.2	9.2	6.6	5.7	5.5	5.2	5.0	5.0	5.4	5.0	11.4
23-Oct	5.2	4.7	4.6	4.4	4.6	4.5	4.4	4.1	3.9	4.5	7.3	10.1	11.1	12.2	12.8	12.5	10.3	8.3	7.1	5.6	4.0	3.5	2.9	2.8	6.5	12.8
24-Oct	3.1	3.4	3.3	3.3	3.6	3.7	4.1	3.9	4.0	4.8	6.6	7.9	8.8	9.5	9.8	10.0	8.4	6.7	5.5	4.9	4.7	4.5	4.4	4.5	5.6	10.0
25-Oct	4.0	3.2	2.6	2.8	3.1	2.6	2.2	2.4	5.4	5.7	6.0	6.3	7.0	7.1	8.2	9.0	7.9	5.9	5.0	4.4	3.2	1.4	0.4	-0.4	4.4	9.0
26-Oct	0.2	-0.1	1.3	1.6	2.6	3.1	2.8	1.3	1.3	1.4	3.1	3.3	2.9	2.5	2.5	2.4	2.5	1.8	1.0	1.0	2.1	2.2	2.1	1.6	1.9	3.3
27-Oct	1.1	0.4	0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.3	-0.6	-0.9	-1.1	-1.4	-1.5	-1.7	-1.8	-1.8	-1.7	-0.5	1.1
28-Oct	-1.5	-1.1	-1.4	-1.5	-1.7	-1.6	-1.6	-1.5	-1.4	-1.0	-0.4	-0.3	-0.6	-0.6	-0.7	-1.2	-1.5	-1.8	-2.1	-2.2	-2.1	-2.3	-3.0	-4.0	-1.5	-0.3
29-Oct	-3.4	-3.0	-3.1	-2.3	-1.5	-1.1	-0.8	-0.8	-0.8	-0.6	-0.6	-0.8	-0.9	-0.8	-0.8	-1.0	-1.0	-1.1	-1.0	-1.0	-1.0	-1.0	-1.1	-1.2	-1.3	-0.6
30-Oct	-1.3	-1.4	-1.4	-1.4	-1.5	-1.5	-1.5	-1.5	-1.3	-0.4	0.3	0.4	-0.4	-0.9	-1.0	-1.1	-1.1	-1.3	-1.5	-1.6	-1.7	-1.7	-1.8	-1.8	-1.2	0.4
31-Oct	-1.9	-1.9	-1.8	-1.9	-1.6	-1.7	-1.9	-2.4	-2.4	-1.3	-0.1	0.7	1.0	1.0	0.8	0.3	0.0	-0.3	-0.7	-0.5	-0.1	0.1	0.2	0.2	-0.7	1.0
	2.7	2.5	2.3	2.1	2.0	1.8	1.7	1.7	2.5	3.7	5.1	6.2	6.9	7.3	7.5	7.3	6.6	5.1	4.2	3.7	3.5	3.2	2.9	2.6	Diurnal Average	
	11.6	10.8	10.7	10.5	10.3	10.2	10.1	9.9	9.1	11.2	13.7	16.2	17.4	18.0	18.6	18.7	17.8	15.7	13.8	12.7	13.0	12.5	12.8	12.5	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Jackfish 2/3 - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	189	25.40	25.40
0 - 10	462	62.10	87.50
10 - 20	93	12.50	100.00
> 20	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 98.6 % on Oct 20 06:00

Maximum Daily Average: 97.4 % on Oct 27

Minimum Value: 28.2 % on Oct 16 15:00

Minimum Daily Average: 54.5 % on Oct 10

Maximum Diurnal Average: 83.6 % at hour 8

Minimum Diurnal Average: 60.9 % at hour 15

Monthly Average: 74.49 %

Percentiles: P_1 = 32.1 P_{10} = 48.0 Q_1 = 60.6 Median = 76.4 Q_3 = 91.1 P_{90} = 97.1 P_{99} = 98.5

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

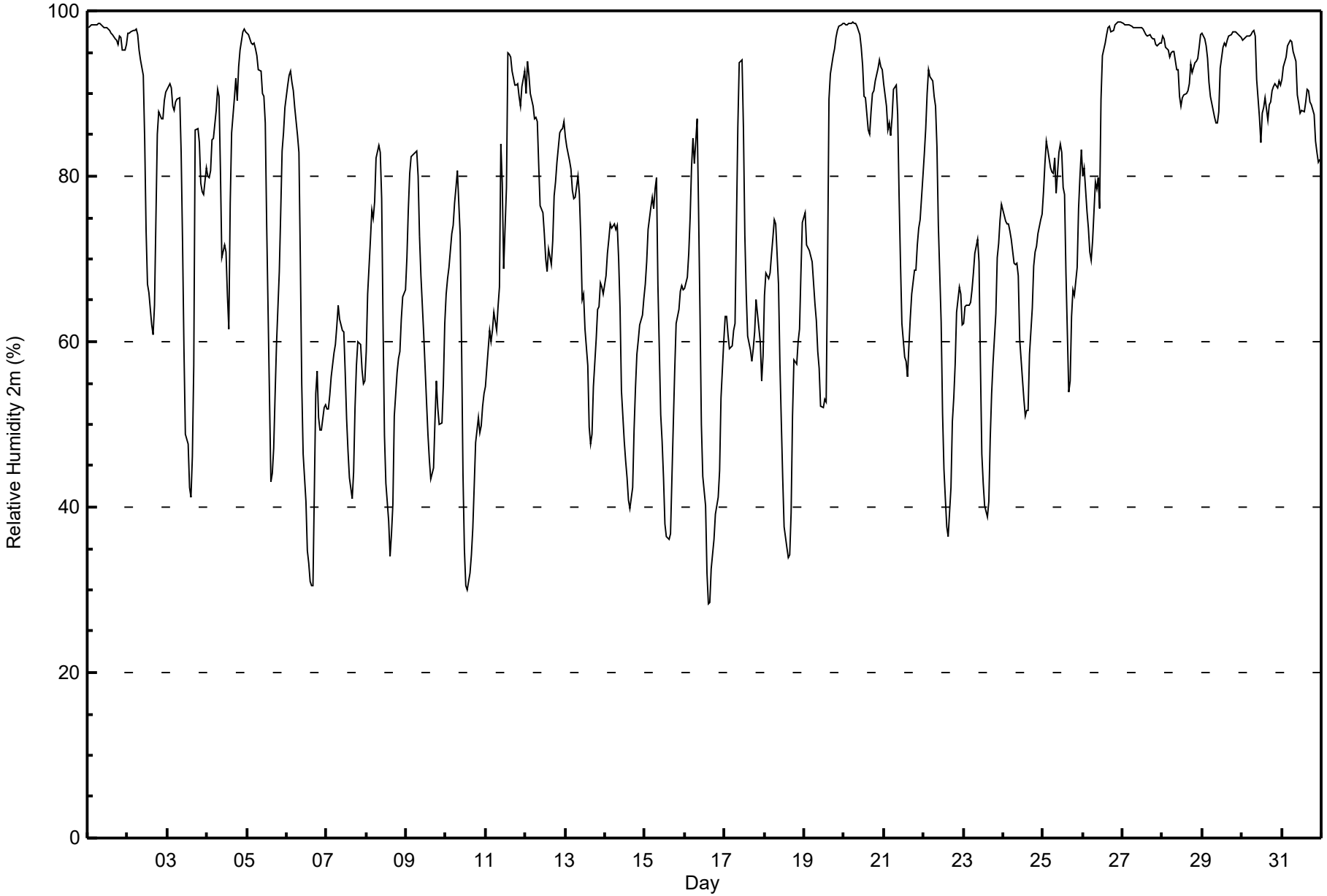
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	97.9	98.1	98.2	98.3	98.3	98.4	98.5	98.5	98.4	98.1	98.0	98.0	97.7	97.7	97.3	97.0	96.7	96.4	95.9	96.9	96.8	95.3	95.3	96.0	97.4	98.5
2-Oct	97.3	97.2	97.4	97.6	97.6	97.7	97.1	95.3	94.1	92.1	84.3	73.3	66.9	65.9	62.0	60.9	64.4	74.7	85.0	87.7	87.0	87.0	89.1	90.1	85.1	97.7
3-Oct	90.5	91.1	90.7	88.5	88.0	89.0	89.4	89.6	82.8	72.1	59.2	48.8	47.6	42.3	41.2	46.1	57.0	85.7	85.7	84.0	79.1	78.1	77.9	81.1	74.4	91.1
4-Oct	80.0	79.8	80.7	84.4	84.6	88.0	90.5	89.6	80.8	70.2	71.7	70.8	65.5	61.5	76.7	85.2	89.6	91.8	89.1	93.2	95.3	97.4	97.8	97.5	83.8	97.8
5-Oct	97.3	97.1	96.1	95.9	96.0	95.5	94.6	93.0	92.8	90.1	89.7	86.5	74.1	53.4	43.0	44.0	47.2	53.5	59.6	68.5	75.6	83.0	85.2	88.2	79.2	97.3
6-Oct	91.0	92.3	92.7	91.4	90.3	88.2	85.0	82.9	70.0	54.8	46.4	40.6	34.7	33.3	31.0	30.4	30.6	53.6	56.5	50.8	49.4	49.3	52.1	52.3	60.4	92.7
7-Oct	51.9	51.9	53.5	55.7	58.6	59.6	61.9	64.4	62.8	61.4	61.1	56.3	50.7	46.8	43.5	41.1	44.2	52.0	57.0	60.0	59.6	56.6	55.0	55.2	55.0	64.4
8-Oct	58.8	65.7	72.4	76.0	74.9	77.0	82.3	83.7	83.0	77.3	62.0	48.7	42.9	38.3	34.1	36.8	40.4	51.0	56.2	57.9	58.7	62.7	65.5	66.3	61.4	83.7
9-Oct	70.2	76.0	80.4	82.3	82.5	82.9	83.0	80.0	72.7	68.0	60.8	56.8	52.8	48.8	45.8	43.5	44.8	50.4	55.2	52.0	50.0	50.1	54.9	62.2	62.7	83.0
10-Oct	65.7	67.6	69.0	73.1	74.0	76.7	78.6	80.7	72.9	59.3	44.0	34.9	30.6	30.1	32.1	34.3	37.5	42.5	47.9	50.9	49.0	49.8	52.2	53.7	54.5	80.7
11-Oct	54.6	59.2	61.3	60.1	61.3	63.5	61.4	64.2	66.7	83.9	79.1	68.8	78.6	95.0	94.7	94.4	92.7	91.0	91.1	91.2	89.7	88.6	90.8	92.7	78.1	95.0
12-Oct	90.1	93.9	92.1	90.0	88.5	87.0	87.1	86.5	81.4	76.5	75.6	73.1	70.0	68.6	71.2	69.4	72.3	77.6	79.4	81.7	85.3	85.7	85.8	86.6	81.5	93.9
13-Oct	84.8	83.6	81.9	80.9	78.3	77.3	77.4	80.1	77.9	72.6	65.0	65.8	61.5	57.0	49.7	47.6	48.9	54.5	60.3	63.9	64.2	67.1	66.6	65.7	68.0	84.8
14-Oct	67.9	70.7	72.4	74.2	73.8	74.3	73.5	74.1	70.1	64.1	54.0	48.0	45.6	43.6	40.8	39.9	42.3	49.3	54.4	58.4	60.2	62.0	63.2	65.2	60.1	74.3
15-Oct	66.9	69.7	73.6	76.3	77.5	76.1	78.5	79.8	67.0	51.3	48.0	43.6	37.9	36.4	36.0	36.9	43.5	50.2	56.6	62.2	63.8	66.1	66.8	66.2	59.6	79.8
16-Oct	66.4	67.9	70.7	75.1	81.2	84.5	81.5	86.9	75.9	63.6	50.0	43.7	40.1	32.0	28.2	28.5	32.5	36.2	39.2	40.2	41.2	44.3	53.2	60.2	55.1	86.9
17-Oct	63.1	63.1	60.9	59.1	59.5	61.3	62.2	74.0	85.9	93.8	94.1	85.7	72.9	65.7	60.6	59.0	57.6	59.2	61.1	65.1	63.5	60.1	55.3	58.4	66.7	94.1
18-Oct	65.6	68.3	67.7	68.3	70.5	72.6	74.7	74.2	66.9	57.5	50.4	43.5	37.5	35.1	33.9	34.3	39.3	51.0	57.8	57.2	60.0	61.6	68.3	74.3	57.9	74.7
19-Oct	75.5	71.7	71.4	71.1	70.4	69.7	64.6	62.5	58.8	56.7	52.2	52.0	53.0	52.7	69.1	89.4	92.4	94.5	95.5	96.9	97.6	98.1	98.3	98.4	75.5	98.4
20-Oct	98.4	98.4	98.3	98.4	98.5	98.6	98.5	98.4	98.2	97.1	95.7	93.5	89.7	89.5	85.5	85.1	87.7	90.1	90.3	91.5	93.1	94.1	93.2	92.9	93.9	98.6
21-Oct	91.1	88.5	85.6	86.5	84.8	87.1	90.6	91.0	87.5	77.6	69.4	62.1	58.2	57.6	55.8	59.5	62.9	65.8	68.6	68.7	71.7	73.7	74.8	79.9	75.0	91.1
22-Oct	82.8	85.7	90.0	92.8	92.0	91.5	89.7	88.5	83.6	74.1	62.4	51.3	44.6	40.9	37.6	36.4	42.3	50.3	53.3	57.2	63.6	66.5	65.8	62.1	66.9	92.8
23-Oct	62.2	64.2	64.5	64.4	64.8	66.3	68.3	70.7	72.3	69.7	57.2	46.5	43.0	40.1	38.9	40.7	48.3	53.7	57.4	63.4	70.2	71.9	74.8	76.6	60.4	76.6
24-Oct	76.0	74.5	74.3	74.3	73.4	72.4	69.5	69.2	69.5	67.9	60.4	55.3	53.1	51.1	51.7	51.6	58.5	64.1	69.1	70.8	71.5	73.0	74.7	75.4	66.7	76.0
25-Oct	78.2	81.6	84.2	83.3	81.0	80.6	80.3	82.3	78.0	82.9	84.0	83.0	78.6	77.8	68.4	53.8	55.2	63.1	66.4	65.6	69.0	76.1	80.0	83.3	75.7	84.2
26-Oct	80.0	81.1	75.7	73.8	70.9	69.8	72.2	79.3	78.5	79.8	76.1	89.3	94.6	96.1	97.2	97.9	98.2	97.4	97.7	98.3	98.5	98.6	98.6	98.6	87.4	98.6
27-Oct	98.6	98.3	98.3	98.4	98.2	98.1	97.9	98.0	98.0	98.0	98.0	98.0	97.8	97.5	97.1	97.0	97.2	96.8	96.5	96.6	95.9	95.8	96.1	96.1	97.4	98.6
28-Oct	97.0	96.5	95.7	95.3	94.5	94.9	95.1	95.0	92.9	92.8	89.7	88.5	89.5	89.8	89.9	90.3	91.2	93.6	92.6	93.8	93.9	94.3	95.6	97.1	93.3	97.1
29-Oct	97.4	96.6	95.7	94.2	91.4	89.6	87.9	87.1	86.5	86.5	87.7	93.1	95.5	96.2	95.8	96.4	96.9	97.1	97.4	97.4	97.5	97.3	97.1	96.8	94.0	97.5
30-Oct	96.5	96.6	96.8	97.0	97.0	97.1	97.4	97.6	96.9	91.7	87.1	84.1	87.7	88.3	89.5	86.8	88.7	89.0	90.4	90.9	91.2	90.6	91.5	91.1	92.1	97.6
31-Oct	91.6	93.2	94.5	95.8	96.2	96.4	96.4	95.1	94.0	89.8	88.8	87.7	87.9	87.8	89.0	90.5	90.3	88.9	88.6	87.4	84.3	82.8	81.7	82.1	90.0	96.4
	80.2	81.3	81.8	82.3	82.2	82.6	82.8	83.6	80.5	76.5	71.0	66.8	63.9	61.8	60.9	61.4	64.2	69.8	72.6	74.2	75.0	76.0	77.3	78.8	Diurnal Average	
	98.6	98.4	98.3	98.4	98.5	98.6	98.5	98.5	98.4	98.1	98.0	98.0	97.8	97.7	97.3	97.9	98.2	97.4	97.7	98.3	98.5	98.6	98.6	98.6	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Jackfish 2/3 - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	33	4.44	4.44
40 - 60	147	19.76	24.19
60 - 80	224	30.11	54.30
80 - 100	340	45.70	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Jackfish 2/3 - October 2025

Maximum Speed: 19 km/h on Oct 25 11:00

Maximum Daily Speed Average: 12.3 km/h on Oct 14

Minimum Speed Value: 0 km/h on Oct 27 14:00

Minimum Daily Speed Average: 1.3 km/h on Oct 6

Maximum Diurnal Speed Average: 5.8 km/h at hour 13

Minimum Diurnal Speed Average: 3.2 km/h at hour 18

Monthly Average Velocity: 4.3 km/h 230.5 deg

Percentiles: $P_1 = 1$ $P_{10} = 4$ $Q_1 = 5$ Median = 7 $Q_3 = 9$ $P_{90} = 11$ $P_{99} = 16$

Hours in Service:	744
Hours of Data:	683
Hours of Missing Data:	61
Percent Operational Time:	92.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NNW4	NNE5	NNE5	NNE5	NNW4	N4	NNW3	WNW4	NW5	NW6	NW5	NW5	NNW6	N6	NNW5	NNW5	NW3	NNW5	N5	NW2	NW3	WNW3	SW1	S1	NNW3.6	NNW6
2-Oct	SW2	SW3	WSW1	SSW1	SW2	SW3	SW4	SSW4	SSW5	S5	SSE4	SSW4	SSW3	WSW4	WSW5	SW6	SW6	SW4	SSW3	S3	S4	S5	S5	SSW5	SSW3.7	SW6
3-Oct	S6	SSW6	SSW7	SSW7	SSW6	SSW6	SSW8	SSW7	SW10	SW10	SW9	WSW12	WSW12	C	C	W8	W8	SW4	SW7	WSW7	WSW9	WSW9	W7	WSW8	SW7.2	WSW12
4-Oct	WSW8	W7	W7	WSW8	WSW9	WSW8	WSW7	W7	WNW7	WNW7	WNW7	WNW6	WNW5	NW5	NW6	NW6	NW7	WNW9	WNW9	WNW8	NW8	NW6	NW7	NW6	WNW6.6	WNW9
5-Oct	NW5	WNW5	WNW5	W5	W5	UO	UO	UO	UO	SW6	SSW8	SW9	SW11	WSW14	WSW14	W8	WNW9	WNW7	NW5	NNW3	WNW6	WNW3	WSW7	WSW6	W6.0	WSW14
6-Oct	WSW5	W5	WNW6	NW5	N6	N5	NNW4	N5	NNE7	N6	N4	NE2	NW2	SSW3	SW4	SW5	WSW6	SSW3	SSE2	S4	S5	S6	S6	S6	W1.3	NNE7
7-Oct	S7	S8	S8	S7	S8	S8	S8	S7	SSW9	SSW10	SSW10	SW11	SSW10	SW11	SW13	SSW11	S8	S5	S6	S6	S7	S8	S7	S7	SSW8.0	SW13
8-Oct	SW4	WNW6	WNW8	WNW10	NW9	WNW6	WNW8	W9	WNW10	WNW10	WNW11	WNW9	WNW10	W10	W11	W10	WNW8	W5	WSW6	WSW8	WSW8	SSW7	WSW8	W8	W7.7	WNW11
9-Oct	W7	W6	WSW6	WSW8	W7	WSW8	W8	WSW10	WSW11	W12	W10	WSW12	WSW11	WSW13	WSW12	SW11	SW10	SW8	SW7	SW9	SW10	SW9	SW9	SSW8	WSW8.8	WSW13
10-Oct	SSW9	SSW9	SSW9	SSW8	S9	S9	S8	S9	S8	S8	SSW9	SSW10	SSW10	SSW11	SSW10	SSW11	S9	S7	S6	S7	S8	S7	S7	S7	S8.5	SSW11
11-Oct	S8	S7	S8	S7	S7	SSW7	SSW6	SW6	SW5	NW7	NW8	NW9	WNW12	NW9	NW9	NW10	NW10	NW9	NW9	NW9	NW8	NW8	NW8	NNW8	WNW4.8	WNW12
12-Oct	NNW8	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	NNW9	NNW10	NNW9	NNW8	NNW7	N7	N6	NNW6	NW5	NNW6	NNW5	NW5	----	NNW10
13-Oct	NW4	NW4	NW5	NW5	NW4	NW3	W4	SW4	WSW5	WSW5	WSW5	SW8	SW9	SW9	SW9	SW10	SSW8	SW7	SW6	SSW5	SSW7	SSW9	SSW10	SSW9	SW5.2	SSW10
14-Oct	SSW10	SSW10	SSW10	SSW10	SSW11	SSW11	SSW13	SSW14	SSW16	SW15	SW17	SW17	SW17	SW15	SW14	SW11	SW10	SSW9	SSW9	SW10	SW12	SW12	SW12	SW11	SW12.3	SW17
15-Oct	SW11	SSW10	SSW9	SSW9	SSW9	SSW9	SSW9	SSW8	SSW11	SW15	SW15	SSW15	SW16	SW13	SW13	SW12	WSW11	SW9	SW10	SW10	WSW10	WSW9	SW10	SW10	SW10.5	SW16
16-Oct	SW10	SW10	SW9	SW9	SSW7	SW8	SW9	SSW7	SSW8	SSW9	SW9	SW12	SW12	SW12	SSW11	SSW10	SSW6	SSW6	S6	SSW8	S6	S5	SW7	SSW6	SSW8.2	SW12
17-Oct	SSW7	SW9	WSW14	WSW15	WSW12	WSW10	WSW11	WSW11	W10	WNW12	WNW11	W12	WNW13	W13	WNW13	WNW12	WNW10	WNW10	W7	W7	W7	WNW8	WNW9	WNW8	W9.7	WSW15
18-Oct	W6	W8	W8	W8	W8	W8	W9	W10	W10	W9	W9	WNW9	WNW10	W10	W11	W9	WSW6	SW5	SSW5	SSW6	SSW6	S6	S5	S5	WSW6.7	W11
19-Oct	S5	S6	SSE6	S7	SSE6	SSE6	SE6	SE5	SE5	ESE7	SE6	ESE6	E7	E7	ESE8	E7	E5	ENE6	ENE6	ENE4	NE4	NE5	ENE5	NE6	ESE4.5	ESE8
20-Oct	NE6	NNE6	NNE5	N4	NNW5	NNW5	NNW5	NW5	WNW6	NW5	NW5	NW4	W5	W7	W7	WSW8	SW7	SSW5	SSW7	SSW6	S6	S7	S8	S7	W2.2	S8
21-Oct	S7	S8	SSW10	SSW9	SSW10	SSW10	SW10	SW11	WSW12	WSW12	W12	W12	W13	W11	W11	W10	WSW9	WSW8	WSW8	W7	W6	W4	NW3	NE1	WSW7.5	W13
22-Oct	ENE4	SE2	SE3	S5	SSW7	SSW6	SSW7	SSW7	SSW7	SSW6	SSW6	S7	SW8	SSW8	S8	S7	SSE4	SE5	SE5	SSE7	SE9	SSE9	SSE8	SSE8	S5.5	SE9
23-Oct	SSE7	SSE6	SSE7	SSE8	S8	S6	S8	S7	S7	SSW7	SSW7	SSW3	SSE4	S4	SSW5	SSW5	S4	S5	S6	S8	S8	S8	SSE8	S8	S6.2	SSE8
24-Oct	SSE7	S7	S7	S7	S8	S8	S9	S8	SSW7	S7	SSW8	S8	S4	SSE6	S5	S7	S4	S7	S9	S8	S7	SSE6	S7	SSE6	S6.9	S9
25-Oct	E3	NNE1	E3	ESE2	SSW3	SW7	SW10	SW12	WSW18	WSW18	WSW19	W15	W15	W16	W13	W11	WSW10	SW7	SW9	SW8	SSW6	S6	S6	SSE3	WSW7.6	WSW19
26-Oct	SSE5	SSE5	SE5	ESE6	ESE8	ESE10	ENE8	ENE6	NE6	NE7	ENE8	ENE8	NE8	NE10	ENE9	NE6	NE7	NE11	NNE8	N5	N5	N4	NW3	W4	ENE4.9	NE11
27-Oct	WNW6	WNW7	WNW7	WNW7	W7	UO	UO	UO	UO	W4	WNW4	WNW0	WNW0	WNW0	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	W7
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	WNW7	WNW7	W9	W8	W8	W8	W7	WSW6	W4	SSW3	SW5	SSW3	S4	SSE4	----	W9
29-Oct	SE4	SSE5	SSE6	SE6	ESE5	E6	E8	E6	E7	ESE5	ESE3	NNE1	N2	NNE3	N3	N4	NW3	NW4	NW4	NW4	NW5	NW4	NW4	NW5	ENE1.3	E8
30-Oct	NW4	NW4	NW3	NW3	NW3	NW3	WNW4	NW3	NW3	WNW3	W4	WSW7	W6	WSW5	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	WSW7
31-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	S8	S9	S9	M	S10	S9	S11	S10	S12	S14	S13	S14	S13	S14	SSW10	----	S14
	SW3.2	SW3.6	SW3.6	SW3.8	SW4.0	SW4.2	SW4.6	SW4.9	SW5.3	WSW5.1	WSW5.3	WSW5.4	WSW5.8	WSW5.5	WSW5.8	WSW5.3	WSW4.4	SW3.2	SW3.4	SW3.9	SW4.2	SSW3.9	SW4.3	SSW3.9	Diurnal Average	
	SW11	SW10	WSW14	WSW15	WSW12	SSW11	SSW13	SSW14	WSW18	WSW18	WSW19	SW17	SW17	W16	SW14	SW12	WSW11	S12	S14	S13	S14	S13	S14	SW11	Diurnal Maximum	

C - Calibration M - Maintenance UO - Unstable Operation

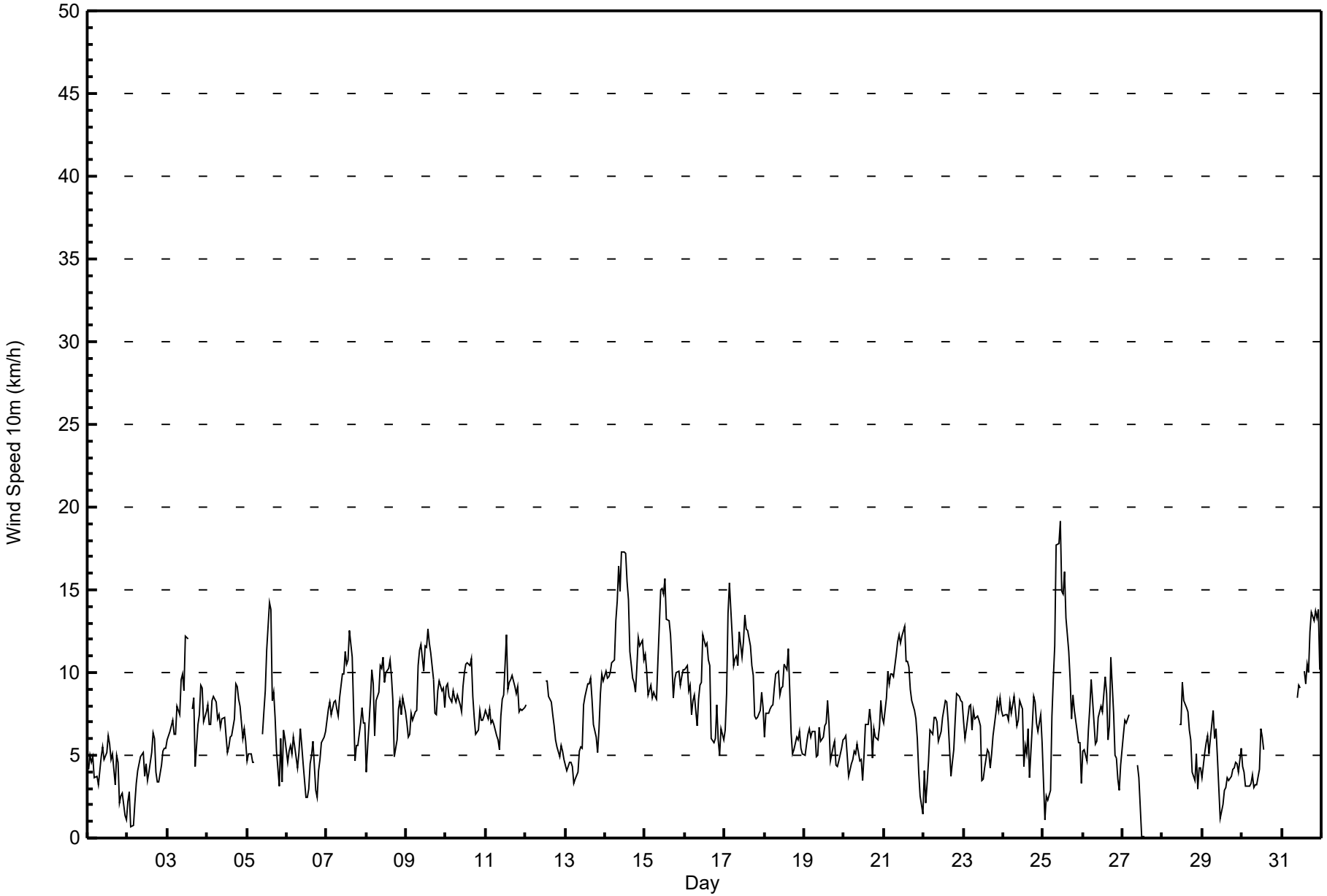
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Jackfish 2/3 - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	188	27.53	27.53
6 - 11	435	63.69	91.22
12 - 19	60	8.78	100.00
20 - 28	0	0.00	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 683

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Jackfish 2/3 - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	12	7	4	3	3	4	7	10	21	18	14	9	11	12	41	12	188
6 - 11	5	3	9	7	7	6	4	17	86	82	54	37	49	37	22	10	435
12 - 19	0	0	0	0	0	0	0	0	6	4	20	15	9	6	0	0	60
20 - 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	17	10	13	10	10	10	11	27	113	104	88	61	69	55	63	22	683

Total Number of Valid Hours: 683

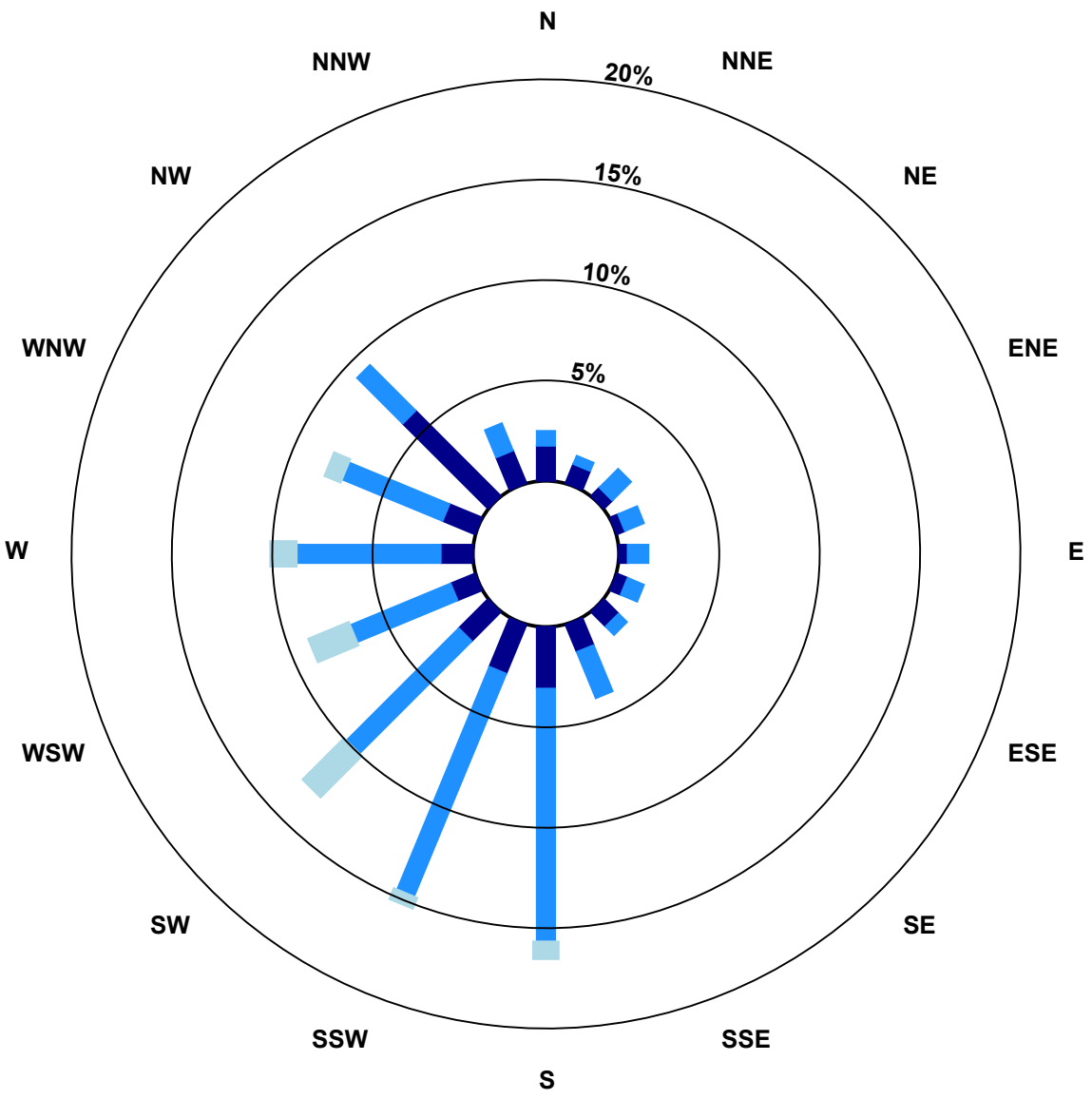
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Jackfish 2/3



Classes (km/h)

0 - 5

6 - 11

12 - 19

20 - 28

29 - 38

> 38

Total Number of Valid Hours: 683

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Jackfish 2/3 - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 6 km/h on Oct 14 13:00

Minimum Value: 0 km/h on Oct 27 14:00

Percentiles: P_1 = 1 P_{10} = 1 Q_1 = 2 Median = 2 Q_3 = 3 P_{90} = 4 P_{99} = 5

Hours in Service:	744
Hours of Data:	683
Hours of Missing Data:	61
Hours of Calibration:	2
Percent Operational Time:	92.1

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	2	2	2	2	1	2	2	2	2	2	3	2	2	2	1	2	3	1	1	1	1	1	3
2-Oct	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	2	1	1	1	1	2	2	2	3
3-Oct	2	2	2	2	2	2	3	2	3	3	3	4	4	C	C	4	4	2	2	3	2	3	2	2	4
4-Oct	2	2	2	2	2	2	2	3	3	3	3	2	2	3	3	3	4	4	4	4	4	3	3	3	4
5-Oct	2	2	2	1	2	UO	UO	UO	UO	3	2	3	4	5	5	4	4	3	3	2	3	2	2	2	5
6-Oct	1	2	2	2	3	3	2	3	3	3	2	2	2	2	2	2	2	1	1	2	2	2	2	2	3
7-Oct	3	3	3	2	2	2	2	2	3	3	3	4	3	4	4	4	3	2	2	2	3	3	3	3	4
8-Oct	2	3	4	5	4	4	3	3	4	4	5	4	4	4	4	4	3	2	2	2	2	2	3	2	5
9-Oct	2	2	2	2	2	2	2	3	3	4	3	4	4	4	4	3	3	2	2	2	2	2	2	2	4
10-Oct	2	2	2	2	2	2	2	2	2	2	3	4	4	4	4	4	3	3	2	3	3	3	3	2	4
11-Oct	3	3	3	2	2	2	2	2	2	3	3	4	5	4	4	4	5	4	4	4	3	3	4	3	5
12-Oct	4	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	5	4	4	4	3	3	3	2	2	2	2	2	5
13-Oct	2	2	2	2	2	1	1	1	2	2	2	3	3	4	3	3	3	2	2	2	2	3	3	3	4
14-Oct	3	3	3	3	3	3	4	4	5	5	6	6	6	5	5	4	4	3	3	3	3	3	3	3	6
15-Oct	3	3	2	3	2	2	2	2	4	5	5	5	5	5	4	4	3	2	2	2	2	2	2	2	5
16-Oct	2	2	2	2	2	2	2	1	2	3	3	4	4	4	4	4	2	2	2	3	2	2	2	2	4
17-Oct	1	4	5	5	4	3	4	4	4	5	4	5	5	5	5	5	5	4	3	2	2	3	4	3	5
18-Oct	2	2	3	3	3	3	2	3	4	3	3	3	4	4	4	3	2	1	1	2	1	2	1	1	4
19-Oct	1	1	2	2	2	2	3	2	2	2	2	2	2	3	4	2	2	2	2	1	1	2	1	2	4
20-Oct	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	3	2	2	2	2	2	2	3	2	3
21-Oct	2	3	3	3	3	3	3	3	3	4	4	5	5	4	4	4	3	2	2	2	2	1	1	1	5
22-Oct	1	1	1	1	1	2	2	1	1	1	2	2	3	3	3	3	2	2	2	3	4	4	3	4	4
23-Oct	3	2	3	3	3	2	2	2	2	2	2	1	2	2	2	2	1	2	2	2	3	2	3	3	3
24-Oct	3	3	3	2	3	2	3	2	2	2	3	2	1	2	2	3	2	2	3	3	3	2	2	3	3
25-Oct	1	1	1	1	2	2	2	4	5	5	6	5	5	6	5	4	3	2	3	2	1	1	1	1	6
26-Oct	1	1	2	2	3	3	3	2	2	2	3	3	2	3	3	2	3	4	3	2	2	1	1	2	4
27-Oct	2	2	2	3	3	UO	UO	UO	UO	4	5	1	1	0	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	5
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	6	5	4	4	3	3	3	2	2	1	2	2	2	2	6
29-Oct	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
30-Oct	2	2	1	1	1	1	1	1	1	1	2	2	2	2	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	2
31-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	3	3	4	M	4	4	4	4	5	5	5	5	5	5	4	5
	4	4	5	5	4	4	4	4	5	5	6	6	6	6	5	5	5	5	5	5	5	5	5	4	
	Diurnal Maximum																								

C - Calibration M - Maintenance UO - Unstable Operation

Direction of Maximum Speed: 255 deg on Oct 25 11:00

Direction of Maximum Daily Speed Average: 214.5 deg on Oct 14

Direction of Minimum Speed: 289 deg on Oct 27 14:00

Direction of Minimum Daily Speed Average: 1.3 deg on Oct 6

Monthly Average Direction: 230.5 deg

Hours in Service:	744
Hours of Data:	683
Hours of Missing Data:	61
Percent Operational Time:	92.1

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	335	12	25	26	347	358	348	292	313	322	325	319	331	350	347	331	317	340	356	326	307	302	220	173	337.2
2-Oct	230	235	238	212	223	214	214	209	193	189	160	199	207	247	238	232	232	221	195	189	190	185	191	194	208.3
3-Oct	187	192	192	199	199	193	209	204	227	231	236	241	247	C	C	262	279	235	226	249	237	249	260	247	229.9
4-Oct	251	260	259	255	252	254	258	273	285	299	282	283	300	306	319	318	311	294	291	297	311	309	313	309	285.6
5-Oct	316	303	302	270	264	UO	UO	UO	UO	214	213	220	235	243	249	268	286	299	306	335	288	282	253	251	261.6
6-Oct	253	279	293	325	357	359	337	4	13	351	4	46	316	203	220	223	247	202	167	170	183	180	174	181	274.1
7-Oct	186	186	190	191	190	187	190	186	198	208	205	217	211	215	217	207	189	173	170	175	177	171	175	173	194.3
8-Oct	234	282	303	302	309	295	285	280	284	289	299	295	288	280	274	271	282	275	247	245	239	208	248	259	277.1
9-Oct	267	259	255	252	259	252	260	253	255	260	259	244	243	243	242	235	233	220	219	217	218	219	219	208	241.2
10-Oct	197	195	193	197	188	182	181	178	186	191	193	197	195	200	197	198	189	185	177	177	180	185	181	178	189.2
11-Oct	179	177	183	187	189	202	202	220	236	316	324	322	285	310	310	312	317	312	318	315	317	313	316	329	287.0
12-Oct	332	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	343	336	336	334	334	355	349	334	323	340	336	324	--
13-Oct	321	313	312	313	312	306	272	234	237	248	239	226	214	220	230	219	206	230	220	196	196	200	201	203	230.0
14-Oct	206	205	204	200	211	210	213	212	213	215	219	219	219	218	220	215	216	206	212	220	220	223	221	214	214.5
15-Oct	214	208	209	200	205	202	192	193	204	218	216	213	214	220	229	236	244	230	232	233	245	244	227	230	219.5
16-Oct	233	231	234	222	203	222	220	207	198	213	225	225	214	218	210	203	199	194	188	199	173	175	224	202	212.5
17-Oct	201	232	245	250	244	239	237	258	272	285	284	281	282	280	285	288	284	286	273	265	269	284	293	286	267.9
18-Oct	270	272	277	277	273	264	261	259	271	276	277	291	284	280	265	268	245	217	212	206	198	190	184	174	258.3
19-Oct	176	175	167	169	163	157	136	145	129	109	128	120	89	90	112	91	80	64	77	65	55	53	59	51	112.1
20-Oct	42	30	15	4	343	336	327	314	300	323	317	322	279	267	262	238	218	194	204	202	187	188	186	184	262.5
21-Oct	182	185	197	204	208	203	218	232	239	254	269	281	269	281	274	267	255	251	251	261	259	264	306	51	244.1
22-Oct	70	138	146	182	201	211	209	202	197	202	209	188	217	201	174	178	151	136	141	147	145	149	150	158	176.2
23-Oct	152	150	151	161	181	189	182	185	187	200	197	200	151	187	198	196	183	171	172	170	172	169	168	170	176.2
24-Oct	167	169	172	177	180	188	182	184	194	183	197	183	173	164	174	177	170	174	175	179	173	160	170	168	177.1
25-Oct	88	30	81	123	207	216	215	219	251	256	255	270	269	259	261	273	254	222	224	222	208	190	184	168	242.0
26-Oct	164	162	143	106	103	102	78	71	45	52	58	68	55	53	60	46	43	54	33	5	10	9	318	280	63.6
27-Oct	287	289	285	282	271	UO	UO	UO	UO	281	284	285	286	289	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	284	288	276	279	274	277	268	251	272	208	232	204	172	154	--
29-Oct	140	149	148	127	118	98	101	94	100	107	108	21	5	12	355	357	312	323	311	326	321	319	307	313	66.3
30-Oct	309	307	315	307	313	305	303	316	305	284	275	255	261	251	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
31-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	177	174	173	M	182	172	169	170	174	174	175	180	185	191	196	--
	217.5	219.3	221.6	221.5	222.0	215.0	217.5	223.1	233.6	241.1	242.8	241.4	250.7	246.8	244.3	244.5	246.6	232.3	223.6	220.7	218.5	212.5	214.3	212.4	

Diurnal Average

C - Calibration M - Maintenance UO - Unstable Operation

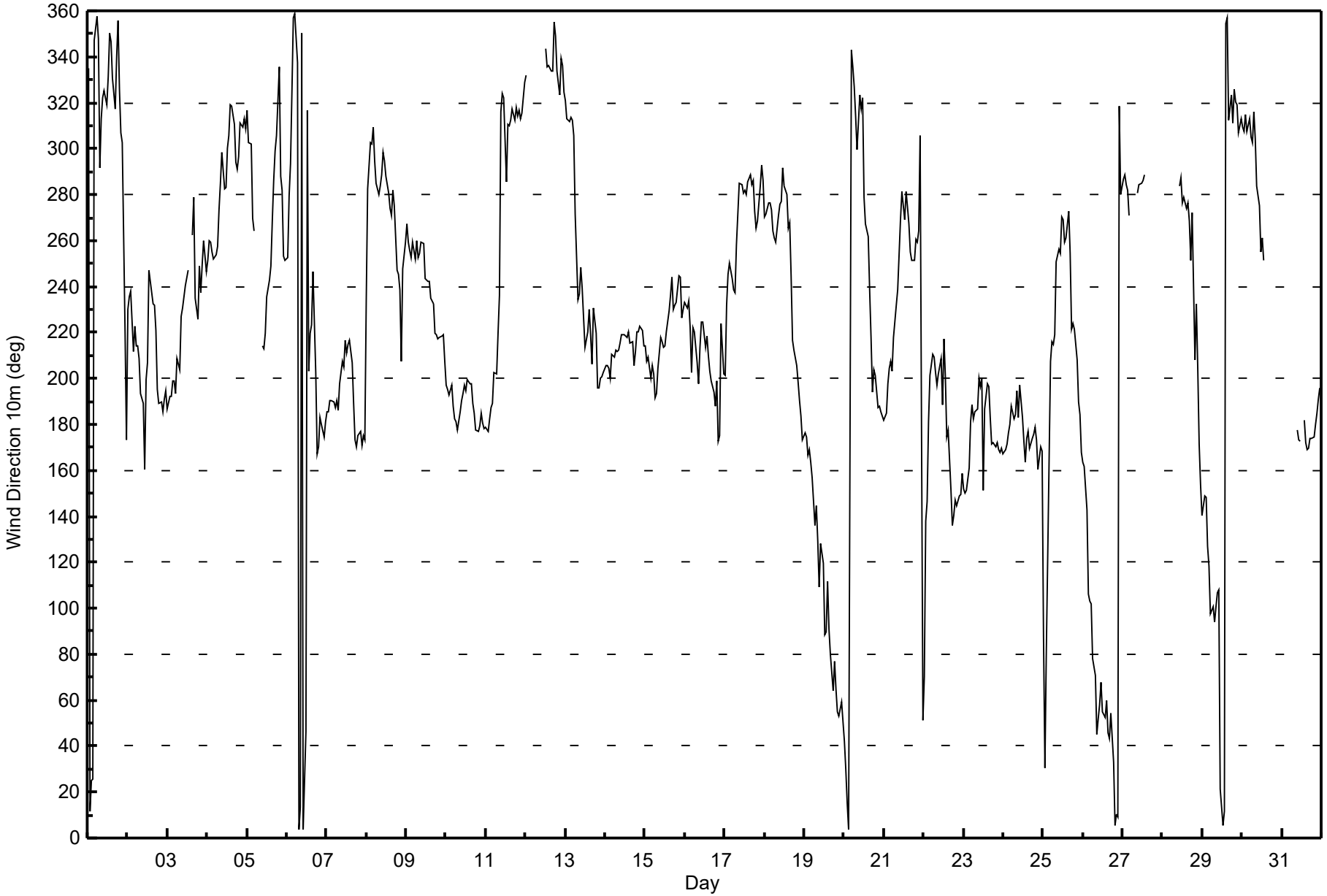
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Jackfish 2/3 - October 2025



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Jackfish 2/3 - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 91 deg on Oct 2 04:00

Minimum Value: 9 deg on Oct 27 14:00

Percentiles: P_1 = 13 P_{10} = 19 Q_1 = 25 Median = 31 Q_3 = 41 P_{90} = 51 P_{99} = 74

Hours in Service:	744
Hours of Data:	683
Hours of Missing Data:	61
Hours of Calibration:	2
Percent Operational Time:	92.1

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	67	51	48	48	59	54	60	49	57	55	54	54	63	53	57	61	54	71	51	43	46	69	85	66	85
2-Oct	49	17	79	91	26	16	23	23	31	30	61	55	68	50	46	39	28	22	26	29	25	28	21	24	91
3-Oct	26	20	22	25	24	25	27	27	28	27	31	28	29	C	C	34	39	49	33	29	20	31	28	16	49
4-Oct	18	25	22	20	24	21	26	34	45	48	43	41	49	48	51	53	53	39	39	43	50	51	46	49	53
5-Oct	52	43	41	25	24	UO	UO	UO	UO	20	20	23	25	24	28	34	41	48	52	68	49	52	20	19	68
6-Oct	17	29	31	45	50	48	54	54	48	57	66	86	76	81	49	41	25	19	18	33	27	27	29	30	86
7-Oct	29	29	26	26	23	23	23	24	26	26	26	28	31	32	30	34	35	52	47	44	36	41	38	33	52
8-Oct	53	48	46	42	47	48	33	35	37	39	43	46	42	46	38	39	39	26	13	15	16	22	26	24	53
9-Oct	28	21	18	17	23	18	22	20	22	29	34	30	27	28	25	26	23	22	18	19	18	18	18	16	34
10-Oct	17	16	15	16	16	13	15	17	20	26	31	34	38	34	34	34	32	33	35	41	40	37	35	32	41
11-Oct	33	35	36	27	25	30	32	26	43	45	55	50	36	41	47	46	43	44	42	42	46	46	47	47	55
12-Oct	51	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	48	50	53	50	52	53	52	40	49	42	45	41	53
13-Oct	46	41	41	36	44	37	30	31	24	31	41	26	32	36	30	34	29	23	25	27	29	31	27	29	46
14-Oct	26	27	27	29	25	26	25	25	24	26	26	28	29	29	28	29	27	24	24	21	21	20	19	19	29
15-Oct	21	19	21	20	20	21	21	22	23	25	25	25	27	28	27	22	20	17	16	15	16	16	17	16	28
16-Oct	16	17	16	16	17	14	16	16	15	21	25	26	31	29	30	31	34	30	31	28	39	41	36	27	41
17-Oct	18	28	21	21	20	22	32	30	38	37	37	35	38	36	36	40	34	36	31	26	32	31	34	29	40
18-Oct	28	30	33	34	32	27	23	21	33	37	37	37	40	41	34	39	25	20	19	20	19	17	14	10	41
19-Oct	12	15	26	31	33	37	41	42	39	32	38	40	29	30	40	30	31	27	29	26	27	26	25	26	42
20-Oct	26	34	52	48	47	46	41	45	40	45	42	60	42	38	32	25	25	27	25	25	29	28	29	29	60
21-Oct	29	31	25	27	24	20	22	20	20	25	33	38	35	37	35	33	23	17	17	25	21	26	56	55	56
22-Oct	31	35	20	19	13	14	16	17	16	20	28	34	38	36	43	36	57	41	48	46	43	47	40	47	57
23-Oct	51	44	48	41	39	32	27	22	27	23	28	58	66	57	44	32	29	35	30	26	26	29	30	31	66
24-Oct	32	32	32	30	29	30	25	26	27	27	24	29	42	39	43	38	44	30	26	27	29	38	33	50	50
25-Oct	32	84	35	61	73	16	17	24	19	25	24	36	33	29	35	35	27	21	22	20	20	17	13	14	84
26-Oct	20	27	35	20	25	30	35	30	23	20	23	26	23	25	27	30	30	29	36	46	41	45	43	30	46
27-Oct	31	31	33	35	35	UO	UO	UO	UO	29	24	13	10	9	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	35
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	31	34	36	34	35	34	34	27	33	29	27	37	30	31	37
29-Oct	32	39	42	34	34	25	26	32	29	43	43	51	48	41	50	53	56	53	49	62	53	58	59	52	62
30-Oct	53	53	52	47	50	48	41	45	42	47	41	27	31	30	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	53
31-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	31	33	38	M	33	42	39	48	38	36	38	35	34	33	33	48
	67	84	79	91	73	54	60	54	57	57	66	86	76	81	57	61	57	71	52	68	53	69	85	66	
	Diurnal Maximum																								

C - Calibration M - Maintenance UO - Unstable Operation

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS29
SURMONT 2
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - SURMONT2 (AMS29)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	705	36	39	99.6	7.9	0	1.8	0
H2S (ppb) Average	703	38	41	99.6	0.4	0	0.2	0
THC(ppm) Average	671	35	73	94.89	2.6	-	2.4	-
NO2 (ppb) Average	703	39	41	99.73	8.3	0	3.2	-
NO (ppb) Average	703	39	41	99.73	2.1	-	0.4	-
NOX (ppb) Average	703	39	41	99.73	8.5	-	3.5	-
PM2.5 (ug/m3) Average	741	3	3	100	17.3	0	7.8	0
Temperature 2 m (C) Average	744	0	0	100	20.1	-	11.2	-
Relative Humidity (%) Average	731	0	13	98.25	100.9	-	99.6	-
Wind Speed 10 m (km/h) Average	738	0	6	99.19	16	-	11	-
Wind Direction 10 m (deg) Average	738	0	6	99.19	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - SURMONT 2 (AMS29)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	705	0.32	0.6	-	0	0	0	0.1	0.4	0.8	7.9
H2S (ppb) Average	703	0.07	0	-	0	0	0	0.1	0.1	0.1	0.4
THC (ppm) Average	671	2.29	0	-	2.2	2.2	2.3	2.3	2.3	2.3	2.6
NO2 (ppb) Average	703	1.23	1.1	-	0.1	0.3	0.4	0.9	1.6	2.8	8.3
NO (ppb) Average	703	0.11	0.2	-	0	0	0	0	0.1	0.3	2.1
NOX (ppb) Average	703	1.34	1.2	-	0.1	0.3	0.5	1	1.7	3	8.5
PM2.5 (ug/m3) Average	741	2.84	2.3	-	0.1	0.5	1.4	2.5	3.6	5	17.3
Temperature 2 m (C) Average	744	4.13	4.8	-	-3.3	-1.2	0	3.3	7.5	10.8	20.1
Relative Humidity (%) Average	731	77.01	18.7	-	26.9	49.1	63.3	81.1	92.6	99.1	100.9
Wind Speed 10 m (km/h) Average	738	6.3	3	-	0	2	4	6	9	11	16
Wind Direction 10 m (deg) Average	738	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - SURMONT 2 (AMS29)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
H2S,SO2,THC	03 Oct 2025 12:00	03 Oct 2025 12:00	1	Maintenance - sample manifold cleaned
H2S,NOx,SO2	11 Oct 2025 13:00	11 Oct 2025 14:00	2	Maintenance - sample manifold cleaned
THC	10 Oct 2025 02:00	11 Oct 2025 09:00	32	Unstable Operation - excessive baseline drift
THC	11 Oct 2025 10:00	11 Oct 2025 14:00	5	Maintenance - zero air generator replaced
Relative Humidity	01 Oct 2025 04:00	01 Oct 2025 09:00	6	Sensor operated out of range
Relative Humidity	02 Oct 2025 03:00	02 Oct 2025 03:00	1	Sensor operated out of range
Relative Humidity	02 Oct 2025 07:00	02 Oct 2025 07:00	1	Sensor operated out of range
Relative Humidity	02 Oct 2025 20:00	03 Oct 2025 00:00	5	Sensor operated out of range
Wind Speed, Wind Direction	02 Oct 2025 06:00	02 Oct 2025 06:00	1	Flat line in sensor output signal
Wind Speed, Wind Direction	05 Oct 2025 05:00	05 Oct 2025 08:00	4	Flat line in sensor output signal
Wind Speed, Wind Direction	16 Oct 2025 09:00	16 Oct 2025 09:00	1	Flat line in sensor output signal

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Surmont 2 - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 7.9 ppb on Oct 3 02:00 Maximum Daily Average: 1.8 ppb on Oct 14

Minimum Value: 0.0 ppb on Oct 1 07:00 Minimum Daily Average: 0.0 ppb on Oct 28

Maximum Diurnal Average: 0.6 ppb at hour 2 Minimum Diurnal Average: 0.2 ppb at hour 8

Monthly Average: 0.32 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.4 P_{90} = 0.8 P_{99} = 2.6

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	36
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.1	0.1	Z	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.3	0.1	0.1	0.1	0.0	0.1	0.3
2-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.5	0.1	0.4	0.2	0.4	0.8	0.6	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.2	0.8
3-Oct	1.1	7.9	0.7	0.3	1.3	Z	2.2	0.3	0.2	0.2	0.3	M	0.0	0.1	0.0	0.0	0.2	0.8	0.0	0.0	0.1	0.0	0.0	0.0	0.7	7.9
4-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.5	0.4	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.1	0.2	0.9
5-Oct	0.1	Z	0.1	0.0	0.0	0.3	0.1	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.4	0.5	0.1	0.0	0.2	0.6	0.7	0.3	0.7	0.2	0.7
6-Oct	0.4	0.2	Z	0.2	0.1	0.1	0.2	0.2	0.2	0.9	0.4	0.1	0.1	0.7	1.4	0.7	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.3	1.4
7-Oct	0.4	0.0	0.1	Z	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.2	0.1	0.1	1.4
8-Oct	0.1	0.1	0.1	0.3	Z	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.6	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.6
9-Oct	0.0	0.1	0.1	0.2	0.3	Z	0.0	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.9	2.1	2.2	0.9	0.4	0.2	0.0	0.4	2.2
10-Oct	Z	0.1	0.2	0.1	0.2	0.3	0.3	0.3	0.3	0.5	0.4	0.4	0.4	0.2	0.1	0.1	0.4	0.4	0.0	0.3	0.4	0.5	0.2	0.5	0.3	0.5
11-Oct	0.4	Z	0.3	0.3	0.2	0.1	0.1	0.1	0.5	0.2	0.6	1.7	M	M	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	1.7
12-Oct	0.2	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
13-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.0	0.0	0.2	1.3	1.0	2.0	2.1	2.6	0.4	2.6
14-Oct	2.0	3.1	2.1	2.2	Z	1.7	1.4	1.4	1.6	2.1	2.8	1.9	3.3	2.3	1.6	2.4	1.9	2.1	2.6	1.4	0.7	0.5	0.5	0.4	1.8	3.3
15-Oct	0.5	1.1	0.5	0.3	2.4	Z	0.2	0.1	0.4	2.4	3.0	1.6	2.1	2.8	1.2	0.5	0.5	0.2	0.0	0.0	0.3	0.5	0.5	0.6	0.9	3.0
16-Oct	Z	0.6	0.3	0.2	0.1	0.0	0.0	0.1	0.2	0.6	2.5	0.5	1.8	0.6	0.2	0.0	0.0	0.1	0.6	1.5	0.4	0.5	0.3	1.9	0.6	2.5
17-Oct	1.1	Z	0.3	0.4	0.6	0.5	0.4	0.2	0.2	0.2	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.2	1.1
18-Oct	0.0	0.0	Z	0.9	0.9	0.9	0.4	0.3	0.4	0.6	0.2	0.1	0.1	0.8	0.3	0.2	0.2	0.0	0.0	0.2	0.2	0.2	0.1	0.1	0.3	0.9
19-Oct	0.1	0.0	0.1	Z	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2
20-Oct	0.0	0.0	0.1	0.1	Z	0.2	0.1	0.1	0.3	1.7	1.7	1.0	0.5	0.3	0.8	0.1	0.3	0.5	0.7	0.4	0.6	0.3	0.0	0.1	0.4	1.7
21-Oct	0.4	0.2	0.2	0.3	0.5	Z	0.2	0.0	0.1	0.0	0.0	0.2	0.5	0.4	0.4	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5
22-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.9	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.9
23-Oct	0.1	Z	0.2	0.3	0.4	0.3	0.3	0.4	0.3	0.4	0.6	0.6	0.6	0.7	0.5	0.7	0.5	0.1	0.2	0.2	0.2	0.3	0.4	0.5	0.4	0.7
24-Oct	0.9	1.0	Z	0.8	0.8	0.7	0.7	0.6	0.5	0.3	C	C	C	C	C	0.8	0.4	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.5	1.0
25-Oct	0.0	0.0	0.1	Z	0.2	0.0	0.0	0.1	0.0	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.2
26-Oct	0.0	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2
27-Oct	0.1	0.1	0.2	0.2	0.2	Z	0.1	0.1	0.4	0.3	0.6	0.9	1.1	0.6	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.1
28-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
29-Oct	0.0	Z	0.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
30-Oct	0.2	0.1	Z	0.5	1.5	1.3	2.0	0.5	0.1	0.7	0.4	0.6	0.0	0.0	0.0	0.2	0.0	0.8	0.2	0.4	0.2	0.2	0.6	0.8	0.5	2.0
31-Oct	0.6	0.2	0.2	Z	0.4	0.2	0.2	0.1	0.4	0.7	0.9	0.7	0.6	0.5	0.6	0.5	0.4	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.4	0.9
	0.3	0.6	0.2	0.3	0.5	0.3	0.3	0.2	0.2	0.4	0.5	0.4	0.5	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	Diurnal Average	
	2.0	7.9	2.1	2.2	2.4	1.7	2.2	1.4	1.6	2.4	3.0	1.9	3.3	2.8	1.6	2.4	1.9	2.1	2.6	2.2	1.0	2.0	2.1	2.6	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

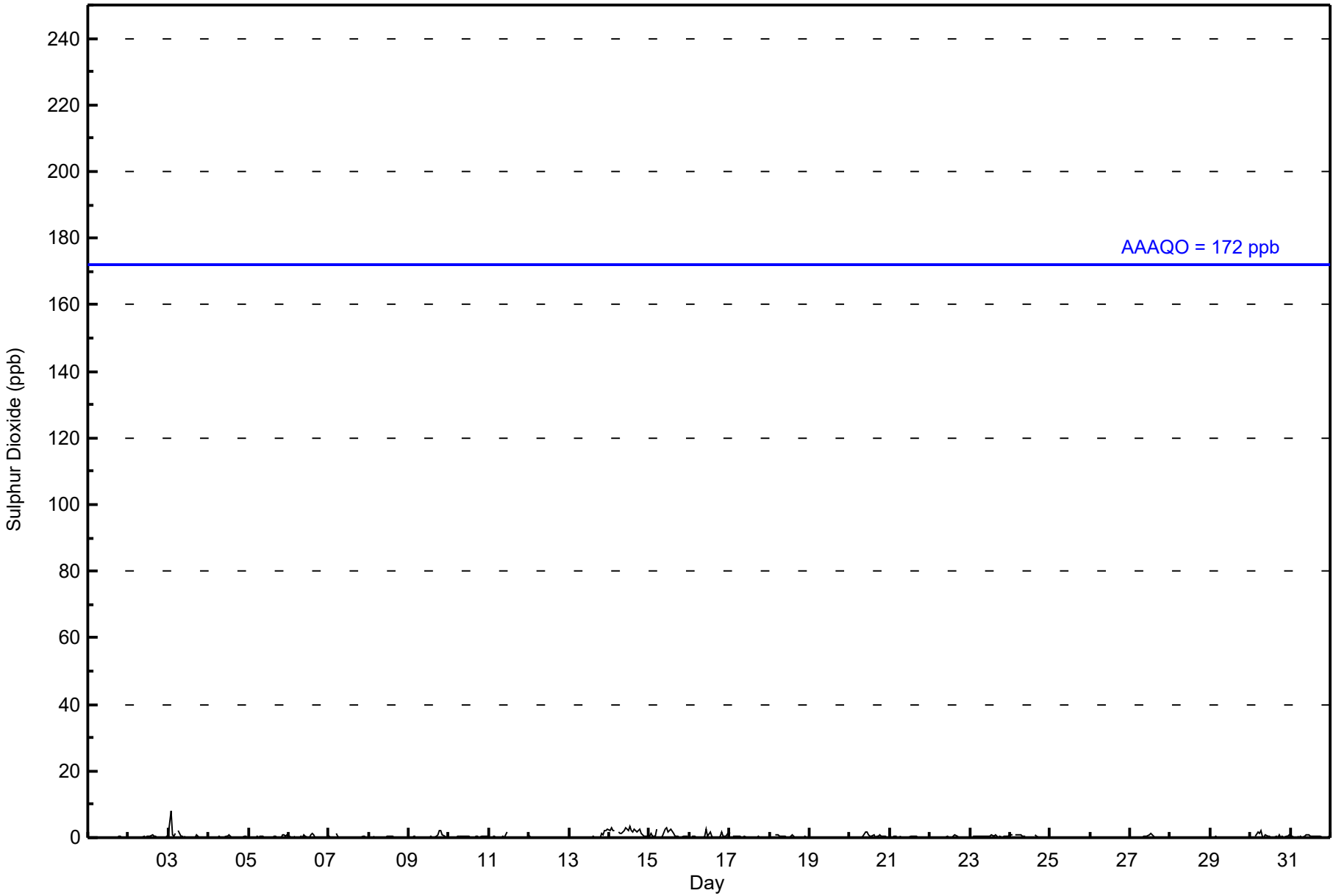
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Surmont 2 - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	705	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Surmont 2 - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	13	8	7	10	8	30	83	54	42	39	37	85	96	90	54	43	699
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	13	8	7	10	8	30	83	54	42	39	37	85	96	90	54	43	699

Total Number of Valid Hours: 699

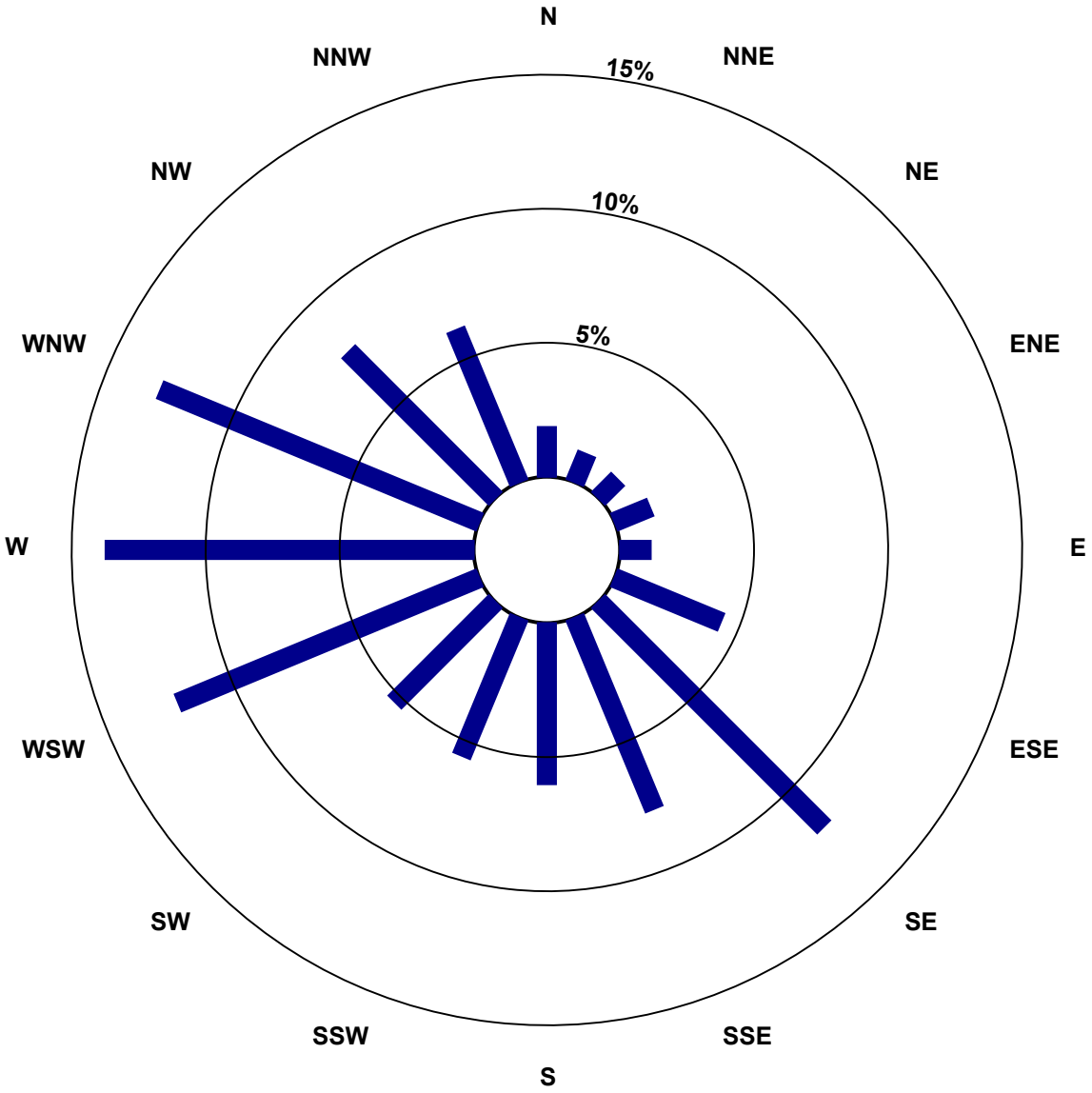
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Surmont 2



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

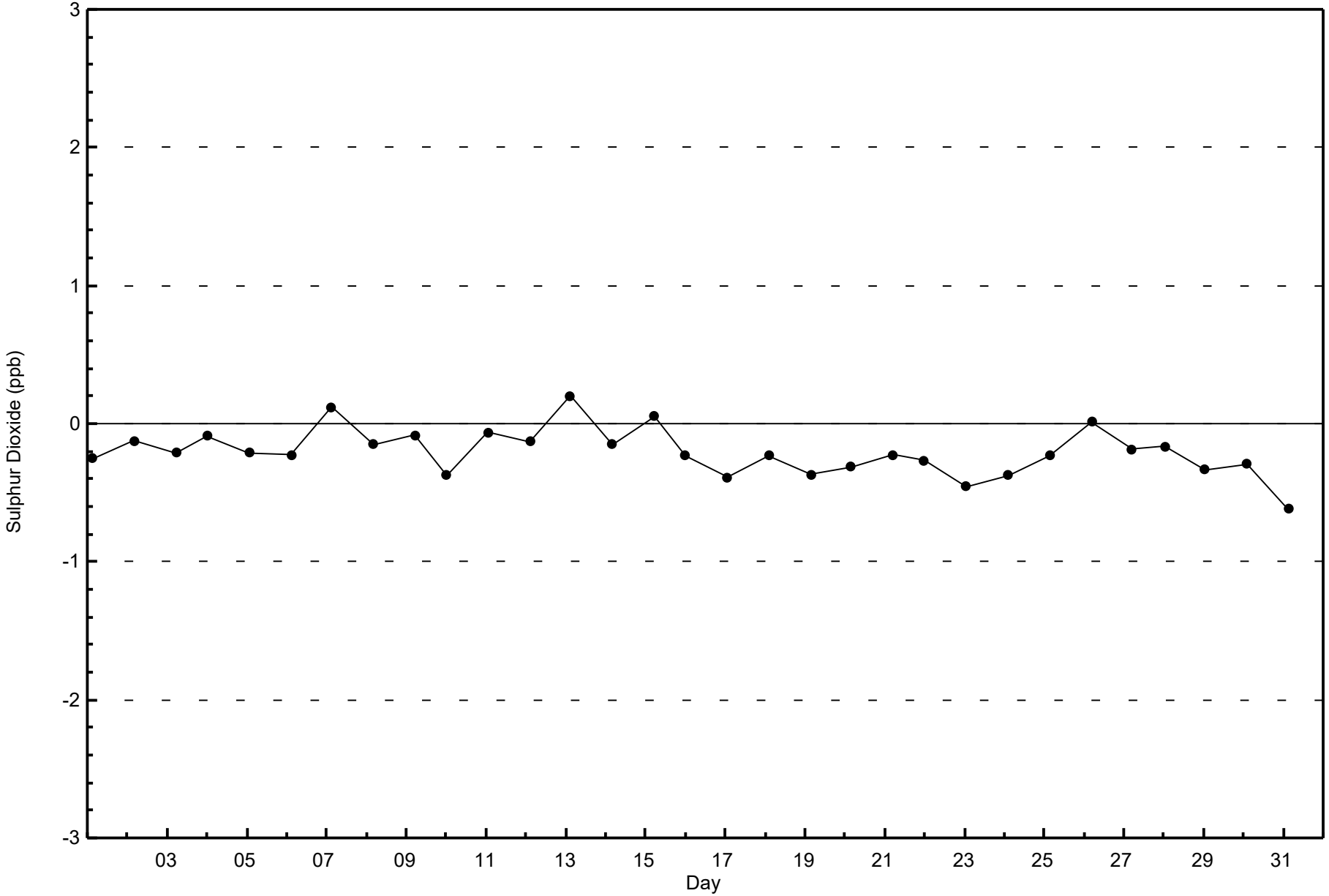
Total Number of Valid Hours: 699

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Surmont 2 - October 2025



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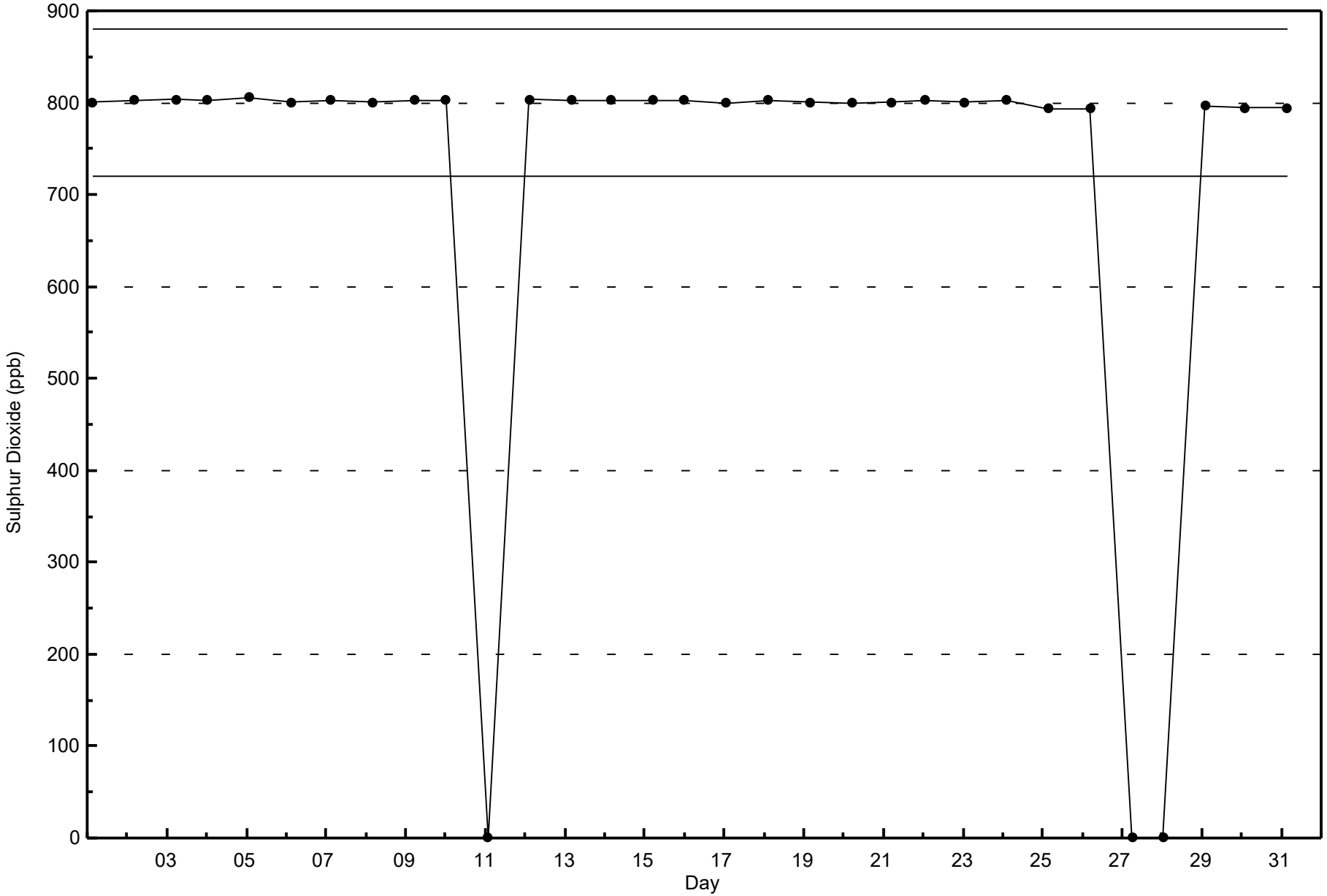
Span Responses

Sulphur Dioxide (SO_2) - ppb

Surmont 2 - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H_2S) - ppb

Surmont 2 - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 0.4 ppb on Oct 1 06:00

Maximum Daily Average: 0.2 ppb on Oct 1

Minimum Value: 0.0 ppb on Oct 10 14:00

Minimum Daily Average: 0.0 ppb on Oct 28

Maximum Diurnal Average: 0.1 ppb at hour 7

Minimum Diurnal Average: 0.1 ppb at hour 16

Monthly Average: 0.07 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.1 P_{90} = 0.1 P_{99} = 0.2

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	38
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.1	0.2	0.3	Z	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.4
2-Oct	0.1	0.1	0.1	0.2	0.1	Z	0.1	0.1	0.1	C	C	C	C	C	C	C	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	--	0.2
3-Oct	Z	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
4-Oct	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2
5-Oct	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
6-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
7-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
8-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
9-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1
10-Oct	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
11-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	M	M	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.2
12-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1
13-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
14-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15-Oct	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
16-Oct	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1
17-Oct	0.1	0.1	Z	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
18-Oct	0.0	0.1	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1
19-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
21-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1
23-Oct	0.1	0.0	Z	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
24-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
26-Oct	0.0	0.0	0.0	0.1	0.1	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
27-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
28-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29-Oct	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.1
30-Oct	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
31-Oct	0.1	0.0	0.0	0.1	Z	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.1	0.2	0.2	0.3	0.2	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

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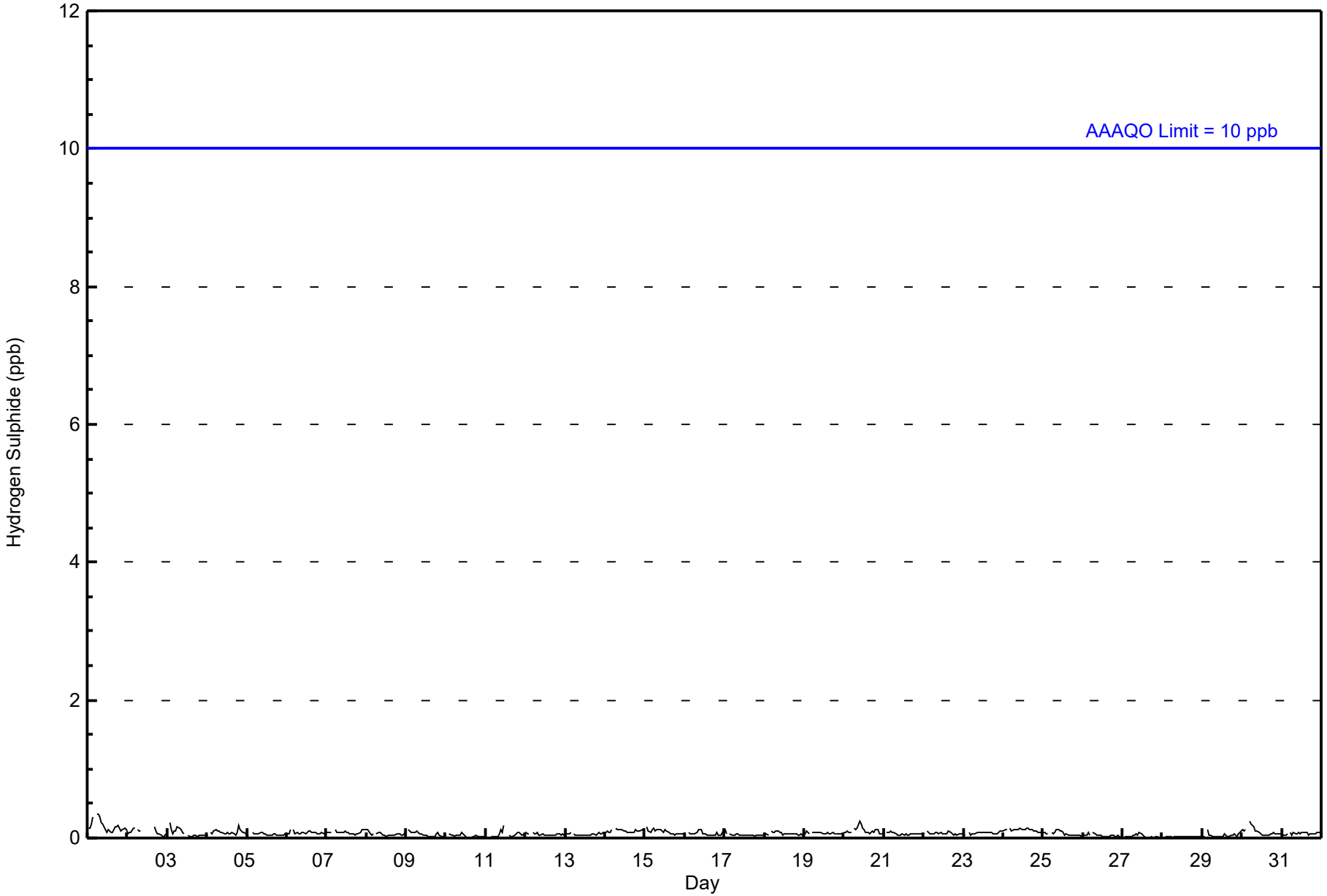
Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Surmont 2 - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	703	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744

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Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Surmont 2 - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	13	8	7	10	8	27	87	52	41	41	38	82	98	90	54	42	698
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	13	8	7	10	8	27	87	52	41	41	38	82	98	90	54	42	698

Total Number of Valid Hours: 698

Total Number of Hours: 744

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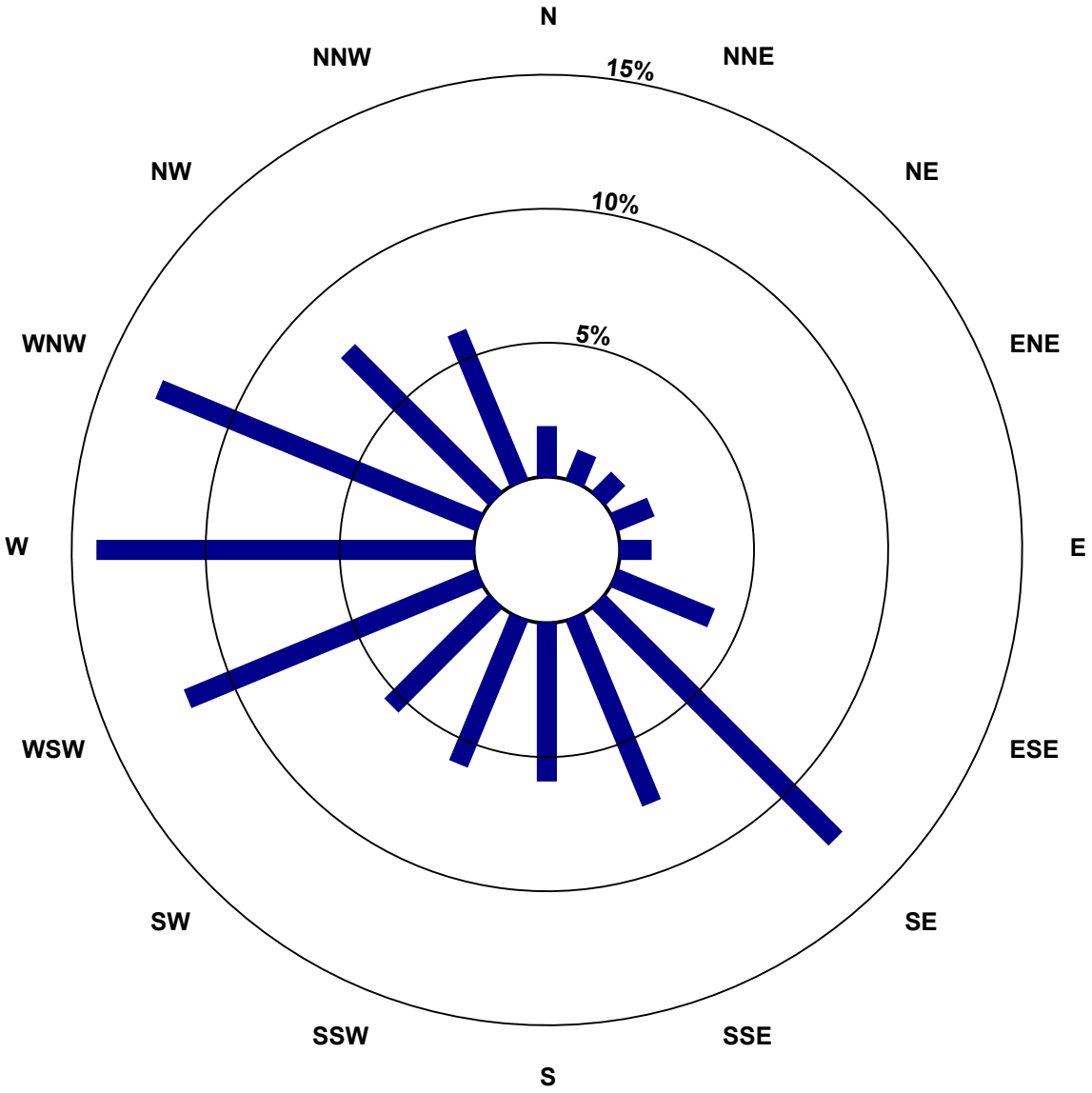
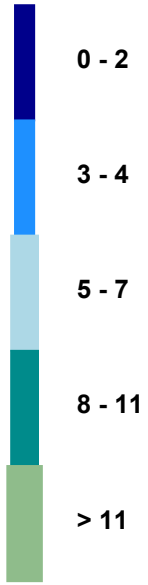
Wind Rose Oct 2025

Hydrogen Sulphide (H_2S) - ppb

Surmont 2



Classes (ppb)



Total Number of Valid Hours: 698

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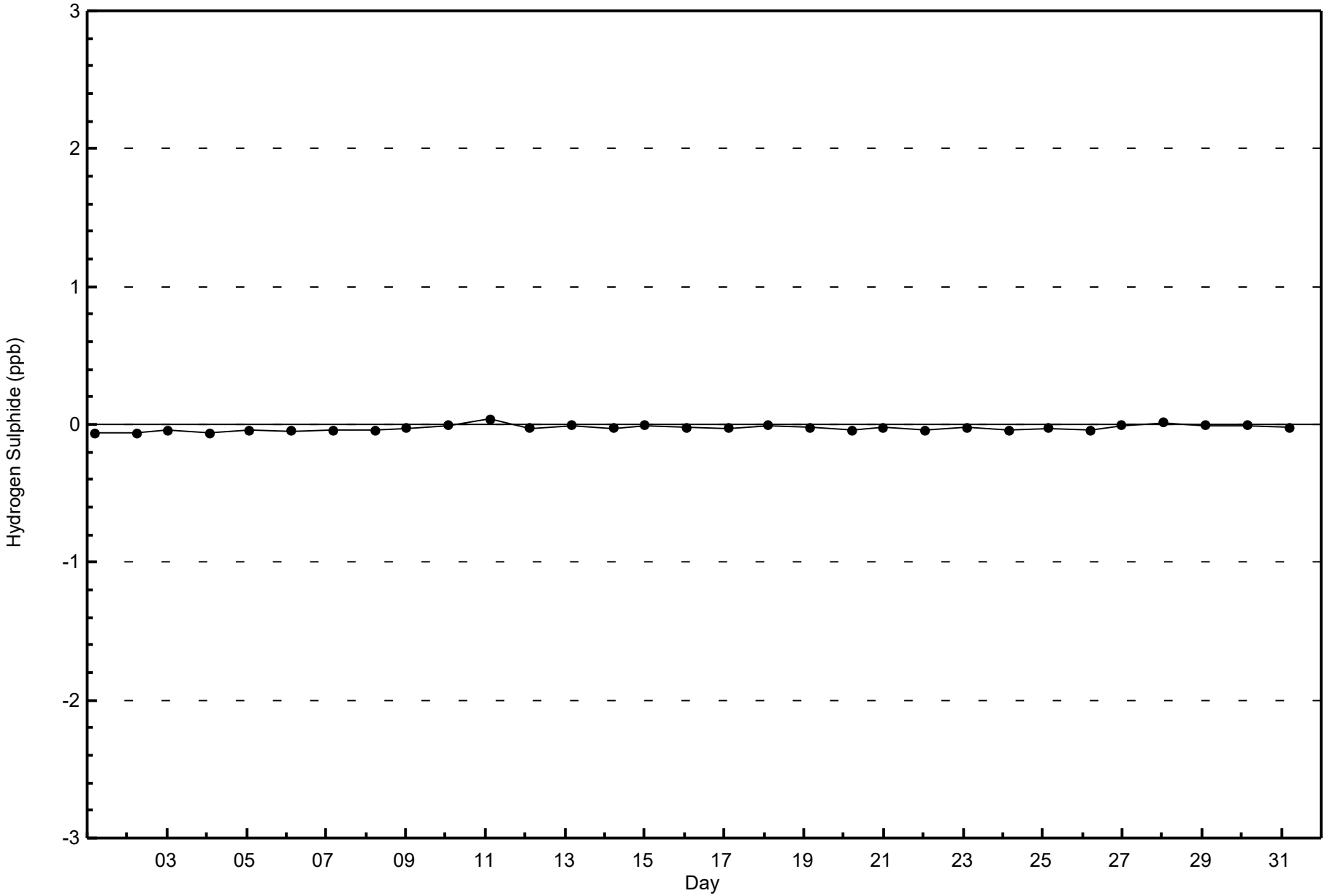
Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Surmont 2 - October 2025



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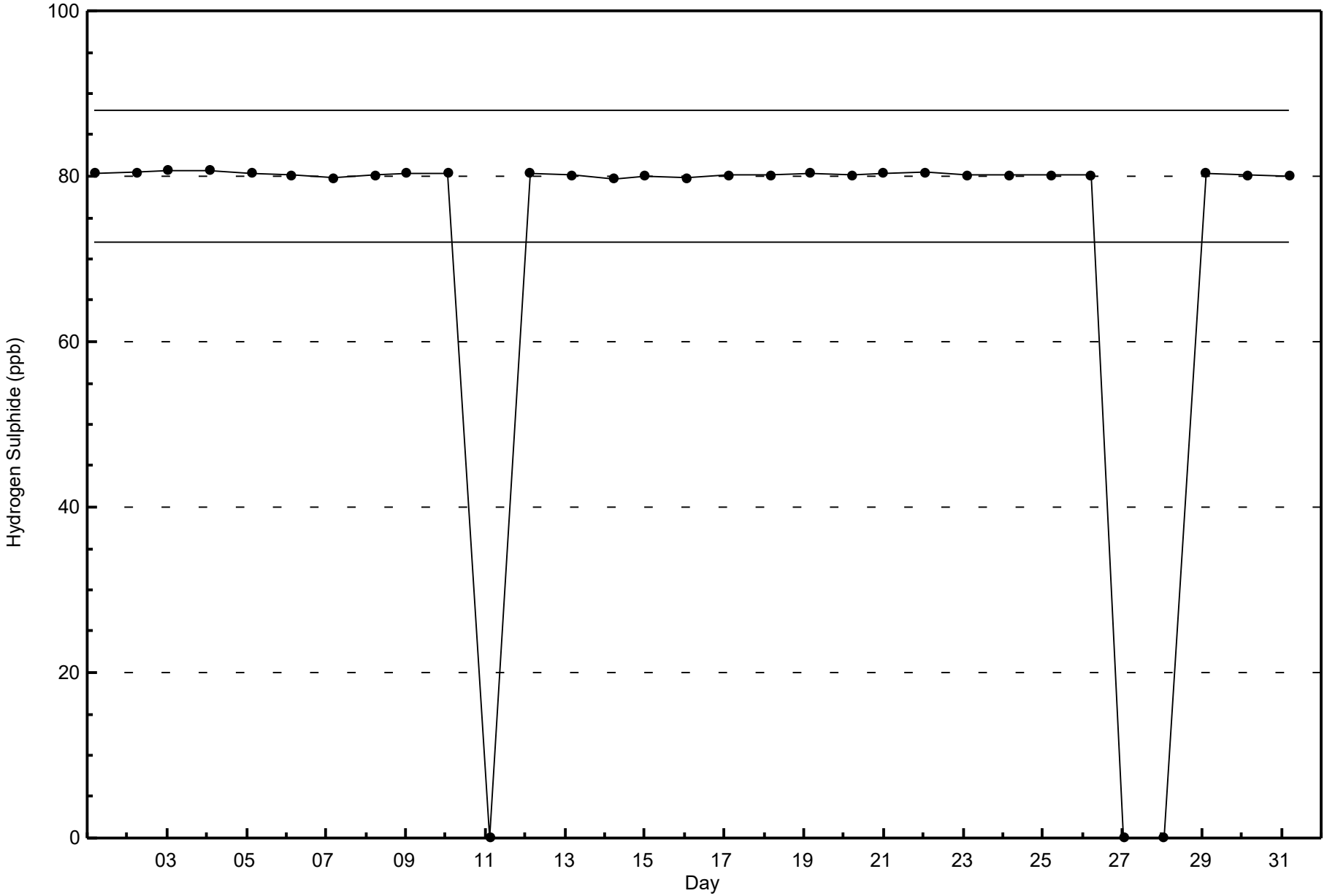
Span Responses

Hydrogen Sulphide (H_2S) - ppb

Surmont 2 - October 2025



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Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Surmont 2 - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 2.6 ppm on Oct 29 14:00

Maximum Daily Average: 2.4 ppm on Oct 25

Minimum Value: 2.2 ppm on Oct 17 11:00

Minimum Daily Average: 2.2 ppm on Oct 17

Maximum Diurnal Average: 2.3 ppm at hour 2

Minimum Diurnal Average: 2.3 ppm at hour 15

Monthly Average: 2.29 ppm

Percentiles: P_1 = 2.2 P_{10} = 2.2 Q_1 = 2.3 Median = 2.3 Q_3 = 2.3 P_{90} = 2.3 P_{99} = 2.4

Hours in Service:	744
Hours of Data:	671
Hours of Missing Data:	73
Hours of Calibration:	35
Percent Operational Time:	94.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.3	2.3	2.3	Z	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.4
2-Oct	2.3	2.3	2.3	2.4	Z	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4
3-Oct	2.3	2.3	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	M	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.3
4-Oct	Z	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
5-Oct	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
6-Oct	2.3	2.2	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
7-Oct	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.4
8-Oct	2.4	2.4	2.3	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4
9-Oct	2.3	2.3	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.3
10-Oct	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
11-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	M	M	M	M	M	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	--	2.3
12-Oct	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
13-Oct	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
14-Oct	2.3	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
15-Oct	2.3	2.3	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
16-Oct	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.2	2.2	2.2	2.3	2.3	2.3
17-Oct	2.3	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
18-Oct	2.2	2.2	Z	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.4
19-Oct	2.4	2.4	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4
20-Oct	2.4	2.3	2.3	2.3	Z	2.3	2.4	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4
21-Oct	2.3	2.3	2.3	2.3	2.3	Z	2.3	2.3	2.2	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.4
22-Oct	Z	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3
23-Oct	2.2	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
24-Oct	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	C	C	C	C	C	2.3	2.3	2.4	2.4	2.3	2.3	2.4	2.4	2.4	2.3	2.4
25-Oct	2.4	2.4	2.4	Z	2.4	2.4	2.4	2.5	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.5
26-Oct	2.3	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.3	2.4	2.2	2.2	2.2	2.3	2.2	2.2	2.3	2.4
27-Oct	2.2	2.2	2.2	2.2	2.2	Z	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.2	2.2	2.2	2.2	2.3
28-Oct	Z	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3
29-Oct	2.3	Z	2.3	2.3	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.6	2.2	2.2	2.2	2.4	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.6
30-Oct	2.3	2.3	Z	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4
31-Oct	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	Diurnal Average	
	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.4	2.4	2.4	2.6	2.3	2.3	2.3	2.4	2.4	2.3	2.4	2.4	2.4	2.4	Diurnal Maximum	

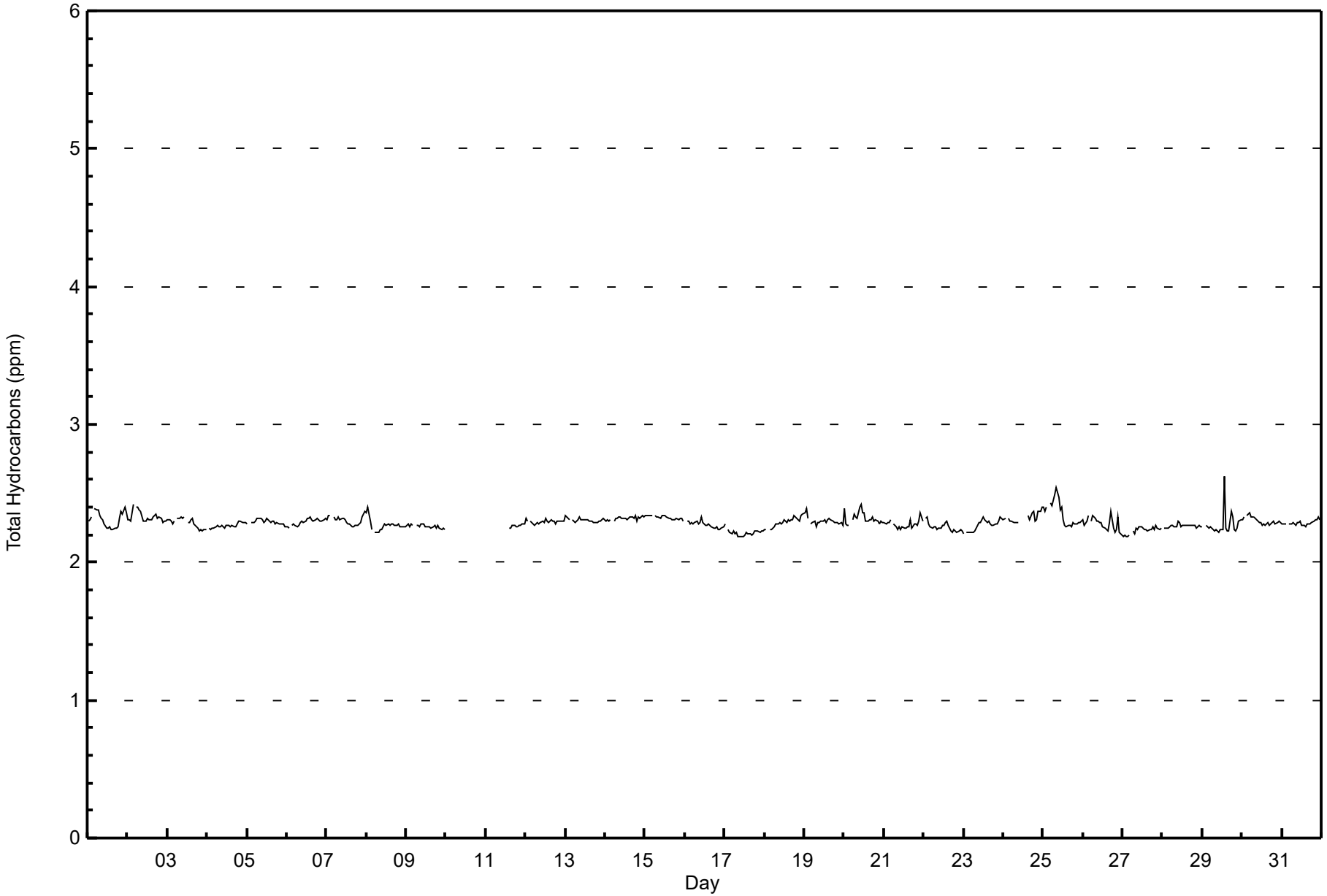
Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Surmont 2 - October 2025



Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	0	0.00	0.00
2.1 - 3.0	671	100.00	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 671

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Surmont 2 - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.1 - 3.0	13	8	7	10	6	28	78	45	38	36	35	82	96	90	54	39	665
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	13	8	7	10	6	28	78	45	38	36	35	82	96	90	54	39	665

Total Number of Valid Hours: 665

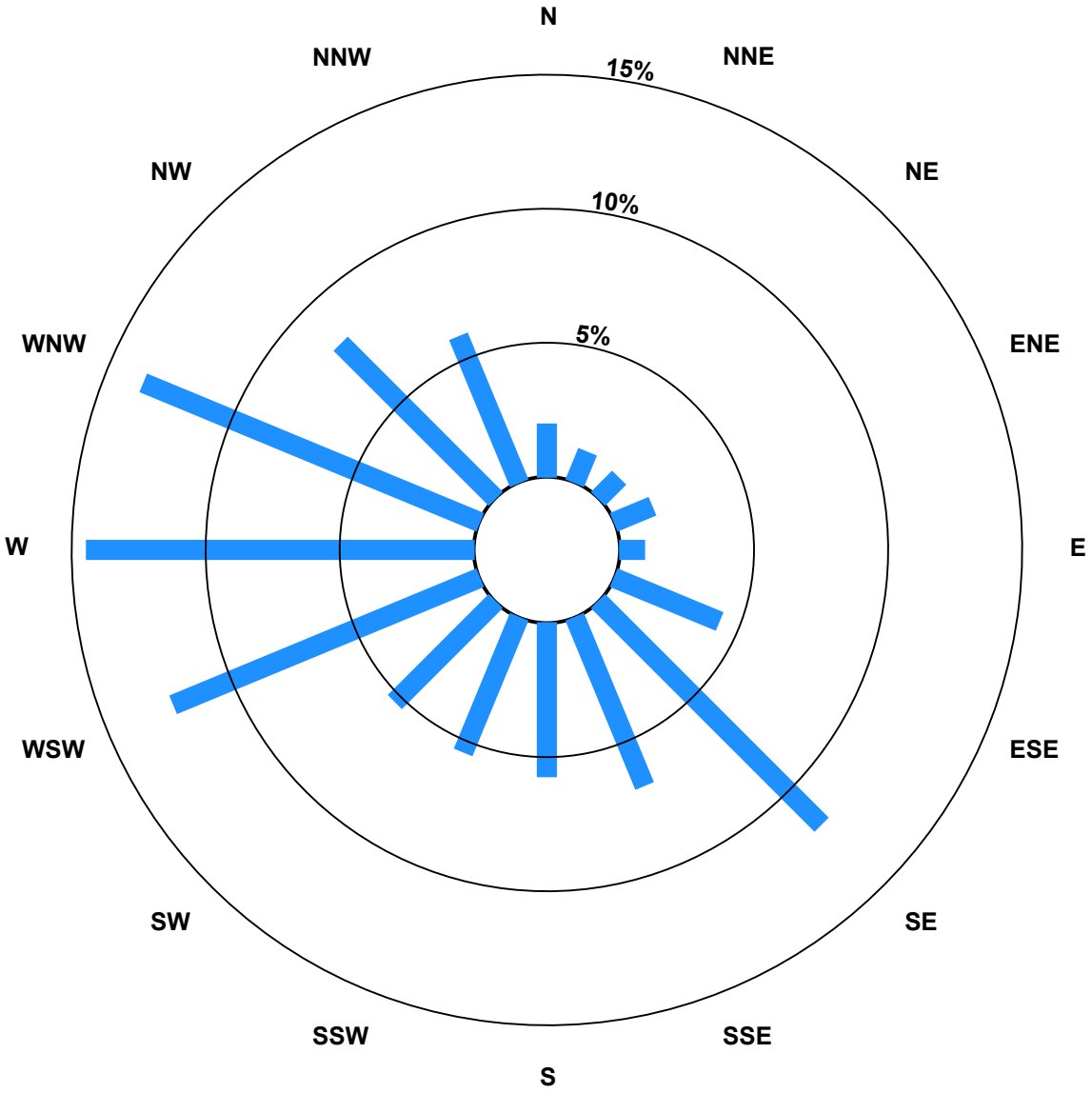
Total Number of Hours: 744

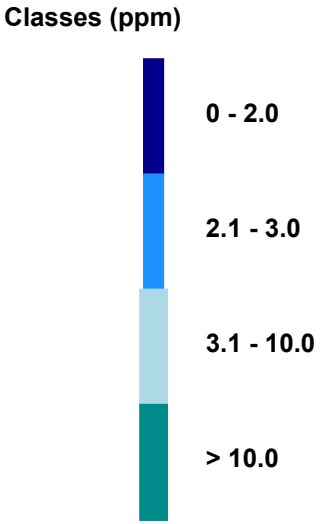
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Surmont 2





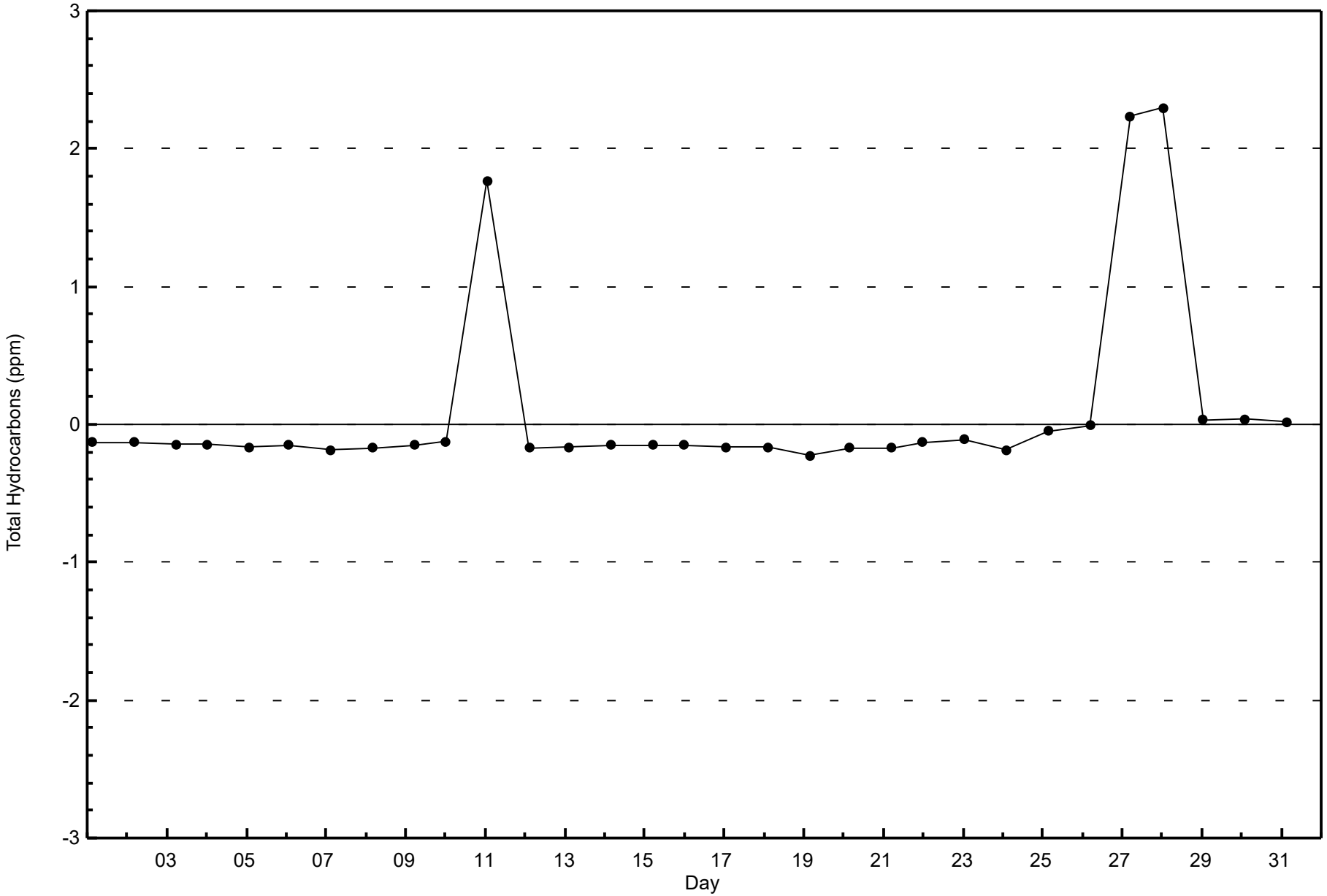
Total Number of Valid Hours: 665

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Surmont 2 - October 2025

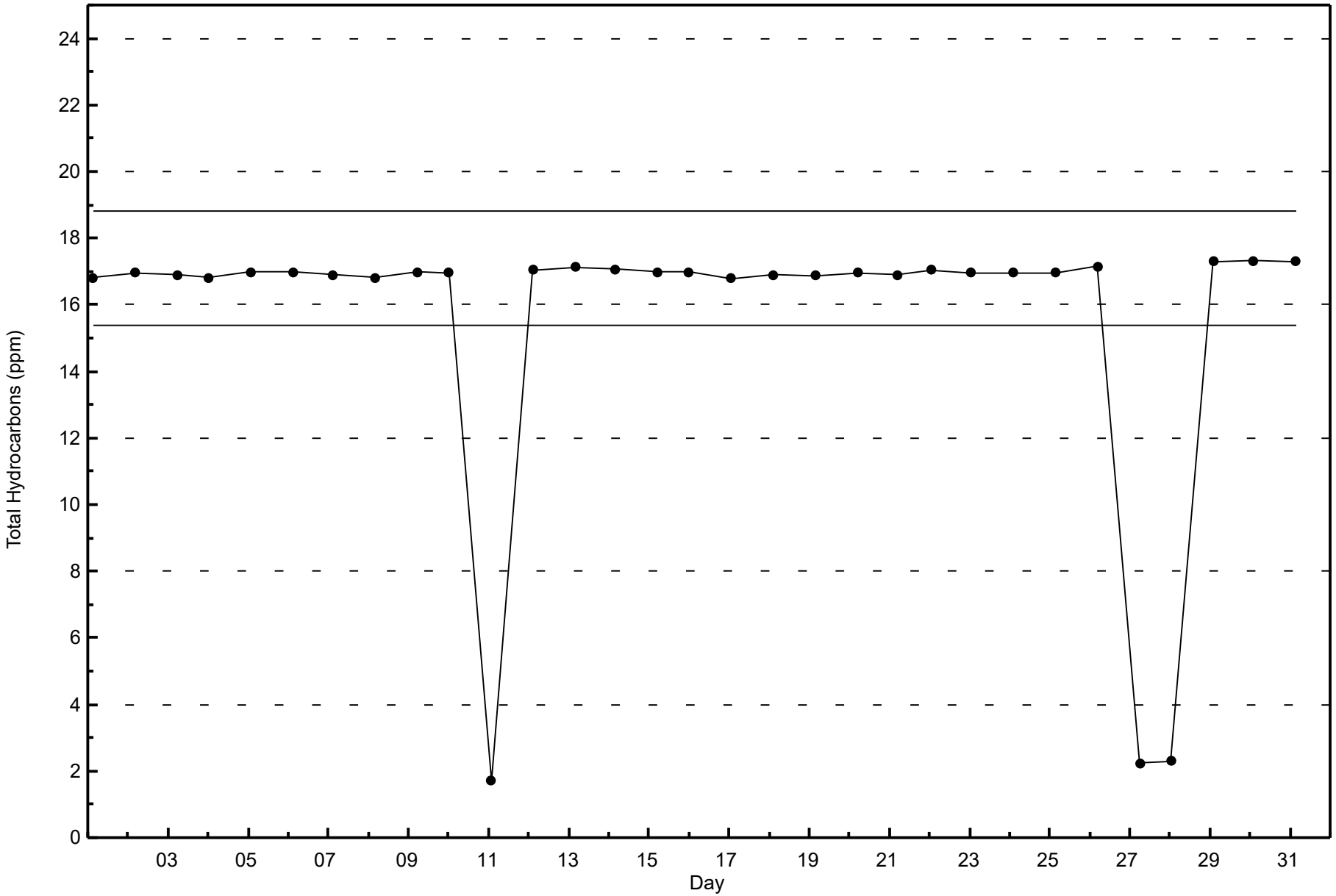


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Surmont 2 - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Surmont 2 - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 2.1 ppb on Oct 16 10:00

Maximum Daily Average: 0.4 ppb on Oct 14

Minimum Value: 0.0 ppb on Oct 1 01:00

Minimum Daily Average: 0.0 ppb on Oct 28

Maximum Diurnal Average: 0.4 ppb at hour 10

Minimum Diurnal Average: 0.0 ppb at hour 3

Monthly Average: 0.11 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.1 P_{90} = 0.3 P_{99} = 1.1

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	39
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
2-Oct	0.0	0.0	Z	0.0	0.1	0.1	0.1	0.6	0.6	0.4	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6
3-Oct	0.1	0.2	0.0	Z	0.1	0.1	0.1	0.2	0.5	C	C	C	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.5
4-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
5-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
6-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.1	0.8	0.5	0.4	0.5	0.9	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.1
7-Oct	0.0	Z	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.4	0.3	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
8-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
9-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
10-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.3	0.7	0.9	0.5	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9
11-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.1	0.4	0.5	0.8	M	M	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8
12-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
13-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2
14-Oct	0.1	0.1	Z	0.1	0.3	0.1	0.1	0.3	0.6	1.2	1.8	1.0	1.0	0.5	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.8
15-Oct	0.0	0.0	0.0	Z	0.1	0.1	0.0	0.3	0.7	1.3	1.3	0.7	0.7	0.7	0.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3
16-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.9	0.8	2.1	1.0	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	2.1
17-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
18-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.2
19-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
20-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.3	0.3	1.7	1.9	0.8	0.8	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.9
21-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.3	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.0	0.0	0.1	0.3
22-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.3	0.6	0.5	0.2	0.2	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
23-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.4	0.4	0.5	0.5	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
24-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.8	0.5	0.6	0.8	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.8
25-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
26-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.5	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
27-Oct	0.0	0.0	0.0	Z	0.0	0.1	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.3	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
28-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
29-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
30-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
31-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.4	0.4	0.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.1	0.2	0.0	0.1	0.3	0.1	0.2	0.9	0.8	2.1	1.9	1.0	1.0	0.8	0.9	0.4	0.3	0.1	0.1	0.2	0.1	0.3	0.1	0.1	Diurnal Maximum	

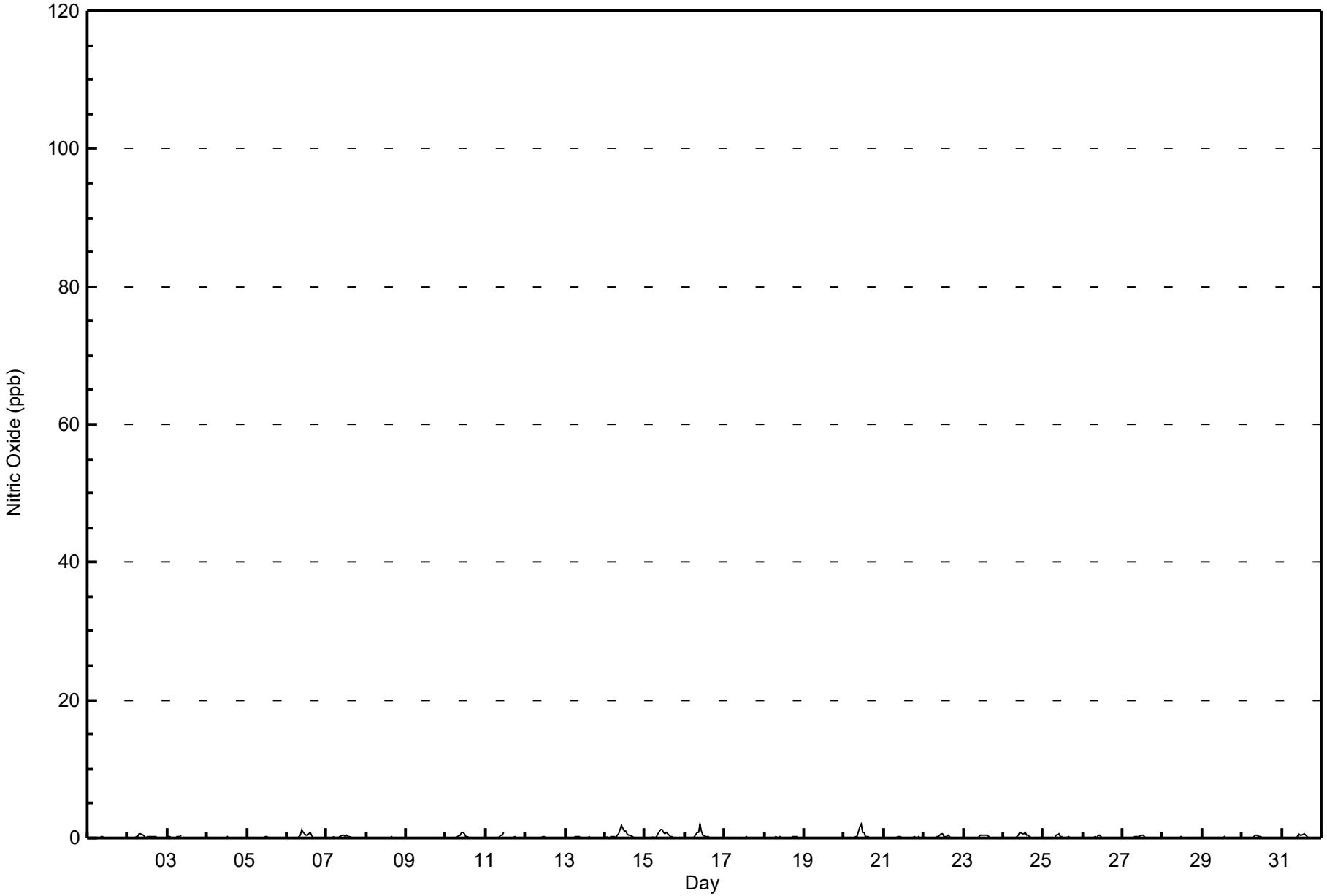
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Surmont 2 - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	703	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Surmont 2 - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	12	8	7	10	8	27	92	52	43	40	39	77	96	89	53	45	698
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	12	8	7	10	8	27	92	52	43	40	39	77	96	89	53	45	698

Total Number of Valid Hours: 698

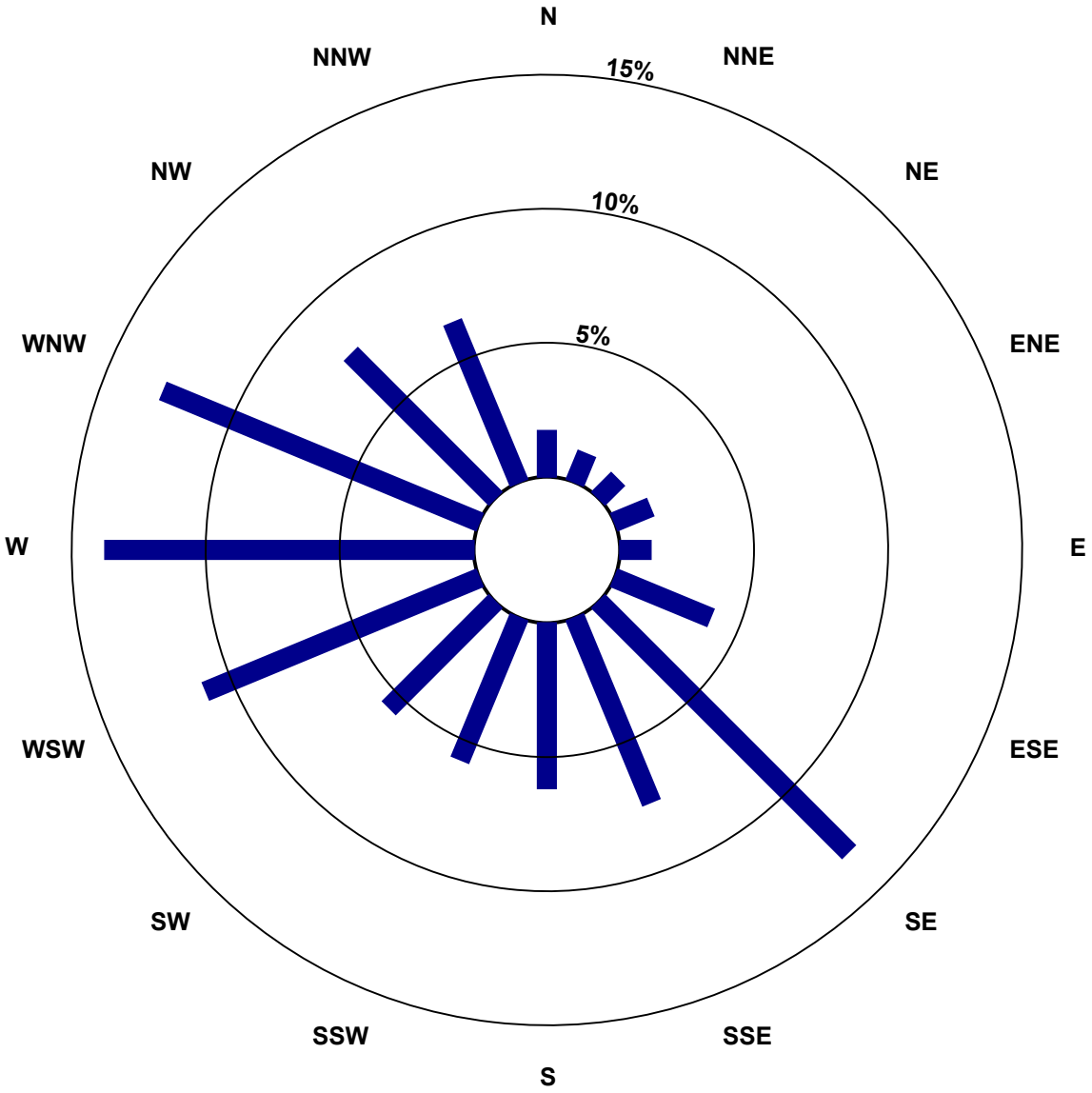
Total Number of Hours: 744

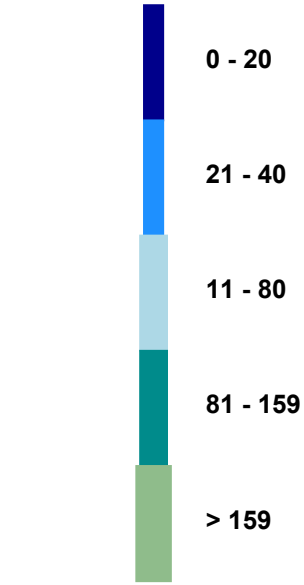
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Surmont 2





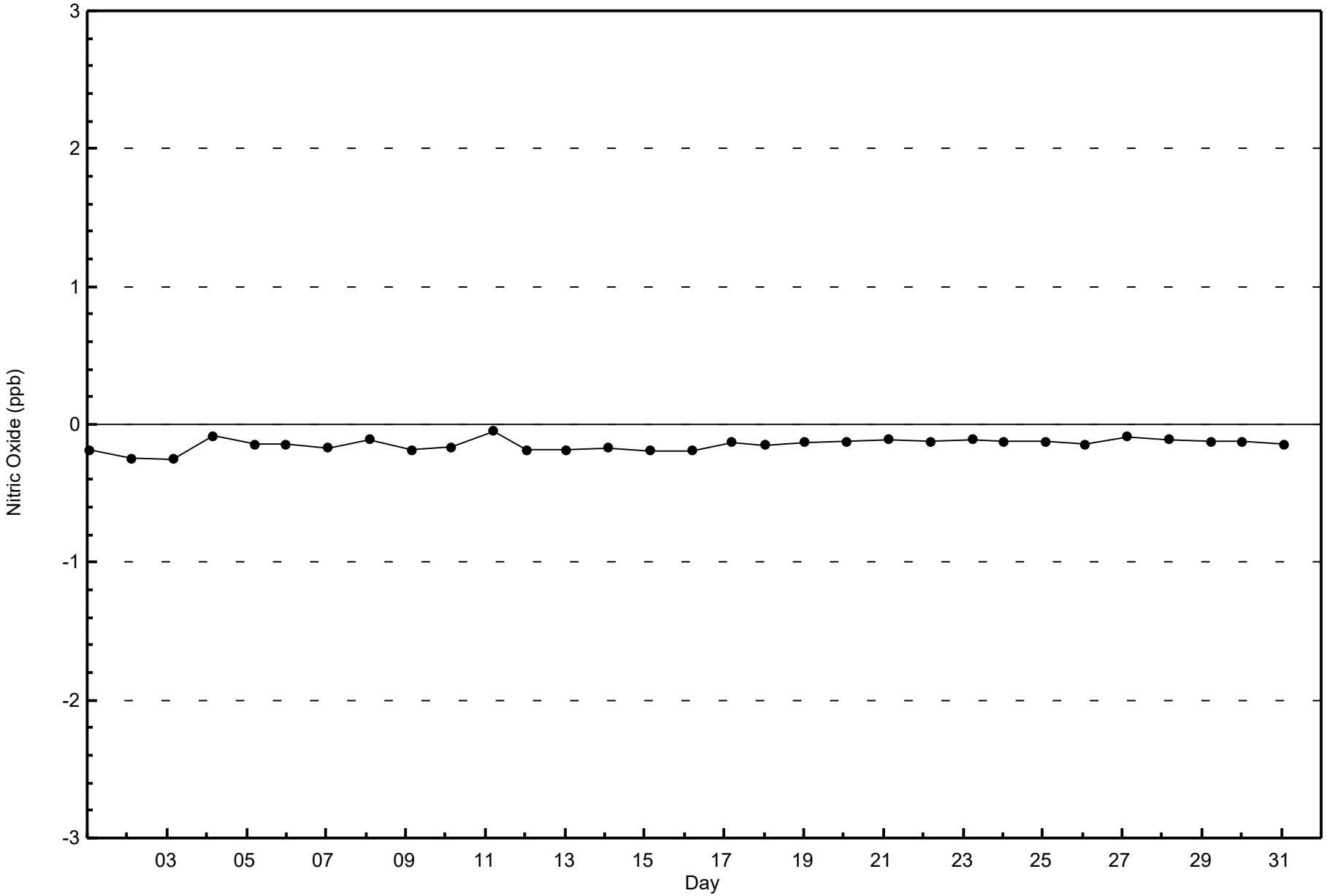
Total Number of Valid Hours: 698

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Surmont 2 - October 2025



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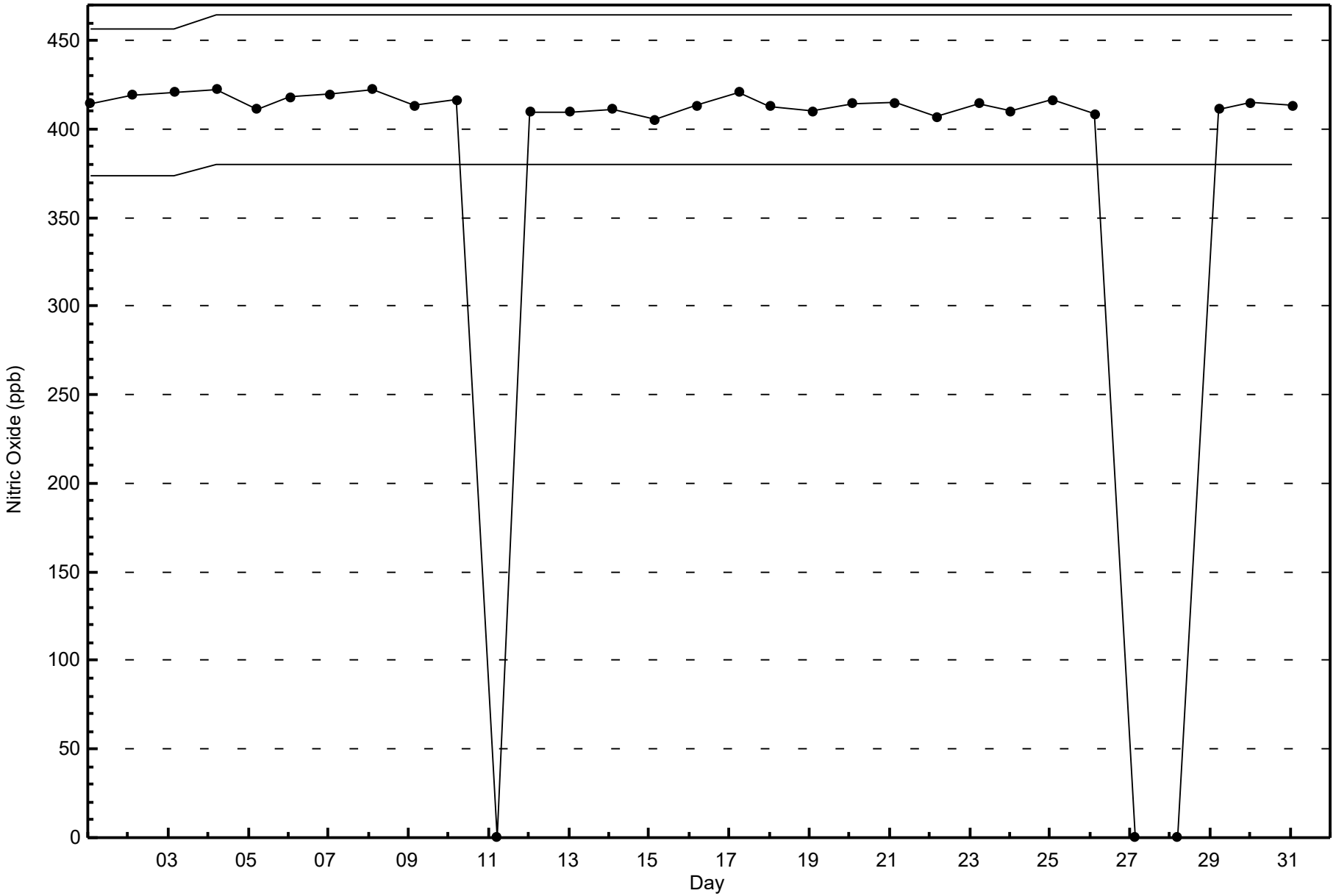
Span Responses

Nitric Oxide (NO) - ppb

Surmont 2 - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Surmont 2 - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 8.3 ppb on Oct 3 02:00

Maximum Daily Average: 3.2 ppb on Oct 14

Minimum Value: 0.1 ppb on Oct 5 02:00

Minimum Daily Average: 0.3 ppb on Oct 28

Maximum Diurnal Average: 1.8 ppb at hour 5

Minimum Diurnal Average: 0.9 ppb at hour 15

Monthly Average: 1.23 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.3 Q_1 = 0.4 Median = 0.9 Q_3 = 1.6 P_{90} = 2.8 P_{99} = 5.0

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	39
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.0	Z	2.7	4.4	3.6	2.8	2.9	2.2	1.6	1.5	1.2	1.1	1.1	0.8	1.2	1.3	1.3	1.4	1.5	2.4	1.9	1.6	2.2	1.7	1.9	4.4
2-Oct	0.9	1.3	Z	1.4	0.6	0.5	1.3	0.9	0.6	1.0	0.7	0.5	0.6	0.6	1.0	1.5	1.8	1.6	1.1	0.4	0.3	0.2	0.2	1.9	0.9	1.9
3-Oct	3.7	8.3	1.7	Z	4.3	2.9	4.0	2.0	1.8	C	C	C	C	C	C	C	C	1.2	0.3	0.3	0.3	0.3	0.4	0.7	--	8.3
4-Oct	0.4	0.3	0.7	0.4	Z	0.4	0.4	0.5	0.4	0.2	0.4	0.4	0.8	0.7	0.3	0.4	0.4	0.2	1.0	1.5	0.8	0.6	0.9	0.3	0.5	1.5
5-Oct	0.2	0.1	0.1	0.1	0.3	Z	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.4	0.3	0.4	0.3	0.4	0.4	0.2	0.2	0.3	0.5
6-Oct	Z	0.5	1.9	1.1	1.3	0.8	1.0	1.0	1.4	2.2	1.5	0.9	0.8	1.3	2.0	1.3	0.9	0.8	0.9	0.7	0.7	1.0	1.0	1.0	1.1	2.2
7-Oct	1.6	Z	1.6	1.3	4.0	2.3	1.5	1.2	1.2	1.1	1.3	1.2	1.0	0.9	0.8	0.5	0.5	0.5	0.6	2.0	1.6	1.7	1.7	1.7	1.4	4.0
8-Oct	1.5	1.3	Z	0.5	0.3	0.3	0.6	0.4	0.4	0.4	0.2	0.2	0.2	0.3	0.3	0.5	0.4	0.3	0.4	0.8	0.6	0.4	0.2	0.3	0.5	1.5
9-Oct	0.2	0.2	0.3	Z	0.4	0.3	0.6	0.3	0.3	0.2	0.3	0.4	0.2	0.3	0.4	0.4	0.4	0.9	2.7	3.2	1.7	0.5	0.6	0.6	0.7	3.2
10-Oct	1.1	0.9	1.2	1.0	Z	1.4	1.7	1.0	1.1	1.8	2.1	1.8	1.4	1.0	0.6	0.7	0.9	1.5	2.1	1.8	1.5	1.5	1.5	1.7	1.4	2.1
11-Oct	1.6	1.6	1.8	1.8	1.7	Z	1.6	1.6	3.3	6.3	3.2	4.4	M	M	0.3	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.3	1.1	1.5	6.3
12-Oct	Z	2.0	1.7	1.3	1.0	0.8	0.6	0.9	0.2	0.3	0.7	0.5	0.5	0.6	0.7	0.9	1.0	1.1	0.6	0.6	0.8	1.0	1.2	1.4	0.9	2.0
13-Oct	2.4	Z	1.3	1.9	0.7	0.3	1.1	1.2	1.1	0.4	0.5	0.2	0.6	0.7	0.8	0.5	0.2	0.2	0.7	1.3	1.0	2.5	2.6	5.1	1.2	5.1
14-Oct	3.9	5.0	Z	4.2	5.9	3.1	3.3	3.2	3.0	3.0	3.5	2.2	2.3	1.5	1.4	2.4	2.4	2.9	4.0	2.9	2.9	3.3	3.6	3.5	3.2	5.9
15-Oct	3.7	4.3	3.3	Z	5.7	6.0	2.7	2.7	2.7	3.8	4.6	3.3	3.9	3.9	2.3	1.8	2.4	1.8	1.6	2.1	1.8	2.1	2.4	1.8	3.1	6.0
16-Oct	1.4	1.0	1.2	1.1	Z	1.0	2.6	5.2	3.1	3.9	3.3	1.4	1.3	1.2	1.0	0.5	0.5	0.4	1.3	3.2	0.8	0.7	1.0	3.4	1.8	5.2
17-Oct	3.0	1.3	1.1	0.6	0.6	Z	0.8	0.6	0.7	0.4	0.2	0.2	0.2	0.4	0.3	0.2	0.3	0.4	0.2	0.2	0.2	0.3	0.3	0.5	0.6	3.0
18-Oct	Z	0.5	0.4	0.6	0.6	0.7	0.6	0.8	0.6	0.5	0.4	0.2	0.3	0.3	0.3	0.4	0.5	3.9	4.0	2.7	1.3	1.4	1.2	1.0	1.0	4.0
19-Oct	1.0	Z	0.7	0.4	0.3	0.3	0.6	0.5	0.6	0.9	0.7	0.7	0.7	0.7	0.9	0.7	0.6	1.0	0.9	0.4	0.4	0.2	0.2	0.2	0.6	1.0
20-Oct	0.3	0.8	Z	0.5	1.9	2.3	4.7	3.0	2.3	4.2	3.7	2.8	2.2	1.2	1.5	0.6	1.7	2.5	1.5	1.4	2.4	1.2	1.0	1.3	2.0	4.7
21-Oct	1.9	1.2	1.3	Z	2.2	1.8	1.9	1.4	1.0	0.9	0.5	0.5	0.4	0.4	0.4	0.6	1.1	1.7	2.4	1.2	1.2	1.9	1.2	1.2	1.2	2.4
22-Oct	1.4	1.0	0.7	0.8	Z	0.6	0.4	0.5	0.6	0.5	0.9	1.0	0.8	0.7	1.0	2.2	1.3	0.5	0.6	1.8	1.0	0.9	0.5	0.6	0.9	2.2
23-Oct	0.5	0.4	0.4	0.4	0.4	Z	0.4	0.5	0.7	1.0	1.2	1.1	1.3	1.6	1.5	1.8	1.8	1.3	1.1	1.0	1.0	1.2	1.7	2.0	1.1	2.0
24-Oct	Z	2.5	2.6	2.4	2.4	2.2	2.2	2.3	2.3	2.2	2.3	2.1	2.4	2.5	2.8	3.5	3.4	3.1	2.6	2.1	1.4	1.7	1.5	1.1	2.3	3.5
25-Oct	1.0	Z	0.7	0.6	0.5	0.5	0.8	1.0	2.5	2.1	1.7	1.5	0.7	0.4	0.6	0.7	0.4	0.5	0.4	0.7	0.5	0.8	0.6	0.5	0.9	2.5
26-Oct	1.4	1.1	Z	1.0	0.6	1.8	3.0	2.5	1.1	0.7	1.3	0.8	0.5	0.6	0.4	0.4	0.5	0.5	0.4	0.2	0.2	0.2	0.3	0.3	0.9	3.0
27-Oct	1.0	0.5	0.4	Z	0.7	0.8	0.8	1.1	1.9	1.5	1.7	1.9	1.6	0.8	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.7	1.9
28-Oct	0.1	0.1	0.2	0.1	Z	0.2	0.2	0.1	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.4	0.4	0.4	0.4	0.3	0.3	0.5	0.5	0.3	0.5
29-Oct	0.2	0.2	0.3	0.4	0.5	Z	0.6	0.5	0.8	0.8	0.5	1.0	1.1	1.3	0.6	0.8	0.5	0.5	0.5	0.9	0.6	1.6	3.1	3.2	0.9	3.2
30-Oct	Z	3.7	4.3	3.7	4.6	3.9	4.0	2.9	1.6	1.1	0.7	0.6	0.5	0.7	0.6	0.8	0.6	1.2	0.7	1.0	0.9	0.9	1.1	1.3	1.8	4.6
31-Oct	1.3	Z	0.4	0.8	0.9	0.7	0.4	0.4	0.9	1.3	1.9	1.1	1.2	1.5	1.6	1.6	1.1	0.8	0.7	0.8	0.9	1.2	1.4	1.5	1.1	1.9
	1.4	1.6	1.3	1.3	1.8	1.5	1.5	1.4	1.3	1.5	1.4	1.2	1.0	1.0	0.9	0.9	0.9	1.1	1.2	1.2	1.0	1.0	1.1	1.3	Diurnal Average	
	3.9	8.3	4.3	4.4	5.9	6.0	4.7	5.2	3.3	6.3	4.6	4.4	3.9	3.9	2.8	3.5	3.4	3.9	4.0	3.2	2.9	3.3	3.6	5.1	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

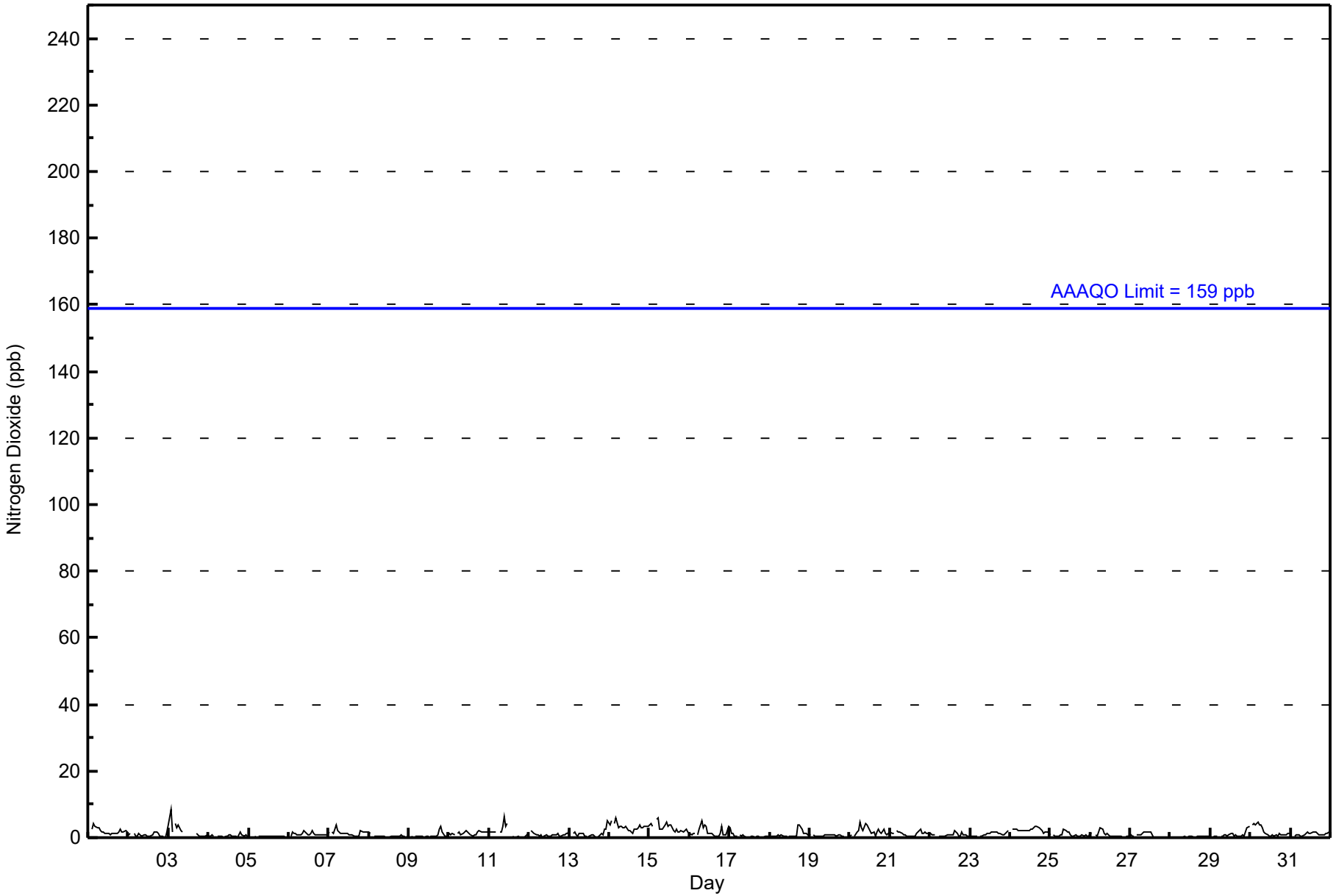
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Surmont 2 - October 2025



Nitrogen Dioxide (NO_2) - ppb

Surmont 2 - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	703	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Surmont 2 - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	12	8	7	10	8	27	92	52	43	40	39	77	96	89	53	45	698
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	12	8	7	10	8	27	92	52	43	40	39	77	96	89	53	45	698

Total Number of Valid Hours: 698

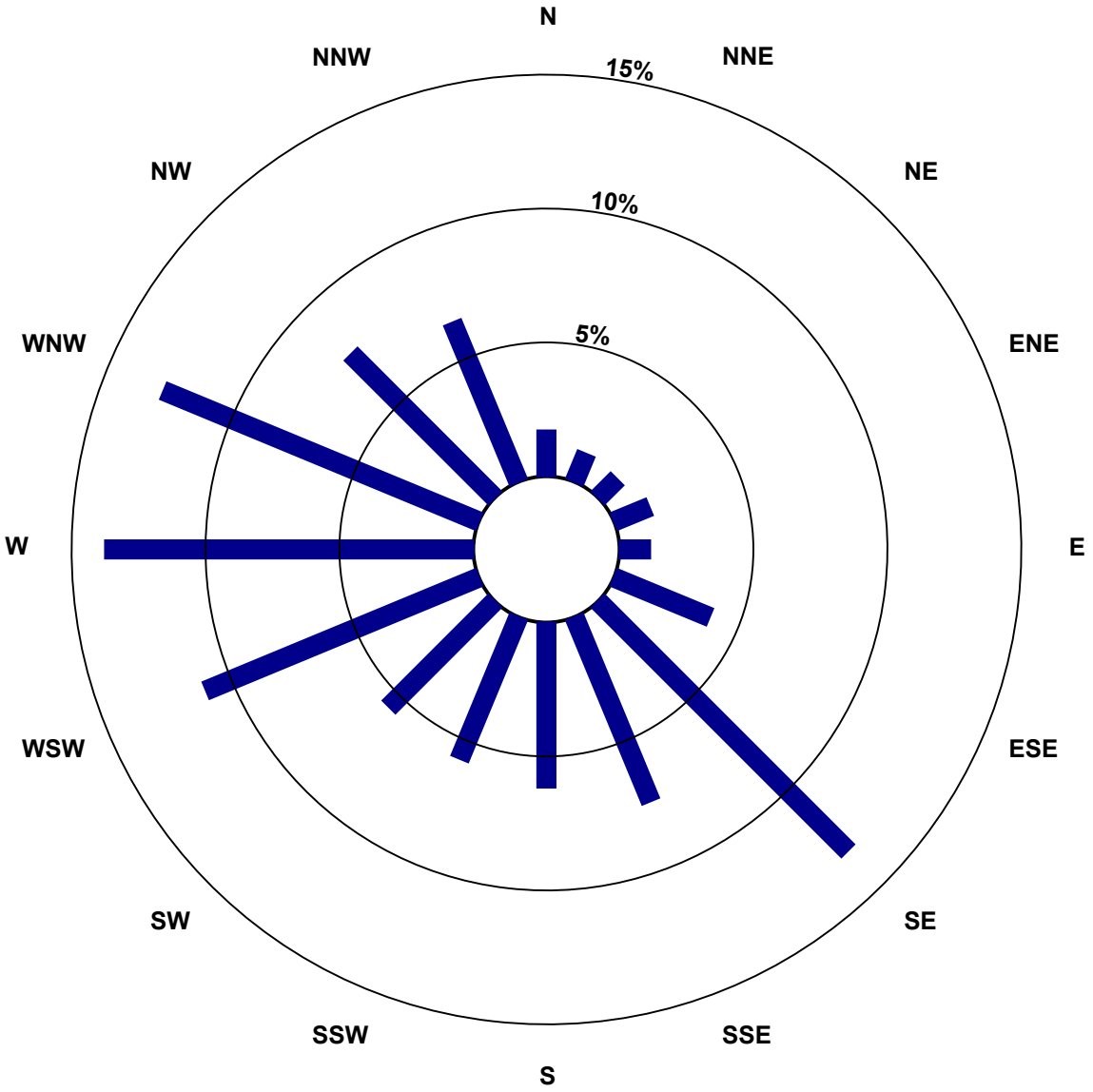
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Surmont 2



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

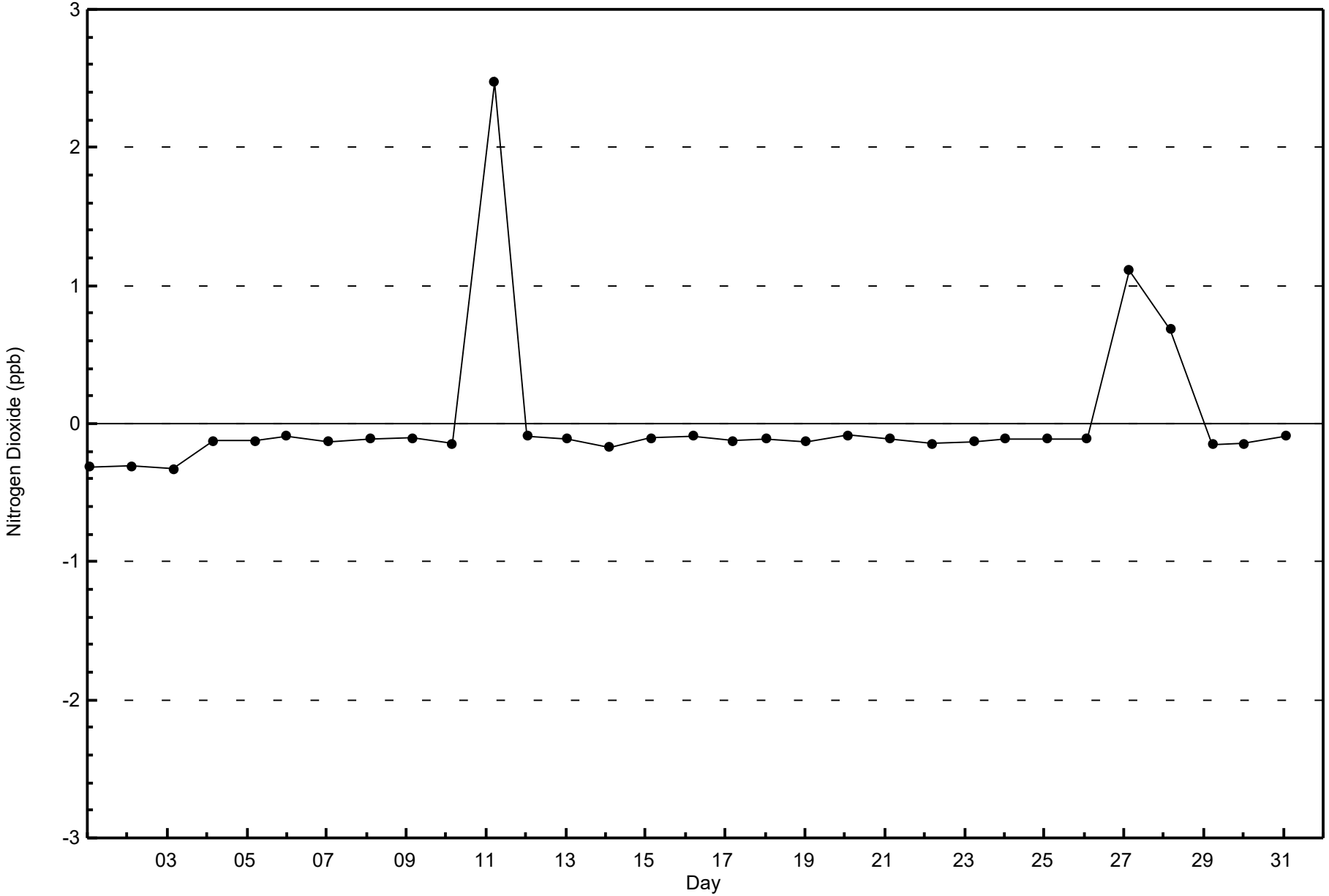
Total Number of Valid Hours: 698

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Surmont 2 - October 2025

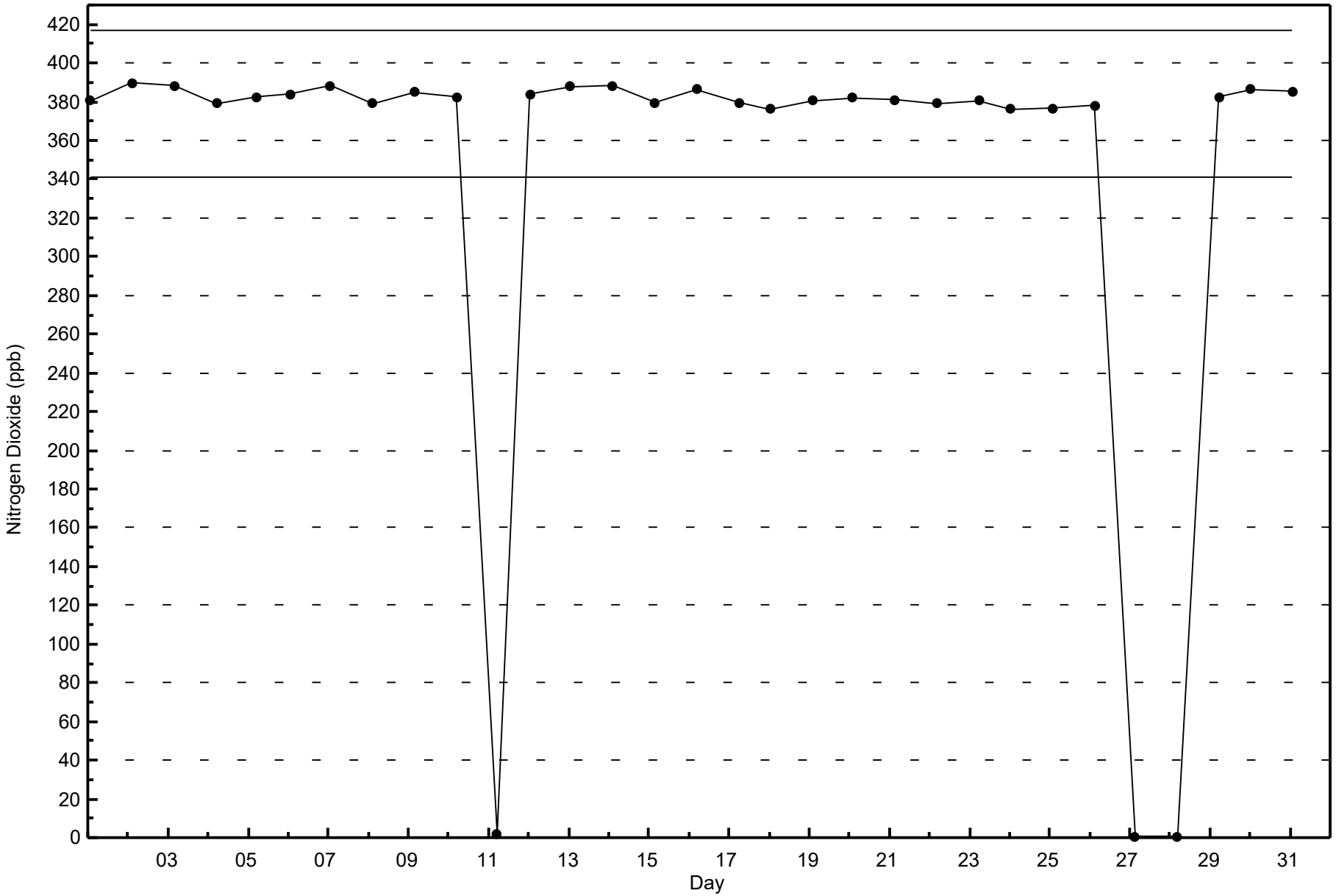


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Surmont 2 - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Surmont 2 - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 8.5 ppb on Oct 3 02:00

Maximum Daily Average: 3.5 ppb on Oct 14

Minimum Value: 0.1 ppb on Oct 28 00:00

Minimum Daily Average: 0.3 ppb on Oct 28

Maximum Diurnal Average: 1.9 ppb at hour 10

Minimum Diurnal Average: 1.0 ppb at hour 21

Monthly Average: 1.34 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.3 Q_1 = 0.5 Median = 1.0 Q_3 = 1.7 P_{90} = 3.0 P_{99} = 5.9

Hours in Service:	744
Hours of Data:	703
Hours of Missing Data:	41
Hours of Calibration:	39
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.0	Z	2.7	4.4	3.6	2.9	2.9	2.2	1.7	1.6	1.3	1.1	1.2	0.9	1.3	1.4	1.4	1.4	1.5	2.4	1.9	1.6	2.2	1.7	1.9	4.4
2-Oct	0.9	1.3	Z	1.4	0.7	0.6	1.4	1.5	1.2	1.4	0.8	0.6	0.7	0.7	1.3	1.8	2.1	1.7	1.2	0.5	0.4	0.3	0.3	2.0	1.1	2.1
3-Oct	3.8	8.5	1.7	Z	4.4	3.0	4.1	2.2	2.3	C	C	C	C	C	C	C	C	1.2	0.3	0.3	0.3	0.3	0.4	0.7	--	8.5
4-Oct	0.4	0.3	0.7	0.4	Z	0.4	0.5	0.5	0.4	0.3	0.5	0.5	0.9	0.8	0.3	0.4	0.5	0.2	1.1	1.5	0.8	0.6	0.9	0.3	0.6	1.5
5-Oct	0.2	0.1	0.1	0.1	0.3	Z	0.5	0.6	0.6	0.4	0.4	0.5	0.4	0.5	0.6	0.6	0.5	0.3	0.4	0.3	0.4	0.4	0.2	0.2	0.4	0.6
6-Oct	Z	0.5	1.9	1.1	1.3	0.8	1.0	1.1	1.9	3.3	2.3	1.4	1.2	1.8	2.9	1.7	1.0	0.8	0.9	0.7	0.7	1.0	1.0	1.0	1.4	3.3
7-Oct	1.6	Z	1.6	1.3	4.1	2.3	1.5	1.3	1.4	1.5	1.6	1.5	1.3	1.1	0.9	0.6	0.5	0.5	0.6	2.0	1.6	1.7	1.7	1.7	1.5	4.1
8-Oct	1.5	1.3	Z	0.5	0.3	0.3	0.7	0.4	0.4	0.4	0.2	0.2	0.2	0.3	0.3	0.6	0.4	0.3	0.4	0.8	0.6	0.4	0.2	0.3	0.5	1.5
9-Oct	0.2	0.2	0.3	Z	0.4	0.3	0.7	0.4	0.3	0.3	0.4	0.5	0.2	0.4	0.4	0.4	0.4	0.9	2.7	3.2	1.7	0.5	0.6	0.6	0.7	3.2
10-Oct	1.1	0.9	1.2	1.0	Z	1.4	1.7	1.1	1.4	2.5	3.0	2.3	1.7	1.2	0.7	0.8	0.9	1.5	2.1	1.8	1.5	1.5	1.5	1.7	1.5	3.0
11-Oct	1.6	1.6	1.8	1.8	1.7	Z	1.6	1.7	3.4	6.7	3.7	5.2	M	M	0.4	0.3	0.3	0.4	0.2	0.2	0.1	0.1	0.3	1.1	1.6	6.7
12-Oct	Z	2.0	1.7	1.3	1.0	0.8	0.6	0.9	0.2	0.3	0.9	0.6	0.6	0.7	0.8	0.9	1.0	1.1	0.6	0.6	0.8	1.0	1.2	1.4	0.9	2.0
13-Oct	2.4	Z	1.3	1.9	0.7	0.3	1.3	1.3	1.2	0.4	0.5	0.2	0.6	0.8	1.0	0.6	0.2	0.2	0.7	1.3	1.0	2.6	2.6	5.2	1.2	5.2
14-Oct	4.0	5.1	Z	4.3	6.2	3.2	3.4	3.5	3.6	4.2	5.3	3.2	3.3	2.0	1.8	2.7	2.6	2.9	4.0	2.9	2.9	3.3	3.6	3.5	3.5	6.2
15-Oct	3.7	4.3	3.3	Z	5.8	6.1	2.7	3.0	3.4	5.1	5.9	4.0	4.6	4.6	2.8	2.0	2.6	1.8	1.6	2.1	1.8	2.1	2.4	1.8	3.4	6.1
16-Oct	1.4	1.0	1.2	1.1	Z	1.0	2.7	6.1	3.9	6.0	4.3	1.8	1.6	1.4	1.1	0.6	0.5	0.4	1.3	3.2	0.8	0.7	1.0	3.5	2.0	6.1
17-Oct	3.0	1.3	1.1	0.6	0.6	Z	0.8	0.6	0.8	0.4	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.4	0.2	0.3	0.2	0.3	0.3	0.5	0.6	3.0
18-Oct	Z	0.5	0.4	0.6	0.6	0.7	0.6	1.0	0.7	0.6	0.4	0.3	0.4	0.4	0.3	0.5	0.5	4.0	4.1	2.9	1.3	1.4	1.2	1.0	1.1	4.1
19-Oct	1.0	Z	0.7	0.4	0.3	0.3	0.6	0.5	0.6	1.0	0.7	0.8	0.7	0.8	0.9	0.7	0.6	1.0	0.9	0.4	0.4	0.2	0.2	0.2	0.6	1.0
20-Oct	0.3	0.8	Z	0.5	1.9	2.3	4.8	3.3	2.6	5.9	5.6	3.6	3.0	1.4	1.7	0.6	1.7	2.5	1.5	1.4	2.4	1.2	1.0	1.3	2.2	5.9
21-Oct	1.9	1.2	1.3	Z	2.2	1.8	1.9	1.5	1.1	1.2	0.7	0.6	0.5	0.4	0.5	0.6	1.1	1.7	2.5	1.3	1.3	2.2	1.2	1.2	1.3	2.5
22-Oct	1.4	1.0	0.7	0.8	Z	0.6	0.4	0.5	0.7	0.8	1.5	1.5	1.0	0.9	1.2	2.5	1.3	0.5	0.6	1.8	1.0	0.9	0.5	0.6	1.0	2.5
23-Oct	0.5	0.4	0.4	0.4	0.4	Z	0.4	0.5	0.7	1.2	1.6	1.5	1.8	2.1	1.8	2.0	1.8	1.3	1.1	1.0	1.0	1.2	1.7	2.0	1.2	2.1
24-Oct	Z	2.5	2.6	2.4	2.4	2.2	2.2	2.3	2.5	2.6	3.1	2.6	3.0	3.3	3.3	3.8	3.5	3.1	2.6	2.1	1.4	1.7	1.5	1.1	2.5	3.8
25-Oct	1.0	Z	0.7	0.6	0.5	0.5	0.8	1.0	2.9	2.6	1.8	1.7	0.8	0.5	0.7	0.8	0.4	0.5	0.4	0.7	0.5	0.8	0.6	0.5	0.9	2.9
26-Oct	1.4	1.1	Z	1.0	0.6	1.8	3.1	2.6	1.2	1.2	1.7	1.0	0.6	0.7	0.4	0.4	0.5	0.5	0.4	0.2	0.2	0.2	0.3	0.3	0.9	3.1
27-Oct	1.0	0.5	0.4	Z	0.7	0.9	0.8	1.2	2.0	1.7	2.0	2.2	2.0	1.1	0.3	0.2	0.2	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.8	2.2
28-Oct	0.1	0.1	0.2	0.1	Z	0.2	0.2	0.1	0.3	0.2	0.2	0.4	0.3	0.3	0.2	0.2	0.4	0.4	0.4	0.4	0.3	0.3	0.5	0.5	0.3	0.5
29-Oct	0.2	0.2	0.3	0.4	0.5	Z	0.6	0.5	0.8	0.9	0.5	1.1	1.2	1.4	0.6	0.9	0.5	0.5	0.5	0.9	0.6	1.6	3.1	3.2	0.9	3.2
30-Oct	Z	3.7	4.3	3.7	4.6	3.9	4.0	3.0	2.1	1.4	1.0	0.8	0.6	0.8	0.6	0.8	0.6	1.2	0.7	1.0	0.9	0.9	1.1	1.3	1.9	4.6
31-Oct	1.3	Z	0.4	0.8	0.9	0.7	0.4	0.4	0.9	1.5	2.4	1.5	1.6	2.1	2.0	1.8	1.1	0.8	0.7	0.8	0.9	1.2	1.4	1.5	1.2	2.4
	1.4	1.6	1.3	1.3	1.8	1.5	1.6	1.5	1.5	1.9	1.8	1.5	1.3	1.2	1.1	1.0	1.0	1.1	1.2	1.3	1.0	1.0	1.1	1.4	Diurnal Average	
	4.0	8.5	4.3	4.4	6.2	6.1	4.8	6.1	3.9	6.7	5.9	5.2	4.6	4.6	3.3	3.8	3.5	4.0	4.1	3.2	2.9	3.3	3.6	5.2	Diurnal Maximum	

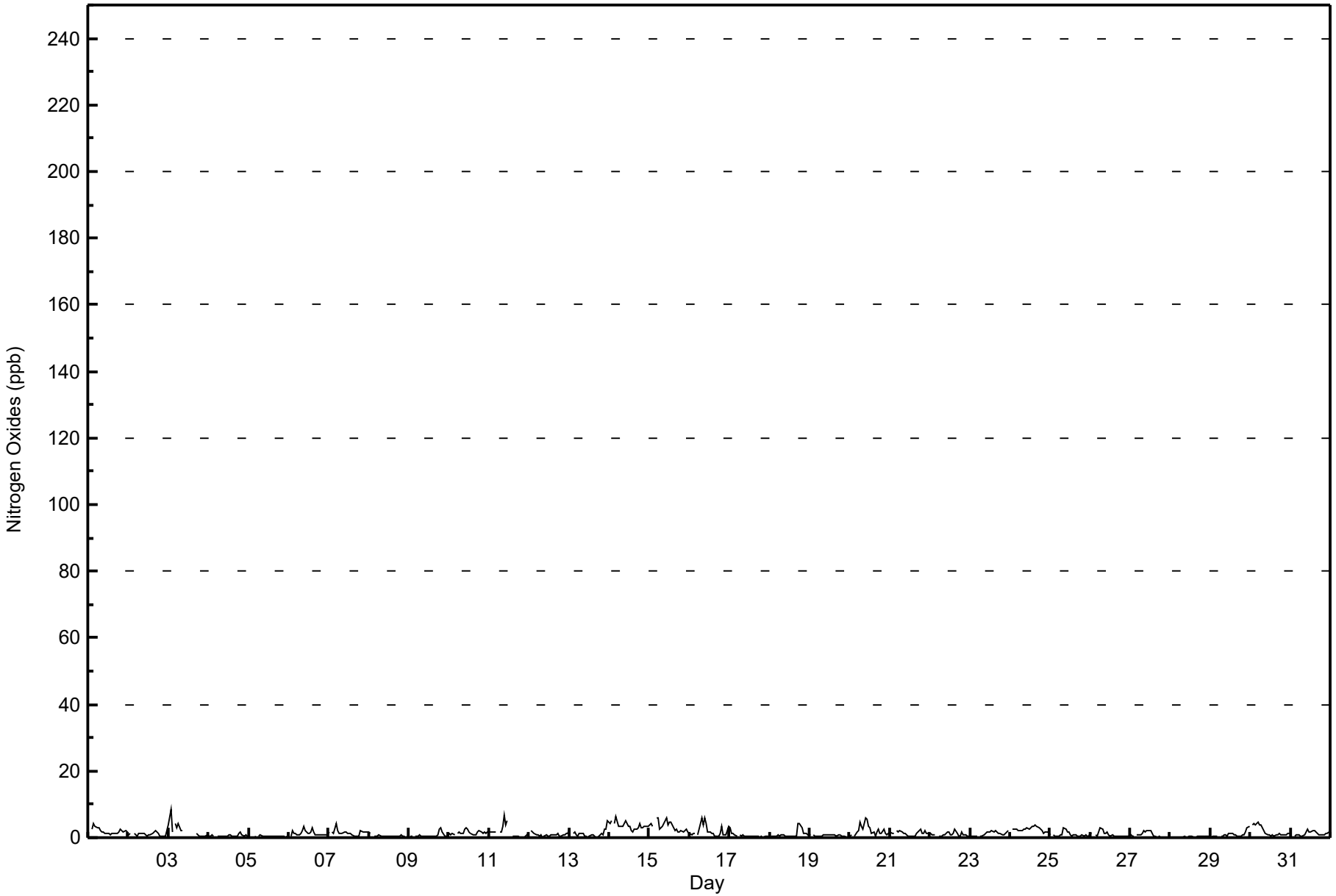
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Surmont 2 - October 2025



Nitrogen Oxides (NO_X) - ppb
Surmont 2 - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	703	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 703

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Surmont 2 - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	12	8	7	10	8	27	92	52	43	40	39	77	96	89	53	45	698
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	12	8	7	10	8	27	92	52	43	40	39	77	96	89	53	45	698

Total Number of Valid Hours: 698

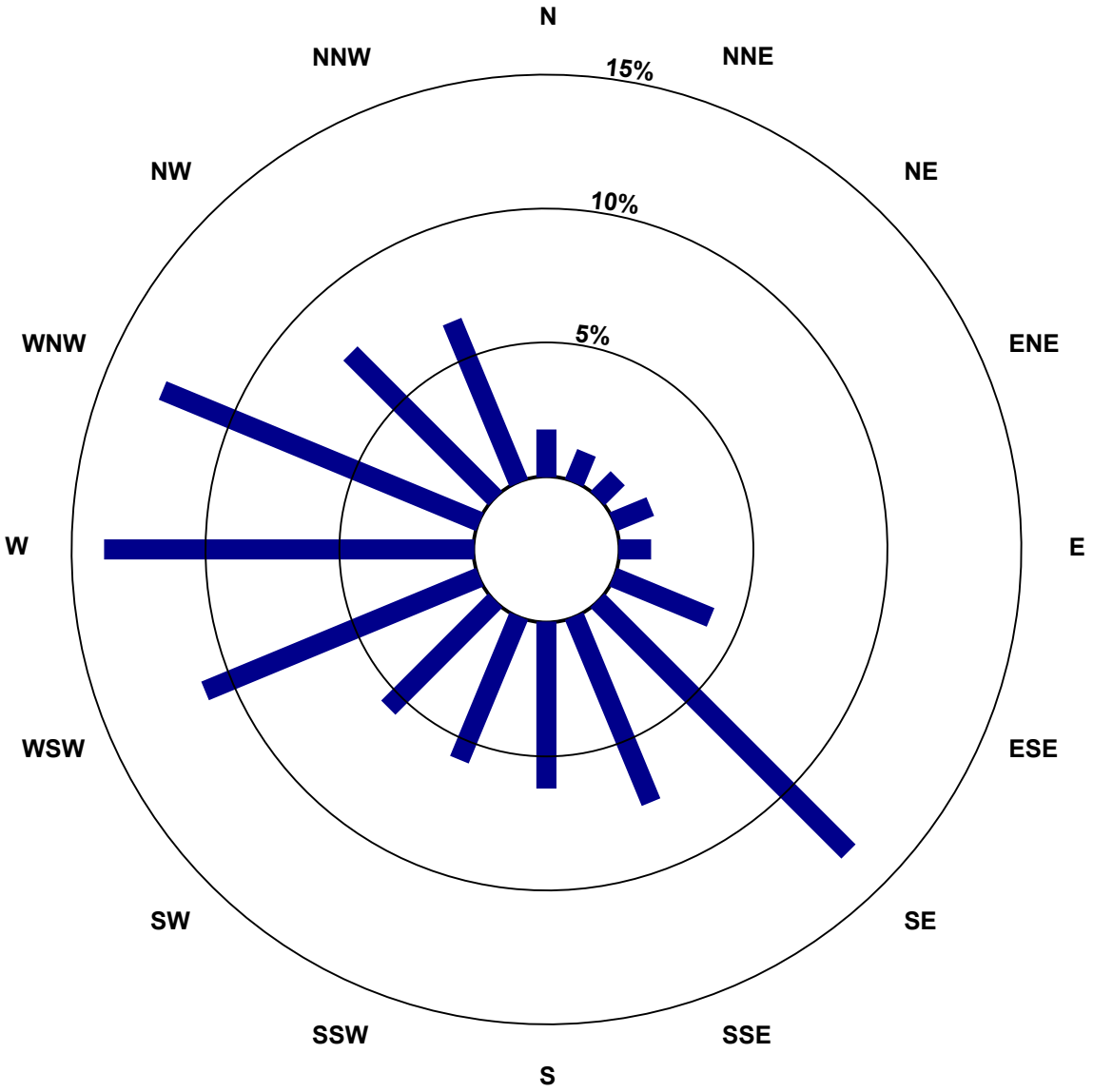
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Surmont 2



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

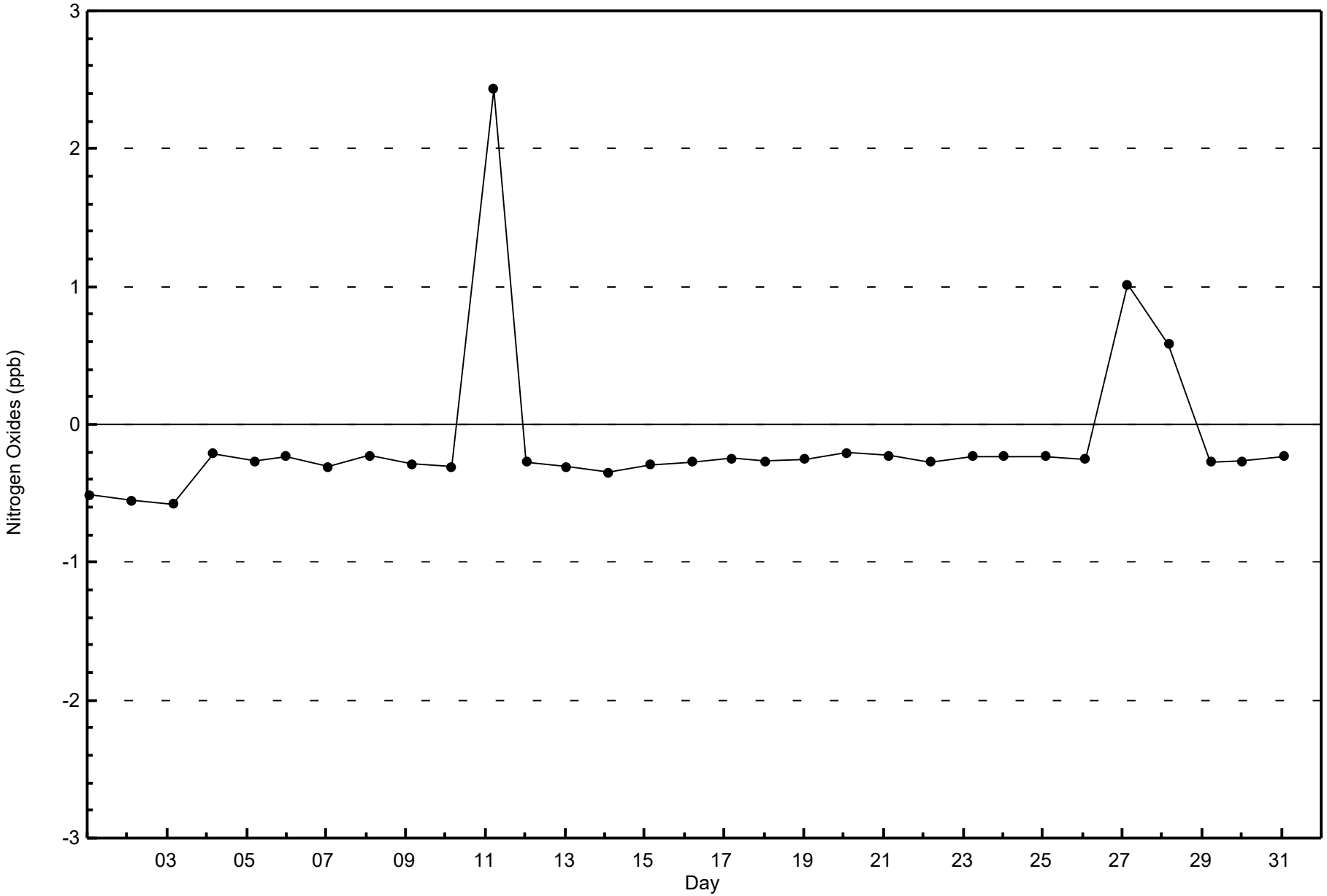
Total Number of Valid Hours: 698

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Surmont 2 - October 2025

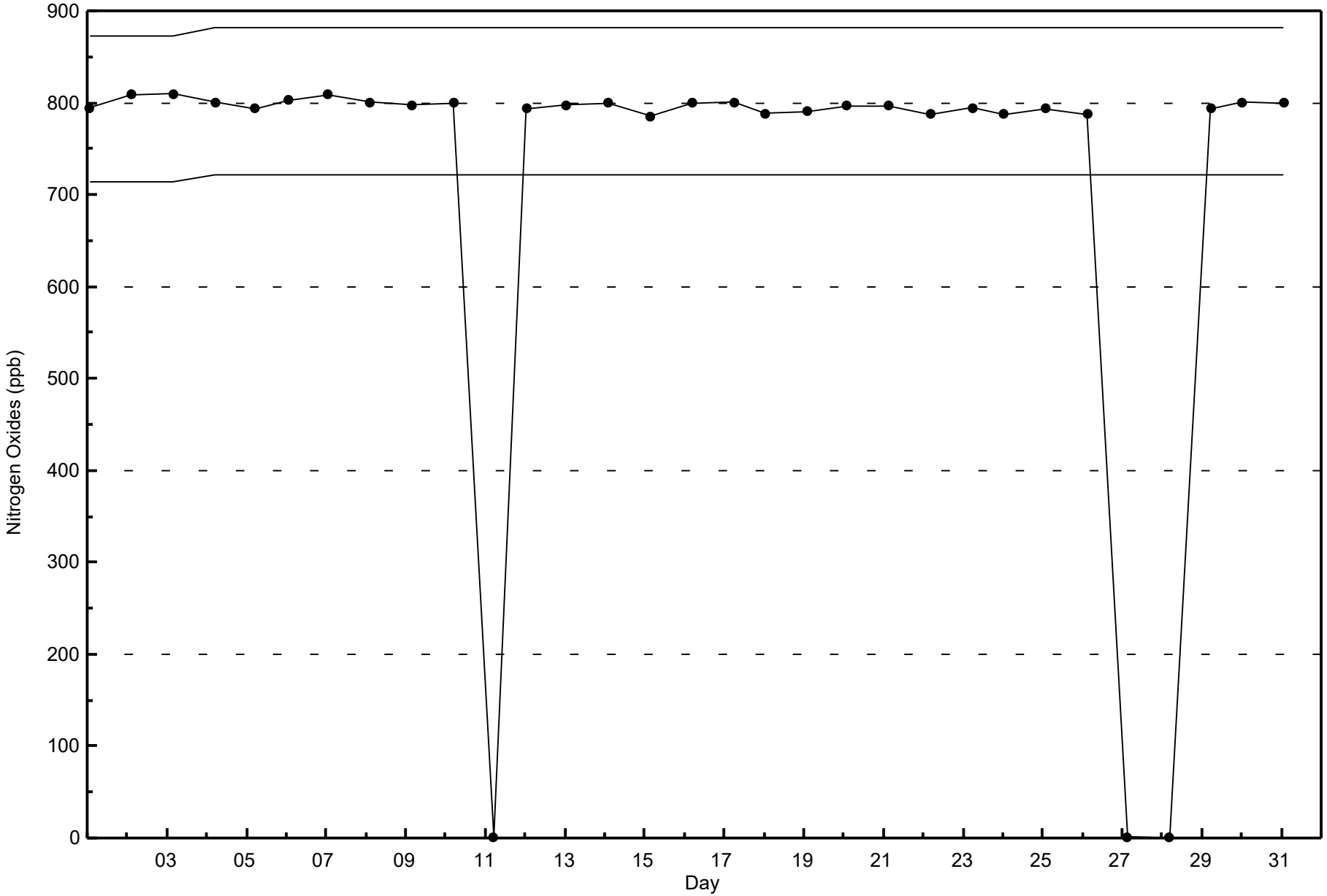


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Surmont 2 - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Surmont 2 - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 17.3 $\mu g/m^3$ on Oct 1 07:00

Maximum Daily Average: 7.8 $\mu g/m^3$ on Oct 1

Minimum Value: 0.1 $\mu g/m^3$ on Oct 27 23:00

Minimum Daily Average: 0.2 $\mu g/m^3$ on Oct 27

Maximum Diurnal Average: 3.9 $\mu g/m^3$ at hour 8

Minimum Diurnal Average: 2.3 $\mu g/m^3$ at hour 20

Monthly Average: 2.84 $\mu g/m^3$

Percentiles: P_1 = 0.1 P_{10} = 0.5 Q_1 = 1.4 Median = 2.5 Q_3 = 3.6 P_{90} = 5.0 P_{99} = 12.9

Hours in Service:	744
Hours of Data:	741
Hours of Missing Data:	3
Hours of Calibration:	3
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	15.3	15.5	12.5	12.9	13.7	17.0	17.3	10.4	3.8	2.9	4.4	4.7	4.5	4.6	4.2	3.8	5.3	4.9	4.7	5.0	5.1	5.3	5.4	4.6	7.8	17.3
2-Oct	3.5	4.4	4.8	3.5	3.5	3.4	3.8	4.3	5.2	5.4	4.3	4.2	4.5	3.4	3.1	3.7	4.3	4.5	5.0	5.9	5.8	5.9	5.9	7.4	4.6	7.4
3-Oct	12.7	11.6	9.5	7.4	6.9	8.7	13.1	12.8	10.4	6.5	4.8	2.9	2.6	1.5	2.2	1.8	1.6	0.8	0.7	0.4	0.6	0.6	0.8	1.2	5.1	13.1
4-Oct	1.3	1.1	1.1	2.6	5.9	8.2	8.1	7.4	5.8	4.5	4.3	4.4	5.3	4.9	3.3	3.0	2.1	0.5	0.4	0.4	0.4	0.8	2.2	1.4	3.3	8.2
5-Oct	0.8	0.8	0.7	1.0	1.5	2.0	2.4	2.6	4.2	3.7	2.7	1.9	1.3	1.1	1.0	1.2	2.4	3.2	2.3	1.7	1.7	1.3	1.5	2.2	1.9	4.2
6-Oct	2.4	2.5	1.6	1.2	1.4	1.2	0.6	0.6	0.7	0.9	0.9	0.8	0.6	0.8	0.8	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.9	1.2	1.0	2.5
7-Oct	1.9	2.0	2.2	2.7	3.0	3.2	3.3	3.2	3.2	3.2	3.4	3.4	3.2	2.9	2.6	2.1	1.9	1.9	2.1	2.6	3.0	3.6	4.1	4.7	2.9	4.7
8-Oct	4.6	4.5	3.5	3.1	4.2	3.2	2.8	5.3	5.3	4.3	2.6	2.4	2.5	5.1	6.9	7.4	7.1	6.2	5.0	3.4	3.1	4.1	2.2	2.1	4.2	7.4
9-Oct	1.6	1.6	2.5	2.3	1.5	1.4	2.5	3.1	2.7	2.8	2.1	1.7	1.8	2.7	3.1	2.5	2.2	1.6	1.3	0.9	0.9	1.8	2.7	3.7	2.1	3.7
10-Oct	3.7	3.2	3.0	3.1	3.1	3.2	3.2	3.2	3.4	3.6	4.5	4.7	4.5	4.5	4.1	3.7	3.5	3.9	4.2	4.4	4.7	4.9	5.0	5.6	4.0	5.6
11-Oct	5.9	5.5	5.6	5.5	5.4	5.3	5.6	8.6	9.6	5.8	5.1	6.0	3.5	1.6	0.7	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	3.4	9.6
12-Oct	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.9	0.8	0.7	0.5	0.4	0.5	0.6	0.5	0.5	0.5	0.9
13-Oct	0.9	0.9	0.6	0.9	0.6	0.4	0.4	0.4	0.4	0.5	1.6	1.9	2.0	1.1	0.6	1.8	2.4	2.2	1.6	2.4	3.5	3.7	3.2	3.2	1.5	3.7
14-Oct	3.1	3.2	3.2	3.2	3.4	3.5	4.0	4.3	4.2	4.2	3.4	2.9	2.7	2.7	2.5	2.0	2.1	2.1	2.4	2.6	3.4	3.7	3.9	4.1	3.2	4.3
15-Oct	4.1	3.7	3.3	3.2	3.4	3.2	3.0	3.2	3.3	2.7	2.3	2.0	1.9	2.0	2.1	2.6	2.9	3.1	2.9	2.5	2.7	2.9	4.0	3.1	2.9	4.1
16-Oct	2.6	3.0	3.1	3.7	3.8	3.7	5.7	11.3	5.7	3.6	3.2	3.2	2.4	2.3	2.6	2.7	2.5	1.9	1.7	2.0	2.2	2.5	2.6	2.7	3.4	11.3
17-Oct	2.6	2.3	2.1	1.8	1.7	1.9	2.2	2.5	2.2	0.8	1.0	2.2	2.5	2.4	2.0	1.6	1.4	1.4	1.1	0.9	0.9	1.0	1.0	1.3	1.7	2.6
18-Oct	1.5	1.7	1.5	1.9	2.0	2.9	4.6	5.5	5.0	4.0	3.5	3.0	2.9	3.0	2.9	2.9	2.5	4.8	6.1	3.6	2.4	2.0	2.0	1.9	3.1	6.1
19-Oct	1.7	1.6	1.4	1.3	1.3	1.2	1.7	1.9	2.0	5.4	16.8	10.5	5.2	5.1	4.9	4.3	3.4	3.1	3.0	2.8	2.6	2.5	2.5	2.5	3.7	16.8
20-Oct	2.4	2.3	1.9	2.3	3.0	3.0	3.5	2.6	2.3	3.2	2.9	2.7	2.4	1.8	3.2	3.3	3.7	4.6	4.3	4.1	4.0	4.2	4.3	4.6	3.2	4.6
21-Oct	4.6	4.2	3.9	3.4	3.1	3.0	2.8	2.4	1.6	1.5	1.6	1.3	1.4	1.4	1.5	1.9	2.3	2.2	2.3	2.5	2.4	2.7	2.6	2.7	2.5	4.6
22-Oct	2.7	2.7	2.6	2.5	2.5	2.4	2.5	2.6	2.3	2.4	2.1	1.8	1.6	1.6	1.4	1.2	1.1	1.4	3.6	3.4	3.2	2.8	2.1	2.1	2.3	3.6
23-Oct	2.2	2.0	2.0	1.8	1.8	1.8	1.7	1.6	1.5	1.6	1.7	1.7	1.8	2.0	2.2	2.2	2.3	2.4	2.5	2.4	2.6	2.5	2.6	2.6	2.1	2.6
24-Oct	2.6	2.7	2.8	2.8	3.0	3.1	3.0	3.0	3.0	3.1	C	C	C	2.9	2.9	2.9	2.9	2.9	2.8	2.9	3.1	3.1	3.1	3.1	2.9	3.1
25-Oct	3.3	3.7	3.8	4.7	4.9	4.9	5.4	5.0	5.2	4.4	3.5	2.5	2.9	1.8	2.6	2.2	1.3	1.1	1.3	1.0	0.8	0.9	1.1	1.1	2.9	5.4
26-Oct	1.1	1.1	0.9	0.8	0.9	0.9	0.9	1.0	1.3	1.3	2.0	2.3	2.1	1.8	1.3	1.3	1.3	1.7	1.5	1.4	1.2	1.1	0.7	0.6	1.3	2.3
27-Oct	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.4	0.5	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.5
28-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.5	0.5	0.8	1.2	1.3	1.1	0.9	0.6	0.8	1.5	2.2	2.6	2.3	1.0	0.8	2.6
29-Oct	0.6	1.4	1.7	1.5	1.6	2.0	2.7	3.0	2.9	2.8	2.7	2.5	2.5	2.4	1.3	1.6	1.4	1.5	1.3	1.6	1.4	1.0	1.5	2.3	1.9	3.0
30-Oct	2.1	2.3	3.0	3.3	4.6	4.7	5.8	5.2	4.1	3.6	3.4	3.7	3.5	3.5	3.3	3.4	3.4	3.5	3.2	3.1	2.8	2.8	2.7	2.8	3.5	5.8
31-Oct	3.3	3.4	3.5	4.3	4.6	4.3	4.0	4.0	5.3	6.3	5.6	5.4	4.7	4.7	5.1	4.9	4.8	4.2	3.7	3.7	4.3	4.1	3.7	3.4	4.4	6.3
	3.1	3.1	2.9	2.9	3.1	3.4	3.8	3.9	3.5	3.1	3.3	2.9	2.6	2.5	2.5	2.4	2.4	2.4	2.4	2.3	2.3	2.5	2.5	2.6	Diurnal Average	
	15.3	15.5	12.5	12.9	13.7	17.0	17.3	12.8	10.4	6.5	16.8	10.5	5.3	5.1	6.9	7.4	7.1	6.2	6.1	5.9	5.8	5.9	5.9	7.4	Diurnal Maximum	

C - Calibration

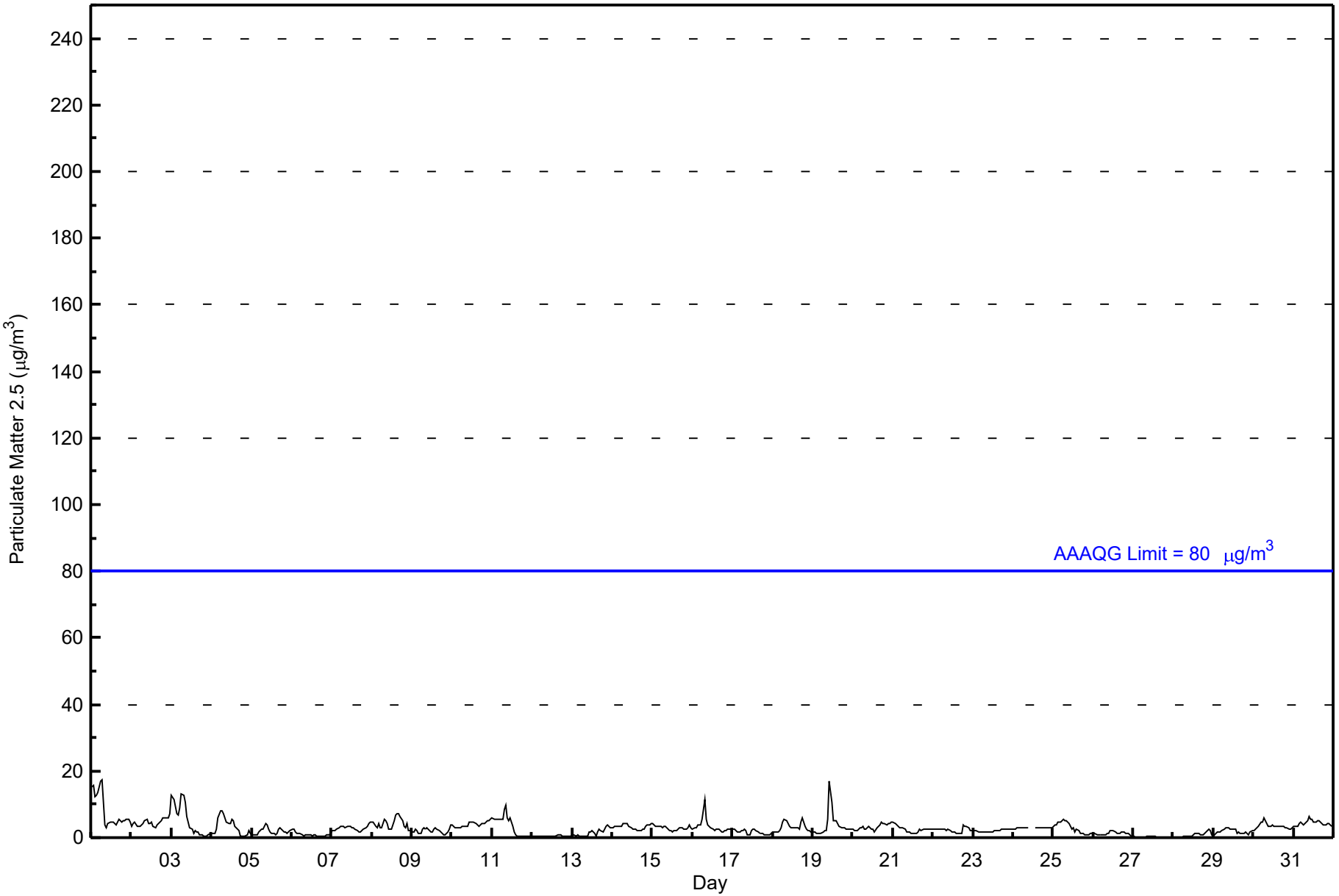
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 $\mu g/m^3$ 24-hr 29 $\mu g/m^3$

Wood Buffalo Environmental Association

Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Surmont 2 - October 2025



Concentration Ranges ($\mu g/m^3$)	Number of Hours	%	Cumulative %
0 - 5	691	93.25	93.25
6 - 15	47	6.34	99.60
16 - 25	3	0.40	100.00
26 - 80	0	0.00	100.00
> 81.0	0	0.00	100.00

Total Number of Valid Hours: 741

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Surmont 2 - October 2025

Concentration Ranges ($\mu g/m^3$)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	13	8	7	10	7	28	87	51	42	38	39	78	94	92	50	42	686
6 - 15	0	0	0	0	1	3	3	4	2	3	2	10	7	2	5	4	46
16 - 25	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	3
26 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	13	8	7	10	8	31	91	55	44	41	41	88	101	94	57	46	735

Total Number of Valid Hours: 735

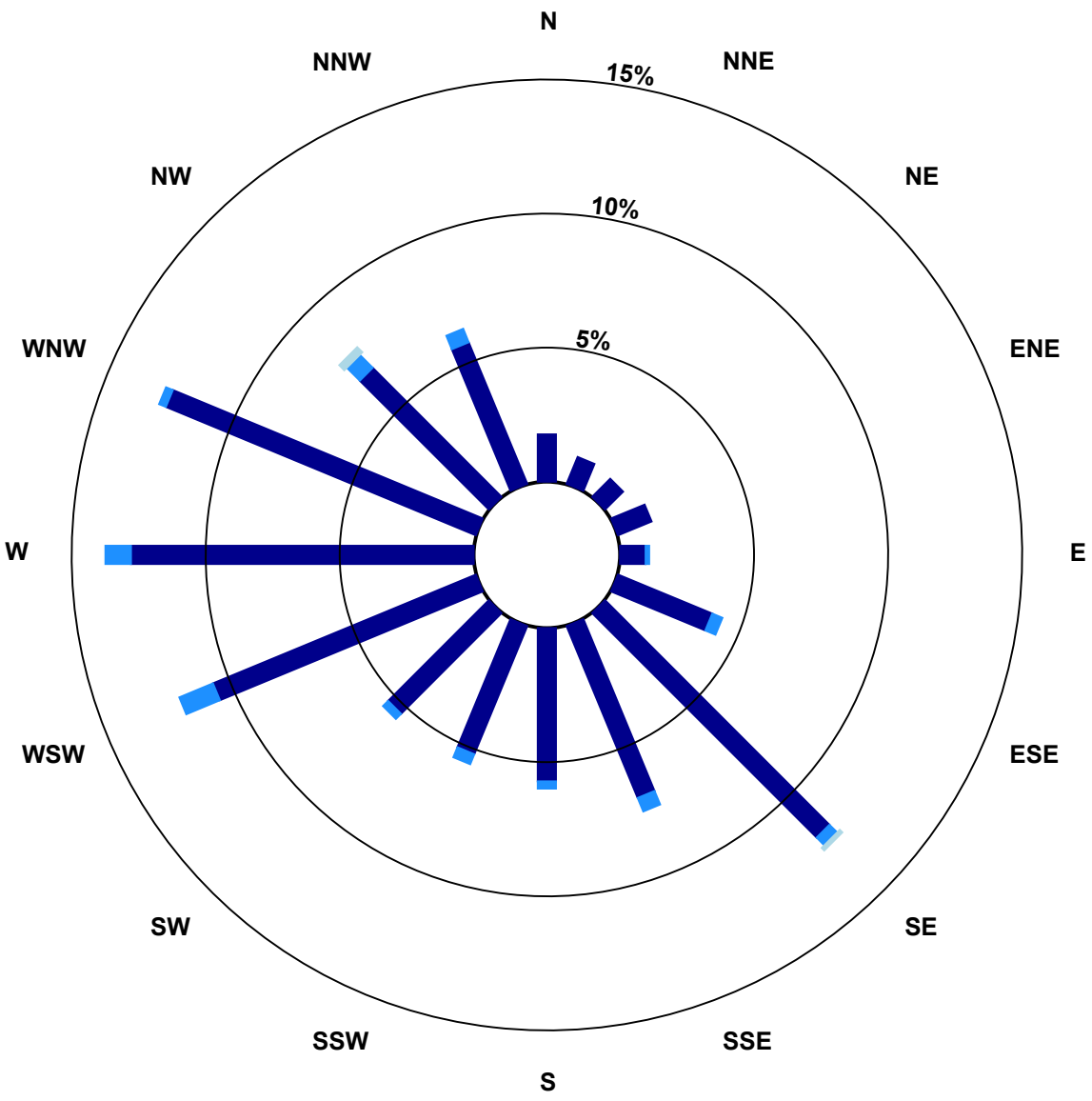
Total Number of Hours: 744

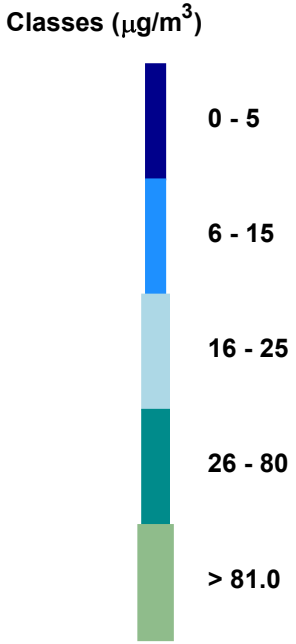
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Surmont 2





Total Number of Valid Hours: 735

Maximum Value: 20.1 C on Oct 10 16:00

Maximum Daily Average: 11.2 C on Oct 3

Minimum Value: -3.3 C on Oct 26 07:00

Minimum Daily Average: -1.1 C on Oct 29

Maximum Diurnal Average: 7.8 C at hour 15

Minimum Diurnal Average: 1.3 C at hour 7

Monthly Average: 4.13 C

Percentiles: P_1 = -2.6 P_{10} = -1.2 Q_1 = 0.0 Median = 3.3 Q_3 = 7.5 P_{90} = 10.8 P_{99} = 17.4

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

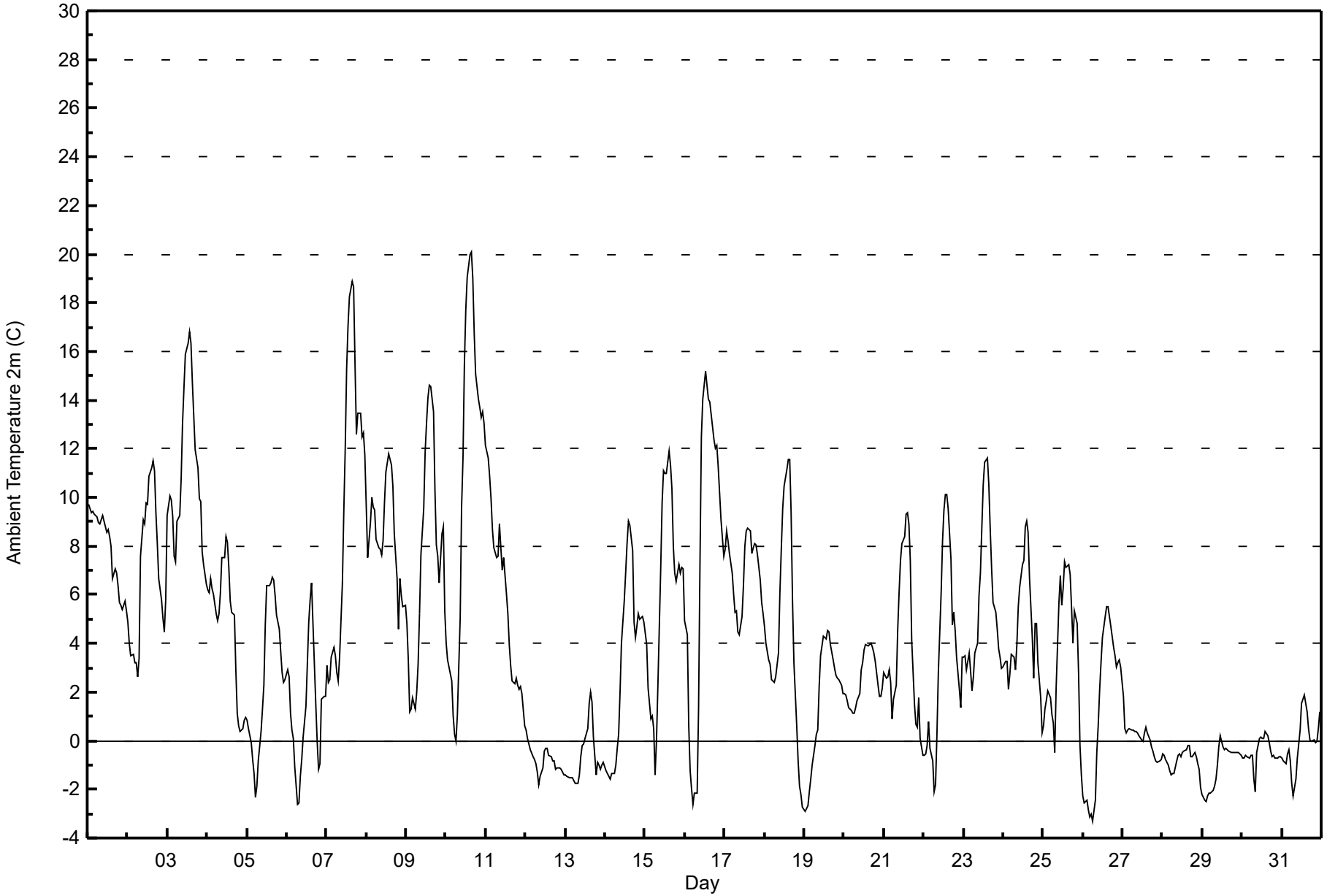
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	9.7	9.6	9.4	9.5	9.3	9.2	9.0	8.9	9.1	9.3	9.0	8.6	8.7	8.4	8.0	6.7	7.1	6.9	6.4	5.7	5.6	5.4	5.7	5.4	7.9	9.7
2-Oct	4.9	4.0	3.5	3.6	3.2	3.2	2.6	3.4	7.6	9.1	8.9	9.8	9.7	10.9	11.2	11.5	11.1	9.4	8.1	6.7	5.8	5.0	4.4	5.8	6.8	11.5
3-Oct	9.3	10.1	9.9	9.2	7.6	7.3	9.0	9.3	10.8	13.0	14.5	15.9	16.3	16.8	16.3	14.7	13.3	11.9	11.2	9.9	9.8	7.7	7.2	6.4	11.2	16.8
4-Oct	6.2	6.1	6.6	6.2	6.0	5.2	4.9	5.2	6.1	7.5	7.6	8.4	8.2	7.1	5.8	5.3	5.2	2.9	1.1	0.6	0.4	0.5	0.8	1.0	4.8	8.4
5-Oct	0.8	0.5	-0.1	-0.7	-1.3	-2.3	-1.8	-0.8	0.4	1.3	2.3	4.7	6.4	6.4	6.5	6.7	6.6	6.0	5.2	4.6	3.7	2.8	2.4	2.5	2.6	6.7
6-Oct	2.9	2.6	1.1	0.5	0.1	-1.0	-2.6	-2.5	-1.5	-0.8	0.1	1.4	3.2	4.9	5.8	6.5	4.8	1.5	0.0	-1.2	-0.9	1.7	1.8	1.8	1.3	6.5
7-Oct	3.1	2.4	2.5	3.4	3.8	3.5	2.8	2.4	3.4	6.5	9.4	11.9	15.3	17.0	18.2	18.9	18.7	15.5	12.6	13.5	13.4	12.5	12.7	11.8	9.8	18.9
8-Oct	9.6	7.5	9.0	10.0	9.6	9.5	8.3	7.9	7.9	7.7	8.2	9.8	11.0	11.8	11.6	11.3	10.5	8.5	6.6	4.6	6.7	6.0	5.5	5.6	8.5	11.8
9-Oct	4.8	3.3	1.2	1.3	1.7	1.3	2.0	3.1	5.2	7.7	9.5	11.9	13.1	14.1	14.6	14.5	13.5	10.3	8.0	7.6	6.5	8.5	8.8	5.3	7.4	14.6
10-Oct	4.0	3.3	3.1	2.4	1.0	0.2	0.0	1.1	5.0	9.6	11.6	15.5	17.8	19.0	19.9	20.1	19.0	16.8	15.1	14.0	13.7	13.3	13.5	13.1	10.5	20.1
11-Oct	12.2	11.6	10.8	9.9	8.7	8.0	7.5	7.6	8.9	7.9	7.0	7.5	6.0	5.2	4.0	3.1	2.5	2.3	2.6	2.3	2.1	2.2	1.9	0.6	5.9	12.2
12-Oct	0.4	0.1	-0.2	-0.4	-0.6	-0.8	-0.9	-1.3	-1.8	-1.5	-1.1	-0.4	-0.3	-0.3	-0.6	-0.7	-0.8	-0.8	-1.2	-1.1	-1.1	-1.2	-1.3	-1.4	-0.8	0.4
13-Oct	-1.4	-1.5	-1.5	-1.5	-1.5	-1.7	-1.7	-1.7	-1.4	-0.6	-0.2	-0.1	0.1	0.5	1.5	2.0	1.6	0.2	-1.4	-0.9	-1.0	-1.2	-1.0	-0.9	-0.6	2.0
14-Oct	-1.3	-1.3	-1.5	-1.6	-1.4	-1.4	-1.0	-0.3	0.3	2.0	4.0	5.7	6.9	8.1	9.0	8.9	7.8	4.9	4.2	4.7	5.2	5.0	5.1	4.9	3.2	9.0
15-Oct	4.4	3.9	2.2	0.9	1.0	0.5	-1.4	0.0	2.3	7.1	9.8	11.1	11.0	11.0	11.9	11.3	10.3	8.0	6.9	6.5	7.2	6.9	7.1	7.0	6.1	11.9
16-Oct	4.9	4.3	0.6	-1.3	-2.0	-2.6	-2.1	-2.2	1.3	7.3	12.5	14.0	15.2	14.6	14.1	13.9	13.4	12.4	12.0	12.1	11.2	10.2	9.1	7.6	7.5	15.2
17-Oct	7.9	8.6	8.2	7.7	6.9	6.0	5.3	5.3	4.5	4.3	5.1	6.4	8.0	8.6	8.7	8.6	7.7	7.9	8.1	8.1	7.7	6.6	5.7	5.2	7.0	8.7
18-Oct	4.7	4.0	3.3	3.1	2.5	2.4	2.4	2.6	3.6	6.1	7.9	9.6	10.5	11.2	11.6	11.6	9.4	5.7	3.2	0.6	-0.8	-1.9	-2.2	-2.7	4.5	11.6
19-Oct	-2.9	-2.8	-2.7	-2.1	-1.6	-1.0	-0.2	0.3	0.5	2.2	3.5	4.3	4.3	4.2	4.5	4.5	3.9	3.3	3.0	2.7	2.6	2.5	2.3	2.0	1.6	4.5
20-Oct	1.9	1.9	1.6	1.4	1.3	1.1	1.2	1.4	1.6	2.0	2.9	3.2	3.7	4.0	3.9	3.9	4.0	3.8	3.6	3.3	2.3	1.8	1.8	2.2	2.5	4.0
21-Oct	2.8	2.6	2.6	2.9	2.4	0.9	1.7	2.3	4.5	6.1	7.4	8.1	8.4	9.3	9.4	8.9	7.4	4.1	1.5	0.7	0.6	1.8	0.1	-0.6	4.0	9.4
22-Oct	-0.6	-0.5	-0.2	0.8	-0.3	-0.8	-2.1	-1.8	0.3	2.8	6.1	8.2	9.5	10.1	10.1	9.5	7.5	4.8	5.3	4.6	3.4	2.1	1.4	3.4	3.5	10.1
23-Oct	3.4	3.5	2.9	3.6	2.8	2.1	2.6	3.6	4.0	6.0	6.9	8.7	10.5	11.5	11.6	10.5	8.7	7.0	5.7	5.3	4.6	3.8	3.5	2.9	5.7	11.6
24-Oct	3.0	3.3	3.2	2.1	2.8	3.5	3.4	2.9	3.9	5.5	6.3	7.2	7.4	8.8	9.0	8.6	6.7	4.2	2.6	4.8	4.8	3.2	1.8	0.3	4.6	9.0
25-Oct	0.6	1.3	1.6	2.0	1.8	1.0	0.7	-0.5	2.2	5.7	6.8	5.6	6.3	7.4	7.1	7.2	6.8	5.5	4.0	5.4	4.8	2.8	-0.2	-1.4	3.5	7.4
26-Oct	-2.3	-2.6	-2.4	-2.8	-3.1	-3.0	-3.3	-2.5	-0.5	0.6	2.1	3.2	4.2	5.1	5.5	5.5	5.1	4.7	3.8	3.5	3.0	3.2	3.3	3.0	1.4	5.5
27-Oct	1.8	0.5	0.3	0.4	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.0	0.0	0.3	0.6	0.3	0.0	-0.3	-0.4	-0.6	-0.8	-0.9	-0.8	-0.8	0.1	1.8
28-Oct	-0.5	-0.6	-0.8	-1.0	-1.3	-1.4	-1.4	-1.3	-0.9	-0.6	-0.5	-0.6	-0.5	-0.4	-0.4	-0.2	-0.2	-0.7	-0.6	-0.5	-0.7	-0.9	-1.2	-1.9	-0.8	-0.2
29-Oct	-2.2	-2.4	-2.5	-2.3	-2.1	-2.2	-2.1	-1.9	-1.6	-1.0	-0.2	0.2	-0.2	-0.4	-0.3	-0.4	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.6	-1.1	0.2
30-Oct	-0.7	-0.7	-0.6	-0.6	-0.7	-0.6	-0.6	-1.6	-2.1	-0.5	0.1	0.1	0.1	0.1	0.4	0.2	-0.1	-0.4	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	-0.5	0.4
31-Oct	-0.7	-0.9	-0.9	-0.5	-0.4	-0.8	-1.8	-2.3	-1.6	-0.7	-0.1	0.4	1.5	1.9	1.5	1.2	0.5	0.1	0.0	0.0	-0.1	0.0	0.5	1.2	-0.1	1.9
	2.9	2.6	2.3	2.1	1.8	1.5	1.3	1.5	2.7	4.3	5.4	6.5	7.2	7.6	7.8	7.6	6.8	5.4	4.4	4.1	3.8	3.5	3.2	2.8	Diurnal Average	
	12.2	11.6	10.8	10.0	9.6	9.5	9.0	9.3	10.8	13.0	14.5	15.9	17.8	19.0	19.9	20.1	19.0	16.8	15.1	14.0	13.7	13.3	13.5	13.1	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Surmont 2 - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	187	25.13	25.13
0 - 10	471	63.31	88.44
10 - 20	85	11.42	99.87
> 20	1	0.13	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

Surmont 2 - October 2025

Maximum Value: 100.9 % on Oct 2 06:00

Maximum Daily Average: 99.6 % on Oct 1

Minimum Value: 26.9 % on Oct 10 16:00

Minimum Daily Average: 48.5 % on Oct 14

Maximum Diurnal Average: 86.2 % at hour 6

Minimum Diurnal Average: 64.0 % at hour 15

Monthly Average: 77.01 %

Percentiles: P_1 = 31.8 P_{10} = 49.1 Q_1 = 63.3 Median = 81.1 Q_3 = 92.6 P_{90} = 99.1 P_{99} = 100.8

Hours in Service:	744
Hours of Data:	731
Hours of Missing Data:	13
Hours of Calibration:	0
Percent Operational Time:	98.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	99.9	100.9	100.9	OR	OR	OR	OR	OR	OR	100.6	99.9	100.0	100.4	100.2	99.7	99.1	97.9	96.6	96.9	99.1	100.2	100.7	99.9	99.2	99.6	100.9
2-Oct	99.7	100.8	OR	100.7	100.9	100.9	OR	100.4	91.1	84.9	89.1	79.5	84.0	75.5	70.5	73.9	79.1	92.9	98.7	OR	OR	OR	OR	OR	--	100.9
3-Oct	91.9	88.0	81.1	79.6	90.8	92.0	82.8	80.4	73.7	62.7	55.0	46.8	44.9	39.6	41.1	48.8	52.4	61.8	65.4	73.1	69.4	81.1	82.7	85.6	69.6	92.0
4-Oct	84.5	82.9	78.4	80.3	80.6	85.1	86.3	84.2	79.4	72.3	71.9	67.3	65.1	72.7	87.1	91.0	87.9	95.0	99.0	99.6	100.1	99.6	98.6	96.7	85.2	100.1
5-Oct	96.2	95.4	95.9	96.9	96.2	97.4	97.6	95.5	94.3	94.8	86.7	73.0	64.8	67.7	71.6	71.0	63.4	59.3	62.2	66.1	72.6	79.9	85.2	86.3	82.1	97.6
6-Oct	82.6	86.6	86.1	81.7	79.5	68.8	73.7	75.6	69.9	67.3	60.7	49.4	40.6	39.2	35.7	34.0	40.1	54.5	63.2	71.6	72.0	57.0	58.0	58.3	62.7	86.6
7-Oct	57.4	58.7	61.9	60.5	63.2	67.3	72.2	71.7	70.3	64.0	58.6	57.6	52.8	50.7	49.1	46.3	44.8	56.1	68.8	64.5	64.9	68.9	63.6	67.1	60.9	72.2
8-Oct	78.7	85.6	78.6	76.0	75.4	73.2	78.7	82.1	81.3	75.1	60.1	51.2	43.7	39.9	44.5	44.8	44.8	52.6	60.7	71.0	60.3	61.9	65.7	65.4	64.6	85.6
9-Oct	68.1	74.3	83.7	85.7	84.5	87.2	81.8	77.8	71.4	63.8	57.8	49.1	42.9	39.5	38.6	40.2	44.5	57.5	66.6	65.3	67.9	52.9	47.1	65.6	63.1	87.2
10-Oct	74.2	80.2	80.8	85.2	89.2	92.6	96.1	92.7	80.1	61.1	54.3	44.6	38.1	33.9	29.4	26.9	29.7	39.1	47.0	50.4	51.1	51.9	50.9	51.6	59.6	96.1
11-Oct	54.0	56.1	59.2	61.6	68.1	73.2	74.5	75.6	69.0	69.8	78.3	74.3	89.4	95.9	93.8	93.5	91.4	90.6	87.9	86.1	85.3	83.8	84.8	95.1	78.8	95.9
12-Oct	92.1	91.2	90.1	86.4	84.0	83.1	80.9	84.2	88.8	75.3	75.7	76.4	73.5	69.5	75.5	70.3	74.9	78.0	89.5	87.2	82.0	81.7	79.7	79.6	81.2	92.1
13-Oct	81.1	82.7	77.6	77.6	79.6	79.6	79.7	80.0	75.8	63.8	61.0	61.9	61.8	59.8	53.5	51.2	51.6	57.0	65.4	61.3	60.6	60.2	58.5	57.0	66.6	82.7
14-Oct	59.3	60.9	61.5	62.5	62.5	62.8	62.1	60.3	58.6	52.3	45.2	38.3	35.1	32.0	29.5	29.7	34.0	43.6	45.7	45.1	44.8	45.9	46.0	47.2	48.5	62.8
15-Oct	49.3	52.1	59.4	65.0	65.3	67.6	78.0	74.0	67.1	43.4	31.8	31.7	34.3	36.6	36.7	43.3	47.3	54.8	58.6	59.7	57.4	57.7	55.0	55.3	53.4	78.0
16-Oct	63.6	66.0	82.6	89.2	92.4	94.9	88.9	89.7	77.1	60.9	39.3	36.9	31.2	36.0	38.4	39.1	38.8	37.3	37.4	38.0	42.7	47.4	61.1	82.3	58.8	94.9
17-Oct	79.6	69.5	68.1	64.4	62.8	64.1	67.9	73.4	85.0	91.8	90.5	82.9	71.0	65.9	61.2	58.7	65.4	60.8	54.6	52.9	54.8	58.1	60.9	62.9	67.8	91.8
18-Oct	64.3	66.8	69.5	68.7	69.6	68.5	68.2	67.3	64.0	56.1	50.6	46.0	43.0	41.1	39.5	37.4	45.6	58.9	68.2	78.5	83.7	87.1	88.5	89.9	63.4	89.9
19-Oct	91.0	92.1	93.7	93.6	92.3	91.5	89.4	87.5	86.6	76.1	68.8	66.9	69.0	71.5	71.7	76.1	86.4	95.5	98.6	99.6	100.1	100.2	100.3	100.4	87.4	100.4
20-Oct	100.6	100.6	100.6	100.6	100.8	100.8	100.9	100.6	99.3	98.1	92.0	89.4	88.9	86.3	84.8	84.6	85.5	85.5	84.3	82.5	86.6	90.1	91.7	89.1	92.7	100.9
21-Oct	84.7	85.8	86.0	86.3	87.7	94.6	90.6	89.1	80.7	75.2	68.8	64.5	63.1	58.1	55.6	56.7	67.1	83.7	91.1	94.0	93.6	90.2	95.3	96.7	80.8	96.7
22-Oct	97.2	97.5	97.1	97.2	99.0	99.2	100.0	100.5	100.7	90.9	76.6	63.6	55.3	53.9	52.9	55.6	65.8	74.9	78.1	81.4	85.6	90.6	93.6	84.9	83.0	100.7
23-Oct	84.1	82.4	84.1	80.0	82.5	86.3	84.1	77.7	75.3	67.0	62.8	57.4	51.9	48.6	47.1	51.5	59.6	64.8	69.6	71.0	74.4	77.7	78.7	80.0	70.8	86.3
24-Oct	79.2	77.6	77.7	82.1	80.4	77.5	77.4	79.1	74.1	67.4	64.6	63.4	63.0	57.6	57.2	61.1	70.9	80.6	87.1	78.7	78.5	86.3	91.2	95.0	75.3	95.0
25-Oct	94.9	93.3	92.9	92.0	92.4	95.5	96.8	98.2	91.7	79.2	83.7	93.5	90.7	82.8	84.9	79.9	77.2	81.3	82.2	69.6	70.9	81.5	91.4	97.8	87.3	98.2
26-Oct	96.9	98.4	98.6	97.2	98.1	97.7	97.9	98.3	96.1	95.4	89.3	85.8	81.3	76.6	71.1	71.9	76.6	81.5	94.5	98.0	99.7	100.7	100.7	100.2	91.8	100.7
27-Oct	99.8	100.2	100.5	100.4	100.3	100.1	100.0	99.8	99.5	99.1	98.8	99.0	98.7	96.7	94.4	95.2	95.7	97.1	95.8	94.8	94.6	94.3	92.2	92.2	97.5	100.5
28-Oct	92.3	94.9	94.2	92.4	91.3	91.8	91.4	91.1	89.6	88.0	88.9	88.0	88.2	88.8	88.2	86.6	84.2	90.6	92.5	88.0	88.7	88.8	89.9	90.5	90.0	94.9
29-Oct	89.9	91.6	92.8	93.2	94.1	96.3	97.1	96.8	96.4	94.4	91.6	89.4	96.7	100.1	100.2	100.2	100.5	100.5	100.4	100.4	100.5	100.6	100.6	100.6	96.9	100.6
30-Oct	100.4	100.2	100.3	100.3	100.6	100.7	100.7	100.2	100.2	97.8	93.9	90.9	90.0	88.4	86.3	86.2	87.3	88.4	91.5	93.0	95.7	92.5	88.4	88.6	94.3	100.7
31-Oct	91.0	94.9	97.1	97.1	96.7	94.3	94.6	97.0	98.3	97.5	94.5	93.3	88.4	90.0	93.6	94.8	95.7	96.1	94.8	92.3	92.4	91.5	87.0	82.5	93.6	98.3
	83.2	84.1	84.4	84.5	85.4	86.2	85.9	86.0	82.8	77.0	72.3	68.1	65.9	64.4	64.0	64.5	67.3	73.1	77.3	77.1	77.7	78.7	79.6	81.5	Diurnal Average	
	100.6	100.9	100.9	100.7	100.9	100.9	100.9	100.6	100.7	100.6	99.9	100.0	100.4	100.2	100.2	100.2	100.5	100.5	100.4	100.4	100.5	100.7	100.7	100.6	Diurnal Maximum	

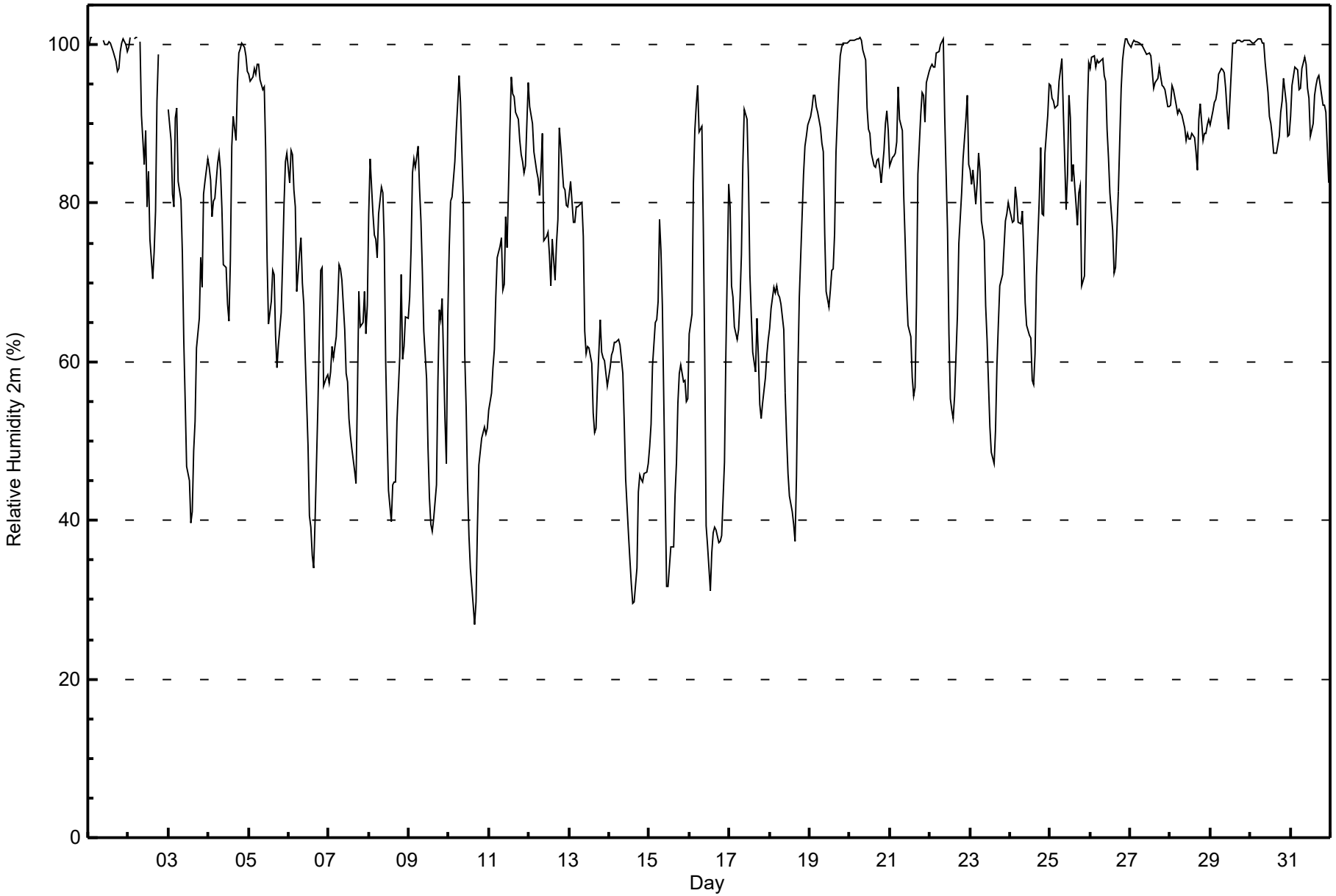
OR - Out of Range

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Surmont 2 - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	36	4.92	4.92
40 - 60	109	14.91	19.84
60 - 80	208	28.45	48.29
80 - 100	323	44.19	92.48

Total Number of Valid Hours: 731

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Surmont 2 - October 2025

Maximum Speed: 16 km/h on Oct 25 11:00

Maximum Daily Speed Average: 10.5 km/h on Oct 12

Minimum Speed Value: 0 km/h on Oct 25 02:00

Minimum Daily Speed Average: 1.3 km/h on Oct 19

Maximum Diurnal Speed Average: 3.8 km/h at hour 15

Minimum Diurnal Speed Average: 1.5 km/h at hour 3

Monthly Average Velocity: 2.5 km/h 261.3 deg

Percentiles: $P_1 = 1$ $P_{10} = 2$ $Q_1 = 4$ Median = 6 $Q_3 = 9$ $P_{90} = 11$ $P_{99} = 14$

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	WNW5	NW6	NNW4	NW4	NW5	NW6	NW6	NW6	NW7	NW8	NW8	NW8	NW7	NW9	NNW8	NNW7	NW7	WNW5	WNW4	WSW3	W2	WSW2	WSW4	WSW5	NW5.3	NW9
2-Oct	WSW3	WSW4	WSW3	WSW1	S0	UO	WSW3	WSW1	E2	ESE6	SE6	SE6	SE7	SE7	SE8	SE6	SSE4	SSW1	SSW0	SSW2	SSW2	SW2	S1	S2	SSE2.2	SE8
3-Oct	SW4	SSW3	WSW6	WSW5	SSE4	SE4	WSW7	WSW10	WSW10	WSW7	SW8	WSW12	WSW13	WSW15	WSW14	WSW9	WSW8	WSW6	WSW9	WSW8	W12	W9	W9	W9	WSW8.0	WSW15
4-Oct	WSW10	W8	W11	W9	W9	W7	W9	W9	WNW10	WNW9	NW8	NW8	NW7	NW6	W6	W7	W7	NW8	NW6	NW8	NW6	NW7	WNW6	WNW7	WNW7.3	W11
5-Oct	WNW5	W5	W4	W4	UO	UO	UO	UO	SSE1	SSW1	SSW3	SW6	WSW9	W11	W11	W10	WNW10	WNW10	W9	W9	W8	W9	W9	W9	W6.9	W11
6-Oct	WNW7	WNW6	NNW9	NNW9	NNW9	NNW10	NNW8	NW6	NNW7	NW8	NNW7	NW4	NE5	ESE5	E1	ESE3	SE3	SSW3	SW3	SSW2	S2	SSE4	SE4	ESE4	NNW2.6	NNW10
7-Oct	SE5	ESE6	ESE6	SE5	SSE5	S4	SSE4	SE6	SE5	SE6	ESE7	ESE8	SE9	SE8	SSE6	SSE7	S6	SSE3	SE3	SE5	SE5	SE5	SE5	WSW2	SE5.1	SE9
8-Oct	W1	WSW3	W7	WNW12	WNW11	WNW8	WNW9	WNW9	WNW10	WNW12	WNW12	WNW11	WNW12	WNW11	W12	W11	W10	WSW5	SW3	SSW2	WSW5	W7	WNW7	WNW9	WNW7.9	WNW12
9-Oct	WNW10	W8	WSW3	W5	WNW5	W6	WNW8	WNW9	W8	W8	W9	W9	W10	W10	W10	W10	WSW6	WSW3	SSW3	SSW3	SW4	WSW7	W6	S2	W6.4	WNW10
10-Oct	SSW2	SW2	SSW1	WSW2	WSW1	SW2	SW2	S2	SE3	SE5	SE8	SE9	SE9	SSE9	S9	S8	S7	S7	SSE6	SSE6	SSE6	SSE6	SSE6	SSE7	SSE4.6	SE9
11-Oct	SSE6	SE6	ESE6	E4	SSW3	SSE1	E1	ESE1	NNW6	NNW11	NNW12	NNW14	NW12	WNW9	WNW10	WNW12	WNW11	WNW11	WNW11	WNW12	WNW10	NW10	NW10	NNW11	NW5.9	NNW14
12-Oct	NNW13	NNW14	NNW13	NNW15	NNW14	NNW14	NNW14	N12	N12	NNW15	N12	NNW12	NNW11	N12	NNW9	N10	NNW9	NW6	NNW7	NNW8	NNW8	NNW6	NNW5	NW5	NNW10.5	NNW15
13-Oct	NW4	WNW4	NW4	W3	W4	W3	W4	W4	WSW5	WSW5	WSW7	WSW8	WSW8	SW7	SSW7	SSW6	S6	S5	SSW3	SSE6	SSE8	SSE6	SSE6	SSE5	SW3.5	WSW8
14-Oct	SSE6	S7	S7	S7	S8	S8	SSW8	SSW11	SSW12	SSW10	S10	SSW10	SW11	SW10	SW9	SW7	SSW6	S3	SSW5	WSW9	WSW14	WSW13	WSW13	WSW13	SW7.8	WSW14
15-Oct	WSW12	WSW10	SSW2	NW1	SSE3	SE4	ESE5	ESE7	ESE6	S6	SSW8	SW9	SW9	SW6	WSW9	W9	WSW7	WSW8	WSW4	W7	WSW10	WSW11	WSW9	W7	WSW5.1	WSW12
16-Oct	W5	WSW6	SSE1	SSE1	S1	SW1	WSW3	WSW2	UO	E3	SW6	SSW6	SW9	S7	S6	S6	SSE7	SSE6	SSE5	S5	SSE5	SE4	WSW3	S4	SSW3.5	SW9
17-Oct	S4	WSW9	WSW9	W10	W10	W9	W8	W8	W10	WNW11	WNW11	WNW12	WNW13	WNW13	WNW13	WNW12	W7	W9	W11	W11	W10	WNW9	WNW8	WNW9	W9.4	WNW13
18-Oct	W9	W8	W7	W8	W6	WNW7	W8	W9	W9	WNW9	WNW8	WNW9	W11	WNW10	W10	W9	W5	WSW3	WSW4	SW3	SW2	SW2	SW2	SW2	W6.3	W11
19-Oct	SW2	SW2	SW2	SW3	SW2	WSW1	S2	SE1	SE3	SE4	SE3	ESE3	ENE4	N3	NNW2	NE2	E3	ENE3	ENE3	ENE2	ENE4	ENE5	NE5	NNE3	E1.3	ENE5
20-Oct	NNW3	NNW4	N6	N6	NNW6	NNW5	NW5	WNW5	WNW6	NW6	WNW6	WNW6	WNW3	W6	WSW5	SW4	S3	SSW4	SSW6	SSW7	S4	SE6	SE7	SSE6	W2.0	SSW7
21-Oct	SSE6	SE8	SSE6	SE5	SSE4	SW3	WSW5	WSW9	WSW11	W12	W13	W11	W10	WNW9	W9	WNW9	NNW3	W3	WSW3	WSW3	NW1	WNW2	W1	WSW1	WSW4.1	W13
22-Oct	SW2	S1	SE1	ESE3	SSE3	S2	SSW1	SSE2	SE5	SE5	SE5	SE6	SE8	SE8	SE8	ESE7	SE4	SSW2	SE5	ESE6	ESE7	ESE5	ESE4	SE5	SE4.1	SE8
23-Oct	SE6	SE6	SSE5	S5	S4	SE4	SE4	SE4	SE3	SE5	SSE7	SE8	SE7	SE7	SE7	SE7	SE4	S4	SSE3	S4	SSE4	SE5	SSE5	SE6	SE5.0	SE8
24-Oct	ESE6	SE7	SE6	ESE5	ESE7	SE6	SE5	SE4	SSE4	SE5	SE7	SE7	SE7	SE7	SE7	SE4	SSE2	SW1	SW1	SSE5	SE5	SE3	SE1	SSW1	SE4.4	SE7
25-Oct	WSW0	SSW0	S1	SSW0	S1	S1	WSW1	NNW1	SE1	W10	W16	W15	W15	W15	W13	W11	W9	WNW5	W4	W9	W6	SW4	S1	WSW1	W5.4	W16
26-Oct	SW2	SSW2	WSW2	WSW2	SW1	SW1	WSW1	WSW2	W3	NNW2	NNW3	N4	N5	ENE5	ENE8	ENE6	N4	NNE4	NE8	NE10	NNE7	NNE7	N7	NNW9	NNE2.7	NE10
27-Oct	NNW8	NW8	NW8	WNW8	WNW8	WNW9	NW10	NW11	NW11	NW12	NW11	NW12	NW10	NW11	NW11	WNW11	WNW7	WNW3	WNW3	WNW3	WNW3	WNW4	WNW5	WNW6	NW8.0	NW12
28-Oct	WNW5	WNW5	WNW4	WNW5	WNW6	WNW7	WNW7	WNW6	WNW8	WNW12	WNW11	WNW12	WNW11	WNW11	W10	WNW9	WNW8	WNW3	WSW2	W5	WSW5	WSW4	SSW3	SW4	WNW6.4	WNW12
29-Oct	SE6	ESE5	ESE6	ESE7	ESE6	ESE5	ESE5	ESE4	ENE3	E4	E4	NE2	NNW2	NE3	N4	NNE4	NNE4	N4	NNW4	WNW5	NW3	NW4	NW4	NW5	ENE1.9	ESE7
30-Oct	NW4	NW2	NW4	NW4	NW4	NNE2	NW2	W2	NNW1	W3	W4	W4	W6	W5	WSW5	WSW6	WSW6	SSW4	SSW2	S3	S3	S3	S3	SW5	W2.6	W6
31-Oct	SSE3	ESE5	SE4	SSE4	SE5	SSE5	SSE6	SSE8	SSE8	SSE8	SE10	SE10	SE8	SE9	SE9	SE12	SE11	SE11	SE12	SE13	SE11	SE11	SSE9	SSE8	SE8.1	SE13
	WSW2.3	WSW2.2	W1.5	W2.0	W1.8	W1.7	W2.6	W2.6	W2.7	W3.0	W3.4	W3.7	W3.7	W3.7	WSW3.8	W3.3	WSW2.7	WSW2.4	WSW2.0	WSW2.4	WSW2.3	WSW2.1	WSW2.0	WSW2.4	Diurnal Average	
	NNW13	NNW14	NNW13	NNW15	NNW14	NNW14	NNW14	N12	N12	NNW15	W16	W15	WNW15	WSW15	WSW14	WNW12	WNW11	SE11	SE12	SE13	WSW14	WSW13	WSW13	WSW13	Diurnal Maximum	

UO - Unstable Operation

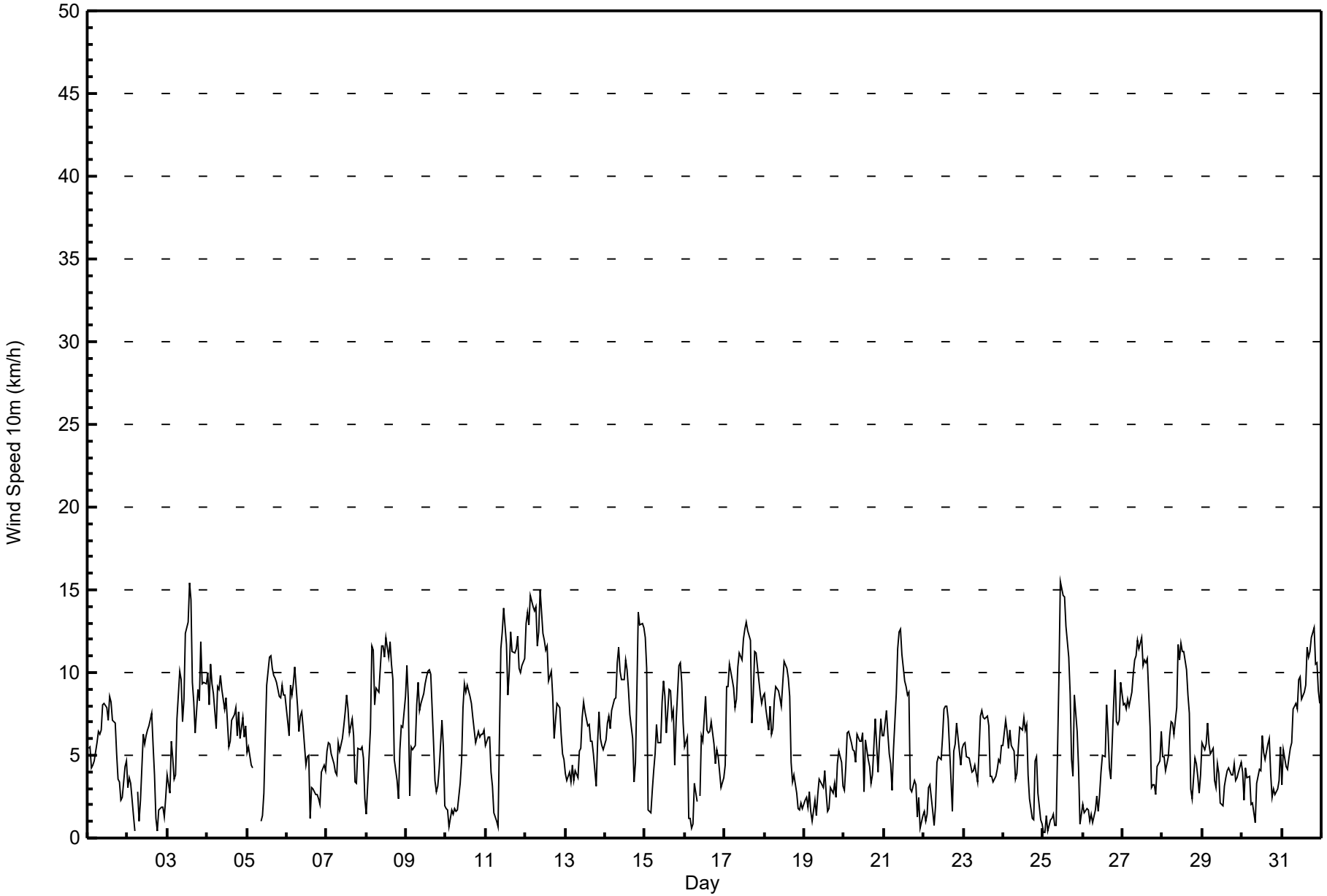
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Surmont 2 - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	327	44.31	44.31
6 - 11	358	48.51	92.82
12 - 19	53	7.18	100.00
20 - 28	0	0.00	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 738

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Surmont 2 - October 2025

Wind Speed	**Wind Direction**																
Ranges (km/h)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	5	6	5	8	8	15	44	27	29	29	29	45	23	22	19	13	327
6 - 11	4	2	2	2	0	16	47	28	15	11	12	34	70	58	35	22	358
12 - 19	4	0	0	0	0	0	3	0	0	1	0	9	8	14	3	11	53
20 - 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	13	8	7	10	8	31	94	55	44	41	41	88	101	94	57	46	738

Total Number of Valid Hours: 738

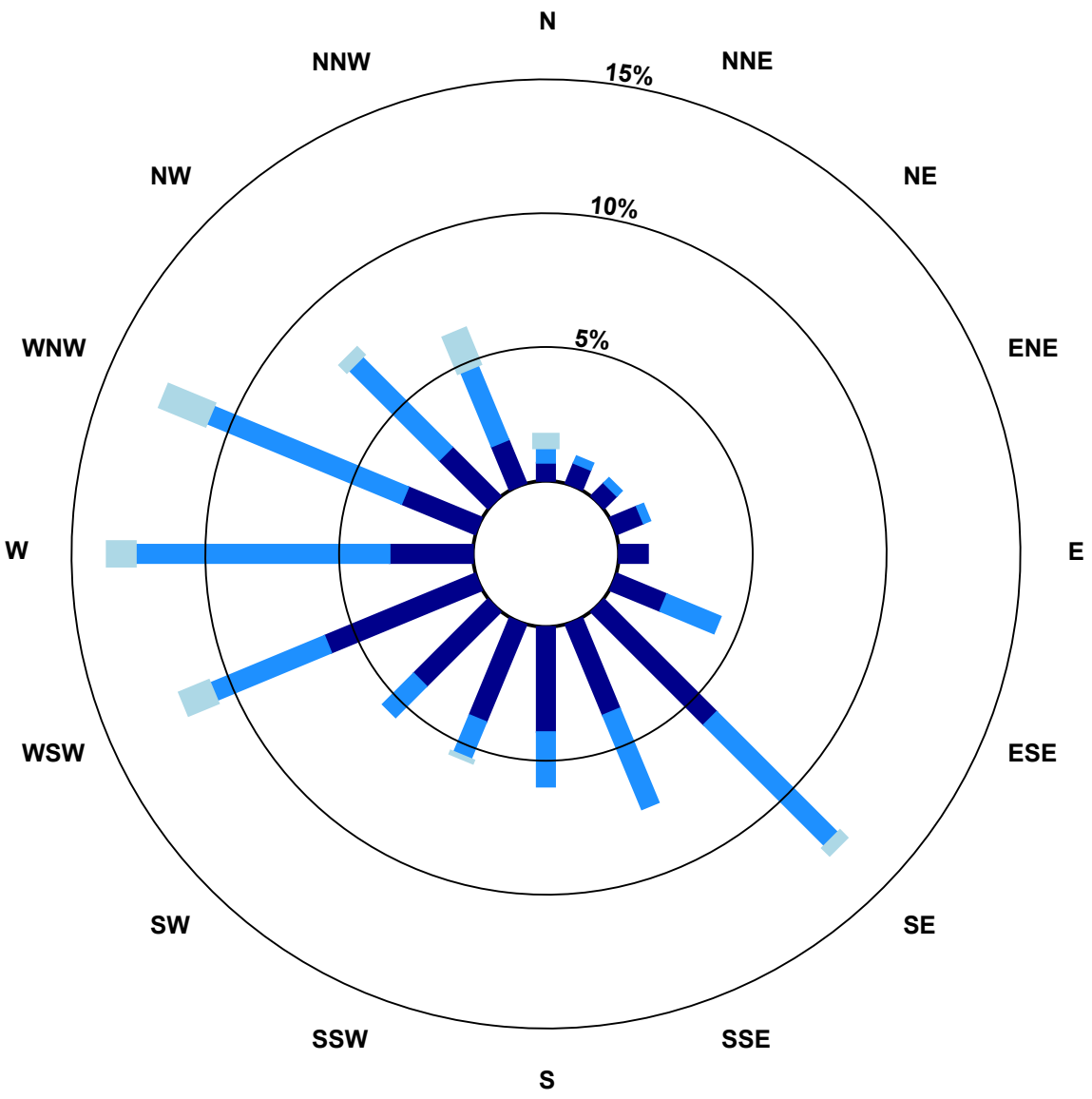
Total Number of Hours: 744

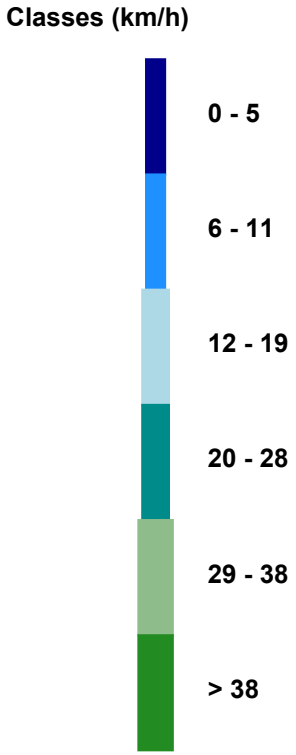
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Surmont 2





Total Number of Valid Hours: 738

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Surmont 2 - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 6 km/h on Oct 3 14:00

Minimum Value: 1 km/h on Oct 16 03:00

Percentiles: $P_1 = 1$ $P_{10} = 1$ $Q_1 = 2$ Median = 2 $Q_3 = 3$ $P_{90} = 4$ $P_{99} = 6$

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Hours of Calibration:	0
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	2	2	2	3	3	3	3	3	4	3	3	3	4	3	3	2	2	1	1	1	1	1	4
2-Oct	1	1	1	2	1	UO	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2	2
3-Oct	2	2	3	2	2	1	4	4	3	3	3	5	5	6	6	4	4	3	6	3	5	3	3	3	6
4-Oct	3	3	3	3	3	2	3	3	3	3	3	3	3	2	2	2	3	4	3	3	3	3	3	3	4
5-Oct	2	2	1	1	UO	UO	UO	UO	2	1	1	3	4	4	4	4	4	4	3	3	3	3	3	3	4
6-Oct	2	2	5	4	4	4	4	3	3	3	3	2	2	2	2	1	1	1	1	1	1	2	1	1	5
7-Oct	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	2	1	2	2	2	2	1	3
8-Oct	1	1	3	4	4	3	3	4	4	4	4	4	4	4	4	3	4	2	2	1	3	3	3	3	4
9-Oct	4	3	1	3	2	2	4	3	3	3	3	3	3	3	3	3	3	2	1	1	2	3	3	1	4
10-Oct	1	1	1	1	1	1	1	1	1	2	3	3	3	4	4	4	3	3	3	3	2	2	3	3	4
11-Oct	2	2	2	1	1	1	1	1	6	5	5	6	5	4	4	5	5	4	4	4	4	4	5	5	6
12-Oct	6	5	5	6	6	6	6	5	5	6	4	5	5	4	4	5	3	3	3	3	3	3	2	2	6
13-Oct	2	1	2	1	1	1	1	1	1	2	2	3	3	3	3	3	2	3	2	3	4	3	2	3	4
14-Oct	3	3	4	3	3	4	4	5	5	5	4	5	4	5	4	4	4	2	3	5	5	4	4	4	5
15-Oct	4	5	2	1	1	1	1	2	2	3	4	4	4	3	4	3	3	3	4	3	3	3	3	3	5
16-Oct	2	3	1	1	1	1	1	1	UO	1	3	4	4	3	3	3	3	2	2	3	2	2	2	2	4
17-Oct	2	3	3	4	4	3	3	3	4	4	4	4	4	5	5	5	3	3	4	4	3	3	3	3	5
18-Oct	3	2	2	3	2	2	3	3	3	3	3	3	4	4	3	3	2	1	1	1	1	1	1	1	4
19-Oct	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	2
20-Oct	1	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	3	2	2	2	2	3
21-Oct	2	3	3	2	2	1	2	3	4	4	4	4	3	3	3	3	2	1	1	1	1	1	1	1	4
22-Oct	1	1	1	1	1	1	1	1	2	2	2	2	2	3	3	2	2	1	2	2	2	2	2	2	3
23-Oct	2	3	2	2	2	1	2	2	1	2	3	3	3	3	2	3	2	2	1	2	2	2	2	2	3
24-Oct	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	2	1	1	1	3
25-Oct	1	1	1	1	1	1	1	1	2	5	5	5	6	6	4	4	4	3	2	3	3	2	1	1	6
26-Oct	1	1	1	1	1	1	1	1	1	1	1	2	2	2	3	3	2	2	3	4	3	3	3	4	4
27-Oct	3	3	3	3	3	3	4	4	4	5	5	5	5	4	4	4	5	3	4	4	4	5	5	5	5
28-Oct	5	5	5	5	5	5	5	5	4	5	5	5	5	4	3	3	3	2	2	2	2	2	1	2	5
29-Oct	2	2	2	2	2	2	1	1	1	2	2	1	1	1	2	2	2	2	2	2	2	2	2	2	2
30-Oct	2	1	2	2	2	1	1	1	1	1	2	2	2	2	2	2	3	2	2	1	1	1	2	3	3
31-Oct	2	2	2	2	2	2	2	3	3	3	4	3	3	3	3	4	4	4	4	5	4	4	4	4	5
	6	5	5	6	6	6	6	5	6	6	5	6	6	6	6	5	5	4	6	5	5	5	5	5	
	Diurnal Maximum																								

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Surmont 2 - October 2025

Direction of Maximum Speed: 272 deg on Oct 25 11:00
Direction of Maximum Daily Speed Average: 344.4 deg on Oct 12

Direction of Minimum Speed: 208 deg on Oct 25 02:00

Direction of Minimum Daily Speed Average: 1.3 deg on Oct 19

Monthly Average Direction: 261.3 deg

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	292	310	327	323	326	317	308	313	318	323	314	314	306	318	329	329	316	292	284	255	270	248	247	252	308.1
2-Oct	257	252	257	249	190	UO	237	238	93	118	130	146	124	126	125	129	152	209	206	197	194	228	178	183	154.9
3-Oct	226	212	249	239	153	136	249	253	253	244	236	247	253	249	256	254	255	242	256	258	267	261	260	260	249.7
4-Oct	253	259	262	266	271	276	268	275	285	293	309	314	326	307	266	276	280	306	311	309	311	316	300	292	286.9
5-Oct	284	277	275	271	UO	UO	UO	UO	156	197	198	232	248	259	263	275	282	284	267	270	271	270	273	272	267.0
6-Oct	285	301	348	330	342	346	342	318	343	326	332	322	41	106	87	119	143	198	225	206	182	152	131	108	337.9
7-Oct	130	117	119	132	148	171	161	137	130	136	121	121	128	136	160	168	174	162	146	137	134	126	145	238	140.4
8-Oct	272	247	278	283	291	295	293	301	293	293	291	288	283	283	275	268	270	257	235	203	257	266	283	289	281.3
9-Oct	290	271	257	274	292	279	282	286	278	275	262	262	262	263	262	262	252	244	192	200	233	257	277	189	266.3
10-Oct	209	236	212	237	247	225	224	191	127	131	139	125	134	166	172	175	178	172	163	149	159	153	152	163	160.3
11-Oct	154	139	122	82	197	157	87	121	329	330	331	330	324	295	297	293	292	291	289	286	297	313	325	344	309.3
12-Oct	336	337	338	342	344	342	344	358	360	348	349	347	347	353	348	4	346	325	345	336	342	335	328	316	344.4
13-Oct	312	301	316	280	280	281	274	274	249	241	246	256	237	225	201	198	176	171	195	167	155	168	148	153	221.8
14-Oct	168	178	169	178	179	175	202	209	211	199	188	209	231	233	219	223	204	188	196	246	255	257	255	251	215.5
15-Oct	250	250	193	311	152	143	109	110	104	184	209	221	227	227	250	267	254	250	257	274	255	255	253	268	236.8
16-Oct	271	256	147	157	179	230	238	237	UO	101	217	196	229	173	176	175	163	161	165	181	162	145	242	177	192.1
17-Oct	169	254	258	259	261	265	271	272	276	283	287	282	293	287	287	288	280	274	275	279	281	284	286	284	276.6
18-Oct	280	274	270	273	270	283	274	280	280	288	287	294	279	289	274	276	266	251	254	233	232	232	236	224	275.4
19-Oct	231	226	223	232	235	243	171	136	128	130	127	102	75	9	337	34	84	74	75	63	64	71	47	12	86.3
20-Oct	342	334	352	355	342	329	317	293	300	306	288	290	302	271	250	233	174	200	196	202	182	145	126	149	276.9
21-Oct	151	134	147	132	149	215	244	247	258	265	270	272	277	282	280	282	343	281	255	242	307	285	262	245	254.3
22-Oct	224	188	135	121	150	175	200	155	146	126	145	146	139	139	131	121	127	202	142	122	119	115	115	139	135.8
23-Oct	136	139	149	170	181	134	130	125	141	131	150	138	145	138	135	128	142	180	164	178	153	135	158	128	144.3
24-Oct	123	129	138	109	121	125	133	139	150	143	139	133	130	143	136	136	152	231	224	152	136	131	145	211	135.7
25-Oct	247	208	170	198	176	184	256	330	129	281	272	269	281	276	263	269	273	287	269	263	270	231	181	240	268.6
26-Oct	233	210	239	258	231	232	255	255	266	328	336	349	8	61	75	69	350	13	53	51	17	13	351	348	16.6
27-Oct	336	312	308	300	296	302	308	314	319	316	309	316	313	310	305	303	297	298	296	302	299	298	300	298	308.5
28-Oct	293	291	292	290	289	287	288	291	292	290	282	289	285	282	278	286	291	286	250	261	246	258	211	221	281.8
29-Oct	124	120	115	116	120	112	110	104	72	100	90	37	342	54	11	25	27	5	337	294	307	321	316	313	66.5
30-Oct	312	306	314	312	308	19	309	273	330	279	270	274	273	259	247	258	256	209	209	171	176	177	190	229	261.3
31-Oct	168	118	142	147	136	164	150	150	161	162	141	132	135	125	128	128	129	126	127	135	134	137	149	151	138.3
	258.5	254.6	265.0	276.9	270.0	276.7	274.1	270.9	278.1	279.6	265.9	269.6	269.3	260.3	254.2	259.3	254.2	249.9	241.9	237.1	243.5	245.7	251.7	254.9	
	Diurnal Average																								

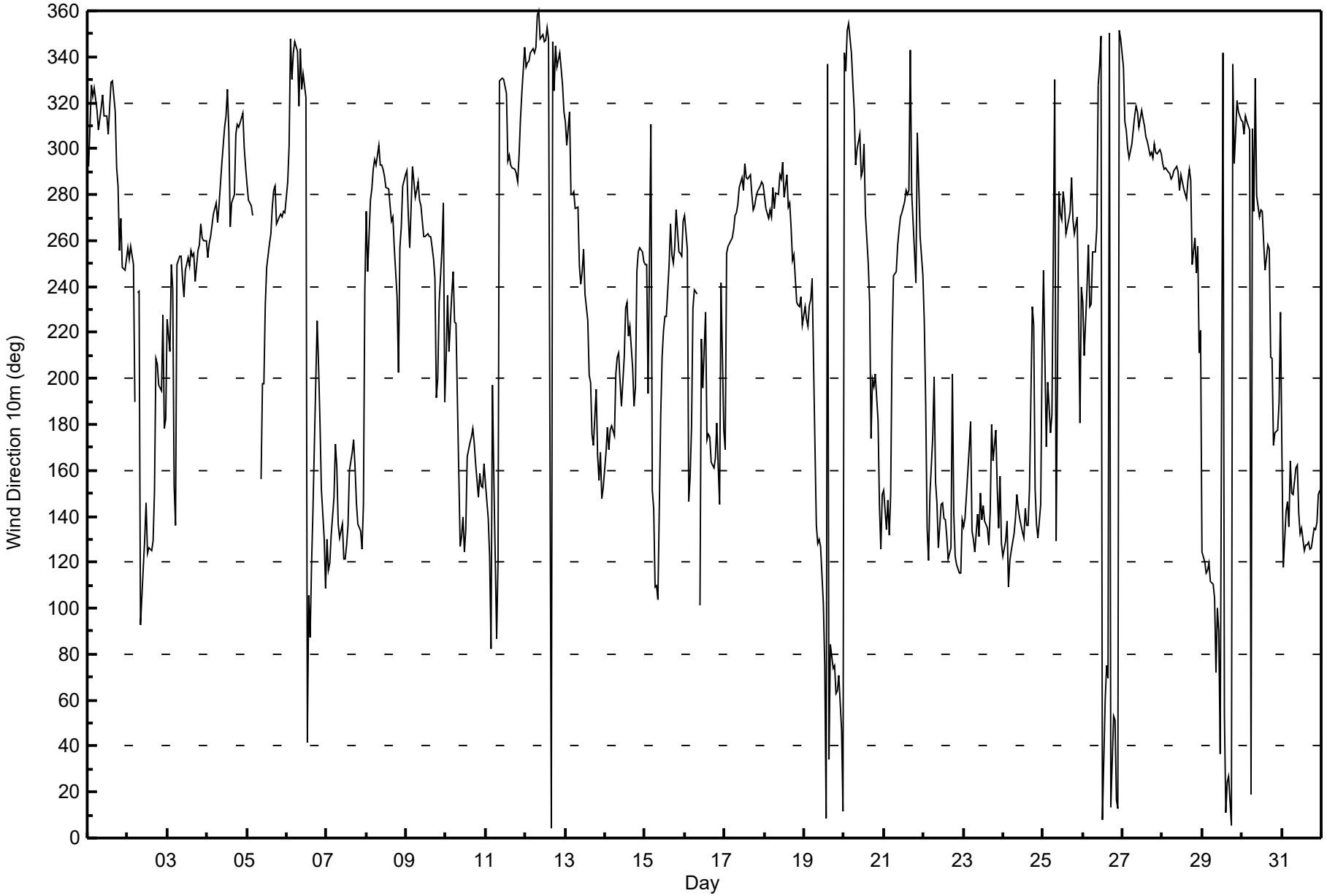
UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Surmont 2 - October 2025



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Surmont 2 - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 105 deg on Oct 15 19:00

Minimum Value: 11 deg on Oct 19 06:00

Percentiles: P_1 = 16 P_{10} = 26 Q_1 = 32 Median = 41 Q_3 = 53 P_{90} = 65 P_{99} = 97

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Hours of Calibration:	0
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	35	43	55	57	58	53	48	54	54	50	53	53	50	49	53	49	52	39	39	25	26	24	14	18	58
2-Oct	21	14	24	80	81	UO	42	62	47	28	39	43	35	41	32	41	54	72	100	37	30	28	57	86	100
3-Oct	88	101	55	58	61	69	67	28	25	42	42	40	36	37	30	35	43	50	38	32	30	26	27	24	101
4-Oct	22	28	25	26	28	28	26	31	33	38	44	45	48	44	26	28	30	48	42	51	47	45	49	36	51
5-Oct	35	26	27	23	UO	UO	UO	UO	82	83	76	58	38	30	29	28	32	31	26	26	28	25	25	25	83
6-Oct	35	43	46	48	46	42	47	48	46	44	52	77	58	50	99	67	51	35	33	43	67	59	38	35	99
7-Oct	36	28	37	50	60	69	56	41	47	38	33	30	34	41	53	48	60	63	47	49	38	39	55	63	69
8-Oct	75	31	30	28	33	41	33	36	37	33	34	37	34	38	31	27	28	25	29	50	49	28	34	39	75
9-Oct	30	27	51	41	31	26	33	29	32	32	31	34	31	32	33	30	43	47	76	56	45	30	44	78	78
10-Oct	64	67	83	17	50	26	41	42	31	42	38	31	36	54	55	60	49	52	61	52	54	58	53	56	83
11-Oct	62	42	34	33	43	81	91	99	71	47	44	45	46	37	36	33	39	33	33	30	36	45	47	47	99
12-Oct	44	44	44	41	43	41	40	43	45	43	40	45	47	40	45	45	38	49	44	39	40	42	48	51	51
13-Oct	43	39	41	28	25	25	24	30	23	37	41	31	47	54	57	59	50	52	62	56	59	69	70	70	70
14-Oct	69	65	63	70	63	65	68	62	62	59	62	64	50	47	57	57	67	62	60	44	29	27	26	23	70
15-Oct	22	33	100	97	72	46	19	13	21	66	61	58	52	61	43	32	27	24	105	40	23	22	23	42	105
16-Oct	40	29	71	46	61	61	22	24	UO	41	53	55	54	56	60	59	52	50	70	64	56	51	70	60	71
17-Oct	59	30	29	31	32	32	29	35	29	29	34	30	36	32	34	32	32	26	27	29	28	30	32	33	59
18-Oct	28	25	29	29	25	31	24	29	31	32	38	33	33	32	32	30	27	11	11	27	23	29	33	52	52
19-Oct	15	20	20	21	28	11	51	45	39	35	33	34	28	39	70	68	39	28	30	41	38	33	35	37	70
20-Oct	38	43	39	40	38	39	45	35	32	36	33	33	74	29	48	55	52	61	55	59	90	53	39	53	90
21-Oct	53	41	52	45	52	69	39	23	29	29	28	32	31	36	31	30	60	27	15	16	56	55	87	60	87
22-Oct	54	59	56	44	53	77	67	68	42	35	39	39	35	34	33	24	53	65	44	29	24	28	34	47	77
23-Oct	44	54	50	53	52	51	45	44	54	37	42	34	40	38	37	36	55	54	48	58	58	51	47	42	58
24-Oct	39	40	40	29	37	41	43	56	55	42	39	35	29	40	38	49	69	71	85	55	46	45	83	70	85
25-Oct	97	85	68	92	78	75	69	102	96	41	27	29	31	30	29	31	34	67	75	31	33	35	93	35	102
26-Oct	32	59	35	72	51	55	72	71	49	54	44	36	38	39	28	29	51	47	33	33	45	49	52	46	72
27-Oct	44	42	41	35	38	39	43	44	44	44	46	44	40	44	41	37	30	26	23	20	25	25	24	28	46
28-Oct	28	24	23	23	25	27	26	25	28	33	29	32	33	31	28	35	40	63	68	31	33	43	57	54	68
29-Oct	29	30	26	21	26	35	18	32	32	28	33	65	61	42	44	52	47	49	50	44	51	44	55	53	65
30-Oct	53	61	50	52	55	50	44	35	65	37	43	43	33	40	52	43	48	67	65	38	49	58	73	60	73
31-Oct	59	26	54	61	48	68	62	49	53	55	47	37	37	29	32	29	34	33	35	36	48	46	57	52	68
	97	101	100	97	81	81	91	102	96	83	76	77	74	61	99	68	69	72	105	64	90	69	93	86	
	Diurnal Maximum																								

UO - Unstable Operation

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS30
ELLS RIVER
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ELLS RIVER (AMS30)
OCTOBER 2025

MONTHLY SUMMARY for
AMD SECTION III.B.1(c)

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 30-Min Value	30-Min Exceedances	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	704	34	40	99.19	-	-	14.4	0	2.9	0
TRS (ppb) Average	651	39	93	92.74	2.9	0	2.8	0	0.9	0
THC (ppm) Average	706	34	38	99.46	-	-	5.9	-	3.3	-
NMHC (ppm) Average	706	34	38	99.46	-	-	1.729	-	0.604	-
CH4 (ppm) Average	706	34	38	99.46	-	-	4.6	-	2.7	-
NO2 (ppb) Average	705	36	39	99.6	-	-	22.7	0	10.3	-
NO (ppb) Average	705	36	39	99.6	-	-	127.8	-	18.6	-
NOX (ppb) Average	705	36	39	99.6	-	-	145.7	-	26.7	-
PM2.5 (ug/m3) Average	739	1	5	99.46	-	-	13.2	0	6.6	0
Temperature 2 m (C) Average	744	0	0	100	-	-	20.9	-	9.5	-
Relative Humidity (%) Average	744	0	0	100	-	-	96.7	-	90.7	-
Wind Speed 10 m (km/h) Average	738	0	6	99.19	-	-	40	-	23	-
Wind Direction 10 m (deg) Average	738	0	6	99.19	-	-	-	-	-	-
Global Solar Radiation (W/m2) Average	744	0	0	100	-	-	545.5	-	145.3	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ELLS RIVER (AMS30)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	704	0.53	1.5	-	0	0	0	0	0.2	1.4	14.4
TRS (ppb) Average	651	0.43	0.2	-	0	0.3	0.3	0.4	0.5	0.7	2.8
THC (ppm) Average	706	2.23	0.5	-	2	2	2	2.1	2.2	2.6	5.9
NMHC(ppm) Average	706	0.073	0.188	-	0	0	0	0	0.1	0.2	1.729
CH4(ppm) Average	706	2.16	0.3	-	2	2	2	2.1	2.2	2.4	4.6
NO2 (ppb) Average	705	4.39	4.6	-	0	0.2	0.4	3	6.9	11.3	22.7
NO (ppb) Average	705	3.22	12.6	-	0	0	0	0.1	1.2	6	127.8
NOX (ppb) Average	705	7.61	15.4	-	0.1	0.2	0.5	3.6	8.8	16.5	145.7
PM2.5 (ug/m3) Average	739	3.22	2.3	-	0.1	0.4	1.4	3.1	4.5	6.1	13.2
Temperature 2 m (C) Average	744	4.56	4.4	-	-4.5	-0.3	1.1	3.6	7.6	10.9	20.9
Relative Humidity (%) Average	744	74.38	16.4	-	30.8	49.8	62.7	78.3	88.6	93.1	96.7
Wind Speed 10 m (km/h) Average	738	10.6	7	-	0	3	6	9	14	18	40
Wind Direction 10 m (deg) Average	738	237.3	-	-	-	-	-	-	-	-	-
Global Solar Radiation (W/m2) Average	744	69.14	124.4	-	0	0	0	0	79.7	268.7	545.5

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - ELLS RIVER (AMS30)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
ALL GASEOUS ANALYZERS (except NO2)	06 Oct 2025 13:00	06 Oct 2025 13:00	1	Maintenance - sample manifold cleaned
AIR QUALITY ANALYZERS (except TRS)	29 Oct 2025 19:00	29 Oct 2025 21:00	3	Station power failure
NO2	23 Oct 2025 11:00	23 Oct 2025 11:00	1	Maintenance - station operator activities
SO2	06 Oct 2025 12:00	06 Oct 2025 12:00	1	DAS Failure - data not recorded
TRS	23 Oct 2025 10:00	23 Oct 2025 11:00	2	Maintenance - station operator activities
TRS	26 Oct 2025 22:00	26 Oct 2025 22:00	1	Unstable Operation - flatline in analyzer output signal
TRS	28 Oct 2025 09:00	30 Oct 2025 09:00	49	Maintenance - analyzer replaced
Wind Speed, Wind Direction	22 Oct 2025 07:00	22 Oct 2025 07:00	1	Flat line in sensor output signal
Wind Speed, Wind Direction	26 Oct 2025 06:00	26 Oct 2025 10:00	5	Flat line in sensor output signal

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Ells River - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 14.4 ppb on Oct 22 15:00 Maximum Daily Average: 2.9 ppb on Oct 23

Minimum Value: 0.0 ppb on Oct 1 02:00 Minimum Daily Average: 0.0 ppb on Oct 3
Maximum Diurnal Average: 1.6 ppb at hour 15 Minimum Diurnal Average: 0.2 ppb at hour 7
Monthly Average: 0.53 ppb Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.2 P_{90} = 1.4 P_{99} = 7.4

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	34
Percent Operational Time:	99.3

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4
2-Oct	0.0	0.1	0.0	0.0	Z	0.1	0.1	0.0	0.0	0.1	0.0	0.4	0.8	0.7	1.0	0.1	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.2	1.0
3-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
5-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
6-Oct	0.5	0.4	Z	0.0	0.0	0.0	0.1	0.3	0.4	0.2	0.0	DF	M	0.3	0.1	0.6	1.7	3.6	1.3	0.9	0.8	3.8	4.0	3.6	1.1	4.0
7-Oct	3.0	7.5	2.4	Z	0.6	0.4	0.3	0.3	0.2	0.2	0.3	3.4	4.6	9.4	11.1	4.0	2.2	2.6	1.0	1.3	0.8	0.6	0.5	0.6	2.5	11.1
8-Oct	0.5	0.2	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.5
9-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
10-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	4.1	6.1	5.4	0.4	0.1	0.2	0.2	0.3	0.3	0.5	0.1	0.0	0.8	6.1
11-Oct	0.0	Z	0.0	0.0	0.3	0.4	0.0	0.1	0.2	2.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.1
12-Oct	0.0	0.0	Z	1.7	1.2	1.2	0.8	1.9	0.8	0.2	0.0	0.2	0.0	0.0	0.3	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.9
13-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14-Oct	0.0	0.0	0.1	0.0	Z	0.1	0.3	0.4	0.3	0.2	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
15-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2
16-Oct	Z	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.7	12.2	9.6	4.7	3.5	2.5	1.4	0.4	0.4	0.2	0.3	0.2	0.2	1.6	12.2
17-Oct	0.1	Z	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
18-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1
19-Oct	0.0	0.1	0.1	Z	0.1	0.2	0.4	0.8	0.7	0.3	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.8
20-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	1.1	1.5	1.9	0.3	1.9
21-Oct	1.8	1.7	0.5	0.3	0.2	Z	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.8
22-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.0	0.2	3.9	14.4	4.1	1.7	1.5	0.8	0.2	0.1	0.2	2.1	4.5	1.5	14.4
23-Oct	6.5	Z	8.5	3.5	0.7	0.7	1.2	2.6	3.9	4.2	1.1	2.2	1.2	3.5	5.6	6.3	1.1	1.2	1.0	3.7	5.0	1.0	1.6	0.9	2.9	8.5
24-Oct	1.1	3.7	Z	2.7	1.3	1.1	1.1	1.4	0.9	0.5	0.4	0.4	4.5	7.1	2.3	1.5	1.4	1.0	0.4	0.2	0.1	0.1	0.1	0.1	1.5	7.1
25-Oct	0.0	0.1	0.2	Z	0.1	0.2	0.5	0.5	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
26-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.6	0.8	0.4	0.4	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8
27-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.5	2.3	1.8	1.9	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.3
28-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29-Oct	0.0	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	PF	PF	PF	0.4	0.1	0.1	0.1	0.4
30-Oct	0.0	0.0	Z	4.2	1.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	4.2
31-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.8	10.7	6.7	7.0	3.6	2.6	2.4	0.4	1.4	2.5	0.5	0.3	0.8	1.7	1.2	1.9	10.7
	0.5	0.5	0.5	0.5	0.3	0.2	0.2	0.3	0.3	0.4	0.5	0.6	1.3	1.5	1.6	0.8	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	Diurnal Average	
	6.5	7.5	8.5	4.2	1.8	1.2	1.2	2.6	3.9	4.2	10.7	6.7	12.2	9.6	14.4	6.3	2.5	3.6	2.5	3.7	5.0	3.8	4.0	4.5	Diurnal Maximum	

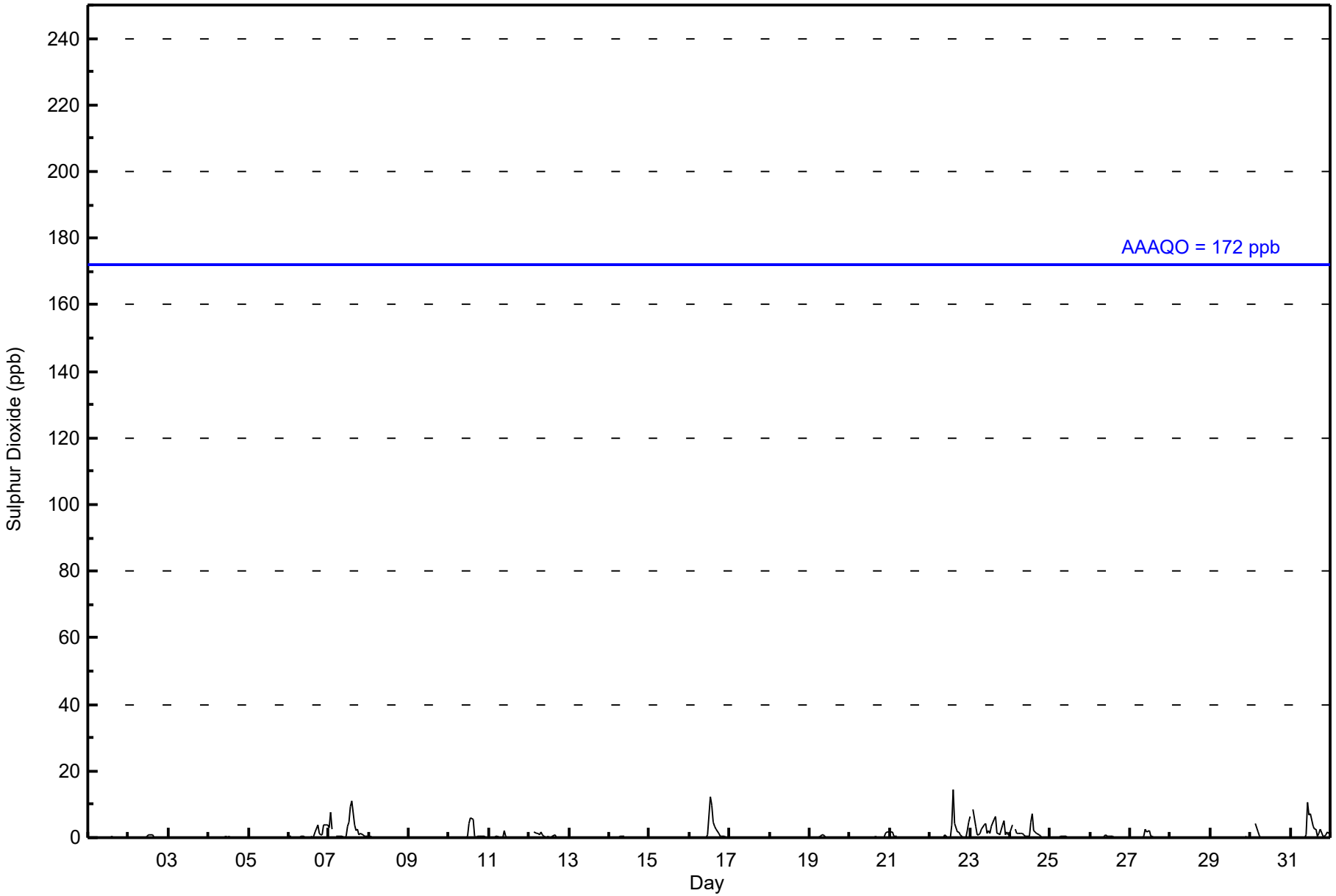
Z - zerospan C - Calibration M - Maintenance DF - DAS Failure PF - Power Failure
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Ells River - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Ells River - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	701	99.43	99.43
11 - 20	4	0.57	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Ells River - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	72	14	4	4	2	3	29	95	111	89	72	39	50	34	30	47	695
11 - 20	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	4
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	72	14	4	4	2	3	32	96	111	89	72	39	50	34	30	47	699

Total Number of Valid Hours: 699

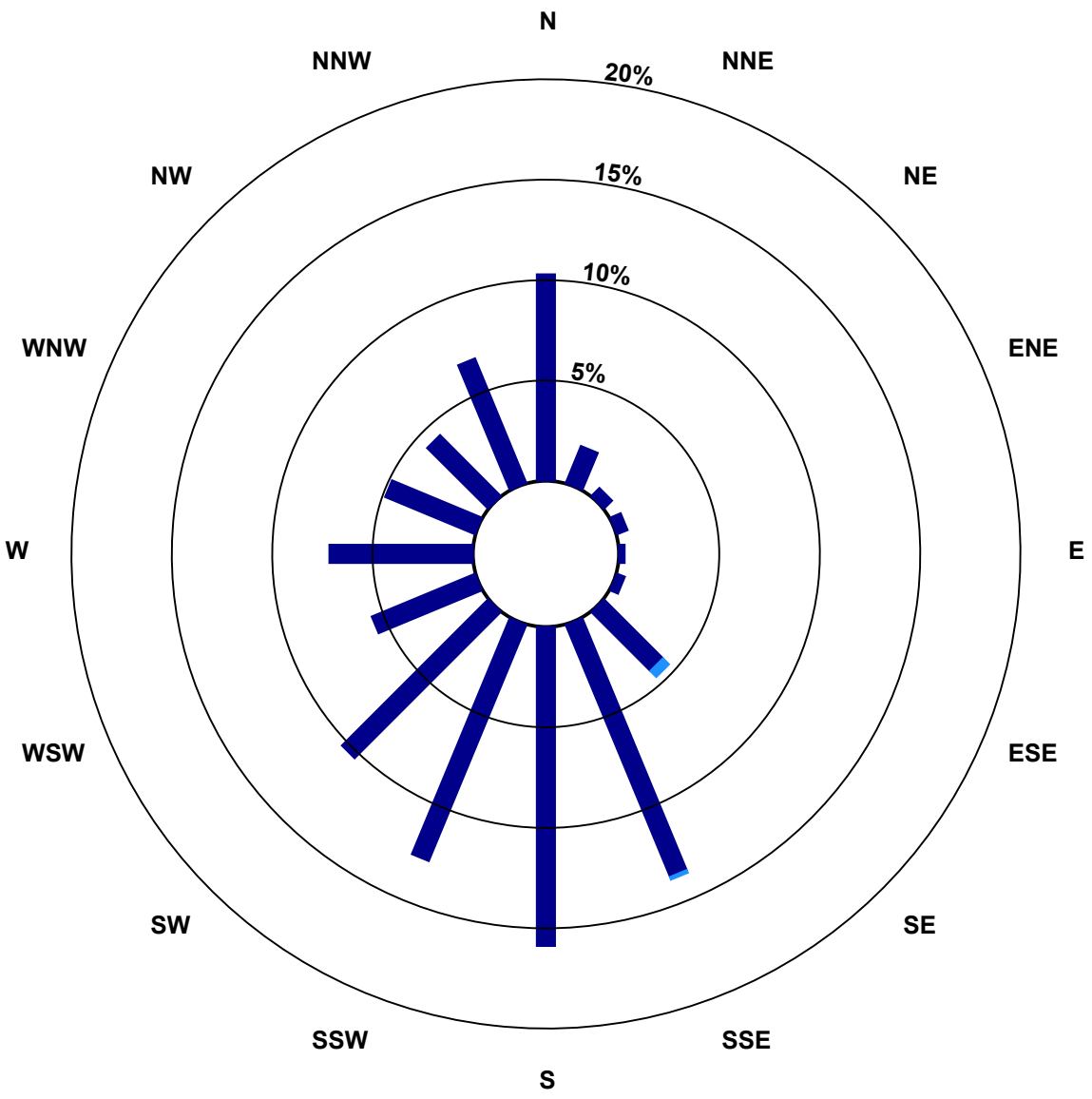
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Ells River



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

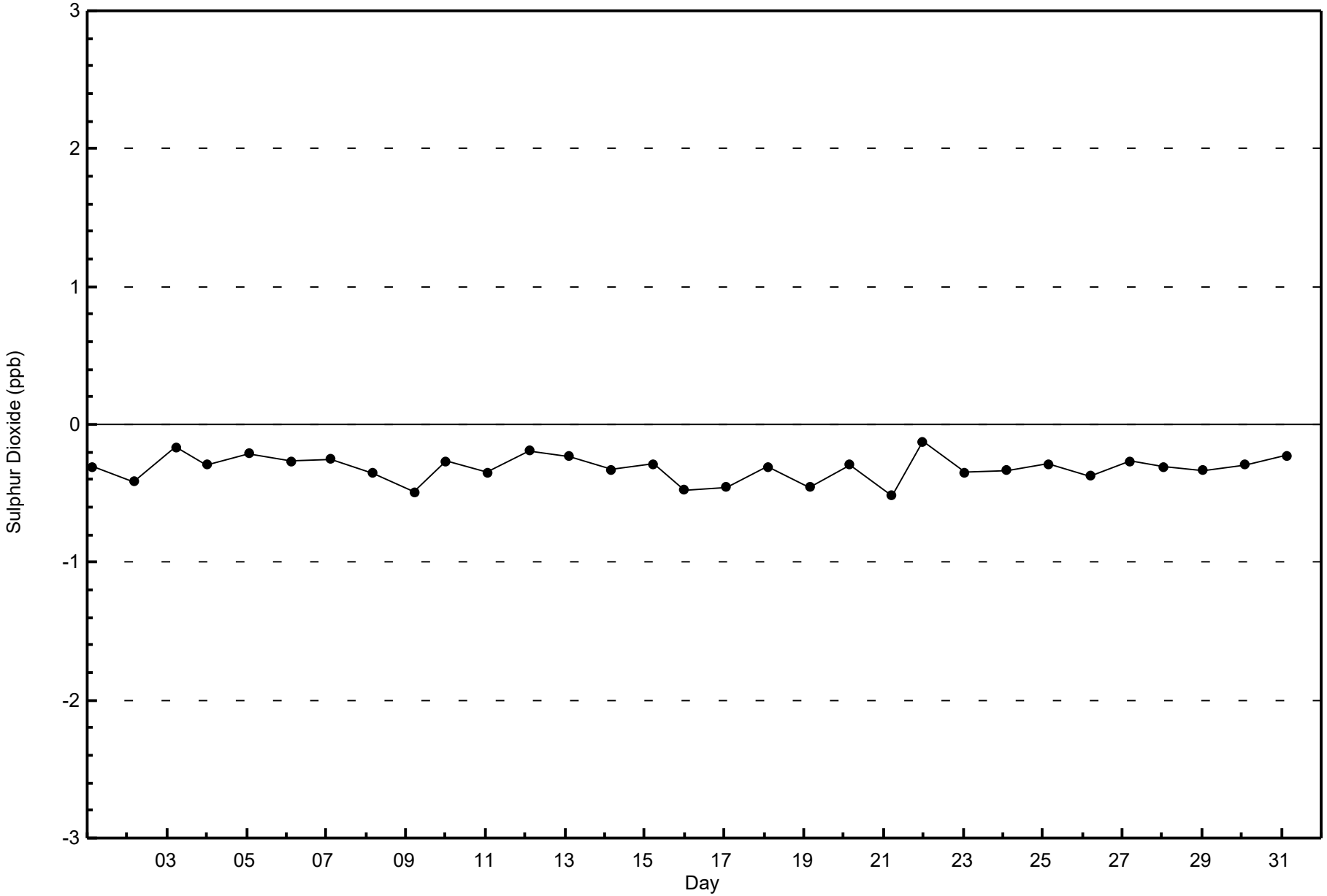
Total Number of Valid Hours: 699

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Ells River - October 2025

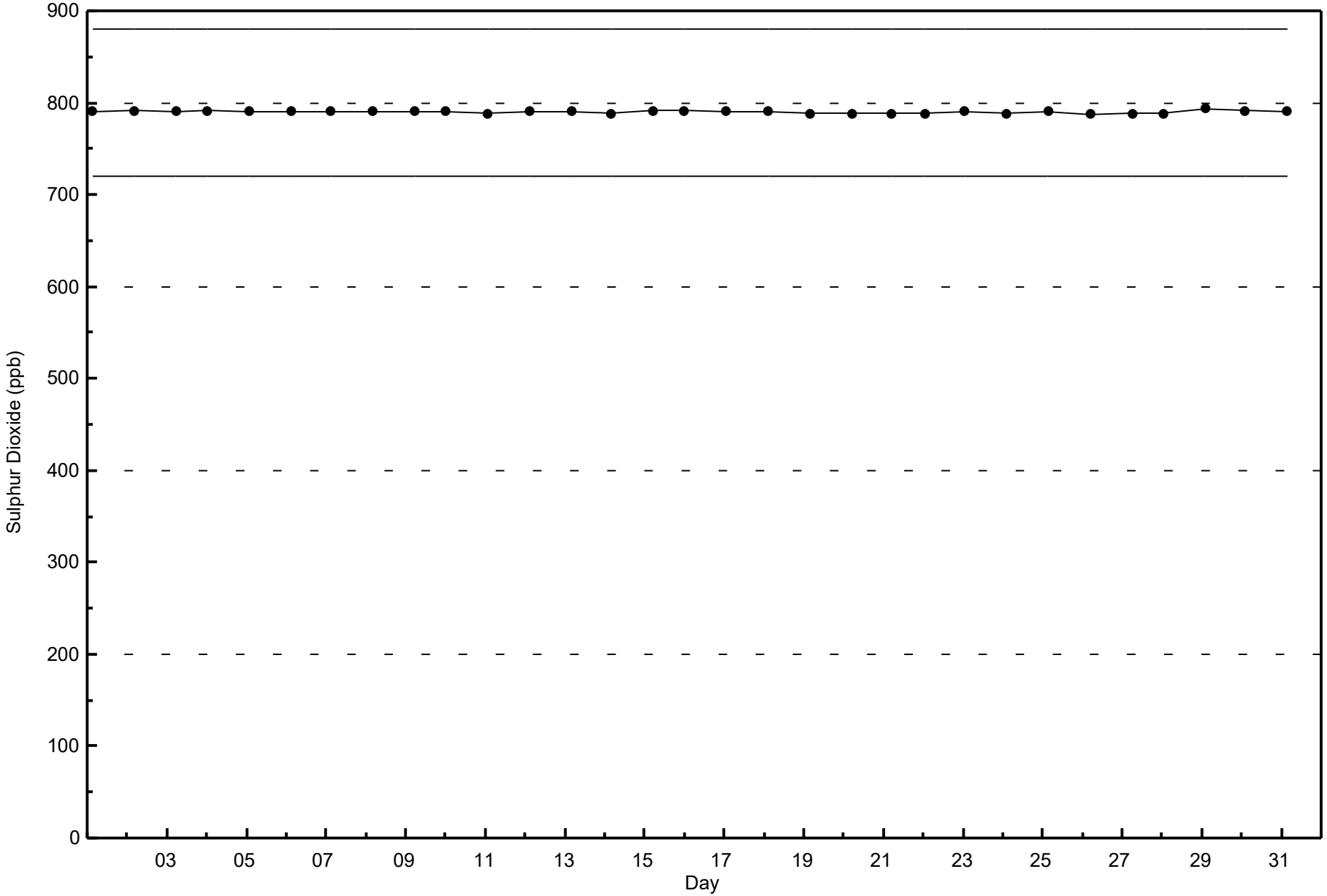


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Ells River - October 2025



Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Ells River - October 2025

Number of Exceedences (AAAQG): 30-Min: 0

Maximum Value: 2.9 ppb on Oct 7 18:00

Maximum Daily Average: 0.9 ppb on Oct 7

Minimum Value: 0.0 ppb on Oct 30 19:30

Minimum Daily Average: 0.1 ppb on Oct 31

Maximum Diurnal Average: 0.5 ppb at hour 10

Minimum Diurnal Average: 0.4 ppb at hour 17

Monthly Average: 0.43 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.3 Q_1 = 0.3 Median = 0.4 Q_3 = 0.5 P_{90} = 0.7 P_{99} = 1.4

Periods in Service:	1488
Periods of Valid Data:	1304
Periods of Invalid Data:	184
Periods of Calibration:	79
Percent Operational Time:	92.9

Day	Period Ending At (MST) 00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
1-Oct	0.5	0.5	1.1	0.7	Z	1.5	0.6	1.1	0.8	0.5	C	C	C	C	0.8	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	1.6
	0.6	0.6	1.6	0.9	SP	0.7	0.8	1.5	0.5	0.7	C	C	C	C	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3		
2-Oct	0.5	0.4	0.3	0.3	0.3	Z	0.2	0.3	0.3	0.4	0.9	1.1	1.0	0.9	0.6	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.7	0.4	0.5	1.1
	0.4	0.6	0.3	0.4	0.3	SP	0.3	0.3	0.3	0.5	1.1	1.0	0.9	0.7	0.5	0.4	0.4	0.4	0.4	0.5	0.7	0.6	0.7	0.4		
3-Oct	Z	0.2	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5
	SP	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
4-Oct	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	0.4	0.5	0.4	0.4	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.8
	0.3	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.4	0.4	0.5	0.4	0.6	0.4	0.5	0.4	0.4	0.4	0.4	0.3	0.4	0.3		
5-Oct	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5
	0.3	0.3	SP	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5		
6-Oct	0.5	0.7	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	M	M	0.4	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.7	0.5	0.5	0.9
	0.9	0.4	0.4	SP	0.4	0.4	0.4	0.4	0.4	0.5	0.3	M	M	0.4	0.4	0.4	0.4	0.6	0.6	0.6	0.5	0.6	0.5	0.7		
7-Oct	0.6	0.6	0.9	0.7	Z	0.4	0.7	0.6	0.6	0.7	0.5	0.4	0.5	0.6	0.4	0.4	0.6	2.8	2.7	2.3	1.5	1.1	1.0	0.9	0.9	2.9
	0.6	0.7	0.8	0.6	SP	0.5	0.6	0.5	0.7	0.6	0.4	0.5	0.4	0.5	0.4	0.4	0.7	2.9	2.6	1.3	1.2	1.1	0.9	1.0		
8-Oct	1.1	0.7	0.7	0.5	0.4	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	1.1
	0.8	0.7	0.6	0.5	0.4	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4		
9-Oct	Z	0.4	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.4	0.4
	SP	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3		
10-Oct	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.7	0.7	1.0	0.6	0.5	0.8	0.5	0.6	0.5	0.4	0.4	0.4	0.4	0.7	0.6	0.6	0.6	0.5	1.0
	0.4	SP	0.3	0.3	0.3	0.3	0.5	0.5	0.9	0.7	0.6	0.8	0.6	0.5	0.6	0.4	0.4	0.4	0.4	0.5	0.7	0.6	0.6	0.6		
11-Oct	0.6	0.6	Z	0.5	0.6	0.9	0.5	0.4	0.8	0.9	2.7	0.5	0.6	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	2.7
	0.6	0.5	SP	0.4	1.5	0.7	0.4	0.4	0.5	1.9	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4		
12-Oct	0.4	0.4	0.5	Z	0.6	0.8	0.8	0.8	0.7	0.6	0.4	0.6	0.4	0.4	0.4	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.5	1.3
	0.4	0.4	0.4	SP	1.3	0.6	1.1	0.5	0.9	0.5	0.4	0.4	0.3	0.4	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3		
13-Oct	0.3	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.4
	0.3	0.3	0.3	0.3	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4		
14-Oct	0.3	0.3	0.4	0.3	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.8	0.6	0.4	0.3	0.4	0.9
	0.4	0.4	0.4	0.4	0.4	SP	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.9	0.7	0.6	0.4	0.3		
15-Oct	Z	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.5	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.4	0.7
	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.7	0.5	0.5	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.3		

Wood Buffalo Environmental Association

Summary of 30-Minute Averages

Total Reduced Sulphur (TRS) - ppb

Ells River - October 2025

Day	Period Ending At (MST) 00:30 01:00	01:30 02:00	02:30 03:00	03:30 04:00	04:30 05:00	05:30 06:00	06:30 07:00	07:30 08:00	08:30 09:00	09:30 10:00	10:30 11:00	11:30 12:00	12:30 13:00	13:30 14:00	14:30 15:00	15:30 16:00	16:30 17:00	17:30 18:00	18:30 19:00	19:30 20:00	20:30 21:00	21:30 22:00	22:30 23:00	23:30 24:00	Daily Average	Daily Maximum
16-Oct	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	1.0	0.8	1.1	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	1.1
	0.4	SP	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.9	1.0	0.8	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4		
17-Oct	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
	0.4	0.4	SP	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3		
18-Oct	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
	0.3	0.3	0.3	SP	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		
19-Oct	0.3	0.3	0.3	0.3	Z	0.3	0.6	0.9	1.3	PF	0.9	0.6	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	1.7
	0.3	0.3	0.3	0.3	SP	0.5	0.7	1.0	1.7	1.1	0.8	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3		
20-Oct	0.3	0.4	0.4	0.4	0.3	Z	0.3	0.3	0.4	0.4	0.4	0.4	0.7	0.5	0.6	0.5	0.4	0.3	0.3	0.3	0.3	0.5	0.4	0.4	0.4	0.7
	0.3	0.4	0.4	0.3	0.3	SP	0.3	0.3	0.4	0.4	0.4	0.5	0.7	0.5	0.6	0.5	0.3	0.3	0.3	0.3	0.5	0.4	0.4	0.5		
21-Oct	Z	0.4	0.4	0.6	0.6	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.4	0.6	0.9	0.7	0.6	0.4	0.4	1.1
	SP	0.4	0.5	0.5	0.5	0.5	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	1.1	0.8	0.6	0.5	0.4		
22-Oct	0.3	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.6	1.0	1.0	0.4	0.4	0.3	0.4	0.5	0.4	1.0
	0.3	SP	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.5	0.5	0.4	0.6	0.4	0.5	0.7	1.0	0.5	0.4	0.3	0.3	0.5	0.5		
23-Oct	0.6	0.5	Z	0.8	0.4	0.4	0.4	0.4	0.6	0.4	M	0.5	0.4	0.5	0.5	0.8	0.4	0.4	0.4	0.8	0.7	0.5	0.4	0.4	0.5	0.8
	0.5	0.6	SP	0.5	0.4	0.4	0.4	0.5	0.5	M	0.5	0.5	0.4	0.5	0.6	0.5	0.4	0.4	0.5	0.8	0.7	0.4	0.4	0.5		
24-Oct	0.5	0.5	0.7	Z	0.7	0.6	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.5	0.5	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.7
	0.5	0.7	0.6	SP	0.7	0.5	0.7	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.4		
25-Oct	0.4	0.4	0.4	0.4	Z	0.4	0.5	0.5	0.6	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.6
	0.4	0.4	0.4	0.4	SP	0.4	0.5	0.5	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3		
26-Oct	0.3	0.3	0.3	0.3	0.3	Z	0.2	0.4	0.8	1.3	0.7	0.7	0.8	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.3	UO	0.4	0.3	0.5	1.8
	0.3	0.3	0.3	0.3	0.2	SP	0.3	0.4	1.2	1.8	0.6	0.7	0.7	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	UO	0.3	0.3		
27-Oct	Z	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.5	0.4	0.4	0.3	0.5	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
	SP	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4		
28-Oct	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	--	0.4
	0.4	SP	0.4	0.4	0.4	0.4	0.4	0.4	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M		
29-Oct	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	--	--
	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M		
30-Oct	M	M	M	M	M	M	M	M	M	C	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.0
	M	M	M	M	M	M	M	M	C	C	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
31-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.0	0.1	0.2	0.2	0.2	0.1	0.2	0.3	0.4	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.2	0.1	0.4
	0.0	0.0	0.0	0.1	SP	0.0	0.0	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.3	0.4	0.1	0.3	0.4	0.1	0.1	0.1	0.2	0.2		
	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	Diurnal Average	
	1.1	0.7	1.6	0.9	1.5	1.5	1.1	1.5	1.7	1.9	2.7	1.1	1.0	1.1	0.8	0.8	0.7	2.9	2.7	2.3	1.5	1.1	1.0	1.0	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation PF - Power Failure SP - Span

Alberta Ambient Air Quality Guideline (AAAQG): 30-Min: 5 ppb

Wood Buffalo Environmental Association

Summary of Hour Averages

Total Reduced Sulphur (TRS) - ppb

Ells River - October 2025

Maximum Value: 2.8 ppb on Oct 7 18:00

Maximum Daily Average: 0.9 ppb on Oct 7

Minimum Value: 0.0 ppb on Oct 30 20:00

Minimum Daily Average: 0.1 ppb on Oct 31

Maximum Diurnal Average: 0.5 ppb at hour 10

Minimum Diurnal Average: 0.4 ppb at hour 17

Monthly Average: 0.43 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.3 Q_1 = 0.3 Median = 0.4 Q_3 = 0.5 P_{90} = 0.7 P_{99} = 1.4

Hours in Service:	744
Hours of Data:	652
Hours of Missing Data:	92
Hours of Calibration:	39
Percent Operational Time:	92.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.6	0.5	1.4	0.8	Z	1.1	0.7	1.3	0.7	0.6	C	C	C	C	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	1.4
2-Oct	0.4	0.5	0.3	0.3	0.3	Z	0.2	0.3	0.3	0.4	1.0	1.1	0.9	0.8	0.5	0.4	0.4	0.4	0.4	0.5	0.7	0.7	0.7	0.4	0.5	1.1
3-Oct	Z	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
4-Oct	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.6	0.4	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.6
5-Oct	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.5
6-Oct	0.7	0.5	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	M	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.7
7-Oct	0.6	0.7	0.8	0.6	Z	0.5	0.6	0.6	0.7	0.7	0.5	0.4	0.5	0.6	0.4	0.4	0.6	2.8	2.6	1.8	1.4	1.1	1.0	1.0	0.9	2.8
8-Oct	1.0	0.7	0.7	0.5	0.4	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	1.0
9-Oct	Z	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4
10-Oct	0.4	Z	0.3	0.3	0.3	0.3	0.4	0.6	0.8	0.9	0.6	0.6	0.7	0.5	0.6	0.4	0.4	0.4	0.4	0.4	0.7	0.6	0.6	0.6	0.5	0.9
11-Oct	0.6	0.5	Z	0.5	1.0	0.8	0.4	0.4	0.6	1.4	1.6	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	1.6
12-Oct	0.4	0.4	0.5	Z	0.9	0.7	0.9	0.7	0.8	0.5	0.4	0.5	0.4	0.4	0.6	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.5	0.9
13-Oct	0.3	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.4
14-Oct	0.3	0.3	0.4	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.7	0.7	0.6	0.4	0.3	0.4	0.7
15-Oct	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.6	0.5	0.5	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.4	0.4	0.6
16-Oct	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.9	0.9	0.9	0.6	0.5	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.9
17-Oct	0.4	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
18-Oct	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
19-Oct	0.3	0.3	0.3	0.3	Z	0.4	0.7	1.0	1.5	1.3	0.9	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.5	1.5
20-Oct	0.3	0.4	0.4	0.3	0.3	Z	0.3	0.3	0.4	0.4	0.4	0.4	0.7	0.5	0.6	0.5	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.7
21-Oct	Z	0.4	0.5	0.6	0.5	0.4	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.8	0.9	0.7	0.5	0.4	0.4	0.9
22-Oct	0.3	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.5	0.4	0.6	0.5	0.5	0.6	1.0	0.8	0.4	0.4	0.3	0.5	0.5	0.4	1.0
23-Oct	0.6	0.6	Z	0.7	0.4	0.4	0.4	0.5	0.6	M	M	0.5	0.4	0.5	0.5	0.6	0.4	0.4	0.4	0.8	0.7	0.5	0.4	0.5	0.5	0.8
24-Oct	0.5	0.6	0.6	Z	0.7	0.5	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.7
25-Oct	0.4	0.4	0.4	0.4	Z	0.4	0.5	0.5	0.6	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.6
26-Oct	0.3	0.3	0.3	0.3	0.2	Z	0.3	0.4	1.0	1.6	0.6	0.7	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.3	UO	0.3	0.3	0.5	1.6
27-Oct	Z	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
28-Oct	0.4	Z	0.4	0.4	0.4	0.4	0.4	0.4	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	--	0.4
29-Oct	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	--	--
30-Oct	M	M	M	M	M	M	M	M	M	C	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.0
31-Oct	0.0	0.0	0.0	0.1	Z	0.0	0.0	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.3	0.4	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.2	0.1	0.4
	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	Diurnal Average	
	1.0	0.7	1.4	0.8	1.0	1.1	0.9	1.3	1.5	1.6	1.6	1.1	0.9	0.9	0.8	0.7	0.6	2.8	2.6	1.8	1.4	1.1	1.0	1.0	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance UO - Unstable Operation

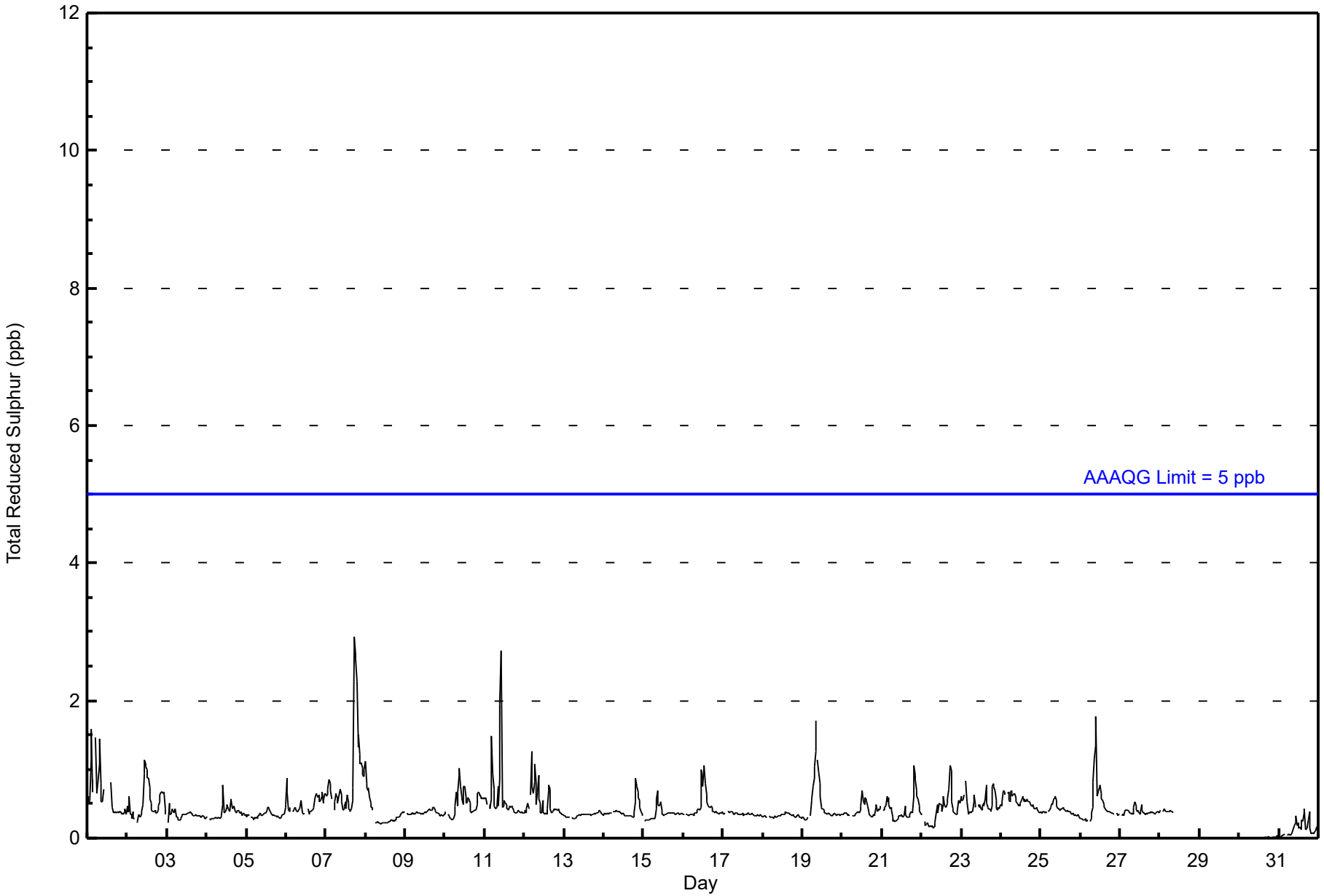
Alberta Ambient Air Quality Objective (AAAQO): 1-hour NA 24-hr NA

Wood Buffalo Environmental Association

Hourly Averages

Total Reduced Sulphur (TRS) - ppb

Ells River - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Total Reduced Sulphur (TRS) - ppb

Ells River - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	650	99.69	99.69
3 - 4	2	0.31	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 652

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Reduced Sulphur (TRS) - ppb

Ells River - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	63	9	3	2	1	2	28	93	106	89	68	32	45	33	28	43	645
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	63	9	3	2	1	2	28	93	106	89	68	32	45	34	28	44	647

Total Number of Valid Hours: 647

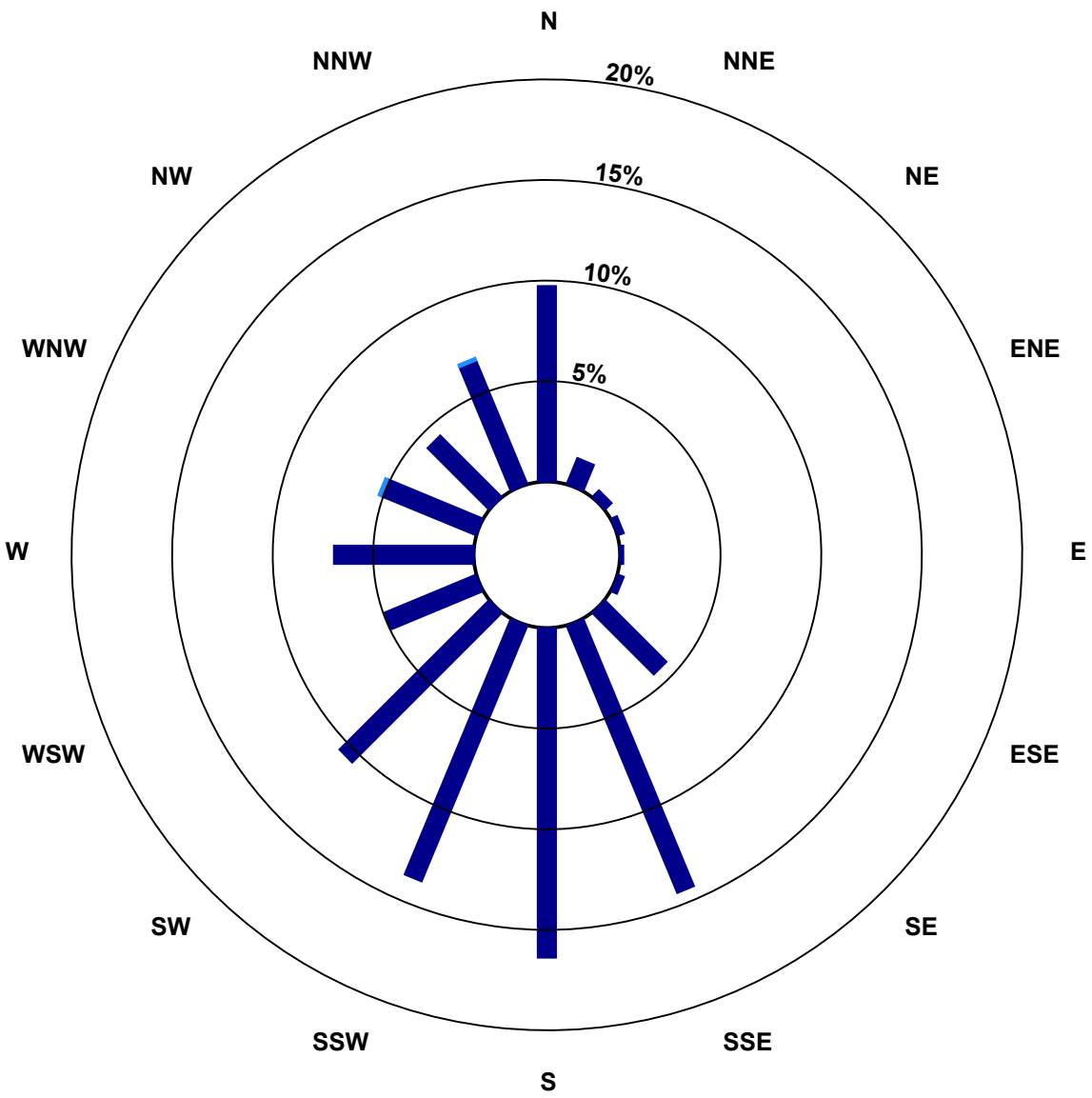
Total Number of Hours: 744

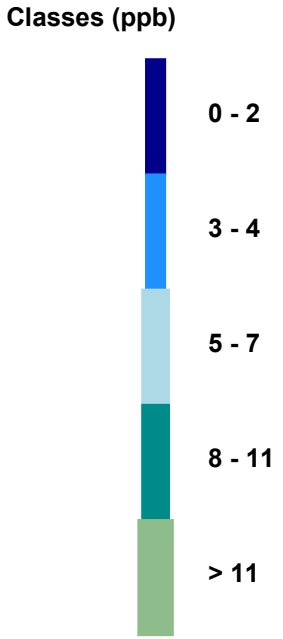
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Reduced Sulphur (TRS) - ppb

Ells River





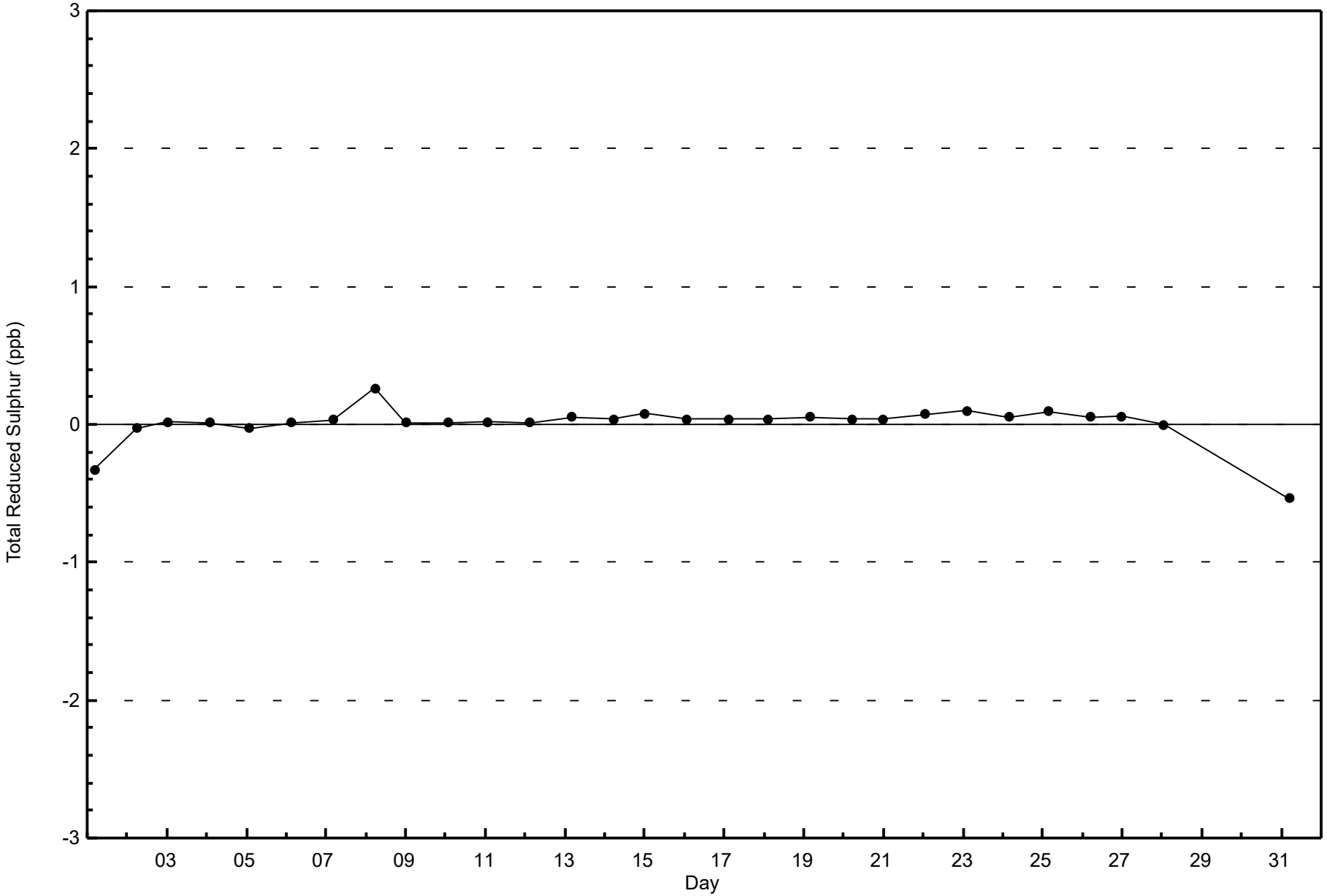
Total Number of Valid Hours: 647

Wood Buffalo Environmental Association

Zero Responses

Total Reduced Sulphur (TRS) - ppb

Ells River - October 2025

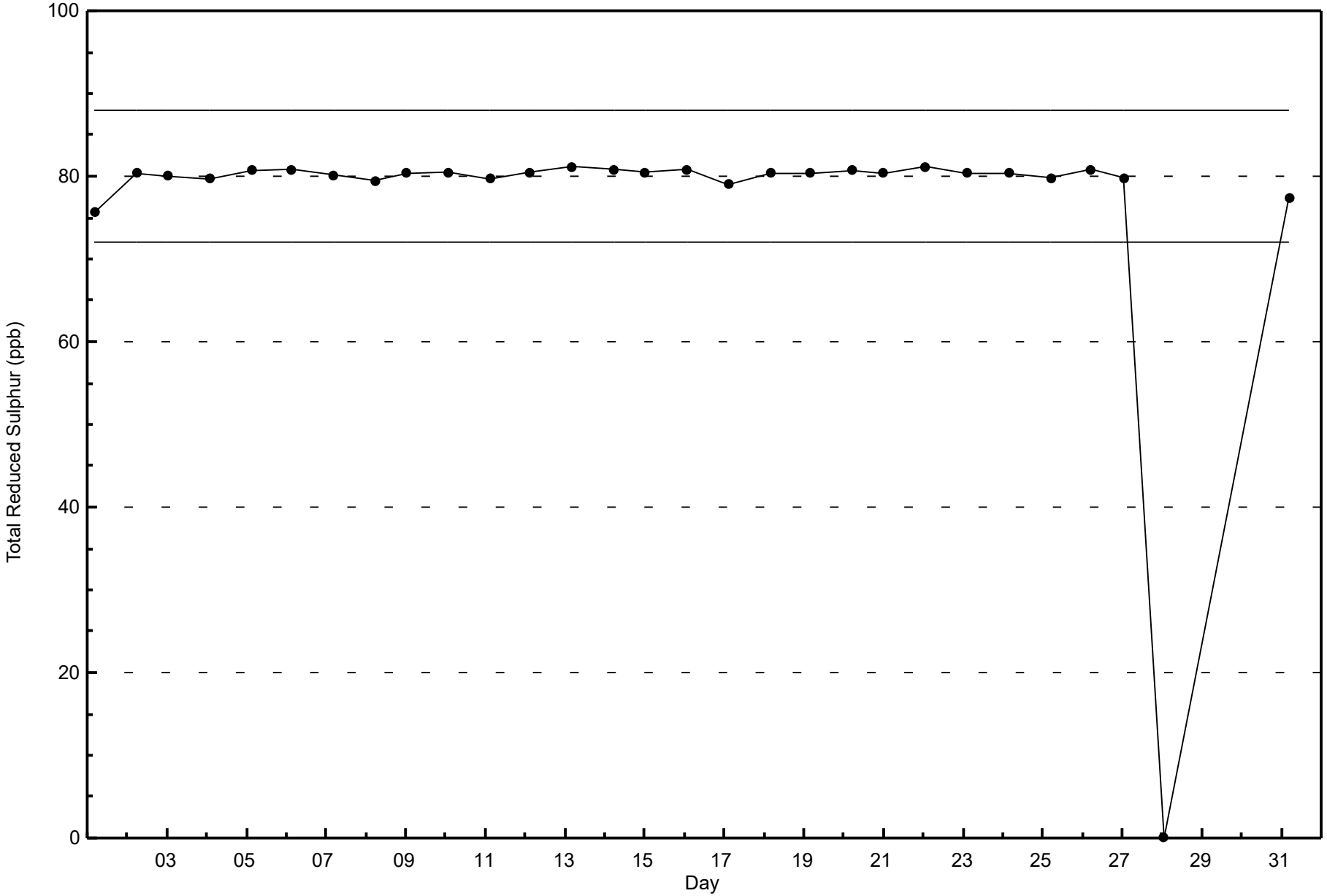


Wood Buffalo Environmental Association

Span Responses

Total Reduced Sulphur (TRS) - ppb

Ells River - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Ells River - October 2025

Maximum Value: 5.9 ppm on Oct 7 20:00

Maximum Daily Average: 3.3 ppm on Oct 7

Minimum Value: 2.0 ppm on Oct 27 02:00

Minimum Daily Average: 2.0 ppm on Oct 17

Maximum Diurnal Average: 2.4 ppm at hour 9

Minimum Diurnal Average: 2.1 ppm at hour 16

Monthly Average: 2.23 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.0 Median = 2.1 Q_3 = 2.2 P_{90} = 2.6 P_{99} = 4.9

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	34
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.7	2.4	3.4	Z	2.9	2.4	2.5	2.6	2.4	2.4	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.3	3.4
2-Oct	2.2	2.2	2.1	2.1	Z	2.2	2.2	2.1	2.1	2.5	2.9	2.9	2.5	2.3	2.3	2.1	2.1	2.1	2.1	2.3	2.8	2.5	2.5	2.2	2.3	2.9
3-Oct	2.2	2.3	2.4	2.4	2.4	Z	2.3	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4
4-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.3	2.3	2.3	2.1	2.0	2.0	2.0	2.1	2.3
5-Oct	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2
6-Oct	2.3	2.2	Z	2.2	2.6	3.0	2.8	2.4	2.7	2.2	2.0	2.0	M	2.0	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3	3.0	2.3	3.0
7-Oct	3.5	3.9	3.9	Z	2.3	2.1	2.1	2.1	2.2	2.4	2.2	2.6	2.6	2.5	2.2	2.1	2.5	5.4	5.5	5.9	5.1	5.0	4.1	4.0	3.3	5.9
8-Oct	3.7	2.7	2.7	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	3.7
9-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
10-Oct	Z	2.2	2.1	2.1	2.2	2.2	2.3	2.5	2.7	2.4	2.2	2.2	2.5	2.3	2.4	2.2	2.0	2.0	2.1	2.2	2.9	2.8	2.5	2.6	2.3	2.9
11-Oct	2.5	Z	2.4	2.3	4.3	3.2	2.1	2.2	2.8	2.1	2.5	2.3	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.4	2.2	2.1	2.1	2.3	4.3
12-Oct	2.0	2.1	Z	2.0	2.1	2.0	2.1	2.1	2.2	2.1	2.0	2.1	2.0	2.0	2.0	2.2	2.1	2.3	2.3	2.5	2.6	2.3	2.0	2.0	2.1	2.6
13-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2
14-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	C	C	C	2.0	2.0	2.0	2.0	2.0	2.1	2.4	2.5	2.3	2.3	2.3	2.1	2.5
15-Oct	2.2	2.2	2.1	2.1	2.1	Z	2.1	2.2	2.5	2.5	2.5	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.5
16-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.6	2.3	2.2	2.3	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.6
17-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
18-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.1
19-Oct	2.1	2.1	2.1	Z	2.2	3.1	4.1	4.9	4.6	3.2	2.7	2.4	2.1	2.1	2.1	2.3	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.6	4.9
20-Oct	2.1	2.1	2.1	2.0	Z	2.1	2.0	2.0	2.1	2.3	2.1	2.4	2.5	2.5	2.5	2.4	2.0	2.0	2.1	2.1	2.2	2.4	2.1	2.3	2.2	2.5
21-Oct	2.5	2.1	2.2	2.2	2.2	Z	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0	2.3	2.9	2.5	2.4	2.2	2.2	2.2	2.2	2.9
22-Oct	Z	2.2	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.4	2.2	2.9	4.5	4.1	3.1	2.1	2.0	2.0	2.1	2.1	2.4	4.5
23-Oct	2.1	Z	2.1	2.0	2.1	2.1	2.0	2.3	2.4	2.3	2.1	2.1	2.0	2.2	2.1	2.1	2.2	2.1	2.1	2.4	2.2	2.1	2.3	2.2	2.2	2.4
24-Oct	2.1	2.8	Z	2.6	2.7	2.5	2.6	2.5	2.5	2.6	2.4	2.1	2.4	2.6	2.4	2.4	2.5	2.5	2.5	2.5	2.6	2.9	2.9	2.7	2.5	2.9
25-Oct	3.1	3.1	3.2	Z	2.4	2.5	2.7	2.8	2.9	2.8	2.4	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	3.2
26-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.1	2.3	5.3	5.1	2.8	2.6	2.5	2.2	2.2	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.4	5.3
27-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
28-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
29-Oct	2.0	Z	2.1	2.1	2.0	2.0	2.0	2.0	2.4	2.2	2.2	2.2	2.3	2.3	2.0	2.1	2.1	2.1	PF	PF	PF	2.7	2.9	2.7	2.2	2.9
30-Oct	2.3	2.2	Z	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3
31-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.2	2.1	2.2
	2.3	2.3	2.3	2.1	2.3	2.2	2.2	2.3	2.4	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.2	2.2	Diurnal Average	
	3.7	3.9	3.9	2.6	4.3	3.2	4.1	4.9	5.3	5.1	2.9	2.9	2.6	2.6	2.5	2.9	4.5	5.4	5.5	5.9	5.1	5.0	4.1	4.0	Diurnal Maximum	

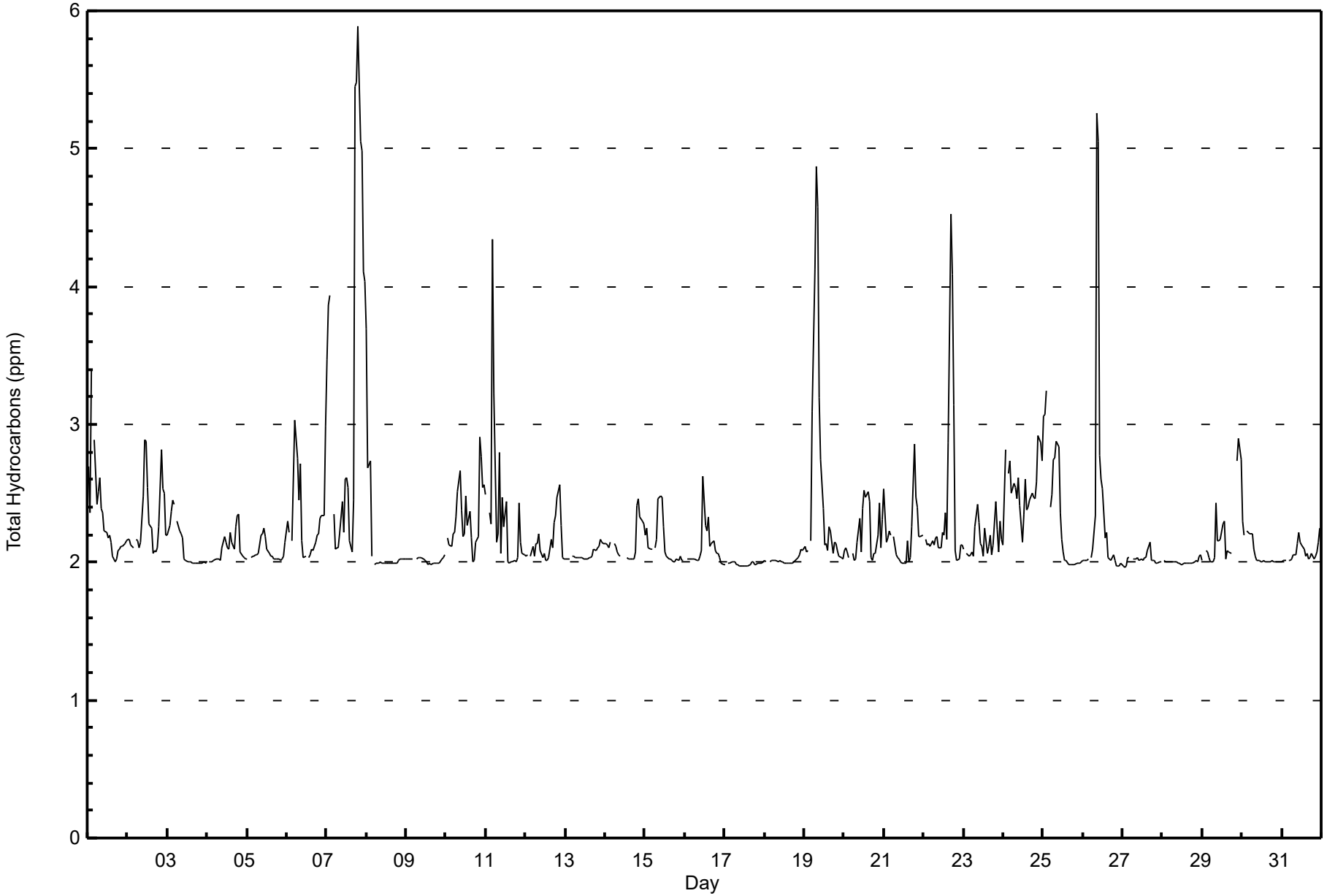
Z - zerospan C - Calibration M - Maintenance PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Ells River - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm

Ells River - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	313	44.33	44.33
2.1 - 3.0	366	51.84	96.18
3.1 - 10.0	27	3.82	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Ells River - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	23	3	2	2	1	1	5	11	26	67	61	30	36	26	5	13	312
2.1 - 3.0	48	9	3	2	1	2	26	83	84	22	10	8	9	6	23	27	363
3.1 - 10.0	1	2	0	0	0	0	1	2	1	0	1	1	5	2	2	7	25
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	72	14	5	4	2	3	32	96	111	89	72	39	50	34	30	47	700

Total Number of Valid Hours: 700

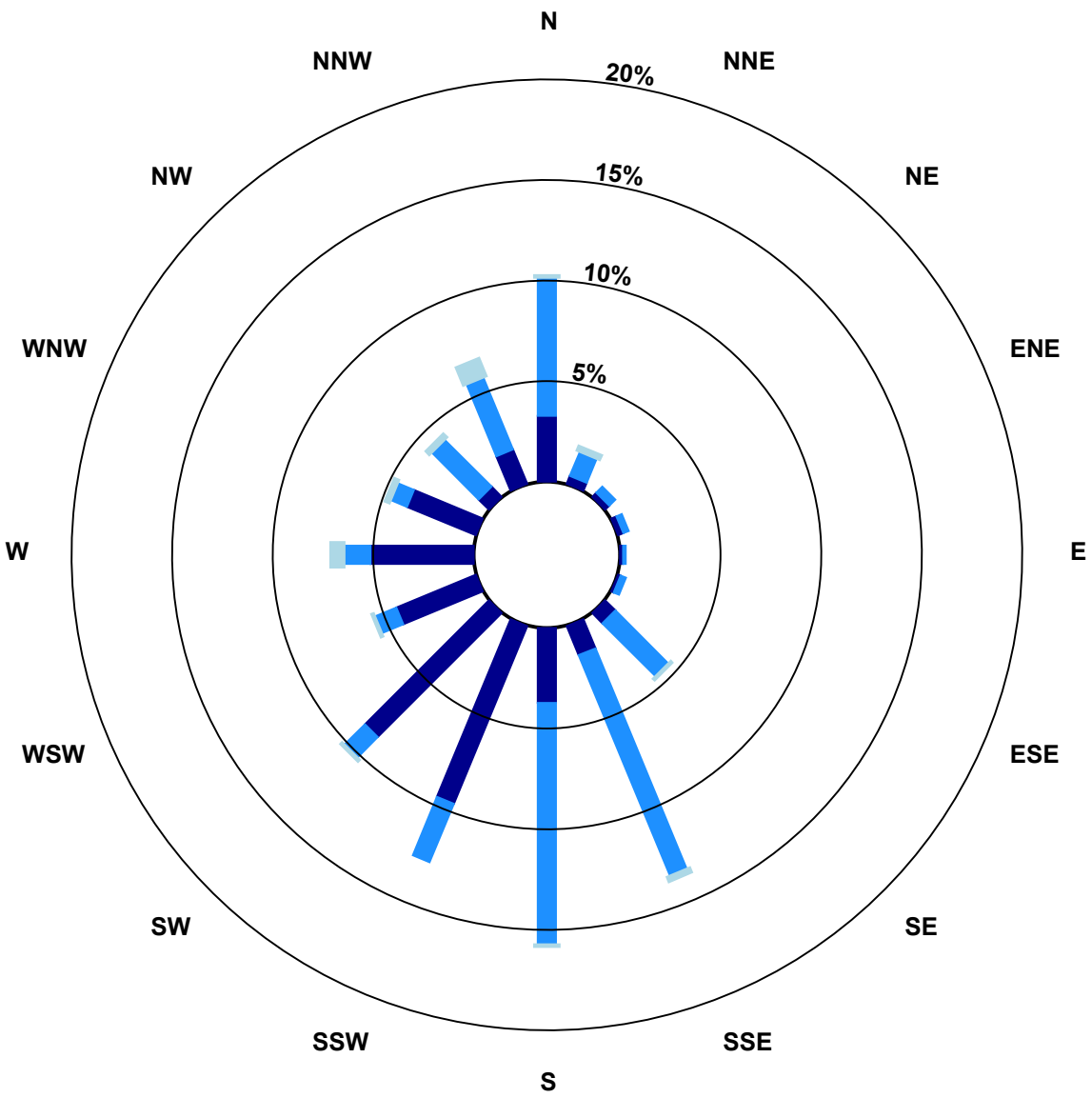
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Ells River



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

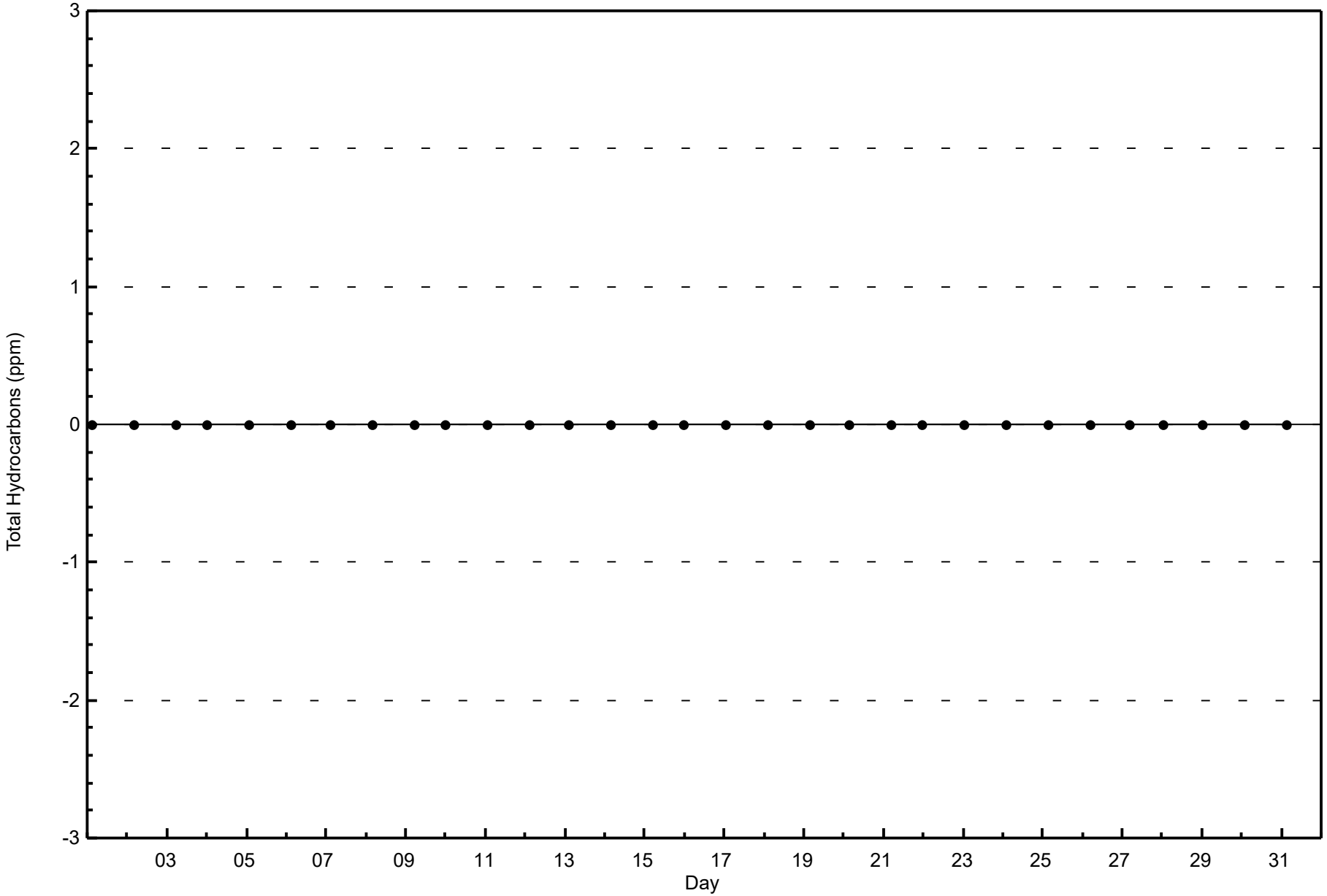
Total Number of Valid Hours: 700

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Ells River - October 2025

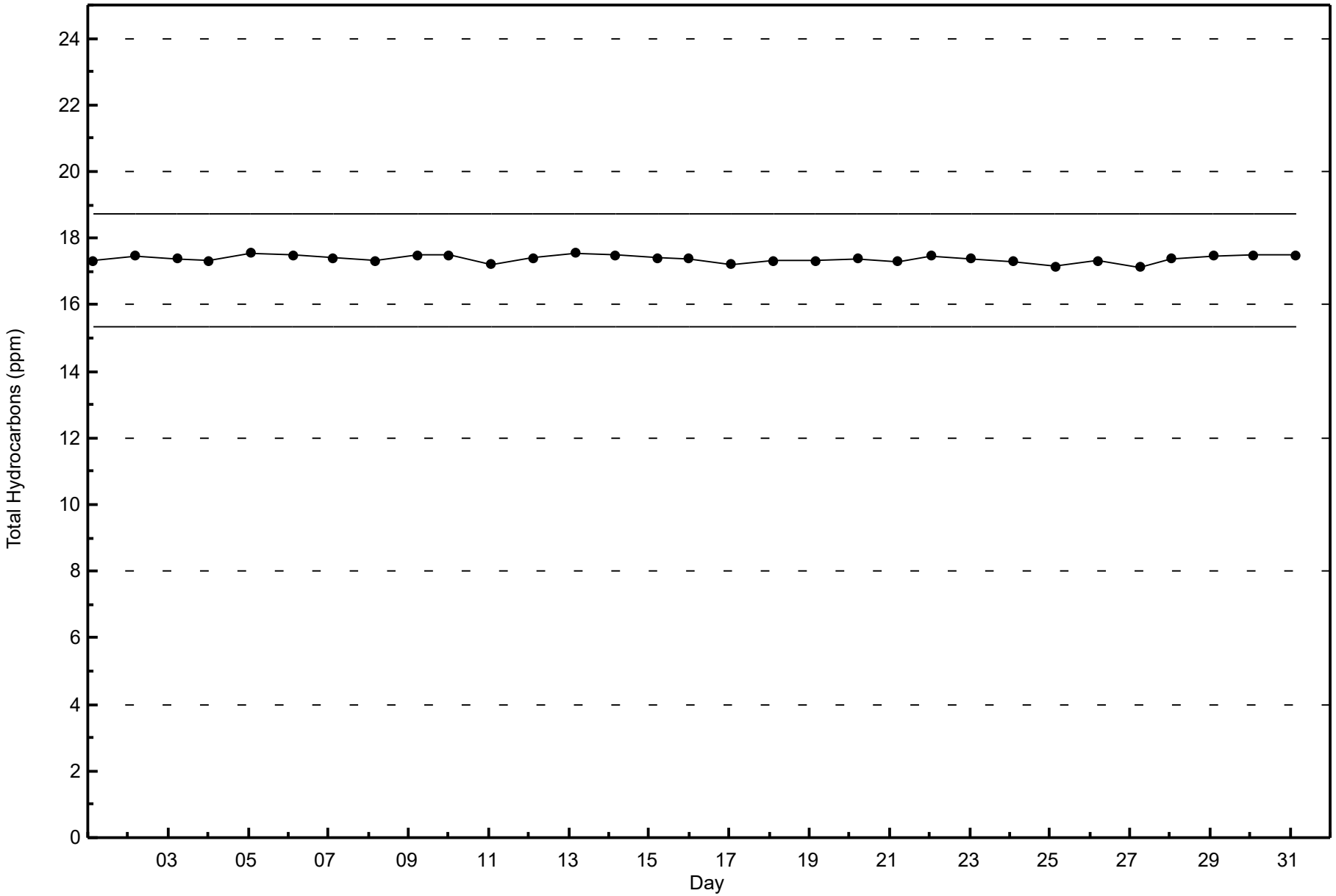


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Ells River - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Non Methane Hydrocarbons (NMHC) - ppm

Ells River - October 2025

Maximum Value: 1.729 ppm on Oct 7 03:00

Maximum Daily Average: 0.604 ppm on Oct 7

Minimum Value: 0.000 ppm on Oct 1 06:00

Minimum Daily Average: 0.000 ppm on Oct 5

Maximum Diurnal Average: 0.120 ppm at hour 1

Minimum Diurnal Average: 0.020 ppm at hour 4

Monthly Average: 0.073 ppm

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.0 $Q_3 = 0.1$ $P_{90} = 0.2$ $P_{99} = 0.9$

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	34
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.120	0.016	0.164	Z	0.097	0.000	0.000	0.010	0.002	0.006	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.005	0.005	0.000	0.000	0.019	0.164
2-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.085	0.431	0.472	0.335	0.166	0.134	0.000	0.000	0.000	0.000	0.097	0.391	0.270	0.231	0.006	0.114	0.472
3-Oct	0.001	0.003	0.037	0.079	0.060	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.079
4-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.020	0.013	0.002	0.008	0.036	0.000	0.004	0.040	0.016	0.075	0.004	0.001	0.000	0.000	0.010	0.075
5-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6-Oct	0.000	0.003	Z	0.016	0.104	0.272	0.148	0.136	0.127	0.020	0.000	0.000	M	0.000	0.000	0.000	0.000	0.031	0.090	0.098	0.165	0.170	0.175	0.739	0.104	0.739
7-Oct	1.239	1.579	1.729	Z	0.257	0.011	0.000	0.000	0.033	0.124	0.068	0.467	0.410	0.261	0.034	0.000	0.190	0.934	0.958	1.306	1.238	1.258	0.850	0.935	0.604	1.729
8-Oct	0.734	0.351	0.314	0.002	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.061	0.734
9-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.026	0.125	0.218	0.081	0.000	0.093	0.282	0.151	0.214	0.107	0.000	0.000	0.031	0.019	0.357	0.339	0.205	0.221	0.107	0.357
11-Oct	0.193	Z	0.028	0.000	0.480	0.509	0.029	0.057	0.302	0.006	0.130	0.009	0.134	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.104	0.022	0.000	0.001	0.087	0.509
12-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.049	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.000	0.092	0.075	0.212	0.199	0.107	0.000	0.000	0.035	0.212
13-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	C	C	C	0.000	0.000	0.000	0.000	0.000	0.000	0.051	0.086	0.017	0.000	0.000	0.008	0.086
15-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.071	0.030	0.061	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.071
16-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.304	0.089	0.071	0.164	0.000	0.010	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.029	0.304
17-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18-Oct	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.022	0.000	0.001	0.022
19-Oct	0.032	0.000	0.000	Z	0.013	0.229	0.461	0.733	0.781	0.372	0.231	0.091	0.000	0.005	0.006	0.097	0.070	0.000	0.011	0.006	0.002	0.000	0.000	0.000	0.136	0.781
20-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.007	0.112	0.016	0.256	0.321	0.227	0.249	0.245	0.003	0.000	0.000	0.000	0.081	0.266	0.002	0.241	0.088	0.321
21-Oct	0.408	0.099	0.110	0.002	0.005	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.092	0.000	0.013	0.158	0.740	0.304	0.221	0.009	0.000	0.000	0.094	0.740
22-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.004	0.034	0.000	0.002	0.000	0.216	0.088	0.255	0.745	0.929	0.498	0.000	0.000	0.000	0.053	0.057	0.126	0.929
23-Oct	0.034	Z	0.000	0.000	0.000	0.000	0.000	0.140	0.299	0.186	0.058	0.076	0.008	0.169	0.007	0.000	0.073	0.001	0.066	0.259	0.125	0.000	0.140	0.037	0.073	0.299
24-Oct	0.022	0.502	Z	0.288	0.228	0.094	0.136	0.141	0.101	0.153	0.063	0.004	0.217	0.385	0.196	0.192	0.231	0.264	0.237	0.240	0.260	0.287	0.264	0.231	0.206	0.502
25-Oct	0.312	0.298	0.326	Z	0.054	0.159	0.239	0.266	0.356	0.321	0.087	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.105	0.356
26-Oct	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.120	0.616	0.925	0.311	0.250	0.218	0.037	0.078	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.111	0.925
27-Oct	0.000	0.000	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.027
28-Oct	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29-Oct	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.323	0.056	0.053	0.043	0.147	0.059	0.000	0.049	0.051	0.000	PF	PF	PF	0.284	0.291	0.279	0.082	0.323
30-Oct	0.029	0.000	Z	0.118	0.101	0.091	0.087	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.019	0.118
31-Oct	0.000	0.000	0.000	Z	0.000	0.000	0.000	0.000	0.000	0.000	0.134	0.070	0.059	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.036	0.146	0.021	0.146
	0.120	0.110	0.104	0.020	0.054	0.052	0.036	0.058	0.106	0.081	0.056	0.072	0.077	0.058	0.042	0.031	0.046	0.080	0.091	0.089	0.108	0.098	0.073	0.093	Diurnal Average	
	1.239	1.579	1.729	0.288	0.480	0.509	0.461	0.733	0.781	0.925	0.431	0.472	0.410	0.385	0.249	0.255	0.745	0.934	0.958	1.306	1.238	1.258	0.850	0.935	Diurnal Maximum	

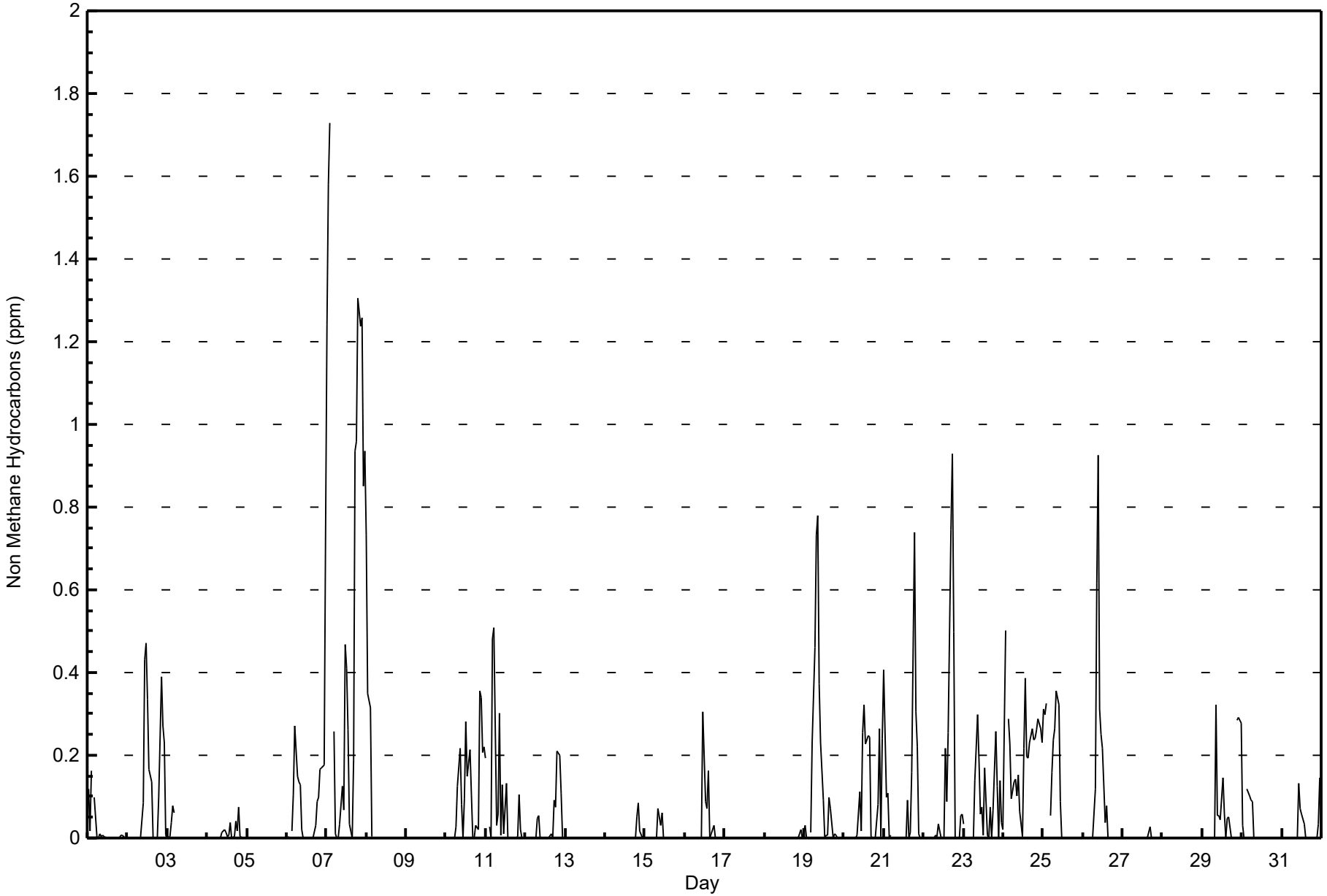
Z - zerospan C - Calibration M - Maintenance PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Non Methane Hydrocarbons (NMHC) - ppm

Ells River - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Ells River - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 0.005	468	66.29	66.29
0.006 - 0.05	63	8.92	75.21
0.06 - 0.1	68	9.63	84.84
> 0.1	107	15.16	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Non Methane Hydrocarbons (NMHC) - ppm

Ells River - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 0.005	42	7	2	2	1	2	15	41	73	80	69	34	40	26	5	26	465
0.006 - 0.05	14	3	1	0	0	0	4	11	9	1	0	1	3	1	8	7	63
0.06 - 0.1	9	1	0	1	0	0	3	18	17	4	1	0	0	2	6	5	67
> 0.1	7	3	2	1	1	1	10	26	12	4	2	4	7	5	11	9	105
Totals	72	14	5	4	2	3	32	96	111	89	72	39	50	34	30	47	700

Total Number of Valid Hours: 700

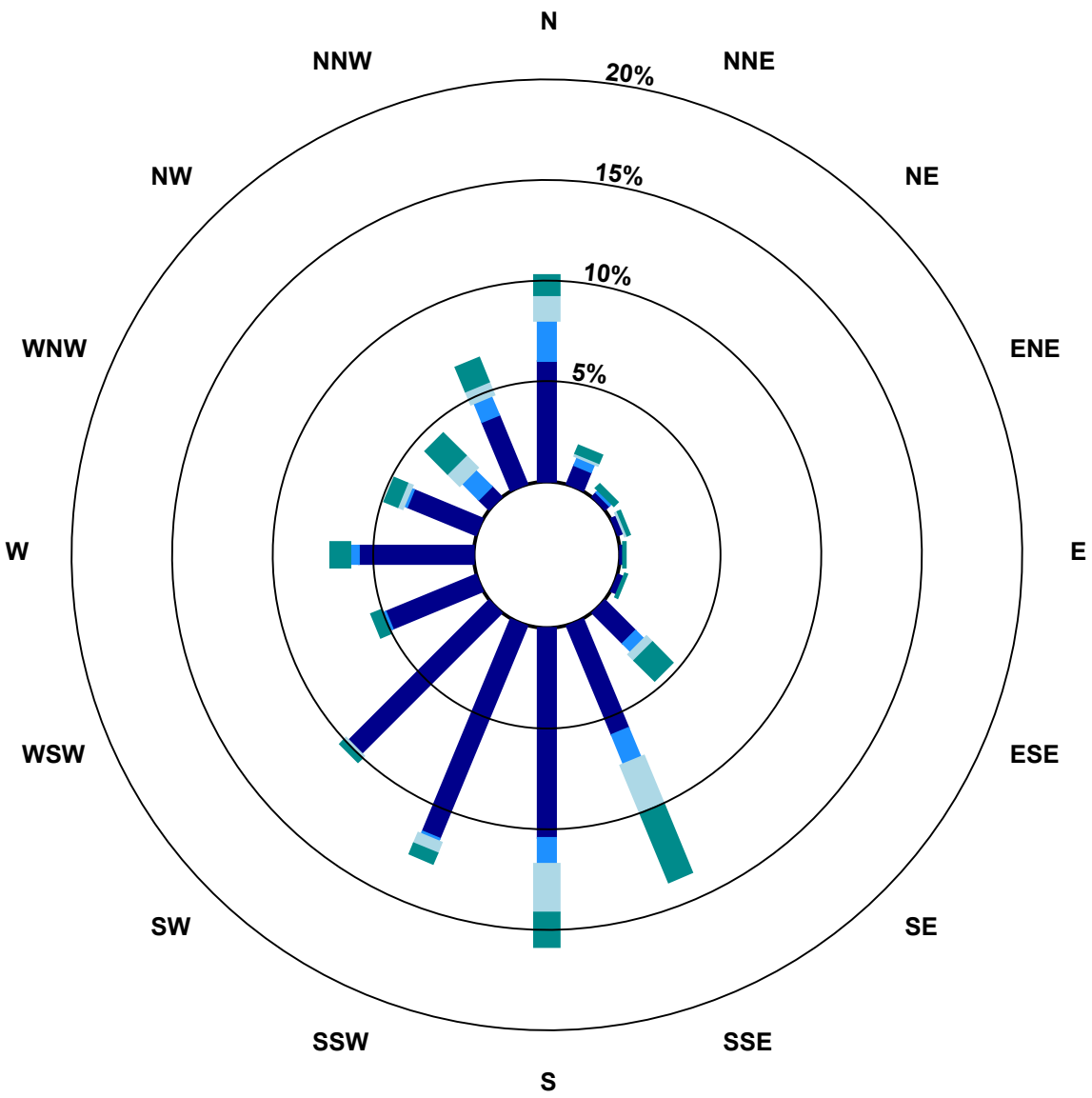
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Non Methane Hydrocarbons (NMHC) - ppm

Ells River



Classes (ppm)

0 - 0.005

0.006 - 0.05

0.06 - 0.1

> 0.1

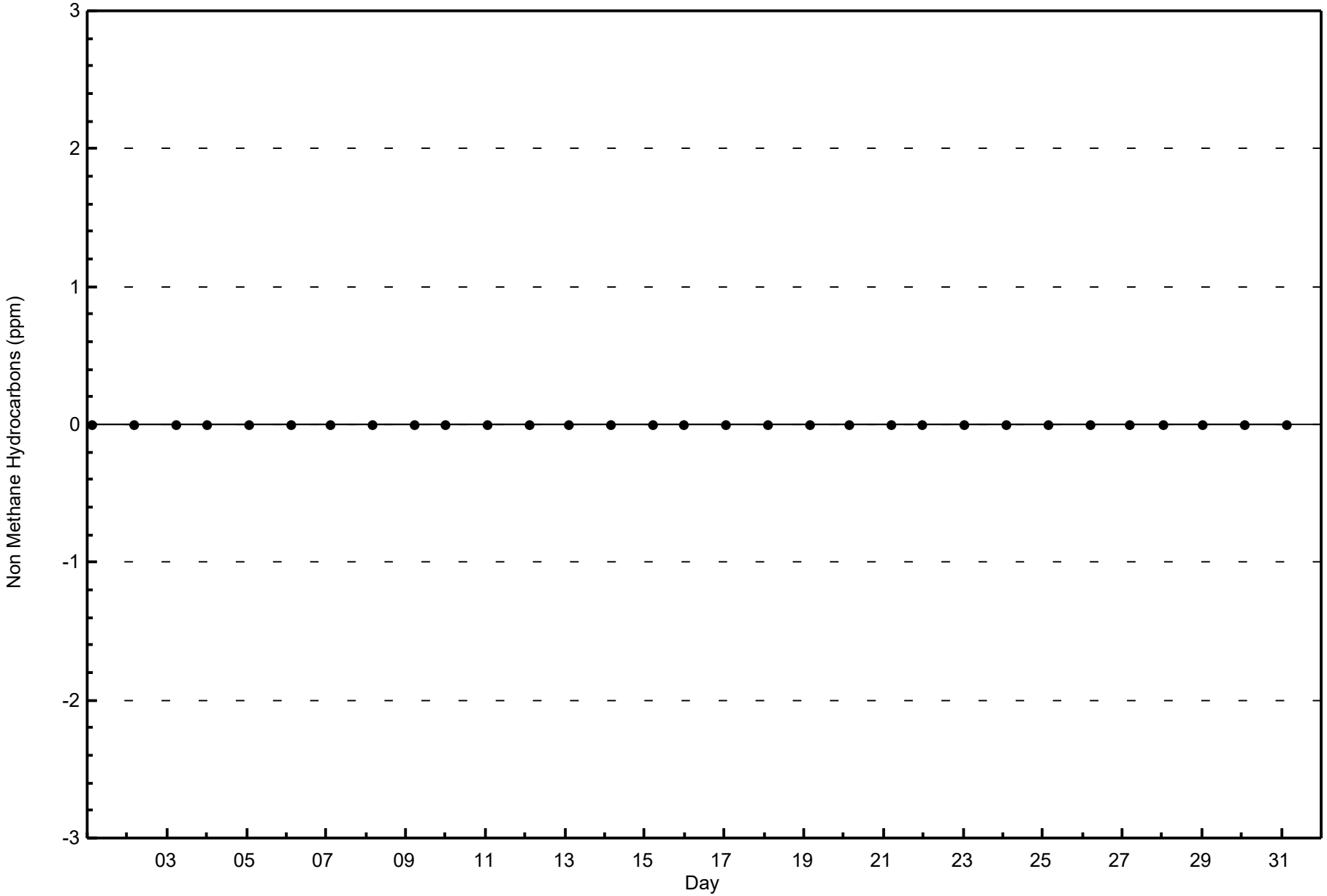
Total Number of Valid Hours: 700

Wood Buffalo Environmental Association

Zero Responses

Non Methane Hydrocarbons (NMHC) - ppm

Ells River - October 2025

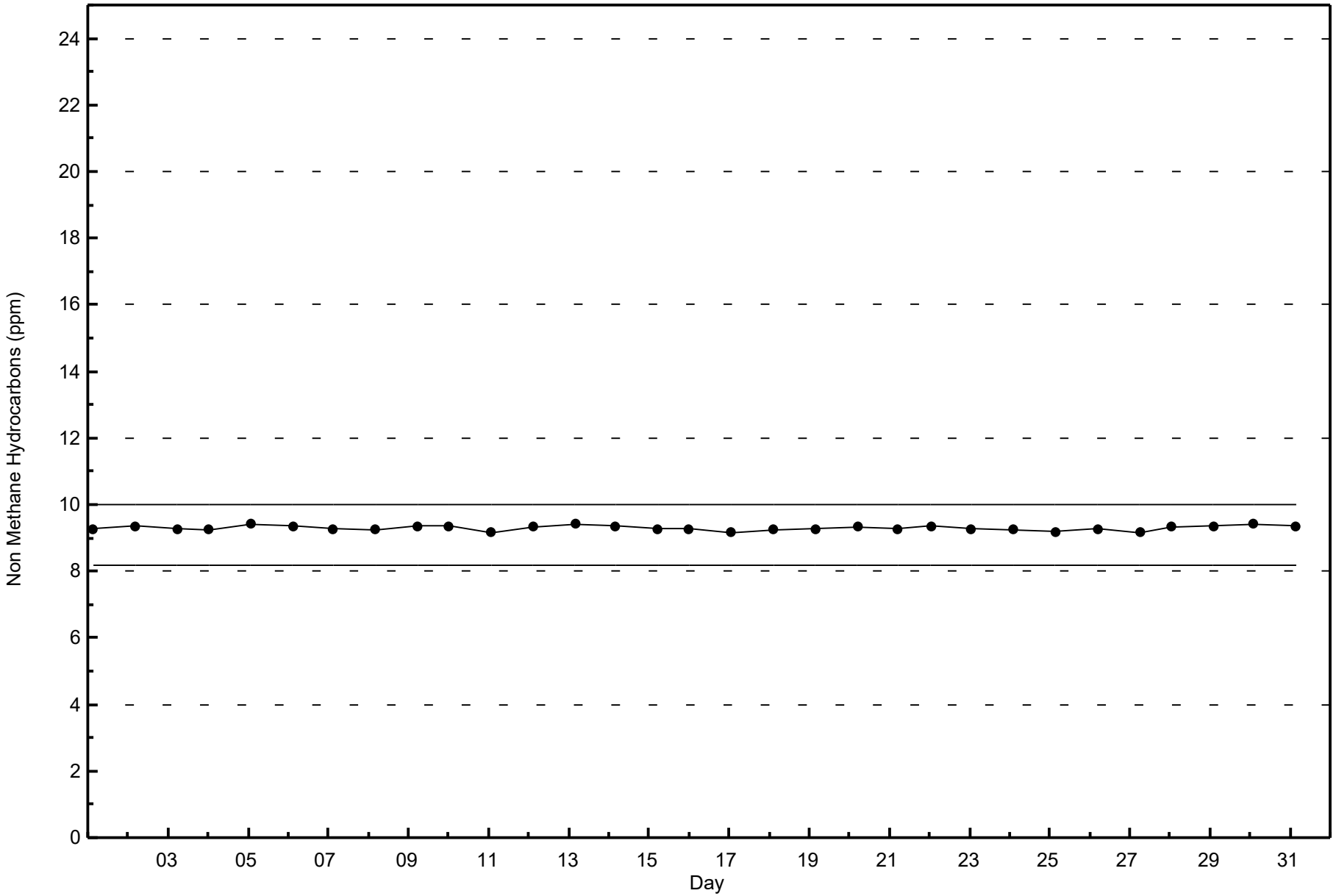


Wood Buffalo Environmental Association

Span Responses

Non Methane Hydrocarbons (NMHC) - ppm

Ells River - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Methane (CH_4) - ppm

Ells River - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 4.6 ppm on Oct 26 09:00

Maximum Daily Average: 2.7 ppm on Oct 7

Minimum Value: 2.0 ppm on Oct 27 02:00

Minimum Daily Average: 2.0 ppm on Oct 17

Maximum Diurnal Average: 2.3 ppm at hour 9

Minimum Diurnal Average: 2.1 ppm at hour 15

Monthly Average: 2.16 ppm

Percentiles: P_1 = 2.0 P_{10} = 2.0 Q_1 = 2.0 Median = 2.1 Q_3 = 2.2 P_{90} = 2.4 P_{99} = 3.8

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	34
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.6	2.3	3.2	Z	2.8	2.4	2.5	2.6	2.4	2.3	2.2	2.2	2.2	2.2	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.3	3.2
2-Oct	2.2	2.2	2.1	2.1	Z	2.2	2.2	2.1	2.1	2.4	2.5	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.4	2.3	2.3	2.2	2.2	2.5
3-Oct	2.2	2.3	2.3	2.4	2.4	Z	2.3	2.2	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.4
4-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.3	2.3	2.1	2.0	2.0	2.0	2.1	2.3
5-Oct	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.2
6-Oct	2.3	2.2	Z	2.1	2.5	2.8	2.6	2.3	2.6	2.1	2.0	2.0	M	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.2	2.8
7-Oct	2.2	2.3	2.2	Z	2.1	2.1	2.1	2.1	2.2	2.3	2.1	2.1	2.2	2.3	2.1	2.1	2.3	4.5	4.5	4.6	3.8	3.7	3.3	3.1	2.7	4.6
8-Oct	3.0	2.3	2.4	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	3.0
9-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
10-Oct	Z	2.2	2.1	2.1	2.2	2.2	2.3	2.4	2.5	2.3	2.2	2.1	2.2	2.1	2.2	2.1	2.0	2.0	2.1	2.2	2.6	2.4	2.3	2.3	2.2	2.6
11-Oct	2.3	Z	2.3	2.3	3.9	2.7	2.1	2.1	2.5	2.1	2.3	2.2	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.1	2.1	2.1	2.3	3.9
12-Oct	2.0	2.1	Z	2.0	2.1	2.0	2.1	2.1	2.2	2.1	2.0	2.1	2.0	2.0	2.0	2.2	2.1	2.2	2.3	2.3	2.4	2.2	2.0	2.0	2.1	2.4
13-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.2
14-Oct	2.1	2.1	2.1	2.1	Z	2.1	2.1	2.1	2.1	2.0	C	C	C	2.0	2.0	2.0	2.0	2.0	2.1	2.4	2.4	2.3	2.3	2.3	2.1	2.4
15-Oct	2.2	2.2	2.1	2.1	2.1	Z	2.1	2.2	2.4	2.5	2.4	2.3	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.5
16-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.3
17-Oct	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
18-Oct	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1
19-Oct	2.1	2.1	2.1	Z	2.1	2.9	3.7	4.1	3.8	2.8	2.5	2.3	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.4	4.1
20-Oct	2.1	2.1	2.1	2.0	Z	2.1	2.0	2.0	2.1	2.2	2.1	2.1	2.2	2.2	2.3	2.2	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.3
21-Oct	2.1	2.0	2.1	2.2	2.2	Z	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.2
22-Oct	Z	2.2	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.1	2.6	3.8	3.2	2.6	2.1	2.0	2.0	2.1	2.1	2.3	3.8
23-Oct	2.1	Z	2.1	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.2
24-Oct	2.1	2.3	Z	2.4	2.5	2.4	2.4	2.4	2.4	2.5	2.3	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.6	2.6	2.5	2.3	2.6
25-Oct	2.8	2.8	2.9	Z	2.3	2.3	2.5	2.5	2.5	2.5	2.3	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2	2.9
26-Oct	2.0	2.0	2.0	2.0	Z	2.0	2.1	2.2	4.6	4.1	2.5	2.4	2.3	2.1	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.3	4.6
27-Oct	2.0	2.0	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
28-Oct	Z	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.1
29-Oct	2.0	Z	2.1	2.1	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.2	2.0	2.0	2.0	2.1	PF	PF	PF	2.5	2.6	2.5	2.1	2.6
30-Oct	2.3	2.2	Z	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3
31-Oct	2.0	2.0	2.0	Z	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1
	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.1	Diurnal Average	
	3.0	2.8	3.2	2.4	3.9	2.9	3.7	4.1	4.6	4.1	2.5	2.4	2.3	2.3	2.3	2.6	3.8	4.5	4.5	4.6	3.8	3.7	3.3	3.1	Diurnal Maximum	

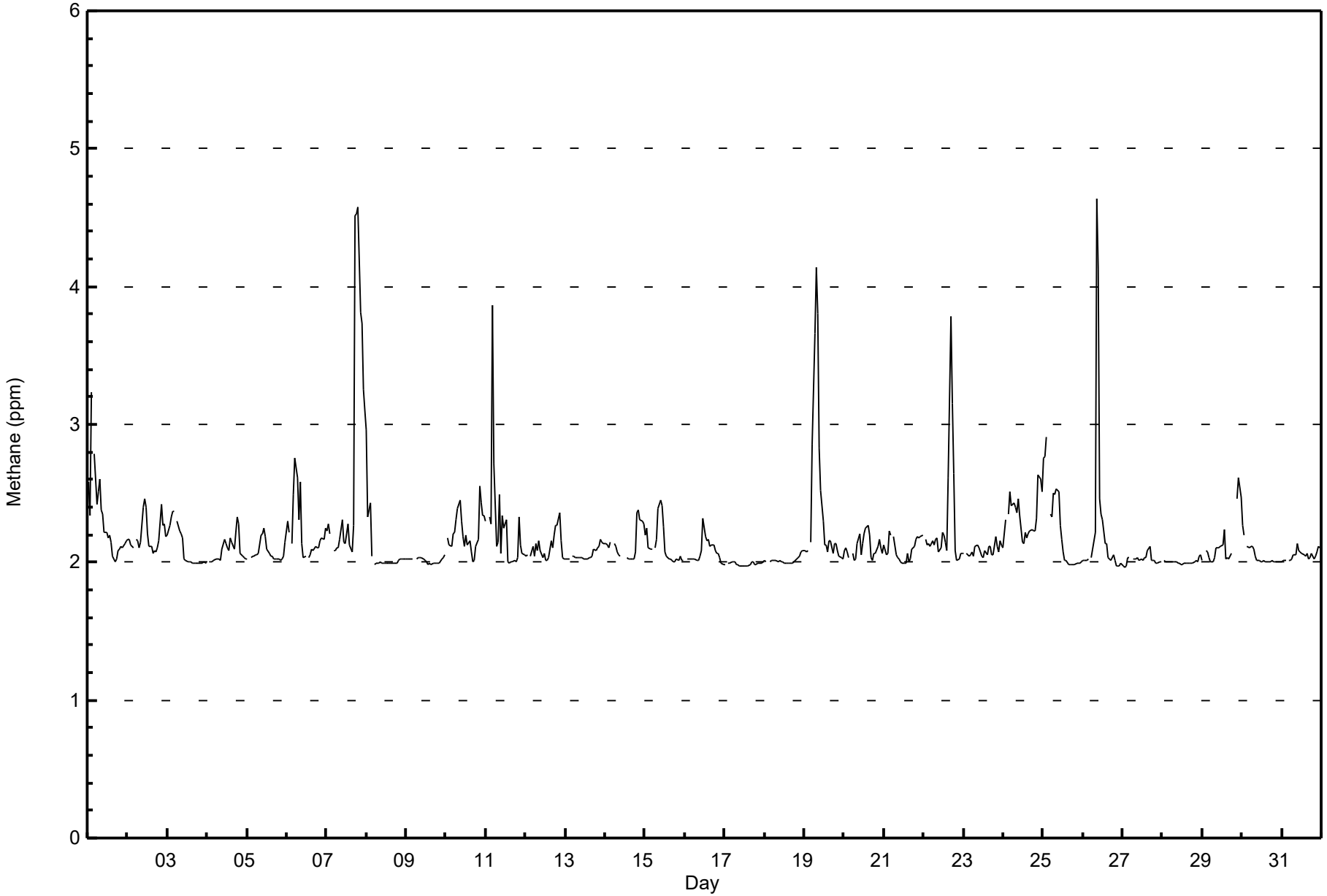
Z - zerospan C - Calibration M - Maintenance PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Methane (CH_4) - ppm

Ells River - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Methane (CH_4) - ppm

Ells River - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	318	45.04	45.04
2.1 - 3.0	372	52.69	97.73
3.1 - 10.0	16	2.27	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Methane (CH_4) - ppm

Ells River - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	23	5	2	2	1	1	5	12	27	67	61	30	36	26	6	13	317
2.1 - 3.0	48	8	3	2	1	2	27	84	84	22	10	9	12	6	23	28	369
3.1 - 10.0	1	1	0	0	0	0	0	0	0	0	1	0	2	2	1	6	14
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	72	14	5	4	2	3	32	96	111	89	72	39	50	34	30	47	700

Total Number of Valid Hours: 700

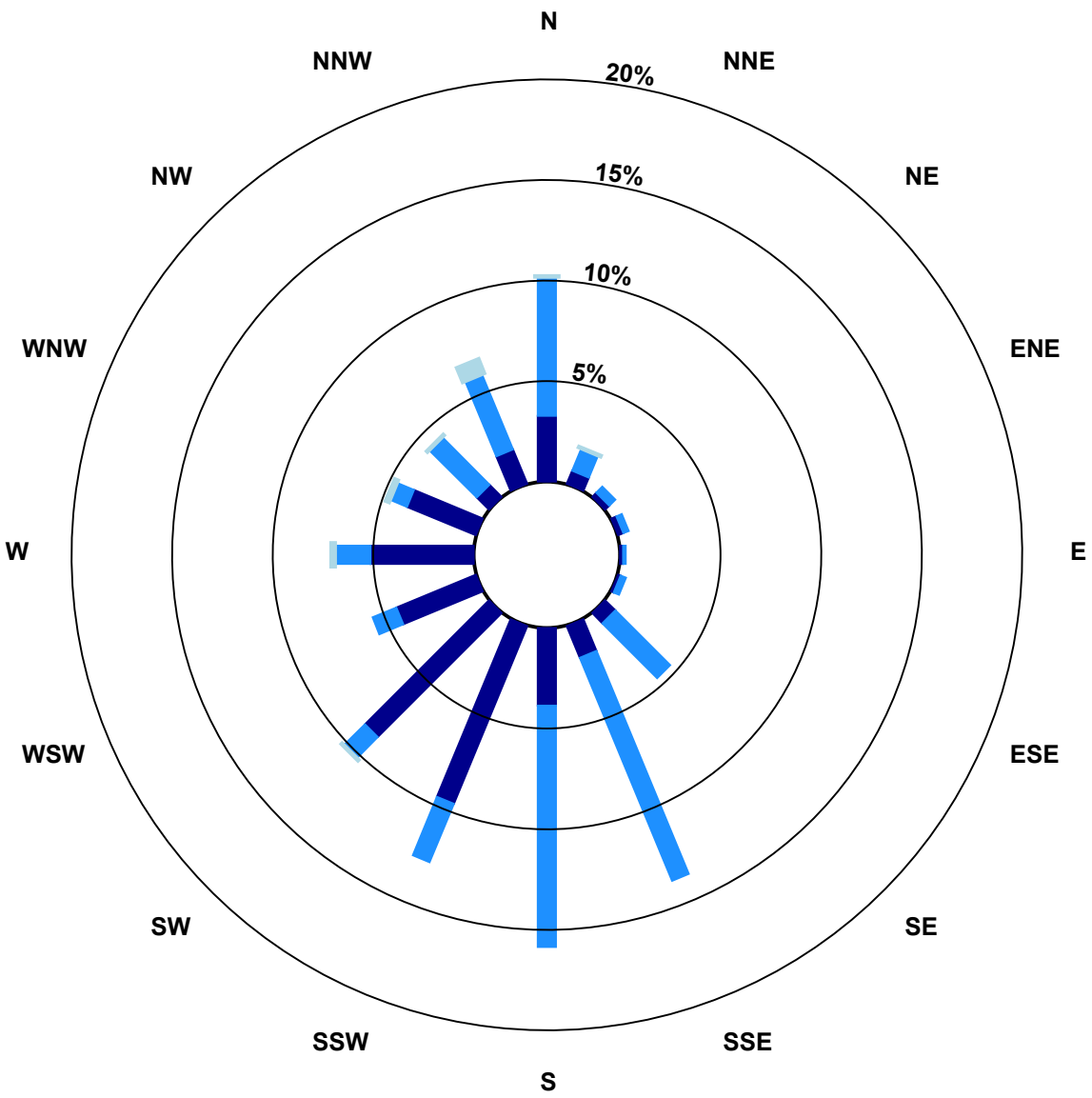
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Methane (CH_4) - ppm

Ells River



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

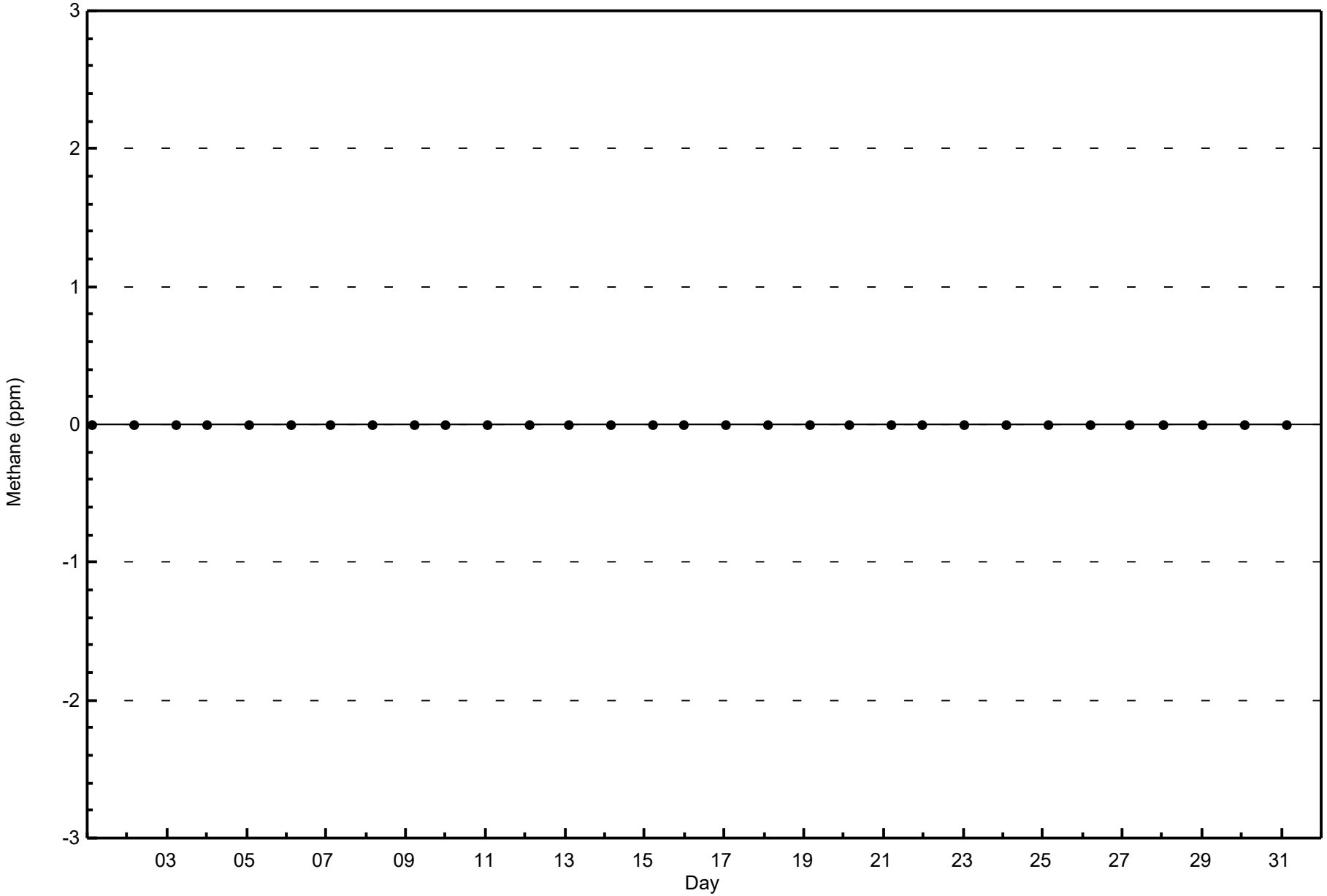
Total Number of Valid Hours: 700

Wood Buffalo Environmental Association

Zero Responses

Methane (CH_4) - ppm

Ells River - October 2025

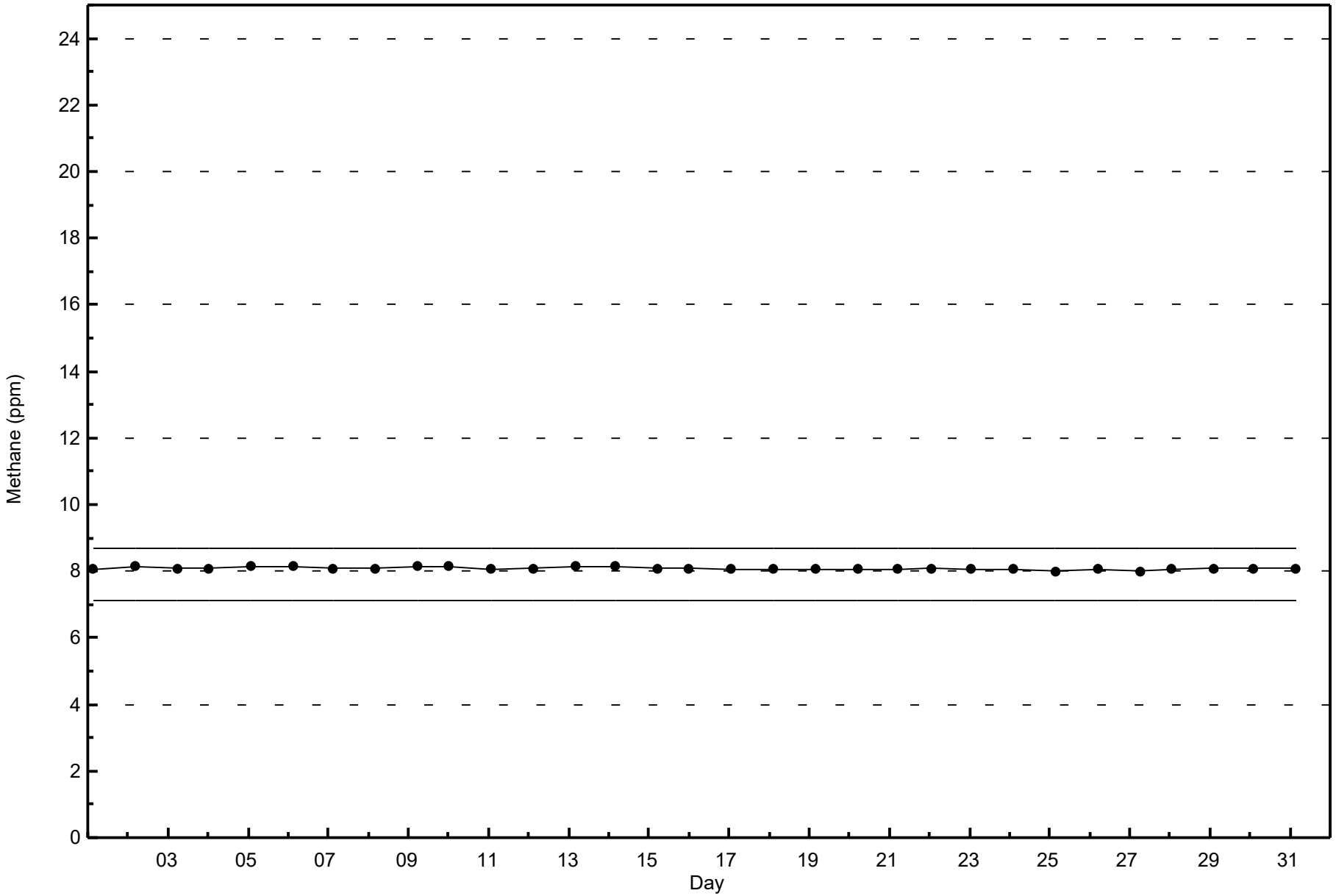


Wood Buffalo Environmental Association

Span Responses

Methane (CH_4) - ppm

Ells River - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Ells River - October 2025

Maximum Value: 127.8 ppb on Oct 26 10:00

Maximum Daily Average: 18.6 ppb on Oct 7

Minimum Value: 0.0 ppb on Oct 2 21:00

Minimum Daily Average: 0.0 ppb on Oct 9

Maximum Diurnal Average: 10.0 ppb at hour 9

Minimum Diurnal Average: 0.2 ppb at hour 4

Monthly Average: 3.22 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 1.2 P_{90} = 6.0 P_{99} = 69.2

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	36
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	4.9	Z	0.5	0.1	0.2	0.1	0.1	0.6	0.3	0.5	0.4	0.6	1.0	0.7	0.5	0.1	0.1	0.2	0.0	0.2	2.0	1.6	0.2	0.2	0.7	4.9
2-Oct	0.1	0.1	Z	0.0	0.1	0.0	0.3	0.1	5.0	13.1	10.2	7.9	3.7	2.1	1.0	0.3	0.8	0.3	0.4	0.8	0.0	0.0	0.1	0.2	2.0	13.1
3-Oct	0.6	1.5	3.7	Z	6.1	4.2	2.3	1.0	1.5	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	6.1
4-Oct	0.0	0.0	0.1	0.0	Z	0.1	0.1	0.1	0.1	1.7	1.8	1.6	1.0	1.8	1.0	0.8	0.8	0.8	0.4	0.1	0.1	0.1	0.1	0.1	0.5	1.8
5-Oct	0.0	0.1	0.0	0.0	0.0	Z	0.0	0.3	10.2	7.5	10.4	12.0	2.8	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	12.0
6-Oct	Z	0.0	0.0	0.0	0.6	1.7	1.4	2.6	10.2	1.6	C	C	C	C	C	1.8	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.2	10.2
7-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	1.3	2.4	2.4	1.7	1.1	2.5	4.6	3.0	1.3	13.6	62.9	67.2	104.9	69.3	47.3	23.8	18.3	18.6	104.9
8-Oct	14.8	1.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	14.8
9-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
10-Oct	0.2	1.5	0.3	0.1	Z	1.9	5.2	7.9	10.3	3.8	2.3	1.5	2.7	1.9	1.7	0.5	0.1	0.0	0.1	0.0	0.0	0.0	4.9	0.2	2.0	10.3
11-Oct	0.0	0.1	0.1	0.5	51.5	Z	0.2	0.7	5.9	0.5	3.5	3.4	3.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	1.0	0.4	0.1	0.1	3.1	51.5
12-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.1	0.4	1.2	0.4	0.0	0.0	0.3	0.8	0.3	0.1	0.2	0.3	1.1	0.9	0.0	0.0	0.4	1.2
13-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1
14-Oct	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.1	0.4
15-Oct	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.8	3.8	17.1	10.6	7.5	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.8	17.1
16-Oct	0.2	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.8	1.5	5.8	5.3	5.7	2.0	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	5.8
17-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1
18-Oct	Z	0.1	0.1	0.1	0.0	0.1	0.3	0.6	0.7	0.2	0.3	0.2	0.2	0.1	0.1	0.3	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.7
19-Oct	0.5	Z	0.3	0.1	3.4	33.8	70.7	127.6	112.7	25.5	7.7	3.0	3.3	2.3	2.6	7.5	6.9	0.8	4.0	6.0	2.4	0.3	0.2	0.0	18.3	127.6
20-Oct	0.1	0.4	Z	0.0	0.0	0.0	0.0	0.3	8.9	14.3	4.2	13.3	12.4	10.4	6.3	2.7	0.6	0.1	0.2	0.0	0.0	0.0	0.0	0.1	3.2	14.3
21-Oct	0.0	0.1	0.0	Z	0.0	0.1	1.0	0.4	0.1	0.7	0.1	0.1	0.1	0.2	1.6	0.2	0.1	8.3	5.7	3.1	4.9	12.7	6.8	5.1	2.2	12.7
22-Oct	3.9	2.5	1.0	1.1	Z	1.1	0.6	2.7	8.9	2.9	4.1	9.4	5.5	4.4	5.1	19.3	61.4	97.8	41.4	0.4	0.3	0.2	0.1	0.1	11.9	97.8
23-Oct	0.1	0.1	0.2	0.1	0.0	Z	0.3	0.5	0.6	3.4	1.6	1.0	1.0	1.8	1.5	1.4	1.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.6	3.4
24-Oct	Z	0.1	0.1	0.1	0.1	0.8	1.2	2.2	3.7	7.1	3.8	2.0	1.2	2.5	1.6	1.9	1.7	0.4	0.6	0.6	4.0	18.0	12.8	9.4	3.3	18.0
25-Oct	12.6	Z	17.1	1.6	1.2	5.4	9.7	11.9	7.7	9.0	1.4	0.3	0.1	0.2	0.1	0.3	0.4	0.0	0.0	0.0	0.1	3.8	0.0	0.6	3.6	17.1
26-Oct	0.1	0.0	Z	0.2	0.1	0.1	4.5	14.0	114.4	127.8	20.5	19.1	14.0	6.7	4.8	0.4	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	14.2	127.8
27-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.6	0.4	0.8	0.9	0.9	0.6	0.9	0.7	0.1	0.1	0.2	0.2	0.1	0.0	0.0	0.3	0.9
28-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
29-Oct	0.0	0.1	0.3	0.3	0.0	Z	0.0	0.1	0.8	1.9	3.5	6.3	6.0	6.7	0.4	0.9	0.1	0.1	PF	PF	PF	29.7	28.5	18.8	5.2	29.7
30-Oct	Z	1.8	6.3	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	6.3
31-Oct	0.0	Z	0.0	0.0	0.0	0.1	0.0	0.0	0.3	1.4	2.6	4.0	3.0	1.7	2.2	2.0	0.1	0.0	0.0	0.0	0.0	0.0	0.9	2.3	0.9	4.0
	1.5	0.4	1.2	0.2	2.4	1.9	3.2	5.7	10.0	8.0	3.1	3.4	2.4	1.8	1.2	1.4	2.9	5.6	4.0	3.9	2.9	3.7	2.6	1.8	Diurnal Average	
	14.8	2.5	17.1	1.6	51.5	33.8	70.7	127.6	114.4	127.8	20.5	19.1	14.0	10.4	6.3	19.3	61.4	97.8	67.2	104.9	69.3	47.3	28.5	18.8	Diurnal Maximum	

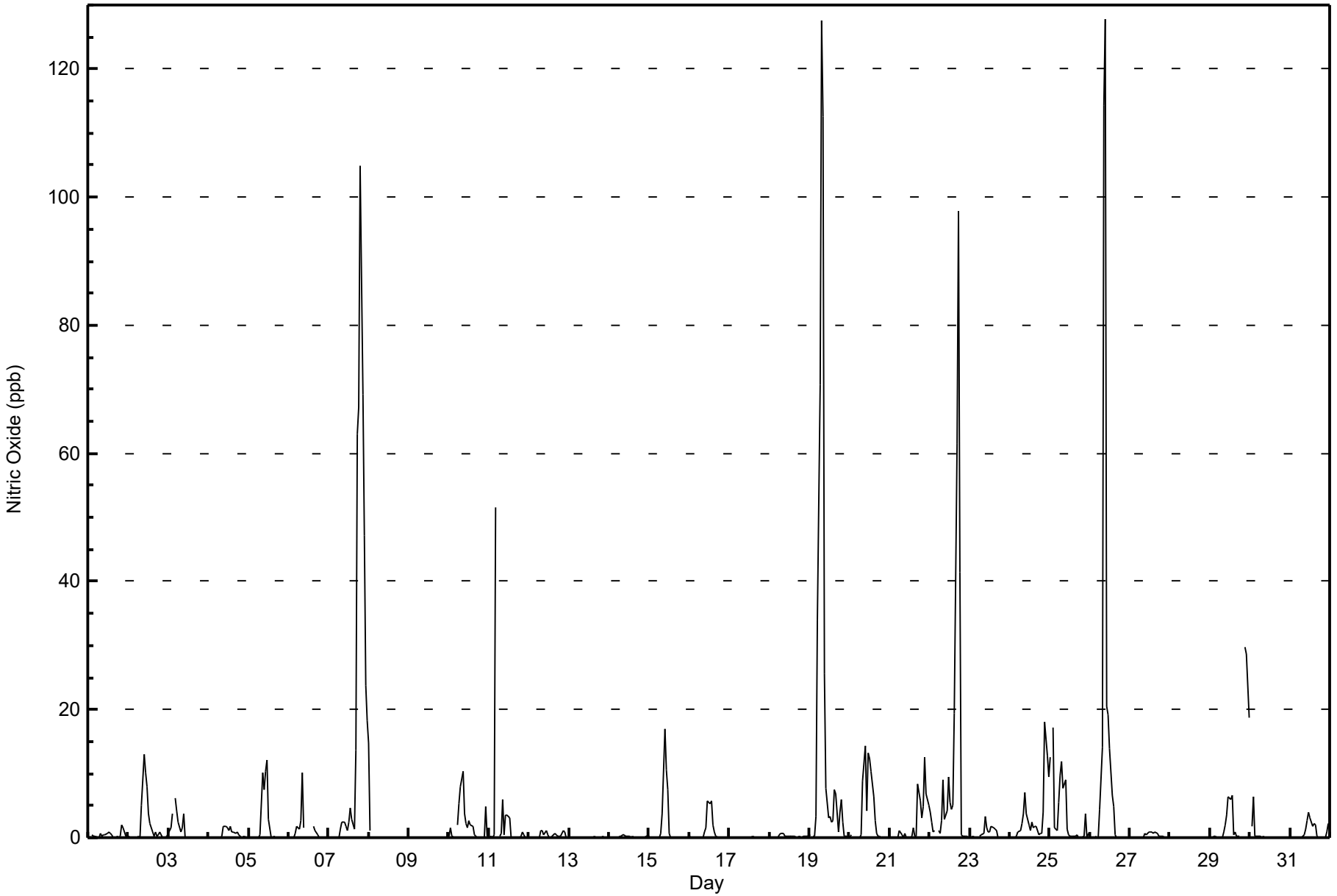
Z - zerospan C - Calibration PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Ells River - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Nitric Oxide (NO) - ppb

Ells River - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	685	97.16	97.16
21 - 40	6	0.85	98.01
11 - 80	8	1.13	99.15
81 - 159	6	0.85	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Ells River - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	69	11	4	4	2	2	32	96	108	96	71	36	46	34	28	42	681
21 - 40	1	0	0	0	0	0	0	0	0	0	1	0	1	0	2	1	6
11 - 80	1	0	0	0	0	0	1	0	0	0	1	0	1	1	0	3	8
81 - 159	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	4
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	71	12	4	4	2	2	33	96	108	96	73	36	48	36	30	48	699

Total Number of Valid Hours: 699

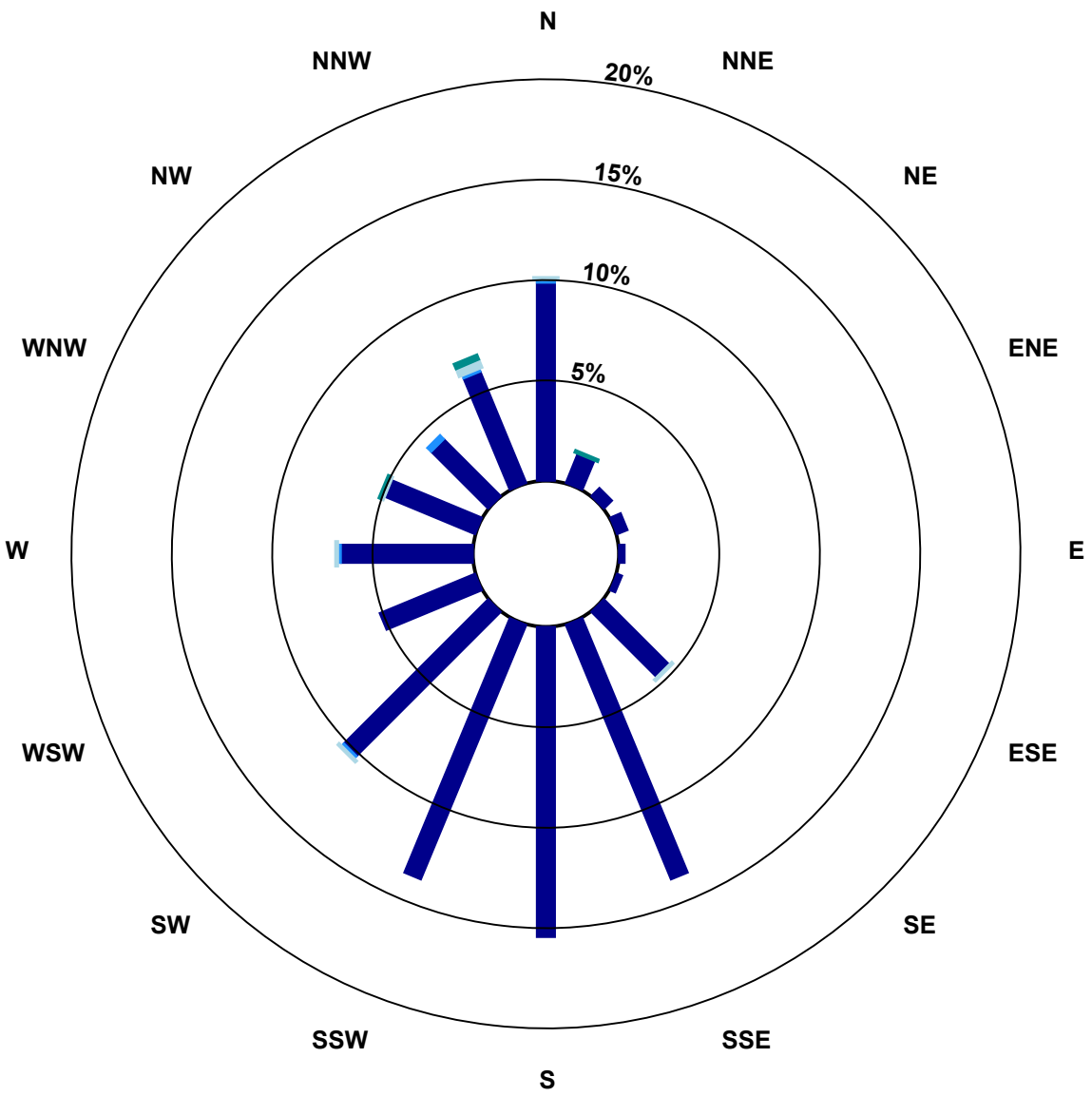
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Ells River



Classes (ppb)

- 0 - 20
- 21 - 40
- 11 - 80
- 81 - 159
- > 159

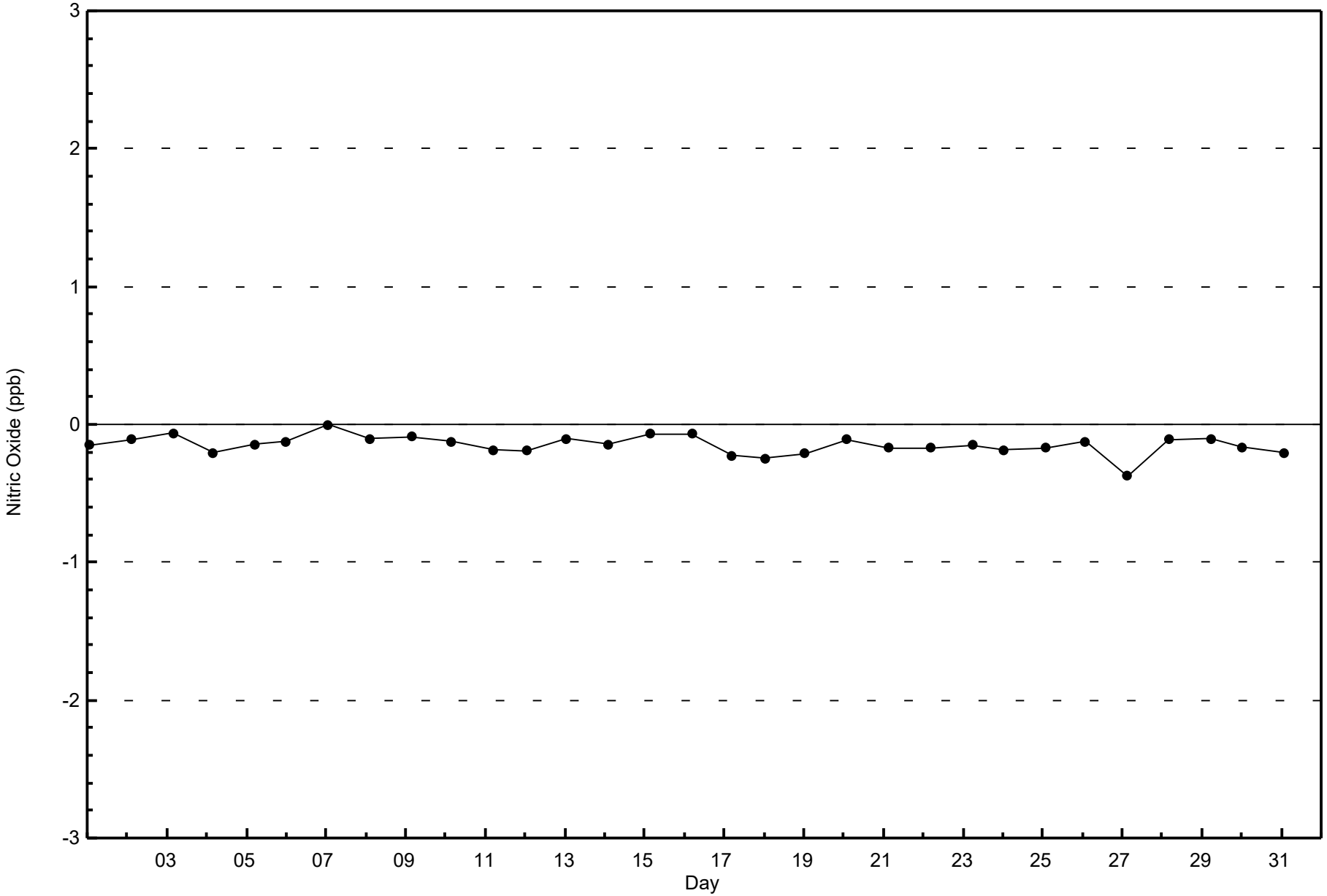
Total Number of Valid Hours: 699

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Ells River - October 2025

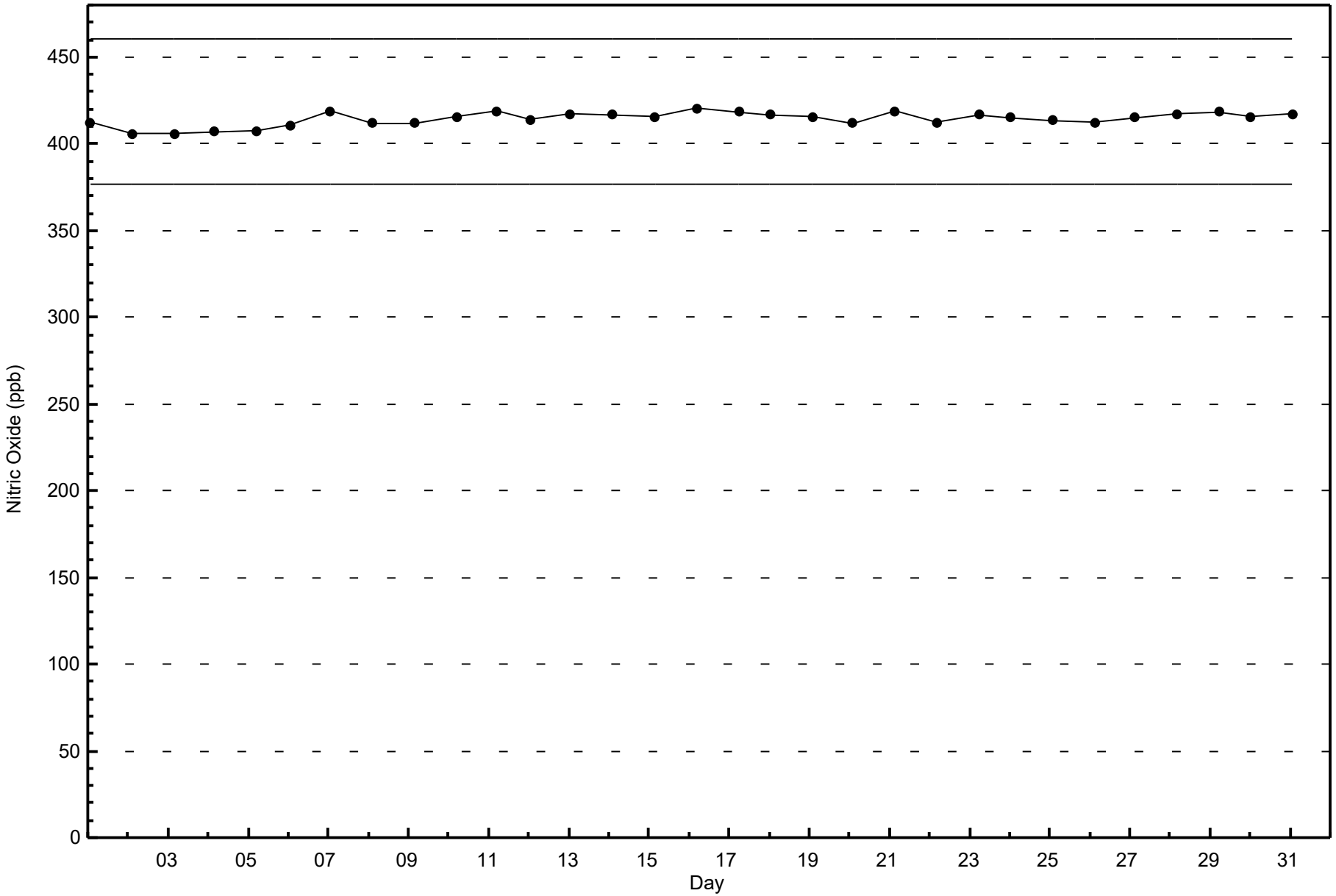


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Ells River - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Ells River - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 22.7 ppb on Oct 19 09:00 Maximum Daily Average: 10.3 ppb on Oct 6

Minimum Value: 0.0 ppb on Oct 18 06:00 Minimum Daily Average: 0.4 ppb on Oct 9
Maximum Diurnal Average: 5.8 ppb at hour 9 Minimum Diurnal Average: 3.5 ppb at hour 14
Monthly Average: 4.39 ppb Percentiles: P_1 = 0.1 P_{10} = 0.2 Q_1 = 0.4 Median = 3.0 Q_3 = 6.9 P_{90} = 11.3 P_{99} = 18.1

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	36
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	13.5	Z	11.7	4.6	9.4	4.6	4.2	9.3	4.1	3.3	2.4	5.0	5.8	3.3	4.0	1.1	1.2	2.7	5.5	5.9	5.8	3.8	1.5	1.9	5.0	13.5
2-Oct	2.6	2.0	Z	0.7	1.1	0.7	0.6	0.4	2.5	7.7	6.3	6.4	6.7	5.4	4.3	3.2	5.1	4.6	5.0	4.8	4.3	3.6	2.3	0.9	3.5	7.7
3-Oct	0.8	1.1	2.1	Z	2.8	3.4	2.4	1.1	1.4	3.2	0.6	0.5	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	1.0	3.4
4-Oct	0.2	0.2	0.1	0.2	Z	0.2	0.5	0.4	0.3	4.2	6.8	4.7	3.6	7.4	6.0	4.5	4.4	6.9	9.6	8.6	6.4	4.7	0.7	0.1	3.5	9.6
5-Oct	0.2	0.1	0.1	0.2	0.1	Z	0.3	0.8	5.9	5.4	5.9	5.5	2.1	0.5	0.4	1.4	0.3	0.2	0.4	0.2	0.2	0.5	1.4	2.2	1.5	5.9
6-Oct	Z	8.3	5.3	6.4	19.0	21.5	19.4	13.1	15.8	3.2	C	C	C	C	C	5.0	5.4	8.6	10.1	10.2	9.7	6.8	8.2	9.9	10.3	21.5
7-Oct	7.3	Z	3.2	2.7	2.3	2.9	4.2	4.2	5.9	6.3	4.4	3.8	4.8	6.7	6.3	5.7	11.2	21.3	16.9	17.7	13.9	10.0	11.6	12.6	8.1	21.3
8-Oct	11.9	6.3	Z	0.9	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	1.0	11.9
9-Oct	0.3	0.3	0.2	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.5	0.3	0.2	1.3	0.6	1.1	0.4	1.3
10-Oct	6.9	12.4	7.9	5.7	Z	7.7	11.6	9.3	8.7	5.9	4.1	3.3	5.7	4.8	5.1	3.1	1.7	4.5	9.7	6.6	4.8	4.6	6.6	5.4	6.4	12.4
11-Oct	3.6	2.5	1.8	1.8	18.1	Z	12.3	14.9	15.9	5.9	12.4	11.3	7.8	0.1	0.3	0.2	0.2	0.2	0.1	1.4	11.7	7.9	4.3	5.1	6.1	18.1
12-Oct	Z	5.8	6.0	6.7	5.9	4.8	4.4	9.2	8.6	3.1	5.2	2.2	0.5	0.4	2.4	5.1	5.8	7.8	14.8	14.4	21.4	11.9	0.8	0.2	6.4	21.4
13-Oct	0.1	Z	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.5	1.0	2.2	5.9	6.9	5.8	9.1	7.1	9.9	9.5	2.6	9.9
14-Oct	7.9	6.3	Z	6.7	6.9	7.7	7.1	3.2	2.2	1.2	1.1	1.0	0.8	0.7	0.6	0.6	0.6	1.5	2.6	7.8	6.2	7.5	13.6	12.9	4.6	13.6
15-Oct	10.8	3.7	2.2	Z	1.3	1.2	1.4	3.3	8.2	10.9	10.6	8.1	2.1	1.1	0.9	0.7	0.6	0.6	0.6	1.8	0.6	0.4	0.4	0.3	3.1	10.9
16-Oct	1.3	0.6	0.2	0.3	Z	0.4	0.5	0.4	0.5	1.7	3.8	9.6	12.1	12.1	8.1	8.6	5.9	6.2	9.6	7.5	8.3	4.2	0.9	1.0	4.5	12.1
17-Oct	0.9	0.8	0.8	0.8	0.7	Z	0.6	0.5	0.4	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.2	0.1	0.2	0.1	0.1	0.3	1.3	0.4	1.3
18-Oct	Z	0.2	0.2	0.2	0.2	0.0	0.8	1.0	0.6	0.2	0.4	0.4	0.4	0.2	0.2	0.3	0.1	1.3	3.5	0.2	0.5	1.9	3.9	3.1	0.9	3.9
19-Oct	3.6	Z	2.0	2.0	3.2	6.0	9.6	18.1	22.7	13.3	10.1	6.3	5.7	4.0	6.2	10.5	10.7	8.0	11.8	11.9	7.3	6.8	5.2	0.6	8.1	22.7
20-Oct	8.1	12.0	Z	1.1	1.6	4.0	1.4	3.6	12.9	12.4	8.1	11.2	10.8	10.4	9.1	6.8	1.1	1.0	4.1	4.1	3.9	2.7	3.8	3.1	6.0	12.9
21-Oct	2.7	4.7	2.6	Z	5.8	4.9	6.4	1.0	0.4	0.4	0.3	0.2	0.3	0.6	6.9	1.0	1.1	9.1	10.8	9.7	8.2	7.6	6.2	4.6	4.2	10.8
22-Oct	3.5	4.1	3.1	2.7	Z	1.7	0.9	1.0	1.5	2.4	3.0	5.3	4.3	5.3	7.9	10.9	15.5	16.7	13.6	5.0	2.0	2.9	4.3	4.0	5.3	16.7
23-Oct	5.9	8.1	13.3	13.0	3.5	Z	7.4	7.3	7.3	8.0	3.4	2.4	2.3	4.3	6.1	9.5	11.3	4.9	4.7	11.2	12.9	5.4	4.9	3.7	7.0	13.3
24-Oct	Z	8.2	7.5	8.2	12.5	15.2	14.3	11.9	9.7	11.3	6.5	4.4	4.0	7.2	7.3	8.1	10.0	8.7	9.0	7.6	8.4	9.0	6.7	5.1	8.7	15.2
25-Oct	7.7	Z	6.7	10.0	12.2	14.3	13.3	12.5	12.4	8.9	4.6	2.1	1.1	0.8	0.6	0.4	0.6	0.3	0.3	0.2	0.4	1.8	0.3	0.7	4.9	14.3
26-Oct	0.7	0.6	Z	1.7	1.3	1.2	6.7	7.3	13.7	17.5	12.6	11.3	10.1	6.8	8.5	2.7	2.6	2.3	4.5	1.1	0.4	0.2	0.2	0.6	5.0	17.5
27-Oct	0.2	0.2	0.2	Z	1.4	1.3	1.7	1.4	2.4	4.9	3.1	5.5	5.5	6.0	5.4	7.9	6.5	0.3	0.5	0.2	0.4	0.1	0.2	0.4	2.4	7.9
28-Oct	0.6	1.3	0.2	0.2	Z	0.3	0.3	0.2	0.3	0.3	0.2	0.1	0.4	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.4	0.3	2.2	2.4	0.5	2.4
29-Oct	0.7	1.2	3.5	2.6	2.9	Z	1.5	4.5	11.0	9.5	8.7	13.5	14.5	11.5	3.2	6.7	5.8	10.9	PF	PF	PF	21.1	15.0	17.0	8.3	21.1
30-Oct	Z	16.5	17.8	14.9	13.6	11.4	9.2	4.3	1.4	0.3	0.3	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	4.1	17.8
31-Oct	0.3	Z	1.0	1.1	1.1	0.7	2.5	3.2	2.4	3.1	4.4	6.3	5.8	4.7	8.4	11.4	5.0	7.0	8.7	2.6	1.6	1.9	6.4	9.3	4.3	11.4
	3.9	4.3	3.8	3.7	4.9	4.5	4.7	4.8	5.8	5.0	4.3	4.4	4.0	3.5	3.7	3.8	3.8	4.6	5.5	4.9	5.0	4.4	4.0	3.9	Diurnal Average	
	13.5	16.5	17.8	14.9	19.0	21.5	19.4	18.1	22.7	17.5	12.6	13.5	14.5	12.1	9.1	11.4	15.5	21.3	16.9	17.7	21.4	21.1	15.0	17.0	Diurnal Maximum	

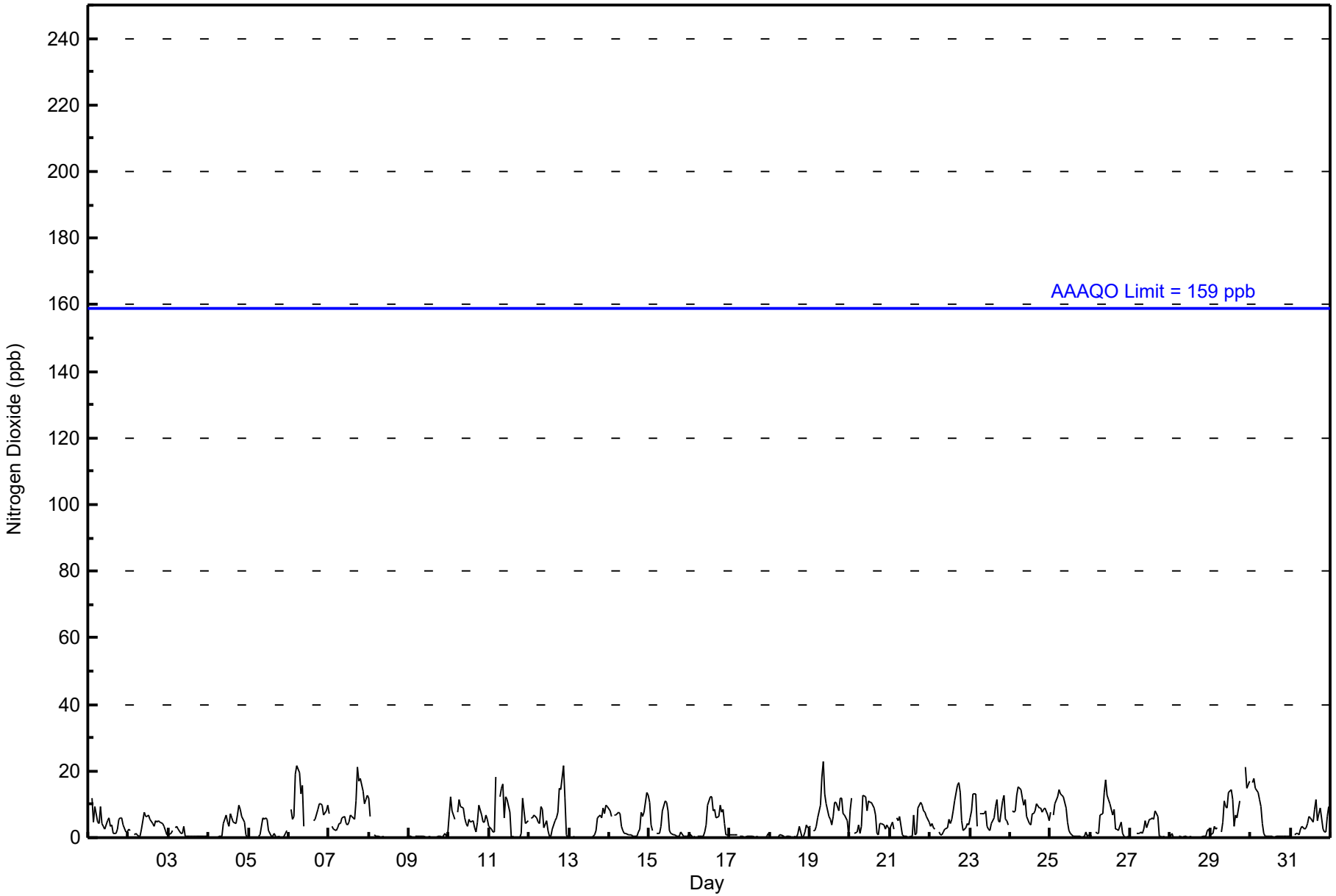
Z - zerospan C - Calibration PF - Power Failure
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Ells River - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Ells River - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	700	99.29	99.29
21 - 40	5	0.71	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Ells River - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	71	12	4	4	2	2	33	96	108	96	73	36	48	36	27	46	694
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	5
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	71	12	4	4	2	2	33	96	108	96	73	36	48	36	30	48	699

Total Number of Valid Hours: 699

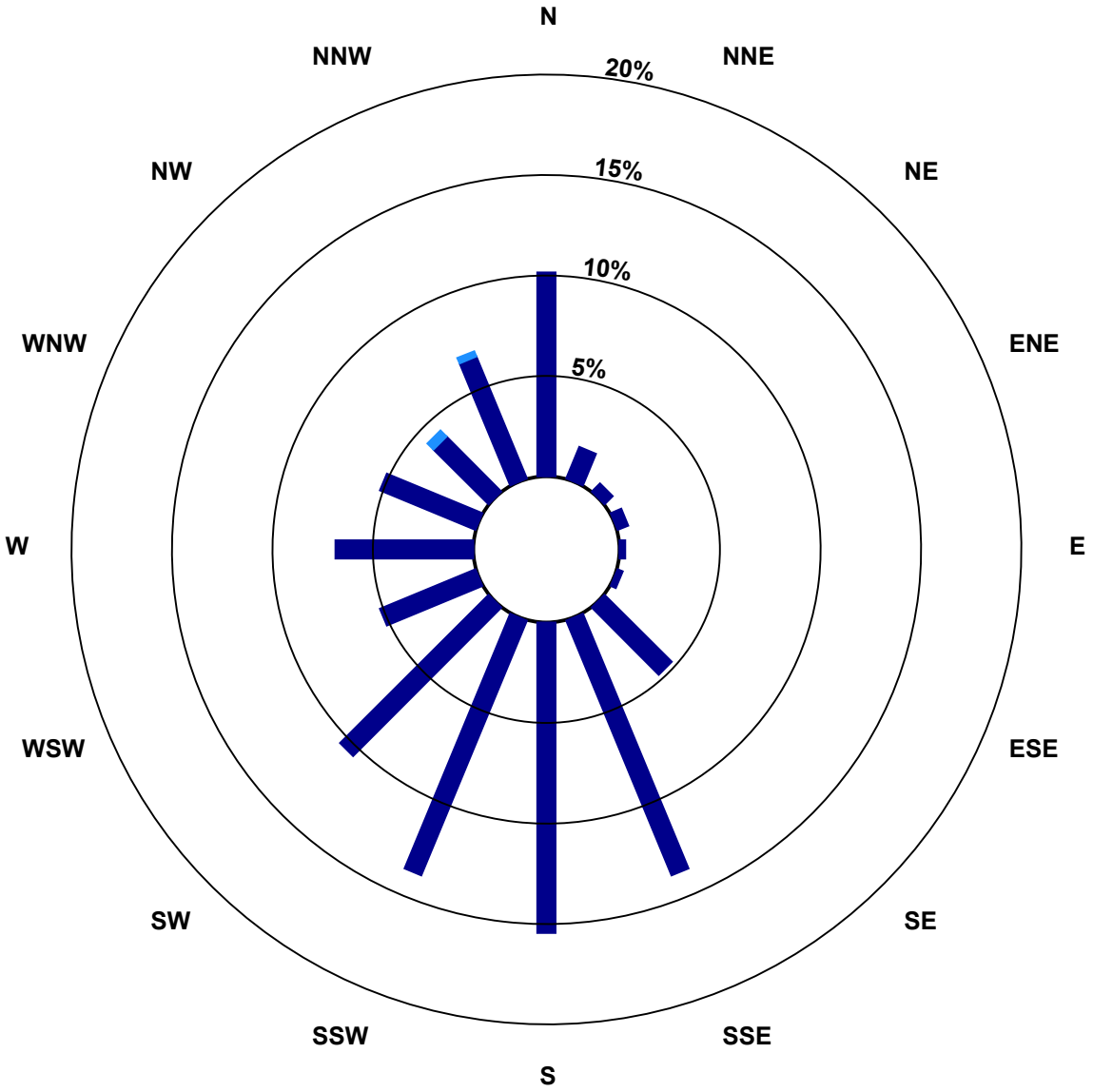
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Ells River



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

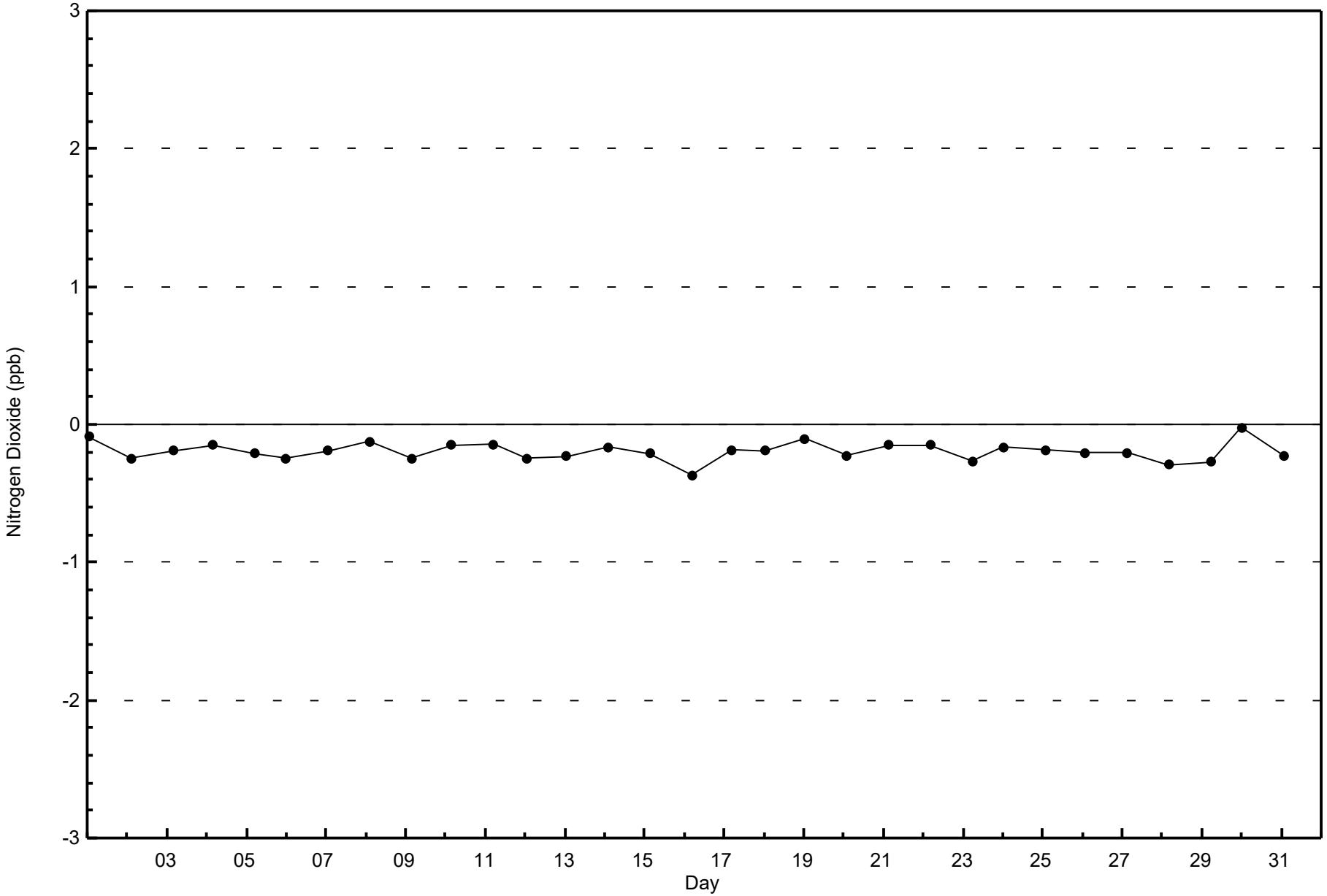
Total Number of Valid Hours: 699

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Ells River - October 2025

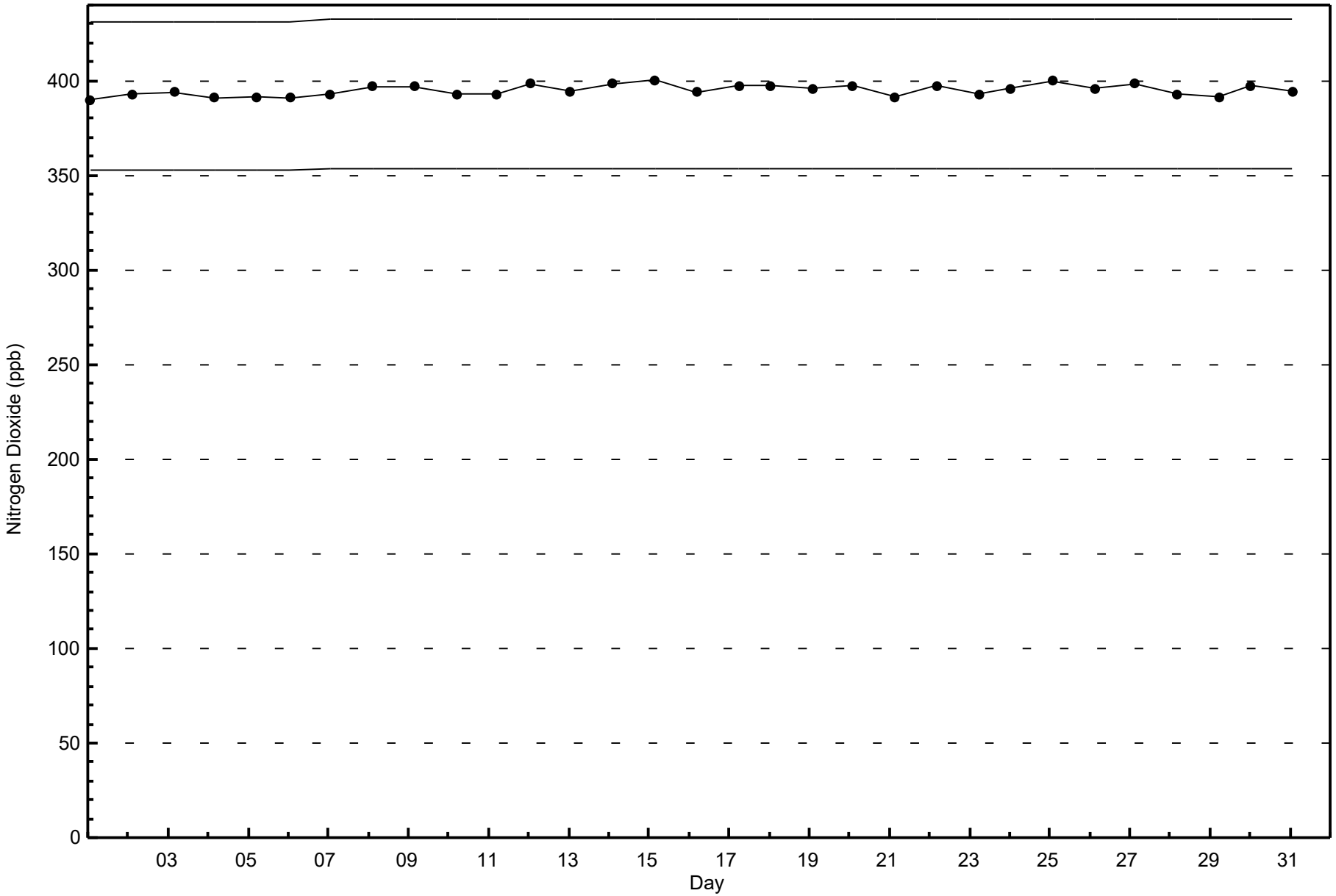


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Ells River - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Ells River - October 2025

Maximum Value: 145.7 ppb on Oct 19 08:00

Maximum Daily Average: 26.7 ppb on Oct 7

Minimum Value: 0.1 ppb on Oct 18 17:00

Minimum Daily Average: 0.4 ppb on Oct 9

Maximum Diurnal Average: 15.8 ppb at hour 9

Minimum Diurnal Average: 3.9 ppb at hour 4

Monthly Average: 7.61 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.2 Q_1 = 0.5 Median = 3.6 Q_3 = 8.8 P_{90} = 16.5 P_{99} = 84.1

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	36
Percent Operational Time:	99.6

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	18.4	Z	12.2	4.7	9.6	4.7	4.3	9.9	4.4	3.8	2.8	5.6	6.8	4.0	4.5	1.2	1.3	2.9	5.5	6.1	7.8	5.4	1.7	2.1	5.6	18.4
2-Oct	2.7	2.1	Z	0.7	1.2	0.7	0.9	0.5	7.5	20.8	16.5	14.3	10.4	7.5	5.3	3.5	5.9	4.9	5.4	5.6	4.3	3.6	2.4	1.1	5.6	20.8
3-Oct	1.4	2.6	5.8	Z	8.9	7.6	4.7	2.1	2.9	6.9	0.6	0.5	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	2.1	8.9
4-Oct	0.2	0.2	0.2	0.2	Z	0.3	0.6	0.5	0.4	5.9	8.6	6.3	4.6	9.2	7.0	5.3	5.2	7.7	10.0	8.7	6.5	4.8	0.8	0.2	4.1	10.0
5-Oct	0.2	0.2	0.1	0.2	0.1	Z	0.3	1.1	16.1	12.9	16.3	17.5	4.9	0.5	0.4	1.7	0.3	0.2	0.4	0.2	0.2	0.5	1.4	2.2	3.4	17.5
6-Oct	Z	8.3	5.3	6.4	19.6	23.2	20.8	15.7	26.0	4.8	C	C	C	C	C	6.8	6.4	9.1	10.1	10.2	9.7	6.8	8.2	9.9	11.5	26.0
7-Oct	7.3	Z	3.2	2.7	2.3	2.9	4.2	5.5	8.3	8.7	6.1	4.9	7.3	11.3	9.3	7.0	24.8	84.2	84.1	122.6	83.2	57.3	35.4	30.9	26.7	122.6
8-Oct	26.7	7.4	Z	0.9	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	1.7	26.7
9-Oct	0.3	0.3	0.2	Z	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.5	0.3	0.2	1.3	0.6	1.2	0.4	1.3
10-Oct	7.1	13.9	8.2	5.8	Z	9.6	16.8	17.2	19.0	9.7	6.4	4.8	8.4	6.7	6.8	3.6	1.8	4.5	9.8	6.6	4.8	4.6	11.5	5.6	8.4	19.0
11-Oct	3.6	2.6	1.9	2.3	69.6	Z	12.5	15.6	21.8	6.4	15.9	14.7	10.8	0.2	0.3	0.3	0.2	0.2	0.2	1.5	12.7	8.3	4.4	5.2	9.2	69.6
12-Oct	Z	5.8	6.0	6.7	5.9	4.8	4.4	10.2	9.7	3.5	6.4	2.6	0.5	0.4	2.7	5.9	6.1	7.9	15.0	14.7	22.5	12.8	0.8	0.2	6.8	22.5
13-Oct	0.1	Z	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.5	1.1	2.3	6.0	6.9	5.8	9.2	7.1	10.0	9.6	2.6	10.0
14-Oct	7.9	6.3	Z	6.8	7.0	7.8	7.2	3.4	2.6	1.6	1.4	1.2	1.0	0.8	0.7	0.7	0.6	1.5	2.6	7.8	6.2	7.5	13.9	13.3	4.8	13.9
15-Oct	10.9	3.7	2.2	Z	1.3	1.2	1.4	4.1	12.0	28.0	21.2	15.6	2.8	1.2	0.9	0.7	0.6	0.6	0.6	1.9	0.6	0.4	0.4	0.3	4.9	28.0
16-Oct	1.5	0.6	0.2	0.3	Z	0.4	0.5	0.4	0.5	2.5	5.3	15.4	17.4	17.8	10.1	9.5	6.1	6.2	9.6	7.5	8.3	4.2	0.9	1.0	5.5	17.8
17-Oct	0.9	0.8	0.8	0.8	0.7	Z	0.6	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.5	0.2	0.2	0.2	0.2	0.2	0.3	1.4	0.5	1.4
18-Oct	Z	0.3	0.3	0.3	0.2	0.1	1.1	1.6	1.3	0.4	0.7	0.6	0.6	0.3	0.3	0.6	0.1	1.4	3.6	0.3	0.7	2.0	4.0	3.2	1.0	4.0
19-Oct	4.1	Z	2.3	2.1	6.6	39.8	80.3	145.7	135.4	38.8	17.8	9.3	9.0	6.3	8.8	18.0	17.6	8.8	15.8	17.9	9.7	7.1	5.4	0.6	26.4	145.7
20-Oct	8.2	12.4	Z	1.1	1.6	4.0	1.4	3.9	21.8	26.7	12.3	24.5	23.2	20.8	15.4	9.5	1.7	1.1	4.3	4.1	3.9	2.7	3.8	3.2	9.2	26.7
21-Oct	2.7	4.8	2.6	Z	5.8	5.0	7.4	1.4	0.5	1.1	0.4	0.3	0.4	0.8	8.5	1.2	1.2	17.4	16.5	12.8	13.1	20.3	13.0	9.7	6.4	20.3
22-Oct	7.4	6.6	4.1	3.8	Z	2.8	1.5	3.7	10.4	5.3	7.1	14.7	9.8	9.7	13.0	30.2	76.9	114.5	55.0	5.4	2.3	3.1	4.4	4.1	17.2	114.5
23-Oct	6.0	8.2	13.5	13.1	3.5	Z	7.7	7.8	7.9	11.4	5.0	3.4	3.3	6.1	7.6	10.9	12.3	5.0	4.7	11.3	13.0	5.5	4.9	3.7	7.6	13.5
24-Oct	Z	8.3	7.6	8.3	12.6	16.0	15.5	14.1	13.4	18.4	10.3	6.4	5.2	9.7	8.9	10.0	11.7	9.1	9.6	8.2	12.4	27.0	19.5	14.5	12.0	27.0
25-Oct	20.3	Z	23.8	11.6	13.4	19.7	23.0	24.4	20.1	17.9	6.0	2.4	1.2	1.0	0.7	0.7	1.0	0.3	0.3	0.2	0.5	5.6	0.3	1.3	8.5	24.4
26-Oct	0.8	0.6	Z	1.9	1.4	1.3	11.2	21.3	128.1	145.3	33.1	30.4	24.1	13.5	13.3	3.1	2.7	2.4	4.6	1.1	0.4	0.2	0.2	0.6	19.2	145.3
27-Oct	0.2	0.2	0.2	Z	1.4	1.3	1.7	1.4	2.5	5.5	3.5	6.3	6.4	6.9	6.0	8.8	7.2	0.4	0.6	0.4	0.6	0.2	0.2	0.4	2.7	8.8
28-Oct	0.6	1.3	0.2	0.2	Z	0.3	0.3	0.3	0.4	0.3	0.2	0.1	0.4	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.4	0.3	2.2	2.4	0.5	2.4
29-Oct	0.7	1.3	3.8	2.9	2.9	Z	1.5	4.6	11.8	11.4	12.2	19.8	20.5	18.2	3.6	7.6	5.9	11.0	PF	PF	PF	50.8	43.5	35.8	13.5	50.8
30-Oct	Z	18.3	24.1	15.0	13.7	11.5	9.4	4.4	1.5	0.3	0.3	0.4	0.3	0.3	0.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	4.5	24.1
31-Oct	0.3	Z	1.0	1.1	1.1	0.8	2.5	3.2	2.7	4.5	7.0	10.3	8.8	6.4	10.6	13.4	5.1	7.0	8.7	2.6	1.6	1.9	7.3	11.6	5.2	13.4
	5.4	4.7	5.0	3.9	7.4	6.4	7.9	10.5	15.8	13.0	7.5	7.8	6.3	5.4	4.9	5.3	6.7	10.2	9.5	8.8	7.9	8.1	6.5	5.7	Diurnal Average	
	26.7	18.3	24.1	15.0	69.6	39.8	80.3	145.7	135.4	145.3	33.1	30.4	24.1	20.8	15.4	30.2	76.9	114.5	84.1	122.6	83.2	57.3	43.5	35.8	Diurnal Maximum	

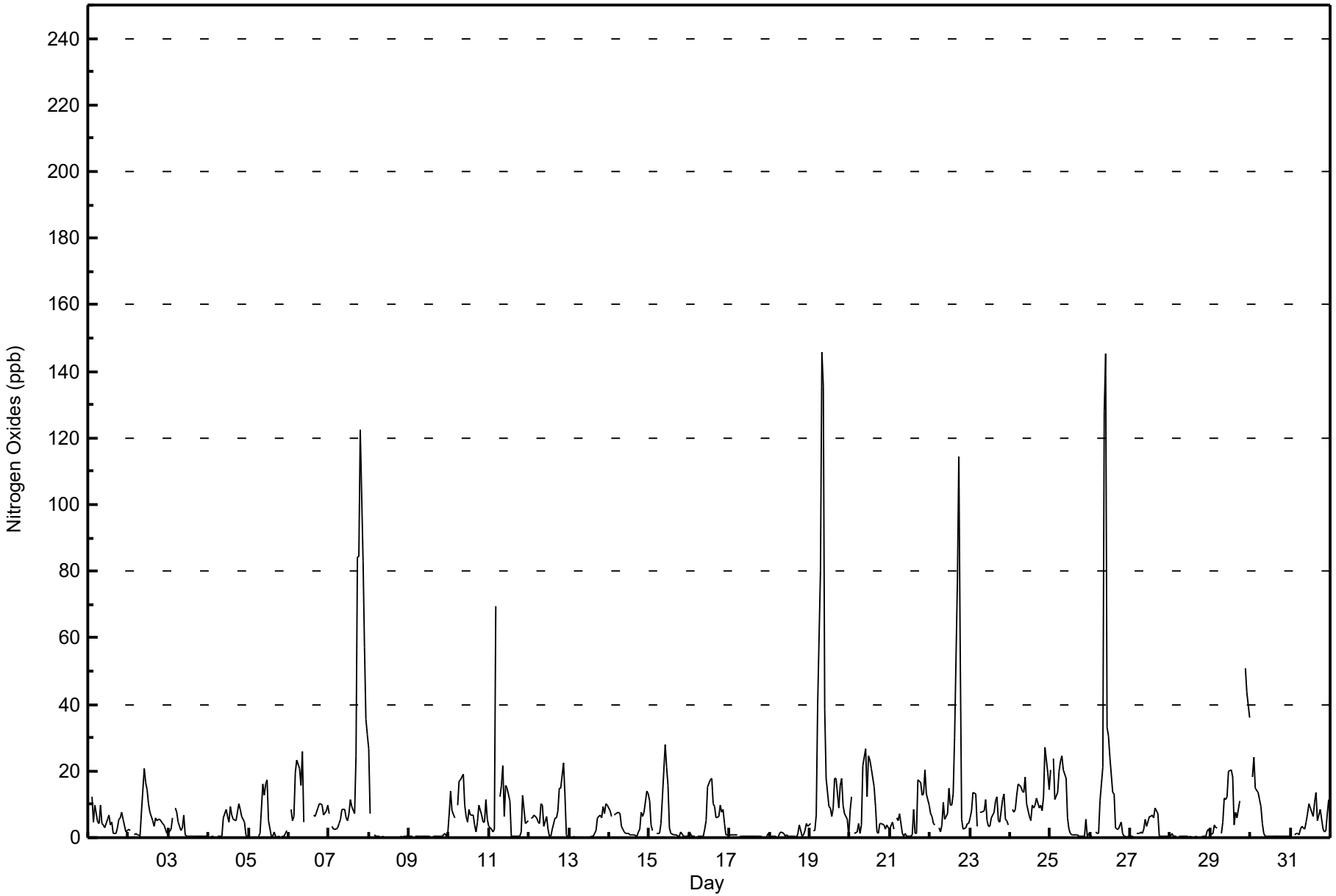
Z - zerospan C - Calibration PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Ells River - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Ells River - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	658	93.33	93.33
21 - 40	31	4.40	97.73
11 - 80	7	0.99	98.72
81 - 159	9	1.28	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Ells River - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	63	9	4	4	2	1	32	93	106	95	71	34	45	33	23	40	655
21 - 40	7	2	0	0	0	1	0	3	2	1	0	2	2	1	6	3	30
11 - 80	1	0	0	0	0	0	1	0	0	0	2	0	0	0	1	2	7
81 - 159	0	1	0	0	0	0	0	0	0	0	0	0	1	2	0	3	7
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	71	12	4	4	2	2	33	96	108	96	73	36	48	36	30	48	699

Total Number of Valid Hours: 699

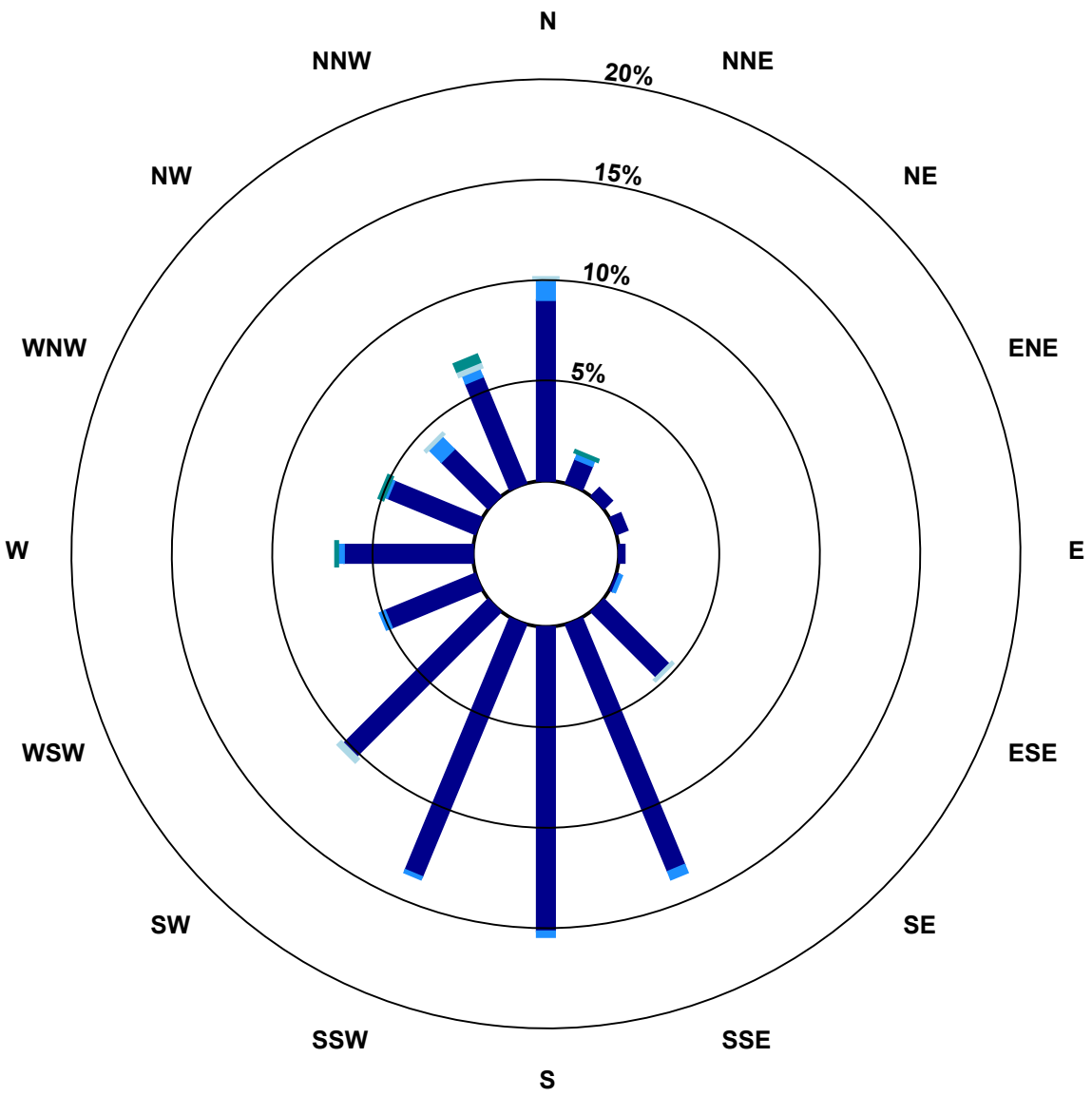
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Ells River



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

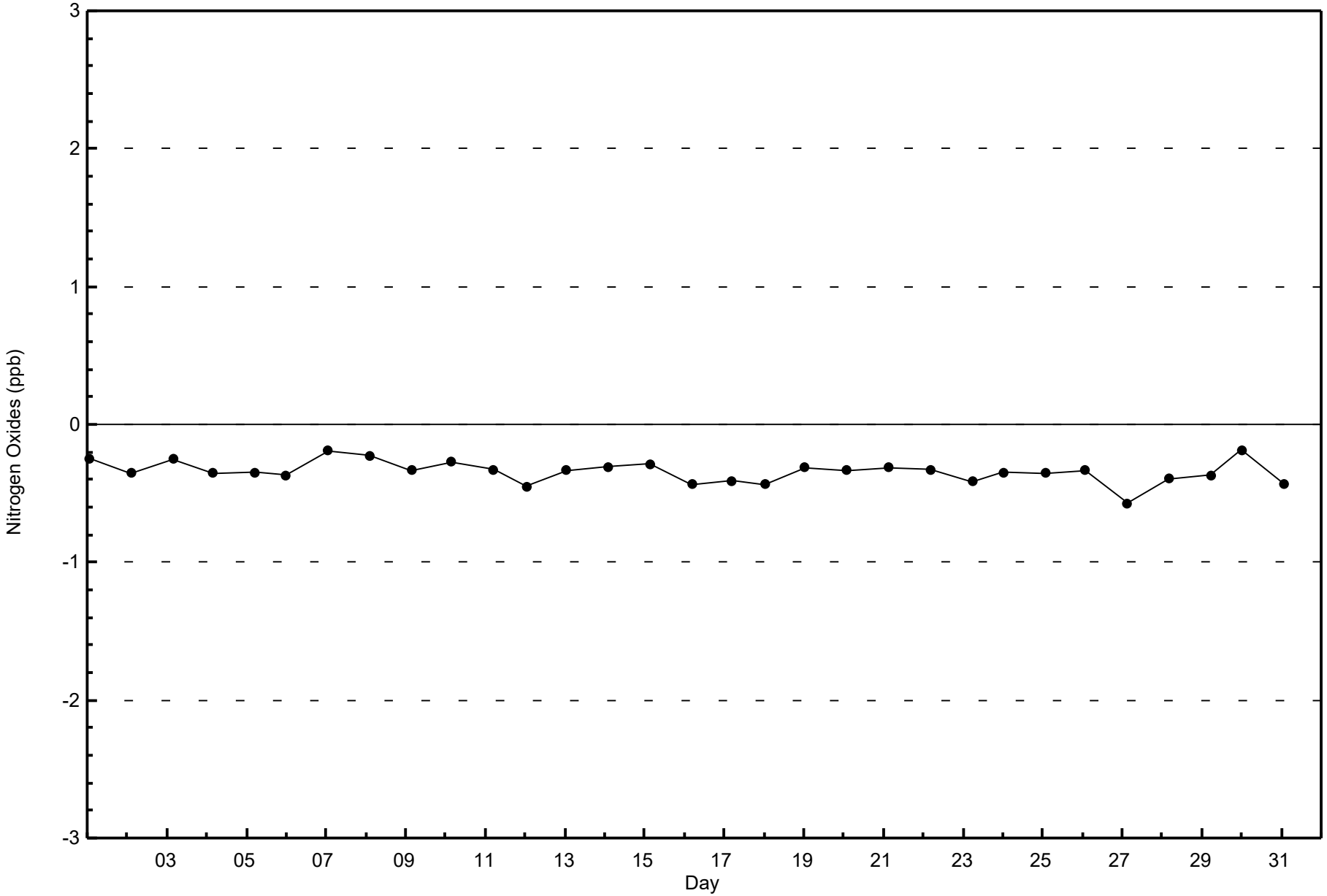
Total Number of Valid Hours: 699

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Ells River - October 2025

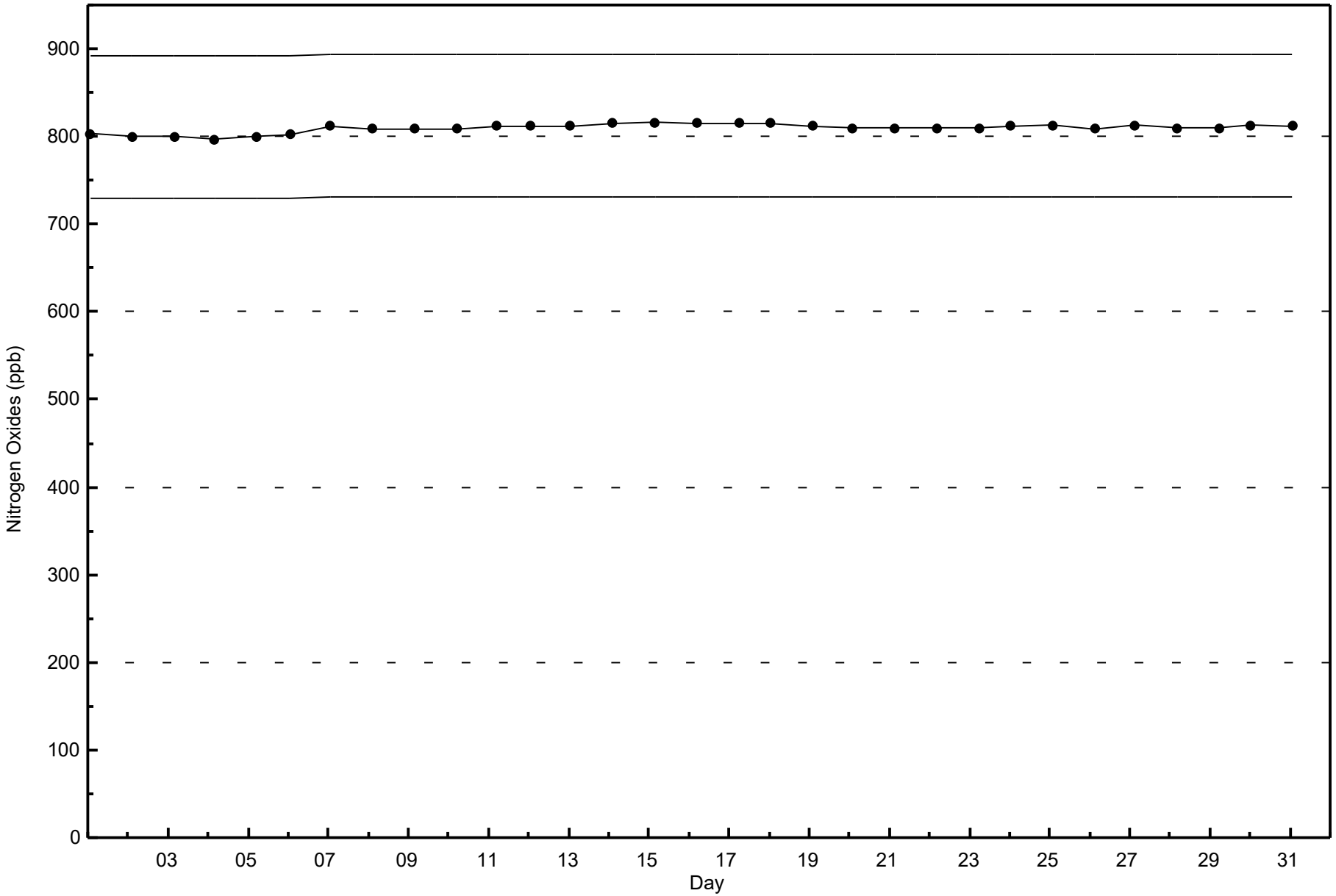


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Ells River - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Ells River - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 13.2 $\mu g/m^3$ on Oct 22 18:00

Maximum Daily Average: 6.6 $\mu g/m^3$ on Oct 23

Minimum Value: 0.1 $\mu g/m^3$ on Oct 28 00:00

Minimum Daily Average: 0.4 $\mu g/m^3$ on Oct 28

Maximum Diurnal Average: 3.6 $\mu g/m^3$ at hour 10

Minimum Diurnal Average: 2.8 $\mu g/m^3$ at hour 1

Monthly Average: 3.22 $\mu g/m^3$

Percentiles: $P_1 = 0.1$ $P_{10} = 0.4$ $Q_1 = 1.4$ Median = 3.1 $Q_3 = 4.5$ $P_{90} = 6.1$ $P_{99} = 10.6$

Hours in Service:	744
Hours of Data:	739
Hours of Missing Data:	5
Hours of Calibration:	1
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	8.8	8.3	8.5	8.2	7.6	6.8	6.9	7.1	8.4	7.6	5.4	2.8	2.2	2.5	2.1	2.2	2.7	3.0	3.3	3.3	3.5	3.5	3.4	3.3	5.1	8.8
2-Oct	3.4	3.4	3.2	3.1	3.0	2.9	2.8	2.6	2.6	2.9	6.9	9.0	5.3	3.6	3.5	3.4	3.3	3.1	3.2	3.8	4.6	4.5	4.3	3.3	3.8	9.0
3-Oct	3.4	3.7	3.6	3.7	3.7	3.7	3.7	4.5	4.3	4.1	3.1	1.9	2.7	3.4	3.7	3.0	2.2	2.2	1.5	1.3	1.2	1.1	1.2	1.1	2.8	4.5
4-Oct	1.4	1.6	1.9	2.4	2.6	2.6	1.9	1.8	1.6	2.5	3.2	2.5	1.8	1.8	1.9	1.6	0.6	0.2	0.4	0.8	0.7	0.6	0.5	0.4	1.6	3.2
5-Oct	0.4	0.4	0.5	0.5	0.9	1.9	2.8	3.4	3.3	3.4	3.5	4.0	6.1	9.3	5.8	1.4	1.2	1.0	1.1	1.0	0.7	0.7	0.8	0.6	2.3	9.3
6-Oct	0.7	1.8	1.6	1.8	3.0	3.4	2.5	2.7	3.2	1.0	0.2	0.4	0.6	0.7	1.3	2.4	2.2	2.9	3.9	4.0	3.3	2.8	4.3	5.9	2.4	5.9
7-Oct	4.4	3.8	1.8	1.4	1.3	1.6	2.4	2.6	2.8	3.1	2.9	3.1	3.9	5.0	3.9	3.3	4.0	10.1	9.8	7.6	5.4	4.6	4.4	4.5	4.1	10.1
8-Oct	4.1	3.2	3.1	1.9	1.4	1.3	1.6	2.0	1.9	1.3	0.9	1.0	1.1	1.1	1.5	1.2	1.0	0.8	0.7	0.4	0.5	0.5	0.3	0.3	1.4	4.1
9-Oct	0.3	0.2	0.3	0.2	0.2	0.5	1.8	3.2	3.2	2.8	2.4	2.1	3.0	1.9	3.3	4.2	3.8	4.8	3.8	1.6	1.0	1.0	1.5	1.3	2.0	4.8
10-Oct	3.0	4.0	2.5	1.8	2.5	3.1	3.4	3.5	3.9	3.5	3.3	3.7	5.1	4.4	5.5	5.3	4.5	5.1	7.8	5.6	5.0	5.1	5.8	5.3	4.3	7.8
11-Oct	4.9	4.5	4.1	4.7	5.8	6.3	4.4	4.5	4.7	2.4	2.1	1.4	1.6	0.6	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.3	6.3
12-Oct	0.2	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.5	0.9	1.3	1.7	1.9	1.1	0.3	0.3	0.5	1.9
13-Oct	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.9	2.0	2.9	1.9	1.8	2.2	2.4	2.8	2.3	2.6	3.0	3.8	2.8	4.1	3.3	3.4	3.0	2.0	4.1
14-Oct	2.1	2.1	1.8	2.3	2.5	2.6	2.6	2.1	2.1	1.8	1.6	C	2.8	2.6	2.8	3.1	3.6	3.8	4.0	6.0	5.7	5.8	7.0	6.7	3.4	7.0
15-Oct	4.8	3.4	3.0	2.8	3.0	2.9	2.9	3.4	5.2	6.3	5.8	4.3	3.4	4.9	5.7	5.5	5.5	5.6	5.4	5.1	4.7	4.3	3.5	3.2	4.4	6.3
16-Oct	3.0	3.0	2.9	3.2	4.1	4.4	4.8	6.0	8.9	11.7	10.0	12.1	10.9	13.0	11.2	8.8	8.2	6.2	5.0	4.1	4.2	3.6	2.5	2.5	6.4	13.0
17-Oct	2.2	2.7	3.5	4.5	4.8	4.9	4.3	2.7	1.4	1.4	1.7	1.9	2.0	1.8	1.4	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.1	1.3	2.1	4.9
18-Oct	1.2	1.1	0.9	0.8	0.7	0.8	1.0	1.2	1.0	1.3	1.1	1.1	1.1	0.9	0.8	0.8	0.8	1.2	1.7	1.5	1.6	1.8	1.9	2.0	1.2	2.0
19-Oct	2.1	1.9	2.0	1.9	2.3	3.5	5.4	6.8	5.6	4.8	3.3	2.9	3.3	3.3	3.9	3.7	3.1	2.4	2.6	2.5	2.4	2.0	2.1	2.0	3.2	6.8
20-Oct	2.3	1.7	1.0	0.4	0.4	0.7	0.5	0.7	1.5	2.1	2.4	3.4	4.3	5.1	6.3	5.7	3.8	3.5	4.0	4.1	4.6	5.6	5.7	4.8	3.1	6.3
21-Oct	4.4	6.6	5.2	5.2	5.4	5.4	4.8	3.7	3.5	3.2	2.8	1.8	2.0	2.0	2.0	2.3	2.1	3.3	4.1	3.7	3.8	3.9	3.8	3.8	3.7	6.6
22-Oct	3.5	3.7	3.6	3.5	3.5	3.8	3.5	4.1	3.8	3.5	3.9	4.4	4.6	5.3	7.0	6.3	8.9	13.2	8.5	5.2	4.3	4.3	5.0	4.8	5.1	13.2
23-Oct	4.9	6.8	9.1	9.0	5.9	3.5	4.5	5.2	5.1	6.4	M	3.3	3.2	4.8	5.6	11.0	10.1	7.1	6.8	10.5	10.7	6.1	6.4	5.0	6.6	11.0
24-Oct	4.4	7.2	4.7	5.4	4.7	4.6	4.9	4.6	4.3	4.6	4.5	4.4	4.7	7.1	6.4	6.2	6.4	6.2	6.4	5.7	5.6	6.5	8.0	4.7	5.5	8.0
25-Oct	4.7	4.5	5.1	5.1	5.7	5.7	7.5	7.5	6.5	6.5	5.4	4.4	3.3	2.0	2.3	3.4	2.9	2.5	2.0	2.0	2.5	2.7	2.7	2.8	4.2	7.5
26-Oct	2.8	2.7	2.8	3.0	3.0	2.9	3.5	4.0	5.9	6.8	5.3	4.7	5.0	4.1	3.8	3.1	3.2	3.0	2.4	2.0	2.1	1.4	1.2	1.2	3.3	6.8
27-Oct	1.6	1.4	1.0	0.7	0.5	0.5	0.6	0.4	0.2	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	1.6
28-Oct	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.5	0.3	0.3	0.4	0.6	0.5	0.5	0.6	0.6	0.7	0.8	1.2	0.4	1.2
29-Oct	1.6	1.7	2.2	2.5	3.1	2.7	3.1	3.0	3.6	3.5	3.2	3.2	3.5	3.3	2.8	3.1	2.9	3.2	PF	PF	PF	3.5	3.2	3.3	3.0	3.6
30-Oct	3.1	3.1	3.6	5.3	4.9	5.0	5.5	4.7	3.6	3.6	3.5	3.6	3.6	3.7	3.7	4.1	4.7	5.1	4.9	4.8	4.9	4.7	4.4	3.6	4.2	5.5
31-Oct	3.5	3.6	3.5	3.7	4.2	4.3	5.1	6.6	6.3	6.0	6.7	8.3	7.8	7.4	6.4	6.3	6.0	5.6	5.6	4.9	4.2	4.3	5.5	6.5	5.5	8.3
	2.8	3.0	2.8	2.9	2.9	3.0	3.2	3.4	3.6	3.6	3.3	3.3	3.3	3.5	3.5	3.4	3.3	3.6	3.5	3.3	3.2	3.0	3.1	2.9	Diurnal Average	
	8.8	8.3	9.1	9.0	7.6	6.8	7.5	7.5	8.9	11.7	10.0	12.1	10.9	13.0	11.2	11.0	10.1	13.2	9.8	10.5	10.7	6.5	8.0	6.7	Diurnal Maximum	

C - Calibration M - Maintenance PF - Power Failure

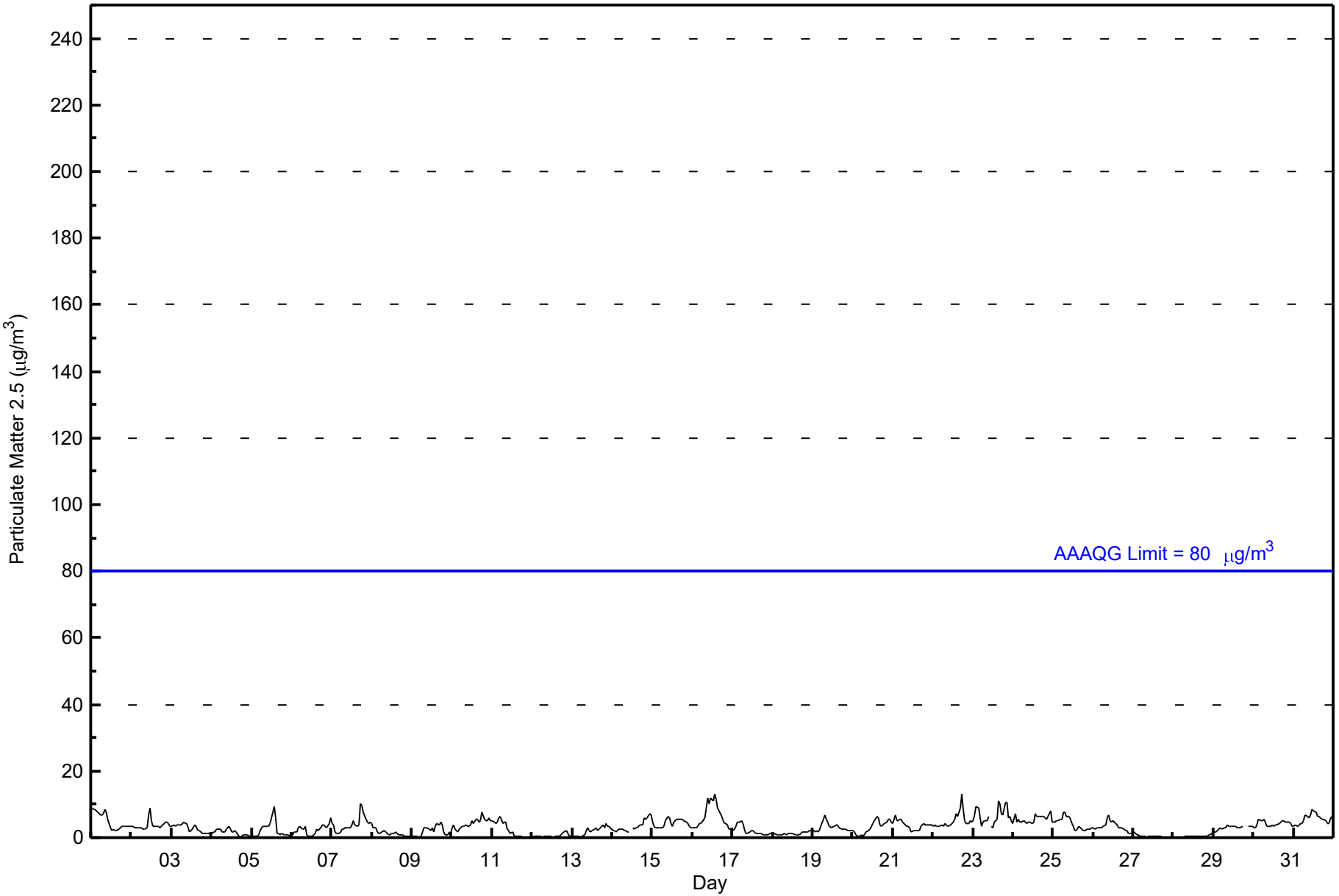
Alberta Ambient Air Quality Guideline/Objectives: 1-hr 80 $\mu g/m^3$ 24-hr 29 $\mu g/m^3$

Wood Buffalo Environmental Association

Hourly Averages

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Ells River - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Ells River - October 2025

Concentration Ranges ($\mu g/m^3$)	Number of Hours	%	Cumulative %
0 - 5	632	85.52	85.52
6 - 15	107	14.48	100.00
16 - 25	0	0.00	100.00
26 - 80	0	0.00	100.00
> 81.0	0	0.00	100.00

Total Number of Valid Hours: 739

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Ells River - October 2025

Concentration Ranges ($\mu g/m^3$)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	66	12	5	4	3	3	21	60	106	88	75	35	51	31	27	41	628
6 - 15	9	3	0	0	0	0	12	38	10	10	2	4	1	5	3	8	105
16 - 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 81.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	75	15	5	4	3	3	33	98	116	98	77	39	52	36	30	49	733

Total Number of Valid Hours: 733

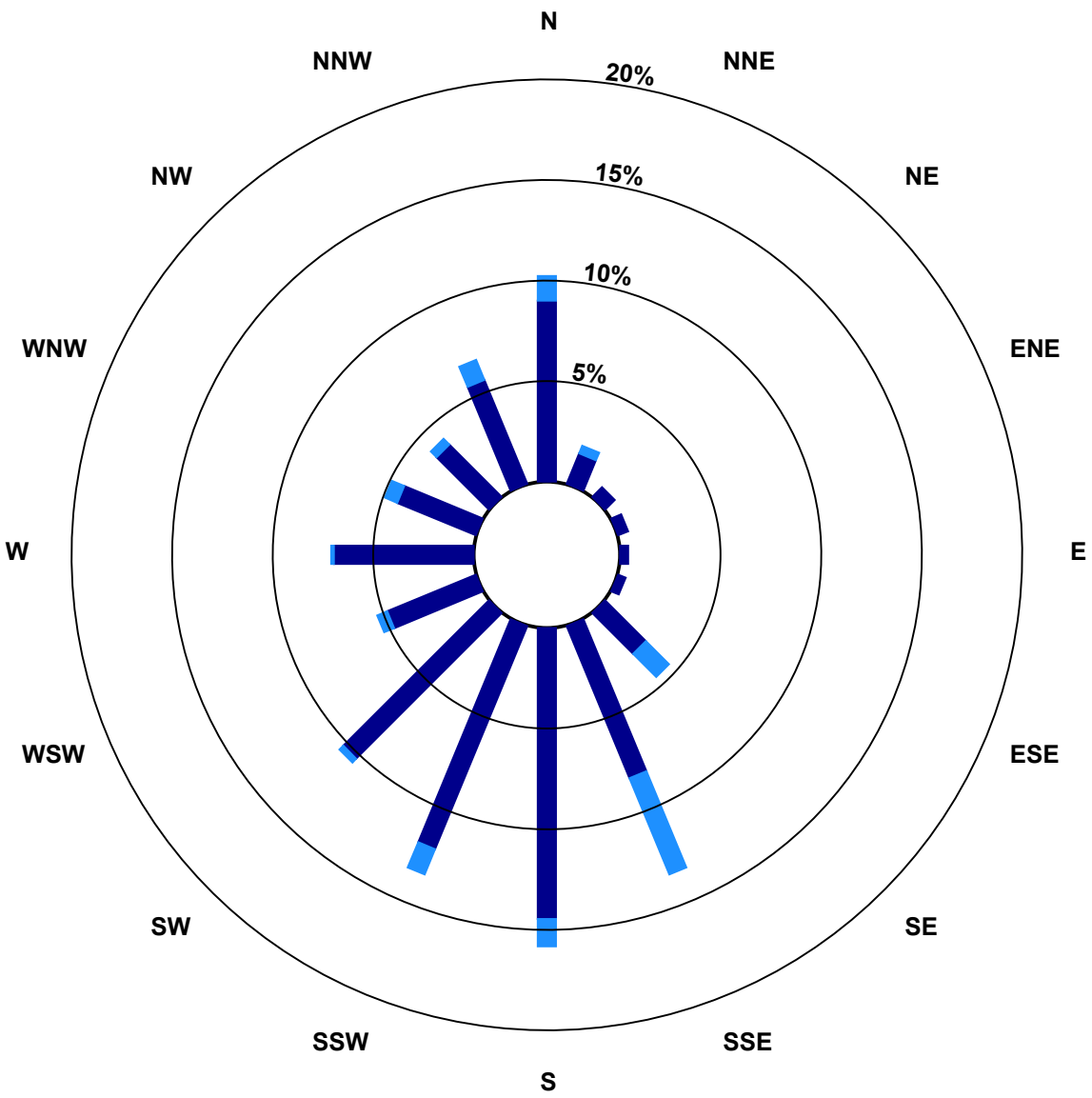
Total Number of Hours: 744

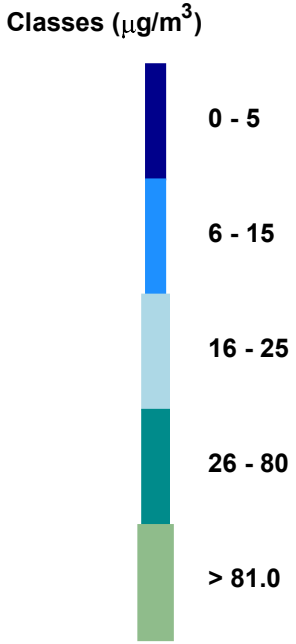
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Particulate Matter 2.5 ($PM_{2.5}$) - $\mu g/m^3$

Ells River





Total Number of Valid Hours: 733

Wood Buffalo Environmental Association

Summary of Hour Averages

Ambient Temperature 2m (AT2) - C

Ells River - October 2025

Maximum Value: 20.9 C on Oct 10 16:00

Maximum Daily Average: 9.5 C on Oct 1

Minimum Value: -4.5 C on Oct 13 07:00

Minimum Daily Average: 0.1 C on Oct 29

Maximum Diurnal Average: 8.5 C at hour 16

Minimum Diurnal Average: 1.8 C at hour 7

Monthly Average: 4.56 C

Percentiles: P_1 = -2.8 P_{10} = -0.3 Q_1 = 1.1 Median = 3.6 Q_3 = 7.6 P_{90} = 10.9 P_{99} = 15.8

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

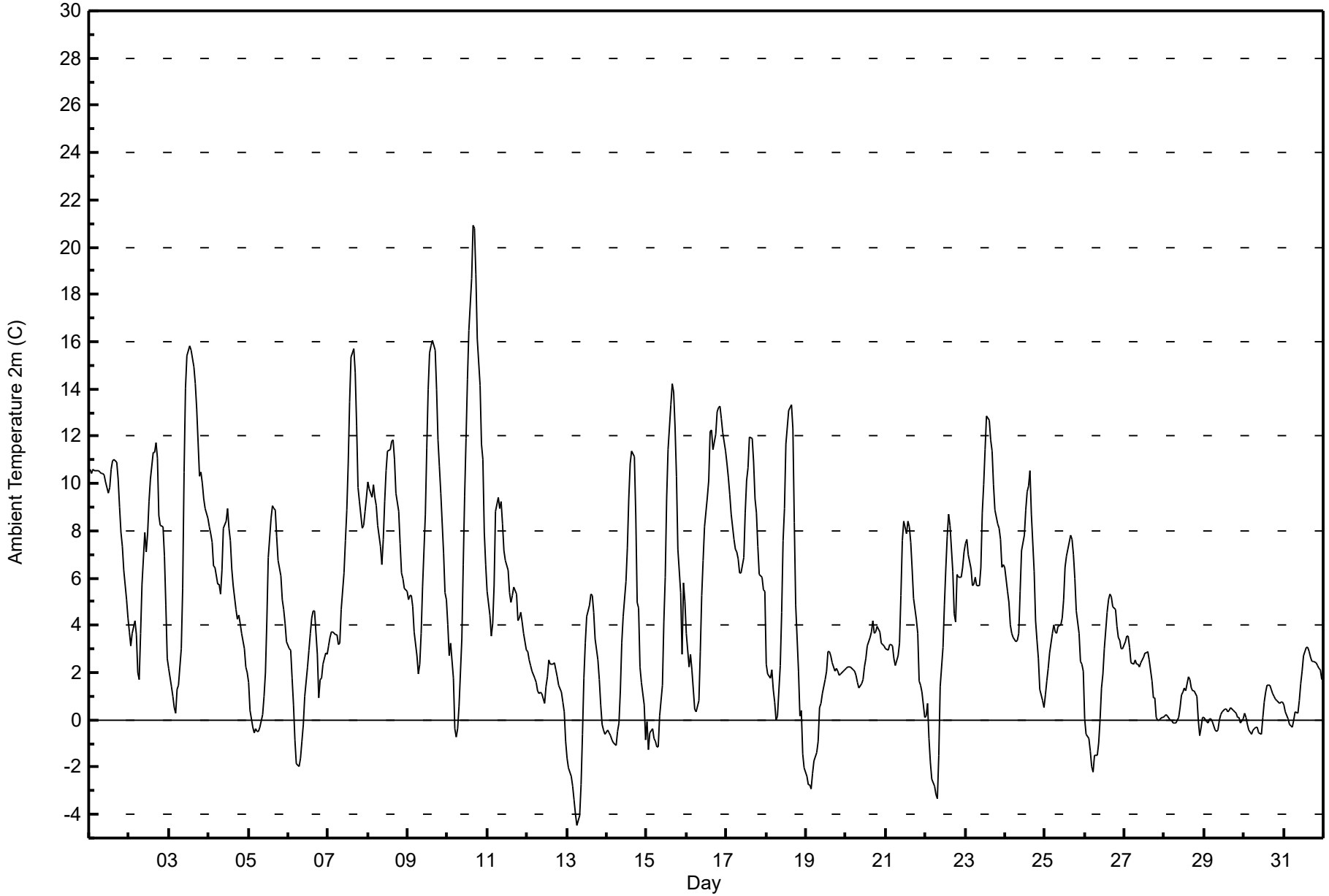
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.6	10.5	10.6	10.6	10.5	10.5	10.5	10.4	10.4	10.4	10.1	9.6	9.8	10.6	11.0	11.0	10.9	10.2	9.0	8.0	7.3	6.3	5.1	4.3	9.5	11.0
2-Oct	3.7	3.1	3.7	4.2	3.6	2.0	1.7	3.7	5.8	7.9	7.1	7.9	9.2	10.2	11.3	11.3	11.7	11.1	8.7	8.2	8.2	6.9	4.8	2.6	6.6	11.7
3-Oct	2.2	1.4	1.0	0.5	0.3	1.3	1.5	3.0	5.5	10.5	14.1	15.4	15.8	15.6	15.3	14.9	14.2	13.1	10.3	10.5	10.0	9.3	9.0	8.5	8.5	15.8
4-Oct	8.2	7.9	7.5	6.5	6.5	5.7	5.7	5.3	6.3	8.1	8.4	8.9	8.1	7.6	6.4	5.7	4.7	4.3	4.4	4.1	3.7	3.0	2.3	2.0	5.9	8.9
5-Oct	1.6	0.4	-0.3	-0.6	-0.4	-0.5	-0.5	-0.3	0.2	1.0	2.0	4.2	6.8	8.5	9.1	9.0	8.9	7.8	6.8	6.1	5.1	4.7	4.1	3.3	3.6	9.1
6-Oct	3.0	3.0	1.8	0.6	-0.8	-1.8	-2.0	-1.6	-0.9	-0.2	1.0	2.2	2.9	3.7	4.3	4.6	4.6	2.8	1.0	1.7	1.8	2.3	2.8	2.8	1.6	4.6
7-Oct	3.1	3.5	3.7	3.7	3.6	3.6	3.2	3.2	4.7	6.2	7.6	8.9	10.9	13.4	15.3	15.7	14.7	12.4	9.8	9.2	8.1	8.2	8.8	9.4	8.0	15.7
8-Oct	10.1	9.8	9.4	10.0	9.4	9.1	8.3	7.3	6.5	7.6	9.2	10.5	11.4	11.4	11.8	11.9	11.0	9.6	8.8	7.5	6.2	6.0	5.6	5.4	8.9	11.9
9-Oct	5.1	5.3	5.2	4.8	3.7	2.7	1.9	2.4	3.7	5.6	8.7	11.5	14.0	15.5	15.8	16.0	15.6	14.0	11.8	10.7	9.6	7.0	5.4	5.1	8.4	16.0
10-Oct	4.0	2.7	3.3	1.8	-0.4	-0.7	-0.3	0.6	3.5	6.6	9.5	11.9	14.4	16.5	18.7	20.9	20.8	18.9	16.1	14.2	11.6	11.0	7.9	6.6	9.2	20.9
11-Oct	5.5	4.5	3.5	4.1	5.6	8.8	9.4	9.0	9.2	8.3	7.1	6.7	6.3	5.4	5.0	5.3	5.6	5.3	4.2	4.3	4.5	4.2	3.7	3.0	5.8	9.4
12-Oct	2.9	2.6	2.3	2.1	1.8	1.6	1.3	1.1	1.2	1.1	0.7	1.4	1.8	2.5	2.4	2.4	2.4	2.1	1.8	1.5	1.2	0.8	0.3	-0.9	1.6	2.9
13-Oct	-1.6	-2.1	-2.4	-2.8	-3.4	-4.0	-4.5	-4.1	-2.7	-0.6	1.8	3.3	4.4	4.8	5.3	5.3	4.5	3.5	2.5	1.7	0.6	-0.2	-0.4	-0.6	0.3	5.3
14-Oct	-0.4	-0.6	-0.7	-0.8	-1.0	-1.1	-0.5	-0.1	1.2	3.3	4.4	5.9	7.3	9.4	10.8	11.4	11.1	8.6	5.0	4.7	2.3	1.6	0.6	-0.9	3.4	11.4
15-Oct	-0.1	-1.3	-0.6	-0.4	-0.8	-0.9	-1.1	-1.2	0.1	1.5	4.2	6.0	9.4	11.4	13.3	14.2	13.9	12.4	10.3	7.2	5.4	2.7	5.8	5.1	4.9	14.2
16-Oct	3.7	2.2	2.8	2.1	1.3	0.5	0.3	0.8	2.9	5.2	6.7	8.2	9.4	10.1	12.2	12.3	11.4	12.1	13.0	13.2	13.3	12.7	12.2	11.4	7.5	13.3
17-Oct	10.8	10.3	9.5	8.7	7.6	7.2	7.1	6.8	6.2	6.2	6.9	8.8	10.1	10.7	11.9	11.9	10.9	9.4	8.8	7.4	6.1	6.1	5.5	5.5	8.3	11.9
18-Oct	2.3	2.0	1.8	2.1	1.3	0.7	0.0	0.2	2.3	4.5	7.5	9.0	11.7	13.1	13.2	13.3	12.3	8.3	4.8	2.1	0.2	0.4	-1.4	-2.0	4.6	13.3
19-Oct	-2.4	-2.7	-2.8	-2.9	-2.3	-1.7	-1.4	-0.9	0.5	0.7	1.1	1.7	2.1	2.9	2.9	2.7	2.4	2.1	2.2	2.0	1.9	2.0	2.1	2.1	0.6	2.9
20-Oct	2.2	2.3	2.3	2.2	2.1	2.0	1.9	1.6	1.3	1.5	1.7	2.2	2.6	3.1	3.5	3.7	4.2	3.7	3.7	3.9	3.7	3.2	3.2	3.1	2.7	4.2
21-Oct	3.0	3.0	3.2	3.2	3.1	2.6	2.3	2.7	3.3	5.3	7.5	8.4	7.9	8.4	8.1	7.5	6.4	5.2	4.3	3.6	1.7	1.4	1.1	0.1	4.3	8.4
22-Oct	0.2	0.7	-0.8	-1.8	-2.5	-2.8	-3.1	-3.4	-1.5	1.4	3.1	4.8	6.4	7.7	8.7	8.2	6.3	4.5	4.2	6.2	6.0	6.0	6.5	7.1	3.0	8.7
23-Oct	7.5	7.6	7.0	6.4	5.7	5.7	6.0	5.7	5.7	6.5	8.8	9.9	11.4	12.8	12.7	11.9	11.4	9.9	8.9	8.3	8.1	7.7	6.5	6.6	8.3	12.8
24-Oct	6.4	5.5	5.0	4.0	3.7	3.5	3.3	3.4	3.7	5.4	7.1	7.8	8.9	9.7	9.9	10.5	8.7	6.3	4.2	3.4	2.6	1.3	0.8	0.5	5.2	10.5
25-Oct	1.0	1.6	2.2	2.8	3.7	4.0	3.7	3.7	4.0	4.0	4.3	5.1	6.4	6.9	7.2	7.8	7.6	7.0	5.9	4.6	3.7	2.5	2.3	2.1	4.3	7.8
26-Oct	0.1	-0.6	-0.8	-1.3	-2.0	-2.2	-1.5	-1.5	-1.0	0.1	1.3	1.9	3.0	4.6	5.1	5.3	5.2	4.8	4.7	4.0	3.5	3.3	3.0	3.0	1.8	5.3
27-Oct	3.3	3.5	3.5	3.1	2.4	2.4	2.5	2.3	2.3	2.2	2.4	2.6	2.9	2.8	2.9	2.5	1.6	0.9	0.9	0.1	0.0	0.0	0.1	0.1	2.0	3.5
28-Oct	0.2	0.2	0.2	0.0	0.0	-0.1	-0.1	-0.1	0.1	0.5	1.1	1.2	1.4	1.2	1.8	1.7	1.4	1.2	1.2	1.0	0.0	-0.7	-0.3	0.1	0.5	1.8
29-Oct	0.1	-0.1	-0.1	0.0	0.0	-0.1	-0.4	-0.5	-0.4	0.0	0.2	0.3	0.5	0.4	0.3	0.4	0.5	0.4	0.4	0.3	0.1	0.1	-0.1	0.0	0.1	0.5
30-Oct	0.3	0.1	-0.2	-0.5	-0.6	-0.5	-0.4	-0.3	-0.3	-0.5	-0.6	0.1	0.8	1.1	1.5	1.5	1.3	1.1	1.0	0.9	0.8	0.7	0.7	0.8	0.4	1.5
31-Oct	0.6	0.4	0.0	-0.2	-0.2	-0.3	0.0	0.3	0.3	0.8	1.5	2.1	2.7	3.1	3.1	2.9	2.7	2.5	2.5	2.4	2.3	2.2	2.1	1.7	1.5	3.1
	3.1	2.8	2.6	2.3	2.0	1.8	1.8	1.9	2.7	3.9	5.0	6.1	7.1	7.9	8.4	8.5	8.0	6.9	5.8	5.3	4.5	4.0	3.5	3.2	Diurnal Average	
	10.8	10.5	10.6	10.6	10.5	10.5	10.5	10.4	10.4	10.5	14.1	15.4	15.8	16.5	18.7	20.9	20.8	18.9	16.1	14.2	13.3	12.7	12.2	11.4	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Ells River - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Ambient Temperature 2m (AT2) - C

Ells River - October 2025

Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	99	13.31	13.31
0 - 10	541	72.72	86.02
10 - 20	102	13.71	99.73
> 20	2	0.27	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

Ells River - October 2025

Maximum Value: 96.7 % on Oct 3 08:00

Maximum Daily Average: 90.7 % on Oct 26

Minimum Value: 30.8 % on Oct 14 16:00

Minimum Daily Average: 51.9 % on Oct 14

Maximum Diurnal Average: 82.9 % at hour 8

Minimum Diurnal Average: 61.3 % at hour 16

Monthly Average: 74.38 %

Percentiles: P_1 = 35.3 P_{10} = 49.8 Q_1 = 62.7 Median = 78.3 Q_3 = 88.6 P_{90} = 93.1 P_{99} = 95.7

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

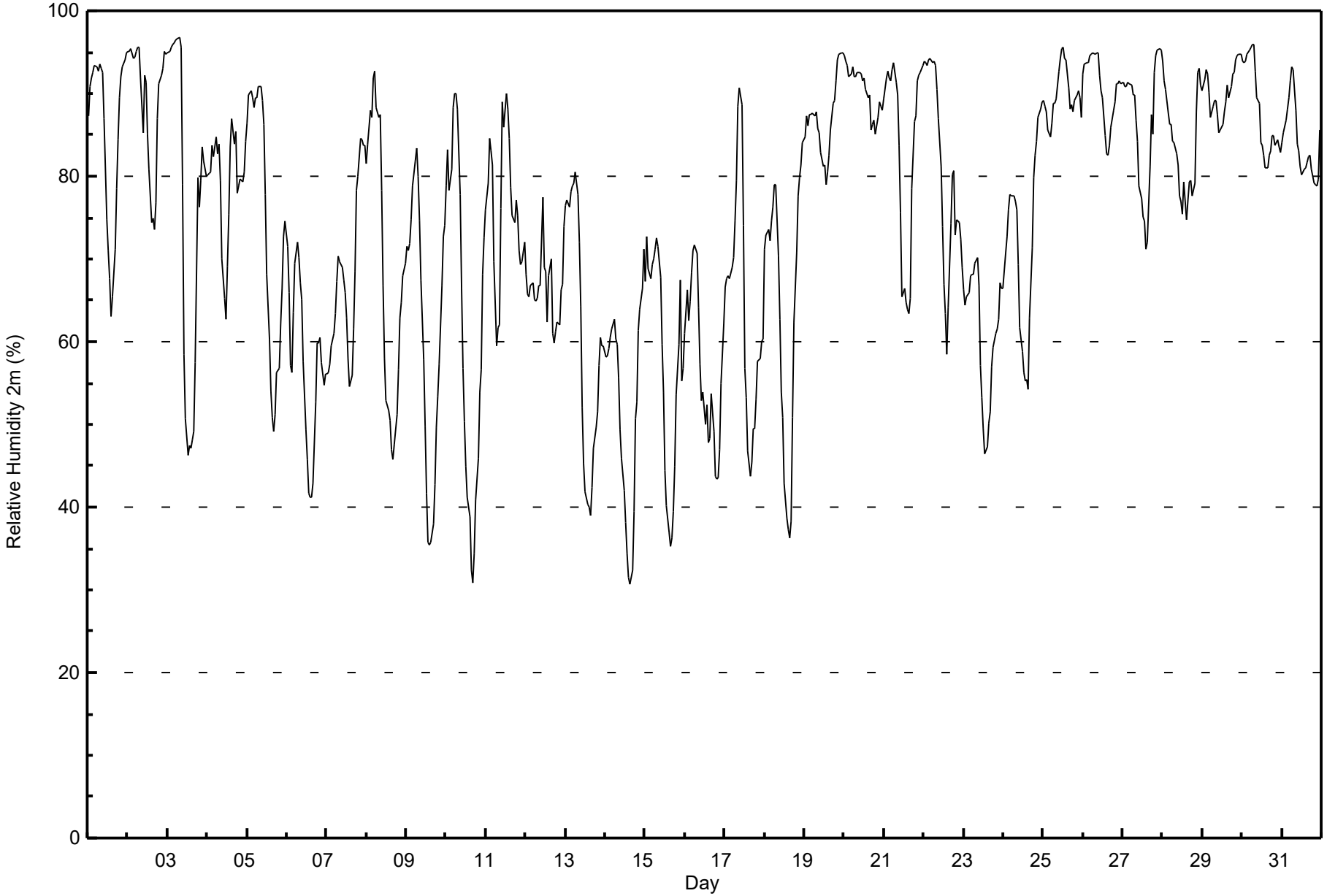
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	87.3	90.8	91.8	92.5	93.3	93.2	92.8	93.5	93.0	92.5	87.0	74.7	70.9	67.6	63.0	65.4	71.2	78.5	84.5	89.5	92.0	93.2	94.0	94.9	85.3	94.9
2-Oct	95.0	95.1	95.4	94.2	94.4	95.2	95.6	95.6	91.9	85.3	92.2	91.3	85.1	80.8	74.5	75.0	73.6	76.8	86.9	91.2	92.1	93.1	95.1	94.7	89.2	95.6
3-Oct	94.9	95.1	95.6	95.9	96.1	96.5	96.6	96.7	95.7	78.9	58.4	50.6	46.3	47.5	47.2	48.2	49.2	57.4	79.8	76.3	79.6	83.6	81.8	79.9	76.2	96.7
4-Oct	80.2	80.4	80.6	83.8	82.4	84.7	82.8	83.9	79.5	70.0	65.2	62.7	69.1	75.4	83.6	87.0	83.8	85.5	77.9	78.8	79.7	79.4	80.5	84.2	79.2	87.0
5-Oct	86.5	89.9	90.4	89.5	88.3	89.5	89.6	90.8	90.9	89.2	86.4	77.9	68.2	60.4	54.1	50.8	49.1	51.1	56.2	56.8	62.1	66.4	72.7	74.5	74.2	90.9
6-Oct	71.5	65.9	57.1	56.3	63.5	69.5	72.1	70.1	67.1	65.0	57.7	49.3	45.7	41.7	41.3	41.1	42.9	52.7	59.8	59.8	60.5	57.4	54.7	56.0	57.5	72.1
7-Oct	56.2	56.2	57.4	59.5	61.0	63.4	67.4	70.4	69.6	69.0	67.5	66.0	62.8	58.1	54.6	56.0	61.5	68.5	78.3	80.0	84.6	84.5	83.7	83.7	67.5	84.6
8-Oct	81.5	83.9	88.0	87.1	91.9	92.7	88.3	87.1	87.5	78.4	66.8	58.0	52.8	51.6	50.4	47.0	45.7	47.7	51.2	56.7	62.9	64.7	68.0	69.5	69.1	92.7
9-Oct	71.5	71.0	71.8	74.7	78.8	81.8	83.3	80.0	74.6	67.5	57.8	49.8	41.7	35.7	35.5	35.8	37.9	42.8	49.6	53.4	57.2	66.7	72.6	74.1	61.1	83.3
10-Oct	78.9	83.3	78.3	80.8	88.2	90.0	90.1	88.1	77.8	66.4	56.8	50.4	44.9	41.2	38.8	32.4	30.9	34.4	40.8	46.0	53.9	56.6	68.2	72.6	62.1	90.1
11-Oct	76.0	79.2	84.5	83.0	81.3	69.6	59.5	61.7	62.1	76.2	88.9	85.9	90.1	88.2	84.6	78.6	75.3	74.4	77.2	75.2	71.1	69.3	69.6	72.0	76.4	90.1
12-Oct	68.1	65.8	65.5	66.7	67.1	65.1	64.9	65.3	66.7	66.8	77.4	69.0	68.5	62.4	68.0	70.0	61.0	59.9	61.1	62.4	62.0	66.3	66.9	73.9	66.3	77.4
13-Oct	76.4	77.1	76.3	78.1	78.8	79.1	80.4	77.8	72.0	64.2	52.1	45.2	41.8	40.3	39.9	38.9	42.4	47.0	49.6	51.6	57.2	60.6	59.5	59.4	60.2	80.4
14-Oct	58.1	58.3	59.2	60.4	61.5	62.7	60.4	59.7	55.6	49.4	45.9	42.1	38.2	34.4	31.6	30.8	32.3	39.4	50.7	52.8	61.4	63.8	66.4	71.2	51.9	71.2
15-Oct	67.3	72.7	68.8	67.7	69.4	69.9	71.2	72.5	71.5	67.8	59.7	53.9	44.5	40.2	37.0	35.2	36.3	39.6	44.8	53.5	59.7	67.5	55.3	56.7	57.6	72.7
16-Oct	61.1	66.2	62.6	64.9	68.4	71.1	71.7	70.7	64.1	57.2	52.9	53.8	50.0	52.3	47.8	48.3	53.7	49.1	43.8	43.4	43.5	46.9	54.9	62.2	56.7	71.7
17-Oct	66.6	67.7	68.0	67.6	69.1	70.1	74.5	79.5	88.4	90.8	88.7	74.0	56.8	53.2	46.8	43.7	45.5	49.5	49.4	53.1	57.6	57.9	60.0	60.3	64.1	90.8
18-Oct	71.2	72.8	73.5	72.2	74.5	76.2	78.9	78.9	70.4	62.8	53.9	50.9	42.9	38.6	37.2	36.3	38.3	50.8	62.4	70.9	77.7	79.8	81.3	84.1	64.0	84.1
19-Oct	84.7	87.2	86.1	87.4	87.5	87.7	87.3	87.8	85.7	85.3	82.9	81.3	81.3	79.0	80.4	82.6	85.6	88.8	89.2	91.5	94.1	94.7	94.9	95.0	87.0	95.0
20-Oct	94.6	93.9	93.4	92.0	92.4	93.2	92.0	92.1	92.5	92.5	92.4	91.6	91.8	90.6	89.5	89.9	85.6	86.3	86.8	85.1	87.2	89.0	88.5	87.9	90.5	94.6
21-Oct	89.3	91.9	92.8	91.9	91.6	92.9	93.7	91.4	89.9	83.8	75.6	65.4	66.4	64.8	63.9	63.4	65.3	78.4	86.7	87.3	91.5	92.2	92.5	93.3	83.2	93.7
22-Oct	93.9	93.8	93.5	94.0	94.2	93.7	93.9	93.4	90.4	86.9	81.1	73.8	67.0	63.4	58.4	64.0	74.3	80.1	80.7	72.9	74.8	74.5	72.4	69.0	80.6	94.2
23-Oct	66.2	64.4	65.4	66.0	68.0	68.2	68.2	69.5	70.2	66.7	57.1	53.3	49.5	46.4	47.3	50.2	51.5	56.9	59.3	61.0	61.5	62.7	67.2	66.4	61.0	70.2
24-Oct	66.4	70.7	72.7	76.0	77.8	77.6	77.6	77.0	75.9	69.4	61.6	58.9	56.2	55.2	55.3	54.2	62.8	71.3	79.9	82.5	84.2	87.1	88.2	88.9	72.0	88.9
25-Oct	89.2	88.5	87.8	85.6	84.8	86.4	88.8	88.9	89.4	92.7	94.2	95.4	95.5	94.3	94.1	90.6	88.1	88.6	87.7	89.2	89.8	90.3	89.5	87.1	89.9	95.5
26-Oct	92.4	93.6	93.8	93.8	94.6	94.7	94.8	94.8	94.9	94.9	92.2	90.3	89.5	84.9	82.6	82.5	83.8	85.9	88.0	88.9	91.1	91.3	91.5	91.3	90.7	94.9
27-Oct	91.3	90.8	90.9	91.4	91.2	90.9	89.8	89.8	86.8	84.2	78.9	77.2	75.1	74.6	71.2	72.1	81.1	87.5	85.2	92.6	94.6	95.2	95.4	95.2	86.4	95.4
28-Oct	93.9	91.4	90.5	87.6	86.2	86.3	84.2	84.0	82.8	81.4	77.7	76.9	75.5	79.4	74.7	77.1	79.3	79.4	77.6	79.1	87.8	92.5	93.1	91.0	83.7	93.9
29-Oct	90.4	91.8	92.9	92.4	90.1	87.2	88.5	89.2	89.1	87.4	85.3	85.7	86.3	87.9	89.0	91.1	89.5	90.8	92.3	92.5	94.1	94.6	94.7	94.8	90.3	94.8
30-Oct	93.9	93.7	93.9	94.7	95.3	95.6	95.9	96.0	92.8	89.5	88.8	84.1	83.7	82.6	81.1	81.1	82.5	83.1	84.9	85.0	83.7	84.4	83.6	83.0	88.0	96.0
31-Oct	84.1	85.3	86.9	88.1	89.5	91.5	93.2	92.9	87.9	83.9	83.0	81.2	80.2	80.9	81.0	81.7	82.3	82.5	80.9	79.1	79.0	78.9	79.6	85.5	84.1	93.2
	79.9	80.9	80.8	81.1	82.3	82.8	82.8	82.9	80.9	77.3	73.1	68.4	65.1	63.0	61.4	61.3	62.7	66.6	70.4	72.2	75.1	76.9	77.9	79.1	Diurnal Average	
	95.0	95.1	95.6	95.9	96.1	96.5	96.6	96.7	95.7	94.9	94.2	95.4	95.5	94.3	94.1	91.1	89.5	90.8	92.3	92.6	94.6	95.2	95.4	95.2	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Ells River - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Relative Humidity 2m (RH2) - %

Ells River - October 2025

Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	24	3.23	3.23
40 - 60	135	18.15	21.37
60 - 80	248	33.33	54.70
80 - 100	337	45.30	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Global Radiation (GR) - W/m2

Ells River - October 2025

Maximum Value: 545.5 W/m2 on Oct 6 13:00

Maximum Daily Average: 145.3 W/m2 on Oct 6

Minimum Value: 0.0 W/m2 on Oct 1 01:00

Minimum Daily Average: 11.2 W/m2 on Oct 25

Maximum Diurnal Average: 274.0 W/m2 at hour 13

Minimum Diurnal Average: 0.0 W/m2 at hour 5

Monthly Average: 69.14 W/m2

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 79.7 P_{90} = 268.7 P_{99} = 508.0

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

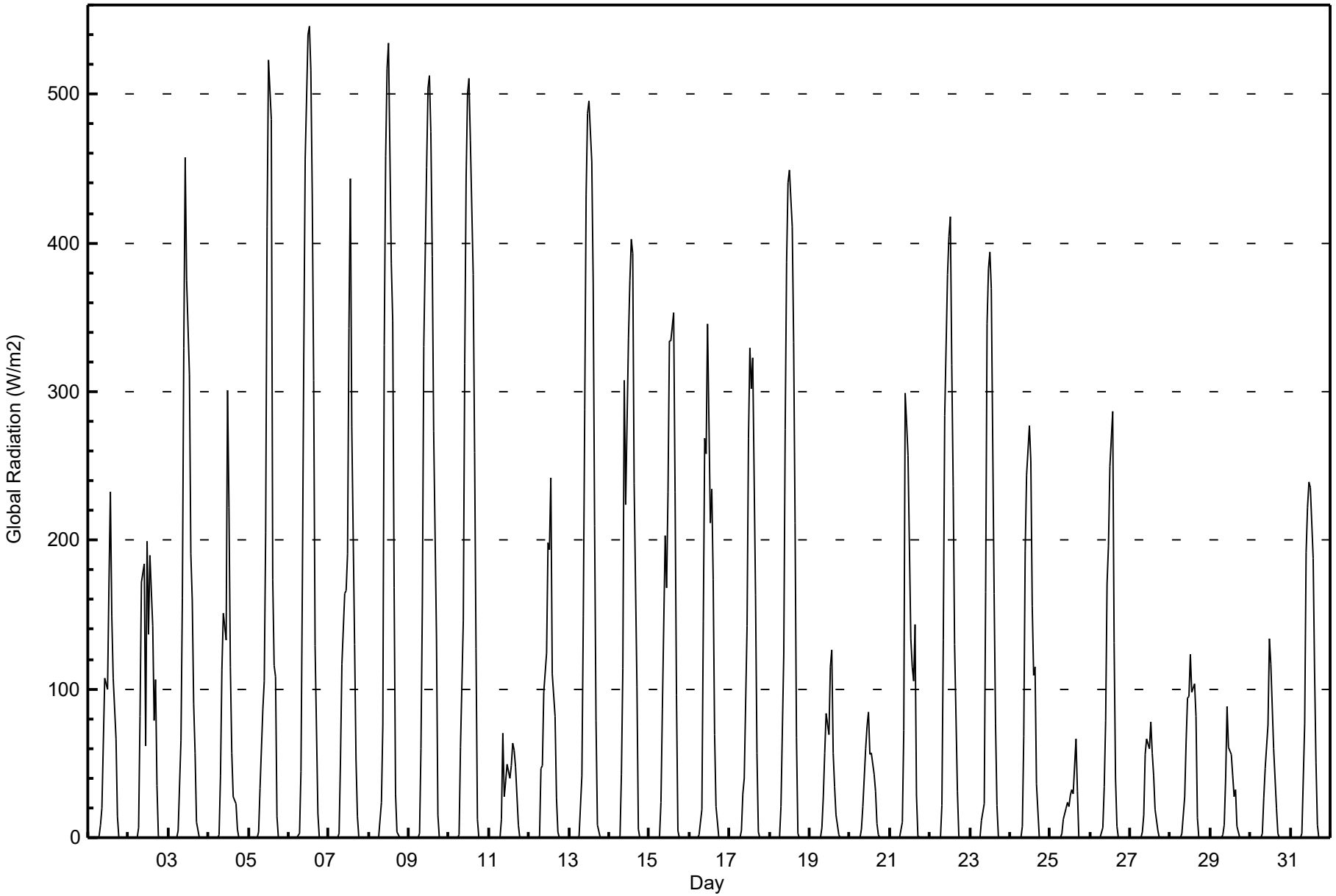
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.8	8.4	20.3	64.0	107.2	100.0	170.6	233.0	149.2	107.1	66.2	14.1	0.2	0.0	0.0	0.0	0.0	0.0	43.4	233.0
2-Oct	0.0	0.0	0.0	0.0	0.0	0.0	7.0	81.7	172.1	184.5	61.8	199.7	136.9	190.1	142.7	79.1	106.0	35.6	0.7	0.0	0.0	0.0	0.0	0.0	58.2	199.7
3-Oct	0.0	0.0	0.0	0.0	0.0	0.0	4.6	65.4	161.5	329.6	457.1	374.9	311.2	190.8	159.3	90.4	57.0	10.2	0.0	0.0	0.0	0.0	0.0	0.0	92.2	457.1
4-Oct	0.0	0.0	0.0	0.0	0.0	0.0	2.4	41.6	113.4	150.9	132.5	300.6	222.3	114.7	57.1	27.5	22.6	5.5	0.0	0.0	0.0	0.0	0.0	0.0	49.6	300.6
5-Oct	0.0	0.0	0.0	0.0	0.0	0.0	3.6	32.8	86.0	104.9	204.7	411.1	523.0	482.8	173.9	115.8	108.7	14.4	0.0	0.0	0.0	0.0	0.0	0.0	94.2	523.0
6-Oct	0.0	0.0	0.0	0.0	0.0	0.0	3.3	45.0	170.6	325.5	456.9	540.4	545.5	516.6	432.1	307.1	129.1	15.8	0.0	0.0	0.0	0.0	0.0	0.0	145.3	545.5
7-Oct	0.0	0.0	0.0	0.0	0.0	0.0	3.0	52.1	116.9	164.4	166.4	190.6	342.6	443.0	276.1	129.8	51.8	14.2	0.0	0.0	0.0	0.0	0.0	0.0	81.3	443.0
8-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.4	23.5	75.6	331.3	458.0	517.2	534.8	386.2	347.6	167.9	29.1	4.0	0.0	0.0	0.0	0.0	0.0	0.0	119.8	534.8
9-Oct	0.0	0.0	0.0	0.0	0.0	0.0	2.4	59.7	158.8	330.2	450.7	504.2	512.6	474.2	391.4	273.1	134.7	14.7	0.0	0.0	0.0	0.0	0.0	0.0	137.8	512.6
10-Oct	0.0	0.0	0.0	0.0	0.0	0.0	2.1	60.6	146.3	318.6	444.5	500.6	510.9	468.8	378.9	259.6	127.0	12.3	0.1	0.1	0.1	0.0	0.0	0.0	134.6	510.9
11-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.3	12.5	69.8	28.0	37.8	49.3	39.4	48.9	63.5	58.5	47.5	8.4	0.0	0.0	0.0	0.0	0.0	0.0	19.3	69.8
12-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.7	46.6	48.6	97.4	124.4	198.3	193.9	242.2	110.1	81.7	26.5	3.9	0.0	0.0	0.0	0.0	0.0	0.0	48.9	242.2
13-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.9	41.3	149.0	287.3	433.1	486.6	495.4	454.6	372.6	209.9	79.1	8.1	0.0	0.1	0.1	0.1	0.0	0.1	125.8	495.4
14-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.8	43.0	114.0	307.2	224.1	335.7	374.9	402.0	393.1	238.1	101.5	5.9	0.0	0.1	0.0	0.0	0.0	0.0	105.9	402.0
15-Oct	0.0	0.0	0.0	0.0	0.0	0.0	1.3	23.9	86.8	203.0	167.8	232.5	333.9	334.5	353.4	232.9	96.1	5.1	0.0	0.1	0.0	0.0	0.0	0.0	86.3	353.4
16-Oct	0.0	0.0	0.0	0.0	0.0	0.0	1.6	18.7	144.9	268.8	257.9	345.8	211.9	234.5	174.1	68.8	20.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	72.8	345.8
17-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	29.8	40.0	142.5	268.6	329.7	302.2	322.8	163.4	57.1	3.5	0.0	0.0	0.0	0.0	0.0	0.0	69.3	329.7
18-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.3	21.2	123.8	274.5	387.4	440.2	448.7	410.8	333.4	211.8	67.2	2.8	0.1	0.0	0.0	0.0	0.0	0.0	113.4	448.7
19-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	27.4	57.2	83.8	69.0	114.7	126.6	57.1	34.3	15.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0	24.7	126.6
20-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	21.3	59.4	75.1	84.1	56.3	56.5	42.4	31.0	9.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0	18.5	84.1
21-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3	72.0	298.9	278.7	256.9	133.5	115.0	105.2	143.2	28.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	60.1	298.9
22-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0	132.6	284.2	378.9	403.9	417.2	317.9	236.5	129.7	31.2	1.1	0.0	0.2	0.2	0.0	0.0	0.0	98.1	417.2
23-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8	23.0	165.5	345.9	382.8	394.0	369.5	164.1	76.6	22.0	0.7	0.1	0.1	0.1	0.0	0.0	0.0	81.5	394.0
24-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	67.9	192.6	243.9	277.4	253.7	155.3	108.9	115.0	35.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	60.8	277.4
25-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	12.7	20.1	23.6	20.7	28.4	32.0	29.3	66.6	31.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	11.2	66.6
26-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	34.0	79.1	170.7	196.8	249.4	286.2	130.9	40.2	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.1	286.2
27-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	15.0	55.5	66.1	59.7	78.1	56.6	41.8	19.1	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.7	78.1
28-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	27.4	64.4	93.5	94.7	123.3	98.1	103.1	81.3	13.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	29.2	123.3
29-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	8.7	40.1	88.0	60.4	56.5	41.4	27.5	32.3	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.2	88.0
30-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	26.6	46.1	76.2	133.8	116.4	88.0	59.6	19.5	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.9	133.8
31-Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	76.5	191.8	222.5	238.9	235.0	187.6	111.2	50.0	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.2	238.9
	0.0	0.0	0.0	0.0	0.0	0.0	1.1	24.9	81.7	173.1	221.3	266.9	274.0	253.6	188.7	118.1	49.9	6.0	0.0	0.0	0.0	0.0	0.0	0.0	Diurnal Average	
	0.0	0.0	0.0	0.0	0.0	0.0	7.0	81.7	172.1	331.3	458.0	540.4	545.5	516.6	432.1	307.1	134.7	35.6	0.7	0.2	0.2	0.1	0.0	0.1	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Global Radiation (GR) - W/m2

Ells River - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Ells River - October 2025

Maximum Speed: 40 km/h on Oct 26 22:00

Maximum Daily Speed Average: 21.4 km/h on Oct 27

Minimum Speed Value: 0 km/h on Oct 1 20:00

Minimum Daily Speed Average: 1.3 km/h on Oct 6

Maximum Diurnal Speed Average: 3.9 km/h at hour 13

Minimum Diurnal Speed Average: 1.5 km/h at hour 1

Monthly Average Velocity: 2.5 km/h 238.7 deg

Percentiles: $P_1 = 1$ $P_{10} = 3$ $Q_1 = 6$ Median = 9 $Q_3 = 14$ $P_{90} = 18$ $P_{99} = 35$

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	N8	N13	NNW17	N18	NNW20	NNW21	N19	N17	N17	N18	N25	NNW20	NNW19	N15	NNW15	N10	ENE4	SE4	SSE4	SW0	NNE0	W2	WSW2	WSW2	N11.0	N25
2-Oct	W1	SW2	SW3	SSW4	S4	S5	SSE6	SSW9	SSE5	SSE8	SE9	SE9	SE9	SE11	S12	S10	S6	S5	SE5	S6	SSE9	S6	S4	W3	SSE5.6	S12
3-Oct	SSW1	SSW3	S2	S5	S6	S7	S7	S7	SSE6	S8	SSW16	SW17	SW18	SW15	SW16	SW16	SW12	WSW10	W6	SW8	WSW10	SW8	SW9	SW10	SW8.7	SW18
4-Oct	SW9	WSW9	SW6	SW7	SW9	WSW5	W7	WSW7	W5	NW5	NW10	NNW11	N10	N15	NNW12	NNW14	NNW22	NW13	NW16	NW11	WNW10	W6	W8	WSW6	WNW7.2	NNW22
5-Oct	WSW6	SW8	SW10	SW10	SW11	SW11	SSW6	SSW6	S6	SSE7	S5	NNE2	SW5	SW8	WSW9	NW14	W11	WNW12	W8	SW6	SW6	NW3	NNW12	N23	WSW5.1	N23
6-Oct	N16	NNW18	NNW24	NNW16	NW8	NW6	NNW8	NNW7	NW6	N8	NNE4	NE1	E1	S6	SSE8	SSE10	SSE11	SE8	SSE7	SSE8	SSE7	SSE9	SSE9	S6	NW1.3	NNW24
7-Oct	SSE6	S7	S6	SSE7	S7	S8	S8	S8	S8	S9	SSE12	SSE11	SSE13	SSE14	SE13	SE7	N2	NNW5	WNW4	WNW7	W3	SW3	W4	NW5	S5.1	SSE14
8-Oct	W8	NW5	W7	WSW7	SW7	WSW7	WNW9	WSW7	SW7	SW9	SW12	WSW14	WSW14	SW13	SW12	SW12	W15	W12	W12	W16	W10	W11	WNW13	WNW13	WSW9.7	W16
9-Oct	W9	WSW7	SW5	SSW7	SSW10	SSW10	SSW12	SSW11	SW11	SSW13	SSW14	SSW16	SW16	SW16	SW16	SW14	SW11	SSW8	S7	SSW8	SSW8	SSE6	S8	S7	SSW9.8	SSW16
10-Oct	S6	SSE7	S9	SSW6	S6	S9	S8	S5	S6	S9	S12	SSE13	SSE14	SSE15	SSE14	S16	S12	S12	SSE9	SSE10	SE10	SE7	W3	S2	S8.7	S16
11-Oct	SSE5	SSW2	W2	SSW2	NNW6	NNE14	N16	N6	NW15	NNW26	NW13	NW16	WNW8	WNW15	W14	WNW14	WNW13	WNW17	WNW16	NW19	NW20	NNW25	NNW25	NNW27	NW12.0	NNW27
12-Oct	NNW28	NNW25	NNW27	NNW26	NNW23	NNW25	N21	NNW16	N16	N19	NNE13	N23	N23	N28	NNW18	NNW13	NNW17	NNW15	NNW14	NW15	NW9	WNW6	WSW6	W7	NNW17.0	NNW28
13-Oct	W8	WSW7	SW8	SW9	SW8	SSW9	SSW9	SSW11	SSW9	SSW11	SW13	SW17	SSW15	SSW20	S18	S20	S15	SSE14	S15	SSE16	S13	SSE14	S13	S14	SSW11.5	SSW20
14-Oct	S14	S14	S13	S11	S8	S8	S10	S10	S15	SSW16	SSW15	SSW17	SSW19	SSW15	SSW15	SW13	SW9	S7	SSE9	SSE10	SSW5	S9	S8	SSE8	S11.0	SSW19
15-Oct	S9	SSE11	SSE10	S9	S10	S9	S10	SSW8	SSW7	S7	SSW7	S7	SSW12	SW14	SW13	SSW13	SSW11	SSW9	S9	S6	SW6	SW7	SW12	SW8	SSW8.7	SW14
16-Oct	SSW4	S8	SSW8	SSW10	SW8	SW6	SSW9	SSW10	SSW7	S7	SSE10	SE13	SE13	SE11	SE10	SE6	SSE5	S9	SSE12	S11	S15	SSW9	S11	S12	S8.3	S15
17-Oct	S8	SSW8	SSW10	SW12	SW8	WSW8	WSW7	SW9	SW11	SW8	SSW6	W9	W17	W16	WNW17	WNW15	WNW14	WNW13	WNW11	W6	W7	W8	WNW6	WSW8	WSW8.4	WNW17
18-Oct	SSW6	SW9	SW12	SW13	SSW13	SSW13	S8	SSW10	SW9	SSW7	S6	SE9	SSW11	W9	WSW11	WSW9	SSW7	WSW3	S1	NW1	WSW4	NW4	SSW3	W2	SW6.4	SW13
19-Oct	SSE2	WSW2	SE1	W2	W2	NW1	NNW2	NNW5	NNW7	NNW8	NNW8	N10	N13	N16	N18	N16	N18	N16	N16	N15	N18	N18	N15	N14	N9.4	N18
20-Oct	N14	NNE14	N12	N15	N10	N9	N10	N5	N5	NNE7	NE2	ESE4	S5	SSE8	SE8	SSE6	SSW8	S7	S9	S9	SSE9	SSE9	SSE10	SSE9	E1.7	N15
21-Oct	SSE10	SSE11	SSE11	S10	S7	SSW4	S7	SW7	SW6	SSW7	W8	WNW16	WSW8	WNW9	NW11	NW16	WNW15	NE7	ENE7	E3	SSW1	S5	S2	S2	SW3.1	NW16
22-Oct	SSE2	SE2	SW2	SSE1	W1	SE2	UO	WSW2	SSE3	SSE9	S10	SSW7	SE7	SE6	SE8	NNW3	N5	NNE3	SE6	SE13	SE13	SE12	SE16	SSE19	SSE5.3	SSE19
23-Oct	SSE23	SSE21	SSE14	SSE11	SSE9	SSE9	SSE13	S11	SSE11	SSE12	SSE15	S15	SSE14	SSE14	SE18	SE15	SSE14	SSE15	SSE16	SSE16	SSE20	SSE16	SSE12	SSE13	SSE14.4	SSE23
24-Oct	S11	SSW8	SSW8	SSW5	S9	S12	S12	S13	S10	S12	S14	S13	SSE13	S8	SSW3	WNW2	NNE2	N2	NW1	NW2	WNW1	WNW3	WSW2	NW2	S5.7	S14
25-Oct	W1	W3	WSW2	W7	NW5	SSE8	SSE1	WSW5	WSW1	S2	SW6	SSW8	WSW9	SW6	SSW11	SW14	SW9	SSW9	SSW10	SSW9	SSW8	S8	SSW10	SSW6	SW5.5	SW14
26-Oct	SSE7	S6	S7	WNW1	WNW2	UO	UO	UO	UO	UO	N16	N11	N16	N22	N29	N27	N27	N28	N32	N36	N38	N40	N37	N38	N19.9	N40
27-Oct	N39	N37	N35	N31	N34	N33	N33	NNW33	NNW34	NNW33	NNW32	NNW23	NNW23	NNW23	NNW23	NNW23	NW14	WNW10	WNW12	W9	W6	W6	WSW5	W6	NNW21.4	N39
28-Oct	WNW7	WNW6	W8	WNW11	W8	W8	WNW10	WNW7	WNW8	W8	W11	W11	W13	WSW7	WSW8	SW8	SW6	SW6	WSW5	SSW3	SE6	SSW2	SSE4	S6	W6.2	W13
29-Oct	S4	SE3	SE4	SE6	E6	ESE8	ENE6	NE6	NE6	N11	N16	N14	N8	N14	NNE14	NNE16	NNE17	NNE15	N11	NNW9	NW6	NW3	SW3	N4	NNE6.3	NNE17
30-Oct	NNE4	N4	NNE4	ENE2	S3	S3	S4	SSW5	SW7	SW9	WSW10	SW7	SSW7	SSW9	SSW8	SSW8	SSW9	SSW8	S7	SSW8	SSW8	SSW8	SSW9	SSW10	SSW5.4	SSW10
31-Oct	SSW10	SSW12	SSW11	SSW9	SSW9	SSW9	S6	S12	SSE13	S14	SSE16	SSE17	SSE18	SSE18	SSE21	SSE19	SSE24	SSE27	SSE22	SSE21	SSE19	SSE16	SSE16	SSE13	SSE14.7	SSE27
	WSW1.5	WSW1.7	WSW2.5	WSW3.1	WSW2.8	WSW2.3	WSW2.0	SW3.2	WSW2.6	WSW2.3	SW2.6	WSW2.9	SW3.9	WSW3.1	SW3.3	WSW3.4	W3.3	WSW2.1	SW1.9	SW2.6	SSW2.4	SW2.1	SW2.6	WSW2.1	Diurnal Average	
	N39	N37	N35	N31	N34	N33	N33	NNW33	NNW34	NNW33	NNW32	N23	NNW23	N28	N29	N27	N27	N28	N32	N36	N38	N40	N37	N38	Diurnal Maximum	

UO - Unstable Operation

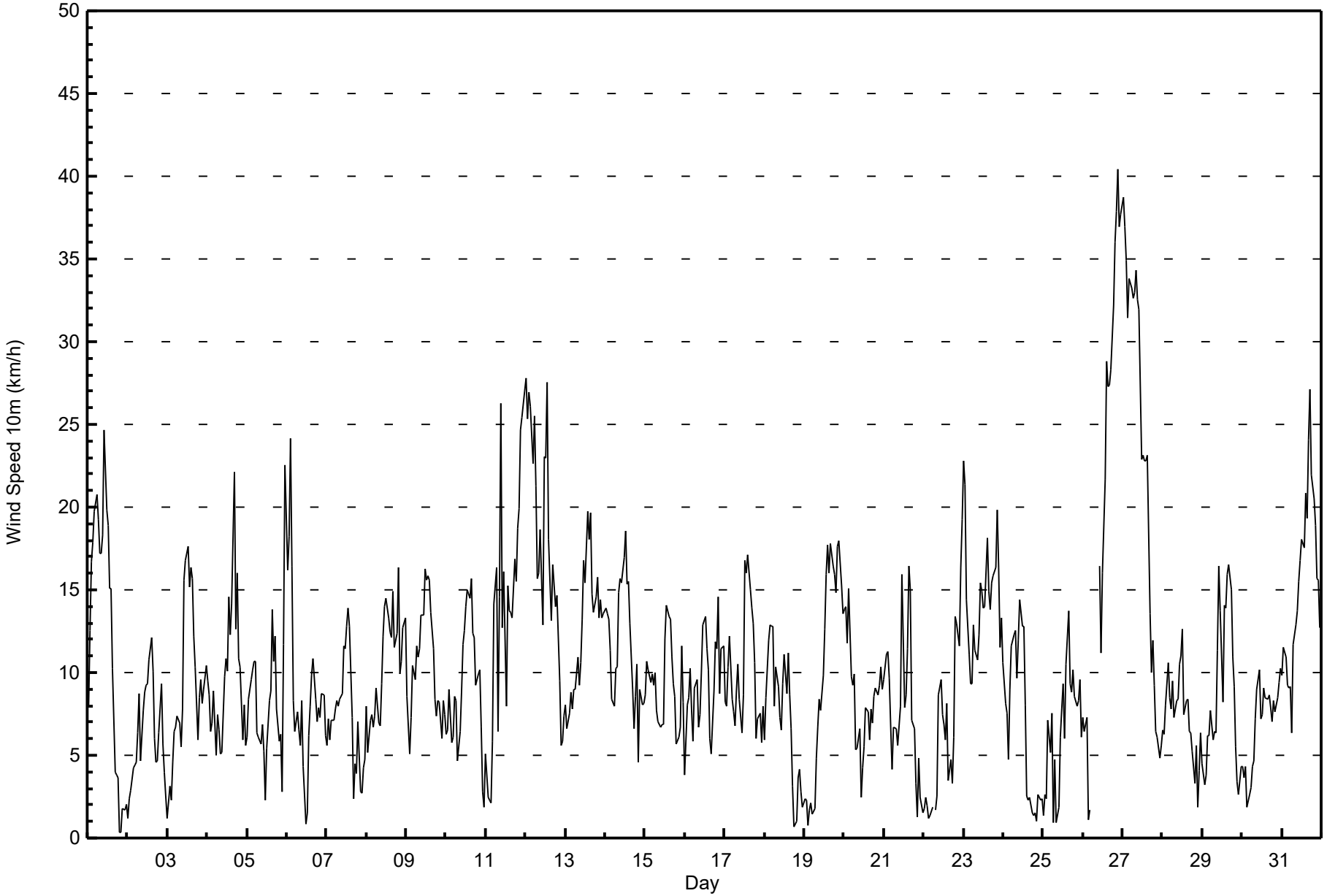
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Ells River - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Wind Speed 10m (WS10) - km/h

Ells River - October 2025

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	129	17.48	17.48
6 - 11	350	47.43	64.91
12 - 19	200	27.10	92.01
20 - 28	41	5.56	97.56
29 - 38	16	2.17	99.73
> 38	2	0.27	100.00

Total Number of Valid Hours: 738

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Ells River - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	7	7	2	2	2	1	7	10	18	16	8	13	14	6	12	4	129
6 - 11	13	1	3	2	1	2	17	44	72	64	46	24	30	15	8	8	350
12 - 19	32	7	0	0	0	0	9	37	25	18	23	2	8	15	10	14	200
20 - 28	10	0	0	0	0	0	0	8	1	1	0	0	0	0	1	20	41
29 - 38	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	16
> 38	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Totals	76	15	5	4	3	3	33	99	116	99	77	39	52	36	31	50	738

Total Number of Valid Hours: 738

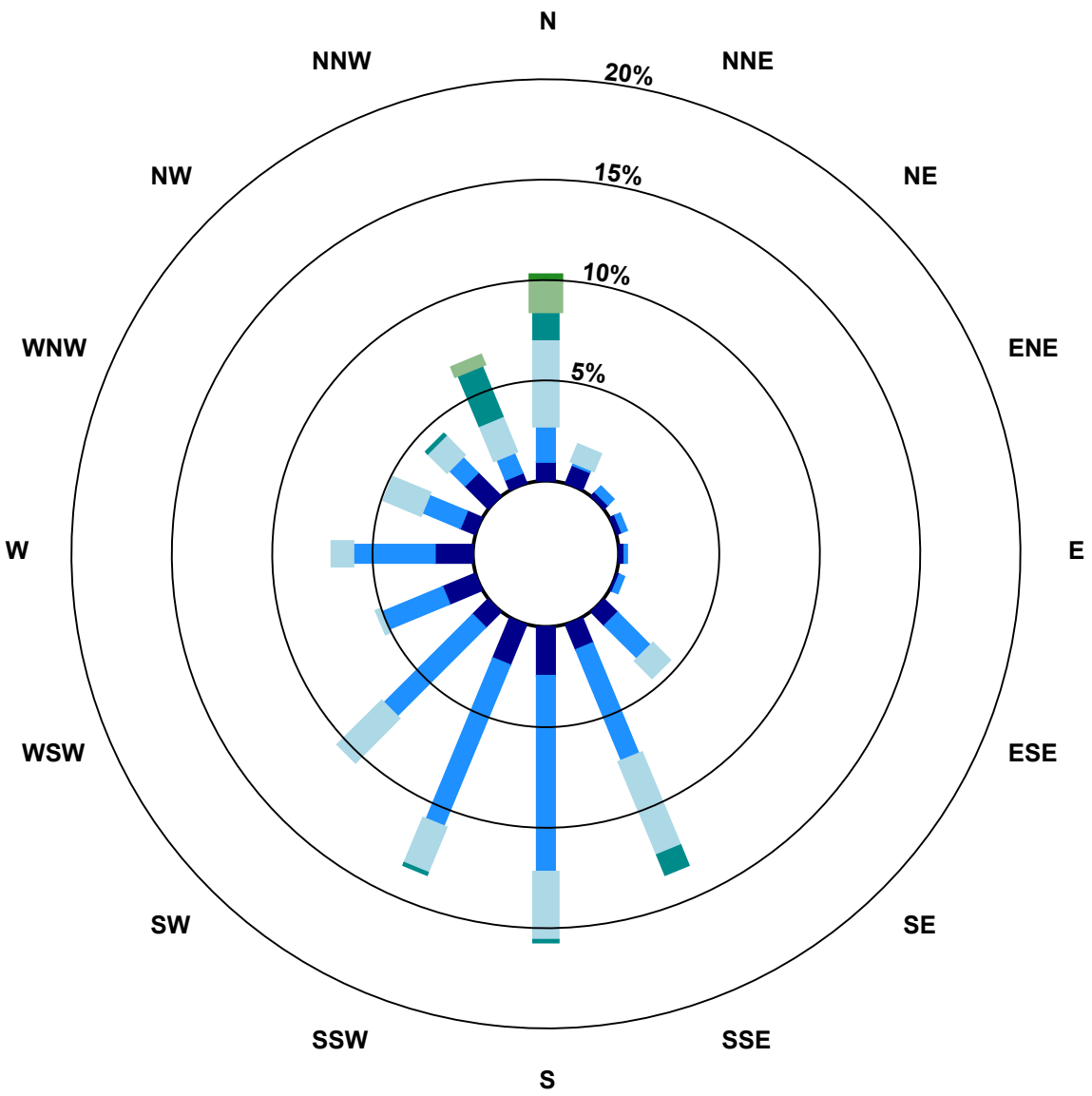
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Ells River



Classes (km/h)

0 - 5

6 - 11

12 - 19

20 - 28

29 - 38

> 38

Total Number of Valid Hours: 738

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Ells River - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 10 km/h on Oct 5 23:00

Minimum Value: 1 km/h on Oct 6 19:00

Percentiles: P_1 = 1 P_{10} = 1 Q_1 = 2 Median = 2 Q_3 = 3 P_{90} = 5 P_{99} = 6

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Hours of Calibration:	0
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	2	2	3	3	3	3	3	3	5	4	3	3	3	3	1	1	1	1	1	2	2	2	5
2-Oct	1	1	1	2	1	1	1	3	1	2	1	2	2	2	3	3	2	1	1	1	1	2	1	1	3
3-Oct	1	2	2	2	1	2	1	1	1	3	4	5	6	5	6	5	4	6	3	3	4	3	3	3	6
4-Oct	3	2	2	2	3	2	2	3	1	3	3	3	5	5	5	5	6	5	4	3	2	2	2	2	6
5-Oct	1	3	2	2	3	3	2	2	1	1	2	1	3	4	4	6	3	2	2	2	2	3	10	4	10
6-Oct	4	6	4	4	2	1	1	3	2	3	3	2	3	4	3	3	2	1	1	1	1	1	1	1	6
7-Oct	1	1	1	2	1	1	2	1	2	2	2	3	3	3	3	2	1	1	2	2	2	2	3	3	3
8-Oct	2	2	2	3	2	2	3	2	2	2	4	4	4	5	5	4	5	3	4	5	4	4	4	3	5
9-Oct	3	4	1	2	2	2	3	3	3	3	4	4	5	5	5	4	4	2	1	1	2	1	1	1	5
10-Oct	1	2	2	2	1	1	1	2	2	2	2	3	3	3	3	4	3	2	1	1	1	3	2	2	4
11-Oct	1	2	2	3	3	3	5	4	7	7	4	4	3	4	3	4	3	4	4	4	4	5	6	5	7
12-Oct	6	5	5	6	5	6	4	6	3	5	3	6	4	6	5	5	3	3	3	3	2	1	2	2	6
13-Oct	2	2	1	2	2	2	2	3	2	3	5	5	4	5	4	4	3	3	3	3	2	2	2	2	5
14-Oct	2	2	3	2	2	2	2	2	4	5	4	5	5	4	4	3	3	1	1	1	2	1	1	1	5
15-Oct	1	1	1	1	1	1	1	1	2	4	2	2	4	4	3	3	3	1	1	2	2	4	2	3	4
16-Oct	2	2	2	2	2	2	3	2	2	2	2	3	2	2	2	2	1	2	2	2	4	3	3	3	4
17-Oct	4	2	3	3	2	2	2	2	3	3	2	4	5	4	4	5	4	2	3	2	2	2	2	2	5
18-Oct	2	3	3	2	1	2	2	2	3	2	2	2	3	5	3	3	2	1	1	2	2	2	2	2	5
19-Oct	3	2	1	2	1	1	1	2	2	2	1	1	2	2	3	2	4	3	3	2	2	3	2	2	4
20-Oct	2	2	3	2	3	2	2	1	2	1	2	1	1	2	1	1	2	1	2	2	1	2	2	2	3
21-Oct	1	1	2	2	2	1	2	2	1	2	4	5	3	2	6	3	3	2	2	1	1	1	1	2	6
22-Oct	1	2	2	2	1	1	UO	1	3	2	2	3	2	2	2	3	1	1	4	2	2	2	7	3	7
23-Oct	4	4	4	2	2	2	3	3	2	3	3	3	3	3	3	3	2	2	2	3	3	3	2	2	4
24-Oct	3	2	2	1	1	1	2	2	2	2	3	3	2	3	1	1	1	2	1	1	1	2	1	1	3
25-Oct	1	2	2	1	3	5	1	2	2	2	2	2	3	2	4	4	3	2	2	2	2	3	2	2	5
26-Oct	2	2	4	1	2	UO	UO	UO	UO	UO	5	4	2	3	4	4	4	5	6	6	6	6	6	6	6
27-Oct	7	6	5	6	6	5	6	6	5	6	6	5	4	5	5	6	4	2	3	2	2	2	1	2	7
28-Oct	2	2	3	2	2	2	2	2	3	2	3	3	4	3	3	2	2	2	2	2	2	1	2	1	4
29-Oct	2	1	1	1	1	2	2	1	2	2	2	3	4	4	2	3	3	2	2	1	1	1	2	2	4
30-Oct	2	1	1	1	2	1	1	1	2	3	3	2	2	2	2	2	2	1	1	2	2	2	2	3	3
31-Oct	3	3	3	3	2	2	2	3	2	3	3	4	4	4	4	4	5	5	5	5	4	3	3	3	5
	7	6	5	6	6	6	6	6	7	7	6	6	6	6	6	6	6	6	6	6	6	6	10	6	
	Diurnal Maximum																								

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Ells River - October 2025

Direction of Maximum Speed: 2 deg on Oct 26 22:00
Direction of Maximum Daily Speed Average: 341.8 deg on Oct 27

Direction of Minimum Speed: 216 deg on Oct 1 20:00

Direction of Minimum Daily Speed Average: 1.3 deg on Oct 6

Monthly Average Direction: 238.7 deg

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	356	350	346	352	348	348	351	349	354	354	352	345	344	353	347	11	64	143	157	216	31	273	247	249	350.8
2-Oct	265	220	217	212	175	178	165	193	162	159	135	134	138	142	170	171	191	185	146	171	168	190	180	261	168.4
3-Oct	210	197	172	184	190	185	189	187	164	189	207	219	220	224	221	225	216	254	260	223	241	229	234	229	216.6
4-Oct	236	243	234	216	226	257	266	242	260	321	323	334	351	5	330	337	329	318	319	308	300	273	278	241	301.7
5-Oct	248	219	231	232	218	228	205	197	182	163	183	30	216	225	241	308	279	283	281	225	231	305	343	357	252.7
6-Oct	349	334	330	329	318	313	333	328	315	349	12	46	93	170	165	166	148	141	149	150	150	159	165	176	325.6
7-Oct	164	169	174	163	183	177	178	181	171	179	163	165	157	150	142	124	2	345	284	286	276	223	281	318	172.4
8-Oct	271	305	269	250	222	246	284	248	228	221	234	246	245	229	219	231	269	280	270	278	266	270	288	290	256.9
9-Oct	275	258	215	206	200	195	201	213	215	193	201	208	218	228	226	233	217	202	191	192	194	167	175	180	209.6
10-Oct	181	167	178	206	176	173	183	191	178	180	169	167	151	147	154	173	182	181	164	160	144	146	262	175	168.9
11-Oct	157	201	266	212	341	12	7	356	322	340	323	318	291	284	281	288	289	294	287	304	322	331	331	330	317.9
12-Oct	332	333	334	342	344	342	350	340	350	350	22	359	9	0	345	348	334	328	327	321	324	292	257	275	341.7
13-Oct	265	254	224	225	225	212	205	203	208	204	222	217	211	192	191	179	172	168	176	168	171	166	172	169	194.2
14-Oct	172	174	170	175	179	172	180	186	187	198	209	204	203	208	209	216	223	175	154	157	192	173	182	162	188.5
15-Oct	175	161	164	181	179	171	185	196	194	189	208	183	213	220	214	204	206	204	188	183	230	226	222	233	197.7
16-Oct	213	184	208	212	233	233	208	199	202	173	153	137	145	143	143	140	165	181	166	180	178	204	190	184	178.9
17-Oct	191	201	211	216	233	244	245	228	228	229	210	269	273	280	288	294	303	301	284	262	265	260	291	258	258.6
18-Oct	197	216	226	217	202	208	183	211	218	208	171	130	213	275	248	237	211	245	181	304	238	307	201	267	215.7
19-Oct	168	257	145	261	273	322	327	329	348	347	342	353	355	356	5	0	3	6	10	6	0	7	1	3	358.4
20-Oct	11	14	10	357	5	0	1	354	2	27	41	122	176	163	146	159	195	172	175	171	157	152	157	162	78.8
21-Oct	155	157	164	173	176	210	185	223	221	213	259	288	244	283	319	306	302	37	71	96	212	176	173	179	232.9
22-Oct	155	126	222	159	259	142	UO	255	152	151	178	198	144	129	143	327	3	25	141	142	141	144	145	147	148.5
23-Oct	147	151	155	165	167	155	160	169	159	167	167	171	160	159	143	142	152	147	153	154	152	158	164	161	156.3
24-Oct	172	195	194	198	191	187	180	172	184	170	176	170	161	177	199	295	20	358	317	305	290	282	258	306	183.5
25-Oct	267	276	240	274	313	150	147	250	255	186	219	209	246	235	212	230	232	203	196	193	198	181	195	198	216.0
26-Oct	162	175	179	296	297	UO	UO	UO	UO	UO	1	355	354	6	7	5	3	3	5	0	5	2	358	355	1.9
27-Oct	2	3	358	351	353	349	350	348	348	348	347	346	332	332	331	328	308	288	297	280	262	268	258	279	341.8
28-Oct	285	292	276	284	281	280	289	282	283	277	280	274	276	254	252	225	236	227	254	207	136	204	164	188	263.5
29-Oct	188	131	132	130	92	103	74	36	36	356	5	10	352	355	16	23	17	12	352	330	315	320	218	356	15.5
30-Oct	12	10	30	76	173	185	181	212	219	229	239	235	197	194	193	199	195	192	191	192	204	197	193	193	202.3
31-Oct	197	196	200	193	204	211	185	172	163	169	158	154	157	154	148	154	154	147	152	158	158	165	157	160	163.7
	243.1	239.3	248.4	250.8	247.6	245.8	246.3	236.0	240.4	237.7	233.0	237.4	227.6	237.2	231.9	253.7	263.5	251.1	230.8	218.7	210.8	220.0	226.8	246.6	
	Diurnal Average																								

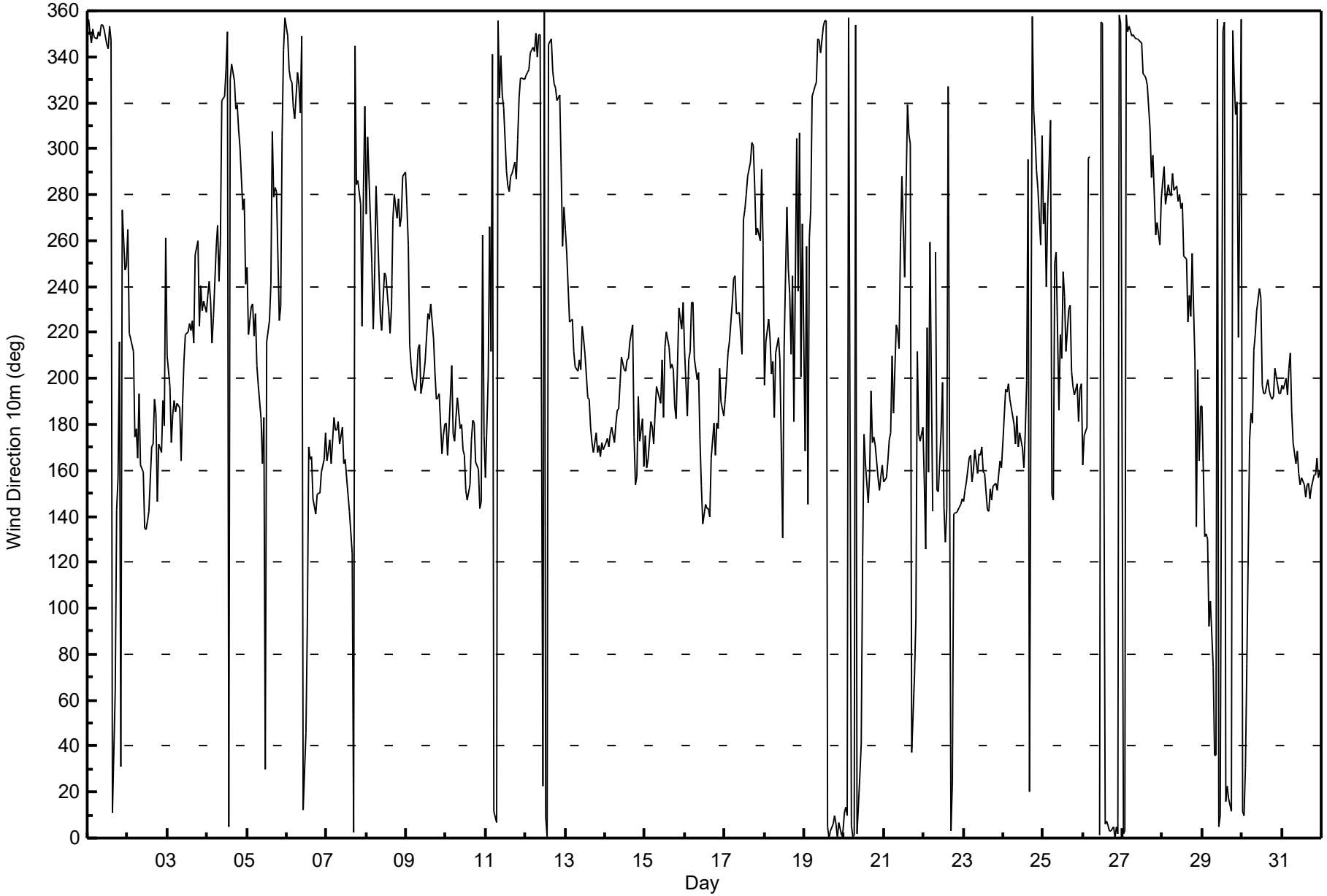
UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Ells River - October 2025



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Ells River - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 96 deg on Oct 6 12:00

Minimum Value: 4 deg on Oct 15 03:00

Percentiles: P_1 = 7 P_{10} = 10 Q_1 = 12 Median = 16 Q_3 = 23 P_{90} = 45 P_{99} = 86

Hours in Service:	744
Hours of Data:	738
Hours of Missing Data:	6
Hours of Calibration:	0
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	14	10	8	11	9	11	12	11	13	12	12	12	11	14	12	14	31	24	32	91	92	70	46	59	92
2-Oct	70	42	65	31	18	29	21	17	27	22	10	10	17	14	18	14	22	23	11	12	6	21	15	17	70
3-Oct	52	43	57	12	14	18	14	21	16	23	20	21	24	24	22	22	20	41	32	21	25	22	22	20	57
4-Oct	20	21	25	22	19	38	16	33	28	47	21	22	19	19	25	18	11	14	11	14	11	28	20	28	47
5-Oct	24	19	17	16	17	17	37	23	19	14	29	78	59	36	37	13	17	16	24	23	26	66	41	13	78
6-Oct	16	10	11	13	16	15	15	23	27	25	70	96	84	69	40	27	12	7	8	7	10	9	11	12	96
7-Oct	11	11	12	12	11	10	7	9	12	14	12	13	17	16	13	15	65	31	61	10	46	42	49	53	65
8-Oct	15	32	22	28	22	22	16	22	20	20	24	24	24	26	28	25	24	18	20	19	23	23	16	14	32
9-Oct	21	46	21	16	12	15	14	19	18	16	19	18	20	23	24	23	20	13	8	8	13	21	11	15	46
10-Oct	14	14	25	16	14	7	10	16	15	17	15	17	16	19	15	16	12	10	8	7	8	21	48	76	76
11-Oct	16	58	71	78	38	13	15	38	16	10	11	11	23	14	16	15	13	13	14	14	11	12	12	11	78
12-Oct	12	11	11	12	12	14	13	11	15	18	18	17	13	14	23	22	11	11	10	11	11	18	15	17	23
13-Oct	13	15	13	17	17	16	15	14	20	19	22	23	22	20	20	14	14	10	14	11	10	9	10	10	23
14-Oct	10	10	10	10	15	15	13	14	14	17	18	18	18	21	23	19	21	18	19	6	27	12	11	15	27
15-Oct	6	5	4	11	9	6	9	13	31	36	44	29	25	19	18	15	16	12	11	23	33	14	13	28	44
16-Oct	47	24	21	12	17	15	14	11	20	27	17	10	11	8	12	16	11	12	10	16	14	23	13	11	47
17-Oct	36	16	16	19	20	21	18	16	18	27	26	43	19	20	17	16	13	12	15	21	22	19	26	15	43
18-Oct	31	15	11	11	8	7	28	29	27	20	28	17	23	67	28	28	20	47	87	66	52	41	64	49	87
19-Oct	67	49	85	64	65	45	73	18	16	13	17	10	12	13	12	11	12	11	9	11	11	10	11	10	85
20-Oct	8	9	11	12	15	17	13	35	21	14	67	18	22	15	9	22	15	9	10	11	10	8	16	20	67
21-Oct	10	9	13	12	14	27	19	23	19	27	42	21	29	27	26	13	13	48	18	27	81	21	60	83	83
22-Oct	72	56	57	92	45	25	UO	61	61	15	20	44	25	23	19	77	34	56	42	7	7	8	9	9	92
23-Oct	10	10	11	12	13	10	12	12	12	16	12	19	15	14	9	7	8	8	9	9	8	10	10	11	19
24-Oct	21	12	16	19	8	7	7	9	12	12	12	15	15	25	45	34	26	60	74	59	82	47	42	28	82
25-Oct	77	42	58	14	60	74	88	23	90	64	27	19	23	27	18	21	24	20	14	15	16	19	12	28	90
26-Oct	13	10	14	68	43	UO	UO	UO	UO	UO	11	43	13	11	10	12	12	13	17	15	14	15	15	14	68
27-Oct	13	14	15	13	12	13	13	12	12	12	12	13	12	11	12	12	17	13	13	15	18	18	21	22	22
28-Oct	21	22	19	14	17	17	13	17	16	18	17	19	21	25	26	22	22	20	28	52	10	62	19	14	62
29-Oct	27	22	15	17	17	13	31	12	14	12	11	10	34	16	13	9	13	9	16	12	13	15	55	68	68
30-Oct	26	38	32	90	68	27	27	21	19	22	23	27	17	18	15	14	13	13	15	17	17	13	15	15	90
31-Oct	14	19	15	17	17	20	18	14	11	15	14	12	11	11	9	10	11	9	12	12	12	12	10	10	20
	77	58	85	92	68	74	88	61	90	64	70	96	84	69	45	77	65	60	87	91	92	70	64	83	
	Diurnal Maximum																								

UO - Unstable Operation

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS31
BLACKROD
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BLACKROD (AMS31)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	704	33	40	99.06	3.1	0	0.7	0
H2S (ppb) Average	701	35	43	98.92	1.1	0	0.3	0
NO2 (ppb) Average	671	34	73	94.76	29.5	0	10.4	-
NO (ppb) Average	671	34	73	94.76	91.8	-	15	-
NOX (ppb) Average	671	34	73	94.76	115.8	-	21.8	-
Temperature 2 m (C) Average	744	0	0	100	20.1	-	12.2	-
Relative Humidity (%) Average	744	0	0	100	99.6	-	99.1	-
Wind Speed 10 m (km/h) Average	710	0	34	95.43	38	-	23	-
Wind Direction 10 m (deg) Average	710	0	34	95.43	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BLACKROD (AMS31)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	704	0.18	0.3	-	0	0	0	0.1	0.2	0.4	3.1
H2S (ppb) Average	701	0.13	0.1	-	0	0	0.1	0.1	0.2	0.2	1.1
NO2 (ppb) Average	671	4.18	4.3	-	0.3	1	1.4	2.6	5.1	9.4	29.5
NO (ppb) Average	671	5.45	8.8	-	0	0	0.2	1.4	9	14.9	91.8
NOX (ppb) Average	671	9.63	12.5	-	0.3	1.2	1.9	4.4	13.5	24.1	115.8
Temperature 2 m (C) Average	744	4.8	4.9	-	-4.1	-0.9	0.2	4.8	8.3	11	20.1
Relative Humidity (%) Average	744	72.07	19.5	-	32.3	44.6	55.4	73.8	90.2	96.5	99.6
Wind Speed 10 m (km/h) Average	710	12.7	7	-	0	4	8	12	17	22	38
Wind Direction 10 m (deg) Average	710	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BLACKROD (AMS31)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
NO2, SO2	05 Oct 2025 01:00	05 Oct 2025 05:00	5	Station power failure
H2S	05 Oct 2025 01:00	05 Oct 2025 05:00	6	Station power failure
AIR QUALITY ANALYZERS	14 Oct 2025 10:00	14 Oct 2025 10:00	1	Station power failure
AIR QUALITY ANALYZERS	30 Oct 2025 02:00	30 Oct 2025 02:00	1	Station power failure
NO2	20 Oct 2025 04:00	21 Oct 2025 11:00	32	Unstable Operation - span outside AMD criteria
Wind Speed, Wind Direction	27 Oct 2025 03:00	28 Oct 2025 12:00	34	Flat line in sensor output signal - Sensor frozen

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Blackrod - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 3.1 ppb on Oct 18 01:00

Maximum Daily Average: 0.7 ppb on Oct 17

Minimum Value: 0.0 ppb on Oct 1 14:00

Minimum Daily Average: 0.0 ppb on Oct 21

Maximum Diurnal Average: 0.3 ppb at hour 9

Minimum Diurnal Average: 0.1 ppb at hour 21

Monthly Average: 0.18 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.2 P_{90} = 0.4 P_{99} = 1.6

Hours in Service:	744
Hours of Data:	704
Hours of Missing Data:	40
Hours of Calibration:	33
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.0	1.3	1.0	Z	0.7	0.3	0.2	0.4	0.7	0.6	1.3	1.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.7	0.2	0.4	1.5
2-Oct	0.1	0.0	0.1	0.0	Z	0.0	0.2	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
3-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
4-Oct	Z	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.2	0.3	0.1	0.0	0.0	0.3
5-Oct	PF	PF	PF	PF	PF	0.4	0.3	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.4
6-Oct	0.0	0.1	Z	0.0	0.4	0.1	0.1	0.3	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
7-Oct	0.0	0.1	0.1	Z	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.4	0.4	0.1	0.1	0.0	0.1	0.0	0.2	0.4
8-Oct	0.0	0.0	0.1	0.0	Z	0.1	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
9-Oct	0.0	0.0	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1
10-Oct	Z	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	1.4	1.9	1.2	1.5	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.4	1.9
11-Oct	0.0	Z	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.2
12-Oct	0.1	0.1	Z	0.2	0.2	0.3	0.2	0.2	0.2	0.5	0.4	0.4	0.4	0.3	0.1	0.2	0.1	0.3	0.1	0.1	0.3	0.4	0.4	0.2	0.3	0.5
13-Oct	0.2	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.5	0.9	0.1	1.5
14-Oct	0.5	0.6	0.8	1.4	Z	1.6	1.6	1.5	1.3	PF	0.7	0.5	0.4	0.4	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.2	0.4	0.6	1.6
15-Oct	0.7	0.6	0.3	0.2	0.1	Z	0.1	0.1	0.2	0.4	0.4	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7
16-Oct	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.3	0.2	0.1	0.0	0.7	1.9	1.3	0.6	0.5	0.5	0.1	0.3	0.2	0.3	1.9
17-Oct	0.2	Z	0.3	0.2	0.1	0.3	0.3	0.8	1.6	0.9	1.0	0.9	1.1	0.6	1.7	1.5	1.0	0.2	0.2	0.0	0.0	0.0	0.0	2.4	0.7	2.4
18-Oct	3.1	0.0	Z	1.0	0.7	0.7	0.7	0.0	0.0	0.6	0.1	0.1	0.2	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.3	3.1
19-Oct	0.1	0.0	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.3	0.3	0.3	0.4	0.3	0.3	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.4
20-Oct	0.1	0.1	0.1	0.2	Z	0.2	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
21-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
22-Oct	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.1	0.3
23-Oct	0.3	Z	0.1	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.3	0.2	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.4	0.2	0.1	0.2	0.4
24-Oct	0.1	0.1	Z	0.1	0.2	0.2	0.3	0.4	0.2	0.3	0.2	0.3	0.4	0.4	0.2	0.2	0.3	0.2	0.4	0.5	0.4	0.5	0.5	0.4	0.3	0.5
25-Oct	0.2	0.2	0.1	Z	0.2	0.5	0.3	0.1	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5
26-Oct	0.1	0.1	0.1	0.0	Z	0.1	0.1	0.1	0.3	0.5	0.4	0.3	0.2	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.5	0.1	0.2	0.2	0.5
27-Oct	0.0	0.2	0.1	0.2	0.1	Z	0.2	0.1	0.3	0.2	0.1	0.0	0.2	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
28-Oct	Z	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.5	0.2	0.2	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.5
29-Oct	0.1	Z	0.2	0.0	0.0	0.0	0.1	0.0	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2
30-Oct	0.0	PF	Z	0.1	0.0	0.1	0.2	0.0	0.0	0.0	0.0	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
31-Oct	0.0	0.0	0.0	Z	0.1	0.4	0.5	0.6	2.4	1.5	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.2	0.1	0.0	0.3	2.4
	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	Diurnal Average	
	3.1	1.3	1.0	1.4	0.7	1.6	1.6	1.5	2.4	1.5	1.3	1.5	1.9	1.2	1.7	1.5	1.9	1.3	0.6	0.5	0.5	0.5	1.5	2.4	Diurnal Maximum	

Z - zerospan C - Calibration PF - Power Failure

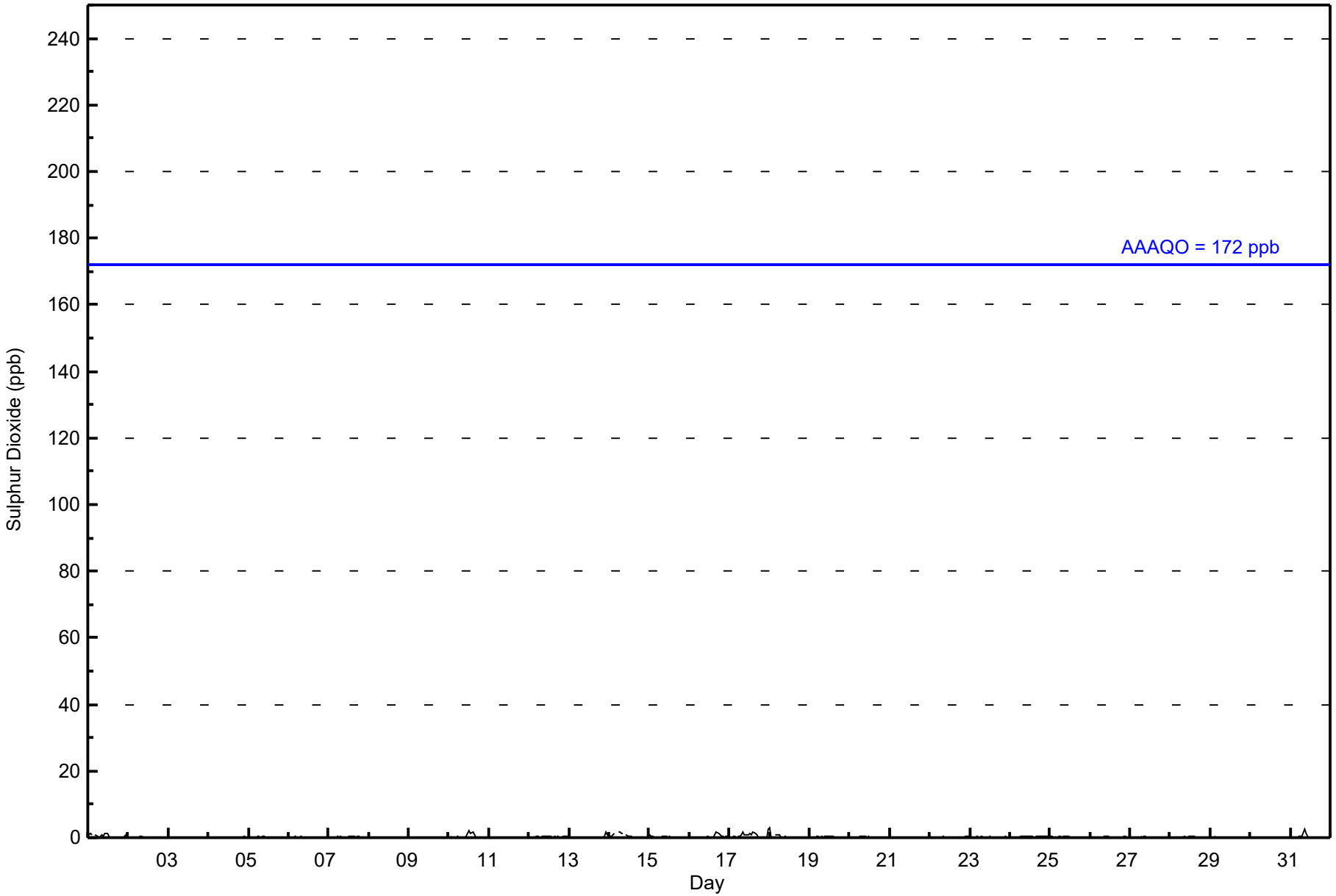
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Blackrod - October 2025



Sulphur Dioxide (SO_2) - ppb
Blackrod - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	704	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Blackrod - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	22	21	8	7	11	10	26	131	196	32	21	20	29	44	41	53	672
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	22	21	8	7	11	10	26	131	196	32	21	20	29	44	41	53	672

Total Number of Valid Hours: 672

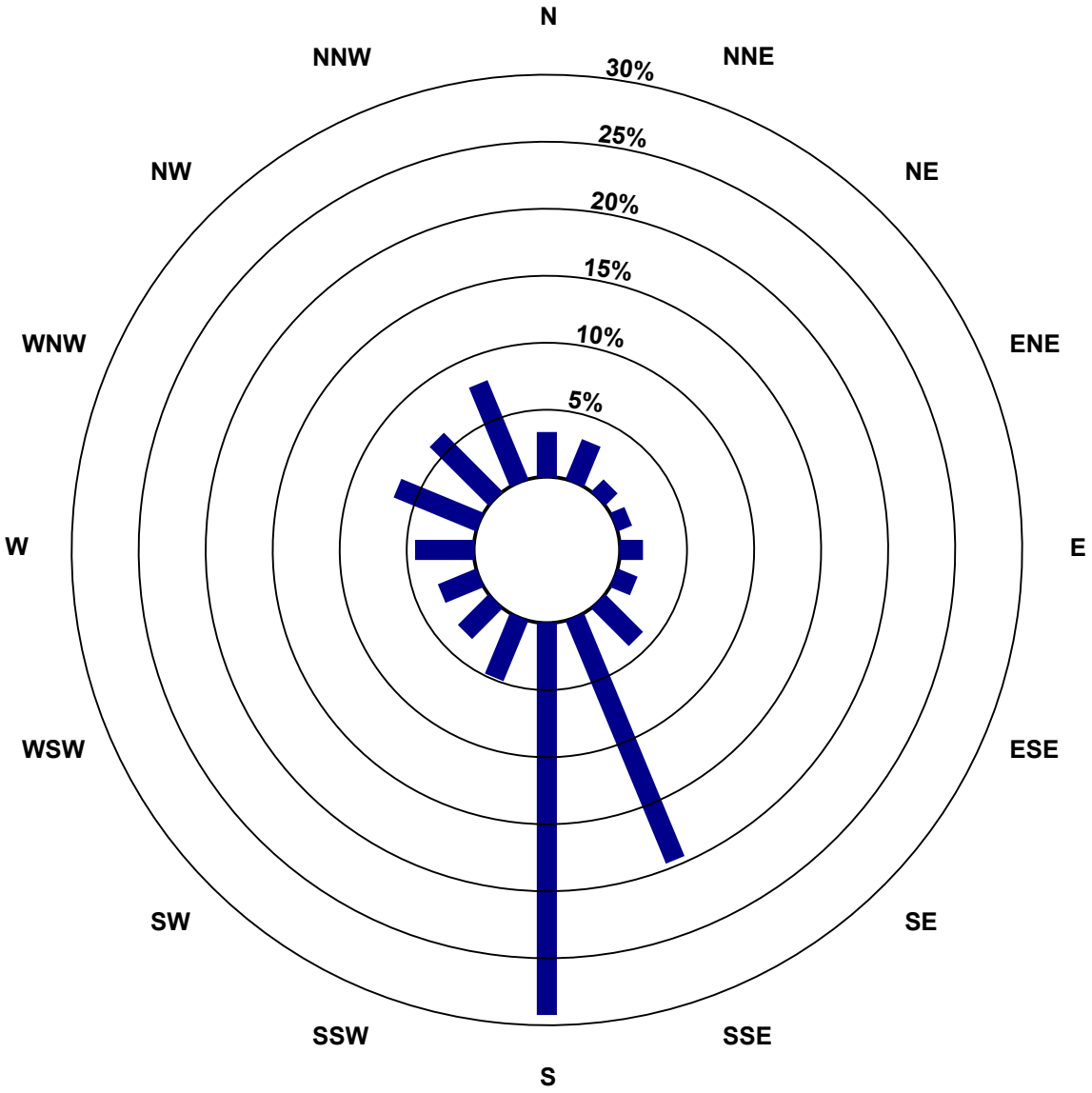
Total Number of Hours: 744

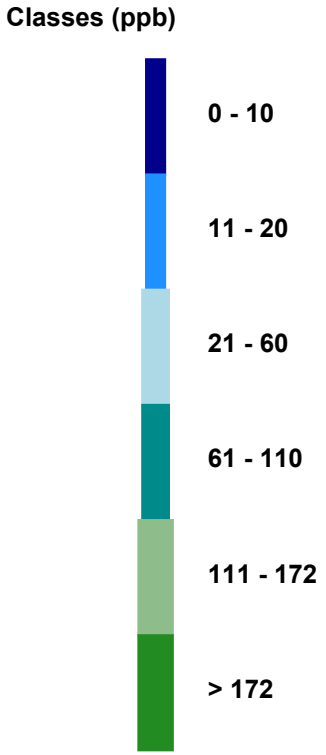
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Blackrod





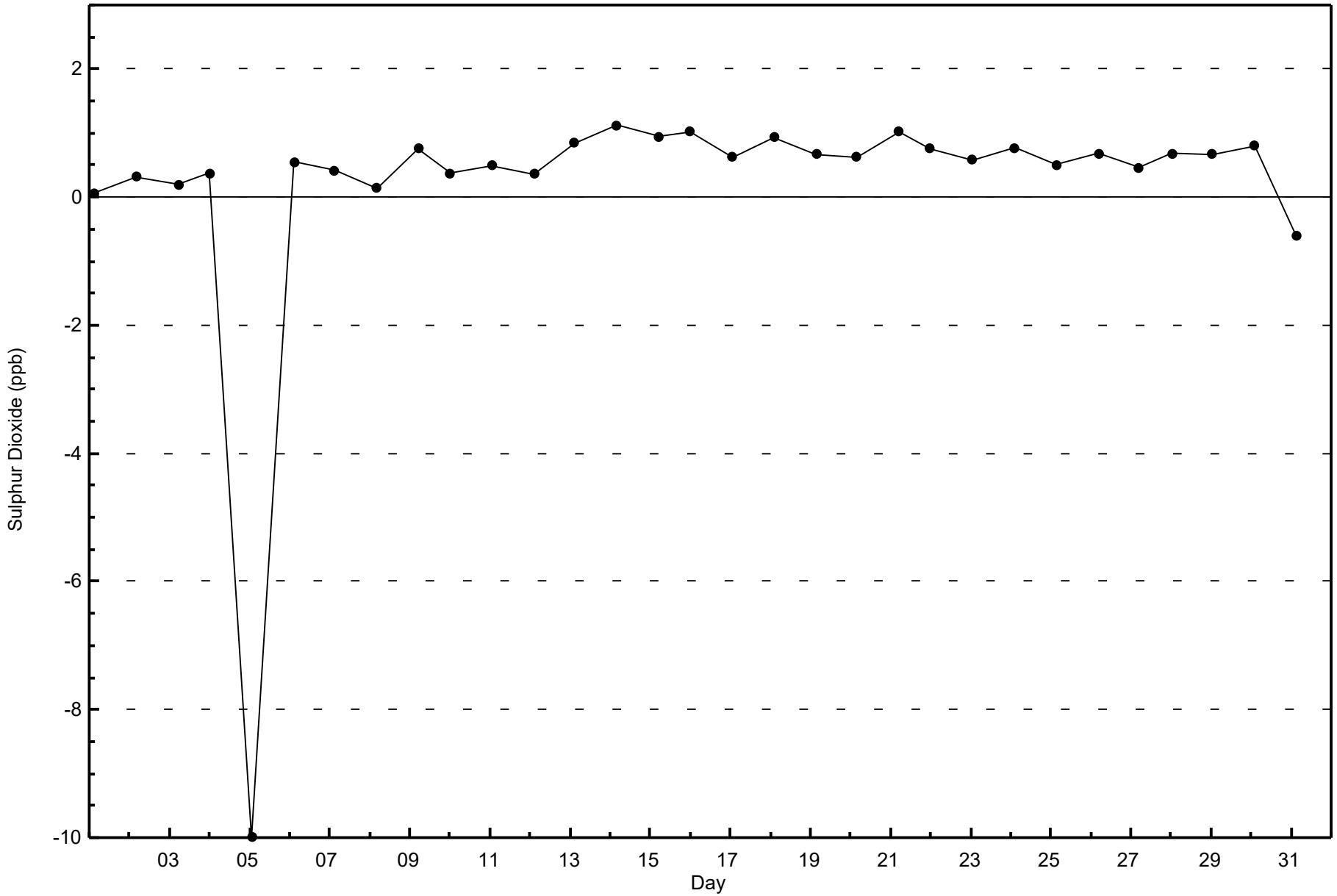
Total Number of Valid Hours: 672

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Blackrod - October 2025



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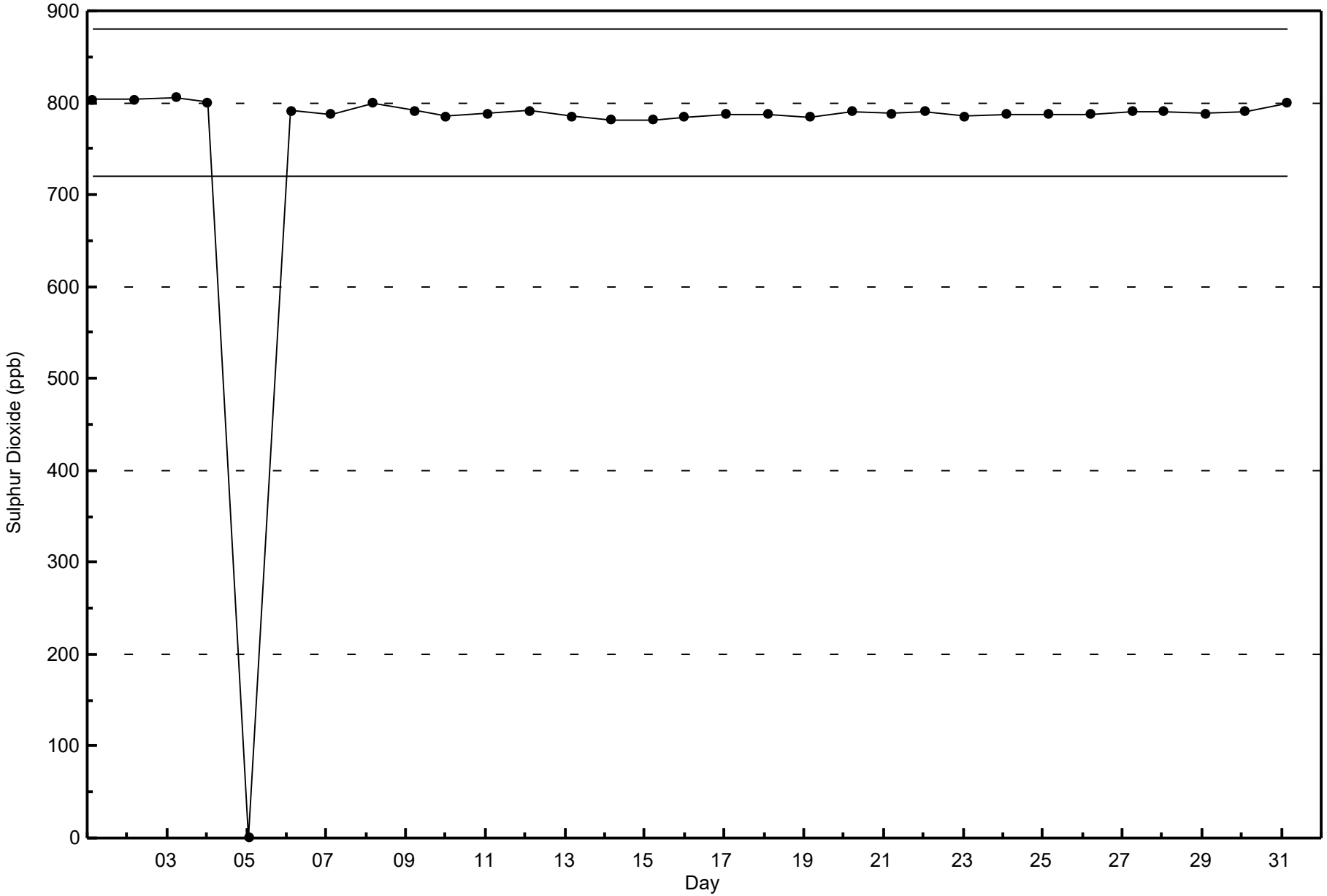
Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Blackrod - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H_2S) - ppb

Blackrod - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 1.1 ppb on Oct 28 15:00

Maximum Daily Average: 0.3 ppb on Oct 1

Minimum Value: 0.0 ppb on Oct 9 09:00

Minimum Daily Average: 0.0 ppb on Oct 9

Maximum Diurnal Average: 0.2 ppb at hour 6

Minimum Diurnal Average: 0.1 ppb at hour 20

Monthly Average: 0.13 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.2 P_{99} = 0.5

Hours in Service:	744
Hours of Data:	701
Hours of Missing Data:	43
Hours of Calibration:	35
Percent Operational Time:	98.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.4	0.3	0.4	0.3	Z	0.3	0.3	0.3	0.5	0.3	0.9	0.8	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.3	0.9
2-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2
3-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2
4-Oct	0.1	Z	0.1	0.1	0.2	0.1	0.0	0.1	0.6	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.6
5-Oct	PF	PF	PF	PF	PF	PF	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.3
6-Oct	0.1	0.2	0.2	Z	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.3
7-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
8-Oct	0.1	0.1	0.1	0.2	0.1	Z	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.2
9-Oct	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	C	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1
10-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
11-Oct	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2
12-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
13-Oct	0.2	0.1	0.2	0.2	Z	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2
14-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	PF	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.4
16-Oct	0.0	Z	0.1	0.0	0.1	0.5	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5
17-Oct	0.1	0.1	Z	0.1	0.0	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.1	0.2	0.3	0.2	0.3
18-Oct	0.2	0.2	0.2	Z	0.4	0.3	0.3	0.2	0.1	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
19-Oct	0.1	0.1	0.1	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20-Oct	0.1	0.1	0.1	0.1	0.3	Z	0.4	0.4	0.3	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
21-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.5	0.5	0.6	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.6
22-Oct	0.0	Z	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
23-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
24-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.6	0.3	0.2	0.6
25-Oct	0.4	0.4	0.2	0.2	Z	0.4	0.3	0.2	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4
26-Oct	0.1	0.1	0.0	0.0	0.0	Z	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.3	0.2	0.2	0.2	0.1	0.3
27-Oct	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
28-Oct	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3	1.1	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	1.1
29-Oct	0.1	0.0	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
30-Oct	0.2	PF	0.2	Z	0.2	0.3	0.3	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
31-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.4	0.4	0.4	0.3	0.4	0.5	0.4	0.4	0.6	0.3	0.9	0.8	0.4	0.3	1.1	0.5	0.5	0.6	0.3	0.2	0.3	0.3	0.6	0.3	Diurnal Maximum	

Z - zerospan C - Calibration PF - Power Failure

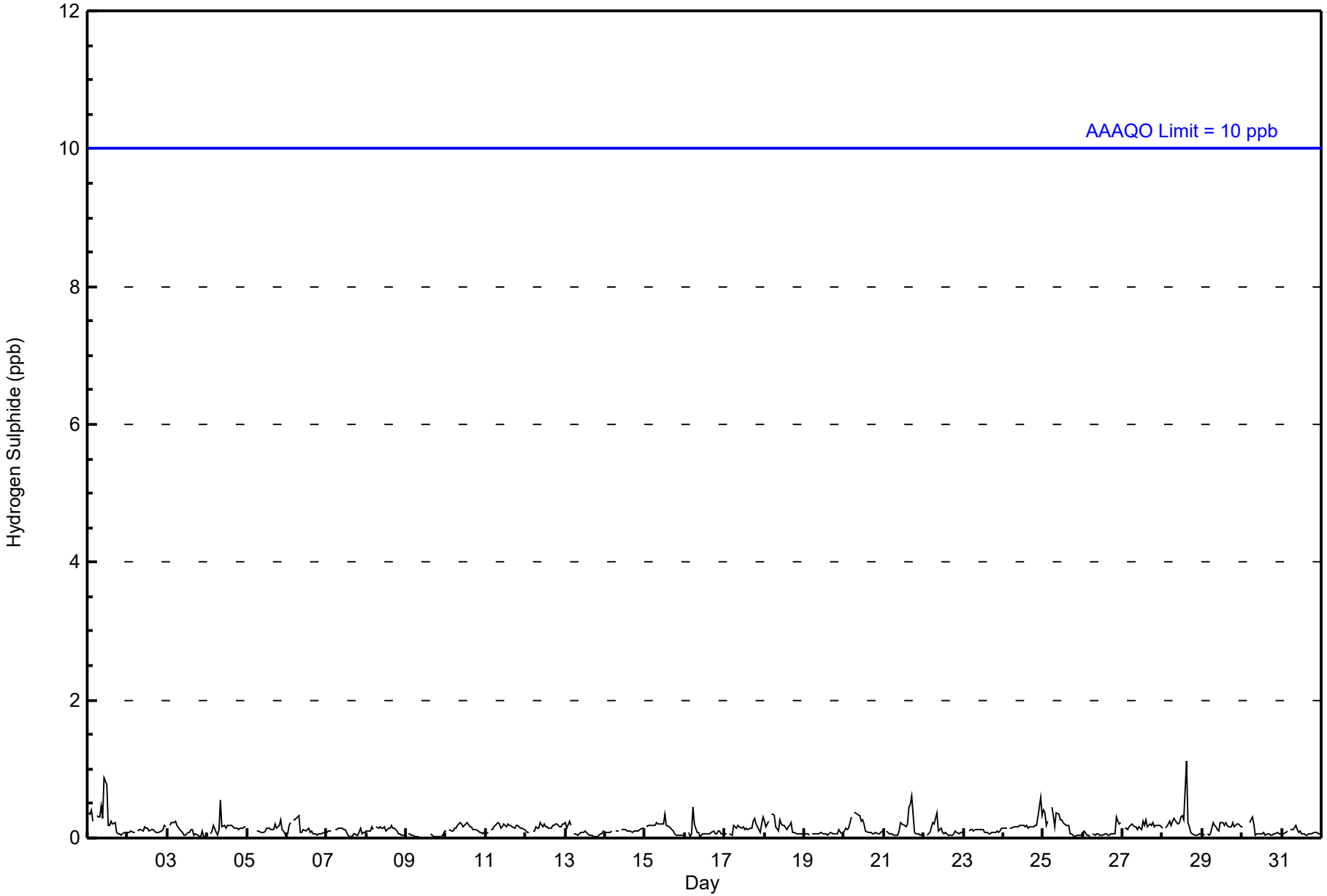
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Blackrod - October 2025



Hydrogen Sulphide (H_2S) - ppb

Blackrod - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	701	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 701

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Blackrod - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	25	22	8	7	10	10	23	129	198	28	21	20	30	43	39	55	668
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	25	22	8	7	10	10	23	129	198	28	21	20	30	43	39	55	668

Total Number of Valid Hours: 668

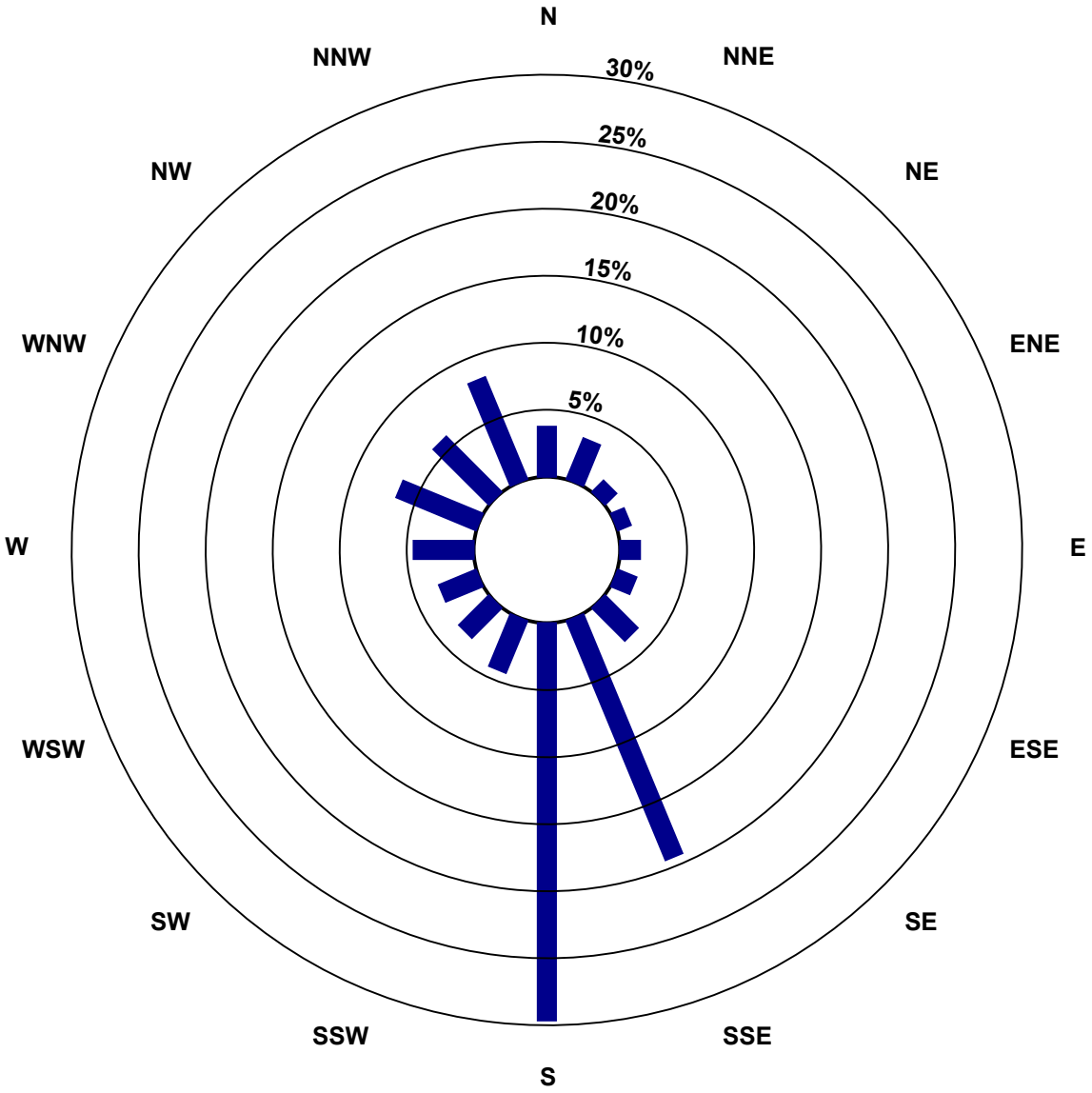
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H_2S) - ppb

Blackrod



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

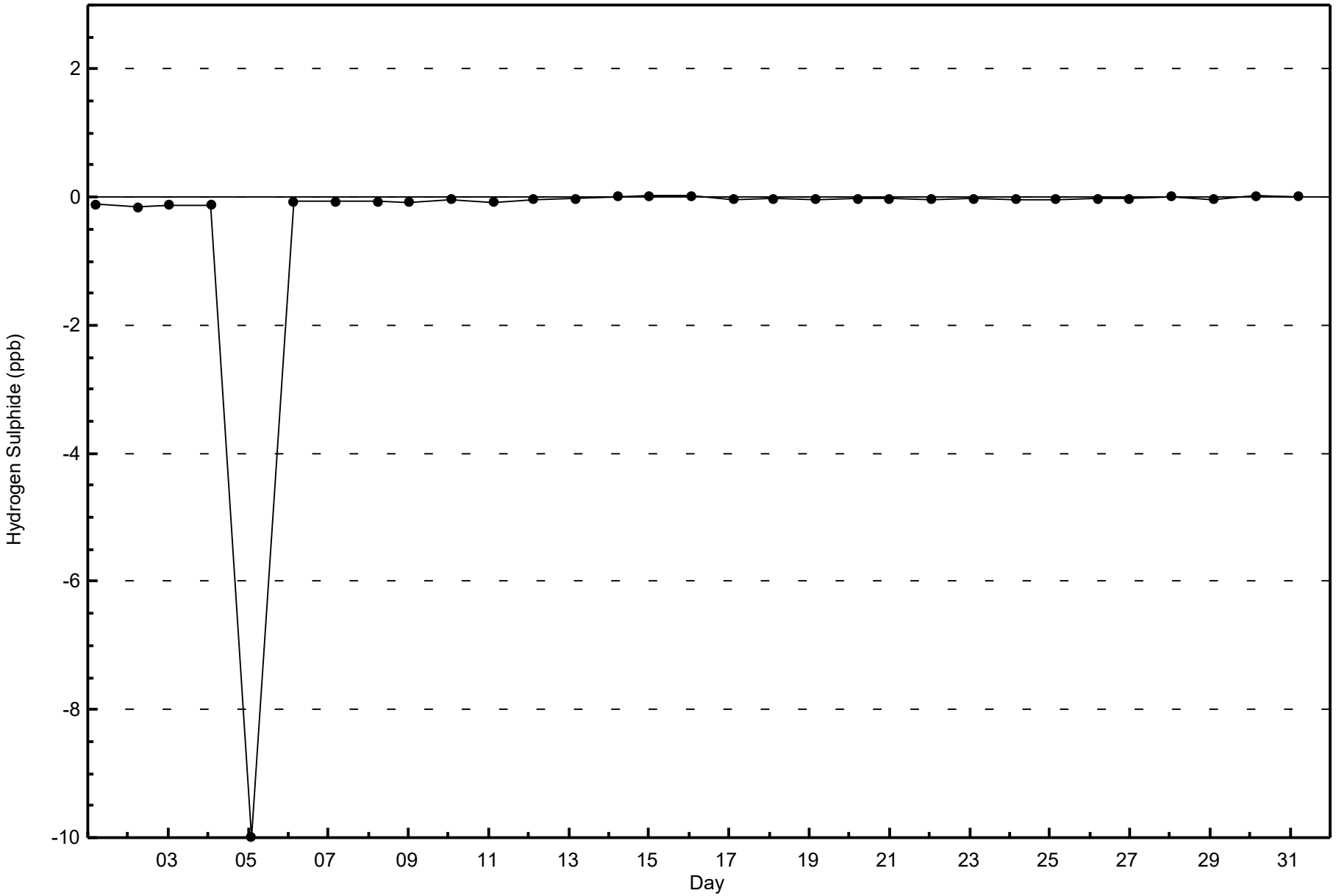
Total Number of Valid Hours: 668

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Blackrod - October 2025



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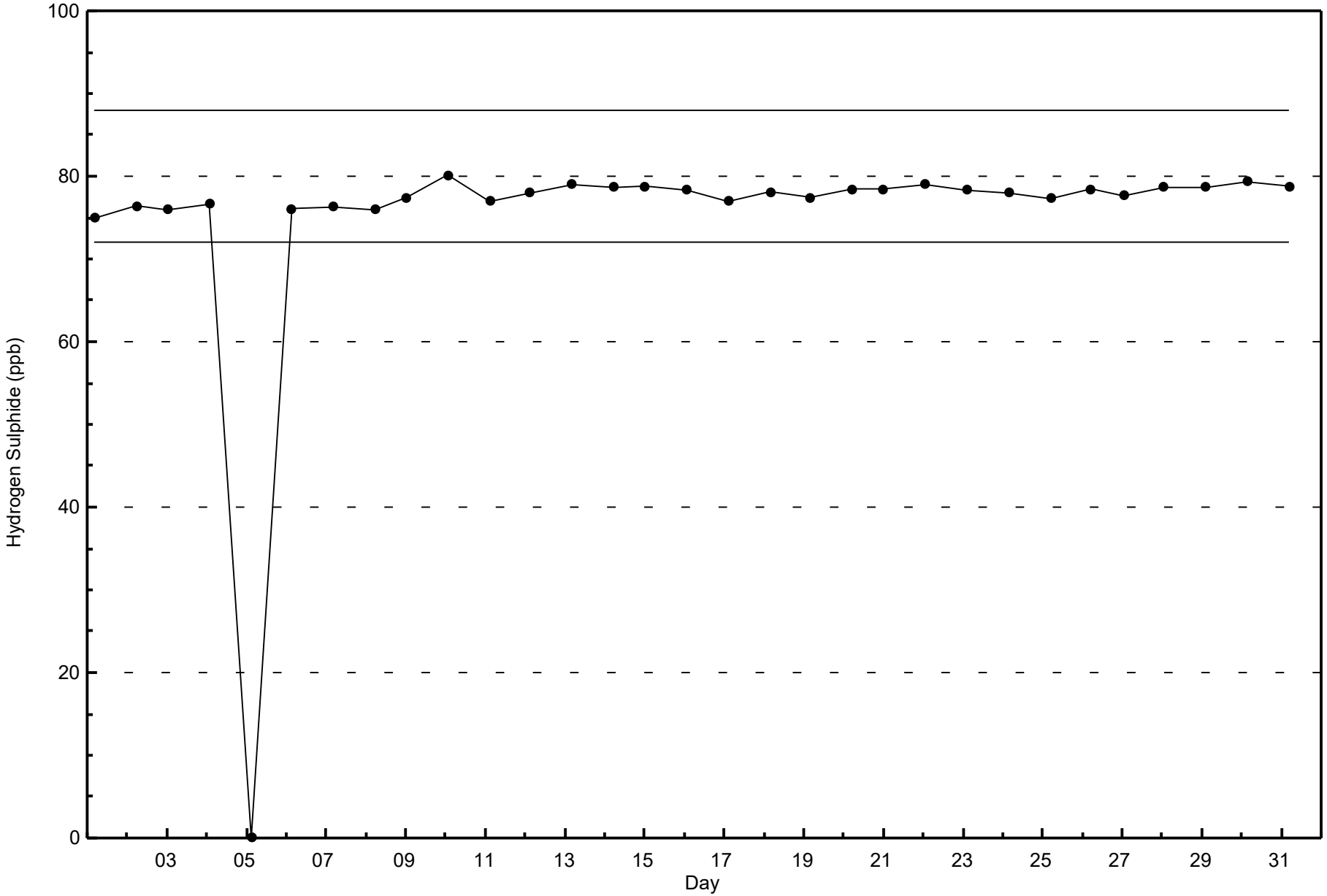
Span Responses

Hydrogen Sulphide (H_2S) - ppb

Blackrod - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxide (NO) - ppb

Blackrod - October 2025

Maximum Value: 91.8 ppb on Oct 1 11:00

Maximum Daily Average: 15.0 ppb on Oct 27

Minimum Value: 0.0 ppb on Oct 2 00:00

Minimum Daily Average: 0.3 ppb on Oct 2

Maximum Diurnal Average: 9.4 ppb at hour 12

Minimum Diurnal Average: 2.4 ppb at hour 20

Monthly Average: 5.45 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.2 Median = 1.4 Q_3 = 9.0 P_{90} = 14.9 P_{99} = 31.7

Hours in Service:	744
Hours of Data:	671
Hours of Missing Data:	73
Hours of Calibration:	34
Percent Operational Time:	94.8

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	6.7	Z	14.7	1.0	1.9	0.8	8.2	12.9	25.8	17.6	91.8	85.9	8.1	8.2	9.0	11.2	18.3	2.2	0.3	0.5	0.1	0.7	0.3	0.0	14.2	91.8
2-Oct	0.0	0.0	Z	0.3	0.4	0.0	0.2	0.1	0.4	0.2	1.4	1.1	0.5	0.5	1.0	0.2	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.4
3-Oct	0.0	0.3	1.6	Z	0.0	0.0	0.4	1.2	0.6	0.9	1.2	1.8	9.9	11.4	12.8	12.1	3.5	6.0	0.1	0.0	0.5	9.6	0.0	0.1	3.2	12.8
4-Oct	2.9	0.0	0.1	6.0	Z	1.4	1.7	9.1	18.9	12.8	14.2	8.4	12.1	10.0	9.5	8.8	9.5	8.5	9.7	6.4	9.0	10.6	12.9	11.2	8.4	18.9
5-Oct	PF	PF	PF	PF	PF	Z	0.4	1.0	0.4	0.9	0.8	8.8	12.9	12.3	10.2	10.2	10.8	17.6	10.1	7.4	15.9	4.3	1.2	0.0	7.0	17.6
6-Oct	Z	11.2	4.7	4.1	13.4	15.9	20.8	18.5	2.7	1.5	4.9	3.3	8.1	9.4	2.8	4.3	0.4	0.4	0.0	0.0	0.2	0.0	0.0	0.0	5.5	20.8
7-Oct	0.0	Z	0.0	0.0	0.1	0.1	0.1	0.4	0.7	0.7	1.0	0.8	0.5	0.6	0.4	0.2	0.3	0.5	0.1	0.1	13.1	2.2	9.2	6.4	1.6	13.1
8-Oct	6.8	10.4	Z	12.3	13.2	13.1	14.8	12.9	16.8	13.7	14.7	16.2	11.5	14.0	13.0	16.0	12.7	10.6	4.6	0.6	0.0	0.3	0.1	0.1	9.9	16.8
9-Oct	0.4	0.1	0.1	Z	0.7	0.7	0.9	0.9	0.7	0.8	1.4	2.9	1.9	1.6	4.7	4.5	2.2	0.5	0.1	0.0	0.0	0.0	0.0	0.0	1.1	4.7
10-Oct	0.2	0.2	0.0	0.0	Z	0.0	0.3	0.3	0.9	1.4	1.5	1.4	1.4	1.2	1.2	0.4	0.3	0.1	0.2	0.0	0.0	0.0	0.2	0.0	0.5	1.5
11-Oct	0.0	0.0	0.0	0.2	0.1	Z	8.3	10.1	6.6	7.0	7.7	15.7	7.8	13.9	14.9	11.3	12.2	9.5	6.8	9.8	7.5	5.4	3.7	2.3	7.0	15.7
12-Oct	Z	1.7	2.4	1.5	2.0	2.7	4.4	3.6	5.0	9.4	6.0	7.4	5.5	4.6	3.5	4.5	7.6	5.2	4.2	4.1	5.0	4.9	6.5	8.3	4.8	9.4
13-Oct	17.5	Z	6.3	5.2	1.2	0.3	1.2	0.9	1.0	1.0	0.7	2.2	3.6	1.9	1.1	0.7	1.8	0.9	0.2	0.1	0.1	0.1	0.1	0.0	2.1	17.5
14-Oct	0.0	0.0	Z	0.1	0.0	0.0	0.1	0.2	0.6	PF	2.0	1.8	2.3	1.8	3.1	2.1	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.7	3.1
15-Oct	0.0	0.0	0.0	Z	0.0	0.1	0.2	0.5	1.5	2.2	2.4	1.6	2.2	2.3	2.3	2.1	1.5	2.2	0.7	2.2	0.2	0.0	0.1	1.0	1.1	2.4
16-Oct	0.2	0.5	3.7	0.5	Z	29.9	10.8	8.0	6.9	0.4	0.4	0.7	0.5	0.7	0.6	0.6	0.7	0.3	0.1	0.0	2.3	0.4	1.0	0.1	3.0	29.9
17-Oct	3.5	4.2	4.2	2.9	3.2	Z	13.7	10.5	11.1	14.3	12.6	12.9	9.8	11.9	8.4	11.0	11.2	19.0	22.0	14.0	10.3	3.9	14.3	22.4	10.9	22.4
18-Oct	Z	9.6	16.4	10.2	23.3	24.6	24.6	6.9	2.0	18.8	12.6	11.3	10.9	6.8	8.6	10.6	13.2	1.2	0.9	0.4	0.5	0.1	0.0	0.0	9.3	24.6
19-Oct	0.0	Z	0.0	0.1	0.1	0.1	0.6	0.1	0.1	0.2	0.3	0.2	0.3	0.1	0.1	0.2	1.1	0.5	0.1	0.1	0.1	4.2	1.3	3.5	0.6	4.2
20-Oct	6.5	9.9	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	9.9
21-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	C	C	C	C	42.9	48.8	62.3	1.5	0.0	0.1	0.7	0.0	0.1	--	62.3
22-Oct	0.2	0.0	0.2	0.2	Z	20.8	17.3	26.9	32.5	4.1	7.0	1.0	0.7	0.4	0.4	0.2	0.2	0.3	0.1	0.0	0.1	0.0	0.1	0.0	4.9	32.5
23-Oct	0.0	0.0	0.2	0.2	2.8	Z	0.7	0.6	1.5	0.5	0.6	0.6	1.8	0.9	0.2	0.6	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.5	2.8
24-Oct	Z	0.0	0.0	0.0	0.1	0.4	0.0	0.5	0.5	1.4	0.9	1.2	2.3	2.3	3.0	0.7	1.2	1.0	0.1	0.0	0.0	4.7	14.6	8.9	1.9	14.6
25-Oct	9.9	Z	4.9	5.6	6.5	20.1	16.6	4.7	30.8	30.1	22.8	23.2	19.0	17.1	16.9	14.0	5.1	4.0	2.0	0.5	0.9	0.3	0.5	0.9	11.2	30.8
26-Oct	6.1	7.5	Z	0.2	0.4	0.3	0.3	0.3	0.7	0.3	0.6	0.4	0.2	0.6	1.8	0.5	0.9	2.8	3.1	4.2	4.7	5.6	7.1	4.7	2.3	7.5
27-Oct	7.3	13.7	12.1	Z	15.1	20.6	14.1	12.7	12.5	10.9	13.5	13.3	23.0	13.4	24.0	14.8	17.8	13.1	21.0	15.0	15.6	15.0	14.5	12.6	15.0	24.0
28-Oct	11.5	12.6	12.2	16.8	Z	13.5	20.3	21.2	20.0	17.6	19.1	26.0	31.3	22.7	54.3	16.9	12.4	2.3	1.9	0.2	0.2	0.0	0.0	0.5	14.5	54.3
29-Oct	0.2	0.1	0.1	0.0	0.1	Z	8.4	6.7	8.8	4.8	2.8	14.9	15.1	5.7	16.3	12.4	9.5	9.1	7.8	4.9	3.1	4.0	7.5	5.0	6.4	16.3
30-Oct	Z	PF	16.7	11.1	9.4	15.0	21.5	12.3	0.9	1.2	1.1	2.4	1.2	2.9	1.1	1.4	1.1	1.0	0.4	0.5	0.5	0.5	0.4	0.5	4.7	21.5
31-Oct	0.2	Z	0.3	0.5	0.6	0.7	1.1	1.2	1.2	0.9	0.7	5.3	0.9	0.6	0.6	1.0	0.4	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.7	5.3
	3.3	3.7	4.2	3.3	4.1	7.5	7.3	6.4	7.3	6.3	8.5	9.4	7.1	6.2	7.8	7.2	6.9	6.1	3.3	2.4	3.0	2.6	3.2	3.0	Diurnal Average	
	17.5	13.7	16.7	16.8	23.3	29.9	24.6	26.9	32.5	30.1	91.8	85.9	31.3	22.7	54.3	42.9	48.8	62.3	22.0	15.0	15.9	15.0	14.6	22.4	Diurnal Maximum	

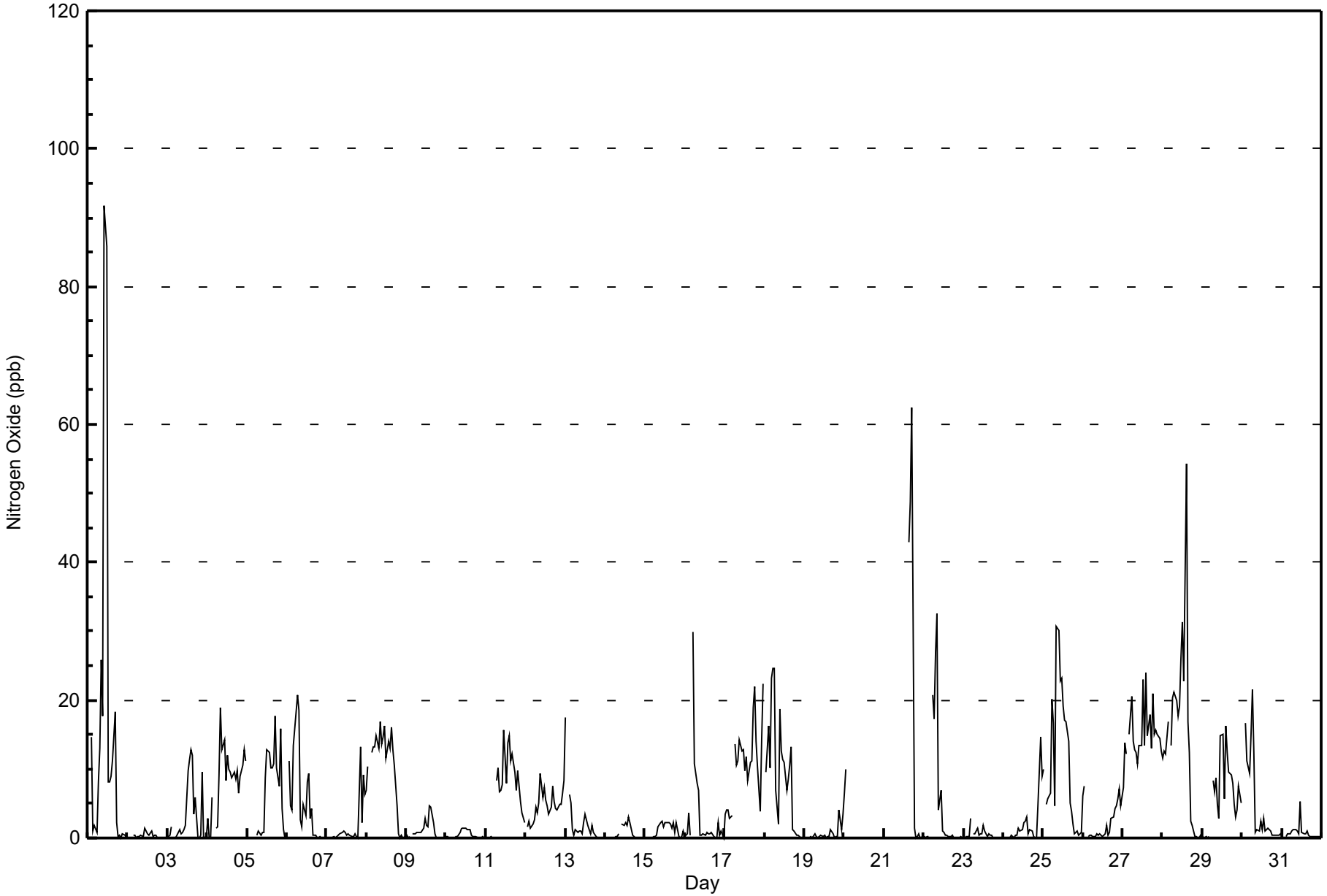
Z - zerospan C - Calibration UO - Unstable Operation PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Blackrod - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	641	95.53	95.53
21 - 40	24	3.58	99.11
11 - 80	4	0.60	99.70
81 - 159	2	0.30	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 671

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxide (NO) - ppb

Blackrod - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	19	19	8	8	10	9	26	126	179	31	19	14	15	39	36	57	615
21 - 40	1	1	0	0	0	0	0	2	2	0	0	2	8	2	0	0	18
11 - 80	0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	0	4
81 - 159	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	22	20	8	8	10	9	26	128	181	31	20	18	23	41	37	57	639

Total Number of Valid Hours: 639

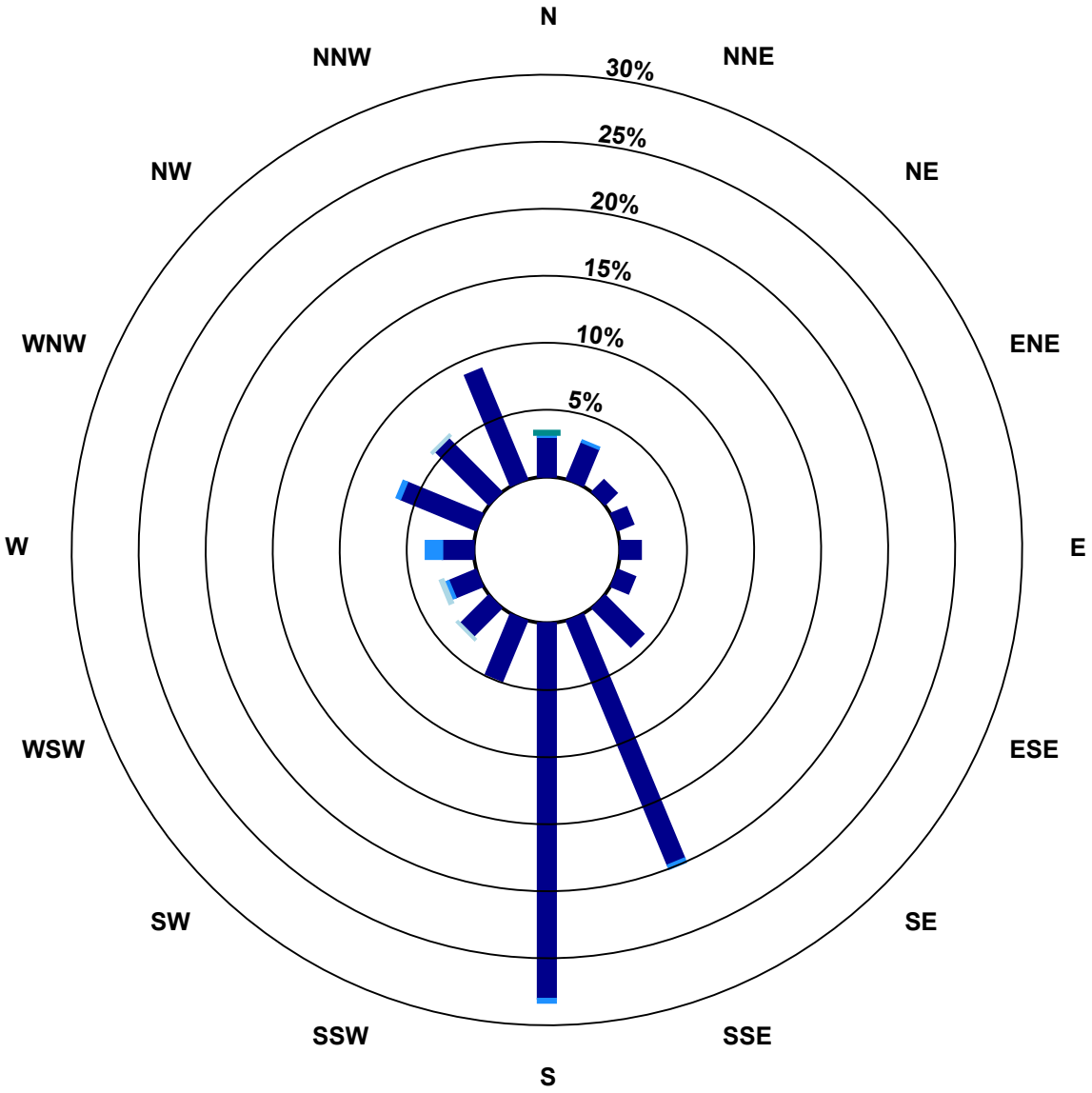
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxide (NO) - ppb

Blackrod



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

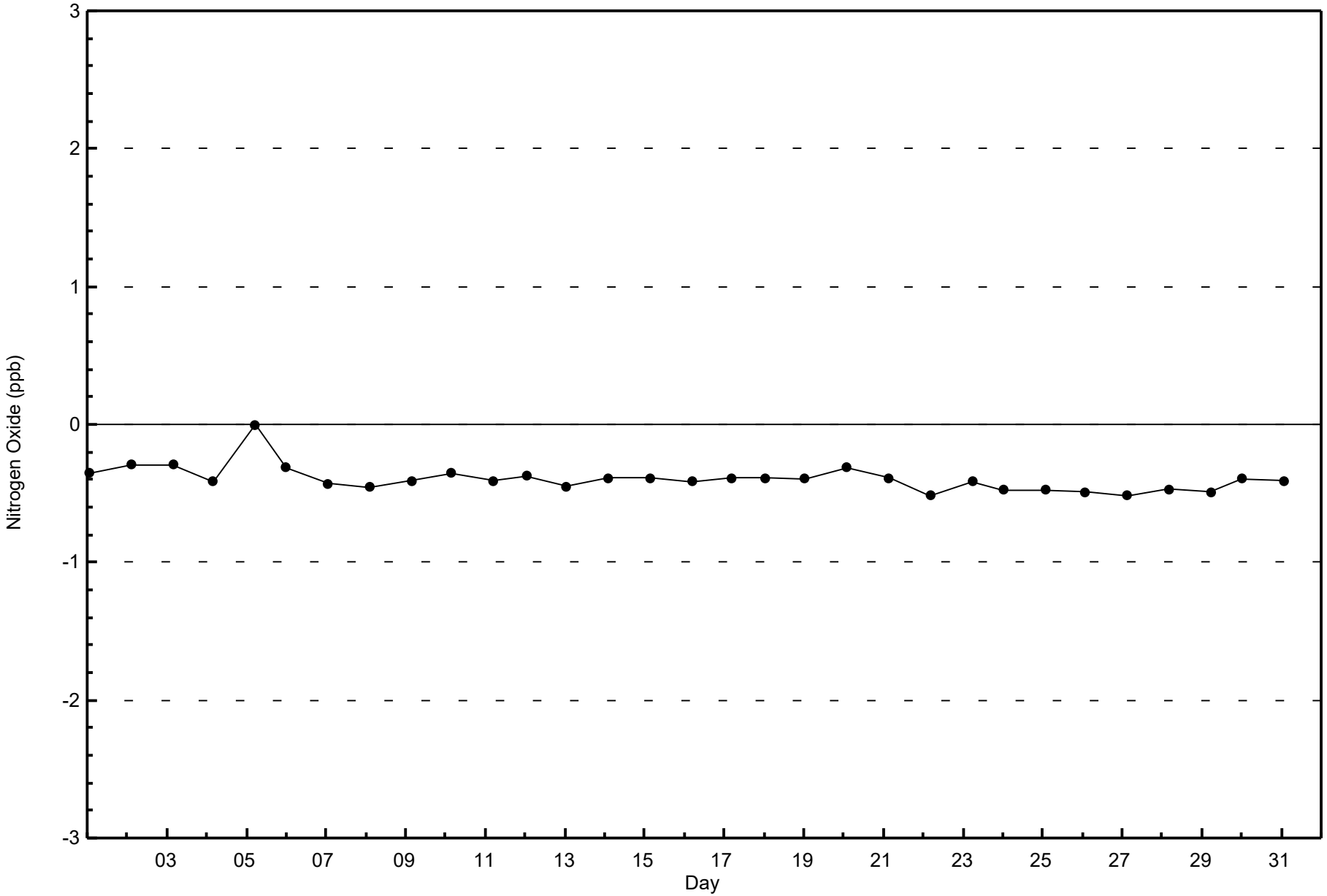
Total Number of Valid Hours: 639

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxide (NO) - ppb

Blackrod - October 2025

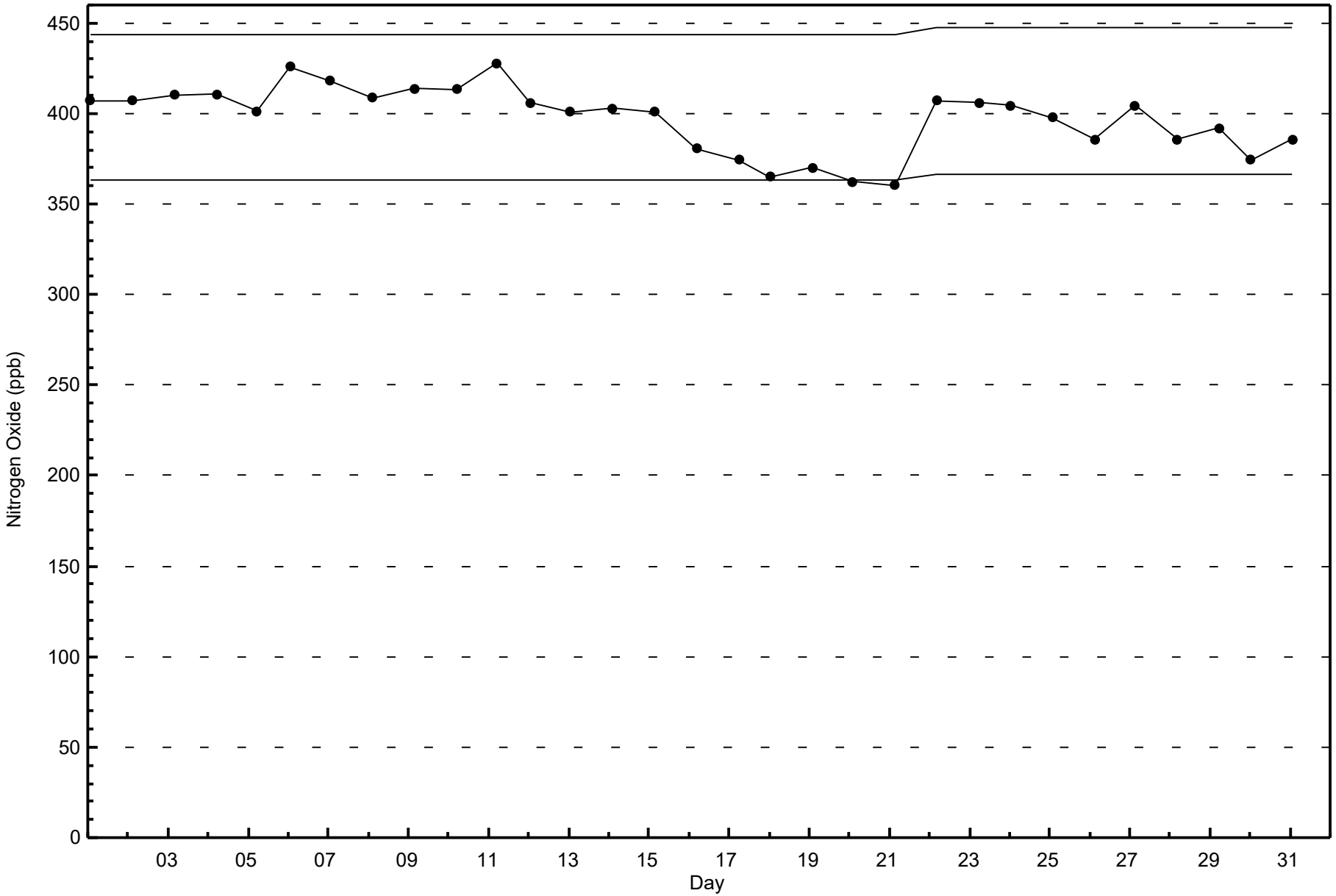


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxide (NO) - ppb

Blackrod - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Blackrod - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 29.5 ppb on Oct 21 18:00

Maximum Daily Average: 10.4 ppb on Oct 17

Minimum Value: 0.3 ppb on Oct 19 00:00

Minimum Daily Average: 1.4 ppb on Oct 2

Maximum Diurnal Average: 5.6 ppb at hour 7

Minimum Diurnal Average: 2.6 ppb at hour 20

Monthly Average: 4.18 ppb

Percentiles: P_1 = 0.5 P_{10} = 1.0 Q_1 = 1.4 Median = 2.6 Q_3 = 5.1 P_{90} = 9.4 P_{99} = 20.5

Hours in Service:	744
Hours of Data:	671
Hours of Missing Data:	73
Hours of Calibration:	34
Percent Operational Time:	94.8

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	5.0	Z	7.1	4.8	5.3	2.7	5.0	5.2	8.3	8.5	24.0	16.3	4.3	1.7	3.5	7.8	14.6	2.7	1.5	2.5	1.4	2.4	3.3	1.8	6.1	24.0
2-Oct	1.0	0.9	Z	2.5	1.9	1.2	1.6	1.7	1.5	1.1	1.5	1.4	1.0	0.8	1.3	1.1	1.5	1.5	0.9	0.8	1.2	1.6	1.7	1.6	1.4	2.5
3-Oct	1.5	1.8	3.1	Z	2.1	2.5	2.4	2.2	1.4	1.4	1.4	1.6	10.0	11.8	14.1	14.3	5.5	7.5	0.9	0.7	1.3	14.1	2.8	1.0	4.6	14.3
4-Oct	2.4	1.0	0.8	7.4	Z	3.0	2.8	9.3	12.1	6.7	8.4	4.1	4.6	4.8	4.4	3.1	2.2	1.3	1.4	1.2	2.1	3.0	1.6	2.1	3.9	12.1
5-Oct	PF	PF	PF	PF	PF	Z	1.5	1.8	1.1	0.9	0.8	5.6	9.0	10.1	8.0	7.1	7.0	13.4	11.6	5.8	9.3	6.4	4.4	0.7	5.8	13.4
6-Oct	Z	5.1	3.7	3.0	7.4	7.0	8.6	9.9	1.9	1.6	3.5	2.8	5.4	6.5	2.8	3.3	1.1	1.2	0.4	0.5	1.0	0.6	0.6	0.7	3.4	9.9
7-Oct	0.7	Z	1.3	1.4	1.5	1.5	1.5	1.6	1.8	1.7	1.5	1.3	1.1	1.0	0.9	0.7	1.4	3.7	1.8	0.8	12.5	2.3	7.0	3.0	2.3	12.5
8-Oct	2.8	4.2	Z	9.7	13.0	10.4	7.8	8.1	8.2	8.4	8.3	9.5	7.2	8.1	8.9	12.5	10.6	10.0	7.9	1.0	0.6	1.3	1.4	1.1	7.0	13.0
9-Oct	1.8	4.5	2.8	Z	2.2	2.4	2.6	2.1	1.5	1.3	1.4	2.3	1.6	1.4	4.1	4.1	2.5	1.2	1.1	0.7	0.8	1.0	1.1	1.5	2.0	4.5
10-Oct	1.9	2.2	2.3	2.4	Z	3.2	3.4	4.2	4.1	3.8	3.3	3.5	3.9	3.6	3.3	2.4	2.3	1.8	1.7	1.5	1.4	1.2	1.3	1.0	2.6	4.2
11-Oct	1.0	1.0	1.2	1.6	1.3	Z	8.2	4.4	2.0	2.1	2.8	5.5	3.3	2.5	2.0	1.3	2.0	1.3	1.7	2.9	1.9	1.9	1.0	0.9	2.3	8.2
12-Oct	Z	1.4	1.8	1.1	1.8	1.9	1.8	1.4	1.9	3.5	2.6	3.3	2.7	1.9	1.3	2.6	3.3	2.9	1.8	2.7	3.7	3.3	4.4	3.9	2.5	4.4
13-Oct	5.7	Z	3.5	3.9	3.6	1.5	1.8	1.3	0.9	0.6	0.5	1.5	2.1	1.0	0.8	0.7	1.3	0.9	0.6	0.7	1.8	2.4	2.6	2.4	1.8	5.7
14-Oct	2.2	2.1	Z	1.9	2.0	2.3	2.1	2.4	2.2	PF	2.1	2.3	2.4	2.2	2.9	2.7	2.5	3.1	3.3	3.6	3.4	3.9	4.4	4.7	2.8	4.7
15-Oct	5.4	5.1	5.5	Z	5.5	5.3	5.6	5.7	5.1	4.0	4.1	4.1	4.4	3.7	3.8	3.6	3.9	5.5	3.1	3.3	3.1	1.9	1.9	2.8	4.2	5.7
16-Oct	1.5	1.8	2.9	1.0	Z	8.9	5.2	3.6	3.8	1.0	1.2	1.4	1.5	1.6	2.0	1.8	3.7	3.8	2.7	2.6	5.5	3.4	3.3	1.8	2.9	8.9
17-Oct	5.5	5.7	5.3	2.8	4.2	Z	11.2	7.4	9.4	10.7	8.1	8.8	7.4	9.2	5.5	7.1	9.4	18.2	23.1	20.3	14.3	5.0	19.1	20.8	10.4	23.1
18-Oct	Z	12.2	17.0	10.6	17.3	20.1	19.7	9.7	4.1	11.0	9.1	8.3	8.2	5.9	6.9	11.9	12.3	3.3	1.4	1.0	1.3	0.8	0.5	0.3	8.4	20.1
19-Oct	0.3	Z	0.4	0.5	0.8	0.8	1.6	0.9	0.9	1.3	1.6	1.3	1.4	0.7	0.7	1.0	3.3	3.2	0.9	1.2	1.1	4.2	2.3	2.6	1.4	4.2
20-Oct	3.8	4.8	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	4.8
21-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	C	C	C	C	28.1	27.3	29.5	1.2	1.1	0.9	1.4	1.3	1.4	--	29.5
22-Oct	1.3	1.1	1.2	1.3	Z	5.8	9.2	9.9	17.5	4.0	3.7	1.0	1.2	0.7	0.9	0.5	0.6	0.8	1.1	1.7	1.7	1.8	1.9	1.5	3.1	17.5
23-Oct	1.2	1.2	1.5	1.6	4.0	Z	2.0	2.5	3.6	1.4	1.7	1.5	2.6	1.8	0.9	1.2	1.5	1.9	1.3	1.3	1.6	2.1	2.1	1.9	1.8	4.0
24-Oct	Z	1.7	1.7	1.7	1.9	2.4	2.6	3.4	3.1	3.8	3.0	3.0	3.6	4.2	4.2	3.2	4.3	4.1	3.6	3.8	3.5	9.3	15.7	10.7	4.3	15.7
25-Oct	11.3	Z	5.6	8.2	9.4	13.3	13.0	7.5	19.1	22.1	18.5	16.0	13.2	13.6	13.8	16.8	7.9	6.8	4.3	2.0	1.3	1.1	1.1	2.7	9.9	22.1
26-Oct	3.7	4.4	Z	2.2	1.2	2.0	2.0	1.5	1.7	1.6	1.4	1.2	1.0	1.0	1.3	0.8	0.8	3.3	4.3	4.9	4.8	5.5	3.9	3.9	2.5	5.5
27-Oct	2.9	2.8	3.4	Z	4.4	4.0	4.7	3.7	4.0	3.8	4.6	5.1	7.6	6.4	7.7	5.2	6.0	2.8	7.5	3.8	6.1	8.0	8.6	8.2	5.3	8.6
28-Oct	7.6	5.4	4.2	10.3	Z	8.8	9.9	18.8	8.8	7.5	8.8	11.0	11.3	12.1	12.9	10.1	8.8	4.2	3.0	0.9	0.8	0.6	0.6	1.2	7.3	18.8
29-Oct	0.4	0.4	0.9	0.7	1.0	Z	8.0	7.1	9.1	5.0	4.4	9.4	7.1	2.6	7.7	4.7	3.7	3.3	2.6	1.9	1.9	3.1	3.7	2.0	3.9	9.4
30-Oct	Z	PF	6.0	2.3	3.2	9.1	14.1	11.0	2.3	2.3	1.8	2.7	2.1	3.1	1.8	2.6	1.6	1.3	0.8	1.4	1.2	1.6	1.5	1.7	3.4	14.1
31-Oct	1.6	Z	1.3	1.8	1.6	1.9	2.5	2.6	2.8	2.0	1.3	3.3	1.4	1.2	1.5	1.8	1.7	1.6	1.5	1.7	1.7	1.6	1.3	1.1	1.8	3.3
	3.0	3.2	3.5	3.5	4.2	5.1	5.6	5.2	5.0	4.4	4.7	4.8	4.6	4.3	4.5	5.5	5.2	4.9	3.3	2.6	3.1	3.2	3.5	3.0	Diurnal Average	
	11.3	12.2	17.0	10.6	17.3	20.1	19.7	18.8	19.1	22.1	24.0	16.3	13.2	13.6	14.1	28.1	27.3	29.5	23.1	20.3	14.3	14.1	19.1	20.8	Diurnal Maximum	

Z - zerospan C - Calibration UO - Unstable Operation PF - Power Failure

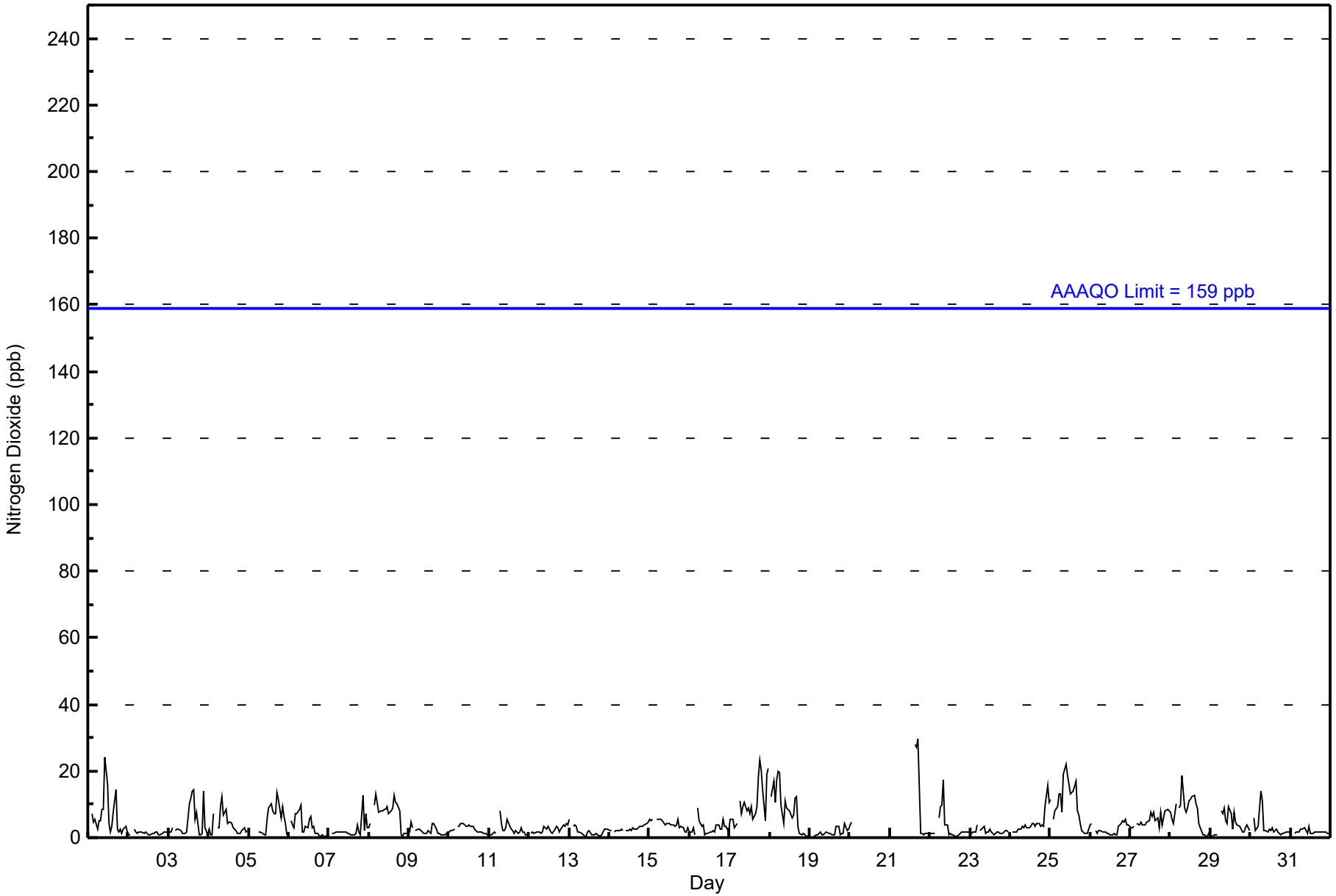
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Blackrod - October 2025



Nitrogen Dioxide (NO_2) - ppb
Blackrod - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	664	98.96	98.96
21 - 40	7	1.04	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 671

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Blackrod - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	21	20	8	8	10	9	26	128	181	31	19	15	22	40	37	57	632
21 - 40	1	0	0	0	0	0	0	0	0	0	1	3	1	1	0	0	7
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	22	20	8	8	10	9	26	128	181	31	20	18	23	41	37	57	639

Total Number of Valid Hours: 639

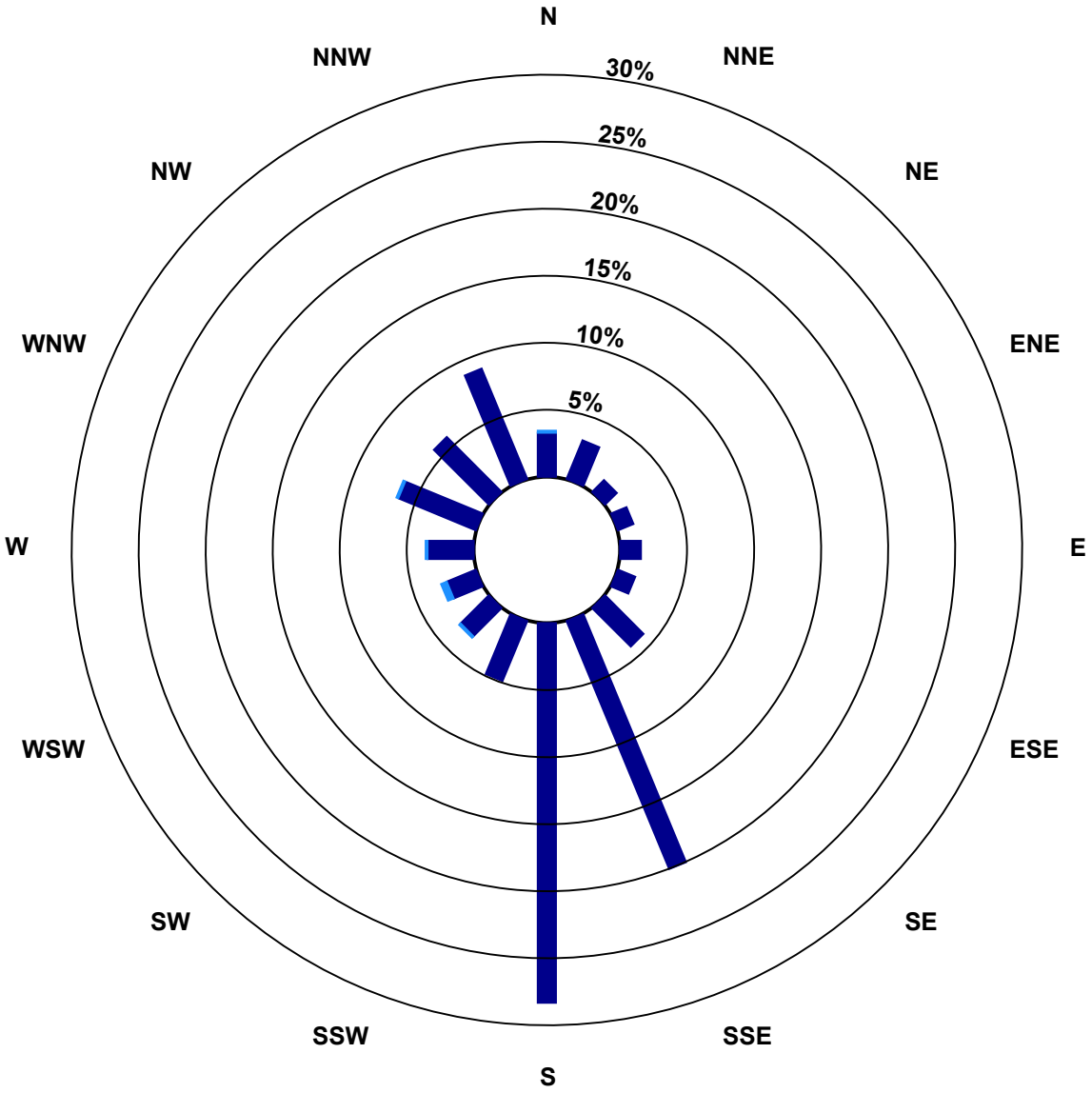
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Blackrod



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

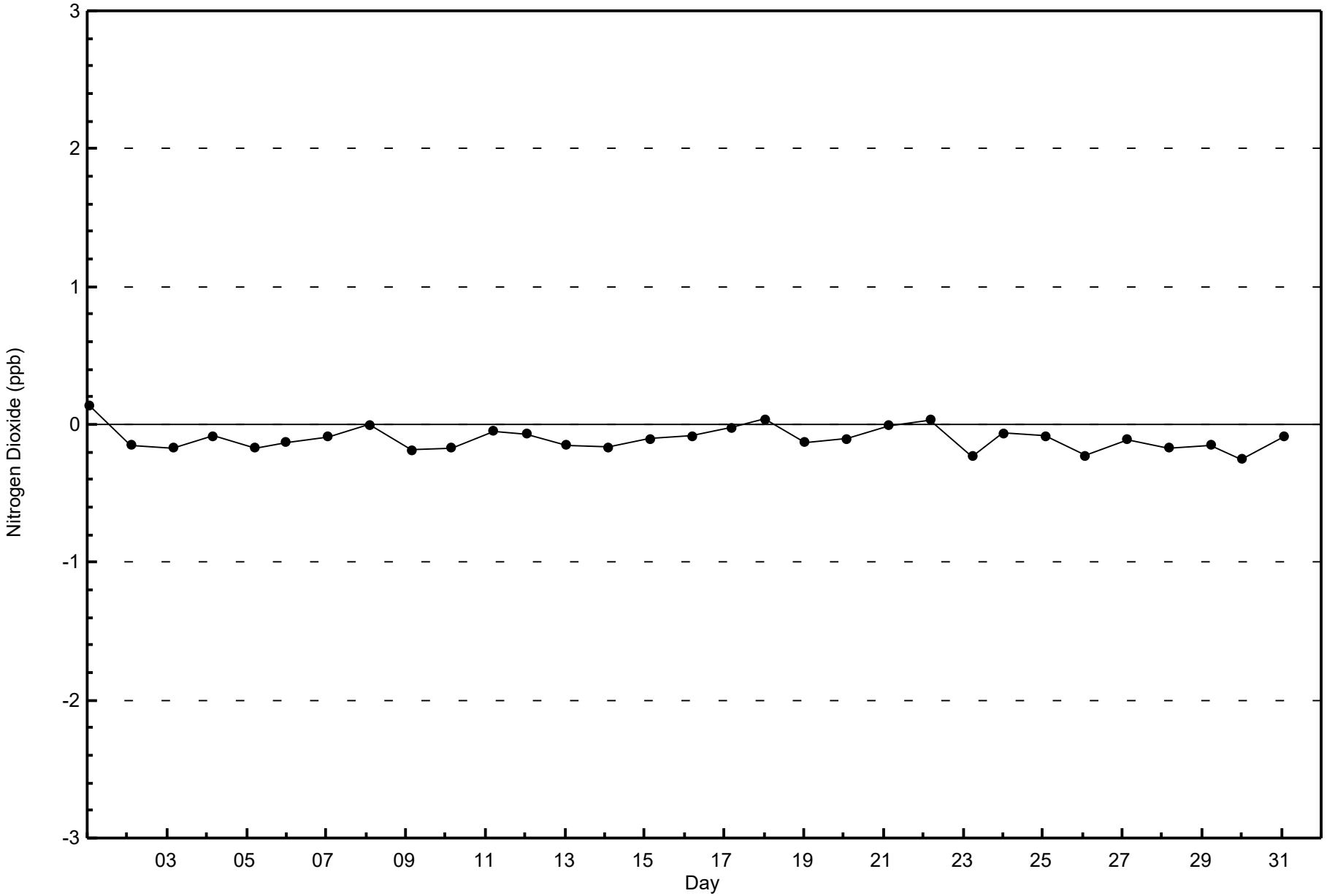
Total Number of Valid Hours: 639

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Blackrod - October 2025

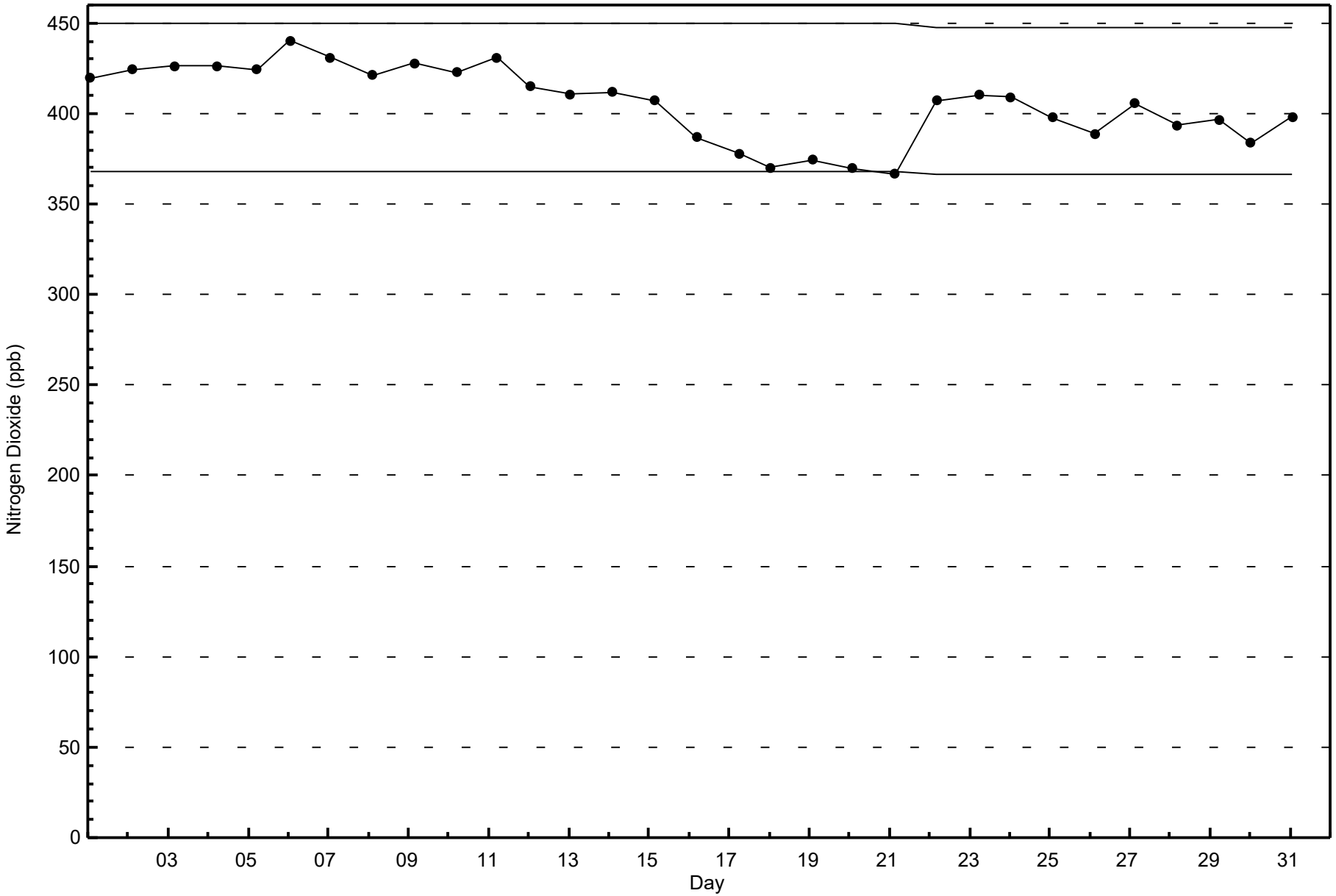


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Blackrod - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Blackrod - October 2025

Maximum Value: 115.8 ppb on Oct 1 11:00

Maximum Daily Average: 21.8 ppb on Oct 28

Minimum Value: 0.3 ppb on Oct 19 01:00

Minimum Daily Average: 1.7 ppb on Oct 2

Maximum Diurnal Average: 14.2 ppb at hour 12

Minimum Diurnal Average: 5.0 ppb at hour 20

Monthly Average: 9.63 ppb

Percentiles: P_1 = 0.6 P_{10} = 1.2 Q_1 = 1.9 Median = 4.4 Q_3 = 13.5 P_{90} = 24.1 P_{99} = 50.6

Hours in Service:	744
Hours of Data:	671
Hours of Missing Data:	73
Hours of Calibration:	34
Percent Operational Time:	94.8

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	11.7	Z	21.8	5.8	7.2	3.5	13.2	18.1	34.1	26.1	115.8	102.2	12.4	9.9	12.5	19.0	32.9	4.9	1.8	3.0	1.5	3.1	3.6	1.8	20.3	115.8
2-Oct	1.0	0.9	Z	2.8	2.3	1.2	1.8	1.8	1.9	1.3	2.9	2.5	1.5	1.3	2.3	1.3	1.9	1.9	0.9	0.8	1.2	1.6	1.7	1.6	1.7	2.9
3-Oct	1.5	2.1	4.7	Z	2.1	2.5	2.8	3.4	2.0	2.3	2.6	3.4	19.9	23.2	26.9	26.4	9.0	13.5	1.0	0.7	1.8	23.7	2.8	1.1	7.8	26.9
4-Oct	5.3	1.0	0.9	13.4	Z	4.4	4.5	18.4	31.0	19.5	22.6	12.5	16.7	14.8	13.9	11.9	11.7	9.8	11.1	7.6	11.1	13.6	14.5	13.3	12.3	31.0
5-Oct	PF	PF	PF	PF	PF	Z	1.9	2.8	1.5	1.8	1.6	14.4	21.9	22.4	18.2	17.3	17.8	31.0	21.7	13.2	25.2	10.7	5.6	0.7	12.8	31.0
6-Oct	Z	16.3	8.4	7.1	20.8	22.9	29.4	28.4	4.6	3.1	8.4	6.1	13.5	15.9	5.6	7.6	1.5	1.6	0.4	0.5	1.2	0.6	0.6	0.7	8.9	29.4
7-Oct	0.7	Z	1.3	1.4	1.6	1.6	1.6	2.0	2.5	2.4	2.5	2.1	1.6	1.6	1.3	0.9	1.7	4.2	1.9	0.9	25.6	4.5	16.2	9.4	3.9	25.6
8-Oct	9.6	14.6	Z	22.0	26.2	23.5	22.6	21.0	25.0	22.1	23.0	25.7	18.7	22.1	21.9	28.5	23.3	20.6	12.5	1.6	0.6	1.6	1.5	1.2	16.9	28.5
9-Oct	2.2	4.6	2.9	Z	2.9	3.1	3.5	3.0	2.2	2.1	2.8	5.2	3.5	3.0	8.8	8.6	4.7	1.7	1.2	0.7	0.8	1.0	1.1	1.5	3.1	8.8
10-Oct	2.1	2.4	2.3	2.4	Z	3.2	3.7	4.5	5.0	5.2	4.8	4.9	5.3	4.8	4.5	2.8	2.6	1.9	1.9	1.5	1.4	1.2	1.5	1.0	3.1	5.3
11-Oct	1.0	1.0	1.2	1.8	1.4	Z	16.5	14.5	8.6	9.1	10.5	21.2	11.1	16.4	16.9	12.6	14.2	10.8	8.5	12.7	9.4	7.3	4.7	3.2	9.3	21.2
12-Oct	Z	3.1	4.2	2.6	3.8	4.6	6.2	5.0	6.9	12.9	8.6	10.7	8.2	6.5	4.8	7.1	10.9	8.1	6.0	6.8	8.7	8.2	10.9	12.2	7.3	12.9
13-Oct	23.2	Z	9.8	9.1	4.8	1.8	3.0	2.2	1.9	1.6	1.2	3.7	5.7	2.9	1.9	1.4	3.1	1.8	0.8	0.8	1.9	2.5	2.7	2.4	3.9	23.2
14-Oct	2.2	2.1	Z	2.0	2.0	2.3	2.2	2.6	2.8	PF	4.1	4.1	4.7	4.0	6.0	4.8	3.0	3.3	3.3	3.6	3.4	3.9	4.4	4.8	3.4	6.0
15-Oct	5.4	5.1	5.5	Z	5.5	5.4	5.8	6.2	6.6	6.2	6.5	5.7	6.6	6.0	6.1	5.7	5.4	7.7	3.8	5.5	3.3	1.9	2.0	3.8	5.3	7.7
16-Oct	1.7	2.3	6.6	1.5	Z	38.8	16.0	11.6	10.7	1.4	1.6	2.1	2.0	2.3	2.6	2.4	4.4	4.1	2.8	2.6	7.8	3.8	4.3	1.9	5.9	38.8
17-Oct	9.0	9.9	9.5	5.7	7.4	Z	24.9	17.9	20.5	25.0	20.7	21.7	17.2	21.1	13.9	18.1	20.6	37.2	45.1	34.3	24.6	8.9	33.4	43.2	21.3	45.1
18-Oct	Z	21.8	33.4	20.8	40.6	44.7	44.3	16.6	6.1	29.8	21.7	19.6	19.1	12.7	15.5	22.5	25.5	4.5	2.3	1.4	1.8	0.9	0.5	0.3	17.7	44.7
19-Oct	0.3	Z	0.4	0.6	0.9	0.9	2.2	1.0	1.0	1.5	1.9	1.5	1.7	0.8	0.8	1.2	4.4	3.7	1.0	1.3	1.2	8.4	3.6	6.1	2.0	8.4
20-Oct	10.3	14.7	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	14.7
21-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	C	C	C	C	71.0	76.1	91.8	2.7	1.1	1.0	2.1	1.3	1.5	--	91.8
22-Oct	1.5	1.1	1.4	1.5	Z	26.6	26.5	36.8	50.0	8.1	10.7	2.0	1.9	1.1	1.3	0.7	0.8	1.1	1.2	1.7	1.8	1.8	2.0	1.5	8.0	50.0
23-Oct	1.2	1.2	1.7	1.8	6.8	Z	2.7	3.1	5.1	1.9	2.3	2.1	4.4	2.7	1.1	1.8	1.8	2.2	1.4	1.3	1.6	2.1	2.1	1.9	2.4	6.8
24-Oct	Z	1.7	1.7	1.7	2.0	2.8	2.6	3.9	3.6	5.2	3.9	4.2	5.9	6.5	7.2	3.9	5.5	5.1	3.7	3.8	3.5	14.0	30.3	19.6	6.2	30.3
25-Oct	21.2	Z	10.5	13.8	15.9	33.4	29.6	12.2	49.9	52.2	41.3	39.2	32.2	30.7	30.7	30.8	13.0	10.8	6.3	2.5	2.2	1.4	1.6	3.6	21.1	52.2
26-Oct	9.8	11.9	Z	2.4	1.6	2.3	2.3	1.8	2.4	1.9	2.0	1.6	1.2	1.6	3.1	1.3	1.7	6.1	7.4	9.1	9.5	11.1	11.0	8.6	4.9	11.9
27-Oct	10.2	16.5	15.5	Z	19.5	24.6	18.8	16.4	16.5	14.7	18.1	18.4	30.6	19.8	31.7	20.0	23.8	15.9	28.5	18.8	21.7	23.0	23.1	20.8	20.3	31.7
28-Oct	19.1	18.0	16.4	27.1	Z	22.3	30.2	40.0	28.8	25.1	27.9	37.0	42.6	34.8	67.2	27.0	21.2	6.5	4.9	1.1	1.0	0.6	0.6	1.7	21.8	67.2
29-Oct	0.6	0.5	1.0	0.7	1.1	Z	16.4	13.8	17.9	9.8	7.2	24.3	22.2	8.3	24.0	17.1	13.2	12.4	10.4	6.8	5.0	7.1	11.2	7.0	10.4	24.3
30-Oct	Z	PF	22.7	13.4	12.6	24.1	35.6	23.3	3.2	3.5	2.9	5.1	3.3	6.0	2.9	4.0	2.7	2.3	1.2	1.9	1.7	2.1	1.9	2.2	8.1	35.6
31-Oct	1.8	Z	1.6	2.3	2.2	2.6	3.6	3.8	4.0	2.9	2.0	8.6	2.3	1.8	2.1	2.8	2.1	1.9	1.7	1.9	1.8	1.8	1.4	1.2	2.5	8.6
	6.4	6.9	7.7	6.8	8.3	12.6	12.9	11.6	12.3	10.7	13.2	14.2	11.6	10.5	12.3	12.7	12.0	10.9	6.6	5.0	6.1	5.8	6.7	6.0	Diurnal Average	
	23.2	21.8	33.4	27.1	40.6	44.7	44.3	40.0	50.0	52.2	115.8	102.2	42.6	34.8	67.2	71.0	76.1	91.8	45.1	34.3	25.6	23.7	33.4	43.2	Diurnal Maximum	

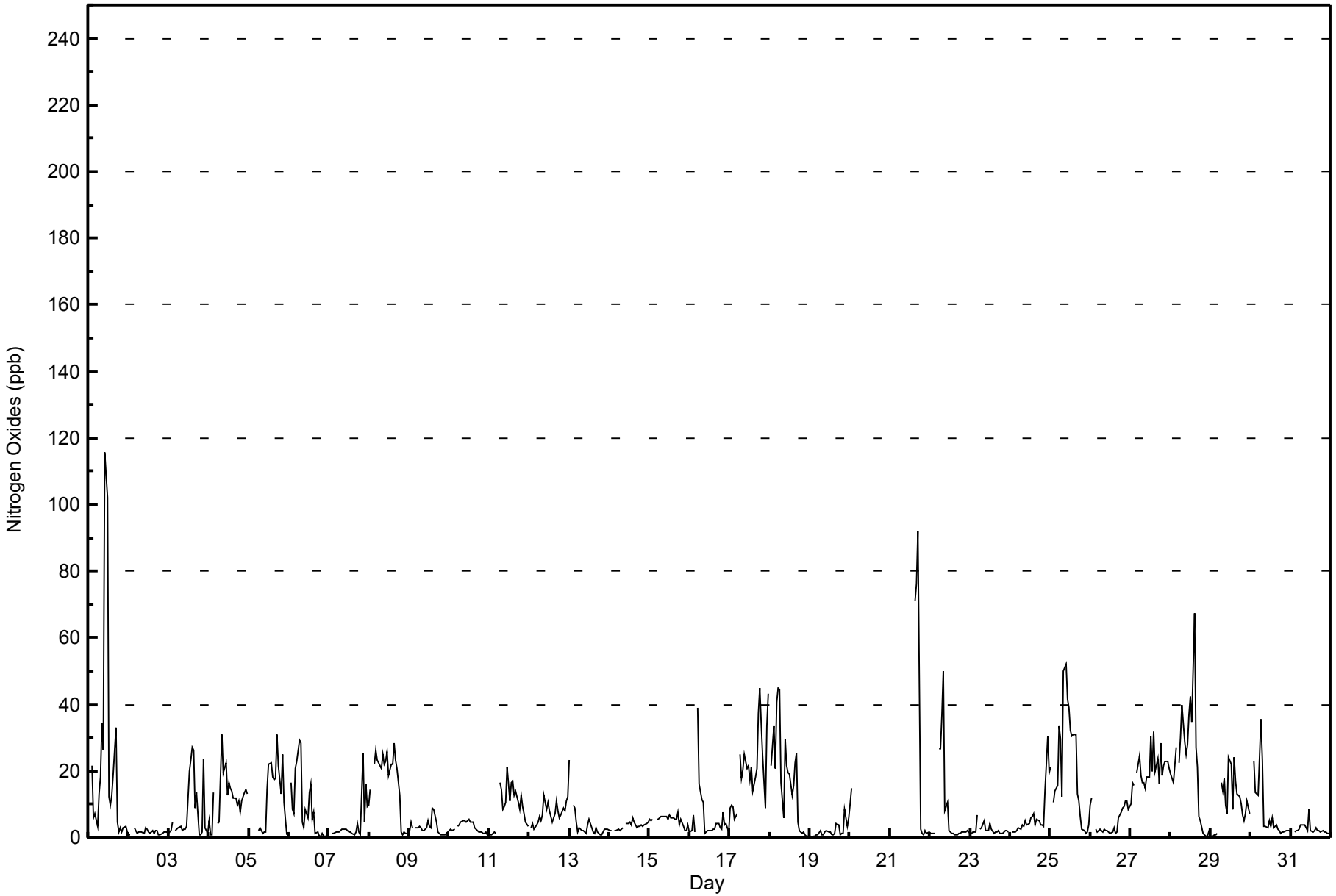
Z - zerospan C - Calibration UO - Unstable Operation PF - Power Failure

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Blackrod - October 2025



Nitrogen Oxides (NO_X) - ppb
Blackrod - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	561	83.61	83.61
21 - 40	94	14.01	97.62
11 - 80	13	1.94	99.55
81 - 159	3	0.45	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 671

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Blackrod - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	13	17	8	8	10	9	26	125	179	31	13	4	1	15	33	54	546
21 - 40	7	3	0	0	0	0	0	2	2	0	6	10	16	25	3	3	77
11 - 80	0	0	0	0	0	0	0	1	0	0	0	4	6	1	1	0	13
81 - 159	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	22	20	8	8	10	9	26	128	181	31	20	18	23	41	37	57	639

Total Number of Valid Hours: 639

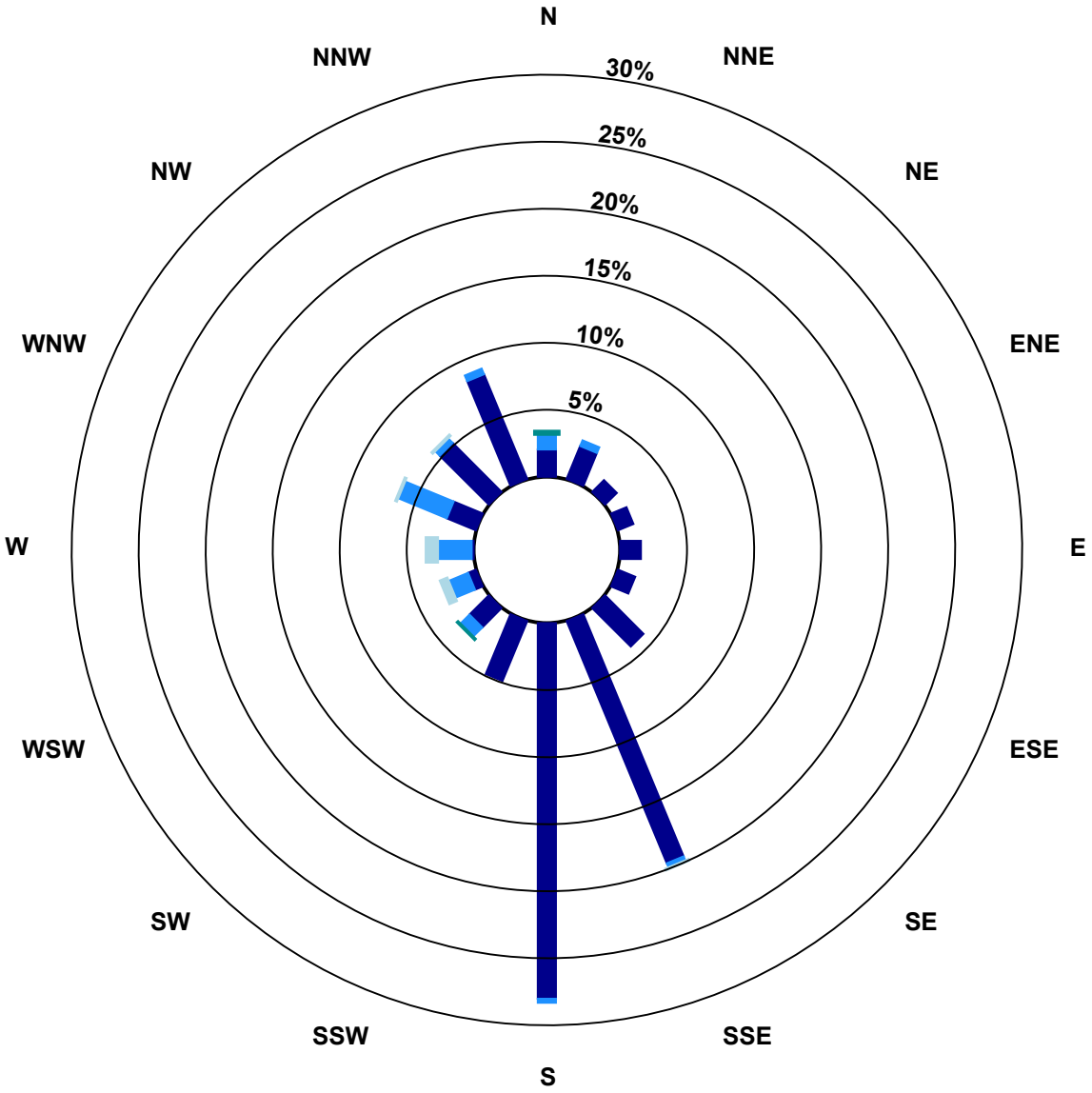
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Blackrod



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

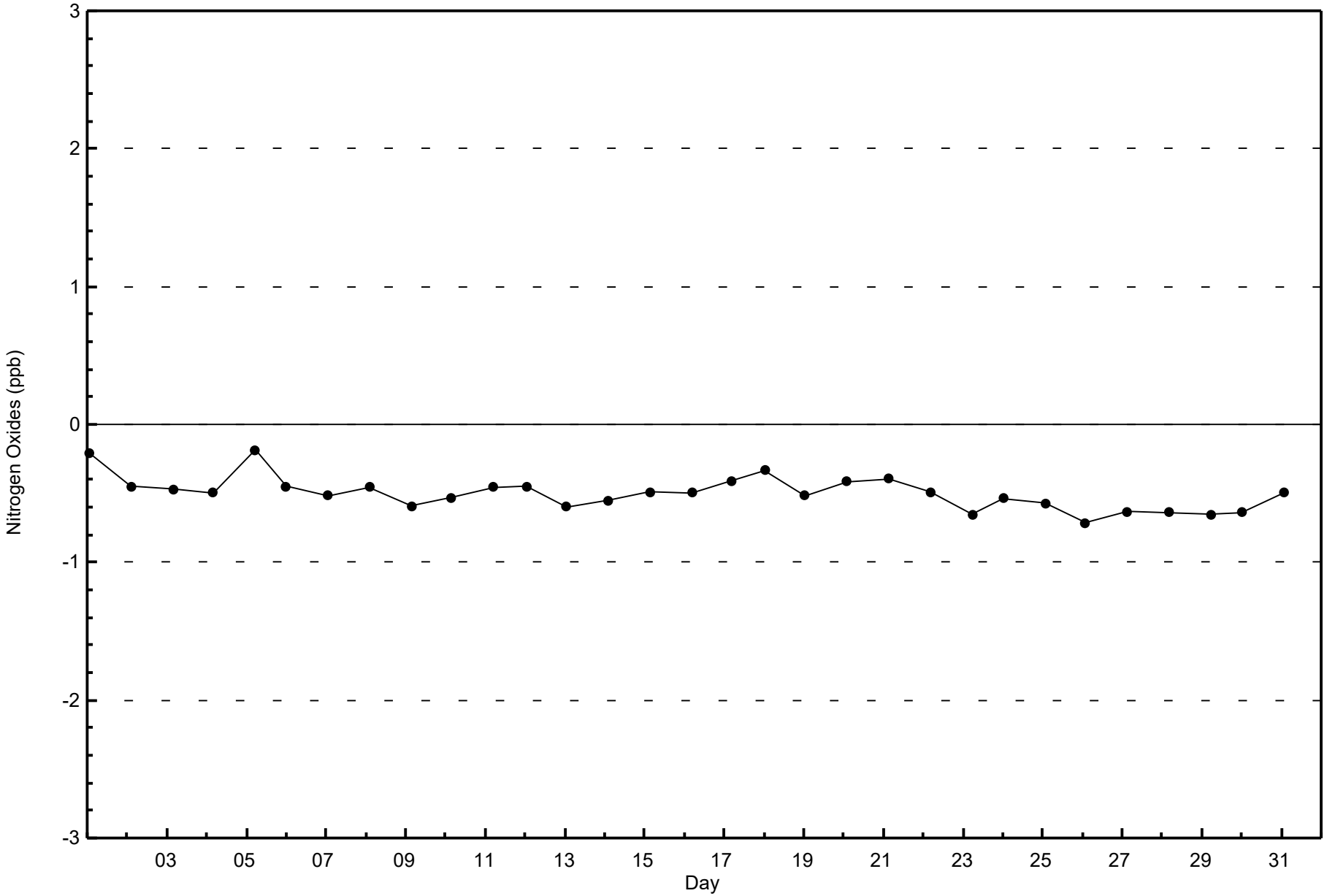
Total Number of Valid Hours: 639

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Blackrod - October 2025

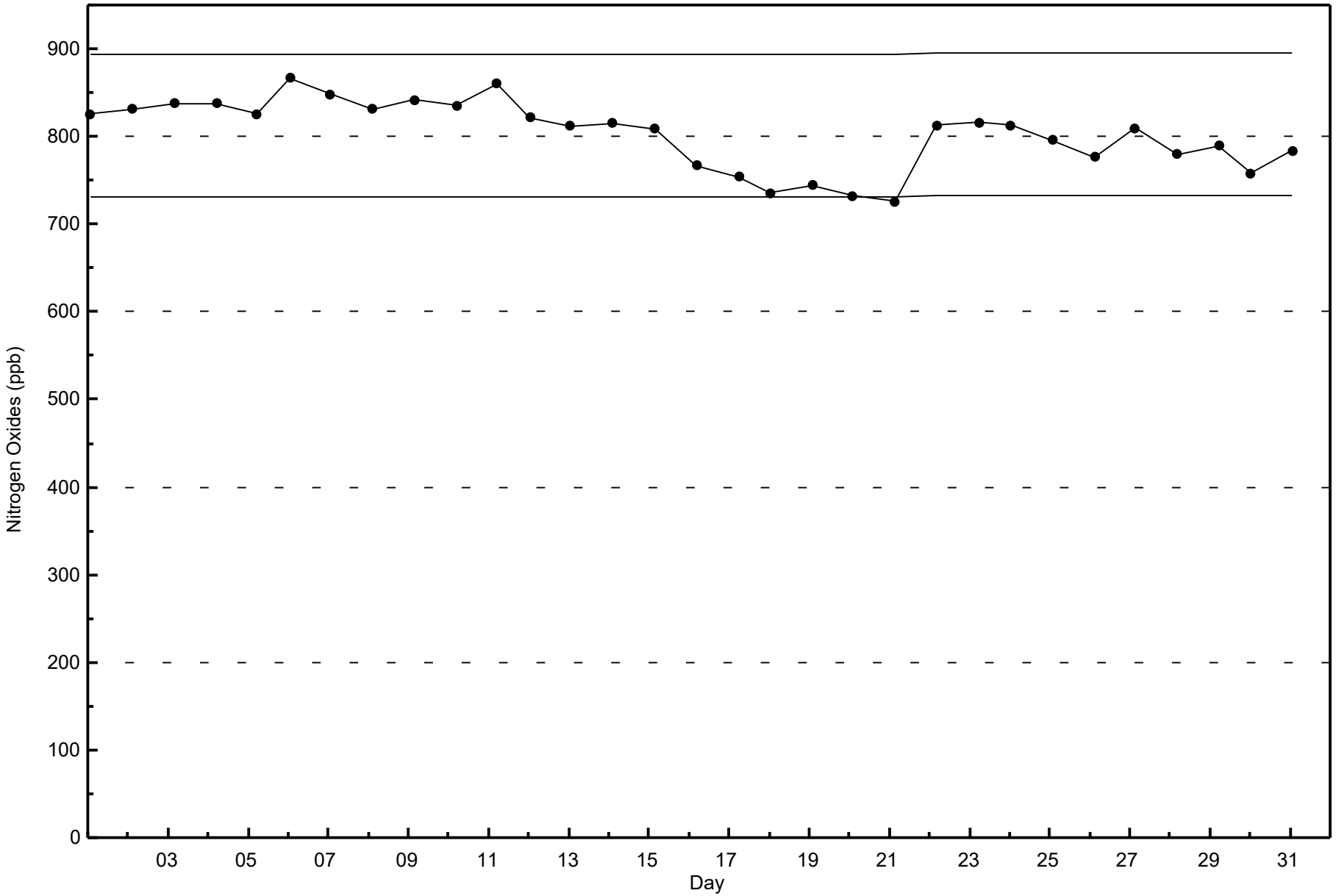


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Blackrod - October 2025



Maximum Value: 20.1 C on Oct 7 16:00

Maximum Daily Average: 12.2 C on Oct 7

Minimum Value: -4.1 C on Oct 14 07:00

Minimum Daily Average: -1.2 C on Oct 28

Maximum Diurnal Average: 8.0 C at hour 15

Minimum Diurnal Average: 2.3 C at hour 8

Monthly Average: 4.80 C

Percentiles: P_1 = -3.1 P_{10} = -0.9 Q_1 = 0.2 Median = 4.8 Q_3 = 8.3 P_{90} = 11.0 P_{99} = 18.0

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

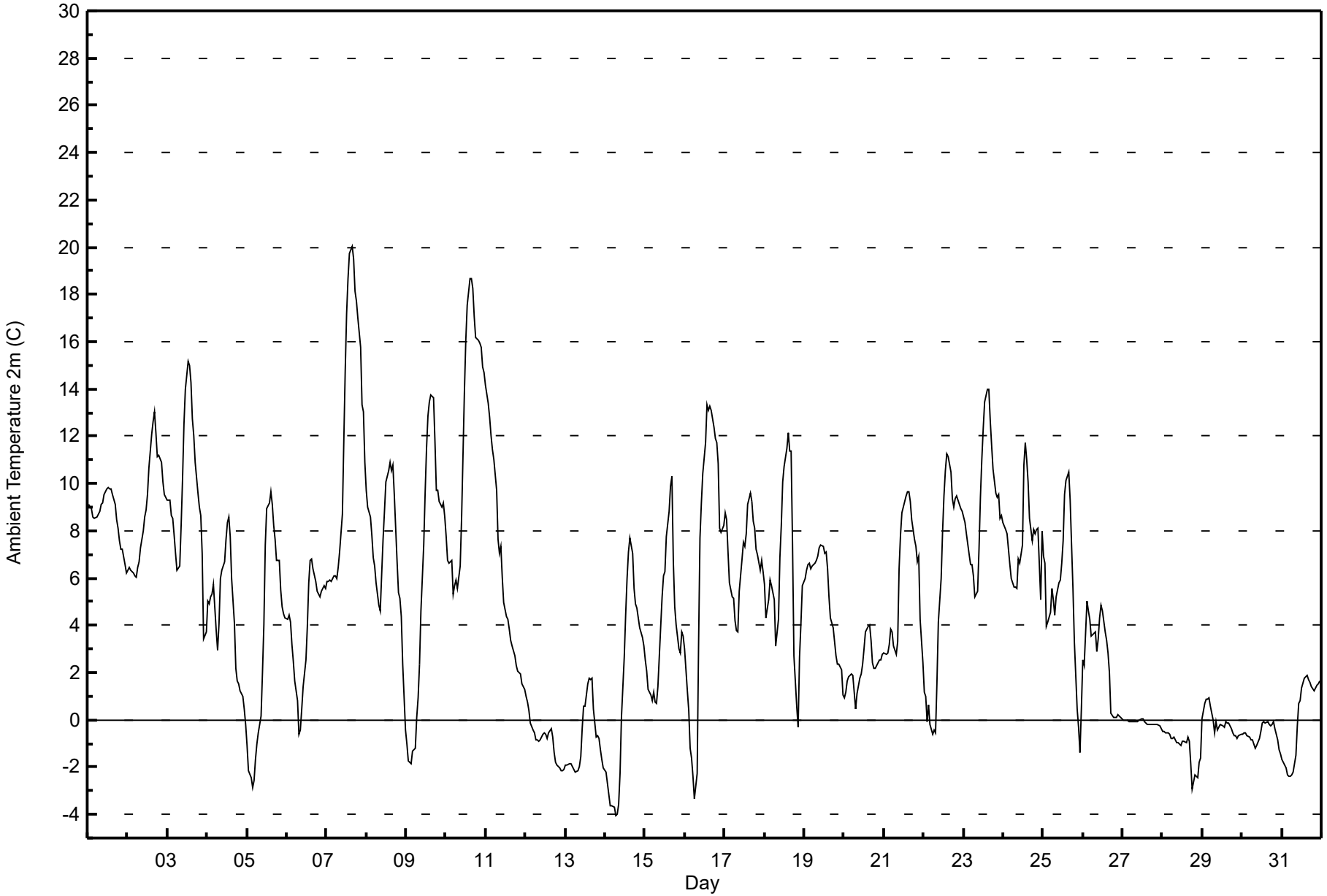
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	9.1	9.0	8.9	8.6	8.5	8.6	8.7	8.8	9.1	9.2	9.5	9.8	9.8	9.7	9.8	9.5	9.1	8.4	8.1	7.6	7.2	7.2	6.6	6.2	8.6	9.8
2-Oct	6.3	6.4	6.4	6.2	6.1	6.0	6.4	6.7	7.3	8.0	8.6	8.9	9.5	10.6	12.1	12.6	13.0	12.1	11.1	11.2	10.9	10.1	9.5	9.4	9.0	13.0
3-Oct	9.3	9.3	8.7	8.6	7.8	7.0	6.4	6.5	8.2	10.2	12.5	14.0	15.2	15.0	14.3	12.7	12.0	10.9	9.6	9.0	8.7	7.0	3.4	3.7	9.6	15.2
4-Oct	5.0	4.9	5.2	5.3	5.7	3.8	2.9	4.1	6.0	6.3	6.7	7.6	8.4	8.6	7.8	6.0	4.1	2.2	1.6	1.5	1.2	1.0	0.5	-0.2	4.4	8.6
5-Oct	-1.1	-2.2	-2.5	-2.9	-2.6	-1.7	-1.0	-0.6	0.2	2.0	4.0	7.4	8.9	9.2	9.7	9.1	8.2	7.6	6.8	6.7	5.5	4.8	4.5	4.3	3.5	9.7
6-Oct	4.3	4.4	4.1	3.2	2.5	1.7	0.8	-0.6	-0.4	0.4	1.4	2.6	3.9	5.8	6.7	6.8	6.4	5.9	5.4	5.3	5.2	5.4	5.7	5.5	3.9	6.8
7-Oct	5.9	5.9	5.9	5.9	6.1	6.1	6.0	6.4	7.1	8.7	11.8	14.8	17.2	18.7	19.7	20.1	19.5	18.2	17.7	17.0	15.7	13.3	13.0	10.9	12.2	20.1
8-Oct	9.7	9.0	8.6	7.8	6.8	6.5	5.8	4.8	4.6	6.1	7.6	8.8	10.0	10.5	10.9	10.6	10.8	9.5	6.7	5.4	5.1	4.4	2.4	-0.4	7.2	10.9
9-Oct	-1.1	-1.7	-1.8	-1.9	-1.3	-1.2	0.1	1.0	2.4	4.6	7.4	9.6	11.5	12.9	13.4	13.7	13.6	11.8	9.7	9.7	9.2	9.0	9.2	8.6	6.2	13.7
10-Oct	7.7	6.8	6.6	6.7	5.3	5.7	5.9	5.5	6.5	8.5	11.2	13.9	16.0	17.6	18.7	18.7	18.3	17.1	16.2	16.1	16.0	15.7	14.9	14.7	12.1	18.7
11-Oct	14.2	13.4	12.8	12.0	11.4	11.0	9.7	7.6	7.0	7.3	6.1	5.0	4.4	4.3	3.9	3.4	3.1	2.7	2.3	2.1	2.0	2.0	1.5	1.3	6.3	14.2
12-Oct	1.0	0.8	0.4	-0.1	-0.4	-0.6	-0.9	-0.9	-0.9	-0.9	-0.6	-0.6	-0.6	-0.8	-0.5	-0.4	-0.7	-1.4	-1.8	-1.9	-2.0	-2.1	-2.2	-2.1	-0.8	1.0
13-Oct	-1.9	-1.9	-1.8	-1.9	-2.0	-2.1	-2.2	-2.1	-2.0	-1.5	-0.4	0.6	0.6	1.5	1.7	1.7	1.8	0.5	-0.7	-0.6	-0.8	-1.2	-1.7	-2.0	-0.8	1.8
14-Oct	-2.2	-2.7	-3.2	-3.6	-3.7	-3.7	-4.1	-4.0	-3.5	-2.3	0.1	2.6	4.4	6.0	7.1	7.7	7.0	5.6	4.9	4.7	4.3	3.9	3.5	3.1	1.3	7.7
15-Oct	2.5	2.1	1.3	1.0	0.8	1.2	0.7	0.7	1.4	3.9	5.2	6.1	6.3	7.8	8.8	9.9	10.3	6.7	4.8	4.0	3.0	2.9	3.7	3.5	4.1	10.3
16-Oct	3.0	1.2	0.4	-1.2	-1.6	-2.4	-3.4	-2.3	3.1	7.7	9.2	10.4	11.7	13.3	13.1	13.3	13.1	12.4	11.9	11.8	10.8	8.1	8.0	8.3	6.7	13.3
17-Oct	8.8	8.5	7.1	5.8	5.2	5.1	4.2	3.8	3.7	5.5	6.8	7.5	7.3	7.9	9.1	9.6	9.2	8.4	8.1	7.2	7.0	6.3	6.8	6.2	6.9	9.6
18-Oct	5.7	4.3	5.1	5.9	5.7	5.4	5.1	3.1	4.3	6.9	8.3	10.1	10.7	11.5	12.2	11.4	11.4	7.5	2.7	0.6	-0.3	2.6	4.1	5.7	6.2	12.2
19-Oct	6.0	6.4	6.6	6.6	6.4	6.5	6.6	6.7	6.9	7.3	7.4	7.3	7.0	7.1	6.4	5.2	4.3	3.9	3.3	2.7	2.4	2.3	2.1	1.1	5.4	7.4
20-Oct	0.9	1.1	1.7	1.8	1.9	1.9	1.2	0.5	1.1	1.8	2.0	2.4	3.0	3.7	3.9	4.0	3.4	2.4	2.2	2.2	2.4	2.5	2.6	2.8	2.2	4.0
21-Oct	2.8	2.8	2.8	3.2	3.8	3.7	3.1	2.8	3.3	6.4	7.8	8.7	9.3	9.5	9.6	9.6	9.2	8.5	7.6	7.3	6.7	6.9	4.2	2.4	5.9	9.6
22-Oct	1.1	1.0	-0.1	0.6	-0.2	-0.6	-0.4	-0.6	1.6	4.2	6.0	7.9	9.5	10.5	11.3	11.1	10.5	9.3	9.0	9.4	9.5	9.1	8.9	8.8	5.7	11.3
23-Oct	8.6	8.4	7.8	7.0	6.6	6.6	6.1	5.2	5.5	7.2	9.4	11.0	12.3	13.4	14.0	14.0	12.7	11.6	10.6	9.6	9.4	9.5	8.5	8.6	9.3	14.0
24-Oct	8.3	8.0	7.9	7.2	6.6	5.9	5.6	5.6	5.5	6.8	6.6	7.4	10.8	11.8	11.0	10.1	8.5	7.6	8.0	7.9	8.1	8.1	5.1	8.0	7.8	11.8
25-Oct	6.9	6.6	3.9	4.1	4.5	5.6	5.1	4.4	5.2	5.8	5.9	6.6	7.6	9.5	10.1	10.5	9.3	7.4	5.6	3.3	0.4	-0.3	-1.4	0.4	5.3	10.5
26-Oct	2.5	2.3	5.0	4.6	4.2	3.5	3.6	3.7	2.9	3.4	4.3	4.8	4.6	3.7	3.3	2.8	2.0	0.3	0.1	0.1	0.1	0.2	0.2	0.1	2.6	5.0
27-Oct	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.1	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.4	-0.1	0.1
28-Oct	-0.5	-0.5	-0.5	-0.6	-0.6	-0.8	-0.8	-0.7	-0.9	-1.0	-1.0	-1.1	-0.9	-0.9	-1.0	-0.7	-0.9	-1.8	-3.0	-2.3	-2.4	-2.4	-1.8	-1.6	-1.2	-0.5
29-Oct	0.1	0.7	0.9	0.9	0.9	0.6	0.0	-0.5	-0.1	-0.4	-0.3	-0.2	-0.2	-0.3	-0.1	-0.1	-0.1	-0.4	-0.6	-0.7	-0.7	-0.8	-0.6	-0.6	-0.1	0.9
30-Oct	-0.6	-0.6	-0.6	-0.7	-0.7	-0.8	-0.9	-1.0	-1.2	-1.1	-0.8	-0.5	-0.2	-0.1	-0.1	-0.1	-0.2	-0.3	-0.2	-0.1	-0.4	-0.8	-1.2	-1.5	-0.6	-0.1
31-Oct	-1.7	-1.8	-2.0	-2.3	-2.4	-2.4	-2.3	-2.2	-1.5	-0.2	0.7	0.8	1.3	1.8	1.8	1.9	1.7	1.6	1.4	1.2	1.3	1.5	1.5	1.7	0.1	1.9
	3.9	3.6	3.4	3.2	2.9	2.8	2.5	2.3	3.0	4.2	5.3	6.3	7.1	7.7	8.0	7.9	7.4	6.3	5.5	5.1	4.7	4.4	3.9	3.8	Diurnal Average	
	14.2	13.4	12.8	12.0	11.4	11.0	9.7	8.8	9.1	10.2	12.5	14.8	17.2	18.7	19.7	20.1	19.5	18.2	17.7	17.0	16.0	15.7	14.9	14.7	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Blackrod - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	174	23.39	23.39
0 - 10	472	63.44	86.83
10 - 20	97	13.04	99.87
> 20	1	0.13	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

Blackrod - October 2025

Maximum Value: 99.6 % on Oct 27 21:00

Maximum Daily Average: 99.1 % on Oct 27

Minimum Value: 32.3 % on Oct 6 15:00

Minimum Daily Average: 49.5 % on Oct 23

Maximum Diurnal Average: 81.3 % at hour 8

Minimum Diurnal Average: 59.6 % at hour 15

Monthly Average: 72.07 %

Percentiles: P_1 = 35.3 P_{10} = 44.6 Q_1 = 55.4 Median = 73.8 Q_3 = 90.2 P_{90} = 96.5 P_{99} = 99.4

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

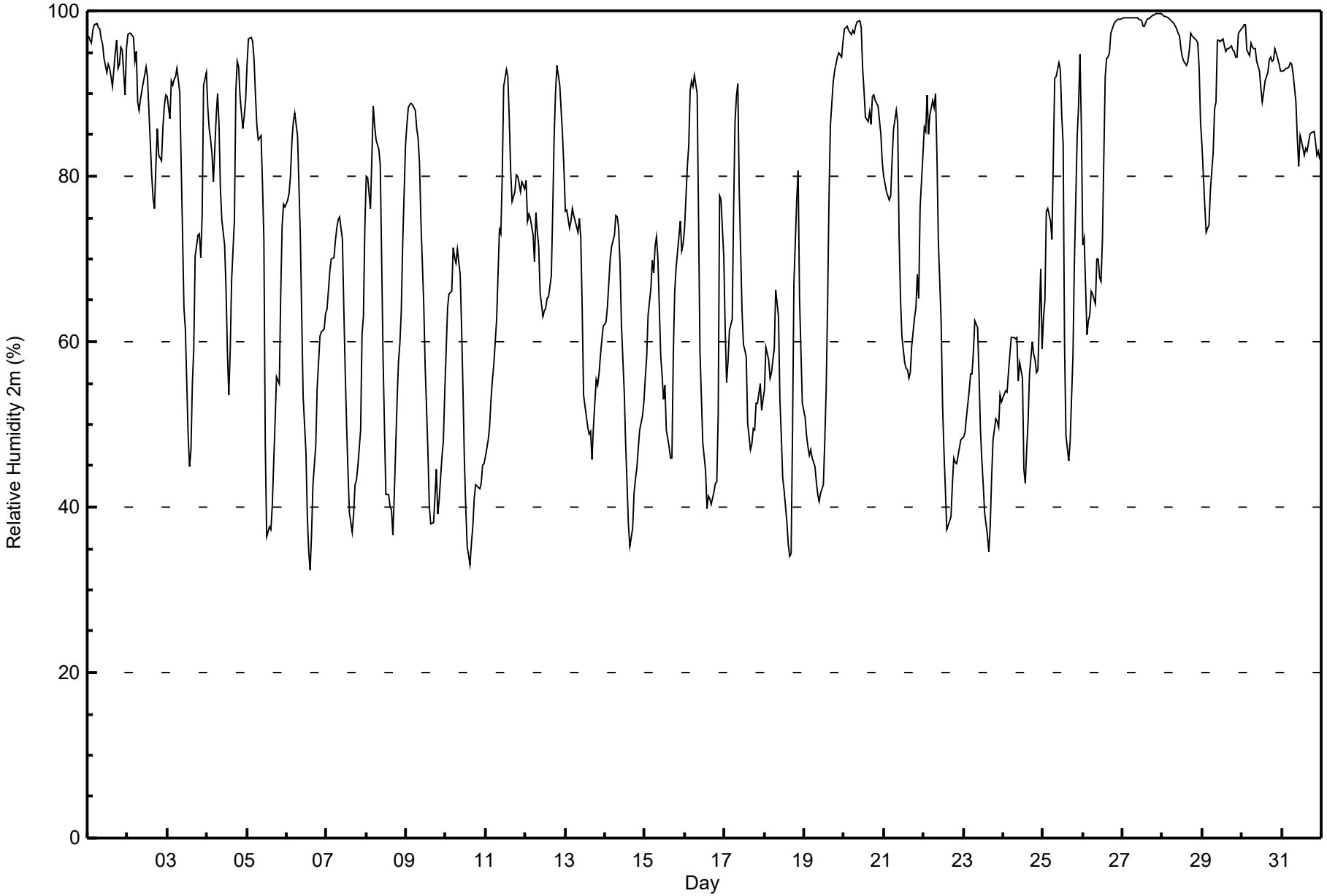
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	96.9	96.4	96.2	97.6	98.3	98.5	98.0	97.8	96.6	95.9	94.3	92.5	93.6	93.1	92.0	90.8	94.9	96.5	93.1	93.6	95.7	95.3	89.8	95.4	95.1	98.5
2-Oct	97.2	97.3	97.3	96.7	94.0	95.0	89.0	88.0	89.3	91.3	92.3	93.3	92.0	88.0	80.1	77.3	76.0	81.4	85.8	82.6	81.8	85.9	88.4	89.8	88.7	97.3
3-Oct	89.6	86.9	91.5	91.0	91.8	92.1	93.1	90.1	81.6	73.0	64.0	61.5	48.6	45.0	47.0	54.9	59.1	70.3	72.8	73.1	70.2	75.4	91.0	92.6	75.3	93.1
4-Oct	88.2	85.8	84.4	82.7	79.3	87.2	89.9	86.3	78.4	74.7	71.6	66.5	58.7	53.5	59.0	67.4	74.7	90.1	94.0	93.2	89.7	85.7	87.2	89.3	79.9	94.0
5-Oct	93.5	96.6	96.8	96.3	94.0	89.8	86.1	84.4	84.8	79.1	72.4	47.6	36.4	37.7	37.3	40.2	45.4	50.3	55.7	55.0	65.6	73.9	76.6	76.3	69.7	96.8
6-Oct	77.2	78.0	80.1	84.2	86.6	87.6	84.8	79.0	72.7	63.0	53.4	46.7	38.7	34.6	32.3	36.7	42.7	47.5	54.4	57.5	60.8	61.1	61.5	63.4	61.9	87.6
7-Oct	63.9	66.1	68.4	70.1	70.2	72.3	73.8	74.8	75.0	72.5	64.1	56.5	49.9	44.2	39.3	36.9	39.2	42.6	43.3	44.9	49.4	60.8	63.1	73.8	59.0	75.0
8-Oct	80.1	79.9	76.1	82.2	88.5	86.1	84.5	83.1	81.4	69.8	58.1	49.7	41.5	41.6	40.0	39.6	36.6	41.6	52.9	57.6	59.8	63.7	71.8	83.6	64.6	88.5
9-Oct	86.3	88.3	88.7	88.9	88.6	88.0	85.7	84.6	81.6	74.6	64.6	57.1	52.1	46.6	40.0	37.9	38.1	41.2	44.6	39.1	40.9	46.2	48.0	53.9	62.7	88.9
10-Oct	59.1	64.0	65.8	66.1	71.4	70.2	69.5	71.1	68.1	61.7	54.0	45.5	39.9	35.2	33.1	35.6	37.7	41.1	42.8	42.3	42.2	42.9	45.0	45.3	52.1	71.4
11-Oct	46.2	48.1	49.8	53.0	55.4	57.2	62.7	68.1	73.6	73.0	80.2	90.9	92.9	92.0	87.0	80.6	76.9	78.2	80.2	80.1	79.2	78.1	79.3	78.5	72.5	92.9
12-Oct	79.5	74.6	75.4	74.9	72.8	69.7	75.6	73.2	71.5	65.9	63.1	63.7	64.1	65.3	65.5	68.0	75.9	84.7	90.2	93.4	90.9	87.9	85.0	80.9	75.5	93.4
13-Oct	75.7	76.0	73.7	74.5	76.0	75.2	74.5	73.2	74.9	72.5	64.1	53.6	52.3	49.7	48.7	49.2	45.8	49.6	55.5	54.7	56.1	58.3	60.2	61.8	62.7	76.0
14-Oct	62.3	64.3	67.0	70.1	71.5	73.0	75.2	75.1	73.7	69.3	62.0	53.9	47.6	42.7	37.8	35.2	37.4	41.7	43.3	44.8	47.1	49.4	51.0	52.7	56.2	75.2
15-Oct	55.7	58.2	63.2	66.5	69.8	68.4	71.5	72.8	70.0	58.4	55.9	53.0	54.7	49.4	47.3	45.9	45.9	58.7	66.1	69.0	72.7	74.5	71.1	71.9	62.1	74.5
16-Oct	73.8	81.3	83.7	90.3	91.5	90.9	92.2	90.0	74.7	58.8	53.3	47.9	44.4	39.9	41.4	41.0	40.3	41.8	42.9	43.0	51.2	77.6	77.2	70.2	64.1	92.2
17-Oct	61.3	55.1	57.6	61.3	62.7	76.0	86.6	89.7	91.3	78.3	63.8	59.7	58.9	58.1	50.1	47.0	47.7	49.5	49.3	52.6	52.5	54.9	51.7	53.1	61.2	91.3
18-Oct	54.2	59.3	57.9	55.5	56.3	57.8	59.1	66.3	63.1	53.1	48.6	43.6	42.0	38.2	35.3	34.0	34.5	48.9	67.1	77.2	80.6	65.3	58.9	52.6	54.6	80.6
19-Oct	50.9	48.7	47.3	46.3	47.0	46.0	44.9	43.1	41.6	40.8	41.8	42.7	48.0	54.2	64.3	77.1	86.1	91.4	92.7	93.6	94.3	95.0	94.5	96.2	63.7	96.2
20-Oct	97.8	97.9	98.1	97.6	97.1	97.6	97.4	98.1	98.6	98.8	97.9	93.0	90.3	87.1	86.6	87.7	86.3	89.7	89.8	89.2	88.5	86.8	85.1	81.7	92.5	98.8
21-Oct	80.0	78.1	77.6	77.1	77.7	81.9	85.6	88.0	86.4	72.9	65.2	60.6	57.5	56.8	56.6	55.5	56.3	59.5	62.8	64.0	68.2	65.3	76.4	82.5	70.5	88.0
22-Oct	86.0	85.5	89.9	85.0	87.5	89.2	88.3	90.0	82.6	72.2	62.3	52.3	46.7	42.3	37.3	37.7	38.9	42.7	46.0	45.4	45.3	47.2	48.2	48.2	62.4	90.0
23-Oct	48.5	49.0	50.9	54.1	56.0	56.1	58.7	62.5	61.6	56.0	49.5	45.7	42.8	39.3	36.6	34.6	37.8	43.6	48.1	50.7	50.3	49.7	53.6	52.7	49.5	62.5
24-Oct	53.2	54.1	53.9	56.3	58.4	60.6	60.5	60.3	60.6	55.3	57.4	55.5	44.6	42.8	46.9	50.4	56.1	60.0	58.4	57.8	56.2	56.5	68.9	59.1	56.0	68.9
25-Oct	62.8	65.1	75.8	76.1	74.5	72.4	82.1	91.8	92.1	93.8	92.8	87.3	83.9	59.5	48.6	45.5	47.9	53.2	58.3	69.5	84.8	88.5	94.7	85.9	74.5	94.7
26-Oct	71.8	72.6	60.8	62.6	63.3	66.2	65.8	64.5	70.0	70.0	67.7	67.3	72.3	92.0	94.3	94.4	94.9	97.3	98.4	98.7	98.8	98.9	99.0	99.1	80.9	99.1
27-Oct	99.1	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.1	99.1	99.0	98.8	98.1	98.2	98.6	98.9	99.2	99.4	99.5	99.5	99.6	99.6	99.6	99.6	99.1	99.6
28-Oct	99.5	99.4	99.3	99.2	99.0	98.8	98.7	98.5	97.8	97.4	96.9	95.4	94.4	93.8	93.3	93.9	95.3	97.2	97.0	96.7	96.4	96.2	93.1	86.5	96.4	99.5
29-Oct	83.8	76.4	73.2	73.7	74.1	78.3	82.9	88.2	88.9	96.4	96.4	96.3	96.6	95.8	95.2	95.5	95.4	95.8	95.2	95.2	94.3	94.5	97.4	97.8	89.9	97.8
30-Oct	98.0	98.3	98.2	95.3	94.6	96.1	95.6	95.4	95.5	93.9	92.7	90.6	89.0	90.2	91.6	92.5	94.0	94.4	93.8	94.1	95.4	94.2	93.5	92.8	94.1	98.3
31-Oct	92.8	92.7	93.1	93.1	93.2	93.8	93.6	92.3	89.0	84.5	81.2	84.9	84.3	82.6	83.4	83.0	84.1	85.0	85.3	85.4	84.0	82.6	83.0	82.0	87.0	93.8
	76.3	76.6	77.1	78.0	78.7	79.7	80.8	81.3	79.5	74.7	70.4	66.2	63.1	60.9	59.6	60.2	62.0	66.6	69.7	70.7	72.3	73.9	75.6	75.8	Diurnal Average	
	99.5	99.4	99.3	99.2	99.2	99.2	99.2	99.2	99.1	99.1	99.0	98.8	98.1	98.2	98.6	98.9	99.2	99.4	99.5	99.5	99.6	99.6	99.6	99.6	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Blackrod - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	36	4.84	4.84
40 - 60	205	27.55	32.39
60 - 80	192	25.81	58.20
80 - 100	311	41.80	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Blackrod - October 2025

Maximum Speed: 38 km/h on Oct 31 19:00

Maximum Daily Speed Average: 23.2 km/h on Oct 31

Minimum Speed Value: 0 km/h on Oct 28 18:00

Minimum Daily Speed Average: 1.2 km/h on Oct 6

Maximum Diurnal Speed Average: 7.5 km/h at hour 14

Minimum Diurnal Speed Average: 5.2 km/h at hour 18

Monthly Average Velocity: 6.0 km/h 188.6 deg

Percentiles: P_1 = 1 P_{10} = 4 Q_1 = 8 Median = 12 Q_3 = 17 P_{90} = 22 P_{99} = 29

Hours in Service:	744
Hours of Data:	710
Hours of Missing Data:	34
Percent Operational Time:	95.4

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	N11	N12	N11	NNW12	NNW12	NNW12	NNW13	N14	N14	N13	N15	N10	NNW12	NNW10	NNW10	NNE8	NNE7	NNE7	NNE6	NNE3	NE3	NNE2	ENE2	SSE4	N8.7	N15
2-Oct	SE3	SSE2	SE1	ESE1	S6	SSE7	SSE8	SSE13	SSE15	SSE12	S11	S12	S15	S15	S12	S14	S14	SSE11	SSE11	SSE14	SSE17	SSE17	SSE16	SSE16	SSE10.7	SSE17
3-Oct	SSE16	SSE12	S11	SSE16	SSE17	SSE15	SSE13	S12	S14	S14	S13	S15	SW16	SW15	WSW15	SW11	SSW8	SW11	SSW9	S10	S9	WSW2	SE3	SE3	S10.4	SSE17
4-Oct	S5	S6	S7	SW6	WSW6	SSW6	S6	SW5	WNW9	WNW12	WNW10	WNW13	WNW16	WNW21	WNW22	WNW25	NW21	NW17	NW15	NW16	NW13	NW12	NW10	NW5	WNW9.4	WNW25
5-Oct	SSE1	SSE3	SSE4	SSE5	SSE7	SSE9	S10	S11	S12	S14	S16	SW15	WSW16	SW15	WNW14	WNW15	WNW15	W8	W3	NNW9	N9	WNW1	S4	S6	SW5.2	WSW16
6-Oct	S3	NW4	NNW10	NNW10	N9	N12	NNE13	NNE13	NNE11	NE9	NNE7	NNE5	NW4	WSW6	SSW5	SSW7	S8	SSE8	S11	S13	S15	S17	S20	S19	SSE1.2	S20
7-Oct	S19	S19	S18	S19	SSE19	S18	S20	S18	S18	S18	S18	S17	S19	S21	S21	S22	S15	SSE10	SSE13	S11	SW6	SE3	NW14	NW15	S13.9	S22
8-Oct	NW12	NW13	NW13	WNW9	WNW6	WNW11	WNW15	WNW16	WNW13	WNW15	WNW15	W18	WNW19	WNW18	W17	W15	WNW16	WNW14	SSW5	SSW9	S9	SSW8	S6	SSE4	WNW10.1	WNW19
9-Oct	SE2	SSE3	SSE5	SSE6	SSE8	SSE7	S10	S12	S13	S12	S10	SSW11	SSW14	SSW17	SSW17	SSW14	SSW13	SSW11	S11	S14	SSE14	SSE15	SSE16	S13	S10.6	SSW17
10-Oct	SSE13	SSE13	SSE14	SSE14	S15	SSE16	SSE19	S19	S18	S20	S19	S23	S23	S23	S22	S20	SSE18	SSE18	SSE19	SSE22	SSE22	SSE23	SSE20	SSE23	S18.8	S23
11-Oct	SSE22	SSE20	SSE21	S17	SSE16	S10	NW11	NNW18	NNW15	NW24	NNW26	NW15	NNW16	NW14	NW12	NW16	NW16	NW16	NNW15	NW12	NW13	NNW17	NNW19	NNW21	NW8.4	NNW26
12-Oct	NNW23	NNW25	NNW22	NNW20	NNW23	NNW20	NNW17	NNW17	NNW18	N19	NNW18	N19	NNW19	NNW18	NNW17	NNW15	NNW11	NNW12	NNW10	NNW8	NNW9	N9	NNW7	NNW5	NNW15.9	NNW25
13-Oct	NNW5	NW4	NNW5	NNW3	SE2	SE3	SSE6	SSE7	S10	S14	S16	SSW16	SSW15	SSW18	S20	S18	SSW18	S14	S10	S17	S21	S23	S23	S22	S11.6	S23
14-Oct	S24	S24	S23	S23	S25	S27	S25	S26	S27	S25	S25	S27	S25	S22	SSW21	SSW17	S18	S19	S18	S17	S17	SSE16	SSE18	SSE16	S21.7	S27
15-Oct	SSE16	SSE16	S17	S18	S18	S21	S22	S22	S22	S22	S24	S23	S19	S17	S15	S11	S9	SSE8	SSE9	S8	SSE9	SSE10	SSE10	S10	S15.4	S24
16-Oct	SSE9	SSE8	SSE7	SSE6	SSE5	S3	S5	S10	S11	S14	S17	S21	S20	S22	S23	S19	S17	S14	S11	SSE13	S11	SSE6	S9	S10	S12.1	S23
17-Oct	SW15	SW14	SW11	SSW11	SSW10	W17	W19	WNW21	WNW15	W17	WNW19	W18	WNW19	W17	WNW19	WNW20	WNW18	W11	W9	WSW4	SW4	SSW4	WSW7	WNW7	W12.2	WNW21
18-Oct	WNW9	WSW5	W7	WNW12	W10	W9	W9	S3	S6	W9	WSW8	WSW9	SW12	SW10	W8	WNW8	W5	S6	SSE5	SE3	SE5	SE8	SSE9	SSE12	WSW4.8	SSE12
19-Oct	SSE15	SSE18	SSE20	SSE17	SE16	SE16	SSE16	SE15	SE12	SE9	ESE8	SE8	E6	SE10	SE11	ESE8	E4	E3	ESE4	NE5	ENE5	NNE3	NE4	NNE7	SE8.6	SSE20
20-Oct	NNE7	NNE8	NNE8	NNE8	N9	NW8	NW9	N4	WNW3	W7	WNW10	W8	SW7	S12	S12	S14	SSW14	S14	SSE18	SSE20	SSE21	SSE22	SSE21	S21	S5.4	SSE22
21-Oct	SSE22	S20	S18	S15	S13	S11	S11	S10	S10	SW10	WSW12	W13	W15	WNW14	W12	WSW9	WSW8	SW6	SSW6	S6	S7	SSW7	S6	SSE8	SSW8.4	SSE22
22-Oct	SSE8	SSE8	SSE8	SSE8	SSE6	SSE7	SSE6	S10	SSE8	S9	S14	S17	S16	SSE14	SSE16	SSE15	SSE15	SSE14	SSE21	SSE28	SSE29	SSE27	SSE26	SSE25	SSE14.7	SSE29
23-Oct	SSE23	SSE26	S22	S20	S13	S16	S16	SSE12	S11	S13	S11	SSW10	SSW11	S11	S14	S14	S11	S15	SSE19	SSE20	SSE23	SSE24	SSE23	SSE26	S16.6	SSE26
24-Oct	SSE25	SSE27	SSE24	SSE24	S22	S20	S18	S19	S17	S14	S19	S12	S9	SSW11	S11	S13	S8	S11	SSE15	SSE18	SSE17	SSE5	NNW4	S7	S14.9	SSE27
25-Oct	WSW2	W4	SW1	NNE4	ENE3	N5	SW3	S6	WSW8	WSW10	W11	W12	W10	W15	WNW15	WSW11	SW16	SW12	SSW8	S8	SSE4	SE4	ESE3	E7	WSW4.6	SW16
26-Oct	ESE4	ESE5	E10	E10	ENE11	E13	E12	E14	ENE13	E16	E14	ENE12	ENE14	NE13	NE14	NE13	NE14	NNE9	NNE8	NNE6	N5	N8	NNW6	NNW9	ENE8.9	E16
27-Oct	NW8	NW5	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	NW8
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	W6	W6	NW5	WNW3	WNW2	ESE0	SSE2	SSE6	SE5	SSE5	SE4	SE5	----	W6
29-Oct	SSE8	SE10	SE10	SE9	SE8	ESE6	NNE1	ENE2	S3	S3	ESE0	WNW2	WNW4	NNW5	NW7	NW8	NW9	NW8	NNW9	NNW8	NNW9	NNW8	NNW7	NNW8	NNW1.7	SE10
30-Oct	NW7	NW6	NW6	NW8	NNW6	NNW3	WNW3	WSW1	NW1	NW2	NW3	NNW2	N7	N8	NNW6	N6	N7	N7	N7	N7	NNW9	WSW8	NW9	SSW10	NNW4.5	SSW10
31-Oct	WSW5	S11	SSE13	SSE14	SSE16	S18	S15	S15	S18	S19	S26	S25	SSE26	SSE27	SSE28	SSE29	SSE31	SSE36	SSE38	S34	SSE34	S30	SSE26	SSE27	SSE23.2	SSE38
	S5.7	S6.2	S6.1	S5.7	S5.8	S5.4	S5.4	S5.5	S5.8	SSW5.9	SSW6.4	SSW7.4	SW6.9	SW7.5	SW7.1	SW6.1	SSW5.6	SSW5.2	S6.3	S7.4	S7.4	S7.2	S6.3	S7.1	Diurnal Average	
	SSE25	SSE27	SSE24	SSE24	S25	S27	S25	S26	S27	S25	S26	S27	SSE26	SSE27	SSE28	SSE29	SSE31	SSE36	SSE38	S34	SSE34	S30	SSE26	SSE27	Diurnal Maximum	

UO - Unstable Operation

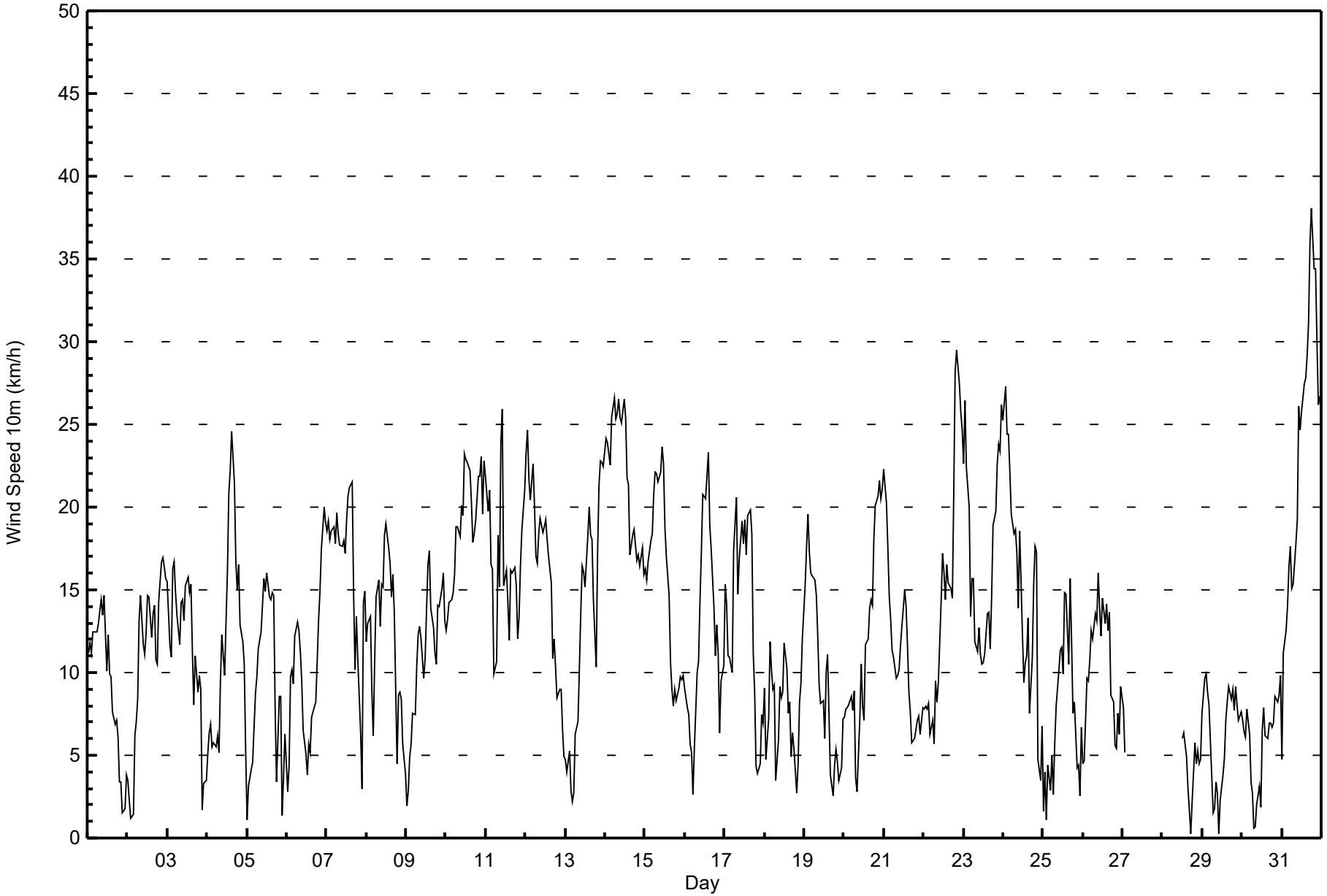
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Blackrod - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	102	14.37	14.37
6 - 11	233	32.82	47.18
12 - 19	267	37.61	84.79
20 - 28	100	14.08	98.87
29 - 38	8	1.13	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 710

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Blackrod - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	3	6	3	4	2	7	14	15	8	3	4	6	3	7	9	8	102
6 - 11	15	14	1	1	4	3	9	36	54	17	9	11	14	10	14	21	233
12 - 19	7	2	4	3	5	0	4	54	90	11	9	3	13	23	18	21	267
20 - 28	0	0	0	0	0	0	0	35	49	1	0	0	0	5	2	8	100
29 - 38	0	0	0	0	0	0	0	6	2	0	0	0	0	0	0	0	8
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	25	22	8	8	11	10	27	146	203	32	22	20	30	45	43	58	710

Total Number of Valid Hours: 710

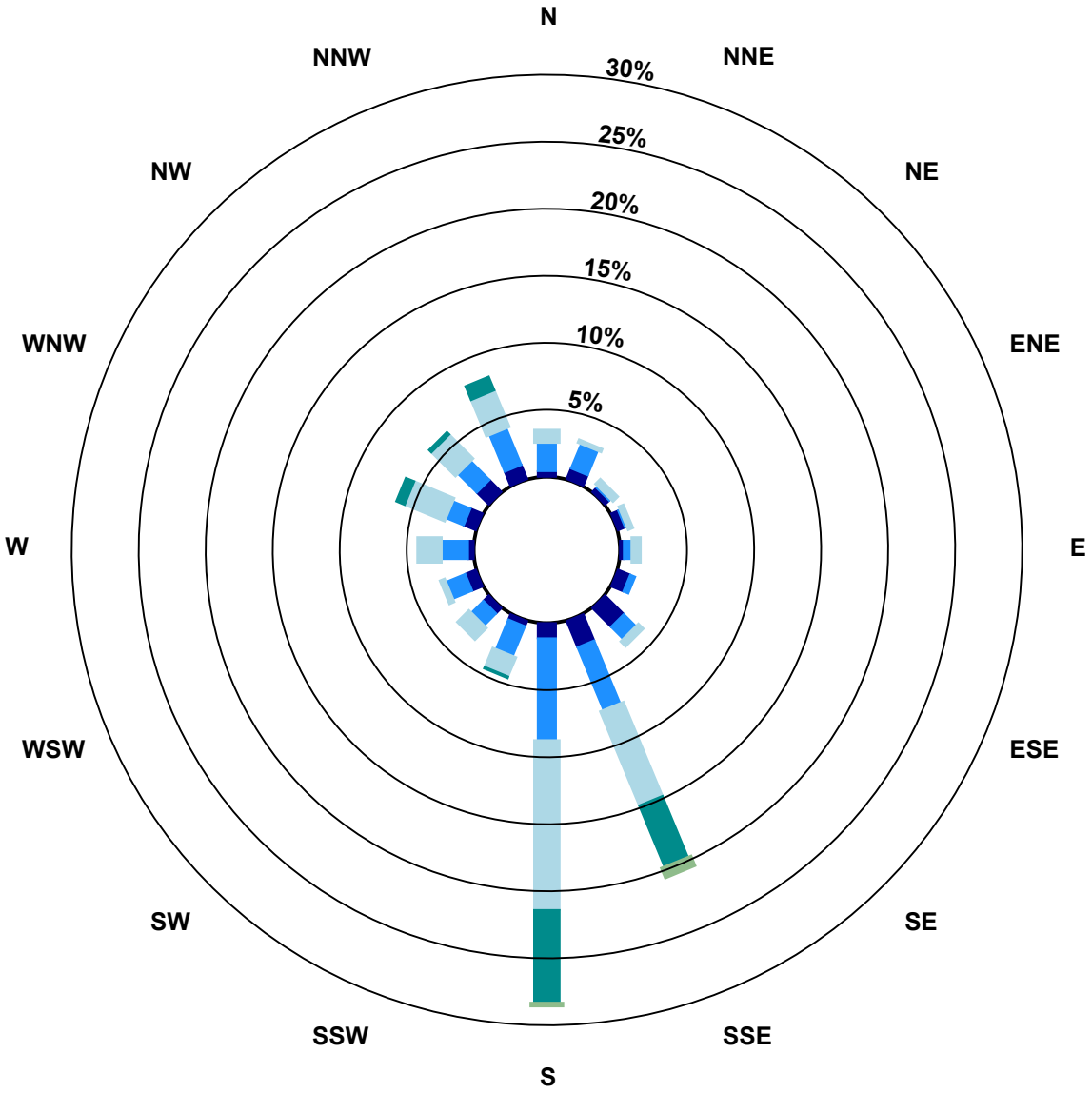
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Blackrod



Classes (km/h)

- 0 - 5
- 6 - 11
- 12 - 19
- 20 - 28
- 29 - 38
- > 38

Total Number of Valid Hours: 710

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Blackrod - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 8 km/h on Oct 11 11:00

Minimum Value: 0 km/h on Oct 28 18:00

Percentiles: P_1 = 1 P_{10} = 1 Q_1 = 2 Median = 3 Q_3 = 4 P_{90} = 5 P_{99} = 7

Hours in Service:	744
Hours of Data:	710
Hours of Missing Data:	34
Hours of Calibration:	0
Percent Operational Time:	95.4

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	2	2	2	2	2	3	3	3	4	2	3	2	2	2	2	3	2	1	1	1	2	1	4
2-Oct	1	1	1	1	2	2	3	3	3	3	3	3	3	3	3	3	3	2	2	2	3	3	3	3	3
3-Oct	3	3	4	3	3	2	3	2	2	3	3	4	5	5	5	4	3	4	2	1	2	2	1	2	5
4-Oct	2	2	1	2	2	1	1	2	3	4	3	6	5	6	6	6	6	5	5	5	4	3	4	2	6
5-Oct	1	1	1	1	2	1	2	2	2	2	3	4	5	4	5	4	5	3	1	4	3	1	1	1	5
6-Oct	1	1	3	2	2	3	4	3	3	3	3	3	2	3	3	2	2	2	2	2	3	4	4	3	4
7-Oct	3	3	3	3	4	3	3	4	3	3	4	4	4	4	4	5	5	2	3	2	2	3	6	6	6
8-Oct	3	4	4	2	2	3	3	4	3	4	5	5	5	5	5	4	4	7	1	2	1	1	2	1	7
9-Oct	1	1	1	1	1	1	2	2	2	2	2	2	4	4	4	3	3	2	2	2	2	2	2	2	4
10-Oct	2	2	2	2	5	3	3	3	3	3	4	5	5	5	5	4	4	4	3	4	5	5	4	4	5
11-Oct	4	4	4	4	3	4	5	5	4	7	8	5	5	5	5	5	5	5	5	4	4	5	5	6	8
12-Oct	6	6	5	4	6	6	4	4	5	5	5	4	4	5	4	4	3	3	3	2	2	2	2	2	6
13-Oct	1	1	2	1	1	1	2	2	2	4	4	5	5	5	5	5	5	4	2	3	4	4	4	4	5
14-Oct	4	4	4	4	5	5	4	4	4	5	5	6	5	4	5	4	3	3	2	2	3	2	3	3	6
15-Oct	3	2	3	3	3	3	4	3	3	4	4	4	4	3	3	2	1	1	2	1	1	1	1	1	4
16-Oct	1	2	2	2	2	2	2	2	1	3	3	4	4	5	5	4	3	2	2	2	4	2	2	2	5
17-Oct	5	4	3	2	3	6	5	5	5	5	5	5	5	5	6	5	6	4	2	1	2	1	2	2	6
18-Oct	2	2	3	3	3	3	2	2	2	3	3	3	3	4	4	2	2	1	1	1	2	2	2	2	4
19-Oct	3	4	4	4	4	4	4	4	4	3	3	4	3	4	4	3	2	1	2	2	2	1	1	2	4
20-Oct	1	2	2	2	2	3	3	1	1	2	2	2	2	3	3	3	2	3	3	3	4	4	4	4	4
21-Oct	4	4	3	2	2	2	2	1	1	3	3	5	4	4	3	3	2	2	1	1	1	1	1	1	5
22-Oct	1	1	1	1	2	1	1	2	2	1	3	3	3	3	4	4	4	3	6	7	7	6	6	6	7
23-Oct	5	6	4	5	4	4	3	2	2	3	2	2	2	3	3	3	2	3	4	4	4	5	5	5	6
24-Oct	5	5	5	5	5	3	3	3	4	3	3	3	3	2	2	3	2	3	3	4	4	6	1	4	6
25-Oct	3	3	2	2	2	2	2	2	4	3	4	3	3	4	4	4	4	3	2	2	2	3	1	2	4
26-Oct	2	2	3	2	3	4	4	5	4	5	5	4	5	3	4	3	3	2	1	2	1	1	1	3	5
27-Oct	2	3	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	3
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	2	1	1	1	1	0	2	1	1	1	1	2	2
29-Oct	2	2	3	3	3	2	2	1	2	1	1	2	1	1	2	2	2	2	2	2	2	2	1	1	3
30-Oct	2	2	2	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
31-Oct	1	2	2	3	3	3	3	3	3	3	6	5	5	5	6	6	7	7	7	7	7	6	5	5	7
	6	6	5	5	6	6	5	5	5	7	8	6	5	6	6	6	7	7	7	7	7	6	6	6	
	Diurnal Maximum																								

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Blackrod - October 2025

Direction of Maximum Speed: 167 deg on Oct 31 19:00
Direction of Maximum Daily Speed Average: 168.2 deg on Oct 31

Direction of Minimum Speed: 123 deg on Oct 28 18:00

Direction of Minimum Daily Speed Average: 1.2 deg on Oct 6

Monthly Average Direction: 188.6 deg

Hours in Service:	744
Hours of Data:	710
Hours of Missing Data:	34
Percent Operational Time:	95.4

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	352	351	357	346	343	343	345	351	356	350	1	353	346	333	344	19	22	25	25	19	42	23	70	167	355.2
2-Oct	132	149	131	113	181	151	159	168	164	162	185	185	181	173	181	171	173	157	149	153	156	160	162	158	165.2
3-Oct	155	164	172	155	164	163	167	171	174	179	182	186	223	228	240	226	207	222	192	183	190	239	134	131	185.2
4-Oct	173	176	183	225	243	200	183	217	287	297	296	297	297	291	293	296	312	317	315	323	319	314	315	320	294.1
5-Oct	167	150	155	157	165	167	173	177	178	185	186	220	238	227	284	297	300	281	264	332	4	283	186	182	221.0
6-Oct	189	321	345	346	359	8	14	12	26	35	13	17	318	255	197	207	174	166	169	173	173	170	173	176	150.0
7-Oct	170	170	174	169	166	174	169	172	177	175	183	176	184	180	176	181	180	160	160	176	219	133	306	322	177.8
8-Oct	324	309	308	300	287	290	296	294	293	294	292	279	290	283	278	280	284	286	209	199	189	193	177	158	282.5
9-Oct	136	152	165	160	168	164	174	178	177	185	191	198	200	194	208	210	205	193	175	174	166	163	162	173	182.1
10-Oct	167	162	167	166	170	167	166	174	173	179	180	181	180	180	185	174	167	165	165	161	156	159	162	155	169.5
11-Oct	161	166	167	177	168	176	313	337	335	324	332	317	329	316	312	316	314	320	328	320	323	330	335	338	314.0
12-Oct	340	347	344	343	345	347	334	340	335	349	346	349	346	342	341	342	331	346	339	337	348	350	342	336	343.0
13-Oct	327	310	339	340	138	144	156	166	174	179	184	196	206	195	188	184	192	189	179	177	180	181	183	181	185.7
14-Oct	179	176	178	180	177	177	179	180	182	187	183	184	187	190	194	194	182	179	176	174	172	165	164	164	179.9
15-Oct	165	167	170	170	175	179	176	178	177	181	182	181	182	181	188	188	187	168	167	170	166	162	166	169	175.9
16-Oct	165	157	159	161	163	180	188	189	185	182	179	177	178	183	182	185	183	171	170	156	172	158	176	184	176.4
17-Oct	224	225	217	209	211	268	280	289	291	279	282	281	285	281	290	291	285	273	268	247	236	210	254	282	269.1
18-Oct	289	245	268	283	279	276	279	188	178	273	257	246	236	230	267	287	270	176	152	128	134	142	147	150	239.2
19-Oct	154	154	154	148	143	143	147	142	127	129	120	137	95	128	135	118	91	85	103	56	66	15	45	33	131.7
20-Oct	29	23	23	26	351	323	313	351	300	281	288	272	218	188	189	185	194	169	162	160	164	166	167	169	182.2
21-Oct	167	173	177	175	183	187	190	189	189	224	256	275	280	283	277	257	240	235	199	183	186	194	174	163	206.7
22-Oct	158	162	160	164	156	158	164	170	167	178	176	179	172	162	160	152	148	147	148	152	157	160	164	164	160.7
23-Oct	164	165	178	179	186	171	175	166	169	172	180	195	195	186	174	170	170	169	162	160	163	165	159	165	170.5
24-Oct	167	162	164	164	172	176	173	172	177	183	183	184	188	193	189	174	179	182	167	163	163	149	346	185	172.7
25-Oct	245	266	216	30	64	2	227	189	245	252	261	265	266	278	283	253	228	224	194	173	149	135	110	90	243.6
26-Oct	114	123	81	80	66	82	83	81	74	81	83	71	58	51	41	50	47	32	28	29	354	349	327	337	58.7
27-Oct	324	317	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	281	280	305	297	300	123	156	160	146	151	140	146	--
29-Oct	147	143	135	132	124	107	29	61	187	184	104	298	302	340	309	317	321	322	327	330	340	343	334	329	341.6
30-Oct	322	314	312	320	331	327	295	242	306	305	319	339	358	354	348	358	357	358	355	350	347	250	317	213	328.3
31-Oct	244	180	166	168	168	170	172	174	174	169	169	174	166	164	163	161	162	165	167	169	168	172	167	165	168.2
	174.5	174.2	172.6	172.0	173.2	177.8	187.7	183.3	185.9	201.6	206.3	210.4	220.8	216.3	219.6	214.6	211.1	193.2	172.8	169.3	168.8	171.1	174.3	171.4	
	Diurnal Average																								

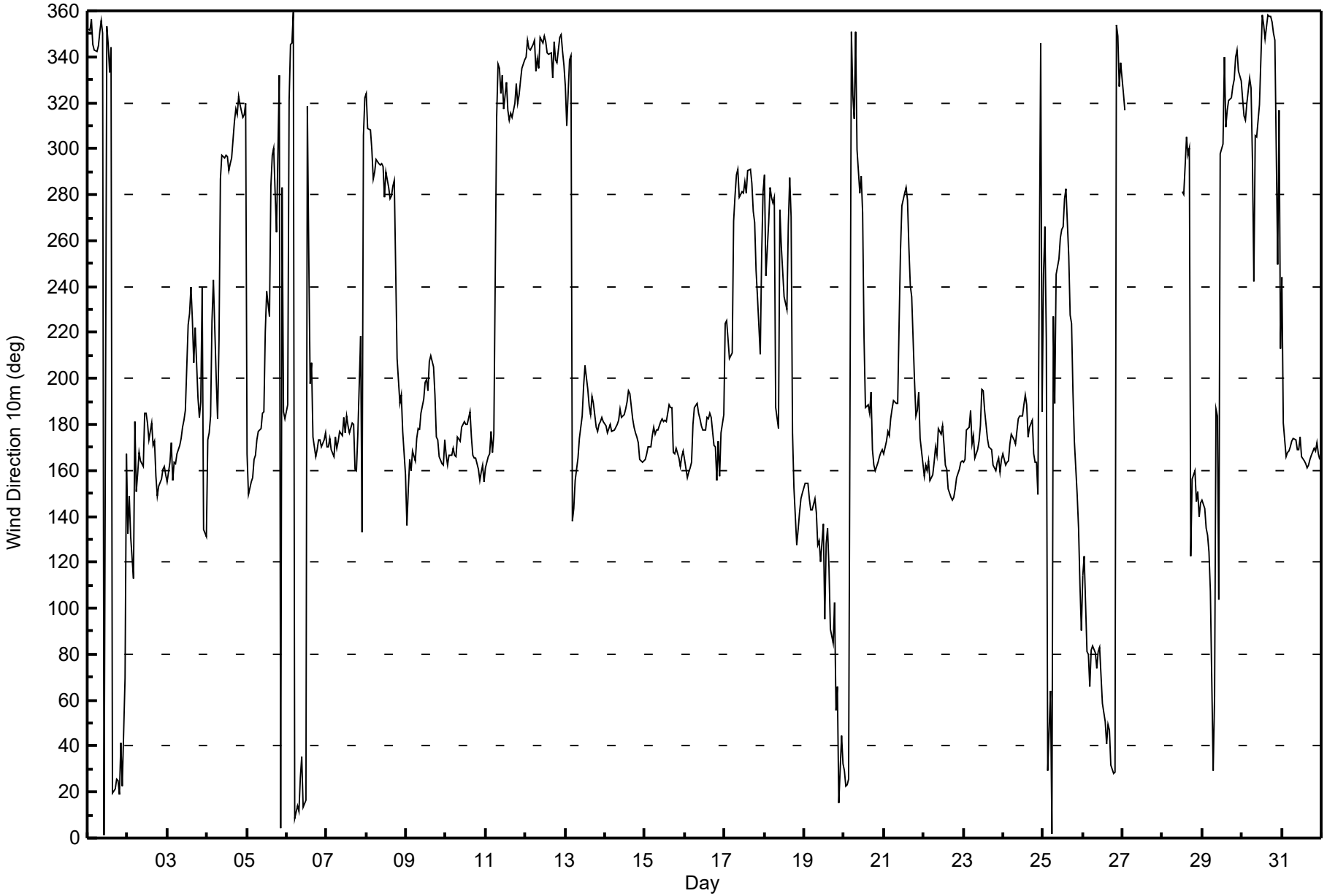
UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Blackrod - October 2025



Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 98 deg on Oct 25 01:00

Minimum Value: 1 deg on Oct 30 16:00

Percentiles: P_1 = 8 P_{10} = 11 Q_1 = 12 Median = 15 Q_3 = 19 P_{90} = 33 P_{99} = 79

Hours in Service:	744
Hours of Data:	710
Hours of Missing Data:	34
Hours of Calibration:	0
Percent Operational Time:	95.4

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	12	13	16	12	14	12	12	13	14	14	14	15	17	16	17	18	16	16	16	19	16	55	75	23	75
2-Oct	16	51	67	62	33	23	16	12	12	15	19	18	14	15	23	17	15	12	13	11	11	12	12	11	67
3-Oct	10	21	31	12	11	12	14	12	11	11	15	17	23	22	24	23	19	31	15	11	16	88	26	34	88
4-Oct	33	17	14	31	32	25	17	31	19	19	20	20	22	16	16	15	19	17	17	16	16	16	16	17	33
5-Oct	78	19	12	14	15	10	11	13	9	12	12	27	25	25	31	18	23	21	40	32	21	79	42	10	79
6-Oct	53	25	12	10	17	18	15	16	17	21	48	57	62	54	70	29	17	11	11	11	12	12	12	11	70
7-Oct	12	12	12	12	12	12	12	13	13	13	12	15	15	17	14	14	12	12	13	15	44	68	20	17	68
8-Oct	19	17	18	20	19	15	15	14	15	16	20	18	16	21	23	15	18	15	33	15	11	15	24	14	33
9-Oct	35	20	10	9	9	10	10	11	12	13	18	21	21	19	17	19	15	10	8	8	10	7	9	10	35
10-Oct	11	12	10	9	10	10	10	10	12	11	12	12	14	14	15	13	13	12	11	11	12	14	12	11	15
11-Oct	13	12	12	14	12	18	50	21	16	15	15	17	18	18	18	17	16	16	16	16	16	15	15	14	50
12-Oct	16	14	15	14	14	14	14	13	15	16	16	16	19	15	16	19	16	14	14	13	10	10	18	19	19
13-Oct	22	22	20	41	55	47	18	18	15	14	18	19	18	21	17	17	15	12	12	11	10	10	10	10	55
14-Oct	11	12	11	12	11	11	11	11	10	11	12	13	13	14	14	14	10	9	9	10	10	9	9	11	14
15-Oct	11	11	11	11	11	11	11	10	11	12	11	12	10	15	14	13	11	10	11	8	8	7	9	9	15
16-Oct	9	10	10	13	14	81	11	12	13	10	12	12	13	14	12	11	12	13	10	14	31	30	15	11	81
17-Oct	24	16	17	15	28	20	17	14	15	17	17	16	15	15	16	17	15	14	15	29	32	24	24	20	32
18-Oct	16	33	24	14	17	17	16	41	17	25	29	34	25	30	59	14	45	18	12	18	14	12	12	12	59
19-Oct	12	13	13	15	17	17	16	20	26	24	37	33	41	30	27	32	32	26	34	24	31	33	30	10	41
20-Oct	12	14	14	15	15	17	18	19	38	16	12	23	30	14	15	12	12	11	10	11	13	13	12	13	38
21-Oct	14	13	11	12	16	10	9	9	9	27	21	19	20	15	16	21	21	19	15	11	13	14	13	9	27
22-Oct	9	9	8	11	15	12	22	11	10	10	14	14	17	17	15	16	17	16	16	14	14	14	14	13	22
23-Oct	14	16	13	13	37	29	17	14	13	17	15	17	21	19	16	15	12	11	13	12	12	13	15	12	37
24-Oct	13	12	13	12	12	12	12	11	12	13	11	14	20	16	15	14	14	14	15	14	14	88	48	53	88
25-Oct	98	72	87	58	74	39	67	22	29	21	19	18	23	18	18	25	16	18	23	18	44	53	27	19	98
26-Oct	64	59	18	21	20	24	26	23	21	21	24	22	19	18	13	15	13	10	10	18	12	13	13	14	64
27-Oct	14	14	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	14
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	17	17	18	24	67	17	17	10	13	11	15	19	67
29-Oct	15	15	18	22	27	38	76	78	45	37	74	19	18	17	16	16	15	15	15	13	14	13	15	13	78
30-Oct	14	15	15	17	15	16	19	51	77	77	77	92	1	19	37	1	10	6	17	38	35	74	63	62	92
31-Oct	86	45	10	12	11	10	11	11	11	12	14	12	13	13	14	14	13	12	12	13	12	12	14	12	86
	98	72	87	62	74	81	76	78	77	77	77	92	62	54	70	32	67	31	40	38	44	88	75	62	
	Diurnal Maximum																								

UO - Unstable Operation

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS33
MONDAY CREEK
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MONDAY CREEK (AMS33)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	709	34	35	99.87	7.4	0	1.1	0
H2S (ppb) Average	707	36	37	99.87	0.4	0	0.2	0
NO2 (ppb) Average	708	36	36	100	11.8	0	3.4	-
NO (ppb) Average	708	36	36	100	17.9	-	1.5	-
NOX (ppb) Average	708	36	36	100	25.6	-	4.1	-
Temperature 2 m (C) Average	744	0	0	100	20	-	11.5	-
Relative Humidity (%) Average	744	0	0	100	100	-	99	-
Wind Speed 10 m (km/h) Average	740	0	4	99.46	28	-	18	-
Wind Direction 10 m (deg) Average	740	0	4	99.46	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MONDAY CREEK (AMS33)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	709	0.36	0.6	-	0	0	0	0.2	0.5	0.8	7.4
H2S (ppb) Average	707	0.09	0.1	-	0	0	0.1	0.1	0.1	0.2	0.4
NO2 (ppb) Average	708	1.59	1.4	-	0.1	0.4	0.6	1.2	2.2	3.3	11.8
NO (ppb) Average	708	0.27	0.9	-	0	0	0	0	0.2	0.6	17.9
NOX (ppb) Average	708	1.85	1.9	-	0.1	0.4	0.6	1.3	2.4	4	25.6
Temperature 2 m (C) Average	744	4.77	5	-	-4.5	-0.9	0.4	3.9	8.1	11.7	20
Relative Humidity (%) Average	744	73.39	19.3	-	27.7	45.4	58	77.4	89.7	97.6	100
Wind Speed 10 m (km/h) Average	740	10.7	5	-	1	4	7	10	14	19	28
Wind Direction 10 m (deg) Average	740	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - MONDAY CREEK (AMS33)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
H2S, SO2	29 Oct 2025 13:00	29 Oct 2025 13:00	1	Maintenance - sample manifold cleaned
Wind Speed, Wind Direction	05 Oct 2025 05:00	05 Oct 2025 08:00	4	Flat line in sensor output signal - Sensor frozen

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Monday Creek - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 7.4 ppb on Oct 17 03:00

Maximum Daily Average: 1.1 ppb on Oct 17

Minimum Value: 0.0 ppb on Oct 1 01:00

Minimum Daily Average: 0.0 ppb on Oct 26

Maximum Diurnal Average: 0.6 ppb at hour 10

Minimum Diurnal Average: 0.2 ppb at hour 2

Monthly Average: 0.36 ppb

Percentiles: $P_1 = 0.0$ $P_{10} = 0.0$ $Q_1 = 0.0$ Median = 0.2 $Q_3 = 0.5$ $P_{90} = 0.8$ $P_{99} = 3.0$

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	34
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.1	0.0	0.4
2-Oct	0.0	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.3	0.8	0.9	0.6	0.6	0.6	1.0	0.8	0.2	0.0	0.0	0.0	0.1	0.1	0.2	0.3	1.0
3-Oct	0.1	0.2	0.4	0.7	0.8	Z	0.6	1.4	1.3	1.5	1.7	0.9	1.3	1.5	3.1	0.8	0.2	0.3	0.5	0.7	0.7	1.1	1.7	0.7	1.0	3.1
4-Oct	Z	0.3	0.2	0.3	0.3	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
5-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.5	0.2	0.6	0.4	1.1	0.9	1.5	2.1	1.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.4	2.1
6-Oct	0.2	0.1	Z	0.1	0.1	0.2	0.2	0.3	0.3	0.0	0.0	0.0	0.3	2.2	3.8	2.6	1.4	0.3	0.1	0.0	0.1	0.1	0.2	0.6	0.6	3.8
7-Oct	0.6	0.5	0.4	Z	0.2	0.2	0.2	0.2	0.3	1.5	1.4	1.3	1.0	1.0	0.5	0.7	0.5	0.3	0.3	0.5	0.5	0.4	0.4	0.3	0.6	1.5
8-Oct	0.6	0.5	0.4	0.1	Z	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	5.2	0.7	1.7	0.5	0.6	5.2
9-Oct	0.6	0.4	0.3	0.5	3.7	Z	1.1	0.8	0.5	0.4	0.1	1.2	0.7	0.8	0.4	0.3	0.6	1.5	0.3	0.2	0.1	0.5	0.2	0.3	0.7	3.7
10-Oct	Z	0.1	0.1	0.2	0.1	0.0	0.0	0.2	0.3	0.4	0.7	0.9	0.4	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.5	0.6	0.2	0.9
11-Oct	0.5	Z	0.5	0.4	0.2	0.4	1.0	0.5	0.8	0.3	0.4	0.6	0.9	0.1	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.3	0.3	0.3	0.3	1.0
12-Oct	0.4	0.3	Z	0.2	0.2	0.2	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.6	0.4	0.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.6
13-Oct	0.1	0.0	0.1	Z	0.4	0.1	0.1	0.2	0.4	0.4	0.6	0.8	0.6	0.9	0.5	0.4	0.2	0.3	0.4	0.6	0.9	0.4	0.2	0.1	0.4	0.9
14-Oct	0.8	0.3	0.3	0.2	Z	0.3	0.3	0.7	0.7	0.3	0.2	0.1	0.1	0.0	0.2	0.6	0.1	0.3	0.0	0.0	0.2	0.7	1.8	0.7	0.4	1.8
15-Oct	0.1	0.3	1.0	1.2	1.2	Z	0.4	0.4	0.7	1.8	0.4	0.8	1.0	0.9	1.4	1.3	2.3	1.4	1.4	1.1	1.4	0.5	0.6	0.9	1.0	2.3
16-Oct	Z	0.2	0.1	0.1	0.2	0.1	0.1	0.3	0.2	0.6	0.2	1.1	0.6	0.2	0.4	0.5	0.5	0.0	0.0	0.4	0.5	0.0	1.0	1.3	0.4	1.3
17-Oct	0.7	Z	7.4	3.1	4.2	6.6	1.7	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.1	0.0	0.2	1.1	7.4
18-Oct	0.1	0.1	Z	0.2	0.2	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2
19-Oct	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.0	0.1	0.2	0.1	0.2	0.1	0.2	0.0	0.2	0.1	0.3	0.2	0.1	0.3
20-Oct	0.2	0.2	0.2	0.3	Z	0.2	0.2	0.2	0.2	0.7	0.6	0.8	0.7	0.3	0.4	0.4	0.4	0.2	0.3	0.5	0.2	0.0	0.0	0.0	0.3	0.8
21-Oct	0.0	0.0	0.3	1.0	0.4	Z	0.2	0.6	1.0	2.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.3	2.1
22-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.5	0.7	0.7	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.7
23-Oct	0.1	Z	0.2	0.1	0.1	0.2	0.3	0.2	0.2	0.8	C	C	C	0.2	0.1	0.0	0.0	0.0	0.0	0.2	0.3	0.2	0.3	0.1	0.2	0.8
24-Oct	0.3	0.3	Z	0.6	0.4	0.5	0.6	0.6	0.6	0.7	0.7	0.5	0.4	0.4	0.3	0.5	0.7	0.7	0.7	0.6	0.5	0.3	0.1	0.1	0.5	0.7
25-Oct	0.1	0.1	0.0	Z	0.1	0.0	0.0	0.3	1.6	0.7	0.2	0.0	0.0	0.0	0.3	0.0	0.7	0.9	0.1	0.2	0.1	0.0	0.0	0.0	0.2	1.6
26-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
28-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.3	0.4	0.4	0.3	0.5	0.6	0.4	0.1	0.6
29-Oct	0.4	Z	0.5	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.3	0.3	M	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.5
30-Oct	0.4	0.5	Z	0.5	0.8	0.6	0.7	0.7	1.5	2.7	2.2	1.3	0.6	0.3	0.3	0.6	0.4	0.4	0.6	0.6	0.8	0.5	0.2	0.2	0.8	2.7
31-Oct	0.2	0.1	0.2	Z	0.2	0.2	0.2	0.3	0.1	0.1	0.3	0.4	0.4	0.5	0.4	0.3	0.3	0.2	0.3	0.4	0.2	0.1	0.0	0.1	0.2	0.5
	0.2	0.2	0.5	0.4	0.5	0.4	0.3	0.3	0.4	0.6	0.4	0.5	0.4	0.4	0.5	0.4	0.3	0.3	0.2	0.3	0.4	0.2	0.4	0.3	Diurnal Average	
	0.8	0.5	7.4	3.1	4.2	6.6	1.7	1.4	1.6	2.7	2.2	1.3	1.3	2.2	3.8	2.6	2.3	1.5	1.4	2.8	5.2	1.1	1.8	1.3	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

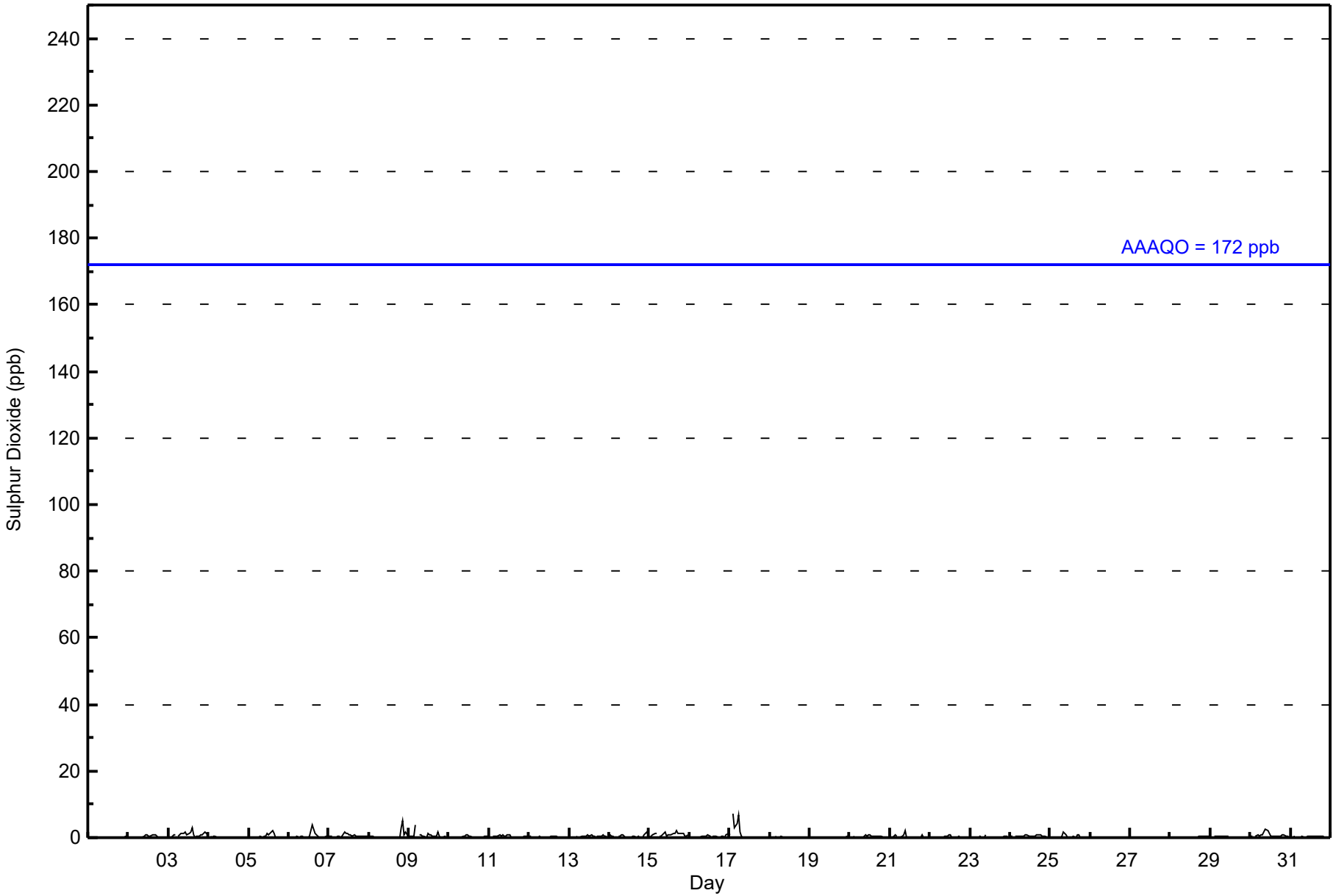
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Monday Creek - October 2025



Sulphur Dioxide (SO_2) - ppb
Monday Creek - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	709	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Monday Creek - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	26	10	8	16	16	24	29	60	72	82	54	36	74	108	57	33	705
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	26	10	8	16	16	24	29	60	72	82	54	36	74	108	57	33	705

Total Number of Valid Hours: 705

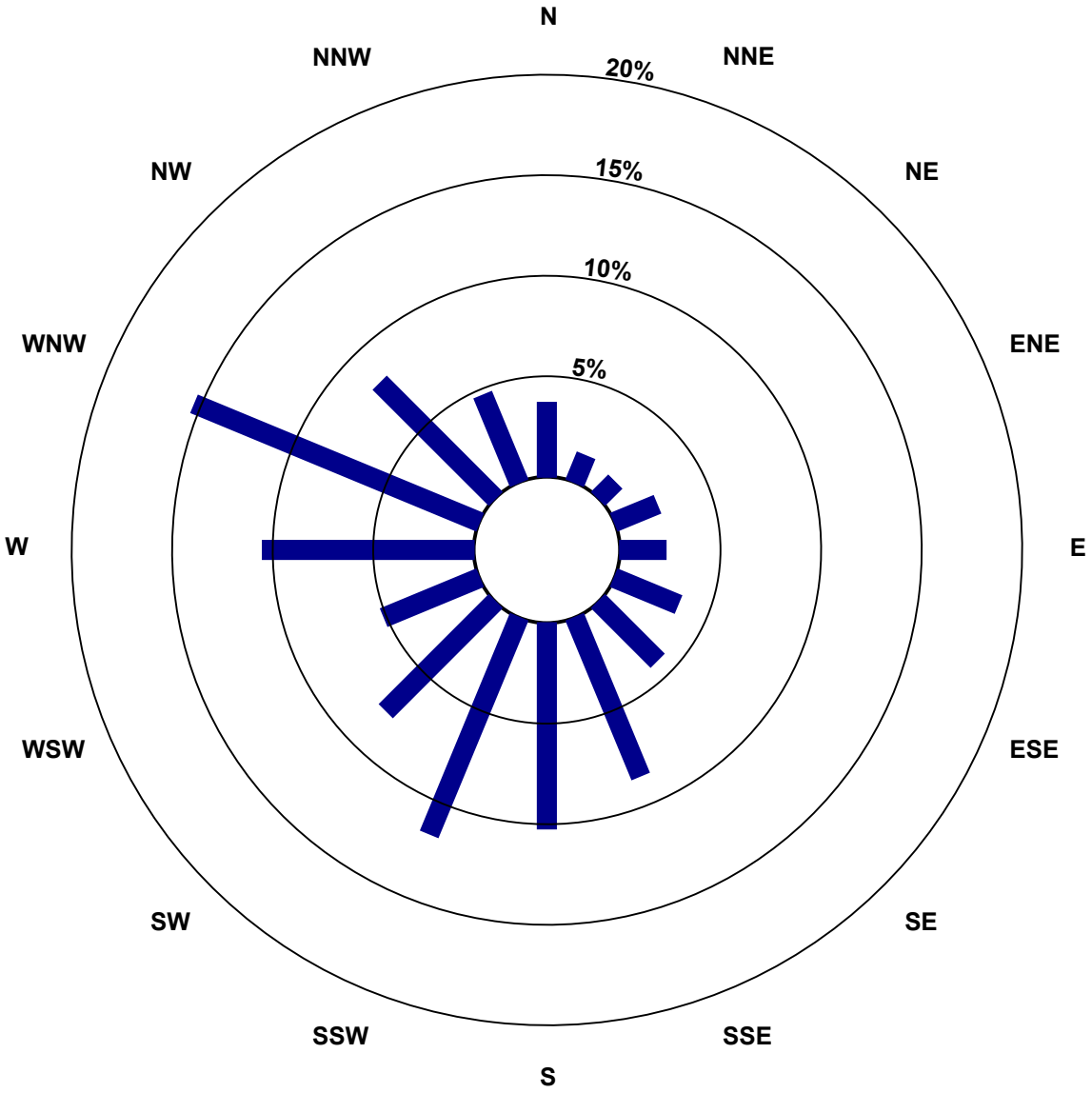
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Monday Creek



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

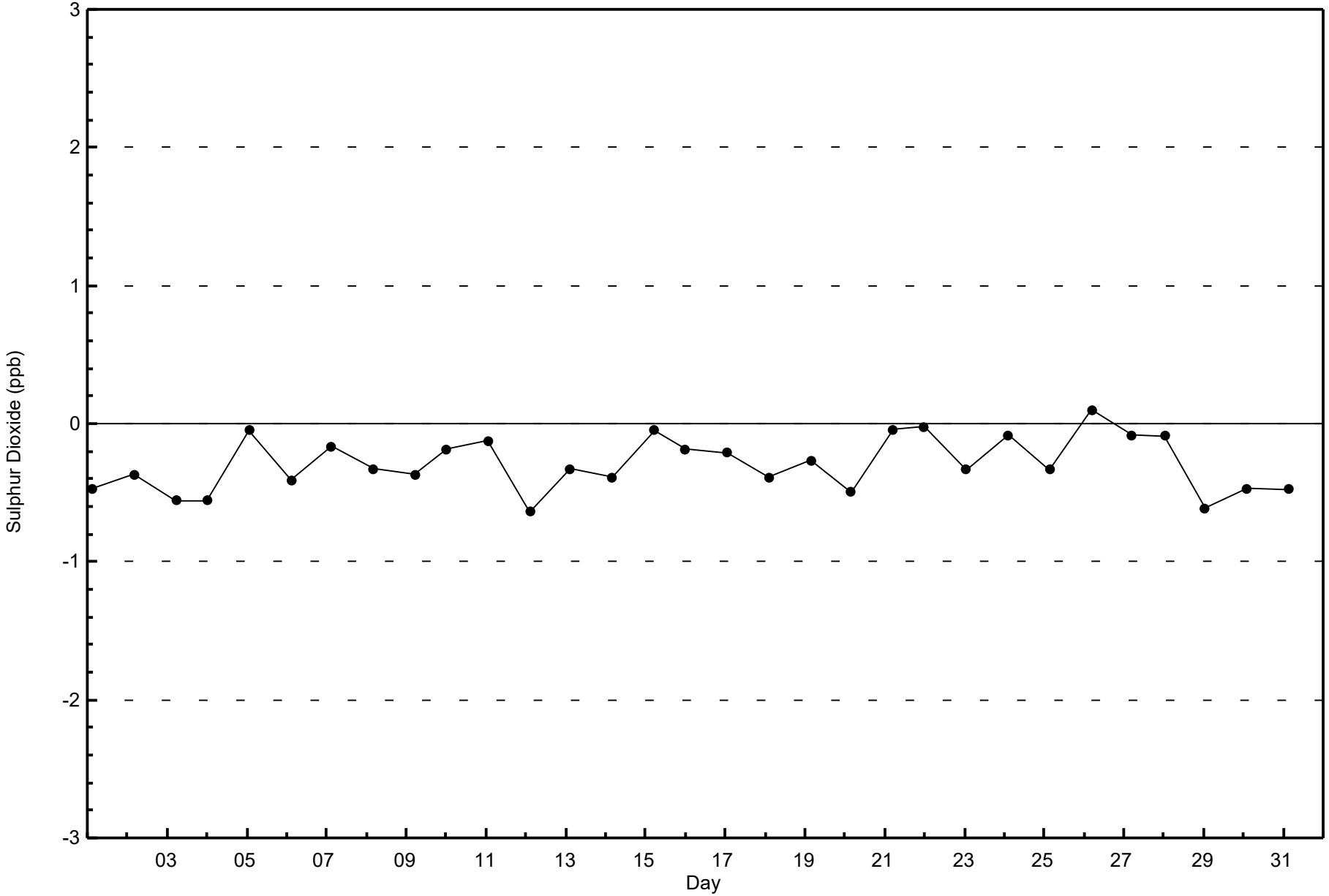
Total Number of Valid Hours: 705

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Monday Creek - October 2025

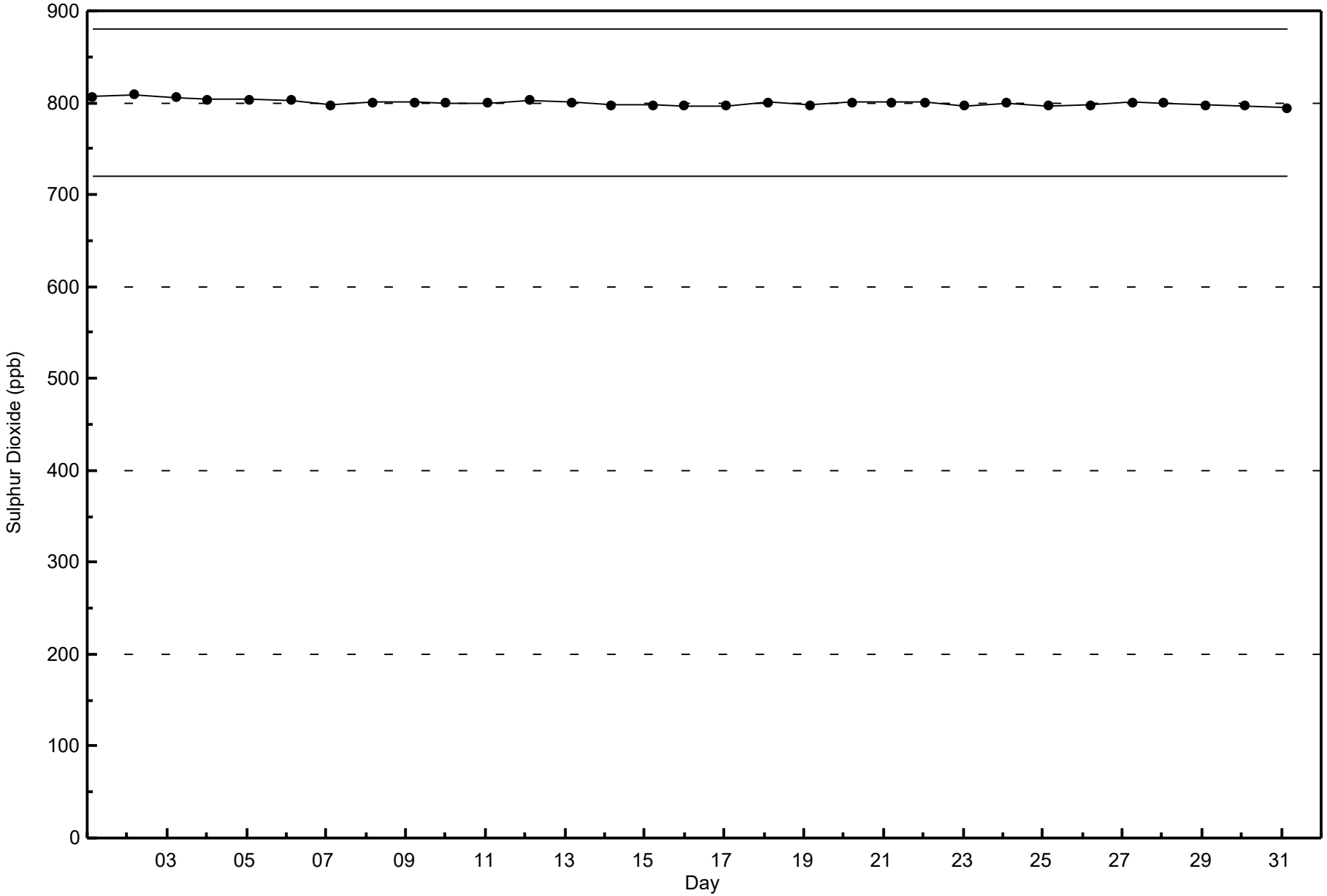


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Monday Creek - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H_2S) - ppb

Monday Creek - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 0.4 ppb on Oct 1 09:00

Maximum Daily Average: 0.2 ppb on Oct 1

Minimum Value: 0.0 ppb on Oct 6 13:00

Minimum Daily Average: 0.0 ppb on Oct 26

Maximum Diurnal Average: 0.1 ppb at hour 9

Minimum Diurnal Average: 0.1 ppb at hour 16

Monthly Average: 0.09 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.1 P_{90} = 0.2 P_{99} = 0.3

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.2	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.4
2-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.4	0.4	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.4
3-Oct	Z	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
4-Oct	0.1	Z	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.2
5-Oct	0.0	0.0	Z	0.1	0.0	0.0	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.2
6-Oct	0.0	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
7-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
8-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.0	0.1	0.2
9-Oct	Z	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
10-Oct	0.1	Z	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
11-Oct	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.3
12-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
13-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
14-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15-Oct	Z	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.3
16-Oct	0.2	Z	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.3
17-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1
18-Oct	0.0	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.2
19-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2
20-Oct	0.1	0.1	0.0	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
21-Oct	Z	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
22-Oct	0.1	Z	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
23-Oct	0.0	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
24-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2
25-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
26-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
27-Oct	Z	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
28-Oct	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1
29-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
30-Oct	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
31-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.2	0.4	0.2	0.3	0.3	0.2	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.2	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

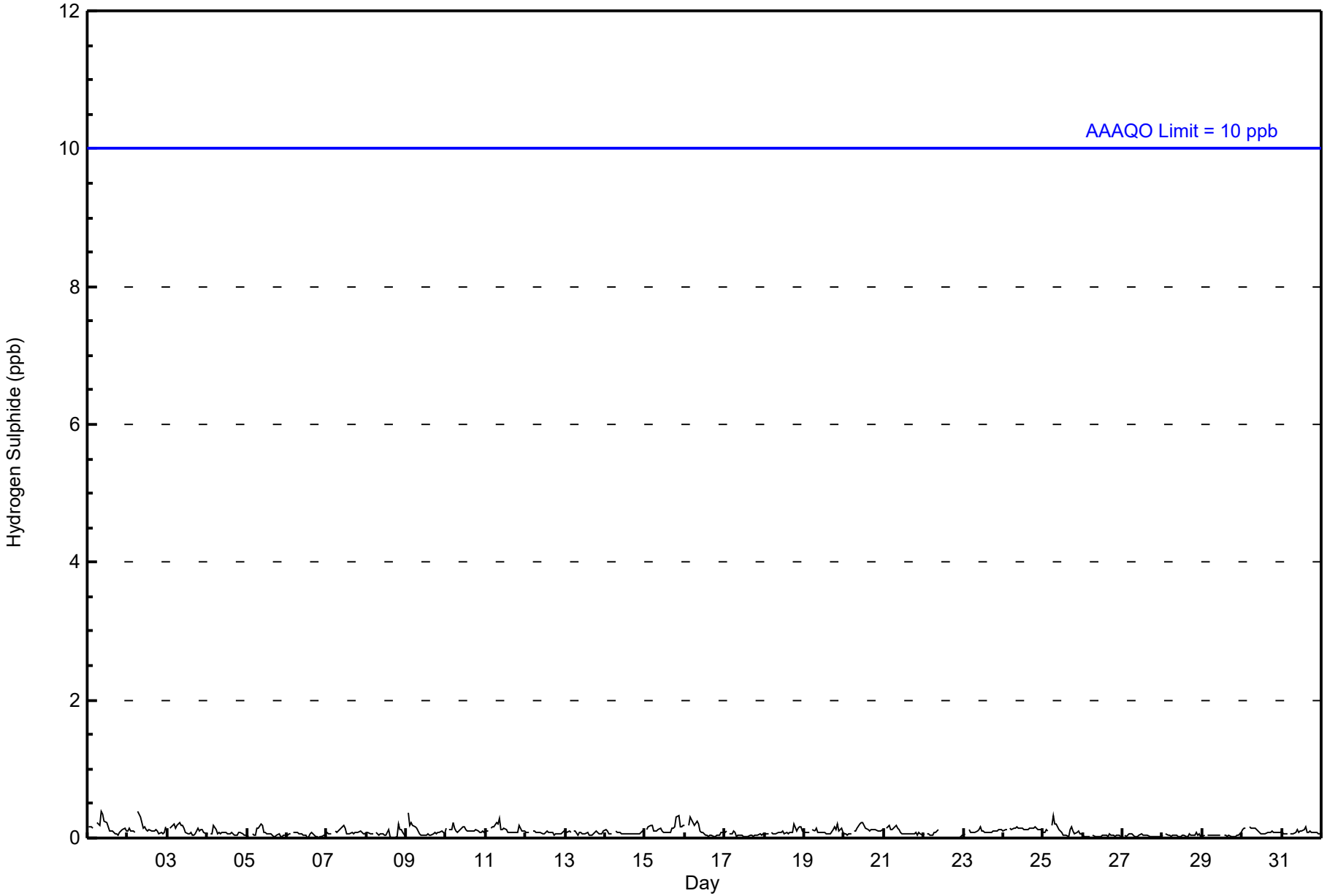
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Monday Creek - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	707	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Monday Creek - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	25	11	8	16	19	21	31	59	73	78	56	36	72	107	58	33	703
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	25	11	8	16	19	21	31	59	73	78	56	36	72	107	58	33	703

Total Number of Valid Hours: 703

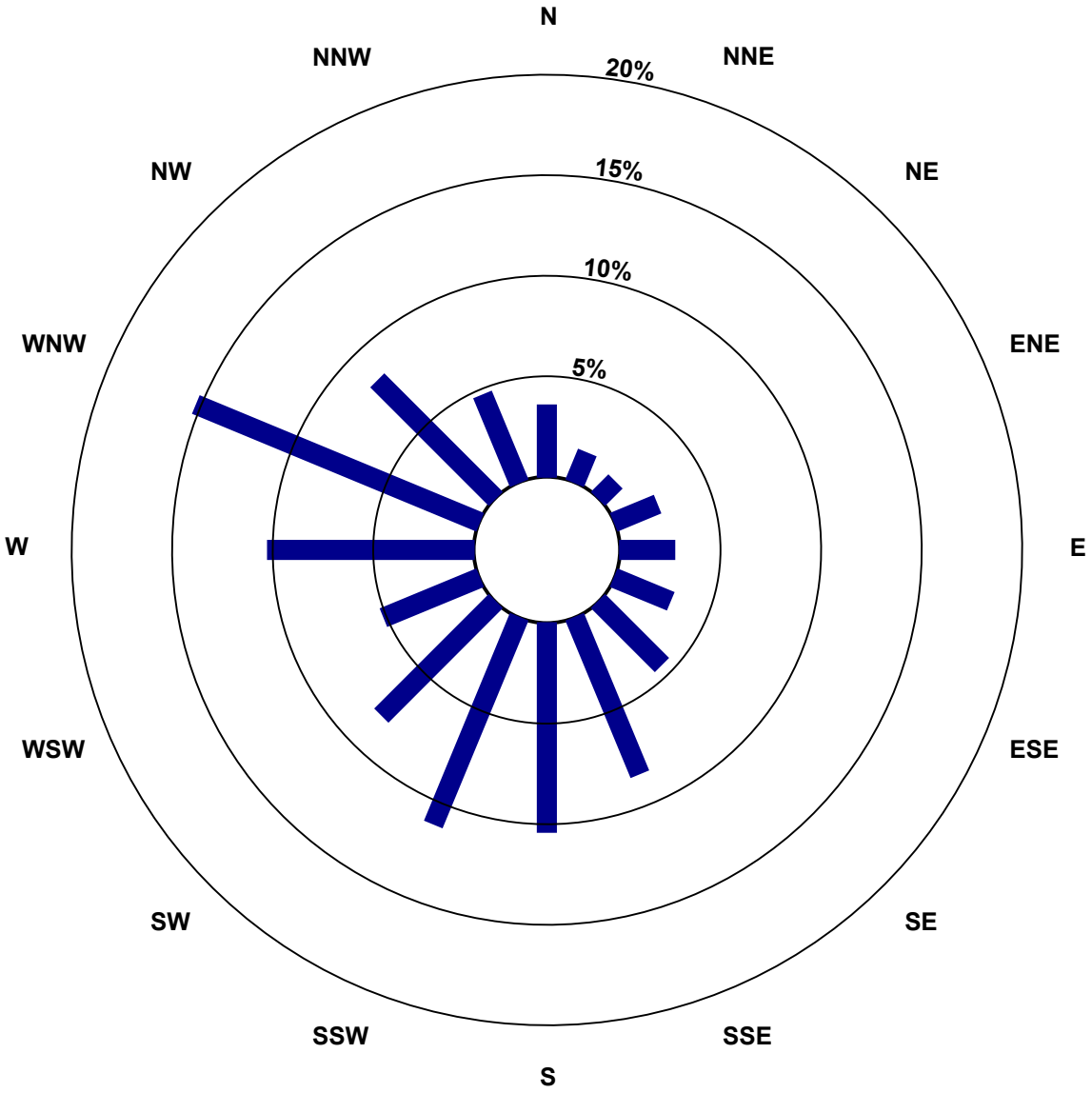
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H_2S) - ppb

Monday Creek



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

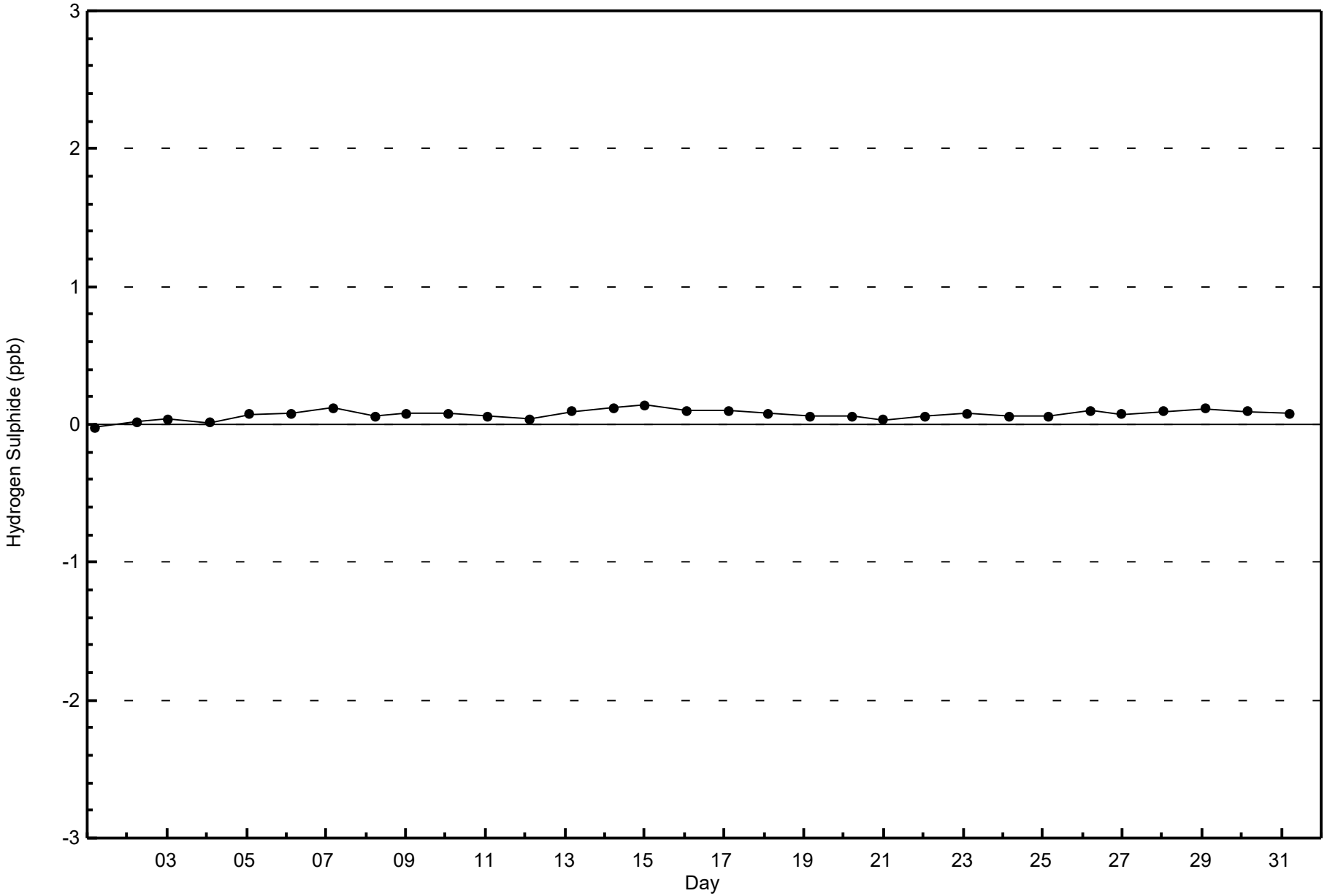
Total Number of Valid Hours: 703

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Monday Creek - October 2025

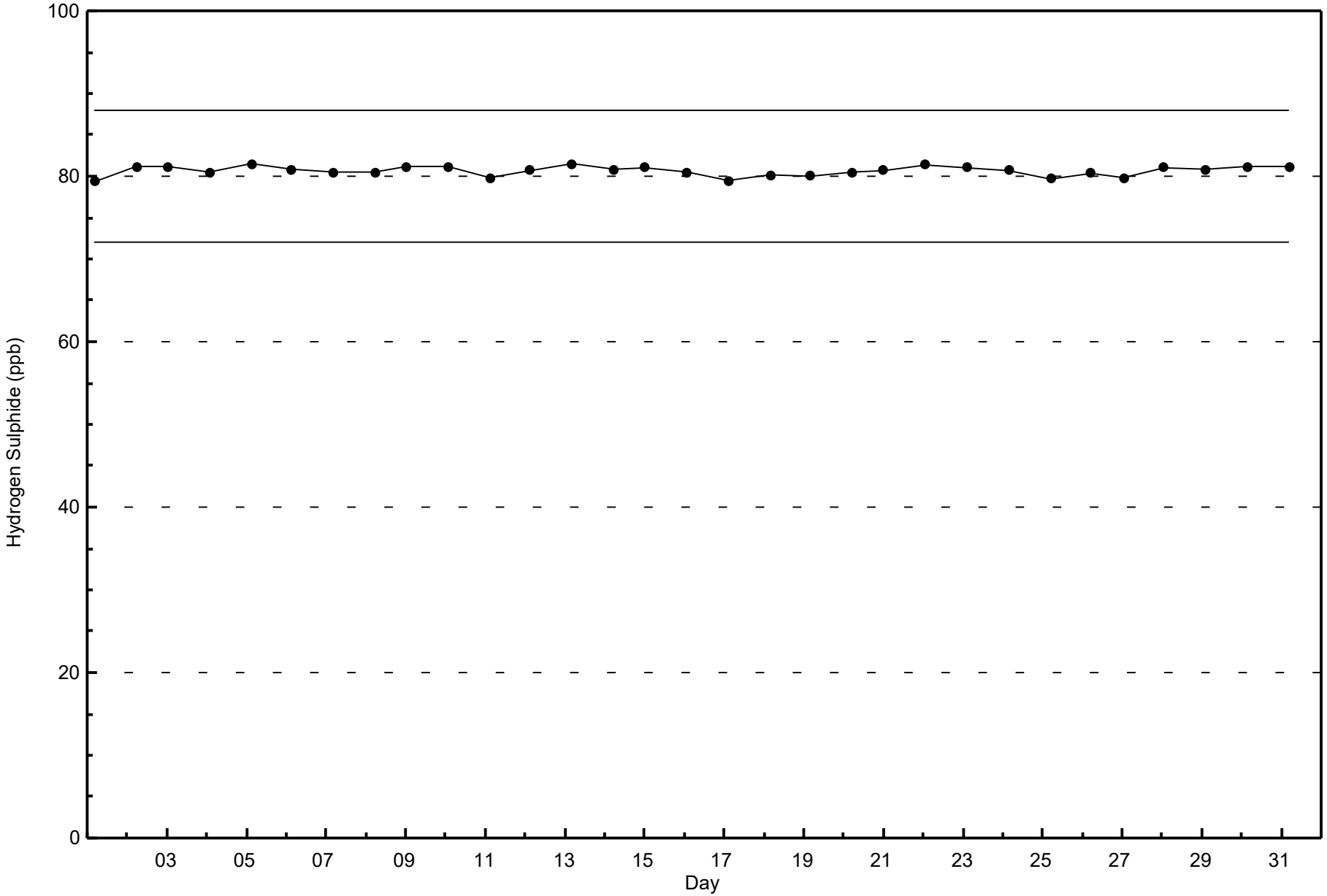


Wood Buffalo Environmental Association

Span Responses

Hydrogen Sulphide (H_2S) - ppb

Monday Creek - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Monday Creek - October 2025

Maximum Value: 17.9 ppb on Oct 16 08:00

Maximum Daily Average: 1.5 ppb on Oct 16

Minimum Value: 0.0 ppb on Oct 3 17:00

Minimum Daily Average: 0.0 ppb on Oct 4

Maximum Diurnal Average: 0.9 ppb at hour 8

Minimum Diurnal Average: 0.0 ppb at hour 20

Monthly Average: 0.27 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.0 Q_3 = 0.2 P_{90} = 0.6 P_{99} = 2.9

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	Z	0.1	0.0	0.0	0.0	0.1	0.1	0.4	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.4
2-Oct	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.8	0.4	0.6	0.7	0.4	0.3	0.3	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.8
3-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.2	0.9	1.0	0.7	0.6	0.3	0.4	0.5	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2	1.0
4-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
5-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.1	0.9	0.5	1.0	0.5	0.8	0.4	0.7	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0
6-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.7	0.6	0.4	0.4	1.4	2.1	1.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.1
7-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.6	1.1	1.1	1.1	0.4	0.4	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.1
8-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.3
9-Oct	0.0	0.0	0.0	Z	0.5	0.0	0.0	0.2	0.3	0.2	0.1	0.6	0.4	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
10-Oct	0.0	0.3	0.6	0.0	Z	2.9	0.1	0.3	1.1	1.2	1.0	0.7	0.3	0.3	0.2	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.9
11-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.2	0.1	0.6	0.4	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
12-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
13-Oct	0.0	Z	0.0	0.0	0.0	0.0	5.3	0.0	0.2	2.1	0.1	0.4	0.1	0.1	0.4	0.8	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.4	5.3
14-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.3	0.6	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.6
15-Oct	0.1	0.0	0.0	Z	0.1	0.1	0.2	0.4	1.0	2.3	1.6	1.4	0.7	0.7	0.3	0.3	1.8	0.3	0.0	0.0	0.1	0.1	0.2	0.0	0.5	2.3
16-Oct	0.0	0.1	0.0	0.2	Z	1.8	6.0	17.9	4.9	1.6	0.5	0.4	0.2	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	17.9
17-Oct	0.0	0.0	0.3	0.1	0.2	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
18-Oct	Z	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.2	0.3	2.1	0.4	0.2	0.2	0.9	0.5	0.1	0.2	0.0	0.5	0.5	0.6	0.5	0.3	2.1
19-Oct	0.8	Z	0.1	0.0	0.8	0.5	1.1	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	1.1
20-Oct	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.1	0.4	1.2	2.2	1.0	1.3	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.2
21-Oct	0.0	0.0	0.1	Z	0.0	0.0	0.0	0.1	1.0	1.4	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.4
22-Oct	0.1	0.1	0.1	1.1	Z	2.3	3.2	3.2	6.5	1.5	1.1	0.9	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	6.5
23-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.6	1.5	0.7	0.5	0.3	0.3	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	1.5
24-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.6	0.5	0.5	0.4	0.4	0.4	0.6	0.2	0.0	0.0	0.2	0.1	0.1	1.5	0.2	0.3	1.5
25-Oct	0.1	Z	0.0	0.7	0.0	1.3	0.9	0.2	0.9	0.5	0.2	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.3	1.4	0.3	1.4
26-Oct	0.0	0.0	Z	0.2	0.9	0.2	1.5	0.5	0.2	0.3	0.8	0.4	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.5
27-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
28-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
29-Oct	0.1	0.1	0.1	0.3	0.3	Z	0.6	0.3	0.2	0.3	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
30-Oct	Z	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.4	0.4	0.3	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
31-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.6	0.7	0.8	1.0	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0
	0.1	0.0	0.1	0.1	0.1	0.4	0.7	0.9	0.7	0.7	0.5	0.5	0.3	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	Diurnal Average	
	0.8	0.3	0.6	1.1	0.9	2.9	6.0	17.9	6.5	2.3	2.2	2.1	1.3	1.4	2.1	1.0	1.8	0.3	0.2	0.2	0.5	0.5	1.5	1.4	Diurnal Maximum	

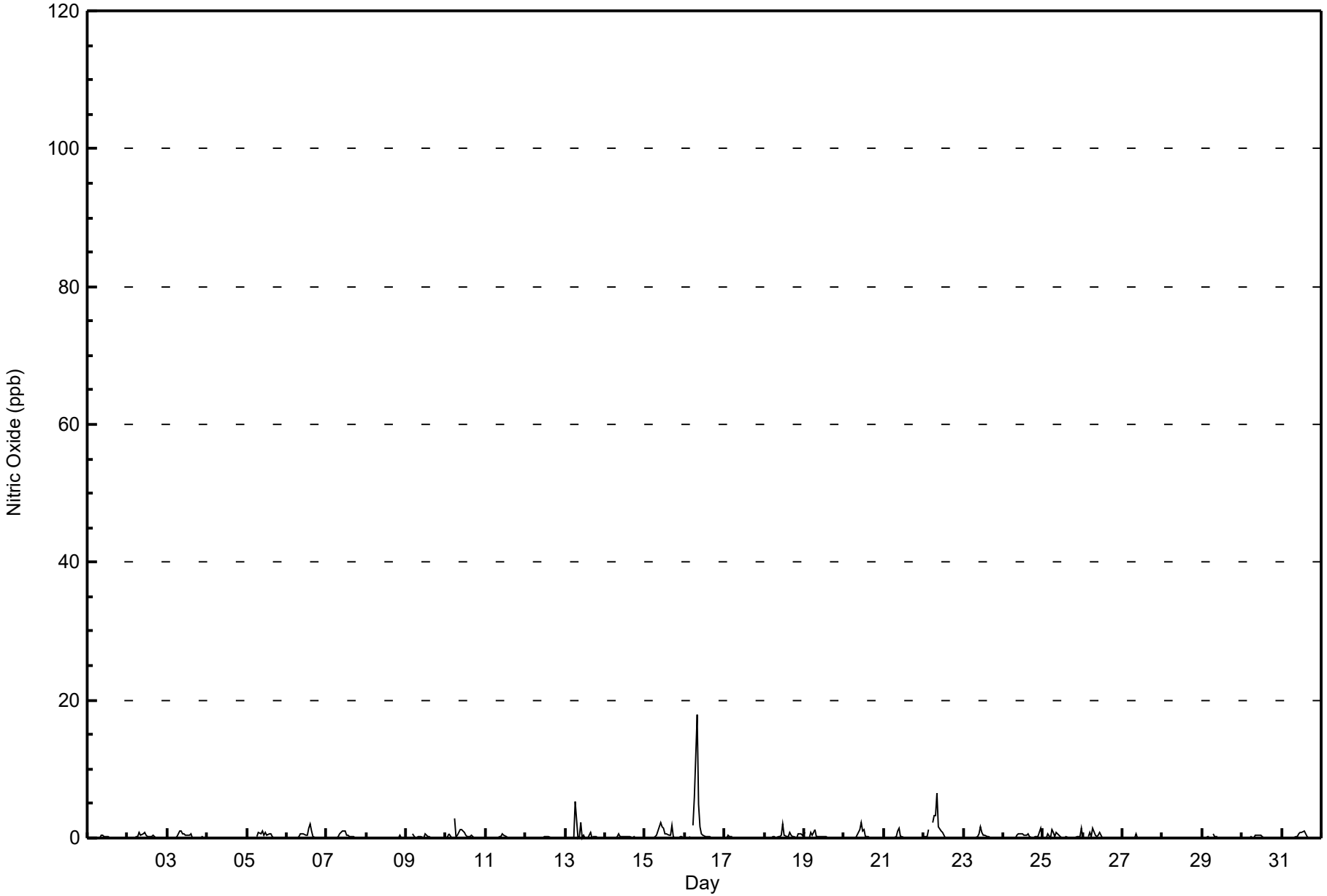
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Monday Creek - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	708	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Monday Creek - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	27	9	7	16	18	22	32	62	73	81	55	34	72	108	58	31	705
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	27	9	7	16	18	22	32	62	73	81	55	34	72	108	58	31	705

Total Number of Valid Hours: 705

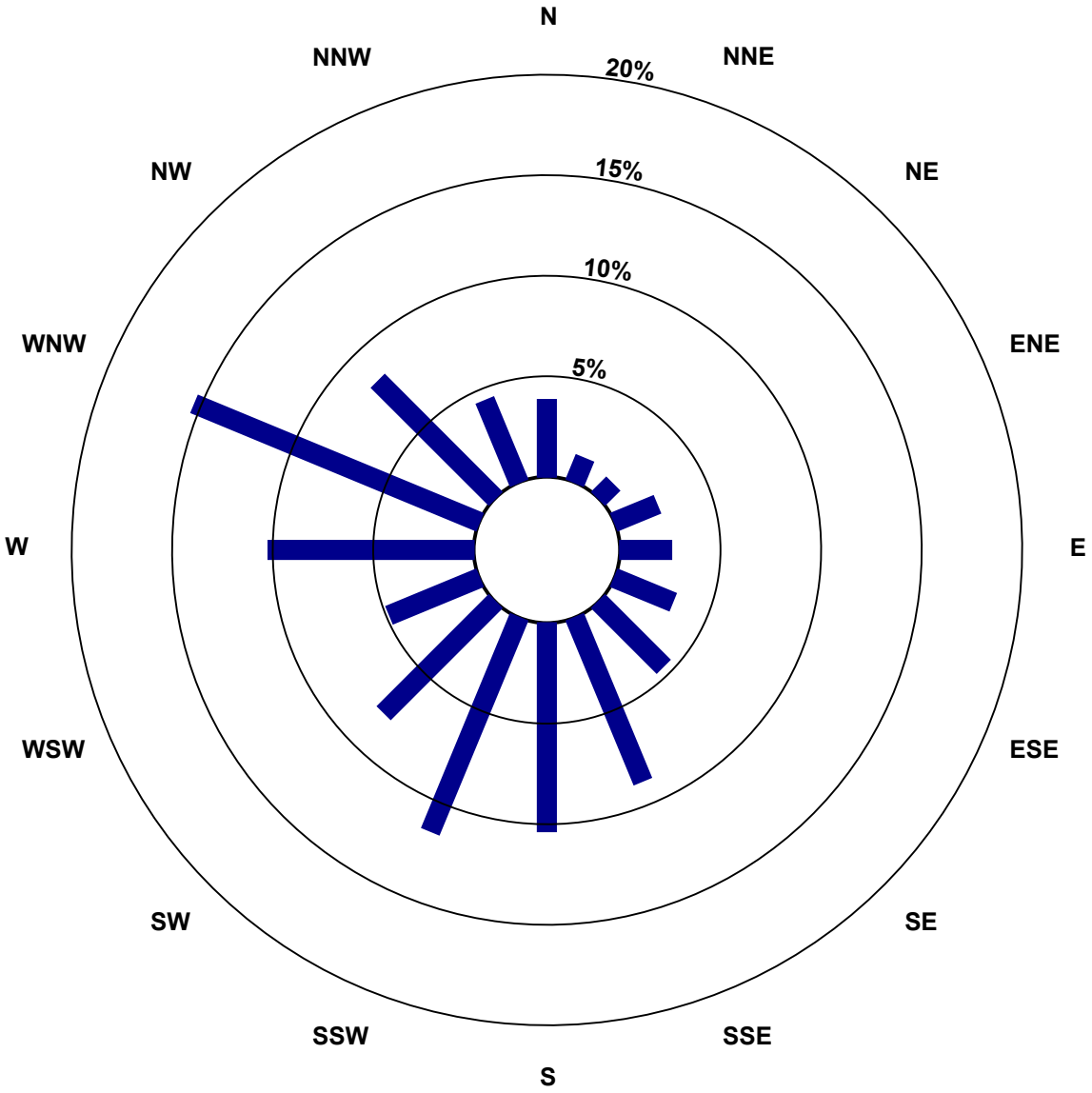
Total Number of Hours: 744

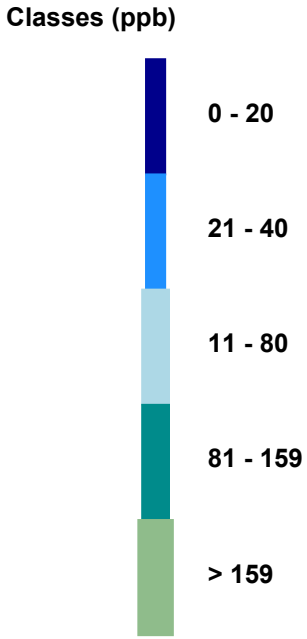
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Monday Creek





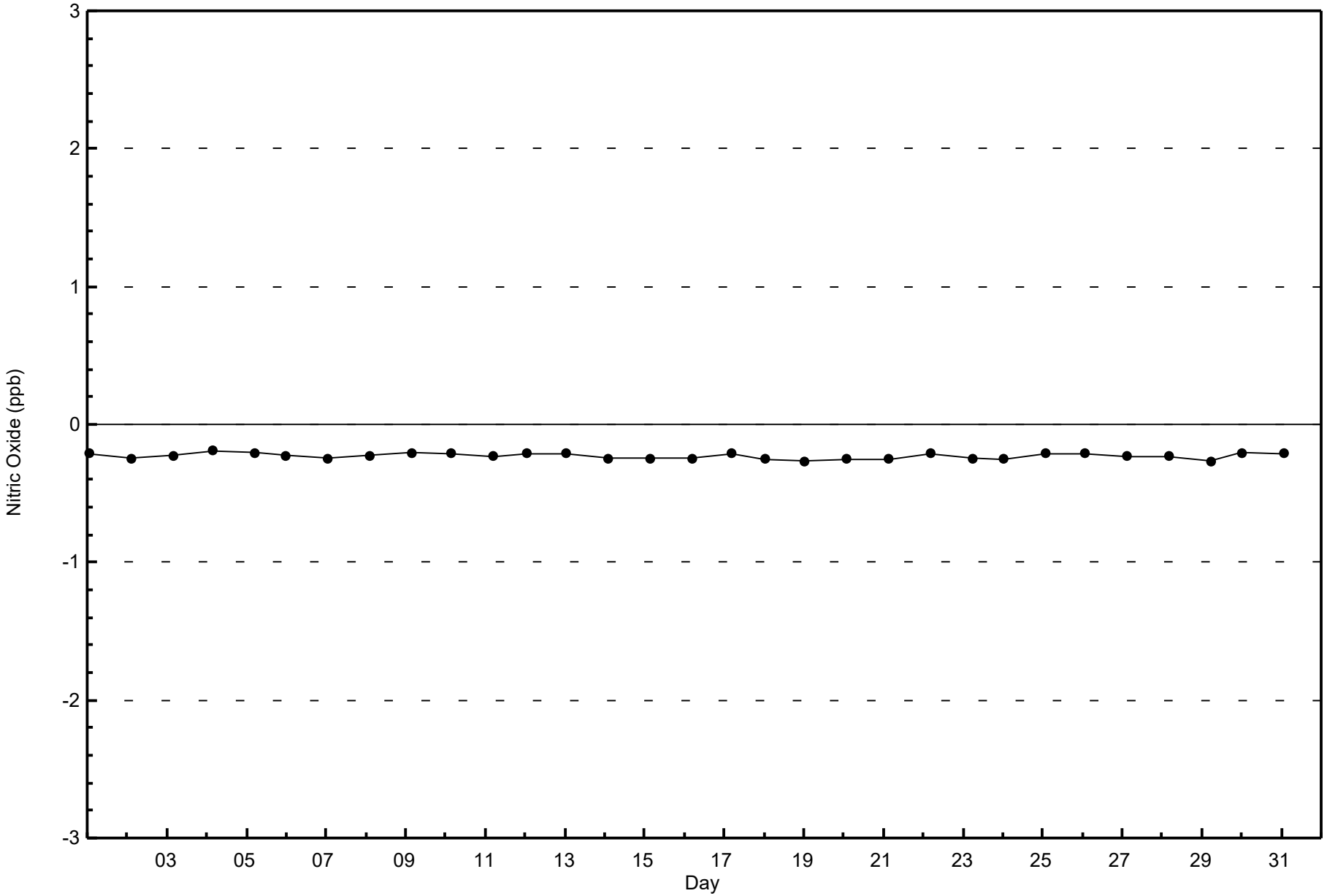
Total Number of Valid Hours: 705

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Monday Creek - October 2025

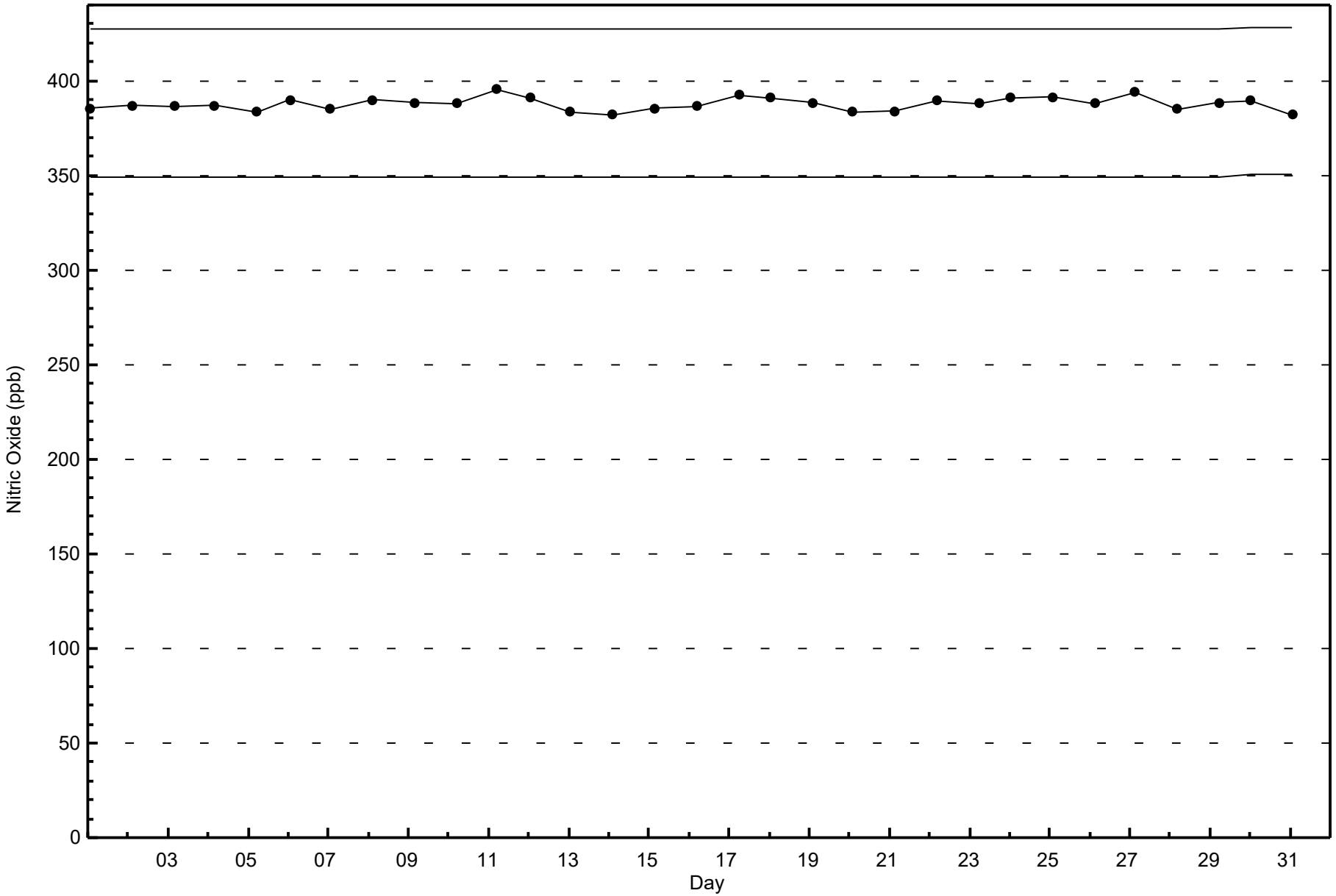


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Monday Creek - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Monday Creek - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 11.8 ppb on Oct 17 03:00

Maximum Daily Average: 3.4 ppb on Oct 15

Minimum Value: 0.1 ppb on Oct 4 23:00

Minimum Daily Average: 0.3 ppb on Oct 4

Maximum Diurnal Average: 2.3 ppb at hour 3

Minimum Diurnal Average: 1.0 ppb at hour 14

Monthly Average: 1.59 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.4$ $Q_1 = 0.6$ Median = 1.2 $Q_3 = 2.2$ $P_{90} = 3.3$ $P_{99} = 6.3$

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.2	Z	2.0	1.4	1.3	1.1	1.6	1.3	2.2	1.9	1.4	1.1	1.0	0.7	0.7	0.7	0.7	0.9	0.5	0.5	0.8	1.8	2.1	1.3	1.2	2.2
2-Oct	1.3	1.4	Z	1.8	1.3	1.7	1.3	2.0	1.5	1.5	1.7	1.3	1.0	1.0	1.0	1.5	1.5	1.1	1.6	1.5	1.6	1.8	1.5	1.2	1.4	2.0
3-Oct	1.0	1.7	3.2	Z	3.7	1.8	3.8	5.3	3.0	1.9	1.6	1.1	1.3	1.5	3.0	0.8	0.3	0.9	1.2	1.6	1.4	1.8	2.0	0.8	1.9	5.3
4-Oct	0.6	0.6	0.4	0.3	Z	0.6	0.4	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.3	0.6
5-Oct	0.1	0.2	0.3	0.4	0.2	Z	3.3	3.1	1.7	1.4	0.9	1.2	0.7	1.4	2.3	1.5	0.3	0.3	0.4	0.3	0.2	0.3	0.3	0.4	0.9	3.3
6-Oct	Z	0.5	0.4	0.4	0.8	1.0	1.0	1.0	1.6	1.3	1.0	0.7	0.9	2.4	4.0	2.8	1.4	1.2	0.9	0.7	0.6	0.8	1.6	3.2	1.3	4.0
7-Oct	3.0	Z	2.0	1.8	1.7	1.7	2.0	2.3	2.2	3.1	3.0	2.3	1.4	1.5	1.2	1.4	1.6	2.0	2.1	2.7	2.3	2.5	2.0	1.9	2.1	3.1
8-Oct	2.4	2.2	Z	0.7	0.5	0.5	0.5	0.5	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.5	4.7	6.7	1.1	2.1	1.0	1.1	6.7
9-Oct	1.5	1.6	1.1	Z	5.6	1.9	2.0	1.6	0.8	0.6	0.3	1.1	0.8	0.8	0.5	0.5	0.7	1.8	0.8	1.1	1.0	1.2	1.4	2.6	1.4	5.6
10-Oct	5.9	4.9	6.1	3.2	Z	8.2	3.7	2.9	3.0	3.1	2.9	2.7	1.7	1.6	1.3	2.4	2.1	1.8	1.9	1.6	1.5	2.4	2.8	2.8	3.1	8.2
11-Oct	2.5	2.7	2.8	2.6	2.4	Z	4.0	3.2	3.6	2.0	2.2	2.0	3.0	0.6	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.6	4.0
12-Oct	Z	0.9	1.0	0.9	1.2	1.3	1.2	1.3	0.9	0.8	0.5	0.5	0.6	1.7	1.1	0.9	1.1	0.8	0.6	0.7	0.5	0.5	1.3	1.9	1.0	1.9
13-Oct	1.0	Z	0.8	0.4	0.4	0.5	1.9	0.7	1.0	1.8	0.8	0.8	0.5	0.5	0.7	1.0	0.5	1.0	0.9	0.8	1.1	0.4	0.6	0.9	0.8	1.9
14-Oct	2.4	1.1	Z	0.9	1.1	1.3	1.2	2.6	2.1	0.9	0.7	0.6	0.6	0.6	0.7	0.9	0.6	1.1	0.7	1.0	1.1	1.5	2.5	1.6	1.2	2.6
15-Oct	1.3	1.8	3.2	Z	4.5	3.4	3.3	3.1	2.7	4.3	3.4	2.9	2.0	2.6	1.8	2.2	4.6	3.7	4.0	3.6	5.8	5.7	4.2	3.1	3.4	5.8
16-Oct	2.9	3.4	2.1	3.0	Z	4.4	6.1	7.7	4.2	2.7	1.4	1.4	1.1	0.9	0.8	1.3	1.4	0.7	0.7	1.7	2.1	1.9	3.9	3.3	2.6	7.7
17-Oct	2.3	2.3	11.8	4.2	6.4	Z	2.5	0.7	0.5	0.6	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.5	0.4	0.4	1.6	11.8
18-Oct	Z	0.4	0.3	0.3	0.4	0.5	0.4	0.5	0.6	0.4	0.6	1.6	0.5	0.5	0.2	1.3	0.9	2.2	2.9	1.6	4.4	4.7	5.5	4.1	1.5	5.5
19-Oct	3.7	Z	1.3	1.7	4.1	2.8	6.2	2.9	1.9	0.8	0.9	0.8	0.9	1.1	0.7	0.8	0.6	0.7	0.8	0.7	0.5	0.6	0.4	0.4	1.5	6.2
20-Oct	0.5	0.4	Z	0.7	0.6	0.8	0.8	1.1	2.7	2.6	3.7	3.6	3.1	1.7	1.2	0.9	1.2	1.1	1.7	2.1	1.2	0.8	1.1	1.2	1.5	3.7
21-Oct	1.5	1.8	3.4	Z	2.8	1.5	2.0	1.9	3.2	2.9	0.6	0.5	0.4	0.4	0.4	0.4	0.5	0.6	0.6	2.0	0.5	0.7	2.1	2.0	1.4	3.4
22-Oct	2.6	3.2	2.2	3.7	Z	2.2	2.8	2.6	4.0	2.2	2.0	1.7	1.2	0.3	0.3	0.4	0.9	1.6	1.6	0.8	0.8	0.9	0.9	0.7	1.7	4.0
23-Oct	0.6	0.7	0.6	0.5	0.5	Z	1.3	1.0	1.6	2.2	3.3	1.8	1.3	1.2	1.3	1.3	1.7	1.9	1.5	1.9	2.3	2.2	2.6	2.6	1.6	3.3
24-Oct	Z	2.8	3.0	3.1	2.6	2.4	2.5	2.9	3.2	2.9	2.6	2.3	2.2	2.0	2.5	3.2	4.5	5.1	3.9	5.6	4.5	3.7	4.0	3.3	3.3	5.6
25-Oct	2.4	Z	2.1	4.5	2.5	3.9	3.1	3.0	4.2	2.3	1.6	0.7	0.6	0.9	0.9	0.4	1.5	2.4	1.0	1.0	4.5	4.4	4.0	7.2	2.6	7.2
26-Oct	2.7	2.8	Z	3.0	3.9	3.5	3.5	3.0	1.8	1.9	2.5	1.6	0.7	0.7	0.8	0.7	1.2	0.8	0.7	0.4	0.6	0.7	0.5	0.3	1.7	3.9
27-Oct	0.6	0.4	0.5	Z	1.1	1.4	0.6	0.5	0.8	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.5	0.4	0.3	0.4	0.3	0.3	0.4	0.4	0.5	1.4
28-Oct	0.4	0.3	0.2	0.3	Z	0.4	0.2	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.7	0.9	0.5	1.1	1.6	1.1	1.3	0.5	1.6
29-Oct	0.6	0.8	2.1	1.5	1.1	Z	1.9	1.5	1.5	1.3	C	C	C	C	C	0.5	0.4	0.4	0.3	0.3	0.4	0.5	0.7	2.0	1.0	2.1
30-Oct	Z	6.4	6.3	5.4	4.2	3.2	2.7	2.3	2.0	1.6	1.0	0.8	0.7	0.7	0.8	1.3	1.3	1.2	0.9	0.8	0.8	0.7	0.7	0.7	2.0	6.4
31-Oct	0.6	Z	0.9	0.7	0.6	0.9	0.9	0.8	1.0	1.0	1.2	1.7	1.9	2.4	2.2	2.3	2.0	1.5	1.7	2.1	1.8	1.5	1.2	1.1	1.4	2.4
	1.8	1.8	2.3	1.8	2.1	2.0	2.2	2.1	2.0	1.7	1.5	1.3	1.1	1.0	1.1	1.1	1.2	1.3	1.2	1.4	1.6	1.5	1.7	1.7	Diurnal Average	
	5.9	6.4	11.8	5.4	6.4	8.2	6.2	7.7	4.2	4.3	3.7	3.6	3.1	2.6	4.0	3.2	4.6	5.1	4.0	5.6	6.7	5.7	5.5	7.2	Diurnal Maximum	

Z - zerospan C - Calibration

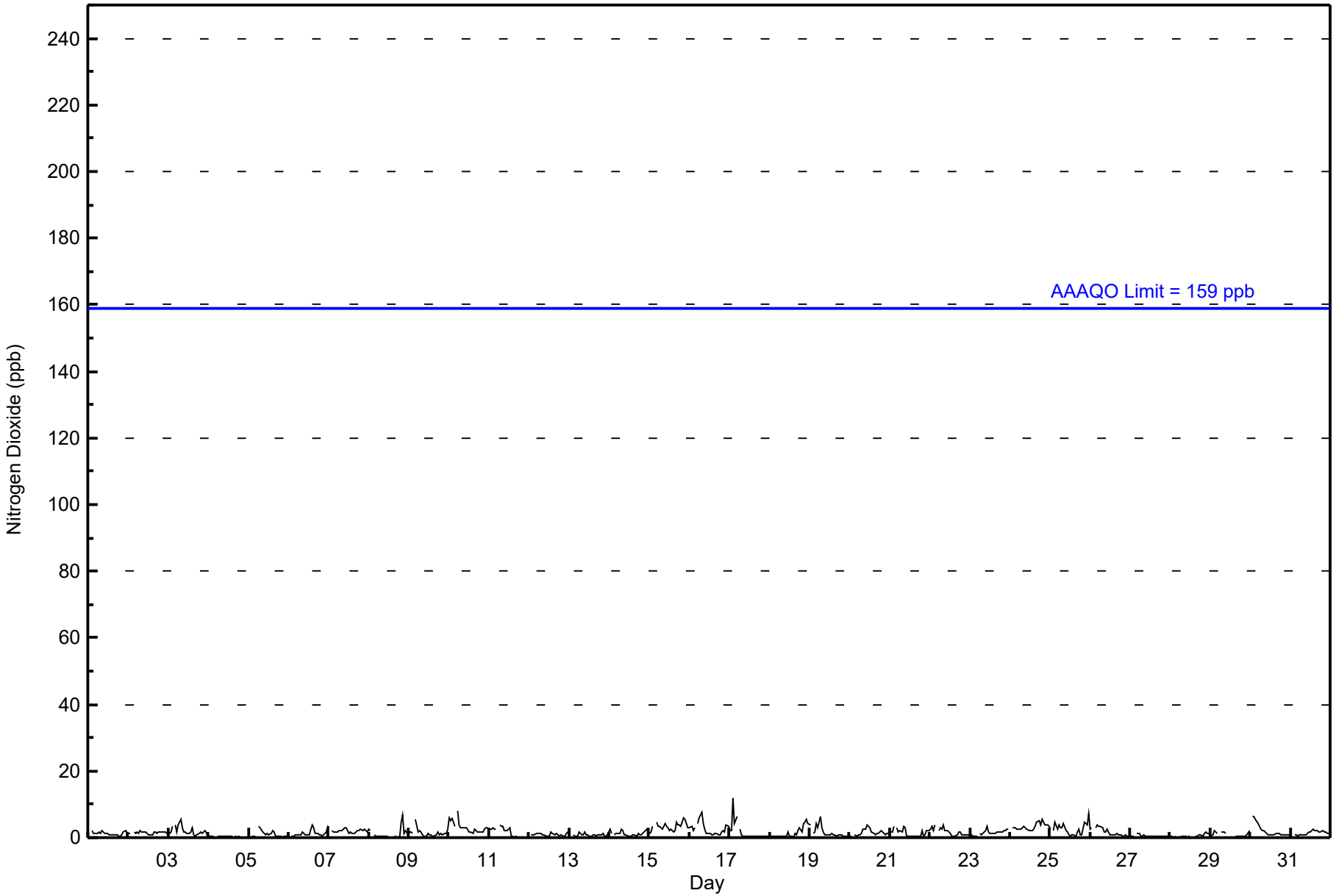
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Monday Creek - October 2025



Nitrogen Dioxide (NO_2) - ppb
Monday Creek - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	708	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Monday Creek - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	27	9	7	16	18	22	32	62	73	81	55	34	72	108	58	31	705
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	27	9	7	16	18	22	32	62	73	81	55	34	72	108	58	31	705

Total Number of Valid Hours: 705

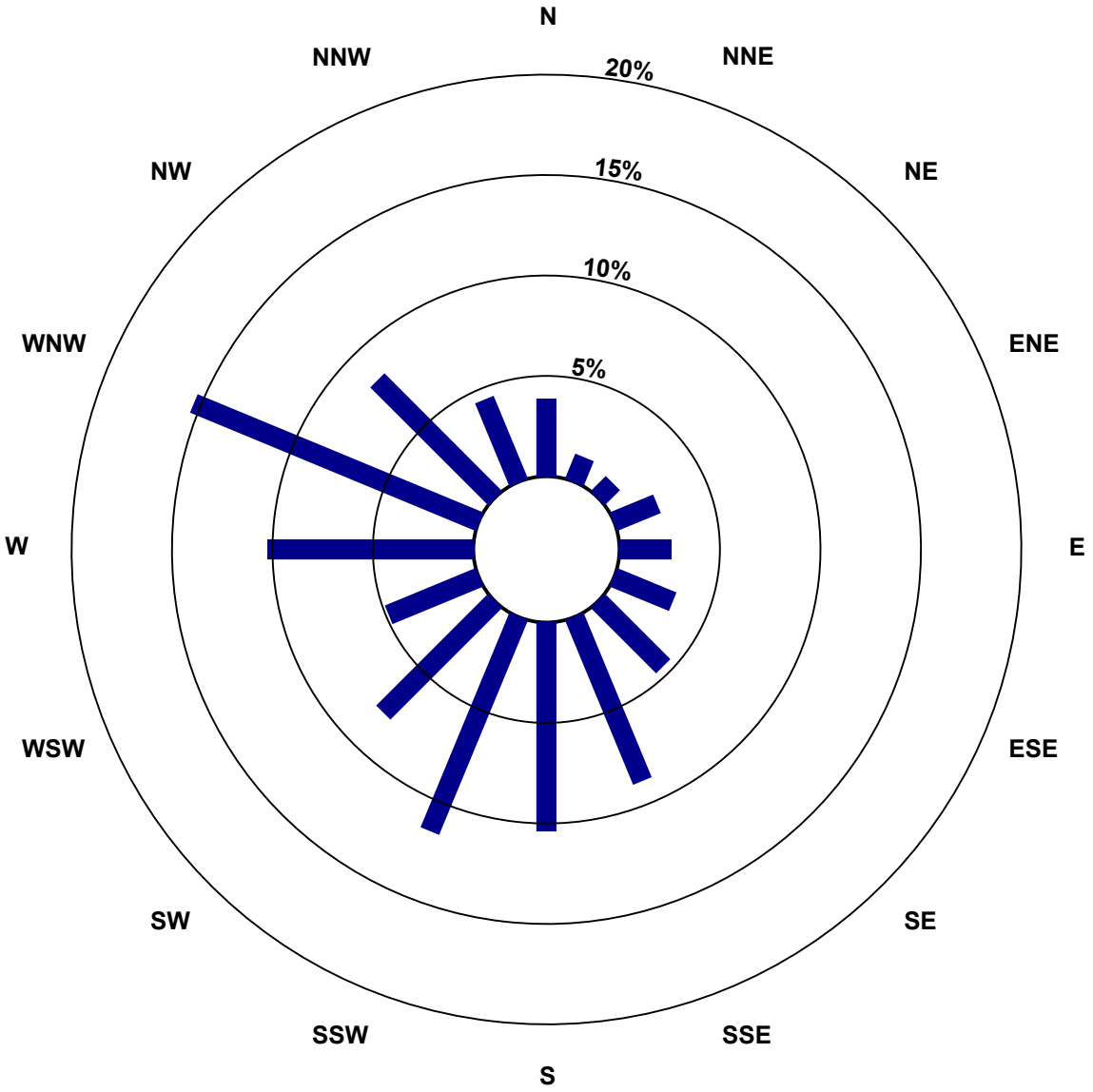
Total Number of Hours: 744

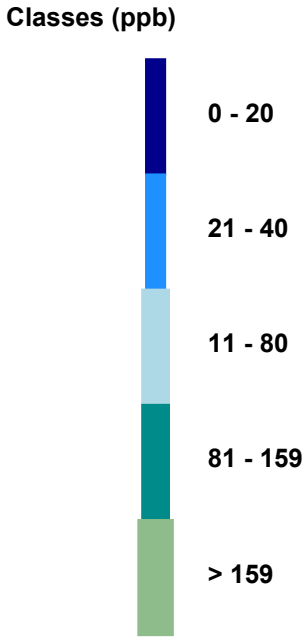
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Monday Creek





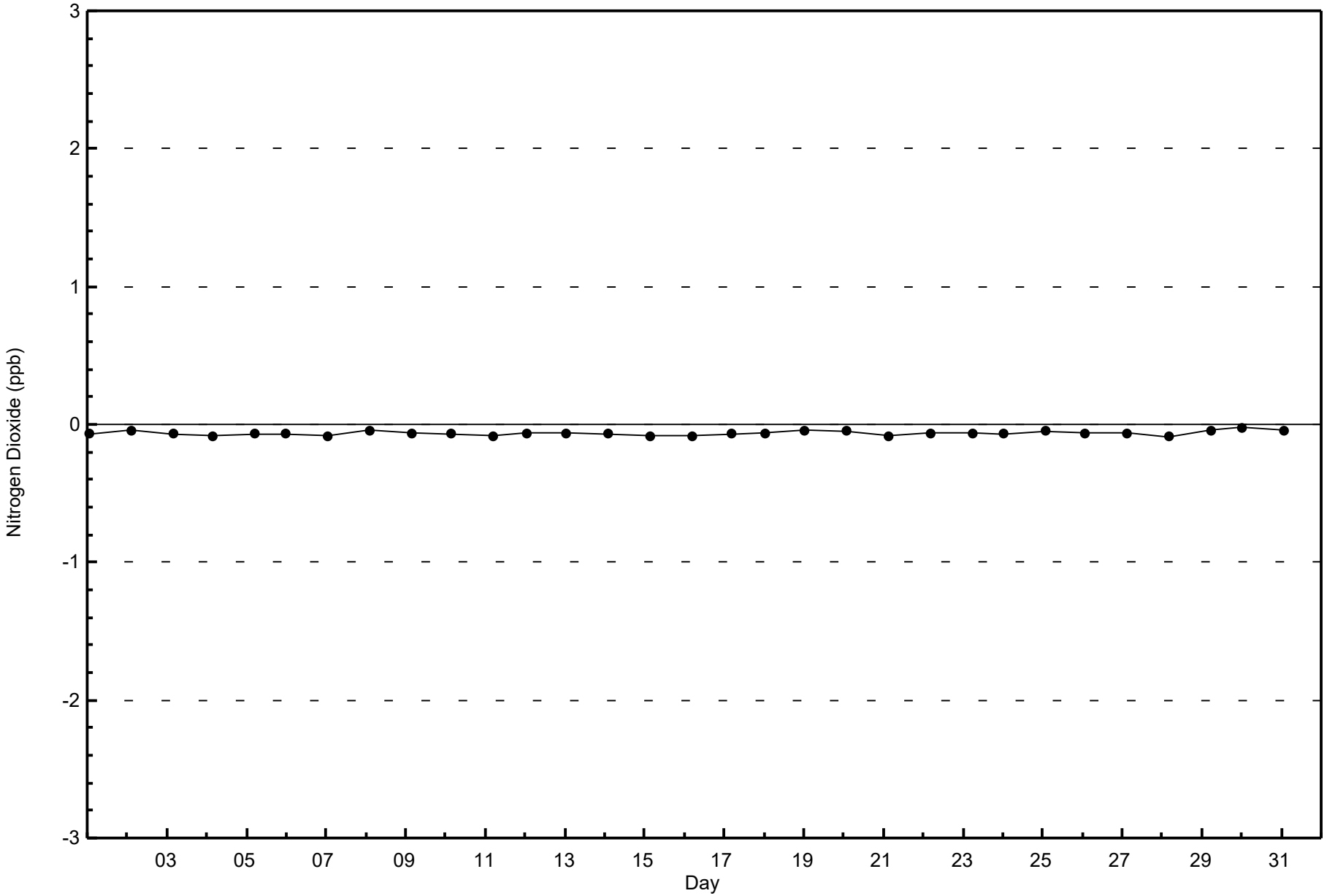
Total Number of Valid Hours: 705

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Monday Creek - October 2025

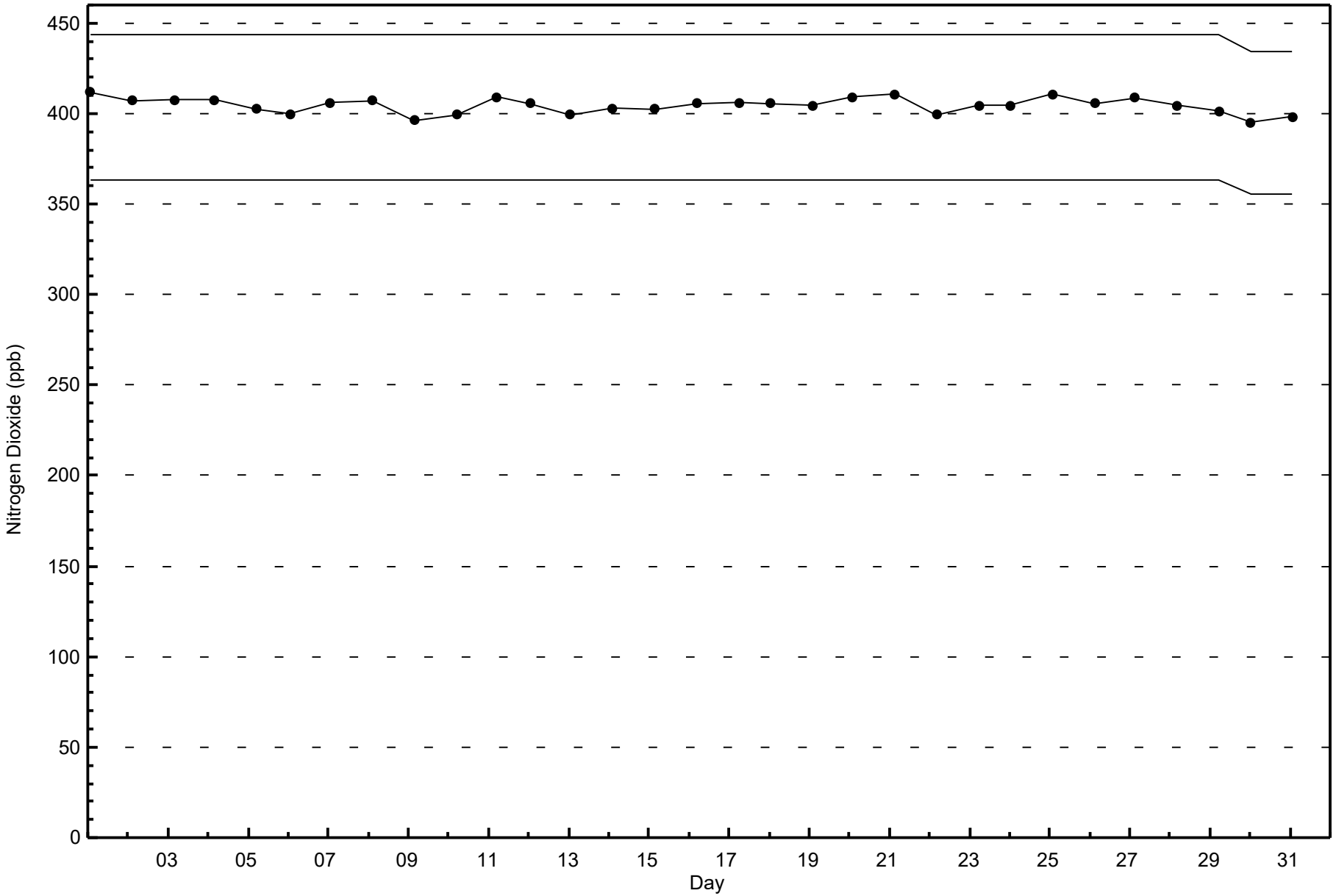


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Monday Creek - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Monday Creek - October 2025

Maximum Value: 25.6 ppb on Oct 16 08:00

Maximum Daily Average: 4.1 ppb on Oct 16

Minimum Value: 0.1 ppb on Oct 5 01:00

Minimum Daily Average: 0.3 ppb on Oct 4

Maximum Diurnal Average: 2.9 ppb at hour 8

Minimum Diurnal Average: 1.2 ppb at hour 19

Monthly Average: 1.85 ppb

Percentiles: P_1 = 0.2 P_{10} = 0.4 Q_1 = 0.6 Median = 1.3 Q_3 = 2.4 P_{90} = 4.0 P_{99} = 7.3

Hours in Service:	744
Hours of Data:	708
Hours of Missing Data:	36
Hours of Calibration:	36
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.2	Z	2.1	1.4	1.3	1.1	1.7	1.4	2.6	2.3	1.6	1.3	1.1	0.8	0.8	0.8	0.7	0.9	0.5	0.5	0.8	1.9	2.1	1.4	1.3	2.6
2-Oct	1.4	1.5	Z	1.9	1.4	1.9	1.5	2.8	1.9	2.1	2.4	1.7	1.3	1.3	1.2	1.8	1.6	1.2	1.6	1.5	1.6	1.8	1.6	1.2	1.7	2.8
3-Oct	1.0	1.7	3.2	Z	3.7	1.8	4.0	6.2	4.0	2.6	2.2	1.4	1.7	2.0	3.6	0.9	0.3	0.9	1.2	1.6	1.4	1.9	2.1	0.8	2.2	6.2
4-Oct	0.6	0.6	0.4	0.3	Z	0.6	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.3	0.6
5-Oct	0.1	0.2	0.3	0.4	0.2	Z	3.4	4.0	2.2	2.4	1.4	2.0	1.1	2.1	3.0	1.8	0.3	0.3	0.4	0.3	0.2	0.3	0.3	0.4	1.2	4.0
6-Oct	Z	0.5	0.4	0.4	0.8	1.0	1.1	1.2	2.1	2.0	1.6	1.1	1.3	3.8	6.1	3.8	1.6	1.3	0.9	0.7	0.6	0.8	1.6	3.2	1.6	6.1
7-Oct	3.0	Z	2.0	1.8	1.7	1.7	2.0	2.5	2.8	4.2	4.1	3.4	1.8	1.9	1.5	1.7	1.7	2.0	2.1	2.7	2.3	2.5	2.0	1.9	2.3	4.2
8-Oct	2.4	2.2	Z	0.7	0.5	0.5	0.5	0.5	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.5	4.8	7.0	1.1	2.1	1.0	1.2	7.0
9-Oct	1.5	1.6	1.1	Z	6.1	1.9	2.0	1.8	1.1	0.8	0.4	1.7	1.2	1.1	0.6	0.6	0.8	1.8	0.8	1.1	1.0	1.2	1.4	2.6	1.5	6.1
10-Oct	5.9	5.2	6.7	3.2	Z	11.1	3.8	3.2	4.1	4.3	3.9	3.4	2.0	1.9	1.5	2.7	2.3	1.8	1.9	1.6	1.5	2.4	2.8	2.8	3.5	11.1
11-Oct	2.5	2.7	2.8	2.6	2.4	Z	4.0	3.3	3.8	2.1	2.8	2.4	3.2	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.6	4.0
12-Oct	Z	0.9	1.0	0.9	1.2	1.3	1.2	1.3	0.9	0.9	0.6	0.6	0.7	2.0	1.3	1.0	1.1	0.8	0.6	0.7	0.5	0.5	1.3	1.9	1.0	2.0
13-Oct	1.0	Z	0.8	0.4	0.4	0.5	7.2	0.7	1.2	3.9	0.9	1.2	0.6	0.6	1.1	1.8	0.6	1.2	1.1	0.8	1.1	0.4	0.6	0.9	1.3	7.2
14-Oct	2.4	1.1	Z	0.9	1.1	1.3	1.3	2.9	2.7	1.2	1.0	0.9	0.9	0.8	0.9	1.1	0.7	1.2	0.8	1.0	1.1	1.5	2.5	1.6	1.3	2.9
15-Oct	1.4	1.8	3.2	Z	4.6	3.5	3.5	3.5	3.7	6.6	5.0	4.3	2.7	3.3	2.1	2.5	6.4	4.0	4.0	3.6	5.9	5.8	4.4	3.1	3.9	6.6
16-Oct	2.9	3.5	2.1	3.2	Z	6.2	12.1	25.6	9.1	4.3	1.9	1.8	1.3	1.0	0.9	1.5	1.4	0.7	0.7	1.7	2.1	1.9	3.9	3.3	4.1	25.6
17-Oct	2.3	2.3	12.1	4.3	6.6	Z	2.6	0.7	0.5	0.6	0.5	0.4	0.4	0.4	0.4	0.6	0.6	0.4	0.4	0.3	0.3	0.5	0.4	0.4	1.6	12.1
18-Oct	Z	0.4	0.3	0.3	0.4	0.7	0.7	0.6	0.7	0.6	0.9	3.7	0.9	0.7	0.4	2.2	1.4	2.3	3.1	1.6	4.9	5.2	6.1	4.6	1.9	6.1
19-Oct	4.5	Z	1.4	1.7	4.9	3.3	7.3	3.1	2.2	1.0	1.1	0.9	1.0	1.2	0.8	0.9	0.7	0.8	0.9	0.7	0.5	0.6	0.4	0.4	1.8	7.3
20-Oct	0.5	0.4	Z	0.7	0.6	0.9	0.9	1.2	3.1	3.8	5.9	4.6	4.4	2.0	1.3	1.0	1.3	1.1	1.7	2.1	1.2	0.8	1.1	1.2	1.8	5.9
21-Oct	1.5	1.8	3.5	Z	2.8	1.5	2.0	2.0	4.2	4.3	0.8	0.6	0.5	0.5	0.5	0.4	0.5	0.6	0.6	2.0	0.5	0.7	2.1	2.0	1.6	4.3
22-Oct	2.7	3.3	2.3	4.8	Z	4.5	6.0	5.8	10.5	3.7	3.1	2.6	1.7	0.4	0.3	0.4	0.9	1.6	1.6	0.8	0.8	0.9	0.9	0.7	2.6	10.5
23-Oct	0.6	0.7	0.6	0.5	0.5	Z	1.3	1.0	1.7	2.8	4.8	2.5	1.8	1.5	1.6	1.5	1.8	1.9	1.6	1.9	2.3	2.2	2.6	2.6	1.8	4.8
24-Oct	Z	2.8	3.0	3.1	2.6	2.4	2.5	3.0	3.5	3.5	3.1	2.8	2.6	2.4	2.9	3.8	4.7	5.1	3.9	5.8	4.6	3.8	5.5	3.5	3.5	5.8
25-Oct	2.5	Z	2.1	5.2	2.5	5.2	4.0	3.2	5.1	2.8	1.8	0.7	0.6	1.0	1.1	0.4	1.5	2.4	1.0	1.0	4.8	4.5	4.3	8.6	2.9	8.6
26-Oct	2.7	2.8	Z	3.2	4.8	3.7	5.0	3.5	2.0	2.2	3.3	2.0	0.8	0.8	0.8	0.7	1.3	0.8	0.7	0.4	0.6	0.7	0.5	0.3	1.9	5.0
27-Oct	0.6	0.4	0.5	Z	1.1	1.4	0.6	0.5	1.4	0.4	0.4	0.3	0.4	0.5	0.4	0.4	0.5	0.4	0.3	0.4	0.3	0.3	0.4	0.4	0.5	1.4
28-Oct	0.4	0.3	0.2	0.3	Z	0.4	0.2	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.7	1.0	0.5	1.1	1.6	1.1	1.4	0.5	1.6
29-Oct	0.7	0.9	2.2	1.8	1.4	Z	2.5	1.8	1.7	1.6	C	C	C	C	C	0.5	0.4	0.4	0.3	0.3	0.4	0.5	0.7	2.0	1.1	2.5
30-Oct	Z	6.4	6.3	5.4	4.2	3.4	2.7	2.4	2.4	2.0	1.3	1.1	0.8	0.8	0.8	1.4	1.3	1.2	0.9	0.8	0.8	0.7	0.7	0.7	2.1	6.4
31-Oct	0.6	Z	0.9	0.7	0.6	0.9	0.9	0.8	1.1	1.3	1.8	2.4	2.7	3.4	2.8	2.6	2.0	1.5	1.7	2.1	1.8	1.5	1.2	1.1	1.6	3.4
	1.8	1.8	2.4	1.9	2.2	2.4	2.9	2.9	2.7	2.3	2.0	1.8	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.4	1.7	1.6	1.8	1.8	Diurnal Average	
	5.9	6.4	12.1	5.4	6.6	11.1	12.1	25.6	10.5	6.6	5.9	4.6	4.4	3.8	6.1	3.8	6.4	5.1	4.0	5.8	7.0	5.8	6.1	8.6	Diurnal Maximum	

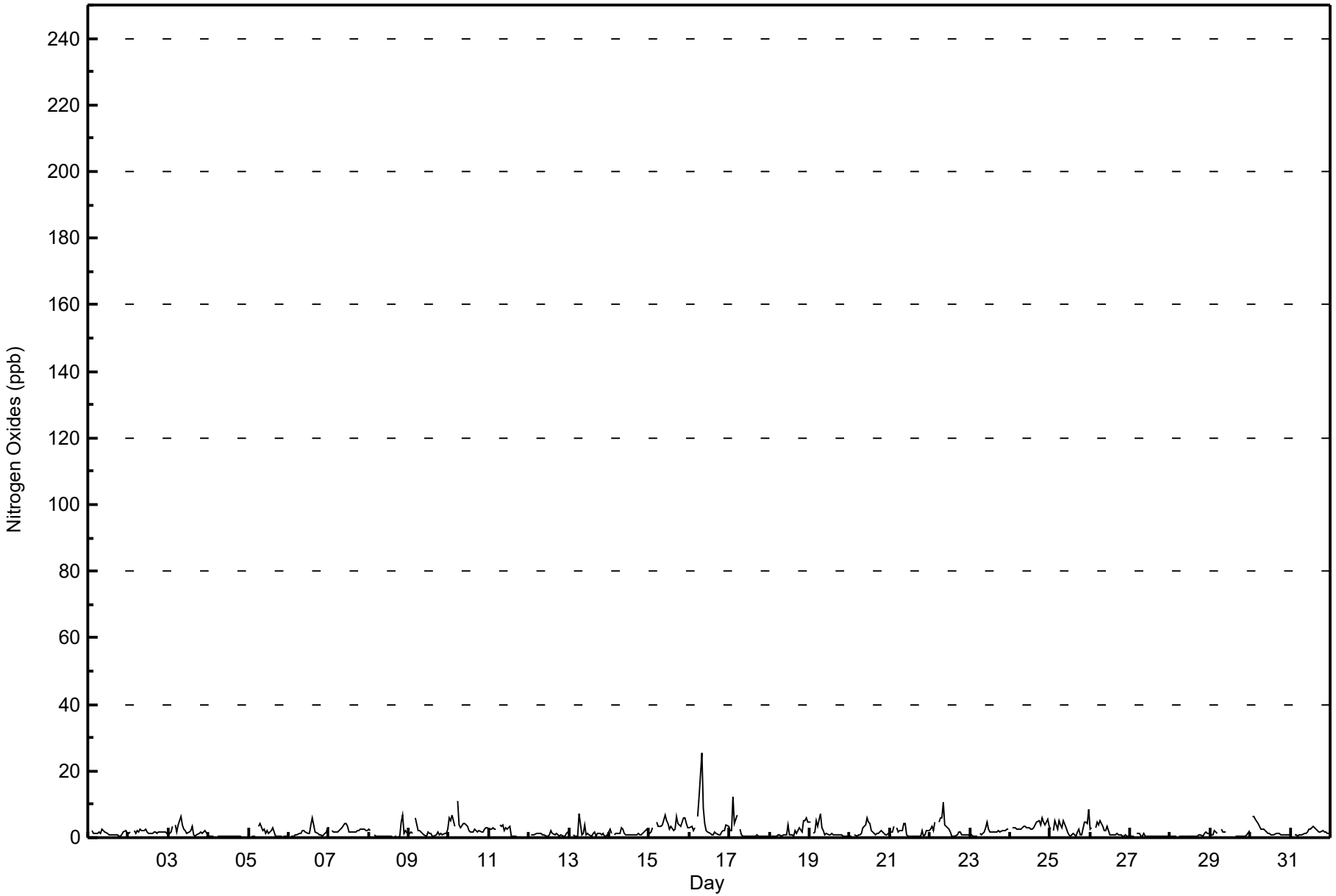
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Monday Creek - October 2025



Nitrogen Oxides (NO_X) - ppb
Monday Creek - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	99.86	99.86
21 - 40	1	0.14	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 708

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Monday Creek - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	27	9	7	16	18	22	32	62	72	81	55	34	72	108	58	31	704
21 - 40	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	27	9	7	16	18	22	32	62	73	81	55	34	72	108	58	31	705

Total Number of Valid Hours: 705

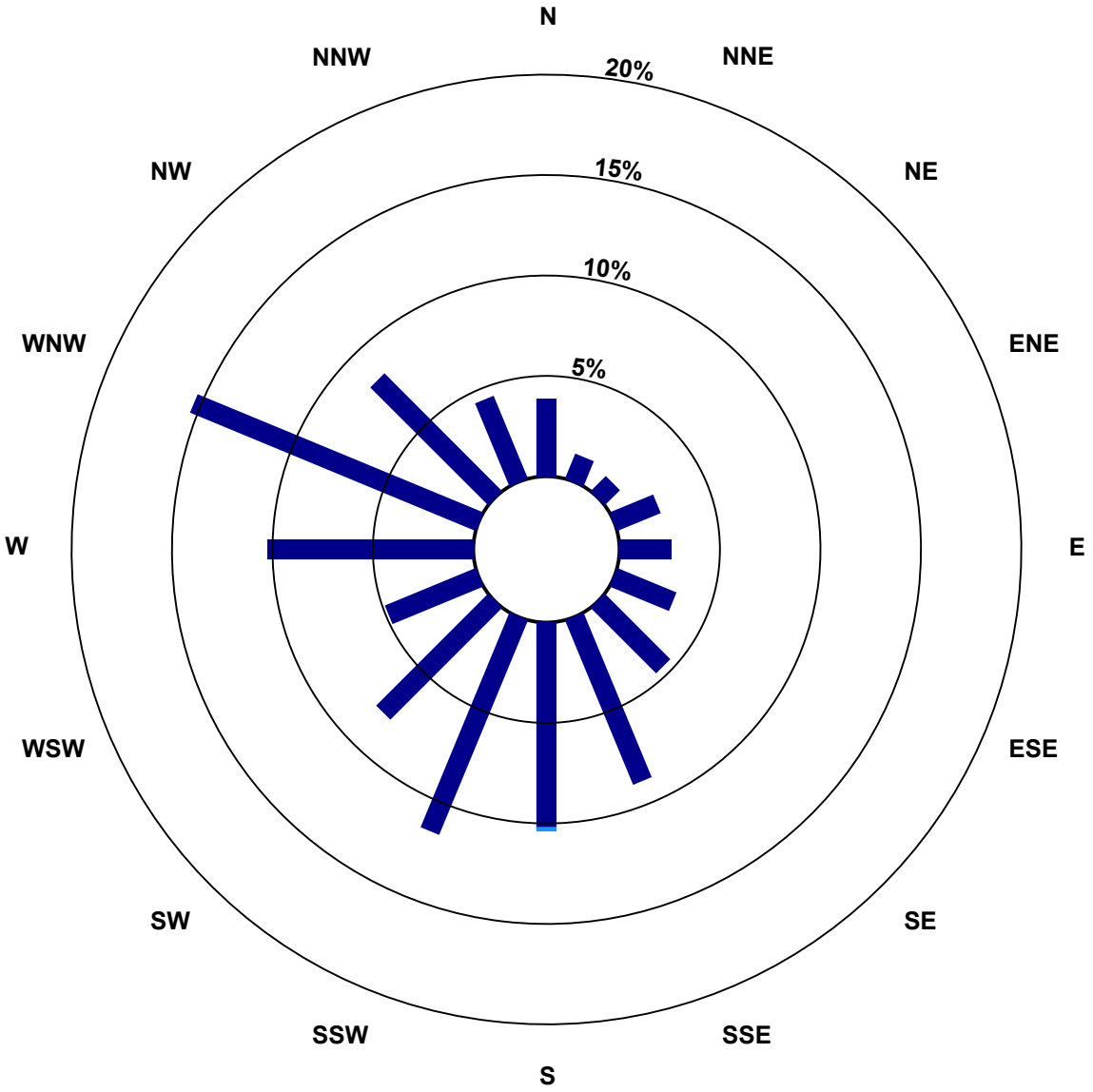
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Monday Creek



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

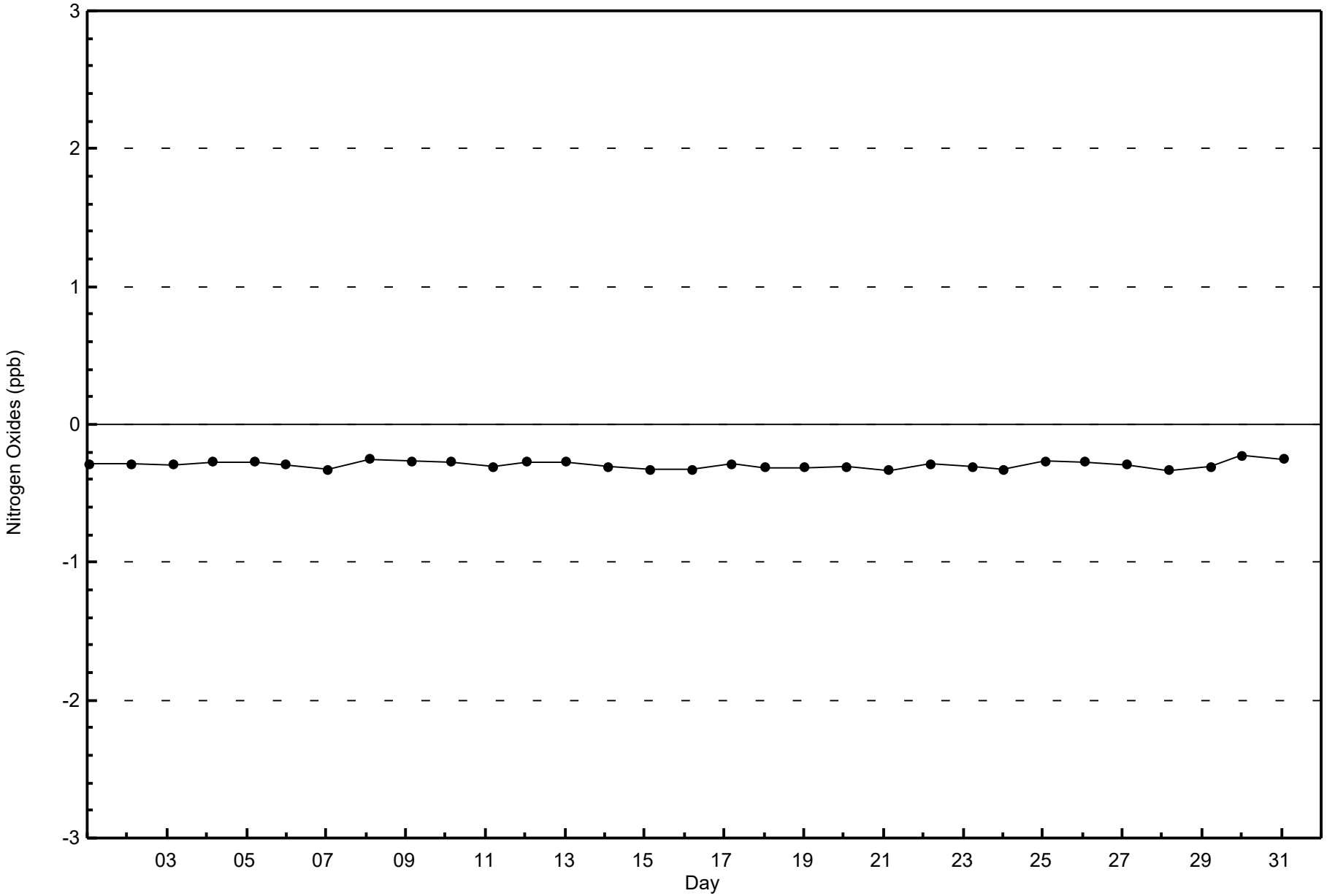
Total Number of Valid Hours: 705

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Monday Creek - October 2025

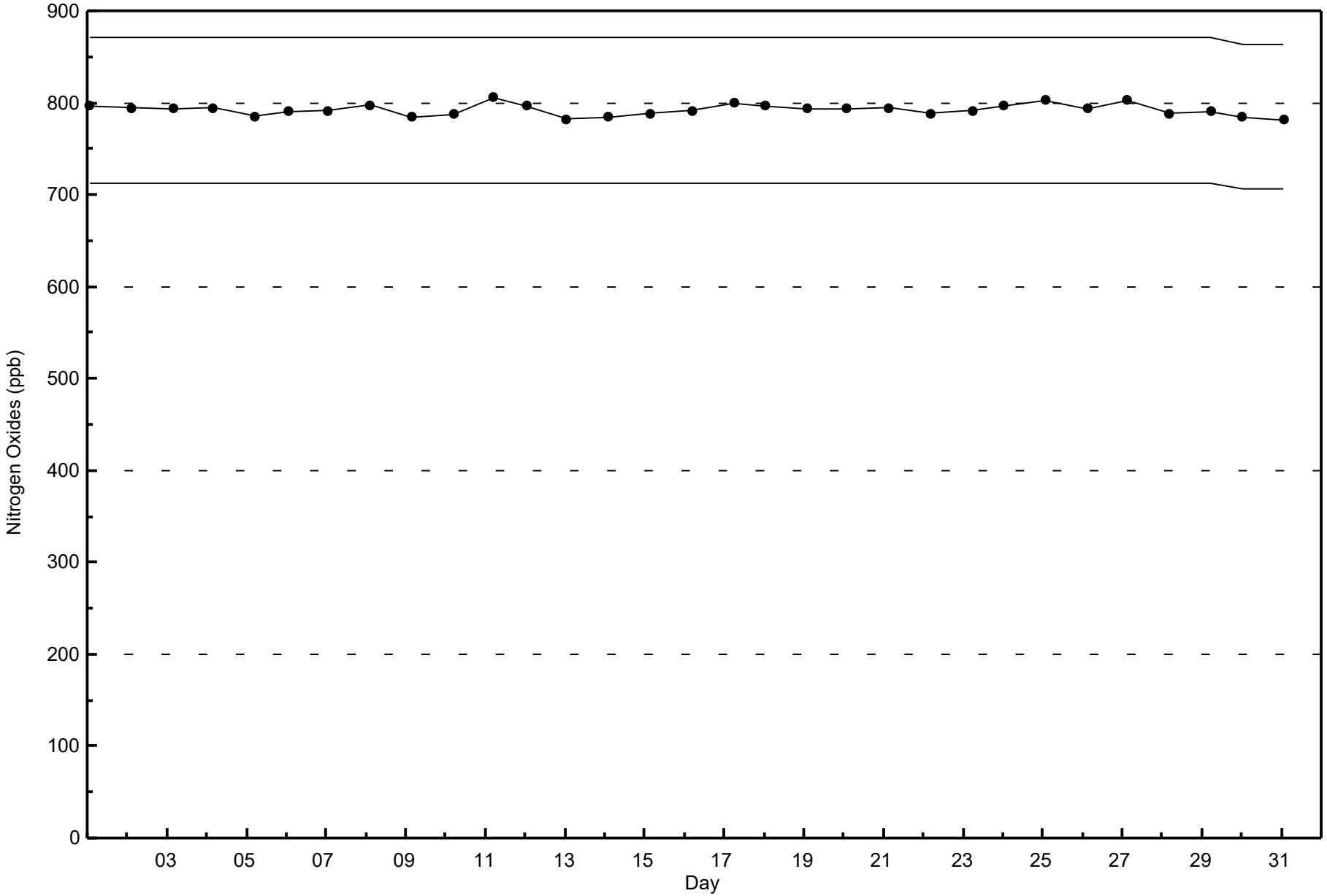


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Monday Creek - October 2025



Maximum Value: 20.0 C on Oct 10 15:00

Maximum Daily Average: 11.5 C on Oct 7

Minimum Value: -4.5 C on Oct 26 04:00

Minimum Daily Average: -0.7 C on Oct 13

Maximum Diurnal Average: 8.4 C at hour 15

Minimum Diurnal Average: 2.1 C at hour 7

Monthly Average: 4.77 C

Percentiles: P_1 = -3.5 P_{10} = -0.9 Q_1 = 0.4 Median = 3.9 Q_3 = 8.1 P_{90} = 11.7 P_{99} = 18.5

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

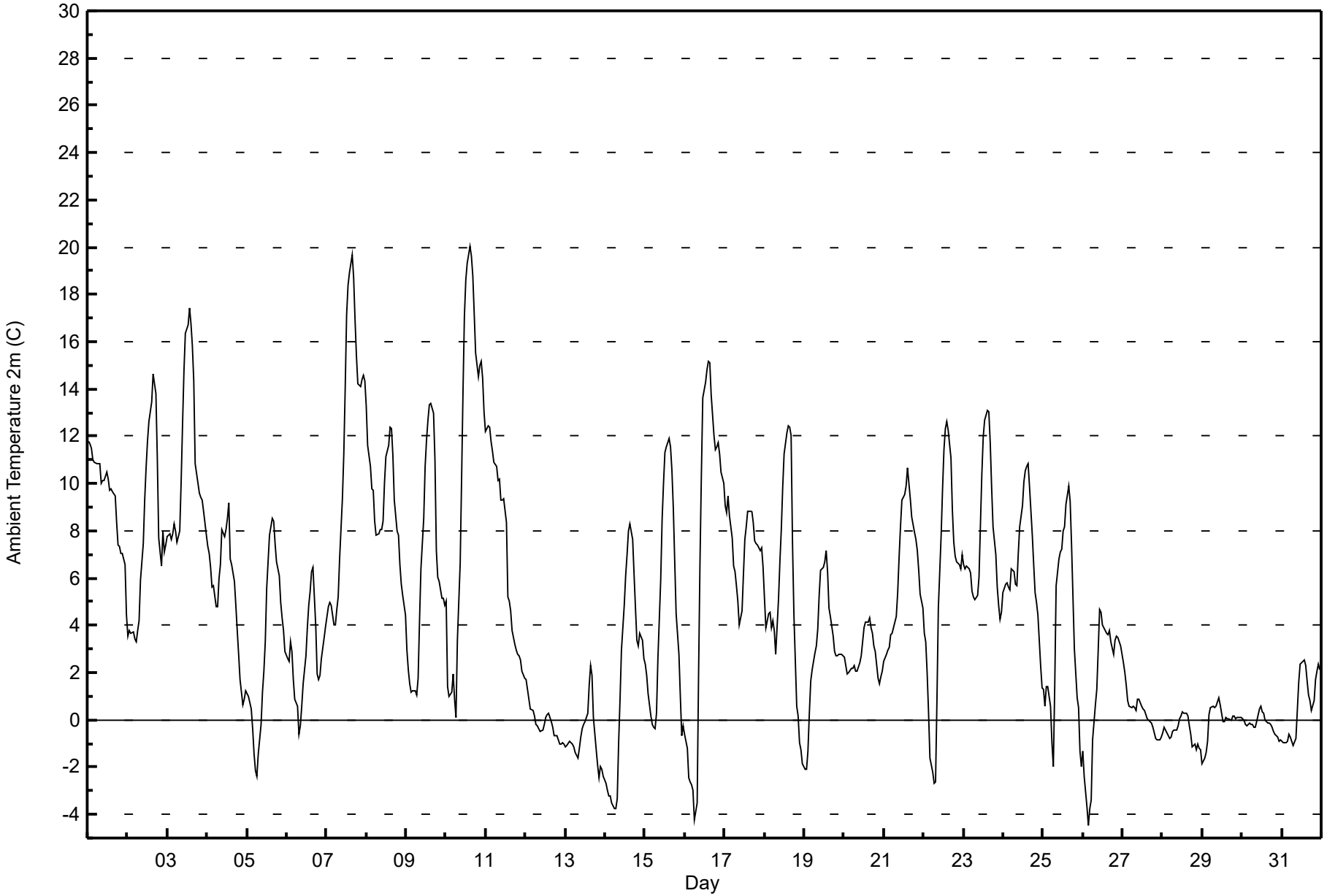
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	11.8	11.7	11.5	11.0	10.9	10.8	10.8	10.8	10.0	10.1	10.1	10.5	10.2	9.7	9.8	9.7	9.5	8.4	7.4	7.3	7.0	7.0	6.5	4.4	9.5	11.8
2-Oct	3.5	3.8	3.7	3.7	3.4	3.3	3.8	4.2	5.9	7.4	9.3	10.6	11.8	12.6	13.5	14.6	14.2	13.8	11.1	7.7	6.5	8.0	7.1	7.4	8.0	14.6
3-Oct	7.8	7.9	7.6	7.9	8.3	8.0	7.5	8.0	10.1	12.5	14.7	16.3	16.7	17.4	16.8	15.8	14.4	10.8	10.0	9.6	9.4	9.3	8.8	7.8	11.0	17.4
4-Oct	7.3	7.1	6.5	5.6	5.7	4.8	4.8	6.0	6.6	8.1	7.8	8.0	8.5	9.2	6.8	6.6	5.8	4.9	3.8	2.8	1.7	0.6	0.9	1.2	5.5	9.2
5-Oct	1.1	1.0	0.4	-0.3	-1.4	-2.1	-2.4	-1.4	-0.2	1.2	2.1	3.3	5.6	7.8	8.2	8.6	8.4	7.5	6.7	6.1	4.9	4.3	3.8	2.9	3.2	8.6
6-Oct	2.6	2.5	3.3	2.9	1.7	0.9	0.6	-0.6	-0.3	0.6	1.5	2.7	3.9	4.9	5.5	6.3	6.5	4.0	1.9	1.7	1.9	2.6	3.5	4.0	2.7	6.5
7-Oct	4.4	4.8	5.0	4.9	4.0	4.0	4.7	5.2	6.8	9.4	11.3	14.1	17.2	18.4	18.9	19.7	18.7	16.9	15.4	14.2	14.1	14.4	14.6	14.4	11.5	19.7
8-Oct	13.3	11.6	10.7	9.8	9.7	8.4	7.8	7.9	8.0	8.1	8.4	10.0	11.2	11.6	12.4	12.3	11.2	9.3	8.0	7.8	6.6	5.8	5.3	4.4	9.1	13.3
9-Oct	3.0	2.1	1.5	1.1	1.2	1.2	1.0	1.8	4.2	6.4	8.6	10.7	11.8	12.7	13.3	13.4	12.9	11.0	7.2	6.1	5.8	5.1	5.2	4.8	6.3	13.4
10-Oct	5.0	1.4	1.0	1.2	1.9	0.9	0.1	3.4	6.6	10.2	13.9	17.1	18.6	19.3	20.0	19.6	18.8	17.2	15.5	14.5	15.0	15.2	14.5	13.0	11.0	20.0
11-Oct	12.2	12.4	12.4	11.8	11.4	10.9	10.7	10.1	10.2	9.3	9.3	9.3	8.3	5.2	5.1	4.6	3.8	3.2	2.9	2.8	2.7	2.5	2.1	1.8	7.3	12.4
12-Oct	1.7	1.3	0.9	0.5	0.4	0.2	-0.2	-0.2	-0.4	-0.5	-0.4	-0.2	0.1	0.2	0.3	-0.1	-0.3	-0.7	-0.7	-0.7	-1.1	-1.0	-1.0	-1.0	-0.1	1.7
13-Oct	-1.1	-1.1	-0.9	-1.0	-1.1	-1.2	-1.4	-1.6	-1.2	-0.7	-0.4	-0.2	-0.1	0.3	1.5	2.3	1.9	0.1	-1.2	-1.9	-2.4	-2.0	-2.1	-2.4	-0.7	2.3
14-Oct	-2.7	-3.0	-3.2	-3.2	-3.5	-3.8	-3.8	-3.3	-1.0	0.9	2.9	4.8	6.1	7.0	8.0	8.3	7.6	6.1	4.7	3.4	3.1	3.7	3.4	2.6	1.9	8.3
15-Oct	2.3	1.9	1.1	0.2	-0.2	-0.3	-0.4	0.3	2.6	5.9	8.5	10.0	11.3	11.6	11.9	11.5	10.6	9.0	6.7	4.5	2.8	1.0	-0.6	-0.2	4.7	11.9
16-Oct	-0.6	-1.2	-2.5	-2.6	-2.8	-3.0	-4.2	-3.5	1.9	6.6	10.3	13.6	14.3	14.8	15.2	15.1	13.8	12.0	11.4	11.6	11.7	11.3	10.5	10.0	6.8	15.2
17-Oct	9.1	8.8	9.5	8.7	7.7	6.5	6.3	5.7	5.0	4.0	4.6	6.1	7.6	8.2	8.8	8.8	8.8	8.3	7.6	7.5	7.4	7.2	7.3	6.5	7.3	9.5
18-Oct	5.1	3.9	4.5	4.5	3.9	4.2	3.8	2.8	5.1	6.7	8.1	9.9	11.2	12.1	12.5	12.4	12.0	7.5	4.4	0.6	0.2	-0.9	-1.2	-1.9	5.5	12.5
19-Oct	-2.1	-2.1	-1.3	0.3	1.6	2.1	2.8	3.1	3.8	5.3	6.3	6.5	6.7	7.1	6.3	4.7	4.4	3.5	2.9	2.7	2.7	2.8	2.8	2.7	3.2	7.1
20-Oct	2.6	2.3	2.0	2.0	2.2	2.2	2.3	2.1	2.1	2.4	2.7	3.3	3.9	4.1	4.2	4.3	3.9	3.6	3.1	2.9	1.8	1.5	1.8	2.1	2.7	4.3
21-Oct	2.5	2.8	2.9	3.1	3.6	3.7	3.9	4.4	5.4	6.9	8.2	9.3	9.5	9.9	10.7	10.0	9.4	8.6	7.9	7.6	7.2	6.4	5.3	4.7	6.4	10.7
22-Oct	3.6	3.3	2.0	0.3	-1.6	-2.2	-2.7	-2.6	0.8	4.7	7.8	9.8	11.4	12.3	12.6	12.2	11.1	8.9	7.5	6.9	6.7	6.6	6.4	7.0	5.5	12.6
23-Oct	6.6	6.4	6.5	6.4	6.2	5.4	5.2	5.1	5.2	6.0	8.2	10.3	11.9	12.7	13.1	13.1	11.7	9.9	8.2	7.0	5.6	4.9	4.3	4.5	7.7	13.1
24-Oct	5.4	5.7	5.8	5.6	5.5	6.4	6.3	5.7	5.7	7.0	8.2	9.1	10.1	10.6	10.7	10.8	9.9	7.8	6.5	5.4	5.0	4.4	2.2	1.4	6.7	10.8
25-Oct	1.3	0.6	1.4	1.4	0.6	-1.0	-2.0	1.4	5.7	6.8	7.1	7.2	8.0	8.2	9.1	9.9	9.2	7.4	5.2	3.0	0.9	0.5	-1.3	-1.9	3.7	9.9
26-Oct	-1.3	-2.4	-3.7	-4.5	-3.7	-3.4	-0.8	0.6	1.3	3.0	4.7	4.5	4.0	3.8	3.6	3.6	3.8	3.3	2.7	3.3	3.6	3.5	3.3	3.1	1.5	4.7
27-Oct	2.4	2.0	1.4	0.8	0.6	0.5	0.6	0.5	0.4	0.8	0.9	0.6	0.4	0.4	0.2	0.0	-0.1	-0.2	-0.3	-0.5	-0.8	-0.9	-0.8	-0.7	0.4	2.4
28-Oct	-0.6	-0.3	-0.4	-0.7	-0.8	-0.8	-0.5	-0.4	-0.4	-0.2	0.1	0.2	0.3	0.3	0.3	0.2	-0.3	-0.6	-1.1	-1.0	-1.2	-1.0	-1.2	-1.2	-0.5	0.3
29-Oct	-1.8	-1.6	-1.4	-0.9	0.2	0.5	0.6	0.5	0.6	0.8	0.9	0.6	-0.1	-0.1	0.1	0.0	0.0	0.0	0.2	0.1	0.0	0.1	0.1	0.1	0.0	0.9
30-Oct	0.0	0.0	-0.2	-0.3	-0.2	-0.2	-0.2	-0.3	-0.3	-0.1	0.4	0.6	0.4	0.3	0.0	-0.1	-0.2	-0.2	-0.3	-0.5	-0.6	-0.7	-0.9	-0.8	-0.2	0.6
31-Oct	-0.9	-1.0	-1.0	-0.9	-0.6	-0.8	-0.9	-1.1	-0.8	0.4	1.6	2.4	2.4	2.5	2.3	1.6	1.1	0.8	0.4	0.8	1.7	2.1	2.3	2.1	0.7	2.5
	3.3	3.0	2.8	2.6	2.4	2.1	2.1	2.4	3.5	4.8	6.1	7.1	7.9	8.2	8.4	8.4	7.8	6.5	5.3	4.6	4.2	4.0	3.6	3.3	Diurnal Average	
	13.3	12.4	12.4	11.8	11.4	10.9	10.8	10.8	10.2	12.5	14.7	17.1	18.6	19.3	20.0	19.7	18.8	17.2	15.5	14.5	15.0	15.2	14.6	14.4	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Monday Creek - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	146	19.62	19.62
0 - 10	471	63.31	82.93
10 - 20	126	16.94	99.87
> 20	1	0.13	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 100.0 % on Oct 2 02:00

Maximum Daily Average: 99.0 % on Oct 27

Minimum Value: 27.7 % on Oct 16 15:00

Minimum Daily Average: 51.3 % on Oct 7

Maximum Diurnal Average: 83.1 % at hour 7

Minimum Diurnal Average: 59.7 % at hour 15

Monthly Average: 73.39 %

Percentiles: P_1 = 31.6 P_{10} = 45.4 Q_1 = 58.0 Median = 77.4 Q_3 = 89.7 P_{90} = 97.6 P_{99} = 100.0

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

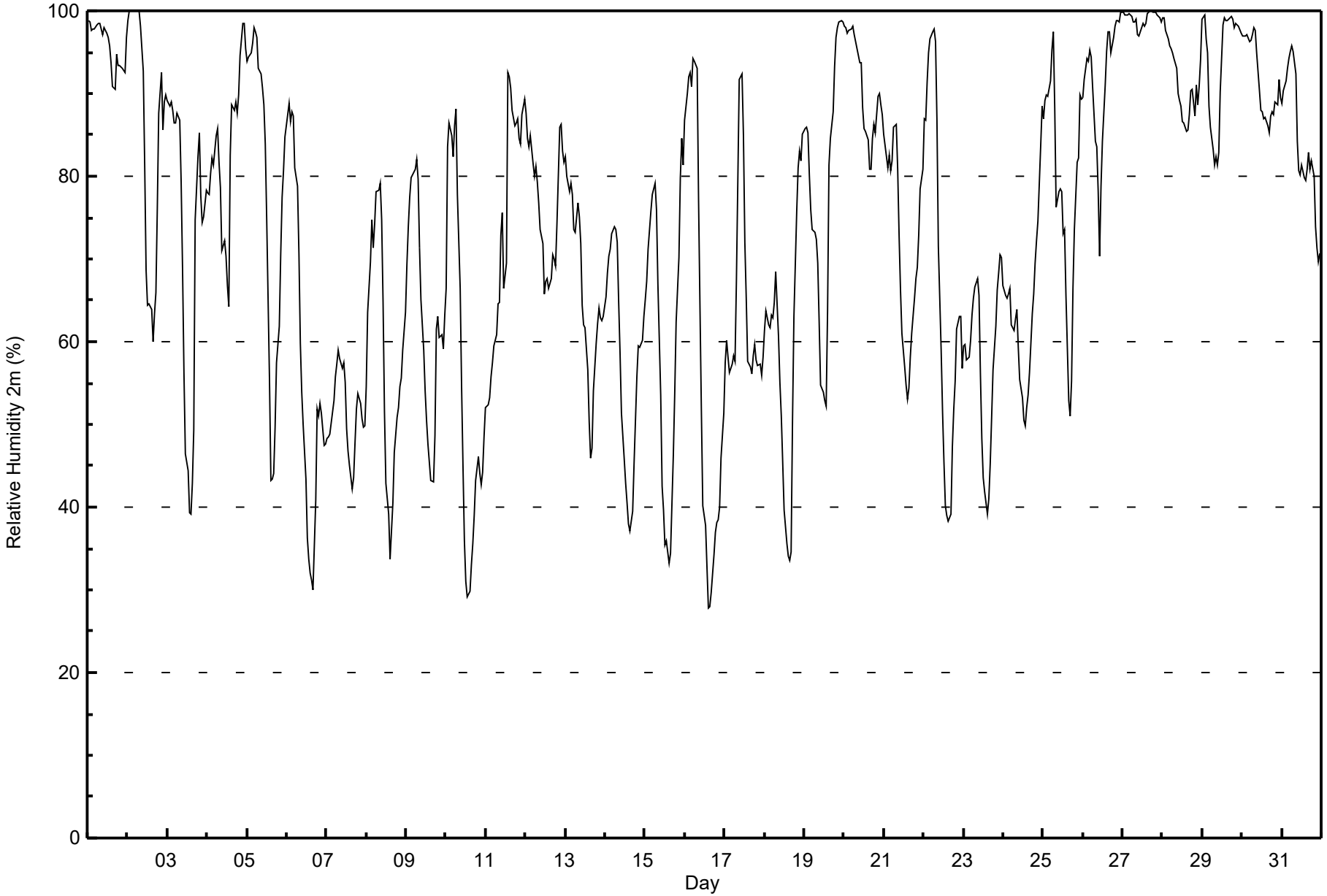
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	98.8	98.7	97.6	97.8	97.8	98.4	98.5	98.5	97.8	97.2	98.0	97.3	96.7	95.8	93.7	90.8	90.5	94.8	93.3	93.5	93.2	93.0	92.6	96.8	95.9	98.8
2-Oct	98.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.2	92.6	81.4	68.6	64.4	64.6	63.9	60.0	63.3	65.9	76.1	87.6	92.6	85.5	89.0	89.8	85.1	100.0
3-Oct	89.2	88.6	89.0	87.9	86.5	86.5	87.6	86.7	79.4	68.8	56.3	46.5	44.5	39.3	39.2	42.9	49.4	74.7	82.4	85.2	77.7	74.5	75.0	78.4	71.5	89.2
4-Oct	78.0	77.7	80.3	82.1	81.4	85.0	85.8	81.7	78.7	71.0	72.2	70.3	66.8	64.2	82.6	88.7	88.0	89.0	87.6	89.8	94.5	98.5	98.5	95.5	82.8	98.5
5-Oct	93.9	94.4	94.9	96.1	98.0	97.4	96.8	93.1	92.4	90.6	88.6	83.8	74.8	55.5	43.2	43.4	44.1	49.6	57.4	61.9	70.4	77.4	80.6	84.8	77.6	98.0
6-Oct	87.4	88.9	86.6	87.8	87.3	81.1	78.7	70.7	59.8	53.9	50.1	43.4	36.3	33.8	32.1	31.2	30.1	40.9	51.9	51.1	52.6	51.3	47.5	47.6	57.6	88.9
7-Oct	48.3	48.5	48.9	50.2	53.0	55.7	57.3	59.0	58.0	56.8	57.5	55.1	49.4	46.7	45.0	42.3	43.6	47.8	51.9	53.7	52.5	50.7	49.7	49.9	51.3	59.0
8-Oct	54.6	63.6	69.7	74.8	71.4	74.2	78.1	78.4	79.2	74.8	64.7	51.6	42.9	39.1	33.7	37.1	40.5	46.6	50.9	52.0	54.6	55.6	59.0	63.6	58.8	79.2
9-Oct	69.3	73.9	77.4	79.8	80.2	80.9	82.1	79.7	71.3	65.0	59.1	54.0	50.5	47.7	45.3	43.2	43.0	48.7	61.5	63.0	60.5	60.8	59.2	63.2	63.3	82.1
10-Oct	66.5	83.6	86.4	84.9	82.4	86.0	88.2	77.9	66.4	54.5	44.9	36.0	31.0	29.2	29.8	33.0	35.6	39.0	43.2	46.1	44.1	42.8	44.2	48.4	55.2	88.2
11-Oct	52.1	52.3	53.2	55.7	57.5	59.5	60.9	64.5	64.7	72.8	75.6	66.5	69.4	92.6	92.1	90.7	87.9	86.1	86.5	87.0	84.5	84.0	87.4	89.4	73.9	92.6
12-Oct	87.6	84.7	83.5	84.9	81.6	80.1	81.1	79.3	76.7	73.6	71.8	65.8	67.3	67.7	66.5	67.6	70.5	69.9	69.1	74.3	85.9	86.2	83.0	81.7	76.7	87.6
13-Oct	82.4	80.1	78.1	79.1	77.8	73.5	73.1	76.8	75.0	71.8	64.4	62.0	61.7	56.6	50.3	45.9	47.2	54.0	59.8	62.2	64.1	62.8	62.5	63.1	66.0	82.4
14-Oct	65.4	68.2	70.3	71.3	73.1	74.0	73.6	72.0	65.0	58.7	51.3	45.8	42.8	40.5	38.0	37.2	39.5	45.2	50.4	55.8	59.5	59.3	60.2	63.1	57.5	74.0
15-Oct	65.0	67.4	71.1	75.8	77.8	78.4	79.2	75.9	66.9	53.5	42.6	39.7	35.5	36.0	33.3	34.5	40.3	46.2	53.7	62.4	70.1	79.9	84.5	81.3	60.5	84.5
16-Oct	86.7	90.1	92.1	92.6	90.9	94.2	93.9	93.1	77.2	64.3	51.6	40.2	37.9	32.7	27.7	28.0	29.6	34.2	37.0	38.1	38.4	40.0	45.9	51.4	58.7	94.2
17-Oct	57.4	60.3	58.2	56.3	57.3	58.2	57.7	67.5	79.4	91.7	92.3	84.9	72.0	65.3	57.6	56.9	56.1	58.3	59.7	57.8	57.1	57.2	56.0	58.1	63.9	92.3
18-Oct	61.3	63.8	62.1	61.6	63.2	62.8	64.8	68.5	60.6	55.1	51.1	45.5	39.7	35.6	34.1	33.6	34.6	50.6	63.0	75.8	81.1	83.1	81.9	85.1	59.1	85.1
19-Oct	85.8	85.9	85.3	80.2	76.0	73.6	73.1	72.4	69.5	62.4	54.7	53.8	52.9	52.2	63.7	81.4	84.5	87.8	93.3	96.8	97.9	98.7	98.7	98.6	78.3	98.7
20-Oct	98.1	97.9	97.3	97.6	97.8	98.2	97.1	96.2	95.5	93.7	93.8	88.3	85.8	85.4	84.4	80.9	80.8	84.6	86.3	85.3	89.7	89.9	88.6	87.5	90.9	98.2
21-Oct	85.1	82.3	81.0	82.6	80.7	81.8	85.9	86.2	80.8	72.9	66.3	61.0	56.9	54.7	53.1	54.4	58.1	61.0	65.3	67.5	69.0	72.8	78.5	80.8	71.6	86.2
22-Oct	86.9	86.7	91.3	94.9	96.6	97.4	97.8	96.3	86.7	71.5	59.1	51.5	45.4	40.2	38.9	38.2	39.2	47.4	51.8	55.3	61.6	63.0	63.0	56.7	67.4	97.8
23-Oct	59.5	59.6	57.8	58.1	60.1	63.2	65.2	66.7	67.6	65.7	56.1	48.2	43.6	41.8	39.2	41.0	45.3	50.8	56.6	61.8	66.2	68.2	70.5	70.1	57.6	70.5
24-Oct	66.9	65.5	65.2	65.7	66.5	62.0	61.4	62.8	63.9	59.3	55.4	53.2	50.6	49.8	52.1	53.5	56.2	63.3	65.7	69.5	72.3	74.5	83.7	88.4	63.6	88.4
25-Oct	86.9	89.2	89.9	89.7	91.6	95.3	97.5	88.2	76.3	78.2	78.6	78.2	73.0	73.5	65.5	52.8	51.0	55.2	66.4	73.6	81.7	82.2	89.8	89.3	78.9	97.5
26-Oct	89.4	91.7	94.2	93.8	95.3	94.4	90.8	84.2	83.5	78.1	70.4	78.9	84.3	91.1	95.1	97.5	97.5	95.0	96.7	98.2	98.9	98.8	98.7	99.8	91.5	99.8
27-Oct	99.9	99.5	99.4	99.5	99.6	99.3	98.7	98.7	98.9	97.1	96.9	97.9	98.5	98.1	98.5	99.7	100.0	100.0	99.8	99.8	99.8	99.5	99.2	98.7	99.0	100.0
28-Oct	99.1	99.2	97.6	96.6	95.8	95.5	94.9	94.2	93.1	89.9	89.1	88.5	86.6	86.4	85.5	85.6	87.4	90.4	90.6	87.3	91.1	88.6	90.9	94.1	91.6	99.2
29-Oct	99.0	99.4	96.6	95.0	88.5	85.9	83.2	81.3	82.3	81.3	82.8	90.2	98.3	99.1	98.8	98.8	99.0	99.3	99.0	97.9	98.5	98.3	98.1	97.2	93.7	99.4
30-Oct	97.0	96.9	97.0	97.2	96.2	96.4	97.1	98.0	97.7	94.9	90.4	87.9	87.7	86.9	87.2	86.1	85.2	87.2	87.7	87.4	89.0	88.7	91.7	89.5	91.7	98.0
31-Oct	88.9	90.4	91.5	93.1	94.3	95.2	95.8	95.1	92.3	84.2	80.8	80.2	81.4	79.9	79.4	80.8	82.9	80.9	81.8	80.0	73.9	71.4	69.7	70.7	83.9	95.8
	80.2	81.6	82.0	82.7	82.5	82.7	83.1	82.1	78.5	74.1	69.3	65.0	62.2	60.7	59.7	59.9	61.3	66.0	70.2	72.8	74.9	75.4	76.7	77.8	Diurnal Average	
	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.9	97.2	98.0	97.9	98.5	99.1	98.8	99.7	100.0	100.0	99.8	99.8	99.8	99.5	99.2	99.8	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Monday Creek - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	44	5.91	5.91
40 - 60	164	22.04	27.96
60 - 80	196	26.34	54.30
80 - 100	331	44.49	98.79

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Monday Creek - October 2025

Maximum Speed: 28 km/h on Oct 25 12:00

Maximum Daily Speed Average: 18.3 km/h on Oct 27

Minimum Speed Value: 1 km/h on Oct 29 11:00

Minimum Daily Speed Average: 1.8 km/h on Oct 6

Maximum Diurnal Speed Average: 8.9 km/h at hour 13

Minimum Diurnal Speed Average: 3.0 km/h at hour 2

Monthly Average Velocity: 4.8 km/h 260.4 deg

Percentiles: $P_1 = 2$ $P_{10} = 4$ $Q_1 = 7$ Median = 10 $Q_3 = 14$ $P_{90} = 19$ $P_{99} = 24$

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily Average	Daily Maximum
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1-Oct	NNW8	N8	NNE11	NNE11	N7	NNW8	NNW6	NW9	NW12	NNW11	NNW9	NW10	NNW12	NNW9	NNW9	N11	NNW8	N12	N7	WNW6	NW6	NW6	NW5	NNW2	NNW7.7	N12
2-Oct	WNW4	WNW3	W3	W3	SW2	S4	S3	S3	SSE5	SSE6	SSE7	S5	SE6	SE7	SE6	SSW5	SW2	SW3	S5	S5	S6	SSE6	S6	SSW5	S3.6	SE7
3-Oct	S6	SSW7	S6	S7	S6	S6	SSW9	SSW10	SW12	SW13	WSW13	WSW17	WSW19	WSW18	W19	W17	WNW19	WSW8	SW8	W10	WSW13	W13	W14	WNW9	WSW9.9	W19
4-Oct	W12	W12	W11	W11	W11	W11	WNW13	WNW19	WNW18	NW18	WNW16	WNW15	WNW13	WNW13	NW14	NW12	NW14	NW15	WNW21	NW17	NW16	NW14	NW11	NW13	WNW13.6	WNW21
5-Oct	NW10	NW10	WNW12	WNW8	UO	UO	UO	UO	WSW5	SSW6	SSW8	SW13	WSW15	WSW19	W20	W14	WNW16	NW13	NW14	NNW14	NW12	WNW9	W9	W9	WNW9.7	W20
6-Oct	W8	W7	NW10	NW8	NNE13	N11	N11	NNE17	N13	N10	N8	NNW3	NNE1	ESE1	SE3	SSW6	SW5	S6	SSE8	SE7	SE5	SSE5	S6	SSW10	N1.8	NNE17
7-Oct	S9	S10	SSW12	SSW12	SSW12	SSW11	SSW10	SSW10	S11	SSW12	SSW10	SSW12	SW15	SSW14	SSW15	SSW14	S12	S9	SSE9	SSE12	SSE11	SSE13	SSE8	SSE6	S10.6	SSW15
8-Oct	WNW7	WNW7	WNW16	NW17	NW17	NW7	WNW13	WNW14	WNW19	WNW21	WNW22	NW20	WNW20	WNW20	WNW18	WNW18	WNW16	W11	W10	W12	WSW12	SW13	W12	W12	WNW14.1	WNW22
9-Oct	W10	W10	W10	WSW9	W12	W13	W9	W9	W14	W17	W16	W13	WSW16	WSW16	WSW17	WSW16	SW13	SW9	SSW7	SSW8	SSW7	SSW6	S7	S8	WSW9.9	W17
10-Oct	S6	SE3	S4	S6	S4	ESE3	S4	S7	SSW9	SSW10	SSW11	SSW14	SSW15	SSW15	SSW14	SSW14	S12	S10	SSE8	SSE9	S10	SSW12	S9	SSE7	S8.6	SSW15
11-Oct	S8	S10	SSE7	SSE7	S8	SSW4	S6	WSW2	W4	NW15	NW18	NNW17	WNW22	NW18	NW18	NW19	NW18	NW18	NW16	NW13	NW16	NW14	NW14	NNW15	NW9.2	WNW22
12-Oct	NNW18	N18	N19	N20	N19	N19	N18	N18	N20	N19	N21	N22	N19	NNW19	NNW20	NNW19	N17	N14	N12	NNW11	NNW9	NNW10	NNW11	NNW8	N16.4	N22
13-Oct	NW8	NW9	NW9	NW9	NW7	NW7	WNW6	W6	WSW7	W6	WSW7	SW9	SW11	SW14	SSW11	SW12	SSW11	SSW7	SW7	SSW7	S9	SSW15	SSW12	SSW12	WSW6.3	SSW15
14-Oct	SSW11	SSW11	S11	S11	S8	SSE8	S9	S9	SW13	SW16	SW22	SW26	SW24	SW23	SW18	SW18	SW16	SW14	SW9	SW8	SW8	SW10	SW9	SSW8	SW12.7	SW26
15-Oct	SSW8	SSW8	SSW7	SSW9	S6	S6	SSE6	S7	SSW11	SW13	SW16	SW18	SW19	SW14	WSW18	WSW19	WSW14	WSW9	WSW8	WSW4	W5	SSW4	S4	S5	SW9.0	WSW19
16-Oct	S3	S2	SSW3	SSW3	SSW3	SW3	ESE3	S3	SSE1	S5	SSW8	WSW16	SW16	SW17	SW17	SSW15	SSW12	S7	S5	SSW8	SSW12	S10	SW10	SW7	SSW7.4	SW17
17-Oct	SSW7	SW8	W16	W21	W16	WSW14	WSW17	W23	WNW24	WNW22	WNW19	WNW20	WNW24	WNW25	WNW24	WNW22	WNW16	WNW16	WNW13	WNW13	WNW14	WNW13	WNW11	WNW10	WNW16.0	WNW25
18-Oct	W10	W12	WNW13	WNW12	WNW10	WNW13	WNW15	W11	WNW17	WNW20	WNW16	WNW15	WNW19	WNW18	WNW19	WNW13	NW7	SW5	SSW3	SW2	SE2	SE2	E4	E4	WNW9.6	WNW20
19-Oct	ESE4	SE5	SE5	SE6	ESE7	ESE6	ESE8	E7	E8	ESE9	ESE10	ESE9	ESE8	E6	SE14	ESE9	E8	ENE9	ENE7	ENE7	ENE6	ENE8	ENE9	NE8	ESE7.0	SE14
20-Oct	NE9	NNE11	NNE10	N7	N9	N9	NW9	NW9	NW10	NNW8	NW8	WNW9	W8	W13	W10	WSW9	SW10	SSW9	SSW9	SSW6	SSE7	SSW13	SSW16	S13	W3.6	SSW16
21-Oct	SSW15	SSW13	SSW12	SW11	SW11	SSW10	SW11	WSW14	WSW16	W16	W20	WNW21	W21	W20	WNW17	W17	W14	W9	W8	W9	WNW7	N4	ENE6	ESE2	W9.7	W21
22-Oct	E3	ESE3	E2	ESE2	ESE2	NNW1	SSE3	SE3	ESE2	SSW3	S6	SSW7	SSW8	S10	S12	SSE12	SSE9	SE10	SE11	SE13	SE15	SE16	SSE14	SSE15	SSE7.0	SE16
23-Oct	SE13	SE12	SSE14	SSE14	SSE9	S5	S4	S5	S4	SSW5	S8	SSE6	SE7	SSE8	SSE8	SSE8	S6	SSE7	SE7	SSE8	SSE7	SSE7	SSE8	SSE7	SSE7.5	SSE14
24-Oct	SSE9	SSE9	SSE7	SSE7	SSE6	S8	S8	SSW7	SSW6	S7	S9	S9	S6	SSE9	SE7	SE8	SSE5	SSE9	SE8	ESE5	SE5	ESE5	ENE3	NE3	SSE6.1	S9
25-Oct	ENE3	NW2	SE2	E3	W2	S2	SSW5	SW11	W15	W18	W26	WNW28	W25	W27	W24	W20	W17	WSW10	SSW6	S5	S4	SSE3	SE3	E3	W8.8	WNW28
26-Oct	SE5	E2	E3	ENE1	E3	ESE2	ENE7	E7	NE7	ENE10	E13	E12	ENE13	ENE12	ENE9	NE7	NE10	ENE16	NE12	NNE11	NNE8	NNE6	NW6	W10	ENE6.3	ENE16
27-Oct	WNW13	WNW15	WNW14	WNW13	W15	WNW17	WNW18	WNW19	WNW19	WNW23	WNW23	WNW23	WNW22	WNW21	WNW21	WNW20	WNW19	WNW20	WNW19	WNW18	WNW19	WNW18	WNW16	WNW17	WNW18.3	WNW23
28-Oct	WNW16	WNW17	WNW21	WNW20	WNW20	WNW18	WNW18	WNW17	WNW16	WNW17	WNW17	WNW19	WNW20	WNW19	W16	WNW17	W14	W9	W11	W9	WSW4	WSW5	S5	SE7	WNW13.7	WNW21
29-Oct	SE8	SE6	SE8	ESE9	ESE9	ESE10	E12	E9	E7	ESE8	NE1	NW7	NNE6	NNE5	NNW4	NNW5	NNW5	NNW6	NW7	NNW8	NNW8	NNW9	NW7	NW7	NE2.5	E12
30-Oct	NW7	NW7	NW6	NW6	NW6	NW6	NW6	NW5	WNW7	WNW7	WNW7	W8	WNW7	W7	W7	WSW9	WSW8	SW8	SW8	SW10	WSW7	SW6	S7	SW8	W5.3	SW10
31-Oct	SSW8	S7	S8	S8	SSW9	SSW11	S11	S10	SSE12	SSE12	S13	SSE13	SSE14	SSE12	SSE13	SSE16	SSE16	SSE19	SSE18	SSE18	SSE19	S15	S15	SSW12	S12.3	SSE19
	WSW3.2	WSW3.0	W3.3	W3.4	W3.1	W3.1	W3.5	W4.3	W6.0	W6.6	W7.2	W8.3	W8.9	W8.6	W8.2	W7.8	W6.4	WSW3.7	WSW3.2	WSW3.2	WSW3.4	SW3.6	SW3.3	SW3.3	Diurnal Average	
	NNW18	N18	WNW21	W21	WNW20	N19	WNW18	W23	WNW24	WNW23	W26	WNW28	W25	W27	W24	WNW22	WNW19	WNW20	WNW21	WNW18	SSE19	WNW18	WNW16	WNW17	Diurnal Maximum	

UO - Unstable Operation

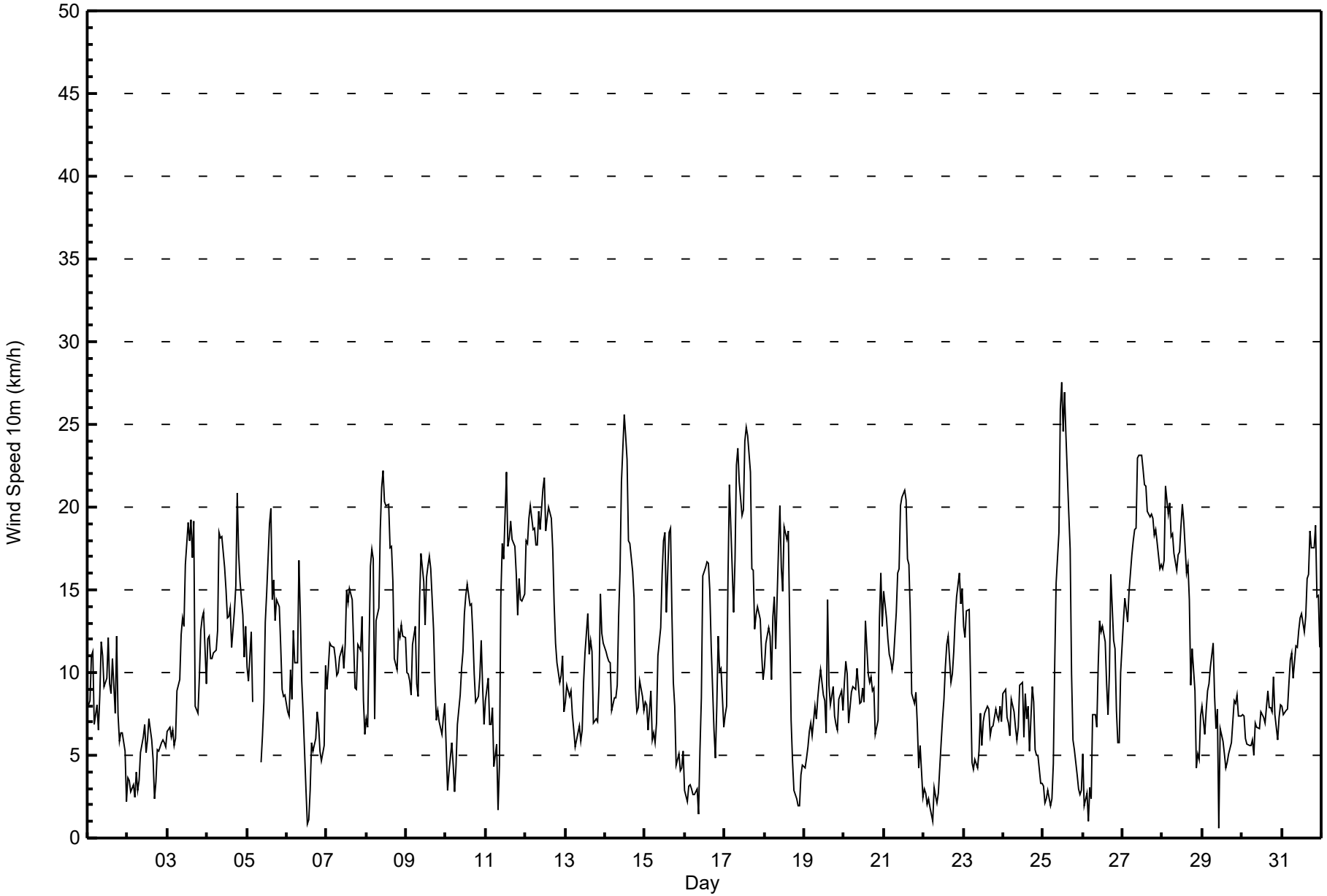
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Monday Creek - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	110	14.86	14.86
6 - 11	334	45.14	60.00
12 - 19	247	33.38	93.38
20 - 28	49	6.62	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 740

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Monday Creek - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	1	2	2	3	9	12	12	6	24	11	7	5	5	2	3	6	110
6 - 11	11	8	5	10	7	12	15	38	49	46	23	11	32	16	33	18	334
12 - 19	13	2	1	3	3	0	6	19	6	27	22	20	29	63	26	7	247
20 - 28	3	0	0	0	0	0	0	0	0	0	4	0	10	30	0	2	49
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	28	12	8	16	19	24	33	63	79	84	56	36	76	111	62	33	740

Total Number of Valid Hours: 740

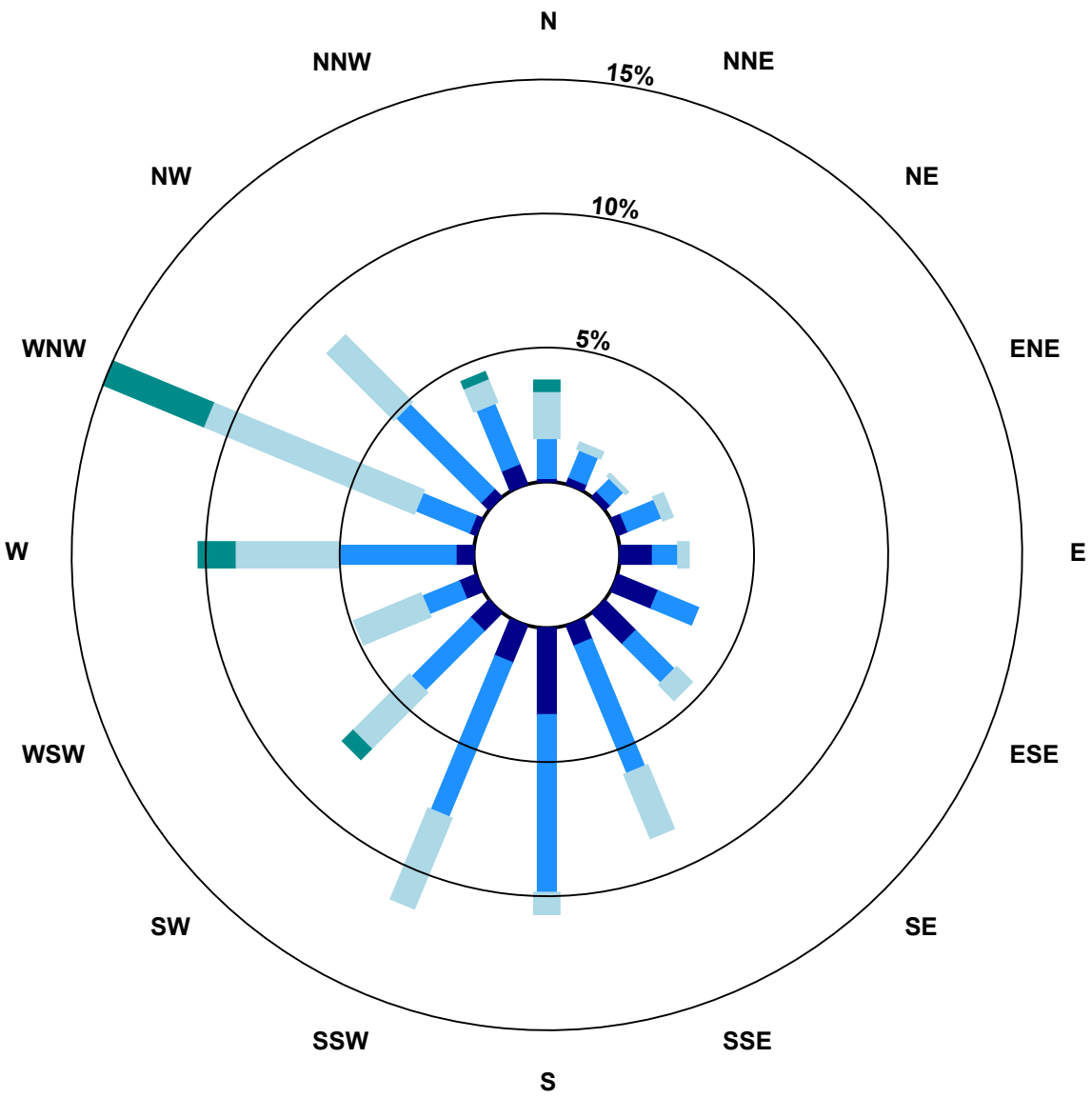
Total Number of Hours: 744

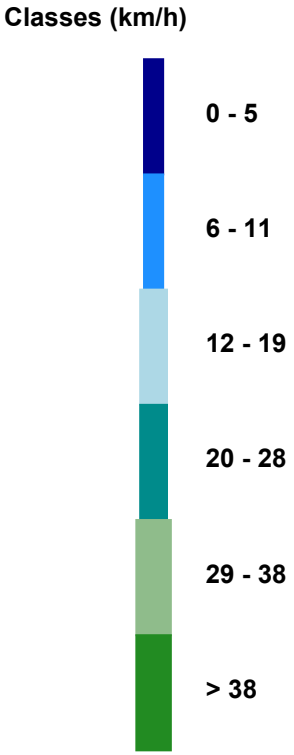
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Monday Creek





Total Number of Valid Hours: 740

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 8 km/h on Oct 11 13:00

Minimum Value: 1 km/h on Oct 18 20:00

Percentiles: P_1 = 1 P_{10} = 1 Q_1 = 2 Median = 3 Q_3 = 4 P_{90} = 5 P_{99} = 6

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Hours of Calibration:	0
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	3	3	2	2	1	4	3	2	2	2	3	2	2	3	2	4	2	1	1	1	1	1	4
2-Oct	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2
3-Oct	2	2	1	1	2	2	2	3	4	4	3	4	5	5	5	4	5	4	3	4	2	4	3	3	5
4-Oct	2	2	2	2	2	2	3	4	4	4	3	3	4	3	5	4	5	4	5	5	4	4	3	3	5
5-Oct	2	3	2	3	UO	UO	UO	UO	1	2	2	3	4	5	5	3	5	3	4	4	4	2	2	1	5
6-Oct	1	1	3	2	4	3	4	4	4	3	3	3	2	2	2	2	2	1	1	1	1	1	2	3	4
7-Oct	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	2	3	3	3	4	3	2	4
8-Oct	4	6	4	4	5	3	3	3	4	5	5	5	5	5	4	4	4	3	1	2	3	3	3	2	6
9-Oct	1	1	1	2	3	2	3	2	3	4	3	3	3	4	4	4	3	3	1	1	1	1	1	2	4
10-Oct	1	1	1	1	2	1	1	2	2	3	4	4	4	4	4	5	4	3	1	2	3	4	3	2	5
11-Oct	3	2	2	3	2	2	2	3	2	5	5	5	8	6	5	6	6	5	4	4	4	4	4	4	8
12-Oct	5	5	5	6	5	6	5	4	6	5	6	6	5	5	5	5	5	4	4	3	3	3	3	2	6
13-Oct	2	2	2	2	2	2	2	1	1	2	2	3	3	4	4	4	3	2	2	1	2	4	4	3	4
14-Oct	3	3	3	3	2	2	3	2	5	5	6	7	7	6	5	4	4	4	2	2	2	3	3	1	7
15-Oct	2	2	2	2	1	1	2	2	3	3	5	5	5	4	5	5	4	3	3	1	2	1	1	2	5
16-Oct	1	1	1	1	1	1	1	2	1	2	2	6	5	4	5	4	4	1	2	3	4	3	3	3	6
17-Oct	1	3	5	4	5	3	6	5	5	5	4	5	6	5	6	5	5	5	2	3	3	2	3	2	6
18-Oct	2	2	2	2	3	4	2	2	5	5	3	3	4	4	4	4	2	2	1	1	1	1	1	1	5
19-Oct	1	2	2	2	2	2	1	1	1	2	2	2	2	1	5	4	2	2	1	1	1	2	2	1	5
20-Oct	2	2	3	2	3	2	2	2	3	2	2	3	2	3	2	3	3	2	2	2	2	4	4	4	4
21-Oct	4	4	4	3	3	3	3	3	4	4	5	4	4	4	4	4	3	1	1	1	2	1	2	1	5
22-Oct	1	1	1	1	1	1	2	1	1	1	2	2	3	3	3	3	2	2	2	3	3	3	3	3	3
23-Oct	3	3	4	4	5	2	1	2	2	3	2	2	3	3	3	2	1	1	2	2	2	2	2	2	5
24-Oct	2	2	2	2	2	3	2	2	2	3	3	2	2	2	2	2	2	2	2	1	1	2	1	1	3
25-Oct	1	1	2	1	1	1	1	3	5	5	6	6	6	6	6	5	4	3	1	3	2	1	1	1	6
26-Oct	2	1	1	1	1	1	2	3	3	2	3	2	2	2	2	2	5	4	3	3	2	2	2	1	5
27-Oct	3	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	3	4	4	3	3	4
28-Oct	3	4	4	4	4	4	4	4	3	3	4	4	5	4	4	3	3	2	3	3	2	2	2	2	5
29-Oct	2	2	2	2	2	2	2	5	2	3	1	2	2	1	1	1	3	2	2	2	2	2	2	2	5
30-Oct	2	2	2	1	2	2	2	2	1	1	2	2	1	2	2	3	3	2	2	3	2	2	2	2	3
31-Oct	2	2	2	2	3	3	3	3	3	3	4	3	4	4	4	4	5	5	4	5	6	4	5	4	6
	5	6	5	6	5	6	6	5	6	5	6	7	8	6	6	6	6	5	5	5	6	4	5	4	
	Diurnal Maximum																								

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Monday Creek - October 2025

Direction of Maximum Speed: 282 deg on Oct 25 12:00
Direction of Maximum Daily Speed Average: 291.7 deg on Oct 27

Direction of Minimum Speed: 41 deg on Oct 29 11:00

Direction of Minimum Daily Speed Average: 1.8 deg on Oct 6

Monthly Average Direction: 260.4 deg

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	333	3	33	28	356	347	344	305	312	328	327	320	329	336	343	350	338	359	350	295	307	307	311	331	338.4
2-Oct	303	292	262	269	228	186	173	184	165	164	157	185	139	132	135	212	228	226	179	172	169	159	178	192	179.6
3-Oct	184	193	191	190	171	176	209	211	225	236	247	253	256	258	267	276	293	249	233	276	247	267	271	287	248.2
4-Oct	276	269	281	270	263	268	284	297	300	308	292	298	297	303	316	319	311	308	298	306	315	311	317	313	297.9
5-Oct	310	316	299	288	UO	UO	UO	UO	237	202	213	224	239	249	274	279	303	321	323	329	307	288	274	274	281.8
6-Oct	276	271	304	323	22	6	9	27	10	6	4	347	17	115	140	208	230	183	148	146	146	153	185	199	352.8
7-Oct	190	189	192	194	195	194	195	193	191	203	193	213	231	212	198	201	188	173	154	154	164	166	166	158	190.0
8-Oct	287	288	303	304	309	312	297	297	296	298	300	304	300	294	293	284	292	281	268	264	253	236	260	270	289.6
9-Oct	273	266	268	258	265	266	275	277	272	273	279	267	246	242	241	245	235	225	198	198	195	198	173	182	249.3
10-Oct	182	130	180	186	185	118	189	182	196	193	200	206	200	202	200	193	189	172	150	161	179	193	182	166	187.1
11-Oct	186	183	159	162	175	210	182	258	273	312	321	329	298	317	311	316	315	310	316	314	311	313	322	330	305.4
12-Oct	336	351	353	353	352	354	350	354	349	353	5	2	0	346	342	340	351	8	355	341	335	344	347	327	350.6
13-Oct	322	325	320	320	319	322	289	266	256	263	251	235	233	229	213	229	213	212	217	195	190	197	194	195	239.3
14-Oct	199	193	188	180	184	164	181	190	214	225	222	223	226	227	230	228	220	220	224	219	215	225	219	212	214.2
15-Oct	211	209	199	204	188	170	167	181	194	214	228	217	219	220	239	247	258	245	239	251	266	199	191	186	219.7
16-Oct	182	172	198	205	209	222	108	181	163	175	209	238	232	217	217	207	205	176	182	203	199	191	220	220	208.2
17-Oct	204	229	262	269	263	251	249	274	286	296	294	295	298	295	302	296	300	298	289	284	295	296	300	298	284.5
18-Oct	279	270	290	300	299	294	283	266	290	297	298	298	293	296	283	296	313	234	204	226	141	142	81	96	289.1
19-Oct	123	139	135	145	111	112	104	87	100	112	122	121	109	100	142	117	88	70	68	72	70	70	70	55	102.0
20-Oct	39	33	24	5	6	351	324	311	318	329	322	301	274	279	280	256	230	210	198	192	165	197	198	191	280.0
21-Oct	197	193	202	214	217	213	229	238	247	271	281	291	280	280	297	281	279	279	277	278	283	359	71	110	259.3
22-Oct	94	104	99	106	119	345	167	146	119	197	169	194	194	185	174	159	158	140	140	144	142	143	147	148	153.0
23-Oct	142	142	148	154	165	181	182	172	173	199	176	155	137	147	162	150	169	151	143	149	160	155	155	159	156.3
24-Oct	157	153	163	168	159	191	186	193	205	176	184	179	174	152	144	146	158	149	140	118	125	103	58	43	159.5
25-Oct	60	313	140	96	260	185	199	221	261	269	271	282	280	274	276	278	273	257	193	191	183	159	127	101	264.3
26-Oct	138	99	80	66	90	110	66	98	50	75	87	88	60	70	74	45	52	59	35	26	32	15	315	279	59.5
27-Oct	285	294	291	284	279	282	288	289	287	289	288	287	292	296	294	295	295	296	296	297	300	300	295	298	291.7
28-Oct	295	290	297	300	297	296	300	298	293	293	295	299	287	284	276	284	273	277	271	281	251	251	188	140	288.1
29-Oct	138	137	132	104	114	106	97	86	89	106	41	321	17	29	346	346	334	327	318	328	329	327	321	316	43.5
30-Oct	317	321	326	325	319	320	321	315	296	294	296	264	287	267	259	255	247	218	217	230	240	221	191	214	270.0
31-Oct	199	187	182	169	193	192	191	180	164	165	171	165	164	164	160	153	153	162	158	157	164	175	189	202	170.7
	247.0	251.6	265.6	263.4	264.7	264.0	263.1	266.1	272.0	274.4	269.9	268.0	266.2	263.2	262.3	263.2	266.9	256.0	248.3	248.9	237.8	230.4	229.9	232.5	
	Diurnal Average																								

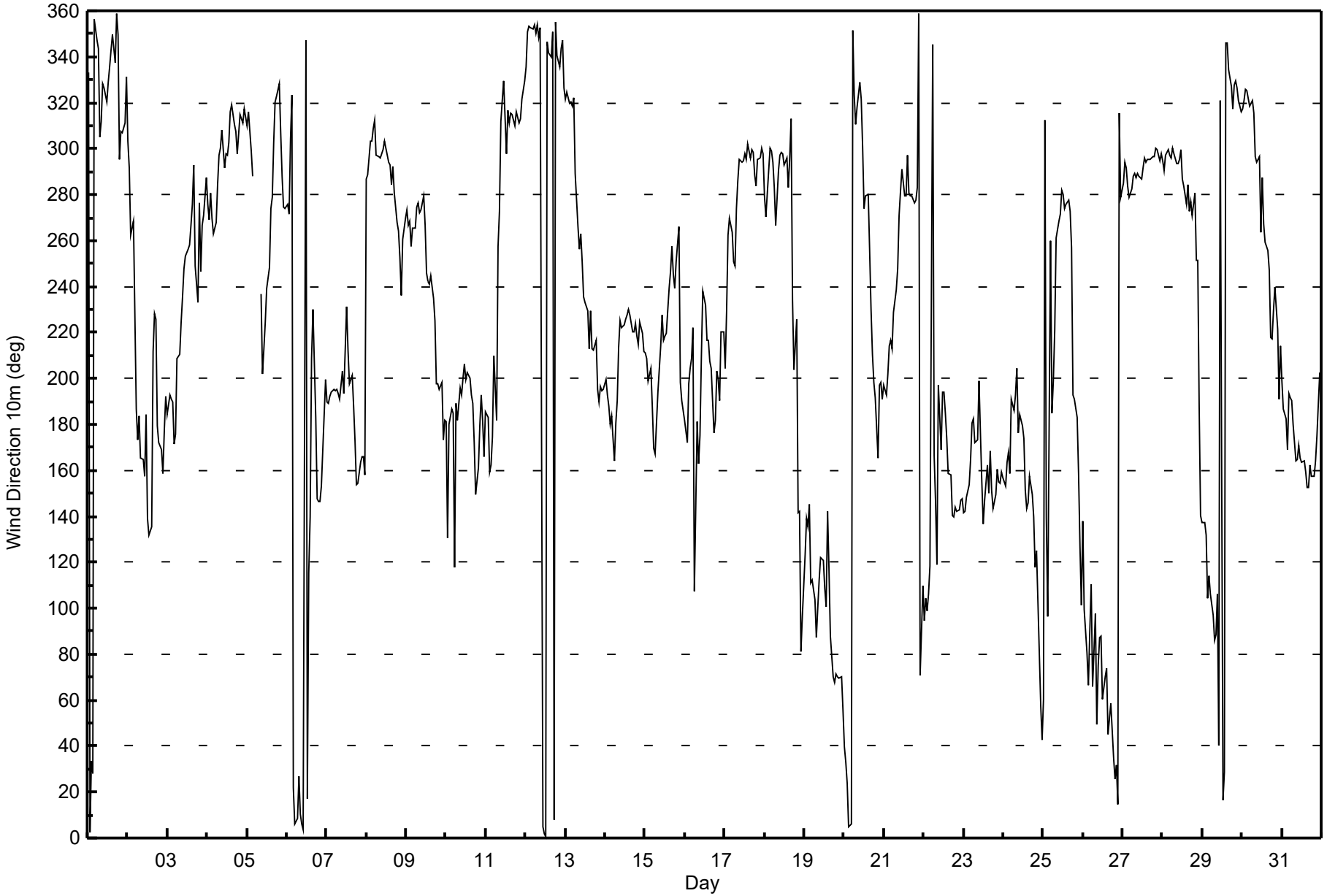
UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Monday Creek - October 2025



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Monday Creek - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 104 deg on Oct 6 14:00

Minimum Value: 7 deg on Oct 19 09:00

Percentiles: P_1 = 8 P_{10} = 11 Q_1 = 13 Median = 17 Q_3 = 21 P_{90} = 32 P_{99} = 72

Hours in Service:	744
Hours of Data:	740
Hours of Missing Data:	4
Hours of Calibration:	0
Percent Operational Time:	99.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	19	19	13	16	22	22	21	22	18	14	20	17	17	21	22	19	19	24	22	17	19	18	22	59	59
2-Oct	32	34	45	61	72	20	35	25	20	20	29	40	35	30	24	42	57	41	16	10	10	13	17	16	72
3-Oct	21	17	14	15	19	22	19	19	17	18	20	17	20	20	15	12	12	38	28	30	12	28	14	19	38
4-Oct	10	10	11	10	9	9	12	12	13	16	15	18	18	20	19	18	19	16	13	17	17	16	16	17	20
5-Oct	17	19	11	19	UO	UO	UO	UO	20	23	16	14	17	16	11	12	20	20	18	17	27	11	12	9	27
6-Oct	8	13	17	17	21	18	26	15	22	27	35	85	102	104	82	42	33	34	7	9	16	18	21	19	104
7-Oct	21	20	20	20	19	17	16	17	17	19	19	21	21	23	20	18	21	18	17	14	18	19	23	27	27
8-Oct	51	42	14	15	16	27	13	12	13	13	16	19	18	15	17	15	15	9	7	12	13	12	18	9	51
9-Oct	8	8	8	10	9	9	12	11	12	13	15	24	16	18	15	15	15	12	11	10	9	18	12	13	24
10-Oct	19	36	17	13	18	31	15	16	14	19	21	21	21	21	22	19	20	18	12	18	21	21	23	20	36
11-Oct	22	18	22	24	18	49	29	90	42	26	20	19	16	18	17	16	17	16	17	17	16	17	17	15	90
12-Oct	17	18	19	20	19	19	18	19	19	20	20	20	23	19	18	17	20	20	20	19	20	21	17	18	23
13-Oct	16	15	17	17	19	20	26	10	15	18	20	18	21	21	35	23	18	13	14	12	16	17	19	16	35
14-Oct	16	17	18	18	18	14	19	15	20	18	17	16	16	16	18	16	14	15	12	13	16	16	17	15	20
15-Oct	14	14	18	12	20	15	18	17	19	16	17	17	18	22	15	15	15	17	18	20	24	19	13	13	24
16-Oct	13	46	19	13	26	66	45	32	44	29	20	19	20	17	18	18	17	18	32	31	21	21	31	44	66
17-Oct	17	19	14	12	14	16	19	11	11	12	11	12	13	12	14	13	15	15	9	10	10	10	13	14	19
18-Oct	11	10	13	12	14	13	10	9	15	13	17	18	15	16	15	19	29	22	48	33	41	56	17	14	56
19-Oct	12	17	12	19	12	11	9	12	7	12	15	15	15	21	20	20	29	10	10	11	11	11	11	12	29
20-Oct	11	11	14	16	16	18	17	19	18	21	22	21	23	11	11	14	19	15	15	23	22	17	17	20	23
21-Oct	18	20	22	19	18	19	18	14	17	14	15	13	14	11	17	13	11	8	7	11	18	56	26	38	56
22-Oct	28	42	44	49	37	82	44	41	64	38	34	35	29	26	27	19	16	9	11	12	12	13	13	14	82
23-Oct	14	14	15	17	34	29	36	33	53	33	30	42	40	35	30	17	14	16	17	16	17	19	17	19	53
24-Oct	18	17	19	22	21	24	22	19	22	25	21	21	25	18	22	22	17	14	12	13	16	36	23	29	36
25-Oct	36	38	70	45	73	68	20	23	16	14	13	12	14	12	13	12	12	18	19	29	42	31	34	40	73
26-Oct	28	40	28	70	33	36	12	14	20	11	11	11	12	10	13	21	23	14	19	15	11	20	28	9	70
27-Oct	11	12	10	10	10	11	10	10	10	10	10	9	10	11	11	11	11	11	10	11	11	11	10	11	12
28-Oct	10	10	12	12	10	11	12	12	10	11	14	13	12	10	12	12	12	12	17	20	41	26	28	15	41
29-Oct	16	19	11	13	13	13	10	32	36	25	96	31	20	16	19	23	17	13	16	16	14	14	16	18	96
30-Oct	17	16	17	17	18	17	17	20	13	12	20	17	13	29	17	18	20	22	19	20	18	32	16	15	32
31-Oct	16	19	18	16	18	17	19	21	17	19	19	18	17	17	18	15	17	18	17	17	18	19	22	24	24
	51	46	70	70	73	82	45	90	64	38	96	85	102	104	82	42	57	41	48	33	42	56	34	59	
	Diurnal Maximum																								

UO - Unstable Operation

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS501
LEISMER
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - LEISMER (AMS501)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	709	35	35	100	36.9	0	22.4	0
H2S (ppb) Average	707	36	37	99.87	1.5	0	0.3	0
NO2 (ppb) Average	660	35	84	93.41	36.9	0	6.8	-
NO (ppb) Average	660	35	84	93.41	71.7	-	11.5	-
NOX (ppb) Average	660	35	84	93.41	107.5	-	18.2	-
Temperature 2 m (C) Average	744	0	0	100	19.6	-	10.3	-
Relative Humidity (%) Average	744	0	0	100	99.8	-	97	-
Wind Speed 10 m (km/h) Average	718	0	26	96.51	29	-	19	-
Wind Direction 10 m (deg) Average	718	0	26	96.51	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - LEISMER (AMS501)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	709	1.91	5.7	-	0	0	0.1	0.2	0.6	3.6	36.9
H2S (ppb) Average	707	0.12	0.1	-	0	0	0.1	0.1	0.1	0.2	1.5
NO2 (ppb) Average	660	2.45	3.2	-	0.1	0.4	0.7	1.5	3.2	5.4	36.9
NO (ppb) Average	660	2.14	5.2	-	0	0	0.1	0.4	2	5.8	71.7
NOX (ppb) Average	660	4.59	8.1	-	0.1	0.5	0.8	1.9	5	11.5	107.5
Temperature 2 m (C) Average	744	3.66	4.7	-	-4.6	-1.6	-0.2	2.9	6.6	10.1	19.6
Relative Humidity (%) Average	744	77.18	18.3	-	25.9	49.1	64.6	80.1	93.6	97.5	99.8
Wind Speed 10 m (km/h) Average	718	10.4	6	-	0	4	6	9	14	20	29
Wind Direction 10 m (deg) Average	718	229.7	0	-	0	-	-	-	-	-	0

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - LEISMER (AMS501)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
H2S	06 Oct 2025 09:00	06 Oct 2025 09:00	1	Maintenance - reinitiated daily QA check
NO2	06 Oct 2025 02:00	08 Oct 2025 02:00	49	Unstable Operation - AMD noncompliance
Wind Speed, Wind Direction	05 Oct 2025 04:00	05 Oct 2025 09:00	6	Flat line in sensor output signal
Wind Speed, Wind Direction	21 Oct 2025 23:00	21 Oct 2025 23:00	1	Flat line in sensor output signal
Wind Speed, Wind Direction	27 Oct 2025 13:00	28 Oct 2025 07:00	19	Flat line in sensor output signal

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Leismer - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 36.9 ppb on Oct 27 19:00

Maximum Daily Average: 22.4 ppb on Oct 27

Minimum Value: 0.0 ppb on Oct 1 13:00

Minimum Daily Average: 0.0 ppb on Oct 3

Maximum Diurnal Average: 2.8 ppb at hour 19

Minimum Diurnal Average: 0.6 ppb at hour 1

Monthly Average: 1.91 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.2 Q_3 = 0.6 P_{90} = 3.6 P_{99} = 31.1

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.3	0.3	0.4	0.1	0.0	0.0	0.0	0.0	0.2	0.1	0.2	0.3	1.7	1.5	1.0	0.2	0.1	0.3	1.7
2-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.3	0.2	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.5
3-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4-Oct	Z	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	2.2	4.1	7.1	3.3	3.3	1.9	7.3	11.7	18.6	19.1	7.2	1.9	4.5	2.5	5.5	4.4	19.1
5-Oct	6.8	Z	1.1	0.2	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	6.9	8.8	4.6	0.7	0.1	0.0	0.0	0.0	1.3	8.8
6-Oct	0.0	0.5	Z	0.1	0.2	0.6	0.3	3.1	3.2	1.5	0.7	0.8	2.3	1.1	0.9	0.8	0.6	0.5	0.4	0.5	0.4	0.3	0.1	0.1	0.8	3.2
7-Oct	0.1	0.2	0.1	Z	0.1	0.1	0.1	0.1	0.3	0.3	0.4	0.4	0.3	0.2	0.1	0.1	0.4	0.4	0.3	0.1	0.2	0.2	0.3	0.8	0.2	0.8
8-Oct	2.8	9.5	33.8	34.3	Z	28.7	6.9	7.4	13.2	5.0	13.6	4.4	3.6	8.0	1.0	4.3	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	7.7	34.3
9-Oct	0.0	0.1	0.7	0.2	0.1	Z	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.7
10-Oct	Z	0.0	0.0	0.0	0.2	0.3	0.2	0.2	0.2	0.3	0.5	0.6	0.4	0.3	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.6
11-Oct	0.3	Z	0.3	0.3	0.2	0.1	0.2	2.0	1.9	1.2	2.1	8.8	6.4	15.3	18.6	17.5	16.1	24.2	16.5	18.2	20.2	16.4	1.0	0.2	8.2	24.2
12-Oct	0.1	0.1	Z	0.2	0.4	0.4	0.3	0.4	0.3	0.6	0.7	0.3	0.1	0.6	0.5	0.4	0.8	0.5	0.7	0.7	0.3	0.2	0.1	0.2	0.4	0.8
13-Oct	0.3	0.6	5.6	Z	0.7	0.8	0.3	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.8	1.8	1.3	0.9	0.5	0.2	0.7	5.6
14-Oct	0.1	0.1	0.1	0.4	Z	0.1	0.0	0.1	0.6	0.7	0.9	1.3	1.6	0.8	1.0	1.1	0.8	1.1	1.1	0.8	1.1	1.4	1.3	1.1	0.8	1.6
15-Oct	1.0	0.5	0.3	0.3	0.5	Z	0.6	0.6	0.8	0.8	0.7	0.7	0.8	0.7	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.5	1.0
16-Oct	Z	0.4	0.2	0.2	0.1	0.7	1.2	0.5	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.2	1.2
17-Oct	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.0	10.8	0.8	0.3	0.1	0.4	1.5	4.2	1.2	7.1	0.3	0.0	0.0	0.1	1.4	13.6	2.3	2.0	13.6
18-Oct	0.2	0.1	Z	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.3	0.4	0.2	0.1	0.1	0.2	0.2	0.4
19-Oct	0.2	0.3	0.2	Z	0.6	1.0	1.2	0.5	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.2
20-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.6	1.0	1.8	1.1	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.8
21-Oct	0.1	0.1	0.1	0.2	0.1	Z	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2
22-Oct	Z	0.2	0.2	0.2	0.2	0.3	0.2	0.2	C	C	C	C	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.6	0.4	0.4	0.2	0.6
23-Oct	0.5	Z	0.7	0.6	0.5	0.7	0.3	0.4	0.4	0.4	0.2	1.3	1.8	0.3	0.2	0.3	0.2	0.3	0.2	0.1	0.2	0.1	0.1	0.2	0.4	1.8
24-Oct	0.4	0.5	Z	0.3	0.3	0.7	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.8	0.8	0.5	0.4	0.3	0.5	0.6	0.6	1.1	0.5	1.1
25-Oct	0.9	0.6	0.2	Z	0.2	0.2	0.3	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.9
26-Oct	0.0	0.0	0.0	0.1	Z	0.5	0.3	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.5
27-Oct	0.0	0.0	0.0	2.8	25.1	Z	32.7	35.7	29.6	34.0	22.6	29.7	31.2	30.2	24.1	19.9	20.3	27.0	36.9	34.8	21.5	30.3	15.6	11.4	22.4	36.9
28-Oct	Z	1.5	6.1	10.3	9.8	7.9	26.8	14.8	9.8	10.9	3.7	10.3	1.2	1.0	0.1	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	5.0	26.8
29-Oct	0.0	Z	0.6	0.5	0.4	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.9	0.8	1.4	0.5	0.3	0.5	2.3	6.7	0.7	6.7
30-Oct	1.2	0.8	Z	2.5	1.0	0.7	0.4	0.2	1.5	0.8	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.5
31-Oct	0.1	0.1	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2
	0.6	0.6	1.9	2.2	1.6	1.7	2.4	2.2	2.6	2.1	1.8	2.3	1.8	2.1	1.8	1.8	2.2	2.7	2.8	2.2	1.6	1.9	1.3	1.0	Diurnal Average	
	6.8	9.5	33.8	34.3	25.1	28.7	32.7	35.7	29.6	34.0	22.6	29.7	31.2	30.2	24.1	19.9	20.3	27.0	36.9	34.8	21.5	30.3	15.6	11.4	Diurnal Maximum	

Z - zerospan C - Calibration

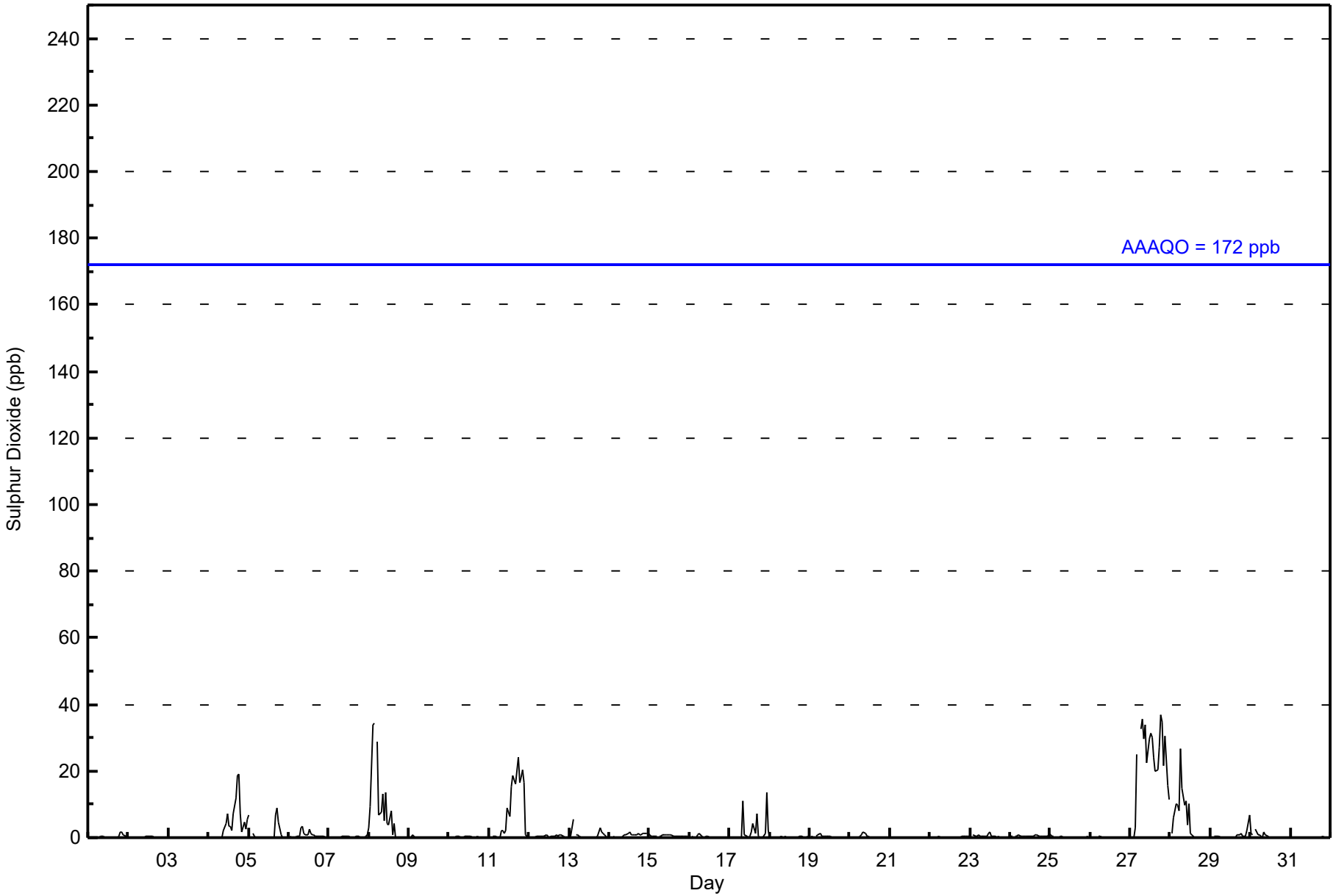
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Leismer - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	668	94.22	94.22
11 - 20	21	2.96	97.18
21 - 60	20	2.82	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Leismer - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	22	6	6	12	33	21	45	57	64	95	27	25	75	69	32	67	656
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	7	10	0	17
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	2	9	0	11
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	22	6	6	12	33	21	45	57	64	95	27	25	75	78	51	67	684

Total Number of Valid Hours: 684

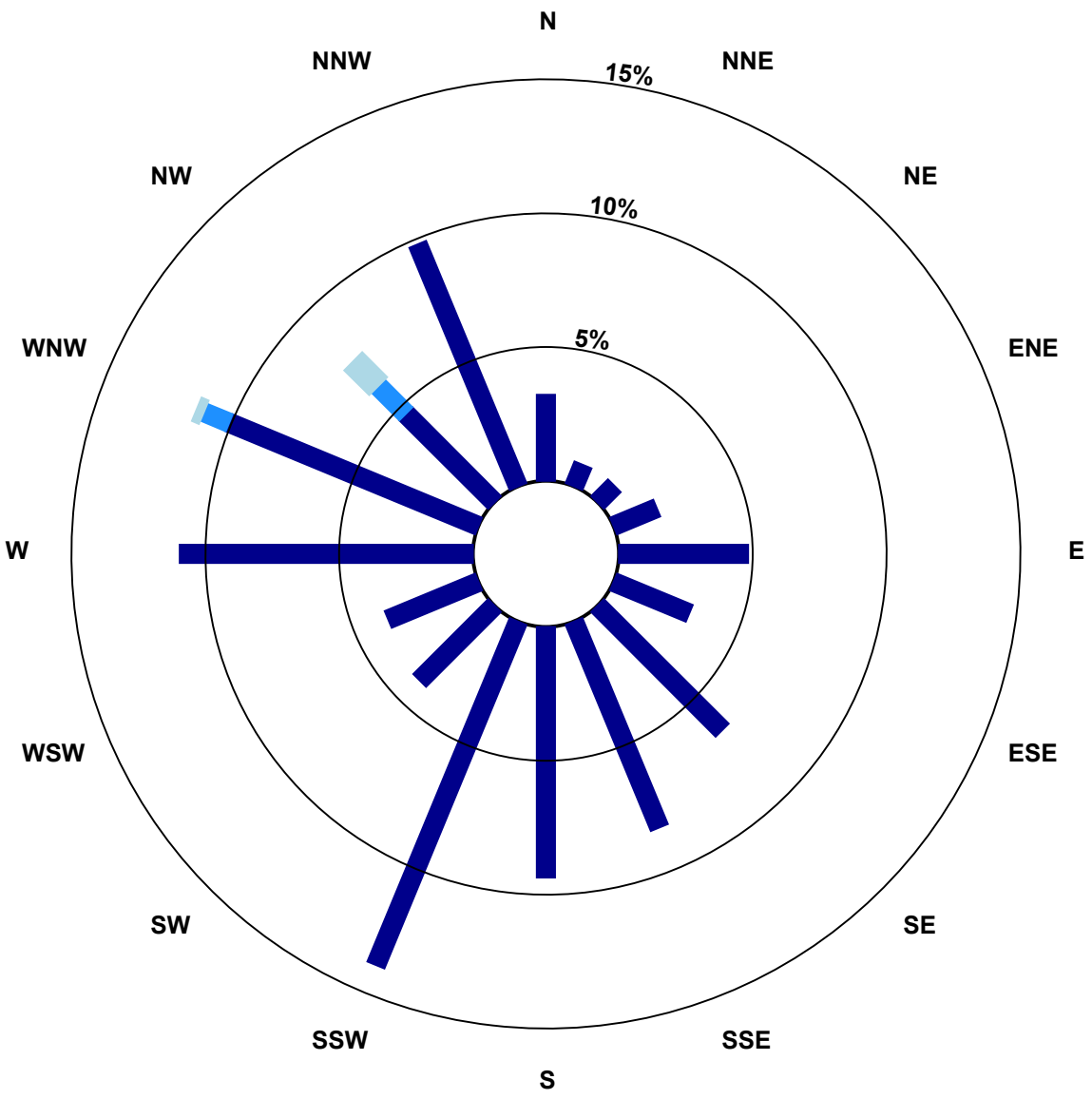
Total Number of Hours: 744

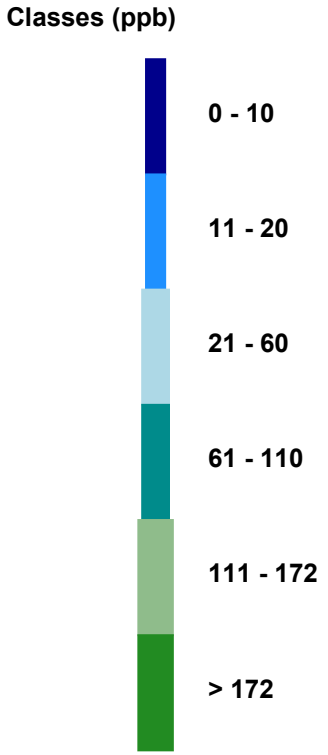
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Leismer





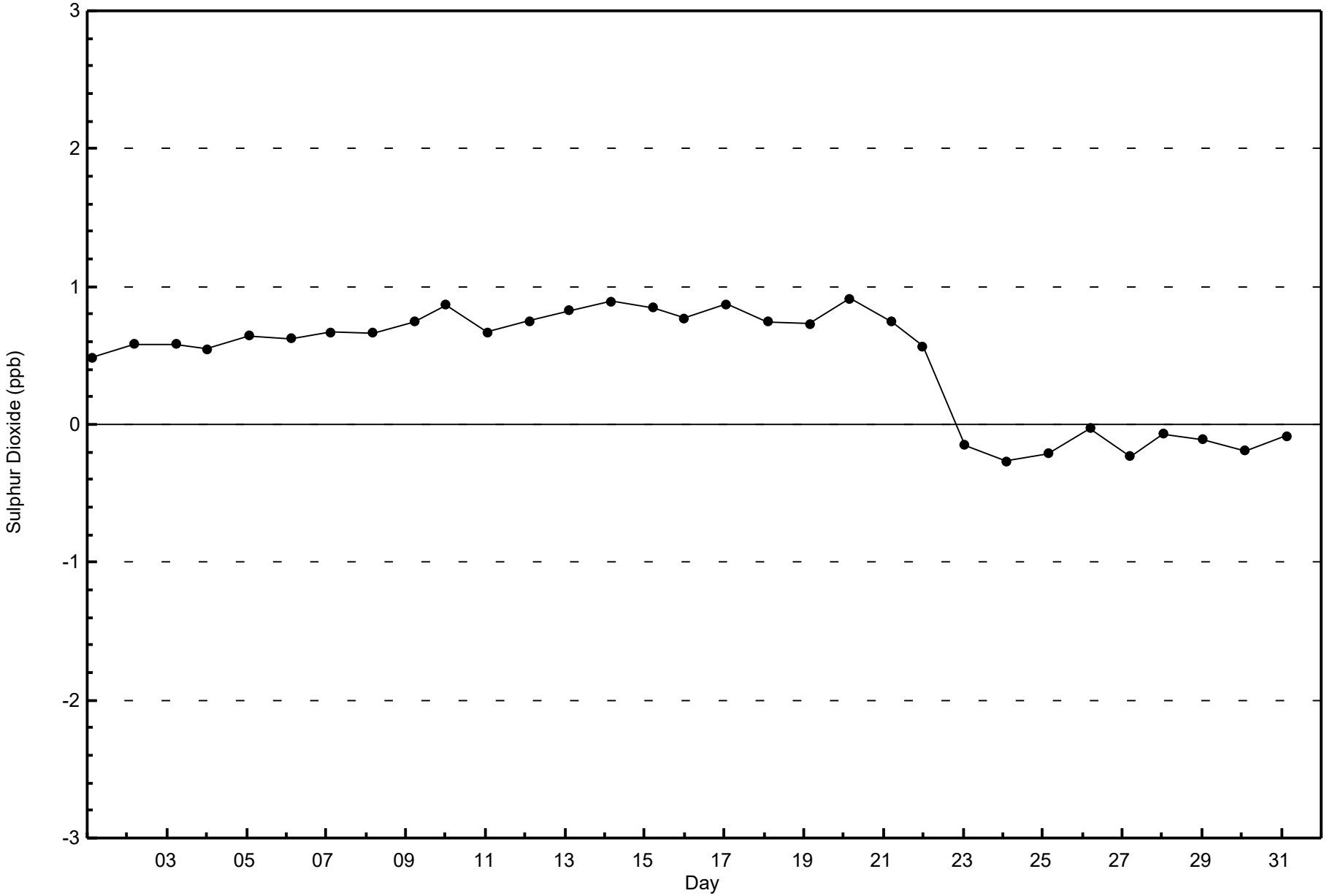
Total Number of Valid Hours: 684

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Leismer - October 2025

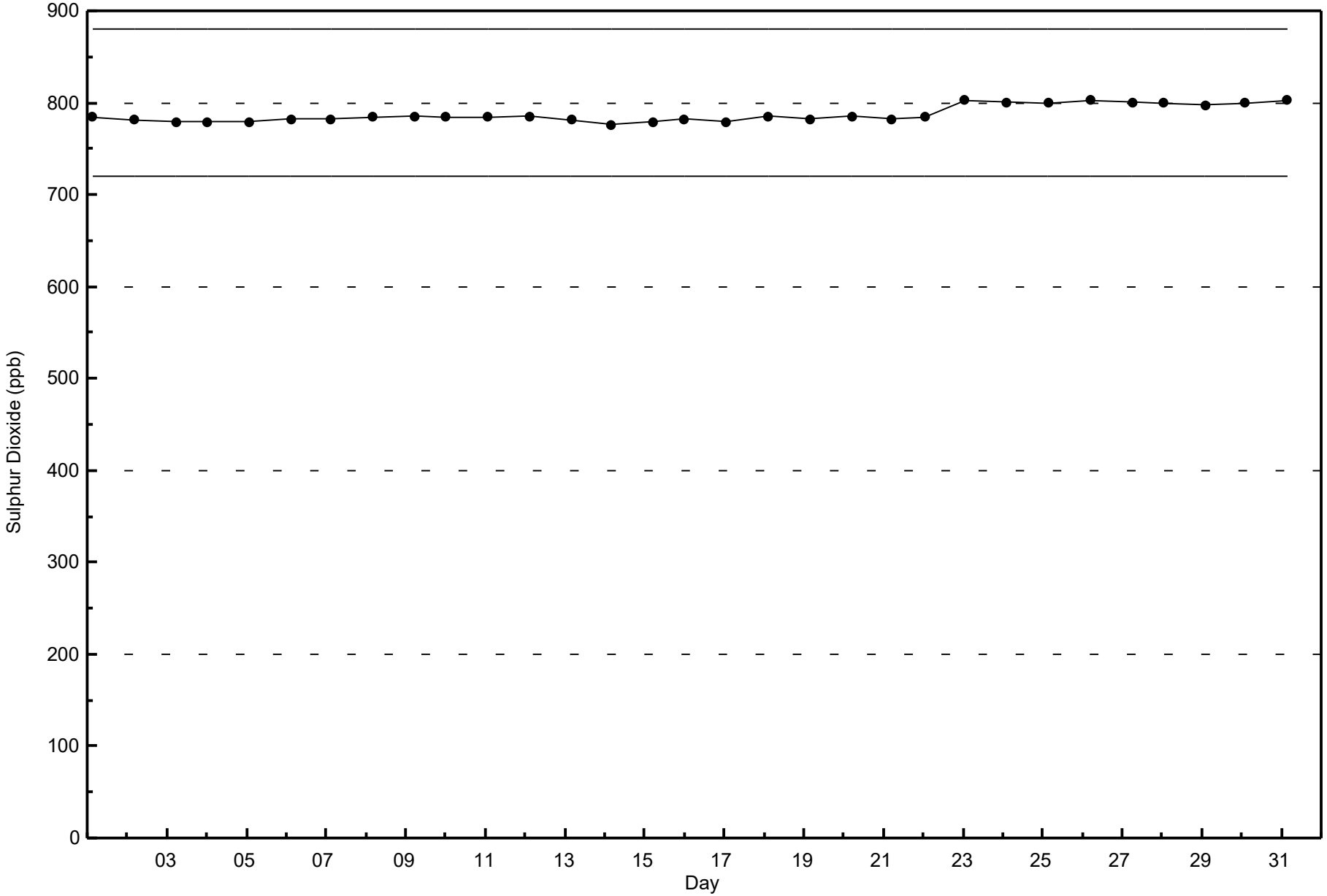


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Leismer - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H_2S) - ppb

Leismer - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 1.5 ppb on Oct 4 14:00

Maximum Daily Average: 0.3 ppb on Oct 4

Minimum Value: 0.0 ppb on Oct 9 14:00

Minimum Daily Average: 0.0 ppb on Oct 26

Maximum Diurnal Average: 0.2 ppb at hour 6

Minimum Diurnal Average: 0.1 ppb at hour 13

Monthly Average: 0.12 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.1 P_{90} = 0.2 P_{99} = 0.5

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.1	0.1	0.1	Z	0.4	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.2	0.5
2-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
3-Oct	Z	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.2
4-Oct	0.0	Z	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.6	0.2	0.1	1.5	0.3	0.3	1.1	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.3	1.5
5-Oct	0.1	0.1	Z	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
6-Oct	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	M	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
7-Oct	0.1	0.1	0.1	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2
8-Oct	0.2	0.2	0.4	0.3	0.2	Z	0.2	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
9-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
10-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
11-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3
12-Oct	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
13-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
14-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15-Oct	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.2
16-Oct	0.0	Z	0.1	0.0	0.0	0.3	0.4	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.6
17-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.2
18-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2
19-Oct	0.1	0.0	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
20-Oct	0.1	0.0	0.1	0.1	0.1	Z	0.3	0.3	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
21-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22-Oct	0.1	Z	0.1	0.1	0.2	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
23-Oct	0.1	0.1	Z	0.1	0.2	0.6	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6
24-Oct	0.2	0.1	0.1	Z	0.3	0.8	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.8
25-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2
26-Oct	0.0	0.0	0.0	0.0	0.1	Z	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1
27-Oct	Z	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.2	0.2	0.2	0.1	0.3	0.4
28-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.3
29-Oct	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.3
30-Oct	0.3	0.2	0.2	Z	0.2	0.2	0.1	0.1	0.7	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.7
31-Oct	0.1	0.0	0.0	0.0	Z	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.3	0.2	0.4	0.3	0.3	0.8	0.5	0.6	0.7	0.3	0.6	0.4	0.4	1.5	0.3	0.3	1.1	0.3	0.3	0.4	0.2	0.2	0.2	0.3	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

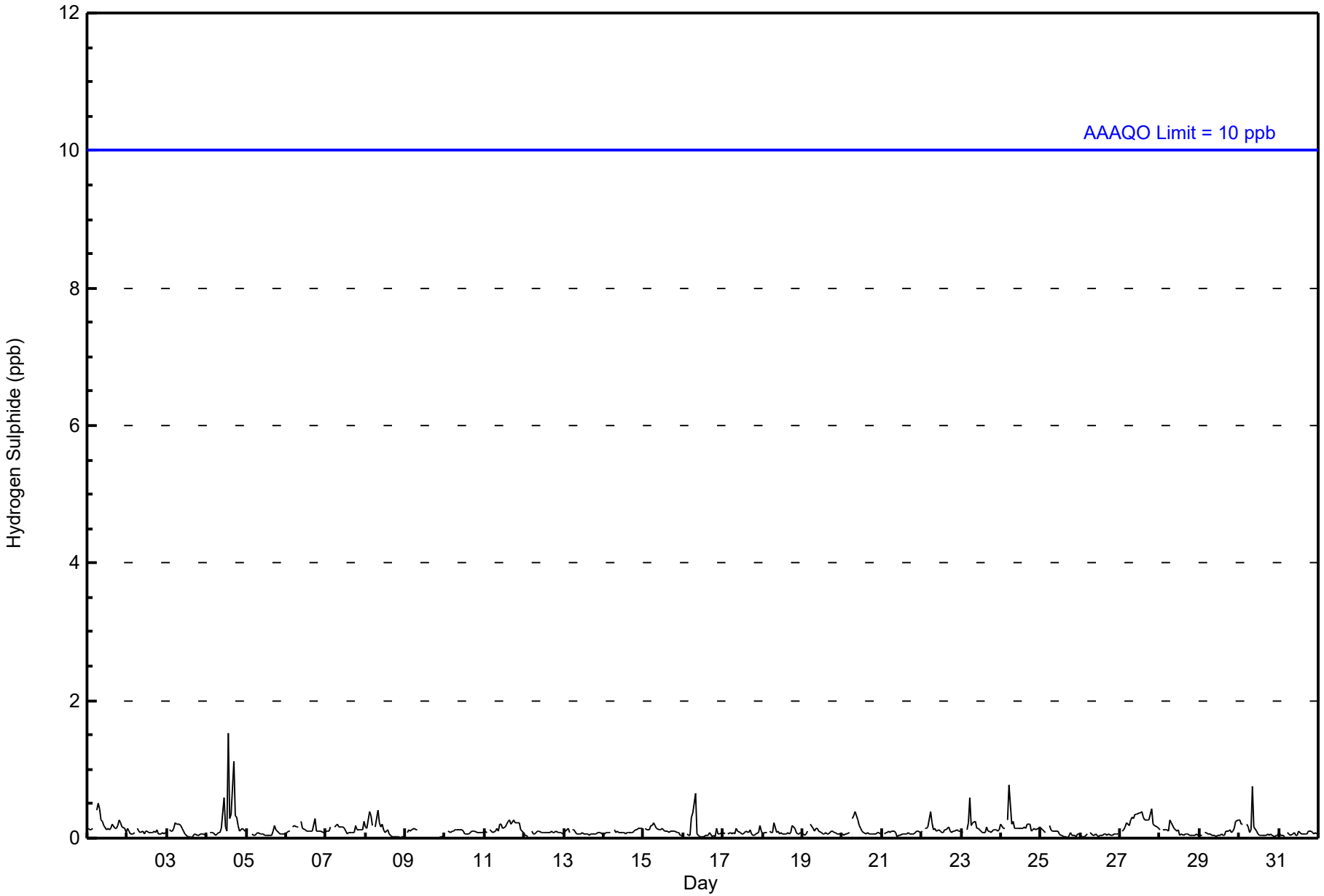
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Leismer - October 2025



Hydrogen Sulphide (H_2S) - ppb

Leismer - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	707	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Leismer - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	22	6	6	12	33	21	46	58	64	98	27	27	67	78	51	66	682
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	22	6	6	12	33	21	46	58	64	98	27	27	67	78	51	66	682

Total Number of Valid Hours: 682

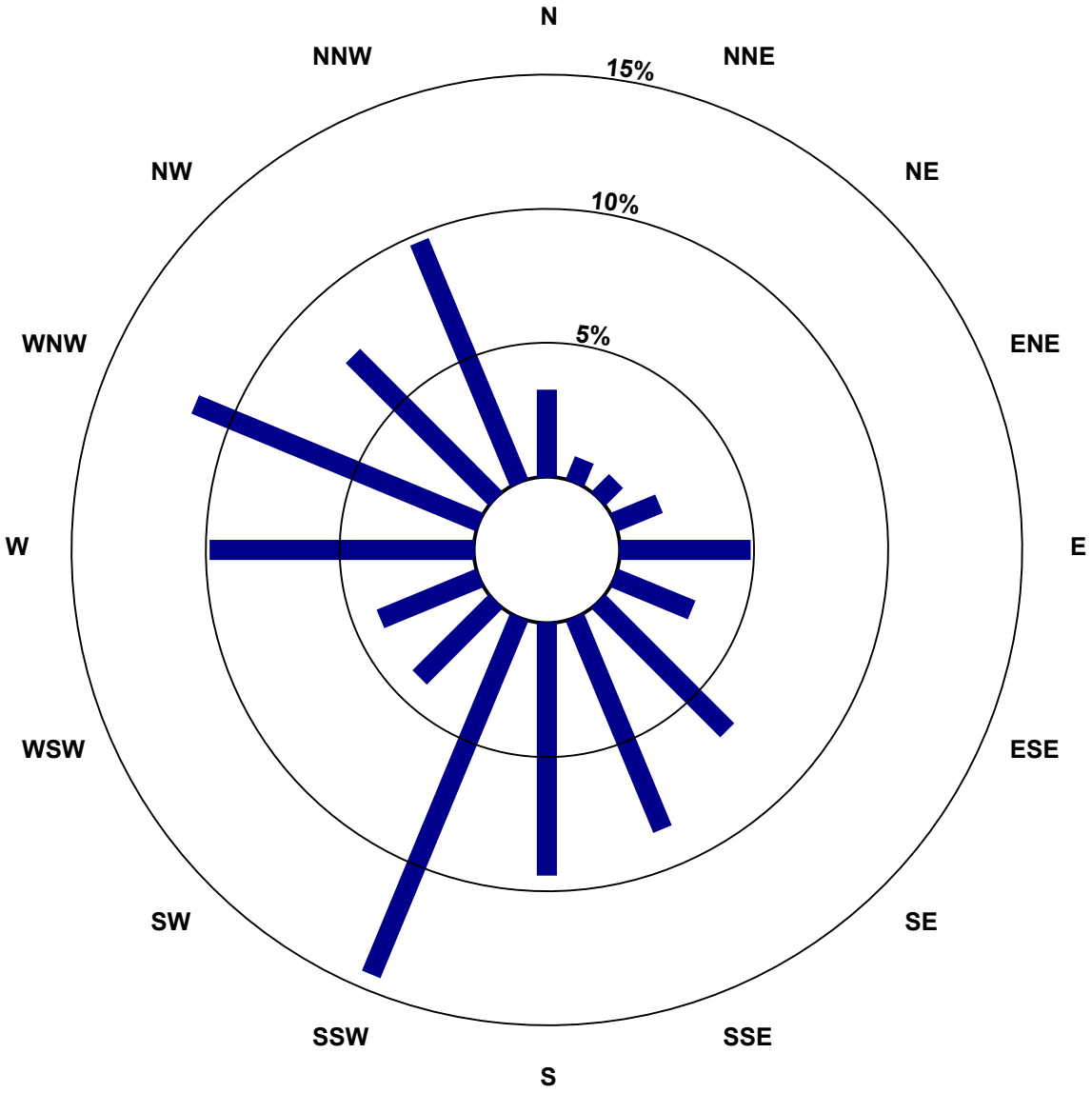
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H_2S) - ppb

Leismer



Classes (ppb)

- 0 - 2
- 3 - 4
- 5 - 7
- 8 - 11
- > 11

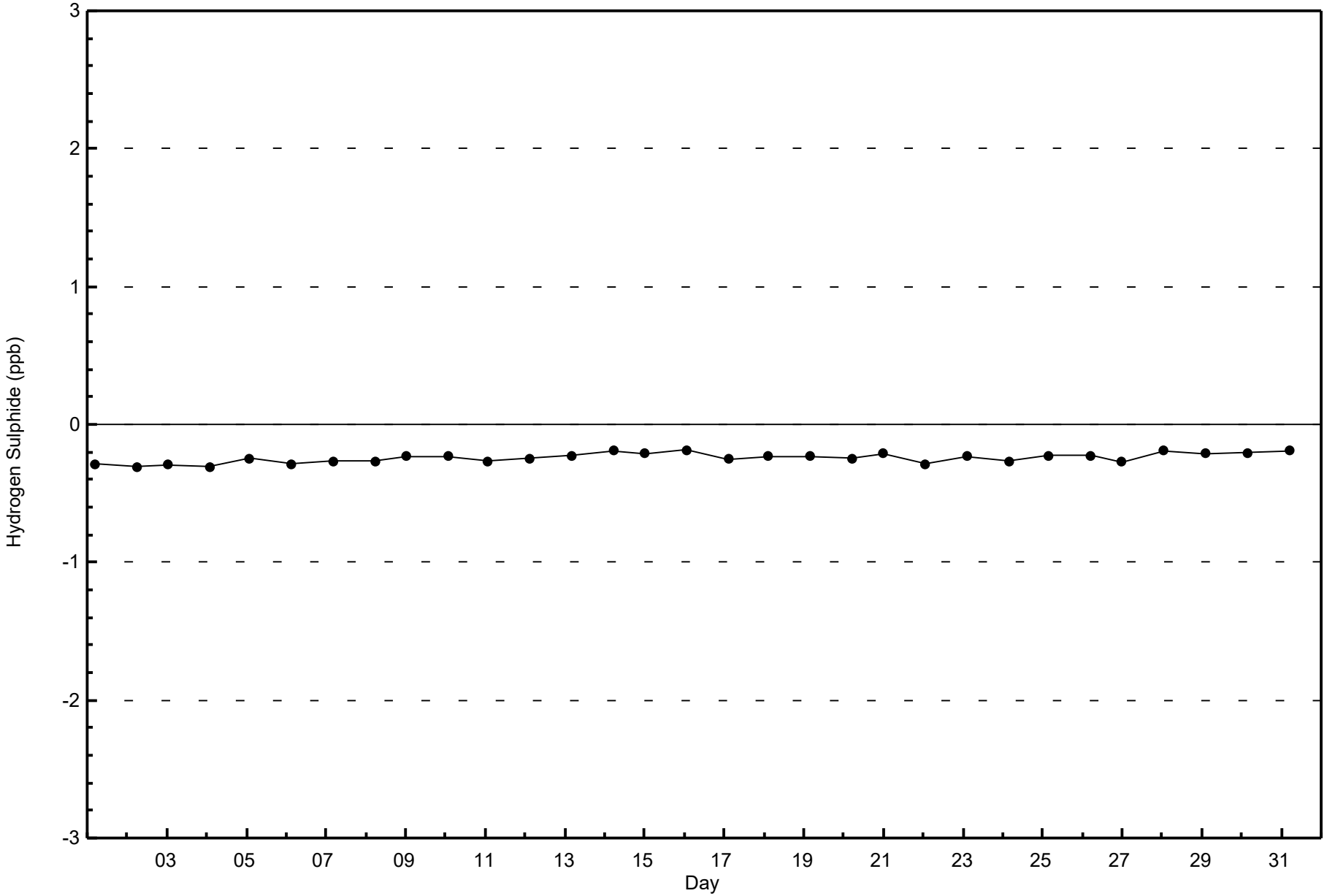
Total Number of Valid Hours: 682

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Leismer - October 2025

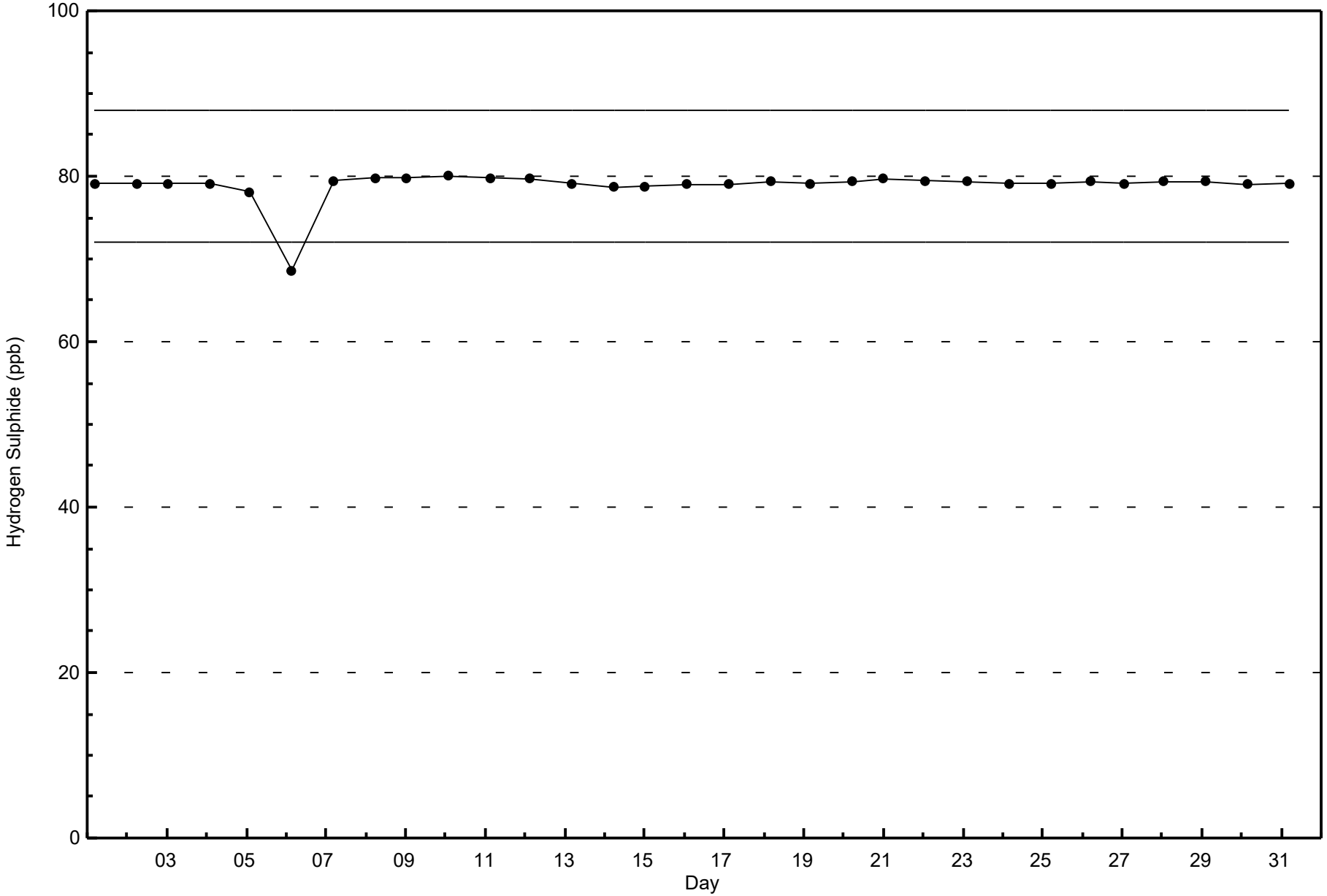


Wood Buffalo Environmental Association

Span Responses

Hydrogen Sulphide (H_2S) - ppb

Leismer - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Leismer - October 2025

Maximum Value: 71.7 ppb on Oct 24 06:00

Maximum Daily Average: 11.5 ppb on Oct 27

Minimum Value: 0.0 ppb on Oct 3 19:00

Minimum Daily Average: 0.3 ppb on Oct 9

Maximum Diurnal Average: 8.2 ppb at hour 6

Minimum Diurnal Average: 0.4 ppb at hour 3

Monthly Average: 2.14 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.4 Q_3 = 2.0 P_{90} = 5.8 P_{99} = 18.0

Hours in Service:	744
Hours of Data:	660
Hours of Missing Data:	84
Hours of Calibration:	35
Percent Operational Time:	93.4

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.2	Z	0.0	0.9	0.7	2.1	0.4	1.1	2.1	1.7	1.1	1.4	1.8	0.4	1.8	1.8	3.1	2.5	0.1	0.2	0.1	0.3	0.7	0.6	1.1	3.1
2-Oct	0.2	0.6	Z	0.2	3.8	9.5	8.9	4.7	1.0	0.5	0.2	3.0	2.5	0.0	0.0	0.0	0.0	0.1	4.7	0.4	0.3	2.0	0.3	0.4	1.9	9.5
3-Oct	1.1	0.5	0.7	Z	5.4	11.2	2.7	1.5	1.7	0.4	0.3	0.1	0.3	0.0	0.0	0.2	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1.2	11.2
4-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.5	0.6	0.4	2.9	3.2	3.9	1.9	2.1	2.4	5.0	9.9	10.2	12.1	4.8	1.1	3.1	1.4	3.1	3.0	12.1
5-Oct	3.3	4.0	0.2	0.0	0.0	Z	0.0	0.1	0.1	2.3	0.1	0.1	0.1	0.0	0.0	0.1	3.3	3.1	1.6	0.3	0.0	0.0	0.0	0.0	0.8	4.0
6-Oct	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
7-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
8-Oct	UO	UO	Z	11.2	3.4	9.1	2.1	3.4	6.3	2.2	11.1	2.4	1.7	5.6	0.6	1.9	0.0	0.0	0.0	1.0	0.1	0.0	0.1	0.0	3.0	11.2
9-Oct	0.0	0.0	0.3	Z	0.0	0.0	0.0	0.1	0.2	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.2	0.1	0.4	0.2	0.5	0.6	2.2	0.3	2.2
10-Oct	0.5	0.3	0.2	0.5	Z	2.1	1.0	0.9	1.0	1.0	2.3	4.4	0.2	0.1	0.1	0.1	0.1	1.1	1.4	0.0	0.0	0.0	0.0	0.1	0.8	4.4
11-Oct	4.2	0.2	0.2	0.0	0.8	Z	2.5	0.7	1.8	2.4	1.3	5.0	3.6	10.2	11.6	11.1	10.0	14.7	10.1	9.7	9.9	8.2	0.3	0.0	5.2	14.7
12-Oct	Z	0.0	0.0	0.1	0.5	0.3	0.3	0.7	1.2	0.2	0.9	0.5	0.3	1.2	0.9	0.9	0.9	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.4	1.2
13-Oct	0.0	Z	1.8	0.4	0.2	0.4	1.5	0.1	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	2.0	1.0	0.2	0.0	0.1	4.0	0.0	0.5	4.0
14-Oct	0.7	0.0	Z	0.0	0.9	0.0	0.0	0.0	0.6	0.3	0.3	0.3	0.2	0.6	0.2	0.2	0.1	0.0	0.1	1.9	0.2	0.4	1.0	0.7	0.4	1.9
15-Oct	2.0	0.6	0.4	Z	4.0	3.4	9.0	6.7	C	C	C	C	C	0.4	0.5	0.5	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.8	1.6	9.0
16-Oct	0.3	0.0	0.0	0.6	Z	22.9	25.2	60.4	1.4	0.4	0.8	0.3	0.1	0.1	0.0	2.6	6.1	0.0	0.0	0.0	13.1	0.0	0.1	0.0	5.8	60.4
17-Oct	1.5	0.1	0.0	0.0	2.6	Z	0.0	0.0	5.3	0.3	0.2	0.2	0.6	0.8	1.7	0.9	3.0	0.4	0.0	0.0	0.0	0.5	4.2	0.5	1.0	5.3
18-Oct	Z	0.0	0.0	0.0	0.0	0.0	3.3	21.0	1.7	0.3	0.7	0.2	0.1	0.1	0.1	0.5	0.1	0.0	0.6	0.7	0.2	0.0	0.2	0.2	1.3	21.0
19-Oct	0.0	Z	0.0	0.1	5.6	4.4	0.4	0.6	4.8	5.1	0.5	0.5	1.3	0.7	0.9	0.3	1.6	0.6	0.0	0.0	0.1	0.0	0.0	0.2	1.2	5.6
20-Oct	0.0	0.2	Z	0.7	1.8	2.0	0.9	2.1	5.2	3.3	1.6	1.2	0.3	0.1	0.1	0.2	0.0	0.0	0.4	0.0	0.1	5.5	5.8	0.1	1.4	5.8
21-Oct	3.1	0.0	0.0	Z	0.5	0.7	2.2	1.9	1.9	0.1	0.1	0.1	0.8	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.5	3.1
22-Oct	0.1	0.1	0.3	2.2	Z	33.7	15.6	7.0	5.9	0.3	4.5	2.4	0.1	0.3	5.3	5.1	8.8	0.7	0.6	1.3	0.1	0.1	0.1	0.1	4.1	33.7
23-Oct	0.0	0.1	0.1	0.4	15.7	Z	3.8	5.9	6.5	0.2	2.5	1.7	0.6	0.1	0.2	10.1	2.7	0.9	0.2	4.7	1.7	0.2	0.2	2.7	2.7	15.7
24-Oct	Z	0.2	0.4	6.8	10.8	71.7	7.1	10.5	0.6	0.4	0.7	1.9	0.6	0.6	5.1	0.8	6.5	4.8	0.6	0.5	0.1	0.1	0.1	0.0	5.7	71.7
25-Oct	0.3	Z	0.1	0.7	0.4	4.8	0.5	0.0	0.1	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1	2.4	4.1	0.2	0.1	0.8	0.6	0.4	0.7	4.8
26-Oct	0.5	0.0	Z	0.2	0.7	2.3	0.2	1.3	0.4	2.1	0.5	0.2	0.2	0.6	0.4	0.2	2.4	2.1	0.1	0.2	0.3	0.2	0.1	0.0	0.7	2.4
27-Oct	0.0	0.2	0.1	Z	12.4	11.9	15.9	17.0	13.9	18.5	14.4	17.6	17.6	17.4	12.0	9.4	10.7	12.4	15.6	15.0	8.9	12.5	5.9	4.5	11.5	18.5
28-Oct	1.7	0.6	2.4	3.9	Z	3.3	10.7	6.5	4.8	5.3	2.1	4.7	0.5	0.5	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	2.1	10.7
29-Oct	0.4	0.3	0.0	0.2	0.3	Z	0.4	0.3	0.4	0.3	0.2	0.5	0.5	3.7	2.5	2.3	6.6	4.0	2.2	0.2	0.1	0.7	3.0	5.6	1.5	6.6
30-Oct	Z	0.9	1.4	1.0	0.9	0.6	1.5	2.1	2.3	1.9	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	2.3	0.1	0.1	0.1	0.0	0.7	2.3
31-Oct	8.6	Z	0.0	0.1	0.1	1.5	1.8	0.4	0.3	0.3	0.4	0.4	7.6	0.6	0.6	0.3	0.1	0.1	3.9	0.6	0.0	0.0	0.0	0.1	1.2	8.6
	1.2	0.4	0.4	1.3	3.0	8.2	4.1	5.4	2.6	1.9	1.8	1.9	1.6	1.6	1.6	1.9	2.6	2.2	2.1	1.5	1.3	1.2	1.0	0.8	Diurnal Average	
	8.6	4.0	2.4	11.2	15.7	71.7	25.2	60.4	13.9	18.5	14.4	17.6	17.6	17.4	12.0	11.1	10.7	14.7	15.6	15.0	13.1	12.5	5.9	5.6	Diurnal Maximum	

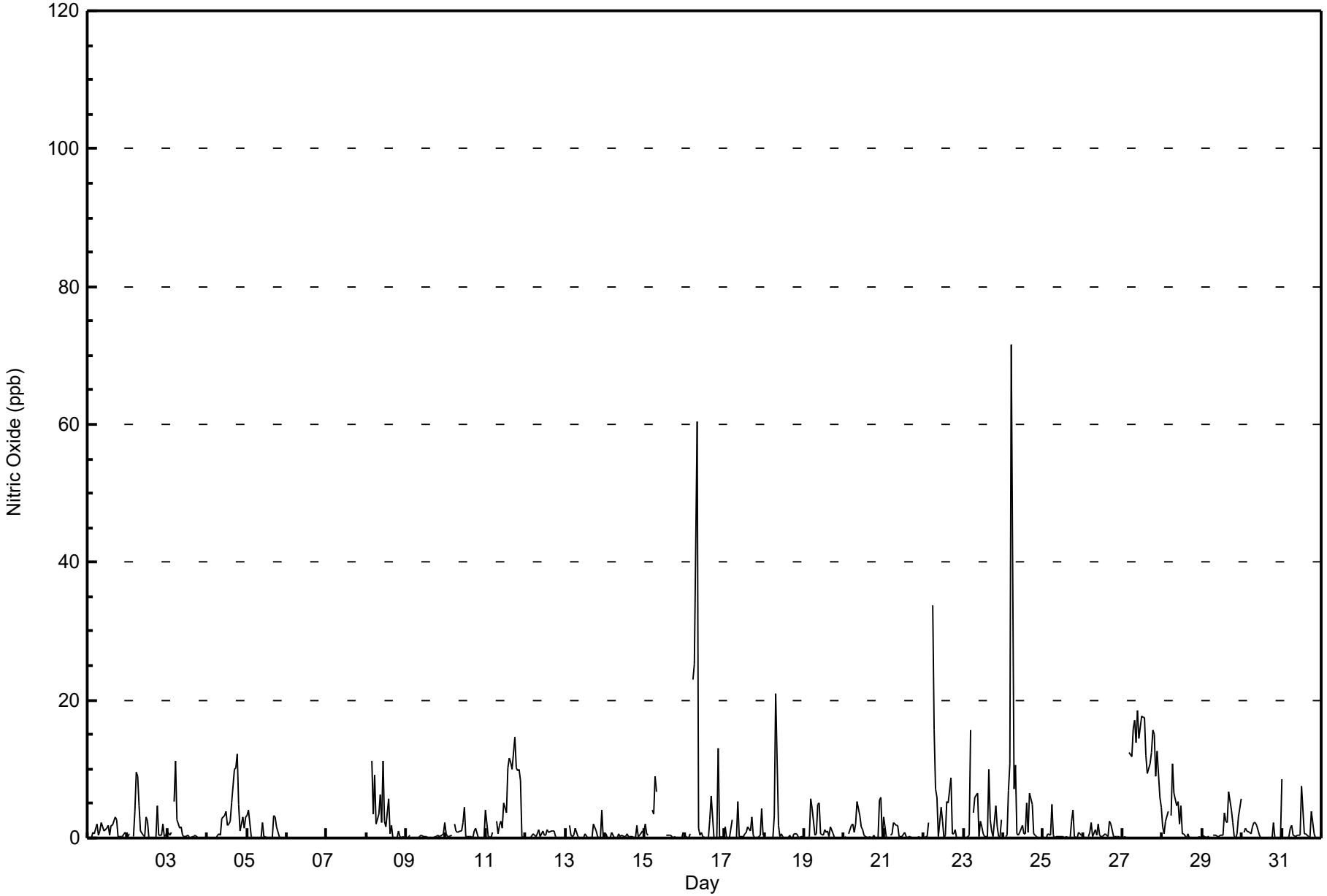
Z - zerospan C - Calibration UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Leismer - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	654	99.09	99.09
21 - 40	4	0.61	99.70
11 - 80	2	0.30	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 660

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Leismer - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	16	5	5	11	32	22	38	53	58	80	26	25	73	73	51	62	630
21 - 40	0	0	0	0	0	1	0	0	0	0	0	1	0	2	0	0	4
11 - 80	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	5	5	11	32	23	39	53	59	80	26	26	73	75	51	62	636

Total Number of Valid Hours: 636

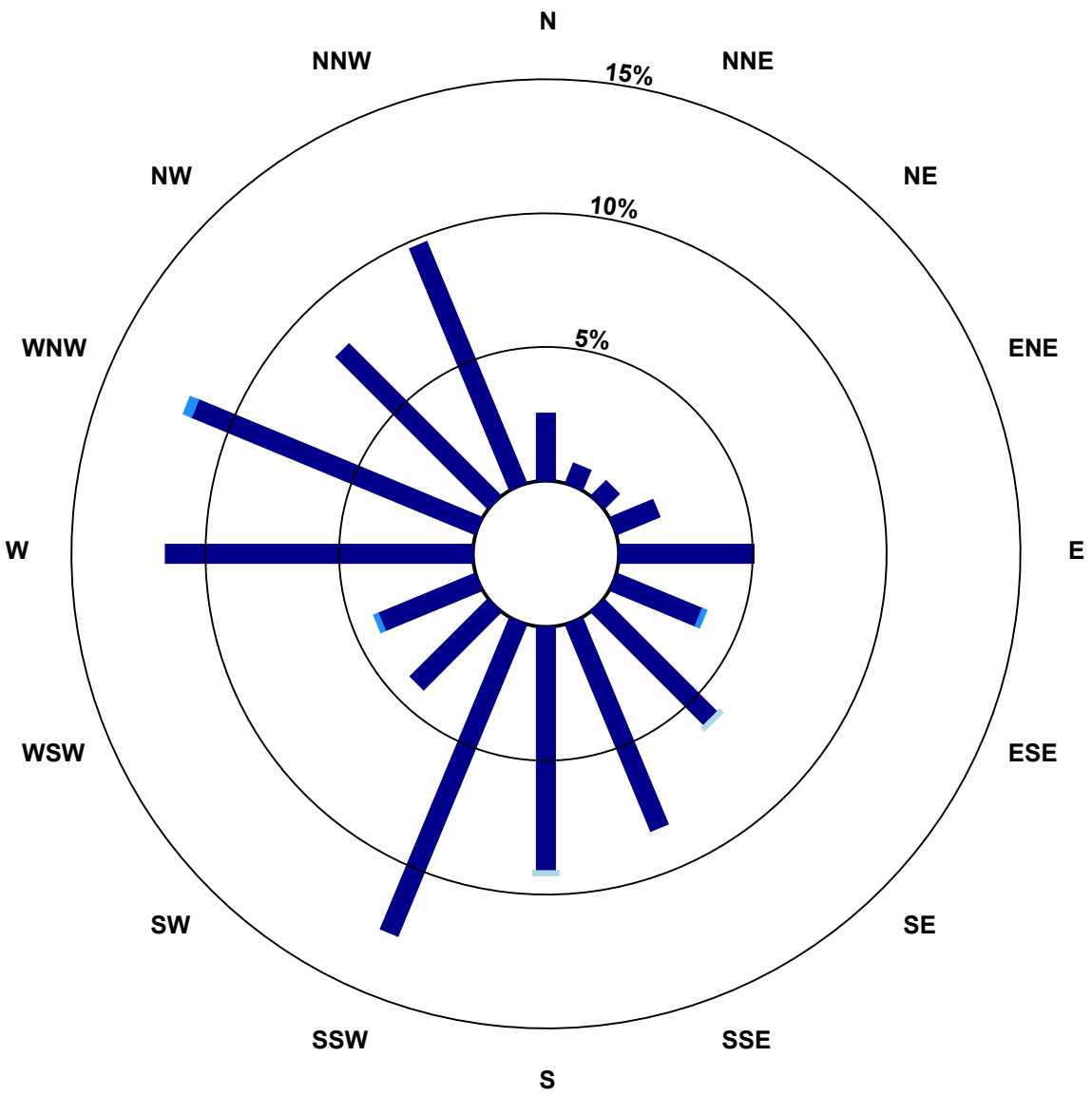
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Leismer



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

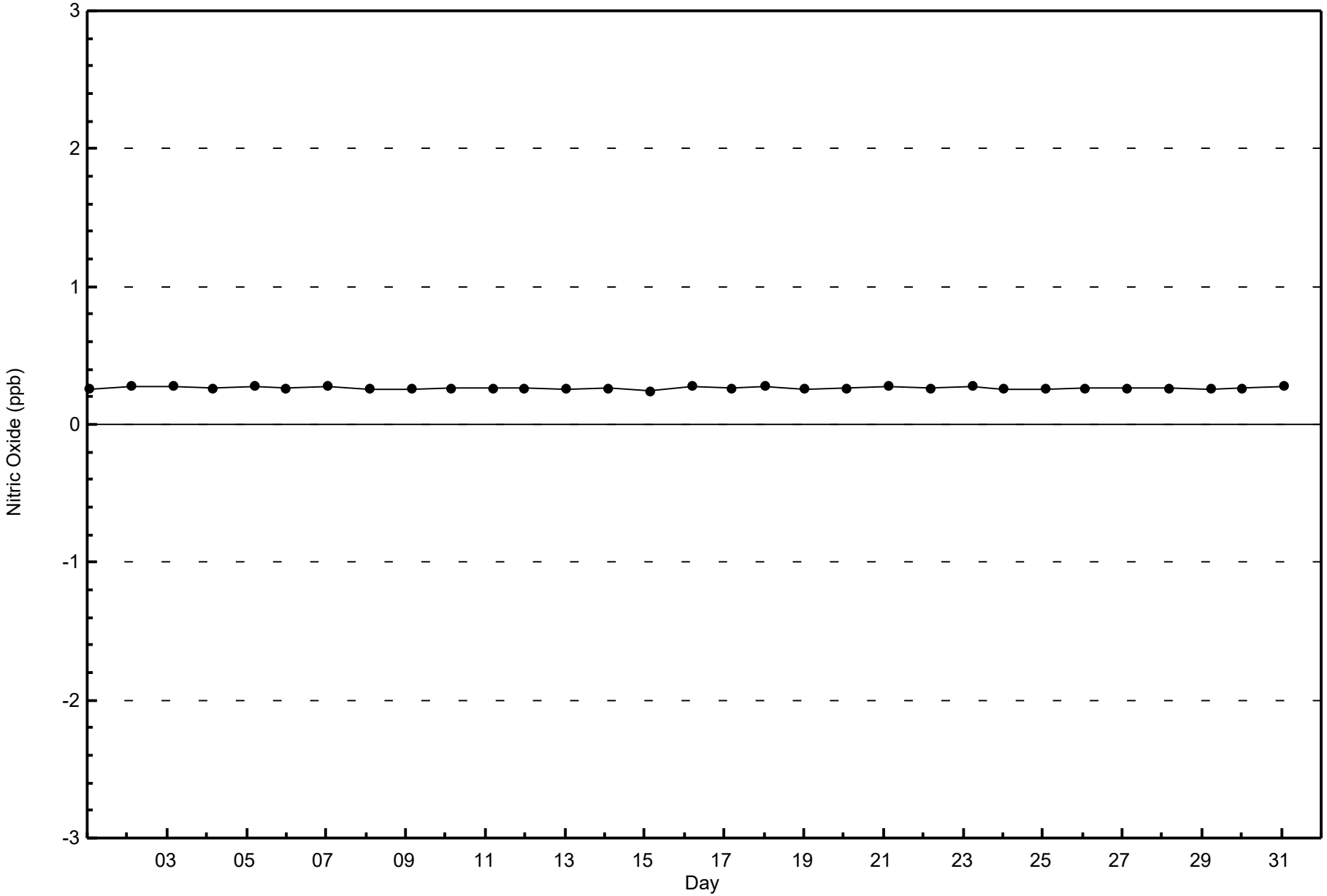
Total Number of Valid Hours: 636

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Leismer - October 2025

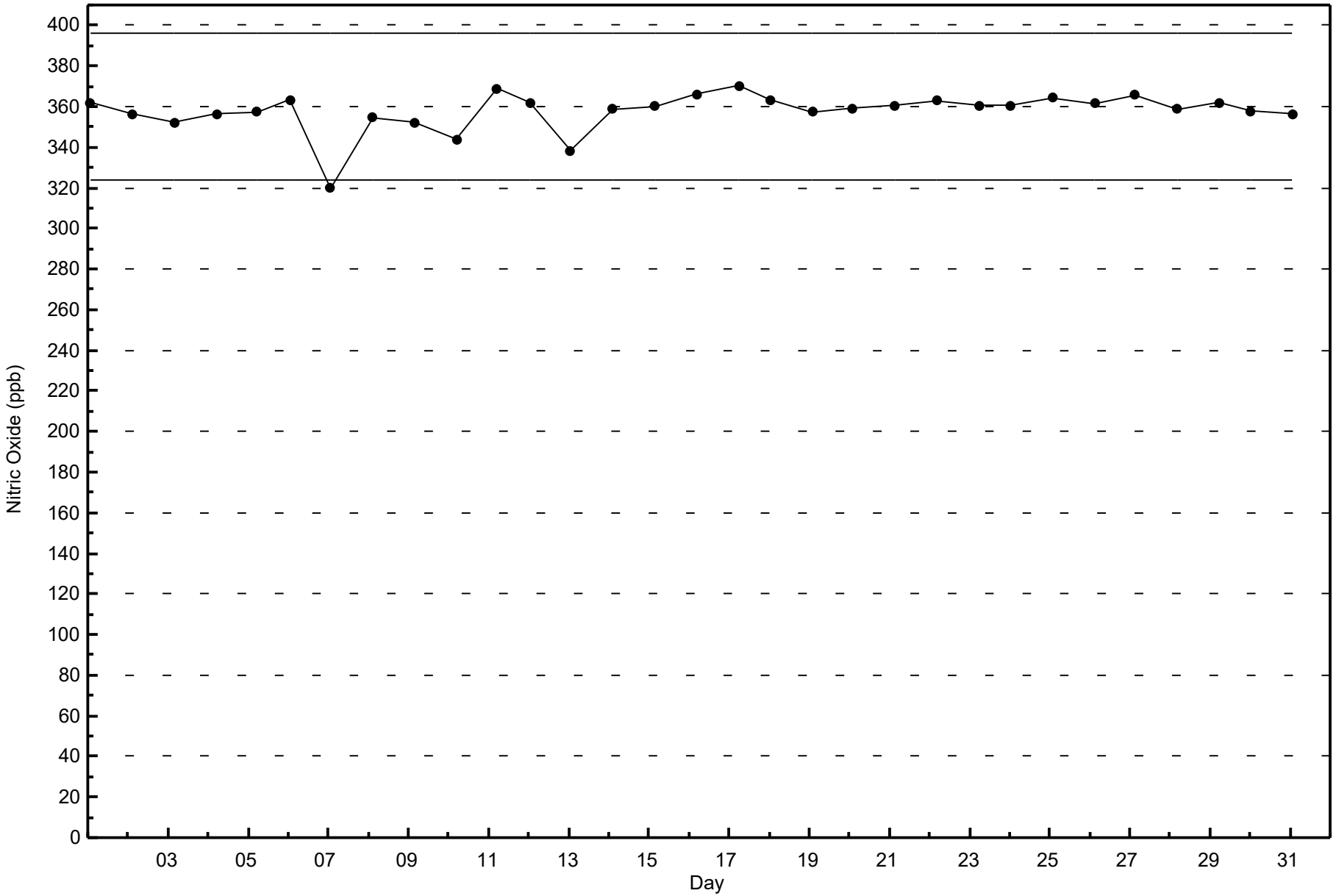


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Leismer - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Leismer - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 36.9 ppb on Oct 16 08:00 Maximum Daily Average: 6.8 ppb on Oct 27

Minimum Value: 0.1 ppb on Oct 13 13:00 Minimum Daily Average: 0.8 ppb on Oct 9
Maximum Diurnal Average: 6.3 ppb at hour 6 Minimum Diurnal Average: 1.4 ppb at hour 14
Monthly Average: 2.45 ppb Percentiles: P_1 = 0.2 P_{10} = 0.4 Q_1 = 0.7 Median = 1.5 Q_3 = 3.2 P_{90} = 5.4 P_{99} = 12.8

Hours in Service:	744
Hours of Data:	660
Hours of Missing Data:	84
Hours of Calibration:	35
Percent Operational Time:	93.4

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.6	Z	0.9	1.8	1.4	2.9	3.8	4.8	4.4	3.7	2.7	2.3	1.9	1.4	2.5	2.6	2.8	2.6	2.4	3.2	3.3	3.0	3.9	2.5	2.7	4.8
2-Oct	2.0	2.4	Z	1.7	3.8	6.0	6.6	3.8	1.6	0.9	0.7	2.3	2.4	0.7	0.6	0.5	0.6	0.7	3.2	1.0	0.7	2.5	0.8	1.1	2.0	6.6
3-Oct	2.7	1.0	1.9	Z	4.2	7.3	5.0	2.0	2.0	1.2	0.9	0.7	0.4	0.3	0.4	0.4	0.6	1.2	0.4	0.5	0.6	0.5	0.3	0.3	1.5	7.3
4-Oct	0.3	0.2	0.2	0.3	Z	0.7	3.1	2.3	1.3	2.6	2.5	2.9	1.8	2.9	1.4	4.7	5.8	4.1	4.3	1.5	0.7	1.7	1.3	2.3	2.1	5.8
5-Oct	2.8	3.2	0.6	0.1	0.1	Z	0.7	0.7	0.4	1.3	0.4	0.4	0.3	0.3	0.4	0.5	3.8	4.2	2.2	0.5	0.3	0.2	0.2	0.2	1.0	4.2
6-Oct	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
7-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
8-Oct	UO	UO	Z	12.9	5.0	11.6	3.4	3.9	4.4	1.7	5.5	1.7	1.5	3.7	0.7	1.3	0.2	0.4	0.4	2.1	0.5	0.4	0.7	0.5	3.0	12.9
9-Oct	0.4	0.4	0.7	Z	0.9	0.7	0.6	0.6	0.8	0.8	0.5	0.6	0.4	0.3	0.3	0.3	0.4	0.8	0.6	0.8	0.9	1.1	1.5	4.0	0.8	4.0
10-Oct	1.7	1.4	1.7	2.6	Z	6.2	3.3	3.3	3.3	2.8	3.0	4.9	1.4	1.1	1.0	1.3	2.0	2.3	3.1	1.1	1.1	1.0	1.2	1.5	2.3	6.2
11-Oct	6.3	1.8	1.8	1.5	2.9	Z	5.3	3.1	3.6	4.8	5.0	4.2	3.1	5.4	5.1	4.9	4.8	7.3	5.5	5.5	5.3	4.9	0.4	0.2	4.0	7.3
12-Oct	Z	1.0	0.6	0.5	0.9	0.9	0.8	1.2	1.3	1.1	1.5	0.9	0.6	1.8	1.2	1.5	2.3	1.5	1.5	1.5	0.6	0.3	0.2	0.3	1.0	2.3
13-Oct	0.5	Z	3.7	1.0	0.7	1.3	1.5	0.6	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	1.5	2.3	1.0	0.9	0.7	1.7	0.4	0.8	3.7
14-Oct	1.0	0.6	Z	1.2	1.3	0.9	0.9	0.9	1.5	0.9	0.9	0.8	0.8	1.0	0.8	0.9	1.3	1.6	1.8	3.9	2.6	3.1	3.6	3.6	1.6	3.9
15-Oct	4.7	2.3	2.1	Z	5.1	5.4	7.1	5.1	C	C	C	C	C	2.0	2.1	2.6	3.0	3.7	4.1	3.6	3.4	2.8	2.4	3.7	3.6	7.1
16-Oct	2.2	2.2	1.5	1.7	Z	21.4	19.2	36.9	2.7	0.9	1.6	0.8	0.6	0.6	0.6	2.4	6.0	0.6	0.5	0.6	16.8	0.8	1.0	1.2	5.3	36.9
17-Oct	3.7	1.3	0.9	0.6	5.5	Z	1.2	0.9	5.8	0.9	0.8	0.7	1.1	1.3	1.9	1.4	4.0	0.7	0.5	0.5	0.5	0.8	5.9	1.2	1.8	5.9
18-Oct	Z	1.7	1.0	0.8	0.5	0.5	4.0	13.5	2.4	0.9	0.3	0.5	0.4	0.3	0.3	1.0	0.5	0.7	2.7	1.7	0.5	0.3	0.5	0.6	1.5	13.5
19-Oct	0.3	Z	1.2	1.3	5.8	6.4	2.9	1.7	3.2	4.1	1.4	1.3	1.3	1.0	1.4	0.8	2.3	1.1	0.4	0.3	0.4	0.2	0.2	0.5	1.7	6.4
20-Oct	0.2	0.4	Z	2.4	2.1	3.9	4.8	6.1	7.8	5.7	3.2	2.5	1.2	0.8	0.7	0.8	0.5	0.5	0.7	0.7	0.6	3.4	5.2	1.2	2.4	7.8
21-Oct	2.7	1.1	1.2	Z	2.5	1.9	3.5	3.0	2.6	0.7	0.6	0.5	1.4	0.5	0.4	0.6	0.7	0.4	0.6	0.4	0.4	0.7	0.7	0.5	1.2	3.5
22-Oct	0.7	1.9	2.4	3.1	Z	12.8	6.8	5.8	4.0	0.7	4.2	1.8	0.3	0.6	3.5	3.4	8.5	1.7	1.1	3.2	1.9	1.8	1.6	1.7	3.2	12.8
23-Oct	1.6	1.6	1.7	2.2	12.4	Z	3.6	7.6	8.2	1.1	2.9	2.7	1.7	0.8	0.9	11.2	4.5	2.8	1.4	4.8	2.6	2.4	2.7	4.0	3.7	12.4
24-Oct	Z	3.0	2.3	5.5	12.1	35.8	6.6	9.2	2.6	1.8	1.8	3.1	2.0	2.0	5.2	2.8	8.5	9.7	3.3	3.3	3.4	3.6	3.6	3.8	5.9	35.8
25-Oct	3.4	Z	2.8	3.0	2.9	6.0	4.4	2.2	2.1	1.8	1.5	0.9	0.9	0.7	0.5	0.3	0.4	3.6	5.6	0.7	0.7	2.0	3.8	1.2	2.2	6.0
26-Oct	1.2	0.5	Z	1.3	2.5	3.6	1.1	1.4	0.7	1.8	0.7	0.5	0.6	0.5	0.5	0.4	0.5	1.0	0.4	0.9	1.0	0.9	0.5	0.3	1.0	3.6
27-Oct	0.8	1.2	1.0	Z	9.9	8.2	10.2	11.2	8.7	9.1	6.7	7.6	8.0	6.9	5.9	5.4	6.0	7.2	9.6	8.7	5.7	8.6	5.3	3.7	6.8	11.2
28-Oct	1.5	0.8	2.2	3.3	Z	3.3	7.5	5.0	3.7	3.2	1.6	2.8	0.8	0.6	0.2	0.4	0.2	0.2	0.2	0.3	0.4	0.5	1.0	0.8	1.8	7.5
29-Oct	0.4	1.0	1.9	2.0	2.0	Z	1.4	1.1	0.8	0.6	0.7	0.8	0.4	1.9	2.6	3.1	5.3	2.7	2.4	1.2	2.0	4.8	9.4	10.9	2.6	10.9
30-Oct	Z	5.6	5.0	4.4	3.6	2.3	3.2	3.5	5.2	3.2	0.9	0.5	0.4	0.5	0.6	0.5	0.4	0.4	0.7	2.4	0.5	0.5	0.5	0.5	2.0	5.6
31-Oct	4.8	Z	1.1	0.7	0.7	0.8	1.8	0.9	0.8	0.8	0.7	1.0	4.6	1.5	1.9	2.1	1.9	1.7	3.2	2.0	1.3	1.2	1.2	1.1	1.6	4.8
	2.0	1.6	1.7	2.3	3.7	6.3	4.3	4.9	3.1	2.1	1.9	1.8	1.4	1.4	1.5	2.0	2.7	2.3	2.2	2.0	2.1	1.9	2.1	1.9	Diurnal Average	
	6.3	5.6	5.0	12.9	12.4	35.8	19.2	36.9	8.7	9.1	6.7	7.6	8.0	6.9	5.9	11.2	8.5	9.7	9.6	8.7	16.8	8.6	9.4	10.9	Diurnal Maximum	

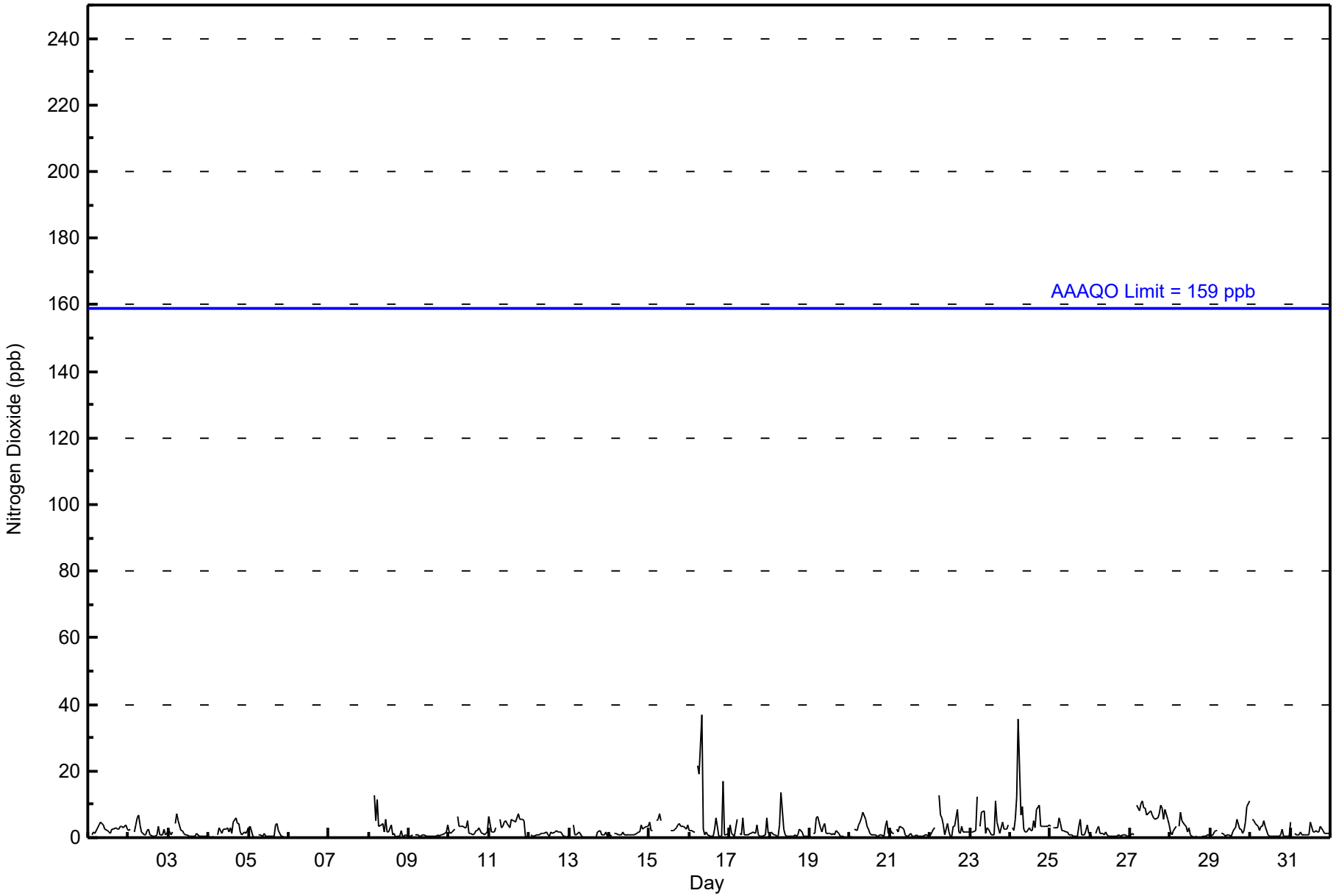
Z - zerospan C - Calibration UO - Unstable Operation
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Leismer - October 2025



Nitrogen Dioxide (NO_2) - ppb
Leismer - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	657	99.55	99.55
21 - 40	3	0.45	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 660

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Leismer - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	16	5	5	11	32	23	38	53	58	80	26	26	73	74	51	62	633
21 - 40	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	3
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	5	5	11	32	23	39	53	59	80	26	26	73	75	51	62	636

Total Number of Valid Hours: 636

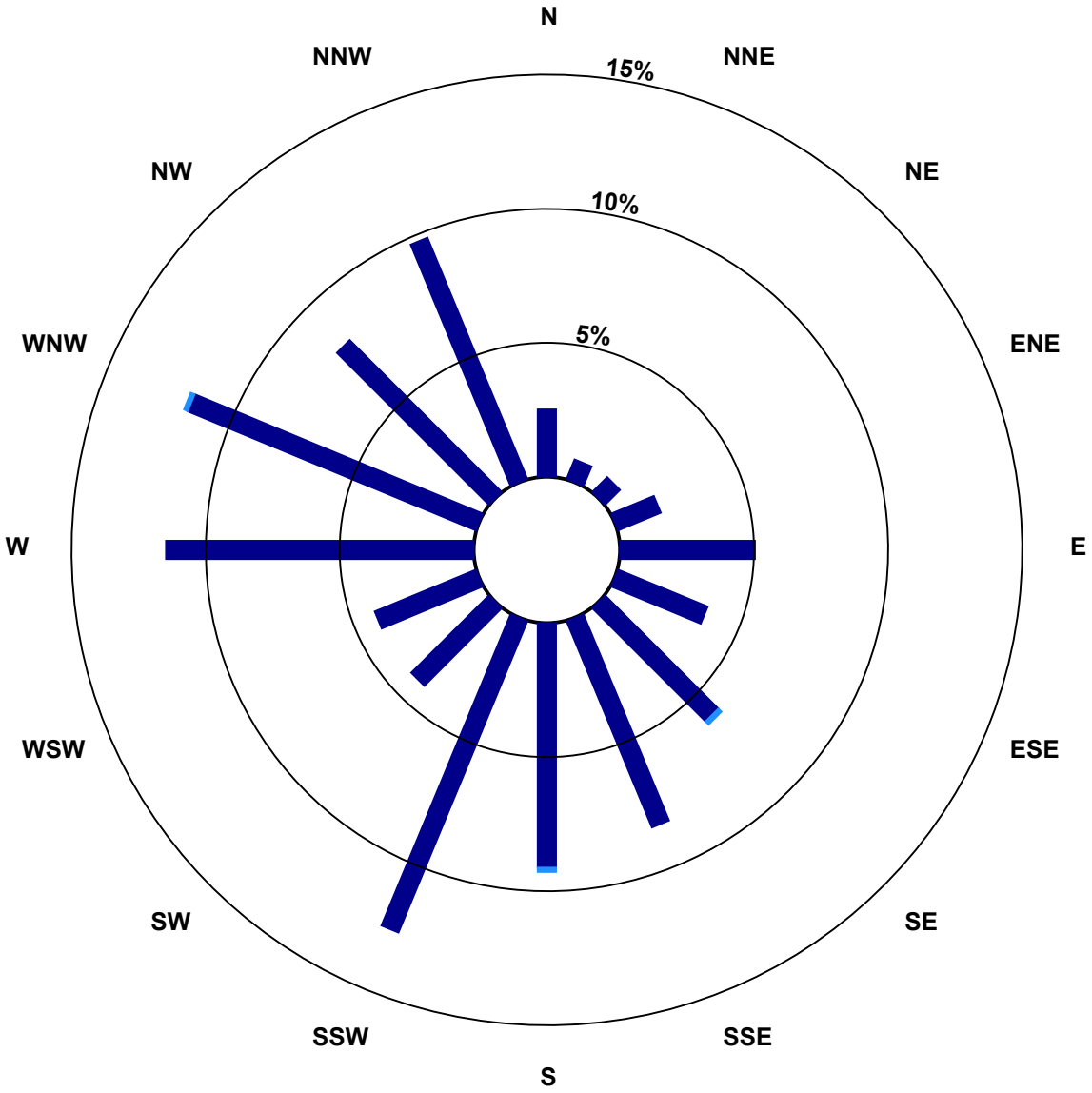
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Leismer



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

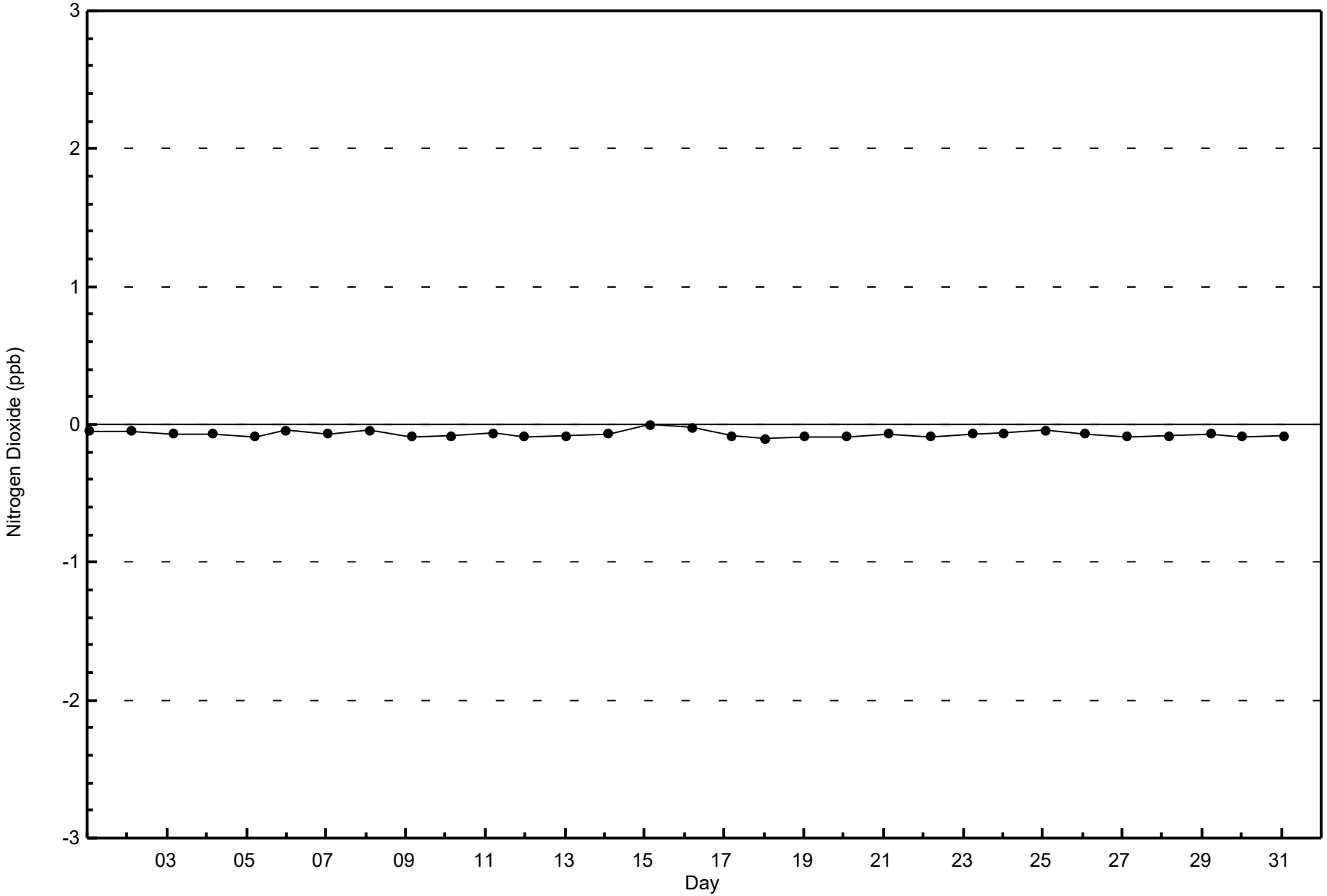
Total Number of Valid Hours: 636

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Leismer - October 2025

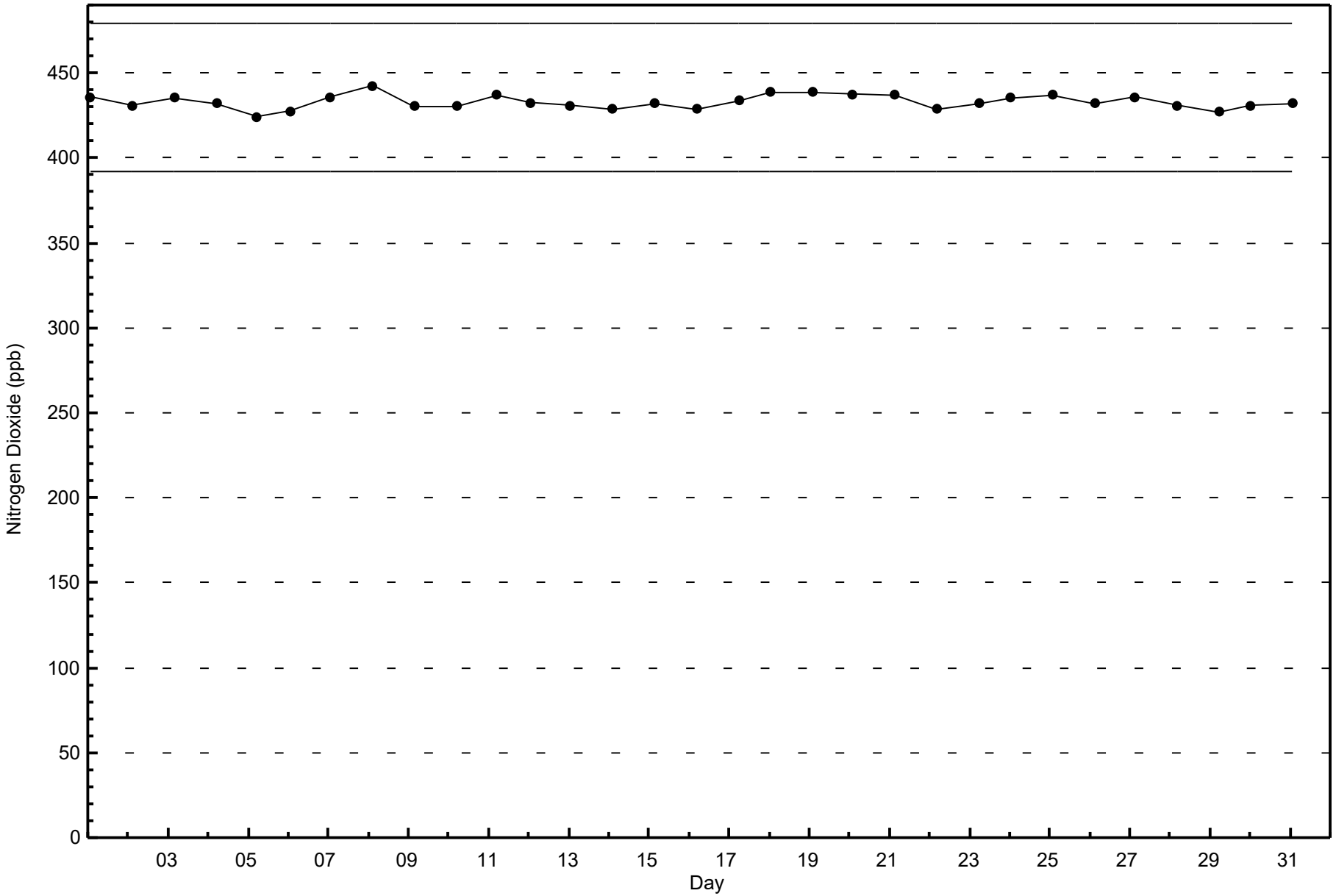


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Leismer - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Leismer - October 2025

Maximum Value: 107.5 ppb on Oct 24 06:00

Maximum Daily Average: 18.2 ppb on Oct 27

Minimum Value: 0.1 ppb on Oct 5 05:00

Minimum Daily Average: 1.1 ppb on Oct 9

Maximum Diurnal Average: 14.5 ppb at hour 6

Minimum Diurnal Average: 2.0 ppb at hour 2

Monthly Average: 4.59 ppb

Percentiles: P_1 = 0.2 P_{10} = 0.5 Q_1 = 0.8 Median = 1.9 Q_3 = 5.0 P_{90} = 11.5 P_{99} = 28.9

Hours in Service:	744
Hours of Data:	660
Hours of Missing Data:	84
Hours of Calibration:	35
Percent Operational Time:	93.4

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.8	Z	0.9	2.7	2.1	5.0	4.2	5.9	6.5	5.4	3.8	3.7	3.7	1.8	4.3	4.4	5.9	5.1	2.5	3.4	3.4	3.3	4.6	3.1	3.8	6.5
2-Oct	2.2	3.0	Z	1.9	7.6	15.5	15.5	8.5	2.6	1.4	0.9	5.3	4.9	0.7	0.6	0.5	0.6	0.8	7.9	1.4	1.0	4.5	1.1	1.5	3.9	15.5
3-Oct	3.8	1.5	2.6	Z	9.6	18.5	7.7	3.5	3.7	1.6	1.2	0.8	0.7	0.3	0.4	0.6	0.7	1.6	0.4	0.5	0.6	0.5	0.3	0.3	2.7	18.5
4-Oct	0.3	0.2	0.2	0.3	Z	0.7	3.6	2.9	1.7	5.5	5.7	6.8	3.7	5.0	3.8	9.7	15.7	14.3	16.4	6.3	1.8	4.8	2.7	5.4	5.1	16.4
5-Oct	6.1	7.2	0.8	0.1	0.1	Z	0.7	0.8	0.5	3.6	0.5	0.5	0.4	0.3	0.4	0.6	7.1	7.3	3.8	0.8	0.3	0.2	0.2	0.2	1.9	7.3
6-Oct	Z	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
7-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--	--
8-Oct	UO	UO	Z	24.1	8.4	20.7	5.5	7.3	10.7	3.9	16.6	4.1	3.2	9.3	1.3	3.2	0.2	0.4	0.4	3.1	0.6	0.4	0.8	0.5	5.9	24.1
9-Oct	0.4	0.4	1.0	Z	0.9	0.7	0.6	0.7	1.0	1.2	0.8	0.8	0.5	0.3	0.3	0.3	0.4	1.0	0.7	1.2	1.1	1.6	2.1	6.2	1.1	6.2
10-Oct	2.2	1.7	1.9	3.1	Z	8.3	4.3	4.2	4.3	3.8	5.3	9.3	1.6	1.2	1.1	1.4	2.1	3.4	4.5	1.1	1.1	1.0	1.2	1.6	3.0	9.3
11-Oct	10.5	2.0	2.0	1.5	3.7	Z	7.8	3.8	5.4	7.2	6.3	9.2	6.7	15.6	16.7	16.0	14.8	22.0	15.6	15.2	15.2	13.1	0.7	0.2	9.2	22.0
12-Oct	Z	1.0	0.6	0.6	1.4	1.2	1.1	1.9	2.5	1.3	2.4	1.4	0.9	3.0	2.1	2.4	3.2	2.4	1.6	1.5	0.6	0.3	0.2	0.3	1.5	3.2
13-Oct	0.5	Z	5.5	1.4	0.9	1.7	3.0	0.7	0.2	0.2	0.2	0.1	0.7	0.2	0.2	0.2	0.2	3.5	3.3	1.2	0.9	0.8	5.7	0.4	1.4	5.7
14-Oct	1.7	0.6	Z	1.2	2.2	0.9	0.9	0.9	2.1	1.2	1.2	1.1	1.0	1.6	1.0	1.1	1.4	1.6	1.9	5.8	2.8	3.5	4.6	4.3	1.9	5.8
15-Oct	6.7	2.9	2.5	Z	9.1	8.8	16.1	11.8	C	C	C	C	C	2.4	2.6	3.1	3.3	3.7	4.3	3.6	3.4	2.8	2.4	4.5	5.2	16.1
16-Oct	2.5	2.2	1.5	2.3	Z	44.3	44.4	97.3	4.1	1.3	2.4	1.1	0.7	0.7	0.6	5.0	12.1	0.6	0.5	0.6	29.9	0.8	1.1	1.2	11.2	97.3
17-Oct	5.2	1.4	0.9	0.6	8.1	Z	1.2	0.9	11.1	1.2	1.0	0.9	1.7	2.1	3.6	2.3	7.0	1.1	0.5	0.5	0.5	1.3	10.1	1.7	2.8	11.1
18-Oct	Z	1.7	1.0	0.8	0.5	0.5	7.3	34.5	4.1	1.2	1.0	0.7	0.5	0.4	0.4	1.5	0.6	0.7	3.3	2.4	0.7	0.3	0.7	0.8	2.9	34.5
19-Oct	0.3	Z	1.2	1.4	11.4	10.8	3.3	2.3	8.0	9.2	1.9	1.8	2.6	1.7	2.3	1.1	3.9	1.7	0.4	0.3	0.5	0.2	0.2	0.7	2.9	11.4
20-Oct	0.2	0.6	Z	3.1	3.9	5.9	5.7	8.2	13.0	9.0	4.8	3.7	1.5	0.9	0.8	1.0	0.5	0.5	1.1	0.7	0.7	8.9	11.0	1.3	3.8	13.0
21-Oct	5.8	1.1	1.2	Z	3.0	2.6	5.7	4.9	4.5	0.8	0.7	0.6	2.2	0.6	0.5	0.7	0.9	0.4	0.6	0.4	0.4	0.8	0.7	0.5	1.7	5.8
22-Oct	0.8	2.0	2.7	5.3	Z	46.5	22.4	12.8	9.9	1.0	8.7	4.2	0.4	0.9	8.8	8.5	17.3	2.4	1.7	4.5	2.0	1.9	1.7	1.8	7.3	46.5
23-Oct	1.6	1.7	1.8	2.6	28.1	Z	7.4	13.5	14.7	1.3	5.4	4.4	2.3	0.9	1.1	21.3	7.2	3.7	1.6	9.5	4.3	2.6	2.9	6.7	6.4	28.1
24-Oct	Z	3.2	2.7	12.3	22.9	107.5	13.7	19.7	3.2	2.2	2.5	5.0	2.6	2.6	10.3	3.6	15.0	14.5	3.9	3.8	3.5	3.7	3.7	3.8	11.6	107.5
25-Oct	3.7	Z	2.9	3.7	3.3	10.8	4.9	2.2	2.2	2.0	1.7	1.2	1.0	0.8	0.6	0.4	0.5	6.0	9.7	0.9	0.8	2.8	4.4	1.6	3.0	10.8
26-Oct	1.7	0.5	Z	1.5	3.2	5.9	1.3	2.7	1.1	3.9	1.2	0.7	0.8	1.1	0.9	0.6	2.9	3.1	0.5	1.1	1.3	1.1	0.6	0.3	1.7	5.9
27-Oct	0.8	1.4	1.1	Z	22.3	20.1	26.1	28.2	22.6	27.6	21.1	25.2	25.6	24.3	17.9	14.8	16.7	19.6	25.2	23.7	14.6	21.1	11.2	8.2	18.2	28.2
28-Oct	3.2	1.4	4.6	7.2	Z	6.6	18.2	11.5	8.5	8.5	3.7	7.5	1.3	1.1	0.3	0.9	0.2	0.2	0.2	0.3	0.4	0.5	1.3	0.8	3.8	18.2
29-Oct	0.8	1.3	1.9	2.2	2.3	Z	1.8	1.4	1.2	0.9	0.9	1.3	0.9	5.6	5.1	5.4	11.9	6.7	4.6	1.4	2.1	5.5	12.4	16.5	4.1	16.5
30-Oct	Z	6.5	6.4	5.4	4.5	2.9	4.7	5.6	7.5	5.1	1.2	0.6	0.5	0.6	0.6	0.5	0.4	0.4	0.8	4.7	0.6	0.6	0.6	0.5	2.7	7.5
31-Oct	13.4	Z	1.1	0.8	0.8	2.3	3.6	1.3	1.1	1.1	1.1	1.4	12.2	2.1	2.5	2.4	2.0	1.8	7.1	2.6	1.3	1.2	1.2	1.2	2.9	13.4
	3.2	2.0	2.0	3.6	6.7	14.5	8.4	10.3	5.6	4.0	3.7	3.7	3.0	3.0	3.1	3.9	5.3	4.5	4.3	3.5	3.3	3.1	3.1	2.6	Diurnal Average	
	13.4	7.2	6.4	24.1	28.1	107.5	44.4	97.3	22.6	27.6	21.1	25.2	25.6	24.3	17.9	21.3	17.3	22.0	25.2	23.7	29.9	21.1	12.4	16.5	Diurnal Maximum	

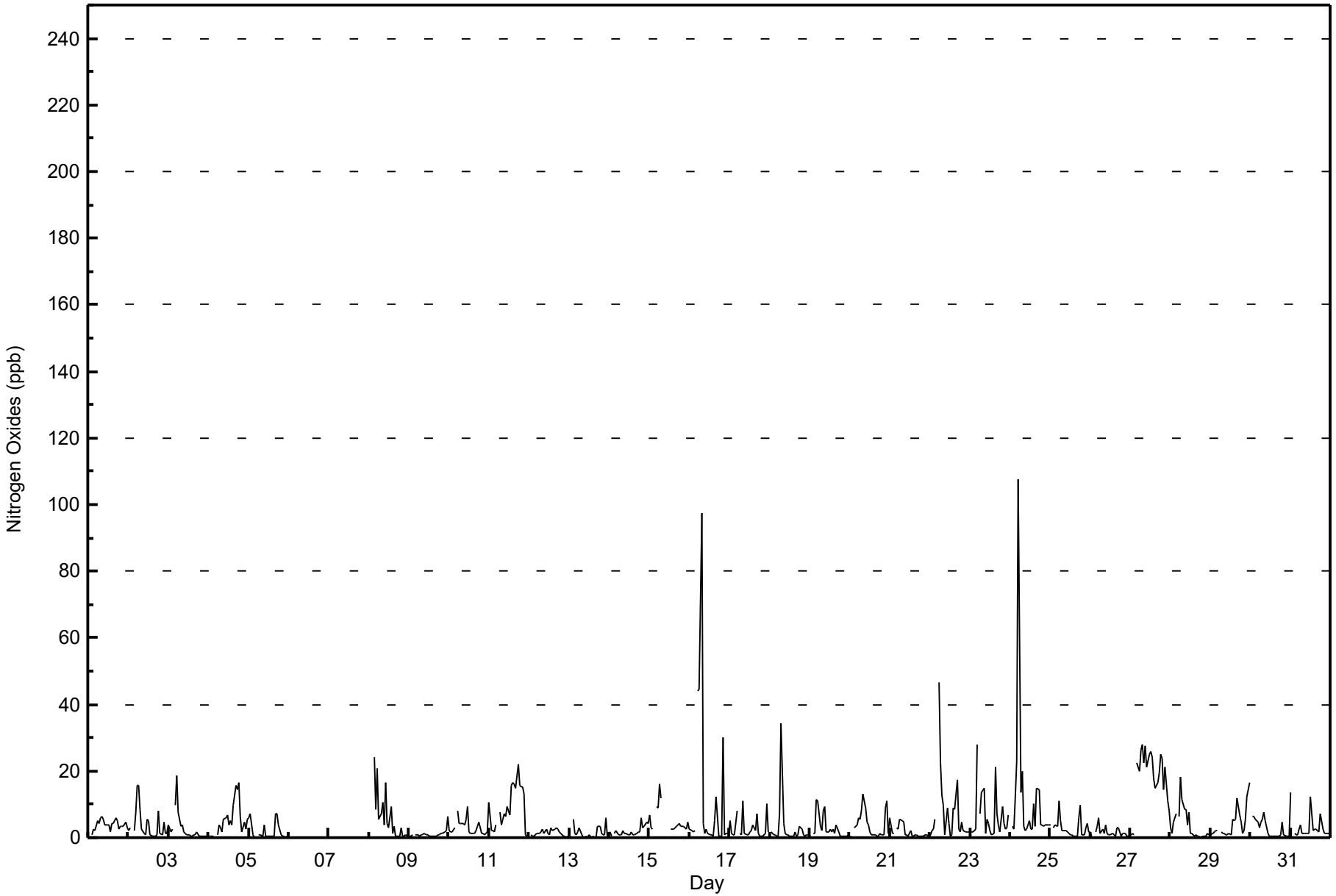
Z - zerospan C - Calibration UO - Unstable Operation

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Leismer - October 2025



Nitrogen Oxides (NO_X) - ppb
Leismer - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	634	96.06	96.06
21 - 40	21	3.18	99.24
11 - 80	3	0.45	99.70
81 - 159	2	0.30	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 660

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Leismer - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	16	5	5	11	32	22	37	50	57	80	26	25	73	71	43	62	615
21 - 40	0	0	0	0	0	0	1	3	1	0	0	1	0	2	8	0	16
11 - 80	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	3
81 - 159	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	16	5	5	11	32	23	39	53	59	80	26	26	73	75	51	62	636

Total Number of Valid Hours: 636

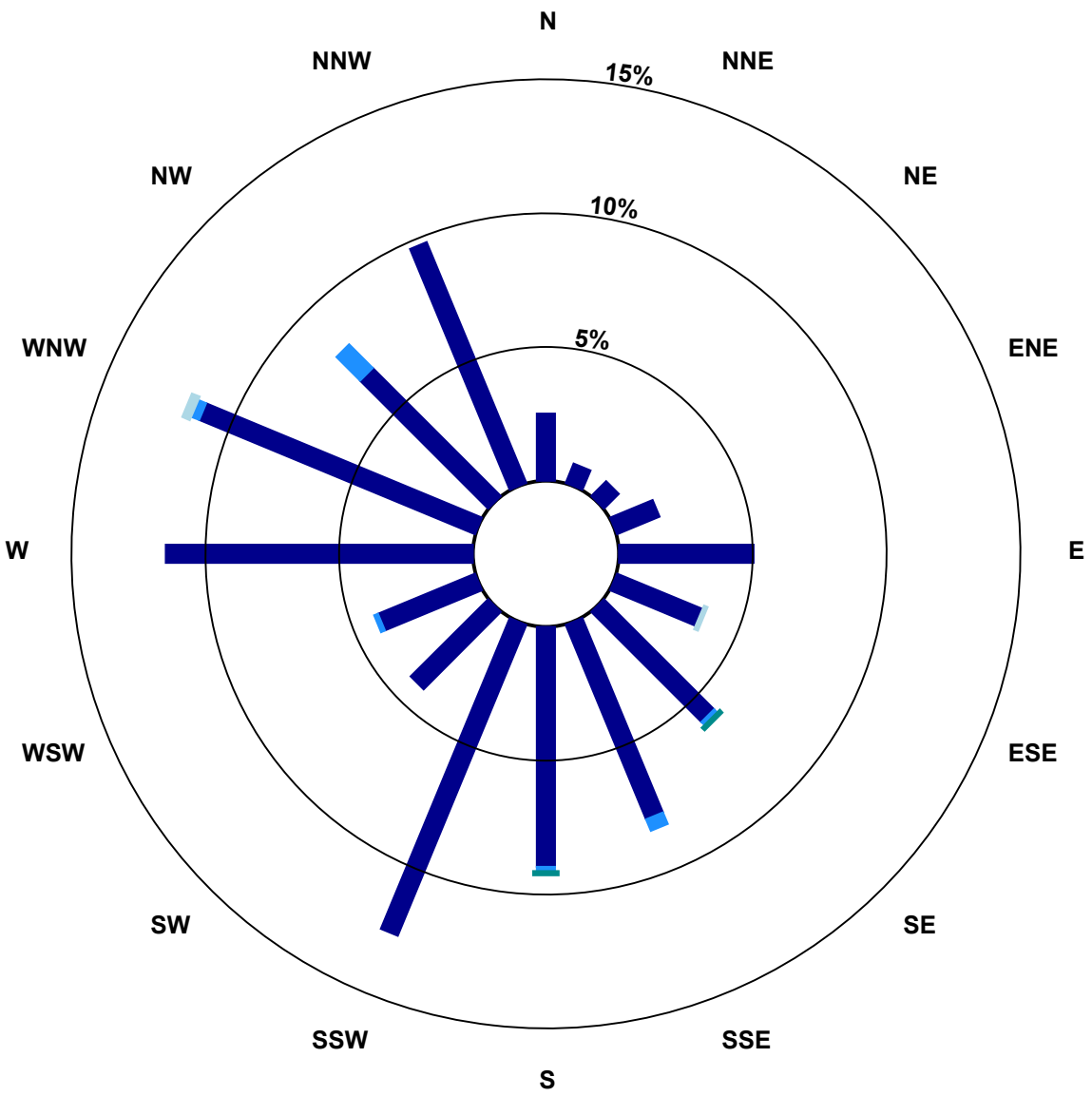
Total Number of Hours: 744

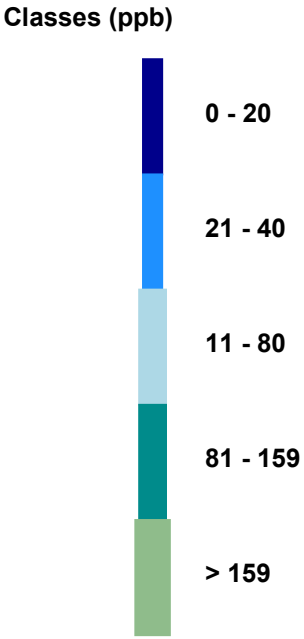
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Leismer





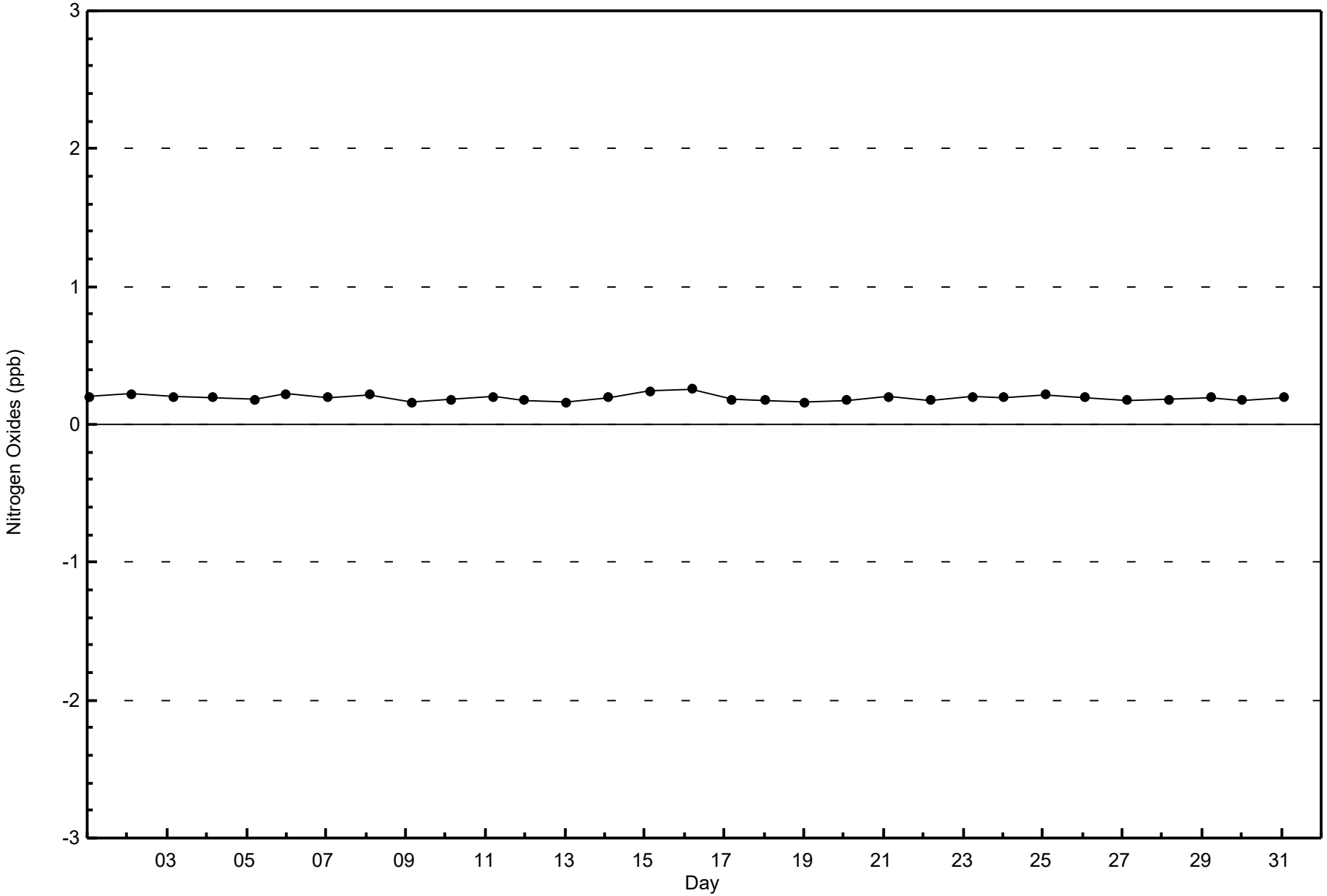
Total Number of Valid Hours: 636

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Leismer - October 2025

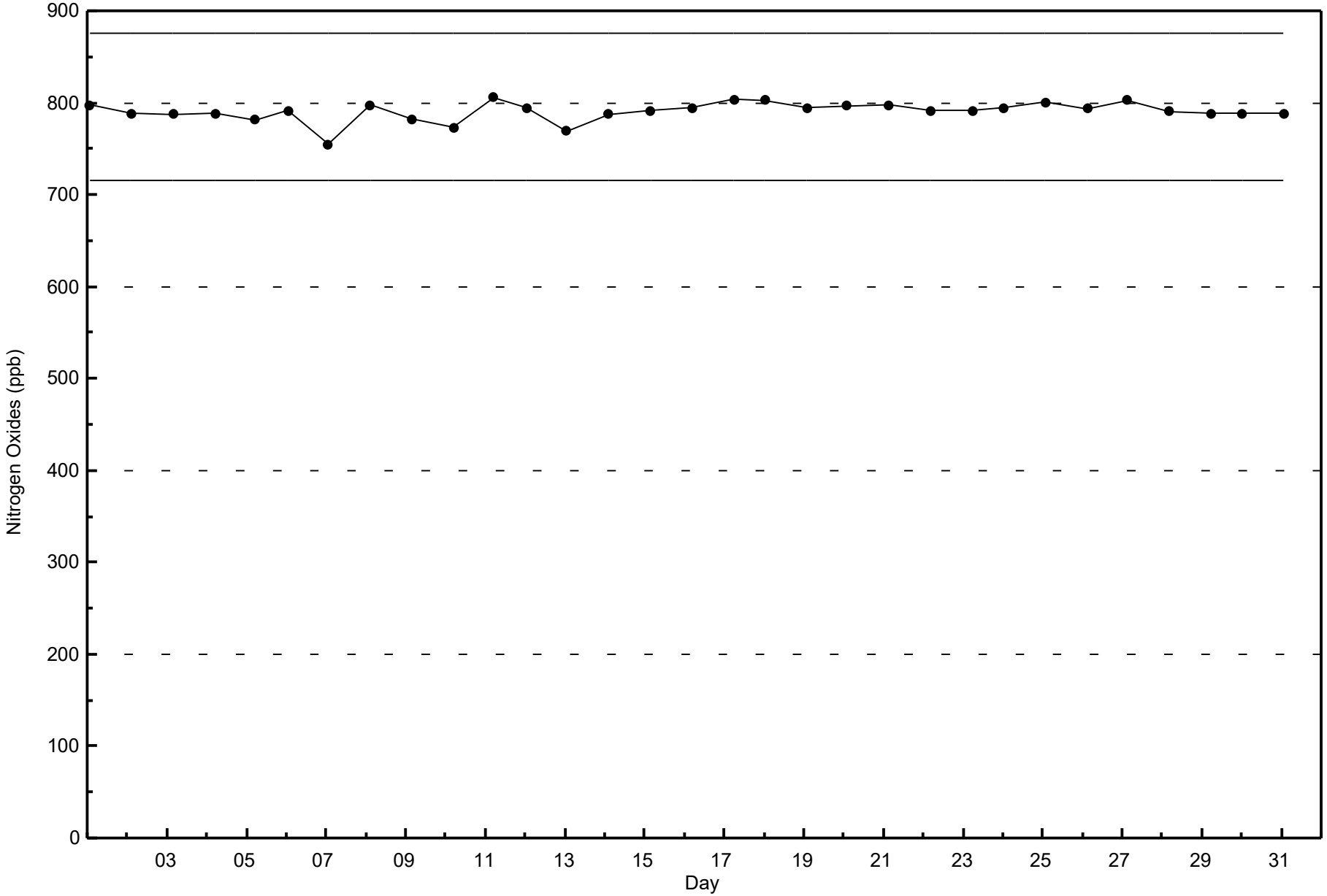


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Leismer - October 2025



Maximum Value: 19.6 C on Oct 10 15:00

Maximum Daily Average: 10.3 C on Oct 7

Minimum Value: -4.6 C on Oct 31 08:00

Minimum Daily Average: -1.7 C on Oct 13

Maximum Diurnal Average: 7.4 C at hour 15

Minimum Diurnal Average: 1.0 C at hour 7

Monthly Average: 3.66 C

Percentiles: P_1 = -3.7 P_{10} = -1.6 Q_1 = -0.2 Median = 2.9 Q_3 = 6.6 P_{90} = 10.1 P_{99} = 17.7

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

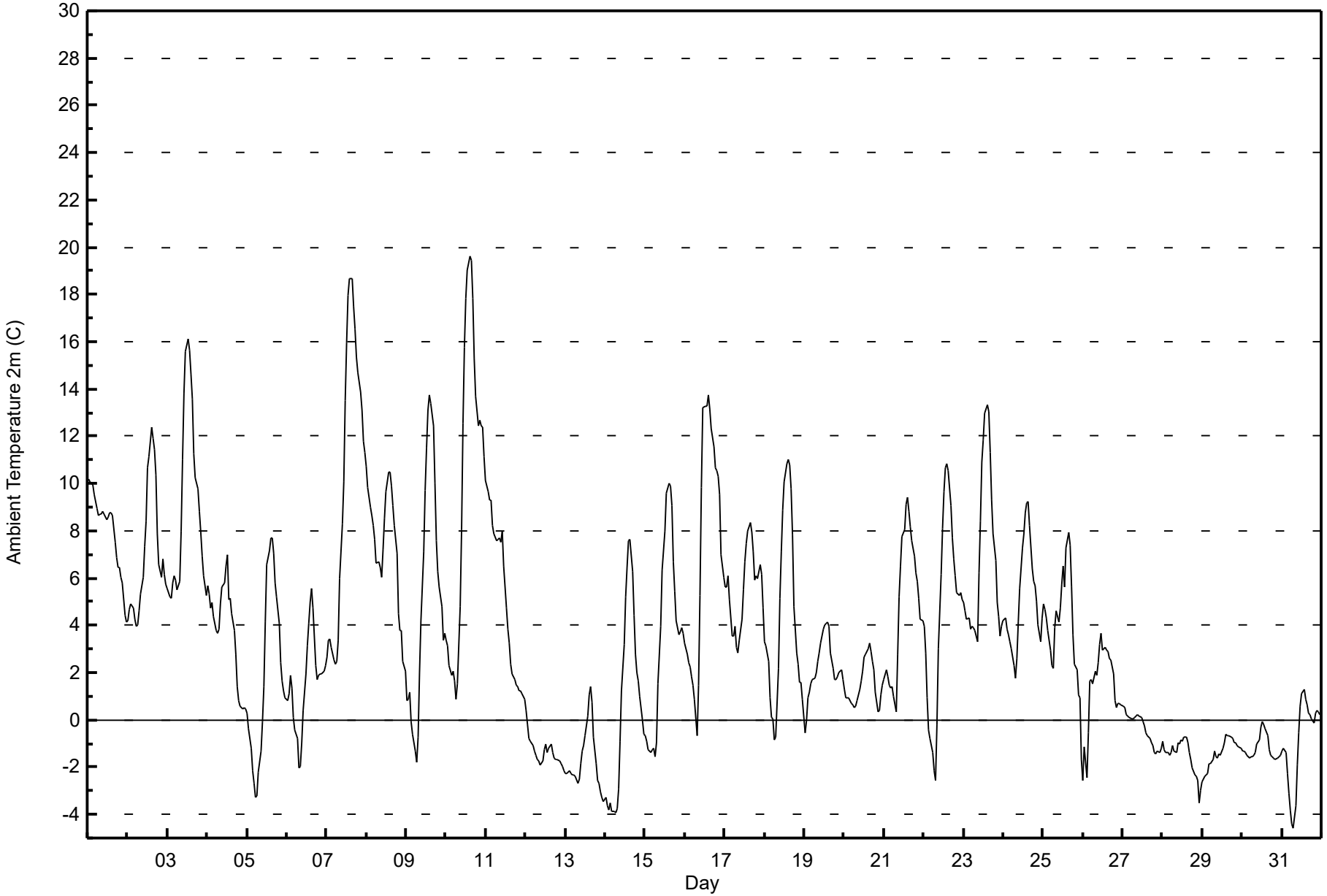
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	10.2	10.1	10.0	10.0	9.5	8.9	8.6	8.7	8.7	8.8	8.7	8.5	8.6	8.8	8.7	8.7	7.5	6.9	6.5	6.5	6.1	5.8	4.5	4.1	8.1	10.2
2-Oct	4.2	4.7	4.9	4.7	4.3	3.9	4.0	4.6	5.3	6.0	7.4	8.4	10.6	11.2	12.4	11.9	11.5	10.4	7.9	6.6	6.0	6.8	6.2	5.8	7.1	12.4
3-Oct	5.5	5.2	5.1	5.8	6.1	5.9	5.5	5.8	8.0	11.0	13.8	15.6	16.1	15.7	14.7	13.6	11.2	10.3	9.8	8.8	8.0	6.9	6.1	5.3	9.2	16.1
4-Oct	5.7	5.3	4.7	4.9	4.4	3.8	3.6	3.9	4.9	5.6	5.8	6.5	7.0	5.1	5.2	4.5	3.8	2.8	1.4	0.8	0.6	0.5	0.5	0.5	3.8	7.0
5-Oct	0.3	-0.4	-1.2	-2.2	-2.7	-3.3	-3.2	-2.2	-1.3	-0.1	1.4	4.1	6.5	7.2	7.7	7.7	7.0	5.8	5.2	4.1	2.4	1.7	1.2	1.0	1.9	7.7
6-Oct	0.8	1.1	1.9	1.4	0.1	-0.4	-0.8	-2.0	-2.0	-1.0	0.4	1.9	3.1	4.0	5.0	5.6	4.8	2.3	1.7	1.9	1.9	1.9	2.1	2.3	1.6	5.6
7-Oct	2.7	3.4	3.4	3.0	2.6	2.3	2.5	3.4	6.0	8.3	10.1	13.5	16.0	17.9	18.7	18.7	17.5	16.5	15.3	14.7	13.9	13.1	11.8	11.3	10.3	18.7
8-Oct	10.7	9.8	9.0	8.6	8.2	7.6	6.6	6.7	6.4	6.0	7.2	8.5	9.7	10.5	10.5	9.9	9.1	8.2	7.0	4.5	3.8	3.8	2.5	2.1	7.4	10.7
9-Oct	0.8	0.9	1.1	-0.1	-0.6	-1.3	-1.8	-0.7	2.0	4.2	7.1	9.7	11.5	13.1	13.7	13.4	12.4	10.0	7.6	6.2	5.6	4.8	3.4	3.6	5.3	13.7
10-Oct	3.4	3.1	2.3	1.9	2.1	1.6	0.9	1.5	4.8	8.1	12.6	15.8	17.9	19.0	19.6	19.4	17.8	15.3	13.7	12.5	12.7	12.4	12.4	11.1	10.1	19.6
11-Oct	10.2	9.7	9.3	9.3	8.2	7.9	7.6	7.6	7.7	7.5	8.0	6.5	4.7	3.9	3.2	2.3	1.9	1.7	1.5	1.4	1.2	1.2	1.1	0.9	5.2	10.2
12-Oct	0.4	-0.2	-0.8	-0.9	-1.1	-1.3	-1.5	-1.7	-1.7	-1.9	-1.7	-1.3	-1.0	-1.4	-1.2	-1.0	-1.4	-1.6	-1.7	-1.7	-1.7	-1.8	-2.0	-2.1	-1.3	0.4
13-Oct	-2.3	-2.3	-2.2	-2.2	-2.3	-2.3	-2.4	-2.7	-2.5	-1.8	-1.3	-1.1	-0.7	0.2	1.1	1.4	0.8	-0.7	-1.8	-2.6	-2.7	-3.1	-3.3	-3.5	-1.7	1.4
14-Oct	-3.3	-3.6	-3.8	-3.5	-3.9	-3.8	-3.9	-3.7	-2.9	-0.9	1.2	3.2	5.2	6.5	7.6	7.7	6.3	4.4	2.8	2.0	1.7	1.0	0.0	-0.6	0.6	7.7
15-Oct	-0.7	-0.9	-1.3	-1.4	-1.3	-1.2	-1.6	-1.0	1.5	4.0	6.3	7.1	8.0	9.6	10.0	9.9	9.1	6.7	5.4	4.2	3.6	3.7	3.9	3.6	3.6	10.0
16-Oct	3.3	2.8	2.4	2.2	1.9	1.5	0.9	-0.7	1.5	5.2	9.8	13.2	13.3	13.3	13.8	13.1	12.3	11.5	10.7	10.6	10.3	9.5	7.0	6.0	7.3	13.8
17-Oct	5.6	5.6	6.1	5.1	3.5	3.5	4.0	3.1	2.8	3.4	4.2	5.5	6.7	7.5	8.0	8.3	7.9	7.1	5.9	6.1	6.0	6.6	6.2	4.8	5.6	8.3
18-Oct	3.3	3.1	2.5	0.9	0.1	0.1	-0.9	-0.7	2.2	5.1	7.1	8.9	10.1	10.9	11.0	10.8	9.8	7.8	4.8	2.8	2.3	1.6	1.6	0.9	4.4	11.0
19-Oct	-0.5	0.0	0.9	1.1	1.5	1.7	1.8	2.0	2.5	2.8	3.2	3.8	4.0	4.1	4.1	4.0	2.8	2.2	1.7	1.7	1.8	2.0	2.1	1.7	2.2	4.1
20-Oct	1.3	1.0	0.9	0.9	0.7	0.6	0.5	0.6	0.8	1.3	1.6	2.1	2.7	2.7	3.0	3.2	2.9	2.5	2.1	1.1	0.3	0.4	1.1	1.4	1.5	3.2
21-Oct	1.7	2.1	1.8	1.5	1.4	1.4	1.0	0.3	2.7	5.2	6.5	7.7	8.1	9.1	9.4	8.8	8.2	7.6	6.9	6.2	5.8	5.2	4.2	4.2	4.9	9.4
22-Oct	3.9	2.8	0.9	-0.4	-0.8	-1.4	-2.2	-2.6	-0.2	3.0	6.1	8.1	9.6	10.7	10.9	10.5	9.1	7.7	6.8	6.1	5.4	5.2	5.4	5.1	4.6	10.9
23-Oct	4.9	4.6	4.2	4.3	3.8	4.0	3.9	3.8	3.3	6.2	8.4	10.9	11.8	12.9	13.3	13.0	11.3	9.3	7.9	6.8	5.0	4.3	3.6	3.9	6.9	13.3
24-Oct	4.2	4.3	3.8	3.6	3.3	3.0	2.3	1.7	2.6	4.1	5.6	7.3	7.9	8.8	9.1	9.3	8.2	6.4	5.9	5.7	5.0	4.0	3.3	4.3	5.2	9.3
25-Oct	4.9	4.7	4.3	3.8	2.9	2.3	2.2	3.9	4.6	4.1	4.7	5.7	6.5	5.6	7.3	7.9	7.4	5.6	3.6	2.4	2.1	1.0	0.9	-1.7	4.0	7.9
26-Oct	-2.6	-1.1	-2.4	-0.5	1.7	1.7	1.5	2.1	1.9	2.4	3.2	3.6	3.0	3.1	3.0	2.9	2.6	2.5	2.0	0.8	0.5	0.7	0.7	0.7	1.4	3.6
27-Oct	0.6	0.5	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.2	0.1	-0.1	-0.2	-0.5	-0.7	-0.8	-1.0	-1.1	-1.4	-1.5	-1.3	-1.4	-1.2	-0.4	0.6
28-Oct	-0.9	-1.3	-1.4	-1.4	-1.5	-1.4	-1.1	-1.3	-1.4	-1.0	-1.0	-0.8	-0.9	-0.7	-0.7	-1.0	-1.4	-1.7	-2.1	-2.3	-2.4	-2.6	-3.5	-3.0	-1.5	-0.7
29-Oct	-2.6	-2.4	-2.3	-2.3	-1.9	-1.8	-1.7	-1.3	-1.6	-1.6	-1.5	-1.5	-1.2	-1.0	-0.6	-0.7	-0.7	-0.7	-0.8	-1.0	-0.9	-1.1	-1.1	-1.2	-1.4	-0.6
30-Oct	-1.3	-1.3	-1.4	-1.5	-1.6	-1.6	-1.6	-1.5	-1.4	-1.0	-0.9	-0.3	-0.1	-0.2	-0.4	-0.7	-1.3	-1.5	-1.6	-1.6	-1.7	-1.6	-1.5	-1.5	-1.2	-0.1
31-Oct	-1.3	-1.2	-1.4	-2.3	-3.1	-3.8	-4.4	-4.6	-3.6	-1.9	-0.6	0.6	1.1	1.3	0.9	0.6	0.3	0.2	0.1	-0.1	0.3	0.4	0.3	0.2	-0.9	1.3
	2.4	2.3	2.0	1.8	1.5	1.2	1.0	1.1	2.0	3.3	4.6	5.9	6.6	7.1	7.4	7.2	6.4	5.3	4.4	3.7	3.3	3.0	2.6	2.3	Diurnal Average	
	10.7	10.1	10.0	10.0	9.5	8.9	8.6	8.7	8.7	11.0	13.8	15.8	17.9	19.0	19.6	19.4	17.8	16.5	15.3	14.7	13.9	13.1	12.4	11.3	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Leismer - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	193	25.94	25.94
0 - 10	471	63.31	89.25
10 - 20	80	10.75	100.00
> 20	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Relative Humidity 2m (RH2) - %

Leismer - October 2025

Maximum Value: 99.8 % on Oct 3 03:00

Maximum Daily Average: 97.0 % on Oct 27

Minimum Value: 25.9 % on Oct 10 15:00

Minimum Daily Average: 57.5 % on Oct 10

Maximum Diurnal Average: 87.7 % at hour 7

Minimum Diurnal Average: 62.8 % at hour 16

Monthly Average: 77.18 %

Percentiles: P_1 = 34.1 P_{10} = 49.1 Q_1 = 64.6 Median = 80.1 Q_3 = 93.6 P_{90} = 97.5 P_{99} = 99.5

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

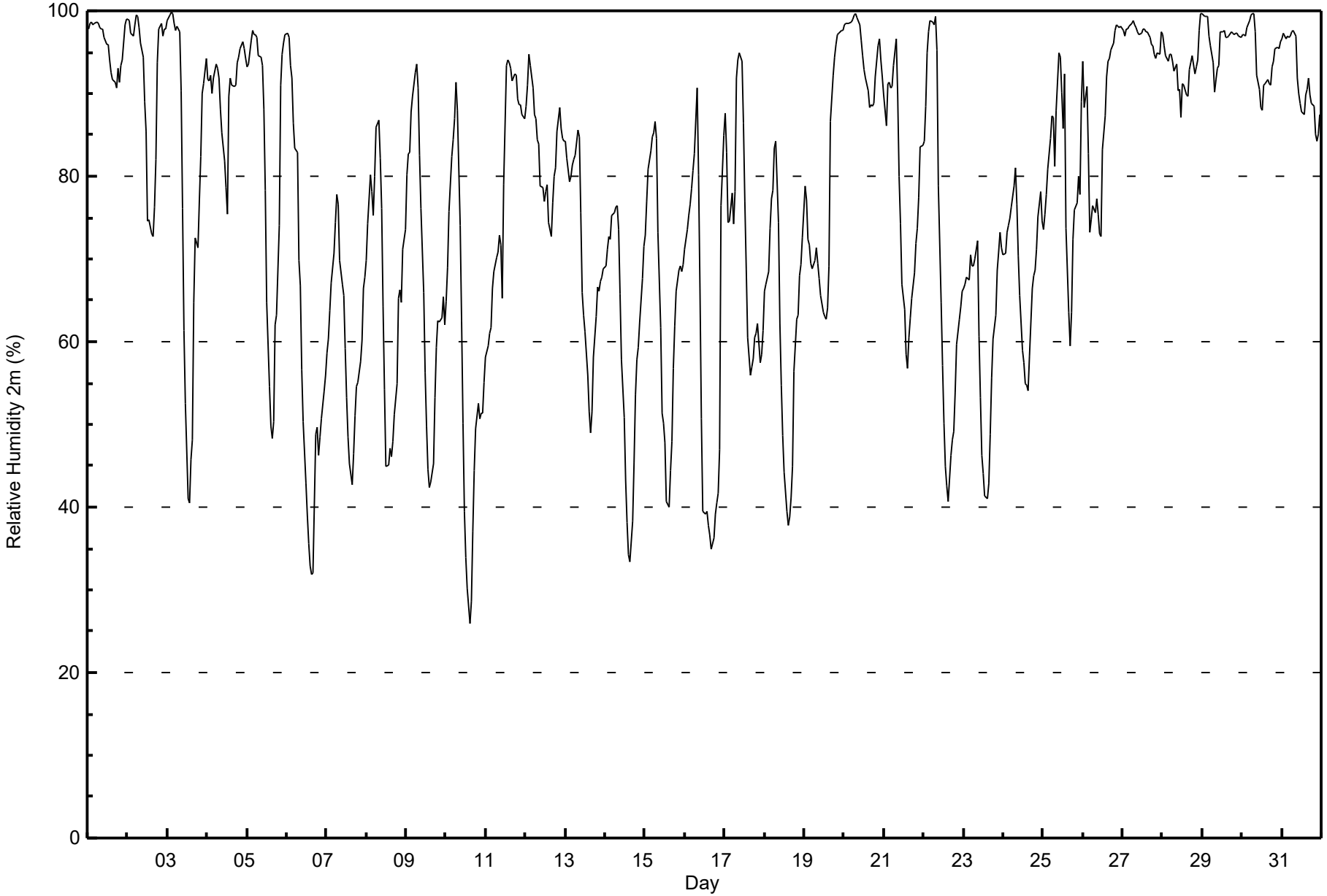
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	97.7	98.5	98.6	98.3	98.5	98.7	98.5	97.9	97.8	97.8	96.8	95.9	95.9	94.1	92.5	91.7	91.4	90.7	93.0	91.3	93.3	94.0	98.2	99.1	95.8	99.1
2-Oct	99.0	98.8	97.4	96.9	98.4	99.5	99.3	97.9	96.1	94.4	89.1	85.4	74.5	74.7	73.0	72.8	76.2	82.1	93.7	97.7	98.4	96.9	97.8	97.8	91.2	99.5
3-Oct	98.8	99.5	99.8	99.7	98.4	97.6	98.2	97.4	90.3	76.0	61.4	52.5	41.1	40.6	45.7	48.1	64.8	72.5	71.4	77.1	82.5	89.9	91.2	94.3	78.7	99.8
4-Oct	91.7	91.6	92.3	90.1	91.9	93.5	93.0	91.9	88.2	85.2	81.8	78.6	75.4	89.6	91.9	91.1	90.9	91.0	93.8	94.5	95.4	96.3	95.4	94.2	90.4	96.3
5-Oct	93.2	93.6	96.5	97.6	97.2	97.2	96.7	94.5	94.4	93.3	88.2	78.2	64.7	54.5	49.8	48.3	50.3	62.0	63.3	74.1	91.1	94.8	96.2	97.1	82.0	97.6
6-Oct	97.3	96.8	93.4	91.8	86.5	83.4	82.9	69.8	66.8	56.6	50.4	42.9	38.9	35.5	32.9	31.8	32.1	48.8	49.6	46.2	48.5	50.7	54.0	56.0	60.2	97.3
7-Oct	58.7	60.4	63.7	67.2	70.6	74.4	77.7	76.7	69.8	66.9	65.5	59.1	53.2	48.4	45.2	42.7	46.5	51.1	54.6	55.1	57.6	60.3	66.4	67.8	60.8	77.7
8-Oct	69.8	74.2	80.1	78.1	75.2	80.0	85.9	86.8	82.2	76.0	64.3	54.3	44.9	45.0	47.1	46.2	47.9	51.1	55.0	65.2	66.2	64.8	71.1	73.6	66.0	86.8
9-Oct	80.2	82.8	82.9	87.7	89.6	92.6	93.6	90.6	82.5	76.1	66.0	56.2	49.8	44.5	42.4	43.0	45.2	53.2	59.4	62.5	62.3	62.9	65.5	62.1	68.1	93.6
10-Oct	65.0	69.0	75.7	82.4	84.4	86.9	91.4	87.9	74.1	62.6	50.1	39.5	33.9	30.1	25.9	28.6	37.1	44.4	49.5	52.5	50.7	51.4	51.4	55.1	57.5	91.4
11-Oct	58.1	59.5	61.1	61.6	66.5	68.4	70.2	70.8	72.8	71.6	65.3	78.9	93.5	94.1	93.7	93.1	91.5	92.4	92.2	89.4	88.6	88.6	87.5	87.0	79.0	94.1
12-Oct	88.6	90.9	94.8	93.4	90.6	87.4	87.0	84.4	83.9	78.9	78.6	77.0	78.1	79.0	74.4	72.7	76.8	80.0	81.1	85.5	88.2	85.7	84.5	84.2	83.6	94.8
13-Oct	84.2	82.2	79.3	80.0	81.4	82.0	82.5	85.6	84.7	75.7	66.0	63.2	61.1	55.9	51.6	49.1	51.5	58.2	63.0	66.6	66.1	67.3	67.8	68.7	69.7	85.6
14-Oct	69.1	71.2	72.7	72.4	75.2	75.6	76.3	76.4	73.6	65.8	57.8	50.8	43.2	38.1	34.3	33.4	38.2	45.5	53.5	57.8	59.4	62.3	67.6	71.5	60.1	76.4
15-Oct	72.9	77.0	80.9	83.0	84.8	85.3	86.7	84.6	73.2	61.7	51.3	50.1	47.7	40.6	40.0	44.4	48.0	56.8	61.8	66.1	68.7	69.1	68.5	69.4	65.5	86.7
16-Oct	71.2	73.5	75.3	76.6	78.4	80.7	82.7	90.6	80.2	66.4	50.7	39.5	39.1	39.6	37.7	36.6	34.9	36.3	39.1	40.5	41.6	46.9	76.5	84.9	59.1	90.6
17-Oct	87.7	82.9	74.5	74.6	78.0	74.3	78.2	91.8	94.0	94.9	93.9	86.4	77.0	68.9	60.5	55.9	57.0	58.0	60.5	61.0	62.2	57.5	58.5	61.3	72.9	94.9
18-Oct	66.1	66.9	68.5	73.7	77.3	78.3	83.4	84.2	74.4	62.2	54.7	48.6	44.2	39.4	37.7	38.8	41.2	44.8	56.4	62.7	63.2	67.9	69.2	72.6	61.5	84.2
19-Oct	78.8	77.1	72.3	71.8	69.5	68.7	69.7	71.4	69.5	67.6	65.5	63.6	63.1	62.6	64.1	69.1	86.5	92.2	94.5	96.0	97.2	97.3	97.7	97.7	77.6	97.7
20-Oct	98.4	98.5	98.5	98.5	98.6	99.0	99.4	99.7	99.2	98.4	96.4	94.7	92.9	91.9	90.3	88.2	88.7	88.5	88.8	92.1	95.8	96.7	94.1	92.0	95.0	99.7
21-Oct	89.9	86.2	91.2	91.4	90.7	90.8	93.3	96.6	89.8	79.9	74.2	67.0	63.9	58.4	56.8	60.4	62.9	65.3	68.2	71.8	73.7	77.4	83.5	83.8	77.8	96.6
22-Oct	84.3	88.5	94.9	97.4	98.8	98.6	98.3	99.3	95.3	78.9	64.7	57.2	50.2	44.9	42.5	40.7	46.2	48.1	49.2	54.0	59.7	62.8	64.3	66.1	70.2	99.3
23-Oct	66.5	67.0	67.8	67.5	70.6	69.1	69.1	69.9	72.2	60.7	53.2	46.3	44.0	41.4	41.1	42.9	48.8	55.6	60.4	63.2	68.7	70.8	73.1	71.3	60.9	73.1
24-Oct	70.5	70.7	73.1	74.1	75.0	76.2	78.8	81.0	76.7	70.4	65.5	59.1	57.4	54.8	54.8	54.1	58.3	66.5	67.9	68.6	71.3	75.1	78.2	74.7	68.9	81.0
25-Oct	73.5	75.5	77.8	80.8	84.5	87.4	87.2	81.2	88.0	94.8	94.5	90.1	85.7	92.3	73.8	63.6	59.6	63.6	72.4	76.0	76.7	79.9	77.8	89.0	80.2	94.8
26-Oct	93.9	88.4	90.8	82.7	73.2	74.8	76.5	75.6	77.3	75.4	73.0	72.7	83.3	87.2	92.1	93.9	94.2	95.3	96.1	97.7	98.4	98.1	98.0	98.1	86.9	98.4
27-Oct	97.6	97.0	97.9	97.8	98.1	98.4	98.8	98.3	97.9	97.4	97.1	97.3	97.8	97.8	97.4	97.4	96.7	95.9	95.8	94.8	94.2	95.0	94.8	97.5	97.0	98.8
28-Oct	97.1	95.8	94.6	93.9	94.7	94.7	93.9	92.7	93.6	90.4	90.5	87.2	91.3	90.9	89.8	89.6	93.0	93.7	94.5	92.4	93.2	94.2	97.6	99.6	93.3	99.6
29-Oct	99.7	99.3	99.3	99.3	96.9	95.8	93.7	90.2	91.6	93.1	93.4	97.5	97.5	97.6	96.7	96.7	96.9	97.4	97.2	97.2	97.2	97.3	96.9	96.8	96.5	99.7
30-Oct	97.2	97.1	97.0	97.9	98.9	99.5	99.6	99.7	97.5	92.2	90.6	88.4	88.0	91.0	91.2	91.7	91.2	91.1	93.3	93.9	95.4	95.6	95.3	96.3	94.6	99.7
31-Oct	96.6	97.3	96.6	96.9	96.8	97.0	97.4	97.7	97.0	91.8	89.9	88.8	87.8	87.4	89.8	90.4	91.9	89.8	88.8	88.5	85.1	84.3	85.0	87.4	91.7	97.7
	83.6	84.1	85.1	85.7	86.1	86.6	87.7	87.5	84.7	79.1	73.6	69.3	66.4	64.9	63.1	62.8	65.7	69.7	72.8	75.2	77.1	78.4	80.8	82.2	Diurnal Average	
	99.7	99.5	99.8	99.7	98.9	99.5	99.6	99.7	99.2	98.4	97.1	97.5	97.8	97.8	97.4	97.4	96.9	97.4	97.2	97.7	98.4	98.1	98.2	99.6	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Leismer - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	27	3.63	3.63
40 - 60	117	15.73	19.35
60 - 80	225	30.24	49.60
80 - 100	375	50.40	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Leismer - October 2025

Maximum Speed: 29 km/h on Oct 11 11:00

Maximum Daily Speed Average: 19.1 km/h on Oct 12

Minimum Speed Value: 0 km/h on Oct 18 19:00

Minimum Daily Speed Average: 2.4 km/h on Oct 2

Maximum Diurnal Speed Average: 6.8 km/h at hour 13

Minimum Diurnal Speed Average: 1.2 km/h at hour 24

Monthly Average Velocity: 3.6 km/h 276.0 deg

Percentiles: P_1 = 2 P_{10} = 4 Q_1 = 6 Median = 9 Q_3 = 14 P_{90} = 20 P_{99} = 26

Hours in Service:	744
Hours of Data:	718
Hours of Missing Data:	26
Percent Operational Time:	96.5

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NNE8	NNE10	NNE7	N8	NW10	NNW10	NW12	NNW14	NNW15	NNW15	NNW19	NNW18	NNW18	NNW18	N15	NNW17	NNW15	N8	NNW6	NW9	NW7	NNW7	NNW4	N6	NNW11.0	NNW19
2-Oct	NW4	NNW5	NNW7	NNW4	SSE2	SE3	SSE3	SE3	SSE4	SE5	SSE6	SSE9	SSE9	SSE7	SW6	WSW6	W4	SW2	ESE2	ESE3	SE5	SSE6	SSE5	S4	SSE2.4	SSE9
3-Oct	S4	S4	S4	S5	S5	SSW6	SSW5	SSW5	SSW6	SSW6	SW7	SW9	WSW13	W14	W14	WSW12	WSW6	SSW5	W10	WSW6	W7	W15	W8	W4	WSW6.3	W15
4-Oct	W5	W6	W10	W12	W11	WNW12	WNW16	WNW15	WNW18	WNW16	NW17	NW15	WNW14	NW14	NNW16	NW19	NW22	WNW26	NW25	NW25	NW25	NW22	NW21	NW19	NW16.1	WNW26
5-Oct	NW17	NW16	WNW7	UO	UO	UO	UO	UO	UO	SSW4	SSW5	SW7	WSW10	WSW12	W14	WNW18	WNW20	WNW19	NNW16	NW17	W10	W8	W4	W6	WNW9.9	WNW20
6-Oct	W7	WNW9	NNW12	N14	N12	NNW12	NNW11	N14	N13	N9	N6	NNW3	WNW3	W2	SSW5	SW5	SSW5	SE4	SE6	SE8	SE7	SE7	SE7	SSE7	NNW2.5	N14
7-Oct	SSE7	S8	S7	S7	S6	S6	S5	S7	SSW8	SSW9	SSW10	SSW10	SSW10	SSW12	SSW15	SSW14	S10	SSE10	SSE11	SSE11	SE7	ESE6	E4	N5	S7.4	SSW15
8-Oct	NNW11	NW18	NW20	NW25	NW22	NW23	WNW21	WNW22	WNW26	WNW25	WNW23	WNW22	WNW24	WNW22	WNW20	WNW18	W12	W7	W6	SW3	SW3	W9	WNW10	WNW13	WNW16.3	WNW26
9-Oct	W10	WNW13	WNW14	W9	W8	WSW5	WSW4	W6	W11	W15	W15	W13	W12	WSW11	WSW10	SW10	SW8	SSW7	SSW6	S4	S3	SSW3	S4	SSW5	WSW7.4	W15
10-Oct	SSW4	SSW5	S1	S3	S2	S4	SSE4	SSE5	S6	S8	S10	S12	SSW14	S13	S14	S14	S12	SSE9	SSE9	SSE10	SE9	SSE11	SSE10	SSE7	S7.8	S14
11-Oct	SSE6	SSE8	SSE8	S7	SSW3	S3	S4	WNW5	NW22	N19	NNW29	NW24	NW19	NW21	NW25	NW28	NW28	NW24	NW23	NW23	NW22	NW20	NNW22	NNW22	NW14.0	NNW29
12-Oct	NNW24	NNW23	NNW18	NNW22	NNW24	NNW26	NNW26	NNW26	N22	NNW24	N20	N21	NNW20	NNW21	NNW19	NNW19	N18	NNW14	NNW11	NNW12	NNW14	NNW13	NNW12	NNW11	NNW19.1	NNW26
13-Oct	NW11	NNW11	NW10	NNW8	NW7	NNW10	NW6	S2	SSW3	WSW5	SW7	SW8	SW9	SW9	SSW11	SSW12	SSW12	SSW11	S7	S8	S10	SSW8	SSW9	SSW9	SW4.8	SSW12
14-Oct	SSW11	SSW11	SSW9	SSW12	SSW11	SSW13	SSW10	SSW12	SSW14	SSW14	SSW15	SSW17	SSW16	SSW16	SW12	SW12	SSW12	SSW8	SSW7	SSW7	SSW6	SSW5	SSW5	SSW4	SSW10.7	SSW17
15-Oct	S5	SSW4	SSW5	SSW6	SSW7	SSW6	SSW5	SSW6	SSW9	SSW11	SSW12	SSW13	SSW10	SW10	SW11	WSW7	WSW7	SW3	W3	W5	W5	WNW5	W5	WSW4	SW6.2	SSW13
16-Oct	W5	W6	WNW5	WNW7	WNW5	WNW5	WNW3	S3	SSW4	S5	SSW8	SSW11	SSW14	SSW13	SSW15	SSW13	S10	S8	SSW6	SSW8	S8	SSW5	SSW3	SSE4	SSW6.0	SSW15
17-Oct	SSW5	WSW4	W9	WSW5	SW4	WSW5	W14	W16	WNW23	WNW22	WNW21	WNW21	WNW25	WNW24	WNW26	WNW26	WNW21	WNW19	WNW15	WNW18	WNW19	WNW23	WNW18	WNW14	WNW16.1	WNW26
18-Oct	WNW13	WNW15	WNW13	W6	W7	W7	WSW5	WSW4	WNW12	WNW17	WNW15	W13	W15	W17	W16	WNW13	W7	W5	SE0	SE3	SE3	SE4	SE4	E3	W7.6	W17
19-Oct	ESE4	ESE6	ESE7	ESE7	ESE9	ESE11	E12	E12	E12	E12	E9	E11	E11	E9	E6	E7	E6	ENE6	ENE7	E7	ENE6	ENE7	E7	NE6	E8.0	E12
20-Oct	NE6	NNE6	N7	N9	N12	NNW12	NNW13	NNW12	WNW10	WNW11	WNW12	WNW9	W9	W10	SW6	SW7	SW6	SSW7	SSW9	S7	S8	S8	S9	S8	WNW3.7	NNW13
21-Oct	S10	SSW9	SSW9	SSW9	SSW9	SSW7	SSW5	S4	WSW5	W13	W17	W17	WNW22	W18	W16	W16	W13	W10	W7	W7	W6	N5	UO	E5	WSW7.9	WNW22
22-Oct	ESE8	ESE5	ESE3	SE3	SSE1	ESE2	SSE2	ESE1	S3	S5	S6	SSE9	S11	S11	S12	SSE16	SE9	SE10	SE12	SE12	SE12	SE12	SE12	ESE10	SE7.4	SSE16
23-Oct	ESE10	SE10	ESE10	SE7	SE5	SE8	SSE7	SSE5	S4	SSW6	SSW5	S3	SSE6	S5	SSE8	SSE10	SSE8	SE9	SSE9	SSE9	SSE9	SE7	SE8	SSE10	SSE7.1	ESE10
24-Oct	SSE10	SSE9	SE7	SSE10	SSE8	SE7	SSE6	S4	S6	SSW6	S6	SSW4	SSE7	SE7	SE8	SSE9	SE6	SE7	SE8	SE7	SE7	E6	ENE7	E10	SE6.2	SSE10
25-Oct	E10	ENE8	E4	ESE5	NNW3	W2	W7	W11	W20	W18	W21	WNW27	WNW25	W19	W23	W17	W13	W7	SW4	SW1	W3	SSW2	N4	E2	W8.0	WNW27
26-Oct	SE4	SE6	NE4	E7	E9	E10	E11	ENE9	E12	E13	E13	E13	ENE11	ENE12	ENE9	ENE9	NE9	ENE10	NE11	NNE10	N12	N15	N15	NNW16	ENE7.9	NNW16
27-Oct	NNW18	NNW19	NNW17	NW18	NW19	NW20	NW21	NW20	NW21	NW21	WNW23	WNW23	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	WNW23
28-Oct	UO	UO	UO	UO	UO	UO	UO	WNW24	WNW23	WNW26	WNW25	WNW26	WNW21	WNW20	WNW17	WNW17	W13	W8	WSW5	W8	WSW5	WSW1	SSE4	ESE4	----	WNW26
29-Oct	ESE7	ESE11	ESE12	ESE12	ESE12	E12	E12	E14	E15	ESE11	E5	NNE5	NE4	N5	NNW8	NNW9	NNW7	NNW8	NNW9	NNW10	NW10	NW10	NW11	NW12	NE4.3	E15
30-Oct	NW10	NW8	NW8	NW9	NW9	NW8	NNW7	NNW6	NNW5	NNW5	WNW5	W4	WSW3	SW4	SSW5	WSW5	SW6	SW5	SSW3	SSE2	SSW2	SSW4	S5	S5	WNW3.2	NW10
31-Oct	S5	SSW5	SSW6	S6	S5	S5	S5	SE6	SE7	SE7	SE10	SSE14	SSE15	SSE15	SSE17	SSE17	SSE14	SSE16	SSE19	SSE18	SSE19	SSE18	S12	S10	SSE11.1	SSE19
	WNW1.5	WNW2.2	WNW2.5	WNW2.2	WNW2.3	WNW2.3	WNW3.1	WNW3.8	WNW5.5	WNW5.7	W6.5	W6.6	W6.8	W6.5	W6.8	W6.6	W4.9	WSW3.2	WSW2.2	WSW2.0	WSW2.0	W1.9	W1.6	WNW1.2	Diurnal Average	
	NNW24	NNW23	NW20	NW25	NNW24	NNW26	NNW26	NNW26	WNW26	WNW26	NNW29	WNW27	WNW25	WNW24	WNW26	NW28	NW28	WNW26	NW25	NW25	NW25	WNW23	NNW22	NNW22	Diurnal Maximum	

UO - Unstable Operation

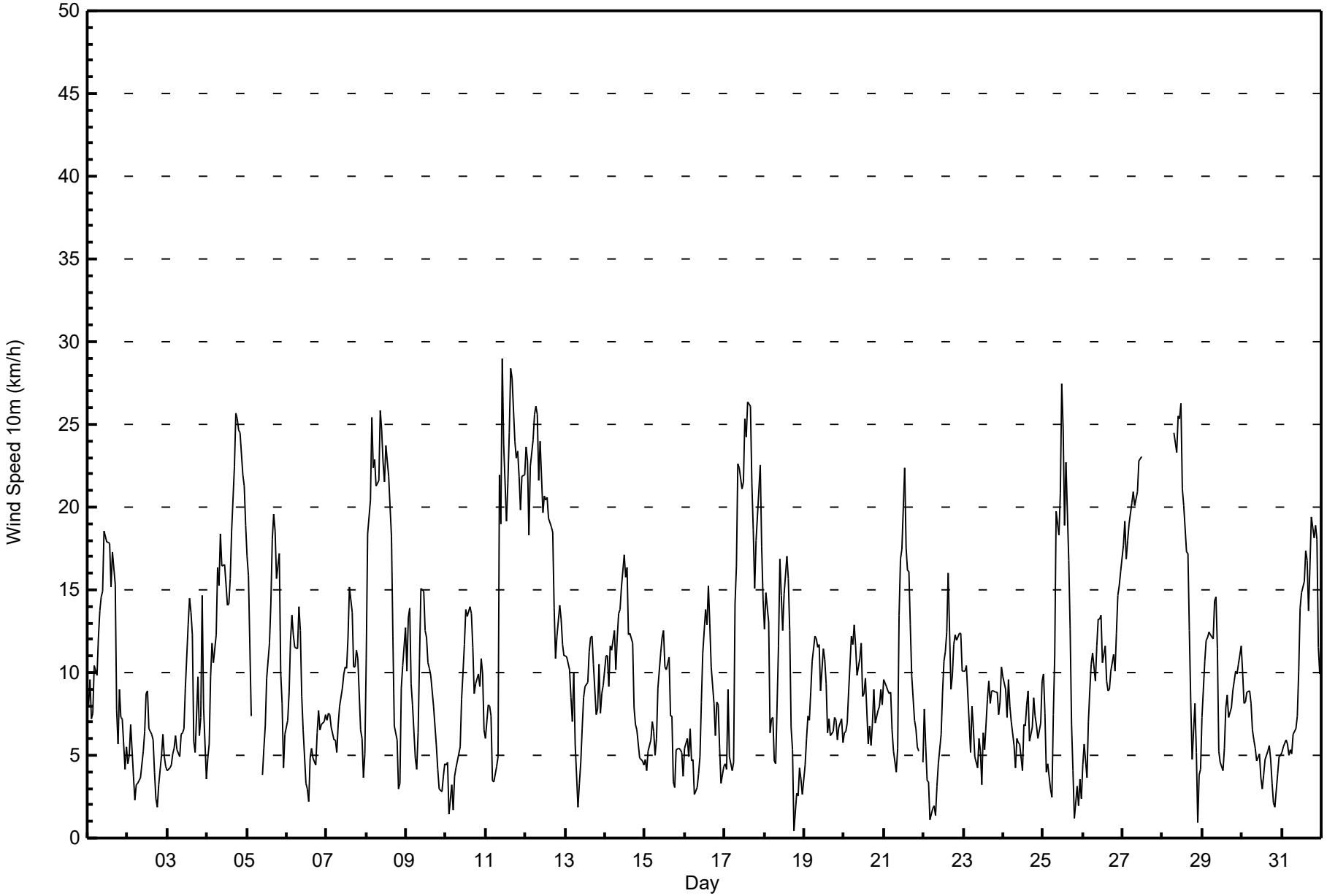
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Leismer - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	167	23.26	23.26
6 - 11	297	41.36	64.62
12 - 19	176	24.51	89.14
20 - 28	77	10.72	99.86
29 - 38	1	0.14	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 718

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Leismer - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	3	1	2	0	6	9	13	12	32	33	10	15	14	8	1	8	167
6 - 11	7	5	4	11	16	13	29	36	30	45	15	9	33	9	14	21	297
12 - 19	11	0	0	1	12	3	5	12	7	22	2	3	28	28	14	28	176
20 - 28	3	0	0	0	0	0	0	0	0	0	0	0	2	34	26	12	77
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	24	6	6	12	34	25	47	60	69	100	27	27	77	79	55	70	718

Total Number of Valid Hours: 718

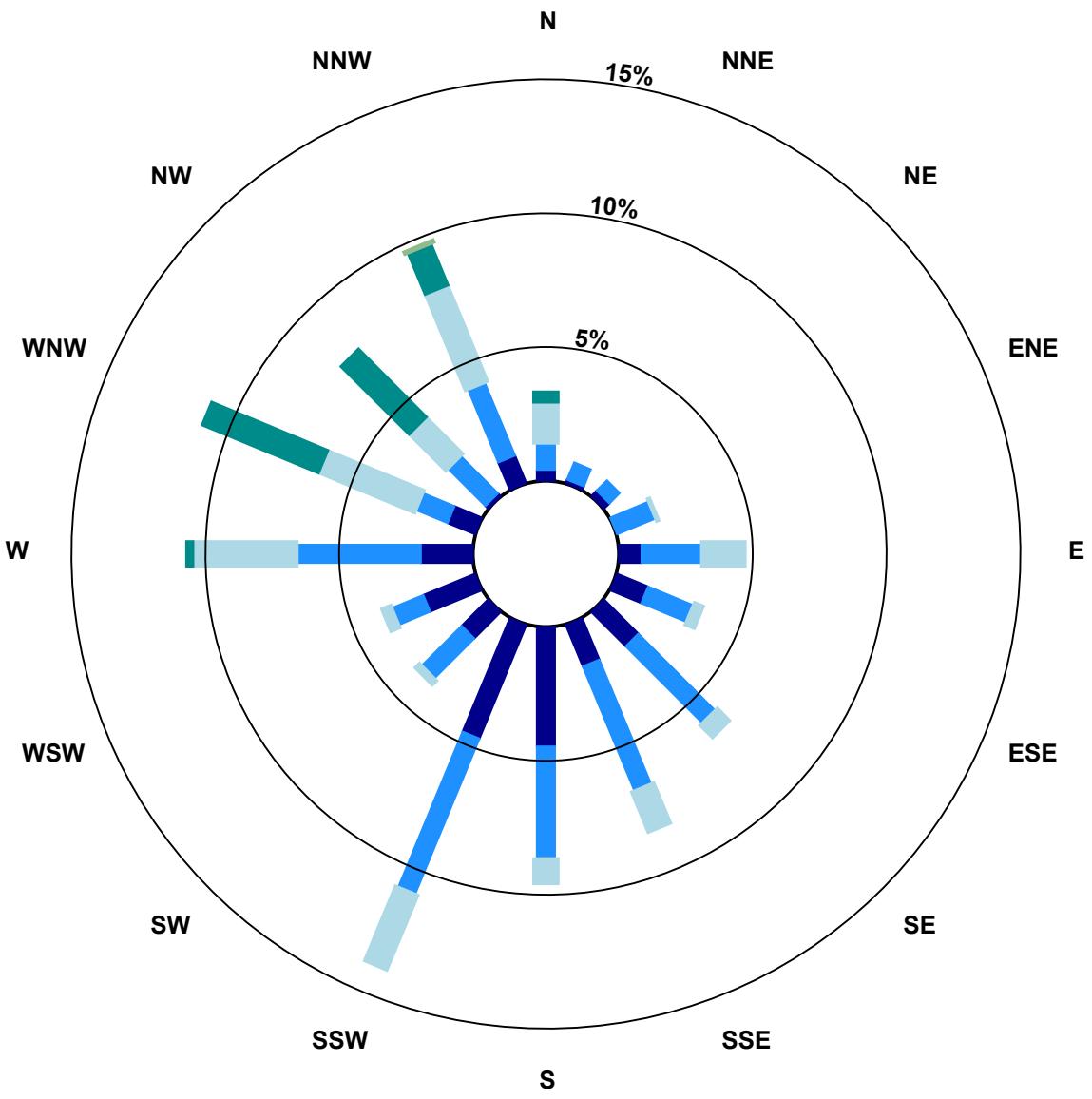
Total Number of Hours: 744

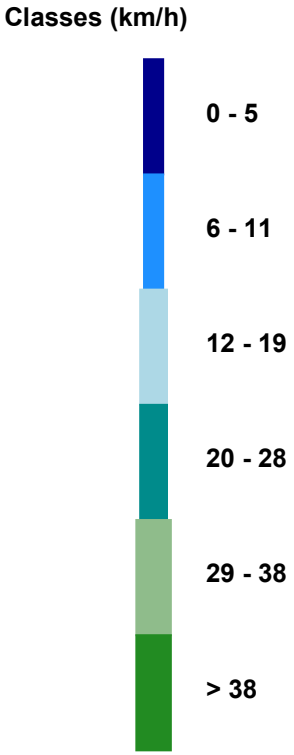
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Leismer





Total Number of Valid Hours: 718

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Leismer - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 8 km/h on Oct 3 21:00

Minimum Value: 1 km/h on Oct 9 20:00

Percentiles: P_1 = 1 P_{10} = 1 Q_1 = 2 Median = 2 Q_3 = 4 P_{90} = 5 P_{99} = 6

Hours in Service:	744
Hours of Data:	718
Hours of Missing Data:	26
Hours of Calibration:	0
Percent Operational Time:	96.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	1	2	2	1	2	2	2	2	3	2	4	3	3	4	3	3	4	2	2	1	2	2	2	1	4
2-Oct	2	2	1	2	1	1	1	1	1	1	2	2	3	2	3	3	2	2	2	1	1	1	1	1	3
3-Oct	1	1	1	1	1	2	2	2	2	3	3	4	6	6	6	7	4	1	6	3	8	6	4	3	8
4-Oct	3	2	2	3	2	3	3	3	4	4	4	4	3	6	3	6	4	5	5	4	4	4	4	3	6
5-Oct	3	3	2	UO	UO	UO	UO	UO	UO	2	2	3	4	5	6	4	5	6	3	4	3	2	2	2	6
6-Oct	1	3	2	3	3	3	3	3	3	3	3	2	2	2	3	2	2	1	1	1	1	1	1	1	3
7-Oct	1	2	2	1	1	1	1	1	3	3	3	3	3	5	4	4	3	2	2	2	2	1	2	2	5
8-Oct	7	3	4	5	5	5	4	5	5	5	5	5	6	5	5	5	4	2	2	1	2	2	1	3	7
9-Oct	1	2	3	1	2	1	1	2	3	4	4	4	4	4	4	4	3	2	1	1	1	1	1	1	4
10-Oct	1	1	1	1	2	1	1	1	2	2	3	3	4	4	4	4	3	1	1	1	2	2	2	1	4
11-Oct	3	1	2	2	2	1	2	6	5	6	6	5	5	5	6	5	5	6	4	4	4	4	4	5	6
12-Oct	4	6	4	5	5	5	5	6	5	6	4	5	4	4	4	4	5	3	2	3	3	3	2	2	6
13-Oct	2	2	2	2	2	2	2	1	1	2	3	3	3	4	4	4	4	3	2	2	3	2	2	2	4
14-Oct	3	3	3	4	3	4	4	4	5	5	5	5	5	5	5	5	3	2	2	1	1	1	1	1	5
15-Oct	1	1	1	1	2	2	1	2	3	4	4	4	3	4	4	3	3	1	1	1	1	1	2	1	4
16-Oct	2	4	1	2	1	2	2	1	1	2	3	4	5	4	4	4	3	3	2	2	2	3	2	1	5
17-Oct	1	2	3	2	1	2	6	5	5	4	4	5	5	6	5	6	7	4	2	3	3	4	3	4	7
18-Oct	2	3	3	2	1	1	1	1	5	3	4	4	5	6	5	3	3	1	2	1	1	1	2	1	6
19-Oct	2	1	2	1	2	3	2	2	2	3	2	3	3	3	2	2	2	2	2	2	2	2	2	2	3
20-Oct	2	2	1	2	2	2	2	2	2	2	2	3	3	3	2	2	2	2	2	2	2	2	2	2	3
21-Oct	3	3	3	2	2	2	1	1	3	5	5	6	4	5	5	4	3	2	3	2	1	2	UO	2	6
22-Oct	2	2	2	2	2	1	2	2	1	1	2	3	3	3	4	4	2	2	2	2	3	3	4	3	4
23-Oct	2	2	2	3	1	1	1	1	1	2	2	2	2	3	3	3	2	1	1	1	1	1	2	2	3
24-Oct	2	2	2	1	1	1	1	1	1	1	2	1	2	2	2	2	1	1	1	2	1	2	2	2	2
25-Oct	2	2	2	3	3	3	3	5	6	5	5	6	6	6	6	5	4	3	2	2	2	1	2	2	6
26-Oct	1	1	1	2	2	2	3	3	3	4	4	4	4	3	3	3	3	4	3	2	2	3	3	3	4
27-Oct	3	4	3	3	4	4	4	4	4	4	5	5	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	5
28-Oct	UO	UO	UO	UO	UO	UO	UO	5	5	5	5	5	5	4	3	4	3	4	2	3	2	2	2	1	5
29-Oct	2	2	2	3	3	3	3	3	3	3	3	2	2	1	1	2	2	2	2	2	1	2	2	2	3
30-Oct	2	1	1	2	1	2	1	1	1	2	2	1	2	2	2	3	2	2	1	2	1	1	1	1	3
31-Oct	1	2	2	1	1	1	1	1	1	1	2	3	3	3	4	4	3	3	4	4	4	4	3	3	4
	7	6	4	5	5	5	6	6	6	6	6	6	6	6	6	7	7	6	6	4	8	6	4	5	
	Diurnal Maximum																								

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Leismer - October 2025

Direction of Maximum Speed: 337 deg on Oct 11 11:00
Direction of Maximum Daily Speed Average: 342.3 deg on Oct 12

Direction of Minimum Speed: 144 deg on Oct 18 19:00

Direction of Minimum Daily Speed Average: 2.4 deg on Oct 2

Monthly Average Direction: 276.0 deg

Hours in Service:	744
Hours of Data:	718
Hours of Missing Data:	26
Percent Operational Time:	96.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	15	21	22	351	324	334	322	327	339	337	345	344	344	348	350	340	343	350	333	312	306	330	341	351	341.7
2-Oct	319	335	344	344	151	136	157	141	149	142	156	149	154	156	227	243	260	234	112	108	139	148	162	178	164.8
3-Oct	173	173	171	179	181	197	205	210	202	208	225	225	254	261	265	257	250	205	265	256	267	280	278	266	239.6
4-Oct	270	272	281	278	277	285	290	288	289	301	304	304	295	313	327	321	316	299	312	318	320	320	318	318	305.2
5-Oct	318	319	286	UO	UO	UO	UO	UO	UO	200	210	221	237	254	276	284	299	301	328	326	280	278	263	273	289.6
6-Oct	277	294	334	355	3	347	348	357	350	354	356	335	285	263	203	222	206	141	140	143	142	140	145	153	344.1
7-Oct	156	172	176	173	171	179	186	191	200	202	193	201	204	198	195	196	181	163	159	149	125	113	86	351	179.1
8-Oct	327	314	309	310	320	304	293	295	298	294	299	292	291	296	288	285	274	266	265	214	222	279	285	285	295.9
9-Oct	277	286	288	277	274	238	240	262	273	276	277	276	269	245	246	236	226	206	200	188	190	195	184	196	257.7
10-Oct	193	200	185	177	188	176	149	157	183	183	187	188	192	183	188	180	176	162	150	155	145	155	164	150	173.6
11-Oct	163	161	167	178	203	191	184	297	322	351	337	320	307	316	312	312	316	313	316	317	318	318	327	334	316.9
12-Oct	333	338	345	341	344	344	338	342	349	348	351	350	343	338	340	338	351	348	339	335	341	343	339	331	342.3
13-Oct	326	327	317	329	309	332	322	170	209	242	224	222	218	217	199	199	194	196	191	181	181	195	193	198	228.5
14-Oct	197	198	199	202	202	195	210	205	208	209	211	207	209	209	219	215	212	209	205	205	206	207	196	192	206.2
15-Oct	190	200	199	198	197	200	204	194	207	205	204	210	209	222	226	247	244	227	276	279	277	285	268	244	220.3
16-Oct	266	281	290	294	284	289	287	190	196	190	206	208	203	200	202	198	182	185	194	194	179	195	209	162	209.6
17-Oct	209	252	266	253	214	243	273	279	298	289	287	284	291	291	292	291	299	287	285	288	289	291	298	286	286.4
18-Oct	282	289	286	260	281	268	250	246	282	286	283	275	274	276	276	284	276	271	144	133	144	136	136	89	275.5
19-Oct	113	117	109	121	112	105	98	90	94	88	93	97	96	90	84	93	79	62	65	80	63	78	80	54	91.2
20-Oct	40	24	359	350	356	339	331	327	303	291	284	287	271	271	221	220	222	204	201	184	176	179	177	183	281.5
21-Oct	185	193	195	204	203	204	207	189	243	273	278	276	291	274	275	276	276	277	272	270	275	3	UO	101	258.7
22-Oct	113	123	115	125	160	105	152	121	177	186	178	158	170	172	169	158	143	137	143	143	131	130	130	122	145.8
23-Oct	120	127	119	126	131	145	162	161	180	193	204	178	159	180	159	165	160	146	153	148	152	141	145	150	150.5
24-Oct	156	147	140	154	160	146	162	169	173	200	189	200	159	137	145	147	135	135	139	139	126	96	70	85	144.5
25-Oct	94	72	101	108	330	280	274	272	277	277	281	287	285	274	279	277	270	269	233	224	269	204	349	96	279.5
26-Oct	137	125	51	81	87	94	87	71	93	89	89	92	75	67	64	63	50	57	34	12	355	354	349	342	57.2
27-Oct	341	340	328	319	316	317	315	311	309	309	303	303	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
28-Oct	UO	UO	UO	UO	UO	UO	UO	298	296	298	294	295	289	290	283	283	280	274	248	260	252	245	168	112	--
29-Oct	118	116	111	103	106	100	90	91	98	103	97	24	39	6	344	344	333	330	333	330	326	322	320	321	50.4
30-Oct	323	326	323	324	326	322	336	338	329	332	283	276	242	220	213	254	233	215	202	168	202	196	190	178	290.3
31-Oct	178	198	193	183	179	169	170	146	140	143	146	158	164	157	150	150	147	148	154	157	163	166	177	172	159.6
	291.8	300.5	299.0	295.7	301.2	297.2	293.2	296.5	291.0	286.0	281.1	273.3	264.1	264.1	261.0	263.5	269.8	256.1	251.3	254.7	255.5	273.0	276.5	285.7	
	Diurnal Average																								

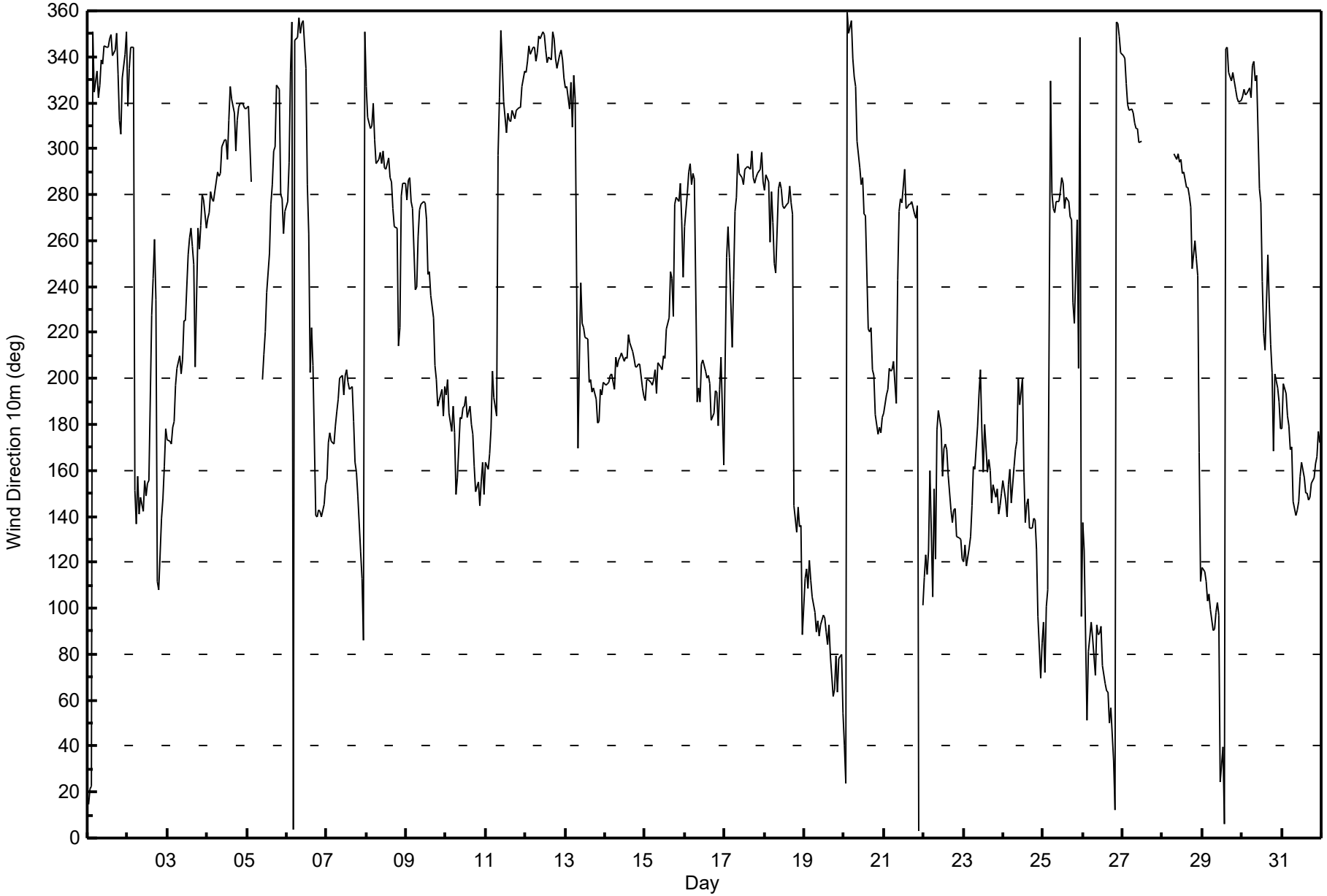
UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Leismer - October 2025



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Leismer - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 98 deg on Oct 6 14:00

Minimum Value: 8 deg on Oct 16 04:00

Percentiles: P_1 = 9 P_{10} = 11 Q_1 = 13 Median = 17 Q_3 = 24 P_{90} = 34 P_{99} = 68

Hours in Service:	744
Hours of Data:	718
Hours of Missing Data:	26
Hours of Calibration:	0
Percent Operational Time:	96.5

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	16	14	18	20	13	19	11	11	12	11	13	12	13	14	16	12	14	16	20	13	26	12	31	16	31
2-Oct	24	26	10	23	64	46	24	19	28	22	20	19	26	21	45	43	31	55	27	14	12	10	11	14	64
3-Oct	14	9	11	12	14	20	25	30	28	38	47	41	40	35	31	40	38	21	38	35	41	17	25	42	47
4-Oct	42	32	13	14	16	12	10	11	11	19	19	19	19	18	11	12	13	13	13	11	11	11	10	10	42
5-Oct	10	11	20	UO	UO	UO	UO	UO	UO	25	33	37	42	36	23	17	16	18	11	16	15	16	22	19	42
6-Oct	13	26	11	16	17	15	18	16	15	27	41	69	80	98	59	50	27	14	10	11	12	11	10	10	98
7-Oct	11	14	16	13	12	11	12	15	22	24	21	25	28	28	22	23	18	13	11	12	19	13	27	35	35
8-Oct	25	12	13	12	11	13	12	12	13	12	16	15	15	18	17	18	19	22	29	37	41	13	8	9	41
9-Oct	11	9	11	11	16	22	22	23	18	16	16	22	28	37	36	37	32	16	10	11	17	12	11	17	37
10-Oct	17	17	53	21	51	24	14	15	20	20	22	23	23	22	21	20	20	10	9	8	13	11	13	12	53
11-Oct	27	10	16	17	29	41	22	71	13	20	17	14	19	11	13	13	11	13	11	10	10	11	12	13	71
12-Oct	12	12	14	13	14	13	11	13	15	16	17	16	17	12	13	14	15	15	11	15	13	12	11	11	17
13-Oct	12	12	14	14	19	11	32	53	21	38	43	36	33	35	30	25	22	17	15	13	16	19	15	15	53
14-Oct	17	17	18	19	18	20	23	21	22	25	25	24	26	24	31	30	21	18	14	16	16	14	12	12	31
15-Oct	13	13	12	14	15	16	14	17	25	21	24	25	26	28	33	37	29	20	33	18	12	15	22	26	37
16-Oct	32	42	14	8	11	21	40	21	21	25	29	27	24	24	20	22	16	18	19	17	15	31	51	17	51
17-Oct	29	37	26	34	29	34	21	15	14	11	11	13	13	11	12	11	16	10	9	8	8	10	13	13	37
18-Oct	12	9	8	17	12	14	25	28	23	12	16	23	24	23	19	16	19	16	81	45	26	12	15	19	81
19-Oct	22	11	12	14	14	13	14	15	16	19	22	16	18	20	26	22	27	23	22	24	25	24	24	26	27
20-Oct	19	20	14	11	16	14	12	12	26	18	11	22	22	22	35	31	29	22	17	16	15	16	16	18	35
21-Oct	19	24	18	18	16	17	19	15	42	20	17	20	12	20	21	17	16	14	21	17	25	26	UO	26	42
22-Oct	14	19	21	40	78	14	41	63	36	24	24	23	21	24	20	14	15	13	12	13	16	16	17	17	78
23-Oct	16	16	16	21	24	10	11	23	18	26	36	68	28	47	28	17	11	9	8	12	8	15	10	9	68
24-Oct	10	13	11	9	10	11	14	20	17	19	26	40	18	23	19	19	18	12	11	13	14	26	24	19	40
25-Oct	16	31	35	55	53	66	27	21	16	17	15	13	14	20	16	17	21	25	37	78	50	67	33	55	78
26-Oct	22	18	18	16	17	17	19	24	21	22	22	21	23	23	26	27	26	29	21	20	15	14	12	11	29
27-Oct	11	11	11	11	10	10	11	12	13	14	13	12	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	14
28-Oct	UO	UO	UO	UO	UO	UO	UO	12	10	11	11	11	10	11	12	13	14	22	32	31	32	81	26	28	81
29-Oct	17	15	14	14	15	20	20	16	16	17	32	20	18	21	12	14	15	14	14	11	11	11	10	10	32
30-Oct	10	12	10	11	11	10	13	12	16	34	24	21	33	32	27	38	37	31	24	17	19	18	23	15	38
31-Oct	15	18	19	15	14	12	14	12	13	14	13	13	13	13	13	13	14	14	12	13	14	14	17	19	19
	42	42	53	55	78	66	41	71	42	38	47	69	80	98	59	50	38	55	81	78	50	81	51	55	
	Diurnal Maximum																								

UO - Unstable Operation

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS505
SAWBONES BAY
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - SAWBONES BAY (AMS505)
OCTOBER 2025

MONTHLY SUMMARY for
AMD SECTION III.B.1(c)

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	709	35	35	100	34.1	0	8.3	0
H2S (ppb) Average	707	36	37	99.87	1.9	0	0.5	0
NO2 (ppb) Average	707	36	37	99.87	15.7	0	6.4	-
NO (ppb) Average	707	36	37	99.87	14.1	-	4	-
NOX (ppb) Average	707	36	37	99.87	27.1	-	9.8	-
Temperature 2 m (C) Average	744	0	0	100	21.3	-	10.6	-
Relative Humidity (%) Average	744	0	0	100	99.1	-	96.7	-
Wind Speed 10 m (km/h) Average	737	0	7	99.06	30	-	20	-
Wind Direction 10 m (deg) Average	737	0	7	99.06	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - SAWBONES BAY (AMS505)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	709	1.42	4.2	-	0	0	0.1	0.2	0.6	2.4	34.1
H2S (ppb) Average	707	0.21	0.3	-	0	0.1	0.1	0.1	0.2	0.6	1.9
NO2 (ppb) Average	707	3.11	2.6	-	0.1	0.7	1.2	2.4	4.1	6.6	15.7
NO (ppb) Average	707	1.17	2	-	0	0	0.1	0.4	1.4	3	14.1
NOX (ppb) Average	707	4.28	4.4	-	0.1	0.8	1.4	2.9	5.4	9.3	27.1
Temperature 2 m (C) Average	744	4.03	5	-	-4.6	-1.6	-0.4	3.3	7.5	10.7	21.3
Relative Humidity (%) Average	744	74.7	17.8	-	27.5	48.1	61.1	77.5	90.1	96.1	99.1
Wind Speed 10 m (km/h) Average	737	12	6	-	0	6	8	11	16	20	30
Wind Direction 10 m (deg) Average	737	218.4	0	-	0	-	-	-	-	-	0

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - SAWBONES BAY (AMS505)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
NOx, H2S	29 Oct 2025 11:00	29 Oct 2025 11:00	1	Maintenance - sample manifold cleaned
Wind Speed, Wind Direction	05 Oct 2025 03:00	05 Oct 2025 09:00	7	Flat line in sensor output signal

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Sawbones Bay - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 34.1 ppb on Oct 4 06:00

Maximum Daily Average: 8.3 ppb on Oct 9

Minimum Value: 0.0 ppb on Oct 1 10:00

Minimum Daily Average: 0.0 ppb on Oct 29

Maximum Diurnal Average: 2.9 ppb at hour 5

Minimum Diurnal Average: 0.5 ppb at hour 19

Monthly Average: 1.42 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.2 Q_3 = 0.6 P_{90} = 2.4 P_{99} = 22.5

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.2
2-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.0	0.0	0.0	0.1	0.2	0.6	0.6	0.4	0.4	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.2	0.6
3-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	1.3	2.0	0.9	1.1	2.6	2.7	14.5	4.8	2.5	1.0	2.1	0.3	0.6	22.1	6.4	2.9	22.1
4-Oct	21.8	Z	20.3	2.8	19.9	34.1	10.0	0.6	0.4	0.1	0.1	0.1	4.5	1.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	34.1
5-Oct	0.1	0.1	Z	0.1	0.0	7.1	16.1	12.7	0.7	0.5	0.9	1.0	1.3	0.5	16.6	10.9	0.4	0.2	0.2	0.2	0.1	10.6	1.2	1.0	3.6	16.6
6-Oct	0.3	0.3	0.1	Z	0.1	0.1	0.1	0.0	0.1	0.3	0.2	0.2	0.4	1.1	0.5	1.4	1.2	0.3	0.4	0.1	0.1	0.2	0.3	0.6	0.4	1.4
7-Oct	0.8	0.9	0.7	0.5	Z	0.4	0.4	0.5	0.4	0.6	0.7	0.6	0.9	0.7	0.3	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.3	0.4	0.5	0.9
8-Oct	1.6	2.4	0.4	0.2	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.5	0.9	1.4	0.3	3.5	8.2	26.4	1.2	0.6	10.4	31.7	3.9	31.7
9-Oct	Z	8.4	0.8	29.0	26.4	21.4	24.1	20.0	28.0	13.1	4.3	5.2	1.4	0.7	1.1	1.2	0.7	0.5	0.6	0.3	0.8	0.9	0.9	0.5	8.3	29.0
10-Oct	0.5	Z	0.4	0.5	0.6	0.6	0.4	0.4	0.4	0.7	0.6	0.6	0.4	0.3	0.1	0.1	0.1	0.2	0.2	0.2	0.5	0.6	0.4	0.5	0.4	0.7
11-Oct	0.5	0.5	Z	0.6	0.6	0.6	0.5	0.6	1.4	2.5	0.7	0.5	1.7	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.5	2.5
12-Oct	0.2	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.3	0.2	0.1	0.1	0.1	0.2	0.3
13-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.4	3.3	3.2	0.8	0.9	0.9	0.7	0.9	0.3	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.6	3.3
14-Oct	0.2	0.1	0.1	0.2	0.1	Z	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.0	0.1	0.5	0.2	0.1	0.2	0.1	0.2	0.2	0.5
15-Oct	Z	0.1	0.2	0.4	0.5	0.3	0.2	0.2	0.3	0.6	0.6	0.6	0.7	0.3	0.7	1.9	8.4	1.5	1.1	1.2	16.6	1.0	0.7	1.4	1.7	16.6
16-Oct	0.9	Z	1.1	0.5	0.6	0.4	0.4	0.3	0.2	0.8	0.6	0.9	0.9	0.3	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	11.1	0.8	11.1
17-Oct	0.5	0.5	Z	11.3	17.0	2.4	2.0	15.2	2.8	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	2.3	17.0
18-Oct	0.3	8.0	0.5	Z	0.5	0.2	0.1	0.5	0.6	0.0	0.0	0.1	1.2	0.4	0.4	0.1	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.6	8.0
19-Oct	0.2	0.1	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.3
20-Oct	0.0	0.0	0.0	0.0	0.1	Z	0.0	0.0	0.0	0.1	0.1	0.4	4.2	2.4	2.3	2.8	0.5	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.6	4.2
21-Oct	Z	0.2	0.2	0.2	0.3	0.2	0.3	0.5	0.6	12.7	2.1	0.8	2.8	7.6	3.2	1.7	9.7	1.5	0.3	15.5	0.4	0.2	0.2	0.2	2.7	15.5
22-Oct	0.2	Z	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.9	2.0	0.3	0.1	0.1	0.0	0.2	0.4	0.4	0.1	0.0	0.0	0.1	0.1	0.1	0.2	2.0
23-Oct	0.0	0.1	Z	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.3	0.4	0.3	0.2	0.2	0.2	0.1	0.3	0.4	0.3	0.5	0.4	0.4	0.3	0.2	0.5
24-Oct	0.4	0.3	0.4	Z	0.6	0.5	0.5	0.6	0.5	0.4	0.5	0.4	0.4	0.5	0.4	0.3	0.1	0.2	0.4	0.3	0.2	0.2	0.1	0.1	0.4	0.6
25-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.6	5.5	15.5	19.6	5.3	5.5	15.9	8.9	8.5	22.5	10.7	0.5	0.8	0.7	0.7	0.9	0.2	5.3	22.5
26-Oct	0.1	0.1	0.0	0.0	0.0	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1
27-Oct	Z	0.1	0.1	0.8	4.6	1.7	1.2	0.4	0.4	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.5	4.6
28-Oct	0.1	Z	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.3	1.2	1.7	1.3	1.2	0.4	0.9	0.1	0.1	0.4	0.4	1.7
29-Oct	0.1	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
30-Oct	0.0	0.0	0.1	Z	0.2	0.1	0.3	0.8	0.8	2.9	3.2	2.2	5.0	1.8	2.4	0.3	0.1	0.2	0.1	0.3	0.4	0.2	0.2	0.0	0.9	5.0
31-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.0	0.0	0.2	0.2	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.3
	1.1	0.9	1.0	1.8	2.9	2.7	1.9	1.8	1.5	1.9	1.4	0.8	1.2	1.3	1.4	1.6	1.7	0.8	0.5	1.6	0.8	0.6	1.3	1.8	Diurnal Average	
	21.8	8.4	20.3	29.0	26.4	34.1	24.1	20.0	28.0	15.5	19.6	5.3	5.5	15.9	16.6	14.5	22.5	10.7	8.2	26.4	16.6	10.6	22.1	31.7	Diurnal Maximum	

Z - zerospan C - Calibration

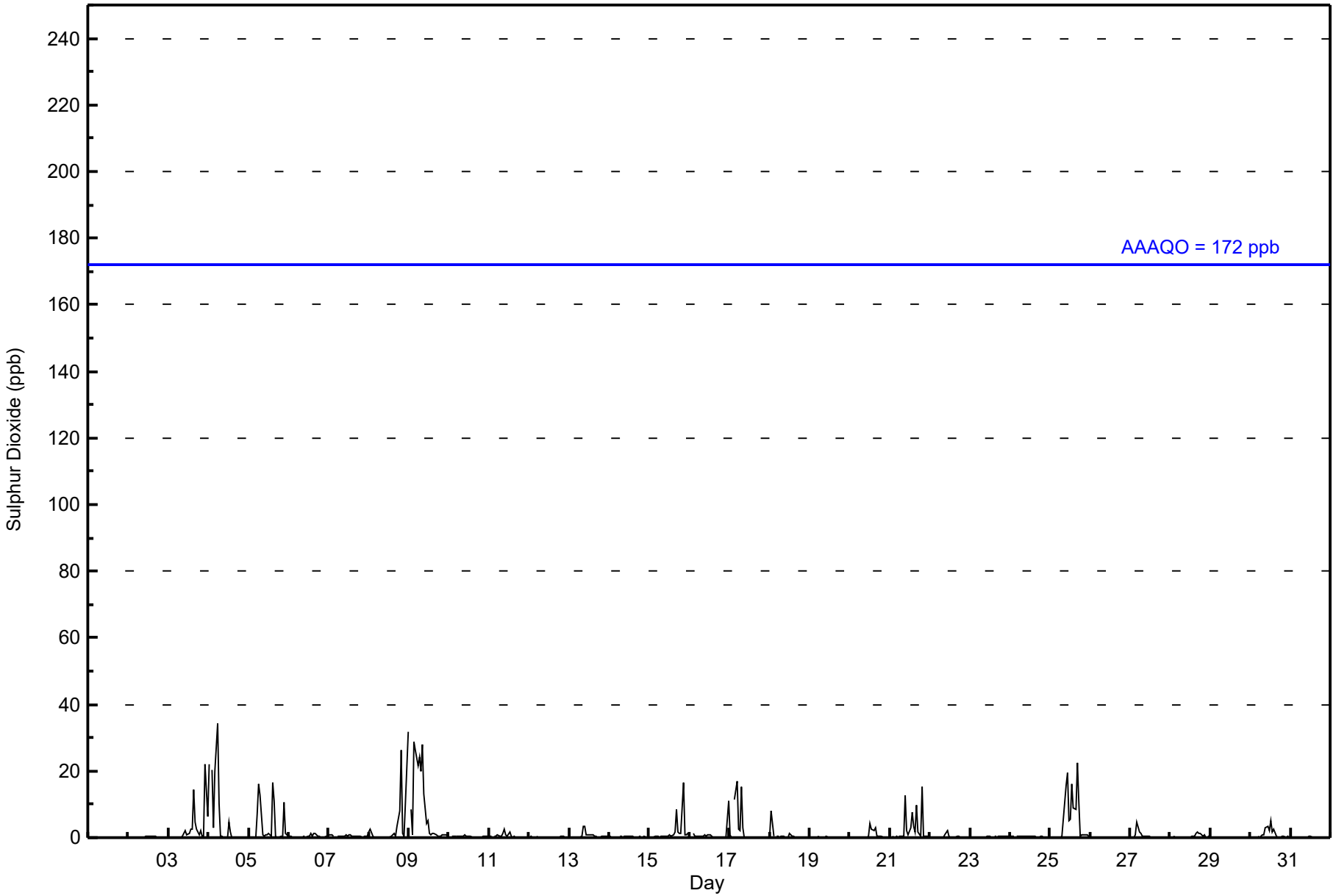
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Sawbones Bay - October 2025



Sulphur Dioxide (SO_2) - ppb
Sawbones Bay - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	677	95.49	95.49
11 - 20	21	2.96	98.45
21 - 60	11	1.55	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Sawbones Bay - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	9	10	14	9	22	26	45	105	105	48	15	13	95	81	31	45	673
11 - 20	0	0	0	0	0	0	0	0	0	1	3	13	2	0	0	0	19
21 - 60	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	9	10	14	9	22	26	45	105	105	49	18	37	97	81	31	45	703

Total Number of Valid Hours: 703

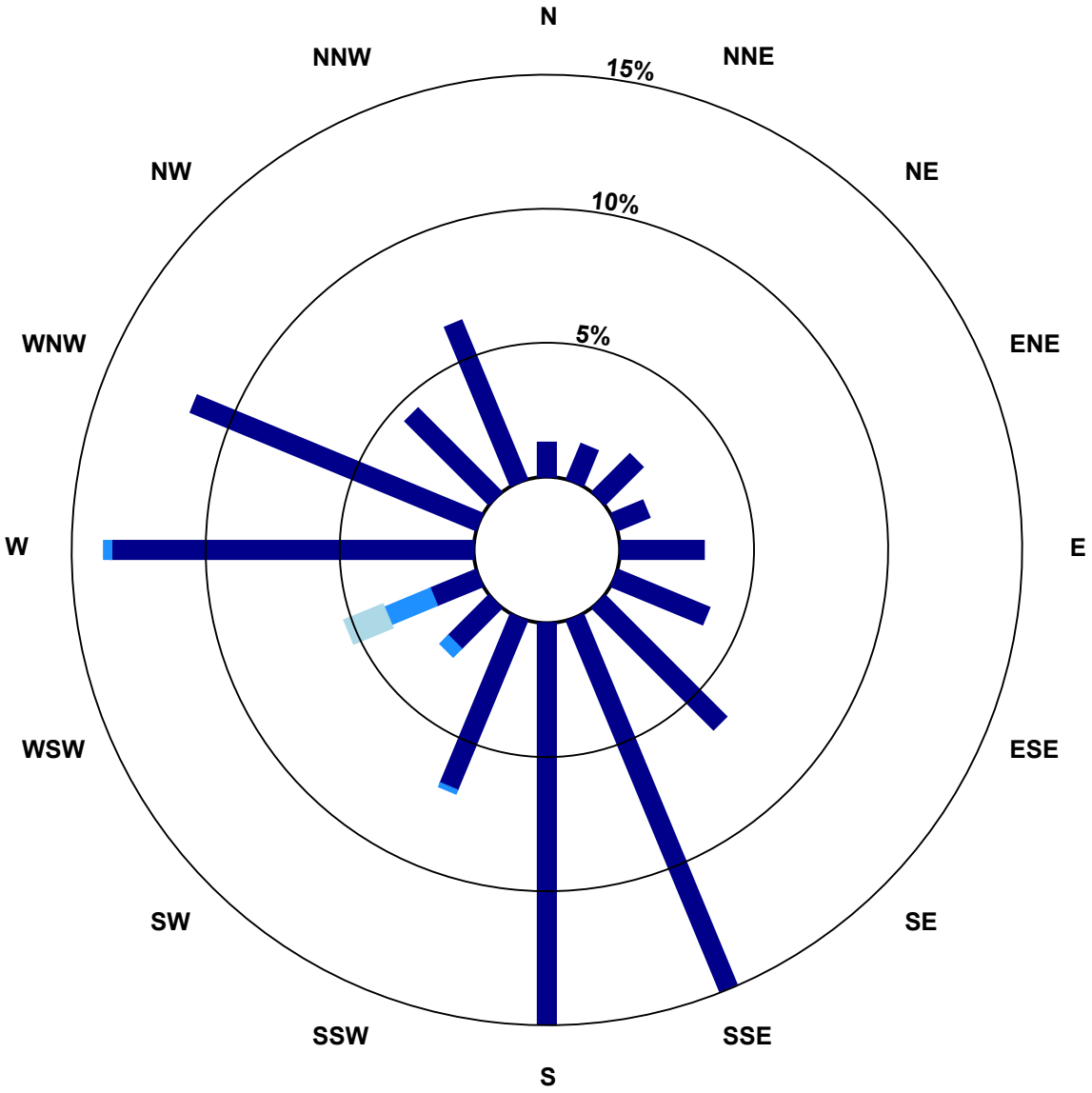
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Sawbones Bay



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

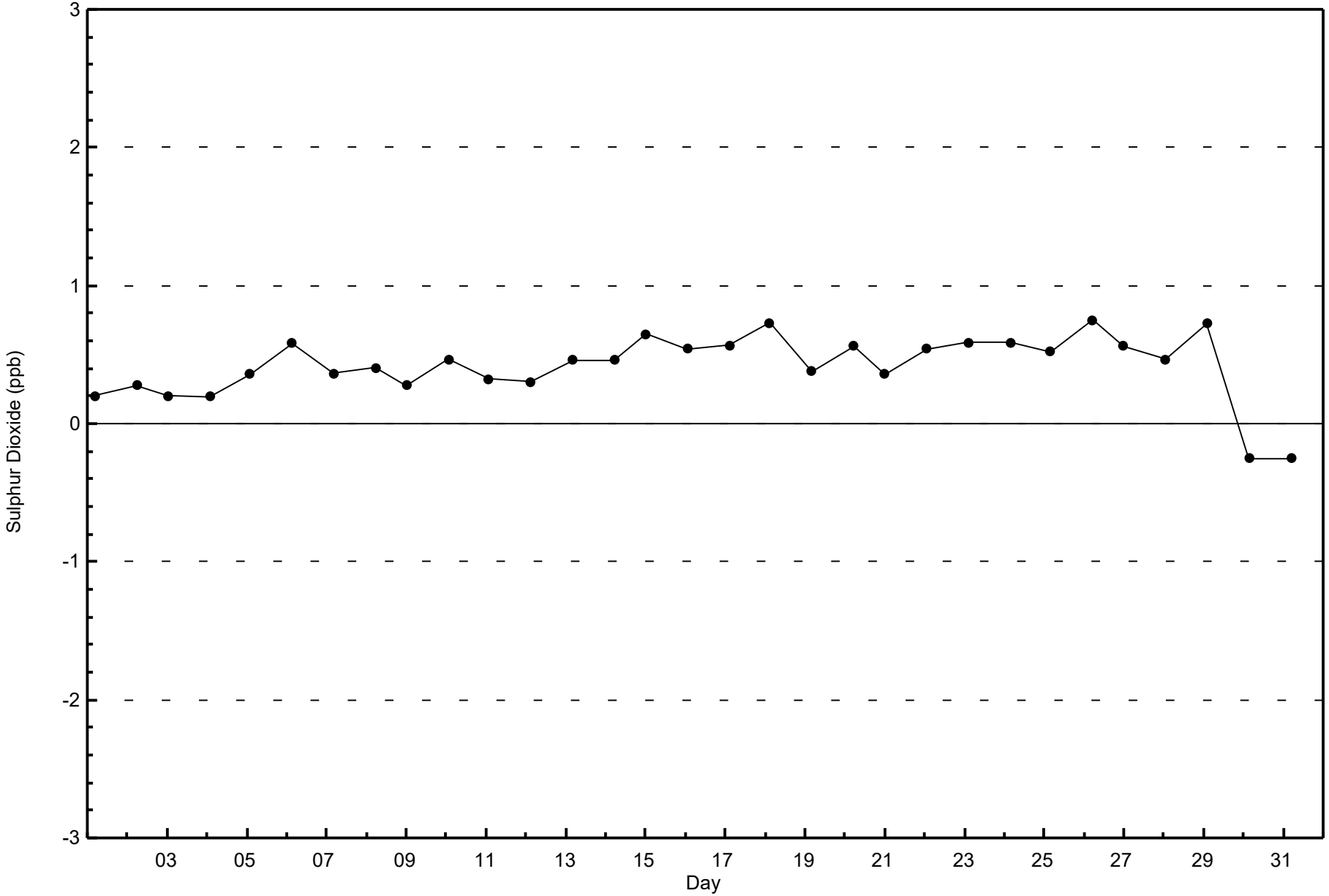
Total Number of Valid Hours: 703

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Sawbones Bay - October 2025

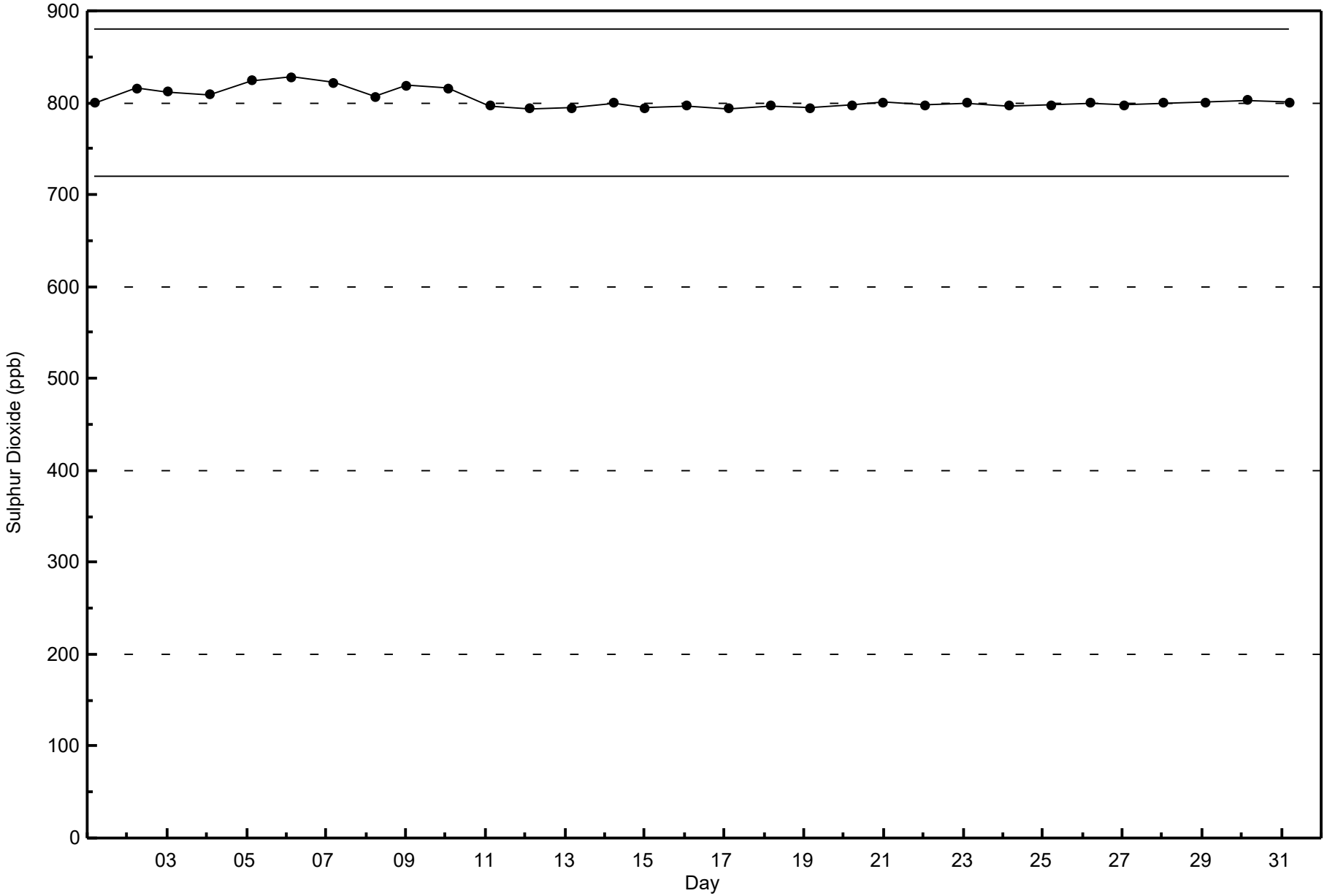


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Sawbones Bay - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H2S) - ppb

Sawbones Bay - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 1.9 ppb on Oct 28 16:00

Maximum Daily Average: 0.5 ppb on Oct 25

Minimum Value: 0.0 ppb on Oct 8 22:00

Minimum Daily Average: 0.1 ppb on Oct 29

Maximum Diurnal Average: 0.3 ppb at hour 6

Minimum Diurnal Average: 0.1 ppb at hour 22

Monthly Average: 0.21 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.1 Q_1 = 0.1 Median = 0.1 Q_3 = 0.2 P_{90} = 0.6 P_{99} = 1.4

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.2	0.2	0.2	0.2	0.2	Z	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4
2-Oct	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
3-Oct	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.6	0.6	0.3	0.2	0.2	0.0	0.1	1.0	0.7	0.3	1.0
4-Oct	1.2	0.9	Z	0.7	0.9	0.9	0.6	0.1	0.1	0.1	0.1	0.2	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	1.2
5-Oct	0.1	0.1	0.1	Z	0.1	1.4	1.0	1.2	0.2	0.1	0.2	0.1	0.1	0.1	0.7	0.9	0.1	0.1	0.1	0.2	0.1	0.5	0.6	1.0	0.4	1.4
6-Oct	0.3	0.5	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.5
7-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
8-Oct	Z	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.3	0.4	0.4	0.5	0.7	1.2	1.2	0.1	0.0	0.7	1.1	0.3	1.2
9-Oct	1.0	Z	0.9	0.9	1.0	0.9	1.2	1.0	1.1	1.0	1.0	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	1.2
10-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
11-Oct	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.3	0.6	0.4	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6
12-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
13-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.5	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5
14-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.5	0.2	0.1	0.1	0.7	0.2	0.2	0.2	0.2	0.7
16-Oct	0.2	0.2	Z	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.6	0.1	0.6
17-Oct	0.1	0.1	0.3	Z	0.8	0.2	0.3	1.4	1.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	1.4
18-Oct	1.2	1.1	1.2	1.8	Z	0.6	0.5	1.4	1.0	0.2	0.1	0.1	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	1.8
19-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.5	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5
21-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.8	0.7	0.8	0.6	0.9	0.7	1.0	1.2	0.2	0.1	0.4	0.1	0.1	0.1	0.1	0.4	1.2
22-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
24-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
25-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.2	0.5	0.8	0.9	1.2	1.1	1.2	1.6	1.6	1.1	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.5	1.6
26-Oct	Z	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1
27-Oct	0.1	Z	0.1	0.6	1.4	1.7	0.8	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.3	1.7
28-Oct	0.1	0.3	Z	0.1	0.1	0.0	0.0	0.0	0.0	C	C	C	C	C	1.4	1.9	1.0	1.4	1.0	0.4	0.6	0.1	0.0	0.0	0.5	1.9
29-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	M	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
30-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.1	0.1	0.2	1.2	0.9	0.7	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	1.2
31-Oct	0.1	0.0	0.0	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	Diurnal Average	
	1.2	1.1	1.2	1.8	1.4	1.7	1.2	1.4	1.1	1.0	1.0	1.2	1.2	1.2	1.6	1.9	1.2	1.4	1.2	1.2	0.7	0.5	1.0	1.1	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

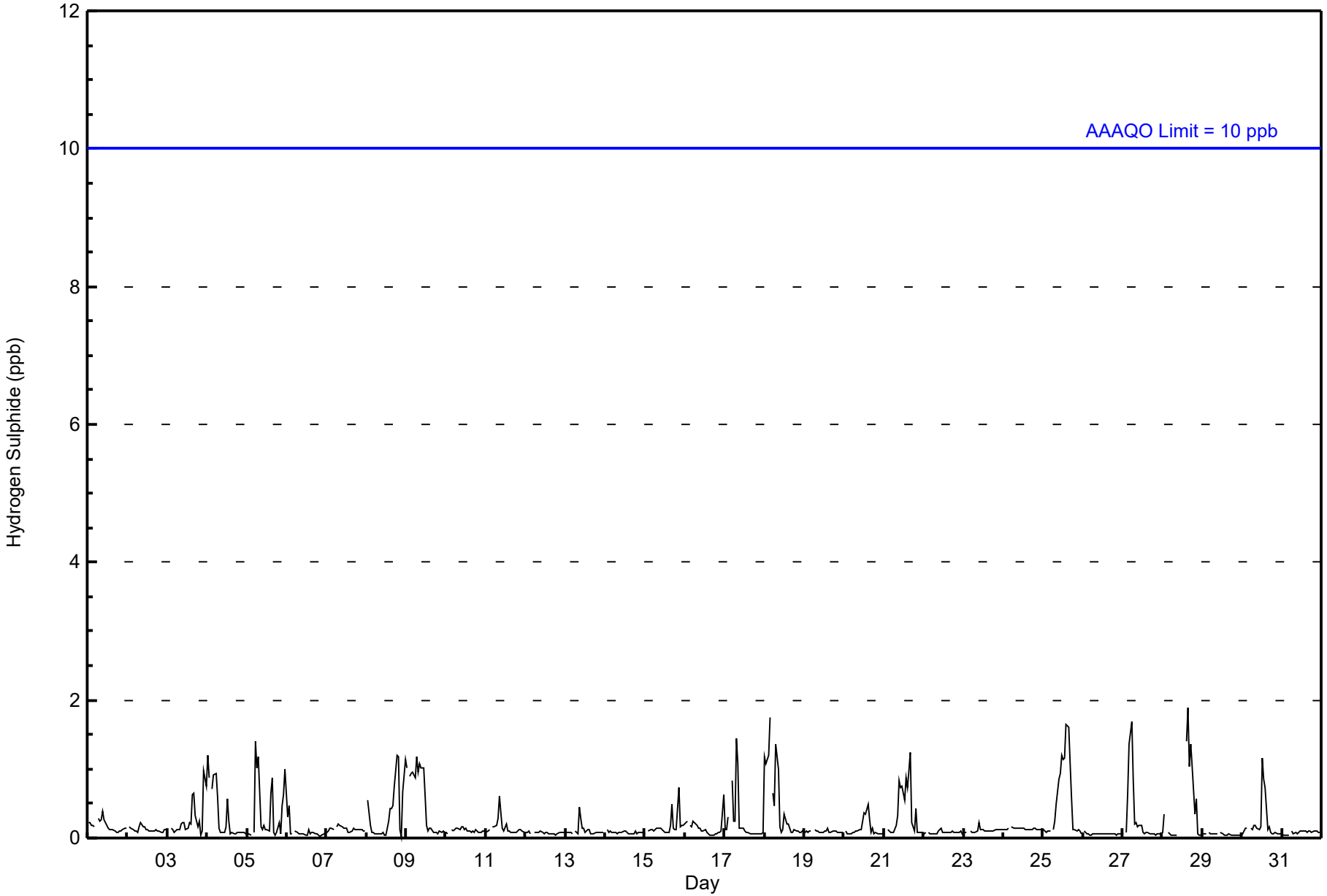
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H2S) - ppb

Sawbones Bay - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	707	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H2S) - ppb

Sawbones Bay - October 2025

Concentration	Wind Direction																
Ranges (ppb)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	9	10	15	10	21	27	45	104	106	50	17	37	92	82	28	48	701
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	9	10	15	10	21	27	45	104	106	50	17	37	92	82	28	48	701

Total Number of Valid Hours: 701

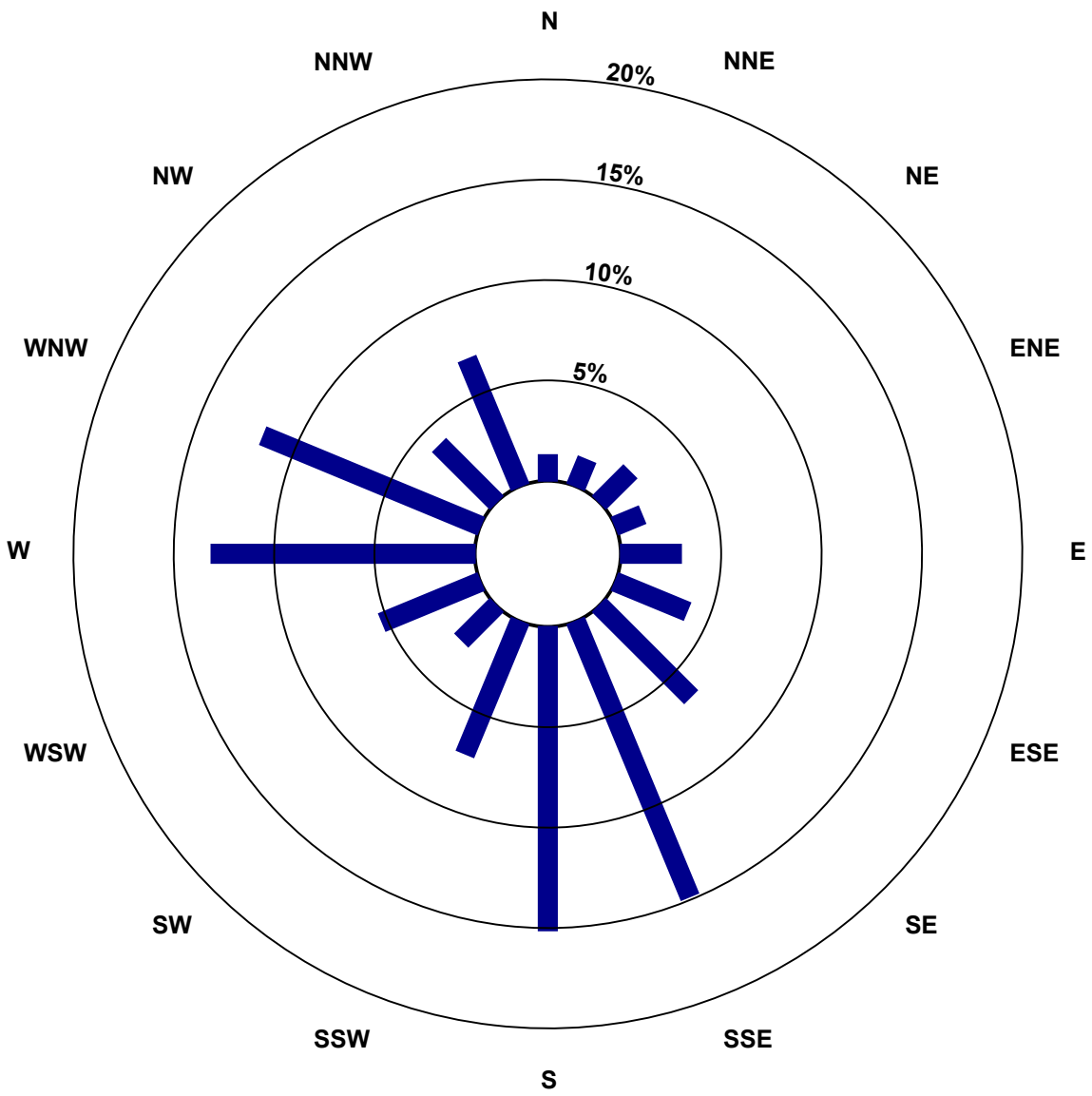
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H2S) - ppb

Sawbones Bay



Classes (ppb)

- 0 - 2
- 3 - 4
- 5 - 7
- 8 - 11
- > 11

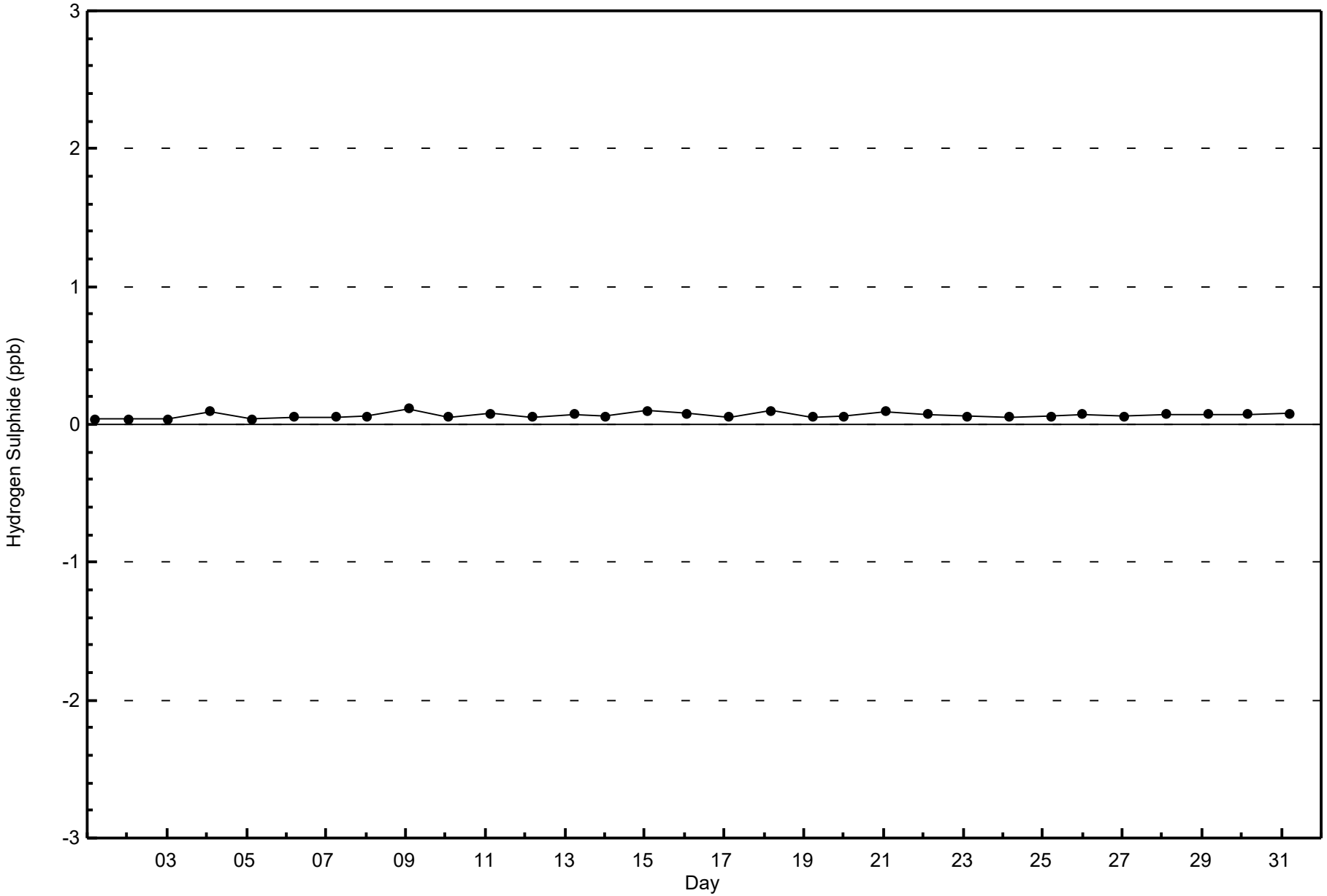
Total Number of Valid Hours: 701

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H2S) - ppb

Sawbones Bay - October 2025

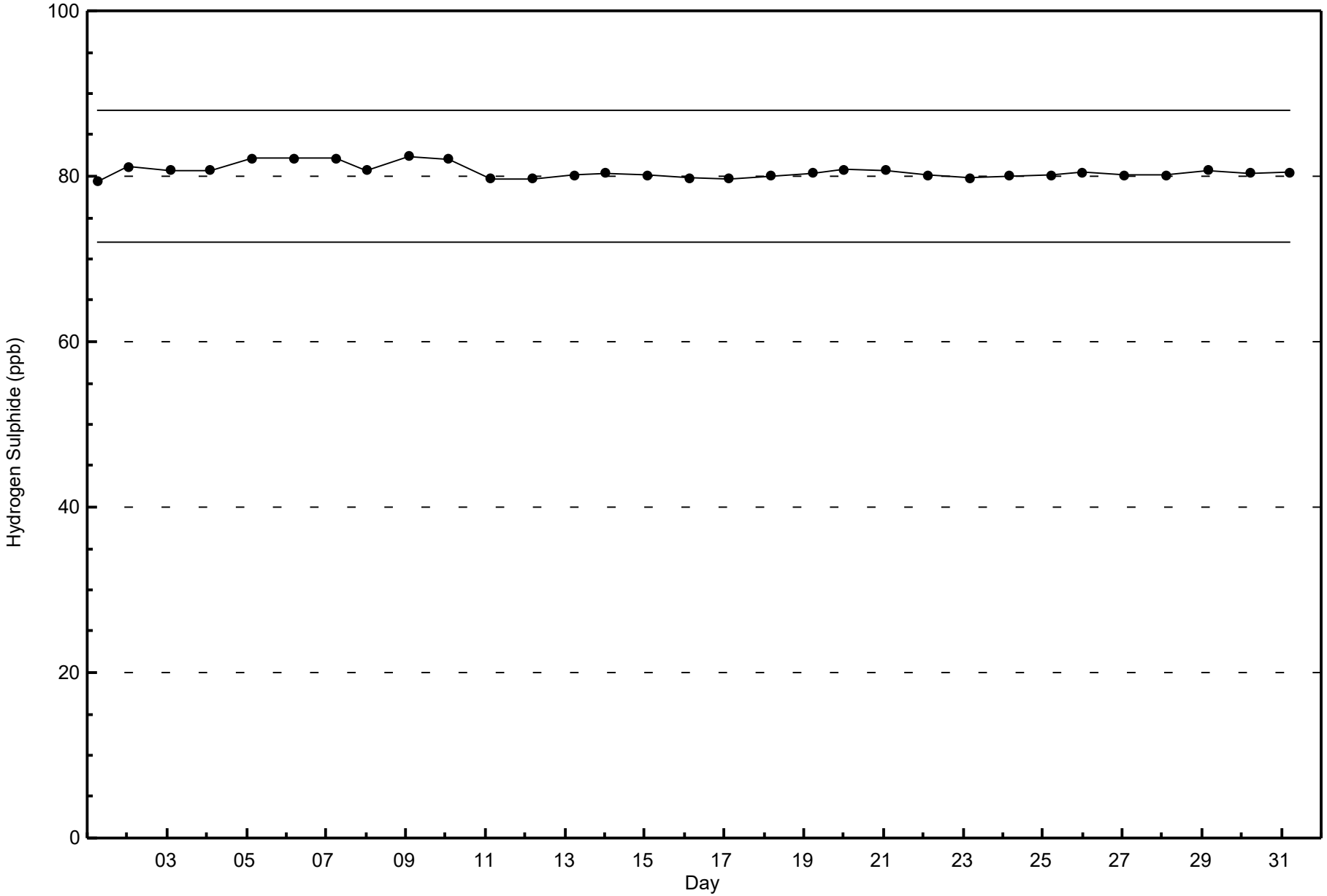


Wood Buffalo Environmental Association

Span Responses

Hydrogen Sulphide (H2S) - ppb

Sawbones Bay - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Sawbones Bay - October 2025

Maximum Value: 14.1 ppb on Oct 7 08:00

Maximum Daily Average: 4.0 ppb on Oct 9

Minimum Value: 0.0 ppb on Oct 4 21:00

Minimum Daily Average: 0.0 ppb on Oct 23

Maximum Diurnal Average: 3.0 ppb at hour 8

Minimum Diurnal Average: 0.3 ppb at hour 22

Monthly Average: 1.17 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.4 Q_3 = 1.4 P_{90} = 3.0 P_{99} = 10.0

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.2	0.2	1.1	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.3	0.3	0.2	0.2	1.1
2-Oct	0.1	0.6	0.2	Z	0.2	0.5	0.6	5.8	1.4	0.6	0.6	0.5	0.4	0.3	1.1	0.3	0.2	0.2	0.1	0.1	0.2	0.1	0.0	0.0	0.6	5.8
3-Oct	0.0	0.1	0.1	0.1	Z	0.1	0.4	1.4	2.3	1.9	2.5	1.6	1.9	3.5	3.3	5.1	1.7	0.9	0.6	1.5	0.9	1.0	5.6	2.6	1.7	5.6
4-Oct	7.1	8.8	6.7	2.2	6.3	Z	4.8	1.2	1.2	0.5	0.4	0.6	2.7	1.1	0.4	0.1	0.1	0.2	0.4	0.4	0.0	0.0	0.0	0.0	2.0	8.8
5-Oct	Z	0.0	0.8	1.0	1.0	3.9	7.0	7.0	1.5	1.8	3.3	2.3	1.5	1.0	7.3	4.5	0.3	0.0	0.0	0.1	0.1	2.9	0.7	0.5	2.1	7.3
6-Oct	0.4	Z	0.3	0.1	0.0	0.0	0.0	0.0	0.3	0.6	0.5	0.4	0.3	1.1	1.5	2.8	0.9	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.4	2.8
7-Oct	0.0	0.0	Z	0.1	0.0	0.6	2.0	14.1	8.4	1.2	2.2	2.4	10.0	1.6	3.0	3.4	9.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2.6	14.1
8-Oct	0.5	0.4	0.2	Z	0.1	0.1	0.6	2.5	2.9	3.3	4.1	2.8	3.1	2.8	3.3	4.0	8.8	9.5	3.1	6.8	0.4	0.4	4.3	8.2	3.1	9.5
9-Oct	5.9	4.1	0.5	10.3	Z	8.3	9.3	11.2	13.9	6.8	2.4	3.4	2.4	0.9	2.3	1.6	0.6	2.3	1.3	0.4	2.1	0.2	0.8	0.1	4.0	13.9
10-Oct	0.0	0.0	0.0	0.1	0.1	Z	6.9	10.6	2.9	1.6	2.7	1.9	10.0	0.5	3.9	0.9	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.9	10.6
11-Oct	Z	0.0	0.0	0.1	0.0	0.4	4.3	2.1	3.0	1.3	0.4	0.3	0.7	0.3	0.3	0.5	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.6	4.3
12-Oct	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
13-Oct	0.0	0.3	Z	0.3	0.0	0.0	1.8	1.1	2.9	2.0	0.6	0.9	1.8	1.7	1.2	1.1	0.6	0.9	1.1	0.7	0.1	0.1	0.7	0.3	0.9	2.9
14-Oct	0.4	0.7	0.8	Z	0.3	0.1	0.8	0.5	1.1	1.5	1.5	1.5	1.3	1.3	1.4	1.4	1.1	1.5	3.1	0.9	0.7	0.4	0.3	0.0	1.0	3.1
15-Oct	0.2	0.2	0.6	0.1	Z	0.1	4.5	10.9	3.0	2.6	2.5	2.2	1.9	1.0	1.4	2.2	3.5	2.2	3.0	1.1	5.2	0.3	1.5	0.3	2.2	10.9
16-Oct	0.1	0.8	0.6	1.0	0.8	Z	1.9	2.3	1.4	1.8	2.1	1.4	0.8	0.6	0.6	1.1	0.8	0.0	0.0	0.0	0.0	0.0	0.3	1.8	0.9	2.3
17-Oct	Z	1.6	2.3	5.0	4.7	1.5	3.0	4.7	1.6	1.0	0.7	1.0	1.0	1.0	1.3	1.0	0.7	0.1	0.1	0.1	0.1	0.1	0.2	0.1	1.4	5.0
18-Oct	0.4	Z	0.5	0.4	0.6	0.5	1.0	2.5	2.0	1.1	1.0	0.6	1.1	0.8	0.7	0.6	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6	2.5
19-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2.5	0.4	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.2	2.5
20-Oct	0.1	0.0	0.1	Z	0.0	0.0	0.0	0.9	1.4	1.9	1.1	2.6	3.1	2.1	2.0	2.5	1.6	1.3	0.8	2.0	0.1	0.0	0.1	0.1	1.0	3.1
21-Oct	0.0	0.1	0.4	0.3	Z	0.1	1.0	2.9	1.5	6.3	2.1	2.1	1.7	3.7	2.9	2.3	2.7	0.7	0.6	3.7	0.2	0.1	0.1	0.2	1.6	6.3
22-Oct	0.1	0.1	0.1	0.1	0.7	Z	0.4	2.8	2.1	2.2	3.1	3.1	1.0	0.5	0.2	0.2	0.5	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.8	3.1
23-Oct	Z	0.0	0.0	0.0	0.0	0.1	0.0	0.0	C	C	C	C	C	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
24-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.6	1.0	0.7	1.0	0.4	1.0	1.2	2.7	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.4	2.7
25-Oct	0.1	0.0	Z	0.1	0.1	0.6	0.8	5.0	6.7	10.0	9.6	2.8	1.8	7.2	3.5	2.4	4.8	3.2	0.6	0.5	0.5	0.5	0.1	0.1	2.7	10.0
26-Oct	0.5	0.2	0.3	Z	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.5
27-Oct	0.1	0.1	0.2	0.9	Z	1.5	1.7	0.8	0.6	0.7	0.7	0.8	0.7	0.6	0.8	1.1	0.4	0.4	0.3	0.3	0.3	0.5	0.2	0.2	0.6	1.7
28-Oct	0.2	0.8	0.4	0.2	0.3	Z	0.3	1.3	0.5	0.4	0.7	0.9	0.6	0.7	1.5	2.6	0.7	2.5	1.4	1.3	0.9	1.1	0.2	0.1	0.8	2.6
29-Oct	Z	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.2	M	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.2
30-Oct	0.2	Z	0.1	0.0	0.8	0.8	0.2	0.4	3.2	2.1	2.4	1.9	2.8	1.4	1.3	1.6	1.2	1.1	0.2	0.3	1.4	0.9	0.2	1.4	1.1	3.2
31-Oct	1.4	0.1	Z	0.1	0.1	0.1	0.2	0.1	0.2	0.4	1.1	0.8	0.9	1.0	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	1.4
	0.7	0.7	0.6	0.9	0.6	0.8	1.7	3.0	2.3	1.8	1.7	1.3	1.8	1.2	1.6	1.5	1.4	0.9	0.6	0.7	0.4	0.3	0.5	0.5	Diurnal Average	
	7.1	8.8	6.7	10.3	6.3	8.3	9.3	14.1	13.9	10.0	9.6	3.4	10.0	7.2	7.3	5.1	9.2	9.5	3.1	6.8	5.2	2.9	5.6	8.2	Diurnal Maximum	

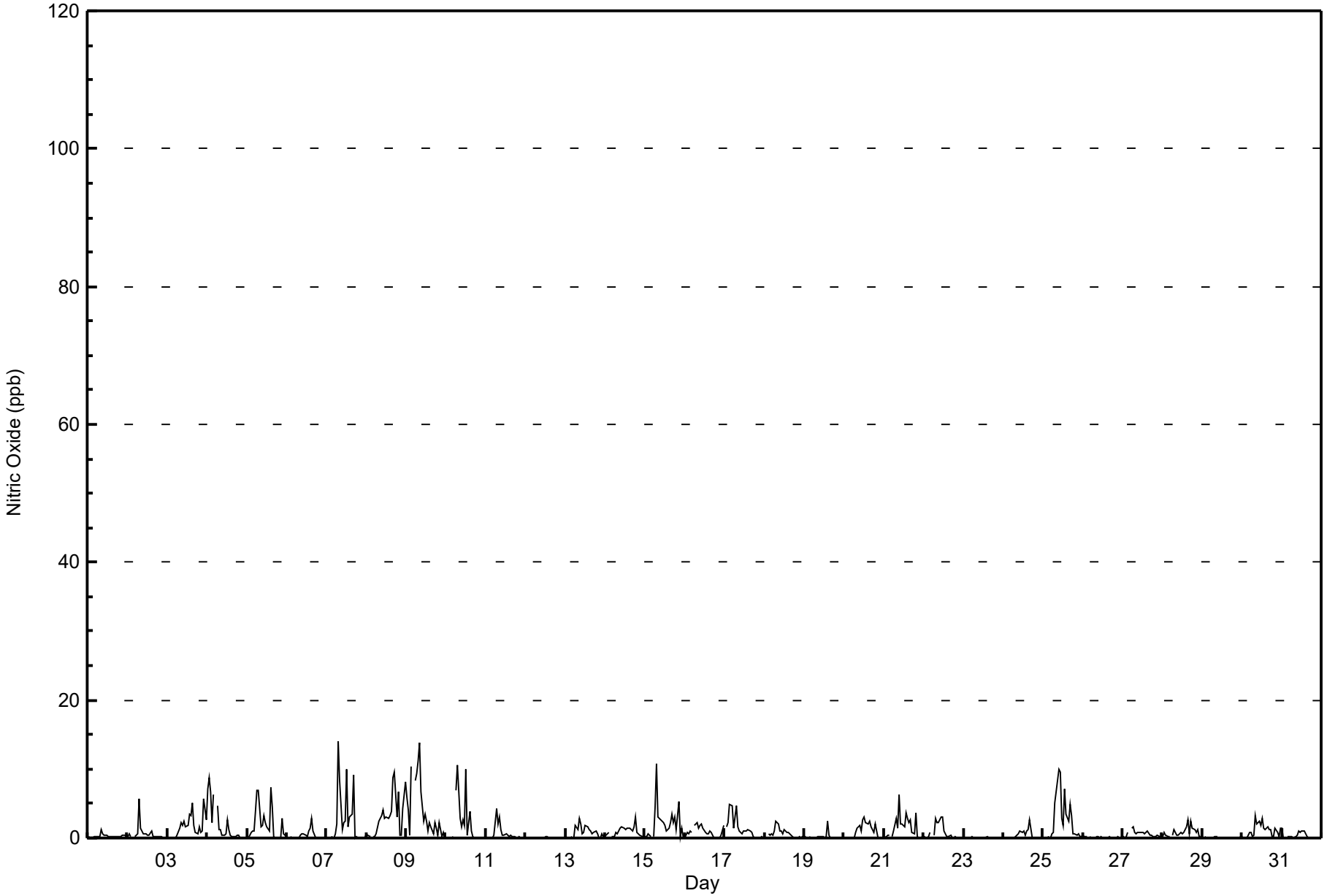
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Sawbones Bay - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	10	10	15	9	22	25	40	105	106	50	18	35	97	80	31	47	700
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	10	15	9	22	25	40	105	106	50	18	35	97	80	31	47	700

Total Number of Valid Hours: 700

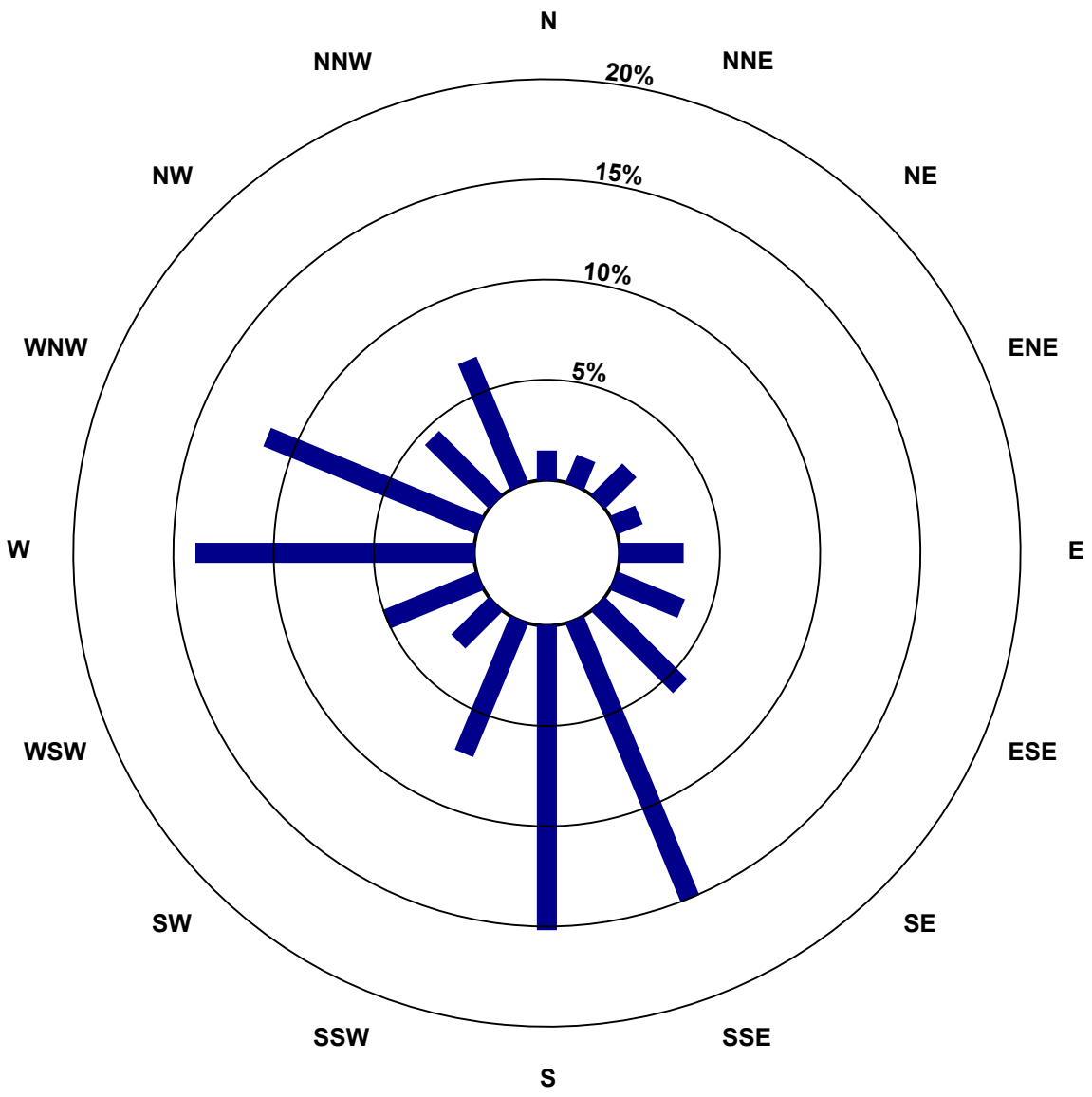
Total Number of Hours: 744

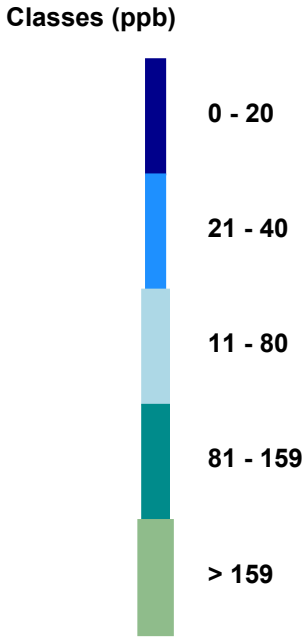
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Sawbones Bay





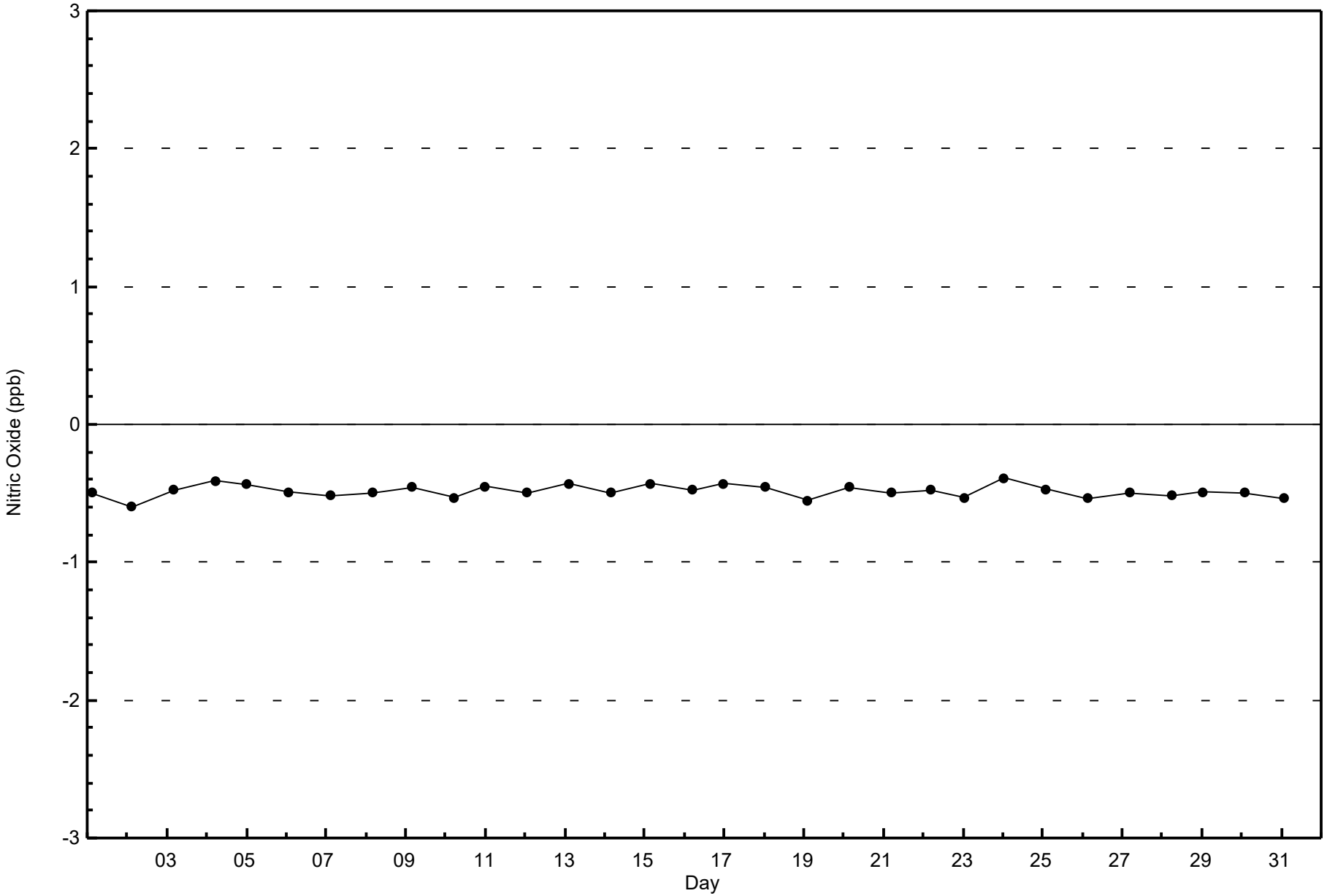
Total Number of Valid Hours: 700

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Sawbones Bay - October 2025

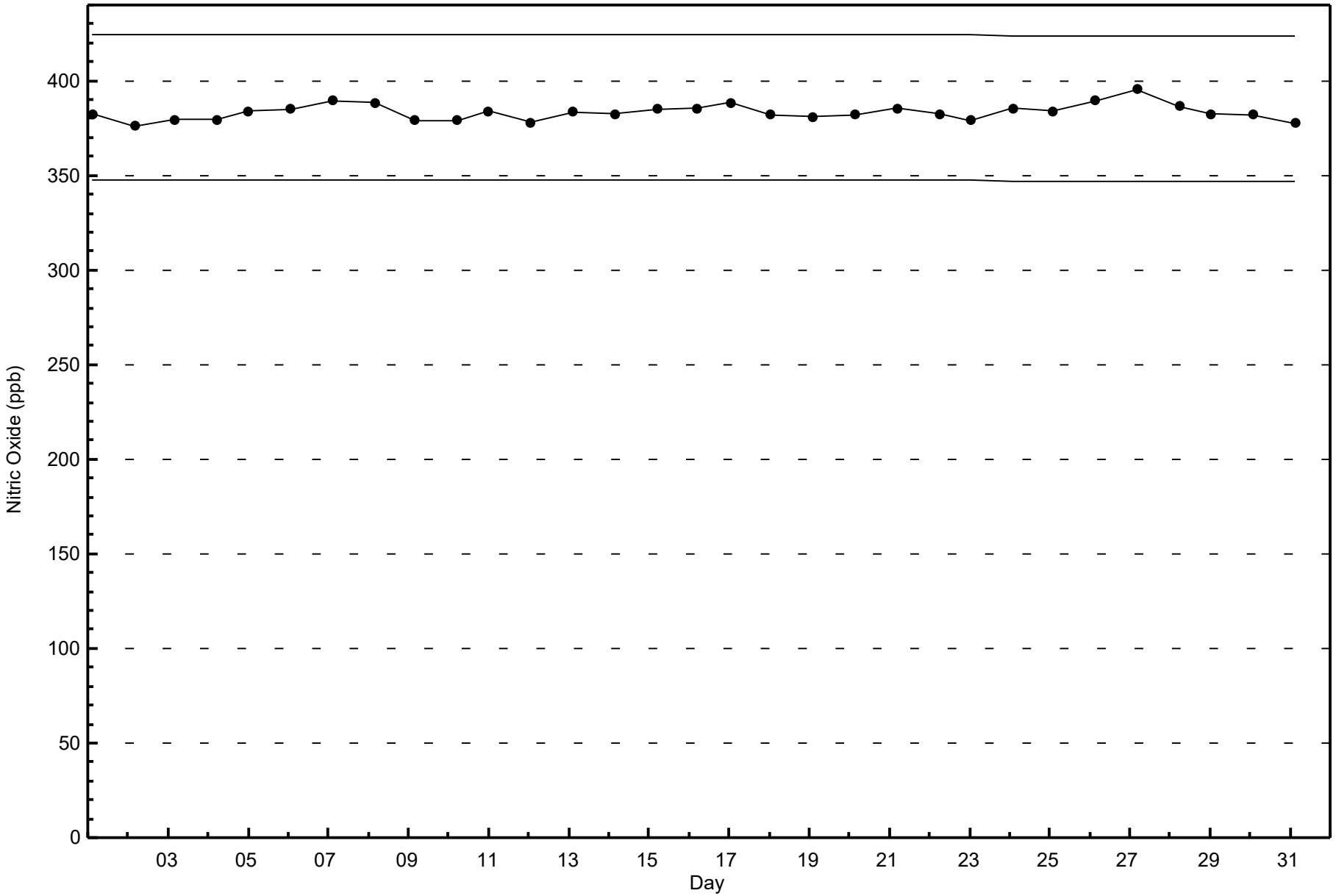


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Sawbones Bay - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Sawbones Bay - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 15.7 ppb on Oct 8 20:00

Maximum Daily Average: 6.4 ppb on Oct 25

Minimum Value: 0.1 ppb on Oct 4 22:00

Minimum Daily Average: 0.7 ppb on Oct 29

Maximum Diurnal Average: 4.9 ppb at hour 8

Minimum Diurnal Average: 2.3 ppb at hour 22

Monthly Average: 3.11 ppb

Percentiles: $P_1 = 0.3$ $P_{10} = 0.7$ $Q_1 = 1.2$ Median = 2.4 $Q_3 = 4.1$ $P_{90} = 6.6$ $P_{99} = 12.6$

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.1	1.2	Z	1.4	1.2	1.2	1.7	2.3	3.5	2.4	1.8	1.6	1.3	1.1	1.2	1.1	1.3	1.2	1.0	1.1	1.0	2.5	2.6	1.8	1.6	3.5
2-Oct	1.8	3.3	2.0	Z	1.8	1.9	3.0	5.6	2.8	2.0	1.2	1.2	1.0	0.9	1.5	1.1	1.0	1.5	2.2	1.3	4.6	4.3	1.6	1.3	2.1	5.6
3-Oct	3.1	2.7	2.9	3.4	Z	3.5	2.8	4.2	4.2	3.5	4.6	3.2	3.3	5.6	6.6	11.5	5.9	4.4	3.8	5.8	3.0	3.0	11.3	6.6	4.7	11.5
4-Oct	12.3	14.4	10.8	4.4	9.1	Z	6.8	2.2	1.7	0.6	0.7	1.2	3.6	2.0	1.4	0.8	0.6	0.7	0.8	0.7	0.2	0.1	0.1	0.3	3.3	14.4
5-Oct	Z	0.3	2.0	1.9	1.6	3.8	6.6	7.1	2.2	2.5	3.4	2.7	2.1	1.4	10.8	9.2	1.4	0.3	0.2	0.6	1.0	6.1	2.3	1.8	3.1	10.8
6-Oct	1.5	Z	2.1	0.7	0.3	0.5	0.5	0.5	1.1	1.4	1.1	0.8	0.7	2.0	2.3	4.6	3.1	1.0	0.9	2.1	0.8	1.9	1.7	2.5	1.5	4.6
7-Oct	3.7	3.6	Z	2.4	2.3	3.1	4.4	13.0	8.4	2.8	3.7	3.0	7.8	2.7	3.7	4.4	7.0	2.6	3.0	2.2	1.6	1.6	1.6	1.7	3.9	13.0
8-Oct	4.5	5.5	2.8	Z	1.3	0.8	5.6	7.4	5.0	4.5	4.9	3.4	3.7	3.9	4.7	5.4	10.6	13.6	7.6	15.7	2.7	1.3	8.9	14.9	6.0	15.7
9-Oct	9.2	7.0	1.9	11.6	Z	9.6	8.6	10.2	11.3	6.6	3.3	5.0	3.7	2.0	3.2	3.1	2.1	6.8	6.5	3.9	7.3	4.5	4.9	2.3	5.9	11.6
10-Oct	2.0	1.9	2.7	3.5	4.7	Z	8.7	11.2	5.2	3.7	4.7	3.9	9.1	2.5	5.2	3.0	2.7	1.9	1.8	1.8	2.7	2.8	2.8	3.0	4.0	11.2
11-Oct	Z	2.9	2.6	2.6	2.6	4.7	9.9	7.9	10.2	5.5	2.6	2.1	4.6	1.7	1.2	1.1	0.7	0.9	1.0	0.7	0.8	0.6	0.4	0.5	2.9	10.2
12-Oct	0.7	Z	1.3	0.9	0.9	0.7	0.5	0.5	0.5	0.5	0.4	0.4	0.7	0.9	0.6	0.7	0.6	0.5	0.6	0.9	0.9	0.8	1.2	1.5	0.7	1.5
13-Oct	1.8	2.2	Z	1.8	0.9	1.5	7.2	4.6	9.2	6.3	2.8	3.3	3.8	2.9	2.9	2.4	2.1	3.7	3.9	4.1	1.5	1.1	1.8	1.3	3.2	9.2
14-Oct	1.7	2.0	2.2	Z	1.8	1.3	2.6	2.2	2.3	2.6	2.5	2.1	1.9	1.9	2.0	2.1	2.3	3.4	6.7	4.6	4.0	4.2	4.3	3.2	2.8	6.7
15-Oct	2.3	2.7	3.4	3.1	Z	4.0	5.2	6.7	4.2	5.1	5.5	5.6	4.9	3.6	4.3	5.8	8.6	6.7	7.9	6.2	11.0	5.3	8.6	5.6	5.5	11.0
16-Oct	4.0	5.2	4.3	4.7	5.3	Z	8.7	7.6	4.6	5.0	5.7	5.1	4.0	2.7	2.5	3.0	3.4	1.1	0.8	1.5	1.5	2.0	2.9	8.8	4.1	8.8
17-Oct	Z	8.1	8.0	12.6	14.5	6.0	7.7	10.8	5.0	2.8	2.2	2.4	2.6	2.4	3.5	3.2	3.4	1.3	1.4	1.4	1.2	1.7	1.7	1.5	4.6	14.5
18-Oct	1.8	Z	2.6	2.1	2.5	2.0	3.4	5.7	3.7	2.7	2.7	2.5	3.3	2.6	2.7	2.9	3.1	3.6	2.3	3.1	3.0	2.9	1.4	2.2	2.8	5.7
19-Oct	1.7	1.3	Z	2.8	1.5	1.2	0.7	1.0	1.4	0.9	1.0	1.1	1.2	1.0	4.4	1.8	0.9	0.8	0.7	0.8	0.7	0.8	0.6	0.5	1.3	4.4
20-Oct	0.5	0.5	0.4	Z	0.7	0.7	1.4	2.7	3.5	3.9	3.2	5.3	6.5	5.8	5.3	5.5	3.6	3.7	3.3	4.3	1.9	1.8	1.5	1.6	2.9	6.5
21-Oct	1.9	2.3	2.5	2.5	Z	2.3	3.8	7.2	3.6	8.6	4.8	4.4	4.3	7.0	5.8	5.7	6.6	3.9	3.8	8.7	2.8	1.1	1.2	5.0	4.3	8.7
22-Oct	2.0	1.2	2.0	3.1	5.0	Z	2.9	5.0	3.1	4.1	5.9	4.3	3.4	2.6	1.2	1.3	2.0	1.8	1.5	1.1	1.2	1.1	1.0	0.7	2.5	5.9
23-Oct	Z	1.0	0.8	0.6	0.7	1.3	1.7	1.6	C	C	C	C	C	1.0	1.3	1.3	0.9	1.5	2.1	3.0	3.0	3.0	4.0	2.7	1.8	4.0
24-Oct	3.6	Z	3.5	4.8	4.4	3.9	3.3	4.1	4.3	3.3	4.0	3.2	3.2	2.5	3.3	6.2	3.3	1.9	2.9	3.2	2.3	2.7	5.4	1.9	3.5	6.2
25-Oct	1.5	1.4	Z	4.0	2.8	4.8	5.2	7.8	8.7	11.0	11.3	5.8	4.9	12.0	7.0	6.1	12.6	11.1	5.1	5.3	6.7	6.2	3.7	2.6	6.4	12.6
26-Oct	8.6	3.9	5.2	Z	2.5	1.1	0.7	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.7	0.7	0.8	0.7	0.5	0.3	0.5	0.7	0.7	0.8	1.5	8.6
27-Oct	1.0	0.6	1.2	2.1	Z	4.0	4.2	2.4	1.8	1.7	1.7	1.6	1.6	1.2	1.4	1.8	1.2	0.9	0.8	0.9	0.9	1.1	0.9	0.7	1.6	4.2
28-Oct	0.7	1.6	1.1	0.8	0.9	Z	1.4	3.0	1.5	1.2	1.3	1.6	1.3	1.3	2.8	4.6	2.4	5.1	3.3	2.8	3.1	3.0	2.1	2.6	2.2	5.1
29-Oct	Z	1.3	1.0	1.2	0.9	1.0	1.0	1.1	1.0	0.8	M	0.4	0.3	0.3	0.3	0.3	0.3	0.5	0.4	0.5	0.3	0.4	0.7	1.1	0.7	1.3
30-Oct	1.8	Z	3.1	3.1	4.1	4.2	2.8	3.3	5.3	3.2	3.1	2.9	4.7	3.8	4.4	3.5	3.1	3.5	2.0	2.1	4.2	3.0	1.5	3.9	3.3	5.3
31-Oct	3.5	0.9	Z	1.4	1.2	0.9	1.3	1.3	1.3	1.1	1.9	1.8	2.0	2.0	1.7	1.1	0.9	0.9	0.9	1.1	1.1	1.1	1.2	1.2	1.4	3.5
	3.0	3.0	2.9	3.2	2.9	2.7	4.0	4.9	4.1	3.4	3.2	2.8	3.2	2.7	3.2	3.4	3.2	3.0	2.6	3.0	2.5	2.3	2.7	2.8	Diurnal Average	
	12.3	14.4	10.8	12.6	14.5	9.6	9.9	13.0	11.3	11.0	11.3	5.8	9.1	12.0	10.8	11.5	12.6	13.6	7.9	15.7	11.0	6.2	11.3	14.9	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

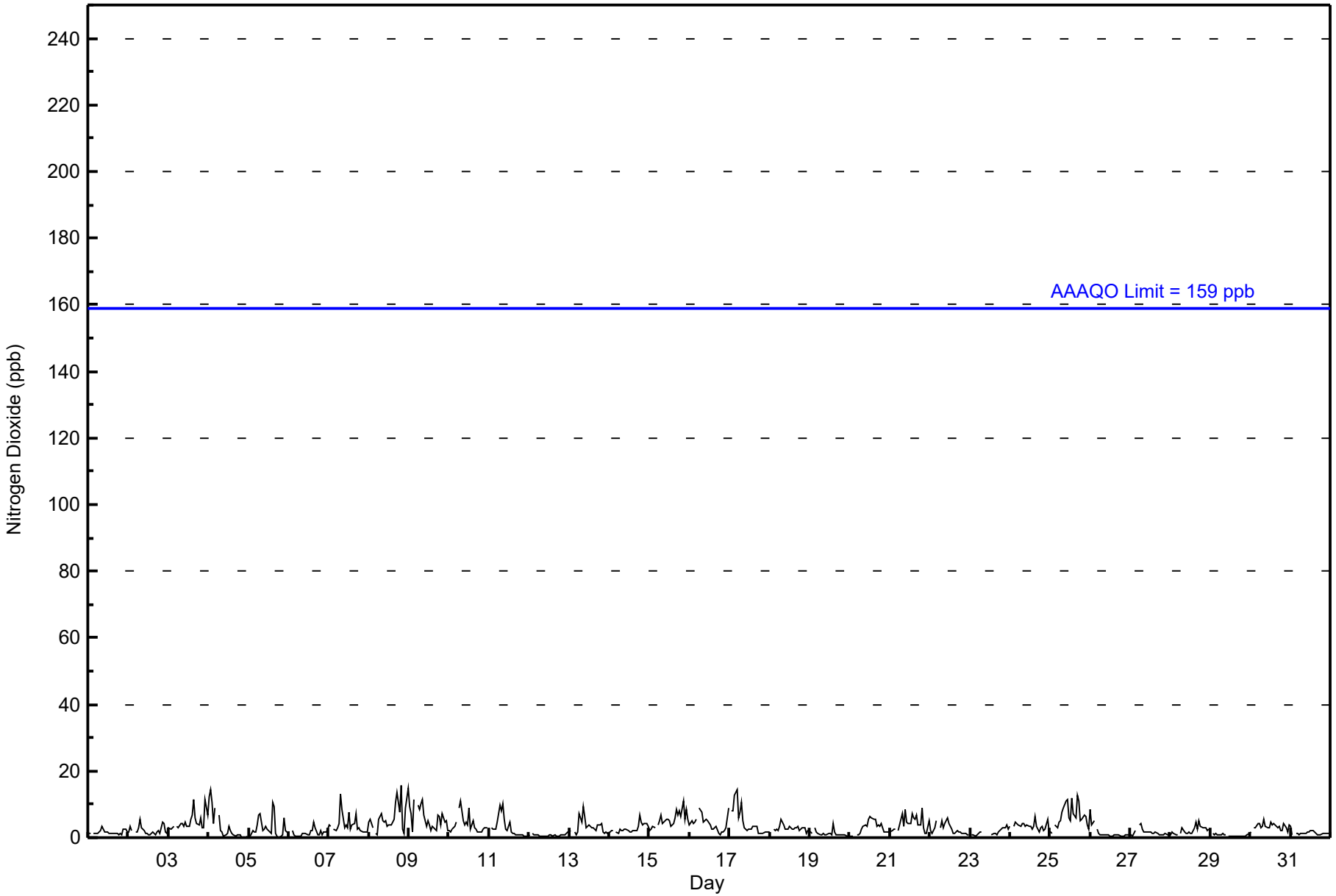
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Sawbones Bay - October 2025



Nitrogen Dioxide (NO_2) - ppb
Sawbones Bay - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	707	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Sawbones Bay - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	10	10	15	9	22	25	40	105	106	50	18	35	97	80	31	47	700
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	10	15	9	22	25	40	105	106	50	18	35	97	80	31	47	700

Total Number of Valid Hours: 700

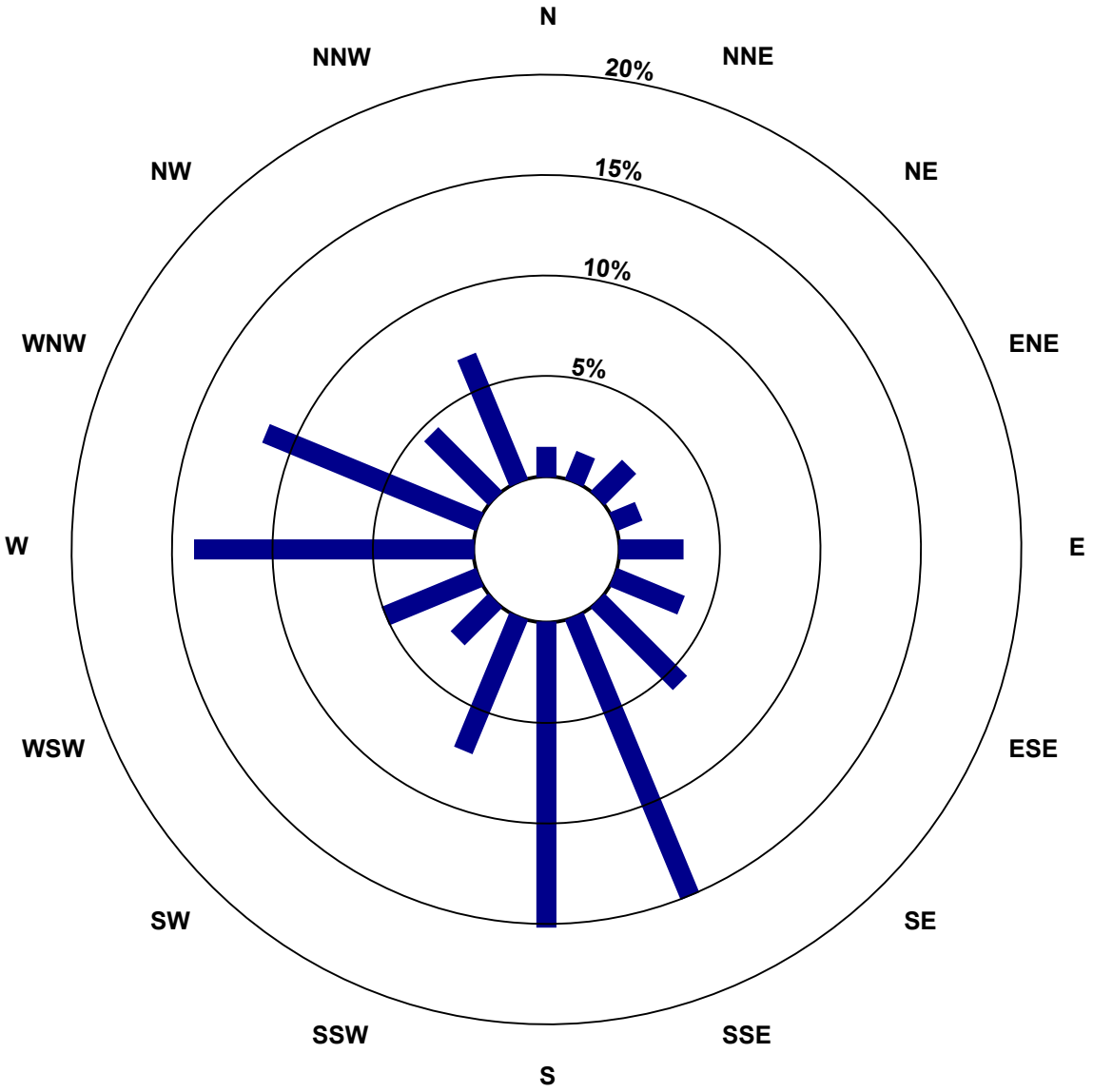
Total Number of Hours: 744

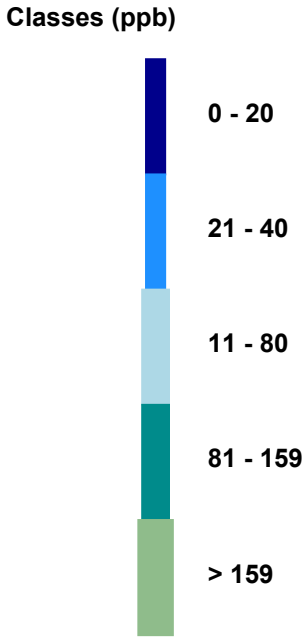
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Sawbones Bay





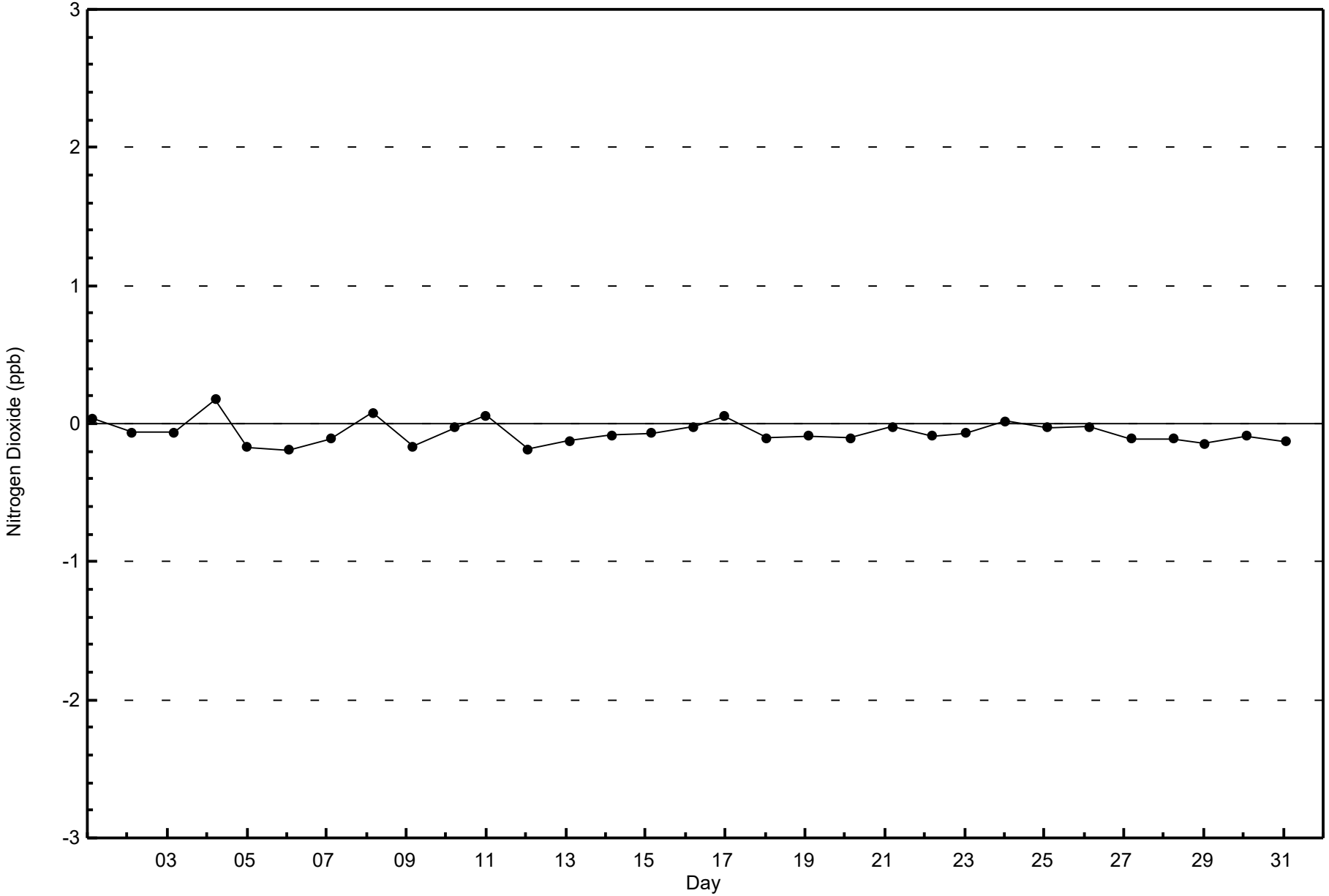
Total Number of Valid Hours: 700

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Sawbones Bay - October 2025

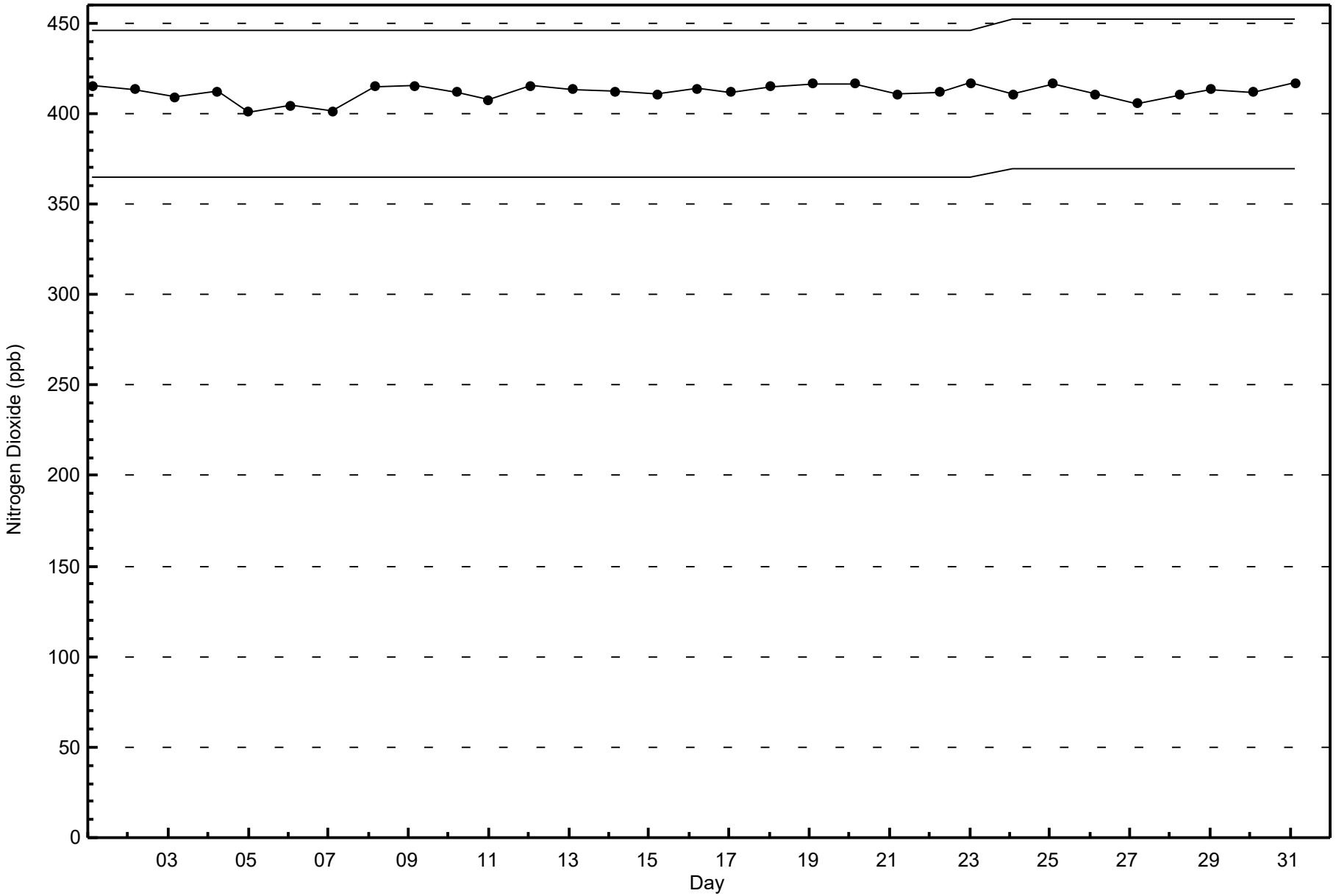


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Sawbones Bay - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Sawbones Bay - October 2025

Maximum Value: 27.1 ppb on Oct 7 08:00

Maximum Daily Average: 9.8 ppb on Oct 9

Minimum Value: 0.1 ppb on Oct 4 23:00

Minimum Daily Average: 0.7 ppb on Oct 29

Maximum Diurnal Average: 7.9 ppb at hour 8

Minimum Diurnal Average: 2.6 ppb at hour 22

Monthly Average: 4.28 ppb

Percentiles: P_1 = 0.3 P_{10} = 0.8 Q_1 = 1.4 Median = 2.9 Q_3 = 5.4 P_{90} = 9.3 P_{99} = 21.8

Hours in Service:	744
Hours of Data:	707
Hours of Missing Data:	37
Hours of Calibration:	36
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.2	1.3	Z	1.5	1.3	1.3	1.9	2.5	4.6	2.9	2.2	2.0	1.6	1.3	1.4	1.3	1.5	1.3	1.1	1.3	1.1	2.8	2.9	2.0	1.8	4.6
2-Oct	1.9	3.9	2.2	Z	2.0	2.4	3.6	11.4	4.2	2.6	1.8	1.7	1.4	1.2	2.6	1.4	1.2	1.7	2.3	1.4	4.8	4.4	1.6	1.3	2.7	11.4
3-Oct	3.1	2.8	3.0	3.5	Z	3.6	3.2	5.6	6.5	5.4	7.1	4.8	5.2	9.1	9.9	16.6	7.6	5.3	4.4	7.3	3.9	4.0	16.9	9.2	6.4	16.9
4-Oct	19.4	23.2	17.5	6.6	15.4	Z	11.6	3.4	2.9	1.1	1.1	1.8	6.3	3.1	1.8	0.9	0.7	0.9	1.2	1.1	0.2	0.1	0.1	0.3	5.3	23.2
5-Oct	Z	0.3	2.8	2.9	2.6	7.7	13.6	14.1	3.7	4.3	6.7	5.0	3.6	2.4	18.1	13.7	1.7	0.3	0.2	0.7	1.1	9.0	3.0	2.3	5.2	18.1
6-Oct	1.9	Z	2.4	0.8	0.3	0.5	0.5	0.5	1.4	2.0	1.6	1.2	1.0	3.1	3.8	7.4	4.0	1.0	0.9	2.1	0.9	1.9	1.7	2.5	1.9	7.4
7-Oct	3.7	3.6	Z	2.5	2.3	3.7	6.4	27.1	16.8	4.0	5.9	5.4	17.8	4.3	6.7	7.8	16.2	2.7	3.1	2.3	1.7	1.7	1.7	1.8	6.5	27.1
8-Oct	5.0	5.9	3.0	Z	1.4	0.9	6.2	9.9	7.9	7.8	9.0	6.2	6.8	6.7	8.0	9.4	19.4	23.1	10.7	22.5	3.1	1.7	13.2	23.1	9.2	23.1
9-Oct	15.1	11.1	2.4	21.9	Z	17.9	17.9	21.4	25.2	13.4	5.7	8.4	6.1	2.9	5.5	4.7	2.7	9.1	7.8	4.3	9.4	4.7	5.7	2.4	9.8	25.2
10-Oct	2.0	1.9	2.7	3.6	4.8	Z	15.6	21.8	8.1	5.3	7.4	5.8	19.1	3.0	9.1	3.9	3.0	1.9	1.9	1.8	2.7	2.8	2.8	3.0	5.8	21.8
11-Oct	Z	2.9	2.6	2.7	2.6	5.1	14.2	10.0	13.2	6.8	3.0	2.4	5.3	2.0	1.5	1.6	0.8	1.0	1.1	0.8	0.9	0.6	0.5	0.5	3.6	14.2
12-Oct	0.8	Z	1.3	0.9	0.9	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.8	1.0	0.7	0.7	0.6	0.5	0.6	0.9	0.9	0.8	1.2	1.5	0.8	1.5
13-Oct	1.8	2.5	Z	2.1	0.9	1.5	9.0	5.7	12.1	8.3	3.4	4.2	5.6	4.6	4.1	3.5	2.7	4.6	5.0	4.8	1.6	1.2	2.5	1.6	4.1	12.1
14-Oct	2.1	2.7	3.0	Z	2.1	1.4	3.4	2.7	3.4	4.1	4.0	3.6	3.2	3.2	3.4	3.5	3.4	4.9	9.8	5.5	4.7	4.6	4.6	3.2	3.8	9.8
15-Oct	2.5	2.9	4.0	3.2	Z	4.1	9.7	17.6	7.2	7.7	8.0	7.8	6.8	4.6	5.7	8.0	12.1	8.9	10.9	7.3	16.2	5.6	10.1	5.9	7.7	17.6
16-Oct	4.1	6.0	4.9	5.7	6.1	Z	10.6	9.9	6.0	6.8	7.8	6.5	4.8	3.3	3.1	4.1	4.2	1.1	0.8	1.5	1.5	2.0	3.2	10.6	5.0	10.6
17-Oct	Z	9.7	10.3	17.6	19.2	7.5	10.7	15.5	6.6	3.8	2.9	3.4	3.6	3.4	4.8	4.2	4.1	1.4	1.5	1.5	1.3	1.8	1.9	1.6	6.0	19.2
18-Oct	2.2	Z	3.1	2.5	3.1	2.5	4.4	8.2	5.7	3.8	3.7	3.1	4.4	3.4	3.4	3.5	3.5	3.7	2.4	3.2	3.1	3.0	1.5	2.4	3.5	8.2
19-Oct	1.8	1.4	Z	2.9	1.6	1.3	0.8	1.1	1.5	1.0	1.1	1.2	1.3	1.1	6.9	2.2	0.9	0.8	0.8	0.8	0.8	0.8	0.6	0.6	1.4	6.9
20-Oct	0.6	0.5	0.5	Z	0.7	0.7	1.4	3.6	4.9	5.8	4.3	7.9	9.6	7.9	7.3	8.0	5.2	5.0	4.1	6.3	2.0	1.8	1.6	1.7	4.0	9.6
21-Oct	1.9	2.4	2.9	2.8	Z	2.4	4.8	10.1	5.1	14.9	6.9	6.5	6.0	10.7	8.7	8.0	9.3	4.6	4.4	12.4	3.0	1.2	1.3	5.2	5.9	14.9
22-Oct	2.1	1.3	2.1	3.2	5.7	Z	3.3	7.8	5.2	6.3	9.0	7.4	4.4	3.1	1.4	1.5	2.5	1.9	1.5	1.2	1.2	1.2	1.0	0.8	3.3	9.0
23-Oct	Z	1.0	0.8	0.6	0.7	1.4	1.7	1.6	C	C	C	C	C	1.0	1.5	1.3	0.9	1.5	2.1	3.0	3.0	3.0	4.0	2.7	1.8	4.0
24-Oct	3.6	Z	3.5	4.8	4.4	3.9	3.3	4.3	4.8	3.9	5.0	3.9	4.2	2.9	4.3	7.4	6.0	1.9	2.9	3.3	2.3	2.8	5.5	1.9	4.0	7.4
25-Oct	1.6	1.4	Z	4.1	2.9	5.4	6.0	12.8	15.4	21.0	20.9	8.6	6.7	19.2	10.5	8.5	17.4	14.3	5.7	5.8	7.2	6.7	3.8	2.7	9.1	21.0
26-Oct	9.1	4.1	5.5	Z	2.6	1.1	0.8	0.9	1.0	0.9	0.8	0.8	0.7	0.7	0.8	0.8	0.9	0.8	0.5	0.4	0.6	0.8	0.8	0.8	1.6	9.1
27-Oct	1.1	0.7	1.4	3.0	Z	5.5	5.9	3.2	2.4	2.4	2.4	2.4	2.3	1.8	2.2	2.9	1.6	1.3	1.1	1.2	1.2	1.6	1.1	0.9	2.2	5.9
28-Oct	0.9	2.4	1.5	1.0	1.2	Z	1.7	4.3	2.0	1.6	2.0	2.5	1.9	2.0	4.3	7.2	3.1	7.6	4.7	4.1	4.0	4.1	2.3	2.7	3.0	7.6
29-Oct	Z	1.4	1.1	1.2	1.0	1.1	1.0	1.2	1.1	1.0	M	0.4	0.3	0.3	0.4	0.4	0.3	0.5	0.4	0.6	0.3	0.4	0.7	1.2	0.7	1.4
30-Oct	2.0	Z	3.2	3.1	4.9	5.0	3.0	3.7	8.5	5.3	5.5	4.8	7.5	5.2	5.7	5.1	4.3	4.6	2.2	2.4	5.6	3.9	1.7	5.3	4.5	8.5
31-Oct	4.9	1.0	Z	1.5	1.3	1.0	1.5	1.4	1.5	1.5	3.0	2.6	2.9	3.0	2.2	1.3	1.0	0.9	0.9	1.1	1.1	1.1	1.2	1.3	1.7	4.9
	3.7	3.8	3.5	4.1	3.5	3.5	5.7	7.9	6.3	5.2	4.9	4.1	5.0	3.9	4.8	4.9	4.6	3.8	3.1	3.6	2.9	2.6	3.3	3.3	Diurnal Average	
	19.4	23.2	17.5	21.9	19.2	17.9	17.9	27.1	25.2	21.0	20.9	8.6	19.1	19.2	18.1	16.6	19.4	23.1	10.9	22.5	16.2	9.0	16.9	23.1	Diurnal Maximum	

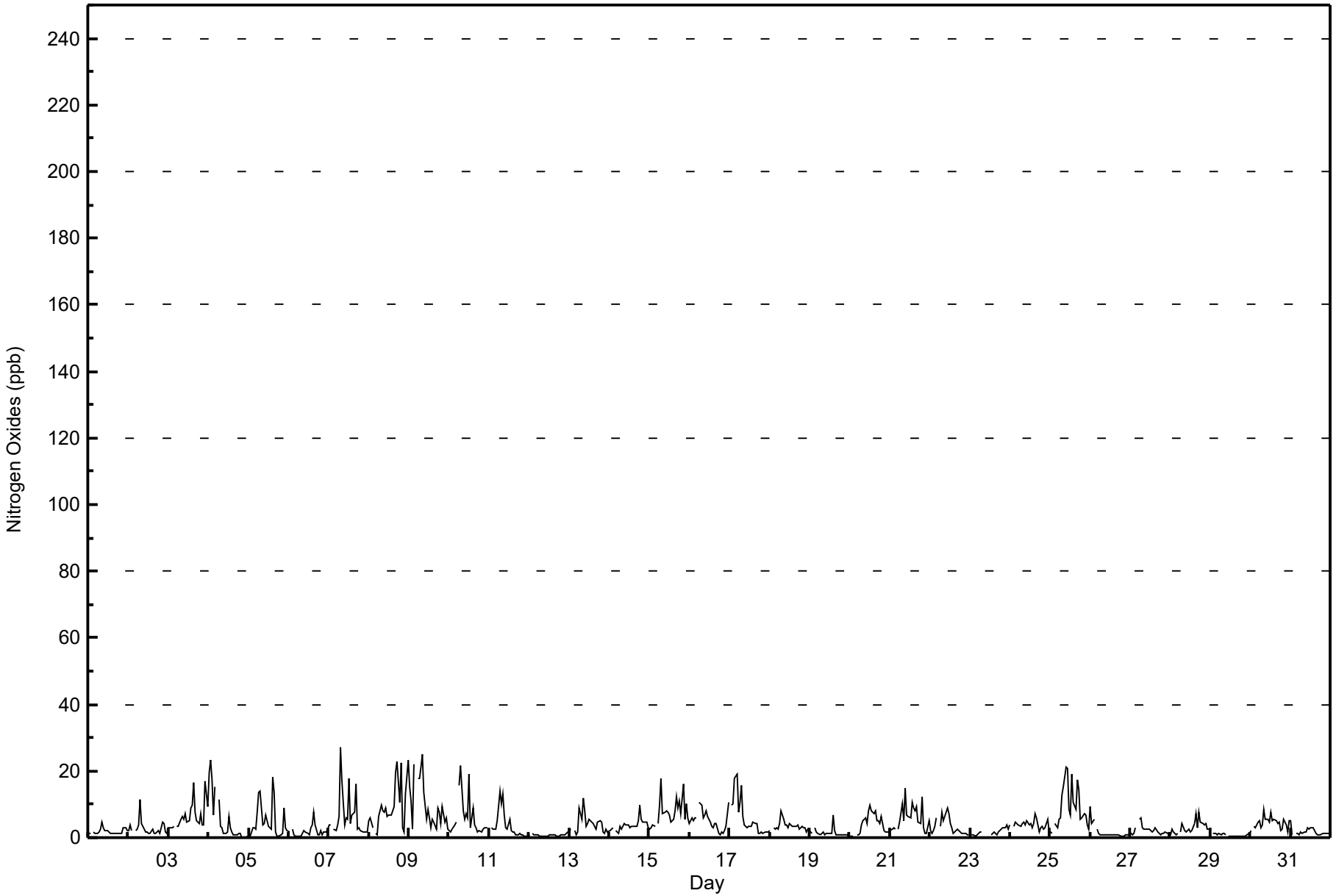
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Sawbones Bay - October 2025



Nitrogen Oxides (NO_X) - ppb
Sawbones Bay - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	696	98.44	98.44
21 - 40	11	1.56	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 707

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Sawbones Bay - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	10	10	15	9	22	25	40	103	106	50	17	28	96	80	31	47	689
21 - 40	0	0	0	0	0	0	0	2	0	0	1	7	1	0	0	0	11
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	10	10	15	9	22	25	40	105	106	50	18	35	97	80	31	47	700

Total Number of Valid Hours: 700

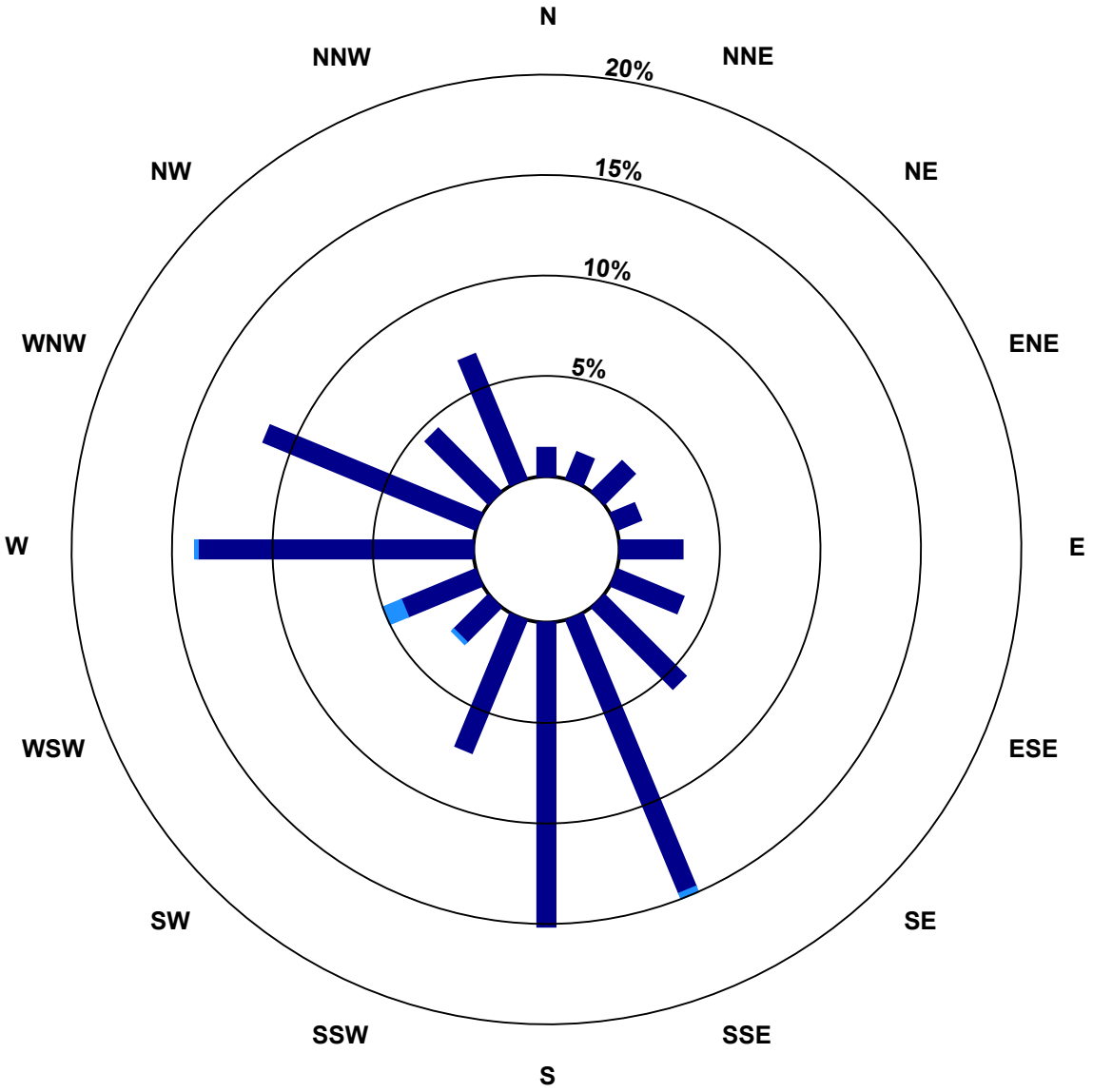
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Sawbones Bay



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

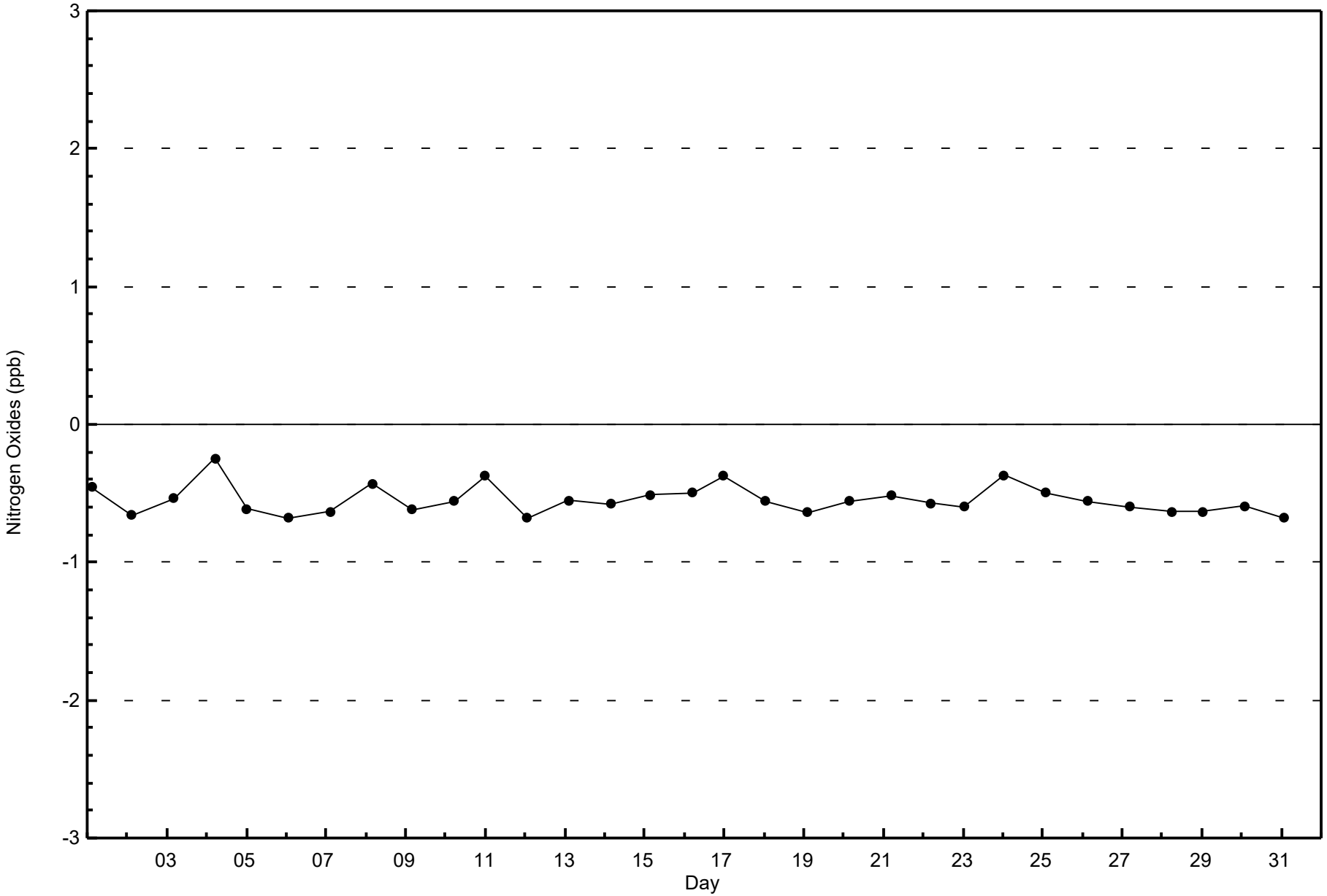
Total Number of Valid Hours: 700

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Sawbones Bay - October 2025

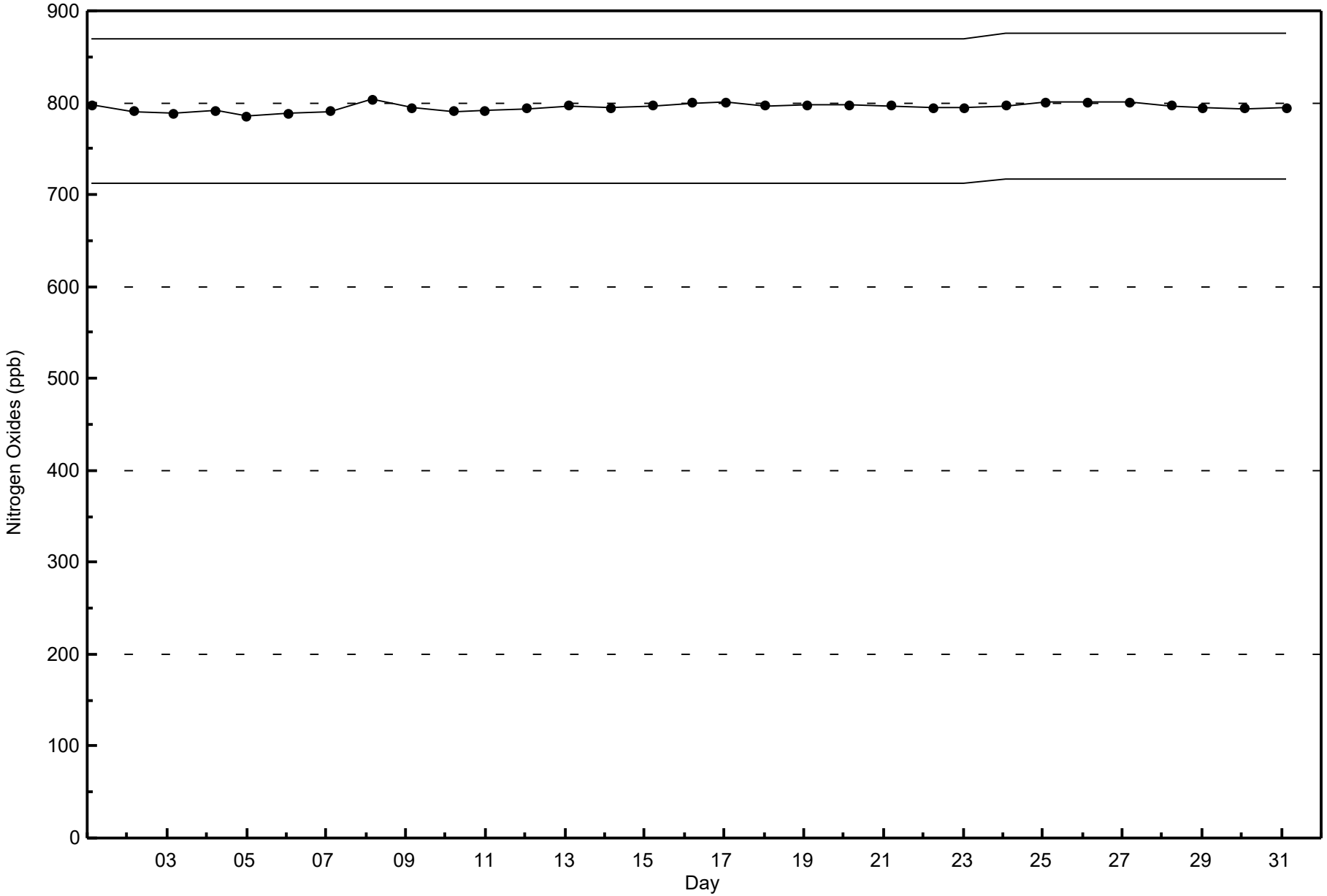


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Sawbones Bay - October 2025



Maximum Value: 21.3 C on Oct 10 15:00

Maximum Daily Average: 10.6 C on Oct 7

Minimum Value: -4.6 C on Oct 14 06:00

Minimum Daily Average: -1.7 C on Oct 13

Maximum Diurnal Average: 8.0 C at hour 15

Minimum Diurnal Average: 1.3 C at hour 7

Monthly Average: 4.03 C

Percentiles: P_1 = -3.7 P_{10} = -1.6 Q_1 = -0.4 Median = 3.3 Q_3 = 7.5 P_{90} = 10.7 P_{99} = 18.8

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

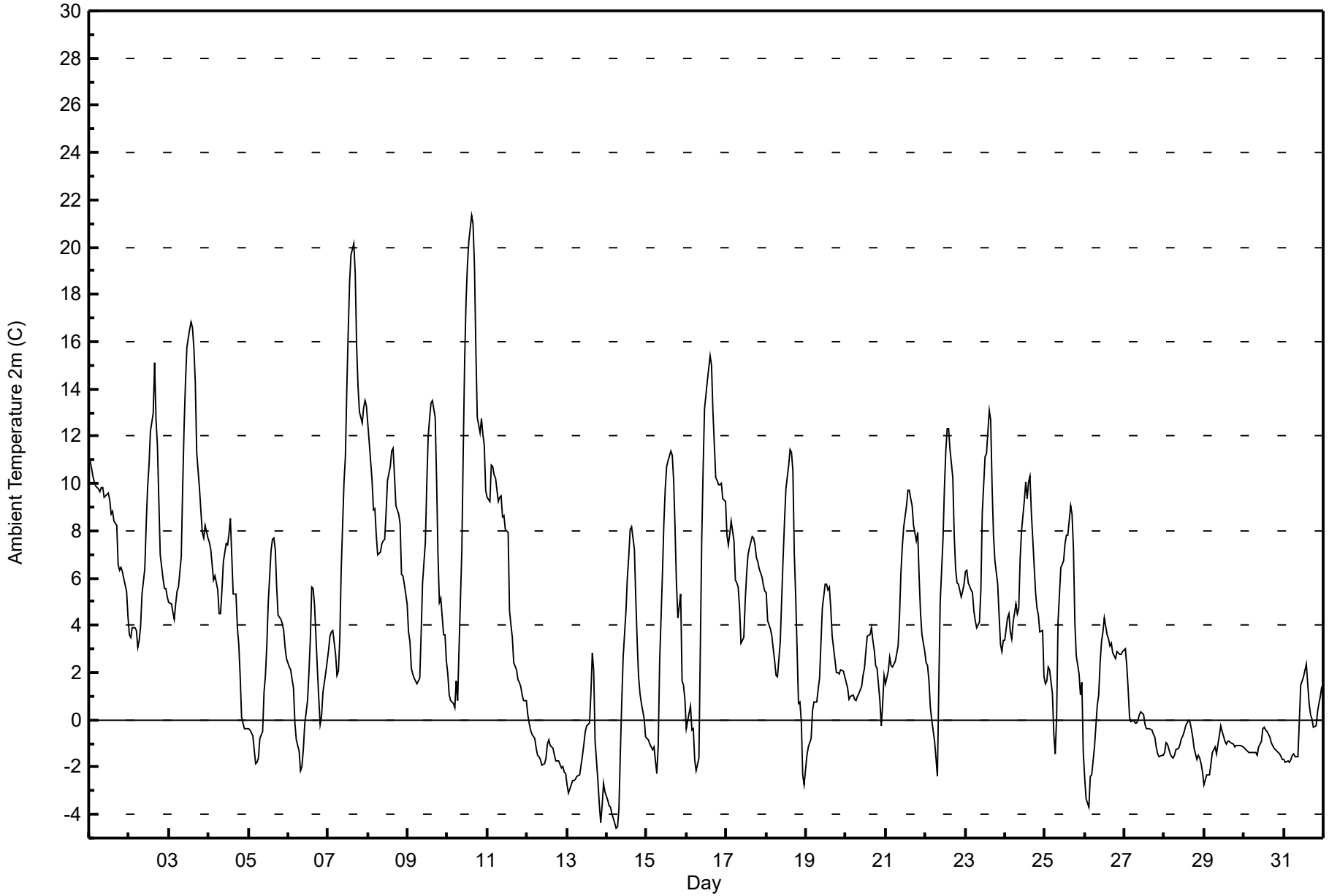
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	11.0	10.6	10.3	10.1	9.9	9.8	9.6	9.8	9.8	9.4	9.5	9.6	9.3	8.7	8.9	8.4	8.2	6.6	6.3	6.4	6.3	5.9	5.5	4.3	8.5	11.0
2-Oct	3.6	3.5	3.9	3.9	3.8	3.1	3.3	4.0	5.3	6.4	8.3	9.8	10.8	12.2	13.0	15.1	12.7	11.6	9.3	7.0	6.0	5.6	5.6	5.2	7.2	15.1
3-Oct	5.0	4.9	4.5	4.2	4.9	5.4	5.6	6.9	9.8	12.4	14.3	15.8	16.5	16.8	16.6	15.7	14.3	11.3	9.8	8.8	7.9	7.7	8.3	7.7	9.8	16.8
4-Oct	7.5	7.2	6.6	5.9	6.1	5.5	4.5	4.5	5.5	6.7	7.5	7.4	7.9	8.5	6.9	5.3	5.4	3.9	3.2	1.8	0.1	-0.4	-0.4	-0.3	4.9	8.5
5-Oct	-0.4	-0.4	-0.7	-1.2	-1.9	-1.8	-1.6	-0.8	-0.5	1.2	1.9	3.2	5.0	7.2	7.6	7.7	7.2	5.6	4.4	4.2	4.1	3.8	3.1	2.6	2.5	7.7
6-Oct	2.2	2.1	1.7	1.4	-0.1	-0.9	-1.3	-2.1	-2.0	-1.3	-0.2	0.8	2.0	3.5	5.6	5.5	4.9	2.2	0.9	-0.2	0.2	1.2	2.0	2.5	1.3	5.6
7-Oct	3.0	3.5	3.7	3.8	2.8	1.9	2.0	3.4	6.3	10.1	11.1	14.0	16.4	18.6	19.7	20.2	18.9	15.8	14.1	13.0	12.6	13.2	13.5	13.3	10.6	20.2
8-Oct	12.5	11.7	10.1	8.9	8.9	7.8	7.0	7.1	7.5	7.6	7.6	8.7	10.1	10.7	11.4	11.5	10.3	9.1	8.7	8.3	6.2	6.1	5.7	4.9	8.7	12.5
9-Oct	3.7	3.3	2.2	1.9	1.8	1.5	1.6	1.8	3.7	5.8	7.5	9.9	11.9	12.7	13.4	13.5	12.8	10.2	7.0	4.9	5.1	3.6	3.6	2.5	6.1	13.5
10-Oct	1.9	1.1	0.8	0.7	0.5	1.7	0.8	3.0	7.2	11.4	15.2	17.7	19.3	20.3	21.3	21.0	19.2	15.7	12.8	12.2	12.8	12.1	11.6	9.7	10.4	21.3
11-Oct	9.4	9.2	10.8	10.7	10.4	10.3	9.2	9.4	9.5	8.6	8.6	8.1	7.9	4.6	4.0	3.5	2.4	2.1	1.7	1.6	1.4	1.1	0.8	0.8	6.1	10.8
12-Oct	0.2	-0.1	-0.4	-0.6	-0.8	-1.2	-1.5	-1.5	-1.7	-1.9	-1.9	-1.6	-1.0	-0.8	-1.1	-1.2	-1.5	-1.7	-1.7	-1.7	-2.0	-2.0	-2.2	-2.3	-1.3	0.2
13-Oct	-2.7	-3.1	-2.8	-2.6	-2.6	-2.5	-2.4	-2.4	-1.9	-1.5	-1.0	-0.5	-0.3	-0.2	1.1	2.8	2.1	-0.9	-2.6	-3.6	-4.3	-3.6	-2.7	-3.1	-1.7	2.8
14-Oct	-3.4	-3.6	-3.7	-4.0	-4.2	-4.6	-4.5	-3.8	-1.4	0.8	2.7	4.6	6.1	6.9	8.0	8.2	7.2	5.1	3.3	1.8	1.1	0.7	0.1	-0.7	0.9	8.2
15-Oct	-0.8	-0.9	-1.0	-1.2	-1.2	-1.7	-2.3	-1.1	2.4	6.2	8.3	9.7	10.7	10.9	11.4	11.2	10.1	8.1	5.7	4.3	5.3	1.6	1.4	0.9	4.1	11.4
16-Oct	-0.4	0.3	0.6	-0.4	-0.4	-1.7	-2.2	-1.6	2.9	7.6	10.6	13.2	14.3	14.9	15.4	15.0	13.0	10.2	10.1	9.9	9.9	10.0	9.4	9.2	7.1	15.4
17-Oct	7.8	7.4	7.9	8.4	7.6	5.9	5.8	5.6	4.7	3.2	3.5	5.0	6.2	7.0	7.3	7.7	7.7	7.4	6.9	6.7	6.4	6.0	5.7	5.4	6.4	8.4
18-Oct	5.4	4.2	3.8	3.6	3.0	2.5	1.9	1.8	3.3	5.1	6.8	8.3	9.8	10.8	11.4	11.3	10.5	7.0	5.2	0.7	0.8	-0.1	-2.3	-2.8	4.7	11.4
19-Oct	-1.5	-1.1	-1.0	-0.8	0.4	0.7	0.8	1.3	1.8	3.3	4.7	5.7	5.7	5.5	5.6	4.8	3.6	2.6	2.0	2.0	1.9	2.1	2.1	1.8	2.2	5.7
20-Oct	1.6	1.3	0.8	1.0	1.1	0.9	0.8	1.0	1.1	1.4	1.9	2.2	2.9	3.5	3.6	3.9	3.4	2.9	2.3	2.2	0.8	-0.3	0.7	1.9	1.8	3.9
21-Oct	1.6	2.1	2.6	2.3	2.2	2.4	2.5	3.1	4.4	6.2	7.4	8.2	9.1	9.7	9.7	9.4	9.0	8.2	7.6	7.9	6.0	4.5	3.6	2.9	5.5	9.7
22-Oct	2.4	2.3	1.6	0.5	0.0	-0.9	-1.6	-2.4	1.3	5.0	7.6	9.8	11.4	12.3	12.3	11.4	10.3	7.8	6.4	5.8	5.8	5.2	5.4	5.7	5.2	12.3
23-Oct	6.3	6.3	5.8	5.5	5.4	4.6	4.2	3.9	4.1	5.5	8.8	9.9	11.1	11.3	13.1	12.7	9.9	7.8	6.8	5.7	4.4	3.2	2.9	3.3	6.8	13.1
24-Oct	3.4	4.3	4.5	3.7	3.4	4.2	4.9	4.5	4.7	6.8	8.0	9.3	10.1	9.4	10.1	10.3	8.8	6.5	5.4	4.7	4.4	3.7	3.8	1.8	5.9	10.3
25-Oct	1.6	1.6	2.2	2.1	1.1	-0.6	-1.5	0.1	4.1	6.4	6.6	6.7	7.4	7.8	7.8	9.1	8.7	7.2	4.1	2.7	1.9	1.1	1.6	-1.4	3.7	9.1
26-Oct	-2.4	-3.3	-3.7	-2.4	-2.4	-1.8	-1.1	0.7	1.0	2.4	3.3	3.7	4.3	3.6	3.4	3.1	3.3	2.8	2.6	2.9	2.8	2.8	2.8	2.9	1.3	4.3
27-Oct	3.0	2.3	1.3	0.1	-0.1	0.0	-0.1	-0.2	0.0	0.2	0.4	0.2	-0.2	-0.4	-0.4	-0.4	-0.4	-0.6	-0.7	-1.2	-1.4	-1.6	-1.5	-1.5	-0.1	3.0
28-Oct	-1.4	-1.0	-1.0	-1.4	-1.6	-1.6	-1.5	-1.3	-1.2	-1.0	-0.8	-0.7	-0.5	-0.2	0.0	-0.1	-0.4	-0.7	-1.2	-1.7	-1.5	-1.6	-1.8	-2.2	-1.1	0.0
29-Oct	-2.7	-2.3	-2.3	-2.3	-1.8	-1.4	-1.1	-1.5	-1.0	-0.7	-0.3	-0.5	-0.9	-1.0	-0.9	-0.9	-1.0	-1.0	-1.2	-1.1	-1.1	-1.1	-1.1	-1.1	-1.3	-0.3
30-Oct	-1.2	-1.3	-1.3	-1.4	-1.4	-1.4	-1.4	-1.4	-1.5	-1.1	-0.9	-0.4	-0.3	-0.4	-0.5	-0.7	-1.0	-1.1	-1.2	-1.3	-1.3	-1.4	-1.6	-1.7	-1.1	-0.3
31-Oct	-1.7	-1.8	-1.7	-1.8	-1.7	-1.5	-1.4	-1.6	-1.6	-0.1	1.5	1.6	1.8	2.3	1.5	0.7	0.2	0.0	-0.3	-0.3	0.3	0.7	1.0	1.4	-0.1	2.3
	2.4	2.3	2.1	1.9	1.7	1.4	1.3	1.6	2.8	4.2	5.4	6.4	7.2	7.6	8.0	7.9	7.1	5.5	4.4	3.7	3.3	2.9	2.8	2.4	Diurnal Average	
	12.5	11.7	10.8	10.7	10.4	10.3	9.6	9.8	9.8	12.4	15.2	17.7	19.3	20.3	21.3	21.0	19.2	15.8	14.1	13.0	12.8	13.2	13.5	13.3	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Sawbones Bay - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	210	28.23	28.23
0 - 10	438	58.87	87.10
10 - 20	92	12.37	99.46
> 20	4	0.54	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 99.1 % on Oct 1 08:00

Maximum Daily Average: 96.7 % on Oct 1

Minimum Value: 27.5 % on Oct 10 15:00

Minimum Daily Average: 55.5 % on Oct 7

Maximum Diurnal Average: 84.1 % at hour 7

Minimum Diurnal Average: 60.7 % at hour 15

Monthly Average: 74.70 %

Percentiles: P_1 = 33.0 P_{10} = 48.1 Q_1 = 61.1 Median = 77.5 Q_3 = 90.1 P_{90} = 96.1 P_{99} = 98.4

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

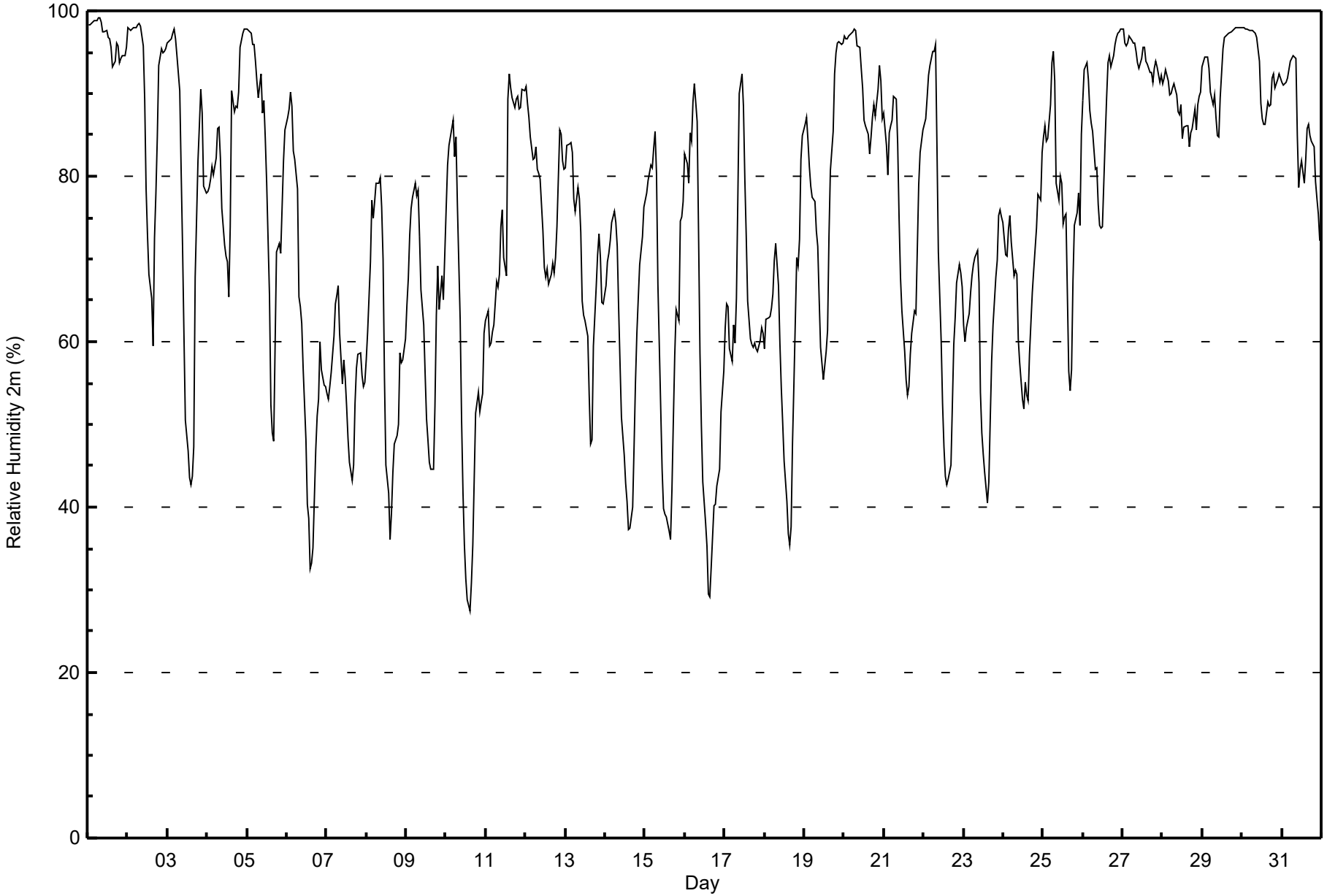
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	98.3	98.3	98.4	98.7	98.8	98.9	99.1	99.1	98.6	97.5	97.5	97.7	96.9	96.6	95.5	93.3	93.9	96.2	95.7	93.8	94.2	94.5	94.5	95.6	96.7	99.1
2-Oct	98.0	97.8	97.7	98.0	97.9	97.9	98.4	98.5	98.2	95.8	89.3	78.5	72.8	68.2	65.2	59.5	72.5	77.9	84.8	93.4	95.4	95.0	95.1	95.5	88.4	98.5
3-Oct	96.2	96.5	96.6	97.4	97.9	96.6	94.6	90.4	80.6	71.5	60.8	50.6	46.7	43.5	42.8	43.7	47.3	67.8	81.8	86.1	90.5	87.6	78.8	77.9	76.0	97.9
4-Oct	78.2	78.6	79.7	81.2	80.1	82.3	85.7	85.9	82.3	76.2	71.8	70.3	69.7	65.5	73.9	90.4	87.9	88.4	88.3	90.1	95.6	97.3	97.8	97.9	83.1	97.9
5-Oct	97.7	97.6	97.3	95.9	95.9	94.0	91.5	89.5	92.4	87.6	89.1	84.6	79.1	65.6	52.4	49.0	47.9	59.5	70.9	71.9	70.7	76.3	81.9	85.6	80.2	97.7
6-Oct	87.2	88.2	90.2	88.4	83.0	82.1	78.4	65.5	64.2	62.2	56.9	48.2	40.3	38.6	32.6	33.3	35.0	46.9	51.0	53.1	59.9	56.6	54.7	54.6	60.5	90.2
7-Oct	53.8	53.1	54.6	56.3	60.7	64.5	65.6	66.8	61.0	54.9	57.8	55.6	52.2	48.3	45.5	43.3	45.0	52.6	56.8	58.4	58.7	55.9	54.6	55.1	55.5	66.8
8-Oct	57.8	61.2	69.6	77.0	75.0	77.0	79.1	79.1	79.9	76.3	70.1	55.6	45.0	41.8	36.1	39.3	44.2	47.7	48.6	50.1	58.6	57.5	57.8	60.4	60.2	79.9
9-Oct	64.3	67.6	72.8	76.2	77.5	79.2	77.6	78.3	72.7	66.2	62.0	56.0	50.7	48.1	45.4	44.6	44.6	52.2	63.3	69.1	64.0	68.0	65.1	70.6	64.0	79.2
10-Oct	76.1	81.4	83.7	85.7	86.7	82.3	84.8	76.7	62.6	50.5	41.6	35.4	31.4	28.8	27.5	30.8	35.4	43.5	51.4	53.9	51.6	52.8	53.8	61.1	57.1	86.7
11-Oct	62.6	63.7	59.6	59.8	61.1	62.0	67.2	66.6	68.2	73.9	76.0	70.1	68.0	89.3	92.3	90.7	89.5	88.3	89.3	89.7	88.1	88.4	90.5	90.3	76.9	92.3
12-Oct	90.8	88.7	87.1	84.8	82.0	82.2	83.6	80.9	80.4	79.7	73.3	69.0	67.9	68.8	67.0	68.1	69.5	68.3	70.2	74.0	85.6	85.1	81.8	80.8	77.9	90.8
13-Oct	81.1	83.7	83.9	84.0	82.9	77.4	75.7	78.7	77.3	73.2	64.9	63.1	62.6	60.7	53.6	47.6	48.1	59.5	66.6	70.6	73.1	70.2	64.7	64.5	69.5	84.0
14-Oct	66.7	69.6	70.7	72.2	74.4	75.8	74.4	71.6	64.0	57.3	50.8	46.4	42.9	40.6	37.4	37.5	40.0	47.3	55.2	61.1	65.3	69.4	72.7	76.2	60.0	76.2
15-Oct	77.0	77.9	79.5	81.4	80.9	83.3	85.5	80.4	66.9	52.0	44.5	39.8	39.2	38.9	37.2	36.0	42.0	50.3	58.4	63.9	62.6	74.5	75.1	77.0	62.7	85.5
16-Oct	82.8	81.5	79.2	85.2	84.2	88.9	91.2	86.6	73.1	58.7	49.8	43.0	38.2	35.3	29.5	29.2	32.7	40.1	40.4	42.5	43.6	44.6	51.5	56.5	57.8	91.2
17-Oct	61.8	64.6	64.3	59.1	57.6	62.0	59.9	65.3	77.3	90.0	92.4	88.6	79.6	72.7	64.9	60.3	59.7	59.3	59.9	59.2	58.8	60.2	61.7	61.1	66.7	92.4
18-Oct	59.1	62.7	62.9	63.1	64.1	65.8	69.8	71.9	66.7	59.8	54.3	50.1	45.5	40.6	36.7	35.4	37.7	47.8	54.9	70.2	69.2	72.4	82.1	84.9	59.5	84.9
19-Oct	86.4	87.1	84.3	81.2	78.9	77.4	76.9	73.3	71.5	65.3	59.2	55.5	57.1	58.8	61.3	72.7	80.8	85.4	92.4	94.9	96.2	96.3	96.0	96.1	78.5	96.3
20-Oct	96.9	96.7	96.7	97.0	97.3	97.5	97.8	97.7	95.7	95.6	93.0	90.7	86.8	86.0	85.1	82.7	84.7	87.1	88.6	87.3	90.5	93.4	91.6	87.0	91.8	97.8
21-Oct	87.6	83.7	80.2	85.3	86.1	86.8	89.7	89.4	83.9	74.9	67.7	63.8	58.8	55.5	53.6	54.6	58.5	61.1	63.8	63.4	71.2	79.0	82.9	85.7	73.6	89.7
22-Oct	86.3	86.9	89.5	92.2	93.4	95.1	95.1	95.9	83.7	70.9	60.2	52.5	47.3	43.7	42.7	43.4	45.0	52.4	59.7	62.9	67.1	69.3	68.3	66.6	69.6	95.9
23-Oct	62.1	60.0	61.7	63.4	66.0	68.0	69.4	70.2	70.9	67.1	53.9	49.0	46.5	44.2	40.4	43.0	50.5	57.6	62.0	67.8	69.8	75.2	76.0	75.1	61.2	76.0
24-Oct	74.4	70.5	70.4	73.6	75.3	72.1	68.0	68.7	68.1	60.4	57.5	53.1	51.9	55.2	53.5	52.9	58.5	65.9	68.7	71.2	73.8	77.9	77.1	82.8	66.7	82.8
25-Oct	84.7	86.1	84.2	84.7	88.6	93.7	95.1	91.6	79.1	77.2	79.9	79.2	74.2	75.1	75.5	56.4	54.0	56.7	67.4	74.1	75.6	78.0	74.0	85.1	77.9	95.1
26-Oct	89.2	92.9	93.8	91.7	88.0	86.5	85.4	80.8	81.0	76.6	74.1	73.8	73.9	84.5	89.4	93.7	94.6	93.2	94.5	96.0	96.7	97.3	97.4	97.8	88.5	97.8
27-Oct	97.7	96.1	95.8	96.1	96.9	96.5	96.1	96.1	95.1	93.8	93.1	94.2	95.6	95.5	93.8	93.5	92.5	92.6	91.3	93.1	93.8	93.2	91.3	92.1	94.4	97.7
28-Oct	91.3	91.8	92.8	91.5	89.8	90.0	90.7	91.2	89.8	87.8	87.4	88.7	84.6	86.0	86.1	86.1	83.6	85.2	85.7	88.2	85.7	88.7	89.7	90.2	88.4	92.8
29-Oct	93.1	94.4	94.5	94.4	93.0	90.2	88.7	89.8	87.1	84.9	84.8	89.5	95.5	96.8	96.9	97.2	97.3	97.5	97.7	97.8	97.9	97.9	97.9	97.9	93.9	97.9
30-Oct	97.9	97.9	97.9	97.7	97.7	97.6	97.6	97.5	97.4	96.8	94.0	88.8	86.9	86.4	86.3	89.0	88.5	88.6	91.8	92.3	90.7	91.7	92.4	91.8	93.1	97.9
31-Oct	91.3	91.1	91.3	91.9	92.9	93.9	94.3	94.6	94.2	84.9	78.6	80.8	81.9	79.1	82.0	85.7	86.3	84.9	84.3	83.5	79.3	77.2	75.4	72.2	85.5	94.6
	81.6	82.2	82.6	83.4	83.4	83.8	84.1	82.9	79.5	74.8	70.5	66.5	63.5	62.5	60.7	60.7	62.8	67.8	72.1	75.0	76.6	78.1	78.2	79.5	Diurnal Average	
	98.3	98.3	98.4	98.7	98.8	98.9	99.1	99.1	98.6	97.5	97.5	97.7	96.9	96.8	96.9	97.2	97.3	97.5	97.7	97.8	97.9	97.9	97.9	97.9	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Sawbones Bay - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	27	3.63	3.63
40 - 60	147	19.76	23.39
60 - 80	229	30.78	54.17
80 - 100	341	45.83	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Sawbones Bay - October 2025

Maximum Speed: 30 km/h on Oct 25 12:00

Maximum Daily Speed Average: 19.9 km/h on Oct 27

Minimum Speed Value: 0 km/h on Oct 11 08:00

Minimum Daily Speed Average: 3.0 km/h on Oct 6

Maximum Diurnal Speed Average: 8.2 km/h at hour 14

Minimum Diurnal Speed Average: 3.1 km/h at hour 1

Monthly Average Velocity: 4.9 km/h 241.8 deg

Percentiles: P_1 = 3 P_{10} = 6 Q_1 = 8 Median = 11 Q_3 = 16 P_{90} = 20 P_{99} = 25

Hours in Service: 744

Hours of Data: 737

Hours of Missing Data: 7

Percent Operational Time: 99.1

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NW11	NNW14	N12	N9	NNW7	NW9	NW9	NW7	WNW11	NW12	NW10	NW10	NNW15	NNW13	NNW12	NNW15	NNW11	NNW12	NW9	WNW8	WNW8	W10	W10	WNW7	NW9.7	NNW15
2-Oct	NW7	W10	WNW9	WNW6	WNW3	S3	SSE3	SSE3	SE4	SE5	SSE7	ESE4	ESE4	SE6	ESE6	S6	SSE4	SSE3	SSE4	SSE6	SSE7	SSE8	SSE9	SSE8	S3.1	W10
3-Oct	SSE9	SSE9	SSE8	SSE7	SSE7	SSE9	S9	S9	SSW12	SSW11	SSW12	SSW14	SW19	SW20	SW18	WSW21	W21	WSW13	SSW7	WSW12	SSW11	SW11	WSW16	W14	SW10.3	W21
4-Oct	WSW16	WSW14	W17	W18	WSW18	WSW18	W18	W21	W17	WNW16	WNW15	WNW15	W15	W16	WNW18	WNW12	WNW14	WNW17	WNW19	WNW20	WNW14	WNW14	WNW13	WNW11	W15.4	W21
5-Oct	WNW11	WNW9	UO	UO	UO	UO	UO	UO	UO	S8	S7	SSW12	SSW15	SSW16	WSW15	WSW14	WNW19	NW15	NW11	WNW10	WNW14	WSW17	W18	W16	----	WNW19
6-Oct	W18	W16	WNW9	NNW10	N13	NNW12	N14	NNW17	NNW14	NNW13	NNW8	NNW6	NNW4	NNW1	S6	SSE6	ESE3	ESE7	ESE7	ESE7	SE7	SSE7	SSE9	SSE10	NNW3.0	W18
7-Oct	SSE10	SSE12	SSE11	SSE10	SSE8	SSE9	SE6	SSE9	SSE11	S11	S12	S12	S12	SSW12	S13	S14	S12	SSE11	SSE13	SE11	SE12	SE13	SE11	SE7	SSE10.5	S14
8-Oct	SW6	W5	WNW17	WNW16	WNW20	WNW11	W14	W17	WNW19	W22	W22	WNW21	WNW21	W21	W20	W20	W18	W15	WSW14	WSW14	SSW11	SSW15	WSW16	WSW17	W15.1	W22
9-Oct	W17	W20	W17	WSW14	WSW15	WSW16	WSW21	SW12	WSW16	WSW18	W18	WSW15	SW15	SSW18	SW18	SW16	SSW15	SSW9	S7	S8	S8	S8	S8	S7	SW12.2	WSW21
10-Oct	SSE7	SSE7	SSE7	SSE8	SE6	SE7	SSE9	SSE11	SSE11	SSE11	S12	S13	S14	S14	S13	S15	S12	SSE9	SSE9	SSE11	SSE11	SSE11	SSE10	SSE8	SSE10.0	S15
11-Oct	SE9	SSE12	S12	SSE11	SSE10	S7	SSE5	SW0	SW3	WNW15	NW17	NW21	WNW19	WNW23	WNW16	WNW22	WNW20	WNW19	WNW17	WNW16	WNW17	WNW14	NW14	NW15	WNW9.1	WNW23
12-Oct	NNW17	NNW20	NNW23	NNW24	NNW24	NNW24	NNW23	NNW24	NNW22	NNW22	NNW23	NNW25	NNW20	NNW20	NNW19	NNW15	NNW17	NNW17	NNW12	NNW12	NNW14	NNW14	NNW14	NW8	NNW18.8	NNW25
13-Oct	NW8	WNW10	WNW10	WNW10	WNW9	WNW7	WNW8	WNW9	W5	W6	WSW5	SSW7	S10	SSW12	SSW11	S10	S10	S6	S7	S6	S7	S11	S13	S12	SW5.5	S13
14-Oct	S12	S14	S13	S13	S11	S11	S11	S11	S15	SSW18	SSW22	SSW23	SSW22	SSW21	SSW19	SSW17	SSW17	SSW12	S9	S8	S9	S8	S7	S6	S13.5	SSW23
15-Oct	S7	S8	S7	S8	S10	S7	SSE8	SSE9	SSE12	S14	S15	S19	S18	S17	SSW16	SW17	SW15	SSW12	SSW9	SSW7	SW10	SSE4	S6	S5	S10.2	SSW19
16-Oct	SSE5	S4	S7	S7	S7	S5	S7	S6	S5	S8	S10	SSW12	SSW15	S16	S16	S14	S10	SSE8	SSE9	SSE7	SSE9	SSE9	S8	SSW7	S8.7	S16
17-Oct	SSE6	S6	SSW13	SW18	WSW16	SW15	SW18	WSW24	W23	WNW24	W21	W21	W25	W22	WNW23	WNW23	WNW17	W22	W17	W19	W17	W17	W14	W17	W16.5	W25
18-Oct	W18	W16	W21	W20	W20	W22	W21	W16	W22	WNW21	WNW19	WNW17	W17	W20	W21	WNW18	WNW9	NNW3	SSE5	SSE6	SE2	ESE4	E5	ESE4	W12.5	W22
19-Oct	ESE7	ESE8	ESE9	ESE8	ESE8	E7	E8	E10	E10	E10	E8	E8	ENE10	NE7	ESE9	E6	NE8	NE7	NNE6	NE7	NE7	NE9	NE8	NNE8	ENE7.1	E10
20-Oct	N8	N9	N7	NNW9	NNW9	NNW10	NNW10	NW9	NW11	WNW9	WNW10	WNW9	WNW8	W10	W11	SSW9	SSW11	S8	S9	S9	SSE8	SSE9	S12	SSE13	W3.3	SSE13
21-Oct	SSE12	SSE13	S12	S12	S11	S10	S9	SSW11	SSW15	WSW20	W26	W26	W23	W23	W23	W20	WSW17	WNW15	WNW11	W12	NNW5	NE5	ENE4	ESE2	WSW9.5	W26
22-Oct	NNE5	NE5	ESE4	E5	E8	ESE5	SSE6	SSE2	SSE5	S5	SE6	SSE7	S9	S9	SE10	SE11	SE11	SE9	SE9	SE11	SE12	ESE11	SE12	SE12	SE7.0	SE12
23-Oct	SE14	SE13	SE11	SE11	SE10	S9	SSE8	SE7	SE7	SSE6	SSE9	SE7	SE7	SE9	SSE8	SE8	ESE8	ESE8	SE9	SSE11	SE12	SSE12	SSE12	SSE13	SE9.3	SE14
24-Oct	SSE10	SE10	SE9	SE8	SSE10	SSE11	SSE13	SSE12	SSE8	SSE13	SSE9	SSE10	SSE7	ESE9	SSE8	SE10	SE8	SE8	SE8	SSE8	ESE8	E7	E6	NE6	SE8.4	SSE13
25-Oct	NE6	NNE6	ENE7	E7	SE4	S3	S7	S10	SW15	WSW21	WSW26	W30	W26	WSW27	W24	WSW20	WSW21	SW13	S10	SSW8	SSW3	SW3	SSE3	ESE5	WSW8.8	W30
26-Oct	SE5	SE5	E5	E7	E8	ENE9	ENE11	ENE11	ENE10	ENE14	ENE14	ENE12	NE12	NE12	NE9	NNE7	NE8	NNE14	NNE12	NNE12	NNE7	N6	NW9	WNW8	NE7.4	ENE14
27-Oct	WNW10	NW15	WNW13	W16	WSW17	W17	W21	W23	W23	W24	W25	W25	W23	W23	W24	W24	W23	W22	W21	W19	WNW20	WNW19	W20	W18	W19.9	W25
28-Oct	W20	W22	W20	W21	WNW20	W19	WNW19	WNW19	W22	W20	W17	W20	WNW24	W23	W19	W17	WNW18	W15	W11	WSW9	WSW8	SSW6	S6	SE5	W15.7	WNW24
29-Oct	SE5	ESE7	ESE8	E10	ESE10	E10	E13	E13	E6	E9	NE2	N5	N9	NE6	N3	NNW4	NNW5	NW5	NW6	NW8	NW8	NNW7	NW8	NW7	NE3.7	E13
30-Oct	NW7	NW7	NW5	NW4	NW5	WNW5	NW5	NW5	WNW5	WNW6	WNW9	WNW10	W11	W7	WSW6	SSW9	SSW10	SSW8	S6	S6	SSW8	S7	S7	SSW6	WSW4.2	W11
31-Oct	SSW7	S8	S9	SSE9	S9	S8	S9	SSE10	SSE15	SSE15	SSE16	SSE15	SSE16	SSE16	SSE15	SSE16	SSE18	SSE18	SSE20	SSE20	SSE19	S19	S16	S14	SSE13.8	SSE20
	WSW3.1	WSW3.2	WSW3.5	WSW3.4	WSW3.5	WSW3.4	WSW3.7	WSW4.0	WSW5.5	WSW6.5	WSW7.0	WSW7.5	WSW8.0	WSW8.2	WSW7.9	WSW7.5	WSW6.4	WSW4.2	SW3.6	SW4.2	SW3.5	SSW3.7	SW3.9	SW3.6	Diurnal Average	
	W20	W22	NNW23	NNW24	NNW24	NNW24	NNW23	WSW24	W23	W24	WSW26	W30	W26	WSW27	W24	W24	W23	W22	W21	SSE20	WNW20	WNW19	W20	W18	Diurnal Maximum	

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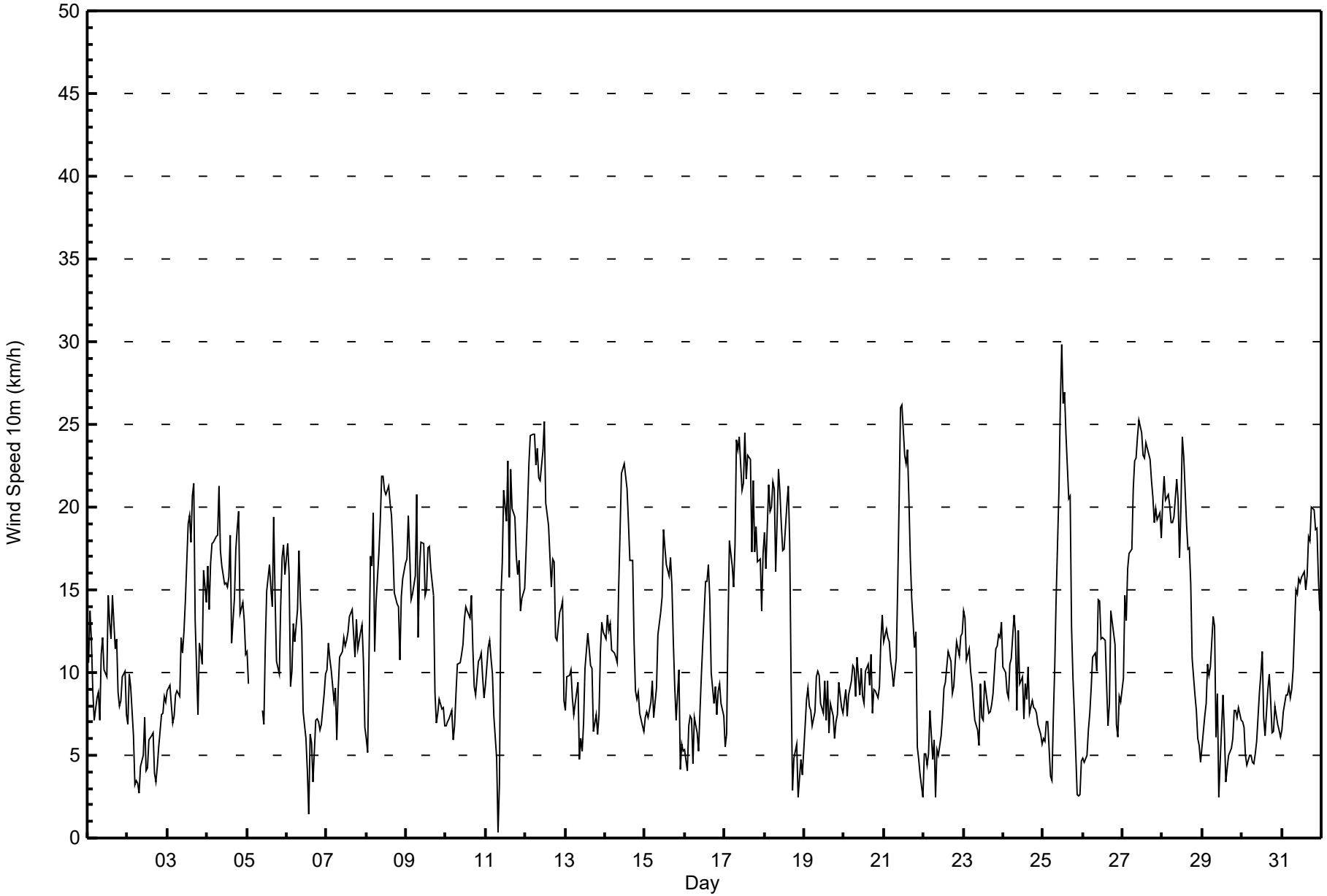
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Sawbones Bay - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	68	9.23	9.23
6 - 11	336	45.59	54.82
12 - 19	236	32.02	86.84
20 - 28	96	13.03	99.86
29 - 38	1	0.14	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 737

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Sawbones Bay - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	2	1	3	1	3	10	7	12	7	1	3	1	2	3	6	6	68
6 - 11	6	6	11	6	18	18	32	71	71	21	3	4	8	32	19	10	336
12 - 19	3	3	2	3	2	0	8	25	33	24	11	24	37	35	6	20	236
20 - 28	0	0	0	0	0	0	0	2	0	4	1	9	52	14	1	13	96
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	11	10	16	10	23	28	47	110	111	50	18	38	100	84	32	49	737

Total Number of Valid Hours: 737

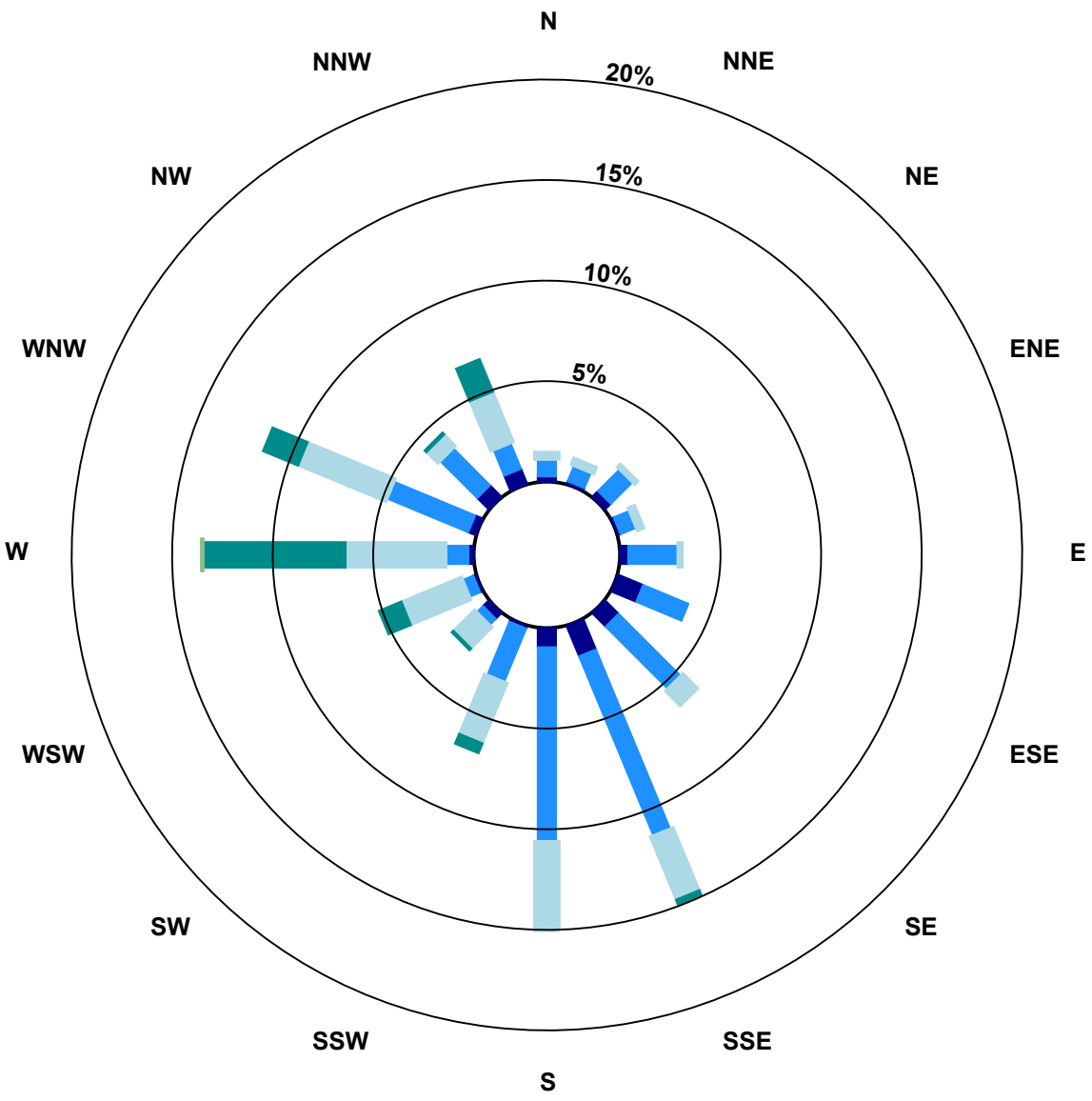
Total Number of Hours: 744

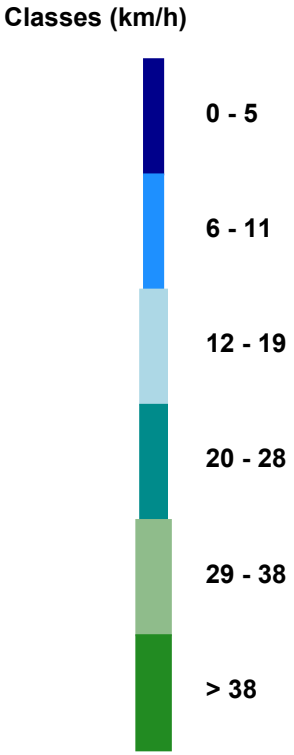
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Sawbones Bay





Total Number of Valid Hours: 737

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 11 km/h on Oct 28 11:00

Minimum Value: 1 km/h on Oct 2 20:00

Percentiles: $P_1 = 1$ $P_{10} = 1$ $Q_1 = 2$ Median = 3 $Q_3 = 4$ $P_{90} = 5$ $P_{99} = 6$

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	3	3	2	3	2	2	2	3	2	2	2	4	4	3	4	3	3	2	1	1	2	2	3	4
2-Oct	1	2	2	1	2	1	1	1	1	1	2	2	2	2	2	3	1	1	1	1	1	1	1	1	3
3-Oct	1	2	1	1	1	2	2	2	4	3	3	5	6	5	6	5	5	8	2	8	3	4	4	5	8
4-Oct	4	3	4	4	4	4	3	3	3	3	3	3	3	4	6	4	4	4	5	4	3	3	2	2	6
5-Oct	2	2	UO	UO	UO	UO	UO	UO	UO	2	2	3	4	5	4	5	5	4	4	5	5	3	4	4	5
6-Oct	3	3	2	5	4	3	4	4	3	3	3	3	3	3	3	3	2	1	1	1	1	1	2	2	5
7-Oct	2	3	3	2	2	2	2	2	3	4	4	4	4	4	4	4	4	3	3	3	3	3	3	2	4
8-Oct	4	5	3	3	4	4	3	3	4	4	4	5	5	5	5	4	3	4	4	3	3	3	4	4	5
9-Oct	3	4	3	3	5	6	4	3	4	4	4	4	4	5	4	4	4	2	1	1	2	1	2	1	6
10-Oct	1	1	1	1	1	1	2	4	3	3	4	4	4	4	4	5	4	2	1	2	2	2	3	1	5
11-Oct	2	2	3	3	2	3	2	3	4	4	5	5	6	7	4	6	5	5	4	4	3	3	3	3	7
12-Oct	5	5	6	6	6	6	6	6	6	6	6	6	5	5	5	4	4	4	3	3	3	3	3	2	6
13-Oct	1	2	2	2	2	1	1	2	2	2	2	3	3	4	4	4	3	2	1	1	1	3	4	3	4
14-Oct	3	4	3	3	3	3	3	3	5	6	7	7	7	6	6	4	5	3	2	2	2	1	1	1	7
15-Oct	1	1	2	2	2	3	2	2	3	4	4	5	5	5	5	5	5	3	2	2	4	2	2	3	5
16-Oct	2	3	2	2	2	1	1	1	2	2	3	4	4	5	5	4	4	2	2	2	2	2	3	4	5
17-Oct	1	2	4	4	4	4	5	5	5	6	4	4	5	4	5	5	5	3	3	3	3	2	3	3	6
18-Oct	4	4	4	4	4	4	4	3	5	4	4	3	4	5	5	5	3	3	2	2	2	1	2	2	5
19-Oct	1	1	1	1	2	1	2	2	2	2	2	2	3	1	3	3	2	1	1	1	2	2	2	2	3
20-Oct	2	2	2	3	2	2	2	2	2	2	2	3	3	4	4	3	3	2	2	2	2	2	3	3	4
21-Oct	3	3	3	3	3	2	2	2	4	5	5	5	5	5	6	4	4	3	2	4	1	1	1	1	6
22-Oct	2	1	1	1	1	2	2	1	2	2	2	3	3	3	4	3	2	2	2	3	3	3	3	3	4
23-Oct	4	4	3	3	3	2	2	2	1	2	2	2	3	3	2	2	2	1	2	2	2	2	2	2	4
24-Oct	2	2	2	2	2	2	3	3	2	3	3	3	2	3	2	3	2	1	2	2	2	1	1	1	3
25-Oct	1	1	2	1	1	2	1	3	6	6	6	6	6	6	6	5	5	5	1	3	2	1	2	2	6
26-Oct	2	2	1	1	2	1	2	2	2	3	3	2	2	2	2	2	3	4	3	3	2	2	1	1	4
27-Oct	2	4	3	3	3	4	4	3	3	4	4	4	4	4	4	4	4	3	3	3	4	3	3	3	4
28-Oct	3	4	5	4	4	3	4	4	5	4	11	5	5	4	4	4	4	4	4	5	4	3	2	1	11
29-Oct	2	2	2	2	2	2	2	3	3	3	1	1	2	3	1	1	1	1	1	2	2	2	2	1	3
30-Oct	1	1	1	1	1	1	1	1	1	1	1	2	2	3	3	2	3	2	1	1	2	2	2	2	3
31-Oct	2	2	2	2	2	3	3	3	4	4	4	4	4	4	4	4	5	5	5	5	5	5	4	4	5
	5	5	6	6	6	6	6	6	6	6	11	7	7	7	6	6	5	8	5	8	5	5	4	5	
	Diurnal Maximum																								

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Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Sawbones Bay - October 2025

Direction of Maximum Speed: 263 deg on Oct 25 12:00
Direction of Maximum Daily Speed Average: 277.6 deg on Oct 27

Direction of Minimum Speed: 217 deg on Oct 11 08:00

Direction of Minimum Daily Speed Average: 3.0 deg on Oct 6

Monthly Average Direction: 241.8 deg

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	325	336	353	356	345	322	320	319	300	309	314	309	330	329	334	337	330	336	315	290	285	276	277	287	320.1
2-Oct	316	281	287	291	283	174	163	168	144	145	150	119	106	129	117	174	167	151	150	159	155	163	165	160	169.1
3-Oct	157	160	162	164	163	161	176	183	195	194	209	212	217	223	218	244	271	247	193	245	199	233	256	268	216.0
4-Oct	242	246	261	269	257	248	267	277	281	288	288	286	261	281	288	302	294	290	285	288	296	302	301	296	278.2
5-Oct	301	297	UO	UO	UO	UO	UO	UO	UO	183	179	199	208	213	242	250	290	313	320	297	285	256	273	267	--
6-Oct	277	279	284	327	352	344	355	348	344	343	328	345	339	347	188	154	112	109	119	118	144	151	158	158	331.5
7-Oct	153	154	159	158	156	153	142	159	162	171	181	176	191	195	177	180	173	158	155	141	140	143	143	130	161.9
8-Oct	230	259	282	284	294	301	281	279	285	281	280	283	286	280	277	277	280	277	249	240	213	210	238	254	271.8
9-Oct	267	269	273	249	243	248	253	236	248	253	260	250	214	211	216	215	207	194	186	185	190	184	186	173	234.0
10-Oct	165	166	165	168	146	124	157	157	160	164	172	176	173	174	177	173	178	164	161	160	153	156	158	153	164.3
11-Oct	145	159	171	161	161	176	166	217	218	294	322	319	288	288	299	295	301	294	294	294	295	298	306	310	287.0
12-Oct	332	336	335	336	338	338	338	338	343	343	342	338	345	337	343	344	344	342	335	328	335	333	337	320	338.3
13-Oct	304	293	295	292	301	296	290	283	271	275	254	200	191	201	192	176	181	180	186	178	170	172	183	176	222.5
14-Oct	179	182	181	173	176	174	178	174	185	196	192	200	202	196	197	203	194	195	190	182	182	181	181	174	188.7
15-Oct	179	178	180	176	182	169	157	159	165	190	191	191	187	182	201	217	230	203	192	200	234	160	187	171	190.1
16-Oct	164	190	178	184	187	177	181	181	176	176	187	197	210	191	186	181	181	166	164	163	155	163	184	203	182.0
17-Oct	158	191	211	236	237	216	217	253	266	282	278	278	278	280	286	282	284	278	279	277	278	277	280	276	266.3
18-Oct	271	263	274	271	273	275	275	267	273	282	284	283	273	279	281	282	299	330	149	159	140	103	92	112	274.4
19-Oct	115	102	107	108	115	95	85	81	81	96	91	80	63	55	106	83	50	40	32	38	34	45	43	26	75.1
20-Oct	7	4	350	347	341	330	336	310	304	299	299	294	283	259	266	207	202	180	177	185	164	156	169	165	269.0
21-Oct	159	159	172	176	177	172	180	193	211	247	267	272	271	259	267	267	257	285	287	260	347	52	77	104	242.6
22-Oct	29	46	115	87	95	117	150	166	148	175	146	162	179	172	135	131	141	125	128	130	127	121	128	130	132.2
23-Oct	138	134	134	130	143	169	152	140	144	167	156	135	138	133	156	141	119	123	129	149	145	161	159	157	144.1
24-Oct	151	145	144	146	159	159	160	161	163	157	156	160	148	121	149	145	135	126	140	147	121	99	81	49	143.9
25-Oct	46	29	74	83	128	173	173	190	223	244	251	263	263	250	260	257	249	231	187	192	207	227	158	102	240.6
26-Oct	131	132	87	79	98	76	66	71	69	62	70	64	53	45	50	13	35	32	16	20	17	351	308	298	49.2
27-Oct	298	313	297	271	256	266	272	275	275	275	275	275	276	276	276	277	275	277	279	281	282	283	279	279	277.6
28-Oct	279	276	279	281	283	281	282	287	279	278	277	279	285	280	279	278	283	273	272	251	255	196	176	135	276.6
29-Oct	124	102	105	92	103	91	81	83	90	87	56	2	9	41	350	336	343	323	318	317	324	327	322	311	44.7
30-Oct	310	314	326	323	304	303	325	320	303	300	294	294	274	261	257	209	207	199	183	186	202	191	178	195	257.0
31-Oct	194	173	175	168	172	179	177	166	164	164	165	159	160	161	154	149	152	156	157	158	165	169	171	180	164.0
	239.6	244.2	242.8	242.1	238.9	237.9	241.2	248.3	247.1	253.3	253.7	255.1	249.8	243.4	243.8	242.7	250.0	251.5	226.4	224.8	216.5	207.9	219.3	221.3	
	Diurnal Average																								

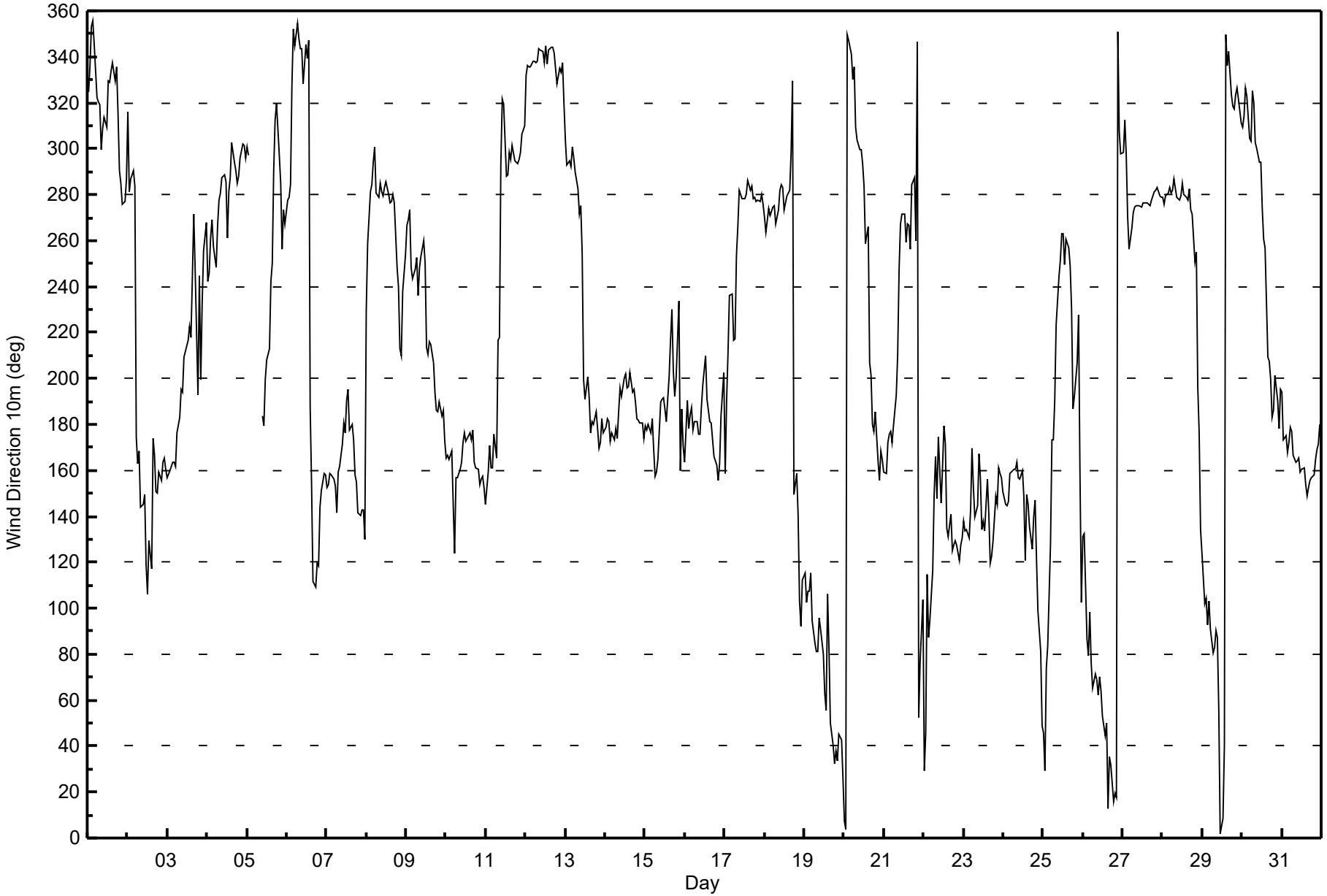
UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Sawbones Bay - October 2025



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Sawbones Bay - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 103 deg on Oct 11 08:00

Minimum Value: 6 deg on Oct 10 01:00

Percentiles: P_1 = 8 P_{10} = 11 Q_1 = 13 Median = 15 Q_3 = 18 P_{90} = 25 P_{99} = 61

Hours in Service:	744
Hours of Data:	737
Hours of Missing Data:	7
Hours of Calibration:	0
Percent Operational Time:	99.1

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	17	14	16	19	21	16	14	19	15	14	13	15	17	15	16	15	14	15	16	11	9	8	8	12	21
2-Oct	19	8	11	12	51	16	18	40	19	20	21	43	39	37	33	33	14	51	25	11	7	10	12	9	51
3-Oct	10	12	14	12	13	11	18	19	19	20	20	20	19	21	17	20	18	38	24	38	16	40	16	17	40
4-Oct	16	16	18	14	17	12	17	10	11	15	14	15	18	22	12	16	15	13	14	12	12	13	12	11	22
5-Oct	11	11	UO	UO	UO	UO	UO	UO	UO	20	19	19	16	19	20	22	13	13	14	24	13	16	13	14	24
6-Oct	10	11	11	24	15	14	18	17	17	22	36	49	64	93	34	35	39	16	13	13	15	14	14	15	93
7-Oct	14	15	15	14	15	15	19	17	16	22	19	21	21	23	20	18	17	14	15	17	16	16	16	15	23
8-Oct	48	69	11	10	12	18	9	9	12	12	11	14	16	18	17	17	14	16	20	16	17	15	19	16	69
9-Oct	15	14	12	14	19	19	11	20	16	15	18	24	20	19	17	17	15	15	13	12	14	10	13	10	24
10-Oct	6	8	8	9	18	17	12	14	15	17	18	19	19	20	19	17	17	15	11	13	15	14	13	13	20
11-Oct	13	14	15	15	14	29	31	103	72	30	18	16	16	16	14	14	13	14	13	13	13	12	13	12	103
12-Oct	20	14	15	15	14	16	15	16	16	18	19	18	19	17	20	20	19	17	16	16	15	16	15	21	21
13-Oct	13	10	11	10	12	13	10	11	52	39	43	29	19	20	31	22	18	14	14	11	12	15	17	15	52
14-Oct	15	16	15	14	15	15	17	16	17	17	17	17	18	17	17	17	16	14	14	13	13	12	10	9	18
15-Oct	12	12	14	12	15	17	14	14	15	16	17	17	18	16	20	17	22	16	14	22	21	54	20	22	54
16-Oct	17	39	25	13	14	16	8	10	20	16	18	20	19	17	16	17	16	11	12	17	15	13	27	48	48
17-Oct	19	15	23	20	21	18	17	13	15	11	10	11	12	12	12	11	12	9	9	9	9	9	9	8	23
18-Oct	10	15	10	10	11	10	10	14	12	11	12	12	17	15	14	13	13	64	22	28	55	36	14	15	64
19-Oct	15	10	12	11	17	13	11	9	10	16	18	16	11	10	34	29	14	11	11	11	11	12	12	14	34
20-Oct	12	14	17	16	15	14	13	18	18	18	18	20	26	33	22	26	16	15	14	15	14	12	14	14	33
21-Oct	13	13	17	16	15	13	14	14	15	18	15	13	19	17	16	15	13	11	12	28	45	12	15	39	45
22-Oct	23	20	30	21	14	14	13	53	28	22	20	26	22	26	23	22	15	17	16	17	18	18	17	17	53
23-Oct	18	18	17	16	22	15	13	13	20	27	19	28	28	27	25	23	15	14	15	13	13	11	10	12	28
24-Oct	12	13	14	14	11	14	12	12	16	15	17	19	21	21	18	16	17	18	17	13	18	16	14	15	21
25-Oct	16	11	21	11	33	35	12	15	28	19	13	14	16	15	15	14	14	23	8	27	66	55	70	29	70
26-Oct	19	20	17	10	29	12	12	14	14	12	11	12	12	11	12	16	19	15	18	13	15	21	11	11	29
27-Oct	13	14	14	12	13	13	13	9	9	9	10	9	9	10	9	10	9	9	10	10	10	10	10	9	14
28-Oct	10	10	12	10	10	10	11	12	10	9	32	18	10	11	13	13	14	21	39	39	34	47	15	24	47
29-Oct	18	15	14	13	16	11	10	13	35	18	46	22	21	18	26	18	23	12	12	14	12	13	13	13	46
30-Oct	11	11	11	12	11	13	16	15	13	12	10	12	15	26	28	17	16	16	14	14	18	15	14	14	28
31-Oct	14	14	13	12	15	15	15	15	13	14	14	16	15	15	16	17	16	16	17	16	16	16	15	15	17
	48	69	30	24	51	35	31	103	72	39	46	49	64	93	34	35	39	64	39	39	66	55	70	48	
	Diurnal Maximum																								

UO - Unstable Operation

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS507
KIRBY SOUTH
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - KIRBY SOUTH (AMS 507)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	709	35	35	100	4.9	0	1	0
H2S (ppb) Average	705	38	39	99.87	3.7	0	0.5	0
THC (ppm) Average	709	35	35	100	3.8	-	2.6	-
NO2 (ppb) Average	704	39	40	99.87	28.8	0	10.2	-
NO (ppb) Average	704	39	40	99.87	121.3	-	36.2	-
NOX (ppb) Average	704	39	40	99.87	150.1	-	46.5	-
Temperature 2 m (C) Average	744	0	0	100	18	-	10.5	-
Relative Humidity (%) Average	744	0	0	100	98.6	-	98.1	-
Wind Speed 10 m (km/h) Average	690	0	54	92.74	30	-	19	-
Wind Direction 10 m (deg) Average	690	0	54	92.74	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - KIRBY SOUTH(AMS507)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	709	0.37	0.6	-	0	0	0	0.2	0.5	0.9	4.9
H2S (ppb) Average	705	0.13	0.2	-	0	0	0.1	0.1	0.1	0.2	3.7
THC (ppm) Average	709	2.37	0.1	-	2.2	2.3	2.3	2.3	2.4	2.5	3.8
NO2 (ppb) Average	704	2.26	3.2	-	0	0.3	0.6	1.3	2.4	5.5	28.8
NO (ppb) Average	704	3.6	11.7	-	0	0	0	0.1	0.9	7.9	121.3
NOX (ppb) Average	704	5.85	14.6	-	0.1	0.4	0.6	1.6	3.2	11.3	150.1
Temperature 2 m (C) Average	744	4.1	4.8	-	-5.1	-1.5	0.1	3.6	7.4	10.6	18
Relative Humidity (%) Average	744	73.85	18.1	-	29.2	47.6	59.7	76	90.6	96	98.6
Wind Speed 10 m (km/h) Average	690	13.4	5	-	1	8	10	13	16	20	30
Wind Direction 10 m (deg) Average	690	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - KIRBY SOUTH (AMS507)
OCTOBER 2025

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
H2S, NO2	23 Oct 2025 12:00	23 Oct 2025 12:00	1	Maintenance - sample manifold cleaned
Wind Speed, Wind Direction	27 Oct 2025 04:00	27 Oct 2025 10:00	7	Flat line in sensor output signal - Sensor frozen
Wind Speed, Wind Direction	28 Oct 2025 17:00	30 Oct 2025 15:00	47	Flat line in sensor output signal - Sensor frozen

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Kirby South - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 4.9 ppb on Oct 5 16:00

Maximum Daily Average: 1.0 ppb on Oct 25

Minimum Value: 0.0 ppb on Oct 2 21:00

Minimum Daily Average: 0.0 ppb on Oct 28

Maximum Diurnal Average: 0.6 ppb at hour 14

Minimum Diurnal Average: 0.2 ppb at hour 19

Monthly Average: 0.37 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.2 Q_3 = 0.5 P_{90} = 0.9 P_{99} = 3.1

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.1	0.3	0.5	Z	0.6	0.8	0.3	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.4	0.3	0.2	0.5	0.9	0.3	0.9
2-Oct	1.0	0.9	1.4	1.4	Z	0.7	0.6	0.7	1.1	1.2	0.9	0.6	0.5	0.4	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5	1.4
3-Oct	0.0	0.0	0.0	0.1	0.0	Z	0.0	0.1	0.1	0.3	0.2	0.2	1.2	2.1	3.0	1.5	0.2	0.1	0.1	0.5	2.6	4.5	2.3	0.4	0.9	4.5
4-Oct	Z	0.1	0.2	0.7	0.1	0.1	0.1	0.1	0.1	2.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.2
5-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2	3.6	4.9	0.8	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.5	4.9
6-Oct	0.0	0.0	Z	0.0	0.0	0.2	0.4	0.2	0.5	0.8	0.4	0.7	0.6	3.0	0.6	0.1	0.2	0.1	0.0	0.1	0.1	0.2	0.5	0.8	0.4	3.0
7-Oct	0.6	0.4	0.2	Z	0.2	0.2	0.3	0.2	0.4	0.5	0.5	0.4	0.3	0.3	0.2	0.4	0.3	0.2	0.4	0.6	0.5	0.8	0.6	0.6	0.4	0.8
8-Oct	0.6	0.4	0.3	0.3	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.1	0.6
9-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	3.3	1.4	0.0	0.9	2.0	0.2	0.9	0.8	2.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	3.3
10-Oct	Z	1.3	0.6	0.5	0.3	0.2	0.2	0.4	0.7	1.0	1.3	0.6	0.3	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.5	0.8	1.1	0.5	1.3
11-Oct	0.8	Z	0.7	0.5	0.4	0.5	0.5	0.3	0.2	0.1	0.7	1.4	0.2	0.0	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.3	1.4
12-Oct	0.1	0.1	Z	0.1	0.1	0.2	0.4	0.4	0.6	0.4	0.9	0.4	0.3	1.4	1.0	1.6	1.8	1.2	0.7	0.4	0.2	0.5	0.4	0.5	0.6	1.8
13-Oct	0.4	0.5	0.6	Z	0.4	0.2	0.3	0.3	0.3	0.4	0.6	0.8	0.6	0.5	0.2	0.2	0.2	0.3	0.4	1.2	0.7	0.3	0.2	0.2	0.4	1.2
14-Oct	0.3	0.3	0.3	0.3	Z	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.3
15-Oct	0.1	0.1	0.2	0.3	0.2	Z	0.3	0.5	1.0	0.4	0.1	0.3	0.2	0.0	0.0	0.2	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	1.0
16-Oct	Z	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.3
17-Oct	0.1	Z	2.6	3.3	2.2	1.3	1.5	0.6	0.2	0.1	0.1	0.2	0.1	0.2	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.6	3.3
18-Oct	0.2	0.1	Z	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.2	1.5	0.2	0.0	0.1	0.2	0.2	0.1	0.1	0.1	0.2	1.5
19-Oct	0.1	1.7	1.6	Z	0.6	0.7	0.5	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.7
20-Oct	0.0	0.0	0.0	0.1	Z	0.1	0.1	0.0	0.1	0.3	0.1	0.2	0.2	0.2	0.5	0.3	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.5
21-Oct	0.0	0.1	0.0	0.1	0.1	Z	0.1	0.1	0.1	2.1	0.4	0.0	0.1	0.3	0.2	0.0	0.4	0.2	0.3	0.4	0.1	0.0	0.0	0.0	0.2	2.1
22-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.1	0.4	0.4	0.6	0.1	0.6
23-Oct	0.6	Z	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.6	0.6	C	C	C	C	0.2	0.1	0.1	0.0	0.1	0.6	1.0	0.7	0.6	0.4	1.0
24-Oct	0.8	0.7	Z	1.2	1.1	0.9	0.9	0.8	1.0	1.2	1.0	0.6	0.3	0.4	0.6	0.7	1.1	1.3	1.3	1.3	1.1	0.9	0.8	0.8	0.9	1.3
25-Oct	0.9	0.9	0.8	Z	0.6	0.5	0.4	0.2	2.0	0.4	1.1	3.4	3.1	4.8	0.6	0.2	1.8	0.1	0.1	0.2	0.1	0.2	0.2	0.1	1.0	4.8
26-Oct	0.2	0.2	0.9	1.1	Z	0.3	0.4	1.0	0.5	0.4	0.3	0.4	0.3	0.5	0.3	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.0	0.1	0.3	1.1
27-Oct	0.9	0.0	0.0	0.0	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.2	0.0	0.2	0.1	0.9
28-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2
29-Oct	0.7	Z	0.3	0.3	0.6	0.4	0.3	0.3	0.4	0.2	0.2	0.1	0.0	0.1	0.3	0.3	0.4	0.2	0.2	0.3	0.5	0.8	0.5	0.4	0.3	0.8
30-Oct	0.7	0.7	0.5	Z	0.8	0.7	0.8	1.1	1.0	1.2	2.6	1.7	0.9	0.5	0.4	0.7	0.3	0.1	0.3	0.1	0.1	0.0	0.1	0.0	0.7	2.6
31-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.2
	0.3	0.3	0.5	0.5	0.4	0.4	0.3	0.4	0.4	0.5	0.5	0.5	0.3	0.6	0.4	0.5	0.3	0.2	0.2	0.2	0.3	0.4	0.3	0.3	Diurnal Average	
	1.0	1.7	2.6	3.3	2.2	1.3	1.5	3.3	2.0	2.2	2.6	3.4	3.1	4.8	3.6	4.9	1.8	1.3	1.3	1.3	2.6	4.5	2.3	1.1	Diurnal Maximum	

Z - zerospan C - Calibration

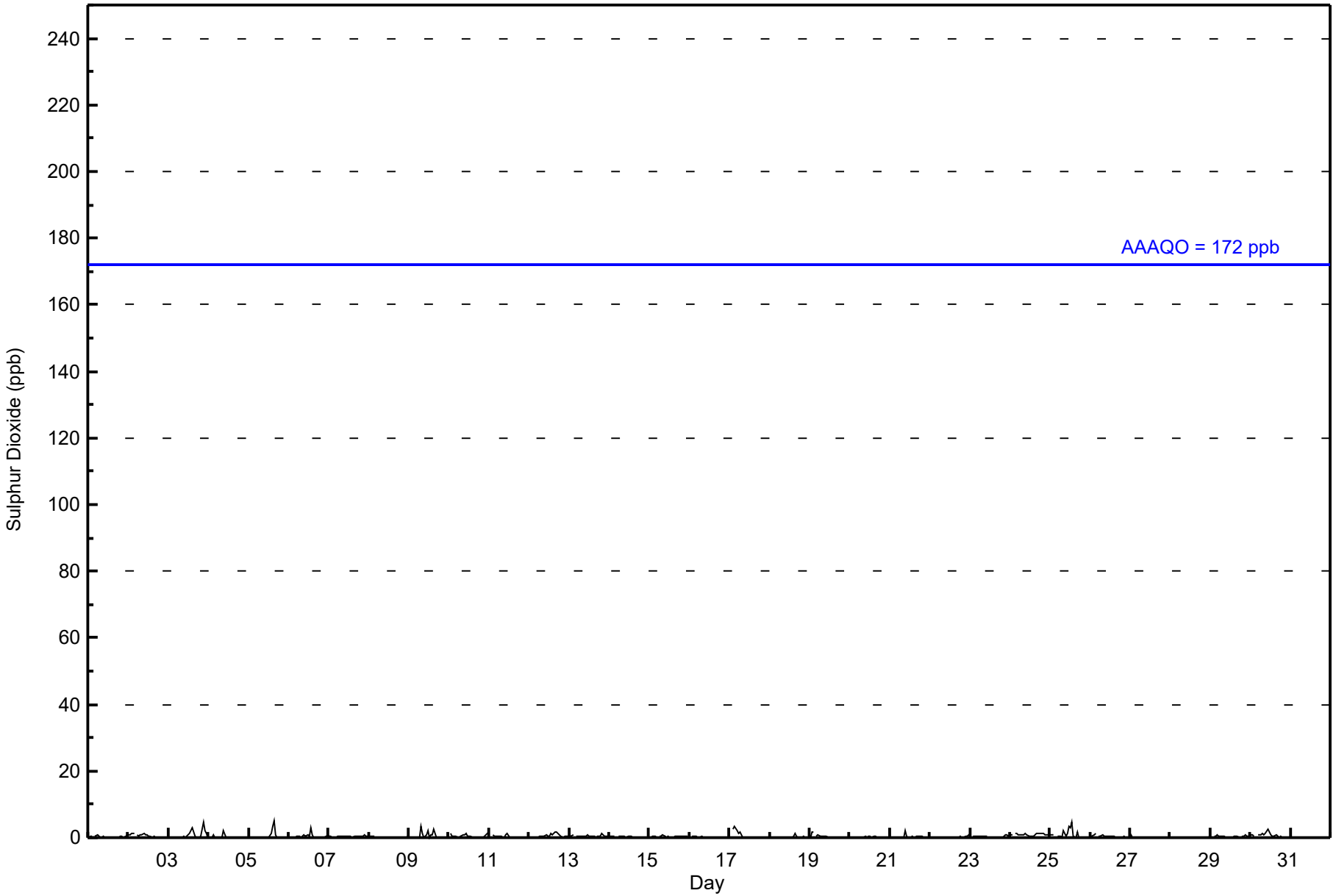
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Kirby South - October 2025



Sulphur Dioxide (SO_2) - ppb
Kirby South - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	709	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Kirby South - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	28	5	7	11	8	5	14	46	81	110	85	26	86	76	34	36	658
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	28	5	7	11	8	5	14	46	81	110	85	26	86	76	34	36	658

Total Number of Valid Hours: 658

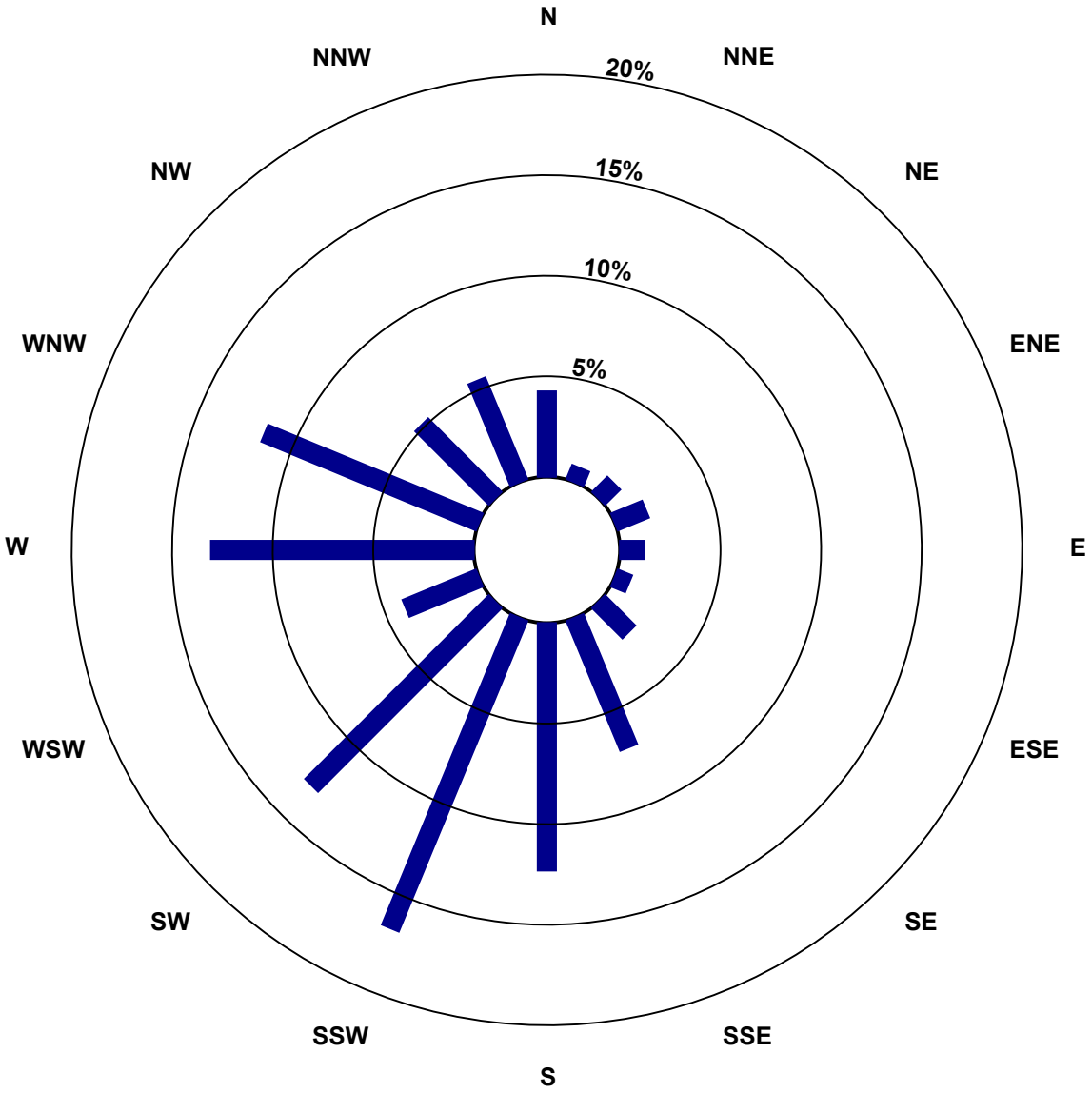
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Kirby South



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

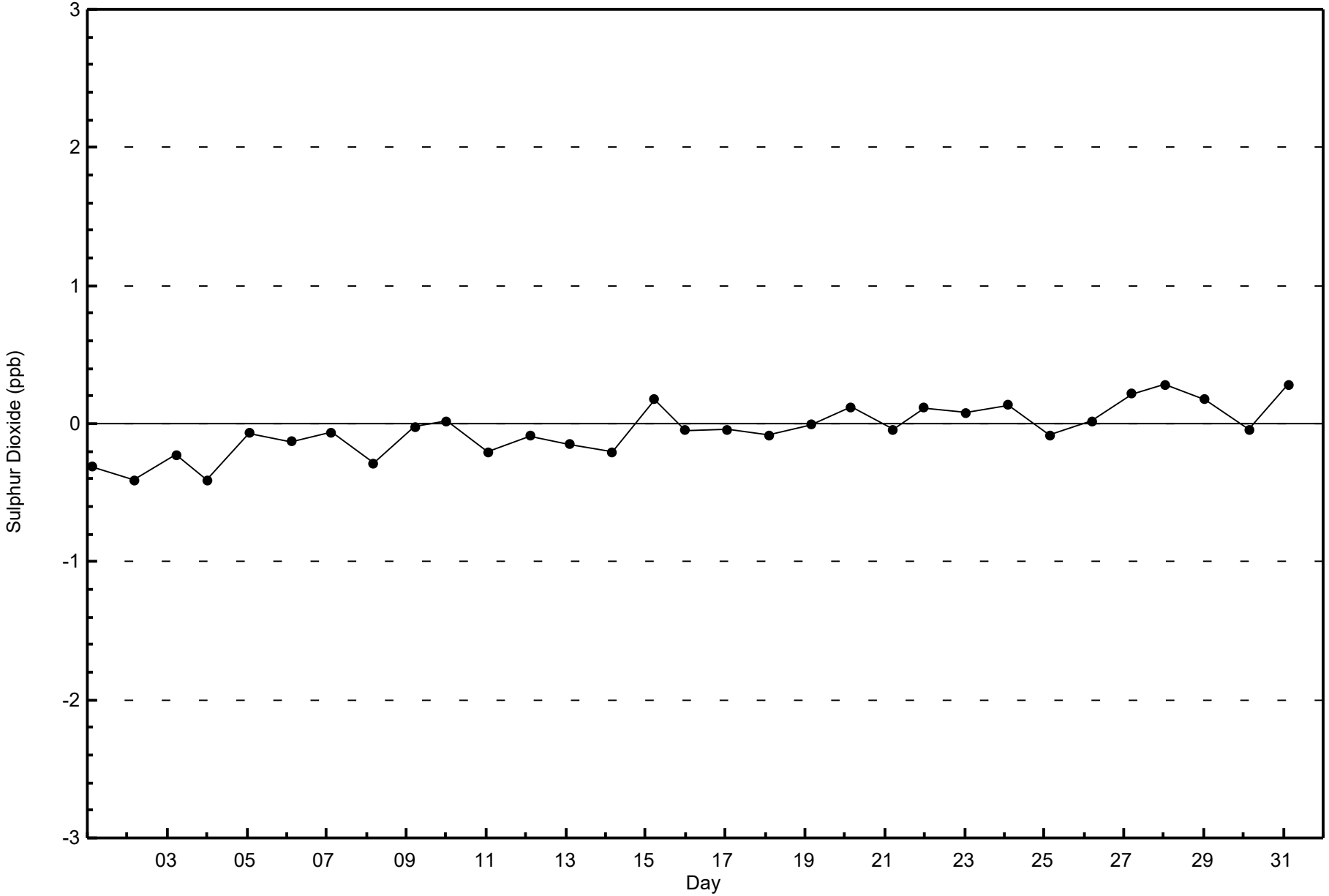
Total Number of Valid Hours: 658

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Kirby South - October 2025

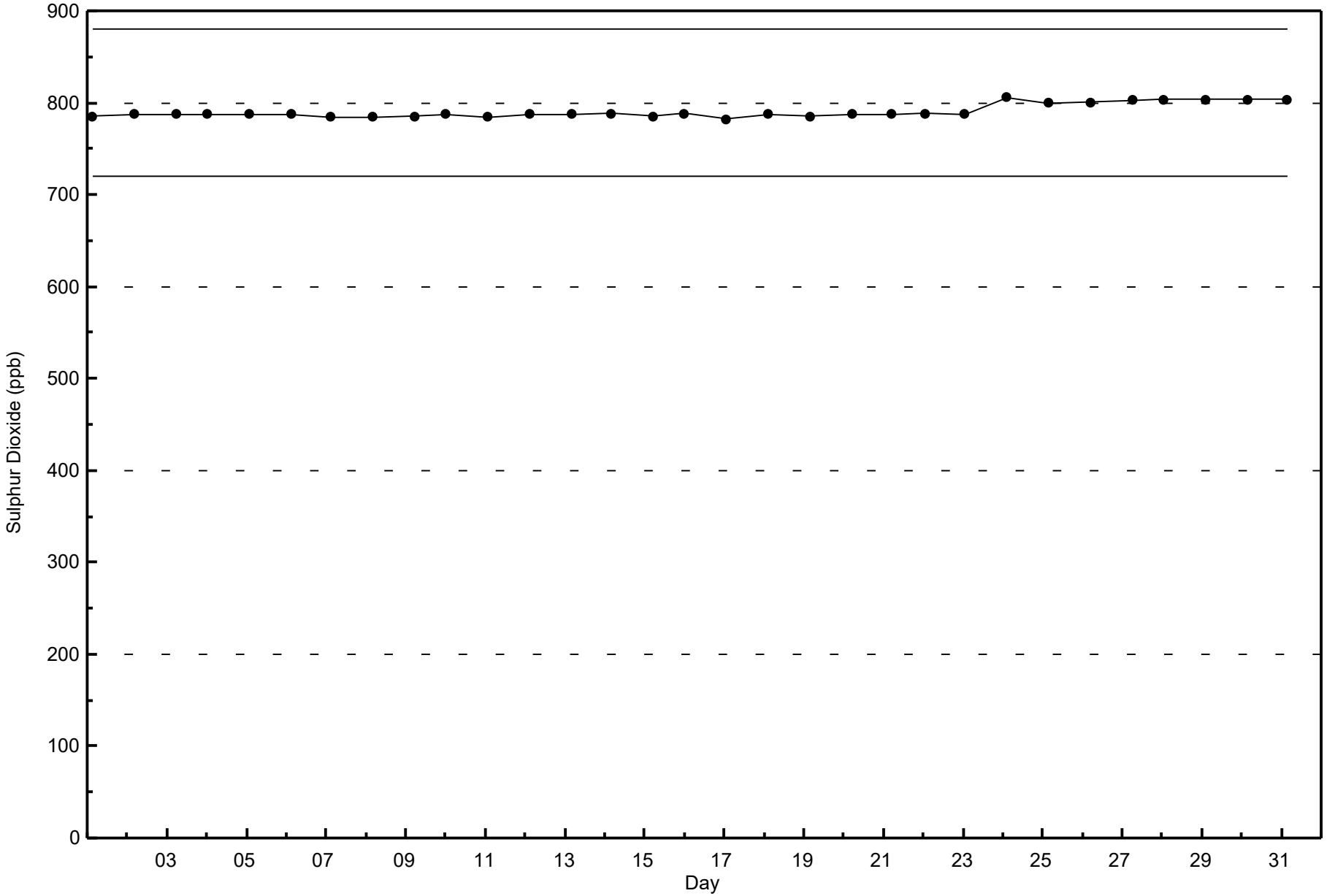


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Kirby South - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H_2S) - ppb

Kirby South - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 3.7 ppb on Oct 30 08:00

Maximum Daily Average: 0.5 ppb on Oct 30

Minimum Value: 0.0 ppb on Oct 25 22:00

Minimum Daily Average: 0.1 ppb on Oct 13

Maximum Diurnal Average: 0.3 ppb at hour 8

Minimum Diurnal Average: 0.1 ppb at hour 18

Monthly Average: 0.13 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.1 P_{90} = 0.2 P_{99} = 0.8

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	38
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.2	0.2	0.2	0.2	Z	0.3	0.2	0.1	0.3	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4
2-Oct	0.1	0.2	0.2	0.1	0.1	Z	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
3-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
4-Oct	0.1	Z	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
5-Oct	0.1	0.0	Z	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1
6-Oct	0.1	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
7-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
8-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1
9-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2
10-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
11-Oct	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
12-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
13-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
14-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	C	C	C	C	C	C	C	0.1	0.1	0.1	0.2	0.2	0.2	0.1	--	0.2
16-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
17-Oct	0.1	0.1	Z	0.4	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
18-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
20-Oct	0.0	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2
21-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1
22-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	M	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
24-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.6	0.2	1.6
26-Oct	0.1	0.1	0.6	0.7	0.6	Z	0.3	0.8	0.4	0.4	0.3	0.4	0.4	0.5	0.4	0.1	0.1	0.0	0.0	0.1	0.2	0.3	0.1	0.2	0.3	0.8
27-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.3	0.3	0.8	0.3	0.2	0.9	0.3	0.7	0.1	0.7	0.3	0.9
28-Oct	0.2	0.2	Z	0.2	0.4	0.2	0.8	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.2	0.2	0.8
29-Oct	0.4	0.3	Z	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.1	1.9	0.5	0.1	0.3	1.0	0.3	0.3	1.5	0.2	0.4	1.9
30-Oct	0.2	3.7	0.2	0.3	Z	0.2	0.3	3.7	0.4	0.8	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.5	3.7
31-Oct	0.1	0.1	0.0	0.0	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	Diurnal Average	
	0.4	3.7	0.6	0.7	0.6	0.3	0.8	3.7	0.4	0.8	0.3	0.4	0.4	0.5	0.4	1.9	0.8	0.3	0.3	1.0	0.3	0.7	1.5	1.6	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

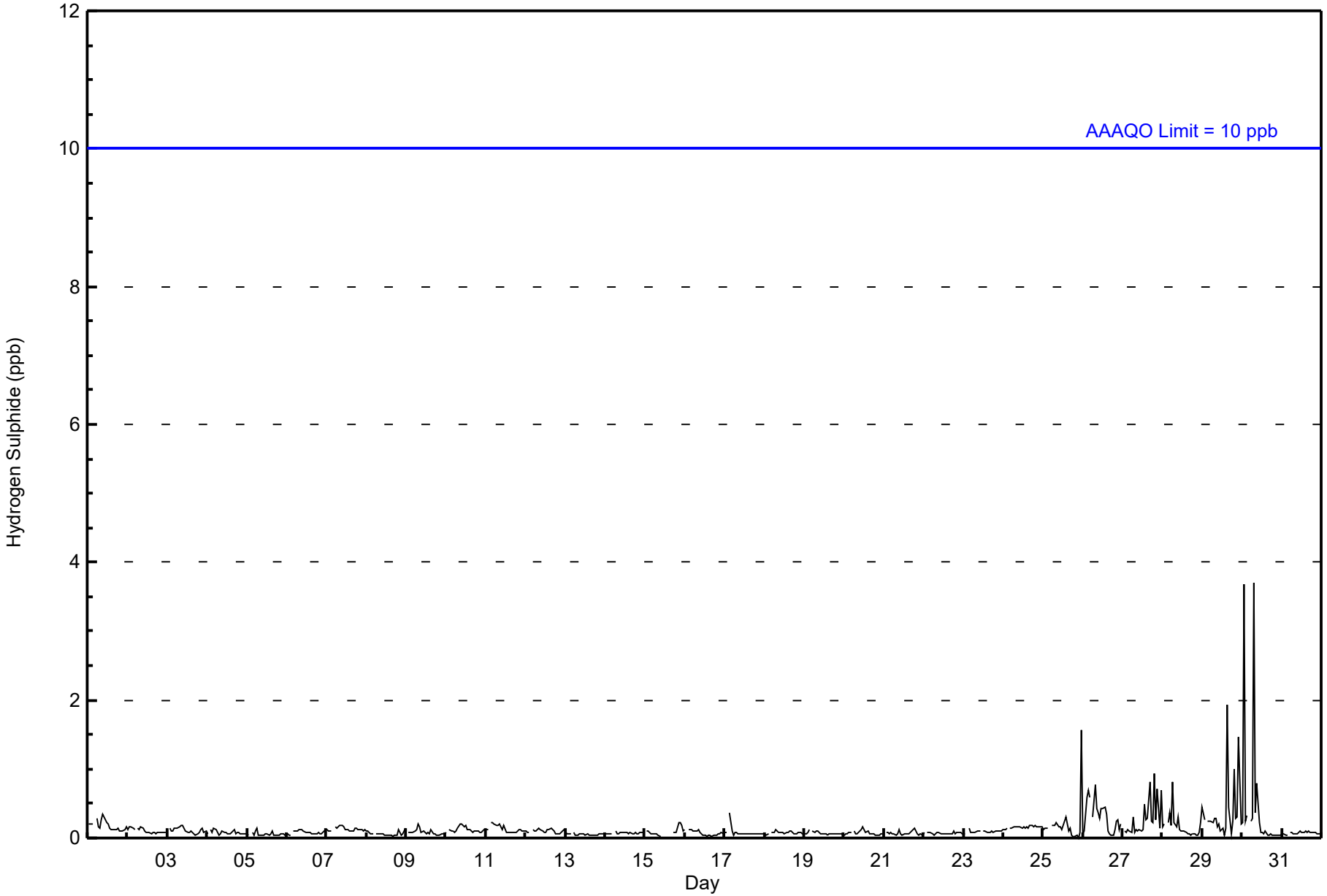
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Kirby South - October 2025



Hydrogen Sulphide (H_2S) - ppb
Kirby South - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	703	99.72	99.72
3 - 4	2	0.28	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Kirby South - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	27	6	7	11	8	5	14	47	81	107	82	26	85	74	36	37	653
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	27	6	7	11	8	5	14	47	81	107	82	26	85	74	36	37	653

Total Number of Valid Hours: 653

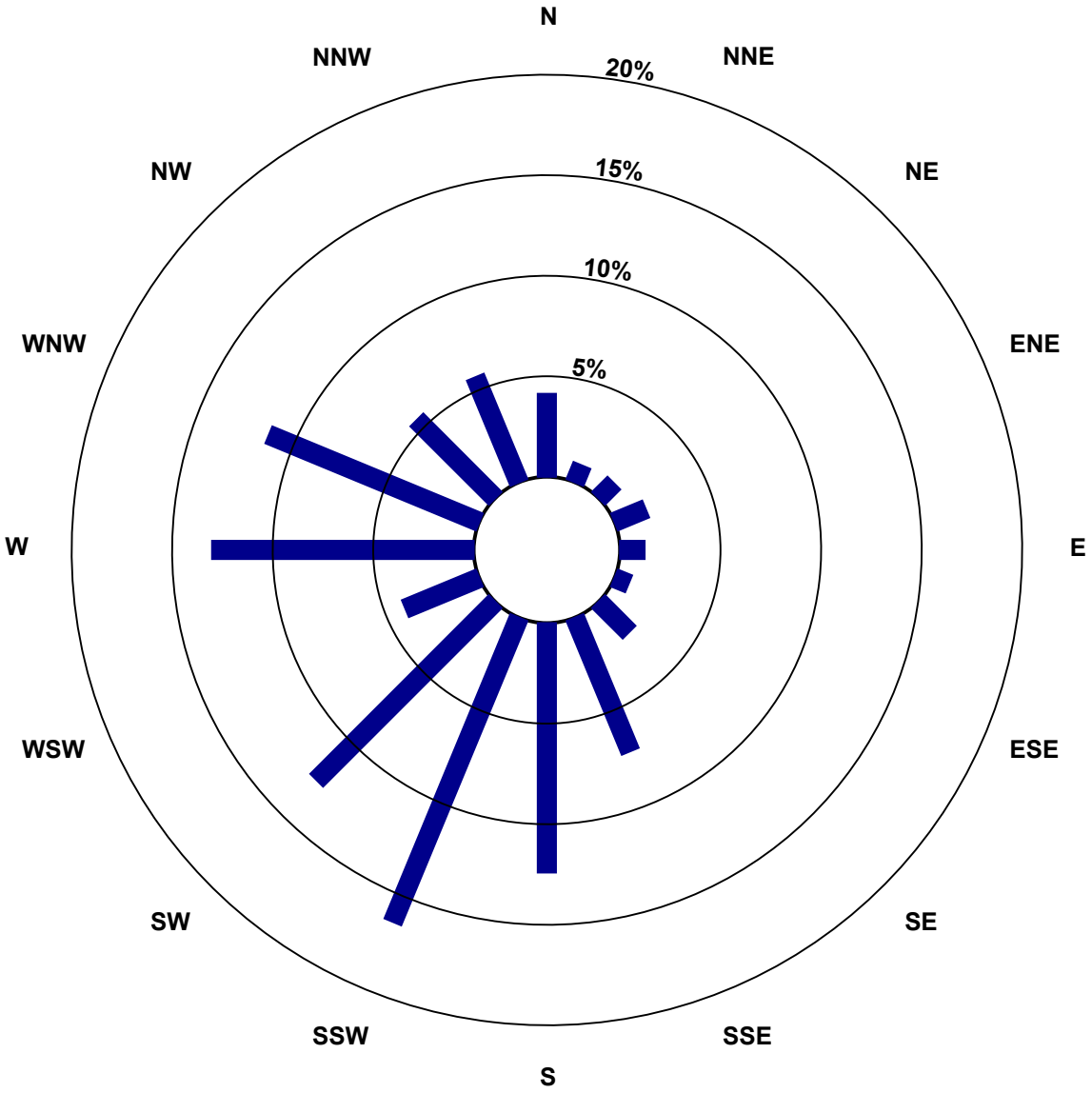
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H_2S) - ppb

Kirby South



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

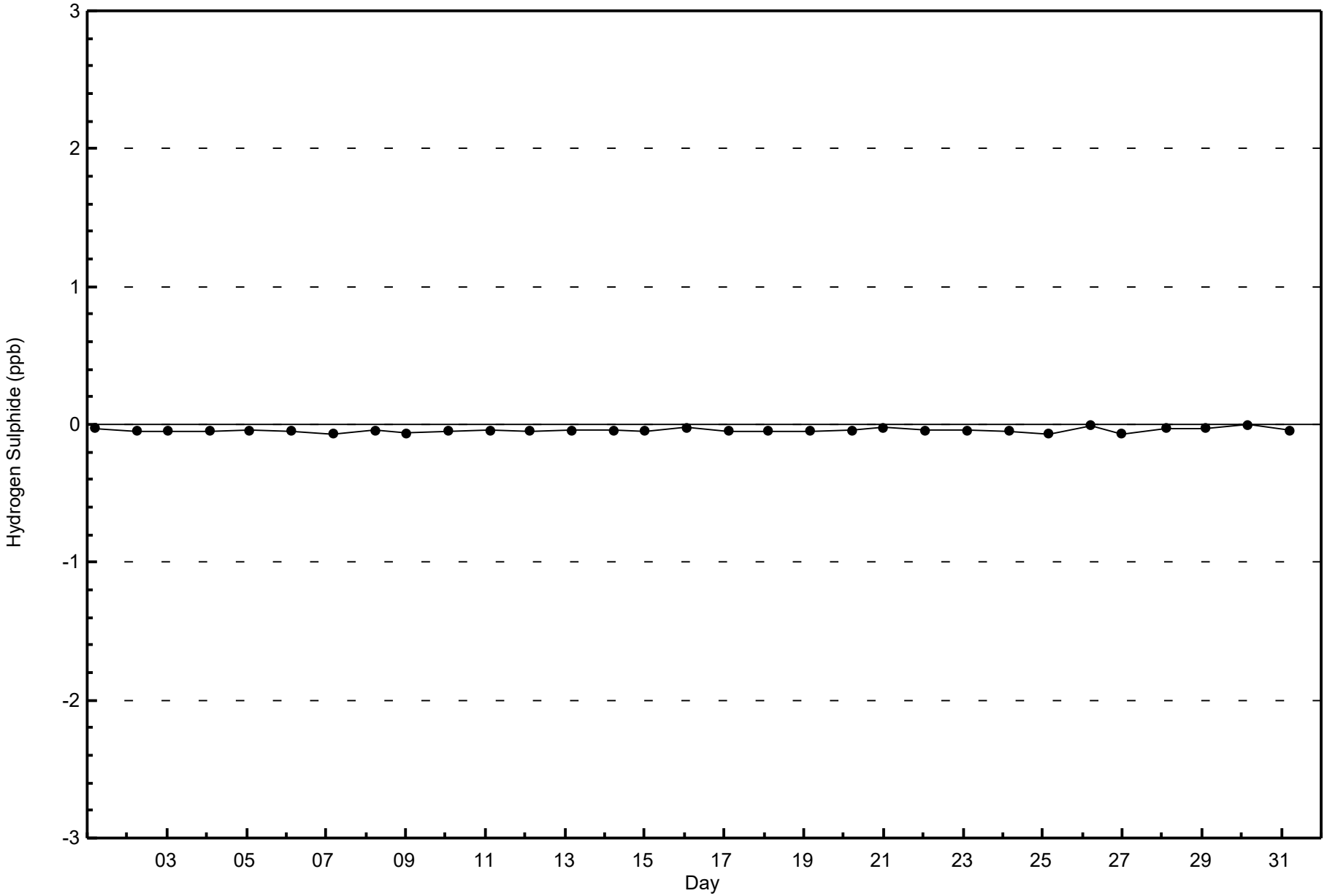
Total Number of Valid Hours: 653

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Kirby South - October 2025



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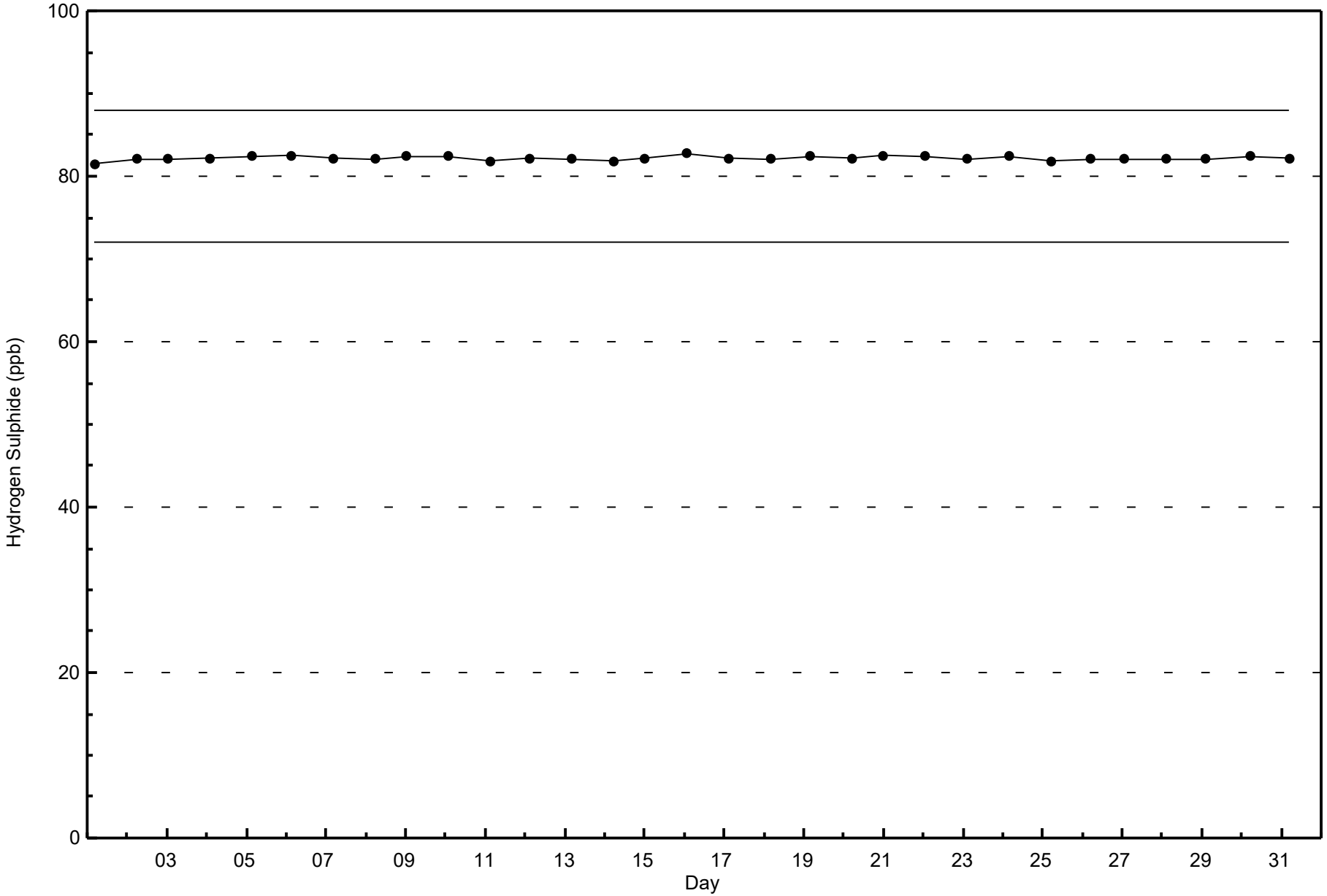
Span Responses

Hydrogen Sulphide (H_2S) - ppb

Kirby South - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbons (THC) - ppm

Kirby South - October 2025

Maximum Value: 3.8 ppm on Oct 29 09:00

Maximum Daily Average: 2.6 ppm on Oct 29

Minimum Value: 2.2 ppm on Oct 17 09:00

Minimum Daily Average: 2.3 ppm on Oct 17

Maximum Diurnal Average: 2.4 ppm at hour 3

Minimum Diurnal Average: 2.3 ppm at hour 11

Monthly Average: 2.37 ppm

Percentiles: P_1 = 2.2 P_{10} = 2.3 Q_1 = 2.3 Median = 2.3 Q_3 = 2.4 P_{90} = 2.5 P_{99} = 2.8

Hours in Service:	744
Hours of Data:	709
Hours of Missing Data:	35
Hours of Calibration:	35
Percent Operational Time:	100.0

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.5	2.6	2.6	Z	2.5	2.6	2.5	2.4	2.5	2.6	2.5	2.5	2.5	2.5	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.6	2.8	2.5	2.8
2-Oct	2.6	2.7	2.7	2.7	Z	2.5	2.5	2.4	2.4	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.4	2.7
3-Oct	2.3	2.3	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4
4-Oct	Z	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.5	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.3	2.5
5-Oct	2.4	Z	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.4	2.4	2.3	2.4	2.5
6-Oct	2.3	2.3	Z	2.5	2.5	2.5	2.6	2.5	2.5	2.6	2.5	2.4	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.6
7-Oct	2.3	2.3	2.3	Z	2.4	2.4	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4
8-Oct	2.3	2.4	2.3	2.3	Z	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.4	2.3	2.3	2.4
9-Oct	2.3	2.3	2.3	2.3	2.3	Z	2.4	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.3	2.3	2.4
10-Oct	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4
11-Oct	2.3	Z	2.3	2.3	2.3	2.4	2.5	2.6	2.5	2.5	2.5	2.5	2.3	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.4	2.3	2.4	2.4	2.4	2.6
12-Oct	2.4	2.4	Z	2.4	2.5	2.4	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
13-Oct	2.5	2.5	2.5	Z	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.5
14-Oct	2.3	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.4
15-Oct	2.4	2.3	2.3	2.4	2.4	Z	2.4	2.4	2.4	2.3	2.4	2.5	2.4	2.4	2.4	2.4	2.4	2.5	2.6	2.4	2.5	2.5	2.5	2.5	2.4	2.6
16-Oct	Z	2.4	2.5	2.4	2.4	2.4	2.5	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.5
17-Oct	2.3	Z	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
18-Oct	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.3	2.3	2.3	2.3	2.3	2.3	2.5
19-Oct	2.3	2.3	2.4	Z	2.3	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.6	2.3	2.4	2.6	2.6	2.6	2.5	2.3	2.5	2.4	2.4	2.4	2.6
20-Oct	2.4	2.4	2.5	2.6	Z	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.6
21-Oct	2.3	2.3	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.3	2.3	2.3	2.4
22-Oct	Z	2.4	2.3	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.4	2.4	2.4	2.4	2.3	2.4	2.5
23-Oct	2.3	Z	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	C	C	C	C	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.3	2.3
24-Oct	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.4	2.4	2.5	2.5	2.4	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5
25-Oct	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.9	2.6	2.4	2.9
26-Oct	2.5	2.4	2.8	2.6	Z	2.8	2.7	3.0	2.7	2.7	2.4	2.5	2.5	2.5	2.6	2.5	2.4	2.4	2.5	2.7	2.5	2.6	2.4	2.3	2.6	3.0
27-Oct	2.3	2.3	2.3	2.3	2.3	Z	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
28-Oct	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.5	2.3	2.5
29-Oct	2.8	Z	2.7	2.4	2.4	2.4	2.6	3.0	3.8	2.8	2.6	2.5	2.7	2.7	2.6	2.5	2.6	2.5	2.5	2.4	2.4	2.4	2.5	2.6	2.6	3.8
30-Oct	2.6	2.6	2.5	Z	2.6	2.5	2.5	2.5	2.5	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.6
31-Oct	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4
	2.4	2.4	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	Diurnal Average	
	2.8	2.7	2.8	2.7	2.6	2.8	2.7	3.0	3.8	2.8	2.6	2.5	2.7	2.7	2.6	2.5	2.6	2.6	2.6	2.7	2.5	2.6	2.9	2.8	Diurnal Maximum	

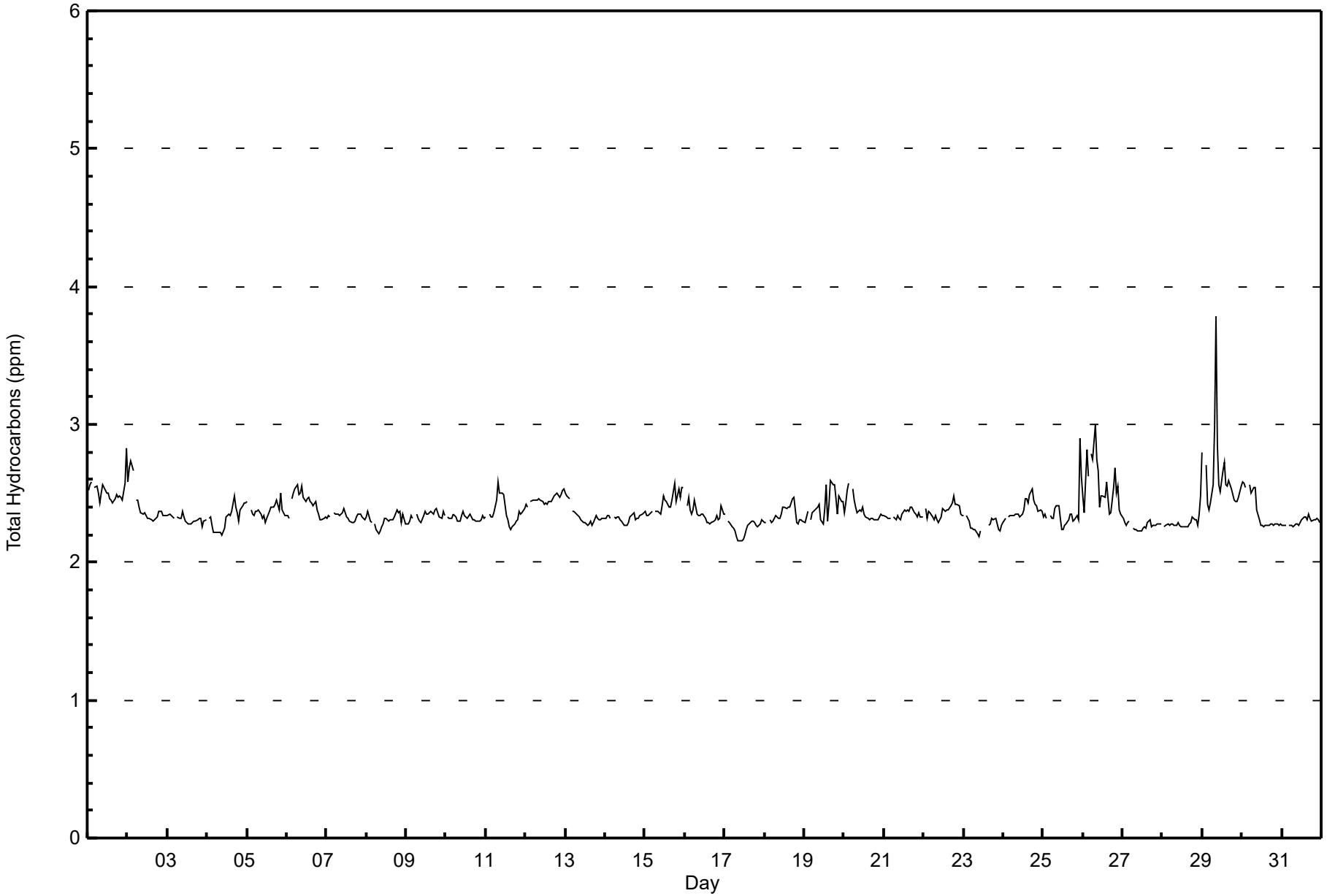
Z - zerospan C - Calibration

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbons (THC) - ppm

Kirby South - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Total Hydrocarbons (THC) - ppm

Kirby South - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	0	0.00	0.00
2.1 - 3.0	708	99.86	99.86
3.1 - 10.0	1	0.14	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 709

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbons (THC) - ppm

Kirby South - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.1 - 3.0	28	5	7	11	8	5	14	46	81	110	85	26	86	76	34	36	658
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	28	5	7	11	8	5	14	46	81	110	85	26	86	76	34	36	658

Total Number of Valid Hours: 658

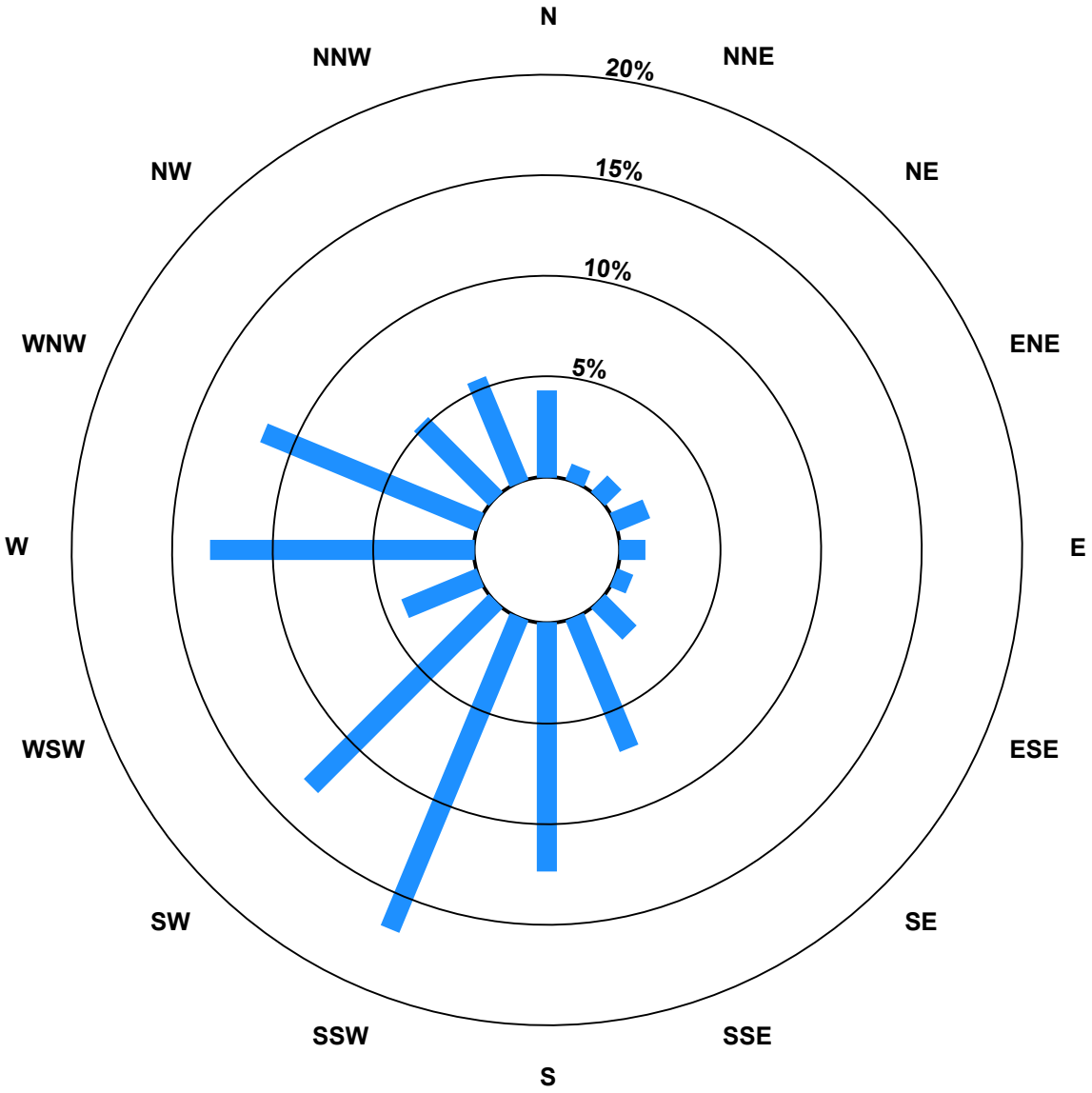
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbons (THC) - ppm

Kirby South



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

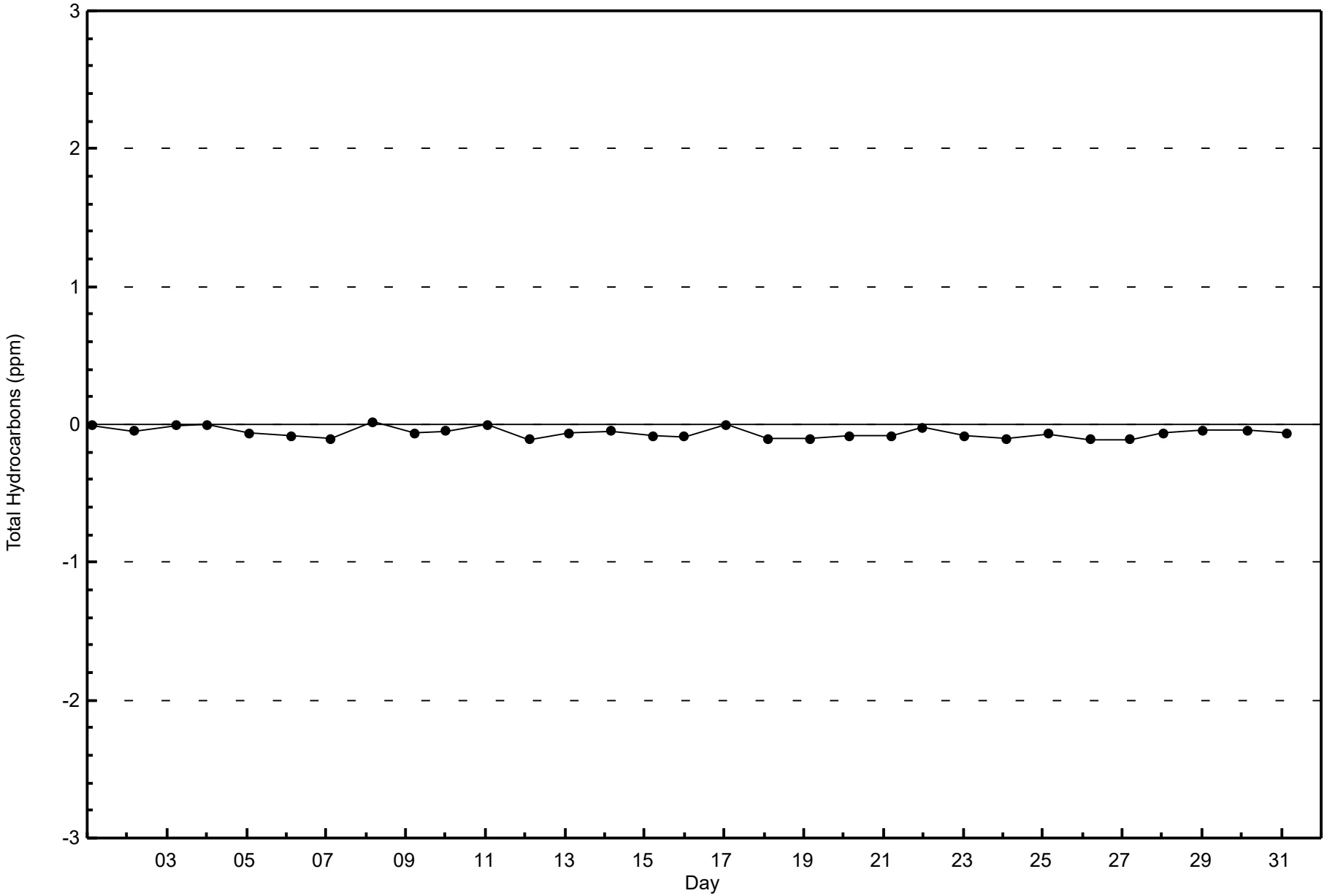
Total Number of Valid Hours: 658

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbons (THC) - ppm

Kirby South - October 2025

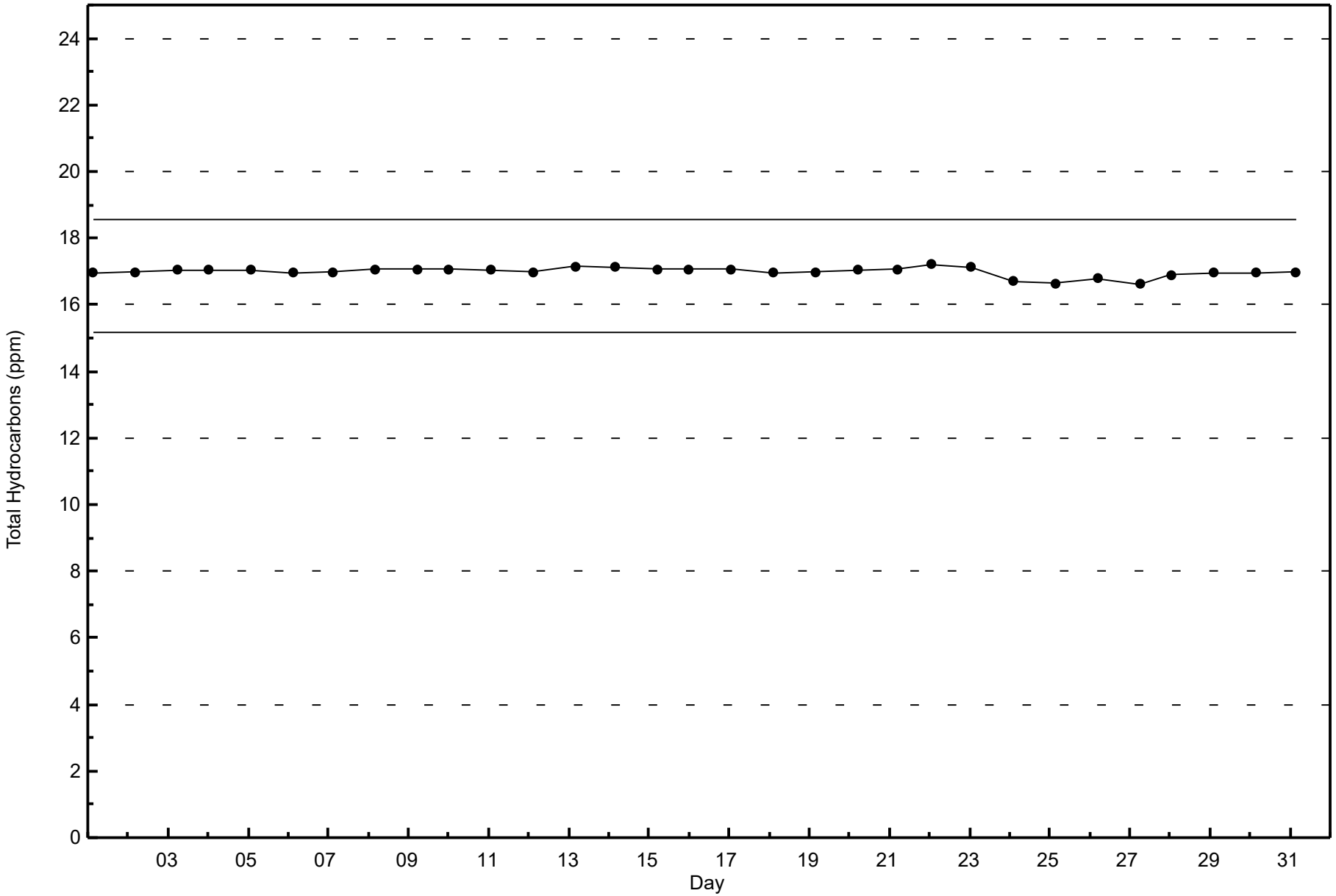


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbons (THC) - ppm

Kirby South - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitric Oxide (NO) - ppb

Kirby South - October 2025

Maximum Value: 121.3 ppb on Oct 27 01:00

Maximum Daily Average: 36.2 ppb on Oct 26

Minimum Value: 0.0 ppb on Oct 4 07:00

Minimum Daily Average: 0.0 ppb on Oct 19

Maximum Diurnal Average: 8.5 ppb at hour 1

Minimum Diurnal Average: 0.9 ppb at hour 19

Monthly Average: 3.60 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.9 P_{90} = 7.9 P_{99} = 56.9

Hours in Service:	744
Hours of Data:	704
Hours of Missing Data:	40
Hours of Calibration:	39
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	Z	0.1	0.1	0.0	0.1	0.1	0.1	0.8	0.7	1.1	0.4	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	1.1
2-Oct	0.1	0.1	Z	0.0	0.1	0.1	0.1	0.2	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.4
3-Oct	0.1	0.0	0.0	Z	0.0	0.0	0.0	0.2	0.4	0.4	0.3	0.2	1.3	2.8	2.9	1.1	0.1	0.1	0.1	0.5	2.2	4.4	1.8	0.3	0.8	4.4
4-Oct	0.1	0.0	0.2	0.4	Z	0.0	0.0	0.0	0.1	3.3	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.3
5-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.4	0.0	0.1	0.1	0.1	0.1	0.4	1.6	4.0	4.9	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.5	4.9
6-Oct	Z	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.3	0.4	0.5	3.1	0.6	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.3	3.1
7-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.6	0.7	0.6	0.5	0.4	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.7
8-Oct	0.1	0.0	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	1.1	0.3	0.0	0.1	0.8	0.2	1.1
9-Oct	0.1	0.0	0.0	Z	0.2	0.6	1.0	12.4	7.0	0.3	2.7	3.7	0.4	1.9	2.0	4.5	0.4	0.1	0.1	0.1	0.1	0.0	0.0	0.0	1.6	12.4
10-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.3	0.8	1.0	1.0	0.7	0.5	0.4	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0
11-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.1	0.3	0.2	0.5	0.6	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
12-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
13-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
14-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
15-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.4	1.3	1.9	C	C	C	C	C	C	C	C	0.6	0.1	1.5	1.1	1.3	0.6	--	1.9
16-Oct	1.7	0.8	0.3	0.2	Z	0.1	0.1	0.2	0.4	0.5	0.2	0.2	0.3	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.3	1.7
17-Oct	0.0	0.1	3.2	3.6	2.0	Z	1.7	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	3.6
18-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.2	1.5	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.5
19-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
20-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.5	0.8	0.4	0.2	0.5	0.2	0.2	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.2	0.8
21-Oct	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.4	4.1	1.1	0.2	0.7	0.9	0.9	0.6	1.0	0.5	0.6	0.8	0.3	0.0	1.0	0.1	0.6	4.1
22-Oct	0.1	0.1	0.0	0.0	Z	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.2	1.1	1.0	0.2	1.3	1.0	1.4	0.9	0.5	0.2	0.4	1.4
23-Oct	0.3	0.2	0.3	0.2	0.1	Z	0.8	1.1	1.8	1.0	1.4	M	0.6	2.7	0.4	0.2	1.3	2.7	0.1	0.1	0.1	0.6	0.6	0.0	0.7	2.7
24-Oct	Z	0.3	0.0	0.0	0.2	0.3	0.0	0.1	0.7	0.7	0.6	0.5	3.2	1.1	2.1	0.5	0.9	1.8	0.1	0.3	0.1	1.5	0.5	0.6	0.7	3.2
25-Oct	0.4	Z	0.1	0.3	1.2	0.1	7.8	0.7	5.6	2.3	2.6	4.0	5.5	8.9	1.4	3.0	2.7	1.8	0.1	0.0	2.2	0.1	8.2	3.0	2.7	8.9
26-Oct	7.1	16.6	Z	108.4	59.5	24.0	43.2	110.3	57.1	50.5	40.8	61.5	47.3	65.9	46.4	7.9	0.9	1.0	0.1	5.5	22.1	20.7	9.3	27.0	36.2	110.3
27-Oct	121.3	0.7	0.8	Z	0.7	1.8	6.1	5.5	7.1	4.0	5.1	4.2	10.6	18.0	16.6	37.3	39.7	31.4	20.1	26.3	34.7	48.7	16.4	36.9	21.5	121.3
28-Oct	11.6	23.9	24.2	22.3	23.3	Z	25.1	26.7	16.5	39.8	8.9	5.9	11.1	9.0	4.1	2.1	0.5	0.2	3.7	5.7	0.0	0.0	8.8	31.1	13.2	39.8
29-Oct	70.7	38.0	18.8	15.6	22.5	Z	27.5	38.6	37.6	17.4	26.3	5.6	2.4	0.2	9.4	3.8	3.3	1.4	0.0	7.9	37.6	39.4	19.0	10.5	19.7	70.7
30-Oct	14.9	Z	13.4	28.9	16.5	0.1	1.3	43.5	20.7	12.1	12.9	1.0	0.4	1.8	3.4	0.5	0.1	0.9	0.1	0.0	0.0	0.3	0.2	0.0	7.5	43.5
31-Oct	0.3	Z	0.0	0.0	0.8	0.0	0.1	0.2	0.1	0.3	3.4	0.9	0.9	2.3	3.1	0.4	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.7	3.4
	8.5	3.4	2.4	6.9	4.7	1.1	3.7	7.8	5.2	4.6	3.7	3.2	2.9	4.1	3.3	2.4	1.9	1.4	0.9	1.6	3.3	3.8	2.2	3.6	Diurnal Average	
	121.3	38.0	24.2	108.4	59.5	24.0	43.2	110.3	57.1	50.5	40.8	61.5	47.3	65.9	46.4	37.3	39.7	31.4	20.1	26.3	37.6	48.7	19.0	36.9	Diurnal Maximum	

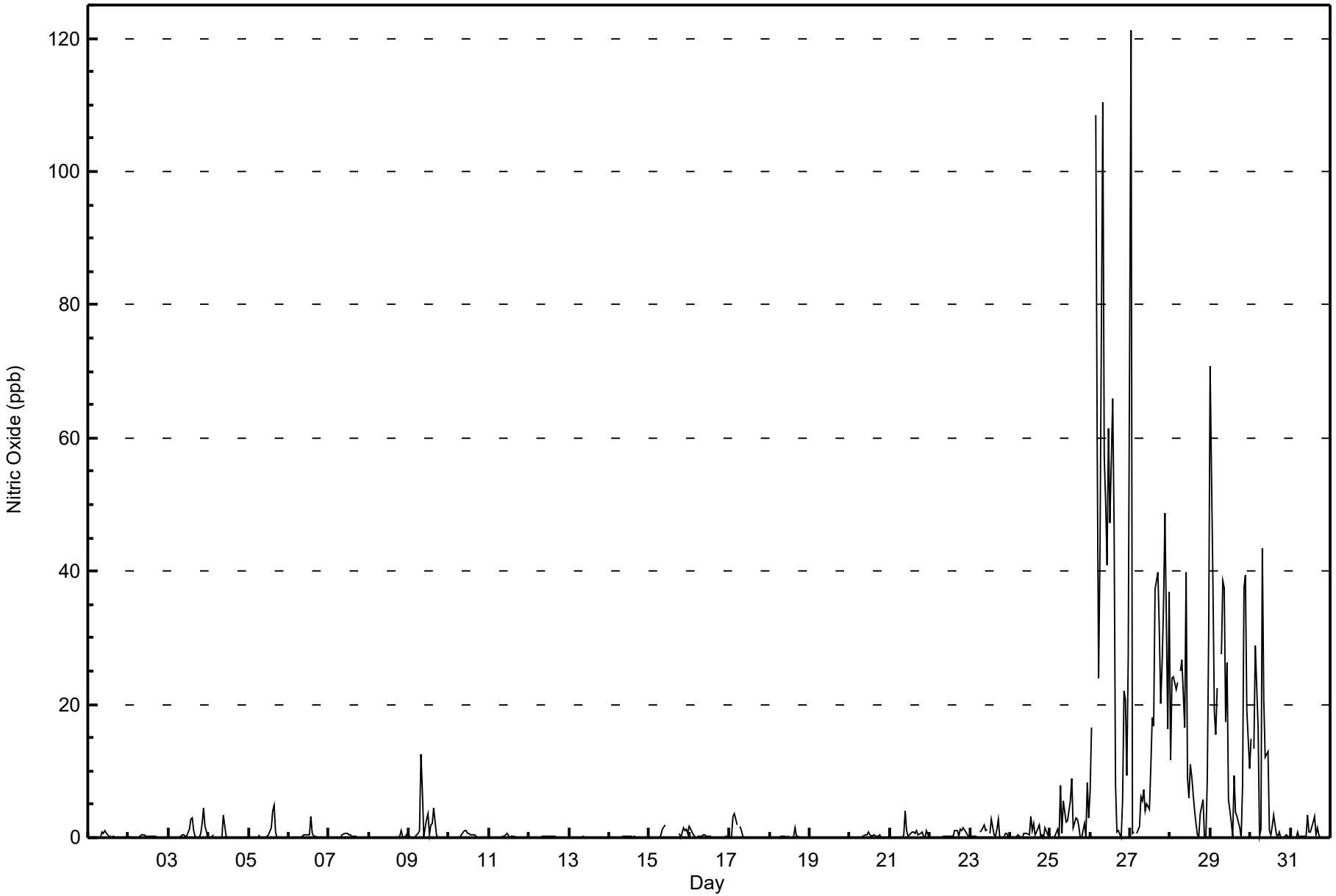
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitric Oxide (NO) - ppb

Kirby South - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	661	93.89	93.89
21 - 40	28	3.98	97.87
11 - 80	12	1.70	99.57
81 - 159	3	0.43	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitric Oxide (NO) - ppb

Kirby South - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	28	5	7	4	3	5	14	48	79	108	81	26	83	64	33	35	623
21 - 40	0	0	0	0	1	0	0	0	0	0	0	0	1	13	1	1	17
11 - 80	0	0	0	7	2	0	0	0	0	0	0	0	0	0	1	0	10
81 - 159	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	3
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	28	5	7	11	8	5	14	48	79	108	81	26	85	77	35	36	653

Total Number of Valid Hours: 653

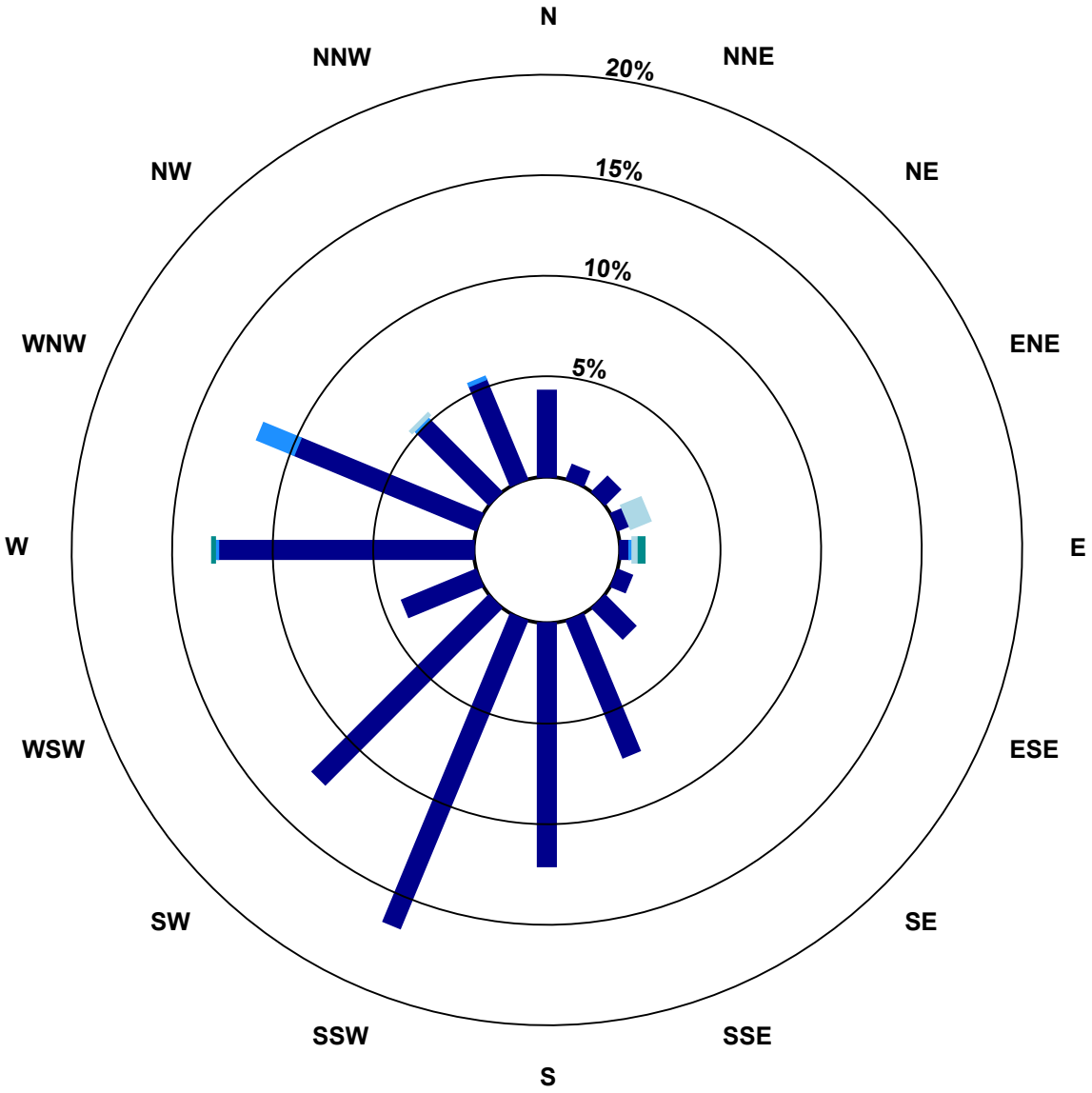
Total Number of Hours: 744

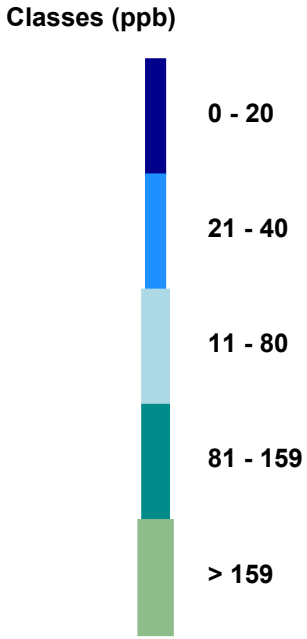
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitric Oxide (NO) - ppb

Kirby South





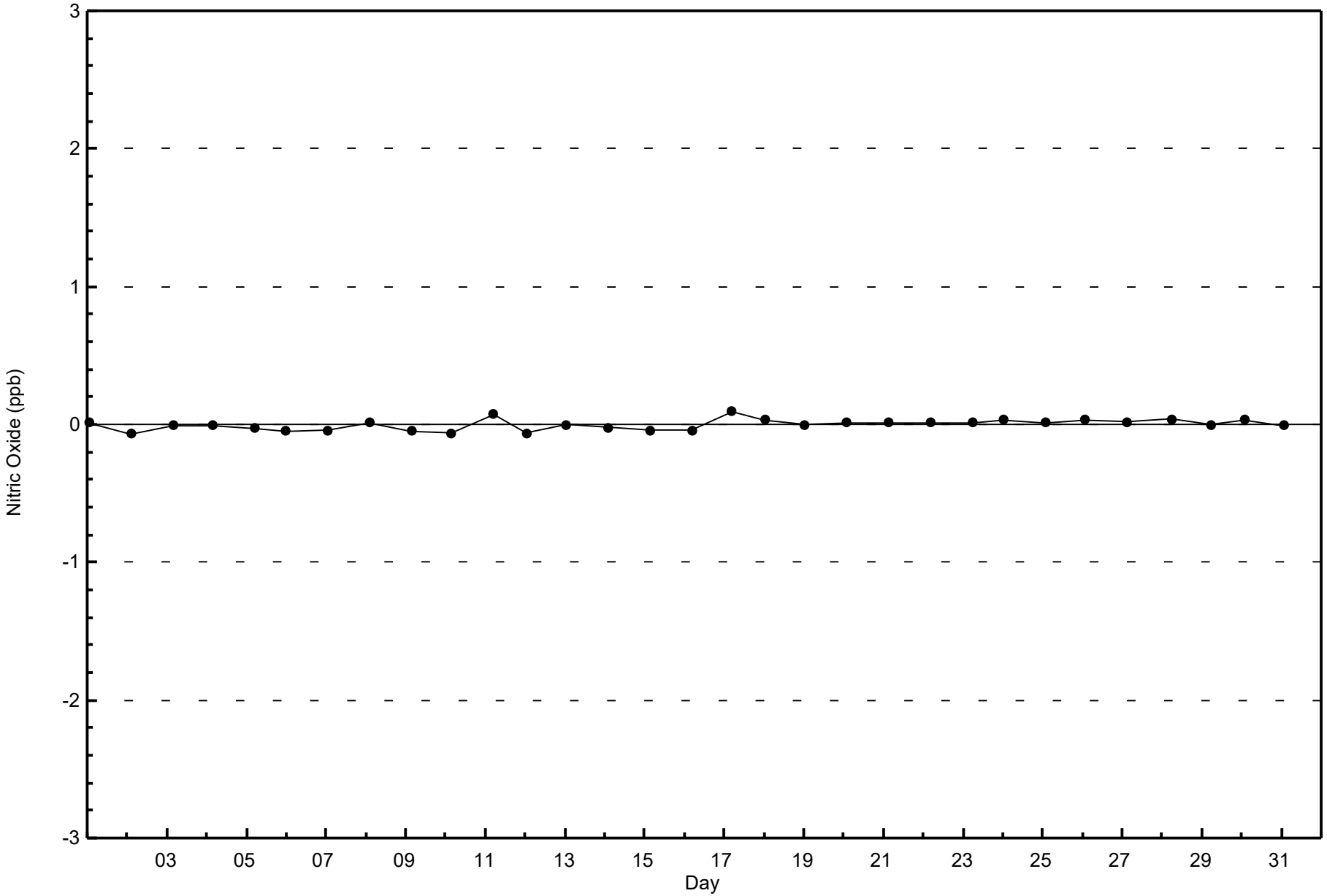
Total Number of Valid Hours: 653

Wood Buffalo Environmental Association

Zero Responses

Nitric Oxide (NO) - ppb

Kirby South - October 2025

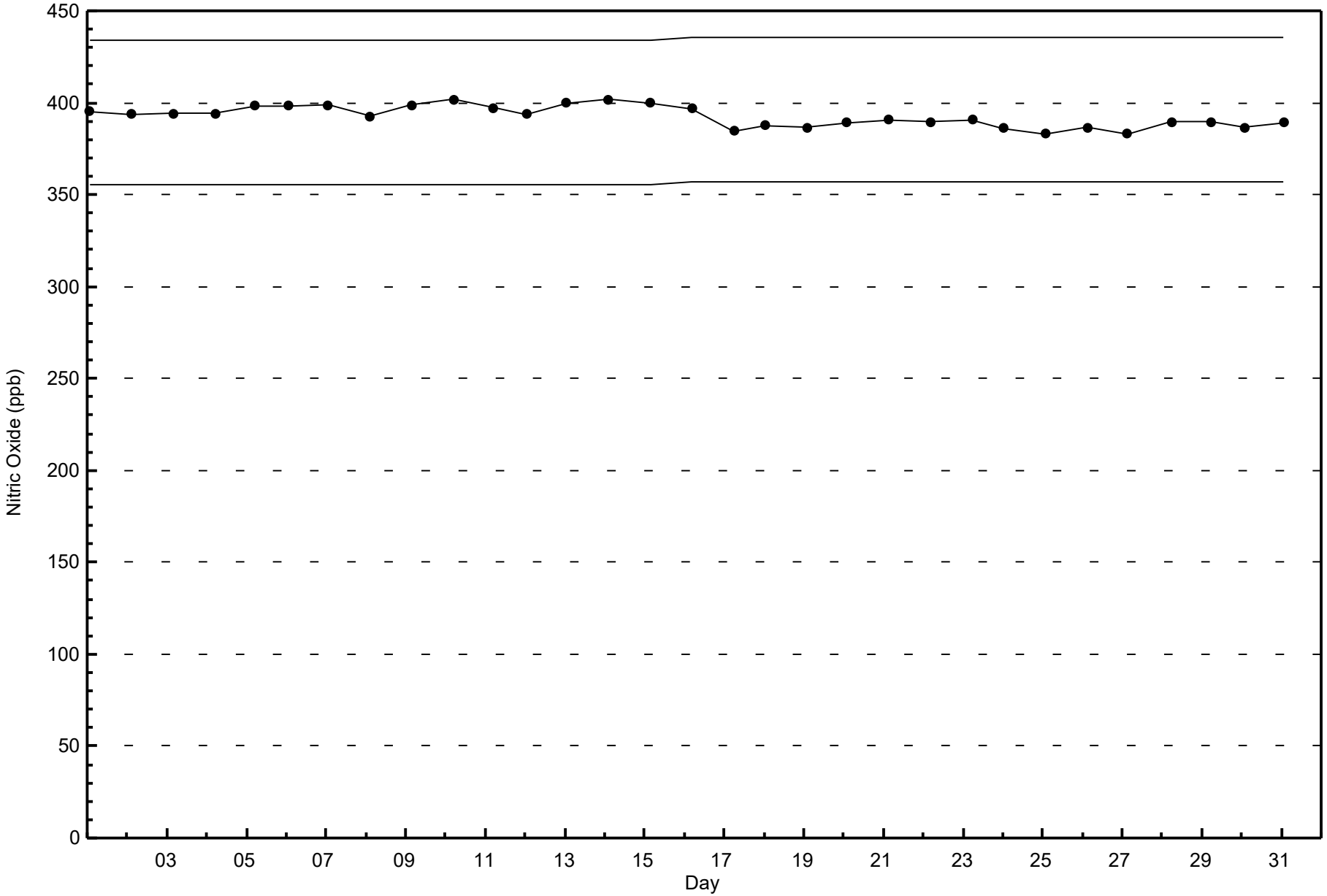


Wood Buffalo Environmental Association

Span Responses

Nitric Oxide (NO) - ppb

Kirby South - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Kirby South - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 28.8 ppb on Oct 27 01:00

Maximum Daily Average: 10.2 ppb on Oct 26

Minimum Value: 0.0 ppb on Oct 22 16:00

Minimum Daily Average: 0.5 ppb on Oct 4

Maximum Diurnal Average: 3.6 ppb at hour 1

Minimum Diurnal Average: 1.4 ppb at hour 19

Monthly Average: 2.26 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.3 Q_1 = 0.6 Median = 1.3 Q_3 = 2.4 P_{90} = 5.5 P_{99} = 14.7

Hours in Service:	744
Hours of Data:	704
Hours of Missing Data:	40
Hours of Calibration:	39
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.4	Z	1.9	3.3	2.6	1.5	1.2	1.1	2.3	2.6	2.5	1.6	1.4	0.8	0.6	0.7	0.5	0.7	0.9	0.6	0.5	0.9	1.1	1.5	1.4	3.3
2-Oct	1.6	2.3	Z	1.7	1.5	1.2	1.2	1.2	1.5	1.3	0.7	0.6	0.6	0.8	0.7	0.8	1.0	1.5	1.1	0.8	0.9	0.9	0.8	1.2	1.1	2.3
3-Oct	1.8	2.2	1.9	Z	1.9	1.7	1.6	1.4	1.3	1.3	0.9	0.7	1.8	3.1	3.9	2.7	0.9	0.4	0.4	1.4	3.9	6.1	3.0	1.0	2.0	6.1
4-Oct	0.4	0.5	0.7	1.2	Z	0.6	0.7	0.4	0.6	3.2	0.5	0.3	0.3	0.3	0.2	0.2	0.4	0.4	0.2	0.2	0.5	0.2	0.3	0.2	0.5	3.2
5-Oct	0.2	0.2	0.5	0.4	0.2	Z	1.1	0.2	0.2	0.2	0.4	0.4	0.4	1.2	3.4	5.3	1.1	0.3	0.4	0.4	0.4	0.3	0.6	0.4	0.8	5.3
6-Oct	Z	0.8	0.5	0.5	0.4	0.8	0.8	0.9	1.6	1.4	0.8	0.8	0.9	4.7	1.2	0.6	0.5	0.3	0.3	0.5	0.6	0.9	2.3	2.8	1.1	4.7
7-Oct	2.1	Z	1.5	1.5	1.7	1.8	1.8	2.0	1.9	1.8	1.8	1.4	1.3	1.2	1.3	1.3	1.5	1.9	2.2	2.4	2.1	2.3	2.2	2.5	1.8	2.5
8-Oct	2.6	2.0	Z	0.7	0.4	0.5	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.2	2.3	8.6	1.9	0.3	0.6	4.9	1.2	8.6
9-Oct	0.9	0.9	1.0	Z	1.1	1.9	3.1	13.2	6.6	0.7	2.5	3.3	0.6	1.9	2.1	5.5	0.9	0.5	0.4	0.4	0.4	0.5	0.8	1.8	2.2	13.2
10-Oct	2.8	3.5	2.7	2.5	Z	2.2	2.2	2.9	3.1	2.9	2.8	2.4	2.1	1.8	2.4	2.2	1.7	1.7	1.6	1.5	1.6	2.2	2.7	3.3	2.4	3.5
11-Oct	2.7	2.7	2.7	2.1	2.0	Z	2.7	2.4	2.9	1.7	1.8	3.6	0.9	0.6	0.5	0.3	0.2	0.5	0.5	0.3	0.2	0.1	0.1	0.2	1.4	3.6
12-Oct	Z	0.2	0.5	0.9	0.9	1.1	1.3	1.4	1.7	1.4	1.3	0.7	0.6	1.2	1.3	1.2	1.3	1.5	1.1	0.6	0.5	1.0	1.4	2.0	1.1	2.0
13-Oct	0.8	Z	0.6	0.6	0.6	0.6	0.7	1.2	1.1	0.5	0.4	0.6	0.4	0.4	0.2	0.4	0.2	0.2	0.5	0.3	0.3	0.5	0.7	1.0	0.6	1.2
14-Oct	0.9	0.7	Z	0.8	0.9	1.0	1.1	1.0	1.0	1.0	0.8	0.6	0.6	0.6	0.4	0.6	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8	1.1
15-Oct	0.8	0.9	1.4	Z	2.2	2.5	2.6	2.7	2.8	3.4	C	C	C	C	C	C	C	C	3.9	2.7	8.8	8.5	9.5	5.6	--	9.5
16-Oct	6.5	4.9	3.7	3.5	Z	2.9	2.6	2.1	1.7	1.3	0.9	0.7	0.7	0.3	0.4	0.3	0.5	0.6	0.7	0.8	1.5	2.2	4.6	3.4	2.0	6.5
17-Oct	2.0	2.2	5.8	6.5	4.5	Z	3.5	1.9	0.7	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.9	0.4	1.4	6.5
18-Oct	Z	0.4	0.4	0.3	0.4	0.5	0.7	1.4	0.7	0.5	0.3	0.4	0.3	0.3	0.5	2.1	0.7	2.6	1.6	0.3	0.3	0.3	0.4	0.2	0.7	2.6
19-Oct	0.2	Z	2.8	3.0	1.4	1.6	1.5	2.3	2.0	1.0	0.9	0.6	0.5	0.6	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.9	3.0
20-Oct	0.2	0.2	Z	1.1	1.6	0.5	0.6	0.6	0.8	1.6	1.9	2.1	1.8	1.2	2.1	1.1	1.5	1.6	1.6	0.7	0.7	0.8	1.2	1.5	1.2	2.1
21-Oct	1.7	1.9	1.8	Z	1.4	1.3	1.2	1.0	1.1	3.5	1.4	0.4	1.1	1.2	1.9	1.3	3.5	2.6	2.0	3.1	2.4	0.6	5.0	0.7	1.8	5.0
22-Oct	1.7	0.5	0.6	0.9	Z	0.5	0.5	0.5	0.7	0.4	0.4	0.4	0.5	0.3	0.4	0.0	0.5	1.5	3.0	1.6	1.8	1.6	1.3	1.5	0.9	3.0
23-Oct	1.6	1.2	1.3	1.1	1.2	Z	1.1	2.3	2.1	2.3	3.1	M	1.4	1.8	1.2	1.0	0.2	0.1	1.4	2.1	2.2	2.1	1.5	1.9	1.6	3.1
24-Oct	Z	3.9	2.8	3.0	2.8	2.4	2.3	2.4	2.7	2.7	2.6	2.1	0.6	2.1	3.3	2.6	4.8	6.2	4.2	3.9	3.3	2.9	2.6	3.8	3.0	6.2
25-Oct	2.7	Z	2.3	2.7	7.8	2.1	0.0	5.3	5.5	2.6	2.8	5.0	4.0	7.5	1.9	1.2	5.7	0.1	0.4	0.4	1.0	0.4	6.0	4.5	3.1	7.8
26-Oct	4.9	7.4	Z	25.9	17.6	4.8	20.1	27.2	16.1	11.8	12.5	13.5	14.8	12.3	11.5	3.3	1.2	0.9	0.2	3.9	8.4	7.5	2.2	7.6	10.2	27.2
27-Oct	28.8	0.8	1.1	Z	1.3	1.3	0.4	1.6	0.5	1.4	1.5	0.9	3.8	5.5	4.9	9.7	10.9	11.3	7.0	8.1	6.4	10.2	6.5	10.4	5.8	28.8
28-Oct	6.5	9.5	10.0	9.3	11.2	Z	7.8	9.5	7.1	14.7	5.6	4.1	4.8	2.4	1.4	1.4	0.9	0.7	0.8	1.7	0.4	0.3	1.9	8.3	5.2	14.7
29-Oct	13.6	6.5	4.7	6.3	8.7	Z	14.2	7.5	9.4	6.7	6.9	3.3	1.1	0.5	3.3	1.6	1.6	1.4	0.7	2.2	9.3	6.1	4.9	8.0	5.6	14.2
30-Oct	8.1	Z	8.4	11.0	7.4	2.9	2.3	9.6	7.4	1.9	3.2	1.3	0.9	1.1	3.1	1.4	0.7	0.0	0.6	0.5	0.5	1.1	0.3	0.4	3.2	11.0
31-Oct	0.8	Z	0.5	0.5	1.8	0.9	1.7	2.3	1.0	0.9	0.0	1.9	2.0	1.0	1.3	2.5	1.9	1.9	2.0	2.0	2.1	2.1	1.8	1.5	1.5	2.5
	3.6	2.3	2.4	3.5	3.2	1.6	2.7	3.5	2.9	2.5	2.1	1.9	1.7	1.9	1.9	1.7	1.5	1.4	1.4	1.7	2.1	2.1	2.2	2.7	Diurnal Average	
	28.8	9.5	10.0	25.9	17.6	4.8	20.1	27.2	16.1	14.7	12.5	13.5	14.8	12.3	11.5	9.7	10.9	11.3	7.0	8.6	9.3	10.2	9.5	10.4	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

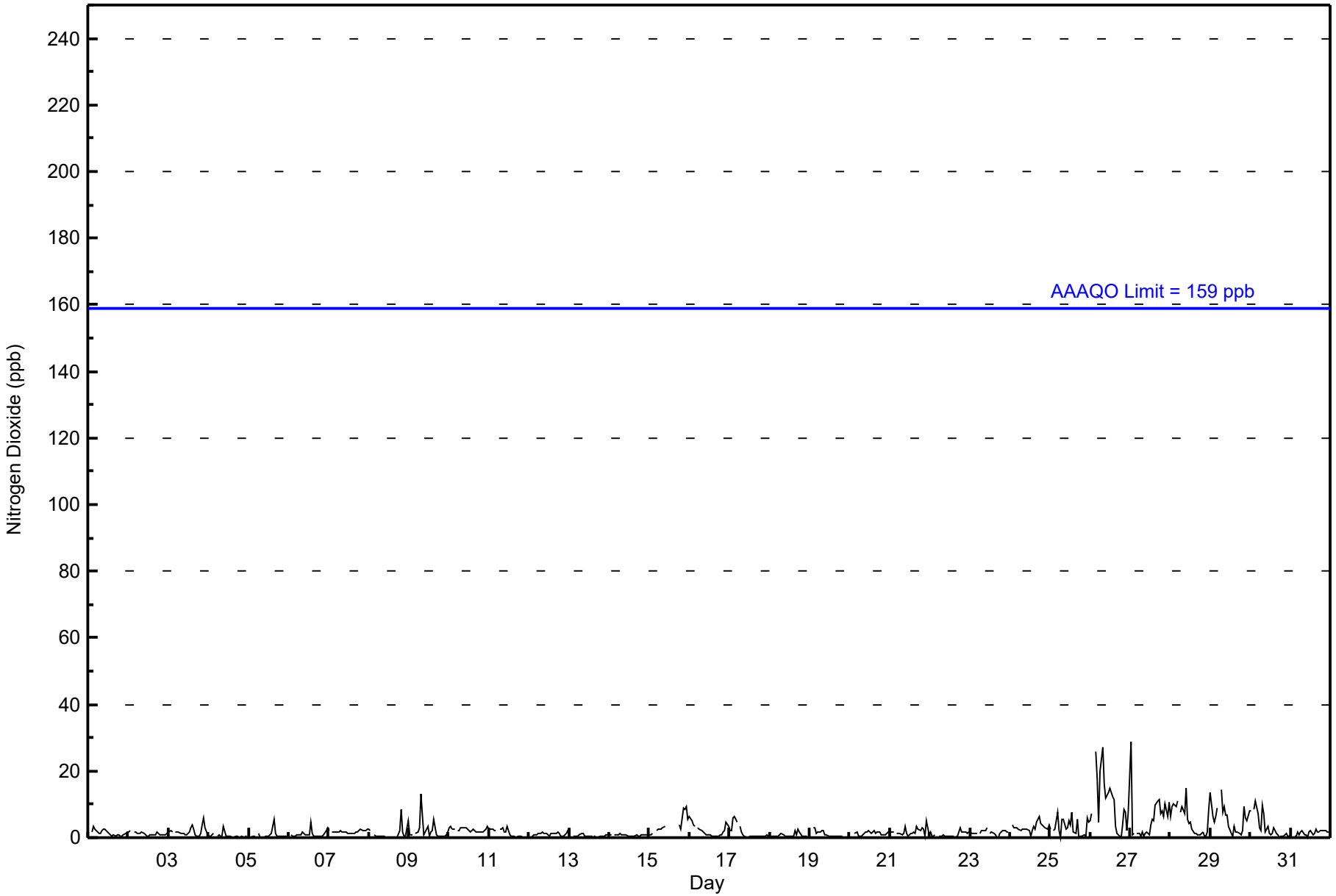
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Kirby South - October 2025



Nitrogen Dioxide (NO_2) - ppb
Kirby South - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	701	99.57	99.57
21 - 40	3	0.43	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Kirby South - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	28	5	7	11	6	5	14	48	79	108	81	26	84	77	35	36	650
21 - 40	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	3
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	28	5	7	11	8	5	14	48	79	108	81	26	85	77	35	36	653

Total Number of Valid Hours: 653

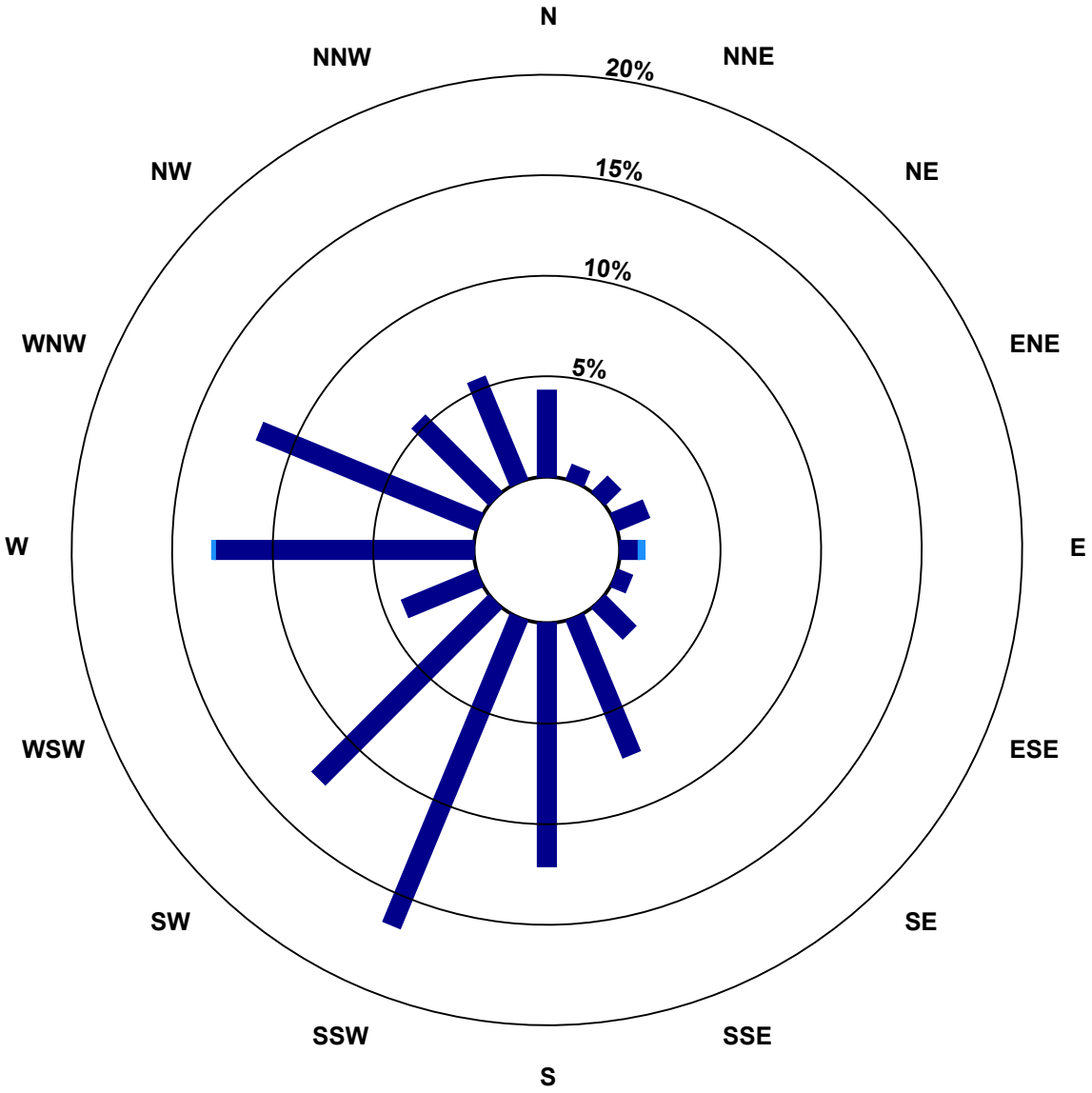
Total Number of Hours: 744

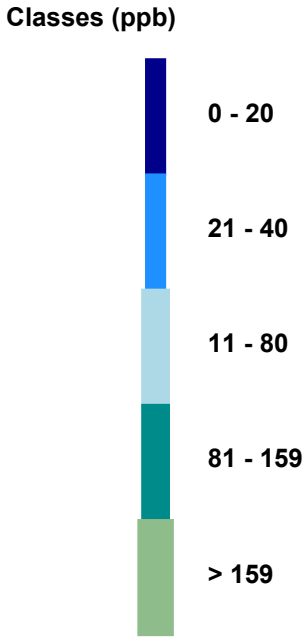
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Kirby South





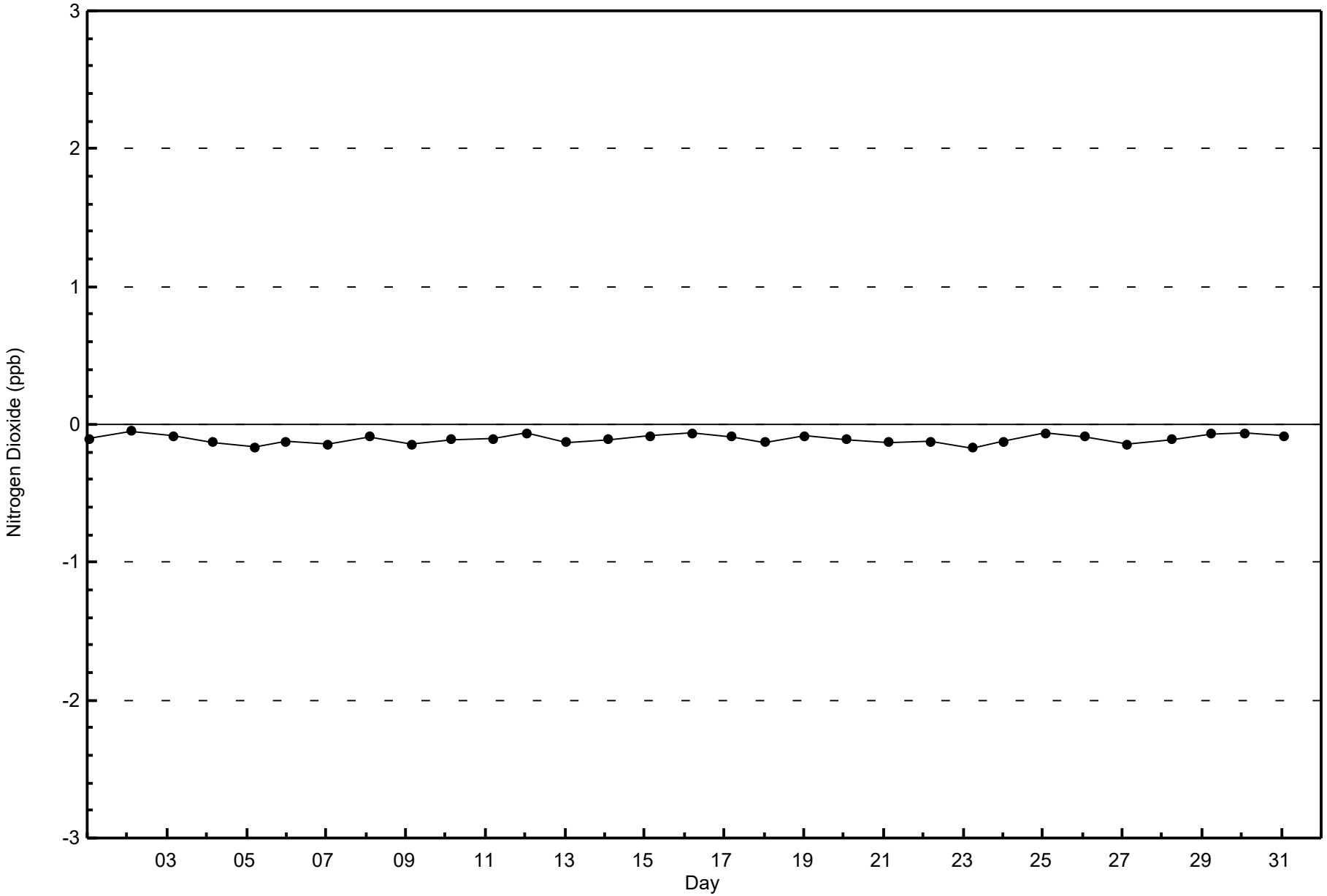
Total Number of Valid Hours: 653

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Kirby South - October 2025

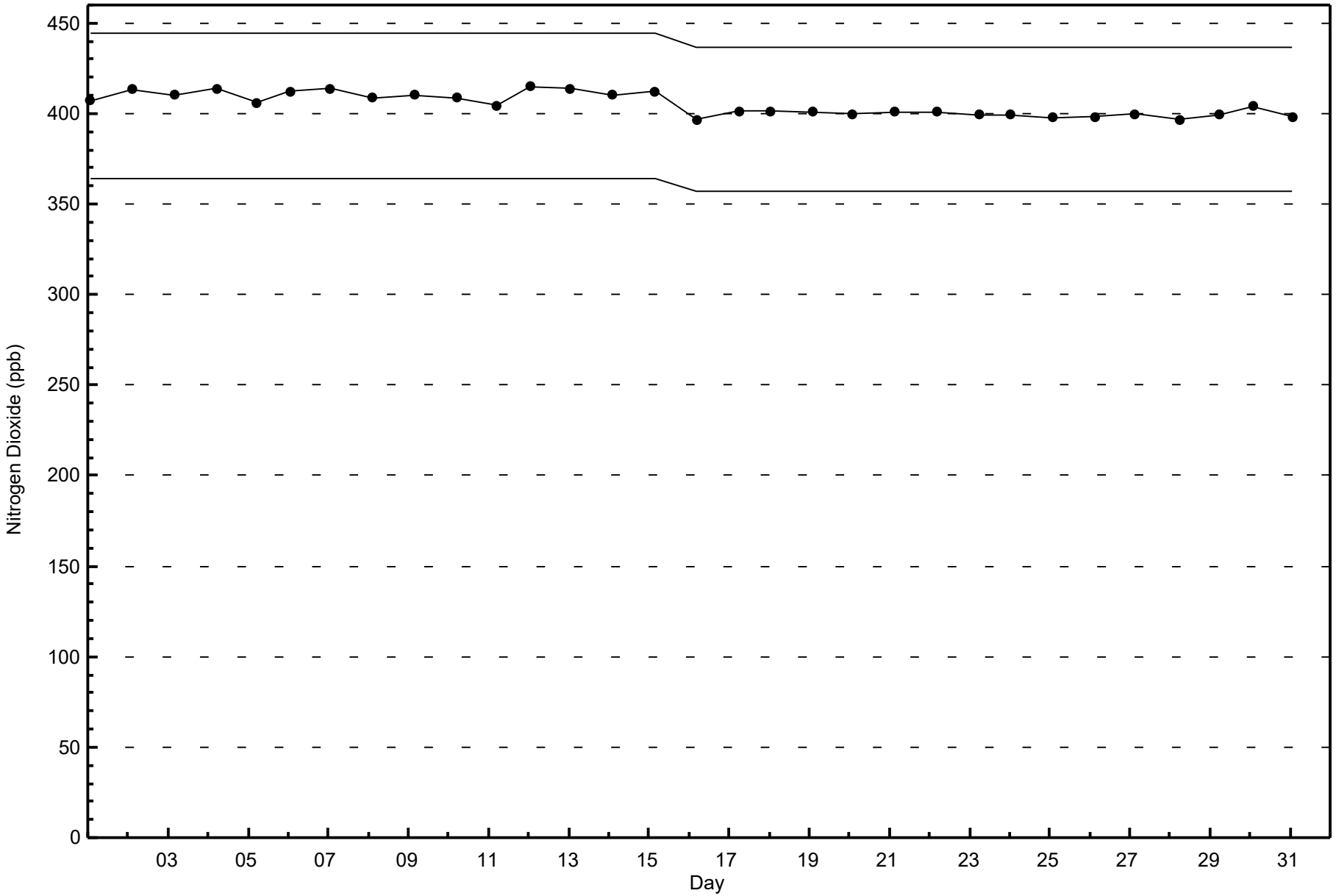


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Kirby South - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Kirby South - October 2025

Maximum Value: 150.1 ppb on Oct 27 01:00

Maximum Daily Average: 46.5 ppb on Oct 26

Minimum Value: 0.1 ppb on Oct 11 22:00

Minimum Daily Average: 0.6 ppb on Oct 13

Maximum Diurnal Average: 12.1 ppb at hour 1

Minimum Diurnal Average: 2.3 ppb at hour 19

Monthly Average: 5.85 ppb

Percentiles: $P_1 = 0.2$ $P_{10} = 0.4$ $Q_1 = 0.6$ Median = 1.6 $Q_3 = 3.2$ $P_{90} = 11.3$ $P_{99} = 72.9$

Hours in Service:	744
Hours of Data:	704
Hours of Missing Data:	40
Hours of Calibration:	39
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.4	Z	2.0	3.4	2.6	1.6	1.3	1.2	3.1	3.3	3.6	2.0	1.7	0.9	0.7	0.8	0.6	0.8	1.0	0.7	0.6	1.0	1.2	1.6	1.6	3.6
2-Oct	1.7	2.4	Z	1.7	1.6	1.3	1.3	1.4	1.9	1.7	1.0	0.8	0.7	0.9	0.8	1.0	1.1	1.6	1.1	0.9	1.0	1.0	0.9	1.2	1.3	2.4
3-Oct	1.9	2.2	1.9	Z	1.9	1.7	1.6	1.6	1.7	1.7	1.2	0.9	3.1	5.9	6.8	3.8	1.0	0.5	0.5	1.9	6.1	10.5	4.8	1.3	2.8	10.5
4-Oct	0.5	0.5	0.9	1.6	Z	0.6	0.7	0.4	0.7	6.5	0.6	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.2	0.2	0.5	0.2	0.3	0.2	0.7	6.5
5-Oct	0.2	0.2	0.5	0.4	0.2	Z	1.5	0.2	0.3	0.3	0.5	0.5	0.8	2.8	7.4	10.2	2.0	0.4	0.4	0.4	0.4	0.3	0.6	0.4	1.3	10.2
6-Oct	Z	0.9	0.5	0.5	0.4	0.8	0.8	1.0	1.8	1.8	1.1	1.2	1.4	7.8	1.8	0.8	0.6	0.4	0.4	0.5	0.6	0.9	2.3	2.8	1.4	7.8
7-Oct	2.1	Z	1.5	1.5	1.7	1.8	1.8	2.1	2.3	2.4	2.5	2.0	1.8	1.6	1.6	1.5	1.7	2.0	2.2	2.4	2.1	2.4	2.3	2.5	2.0	2.5
8-Oct	2.7	2.0	Z	0.8	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.3	2.5	9.7	2.2	0.3	0.7	5.7	1.4	9.7
9-Oct	1.0	0.9	1.0	Z	1.3	2.5	4.1	25.6	13.6	1.0	5.2	7.0	1.0	3.8	4.1	10.0	1.3	0.6	0.5	0.5	0.5	0.5	0.8	1.8	3.9	25.6
10-Oct	2.8	3.5	2.7	2.5	Z	2.2	2.2	3.2	3.9	3.9	3.8	3.1	2.6	2.2	2.9	2.5	1.8	1.7	1.6	1.5	1.6	2.2	2.7	3.3	2.6	3.9
11-Oct	2.7	2.7	2.7	2.1	2.0	Z	2.7	2.5	3.2	1.9	2.3	4.2	1.0	0.8	0.7	0.5	0.2	0.5	0.5	0.3	0.2	0.1	0.1	0.2	1.5	4.2
12-Oct	Z	0.2	0.5	0.9	0.9	1.1	1.3	1.5	1.8	1.6	1.5	0.9	0.8	1.5	1.4	1.4	1.3	1.5	1.1	0.6	0.5	1.0	1.4	2.0	1.2	2.0
13-Oct	0.8	Z	0.6	0.6	0.6	0.6	0.7	1.3	1.2	0.5	0.4	0.6	0.4	0.5	0.2	0.4	0.2	0.2	0.5	0.3	0.3	0.5	0.7	1.0	0.6	1.3
14-Oct	0.9	0.7	Z	0.8	0.9	1.0	1.1	1.1	1.2	1.2	1.0	0.8	0.7	0.7	0.5	0.7	0.8	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8	1.2
15-Oct	0.8	0.9	1.4	Z	2.2	2.5	2.6	3.1	4.1	5.3	C	C	C	C	C	C	C	C	4.5	2.8	10.3	9.6	10.8	6.2	--	10.8
16-Oct	8.2	5.7	4.0	3.7	Z	3.0	2.7	2.3	2.1	1.8	1.1	0.9	1.0	0.4	0.4	0.4	0.5	0.6	0.7	0.8	1.5	2.2	4.8	3.5	2.3	8.2
17-Oct	2.0	2.3	9.0	10.1	6.5	Z	5.2	2.9	0.9	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.9	0.4	1.9	10.1
18-Oct	Z	0.4	0.4	0.3	0.4	0.5	0.7	1.6	0.8	0.6	0.4	0.6	0.4	0.4	0.7	3.6	0.9	2.7	1.7	0.3	0.3	0.3	0.4	0.2	0.8	3.6
19-Oct	0.2	Z	2.8	3.0	1.4	1.6	1.5	2.3	2.1	1.1	0.9	0.6	0.5	0.6	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.9	3.0
20-Oct	0.2	0.2	Z	1.1	1.6	0.5	0.6	0.6	0.9	2.1	2.4	2.9	2.2	1.4	2.6	1.3	1.7	1.8	1.9	0.7	0.7	0.8	1.2	1.5	1.3	2.9
21-Oct	1.7	1.9	1.8	Z	1.4	1.3	1.2	1.0	1.5	7.6	2.5	0.6	1.8	2.1	2.8	1.9	4.5	3.1	2.6	3.9	2.7	0.6	6.0	0.8	2.4	7.6
22-Oct	1.8	0.6	0.6	0.9	Z	0.5	0.5	0.6	0.8	0.5	0.5	0.5	0.8	0.4	0.6	1.1	1.5	1.7	4.3	2.6	3.2	2.5	1.8	1.7	1.3	4.3
23-Oct	1.9	1.4	1.6	1.3	1.3	Z	1.9	3.4	3.9	3.3	4.5	M	2.0	4.5	1.6	1.2	1.5	2.8	1.5	2.2	2.3	2.7	2.1	1.9	2.3	4.5
24-Oct	Z	4.2	2.8	3.0	3.0	2.7	2.3	2.5	3.4	3.4	3.2	2.6	3.8	3.2	5.4	3.1	5.7	8.0	4.3	4.2	3.4	4.4	3.1	4.4	3.7	8.0
25-Oct	3.1	Z	2.4	3.0	9.0	2.2	7.8	6.0	11.1	4.9	5.4	9.0	9.5	16.4	3.3	4.2	8.4	1.9	0.5	0.4	3.2	0.5	14.2	7.5	5.8	16.4
26-Oct	12.0	24.0	Z	134.3	77.1	28.8	63.3	137.5	73.2	62.3	53.3	75.0	62.1	78.2	57.9	11.2	2.1	1.9	0.3	9.4	30.5	28.2	11.5	34.6	46.5	137.5
27-Oct	150.1	1.5	1.9	Z	2.0	3.1	6.5	7.1	7.6	5.4	6.6	5.1	14.4	23.5	21.5	47.0	50.6	42.7	27.1	34.4	41.1	58.9	22.9	47.3	27.3	150.1
28-Oct	18.1	33.4	34.2	31.6	34.5	Z	32.9	36.2	23.6	54.5	14.5	10.0	15.9	11.4	5.5	3.5	1.4	0.9	4.5	7.4	0.4	0.3	10.7	39.4	18.5	54.5
29-Oct	84.3	44.5	23.5	21.9	31.2	Z	41.7	46.1	47.0	24.1	33.2	8.9	3.5	0.7	12.7	5.4	4.9	2.8	0.7	10.1	46.9	45.5	23.9	18.5	25.3	84.3
30-Oct	23.0	Z	21.8	39.9	23.9	3.0	3.6	53.1	28.1	14.0	16.1	2.3	1.3	2.9	6.5	1.9	0.8	0.9	0.7	0.5	0.5	1.4	0.5	0.4	10.8	53.1
31-Oct	1.1	Z	0.5	0.5	2.6	0.9	1.8	2.5	1.1	1.2	3.4	2.8	2.9	3.3	4.4	2.9	3.4	2.4	2.0	2.0	2.1	2.1	1.8	1.6	2.1	4.4
	12.1	5.7	4.7	10.4	7.9	2.7	6.4	11.4	8.0	7.1	5.8	5.1	4.6	6.0	5.2	4.1	3.4	2.9	2.3	3.3	5.4	5.9	4.4	6.3	Diurnal Average	
	150.1	44.5	34.2	134.3	77.1	28.8	63.3	137.5	73.2	62.3	53.3	75.0	62.1	78.2	57.9	47.0	50.6	42.7	27.1	34.4	46.9	58.9	23.9	47.3	Diurnal Maximum	

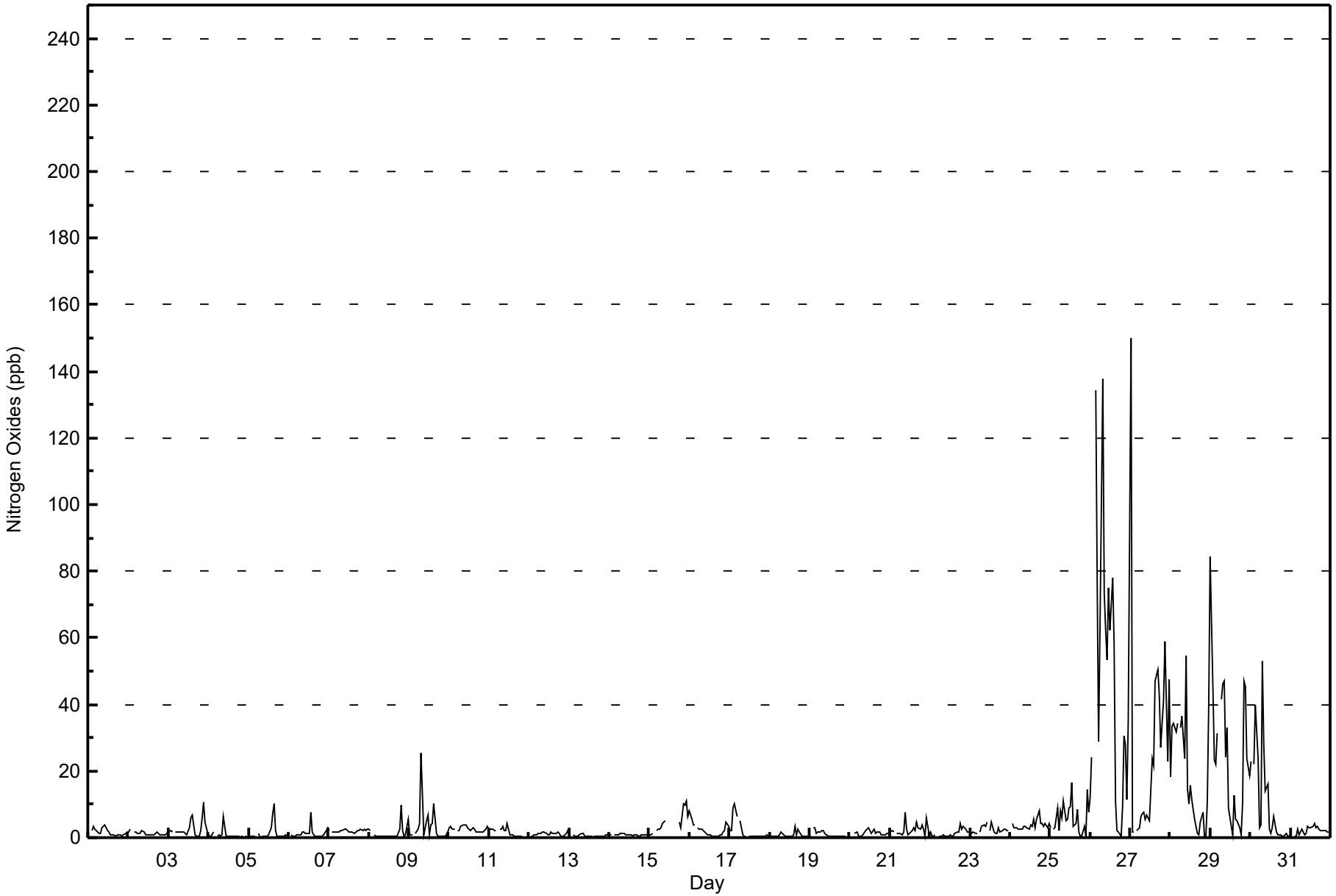
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Kirby South - October 2025



Nitrogen Oxides (NO_X) - ppb
Kirby South - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	647	91.90	91.90
21 - 40	30	4.26	96.16
11 - 80	23	3.27	99.43
81 - 159	4	0.57	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 704

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Kirby South - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	28	5	7	4	3	5	13	48	79	108	81	25	83	59	33	35	616
21 - 40	0	0	0	0	1	0	1	0	0	0	0	1	1	12	1	1	18
11 - 80	0	0	0	7	2	0	0	0	0	0	0	0	0	6	1	0	16
81 - 159	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	3
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	28	5	7	11	8	5	14	48	79	108	81	26	85	77	35	36	653

Total Number of Valid Hours: 653

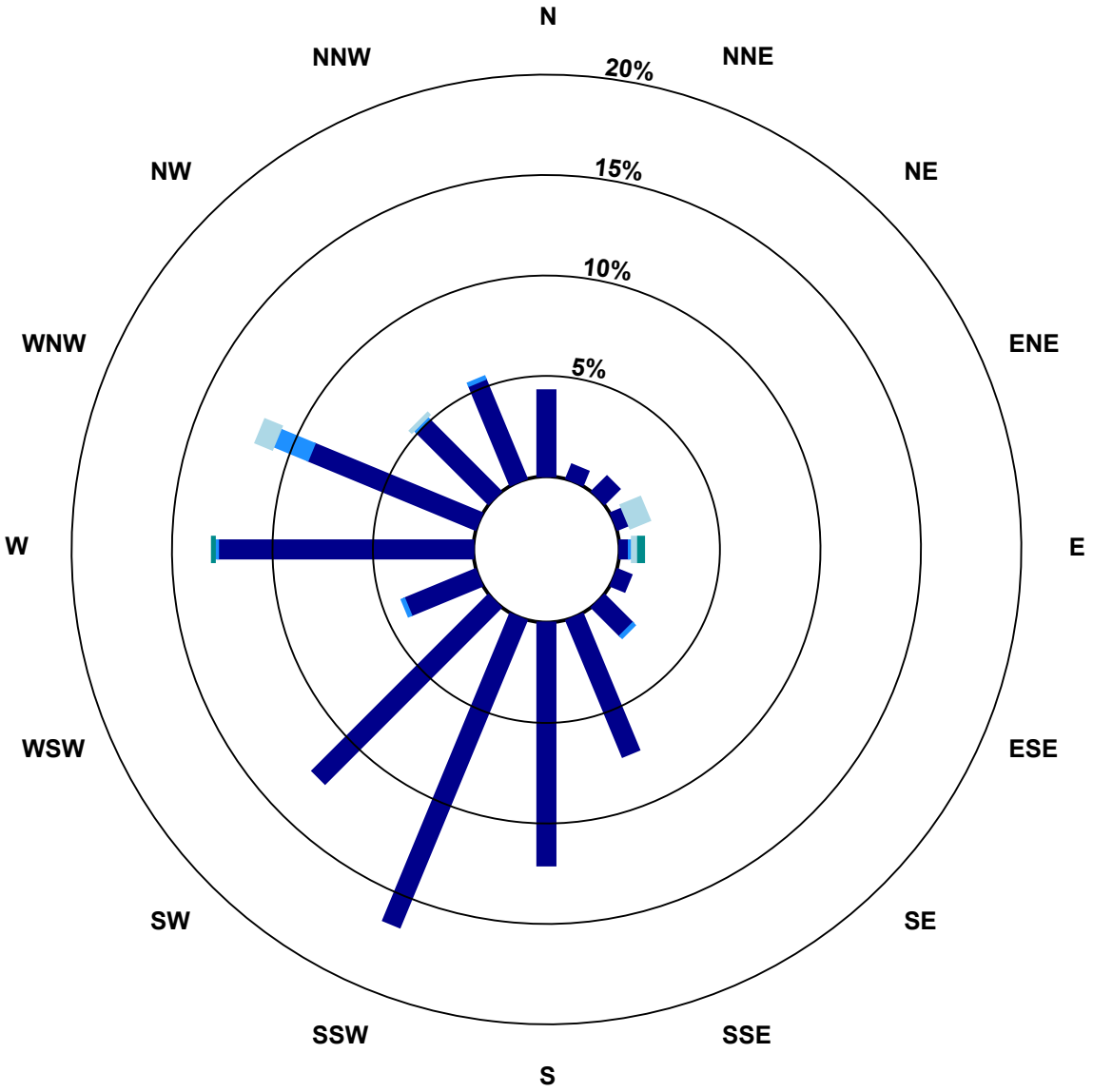
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Kirby South



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

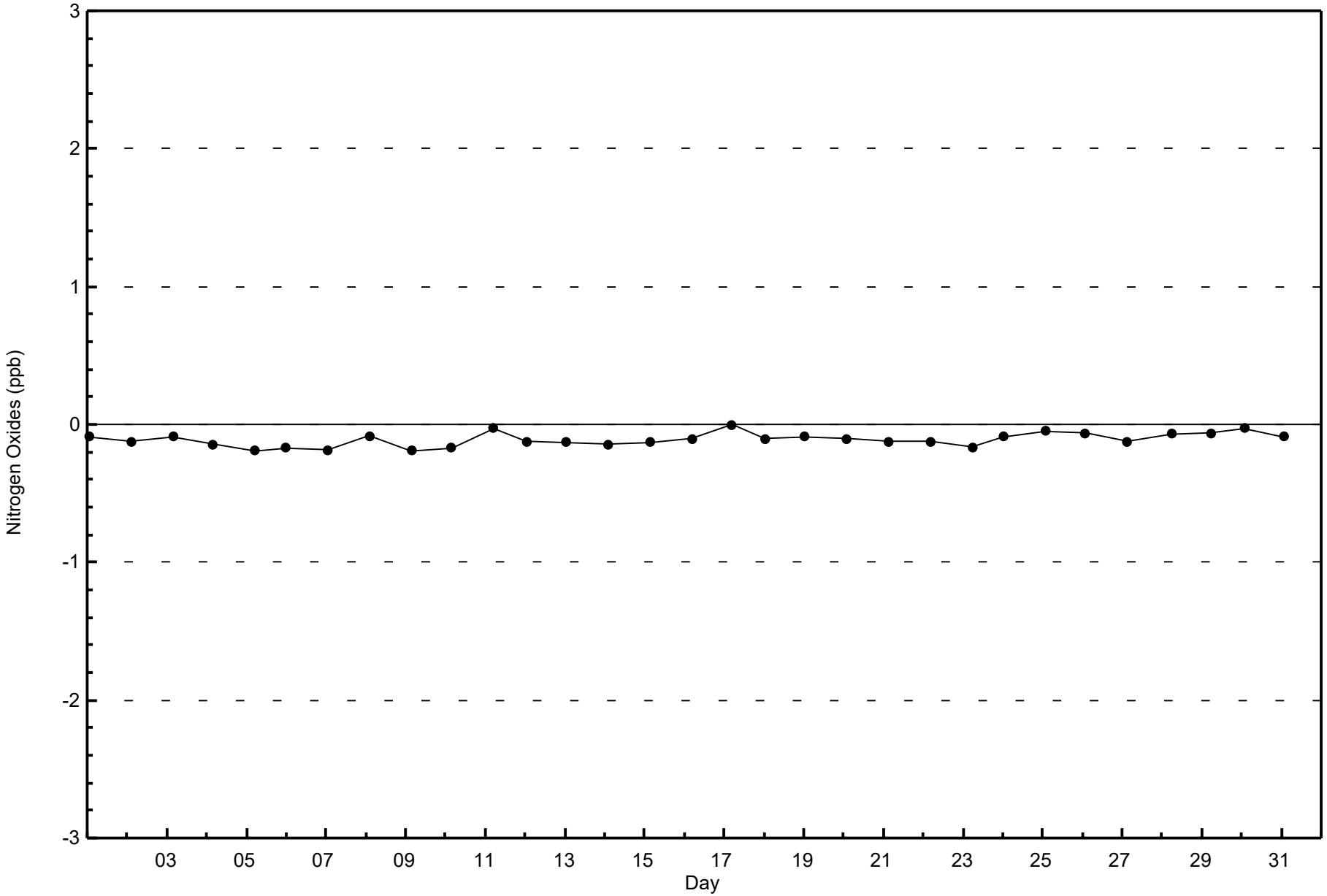
Total Number of Valid Hours: 653

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Kirby South - October 2025

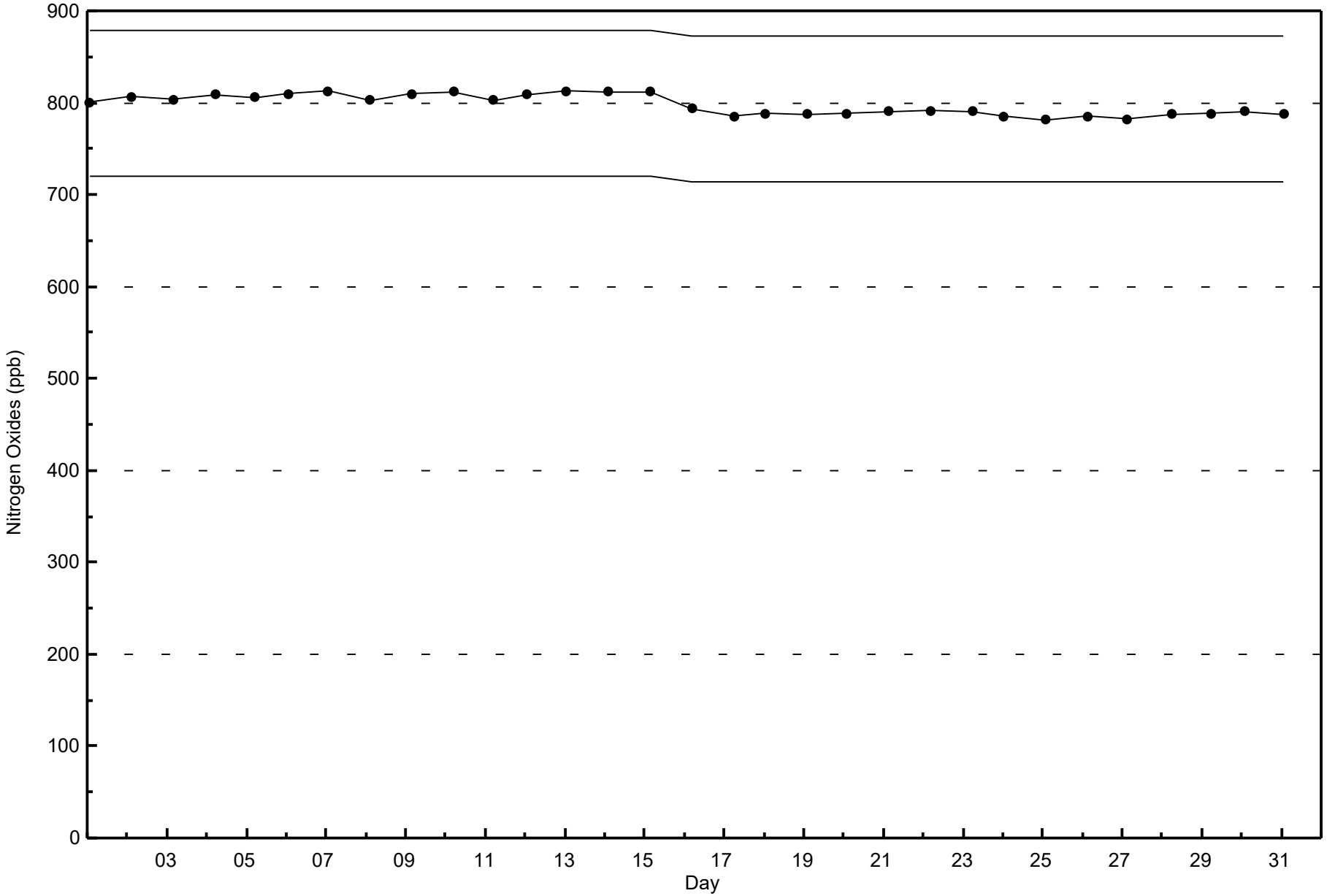


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Kirby South - October 2025



Maximum Value: 18.0 C on Oct 7 16:00

Maximum Daily Average: 10.5 C on Oct 10

Minimum Value: -5.1 C on Oct 14 08:00

Minimum Daily Average: -1.9 C on Oct 13

Maximum Diurnal Average: 7.4 C at hour 15

Minimum Diurnal Average: 1.8 C at hour 8

Monthly Average: 4.10 C

Percentiles: P_1 = -4.2 P_{10} = -1.5 Q_1 = 0.1 Median = 3.6 Q_3 = 7.4 P_{90} = 10.6 P_{99} = 16.7

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

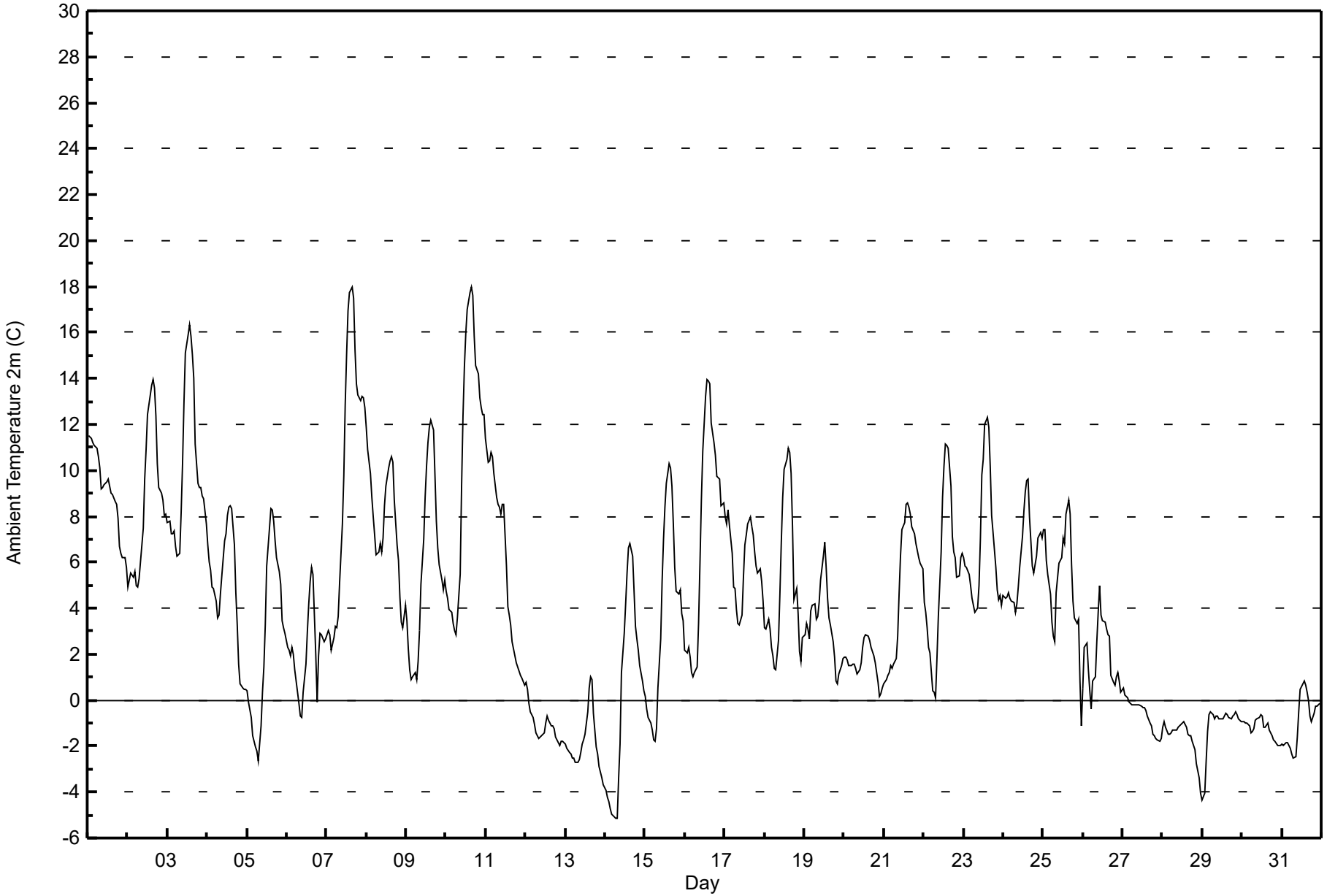
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	11.5	11.5	11.4	11.2	11.1	11.0	10.6	10.1	9.2	9.2	9.4	9.5	9.6	9.3	9.0	9.0	8.6	8.5	7.9	6.7	6.4	6.2	6.2	5.8	9.1	11.5
2-Oct	4.9	5.2	5.5	5.3	5.6	5.0	4.9	5.3	6.0	7.5	9.6	10.9	12.4	12.9	13.7	13.9	13.6	12.4	10.3	9.3	9.0	8.7	8.1	8.1	8.7	13.9
3-Oct	7.7	7.8	7.2	7.2	7.3	6.7	6.3	6.4	8.2	10.3	12.9	15.1	15.9	16.3	15.9	15.1	14.0	11.1	9.4	9.3	9.3	8.9	8.8	7.7	10.2	16.3
4-Oct	6.8	6.0	5.7	4.9	4.9	4.3	3.6	3.7	4.6	5.4	7.0	7.2	8.0	8.4	8.5	8.4	6.7	4.7	3.3	1.5	0.7	0.5	0.4	0.5	4.8	8.5
5-Oct	0.4	-0.1	-0.7	-1.5	-1.8	-2.0	-2.2	-2.6	-1.1	0.4	1.4	3.3	5.9	7.5	8.3	8.3	7.8	6.9	6.2	5.6	5.0	3.5	3.2	2.9	2.7	8.3
6-Oct	2.3	2.2	1.9	2.3	2.0	1.3	0.3	-0.1	-0.7	-0.8	0.3	1.6	3.0	4.2	5.2	5.8	5.4	2.0	-0.1	1.9	2.9	2.9	2.6	2.6	2.1	5.8
7-Oct	2.8	3.0	2.8	2.2	2.7	3.2	3.1	3.6	5.1	7.7	9.7	12.9	15.0	17.0	17.8	18.0	17.5	15.2	13.7	13.3	13.1	13.2	13.1	12.8	9.9	18.0
8-Oct	11.9	10.9	9.9	8.8	8.0	7.2	6.3	6.4	6.8	6.4	7.0	8.4	9.3	10.1	10.4	10.6	10.3	8.7	6.7	6.1	4.5	3.4	3.2	4.1	7.7	11.9
9-Oct	3.5	2.3	1.3	0.9	1.0	1.2	0.9	1.7	3.1	5.0	7.0	8.8	10.2	11.2	11.9	12.2	11.7	9.8	7.8	6.6	5.9	5.2	4.8	5.2	5.8	12.2
10-Oct	4.8	4.5	4.0	3.8	3.3	3.0	2.9	3.6	5.5	9.3	12.4	14.5	15.9	17.0	17.8	18.0	17.6	15.9	14.6	14.2	13.2	12.7	12.4	12.4	10.5	18.0
11-Oct	11.4	10.3	10.4	10.8	10.6	9.8	8.8	8.5	8.4	8.1	8.5	8.5	5.8	4.0	3.7	3.3	2.5	2.0	1.6	1.4	1.3	1.1	0.9	0.7	5.9	11.4
12-Oct	0.8	0.5	-0.1	-0.5	-0.8	-1.0	-1.4	-1.5	-1.7	-1.6	-1.5	-1.4	-1.0	-0.7	-0.9	-1.1	-1.1	-1.2	-1.6	-1.7	-2.0	-1.8	-1.8	-1.9	-1.1	0.8
13-Oct	-1.9	-2.1	-2.3	-2.4	-2.5	-2.5	-2.7	-2.7	-2.6	-2.3	-1.9	-1.7	-1.5	-0.5	0.5	1.0	0.9	-0.5	-2.1	-2.4	-2.9	-3.2	-3.4	-3.7	-1.9	1.0
14-Oct	-3.9	-4.2	-4.4	-4.7	-5.0	-5.1	-5.1	-5.1	-3.4	-1.9	1.2	2.9	4.2	5.5	6.6	6.8	6.3	4.7	3.2	2.6	2.1	1.5	0.9	0.4	0.3	6.8
15-Oct	0.2	-0.4	-0.7	-1.0	-1.3	-1.7	-1.8	-1.2	0.5	2.7	5.1	7.0	8.4	9.4	10.3	10.1	9.3	7.7	5.8	4.7	4.6	4.8	3.8	3.4	3.7	10.3
16-Oct	2.2	2.0	2.3	1.9	1.2	1.0	1.2	1.4	3.4	5.9	8.7	10.8	13.2	13.9	13.9	13.8	12.0	11.2	10.7	9.8	9.7	9.6	8.5	8.6	7.4	13.9
17-Oct	8.0	7.6	8.3	7.6	6.4	4.9	4.9	3.9	3.3	3.3	3.7	5.3	6.8	7.2	7.7	8.0	7.6	7.2	6.4	5.8	5.6	5.7	5.2	4.3	6.0	8.3
18-Oct	3.2	3.1	3.5	3.1	2.3	1.9	1.4	1.3	2.6	4.6	6.9	8.8	10.0	10.5	11.0	10.8	9.9	7.5	4.4	4.8	3.8	2.1	1.7	2.7	5.1	11.0
19-Oct	2.8	3.4	3.1	2.7	3.9	4.2	4.2	3.5	3.6	4.3	5.2	6.2	6.9	5.8	4.4	3.6	3.2	2.6	1.9	0.8	0.7	1.2	1.5	1.8	3.4	6.9
20-Oct	1.9	1.9	1.7	1.5	1.5	1.5	1.5	1.4	1.2	1.3	1.6	2.3	2.7	2.8	2.8	2.6	2.3	2.1	2.0	1.6	0.8	0.2	0.3	0.5	1.7	2.8
21-Oct	0.7	0.9	1.1	1.2	1.5	1.4	1.6	1.8	2.8	4.6	6.3	7.5	7.8	8.5	8.6	8.4	8.1	7.6	7.3	6.8	6.5	6.2	6.0	5.7	4.9	8.6
22-Oct	4.3	3.9	3.1	2.3	2.0	0.4	0.4	0.1	1.8	3.7	6.5	8.8	10.2	11.2	11.1	11.0	9.3	7.1	6.5	6.2	5.3	5.4	6.2	6.4	5.5	11.2
23-Oct	6.2	5.8	5.8	5.5	5.0	4.4	4.1	3.8	4.0	5.0	7.1	9.8	10.5	12.0	12.3	11.9	10.2	8.1	7.3	5.8	4.8	4.4	4.6	4.2	6.8	12.3
24-Oct	4.6	4.4	4.5	4.7	4.4	4.3	4.3	3.8	4.2	4.9	5.8	7.1	8.2	9.1	9.6	9.6	7.9	5.9	5.6	5.9	6.3	7.1	7.3	7.1	6.1	9.6
25-Oct	7.4	7.4	6.1	5.5	4.6	3.4	2.8	2.5	4.7	6.0	6.1	6.2	7.0	6.8	8.1	8.7	8.1	5.9	4.3	3.6	3.3	3.5	0.8	-1.1	5.1	8.7
26-Oct	0.5	2.3	2.5	1.3	0.4	-0.4	0.8	1.0	2.6	3.8	5.0	3.7	3.4	3.4	3.1	2.9	2.8	1.1	0.8	0.6	1.0	1.2	0.8	0.3	1.9	5.0
27-Oct	0.5	0.2	0.2	0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.4	-0.7	-1.0	-1.1	-1.5	-1.5	-1.7	-1.7	-1.8	-1.7	-0.6	0.5
28-Oct	-1.2	-0.9	-1.2	-1.5	-1.5	-1.4	-1.3	-1.3	-1.3	-1.2	-1.1	-1.1	-1.0	-0.9	-1.2	-1.5	-1.5	-1.5	-1.8	-2.2	-2.8	-3.1	-3.4	-4.1	-1.7	-0.9
29-Oct	-4.4	-4.0	-2.6	-1.4	-0.6	-0.5	-0.6	-0.8	-0.7	-0.7	-0.8	-0.8	-0.8	-0.7	-0.6	-0.6	-0.8	-0.8	-0.7	-0.6	-0.5	-0.6	-0.8	-0.9	-1.1	-0.5
30-Oct	-0.9	-1.0	-1.0	-1.0	-1.1	-1.4	-1.4	-1.2	-0.9	-0.8	-0.7	-0.6	-0.7	-1.2	-1.2	-1.0	-1.3	-1.4	-1.5	-1.7	-1.8	-2.0	-2.0	-2.0	-1.2	-0.6
31-Oct	-1.9	-2.0	-1.9	-1.8	-2.0	-2.1	-2.3	-2.5	-2.4	-1.6	-0.5	0.5	0.6	0.8	0.6	0.4	0.0	-0.7	-1.0	-0.6	-0.3	-0.3	-0.2	-0.1	-0.9	0.8
	3.1	3.0	2.8	2.6	2.4	2.0	1.8	1.8	2.5	3.5	4.8	5.9	6.6	7.1	7.4	7.3	6.7	5.4	4.4	4.0	3.7	3.4	3.2	3.0	Diurnal Average	
	11.9	11.5	11.4	11.2	11.1	11.0	10.6	10.1	9.2	10.3	12.9	15.1	15.9	17.0	17.8	18.0	17.6	15.9	14.6	14.2	13.2	13.2	13.1	12.8	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Kirby South - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	184	24.73	24.73
0 - 10	469	63.04	87.77
10 - 20	91	12.23	100.00
> 20	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 98.6 % on Oct 27 11:00

Maximum Daily Average: 98.1 % on Oct 27

Minimum Value: 29.2 % on Oct 16 14:00

Minimum Daily Average: 54.7 % on Oct 7

Maximum Diurnal Average: 83.7 % at hour 8

Minimum Diurnal Average: 60.6 % at hour 16

Monthly Average: 73.85 %

Percentiles: P_1 = 34.4 P_{10} = 47.6 Q_1 = 59.7 Median = 76.0 Q_3 = 90.6 P_{90} = 96.0 P_{99} = 98.4

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

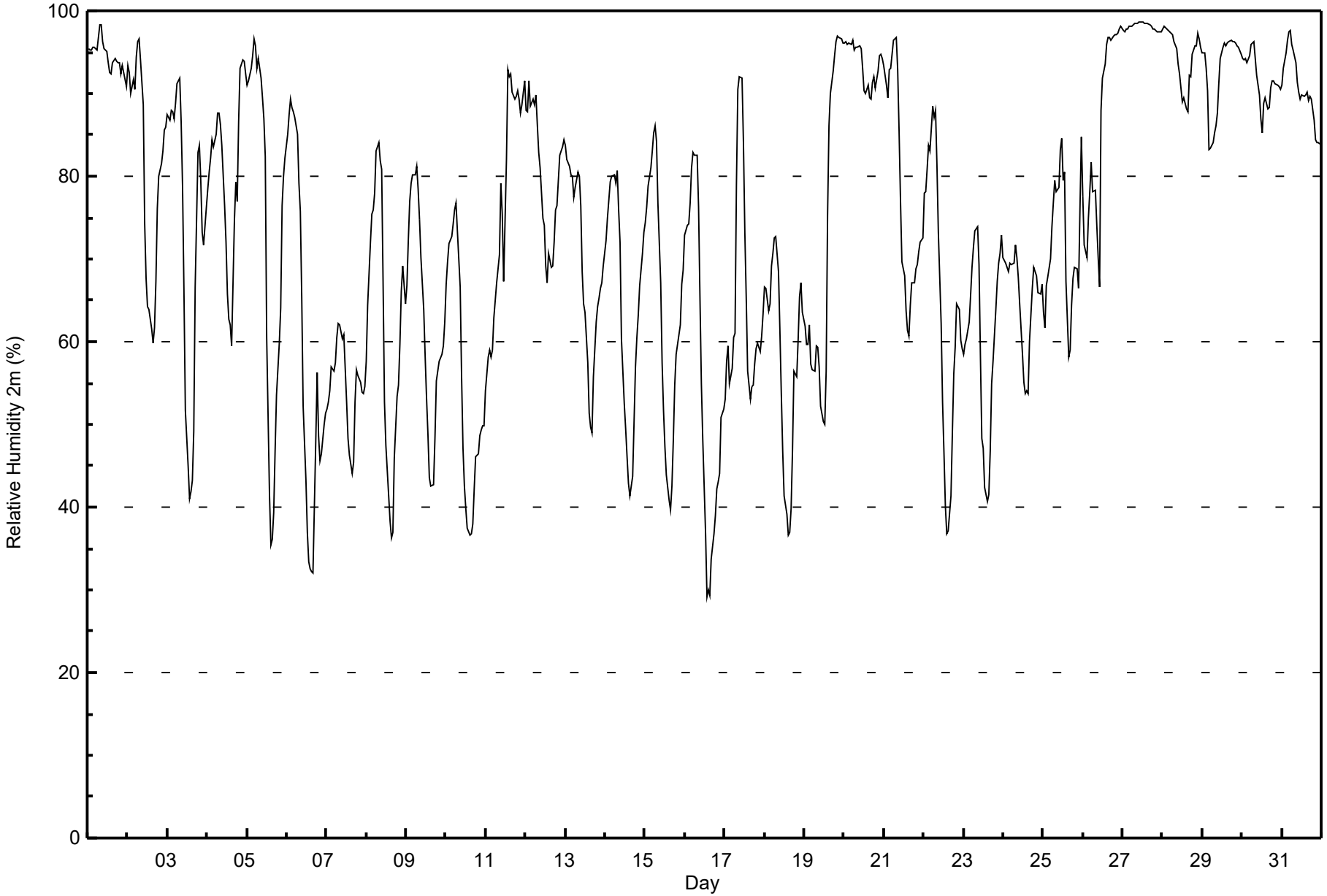
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	95.5	95.2	95.3	95.6	95.6	95.3	96.7	98.2	98.3	96.2	95.5	95.1	93.8	92.5	92.5	93.7	94.2	94.0	93.7	93.8	92.4	93.4	91.7	90.9	94.5	98.3
2-Oct	93.5	92.5	89.9	91.8	90.5	94.4	96.3	96.7	94.0	88.6	74.2	67.6	64.2	63.8	61.5	59.8	61.8	67.3	76.0	80.0	81.6	83.0	85.7	86.0	80.9	96.7
3-Oct	87.5	86.8	88.0	87.7	86.9	88.8	91.1	91.8	86.5	78.7	66.1	51.7	44.9	41.0	41.8	43.2	49.1	66.7	82.9	83.7	79.5	73.2	71.7	76.2	72.7	91.8
4-Oct	78.5	80.5	82.2	84.5	83.6	85.1	87.7	87.6	86.2	83.7	76.4	72.0	65.8	62.7	62.0	59.5	74.7	79.2	76.9	86.6	93.1	94.1	93.9	92.4	80.4	94.1
5-Oct	91.0	91.5	93.1	94.6	96.6	95.8	93.0	94.2	91.8	89.5	87.0	82.4	60.6	41.6	35.4	36.2	39.4	46.8	53.5	59.8	64.1	76.4	80.1	82.2	74.0	96.6
6-Oct	85.1	87.4	89.4	88.3	87.7	87.1	85.2	79.2	75.8	65.4	52.2	43.2	37.0	33.4	32.6	32.3	32.0	48.0	56.2	48.6	45.7	46.4	50.0	51.4	60.0	89.4
7-Oct	51.9	52.8	54.2	56.9	56.4	57.4	60.6	62.2	62.0	60.4	60.9	56.9	52.7	48.3	46.3	44.1	45.4	52.8	56.7	55.9	55.1	53.8	53.8	54.6	54.7	62.2
8-Oct	57.6	64.3	72.1	75.5	76.0	77.9	83.0	84.0	81.8	80.9	67.3	52.7	47.4	41.4	38.3	36.2	36.9	46.0	53.4	54.7	59.7	66.1	69.1	64.6	61.9	84.0
9-Oct	66.8	72.1	77.0	79.2	80.2	80.2	81.2	78.5	74.8	70.3	63.9	58.4	53.3	48.9	43.6	42.5	42.7	48.3	55.3	56.5	57.7	58.5	59.6	62.4	63.0	81.2
10-Oct	67.0	69.6	71.9	72.8	74.3	75.9	76.8	73.5	66.7	55.8	47.2	42.6	39.9	37.5	36.7	36.7	38.0	42.2	46.1	46.4	48.6	49.3	49.8	49.9	54.8	76.8
11-Oct	54.1	58.1	58.9	58.1	59.0	62.9	67.1	68.8	70.5	79.1	75.4	67.2	82.1	92.8	92.0	92.4	90.1	89.4	89.7	90.3	89.3	87.6	88.7	91.5	77.3	92.8
12-Oct	87.9	87.8	91.6	88.5	89.3	88.6	89.8	86.3	82.8	81.1	74.9	74.1	69.2	67.2	70.6	69.0	69.1	72.0	76.0	76.4	82.5	83.1	83.6	84.5	80.2	91.6
13-Oct	83.8	82.1	81.3	80.3	80.1	77.5	78.6	80.5	80.0	76.4	68.5	64.5	63.5	57.5	51.4	49.6	49.0	55.8	62.4	64.3	65.3	66.4	67.1	69.2	68.9	83.8
14-Oct	72.2	75.0	77.1	79.3	79.9	80.2	79.1	80.7	76.0	72.0	60.4	52.5	49.4	46.1	42.9	41.3	43.7	50.3	57.0	60.4	63.3	66.8	70.7	73.2	64.6	80.7
15-Oct	74.5	76.3	78.8	81.1	83.0	85.3	86.1	84.3	76.8	67.1	57.4	51.8	47.3	43.9	40.8	39.6	42.6	48.2	54.8	58.5	60.8	62.0	66.9	68.7	64.0	86.1
16-Oct	73.0	74.0	74.2	76.8	81.0	82.9	82.5	82.5	76.3	65.3	55.0	48.1	36.7	29.2	29.9	29.3	33.7	36.8	39.0	42.2	43.0	44.0	50.9	51.9	55.8	82.9
17-Oct	53.0	57.6	59.4	54.8	56.9	60.6	61.0	79.1	90.5	92.1	91.9	84.1	73.2	65.2	56.4	53.1	54.5	54.8	57.2	59.1	59.8	58.7	60.7	63.4	64.9	92.1
18-Oct	66.7	66.5	63.8	64.5	69.2	70.7	72.6	72.7	68.6	61.3	53.7	46.8	41.4	39.1	36.6	37.0	39.9	47.0	56.5	55.8	60.1	65.4	67.1	63.5	57.8	72.7
19-Oct	61.9	59.6	59.7	62.1	57.3	56.6	56.4	59.4	59.4	57.0	52.2	50.4	50.1	56.5	75.2	86.2	89.9	92.7	94.5	96.2	96.9	96.8	96.6	96.0	71.7	96.9
20-Oct	96.1	96.2	96.0	96.2	96.0	96.4	95.3	95.5	95.6	95.8	95.4	93.1	90.3	90.0	91.1	89.5	89.4	91.3	92.0	90.6	92.6	94.5	94.7	94.2	93.7	96.4
21-Oct	93.5	91.0	89.5	92.8	93.1	94.7	96.4	96.7	92.8	85.5	77.1	69.6	67.9	63.7	61.4	60.7	64.5	67.1	67.1	68.8	69.4	70.8	72.1	72.6	78.3	96.7
22-Oct	78.0	78.2	80.8	83.8	83.1	88.4	87.1	88.0	81.3	73.3	62.2	52.8	46.6	40.1	36.8	37.2	41.4	49.0	56.1	59.3	64.5	63.9	60.1	59.2	64.6	88.4
23-Oct	58.5	59.6	60.3	62.3	65.6	68.9	71.4	73.4	73.9	69.3	58.3	48.3	47.1	42.4	40.7	41.5	46.8	54.9	57.6	63.9	67.2	69.5	70.7	72.9	60.2	73.9
24-Oct	70.1	69.5	69.0	68.5	69.5	69.4	69.5	71.8	70.1	67.7	64.6	58.4	55.1	53.7	54.1	53.7	60.0	66.4	68.9	68.4	68.0	66.0	65.8	66.9	65.2	71.8
25-Oct	63.5	61.7	66.7	67.9	70.0	74.0	76.8	79.5	78.2	78.7	83.2	84.6	79.5	80.5	67.3	58.1	58.9	64.5	67.7	68.9	68.9	66.5	76.2	84.7	71.9	84.7
26-Oct	77.6	71.8	70.3	74.8	78.1	81.7	78.1	78.3	74.0	70.2	66.7	88.0	91.8	93.5	95.9	96.7	96.8	96.4	96.9	97.2	97.1	97.2	97.9	98.1	86.0	98.1
27-Oct	97.7	97.5	97.8	97.8	98.1	98.2	98.3	98.4	98.5	98.5	98.6	98.6	98.6	98.5	98.5	98.4	98.3	98.1	97.9	97.7	97.6	97.5	97.4	97.5	98.1	98.6
28-Oct	97.8	98.1	97.9	97.6	97.5	97.3	97.2	96.2	95.5	93.5	92.4	90.7	88.9	89.6	88.2	87.7	92.1	92.1	94.7	95.8	95.8	97.4	96.6	95.7	94.4	98.1
29-Oct	95.0	94.9	93.1	90.4	83.1	83.4	84.0	85.3	86.0	87.6	91.2	94.3	95.6	96.2	95.7	96.1	96.3	96.4	96.2	96.3	96.0	95.7	95.6	94.8	92.5	96.4
30-Oct	94.2	94.2	94.2	93.7	94.7	95.9	96.1	96.3	94.2	92.2	89.9	86.9	85.2	88.7	89.5	88.1	88.3	90.6	91.5	91.5	91.1	90.9	90.8	90.5	91.6	96.3
31-Oct	91.1	93.1	94.9	96.4	97.4	97.6	96.0	95.3	93.8	91.3	90.3	89.4	89.8	89.7	89.8	90.1	89.2	89.7	89.3	86.8	84.4	84.1	84.0	83.8	90.7	97.6
	77.9	78.6	79.6	80.5	81.0	82.2	82.9	83.7	81.7	78.2	72.6	68.3	64.8	62.4	61.1	60.6	62.9	67.6	71.4	72.7	73.9	74.8	76.1	76.9	Diurnal Average	
	97.8	98.1	97.9	97.8	98.1	98.2	98.3	98.4	98.5	98.5	98.6	98.6	98.6	98.5	98.5	98.4	98.3	98.1	97.9	97.7	97.6	97.5	97.9	98.1	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Kirby South - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	30	4.03	4.03
40 - 60	162	21.77	25.81
60 - 80	225	30.24	56.05
80 - 100	327	43.95	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Kirby South - October 2025

Maximum Speed: 30 km/h on Oct 25 11:00

Maximum Daily Speed Average: 18.7 km/h on Oct 14

Minimum Speed Value: 1 km/h on Oct 6 14:00

Minimum Daily Speed Average: 1.5 km/h on Oct 6

Maximum Diurnal Speed Average: 10.0 km/h at hour 13

Minimum Diurnal Speed Average: 5.1 km/h at hour 18

Monthly Average Velocity: 6.7 km/h 238.5 deg

Percentiles: P_1 = 4 P_{10} = 8 Q_1 = 10 Median = 13 Q_3 = 16 P_{90} = 20 P_{99} = 25

Hours in Service:	744
Hours of Data:	690
Hours of Missing Data:	54
Percent Operational Time:	92.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	N12	N12	N9	NNE8	N9	N9	NNW6	WNW9	NW11	NNW12	NNW11	NNW13	NNW12	NNW13	N12	NNW9	NNW10	NNW9	N11	N8	NNW6	NW6	NNW5	N5	NNW9.0	NNW13
2-Oct	NW5	NW5	N4	NNW3	NNW3	SW5	SSW6	SSW5	S7	SSE7	SSE9	SSW9	SSW9	SSW9	SW8	SW10	SSW11	SSW9	SSW8	S9	S10	S12	SSW11	SSW11	SSW6.0	S12
3-Oct	S12	S13	S12	S12	S13	S15	SSW12	SSW12	SSW13	SW13	SW13	SW15	WSW20	WSW19	WSW18	WSW12	WNW12	WNW12	SW10	WSW11	W15	W20	W14	W13	SW11.6	WSW20
4-Oct	W13	W12	W13	W14	W15	W14	W14	W16	WNW14	W13	WNW17	WNW16	WNW16	WNW13	WNW18	NW18	NNW14	NW19	NW22	WNW21	NW20	NW19	NW17	NW17	WNW14.7	NW22
5-Oct	NNW14	NW13	NW11	WNW10	W11	W10	WSW11	SW9	SW9	SW11	SW13	SW15	SW20	WSW25	WSW23	W22	W19	WNW11	NW13	WNW9	NNW10	NW8	WNW6	W7	W10.7	WSW25
6-Oct	W8	W11	W9	NW10	NNW10	N15	N10	NNW11	NNE13	N12	N9	N4	NNW1	SW1	SSW5	SSW7	SW6	S6	SSE8	SSE9	S10	S12	S12	S14	WNW1.5	N15
7-Oct	S14	S11	SSW12	S12	SSW14	SSW16	SSW15	SSW15	SSW16	SSW15	SSW15	SSW17	SSW17	SSW15	S17	SSW17	S16	SSE13	SSE14	SSE18	SSE19	SSE19	SSE16	S15	S14.7	SSE19
8-Oct	SW9	WNW11	NW19	NW21	NW19	WNW13	WNW17	WNW17	WNW20	WNW20	WNW22	NW21	WNW19	WNW20	WNW17	WNW18	WNW14	WNW11	W9	W12	WSW10	SW12	SW11	W15	WNW14.4	WNW22
9-Oct	W15	W12	W11	W13	W14	W13	W12	WSW15	W17	W17	W16	WSW15	WSW17	WSW18	WSW18	WSW18	WSW15	SW11	SW10	SW11	SW11	SW9	SW11	SW11	WSW12.8	WSW18
10-Oct	SSW10	SSW9	SSW9	SSW11	SSW11	SSW10	SSW9	S13	SSW13	SSW13	SSW17	S17	S17	S18	S19	S17	S16	S15	S15	S17	S16	S16	S16	S16	S13.8	S19
11-Oct	S13	SSW13	S18	S18	S15	SSW11	SW7	SSW7	WSW10	NW13	NW20	NW20	WNW24	NW20	NW22	NW21	NW22	NW21	NW18	NW16	NW17	NW18	NNW17	NNW16	WNW10.1	WNW24
12-Oct	NNW16	NNW18	N18	N21	N20	N21	N20	N21	N20	N20	N22	N23	N22	NNW21	NNW17	NNW18	NNW16	NNW15	N16	N12	NNW10	NNW11	N11	NNW8	N17.3	NNW23
13-Oct	NNW8	NW9	NW9	NW8	WNW8	WNW7	W7	W8	SW6	SW8	SSW7	SW11	SSW12	SSW11	SW15	SSW13	SSW12	SW10	SW9	SSW10	SSW13	SSW17	SSW17	SSW18	SW7.8	SSW18
14-Oct	SSW17	SSW15	SSW16	SSW19	SSW19	SSW20	SSW21	SSW20	SSW22	SSW22	SSW22	SW29	SW29	SW24	SSW21	SW19	SW16	SSW12	SSW14	SW15	SW16	SW15	SW14	SW14	SSW18.7	SW29
15-Oct	SSW13	SSW12	SSW10	SSW12	SSW14	SSW15	SSW16	SSW19	SSW19	SSW19	SSW21	SSW18	SSW19	SSW19	SW16	SW17	SW13	SW13	SW12	SW13	WSW12	W11	WSW8	SW11	SW14.2	SSW21
16-Oct	SW12	SW13	SW10	SW11	SW11	SW11	SW11	SW11	SW13	SW13	SSW13	SSW13	SSW17	SSW18	SSW17	SSW16	SSW13	SSW14	S12	SSW9	S13	S13	SW9	SSW8	SSW12.1	SSW18
17-Oct	SSW8	SW12	W23	W23	WSW16	SW13	WSW17	W24	W23	WNW24	WNW22	WNW21	W22	WNW25	WNW23	WNW23	WNW20	WNW21	W19	W19	W16	W12	W13	W14	W17.9	WNW25
18-Oct	W14	W15	W17	W16	W17	W16	W15	W15	W16	WNW15	WNW16	W16	W19	W18	WNW16	W15	W10	WSW6	SSW7	SSW10	SSW9	S8	S8	SSE9	W11.6	W19
19-Oct	SSE10	SSE11	SE11	SSE12	SSE12	SE12	SE13	ESE11	ESE11	ESE10	SE13	SE14	SE14	E10	ESE15	E10	E8	ENE10	ENE9	ENE7	NE6	ENE6	NE7	NE8	ESE8.8	ESE15
20-Oct	NE8	NNE10	NNE11	NNE10	N8	N10	NNW10	NNW9	NW10	WNW11	WNW11	WNW10	WNW10	WNW12	WSW10	SW11	SW11	SSW10	SSW11	SSW13	S14	S14	S15	S16	W4.0	S16
21-Oct	S15	S16	SSW17	SSW16	SSW15	SSW13	SW13	SW13	SW15	WSW18	W19	W21	W21	W21	W19	W20	W14	W13	W16	W14	W12	W10	W9	WNW5	WSW12.6	W21
22-Oct	W5	SW8	SW7	SW7	SW7	SW9	SW7	SW6	SW9	SW10	SSW10	SSW12	SSW10	S13	SSE15	SSE12	SSE11	SE12	SE14	SE16	SE16	SE17	SE16	SSE18	S8.8	SSE18
23-Oct	SSE18	SSE15	SSE16	SSE16	SSE15	S11	S8	S7	S6	SSW9	SSW7	S5	SW7	S8	SSW8	S8	S8	S11	S12	SSE12	S14	S15	S16	SSE14	S10.6	SSE18
24-Oct	S16	SSE15	SSE14	S14	S15	S17	S15	S14	S13	S11	SSW11	S11	S10	SSE9	SSE9	SSE12	SSE9	SSE9	SSE11	SSE12	SSE13	SSE17	SSE15	SSE15	S12.3	S17
25-Oct	SSE14	S7	S8	SSW9	SSW11	SW11	SW13	SW16	WSW24	W27	W30	W25	W26	W25	W22	W18	W16	SW11	SW11	SW6	W4	SSW6	S4	ESE5	WSW12.0	W30
26-Oct	SE7	SE9	E8	E9	E8	E7	ENE9	E9	ENE10	ENE12	E15	ENE12	ENE15	ENE14	ENE12	NE11	NE15	NE13	NNE11	N9	N7	NW6	WNW8	W9	ENE7.4	E15
27-Oct	W9	W10	W12	UO	UO	UO	UO	UO	UO	UO	WNW6	W11	WNW16	WNW16	WNW19	WNW18	WNW17	WNW15	WNW14	WNW12	WNW12	NW12	WNW11	WNW6	----	WNW19
28-Oct	WNW10	WNW15	WNW17	WNW15	WNW15	WNW14	WNW16	WNW17	WNW14	WNW14	WNW15	W18	WNW17	W16	W16	W13	UO	UO	UO	UO	UO	UO	UO	UO	----	W18
29-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	----
30-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	W2	WSW9	SW6	SW8	SW9	SW8	SW7	SSW7	SW9	----	SW9
31-Oct	SSW8	S7	SSW8	S10	SSW13	SSW12	S13	S14	SSE13	S15	S14	SSE17	S18	SSE17	SSE20	SSE21	SSE22	SSE22	SSE25	SSE25	S27	S26	S23	S19	S16.7	S27
	SW5.4	SW5.3	WSW5.4	SW5.7	WSW6.4	SW6.3	SW6.8	WSW7.6	WSW8.0	WSW8.0	WSW8.3	WSW8.8	WSW10.0	WSW9.2	WSW9.0	WSW8.4	WSW6.4	WSW5.1	SW5.2	SW5.9	SW5.8	SSW6.3	SW6.1	SSW6.2	Diurnal Average	
	SSE18	NNW18	W23	W23	N20	N21	SSW21	W24	WSW24	W27	W30	SW29	SW29	W25	WNW23	WNW23	SSE22	SSE22	SSE25	SSE25	S27	S26	S23	S19	Diurnal Maximum	

UO - Unstable Operation

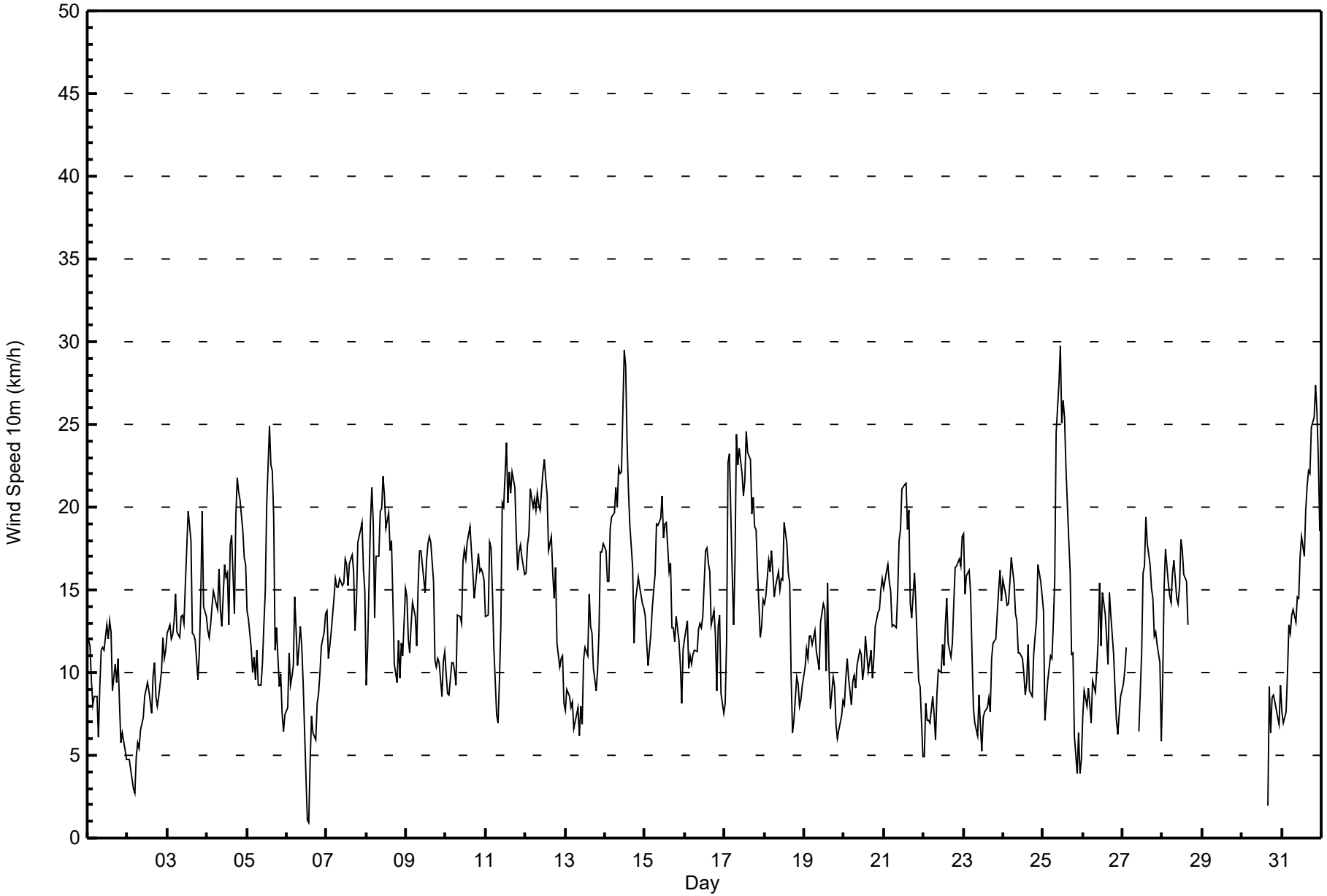
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Kirby South - October 2025



Wind Speed 10m (WS10) - km/h
Kirby South - October 2025

Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	20	2.90	2.90
6 - 11	242	35.07	37.97
12 - 19	350	50.72	88.70
20 - 28	75	10.87	99.57
29 - 38	3	0.43	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 690

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Kirby South - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	3	0	0	0	0	1	0	0	2	2	2	0	3	1	2	4	20
6 - 11	11	5	5	6	8	3	3	13	22	44	52	8	15	22	9	16	242
12 - 19	8	1	2	5	1	1	11	30	59	63	30	14	57	39	15	14	350
20 - 28	8	0	0	0	0	0	0	6	3	8	2	4	14	16	11	3	75
29 - 38	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	30	6	7	11	9	5	14	49	86	117	88	26	90	78	37	37	690

Total Number of Valid Hours: 690

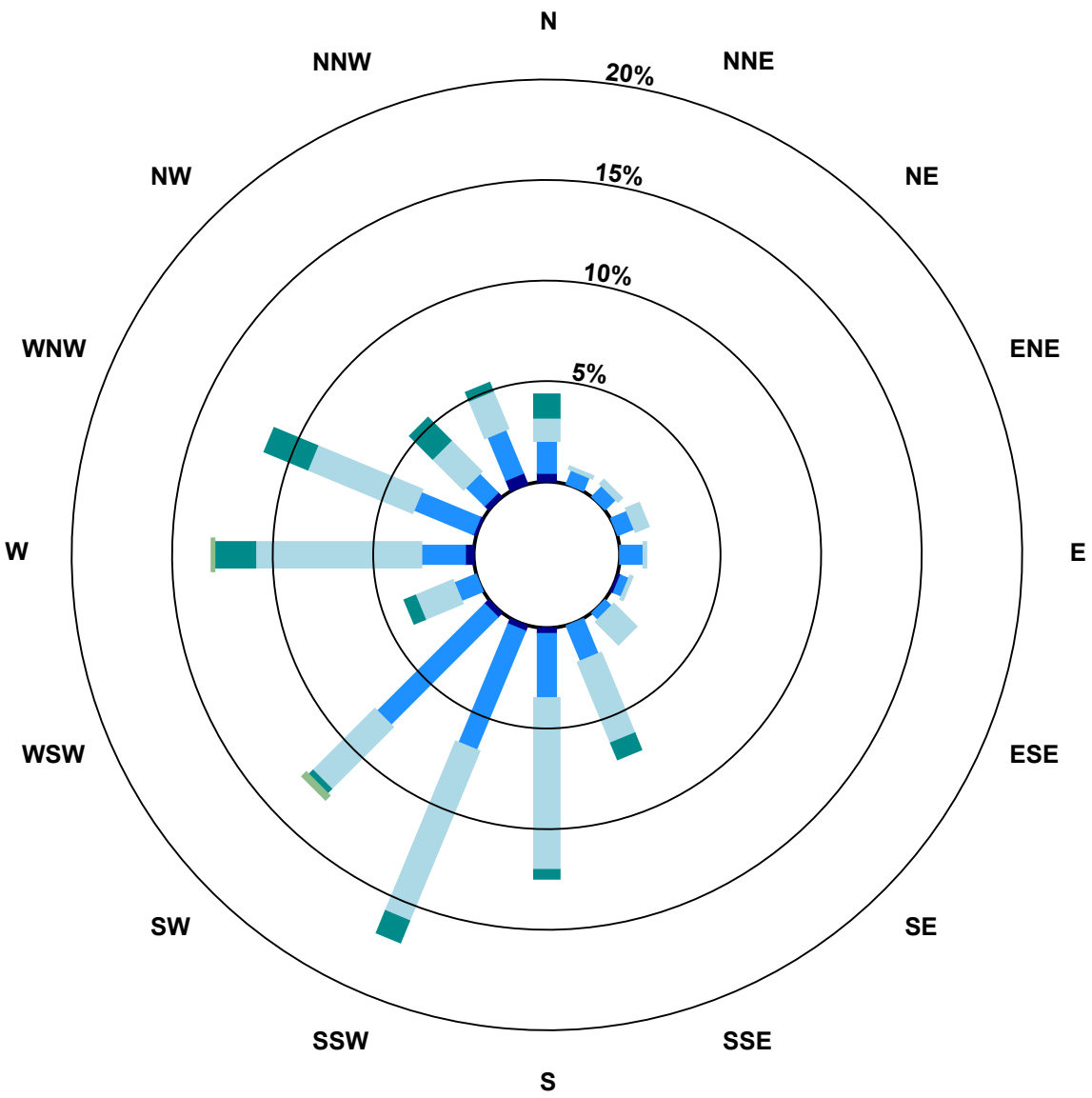
Total Number of Hours: 744

Wood Buffalo Environmental Association

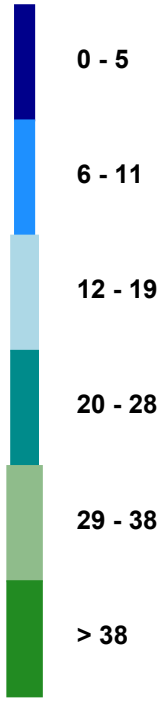
Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Kirby South



Classes (km/h)



Total Number of Valid Hours: 690

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 8 km/h on Oct 14 11:00

Minimum Value: 1 km/h on Oct 6 18:00

Percentiles: P_1 = 1 P_{10} = 2 Q_1 = 2 Median = 3 Q_3 = 4 P_{90} = 5 P_{99} = 6

Hours in Service:	744
Hours of Data:	690
Hours of Missing Data:	54
Hours of Calibration:	0
Percent Operational Time:	92.7

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	3	2	3	3	3	2	2	3	2	3	3	3	3	4	4	3	3	3	3	2	1	1	1	1	4
2-Oct	1	1	2	1	1	2	2	2	2	2	2	3	3	3	3	4	3	2	1	1	2	2	2	2	4
3-Oct	3	3	2	2	3	3	3	3	3	3	3	4	5	5	4	4	5	4	3	3	4	3	4	3	5
4-Oct	2	2	2	3	2	2	2	3	3	3	3	4	4	3	5	5	5	5	6	5	5	4	4	4	6
5-Oct	4	3	3	2	2	2	2	2	2	3	3	3	5	5	6	6	4	4	3	2	3	2	2	1	6
6-Oct	1	2	2	3	3	4	3	3	4	3	4	4	3	3	3	3	2	1	1	1	2	2	3	3	4
7-Oct	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5	4	3	3	4	4	4	4	3	5
8-Oct	3	4	4	5	5	3	4	4	5	5	5	5	4	5	4	4	3	3	1	2	2	2	2	3	5
9-Oct	2	2	2	2	2	2	2	3	3	4	3	3	4	4	4	4	4	2	2	1	1	1	1	2	4
10-Oct	1	1	1	2	2	2	2	3	3	4	4	4	4	4	5	4	4	3	3	4	3	3	3	3	5
11-Oct	2	3	4	4	4	3	4	3	3	3	6	5	6	4	5	6	6	5	4	4	4	4	4	4	6
12-Oct	5	6	5	6	5	6	5	6	6	6	6	7	6	6	6	5	5	5	5	3	3	3	3	2	7
13-Oct	2	2	2	2	2	2	1	1	2	2	2	3	3	4	4	4	3	3	2	2	3	5	4	4	5
14-Oct	4	3	4	4	5	4	5	4	5	5	8	7	7	6	5	5	4	3	3	3	3	3	2	3	8
15-Oct	3	2	2	3	3	3	3	4	4	5	5	4	5	5	4	5	3	2	2	2	2	2	2	2	5
16-Oct	1	1	2	2	1	2	1	2	2	3	3	3	4	5	4	5	3	3	3	2	3	3	2	3	5
17-Oct	2	3	5	5	4	2	5	6	4	5	5	4	4	5	5	6	5	4	3	3	3	2	2	2	6
18-Oct	2	2	3	3	3	2	2	2	3	3	4	3	4	4	4	3	3	1	2	1	1	1	1	1	4
19-Oct	1	1	2	2	2	2	2	2	2	3	4	5	5	3	4	3	2	3	3	2	1	1	2	2	5
20-Oct	2	2	2	3	2	2	3	3	3	2	2	3	3	2	2	3	3	2	3	3	3	3	3	4	4
21-Oct	3	4	4	4	3	3	3	2	3	4	4	5	4	4	4	4	3	3	3	3	2	1	2	1	5
22-Oct	1	2	1	1	2	2	2	2	2	2	2	3	3	4	3	3	2	2	3	3	3	4	3	4	4
23-Oct	5	4	3	4	4	3	2	2	2	2	2	2	3	2	2	2	1	2	2	2	3	3	3	3	5
24-Oct	3	3	3	3	4	4	4	3	3	3	3	3	2	2	3	3	2	2	2	3	3	3	3	3	4
25-Oct	4	4	2	3	2	2	3	3	6	6	7	6	6	6	5	4	5	2	2	2	1	2	3	2	7
26-Oct	2	1	2	1	2	2	2	2	2	2	4	3	3	4	3	3	4	3	3	2	1	1	1	1	4
27-Oct	2	2	3	UO	UO	UO	UO	UO	UO	UO	5	6	5	4	5	5	5	5	4	4	4	4	4	4	6
28-Oct	6	5	6	5	6	5	6	6	4	5	5	5	5	4	4	4	UO	UO	UO	UO	UO	UO	UO	UO	6
29-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
30-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	4	3	2	2	3	2	2	2	2	4
31-Oct	2	2	2	2	3	3	3	3	3	3	4	4	4	5	5	5	5	6	6	6	7	6	5	5	7
	6	6	6	6	6	6	6	6	6	6	8	7	7	6	6	6	6	6	6	6	7	6	5	5	
	Diurnal Maximum																								

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Kirby South - October 2025

Direction of Maximum Speed: 268 deg on Oct 25 11:00
Direction of Maximum Daily Speed Average: 210.6 deg on Oct 14

Direction of Minimum Speed: 220 deg on Oct 6 14:00
Direction of Minimum Daily Speed Average: 1.5 deg on Oct 6

Monthly Average Direction: 238.5 deg

Hours in Service:	744
Hours of Data:	690
Hours of Missing Data:	54
Percent Operational Time:	92.7

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	351	4	11	24	7	0	342	303	312	328	334	327	329	343	349	327	346	336	352	6	332	321	336	353	342.6
2-Oct	320	318	4	337	340	220	210	202	173	168	155	209	204	212	226	221	204	197	200	189	188	187	194	196	202.3
3-Oct	191	189	190	187	188	186	194	198	204	220	217	231	244	254	252	251	292	289	231	246	259	267	277	263	231.7
4-Oct	267	269	265	263	263	264	269	278	286	265	287	303	297	300	291	310	337	318	307	303	314	321	320	326	295.0
5-Oct	334	313	304	288	281	268	256	227	223	221	229	227	236	239	249	262	280	292	314	299	344	306	285	281	268.4
6-Oct	276	277	281	318	348	1	357	346	16	10	351	355	340	220	198	193	215	183	154	161	170	177	177	183	283.9
7-Oct	184	183	192	189	195	194	194	196	199	203	205	213	203	194	191	193	176	164	159	161	164	162	163	169	185.0
8-Oct	219	300	311	311	311	303	298	292	294	299	301	309	301	298	298	287	287	294	272	266	238	224	235	264	290.3
9-Oct	272	273	271	277	270	271	269	258	264	276	265	245	237	241	240	251	237	224	220	223	220	217	215	214	249.9
10-Oct	213	200	200	206	212	208	199	191	202	198	192	183	182	189	189	189	182	182	178	175	172	172	169	172	187.5
11-Oct	182	192	182	181	185	192	217	213	240	309	317	314	295	318	314	314	318	315	315	316	320	323	329	335	294.3
12-Oct	341	343	350	354	356	354	352	351	349	351	349	349	352	347	341	340	348	346	359	355	342	347	353	343	349.1
13-Oct	336	326	322	316	297	295	273	273	235	216	213	220	212	212	214	212	213	219	216	207	196	195	202	199	226.9
14-Oct	202	199	197	196	202	201	200	212	212	208	213	216	217	220	213	220	220	209	209	214	215	214	220	218	210.6
15-Oct	213	208	204	209	213	209	210	206	210	207	210	210	201	205	216	227	230	227	227	225	252	265	247	234	216.7
16-Oct	223	223	221	222	226	228	227	222	222	217	212	207	211	209	200	198	195	194	189	201	171	175	223	206	208.5
17-Oct	212	225	263	266	254	226	249	270	277	287	283	285	281	285	291	295	290	284	279	277	277	280	272	274	274.3
18-Oct	274	274	279	278	273	273	269	266	275	293	286	279	278	281	284	269	272	251	198	206	201	190	186	168	265.9
19-Oct	153	150	146	152	151	141	132	119	119	111	132	144	126	86	114	94	80	73	65	57	51	58	54	54	114.6
20-Oct	45	29	24	18	358	356	344	328	314	300	301	302	283	282	257	235	217	213	206	200	183	188	191	189	265.0
21-Oct	186	184	195	196	205	204	216	225	236	258	273	281	271	277	272	275	270	270	267	267	274	278	273	283	249.4
22-Oct	277	233	223	234	232	232	224	226	216	225	203	192	206	172	165	164	147	144	137	139	137	140	146	153	176.1
23-Oct	151	150	147	155	162	179	176	183	182	201	203	181	218	177	202	191	181	170	173	164	177	173	172	168	171.8
24-Oct	173	166	168	170	182	185	188	190	189	189	201	185	184	159	156	164	159	152	153	152	153	153	148	151	169.9
25-Oct	155	169	180	193	210	216	221	227	258	272	268	264	266	263	275	278	263	216	214	224	271	206	183	120	245.2
26-Oct	132	128	99	100	82	80	75	81	72	74	94	72	63	65	75	53	43	45	29	4	349	321	284	277	64.1
27-Oct	273	273	278	UO	UO	UO	UO	UO	UO	UO	283	281	287	288	289	300	297	296	291	296	300	304	300	293	--
28-Oct	293	295	295	296	294	293	292	294	287	294	284	281	284	280	278	280	UO	UO	UO	UO	UO	UO	UO	UO	--
29-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
30-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	260	238	215	230	230	233	215	205	219	--
31-Oct	205	190	192	189	193	192	187	173	163	175	170	162	169	165	159	156	154	162	166	167	173	178	185	185	172.5
	222.2	232.6	239.6	235.6	236.4	232.6	236.1	240.4	244.9	252.9	253.4	250.7	249.4	251.9	248.1	250.7	248.9	240.5	228.0	222.1	219.1	213.6	215.2	212.9	
	Diurnal Average																								

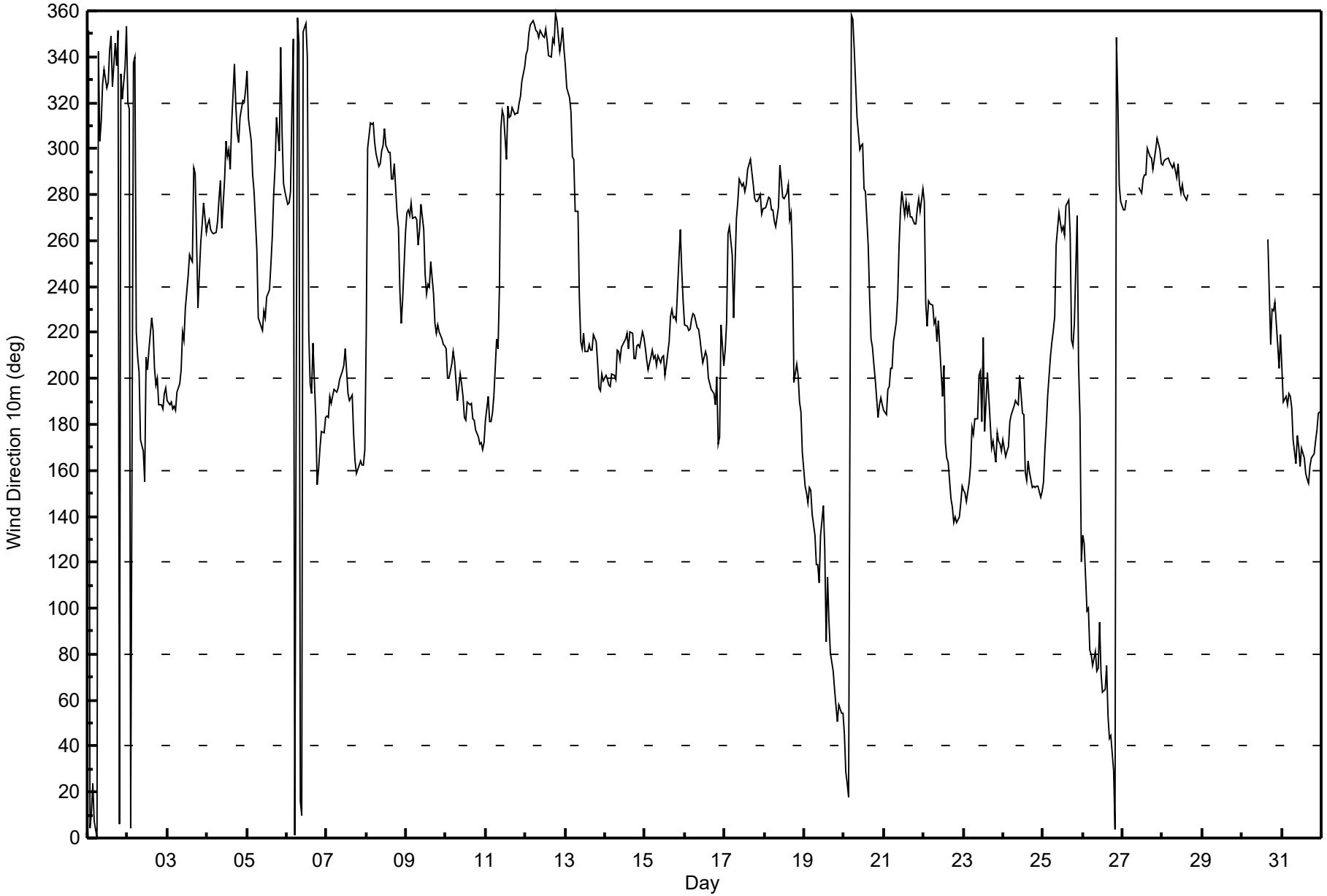
UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Kirby South - October 2025



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Kirby South - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 101 deg on Oct 6 13:00

Minimum Value: 5 deg on Oct 18 20:00

Percentiles: P_1 = 7 P_{10} = 10 Q_1 = 13 Median = 15 Q_3 = 17 P_{90} = 20 P_{99} = 47

Hours in Service:	744
Hours of Data:	690
Hours of Missing Data:	54
Hours of Calibration:	0
Percent Operational Time:	92.7

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	17	15	16	17	23	16	28	17	16	17	16	16	17	17	17	23	17	17	18	18	21	18	18	18	28
2-Oct	21	26	32	47	57	27	17	22	18	19	21	30	34	27	39	31	20	12	9	7	11	12	13	12	57
3-Oct	13	13	12	13	14	14	15	15	15	15	18	23	21	20	18	18	19	19	33	17	15	10	15	10	33
4-Oct	8	8	9	12	8	9	9	11	14	13	16	17	20	18	17	18	18	17	15	14	13	15	14	15	20
5-Oct	16	14	14	13	12	9	14	13	16	14	15	14	15	16	17	14	16	14	15	18	17	28	15	12	28
6-Oct	8	10	12	16	19	17	18	18	27	20	34	75	101	96	69	33	30	17	6	9	13	15	15	14	101
7-Oct	15	15	15	15	15	15	14	15	15	16	16	17	18	20	19	19	17	12	13	14	14	14	13	15	20
8-Oct	38	16	14	14	15	18	13	13	14	15	15	18	20	18	18	16	14	14	8	7	17	10	14	11	38
9-Oct	9	10	9	9	8	10	9	11	11	13	16	20	16	16	16	15	13	14	11	8	9	9	7	10	20
10-Oct	8	9	7	9	9	10	9	14	16	16	15	17	18	17	17	16	15	12	12	13	13	13	13	13	18
11-Oct	13	13	15	15	17	22	44	43	27	16	18	17	19	15	15	14	16	14	14	14	15	14	15	17	44
12-Oct	18	17	17	18	18	18	18	18	18	18	19	19	18	19	18	18	18	19	18	17	20	18	16	19	20
13-Oct	17	15	15	18	14	15	10	11	26	18	27	20	24	28	21	24	18	18	14	14	14	15	15	14	28
14-Oct	14	14	14	14	14	14	14	13	13	15	16	16	15	17	17	17	15	15	13	12	12	11	11	11	17
15-Oct	11	11	13	12	12	13	12	13	13	14	15	16	16	16	20	15	14	9	9	9	14	11	13	12	20
16-Oct	6	5	10	9	8	8	8	9	12	14	16	18	19	20	18	18	15	13	14	18	13	15	18	35	35
17-Oct	18	14	13	11	15	18	18	11	13	14	12	13	14	14	15	13	14	12	10	9	10	10	9	9	18
18-Oct	9	10	10	10	9	9	8	8	11	15	15	17	16	16	16	14	14	12	20	5	6	9	8	12	20
19-Oct	6	10	12	12	12	13	12	12	12	18	15	18	30	19	16	15	16	14	14	13	13	13	14	15	30
20-Oct	14	12	14	14	17	16	18	18	20	15	17	16	13	12	20	18	16	15	15	14	15	15	15	15	20
21-Oct	15	15	15	16	14	20	14	13	13	16	13	14	12	14	12	11	10	11	9	10	10	8	10	10	20
22-Oct	27	14	11	16	18	11	12	19	14	12	21	19	24	20	19	19	11	12	12	12	12	12	14	16	27
23-Oct	15	14	14	16	18	19	21	27	37	19	29	39	35	28	32	21	13	12	15	16	15	13	13	14	39
24-Oct	14	15	14	15	15	15	16	16	17	17	17	19	20	23	21	18	15	12	14	14	13	13	13	14	23
25-Oct	16	33	16	19	13	14	12	12	18	11	13	13	12	14	14	15	18	11	11	27	31	32	57	35	57
26-Oct	9	11	16	10	13	15	16	15	13	15	16	19	13	15	14	16	14	15	11	17	16	19	13	10	19
27-Oct	9	10	10	UO	UO	UO	UO	UO	UO	UO	11	12	12	13	13	15	14	15	13	14	14	14	14	14	15
28-Oct	12	14	15	14	15	15	13	15	14	15	13	13	15	13	12	13	UO	UO	UO	UO	UO	UO	UO	UO	15
29-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
30-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	47	16	22	18	17	18	17	16	16	47
31-Oct	18	16	16	15	15	16	16	15	15	15	16	15	14	16	16	14	14	15	15	15	15	15	15	15	18
	38	33	32	47	57	27	44	43	37	20	34	75	101	96	69	47	30	22	33	27	31	32	57	35	
	Diurnal Maximum																								

UO - Unstable Operation

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION

CONTINUOUS AMBIENT AIR QUALITY
MONITORING PROGRAM
MONTHLY REPORT

AMS511
BLACKGOLD
OCTOBER 2025

Operations, Data Collection,
QA/QC, Data Validation and Reporting by:
Wood Buffalo Environmental Association
Fort McMurray, Alberta

November 28, 2025

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BLACKGOLD (AMS511)
OCTOBER 2025

MONTHLY SUMMARY

Parameter	Hours of Data	Hours of Calibration	Hours without Data	Operational Time	Maximum 1-Hour Value	1-Hour Exceedances	Maximum 24-Hour Value	24-Hour Exceedances
SO2 (ppb) Average	705	37	39	99.73	7	0	2	0
H2S (ppb) Average	705	37	39	99.73	0.5	0	0.1	0
THC (ppm) Average	706	37	38	99.87	3	-	2.5	-
NO2 (ppb) Average	702	36	42	99.19	11.5	0	3.3	-
NO (ppb) Average	702	36	42	99.19	27	-	1.5	-
NOX (ppb) Average	702	36	42	99.19	38.5	-	3.7	-
Temperature 2 m (C) Average	744	0	0	100	19.2	-	11.2	-
Relative Humidity (%) Average	744	0	0	100	99.4	-	97.8	-
Wind Speed 10 m (km/h) Average	720	0	24	96.77	20	-	13	-
Wind Direction 10 m (deg) Average	720	0	24	96.77	-	-	-	-

Note : Operational time includes periods of data collection and instrument calibration

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BLACKGOLD (AMS511)
OCTOBER 2025

MONTHLY SUMMARY FOR AIR QUALITY/ METEOROLOGICAL MONITORING MEASUREMENTS

					Percentile						
Parameter	Number	Mean	StnDev	Total	Min	P10	Q1	Median	Q3	P90	Max
SO2 (ppb) Average	705	0.6	1.1	-	0	0	0.1	0.2	0.6	1.6	7
H2S (ppb) Average	705	0.09	0.1	-	0	0	0.1	0.1	0.1	0.2	0.5
THC (ppm) Average	706	2.38	0.1	-	2.3	2.3	2.3	2.4	2.4	2.5	3
NO2 (ppb) Average	702	1.43	1.3	-	0	0.3	0.5	1.1	1.9	3	11.5
NO (ppb) Average	702	0.36	1.2	-	0	0	0	0.1	0.3	0.9	27
NOX (ppb) Average	702	1.78	2.1	-	0.1	0.4	0.7	1.3	2.3	3.7	38.5
Temperature 2 m (C) Average	744	4.44	4.9	-	-4.1	-1.2	0.2	3.8	7.9	11.2	19.2
Relative Humidity (%) Average	744	74.2	18.8	-	28.3	46.9	59.8	77.4	91.2	97.1	99.4
Wind Speed 10 m (km/h) Average	720	8.5	4	-	1	3	5	8	12	14	20
Wind Direction 10 m (deg) Average	720	-	-	-	-	-	-	-	-	-	-

WOOD BUFFALO ENVIRONMENTAL ASSOCIATION - BLACKGOLD (AMS511)
OCTOBER 2024

OPERATIONAL NOTES

Parameter	Period Start	Period End	Duration (Hours)	Notes
SO2	01 Oct 2025 13:00	01 Oct 2025 14:00	2	Maintenance - reinitiated daily QA check
H2S	01 Oct 2025 12:00	01 Oct 2025 13:00	2	Maintenance - reinitiated daily QA check
THC	01 Oct 2025 14:00	01 Oct 2025 14:00	1	Maintenance - reinitiated daily QA check
NO2	01 Oct 2025 12:00	01 Oct 2025 15:00	4	Maintenance - reinitiated daily QA check
NO2	17 Oct 2025 17:00	17 Oct 2025 18:00	2	Maintenance - reinitiated daily QA check
Wind Speed, Wind Direction	05 Oct 2025 05:00	05 Oct 2025 09:00	5	Flat line in sensor output signal
Wind Speed, Wind Direction	27 Oct 2025 16:00	28 Oct 2025 10:00	19	Flat line in sensor output signal

Wood Buffalo Environmental Association

Summary of Hour Averages

Sulphur Dioxide (SO_2) - ppb

Blackgold - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 7.0 ppb on Oct 24 03:00

Maximum Daily Average: 2.0 ppb on Oct 24

Minimum Value: 0.0 ppb on Oct 1 01:00

Minimum Daily Average: 0.0 ppb on Oct 4

Maximum Diurnal Average: 1.0 ppb at hour 3

Minimum Diurnal Average: 0.3 ppb at hour 18

Monthly Average: 0.60 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.2 Q_3 = 0.6 P_{90} = 1.6 P_{99} = 5.7

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	37
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.1	0.1	M	M	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.3	0.0	0.1	0.3
2-Oct	Z	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	1.1	2.9	2.1	1.6	1.2	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.4	0.1	0.5	2.9
3-Oct	6.9	Z	0.2	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	6.9
4-Oct	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
5-Oct	0.0	0.1	0.1	Z	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.3
6-Oct	0.0	0.2	0.1	0.2	Z	0.0	0.1	0.2	0.4	0.6	0.4	0.3	0.2	0.7	2.6	0.6	0.6	0.6	0.2	0.1	0.3	0.5	0.2	0.6	0.4	2.6
7-Oct	0.5	0.6	0.7	0.7	1.1	Z	2.4	1.9	3.4	0.8	0.6	0.4	0.3	0.2	0.4	0.3	0.8	2.2	6.4	0.6	2.8	6.4	0.9	0.6	1.5	6.4
8-Oct	Z	0.4	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.9	1.4	0.3	2.7	1.4	0.4	2.7
9-Oct	0.3	Z	0.8	0.8	1.2	0.4	0.1	0.6	0.3	0.2	0.1	2.3	0.8	2.9	1.7	0.9	2.7	0.2	0.2	0.1	0.3	0.4	0.4	0.4	0.8	2.9
10-Oct	0.2	0.1	Z	0.4	0.3	0.2	0.1	0.4	1.0	5.1	4.1	2.2	1.6	2.4	0.8	0.6	0.3	0.2	0.2	0.2	0.2	0.3	0.5	0.7	1.0	5.1
11-Oct	0.8	0.7	0.6	Z	1.2	1.3	1.0	0.9	0.5	0.6	0.6	1.5	0.6	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.1	0.1	0.0	0.1	0.5	1.5
12-Oct	0.0	0.0	0.1	0.0	Z	0.2	0.2	0.2	0.0	0.3	0.2	0.0	0.2	1.2	1.0	1.0	1.5	0.4	0.1	0.1	0.1	0.2	0.3	0.3	0.3	1.5
13-Oct	0.2	0.4	0.5	0.4	0.5	Z	0.4	0.4	0.4	0.5	0.6	1.0	1.4	0.6	0.2	0.6	0.4	0.1	0.6	1.3	4.5	0.8	3.8	1.7	0.9	4.5
14-Oct	Z	5.0	5.7	3.6	1.3	1.6	2.3	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.2	1.0	5.7
15-Oct	0.2	Z	0.8	1.3	1.1	0.9	1.3	1.6	1.5	1.0	0.6	0.6	1.0	0.9	2.0	3.7	4.9	2.0	0.9	4.3	0.8	1.5	2.1	1.1	1.6	4.9
16-Oct	4.2	2.7	Z	1.6	0.4	0.7	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.5	0.1	0.1	1.2	0.3	1.8	1.0	1.1	0.2	1.2	1.2	0.9	4.2
17-Oct	0.2	2.6	5.8	Z	6.3	5.1	2.1	0.3	0.3	0.2	0.2	C	C	C	C	C	C	0.1	0.1	0.0	0.0	0.0	0.0	0.0	--	6.3
18-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.4
19-Oct	0.1	0.1	0.1	0.2	0.2	Z	0.2	0.1	0.1	0.1	0.4	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.4
20-Oct	Z	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.4	0.6	0.5	0.5	0.3	0.3	1.7	1.3	0.4	0.2	0.8	0.2	1.3	0.3	0.2	0.2	0.5	1.7
21-Oct	0.3	Z	0.7	0.2	0.2	0.0	0.1	0.9	4.7	1.7	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.5	4.7
22-Oct	0.2	0.1	Z	0.1	0.0	0.1	0.0	0.1	0.1	0.1	1.6	3.3	1.2	0.4	0.4	0.4	0.1	0.0	0.3	0.1	0.2	0.2	0.3	0.4	0.4	3.3
23-Oct	0.4	0.4	0.3	Z	1.1	0.2	0.4	0.4	1.0	0.8	1.5	2.8	2.9	2.9	1.7	0.9	0.8	1.1	2.5	1.6	2.2	2.1	3.4	1.2	1.4	3.4
24-Oct	5.1	2.9	7.0	5.8	Z	1.0	0.8	0.6	0.8	1.2	2.3	3.9	3.5	2.0	0.7	0.8	1.2	0.9	1.0	2.5	2.1	0.6	0.3	0.2	2.0	7.0
25-Oct	0.1	0.2	0.1	0.1	0.1	Z	0.3	1.6	4.7	0.7	0.6	0.3	0.2	0.4	0.9	0.3	0.8	0.3	0.4	0.3	0.3	0.3	0.2	0.1	0.6	4.7
26-Oct	Z	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.4	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
27-Oct	0.1	Z	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2
28-Oct	0.1	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.6	0.0	0.1	0.0	0.0	0.1	0.1	0.6
29-Oct	0.5	0.3	0.3	Z	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5
30-Oct	0.4	0.4	0.4	0.3	Z	0.4	0.5	0.4	0.9	1.3	0.9	0.9	0.5	0.4	0.2	0.3	0.3	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.4	1.3
31-Oct	0.0	0.1	0.1	0.5	0.5	Z	0.3	0.2	1.7	2.3	2.2	1.2	0.7	1.3	0.4	0.3	0.2	0.2	0.2	0.2	1.5	0.7	0.3	0.5	0.7	2.3
	0.8	0.7	1.0	0.6	0.6	0.5	0.4	0.4	0.7	0.7	0.7	0.8	0.6	0.7	0.5	0.4	0.6	0.3	0.6	0.5	0.7	0.5	0.6	0.4	Diurnal Average	
	6.9	5.0	7.0	5.8	6.3	5.1	2.4	1.9	4.7	5.1	4.1	3.9	3.5	2.9	2.6	3.7	4.9	2.2	6.4	4.3	4.5	6.4	3.8	1.7	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

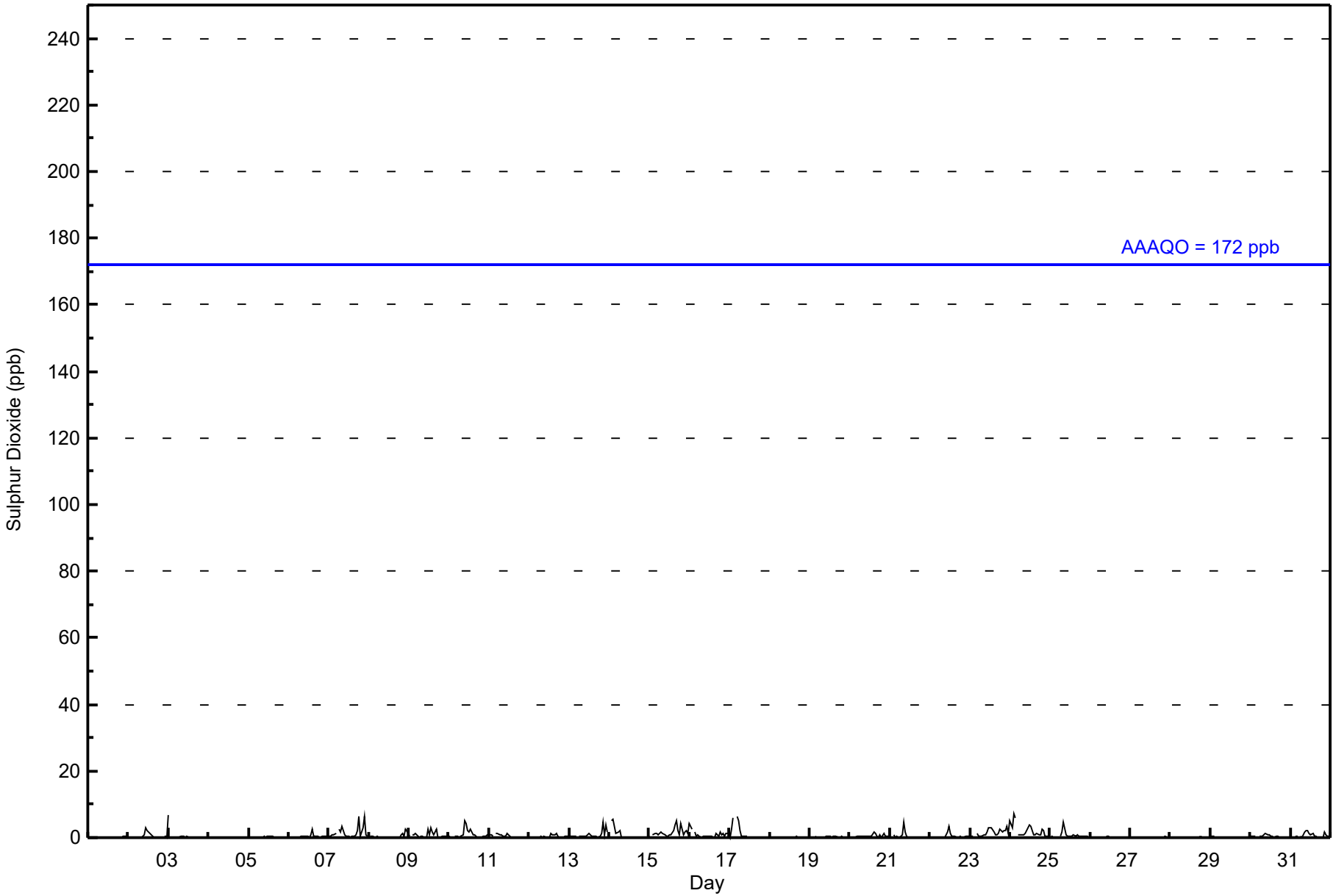
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 172 ppb 24-hr 48 ppb

Wood Buffalo Environmental Association

Hourly Averages

Sulphur Dioxide (SO_2) - ppb

Blackgold - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 10	705	100.00	100.00
11 - 20	0	0.00	100.00
21 - 60	0	0.00	100.00
61 - 110	0	0.00	100.00
111 - 172	0	0.00	100.00
> 172	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Sulphur Dioxide (SO_2) - ppb

Blackgold - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 10	8	11	14	9	12	7	13	48	102	109	51	40	52	105	58	43	682
11 - 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21 - 60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61 - 110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111 - 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	8	11	14	9	12	7	13	48	102	109	51	40	52	105	58	43	682

Total Number of Valid Hours: 682

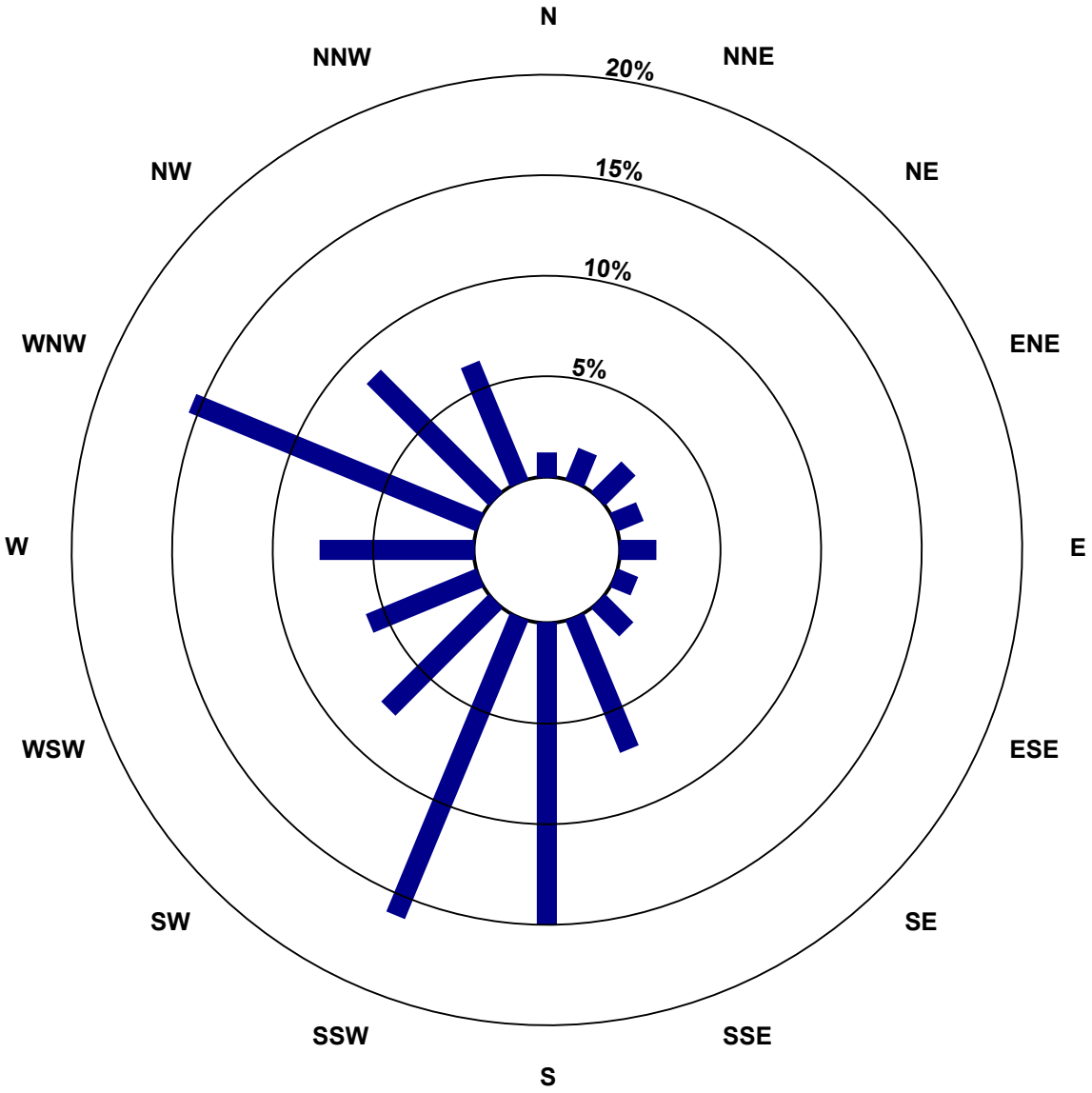
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Sulphur Dioxide (SO_2) - ppb

Blackgold



Classes (ppb)

0 - 10

11 - 20

21 - 60

61 - 110

111 - 172

> 172

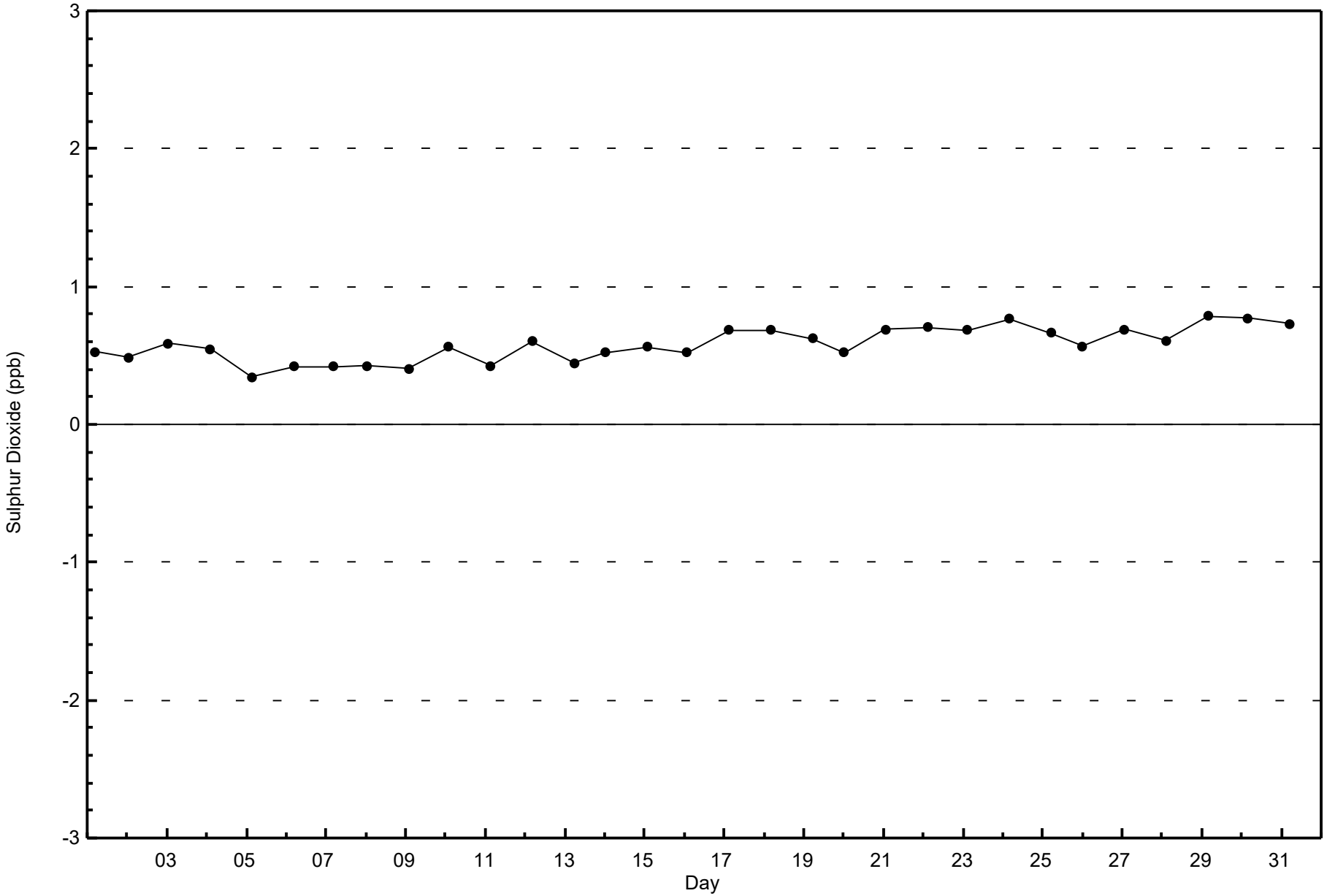
Total Number of Valid Hours: 682

Wood Buffalo Environmental Association

Zero Responses

Sulphur Dioxide (SO_2) - ppb

Blackgold - October 2025

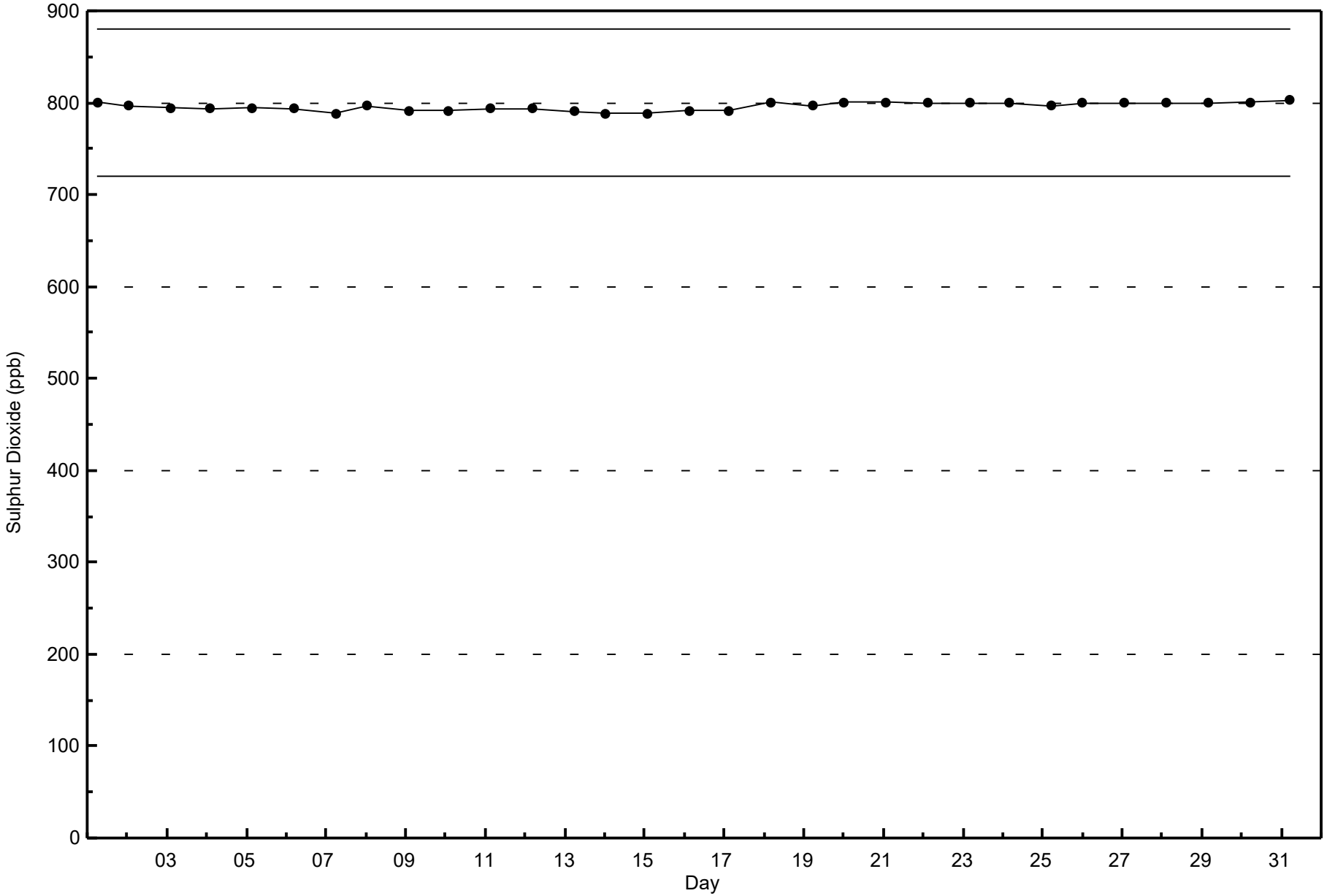


Wood Buffalo Environmental Association

Span Responses

Sulphur Dioxide (SO_2) - ppb

Blackgold - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Hydrogen Sulphide (H_2S) - ppb

Blackgold - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 0.5 ppb on Oct 5 14:00

Maximum Daily Average: 0.1 ppb on Oct 1

Minimum Value: 0.0 ppb on Oct 2 01:00

Minimum Daily Average: 0.0 ppb on Oct 27

Maximum Diurnal Average: 0.1 ppb at hour 9

Minimum Diurnal Average: 0.1 ppb at hour 16

Monthly Average: 0.09 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.1 Median = 0.1 Q_3 = 0.1 P_{90} = 0.2 P_{99} = 0.3

Hours in Service:	744
Hours of Data:	705
Hours of Missing Data:	39
Hours of Calibration:	37
Percent Operational Time:	99.7

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	Z	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.4	0.3	0.2	M	M	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.4
2-Oct	0.0	Z	0.1	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
3-Oct	0.3	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3
4-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.2	0.5	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.5
6-Oct	0.1	0.1	0.0	0.0	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2
7-Oct	Z	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2
8-Oct	0.1	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1
9-Oct	0.1	0.0	Z	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.2
10-Oct	0.1	0.1	0.1	Z	0.2	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.3
11-Oct	0.1	0.1	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.3
12-Oct	0.0	0.1	0.0	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1
13-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
14-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2
15-Oct	0.1	0.1	Z	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2
16-Oct	0.1	0.1	0.1	Z	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.2
17-Oct	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1
18-Oct	0.1	0.1	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2
19-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
20-Oct	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
21-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
22-Oct	0.1	0.1	0.2	Z	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
23-Oct	0.1	0.1	0.1	0.2	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2
24-Oct	0.2	0.1	0.2	0.2	0.2	Z	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.3	0.1	0.3
25-Oct	Z	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2
26-Oct	0.1	Z	0.2	0.1	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
27-Oct	0.0	0.0	Z	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
28-Oct	0.0	0.0	0.0	Z	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
29-Oct	0.2	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2
30-Oct	0.1	0.1	0.2	0.1	0.1	Z	0.1	0.1	0.1	0.0	C	C	C	C	C	C	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	--	0.2
31-Oct	Z	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.3	0.2	0.2	0.2	0.5	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

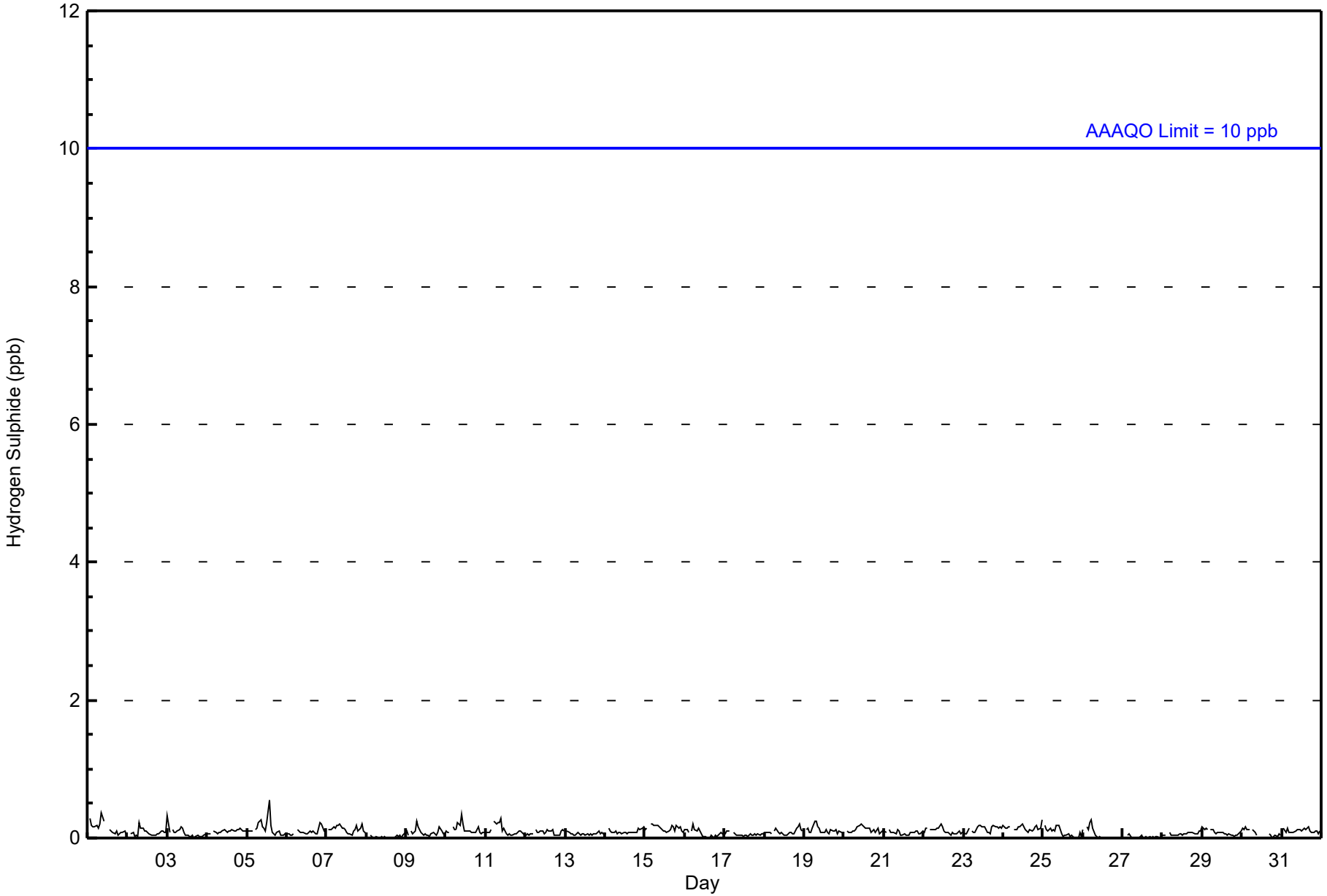
Alberta Ambient Air Quality Objective (AAAQO): 1-hour 10 ppb 24-hr 3 ppb

Wood Buffalo Environmental Association

Hourly Averages

Hydrogen Sulphide (H_2S) - ppb

Blackgold - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 2	705	100.00	100.00
3 - 4	0	0.00	100.00
5 - 7	0	0.00	100.00
8 - 11	0	0.00	100.00
> 11	0	0.00	100.00

Total Number of Valid Hours: 705

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Hydrogen Sulphide (H_2S) - ppb

Blackgold - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2	9	12	14	9	12	7	13	48	103	108	46	41	52	111	54	44	683
3 - 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 - 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	9	12	14	9	12	7	13	48	103	108	46	41	52	111	54	44	683

Total Number of Valid Hours: 683

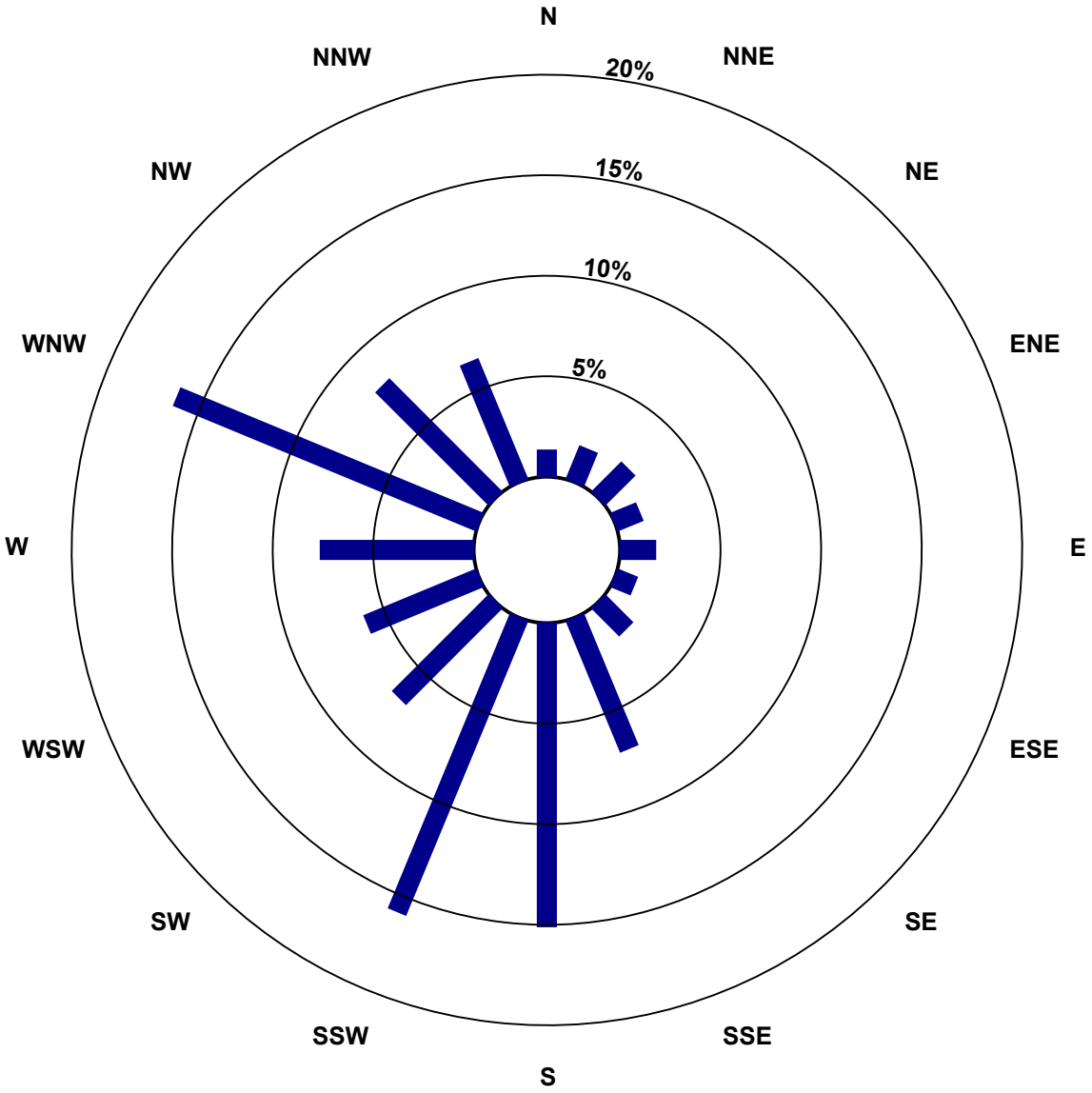
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Hydrogen Sulphide (H_2S) - ppb

Blackgold



Classes (ppb)

0 - 2

3 - 4

5 - 7

8 - 11

> 11

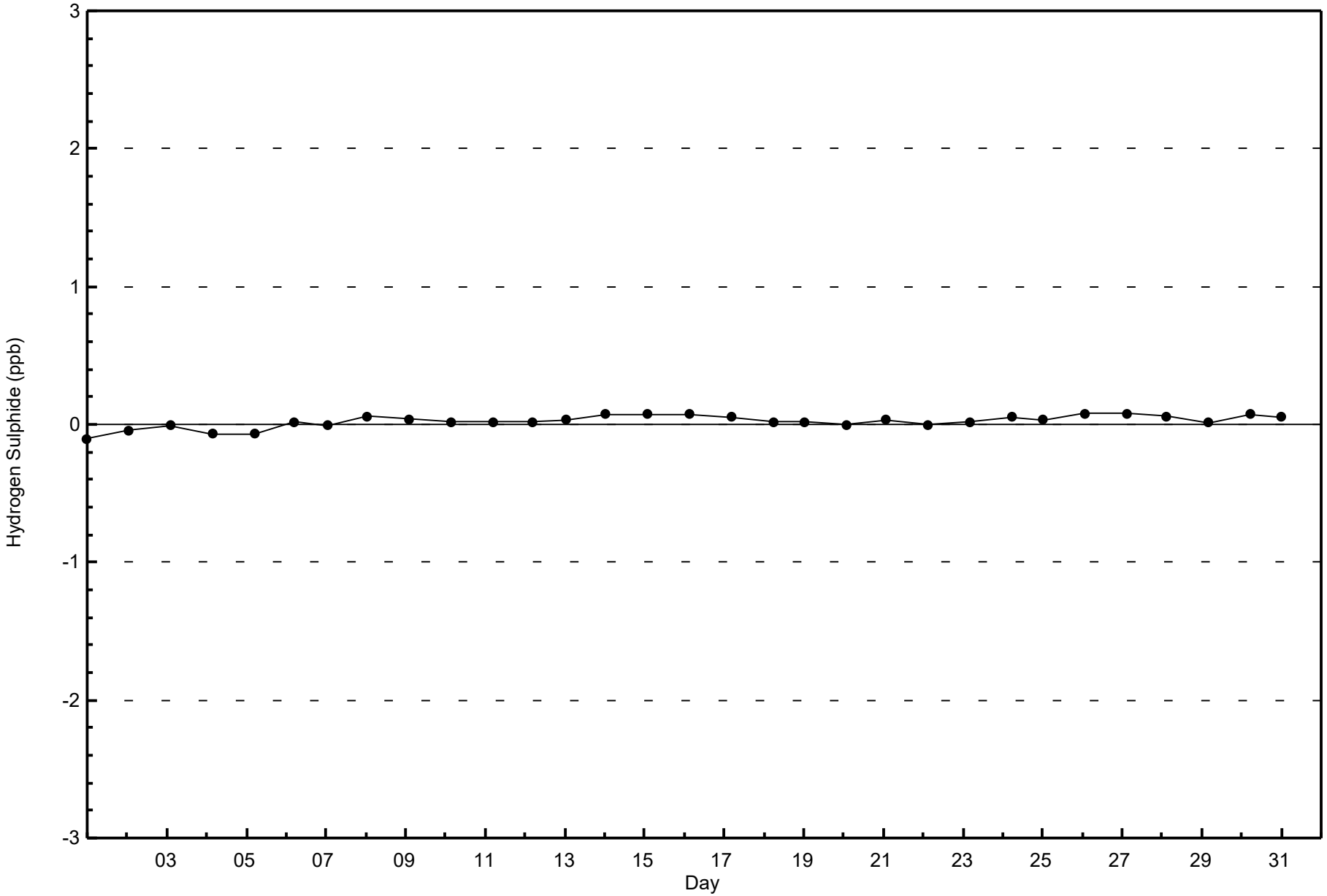
Total Number of Valid Hours: 683

Wood Buffalo Environmental Association

Zero Responses

Hydrogen Sulphide (H_2S) - ppb

Blackgold - October 2025

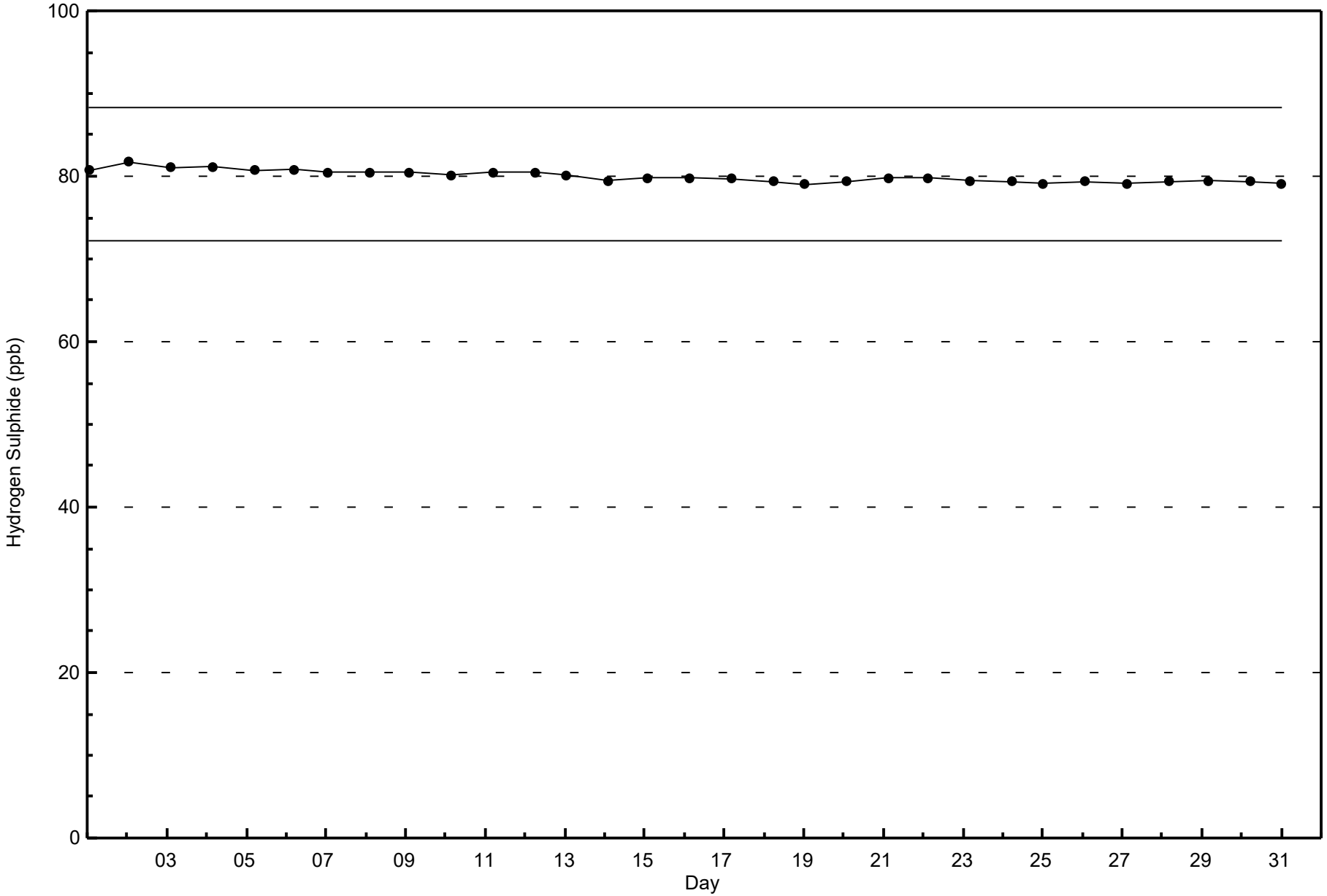


Wood Buffalo Environmental Association

Span Responses

Hydrogen Sulphide (H_2S) - ppb

Blackgold - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Total Hydrocarbon (THC) - ppm

Blackgold - October 2025

Maximum Value: 3.0 ppm on Oct 22 09:00

Maximum Daily Average: 2.5 ppm on Oct 30

Minimum Value: 2.3 ppm on Oct 17 11:00

Minimum Daily Average: 2.3 ppm on Oct 8

Maximum Diurnal Average: 2.4 ppm at hour 9

Minimum Diurnal Average: 2.4 ppm at hour 14

Monthly Average: 2.38 ppm

Percentiles: P_1 = 2.3 P_{10} = 2.3 Q_1 = 2.3 Median = 2.4 Q_3 = 2.4 P_{90} = 2.5 P_{99} = 2.6

Hours in Service:	744
Hours of Data:	706
Hours of Missing Data:	38
Hours of Calibration:	37
Percent Operational Time:	99.9

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	2.4	2.4	2.3	2.3	2.3	Z	2.3	2.4	2.4	2.4	2.4	2.4	2.3	M	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4
2-Oct	Z	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.6	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.6	2.5	2.4	2.4	2.4	2.6
3-Oct	2.3	Z	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4
4-Oct	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
5-Oct	2.3	2.3	2.3	Z	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.6	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.6
6-Oct	2.4	2.3	2.3	2.3	Z	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.6	2.7	2.5	2.4	2.4	2.4	2.7
7-Oct	2.4	2.4	2.4	2.4	2.4	Z	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
8-Oct	Z	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.4
9-Oct	2.5	Z	2.4	2.4	2.4	2.4	2.6	2.4	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.6
10-Oct	2.4	2.4	Z	2.4	2.4	2.5	2.5	2.7	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.7
11-Oct	2.5	2.4	2.4	Z	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.5
12-Oct	2.3	2.3	2.3	2.3	Z	2.3	2.4	2.4	2.4	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
13-Oct	2.4	2.4	2.4	2.4	2.4	Z	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
14-Oct	Z	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
15-Oct	2.4	Z	2.4	2.4	2.4	2.4	2.4	2.5	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.4	2.4	2.4	2.5
16-Oct	2.4	2.4	Z	2.4	2.4	2.5	2.4	2.5	2.5	2.5	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.4	2.5
17-Oct	2.3	2.3	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	C	C	C	C	C	C	2.3	2.3	2.3	2.3	2.3	2.3	2.3	--	2.3
18-Oct	2.4	2.3	2.3	2.3	Z	2.3	2.4	2.5	2.4	2.3	2.4	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.5
19-Oct	2.4	2.4	2.4	2.4	2.3	Z	2.5	2.5	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.5
20-Oct	Z	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5
21-Oct	2.4	Z	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.4	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
22-Oct	2.4	2.4	Z	2.4	2.5	2.5	2.5	2.7	3.0	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	3.0
23-Oct	2.4	2.4	2.4	Z	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.4	2.5	2.4	2.4	2.5
24-Oct	2.4	2.4	2.5	2.5	Z	2.4	2.4	2.4	2.4	2.5	2.4	2.5	2.4	2.4	2.4	2.4	2.5	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.4	2.5
25-Oct	2.5	2.5	2.5	2.5	2.6	Z	2.5	2.4	2.5	2.6	2.5	2.4	2.3	2.4	2.4	2.4	2.4	2.5	2.3	2.3	2.3	2.4	2.5	2.4	2.4	2.6
26-Oct	Z	2.5	2.5	2.5	2.7	2.7	2.5	2.5	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.7
27-Oct	2.3	Z	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.4
28-Oct	2.4	2.4	Z	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
29-Oct	2.5	2.4	2.4	Z	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.4	2.4	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.4	2.5
30-Oct	2.6	2.6	2.6	2.5	Z	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.6
31-Oct	2.4	2.4	2.4	2.5	2.4	Z	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5
	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	Diurnal Average	
	2.6	2.6	2.6	2.5	2.7	2.7	2.6	2.7	3.0	2.6	2.5	2.5	2.5	2.5	2.6	2.4	2.5	2.5	2.5	2.6	2.7	2.5	2.5	2.5	Diurnal Maximum	

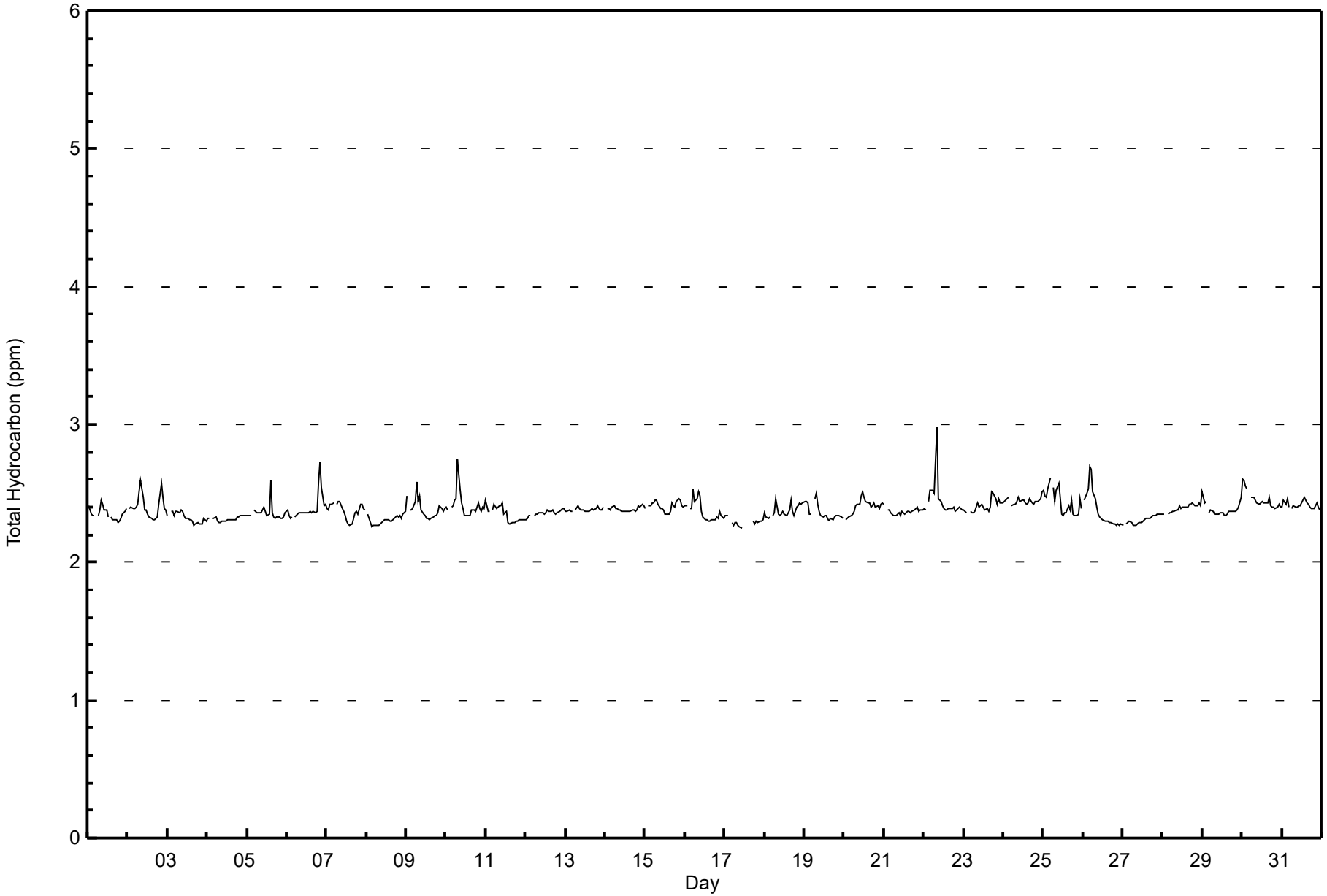
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Total Hydrocarbon (THC) - ppm

Blackgold - October 2025



Wood Buffalo Environmental Association

Cumulative Frequency Distribution

Total Hydrocarbon (THC) - ppm

Blackgold - October 2025

Concentration Ranges (ppm)	Number of Hours	%	Cumulative %
0 - 2.0	0	0.00	0.00
2.1 - 3.0	706	100.00	100.00
3.1 - 10.0	0	0.00	100.00
> 10.0	0	0.00	100.00

Total Number of Valid Hours: 706

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Total Hydrocarbon (THC) - ppm

Blackgold - October 2025

Concentration Ranges (ppm)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 2.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.1 - 3.0	8	11	14	9	12	7	13	48	102	109	51	40	52	105	58	44	683
3.1 - 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 10.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	8	11	14	9	12	7	13	48	102	109	51	40	52	105	58	44	683

Total Number of Valid Hours: 683

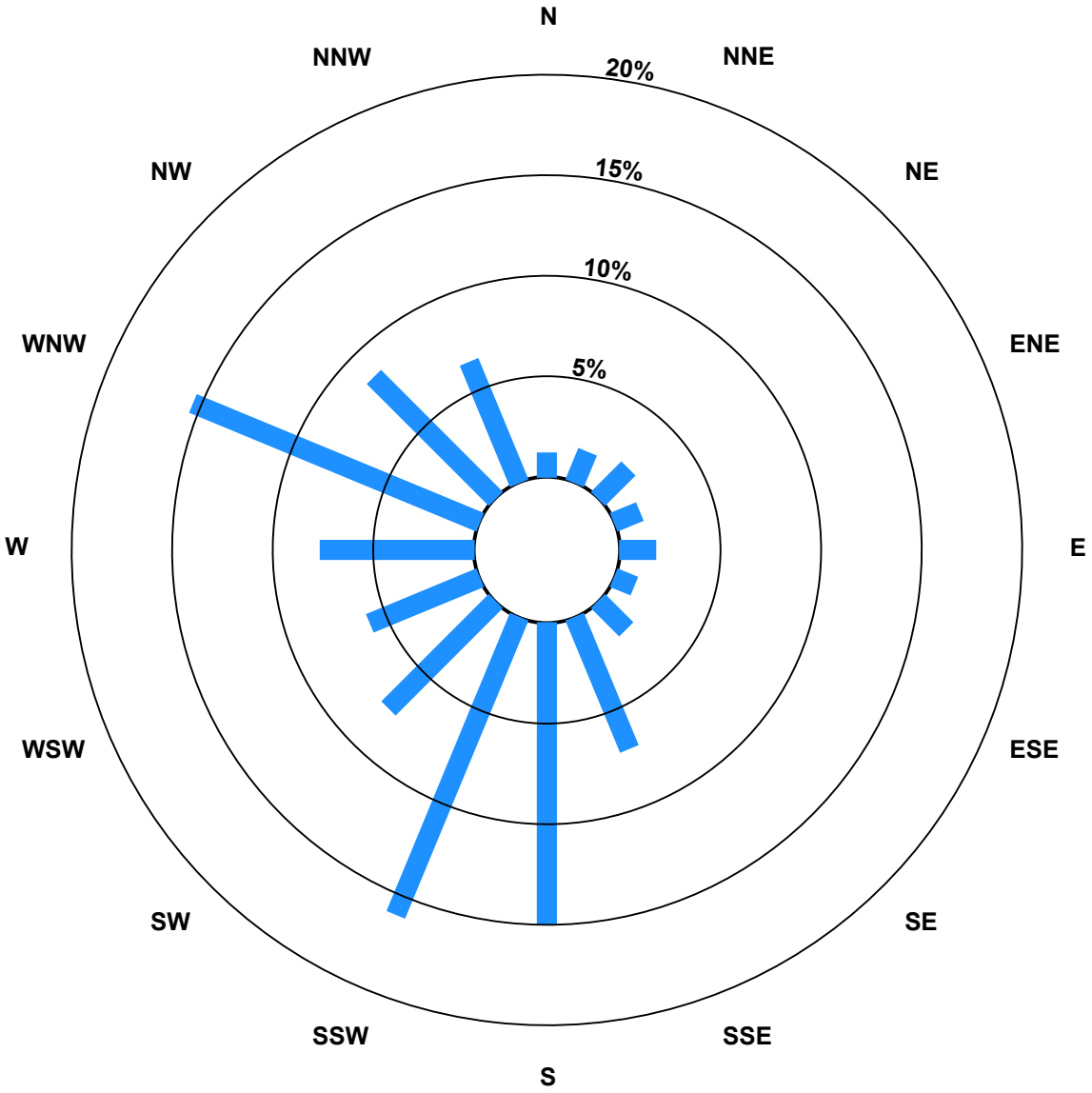
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Total Hydrocarbon (THC) - ppm

Blackgold



Classes (ppm)

0 - 2.0

2.1 - 3.0

3.1 - 10.0

> 10.0

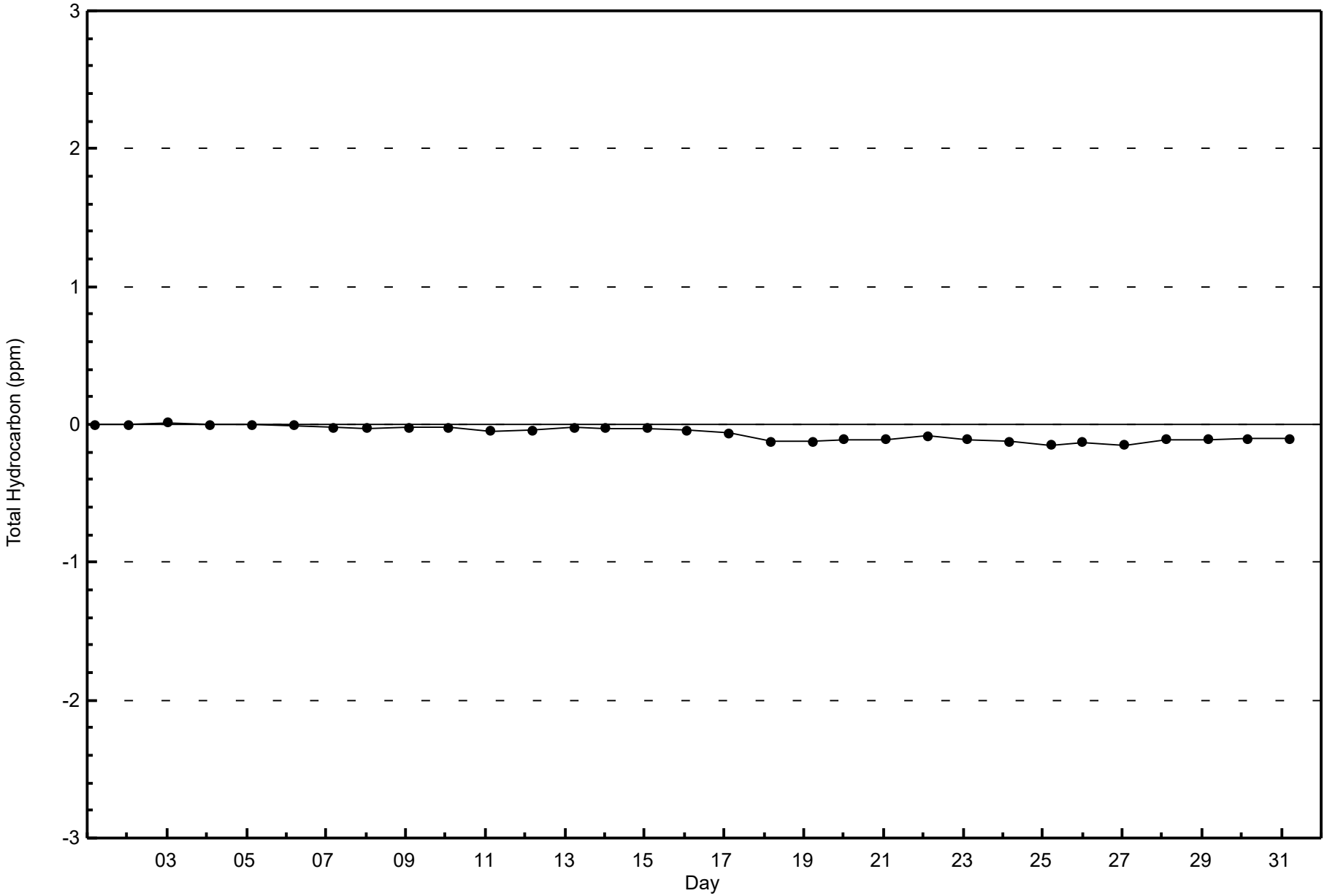
Total Number of Valid Hours: 683

Wood Buffalo Environmental Association

Zero Responses

Total Hydrocarbon (THC) - ppm

Blackgold - October 2025

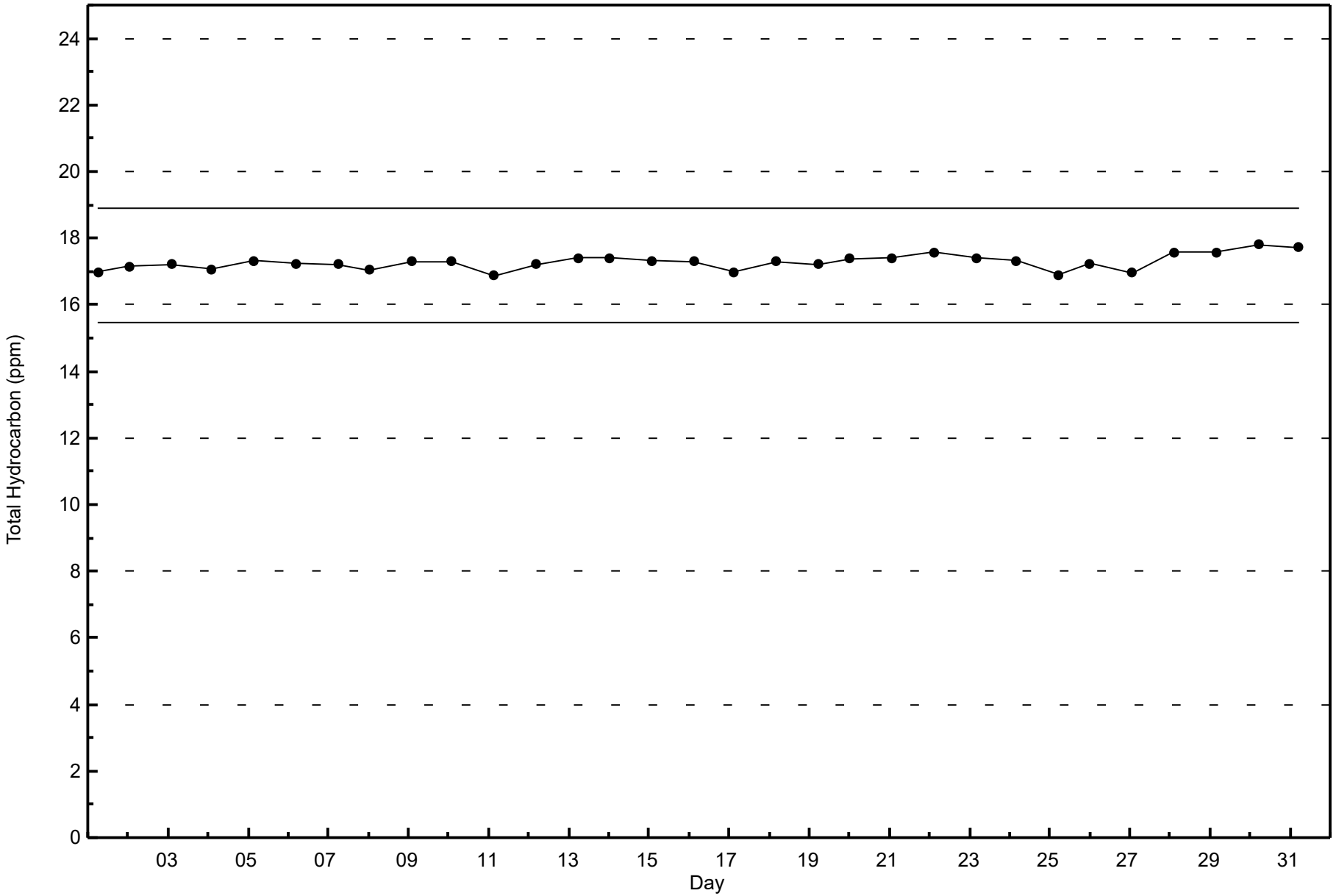


Wood Buffalo Environmental Association

Span Responses

Total Hydrocarbon (THC) - ppm

Blackgold - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxide (NO) - ppb

Blackgold - October 2025

Maximum Value: 27.0 ppb on Oct 11 10:00

Maximum Daily Average: 1.5 ppb on Oct 11

Minimum Value: 0.0 ppb on Oct 1 03:00

Minimum Daily Average: 0.1 ppb on Oct 29

Maximum Diurnal Average: 1.6 ppb at hour 10

Minimum Diurnal Average: 0.1 ppb at hour 23

Monthly Average: 0.36 ppb

Percentiles: P_1 = 0.0 P_{10} = 0.0 Q_1 = 0.0 Median = 0.1 Q_3 = 0.3 P_{90} = 0.9 P_{99} = 3.2

Hours in Service:	744
Hours of Data:	702
Hours of Missing Data:	42
Hours of Calibration:	36
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	0.0	0.0	0.0	Z	0.2	1.3	0.3	1.1	0.5	0.3	0.6	M	M	M	M	0.1	0.2	0.2	0.0	0.0	0.1	0.1	0.0	0.1	0.3	1.3
2-Oct	0.3	0.0	0.0	0.5	Z	0.4	0.4	2.5	1.1	0.6	1.3	0.8	0.7	0.3	0.1	0.1	0.0	0.1	1.5	0.2	0.0	0.0	0.0	0.0	0.5	2.5
3-Oct	0.1	0.1	0.0	0.0	0.0	Z	0.0	0.1	0.3	0.5	0.4	0.6	0.5	0.4	0.3	0.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6
4-Oct	Z	0.2	0.2	0.1	0.1	0.2	0.1	0.3	0.3	1.9	1.4	0.4	0.1	0.1	0.1	0.1	0.3	0.1	0.0	0.1	0.2	0.0	0.0	0.0	0.3	1.9
5-Oct	0.9	Z	0.2	0.0	0.2	1.2	1.4	2.7	3.7	4.1	2.7	0.8	1.8	4.4	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	4.4
6-Oct	0.1	0.0	Z	0.0	0.0	0.0	0.2	0.2	0.4	0.5	0.5	0.3	0.3	0.4	0.5	0.7	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.7
7-Oct	0.1	0.1	0.1	Z	0.2	0.1	0.2	0.3	1.0	1.1	0.8	C	C	C	C	C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.1
8-Oct	0.0	0.0	0.0	0.0	Z	0.1	1.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.1	0.0	0.2	0.4	0.1	0.7	0.2	0.2	1.8
9-Oct	0.0	0.2	0.2	0.3	0.4	Z	2.3	1.3	0.8	0.4	0.2	1.3	0.3	0.9	0.5	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.3
10-Oct	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0	2.2	1.4	0.6	0.4	0.4	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	2.2
11-Oct	0.1	Z	0.0	0.0	0.0	0.1	0.1	0.2	1.1	27.0	3.5	0.4	0.2	0.2	0.2	0.1	0.3	0.1	0.1	0.0	0.3	0.1	0.0	0.1	1.5	27.0
12-Oct	0.1	0.1	Z	0.1	0.0	0.0	0.0	0.8	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.1	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.8
13-Oct	0.1	0.0	0.1	Z	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.4	0.7	0.2	0.1	0.3	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.7
14-Oct	0.0	0.0	0.0	0.0	Z	0.0	0.0	0.1	0.3	1.6	0.2	0.2	0.1	0.1	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.6
15-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.2	0.3	0.9	1.6	1.7	1.1	0.4	0.2	0.6	1.4	1.6	0.2	0.0	1.2	0.2	0.4	0.3	0.1	0.5	1.7
16-Oct	Z	0.7	0.4	0.2	0.0	3.6	2.1	1.5	1.4	0.7	0.4	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	3.6
17-Oct	0.0	Z	1.3	1.1	1.3	1.4	0.6	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	M	M	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.4
18-Oct	0.0	0.0	Z	0.0	0.0	0.1	0.5	0.5	0.2	0.0	0.1	0.1	0.0	0.2	0.0	0.0	0.4	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.1	0.5
19-Oct	0.1	0.0	1.7	Z	0.2	0.2	1.4	0.9	0.4	0.4	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.1	0.2	0.0	0.2	0.3	1.7
20-Oct	0.3	0.0	0.1	0.3	Z	0.2	0.7	0.3	0.6	1.0	0.7	1.1	1.0	0.5	0.6	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	1.1
21-Oct	0.0	0.0	0.0	0.1	0.1	Z	0.1	0.6	2.6	1.5	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.2	0.4	0.2	0.1	0.0	0.1	0.4	2.6
22-Oct	Z	0.0	0.0	0.2	1.5	2.7	0.1	0.2	3.2	0.5	0.6	0.7	0.2	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	3.2
23-Oct	0.0	Z	0.0	0.0	0.1	0.1	0.0	0.2	0.4	0.4	0.6	0.8	0.8	0.9	0.5	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.3	0.9
24-Oct	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.1	0.4	0.6	0.9	1.3	1.0	0.6	0.3	0.5	0.2	0.2	0.1	0.0	0.1	0.2	0.2	0.2	0.3	1.3
25-Oct	0.2	0.0	0.0	Z	0.5	0.4	1.6	1.0	3.4	0.8	0.7	0.2	0.2	0.5	0.6	0.3	0.3	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.5	3.4
26-Oct	0.1	0.1	0.1	0.1	Z	0.2	2.3	0.5	0.4	0.2	0.2	0.2	0.2	0.3	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.2	2.3
27-Oct	0.0	0.0	0.0	0.0	0.0	Z	0.2	0.0	0.3	0.0	0.2	0.1	0.0	0.4	0.1	0.4	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.4
28-Oct	Z	0.1	0.0	0.1	0.1	0.2	0.2	0.0	0.2	0.2	0.1	0.0	0.1	0.5	0.0	0.2	0.3	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.5
29-Oct	0.0	Z	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.7	0.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7
30-Oct	0.0	0.1	Z	0.1	0.3	0.3	0.1	0.3	0.6	0.6	0.4	0.4	0.2	0.3	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.6
31-Oct	0.1	0.1	0.1	Z	0.1	0.1	0.1	0.1	0.5	1.4	1.9	1.4	1.7	2.0	1.2	0.8	0.4	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.6	2.0
	0.1	0.1	0.2	0.1	0.2	0.5	0.6	0.5	0.9	1.6	0.8	0.5	0.4	0.5	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	Diurnal Average	
	0.9	0.7	1.7	1.1	1.5	3.6	2.3	2.7	3.7	27.0	3.5	1.4	1.8	4.4	1.8	1.4	1.6	0.4	1.5	1.2	0.4	0.4	0.7	0.2	Diurnal Maximum	

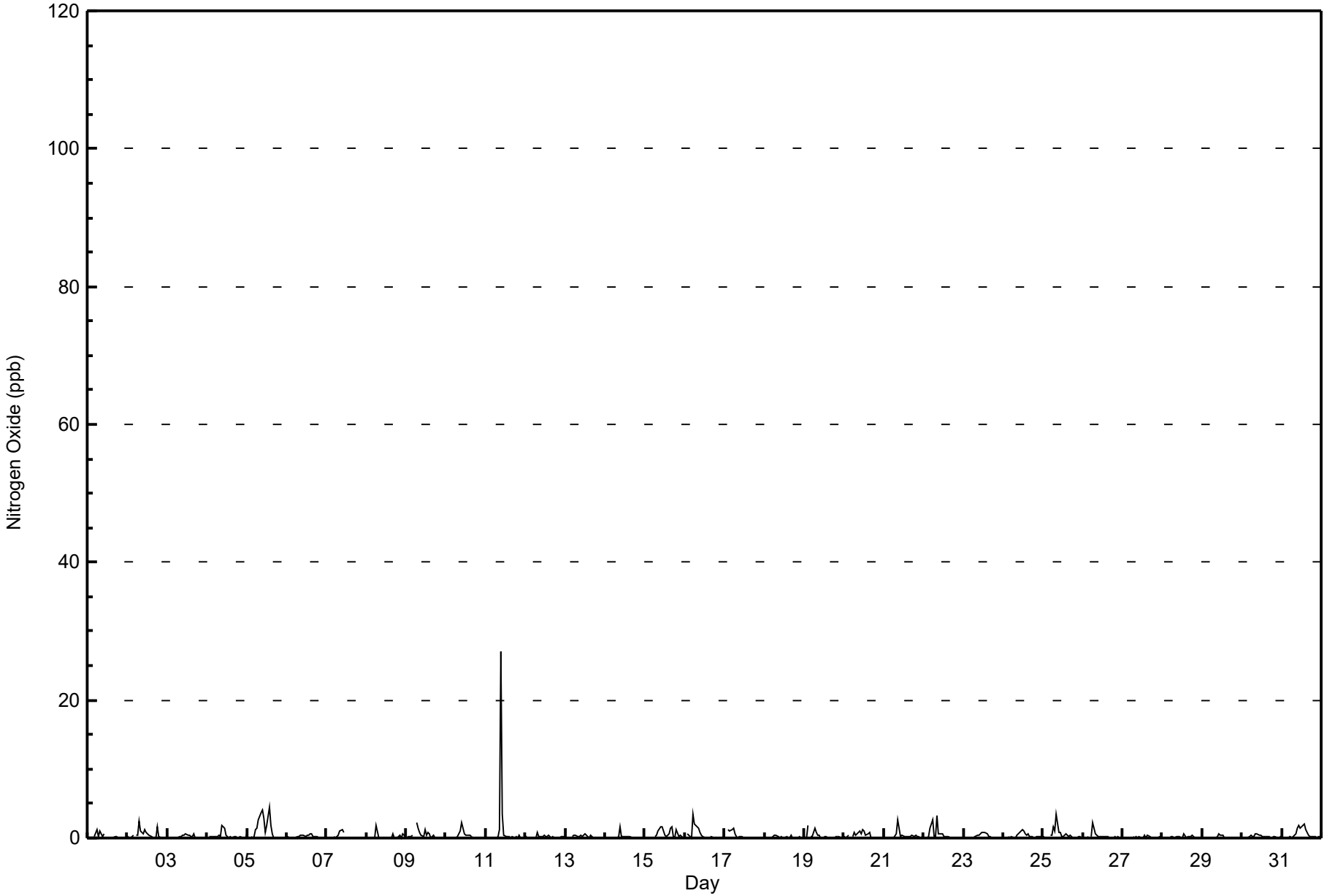
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxide (NO) - ppb

Blackgold - October 2025



Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	701	99.86	99.86
21 - 40	1	0.14	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 702

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxide (NO) - ppb

Blackgold - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	9	11	14	9	13	6	12	47	103	104	51	42	53	108	54	42	678
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	9	11	14	9	13	6	12	47	103	104	51	42	53	108	55	42	679

Total Number of Valid Hours: 679

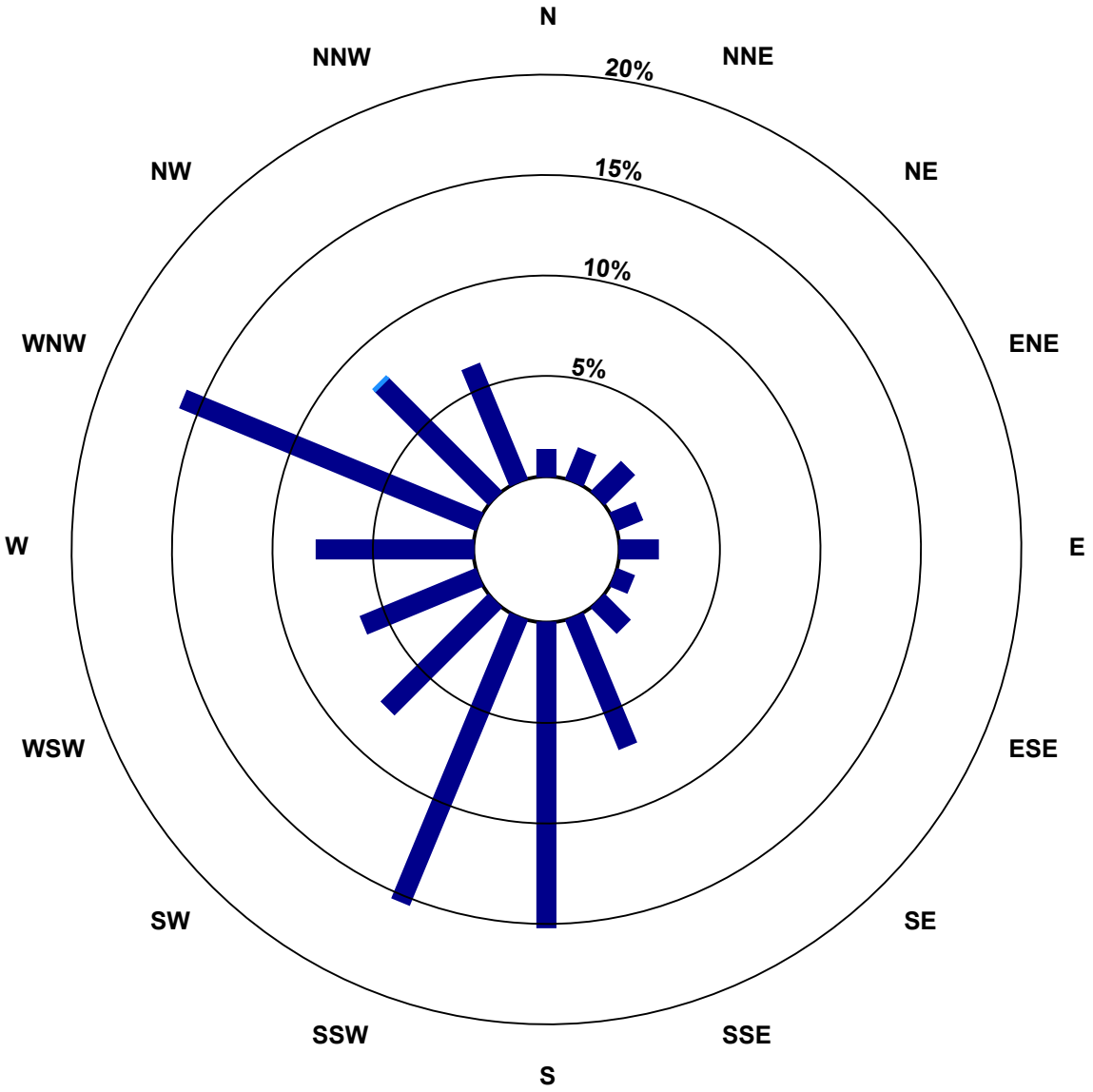
Total Number of Hours: 744

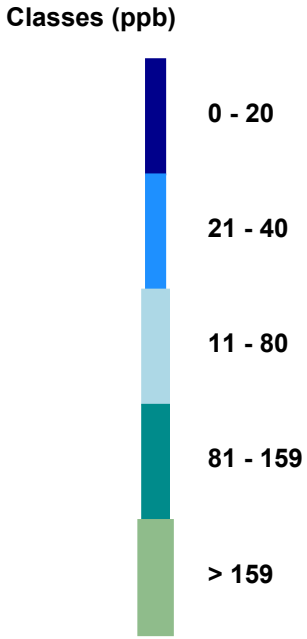
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxide (NO) - ppb

Blackgold





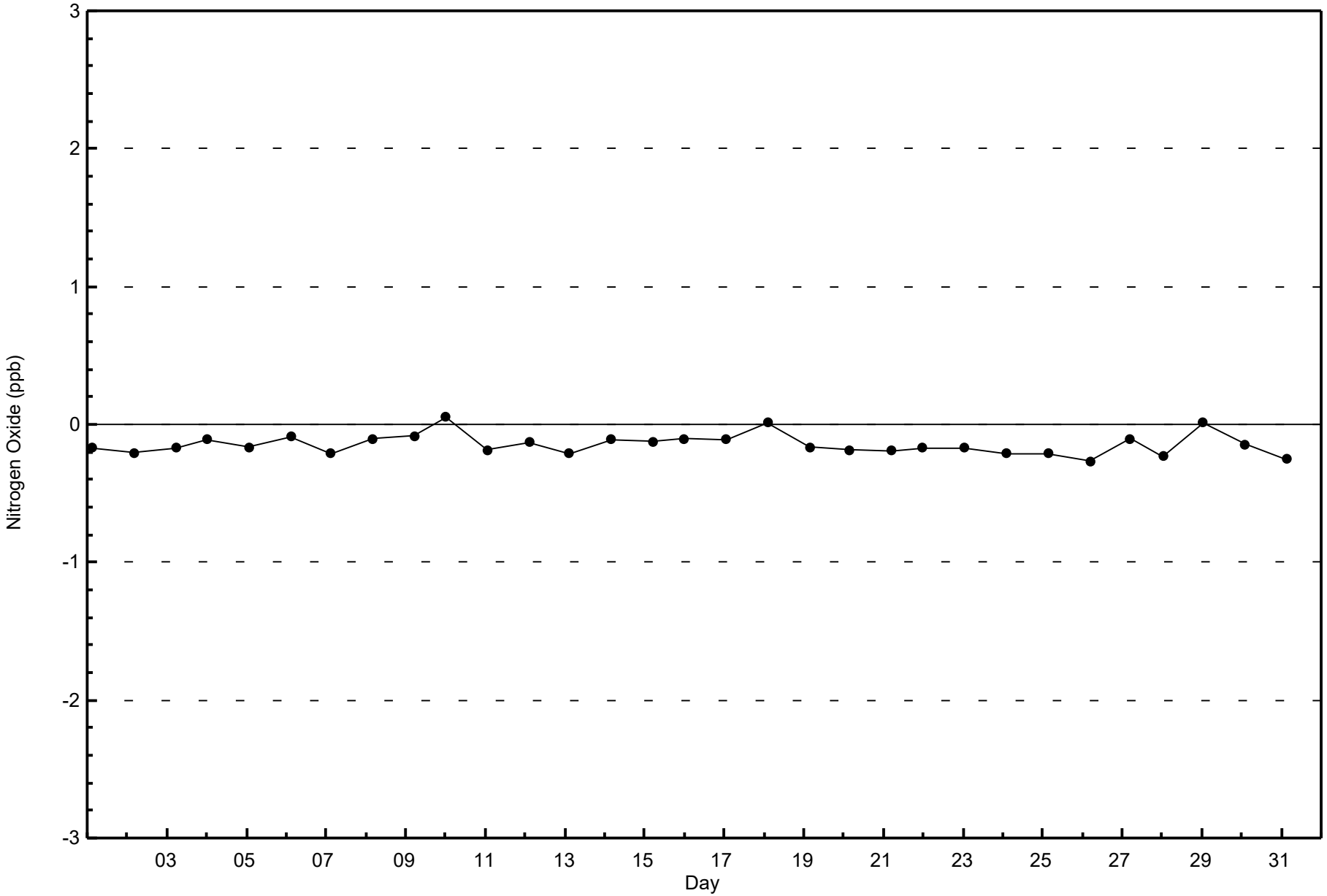
Total Number of Valid Hours: 679

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxide (NO) - ppb

Blackgold - October 2025

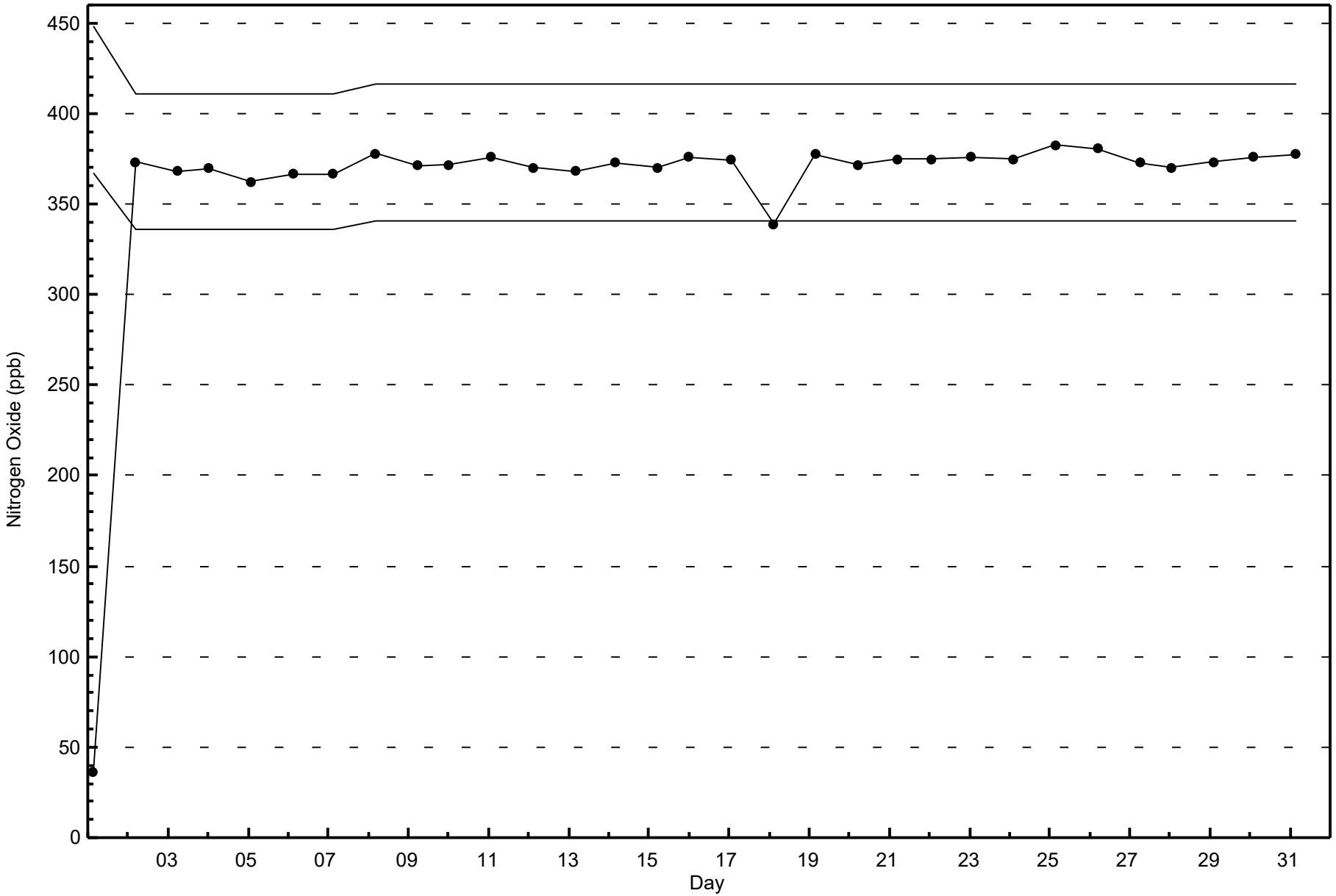


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxide (NO) - ppb

Blackgold - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Dioxide (NO_2) - ppb

Blackgold - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0

Maximum Value: 11.5 ppb on Oct 11 10:00

Maximum Daily Average: 3.3 ppb on Oct 24

Minimum Value: 0.0 ppb on Oct 8 16:00

Minimum Daily Average: 0.3 ppb on Oct 27

Maximum Diurnal Average: 2.0 ppb at hour 9

Minimum Diurnal Average: 0.9 ppb at hour 16

Monthly Average: 1.43 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.3 Q_1 = 0.5 Median = 1.1 Q_3 = 1.9 P_{90} = 3.0 P_{99} = 5.8

Hours in Service:	744
Hours of Data:	702
Hours of Missing Data:	42
Hours of Calibration:	36
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.9	1.5	1.0	Z	1.7	2.1	1.4	1.7	2.3	1.9	1.5	M	M	M	M	0.5	0.7	1.0	0.7	0.9	1.2	1.4	1.5	1.2	1.4	2.3
2-Oct	1.1	1.3	0.9	1.8	Z	1.4	1.0	2.7	1.7	1.4	2.5	1.9	1.4	1.1	0.6	0.6	0.7	0.5	1.3	0.4	0.5	0.7	1.1	0.6	1.2	2.7
3-Oct	4.7	0.7	0.8	1.0	0.7	Z	1.2	1.2	1.2	1.1	1.1	1.0	1.1	1.0	1.0	0.9	0.9	0.5	0.6	0.7	0.3	0.3	1.4	1.0	1.1	4.7
4-Oct	Z	1.5	1.7	1.1	1.6	1.3	0.9	0.5	0.3	1.0	1.1	0.4	0.3	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.6	1.7
5-Oct	0.7	Z	0.4	0.2	0.5	1.6	2.0	2.1	3.1	1.6	1.3	0.7	1.5	4.3	3.0	1.2	0.4	0.1	0.2	0.3	0.3	0.7	0.5	1.1	1.2	4.3
6-Oct	1.6	0.2	Z	0.4	0.6	0.5	1.2	1.3	1.4	1.1	0.8	0.6	0.7	0.7	1.2	0.9	0.8	1.0	1.1	0.7	0.7	0.9	0.8	1.9	0.9	1.9
7-Oct	1.8	1.7	2.3	Z	3.8	3.4	3.1	2.7	3.1	1.9	1.8	C	C	C	C	C	1.3	2.3	6.0	1.8	3.5	5.3	1.8	1.7	2.7	6.0
8-Oct	2.2	2.1	0.6	0.1	Z	1.2	1.1	0.5	0.3	0.4	0.2	0.1	0.2	0.2	0.3	0.0	0.9	1.0	1.9	1.5	1.8	0.3	3.4	2.4	1.0	3.4
9-Oct	1.7	2.1	2.1	1.9	2.0	Z	3.3	3.0	1.5	0.8	0.6	1.7	0.7	1.7	1.2	0.6	2.1	0.4	0.2	0.4	0.7	1.2	1.4	1.9	1.4	3.3
10-Oct	Z	2.9	3.8	2.6	2.1	1.6	1.5	2.6	3.7	5.0	3.8	2.0	1.9	2.1	1.8	2.4	2.1	1.4	1.2	1.2	1.1	1.1	1.5	1.9	2.2	5.0
11-Oct	2.4	Z	2.1	2.6	2.6	2.6	2.3	3.1	5.3	11.5	3.2	2.4	2.5	0.6	0.4	0.2	0.4	0.3	0.3	0.3	0.5	0.4	0.3	0.2	2.0	11.5
12-Oct	0.2	0.5	Z	1.1	1.0	1.3	1.5	1.6	1.1	1.4	1.0	0.7	0.8	2.1	1.8	1.0	1.7	1.1	0.4	0.7	0.6	1.3	1.5	1.3	1.1	2.1
13-Oct	0.4	0.6	0.5	Z	1.3	1.1	1.4	1.4	0.8	0.9	0.6	1.0	1.4	0.3	0.1	0.6	0.4	0.3	0.5	0.4	1.8	0.5	1.9	1.2	0.8	1.9
14-Oct	0.9	2.8	3.1	1.9	Z	1.4	1.7	0.8	0.9	1.1	0.7	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.6	0.8	0.9	0.8	0.8	1.0	1.0	3.1
15-Oct	1.1	1.8	2.6	2.4	2.4	Z	3.3	3.2	3.2	3.5	3.3	2.5	1.3	1.1	1.8	3.6	5.1	3.0	2.1	5.8	3.5	3.7	3.0	1.9	2.8	5.8
16-Oct	Z	3.6	3.4	2.2	1.8	6.7	5.1	3.4	3.0	1.4	1.3	0.8	0.6	0.4	0.2	0.3	0.9	0.5	1.3	1.0	1.4	1.8	2.6	1.8	2.0	6.7
17-Oct	0.9	Z	6.0	4.6	5.3	5.3	2.2	1.1	0.6	0.4	0.3	0.3	0.1	0.2	0.4	0.5	M	M	0.5	0.9	0.1	0.2	0.2	0.2	1.4	6.0
18-Oct	0.8	0.4	Z	0.4	0.6	0.9	1.2	2.2	0.9	0.5	0.4	0.5	0.3	0.5	0.3	0.5	1.3	0.9	1.7	1.4	0.9	1.1	1.1	1.0	0.9	2.2
19-Oct	0.4	0.8	2.5	Z	2.7	2.7	5.0	4.9	2.3	2.3	0.9	0.9	0.9	1.0	0.6	0.3	0.8	0.8	0.4	0.8	0.6	1.3	0.3	0.6	1.5	5.0
20-Oct	0.9	0.2	0.3	0.9	Z	1.0	1.2	1.8	2.6	2.9	3.1	3.6	2.4	1.7	2.0	2.2	0.8	0.8	1.2	0.8	1.5	1.4	1.5	1.9	1.6	3.6
21-Oct	2.4	2.3	2.3	1.1	1.0	Z	1.2	2.0	3.9	2.2	0.5	0.5	0.5	0.3	0.4	0.5	0.7	1.1	1.0	1.3	1.0	0.8	1.2	1.0	1.3	3.9
22-Oct	Z	1.3	0.9	0.7	1.3	2.3	0.8	0.9	2.0	0.9	1.1	1.2	0.5	0.4	0.3	0.3	0.3	0.6	1.5	1.1	0.6	0.9	1.0	1.1	1.0	2.3
23-Oct	1.1	Z	1.1	0.9	1.4	0.7	1.0	1.3	1.9	1.5	1.3	1.6	1.8	2.5	1.7	1.5	2.4	2.2	2.8	2.0	3.2	3.0	4.1	2.0	1.9	4.1
24-Oct	5.2	3.3	Z	5.9	4.3	2.3	2.1	2.2	2.4	2.4	3.0	4.0	4.2	2.7	1.8	2.2	2.7	2.8	3.2	4.9	4.4	4.7	3.3	2.4	3.3	5.9
25-Oct	1.9	1.4	1.1	Z	1.7	1.8	2.2	2.8	5.3	2.0	1.9	0.8	0.8	1.1	1.3	0.6	1.3	1.7	0.6	0.5	0.6	0.6	0.7	0.5	1.4	5.3
26-Oct	0.6	1.0	0.6	0.5	Z	1.2	3.0	2.7	1.9	1.0	0.8	1.6	0.8	1.2	1.0	1.3	0.8	0.6	0.5	0.4	0.1	0.8	0.2	0.6	1.0	3.0
27-Oct	0.5	0.1	0.4	0.7	1.2	Z	0.5	0.2	0.4	0.2	0.2	0.1	0.2	0.4	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	1.2
28-Oct	Z	0.2	0.2	0.1	0.2	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.6	0.2	0.5	0.7	1.4	1.3	0.4	0.3	0.4	0.3	0.7	0.4	1.4
29-Oct	1.9	Z	2.2	1.7	0.9	1.0	1.4	1.4	1.1	0.9	2.8	1.8	1.4	0.6	0.6	0.8	0.6	0.5	0.7	0.7	0.8	0.8	1.5	3.5	1.3	3.5
30-Oct	7.9	7.8	Z	5.1	3.8	3.4	3.1	3.1	1.9	1.2	0.8	0.8	0.5	0.8	0.4	0.7	0.7	0.5	0.5	0.5	0.5	0.4	0.5	0.4	2.0	7.9
31-Oct	0.4	0.4	0.5	Z	0.9	1.6	1.6	1.3	2.0	2.2	2.9	1.9	2.5	2.9	2.5	2.7	2.0	1.7	1.4	1.1	2.4	1.8	1.5	1.5	1.7	2.9
	1.8	1.6	1.7	1.7	1.8	2.0	1.9	1.9	2.0	1.8	1.5	1.2	1.1	1.1	1.0	0.9	1.2	1.0	1.2	1.1	1.2	1.3	1.3	1.3	Diurnal Average	
	7.9	7.8	6.0	5.9	5.3	6.7	5.1	4.9	5.3	11.5	3.8	4.0	4.2	4.3	3.0	3.6	5.1	3.0	6.0	5.8	4.4	5.3	4.1	3.5	Diurnal Maximum	

Z - zerospan C - Calibration M - Maintenance

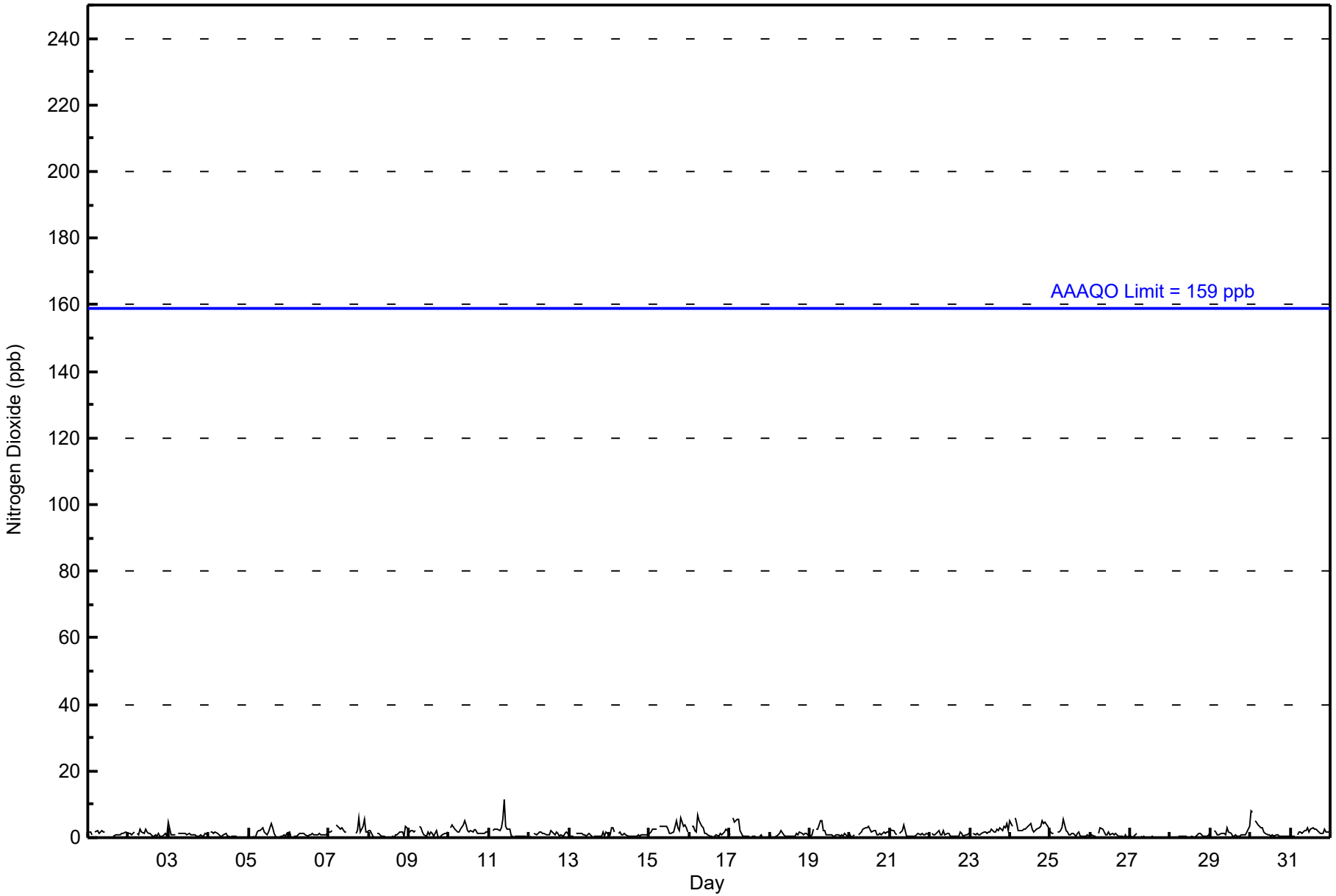
Alberta Ambient Air Quality Objectives (AAAQO): 1-hr 159 ppb

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Dioxide (NO_2) - ppb

Blackgold - October 2025



Nitrogen Dioxide (NO_2) - ppb
Blackgold - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	702	100.00	100.00
21 - 40	0	0.00	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 702

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Dioxide (NO_2) - ppb

Blackgold - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	9	11	14	9	13	6	12	47	103	104	51	42	53	108	55	42	679
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	9	11	14	9	13	6	12	47	103	104	51	42	53	108	55	42	679

Total Number of Valid Hours: 679

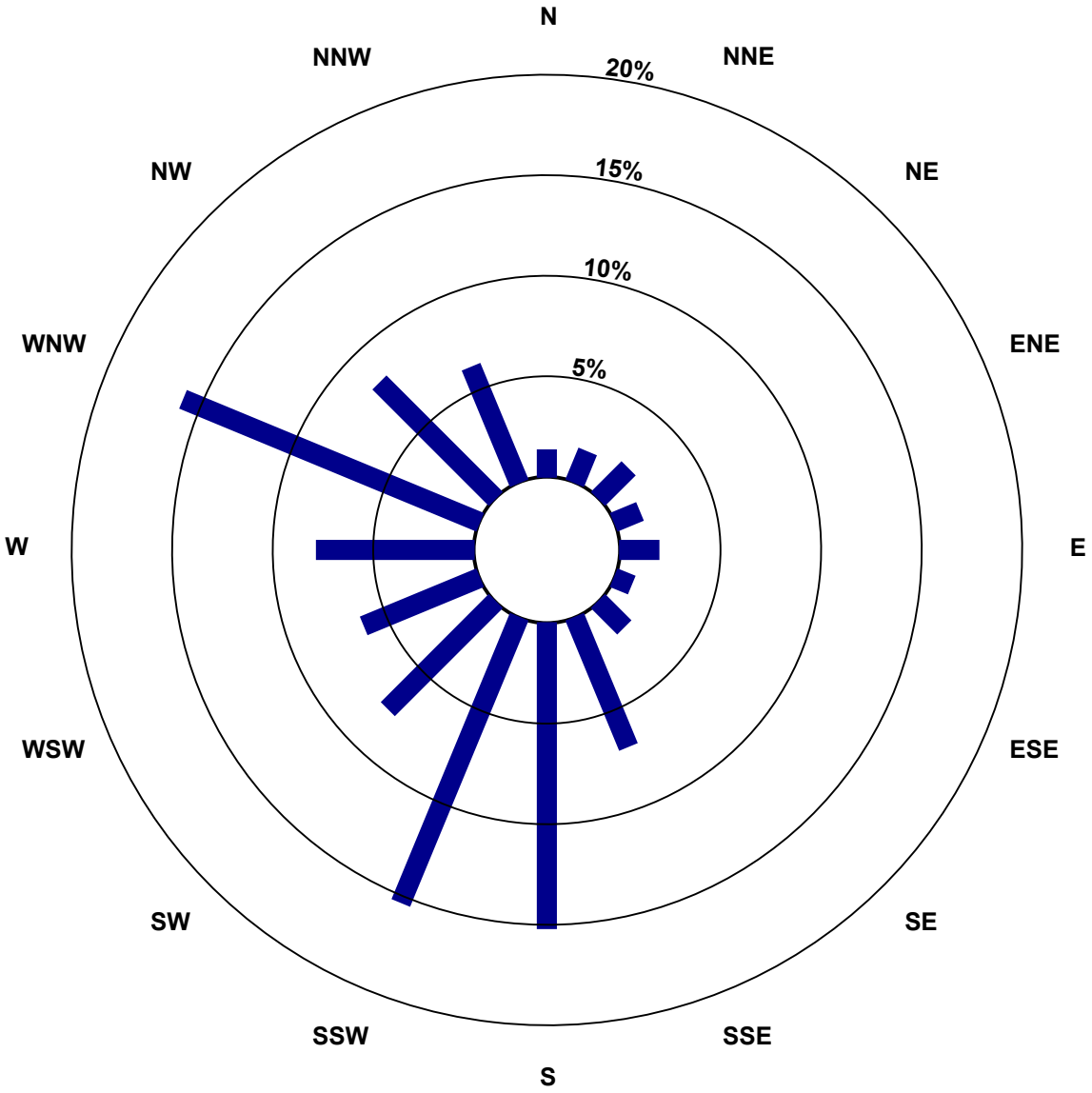
Total Number of Hours: 744

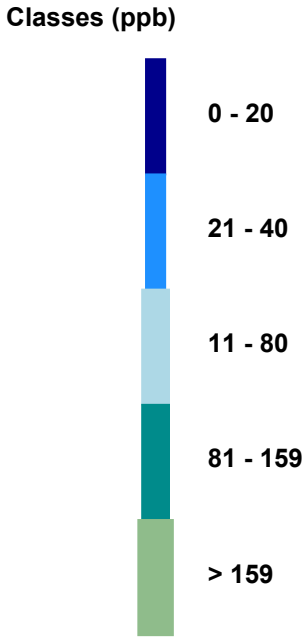
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Dioxide (NO_2) - ppb

Blackgold





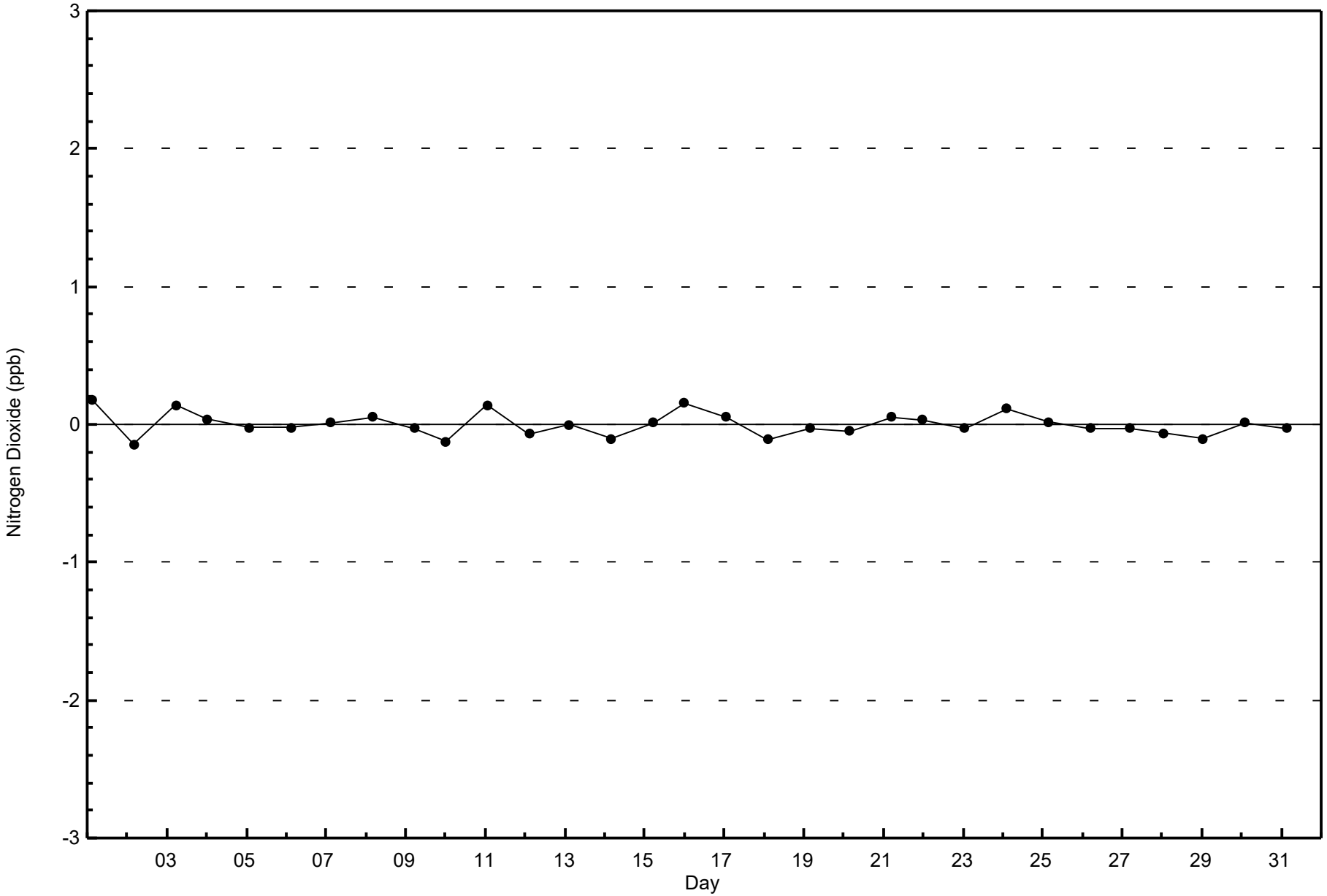
Total Number of Valid Hours: 679

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Dioxide (NO_2) - ppb

Blackgold - October 2025

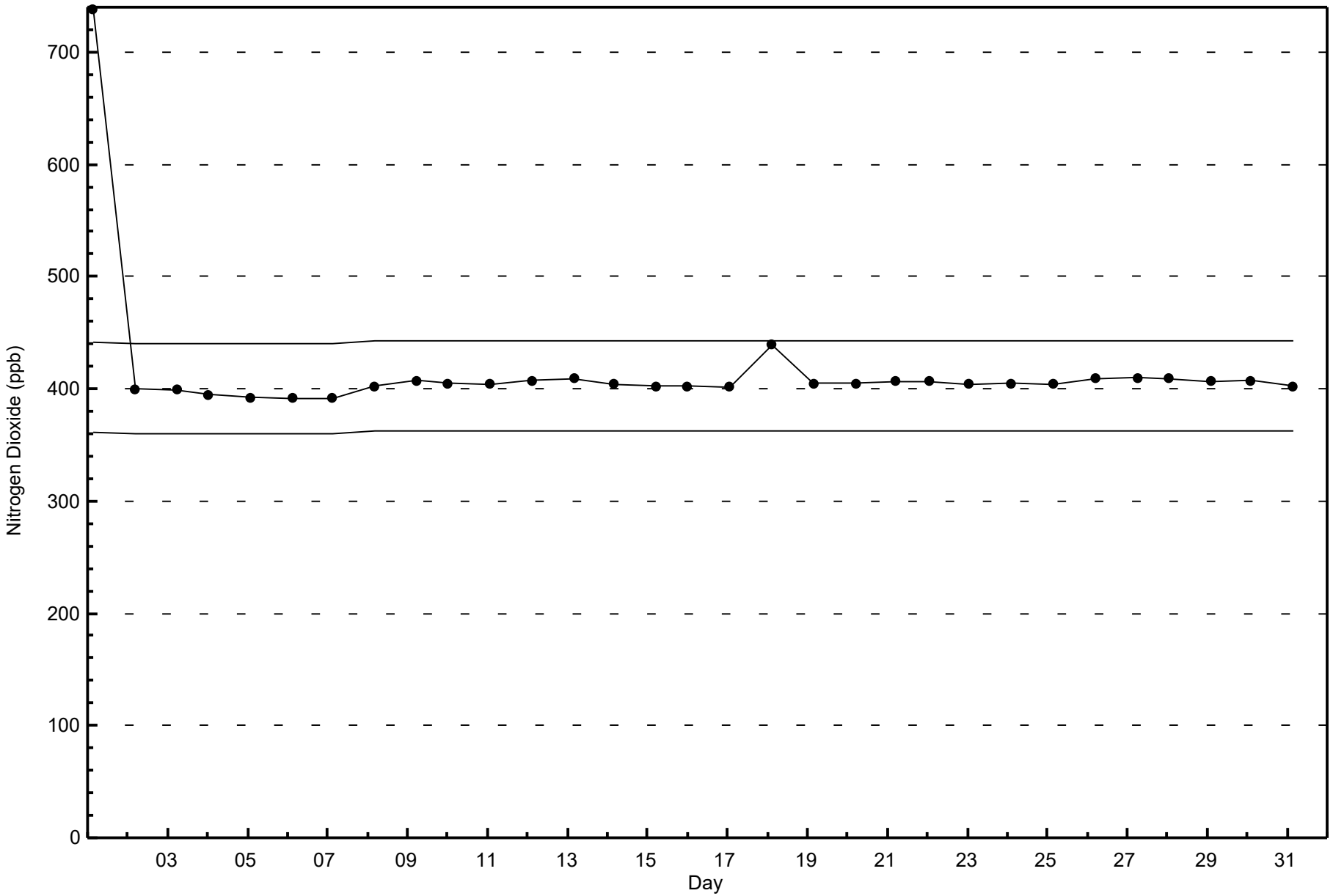


Wood Buffalo Environmental Association

Span Responses

Nitrogen Dioxide (NO_2) - ppb

Blackgold - October 2025



Wood Buffalo Environmental Association

Summary of Hour Averages

Nitrogen Oxides (NO_X) - ppb

Blackgold - October 2025

Maximum Value: 38.5 ppb on Oct 11 10:00

Maximum Daily Average: 3.7 ppb on Oct 24

Minimum Value: 0.1 ppb on Oct 4 19:00

Minimum Daily Average: 0.4 ppb on Oct 27

Maximum Diurnal Average: 3.5 ppb at hour 10

Minimum Diurnal Average: 1.1 ppb at hour 18

Monthly Average: 1.78 ppb

Percentiles: P_1 = 0.1 P_{10} = 0.4 Q_1 = 0.7 Median = 1.3 Q_3 = 2.3 P_{90} = 3.7 P_{99} = 7.2

Hours in Service:	744
Hours of Data:	702
Hours of Missing Data:	42
Hours of Calibration:	36
Percent Operational Time:	99.2

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	1.9	1.5	1.0	Z	1.9	3.4	1.7	2.8	2.8	2.2	2.1	M	M	M	M	0.6	0.9	1.2	0.7	0.9	1.3	1.5	1.5	1.3	1.6	3.4
2-Oct	1.4	1.3	0.9	2.3	Z	1.8	1.4	5.2	2.8	2.0	3.8	2.7	2.1	1.4	0.7	0.7	0.7	0.6	2.8	0.6	0.5	0.7	1.1	0.6	1.7	5.2
3-Oct	4.8	0.8	0.8	1.0	0.7	Z	1.2	1.3	1.5	1.6	1.5	1.6	1.6	1.4	1.3	1.1	1.5	0.5	0.6	0.7	0.3	0.3	1.4	1.0	1.2	4.8
4-Oct	Z	1.7	1.9	1.2	1.7	1.5	1.0	0.8	0.6	2.9	2.5	0.8	0.4	0.3	0.4	0.4	0.6	0.3	0.1	0.2	0.4	0.2	0.1	0.2	0.9	2.9
5-Oct	1.6	Z	0.6	0.2	0.7	2.8	3.4	4.8	6.8	5.7	4.0	1.5	3.3	8.7	4.8	1.7	0.4	0.1	0.2	0.3	0.3	0.7	0.5	1.1	2.4	8.7
6-Oct	1.7	0.2	Z	0.4	0.6	0.5	1.4	1.5	1.8	1.6	1.3	0.9	1.0	1.1	1.7	1.6	1.1	1.2	1.3	0.7	0.7	0.9	0.8	1.9	1.1	1.9
7-Oct	1.9	1.8	2.4	Z	4.0	3.5	3.3	3.0	4.1	3.0	2.6	C	C	C	C	C	1.3	2.3	6.0	1.8	3.5	5.3	1.8	1.7	3.0	6.0
8-Oct	2.2	2.1	0.6	0.1	Z	1.3	2.9	0.6	0.4	0.4	0.2	0.1	0.2	0.2	0.3	0.1	1.5	1.1	1.9	1.7	2.2	0.4	4.1	2.6	1.2	4.1
9-Oct	1.7	2.3	2.3	2.2	2.4	Z	5.6	4.3	2.3	1.2	0.8	3.0	1.0	2.6	1.7	0.7	2.6	0.4	0.2	0.4	0.7	1.2	1.4	1.9	1.9	5.6
10-Oct	Z	2.9	3.8	2.6	2.1	1.6	1.5	2.8	4.7	7.2	5.2	2.6	2.3	2.5	2.2	2.7	2.2	1.4	1.2	1.2	1.1	1.1	1.5	2.0	2.5	7.2
11-Oct	2.5	Z	2.1	2.6	2.6	2.7	2.4	3.3	6.4	38.5	6.7	2.8	2.7	0.8	0.6	0.3	0.7	0.4	0.4	0.3	0.8	0.5	0.3	0.3	3.5	38.5
12-Oct	0.3	0.6	Z	1.2	1.0	1.3	1.5	2.4	1.3	1.6	1.2	1.0	1.0	2.3	2.1	1.1	1.9	1.1	0.5	0.8	0.7	1.4	1.6	1.4	1.3	2.4
13-Oct	0.5	0.6	0.6	Z	1.6	1.5	1.7	1.7	1.1	1.2	0.8	1.4	2.1	0.5	0.2	0.9	0.5	0.3	0.5	0.5	1.8	0.5	1.9	1.2	1.0	2.1
14-Oct	0.9	2.8	3.1	1.9	Z	1.4	1.7	0.9	1.2	2.7	0.9	0.7	0.6	0.6	0.7	0.8	0.6	0.7	0.6	0.8	0.9	0.8	0.8	1.0	1.2	3.1
15-Oct	1.1	1.8	2.6	2.4	2.4	Z	3.5	3.5	4.1	5.1	5.0	3.6	1.7	1.3	2.4	5.0	6.7	3.2	2.1	7.0	3.7	4.1	3.3	2.0	3.4	7.0
16-Oct	Z	4.3	3.8	2.4	1.8	10.3	7.2	4.9	4.4	2.1	1.7	1.0	0.7	0.4	0.2	0.3	1.0	0.5	1.3	1.0	1.4	1.8	2.6	2.0	2.5	10.3
17-Oct	0.9	Z	7.3	5.7	6.6	6.7	2.8	1.2	0.7	0.5	0.4	0.3	0.1	0.2	0.4	0.6	M	M	0.5	0.9	0.1	0.2	0.2	0.2	1.7	7.3
18-Oct	0.8	0.4	Z	0.4	0.6	1.0	1.7	2.7	1.1	0.5	0.5	0.6	0.3	0.7	0.3	0.5	1.7	0.9	1.7	1.4	1.0	1.3	1.1	1.0	1.0	2.7
19-Oct	0.5	0.8	4.2	Z	2.9	2.9	6.4	5.8	2.7	2.7	1.0	0.9	1.0	1.1	0.7	0.4	0.9	0.9	0.4	1.0	0.7	1.5	0.3	0.8	1.8	6.4
20-Oct	1.2	0.2	0.4	1.2	Z	1.2	1.9	2.1	3.2	3.9	3.8	4.7	3.4	2.2	2.6	3.0	0.9	0.8	1.2	0.8	1.5	1.4	1.6	1.9	2.0	4.7
21-Oct	2.4	2.3	2.3	1.2	1.1	Z	1.3	2.6	6.5	3.7	0.8	0.8	0.8	0.5	0.6	0.7	0.9	1.5	1.2	1.7	1.2	0.9	1.2	1.1	1.6	6.5
22-Oct	Z	1.3	0.9	0.9	2.8	5.0	0.9	1.1	5.2	1.4	1.7	1.9	0.7	0.5	0.5	0.4	0.4	0.6	1.5	1.1	0.6	0.9	1.0	1.1	1.4	5.2
23-Oct	1.1	Z	1.1	0.9	1.5	0.8	1.0	1.5	2.3	1.9	1.9	2.4	2.6	3.4	2.2	1.7	2.6	2.3	2.9	2.1	3.3	3.1	4.1	2.0	2.1	4.1
24-Oct	5.3	3.4	Z	6.0	4.4	2.4	2.2	2.3	2.8	3.0	3.9	5.3	5.2	3.3	2.1	2.7	2.9	3.0	3.3	4.9	4.5	4.9	3.5	2.6	3.7	6.0
25-Oct	2.1	1.4	1.1	Z	2.2	2.2	3.8	3.8	8.7	2.8	2.6	1.0	1.0	1.6	1.9	0.9	1.6	1.9	0.7	0.6	0.6	0.7	0.8	0.6	1.9	8.7
26-Oct	0.7	1.1	0.7	0.6	Z	1.4	5.3	3.2	2.3	1.2	1.0	1.8	1.0	1.5	1.1	1.4	0.8	0.6	0.6	0.5	0.1	0.9	0.2	0.7	1.2	5.3
27-Oct	0.5	0.1	0.4	0.7	1.2	Z	0.7	0.2	0.7	0.2	0.4	0.2	0.2	0.8	0.2	0.6	0.3	0.2	0.2	0.2	0.1	0.2	0.3	0.3	0.4	1.2
28-Oct	Z	0.3	0.2	0.2	0.3	0.6	0.5	0.3	0.5	0.5	0.3	0.2	0.2	1.1	0.2	0.7	1.0	1.6	1.6	0.4	0.3	0.4	0.3	0.7	0.5	1.6
29-Oct	1.9	Z	2.2	1.7	0.9	1.0	1.4	1.4	1.2	1.1	3.5	2.2	1.8	0.7	0.6	0.8	0.6	0.5	0.7	0.7	0.8	0.8	1.5	3.5	1.4	3.5
30-Oct	7.9	7.9	Z	5.2	4.1	3.7	3.2	3.4	2.5	1.8	1.2	1.2	0.7	1.1	0.6	0.8	0.9	0.6	0.6	0.7	0.6	0.5	0.6	0.5	2.2	7.9
31-Oct	0.5	0.5	0.6	Z	1.0	1.7	1.7	1.4	2.5	3.6	4.8	3.3	4.2	4.9	3.7	3.5	2.4	1.9	1.5	1.3	2.5	1.9	1.6	1.7	2.3	4.9
	1.9	1.7	1.8	1.8	2.0	2.5	2.5	2.5	2.9	3.5	2.2	1.7	1.5	1.6	1.3	1.2	1.4	1.1	1.3	1.2	1.2	1.3	1.4	1.3	Diurnal Average	
	7.9	7.9	7.3	6.0	6.6	10.3	7.2	5.8	8.7	38.5	6.7	5.3	5.2	8.7	4.8	5.0	6.7	3.2	6.0	7.0	4.5	5.3	4.1	3.5	Diurnal Maximum	

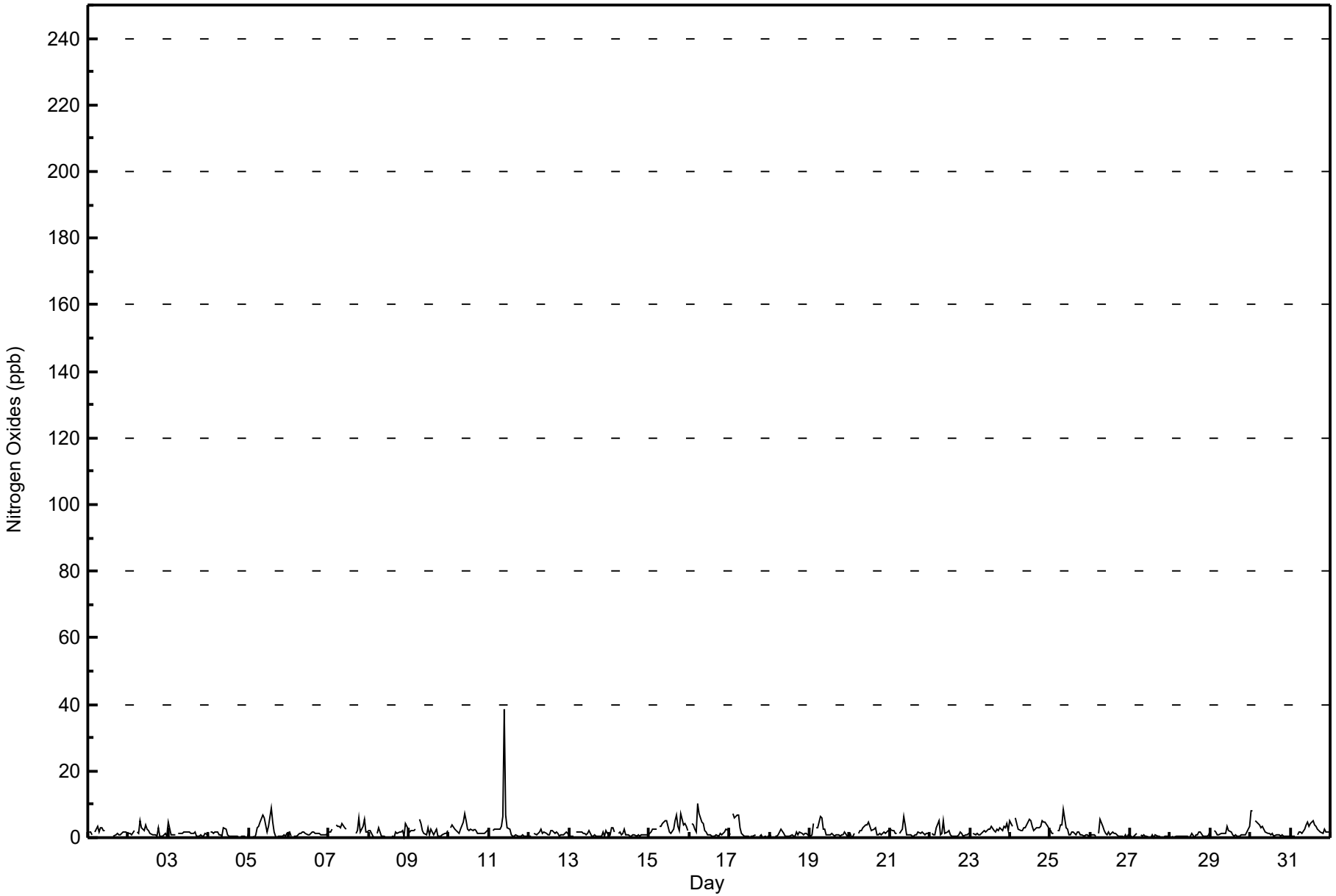
Z - zerospan C - Calibration M - Maintenance

Wood Buffalo Environmental Association

Hourly Averages

Nitrogen Oxides (NO_X) - ppb

Blackgold - October 2025



Nitrogen Oxides (NO_X) - ppb
Blackgold - October 2025

Concentration Ranges (ppb)	Number of Hours	%	Cumulative %
0 - 20	701	99.86	99.86
21 - 40	1	0.14	100.00
11 - 80	0	0.00	100.00
81 - 159	0	0.00	100.00
> 159	0	0.00	100.00

Total Number of Valid Hours: 702

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Nitrogen Oxides (NO_X) - ppb

Blackgold - October 2025

Concentration Ranges (ppb)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 20	9	11	14	9	13	6	12	47	103	104	51	42	53	108	54	42	678
21 - 40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
11 - 80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
81 - 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	9	11	14	9	13	6	12	47	103	104	51	42	53	108	55	42	679

Total Number of Valid Hours: 679

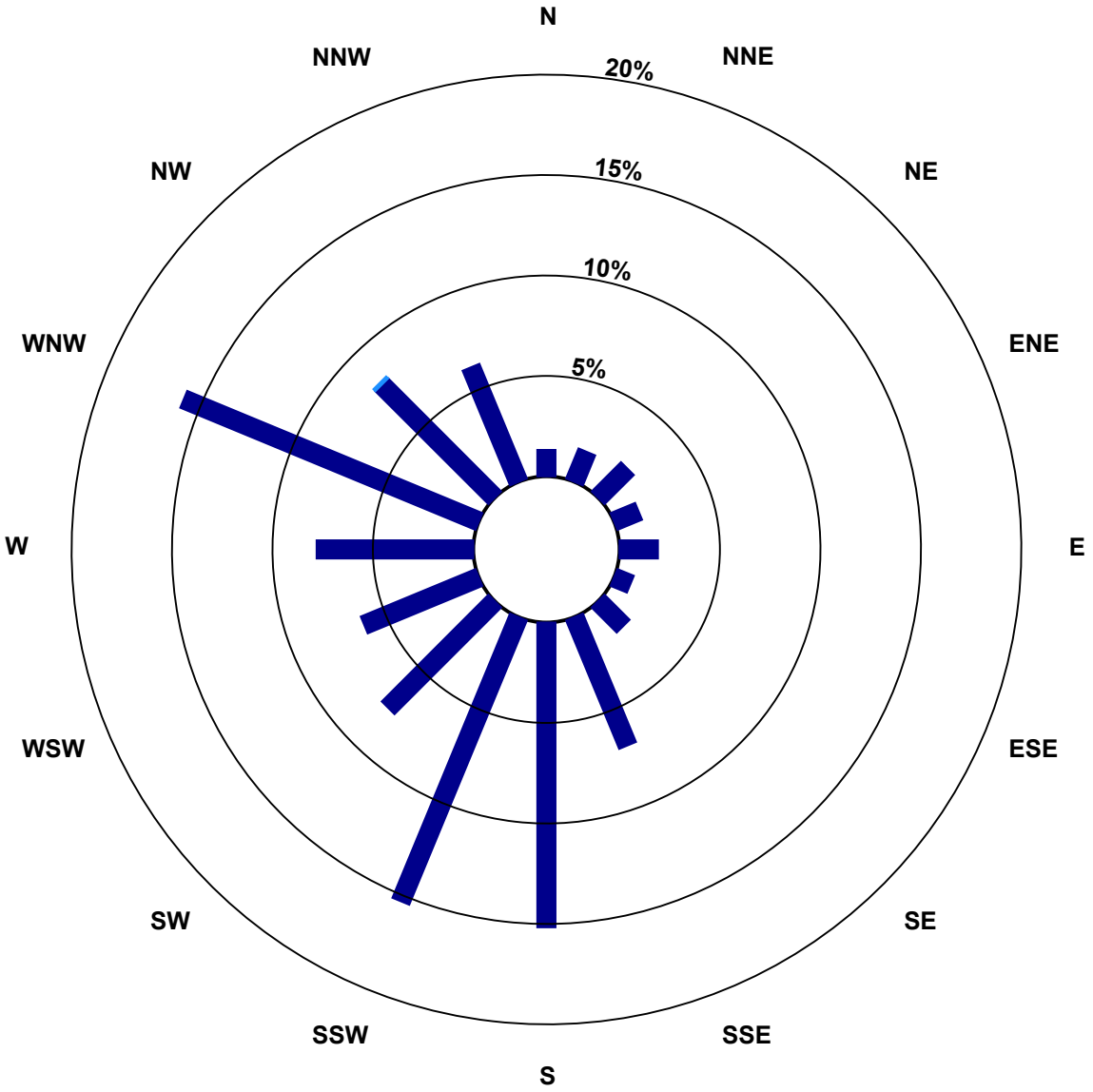
Total Number of Hours: 744

Wood Buffalo Environmental Association

Wind Rose Oct 2025

Nitrogen Oxides (NO_X) - ppb

Blackgold



Classes (ppb)

0 - 20

21 - 40

11 - 80

81 - 159

> 159

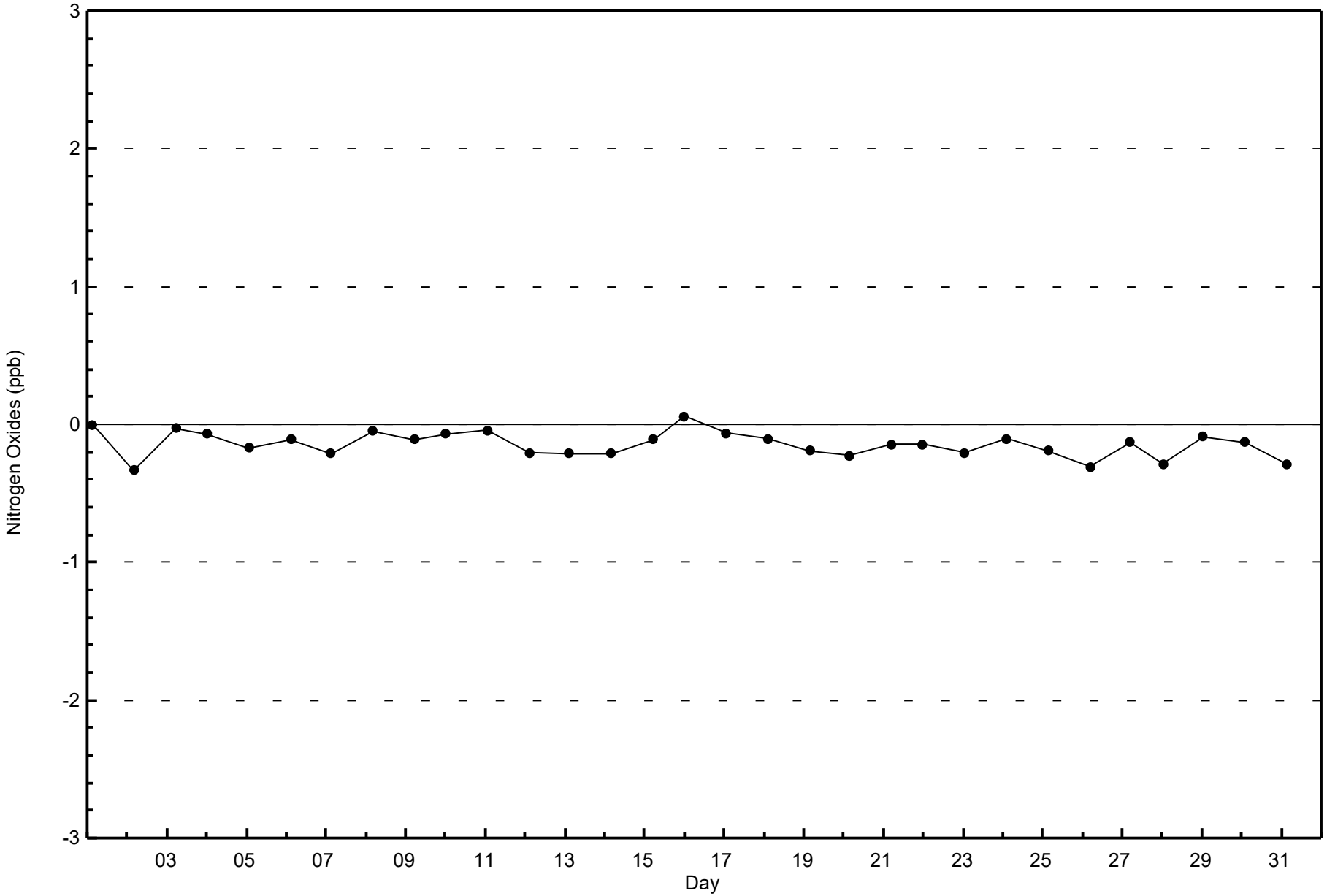
Total Number of Valid Hours: 679

Wood Buffalo Environmental Association

Zero Responses

Nitrogen Oxides (NO_X) - ppb

Blackgold - October 2025

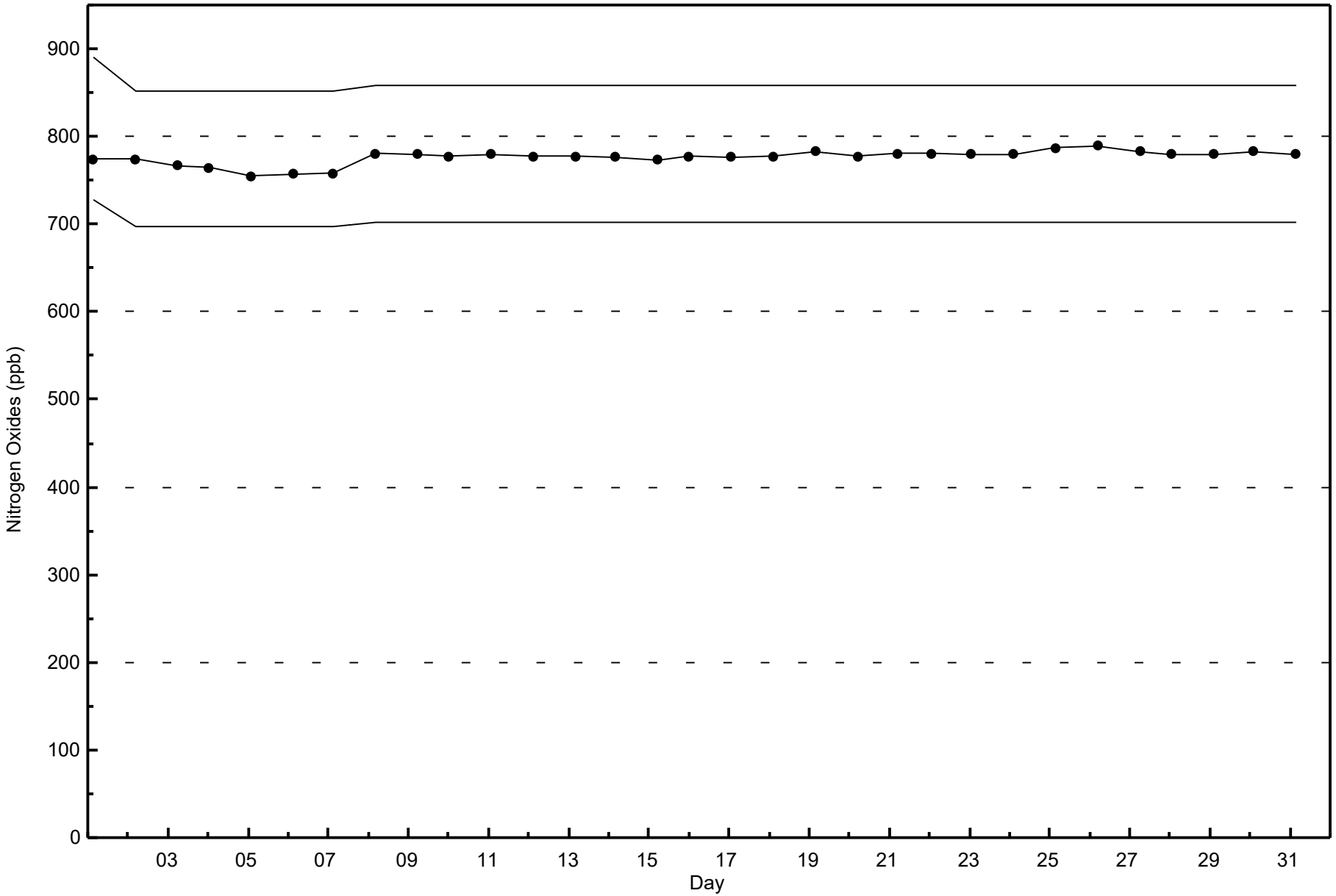


Wood Buffalo Environmental Association

Span Responses

Nitrogen Oxides (NO_X) - ppb

Blackgold - October 2025



Maximum Value: 19.2 C on Oct 10 15:00

Maximum Daily Average: 11.2 C on Oct 7

Minimum Value: -4.1 C on Oct 26 05:00

Minimum Daily Average: -1.2 C on Oct 28

Maximum Diurnal Average: 7.9 C at hour 15

Minimum Diurnal Average: 1.9 C at hour 7

Monthly Average: 4.44 C

Percentiles: P_1 = -2.9 P_{10} = -1.2 Q_1 = 0.2 Median = 3.8 Q_3 = 7.9 P_{90} = 11.2 P_{99} = 18.2

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

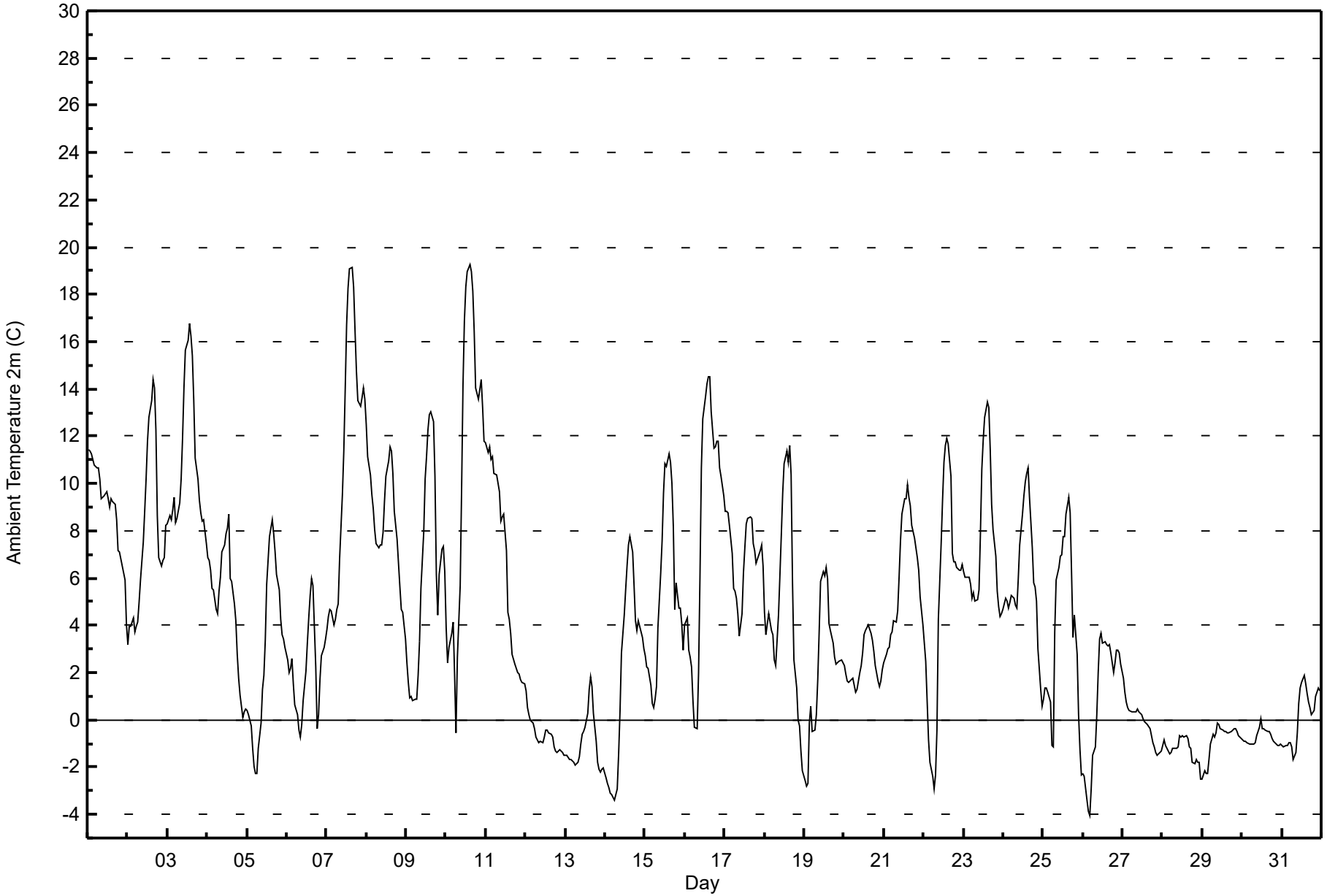
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	11.4	11.3	11.2	11.0	10.8	10.7	10.7	10.2	9.4	9.4	9.5	9.7	9.4	9.0	9.3	9.2	9.1	8.5	7.2	7.1	6.8	6.5	5.9	4.0	9.1	11.4
2-Oct	3.2	3.9	4.0	4.3	3.7	4.0	4.1	5.0	5.9	7.5	8.8	10.2	11.8	12.8	13.5	14.4	14.0	12.2	8.7	6.9	6.5	6.7	6.9	8.2	7.8	14.4
3-Oct	8.3	8.7	8.5	8.9	9.4	8.4	8.5	9.2	10.2	11.9	14.1	15.6	16.1	16.8	16.2	15.4	13.5	11.1	10.2	9.3	8.8	8.4	8.5	7.5	11.0	16.8
4-Oct	6.9	6.8	6.4	5.6	5.5	4.7	4.5	5.4	6.0	7.1	7.4	7.8	8.1	8.7	6.0	5.9	4.9	4.2	2.8	1.8	1.1	0.1	0.3	0.5	4.9	8.7
5-Oct	0.4	0.2	-0.3	-1.2	-2.0	-2.3	-2.3	-1.2	-0.1	1.3	1.9	3.4	5.7	7.8	8.1	8.5	7.9	7.1	6.1	5.5	4.2	3.6	3.4	3.1	2.9	8.5
6-Oct	2.5	2.0	2.2	2.6	1.5	0.7	0.2	-0.4	-0.7	-0.2	0.8	2.0	3.2	4.3	5.3	6.0	5.7	2.2	-0.3	0.2	1.7	2.7	3.1	3.4	2.1	6.0
7-Oct	3.8	4.4	4.7	4.6	4.0	4.3	4.7	4.9	6.8	9.5	11.4	14.0	16.7	18.3	19.1	19.2	18.3	16.5	14.8	13.5	13.3	13.6	14.0	13.6	11.2	19.2
8-Oct	12.5	11.1	10.3	9.5	8.9	8.1	7.4	7.3	7.4	7.4	7.9	9.2	10.3	11.0	11.5	11.4	10.4	8.8	7.6	6.6	5.6	4.6	4.5	3.4	8.5	12.5
9-Oct	2.4	1.6	0.9	1.0	0.8	0.9	0.8	1.9	3.3	5.5	7.9	10.2	11.2	12.2	12.9	13.1	12.6	10.3	6.2	4.4	6.2	7.2	7.3	6.3	6.1	13.1
10-Oct	3.9	2.4	3.1	3.7	4.1	1.9	-0.5	2.6	5.7	9.7	14.1	16.9	18.3	18.9	19.2	19.0	18.1	16.4	14.0	13.6	14.0	14.4	13.2	11.8	10.8	19.2
11-Oct	11.8	11.3	11.5	11.0	11.1	10.4	10.4	10.0	9.7	8.4	8.6	8.7	7.1	4.5	4.2	3.6	2.8	2.3	2.2	2.0	1.9	1.7	1.6	1.5	6.6	11.8
12-Oct	1.2	0.5	0.2	0.0	-0.2	-0.4	-0.7	-0.9	-1.0	-0.9	-1.0	-0.7	-0.4	-0.4	-0.6	-0.6	-0.7	-1.1	-1.3	-1.4	-1.2	-1.3	-1.4	-1.5	-0.7	1.2
13-Oct	-1.5	-1.5	-1.7	-1.7	-1.7	-1.8	-1.9	-1.8	-1.5	-1.1	-0.6	-0.5	-0.3	0.3	1.3	1.8	1.4	0.3	-0.9	-1.8	-2.1	-2.2	-2.1	-2.0	-1.0	1.8
14-Oct	-2.5	-2.7	-2.9	-3.1	-3.2	-3.4	-3.1	-2.9	-1.4	0.4	2.8	4.4	5.5	6.5	7.4	7.8	7.1	5.7	4.2	3.8	4.2	3.9	3.5	3.0	1.9	7.8
15-Oct	2.7	2.3	2.2	1.4	0.7	0.5	0.9	1.4	3.9	6.2	7.6	9.6	10.8	10.7	11.2	10.9	10.0	8.2	4.7	5.8	4.7	4.7	4.1	2.9	5.3	11.2
16-Oct	4.0	4.3	3.0	2.7	2.3	0.8	-0.3	-0.4	2.0	6.0	10.6	12.8	13.7	14.2	14.5	14.5	13.0	11.5	11.6	11.8	11.8	10.7	10.3	9.4	8.1	14.5
17-Oct	8.8	8.8	8.8	8.2	7.0	5.6	5.4	5.1	4.5	3.6	4.5	6.2	7.3	8.3	8.5	8.6	8.5	7.5	7.2	6.6	6.8	7.2	7.4	6.5	7.0	8.8
18-Oct	4.6	3.6	4.5	4.1	3.8	3.6	2.5	2.3	4.5	6.1	7.8	9.6	10.8	11.4	10.9	11.6	10.4	5.8	2.5	1.3	0.0	-0.3	-1.3	-2.2	4.9	11.6
19-Oct	-2.6	-2.8	-2.7	-0.2	0.6	-0.5	-0.4	0.2	1.7	3.7	5.9	6.3	6.1	6.4	6.0	4.1	3.8	3.2	2.7	2.4	2.4	2.5	2.6	2.4	2.2	6.4
20-Oct	2.3	2.0	1.6	1.6	1.7	1.7	1.5	1.2	1.3	2.0	2.3	2.9	3.6	3.8	4.0	3.9	3.7	3.4	2.9	2.3	1.6	1.4	1.7	2.1	2.3	4.0
21-Oct	2.4	2.7	3.0	3.0	3.6	3.7	4.2	4.1	4.6	6.0	7.6	8.7	9.4	9.4	10.0	9.4	9.0	8.2	7.7	7.3	6.9	6.3	5.2	4.0	6.1	10.0
22-Oct	3.2	2.5	0.8	-0.9	-1.8	-2.4	-2.9	-2.3	-0.5	4.3	7.4	9.3	10.9	11.6	11.9	11.7	10.3	7.1	6.7	6.7	6.4	6.3	6.3	6.6	5.0	11.9
23-Oct	6.3	6.0	6.0	6.1	5.8	5.1	5.4	5.0	5.1	5.5	7.9	10.6	11.9	12.8	13.5	13.2	11.4	9.1	8.1	6.9	5.5	4.8	4.3	4.5	7.5	13.5
24-Oct	4.7	5.1	5.0	4.7	5.0	5.3	5.1	4.8	4.7	6.0	7.4	8.7	9.5	10.1	10.4	10.7	9.4	7.3	5.8	5.6	5.0	3.0	1.3	0.6	6.1	10.7
25-Oct	0.8	1.4	1.3	1.2	0.8	-1.1	-1.1	3.7	5.9	6.5	6.9	7.0	7.7	7.8	8.7	9.4	8.8	6.2	3.5	4.4	2.8	0.2	-1.3	-2.3	3.7	9.4
26-Oct	-2.3	-2.4	-3.4	-3.9	-4.1	-2.9	-1.5	-1.1	0.2	2.0	3.4	3.7	3.3	3.3	3.2	3.1	3.2	2.8	2.0	2.4	3.0	3.0	2.8	2.4	0.9	3.7
27-Oct	1.8	1.2	0.8	0.5	0.4	0.3	0.4	0.3	0.3	0.4	0.3	0.2	0.1	-0.1	-0.1	-0.2	-0.4	-0.6	-0.9	-1.1	-1.4	-1.5	-1.4	-1.3	-0.1	1.8
28-Oct	-1.1	-0.8	-1.1	-1.3	-1.5	-1.4	-1.2	-1.2	-1.2	-1.1	-0.7	-0.7	-0.7	-0.7	-0.7	-0.8	-1.1	-1.2	-1.8	-1.8	-1.7	-1.8	-1.8	-2.5	-1.2	-0.7
29-Oct	-2.5	-2.2	-2.3	-2.3	-1.7	-1.0	-0.6	-0.7	-0.5	-0.1	-0.2	-0.4	-0.5	-0.5	-0.5	-0.6	-0.6	-0.5	-0.4	-0.4	-0.4	-0.5	-0.7	-0.8	-0.9	-0.1
30-Oct	-0.9	-0.9	-0.9	-0.9	-1.0	-1.0	-1.0	-1.0	-0.9	-0.7	-0.3	0.0	-0.4	-0.4	-0.4	-0.5	-0.5	-0.6	-0.8	-0.9	-1.0	-1.1	-1.1	-1.0	-0.8	0.0
31-Oct	-1.1	-1.2	-1.1	-1.1	-1.0	-1.0	-1.2	-1.7	-1.4	-0.6	0.7	1.3	1.6	1.9	1.5	1.1	0.8	0.5	0.2	0.4	1.0	1.2	1.3	1.2	0.1	1.9
	3.1	2.9	2.7	2.6	2.4	2.0	1.9	2.2	3.0	4.3	5.6	6.7	7.3	7.8	7.9	7.9	7.3	5.9	4.6	4.2	4.0	3.7	3.5	3.1	Diurnal Average	
	12.5	11.3	11.5	11.0	11.1	10.7	10.7	10.2	10.2	11.9	14.1	16.9	18.3	18.9	19.2	19.2	18.3	16.5	14.8	13.6	14.0	14.4	14.0	13.6	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Ambient Temperature 2m (AT2) - C

Blackgold - October 2025



Concentration Ranges (C)	Number of Hours	%	Cumulative %
-50 - -20	0	0.00	0.00
-20 - 0	183	24.60	24.60
0 - 10	447	60.08	84.68
10 - 20	114	15.32	100.00
> 20	0	0.00	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Maximum Value: 99.4 % on Oct 27 18:00

Maximum Daily Average: 97.8 % on Oct 27

Minimum Value: 28.3 % on Oct 10 14:00

Minimum Daily Average: 54.0 % on Oct 7

Maximum Diurnal Average: 83.4 % at hour 7

Minimum Diurnal Average: 60.8 % at hour 15

Monthly Average: 74.20 %

Percentiles: P_1 = 33.7 P_{10} = 46.9 Q_1 = 59.8 Median = 77.4 Q_3 = 91.2 P_{90} = 97.1 P_{99} = 98.9

Hours in Service:	744
Hours of Data:	744
Hours of Missing Data:	0
Hours of Calibration:	0
Percent Operational Time:	100.0

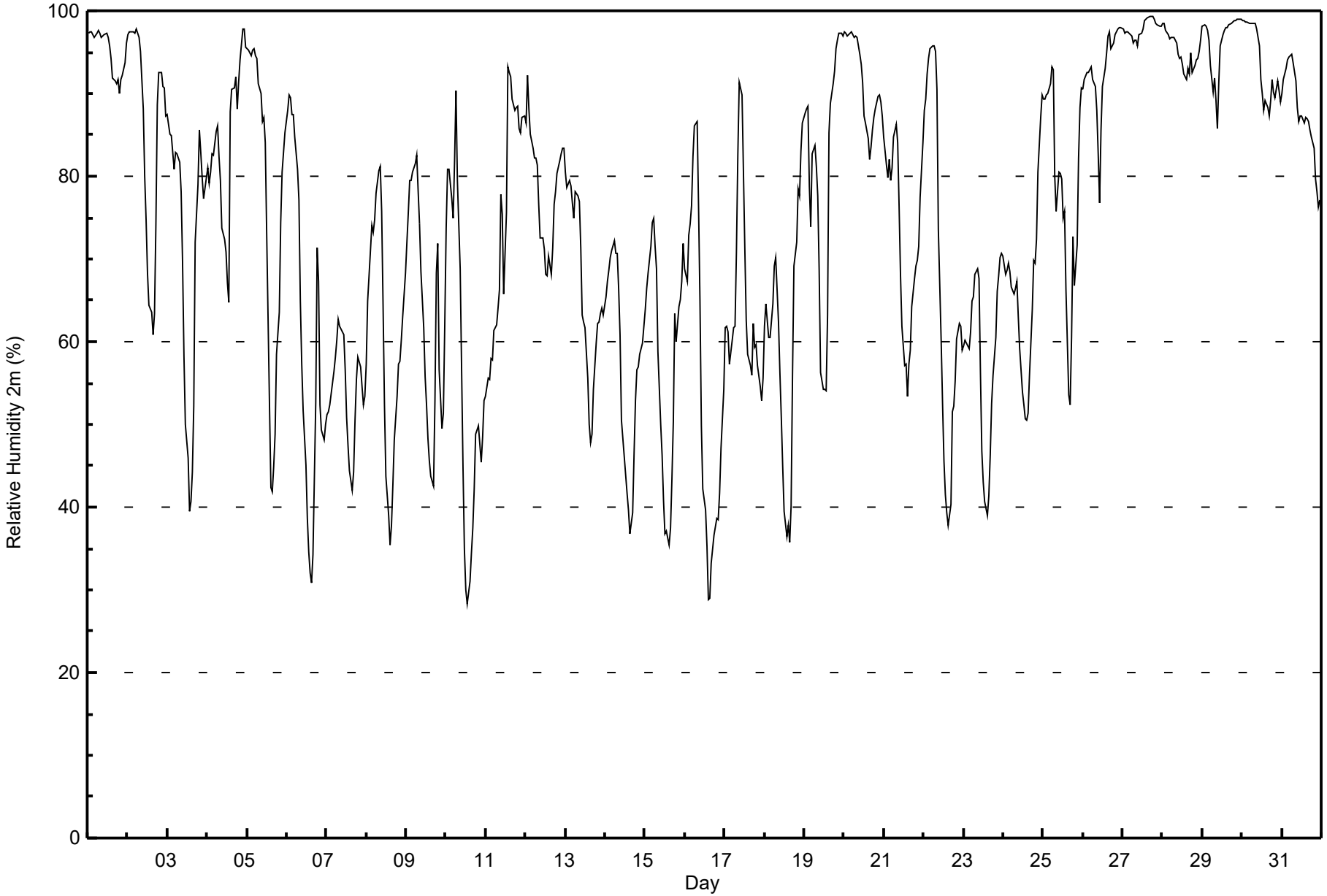
Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	97.3	97.5	97.5	97.1	96.8	97.3	97.6	97.4	96.7	97.0	97.1	97.2	96.8	95.8	94.2	91.9	91.6	91.2	91.6	89.9	91.6	92.2	93.7	96.1	95.1	97.6
2-Oct	97.1	97.4	97.4	97.5	97.4	97.8	97.3	96.8	95.1	88.1	80.0	74.8	68.4	64.5	63.5	60.9	63.3	74.3	88.7	92.6	92.6	90.8	90.7	87.3	85.6	97.8
3-Oct	87.4	85.1	84.9	82.8	80.8	83.0	82.7	81.6	78.2	69.7	58.3	50.0	45.9	39.5	40.6	44.3	52.2	72.0	79.1	85.7	82.9	79.8	77.3	79.8	71.0	87.4
4-Oct	80.9	79.1	80.6	82.6	82.6	85.4	86.1	82.3	79.4	73.8	72.5	70.9	67.2	64.8	87.8	90.5	90.7	92.1	88.2	91.3	94.0	97.8	97.7	95.6	83.9	97.8
5-Oct	95.5	95.3	94.6	95.3	95.4	94.6	94.3	91.2	90.1	86.6	87.1	84.1	73.0	52.3	42.3	41.9	44.8	48.8	58.4	63.6	74.5	80.5	82.9	85.2	77.2	95.5
6-Oct	87.9	89.8	89.6	87.4	87.5	84.7	80.9	77.0	64.9	57.2	51.7	45.1	38.6	34.6	32.0	30.9	34.2	52.7	71.3	67.3	52.4	49.4	48.2	49.9	61.0	89.8
7-Oct	51.2	51.5	52.3	53.7	56.4	58.2	60.2	62.8	61.9	61.3	60.8	56.6	50.9	47.4	44.4	42.0	44.3	50.5	55.5	58.1	56.9	54.6	52.3	53.4	54.0	62.8
8-Oct	57.3	64.9	71.0	74.0	73.1	74.7	77.9	80.7	81.3	75.7	64.4	52.4	43.8	39.0	35.4	37.8	42.6	48.1	53.5	57.2	57.7	60.2	63.0	68.4	60.6	81.3
9-Oct	72.0	75.6	79.5	79.4	80.6	81.5	82.5	78.3	74.3	68.4	61.7	55.8	52.4	48.3	45.6	43.7	42.5	52.8	68.3	71.8	56.6	49.5	51.3	62.1	64.0	82.5
10-Oct	73.8	80.9	80.9	77.3	74.8	81.8	90.3	79.6	68.7	56.8	44.9	34.9	30.1	28.3	31.1	34.3	37.5	42.3	48.7	49.9	47.6	45.5	48.5	52.8	55.9	90.3
11-Oct	53.4	55.5	55.4	57.9	57.8	61.4	62.1	64.1	66.3	77.8	75.5	65.7	75.6	93.2	92.6	92.0	89.3	88.1	88.2	88.4	85.7	85.3	87.1	87.4	75.2	93.2
12-Oct	86.4	92.2	88.1	85.1	83.4	82.2	82.2	81.3	76.6	72.6	72.6	71.2	68.1	68.0	70.4	68.2	71.4	76.6	78.1	80.4	81.9	82.7	83.4	83.5	78.6	92.2
13-Oct	80.5	78.7	79.6	78.9	76.9	74.9	78.2	77.7	76.9	71.3	63.2	62.4	61.7	55.6	50.0	47.8	48.9	54.3	59.9	62.2	62.3	63.4	64.0	63.2	66.4	80.5
14-Oct	65.4	67.2	68.7	70.1	71.0	72.2	70.7	70.6	66.5	60.9	50.5	46.2	43.8	41.6	39.7	36.7	39.3	46.4	52.9	56.6	56.9	58.5	59.8	61.9	57.2	72.2
15-Oct	63.9	66.5	68.3	71.5	74.3	74.9	71.6	68.8	58.9	50.0	46.3	40.8	36.7	37.2	35.4	37.4	43.3	50.3	63.4	60.0	64.3	65.1	67.3	71.9	57.8	74.9
16-Oct	68.9	67.3	72.9	74.3	76.4	82.3	86.1	86.6	76.3	64.9	49.9	42.2	39.7	35.3	28.8	29.0	33.3	36.6	37.5	38.7	38.4	41.7	47.0	54.2	54.5	86.6
17-Oct	61.7	61.9	61.1	57.4	60.2	61.7	61.9	70.8	82.5	91.3	89.8	80.5	71.2	62.5	58.4	57.1	56.0	62.3	59.4	59.7	57.1	54.5	52.9	55.6	64.5	91.3
18-Oct	61.9	64.6	60.5	60.6	62.5	64.5	69.1	70.2	62.5	56.2	50.9	45.0	39.5	36.5	37.8	35.8	40.2	55.9	69.2	72.0	78.4	77.7	83.1	86.4	60.0	86.4
19-Oct	87.6	88.2	88.5	78.8	73.9	82.8	83.8	81.2	77.7	68.6	56.2	54.2	54.2	54.1	63.1	85.3	88.8	91.3	92.8	95.5	96.4	97.3	97.2	97.0	80.6	97.3
20-Oct	97.4	97.2	96.9	97.2	97.5	97.2	96.8	96.9	96.7	94.7	93.6	91.3	87.3	86.4	84.6	82.1	83.6	85.6	87.1	88.1	89.7	89.8	88.9	87.3	91.4	97.5
21-Oct	84.7	81.4	79.8	82.1	79.4	81.1	84.7	86.2	84.0	76.5	68.2	61.9	57.1	57.2	53.4	57.2	59.0	64.2	67.7	69.1	69.9	71.5	77.4	84.1	72.4	86.2
22-Oct	88.0	89.4	92.4	94.2	95.4	95.8	95.8	95.0	90.5	73.5	60.1	52.5	45.6	41.6	39.4	37.9	40.4	51.6	52.2	55.2	60.3	62.2	61.8	59.0	67.9	95.8
23-Oct	59.6	60.1	59.8	59.2	61.2	64.8	65.4	68.1	68.8	67.6	56.4	46.9	43.0	40.7	39.0	41.4	46.2	52.6	56.0	60.4	66.0	68.0	70.1	70.6	58.0	70.6
24-Oct	70.4	68.1	68.6	69.4	68.4	66.5	65.8	66.4	67.4	63.0	59.1	53.9	52.3	50.7	50.6	51.3	55.9	63.9	69.8	69.5	72.4	80.4	87.0	89.8	65.9	89.8
25-Oct	89.4	89.3	89.8	90.0	91.1	93.3	92.9	80.0	75.8	80.6	80.3	79.7	74.9	75.8	66.3	53.5	52.4	60.5	72.7	66.8	71.8	82.1	88.3	90.6	78.7	93.3
26-Oct	90.4	91.7	92.5	92.6	92.8	93.2	91.6	90.8	87.9	82.7	76.8	85.6	90.8	93.0	94.9	96.9	97.4	95.5	96.1	97.1	97.4	97.8	97.9	97.9	92.6	97.9
27-Oct	97.8	97.3	97.5	97.4	97.2	96.9	96.2	96.4	96.4	95.8	97.2	97.3	97.8	98.7	98.9	99.1	99.4	99.4	99.3	99.0	98.5	98.3	98.2	98.1	97.8	99.4
28-Oct	98.5	98.6	97.6	97.1	96.6	96.8	96.8	96.8	96.2	94.8	94.2	94.4	93.6	92.5	91.7	93.1	92.4	94.9	92.5	93.4	94.1	94.2	95.1	96.5	95.1	98.6
29-Oct	98.1	98.3	98.1	97.6	96.4	93.3	90.1	91.9	89.2	85.8	91.4	95.8	97.2	97.6	97.9	98.1	98.3	98.5	98.6	98.8	98.9	98.9	98.9	98.9	96.1	98.9
30-Oct	98.8	98.7	98.7	98.6	98.5	98.5	98.5	98.5	98.5	97.9	95.8	91.7	90.0	88.0	89.2	88.3	87.2	89.2	91.7	90.2	89.5	91.6	90.3	89.1	93.6	98.8
31-Oct	90.0	91.7	93.0	94.0	94.4	94.5	94.8	93.7	91.5	88.4	86.6	87.3	87.4	86.4	87.2	86.9	86.7	85.7	84.7	83.5	79.7	78.2	76.4	77.1	87.5	94.8
	80.4	81.3	81.8	81.7	81.6	82.8	83.4	82.6	79.9	75.8	70.7	66.7	63.7	61.5	60.8	61.1	63.0	68.6	73.3	74.6	74.7	75.5	76.7	78.4	Diurnal Average	
	98.8	98.7	98.7	98.6	98.5	98.5	98.5	98.5	98.5	97.9	97.2	97.3	97.8	98.7	98.9	99.1	99.4	99.4	99.3	99.0	98.9	98.9	98.9	98.9	Diurnal Maximum	

Wood Buffalo Environmental Association

Hourly Averages

Relative Humidity 2m (RH2) - %

Blackgold - October 2025



Concentration Ranges (%)	Number of Hours	%	Cumulative %
0 - 20	0	0.00	0.00
20 - 40	38	5.11	5.11
40 - 60	151	20.30	25.40
60 - 80	213	28.63	54.03
80 - 100	342	45.97	100.00

Total Number of Valid Hours: 744

Total Number of Hours: 744

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Speed 10m (WS10) - km/h

Blackgold - October 2025

Maximum Speed: 20 km/h on Oct 14 11:00

Maximum Daily Speed Average: 13.2 km/h on Oct 31

Minimum Speed Value: 1 km/h on Oct 22 02:00

Minimum Daily Speed Average: 1.3 km/h on Oct 6

Maximum Diurnal Speed Average: 5.9 km/h at hour 14

Minimum Diurnal Speed Average: 2.6 km/h at hour 18

Monthly Average Velocity: 3.9 km/h 239.3 deg

Percentiles: P_1 = 1 P_{10} = 3 Q_1 = 5 Median = 8 Q_3 = 12 P_{90} = 14 P_{99} = 17

Hours in Service: 744

Hours of Data: 720

Hours of Missing Data: 24

Percent Operational Time: 96.8

Day	Hourly Period Ending At (MST)																								Daily	Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average	Maximum
1-Oct	NW7	N6	N5	NNE6	NNW5	NNW5	NNW5	WNW8	NW9	NW9	NW8	NW7	NNW10	NNW8	NNW7	NNW7	NW6	NNW9	NNW6	NW5	WNW4	WNW6	WNW4	W2	NNW6.0	NNW10
2-Oct	WSW2	W3	W1	W3	W2	SW3	SSW2	SW2	SSE3	SSE7	SSE7	SE5	ESE3	S6	SSW4	SSW7	SW6	SSW3	SSW3	WSW2	SSW5	SSW5	SSW7	SSW7	SSW3.4	SSE7
3-Oct	SSW7	SSW8	SSW9	SSW9	SSW7	SSW8	SSW10	SSW12	SW12	SW11	SW10	SW12	WSW12	WSW13	WSW11	W10	WNW12	SSW5	SW5	WSW6	SW7	WSW7	WSW6	SW5	SW7.8	WSW13
4-Oct	WSW5	WSW7	W6	WSW5	WSW6	WSW6	W7	WNW12	WNW11	NW12	WNW10	NW9	NW9	NW9	NW9	NW10	NW11	WNW10	WNW13	WNW14	NW14	NW11	WNW10	NW10	WNW8.8	NW14
5-Oct	WNW8	WNW9	WNW9	WNW6	UO	UO	UO	UO	UO	SSW7	SSW8	SW10	SW11	WSW13	WSW11	WNW11	WNW12	WNW11	NW11	NNW8	NW8	W4	WNW5	W5	W7.2	WSW13
6-Oct	W5	WNW6	WNW7	NW9	N8	NNW6	NW7	N8	NNE9	N7	NNE5	SE2	ESE3	S5	SSW4	SSW6	SSW6	SSW2	SSW1	S3	S6	S8	S10	S9	W1.3	S10
7-Oct	S8	S12	S12	S14	S12	S10	SSW9	S9	S12	SSW12	S11	SSW11	SW12	SSW13	SSW15	SSW15	S13	SSE9	SSE9	SSE9	SSE10	S13	S14	S8	S11.0	SSW15
8-Oct	W5	WNW9	NW15	NW16	NW15	WNW8	WNW11	WNW11	WNW12	WNW14	WNW14	WNW14	WNW14	WNW14	WNW14	WNW13	WNW11	WNW6	WSW4	SW5	SW6	SW7	SW6	WSW5	WNW9.7	WNW16
9-Oct	W6	WSW5	SW4	W6	WSW7	W6	W9	W9	W10	W11	W11	WSW10	SW13	SW12	SW12	SW10	SW9	SSW6	SSW4	SSW5	SSW6	SSW8	SSW8	SSW7	WSW7.2	SW13
10-Oct	SSW6	SSW3	SW4	SW5	SSW7	S4	S5	S8	S9	S9	S11	SSW12	S14	S14	S15	S16	S12	S8	SSE6	SSE9	S12	S15	S11	S8	S9.0	S16
11-Oct	S8	SSE8	SSE8	S9	S11	SSW3	S4	WNW3	WNW2	NW11	NW15	NW14	WNW15	NW13	NW16	NW15	NW17	NW14	NW14	NW13	NW12	NW12	NW12	NNW12	WNW7.3	NW17
12-Oct	NNW13	NNW11	NNW13	NNW16	NNW15	NNW13	NNW13	NNW13	NNW14	NNW15	NNW15	NNW13	NNW14	NNW15	NNW13	NNW13	NNW12	NNW10	NNW7	NNW8	NNW8	NNW7	NNW6	NNW7	NNW11.8	NNW16
13-Oct	NW8	NW8	NW7	WNW6	WNW6	WNW4	W5	WSW4	WSW4	W5	SW6	SW8	SW9	SSW12	SSW9	SSW10	SSW11	SSW6	SSW6	S7	S11	S14	S12	SSW15	SW5.7	SSW15
14-Oct	SSW12	SSW13	S14	S11	SSW10	S13	SSW12	S12	SSW15	SSW14	SSW20	SSW20	SW18	SW17	SSW14	SW13	SSW13	SSW10	SSW8	SSW9	SSW10	SSW10	SSW9	SSW9	SSW12.5	SSW20
15-Oct	SSW10	SSW9	SSW8	SSW9	S5	S6	S10	S10	SSW13	SSW14	SSW14	SSW14	SSW16	SSW14	SW12	SW11	WSW8	SSW5	SSW5	WSW6	W8	WSW5	SW5	SSW5	SSW8.6	SSW16
16-Oct	WSW5	WSW5	WSW5	SW6	WSW6	W5	WNW5	W4	ESE3	SSE4	SSW9	SSW13	SSW12	SSW15	SSW15	SSW14	S7	S7	S9	SSW10	S12	S9	WSW6	SSW6	SSW7.0	SSW15
17-Oct	SSW6	SW7	WSW9	WSW11	SW9	SW8	SW9	W12	WNW14	WNW15	WNW15	WNW16	WNW17	WNW17	WNW17	WNW14	WNW13	WNW12	WNW8	W8	WNW9	WNW10	WNW10	WNW9	W10.5	WNW17
18-Oct	W7	W8	WNW10	WNW10	WNW10	W10	W8	W8	WNW13	WNW13	WNW12	WNW12	WNW14	WNW13	WNW11	WNW8	W5	WSW2	WSW3	WSW3	WSW3	SW3	WSW3	SW1	WNW7.6	WNW14
19-Oct	WSW1	SSW2	SSW2	S5	E3	NNE2	NNE2	NE3	ENE2	E5	ESE6	E6	E7	E7	ESE12	E6	ENE5	NE6	E6	NE4	ENE4	ENE5	ENE7	NE6	E3.8	ESE12
20-Oct	NNE6	NNE7	N6	NNW5	NNW6	NNW7	NW8	WNW8	WNW9	NW6	NW7	NW6	WNW6	WNW8	W6	WSW7	SSW6	SSW7	S9	S8	S10	S11	S12	S12	W3.0	S12
21-Oct	S11	S13	SSW12	SSW12	SSW12	SSW11	SW11	SW10	SW10	W10	W14	WNW15	WNW15	WNW14	WNW15	W11	W8	WNW7	WNW6	W7	W7	WNW5	NNE3	NE1	WSW7.3	WNW15
22-Oct	NE1	WSW1	WNW1	W2	WSW1	W1	SW3	SW4	S2	SSW4	S6	SSW7	SSW10	S12	SSE13	SSE12	SSE9	SSE5	SE8	SE10	SE13	SE14	SE15	SE14	SSE6.0	SE15
23-Oct	SE11	SE11	SE14	SSE15	S10	S6	S9	S6	S5	S5	S8	SSE4	SSE4	SSE6	S5	S7	S8	S6	S8	SSE9	S11	S10	S11	S13	SSE8.0	SSE15
24-Oct	S11	S14	SSE12	SSE10	S14	S12	S10	S6	S6	S10	S8	S8	SSE5	SSE8	SSE8	SSE10	SSE7	SSE6	SSE6	SSE6	SSE4	E2	NNW2	NNW2	SSE7.2	S14
25-Oct	NW2	NW2	SW2	WNW2	W3	W1	SSW3	SW10	W11	W14	W16	W19	W17	W15	W14	W13	W9	SW4	SSW6	SSW6	SSW4	SW3	WSW3	SW2	W6.7	W19
26-Oct	SSW3	SW3	WNW1	WNW1	NW1	NE3	NNE5	E2	NNE6	NE7	NE8	ENE7	NE8	NE8	ENE9	NE5	NNE5	NE11	NNE8	N7	N6	NNW5	NW3	WNW7	NNE3.8	NE11
27-Oct	WNW10	WNW11	WNW9	WNW9	WNW10	WNW11	WNW13	WNW14	WNW13	WNW15	WNW15	WNW15	WNW14	WNW14	WNW14	UO	UO	UO	UO	UO	UO	UO	UO	UO	----	WNW15
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	WNW9	WNW10	WNW10	WNW11	WNW9	WNW8	W7	W4	WNW6	SW3	S2	SSE1	SSE2	SE7	----	WNW11
29-Oct	SE6	ESE5	E4	E5	E4	E5	ENE6	NE4	E5	ESE5	NE1	NW4	NNW3	N3	NNW4	NNW5	NW5	NNW6	NW6	NNW7	NW7	NW7	NW7	NW7	N2.3	NW7
30-Oct	NW7	NW6	NW5	NW5	NW5	NW6	WNW5	NW4	WNW5	WNW5	WNW7	W6	WNW6	WSW4	SW4	SSW6	SSW6	SSW5	SSW5	SSW6	SW4	S5	S6	SSW6	W3.6	NW7
31-Oct	S6	S7	S7	S8	S10	S11	S11	S10	SSE13	S15	S14	SSE15	SSE16	SSE14	SSE16	SSE16	SSE15	SSE18	SSE19	SSE19	SSE19	SSE16	S17	S12	SSE13.2	SSE19
	SW2.8	SW3.0	WSW3.2	WSW3.4	WSW3.5	WSW3.1	WSW3.7	WSW4.1	WSW4.2	WSW4.7	WSW5.1	WSW5.7	WSW5.8	WSW5.9	WSW5.6	WSW5.2	WSW4.5	SW2.6	SW2.6	SW3.1	SW3.8	SSW4.0	SSW3.8	SSW3.8	Diurnal Average	
	NNW13	S14	WNW15	WNW16	NNW15	S13	NNW13	WNW14	SSW15	NNW15	SSW20	SSW20	SW18	WNW17	WNW17	SSE16	NW17	SSE18	SSE19	SSE19	SSE19	SSE16	S17	SSW15	Diurnal Maximum	

UO - Unstable Operation

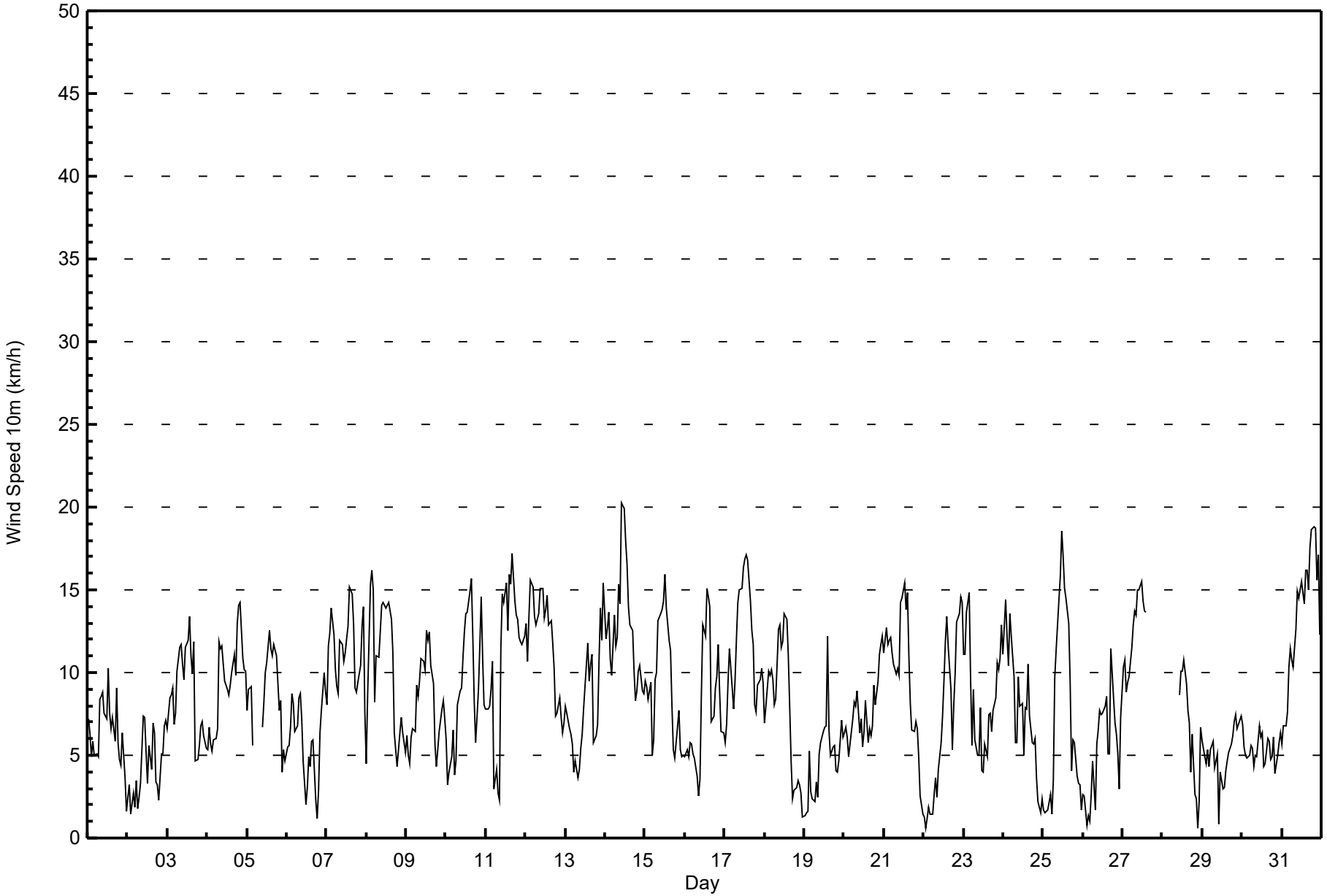
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Speed 10m (WS10) - km/h

Blackgold - October 2025



Wind Speed Ranges (km/h)	Number of Hours	%	Cumulative %
0 - 5	182	25.28	25.28
6 - 11	353	49.03	74.31
12 - 19	183	25.42	99.72
20 - 28	2	0.28	100.00
29 - 38	0	0.00	100.00
> 38	0	0.00	100.00

Total Number of Valid Hours: 720

Total Number of Hours: 744

Wood Buffalo Environmental Association

Frequency Distribution

Wind Speed 10m (WS10) - km/h

Blackgold - October 2025

Wind Speed Ranges (km/h)	Wind Direction																
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	**Totals**
0 - 5	2	7	7	5	8	5	2	10	12	25	20	24	19	15	11	10	182
6 - 11	7	6	7	4	5	1	6	23	62	56	23	17	27	56	33	20	353
12 - 19	0	0	0	0	0	1	5	16	33	30	9	3	9	45	15	17	183
20 - 28	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
29 - 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
> 38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	9	13	14	9	13	7	13	49	107	113	52	44	55	116	59	47	720

Total Number of Valid Hours: 720

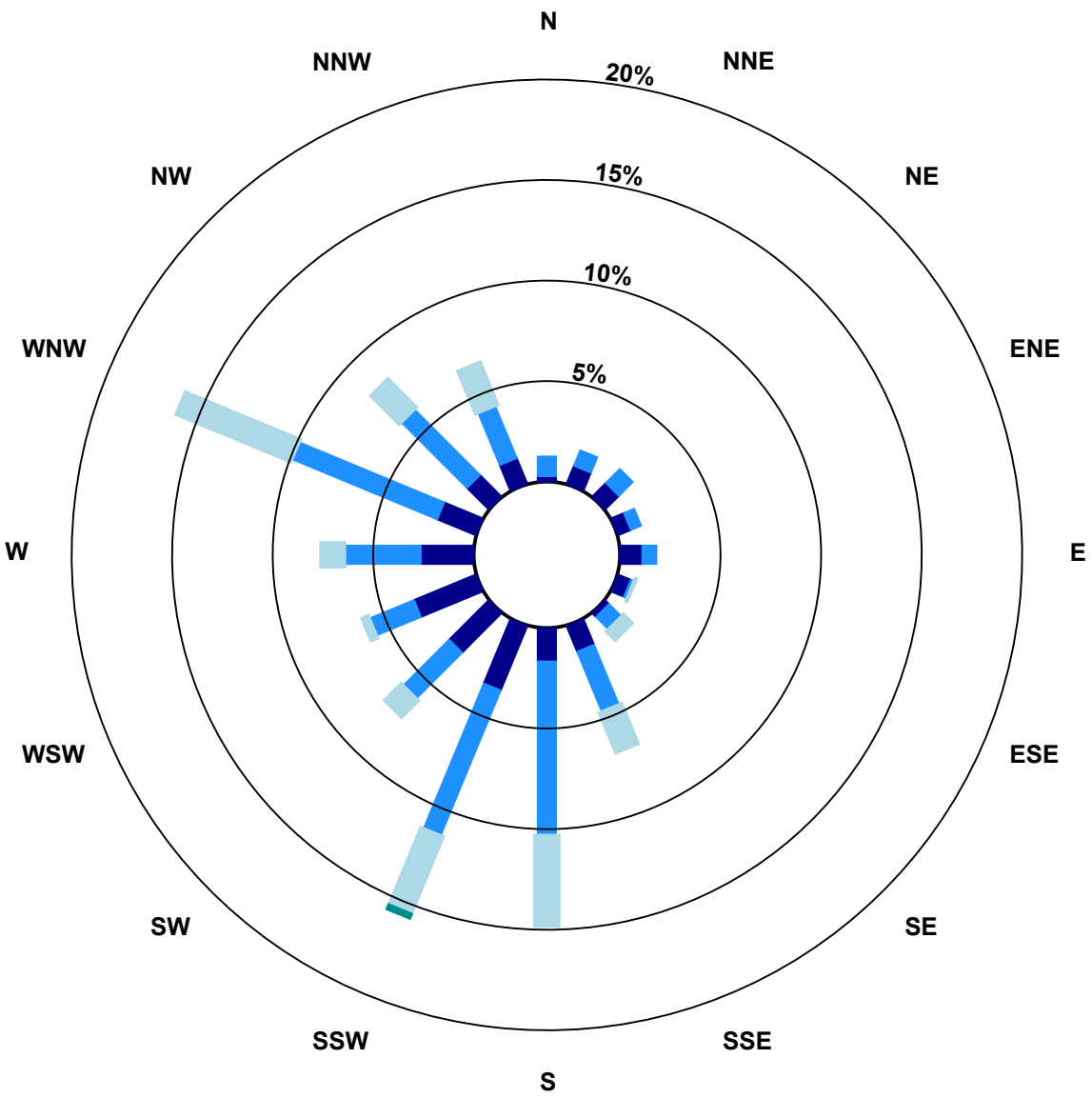
Total Number of Hours: 744

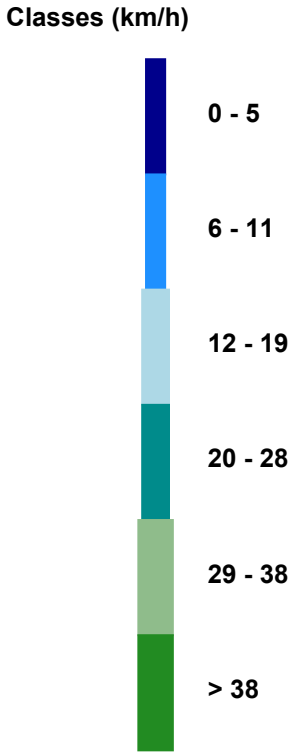
Wood Buffalo Environmental Association

Wind Rose Oct 2025

Wind Speed 10m (WS10) - km/h

Blackgold





Total Number of Valid Hours: 720

Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Speed 10m (WS10) - km/h

Blackgold - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 7 km/h on Oct 14 12:00

Minimum Value: 0 km/h on Oct 18 23:00

Percentiles: $P_1 = 1$ $P_{10} = 1$ $Q_1 = 2$ Median = 2 $Q_3 = 4$ $P_{90} = 4$ $P_{99} = 6$

Hours in Service:	744
Hours of Data:	720
Hours of Missing Data:	24
Hours of Calibration:	0
Percent Operational Time:	96.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	2	2	2	2	2	2	2	3	3	3	2	2	3	3	2	3	2	3	3	2	1	1	1	1	3
2-Oct	1	1	1	1	1	2	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2	2
3-Oct	2	2	2	2	2	3	3	3	4	4	3	4	5	5	5	3	4	2	2	3	2	3	3	2	5
4-Oct	2	2	2	2	2	2	4	3	4	4	3	3	3	3	4	3	4	4	5	4	5	3	3	4	5
5-Oct	2	2	2	2	UO	UO	UO	UO	UO	2	2	3	4	5	5	4	5	4	4	3	4	1	2	2	5
6-Oct	2	2	2	3	3	3	2	4	3	3	2	2	2	2	2	2	2	2	1	2	1	2	2	2	4
7-Oct	2	3	3	3	3	3	2	3	3	3	3	4	4	4	5	4	3	2	2	2	3	3	4	3	5
8-Oct	3	6	4	5	6	4	3	3	4	4	4	4	5	4	4	4	3	2	2	2	2	2	3	2	6
9-Oct	3	2	2	2	3	2	2	3	3	3	3	3	4	4	4	3	4	2	1	1	1	2	2	1	4
10-Oct	1	1	1	1	2	1	1	2	2	2	3	4	4	4	4	5	4	2	2	2	3	3	3	2	5
11-Oct	2	3	4	3	3	2	1	2	2	4	5	5	5	4	5	5	5	5	5	4	4	4	4	4	5
12-Oct	5	4	5	5	6	5	5	5	5	5	5	5	5	5	4	4	4	3	3	2	3	2	2	2	6
13-Oct	2	3	2	2	2	1	1	1	1	2	3	3	3	4	3	3	4	2	2	2	3	3	3	4	4
14-Oct	3	4	4	3	2	4	4	3	5	5	6	7	6	5	5	4	4	3	2	2	3	3	3	2	7
15-Oct	2	2	2	2	2	2	3	2	4	4	4	4	5	5	4	4	3	2	1	2	3	2	2	1	5
16-Oct	2	2	2	2	2	2	2	2	1	2	3	4	4	4	4	4	2	2	3	5	3	3	3	1	5
17-Oct	2	3	4	5	3	3	4	5	5	4	4	5	6	5	5	4	4	4	3	3	3	2	3	3	6
18-Oct	2	2	3	3	3	3	2	3	4	4	3	3	4	4	3	3	3	1	1	1	1	1	0	1	4
19-Oct	1	1	1	3	1	1	1	1	1	2	2	2	2	2	5	4	2	2	2	1	2	2	2	2	5
20-Oct	2	2	2	2	2	2	2	2	3	2	2	2	3	2	2	3	2	2	2	2	2	3	3	3	3
21-Oct	3	3	3	4	3	3	4	3	4	4	4	4	4	4	5	3	3	2	2	2	2	2	2	1	5
22-Oct	1	1	1	1	1	1	1	1	1	1	2	2	3	3	3	3	3	1	2	2	2	3	4	4	4
23-Oct	2	2	3	3	4	3	2	2	2	2	2	2	2	3	2	2	1	1	2	3	2	2	3	3	4
24-Oct	3	3	3	3	3	3	4	2	2	2	2	2	1	2	2	3	2	2	2	2	2	1	1	1	4
25-Oct	1	1	1	1	1	1	2	4	4	5	6	6	5	5	5	4	3	2	2	2	1	1	1	2	6
26-Oct	1	1	1	1	1	2	2	1	2	2	2	2	2	2	2	1	3	4	3	2	2	2	1	2	4
27-Oct	2	3	2	2	3	3	3	4	4	4	4	4	4	4	4	UO	UO	UO	UO	UO	UO	UO	UO	UO	4
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	3	4	4	4	3	2	3	2	2	2	1	1	1	2	4
29-Oct	1	1	1	1	1	1	2	1	2	2	1	1	1	1	1	1	2	2	2	3	3	2	3	2	3
30-Oct	2	2	2	2	2	2	2	2	1	1	2	2	2	3	3	2	2	1	2	2	2	2	1	2	3
31-Oct	1	1	1	2	3	3	3	2	3	4	4	4	4	4	4	4	3	5	5	5	5	5	5	4	5
	5	6	5	5	6	5	5	5	5	5	6	7	6	5	5	5	5	5	5	5	5	5	5	4	
	Diurnal Maximum																								

UO - Unstable Operation

Wood Buffalo Environmental Association

Summary of Hour Averages

Wind Direction 10m (WD10) - deg

Blackgold - October 2025

Direction of Maximum Speed: 204 deg on Oct 14 11:00
Direction of Maximum Daily Speed Average: 164.3 deg on Oct 31

Direction of Minimum Speed: 245 deg on Oct 22 02:00
Direction of Minimum Daily Speed Average: 1.3 deg on Oct 6

Monthly Average Direction: 239.3 deg

Hours in Service:	744
Hours of Data:	720
Hours of Missing Data:	24
Percent Operational Time:	96.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Average
1-Oct	321	352	8	15	342	339	331	303	314	324	321	319	333	338	332	332	319	338	334	305	291	295	290	276	326.5
2-Oct	253	276	274	281	259	229	213	218	161	164	150	139	123	184	192	201	216	204	197	244	197	194	194	203	195.8
3-Oct	195	199	199	202	205	198	202	204	215	218	224	227	245	257	255	274	291	213	222	251	225	258	252	232	228.8
4-Oct	246	257	270	250	247	254	279	292	302	304	300	305	312	314	325	323	308	296	293	303	307	306	302	307	297.2
5-Oct	301	295	294	296	UO	UO	UO	UO	UO	208	210	220	226	239	257	283	295	296	310	329	305	279	282	263	273.8
6-Oct	272	283	297	324	353	344	326	8	13	352	13	134	107	190	207	196	212	208	209	186	179	177	179	181	269.0
7-Oct	169	178	183	186	189	190	192	186	189	194	190	205	214	202	195	197	182	168	165	153	164	169	171	189	185.0
8-Oct	274	298	304	304	305	300	295	289	293	297	298	303	292	293	292	296	293	287	251	225	224	214	233	248	288.8
9-Oct	273	240	235	263	258	268	278	277	272	272	275	237	220	235	226	221	227	198	201	202	208	207	206	199	239.0
10-Oct	193	199	223	216	198	178	185	188	182	181	188	198	181	191	186	187	179	170	157	168	174	180	173	169	183.6
11-Oct	170	156	159	171	182	205	184	290	287	314	322	318	296	307	304	309	308	304	311	306	308	306	315	328	298.8
12-Oct	332	343	342	344	343	344	339	335	340	339	339	342	344	334	336	338	338	347	339	330	327	335	336	329	338.7
13-Oct	326	321	304	302	296	301	281	244	256	273	223	220	219	197	210	209	193	212	200	186	183	181	185	192	220.2
14-Oct	195	195	188	180	193	186	194	191	194	204	204	208	216	217	208	218	212	202	203	206	210	208	209	204	202.4
15-Oct	202	200	207	192	184	180	189	188	194	203	203	209	197	207	224	230	254	213	202	250	279	239	222	213	209.0
16-Oct	237	253	248	232	243	259	283	270	114	158	209	209	207	194	197	198	182	177	182	204	182	181	245	199	206.2
17-Oct	205	228	238	258	232	229	231	275	286	292	290	290	292	292	292	293	289	293	284	279	287	294	299	291	278.8
18-Oct	279	278	287	285	285	281	277	271	283	286	301	289	287	291	289	297	270	245	253	242	245	236	253	236	281.8
19-Oct	256	212	198	177	92	28	25	37	69	88	103	91	87	82	120	96	78	53	86	52	77	62	64	56	84.3
20-Oct	33	25	11	343	339	331	314	302	303	305	315	317	284	283	259	252	208	192	184	189	190	190	183	181	261.2
21-Oct	186	182	199	199	202	204	218	228	236	269	277	283	296	293	282	279	279	286	283	276	281	288	23	52	251.7
22-Oct	34	245	283	272	237	279	227	226	187	194	177	199	203	177	158	165	156	156	142	141	137	137	139	142	161.5
23-Oct	136	136	141	150	170	181	179	178	184	169	178	156	152	161	178	177	171	169	176	163	172	172	175	175	164.6
24-Oct	171	172	168	167	172	186	181	177	182	179	176	170	168	149	148	153	161	164	149	165	154	79	344	340	168.0
25-Oct	321	316	220	287	279	278	197	218	261	267	269	280	278	272	271	276	269	235	198	207	200	228	239	232	260.9
26-Oct	209	231	296	299	305	45	20	81	30	38	54	68	43	54	66	35	24	47	28	353	354	331	322	286	27.9
27-Oct	297	292	287	287	282	286	289	290	287	288	289	289	292	294	293	UO	UO	UO	UO	UO	UO	UO	UO	UO	--
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	287	297	289	287	282	285	279	266	289	217	191	148	153	135	--
29-Oct	128	109	97	89	86	85	78	39	92	116	54	322	348	4	336	340	323	327	323	327	325	316	317	308	8.1
30-Oct	311	312	320	309	307	304	303	309	291	295	287	281	283	248	228	213	211	201	198	212	221	173	189	196	261.1
31-Oct	176	171	169	179	185	183	178	169	164	170	169	161	157	163	152	151	152	154	152	151	161	166	174	187	164.3
	230.6	229.5	236.5	238.2	237.7	241.5	244.5	251.8	253.8	256.8	254.8	253.4	254.7	248.6	243.8	243.0	245.3	234.6	222.1	222.7	216.1	209.8	209.7	210.0	
	Diurnal Average																								

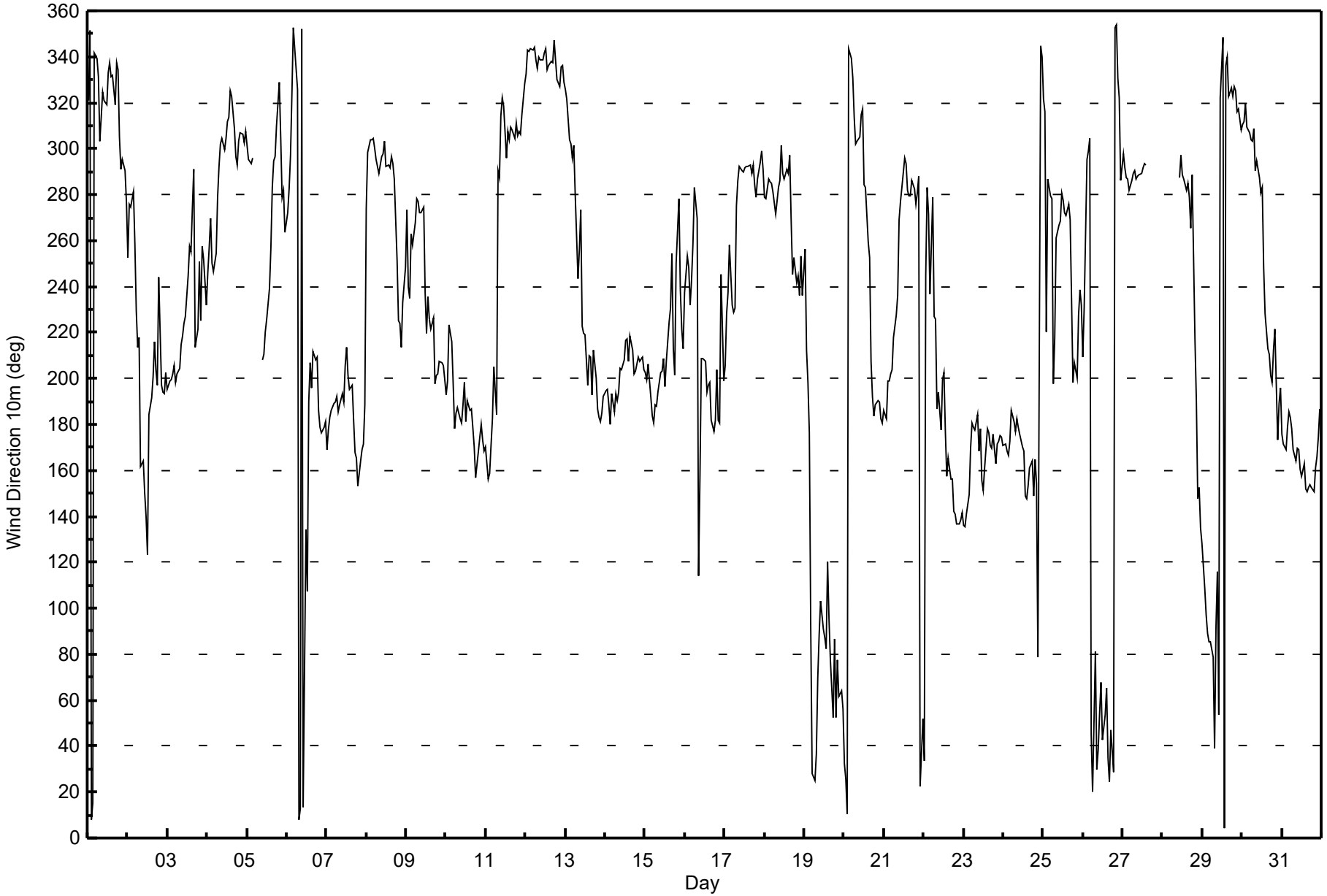
UO - Unstable Operation
All monthly, daily, and diurnal averages have been calculated using vector methods

Wood Buffalo Environmental Association

Hourly Averages

Wind Direction 10m (WD10) - deg

Blackgold - October 2025



Wood Buffalo Environmental Association

Summary of Hour Standard Deviations

Wind Direction 10m (WD10) - deg

Blackgold - October 2025

Number of Exceedences (AAAQO): 1-hr: 0 24-hr: 0
Maximum Value: 107 deg on Oct 22 02:00

Minimum Value: 10 deg on Oct 2 22:00

Percentiles: P_1 = 11 P_{10} = 15 Q_1 = 18 Median = 23 Q_3 = 29 P_{90} = 40 P_{99} = 76

Hours in Service:	744
Hours of Data:	720
Hours of Missing Data:	24
Hours of Calibration:	0
Percent Operational Time:	96.8

Day	Hourly Period Ending At (MST)																								Daily
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Maximum
1-Oct	25	27	35	30	29	26	28	23	24	25	25	25	26	25	25	27	28	24	28	25	22	19	24	44	44
2-Oct	24	32	56	41	56	33	54	56	24	20	25	31	72	40	52	30	23	18	16	33	10	10	12	16	72
3-Oct	15	15	16	17	19	18	19	19	25	24	28	30	36	34	36	31	24	35	40	47	30	43	43	34	47
4-Oct	41	36	40	41	38	36	43	20	22	22	27	24	30	30	24	24	24	20	20	20	22	21	19	24	43
5-Oct	22	19	15	16	UO	UO	UO	UO	UO	21	20	24	32	35	35	26	24	20	22	28	35	31	28	35	35
6-Oct	29	25	23	26	28	28	25	33	30	41	67	90	76	76	62	34	28	44	45	28	11	12	13	16	90
7-Oct	15	13	15	15	16	17	17	16	16	18	19	27	28	25	22	20	20	15	15	13	17	15	16	24	28
8-Oct	58	40	20	21	21	25	18	19	20	21	21	24	26	27	24	23	20	24	45	32	31	29	33	38	58
9-Oct	35	41	36	36	36	35	23	29	29	27	28	31	25	31	29	29	27	16	12	11	14	21	21	14	41
10-Oct	11	26	23	14	16	21	11	12	15	17	19	25	20	23	18	18	17	15	17	14	14	15	15	12	26
11-Oct	14	19	24	22	15	55	35	65	84	24	24	27	20	23	20	23	21	22	23	23	23	22	24	23	84
12-Oct	25	26	24	25	26	27	25	26	27	26	24	28	26	25	26	24	24	26	25	23	24	26	24	23	28
13-Oct	23	25	23	21	21	30	23	44	41	31	36	34	27	31	31	30	21	24	19	15	13	12	16	16	44
14-Oct	18	18	18	18	17	14	19	17	19	22	21	23	26	24	25	24	24	17	16	20	21	20	22	18	26
15-Oct	17	16	20	17	24	20	18	15	19	21	22	21	21	23	29	28	37	31	21	38	31	34	32	22	38
16-Oct	35	35	33	23	20	18	31	52	10	37	23	23	25	20	20	20	18	14	19	23	17	19	37	29	52
17-Oct	21	31	34	33	28	31	37	29	23	18	17	20	20	21	19	20	19	18	21	25	19	17	20	15	37
18-Oct	25	23	19	21	19	22	26	28	22	22	21	26	25	26	20	29	45	25	22	34	26	34	21	58	58
19-Oct	41	59	43	24	51	38	22	16	28	24	18	19	18	19	23	24	26	22	17	24	24	24	18	22	59
20-Oct	21	24	26	23	23	22	22	18	20	25	25	30	35	22	38	37	23	18	14	16	15	16	17	15	38
21-Oct	17	16	23	18	18	19	28	31	30	31	26	25	20	24	23	25	25	22	22	26	24	26	40	67	67
22-Oct	51	107	59	31	33	44	25	24	51	30	29	33	29	23	18	17	13	12	11	12	12	12	12	13	107
23-Oct	12	12	12	13	30	33	16	23	43	23	26	56	80	38	45	20	12	11	18	15	15	13	14	14	80
24-Oct	14	13	14	15	13	16	17	17	21	15	20	19	33	23	17	16	17	19	24	19	26	42	50	36	50
25-Oct	62	68	48	49	27	63	46	28	33	29	28	26	27	28	30	27	30	48	16	29	30	27	29	63	68
26-Oct	27	25	82	52	64	25	23	62	19	17	22	21	21	19	19	27	32	26	31	28	26	27	49	15	82
27-Oct	19	16	16	15	22	20	18	17	17	17	17	17	17	18	18	UO	UO	UO	UO	UO	UO	UO	UO	UO	22
28-Oct	UO	UO	UO	UO	UO	UO	UO	UO	UO	UO	22	22	23	21	23	22	34	48	27	46	40	77	24	15	77
29-Oct	15	16	12	21	15	16	17	29	34	25	78	22	29	24	23	21	21	21	23	22	23	23	23	22	78
30-Oct	23	23	24	21	20	20	20	21	15	18	16	25	30	39	34	27	30	20	24	28	40	15	17	18	40
31-Oct	21	15	14	19	17	15	16	15	16	15	16	16	15	17	15	13	15	16	16	16	17	17	18	18	21
	62	107	82	52	64	63	54	65	84	41	78	90	80	76	62	37	45	48	45	47	40	77	50	67	
	Diurnal Maximum																								

UO - Unstable Operation

ELECTRONIC TRANSFER SYSTEM
AIRDATA
SUBMISSION REPORT

November 28, 2025
8:38:49 AM
Request # 4867661

Submitted by: EN6138_BAS
Submission Date: Nov 28, 2025 8:34:28 AM

File Type	File Name
Calibration Report	CAL-WBEA-202510.pdf

Total Number of Files: 1

*** End of Report ***

ELECTRONIC TRANSFER SYSTEM
AIRDATA
SUBMISSION REPORT

November 28, 2025
9:09:34 AM
Request # 4867677

Submitted by: EN6138_BAS
Submission Date: Nov 28, 2025 9:08:58 AM

File Type	File Name
Ambient Data	AMB-WBEA-202510-V00.xml

Total Number of Files: 1

*** End of Report ***

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ELECTRONIC TRANSFER SYSTEM
AIRDATA
SUBMISSION REPORT

November 28, 2025
10:40:53 AM
Request # 4867745

Submitted by: EN6138_BAS
Submission Date: Nov 28, 2025 10:38:36 AM

File Type	File Name
Airshed Monitoring Report	WBEA-202510.pdf

Total Number of Files: 1

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End of Report