Peace River Area Monitoring Program

DECEMBER 2023

Monthly Ambient Air Quality Monitoring Report

PRAMP-202312

Operation and Maintenance:
Bureau Veritas Canada

Data Validation and Report:
Peace River Area Monitoring Program

January 12, 2024

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LIST OF ACRONYMS

AAAQOs	Alberta Ambient Air Quality Objectives
AEP	Alberta Environment and Parks
AMD	Air Monitoring Directive
AT	Ambient Temperature
BP	Barometric Pressure
CH4	Methane
EPEA	Environmental Protection and Enhancement Act
H2S	Hydrogen Sulphide
kph	kilometers per hour
mb	millibar
mm	millimeter
NMHC	Non-Methane Hydrocarbons
ppb	parts per billion
ppm	parts per million
PRAMP	Peace River Area Monitoring Program
RH	Relative Humidity
SO2	Sulphur Dioxide
ST	Station Temperature
THC	Total Hydrocarbons
TRS	Total Reduced Sulphur
VWD	Vector Wind Direction
VWS	Vector Wind Speed
WD	Wind Direction
WS	Wind Speed
°C	Degrees Celsius

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January 12, 2024

RE: PRAMP – December 2023 Monthly Ambient Air Quality Monitoring Report

Enclosed is the December 2023 Monthly Ambient Air Quality Monitoring Report for the continuous ambient air quality monitoring stations of the Peace River Area Monitoring Program (PRAMP) regional air quality monitoring network.

The representative of the Person Responsible for this monitoring program is

PRAMP Airshed
Michael Bisaga / Lily Lin, Technical Program Managers
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This report has been prepared, review and submitted by Michael Bisaga & Lily Lin of the PRAMP Airshed. This report is also submitted on behalf of the industrial member companies to satisfy the requirements of the facility operating approvals.

PRAMP Airshed has retained the services of Bureau Veritas Canada to conduct continuous ambient monitoring on its behalf.

NETWORK STATION SUMMARY

Listing of Continuous Monitoring Stations

The PRAMP continuous ambient air quality monitoring network stations are:

- 986-C Station
- 842-B Station
- Reno-B Station
- AQHI Grimshaw
- Peace River Complex (PRC) Station

Station ID	Station Name	Latitude	Longitude
1562	986-C	56.36980	-116.92500
1561	842-B	56.27406	-116.98129
1563	Reno-B	55.890868	-117.137080
1689	AQHI-Grimshaw	56.18657	-117.604994
1698	PRC	56.38257	-116.769283

Listing of Intermittent Monitoring Stations

- VOC Canister Sampling Station
    - 986-C Station
    - 842-B Station
    - Reno-B Station

Listing of PRAMP member with EPEA Facility Operating Approval

Company	Facility	Approval No.
Canadian Natural Upgrading Limited	Peace River Complex	1642-03-00

Calibration and Data Submission

Hourly data and calibration reports for December 2023 were submitted to Alberta's Ambient Air Data Warehouse through ETS for the 986-C station, 842-B station, Reno-B station, PRC station and AQHI-Grimshaw station.

Monitoring Notes during the Month of December 2023

986-C Station

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement.
- No major operational issues were recorded this month.

842-B Station

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement.
- No major operational issues were recorded this month.

Reno-B Station

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement.
- No major operational issues were recorded this month.

PRC Station

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement.
- No major operational issues were recorded this month.

AQHI – Grimshaw Station

- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement.
- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) and /or Alberta Ambient Air Quality Guidelines (AAAQGs) where applicable, except PM2.5. One 1-hour PM2.5 exceedance was recorded this month. The recorded exceedances were believed to be the result of local buildup of emissions.

Date	Time (MST)	Parameter	Average Period	Concentration (µg/m3)	Wind speed (km/hr)	Wind Direction	Reference #
9-Dec	0	PM2.5	1-Hour	200	14.0	278°(W)	EDGE00422947

- PM2.5: A firmware update and an alignment factor was activated on the T640 PM analyzer was completed on December 20 hour 13.

VOCs Canister Sampling Program

- The canister sampling program collects a 1-hour sample of air when the continuously measured non-methane hydrocarbon (NMHC) concentration reaches a specified trigger point. The current trigger point is 0.3 ppm for non-methane hydrocarbons. The trigger point is based on real-time monitoring data that are averaged over a 5-minute period.
- The canister sample collection systems are in place at Station 986-C, 842-B, and the Reno-B Station; a canister sample collection system is not part of the suite of instruments currently deployed at both the PRC station and the AQHI-Grimshaw station.
- Sample analysis and analytical results were prepared and provided by InnoTech Alberta.
- One canister event was recorded at the 986-C Station on December 26 at 03:35, at concentration of 1.95ppm. However, the event was invalid due to analyzer issues.

Revisions to Alberta's Ambient Air Quality Data Warehouse

No revisions to historical data previously submitted to the Alberta's Ambient Air Quality Data Warehouse were made this month.

Deviations from Authorized Monitoring Methods

No deviations from authorized monitoring methods were recorded this month.

Disclaimer

Baseline corrections were performed on the 1-minute data. 5-minute and hourly data were calculated based on the post-baseline correction 1-minute data set. Data verification/validation were then performed on the 5-minute and hourly data. Hourly data that are included in this report are the post-validation hourly data set.

Equipment calibration / maintenance records were provided by Bureau Veritas.

Certification

This report was prepared and submitted by Lily Lin in accordance with Chapter 9 of the Air Monitoring Directive (AMD 2016).

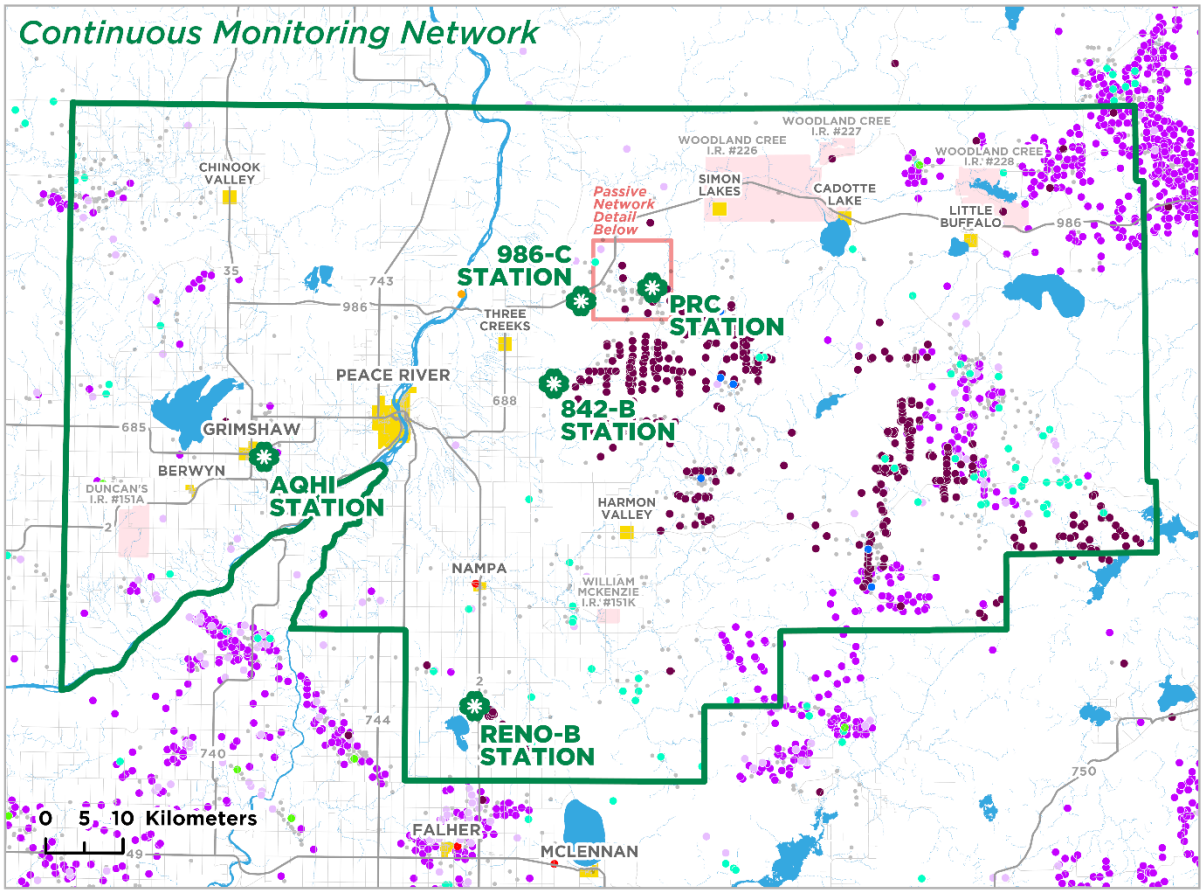
Lily Lin, Technical Program Manager, PRAMP Airshed

This report was reviewed by Michael Bisaga in accordance with Chapter 9 of the Air Monitoring Directive (AMD 2016).

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. I also certify that at the time of this report's submission, all air data have been electronically uploaded to Alberta's Ambient Air Quality Data Warehouse as required by the AMD. Uploading of VOC data from the canister sampling program was not required at the time of completing this report.

Michael Bisaga, Technical Program Manager, PRAMP Airshed

Map of PRAMP Continuous Monitoring Network

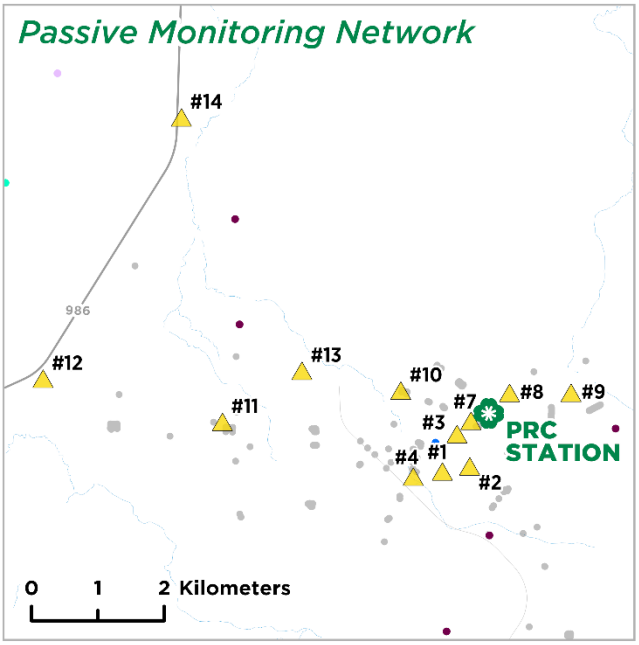


Legend

- PRAMP Boundary
- Populated Place
- First Nation
- Continuous Monitoring Station
- Passive Monitoring Station

Industrial Facilities

- In-Situ Oil Sands
- Heavy Oil/Bitumen Well or Battery
- Conventional Oil Well or Battery
- Natural Gas Well or Battery
- Gas Plant or Gas Processing
- Compressor Station or Pipeline
- Agricultural Storage and Transfer
- Pulp and Paper
- Well (Not Associated with Batteries)



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CONTINUOUS NETWORK EQUIPMENT AND MONITORING RESULTS SUMMARY

986 -C Station

Equipment Operation Summary

Parameter	Equipment Operational Summary
SO2 Thermo 43iQTL #1193585646	• A successful monthly calibration was performed on December 7. • No operational issues were identified this month.
TRS Thermo 43iQTL #1191833341 TRS convertor CD Nova CDN-101 #530 (BV-supplied)	• A successful monthly calibration was performed on December 7. • No operational issues were identified this month.
THC/CH4/NMHC Thermo 55i #12208316589 H2 Generator HG300 #191267063	• A successful monthly calibration was performed on December 7. • Few NMHC concentration spikes were recorded on December 26. As the spikes were very short duration (2-minutes) and high concentrations, the validity of these events is questionable. Data were invalidated as a result. • The canister system was triggered by a spike event at 03:35 on December 26. As the data were not believed to be real, the canister event is considered invalid.
RH Rotronic HC2-S3 #20626912	• The RH probe was checked on December 7. The probe passed the check requirements. • No operational issues were identified this month.
BP MetOne 092 #Y23358	• The BP sensor was checked on December 7. The sensor passed the check requirements. • No operational issues were identified this month.
AT Rotronic HC2-S3 #20626912	• The AT probe was checked on December 7. The probe passed the check requirements. • No operational issues were identified this month.

Parameter	Equipment Operational Summary
ST COMET #18961918	• No operational issues were identified this month.
Precipitation RM Young 52202 #TB 16325	• The precipitation gauge was checked on December 7. The gauge's functionality passed the check requirements. • No operational issues were identified this month.
WS/ WD RM Young 05305AQ #180340	• Wind direction data contained in this report represents where the wind is coming from. • The annual wind system calibration was completed on August 3, 2023. • The anemometer sensors were check on December 7. The wind system passed the check requirements. • No operational issues were identified this month.

Monitored Data Summary for 986-C Station

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.1	0	1	Dec 1 at hr 15	8.3	S	0.3	Dec 31	100.0	95.0
TRS (ppb)	-	-	-	-	-	-	0.37	0.07	0.87	Dec 29 at hr 7	9.5	S	0.58	Dec 31	100.0	95.0
THC (ppm)	-	-	-	-	-	-	2.06	1.98	2.37	Dec 3 at hr 3	4.2	S	2.19	Dec 3	100.0	95.0
CH4 (ppm)	-	-	-	-	-	-	2.06	1.98	2.37	Dec 3 at hr 3	4.2	S	2.19	Dec 3	100.0	95.0
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.01	Dec 12 at hr 8	15.4	S	0.00	Dec 12	100.0	95.0
RH (%)	-	-	-	-	-	-	75.6	30	100	Dec 3 at hr 21	12.1	S	92.7	Dec 8	100.0	100.0
BP (millibar)	-	-	-	-	-	-	935	920	951	Dec 11 at hr 4	6.3	NNW	947	Dec 11	100.0	100.0
Ext. Temp. (°C)	-	-	-	-	-	-	-2.8	-18.0	8.1	Dec 13 at hr 13	5	SSW	4.6	Dec 13	100.0	100.0
Stn. Temp. (°C)	-	-	-	-	-	-	23.8	19.9	27.3	Dec 7 at hr 14	6.2	S	25.7	Dec 13	100.0	100.0
Precipitation (mm)*	-	-	-	-	-	-	0.0	0.0	0.0	Dec 1 at hr 0	13.7	SSE	0.0	Dec 1	100.0	100.0
WSV (km/hr)	-	-	-	-	-	-	8.5	0.9	36.2	Dec 26 at hr 20	36.2	SW	19.0	Dec 26	100.0	100.0
WDV (sector)	-	-	-	-	-	-	195 (SSW)	-	-	-	-	-	-	-	100.0	100.0

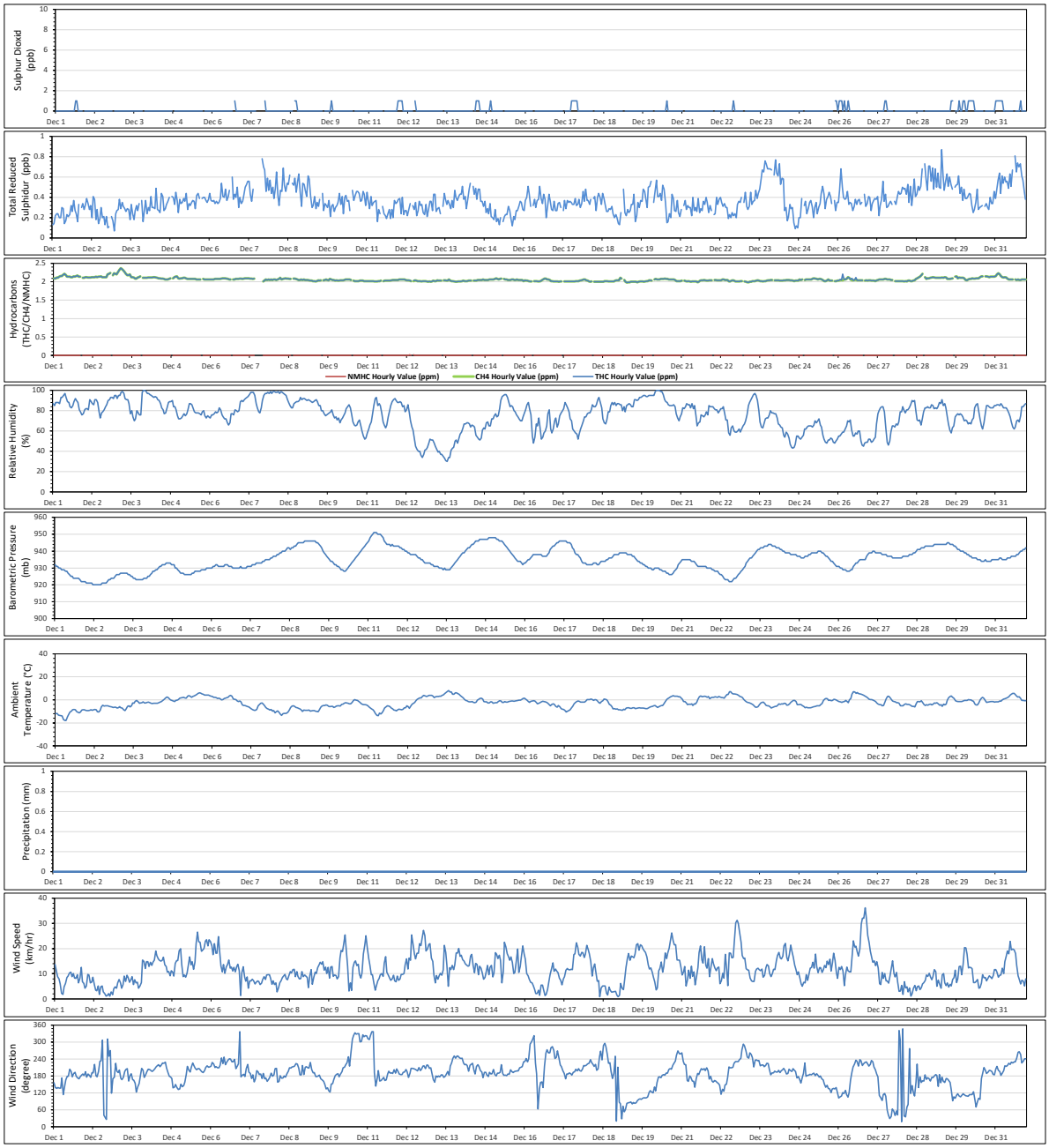
1- Date/ Time given is the first minimum and maximum value that was recorded

* Data represents the total (sum) for the indicated time frame

Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances

The measured ambient air quality was within the AAAQOs for all monitored parameters.

Timeseries Chart of Hourly Average for the month of Dec 2023 - 986-C Station



842-B Station

Equipment Operation Summary

Parameter	Equipment Operational Summary
SO2 Thermo 43iQTL #1200736629	• A successful monthly calibration was performed on December 5. • Data collected between December 19 hour 13 and December 20 hour 5 were lost due to a power failure. Seventeen hours of downtime were recorded due to this event.
TRS Thermo 43iQTL #1200736630 TRS Convertor CD Nova CDN-101 #583	• A successful monthly calibration was performed on December 5. • As marked change in response was noticed on the December 5's calibration, an as-found points check was completed on December 6 to confirm the December 5's calibration result. No issues were identified. Two hours of downtime were recorded due to the additional quality check. • Data collected between December 19 hour 13 and December 20 hour 5 were lost due to a power failure. Seventeen hours of downtime were recorded due to this event.
THC/CH4/NMHC Thermo 55i #1501663728 H2 Generator HG300 #190567058	• A successful monthly calibration was performed on December 5. • Multiple flame out events began after the December 5's calibration due to a problem with the H2 generator. A successful additional zero-span check was completed On December 6. The issue improved after the zero-span check. The H2 desiccant was changed following by a successful post-repair calibration on December 6. Data collected between December 5 hour 14 (after the monthly calibration) and December 6 hour 7 (before the additional zero-span check) were invalidated. Twenty-two hours of downtime were recorded due to this event. • Data collected between December 19 hour 13 and December 20 hour 5 were lost due to a power failure. Seventeen hours of downtime were recorded due to this event.
RH Rotronic HC2-S3 #20370767	• The RH probe was checked on December 5. The probe passed the check requirements. • Data collected between December 19 hour 13 and December 20 hour 5 were lost due to a power failure. Seventeen hours of downtime were recorded due to this event.

Parameter	Equipment Operational Summary
AT Rotronic HC2-S3 #20370767	• The AT probe was checked on December 5. The probe passed the check requirements. • Data collected between December 19 hour 13 and December 20 hour 5 were lost due to a power failure. Seventeen hours of downtime were recorded due to this event.
BP MetOne 092 #Y23362	• The BP sensor was checked on December 5. The sensor passed the check requirements. • One hour of downtime was recorded on December 17 due to Data collected between December 19 hour 13 and December 20 hour 5 were lost due to a power failure. Seventeen hours of downtime were recorded due to this event.
ST COMET #20790297	• Data collected between December 19 hour 13 and December 20 hour 5 were lost due to a power failure. Seventeen hours of downtime were recorded due to this event.
Precipitation RM Young 52202 #TB 15878	• The precipitation gauge was checked on December 5. The sensor passed the check requirements. • Data collected between December 19 hour 13 and December 20 hour 5 were lost due to a power failure. Seventeen hours of downtime were recorded due to this event.
WS/ WD RM Young 05305AQ #174802	• Wind direction data contained in this report represents where the wind is coming from. • The annual wind system calibration was completed on August 3, 2023. • The anemometer sensors were check on December 5. Both the wind speed sensor and wind direction sensor passed the check requirements. • Data collected between December 19 hour 13 and December 20 hour 5 were lost due to a power failure. Seventeen hours of downtime were recorded due to this event.

Monitored Data Summary for 842-B Station

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.0	0	1	Dec 1 at hr 13	9.3	S	0.2	Dec 1	97.7	93.0
TRS (ppb)	-	-	-	-	-	-	0.62	0.36	1.45	Dec 5 at hr 16	15.2	S	0.80	Dec 12	97.4	92.4
THC (ppm)	-	-	-	-	-	-	1.96	1.87	2.18	Dec 19 at hr 1	5.2	ENE	2.02	Dec 30	94.8	90.0
CH4 (ppm)	-	-	-	-	-	-	1.96	1.87	2.18	Dec 19 at hr 1	5.2	ENE	2.02	Dec 30	94.8	90.0
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.00	Dec 1 at hr 0	7.7	SE	0.00	Dec 1	94.8	90.0
RH (%)	-	-	-	-	-	-	77.1	30	99	Dec 1 at hr 8	7.7	SSE	94.8	Dec 7	97.7	97.7
BP (millibar)	-	-	-	-	-	-	934	919	950	Dec 11 at hr 4	3.1	NW	946	Dec 11	97.7	97.7
Ext. Temp. (°C)	-	-	-	-	-	-	-2.7	-17.2	8.3	Dec 13 at hr 13	7.1	SSE	4.7	Dec 13	97.7	97.7
Stn. Temp. (°C)	-	-	-	-	-	-	22.4	21.3	23.2	Dec 1 at hr 7	6.6	SSE	22.8	Dec 1	97.7	97.7
Precipitation (mm)*	-	-	-	-	-	-	0.0	0.0	0.0	Dec 1 at hr 0	7.7	SE	0.0	Dec 1	97.7	97.7
WSV (km/hr)	-	-	-	-	-	-	6.5	0.2	28.3	Dec 26 at hr 20	28.3	SW	14.8	Dec 22	97.7	97.7
WDV (sector)	-	-	-	-	-	-	188 (S)	-	-	-	-	-	-	-	97.7	97.7

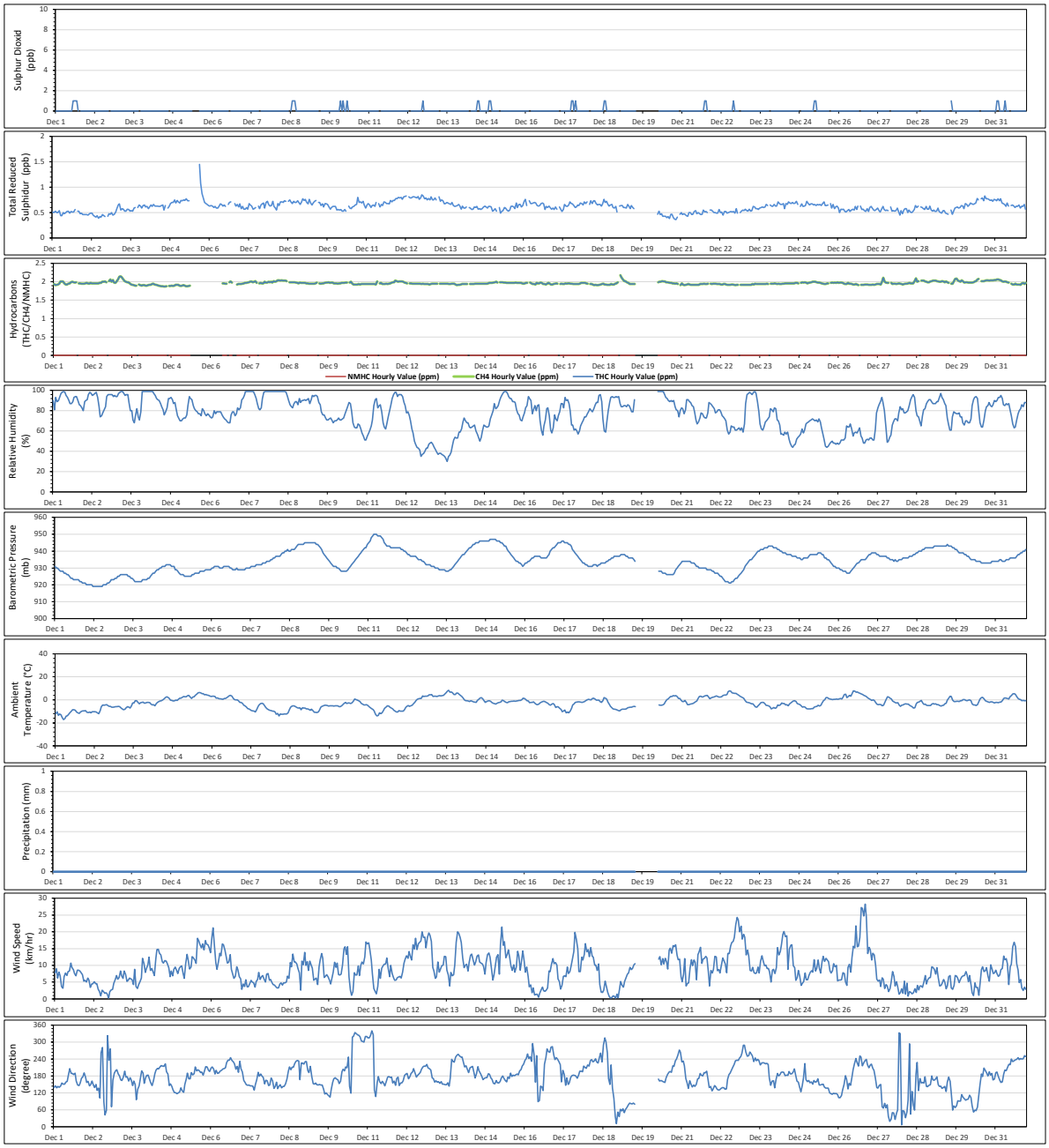
1- Date/ Time given is the first minimum and maximum value that was recorded

* Data represents the total (sum) for the indicated time frame

Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances

The measured ambient air quality was within the AAAQOs for all monitored parameters.

Timeseries Chart of Hourly Average for the month of Dec 2023 - 842-B Station



Reno-B Station

Equipment Operation Summary

Parameter	Equipment Operational Summary
SO2 Thermo 43iQTL #12101910505	• A successful monthly calibration was performed on December 1. • No operational issues were identified this month.
TRS Thermo 43iQTL #12101910504 **TRS Convertor** CD Nova CDN-101 #590	• A successful monthly calibration was performed on December 1. • No operational issues were identified this month.
THC/CH4/NMHC Thermo 55i #12101910497 H2 Generator HG300 #210467069	• A successful monthly calibration was performed on December 1. • No operational issues were identified this month.
RH Rotronic HC2-S3 #20467597	• The RH probe was checked on December 1. The probe passed the check requirements. • Due to datalogger polling errors, one hour of downtime was recorded as the hourly data completeness requirement did not meet.
BP MetOne 092 #A17940	• The BP sensor was checked on December 1. The sensor passed the check requirements. • Due to datalogger polling errors, one hour of downtime was recorded as the hourly data completeness requirement did not meet.
AT Rotronic HC2-S3 #20467597	• The AT probe was checked on December 1. The probe passed the check requirements. • Due to datalogger polling errors, one hour of downtime was recorded as the hourly data completeness requirement did not meet.
ST COMET #NA	• No operational issues were identified this month.

Parameter	Equipment Operational Summary
Precipitation RM Young 52202 #TB 15877	• The precipitation gauge was checked and tested on December 1. The unit passed the check requirements. • Due to datalogger polling errors, one hour of downtime was recorded as the hourly data completeness requirement did not meet.
WS/ WD RM Young 05305AQ #174795	• Wind direction data contained in this report represents where the wind is coming from. • The annual wind system calibration was completed on August 1, 2023. • The anemometer sensors were check on December 1. The wind sensors passed the check requirements. • Due to datalogger polling errors, one hour of downtime was recorded as the hourly data completeness requirement did not meet.

Monitored Data Summary for Reno-B Station

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.0	0	1	Dec 3 at hr 0	7.9	S	0.3	Dec 8	100.0	94.9
TRS (ppb)	-	-	-	-	-	-	0.30	0.24	0.47	Dec 28 at hr 11	6.5	SSW	0.35	Dec 8	100.0	94.9
CH4 (ppm)	-	-	-	-	-	-	2.00	1.92	4.15	Dec 28 at hr 0	3.1	E	2.14	Dec 28	100.0	94.9
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.02	Dec 16 at hr 9	2.3	NNW	0.00	Dec 16	100.0	94.9
RH (%)	-	-	-	-	-	-	77.3	38	100	Dec 3 at hr 20	10.5	S	90.4	Dec 8	99.9	99.9
BP (millibar)	-	-	-	-	-	-	934	918	950	Dec 11 at hr 4	4	NW	946	Dec 11	99.9	99.9
Ext. Temp. (°C)	-	-	-	-	-	-	-3.0	-15.3	6.5	Dec 26 at hr 11	13.3	SSW	3.4	Dec 26	99.9	99.9
Stn. Temp. (°C)	-	-	-	-	-	-	23.2	22.5	23.9	Dec 1 at hr 6	11.9	SSE	23.5	Dec 1	100.0	100.0
Precipitation (mm)*	-	-	-	-	-	-	0.1	0.0	0.1	Dec 20 at hr 0	12.1	SE	0.1	Dec 20	99.9	99.9
WSV (km/hr)	-	-	-	-	-	-	8.6	0.4	31.4	Dec 22 at hr 21	31.4	WSW	20.8	Dec 22	99.9	99.9
WDV (sector)	-	-	-	-	-	-	181 (S)	-	-	-	-	-	-	-	99.9	99.9

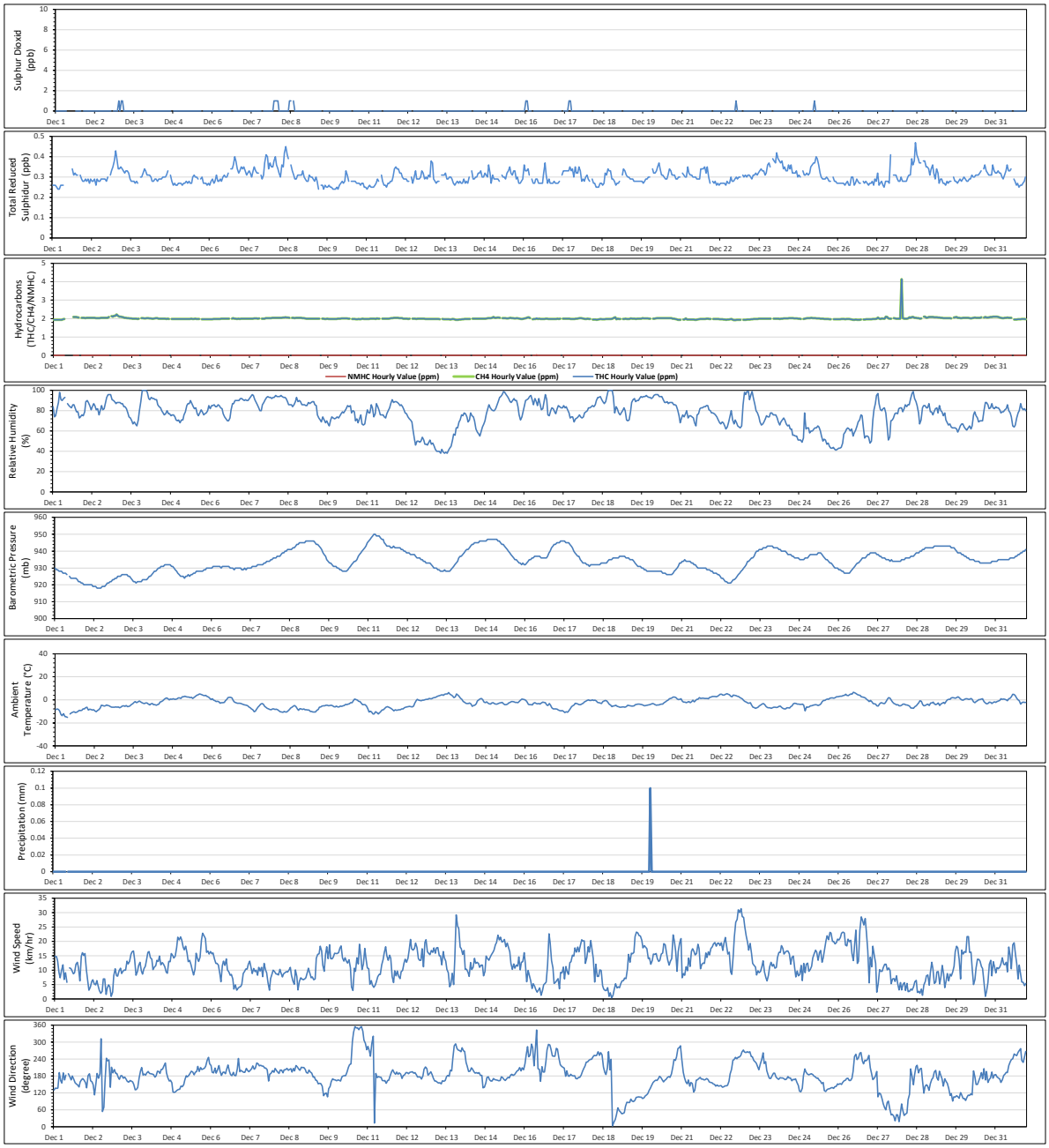
1- Date/ Time given is the first minimum and maximum value that was recorded

* Data represents the total (sum) for the indicated time frame

Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances

The measured ambient air quality was within the AAAQOs for all monitored parameters.

Timeseries Chart of Hourly Average for the month of Dec 2023 - Reno-B Station



PRC Station

Equipment Operation Summary

Parameter	Equipment Operational Summary
SO2 Thermo 43i #1034746225	• A successful monthly calibration was performed on December 6. • The scheduled zero-span check was interrupted by Windows update on December 18. A repeat zero-span check was completed later the day to confirm the analyzer's functionality. The check results met the calibration check requirements. One hour of downtime was recorded as a result.
H2S Thermo 450i #1308857354	• A successful monthly calibration was performed on December 6. • The scheduled zero-span check was interrupted by Windows update on December 18. A repeat zero-span check was completed later the day to confirm the analyzer's functionality. The check results met the calibration check requirements. One hour of downtime was recorded as a result.
TRS Thermo 450i #1034746224 TRS Convertor CD Nova CDN-101 #516	• A successful monthly calibration was performed on December 6. • The scheduled zero-span check was interrupted by Windows update on December 18. A repeat zero-span check was completed later the day to confirm the analyzer's functionality. The check results met the calibration check requirements. One hour of downtime was recorded as a result.
THC/CH4/NMHC Thermo 55i #1034745845 H2 Generator HG300 #211067076	• The H2 desiccant was changed after the successful as-found points check on December 6. A successful monthly calibration was completed afterwards. • The span gas cylinder was installed on December 6. • The scheduled zero-span check was interrupted by Windows update on December 18. A repeat zero-span check was completed later the day to confirm the analyzer's functionality. The check results met the calibration check requirements. One hour of downtime was recorded as a result.
RH Rotronic HC2-S3 #20558318	• The RH sensor was checked on December 6. The sensor passed the check requirements. • No operational issues were identified.
BP MetOne 092 #B19577	• The BP sensor was checked on December 6. The sensor passed the check requirements. • No operational issues were identified.

Parameter	Equipment Operational Summary
AT Rotronic HC2-S3 #20558318	• The AT sensor was checked on December 6. The sensor passed the check requirements. • No operational issues were identified.
ST Canadian Natural #NA	• No operational issues were identified.
WS/ WD RM Young 05305VK #129612	• Wind direction data contained in this report represents where the wind is coming from. • The annual wind system calibration was completed on August 3, 2023. • The anemometer sensors were checked on December 6. The sensors passed the check requirements. • No operational issues were identified.

Monitored Data Summary for Peace River Complex (PRC) Station

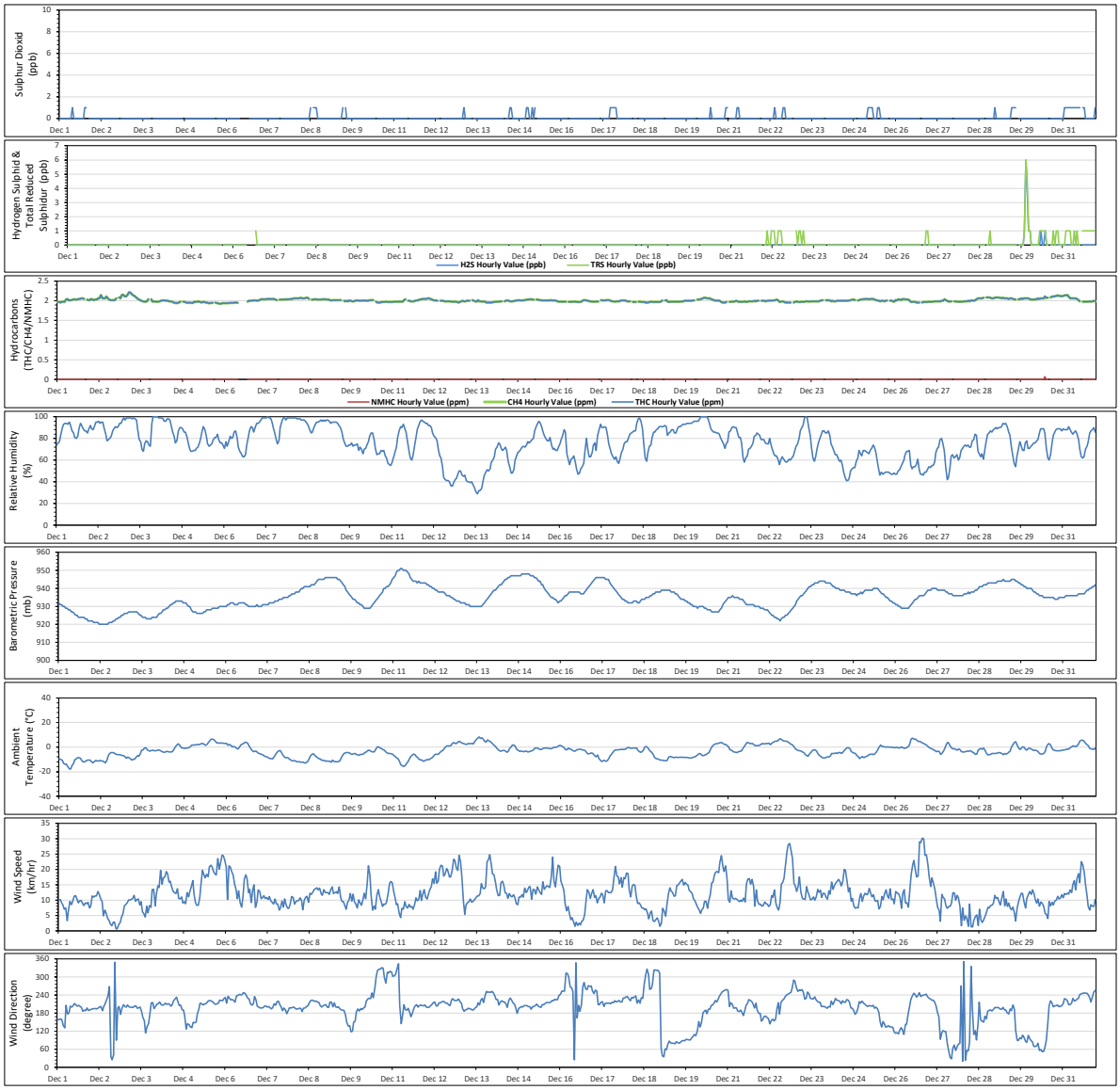
Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.1	0	1	Dec 1 at hr 9	8.5	SSW	0.7	Dec 31	99.9	94.9
H2S (ppb)	10	3	-	0	0	-	0.0	0	6	Dec 29 at hr 21	7.4	E	1.0	Dec 29	99.9	94.9
TRS (ppb)	-	-	-	-	-	-	0.1	0	6	Dec 29 at hr 21	7.4	E	0.7	Dec 31	99.9	94.9
THC (ppm)	-	-	-	-	-	-	2.01	1.93	2.22	Dec 3 at hr 3	10	SSW	2.08	Dec 30	99.9	94.9
CH4 (ppm)	-	-	-	-	-	-	2.01	1.93	2.22	Dec 3 at hr 3	10	SSW	2.08	Dec 30	99.9	94.9
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.07	Dec 30 at hr 11	5.7	ENE	0.00	Dec 30	99.9	94.9
RH (%)	-	-	-	-	-	-	76.3	29	100	Dec 3 at hr 21	8.1	SSW	95.0	Dec 8	100.0	100.0
BP (millibar)	-	-	-	-	-	-	935	920	951	Dec 11 at hr 5	4.3	SSW	947	Dec 11	100.0	100.0
Ext. Temp. (°C)	-	-	-	-	-	-	-3.3	-18.0	8.4	Dec 13 at hr 13	11.4	SSW	4.4	Dec 13	100.0	100.0
Stn. Temp. (°C)	-	-	-	-	-	-	21.7	20.4	24.1	Dec 6 at hr 14	18.3	WSW	22.0	Dec 6	100.0	100.0
WSV (km/hr)	-	-	-	-	-	-	8.7	0.7	30.2	Dec 26 at hr 19	30.2	SW	18.3	Dec 12	100.0	100.0
WDV (sector)	-	-	-	-	-	-	209 (SSW)	-	-	-	-	-	-	-	100.0	100.0

1- Date/ Time given is the first minimum and maximum value that was recorded

Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances

The measured ambient air quality was within the AAAQOs for all monitored parameters.

Timeseries Chart of Hourly Average for the month of Dec 2023 - Peace River Complex (PRC) Station



AQHI – Grimshaw Station

Equipment Operation Summary

Parameter	Equipment Operational Summary
SO2 Teledyne T100 #722	• A successful monthly calibration was performed on December 12. • Due to datalogger polling errors, three hours of downtime were recorded as the hourly data completeness requirement did not meet.
TRS Teledyne T100U #132 TRS Convertor CD Nova CDN-101 #576	• A successful monthly calibration was performed on December 12. • Due to datalogger polling errors, three hours of downtime were recorded as the hourly data completeness requirement did not meet.
NOx/NO/NO2 API 200E #594 Teledyne T200 #837	• A successful monthly calibration was performed on December 12. • Due to datalogger polling errors, five hours of downtime were recorded as the hourly data completeness requirement did not meet.
O3 Teledyne T400 #824	• A successful monthly calibration was performed on December 12. • Due to datalogger polling errors, five hours of downtime were recorded as the hourly data completeness requirement did not meet.
THC/CH4/NMHC Thermo 55i #1191032505 H2 Generator AMA HG300 #190567059	• A successful monthly calibration was performed on December 12. • Due to datalogger polling errors, five hours of downtime were recorded as the hourly data completeness requirement did not meet.
PM2.5 Teledyne T640 #318	• A successful monthly audit was performed on December 12. • A firmware update and an alignment factor activation were completed on the T640 PM analyzer on December 20 hour 13. One hour of downtime was recorded as a result. • Due to datalogger polling errors, five hours of downtime were recorded as the hourly data completeness requirement did not meet.

Parameter	Equipment Operational Summary
RH Vaisala HMP155 #N2910506	• The RH probe was checked on December 12. The Probe passed the check requirements. • Due to datalogger polling errors, seven hours of downtime were recorded as the hourly data completeness requirement did not meet.
BP MetOne 092 #A2397	• The BP sensor was checked on December 12. The sensor passed the check requirements. • Due to datalogger polling errors, seven hours of downtime were recorded as the hourly data completeness requirement did not meet.
AT Vaisala HMP155 #N2910506	• The AT prober was checked on December 12. The probe passed the check requirements. • Due to datalogger polling errors, seven hours of downtime were recorded as the hourly data completeness requirement did not meet.
ST COMET #NA	• Due to datalogger polling errors, three hours of downtime were recorded as the hourly data completeness requirement did not meet.
WS/ WD RM Young 05305AQ #174801	• Wind direction data contained in this report represents where the wind is coming from. • The last annual wind system calibration was completed on August 2, 2023. • The anemometer sensors were check on December 12. Both the wind speed sensor and wind direction sensor passed the check requirements. • Due to datalogger polling errors, seven hours of downtime were recorded as the hourly data completeness requirement did not meet.

Monitored Data Summary for AQHI - Grimshaw Station

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.1	0	4	Dec 9 at hr 0	14	W	0.5	Dec 29	99.6	94.6
TRS (ppb)	-	-	-	-	-	-	0.13	0.00	1.52	Dec 9 at hr 1	5.7	W	0.79	Dec 1	99.6	94.6
NOx (ppb)	-	-	-	-	-	-	11.3	0	72	Dec 21 at hr 8	1.1	NW	27.2	Dec 29	99.3	94.2
NO (ppb)	-	-	-	-	-	-	2.9	0	48	Dec 29 at hr 10	3.3	NW	11.0	Dec 29	99.3	94.2
NO2 (ppb)	159	-	-	0	-	-	8.3	0	34	Dec 18 at hr 17	2.3	W	16.2	Dec 29	99.3	94.2
O3 (ppb)	76	-	-	0	-	-	19.8	0.0	39.4	Dec 26 at hr 16	24	WSW	29.1	Dec 23	99.3	94.3
THC (ppm)	-	-	-	-	-	-	2.13	1.97	3.10	Dec 27 at hr 9	4.9	N	2.34	Dec 29	99.3	94.2
CH4 (ppm)	-	-	-	-	-	-	2.10	1.97	2.98	Dec 27 at hr 9	4.9	N	2.27	Dec 29	99.3	94.2
NMHC (ppm)	-	-	-	-	-	-	0.03	0.00	0.93	Dec 9 at hr 15	2.2	NNE	0.08	Dec 29	99.3	94.2
PM2.5 (µg/m3)	80	29	-	1	0	-	5.5	0	200	Dec 9 at hr 0	14	W	19.3	Dec 2	99.2	99.1
RH (%)	-	-	-	-	-	-	74.2	44	98	Dec 3 at hr 22	6	SSW	87.4	Dec 20	99.1	99.1
BP (millibar)	-	-	-	-	-	-	936	921	952	Dec 11 at hr 4	3.3	WSW	947	Dec 11	99.1	99.1
Ext. Temp. (°C)	-	-	-	-	-	-	-4.0	-14.9	6.1	Dec 26 at hr 13	17.6	WSW	2.4	Dec 13	99.1	99.1
Stn. Temp. (°C)	-	-	-	-	-	-	22.2	20.7	23.2	Dec 4 at hr 13	7.2	SW	22.8	Dec 30	99.6	99.6
WSV (km/hr)	-	-	-	-	-	-	7.0	0.0	30.2	Dec 26 at hr 18	30.2	SW	11.5	Dec 26	99.1	99.1
WDV (sector)	-	-	-	-	-	-	249 (WSW)	-	-	-	-	-	-	-	99.1	99.1

1- Date/ Time given is the first minimum and maximum value that was recorded

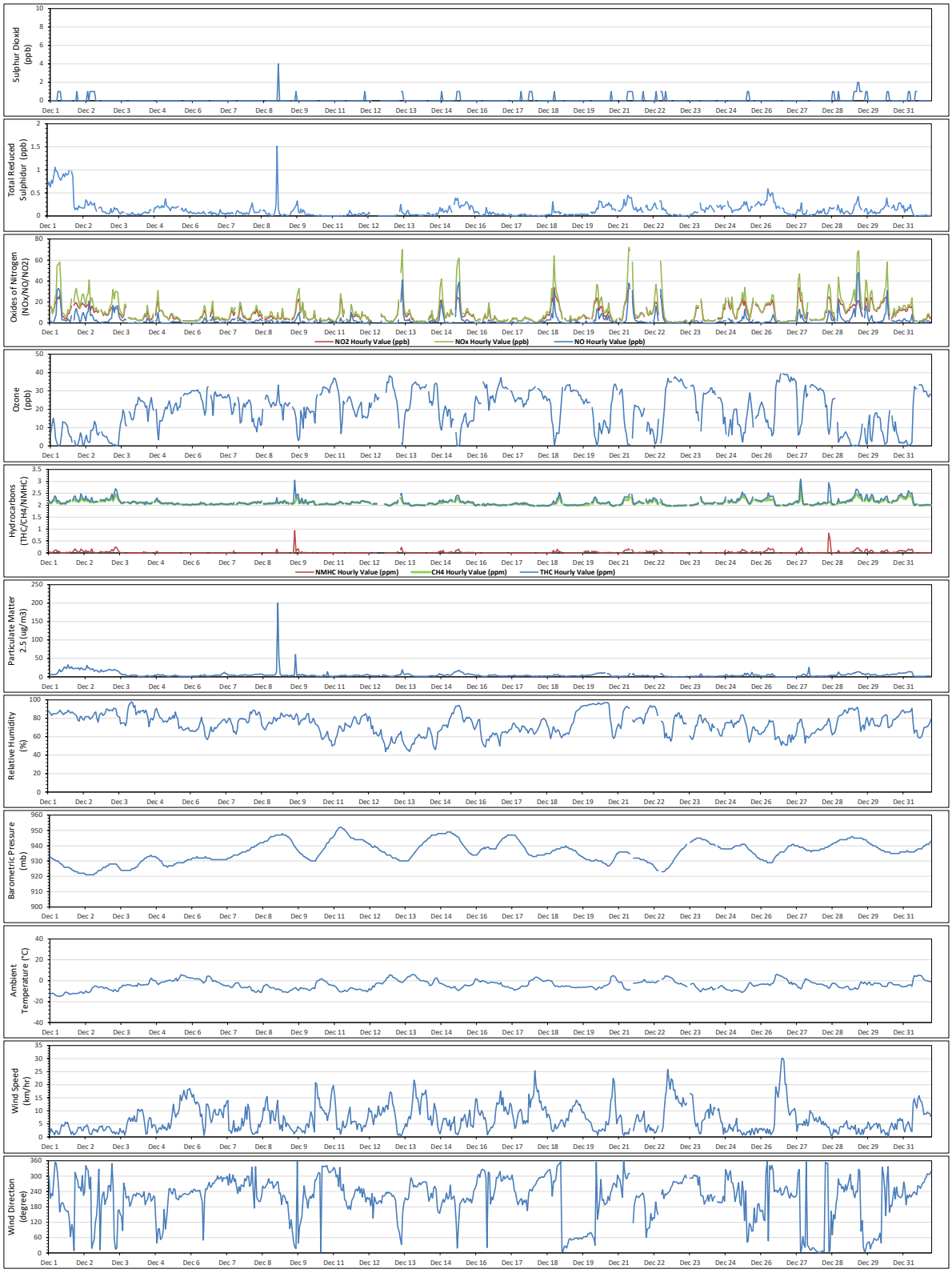
Alberta Ambient Air Quality Objectives (AAAQOs) and/or Alberta Ambient Air Quality Guidelines (AAAQGs) Exceedances

The following exceedance of AAAQGs was observed at the AQHI - Grimshaw Station.

Date	Time (MST)	Parameter	Average Period	AAAQOs / AAAQGs	Concentration	Wind speed	Wind Direction	Reference #
Dec 9	0	PM2.5	1-Hour	80 µg/m3	200 µg/m3	14.0 km/hr	278° (W)	422947

• The exceedance of the PM2.5 oguideline on December 9 is believed to be the result of local buildup of emissions.

Timeseries Chart of Hourly Average for the month of Dec 2023 - AQHI - Grimshaw Station



TABLES, CHARTS AND WIND ROSES

986-C STATION

Peace River Area Monitoring Program

986-C Station - December 2023

Summary of Hourly Averages

SULPHUR DIOXIDE (SO_2) in ppb

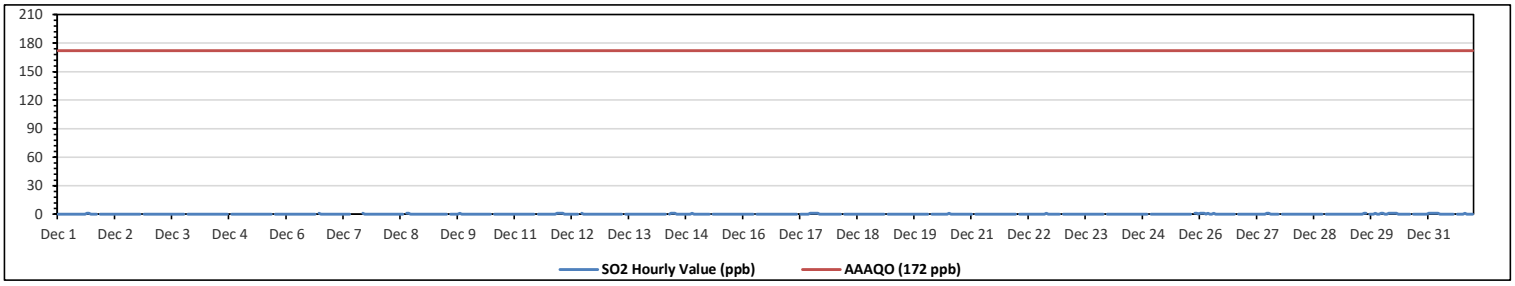
Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb

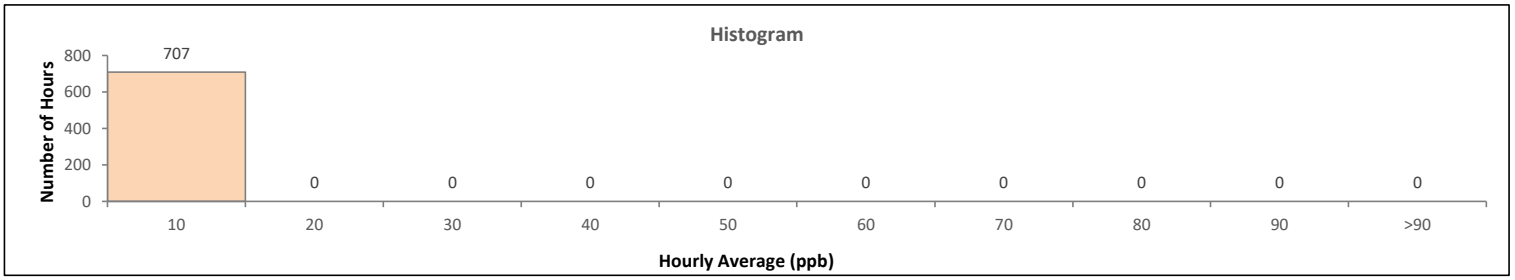
Number of 1-Hour Exceedances:	0	Number of 24-Hour Exceedances:	0	30-Day Exceedence:	0	
Maximum Hourly Value:	1	ppb	on Dec 1 at hr 15	Hours in Service:	744	
Maximum Daily Value:	0.3	ppb	on Dec 31	Hours of Data:	707	
Minimum Hourly Value:	0	ppb	on Dec 1 at hr 0	Hours of Missing Data:	0	
Minimum Daily Value:	0.0	ppb	on Dec 2	Hours of Calibration:	37	
Monthly Average:	0.1	ppb		Operational Uptime:	100.0	

Day	Hourly Period Starting at (MST)																						Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	S	0	0	0	1	0.1
Dec 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0
Dec 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
Dec 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Dec 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Dec 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	0	0	0	1	0.0
Dec 7	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	C	1	0	0	0	0	0	0	0	0	1	0.1
Dec 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0	0	0	0	0	0	0	0	1	0.1
Dec 9	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	0	0	0	0	0	1	0.0
Dec 10	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 11	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0.1
Dec 12	1	1	0	0	0	0	0	0	0	0	S	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Dec 13	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 14	0	0	0	0	0	0	0	0	S	0	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0.2
Dec 15	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 16	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 17	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0.2
Dec 18	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 19	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 20	0	0	S	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Dec 21	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 22	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	S	0	1	0.0
Dec 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0.0
Dec 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0.0
Dec 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0	0	1	0.1
Dec 26	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	0.2
Dec 27	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	S	0	0	0	0	0	0	1	0.1
Dec 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Dec 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	S	0	0	0	1	0	0	1	0	1	0.2
Dec 30	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	1	0.3
Dec 31	1	1	1	1	1	1	0	0	0	0	0	0	0	0	S	0	0	0	0	1	0	0	0	0	0	1	0.3
Diurnal Maximum	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1			
Diurnal Average	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



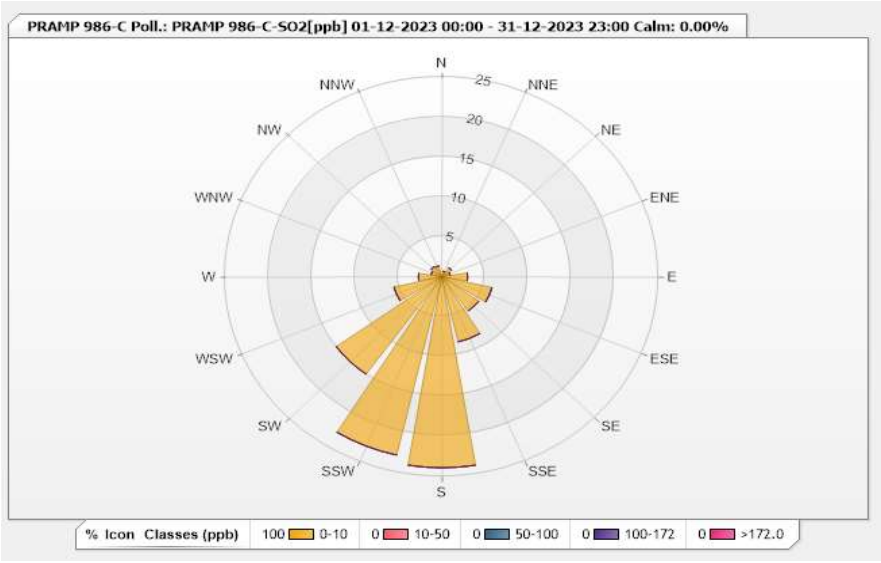


Station: PRAMP 986-C Poll.: PRAMP 986-C-SO2[ppb] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 95.03% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	0	0	0	0	0	0
NNE	0.71	0	0	0	0	0.71
NE	1.41	0	0	0	0	1.41
ENE	0.99	0	0	0	0	0.99
E	2.97	0	0	0	0	2.97
ESE	5.94	0	0	0	0	5.94
SE	5.23	0	0	0	0	5.23
SSE	8.35	0	0	0	0	8.35
S	23.9	0	0	0	0	23.9
SSW	22.91	0	0	0	0	22.91
SW	14.99	0	0	0	0	14.99
WSW	5.66	0	0	0	0	5.66
W	2.69	0	0	0	0	2.69
WNW	1.27	0	0	0	0	1.27
NW	1.56	0	0	0	0	1.56
NNW	1.41	0	0	0	0	1.41
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

986-C Station - December 2023

Summary of Hourly Averages

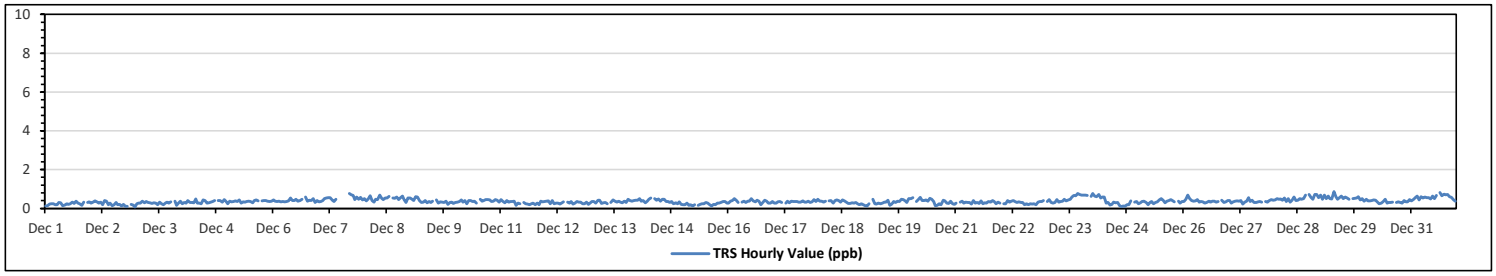
TOTAL REDUCED SULPHUR (TRS) in ppb

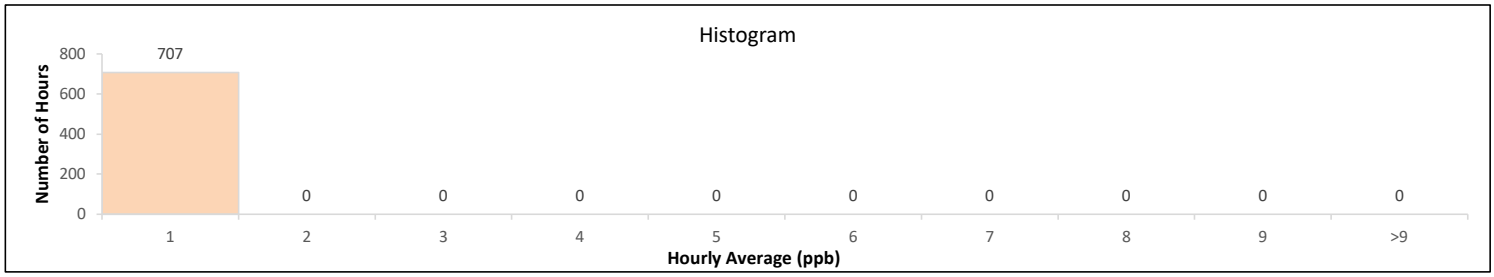
Maximum Hourly Value:	0.87	ppb	on Dec 29 at hr 7	Hours in Service:	744
Maximum Daily Value:	0.58	ppb	on Dec 31	Hours of Data:	707
Minimum Hourly Value:	0.07	ppb	on Dec 2 at hr 23	Hours of Missing Data:	0
Minimum Daily Value:	0.23	ppb	on Dec 15	Hours of Calibration:	37
Monthly Average:	0.37	ppb		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																						Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0.13	0.14	0.22	0.24	0.24	0.2	0.2	0.3	0.29	0.14	0.17	0.23	0.21	0.23	0.32	0.26	0.37	0.27	0.24	0.16	0.33	S	0.3	0.34	0.13	0.37	0.24
Dec 2	0.28	0.33	0.39	0.34	0.28	0.32	0.2	0.41	0.38	0.18	0.28	0.14	0.19	0.3	0.2	0.21	0.13	0.21	0.1	0.11	S	0.21	0.17	0.07	0.07	0.41	0.24
Dec 3	0.24	0.27	0.28	0.38	0.29	0.35	0.31	0.29	0.26	0.29	0.28	0.18	0.33	0.24	0.18	0.27	0.32	0.27	0.34	S	0.37	0.16	0.28	0.37	0.16	0.38	0.28
Dec 4	0.24	0.3	0.27	0.41	0.3	0.3	0.29	0.49	0.28	0.27	0.25	0.44	0.41	0.27	0.29	0.33	0.36	0.4	S	0.41	0.4	0.33	0.45	0.37	0.24	0.49	0.34
Dec 5	0.25	0.38	0.34	0.35	0.39	0.36	0.44	0.28	0.34	0.32	0.35	0.37	0.36	0.29	0.42	0.44	0.39	S	0.39	0.4	0.4	0.37	0.35	0.38	0.25	0.44	0.36
Dec 6	0.44	0.37	0.36	0.37	0.34	0.36	0.34	0.35	0.39	0.54	0.41	0.4	0.48	0.37	0.41	0.47	S	0.6	0.38	0.43	0.4	0.5	0.3	0.4	0.30	0.60	0.41
Dec 7	0.34	0.36	0.42	0.5	0.53	0.56	0.56	0.43	0.36	0.48	C	C	C	C	C	C	0.78	0.7	0.67	0.46	0.59	0.47	0.57	0.44	0.34	0.78	0.51
Dec 8	0.5	0.39	0.49	0.65	0.42	0.32	0.47	0.46	0.69	0.52	0.46	0.54	0.53	0.62	S	0.54	0.52	0.59	0.45	0.56	0.63	0.45	0.31	0.54	0.31	0.69	0.51
Dec 9	0.53	0.47	0.41	0.61	0.58	0.41	0.3	0.32	0.41	0.29	0.35	0.31	0.38	S	0.44	0.27	0.34	0.32	0.3	0.37	0.21	0.31	0.33	0.26	0.21	0.61	0.37
Dec 10	0.3	0.32	0.35	0.44	0.33	0.41	0.24	0.4	0.42	0.36	0.37	0.27	S	0.47	0.37	0.42	0.46	0.46	0.44	0.36	0.37	0.46	0.43	0.32	0.24	0.47	0.38
Dec 11	0.45	0.37	0.29	0.41	0.32	0.35	0.36	0.37	0.16	0.28	0.24	S	0.31	0.24	0.22	0.19	0.24	0.28	0.19	0.28	0.2	0.37	0.34	0.35	0.16	0.45	0.30
Dec 12	0.38	0.39	0.24	0.4	0.23	0.27	0.27	0.22	0.28	0.34	S	0.32	0.28	0.35	0.22	0.27	0.36	0.32	0.33	0.25	0.23	0.33	0.21	0.28	0.21	0.40	0.29
Dec 13	0.36	0.36	0.27	0.43	0.43	0.26	0.29	0.3	0.24	S	0.31	0.44	0.38	0.33	0.37	0.33	0.29	0.37	0.3	0.47	0.4	0.37	0.41	0.43	0.24	0.47	0.35
Dec 14	0.43	0.51	0.38	0.41	0.29	0.38	0.48	0.54	S	0.51	0.43	0.49	0.38	0.48	0.48	0.36	0.36	0.31	0.36	0.25	0.29	0.24	0.34	0.21	0.21	0.54	0.39
Dec 15	0.2	0.18	0.28	0.16	0.19	0.13	0.2	S	0.16	0.21	0.23	0.23	0.31	0.27	0.19	0.12	0.21	0.18	0.27	0.27	0.31	0.36	0.35	0.28	0.12	0.36	0.23
Dec 16	0.27	0.37	0.4	0.51	0.43	0.31	S	0.32	0.38	0.3	0.37	0.38	0.51	0.39	0.34	0.43	0.38	0.2	0.31	0.43	0.37	0.28	0.27	0.36	0.20	0.51	0.36
Dec 17	0.27	0.27	0.34	0.35	0.3	S	0.27	0.37	0.29	0.37	0.35	0.36	0.35	0.33	0.33	0.39	0.32	0.33	0.38	0.3	0.34	0.46	0.36	0.48	0.27	0.48	0.34
Dec 18	0.37	0.37	0.33	0.38	S	0.39	0.41	0.27	0.4	0.44	0.4	0.33	0.44	0.39	0.33	0.26	0.26	0.29	0.28	0.31	0.24	0.2	0.23	0.2	0.20	0.44	0.33
Dec 19	0.14	0.13	0.25	S	0.48	0.25	0.22	0.28	0.25	0.27	0.33	0.33	0.43	0.16	0.22	0.35	0.3	0.37	0.36	0.48	0.46	0.39	0.3	0.5	0.13	0.50	0.32
Dec 20	0.51	0.56	S	0.35	0.46	0.57	0.41	0.41	0.44	0.37	0.52	0.48	0.35	0.15	0.16	0.24	0.2	0.43	0.39	0.27	0.26	0.37	0.25	0.21	0.15	0.57	0.36
Dec 21	0.28	S	0.32	0.37	0.28	0.32	0.3	0.3	0.22	0.4	0.27	0.3	0.26	0.39	0.25	0.29	0.27	0.36	0.33	0.4	0.35	0.25	0.32	0.27	0.22	0.40	0.31
Dec 22	S	0.23	0.24	0.4	0.33	0.38	0.4	0.35	0.31	0.34	0.3	0.3	0.19	0.23	0.2	0.25	0.22	0.24	0.2	0.33	0.36	0.35	0.4	S	0.19	0.40	0.30
Dec 23	0.35	0.45	0.31	0.28	0.31	0.45	0.33	0.36	0.37	0.47	0.39	0.44	0.48	0.58	0.67	0.65	0.76	0.73	0.68	0.68	0.68	0.67	S	0.62	0.28	0.76	0.51
Dec 24	0.77	0.64	0.61	0.73	0.53	0.59	0.58	0.27	0.3	0.17	0.21	0.33	0.29	0.3	0.15	0.09	0.12	0.1	0.2	0.2	0.39	S	0.32	0.36	0.09	0.77	0.36
Dec 25	0.24	0.29	0.35	0.37	0.31	0.2	0.3	0.35	0.24	0.3	0.34	0.44	0.51	0.43	0.29	0.38	0.41	0.45	0.41	0.34	S	0.37	0.27	0.35	0.20	0.51	0.35
Dec 26	0.35	0.47	0.68	0.5	0.4	0.38	0.39	0.46	0.33	0.35	0.34	0.27	0.31	0.38	0.33	0.37	0.38	0.33	0.35	S	0.43	0.31	0.34	0.41	0.27	0.68	0.39
Dec 27	0.4	0.27	0.34	0.37	0.39	0.38	0.41	0.22	0.32	0.38	0.56	0.36	0.43	0.3	0.31	0.34	0.36	0.33	S	0.36	0.33	0.41	0.46	0.43	0.22	0.56	0.37
Dec 28	0.44	0.5	0.48	0.49	0.43	0.53	0.35	0.51	0.32	0.43	0.58	0.41	0.43	0.51	0.47	0.51	0.68	S	0.73	0.57	0.47	0.71	0.71	0.56	0.32	0.73	0.51
Dec 29	0.69	0.48	0.68	0.5	0.64	0.5	0.49	**0.87**	0.61	0.47	0.56	0.63	0.51	0.6	0.53	0.48	S	0.5	0.52	0.53	0.61	0.44	0.5	0.37	0.37	**0.87**	0.55
Dec 30	0.48	0.39	0.39	0.41	0.44	0.43	0.32	0.25	0.28	0.35	0.48	0.28	0.3	0.31	0.32	S	0.31	0.34	0.3	0.28	0.4	0.34	0.34	0.46	0.25	0.48	0.36
Dec 31	0.39	0.47	0.57	0.64	0.44	0.61	0.54	0.6	0.55	0.56	0.49	0.63	0.51	0.67	S	0.81	0.65	0.74	0.7	0.73	0.61	0.57	0.46	0.38	0.38	0.81	**0.58**
Diurnal Maximum	0.77	0.64	0.68	0.73	0.64	0.61	0.58	0.87	0.69	0.56	0.58	0.63	0.53	0.67	0.67	0.81	0.78	0.74	0.73	0.73	0.68	0.71	0.71	0.62			
Diurnal Average	0.37	0.37	0.38	0.43	0.38	0.38	0.36	0.38	0.34	0.36	0.37	0.37	0.37	0.36	0.32	0.36	0.37	0.38	0.38	0.38	0.39	0.38	0.36	0.37			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



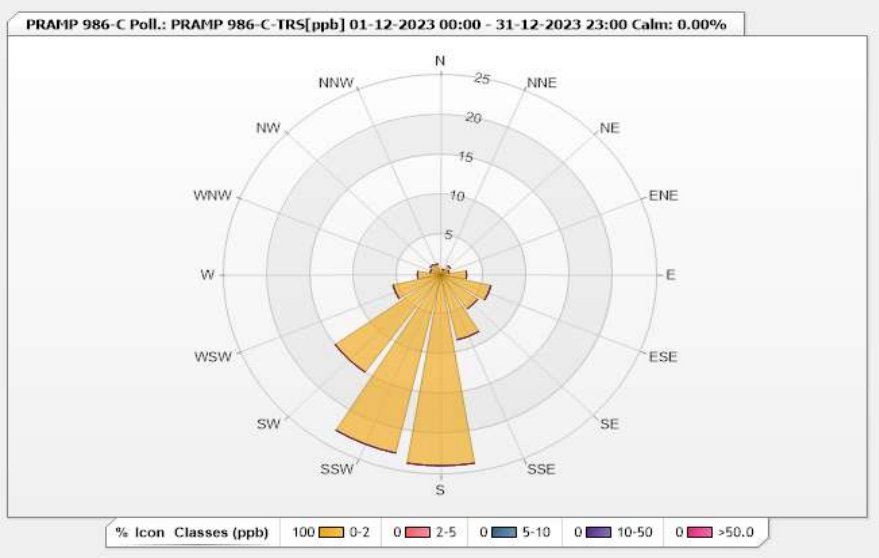


Station: PRAMP 986-C Poll.: PRAMP 986-C-TRS[ppb] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 95.03% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	0	0	0	0	0	0
NNE	0.71	0	0	0	0	0.71
NE	1.41	0	0	0	0	1.41
ENE	0.99	0	0	0	0	0.99
E	2.97	0	0	0	0	2.97
ESE	5.94	0	0	0	0	5.94
SE	5.23	0	0	0	0	5.23
SSE	8.35	0	0	0	0	8.35
S	23.9	0	0	0	0	23.9
SSW	22.91	0	0	0	0	22.91
SW	14.99	0	0	0	0	14.99
WSW	5.66	0	0	0	0	5.66
W	2.69	0	0	0	0	2.69
WNW	1.27	0	0	0	0	1.27
NW	1.56	0	0	0	0	1.56
NNW	1.41	0	0	0	0	1.41
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

986-C Station - December 2023

Summary of Hourly Averages

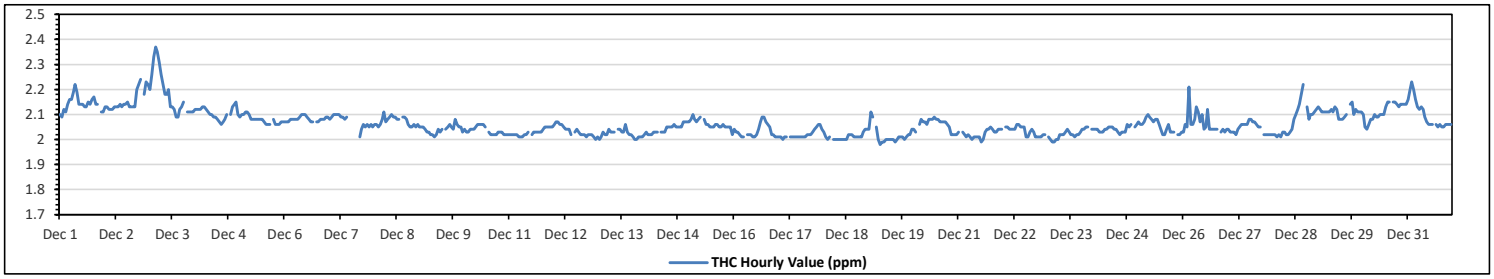
TOTAL HYDROCARBONS (THC) in ppm

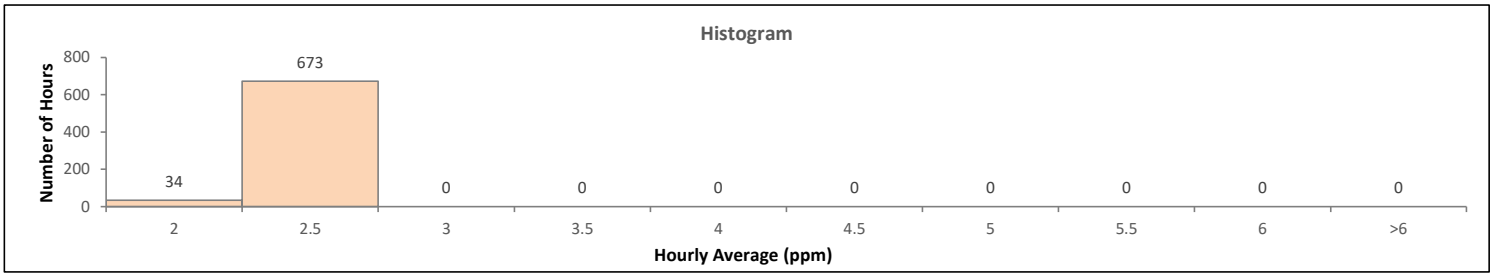
Maximum Hourly Value:	2.37	ppm	on Dec 3 at hr 3	Hours in Service:	744
Maximum Daily Value:	2.19	ppm	on Dec 3	Hours of Data:	707
Minimum Hourly Value:	1.98	ppm	on Dec 19 at hr 6	Hours of Missing Data:	0
Minimum Daily Value:	2.01	ppm	on Dec 18	Hours of Calibration:	37
Monthly Average:	2.06	ppm		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	2.10	2.09	2.12	2.11	2.14	2.16	2.16	2.19	2.22	2.19	2.14	2.14	2.14	2.13	2.13	2.15	2.14	2.16	2.17	2.14	2.14	S	2.11	2.11	2.09	2.22	2.14
Dec 2	2.13	2.13	2.12	2.12	2.12	2.13	2.13	2.13	2.14	2.13	2.14	2.14	2.15	2.13	2.13	2.13	2.13	2.20	2.22	2.24	S	2.18	2.23	2.22	2.12	2.24	2.15
Dec 3	2.20	2.26	2.33	2.37	2.35	2.31	2.26	2.22	2.18	2.18	2.20	2.13	2.13	2.12	2.09	2.09	2.12	2.13	2.15	S	2.11	2.11	2.11	2.11	2.09	2.37	2.19
Dec 4	2.12	2.12	2.12	2.12	2.13	2.13	2.12	2.11	2.10	2.10	2.09	2.09	2.08	2.07	2.06	2.07	2.08	2.10	S	2.10	2.13	2.14	2.15	2.10	2.06	2.15	2.11
Dec 5	2.09	2.10	2.10	2.11	2.11	2.10	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.07	2.06	2.06	2.06	S	2.08	2.06	2.06	2.06	2.07	2.07	2.06	2.11	2.08
Dec 6	2.07	2.07	2.07	2.08	2.08	2.08	2.08	2.08	2.09	2.10	2.10	2.10	2.09	2.08	2.07	2.07	S	2.07	2.07	2.08	2.08	2.08	2.09	2.09	2.07	2.10	2.08
Dec 7	2.08	2.09	2.10	2.10	2.10	2.10	2.09	2.09	2.08	2.09	C	C	C	C	C	S	2.01	2.04	2.06	2.05	2.06	2.05	2.06	2.05	2.01	2.10	2.07
Dec 8	2.06	2.06	2.05	2.06	2.08	2.11	2.07	2.08	2.09	2.10	2.09	2.09	2.08	2.08	S	2.09	2.09	2.08	2.06	2.05	2.05	2.06	2.05	2.06	2.05	2.11	2.07
Dec 9	2.05	2.05	2.05	2.04	2.03	2.03	2.02	2.02	2.01	2.02	2.04	2.03	2.04	S	2.04	2.05	2.06	2.05	2.04	2.08	2.06	2.05	2.05	2.03	2.01	2.08	2.04
Dec 10	2.04	2.03	2.03	2.04	2.04	2.04	2.05	2.06	2.06	2.06	2.06	2.05	S	2.03	2.02	2.02	2.02	2.02	2.03	2.03	2.03	2.02	2.02	2.02	2.02	2.06	2.04
Dec 11	2.02	2.02	2.02	2.02	2.02	2.01	2.01	2.01	2.02	2.02	2.03	S	2.02	2.03	2.03	2.03	2.03	2.03	2.04	2.05	2.05	2.05	2.05	2.05	2.01	2.05	2.03
Dec 12	2.06	2.07	2.07	2.06	2.06	2.05	2.04	2.04	2.04	2.02	S	2.03	2.04	2.03	2.02	2.02	2.02	2.01	2.02	2.02	2.02	2.01	2.00	2.01	2.00	2.07	2.03
Dec 13	2.00	2.01	2.03	2.02	2.02	2.04	2.03	2.03	2.03	S	2.04	2.04	2.03	2.03	2.06	2.03	2.02	2.02	2.01	2.00	2.00	2.01	2.01	2.01	2.00	2.06	2.02
Dec 14	2.02	2.03	2.02	2.02	2.02	2.03	2.03	2.03	S	2.03	2.03	2.03	2.05	2.05	2.05	2.05	2.06	2.05	2.05	2.05	2.05	2.07	2.07	2.07	2.02	2.07	2.04
Dec 15	2.07	2.08	2.10	2.08	2.07	2.08	2.09	S	2.08	2.06	2.06	2.05	2.05	2.05	2.06	2.06	2.05	2.05	2.06	2.05	2.05	2.05	2.05	2.02	2.02	2.10	2.06
Dec 16	2.04	2.03	2.03	2.02	2.01	2.01	S	2.02	2.02	2.02	2.01	2.01	2.02	2.04	2.07	2.09	2.09	2.07	2.06	2.05	2.02	2.02	2.01	2.01	2.01	2.09	2.03
Dec 17	2.01	2.01	2.00	2.01	2.01	S	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.02	2.02	2.02	2.03	2.04	2.05	2.06	2.06	2.04	2.00	2.06	2.02
Dec 18	2.03	2.01	2.00	2.01	S	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.02	2.02	2.02	2.01	2.01	2.01	2.01	2.01	2.03	2.04	2.04	2.00	2.04	2.01
Dec 19	2.04	2.11	2.09	S	2.05	2.00	1.98	1.99	1.99	2.00	2.00	2.00	2.00	2.00	1.99	2.00	2.01	2.01	2.01	2.00	2.01	2.02	2.02	2.04	1.98	2.11	2.02
Dec 20	2.04	2.03	S	2.06	2.08	2.07	2.07	2.06	2.08	2.08	2.08	2.09	2.08	2.08	2.07	2.07	2.07	2.07	2.06	2.05	2.02	2.02	2.02	2.02	2.02	2.09	2.06
Dec 21	2.03	S	2.03	2.02	2.01	2.02	2.01	2.00	2.01	2.01	2.01	2.01	1.99	2.00	2.03	2.04	2.04	2.05	2.04	2.03	2.03	2.04	2.04	2.04	1.99	2.05	2.02
Dec 22	S	2.05	2.05	2.04	2.04	2.04	2.04	2.06	2.06	2.05	2.05	2.05	2.01	2.01	2.03	2.04	2.03	2.01	2.01	2.01	2.01	2.02	2.02	S	2.01	2.06	2.03
Dec 23	2.01	2.00	1.99	1.99	2.00	2.00	2.02	2.02	2.02	2.03	2.04	2.03	2.02	2.02	2.01	2.02	2.02	2.03	2.04	2.04	2.05	2.05	S	2.04	1.99	2.05	2.02
Dec 24	2.04	2.04	2.04	2.03	2.03	2.03	2.04	2.04	2.05	2.05	2.05	2.04	2.04	2.03	2.02	2.03	2.03	2.03	2.06	2.05	2.06	S	2.05	2.06	2.02	2.06	2.04
Dec 25	2.07	2.06	2.06	2.07	2.09	2.10	2.09	2.08	2.07	2.08	2.08	2.06	2.04	2.02	2.02	2.04	2.06	2.03	2.03	2.03	S	2.02	2.02	2.03	2.02	2.10	2.05
Dec 26	2.03	2.06	2.05	2.21	2.06	2.06	2.08	2.13	2.11	2.07	2.10	2.04	2.05	2.12	2.04	2.04	2.04	2.04	2.04	S	2.03	2.04	2.03	2.04	2.03	2.21	2.07
Dec 27	2.04	2.03	2.03	2.03	2.02	2.04	2.05	2.06	2.06	2.06	2.06	2.08	2.08	2.07	2.07	2.06	2.05	2.05	S	2.02	2.02	2.02	2.02	2.02	2.02	2.08	2.05
Dec 28	2.02	2.02	2.01	2.02	2.01	2.03	2.03	2.02	2.02	2.03	2.04	2.08	2.10	2.12	2.14	2.18	2.22	S	2.13	2.08	2.10	2.10	2.11	2.12	2.01	2.22	2.08
Dec 29	2.13	2.12	2.11	2.11	2.11	2.11	2.11	2.12	2.11	2.13	2.12	2.08	2.08	2.08	2.09	2.10	S	2.14	2.15	2.10	2.12	2.11	2.11	2.11	2.08	2.15	2.11
Dec 30	2.10	2.05	2.04	2.06	2.08	2.08	2.10	2.09	2.09	2.10	2.10	2.10	2.13	2.15	2.15	S	2.15	2.15	2.14	2.13	2.14	2.14	2.14	2.14	2.04	2.15	2.11
Dec 31	2.16	2.20	2.23	2.20	2.16	2.13	2.12	2.13	2.12	2.09	2.07	2.06	2.06	2.06	S	2.06	2.05	2.06	2.05	2.05	2.06	2.06	2.06	2.06	2.05	2.23	2.10
Diurnal Maximum	2.20	2.26	2.33	2.37	2.35	2.31	2.26	2.22	2.22	2.19	2.20	2.14	2.15	2.15	2.15	2.18	2.22	2.20	2.22	2.24	2.14	2.18	2.23	2.22			
Diurnal Average	2.06	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.07	2.06	2.06	2.06	2.06	2.06			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



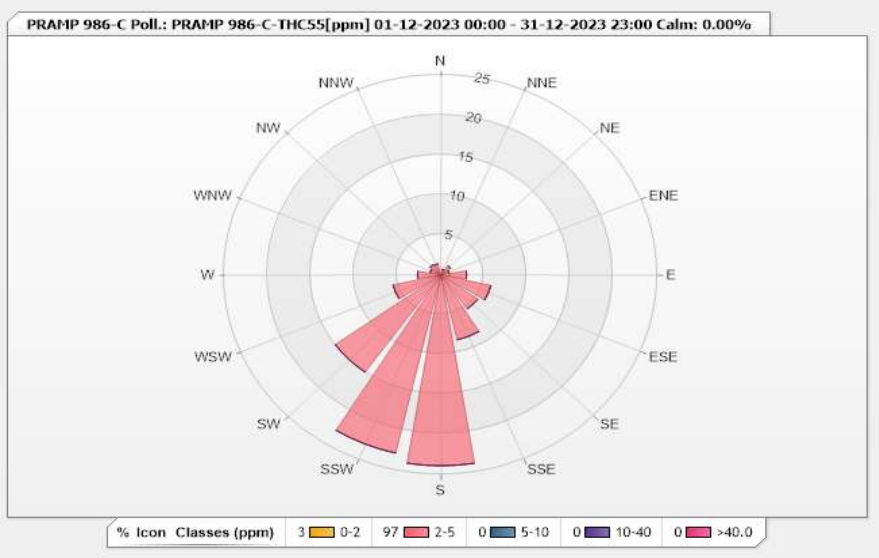


Station: PRAMP 986-C Poll.: PRAMP 986-C-THC55[ppm] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 95.03% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	0	0	0	0	0	0
NNE	0	0.71	0	0	0	0.71
NE	0	1.41	0	0	0	1.41
ENE	0.14	0.85	0	0	0	0.99
E	0.99	1.98	0	0	0	2.97
ESE	0	5.94	0	0	0	5.94
SE	0	5.23	0	0	0	5.23
SSE	0	8.35	0	0	0	8.35
S	0.14	23.76	0	0	0	23.9
SSW	0.42	22.49	0	0	0	22.91
SW	0.28	14.71	0	0	0	14.99
WSW	0.42	5.23	0	0	0	5.65
W	0.28	2.4	0	0	0	2.68
WNW	0	1.27	0	0	0	1.27
NW	0	1.56	0	0	0	1.56
NNW	0	1.41	0	0	0	1.41
Summary	2.67	97.3	0	0	0	100



Peace River Area Monitoring Program

986-C Station - December 2023

Summary of Hourly Averages

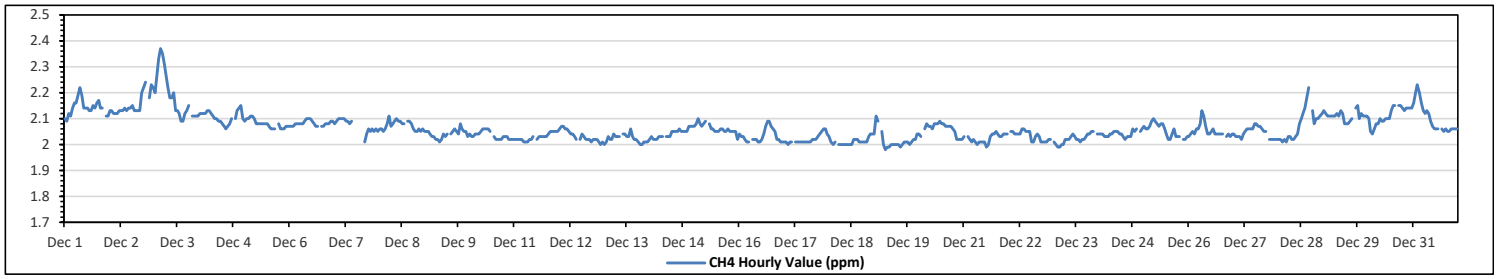
METHANE (CH4) in ppm

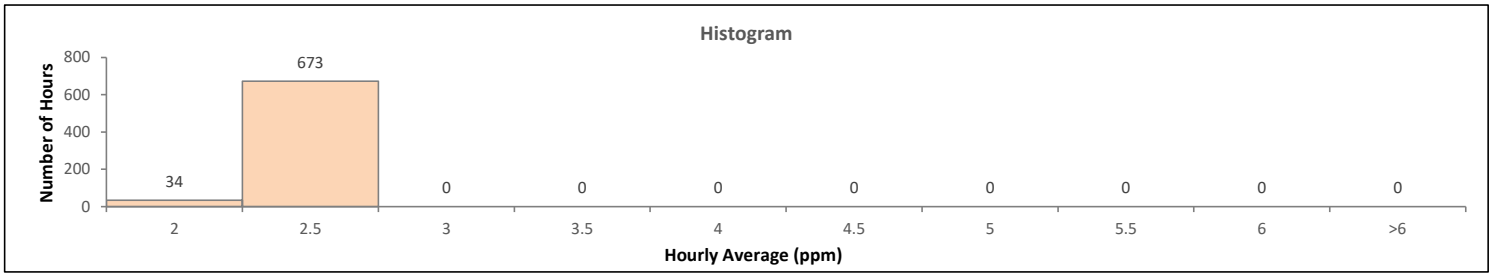
Maximum Hourly Value:	2.37	ppm	on Dec 3 at hr 3	Hours in Service:	744
Maximum Daily Value:	2.19	ppm	on Dec 3	Hours of Data:	707
Minimum Hourly Value:	1.98	ppm	on Dec 19 at hr 6	Hours of Missing Data:	0
Minimum Daily Value:	2.01	ppm	on Dec 18	Hours of Calibration:	37
Monthly Average:	2.06	ppm		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	2.10	2.09	2.12	2.11	2.14	2.16	2.16	2.19	2.22	2.19	2.14	2.14	2.14	2.13	2.13	2.15	2.14	2.16	2.17	2.14	2.14	S	2.11	2.11	2.09	2.22	2.14
Dec 2	2.13	2.13	2.12	2.12	2.12	2.13	2.13	2.13	2.14	2.13	2.14	2.14	2.15	2.13	2.13	2.13	2.13	2.20	2.22	2.24	S	2.18	2.23	2.22	2.12	2.24	2.15
Dec 3	2.20	2.26	2.33	2.37	2.35	2.31	2.26	2.22	2.18	2.18	2.20	2.13	2.13	2.12	2.09	2.09	2.12	2.13	2.15	S	2.11	2.11	2.11	2.11	2.09	2.37	2.19
Dec 4	2.12	2.12	2.12	2.12	2.13	2.13	2.12	2.11	2.10	2.10	2.09	2.09	2.08	2.07	2.06	2.07	2.08	2.10	S	2.10	2.13	2.14	2.15	2.10	2.06	2.15	2.11
Dec 5	2.09	2.10	2.10	2.11	2.11	2.10	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.07	2.06	2.06	2.06	S	2.08	2.06	2.06	2.06	2.07	2.07	2.06	2.11	2.08
Dec 6	2.07	2.07	2.07	2.08	2.08	2.08	2.08	2.08	2.09	2.10	2.10	2.10	2.09	2.08	2.07	2.07	S	2.07	2.07	2.08	2.08	2.08	2.09	2.09	2.07	2.10	2.08
Dec 7	2.08	2.09	2.10	2.10	2.10	2.10	2.09	2.09	2.08	2.09	C	C	C	C	C	S	2.01	2.04	2.06	2.05	2.06	2.05	2.06	2.05	2.01	2.10	2.07
Dec 8	2.06	2.06	2.05	2.06	2.08	2.11	2.07	2.08	2.09	2.10	2.09	2.09	2.08	2.08	S	2.09	2.09	2.08	2.06	2.05	2.05	2.06	2.05	2.06	2.05	2.11	2.07
Dec 9	2.05	2.05	2.05	2.04	2.03	2.03	2.02	2.02	2.01	2.02	2.04	2.03	2.04	S	2.04	2.05	2.06	2.05	2.04	2.08	2.06	2.05	2.05	2.03	2.01	2.08	2.04
Dec 10	2.04	2.03	2.03	2.04	2.04	2.04	2.05	2.06	2.06	2.06	2.06	2.05	S	2.03	2.02	2.02	2.02	2.02	2.03	2.03	2.03	2.02	2.02	2.02	2.02	2.06	2.04
Dec 11	2.02	2.02	2.02	2.02	2.02	2.01	2.01	2.01	2.02	2.02	2.03	S	2.02	2.03	2.03	2.03	2.03	2.03	2.04	2.05	2.05	2.05	2.05	2.05	2.01	2.05	2.03
Dec 12	2.06	2.07	2.07	2.06	2.06	2.05	2.04	2.04	2.03	2.02	S	2.02	2.04	2.03	2.02	2.02	2.02	2.01	2.02	2.02	2.02	2.01	2.00	2.01	2.00	2.07	2.03
Dec 13	2.00	2.01	2.03	2.02	2.02	2.04	2.03	2.03	2.03	S	2.04	2.04	2.03	2.03	2.06	2.03	2.02	2.02	2.01	2.00	2.00	2.01	2.01	2.01	2.00	2.06	2.02
Dec 14	2.02	2.03	2.02	2.02	2.02	2.03	2.03	2.03	S	2.03	2.03	2.03	2.05	2.05	2.05	2.05	2.06	2.05	2.05	2.05	2.05	2.07	2.07	2.07	2.02	2.07	2.04
Dec 15	2.07	2.08	2.10	2.08	2.07	2.08	2.09	S	2.08	2.06	2.06	2.05	2.05	2.05	2.06	2.06	2.05	2.05	2.06	2.05	2.05	2.05	2.05	2.02	2.02	2.10	2.06
Dec 16	2.04	2.03	2.03	2.02	2.01	2.01	S	2.02	2.02	2.02	2.01	2.01	2.02	2.04	2.07	2.09	2.09	2.07	2.06	2.05	2.02	2.02	2.01	2.01	2.01	2.09	2.03
Dec 17	2.01	2.01	2.00	2.01	2.01	S	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.02	2.02	2.02	2.03	2.04	2.05	2.06	2.06	2.04	2.00	2.06	2.02
Dec 18	2.03	2.01	2.00	2.01	S	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.02	2.02	2.02	2.01	2.01	2.01	2.01	2.01	2.03	2.04	2.04	2.00	2.04	2.01
Dec 19	2.04	2.11	2.09	S	2.05	2.00	1.98	1.99	1.99	2.00	2.00	2.00	2.00	2.00	1.99	2.00	2.01	2.01	2.01	2.00	2.01	2.02	2.02	2.04	1.98	2.11	2.02
Dec 20	2.04	2.03	S	2.06	2.08	2.07	2.07	2.06	2.08	2.08	2.08	2.09	2.08	2.08	2.07	2.07	2.07	2.07	2.06	2.05	2.02	2.02	2.02	2.02	2.02	2.09	2.06
Dec 21	2.03	S	2.03	2.02	2.01	2.02	2.01	2.00	2.01	2.01	2.01	2.01	1.99	2.00	2.03	2.04	2.04	2.05	2.04	2.03	2.03	2.04	2.04	2.04	1.99	2.05	2.02
Dec 22	S	2.05	2.05	2.04	2.04	2.04	2.04	2.06	2.06	2.05	2.05	2.05	2.01	2.01	2.03	2.04	2.03	2.01	2.01	2.01	2.01	2.02	2.02	S	2.01	2.06	2.03
Dec 23	2.01	2.00	1.99	1.99	2.00	2.00	2.02	2.02	2.02	2.03	2.04	2.03	2.02	2.02	2.01	2.02	2.02	2.03	2.04	2.04	2.05	2.05	S	2.04	1.99	2.05	2.02
Dec 24	2.04	2.04	2.04	2.03	2.03	2.03	2.04	2.04	2.05	2.05	2.05	2.04	2.04	2.03	2.02	2.03	2.03	2.03	2.06	2.05	2.06	S	2.05	2.06	2.02	2.06	2.04
Dec 25	2.07	2.06	2.06	2.07	2.09	2.10	2.09	2.08	2.07	2.08	2.08	2.06	2.04	2.02	2.02	2.04	2.06	2.03	2.03	2.03	S	2.02	2.02	2.03	2.02	2.10	2.05
Dec 26	2.03	2.04	2.05	2.04	2.06	2.06	2.08	2.13	2.11	2.07	2.04	2.04	2.05	2.06	2.04	2.04	2.04	2.04	2.04	S	2.03	2.04	2.03	2.04	2.03	2.13	2.05
Dec 27	2.04	2.03	2.03	2.03	2.02	2.04	2.05	2.06	2.06	2.06	2.06	2.08	2.08	2.07	2.07	2.06	2.05	2.05	S	2.02	2.02	2.02	2.02	2.02	2.02	2.08	2.05
Dec 28	2.02	2.02	2.01	2.02	2.01	2.03	2.03	2.02	2.02	2.03	2.04	2.08	2.10	2.12	2.14	2.18	2.22	S	2.13	2.08	2.10	2.10	2.11	2.12	2.01	2.22	2.08
Dec 29	2.13	2.12	2.11	2.11	2.11	2.11	2.11	2.12	2.11	2.13	2.12	2.08	2.08	2.08	2.09	2.10	S	2.14	2.15	2.10	2.12	2.11	2.11	2.11	2.08	2.15	2.11
Dec 30	2.10	2.05	2.04	2.06	2.08	2.08	2.10	2.09	2.09	2.10	2.10	2.10	2.13	2.15	2.15	S	2.06	2.15	2.15	2.14	2.13	2.14	2.14	2.14	2.04	2.15	2.11
Dec 31	2.16	2.20	2.23	2.20	2.16	2.13	2.12	2.13	2.12	2.09	2.07	2.06	2.06	2.06	S	2.06	2.05	2.06	2.05	2.05	2.06	2.06	2.06	2.06	2.05	2.23	2.10
Diurnal Maximum	2.20	2.26	2.33	2.37	2.35	2.31	2.26	2.22	2.22	2.19	2.20	2.14	2.15	2.15	2.15	2.18	2.22	2.20	2.22	2.24	2.14	2.18	2.23	2.22			
Diurnal Average	2.06	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.07	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.07	2.06	2.06	2.06	2.06	2.06			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance			
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P	Power Failure	
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)					

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



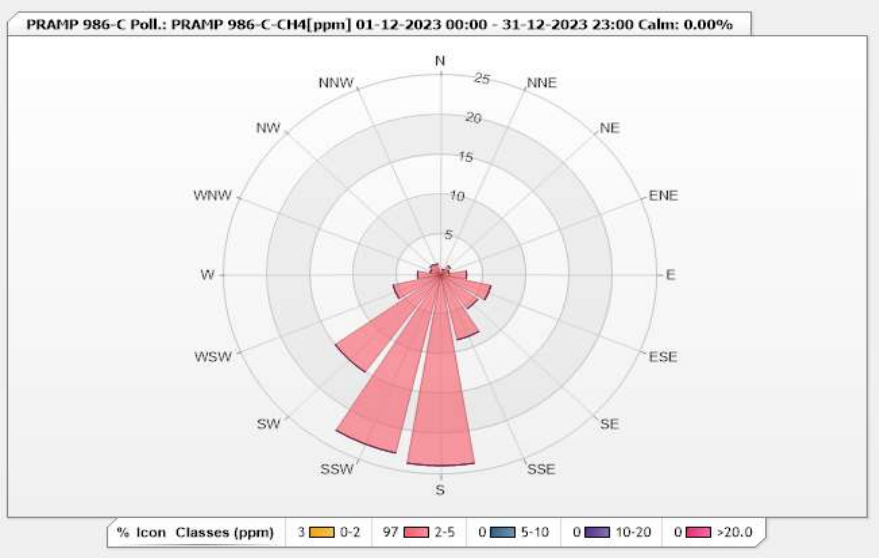


Station: PRAMP 986-C Poll.: PRAMP 986-C-CH4[ppm] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 95.03% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	0	0	0	0	0	0
NNE	0	0.71	0	0	0	0.71
NE	0	1.41	0	0	0	1.41
ENE	0.14	0.85	0	0	0	0.99
E	0.99	1.98	0	0	0	2.97
ESE	0	5.94	0	0	0	5.94
SE	0	5.23	0	0	0	5.23
SSE	0	8.35	0	0	0	8.35
S	0.14	23.76	0	0	0	23.9
SSW	0.42	22.49	0	0	0	22.91
SW	0.28	14.71	0	0	0	14.99
WSW	0.42	5.23	0	0	0	5.65
W	0.28	2.4	0	0	0	2.68
WNW	0	1.27	0	0	0	1.27
NW	0	1.56	0	0	0	1.56
NNW	0	1.41	0	0	0	1.41
Summary	2.67	97.3	0	0	0	100



Peace River Area Monitoring Program

986-C Station - December 2023

Summary of Hourly Averages

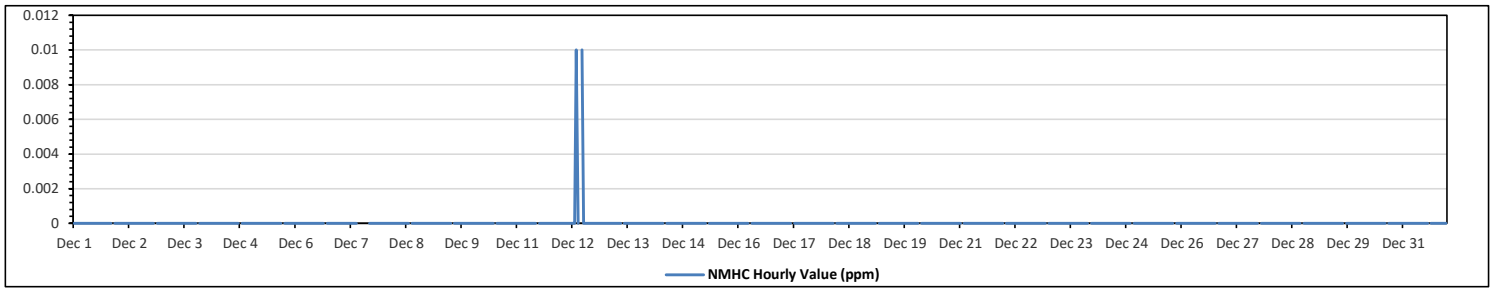
NON-METHANE HYDROCARBONS (NMHC) in ppm

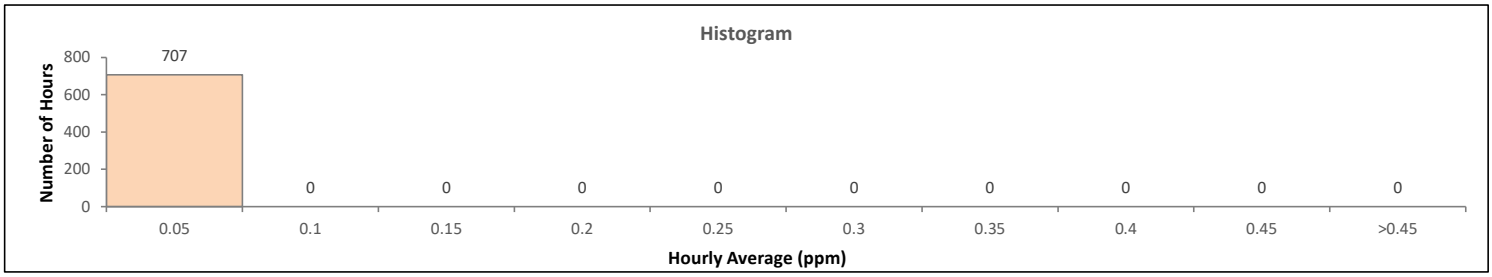
Maximum Hourly Value:	0.01	ppm	on Dec 12 at hr 8	Hours in Service:	744
Maximum Daily Value:	0.00	ppm	on Dec 12	Hours of Data:	707
Minimum Hourly Value:	0.00	ppm	on Dec 1 at hr 0	Hours of Missing Data:	0
Minimum Daily Value:	0.00	ppm	on Dec 1	Hours of Calibration:	37
Monthly Average:	0.00	ppm		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00
Dec 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00
Dec 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	C	C	C	C	C	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**	0.00	S	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**	**0.00**
Dec 13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 16	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 17	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 18	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 19	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 20	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 21	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 22	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00
Dec 23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00
Dec 24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00
Dec 25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00
Dec 26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Diurnal Maximum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Diurnal Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



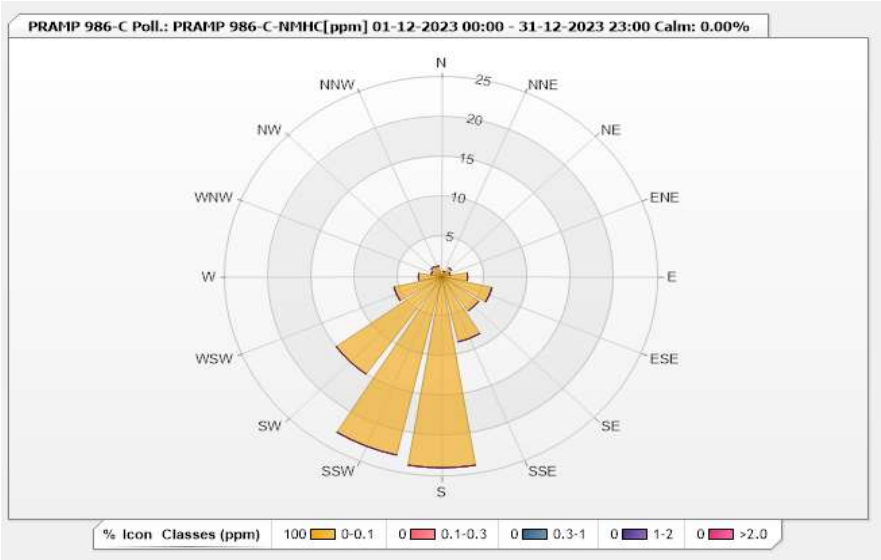


Station: PRAMP 986-C Poll.: PRAMP 986-C-NMHC[ppm] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 95.03% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	0	0	0	0	0	0
NNE	0.71	0	0	0	0	0.71
NE	1.41	0	0	0	0	1.41
ENE	0.99	0	0	0	0	0.99
E	2.97	0	0	0	0	2.97
ESE	5.94	0	0	0	0	5.94
SE	5.23	0	0	0	0	5.23
SSE	8.35	0	0	0	0	8.35
S	23.9	0	0	0	0	23.9
SSW	22.91	0	0	0	0	22.91
SW	14.99	0	0	0	0	14.99
WSW	5.66	0	0	0	0	5.66
W	2.69	0	0	0	0	2.69
WNW	1.27	0	0	0	0	1.27
NW	1.56	0	0	0	0	1.56
NNW	1.41	0	0	0	0	1.41
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

986-C Station - December 2023

Summary of Hourly Averages

RELATIVE HUMIDITY (RH) in %

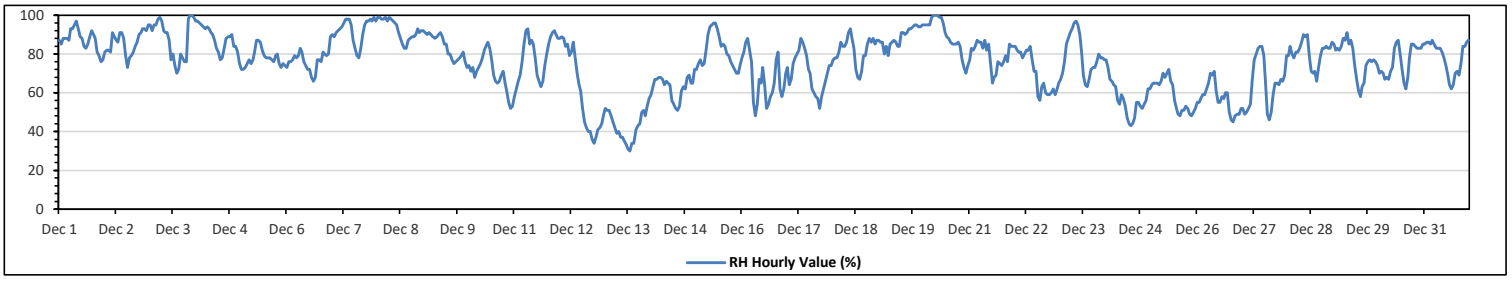
Maximum Hourly Value:	100	%	on Dec 3 at hr 21	Hours in Service:	744	
Maximum Daily Value:	92.7	%	on Dec 8	Hours of Data:	744	
Minimum Hourly Value:	30	%	on Dec 13 at hr 13	Hours of Missing Data:	0	
Minimum Daily Value:	42.8	%	on Dec 13	Hours of Calibration:	0	
Monthly Average:	75.6	%		Operational Uptime:	100.0	

Day	Hourly Period Starting at (MST)																						Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Dec 1	87	85	88	88	88	87	93	93	95	97	93	89	88	84	83	85	89	92	90	88	81	79	76	77	76	97	87.3
Dec 2	81	82	82	81	91	89	87	86	91	91	88	79	73	78	79	81	84	86	90	91	93	93	92	95	73	95	86.0
Dec 3	95	92	95	95	98	99	97	92	91	91	87	77	80	74	70	72	80	78	76	76	98	**100**	**100**	99	70	**100**	88.0
Dec 4	97	97	96	95	94	93	94	93	91	90	87	83	81	77	78	83	88	89	89	90	84	84	81	75	75	97	87.9
Dec 5	72	72	73	75	77	75	77	81	87	87	86	82	79	78	78	78	77	76	79	80	75	73	75	74	72	87	77.8
Dec 6	73	76	76	77	79	78	79	83	81	76	74	72	72	68	66	68	77	77	76	81	80	79	80	89	66	89	76.5
Dec 7	90	89	91	92	93	94	96	98	98	98	95	87	83	79	78	83	90	95	97	97	98	97	99	97	78	99	92.3
Dec 8	99	99	98	98	99	97	99	98	97	96	95	91	88	85	83	83	87	88	89	89	90	93	91	92	83	99	**92.7**
Dec 9	92	91	90	91	90	89	88	89	90	91	89	85	85	80	80	77	75	76	77	78	79	81	76	73	73	92	83.8
Dec 10	74	71	73	68	71	73	75	78	82	84	86	83	77	69	66	65	66	69	71	65	60	55	52	53	52	86	70.3
Dec 11	58	62	66	69	76	85	92	93	85	87	85	78	69	66	63	66	74	80	85	89	91	92	90	88	58	93	78.7
Dec 12	88	89	88	84	85	79	81	86	78	70	64	61	52	45	42	40	40	36	34	37	41	42	44	48	34	89	60.6
Dec 13	52	51	51	48	45	42	39	40	37	37	35	33	31	**30**	34	34	41	43	44	50	51	48	53	57	**30**	57	**42.8**
Dec 14	59	63	67	67	68	68	67	64	66	65	64	56	54	52	51	53	61	63	62	68	69	65	65	72	51	72	62.9
Dec 15	72	75	77	74	75	82	90	94	95	96	96	93	89	84	85	84	80	79	76	74	72	70	70	74	70	96	81.5
Dec 16	78	81	86	88	82	76	55	48	54	67	65	73	64	52	54	58	60	65	77	81	62	58	62	70	48	88	67.3
Dec 17	73	64	67	75	78	80	82	88	86	83	79	72	70	62	60	58	57	52	58	62	66	70	74	74	52	88	70.4
Dec 18	77	78	78	81	86	84	84	86	91	93	88	83	72	68	67	71	79	79	85	88	86	88	85	87	67	93	81.8
Dec 19	87	86	86	80	84	79	85	86	87	86	84	84	91	91	90	91	93	93	94	95	95	94	94	95	79	95	88.8
Dec 20	95	95	95	95	99	**100**	**100**	**100**	99	99	96	91	89	88	86	85	85	85	86	84	77	73	70	74	70	**100**	89.4
Dec 21	77	83	82	84	87	86	86	83	87	82	85	75	65	68	69	76	75	74	76	79	76	85	84	84	65	87	79.5
Dec 22	84	82	81	81	78	80	82	82	84	77	71	71	58	56	63	65	60	59	59	60	62	59	62	65	56	84	70.0
Dec 23	67	70	76	85	88	91	93	96	97	95	90	80	69	64	63	67	72	73	73	76	80	78	78	77	63	97	79.1
Dec 24	77	73	67	66	64	63	56	54	59	57	53	47	44	43	44	47	55	55	53	52	54	56	62	62	43	77	56.8
Dec 25	64	65	65	65	64	66	70	68	70	72	66	64	56	52	49	48	51	51	53	52	49	48	50	52	48	72	58.8
Dec 26	55	55	57	59	59	62	65	70	69	71	61	55	55	58	57	60	60	50	46	45	48	49	49	52	45	71	57.0
Dec 27	52	49	50	52	54	67	77	80	83	84	84	79	63	49	46	50	59	65	65	64	67	66	69	79	46	84	64.7
Dec 28	79	84	80	78	81	81	83	86	90	89	90	79	71	70	71	66	73	79	83	83	84	83	83	86	66	90	80.5
Dec 29	85	82	83	82	84	88	87	91	85	87	83	74	67	61	58	63	65	74	76	77	76	77	76	74	58	91	77.3
Dec 30	70	71	70	67	68	67	71	73	83	86	87	80	72	65	62	68	78	85	85	84	83	83	83	85	62	87	76.1
Dec 31	85	86	86	85	87	85	83	83	83	81	78	74	69	64	62	64	70	71	69	75	84	84	86	87	62	87	78.4
Diurnal Maximum	99	99	98	98	99	100	100	100	99	99	96	93	91	91	90	91	93	95	97	97	98	100	100	99			
Diurnal Average	77.2	77.4	78.1	78.2	79.7	80.2	81.1	82.0	82.9	82.7	80.1	75.2	70.2	66.5	65.7	67.4	71.0	72.2	73.3	74.5	74.5	74.3	74.5	76.3			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

986-C Station - December 2023

Summary of Hourly Averages

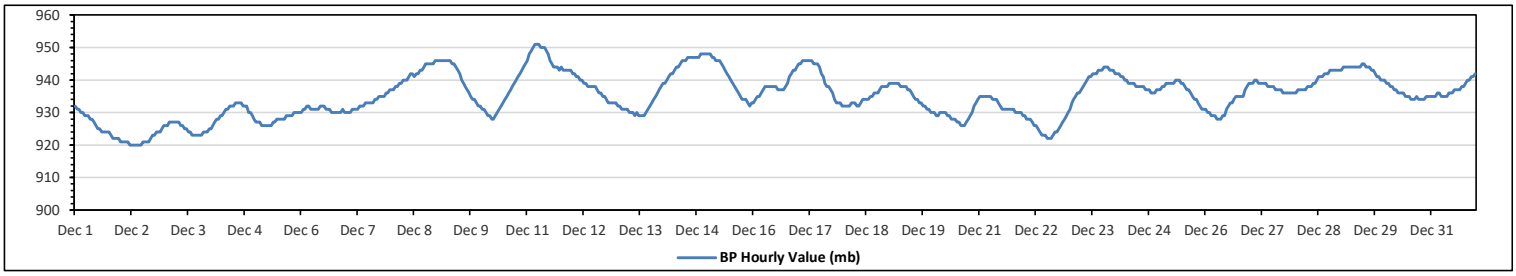
BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:	951	mb	on Dec 11 at hr 4	Hours in Service:	744
Maximum Daily Value:	947	mb	on Dec 11	Hours of Data:	744
Minimum Hourly Value:	920	mb	on Dec 2 at hr 5	Hours of Missing Data:	0
Minimum Daily Value:	922	mb	on Dec 2	Hours of Calibration:	0
Monthly Average:	935	mb		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																						Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Dec 1	932	931	931	930	930	929	929	929	928	928	927	926	925	925	924	924	924	924	924	923	922	922	922	922	922	932	926
Dec 2	921	921	921	921	921	**920**	**920**	**920**	**920**	**920**	**920**	**920**	921	921	921	921	922	923	923	924	924	924	925	926	**920**	926	**922**
Dec 3	926	926	927	927	927	927	927	927	926	926	925	925	924	924	923	923	923	923	923	923	924	924	924	925	923	927	925
Dec 4	925	926	927	928	928	929	929	930	931	931	932	932	932	933	933	933	933	932	932	932	930	930	929	928	925	933	930
Dec 5	927	927	927	926	926	926	926	926	926	927	927	928	928	928	928	928	929	929	929	929	930	930	930	930	926	930	928
Dec 6	930	931	931	932	932	931	931	931	931	931	932	932	932	931	931	931	930	930	930	930	930	930	931	930	930	932	931
Dec 7	930	930	930	931	931	931	931	932	932	932	933	933	933	933	933	934	934	935	935	935	935	936	936	937	930	937	933
Dec 8	937	937	938	938	939	939	940	940	940	941	942	942	941	942	942	943	943	944	945	945	945	945	945	946	937	946	942
Dec 9	946	946	946	946	946	946	946	946	945	945	944	943	942	940	939	938	937	936	935	934	934	933	932	932	932	946	941
Dec 10	931	931	930	929	929	928	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	928	945	935
Dec 11	946	948	949	950	**951**	**951**	**951**	950	950	950	949	948	946	945	944	944	944	943	944	943	943	943	943	943	943	**951**	**947**
Dec 12	942	942	941	941	940	940	939	939	938	938	938	938	938	937	936	936	935	935	934	933	933	933	933	933	933	942	937
Dec 13	932	932	931	931	931	931	930	930	930	929	930	929	929	929	929	930	931	932	933	934	935	936	937	938	929	938	932
Dec 14	939	939	940	941	942	942	943	944	944	945	946	946	946	947	947	947	947	947	947	947	948	948	948	948	939	948	945
Dec 15	948	948	947	947	946	946	946	945	944	943	942	941	940	939	938	937	936	935	934	934	934	933	932	933	932	948	940
Dec 16	933	934	935	935	936	937	938	938	938	938	938	938	938	937	937	937	937	938	939	941	942	943	943	944	933	944	938
Dec 17	945	945	946	946	946	946	946	946	945	945	945	944	942	941	939	938	938	937	936	934	933	933	933	932	932	946	941
Dec 18	932	932	932	932	933	933	933	932	932	933	934	934	934	934	935	935	936	936	936	937	938	938	938	938	932	938	934
Dec 19	939	939	939	939	939	939	938	938	938	938	937	937	936	935	934	934	933	933	932	932	931	931	930	930	930	939	935
Dec 20	930	929	929	930	930	930	930	929	929	928	928	928	927	927	926	926	926	927	928	929	930	932	933	934	926	934	929
Dec 21	935	935	935	935	935	935	935	934	934	934	933	932	931	931	931	931	931	931	931	930	930	930	930	929	929	935	932
Dec 22	929	928	928	928	927	926	926	925	924	923	923	923	922	922	922	923	924	924	925	926	927	928	929	930	922	930	926
Dec 23	931	933	934	935	936	936	937	938	939	940	941	941	942	942	942	943	943	943	944	944	944	943	943	943	931	944	940
Dec 24	942	942	942	941	941	940	940	939	939	939	939	938	938	938	938	938	937	937	937	936	936	936	937	937	936	942	939
Dec 25	937	938	938	939	939	939	939	939	940	940	940	939	939	938	937	937	936	935	934	934	933	932	931	931	931	940	937
Dec 26	931	930	930	929	929	929	928	928	928	929	929	931	932	933	933	934	935	935	935	935	935	937	938	939	928	939	932
Dec 27	939	939	940	940	939	939	939	939	939	938	938	938	938	937	937	937	937	936	936	936	936	936	936	936	936	940	938
Dec 28	936	937	937	937	937	937	938	938	938	939	939	940	941	941	941	942	942	942	943	943	943	943	943	943	936	943	940
Dec 29	943	944	944	944	944	944	944	944	944	944	944	945	945	944	944	944	943	943	942	941	941	940	940	940	940	945	943
Dec 30	939	939	938	938	937	937	936	936	936	936	935	935	935	934	934	934	935	934	934	934	934	935	935	935	934	939	936
Dec 31	935	935	935	936	936	935	935	935	935	936	936	936	937	937	937	937	938	938	939	940	940	941	941	942	935	942	937
Diurnal Maximum	948	948	949	950	951	951	951	950	950	950	949	948	946	947	947	947	947	947	947	947	948	948	948	948			
Diurnal Average	935	935	935	936	936	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935	935			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

986-C Station - December 2023

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

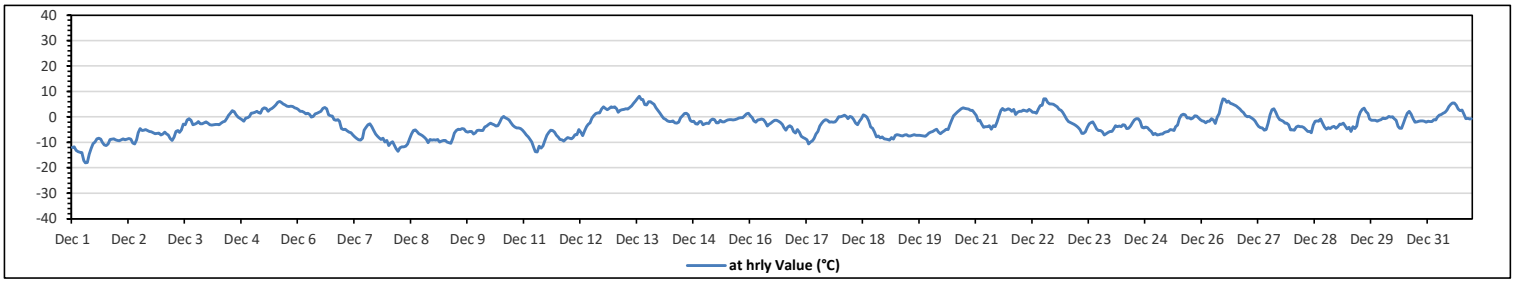
Maximum Hourly Value:	8.1	°C	on Dec 13 at hr 13	Hours in Service:	744
Maximum Daily Value:	4.6	°C	on Dec 13	Hours of Data:	744
Minimum Hourly Value:	-18.0	°C	on Dec 1 at hr 7	Hours of Missing Data:	0
Minimum Daily Value:	-11.8	°C	on Dec 1	Hours of Calibration:	0
Monthly Average:	-2.8	°C		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Dec 1	-12	-11.8	-13.1	-13.6	-13.8	-14	-17.1	**-18**	-17.9	-14.7	-12.3	-10.5	-9.8	-8.6	-8.3	-8.7	-10	-10.9	-11.2	-10.7	-8.9	-8.7	-8.6	-9	**-18.0**	-8.3	**-11.8**
Dec 2	-9.3	-9.4	-9	-8.6	-9	-8.7	-8.4	-8.7	-10.2	-10.6	-9	-6.2	-4.6	-5.4	-5.2	-5	-5.3	-5.7	-5.8	-6.2	-6.6	-6.5	-6.3	-7.1	-10.6	-4.6	-7.4
Dec 3	-6.8	-5.9	-6.8	-7.1	-8.5	-9.2	-8	-5.7	-5.3	-6.1	-5.1	-2.8	-3	-1.2	-0.6	-1.4	-3	-2.8	-2.5	-1.8	-2.7	-2.7	-2.3	-1.9	-9.2	-0.6	-4.3
Dec 4	-2.4	-3	-3.2	-3	-2.9	-2.9	-3	-2.4	-1.9	-1.6	-0.5	0.6	1.5	2.5	2.1	0.9	-0.1	-0.5	-1	-1.6	-0.4	-0.3	0.2	1.4	-3.2	2.5	-0.9
Dec 5	1.6	1.8	2.2	1.7	1.5	3.1	3.7	3.3	2.2	2.9	3.4	4	4.7	5.7	6.2	5.8	5.1	4.8	4.2	4.1	4.2	4.1	3.6	3.3	1.5	6.2	3.6
Dec 6	3	2.2	2.3	1.8	1.2	1.4	1	-0.1	0.2	1.2	1.4	1.9	2.3	3.4	3.8	3.2	0.8	0.4	0.3	-1	-1.4	-1.1	-1.7	-4.5	-4.5	3.8	0.9
Dec 7	-4.9	-4.8	-5.5	-6	-6.2	-7.1	-7.9	-8.5	-9	-9.1	-8.3	-5.2	-4.1	-3	-2.7	-3.8	-5.3	-6.7	-7.5	-8.2	-8.8	-8.3	-9.8	-9.3	-9.8	-2.7	-6.7
Dec 8	-11.2	-10.2	-9.7	-10.9	-12.4	-13.5	-12.1	-11.8	-11.7	-11.5	-10.6	-8.6	-6.7	-5.4	-5.1	-5.6	-6.6	-6.9	-7.3	-8	-8.7	-10.1	-8.8	-9.1	-13.5	-5.1	-9.3
Dec 9	-9	-9.1	-8.9	-9.8	-9.5	-9.2	-9.2	-9.8	-10.1	-10.3	-8.5	-6.3	-5.4	-4.8	-4.9	-4.5	-4.7	-5.7	-5.9	-5.7	-5.7	-6.7	-6.2	-5.4	-10.3	-4.5	-7.3
Dec 10	-5.2	-5.3	-5.4	-4	-3.6	-2.9	-2.4	-2.8	-3	-3.5	-3.4	-2.1	-0.4	0.2	-0.3	-0.6	-1.2	-2.3	-3.3	-4	-4.3	-4.3	-4.5	-5.2	-5.4	0.2	-3.1
Dec 11	-6.1	-7.1	-7.9	-8.7	-9.8	-12	-13.6	-13.7	-11.5	-12.2	-11.3	-9.2	-7.2	-6.1	-5.2	-5.4	-6	-7.2	-8	-8.8	-9	-9.5	-8.7	-8.1	-13.7	-5.2	-8.8
Dec 12	-8.3	-8.6	-8.1	-6.9	-6.9	-5	-6	-7.3	-5.5	-3.8	-2.9	-2.3	-0.4	0.6	1.3	1.6	1.6	3.1	4	3.4	2.8	3.4	3.9	3.8	-8.6	4.0	-1.8
Dec 13	3.9	3.2	1.8	2.6	2.8	2.9	3.2	3.1	3.8	4.3	5.3	6.3	7.2	**8.1**	6.9	6.9	4.9	4.8	6	6	5.4	5	3.7	2.6	1.8	**8.1**	**4.6**
Dec 14	1.6	0.5	-0.5	-0.9	-1.5	-1.8	-1.8	-1.5	-2.3	-2.5	-2	-0.2	0.5	1.3	1.5	0.8	-1.4	-1.8	-1.7	-2.7	-2.8	-1.8	-1.8	-3	-3.0	1.6	-1.1
Dec 15	-2.7	-2.5	-2.6	-1.4	-0.8	-1	-2.3	-2.3	-1.4	-1.9	-1.9	-1.5	-1.2	-1	-1.1	-1.2	-1.1	-0.8	-0.4	-0.3	-0.2	0.4	1.2	1.5	-2.7	1.5	-1.1
Dec 16	0.4	-0.2	-1.5	-2.1	-1.2	-1	-0.8	-1.1	-2.1	-3.5	-2.9	-2.5	-1.8	-1.3	-1.4	-1.7	-2.2	-2.9	-4.2	-5.2	-4	-3.4	-4	-5.6	-5.6	0.4	-2.3
Dec 17	-6.3	-4.9	-5.9	-7.6	-8.1	-8.4	-9	-10.6	-9.8	-9.4	-8.5	-6.8	-5.7	-3.5	-2.4	-1.5	-1.1	-1.3	-2	-1.9	-2	-1.9	-1.2	0.1	-10.6	0.1	-5.0
Dec 18	0.1	0.3	0.7	0.2	-0.6	0.2	-0.1	-1.1	-2.5	-3	-1.6	-0.7	0.8	0.5	-0.1	-1.5	-4	-4.4	-5.9	-7.8	-7.5	-8.2	-7.9	-8.6	-8.6	0.8	-2.6
Dec 19	-8.7	-8.9	-9.1	-8.1	-8.7	-7.2	-6.9	-7	-7.3	-7.4	-7	-6.9	-7.5	-7.4	-7.2	-6.9	-7.2	-7.2	-7.2	-7.3	-7.5	-7.6	-7.1	-6.4	-9.1	-6.4	-7.5
Dec 20	-6	-5.6	-5.2	-4.8	-5.9	-6.6	-6	-5.5	-4.8	-4.9	-3.2	-1.3	0.5	1.2	2	2.6	3.2	3.6	3.3	3.2	3.1	2.6	2.6	1.6	-6.6	3.6	-1.3
Dec 21	0.6	-1.5	-1.4	-2.8	-4.1	-3.8	-3.9	-3.4	-4.8	-3.4	-3.8	-1.9	0.5	2.6	3.4	2.6	2.8	3.2	2.9	2.3	3	1	1.8	2.3	-4.8	3.4	-0.2
Dec 22	2.3	2.7	2.5	2.3	2.9	2.5	1.9	1.9	1.4	3.1	4.5	4.6	7.1	7.1	5.7	5.2	5.1	5	4.5	3.9	3	2.6	1.9	0.6	0.6	7.1	3.5
Dec 23	-0.8	-1.8	-2.2	-2.6	-2.9	-3.4	-4.1	-5	-6.5	-6.5	-5.8	-4.1	-2.7	-2.2	-1.9	-3.2	-4.7	-5.3	-5.3	-5.8	-7.1	-6.6	-6.1	-5.6	-7.1	-0.8	-4.3
Dec 24	-5.6	-4.6	-3.4	-3.9	-3.5	-3.8	-3	-3.1	-4.6	-4.4	-3.5	-2.3	-1.2	-0.6	-0.6	-1.6	-4.1	-4.3	-4	-4.2	-5.1	-5.6	-6.9	-6.5	-6.9	-0.6	-3.8
Dec 25	-7	-6.9	-6.8	-6.7	-6.1	-5.8	-5.7	-5	-5.1	-5.3	-3.9	-3.1	-0.5	0.7	1.1	0.9	-0.4	-0.2	-0.8	-0.4	0.5	0.3	-0.2	-1	-7.0	1.1	-2.8
Dec 26	-1.5	-1.7	-2.3	-1.7	-1.6	-0.6	-1.2	-2.6	-0.1	1.3	4.8	7.1	6.9	5.7	6.3	5.3	5.1	4.8	4.4	3.8	3.1	2.4	1.7	0.6	-2.6	7.1	2.1
Dec 27	0.1	0.2	-0.2	-0.8	-1.5	-2.8	-3.7	-4.2	-4.3	-5.2	-4.9	-2.5	0.8	2.8	3.2	1.9	0.1	-1	-1.4	-1.7	-2.4	-2.4	-3	-5.1	-5.2	3.2	-1.6
Dec 28	-5.1	-5.2	-4	-3.5	-3.9	-3.9	-4.2	-4.9	-5.6	-5.7	-6.2	-3.2	-1.6	-1.5	-1.7	-0.8	-2.5	-4	-4.8	-4.2	-4.6	-4	-3.7	-4.4	-6.2	-0.8	-3.9
Dec 29	-3.8	-2.8	-2.9	-2.5	-3.5	-4.7	-4.1	-5.6	-3.8	-4.5	-3.6	-0.2	1.8	3	3.5	2.1	1.3	-0.8	-1.3	-1.4	-1.4	-1.6	-1.4	-1.1	-5.6	3.5	-1.6
Dec 30	-0.4	-0.6	-0.4	0.2	-0.1	0	-0.7	-1.3	-3.7	-4.4	-4.4	-2.5	-0.3	1.5	2.3	1.1	-0.7	-2.1	-1.9	-1.7	-1.5	-1.5	-1.6	-2	-4.4	2.3	-1.1
Dec 31	-1.7	-1.8	-1.8	-1.1	-1.2	-0.1	0.7	1	1.5	1.9	2.7	4.1	5	5.5	5.5	4.6	3.1	2.5	2.7	1.1	-0.6	-0.5	-0.8	-0.7	-1.8	5.5	1.3
Diurnal Maximum	3.9	3.2	2.5	2.6	2.9	3.1	3.7	3.3	3.8	4.3	5.3	7.1	7.2	8.1	6.9	6.9	5.1	5.0	6.0	6.0	5.4	5.0	3.9	3.8			
Diurnal Average	-3.6	-3.7	-3.8	-3.9	-4.2	-4.2	-4.3	-4.6	-4.7	-4.5	-3.6	-2.1	-0.8	0.0	0.2	-0.3	-1.2	-1.7	-2.0	-2.3	-2.5	-2.6	-2.6	-3.0			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

986-C Station - December 2023

Summary of Hourly Averages

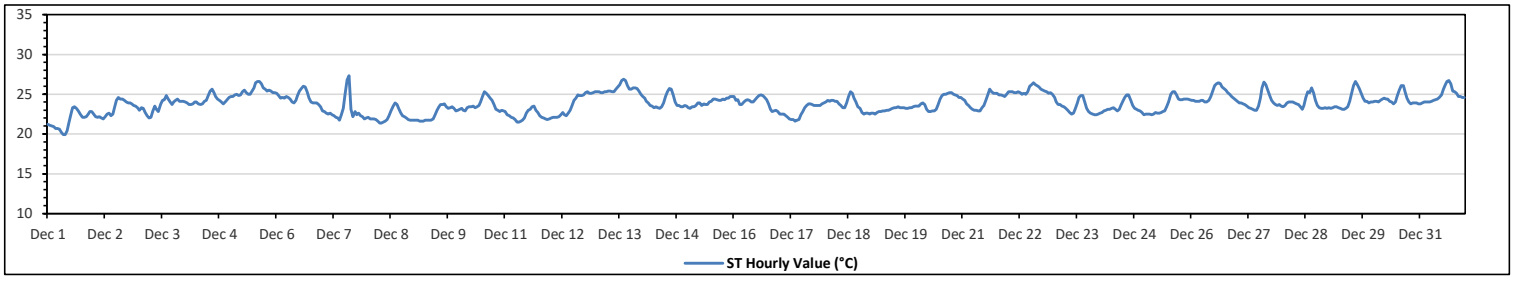
STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:	27.3	°C	on Dec 7 at hr 14	Hours in Service:	744
Maximum Daily Value:	25.7	°C	on Dec 13	Hours of Data:	744
Minimum Hourly Value:	19.9	°C	on Dec 1 at hr 8	Hours of Missing Data:	0
Minimum Daily Value:	21.7	°C	on Dec 1	Hours of Calibration:	0
Monthly Average:	23.8	°C		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	21.2	21.1	21.0	20.9	20.7	20.7	20.6	20.2	**19.9**	**19.9**	20.4	21.5	22.5	23.3	23.4	23.2	22.9	22.5	22.1	22.1	22.2	22.5	22.8	22.8	**19.9**	23.4	**21.7**
Dec 2	22.5	22.2	22.1	22.2	22.0	21.9	22.2	22.5	22.6	22.3	22.5	23.3	24.2	24.6	24.4	24.4	24.2	24.0	23.9	23.9	23.8	23.6	23.5	23.3	21.9	24.6	23.2
Dec 3	23.0	23.3	23.2	22.7	22.3	22.0	22.1	22.9	23.5	23.1	22.8	23.7	24.2	24.3	24.8	24.4	24.0	23.7	24.0	24.2	24.4	24.1	24.1	24.1	22.0	24.8	23.5
Dec 4	24.0	23.9	23.7	23.7	23.8	24.0	24.0	23.8	23.7	23.8	24.1	24.2	24.8	25.4	25.6	25.2	24.7	24.4	24.2	24.0	23.8	24.0	24.3	24.6	23.7	25.6	24.2
Dec 5	24.7	24.7	24.9	25.0	24.8	24.9	25.3	25.5	25.2	25.0	25.0	25.4	25.8	26.4	26.6	26.6	26.3	25.8	25.6	25.4	25.5	25.4	25.2	25.2	24.7	26.6	25.4
Dec 6	25.1	24.8	24.5	24.6	24.5	24.7	24.6	24.4	24.0	23.9	24.2	24.8	25.4	25.7	26.0	25.9	25.3	24.5	24.0	23.9	23.9	23.9	23.7	23.4	23.4	26.0	24.6
Dec 7	22.9	22.8	22.6	22.5	22.6	22.4	22.3	22.1	22.0	21.7	22.4	23.2	25.1	26.8	**27.3**	23.1	22.2	22.8	22.4	22.6	22.3	22.2	21.9	22.0	21.7	**27.3**	22.9
Dec 8	22.1	21.9	21.9	21.9	21.8	21.6	21.4	21.4	21.5	21.6	21.8	22.3	22.9	23.5	23.9	23.7	23.2	22.7	22.3	22.2	22.0	21.8	21.7	21.7	21.4	23.9	22.2
Dec 9	21.7	21.7	21.7	21.6	21.6	21.6	21.7	21.7	21.7	21.7	21.9	22.4	23.0	23.4	23.7	23.7	23.8	23.4	23.2	23.3	23.4	23.2	22.9	23.0	21.6	23.8	22.5
Dec 10	23.1	23.2	23.0	22.9	23.3	23.4	23.4	23.5	23.3	23.4	23.6	24.0	24.7	25.3	25.1	24.8	24.5	24.2	23.7	23.1	23.0	22.8	23.0	22.9	22.8	25.3	23.6
Dec 11	22.8	22.4	22.3	22.1	22.0	21.8	21.5	21.5	21.6	21.7	22.0	22.6	23.0	23.1	23.4	23.5	23.0	22.7	22.3	22.1	22.0	21.9	21.8	21.9	21.5	23.5	22.3
Dec 12	22.0	22.1	22.1	22.1	22.2	22.4	22.7	22.4	22.3	22.6	23.0	23.6	24.2	24.5	24.9	24.8	24.8	24.9	25.2	25.3	25.1	25.1	25.2	25.3	22.0	25.3	23.7
Dec 13	25.3	25.3	25.2	25.2	25.3	25.3	25.4	25.4	25.3	25.3	25.6	25.9	26.2	26.7	26.9	26.7	26.1	25.6	25.6	25.8	25.8	25.7	25.4	25.0	25.0	26.9	**25.7**
Dec 14	24.7	24.5	24.1	23.9	23.6	23.5	23.3	23.4	23.3	23.2	23.4	23.9	24.7	25.3	25.7	25.6	24.9	24.0	23.6	23.6	23.4	23.4	23.6	23.5	23.2	25.7	24.0
Dec 15	23.3	23.2	23.4	23.4	23.6	23.9	23.9	23.6	23.8	23.7	23.7	24.0	24.1	24.4	24.4	24.3	24.2	24.2	24.4	24.3	24.5	24.5	24.7	24.7	23.2	24.7	24.0
Dec 16	24.7	24.2	24.3	23.7	23.7	24.0	24.2	24.3	24.2	24.0	24.0	24.3	24.6	24.8	24.9	24.8	24.6	24.3	23.8	23.1	22.8	22.9	23.0	22.8	22.8	24.9	24.0
Dec 17	22.5	22.5	22.5	22.3	22.1	21.9	21.8	21.8	21.6	21.7	21.8	22.4	22.8	23.3	23.6	23.8	23.8	23.7	23.6	23.6	23.6	23.6	23.8	23.9	21.6	23.9	22.8
Dec 18	24.0	24.2	24.1	24.2	24.2	24.1	24.1	23.8	23.6	23.3	23.3	23.9	24.7	25.3	25.1	24.5	24.0	23.4	23.2	22.7	22.5	22.6	22.6	22.5	22.5	25.3	23.7
Dec 19	22.6	22.6	22.5	22.7	22.8	22.8	22.9	22.9	23.0	23.0	23.1	23.2	23.3	23.3	23.4	23.3	23.3	23.3	23.2	23.2	23.3	23.3	23.4	23.5	22.5	23.5	23.1
Dec 20	23.5	23.5	23.8	23.9	23.7	23.1	22.8	22.8	22.9	22.9	23.1	23.7	24.4	24.8	25.0	25.0	25.1	25.2	25.2	25.0	24.9	24.8	24.6	24.6	22.8	25.2	24.1
Dec 21	24.4	24.2	23.8	23.6	23.3	23.1	23.0	23.0	22.9	22.9	23.3	23.6	24.2	24.9	25.6	25.3	25.1	25.1	25.1	24.9	24.9	24.8	24.7	25.0	22.9	25.6	24.2
Dec 22	25.3	25.3	25.3	25.2	25.2	25.3	25.2	25.0	25.1	25.0	25.3	26.0	26.2	26.4	26.2	26.1	25.9	25.6	25.5	25.4	25.3	25.1	25.2	25.0	25.0	26.4	25.5
Dec 23	24.6	24.0	23.7	23.7	23.5	23.4	23.2	23.0	22.7	22.5	22.6	23.2	23.9	24.6	24.8	24.8	24.0	23.2	22.8	22.6	22.5	22.4	22.4	22.5	22.4	24.8	23.4
Dec 24	22.6	22.7	22.9	23.0	23.1	23.1	23.2	23.3	23.1	22.9	23.1	23.6	24.1	24.6	24.9	24.9	24.2	23.6	23.2	23.1	23.0	22.9	22.7	22.4	22.4	24.9	23.3
Dec 25	22.5	22.5	22.5	22.4	22.5	22.7	22.6	22.6	22.7	22.8	22.9	23.4	24.0	25.0	25.3	25.3	24.9	24.4	24.3	24.3	24.4	24.4	24.4	24.3	22.4	25.3	23.6
Dec 26	24.2	24.2	24.1	24.1	24.1	24.2	24.2	24.0	24.0	24.2	24.7	25.4	26.1	26.3	26.4	26.3	25.9	25.7	25.5	25.2	25.0	24.7	24.5	24.3	24.0	26.4	24.9
Dec 27	24.1	23.9	23.9	23.8	23.7	23.5	23.3	23.2	23.1	23.0	23.0	23.5	24.5	25.8	26.5	26.2	25.5	24.8	24.2	23.9	23.7	23.6	23.7	23.5	23.0	26.5	24.1
Dec 28	23.4	23.6	23.9	24.0	24.0	24.0	23.9	23.8	23.7	23.4	23.1	23.6	24.6	25.3	25.2	25.8	25.2	24.2	23.6	23.3	23.2	23.2	23.3	23.2	23.1	25.8	23.9
Dec 29	23.3	23.2	23.3	23.4	23.4	23.3	23.2	23.1	23.1	23.2	23.4	24.1	25.1	26.1	26.6	26.2	25.7	25.1	24.5	24.1	24.1	23.9	24.0	24.0	23.1	26.6	24.1
Dec 30	24.1	24.1	24.0	24.2	24.4	24.5	24.4	24.4	24.1	24.0	23.8	24.0	24.8	25.5	26.1	26.1	25.3	24.5	24.0	23.8	23.9	23.9	23.9	23.8	23.8	26.1	24.4
Dec 31	23.8	23.9	24.0	24.0	24.0	24.0	24.1	24.2	24.3	24.4	24.6	24.9	25.6	26.2	26.6	26.7	26.3	25.4	25.3	25.1	24.7	24.7	24.6	24.6	23.8	26.7	24.8
Diurnal Maximum	25.3	25.3	25.3	25.2	25.3	25.3	25.4	25.5	25.3	25.3	25.6	26.0	26.2	26.8	27.3	26.7	26.3	25.8	25.6	25.8	25.8	25.7	25.4	25.3			
Diurnal Average	23.5	23.4	23.4	23.3	23.3	23.3	23.2	23.2	23.2	23.1	23.3	23.8	24.4	25.0	25.2	25.0	24.6	24.2	24.0	23.8	23.8	23.7	23.7	23.7			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

986-C Station - December 2023

Summary of Hourly Averages

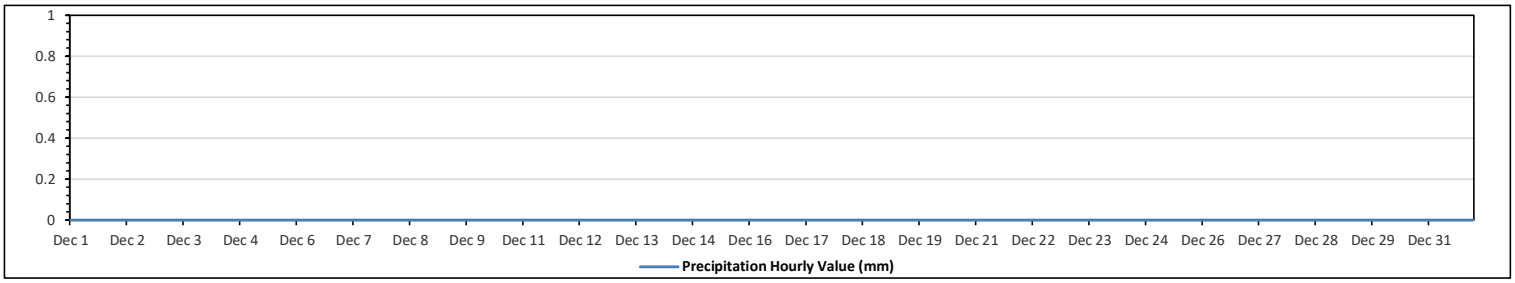
PRECIPITATION in mm

Maximum Hourly Value:	0.0	mm	on Dec 1 at hr 0	Hours in Service:	744	
Maximum Daily Value:	0.0	mm	on Dec 1	Hours of Data:	744	
Minimum Hourly Value:	0.0	mm	on Dec 1 at hr 0	Hours of Missing Data:	0	
Minimum Daily Value:	0.0	mm	on Dec 1	Hours of Calibration:	0	
Monthly Total:	0.0	mm		Operational Uptime:	100.0	

Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Total
Dec 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
Dec 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
Dec 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
Dec 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
Dec 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
Dec 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 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
Dec 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
Dec 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 31	0	0	0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

986-C Station - December 2023

Summary of Hourly Averages

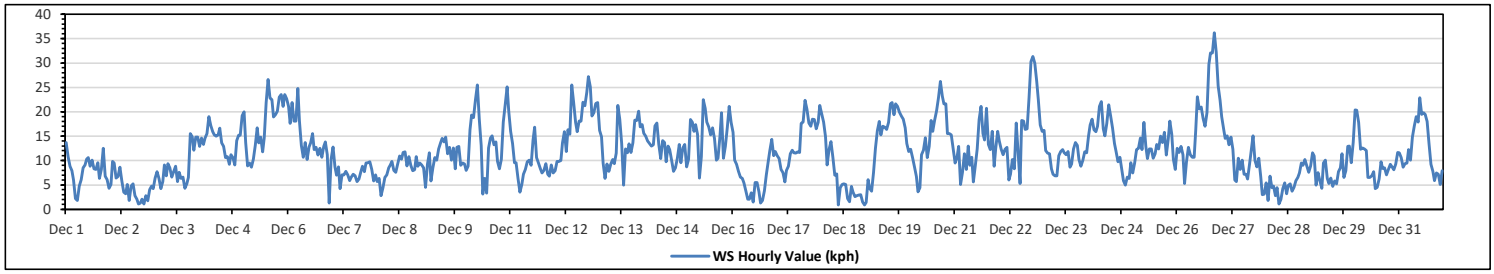
VECTOR WIND SPEED (VWS) in km/hr

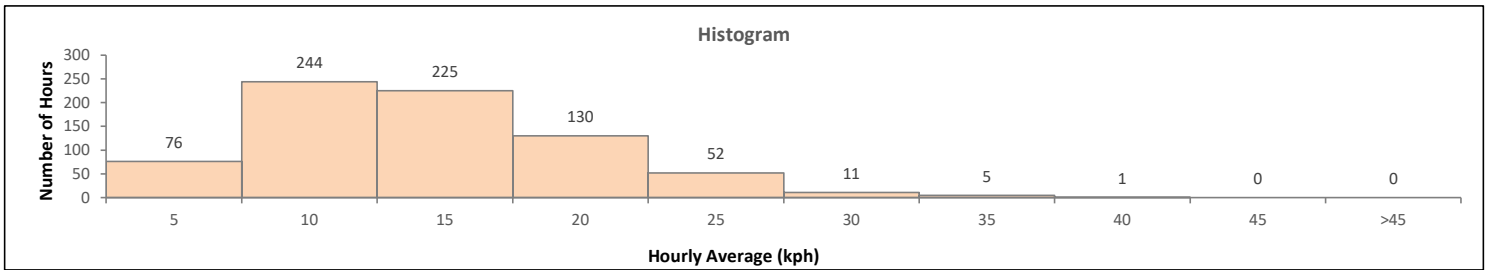
Maximum Hourly Value:	36.2	kph	on Dec 26 at hr 20	Hours in Service:	744	
Maximum Daily Value:	19.0	kph	on Dec 26	Hours of Data:	744	
Minimum Hourly Value:	0.9	kph	on Dec 18 at hr 9	Hours of Missing Data:	0	
Minimum Daily Value:	4.3	kph	on Dec 2	Hours of Calibration:	0	
Monthly Average:	8.5	kph		Operational Uptime:	100.0	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	13.7	10.8	8.8	7.9	6.0	2.2	1.8	4.8	6.1	8.5	9.1	10.3	10.6	8.8	10.1	8.3	8.2	9.6	6.3	8.2	12.5	6.8	6.1	4.3	1.8	13.7	7.9
Dec 2	5.1	9.8	9.5	6.4	6.7	8.6	5.8	3.5	3.2	5.1	1.8	4.8	5.2	2.8	2.1	1.1	1.3	2.1	1.1	2.8	1.7	4.0	4.8	4.2	1.1	9.8	**4.3**
Dec 3	6.4	7.7	6.3	4.2	5.7	9.1	6.9	9.4	8.5	6.6	7.7	8.8	5.7	7.6	6.3	6.6	4.3	5.2	6.5	15.5	14.9	12.1	14.8	14.8	4.2	15.5	8.4
Dec 4	12.9	14.6	13.3	14.6	15.5	19.0	17.2	15.9	15.3	15.0	15.3	16.6	13.6	12.9	10.6	10.8	9.2	11.2	10.6	9.1	14.1	15.2	15.2	19.2	9.1	19.2	14.0
Dec 5	20.0	13.7	8.9	9.5	8.6	10.3	13.1	16.7	13.6	14.8	11.8	14.7	21.9	26.6	22.8	22.5	18.9	19.4	20.1	23.0	23.5	21.1	23.5	22.7	8.6	26.6	17.6
Dec 6	21.1	17.6	21.9	18.1	18.1	24.8	18.1	13.1	10.7	13.7	10.2	12.8	13.6	15.5	12.2	12.7	11.1	12.5	10.7	12.9	13.8	11.2	1.3	10.3	1.3	24.8	14.1
Dec 7	12.8	8.7	7.0	8.7	4.2	7.1	7.1	7.8	7.1	5.9	6.6	7.2	6.9	5.7	6.2	7.7	8.8	7.7	9.5	9.6	9.7	8.2	5.8	7.1	4.2	12.8	7.6
Dec 8	5.7	6.3	2.8	4.4	6.5	7.1	8.5	9.1	9.8	8.0	7.6	9.3	10.9	10.3	11.7	11.8	8.9	10.8	9.0	7.9	8.1	10.8	8.8	9.5	2.8	11.8	8.5
Dec 9	9.1	8.5	4.5	9.2	11.6	5.8	8.5	10.6	10.1	12.4	13.6	14.5	13.8	14.8	11.4	12.7	10.1	12.6	8.3	12.7	12.9	9.0	9.5	9.3	4.5	14.8	10.6
Dec 10	8.0	8.8	16.3	19.3	18.8	22.4	25.5	18.5	13.1	3.1	6.3	3.3	12.6	14.6	15.1	13.2	13.8	9.8	8.3	10.3	17.9	21.4	25.1	20.2	3.1	25.5	14.4
Dec 11	16.0	13.5	9.6	9.6	6.3	3.5	5.1	7.2	8.2	9.7	10.1	9.0	14.2	16.8	10.6	9.5	8.3	7.4	8.0	9.4	7.2	6.8	9.1	7.4	3.5	16.8	9.3
Dec 12	7.9	9.8	9.8	10.0	13.6	15.9	11.9	16.3	15.4	25.5	21.8	17.8	15.9	18.1	18.1	22.0	21.2	24.0	27.2	25.1	19.1	19.8	21.7	21.9	7.9	27.2	17.9
Dec 13	16.2	14.9	9.5	6.3	9.3	7.8	9.3	10.2	9.4	11.5	21.3	18.5	13.5	5.0	12.4	11.6	13.4	11.7	13.6	18.3	18.2	20.1	16.9	17.4	5.0	21.3	13.2
Dec 14	15.6	15.0	14.0	13.5	13.0	13.2	17.1	17.7	13.3	10.4	14.1	13.7	9.7	13.0	12.2	10.1	7.8	8.5	10.5	13.3	9.6	12.6	13.3	8.7	7.8	17.7	12.5
Dec 15	10.3	18.4	17.8	16.0	17.4	15.4	6.4	10.8	22.5	20.7	17.9	16.9	15.3	16.7	14.5	10.1	10.5	14.9	19.8	10.5	12.9	16.7	21.1	17.8	6.4	22.5	15.5
Dec 16	15.8	10.1	9.2	7.8	6.6	6.3	5.4	3.8	2.1	2.1	3.4	1.5	5.5	5.5	3.6	1.3	1.8	3.8	7.1	9.8	12.0	14.3	11.0	11.9	1.3	15.8	6.7
Dec 17	11.0	10.4	8.2	7.5	5.6	8.0	8.8	11.4	12.1	11.6	11.5	11.8	11.7	17.6	17.9	22.3	20.5	17.7	17.0	18.5	18.4	16.5	17.8	21.3	5.6	22.3	14.0
Dec 18	19.6	17.9	14.9	9.1	12.2	13.9	10.7	7.0	7.3	**0.9**	4.4	5.1	5.2	5.1	2.2	1.6	4.7	3.5	2.6	2.8	2.9	3.0	1.5	**0.9**	**0.9**	19.6	6.6
Dec 19	1.4	6.1	4.3	3.7	7.5	12.5	16.1	18.0	15.3	17.0	16.8	16.4	17.8	21.6	21.9	19.4	21.6	21.1	19.9	19.1	18.5	16.7	13.5	11.9	1.4	21.9	14.9
Dec 20	12.3	10.6	8.7	6.7	3.6	4.4	11.2	12.1	14.7	10.6	12.9	18.2	16.0	18.3	20.2	22.9	26.2	23.2	21.6	21.6	15.5	15.5	15.3	12.4	3.6	26.2	14.8
Dec 21	9.5	10.7	12.9	5.1	7.6	11.4	8.2	13.0	9.0	10.7	5.6	8.9	12.4	18.4	21.1	15.5	14.2	20.7	13.3	12.2	16.0	8.8	12.6	16.0	5.1	21.1	12.2
Dec 22	14.0	12.3	11.2	12.3	12.7	6.0	7.2	10.2	8.3	17.7	11.5	5.3	18.2	18.1	16.4	16.5	22.9	30.3	31.3	30.0	26.2	22.5	17.3	16.0	5.3	31.3	16.4
Dec 23	16.2	12.0	11.5	11.4	8.3	7.2	6.9	6.9	11.0	11.9	12.2	11.6	11.2	11.9	8.6	9.3	12.4	13.7	13.1	10.2	8.8	10.0	11.8	11.6	6.9	16.2	10.8
Dec 24	15.1	17.3	18.5	16.3	15.9	17.0	21.1	22.1	16.5	15.1	17.6	21.4	19.1	16.6	13.5	11.9	9.7	10.7	8.5	5.9	5.0	6.6	6.3	9.6	5.0	22.1	14.1
Dec 25	7.4	9.5	12.2	12.5	14.6	12.2	17.8	12.9	10.4	12.4	12.4	10.5	11.4	13.3	12.4	15.0	13.7	15.8	11.1	14.4	18.1	15.4	10.3	8.2	7.4	18.1	12.7
Dec 26	12.5	11.7	12.9	11.2	5.3	9.7	12.7	11.2	10.7	10.7	16.3	23.1	20.6	21.0	18.6	17.0	19.8	29.7	32.1	32.1	**36.2**	32.2	25.3	22.3	5.3	**36.2**	**19.0**
Dec 27	19.0	16.5	14.5	15.1	13.2	14.8	12.3	6.0	5.7	10.5	8.2	10.1	7.2	7.2	6.2	9.2	11.9	15.1	10.0	8.7	10.5	6.7	3.0	3.1	3.0	19.0	10.2
Dec 28	5.4	1.8	6.8	4.4	4.8	2.8	4.4	1.1	2.0	4.2	5.4	3.2	4.9	5.2	3.7	4.5	5.9	6.5	7.4	9.5	9.0	10.2	8.9	7.6	1.1	10.2	5.4
Dec 29	8.9	11.6	10.9	5.0	7.5	5.8	4.3	9.5	10.1	6.3	5.3	6.4	4.7	5.8	5.2	7.7	8.5	11.4	6.5	7.9	12.9	13.0	9.6	13.7	4.3	13.7	8.3
Dec 30	20.4	20.3	17.8	12.3	12.6	12.4	12.0	6.5	6.5	6.9	7.7	4.2	4.5	6.2	9.7	8.4	8.5	7.1	8.2	9.2	8.6	8.1	9.3	11.7	4.2	20.4	10.0
Dec 31	11.6	10.6	8.6	9.4	9.5	12.2	10.1	14.8	17.1	19.0	17.9	22.9	19.5	19.8	19.5	18.0	13.4	9.2	7.8	5.9	7.4	7.2	5.1	7.9	5.1	22.9	12.7
Diurnal Maximum	21.1	20.3	21.9	19.3	18.8	24.8	25.5	22.1	22.5	25.5	21.8	23.1	21.9	26.6	22.8	22.9	26.2	30.3	32.1	32.1	36.2	32.2	25.3	22.7			
Diurnal Average	12.3	11.9	11.1	9.9	10.0	10.6	10.7	10.9	10.5	10.9	11.1	11.6	12.0	12.9	12.2	12.0	12.0	13.1	12.5	13.1	13.6	13.0	12.1	12.3			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance			
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P**	Power Failure	
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)					

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



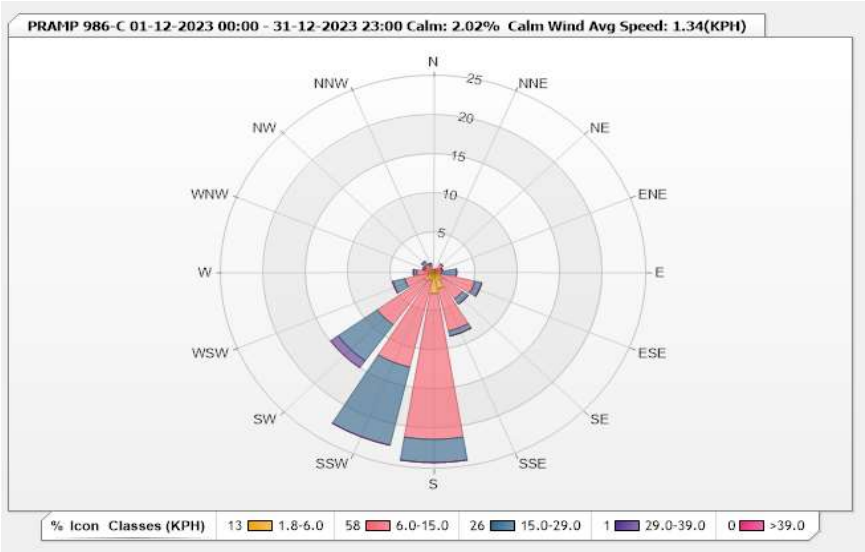


Station: PRAMP 986-C Monitor: WDS [KPH] Monthly: 12-2023

Type: Wind Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm (WS<1.8kph): 2.02% Valid Data: 100.00%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0	0	0	0	0	0
NNE	0.27	0.13	0	0	0	0.4
NE	0.27	1.08	0	0	0	1.35
ENE	0.54	0.4	0.13	0	0	1.07
E	0.13	0.81	1.75	0	0	2.69
ESE	0.81	4.17	0.81	0	0	5.79
SE	1.21	2.96	0.81	0	0	4.98
SSE	2.15	5.51	0.67	0	0	8.33
S	2.69	18.55	2.96	0	0	24.2
SSW	1.08	11.29	10.22	0	0	22.59
SW	1.34	6.85	5.65	1.08	0	14.92
WSW	0.67	2.82	1.48	0	0	4.97
W	0.67	1.34	0.4	0	0	2.41
WNW	0.4	0.67	0.27	0	0	1.34
NW	0.67	0.54	0.54	0	0	1.75
NNW	0.27	0.67	0.27	0	0	1.21
Summary	13.17	57.79	25.96	1.08	0	98



Peace River Area Monitoring Program

986-C Station - December 2023

Summary of Hourly Averages

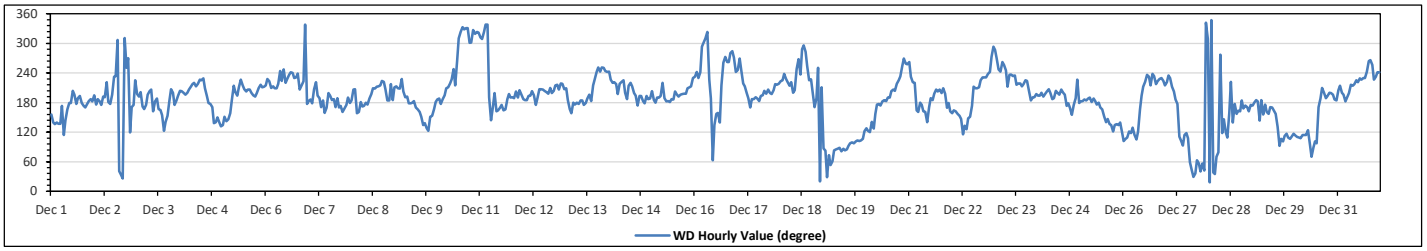
WIND DIRECTION (VWD) in sector

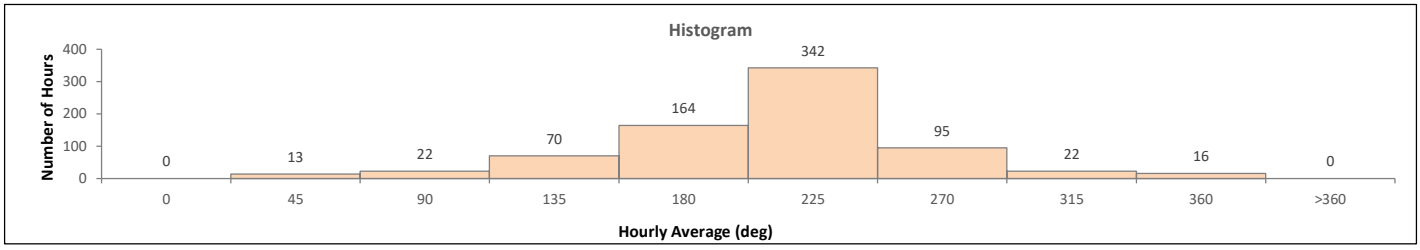
Monthly Average:	195 (SSW)	degree	
Hours in Service:	744		
Hours of Data:	744		
Hours of Missing Data:	0		
Hours of Calibration:	0		
Operational Uptime:	100.0		

Day	Hourly Period Starting at (MST)																							Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant
Dec 1	SSE	SE	SE	SE	SE	SE	S	ESE	SE	SSE	S	S	SSW	SSW	S	S	S	S	S	SSE	S	S	S	S	169	SSE
Dec 2	SSW	S	S	S	S	S	S	SW	S	S	SSW	SW	SW	NW	NE	NE	NNE	NW	WSW	W	ESE	S	S	SW	195	SSW
Dec 3	SSW	S	SSW	S	SSE	S	SSW	SSW	SSW	SSE	S	S	SSE	SSE	SSE	ESE	SE	SSE	S	SSW	SSW	S	S	SSW	183	S
Dec 4	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SSW	SW	SW	SW	SW	SSW	S	S	S	S	SE	SE	SSE	SE	SE	194	SSW
Dec 5	SE	SSE	SE	SE	SSE	S	SSW	SSW	SSW	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSW	SSW	SW	SSW	SSW	198	SSW
Dec 6	SSW	SW	SW	SSW	SSW	SSW	SSW	SW	WSW	SW	WSW	SW	SW	SW	WSW	WSW	SW	SW	WSW	SSW	SSW	SW	NNW	S	222	SW
Dec 7	S	S	S	SSW	SW	SSW	S	S	S	SSE	SSE	SSW	SSW	S	S	S	S	SSE	S	SSE	SSE	S	S	S	181	S
Dec 8	S	SSW	SSW	SSE	SSE	S	S	S	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SSW	S	S	SW	S	196	SSW
Dec 9	SSW	SSW	SSW	SSW	SW	SSW	S	S	S	S	S	S	SSE	SSE	SSE	SSE	SE	SE	SE	ESE	SSE	SSE	SSE	S	172	S
Dec 10	S	S	S	S	SSW	SSW	SSW	SW	SW	WSW	SSW	W	NW	NW	NNW	NNW	NNW	NNW	WNW	WNW	NW	NW	NW	NW	270	W
Dec 11	NW	NW	NW	NNW	NNW	S	SE	S	SSW	SSE	SSE	SSE	S	SSE	SSE	S	SSW	S	S	S	SSW	S	SSW	SSW	196	SSW
Dec 12	S	S	S	S	SSW	SSW	SSW	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SW	SW	SSW	203	SSW
Dec 13	SSW	S	SSE	SSE	S	S	S	S	S	S	S	S	S	SSW	S	SSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	209	SSW
Dec 14	WSW	SW	SW	SW	SW	SSW	SW	SW	SW	SSW	S	SSW	SW	SSW	SSW	SSW	S	S	S	S	S	S	S	S	207	SSW
Dec 15	SSW	S	S	S	S	S	SW	S	S	S	S	S	S	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	195	SSW
Dec 16	SW	WSW	SW	WSW	WNW	WNW	NW	NW	SW	S	ENE	SE	SSE	SSE	SE	SSW	W	W	W	W	W	WNW	W	WSW	255	WSW
Dec 17	WSW	W	WSW	SW	SSW	SSW	S	SSE	S	S	S	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	204	SSW
Dec 18	SW	SW	SW	SW	SW	SSW	SW	SSW	SSW	WSW	W	SW	WNW	WNW	W	WSW	SW	SW	SSW	S	S	WSW	NNE	SSW	228	SW
Dec 19	E	E	NNE	ENE	NE	ENE	E	E	E	E	E	E	E	E	E	E	E	E	E	ESE	E	ESE	ESE	ESE	91	E
Dec 20	SE	ESE	ESE	SE	SE	SSE	S	S	S	S	S	S	S	S	SSW	SSW	SSW	SW	SW	SW	WSW	W	WSW	WSW	201	SSW
Dec 21	W	SW	SW	SW	SSE	SSE	S	S	SSE	SSE	SE	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSE	S	SSE	191	S
Dec 22	SSE	SSE	SSE	SSE	SSE	SE	ESE	SE	SE	SE	SSE	S	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	WSW	W	WNW	207	SSW
Dec 23	WNW	W	WSW	WSW	W	WSW	WSW	SSW	SW	SW	SW	SW	SW	SW	SW	SSW	SW	SW	SW	SSW	S	S	S	SSW	228	SW
Dec 24	SSW	SSW	SSW	S	SSW	SSW	SSW	SSW	S	S	SSW	SSW	SSW	SSW	SSW	SSW	S	S	SSE	SSE	S	S	SW	S	195	SSW
Dec 25	S	S	S	S	S	S	S	S	S	S	S	SSE	SSE	SSE	SE	SE	SE	SE	ESE	SE	SE	SE	SE	ESE	160	SSE
Dec 26	E	ESE	ESE	ESE	ESE	SE	ESE	ESE	SSE	SSW	SSW	SW	SW	SW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SSW	206	SSW
Dec 27	SW	SW	SW	SSW	SSW	S	S	ESE	ESE	E	ESE	ESE	ESE	ENE	NE	NNE	NE	ENE	NE	NE	NE	NE	NNW	NW	126	SE
Dec 28	NNE	NNW	NE	NE	ENE	ENE	W	ESE	SE	ESE	ESE	SSE	SW	SE	S	SSE	SSE	SSE	S	SSE	S	S	SSE	S	152	SSE
Dec 29	S	S	S	S	SE	S	SSE	S	SSE	SSE	S	SSE	SSE	SSE	SE	E	ESE	E	ESE	ESE	ESE	ESE	ESE	ESE	140	SE
Dec 30	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	E	ENE	E	E	E	S	S	SSW	SSW	S	S	SSW	SSW	SSW	S	S	140	SE
Dec 31	SSW	SSW	SSW	SSW	S	S	SSW	SW	SSW	SW	SW	SW	SW	SW	SW	SW	WSW	W	W	WSW	SW	SW	WSW	WSW	222	SW

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Machine Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.





Peace River Area Monitoring Program

986-C Station - December 2023

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector

WIND SPEED

Maximum Hourly Value:	36.2	kph	on Dec 26 at hr 20	Hours in Service:	744
Maximum Daily Value:	19.0	kph	on Dec 26	Hours of Data:	744
Minimum Hourly Value:	0.9	kph	on Dec 18 at hr 9	Hours of Missing Data:	0
Minimum Daily Value:	4.3	kph	on Dec 2	Hours of Calibration:	0
Monthly Average:	8.5	kph		Operational Uptime:	100.0

WIND DIRECTION

Monthly Average: 195 degree (SSW)

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	13.7	10.8	8.8	7.9	6.0	2.2	1.8	4.8	6.1	8.5	9.1	10.3	10.6	8.8	10.1	8.3	8.2	9.6	6.3	8.2	12.5	6.8	6.1	4.3	1.8	13.7	7.9
	SSE	SE	SE	SE	SE	SE	S	ESE	SE	SSE	S	S	SSW	SSW	S	S	S	S	S	SSE	S	S	S	S			169(SSE)
Dec 2	5.1	9.8	9.5	6.4	6.7	8.6	5.8	3.5	3.2	5.1	1.8	4.8	5.2	2.8	2.1	1.1	1.3	2.1	1.1	2.8	1.7	4.0	4.8	4.2	1.1	9.8	**4.3**
	SSW	S	S	S	S	S	S	SW	S	S	SSW	SW	SW	NW	NE	NE	NNE	NW	WSW	W	ESE	S	S	SW			195(SSW)
Dec 3	6.4	7.7	6.3	4.2	5.7	9.1	6.9	9.4	8.5	6.6	7.7	8.8	5.7	7.6	6.3	6.6	4.3	5.2	6.5	15.5	14.9	12.1	14.8	14.8	4.2	15.5	8.4
	SSW	S	SSW	S	SSE	S	SSW	SSW	SSW	SSE	S	S	SSE	SSE	SSE	ESE	SE	SSE	S	SSW	SSW	S	S	SSW			183(S)
Dec 4	12.9	14.6	13.3	14.6	15.5	19.0	17.2	15.9	15.3	15.0	15.3	16.6	13.6	12.9	10.6	10.8	9.2	11.2	10.6	9.1	14.1	15.2	15.2	19.2	9.1	19.2	14.0
	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SSW	SW	SW	SW	SW	SSW	S	S	S	S	SE	SE	SSE	SE	SE			194(SSW)
Dec 5	20.0	13.7	8.9	9.5	8.6	10.3	13.1	16.7	13.6	14.8	11.8	14.7	21.9	26.6	22.8	22.5	18.9	19.4	20.1	23.0	23.5	21.1	23.5	22.7	8.6	26.6	17.6
	SE	SSE	SE	SE	SSE	S	SSW	SSW	SSW	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSW	SSW	SW	SSW	SSW			198(SSW)
Dec 6	21.1	17.6	21.9	18.1	18.1	24.8	18.1	13.1	10.7	13.7	10.2	12.8	13.6	15.5	12.2	12.7	11.1	12.5	10.7	12.9	13.8	11.2	1.3	10.3	1.3	24.8	14.1
	SSW	SW	SW	SSW	SSW	SSW	SSW	SW	WSW	SW	WSW	SW	SW	SW	WSW	WSW	SW	SW	WSW	SSW	SSW	SW	NNW	S			222(SW)
Dec 7	12.8	8.7	7.0	8.7	4.2	7.1	7.1	7.8	7.1	5.9	6.6	7.2	6.9	5.7	6.2	7.7	8.8	7.7	9.5	9.6	9.7	8.2	5.8	7.1	4.2	12.8	7.6
	S	S	S	SSW	SW	SSW	S	S	S	SSE	SSE	SSW	SSW	S	S	S	S	SSE	S	SSE	SSE	S	S	S			181(S)
Dec 8	5.7	6.3	2.8	4.4	6.5	7.1	8.5	9.1	9.8	8.0	7.6	9.3	10.9	10.3	11.7	11.8	8.9	10.8	9.0	7.9	8.1	10.8	8.8	9.5	2.8	11.8	8.5
	S	SSW	SSW	SSE	SSE	S	S	S	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SSW	S	S	SW	S			196(SSW)
Dec 9	9.1	8.5	4.5	9.2	11.6	5.8	8.5	10.6	10.1	12.4	13.6	14.5	13.8	14.8	11.4	12.7	10.1	12.6	8.3	12.7	12.9	9.0	9.5	9.3	4.5	14.8	10.6
	SSW	SSW	SSW	SSW	SW	SSW	S	S	S	S	S	S	SSE	SSE	SSE	SSE	SE	SE	SE	ESE	SSE	SSE	SSE	S			172(S)
Dec 10	8.0	8.8	16.3	19.3	18.8	22.4	25.5	18.5	13.1	3.1	6.3	3.3	12.6	14.6	15.1	13.2	13.8	9.8	8.3	10.3	17.9	21.4	25.1	20.2	3.1	25.5	14.4
	S	S	S	S	SSW	SSW	SSW	SW	SW	WSW	SSW	W	NW	NW	NNW	NNW	NNW	NNW	WNW	WNW	NW	NW	NW	NW			270(W)
Dec 11	16.0	13.5	9.6	9.6	6.3	3.5	5.1	7.2	8.2	9.7	10.1	9.0	14.2	16.8	10.6	9.5	8.3	7.4	8.0	9.4	7.2	6.8	9.1	7.4	3.5	16.8	9.3
	NW	NW	NW	NNW	NNW	S	SE	S	SSW	SSE	SSE	SSE	S	SSE	SSE	S	SSW	S	S	S	SSW	S	SSW	SSW			196(SSW)
Dec 12	7.9	9.8	9.8	10.0	13.6	15.9	11.9	16.3	15.4	25.5	21.8	17.8	15.9	18.1	18.1	22.0	21.2	24.0	27.2	25.1	19.1	19.8	21.7	21.9	7.9	27.2	17.9
	S	S	S	S	SSW	SSW	SSW	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SW	SW	SSW			203(SSW)
Dec 13	16.2	14.9	9.5	6.3	9.3	7.8	9.3	10.2	9.4	11.5	21.3	18.5	13.5	5.0	12.4	11.6	13.4	11.7	13.6	18.3	18.2	20.1	16.9	17.4	5.0	21.3	13.2
	SSW	S	SSE	SSE	S	S	S	S	S	S	S	S	S	SSW	S	SSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW			209(SSW)
Dec 14	15.6	15.0	14.0	13.5	13.0	13.2	17.1	17.7	13.3	10.4	14.1	13.7	9.7	13.0	12.2	10.1	7.8	8.5	10.5	13.3	9.6	12.6	13.3	8.7	7.8	17.7	12.5
	WSW	SW	SW	SW	SW	SSW	SW	SW	SW	SSW	S	SSW	SW	SSW	SSW	SSW	S	S	S	S	S	S	S	S			207(SSW)
Dec 15	10.3	18.4	17.8	16.0	17.4	15.4	6.4	10.8	22.5	20.7	17.9	16.9	15.3	16.7	14.5	10.1	10.5	14.9	19.8	10.5	12.9	16.7	21.1	17.8	6.4	22.5	15.5
	SSW	S	S	S	S	S	SW	S	S	S	S	S	S	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW			195(SSW)
Dec 16	15.8	10.1	9.2	7.8	6.6	6.3	5.4	3.8	2.1	2.1	3.4	1.5	5.5	5.5	3.6	1.3	1.8	3.8	7.1	9.8	12.0	14.3	11.0	11.9	1.3	15.8	6.7
	SW	WSW	SW	WSW	WNW	WNW	NW	NW	SW	S	ENE	SE	SSE	SSE	SE	SSW	W	W	W	W	W	WNW	W	WSW			255(WSW)
Dec 17	11.0	10.4	8.2	7.5	5.6	8.0	8.8	11.4	12.1	11.6	11.5	11.8	11.7	17.6	17.9	22.3	20.5	17.7	17.0	18.5	18.4	16.5	17.8	21.3	5.6	22.3	14.0
	WSW	W	WSW	SW	SSW	SSW	S	SSE	S	S	S	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW			204(SSW)
Dec 18	19.6	17.9	14.9	9.1	12.2	13.9	10.7	7.0	7.3	**0.9**	4.4	5.1	5.2	5.1	2.2	1.6	4.7	3.5	2.6	2.8	2.9	3.0	1.5	**0.9**	**0.9**	19.6	6.6
	SW	SW	SW	SW	SW	SSW	SW	SSW	SSW	WSW	W	SW	WNW	WNW	W	WSW	SW	SW	SSW	S	S	WSW	NNE	SSW			228(SW)
Dec 19	1.4	6.1	4.3	3.7	7.5	12.5	16.1	18.0	15.3	17.0	16.8	16.4	17.8	21.6	21.9	19.4	21.6	21.1	19.9	19.1	18.5	16.7	13.5	11.9	1.4	21.9	14.9
	E	E	NNE	ENE	NE	ENE	E	E	E	E	E	E	E	E	E	E	E	E	E	ESE	E	ESE	ESE	ESE			91(E)
Dec 20	12.3	10.6	8.7	6.7	3.6	4.4	11.2	12.1	14.7	10.6	12.9	18.2	16.0	18.3	20.2	22.9	26.2	23.2	21.6	21.6	15.5	15.5	15.3	12.4	3.6	26.2	14.8
	SE	ESE	ESE	SE	SE	SSE	S	S	S	S	S	S	S	S	SSW	SSW	SSW	SW	SW	SW	WSW	W	WSW	WSW			201(SSW)
Dec 21	9.5	10.7	12.9	5.1	7.6	11.4	8.2	13.0	9.0	10.7	5.6	8.9	12.4	18.4	21.1	15.5	14.2	20.7	13.3	12.2	16.0	8.8	12.6	16.0	5.1	21.1	12.2
	W	SW	SW	SW	SSE	SSE	S	S	SSE	SSE	SE	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSE	S	SSE			191(S)
Dec 22	14.0	12.3	11.2	12.3	12.7	6.0	7.2	10.2	8.3	17.7	11.5	5.3	18.2	18.1	16.4	16.5	22.9	30.3	31.3	30.0	26.2	22.5	17.3	16.0	5.3	31.3	16.4
	SSE	SSE	SSE	SSE	SSE	SE	ESE	SE	SE	SE	SSE	S	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	WSW	W	WNW			207(SSW)
Dec 23	16.2	12.0	11.5	11.4	8.3	7.2	6.9	6.9	11.0	11.9	12.2	11.6	11.2	11.9	8.6	9.3	12.4	13.7	13.1	10.2	8.8	10.0	11.8	11.6	6.9	16.2	10.8
	WNW	W	WSW	WSW	W	WSW	WSW	SSW	SW	SW	SW	SW	SW	SSW	SW	SSW	SW	SW	SW	SSW	S	S	S	SSW			228(SW)
Dec 24	15.1	17.3	18.5	16.3	15.9	17.0	21.1	22.1	16.5	15.1	17.6	21.4	19.1	16.6	13.5	11.9	9.7	10.7	8.5	5.9	5.0	6.6	6.3	9.6	5.0	22.1	14.1
	SSW	SSW	SSW	S	SSW	SSW	SSW	SSW	S	S	SSW	SSW	SSW	SSW	SSW	SSW	S	S	SSE	SSE	S	S	SW	S			195(SSW)
Dec 25	7.4	9.5	12.2	12.5	14.6	12.2	17.8	12.9	10.4	12.4	12.4	10.5	11.4	13.3	12.4	15.0	13.7	15.8	11.1	14.4	18.1	15.4	10.3	8.2	7.4	18.1	12.7
	S	S	S	S	S	S	S	S	S	S	S	SSE	SSE	SSE	SE	SE	SE	SE	ESE	SE	SE	SE	SE	ESE			160(SSE)
Dec 26	12.5	11.7	12.9	11.2	5.3	9.7	12.7	11.2	10.7	10.7	16.3	23.1	20.6	21.0	18.6	17.0	19.8	29.7	32.1	32.1	**36.2**	32.2	25.3	22.3	5.3	**36.2**	**19.0**
	E	ESE	ESE	ESE	ESE	SE	ESE	ESE	ESE	SSE	SSW	SSW	SW	SW	SW	SSW	SW	SW	SW	SW	SW	SW	SW	SSW			206(SSW)
Dec 27	19.0	16.5	14.5	15.1	13.2	14.8	12.3	6.0	5.7	10.5	8.2	10.1	7.2	7.2	6.2	9.2	11.9	15.1	10.0	8.7	10.5	6.7	3.0	3.1	3.0	19.0	10.2
	SW	SW	SW	SSW	SSW	S	S	ESE	ESE	E	ESE	ESE	ESE	ENE	NE	NNE	NE	ENE	NE	NE	NE	NE	NNW	NW			126(SE)
Dec 28	5.4	1.8	6.8	4.4	4.8	2.8	4.4	1.1	2.0	4.2	5.4	3.2	4.9	5.2	3.7	4.5	5.9	6.5	7.4	9.5	9.0	10.2	8.9	7.6	1.1	10.2	5.4
	NNE	NNW	NE	NE	ENE	ENE	W	ESE	SE	ESE	ESE	SSE	SW	SE	S	SSE	SSE	SSE	S	SSE	S	S	SSE	S			152(SSE)
Dec 29	8.9	11.6	10.9	5.0	7.5	5.8	4.3	9.5	10.1	6.3	5.3	6.4	4.7	5.8	5.2	7.7	8.5	11.4	6.5	7.9	12.9	13.0	9.6	13.7	4.3	13.7	8.3
	S	S	S	S	SE	S	SSE	S	SSE	SSE	S	SSE	SSE	SSE	SE	E	ESE	E	ESE	ESE	ESE	ESE	ESE	ESE			140(SE)
Dec 30	20.4	20.3	17.8	12.3	12.6	12.4	12.0	6.5	6.5	6.9	7.7	4.2	4.5	6.2	9.7	8.4	8.5	7.1	8.2	9.2	8.6	8.1	9.3	11.7	4.2	20.4	10.0
	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	E	ENE	E	E	E	S	S	SSW	SSW	S	S	SSW	SSW	SSW	S	S			140(SE)
Dec 31	11.6	10.6	8.6	9.4	9.5	12.2	10.1	14.8	17.1	19.0	17.9	22.9	19.5	19.8	19.5	18.0	13.4	9.2	7.8	5.9	7.4	7.2	5.1	7.9	5.1	22.9	12.7
	SSW	SSW	SSW	SSW	S	S	SSW	SW	SSW	SW	SW	SW	SW	SW	SW	SW	WSW	W	W	WSW	SW	SW	WSW	WSW			222(SW)

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance		
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P**	Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)				

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

842-B STATION

Peace River Area Monitoring Program

842-B Station - December 2023

Summary of Hourly Averages

SULPHUR DIOXIDE (SO_2) in ppb

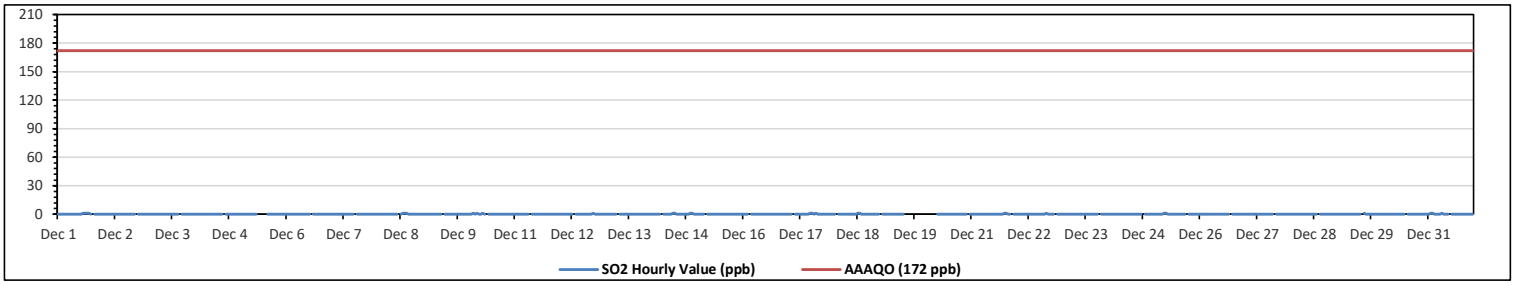
Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb

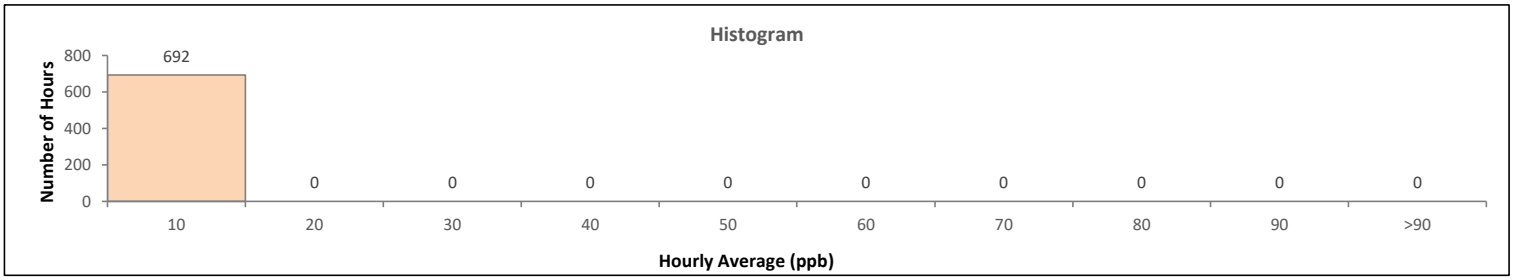
Number of 1-Hour Exceedances:	0	Number of 24-Hour Exceedances:	0	30-Day Exceedence:	0	
Maximum Hourly Value:	1	ppb	on Dec 1 at hr 13	Hours in Service:	744	
Maximum Daily Value:	0.2	ppb	on Dec 1	Hours of Data:	692	
Minimum Hourly Value:	0	ppb	on Dec 1 at hr 0	Hours of Missing Data:	17	
Minimum Daily Value:	0.0	ppb	on Dec 2	Hours of Calibration:	35	
Monthly Average:	0.0	ppb		Operational Uptime:	97.7	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	S	0	0	0	0	0	0	1	0.2
Dec 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Dec 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
Dec 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0.0
Dec 5	0	0	0	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
Dec 6	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 7	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 8	0	0	0	0	0	0	0	0	0	0	0	S	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0.1
Dec 9	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 10	0	0	1	0	1	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Dec 11	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 12	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.0
Dec 13	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 14	0	0	0	0	0	S	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	0	1	0.2
Dec 15	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 16	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 17	0	0	S	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0.1
Dec 18	0	S	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Dec 19	S	0	0	0	0	0	0	0	0	0	0	0	0	P	P	P	P	P	P	P	P	P	P	P	0	0	NA
Dec 20	P	P	P	P	P	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	NA
Dec 21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	S	0	0	0	1	0.1
Dec 22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	S	0	0	0	0	1	0.0
Dec 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
Dec 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Dec 25	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	1	0.1
Dec 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
Dec 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0.0
Dec 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 29	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	0	0	0	0	0	0	1	0.0
Dec 30	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 31	0	1	1	0	0	0	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Diurnal Maximum	0	1	1	0	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	0	1	1	0	0			
Diurnal Average	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



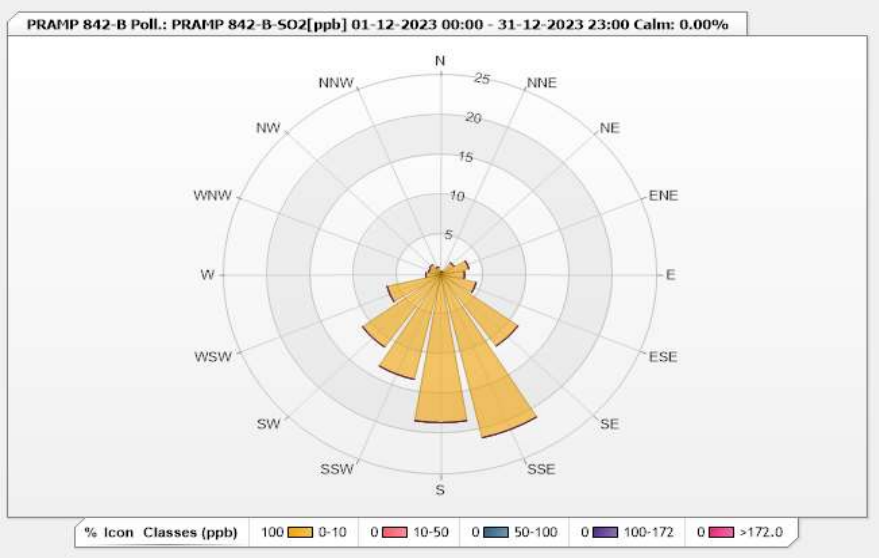


Station: PRAMP 842-B Poll.: PRAMP 842-B-SO2[ppb] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 93.01% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	0.29	0	0	0	0	0.29
NNE	0.43	0	0	0	0	0.43
NE	1.88	0	0	0	0	1.88
ENE	3.32	0	0	0	0	3.32
E	2.75	0	0	0	0	2.75
ESE	4.19	0	0	0	0	4.19
SE	10.98	0	0	0	0	10.98
SSE	20.95	0	0	0	0	20.95
S	18.5	0	0	0	0	18.5
SSW	13.44	0	0	0	0	13.44
SW	11.13	0	0	0	0	11.13
WSW	6.36	0	0	0	0	6.36
W	1.73	0	0	0	0	1.73
WNW	1.45	0	0	0	0	1.45
NW	1.59	0	0	0	0	1.59
NNW	1.01	0	0	0	0	1.01
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

842-B Station - December 2023

Summary of Hourly Averages

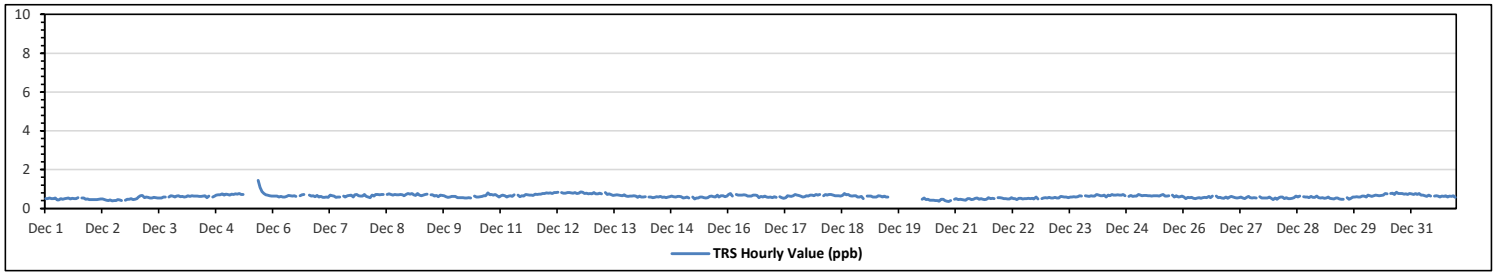
TOTAL REDUCED SULPHUR (TRS) in ppb

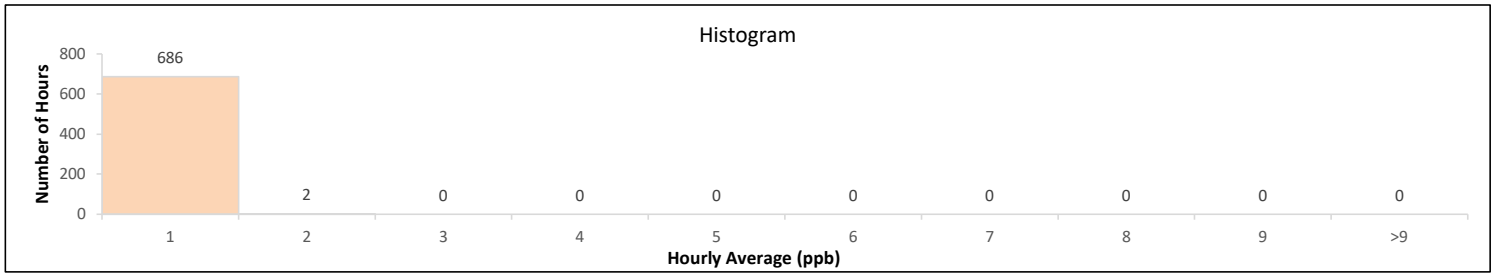
Maximum Hourly Value:	1.45	ppb	on Dec 5 at hr 16	Hours in Service:	744	
Maximum Daily Value:	0.80	ppb	on Dec 12	Hours of Data:	688	
Minimum Hourly Value:	0.36	ppb	on Dec 20 at hr 20	Hours of Missing Data:	19	
Minimum Daily Value:	0.45	ppb	on Dec 2	Hours of Calibration:	37	
Monthly Average:	0.62	ppb		Operational Uptime:	97.4	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0.51	0.5	0.53	0.5	0.5	0.54	0.44	0.44	0.5	0.48	0.5	0.52	0.53	0.49	0.52	0.51	0.51	0.56	S	0.53	0.53	0.48	0.49	0.46	0.44	0.56	0.50
Dec 2	0.46	0.46	0.46	0.45	0.48	0.49	0.49	0.45	0.43	0.41	0.44	0.39	0.42	0.41	0.46	0.44	0.42	S	0.43	0.48	0.47	0.5	0.45	0.47	0.39	0.50	0.45
Dec 3	0.51	0.58	0.65	0.67	0.55	0.58	0.57	0.53	0.53	0.57	0.56	0.53	0.54	0.53	0.59	0.6	S	0.6	0.65	0.63	0.59	0.64	0.65	0.61	0.51	0.67	0.59
Dec 4	0.62	0.58	0.61	0.65	0.62	0.66	0.63	0.63	0.63	0.62	0.62	0.64	0.65	0.55	0.64	S	0.59	0.63	0.68	0.7	0.7	0.75	0.69	0.74	0.55	0.75	0.64
Dec 5	0.71	0.69	0.74	0.73	0.75	0.74	0.77	0.73	0.73	C	C	C	C	C	C	C	1.45	1.08	0.87	0.78	0.7	0.68	0.66	0.64	0.64	**1.45**	NA
Dec 6	0.63	0.64	0.63	0.6	0.62	0.59	0.59	0.62	0.67	0.66	0.63	0.65	0.62	S	0.66	0.7	0.71	NRM	NRM	0.68	0.63	0.66	0.61	0.67	0.59	0.71	0.64
Dec 7	0.58	0.62	0.57	0.57	0.6	0.57	0.68	0.65	0.63	0.57	0.58	0.6	S	0.63	0.58	0.65	0.67	0.69	0.59	0.7	0.72	0.66	0.63	0.64	0.57	0.72	0.63
Dec 8	0.72	0.62	0.59	0.55	0.68	0.64	0.71	0.71	0.7	0.73	0.72	S	0.72	0.75	0.71	0.68	0.72	0.7	0.7	0.73	0.7	0.66	0.71	0.77	0.55	0.77	0.69
Dec 9	0.74	0.76	0.7	0.67	0.76	0.69	0.65	0.69	0.72	0.74	S	0.7	0.7	0.64	0.67	0.61	0.68	0.67	0.66	0.61	0.57	0.6	0.62	0.62	0.57	0.76	0.67
Dec 10	0.62	0.55	0.56	0.55	0.56	0.53	0.53	0.56	0.53	S	0.63	0.59	0.58	0.61	0.62	0.65	0.66	0.8	0.7	0.71	0.69	0.72	0.65	0.59	0.53	0.80	0.62
Dec 11	0.65	0.68	0.65	0.6	0.64	0.65	0.62	0.7	S	0.68	0.61	0.66	0.64	0.71	0.7	0.68	0.68	0.67	0.74	0.71	0.74	0.74	0.78	0.77	0.60	0.78	0.68
Dec 12	0.8	0.79	0.8	0.76	0.81	0.82	0.83	S	0.81	0.79	0.79	0.81	0.81	0.8	0.79	0.82	0.76	0.79	0.85	0.83	0.77	0.79	0.75	0.78	0.75	0.85	**0.80**
Dec 13	0.75	0.81	0.75	0.75	0.79	0.75	S	0.81	0.72	0.75	0.73	0.67	0.68	0.7	0.69	0.67	0.66	0.7	0.64	0.62	0.63	0.64	0.66	0.63	0.62	0.81	0.70
Dec 14	0.57	0.63	0.59	0.59	0.61	S	0.6	0.59	0.56	0.57	0.61	0.6	0.62	0.57	0.58	0.56	0.58	0.61	0.63	0.61	0.59	0.62	0.62	0.61	0.56	0.63	0.60
Dec 15	0.53	0.55	0.58	0.53	S	0.6	0.49	0.53	0.54	0.6	0.59	0.55	0.53	0.55	0.62	0.63	0.61	0.58	0.69	0.6	0.66	0.66	0.61	0.64	0.49	0.69	0.59
Dec 16	0.72	0.76	0.64	S	0.73	0.68	0.68	0.69	0.7	0.69	0.64	0.63	0.64	0.68	0.69	0.67	0.56	0.62	0.6	0.63	0.6	0.57	0.59	0.56	0.56	0.76	0.65
Dec 17	0.61	0.57	S	0.61	0.56	0.52	0.56	0.66	0.63	0.62	0.65	0.71	0.68	0.67	0.64	0.6	0.61	0.65	0.64	0.69	0.68	0.65	0.71	0.68	0.52	0.71	0.63
Dec 18	0.71	S	0.66	0.73	0.68	0.73	0.73	0.68	0.65	0.66	0.66	0.63	0.67	0.76	0.7	0.72	0.66	0.63	0.65	0.66	0.6	0.59	0.62	0.51	0.51	0.76	0.66
Dec 19	S	0.63	0.64	0.64	0.6	0.6	0.59	0.66	0.63	0.58	0.64	0.6	0.58	P	P	P	P	P	P	P	P	P	P	P	0.58	0.66	NA
Dec 20	P	P	P	P	P	P	0.47	0.53	0.46	0.48	0.43	0.43	0.43	0.4	0.42	0.38	0.47	0.47	0.4	0.37	0.36	0.41	S	0.47	0.36	0.53	NA
Dec 21	0.5	0.46	0.48	0.46	0.44	0.43	0.5	0.5	0.46	0.47	0.52	0.54	0.48	0.5	0.48	0.46	0.47	0.55	0.51	0.52	0.5	S	0.55	0.55	0.43	0.55	0.49
Dec 22	0.53	0.5	0.5	0.49	0.49	0.56	0.5	0.51	0.45	0.52	0.52	0.49	0.5	0.51	0.52	0.51	0.52	0.49	0.58	0.49	S	0.5	0.53	0.55	0.45	0.58	0.51
Dec 23	0.54	0.57	0.54	0.53	0.57	0.53	0.54	0.62	0.61	0.58	0.58	0.56	0.59	0.6	0.61	0.6	0.61	0.66	0.64	S	0.65	0.63	0.62	0.66	0.53	0.66	0.59
Dec 24	0.63	0.63	0.71	0.68	0.66	0.66	0.68	0.58	0.68	0.66	0.71	0.69	0.68	0.7	0.68	0.69	0.72	0.66	S	0.62	0.67	0.62	0.63	0.64	0.58	0.72	0.66
Dec 25	0.72	0.68	0.65	0.67	0.67	0.65	0.66	0.64	0.66	0.65	0.66	0.64	0.68	0.71	0.64	0.64	0.65	S	0.68	0.59	0.66	0.58	0.61	0.63	0.58	0.72	0.65
Dec 26	0.59	0.5	0.57	0.56	0.57	0.52	0.51	0.54	0.56	0.52	0.55	0.57	0.55	0.62	0.56	0.63	S	0.63	0.56	0.57	0.54	0.52	0.58	0.52	0.50	0.63	0.56
Dec 27	0.6	0.62	0.59	0.55	0.54	0.56	0.59	0.54	0.51	0.57	0.62	0.56	0.54	0.55	0.54	S	0.61	0.53	0.54	0.53	0.54	0.59	0.52	0.45	0.45	0.62	0.56
Dec 28	0.54	0.48	0.55	0.58	0.58	0.5	0.55	0.51	0.5	0.52	0.56	0.64	0.6	0.63	S	0.61	0.6	0.58	0.56	0.62	0.57	0.57	0.63	0.55	0.48	0.64	0.57
Dec 29	0.53	0.55	0.52	0.53	0.59	0.52	0.5	0.49	0.54	0.54	0.49	0.48	0.47	S	0.55	0.47	0.52	0.59	0.6	0.61	0.59	0.6	0.64	0.63	0.47	0.64	0.55
Dec 30	0.58	0.68	0.66	0.62	0.65	0.69	0.67	0.66	0.67	0.69	0.78	0.75	S	0.77	0.79	0.73	0.83	0.77	0.77	0.76	0.74	0.75	0.72	0.76	0.58	0.83	0.72
Dec 31	0.75	0.73	0.77	0.73	0.77	0.69	0.68	0.66	0.62	0.69	0.63	S	0.64	0.65	0.63	0.6	0.63	0.62	0.65	0.59	0.63	0.62	0.66	0.57	0.57	0.77	0.66
Diurnal Maximum	0.80	0.81	0.80	0.76	0.81	0.82	0.83	0.81	0.81	0.79	0.79	0.81	0.81	0.80	0.79	0.82	1.45	1.08	0.87	0.83	0.77	0.79	0.78	0.78			
Diurnal Average	0.62	0.61	0.62	0.61	0.62	0.61	0.60	0.60	0.60	0.61	0.61	0.60	0.60	0.62	0.62	0.61	0.65	0.65	0.64	0.63	0.62	0.62	0.63	0.61			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



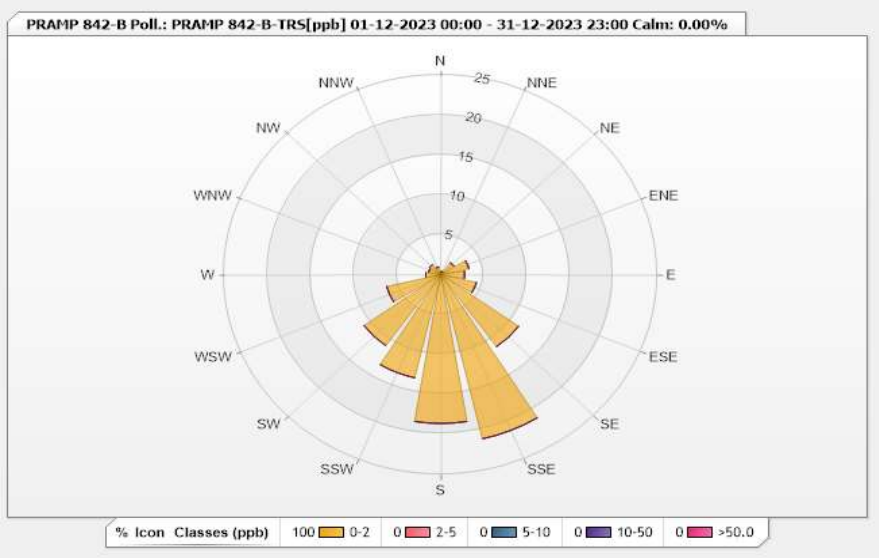


Station: PRAMP 842-B Poll.: PRAMP 842-B-TRS[ppb] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 92.47% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	0.29	0	0	0	0	0.29
NNE	0.44	0	0	0	0	0.44
NE	1.89	0	0	0	0	1.89
ENE	3.34	0	0	0	0	3.34
E	2.76	0	0	0	0	2.76
ESE	4.22	0	0	0	0	4.22
SE	11.05	0	0	0	0	11.05
SSE	21.08	0	0	0	0	21.08
S	18.6	0	0	0	0	18.6
SSW	13.23	0	0	0	0	13.23
SW	10.9	0	0	0	0	10.9
WSW	6.4	0	0	0	0	6.4
W	1.74	0	0	0	0	1.74
WNW	1.45	0	0	0	0	1.45
NW	1.6	0	0	0	0	1.6
NNW	1.02	0	0	0	0	1.02
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

842-B Station - December 2023

Summary of Hourly Averages

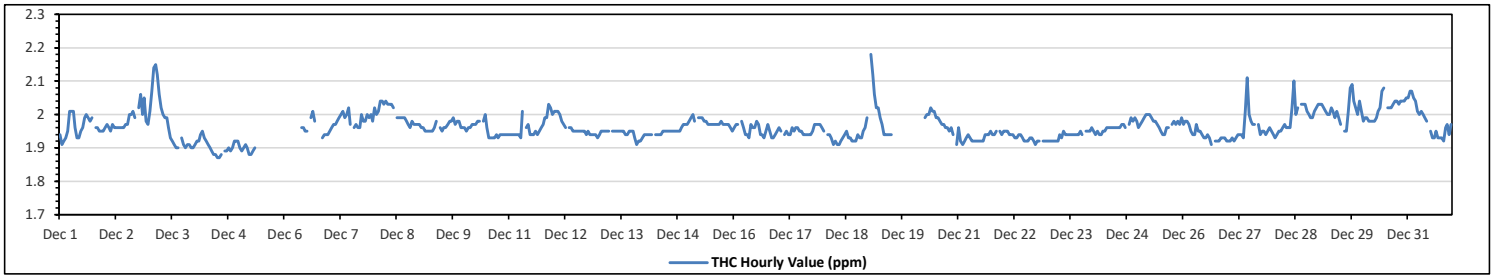
TOTAL HYDROCARBONS (THC) in ppm

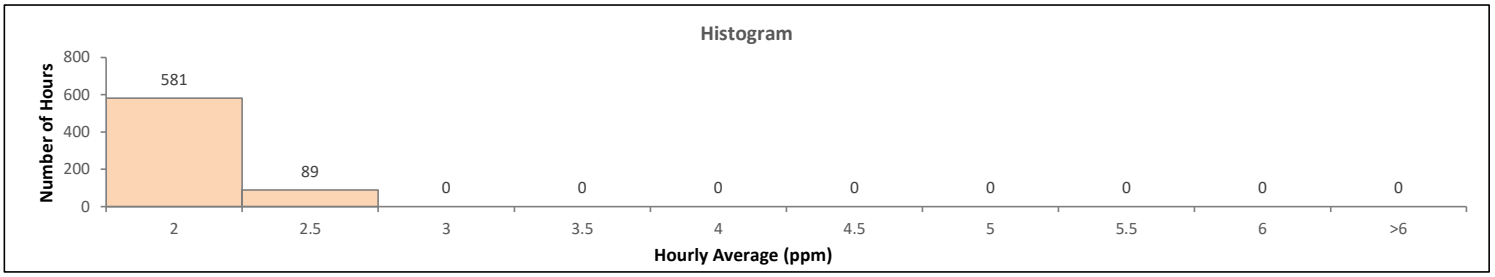
Maximum Hourly Value:	2.18	ppm	on Dec 19 at hr 1	Hours in Service:	744	
Maximum Daily Value:	2.02	ppm	on Dec 30	Hours of Data:	670	
Minimum Hourly Value:	1.87	ppm	on Dec 4 at hr 12	Hours of Missing Data:	39	
Minimum Daily Value:	1.90	ppm	on Dec 4	Hours of Calibration:	35	
Monthly Average:	1.96	ppm		Operational Uptime:	94.8	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	1.94	1.91	1.92	1.93	1.95	2.01	2.01	2.01	1.96	1.93	1.93	1.95	1.96	1.99	2.00	1.99	1.98	1.99	S	1.96	1.96	1.95	1.95	1.95	1.91	2.01	1.96
Dec 2	1.96	1.97	1.96	1.95	1.97	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.97	2.00	2.00	2.01	1.99	S	2.02	2.06	2.00	2.05	1.98	1.97	1.95	2.06	1.98
Dec 3	2.01	2.07	2.14	2.15	2.12	2.06	2.02	2.00	1.99	1.99	1.96	1.93	1.92	1.91	1.90	1.90	S	1.93	1.91	1.90	1.91	1.91	1.90	1.90	1.90	2.15	1.98
Dec 4	1.91	1.92	1.92	1.94	1.95	1.93	1.92	1.91	1.90	1.89	1.88	1.88	1.87	1.87	1.88	S	1.89	1.89	1.90	1.89	1.90	1.92	1.92	1.92	1.87	1.95	1.90
Dec 5	1.90	1.89	1.90	1.91	1.90	1.88	1.88	1.89	1.90	C	C	C	C	C	X	X	X	X	X	X	X	X	X	X	1.88	1.91	NA
Dec 6	X	X	X	X	X	X	X	X	NRM	1.96	1.96	1.95	1.95	S	1.99	2.01	1.98	NRM	NRM	NRM	1.93	1.94	1.94	1.94	1.93	2.01	NA
Dec 7	1.95	1.96	1.97	1.97	1.98	1.99	2.00	2.01	1.99	2.00	2.02	1.97	S	1.96	1.97	1.96	1.96	2.00	1.98	1.98	2.00	1.99	2.00	1.98	1.95	2.02	1.98
Dec 8	2.02	2.00	2.01	2.04	2.04	2.03	2.04	2.03	2.03	2.03	2.02	S	1.99	1.99	1.99	1.99	1.99	1.98	1.97	1.96	1.98	1.97	1.97	1.97	1.96	2.04	2.00
Dec 9	1.97	1.96	1.96	1.95	1.95	1.95	1.95	1.95	1.96	1.98	S	1.96	1.95	1.96	1.96	1.97	1.98	1.98	1.99	1.97	1.98	1.98	1.96	1.96	1.95	1.99	1.96
Dec 10	1.96	1.95	1.96	1.96	1.97	1.97	1.97	1.98	1.98	S	1.98	2.00	1.96	1.93	1.93	1.93	1.93	1.94	1.93	1.94	1.94	1.94	1.94	1.94	1.93	2.00	1.95
Dec 11	1.94	1.94	1.94	1.94	1.94	1.94	1.93	2.01	S	1.96	1.97	1.94	1.94	1.94	1.95	1.94	1.95	1.96	1.97	1.99	1.99	2.03	2.02	2.00	1.93	2.03	1.96
Dec 12	2.01	2.01	2.01	2.00	1.98	1.97	1.96	S	1.96	1.96	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.94	1.95	1.94	1.94	1.94	1.94	1.93	1.93	2.01	1.96
Dec 13	1.94	1.95	1.95	1.95	1.95	1.95	S	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.94	1.94	1.95	1.95	1.95	1.93	1.91	1.92	1.92	1.93	1.91	1.95	1.94
Dec 14	1.94	1.94	1.94	1.94	1.94	S	1.94	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.96	1.97	1.97	1.97	1.94	1.97	1.95
Dec 15	1.98	1.99	2.00	1.98	S	1.99	1.99	1.99	1.98	1.98	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.98	1.97	1.97	1.97	1.97	1.96	1.95	1.95	2.00	1.98
Dec 16	1.96	1.97	1.97	S	1.98	1.96	1.94	1.94	1.93	1.97	1.96	1.96	1.98	1.97	1.94	1.94	1.93	1.95	1.97	1.95	1.93	1.93	1.94	1.95	1.93	1.98	1.95
Dec 17	1.96	1.95	S	1.94	1.95	1.94	1.94	1.96	1.95	1.96	1.96	1.95	1.95	1.94	1.94	1.94	1.94	1.94	1.95	1.97	1.97	1.97	1.97	1.96	1.94	1.97	1.95
Dec 18	1.95	S	1.94	1.94	1.93	1.91	1.92	1.91	1.91	1.92	1.93	1.94	1.95	1.93	1.93	1.92	1.92	1.92	1.94	1.93	1.93	1.95	1.96	1.99	1.91	1.99	1.93
Dec 19	S	2.18	2.12	2.06	2.02	2.02	1.99	1.97	1.94	1.94	1.94	1.94	1.94	P	P	P	P	P	P	P	P	P	P	P	1.94	2.18	NA
Dec 20	P	P	P	P	P	P	1.99	2.00	2.00	2.02	2.01	2.01	1.99	1.99	1.98	1.97	1.97	1.96	1.96	1.95	1.96	1.94	S	1.91	1.91	2.02	NA
Dec 21	1.96	1.92	1.91	1.92	1.93	1.94	1.93	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.94	1.94	1.94	1.95	1.94	1.94	1.95	S	1.95	1.94	1.91	1.96	1.93
Dec 22	1.95	1.95	1.95	1.94	1.94	1.94	1.93	1.93	1.94	1.94	1.93	1.92	1.92	1.92	1.93	1.93	1.92	1.91	1.92	1.92	S	1.92	1.92	1.92	1.91	1.95	1.93
Dec 23	1.92	1.92	1.92	1.92	1.92	1.92	1.94	1.93	1.95	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.94	S	1.95	1.95	1.95	1.96	1.92	1.96	1.94
Dec 24	1.95	1.94	1.95	1.94	1.94	1.95	1.95	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.97	1.96	S	1.97	1.99	1.98	1.99	1.98	1.94	1.99	1.96
Dec 25	1.96	1.97	1.98	1.99	2.00	2.00	2.00	1.99	1.98	1.98	1.97	1.96	1.95	1.94	1.94	1.96	1.96	S	1.97	1.98	1.97	1.98	1.97	1.99	1.94	2.00	1.97
Dec 26	1.97	1.98	1.98	1.97	1.95	1.94	1.94	1.97	1.95	1.95	1.94	1.93	1.93	1.94	1.93	1.91	S	1.92	1.92	1.92	1.93	1.93	1.93	1.92	1.91	1.98	1.94
Dec 27	1.92	1.92	1.93	1.92	1.93	1.94	1.94	1.94	1.93	2.01	2.11	2.00	1.98	1.97	1.97	S	1.97	1.94	1.95	1.95	1.94	1.95	1.96	1.95	1.92	2.11	1.96
Dec 28	1.94	1.93	1.94	1.95	1.95	1.96	1.97	1.96	1.96	1.96	2.02	2.10	2.00	2.02	S	2.03	2.03	2.03	2.01	2.00	1.99	1.99	2.01	2.02	1.93	2.10	1.99
Dec 29	2.03	2.03	2.03	2.02	2.01	2.00	2.00	2.02	2.01	1.99	2.01	1.99	1.97	S	1.95	1.95	2.01	2.08	2.09	2.04	2.02	2.00	2.04	2.01	1.95	2.09	2.01
Dec 30	1.98	1.99	1.99	1.98	1.98	1.98	1.98	1.99	2.01	2.02	2.07	2.08	S	2.02	2.02	2.02	2.03	2.04	2.04	2.03	2.04	2.04	2.04	2.05	1.98	2.08	2.02
Dec 31	2.05	2.07	2.07	2.05	2.04	2.01	2.00	2.01	2.00	1.99	1.98	S	1.95	1.93	1.93	1.95	1.93	1.93	1.93	1.92	1.96	1.97	1.94	1.97	1.92	2.07	1.98
Diurnal Maximum	2.05	2.18	2.14	2.15	2.12	2.06	2.04	2.03	2.03	2.03	2.11	2.10	2.00	2.02	2.02	2.03	2.03	2.08	2.09	2.06	2.04	2.05	2.04	2.05			
Diurnal Average	1.96	1.97	1.97	1.97	1.97	1.97	1.96	1.97	1.96	1.97	1.97	1.96	1.95	1.95	1.95	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance			
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P	Power Failure	
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)					

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



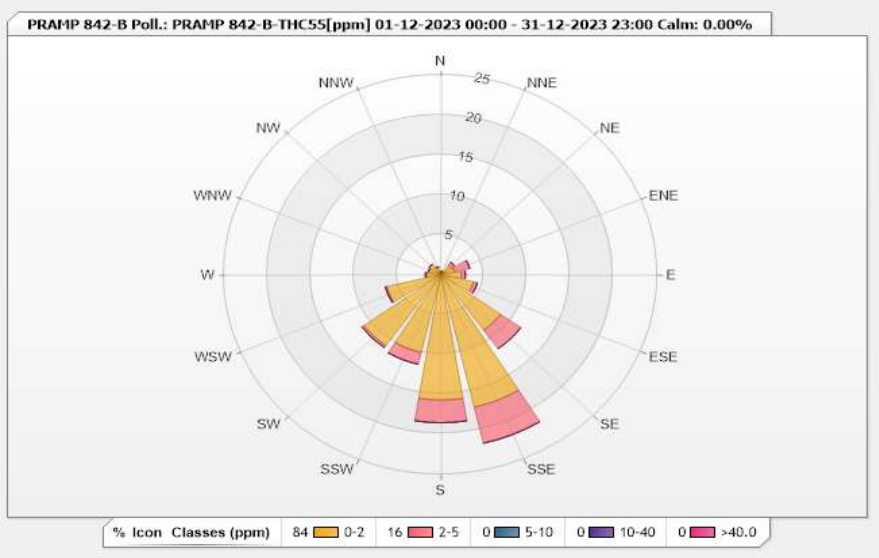


Station: PRAMP 842-B Poll.: PRAMP 842-B-THC55[ppm] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 90.05% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	0.3	0	0	0	0	0.3
NNE	0.45	0	0	0	0	0.45
NE	1.49	0.45	0	0	0	1.94
ENE	1.64	1.79	0	0	0	3.43
E	2.39	0.45	0	0	0	2.84
ESE	3.88	0.45	0	0	0	4.33
SE	8.51	2.84	0	0	0	11.35
SSE	17.01	4.63	0	0	0	21.64
S	15.67	2.84	0	0	0	18.51
SSW	10	1.49	0	0	0	11.49
SW	10.9	0.3	0	0	0	11.2
WSW	6.42	0.15	0	0	0	6.57
W	1.64	0.15	0	0	0	1.79
WNW	1.49	0	0	0	0	1.49
NW	1.64	0	0	0	0	1.64
NNW	1.04	0	0	0	0	1.04
Summary	84.47	15.54	0	0	0	100



Peace River Area Monitoring Program

842-B Station - December 2023

Summary of Hourly Averages

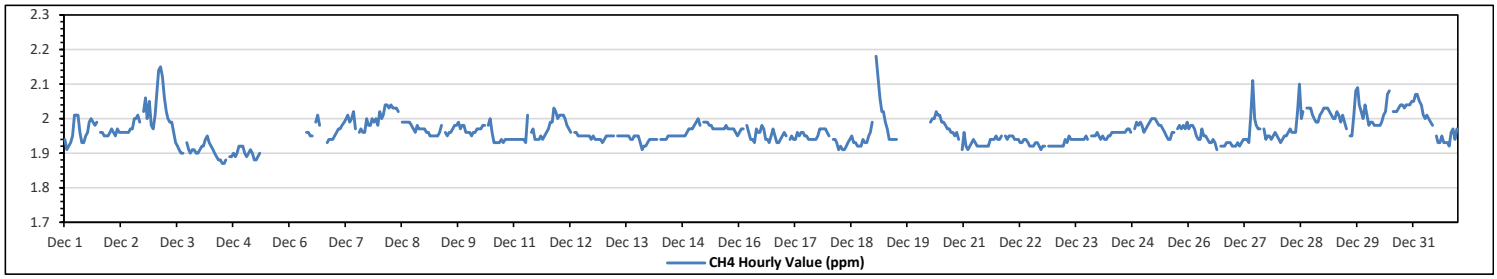
METHANE (CH4) in ppm

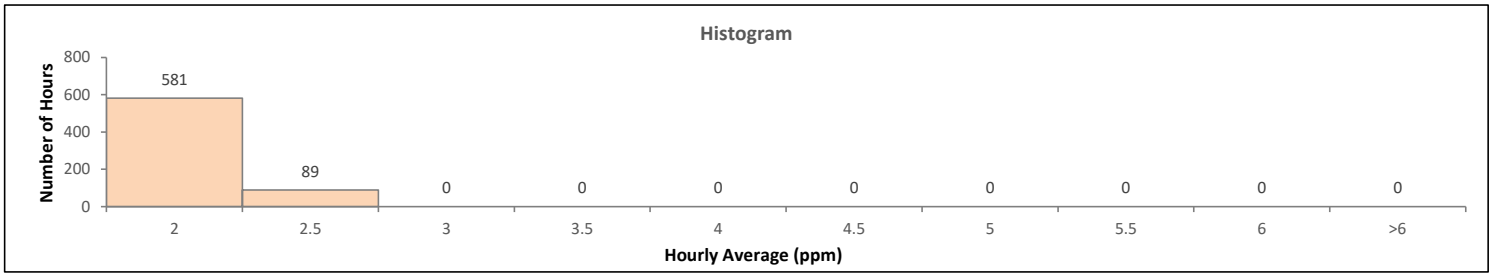
Maximum Hourly Value:	2.18	ppm	on Dec 19 at hr 1	Hours in Service:	744	
Maximum Daily Value:	2.02	ppm	on Dec 30	Hours of Data:	670	
Minimum Hourly Value:	1.87	ppm	on Dec 4 at hr 12	Hours of Missing Data:	39	
Minimum Daily Value:	1.90	ppm	on Dec 4	Hours of Calibration:	35	
Monthly Average:	1.96	ppm		Operational Uptime:	94.8	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	1.94	1.91	1.92	1.93	1.95	2.01	2.01	2.01	1.96	1.93	1.93	1.95	1.96	1.99	2.00	1.99	1.98	1.99	S	1.96	1.96	1.95	1.95	1.95	1.91	2.01	1.96
Dec 2	1.96	1.97	1.96	1.95	1.97	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.97	2.00	2.00	2.01	1.99	S	2.02	2.06	2.00	2.05	1.98	1.97	1.95	2.06	1.98
Dec 3	2.01	2.07	2.14	2.15	2.12	2.06	2.02	2.00	1.99	1.99	1.96	1.93	1.92	1.91	1.90	1.90	S	1.93	1.91	1.90	1.91	1.91	1.90	1.90	1.90	2.15	1.98
Dec 4	1.91	1.92	1.92	1.94	1.95	1.93	1.92	1.91	1.90	1.89	1.88	1.88	1.87	1.87	1.88	S	1.89	1.89	1.90	1.89	1.90	1.92	1.92	1.92	1.87	1.95	1.90
Dec 5	1.90	1.89	1.90	1.91	1.90	1.88	1.88	1.89	1.90	C	C	C	C	C	X	X	X	X	X	X	X	X	X	X	1.88	1.91	NA
Dec 6	X	X	X	X	X	X	X	X	NRM	1.96	1.96	1.95	1.95	S	1.99	2.01	1.98	NRM	NRM	NRM	1.93	1.94	1.94	1.94	1.93	2.01	NA
Dec 7	1.95	1.96	1.97	1.97	1.98	1.99	2.00	2.01	1.99	2.00	2.02	1.97	S	1.96	1.97	1.96	1.96	2.00	1.98	1.98	2.00	1.99	2.00	1.98	1.95	2.02	1.98
Dec 8	2.02	2.00	2.01	2.04	2.04	2.03	2.04	2.03	2.03	2.03	2.02	S	1.99	1.99	1.99	1.99	1.99	1.98	1.97	1.96	1.98	1.97	1.97	1.97	1.96	2.04	2.00
Dec 9	1.97	1.96	1.96	1.95	1.95	1.95	1.95	1.95	1.96	1.98	S	1.96	1.95	1.96	1.96	1.97	1.98	1.98	1.99	1.97	1.98	1.98	1.96	1.96	1.95	1.99	1.96
Dec 10	1.96	1.95	1.96	1.96	1.97	1.97	1.97	1.98	1.98	S	1.98	2.00	1.96	1.93	1.93	1.93	1.93	1.94	1.93	1.94	1.94	1.94	1.94	1.94	1.93	2.00	1.95
Dec 11	1.94	1.94	1.94	1.94	1.94	1.94	1.93	2.01	S	1.96	1.97	1.94	1.94	1.94	1.95	1.94	1.95	1.96	1.97	1.99	1.99	2.03	2.02	2.00	1.93	2.03	1.96
Dec 12	2.01	2.01	2.01	2.00	1.98	1.97	1.96	S	1.96	1.96	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.94	1.95	1.94	1.94	1.94	1.94	1.93	1.93	2.01	1.96
Dec 13	1.94	1.95	1.95	1.95	1.95	1.95	S	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.94	1.94	1.95	1.95	1.95	1.93	1.91	1.92	1.92	1.93	1.91	1.95	1.94
Dec 14	1.94	1.94	1.94	1.94	1.94	S	1.94	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.95	1.96	1.97	1.97	1.97	1.94	1.97	1.95
Dec 15	1.98	1.99	2.00	1.98	S	1.99	1.99	1.99	1.98	1.98	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.98	1.97	1.97	1.97	1.97	1.96	1.95	1.95	2.00	1.98
Dec 16	1.96	1.97	1.97	S	1.98	1.96	1.94	1.94	1.93	1.97	1.96	1.96	1.98	1.97	1.94	1.94	1.93	1.95	1.97	1.95	1.93	1.93	1.94	1.95	1.93	1.98	1.95
Dec 17	1.96	1.95	S	1.94	1.95	1.94	1.94	1.96	1.95	1.96	1.96	1.95	1.95	1.94	1.94	1.94	1.94	1.94	1.95	1.97	1.97	1.97	1.97	1.96	1.94	1.97	1.95
Dec 18	1.95	S	1.94	1.94	1.93	1.91	1.92	1.91	1.91	1.92	1.93	1.94	1.95	1.93	1.93	1.92	1.92	1.92	1.94	1.93	1.93	1.95	1.96	1.99	1.91	1.99	1.93
Dec 19	S	2.18	2.12	2.06	2.02	2.02	1.99	1.97	1.94	1.94	1.94	1.94	1.94	P	P	P	P	P	P	P	P	P	P	P	1.94	2.18	NA
Dec 20	P	P	P	P	P	P	1.99	2.00	2.00	2.02	2.01	2.01	1.99	1.99	1.98	1.97	1.97	1.96	1.96	1.95	1.96	1.94	S	1.91	1.91	2.02	NA
Dec 21	1.96	1.92	1.91	1.92	1.93	1.94	1.93	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.94	1.94	1.94	1.95	1.94	1.94	1.95	S	1.95	1.94	1.91	1.96	1.93
Dec 22	1.95	1.95	1.95	1.94	1.94	1.94	1.93	1.93	1.94	1.94	1.93	1.92	1.92	1.92	1.93	1.93	1.92	1.91	1.92	1.92	S	1.92	1.92	1.92	1.91	1.95	1.93
Dec 23	1.92	1.92	1.92	1.92	1.92	1.92	1.94	1.93	1.95	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.94	1.95	1.94	S	1.95	1.95	1.95	1.96	1.92	1.96	1.94
Dec 24	1.95	1.94	1.95	1.94	1.94	1.95	1.95	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.97	1.97	1.96	S	1.97	1.99	1.98	1.99	1.98	1.94	1.99	1.96
Dec 25	1.96	1.97	1.98	1.99	2.00	2.00	2.00	1.99	1.98	1.98	1.97	1.96	1.95	1.94	1.94	1.96	1.96	S	1.97	1.98	1.97	1.98	1.97	1.99	1.94	2.00	1.97
Dec 26	1.97	1.98	1.98	1.97	1.95	1.94	1.94	1.97	1.95	1.95	1.94	1.93	1.93	1.94	1.93	1.91	S	1.92	1.92	1.92	1.93	1.93	1.93	1.92	1.91	1.98	1.94
Dec 27	1.92	1.92	1.93	1.92	1.93	1.94	1.94	1.94	1.93	2.01	2.11	2.00	1.98	1.97	1.97	S	1.97	1.94	1.95	1.95	1.94	1.95	1.96	1.95	1.92	2.11	1.96
Dec 28	1.94	1.93	1.94	1.95	1.95	1.96	1.97	1.96	1.96	1.96	2.02	2.10	2.00	2.02	S	2.03	2.03	2.03	2.01	2.00	1.99	1.99	2.01	2.02	1.93	2.10	1.99
Dec 29	2.03	2.03	2.03	2.02	2.01	2.00	2.00	2.02	2.01	1.99	2.01	1.99	1.97	S	1.95	1.95	2.01	2.08	2.09	2.04	2.02	2.00	2.04	2.01	1.95	2.09	2.01
Dec 30	1.98	1.99	1.99	1.98	1.98	1.98	1.98	1.99	2.01	2.02	2.07	2.08	S	2.02	2.02	2.02	2.03	2.04	2.04	2.03	2.04	2.04	2.04	2.05	1.98	2.08	2.02
Dec 31	2.05	2.07	2.07	2.05	2.04	2.01	2.00	2.01	2.00	1.99	1.98	S	1.95	1.93	1.93	1.95	1.93	1.93	1.93	1.92	1.96	1.97	1.94	1.97	1.92	2.07	1.98
Diurnal Maximum	2.05	2.18	2.14	2.15	2.12	2.06	2.04	2.03	2.03	2.03	2.11	2.10	2.00	2.02	2.02	2.03	2.03	2.08	2.09	2.06	2.04	2.05	2.04	2.05			
Diurnal Average	1.96	1.97	1.97	1.97	1.97	1.97	1.96	1.97	1.96	1.97	1.97	1.96	1.95	1.95	1.95	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance			
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P	Power Failure	
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)					

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



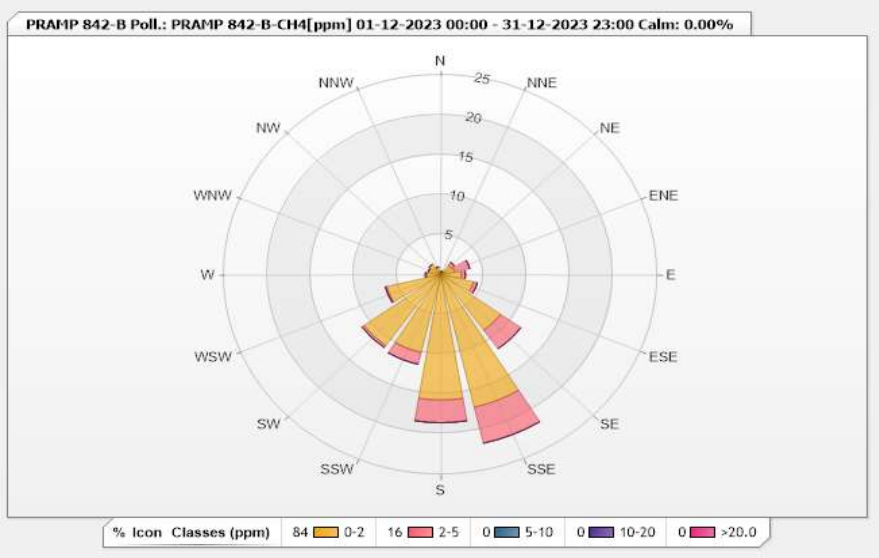


Station: PRAMP 842-B Poll.: PRAMP 842-B-CH4[ppm] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 90.05% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	0.3	0	0	0	0	0.3
NNE	0.45	0	0	0	0	0.45
NE	1.49	0.45	0	0	0	1.94
ENE	1.64	1.79	0	0	0	3.43
E	2.39	0.45	0	0	0	2.84
ESE	3.88	0.45	0	0	0	4.33
SE	8.51	2.84	0	0	0	11.35
SSE	17.01	4.63	0	0	0	21.64
S	15.67	2.84	0	0	0	18.51
SSW	10	1.49	0	0	0	11.49
SW	10.9	0.3	0	0	0	11.2
WSW	6.42	0.15	0	0	0	6.57
W	1.64	0.15	0	0	0	1.79
WNW	1.49	0	0	0	0	1.49
NW	1.64	0	0	0	0	1.64
NNW	1.04	0	0	0	0	1.04
Summary	84.47	15.54	0	0	0	100



Peace River Area Monitoring Program

842-B Station - December 2023

Summary of Hourly Averages

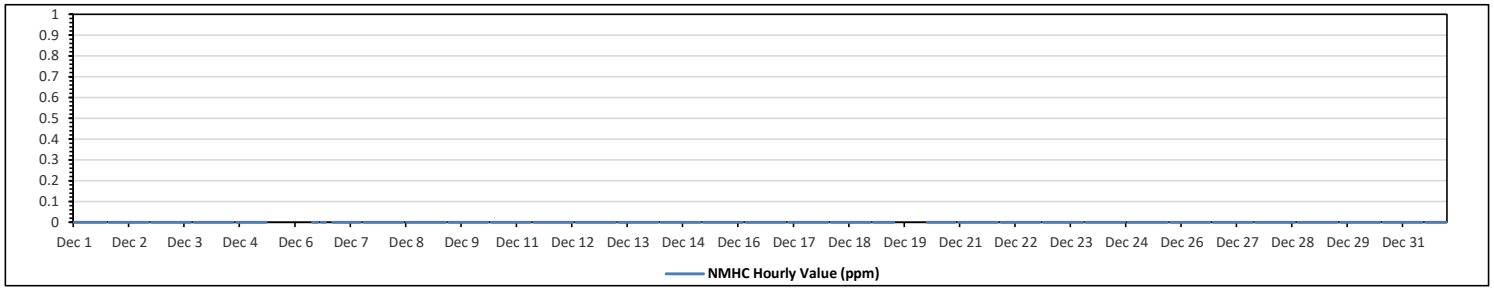
NON-METHANE HYDROCARBONS (NMHC) in ppm

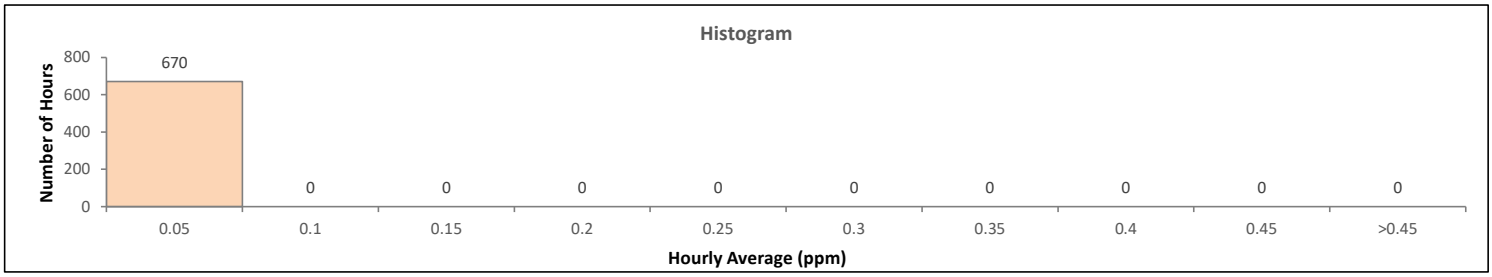
Maximum Hourly Value:	0.00	ppm	on Dec 1 at hr 0	Hours in Service:	744	
Maximum Daily Value:	0.00	ppm	on Dec 1	Hours of Data:	670	
Minimum Hourly Value:	0.00	ppm	on Dec 1 at hr 0	Hours of Missing Data:	39	
Minimum Daily Value:	0.00	ppm	on Dec 1	Hours of Calibration:	35	
Monthly Average:	0.00	ppm		Operational Uptime:	94.8	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	C	C	C	C	C	X	X	X	X	X	X	X	X	X	X	0.00	0.00	NA
Dec 6	X	X	X	X	X	X	X	X	NRM	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	NRM	NRM	NRM	0.00	0.00	0.00	0.00	0.00	0.00	NA
Dec 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 13	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 14	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 15	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 16	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 17	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 18	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 19	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	P	P	P	P	P	P	P	P	P	P	P	0.00	0.00	NA
Dec 20	P	P	P	P	P	P	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	NA
Dec 21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00
Dec 22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00
Dec 23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Diurnal Maximum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Diurnal Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



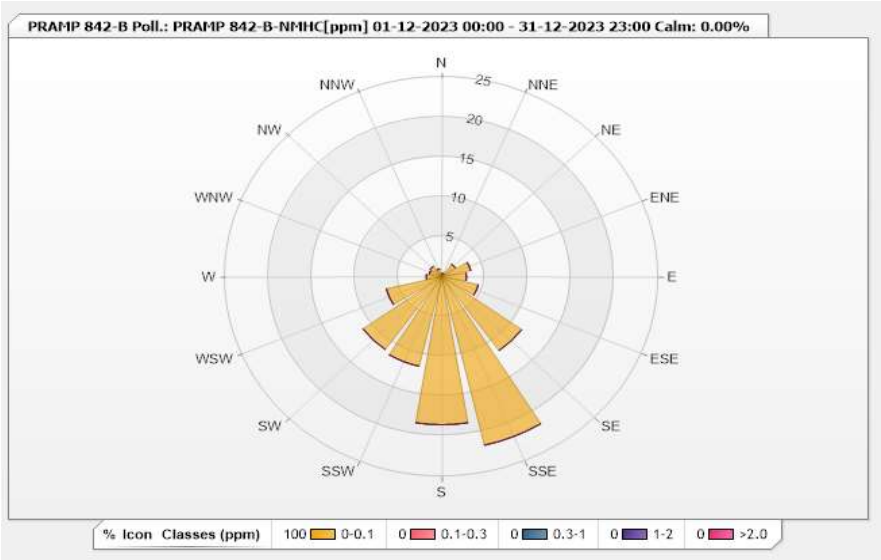


Station: PRAMP 842-B Poll.: PRAMP 842-B-NMHC[ppm] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 90.05% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	0.3	0	0	0	0	0.3
NNE	0.45	0	0	0	0	0.45
NE	1.94	0	0	0	0	1.94
ENE	3.43	0	0	0	0	3.43
E	2.84	0	0	0	0	2.84
ESE	4.33	0	0	0	0	4.33
SE	11.34	0	0	0	0	11.34
SSE	21.64	0	0	0	0	21.64
S	18.51	0	0	0	0	18.51
SSW	11.49	0	0	0	0	11.49
SW	11.19	0	0	0	0	11.19
WSW	6.57	0	0	0	0	6.57
W	1.79	0	0	0	0	1.79
WNW	1.49	0	0	0	0	1.49
NW	1.64	0	0	0	0	1.64
NNW	1.04	0	0	0	0	1.04
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

842-B Station - December 2023

Summary of Hourly Averages

RELATIVE HUMIDITY (RH) in %

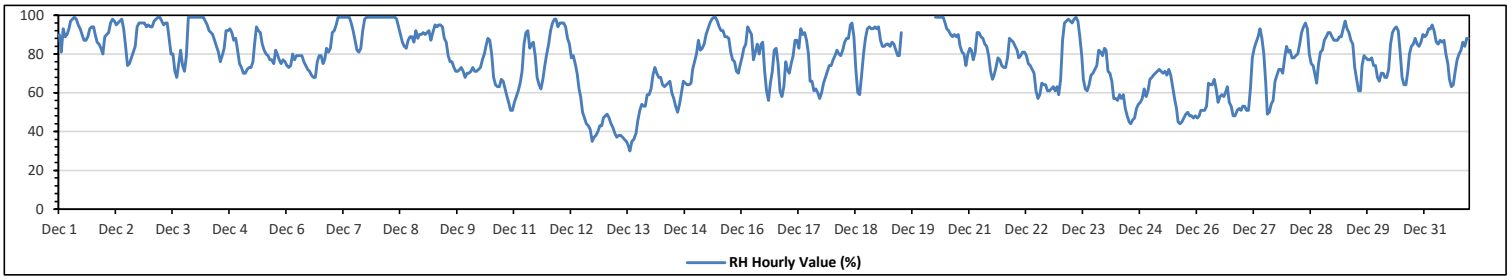
Maximum Hourly Value:	99	%	on Dec 1 at hr 8	Hours in Service:	744
Maximum Daily Value:	94.8	%	on Dec 7	Hours of Data:	727
Minimum Hourly Value:	30	%	on Dec 13 at hr 13	Hours of Missing Data:	17
Minimum Daily Value:	43.3	%	on Dec 13	Hours of Calibration:	0
Monthly Average:	77.1	%		Operational Uptime:	97.7

Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	90	81	93	89	90	93	97	98	**99**	98	95	93	90	87	87	89	93	94	94	90	86	85	83	80	80	**99**	90.6
Dec 2	89	90	91	96	98	97	95	96	97	98	93	84	74	75	78	81	84	94	96	96	96	96	94	95	74	98	91.0
Dec 3	94	94	97	98	**99**	**99**	97	95	96	96	88	80	80	71	68	75	82	74	71	79	**99**	**99**	**99**	**99**	68	**99**	88.7
Dec 4	**99**	**99**	**99**	**99**	**99**	97	95	92	91	90	87	84	81	76	79	83	92	92	93	91	87	88	82	75	75	**99**	89.6
Dec 5	73	70	70	72	73	73	76	85	94	92	91	85	82	80	79	77	77	75	82	80	77	75	77	76	70	94	78.8
Dec 6	74	73	74	80	77	79	79	79	79	76	74	72	71	69	68	68	76	79	79	75	77	83	81	83	68	83	76.0
Dec 7	91	92	95	**99**	**99**	**99**	**99**	**99**	**99**	**99**	96	92	87	82	81	83	92	98	**99**	**99**	**99**	**99**	**99**	**99**	81	**99**	**94.8**
Dec 8	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	**99**	98	94	90	86	84	83	87	89	89	86	92	88	90	90	83	**99**	93.2
Dec 9	91	90	91	92	87	91	95	94	95	95	94	88	86	79	76	76	73	71	71	72	73	71	68	70	68	95	82.9
Dec 10	70	71	73	71	71	72	73	77	80	84	88	87	80	68	64	63	63	67	66	62	58	55	51	51	51	88	69.4
Dec 11	55	58	61	65	71	85	91	92	83	85	86	79	68	64	62	67	74	80	85	92	96	98	98	94	55	98	78.7
Dec 12	96	96	96	94	88	85	78	79	75	70	62	58	50	47	44	43	41	35	37	38	40	43	43	47	35	96	61.9
Dec 13	48	49	47	44	42	39	37	38	38	37	36	35	33	**30**	35	36	39	46	51	54	53	53	59	59	**30**	59	**43.3**
Dec 14	62	69	73	70	68	68	64	63	64	65	66	60	57	53	50	54	60	66	65	64	64	65	72	76	50	76	64.1
Dec 15	80	87	82	83	85	90	93	96	98	**99**	**99**	97	94	92	92	89	89	88	81	77	76	71	70	74	70	**99**	86.8
Dec 16	78	83	85	94	92	90	77	81	85	80	85	86	71	61	56	65	71	82	83	75	61	58	63	76	56	94	76.6
Dec 17	72	70	75	79	87	87	83	93	90	91	87	80	66	66	61	62	60	57	60	65	68	71	74	74	57	93	74.1
Dec 18	77	79	82	80	79	82	86	88	88	95	96	89	72	60	59	69	80	88	93	94	93	93	94	93	59	96	83.7
Dec 19	94	87	84	84	85	85	84	86	85	82	79	79	91	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	79	94	NA
Dec 20	**P**	**P**	**P**	**P**	**P**	**P**	**99**	**99**	**99**	**99**	**99**	96	93	92	90	89	90	89	90	84	81	80	74	80	74	**99**	90.2
Dec 21	83	82	77	81	91	91	89	88	85	84	79	71	67	69	73	78	77	74	73	73	78	88	87	86	67	91	80.2
Dec 22	84	82	78	79	81	81	79	75	74	72	70	61	57	59	65	64	64	61	61	62	63	61	63	59	57	84	69.0
Dec 23	67	87	96	97	98	97	96	98	**99**	97	89	79	67	62	61	64	69	70	72	74	82	81	79	83	61	**99**	81.8
Dec 24	82	71	70	66	57	57	56	59	57	59	52	48	45	44	46	47	52	54	55	57	62	58	61	67	44	82	57.6
Dec 25	68	69	70	71	72	71	70	71	69	72	69	63	57	52	45	44	45	47	49	50	48	48	47	48	44	72	59.0
Dec 26	47	48	51	51	51	53	65	64	64	67	62	55	58	59	58	60	63	55	53	48	48	51	52	51	47	67	55.6
Dec 27	53	53	51	51	62	78	83	86	89	93	88	80	65	49	50	54	56	66	69	72	72	70	78	84	49	93	68.8
Dec 28	81	82	78	78	79	80	85	91	94	96	93	80	75	74	70	65	75	81	82	87	89	91	91	89	65	96	82.8
Dec 29	87	87	87	89	89	93	97	93	91	87	85	73	67	61	61	74	79	78	77	77	78	74	74	68	61	97	80.3
Dec 30	66	70	70	68	68	72	85	91	93	94	92	81	68	64	64	71	80	84	85	88	85	84	86	90	64	94	79.1
Dec 31	89	90	93	93	95	92	86	85	87	86	87	80	75	67	63	64	71	77	80	82	86	84	88	88	63	95	82.8
Diurnal Maximum	99	99	99	99	99	99	99	99	99	99	99	97	94	92	92	89	93	98	99	99	99	99	99	99			
Diurnal Average	78.0	78.6	79.6	80.4	81.1	82.5	83.5	84.8	85.0	85.1	82.7	77.1	71.5	66.6	65.6	67.9	71.8	73.7	74.7	74.8	75.6	75.4	75.9	76.8			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

842-B Station - December 2023

Summary of Hourly Averages

BAROMETRIC PRESSURE (BP) in millibar

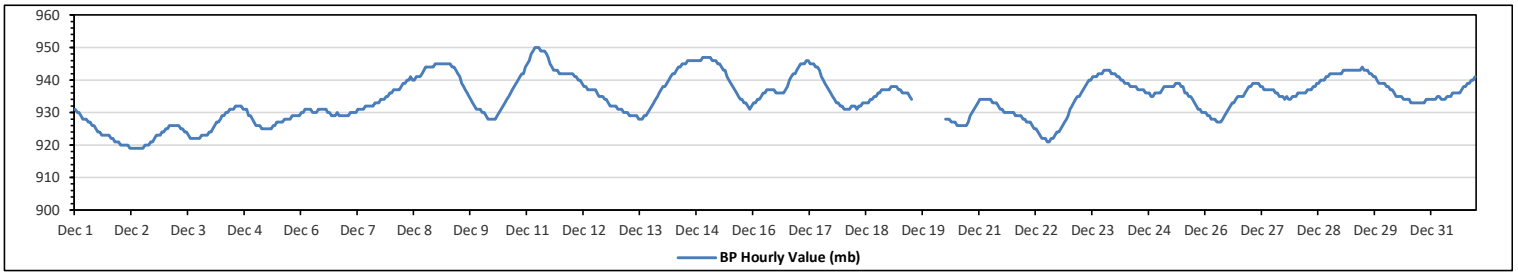
Maximum Hourly Value:	950 mb	on Dec 11 at hr 4	Hours in Service:	744	
Maximum Daily Value:	946 mb	on Dec 11	Hours of Data:	727	
Minimum Hourly Value:	919 mb	on Dec 2 at hr 5	Hours of Missing Data:	17	
Minimum Daily Value:	921 mb	on Dec 2	Hours of Calibration:	0	
Monthly Average:	934 mb		Operational Uptime:	97.7	

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Dec 1	931	930	930	929	928	928	928	927	927	926	926	925	924	924	923	923	923	923	923	922	922	921	921	921	921	931	925
Dec 2	920	920	920	920	920	**919**	**919**	**919**	**919**	**919**	**919**	**919**	**919**	920	920	920	921	921	922	923	923	923	924	924	**919**	924	**921**
Dec 3	925	925	926	926	926	926	926	926	925	925	924	924	923	922	922	922	922	922	922	923	923	923	923	924	922	926	924
Dec 4	924	925	926	927	927	928	929	929	930	930	931	931	931	932	932	932	932	931	931	931	929	929	928	927	924	932	929
Dec 5	926	926	926	925	925	925	925	925	925	926	926	927	927	927	927	928	928	928	928	929	929	929	929	929	925	929	927
Dec 6	930	930	931	931	931	931	930	930	930	931	931	931	931	931	930	930	929	929	929	930	929	929	929	929	929	931	930
Dec 7	929	929	930	930	930	930	931	931	931	931	932	932	932	932	932	933	933	933	934	934	934	935	935	936	929	936	932
Dec 8	936	937	937	937	937	938	939	939	940	940	941	940	940	941	941	941	942	943	944	944	944	944	944	945	936	945	941
Dec 9	945	945	945	945	945	945	945	945	944	944	943	942	941	939	938	937	936	935	934	933	932	931	931	931	931	945	940
Dec 10	930	930	929	928	928	928	928	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	942	944	928	944	934
Dec 11	945	946	948	949	**950**	**950**	**950**	949	949	949	948	947	945	944	943	943	943	942	942	942	942	942	942	942	942	**950**	**946**
Dec 12	942	941	941	940	940	939	938	938	937	937	937	937	937	936	935	935	935	934	934	933	932	932	932	932	932	942	936
Dec 13	931	931	931	930	930	930	929	929	929	929	929	928	928	928	929	929	930	931	932	933	934	935	936	937	928	937	931
Dec 14	938	938	939	940	941	942	942	943	944	944	945	945	945	946	946	946	946	946	946	946	946	947	947	947	938	947	944
Dec 15	947	947	946	946	946	945	945	944	943	943	941	940	939	938	937	936	935	934	934	933	933	932	931	932	931	947	939
Dec 16	933	933	934	934	935	936	936	937	937	937	937	937	936	936	936	936	936	937	938	940	941	942	942	943	933	943	937
Dec 17	944	945	945	945	946	946	945	945	945	944	944	943	941	940	939	938	937	936	935	934	933	933	932	932	932	946	940
Dec 18	931	931	931	931	932	932	932	931	932	932	933	933	933	933	934	934	935	935	936	936	937	937	937	937	931	937	934
Dec 19	937	938	938	938	938	937	937	936	936	936	936	935	934	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	934	938	NA
Dec 20	**P**	**P**	**P**	**P**	**P**	**P**	928	928	928	927	927	927	926	926	926	926	926	926	927	929	930	931	932	933	926	933	928
Dec 21	934	934	934	934	934	934	934	933	933	933	932	931	931	930	930	930	930	930	930	929	929	929	929	928	928	934	931
Dec 22	928	927	927	927	926	925	925	924	923	922	922	922	921	921	922	922	923	924	924	925	926	927	928	929	921	929	925
Dec 23	931	932	933	934	935	935	936	937	938	939	940	940	941	941	941	942	942	942	943	943	943	943	942	942	931	943	939
Dec 24	942	941	941	940	940	939	939	939	938	938	938	938	937	937	937	937	936	936	936	935	935	936	936	936	935	942	938
Dec 25	936	937	938	938	938	938	938	938	939	939	939	938	938	936	936	935	935	934	933	932	931	931	930	930	930	939	936
Dec 26	930	929	929	928	928	928	927	927	927	928	929	930	931	932	933	933	934	935	935	935	935	936	937	938	927	938	931
Dec 27	938	939	939	939	939	938	938	937	937	937	937	937	937	936	936	935	935	935	934	935	934	934	935	935	934	939	937
Dec 28	935	936	936	936	936	936	937	937	937	938	938	939	939	940	940	940	941	941	942	942	942	942	942	942	935	942	939
Dec 29	942	943	943	943	943	943	943	943	943	943	943	944	943	943	943	942	942	941	941	940	939	939	939	939	939	944	942
Dec 30	938	938	937	937	936	935	935	935	935	934	934	934	934	933	933	933	933	933	933	933	933	934	934	934	933	938	935
Dec 31	934	934	934	935	935	934	934	934	935	935	935	936	936	936	936	936	937	938	938	939	939	940	940	941	934	941	936
Diurnal Maximum	947	947	948	949	950	950	950	949	949	949	948	947	945	946	946	946	946	946	946	946	946	947	947	947			
Diurnal Average	934	935	935	935	935	935	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	935			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

842-B Station - December 2023

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

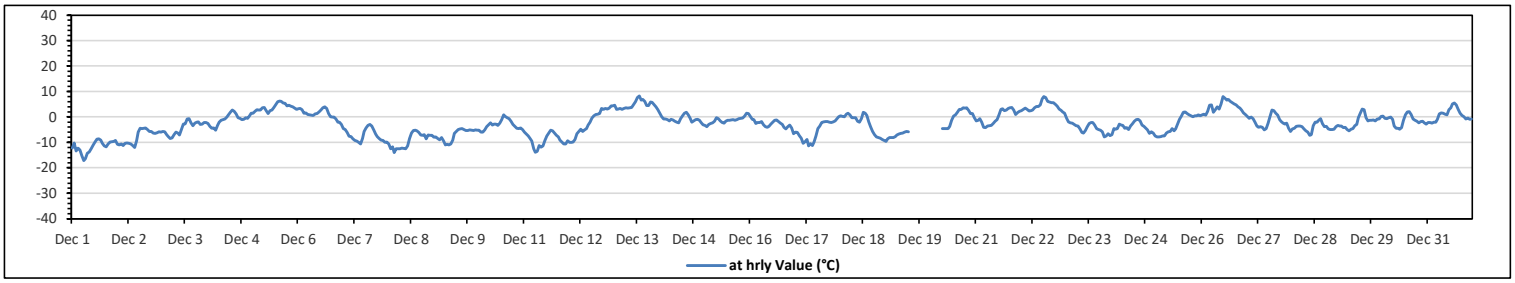
Maximum Hourly Value:	8.3	°C	on Dec 13 at hr 13	Hours in Service:	744	
Maximum Daily Value:	4.7	°C	on Dec 13	Hours of Data:	727	
Minimum Hourly Value:	-17.2	°C	on Dec 1 at hr 6	Hours of Missing Data:	17	
Minimum Daily Value:	-11.7	°C	on Dec 1	Hours of Calibration:	0	
Monthly Average:	-2.7	°C		Operational Uptime:	97.7	

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Dec 1	-12.2	-10.2	-13.4	-12.2	-13	-15.2	**-17.2**	-16.3	-14.3	-13.7	-12.4	-11.1	-9.8	-8.7	-8.6	-9.1	-10.4	-11.3	-11.7	-10.6	-9.8	-9.7	-9.6	-9.2	**-17.2**	-8.6	**-11.7**
Dec 2	-10.8	-11	-10.7	-11.2	-10.3	-10.2	-10.3	-10.6	-11.2	-12	-9.4	-6	-4.4	-4.6	-4.4	-4.3	-4.9	-5.6	-5.7	-6.4	-6.5	-6.2	-5.8	-6	-12.0	-4.3	-7.9
Dec 3	-5.6	-5.8	-6.9	-7.7	-8.5	-8.2	-6.9	-5.9	-6.3	-7.1	-5	-2.8	-2.7	-0.8	-0.7	-2.3	-3.4	-2.4	-2.1	-1.9	-2.9	-2.8	-2.2	-2.2	-8.5	-0.7	-4.3
Dec 4	-2.6	-3.7	-4.4	-4.3	-5.2	-3.3	-2.1	-1.4	-1.1	-0.8	-0.1	0.9	1.8	2.7	2.2	1.2	-0.2	-0.5	-1	-0.9	-0.3	-0.5	0.4	1.4	-5.2	2.7	-0.9
Dec 5	1.5	2.2	2.8	2.7	2.7	3.6	3.8	2.5	1.3	2.5	2.7	3.8	4.9	6	6.3	6.2	5.4	5.3	4.4	4.6	4.2	4	3.5	3	1.3	6.3	3.7
Dec 6	3.2	3.3	2.8	1.4	1.6	1	0.9	0.7	0.6	1.2	1.3	2	2.7	3.7	4	3.3	1.3	0.1	-0.1	-0.1	-0.8	-2.1	-2.1	-2.9	-2.9	4.0	1.1
Dec 7	-4.6	-5	-6.1	-7.6	-7.7	-8.6	-9.3	-9.5	-9.9	-10.7	-8.4	-5.7	-4.3	-3.3	-2.9	-3.5	-5.1	-6.7	-7.7	-8.5	-9.1	-9.3	-9.9	-9.8	-10.7	-2.9	-7.2
Dec 8	-10.7	-12.5	-11.7	-14	-12.4	-12.5	-12.5	-12.2	-12.3	-12.4	-11.3	-8.4	-6.4	-5.4	-5.2	-5.5	-6.1	-7	-7.2	-6.9	-8.6	-7	-7.2	-7.2	-14.0	-5.2	-9.3
Dec 9	-8	-7.8	-8.4	-9	-8.1	-9.4	-10.9	-10.8	-11	-10.6	-9.1	-6.5	-5.6	-5	-4.7	-4.6	-4.9	-5.4	-5.3	-5.1	-5.2	-5.4	-5.1	-5.2	-11.0	-4.6	-7.1
Dec 10	-5.2	-6	-6	-5.1	-3.9	-3	-2.3	-3.1	-2.8	-2.8	-3.3	-2.5	-1	0.8	0.2	-0.3	-0.7	-1.6	-2.9	-3.7	-4.4	-4.5	-4.3	-4.9	-6.0	0.8	-3.1
Dec 11	-5.9	-6.8	-7.5	-8.3	-9.5	-12.5	-13.9	-13.5	-11.2	-11.9	-11.3	-9.3	-7.4	-6.3	-5.2	-5.5	-6.4	-7.2	-7.9	-9.1	-9.8	-10.6	-10.6	-9.4	-13.9	-5.2	-9.0
Dec 12	-9.9	-9.9	-9.8	-8.9	-6.6	-5.7	-4.8	-5.6	-5.1	-4.6	-3.1	-2.1	-0.4	0.4	1	1.1	1.3	3.4	3	3.3	3.1	3.5	4.3	4.4	-9.9	4.4	-2.0
Dec 13	4.6	3	3.1	3.3	3	3.4	3.7	3.5	3.7	3.8	4.9	6	7.6	**8.3**	6.6	6.9	6.1	4.5	4.5	5.9	5.8	4.9	3.9	2.8	2.8	**8.3**	**4.7**
Dec 14	1.4	0	-0.8	-0.8	-1.1	-1.5	-0.9	-1.2	-1.7	-2	-2.3	-0.6	0.4	1.4	1.9	0.9	-0.5	-2.1	-1.5	-1	-0.9	-1.3	-2.2	-3	-3.0	1.9	-0.8
Dec 15	-3.3	-3.8	-2.9	-2.6	-2.3	-1.7	-0.3	-0.7	-1.5	-2.2	-2.5	-1.7	-1.4	-1.3	-1.2	-1.1	-1.3	-1.1	-0.7	-0.5	-0.4	0.3	1.4	1.3	-3.8	1.4	-1.3
Dec 16	0.2	-0.9	-1	-2.6	-2.2	-2.2	-1.8	-3	-3.9	-4.1	-3.7	-2.8	-2	-1.4	-1.2	-1.8	-2.4	-2.9	-4.1	-4.7	-3.8	-3.2	-4.3	-6.6	-6.6	0.2	-2.8
Dec 17	-6	-6.1	-7.3	-8.3	-10.3	-9.7	-8.9	-11.4	-10.5	-11.2	-9.8	-7.4	-4.5	-3.5	-2.2	-1.9	-1.8	-1.8	-2	-2.2	-1.9	-1.5	-0.8	0	-11.4	0.0	-5.5
Dec 18	0.4	0.2	0	1.1	1.5	0.8	-0.2	-0.3	-0.2	-1.6	-2.1	-0.7	1.8	1.4	0.6	-1.9	-4	-5.6	-6.9	-7.9	-8.1	-8.3	-8.8	-9.2	-9.2	1.8	-2.4
Dec 19	-9.6	-8.6	-8.1	-8.1	-8.1	-7.7	-7	-6.7	-6.5	-6.3	-5.9	-5.7	-5.8	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	-9.6	-5.7	NA
Dec 20	**P**	**P**	**P**	**P**	**P**	**P**	-4.5	-4.6	-4.6	-4.5	-3.7	-1.4	0.3	0.8	1.9	2.9	2.9	3.7	3.5	3.7	2.6	1.3	1.3	-0.3	-4.6	3.7	0.1
Dec 21	-1.5	-1.4	-0.6	-2.1	-4.1	-4.2	-3.6	-3.4	-3.3	-2.6	-1.7	-1.1	0.9	3	3.2	2.5	2.7	3.4	3.7	3.8	2.7	1	1.7	2.2	-4.2	3.8	0.0
Dec 22	2.5	2.9	3.5	2.9	2.4	2.5	2.7	3.7	4.1	4.1	4.7	7.1	7.9	7.6	6.1	5.9	5.6	5.6	5	4.2	3.1	2.6	2	1.4	1.4	7.9	4.2
Dec 23	-0.4	-1.9	-2.3	-2.5	-2.9	-3.4	-3.5	-4.7	-6.1	-6.3	-5.3	-3.9	-2.6	-2.2	-2.2	-3.1	-4.6	-4.9	-5.2	-5.8	-7.8	-7.4	-6.6	-7.3	-7.8	-0.4	-4.3
Dec 24	-6.9	-4.5	-4.8	-4.5	-2.8	-3.2	-3.3	-4.4	-4.2	-5	-3.5	-2.7	-1.7	-1	-0.9	-1.5	-3.2	-3.7	-4.3	-5.1	-6.5	-5.8	-6.4	-7.5	-7.5	-0.9	-4.1
Dec 25	-7.8	-7.9	-7.7	-7.5	-7.5	-6.4	-5.8	-5.7	-4.6	-5.5	-4.7	-2.8	-0.9	0.3	1.9	2	1.3	0.8	0.4	0.1	0.5	0.5	0.8	0.5	-7.9	2.0	-2.7
Dec 26	0.8	1.1	0.7	2.2	4.6	4.8	1.9	2.8	4	3.1	5.1	7.9	7.4	6.6	6.8	6.1	5.6	5.2	4.7	3.9	3.5	2.7	1.6	1	0.7	7.9	3.9
Dec 27	0.2	-0.5	-0.1	-0.6	-2.1	-3.6	-4.1	-3.9	-4.1	-5.1	-4.6	-2.4	0.2	2.7	2.5	1.5	0.7	-1	-1.8	-2.5	-2.8	-2.5	-4.4	-5.6	-5.6	2.7	-1.8
Dec 28	-4.7	-4.4	-3.7	-3.5	-3.6	-3.8	-4.7	-5.5	-5.9	-7.2	-6.9	-3.4	-2.1	-2	-1.3	-0.6	-2.7	-3.9	-3.7	-4.7	-4.9	-4.9	-4.8	-3.8	-7.2	-0.6	-4.0
Dec 29	-3.3	-3.6	-3.5	-4.2	-4.1	-4.9	-5.5	-4.8	-4.6	-3.4	-2.9	-0.2	1.4	3.1	2.8	-0.3	-1.5	-1.4	-1.3	-1.2	-1.5	-0.8	-0.8	0.2	-5.5	3.1	-1.9
Dec 30	0.3	-0.5	-0.7	-0.3	-0.1	-0.9	-3.5	-4.4	-4.4	-4.8	-4.2	-1.4	0.8	2	2.1	1	-0.8	-1.3	-1.7	-2.3	-1.8	-1.7	-2.3	-2.8	-4.8	2.1	-1.4
Dec 31	-2.2	-2.2	-2.4	-2	-2	-0.9	1.2	1.6	1.4	1.1	0.8	2.8	3.7	5.2	5.4	4.8	2.9	1.5	0.6	0.1	-0.8	-0.4	-0.9	-0.8	-2.4	5.4	0.8
Diurnal Maximum	4.6	3.3	3.5	3.3	4.6	4.8	3.8	3.7	4.1	4.1	5.1	7.9	7.9	8.3	6.8	6.9	6.1	5.6	5.0	5.9	5.8	4.9	4.3	4.4			
Diurnal Average	-3.5	-3.7	-3.9	-4.1	-4.1	-4.2	-4.3	-4.5	-4.4	-4.6	-3.8	-2.0	-0.7	0.4	0.5	0.0	-1.0	-1.5	-1.8	-2.1	-2.4	-2.5	-2.6	-2.9			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

842-B Station - December 2023

Summary of Hourly Averages

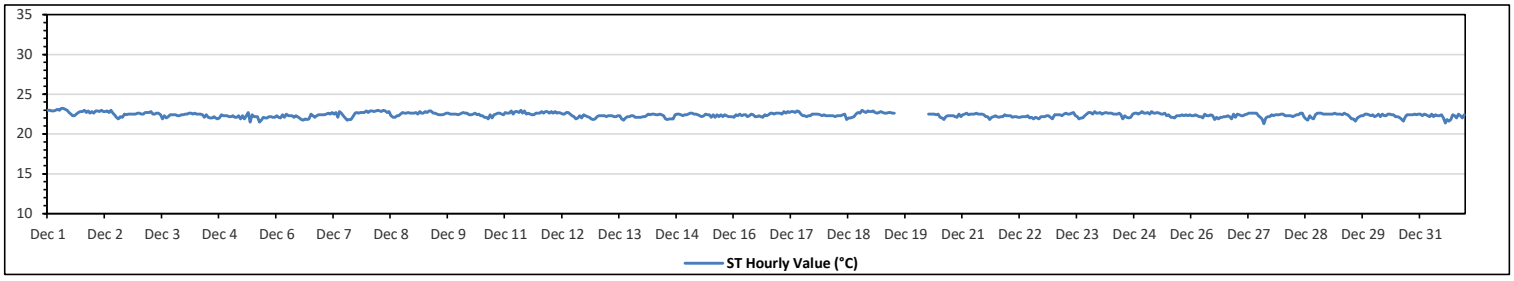
STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:	23.2	°C	on Dec 1 at hr 7	Hours in Service:	744
Maximum Daily Value:	22.8	°C	on Dec 1	Hours of Data:	727
Minimum Hourly Value:	21.3	°C	on Dec 27 at hr 14	Hours of Missing Data:	17
Minimum Daily Value:	22.1	°C	on Dec 5	Hours of Calibration:	0
Monthly Average:	22.4	°C		Operational Uptime:	97.7

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Dec 1	23.0	23.0	22.9	22.9	23.0	23.1	23.0	**23.2**	**23.2**	23.1	23.0	22.7	22.5	22.3	22.3	22.5	22.7	22.8	22.8	23.0	22.7	22.9	22.6	22.8	22.3	**23.2**	**22.8**
Dec 2	22.6	22.9	22.9	22.8	23.0	22.8	22.8	22.9	22.7	23.0	22.6	22.4	22.1	21.9	22.2	22.1	22.5	22.4	22.5	22.5	22.5	22.5	22.5	22.6	21.9	23.0	22.6
Dec 3	22.6	22.5	22.5	22.7	22.7	22.7	22.8	22.5	22.5	22.6	22.6	22.4	21.9	22.3	22.0	22.2	22.4	22.4	22.4	22.4	22.3	22.3	22.4	22.4	21.9	22.8	22.4
Dec 4	22.5	22.5	22.6	22.6	22.5	22.6	22.5	22.5	22.5	22.4	22.1	22.4	22.1	22.0	22.0	22.2	22.0	21.9	22.0	22.4	22.3	22.3	22.3	22.2	21.9	22.6	22.3
Dec 5	22.2	22.3	22.1	22.1	22.3	21.9	22.3	21.9	22.3	22.7	21.5	22.4	22.2	22.2	22.2	21.5	21.7	22.1	22.0	22.0	22.2	22.2	22.1	22.1	21.5	22.7	**22.1**
Dec 6	22.3	22.1	22.0	22.4	22.1	22.5	22.3	22.3	22.3	22.1	22.3	22.2	22.0	21.8	21.7	21.9	21.8	21.9	22.5	22.3	22.1	22.3	22.4	22.4	21.7	22.5	22.2
Dec 7	22.4	22.4	22.5	22.6	22.5	22.7	22.5	22.7	22.1	22.8	22.6	22.3	22.0	21.7	21.8	21.8	22.2	22.6	22.7	22.6	22.7	22.7	22.7	22.9	21.7	22.9	22.4
Dec 8	22.7	22.9	22.9	22.8	22.9	23.0	22.9	22.8	23.0	22.9	22.7	22.8	22.3	22.1	22.1	22.3	22.3	22.5	22.7	22.6	22.6	22.7	22.6	22.6	22.1	23.0	22.7
Dec 9	22.6	22.7	22.5	22.8	22.6	22.6	22.8	22.7	22.9	22.9	22.6	22.6	22.5	22.4	22.4	22.4	22.5	22.6	22.6	22.5	22.5	22.5	22.5	22.4	22.4	22.9	22.6
Dec 10	22.5	22.6	22.7	22.6	22.6	22.4	22.4	22.5	22.6	22.4	22.5	22.3	22.3	22.1	22.1	21.9	22.4	22.0	22.4	22.5	22.6	22.6	22.5	22.4	21.9	22.7	22.4
Dec 11	22.7	22.6	22.6	22.9	22.5	22.8	22.8	22.7	23.0	22.6	22.9	22.5	22.6	22.5	22.4	22.4	22.6	22.6	22.6	22.8	22.6	22.8	22.8	22.6	22.4	23.0	22.7
Dec 12	22.8	22.6	22.8	22.6	22.7	22.6	22.5	22.5	22.7	22.7	22.5	22.3	22.2	21.9	22.0	22.3	22.0	22.4	22.3	22.2	22.1	21.9	21.8	21.9	21.8	22.8	22.3
Dec 13	22.2	22.3	22.3	22.3	22.3	22.2	22.3	22.3	22.3	22.2	22.2	22.3	22.3	21.9	21.7	22.0	22.2	22.2	22.3	22.3	22.1	22.1	22.1	22.1	21.7	22.3	22.2
Dec 14	22.2	22.2	22.3	22.5	22.4	22.5	22.5	22.4	22.4	22.5	22.4	22.3	21.9	21.8	21.9	21.9	21.9	22.4	22.5	22.5	22.4	22.3	22.4	22.4	21.8	22.5	22.3
Dec 15	22.5	22.6	22.6	22.5	22.5	22.4	22.3	22.2	22.3	22.5	22.4	22.4	22.1	22.4	22.1	22.4	22.2	22.4	22.2	22.4	22.3	22.2	22.2	22.2	22.1	22.6	22.3
Dec 16	22.1	22.4	22.3	22.5	22.3	22.4	22.4	22.2	22.3	22.5	22.4	22.2	22.2	22.3	22.2	22.1	22.4	22.3	22.4	22.6	22.6	22.5	22.6	22.6	22.1	22.6	22.4
Dec 17	22.6	22.5	22.8	22.6	22.8	22.7	22.8	22.8	22.7	22.9	22.8	22.5	22.3	22.3	22.2	22.3	22.3	22.5	22.5	22.5	22.5	22.4	22.3	22.4	22.2	22.9	22.5
Dec 18	22.3	22.3	22.3	22.3	22.3	22.2	22.3	22.3	22.3	22.4	22.5	21.8	22.0	22.0	22.1	22.2	22.5	22.7	22.6	23.0	22.8	22.7	22.9	22.8	21.8	23.0	22.4
Dec 19	22.8	22.9	22.7	22.6	22.7	22.8	22.7	22.6	22.6	22.7	22.7	22.6	22.6	P	P	P	P	P	P	P	P	P	P	P	22.6	22.9	NA
Dec 20	P	P	P	P	P	P	22.5	22.5	22.5	22.5	22.4	22.5	22.1	22.0	21.8	22.2	22.3	22.3	22.3	22.3	22.2	22.1	22.5	22.2	21.8	22.5	22.3
Dec 21	22.4	22.5	22.6	22.4	22.5	22.5	22.5	22.6	22.5	22.5	22.5	22.4	22.2	22.2	21.8	22.1	22.2	22.3	22.2	22.1	22.2	22.2	22.4	22.3	21.8	22.6	22.3
Dec 22	22.3	22.3	22.1	22.2	22.2	22.1	22.1	22.2	22.2	22.2	22.3	22.0	22.1	21.9	22.1	22.0	21.9	22.2	22.2	22.2	22.3	22.3	22.1	21.9	21.9	22.3	22.1
Dec 23	22.4	22.4	22.4	22.4	22.3	22.5	22.6	22.5	22.5	22.6	22.7	22.3	22.2	21.9	22.0	22.0	22.3	22.5	22.7	22.7	22.5	22.8	22.6	22.6	21.9	22.8	22.4
Dec 24	22.7	22.5	22.6	22.7	22.6	22.6	22.6	22.5	22.5	22.5	22.6	22.4	21.9	22.3	22.1	22.0	22.1	22.5	22.6	22.6	22.5	22.6	22.8	22.6	21.9	22.8	22.5
Dec 25	22.6	22.7	22.5	22.8	22.6	22.6	22.7	22.6	22.5	22.5	22.6	22.3	22.4	22.1	22.1	22.0	22.3	22.3	22.3	22.4	22.3	22.4	22.3	22.4	22.0	22.8	22.4
Dec 26	22.3	22.3	22.4	22.3	22.2	22.2	22.0	22.5	22.3	22.3	22.4	22.3	21.8	22.1	21.9	22.1	22.1	22.2	22.2	22.3	22.2	21.9	22.5	22.1	21.8	22.5	22.2
Dec 27	22.5	22.4	22.3	22.3	22.4	22.5	22.6	22.6	22.6	22.6	22.6	22.3	22.1	21.9	**21.3**	22.0	22.2	22.2	22.4	22.3	22.4	22.4	22.4	22.5	**21.3**	22.6	22.3
Dec 28	22.5	22.3	22.3	22.3	22.3	22.2	22.3	22.4	22.4	22.6	22.6	22.2	21.9	21.7	22.3	22.0	21.9	22.4	22.6	22.6	22.6	22.5	22.5	22.5	21.7	22.6	22.3
Dec 29	22.5	22.5	22.5	22.6	22.5	22.5	22.5	22.4	22.6	22.5	22.4	22.2	21.9	21.9	21.6	22.0	22.2	22.3	22.3	22.5	22.5	22.4	22.3	22.4	21.6	22.6	22.3
Dec 30	22.2	22.3	22.5	22.2	22.5	22.3	22.3	22.5	22.5	22.4	22.4	22.2	22.2	22.1	21.9	21.6	22.1	22.4	22.4	22.4	22.4	22.5	22.4	22.5	21.6	22.5	22.3
Dec 31	22.5	22.3	22.5	22.4	22.3	22.2	22.5	22.2	22.4	22.3	22.3	22.4	22.0	21.4	21.8	21.6	21.8	22.4	22.3	22.0	22.5	22.3	22.0	22.4	21.4	22.5	22.2
Diurnal Maximum	23.0	23.0	22.9	22.9	23.0	23.1	23.0	23.2	23.2	23.1	23.0	22.8	22.6	22.5	22.4	22.5	22.7	22.8	22.8	23.0	22.8	22.9	22.9	22.9			
Diurnal Average	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.6	22.5	22.4	22.2	22.0	22.0	22.1	22.2	22.4	22.4	22.5	22.4	22.4	22.4	22.4			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

842-B Station - December 2023

Summary of Hourly Averages

PRECIPITATION in mm

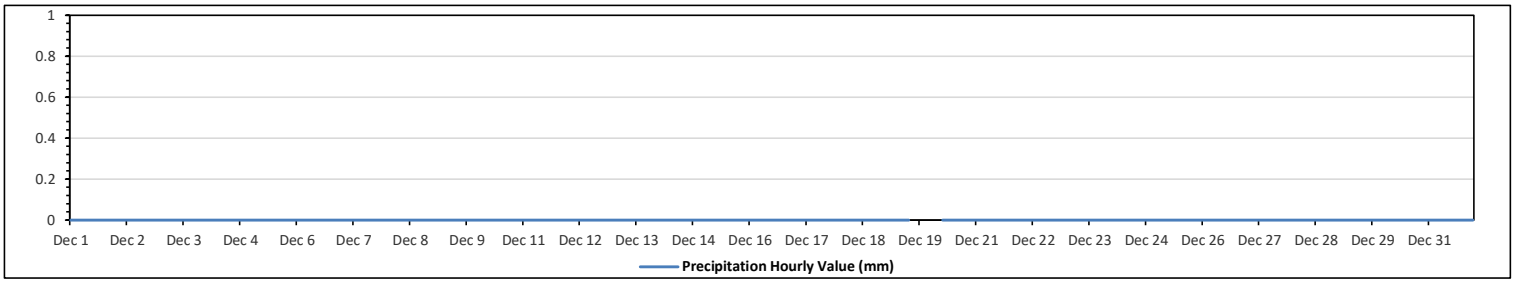
Maximum Hourly Value:	0.0	mm	on Dec 1 at hr 0	Hours in Service:	744	
Maximum Daily Value:	0.0	mm	on Dec 1	Hours of Data:	727	
Minimum Hourly Value:	0.0	mm	on Dec 1 at hr 0	Hours of Missing Data:	17	
Minimum Daily Value:	0.0	mm	on Dec 1	Hours of Calibration:	0	
Monthly Total:	0.0	mm		Operational Uptime:	97.7	

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Total
Dec 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
Dec 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
Dec 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
Dec 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
Dec 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
Dec 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 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
Dec 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
Dec 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 19	0	0	0	0	0	0	0	0	0	0	0	0	0	P	P	P	P	P	P	P	P	P	P	P	0	0	NA
Dec 20	P	P	P	P	P	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 31	0	0	0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

842-B Station - December 2023

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr

Maximum Hourly Value:	28.3	kph	on Dec 26 at hr 20	Hours in Service:	744	
Maximum Daily Value:	14.8	kph	on Dec 22	Hours of Data:	727	
Minimum Hourly Value:	0.2	kph	on Dec 2 at hr 17	Hours of Missing Data:	17	
Minimum Daily Value:	3.5	kph	on Dec 2	Hours of Calibration:	0	
Monthly Average:	6.5	kph		Operational Uptime:	97.7	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	7.7	9.0	6.2	8.0	6.9	3.7	3.2	6.6	7.7	7.0	8.1	8.3	10.7	9.3	8.7	7.5	6.9	8.6	8.6	8.3	7.7	7.2	5.3	5.5	3.2	10.7	7.4
Dec 2	5.0	6.2	5.6	3.4	4.4	4.5	5.1	4.5	4.5	2.8	2.3	0.9	2.6	2.3	1.7	1.8	1.4	**0.2**	2.2	2.7	2.8	4.6	5.7	7.0	**0.2**	7.0	**3.5**
Dec 3	5.9	6.4	8.3	6.9	6.1	8.3	7.3	5.2	5.5	6.2	6.0	5.7	4.3	8.8	3.7	3.1	4.2	5.1	6.2	12.1	10.6	7.9	9.1	10.2	3.1	12.1	6.8
Dec 4	12.4	8.5	9.1	8.2	7.0	11.8	14.7	14.8	13.6	13.1	11.1	10.7	11.4	11.3	10.5	9.3	6.6	8.3	6.9	8.8	9.5	8.5	7.5	9.1	6.6	14.8	10.1
Dec 5	9.7	9.8	7.5	6.1	10.5	13.3	11.5	8.9	9.5	12.6	12.2	11.5	10.6	18.1	17.4	16.1	15.2	16.4	14.6	17.4	16.3	16.1	15.3	13.8	6.1	18.1	12.9
Dec 6	18.4	21.2	15.8	10.7	8.8	11.0	13.6	12.9	16.4	16.2	14.6	12.4	10.7	11.0	13.2	8.8	7.3	6.1	6.7	9.6	8.7	6.6	6.0	2.8	2.8	21.2	11.2
Dec 7	4.4	3.7	5.7	3.6	3.6	4.5	5.5	5.0	4.8	3.5	5.2	5.8	7.9	5.8	6.6	7.0	5.9	5.0	7.4	7.5	5.5	5.8	4.9	4.3	3.5	7.9	5.4
Dec 8	4.1	3.6	3.3	3.3	4.4	4.8	4.1	4.8	4.8	5.0	6.8	6.1	10.8	9.6	13.4	11.0	11.0	10.4	9.1	7.8	2.6	11.3	10.2	13.9	2.6	13.9	7.3
Dec 9	10.0	11.1	8.5	11.3	10.1	9.2	5.5	6.0	6.2	4.3	9.7	11.7	13.5	12.1	6.4	6.8	7.2	6.5	5.5	4.4	6.4	8.0	10.9	9.4	4.3	13.5	8.4
Dec 10	10.7	7.2	7.1	7.4	10.1	14.9	15.6	13.3	15.6	6.5	2.6	1.1	2.2	7.8	7.1	7.1	9.8	7.0	10.1	11.0	10.4	12.5	17.0	16.4	1.1	17.0	9.6
Dec 11	16.7	14.6	11.6	7.4	3.1	2.2	1.5	3.7	8.8	6.1	9.2	9.9	10.3	10.4	12.2	9.1	6.6	10.0	7.5	6.3	5.5	5.6	6.3	6.5	1.5	16.7	8.0
Dec 12	6.7	6.2	8.0	10.7	11.9	12.9	12.1	14.1	12.5	11.6	16.2	14.9	18.1	14.7	16.5	16.8	17.3	20.0	18.3	18.4	15.2	18.3	19.7	19.0	6.2	20.0	14.6
Dec 13	17.2	9.4	8.3	6.1	6.5	11.0	8.0	8.8	9.9	10.1	12.7	12.6	8.6	7.1	3.9	7.9	6.9	7.2	10.2	16.9	20.0	19.6	18.3	16.8	3.9	20.0	11.0
Dec 14	12.3	9.3	10.0	10.3	8.3	10.9	13.0	13.4	11.6	10.1	11.0	12.8	13.1	11.0	10.7	10.4	9.7	7.4	10.8	13.2	13.7	12.4	9.1	5.6	5.6	13.7	10.8
Dec 15	7.1	10.1	12.4	13.2	7.4	16.3	21.4	16.0	17.1	12.3	13.3	14.6	12.2	9.8	8.5	10.2	8.0	9.5	14.2	12.9	8.6	10.9	14.3	11.3	7.1	21.4	12.2
Dec 16	8.0	9.5	6.7	3.6	4.2	1.8	3.3	1.2	1.3	1.4	0.5	1.7	2.7	3.5	2.4	2.3	2.6	3.3	8.3	8.2	10.4	12.0	10.5	10.8	0.5	12.0	5.0
Dec 17	10.1	6.0	5.1	2.9	4.0	6.7	6.9	6.6	9.5	7.5	8.1	9.7	11.8	14.1	19.9	17.7	15.0	8.1	8.1	12.4	11.6	13.2	16.5	14.0	2.9	19.9	10.2
Dec 18	14.7	12.6	15.3	12.8	12.4	10.1	10.1	8.5	10.4	4.3	2.0	1.9	2.6	5.3	3.5	2.0	0.8	0.3	0.3	0.9	0.8	**0.2**	1.4	0.3	**0.2**	15.3	5.6
Dec 19	2.9	5.2	4.0	3.5	5.2	6.3	7.4	7.7	9.4	8.7	9.1	10.2	10.5	P	P	P	P	P	P	P	P	P	P	P	2.9	10.5	NA
Dec 20	P	P	P	P	P	P	11.8	12.6	10.2	12.0	10.4	12.1	11.0	8.9	14.5	15.1	13.6	15.9	15.5	16.2	13.0	11.7	11.9	6.7	6.7	16.2	12.4
Dec 21	5.1	7.3	12.0	3.8	4.6	4.8	9.2	11.7	9.9	11.6	10.9	5.7	13.2	14.0	15.4	10.6	11.9	12.1	12.7	12.2	8.0	3.8	8.5	7.7	3.8	15.4	9.4
Dec 22	8.8	12.7	12.5	8.4	8.7	7.7	10.0	12.2	11.4	10.4	7.8	13.5	13.5	15.8	16.8	17.2	18.3	22.1	24.3	23.6	20.0	21.7	17.8	19.3	7.7	24.3	**14.8**
Dec 23	18.4	13.1	14.5	12.9	8.5	8.3	9.4	7.8	7.6	7.8	9.5	7.7	11.3	12.9	11.4	9.9	10.1	9.1	9.1	8.0	5.0	8.6	8.8	7.5	5.0	18.4	9.9
Dec 24	9.3	15.3	13.1	14.1	16.1	19.3	20.1	18.6	18.8	8.8	14.8	16.0	16.2	9.9	9.3	5.5	6.4	8.5	6.7	4.0	4.6	5.2	7.7	5.7	4.0	20.1	11.4
Dec 25	5.7	6.9	7.9	8.4	8.0	11.7	8.3	9.1	11.6	8.9	7.7	11.1	12.7	11.2	12.1	11.7	11.1	8.4	7.7	8.4	10.5	9.6	10.0	5.4	5.4	12.7	9.3
Dec 26	5.6	5.6	5.7	7.8	7.6	5.1	4.0	9.4	10.3	8.0	12.3	15.7	15.2	21.8	15.6	15.7	18.3	27.3	27.0	24.7	**28.3**	24.4	13.5	15.4	4.0	**28.3**	14.3
Dec 27	14.6	11.6	13.6	13.1	9.9	5.9	5.3	5.6	3.7	6.3	5.9	3.1	4.3	3.8	2.2	3.1	5.0	8.2	6.7	3.8	5.1	3.7	1.4	1.9	1.4	14.6	6.2
Dec 28	3.0	1.7	5.3	1.4	4.7	0.8	2.2	1.9	1.5	1.8	3.0	1.9	4.0	2.7	3.9	3.8	3.4	5.0	7.0	4.4	5.8	6.3	6.4	9.6	0.8	9.6	3.8
Dec 29	9.4	8.8	7.4	9.3	6.3	3.9	4.0	4.7	5.8	5.0	3.0	3.9	6.6	7.0	3.3	2.8	4.0	7.0	6.8	6.1	4.9	5.9	6.5	6.9	2.8	9.4	5.8
Dec 30	7.0	8.2	7.2	5.1	7.0	4.3	1.8	1.0	4.8	3.4	3.4	1.1	4.4	8.7	9.6	8.2	8.4	9.3	6.9	5.3	10.2	9.1	7.6	7.7	1.0	10.2	6.2
Dec 31	8.6	7.5	6.7	7.1	8.7	9.1	12.8	11.7	12.0	10.5	4.3	9.6	10.3	15.6	16.9	15.5	10.5	8.6	4.9	5.8	3.3	2.5	3.5	2.8	2.5	16.9	8.7
Diurnal Maximum	18.4	21.2	15.8	14.1	16.1	19.3	21.4	18.6	18.8	16.2	16.2	16.0	18.1	21.8	19.9	17.7	18.3	27.3	27.0	24.7	28.3	24.4	19.7	19.3			
Diurnal Average	9.3	8.9	8.8	7.7	7.5	8.2	8.7	8.7	9.2	7.9	8.2	8.5	9.6	10.1	9.9	9.1	8.8	9.4	9.7	10.0	9.5	9.8	9.7	9.1			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance			
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P	Power Failure	
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)					

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
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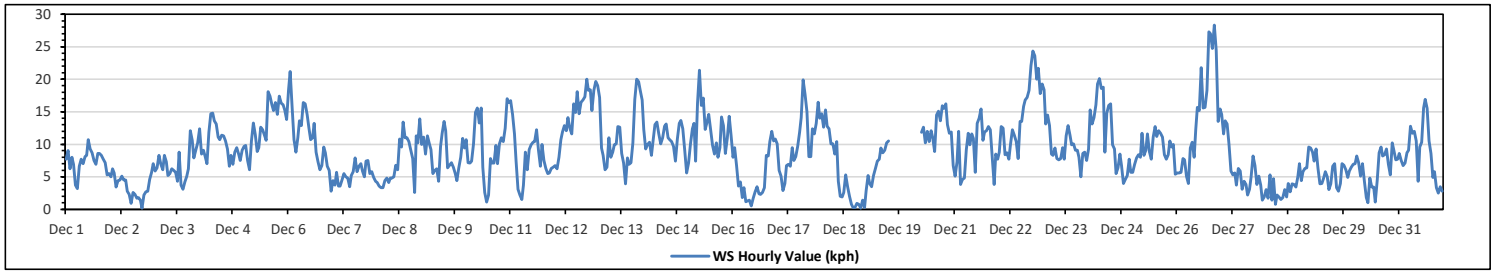
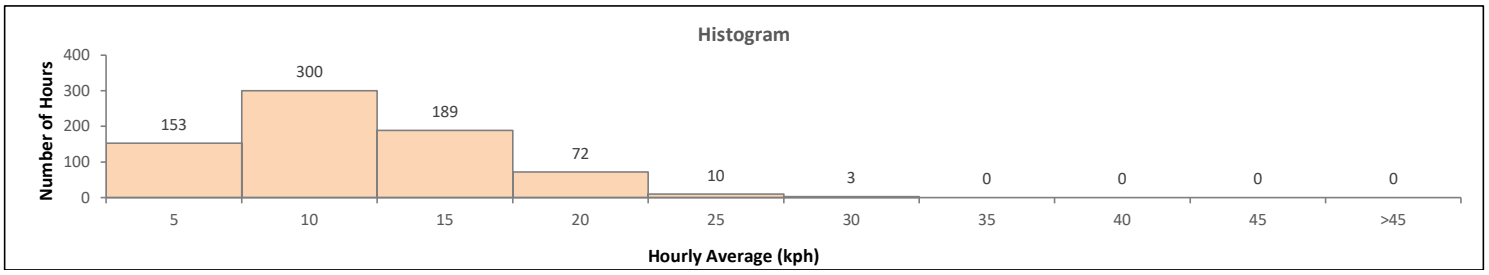


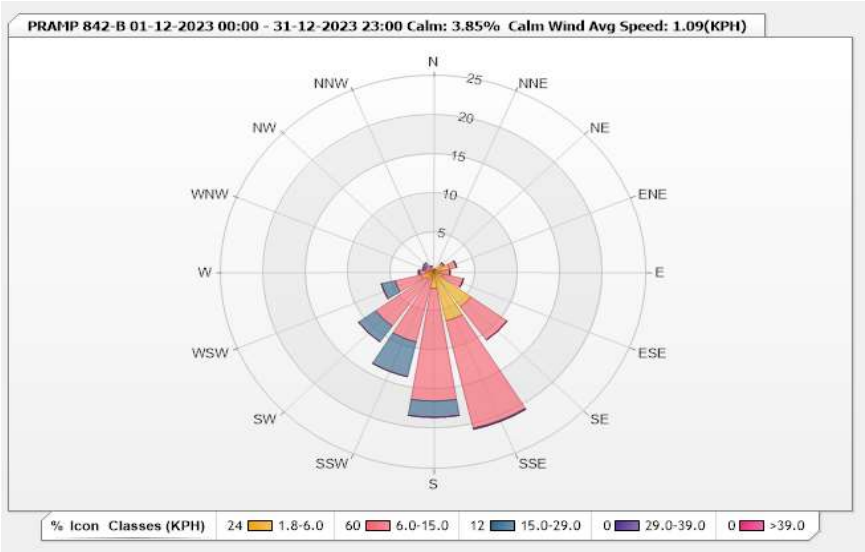


Station: PRAMP 842-B Monitor: WDS [KPH] Monthly: 12-2023

Type: Wind Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm (WS<1.8kph): 3.85% Valid Data: 97.72%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0.14	0	0	0	0	0.14
NNE	0.41	0	0	0	0	0.41
NE	1.24	0.28	0	0	0	1.52
ENE	1.93	0.83	0	0	0	2.76
E	0.69	1.24	0	0	0	1.93
ESE	1.1	2.48	0	0	0	3.58
SE	5.36	5.23	0	0	0	10.59
SSE	6.33	14.03	0.14	0	0	20.5
S	2.06	14.31	2.06	0	0	18.43
SSW	0.55	8.53	4.54	0	0	13.62
SW	1.1	7.29	2.48	0	0	10.87
WSW	1.51	3.16	1.65	0	0	6.32
W	0.83	0.83	0.14	0	0	1.8
WNW	0.55	0.55	0.28	0	0	1.38
NW	0.28	0.83	0.41	0	0	1.52
NNW	0.28	0.55	0	0	0	0.83
Summary	24.36	60.14	11.7	0	0	96.2



Peace River Area Monitoring Program

842-B Station - December 2023

Summary of Hourly Averages

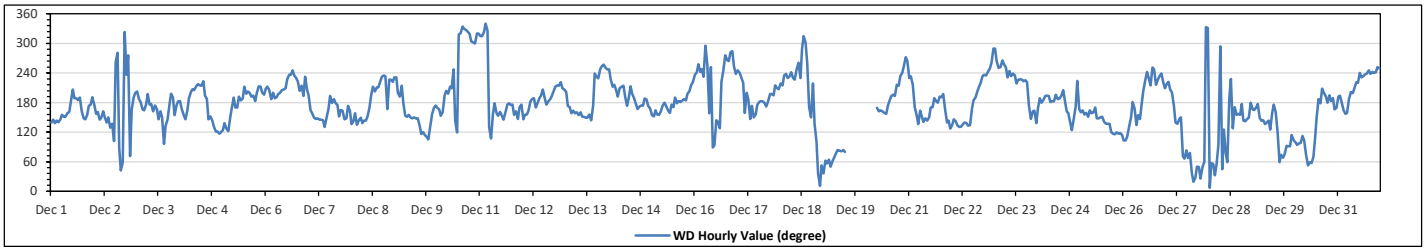
WIND DIRECTION (VWD) in sector

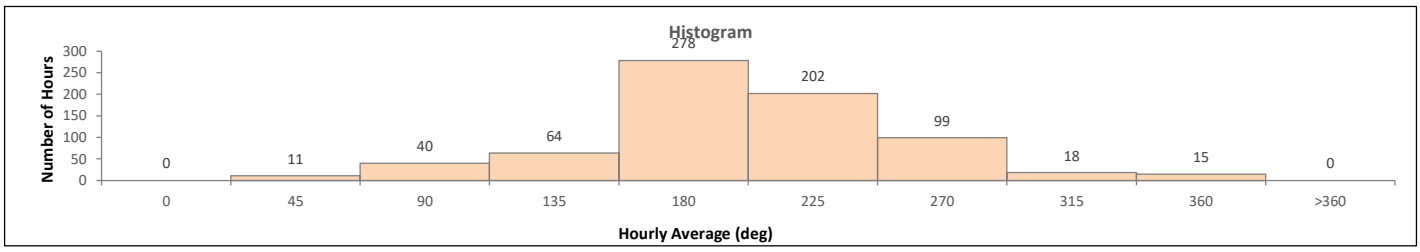
Monthly Average:	188 (S)	degree	
Hours in Service:	744		
Hours of Data:	727		
Hours of Missing Data:	17		
Hours of Calibration:	0		
Operational Uptime:	97.7		

Day	Hourly Period Starting at (MST)																							Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant
Dec 1	SE	SE	SE	SE	SE	SE	SSE	SSE	SSE	SSE	SSE	S	SSW	S	S	S	S	SSE	SE	SE	SSE	S	S	S	164	SSE
Dec 2	S	SSE	SSE	SE	SSE	SSE	SSE	SE	SSE	SE	SE	E	W	W	E	NE	ENE	NW	SW	W	ENE	SSE	S	SSW	163	SSE
Dec 3	SSW	S	S	SSE	SSE	S	SSW	S	S	SSE	S	SSE	SE	SSE	SSE	E	SE	SE	S	SSW	S	SSE	S	S	173	S
Dec 4	S	SSE	SSE	SE	SSE	S	SSW	SSW	SSW	SSW	SW	SSW	SSW	SW	SSW	S	SE	SSE	SE	SE	ESE	ESE	ESE	ESE	179	S
Dec 5	ESE	SE	SE	ESE	SSE	SSE	S	SSE	SSE	S	S	S	SSW	SSW	SSW	SSW	S	SSW	S	SSW	SSW	SSW	SSW	SSW	187	S
Dec 6	SSW	SSW	SSW	S	SSW	S	S	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	WSW	SW	SW	SW	SSW	SSW	S	SW	SSW	210	SSW
Dec 7	SSW	SSE	SSE	SSE	SE	SE	SE	SE	SE	SE	SSE	SSE	S	S	S	S	S	SSE	SSE	SSE	SE	SE	S	SSE	163	SSE
Dec 8	SE	SE	SSE	SE	SE	SSE	SE	SE	SE	SSE	SSE	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SSE	SW	SW	SW	200	SSW
Dec 9	SW	SW	SSW	S	SSW	S	SSE	SSE	SSE	SSE	SE	SSE	SE	SE	SE	ESE	ESE	ESE	ESE	ESE	SE	SSE	SSE	S	162	SSE
Dec 10	SSE	SSE	SSE	SSE	SSW	SSW	SSW	SSW	SSW	WSW	SE	ESE	NW	NW	NNW	NNW	NW	NW	NW	WNW	WNW	WNW	NW	NW	262	W
Dec 11	NW	NW	NW	NNW	NW	SE	ESE	SSE	S	SSE	SSE	SSE	SSE	SE	SSE	S	S	S	S	SSE	SSE	SE	S	S	175	S
Dec 12	SE	SSE	SSE	SSE	S	S	S	SSE	S	S	SSW	SSW	S	S	S	S	S	SSW	SSW	SSW	SSW	SW	SSW	SSW	193	S
Dec 13	SSW	S	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SE	S	WSW	SW	SW	WSW	WSW	WSW	WSW	WSW	199	SSW
Dec 14	WSW	SW	SSW	SW	SSW	S	SSW	SSW	SSW	S	S	S	SSW	SSW	S	S	SSE	S	S	S	S	S	S	SSE	196	SSW
Dec 15	SSE	SSE	SSE	SSE	SSE	SSE	S	S	S	SSE	SSE	S	S	S	S	S	S	S	S	S	SSW	SSW	SSW	SW	177	S
Dec 16	SW	WSW	WSW	WSW	WSW	SW	WNW	WSW	SSE	WSW	E	E	SE	SE	SE	SW	WSW	W	W	W	W	WNW	WSW	SW	252	WSW
Dec 17	WSW	WSW	SW	SW	SSE	SSW	S	SE	S	SSE	SSE	S	S	S	S	S	S	S	S	SSW	SSW	SSW	SSW	SSW	190	S
Dec 18	SW	SSW	SW	SW	SW	SW	WSW	SW	SW	WSW	W	SW	WNW	NW	WNW	W	S	SSE	SW	SE	E	NE	NNE	NE	236	SW
Dec 19	NE	ENE	NE	ENE	NE	ENE	ENE	ENE	E	E	E	E	E	P	P	P	P	P	P	P	P	P	P	P	NA	NA
Dec 20	P	P	P	P	P	P	SSE	SSE	SSE	SSE	SSE	SSE	S	S	S	SSW	S	SW	SSW	SW	WSW	WSW	W	W	199	SSW
Dec 21	SW	SW	SW	S	SSE	SE	SSE	SSE	SE	SE	SE	SSE	SSE	S	S	S	S	S	S	SSW	SSE	SE	SE	SE	172	S
Dec 22	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SSE	S	S	SSW	SSW	SW	SW	SW	SW	WSW	WSW	W	WNW	201	SSW
Dec 23	WNW	W	WSW	WSW	W	WSW	WSW	SW	WSW	SW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	S	SE	SSE	SSE	SE	232	SW
Dec 24	SSE	S	S	S	S	SSW	S	S	S	S	SSW	S	S	S	SSW	S	SSE	SSE	SE	ESE	SE	S	SW	SSE	184	S
Dec 25	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SE	SE	SSE	SSE	SE	SE	SE	SE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	143	SE
Dec 26	ESE	ESE	ESE	SE	SSE	S	SSE	SE	SSE	SE	S	SSW	SW	WSW	SW	SSW	WSW	WSW	SW	SW	SW	WSW	SW	SSW	213	SSW
Dec 27	SW	SW	SSW	SSW	S	SE	SE	SE	SSE	ENE	ENE	E	ENE	ENE	NE	NNE	NNE	NE	NE	NNE	NE	ENE	NNW	NNW	137	SE
Dec 28	N	ENE	NE	NNE	NE	E	WNW	NE	SE	ENE	ENE	S	SW	SE	S	SSE	SSE	SSE	S	SE	SE	SE	SSE	S	141	SE
Dec 29	SSE	SSE	SSE	S	SSE	SE	SE	SE	SE	SE	SE	SSE	S	SSE	ESE	ENE	ENE	ENE	ENE	E	E	E	ESE	ESE	132	SE
Dec 30	E	E	E	E	ESE	ESE	ENE	NE	ENE	ENE	ENE	ESE	SSE	S	S	SSW	SSW	S	S	SSW	S	S	SSE	SSE	154	SSE
Dec 31	S	SSW	S	SSE	SSE	SSE	S	SSW	SSW	SSW	SW	SW	WSW	SW	SW	SW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW	214	SSW

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Machine Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.





Peace River Area Monitoring Program

842-B Station - December 2023

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector

WIND SPEED

Maximum Hourly Value:	28.3	kph	on Dec 26 at hr 20	Hours in Service:	744
Maximum Daily Value:	14.8	kph	on Dec 22	Hours of Data:	727
Minimum Hourly Value:	0.2	kph	on Dec 2 at hr 17	Hours of Missing Data:	17
Minimum Daily Value:	3.5	kph	on Dec 2	Hours of Calibration:	0
Monthly Average:	6.5	kph		Operational Uptime:	97.7

WIND DIRECTION

Monthly Average: 188 degree (S)

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	7.7	9.0	6.2	8.0	6.9	3.7	3.2	6.6	7.7	7.0	8.1	8.3	10.7	9.3	8.7	7.5	6.9	8.6	8.6	8.3	7.7	7.2	5.3	5.5	3.2	10.7	7.4
	SE	SE	SE	SE	SE	SE	SSE	SSE	SSE	SSE	SSE	S	SSW	S	S	S	S	SSE	SE	SE	SSE	S	S	S			164(SSE)
Dec 2	5.0	6.2	5.6	3.4	4.4	4.5	5.1	4.5	4.5	2.8	2.3	0.9	2.6	2.3	1.7	1.8	1.4	**0.2**	2.2	2.7	2.8	4.6	5.7	7.0	**0.2**	7.0	**3.5**
	S	SSE	SSE	SE	SSE	SSE	SSE	SE	SSE	SE	SE	E	W	W	E	NE	ENE	NW	SW	W	ENE	SSE	S	SSW			163(SSE)
Dec 3	5.9	6.4	8.3	6.9	6.1	8.3	7.3	5.2	5.5	6.2	6.0	5.7	4.3	8.8	3.7	3.1	4.2	5.1	6.2	12.1	10.6	7.9	9.1	10.2	3.1	12.1	6.8
	SSW	S	S	SSE	SSE	S	SSW	S	S	SSE	S	SSE	SE	SSE	SSE	E	SE	SE	S	SSW	S	SSE	S	S			173(S)
Dec 4	12.4	8.5	9.1	8.2	7.0	11.8	14.7	14.8	13.6	13.1	11.1	10.7	11.4	11.3	10.5	9.3	6.6	8.3	6.9	8.8	9.5	8.5	7.5	9.1	6.6	14.8	10.1
	S	SSE	SSE	SE	SSE	S	SSW	SSW	SSW	SSW	SW	SSW	SSW	SW	SSW	S	SE	SSE	SE	SE	ESE	ESE	ESE	ESE			179(S)
Dec 5	9.7	9.8	7.5	6.1	10.5	13.3	11.5	8.9	9.5	12.6	12.2	11.5	10.6	18.1	17.4	16.1	15.2	16.4	14.6	17.4	16.3	16.1	15.3	13.8	6.1	18.1	12.9
	ESE	SE	SE	ESE	SSE	SSE	S	SSE	SSE	S	S	S	SSW	SSW	SSW	SSW	S	SSW	S	SSW	SSW	SSW	SSW	SSW			187(S)
Dec 6	18.4	21.2	15.8	10.7	8.8	11.0	13.6	12.9	16.4	16.2	14.6	12.4	10.7	11.0	13.2	8.8	7.3	6.1	6.7	9.6	8.7	6.6	6.0	2.8	2.8	21.2	11.2
	SSW	SSW	SSW	S	SSW	S	S	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	WSW	SW	SW	SW	SSW	SSW	S	SW	SSW			210(SSW)
Dec 7	4.4	3.7	5.7	3.6	3.6	4.5	5.5	5.0	4.8	3.5	5.2	5.8	7.9	5.8	6.6	7.0	5.9	5.0	7.4	7.5	5.5	5.8	4.9	4.3	3.5	7.9	5.4
	SSW	SSE	SSE	SSE	SE	SE	SE	SE	SE	SE	SSE	SSE	S	S	S	S	S	SSE	SSE	SSE	SE	SE	S	SSE			163(SSE)
Dec 8	4.1	3.6	3.3	3.3	4.4	4.8	4.1	4.8	4.8	5.0	6.8	6.1	10.8	9.6	13.4	11.0	11.0	10.4	9.1	7.8	2.6	11.3	10.2	13.9	2.6	13.9	7.3
	SE	SE	SSE	SE	SE	SSE	SE	SE	SE	SSE	SSE	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SSE	SW	SW	SW			200(SSW)
Dec 9	10.0	11.1	8.5	11.3	10.1	9.2	5.5	6.0	6.2	4.3	9.7	11.7	13.5	12.1	6.4	6.8	7.2	6.5	5.5	4.4	6.4	8.0	10.9	9.4	4.3	13.5	8.4
	SW	SW	SSW	S	SSW	S	SSE	SSE	SSE	SSE	SE	SSE	SE	SE	SE	ESE	ESE	ESE	ESE	ESE	SE	SSE	SSE	S			162(SSE)
Dec 10	10.7	7.2	7.1	7.4	10.1	14.9	15.6	13.3	15.6	6.5	2.6	1.1	2.2	7.8	7.1	7.1	9.8	7.0	10.1	11.0	10.4	12.5	17.0	16.4	1.1	17.0	9.6
	SSE	SSE	SSE	SSE	SSW	SSW	SSW	SSW	SSW	WSW	SE	ESE	NW	NW	NNW	NNW	NW	NW	NW	WNW	WNW	WNW	NW	NW			262(W)
Dec 11	16.7	14.6	11.6	7.4	3.1	2.2	1.5	3.7	8.8	6.1	9.2	9.9	10.3	10.4	12.2	9.1	6.6	10.0	7.5	6.3	5.5	5.6	6.3	6.5	1.5	16.7	8.0
	NW	NW	NW	NNW	NW	SE	ESE	SSE	S	SSE	SSE	SSE	SSE	SE	SSE	S	S	S	S	SSE	SSE	SE	S	S			175(S)
Dec 12	6.7	6.2	8.0	10.7	11.9	12.9	12.1	14.1	12.5	11.6	16.2	14.9	18.1	14.7	16.5	16.8	17.3	20.0	18.3	18.4	15.2	18.3	19.7	19.0	6.2	20.0	14.6
	SE	SSE	SSE	SSE	S	S	S	SSE	S	S	SSW	SSW	S	S	S	S	S	SSW	SSW	SSW	SSW	SW	SSW	SSW			193(S)
Dec 13	17.2	9.4	8.3	6.1	6.5	11.0	8.0	8.8	9.9	10.1	12.7	12.6	8.6	7.1	3.9	7.9	6.9	7.2	10.2	16.9	20.0	19.6	18.3	16.8	3.9	20.0	11.0
	SSW	S	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SE	S	WSW	SW	SW	WSW	WSW	WSW	WSW	WSW			199(SSW)
Dec 14	12.3	9.3	10.0	10.3	8.3	10.9	13.0	13.4	11.6	10.1	11.0	12.8	13.1	11.0	10.7	10.4	9.7	7.4	10.8	13.2	13.7	12.4	9.1	5.6	5.6	13.7	10.8
	WSW	SW	SSW	SW	SSW	S	SSW	SSW	SSW	S	S	S	SSW	SSW	S	S	SSE	S	S	S	S	S	S	SSE			196(SSW)
Dec 15	7.1	10.1	12.4	13.2	7.4	16.3	21.4	16.0	17.1	12.3	13.3	14.6	12.2	9.8	8.5	10.2	8.0	9.5	14.2	12.9	8.6	10.9	14.3	11.3	7.1	21.4	12.2
	SSE	SSE	SSE	SSE	SSE	SSE	S	S	S	SSE	SSE	S	S	S	S	S	S	S	S	S	SSW	SSW	SSW	SW			177(S)
Dec 16	8.0	9.5	6.7	3.6	4.2	1.8	3.3	1.2	1.3	1.4	0.5	1.7	2.7	3.5	2.4	2.3	2.6	3.3	8.3	8.2	10.4	12.0	10.5	10.8	0.5	12.0	5.0
	SW	WSW	WSW	WSW	WSW	SW	WNW	WSW	SSE	WSW	E	E	SE	SE	SE	SW	WSW	W	W	W	W	WNW	WSW	SW			252(WSW)
Dec 17	10.1	6.0	5.1	2.9	4.0	6.7	6.9	6.6	9.5	7.5	8.1	9.7	11.8	14.1	19.9	17.7	15.0	8.1	8.1	12.4	11.6	13.2	16.5	14.0	2.9	19.9	10.2
	WSW	WSW	SW	SW	SSE	SSW	S	SE	S	SSE	SSE	S	S	S	S	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW			190(S)
Dec 18	14.7	12.6	15.3	12.8	12.4	10.1	10.1	8.5	10.4	4.3	2.0	1.9	2.6	5.3	3.5	2.0	0.8	0.3	0.3	0.9	0.8	**0.2**	1.4	0.3	**0.2**	15.3	5.6
	SW	SSW	SW	SW	SW	SW	WSW	SW	SW	WSW	W	SW	WNW	NW	WNW	W	S	SSE	SW	SE	E	NE	NNE	NE			236(SW)
Dec 19	2.9	5.2	4.0	3.5	5.2	6.3	7.4	7.7	9.4	8.7	9.1	10.2	10.5	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	2.9	10.5	NA
	NE	ENE	NE	ENE	NE	ENE	ENE	ENE	E	E	E	E	E	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**	**P**			
Dec 20	**P**	**P**	**P**	**P**	**P**	**P**	11.8	12.6	10.2	12.0	10.4	12.1	11.0	8.9	14.5	15.1	13.6	15.9	15.5	16.2	13.0	11.7	11.9	6.7	6.7	16.2	12.4
	P	**P**	**P**	**P**	**P**	**P**	SSE	SSE	SSE	SSE	SSE	SSE	S	S	S	SSW	S	SW	SSW	SW	WSW	WSW	W	W			199(SSW)
Dec 21	5.1	7.3	12.0	3.8	4.6	4.8	9.2	11.7	9.9	11.6	10.9	5.7	13.2	14.0	15.4	10.6	11.9	12.1	12.7	12.2	8.0	3.8	8.5	7.7	3.8	15.4	9.4
	SW	SW	SW	S	SSE	SE	SSE	SSE	SE	SE	SE	SSE	SSE	S	S	S	S	S	S	SSW	SSE	SE	SE	SE			172(S)
Dec 22	8.8	12.7	12.5	8.4	8.7	7.7	10.0	12.2	11.4	10.4	7.8	13.5	13.5	15.8	16.8	17.2	18.3	22.1	24.3	23.6	20.0	21.7	17.8	19.3	7.7	24.3	**14.8**
	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SSE	S	S	SSW	SSW	SW	SW	SW	SW	WSW	WSW	W	WNW			201(SSW)
Dec 23	18.4	13.1	14.5	12.9	8.5	8.3	9.4	7.8	7.6	7.8	9.5	7.7	11.3	12.9	11.4	9.9	10.1	9.1	9.1	8.0	5.0	8.6	8.8	7.5	5.0	18.4	9.9
	WNW	W	WSW	WSW	W	WSW	WSW	SW	WSW	SW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	S	SE	SSE	SSE	SE			232(SW)
Dec 24	9.3	15.3	13.1	14.1	16.1	19.3	20.1	18.6	18.8	8.8	14.8	16.0	16.2	9.9	9.3	5.5	6.4	8.5	6.7	4.0	4.6	5.2	7.7	5.7	4.0	20.1	11.4
	SSE	S	S	S	S	SSW	S	S	S	S	SSW	S	S	S	SSW	S	SSE	SSE	SE	ESE	SE	S	SW	SSE			184(S)
Dec 25	5.7	6.9	7.9	8.4	8.0	11.7	8.3	9.1	11.6	8.9	7.7	11.1	12.7	11.2	12.1	11.7	11.1	8.4	7.7	8.4	10.5	9.6	10.0	5.4	5.4	12.7	9.3
	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SE	SE	SSE	SSE	SE	SE	SE	SE	ESE	ESE	ESE	ESE	ESE	ESE	ESE			143(SE)
Dec 26	5.6	5.6	5.7	7.8	7.6	5.1	4.0	9.4	10.3	8.0	12.3	15.7	15.2	21.8	15.6	15.7	18.3	27.3	27.0	24.7	**28.3**	24.4	13.5	15.4	4.0	**28.3**	14.3
	ESE	ESE	ESE	SE	SSE	S	SSE	SE	SSE	SE	S	SSW	SW	WSW	SW	SSW	WSW	WSW	WSW	SW	SW	WSW	SW	SSW			213(SSW)
Dec 27	14.6	11.6	13.6	13.1	9.9	5.9	5.3	5.6	3.7	6.3	5.9	3.1	4.3	3.8	2.2	3.1	5.0	8.2	6.7	3.8	5.1	3.7	1.4	1.9	1.4	14.6	6.2
	SW	SW	SSW	SSW	S	SE	SE	SE	SSE	ENE	ENE	E	ENE	ENE	NE	NNE	NNE	NE	NE	NNE	NE	ENE	NNW	NNW			137(SE)
Dec 28	3.0	1.7	5.3	1.4	4.7	0.8	2.2	1.9	1.5	1.8	3.0	1.9	4.0	2.7	3.9	3.8	3.4	5.0	7.0	4.4	5.8	6.3	6.4	9.6	0.8	9.6	3.8
	N	ENE	NE	NNE	NE	E	WNW	NE	SE	ENE	ENE	S	SW	SE	S	SSE	SSE	SSE	S	SE	SE	SE	SSE	S			141(SE)
Dec 29	9.4	8.8	7.4	9.3	6.3	3.9	4.0	4.7	5.8	5.0	3.0	3.9	6.6	7.0	3.3	2.8	4.0	7.0	6.8	6.1	4.9	5.9	6.5	6.9	2.8	9.4	5.8
	SSE	SSE	SSE	S	SSE	SE	SE	SE	SE	SE	SE	SSE	S	SSE	ESE	ENE	ENE	ENE	ENE	E	E	E	ESE	ESE			132(SE)
Dec 30	7.0	8.2	7.2	5.1	7.0	4.3	1.8	1.0	4.8	3.4	3.4	1.1	4.4	8.7	9.6	8.2	8.4	9.3	6.9	5.3	10.2	9.1	7.6	7.7	1.0	10.2	6.2
	E	E	E	E	ESE	ESE	ENE	NE	ENE	ENE	ENE	ESE	SSE	S	S	SSW	SSW	S	S	SSW	S	S	SSE	SSE			154(SSE)
Dec 31	8.6	7.5	6.7	7.1	8.7	9.1	12.8	11.7	12.0	10.5	4.3	9.6	10.3	15.6	16.9	15.5	10.5	8.6	4.9	5.8	3.3	2.5	3.5	2.8	2.5	16.9	8.7
	S	SSW	S	SSE	SSE	SSE	S	SSW	SSW	SSW	SW	SW	WSW	SW	SW	SW	WSW	WSW	SW	WSW	WSW	WSW	WSW	WSW			214(SSW)

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

RENO -B STATION

Peace River Area Monitoring Program

Reno-B Station - December 2023

Summary of Hourly Averages

SULPHUR DIOXIDE (SO_2) in ppb

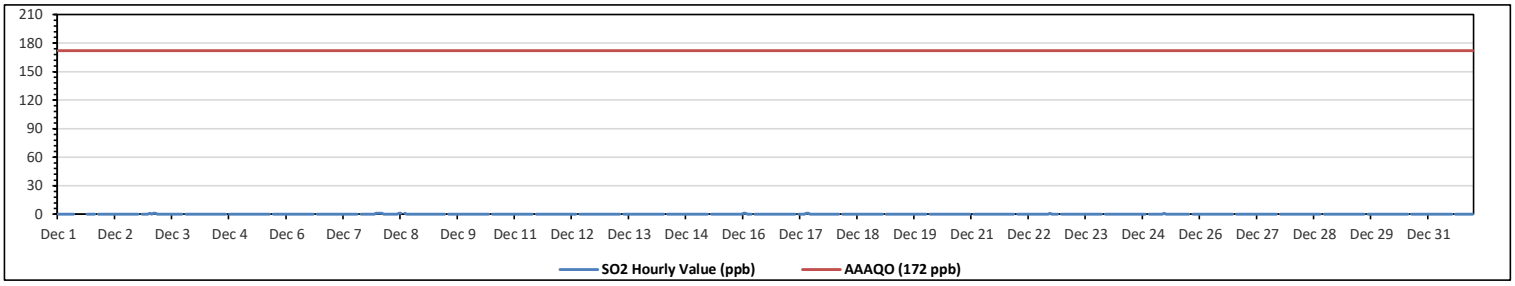
Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb

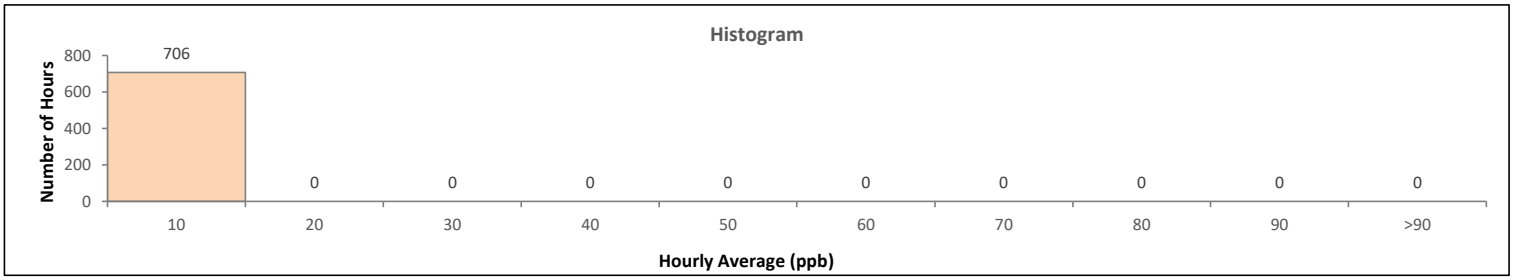
Number of 1-Hour Exceedances:	0	Number of 24-Hour Exceedances:	0	30-Day Exceedence:	0	
Maximum Hourly Value:	1	ppb	on Dec 3 at hr 0	Hours in Service:	744	
Maximum Daily Value:	0.3	ppb	on Dec 8	Hours of Data:	706	
Minimum Hourly Value:	0	ppb	on Dec 1 at hr 0	Hours of Missing Data:	0	
Minimum Daily Value:	0.0	ppb	on Dec 2	Hours of Calibration:	38	
Monthly Average:	0.0	ppb		Operational Uptime:	100.0	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0	0	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	S	0	0	0	0	0	NA
Dec 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
Dec 3	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	0.1
Dec 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Dec 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
Dec 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0.0
Dec 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	1	0	1	0.0
Dec 8	1	1	1	0	0	0	0	0	0	0	0	1	1	S	1	0	0	0	0	0	0	0	0	0	0	1	0.3
Dec 9	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 10	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 11	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 12	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 13	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 14	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 15	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 16	1	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Dec 17	0	0	0	0	S	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Dec 18	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 19	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 20	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 21	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0.0
Dec 22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	S	0	0	1	0.0
Dec 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0.0
Dec 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0
Dec 25	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	0.0
Dec 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Dec 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Dec 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
Dec 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0.0
Dec 30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 31	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Diurnal Maximum	1	1	1	1	0	1	0	0	0	1	1	1	1	0	1	0	0	1	0	0	0	0	0	1			
Diurnal Average	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	0.0	0.0			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



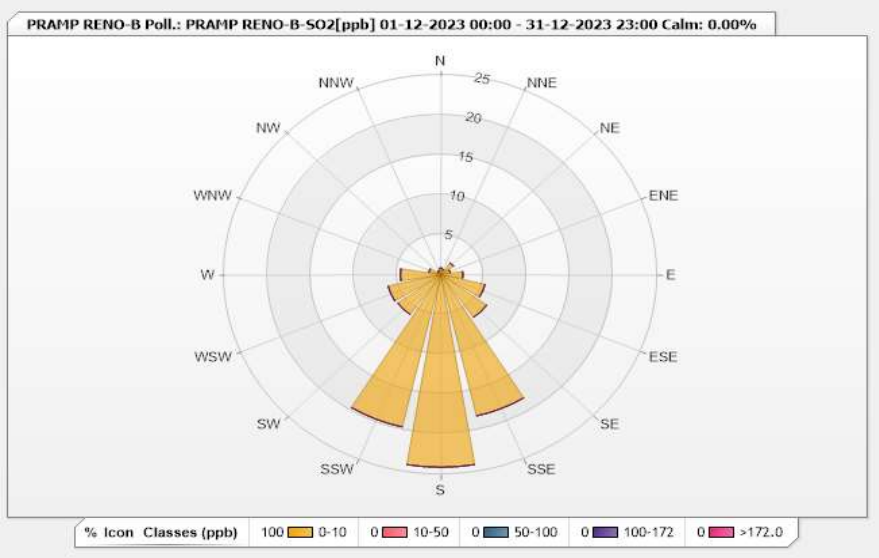


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-SO2[ppb] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 94.89% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	0.85	0	0	0	0	0.85
NNE	0.71	0	0	0	0	0.71
NE	1.84	0	0	0	0	1.84
ENE	1.13	0	0	0	0	1.13
E	2.55	0	0	0	0	2.55
ESE	5.24	0	0	0	0	5.24
SE	6.52	0	0	0	0	6.52
SSE	18.13	0	0	0	0	18.13
S	24.08	0	0	0	0	24.08
SSW	19.55	0	0	0	0	19.55
SW	6.09	0	0	0	0	6.09
WSW	6.23	0	0	0	0	6.23
W	4.67	0	0	0	0	4.67
WNW	1.42	0	0	0	0	1.42
NW	0.42	0	0	0	0	0.42
NNW	0.57	0	0	0	0	0.57
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

Reno-B Station - December 2023

Summary of Hourly Averages

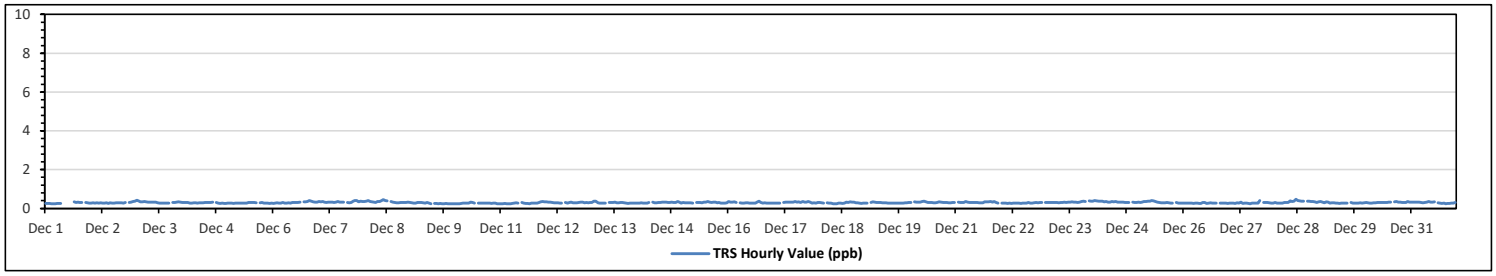
TOTAL REDUCED SULPHUR (TRS) in ppb

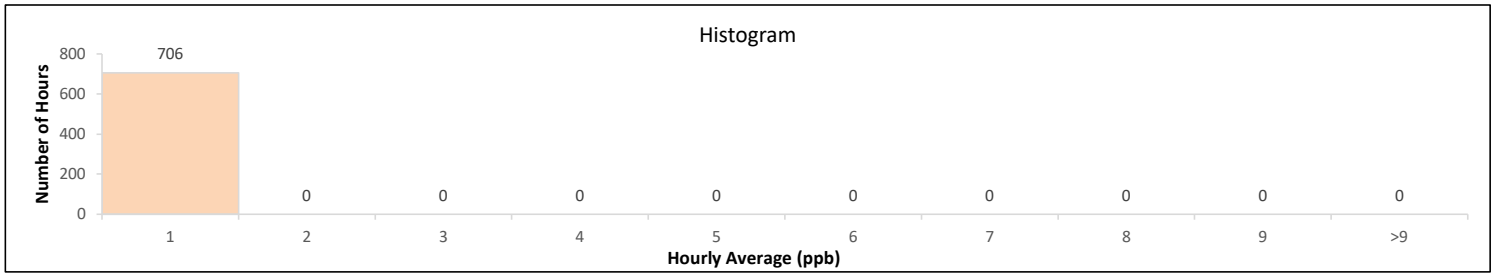
Maximum Hourly Value:	0.47	ppb	on Dec 28 at hr 11	Hours in Service:	744	
Maximum Daily Value:	0.35	ppb	on Dec 8	Hours of Data:	706	
Minimum Hourly Value:	0.24	ppb	on Dec 1 at hr 4	Hours of Missing Data:	0	
Minimum Daily Value:	0.27	ppb	on Dec 9	Hours of Calibration:	38	
Monthly Average:	0.30	ppb		Operational Uptime:	100.0	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0.26	0.26	0.26	0.25	0.24	0.24	0.26	0.26	0.26	C	C	C	C	C	C	0.34	0.31	0.32	0.31	0.31	S	0.31	0.29	0.28	0.24	0.34	NA
Dec 2	0.28	0.29	0.28	0.29	0.27	0.29	0.28	0.28	0.29	0.26	0.29	0.28	0.28	0.29	0.29	0.29	0.29	0.28	0.3	S	0.31	0.33	0.35	0.38	0.26	0.38	0.29
Dec 3	0.43	0.39	0.34	0.34	0.35	0.34	0.33	0.32	0.33	0.33	0.32	0.29	0.28	0.28	0.28	0.27	0.28	0.27	S	0.3	0.3	0.32	0.34	0.33	0.27	0.43	0.32
Dec 4	0.31	0.31	0.31	0.3	0.28	0.28	0.29	0.29	0.28	0.29	0.29	0.29	0.3	0.3	0.3	0.31	0.33	S	0.31	0.28	0.26	0.27	0.26	0.26	0.26	0.33	0.29
Dec 5	0.27	0.27	0.27	0.26	0.27	0.27	0.28	0.27	0.28	0.27	0.27	0.3	0.31	0.3	0.3	0.29	S	0.29	0.3	0.27	0.27	0.27	0.26	0.27	0.26	0.31	0.28
Dec 6	0.26	0.28	0.29	0.27	0.28	0.31	0.28	0.28	0.29	0.28	0.3	0.31	0.3	0.3	0.32	S	0.34	0.34	0.36	0.4	0.38	0.34	0.32	0.33	0.26	0.40	0.31
Dec 7	0.35	0.34	0.35	0.33	0.31	0.32	0.33	0.32	0.3	0.33	0.35	0.33	0.32	0.32	S	0.31	0.29	0.31	0.37	0.41	0.4	0.34	0.37	0.35	0.29	0.41	0.34
Dec 8	0.35	0.38	0.4	0.36	0.34	0.32	0.3	0.36	0.35	0.42	0.45	0.41	0.39	S	0.36	0.33	0.31	0.29	0.29	0.31	0.31	0.31	0.31	0.33	0.29	0.45	**0.35**
Dec 9	0.3	0.29	0.28	0.28	0.31	0.3	0.3	0.29	0.28	0.3	0.28	0.24	S	0.26	0.26	0.24	0.26	0.25	0.25	0.26	0.25	0.25	0.24	0.24	0.24	0.31	0.27
Dec 10	0.24	0.25	0.24	0.26	0.27	0.28	0.27	0.28	0.33	0.31	0.28	S	0.28	0.28	0.28	0.28	0.27	0.27	0.27	0.26	0.27	0.27	0.25	0.25	0.24	0.33	0.27
Dec 11	0.24	0.25	0.26	0.25	0.25	0.25	0.26	0.27	0.29	0.28	S	0.31	0.28	0.26	0.26	0.25	0.27	0.27	0.28	0.28	0.3	0.34	0.35	0.34	0.24	0.35	0.28
Dec 12	0.34	0.32	0.32	0.3	0.29	0.29	0.29	0.28	0.28	S	0.3	0.27	0.3	0.33	0.29	0.29	0.29	0.3	0.33	0.32	0.29	0.3	0.29	0.31	0.27	0.34	0.30
Dec 13	0.3	0.38	0.37	0.29	0.28	0.27	0.28	0.28	S	0.31	0.31	0.31	0.32	0.29	0.29	0.3	0.3	0.29	0.27	0.26	0.27	0.28	0.27	0.28	0.26	0.38	0.30
Dec 14	0.27	0.27	0.29	0.27	0.28	0.27	0.3	S	0.33	0.29	0.29	0.3	0.3	0.32	0.32	0.33	0.3	0.3	0.32	0.31	0.3	0.36	0.32	0.27	0.27	0.36	0.30
Dec 15	0.31	0.29	0.29	0.29	0.29	0.28	S	0.31	0.3	0.3	0.29	0.32	0.33	0.35	0.32	0.31	0.33	0.33	0.29	0.3	0.27	0.27	0.28	0.29	0.27	0.35	0.30
Dec 16	0.36	0.33	0.33	0.34	0.31	S	0.29	0.27	0.27	0.29	0.29	0.27	0.27	0.27	0.27	0.32	0.37	0.31	0.27	0.29	0.27	0.27	0.27	0.28	0.27	0.37	0.30
Dec 17	0.27	0.27	0.27	0.28	S	0.31	0.33	0.33	0.33	0.33	0.33	0.35	0.33	0.34	0.3	0.35	0.32	0.32	0.35	0.33	0.28	0.29	0.28	0.3	0.27	0.35	0.31
Dec 18	0.31	0.29	0.28	S	0.29	0.27	0.27	0.25	0.25	0.25	0.27	0.27	0.26	0.27	0.32	0.31	0.34	0.33	0.33	0.29	0.29	0.28	0.26	0.27	0.25	0.34	0.28
Dec 19	0.27	0.28	S	0.31	0.34	0.33	0.31	0.3	0.3	0.29	0.29	0.29	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.27	0.28	0.29	0.29	0.3	0.27	0.34	0.29
Dec 20	0.3	S	0.34	0.32	0.32	0.33	0.35	0.37	0.34	0.31	0.31	0.3	0.29	0.29	0.31	0.34	0.33	0.31	0.31	0.31	0.29	0.29	0.3	0.3	0.29	0.37	0.32
Dec 21	S	0.32	0.31	0.3	0.3	0.35	0.32	0.31	0.31	0.3	0.3	0.3	0.29	0.29	0.29	0.34	0.34	0.34	0.35	0.32	0.35	0.3	0.27	S	0.27	0.35	0.31
Dec 22	0.28	0.27	0.28	0.26	0.27	0.26	0.27	0.27	0.27	0.27	0.26	0.28	0.27	0.27	0.3	0.28	0.28	0.29	0.3	0.29	0.3	0.3	S	0.31	0.26	0.31	0.28
Dec 23	0.3	0.31	0.3	0.31	0.31	0.3	0.29	0.31	0.31	0.32	0.31	0.32	0.33	0.34	0.33	0.33	0.31	0.32	0.36	0.37	0.35	S	0.39	0.38	0.29	0.39	0.33
Dec 24	0.37	0.42	0.39	0.38	0.37	0.38	0.34	0.35	0.33	0.33	0.36	0.34	0.36	0.32	0.32	0.32	0.33	0.3	0.31	0.3	S	0.33	0.31	0.31	0.30	0.42	0.34
Dec 25	0.32	0.31	0.32	0.35	0.36	0.37	0.37	0.4	0.39	0.36	0.32	0.3	0.29	0.29	0.29	0.3	0.29	0.28	0.28	S	0.3	0.28	0.28	0.27	0.27	0.40	0.32
Dec 26	0.27	0.27	0.27	0.27	0.27	0.26	0.27	0.28	0.26	0.26	0.3	0.3	0.26	0.27	0.29	0.28	0.27	0.27	S	0.28	0.27	0.28	0.27	0.26	0.26	0.30	0.27
Dec 27	0.27	0.27	0.28	0.26	0.29	0.28	0.32	0.26	0.27	0.28	0.26	0.25	0.28	0.28	0.28	0.27	0.41	S	0.31	0.31	0.31	0.29	0.28	0.28	0.25	0.41	0.29
Dec 28	0.3	0.28	0.28	0.28	0.28	0.3	0.31	0.31	0.39	0.36	0.38	**0.47**	0.41	0.39	0.37	0.37	S	0.38	0.38	0.35	0.35	0.34	0.31	0.34	0.28	**0.47**	0.34
Dec 29	0.36	0.32	0.29	0.34	0.32	0.27	0.29	0.29	0.27	0.27	0.26	0.28	0.27	0.28	0.28	S	0.3	0.28	0.28	0.27	0.28	0.29	0.28	0.29	0.26	0.36	0.29
Dec 30	0.3	0.29	0.28	0.28	0.29	0.29	0.31	0.3	0.3	0.31	0.31	0.32	0.33	S	0.34	0.36	0.33	0.32	0.31	0.31	0.31	0.31	0.36	0.33	0.28	0.36	0.31
Dec 31	0.32	0.32	0.33	0.32	0.32	0.3	0.29	0.31	0.33	0.36	0.33	0.33	0.34	S	0.29	0.28	0.26	0.27	0.25	0.26	0.26	0.27	0.28	0.3	0.25	0.36	0.30
Diurnal Maximum	0.43	0.42	0.40	0.38	0.37	0.38	0.37	0.40	0.39	0.42	0.45	0.47	0.41	0.39	0.37	0.37	0.41	0.38	0.38	0.41	0.40	0.36	0.39	0.38			
Diurnal Average	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.31	0.31	0.31	0.30	0.30	0.30	0.31	0.31	0.30	0.31	0.30	0.30	0.30	0.30	0.30			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance			
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P	Power Failure	
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)					

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



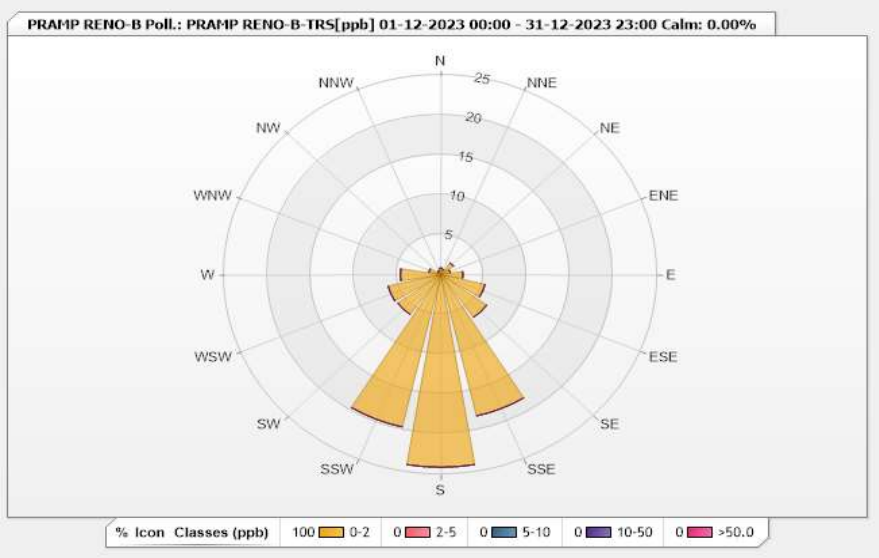


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-TRS[ppb] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 94.89% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	0.85	0	0	0	0	0.85
NNE	0.71	0	0	0	0	0.71
NE	1.84	0	0	0	0	1.84
ENE	1.13	0	0	0	0	1.13
E	2.55	0	0	0	0	2.55
ESE	5.24	0	0	0	0	5.24
SE	6.52	0	0	0	0	6.52
SSE	18.13	0	0	0	0	18.13
S	24.08	0	0	0	0	24.08
SSW	19.55	0	0	0	0	19.55
SW	6.09	0	0	0	0	6.09
WSW	6.23	0	0	0	0	6.23
W	4.67	0	0	0	0	4.67
WNW	1.42	0	0	0	0	1.42
NW	0.42	0	0	0	0	0.42
NNW	0.57	0	0	0	0	0.57
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

Reno-B Station - December 2023

Summary of Hourly Averages

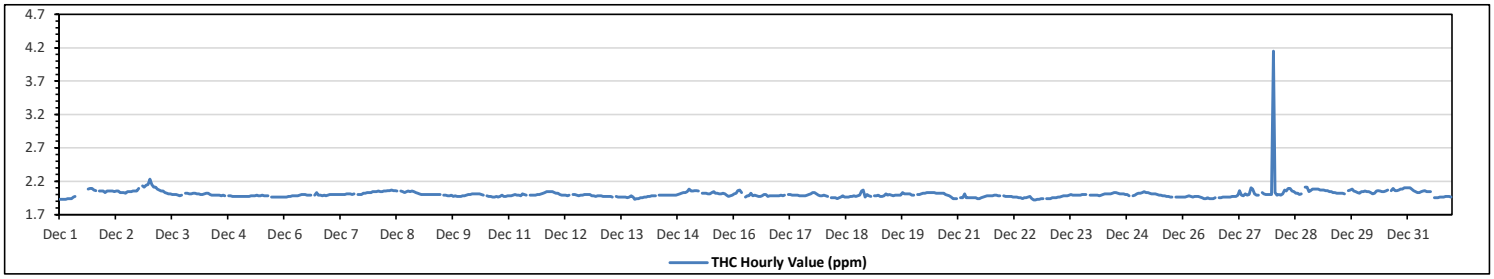
TOTAL HYDROCARBONS (THC) in ppm

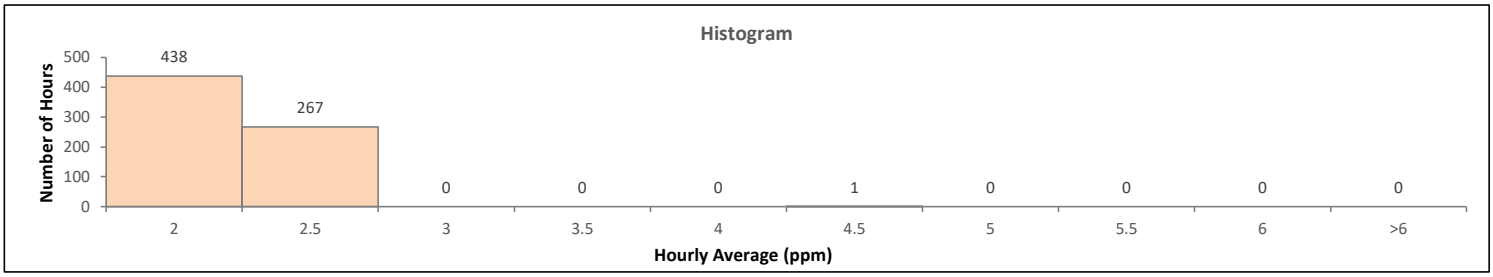
Maximum Hourly Value:	4.15	ppm	on Dec 28 at hr 0	Hours in Service:	744
Maximum Daily Value:	2.14	ppm	on Dec 28	Hours of Data:	706
Minimum Hourly Value:	1.92	ppm	on Dec 22 at hr 16	Hours of Missing Data:	0
Minimum Daily Value:	1.95	ppm	on Dec 22	Hours of Calibration:	38
Monthly Average:	2.00	ppm		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	1.93	1.93	1.93	1.93	1.94	1.94	1.94	1.96	1.97	C	C	C	C	C	C	2.08	2.09	2.09	2.07	2.06	S	2.05	2.05	2.05	1.93	2.09	NA
Dec 2	2.03	2.05	2.05	2.05	2.05	2.04	2.05	2.05	2.03	2.03	2.03	2.02	2.04	2.04	2.04	2.05	2.05	2.05	2.09	S	2.13	2.11	2.14	2.15	2.02	2.15	2.06
Dec 3	2.23	2.15	2.11	2.11	2.08	2.07	2.05	2.05	2.03	2.02	2.01	2.01	2.00	2.00	2.00	1.99	1.98	1.99	S	2.02	2.02	2.01	2.01	2.02	1.98	2.23	2.04
Dec 4	2.02	2.01	2.01	2.00	2.00	2.01	2.02	2.02	2.00	1.99	1.99	1.99	1.99	1.99	1.98	1.99	1.98	S	1.98	1.98	1.97	1.97	1.97	1.97	1.97	2.02	1.99
Dec 5	1.97	1.97	1.97	1.97	1.97	1.97	1.98	1.98	1.98	1.99	1.98	1.98	1.99	1.98	1.98	1.98	S	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.99	1.97
Dec 6	1.96	1.96	1.97	1.97	1.98	1.98	1.98	1.98	1.99	2.00	2.00	2.00	1.99	1.99	1.99	S	1.99	2.03	1.99	1.99	1.98	1.99	1.98	1.99	1.96	2.03	1.99
Dec 7	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.01	2.01	2.01	2.00	2.01	S	2.00	2.00	2.00	2.02	2.02	2.03	2.03	2.03	2.04	2.00	2.04	2.01
Dec 8	2.04	2.04	2.05	2.04	2.04	2.05	2.05	2.06	2.06	2.07	2.06	2.06	2.05	S	2.05	2.04	2.03	2.04	2.05	2.04	2.05	2.04	2.03	2.02	2.02	2.07	2.05
Dec 9	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	S	1.99	1.99	1.98	1.98	1.99	1.97	1.98	1.97	1.97	1.97	1.98	1.97	2.01	1.99
Dec 10	1.98	1.99	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.00	1.99	S	1.98	1.97	1.97	1.96	1.96	1.97	1.96	1.97	1.99	1.97	1.97	1.98	1.96	2.01	1.99
Dec 11	1.98	1.98	1.99	2.00	1.99	1.99	1.98	2.01	2.00	1.99	S	1.99	1.99	1.99	1.99	2.00	2.00	2.01	2.02	2.03	2.04	2.04	2.04	2.04	1.98	2.04	2.00
Dec 12	2.03	2.02	2.02	2.00	1.99	1.99	1.99	1.98	1.99	S	2.00	2.00	1.99	1.98	1.99	1.99	2.00	2.00	2.00	2.00	1.98	1.98	1.97	1.98	1.97	2.03	1.99
Dec 13	1.98	1.98	1.97	1.97	1.97	1.97	1.97	1.96	S	1.97	1.96	1.96	1.96	1.96	1.96	1.95	1.96	1.98	1.96	1.93	1.94	1.94	1.95	1.95	1.93	1.98	1.96
Dec 14	1.96	1.96	1.97	1.97	1.98	1.98	1.98	S	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.01	2.02	2.03	2.03	2.04	1.96	2.04	1.99
Dec 15	2.08	2.05	2.05	2.06	2.06	2.05	S	2.02	2.02	2.02	2.01	2.01	2.03	2.04	2.02	2.02	2.01	2.01	2.02	2.01	1.99	1.97	1.98	1.99	1.97	2.08	2.02
Dec 16	2.01	2.02	2.06	2.07	2.03	S	1.96	1.98	1.98	2.02	1.98	1.99	1.98	1.97	1.97	1.98	2.00	2.00	1.97	1.98	1.98	1.98	1.98	1.98	1.96	2.07	1.99
Dec 17	1.98	1.99	1.98	1.99	S	2.00	2.00	1.99	1.99	1.99	1.99	1.98	1.98	1.98	1.98	1.99	2.00	2.01	2.03	2.03	2.01	1.99	1.98	1.98	1.98	2.03	1.99
Dec 18	1.99	1.98	1.97	S	1.95	1.95	1.95	1.94	1.95	1.96	1.98	1.96	1.96	1.96	1.97	1.97	1.98	1.97	1.98	1.99	2.05	2.07	1.96	2.00	1.94	2.07	1.98
Dec 19	1.98	1.97	S	1.98	1.98	1.99	1.97	1.97	1.98	2.01	1.99	2.00	1.99	1.98	1.99	1.99	1.99	1.99	2.03	2.01	2.01	2.01	2.01	1.99	1.97	2.03	1.99
Dec 20	1.99	S	2.00	2.00	2.01	2.02	2.02	2.03	2.03	2.03	2.03	2.03	2.02	2.02	2.02	2.02	2.02	2.00	1.99	1.98	1.96	1.94	1.94	1.94	1.94	2.03	2.00
Dec 21	S	1.95	1.95	2.01	1.95	1.95	1.95	1.95	1.95	1.95	1.94	1.94	1.95	1.96	1.97	1.98	1.98	1.98	1.98	1.99	1.99	1.98	1.98	S	1.94	2.01	1.97
Dec 22	1.98	1.97	1.97	1.97	1.97	1.96	1.96	1.96	1.95	1.95	1.94	1.95	1.95	1.96	1.97	1.94	1.92	1.92	1.93	1.93	1.94	1.94	S	1.94	1.92	1.98	1.95
Dec 23	1.94	1.94	1.95	1.95	1.95	1.96	1.96	1.97	1.98	1.98	1.98	1.99	2.00	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.00	S	1.99	1.99	1.94	2.00	1.98
Dec 24	1.99	1.99	1.99	1.98	1.99	2.00	2.01	2.01	2.01	2.01	2.02	2.03	2.03	2.02	2.01	2.01	2.01	2.00	2.00	1.98	S	1.98	1.99	2.01	1.98	2.03	2.00
Dec 25	2.02	2.02	2.03	2.04	2.03	2.03	2.02	2.01	2.01	2.01	2.00	1.99	1.99	1.98	1.98	1.97	1.97	1.96	1.96	S	1.96	1.96	1.96	1.96	1.96	2.04	1.99
Dec 26	1.96	1.96	1.97	1.98	1.97	1.96	1.97	1.97	1.97	1.96	1.95	1.94	1.94	1.95	1.94	1.94	1.94	1.95	S	1.95	1.95	1.96	1.96	1.96	1.94	1.98	1.96
Dec 27	1.96	1.96	1.97	1.97	1.97	1.99	2.06	1.99	1.98	2.01	1.99	2.00	2.10	2.08	2.01	1.99	1.99	S	2.03	2.01	2.00	2.00	2.00	2.00	1.96	2.10	2.00
Dec 28	**4.15**	2.03	1.99	2.00	1.99	2.01	2.07	2.05	2.09	2.09	2.05	2.04	2.02	2.02	2.00	2.01	S	2.11	2.11	2.04	2.06	2.08	2.08	2.08	1.99	**4.15**	**2.14**
Dec 29	2.08	2.07	2.07	2.07	2.06	2.06	2.04	2.04	2.03	2.03	2.02	2.02	2.02	2.02	2.01	S	2.06	2.07	2.08	2.05	2.04	2.03	2.02	2.04	2.01	2.08	2.04
Dec 30	2.04	2.05	2.04	2.04	2.03	2.01	2.02	2.05	2.06	2.05	2.04	2.04	2.05	2.07	S	2.06	2.09	2.06	2.06	2.07	2.08	2.08	2.10	2.10	2.01	2.10	2.06
Dec 31	2.10	2.10	2.08	2.06	2.04	2.03	2.03	2.04	2.05	2.06	2.04	2.04	2.04	S	1.95	1.95	1.95	1.96	1.96	1.96	1.97	1.97	1.97	1.96	1.95	2.10	2.01
Diurnal Maximum	4.15	2.15	2.11	2.11	2.08	2.07	2.07	2.06	2.09	2.09	2.06	2.06	2.10	2.08	2.05	2.08	2.09	2.11	2.11	2.07	2.13	2.11	2.14	2.15			
Diurnal Average	2.08	2.00	2.00	2.01	2.00	2.00	2.00	2.00	2.00	2.01	2.00	2.00	2.00	2.00	1.99	1.99	2.00	2.00	2.01	2.00	2.00	2.00	2.00	2.00			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



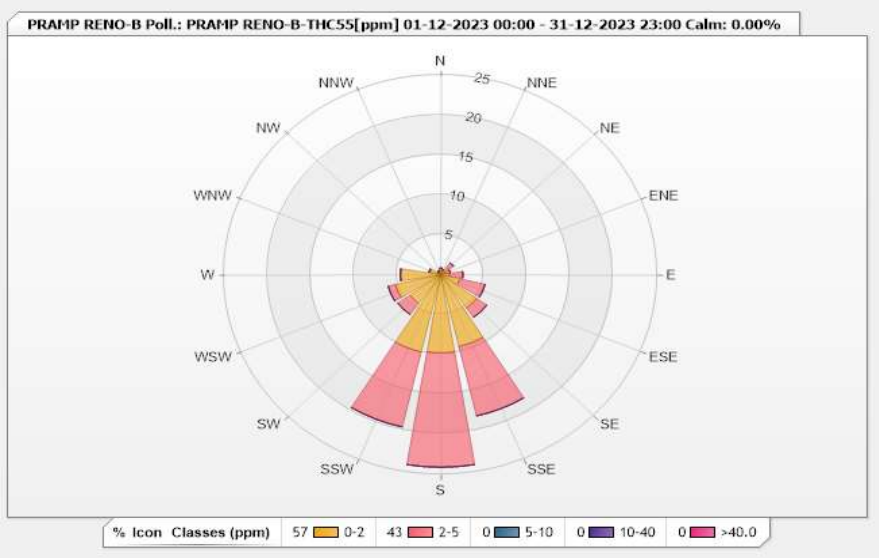


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-THC55[ppm] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 94.89% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	0.85	0	0	0	0	0.85
NNE	0.28	0.42	0	0	0	0.7
NE	1.13	0.71	0	0	0	1.84
ENE	0.57	0.57	0	0	0	1.14
E	0.99	1.56	0	0	0	2.55
ESE	2.27	2.97	0	0	0	5.24
SE	5.1	1.42	0	0	0	6.52
SSE	9.21	8.92	0	0	0	18.13
S	9.77	14.31	0	0	0	24.08
SSW	9.92	9.63	0	0	0	19.55
SW	4.39	1.7	0	0	0	6.09
WSW	5.38	0.85	0	0	0	6.23
W	4.67	0	0	0	0	4.67
WNW	1.27	0.14	0	0	0	1.41
NW	0.28	0.14	0	0	0	0.42
NNW	0.42	0.14	0	0	0	0.56
Summary	56.5	43.48	0	0	0	100



Peace River Area Monitoring Program

Reno-B Station - December 2023

Summary of Hourly Averages

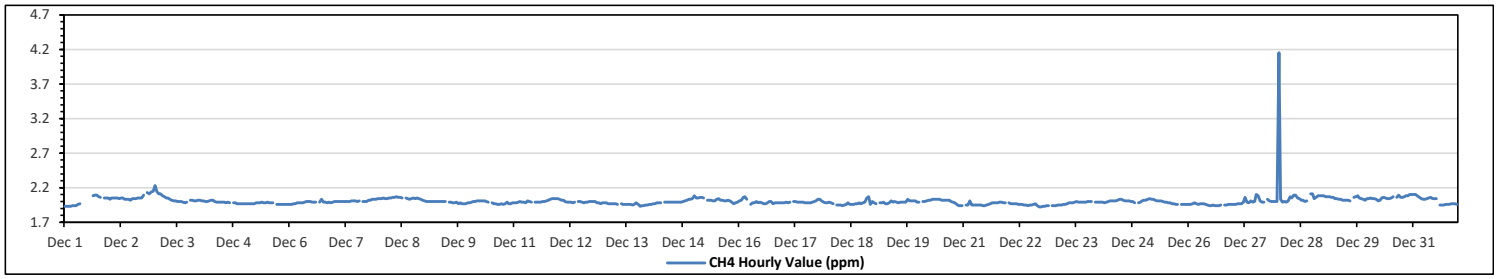
METHANE (CH4) in ppm

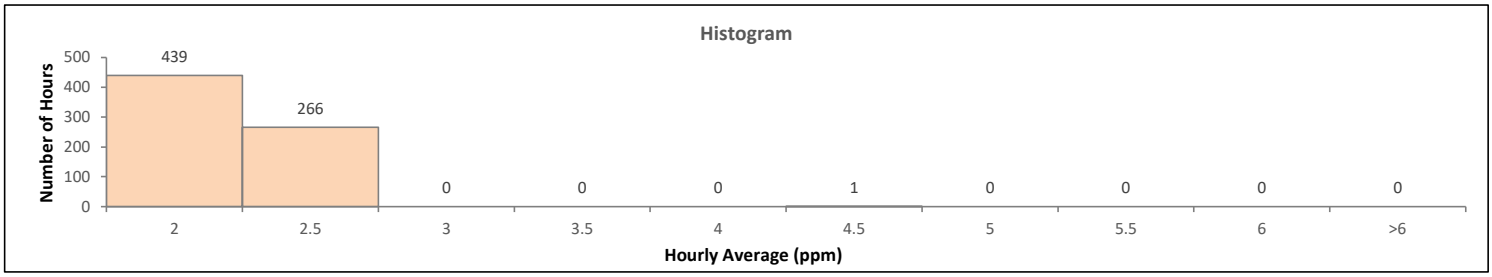
Maximum Hourly Value:	4.15	ppm	on Dec 28 at hr 0	Hours in Service:	744
Maximum Daily Value:	2.14	ppm	on Dec 28	Hours of Data:	706
Minimum Hourly Value:	1.92	ppm	on Dec 22 at hr 16	Hours of Missing Data:	0
Minimum Daily Value:	1.95	ppm	on Dec 22	Hours of Calibration:	38
Monthly Average:	2.00	ppm		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	1.93	1.93	1.93	1.93	1.94	1.94	1.94	1.96	1.97	C	C	C	C	C	C	2.08	2.09	2.09	2.07	2.06	S	2.05	2.05	2.05	1.93	2.09	NA
Dec 2	2.03	2.05	2.05	2.05	2.05	2.04	2.05	2.05	2.03	2.03	2.03	2.02	2.04	2.04	2.04	2.05	2.05	2.05	2.09	S	2.13	2.11	2.14	2.15	2.02	2.15	2.06
Dec 3	2.23	2.15	2.11	2.11	2.08	2.07	2.05	2.05	2.03	2.02	2.01	2.01	2.00	2.00	2.00	1.99	1.98	1.99	S	2.02	2.02	2.01	2.01	2.02	1.98	2.23	2.04
Dec 4	2.02	2.01	2.01	2.00	2.00	2.01	2.02	2.02	2.00	1.99	1.99	1.99	1.99	1.99	1.98	1.99	1.98	S	1.98	1.98	1.97	1.97	1.97	1.97	1.97	2.02	1.99
Dec 5	1.97	1.97	1.97	1.97	1.97	1.97	1.98	1.98	1.98	1.99	1.98	1.98	1.99	1.98	1.98	1.98	S	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.96	1.99	1.97
Dec 6	1.96	1.96	1.97	1.97	1.98	1.98	1.98	1.98	1.99	2.00	2.00	2.00	1.99	1.99	1.99	S	1.99	2.03	1.99	1.99	1.98	1.99	1.98	1.99	1.96	2.03	1.99
Dec 7	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.01	2.01	2.01	2.00	2.01	S	2.00	2.00	2.00	2.02	2.02	2.03	2.03	2.03	2.04	2.00	2.04	2.01
Dec 8	2.04	2.04	2.05	2.04	2.04	2.05	2.05	2.06	2.06	2.07	2.06	2.06	2.05	S	2.05	2.04	2.03	2.04	2.05	2.04	2.05	2.04	2.03	2.02	2.02	2.07	2.05
Dec 9	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	S	1.99	1.99	1.98	1.98	1.99	1.97	1.98	1.97	1.97	1.97	1.98	1.97	2.01	1.99
Dec 10	1.98	1.99	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.00	1.99	S	1.98	1.97	1.97	1.96	1.96	1.97	1.96	1.97	1.99	1.97	1.97	1.98	1.96	2.01	1.99
Dec 11	1.98	1.98	1.99	2.00	1.99	1.99	1.98	2.01	2.00	1.99	S	1.99	1.99	1.99	1.99	2.00	2.00	2.01	2.02	2.03	2.04	2.04	2.04	2.04	1.98	2.04	2.00
Dec 12	2.03	2.02	2.02	2.00	1.99	1.99	1.99	1.98	1.99	S	2.00	2.00	1.99	1.98	1.99	1.99	2.00	2.00	2.00	2.00	1.98	1.98	1.97	1.98	1.97	2.03	1.99
Dec 13	1.98	1.98	1.97	1.97	1.97	1.97	1.97	1.96	S	1.97	1.96	1.96	1.96	1.96	1.96	1.95	1.96	1.98	1.96	1.93	1.94	1.94	1.95	1.95	1.93	1.98	1.96
Dec 14	1.96	1.96	1.97	1.97	1.98	1.98	1.98	S	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.01	2.02	2.03	2.03	2.04	1.96	2.04	1.99
Dec 15	2.08	2.05	2.05	2.06	2.06	2.05	S	2.02	2.02	2.02	2.01	2.01	2.03	2.04	2.02	2.02	2.01	2.01	2.02	2.01	1.99	1.97	1.98	1.99	1.97	2.08	2.02
Dec 16	2.01	2.02	2.06	2.07	2.03	S	1.96	1.98	1.98	2.00	1.98	1.99	1.98	1.97	1.97	1.98	2.00	2.00	1.97	1.98	1.98	1.98	1.98	1.98	1.96	2.07	1.99
Dec 17	1.98	1.99	1.98	1.99	S	2.00	2.00	1.99	1.99	1.99	1.99	1.98	1.98	1.98	1.98	1.99	2.00	2.01	2.03	2.03	2.01	1.99	1.98	1.98	1.98	2.03	1.99
Dec 18	1.99	1.98	1.97	S	1.95	1.95	1.95	1.94	1.95	1.96	1.98	1.96	1.96	1.96	1.97	1.97	1.98	1.97	1.98	1.99	2.05	2.07	1.96	2.00	1.94	2.07	1.98
Dec 19	1.98	1.97	S	1.98	1.98	1.99	1.97	1.97	1.98	2.01	1.99	2.00	1.99	1.98	1.99	1.99	1.99	1.99	2.03	2.01	2.01	2.01	2.01	1.99	1.97	2.03	1.99
Dec 20	1.99	S	2.00	2.00	2.01	2.02	2.02	2.03	2.03	2.03	2.03	2.03	2.02	2.02	2.02	2.02	2.02	2.00	1.99	1.98	1.96	1.94	1.94	1.94	1.94	2.03	2.00
Dec 21	S	1.95	1.95	2.01	1.95	1.95	1.95	1.95	1.95	1.95	1.94	1.94	1.95	1.96	1.97	1.98	1.98	1.98	1.98	1.99	1.99	1.98	1.98	S	1.94	2.01	1.97
Dec 22	1.98	1.97	1.97	1.97	1.97	1.96	1.96	1.96	1.95	1.95	1.94	1.95	1.95	1.96	1.97	1.94	1.92	1.92	1.93	1.93	1.94	1.94	S	1.94	1.92	1.98	1.95
Dec 23	1.94	1.94	1.95	1.95	1.95	1.96	1.96	1.97	1.98	1.98	1.98	1.99	2.00	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.00	S	1.99	1.99	1.94	2.00	1.98
Dec 24	1.99	1.99	1.99	1.98	1.99	2.00	2.01	2.01	2.01	2.01	2.02	2.03	2.03	2.02	2.01	2.01	2.01	2.00	2.00	1.98	S	1.98	1.99	2.01	1.98	2.03	2.00
Dec 25	2.02	2.02	2.03	2.04	2.03	2.03	2.02	2.01	2.01	2.01	2.00	1.99	1.99	1.98	1.98	1.97	1.97	1.96	1.96	S	1.96	1.96	1.96	1.96	1.96	2.04	1.99
Dec 26	1.96	1.96	1.97	1.98	1.97	1.96	1.97	1.97	1.97	1.96	1.95	1.94	1.94	1.95	1.94	1.94	1.94	1.95	S	1.95	1.95	1.96	1.96	1.96	1.94	1.98	1.96
Dec 27	1.96	1.96	1.97	1.97	1.97	1.99	2.06	1.99	1.98	2.01	1.99	2.00	2.10	2.08	2.01	1.99	1.99	S	2.03	2.01	2.00	2.00	2.00	2.00	1.96	2.10	2.00
Dec 28	4.15	2.03	1.99	2.00	1.99	2.01	2.07	2.05	2.09	2.09	2.05	2.04	2.02	2.02	2.00	2.01	S	2.11	2.11	2.04	2.06	2.08	2.08	2.08	1.99	4.15	2.14
Dec 29	2.08	2.07	2.07	2.07	2.06	2.06	2.04	2.04	2.03	2.03	2.02	2.02	2.02	2.02	2.01	S	2.06	2.07	2.08	2.05	2.04	2.03	2.02	2.04	2.01	2.08	2.04
Dec 30	2.04	2.05	2.04	2.04	2.03	2.01	2.02	2.05	2.06	2.05	2.04	2.04	2.05	2.07	S	2.06	2.09	2.06	2.06	2.07	2.08	2.08	2.10	2.10	2.01	2.10	2.06
Dec 31	2.10	2.10	2.08	2.06	2.04	2.03	2.03	2.04	2.05	2.06	2.04	2.04	2.04	S	1.95	1.95	1.95	1.96	1.96	1.96	1.97	1.97	1.97	1.96	1.95	2.10	2.01
Diurnal Maximum	4.15	2.15	2.11	2.11	2.08	2.07	2.07	2.06	2.09	2.09	2.06	2.06	2.10	2.08	2.05	2.08	2.09	2.11	2.11	2.07	2.13	2.11	2.14	2.15			
Diurnal Average	2.08	2.00	2.00	2.01	2.00	2.00	2.00	2.00	2.00	2.01	2.00	2.00	2.00	2.00	1.99	1.99	2.00	2.00	2.01	2.00	2.00	2.00	2.00	2.00			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance			
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P	Power Failure	
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)					

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



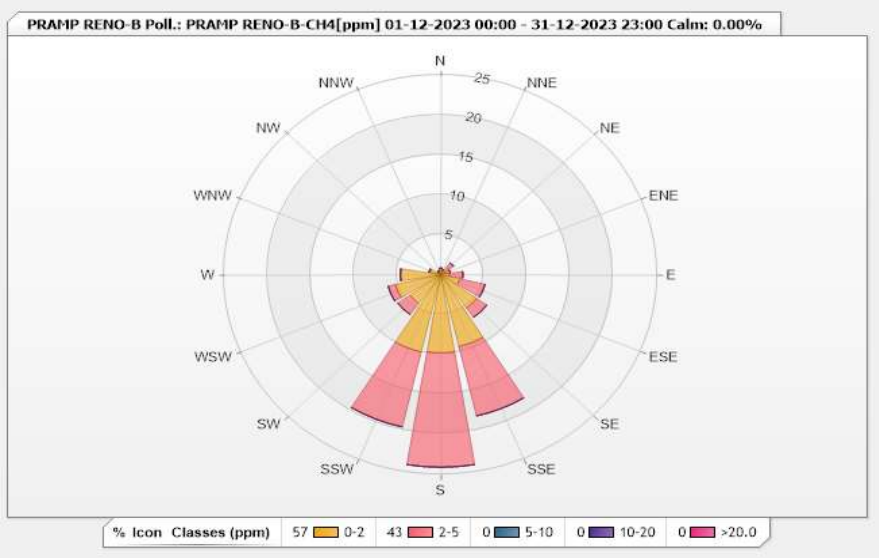


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-CH4[ppm] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 94.89% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	0.85	0	0	0	0	0.85
NNE	0.28	0.42	0	0	0	0.7
NE	1.13	0.71	0	0	0	1.84
ENE	0.57	0.57	0	0	0	1.14
E	0.99	1.56	0	0	0	2.55
ESE	2.27	2.97	0	0	0	5.24
SE	5.1	1.42	0	0	0	6.52
SSE	9.21	8.92	0	0	0	18.13
S	9.77	14.31	0	0	0	24.08
SSW	9.92	9.63	0	0	0	19.55
SW	4.39	1.7	0	0	0	6.09
WSW	5.38	0.85	0	0	0	6.23
W	4.67	0	0	0	0	4.67
WNW	1.27	0.14	0	0	0	1.41
NW	0.28	0.14	0	0	0	0.42
NNW	0.57	0	0	0	0	0.57
Summary	56.65	43.34	0	0	0	100



Peace River Area Monitoring Program

Reno-B Station - December 2023

Summary of Hourly Averages

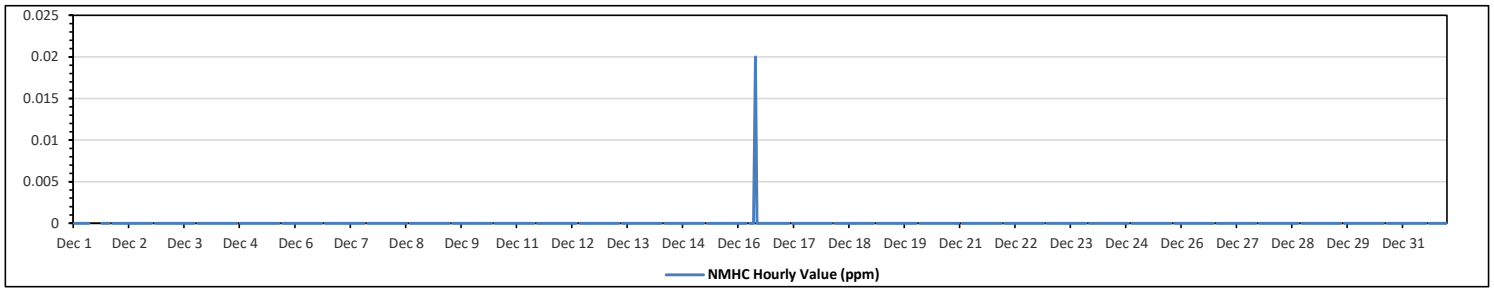
NON-METHANE HYDROCARBONS (NMHC) in ppm

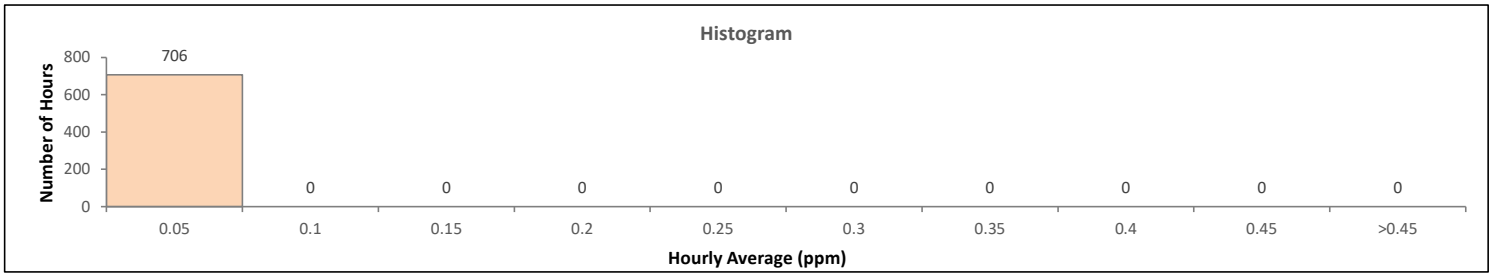
Maximum Hourly Value:	0.02	ppm	on Dec 16 at hr 9	Hours in Service:	744
Maximum Daily Value:	0.00	ppm	on Dec 16	Hours of Data:	706
Minimum Hourly Value:	0.00	ppm	on Dec 1 at hr 0	Hours of Missing Data:	0
Minimum Daily Value:	0.00	ppm	on Dec 2	Hours of Calibration:	38
Monthly Average:	0.00	ppm		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	C	C	C	C	C	C	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	NA
Dec 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 15	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 16	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	**0.02**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.02**	**0.00**
Dec 17	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 18	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 19	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 20	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 21	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00
Dec 22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00
Dec 23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00
Dec 24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00
Dec 25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Diurnal Maximum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Diurnal Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



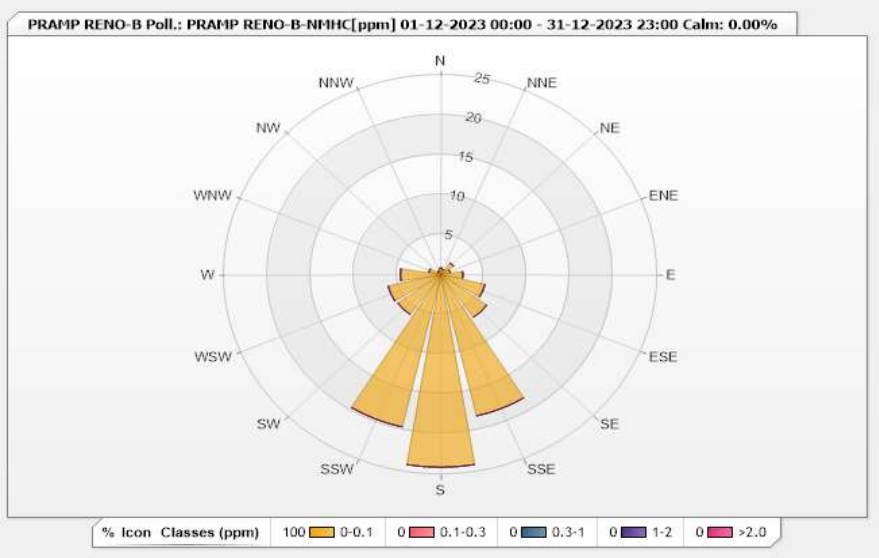


Station: PRAMP RENO-B Poll.: PRAMP RENO-B-NMHC[ppm] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 94.89% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	0.85	0	0	0	0	0.85
NNE	0.71	0	0	0	0	0.71
NE	1.84	0	0	0	0	1.84
ENE	1.13	0	0	0	0	1.13
E	2.55	0	0	0	0	2.55
ESE	5.24	0	0	0	0	5.24
SE	6.52	0	0	0	0	6.52
SSE	18.13	0	0	0	0	18.13
S	24.08	0	0	0	0	24.08
SSW	19.55	0	0	0	0	19.55
SW	6.09	0	0	0	0	6.09
WSW	6.23	0	0	0	0	6.23
W	4.67	0	0	0	0	4.67
WNW	1.42	0	0	0	0	1.42
NW	0.42	0	0	0	0	0.42
NNW	0.57	0	0	0	0	0.57
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

Reno-B Station - December 2023

Summary of Hourly Averages

RELATIVE HUMIDITY (RH) in %

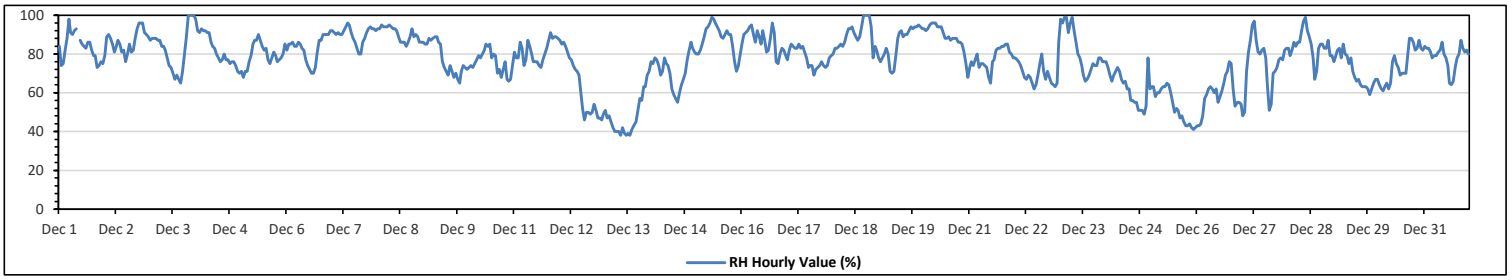
Maximum Hourly Value:	100	%	on Dec 3 at hr 20	Hours in Service:	744	
Maximum Daily Value:	90.4	%	on Dec 8	Hours of Data:	743	
Minimum Hourly Value:	38	%	on Dec 13 at hr 8	Hours of Missing Data:	1	
Minimum Daily Value:	47.8	%	on Dec 13	Hours of Calibration:	0	
Monthly Average:	77.3	%		Operational Uptime:	99.9	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	84	74	75	82	88	98	91	90	92	93	K	87	85	84	83	86	86	82	79	79	73	74	76	75	73	98	83.3
Dec 2	79	89	90	88	85	81	84	87	85	81	82	76	80	85	81	82	88	93	96	96	96	91	90	89	76	96	86.4
Dec 3	87	88	88	88	87	87	84	84	82	78	74	73	70	67	69	67	65	71	80	89	**100**	**100**	**100**	**100**	65	**100**	82.4
Dec 4	98	92	91	93	92	92	91	91	86	84	83	80	78	76	77	80	77	77	75	76	76	74	71	70	70	98	82.5
Dec 5	71	68	71	71	76	79	85	87	87	90	87	84	82	83	77	75	78	81	79	76	77	78	80	85	68	90	79.5
Dec 6	82	85	85	86	84	84	86	85	83	82	77	74	72	70	70	73	81	87	87	90	90	90	90	92	70	92	82.7
Dec 7	92	91	90	91	90	90	92	94	96	95	91	88	86	83	80	80	86	88	91	93	94	93	93	92	80	96	90.0
Dec 8	93	93	95	94	94	94	95	94	93	93	92	89	86	86	86	84	86	89	93	89	90	89	86	86	84	95	**90.4**
Dec 9	86	85	85	88	87	88	89	89	86	85	76	73	71	69	74	71	68	70	67	65	71	74	73	72	65	89	77.6
Dec 10	73	74	73	75	77	79	78	80	82	85	84	85	78	80	79	70	72	68	72	76	67	66	67	74	66	85	75.6
Dec 11	81	78	78	86	83	74	77	87	84	80	76	76	76	74	73	77	80	83	87	91	88	89	89	88	73	91	81.5
Dec 12	87	85	86	84	81	78	77	74	72	71	69	61	52	46	50	50	49	50	54	51	47	47	46	49	46	87	63.2
Dec 13	51	47	48	45	42	40	40	40	**38**	42	39	**38**	39	**38**	41	43	45	51	57	56	63	63	69	71	**38**	71	**47.8**
Dec 14	76	75	78	77	74	69	71	78	75	74	70	62	59	57	55	60	64	67	70	77	82	86	83	81	55	86	71.7
Dec 15	80	80	82	85	89	93	94	96	99	98	96	94	92	89	88	90	92	90	90	84	76	71	74	79	71	99	87.5
Dec 16	85	90	91	92	94	95	90	86	92	89	85	92	87	81	82	88	96	91	76	75	80	83	82	79	75	96	86.7
Dec 17	77	82	85	84	83	83	85	83	84	81	78	73	74	74	69	72	73	74	76	74	73	74	78	79	69	85	77.8
Dec 18	80	83	83	84	85	84	86	90	93	93	94	91	89	87	89	94	**100**	**100**	**100**	**100**	94	78	84	82	78	**100**	89.3
Dec 19	78	76	78	80	83	80	71	70	71	79	88	91	92	89	90	90	92	94	93	94	94	95	94	93	70	95	85.6
Dec 20	93	92	93	95	96	96	96	94	94	94	91	88	88	89	87	88	88	88	86	86	85	81	75	68	68	96	88.8
Dec 21	73	76	74	77	80	73	75	75	74	73	68	65	76	77	82	83	83	84	84	85	85	81	80	78	65	85	77.5
Dec 22	78	77	76	74	71	68	67	69	68	65	62	64	69	75	80	71	67	71	68	65	64	63	65	86	62	86	70.1
Dec 23	98	96	99	99	91	96	99	92	86	80	78	74	69	66	67	69	72	75	74	74	78	78	76	76	66	99	81.8
Dec 24	76	73	69	66	69	71	73	71	67	65	66	62	62	56	56	55	55	51	51	51	49	53	78	62	49	78	62.8
Dec 25	63	63	58	60	60	62	63	63	65	64	60	55	50	52	51	47	48	45	43	43	44	42	41	42	41	65	53.5
Dec 26	43	43	44	48	57	59	62	63	62	60	62	55	58	61	65	69	71	76	75	62	53	55	55	54	43	76	58.8
Dec 27	48	50	71	81	87	95	97	87	81	80	82	83	78	64	51	54	70	71	73	77	78	77	82	83	48	97	75.0
Dec 28	83	79	82	86	84	86	86	92	97	99	92	89	85	78	67	71	83	85	85	83	83	87	79	79	67	99	84.2
Dec 29	76	79	82	83	78	85	80	79	75	78	71	68	66	67	64	63	63	63	62	59	62	65	67	67	59	85	70.9
Dec 30	64	62	61	63	65	62	65	76	79	75	73	69	70	70	70	80	88	88	86	82	83	87	83	82	61	88	74.3
Dec 31	84	83	83	81	78	79	79	81	82	86	80	78	74	65	64	66	73	78	80	87	83	81	82	80	64	87	78.6
Diurnal Maximum	98	96	99	99	96	98	99	96	99	99	96	94	92	89	90	94	100	100	100	100	100	100	100	100			
Diurnal Average	78.0	77.7	78.8	80.2	80.3	80.6	80.9	81.5	81.0	80.4	77.5	75.4	74.0	72.2	71.5	72.5	75.5	76.8	77.1	76.9	76.7	76.3	77.0	77.2			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

Reno-B Station - December 2023

Summary of Hourly Averages

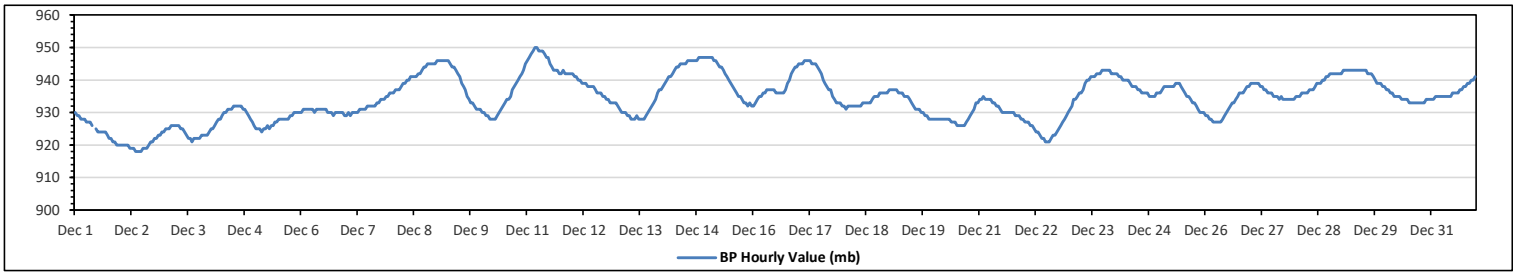
BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:	950 mb	on Dec 11 at hr 4	Hours in Service:	744	
Maximum Daily Value:	946 mb	on Dec 11	Hours of Data:	743	
Minimum Hourly Value:	918 mb	on Dec 2 at hr 8	Hours of Missing Data:	1	
Minimum Daily Value:	920 mb	on Dec 2	Hours of Calibration:	0	
Monthly Average:	934 mb		Operational Uptime:	99.9	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	930	929	929	928	928	928	927	927	927	926	K	925	924	924	924	924	924	923	922	922	921	921	920	920	920	930	925
Dec 2	920	920	920	920	920	919	919	919	**918**	**918**	**918**	**918**	919	919	919	920	921	921	922	922	923	923	924	924	**918**	924	**920**
Dec 3	925	925	925	926	926	926	926	926	925	925	924	923	922	922	921	922	922	922	922	923	923	923	923	924	921	926	924
Dec 4	925	925	926	927	928	928	929	930	930	931	931	931	932	932	932	932	932	931	931	930	929	928	927	926	925	932	929
Dec 5	925	925	925	924	925	925	926	925	926	926	927	927	928	928	928	928	928	928	929	929	930	930	930	930	924	930	927
Dec 6	930	931	931	931	931	931	931	930	931	931	931	931	931	931	930	930	930	929	930	930	930	930	930	929	929	931	930
Dec 7	929	930	929	930	930	930	930	931	931	931	931	932	932	932	932	932	933	933	934	934	934	935	935	936	929	936	932
Dec 8	936	936	937	937	937	938	939	939	940	940	941	941	941	941	942	942	943	944	944	945	945	945	945	945	936	945	941
Dec 9	946	946	946	946	946	946	946	945	944	944	943	942	941	939	938	937	935	934	933	933	932	931	931	931	931	946	940
Dec 10	930	930	929	929	928	928	928	928	929	930	931	932	933	934	934	935	937	938	939	940	941	942	943	945	928	945	934
Dec 11	946	947	948	949	**950**	**950**	949	949	949	948	947	947	945	944	943	943	943	942	942	943	942	942	942	942	942	**950**	**946**
Dec 12	942	941	941	940	940	939	939	939	938	938	938	938	937	936	936	936	935	935	934	934	933	933	933	933	933	942	937
Dec 13	932	931	930	930	930	929	929	928	928	928	929	928	928	928	928	929	930	931	932	933	934	936	937	937	928	937	931
Dec 14	938	939	940	941	941	942	943	944	944	945	945	945	945	946	946	946	946	946	946	947	947	947	947	947	938	947	944
Dec 15	947	947	947	946	946	945	944	944	943	942	941	940	939	938	937	936	935	935	934	933	933	932	933	932	932	947	940
Dec 16	932	933	934	935	935	936	936	937	937	937	937	937	936	936	936	936	936	937	939	940	942	943	944	944	932	944	937
Dec 17	945	945	945	946	946	946	946	945	945	945	944	943	942	940	939	938	937	937	935	934	933	933	933	932	932	946	941
Dec 18	932	931	932	932	932	932	932	932	932	932	933	933	933	933	933	934	935	935	935	936	936	936	936	936	931	936	933
Dec 19	937	937	937	937	937	936	936	936	935	935	935	934	933	932	931	931	931	930	930	929	929	928	928	928	928	937	933
Dec 20	928	928	928	928	928	928	928	928	928	927	927	927	926	926	926	926	926	927	928	929	930	931	933	933	926	933	928
Dec 21	934	934	935	934	934	934	934	933	933	932	932	931	930	930	930	930	930	930	930	929	929	929	928	928	928	935	931
Dec 22	927	927	927	926	926	925	924	924	923	922	922	921	921	921	922	923	923	924	925	926	927	928	929	930	921	930	925
Dec 23	931	932	934	934	935	936	936	937	939	940	940	941	941	941	942	942	942	943	943	943	943	943	942	942	931	943	939
Dec 24	942	942	941	941	940	940	940	940	939	938	938	938	937	937	936	936	936	936	935	935	935	935	936	936	935	942	938
Dec 25	936	937	938	938	938	938	938	938	939	939	939	938	937	936	935	935	934	933	933	932	931	930	930	930	930	939	936
Dec 26	929	929	928	928	927	927	927	927	927	928	929	930	931	932	933	933	934	935	936	936	936	937	938	938	927	938	931
Dec 27	939	939	939	939	939	938	938	937	937	936	936	936	935	935	935	934	935	934	934	934	934	934	934	934	934	939	936
Dec 28	935	935	935	936	936	936	936	937	937	937	938	939	939	939	940	940	941	941	942	942	942	942	942	942	935	942	939
Dec 29	942	943	943	943	943	943	943	943	943	943	943	943	943	943	942	942	942	941	940	939	939	939	938	938	938	943	942
Dec 30	937	937	936	936	935	935	935	935	934	934	934	934	933	933	933	933	933	933	933	933	933	934	934	934	933	937	934
Dec 31	934	934	935	935	935	935	935	935	935	935	935	936	936	936	936	937	937	938	938	939	939	940	940	941	934	941	937
Diurnal Maximum	947	947	948	949	950	950	949	949	949	948	947	947	945	946	946	946	946	946	946	947	947	947	947	947			
Diurnal Average	934	934	935	935	935	934	934	934	934	934	935	934	934	934	934	934	934	934	934	934	934	934	934	934			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

Reno-B Station - December 2023

Summary of Hourly Averages

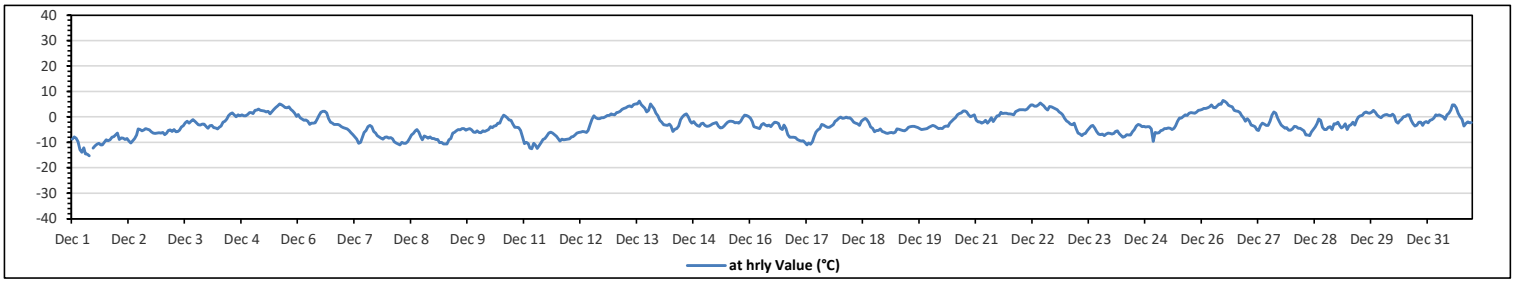
AMBIENT TEMPERATURE (AT) in Degree Celsius

Maximum Hourly Value:	6.5	°C	on Dec 26 at hr 11	Hours in Service:	744
Maximum Daily Value:	3.4	°C	on Dec 26	Hours of Data:	743
Minimum Hourly Value:	-15.3	°C	on Dec 1 at hr 9	Hours of Missing Data:	1
Minimum Daily Value:	-10.6	°C	on Dec 1	Hours of Calibration:	0
Monthly Average:	-3.0	°C		Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Dec 1	-8.7	-7.9	-8.3	-9.7	-12.8	-13.8	-12.1	-14.5	-14.7	**-15.3**	K	-12.2	-11.4	-10.8	-10.3	-11	-10.9	-10	-9	-9.4	-9	-8	-7.7	-7	**-15.3**	-7.0	**-10.6**
Dec 2	-6.4	-8.8	-8.2	-8.3	-8.9	-8.5	-9.5	-10.2	-9.4	-8.5	-7.1	-4.7	-4.9	-5.5	-5.1	-4.5	-4.8	-5.1	-5.8	-6.3	-6.5	-6.3	-6.2	-6.4	-10.2	-4.5	-6.9
Dec 3	-6.1	-6.9	-6.4	-5.4	-5.1	-5.6	-4.9	-5.8	-5.7	-5.2	-4	-3.4	-2.3	-1.6	-2.4	-1.7	-1.1	-1.7	-2.5	-3	-3.1	-2.8	-2.8	-3.7	-6.9	-1.1	-3.9
Dec 4	-4.4	-3.4	-3.3	-4.2	-4.3	-4.7	-4.1	-3.6	-2	-1.6	-0.8	0.4	1.2	1.6	0.9	0	0.8	0.4	0.9	0.4	0.4	1	1.7	1.7	-4.7	1.7	-1.0
Dec 5	1.3	2.6	2.7	3.1	2.6	2.5	2.4	2	2.3	1.2	2.1	2.9	3.8	4.4	5.1	4.9	4.3	3.8	3.7	3.9	3	2.4	1.4	0.2	0.2	5.1	2.9
Dec 6	1	-0.2	-0.8	-1.4	-1.2	-1.7	-2.9	-2.5	-2.4	-2.3	-0.9	0.6	1.9	2.2	2.3	1.6	-0.7	-2	-2.4	-2.9	-2.9	-2.9	-3.2	-3.8	-3.8	2.3	-1.1
Dec 7	-4.2	-4.4	-4.7	-5.3	-6.2	-6.9	-7.8	-8.7	-10.3	-9.9	-7.8	-6.1	-5.3	-3.8	-3.3	-3.8	-5.7	-6.4	-7.3	-7.8	-8.3	-8.7	-8	-7.8	-10.3	-3.3	-6.6
Dec 8	-8.3	-8.1	-8.6	-9.7	-10.2	-10.7	-10.9	-10	-10.4	-10.4	-9.7	-8.4	-7.1	-6.5	-5.5	-4.9	-6	-7.9	-9	-7.5	-7.8	-8.3	-7.9	-8.5	-10.9	-4.9	-8.4
Dec 9	-8.5	-8.9	-8.9	-10.1	-10	-10.6	-10.6	-10.6	-9	-8.4	-6.3	-6.1	-5.5	-5	-5.1	-4.6	-4.6	-5.2	-4.8	-4.6	-5.1	-5.9	-6.1	-5.5	-10.6	-4.6	-7.1
Dec 10	-6.1	-6.2	-5.5	-5.7	-5.3	-4.9	-3.9	-4.2	-3.6	-3.4	-2.4	-2.4	-0.5	0.7	0.3	-0.3	-1.2	-1.4	-2.8	-4.1	-4.1	-4.2	-5.4	-7.8	-7.8	0.7	-3.5
Dec 11	-10.5	-9.9	-10.5	-12.2	-12.4	-10.3	-11	-12.3	-11.2	-10.1	-8.9	-8.5	-7.5	-6.3	-5.9	-6.3	-6.9	-7.6	-8.6	-9.5	-8.7	-9	-8.8	-8.7	-12.4	-5.9	-9.2
Dec 12	-8.6	-7.9	-7.7	-7	-6.4	-6.1	-6	-5.6	-5.8	-6.1	-5.4	-3	-0.9	0.4	-0.3	-0.6	-0.7	-0.3	-0.2	0.1	0.6	0.6	1.2	1	-8.6	1.2	-3.1
Dec 13	0.9	1.7	1.8	2.3	2.9	3.4	3.6	4.1	4.4	4	4.9	5.2	5.2	6.3	4.9	4.2	3.5	2	2.6	5.2	4.2	3.2	1.4	0.5	0.5	6.3	3.4
Dec 14	-1.4	-2	-3	-3.2	-3.3	-2.8	-3.5	-5.6	-4.8	-4.6	-3.5	-1	0	0.8	1.2	0.1	-1.7	-2.4	-1.8	-2.8	-3.4	-3.7	-2.7	-2.5	-5.6	1.2	-2.4
Dec 15	-3.3	-3.7	-3.6	-3.1	-2.7	-2.5	-2.2	-3.5	-4.3	-4.2	-3.6	-2.8	-2.1	-1.6	-1.6	-1.8	-2.3	-2.2	-2.4	-1.6	-0.2	0.7	0.6	0.2	-4.3	0.7	-2.2
Dec 16	-0.4	-1.8	-3.9	-4.1	-4.3	-4.5	-3	-2.6	-3.2	-3.5	-3.2	-3.8	-2.8	-2	-2.2	-2.6	-4.4	-4.9	-3.2	-4.4	-6.9	-8	-8	-8	-8.0	-0.4	-4.0
Dec 17	-8.1	-8.9	-9.3	-9.5	-9.4	-10.1	-11	-10.2	-10.8	-9.7	-7.9	-5.9	-5.1	-4.5	-2.9	-3.2	-3.7	-4.1	-4.1	-3.5	-3	-1.7	-1.3	-0.5	-11.0	-0.5	-6.2
Dec 18	-0.1	-0.5	-0.4	-0.1	-0.4	-0.3	-1.1	-2.1	-2.5	-2.7	-3.3	-1.6	-1.1	-0.5	-1.1	-2.2	-4	-4.4	-5.8	-5.4	-5.3	-4.7	-5.6	-6	-6.0	-0.1	-2.6
Dec 19	-6.3	-6.5	-6.2	-6.1	-6.4	-6	-4.7	-4.8	-5.1	-5.4	-5.5	-5	-4.1	-3.9	-3.7	-3.7	-4	-4.2	-4.6	-5	-4.8	-4.7	-4.5	-4.1	-6.5	-3.7	-5.0
Dec 20	-3.7	-3.3	-3.5	-4.1	-4.6	-4.4	-4.5	-3.9	-3.6	-3.7	-2.5	-1.7	-0.9	-0.2	0.9	1.3	1.6	2.4	2.4	2	0.8	0.1	0.5	0.9	-4.6	2.4	-1.3
Dec 21	-1.3	-1.9	-1.9	-2.4	-2	-1.4	-2.5	-1.5	-0.3	-1.8	-0.7	0.4	0.4	1.8	1.3	1.4	1.5	1.2	1.2	1.1	0.9	2.1	2.5	2.8	-2.5	2.8	0.0
Dec 22	2.8	2.8	2.7	3.1	3.9	4.8	4.8	4.2	4.2	4.8	5.4	4.9	4.3	3.3	2.7	4.1	4	3.7	3.2	2.8	2	1.5	0.8	-0.5	-0.5	5.4	3.3
Dec 23	-1.5	-2	-2.8	-3	-2.4	-4.5	-6.4	-6.7	-7.3	-6.8	-6.5	-5.3	-4.4	-3.6	-3.3	-4.3	-5.7	-6.7	-6.9	-6.8	-7.3	-6.8	-6.4	-6.5	-7.3	-1.5	-5.2
Dec 24	-6.7	-6.5	-5.7	-5.5	-6.6	-7.3	-8	-7.7	-6.9	-7	-7.1	-5.8	-5	-3.5	-2.9	-3.2	-3.8	-3.7	-4	-3.9	-3.8	-4.7	-9.6	-6.1	-9.6	-2.9	-5.6
Dec 25	-6.4	-6.2	-5.3	-5.2	-4.6	-4.5	-4.3	-4.4	-4.9	-4.4	-3.4	-1.7	-0.4	-0.4	0.2	0.8	0.6	1.4	1.7	1.6	1.5	2	2.6	2.7	-6.4	2.7	-1.7
Dec 26	3	3.3	3.3	3.7	4	4.8	3.8	3.7	4.3	5.2	5	**6.5**	6.1	5.4	4.6	4.2	4	2.6	2.4	2.3	1.7	0.6	-0.3	-1.6	-1.6	**6.5**	**3.4**
Dec 27	-0.6	-1.5	-3.2	-3.4	-3.8	-5.1	-5.4	-3.4	-2.4	-2.8	-3.3	-3.3	-1.6	0.7	2	1.4	-0.5	-2	-3.1	-3.8	-4.4	-4.2	-5.2	-5.2	-5.4	2.0	-2.7
Dec 28	-4.7	-3.7	-3.8	-4.4	-4.4	-4.9	-5.5	-7.1	-7.1	-7.3	-5.9	-5	-4	-2.6	-0.8	-1.3	-4.1	-5	-4.9	-4.1	-3.8	-4.9	-2.7	-2.8	-7.3	-0.8	-4.4
Dec 29	-2	-3.4	-4.3	-3.8	-2.7	-4.9	-3.4	-3	-2.1	-3.1	-1.2	-0.1	0.5	0.6	1.6	2	1.6	1.4	1.8	2.6	1.8	0.7	0	-0.3	-4.9	2.6	-0.8
Dec 30	0.5	0.9	1	0.6	0.4	1.1	0.4	-1.8	-2.4	-1.5	-0.9	0.1	0.2	0.8	0.9	-1.4	-2.7	-3.5	-3.1	-2	-2.1	-3.3	-2.2	-1.8	-3.5	1.1	-0.9
Dec 31	-2.3	-1.4	-1.1	-0.4	0.9	0.6	0.8	0.4	0	-0.9	0.9	1.5	2.7	4.8	4.7	3.6	1.5	0.1	-0.9	-3.6	-2.6	-1.9	-2.3	-2.2	-3.6	4.8	0.1
Diurnal Maximum	3.0	3.3	3.3	3.7	4.0	4.8	4.8	4.2	4.4	5.2	5.4	6.5	6.1	6.3	5.1	4.9	4.3	3.8	3.7	5.2	4.2	3.2	2.6	2.8			
Diurnal Average	-3.6	-3.7	-3.9	-4.0	-4.1	-4.2	-4.3	-4.6	-4.4	-4.4	-3.1	-2.4	-1.6	-0.9	-0.7	-1.0	-1.8	-2.3	-2.5	-2.6	-2.8	-2.9	-3.0	-3.1			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

Reno-B Station - December 2023

Summary of Hourly Averages

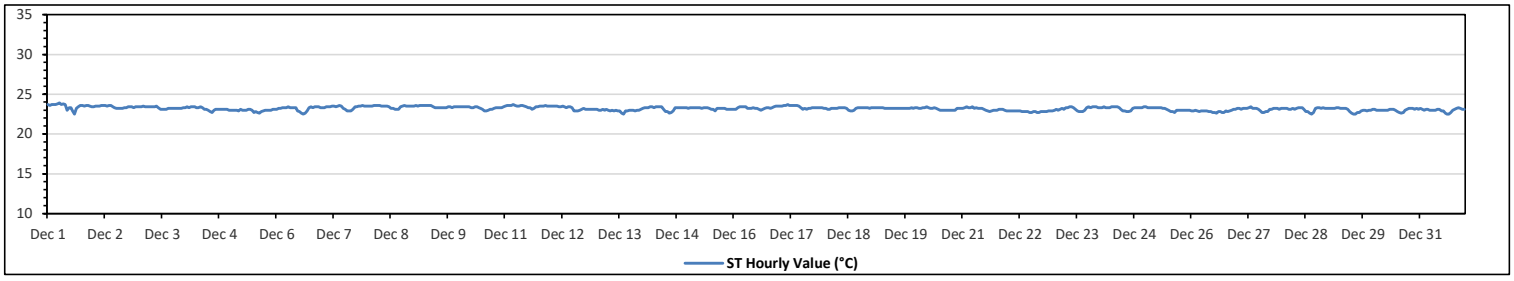
STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:	23.9	°C	on Dec 1 at hr 6	Hours in Service:	744	
Maximum Daily Value:	23.5	°C	on Dec 1	Hours of Data:	744	
Minimum Hourly Value:	22.5	°C	on Dec 1 at hr 14	Hours of Missing Data:	0	
Minimum Daily Value:	22.8	°C	on Dec 22	Hours of Calibration:	0	
Monthly Average:	23.2	°C		Operational Uptime:	100.0	

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Dec 1	23.7	23.6	23.7	23.7	23.7	23.8	**23.9**	23.7	23.8	23.7	23.0	23.3	23.3	22.9	**22.5**	23.2	23.4	23.6	23.6	23.5	23.6	23.6	23.5	23.4	**22.5**	**23.9**	**23.5**
Dec 2	23.4	23.5	23.5	23.5	23.6	23.6	23.6	23.5	23.6	23.6	23.4	23.3	23.2	23.2	23.2	23.2	23.3	23.3	23.4	23.4	23.4	23.3	23.4	23.4	23.2	23.6	23.4
Dec 3	23.4	23.4	23.5	23.4	23.4	23.4	23.4	23.4	23.4	23.5	23.3	23.1	23.1	23.1	23.1	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.3	23.1	23.5	23.3
Dec 4	23.3	23.4	23.3	23.4	23.4	23.4	23.3	23.3	23.4	23.3	23.1	23.1	23.0	22.8	22.7	23.0	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.0	22.7	23.4	23.2
Dec 5	23.0	23.0	23.0	23.0	22.9	23.1	23.0	23.0	23.0	23.1	23.1	23.0	22.7	22.8	22.7	22.6	22.8	22.9	23.0	23.0	23.0	23.0	23.1	23.1	22.6	23.1	23.0
Dec 6	23.1	23.2	23.2	23.3	23.3	23.3	23.4	23.3	23.3	23.3	23.3	22.9	22.8	22.6	**22.5**	22.6	22.9	23.3	23.4	23.3	23.4	23.4	23.4	23.3	**22.5**	23.4	23.2
Dec 7	23.3	23.3	23.4	23.4	23.4	23.5	23.5	23.4	23.5	23.6	23.5	23.2	23.1	22.9	22.9	22.9	23.1	23.4	23.4	23.5	23.5	23.6	23.5	23.5	22.9	23.6	23.3
Dec 8	23.5	23.5	23.5	23.6	23.6	23.6	23.6	23.5	23.5	23.5	23.5	23.4	23.2	23.2	23.1	23.1	23.1	23.4	23.5	23.6	23.5	23.5	23.5	23.5	23.1	23.6	23.4
Dec 9	23.5	23.6	23.5	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.4	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.4	23.4	23.3	23.4	23.4	23.4	23.3	23.6	23.4
Dec 10	23.4	23.4	23.4	23.4	23.4	23.4	23.3	23.3	23.4	23.4	23.3	23.2	23.1	22.9	22.9	23.0	23.1	23.1	23.2	23.3	23.3	23.3	23.3	23.4	22.9	23.4	23.3
Dec 11	23.5	23.6	23.6	23.6	23.7	23.6	23.5	23.5	23.6	23.6	23.5	23.4	23.3	23.3	23.1	23.2	23.4	23.4	23.5	23.5	23.5	23.6	23.5	23.5	23.1	23.7	23.5
Dec 12	23.5	23.5	23.5	23.5	23.4	23.4	23.5	23.4	23.3	23.4	23.4	23.3	22.9	22.9	22.9	23.0	23.1	23.2	23.1	23.1	23.1	23.1	23.1	23.1	22.9	23.5	23.2
Dec 13	23.1	23.0	23.0	23.1	23.0	23.1	23.0	22.9	23.0	22.9	23.0	22.9	22.9	22.6	**22.5**	22.9	22.9	23.0	23.0	23.0	22.9	23.0	23.0	23.1	**22.5**	23.1	23.0
Dec 14	23.2	23.3	23.3	23.3	23.4	23.4	23.3	23.4	23.4	23.4	23.4	23.1	22.8	22.8	22.6	22.7	22.9	23.3	23.3	23.3	23.3	23.3	23.3	23.3	22.6	23.4	23.2
Dec 15	23.2	23.3	23.3	23.3	23.3	23.3	23.3	23.2	23.3	23.3	23.3	23.2	23.1	23.1	22.9	23.2	23.2	23.2	23.2	23.2	23.1	23.1	23.1	23.1	22.9	23.3	23.2
Dec 16	23.1	23.1	23.3	23.4	23.4	23.4	23.4	23.2	23.2	23.2	23.3	23.2	23.2	23.1	23.0	23.1	23.2	23.3	23.3	23.2	23.3	23.4	23.5	23.5	23.0	23.5	23.3
Dec 17	23.5	23.5	23.6	23.6	23.7	23.6	23.6	23.6	23.6	23.6	23.5	23.3	23.1	23.2	23.1	23.2	23.2	23.3	23.3	23.3	23.3	23.3	23.3	23.2	23.1	23.7	23.4
Dec 18	23.2	23.1	23.1	23.2	23.2	23.2	23.2	23.3	23.3	23.3	23.3	23.2	23.0	22.9	22.9	23.0	23.2	23.3	23.3	23.3	23.3	23.3	23.3	23.2	22.9	23.3	23.2
Dec 19	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.2	23.3	23.2	23.3	23.2	23.3	23.2
Dec 20	23.3	23.2	23.2	23.3	23.3	23.4	23.3	23.2	23.2	23.3	23.2	23.1	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.2	23.2	23.2	23.0	23.4	23.2
Dec 21	23.2	23.3	23.4	23.3	23.3	23.4	23.2	23.3	23.2	23.2	23.2	23.1	23.0	22.9	22.8	22.9	23.0	23.0	23.0	23.1	23.1	23.1	23.0	22.9	22.8	23.4	23.1
Dec 22	22.9	22.9	22.9	22.9	22.9	22.9	22.9	22.8	22.8	22.8	22.8	22.7	22.7	22.8	22.8	22.7	22.7	22.8	22.8	22.8	22.8	22.9	22.9	22.9	22.7	22.9	**22.8**
Dec 23	23.0	23.1	23.0	23.1	23.2	23.1	23.3	23.3	23.4	23.4	23.3	23.1	22.9	22.8	22.8	22.8	23.0	23.3	23.4	23.3	23.4	23.4	23.4	23.3	22.8	23.4	23.2
Dec 24	23.3	23.3	23.4	23.3	23.3	23.3	23.4	23.4	23.4	23.4	23.3	23.1	22.9	22.9	22.8	22.8	22.9	23.2	23.3	23.3	23.3	23.3	23.3	23.4	22.8	23.4	23.2
Dec 25	23.4	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.2	23.2	23.1	23.0	22.8	22.8	22.7	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	22.7	23.4	23.1
Dec 26	22.9	22.9	23.0	22.9	22.8	22.9	22.9	22.9	22.9	22.8	22.8	22.7	22.7	22.6	22.8	22.8	22.7	22.7	22.9	22.8	22.9	23.0	23.1	23.1	22.6	23.1	22.9
Dec 27	23.2	23.2	23.1	23.2	23.2	23.2	23.3	23.4	23.2	23.2	23.2	23.1	22.9	22.7	22.7	22.8	22.8	23.1	23.1	23.2	23.2	23.2	23.1	23.2	22.7	23.4	23.1
Dec 28	23.2	23.2	23.2	23.1	23.1	23.2	23.1	23.2	23.3	23.3	23.3	23.1	22.8	22.8	22.6	**22.5**	22.7	23.2	23.3	23.3	23.2	23.3	23.2	23.2	**22.5**	23.3	23.1
Dec 29	23.2	23.2	23.2	23.2	23.3	23.3	23.2	23.2	23.2	23.2	23.1	22.8	22.6	**22.5**	**22.5**	22.7	22.7	22.9	23.0	23.0	22.9	23.0	23.0	23.1	**22.5**	23.3	23.0
Dec 30	23.1	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.1	23.1	23.1	23.0	22.8	22.7	22.6	22.7	23.0	23.1	23.2	23.2	23.2	23.1	23.2	23.1	22.6	23.2	23.0
Dec 31	23.2	23.1	23.0	23.1	23.1	23.0	23.0	23.0	23.0	23.1	23.1	22.9	22.9	22.6	**22.5**	**22.5**	22.7	23.0	23.1	23.2	23.3	23.2	23.1	23.1	**22.5**	23.3	23.0
Diurnal Maximum	23.7	23.6	23.7	23.7	23.7	23.8	23.9	23.7	23.8	23.7	23.5	23.4	23.3	23.3	23.3	23.3	23.4	23.6	23.6	23.6	23.6	23.6	23.5	23.5			
Diurnal Average	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.2	23.1	23.0	22.9	22.8	22.9	23.0	23.2	23.2	23.2	23.2	23.2	23.2	23.2			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

Reno-B Station - December 2023

Summary of Hourly Averages

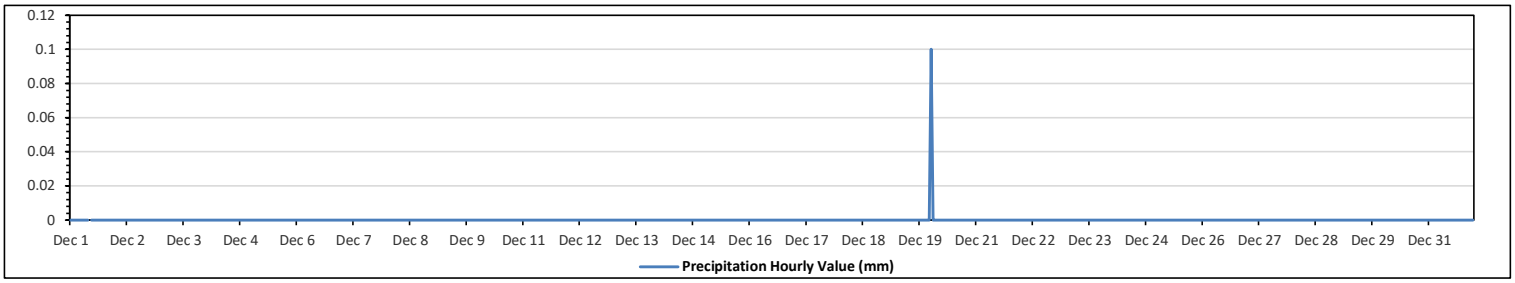
PRECIPITATION in mm

Maximum Hourly Value:	0.1	mm	on Dec 20 at hr 0	Hours in Service:	744	
Maximum Daily Value:	0.1	mm	on Dec 20	Hours of Data:	743	
Minimum Hourly Value:	0.0	mm	on Dec 1 at hr 0	Hours of Missing Data:	1	
Minimum Daily Value:	0.0	mm	on Dec 1	Hours of Calibration:	0	
Monthly Total:	0.1	mm		Operational Uptime:	99.9	

Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Total
Dec 1	0	0	0	0	0	0	0	0	0	0	K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 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
Dec 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
Dec 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
Dec 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
Dec 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 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
Dec 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
Dec 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 20	**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**
Dec 21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec 31	0	0	0	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	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			
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			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

Reno-B Station - December 2023

Summary of Hourly Averages

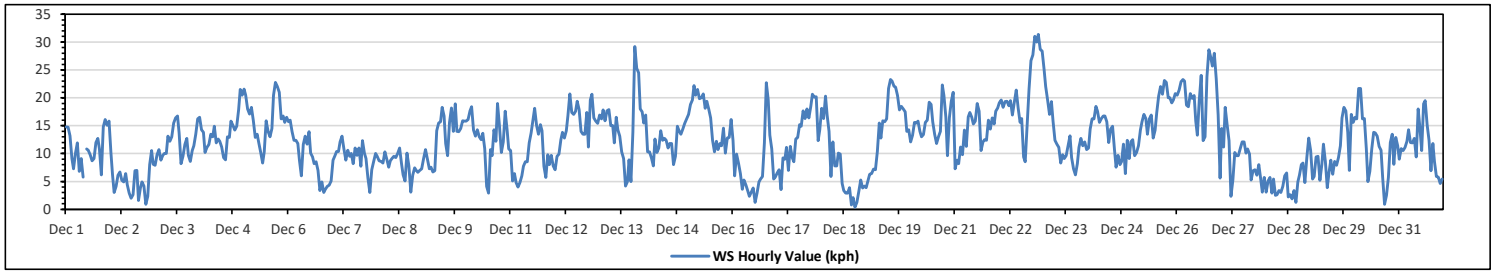
VECTOR WIND SPEED (VWS) in km/hr

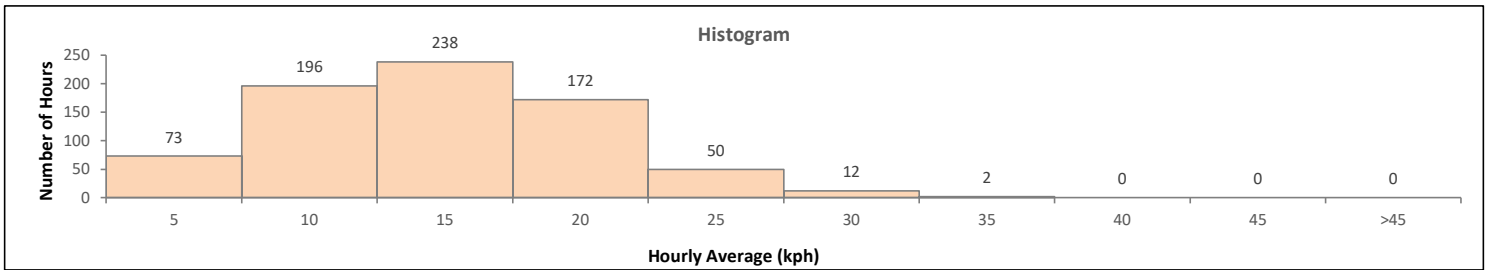
Maximum Hourly Value:	31.4	kph	on Dec 22 at hr 21	Hours in Service:	744	
Maximum Daily Value:	20.8	kph	on Dec 22	Hours of Data:	743	
Minimum Hourly Value:	0.4	kph	on Dec 18 at hr 18	Hours of Missing Data:	1	
Minimum Daily Value:	4.8	kph	on Dec 28	Hours of Calibration:	0	
Monthly Average:	8.6	kph		Operational Uptime:	99.9	

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Dec 1	14.8	14.7	13.2	9.1	7.3	10.0	11.9	6.8	9.1	5.8	K	10.8	10.6	9.8	8.7	9.1	12.0	12.7	10.8	6.2	14.8	16.1	15.1	15.8	5.8	16.1	11.1
Dec 2	10.1	6.1	3.0	4.1	6.1	6.7	5.2	4.9	6.4	4.4	2.9	2.0	2.6	6.9	7.0	1.6	3.8	4.9	4.2	0.9	2.3	8.0	10.5	8.1	0.9	10.5	5.1
Dec 3	7.9	9.8	10.7	8.8	9.7	10.0	10.0	13.1	12.2	13.0	15.5	16.4	16.7	13.7	8.2	9.5	11.6	12.7	9.7	8.6	10.5	11.4	13.5	16.2	7.9	16.7	11.6
Dec 4	16.5	14.3	13.8	10.2	11.1	11.6	13.5	13.0	14.9	11.9	12.6	12.2	11.2	9.3	8.9	13.0	12.9	15.8	15.1	14.2	14.9	17.9	21.5	20.5	8.9	21.5	13.8
Dec 5	21.6	20.5	18.0	17.1	18.3	15.9	12.9	13.5	11.9	10.2	8.3	10.3	15.9	14.0	13.0	14.5	20.5	22.8	22.0	21.0	16.2	16.7	15.6	16.5	8.3	22.8	16.1
Dec 6	15.7	16.0	13.9	12.4	12.4	11.8	8.8	6.0	11.6	13.1	11.7	13.9	10.1	9.4	8.2	8.5	7.0	3.4	4.9	3.0	3.6	4.1	4.3	5.1	3.0	16.0	9.1
Dec 7	8.8	9.6	10.4	10.4	12.1	13.1	10.8	8.8	10.6	9.5	10.0	8.2	11.0	9.7	11.0	7.7	12.3	10.1	9.1	5.6	3.0	7.1	8.6	10.0	3.0	13.1	9.5
Dec 8	9.5	8.7	8.6	8.3	10.3	9.0	7.6	8.7	9.1	9.5	9.3	10.0	11.0	8.2	6.2	5.1	10.1	7.8	3.1	6.1	7.4	7.0	6.6	7.0	3.1	11.0	8.1
Dec 9	7.3	9.1	10.7	9.0	7.3	7.6	6.7	6.9	14.1	15.5	15.7	18.3	16.7	11.8	9.6	15.6	18.2	14.0	18.9	14.0	13.9	14.5	15.9	15.8	6.7	18.9	12.8
Dec 10	15.8	16.1	17.7	18.4	14.2	13.1	14.3	13.0	12.5	13.6	10.9	4.1	2.9	10.7	9.6	14.3	12.2	19.0	15.0	10.2	12.1	17.6	14.2	10.8	2.9	19.0	13.0
Dec 11	10.5	5.1	6.4	4.8	4.0	4.8	6.0	7.7	8.5	8.5	11.9	13.7	16.1	18.1	15.1	13.5	15.2	14.1	7.7	5.7	9.8	8.0	9.7	7.8	4.0	18.1	9.7
Dec 12	7.1	9.5	9.9	12.5	13.8	12.8	14.1	16.8	20.7	17.4	17.0	17.6	19.4	17.9	14.0	13.5	13.5	17.4	11.2	19.6	20.6	16.4	15.8	15.4	7.1	20.7	15.2
Dec 13	16.9	16.2	17.8	15.9	17.7	17.9	15.0	15.0	11.9	16.5	14.3	13.1	10.3	9.1	4.2	5.0	8.9	5.0	13.8	29.2	25.3	24.5	18.0	17.5	4.2	29.2	15.0
Dec 14	15.5	16.9	10.3	10.3	9.2	7.8	12.6	10.2	11.0	14.1	12.4	12.7	12.4	11.0	11.8	11.8	8.0	9.5	14.9	14.0	13.5	14.4	15.4	16.2	7.8	16.9	12.3
Dec 15	17.0	18.8	19.6	22.2	20.5	21.5	19.8	20.0	20.7	18.1	19.4	18.0	16.4	12.4	10.3	12.2	10.7	11.8	11.4	14.6	10.1	12.8	12.9	16.1	10.1	22.2	16.1
Dec 16	12.3	6.0	9.9	8.3	6.4	3.6	5.3	4.4	3.3	2.3	3.1	3.8	1.2	2.9	4.9	5.4	5.9	11.9	22.7	19.6	13.3	10.8	5.4	5.8	1.2	22.7	7.4
Dec 17	6.5	7.1	3.5	9.2	9.0	11.1	7.0	11.3	9.3	8.5	12.6	12.9	15.2	14.9	17.7	16.3	18.0	16.4	18.5	20.6	20.1	20.2	12.3	14.3	3.5	20.6	13.0
Dec 18	18.1	16.3	20.3	16.9	14.0	5.9	12.1	7.8	7.8	10.1	9.9	4.6	3.4	2.9	2.9	3.9	0.8	2.1	**0.4**	1.2	3.2	5.3	3.8	4.2	**0.4**	20.3	7.4
Dec 19	3.9	5.2	6.3	6.4	7.2	7.1	10.4	15.5	12.8	15.9	15.7	16.2	21.7	23.3	23.0	22.1	21.9	20.4	17.8	18.5	18.0	17.5	14.0	14.3	3.9	23.3	14.8
Dec 20	12.1	13.3	15.6	15.5	15.8	14.0	13.0	13.4	15.6	16.0	19.2	18.8	15.7	13.5	11.8	13.0	14.0	22.3	20.4	16.6	9.6	16.4	19.4	21.0	9.6	22.3	15.7
Dec 21	7.3	8.8	8.2	11.2	9.8	14.2	11.3	16.6	17.4	16.5	15.3	15.8	19.0	17.6	10.5	12.1	12.5	12.4	16.0	14.4	16.4	15.3	17.6	18.2	7.3	19.0	13.9
Dec 22	19.1	19.6	18.3	19.3	19.4	18.6	19.5	16.9	19.2	21.4	18.2	15.6	16.3	9.4	8.5	15.0	21.6	26.7	27.7	31.0	30.0	**31.4**	28.7	28.4	8.5	**31.4**	**20.8**
Dec 23	25.1	22.0	19.6	17.0	19.3	15.8	12.4	11.7	11.1	8.3	9.8	9.1	9.6	11.4	13.2	9.3	7.3	6.2	8.2	11.1	12.7	11.4	12.1	10.7	6.2	25.1	12.7
Dec 24	11.0	14.4	16.2	16.2	18.5	17.6	15.6	16.3	16.7	16.7	15.7	12.0	14.4	14.9	10.7	7.6	9.7	8.0	8.5	11.7	6.4	12.4	9.1	12.1	6.4	18.5	13.0
Dec 25	12.5	9.6	10.2	11.4	14.2	15.7	17.0	16.3	13.5	16.2	16.9	12.8	14.2	17.3	20.3	22.0	20.6	23.1	22.8	20.0	20.0	19.1	19.6	20.8	9.6	23.1	16.9
Dec 26	20.5	21.4	22.9	23.3	23.0	18.7	18.4	20.8	19.9	20.4	15.8	13.3	19.6	24.0	12.3	13.0	23.8	28.6	27.5	25.7	28.0	23.4	16.9	5.6	5.6	28.6	20.3
Dec 27	14.5	11.2	18.3	15.2	12.3	2.3	5.3	10.2	9.6	9.6	10.9	12.1	12.1	10.1	10.8	9.9	5.3	6.9	7.1	6.1	8.0	5.4	3.1	5.7	2.3	18.3	9.3
Dec 28	3.1	5.1	5.7	2.9	5.4	2.5	2.6	3.4	3.0	4.1	6.0	6.5	2.2	2.6	1.9	3.4	1.2	4.9	6.1	8.0	8.3	4.8	9.2	12.8	1.2	12.8	**4.8**
Dec 29	10.5	5.4	5.9	9.4	9.5	5.2	8.0	11.7	8.6	3.9	6.4	8.8	6.3	8.6	7.9	9.3	11.4	16.4	18.3	17.7	13.8	7.0	17.0	15.6	3.9	18.3	10.1
Dec 30	16.5	16.2	21.7	21.7	16.2	16.3	10.9	5.0	6.8	10.8	13.8	13.7	13.1	11.3	10.6	5.8	0.9	2.5	5.7	12.0	13.5	8.1	12.9	11.4	0.9	21.7	11.6
Dec 31	9.0	10.9	10.5	11.1	12.2	14.3	12.0	11.9	12.7	9.4	18.0	14.9	10.5	18.9	19.5	15.2	12.4	6.9	11.8	8.5	5.9	5.8	4.6	5.4	4.6	19.5	11.3
Diurnal Maximum	25.1	22.0	22.9	23.3	23.0	21.5	19.8	20.8	20.7	21.4	19.4	18.8	21.7	24.0	23.0	22.1	23.8	28.6	27.7	31.0	30.0	31.4	28.7	28.4			
Diurnal Average	12.8	12.4	12.8	12.5	12.5	11.5	11.3	11.5	12.0	12.0	12.6	12.0	12.2	12.1	10.7	10.9	11.7	12.8	13.3	13.4	13.1	13.3	13.0	13.1			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance			
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P	Power Failure	
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)					

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



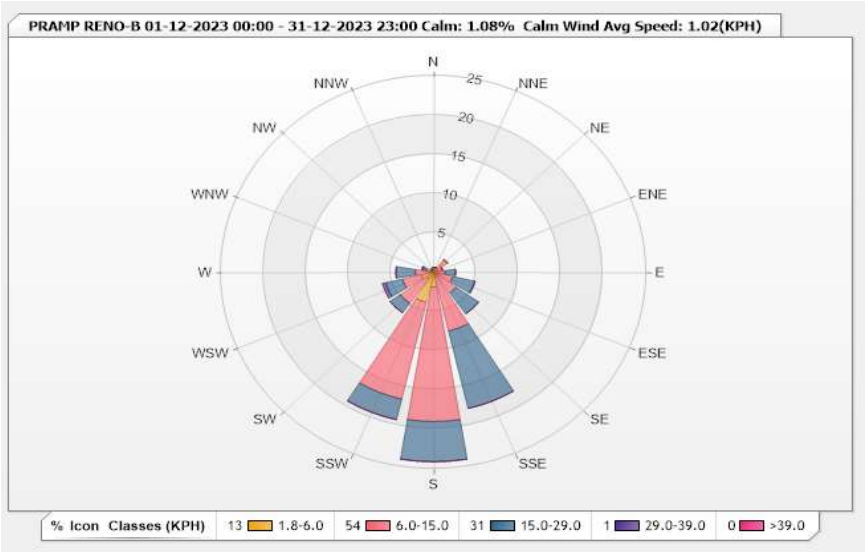


Station: PRAMP RENO-B Monitor: WDS [KPH] Monthly: 12-2023

Type: Wind Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm (WS<1.8kph): 1.08% Valid Data: 99.87%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0	0.67	0	0	0	0.67
NNE	0.54	0.13	0	0	0	0.67
NE	1.08	0.94	0	0	0	2.02
ENE	0.4	0.67	0	0	0	1.07
E	0.27	1.08	1.21	0	0	2.56
ESE	0.54	1.75	2.69	0	0	4.98
SE	0.13	3.1	3.23	0	0	6.46
SSE	0.54	7.13	10.09	0	0	17.76
S	1.88	17.09	5.11	0	0	24.08
SSW	3.9	12.65	2.69	0	0	19.24
SW	0.94	3.9	1.48	0	0	6.32
WSW	1.48	2.29	2.02	0.4	0	6.19
W	0.54	1.62	2.29	0	0	4.45
WNW	0.4	0.54	0.4	0.13	0	1.47
NW	0.27	0	0.13	0	0	0.4
NNW	0.13	0.27	0.13	0	0	0.53
Summary	13.04	53.83	31.47	0.53	0	98.87



Peace River Area Monitoring Program

Reno-B Station - December 2023

Summary of Hourly Averages

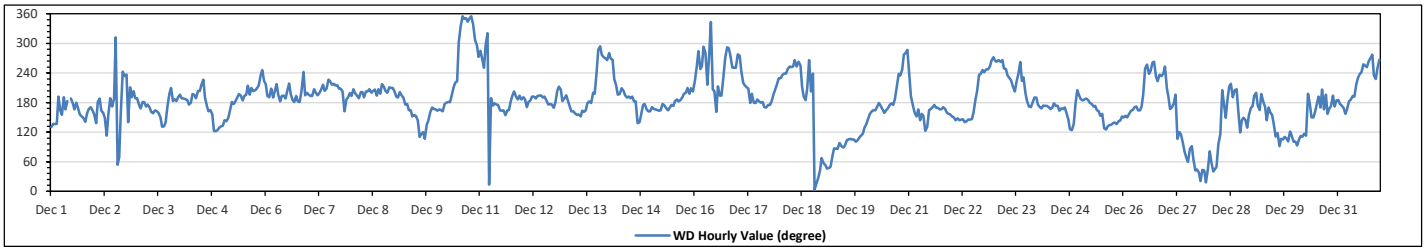
WIND DIRECTION (VWD) in sector

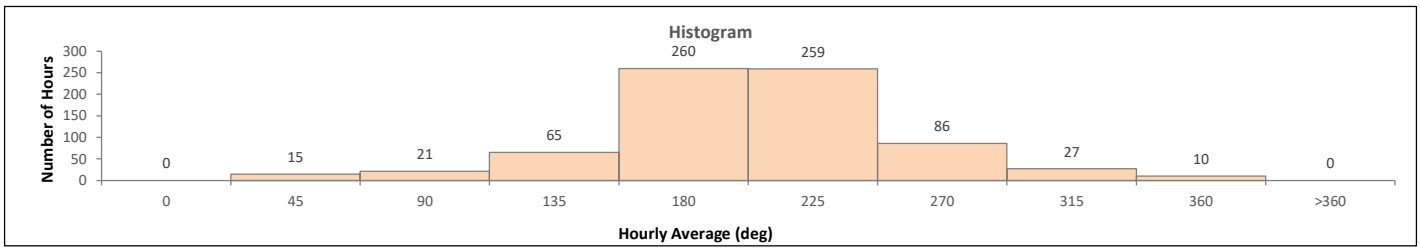
Monthly Average:	181 (S)	degree	
Hours in Service:	744		
Hours of Data:	743		
Hours of Missing Data:	1		
Hours of Calibration:	0		
Operational Uptime:	99.9		

Day	Hourly Period Starting at (MST)																							Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant
Dec 1	SE	SE	SE	SE	S	SSE	SSE	S	SSE	S	K	S	S	SSE	S	SSE	SSE	SSE	SE	SE	SSE	SSE	S	SSE	160	SSE
Dec 2	SSE	SE	S	S	SSE	SSE	SSE	ESE	SSE	S	S	S	NW	NE	ENE	SSE	WSW	SW	SW	SE	SSW	S	SSW	S	171	S
Dec 3	S	S	SSE	S	S	S	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SE	SE	SE	S	SSW	SSW	S	S	S	S	170	SSE
Dec 4	SSW	S	S	S	S	S	S	SSW	SSW	S	SSW	SSW	SW	SW	S	S	SSE	SSE	SSE	ESE	ESE	ESE	SE	SE	171	S
Dec 5	SE	SE	SE	SSE	SSE	S	S	S	S	SSW	SSW	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	WSW	SW	190	S
Dec 6	SW	S	S	SSW	S	SSW	SW	SSW	S	S	SSW	S	SSW	SW	SSW	S	S	S	S	S	SSW	WSW	SSW	SSW	198	SSW
Dec 7	SSW	S	S	SSW	SSW	SSW	SSW	SSW	SW	SSW	SSW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSE	S	S	SSW	205	SSW
Dec 8	S	SSW	SSW	SSW	S	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	202	SSW
Dec 9	SSW	S	S	SSW	SSW	S	S	S	SSE	SSE	SSE	SSE	SSE	SE	ESE	ESE	ESE	ESE	SE	SE	SSE	SSE	SSE	SSE	156	SSE
Dec 10	SSE	SSE	SSE	SSE	S	S	S	S	SSW	SSW	SW	SW	WNW	NNW	N	N	N	NNW	N	N	NNW	NW	WNW	W	240	WSW
Dec 11	WNW	W	WSW	WNW	NW	NNE	S	S	S	S	S	SSE	SSE	SSE	SSE	SSE	SSE	S	SSW	SSW	S	S	SSW	S	183	S
Dec 12	S	S	S	S	S	S	S	S	S	SSW	SSW	S	S	S	S	S	S	SSE	S	SSW	SSW	SSW	S	S	189	S
Dec 13	SSW	S	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	S	S	SSW	SSW	WSW	WNW	WNW	W	W	W	W	204	SSW
Dec 14	W	W	W	SW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	SE	SE	SSE	S	S	SSE	SSE	SSE	193	S
Dec 15	S	SSE	SSE	SSE	SSE	SSE	S	S	SSE	SSE	SSE	S	S	S	S	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW	178	S
Dec 16	SW	WSW	WNW	WSW	WSW	WNW	W	SW	W	NNW	SSW	SSW	SSE	SSW	SSW	SSW	SW	W	WNW	WNW	W	WSW	WSW	WSW	260	WSW
Dec 17	W	W	WSW	SW	SSW	SSW	SSW	S	SSW	S	S	S	S	S	S	S	SSE	S	S	S	SSW	SSW	SW	SW	194	SSW
Dec 18	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	W	WSW	SSW	S	S	SSW	W	SSW	WSW	N	NNE	NNE	NE	ENE	245	WSW
Dec 19	ENE	NE	NE	NE	NE	ENE	E	E	E	E	E	E	E	ESE	ESE	ESE	ESE	ESE	E	ESE	ESE	ESE	ESE	SE	97	E
Dec 20	SE	SE	SSE	SSE	SSE	SSE	S	S	S	SSE	SSE	SSE	SSE	S	S	S	S	SSW	SW	SW	WSW	W	W	WNW	190	S
Dec 21	SW	S	S	SSE	SSE	SSE	SE	SSE	SSE	ESE	SE	SSE	SSE	S	S	SSE	SSE	SSE	SSE	S	SSE	SSE	SSE	SSE	162	SSE
Dec 22	SSE	SSE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SSE	S	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	W	W	198	SSW
Dec 23	W	W	W	W	W	WSW	WSW	SW	SW	SW	SSW	SSW	SW	SW	W	SW	SW	SSW	S	S	S	S	S	S	233	SW
Dec 24	S	S	SSE	S	S	S	S	SSE	SSE	S	S	S	SSE	SSE	SSE	SSE	SSE	SE	SE	ESE	SE	S	SSW	SSW	169	SSE
Dec 25	S	S	S	S	S	S	S	S	S	SSE	SSE	SSE	SSE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SSE	153	SSE
Dec 26	SSE	SSE	SSE	SSE	SSE	SSE	S	S	SSE	SSE	S	SSW	WSW	WSW	SW	WSW	W	W	SW	SW	SW	SW	WSW	WSW	204	SSW
Dec 27	SSW	S	SSE	S	S	SSW	ESE	ESE	ESE	E	E	ENE	ENE	E	E	ENE	NE	NE	NE	NNE	NE	NE	NNE	NE	103	ESE
Dec 28	E	ENE	NE	NE	NE	E	ESE	SSW	S	SSE	S	SSW	SW	S	SSW	SSW	SSE	ESE	SE	SSE	SE	SE	SSE	SSE	147	SE
Dec 29	S	SSW	SSW	S	SSE	SSW	S	S	SE	SSE	SSE	SSE	SE	ESE	ESE	E	ESE	ESE	ESE	ESE	E	ESE	ESE	E	131	SE
Dec 30	E	E	ESE	ESE	ESE	ESE	ESE	SSW	S	SSE	SSE	SSE	S	S	SSE	SSW	SSE	SSW	SSE	SSE	S	SSW	S	S	145	SE
Dec 31	S	S	S	SSE	SSE	SSE	S	S	S	S	SW	SW	SW	WSW	WSW	WSW	WSW	W	W	W	SW	SW	WSW	W	218	SW

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Machine Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.





Peace River Area Monitoring Program

Reno-B Station - December 2023

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector

WIND SPEED

Maximum Hourly Value:	31.4	kph	on Dec 22 at hr 21	Hours in Service:	744
Maximum Daily Value:	20.8	kph	on Dec 22	Hours of Data:	743
Minimum Hourly Value:	0.4	kph	on Dec 18 at hr 18	Hours of Missing Data:	1
Minimum Daily Value:	4.8	kph	on Dec 28	Hours of Calibration:	0
Monthly Average:	8.6	kph		Operational Uptime:	99.9

WIND DIRECTION

Monthly Average: 181 degree (S)

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	14.8	14.7	13.2	9.1	7.3	10.0	11.9	6.8	9.1	5.8	K	10.8	10.6	9.8	8.7	9.1	12.0	12.7	10.8	6.2	14.8	16.1	15.1	15.8	5.8	16.1	11.1
	SE	SE	SE	SE	S	SSE	SSE	S	SSE	S	K	S	S	SSE	S	SSE	SSE	SSE	SE	SE	SSE	SSE	S	SSE			160(SSE)
Dec 2	10.1	6.1	3.0	4.1	6.1	6.7	5.2	4.9	6.4	4.4	2.9	2.0	2.6	6.9	7.0	1.6	3.8	4.9	4.2	0.9	2.3	8.0	10.5	8.1	0.9	10.5	5.1
	SSE	SE	S	S	SSE	SSE	SSE	ESE	SSE	S	S	S	NW	NE	ENE	SSE	WSW	SW	SW	SE	SSW	S	SSW	S			171(S)
Dec 3	7.9	9.8	10.7	8.8	9.7	10.0	10.0	13.1	12.2	13.0	15.5	16.4	16.7	13.7	8.2	9.5	11.6	12.7	9.7	8.6	10.5	11.4	13.5	16.2	7.9	16.7	11.6
	S	S	SSE	S	S	S	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SE	SE	SE	S	SSW	SSW	S	S	S	S			170(SSE)
Dec 4	16.5	14.3	13.8	10.2	11.1	11.6	13.5	13.0	14.9	11.9	12.6	12.2	11.2	9.3	8.9	13.0	12.9	15.8	15.1	14.2	14.9	17.9	21.5	20.5	8.9	21.5	13.8
	SSW	S	S	S	S	S	S	SSW	SSW	S	SSW	SSW	SW	SW	S	S	SSE	SSE	SSE	ESE	ESE	ESE	SE	SE			171(S)
Dec 5	21.6	20.5	18.0	17.1	18.3	15.9	12.9	13.5	11.9	10.2	8.3	10.3	15.9	14.0	13.0	14.5	20.5	22.8	22.0	21.0	16.2	16.7	15.6	16.5	8.3	22.8	16.1
	SE	SE	SE	SSE	SSE	S	S	S	S	SSW	SSW	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	WSW	SW			190(S)
Dec 6	15.7	16.0	13.9	12.4	12.4	11.8	8.8	6.0	11.6	13.1	11.7	13.9	10.1	9.4	8.2	8.5	7.0	3.4	4.9	3.0	3.6	4.1	4.3	5.1	3.0	16.0	9.1
	SW	S	S	SSW	S	SSW	SW	SSW	S	S	SSW	S	SSW	SW	SSW	S	S	S	S	S	SSW	WSW	SSW	SSW			198(SSW)
Dec 7	8.8	9.6	10.4	10.4	12.1	13.1	10.8	8.8	10.6	9.5	10.0	8.2	11.0	9.7	11.0	7.7	12.3	10.1	9.1	5.6	3.0	7.1	8.6	10.0	3.0	13.1	9.5
	SSW	S	S	SSW	SSW	SSW	SSW	SSW	SW	SSW	SSW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSE	S	S	SSW			205(SSW)
Dec 8	9.5	8.7	8.6	8.3	10.3	9.0	7.6	8.7	9.1	9.5	9.3	10.0	11.0	8.2	6.2	5.1	10.1	7.8	3.1	6.1	7.4	7.0	6.6	7.0	3.1	11.0	8.1
	S	SSW	SSW	SSW	S	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW			202(SSW)
Dec 9	7.3	9.1	10.7	9.0	7.3	7.6	6.7	6.9	14.1	15.5	15.7	18.3	16.7	11.8	9.6	15.6	18.2	14.0	18.9	14.0	13.9	14.5	15.9	15.8	6.7	18.9	12.8
	SSW	S	S	SSW	SSW	S	S	S	SSE	SSE	SSE	SSE	SSE	SE	ESE	ESE	ESE	ESE	SE	SE	SSE	SSE	SSE	SSE			156(SSE)
Dec 10	15.8	16.1	17.7	18.4	14.2	13.1	14.3	13.0	12.5	13.6	10.9	4.1	2.9	10.7	9.6	14.3	12.2	19.0	15.0	10.2	12.1	17.6	14.2	10.8	2.9	19.0	13.0
	SSE	SSE	SSE	SSE	S	S	S	S	SSW	SSW	SW	SW	WNW	NNW	N	N	N	NNW	N	N	NNW	NW	WNW	W			240(WSW)
Dec 11	10.5	5.1	6.4	4.8	4.0	4.8	6.0	7.7	8.5	8.5	11.9	13.7	16.1	18.1	15.1	13.5	15.2	14.1	7.7	5.7	9.8	8.0	9.7	7.8	4.0	18.1	9.7
	WNW	W	WSW	WNW	NW	NNE	S	S	S	S	S	SSE	SSE	SSE	SSE	SSE	SSE	S	SSW	SSW	S	S	SSW	S			183(S)
Dec 12	7.1	9.5	9.9	12.5	13.8	12.8	14.1	16.8	20.7	17.4	17.0	17.6	19.4	17.9	14.0	13.5	13.5	17.4	11.2	19.6	20.6	16.4	15.8	15.4	7.1	20.7	15.2
	S	S	S	S	S	S	S	S	S	SSW	SSW	S	S	S	S	S	S	SSE	S	SSW	SSW	SSW	S	S			189(S)
Dec 13	16.9	16.2	17.8	15.9	17.7	17.9	15.0	15.0	11.9	16.5	14.3	13.1	10.3	9.1	4.2	5.0	8.9	5.0	13.8	29.2	25.3	24.5	18.0	17.5	4.2	29.2	15.0
	SSW	S	S	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	SSE	S	S	S	SSW	SSW	WSW	WNW	WNW	W	W	W	W			204(SSW)
Dec 14	15.5	16.9	10.3	10.3	9.2	7.8	12.6	10.2	11.0	14.1	12.4	12.7	12.4	11.0	11.8	11.8	8.0	9.5	14.9	14.0	13.5	14.4	15.4	16.2	7.8	16.9	12.3
	W	W	W	SW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	SE	SE	SSE	S	S	SSE	SSE	SSE			193(S)
Dec 15	17.0	18.8	19.6	22.2	20.5	21.5	19.8	20.0	20.7	18.1	19.4	18.0	16.4	12.4	10.3	12.2	10.7	11.8	11.4	14.6	10.1	12.8	12.9	16.1	10.1	22.2	16.1
	S	SSE	SSE	SSE	SSE	SSE	S	S	SSE	SSE	SSE	S	S	S	S	S	S	S	SSW	SSW	SSW	SSW	SSW	SSW			178(S)
Dec 16	12.3	6.0	9.9	8.3	6.4	3.6	5.3	4.4	3.3	2.3	3.1	3.8	1.2	2.9	4.9	5.4	5.9	11.9	22.7	19.6	13.3	10.8	5.4	5.8	1.2	22.7	7.4
	SW	WSW	WNW	WSW	WSW	WNW	W	SW	W	NNW	SSW	SSW	SSE	SSW	SSW	SSW	SW	W	WNW	WNW	W	WSW	WSW	WSW			260(WSW)
Dec 17	6.5	7.1	3.5	9.2	9.0	11.1	7.0	11.3	9.3	8.5	12.6	12.9	15.2	14.9	17.7	16.3	18.0	16.4	18.5	20.6	20.1	20.2	12.3	14.3	3.5	20.6	13.0
	W	W	WSW	SW	SSW	SSW	SSW	S	SSW	S	S	S	S	S	S	S	SSE	S	S	S	SSW	SSW	SW	SW			194(SSW)
Dec 18	18.1	16.3	20.3	16.9	14.0	5.9	12.1	7.8	7.8	10.1	9.9	4.6	3.4	2.9	2.9	3.9	0.8	2.1	**0.4**	1.2	3.2	5.3	3.8	4.2	**0.4**	20.3	7.4
	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	W	WSW	W	WSW	SSW	S	S	SSW	W	SSW	WSW	N	NNE	NNE	NE	ENE			245(WSW)
Dec 19	3.9	5.2	6.3	6.4	7.2	7.1	10.4	15.5	12.8	15.9	15.7	16.2	21.7	23.3	23.0	22.1	21.9	20.4	17.8	18.5	18.0	17.5	14.0	14.3	3.9	23.3	14.8
	ENE	NE	NE	NE	NE	ENE	E	E	E	E	E	E	E	ESE	ESE	ESE	ESE	ESE	E	ESE	ESE	ESE	ESE	SE			97(E)
Dec 20	12.1	13.3	15.6	15.5	15.8	14.0	13.0	13.4	15.6	16.0	19.2	18.8	15.7	13.5	11.8	13.0	14.0	22.3	20.4	16.6	9.6	16.4	19.4	21.0	9.6	22.3	15.7
	SE	SE	SSE	SSE	SSE	SSE	S	S	S	SSE	SSE	SSE	SSE	S	S	S	S	SSW	SW	SW	WSW	W	W	WNW			190(S)
Dec 21	7.3	8.8	8.2	11.2	9.8	14.2	11.3	16.6	17.4	16.5	15.3	15.8	19.0	17.6	10.5	12.1	12.5	12.4	16.0	14.4	16.4	15.3	17.6	18.2	7.3	19.0	13.9
	SW	S	S	SSE	SSE	SSE	SE	SSE	SSE	ESE	SE	SSE	SSE	S	S	SSE	SSE	SSE	SSE	S	SSE	SSE	SSE	SSE			162(SSE)
Dec 22	19.1	19.6	18.3	19.3	19.4	18.6	19.5	16.9	19.2	21.4	18.2	15.6	16.3	9.4	8.5	15.0	21.6	26.7	27.7	31.0	30.0	**31.4**	28.7	28.4	8.5	**31.4**	**20.8**
	SSE	SSE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SSE	S	SSW	SW	SW	WSW	WSW	WSW	WSW	WSW	W	W			198(SSW)
Dec 23	25.1	22.0	19.6	17.0	19.3	15.8	12.4	11.7	11.1	8.3	9.8	9.1	9.6	11.4	13.2	9.3	7.3	6.2	8.2	11.1	12.7	11.4	12.1	10.7	6.2	25.1	12.7
	W	W	W	W	W	WSW	WSW	SW	SW	SW	SSW	SSW	SW	SW	W	SW	SW	SSW	S	S	S	S	S	S			233(SW)
Dec 24	11.0	14.4	16.2	16.2	18.5	17.6	15.6	16.3	16.7	16.7	15.7	12.0	14.4	14.9	10.7	7.6	9.7	8.0	8.5	11.7	6.4	12.4	9.1	12.1	6.4	18.5	13.0
	S	S	SSE	S	S	S	S	SSE	SSE	S	S	S	SSE	SSE	SSE	SSE	SSE	SE	SE	ESE	SE	S	SSW	SSW			169(SSE)
Dec 25	12.5	9.6	10.2	11.4	14.2	15.7	17.0	16.3	13.5	16.2	16.9	12.8	14.2	17.3	20.3	22.0	20.6	23.1	22.8	20.0	20.0	19.1	19.6	20.8	9.6	23.1	16.9
	S	S	S	S	S	S	S	S	S	SSE	SSE	SSE	SSE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SSE			153(SSE)
Dec 26	20.5	21.4	22.9	23.3	23.0	18.7	18.4	20.8	19.9	20.4	15.8	13.3	19.6	24.0	12.3	13.0	23.8	28.6	27.5	25.7	28.0	23.4	16.9	5.6	5.6	28.6	20.3
	SSE	SSE	SSE	SSE	SSE	SSE	S	S	SSE	SSE	S	SSW	WSW	WSW	SW	WSW	W	W	SW	SW	SW	SW	WSW	WSW			204(SSW)
Dec 27	14.5	11.2	18.3	15.2	12.3	2.3	5.3	10.2	9.6	9.6	10.9	12.1	12.1	10.1	10.8	9.9	5.3	6.9	7.1	6.1	8.0	5.4	3.1	5.7	2.3	18.3	9.3
	SSW	S	SSE	S	S	SSW	ESE	ESE	ESE	E	E	ENE	ENE	E	E	ENE	NE	NE	NE	NNE	NE	NE	NNE	NE			103(ESE)
Dec 28	3.1	5.1	5.7	2.9	5.4	2.5	2.6	3.4	3.0	4.1	6.0	6.5	2.2	2.6	1.9	3.4	1.2	4.9	6.1	8.0	8.3	4.8	9.2	12.8	1.2	12.8	**4.8**
	E	ENE	NE	NE	NE	E	ESE	SSW	S	SSE	S	SSW	SW	S	SSW	SSW	SSE	ESE	SE	SSE	SE	SE	SSE	SSE			147(SE)
Dec 29	10.5	5.4	5.9	9.4	9.5	5.2	8.0	11.7	8.6	3.9	6.4	8.8	6.3	8.6	7.9	9.3	11.4	16.4	18.3	17.7	13.8	7.0	17.0	15.6	3.9	18.3	10.1
	S	SSW	SSW	S	SSE	SSW	S	S	SE	SSE	SSE	SSE	SE	ESE	ESE	E	ESE	ESE	ESE	ESE	E	ESE	ESE	E			131(SE)
Dec 30	16.5	16.2	21.7	21.7	16.2	16.3	10.9	5.0	6.8	10.8	13.8	13.7	13.1	11.3	10.6	5.8	0.9	2.5	5.7	12.0	13.5	8.1	12.9	11.4	0.9	21.7	11.6
	E	E	ESE	ESE	ESE	ESE	ESE	SSW	S	SSE	SSE	SSE	S	S	SSE	SSW	SSE	SSW	SSE	SSE	S	SSW	S	S			145(SE)
Dec 31	9.0	10.9	10.5	11.1	12.2	14.3	12.0	11.9	12.7	9.4	18.0	14.9	10.5	18.9	19.5	15.2	12.4	6.9	11.8	8.5	5.9	5.8	4.6	5.4	4.6	19.5	11.3
	S	S	S	SSE	SSE	SSE	S	S	S	S	SW	SW	SW	WSW	WSW	WSW	WSW	W	W	W	SW	SW	WSW	W			218(SW)

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

PRC STATION

Peace River Area Monitoring Program

Peace River Complex (PRC) Station - December 2023

Summary of Hourly Averages

SULPHUR DIOXIDE (SO_2) in ppb

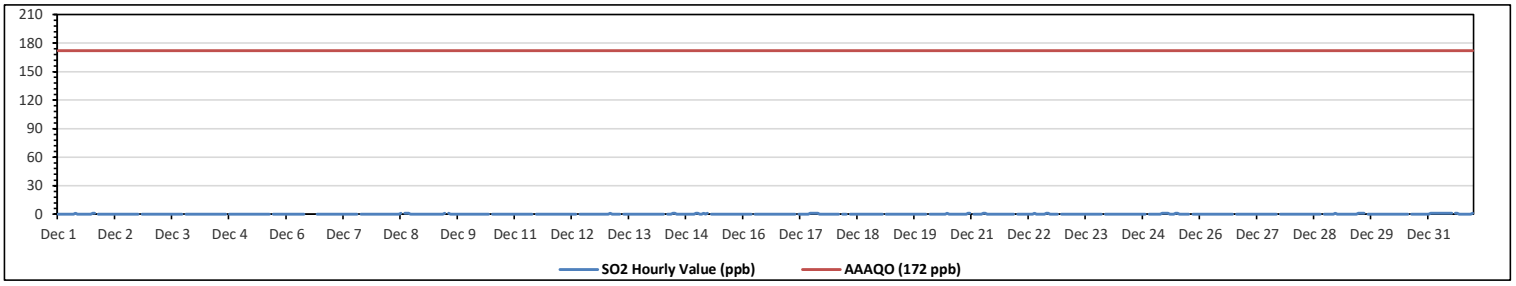
Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb

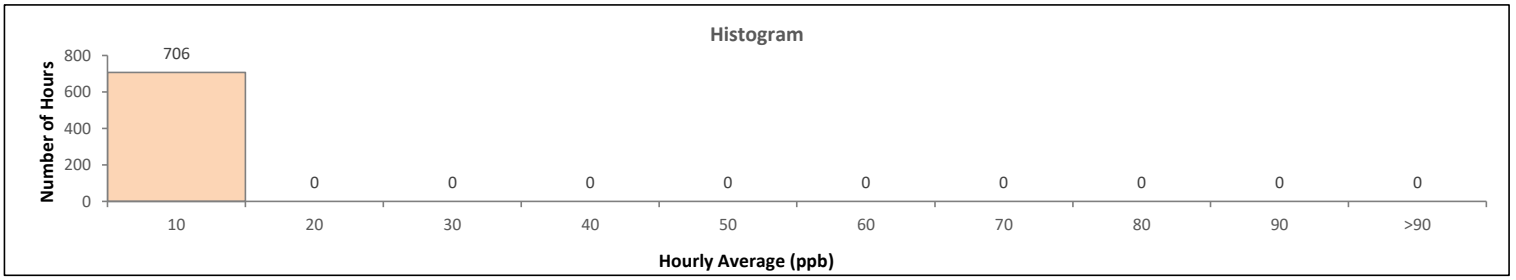
Number of 1-Hour Exceedances:	0	Number of 24-Hour Exceedances:	0	30-Day Exceedence:	0	
Maximum Hourly Value:	1	ppb	on Dec 1 at hr 9	Hours in Service:	744	
Maximum Daily Value:	0.7	ppb	on Dec 31	Hours of Data:	706	
Minimum Hourly Value:	0	ppb	on Dec 1 at hr 0	Hours of Missing Data:	1	
Minimum Daily Value:	0.0	ppb	on Dec 2	Hours of Calibration:	37	
Monthly Average:	0.1	ppb		Operational Uptime:	99.9	

Day	Hourly Period Starting at (MST)																						Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	1	S	0	0	0	0	1	0.1
Dec 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
Dec 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Dec 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Dec 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
Dec 6	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.0
Dec 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 8	0	0	0	0	0	0	0	0	0	0	0	0	1	S	1	1	1	0	0	0	0	0	0	0	0	1	0.2
Dec 9	0	0	0	0	0	0	0	0	0	0	0	1	S	1	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Dec 10	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 11	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 12	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 13	0	0	1	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Dec 14	0	0	0	0	0	0	0	S	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0.1
Dec 15	1	0	0	1	0	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Dec 16	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 17	0	0	0	0	S	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0.2
Dec 18	0	0	0	S	0	0	0	NRM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 19	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 20	0	S	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0.1
Dec 21	S	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	1	0.1
Dec 22	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	S	0	0	1	0.1
Dec 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0.0
Dec 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0
Dec 25	0	0	0	0	1	1	1	1	0	0	0	1	1	0	0	0	0	0	0	S	0	0	0	0	0	1	0.3
Dec 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Dec 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Dec 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	0	1	0.0
Dec 29	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	S	0	0	0	0	0	0	0	0	0	1	0.2
Dec 30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 31	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	0	0	0	0	0	0	0	1	0	1	0.7
Diurnal Maximum	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	0	1	1			
Diurnal Average	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	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			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



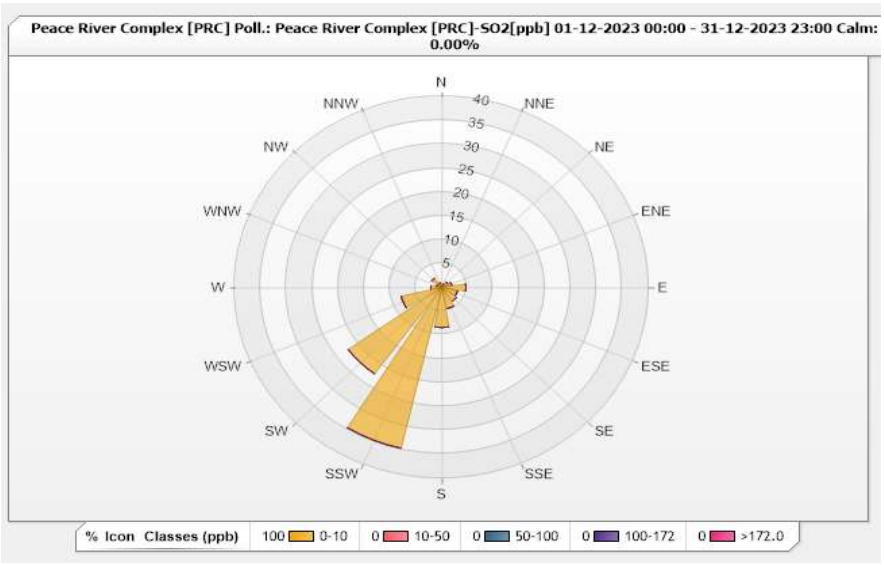


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-SO2[ppb] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 94.89% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	0.28	0	0	0	0	0.28
NNE	0.71	0	0	0	0	0.71
NE	1.42	0	0	0	0	1.42
ENE	1.98	0	0	0	0	1.98
E	4.67	0	0	0	0	4.67
ESE	3.12	0	0	0	0	3.12
SE	3.54	0	0	0	0	3.54
SSE	4.53	0	0	0	0	4.53
S	8.36	0	0	0	0	8.36
SSW	34.56	0	0	0	0	34.56
SW	22.24	0	0	0	0	22.24
WSW	8.07	0	0	0	0	8.07
W	2.12	0	0	0	0	2.12
WNW	0.99	0	0	0	0	0.99
NW	2.41	0	0	0	0	2.41
NNW	0.99	0	0	0	0	0.99
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - December 2023

Summary of Hourly Averages

HYDROGEN SULPHIDE (H_2S) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 10 ppb, 24-Hour 3 ppb

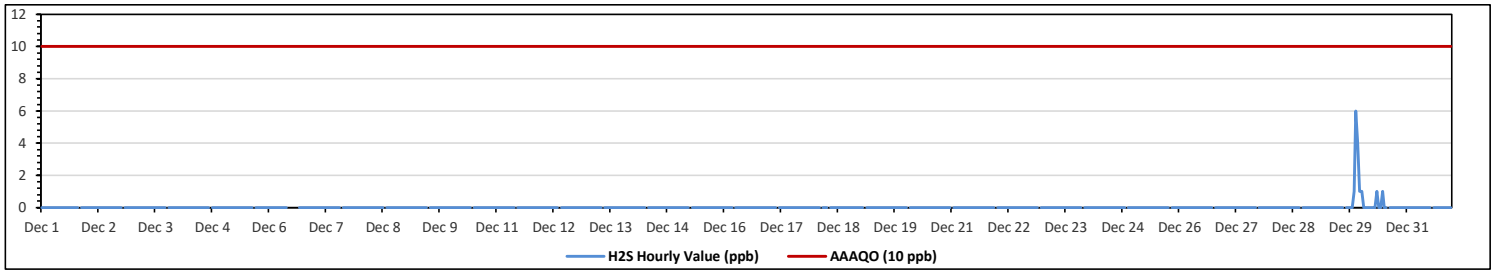
Number of 1-Hour Exceedances:	0		Number of 24-Hour Exceedances:	0	
Maximum Hourly Value:	6	ppb	on Dec 29 at hr 21	Hours in Service:	744
Maximum Daily Value:	1.0	ppb	on Dec 29	Hours of Data:	706
Minimum Hourly Value:	0	ppb	on Dec 1 at hr 0	Hours of Missing Data:	1
Minimum Daily Value:	0.0	ppb	on Dec 1	Hours of Calibration:	37
Monthly Average:	0.0	ppb		Operational Uptime:	99.9

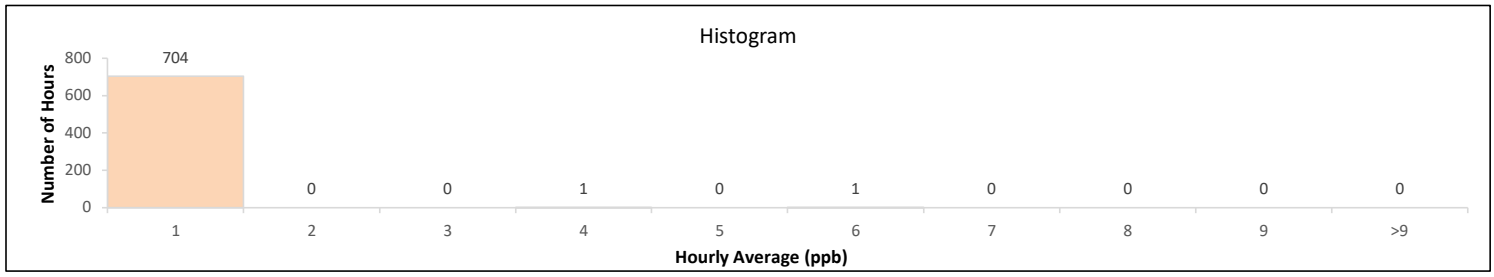
Day	Hourly Period Starting at (MST)																						Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0
Dec 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
Dec 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Dec 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Dec 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
Dec 6	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0.0
Dec 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 8	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 9	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 10	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 11	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 12	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 13	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 14	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 15	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 16	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 17	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 18	0	0	0	S	0	0	0	NRM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 19	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 20	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 21	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0.0
Dec 22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0.0
Dec 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0.0
Dec 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0
Dec 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
Dec 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Dec 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Dec 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
Dec 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	1	6	4	1	0	6	1.0
Dec 30	1	0	0	0	0	0	0	0	1	0	0	1	0	0	S	0	0	0	0	0	0	0	0	0	0	1	0.0
Dec 31	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Diurnal Maximum	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	6	4	1			
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	0.2	0.1	0.0			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



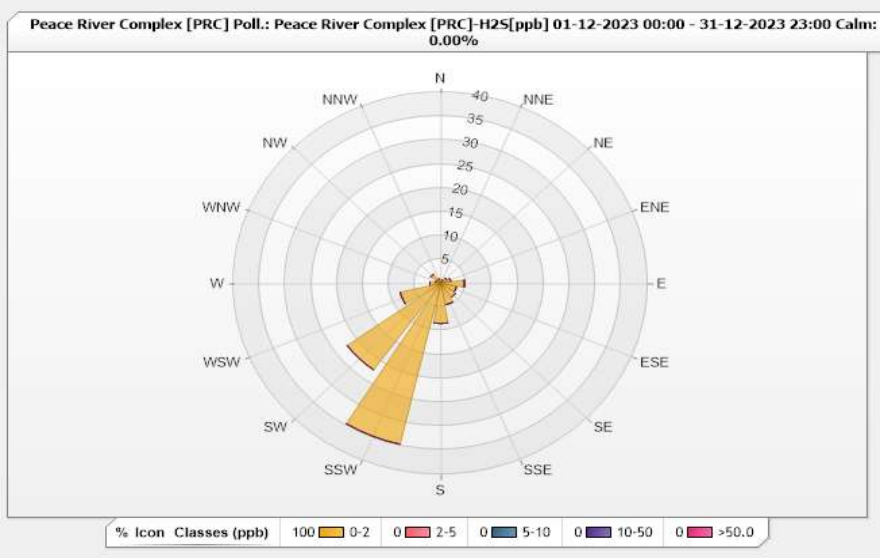


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-H2S[ppb] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 94.89% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	0.28	0	0	0	0	0.28
NNE	0.71	0	0	0	0	0.71
NE	1.42	0	0	0	0	1.42
ENE	1.98	0	0	0	0	1.98
E	4.39	0.14	0.14	0	0	4.67
ESE	3.12	0	0	0	0	3.12
SE	3.54	0	0	0	0	3.54
SSE	4.53	0	0	0	0	4.53
S	8.36	0	0	0	0	8.36
SSW	34.56	0	0	0	0	34.56
SW	22.24	0	0	0	0	22.24
WSW	8.07	0	0	0	0	8.07
W	2.12	0	0	0	0	2.12
WNW	0.99	0	0	0	0	0.99
NW	2.41	0	0	0	0	2.41
NNW	0.99	0	0	0	0	0.99
Summary	100	0.14	0.14	0	0	100



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - December 2023

Summary of Hourly Averages

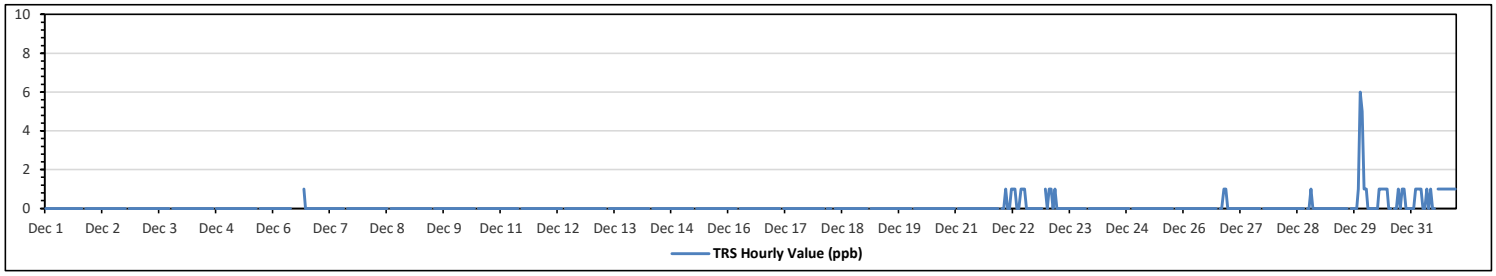
TOTAL REDUCED SULPHUR (TRS) in ppb

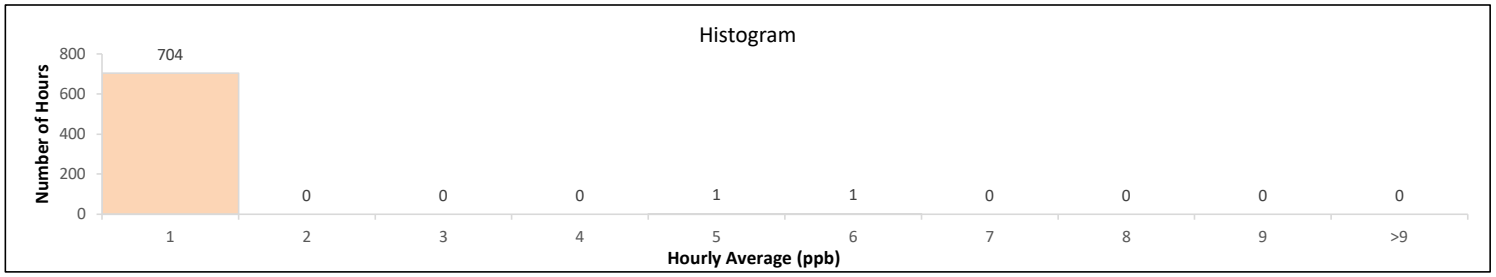
Maximum Hourly Value:	6	ppb	on Dec 29 at hr 21	Hours in Service:	744	
Maximum Daily Value:	0.7	ppb	on Dec 31	Hours of Data:	706	
Minimum Hourly Value:	0	ppb	on Dec 1 at hr 0	Hours of Missing Data:	1	
Minimum Daily Value:	0.0	ppb	on Dec 1	Hours of Calibration:	37	
Monthly Average:	0.1	ppb		Operational Uptime:	99.9	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0
Dec 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
Dec 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Dec 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Dec 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
Dec 6	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	C	1	0	0	0	0	0	0	0	0	1	0.1
Dec 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 8	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 9	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 10	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 11	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 12	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 13	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 14	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 15	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 16	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 17	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 18	0	0	0	S	0	0	0	NRM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 19	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 20	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 21	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0.0
Dec 22	0	0	1	0	0	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	S	1	0	1	0.3
Dec 23	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	1	0.1
Dec 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0
Dec 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
Dec 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	1	0	0	1	0.1
Dec 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Dec 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	0	0	1	0.0
Dec 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	1	**6**	5	1	0	**6**	0.6
Dec 30	1	0	0	0	0	0	0	1	1	1	1	1	0	0	S	0	0	1	0	1	1	0	0	0	0	1	0.4
Dec 31	0	0	1	1	1	1	0	0	1	0	1	0	0	S	1	1	1	1	1	1	1	1	1	1	0	1	**0.7**
Diurnal Maximum	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	6	5	1			
Diurnal Average	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.3	0.2	0.1			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



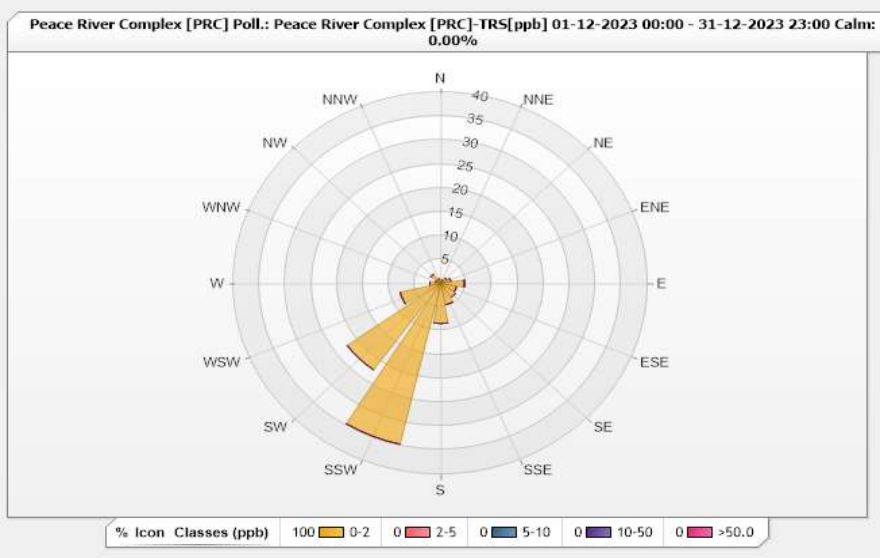


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-TRS[ppb] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 94.89% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	0.28	0	0	0	0	0.28
NNE	0.71	0	0	0	0	0.71
NE	1.42	0	0	0	0	1.42
ENE	1.98	0	0	0	0	1.98
E	4.39	0.14	0.14	0	0	4.67
ESE	3.12	0	0	0	0	3.12
SE	3.54	0	0	0	0	3.54
SSE	4.53	0	0	0	0	4.53
S	8.36	0	0	0	0	8.36
SSW	34.56	0	0	0	0	34.56
SW	22.24	0	0	0	0	22.24
WSW	8.07	0	0	0	0	8.07
W	2.12	0	0	0	0	2.12
WNW	0.99	0	0	0	0	0.99
NW	2.41	0	0	0	0	2.41
NNW	0.99	0	0	0	0	0.99
Summary	100	0.14	0.14	0	0	100



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - December 2023

Summary of Hourly Averages

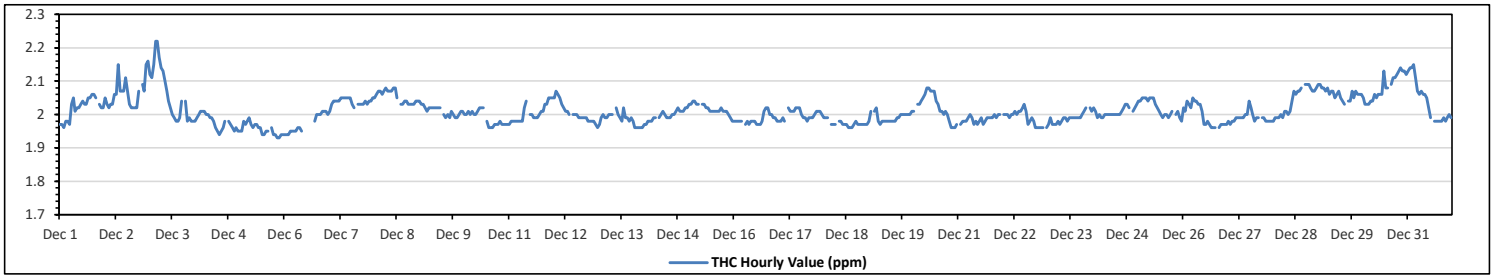
TOTAL HYDROCARBONS (THC) in ppm

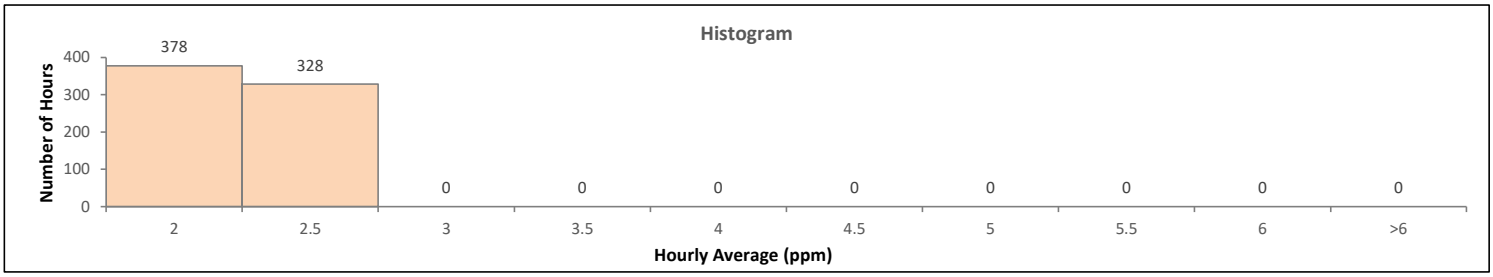
Maximum Hourly Value:	2.22	ppm	on Dec 3 at hr 3	Hours in Service:	744
Maximum Daily Value:	2.08	ppm	on Dec 30	Hours of Data:	706
Minimum Hourly Value:	1.93	ppm	on Dec 5 at hr 20	Hours of Missing Data:	1
Minimum Daily Value:	1.96	ppm	on Dec 5	Hours of Calibration:	37
Monthly Average:	2.01	ppm		Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	1.97	1.97	1.96	1.98	1.98	1.97	2.03	2.05	2.01	2.02	2.02	2.03	2.04	2.03	2.03	2.05	2.05	2.06	2.06	2.05	S	2.03	2.02	2.02	1.96	2.06	2.02
Dec 2	2.05	2.03	2.02	2.03	2.03	2.06	2.06	2.15	2.07	2.07	2.07	2.11	2.07	2.03	2.02	2.02	2.02	2.02	2.07	S	2.09	2.07	2.15	2.16	2.02	2.16	2.06
Dec 3	2.12	2.11	2.15	2.22	2.22	2.17	2.14	2.13	2.10	2.07	2.04	2.02	2.00	1.99	1.98	1.98	1.99	2.04	S	2.04	1.98	1.99	1.98	1.98	1.98	2.22	2.06
Dec 4	1.98	1.99	2.00	2.01	2.01	2.01	2.00	2.00	1.99	1.99	1.98	1.96	1.95	1.94	1.95	1.96	1.98	S	1.98	1.97	1.96	1.95	1.96	1.95	1.94	2.01	1.98
Dec 5	1.95	1.95	1.98	1.97	1.98	1.99	1.97	1.96	1.97	1.97	1.96	1.96	1.94	1.94	1.95	1.95	S	1.96	1.94	1.94	1.93	1.93	1.94	1.94	1.93	1.99	1.96
Dec 6	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.96	1.96	1.95	C	C	C	C	C	C	1.98	2.00	2.00	2.00	2.01	2.01	2.01	2.00	1.94	2.01	1.97
Dec 7	2.01	2.03	2.04	2.04	2.04	2.04	2.05	2.05	2.05	2.05	2.05	2.05	2.03	2.02	S	2.03	2.03	2.03	2.03	2.04	2.03	2.04	2.04	2.05	2.01	2.05	2.04
Dec 8	2.05	2.06	2.07	2.07	2.06	2.07	2.08	2.07	2.07	2.07	2.08	2.08	2.05	S	2.03	2.03	2.04	2.04	2.03	2.03	2.03	2.03	2.04	2.04	2.03	2.08	2.05
Dec 9	2.04	2.03	2.03	2.02	2.01	2.02	2.02	2.02	2.02	2.02	2.02	2.02	S	2.00	1.99	2.00	1.99	2.01	2.00	1.99	1.99	2.00	2.01	2.01	1.99	2.04	2.01
Dec 10	2.00	2.00	2.01	2.00	2.01	2.00	2.00	2.01	2.02	2.02	2.02	S	1.98	1.96	1.96	1.96	1.97	1.97	1.97	1.98	1.97	1.97	1.97	1.97	1.96	2.02	1.99
Dec 11	1.97	1.98	1.98	1.98	1.98	1.98	1.98	1.98	2.02	2.04	S	2.00	2.00	1.99	1.99	1.99	2.00	2.01	2.01	2.03	2.03	2.05	2.05	2.05	1.97	2.05	2.00
Dec 12	2.05	2.07	2.06	2.05	2.03	2.02	2.01	2.01	2.00	S	2.00	2.00	2.00	1.99	1.99	1.99	1.99	1.99	1.98	1.98	1.98	1.98	1.97	1.96	1.96	2.07	2.00
Dec 13	1.97	1.99	2.00	1.99	1.99	2.00	2.00	2.00	S	2.02	2.00	1.99	1.98	2.02	1.99	1.99	1.98	1.99	1.98	1.96	1.96	1.96	1.96	1.96	1.96	2.02	1.99
Dec 14	1.97	1.97	1.98	1.98	1.98	1.99	1.99	S	1.99	2.00	2.01	2.00	1.99	1.99	1.99	2.00	2.00	2.01	2.02	2.01	2.01	2.01	2.02	2.02	1.97	2.02	2.00
Dec 15	2.03	2.03	2.04	2.04	2.03	2.03	S	2.03	2.03	2.02	2.02	2.01	2.01	2.01	2.01	2.01	2.01	2.02	2.01	2.01	2.01	2.00	1.99	1.98	1.98	2.04	2.02
Dec 16	1.98	1.98	1.98	1.98	1.98	S	1.97	1.98	1.97	1.98	1.98	1.98	1.97	1.97	1.97	1.98	2.01	2.02	2.02	2.00	2.00	1.99	1.99	1.98	1.97	2.02	1.99
Dec 17	1.98	1.98	1.99	1.98	S	2.02	2.01	2.01	2.01	2.02	2.02	2.02	2.00	1.99	1.99	1.98	1.99	1.99	1.99	2.00	2.01	2.01	2.01	2.00	1.98	2.02	2.00
Dec 18	1.99	1.99	1.99	S	1.97	1.97	1.97	NRM	1.98	1.98	1.97	1.97	1.97	1.96	1.96	1.96	1.97	1.98	1.97	1.97	1.97	1.97	1.97	1.97	1.96	1.99	1.97
Dec 19	1.98	2.01	S	2.01	2.02	1.98	1.97	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.99	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.01	1.97	2.02	1.99
Dec 20	2.01	S	2.03	2.03	2.04	2.05	2.06	2.08	2.08	2.07	2.07	2.07	2.04	2.03	2.01	2.01	2.00	2.01	2.00	1.98	1.96	1.96	1.96	1.97	1.96	2.08	2.02
Dec 21	S	1.97	1.98	1.98	1.98	1.99	2.00	1.99	1.97	1.98	1.97	1.98	1.99	1.97	1.98	1.99	1.99	1.99	1.99	2.00	1.99	2.00	2.00	S	1.97	2.00	1.99
Dec 22	2.00	2.00	2.00	1.99	2.00	2.00	2.01	2.00	2.01	2.01	2.02	2.03	2.01	1.97	1.98	1.99	1.98	1.96	1.96	1.96	1.96	1.96	S	1.96	1.96	2.03	1.99
Dec 23	1.97	1.99	1.97	1.97	1.97	1.98	1.97	1.98	1.99	1.99	1.98	1.99	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.01	2.02	S	2.02	2.01	1.97	2.02	1.99
Dec 24	2.02	2.01	1.99	2.00	1.99	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.01	2.02	2.03	2.03	2.02	S	2.01	2.02	2.03	1.99	2.03	2.01
Dec 25	2.04	2.04	2.05	2.05	2.05	2.04	2.05	2.05	2.05	2.03	2.02	2.01	2.00	1.99	2.00	2.00	1.99	2.00	2.01	S	2.00	2.01	1.99	1.98	1.98	2.05	2.02
Dec 26	2.02	2.01	2.04	2.03	2.02	2.05	2.04	2.04	2.03	2.03	2.01	1.97	1.97	1.98	1.97	1.96	1.96	1.96	S	1.96	1.97	1.97	1.97	1.97	1.96	2.05	2.00
Dec 27	1.98	1.97	1.98	1.98	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.04	2.02	2.00	1.98	1.99	1.99	S	1.99	1.99	1.98	1.98	1.98	1.98	1.97	2.04	1.99
Dec 28	1.98	1.99	1.99	1.99	2.00	1.99	2.01	2.01	2.00	2.01	2.04	2.07	2.06	2.07	2.07	2.08	S	2.09	2.09	2.09	2.08	2.07	2.07	2.08	1.98	2.09	2.04
Dec 29	2.09	2.09	2.08	2.08	2.07	2.08	2.06	2.07	2.07	2.05	2.06	2.07	2.05	2.04	2.03	S	2.04	2.04	2.07	2.05	2.07	2.06	2.06	2.06	2.03	2.09	2.06
Dec 30	2.05	2.03	2.03	2.03	2.04	2.04	2.06	2.05	2.06	2.06	2.06	2.13	2.08	2.08	S	2.09	2.11	2.11	2.12	2.13	2.14	2.13	2.13	2.12	2.03	2.14	2.08
Dec 31	2.13	2.14	2.14	2.15	2.11	2.07	2.06	2.07	2.06	2.06	2.05	2.02	1.99	S	1.98	1.98	1.98	1.98	1.98	1.99	1.98	1.99	2.00	1.99	1.98	2.15	2.04
Diurnal Maximum	2.13	2.14	2.15	2.22	2.22	2.17	2.14	2.15	2.10	2.07	2.08	2.13	2.08	2.08	2.07	2.09	2.11	2.11	2.12	2.13	2.14	2.13	2.15	2.16			
Diurnal Average	2.01	2.01	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.01	2.00	1.99	2.00	2.00	2.01	2.01	2.01	2.00	2.00	2.01	2.01			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



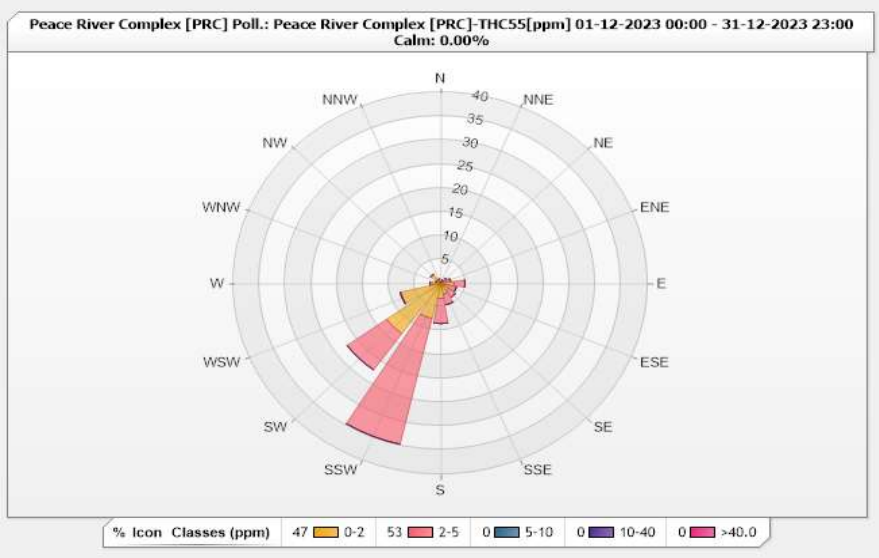


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-THC55[ppm] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 94.89% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	0.14	0.14	0	0	0	0.28
NNE	0.57	0.14	0	0	0	0.71
NE	0.57	0.85	0	0	0	1.42
ENE	0.99	0.99	0	0	0	1.98
E	2.55	2.12	0	0	0	4.67
ESE	0.57	2.55	0	0	0	3.12
SE	1.84	1.7	0	0	0	3.54
SSE	2.27	2.27	0	0	0	4.54
S	3.12	5.24	0	0	0	8.36
SSW	7.51	27.05	0	0	0	34.56
SW	12.89	9.35	0	0	0	22.24
WSW	7.93	0.14	0	0	0	8.07
W	1.7	0.42	0	0	0	2.12
WNW	0.85	0.14	0	0	0	0.99
NW	2.41	0	0	0	0	2.41
NNW	0.85	0.14	0	0	0	0.99
Summary	46.76	53.24	0	0	0	100



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - December 2023

Summary of Hourly Averages

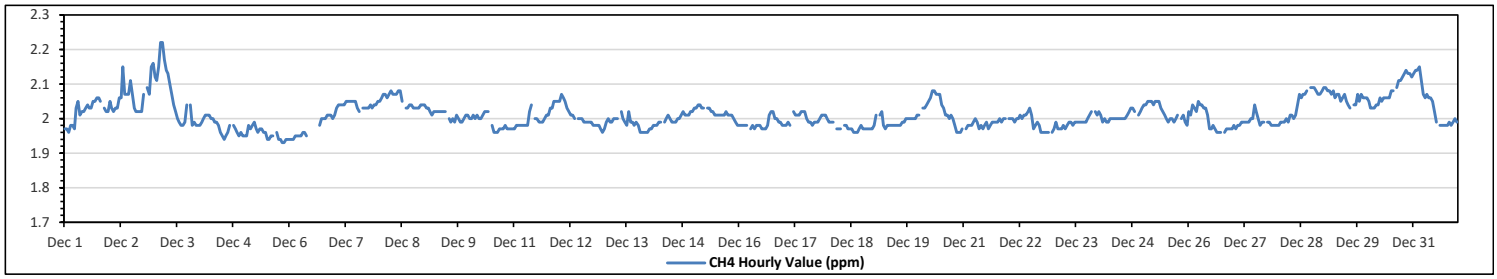
METHANE (CH4) in ppm

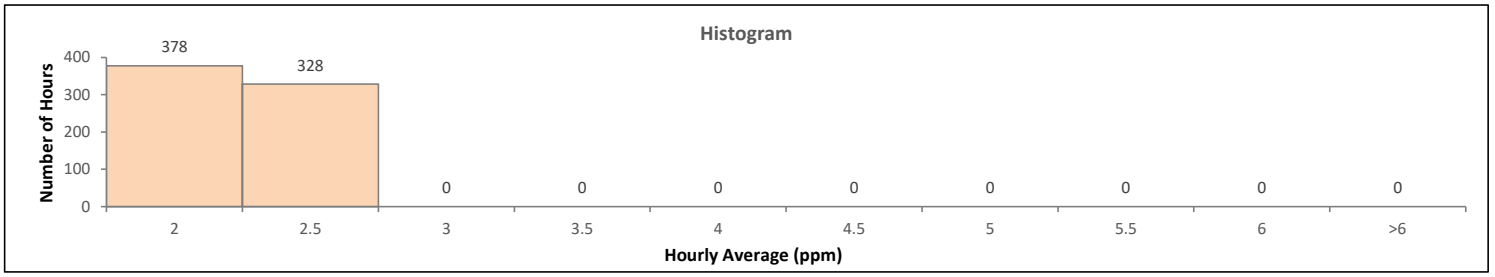
Maximum Hourly Value:	2.22	ppm	on Dec 3 at hr 3	Hours in Service:	744	
Maximum Daily Value:	2.08	ppm	on Dec 30	Hours of Data:	706	
Minimum Hourly Value:	1.93	ppm	on Dec 5 at hr 20	Hours of Missing Data:	1	
Minimum Daily Value:	1.96	ppm	on Dec 5	Hours of Calibration:	37	
Monthly Average:	2.01	ppm		Operational Uptime:	99.9	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	1.97	1.97	1.96	1.98	1.98	1.97	2.03	2.05	2.01	2.02	2.02	2.03	2.04	2.03	2.03	2.05	2.05	2.06	2.06	2.05	S	2.03	2.02	2.02	1.96	2.06	2.02
Dec 2	2.05	2.03	2.02	2.03	2.03	2.06	2.06	2.15	2.07	2.07	2.07	2.11	2.07	2.03	2.02	2.02	2.02	2.02	2.07	S	2.09	2.07	2.15	2.16	2.02	2.16	2.06
Dec 3	2.12	2.11	2.15	2.22	2.22	2.17	2.14	2.13	2.10	2.07	2.04	2.02	2.00	1.99	1.98	1.98	1.99	2.04	S	2.04	1.98	1.99	1.98	1.98	1.98	2.22	2.06
Dec 4	1.98	1.99	2.00	2.01	2.01	2.01	2.00	2.00	1.99	1.99	1.98	1.96	1.95	1.94	1.95	1.96	1.98	S	1.98	1.97	1.96	1.95	1.96	1.95	1.94	2.01	1.98
Dec 5	1.95	1.95	1.98	1.97	1.98	1.99	1.97	1.96	1.97	1.97	1.96	1.96	1.94	1.94	1.95	1.95	S	1.96	1.94	1.94	1.93	1.93	1.94	1.94	1.93	1.99	1.96
Dec 6	1.94	1.94	1.94	1.95	1.95	1.95	1.95	1.96	1.96	1.95	C	C	C	C	C	C	1.98	2.00	2.00	2.00	2.01	2.01	2.01	2.00	1.94	2.01	1.97
Dec 7	2.01	2.03	2.04	2.04	2.04	2.04	2.05	2.05	2.05	2.05	2.05	2.05	2.03	2.02	S	2.03	2.03	2.03	2.03	2.04	2.03	2.04	2.04	2.05	2.01	2.05	2.04
Dec 8	2.05	2.06	2.07	2.07	2.06	2.07	2.08	2.07	2.07	2.07	2.08	2.08	2.05	S	2.03	2.03	2.04	2.04	2.03	2.03	2.03	2.03	2.04	2.04	2.03	2.08	2.05
Dec 9	2.04	2.03	2.03	2.02	2.01	2.02	2.02	2.02	2.02	2.02	2.02	2.02	S	2.00	1.99	2.00	1.99	2.01	2.00	1.99	1.99	2.00	2.01	2.01	1.99	2.04	2.01
Dec 10	2.00	2.00	2.01	2.00	2.01	2.00	2.00	2.01	2.02	2.02	2.02	S	1.98	1.96	1.96	1.96	1.97	1.97	1.97	1.98	1.97	1.97	1.97	1.97	1.96	2.02	1.99
Dec 11	1.97	1.98	1.98	1.98	1.98	1.98	1.98	1.98	2.02	2.04	S	2.00	2.00	1.99	1.99	1.99	2.00	2.01	2.01	2.03	2.03	2.05	2.05	2.05	1.97	2.05	2.00
Dec 12	2.05	2.07	2.06	2.05	2.03	2.02	2.01	2.01	2.00	S	2.00	2.00	2.00	1.99	1.99	1.99	1.99	1.99	1.98	1.98	1.98	1.98	1.97	1.96	1.96	2.07	2.00
Dec 13	1.97	1.99	2.00	1.99	1.99	2.00	2.00	2.00	S	2.02	2.00	1.99	1.98	2.02	1.99	1.99	1.98	1.99	1.98	1.96	1.96	1.96	1.96	1.96	1.96	2.02	1.99
Dec 14	1.97	1.97	1.98	1.98	1.98	1.99	1.99	S	1.99	2.00	2.01	2.00	1.99	1.99	1.99	2.00	2.00	2.01	2.02	2.01	2.01	2.01	2.02	2.02	1.97	2.02	2.00
Dec 15	2.03	2.03	2.04	2.04	2.03	2.03	S	2.03	2.03	2.02	2.02	2.01	2.01	2.01	2.01	2.01	2.01	2.02	2.01	2.01	2.01	2.00	1.99	1.98	1.98	2.04	2.02
Dec 16	1.98	1.98	1.98	1.98	1.98	S	1.97	1.98	1.97	1.98	1.98	1.98	1.97	1.97	1.97	1.98	2.01	2.02	2.02	2.00	2.00	1.99	1.99	1.98	1.97	2.02	1.99
Dec 17	1.98	1.98	1.99	1.98	S	2.02	2.01	2.01	2.01	2.02	2.02	2.02	2.00	1.99	1.99	1.98	1.99	1.99	1.99	2.00	2.01	2.01	2.01	2.00	1.98	2.02	2.00
Dec 18	1.99	1.99	1.99	S	1.97	1.97	1.97	NRM	1.98	1.98	1.97	1.97	1.97	1.96	1.96	1.96	1.97	1.98	1.97	1.97	1.97	1.97	1.97	1.97	1.96	1.99	1.97
Dec 19	1.98	2.01	S	2.01	2.02	1.98	1.97	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.98	1.99	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.01	1.97	2.02	1.99
Dec 20	2.01	S	2.03	2.03	2.04	2.05	2.06	2.08	2.08	2.07	2.07	2.07	2.04	2.03	2.01	2.01	2.00	2.01	2.00	1.98	1.96	1.96	1.96	1.97	1.96	2.08	2.02
Dec 21	S	1.97	1.98	1.98	1.98	1.99	2.00	1.99	1.97	1.98	1.97	1.98	1.99	1.97	1.98	1.99	1.99	1.99	1.99	2.00	1.99	2.00	2.00	S	1.97	2.00	1.99
Dec 22	2.00	2.00	2.00	1.99	2.00	2.00	2.01	2.00	2.01	2.01	2.02	2.03	2.01	1.97	1.98	1.99	1.98	1.96	1.96	1.96	1.96	1.96	S	1.96	1.96	2.03	1.99
Dec 23	1.97	1.99	1.97	1.97	1.97	1.98	1.97	1.98	1.99	1.99	1.98	1.99	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.01	2.02	S	2.02	2.01	1.97	2.02	1.99
Dec 24	2.02	2.01	1.99	2.00	1.99	1.99	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.01	2.02	2.03	2.03	2.02	S	2.01	2.02	2.03	1.99	2.03	2.01
Dec 25	2.04	2.04	2.05	2.05	2.05	2.04	2.05	2.05	2.05	2.03	2.02	2.01	2.00	1.99	2.00	2.00	1.99	2.00	2.01	S	2.00	2.01	1.99	1.98	1.98	2.05	2.02
Dec 26	2.02	2.01	2.04	2.03	2.02	2.05	2.04	2.04	2.03	2.03	2.01	1.97	1.97	1.98	1.97	1.96	1.96	1.96	S	1.96	1.97	1.97	1.97	1.97	1.96	2.05	2.00
Dec 27	1.98	1.97	1.98	1.98	1.99	1.99	1.99	1.99	1.99	2.00	2.00	2.04	2.02	2.00	1.98	1.99	1.99	S	1.99	1.99	1.98	1.98	1.98	1.98	1.97	2.04	1.99
Dec 28	1.98	1.99	1.99	1.99	2.00	1.99	2.01	2.01	2.00	2.01	2.04	2.07	2.06	2.07	2.07	2.08	S	2.09	2.09	2.09	2.08	2.07	2.07	2.08	1.98	2.09	2.04
Dec 29	2.09	2.09	2.08	2.08	2.07	2.08	2.06	2.07	2.07	2.05	2.06	2.07	2.05	2.04	2.03	S	2.04	2.04	2.07	2.05	2.07	2.06	2.06	2.06	2.03	2.09	2.06
Dec 30	2.05	2.03	2.03	2.03	2.04	2.04	2.06	2.05	2.06	2.06	2.06	2.06	2.08	2.08	S	2.09	2.11	2.11	2.12	2.13	2.14	2.13	2.13	2.12	2.03	2.14	2.08
Dec 31	2.13	2.14	2.14	2.15	2.11	2.07	2.06	2.07	2.06	2.06	2.05	2.02	1.99	S	1.98	1.98	1.98	1.98	1.98	1.99	1.98	1.99	2.00	1.99	1.98	2.15	2.04
Diurnal Maximum	2.13	2.14	2.15	2.22	2.22	2.17	2.14	2.15	2.10	2.07	2.08	2.11	2.08	2.08	2.07	2.09	2.11	2.11	2.12	2.13	2.14	2.13	2.15	2.16			
Diurnal Average	2.01	2.01	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.01	2.00	1.99	2.00	2.00	2.01	2.01	2.01	2.00	2.00	2.01	2.01			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance			
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P	Power Failure	
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)					

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



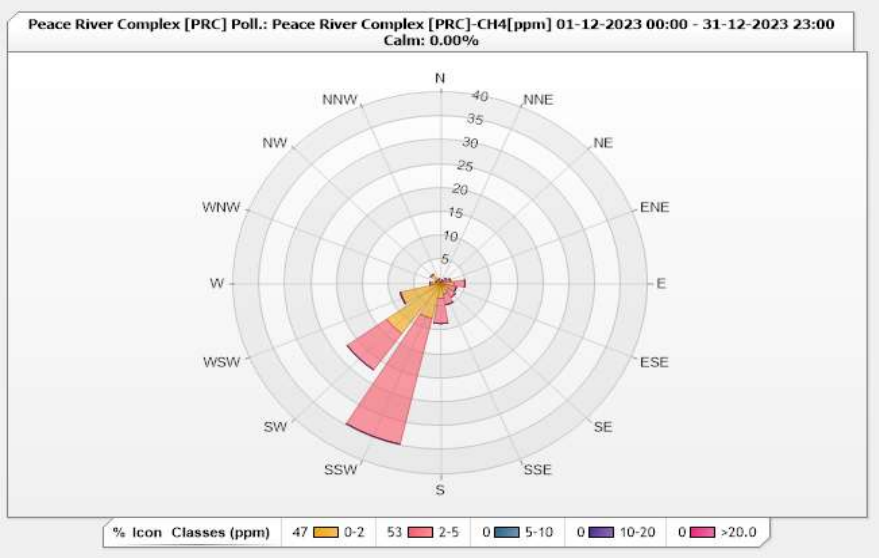


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-CH4[ppm] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 94.89% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	0.14	0.14	0	0	0	0.28
NNE	0.57	0.14	0	0	0	0.71
NE	0.57	0.85	0	0	0	1.42
ENE	0.99	0.99	0	0	0	1.98
E	2.55	2.12	0	0	0	4.67
ESE	0.57	2.55	0	0	0	3.12
SE	1.84	1.7	0	0	0	3.54
SSE	2.27	2.27	0	0	0	4.54
S	3.12	5.24	0	0	0	8.36
SSW	7.51	27.05	0	0	0	34.56
SW	12.89	9.35	0	0	0	22.24
WSW	7.93	0.14	0	0	0	8.07
W	1.7	0.42	0	0	0	2.12
WNW	0.85	0.14	0	0	0	0.99
NW	2.41	0	0	0	0	2.41
NNW	0.85	0.14	0	0	0	0.99
Summary	46.76	53.24	0	0	0	100



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - December 2023

Summary of Hourly Averages

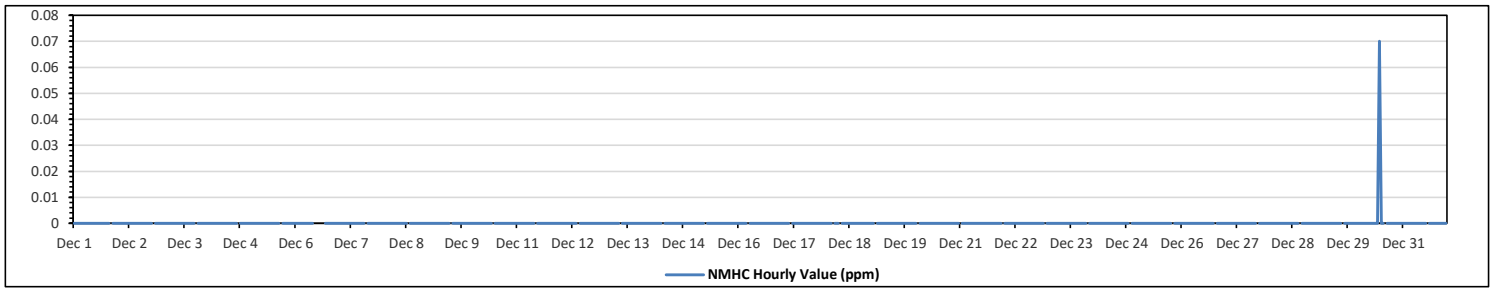
NON-METHANE HYDROCARBONS (NMHC) in ppm

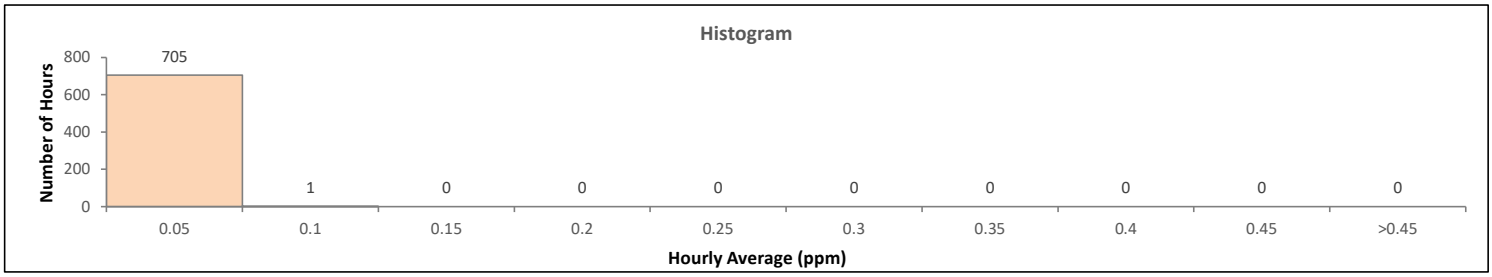
Maximum Hourly Value:	0.07	ppm	on Dec 30 at hr 11	Hours in Service:	744
Maximum Daily Value:	0.00	ppm	on Dec 30	Hours of Data:	706
Minimum Hourly Value:	0.00	ppm	on Dec 1 at hr 0	Hours of Missing Data:	1
Minimum Daily Value:	0.00	ppm	on Dec 1	Hours of Calibration:	37
Monthly Average:	0.00	ppm		Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00
Dec 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	C	C	C	C	C	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 15	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 16	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 17	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 18	0.00	0.00	0.00	S	0.00	0.00	0.00	NRM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 19	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 20	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 21	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00
Dec 22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00
Dec 23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00
Dec 24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00
Dec 25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.07**	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.07**	**0.00**
Dec 31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Diurnal Maximum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Diurnal Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



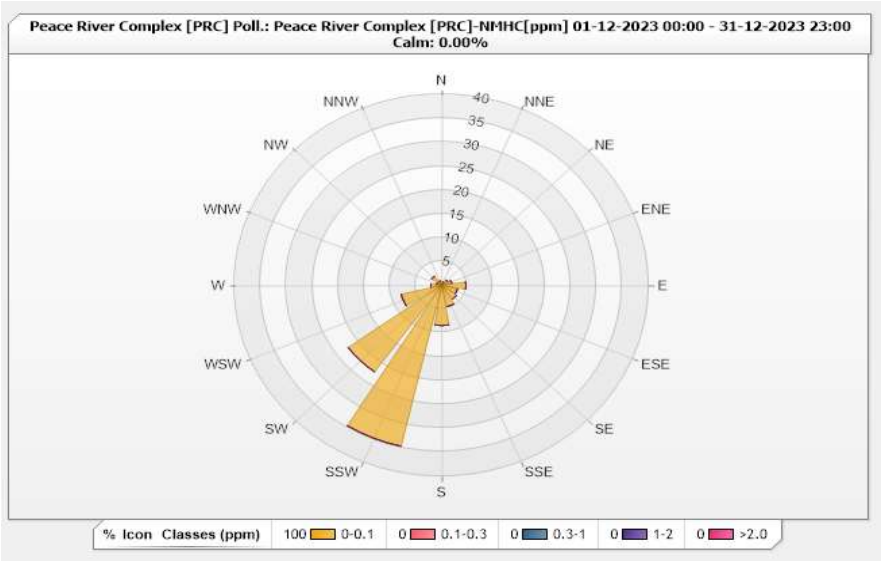


Station: Peace River Complex [PRC] Poll.: Peace River Complex [PRC]-NMHC[ppm] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 94.89% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	0.28	0	0	0	0	0.28
NNE	0.71	0	0	0	0	0.71
NE	1.42	0	0	0	0	1.42
ENE	1.98	0	0	0	0	1.98
E	4.67	0	0	0	0	4.67
ESE	3.12	0	0	0	0	3.12
SE	3.54	0	0	0	0	3.54
SSE	4.53	0	0	0	0	4.53
S	8.36	0	0	0	0	8.36
SSW	34.56	0	0	0	0	34.56
SW	22.24	0	0	0	0	22.24
WSW	8.07	0	0	0	0	8.07
W	2.12	0	0	0	0	2.12
WNW	0.99	0	0	0	0	0.99
NW	2.41	0	0	0	0	2.41
NNW	0.99	0	0	0	0	0.99
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - December 2023

Summary of Hourly Averages

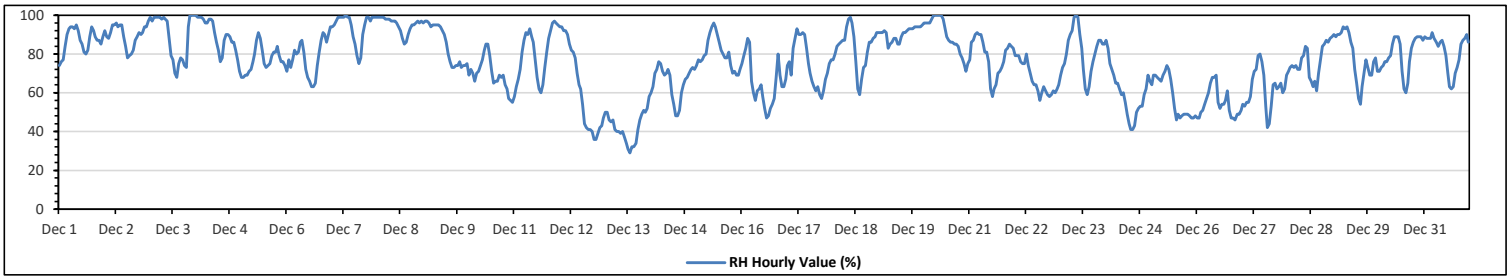
RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:	100	%	on Dec 3 at hr 21	Hours in Service:	744	
Maximum Daily Value:	95.0	%	on Dec 8	Hours of Data:	744	
Minimum Hourly Value:	29	%	on Dec 13 at hr 13	Hours of Missing Data:	0	
Minimum Daily Value:	42.2	%	on Dec 13	Hours of Calibration:	0	
Monthly Average:	76.3	%		Operational Uptime:	100.0	

Day	Hourly Period Starting at (MST)																						Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	74	76	77	84	90	93	94	94	93	95	92	87	85	81	80	82	89	94	92	89	87	87	85	89	74	95	87.0
Dec 2	92	89	88	91	95	95	96	94	95	95	89	84	78	79	80	82	87	89	91	90	91	94	94	97	78	97	89.8
Dec 3	99	97	99	99	99	99	98	99	98	97	88	79	77	70	68	75	78	77	74	73	94	**100**	**100**	**100**	68	**100**	89.0
Dec 4	**100**	99	99	99	98	96	96	98	98	97	91	86	82	76	78	87	90	90	89	86	86	82	77	71	71	**100**	89.6
Dec 5	68	68	69	69	71	72	76	80	87	91	88	82	75	73	74	75	79	81	81	84	79	76	76	74	68	91	77.0
Dec 6	71	77	73	77	82	80	81	86	87	81	72	68	66	63	63	65	74	81	87	91	90	86	90	94	63	94	78.5
Dec 7	94	95	97	99	99	99	99	**100**	99	99	95	89	85	79	75	78	90	95	99	99	97	99	99	99	75	**100**	94.1
Dec 8	99	99	99	99	98	98	98	97	97	97	96	94	92	88	85	86	90	93	95	95	96	97	96	97	85	99	**95.0**
Dec 9	96	97	97	96	94	95	95	95	95	94	92	90	86	80	76	73	73	74	74	76	73	74	74	75	73	97	85.2
Dec 10	69	72	70	66	70	71	74	77	82	85	85	79	71	65	66	66	69	68	69	64	62	57	56	55	55	85	69.5
Dec 11	58	63	67	72	81	87	91	90	93	89	86	77	68	62	60	64	73	81	88	92	96	97	96	95	58	97	80.3
Dec 12	94	94	92	92	90	85	82	81	78	70	64	62	54	44	42	41	41	40	36	36	39	42	43	47	36	94	62.0
Dec 13	50	50	46	45	46	41	40	40	39	40	37	34	31	**29**	32	32	34	41	46	49	51	50	52	58	**29**	58	**42.2**
Dec 14	60	63	70	72	76	75	71	69	70	72	69	59	54	48	48	51	60	64	67	68	70	72	73	72	48	76	65.5
Dec 15	74	77	76	77	79	80	87	91	94	96	94	90	86	82	80	78	78	81	74	70	71	69	69	72	69	96	80.2
Dec 16	75	79	83	88	86	66	60	56	61	62	64	58	52	47	48	52	54	57	68	80	69	63	63	67	47	88	64.9
Dec 17	74	76	69	83	88	93	90	90	91	90	83	75	70	66	63	61	63	59	57	61	67	70	75	77	57	93	74.6
Dec 18	77	80	84	85	86	87	87	94	98	99	96	89	76	62	59	67	73	74	81	86	86	88	89	91	59	99	83.1
Dec 19	91	91	91	92	91	83	85	86	88	88	85	85	89	91	91	92	93	93	93	94	94	94	94	95	83	95	90.4
Dec 20	96	96	96	96	98	**100**	**100**	**100**	**100**	**100**	98	93	89	87	86	86	85	85	84	80	78	75	71	75	71	**100**	89.8
Dec 21	77	86	87	90	91	90	90	86	81	81	76	62	58	62	64	70	71	73	76	82	83	85	84	83	58	91	78.7
Dec 22	79	79	79	76	75	75	80	74	70	66	64	64	61	56	60	63	61	59	58	59	61	60	62	64	56	80	66.9
Dec 23	69	73	75	80	87	90	92	99	**100**	99	90	83	72	62	59	63	71	76	80	84	87	87	85	85	59	**100**	81.2
Dec 24	87	83	75	72	69	65	65	62	59	60	55	49	44	41	41	43	50	52	53	53	59	62	69	66	41	87	59.8
Dec 25	64	69	69	68	67	66	69	71	74	72	67	60	52	46	49	47	48	49	49	49	48	47	47	48	46	74	58.1
Dec 26	47	47	50	51	54	57	60	65	68	68	69	55	52	54	54	56	61	51	47	47	46	49	49	51	46	69	54.5
Dec 27	54	53	55	55	58	67	71	72	79	80	76	69	53	42	44	53	64	65	62	63	65	60	62	69	42	80	62.1
Dec 28	71	73	74	73	74	72	72	78	79	84	83	68	66	63	66	61	70	77	84	85	87	86	88	89	61	89	76.0
Dec 29	90	89	90	90	91	94	93	94	91	86	83	72	65	57	54	63	70	77	73	69	69	76	78	71	54	94	78.5
Dec 30	71	73	74	76	76	78	79	85	89	89	89	85	71	62	60	65	76	83	86	88	89	89	89	87	60	89	79.5
Dec 31	89	88	88	88	91	88	86	84	86	87	84	79	70	63	62	63	70	73	77	85	87	88	90	86	62	91	81.3
Diurnal Maximum	100	99	99	99	99	100	100	100	100	100	98	94	92	91	91	92	93	95	99	99	97	100	100	100			
Diurnal Average	77.7	79.1	79.3	80.6	82.3	81.8	82.5	83.5	84.5	84.2	80.6	74.4	68.7	63.9	63.5	65.8	70.5	72.6	73.9	75.1	76.0	76.2	76.6	77.4			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - December 2023

Summary of Hourly Averages

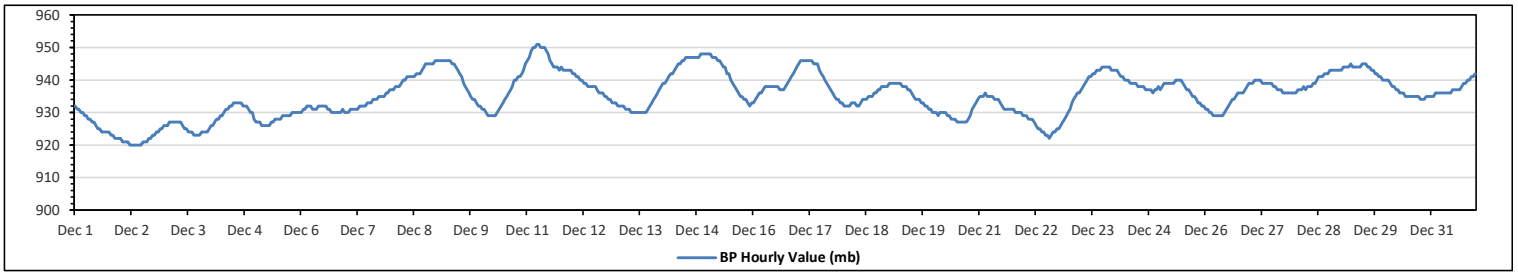
BAROMETRIC PRESSURE (BP) in millibar

Maximum Hourly Value:	951	mb	on Dec 11 at hr 5	Hours in Service:	744
Maximum Daily Value:	947	mb	on Dec 11	Hours of Data:	744
Minimum Hourly Value:	920	mb	on Dec 2 at hr 5	Hours of Missing Data:	0
Minimum Daily Value:	922	mb	on Dec 2	Hours of Calibration:	0
Monthly Average:	935	mb		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																						Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Dec 1	932	931	931	930	930	929	929	928	928	927	927	926	925	925	924	924	924	924	924	923	923	922	922	922	922	932	926
Dec 2	922	921	921	921	921	**920**	**920**	**920**	**920**	**920**	**920**	**920**	921	921	921	922	922	923	923	924	924	925	925	926	**920**	926	**922**
Dec 3	926	926	927	927	927	927	927	927	927	926	925	925	924	924	924	923	923	923	923	924	924	924	924	925	923	927	925
Dec 4	926	926	927	928	928	929	929	930	931	931	932	932	933	933	933	933	933	932	932	932	931	930	930	928	926	933	930
Dec 5	927	927	927	926	926	926	926	926	927	927	928	928	928	928	929	929	929	929	929	930	930	930	930	930	926	930	928
Dec 6	930	931	931	932	932	932	931	931	931	932	932	932	932	932	931	931	930	930	930	930	930	930	931	930	930	932	931
Dec 7	930	930	931	931	931	931	931	932	932	932	932	933	933	933	934	934	934	935	935	935	935	936	936	937	930	937	933
Dec 8	937	937	938	938	938	939	940	940	941	941	941	941	941	942	942	942	943	944	945	945	945	945	945	946	937	946	942
Dec 9	946	946	946	946	946	946	946	946	945	945	944	943	942	941	939	938	937	936	935	934	934	933	932	932	932	946	941
Dec 10	931	931	930	929	929	929	929	929	930	931	932	933	934	935	936	937	938	940	940	941	941	942	943	945	929	945	935
Dec 11	946	947	949	950	950	**951**	**951**	950	950	950	949	948	946	945	944	944	944	943	944	943	943	943	943	943	943	**951**	**947**
Dec 12	942	942	941	941	940	940	939	939	938	938	938	938	938	937	936	936	936	935	935	934	934	933	933	933	933	942	937
Dec 13	932	932	932	932	931	931	931	930	930	930	930	930	930	930	930	930	931	932	933	934	935	936	937	938	930	938	932
Dec 14	939	939	940	941	942	942	943	944	945	945	946	946	947	947	947	947	947	947	947	947	948	948	948	948	939	948	945
Dec 15	948	948	947	947	947	946	946	945	944	944	942	942	940	939	938	937	936	935	935	934	934	933	932	933	932	948	941
Dec 16	933	934	935	936	936	937	938	938	938	938	938	938	938	938	937	937	937	938	939	940	941	942	943	944	933	944	938
Dec 17	945	946	946	946	946	946	946	946	945	945	945	943	942	941	940	939	938	937	936	935	934	934	933	933	933	946	941
Dec 18	932	932	932	932	933	933	933	932	932	933	934	934	934	935	935	935	936	936	937	937	938	938	938	938	932	938	935
Dec 19	939	939	939	939	939	939	939	938	938	938	937	937	936	935	934	934	934	933	933	932	932	931	931	930	930	939	936
Dec 20	930	930	929	930	930	930	930	929	929	928	928	928	927	927	927	927	927	927	928	929	931	932	933	934	927	934	929
Dec 21	935	935	935	936	935	935	935	935	934	934	934	933	932	931	931	931	931	931	931	930	930	930	930	929	929	936	933
Dec 22	929	929	928	928	928	927	926	925	925	924	924	923	923	922	923	924	924	925	925	926	927	928	929	930	922	930	926
Dec 23	931	933	934	935	936	936	937	938	939	940	941	941	942	942	943	943	943	944	944	944	944	944	943	943	931	944	940
Dec 24	943	943	942	941	941	940	940	940	939	939	939	939	938	938	938	938	937	937	937	937	936	937	937	938	936	943	939
Dec 25	937	938	939	939	939	939	939	939	940	940	940	940	939	938	937	937	936	935	935	934	933	933	932	932	932	940	937
Dec 26	931	931	930	930	929	929	929	929	929	929	930	931	932	933	934	934	935	936	936	936	936	937	938	939	929	939	933
Dec 27	939	939	940	940	940	940	939	939	939	939	939	939	938	938	937	937	937	936	936	936	936	936	936	936	936	940	938
Dec 28	936	937	937	937	938	937	938	938	938	939	939	940	941	941	941	942	942	942	943	943	943	943	943	943	936	943	940
Dec 29	943	944	944	944	944	945	944	944	944	944	944	945	945	945	944	944	943	943	942	942	941	941	940	940	940	945	943
Dec 30	940	940	939	938	938	937	937	936	936	936	935	935	935	935	935	935	935	935	934	934	934	935	935	935	934	940	936
Dec 31	935	935	936	936	936	936	936	936	936	936	936	937	937	937	937	937	938	939	939	940	940	941	941	942	935	942	937
Diurnal Maximum	948	948	949	950	950	951	951	950	950	950	949	948	947	947	947	947	947	947	947	947	948	948	948	948			
Diurnal Average	935	935	936	936	936	936	936	935	935	936	936	935	935	935	935	935	935	935	935	935	935	935	935	936			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - December 2023

Summary of Hourly Averages

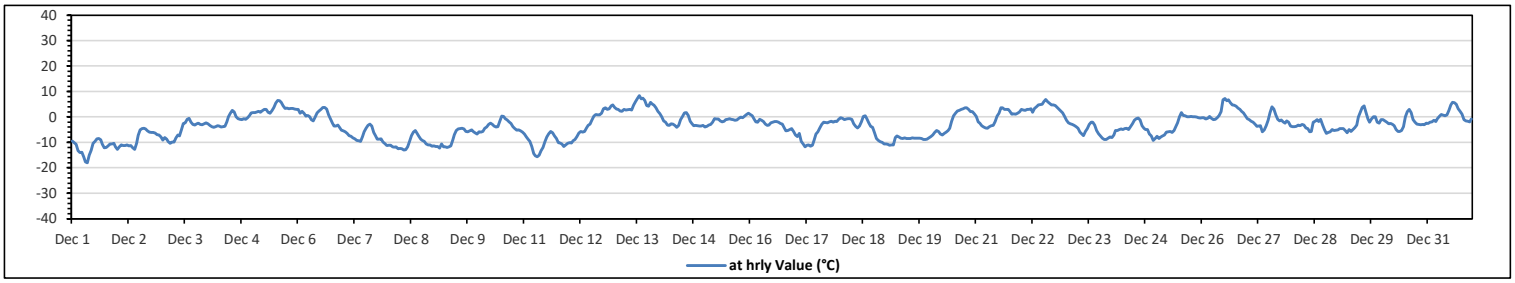
AMBIENT TEMPERATURE (AT) in Degree Celsius

Maximum Hourly Value:	8.4	°C	on Dec 13 at hr 13	Hours in Service:	744	
Maximum Daily Value:	4.4	°C	on Dec 13	Hours of Data:	744	
Minimum Hourly Value:	-18.0	°C	on Dec 1 at hr 8	Hours of Missing Data:	0	
Minimum Daily Value:	-11.9	°C	on Dec 1	Hours of Calibration:	0	
Monthly Average:	-3.3	°C		Operational Uptime:	100.0	

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Dec 1	-9.5	-10.1	-10.8	-13.3	-14	-13.8	-15.8	-17.6	**-18**	-14.9	-13.1	-10.3	-9.6	-8.6	-8.5	-9	-10.8	-12.1	-12	-11.3	-10.7	-10.7	-10.4	-11.7	**-18.0**	-8.5	**-11.9**
Dec 2	-12.7	-11.8	-10.9	-11.2	-11.2	-10.9	-11.4	-11.2	-12.1	-12.7	-10.4	-7.2	-5.1	-4.5	-4.4	-4.7	-5.5	-6	-6.1	-6.1	-6.3	-6.9	-7	-7.9	-12.7	-4.4	-8.5
Dec 3	-9.1	-8.1	-8.7	-9.7	-10.4	-9.8	-9.8	-8.2	-7	-7.4	-5.1	-2.6	-2.3	-0.9	-0.5	-2.1	-2.9	-3.1	-2.7	-2.4	-2.9	-3	-2.7	-2.3	-10.4	-0.5	-5.2
Dec 4	-2.7	-3.3	-3.9	-4.1	-3.9	-3.4	-3.6	-4	-3.9	-3.7	-1.9	0.1	1.4	2.6	2	0.1	-0.7	-0.9	-1.1	-0.7	-0.9	-0.3	0.6	1.6	-4.1	2.6	-1.4
Dec 5	1.7	1.7	2	2.2	1.8	2.5	2.9	3	1.8	1.5	2.5	3.8	5.4	6.5	6.4	5.8	4.4	3.4	3.5	3.2	3.4	3.3	3.1	3	1.5	6.5	3.3
Dec 6	3	1.5	2.3	1.4	0.3	0.6	0.1	-1	-1.5	-0.1	1.6	2.4	2.9	3.8	3.8	3.1	0.9	-0.8	-2.5	-3.6	-3.5	-3.1	-4.1	-5.2	-5.2	3.8	0.1
Dec 7	-5.5	-5.8	-6.5	-7.3	-7.6	-8.2	-8.6	-9.2	-9.4	-9.6	-7.7	-5.8	-4.4	-3.3	-2.8	-3.6	-6.1	-7.4	-8.7	-8.7	-8.6	-9.8	-10.5	-11.2	-11.2	-2.8	-7.3
Dec 8	-11.1	-11.1	-11.7	-11.9	-11.8	-12.4	-12.3	-12.4	-13	-12.8	-11.8	-9.6	-7.3	-5.9	-5.4	-6.3	-7.6	-8.7	-9.2	-9.6	-10.7	-10.9	-10.9	-11.5	-13.0	-5.4	-10.2
Dec 9	-11.3	-11.6	-11.6	-12.2	-10.7	-11.7	-11.8	-12	-11.8	-11.4	-9.1	-6.9	-5.4	-4.7	-4.5	-4.4	-4.7	-5.6	-5.8	-5.5	-5.1	-5.8	-6.4	-6.7	-12.2	-4.4	-8.2
Dec 10	-5.8	-6	-5.6	-4.4	-4	-2.9	-2.5	-2.9	-3.6	-4	-3.8	-1.6	0.3	0.2	-0.7	-1.2	-1.9	-2.6	-3.8	-4.6	-5.2	-5.1	-5.5	-6	-6.0	0.3	-3.5
Dec 11	-6.8	-7.8	-8.8	-9.6	-11.6	-14.4	-15.2	-15.6	-14.9	-13.3	-12	-9.7	-7.9	-6.6	-5.7	-6.2	-7.5	-8.5	-10.1	-10.2	-10.6	-11.6	-11	-10.4	-15.6	-5.7	-10.3
Dec 12	-10.1	-10.2	-9.4	-8.9	-7.7	-6.4	-5.6	-6	-5.7	-4.3	-3.3	-2.8	-1.2	0.3	1	0.9	0.9	1.5	3.2	3.7	3	3.2	4.3	4.7	-10.2	4.7	-2.3
Dec 13	3.8	3.1	2.9	2.4	2.3	2.9	2.7	2.8	2.9	2.7	4.6	6	7.3	**8.4**	7.1	7.4	6.5	4.5	4.2	5.8	5.2	4.6	3.6	2.3	2.3	**8.4**	**4.4**
Dec 14	1.3	0.1	-1.5	-2.1	-3.1	-3.3	-2.7	-2.8	-3.3	-4.1	-3.3	-1.1	0.2	1.6	1.7	0.6	-1.7	-2.6	-3.4	-3.3	-3.4	-3.6	-3.5	-3.3	-4.1	1.7	-1.9
Dec 15	-4	-3.7	-3.2	-2.9	-2.1	-0.7	-0.8	-0.8	-1.5	-1.9	-1.7	-1.1	-0.9	-0.7	-0.9	-1.1	-1.3	-1.2	-0.5	-0.1	-0.2	0.3	1	1.5	-4.0	1.5	-1.2
Dec 16	1	0.5	-0.6	-1.9	-2.1	-0.9	-1.4	-1.8	-2.8	-3.3	-3.1	-2.3	-2	-1.8	-1.8	-2.1	-2.6	-2.8	-4.1	-5.5	-5.4	-4.9	-4.6	-5.7	-5.7	1.0	-2.6
Dec 17	-7.1	-7.7	-6.5	-9.6	-10.7	-11.8	-11.1	-10.9	-11.5	-11.1	-9.3	-6.8	-5.8	-4.3	-2.9	-2.1	-2.2	-2.3	-1.9	-1.7	-2	-1.7	-1.8	-0.9	-11.8	-0.9	-6.0
Dec 18	-0.3	-0.5	-1.1	-0.8	-0.7	-0.7	-0.9	-2.7	-3.7	-4.3	-3.6	-1.9	0.2	0.5	-0.6	-2.3	-3.7	-4.1	-6.2	-8.4	-9.3	-9.7	-10	-10.7	-10.7	0.5	-3.6
Dec 19	-10.7	-10.8	-11.1	-11	-10.9	-8.1	-7.5	-7.8	-8.3	-8.5	-8.2	-8.4	-8.4	-8.4	-8.2	-8.3	-8.3	-8.3	-8.3	-8.5	-8.8	-8.9	-8.7	-8.2	-11.1	-7.5	-8.9
Dec 20	-7.7	-7	-6.1	-5.3	-5.7	-6.8	-7	-6.5	-5.9	-5.3	-4.4	-1.7	0.4	1.4	2.4	2.6	3	3.2	3.6	3.7	2.9	2.1	2.1	1.2	-7.7	3.7	-1.7
Dec 21	0.2	-1.9	-2.4	-3.4	-4	-4.3	-4.4	-3.8	-3.4	-3.3	-1.8	0.3	1.5	3.7	3.7	2.9	2.9	2.9	2.3	1.1	1.2	1.1	1.5	2	-4.4	3.7	-0.2
Dec 22	2.9	2.7	2.6	2.9	3	3.2	1.9	3.3	4	4.7	4.9	5	6	6.9	6	5.3	4.8	4.8	4.5	3.8	2.9	2.3	1.6	0.2	0.2	6.9	3.8
Dec 23	-1.4	-2.3	-2.7	-2.9	-3.3	-3.9	-4.4	-6	-6.8	-7.3	-5.7	-4.5	-2.9	-2.1	-2.1	-3.2	-5.3	-6.6	-7.4	-8.3	-8.9	-8.9	-8.3	-7.8	-8.9	-1.4	-5.1
Dec 24	-8.1	-7.1	-5.3	-5.3	-5	-4.7	-5	-4.5	-4.4	-5	-3.9	-2.7	-1.4	-0.6	-0.4	-1.2	-3.4	-4.4	-4.9	-5	-6.8	-7.5	-9.2	-8.4	-9.2	-0.4	-4.8
Dec 25	-7.6	-8.5	-7.9	-7.5	-7	-6	-5.8	-5.7	-6.1	-5.4	-4	-2.3	0.1	1.7	0.6	0.4	0.1	0	0.2	0	0	-0.1	-0.2	-0.4	-8.5	1.7	-3.0
Dec 26	-0.3	-0.3	-0.8	-0.5	0.2	-0.5	-1.1	-0.9	-0.2	0.6	2.1	6.7	7.3	6.4	6.7	5.6	4.7	4.6	4.2	3.5	3	2.2	1.6	0.5	-1.1	7.3	2.3
Dec 27	-0.6	-1	-1.6	-2.1	-2.8	-3.7	-3.5	-3.4	-5.8	-5.1	-3.4	-1.4	1.7	3.9	3.1	0.8	-0.9	-1.5	-1.2	-1.9	-2.4	-1.5	-2	-3.6	-5.8	3.9	-1.7
Dec 28	-3.9	-3.9	-3.7	-3.1	-3.4	-2.9	-3.1	-4.3	-4.5	-5.8	-5.6	-2.1	-1.7	-1.1	-1.8	-0.9	-3	-4.9	-6.5	-6.1	-5.8	-5	-5.3	-5.2	-6.5	-0.9	-3.9
Dec 29	-5.1	-4.6	-4.5	-4.6	-5.3	-6.2	-5	-5.6	-5	-4.2	-3.2	-0.1	1.9	3.8	4.4	1.7	-0.8	-2	-0.8	0.1	0	-2	-2.4	-1	-6.2	4.4	-2.1
Dec 30	-1.1	-1.5	-2.1	-2.7	-2.6	-2.9	-3.4	-5	-5.7	-5.7	-5.3	-3.8	0	2.1	2.9	1.7	-1	-2.1	-2.8	-2.9	-3	-2.9	-3	-2.4	-5.7	2.9	-2.3
Dec 31	-2.6	-2.1	-1.9	-1.4	-1.8	-0.6	0.2	1	0.7	0.5	0.9	2.6	4.8	5.7	5.6	5	3.2	2.3	1.1	-1.1	-1.5	-1.6	-1.9	-0.8	-2.6	5.7	0.7
Diurnal Maximum	3.8	3.1	2.9	2.9	3.0	3.2	2.9	3.3	4.0	4.7	4.9	6.7	7.3	8.4	7.1	7.4	6.5	4.8	4.5	5.8	5.2	4.6	4.3	4.7			
Diurnal Average	-4.2	-4.5	-4.6	-4.9	-5.0	-4.9	-5.0	-5.2	-5.5	-5.3	-4.1	-2.3	-0.8	0.2	0.2	-0.5	-1.6	-2.3	-2.7	-2.9	-3.2	-3.4	-3.5	-3.7			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - December 2023

Summary of Hourly Averages

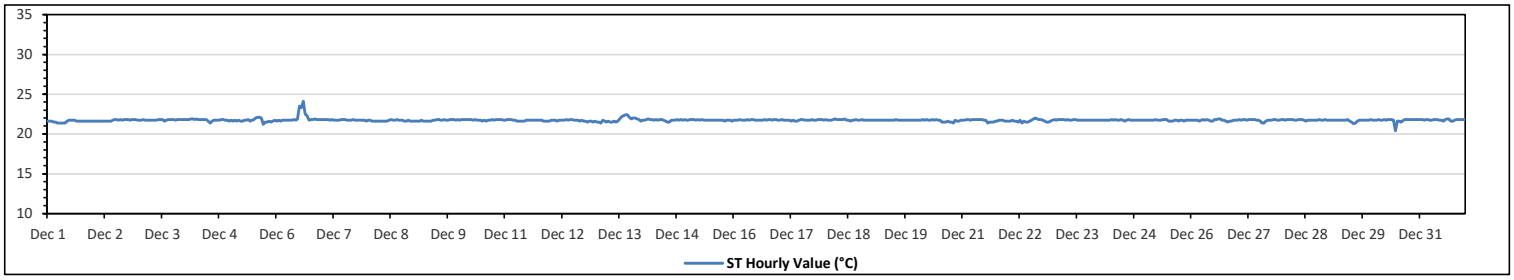
STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:	24.1	°C	on Dec 6 at hr 14	Hours in Service:	744	
Maximum Daily Value:	22.0	°C	on Dec 6	Hours of Data:	744	
Minimum Hourly Value:	20.4	°C	on Dec 30 at hr 11	Hours of Missing Data:	0	
Minimum Daily Value:	21.6	°C	on Dec 1	Hours of Calibration:	0	
Monthly Average:	21.7	°C		Operational Uptime:	100.0	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	21.6	21.6	21.6	21.5	21.5	21.4	21.4	21.4	21.4	21.4	21.6	21.7	21.7	21.7	21.7	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.4	21.7	**21.6**
Dec 2	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.7	21.8	21.8	21.7	21.8	21.7	21.8	21.8	21.8	21.7	21.8	21.8	21.8	21.7	21.6	21.8	21.7
Dec 3	21.7	21.7	21.8	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.8	21.8	21.8	21.6	21.7	21.8	21.8	21.8	21.8	21.7	21.8	21.8	21.8	21.8	21.6	21.8	21.7
Dec 4	21.8	21.8	21.8	21.9	21.9	21.8	21.9	21.8	21.8	21.8	21.8	21.8	21.6	21.4	21.6	21.7	21.7	21.7	21.7	21.8	21.8	21.7	21.7	21.6	21.4	21.9	21.7
Dec 5	21.7	21.6	21.7	21.6	21.7	21.6	21.6	21.7	21.7	21.8	21.6	21.7	21.8	22.0	22.1	22.1	22.0	21.2	21.5	21.5	21.6	21.5	21.6	21.7	21.2	22.1	21.7
Dec 6	21.6	21.7	21.6	21.7	21.7	21.7	21.7	21.7	21.7	21.8	21.7	21.9	23.5	23.3	**24.1**	22.5	22.3	21.7	21.8	21.8	21.9	21.8	21.8	21.8	21.6	**24.1**	**22.0**
Dec 7	21.8	21.8	21.8	21.8	21.7	21.8	21.7	21.7	21.7	21.7	21.8	21.8	21.8	21.7	21.7	21.7	21.8	21.7	21.7	21.7	21.7	21.7	21.7	21.6	21.6	21.8	21.7
Dec 8	21.7	21.7	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.7	21.8	21.7	21.7	21.8	21.7	21.7	21.7	21.6	21.6	21.7	21.6	21.6	21.6	21.8	21.7
Dec 9	21.6	21.6	21.6	21.6	21.7	21.6	21.6	21.6	21.6	21.6	21.7	21.7	21.8	21.8	21.7	21.7	21.8	21.7	21.7	21.8	21.8	21.8	21.7	21.8	21.6	21.8	21.7
Dec 10	21.7	21.8	21.8	21.8	21.8	21.8	21.8	21.7	21.8	21.7	21.7	21.7	21.6	21.7	21.6	21.7	21.7	21.8	21.7	21.8	21.8	21.8	21.8	21.7	21.6	21.8	21.7
Dec 11	21.7	21.8	21.8	21.8	21.7	21.7	21.6	21.6	21.6	21.6	21.6	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.6	21.6	21.6	21.6	21.6	21.8	21.7
Dec 12	21.7	21.7	21.7	21.6	21.7	21.7	21.7	21.7	21.8	21.7	21.8	21.8	21.7	21.7	21.7	21.6	21.7	21.6	21.6	21.5	21.6	21.6	21.5	21.6	21.5	21.8	21.7
Dec 13	21.5	21.5	21.4	21.7	21.6	21.5	21.6	21.5	21.5	21.6	21.5	21.6	21.9	22.2	22.3	22.4	22.4	22.1	21.9	22.0	22.0	21.9	21.8	21.6	21.4	22.4	21.8
Dec 14	21.7	21.7	21.8	21.9	21.8	21.8	21.7	21.8	21.7	21.8	21.8	21.7	21.6	21.5	21.5	21.7	21.7	21.7	21.8	21.7	21.8	21.7	21.8	21.7	21.5	21.9	21.7
Dec 15	21.7	21.8	21.8	21.8	21.7	21.8	21.7	21.8	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.6	21.7	21.7	21.7	21.6	21.6	21.8	21.7
Dec 16	21.7	21.7	21.7	21.8	21.7	21.7	21.7	21.8	21.7	21.8	21.8	21.7	21.7	21.7	21.7	21.7	21.8	21.7	21.8	21.8	21.7	21.8	21.8	21.7	21.7	21.8	21.7
Dec 17	21.7	21.8	21.7	21.7	21.7	21.7	21.6	21.7	21.6	21.6	21.7	21.8	21.8	21.7	21.7	21.7	21.7	21.8	21.7	21.7	21.8	21.8	21.8	21.7	21.6	21.8	21.7
Dec 18	21.8	21.7	21.7	21.7	21.8	21.9	21.8	21.8	21.8	21.8	21.9	21.7	21.7	21.6	21.7	21.7	21.8	21.7	21.7	21.8	21.7	21.7	21.7	21.7	21.6	21.9	21.7
Dec 19	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.8	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.8	21.7
Dec 20	21.7	21.7	21.7	21.8	21.7	21.8	21.7	21.7	21.8	21.7	21.8	21.7	21.7	21.5	21.5	21.5	21.6	21.5	21.5	21.4	21.7	21.6	21.6	21.7	21.4	21.8	21.7
Dec 21	21.7	21.7	21.8	21.8	21.7	21.8	21.8	21.8	21.8	21.8	21.8	21.7	21.7	21.4	21.5	21.5	21.5	21.6	21.6	21.7	21.7	21.7	21.6	21.6	21.4	21.8	21.7
Dec 22	21.6	21.6	21.7	21.6	21.6	21.5	21.7	21.4	21.6	21.5	21.5	21.6	21.7	21.9	22.0	21.9	21.8	21.8	21.7	21.6	21.5	21.5	21.6	21.7	21.4	22.0	21.7
Dec 23	21.8	21.7	21.8	21.8	21.8	21.8	21.7	21.8	21.7	21.7	21.8	21.8	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.8	21.7
Dec 24	21.7	21.7	21.7	21.7	21.7	21.7	21.8	21.7	21.8	21.7	21.7	21.8	21.7	21.6	21.7	21.8	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.6	21.8	21.7
Dec 25	21.7	21.7	21.7	21.7	21.7	21.8	21.7	21.7	21.7	21.8	21.8	21.8	21.6	21.6	21.6	21.7	21.7	21.6	21.7	21.7	21.6	21.7	21.7	21.7	21.6	21.8	21.7
Dec 26	21.7	21.7	21.7	21.7	21.6	21.7	21.8	21.7	21.8	21.7	21.6	21.6	21.8	21.8	21.9	21.9	21.7	21.7	21.6	21.5	21.6	21.6	21.7	21.7	21.5	21.9	21.7
Dec 27	21.7	21.8	21.7	21.8	21.8	21.7	21.8	21.8	21.8	21.8	21.7	21.7	21.6	21.4	21.4	21.6	21.7	21.7	21.7	21.8	21.8	21.7	21.7	21.8	21.4	21.8	21.7
Dec 28	21.8	21.7	21.8	21.8	21.8	21.8	21.7	21.7	21.8	21.8	21.8	21.7	21.6	21.7	21.7	21.7	21.7	21.7	21.7	21.8	21.7	21.7	21.8	21.7	21.6	21.8	21.7
Dec 29	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.8	21.6	21.5	21.3	21.4	21.6	21.7	21.7	21.7	21.7	21.7	21.7	21.8	21.7	21.3	21.8	21.7
Dec 30	21.7	21.7	21.8	21.7	21.7	21.8	21.7	21.8	21.8	21.8	21.7	**20.4**	21.6	21.6	21.5	21.7	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	**20.4**	21.8	21.7
Dec 31	21.8	21.8	21.7	21.8	21.8	21.7	21.7	21.8	21.8	21.8	21.7	21.7	21.6	21.8	21.9	21.9	21.6	21.6	21.7	21.8	21.8	21.8	21.8	21.8	21.6	21.9	21.8
Diurnal Maximum	21.8	21.8	21.8	21.9	21.9	21.9	21.9	21.8	21.8	21.8	21.9	21.9	23.5	23.3	24.1	22.5	22.4	22.1	21.9	22.0	22.0	21.9	21.8	21.8			
Diurnal Average	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.8	21.7	21.8	21.8	21.8	21.7	21.7	21.7	21.7	21.7	21.7	21.7			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - December 2023

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr

Maximum Hourly Value:	30.2	kph	on Dec 26 at hr 19	Hours in Service:	744	
Maximum Daily Value:	18.3	kph	on Dec 12	Hours of Data:	744	
Minimum Hourly Value:	0.7	kph	on Dec 2 at hr 17	Hours of Missing Data:	0	
Minimum Daily Value:	5.3	kph	on Dec 28	Hours of Calibration:	0	
Monthly Average:	8.7	kph		Operational Uptime:	100.0	

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Dec 1	10.0	10.2	9.2	8.3	7.0	7.4	3.3	6.7	9.6	8.5	9.6	11.3	11.5	10.5	9.1	9.8	9.9	8.9	8.2	9.1	8.8	9.3	7.4	8.0	3.3	11.5	8.8
Dec 2	11.4	11.0	11.4	11.4	12.9	12.0	10.5	9.5	4.9	6.8	5.8	4.1	3.3	2.2	1.6	2.8	2.8	**0.7**	**0.7**	2.1	2.7	4.4	5.6	8.2	**0.7**	12.9	6.2
Dec 3	8.5	9.1	10.1	10.0	10.3	10.5	11.6	9.6	10.2	10.4	8.4	9.5	6.2	5.7	4.5	8.0	5.9	8.2	7.6	13.4	13.6	8.1	12.0	14.7	4.5	14.7	9.4
Dec 4	14.1	19.7	15.2	17.3	17.6	19.3	18.6	15.9	16.2	14.2	12.9	12.4	12.1	13.7	10.6	10.4	11.1	9.0	9.5	8.8	12.5	11.1	12.7	14.4	8.8	19.7	13.7
Dec 5	16.4	12.0	9.1	8.3	8.3	10.8	15.1	19.7	18.2	17.3	18.4	17.7	20.9	21.4	20.8	19.3	18.4	18.2	23.5	20.1	22.1	24.6	24.5	23.1	8.3	24.6	17.8
Dec 6	20.7	10.2	21.2	20.7	19.3	18.1	15.1	13.7	10.5	13.0	9.2	7.7	10.5	16.9	18.3	17.1	12.5	13.5	9.2	13.4	15.0	7.6	9.4	13.3	7.6	21.2	14.0
Dec 7	12.8	10.5	10.8	11.5	10.6	10.9	10.2	11.2	9.8	9.2	8.7	10.4	8.8	8.7	6.7	7.5	9.7	7.7	10.4	8.4	7.3	7.3	9.0	11.2	6.7	12.8	9.6
Dec 8	10.9	8.7	9.5	9.8	9.9	10.8	9.9	6.9	10.0	11.0	11.3	9.3	12.3	11.9	12.6	13.4	13.7	14.0	13.3	13.9	12.2	11.6	13.4	12.4	6.9	14.0	11.4
Dec 9	12.4	12.5	11.9	13.4	14.3	12.1	12.5	12.7	12.1	14.3	10.9	9.6	9.5	8.4	7.0	9.4	9.8	12.1	9.7	12.0	9.3	8.8	7.4	10.1	7.0	14.3	10.9
Dec 10	9.2	8.3	10.2	12.3	10.5	15.5	21.2	18.1	11.5	6.7	8.0	7.1	11.6	13.4	11.3	9.7	7.9	8.7	8.6	9.3	11.9	15.3	16.1	15.7	6.7	21.2	11.6
Dec 11	12.9	11.1	8.5	8.8	5.8	4.3	7.3	7.1	9.5	7.9	7.4	8.6	7.7	7.9	7.1	8.4	10.8	9.8	10.2	13.1	9.9	12.1	13.4	11.0	4.3	13.4	9.2
Dec 12	10.4	11.9	13.4	14.5	17.0	15.5	19.2	15.5	16.3	20.1	21.4	21.1	17.9	18.6	20.3	19.5	17.6	17.6	19.6	23.4	23.0	20.5	19.7	24.6	10.4	24.6	**18.3**
Dec 13	22.5	16.8	10.2	5.4	8.3	9.2	9.5	10.4	9.3	9.7	10.1	10.8	11.4	11.4	12.2	15.4	13.9	13.7	14.3	22.5	23.4	24.8	21.6	18.5	5.4	24.8	14.0
Dec 14	18.3	15.8	13.3	11.5	11.6	15.6	16.2	15.1	12.5	12.1	10.6	12.1	11.3	11.1	11.8	10.6	8.8	8.5	11.0	11.0	11.8	11.0	13.9	12.4	8.5	18.3	12.4
Dec 15	13.1	14.3	14.4	10.3	13.5	13.4	12.0	14.3	13.4	12.4	11.9	16.0	13.5	14.1	14.7	14.4	14.1	17.4	24.0	16.3	14.3	17.8	21.4	21.0	10.3	24.0	15.1
Dec 16	16.3	14.8	13.2	8.9	6.6	7.9	5.9	3.6	4.3	3.0	1.5	2.8	1.8	2.5	1.9	3.2	3.4	5.3	10.2	13.4	12.6	10.6	12.1	13.4	1.5	16.3	7.5
Dec 17	10.9	11.5	9.1	10.4	11.0	12.3	11.8	9.1	13.0	13.1	12.5	12.5	12.5	13.5	17.2	21.0	17.9	17.7	15.3	17.4	14.2	17.4	17.0	18.8	9.1	21.0	14.0
Dec 18	18.6	13.2	11.1	14.6	15.1	14.8	11.5	8.9	9.1	8.5	7.5	7.5	6.9	7.2	5.7	3.9	5.9	6.5	3.3	3.0	3.6	4.2	3.1	1.5	1.5	18.6	8.1
Dec 19	2.5	7.3	6.5	4.8	8.3	12.0	14.0	13.0	12.4	11.3	11.4	14.8	14.9	15.6	16.3	16.8	14.9	15.8	15.2	14.9	13.2	12.7	12.2	10.5	2.5	16.8	12.1
Dec 20	9.8	8.6	7.7	6.9	5.7	6.9	7.4	9.6	9.6	7.3	9.8	11.7	15.7	15.8	18.3	19.1	19.3	19.0	22.4	24.5	21.0	19.3	21.2	16.8	5.7	24.5	13.9
Dec 21	10.2	9.3	13.0	10.7	10.4	10.6	10.3	9.9	9.5	10.0	9.6	10.7	9.4	15.2	16.9	17.0	15.2	16.8	14.4	8.0	13.3	9.7	8.6	8.7	8.0	17.0	11.6
Dec 22	8.0	8.2	9.4	8.9	8.6	7.9	8.4	11.5	10.9	13.3	9.0	7.6	6.8	9.4	15.2	15.9	17.2	21.6	26.0	28.1	28.5	25.8	23.6	15.4	6.8	28.5	14.4
Dec 23	14.8	12.9	14.6	17.5	12.6	10.6	10.4	10.2	14.4	12.7	11.4	10.1	10.3	11.1	10.0	11.1	13.5	12.6	13.2	10.9	12.3	12.2	11.1	10.3	10.0	17.5	12.1
Dec 24	13.0	12.0	15.9	13.5	14.7	15.6	16.1	16.8	16.0	14.6	16.0	20.0	19.7	16.3	12.7	14.0	9.7	10.6	8.0	7.3	7.6	7.5	10.8	12.2	7.3	20.0	13.4
Dec 25	9.6	11.3	12.3	11.7	12.0	13.8	12.1	11.1	11.7	9.8	9.6	9.9	7.2	7.9	11.2	10.1	12.2	13.3	11.5	10.6	13.7	10.2	10.4	8.8	7.2	13.8	10.9
Dec 26	12.8	12.3	12.2	11.0	7.3	12.1	13.4	9.1	9.1	7.7	12.4	18.3	21.4	22.9	19.9	17.5	17.9	29.1	28.8	**30.2**	29.9	24.6	24.7	21.4	7.3	**30.2**	17.8
Dec 27	17.5	14.4	17.3	15.5	13.4	10.7	7.6	6.8	3.1	11.9	11.0	10.4	8.0	7.3	7.9	8.0	9.1	12.5	12.3	10.0	11.6	10.8	8.0	1.7	1.7	17.5	10.3
Dec 28	7.5	3.4	4.9	4.0	1.5	8.7	1.4	1.2	3.3	4.6	5.2	1.8	7.0	3.5	2.7	3.6	4.6	6.0	7.6	7.5	8.2	8.4	8.9	11.6	1.2	11.6	**5.3**
Dec 29	10.6	10.9	9.4	8.4	10.7	12.8	8.1	10.4	7.9	9.0	7.4	6.9	7.7	5.8	3.2	7.4	9.6	11.0	12.3	12.1	9.4	7.4	10.6	11.7	3.2	12.8	9.2
Dec 30	12.9	11.9	13.3	12.2	10.3	9.0	10.4	8.0	9.4	9.0	8.0	5.7	5.4	4.0	9.6	8.1	9.3	8.4	9.7	10.0	11.3	10.4	10.7	11.8	4.0	13.3	9.5
Dec 31	10.8	12.2	11.9	12.3	12.0	13.3	12.5	15.1	16.4	13.3	17.2	18.6	15.7	22.6	21.5	18.9	15.1	11.5	7.9	6.8	8.5	8.0	7.9	10.2	6.8	22.6	13.3
Diurnal Maximum	22.5	19.7	21.2	20.7	19.3	19.3	21.2	19.7	18.2	20.1	21.4	21.1	21.4	22.9	21.5	21.0	19.3	29.1	28.8	30.2	29.9	25.8	24.7	24.6			
Diurnal Average	12.6	11.5	11.6	11.1	10.9	11.8	11.4	11.0	10.8	10.7	10.5	10.9	10.9	11.5	11.6	12.0	11.7	12.4	12.8	13.3	13.4	12.7	13.2	13.0			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance			
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P	Power Failure	
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)					

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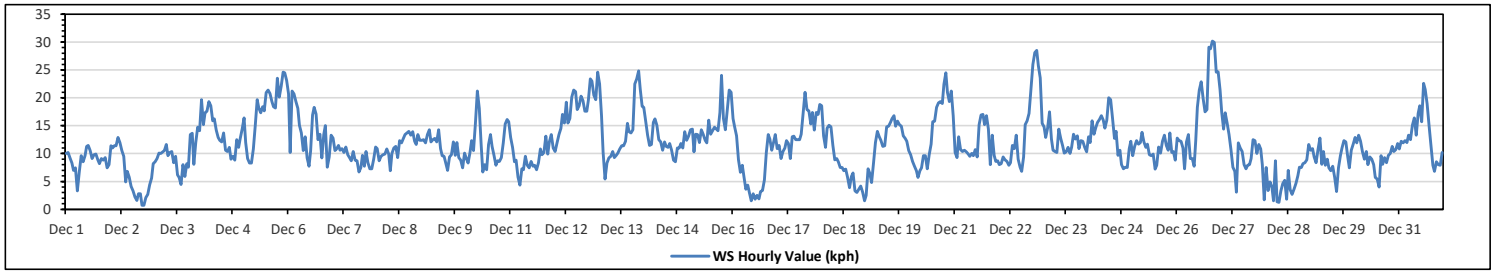
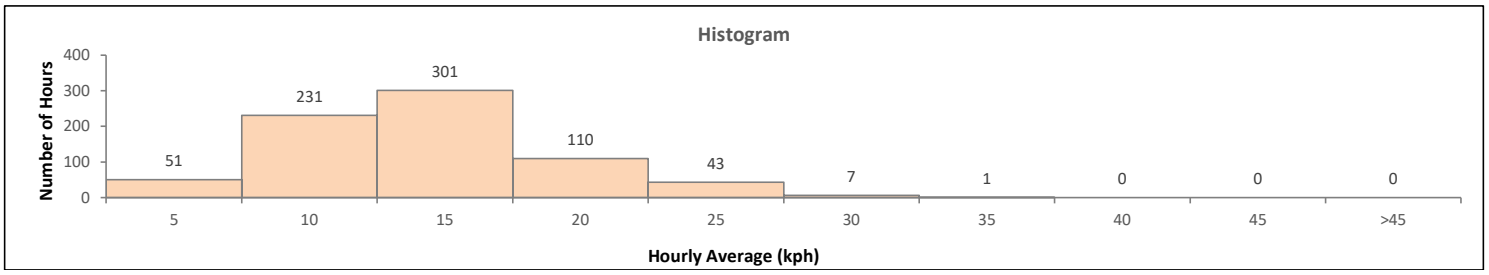


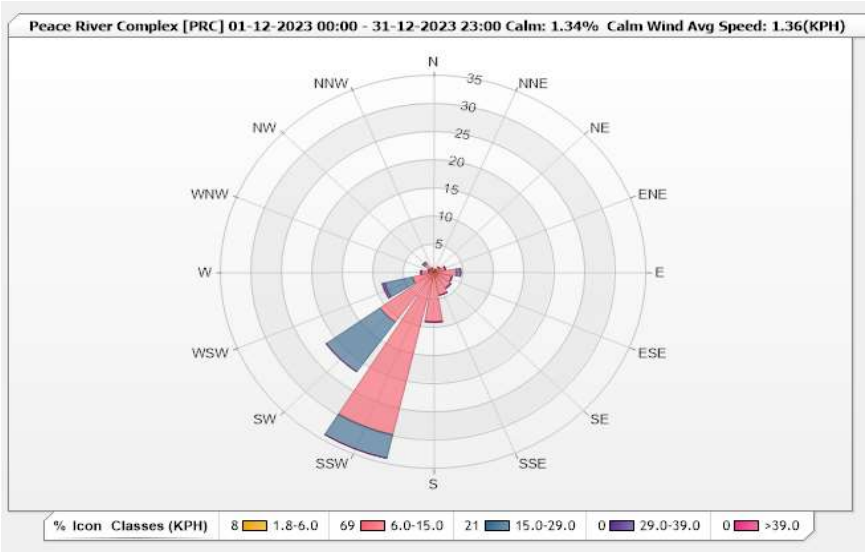


Station: Peace River Complex [PRC] Monitor: WDS [KPH] Monthly: 12-2023

Type: Wind Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm (WS<1.8kph): 1.34% Valid Data: 100.00%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0.13	0	0	0	0	0.13
NNE	0.27	0.27	0	0	0	0.54
NE	0.27	0.94	0	0	0	1.21
ENE	0.4	1.61	0	0	0	2.01
E	0.4	3.36	0.67	0	0	4.43
ESE	0.4	2.69	0	0	0	3.09
SE	0.4	2.96	0.13	0	0	3.49
SSE	0.94	3.23	0	0	0	4.17
S	0.67	8.2	0	0	0	8.87
SSW	1.21	28.49	4.3	0	0	34
SW	0.27	10.62	10.89	0	0	21.78
WSW	0.13	3.49	4.7	0.4	0	8.72
W	0.81	1.21	0.13	0	0	2.15
WNW	0.27	0.54	0.13	0	0	0.94
NW	0.67	1.21	0.4	0	0	2.28
NNW	0.4	0.4	0	0	0	0.8
Summary	7.64	69.22	21.35	0.4	0	98.61



Peace River Area Monitoring Program

Peace River Complex (PRC) Station - December 2023

Summary of Hourly Averages

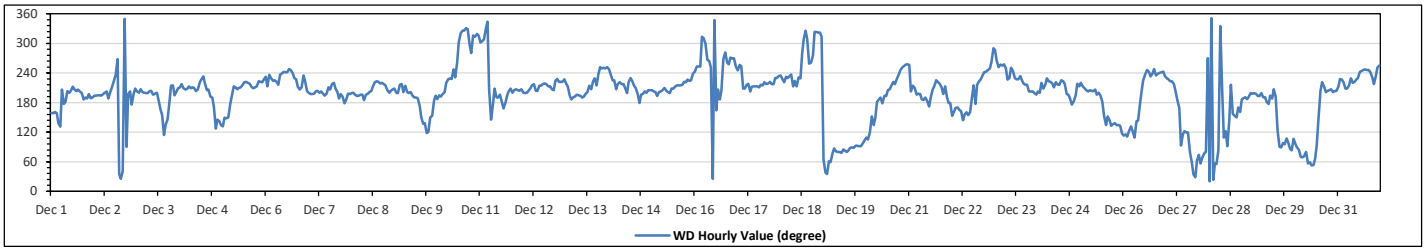
WIND DIRECTION (VWD) in sector

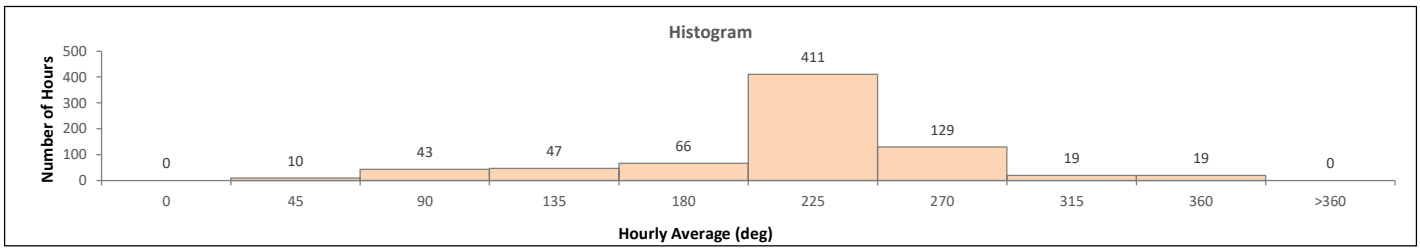
Monthly Average:	209 (SSW)	degree	
Hours in Service:	744		
Hours of Data:	744		
Hours of Missing Data:	0		
Hours of Calibration:	0		
Operational Uptime:	100.0		

Day	Hourly Period Starting at (MST)																							Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant
Dec 1	SSE	SSE	SSE	SSE	SE	SE	SSW	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	SSW	S	S	187	S
Dec 2	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSW	SSW	SW	SW	W	NE	NNE	NE	N	E	SSW	SSW	S	SSW	SSW	199	SSW
Dec 3	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSE	SSE	ESE	SE	SE	S	SSW	SSW	SSW	SSW	SSW	195	SSW
Dec 4	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SSW	SSW	S	S	S	SE	SE	SE	SE	200	SSW
Dec 5	SE	SSE	SE	SSE	S	S	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	209	SSW
Dec 6	SW	SSW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SSW	SSW	SSW	SW	SW	SSW	229	SW
Dec 7	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SSW	SSW	S	SSW	S	S	S	SSW	SSW	200	SSW
Dec 8	SSW	SSW	SSW	S	SSW	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	206	SSW
Dec 9	SSW	SSW	SSW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	SSE	SE	SE	ESE	ESE	SSE	SSE	S	SSW	185	S
Dec 10	S	SSW	S	SSW	SSW	SW	SW	SW	SW	WSW	SW	WSW	WNW	NW	NW	NW	NNW	NNW	WNW	W	NW	NW	NW	NW	268	W
Dec 11	WNW	WNW	NW	NW	NNW	SSW	SE	S	SSW	S	S	SSW	S	SSE	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	211	SSW
Dec 12	SSW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SSW	SSW	SSW	SW	SW	SW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	214	SSW
Dec 13	SW	SSW	SSW	S	S	S	SSW	SSW	S	S	S	SSW	SSW	SSW	SSW	SW	SW	SSW	SW	WSW	WSW	WSW	WSW	WSW	222	SW
Dec 14	WSW	SW	SW	SW	SSW	SW	SW	SW	SW	SSW	SSW	SW	SW	SW	SSW	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	215	SSW
Dec 15	SSW	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	WSW	213	SSW
Dec 16	WSW	WSW	WSW	WSW	NW	NW	WNW	W	W	WSW	NNE	NNW	SSE	SSW	S	SSW	W	W	W	WSW	W	W	W	WSW	263	W
Dec 17	WSW	WSW	WSW	SSW	SSW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	221	SW
Dec 18	SW	SW	SW	SW	SW	SW	SW	SSW	SW	SSW	SW	SW	W	NW	NW	NW	WSW	W	W	NW	NW	NW	NW	NW	245	WSW
Dec 19	ENE	NE	NE	ENE	ENE	ENE	E	E	E	E	ENE	E	E	E	E	E	E	E	E	E	E	E	E	ESE	83	E
Dec 20	ESE	ESE	ESE	SSE	SE	SSE	S	S	S	S	S	S	SSW	SSW	SSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	216	SW
Dec 21	WSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	SSW	SSW	SW	SW	SW	SSW	SSW	SSW	S	S	S	204	SSW
Dec 22	SSE	SSE	SSE	SSE	SSE	SSE	SE	SSE	SSE	SSE	SSE	S	SSW	S	SW	SW	SW	SW	WSW	WSW	WSW	WSW	W	WNW	216	SW
Dec 23	WNW	W	WSW	WSW	WSW	WSW	WSW	SW	SW	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	233	SW
Dec 24	SSW	SSW	SW	SSW	SW	SW	SW	SW	SW	SSW	SW	SW	SW	SW	SW	SW	SSW	SSW	S	S	S	SSW	SW	SSW	213	SSW
Dec 25	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSE	SE	SSE	SE	SE	SE	SE	SE	SE	SE	ESE	174	S
Dec 26	ESE	ESE	ESE	ESE	SE	ESE	ESE	SE	SE	S	SSW	SW	SW	WSW	WSW	SW	WSW	WSW	SW	SW	WSW	WSW	WSW	SW	219	SW
Dec 27	SW	SW	SW	SW	SW	SSW	S	SSE	E	ESE	ESE	ESE	ESE	E	ENE	NE	NNE	ENE	ENE	NE	ENE	ENE	E	W	132	SE
Dec 28	NNE	N	NNE	NE	NE	E	NNW	SSW	ESE	ESE	E	SE	SW	SSE	SSE	SSE	SSE	SSE	S	S	S	S	S	SSW	160	SSE
Dec 29	SSW	SSW	SSW	S	S	SSW	S	S	S	S	SSW	S	SSW	S	ESE	E	E	E	E	ESE	E	E	E	ESE	154	SSE
Dec 30	E	E	E	ENE	ENE	ENE	E	NE	ENE	NE	NE	ENE	E	SSE	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	127	SE
Dec 31	SSW	SW	SW	SW	SSW	SSW	SSW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	WSW	WSW	232	SW

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Machine Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.





Peace River Area Monitoring Program

Peace River Complex (PRC) Station - December 2023

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector

WIND SPEED

Maximum Hourly Value:	30.2	kph	on Dec 26 at hr 19	Hours in Service:	744
Maximum Daily Value:	18.3	kph	on Dec 12	Hours of Data:	744
Minimum Hourly Value:	0.7	kph	on Dec 2 at hr 17	Hours of Missing Data:	0
Minimum Daily Value:	5.3	kph	on Dec 28	Hours of Calibration:	0
Monthly Average:	8.7	kph		Operational Uptime:	100.0

WIND DIRECTION

Monthly Average: 209 degree (SSW)

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	10.0	10.2	9.2	8.3	7.0	7.4	3.3	6.7	9.6	8.5	9.6	11.3	11.5	10.5	9.1	9.8	9.9	8.9	8.2	9.1	8.8	9.3	7.4	8.0	3.3	11.5	8.8
	SSE	SSE	SSE	SSE	SE	SE	SSW	S	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	SSW	S	S			187(S)
Dec 2	11.4	11.0	11.4	11.4	12.9	12.0	10.5	9.5	4.9	6.8	5.8	4.1	3.3	2.2	1.6	2.8	2.8	**0.7**	**0.7**	2.1	2.7	4.4	5.6	8.2	**0.7**	12.9	6.2
	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSW	SSW	SW	SW	W	NE	NNE	NE	N	E	SSW	SSW	S	SSW	SSW			199(SSW)
Dec 3	8.5	9.1	10.1	10.0	10.3	10.5	11.6	9.6	10.2	10.4	8.4	9.5	6.2	5.7	4.5	8.0	5.9	8.2	7.6	13.4	13.6	8.1	12.0	14.7	4.5	14.7	9.4
	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSE	SSE	ESE	SE	SE	S	SSW	SSW	SSW	SSW	SSW			195(SSW)
Dec 4	14.1	19.7	15.2	17.3	17.6	19.3	18.6	15.9	16.2	14.2	12.9	12.4	12.1	13.7	10.6	10.4	11.1	9.0	9.5	8.8	12.5	11.1	12.7	14.4	8.8	19.7	13.7
	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SSW	SSW	S	S	S	SE	SE	SE	SE			200(SSW)
Dec 5	16.4	12.0	9.1	8.3	8.3	10.8	15.1	19.7	18.2	17.3	18.4	17.7	20.9	21.4	20.8	19.3	18.4	18.2	23.5	20.1	22.1	24.6	24.5	23.1	8.3	24.6	17.8
	SE	SSE	SE	SSE	S	S	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SW	SW	SW	SW			209(SSW)
Dec 6	20.7	10.2	21.2	20.7	19.3	18.1	15.1	13.7	10.5	13.0	9.2	7.7	10.5	16.9	18.3	17.1	12.5	13.5	9.2	13.4	15.0	7.6	9.4	13.3	7.6	21.2	14.0
	SW	SSW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SSW	SSW	SSW	SW	SW	SSW			229(SW)
Dec 7	12.8	10.5	10.8	11.5	10.6	10.9	10.2	11.2	9.8	9.2	8.7	10.4	8.8	8.7	6.7	7.5	9.7	7.7	10.4	8.4	7.3	7.3	9.0	11.2	6.7	12.8	9.6
	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SSW	SSW	S	SSW	S	S	S	SSW	SSW			200(SSW)
Dec 8	10.9	8.7	9.5	9.8	9.9	10.8	9.9	6.9	10.0	11.0	11.3	9.3	12.3	11.9	12.6	13.4	13.7	14.0	13.3	13.9	12.2	11.6	13.4	12.4	6.9	14.0	11.4
	SSW	SSW	SSW	S	SSW	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW			206(SSW)
Dec 9	12.4	12.5	11.9	13.4	14.3	12.1	12.5	12.7	12.1	14.3	10.9	9.6	9.5	8.4	7.0	9.4	9.8	12.1	9.7	12.0	9.3	8.8	7.4	10.1	7.0	14.3	10.9
	SSW	SSW	SSW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	SSE	SE	SE	ESE	ESE	SSE	SSE	S	SSW			185(S)
Dec 10	9.2	8.3	10.2	12.3	10.5	15.5	21.2	18.1	11.5	6.7	8.0	7.1	11.6	13.4	11.3	9.7	7.9	8.7	8.6	9.3	11.9	15.3	16.1	15.7	6.7	21.2	11.6
	S	SSW	S	SSW	SSW	SW	SW	SW	SW	WSW	SW	WSW	WNW	NW	NW	NW	NNW	NNW	WNW	W	NW	NW	NW	NW			268(W)
Dec 11	12.9	11.1	8.5	8.8	5.8	4.3	7.3	7.1	9.5	7.9	7.4	8.6	7.7	7.9	7.1	8.4	10.8	9.8	10.2	13.1	9.9	12.1	13.4	11.0	4.3	13.4	9.2
	WNW	WNW	NW	NW	NNW	SSW	SE	S	SSW	S	S	SSW	S	SSE	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW			211(SSW)
Dec 12	10.4	11.9	13.4	14.5	17.0	15.5	19.2	15.5	16.3	20.1	21.4	21.1	17.9	18.6	20.3	19.5	17.6	17.6	19.6	23.4	23.0	20.5	19.7	24.6	10.4	24.6	**18.3**
	SSW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SSW	SSW	SSW	SW	SW	SW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW			214(SSW)
Dec 13	22.5	16.8	10.2	5.4	8.3	9.2	9.5	10.4	9.3	9.7	10.1	10.8	11.4	11.4	12.2	15.4	13.9	13.7	14.3	22.5	23.4	24.8	21.6	18.5	5.4	24.8	14.0
	SW	SSW	SSW	S	S	S	SSW	SSW	S	S	S	SSW	SSW	SSW	SSW	SW	SW	SSW	SW	WSW	WSW	WSW	WSW	WSW			222(SW)
Dec 14	18.3	15.8	13.3	11.5	11.6	15.6	16.2	15.1	12.5	12.1	10.6	12.1	11.3	11.1	11.8	10.6	8.8	8.5	11.0	11.0	11.8	11.0	13.9	12.4	8.5	18.3	12.4
	WSW	SW	SW	SW	SSW	SW	SW	SW	SW	SSW	SSW	SW	SW	SW	SSW	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW			215(SSW)
Dec 15	13.1	14.3	14.4	10.3	13.5	13.4	12.0	14.3	13.4	12.4	11.9	16.0	13.5	14.1	14.7	14.4	14.1	17.4	24.0	16.3	14.3	17.8	21.4	21.0	10.3	24.0	15.1
	SSW	SSW	SSW	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	WSW			213(SSW)
Dec 16	16.3	14.8	13.2	8.9	6.6	7.9	5.9	3.6	4.3	3.0	1.5	2.8	1.8	2.5	1.9	3.2	3.4	5.3	10.2	13.4	12.6	10.6	12.1	13.4	1.5	16.3	7.5
	WSW	WSW	WSW	WSW	NW	NW	WNW	W	W	WSW	NNE	NNW	SSE	SSW	S	SSW	W	W	W	WSW	W	W	W	WSW			263(W)
Dec 17	10.9	11.5	9.1	10.4	11.0	12.3	11.8	9.1	13.0	13.1	12.5	12.5	12.5	13.5	17.2	21.0	17.9	17.7	15.3	17.4	14.2	17.4	17.0	18.8	9.1	21.0	14.0
	WSW	WSW	WSW	SSW	SSW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW			221(SW)
Dec 18	18.6	13.2	11.1	14.6	15.1	14.8	11.5	8.9	9.1	8.5	7.5	7.5	6.9	7.2	5.7	3.9	5.9	6.5	3.3	3.0	3.6	4.2	3.1	1.5	1.5	18.6	8.1
	SW	SW	SW	SW	SW	SW	SW	SSW	SW	SSW	SW	SW	W	NW	NW	NW	WSW	W	W	NW	NW	NW	NW	NW			245(WSW)
Dec 19	2.5	7.3	6.5	4.8	8.3	12.0	14.0	13.0	12.4	11.3	11.4	14.8	14.9	15.6	16.3	16.8	14.9	15.8	15.2	14.9	13.2	12.7	12.2	10.5	2.5	16.8	12.1
	ENE	NE	NE	ENE	ENE	ENE	E	E	E	E	ENE	E	E	E	E	E	E	E	E	E	E	E	E	ESE			83(E)
Dec 20	9.8	8.6	7.7	6.9	5.7	6.9	7.4	9.6	9.6	7.3	9.8	11.7	15.7	15.8	18.3	19.1	19.3	19.0	22.4	24.5	21.0	19.3	21.2	16.8	5.7	24.5	13.9
	ESE	ESE	ESE	SSE	SE	SSE	S	S	S	S	S	S	SSW	SSW	SSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW			216(SW)
Dec 21	10.2	9.3	13.0	10.7	10.4	10.6	10.3	9.9	9.5	10.0	9.6	10.7	9.4	15.2	16.9	17.0	15.2	16.8	14.4	8.0	13.3	9.7	8.6	8.7	8.0	17.0	11.6
	WSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	SSW	SSW	SW	SW	SW	SSW	SSW	SSW	S	S	S			204(SSW)
Dec 22	8.0	8.2	9.4	8.9	8.6	7.9	8.4	11.5	10.9	13.3	9.0	7.6	6.8	9.4	15.2	15.9	17.2	21.6	26.0	28.1	28.5	25.8	23.6	15.4	6.8	28.5	14.4
	SSE	SSE	SSE	SSE	SSE	SSE	SE	SSE	SSE	SSE	SSE	S	SSW	S	SW	SW	SW	SW	WSW	WSW	WSW	WSW	W	WNW			216(SW)
Dec 23	14.8	12.9	14.6	17.5	12.6	10.6	10.4	10.2	14.4	12.7	11.4	10.1	10.3	11.1	10.0	11.1	13.5	12.6	13.2	10.9	12.3	12.2	11.1	10.3	10.0	17.5	12.1
	WNW	W	WSW	WSW	WSW	WSW	WSW	SW	SW	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW			233(SW)
Dec 24	13.0	12.0	15.9	13.5	14.7	15.6	16.1	16.8	16.0	14.6	16.0	20.0	19.7	16.3	12.7	14.0	9.7	10.6	8.0	7.3	7.6	7.5	10.8	12.2	7.3	20.0	13.4
	SSW	SSW	SW	SSW	SW	SW	SW	SW	SW	SSW	SW	SW	SW	SW	SW	SW	SSW	SSW	S	S	S	SSW	SW	SSW			213(SSW)
Dec 25	9.6	11.3	12.3	11.7	12.0	13.8	12.1	11.1	11.7	9.8	9.6	9.9	7.2	7.9	11.2	10.1	12.2	13.3	11.5	10.6	13.7	10.2	10.4	8.8	7.2	13.8	10.9
	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	SSE	SE	SSE	SE	SE	SE	SE	SE	SE	SE	ESE			174(S)
Dec 26	12.8	12.3	12.2	11.0	7.3	12.1	13.4	9.1	9.1	7.7	12.4	18.3	21.4	22.9	19.9	17.5	17.9	29.1	28.8	**30.2**	29.9	24.6	24.7	21.4	7.3	**30.2**	17.8
	ESE	ESE	ESE	ESE	SE	ESE	ESE	SE	SE	S	SSW	SW	SW	WSW	WSW	SW	WSW	WSW	SW	SW	WSW	WSW	WSW	SW			219(SW)
Dec 27	17.5	14.4	17.3	15.5	13.4	10.7	7.6	6.8	3.1	11.9	11.0	10.4	8.0	7.3	7.9	8.0	9.1	12.5	12.3	10.0	11.6	10.8	8.0	1.7	1.7	17.5	10.3
	SW	SW	SW	SW	SW	SSW	S	SSE	E	ESE	ESE	ESE	ESE	E	ENE	NE	NNE	ENE	ENE	NE	ENE	ENE	E	W			132(SE)
Dec 28	7.5	3.4	4.9	4.0	1.5	8.7	1.4	1.2	3.3	4.6	5.2	1.8	7.0	3.5	2.7	3.6	4.6	6.0	7.6	7.5	8.2	8.4	8.9	11.6	1.2	11.6	**5.3**
	NNE	N	NNE	NE	NE	E	NNW	SSW	ESE	ESE	E	SE	SW	SSE	SSE	SSE	SSE	SSE	S	S	S	S	S	SSW			160(SSE)
Dec 29	10.6	10.9	9.4	8.4	10.7	12.8	8.1	10.4	7.9	9.0	7.4	6.9	7.7	5.8	3.2	7.4	9.6	11.0	12.3	12.1	9.4	7.4	10.6	11.7	3.2	12.8	9.2
	SSW	SSW	SSW	S	S	SSW	S	S	S	S	SSW	S	SSW	S	ESE	E	E	E	E	ESE	E	E	E	ESE			154(SSE)
Dec 30	12.9	11.9	13.3	12.2	10.3	9.0	10.4	8.0	9.4	9.0	8.0	5.7	5.4	4.0	9.6	8.1	9.3	8.4	9.7	10.0	11.3	10.4	10.7	11.8	4.0	13.3	9.5
	E	E	E	ENE	ENE	ENE	E	NE	ENE	NE	NE	ENE	E	SSE	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW			127(SE)
Dec 31	10.8	12.2	11.9	12.3	12.0	13.3	12.5	15.1	16.4	13.3	17.2	18.6	15.7	22.6	21.5	18.9	15.1	11.5	7.9	6.8	8.5	8.0	7.9	10.2	6.8	22.6	13.3
	SSW	SW	SW	SW	SSW	SSW	SSW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	WSW	WSW			232(SW)

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

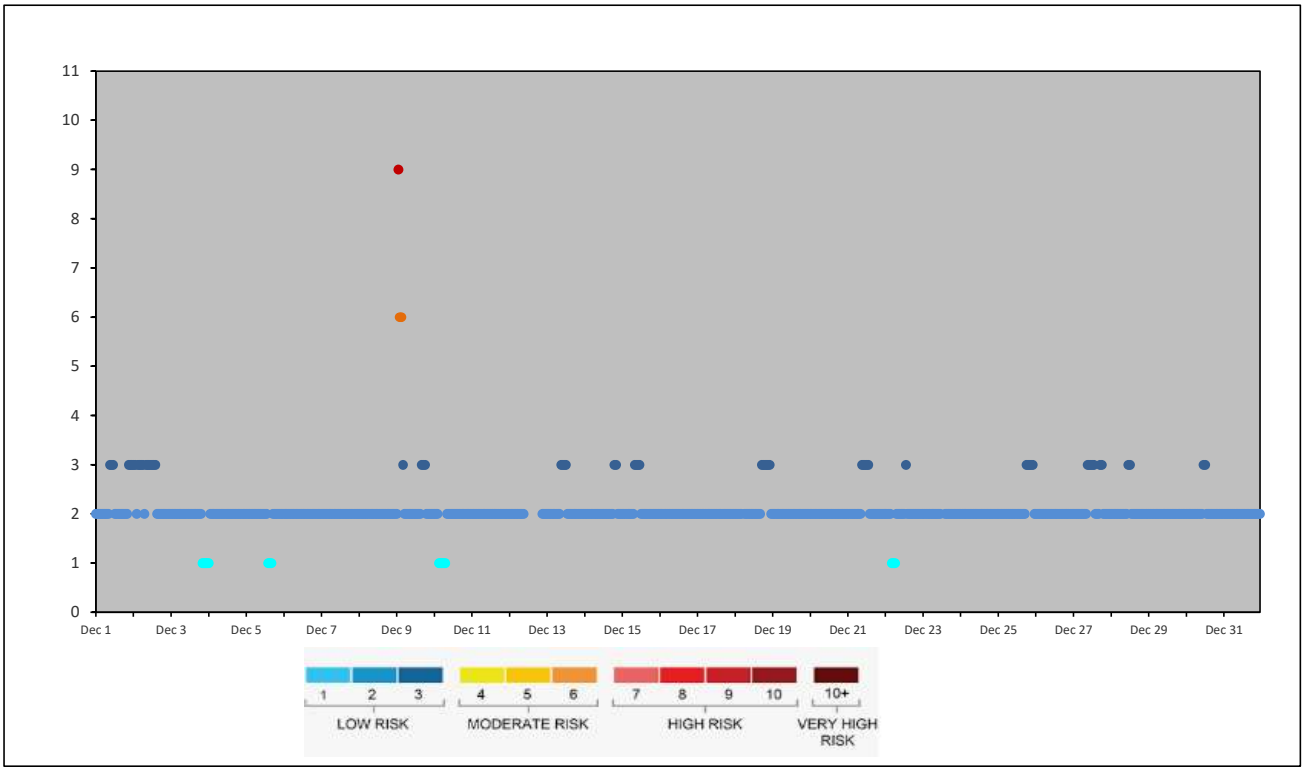
AQHI GRIMSHAW STATION

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

AQHI - Grimshaw Station - December 2023

AIR QUALITY HEALTH INDEX

Day	Hourly Period Starting at (MST)																						
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Dec 1	2	2	2	2	2	2	2	2	2	3	3	3	2	2	2	2	2	2	2	2	2	3	3	3
Dec 2	3	3	2	3	3	3	3	2	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2
Dec 3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1
Dec 4	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dec 5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2	2
Dec 6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dec 7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dec 8	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dec 9	2	9	6	6	3	2	2	2	2	2	2	2	2	2	2	2	3	3	3	2	2	2	2	2
Dec 10	2	2	2	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dec 11	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dec 12	2	2	2	2	2	2	2	2	2	2												2	2	2
Dec 13	2	2	2	2	2	2	2	2	2	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2
Dec 14	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2
Dec 15	2	2	2	2	2	2	2	2	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
Dec 16	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dec 17	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dec 18	2	2	2	2	2		2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	2
Dec 19	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dec 20	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dec 21	2	2	2	2	2	2	2	2	2	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2
Dec 22	2	2	2	2	1	1	1	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2
Dec 23	2	2	2	2	2	2	2	2	2	2	2	2			2	2	2	2	2	2	2	2	2	2
Dec 24	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dec 25	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	2
Dec 26	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dec 27	2	2	2	2	2	2	2	2	2	3	3	3	3	3	2	2	2	3	3	2	2	2	2	2
Dec 28	2	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2	2	2	2	2	2	2	2	2
Dec 29	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dec 30	2	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2	2	2	2	2	2	2	2	2
Dec 31	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

SULPHUR DIOXIDE (SO_2) in ppb

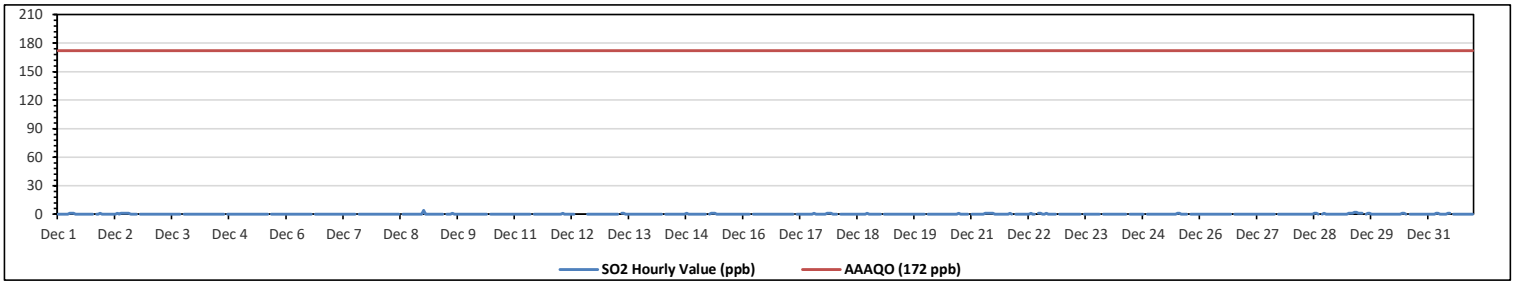
Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb

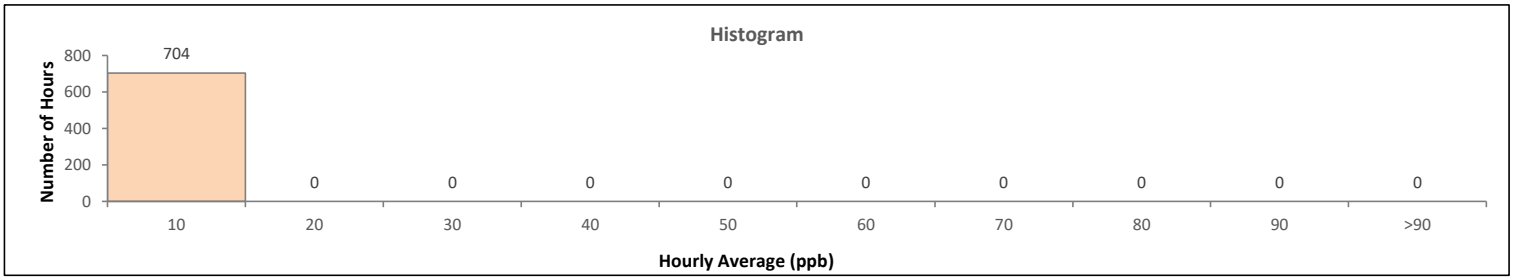
Number of 1-Hour Exceedances:	0	Number of 24-Hour Exceedances:	0	30-Day Exceedence:	0			
Maximum Hourly Value:	4	ppb	on Dec 9 at hr 0	Hours in Service:	744			
Maximum Daily Value:	0.5	ppb	on Dec 29	Hours of Data:	704			
Minimum Hourly Value:	0	ppb	on Dec 1 at hr 0	Hours of Missing Data:	3			
Minimum Daily Value:	0.0	ppb	on Dec 3	Hours of Calibration:	37			
Monthly Average:	0.1	ppb		Operational Uptime:	99.6			

Day	Hourly Period Starting at (MST)																						Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	1	0.2
Dec 2	0	0	0	0	0	0	0	1	0	1	1	1	1	1	0	0	0	0	S	0	0	0	0	0	0	1	0.3
Dec 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Dec 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
Dec 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0.0
Dec 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 7	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 8	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 9	4	0	0	0	0	0	0	0	0	0	0	S	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0.2
Dec 10	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 11	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 12	0	1	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Dec 13	0	0	0	0	0	0	0	S	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Dec 14	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.0
Dec 15	0	0	0	0	0	S	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Dec 16	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 17	0	0	0	S	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	0	0	1	0.2
Dec 18	0	0	S	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
Dec 19	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Dec 20	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	S	0	1	0.0
Dec 21	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	S	0	0	1	0.3
Dec 22	0	0	0	0	0	0	0	1	0	0	K	1	1	0	0	1	0	0	0	0	0	S	0	0	0	1	0.2
Dec 23	0	0	0	0	0	0	0	0	0	0	K	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0
Dec 24	0	0	0	0	0	0	0	0	0	0	K	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
Dec 25	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	S	0	0	0	0	0	0	1	0.1
Dec 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Dec 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
Dec 28	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	S	0	1	0	0	0	0	0	0	0	1	0.1
Dec 29	0	0	0	0	0	0	1	1	1	2	2	1	1	1	S	0	1	1	0	0	0	0	0	0	0	2	0.5
Dec 30	0	0	0	0	0	0	0	0	0	0	1	1	0	S	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Dec 31	0	0	0	0	1	1	0	0	0	0	1	1	S	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2
Diurnal Maximum	4	1	0	0	1	1	1	1	1	2	2	1	1	1	0	1	1	1	1	0	1	1	1	0			
Diurnal Average	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



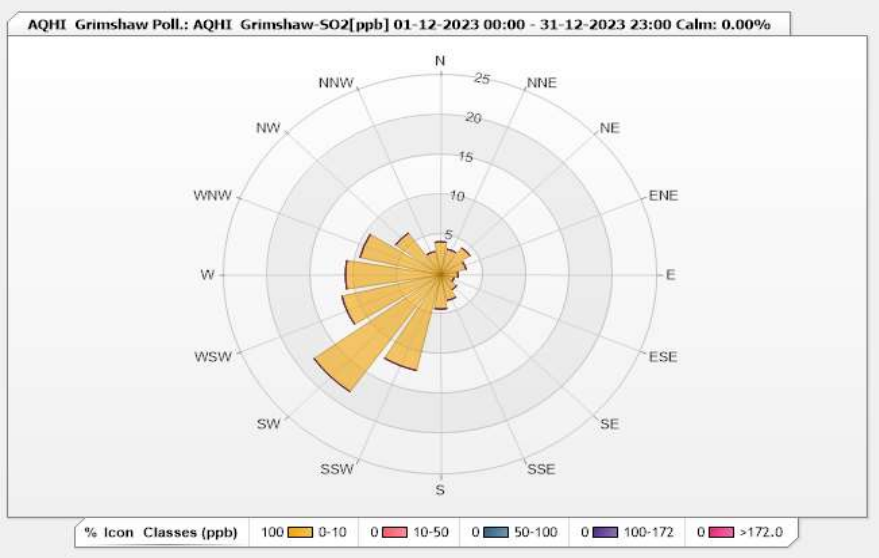


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-SO2[ppb] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 94.09% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	4.14	0	0	0	0	4.14
NNE	3.29	0	0	0	0	3.29
NE	4.14	0	0	0	0	4.14
ENE	3	0	0	0	0	3
E	2	0	0	0	0	2
ESE	1.57	0	0	0	0	1.57
SE	2.29	0	0	0	0	2.29
SSE	3.29	0	0	0	0	3.29
S	4.29	0	0	0	0	4.29
SSW	12.29	0	0	0	0	12.29
SW	18	0	0	0	0	18
WSW	11.71	0	0	0	0	11.71
W	11	0	0	0	0	11
WNW	9.57	0	0	0	0	9.57
NW	6.43	0	0	0	0	6.43
NNW	3	0	0	0	0	3
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

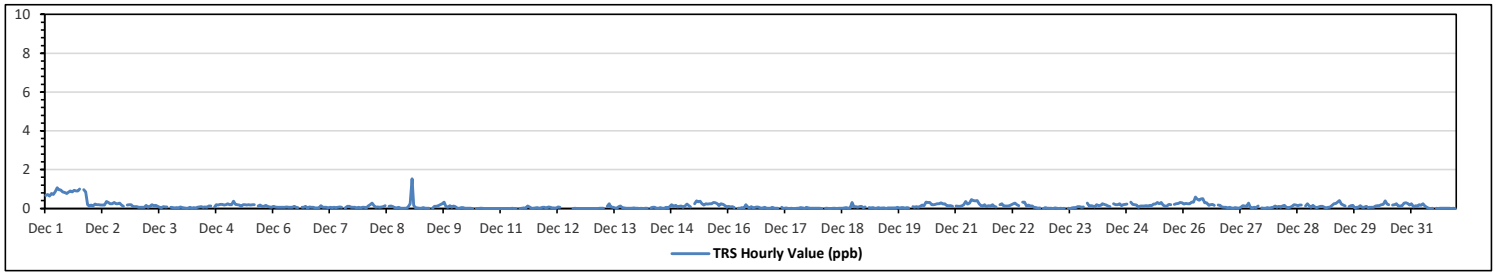
TOTAL REDUCED SULPHUR (TRS) in ppb

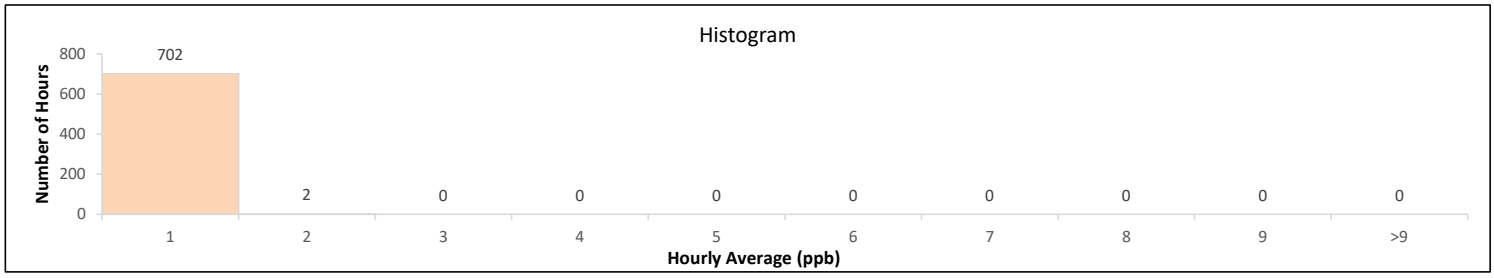
Maximum Hourly Value:	1.52	ppb	on Dec 9 at hr 1	Hours in Service:	744
Maximum Daily Value:	0.79	ppb	on Dec 1	Hours of Data:	704
Minimum Hourly Value:	0.00	ppb	on Dec 10 at hr 9	Hours of Missing Data:	3
Minimum Daily Value:	0.01	ppb	on Dec 10	Hours of Calibration:	37
Monthly Average:	0.13	ppb		Operational Uptime:	99.6

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0.67	0.73	0.63	0.77	0.71	0.87	1.06	0.97	0.96	0.86	0.81	0.77	0.84	0.91	0.85	0.93	0.89	0.9	0.99	S	0.97	0.86	0.2	0.13	0.13	1.06	**0.79**
Dec 2	0.17	0.13	0.22	0.18	0.18	0.17	0.17	0.17	0.35	0.31	0.23	0.25	0.31	0.25	0.24	0.28	0.17	0.1	S	0.17	0.19	0.19	0.09	0.09	0.09	0.35	0.20
Dec 3	0.09	0.05	0.06	0.05	0.05	0.16	0.07	0.1	0.18	0.14	0.16	0.11	0.07	0.04	0.09	0.08	0.08	S	0.05	0.04	0.03	0.04	0.03	0.08	0.03	0.18	0.08
Dec 4	0.04	0.03	0.02	0.02	0.05	0.02	0.04	0.02	0.06	0.08	0.09	0.06	0.08	0.06	0.13	0.13	S	0.08	0.18	0.17	0.21	0.21	0.17	0.18	0.02	0.21	0.09
Dec 5	0.23	0.18	0.2	0.37	0.21	0.2	0.17	0.11	0.18	0.2	0.17	0.18	0.17	0.2	0.2	S	0.13	0.17	0.1	0.11	0.16	0.1	0.08	0.06	0.06	0.37	0.17
Dec 6	0.1	0.08	0.05	0.07	0.05	0.05	0.06	0.08	0.05	0.06	0.06	0.1	0.05	0.04	S	0.07	0.06	0.1	0.02	0.08	0.05	0.06	0.03	0.03	0.02	0.10	0.06
Dec 7	0.03	0.14	0.07	0.05	0.06	0.03	0.06	0.04	0.07	0.04	0.06	0.08	0.05	S	0.03	0.11	0.11	0.07	0.07	0.07	0.03	0.06	0.03	0.07	0.03	0.14	0.06
Dec 8	0.05	0.03	0.12	0.19	0.28	0.15	0.07	0.08	0.07	0.08	0.09	0.14	S	0.11	0.13	0.09	0.04	0.03	0.06	0.02	0.01	0.01	0.01	0.07	0.01	0.28	0.08
Dec 9	0.23	**1.52**	0.16	0.03	0.03	0.01	0.01	0.04	0.02	0.01	0.01	S	0.02	0.1	0.11	0.14	0.19	0.24	0.33	0.09	0.06	0.15	0.07	0.13	0.01	**1.52**	0.16
Dec 10	0.09	0.02	0.02	0.04	0.04	0.02	0.02	0.02	0.02	0	S	0	0	0.02	0.01	0	0	0	0	0	0	0	0	0	0.00	0.09	0.01
Dec 11	0	0	0	0	0	0	0.01	0	0	S	0	0.01	0.03	0.02	0.12	0.08	0.02	0.02	0.03	0.04	0.01	0.03	0.05	0.05	0.00	0.12	0.02
Dec 12	0.01	0.08	0.06	0.03	0.03	0.01	0.08	0.05	C	C	C	C	C	C	0	0.01	0	0	0	0	0	0	0	0	0.00	0.08	0.02
Dec 13	0	0	0	0	0.01	0.01	0.02	S	0.1	0.25	0.08	0.06	0.03	0.02	0.09	0.12	0.04	0.03	0.02	0.02	0.02	0.02	0.03	0.02	0.00	0.25	0.04
Dec 14	0.02	0	0.02	0	0.02	0.02	S	0.03	0.07	0.05	0.01	0.01	0.04	0.01	0.01	0.06	0.03	0.09	0.18	0.1	0.16	0.08	0.1	0.12	0.00	0.18	0.05
Dec 15	0.07	0.13	0.22	0.15	0.08	S	0.25	0.39	0.34	0.38	0.23	0.17	0.24	0.22	0.23	0.25	0.31	0.29	0.24	0.14	0.23	0.21	0.15	0.06	0.06	0.39	0.22
Dec 16	0.1	0.08	0.09	0.04	S	0.01	0.01	0.04	0.01	0.18	0.08	0.03	0.09	0.03	0.07	0.08	0.05	0.02	0.03	0.05	0.02	0.02	0.02	0.05	0.01	0.18	0.05
Dec 17	0.02	0.02	0.01	S	0.05	0	0.03	0.01	0	0.01	0	0	0.02	0.02	0.04	0.03	0	0.05	0.03	0.01	0.01	0.01	0.02	0.01	0.00	0.05	0.02
Dec 18	0.01	0	S	0.01	0.01	0	0	0.01	0.01	0	0.01	0.02	0.02	0.03	0.04	0.02	0.03	0.31	0.08	0.09	0.07	0.09	0.1	0.04	0.00	0.31	0.04
Dec 19	0.08	S	0.04	0.03	0.04	0.01	0.02	0.04	0.02	0.03	0.03	0	0.03	0.03	0.03	0.03	0.03	0.05	0.02	0.04	0.04	0.02	0.04	0.03	0.00	0.08	0.03
Dec 20	S	0.09	0.05	0.09	0.06	0.1	0.17	0.15	0.33	0.31	0.31	0.18	0.19	0.21	0.25	0.23	0.29	0.22	0.24	0.14	0.15	0.15	0.11	S	0.05	0.33	0.18
Dec 21	0.12	0.1	0.11	0.15	0.19	0.36	0.22	0.27	0.45	0.41	0.39	0.4	0.25	0.15	0.13	0.19	0.09	0.14	0.12	0.18	0.1	0.08	S	0.19	0.08	0.45	0.21
Dec 22	0.24	0.13	0.13	0.12	0.14	0.18	0.25	0.28	0.18	0.15	K	0.33	0.32	0.13	0.17	0.12	0.13	0.05	0.04	0.02	0.03	S	0	0.04	0.00	0.33	0.14
Dec 23	0.02	0.02	0.01	0	0.03	0.01	0	0.01	0	0.01	K	0.01	0	0.03	0.04	0.04	0.09	0.09	0.07	0.08	S	0.28	0.13	0.14	0.00	0.28	0.05
Dec 24	0.12	0.08	0.18	0.15	0.16	0.23	0.21	0.17	0.13	0.09	K	0.23	0.19	0.2	0.24	0.14	0.2	0.21	0.22	S	0.32	0.21	0.19	0.17	0.08	0.32	0.18
Dec 25	0.07	0.12	0.12	0.13	0.14	0.12	0.16	0.15	0.22	0.22	0.31	0.24	0.31	0.17	0.1	0.12	0.21	0.19	S	0.21	0.25	0.26	0.31	0.29	0.07	0.31	0.19
Dec 26	0.22	0.26	0.25	0.24	0.32	0.33	0.59	0.48	0.43	0.49	0.5	0.29	0.29	0.16	0.2	0.21	0.16	S	0.17	0.16	0.08	0.07	0.06	0.03	0.03	0.59	0.26
Dec 27	0.05	0.03	0.01	0.04	0.03	0.02	0.06	0.14	0.12	0.1	0.28	0.08	0.01	0.05	0.04	0.12	S	0.03	0.01	0.01	0.04	0.02	0.04	0.07	0.01	0.28	0.06
Dec 28	0.12	0.05	0.11	0.06	0.12	0.16	0.05	0.04	0.05	0.1	0.19	0.17	0.15	0.17	0.17	S	0.12	0.24	0.14	0.06	0.16	0.08	0.04	0.08	0.04	0.24	0.11
Dec 29	0.1	0.1	0.07	0.03	0.05	0.06	0.14	0.24	0.26	0.32	0.42	0.22	0.17	0.13	S	0.09	0.15	0.16	0.03	0.07	0.07	0.14	0.07	0.06	0.03	0.42	0.14
Dec 30	0.1	0.04	0.07	0.07	0.06	0.12	0.15	0.15	0.2	0.21	0.39	0.22	0.2	S	0.17	0.19	0.24	0.13	0.12	0.14	0.27	0.29	0.26	0.17	0.04	0.39	0.17
Dec 31	0.23	0.08	0.15	0.11	0.18	0.16	0.25	0.13	0.05	0.01	0	0.01	S	0.01	0	0.01	0.01	0.01	0.01	0.02	0.01	0	0.01	0	0.00	0.25	0.06
Diurnal Maximum	0.67	1.52	0.63	0.77	0.71	0.87	1.06	0.97	0.96	0.86	0.81	0.77	0.84	0.91	0.85	0.93	0.89	0.90	0.99	0.21	0.97	0.86	0.31	0.29			
Diurnal Average	0.11	0.14	0.11	0.11	0.11	0.12	0.15	0.15	0.16	0.18	0.19	0.15	0.15	0.13	0.14	0.14	0.13	0.14	0.12	0.08	0.13	0.12	0.08	0.08			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



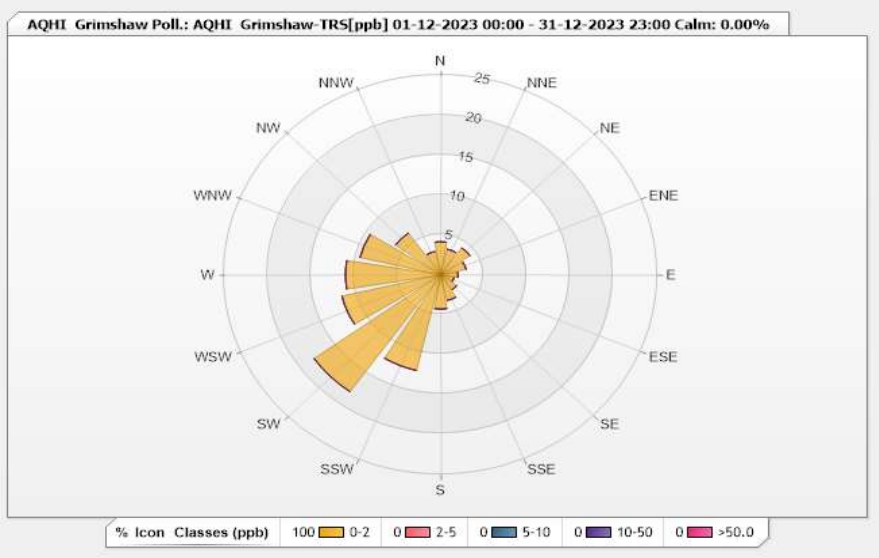


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-TRS[ppb] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 94.09% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	4.14	0	0	0	0	4.14
NNE	3.29	0	0	0	0	3.29
NE	4.14	0	0	0	0	4.14
ENE	3	0	0	0	0	3
E	2	0	0	0	0	2
ESE	1.57	0	0	0	0	1.57
SE	2.29	0	0	0	0	2.29
SSE	3.29	0	0	0	0	3.29
S	4.29	0	0	0	0	4.29
SSW	12.29	0	0	0	0	12.29
SW	18	0	0	0	0	18
WSW	11.71	0	0	0	0	11.71
W	11	0	0	0	0	11
WNW	9.57	0	0	0	0	9.57
NW	6.43	0	0	0	0	6.43
NNW	3	0	0	0	0	3
Summary	100	0	0	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

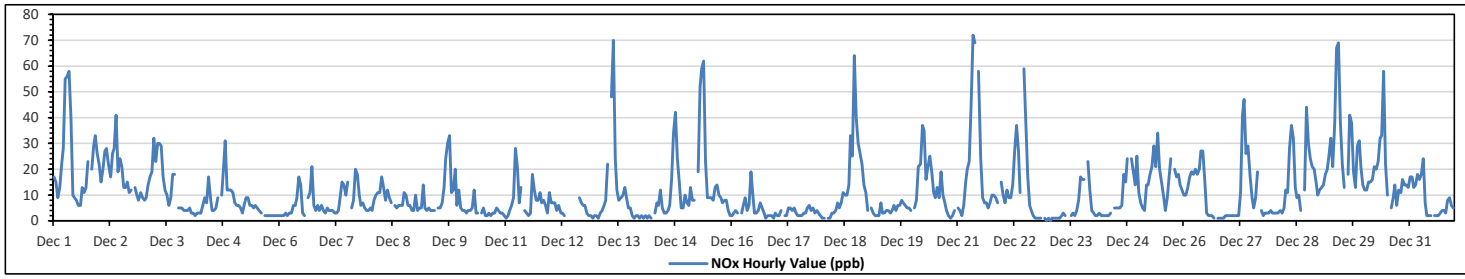
OXIDES OF NITROGEN (NOx) in ppb

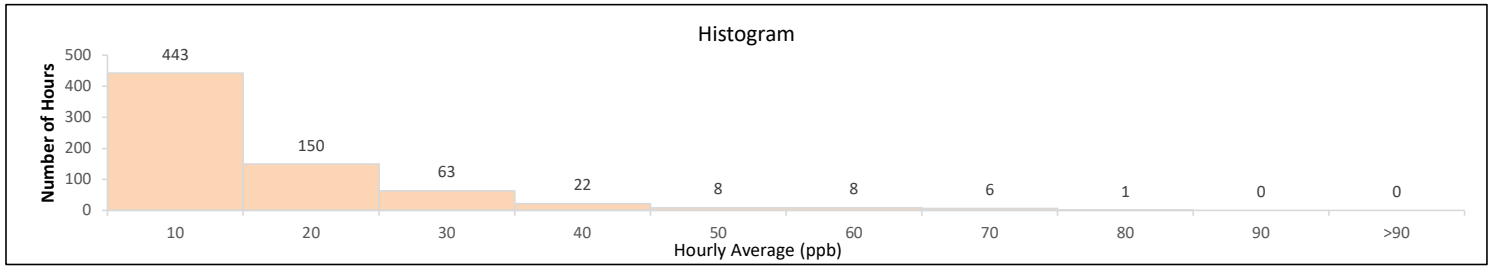
Maximum Hourly Value:	72	ppb	on Dec 21 at hr 8	Hours in Service:	744	
Maximum Daily Value:	27.2	ppb	on Dec 29	Hours of Data:	701	
Minimum Hourly Value:	0	ppb	on Dec 22 at hr 23	Hours of Missing Data:	5	
Minimum Daily Value:	3.4	ppb	on Dec 17	Hours of Calibration:	38	
Monthly Average:	11.3	ppb		Operational Uptime:	99.3	

Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	17	15	9	13	22	28	55	56	58	40	10	9	8	6	6	13	11	13	23	S	20	29	33	26	6	58	22.6
Dec 2	22	15	20	27	28	22	17	26	28	41	19	24	21	13	13	15	11	12	S	13	10	8	11	9	8	41	18.5
Dec 3	8	9	14	17	19	32	23	30	30	29	17	12	10	6	9	18	18	S	5	5	5	4	4	4	4	32	14.3
Dec 4	5	3	3	2	3	3	3	6	9	7	17	9	4	4	5	9	S	10	19	31	12	12	12	11	2	31	8.7
Dec 5	7	6	6	5	3	6	9	9	6	6	5	6	5	4	3	S	2	2	2	2	2	2	2	2	2	9	4.4
Dec 6	2	2	2	3	2	3	3	6	6	9	17	14	3	2	S	9	11	21	6	4	6	4	6	4	2	21	6.3
Dec 7	3	5	4	4	4	3	3	4	9	15	14	10	15	S	5	8	20	18	10	6	7	5	4	4	3	20	7.8
Dec 8	5	4	8	10	11	11	17	13	8	12	9	7	S	6	5	6	6	6	11	10	6	6	4	4	4	17	8.0
Dec 9	10	4	5	5	14	5	4	5	4	4	4	S	5	5	7	13	24	30	33	11	12	20	6	12	4	33	10.5
Dec 10	5	4	4	3	4	4	5	12	3	3	S	3	5	2	2	3	2	3	3	5	4	3	3	2	2	12	3.8
Dec 11	1	2	4	6	9	28	21	7	13	S	4	3	2	3	18	12	8	8	11	7	8	6	3	11	1	28	8.5
Dec 12	7	7	7	4	6	3	3	2	C	C	C	C	C	C	C	9	7	6	6	3	2	2	1	2	1	9	NA
Dec 13	2	1	3	4	6	8	22	S	48	70	24	12	8	9	10	13	9	5	5	2	1	2	2	1	1	70	11.6
Dec 14	2	1	2	1	2	1	S	3	7	6	12	5	3	3	4	6	16	34	42	24	15	5	5	10	1	42	9.1
Dec 15	7	6	13	8	8	S	19	52	59	62	23	9	9	9	8	13	14	10	9	7	8	8	4	2	2	62	16.0
Dec 16	2	3	4	3	S	3	6	9	4	6	19	10	3	3	4	7	5	3	1	2	2	2	1	3	1	19	4.6
Dec 17	2	2	4	S	2	2	5	5	4	5	3	2	2	2	3	3	5	6	4	5	3	4	3	2	2	6	**3.4**
Dec 18	1	1	S	1	1	3	3	4	7	5	7	11	10	10	14	33	25	64	40	30	26	22	14	11	1	64	14.9
Dec 19	4	S	5	3	2	2	2	7	3	3	4	4	3	4	6	4	6	6	8	7	6	5	5	4	2	8	4.5
Dec 20	S	5	8	21	22	37	35	16	21	25	19	11	9	13	9	19	10	7	4	2	1	2	4	S	1	37	13.6
Dec 21	5	4	2	6	15	20	23	45	**72**	69	K	58	24	9	7	7	5	7	10	10	9	7	S	15	2	**72**	19.5
Dec 22	10	7	12	9	9	14	27	37	27	11	K	59	38	17	6	4	2	1	1	1	1	S	1	0	**0**	59	13.4
Dec 23	1	0	1	1	1	1	1	2	3	2	K	K	2	3	2	4	8	17	16	16	S	23	12	4	**0**	23	5.7
Dec 24	3	2	2	3	2	2	2	2	2	3	K	5	5	5	5	6	18	15	24	S	24	19	14	25	2	25	8.5
Dec 25	11	7	5	4	14	14	18	21	29	21	34	20	15	10	4	9	16	24	S	20	17	18	14	12	4	34	15.5
Dec 26	10	10	13	17	19	18	20	18	20	27	27	16	3	2	2	2	1	S	1	1	1	1	2	2	1	27	10.1
Dec 27	2	2	2	2	2	2	11	41	47	26	29	17	9	5	9	19	S	4	2	3	3	3	4	3	2	47	10.7
Dec 28	3	3	3	4	3	5	12	11	28	37	32	13	9	10	4	S	12	44	30	24	21	20	15	10	3	44	15.3
Dec 29	12	13	14	18	20	25	32	21	37	67	69	38	22	13	S	18	41	38	19	13	29	31	21	14	12	69	**27.2**
Dec 30	12	12	15	15	16	21	20	23	32	33	58	22	10	S	5	9	14	6	12	11	16	14	14	13	5	58	17.5
Dec 31	17	17	13	14	18	16	18	24	7	2	2	2	S	2	2	2	3	4	4	3	8	9	6	5	2	24	8.6
Diurnal Maximum	22	17	20	27	28	37	55	56	72	70	69	59	38	17	18	33	41	64	42	31	29	31	33	26			
Diurnal Average	6.6	5.7	6.9	7.8	9.6	11.4	14.6	17.2	21.0	22.3	19.1	14.7	9.4	6.4	6.3	10.1	11.4	14.6	12.4	9.6	9.5	9.9	7.7	7.6			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance			
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P	Power Failure	
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)					

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



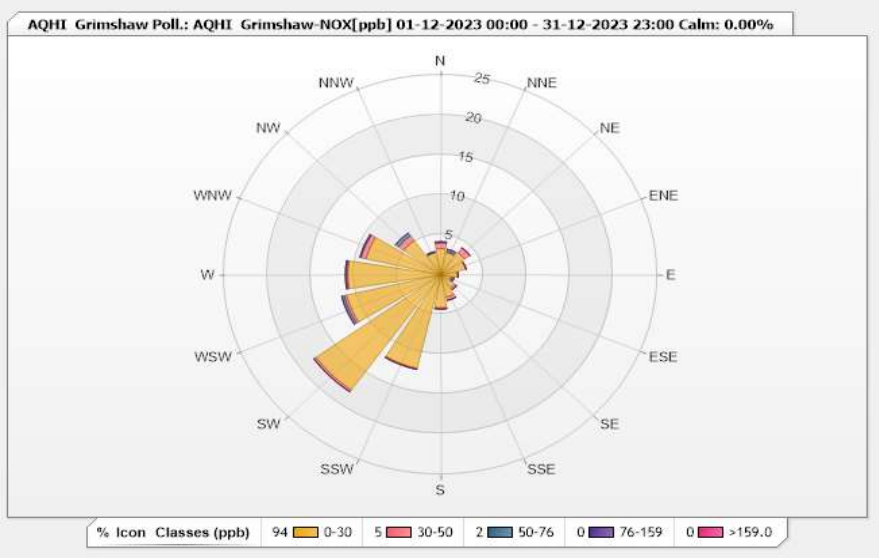


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NOX[ppb] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 93.95% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	3.29	0.72	0.14	0	0	4.15
NNE	2.86	0.14	0.29	0	0	3.29
NE	3.43	0.72	0	0	0	4.15
ENE	3	0	0	0	0	3
E	2	0	0	0	0	2
ESE	1.29	0	0.29	0	0	1.58
SE	2	0.29	0	0	0	2.29
SSE	2.86	0.43	0	0	0	3.29
S	4.15	0.14	0	0	0	4.29
SSW	12.02	0.14	0	0	0	12.16
SW	17.74	0.29	0	0	0	18.03
WSW	11.16	0.29	0.29	0	0	11.74
W	10.73	0.14	0.14	0	0	11.01
WNW	8.87	0.57	0.14	0	0	9.58
NW	5.29	0.72	0.43	0	0	6.44
NNW	2.86	0	0.14	0	0	3
Summary	93.55	4.59	1.86	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

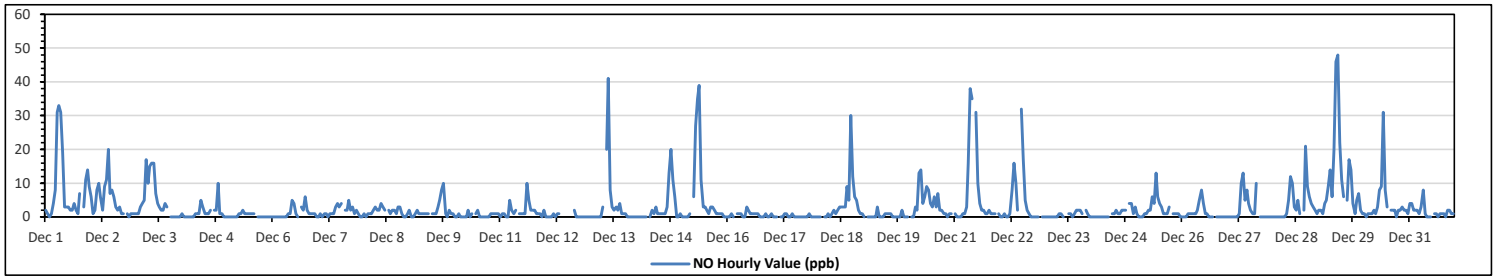
NITRIC OXIDE (NO) in ppb

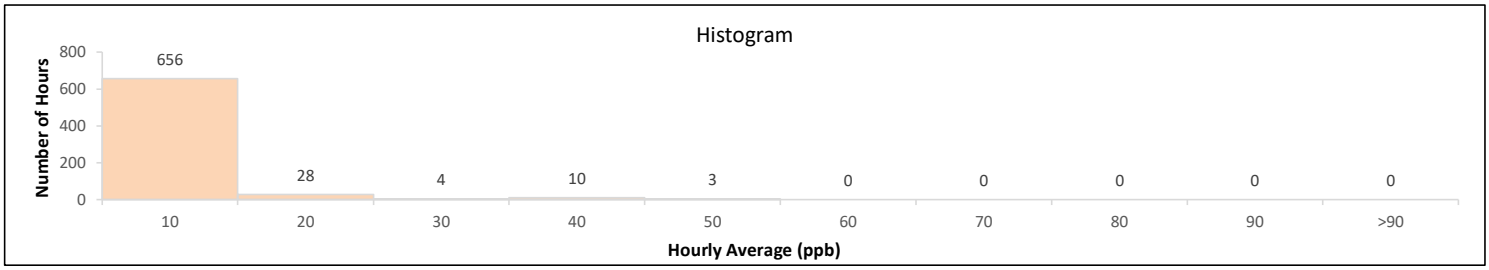
Maximum Hourly Value:	48	ppb	on Dec 29 at hr 10	Hours in Service:	744
Maximum Daily Value:	11.0	ppb	on Dec 29	Hours of Data:	701
Minimum Hourly Value:	0	ppb	on Dec 1 at hr 2	Hours of Missing Data:	5
Minimum Daily Value:	0.2	ppb	on Dec 17	Hours of Calibration:	38
Monthly Average:	2.9	ppb		Operational Uptime:	99.3

Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	2	1	0	1	4	8	31	33	31	19	3	3	3	2	2	4	2	1	7	S	3	11	14	9	0	33	8.4
Dec 2	6	1	2	8	10	6	2	9	11	20	7	8	6	3	2	3	1	1	S	1	0	1	1	1	0	20	4.8
Dec 3	1	1	3	4	5	17	10	15	16	16	7	4	3	2	2	4	3	S	0	0	0	0	0	0	0	17	4.9
Dec 4	1	0	0	0	0	0	0	1	1	1	5	3	1	1	1	2	S	2	2	10	1	1	0	0	0	10	1.4
Dec 5	0	0	0	0	0	0	1	1	2	1	1	1	1	1	1	S	0	0	0	0	0	0	0	0	0	2	0.4
Dec 6	0	0	0	0	0	0	0	0	1	1	5	4	1	0	S	3	2	6	2	1	1	1	1	0	0	6	1.3
Dec 7	0	1	0	1	1	0	1	1	1	3	4	3	4	S	2	2	5	2	3	1	2	1	0	0	0	5	1.7
Dec 8	1	0	1	1	1	2	3	2	2	4	3	2	S	2	1	2	2	1	3	3	1	0	0	1	0	4	1.7
Dec 9	2	0	0	1	2	1	1	1	1	1	1	S	1	1	1	3	5	8	10	1	0	2	1	1	0	10	2.0
Dec 10	0	0	1	0	0	0	0	2	0	1	S	1	2	0	0	0	0	0	0	1	1	1	1	1	0	2	0.5
Dec 11	0	1	1	0	0	5	2	1	2	S	1	1	1	1	10	5	2	2	2	1	1	1	0	2	0	10	1.8
Dec 12	0	0	0	0	1	0	1	C	C	C	C	C	C	C	C	2	0	0	0	0	0	0	0	0	0	2	NA
Dec 13	0	0	0	0	0	0	3	S	20	41	8	3	2	3	2	4	1	1	1	0	0	0	0	0	0	41	3.9
Dec 14	0	0	0	0	0	0	S	0	2	1	3	1	1	1	1	1	3	13	20	11	6	0	0	1	0	20	2.8
Dec 15	0	0	0	0	1	S	6	27	35	39	11	3	3	2	1	3	3	2	1	1	1	1	0	0	0	39	6.1
Dec 16	0	0	1	0	S	1	1	1	0	0	3	2	1	1	1	1	1	0	0	0	1	0	0	1	0	3	0.7
Dec 17	0	0	0	S	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.2
Dec 18	0	0	S	0	0	1	0	1	2	1	2	3	3	3	3	9	5	30	12	6	5	2	1	1	0	30	3.9
Dec 19	0	S	0	0	0	0	0	3	0	0	0	1	1	1	1	0	0	0	0	0	2	0	0	0	0	3	0.4
Dec 20	S	0	0	3	2	13	14	4	6	9	8	4	3	6	3	7	2	2	1	1	0	1	1	S	0	14	4.1
Dec 21	1	0	0	0	1	1	3	16	38	35	K	31	10	4	2	2	1	1	2	1	1	1	S	1	0	38	6.9
Dec 22	0	0	1	0	0	1	8	16	10	2	K	32	17	5	2	1	0	0	0	0	0	S	0	0	0	32	4.3
Dec 23	0	0	0	0	0	0	0	1	1	0	K	K	1	1	0	1	2	2	2	1	S	2	1	0	0	2	0.7
Dec 24	0	0	0	0	0	0	0	0	0	0	K	1	1	2	1	1	2	2	2	S	4	4	1	3	0	4	1.1
Dec 25	1	0	0	0	1	1	2	2	6	4	13	6	4	3	1	1	1	3	S	1	1	1	1	0	0	13	2.3
Dec 26	0	0	0	1	1	1	1	1	2	5	8	4	1	1	0	0	0	S	0	0	0	0	0	0	0	8	1.1
Dec 27	0	0	0	0	0	0	1	10	13	5	8	4	2	1	1	10	S	0	0	0	0	0	0	0	0	13	2.4
Dec 28	0	0	0	0	0	0	0	1	5	12	10	3	2	5	1	S	2	21	9	6	4	3	2	1	0	21	3.8
Dec 29	2	2	1	4	5	9	14	6	20	46	**48**	22	11	6	S	5	17	14	4	1	5	7	2	1	1	**48**	**11.0**
Dec 30	1	0	1	1	1	2	1	3	8	9	31	8	3	S	2	2	2	0	2	2	3	2	2	1	0	31	3.8
Dec 31	4	4	2	2	2	1	3	8	1	0	0	0	S	1	1	0	1	1	1	0	2	2	1	1	0	8	1.7
Diurnal Maximum	6	4	3	8	10	17	31	33	38	46	48	32	17	6	10	10	17	30	20	11	6	11	14	9			
Diurnal Average	0.7	0.4	0.5	0.9	1.3	2.3	3.7	5.6	7.9	9.5	7.6	5.6	3.2	2.1	1.6	2.7	2.2	4.0	3.0	1.8	1.5	1.5	1.0	0.9			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance			
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P	Power Failure	
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)					

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



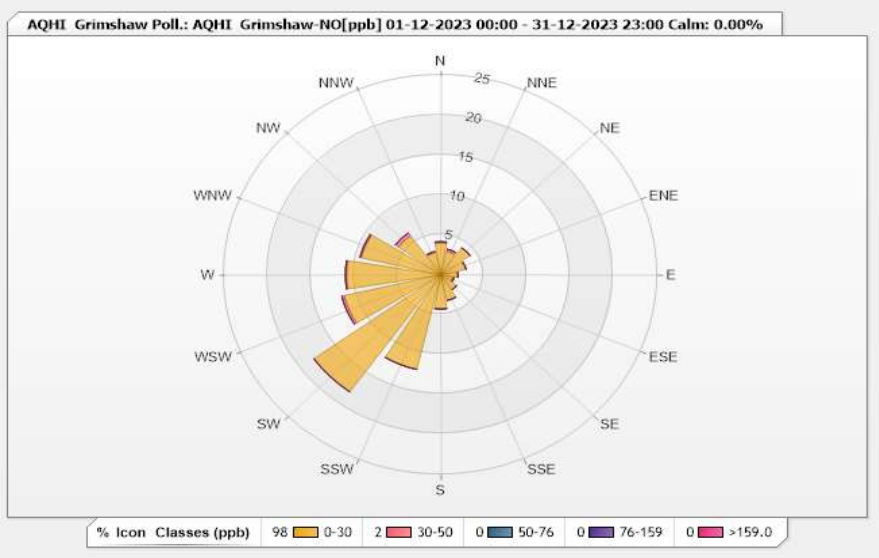


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NO[ppb] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 93.95% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	4.01	0.14	0	0	0	4.15
NNE	3	0.29	0	0	0	3.29
NE	4.15	0	0	0	0	4.15
ENE	3	0	0	0	0	3
E	2	0	0	0	0	2
ESE	1.43	0.14	0	0	0	1.57
SE	2.29	0	0	0	0	2.29
SSE	3.29	0	0	0	0	3.29
S	4.29	0	0	0	0	4.29
SSW	12.16	0	0	0	0	12.16
SW	18.03	0	0	0	0	18.03
WSW	11.44	0.29	0	0	0	11.73
W	10.87	0.14	0	0	0	11.01
WNW	9.44	0.14	0	0	0	9.58
NW	6.01	0.43	0	0	0	6.44
NNW	2.86	0.14	0	0	0	3
Summary	98.27	1.71	0	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

NITROGEN DIOXIDE (NO_2) in ppb

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

Number of 1-Hour Exceedances: 0

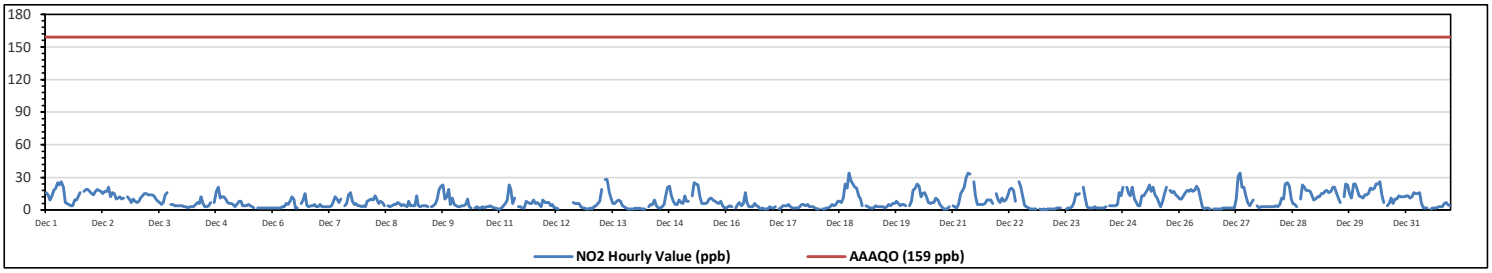
Maximum Hourly Value:	34	ppb	on Dec 18 at hr 17	Hours in Service:	744
Maximum Daily Value:	16.2	ppb	on Dec 29	Hours of Data:	701
Minimum Hourly Value:	0	ppb	on Dec 22 at hr 23	Hours of Missing Data:	5
Minimum Daily Value:	3.1	ppb	on Dec 17	Hours of Calibration:	38
Monthly Average:	8.3	ppb		Operational Uptime:	99.3

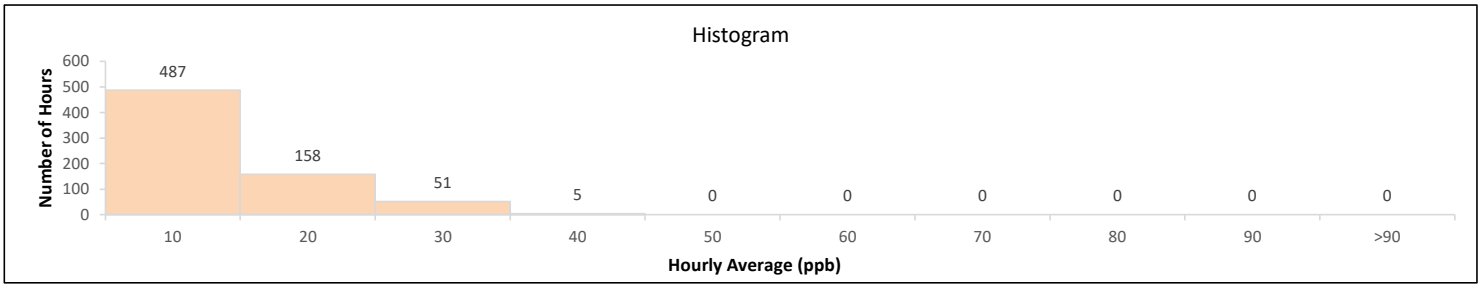
Day	Hourly Period Starting at (MST)																						Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	16	14	9	13	18	20	25	23	26	21	7	6	5	4	4	9	9	12	16	S	17	19	19	17	4	26	14.3
Dec 2	15	14	17	19	18	17	15	17	17	21	12	16	15	10	11	12	10	11	S	12	10	7	10	8	7	21	13.7
Dec 3	7	8	11	13	15	15	14	14	14	13	10	8	7	5	7	14	16	S	5	5	4	4	4	4	4	16	9.4
Dec 4	4	3	3	2	3	3	3	5	7	6	12	6	3	3	4	7	S	7	17	21	11	12	12	10	2	21	7.1
Dec 5	7	6	6	5	3	5	8	8	4	4	4	5	4	3	2	S	2	2	2	2	2	2	2	2	2	8	3.9
Dec 6	2	2	2	2	2	3	3	6	5	8	12	10	2	2	S	6	9	15	4	3	4	4	5	3	2	15	5.0
Dec 7	3	5	3	3	3	3	3	4	8	12	10	7	10	S	4	6	14	16	8	5	6	4	4	3	3	16	6.3
Dec 8	4	3	8	9	10	9	13	10	6	8	7	4	S	4	3	4	5	5	7	6	4	5	4	3	3	13	6.1
Dec 9	8	4	4	4	13	4	3	4	4	4	3	S	3	4	6	10	19	22	23	10	12	19	5	11	3	23	8.7
Dec 10	5	4	3	3	4	4	5	10	3	2	S	2	3	2	2	3	2	3	3	4	3	2	2	1	1	10	3.3
Dec 11	1	2	4	6	9	23	19	6	11	S	3	3	2	2	8	7	6	6	9	6	7	5	3	9	1	23	6.8
Dec 12	7	7	7	4	5	2	2	1	C	C	C	C	C	C	C	7	6	6	6	3	2	2	1	1	1	7	NA
Dec 13	2	1	3	4	6	8	19	S	28	28	16	10	6	6	8	9	8	4	3	2	1	1	1	1	1	28	7.6
Dec 14	2	1	2	1	1	1	S	3	5	5	9	4	2	2	3	5	13	21	22	13	8	5	5	9	1	22	6.2
Dec 15	7	6	13	8	8	S	13	25	24	23	12	6	6	6	7	10	11	9	8	7	6	8	4	2	2	25	10.0
Dec 16	2	3	4	3	S	2	5	7	4	6	16	7	3	3	3	6	4	3	1	2	1	1	1	3	1	16	3.9
Dec 17	2	2	3	S	1	2	4	4	4	5	3	2	2	2	2	3	5	5	4	5	3	3	3	2	1	5	3.1
Dec 18	1	1	S	1	1	2	2	3	5	4	5	8	8	7	11	24	20	34	27	24	21	20	13	10	1	34	11.0
Dec 19	4	S	4	3	2	2	2	4	3	3	3	3	2	3	5	4	6	6	8	6	4	5	5	4	2	8	4.0
Dec 20	S	4	8	18	20	24	22	12	15	16	12	7	6	7	7	11	9	5	3	1	1	1	3	S	1	24	9.6
Dec 21	4	3	2	5	15	18	21	30	34	33	K	26	13	5	5	5	5	6	9	9	9	6	S	15	2	34	12.6
Dec 22	9	7	11	8	9	13	19	20	18	8	K	26	21	12	4	3	2	1	1	1	1	S	1	0	0	26	8.9
Dec 23	1	0	1	1	1	1	1	2	2	2	K	K	1	2	2	3	7	15	14	15	S	21	11	3	0	21	5.0
Dec 24	2	2	2	3	2	2	2	2	2	3	K	4	4	4	4	5	16	13	21	S	21	15	13	21	2	21	7.4
Dec 25	10	7	4	4	13	13	16	19	23	17	21	14	11	7	3	8	15	21	S	18	16	17	14	12	3	23	13.2
Dec 26	10	10	13	16	18	17	19	17	18	22	19	11	3	1	2	2	1	S	1	1	1	1	1	2	1	22	9.0
Dec 27	2	2	2	2	2	2	10	31	34	21	21	13	7	4	7	9	S	4	2	3	3	3	3	3	2	34	8.3
Dec 28	3	3	3	4	3	5	11	10	24	25	22	10	6	5	3	S	10	23	21	18	18	17	13	9	3	25	11.6
Dec 29	10	12	12	15	15	17	18	16	17	21	21	16	11	7	S	12	24	23	15	11	24	24	19	13	7	24	16.2
Dec 30	12	11	14	14	15	20	19	20	24	24	26	14	7	S	4	6	11	6	10	10	13	12	12	12	4	26	13.7
Dec 31	13	13	11	12	16	15	15	16	6	2	2	2	S	1	2	2	2	3	3	3	6	7	5	4	1	16	7.0
Diurnal Maximum	16	14	17	19	20	24	25	31	34	33	26	26	21	12	11	24	24	34	27	24	24	24	19	21			
Diurnal Average	5.8	5.3	6.3	6.8	8.4	9.1	11.0	11.6	13.2	12.7	11.5	8.9	6.2	4.4	4.8	7.3	9.2	10.6	9.4	7.8	8.0	8.4	6.6	6.6			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



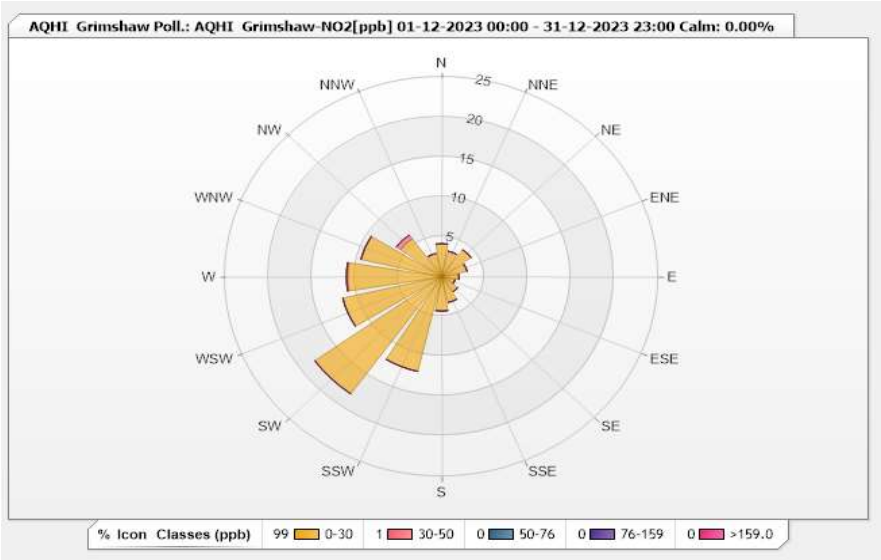


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NO2[ppb] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 93.95% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	4.15	0	0	0	0	4.15
NNE	3.29	0	0	0	0	3.29
NE	4.15	0	0	0	0	4.15
ENE	3	0	0	0	0	3
E	2	0	0	0	0	2
ESE	1.57	0	0	0	0	1.57
SE	2.29	0	0	0	0	2.29
SSE	3.29	0	0	0	0	3.29
S	4.29	0	0	0	0	4.29
SSW	12.16	0	0	0	0	12.16
SW	18.03	0	0	0	0	18.03
WSW	11.73	0	0	0	0	11.73
W	10.87	0.14	0	0	0	11.01
WNW	9.59	0	0	0	0	9.59
NW	5.87	0.57	0	0	0	6.44
NNW	3	0	0	0	0	3
Summary	99.28	0.71	0	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

OZONE (O_3) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 76 ppb

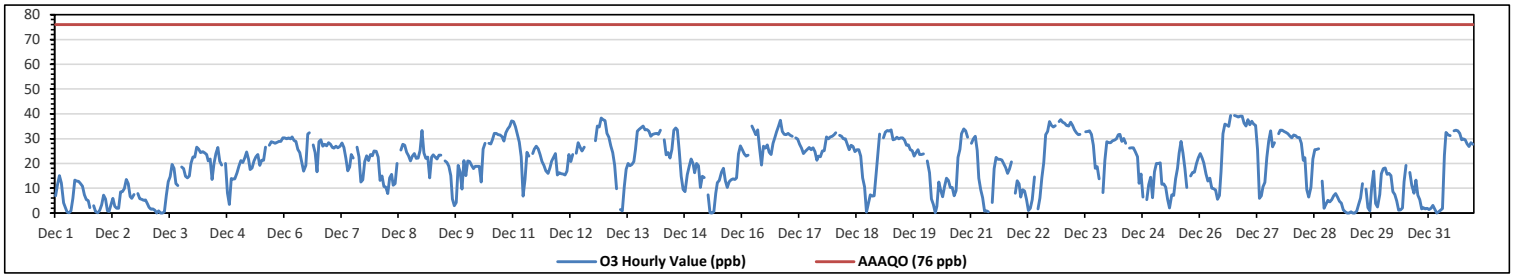
Number of 1-Hour Exceedances: 0

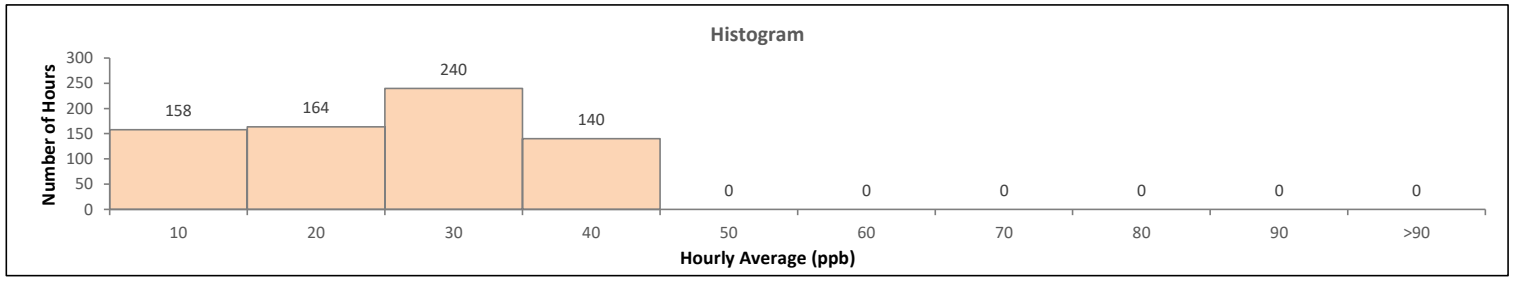
Maximum Hourly Value:	39.4	ppb	on Dec 26 at hr 16	Hours in Service:	744
Maximum Daily Value:	29.1	ppb	on Dec 23	Hours of Data:	702
Minimum Hourly Value:	0.0	ppb	on Dec 3 at hr 5	Hours of Missing Data:	5
Minimum Daily Value:	4.8	ppb	on Dec 29	Hours of Calibration:	37
Monthly Average:	19.8	ppb		Operational Uptime:	99.3

Day	Hourly Period Starting at (MST)																						Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	6.9	11.4	15.1	12.1	4.1	2.1	0.3	0.1	0.8	5.9	13.2	12.9	12.8	11.9	10.9	7.3	5.4	5	2.2	S	2.9	0.4	0.1	1.1	0.1	15.1	6.3
Dec 2	3.3	7.2	5.6	0.9	0.6	3.3	5.9	2.7	2	2	8.5	8.6	9.9	13.5	11.8	6.7	5.9	7.5	S	7.8	5.8	5.5	5.1	5.2	0.6	13.5	5.9
Dec 3	3.7	2.3	1.5	1.7	1.1	0	0.9	0	0	0.4	7	12.6	14.7	19.6	18	11.8	11	S	18.6	17.9	14.9	14.2	15	19.9	0.0	19.9	9.0
Dec 4	22.5	22.5	26.6	25.8	24.3	24.7	24.2	23.6	21.1	21.8	13.5	19.9	24	26.4	20.9	19.4	S	20	8.1	3.4	13.9	13.6	13.8	16.3	3.4	26.6	19.6
Dec 5	19	21.2	20.3	22.2	24.6	21.6	17.5	18.2	21	22.7	23.6	19.3	21.3	21.3	26.6	S	27.4	28.7	28.5	28.1	28.5	28.9	28.9	30.2	17.5	30.2	23.9
Dec 6	30.2	29.9	30.3	30	30.7	29.3	28.9	25.7	24.3	20.6	16.9	19.3	31.9	32.3	S	27.5	24.3	16.7	28.8	29.5	27	27.8	27.1	28.3	16.7	32.3	26.8
Dec 7	27.7	26.4	26.2	27	26.3	26.9	28.2	26.4	22.1	17.1	18.6	23.6	22.2	S	26.5	22.7	12.5	13.4	20.7	23.1	21.2	23.6	23.1	25	12.5	28.2	23.1
Dec 8	24.9	22.6	13.1	15	10.7	10.4	7.8	14.2	15.6	11.2	11.8	20	S	25.4	27.7	27.4	24.5	23.1	21.1	22.9	23.9	22	22.1	25.3	7.8	27.7	19.2
Dec 9	33.3	24.2	22	22.6	14.2	22.5	23.5	22.5	21.7	23.4	23.3	S	21.1	20.3	18.8	15.1	5.7	2.9	4.3	19.2	16.7	9.7	21.2	15.1	2.9	33.3	18.4
Dec 10	21.1	20.7	19.3	17.9	18.9	18.9	18.8	12.5	25.8	28	S	28	27.9	29.5	32.1	32.2	31.6	31.5	30.8	29	32.3	33.9	34.9	37.1	12.5	37.1	26.6
Dec 11	36.8	34.8	31.7	28.6	22.7	6.8	13.6	24.5	23	S	24	25.8	27	25.9	23.6	20.8	19.2	17.1	15.9	18.3	20.9	22.4	23.9	15.3	6.8	36.8	22.7
Dec 12	16.3	15.8	15.7	15.3	16.9	23.6	20.8	23.6	S	24.1	28.4	26.5	25	26.5	C	C	C	C	C	29.2	35	34.6	38.4	37.7	15.3	38.4	25.2
Dec 13	37.2	32.2	30.5	27.1	24.3	19.4	9.8	S	1.4	0.9	10.5	17.6	20	19.1	19.5	20.8	25.6	33	33.8	34.4	35	33.5	33.7	33	0.9	37.2	24.0
Dec 14	30.9	31.7	32	32.2	31.8	33.4	S	29.5	23.5	24.4	22.1	25.7	33.4	34.3	33.6	24.9	14.8	9.5	8.7	15.4	18.9	21.8	19.9	16.2	8.7	34.3	24.7
Dec 15	20	19.1	10.3	14.8	14.3	S	7.3	0.2	0	0.5	8	12.2	13.1	16.5	18	13	10.3	12.7	13.3	13.8	13.5	14.2	23.8	27.1	0.0	27.1	12.9
Dec 16	25.5	23.8	23	23.3	S	35	33.4	31.6	33.6	26	19.4	27	26.1	27.5	24.5	23.7	28.1	30.5	32.7	34.9	37.4	32.8	31.8	31.6	19.4	37.4	28.8
Dec 17	32.1	31.3	31	S	30.3	29.8	27.7	26.1	24	24.9	25.7	26.4	25.5	26.3	24.8	21.3	22.9	22.7	25	25.2	30.7	30	30.7	31	21.3	32.1	27.2
Dec 18	31.6	32.3	S	31.3	31	30	29.9	27.8	25.6	27.3	26.8	24.7	25.5	25.6	23	14.2	10.6	0.3	3.8	7.3	6.8	6.9	15.6	23	0.3	32.3	20.9
Dec 19	31.9	S	30.2	32.6	33.3	33	33.6	29.6	29.8	30.6	30	30.3	30.3	29.4	27.4	27.5	25.5	25.1	22.9	24.3	25.6	23.6	23.7	23.8	22.9	33.6	28.4
Dec 20	S	21	16.2	5.7	3.5	0.1	2.6	12.5	9.1	6.6	10.7	14	13.1	10.3	10.3	6.9	8.9	22.4	25.7	32	33.9	33.1	30.6	S	0.1	33.9	15.0
Dec 21	28.1	30	31	25.3	14.1	9.4	6.2	0.7	0.9	0.4	K	4.2	17.9	22.4	21.6	21.6	21.4	19.8	18.3	16	17.7	20.6	S	8	0.4	31.0	16.2
Dec 22	13	11.7	6.5	9.4	8.8	5.5	1	1.9	5.4	14.6	K	1.6	6	14.2	20.4	31.6	32.8	36.9	35.3	34.7	35.2	S	36.8	37.7	1.0	37.7	18.2
Dec 23	36.6	36.3	35.4	35.1	36.6	35.4	33.6	32.3	31.6	31.8	K	K	32.7	32.8	33.2	31.8	27.3	18	18.7	13.8	S	8.2	21.3	28.8	8.2	36.6	29.1
Dec 24	28.4	28.4	29.1	29.4	29.9	31.6	31.8	28.9	30.1	28	K	26.2	26.3	26.3	24.7	22.7	12	15.7	6.5	S	5.4	11.4	14.4	6.2	5.4	31.8	22.4
Dec 25	16.7	20	20	20.2	11.6	11.7	10.4	5.5	2.1	7.3	7.1	13.8	18	24.1	28.9	24.2	18	10.3	S	15	16.4	16.5	19.8	22.3	2.1	28.9	15.6
Dec 26	23.9	22.2	20.2	15.7	12.9	14.1	10	9.8	9.3	5.5	7.1	16.7	32	35.9	35.5	34.9	39.4	S	39.3	39.1	38.7	39	39	36.3	5.5	39.4	25.1
Dec 27	35	37.6	35.6	37	35.9	35.3	25.7	5.9	6.9	10.6	12.4	22.3	29	33.1	26.7	28.4	S	32	33.4	33.4	32.9	32.4	32	31.1	5.9	37.6	28.0
Dec 28	30.3	31.5	31.2	30.4	30.4	28.1	21.3	22.3	9.4	6.5	10.5	21.8	25.5	25.7	25.9	S	12.9	2	3.6	5.1	4.5	5.4	6.9	7.8	2.0	31.5	17.3
Dec 29	6.4	4.7	4	1.3	0.5	0	0	0.5	0	0	0.7	3.4	6	11.9	S	9.6	2.2	0.9	10.8	16.9	3.8	2.4	7.5	15.8	0.0	16.9	4.8
Dec 30	17.9	18.2	15.6	15.9	15.1	8.6	7.4	4.9	1.1	1.2	2.1	12.6	19.3	S	16.4	11.2	8	13.2	7.2	5.4	1.7	2.2	1.6	2	1.1	19.3	9.1
Dec 31	1.4	2	3.1	1.5	0	0.5	1.1	1.8	23.2	32.5	31.5	31.2	S	33.2	33.4	33.2	32.1	29.5	29.9	29.6	27.9	26.8	28.3	27.8	0.0	33.4	20.1
Diurnal Maximum	37.2	37.6	35.6	37.0	36.6	35.4	33.6	32.3	33.6	32.5	31.5	31.2	33.4	35.9	35.5	34.9	39.4	36.9	39.3	39.1	38.7	39.0	39.0	37.7			
Diurnal Average	23.1	22.4	21.1	20.2	18.6	18.4	16.1	15.5	14.8	15.2	15.9	18.9	22.0	24.2	23.7	21.2	18.6	17.9	19.6	21.5	21.0	19.9	22.4	22.2			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



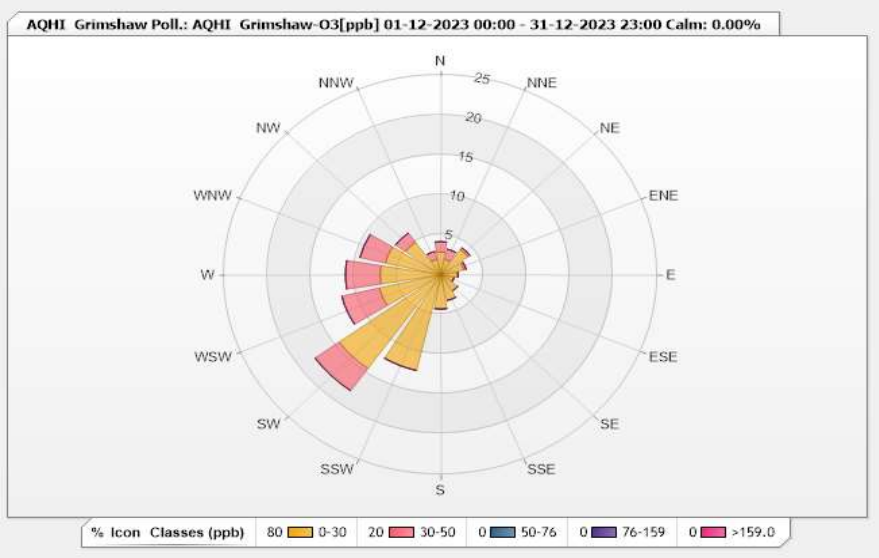


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-O3[ppb] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 94.09% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	2.86	1.29	0	0	0	4.15
NNE	2	1.29	0	0	0	3.29
NE	3.86	0.29	0	0	0	4.15
ENE	2.71	0.29	0	0	0	3
E	2	0	0	0	0	2
ESE	1.57	0	0	0	0	1.57
SE	2.43	0	0	0	0	2.43
SSE	3.29	0	0	0	0	3.29
S	4.29	0	0	0	0	4.29
SSW	12.29	0	0	0	0	12.29
SW	14.43	3.43	0	0	0	17.86
WSW	7.29	4.43	0	0	0	11.72
W	7	4	0	0	0	11
WNW	6.57	3	0	0	0	9.57
NW	5	1.43	0	0	0	6.43
NNW	2	1	0	0	0	3
Summary	79.59	20.45	0	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

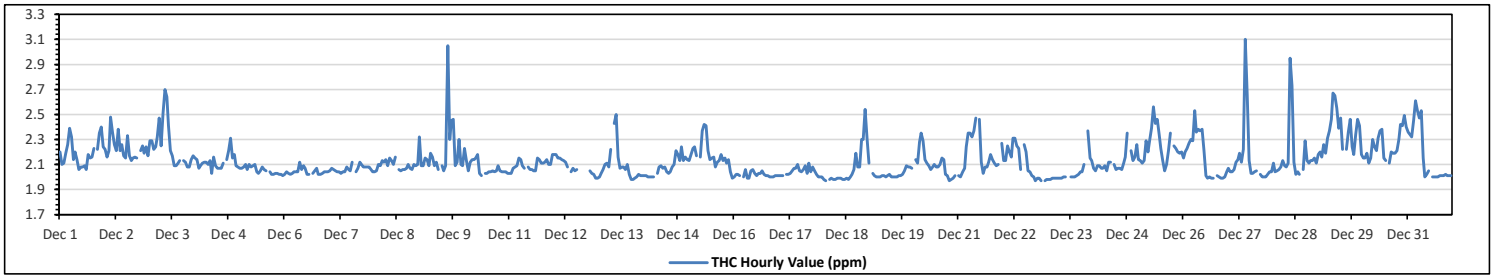
TOTAL HYDROCARBONS (THC) in ppm

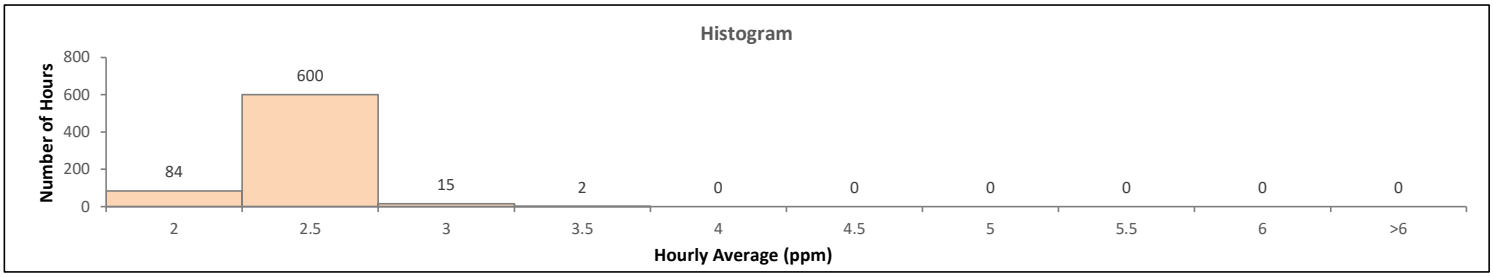
Maximum Hourly Value:	3.10	ppm	on Dec 27 at hr 9	Hours in Service:	744
Maximum Daily Value:	2.34	ppm	on Dec 29	Hours of Data:	701
Minimum Hourly Value:	1.97	ppm	on Dec 18 at hr 1	Hours of Missing Data:	5
Minimum Daily Value:	2.02	ppm	on Dec 16	Hours of Calibration:	38
Monthly Average:	2.13	ppm		Operational Uptime:	99.3

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	2.20	2.10	2.11	2.19	2.26	2.39	2.32	2.14	2.20	2.14	2.06	2.08	2.08	2.09	2.06	2.18	2.15	2.16	2.23	S	2.22	2.35	2.40	2.24	2.06	2.40	2.19
Dec 2	2.22	2.16	2.21	2.48	2.36	2.26	2.21	2.38	2.21	2.26	2.17	2.15	2.33	2.17	2.13	2.15	2.16	2.15	S	2.21	2.25	2.19	2.24	2.17	2.13	2.48	2.23
Dec 3	2.29	2.29	2.22	2.24	2.32	2.47	2.25	2.51	2.70	2.64	2.41	2.21	2.17	2.09	2.09	2.11	2.13	S	2.13	2.12	2.08	2.08	2.14	2.17	2.08	2.70	2.25
Dec 4	2.15	2.14	2.07	2.09	2.11	2.12	2.12	2.10	2.13	2.03	2.16	2.09	2.07	2.07	2.07	2.11	S	2.14	2.21	2.31	2.15	2.18	2.09	2.08	2.03	2.31	2.12
Dec 5	2.07	2.07	2.08	2.10	2.06	2.10	2.08	2.09	2.10	2.04	2.03	2.05	2.08	2.06	2.05	S	2.04	2.02	2.02	2.03	2.03	2.02	2.02	2.01	2.01	2.10	2.05
Dec 6	2.02	2.04	2.03	2.02	2.03	2.04	2.04	2.04	2.12	2.06	2.09	2.07	2.02	2.02	S	2.03	2.05	2.07	2.02	2.02	2.03	2.04	2.04	2.04	2.02	2.12	2.04
Dec 7	2.05	2.07	2.06	2.05	2.04	2.04	2.03	2.04	2.04	2.08	2.06	2.05	2.12	S	2.04	2.07	2.12	2.10	2.08	2.08	2.08	2.08	2.06	2.04	2.03	2.12	2.06
Dec 8	2.04	2.05	2.10	2.09	2.13	2.12	2.14	2.09	2.15	2.13	2.10	2.16	S	2.06	2.05	2.06	2.06	2.07	2.10	2.07	2.06	2.10	2.09	2.10	2.04	2.16	2.09
Dec 9	2.32	2.09	2.09	2.15	2.14	2.09	2.19	2.16	2.09	2.12	2.06	S	2.09	2.05	2.09	3.05	2.30	2.45	2.46	2.09	2.12	2.30	2.10	2.09	2.05	3.05	2.20
Dec 10	2.23	2.13	2.05	2.12	2.14	2.14	2.15	2.18	2.03	2.01	S	2.03	2.03	2.04	2.04	2.05	2.04	2.05	2.09	2.05	2.04	2.04	2.04	2.03	2.01	2.23	2.08
Dec 11	2.03	2.03	2.07	2.08	2.09	2.15	2.14	2.09	2.07	S	2.08	2.06	2.06	2.05	2.05	2.15	2.14	2.11	2.11	2.12	2.14	2.10	2.10	2.18	2.03	2.18	2.10
Dec 12	2.18	2.18	2.15	2.15	2.14	2.13	2.12	2.08	S	2.04	2.07	2.05	2.06	C	C	C	C	C	C	2.05	2.03	2.02	1.99	1.99	1.99	2.18	NA
Dec 13	2.00	2.03	2.06	2.10	2.11	2.08	2.22	S	2.43	2.50	2.16	2.07	2.08	2.08	2.06	2.10	2.02	1.98	1.98	1.99	2.00	2.02	2.01	2.01	1.98	2.50	2.09
Dec 14	2.01	2.01	2.00	2.00	2.00	2.00	S	2.03	2.08	2.09	2.07	2.08	2.04	2.03	2.04	2.08	2.10	2.21	2.18	2.13	2.24	2.13	2.16	2.14	2.00	2.24	2.08
Dec 15	2.13	2.18	2.23	2.24	2.17	S	2.16	2.37	2.42	2.41	2.21	2.14	2.15	2.16	2.08	2.12	2.13	2.18	2.13	2.15	2.11	2.14	2.04	1.99	1.99	2.42	2.18
Dec 16	2.00	2.02	2.02	2.01	S	2.00	2.06	1.99	1.99	2.05	2.06	2.03	2.01	2.03	2.03	2.05	2.02	2.01	2.01	2.00	2.00	2.00	2.01	2.01	1.99	2.06	2.02
Dec 17	2.01	2.01	2.01	S	2.02	2.02	2.03	2.05	2.07	2.07	2.10	2.05	2.04	2.06	2.09	2.03	2.11	2.04	2.08	2.05	2.02	2.00	2.00	2.00	2.00	2.11	2.04
Dec 18	1.98	1.97	S	1.98	1.99	1.98	1.98	1.99	1.99	1.99	1.98	1.98	1.99	1.98	2.00	2.02	2.06	2.19	2.08	2.08	2.30	2.30	2.54	2.31	1.97	2.54	2.07
Dec 19	2.11	S	2.03	2.01	2.00	2.00	2.00	2.01	2.01	2.00	2.01	2.02	2.00	2.00	2.00	2.00	2.01	2.01	2.02	2.05	2.09	2.08	2.08	2.07	2.00	2.11	2.03
Dec 20	S	2.14	2.11	2.28	2.35	2.29	2.14	2.11	2.09	2.06	2.08	2.10	2.08	2.08	2.10	2.15	2.14	2.02	2.01	1.97	1.98	1.99	2.01	S	1.97	2.35	2.10
Dec 21	2.01	2.00	2.04	2.07	2.24	2.35	2.35	2.32	2.37	2.47	K	2.46	2.12	2.03	2.08	2.08	2.12	2.18	2.14	2.11	2.09	2.10	S	2.27	2.00	2.47	2.18
Dec 22	2.13	2.13	2.25	2.20	2.16	2.31	2.31	2.25	2.23	2.06	K	2.26	2.20	2.05	2.04	2.01	2.00	1.97	1.99	1.99	1.97	S	1.97	1.98	1.97	2.31	2.11
Dec 23	1.98	1.98	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.00	K	K	2.00	2.00	2.00	2.01	2.02	2.04	2.04	2.10	S	2.37	2.15	2.13	1.98	2.37	2.04
Dec 24	2.07	2.05	2.09	2.09	2.07	2.07	2.09	2.05	2.12	2.12	K	2.10	2.06	2.07	2.07	2.06	2.11	2.16	2.35	S	2.21	2.13	2.16	2.26	2.05	2.35	2.12
Dec 25	2.14	2.13	2.11	2.13	2.29	2.20	2.29	2.39	2.56	2.43	2.46	2.34	2.23	2.13	2.05	2.10	2.21	2.35	S	2.25	2.23	2.20	2.19	2.20	2.05	2.56	2.24
Dec 26	2.15	2.20	2.23	2.27	2.30	2.29	2.53	2.36	2.38	2.37	2.38	2.21	2.01	1.99	2.00	1.99	1.99	S	2.01	2.00	1.99	1.99	2.00	2.04	1.99	2.53	2.16
Dec 27	2.07	2.04	2.04	2.06	2.12	2.14	2.19	2.12	2.22	**3.10**	2.66	2.13	2.03	2.03	2.04	2.05	S	2.02	2.00	2.00	2.00	2.02	2.04	2.04	2.00	**3.10**	2.14
Dec 28	2.11	2.04	2.05	2.06	2.08	2.13	2.09	2.08	2.11	2.95	2.73	2.12	2.02	2.04	2.02	S	2.06	2.29	2.13	2.11	2.13	2.13	2.15	2.11	2.02	2.95	2.16
Dec 29	2.18	2.20	2.16	2.26	2.19	2.31	2.37	2.46	2.67	2.65	2.55	2.39	2.47	2.22	S	2.22	2.36	2.46	2.24	2.18	2.34	2.46	2.41	2.18	2.16	2.67	**2.34**
Dec 30	2.15	2.15	2.19	2.11	2.15	2.30	2.24	2.21	2.31	2.37	2.38	2.15	2.13	S	2.11	2.20	2.19	2.19	2.21	2.30	2.42	2.41	2.49	2.40	2.11	2.49	2.25
Dec 31	2.36	2.34	2.32	2.45	2.61	2.53	2.47	2.53	2.15	2.00	2.02	2.05	S	2.00	2.00	2.00	2.00	2.01	2.01	2.01	2.02	2.01	2.01	2.01	2.00	2.61	2.17
Diurnal Maximum	2.36	2.34	2.32	2.48	2.61	2.53	2.53	2.53	2.70	3.10	2.73	2.46	2.47	2.22	2.13	3.05	2.36	2.46	2.46	2.31	2.42	2.46	2.54	2.40			
Diurnal Average	2.11	2.10	2.11	2.14	2.16	2.17	2.18	2.17	2.20	2.24	2.20	2.13	2.10	2.06	2.05	2.12	2.10	2.13	2.11	2.09	2.11	2.13	2.12	2.11			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



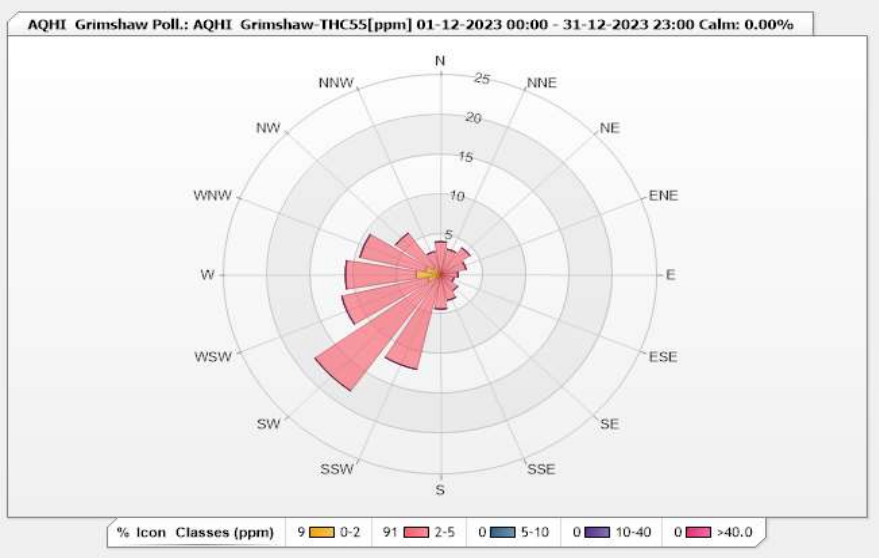


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-THC55[ppm] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 93.95% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	0.14	4.01	0	0	0	4.15
NNE	0.43	2.86	0	0	0	3.29
NE	0.29	3.86	0	0	0	4.15
ENE	0.14	2.86	0	0	0	3
E	0	2	0	0	0	2
ESE	0	1.57	0	0	0	1.57
SE	0	2.43	0	0	0	2.43
SSE	0	3.29	0	0	0	3.29
S	0	4.29	0	0	0	4.29
SSW	0	12.16	0	0	0	12.16
SW	0.57	17.31	0	0	0	17.88
WSW	1.57	10.16	0	0	0	11.73
W	2.86	8.15	0	0	0	11.01
WNW	1.86	7.73	0	0	0	9.59
NW	1.14	5.29	0	0	0	6.43
NNW	0	3	0	0	0	3
Summary	9	90.97	0	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

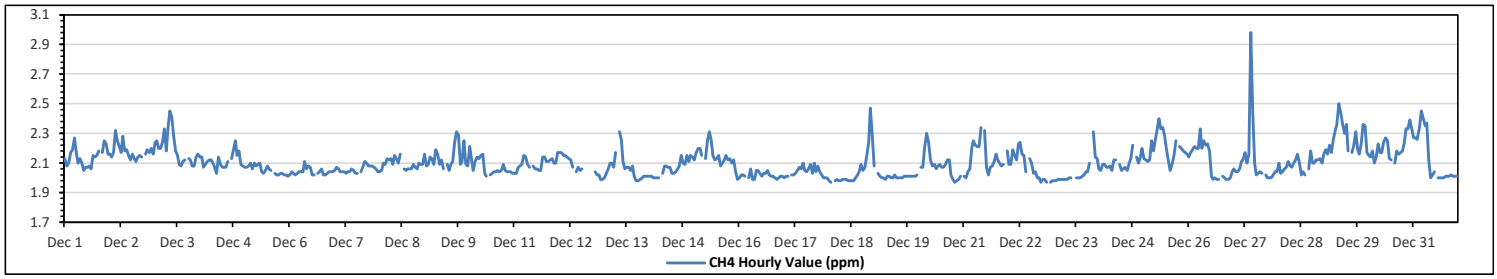
METHANE (CH4) in ppm

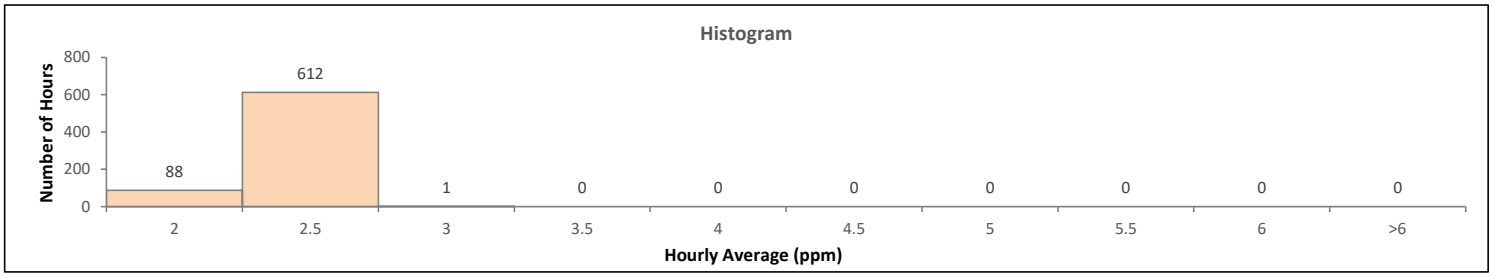
Maximum Hourly Value:	2.98	ppm	on Dec 27 at hr 9	Hours in Service:	744
Maximum Daily Value:	2.27	ppm	on Dec 29	Hours of Data:	701
Minimum Hourly Value:	1.97	ppm	on Dec 18 at hr 1	Hours of Missing Data:	5
Minimum Daily Value:	2.01	ppm	on Dec 19	Hours of Calibration:	38
Monthly Average:	2.10	ppm		Operational Uptime:	99.3

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	2.13	2.08	2.10	2.17	2.19	2.27	2.18	2.10	2.13	2.10	2.05	2.07	2.07	2.08	2.06	2.15	2.14	2.15	2.18	S	2.17	2.25	2.23	2.16	2.05	2.27	2.14
Dec 2	2.16	2.14	2.17	2.32	2.25	2.21	2.17	2.28	2.18	2.19	2.15	2.12	2.16	2.13	2.11	2.14	2.15	2.14	S	2.16	2.19	2.17	2.20	2.16	2.11	2.32	2.18
Dec 3	2.24	2.25	2.20	2.20	2.24	2.33	2.18	2.33	2.45	2.41	2.28	2.18	2.15	2.09	2.08	2.11	2.12	S	2.13	2.12	2.08	2.08	2.14	2.16	2.08	2.45	2.20
Dec 4	2.14	2.14	2.07	2.09	2.11	2.12	2.12	2.10	2.07	2.03	2.14	2.09	2.07	2.07	2.07	2.11	S	2.13	2.19	2.25	2.15	2.18	2.09	2.08	2.03	2.25	2.11
Dec 5	2.07	2.07	2.08	2.10	2.06	2.10	2.08	2.09	2.10	2.04	2.03	2.05	2.08	2.06	2.05	S	2.03	2.02	2.02	2.03	2.03	2.02	2.02	2.01	2.01	2.10	2.05
Dec 6	2.02	2.04	2.03	2.02	2.03	2.04	2.04	2.04	2.11	2.06	2.08	2.07	2.02	2.02	S	2.03	2.04	2.06	2.02	2.02	2.03	2.04	2.04	2.04	2.02	2.11	2.04
Dec 7	2.05	2.07	2.06	2.04	2.04	2.04	2.03	2.04	2.04	2.06	2.05	2.03	2.03	S	2.04	2.07	2.11	2.10	2.08	2.08	2.08	2.07	2.06	2.04	2.03	2.11	2.06
Dec 8	2.04	2.05	2.10	2.09	2.13	2.12	2.13	2.09	2.15	2.13	2.10	2.16	S	2.06	2.05	2.06	2.06	2.06	2.09	2.07	2.06	2.10	2.09	2.09	2.04	2.16	2.09
Dec 9	2.16	2.08	2.09	2.14	2.13	2.09	2.19	2.16	2.09	2.12	2.06	S	2.09	2.05	2.09	2.11	2.24	2.31	2.29	2.09	2.11	2.25	2.09	2.08	2.05	2.31	2.14
Dec 10	2.21	2.12	2.05	2.11	2.14	2.13	2.15	2.16	2.03	2.01	S	2.02	2.03	2.04	2.04	2.05	2.04	2.05	2.09	2.05	2.04	2.04	2.04	2.03	2.01	2.21	2.07
Dec 11	2.03	2.03	2.07	2.08	2.09	2.15	2.14	2.09	2.07	S	2.08	2.06	2.06	2.05	2.05	2.14	2.14	2.11	2.11	2.12	2.13	2.10	2.10	2.17	2.03	2.17	2.09
Dec 12	2.17	2.17	2.15	2.15	2.14	2.13	2.12	2.07	S	2.04	2.07	2.05	2.06	C	C	C	C	C	C	2.04	2.02	2.02	1.99	1.99	1.99	2.17	NA
Dec 13	2.00	2.03	2.06	2.10	2.10	2.07	2.17	S	2.31	2.26	2.11	2.06	2.07	2.07	2.05	2.08	2.01	1.98	1.98	1.99	2.00	2.01	2.01	2.01	1.98	2.31	2.07
Dec 14	2.01	2.01	2.00	2.00	2.00	2.00	S	2.03	2.08	2.08	2.07	2.07	2.03	2.03	2.04	2.06	2.08	2.15	2.10	2.09	2.15	2.11	2.15	2.14	2.00	2.15	2.06
Dec 15	2.12	2.17	2.20	2.20	2.15	S	2.13	2.25	2.31	2.25	2.15	2.12	2.13	2.15	2.08	2.10	2.12	2.15	2.12	2.13	2.10	2.12	2.04	1.99	1.99	2.31	2.14
Dec 16	2.00	2.02	2.02	2.01	S	2.00	2.06	1.99	1.99	2.05	2.05	2.03	2.01	2.03	2.03	2.05	2.02	2.01	2.01	2.00	1.99	2.00	2.01	2.01	1.99	2.06	2.02
Dec 17	2.00	2.01	2.01	S	2.02	2.02	2.03	2.05	2.07	2.06	2.10	2.05	2.04	2.06	2.09	2.03	2.10	2.04	2.08	2.04	2.02	2.00	2.00	2.00	2.00	2.10	2.04
Dec 18	1.98	1.97	S	1.98	1.99	1.98	1.98	1.99	1.99	1.99	1.98	1.98	1.98	1.98	2.00	2.02	2.04	2.09	2.05	2.07	2.15	2.24	2.47	2.29	1.97	2.47	2.05
Dec 19	2.08	S	2.03	2.01	2.00	2.00	1.99	2.01	2.01	2.00	2.00	2.02	2.00	2.00	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.02	1.99	2.08	2.01
Dec 20	S	2.07	2.07	2.21	2.30	2.24	2.12	2.08	2.09	2.06	2.08	2.09	2.07	2.07	2.09	2.12	2.12	2.02	1.99	1.97	1.98	1.99	2.01	S	1.97	2.30	2.08
Dec 21	2.01	2.00	2.04	2.06	2.20	2.25	2.22	2.21	2.21	2.34	K	2.32	2.07	2.02	2.07	2.08	2.11	2.16	2.12	2.10	2.08	2.09	S	2.18	2.00	2.34	2.13
Dec 22	2.09	2.09	2.19	2.15	2.12	2.23	2.24	2.16	2.15	2.04	K	2.13	2.10	2.03	2.04	2.00	2.00	1.97	1.99	1.99	1.97	S	1.97	1.98	1.97	2.24	2.07
Dec 23	1.98	1.98	1.99	1.99	1.99	1.99	1.99	1.99	2.00	2.00	K	K	2.00	2.00	2.00	2.01	2.02	2.04	2.04	2.10	S	2.31	2.14	2.13	1.98	2.31	2.03
Dec 24	2.06	2.05	2.09	2.09	2.07	2.07	2.08	2.05	2.12	2.12	K	2.09	2.05	2.06	2.07	2.05	2.10	2.13	2.22	S	2.14	2.10	2.14	2.20	2.05	2.22	2.10
Dec 25	2.13	2.12	2.11	2.12	2.25	2.18	2.25	2.32	2.40	2.33	2.34	2.28	2.20	2.12	2.05	2.09	2.15	2.25	S	2.21	2.20	2.18	2.17	2.16	2.05	2.40	2.20
Dec 26	2.14	2.17	2.19	2.21	2.20	2.20	2.33	2.20	2.25	2.22	2.23	2.18	2.01	1.99	2.00	1.99	1.99	S	2.01	2.00	1.99	1.99	2.00	2.04	1.99	2.33	2.11
Dec 27	2.06	2.04	2.04	2.06	2.11	2.13	2.17	2.10	2.16	**2.98**	2.45	2.10	2.02	2.03	2.04	2.03	S	2.02	2.00	2.00	2.00	2.02	2.04	2.04	2.00	**2.98**	2.11
Dec 28	2.10	2.03	2.04	2.06	2.07	2.11	2.08	2.07	2.10	2.12	2.16	2.10	2.02	2.04	2.02	S	2.06	2.18	2.10	2.10	2.12	2.12	2.13	2.10	2.02	2.18	2.09
Dec 29	2.16	2.19	2.16	2.22	2.17	2.26	2.31	2.36	2.50	2.44	2.36	2.30	2.36	2.18	S	2.17	2.22	2.31	2.19	2.16	2.23	2.36	2.35	2.17	2.16	2.50	**2.27**
Dec 30	2.15	2.14	2.18	2.10	2.14	2.23	2.17	2.17	2.24	2.27	2.25	2.13	2.12	S	2.10	2.18	2.16	2.17	2.18	2.24	2.33	2.33	2.39	2.33	2.10	2.39	2.20
Dec 31	2.27	2.27	2.26	2.34	2.45	2.40	2.35	2.37	2.12	2.00	2.02	2.04	S	2.00	2.00	2.00	2.00	2.01	2.01	2.01	2.02	2.01	2.01	2.01	2.00	2.45	2.13
Diurnal Maximum	2.27	2.27	2.26	2.34	2.45	2.40	2.35	2.37	2.50	2.98	2.45	2.32	2.36	2.18	2.11	2.18	2.24	2.31	2.29	2.25	2.33	2.36	2.47	2.33			
Diurnal Average	2.09	2.09	2.10	2.11	2.13	2.14	2.14	2.13	2.15	2.16	2.13	2.10	2.07	2.05	2.05	2.07	2.09	2.10	2.09	2.08	2.09	2.11	2.10	2.09			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



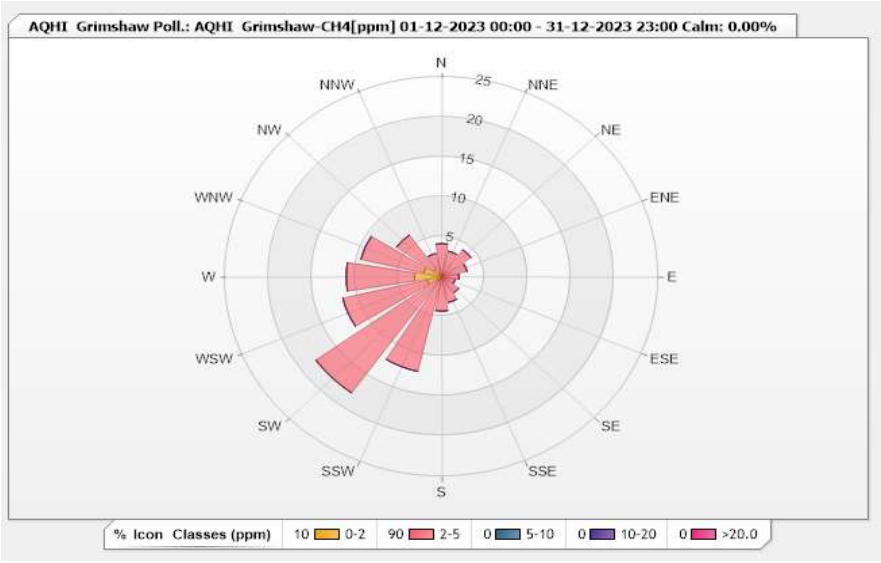


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-CH4[ppm] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 93.95% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	0.14	4.01	0	0	0	4.15
NNE	0.43	2.86	0	0	0	3.29
NE	0.29	3.86	0	0	0	4.15
ENE	0.14	2.86	0	0	0	3
E	0	2	0	0	0	2
ESE	0	1.57	0	0	0	1.57
SE	0	2.43	0	0	0	2.43
SSE	0	3.29	0	0	0	3.29
S	0	4.29	0	0	0	4.29
SSW	0	12.16	0	0	0	12.16
SW	0.57	17.31	0	0	0	17.88
WSW	1.72	10.01	0	0	0	11.73
W	3.15	7.87	0	0	0	11.02
WNW	2.15	7.44	0	0	0	9.59
NW	1.14	5.29	0	0	0	6.43
NNW	0.14	2.86	0	0	0	3
Summary	9.87	90.11	0	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

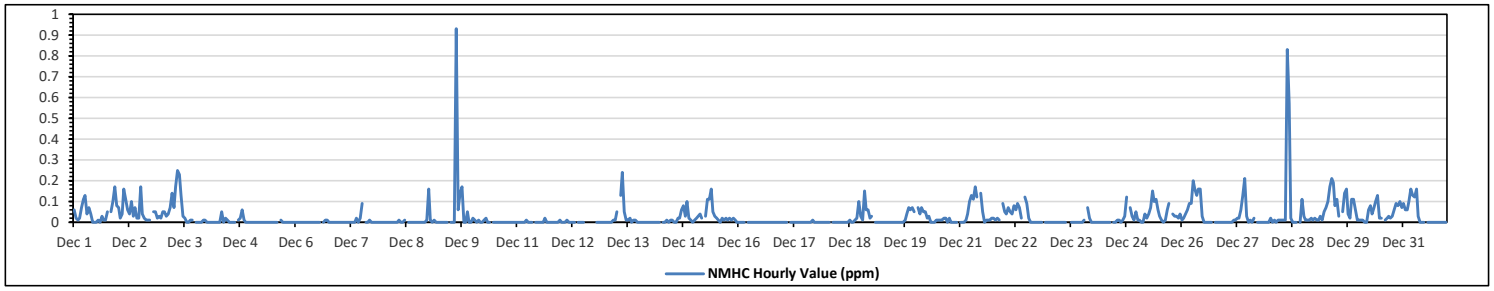
NON-METHANE HYDROCARBONS (NMHC) in ppm

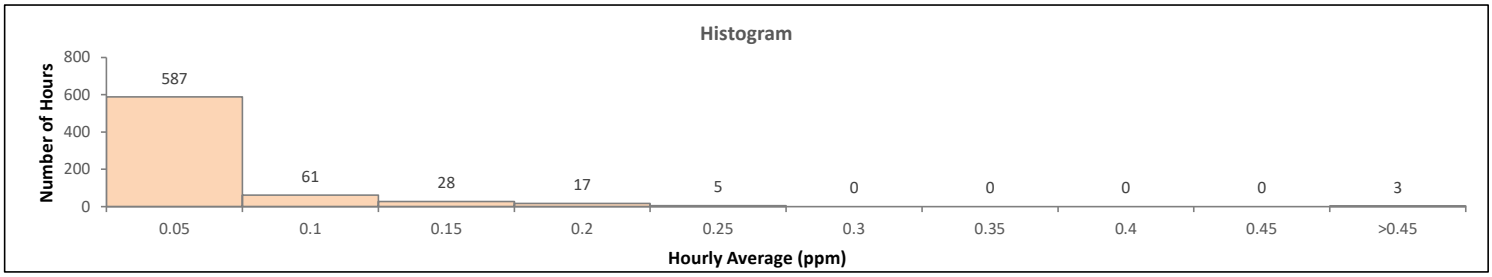
Maximum Hourly Value:	0.93	ppm	on Dec 9 at hr 15	Hours in Service:	744
Maximum Daily Value:	0.08	ppm	on Dec 29	Hours of Data:	701
Minimum Hourly Value:	0.00	ppm	on Dec 1 at hr 10	Hours of Missing Data:	5
Minimum Daily Value:	0.00	ppm	on Dec 16	Hours of Calibration:	38
Monthly Average:	0.03	ppm		Operational Uptime:	99.3

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	0.06	0.02	0.01	0.02	0.07	0.11	0.13	0.04	0.07	0.04	0.00	0.00	0.00	0.01	0.00	0.03	0.01	0.01	0.05	S	0.05	0.10	0.17	0.08	0.00	0.17	0.05
Dec 2	0.07	0.02	0.04	0.16	0.11	0.06	0.04	0.10	0.03	0.07	0.02	0.02	0.17	0.04	0.02	0.01	0.01	0.01	S	0.05	0.05	0.02	0.03	0.02	0.01	0.17	0.05
Dec 3	0.05	0.05	0.03	0.04	0.07	0.14	0.07	0.17	0.25	0.23	0.13	0.03	0.02	0.00	0.00	0.01	0.01	S	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.25	0.06
Dec 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.02	0.01	0.00	0.00	0.00	0.00	S	0.01	0.02	0.06	0.01	0.00	0.00	0.00	0.00	0.06	0.01
Dec 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Dec 6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Dec 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.09	S	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.01
Dec 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00
Dec 9	0.16	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	**0.93**	0.06	0.14	0.17	0.00	0.00	0.05	0.00	0.00	0.00	**0.93**	0.07
Dec 10	0.02	0.01	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
Dec 11	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.00
Dec 12	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	C	C	C	C	C	C	0.00	0.00	0.00	0.00	0.00	0.00	0.01	NA
Dec 13	0.00	0.00	0.00	0.00	0.01	0.01	0.05	S	0.13	0.24	0.05	0.01	0.01	0.02	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.02
Dec 14	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.02	0.02	0.06	0.08	0.03	0.10	0.02	0.01	0.00	0.00	0.10	0.02
Dec 15	0.01	0.02	0.03	0.04	0.02	S	0.03	0.11	0.11	0.16	0.05	0.03	0.02	0.01	0.00	0.02	0.01	0.02	0.01	0.02	0.01	0.02	0.01	0.00	0.00	0.16	0.03
Dec 16	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec 17	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Dec 18	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.10	0.03	0.01	0.15	0.06	0.06	0.02	0.00	0.15	0.02
Dec 19	0.03	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.07	0.06	0.07	0.05	0.00	0.07	0.01
Dec 20	S	0.07	0.04	0.07	0.05	0.05	0.02	0.03	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.00	0.02	0.00	0.00	0.00	0.00	S	0.00	0.07	0.02
Dec 21	0.00	0.00	0.00	0.01	0.04	0.10	0.13	0.11	0.17	0.12	K	0.14	0.05	0.00	0.01	0.01	0.01	0.02	0.02	0.01	0.02	0.01	S	0.09	0.00	0.17	0.05
Dec 22	0.05	0.04	0.07	0.05	0.04	0.08	0.06	0.09	0.07	0.02	K	0.12	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.12	0.04
Dec 23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	K	K	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	S	0.07	0.02	0.00	0.00	0.07	0.00
Dec 24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	K	0.00	0.00	0.01	0.01	0.00	0.01	0.03	0.12	S	0.07	0.03	0.01	0.05	0.00	0.12	0.02
Dec 25	0.01	0.01	0.00	0.00	0.04	0.02	0.04	0.07	0.15	0.10	0.11	0.06	0.03	0.01	0.00	0.01	0.06	0.09	S	0.04	0.03	0.03	0.02	0.04	0.00	0.15	0.04
Dec 26	0.01	0.02	0.04	0.06	0.09	0.09	0.20	0.16	0.13	0.16	0.16	0.03	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.05
Dec 27	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.06	0.13	0.21	0.03	0.00	0.01	0.00	0.02	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.02
Dec 28	0.02	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.83	0.57	0.02	0.00	0.00	0.00	S	0.00	0.11	0.03	0.01	0.01	0.01	0.02	0.01	0.00	0.83	0.07
Dec 29	0.02	0.01	0.01	0.03	0.01	0.05	0.07	0.10	0.17	0.21	0.19	0.08	0.11	0.03	S	0.05	0.14	0.16	0.04	0.02	0.11	0.11	0.06	0.01	0.01	0.21	**0.08**
Dec 30	0.01	0.01	0.01	0.00	0.00	0.06	0.08	0.04	0.07	0.10	0.13	0.02	0.02	S	0.01	0.02	0.03	0.02	0.03	0.06	0.09	0.08	0.10	0.07	0.00	0.13	0.05
Dec 31	0.09	0.06	0.06	0.10	0.16	0.13	0.12	0.16	0.03	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.04
Diurnal Maximum	0.16	0.07	0.07	0.16	0.16	0.14	0.20	0.17	0.25	0.83	0.57	0.14	0.17	0.04	0.02	0.93	0.14	0.16	0.17	0.06	0.15	0.11	0.17	0.09			
Diurnal Average	0.02	0.01	0.01	0.02	0.02	0.03	0.04	0.04	0.05	0.08	0.06	0.02	0.02	0.01	0.00	0.04	0.02	0.03	0.02	0.01	0.03	0.02	0.02	0.02			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



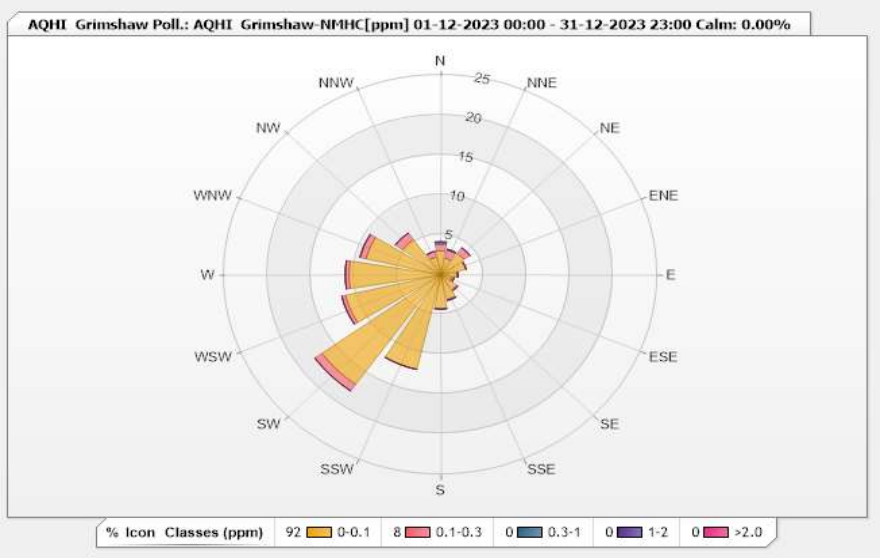


Station: AQHI Grimshaw Poll.: AQHI Grimshaw-NMHC[ppm] Monthly: 12-2023

Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 93.95% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	3	0.86	0.29	0	0	4.15
NNE	2.15	1	0.14	0	0	3.29
NE	3.29	0.86	0	0	0	4.15
ENE	3	0	0	0	0	3
E	1.86	0.14	0	0	0	2
ESE	1.29	0.29	0	0	0	1.58
SE	2.29	0.14	0	0	0	2.43
SSE	3.15	0.14	0	0	0	3.29
S	4.29	0	0	0	0	4.29
SSW	12.16	0	0	0	0	12.16
SW	16.88	1	0	0	0	17.88
WSW	11.3	0.43	0	0	0	11.73
W	10.59	0.43	0	0	0	11.02
WNW	8.87	0.72	0	0	0	9.59
NW	5.44	1	0	0	0	6.44
NNW	2.29	0.72	0	0	0	3.01
Summary	91.85	7.73	0.43	0	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

PARTICULATE MATTER 2.5 ($PM_{2.5}$) in µg/m^3

Alberta Ambient Air Quality Guideline (AAAQG): 1-Hour 80 µg/m3, Alberta Ambient Air Quality Objective (AAAQO): 24-Hour 29 µg/m3

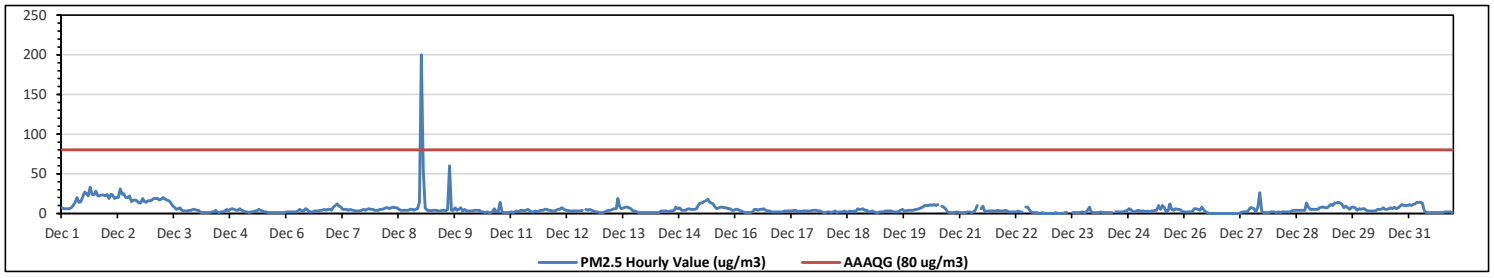
Number of 1-Hour Exceedances: 1 Number of 24-Hour Exceedances: 0

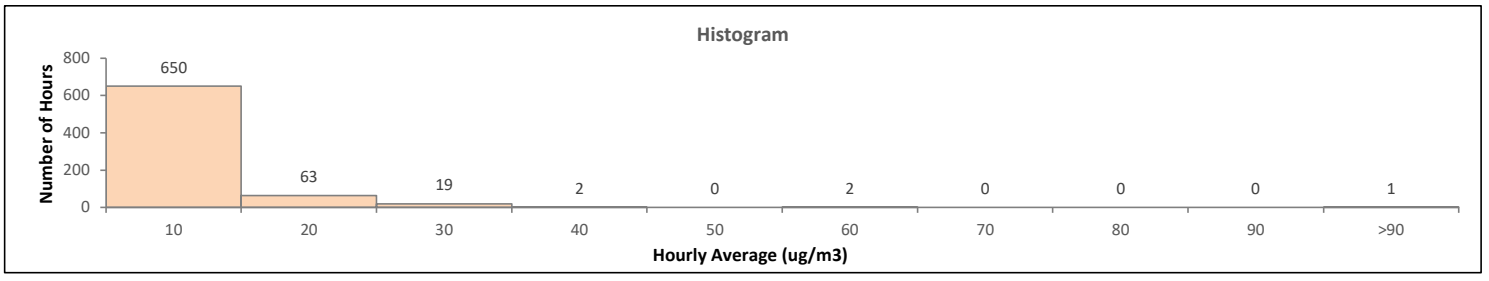
Maximum Hourly Value:	200	µg/m^3 on Dec 9 at hr 0	Hours in Service:	744
Maximum Daily Value:	19.3	µg/m^3 on Dec 2	Hours of Data:	737
Minimum Hourly Value:	0	µg/m^3 on Dec 22 at hr 18	Hours of Missing Data:	6
Minimum Daily Value:	1	µg/m^3 on Dec 23	Hours of Calibration:	1
Monthly Average:	5.5	µg/m^3	Operational Uptime:	99.2

Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	7	6	6	6	6	7	10	14	20	14	15	21	27	25	22	33	24	23	28	22	22	23	23	22	6	33	17.8
Dec 2	24	19	24	23	19	20	20	31	24	25	20	20	22	15	17	17	16	13	13	19	15	14	16	16	13	31	**19.3**
Dec 3	17	19	19	19	17	18	20	18	17	16	14	10	8	5	6	7	4	3	3	3	4	4	5	5	3	20	10.9
Dec 4	4	4	1	1	1	1	1	1	2	2	4	2	1	2	2	3	5	3	5	6	5	4	4	6	1	6	2.9
Dec 5	4	3	2	2	1	2	2	3	3	5	4	3	2	2	1	1	1	1	1	1	1	1	1	1	1	5	2.0
Dec 6	2	2	2	2	2	2	3	5	3	3	6	5	2	2	2	3	3	3	4	4	5	4	5	5	2	6	3.3
Dec 7	4	8	10	12	9	8	5	5	5	4	5	4	4	3	3	3	4	5	4	5	6	5	5	4	3	12	5.4
Dec 8	4	4	5	5	6	7	7	6	7	8	7	7	5	4	4	4	4	4	5	5	4	5	6	14	4	14	5.7
Dec 9	**200**	54	7	4	4	3	4	4	4	3	3	4	4	3	5	60	4	4	7	4	5	7	3	5	3	**200**	16.9
Dec 10	3	3	3	3	4	4	4	4	2	2	1	2	1	1	2	6	2	2	14	2	1	1	1	1	1	14	2.9
Dec 11	2	1	2	3	2	4	4	3	4	5	3	2	2	3	2	3	4	4	5	5	4	4	3	3	1	5	3.2
Dec 12	4	5	5	7	6	4	4	3	3	3	3	3	3	3	4	C	5	4	5	4	3	2	2	1	1	7	3.7
Dec 13	1	1	2	3	4	4	5	6	6	19	8	6	7	8	8	7	6	3	3	2	1	1	1	1	1	19	4.7
Dec 14	1	1	1	1	1	1	1	1	3	3	3	3	2	3	3	4	8	6	7	4	4	4	5	6	1	8	3.2
Dec 15	5	5	5	6	10	13	13	15	16	18	14	13	12	8	6	7	8	8	7	7	6	6	4	4	4	18	9.0
Dec 16	5	5	4	3	2	1	1	1	1	2	5	5	4	5	5	6	4	3	3	2	2	2	2	2	1	6	3.1
Dec 17	2	2	3	3	3	3	3	4	4	2	3	2	3	3	3	3	3	4	4	4	3	3	2	1	1	4	2.9
Dec 18	1	2	2	1	2	3	1	2	2	2	3	2	2	3	2	3	2	6	5	5	6	4	4	2	1	6	2.8
Dec 19	2	3	2	1	1	2	2	2	3	3	3	3	2	2	2	2	4	5	3	3	4	4	4	4	1	5	2.8
Dec 20	5	5	6	7	8	10	10	10	11	10	11	10	11	Y	9	8	6	2	1	1	1	1	2	1	1	11	6.3
Dec 21	1	1	1	1	2	2	1	2	4	10	K	6	9	3	2	3	3	3	3	3	4	3	3	3	1	10	3.2
Dec 22	4	3	2	2	2	2	2	3	2	2	K	8	8	4	2	1	1	1	0	0	1	0	0	0	**0**	8	2.2
Dec 23	0	0	0	1	0	0	0	0	1	1	K	K	1	1	1	1	1	2	1	1	4	8	2	1	**0**	8	**1.2**
Dec 24	1	1	1	2	1	1	1	1	1	1	K	2	2	2	2	2	3	3	6	5	2	2	3	4	1	6	2.1
Dec 25	3	3	3	2	3	2	3	3	4	4	10	5	10	7	2	4	12	5	4	6	5	5	4	2	2	12	4.6
Dec 26	2	2	2	2	2	6	6	5	4	8	5	2	1	0	0	0	0	0	0	0	0	0	0	0	**0**	8	2.0
Dec 27	0	0	0	0	0	0	1	2	2	2	4	7	7	6	2	8	26	3	1	1	1	1	2	2	**0**	26	3.3
Dec 28	2	1	2	1	2	2	2	2	2	3	4	4	4	4	4	4	4	13	8	5	5	5	5	5	1	13	3.9
Dec 29	7	8	8	7	7	9	11	10	13	13	14	13	11	7	9	7	5	8	8	7	4	6	5	6	4	14	8.5
Dec 30	6	4	3	3	3	3	3	5	5	5	7	5	5	6	7	6	8	6	7	9	11	10	10	10	3	11	6.1
Dec 31	11	10	11	12	14	14	14	13	4	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	14	5.1
Diurnal Maximum	200	54	24	23	19	20	20	31	24	25	20	21	27	25	22	60	26	23	28	22	22	23	23	22			
Diurnal Average	10.8	6.0	4.6	4.7	4.6	5.1	5.3	5.9	5.9	6.4	6.7	6.0	5.9	4.7	4.5	7.2	5.8	4.9	5.4	4.7	4.5	4.5	4.3	4.5			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.





Station: AQHI Grimshaw Poll.: AQHI Grimshaw-PM2.5[ug/m3(L)] Monthly: 12-2023

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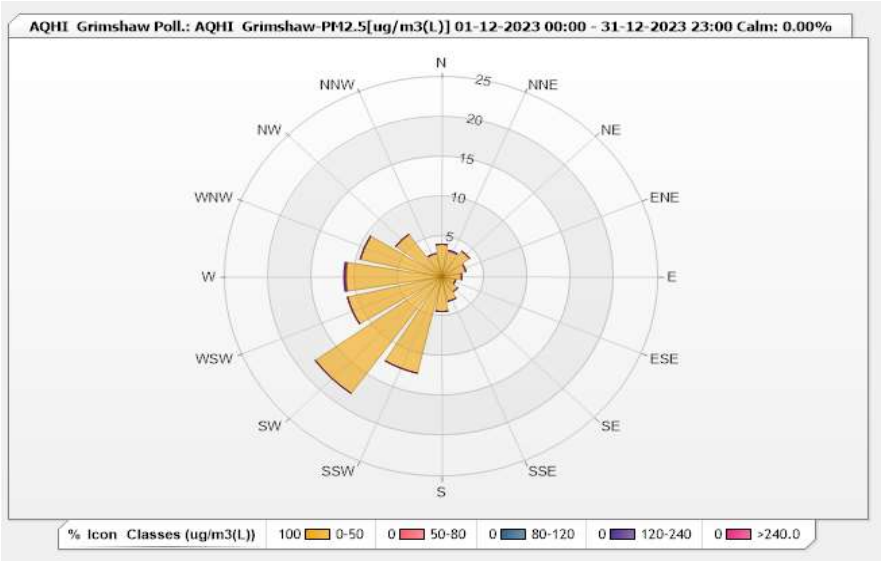
Type: Pollution Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm: 0.00% Valid Data: 98.79% Calm Avg: 0.00 [ug/m3(L)]

Direction	0-50	50-80	80-120	120-240	>240.0	Total
N	4.08	0	0	0	0	4.08
NNE	3.27	0.14	0	0	0	3.41
NE	3.95	0	0	0	0	3.95
ENE	2.86	0	0	0	0	2.86
E	2.31	0	0	0	0	2.31
ESE	1.63	0	0	0	0	1.63
SE	2.31	0	0	0	0	2.31
SSE	3.13	0	0	0	0	3.13
S	4.35	0	0	0	0	4.35
SSW	12.38	0	0	0	0	12.38
SW	17.96	0	0	0	0	17.96
WSW	11.16	0	0	0	0	11.16
W	11.02	0.14	0	0.14	0	11.3
WNW	9.66	0	0	0	0	9.66
NW	6.53	0	0	0	0	6.53
NNW	2.99	0	0	0	0	2.99
Summary	100	0.28	0	0.14	0	100



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

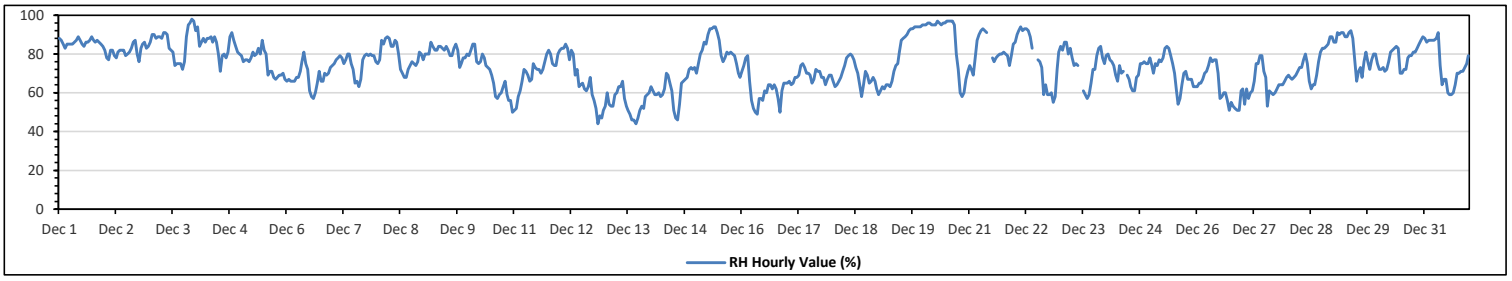
RELATIVE HUMIDITY (RH) in %

Maximum Hourly Value:	98	%	on Dec 3 at hr 22	Hours in Service:	744	
Maximum Daily Value:	87.4	%	on Dec 20	Hours of Data:	737	
Minimum Hourly Value:	44	%	on Dec 12 at hr 20	Hours of Missing Data:	7	
Minimum Daily Value:	54.6	%	on Dec 13	Hours of Calibration:	0	
Monthly Average:	74.2	%		Operational Uptime:	99.1	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	88	87	85	83	85	85	85	85	86	87	89	87	85	84	86	86	87	89	87	86	87	86	85	84	83	89	86.0
Dec 2	82	78	77	82	82	79	78	81	82	82	82	79	80	81	83	86	87	80	76	83	85	86	83	84	76	87	81.6
Dec 3	86	90	90	88	89	89	88	91	91	90	83	82	81	74	75	75	75	72	76	89	95	96	**98**	97	72	**98**	85.8
Dec 4	92	94	84	86	88	86	88	88	89	86	89	86	80	71	79	80	78	81	89	91	87	84	81	80	71	94	84.9
Dec 5	79	76	77	77	76	78	81	79	80	83	80	87	82	80	69	71	71	68	67	68	69	69	70	67	67	87	75.2
Dec 6	66	67	66	66	66	68	68	71	76	81	75	72	61	58	57	60	65	71	66	66	70	69	70	73	57	81	67.8
Dec 7	74	75	77	78	79	78	75	77	80	80	75	72	65	66	63	67	77	79	80	79	80	79	79	76	63	80	75.4
Dec 8	75	77	87	85	88	89	88	84	84	87	86	80	72	70	68	68	72	74	76	75	74	76	81	80	68	89	79.0
Dec 9	77	80	80	80	86	84	82	82	84	84	83	82	84	82	79	79	83	85	82	73	75	78	78	80	73	86	80.9
Dec 10	79	82	85	85	76	75	76	80	78	74	73	72	69	65	58	57	59	60	63	66	59	56	56	50	50	85	68.9
Dec 11	51	52	58	61	66	72	71	69	66	67	75	73	72	72	70	72	76	80	82	80	75	74	74	80	51	82	70.3
Dec 12	82	83	83	85	83	77	82	80	69	72	63	64	65	62	61	63	68	59	56	52	**44**	48	47	51	**44**	85	66.6
Dec 13	53	60	54	53	53	59	60	63	63	66	57	53	51	49	46	46	**44**	47	51	53	52	58	59	60	**44**	66	**54.6**
Dec 14	63	61	59	59	60	58	59	62	70	69	65	61	51	47	46	54	65	66	67	68	72	73	72	73	46	73	62.5
Dec 15	70	75	80	82	86	85	90	93	93	94	94	91	87	79	76	78	81	80	81	80	79	75	70	68	68	94	82.0
Dec 16	71	74	78	79	66	56	52	50	49	57	57	56	61	60	64	64	62	64	62	57	50	61	65	65	49	79	61.7
Dec 17	65	66	64	65	68	68	69	74	75	73	70	70	69	65	67	72	71	71	68	68	64	67	69	69	64	75	68.6
Dec 18	66	63	64	66	68	71	74	78	79	80	79	77	73	70	64	58	64	71	69	65	66	68	66	62	58	80	69.2
Dec 19	59	61	63	62	64	64	63	66	71	74	75	81	87	88	89	90	92	93	93	94	94	94	94	95	59	95	79.4
Dec 20	95	95	96	96	95	95	95	97	96	95	96	96	97	97	97	97	95	80	72	60	58	60	67	71	58	97	**87.4**
Dec 21	74	72	69	78	87	90	92	93	92	91	**K**	**K**	78	76	78	79	80	80	81	80	79	74	79	85	69	93	81.2
Dec 22	86	90	92	94	92	93	93	92	89	83	**K**	**K**	77	76	73	59	64	59	59	60	55	58	72	81	55	94	77.1
Dec 23	84	82	86	86	80	83	78	74	75	74	**K**	**K**	61	59	57	59	65	72	72	79	83	84	78	75	57	86	74.8
Dec 24	79	80	77	76	74	69	66	74	70	71	**K**	69	67	63	61	61	68	69	75	75	76	75	75	78	61	80	71.7
Dec 25	74	70	75	74	77	76	78	83	84	83	79	75	70	61	54	57	64	70	71	67	67	67	63	63	54	84	70.9
Dec 26	63	65	65	67	70	71	74	78	76	77	77	70	57	58	60	60	56	51	55	53	52	51	51	61	51	78	63.3
Dec 27	62	54	62	57	60	61	66	75	75	79	79	71	68	53	61	60	59	60	62	64	64	64	66	68	53	79	64.6
Dec 28	69	68	67	68	69	71	73	73	77	80	75	66	62	64	64	69	76	81	83	83	84	85	89	89	62	89	74.4
Dec 29	86	86	91	90	91	91	89	89	91	92	88	77	66	71	73	68	76	81	76	72	77	80	80	75	66	92	81.5
Dec 30	72	72	73	71	72	76	81	82	83	84	83	70	70	72	72	78	79	79	81	81	83	85	87	89	70	89	78.1
Dec 31	88	86	87	87	87	87	88	91	74	64	67	67	60	59	59	60	64	70	70	71	71	73	75	79	59	91	74.3
Diurnal Maximum	95	95	96	96	95	95	95	97	96	95	96	96	97	97	97	97	95	93	93	94	95	96	98	97			
Diurnal Average	74.5	74.9	75.8	76.3	76.9	76.9	77.5	79.2	78.9	79.3	77.6	74.5	71.2	68.8	68.0	68.8	71.7	72.3	72.5	72.2	71.8	72.7	73.5	74.5			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

BAROMETRIC PRESSURE (BP) in millibar

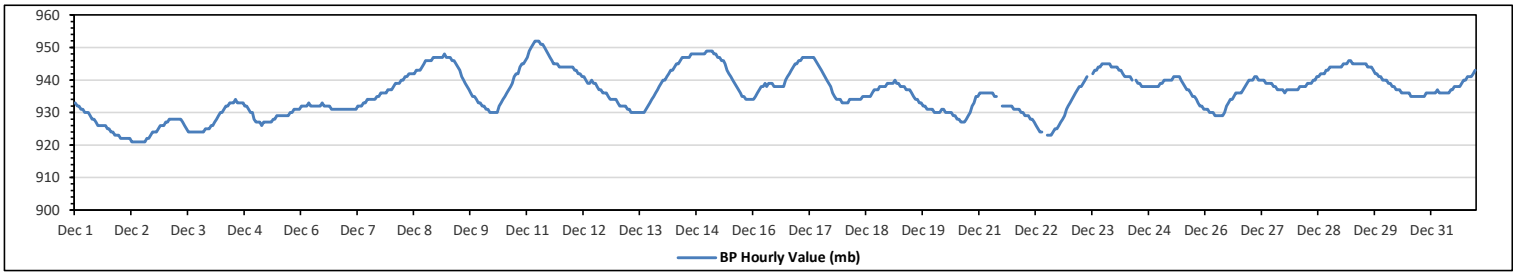
Maximum Hourly Value:	952	mb	on Dec 11 at hr 4	Hours in Service:	744	
Maximum Daily Value:	947	mb	on Dec 11	Hours of Data:	737	
Minimum Hourly Value:	921	mb	on Dec 2 at hr 6	Hours of Missing Data:	7	
Minimum Daily Value:	923	mb	on Dec 2	Hours of Calibration:	0	
Monthly Average:	936	mb		Operational Uptime:	99.1	

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Dec 1	933	932	932	931	931	930	930	930	929	928	928	927	926	926	926	926	926	925	925	924	924	923	923	923	923	933	927
Dec 2	922	922	922	922	922	922	**921**	**921**	**921**	**921**	**921**	**921**	**921**	**921**	922	922	923	924	924	924	925	926	926	926	**921**	926	**923**
Dec 3	927	927	928	928	928	928	928	928	928	927	926	925	924	924	924	924	924	924	924	924	924	925	925	925	924	928	926
Dec 4	926	926	927	928	929	930	930	931	932	932	933	933	933	934	933	933	933	933	932	932	931	930	930	928	926	934	931
Dec 5	927	927	927	926	927	927	927	927	927	928	928	929	929	929	929	929	929	929	930	930	931	931	931	931	926	931	929
Dec 6	932	932	932	932	933	932	932	932	932	932	932	933	932	932	932	932	931	931	931	931	931	931	931	931	931	933	932
Dec 7	931	931	931	931	931	931	932	932	932	933	933	934	934	934	934	934	935	935	936	936	936	936	937	937	931	937	934
Dec 8	937	938	939	939	939	940	940	941	941	942	942	942	942	943	943	943	944	945	946	946	946	946	947	947	937	947	942
Dec 9	947	947	947	947	948	947	947	947	946	946	945	944	943	941	940	939	938	937	936	935	935	934	933	933	933	948	942
Dec 10	932	932	931	931	930	930	930	930	930	932	933	934	935	936	937	938	939	941	942	942	944	945	945	946	930	946	936
Dec 11	947	949	950	951	**952**	**952**	**952**	951	951	950	949	948	947	946	945	945	945	944	944	944	944	944	944	944	944	**952**	**947**
Dec 12	944	943	943	942	942	941	941	940	939	939	940	939	939	938	937	937	936	936	936	935	934	934	934	934	934	944	938
Dec 13	933	932	932	932	932	931	931	930	930	930	930	930	930	930	930	931	932	933	934	935	936	937	938	939	930	939	932
Dec 14	940	940	941	942	943	943	944	945	945	946	947	947	947	947	947	948	948	948	948	948	948	948	948	949	940	949	946
Dec 15	949	949	949	948	948	947	947	946	946	945	943	942	941	940	939	938	937	936	935	935	934	934	934	934	934	949	942
Dec 16	934	935	936	937	938	938	939	938	939	939	939	938	938	938	938	938	938	940	941	942	943	944	945	945	934	945	939
Dec 17	946	946	947	947	947	947	947	947	947	946	945	944	943	942	941	940	939	938	936	935	934	934	934	933	933	947	942
Dec 18	933	933	933	934	934	934	934	934	934	934	935	935	935	935	935	936	937	937	937	938	938	938	938	939	933	939	935
Dec 19	939	939	939	940	939	939	938	938	938	937	937	937	936	935	934	934	933	933	932	932	931	931	931	931	931	940	936
Dec 20	930	930	930	930	931	931	930	930	930	930	929	929	928	928	927	927	927	928	929	930	932	933	935	935	927	935	930
Dec 21	936	936	936	936	936	936	936	936	935	935	K	K	932	932	932	932	932	932	931	931	931	931	930	930	930	936	933
Dec 22	929	929	929	928	928	927	926	925	924	924	K	K	923	923	923	924	925	925	926	927	928	929	931	932	923	932	927
Dec 23	933	934	935	936	937	938	938	939	940	941	K	K	942	943	943	944	944	945	945	945	945	945	944	944	933	945	941
Dec 24	944	944	943	943	942	941	941	941	941	940	K	940	939	939	938	938	938	938	938	938	938	938	938	938	938	944	940
Dec 25	939	939	940	940	940	940	940	941	941	941	941	940	939	938	937	937	936	935	935	934	933	932	932	931	931	941	938
Dec 26	931	931	930	930	930	929	929	929	929	929	930	932	933	934	934	935	936	936	936	936	937	938	939	940	929	940	933
Dec 27	940	940	941	941	940	940	940	940	939	939	939	939	938	938	937	937	937	937	936	937	937	937	937	937	936	941	938
Dec 28	937	937	938	938	938	938	939	939	939	940	940	941	941	942	942	942	943	943	944	944	944	944	944	944	937	944	941
Dec 29	944	945	945	945	946	946	945	945	945	945	945	945	945	945	944	944	944	943	942	942	941	941	940	940	940	946	944
Dec 30	940	939	939	938	938	937	937	937	936	936	936	936	936	935	935	935	935	935	935	935	935	936	936	936	935	940	936
Dec 31	936	936	936	937	936	936	936	936	936	936	937	937	938	938	938	938	939	940	940	941	941	941	942	943	936	943	938
Diurnal Maximum	949	949	950	951	952	952	952	951	951	950	949	948	947	947	947	948	948	948	948	948	948	948	948	949			
Diurnal Average	936	936	936	936	937	936	936	936	936	936	936	936	936	936	935	935	936	936	936	936	936	936	936	936			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

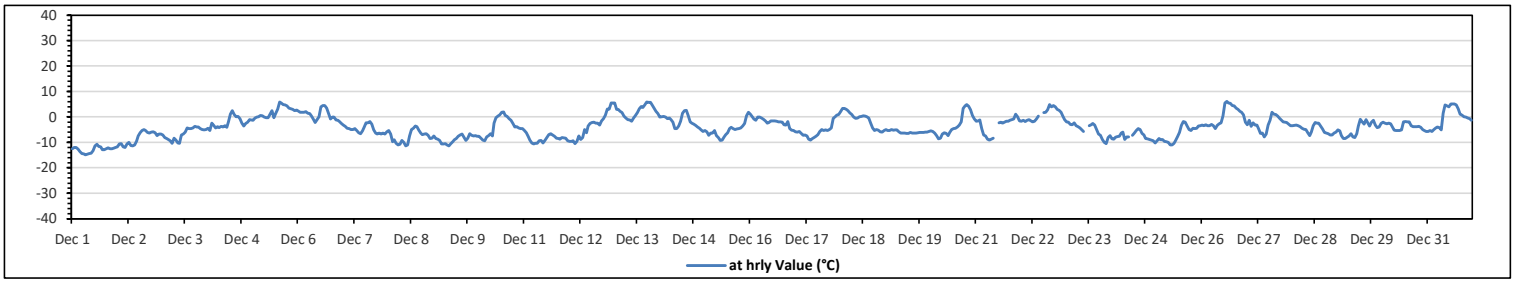
Maximum Hourly Value:	6.1	°C	on Dec 26 at hr 13	Hours in Service:	744	
Maximum Daily Value:	2.4	°C	on Dec 13	Hours of Data:	737	
Minimum Hourly Value:	-14.9	°C	on Dec 1 at hr 7	Hours of Missing Data:	7	
Minimum Daily Value:	-12.8	°C	on Dec 1	Hours of Calibration:	0	
Monthly Average:	-4.0	°C		Operational Uptime:	99.1	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	-12.5	-12	-12	-12.6	-13.6	-14.4	-14.5	**-14.9**	-14.6	-14.4	-14.3	-13.3	-11.4	-10.8	-11.6	-11.8	-12.9	-12.8	-12.5	-12.1	-12.4	-12.4	-12.2	-12	**-14.9**	-10.8	**-12.8**
Dec 2	-11.8	-10.7	-10.5	-11.7	-12	-10.6	-9.9	-11.2	-11.4	-10.9	-9.5	-7.4	-6.2	-5.4	-4.9	-5.3	-6.1	-6.3	-5.9	-5.8	-6.2	-7.3	-6.7	-6.7	-12.0	-4.9	-8.4
Dec 3	-7.1	-8.1	-8.5	-8.9	-9.4	-10.4	-8.3	-9.1	-10.2	-10.4	-7	-6.7	-5.9	-4.3	-4.6	-4.5	-4.3	-3.7	-4	-4	-4.5	-4.9	-5.1	-4.9	-10.4	-3.7	-6.6
Dec 4	-4.4	-5.4	-2.5	-3.3	-4.3	-3.8	-4.2	-3.7	-4	-3.4	-4.1	-1.9	1.1	2.5	1	0.1	0.2	-0.6	-2.5	-3.6	-2.6	-2	-1.1	-1.2	-5.4	2.5	-2.2
Dec 5	-1.3	-0.4	-0.1	0	0.6	0.4	-0.1	-0.2	-0.3	1.1	2.5	-0.2	1.5	3.1	5.9	5.4	4.9	4.8	4.4	3.5	3.2	2.9	2.5	2.7	-1.3	5.9	2.0
Dec 6	2.4	1.9	1.8	1.8	2.1	1.4	1.3	0.5	-0.8	-2.2	-1.1	0	4	4.5	4.5	3.5	1.3	-0.8	-0.1	-0.1	-1.2	-1.3	-1.8	-2.6	-2.6	4.5	0.8
Dec 7	-3.2	-3.7	-4.4	-4.5	-5	-4.9	-4.5	-5.3	-6.2	-6.6	-5.5	-4.1	-2.3	-2.3	-1.8	-2.8	-5.1	-6.3	-6.8	-6.3	-6.8	-6.3	-6.7	-5.8	-6.8	-1.8	-4.9
Dec 8	-5.4	-6.8	-9.7	-9	-10.3	-10.9	-10.8	-9.3	-9.9	-11.3	-10.9	-7.5	-4.9	-4.4	-3.5	-3.8	-5.2	-6.3	-6.9	-6.7	-6.6	-7.2	-8.4	-8.3	-11.3	-3.5	-7.7
Dec 9	-7.5	-8.5	-8.7	-9.2	-10.7	-10.6	-10.5	-10.9	-11.4	-10.5	-9.7	-9	-8.5	-7.6	-7	-6.8	-8	-9.2	-8.3	-6.6	-7.2	-7.5	-7.3	-7.6	-11.4	-6.6	-8.7
Dec 10	-7.6	-8.3	-9.1	-9.4	-7.9	-7.3	-6.6	-7.5	-2.5	-0.3	0.3	0.8	1.8	2	0.6	0.2	-0.6	-1.3	-2.6	-4	-3.9	-4.3	-4.6	-4.5	-9.4	2.0	-3.6
Dec 11	-5.3	-6.2	-7.7	-9.1	-10.2	-10.7	-10.4	-10.3	-9.4	-9.3	-10.2	-9.2	-8.1	-6.9	-6.6	-7.1	-7.6	-8.3	-8.4	-8.7	-8.1	-8.2	-8.3	-9.4	-10.7	-5.3	-8.5
Dec 12	-9.6	-9.6	-9.4	-10.5	-9.6	-7.4	-8.8	-8.1	-5	-6.2	-3.5	-2.6	-2.2	-2	-2.5	-2.4	-3.1	-1.5	-0.7	0.7	3.1	3.1	5.5	5.4	-10.5	5.5	-3.6
Dec 13	5.4	3	2.9	2.2	1.7	0.3	-0.4	-1	-1.2	-1.7	-0.4	0.6	1.7	3.2	4.1	3.8	4.8	5.9	5.8	5.7	4.8	3.5	2.3	1.3	-1.7	5.9	**2.4**
Dec 14	-0.1	0	0.2	-0.1	-0.7	-0.4	-1	-2.1	-4.6	-4.5	-3.5	-1.7	1.5	2.5	2.6	0.5	-1.9	-2.5	-2.8	-3.3	-4	-4.4	-5.1	-5.6	-5.6	2.6	-1.7
Dec 15	-5.3	-5.8	-7.2	-6.4	-6.3	-5.4	-7.3	-8.1	-9.2	-9.1	-7.9	-6.9	-6.2	-4.6	-4.1	-4.5	-4.9	-4.7	-4.6	-4.3	-3.6	-2.6	0.5	1.9	-9.2	1.9	-5.3
Dec 16	1.1	0.1	-0.8	-1.4	-0.1	-0.1	-0.4	-0.9	-1.5	-2.5	-2.2	-1.5	-1.5	-1.5	-1.6	-1.9	-1.9	-2	-3	-3.2	-1.8	-4.6	-5.2	-5.4	-5.4	1.1	-1.8
Dec 17	-5.8	-6	-5.7	-6.5	-7.2	-7.1	-7.4	-8.7	-9.1	-8.4	-8.1	-7.6	-6.9	-5.7	-5	-5.4	-5.1	-5.4	-4.9	-4.3	-0.5	0	0.7	1	-9.1	1.0	-5.4
Dec 18	2.1	3.3	3.4	3	2.5	1.6	1	-0.1	-0.5	-0.4	0	0.2	0.4	0.3	0	-0.4	-2.4	-4.3	-5.3	-5	-5.2	-5.8	-6	-5.3	-6.0	3.4	-1.0
Dec 19	-5	-5.4	-5.3	-5	-5.2	-5.1	-5.1	-5.8	-6.4	-6.4	-6.3	-6.5	-6.5	-6.1	-6.3	-6.3	-6.3	-6.2	-6.1	-6.1	-6.1	-6	-5.9	-5.7	-6.5	-5.0	-5.9
Dec 20	-5.5	-5.6	-6.4	-7.3	-8.6	-8.3	-6.7	-6.2	-6.5	-7.3	-6.1	-5	-4.6	-4.4	-4	-3.1	-1.9	3.4	4.4	4.9	4.2	2.8	0.6	-0.8	-8.6	4.9	-3.3
Dec 21	-1.7	-1.5	-1.2	-4.5	-7.1	-7.5	-8.7	-9.1	-8.7	-8.3	**K**	**K**	-2.3	-2.1	-2.5	-2	-1.7	-1.7	-1.4	-1.1	-0.8	1.1	0	-1.5	-9.1	1.1	-3.4
Dec 22	-1.6	-1.3	-1.8	-1.4	-1.1	-1.5	-1.9	-1.7	-0.8	0.3	**K**	**K**	1.7	1.8	2.8	4.9	4	4.5	3.9	3	2.6	1.9	0.5	-1.1	-1.9	4.9	0.8
Dec 23	-1.9	-2.1	-2.9	-3	-2.3	-3.4	-3.9	-4.3	-5.1	-5.6	**K**	**K**	-3.4	-3	-2.6	-3.1	-4.9	-6.8	-7.2	-8.8	-10	-10.5	-8.1	-7.3	-10.5	-1.9	-5.0
Dec 24	-8.6	-8.7	-8	-7.7	-7.6	-6.3	-6	-8.8	-7.8	-7.9	**K**	-7.2	-6.3	-5.4	-4.6	-4.9	-6.5	-7	-8.4	-8.6	-8.9	-9.1	-9.4	-10.2	-10.2	-4.6	-7.6
Dec 25	-9.4	-8.5	-9	-8.9	-9.6	-9.7	-9.9	-11	-11	-10.3	-9.3	-7.7	-6.1	-3.3	-1.8	-2	-3.6	-4.9	-5.3	-4.4	-4.5	-4.4	-3.6	-3.4	-11.0	-1.8	-6.7
Dec 26	-3.2	-3.4	-3	-3.4	-3.4	-2.9	-3.4	-4.6	-3.3	-2.7	-2.3	0.4	5.5	**6.1**	5.4	5.3	4.5	4.4	3.5	2.9	2.2	1.8	0.9	-2	-4.6	**6.1**	0.2
Dec 27	-3	-1.4	-3.7	-2.3	-3.2	-3.2	-4.6	-6.5	-6.4	-7.8	-6.7	-3.2	-1.3	1.9	1.1	1	0.3	-0.5	-1.2	-1.9	-2	-2.2	-2.8	-3.4	-7.8	1.9	-2.6
Dec 28	-3.4	-3.3	-3.2	-3.4	-3.8	-4.4	-4.8	-4.9	-6.2	-7.3	-6	-3.4	-2.2	-2.5	-2.4	-3.5	-4.7	-6.1	-6.4	-6.6	-7	-7	-6.3	-5.9	-7.3	-2.2	-4.8
Dec 29	-5.1	-5.5	-7.3	-8.5	-8.4	-8	-7.5	-6.6	-7.9	-8.1	-6.6	-3.6	-0.9	-1.9	-2.8	-1.1	-2.4	-3.6	-2	-1.4	-3.1	-4.2	-4	-2.6	-8.5	-0.9	-4.7
Dec 30	-2	-2.4	-2.7	-2.5	-2.7	-4.1	-5.2	-5.4	-5.3	-5.3	-5.1	-1.9	-1.8	-1.9	-1.9	-3.4	-3.8	-3.9	-3.8	-3.7	-4.1	-4.9	-5.4	-5.7	-5.7	-1.8	-3.7
Dec 31	-5.7	-5.3	-5.6	-5	-4.3	-4	-4.2	-5.1	1.5	4.8	4.4	4	5.2	5.2	5.2	4.7	3.2	1.1	0.7	0	-0.1	-0.4	-0.7	-1.3	-5.7	5.2	-0.1
Diurnal Maximum	5.4	3.3	3.4	3.0	2.5	1.6	1.3	0.5	1.5	4.8	4.4	4.0	5.5	6.1	5.9	5.4	4.9	5.9	5.8	5.7	4.8	3.5	5.5	5.4			
Diurnal Average	-4.3	-4.4	-4.8	-5.1	-5.4	-5.4	-5.6	-6.2	-6.0	-5.9	-5.2	-4.0	-2.4	-1.7	-1.6	-1.8	-2.6	-3.0	-3.2	-3.2	-3.3	-3.6	-3.6	-3.8			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

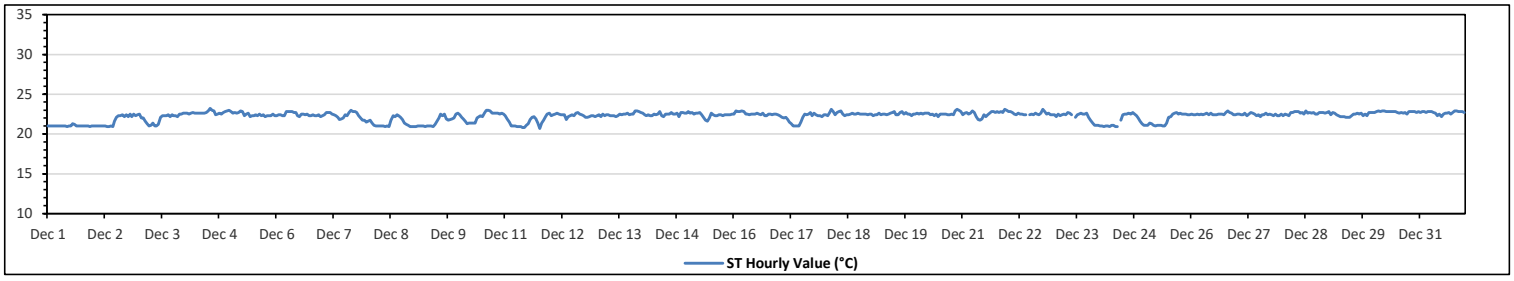
STATION TEMPERATURE (ST) in Degree Celsius

Maximum Hourly Value:	23.2	°C	on Dec 4 at hr 13	Hours in Service:	744	
Maximum Daily Value:	22.8	°C	on Dec 30	Hours of Data:	741	
Minimum Hourly Value:	20.7	°C	on Dec 11 at hr 18	Hours of Missing Data:	3	
Minimum Daily Value:	21.0	°C	on Dec 1	Hours of Calibration:	0	
Monthly Average:	22.2	°C		Operational Uptime:	99.6	

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Dec 1	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	20.9	21.0	21.0	21.3	21.2	21.0	21.0	21.0	21.0	21.0	21.0	21.0	20.9	21.0	20.9	21.3	**21.0**
Dec 2	21.0	21.0	21.0	21.0	21.0	21.0	21.0	20.9	20.9	21.0	20.9	21.6	22.1	22.3	22.3	22.4	22.2	22.4	22.2	22.5	22.2	22.5	22.3	22.4	20.9	22.5	21.7
Dec 3	22.5	22.0	22.0	21.6	21.3	21.0	21.1	21.4	21.0	21.0	21.2	22.1	22.3	22.3	22.3	22.4	22.2	22.4	22.3	22.3	22.2	22.5	22.5	22.6	21.0	22.6	21.9
Dec 4	22.6	22.6	22.5	22.6	22.7	22.6	22.6	22.6	22.6	22.6	22.6	22.7	22.9	**23.2**	23.0	22.9	22.4	22.5	22.6	22.5	22.7	22.8	22.9	23.0	22.4	**23.2**	22.7
Dec 5	22.8	22.6	22.7	22.6	22.7	22.9	22.8	22.3	22.5	22.6	22.2	22.3	22.3	22.4	22.3	22.5	22.3	22.4	22.2	22.3	22.3	22.3	22.5	22.3	22.2	22.9	22.5
Dec 6	22.3	22.4	22.4	22.3	22.3	22.8	22.8	22.8	22.8	22.7	22.7	22.3	22.2	22.5	22.5	22.4	22.5	22.3	22.3	22.4	22.3	22.3	22.4	22.2	22.2	22.8	22.5
Dec 7	22.3	22.4	22.7	22.7	22.7	22.5	22.4	22.3	22.1	21.8	21.9	22.0	22.4	22.3	22.7	23.0	22.8	22.8	22.7	22.3	22.0	21.7	21.7	21.5	21.5	23.0	22.3
Dec 8	21.6	21.7	21.4	21.1	21.0	21.0	21.0	21.0	21.0	20.9	21.0	20.9	21.7	22.3	22.2	22.4	22.3	22.1	21.8	21.4	21.2	21.1	20.9	20.9	20.9	22.4	21.4
Dec 9	20.9	20.9	21.0	21.0	21.0	21.0	20.9	21.0	21.0	21.0	20.9	21.2	21.6	22.0	22.5	22.3	22.5	21.9	21.7	21.8	21.9	22.0	22.5	22.6	20.9	22.6	21.5
Dec 10	22.4	22.1	21.9	21.6	21.3	21.4	21.4	21.4	21.4	22.0	22.2	22.3	22.2	22.6	23.0	23.0	22.9	22.6	22.6	22.6	22.6	22.5	22.6	22.5	21.3	23.0	22.2
Dec 11	22.3	21.9	21.5	21.0	21.0	21.0	20.9	20.9	20.9	20.8	20.8	21.1	21.3	21.8	22.1	22.2	21.9	21.4	**20.7**	21.4	21.7	22.2	22.5	22.6	**20.7**	22.6	21.5
Dec 12	22.3	22.4	22.5	22.6	22.5	22.4	22.4	22.4	21.8	22.2	22.3	22.4	22.3	22.6	22.7	22.5	22.4	22.3	22.1	22.1	22.2	22.3	22.3	22.2	21.8	22.7	22.3
Dec 13	22.3	22.4	22.2	22.5	22.3	22.4	22.4	22.3	22.3	22.3	22.2	22.3	22.5	22.4	22.5	22.5	22.6	22.4	22.5	22.5	22.9	22.9	22.8	22.7	22.2	22.9	22.5
Dec 14	22.6	22.4	22.3	22.4	22.3	22.3	22.5	22.4	22.5	22.8	22.3	22.2	22.5	22.5	22.5	22.7	22.5	22.5	22.6	22.2	22.7	22.7	22.6	22.6	22.2	22.8	22.5
Dec 15	22.8	22.6	22.7	22.5	22.6	22.6	22.7	22.4	22.0	21.7	21.6	22.0	22.6	22.4	22.3	22.3	22.4	22.4	22.3	22.4	22.4	22.4	22.4	22.5	21.6	22.8	22.4
Dec 16	22.5	22.9	22.8	22.8	22.9	22.8	22.5	22.5	22.4	22.5	22.5	22.5	22.6	22.5	22.4	22.6	22.3	22.3	22.5	22.5	22.4	22.5	22.5	22.4	22.3	22.9	22.5
Dec 17	22.3	22.1	22.0	22.1	21.8	21.5	21.3	21.0	21.0	21.0	21.0	21.5	22.1	22.5	22.4	22.5	22.7	22.3	22.6	22.4	22.3	22.3	22.2	22.4	21.0	22.7	22.0
Dec 18	22.4	22.3	22.7	23.1	22.8	22.4	22.7	22.8	22.9	22.5	22.3	22.4	22.4	22.5	22.6	22.5	22.5	22.6	22.5	22.5	22.5	22.5	22.4	22.5	22.3	23.1	22.6
Dec 19	22.5	22.3	22.4	22.4	22.6	22.4	22.5	22.5	22.4	22.5	22.6	22.7	22.8	22.4	22.4	22.7	22.8	22.5	22.7	22.5	22.5	22.3	22.5	22.5	22.3	22.8	22.5
Dec 20	22.6	22.5	22.6	22.5	22.6	22.6	22.6	22.4	22.5	22.3	22.5	22.2	22.5	22.5	22.5	22.5	22.4	22.4	22.5	22.4	22.9	23.1	23.0	22.8	22.2	23.1	22.6
Dec 21	22.4	22.6	22.7	22.5	22.6	22.9	22.7	22.2	21.8	21.7	21.9	22.4	22.2	22.4	22.6	22.8	22.8	22.7	22.8	22.7	22.8	22.7	23.1	23.0	21.7	23.1	22.5
Dec 22	22.8	22.8	22.7	22.5	22.4	22.6	22.5	22.5	22.4	22.4	**K**	22.4	22.5	22.4	22.6	22.5	22.4	22.6	23.1	22.8	22.5	22.6	22.4	22.4	22.4	23.1	22.6
Dec 23	22.4	22.2	22.5	22.3	22.4	22.5	22.4	22.7	22.6	22.4	**K**	22.1	22.4	22.5	22.6	22.5	22.5	22.6	22.1	21.7	21.4	21.1	21.1	21.1	21.1	22.7	22.2
Dec 24	21.0	21.0	20.9	21.0	21.0	20.9	21.1	21.1	20.9	20.9	**K**	21.7	22.4	22.5	22.5	22.6	22.5	22.7	22.5	22.3	22.0	21.6	21.3	21.1	20.9	22.7	21.6
Dec 25	21.1	21.1	21.4	21.3	21.1	21.0	21.1	21.1	21.1	21.0	21.0	21.4	22.1	22.2	22.5	22.6	22.7	22.5	22.6	22.5	22.5	22.5	22.4	22.4	21.0	22.7	21.8
Dec 26	22.5	22.4	22.4	22.5	22.4	22.5	22.4	22.5	22.6	22.4	22.6	22.4	22.4	22.4	22.5	22.5	22.5	22.4	22.7	22.9	22.7	22.6	22.4	22.4	22.4	22.9	22.5
Dec 27	22.5	22.5	22.4	22.4	22.6	22.3	22.5	22.7	22.6	22.5	22.3	22.4	22.2	22.4	22.4	22.6	22.4	22.5	22.4	22.3	22.5	22.3	22.3	22.5	22.2	22.7	22.4
Dec 28	22.3	22.5	22.4	22.3	22.7	22.7	22.8	22.8	22.8	22.6	22.7	22.5	22.9	22.6	22.7	22.6	22.7	22.5	22.5	22.7	22.7	22.7	22.6	22.7	22.3	22.9	22.6
Dec 29	22.8	22.4	22.7	22.6	22.4	22.3	22.2	22.2	22.2	22.1	22.1	22.1	22.3	22.5	22.5	22.6	22.5	22.6	22.3	22.5	22.3	22.7	22.7	22.7	22.1	22.8	22.4
Dec 30	22.7	22.8	22.9	22.8	22.9	22.9	22.8	22.8	22.8	22.8	22.8	22.8	22.7	22.6	22.7	22.6	22.7	22.5	22.8	22.8	22.8	22.8	22.7	22.8	22.5	22.9	**22.8**
Dec 31	22.7	22.8	22.8	22.7	22.8	22.8	22.8	22.7	22.6	22.3	22.5	22.2	22.5	22.6	22.6	22.7	22.5	22.7	22.9	22.9	22.8	22.8	22.8	22.7	22.2	22.9	22.7
Diurnal Maximum	22.8	22.9	22.9	23.1	22.9	22.9	22.8	22.8	22.9	22.8	22.8	22.8	22.9	23.2	23.0	23.0	22.9	22.8	23.1	22.9	22.9	23.1	23.1	23.0			
Diurnal Average	22.2	22.2	22.2	22.1	22.1	22.1	22.1	22.1	22.0	21.9	21.9	22.1	22.3	22.4	22.5	22.5	22.4	22.4	22.4	22.3	22.3	22.3	22.3	22.3			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

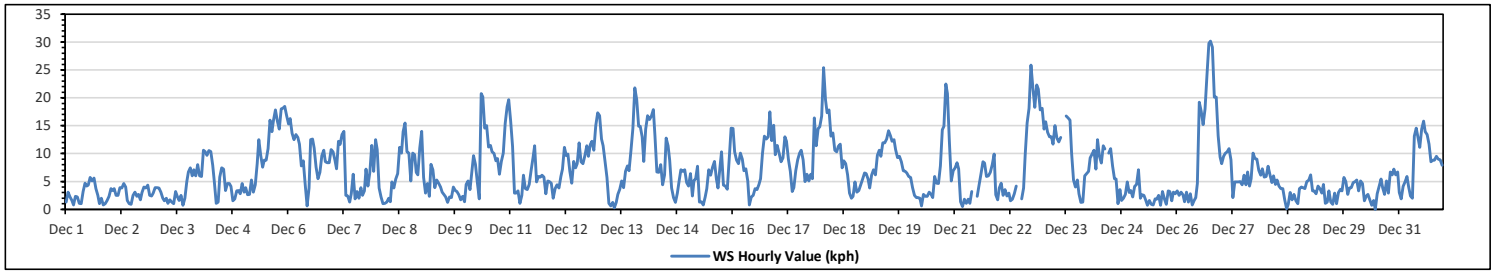
VECTOR WIND SPEED (VWS) in km/hr

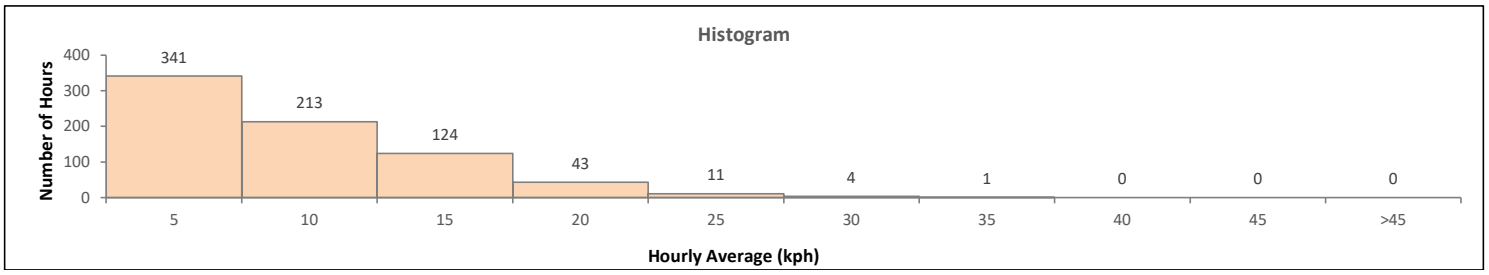
Maximum Hourly Value:	30.2	kph	on Dec 26 at hr 18	Hours in Service:	744	
Maximum Daily Value:	11.5	kph	on Dec 26	Hours of Data:	737	
Minimum Hourly Value:	0.0	kph	on Dec 30 at hr 11	Hours of Missing Data:	7	
Minimum Daily Value:	2.4	kph	on Dec 25	Hours of Calibration:	0	
Monthly Average:	7.0	kph		Operational Uptime:	99.1	

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Dec 1	1.3	3.1	2.2	1.6	0.8	2.3	2.2	1.1	1.0	3.2	4.7	4.2	4.3	5.7	5.1	5.6	3.7	2.5	1.0	2.0	0.8	1.0	1.6	2.3	0.8	5.7	2.6
Dec 2	3.7	3.4	3.7	2.5	2.5	3.9	3.8	4.6	4.0	1.6	1.0	0.9	2.5	3.1	2.3	2.7	1.7	3.0	4.0	3.8	4.3	2.5	2.4	2.9	0.9	4.6	3.0
Dec 3	3.9	3.9	3.8	3.1	2.0	1.5	2.0	1.1	1.7	1.3	1.0	3.2	2.2	1.6	2.5	0.7	2.0	5.0	6.7	7.4	6.0	7.1	6.0	8.0	0.7	8.0	3.5
Dec 4	6.0	5.9	10.6	10.4	9.7	10.5	10.4	7.9	5.0	1.1	1.3	5.8	7.4	7.2	3.4	4.6	4.6	4.1	1.5	1.9	3.3	3.4	2.8	4.6	1.1	10.6	5.6
Dec 5	3.1	3.9	2.6	2.7	5.3	3.1	4.4	8.2	12.5	9.7	7.6	8.8	8.8	10.9	16.0	13.9	16.0	17.8	15.8	14.4	18.0	18.2	18.5	16.8	2.6	18.5	10.7
Dec 6	15.3	16.3	13.6	12.5	13.4	12.9	11.7	7.8	8.7	4.5	0.6	3.8	12.5	12.6	11.0	7.6	5.5	6.6	9.6	10.6	8.5	8.4	8.4	10.7	0.6	16.3	9.7
Dec 7	10.3	8.8	7.3	12.2	11.6	13.4	14.0	2.5	2.4	1.3	2.8	6.3	1.9	3.2	2.0	3.9	2.5	3.3	7.2	4.2	6.6	11.5	6.8	12.5	1.3	14.0	6.6
Dec 8	10.7	3.8	2.2	1.0	1.1	1.3	2.0	1.4	4.9	3.8	5.4	6.4	11.1	10.1	13.9	15.5	10.3	10.1	5.1	10.1	9.8	6.6	6.2	11.0	1.0	15.5	6.8
Dec 9	14.0	5.7	2.9	4.6	2.3	8.1	7.1	3.9	5.3	4.7	4.0	3.1	2.6	2.2	1.2	2.2	2.1	4.0	3.4	3.2	2.6	1.7	2.3	1.4	1.2	14.0	3.9
Dec 10	4.5	5.1	3.5	6.3	9.6	8.1	4.8	1.9	20.8	20.2	14.6	15.0	11.2	11.5	10.3	10.0	8.7	9.1	6.3	8.6	10.1	15.4	18.4	19.7	1.9	20.8	10.6
Dec 11	15.9	11.3	2.9	2.9	3.3	1.1	2.5	6.1	3.7	3.5	4.5	7.0	9.3	11.4	4.9	5.9	5.8	6.1	5.8	2.8	5.1	5.0	4.7	2.0	1.1	15.9	5.6
Dec 12	3.7	4.4	3.8	5.9	7.2	11.1	9.6	9.9	6.8	4.7	8.6	7.4	8.2	11.9	8.5	8.2	9.6	11.4	9.5	11.6	12.2	10.6	15.0	17.3	3.7	17.3	9.0
Dec 13	16.8	12.6	11.4	8.6	5.7	1.1	0.6	1.2	0.3	1.2	2.7	3.6	5.1	3.9	6.8	7.8	6.9	10.5	14.5	21.8	19.7	14.9	14.9	13.0	0.3	21.8	8.6
Dec 14	8.6	14.4	16.8	16.1	16.7	17.9	13.2	6.7	6.6	8.0	4.4	6.2	12.8	11.4	8.8	3.8	2.1	1.2	2.9	5.3	7.1	6.8	7.1	4.8	1.2	17.9	8.7
Dec 15	4.2	6.4	2.4	5.2	5.4	7.7	1.3	1.4	0.8	2.2	3.7	7.1	6.1	7.6	8.6	5.4	3.8	7.4	10.3	4.3	4.2	3.6	9.0	14.6	0.8	14.6	5.5
Dec 16	14.5	10.3	8.8	8.2	10.1	9.0	6.9	7.3	5.1	0.8	2.2	2.5	3.7	3.5	4.5	5.5	10.0	13.1	12.6	13.0	17.5	12.3	15.1	9.8	0.8	17.5	8.6
Dec 17	11.5	10.1	8.5	9.2	13.0	12.2	9.0	6.8	3.2	3.9	6.9	8.9	10.1	10.6	8.9	5.0	6.3	5.1	6.3	5.5	16.4	11.4	14.5	14.8	3.2	16.4	9.1
Dec 18	16.7	25.4	19.6	17.3	17.8	13.1	13.7	10.6	10.3	11.3	11.7	7.4	8.7	8.2	6.2	2.9	2.0	2.3	4.9	3.1	3.4	4.4	5.4	6.5	2.0	25.4	9.7
Dec 19	6.4	5.4	3.8	6.1	7.1	6.2	9.7	10.6	9.5	11.9	11.9	12.6	14.1	13.2	12.2	12.5	10.7	9.3	9.5	8.5	6.9	6.8	6.5	5.9	3.8	14.1	9.1
Dec 20	5.7	3.9	2.5	2.1	2.1	2.0	0.6	2.7	2.3	2.3	3.1	2.7	2.1	5.9	4.7	4.6	7.8	14.3	14.9	22.5	20.8	12.2	5.1	6.9	0.6	22.5	6.4
Dec 21	7.4	8.4	7.3	1.4	0.5	1.8	1.1	1.8	1.1	3.2	K	K	2.3	4.4	6.4	8.5	8.3	5.9	6.0	6.6	8.0	9.9	2.6	1.7	0.5	9.9	4.8
Dec 22	3.8	4.7	2.5	3.5	2.4	2.9	1.5	1.8	2.8	4.2	K	K	1.9	3.8	9.8	15.5	18.1	25.9	21.8	18.3	22.3	21.6	17.8	18.1	1.5	25.9	10.2
Dec 23	14.4	15.7	13.8	13.0	13.0	11.7	15.0	12.8	12.1	12.9	K	K	16.7	16.4	16.0	10.1	5.3	4.0	5.3	2.8	1.2	1.3	6.0	6.4	1.2	16.7	10.3
Dec 24	6.8	9.2	9.9	10.6	7.2	12.5	9.5	8.3	11.4	10.8	K	10.1	10.9	7.8	5.5	5.4	1.0	3.5	1.6	2.0	2.7	4.9	3.0	3.4	1.0	12.5	6.9
Dec 25	2.2	4.1	4.5	7.1	2.0	2.6	2.5	1.6	0.7	1.6	0.9	0.8	1.9	1.8	2.5	0.7	3.2	1.9	0.9	3.3	3.2	1.5	3.1	2.8	0.7	7.1	**2.4**
Dec 26	3.3	2.5	3.1	2.6	1.4	3.1	1.3	2.8	0.8	1.6	2.1	4.6	19.2	17.6	15.2	18.0	24.0	29.8	**30.2**	29.1	20.1	20.1	13.2	9.4	0.8	**30.2**	**11.5**
Dec 27	8.2	9.5	10.0	10.3	10.9	8.9	2.1	4.9	4.9	4.9	5.0	4.4	6.1	4.4	6.7	4.2	5.5	10.1	9.1	9.0	7.0	6.1	7.3	5.8	2.1	10.9	6.9
Dec 28	5.9	7.7	6.2	4.8	6.0	4.5	5.3	4.2	3.7	3.7	1.7	0.1	0.9	3.0	1.7	2.7	1.5	1.0	3.7	4.0	3.9	3.7	5.0	5.2	0.1	7.7	3.8
Dec 29	6.2	3.3	3.3	2.8	4.2	3.7	2.9	4.5	1.1	1.3	3.3	1.3	0.9	2.9	1.0	3.0	3.6	3.3	5.7	5.0	2.7	3.8	3.9	4.8	0.9	6.2	3.3
Dec 30	5.0	5.3	3.3	5.1	4.6	1.5	2.4	2.7	1.7	0.7	1.6	**0.0**	2.8	4.1	5.4	3.9	2.7	5.1	2.9	6.7	6.2	7.2	6.2	6.7	**0.0**	7.2	3.9
Dec 31	3.0	1.9	4.1	4.9	5.9	4.1	2.4	2.0	13.1	14.6	12.7	11.1	14.4	15.8	13.9	13.4	11.7	8.5	8.8	8.8	9.5	9.0	8.9	7.9	1.9	15.8	8.8
Diurnal Maximum	16.8	25.4	19.6	17.3	17.8	17.9	15.0	12.8	20.8	20.2	14.6	15.0	19.2	17.6	16.0	18.0	24.0	29.8	30.2	29.1	22.3	21.6	18.5	19.7			
Diurnal Average	7.8	7.6	6.5	6.6	6.6	6.6	5.7	4.9	5.4	5.2	4.8	5.5	7.2	7.7	7.3	6.9	6.7	7.9	8.0	8.4	8.7	8.2	8.0	8.3			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.



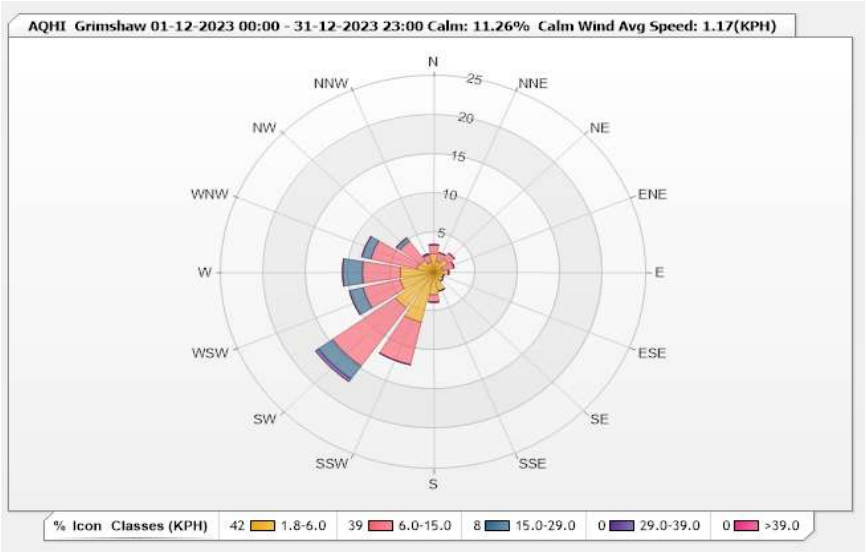


Station: AQHI Grimshaw Monitor: WDS [KPH] Monthly: 12-2023

Type: Wind Rose
Direction: Blowing From (Wind Frequency)
Time Base: 1 - Hour

Calm (WS<1.8kph): 11.26% Valid Data: 99.06%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	2.44	1.09	0	0	0	3.53
NNE	1.49	1.09	0	0	0	2.58
NE	2.04	0.95	0	0	0	2.99
ENE	1.09	1.36	0	0	0	2.45
E	1.76	0	0	0	0	1.76
ESE	1.22	0	0	0	0	1.22
SE	1.36	0	0	0	0	1.36
SSE	2.44	0	0	0	0	2.44
S	2.85	0.95	0	0	0	3.8
SSW	6.51	5.56	0	0	0	12.07
SW	5.56	9.09	2.04	0.41	0	17.1
WSW	4.07	4.48	1.63	0	0	10.18
W	3.93	4.48	2.31	0	0	10.72
WNW	2.04	5.56	1.09	0	0	8.69
NW	1.9	2.99	0.54	0	0	5.43
NNW	1.36	0.95	0.14	0	0	2.45
Summary	42.06	38.55	7.75	0.41	0	88.77



Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

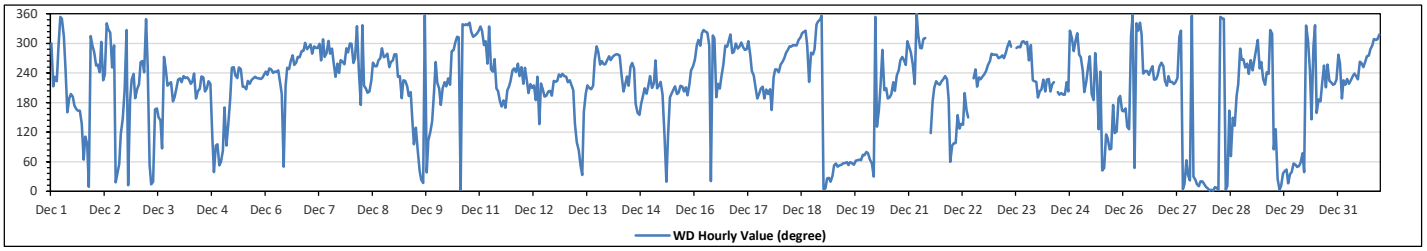
WIND DIRECTION (VWD) in sector

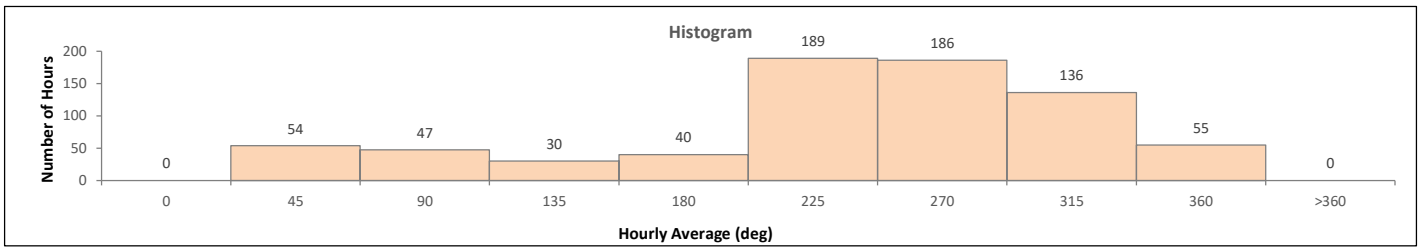
Monthly Average:	249 (WSW) degree	Hours in Service:	744
		Hours of Data:	737
		Hours of Missing Data:	7
		Hours of Calibration:	0
		Operational Uptime:	99.1

Day	Hourly Period Starting at (MST)																							Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant
Dec 1	WNW	SSW	SW	SW	WNW	N	N	NW	WSW	SSE	S	SSW	S	S	SSE	SSE	SSE	SE	ENE	ESE	E	N	NW	WNW	210	SSW
Dec 2	W	WSW	WSW	WSW	WNW	SW	SW	NNW	NNW	NW	WSW	WNW	NNE	NE	NE	ESE	SE	SSW	NW	NNE	S	SW	SW	S	270	W
Dec 3	SSW	SW	W	W	WSW	NNW	WSW	NE	NNE	NNE	SSE	SSE	SSE	SE	E	W	WSW	SSW	SW	SW	S	S	SSW	SW	216	SW
Dec 4	SW	SW	SW	SW	SW	SW	SW	SW	WSW	S	SSW	SSW	SW	SW	SSW	SSW	SW	SW	ESE	NE	E	E	NE	ENE	207	SSW
Dec 5	E	SSE	E	SE	S	WSW	WSW	SW	SW	WSW	WSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	219	SW
Dec 6	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SSW	NE	SSW	WSW	WSW	W	W	WSW	W	W	W	WNW	WNW	WNW	WNW	255	WSW
Dec 7	WNW	WNW	W	WNW	WNW	WNW	WNW	W	NW	W	W	WNW	W	WNW	WSW	SW	WSW	WSW	W	W	WSW	WNW	W	WNW	279	W
Dec 8	WNW	WSW	W	NNW	WSW	S	NNW	SSW	SSW	SSW	SSW	SW	W	WSW	WSW	W	W	WNW	W	W	W	WSW	W	W	257	WSW
Dec 9	W	W	SW	SW	S	SW	SW	SSW	S	SSW	SE	E	SE	E	NE	NNE	NNE	N	NE	ESE	ESE	SE	SSW	W	179	S
Dec 10	SW	SSW	S	SSW	SW	SSW	SW	SW	WNW	WNW	WNW	NW	NW	N	NNW	NNW	NNW	NNW	NNW	NW	NW	NW	NW	NW	292	WNW
Dec 11	NNW	NW	WNW	WNW	WSW	NNW	WSW	WSW	W	SSW	SSW	S	S	S	SSE	SSW	SSW	SW	WSW	WSW	WSW	WSW	SW	WSW	241	WSW
Dec 12	SW	WSW	SW	SSW	SW	SSW	SSW	S	SW	SE	SW	SSW	S	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	214	SSW
Dec 13	SW	SW	SW	SW	SSW	SE	E	E	NE	NNE	SSE	SSW	SSW	SSW	SSW	SSW	W	WNW	W	WSW	W	WSW	WSW	W	226	SW
Dec 14	W	W	W	W	W	W	W	SW	SSW	SW	SW	SSW	WSW	WSW	WSW	S	SSE	SSE	S	SSW	SSW	SSW	SSW	SW	230	SW
Dec 15	SSW	SW	W	SSW	SSW	SW	SSW	ESE	NNE	ESE	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	WSW	WSW	208	SSW
Dec 16	W	WNW	NW	WNW	NW	NW	NW	NW	WNW	NNE	NW	NW	S	SW	SSW	SW	WSW	WNW	WNW	NW	NW	W	W	WNW	292	WNW
Dec 17	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WSW	SW	SSW	S	SSW	SSW	SSW	S	SSW	SSW	SSW	SSE	SW	WSW	WSW	WSW	239	WSW
Dec 18	WSW	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	WNW	SW	W	W	WNW	NNW	NNW	NNW	N	299	WNW
Dec 19	N	N	NNE	NNE	NNE	NNE	NE	NE	NE	NE	NE	ENE	ENE	ENE	NE	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE	49	NE
Dec 20	E	ENE	ENE	ENE	NNE	N	SE	SSE	SSW	WNW	SSW	SSW	S	S	SSW	SW	SSW	SW	WSW	W	W	W	WSW	WNW	222	SW
Dec 21	WNW	W	WSW	SW	N	NW	WNW	WNW	NW	NW	K	K	ESE	S	SSW	SW	SW	SW	SW	SW	SW	SW	S	ENE	248	WSW
Dec 22	E	E	E	SSE	SE	SE	SE	SSW	SSE	SSE	K	K	SW	WSW	SSW	SW	SW	SW	SW	WSW	WSW	W	W	W	201	SSW
Dec 23	W	W	W	W	W	W	W	WNW	WNW	WNW	K	K	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	SW	SW	SW	280	W
Dec 24	S	SSW	SSW	SW	SSW	SW	SW	SSW	SW	SW	K	SSW	SSW	SSW	SSW	SSW	SW	SSW	NW	NW	WNW	NW	NW	W	227	SW
Dec 25	W	WSW	SSW	SW	WSW	W	SSW	S	W	SW	SE	WSW	NE	NE	ESE	ESE	E	E	S	ESE	ESE	S	S	SSE	181	S
Dec 26	SSE	SSE	SE	SE	NW	N	NE	NNW	NW	NNW	NW	WSW	WSW	WSW	SW	WSW	WSW	SW	SW	SW	WSW	W	WSW	SW	253	WSW
Dec 27	SSW	SW	SW	SW	SW	SW	SW	NW	NW	N	NNE	ENE	NNE	NNE	N	NNE	NNE	NNE	N	NNE	NNE	NNE	N	N	352	N
Dec 28	N	N	N	N	N	N	N	N	N	N	NNE	SSE	ENE	SSE	SE	SSW	SW	WNW	W	W	WSW	WSW	SW	W	321	NW
Dec 29	WSW	W	WNW	NW	WSW	W	SW	SW	WSW	SW	NW	NW	E	SE	NNE	N	NNE	NE	NE	NE	NNE	NE	NE	NE	335	NNW
Dec 30	NE	NE	NE	ENE	ENE	NE	NNW	NW	WSW	SE	WNW	NNW	SSE	S	S	SW	WSW	SSW	WSW	SW	SW	SW	SW	SW	227	SW
Dec 31	W	WSW	S	SW	SW	SW	SW	SW	SW	WSW	SW	SW	W	WSW	WSW	W	W	W	WNW	WNW	NW	NW	NW	NW	257	WSW

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	ND	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Machine Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.





Peace River Area Monitoring Program

AQHI - Grimshaw Station - December 2023

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector

WIND SPEED

Maximum Hourly Value:	30.2	kph	on Dec 26 at hr 18	Hours in Service:	744
Maximum Daily Value:	11.5	kph	on Dec 26	Hours of Data:	737
Minimum Hourly Value:	0.0	kph	on Dec 30 at hr 11	Hours of Missing Data:	7
Minimum Daily Value:	2.4	kph	on Dec 25	Hours of Calibration:	0
Monthly Average:	7.0	kph		Operational Uptime:	99.1

WIND DIRECTION

Monthly Average: 249 degree (WSW)

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Dec 1	1.3	3.1	2.2	1.6	0.8	2.3	2.2	1.1	1.0	3.2	4.7	4.2	4.3	5.7	5.1	5.6	3.7	2.5	1.0	2.0	0.8	1.0	1.6	2.3	0.8	5.7	2.6
	WNW	SSW	SW	SW	WNW	N	N	NW	WSW	SSE	S	SSW	S	S	SSE	SSE	SSE	SE	ENE	ESE	E	N	NW	WNW			210(SSW)
Dec 2	3.7	3.4	3.7	2.5	2.5	3.9	3.8	4.6	4.0	1.6	1.0	0.9	2.5	3.1	2.3	2.7	1.7	3.0	4.0	3.8	4.3	2.5	2.4	2.9	0.9	4.6	3.0
	W	WSW	WSW	WSW	WNW	SW	SW	NNW	NNW	NW	WSW	WNW	NNE	NE	NE	ESE	SE	SSW	NW	NNE	S	SW	SW	S			270(W)
Dec 3	3.9	3.9	3.8	3.1	2.0	1.5	2.0	1.1	1.7	1.3	1.0	3.2	2.2	1.6	2.5	0.7	2.0	5.0	6.7	7.4	6.0	7.1	6.0	8.0	0.7	8.0	3.5
	SSW	SW	W	W	WSW	NNW	WSW	NE	NNE	NNE	SSE	SSE	SSE	SE	E	W	WSW	SSW	SW	SW	S	S	SSW	SW			216(SW)
Dec 4	6.0	5.9	10.6	10.4	9.7	10.5	10.4	7.9	5.0	1.1	1.3	5.8	7.4	7.2	3.4	4.6	4.6	4.1	1.5	1.9	3.3	3.4	2.8	4.6	1.1	10.6	5.6
	SW	SW	SW	SW	SW	SW	SW	SW	WSW	S	SSW	SSW	SW	SW	SSW	SSW	SW	SW	ESE	NE	E	E	NE	ENE			207(SSW)
Dec 5	3.1	3.9	2.6	2.7	5.3	3.1	4.4	8.2	12.5	9.7	7.6	8.8	8.8	10.9	16.0	13.9	16.0	17.8	15.8	14.4	18.0	18.2	18.5	16.8	2.6	18.5	10.7
	E	SSE	E	SE	S	WSW	WSW	SW	SW	WSW	WSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW			219(SW)
Dec 6	15.3	16.3	13.6	12.5	13.4	12.9	11.7	7.8	8.7	4.5	0.6	3.8	12.5	12.6	11.0	7.6	5.5	6.6	9.6	10.6	8.5	8.4	8.4	10.7	0.6	16.3	9.7
	WSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SSW	NE	SSW	WSW	WSW	W	W	WSW	W	W	W	WNW	WNW	WNW	WNW			255(WSW)
Dec 7	10.3	8.8	7.3	12.2	11.6	13.4	14.0	2.5	2.4	1.3	2.8	6.3	1.9	3.2	2.0	3.9	2.5	3.3	7.2	4.2	6.6	11.5	6.8	12.5	1.3	14.0	6.6
	WNW	WNW	W	WNW	WNW	WNW	WNW	W	NW	W	W	WNW	W	WNW	WSW	SW	WSW	WSW	W	W	WSW	WNW	W	WNW			279(W)
Dec 8	10.7	3.8	2.2	1.0	1.1	1.3	2.0	1.4	4.9	3.8	5.4	6.4	11.1	10.1	13.9	15.5	10.3	10.1	5.1	10.1	9.8	6.6	6.2	11.0	1.0	15.5	6.8
	WNW	WSW	W	NNW	WSW	S	NNW	SSW	SSW	SSW	SSW	SW	W	WSW	WSW	W	W	WNW	W	W	W	WSW	W	W			257(WSW)
Dec 9	14.0	5.7	2.9	4.6	2.3	8.1	7.1	3.9	5.3	4.7	4.0	3.1	2.6	2.2	1.2	2.2	2.1	4.0	3.4	3.2	2.6	1.7	2.3	1.4	1.2	14.0	3.9
	W	W	SW	SW	S	SW	SW	SSW	S	SSW	SE	E	SE	E	NE	NNE	NNE	N	NE	ESE	ESE	SE	SSW	W			179(S)
Dec 10	4.5	5.1	3.5	6.3	9.6	8.1	4.8	1.9	20.8	20.2	14.6	15.0	11.2	11.5	10.3	10.0	8.7	9.1	6.3	8.6	10.1	15.4	18.4	19.7	1.9	20.8	10.6
	SW	SSW	S	SSW	SW	SSW	SW	SW	WNW	WNW	WNW	NW	NW	N	NNW	NNW	NNW	NNW	NNW	NW	NW	NW	NW	NW			292(WNW)
Dec 11	15.9	11.3	2.9	2.9	3.3	1.1	2.5	6.1	3.7	3.5	4.5	7.0	9.3	11.4	4.9	5.9	5.8	6.1	5.8	2.8	5.1	5.0	4.7	2.0	1.1	15.9	5.6
	NNW	NW	WNW	WNW	WSW	NNW	WSW	WSW	W	SSW	SSW	S	S	S	SSE	SSW	SSW	SW	WSW	WSW	WSW	WSW	SW	WSW			241(WSW)
Dec 12	3.7	4.4	3.8	5.9	7.2	11.1	9.6	9.9	6.8	4.7	8.6	7.4	8.2	11.9	8.5	8.2	9.6	11.4	9.5	11.6	12.2	10.6	15.0	17.3	3.7	17.3	9.0
	SW	WSW	SW	SSW	SW	SSW	SSW	S	SW	SE	SW	SSW	S	SSW	SSW	SSW	SSW	SW	SW	SW	SW	SW	SW	SW			214(SSW)
Dec 13	16.8	12.6	11.4	8.6	5.7	1.1	0.6	1.2	0.3	1.2	2.7	3.6	5.1	3.9	6.8	7.8	6.9	10.5	14.5	21.8	19.7	14.9	14.9	13.0	0.3	21.8	8.6
	SW	SW	SW	SW	SSW	SE	E	E	NE	NNE	SSE	SSW	SSW	SSW	SSW	SSW	W	WNW	W	WSW	W	WSW	WSW	W			226(SW)
Dec 14	8.6	14.4	16.8	16.1	16.7	17.9	13.2	6.7	6.6	8.0	4.4	6.2	12.8	11.4	8.8	3.8	2.1	1.2	2.9	5.3	7.1	6.8	7.1	4.8	1.2	17.9	8.7
	W	W	W	W	W	W	W	SW	SSW	SW	SW	SSW	WSW	WSW	WSW	S	SSE	SSE	S	SSW	SSW	SSW	SSW	SW			230(SW)
Dec 15	4.2	6.4	2.4	5.2	5.4	7.7	1.3	1.4	0.8	2.2	3.7	7.1	6.1	7.6	8.6	5.4	3.8	7.4	10.3	4.3	4.2	3.6	9.0	14.6	0.8	14.6	5.5
	SSW	SW	W	SSW	SSW	SW	SSW	ESE	NNE	ESE	S	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	WSW	WSW			208(SSW)
Dec 16	14.5	10.3	8.8	8.2	10.1	9.0	6.9	7.3	5.1	0.8	2.2	2.5	3.7	3.5	4.5	5.5	10.0	13.1	12.6	13.0	17.5	12.3	15.1	9.8	0.8	17.5	8.6
	W	WNW	NW	WNW	NW	NW	NW	NW	WNW	NNE	NW	NW	S	SW	SSW	SW	WSW	WNW	WNW	NW	NW	W	W	WNW			292(WNW)
Dec 17	11.5	10.1	8.5	9.2	13.0	12.2	9.0	6.8	3.2	3.9	6.9	8.9	10.1	10.6	8.9	5.0	6.3	5.1	6.3	5.5	16.4	11.4	14.5	14.8	3.2	16.4	9.1
	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WSW	SW	SSW	S	SSW	SSW	SSW	S	SSW	SSW	SSW	SSE	SW	WSW	WSW	WSW			239(WSW)
Dec 18	16.7	25.4	19.6	17.3	17.8	13.1	13.7	10.6	10.3	11.3	11.7	7.4	8.7	8.2	6.2	2.9	2.0	2.3	4.9	3.1	3.4	4.4	5.4	6.5	2.0	25.4	9.7
	WSW	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	WNW	SW	W	W	WNW	NNW	NNW	NNW	N			299(WNW)
Dec 19	6.4	5.4	3.8	6.1	7.1	6.2	9.7	10.6	9.5	11.9	11.9	12.6	14.1	13.2	12.2	12.5	10.7	9.3	9.5	8.5	6.9	6.8	6.5	5.9	3.8	14.1	9.1
	N	N	NNE	NNE	NNE	NNE	NE	NE	NE	NE	NE	ENE	ENE	ENE	NE	ENE	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE			49(NE)
Dec 20	5.7	3.9	2.5	2.1	2.1	2.0	0.6	2.7	2.3	2.3	3.1	2.7	2.1	5.9	4.7	4.6	7.8	14.3	14.9	22.5	20.8	12.2	5.1	6.9	0.6	22.5	6.4
	E	ENE	ENE	ENE	NNE	N	SE	SSE	SSW	WNW	SSW	SSW	S	S	SSW	SW	SSW	SW	WSW	W	W	W	WSW	WNW			222(SW)
Dec 21	7.4	8.4	7.3	1.4	0.5	1.8	1.1	1.8	1.1	3.2	K	K	2.3	4.4	6.4	8.5	8.3	5.9	6.0	6.6	8.0	9.9	2.6	1.7	0.5	9.9	4.8
	WNW	W	WSW	SW	N	NW	WNW	WNW	NW	NW	K	K	ESE	S	SSW	SW	SW	SW	SW	SW	SW	SW	S	ENE			248(WSW)
Dec 22	3.8	4.7	2.5	3.5	2.4	2.9	1.5	1.8	2.8	4.2	K	K	1.9	3.8	9.8	15.5	18.1	25.9	21.8	18.3	22.3	21.6	17.8	18.1	1.5	25.9	10.2
	E	E	E	SSE	SE	SE	SE	SSW	SSE	SSE	K	K	SW	WSW	SSW	SW	SW	SW	SW	WSW	WSW	W	W	W			201(SSW)
Dec 23	14.4	15.7	13.8	13.0	13.0	11.7	15.0	12.8	12.1	12.9	K	K	16.7	16.4	16.0	10.1	5.3	4.0	5.3	2.8	1.2	1.3	6.0	6.4	1.2	16.7	10.3
	W	W	W	W	W	W	W	WNW	WNW	WNW	K	K	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	WNW	SW	SW	SW			280(W)
Dec 24	6.8	9.2	9.9	10.6	7.2	12.5	9.5	8.3	11.4	10.8	K	10.1	10.9	7.8	5.5	5.4	1.0	3.5	1.6	2.0	2.7	4.9	3.0	3.4	1.0	12.5	6.9
	S	SSW	SSW	SW	SSW	SW	SW	SSW	SW	SW	K	SSW	SSW	SSW	SSW	SSW	SW	SSW	NW	NW	WNW	NW	NW	W			227(SW)
Dec 25	2.2	4.1	4.5	7.1	2.0	2.6	2.5	1.6	0.7	1.6	0.9	0.8	1.9	1.8	2.5	0.7	3.2	1.9	0.9	3.3	3.2	1.5	3.1	2.8	0.7	7.1	**2.4**
	W	WSW	SSW	SW	WSW	W	SSW	S	W	SW	SE	WSW	NE	NE	ESE	ESE	E	E	S	ESE	ESE	S	S	SSE			181(S)
Dec 26	3.3	2.5	3.1	2.6	1.4	3.1	1.3	2.8	0.8	1.6	2.1	4.6	19.2	17.6	15.2	18.0	24.0	29.8	**30.2**	29.1	20.1	20.1	13.2	9.4	0.8	**30.2**	**11.5**
	SSE	SSE	SE	SE	NW	N	NE	NNW	NW	NNW	NW	WSW	WSW	WSW	SW	WSW	WSW	SW	SW	SW	WSW	W	WSW	SW			253(WSW)
Dec 27	8.2	9.5	10.0	10.3	10.9	8.9	2.1	4.9	4.9	4.9	5.0	4.4	6.1	4.4	6.7	4.2	5.5	10.1	9.1	9.0	7.0	6.1	7.3	5.8	2.1	10.9	6.9
	SSW	SW	SW	SW	SW	SW	SW	NW	NW	N	NNE	ENE	NNE	NNE	N	NNE	NNE	NNE	N	NNE	NNE	NNE	N	N			352(N)
Dec 28	5.9	7.7	6.2	4.8	6.0	4.5	5.3	4.2	3.7	3.7	1.7	0.1	0.9	3.0	1.7	2.7	1.5	1.0	3.7	4.0	3.9	3.7	5.0	5.2	0.1	7.7	3.8
	N	N	N	N	N	N	N	N	N	N	NNE	SSE	ENE	SSE	SE	SSW	SW	WNW	W	W	WSW	WSW	SW	W			321(NW)
Dec 29	6.2	3.3	3.3	2.8	4.2	3.7	2.9	4.5	1.1	1.3	3.3	1.3	0.9	2.9	1.0	3.0	3.6	3.3	5.7	5.0	2.7	3.8	3.9	4.8	0.9	6.2	3.3
	WSW	W	WNW	NW	WSW	W	SW	SW	WSW	SW	NW	NW	E	SE	NNE	N	NNE	NE	NE	NE	NNE	NE	NE	NE			335(NNW)
Dec 30	5.0	5.3	3.3	5.1	4.6	1.5	2.4	2.7	1.7	0.7	1.6	**0.0**	2.8	4.1	5.4	3.9	2.7	5.1	2.9	6.7	6.2	7.2	6.2	6.7	**0.0**	7.2	3.9
	NE	NE	NE	ENE	ENE	NE	NNW	NW	WSW	SE	WNW	NNW	SSE	S	S	SW	WSW	SSW	WSW	SW	SW	SW	SW	SW			227(SW)
Dec 31	3.0	1.9	4.1	4.9	5.9	4.1	2.4	2.0	13.1	14.6	12.7	11.1	14.4	15.8	13.9	13.4	11.7	8.5	8.8	8.8	9.5	9.0	8.9	7.9	1.9	15.8	8.8
	W	WSW	S	SW	SW	SW	SW	SW	SW	WSW	SW	SW	W	WSW	WSW	W	W	W	WNW	WNW	NW	NW	NW	NW			257(WSW)

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance		
K	Collection Error	**ND**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P**	Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)				

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

END OF REPORT

This page, 146 of 146, ends the December 2023 Monthly Ambient Air Quality Monitoring Report.

Peace River Area Monitoring Program

DECEMBER 2023

Ambient Air Monitoring Calibration Report

- 842-B STATION-

CAL-PRAMP-202312-01561

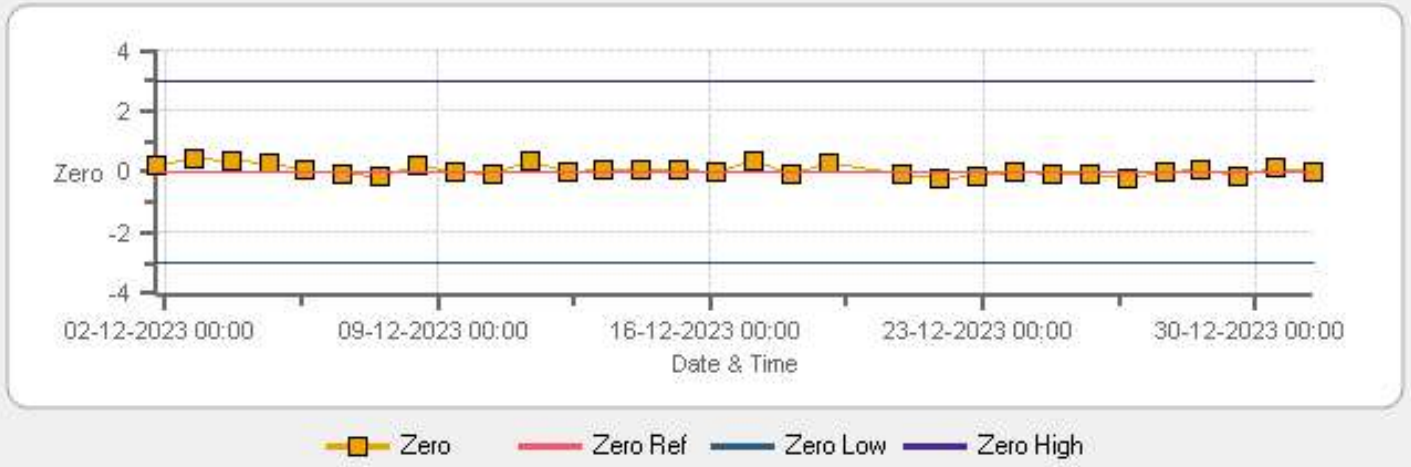
Operation and Maintenance:
Bureau Veritas Canada

Data Validation and Report:
Bureau Veritas Canada

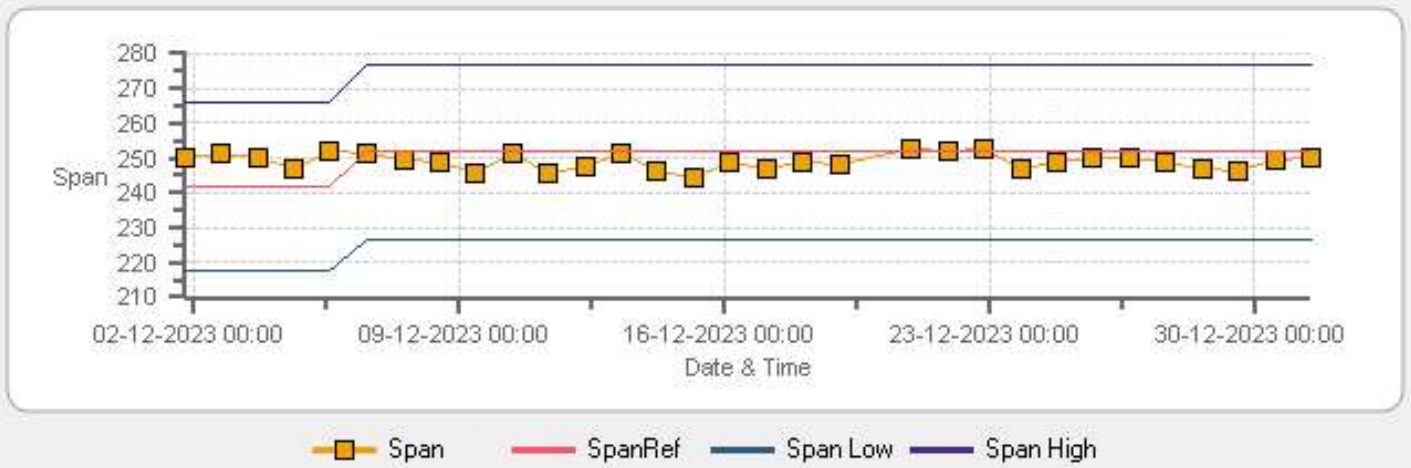
January 6, 2024

DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

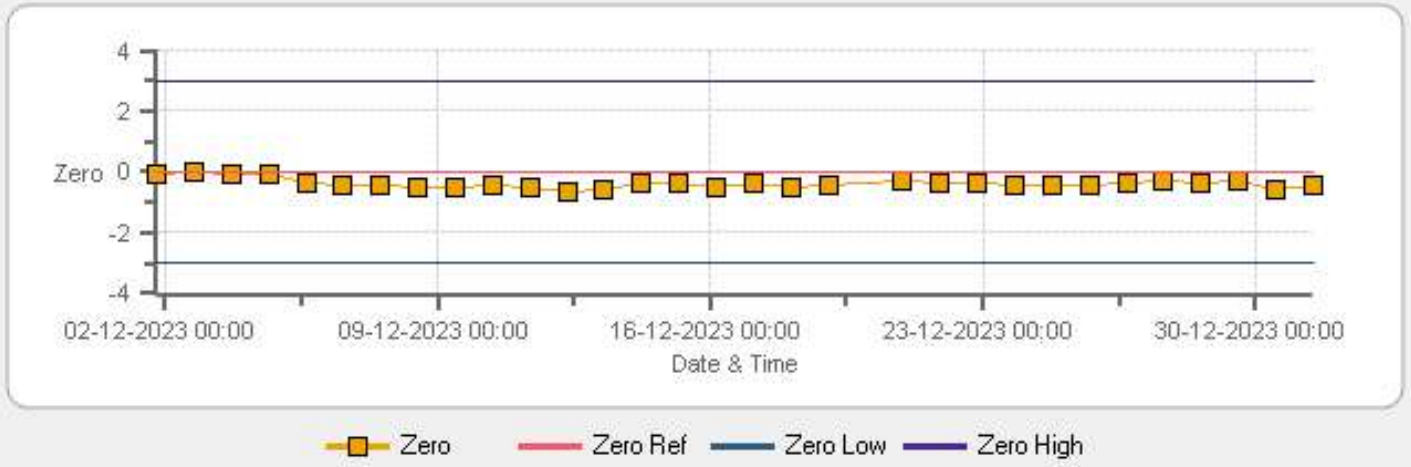
SO2[ppb] Calibration: PRAMP 842-B Monthly: 12-2023 Type: SpanAndZero - Zero



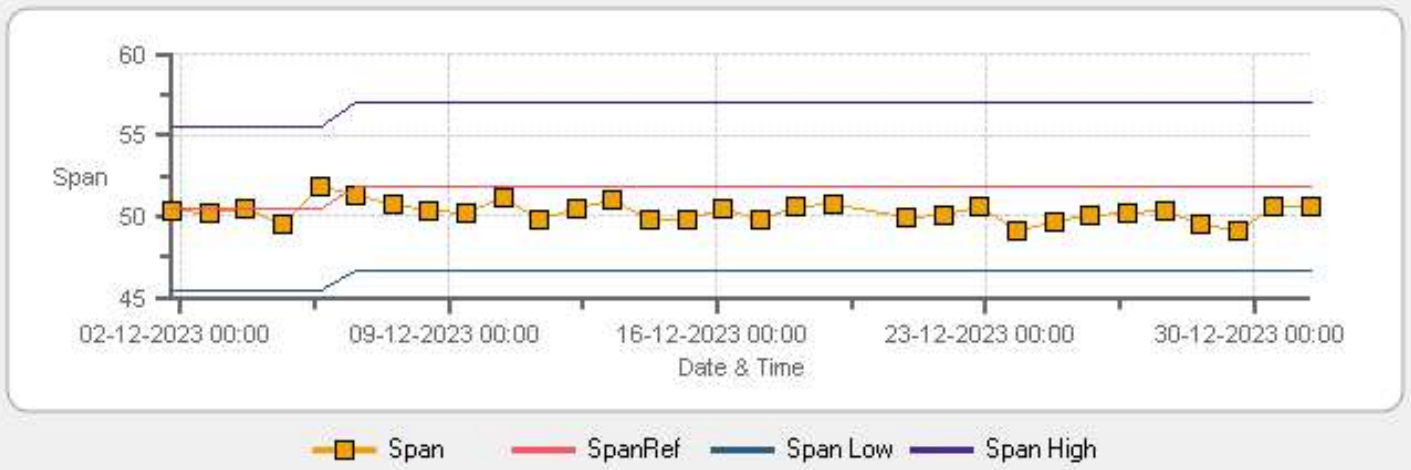
SO2[ppb] Calibration: PRAMP 842-B Monthly: 12-2023 Type: SpanAndZero - Span

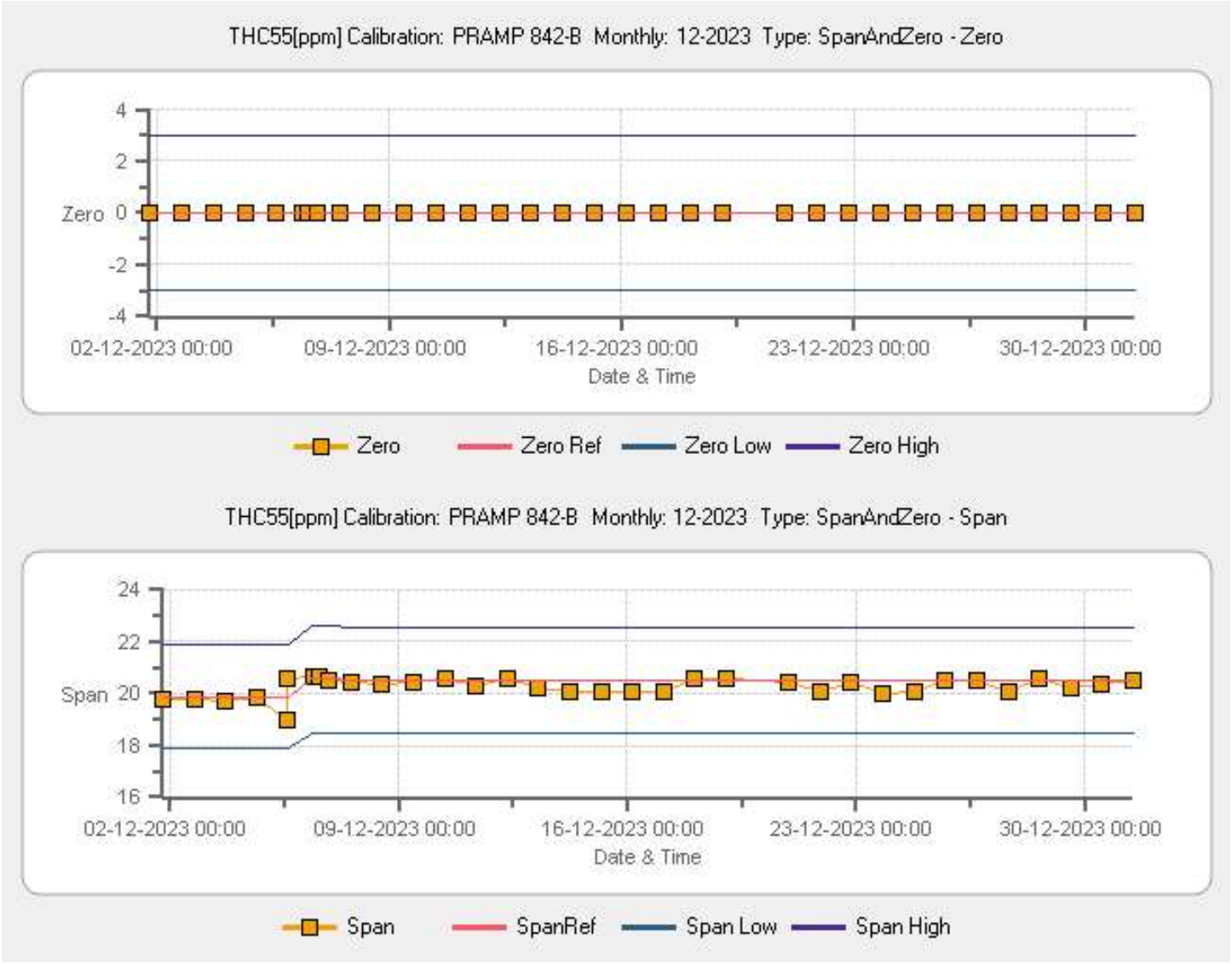


TRS[ppb] Calibration: PRAMP 842-B Monthly: 12-2023 Type: SpanAndZero - Zero

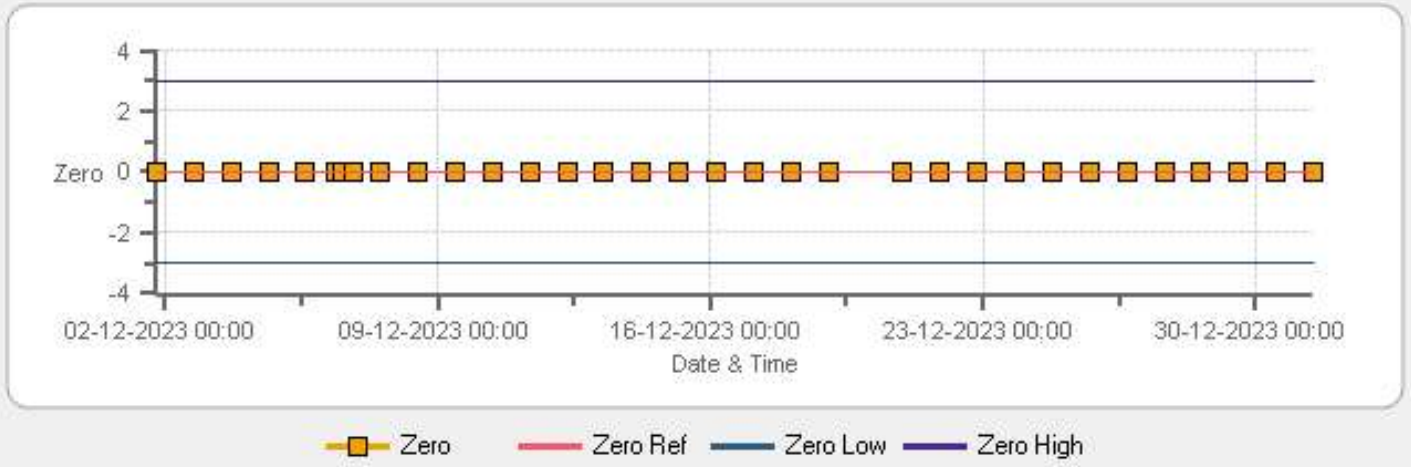


TRS[ppb] Calibration: PRAMP 842-B Monthly: 12-2023 Type: SpanAndZero - Span

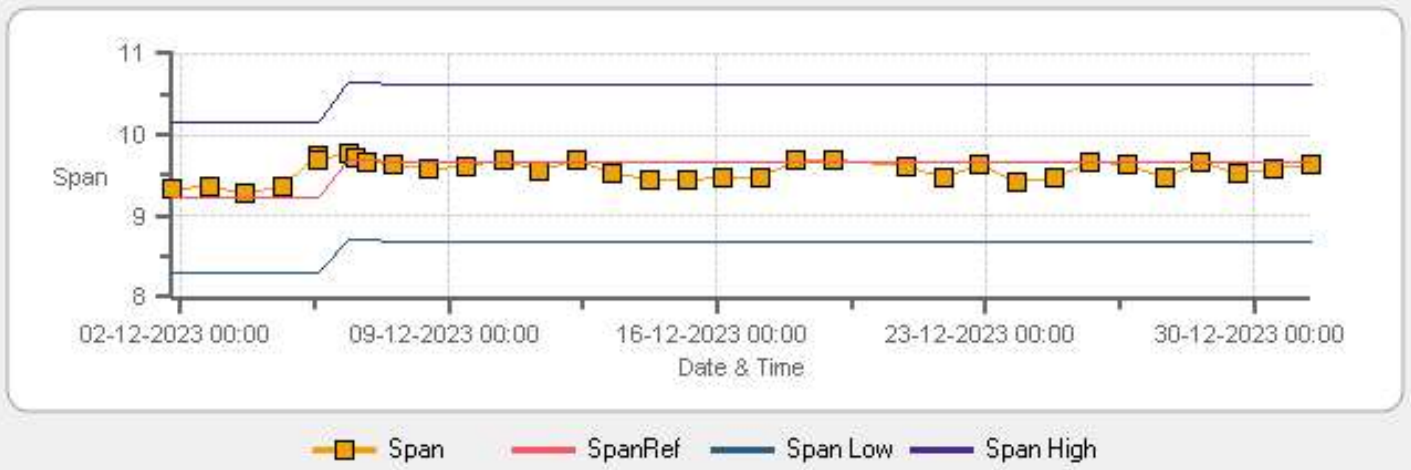



THC55[ppm] Calibration: PRAMP 842-B Monthly: 12-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
THC55[ppm] Calibration: PRAMP 842-B Monthly: 12-2023 Type: SpanAndZero - Span
24
22
Span 20
18
16
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High

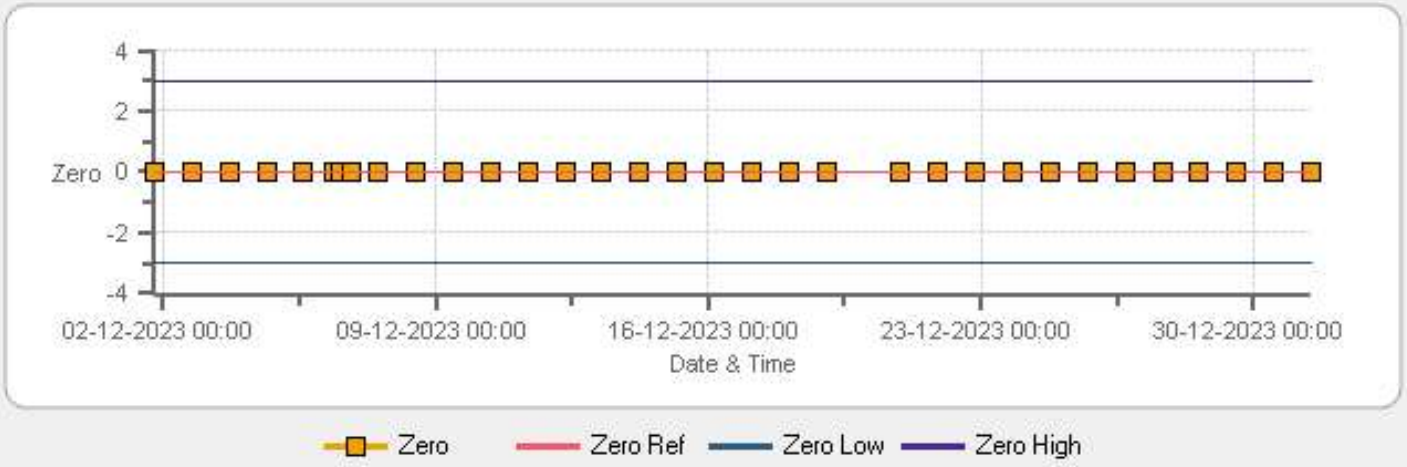
CH4[ppm] Calibration: PRAMP 842-B Monthly: 12-2023 Type: SpanAndZero - Zero



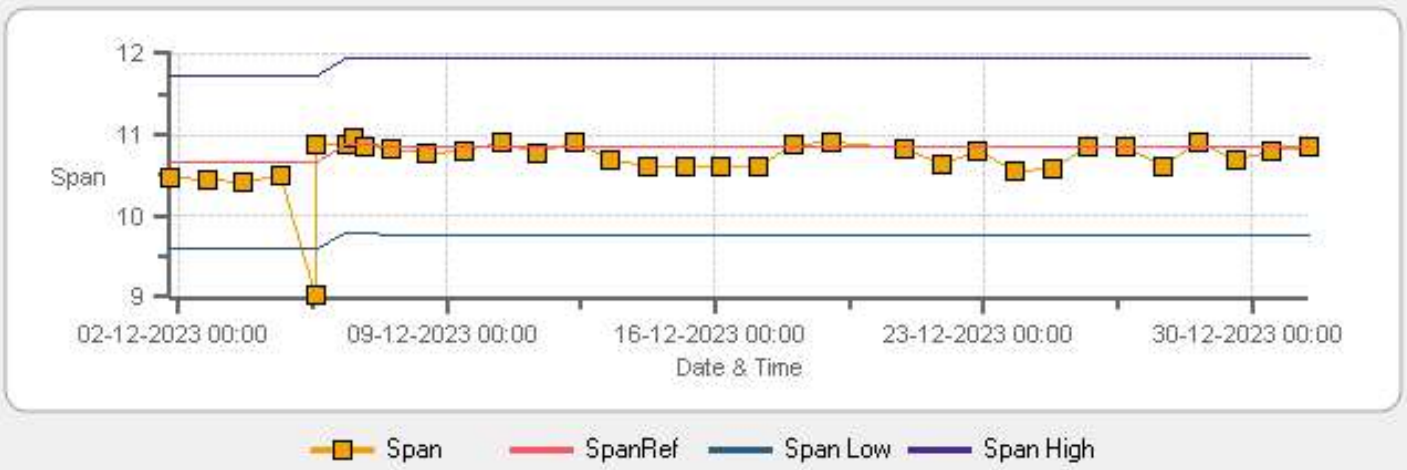
CH4[ppm] Calibration: PRAMP 842-B Monthly: 12-2023 Type: SpanAndZero - Span



NMHC[ppm] Calibration: PRAMP 842-B Monthly: 12-2023 Type: SpanAndZero - Zero



NMHC[ppm] Calibration: PRAMP 842-B Monthly: 12-2023 Type: SpanAndZero - Span



MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution

DATE:	05-Dec-2023	PREVIOUS CALIBRATION DATE:	08-Nov-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.002
CLIENT:	PRAMP	TEMPERATURE (°C):	22.6
LOCATION:	842b	BAROMETRIC (mBar):	927
PURPOSE	Routine	START TIME (MST):	09:16
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	14:09

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	1200736629	FLOW (mL/min)	421
INITIAL		FINAL	
BKG/OFFSET	8.6	BKG/OFFSET	9.1
COEF/SLOPE	1.126	COEF/SLOPE	1.145
Expected (reference) Value	241.8	Expected (reference) Value	251.9

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	T701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL109693	HIGH ID	n/a
CONC (ppm):	25.00	EXPIRY DATE	n/a
CYLINDER (psi):	1500	LOW ID	n/a
EXPIRY DATE	02-Nov-2025	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	390	190	95
RANGE	300 - 400	150 - 200	50 - 100

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
3999		3999	0.00	0.16	0		
3938	60.80	3999	380.10	371.7	380.7	1.023	0.998
3971	28.80	4000	180.00	n/a	181.8	n/a	0.990
3986	14.40	4000	90.00	n/a	90.8	n/a	0.991

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	0.1%

COMMENTS:

Sample filter changed.

SO2[ppb] Station: PRAMP 842-B Daily: 05-12-2023 Type: AVG 1 Min. [1 Min.]
400
350
300
250
200
150
100
50
0
-50
SO2 [ppb]
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
SO2 [ppb]

TRS Analyzer Calibration by Dilution

DATE:	05-Dec-2023	PREVIOUS CALIBRATION DATE:	09-Nov-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	0.999
CLIENT:	PRAMP	TEMPERATURE (°C):	22.6
LOCATION:	842b	BAROMETRIC (mBar):	927
PURPOSE	Install/Post-Repair	START TIME (MST):	09:16
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	16:00

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1200736630	FLOW (mL/min)	373
INITIAL		FINAL	
BKG/OFFSET	14	BKG/OFFSET	15.2
COEF/SLOPE	0.898	COEF/SLOPE	0.946
Expected (reference) Value	50.46	Expected (reference) Value	51.87

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	T701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL131374	HIGH ID	n/a
CONC (ppm):	10.09	EXPIRY DATE	n/a
CYLINDER (psi):	1800	LOW ID	n/a
EXPIRY DATE	03-Jan-2026	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
3999		3999	0.00	0.2	0		
3968	30.90	3999	77.96	73.65	78.7	1.061	0.991
3984	15.10	3999	38.10	n/a	38.63	n/a	0.986
3993	7.50	4000	18.92	n/a	19.31	n/a	0.980

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.009	0.1%

COMMENTS:

TRS Converter CDNOVA CDN #583. Sample filter changed.
Initial calibration failed at low point. Repeated from adjusted high.
14:00 = Daily ZS, adjusted high restarted

TRS[ppb] Station: PRAMP 842-B Daily: 05-12-2023 Type: AVG 1 Min. [1 Min.]

TRS Analyzer Calibration by Dilution

DATE:	06-Dec-2023	PREVIOUS CALIBRATION DATE:	05-Dec-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	0.991
CLIENT:	PRAMP	TEMPERATURE (°C):	23.7
LOCATION:	842b	BAROMETRIC (mBar):	928
PURPOSE	As-Found	START TIME (MST):	17:01
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	18:55

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1200736630	FLOW (mL/min)	374
INITIAL		FINAL	
BKG/OFFSET	15.2	BKG/OFFSET	n/a
COEF/SLOPE	0.946	COEF/SLOPE	n/a
Expected (reference) Value	51.87	Expected (reference) Value	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	T701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL131374	HIGH ID	n/a
CONC (ppm):	10.09	EXPIRY DATE	n/a
CYLINDER (psi):	1800	LOW ID	n/a
EXPIRY DATE	03-Jan-2026	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
3999		3999	0.00	-0.35	n/a		
3968	30.90	3999	77.96	78.51	n/a	0.989	n/a
3984	15.10	3999	38.10	37.42	n/a	1.009	n/a
3993	7.50	4000	18.92	18.5	n/a	1.004	n/a

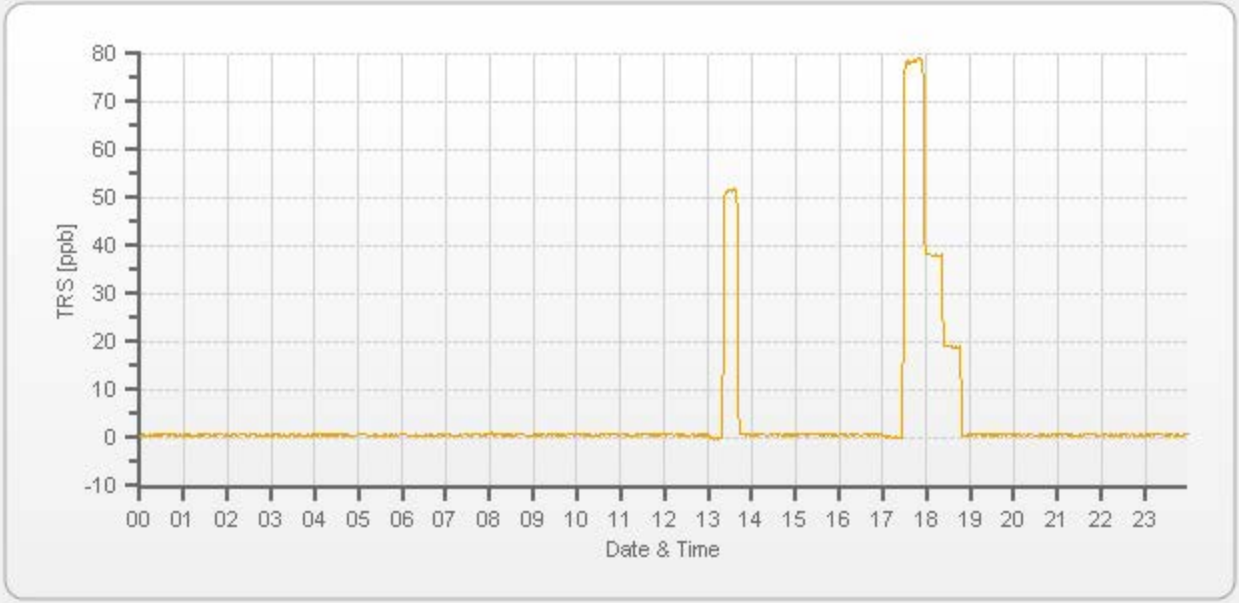
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	n/a	**n/a**	**n/a**

COMMENTS:

TRS Converter CDNOVA CDN #583.
As-found to confirm marked change at monthly calibration

TRS[ppb] Station: PRAMP 842-B Daily: 06-12-2023 Type: AVG 1 Min. [1 Min.]



Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	05-Dec-2023	PREVIOUS CALIBRATION DATE:	09-Nov-2023
CLIENT:	PRAMP	TEMPERATURE (°C):	22.6
LOCATION:	842b	BAROMETRIC (mBar):	927
PURPOSE	Routine	START TIME (MST):	09:16
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	13:43

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1501663728	1094
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	1.000	1.001	1.000

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	SABIO	MAKE:	API	CYLINDER ID:	LL68768		HIGH ID:	n/a
MODEL:	2010	MODEL:	T701	CH_4/C_3H_8 (ppm):	897.0	301.0	HIGH EXPIRY:	n/a
ID:	26801218	ID:	4568	CYLINDER (psi):	1600		LOW ID:	n/a
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	Internal	EXPIRY DATE	08-Nov-2029		LOW EXPIRY:	n/a

CALIBRATION PARAMETERS:

POINT (CH4/NMHC)	HIGH	MID	LOW	CH4 EQUIVILANCE	
TARGET	14	7	3.5	C_3H_8 as CH_4	827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH_4	1724.8

EXPECTED (REFERENCE) VALUE:

INITIAL	CH4	NMHC	THC	FINAL	CH4	NMHC	THC
	9.22	10.67	19.89		9.69	10.87	20.56

CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC
3099		3099	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
3049	50.30	3099	14.56	13.44	27.99	13.99	12.88	26.87	14.56	13.43	27.99	1.041	1.043	1.042	1.000	1.000	1.000
3075	25.20	3100	7.29	6.73	14.02	n/a	n/a	n/a	7.17	6.69	13.87	n/a	n/a	n/a	1.017	1.006	1.011
3085	12.60	3098	3.65	3.37	7.01	n/a	n/a	n/a	3.58	3.32	6.90	n/a	n/a	n/a	1.019	1.014	1.017

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	1.001	-0.3%
NMHC	1.000	1.000	-0.1%
THC	1.000	1.001	-0.2%

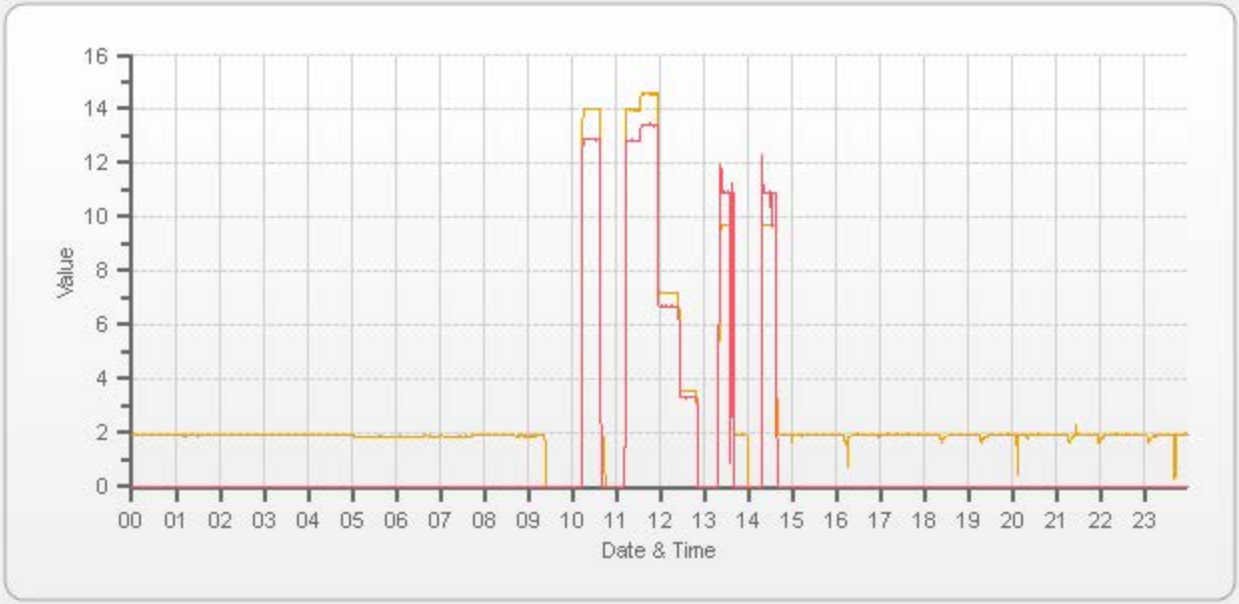
Comments:

H2 = AMA HG300 #190567058

Sample filter changed.

Use Zero Chrom? **No**

Station: PRAMP 842-B Daily: 05-12-2023 Type: AVG 1 Min. [1 Min.]



Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	06-Dec-2023	PREVIOUS CALIBRATION DATE:	n/a
CLIENT:	PRAMP	TEMPERATURE (°C):	23.7
LOCATION:	842b	BAROMETRIC (mBar):	929
PURPOSE	Install/Post-Repair	START TIME (MST):	17:01
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	19:53

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1501663728	1116
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	n/a	n/a	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	SABIO	MAKE:	API	CYLINDER ID:	LL68768		HIGH ID:	n/a
MODEL:	2010	MODEL:	T701	CH_4/C_3H_8 (ppm):	897.0	301.0	HIGH EXPIRY:	n/a
ID:	26801218	ID:	4568	CYLINDER (psi):	1600		LOW ID:	n/a
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	Internal	EXPIRY DATE	08-Nov-2029		LOW EXPIRY:	n/a

CALIBRATION PARAMETERS:

POINT (CH4/NMHC)	HIGH	MID	LOW	CH4 EQUIVILANCE	
TARGET	14	7	3.5	C_3H_8 as CH_4	827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH_4	1724.8

EXPECTED (REFERENCE) VALUE:

INITIAL	CH4	NMHC	THC	FINAL	CH4	NMHC	THC
	n/a	n/a	n/a		9.66	10.85	20.51

CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC
3099		3099	0.00	0.00	0.00	n/a	n/a	n/a	0.00	0.00	0.00						
3049	50.30	3099	14.56	13.44	27.99	n/a	n/a	n/a	14.52	13.40	27.92	n/a	n/a	n/a	1.003	1.003	1.003
3075	25.20	3100	7.29	6.73	14.02	n/a	n/a	n/a	7.18	6.68	13.86	n/a	n/a	n/a	1.016	1.007	1.012
3085	12.60	3098	3.65	3.37	7.01	n/a	n/a	n/a	3.57	3.34	6.91	n/a	n/a	n/a	1.022	1.008	1.015

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	0.998	-0.2%
NMHC	1.000	0.998	-0.1%
THC	1.000	0.998	-0.1%

Comments:

H2 = AMA HG300 #190567058

H2 Dessicant changed prior to thos post-repair

Use Zero Chrom? **No**

Station: PRAMP 842-B Daily: 06-12-2023 Type: AVG 1 Min. [1 Min.]

Meteorological System Checklist

Date:	December 5, 2023		
Technician:	Kevin Sebastian		
Station:	PRAMP 842b		
Unit:	**Make:**	**Model:**	**Serial #:**
Precipitation Sampler:	RM Young	52202	TB 15878
Temperature Sensor:	Rotronic	HC2A-S3	20370767
Barometric Pressure Sensor:	MetOne	92	Y23362
Relative Humidity Sensor:	Rotronic	HC2A-S3	20370767
Anemometer:	RM Young	05305AQ	174802

PRECIPITATION SENSOR CHECK

Checklist:	**Reply:**	**Comments:**
Previous check date:	November 9, 2023	
Is the sensor Level?	yes	
Is the heater operating properly?	yes	
Are the bucket drain holes clean?	yes	test time: 10:24-10:31
Is the screen on the housing? (screen should be on between July and September	yes	
Is the housing clean?	yes	
Is the area around the housing clean and free from obstacles?	yes	

TIP TEST - Slowly pour water until 10 tips are heard. (10 tips = 1 mm)

# of Tips	**Data Logger Response (mm):**	**Manual Specification = +/- 0.1 mm**
10	1.0	0.00

AMBIENT TEMPERATURE SENSOR CHECK

Previous check date:	November 9, 2023	
Parameter:	Temperature @ 2 metres	
Reference Thermometer ID:	F.S. 181341226 expires July 17, 2024	
Reference Temperature (^{o}C):	5.5	
Station - Ambient Temperature (^{o}C):	5.8	
Temperature Difference (^{o}C):	0.3	

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	November 9, 2023	
Reference Barometer ID:	Brunton 05535 Expires July 17, 2024	
Reference Pressure - Units/Reading:	millibar	927
Station Pressure - Units/Reading:	millibar	927.2
Pressure Tolerance +/- 15% of error:	788 - 1066	-0.02%

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	November 9, 2023	
Reference Hygrometer ID:	F.S. 181341226 expires July 17, 2024	
Reference Hygrometer % RH- Reading:	76.50	
Station Hygrometer % RH- Reading:	80.70	
RH Tolerance +/- 15% of difference:	65.03 - 87.98	-5.5%

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK

WIND SPEED		WIND DIRECTION	
Previous check date:	November 9, 2023	Previous check date:	November 9, 2023
Wind Speed Observed (kph):	10~20	Wind Direction Observed:	SW
Wind speed on Data Logger (kph):	19	Wind Direction on Data Logger:	SW
		Wind Direction Pass/Fail?:	Pass

Comments

Meteorological Sensor Audit/Calibration

Location Information

Company:	PRAMP	**Performed By:**	Chris Wesson
Audit Location:	842b	**Reviewed By:**	Limin Li
Audit Date:	August 3, 2023	**Start/End Time (mst):**	15:57 / 17:00
Calibration Purpose:	routine annual	**Weather Conditions:**	Mix of sun and clouds with rain showers

Wind Sensor Information

Sensor ID Data:		**Sensor Outputs:**	
Sensor Make:	RM Young	**Velocity Voltage Output Range:**	n/a
Sensor Model:	05305AQ	**Velocity Unit Output Range:**	0-200
Serial #:	174802	**Direction Voltage Output Range:**	n/a
Previous Cal/Audit Date:	August 3, 2022	**Direction Unit Output Range:**	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# R9133 expires Oct 18, 2024

Wind Speed Audit Data **+/- 2% of the average correction factor is the limit**

RPM	Wind Speed Generated kph	Clockwise Wind Speed kph	Counter Clockwise Wind Speed kph	Correction Factor
0	0	0.0	0.0	-
1000	18.4	18.3	18.3	1.007
2000	36.9	36.7	36.7	1.004
3000	55.3	55.1	55.1	1.003
4000	73.7	73.6	73.6	1.002
5000	92.2	92.0	92.0	1.002
6000	110.6	110.5	110.5	1.001
7000	129.0	128.9	128.9	1.001
8000	147.4	147.3	147.3	1.001
9000	165.9	165.8	165.8	1.000
10000	184.3	184.2	184.2	1.001
		The audit meets AMD requirements.	**Average Correction Factor=**	**1.002**

Wind Direction Audit Data **+/- 3° of the absolute average degrees difference for all points is the limit**

Generated Wind Direction 0-360 (Up)	Generated Wind Direction 360-0 (Down)	Indicated Wind Direction 0-360 (Up)	Indicated Wind Direction 360-0 (Down)	Degrees Difference 0-360 (Up)	Degrees Difference 360-0 (Down)	Average Absolute Degrees Difference
0	355	2	354	2.0	1.0	1.5
30	330	23	332	7.0	-2.0	4.5
60	300	59	303	1.0	-3.0	2.0
90	270	88	274	2.0	-4.0	3.0
120	240	118	242	2.0	-2.0	2.0
150	210	149	209	1.0	1.0	1.0
180	180	179	178	1.0	2.0	1.5
210	150	210	146	0.0	4.0	2.0
240	120	243	117	-3.0	3.0	3.0
270	90	274	89	-4.0	1.0	2.5
300	60	304	57	-4.0	3.0	3.5
330	30	334	29	-4.0	1.0	2.5
355	0	354	2	1.0	2.0	1.5
The audit meets AMD requirements.			**Average Absolute Degrees Difference=**			**2.3**

Comments:

Declination = 15 deg East
Physical inspection completed, no issues
Potentiometer noisy. Replacement required.

END OF REPORT

Peace River Area Monitoring Program

DECEMBER 2023

Ambient Air Monitoring Calibration Report

- 986-C STATION-

CAL-PRAMP-202312-01562

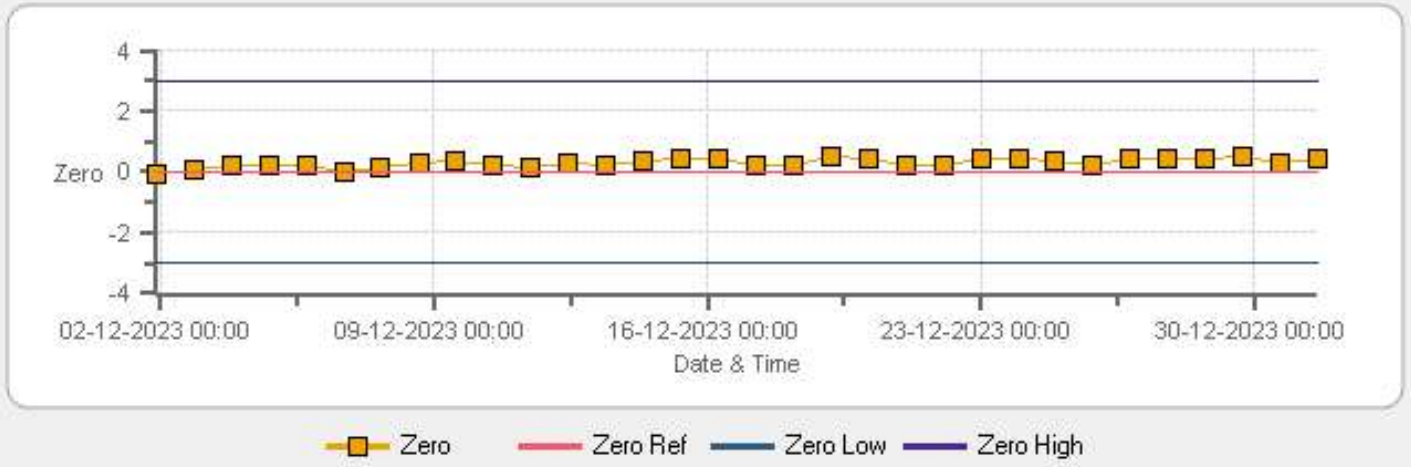
Operation and Maintenance:
Bureau Veritas Canada

Data Validation and Report:
Bureau Veritas Canada

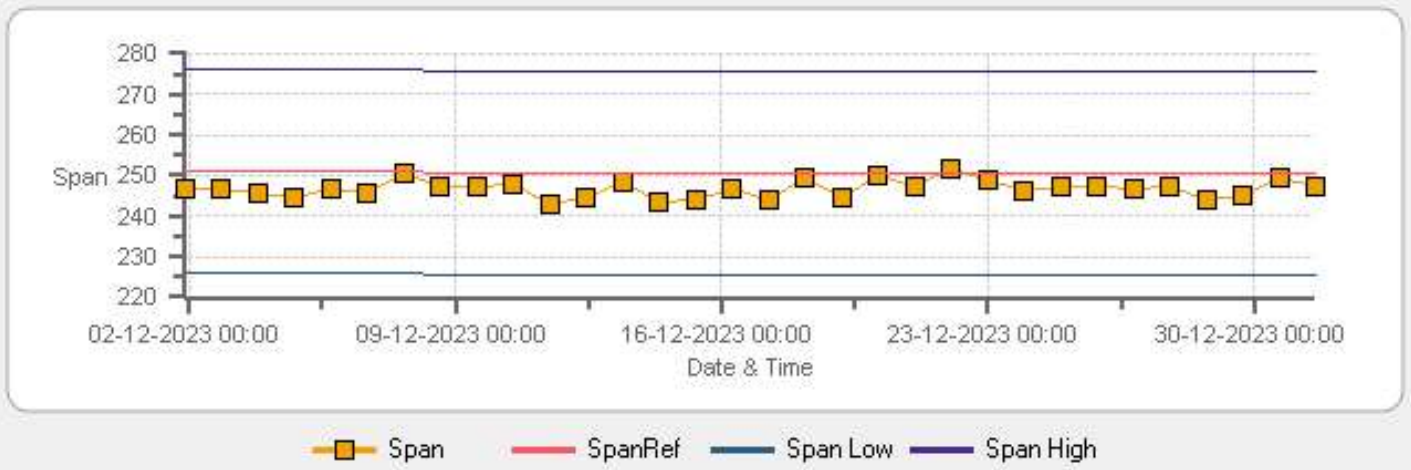
January 6, 2024

DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

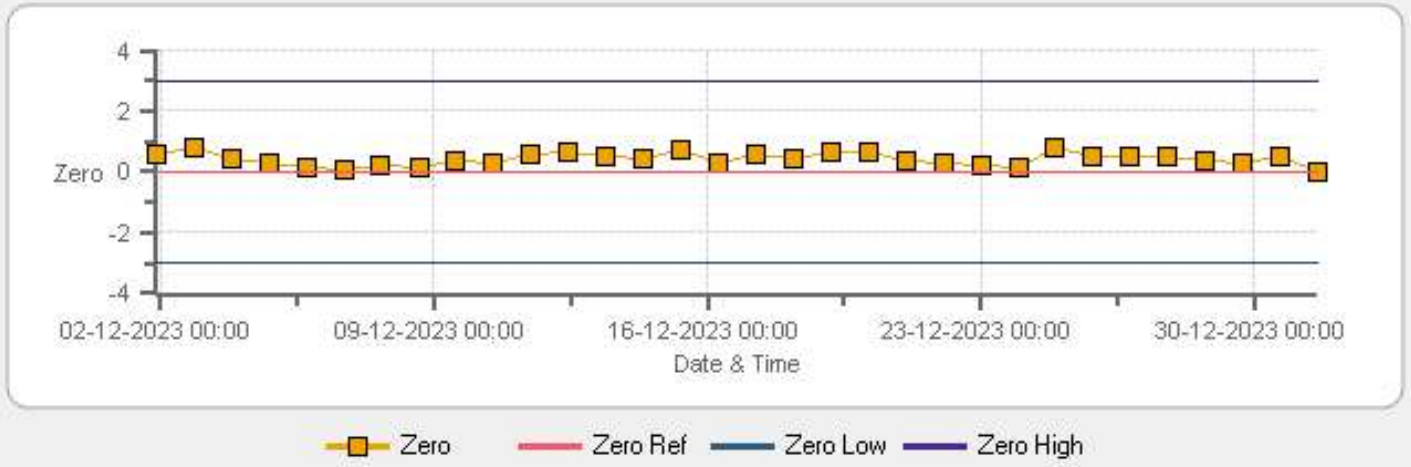
SO2[ppb] Calibration: PRAMP 986-C Monthly: 12-2023 Type: SpanAndZero - Zero



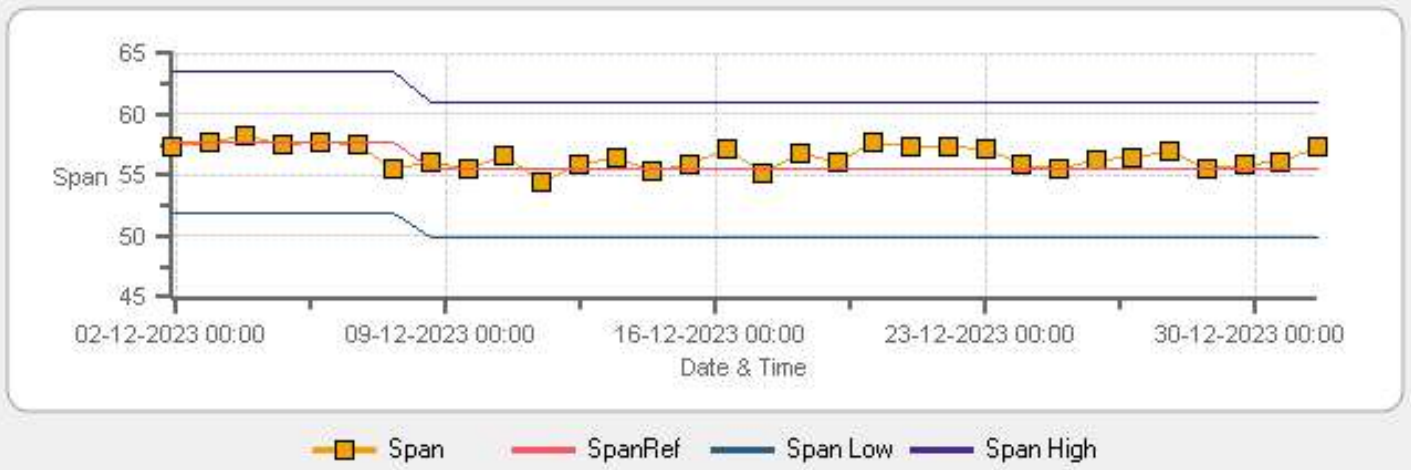
SO2[ppb] Calibration: PRAMP 986-C Monthly: 12-2023 Type: SpanAndZero - Span

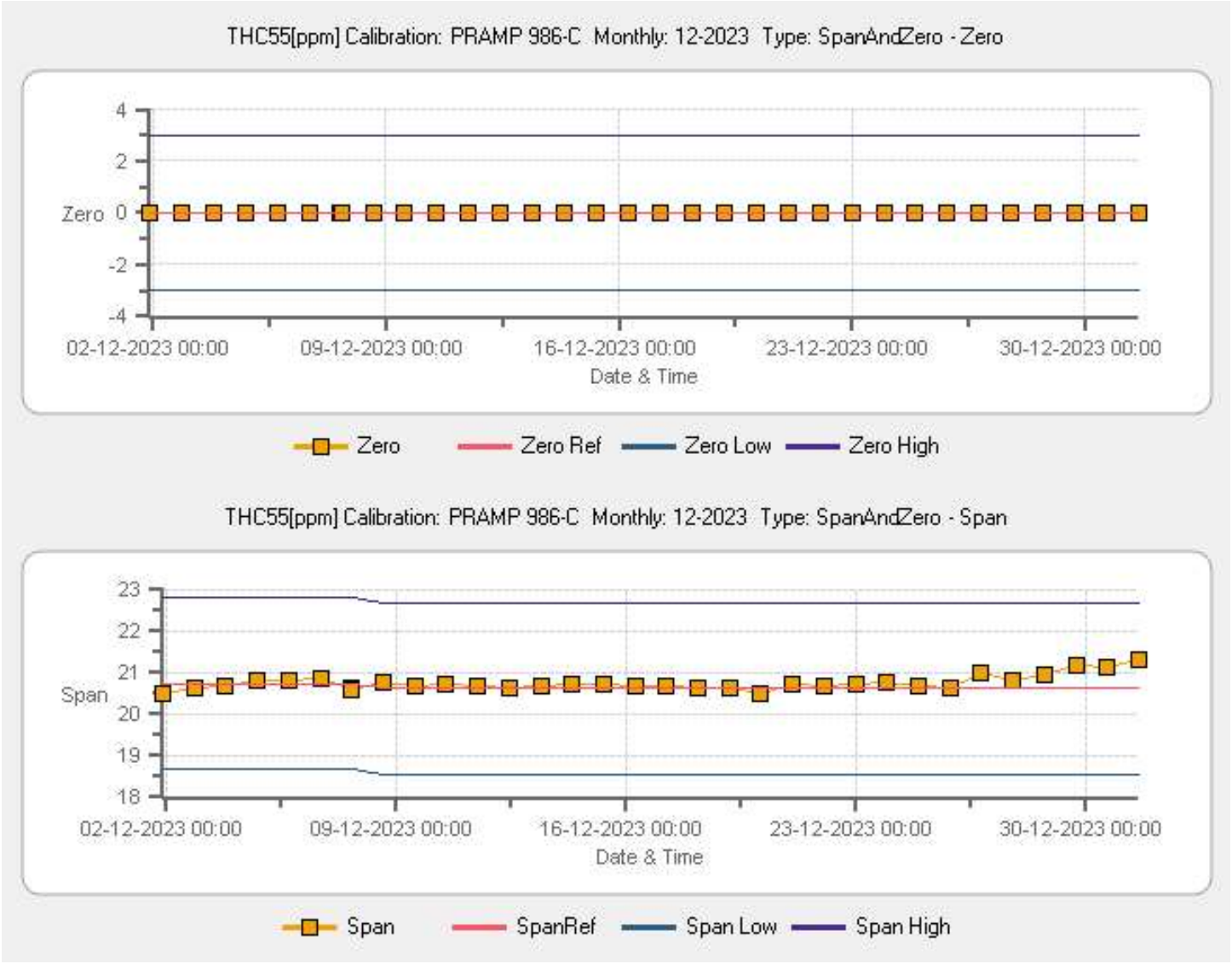


TRS[ppb] Calibration: PRAMP 986-C Monthly: 12-2023 Type: SpanAndZero - Zero

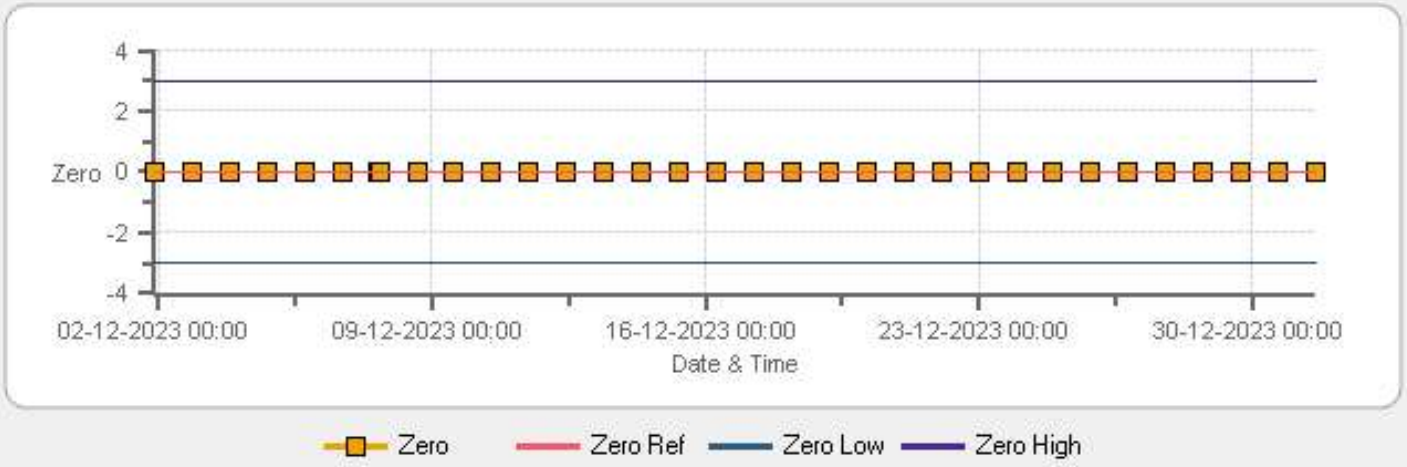


TRS[ppb] Calibration: PRAMP 986-C Monthly: 12-2023 Type: SpanAndZero - Span

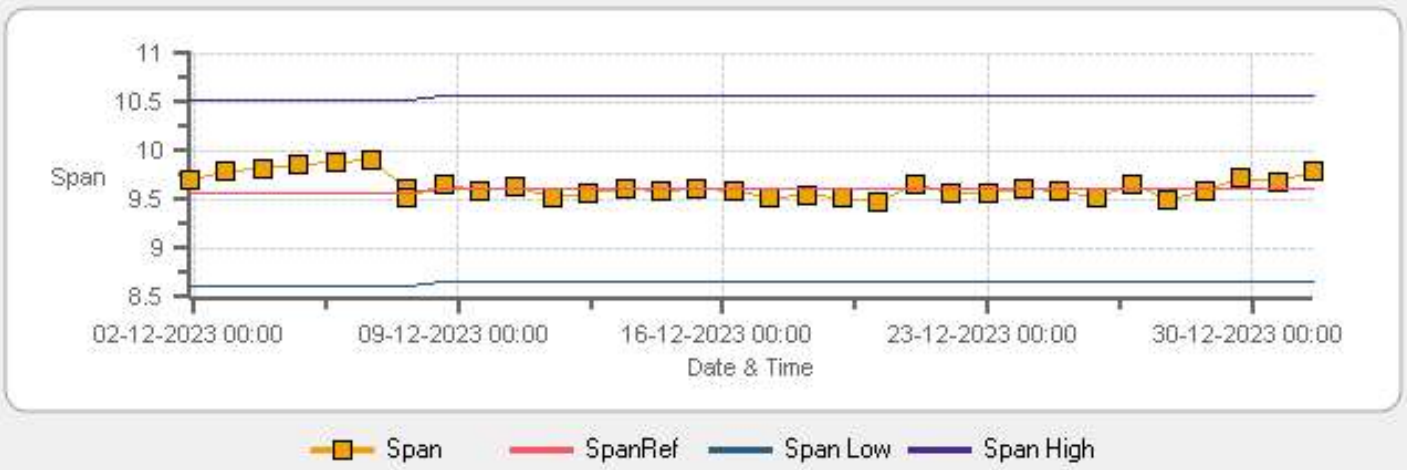



THC55[ppm] Calibration: PRAMP 986-C Monthly: 12-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
THC55[ppm] Calibration: PRAMP 986-C Monthly: 12-2023 Type: SpanAndZero - Span
23
22
21
Span
20
19
18
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High

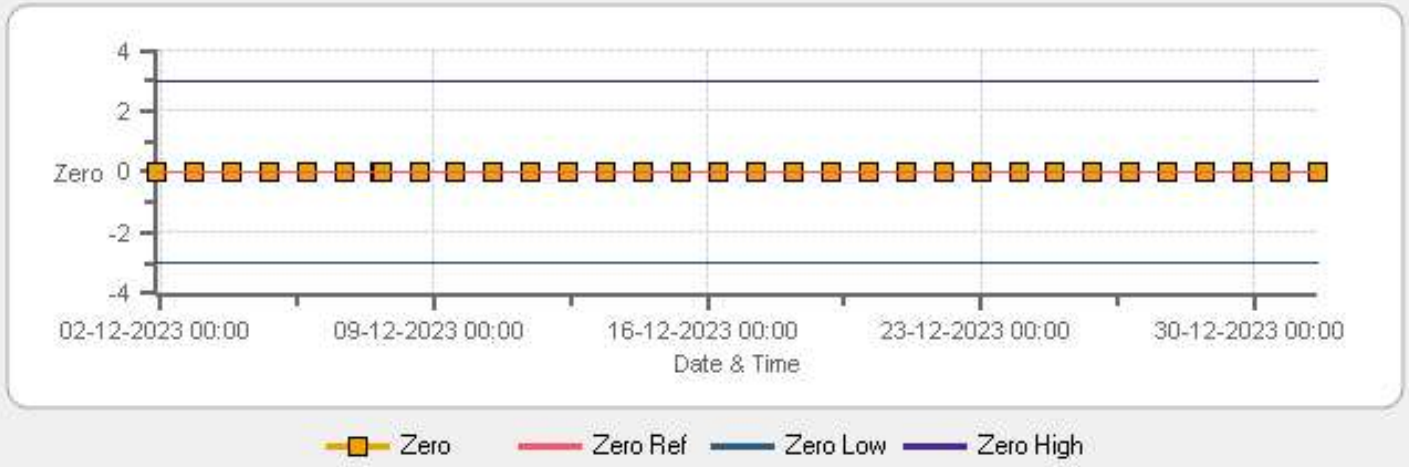
CH4[ppm] Calibration: PRAMP 986-C Monthly: 12-2023 Type: SpanAndZero - Zero



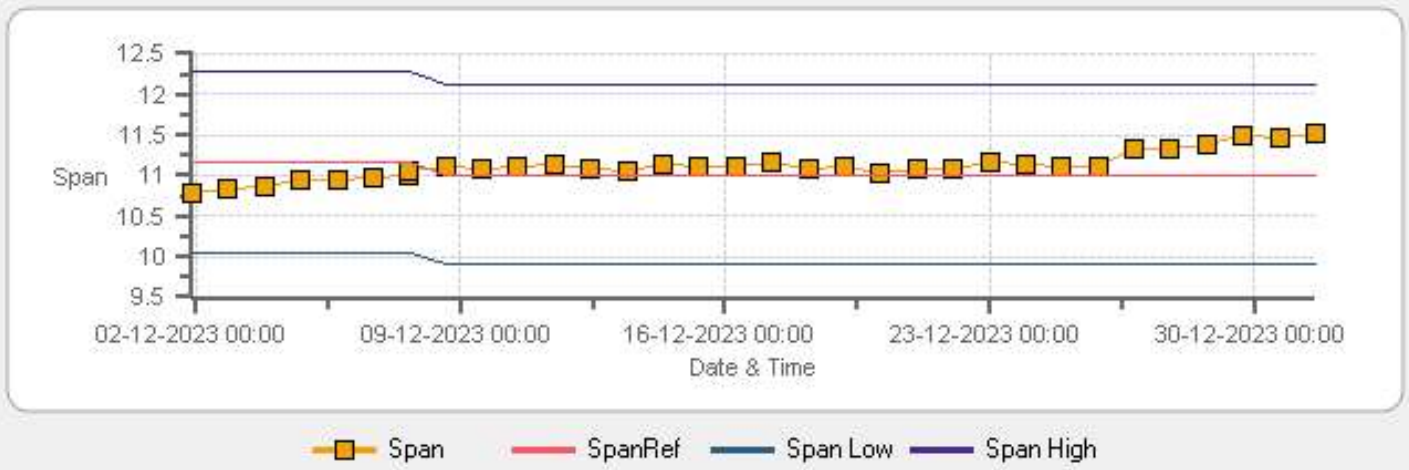
CH4[ppm] Calibration: PRAMP 986-C Monthly: 12-2023 Type: SpanAndZero - Span



NMHC[ppm] Calibration: PRAMP 986-C Monthly: 12-2023 Type: SpanAndZero - Zero



NMHC[ppm] Calibration: PRAMP 986-C Monthly: 12-2023 Type: SpanAndZero - Span



MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution

DATE:	07-Dec-2023	PREVIOUS CALIBRATION DATE:	08-Nov-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.004
CLIENT:	PRAMP	TEMPERATURE (°C):	21.8
LOCATION:	986c	BAROMETRIC (mBar):	932
PURPOSE	Routine	START TIME (MST):	10:10
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	15:32

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	1193585646	FLOW (mL/min)	424
INITIAL		FINAL	
BKG/OFFSET	17.9	BKG/OFFSET	18.1
COEF/SLOPE	1.037	COEF/SLOPE	1.052
Expected (reference) Value	251.1	Expected (reference) Value	250.7

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL109693	HIGH ID	n/a
CONC (ppm):	25.00	EXPIRY DATE	n/a
CYLINDER (psi):	1600	LOW ID	n/a
EXPIRY DATE	02-Nov-2025	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	390	190	95
RANGE	300 - 400	150 - 200	50 - 100

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
3999		3999	0.00	0.2	0		
3939	60.80	4000	380.00	374.7	380.7	1.015	0.998
3971	28.80	4000	180.00	n/a	181.8	n/a	0.990
3987	14.40	4001	89.98	n/a	90.4	n/a	0.995

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	0.1%

COMMENTS:

Sample filter changed.

Shaping a world of trust

SO2[ppb] Station: PRAMP 986-C Daily: 07-12-2023 Type: AVG 1 Min. [1 Min.]
400
350
300
250
200
150
100
50
0
-50
SO2 [ppb]
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
SO2 [ppb]

TRS Analyzer Calibration by Dilution

DATE:	07-Dec-2023	PREVIOUS CALIBRATION DATE:	08-Nov-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	0.997
CLIENT:	PRAMP	TEMPERATURE (°C):	21.8
LOCATION:	986C	BAROMETRIC (mBar):	932
PURPOSE	Routine	START TIME (MST):	10:10
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	15:33

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	1191833341	FLOW (mL/min)	419
INITIAL		FINAL	
BKG/OFFSET	15.9	BKG/OFFSET	15.8
COEF/SLOPE	0.948	COEF/SLOPE	0.963
Expected (reference) Value	57.72	Expected (reference) Value	55.52

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL131374	HIGH ID	n/a
CONC (ppm):	10.09	EXPIRY DATE	n/a
CYLINDER (psi):	1800	LOW ID	n/a
EXPIRY DATE	03-Jan-2026	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
3999		3999	0.00	0.14	0		
3970	30.90	4001	77.93	77.67	78.93	1.005	0.987
3987	15.10	4002	38.07	n/a	39.36	n/a	0.967
3992	7.50	3999	18.92	n/a	19.62	n/a	0.964

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.012	0.3%

COMMENTS:

TRS Converter CDNOVA CDN101 #530

TRS[ppb] Station: PRAMP 986-C Daily: 07-12-2023 Type: AVG 1 Min. [1 Min.]
TRS [ppb]
80
70
60
50
40
30
20
10
0
-10
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
TRS [ppb]

Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	07-Dec-2023	PREVIOUS CALIBRATION DATE:	08-Nov-2023
CLIENT:	PRAMP	TEMPERATURE (°C):	21.8
LOCATION:	986C	BAROMETRIC (mBar):	932
PURPOSE	Routine	START TIME (MST):	10:10
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	14:50

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	12208316589	1123
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	1.002	0.995	0.999

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	LL68768		HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	CH_4/C_3H_8 (ppm):	897.0	301.0	HIGH EXPIRY:	n/a
ID:	26801218	ID:	4568	CYLINDER (psi):	1600		LOW ID:	n/a
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	Internal	EXPIRY DATE	08-Nov-2029		LOW EXPIRY:	n/a

CALIBRATION PARAMETERS:

POINT (CH4/NMHC)	HIGH	MID	LOW	CH4 EQUIVILANCE	
TARGET	14	7	3.5	C_3H_8 as CH_4	827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH_4	1724.8

EXPECTED (REFERENCE) VALUE:

INITIAL	CH4	NMHC	THC	FINAL	CH4	NMHC	THC
	9.57	11.17	20.74		9.61	11.01	20.62

CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC
3099		3099	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
3048	50.30	3098	14.56	13.44	28.00	14.72	13.33	28.04	14.56	13.32	27.89	0.989	1.008	0.999	1.000	1.009	1.004
3073	25.20	3098	7.30	6.73	14.03	n/a	n/a	n/a	7.35	6.66	14.01	n/a	n/a	n/a	0.993	1.011	1.001
3085	12.60	3098	3.65	3.37	7.01	n/a	n/a	n/a	3.66	3.32	6.98	n/a	n/a	n/a	0.997	1.014	1.005

LINEAR REGRESSION ANALYSIS:

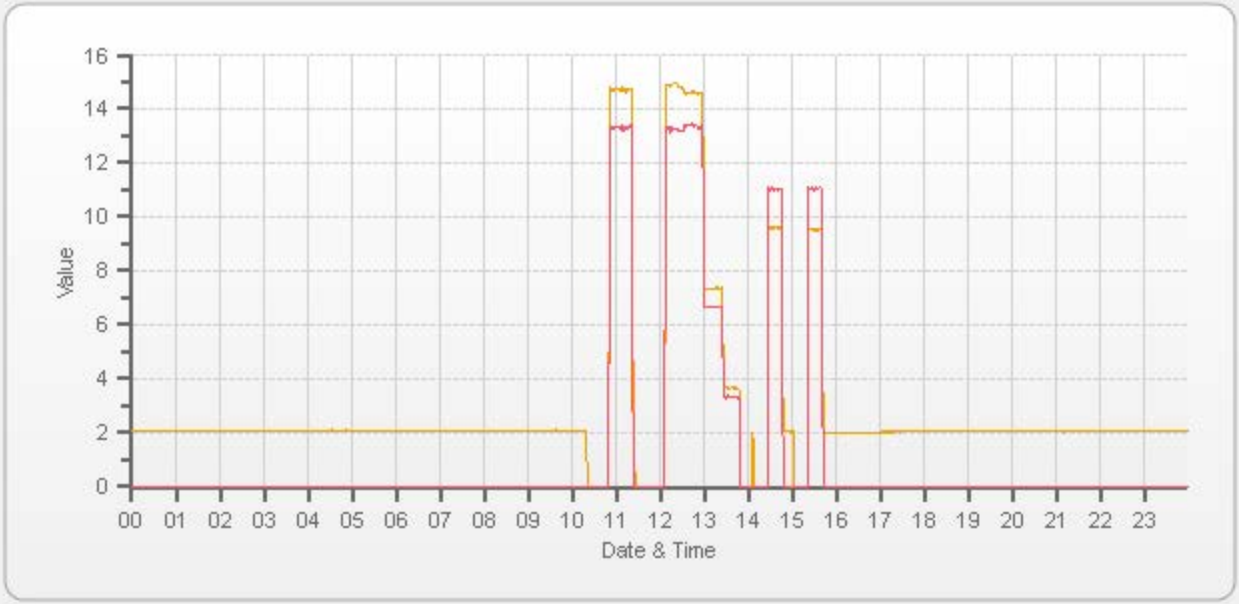
	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	1.000	0.1%
NMHC	1.000	0.991	0.0%
THC	1.000	0.996	0.0%

Comments:

H2 = AMA HG300 #191267063 **Sample filter changed**

Use Zero Chrom? **Yes**

Station: PRAMP 986-C Daily: 07-12-2023 Type: AVG 1 Min. [1 Min.]



Meteorological System Checklist

Date:	December 7, 2023
Technician:	Kevin Sebastian
Station:	PRAMP 986c

Unit:	Make:	Model:	Serial #:
Precipitation Sampler:	RM Young	52202	TB 16325
Temperature Sensor:	Rotronic	HC2-32	20626912
Barometric Pressure Sensor:	MetOne	092	Y23358
Relative Humidity Sensor:	Rotronic	HC2-S3	20626912
Anemometer:	RM Young	05305AQ	180340

PRECIPITATION SENSOR CHECK

Checklist:	Reply:	Comments:
Previous check date:	November 7, 2023	
Is the sensor Level?	yes	
Is the heater operating properly?	yes	
Are the bucket drain holes clean?	yes	Tested 15:28-15:35
Is the screen on the housing? (screen should be on between July and September	yes	
Is the housing clean?	yes	
Is the area around the housing clean and free from obstacles?	yes	

TIP TEST - Slowly pour water until 10 tips are heard. (10 tips = 1 mm)

# of Tips	Data Logger Response (mm):	Manual Specification = +/- 0.1 mm
10	1.0	0.00

AMBIENT TEMPERATURE SENSOR CHECK

Previous check date:	November 7, 2023
Parameter:	Temperature @ 2 metres
Reference Thermometer ID:	FS 181341226 expires July 17, 2024
Reference Temperature (^{o}C):	-2.6
Station - Ambient Temperature (^{o}C):	-2.8
Temperature Difference (^{o}C):	0.2

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	November 7, 2023	
Reference Barometer ID:	Brunton 05535 expires July 17, 2024	
Reference Pressure - Units/Reading:	millibar	934
Station Pressure - Units/Reading:	millibar	933
Pressure Tolerance +/- 15% of error:	794 - 1074	0.11%

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	November 7, 2023	
Reference Hygrometer ID:	FS 181341226 expires July 17, 2024	
Reference Hygrometer % RH- Reading:	81.30	
Station Hygrometer % RH- Reading:	83.70	
RH Tolerance +/- 15% of difference:	69.11 - 93.50	-3.0%

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK

WIND SPEED		WIND DIRECTION	
Previous check date:	November 7, 2023	Previous check date:	November 7, 2023
Wind Speed Observed (kph):	5~10	Wind Direction Observed:	E
Wind speed on Data Logger (kph):	8.8	Wind Direction on Data Logger:	E
		Wind Direction Pass/Fail?:	Pass

Comments

Meteorological Sensor Audit/Calibration

Location Information

Company:	PRAMP	**Performed By:**	Chris Wesson
Audit Location:	986C	**Reviewed By:**	Limin Li
Audit Date:	August 3, 2023	**Start/End Time (mst):**	14:01 / 15:03
Calibration Purpose:	routine annual	**Weather Conditions:**	Rain fall heavy at times

Wind Sensor Information

Sensor ID Data:		**Sensor Outputs:**	
Sensor Make:	RM Young	**Velocity Voltage Output Range:**	n/a
Sensor Model:	05305AQ	**Velocity Unit Output Range:**	0-200
Serial #:	180340	**Direction Voltage Output Range:**	n/a
Previous Cal/Audit Date:	August 5, 2022	**Direction Unit Output Range:**	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# R9133 expires Oct 18, 2024

Wind Speed Audit Data **+/- 2% of the average correction factor is the limit**

RPM	Wind Speed Generated kph	Clockwise Wind Speed kph	Counter Clockwise Wind Speed kph	Correction Factor
0	0	0.0	0.0	-
1000	18.4	18.3	18.3	1.007
2000	36.9	36.7	36.7	1.004
3000	55.3	55.1	55.1	1.003
4000	73.7	73.6	73.6	1.002
5000	92.2	92.0	92.0	1.002
6000	110.6	110.5	110.1	1.003
7000	129.0	128.9	129.3	0.999
8000	147.4	147.3	147.3	1.001
9000	165.9	165.8	165.8	1.000
10000	184.3	184.2	184.2	1.001
		The audit meets AMD requirements.	**Average Correction Factor=**	**1.002**

Wind Direction Audit Data **+/- 3° of the absolute average degrees difference for all points is the limit**

Generated Wind Direction 0-360 (Up)	Generated Wind Direction 360-0 (Down)	Indicated Wind Direction 0-360 (Up)	Indicated Wind Direction 360-0 (Down)	Degrees Difference 0-360 (Up)	Degrees Difference 360-0 (Down)	Average Absolute Degrees Difference
0	355	2	354	2.0	1.0	1.5
30	330	31	331	-1.0	-1.0	1.0
60	300	60	301	0.0	-1.0	0.5
90	270	90	271	0.0	-1.0	0.5
120	240	119	240	1.0	0.0	0.5
150	210	148	207	2.0	3.0	2.5
180	180	178	178	2.0	2.0	2.0
210	150	208	148	2.0	2.0	2.0
240	120	240	122	0.0	-2.0	1.0
270	90	272	90	-2.0	0.0	1.0
300	60	301	60	-1.0	0.0	0.5
330	30	331	32	-1.0	-2.0	1.5
355	0	354	2	1.0	2.0	1.5
The audit meets AMD requirements.			**Average Absolute Degrees Difference=**			**1.2**

Comments:

Declination = 15 deg East
Physical inspection completed, no issues

END OF REPORT

Peace River Area Monitoring Program

DECEMBER 2023

Ambient Air Monitoring Calibration Report

- RENO-B STATION-

CAL-PRAMP-202312-01563

Operation and Maintenance:
Bureau Veritas Canada

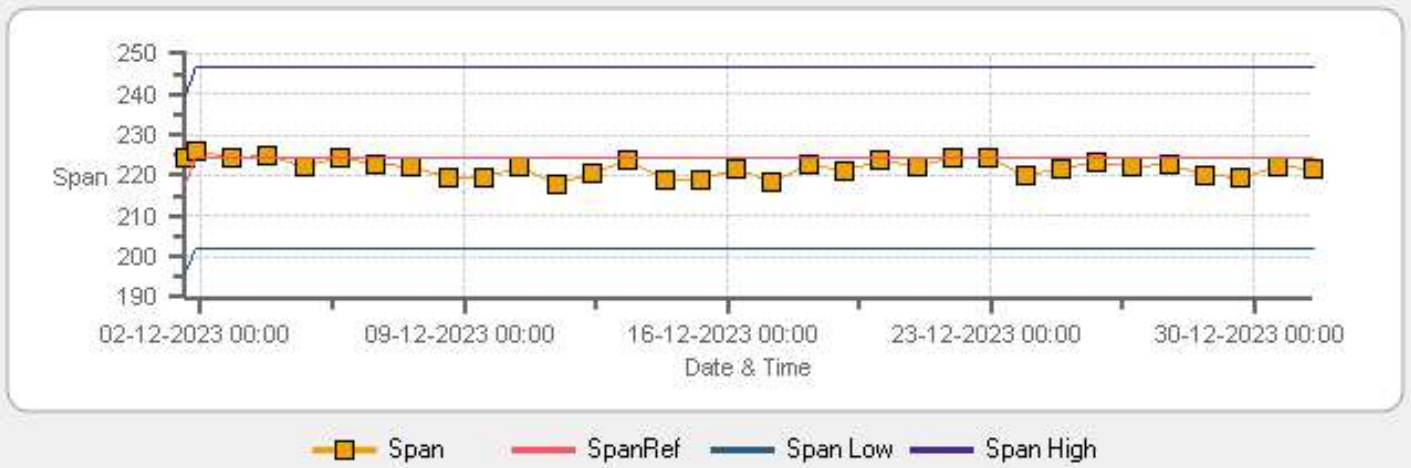
Data Validation and Report:
Bureau Veritas Canada

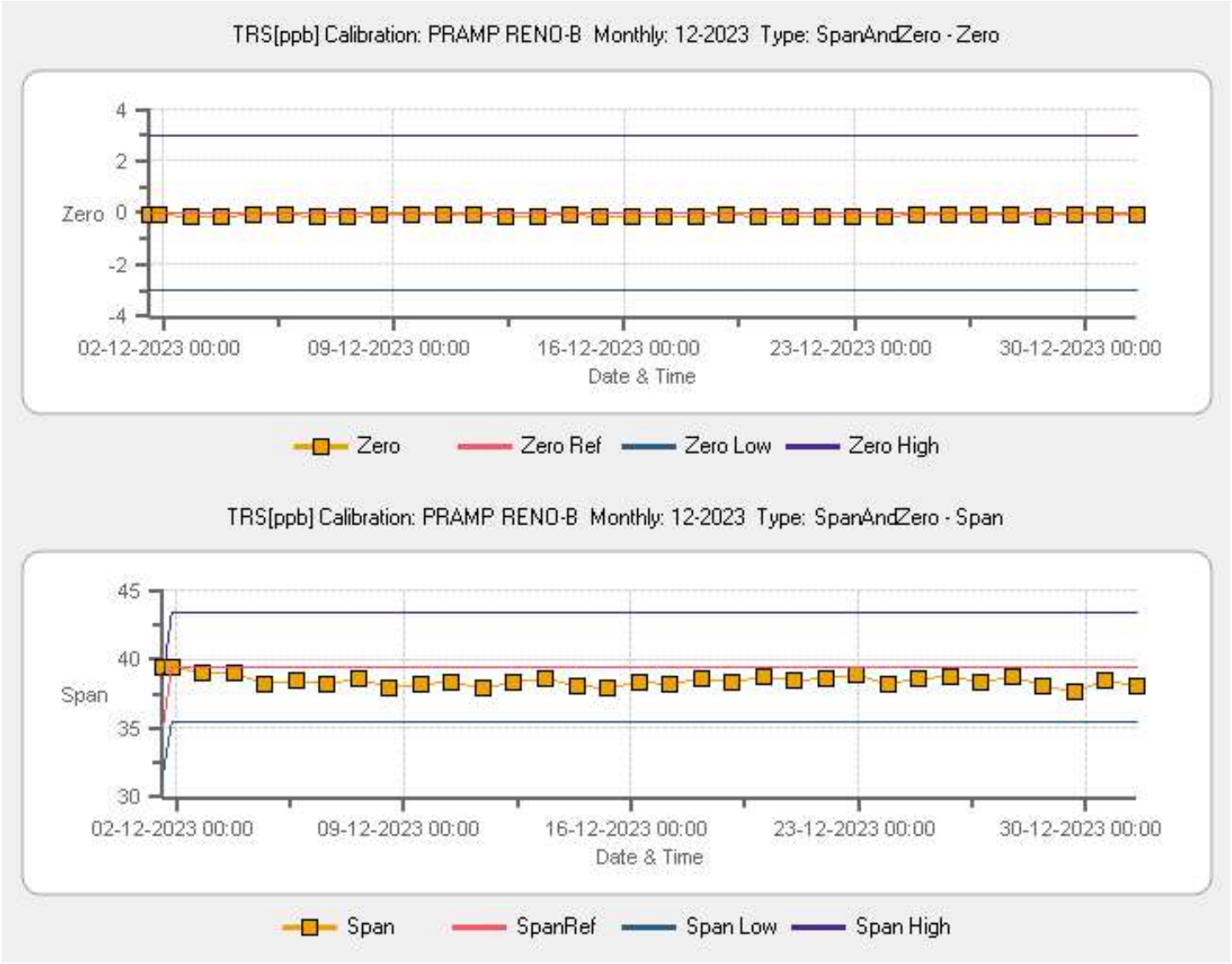
January 6, 2024

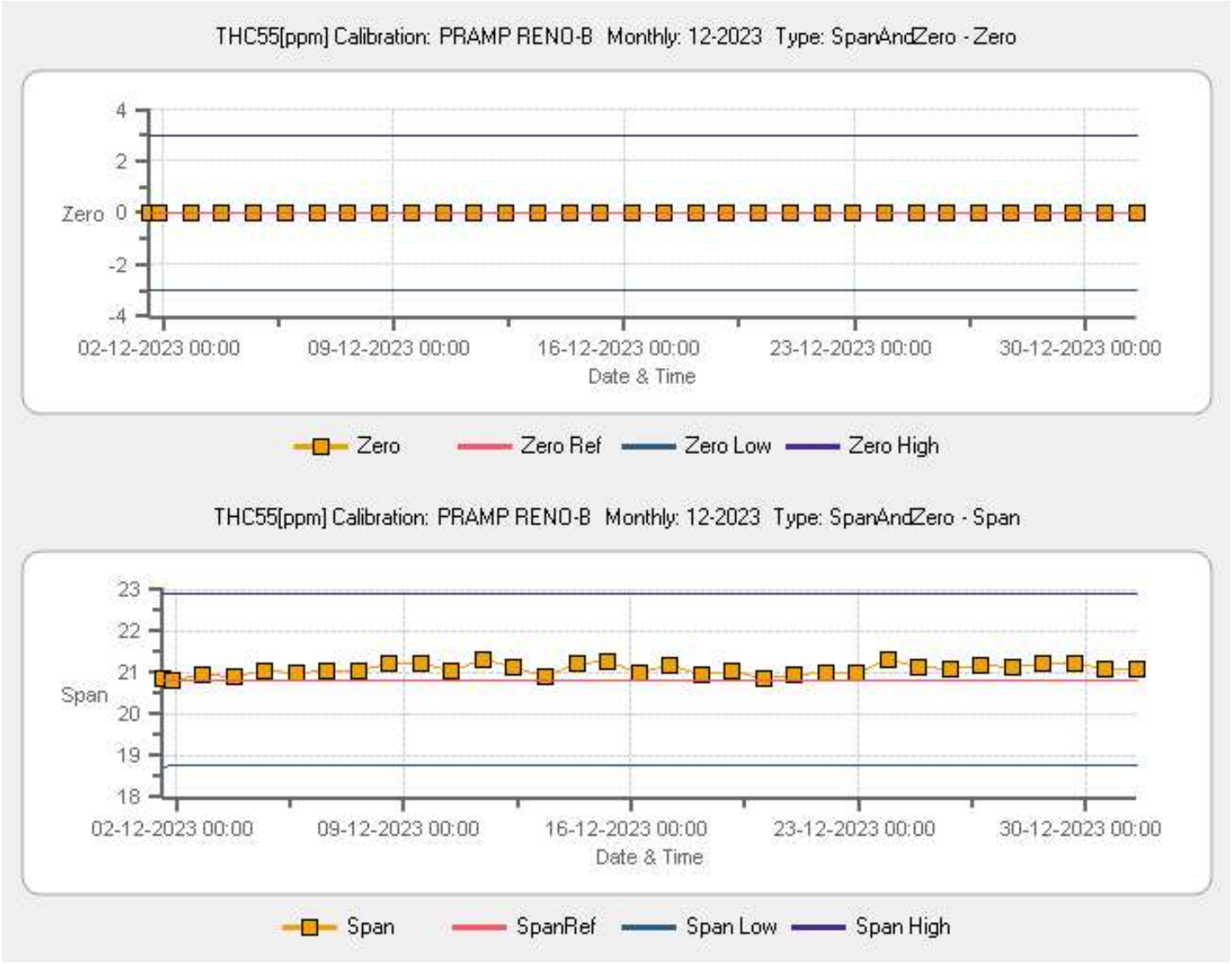
DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: PRAMP RENO-B Monthly: 12-2023 Type: SpanAndZero - Zero

SO2[ppb] Calibration: PRAMP RENO-B Monthly: 12-2023 Type: SpanAndZero - Span

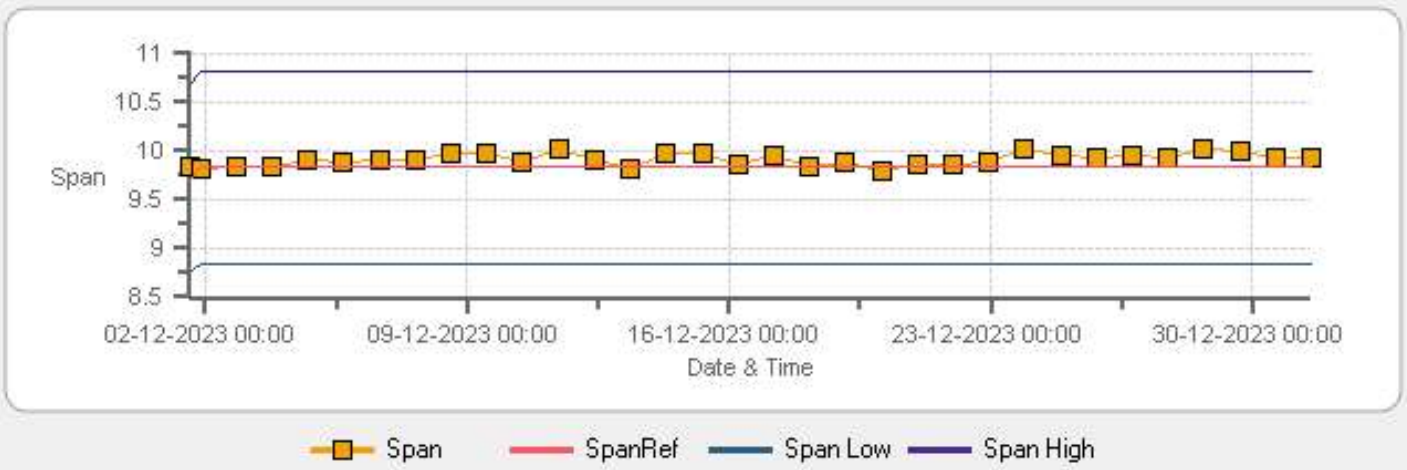


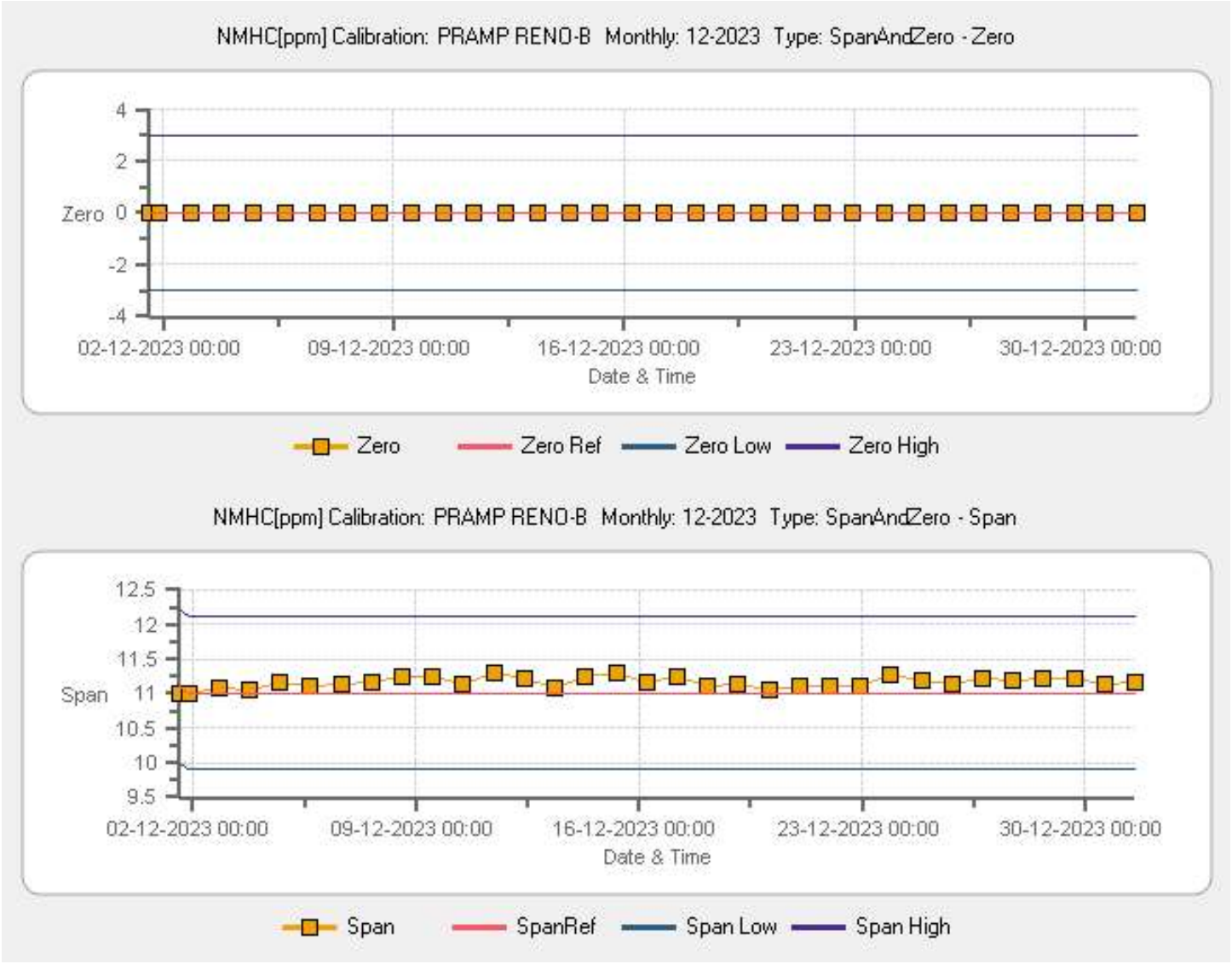

TRS[ppb] Calibration: PRAMP RENO-B Monthly: 12-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
TRS[ppb] Calibration: PRAMP RENO-B Monthly: 12-2023 Type: SpanAndZero - Span
45
40
Span
35
30
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High


THC55[ppm] Calibration: PRAMP RENO-B Monthly: 12-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
THC55[ppm] Calibration: PRAMP RENO-B Monthly: 12-2023 Type: SpanAndZero - Span
23
22
21
Span
20
19
18
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High

CH4[ppm] Calibration: PRAMP RENO-B Monthly: 12-2023 Type: SpanAndZero - Zero

CH4[ppm] Calibration: PRAMP RENO-B Monthly: 12-2023 Type: SpanAndZero - Span




NMHC[ppm] Calibration: PRAMP RENO-B Monthly: 12-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
NMHC[ppm] Calibration: PRAMP RENO-B Monthly: 12-2023 Type: SpanAndZero - Span
12.5
12
11.5
Span 11
10.5
10
9.5
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution

DATE:	01-Dec-2023	PREVIOUS CALIBRATION DATE:	01-Nov-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	0.998
CLIENT:	PRAMP	TEMPERATURE (°C):	23.2
LOCATION:	Reno-B	BAROMETRIC (mBar):	926
PURPOSE	Routine	START TIME (MST):	09:24
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	14:18

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	500 ppb
SERIAL #	12101910505	FLOW (mL/min)	431
INITIAL		FINAL	
BKG/OFFSET	1.4	BKG/OFFSET	1.39
COEF/SLOPE	0.949	COEF/SLOPE	0.955
Expected (reference) Value	217.8	Expected (reference) Value	224.4

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL109693	HIGH ID	n/a
CONC (ppm):	25.00	EXPIRY DATE	n/a
CYLINDER (psi):	1400	LOW ID	n/a
EXPIRY DATE	02-Nov-2025	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	390	190	95
RANGE	300 - 400	150 - 200	50 - 100

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
3999		3999	0.00	-0.2	0		
3938	60.80	3999	380.10	374.7	380.7	1.014	0.998
3971	28.80	4000	180.00	n/a	180.6	n/a	0.997
3986	14.40	4000	90.00	n/a	89.6	n/a	1.004

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	0.0%

COMMENTS:

Sample filter changed

SO2[ppb] Station: PRAMP RENO-B Daily: 01-12-2023 Type: AVG 1 Min. [1 Min.]

TRS Analyzer Calibration by Dilution

DATE:	01-Dec-2023	PREVIOUS CALIBRATION DATE:	02-Nov-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.002
CLIENT:	PRAMP	TEMPERATURE (°C):	23.2
LOCATION:	Reno-B	BAROMETRIC (mBar):	926
PURPOSE	Routine	START TIME (MST):	09:24
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	14:18

ANALYZER:

MAKE/MODEL	Thermo 43iQTL	RANGE	100 ppb
SERIAL #	12101910504	FLOW (mL/min)	392
INITIAL		FINAL	
BKG/OFFSET	1.05	BKG/OFFSET	1.14
COEF/SLOPE	0.859	COEF/SLOPE	0.932
Expected (reference) Value	35.1	Expected (reference) Value	39.46

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL131374	HIGH ID	n/a
CONC (ppm):	10.09	EXPIRY DATE	n/a
CYLINDER (psi):	1800	LOW ID	n/a
EXPIRY DATE	03-Jan-2026	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
3999		3999	0.00	0.06	0		
3968	30.90	3999	77.96	71.75	78.16	1.088	0.998
3985	15.10	4000	38.09	n/a	38.02	n/a	1.002
3993	7.50	4000	18.92	n/a	18.84	n/a	1.004

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.003	-0.1%

COMMENTS:

TRS Converter CDNOVA CDN-101 #590.
Sample Filter Changed 10:12-
10:15- Regulator flushed due to low response

TRS[ppb] Station: PRAMP RENO-B Daily: 01-12-2023 Type: AVG 1 Min. [1 Min.]

Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	01-Dec-2023	PREVIOUS CALIBRATION DATE:	02-Nov-2023
CLIENT:	PRAMP	TEMPERATURE (°C):	23.2
LOCATION:	Reno-B	BAROMETRIC (mBar):	926
PURPOSE	Routine	START TIME (MST):	09:24
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	14:18

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	12101910497	1058
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	0.998	0.999	0.998

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	LL68768		HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	CH_4/C_3H_8 (ppm):	897.0	301.0	HIGH EXPIRY:	n/a
ID:	26701218	ID:	4568	CYLINDER (psi):	1600		LOW ID:	n/a
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	Internal	EXPIRY DATE	11-Aug-2029		LOW EXPIRY:	n/a

CALIBRATION PARAMETERS:

POINT (CH4/NMHC)	HIGH	MID	LOW	CH4 EQUIVILANCE	
TARGET	14	7	3.5	C_3H_8 as CH_4	827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH_4	1724.8

EXPECTED (REFERENCE) VALUE:

INITIAL	CH4	NMHC	THC	FINAL	CH4	NMHC	THC
	9.71	11.11	20.83		9.83	11.01	20.84

CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC
3099		3099	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
3049	50.30	3099	14.56	13.44	27.99	14.12	12.83	26.95	14.55	13.43	27.98	1.031	1.047	1.039	1.001	1.000	1.001
3075	25.20	3100	7.29	6.73	14.02	n/a	n/a	n/a	7.26	6.73	14.00	n/a	n/a	n/a	1.004	1.000	1.001
3085	12.60	3098	3.65	3.37	7.01	n/a	n/a	n/a	3.65	3.41	7.06	n/a	n/a	n/a	1.000	0.987	0.994

LINEAR REGRESSION ANALYSIS:

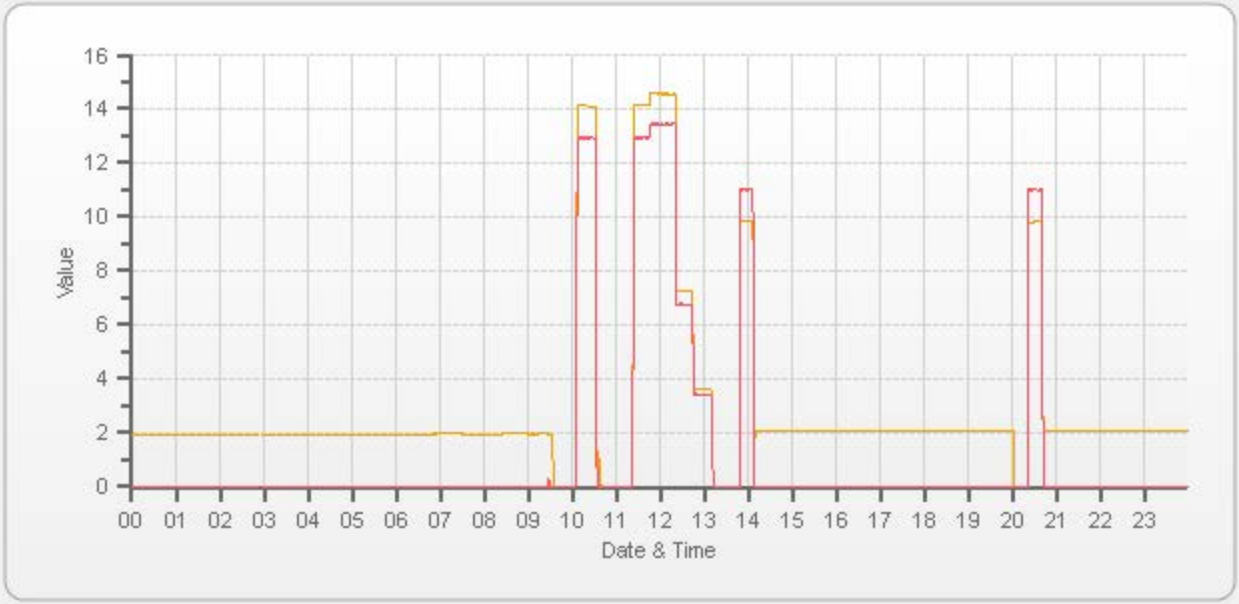
	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	0.999	0.0%
NMHC	1.000	0.999	0.1%
THC	1.000	0.999	0.0%

Comments:

Sample filter changed

Use Zero Chrom? **No**

Station: PRAMP RENO-B Daily: 01-12-2023 Type: AVG 1 Min. [1 Min.]



Meteorological System Checklist

Date:	December 1, 2023
Technician:	Kevin Sebastian
Station:	PRAMP Reno

Unit:	Make:	Model:	Serial #:
Precipitation Sampler:	RM Young	52202	TB 15877
Temperature Sensor:	Rotronic	HC2-S3	20467597
Barometric Pressure Sensor:	MetOne	92	A17940
Relative Humidity Sensor:	Rotronic	HC2-S3	20467597
Anemometer:	RM Young	05305AQ	174795

PRECIPITATION SENSOR CHECK

Checklist:	Reply:	Comments:
Previous check date:	October 5, 2023	Audit: 12:53-13:02
Is the sensor Level?	yes	
Is the heater operating properly?	yes	
Are the bucket drain holes clean?	yes	
Is the screen on the housing? (screen should be on between July and September	yes	
Is the housing clean?	yes	
Is the area around the housing clean and free from obstacles?	yes	

TIP TEST - Slowly pour water until 10 tip are heard. (10 tips = 1 ml)

# of Tips	Data Logger Response (ml):	Manual Specification = +/- 0.1 ml
10	1.00	0.00

AMBIENT TEMPERATURE SENSOR CHECK

Previous check date:	November 2, 2023
Parameter:	Temperature @ 2 metres
Reference Thermometer ID:	FS 181341226 expires July 17, 2024
Reference Temperature (^{o}C):	-11.4
Station - Ambient Temperature (^{o}C):	-10.8
Temperature Difference (^{o}C):	-0.6

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	November 2, 2023	
Reference Barometer ID:	Equipment ID - 05535 Brunton Expiry - July 17 2024	
Reference Pressure - Units/Reading:	millibar	924.3
Station Pressure - Units/Reading:	millibar	924.1
Pressure Tolerance +/- 15% of error:	786 - 1063	0.02%

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	November 2, 2023	
Reference Hygrometer ID:	FS 181341226 expires July 17, 2024	
Reference Hygrometer % RH- Reading:	82.70	
Station Hygrometer % RH- Reading:	84.20	
RH Tolerance +/- 15% of difference:	70.30 - 95.11	-1.8%

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK

WIND SPEED		WIND DIRECTION	
Previous check date:	November 2, 2023	Previous check date:	November 2, 2023
Wind Speed Observed (kph):	5~10	Wind Direction Observed:	N
Wind speed on Data Logger (kph):	9.8	Wind Direction on Data Logger:	N
		Wind Direction Pass/Fail?:	Pass

Comments

Meteorological Sensor Audit/Calibration

Location Information

Company:	PRAMP	**Performed By:**	Chris Wesson
Audit Location:	Reno-B	**Reviewed By:**	Limin Li
Audit Date:	August 1, 2023	**Start/End Time (mst):**	09:54 / 11:18
Calibration Purpose:	routine annual	**Weather Conditions:**	Mainly cloudy with drizzle

Wind Sensor Information

Sensor ID Data:		**Sensor Outputs:**	
Sensor Make:	RM Young	**Velocity Voltage Output Range:**	n/a
Sensor Model:	05305AQ	**Velocity Unit Output Range:**	0-200
Serial #:	174795	**Direction Voltage Output Range:**	n/a
Previous Cal/Audit Date:	November 23, 2022	**Direction Unit Output Range:**	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# R9133 expires Oct 18, 2024

Wind Speed Audit Data **+/- 2% of the average correction factor is the limit**

RPM	Wind Speed Generated kph	Clockwise Wind Speed kph	Counter Clockwise Wind Speed kph	Correction Factor
0	0	0.0	0.0	-
1000	18.4	18.3	18.3	1.007
2000	36.9	36.7	36.7	1.004
3000	55.3	55.1	55.1	1.003
4000	73.7	73.6	73.6	1.002
5000	92.2	92.0	92.0	1.002
6000	110.6	110.5	110.5	1.001
7000	129.0	128.9	128.9	1.001
8000	147.4	147.3	147.3	1.001
9000	165.9	165.8	165.8	1.000
10000	184.3	184.2	184.6	0.999
		The audit meets AMD requirements.	**Average Correction Factor=**	**1.002**

Wind Direction Audit Data **+/- 3° of the absolute average degrees difference for all points is the limit**

Generated Wind Direction 0-360 (Up)	Generated Wind Direction 360-0 (Down)	Indicated Wind Direction 0-360 (Up)	Indicated Wind Direction 360-0 (Down)	Degrees Difference 0-360 (Up)	Degrees Difference 360-0 (Down)	Average Absolute Degrees Difference
0	355	1	354	1.0	1.0	1.0
30	330	30	332	0.0	-2.0	1.0
60	300	60	302	0.0	-2.0	1.0
90	270	89	272	1.0	-2.0	1.5
120	240	120	241	0.0	-1.0	0.5
150	210	149	211	1.0	-1.0	1.0
180	180	181	182	-1.0	-2.0	1.5
210	150	211	150	-1.0	0.0	0.5
240	120	241	120	-1.0	0.0	0.5
270	90	271	90	-1.0	0.0	0.5
300	60	301	60	-1.0	0.0	0.5
330	30	331	29	-1.0	1.0	1.0
355	0	354	1	1.0	1.0	1.0
The audit meets AMD requirements.			**Average Absolute Degrees Difference=**			**0.9**

Comments:

Declination = 15 deg East
Physical inspection completed, no issues

END OF REPORT

Peace River Area Monitoring Program

DECEMBER 2023

Ambient Air Monitoring Calibration Report

- AQHI - GRIMSHAW STATION-

CAL-PRAMP-202312-01689

Operation and Maintenance:
Bureau Veritas Canada

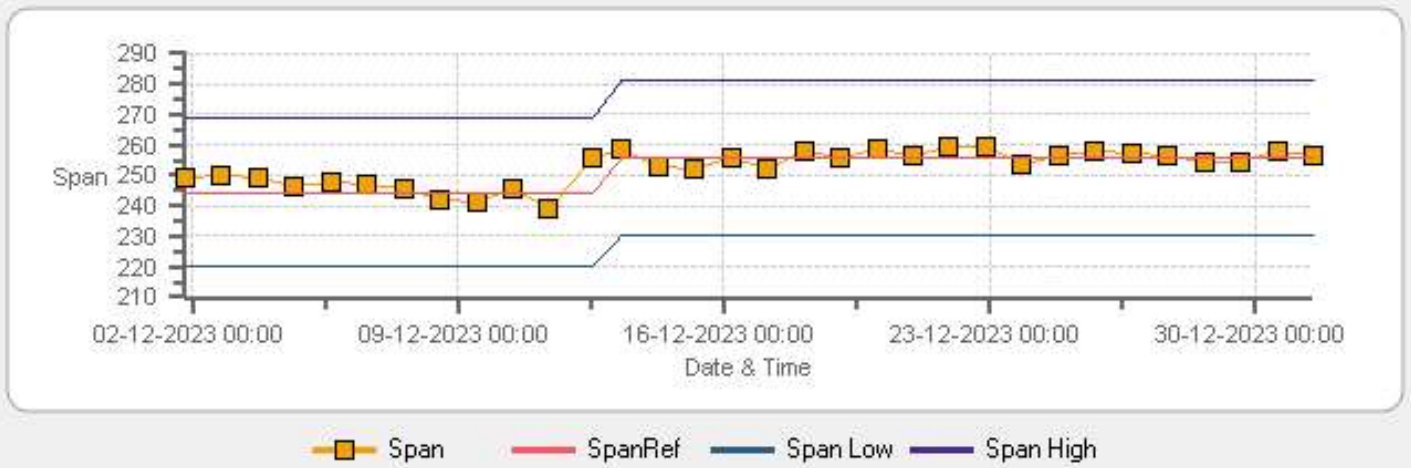
Data Validation and Report:
Bureau Veritas Canada

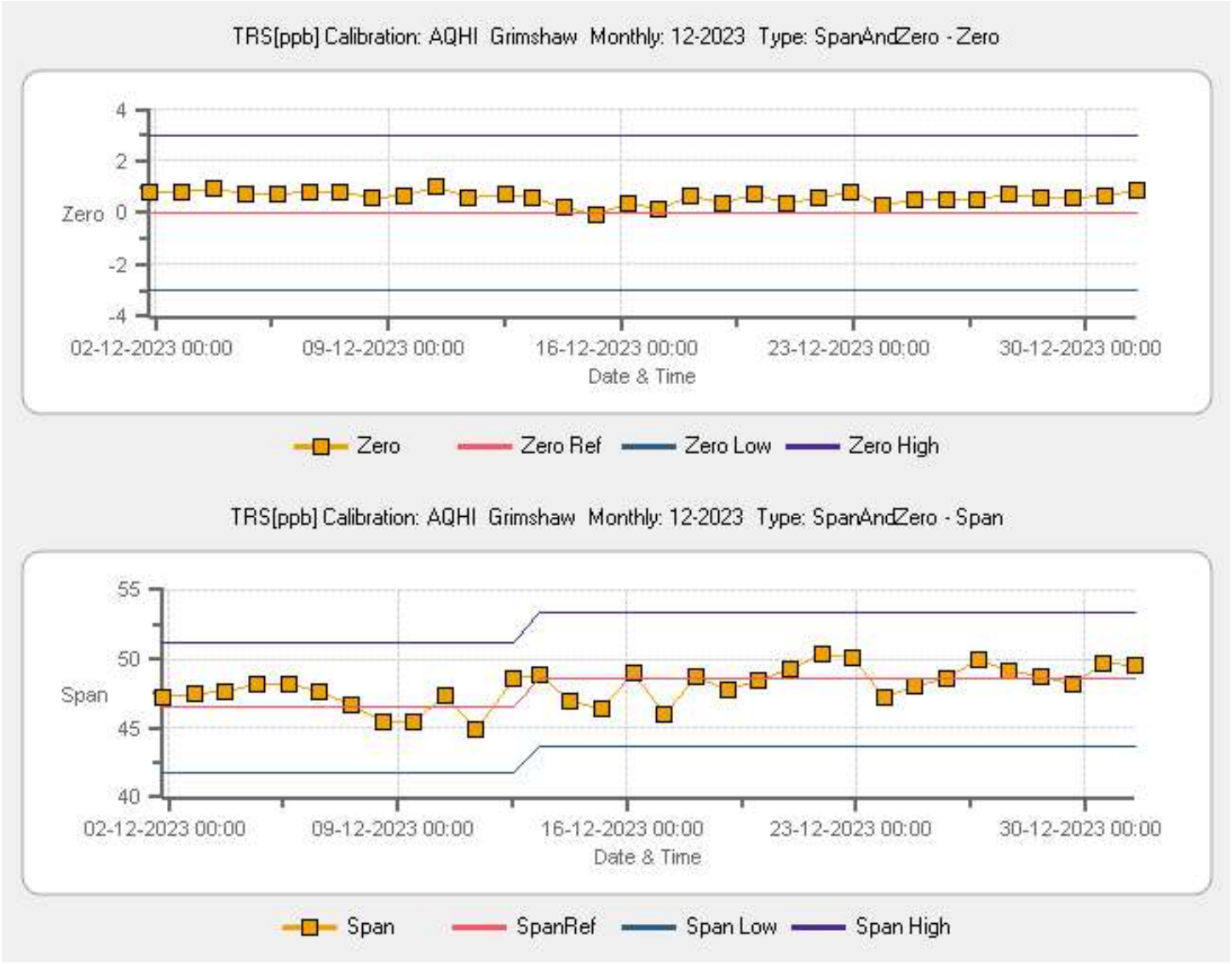
January 6, 2024

DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

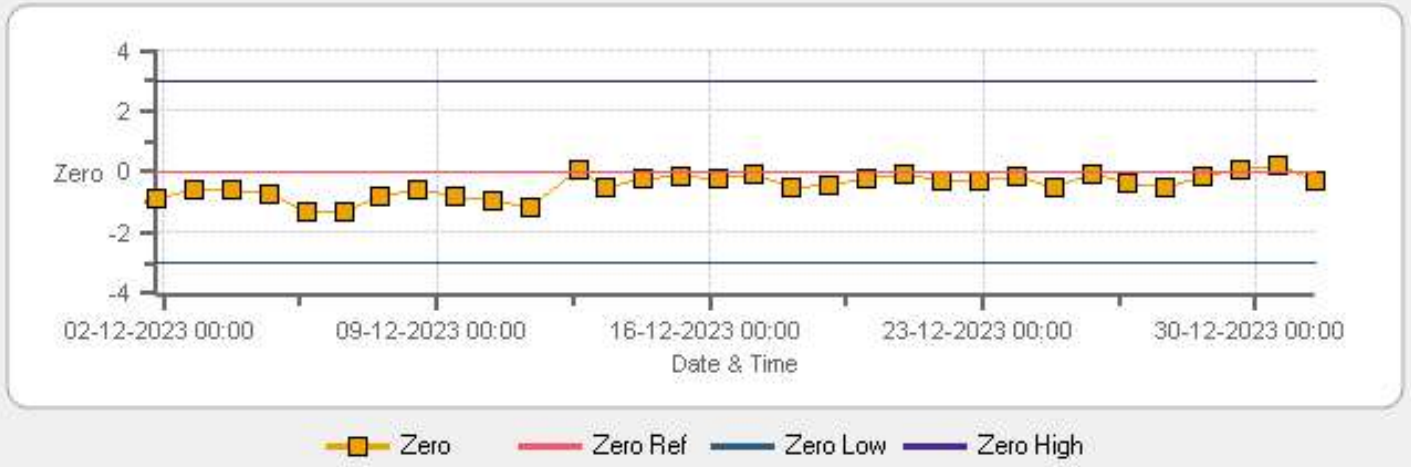
SO2[ppb] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Zero

SO2[ppb] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Span

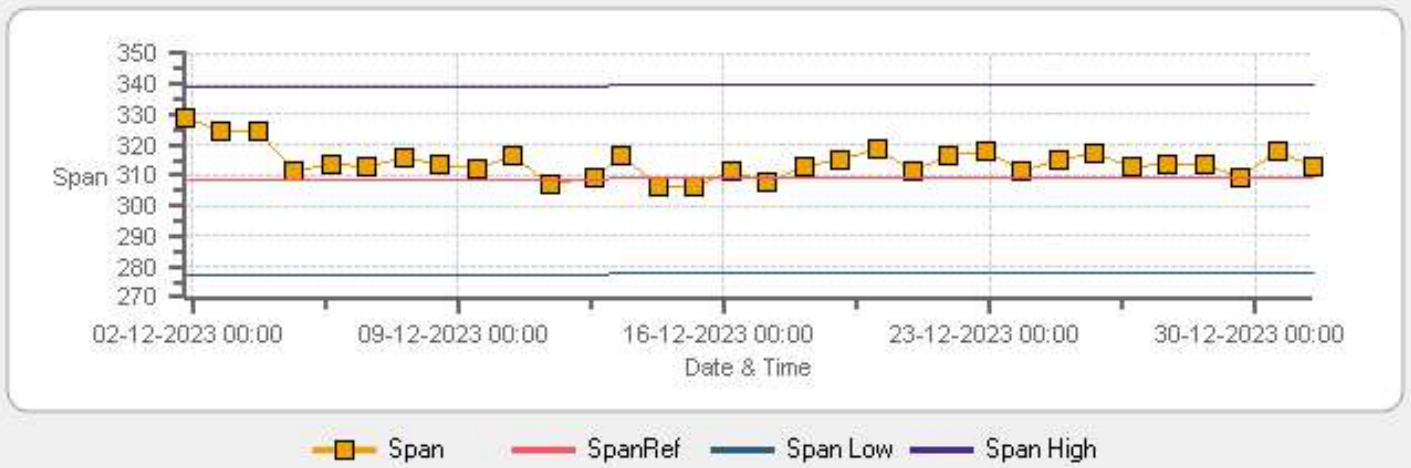


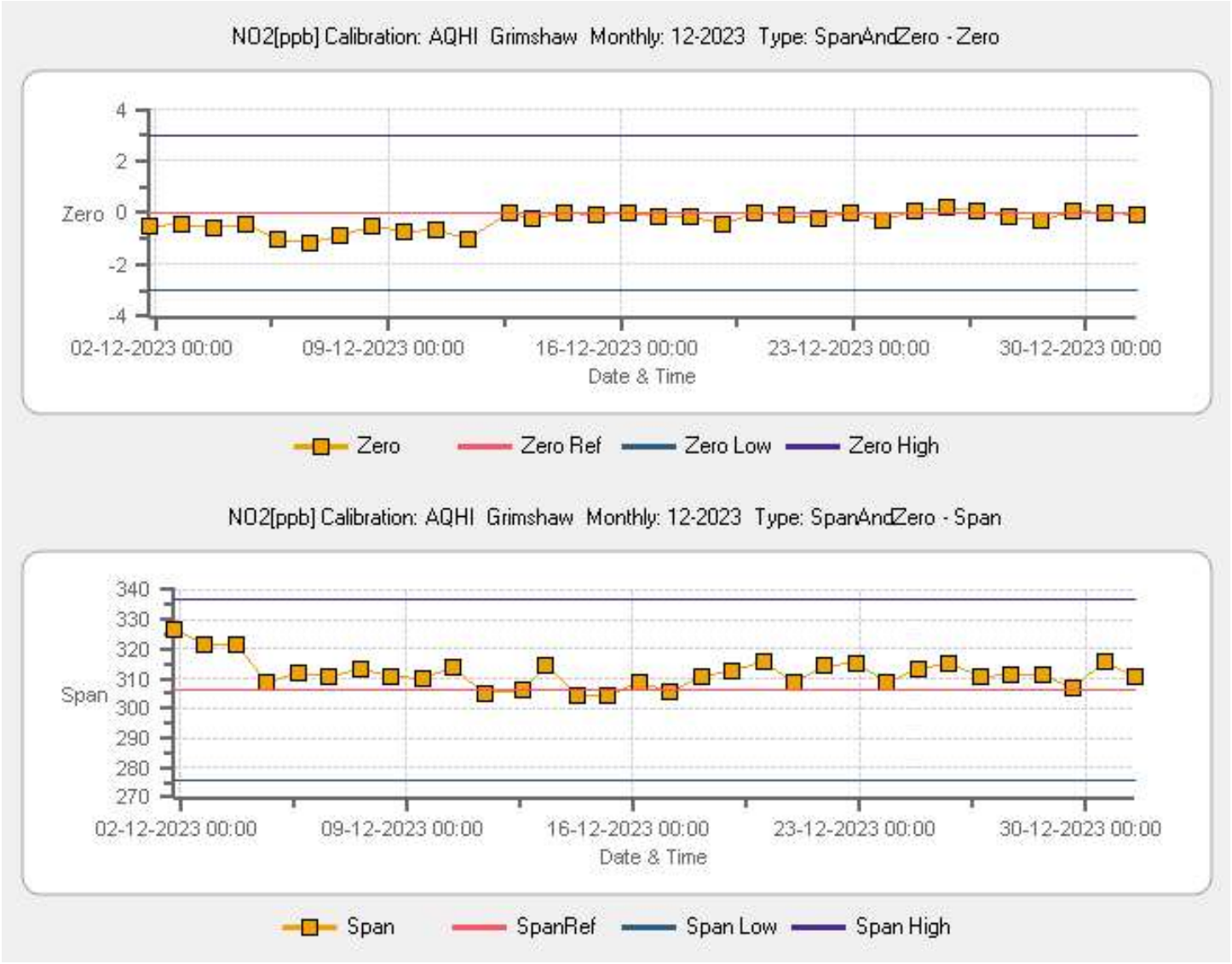

TRS[ppb] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
TRS[ppb] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Span
55
50
Span
45
40
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High

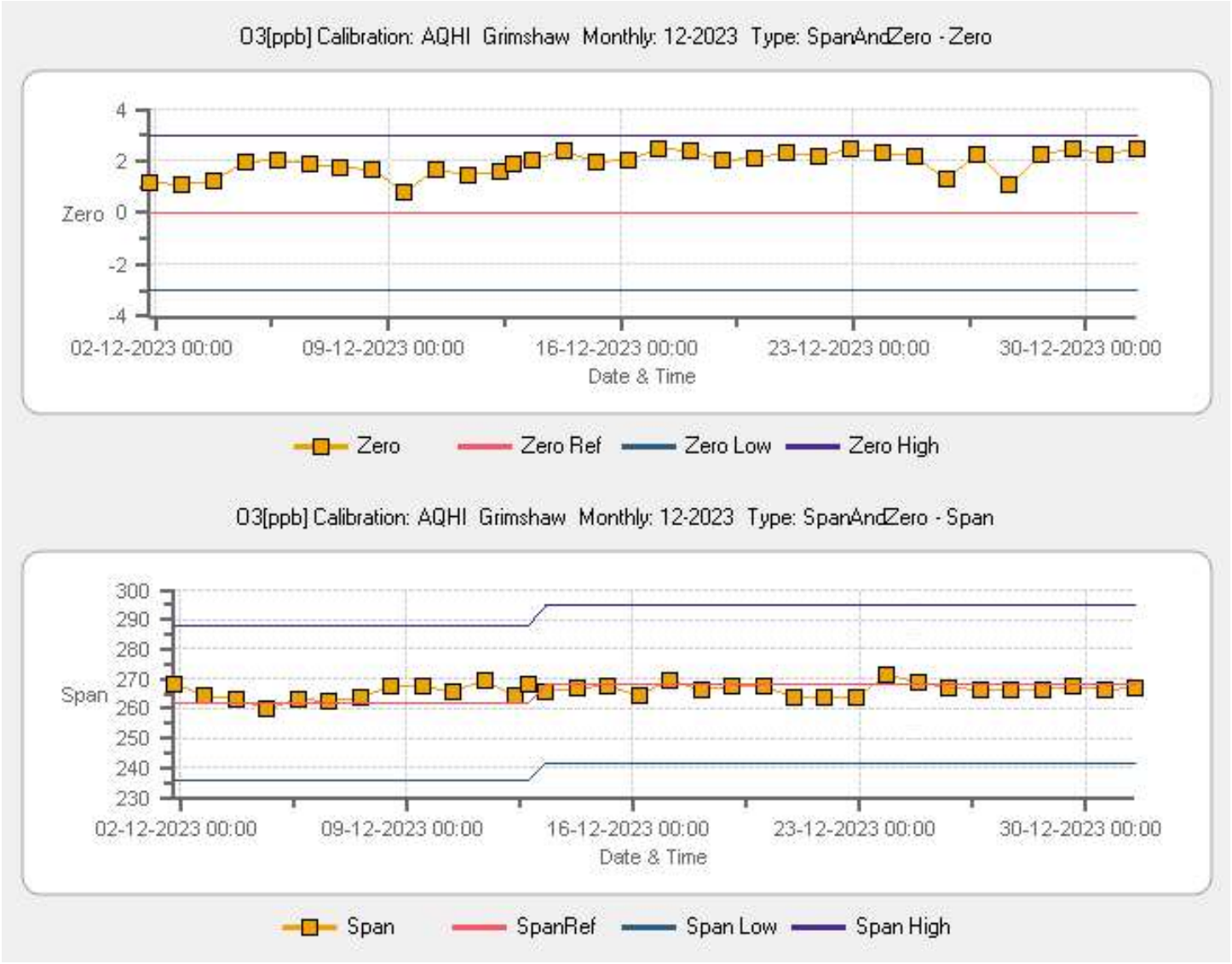
NOX[ppb] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Zero

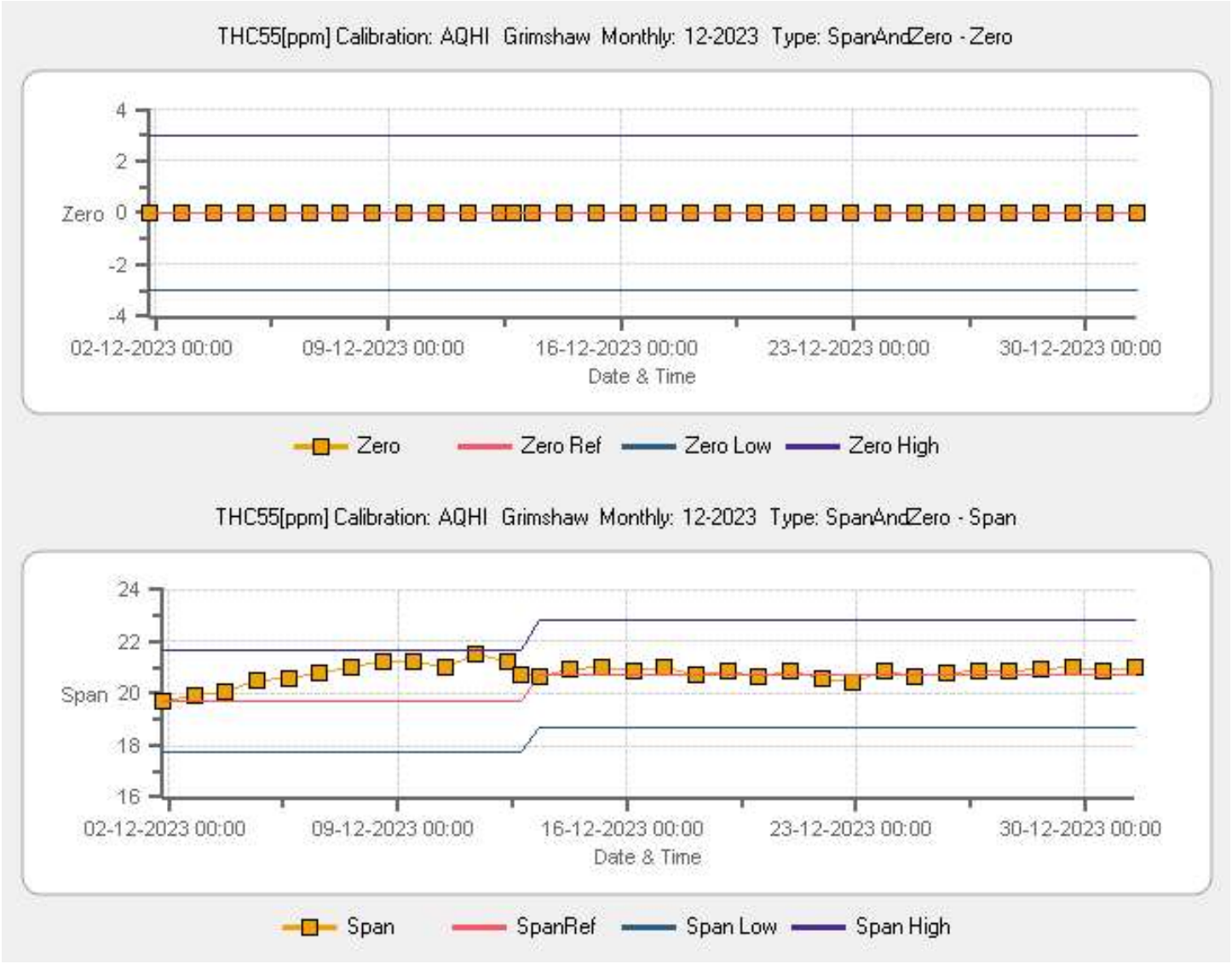


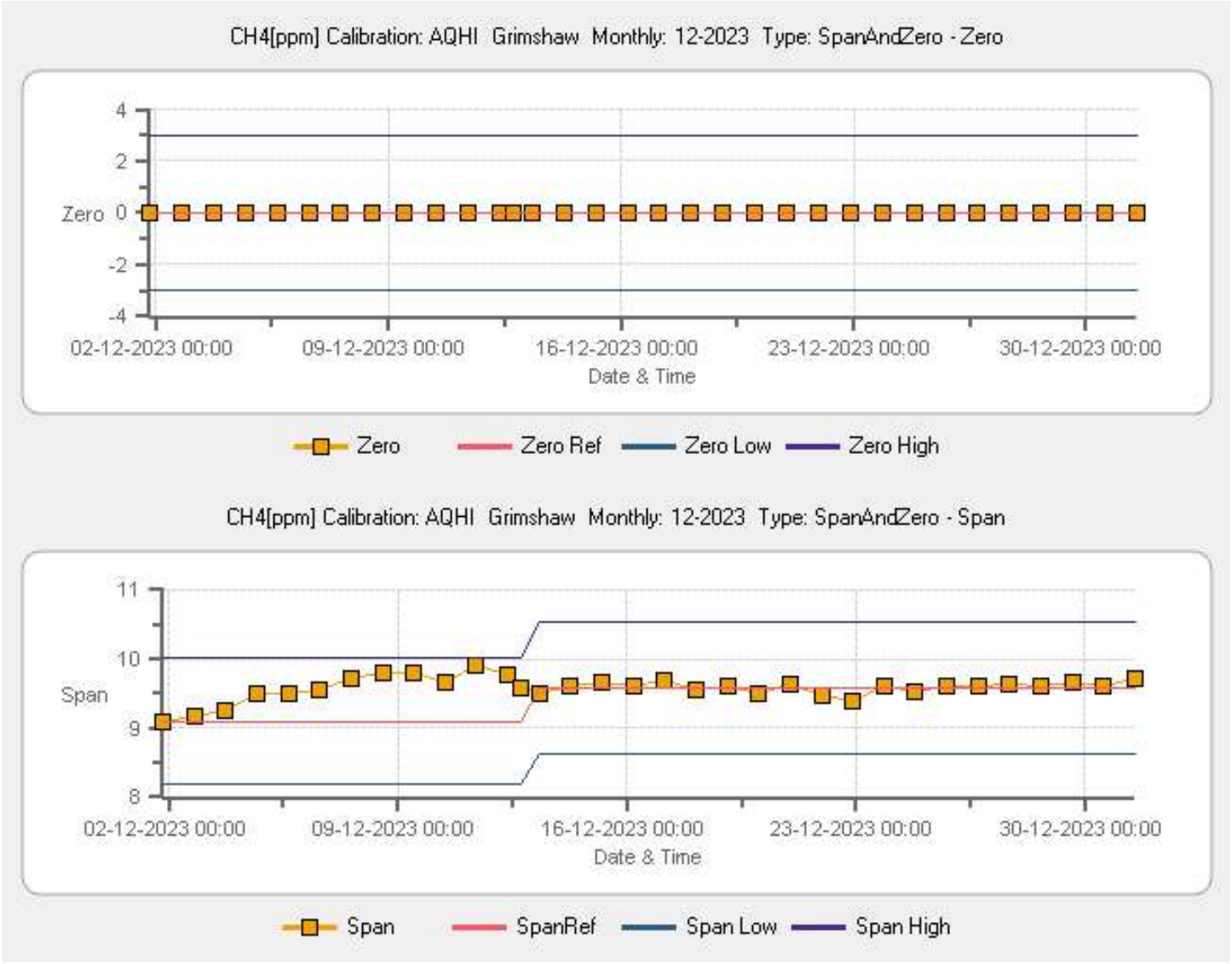
NOX[ppb] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Span

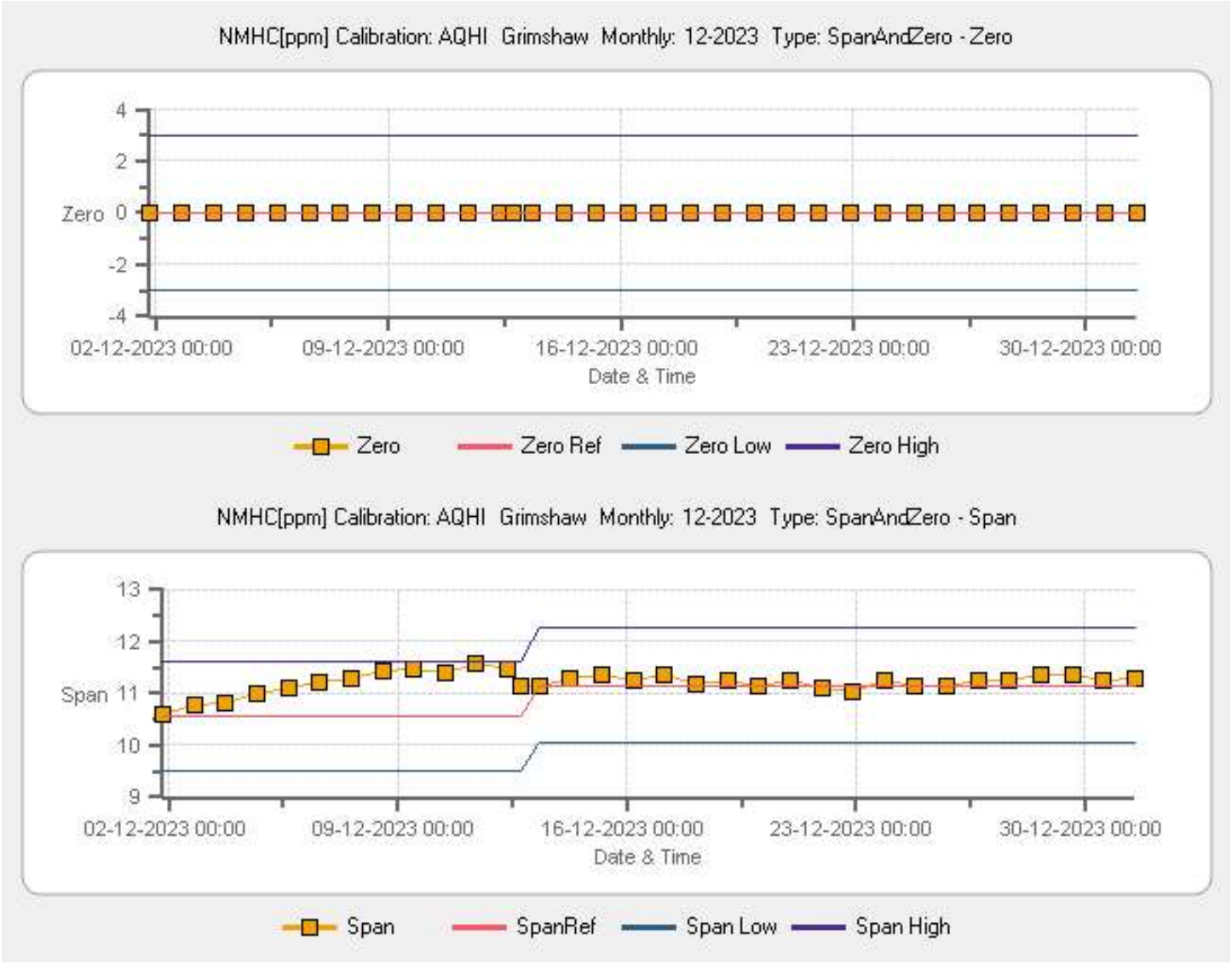



NO2[ppb] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
NO2[ppb] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Span
340
330
320
Span 310
300
290
280
270
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High


O3[ppb] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
O3[ppb] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Span
300
290
280
Span 270
260
250
240
230
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High


THC55[ppm] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
THC55[ppm] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Span
24
22
Span 20
18
16
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High


CH4[ppm] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
CH4[ppm] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Span
11
10
Span
9
8
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High


NMHC[ppm] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
NMHC[ppm] Calibration: AQHI Grimshaw Monthly: 12-2023 Type: SpanAndZero - Span
13
12
Span 11
10
9
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution

DATE:	12-Dec-2023	PREVIOUS CALIBRATION DATE:	15-Nov-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	PRAMP	TEMPERATURE (°C):	22.2
LOCATION:	Grimshaw	BAROMETRIC (mBar):	940
PURPOSE	Routine	START TIME (MST):	07:46
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	13:17

ANALYZER:

MAKE/MODEL	Teledyne T100	RANGE	500 ppb
SERIAL #	722	FLOW (mL/min)	483
INITIAL		FINAL	
BKG/OFFSET	32.2	BKG/OFFSET	32.8
COEF/SLOPE	0.894	COEF/SLOPE	0.94
Expected (reference) Value	244.4	Expected (reference) Value	255.6

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	5004
MFC CALIBRATION DATE:	09-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL109693	HIGH ID	n/a
CONC (ppm):	25.00	EXPIRY DATE	n/a
CYLINDER (psi):	1400	LOW ID	n/a
EXPIRY DATE	02-Nov-2025	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	390	190	95
RANGE	300 - 400	150 - 200	50 - 100

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
4000		4000	0.00	0.1	0		
3939	60.80	4000	380.00	361	379.9	1.053	1.000
3971	28.80	4000	180.00	n/a	179.7	n/a	1.002
3985	14.40	3999	90.02	n/a	90.1	n/a	0.999

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.000	0.0%

COMMENTS:

Sample filter changed.
08:46-08:48 Flushed out regulator to check response

SO2[ppb] Station: AQHI Grimshaw Daily: 12-12-2023 Type: AVG 1 Min. [1 Min.]

TRS Analyzer Calibration by Dilution

DATE:	12-Dec-2023	PREVIOUS CALIBRATION DATE:	15-Nov-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	1.005
CLIENT:	PRAMP	TEMPERATURE (°C):	22.2
LOCATION:	Grimshaw	BAROMETRIC (mBar):	940
PURPOSE	Routine	START TIME (MST):	07:46
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	13:17

ANALYZER:

MAKE/MODEL	Teledyne T100U	RANGE	100 ppb
SERIAL #	132	FLOW (mL/min)	535
INITIAL		FINAL	
BKG/OFFSET	58.6	BKG/OFFSET	60.1
COEF/SLOPE	0.708	COEF/SLOPE	0.726
Expected (reference) Value	46.48	Expected (reference) Value	48.54

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL131374	HIGH ID	LOW
CONC (ppm):	10.09	EXPIRY DATE	n/a
CYLINDER (psi):	1800	LOW ID	n/a
EXPIRY DATE	03-Jan-2026	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
4000		4000	0.00	0.57	0		
3969	30.90	4000	77.95	76.3	78.12	1.029	0.998
3985	15.10	4000	38.09	n/a	37.32	n/a	1.021
3992	7.50	3999	18.92	n/a	18.23	n/a	1.038

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.004	-0.5%

COMMENTS:

Converter, CDNova CDN-101 #576.

TRS[ppb] Station: AQHI Grimshaw Daily: 12-12-2023 Type: AVG 1 Min. [1 Min.]
TRS [ppb]
80
70
60
50
40
30
20
10
0
-10
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
TRS [ppb]

NOx Calibration by Dilution/Gas-Phase Titration

CALIBRATION:

				ANALYZER:			
DATE:	12-Dec-2023	PREVIOUS CALIBRATION DATE:	16-Nov-2023	MAKE/MODEL:	Teledyne T200	PREVIOUS CF.	
CLIENT:	PRAMP	TEMPERATURE (°C):	22.2	SERIAL #:	837	NOx	0.997
LOCATION:	Grimshaw	BAROMETRIC (mBar):	940	FLOW (mL/min)	443	NO	0.998
PURPOSE	Routine	START TIME (MST):	07:46	RANGE (ppb)	500	NO2	1.001
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	14:59	GPT FOR O3?		Yes	

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	EY0001716		HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	NO/NOx (PPM):	49.2	49.4	HIGH EXPIRY:	n/a
ID:	26801218	ID:	4568	CYLINDER (psi):	1000		LOW ID:	n/a
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	n/a	EXPIRY DATE	11-Nov-2029		LOW EXPIRY:	n/a

CALIBRATION SETTINGS:

INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
BKG/OFFSET:	2	-0.5	n/a	BKG/OFFSET:	0.6	-0.4	n/a
SLOPE/COEF/CE:	1	1	0.996	SLOPE/COEF/CE:	0.996	0.994	0.996

EXPECTED (REFERENCE) VALUE:

INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
	308.4	2.3	306.1		309.1	2.8	306.3

CALIBRATION PARAMETERS:

POINT	NO TARGET (PPB)	NO2 TARGET (PPB)	NO2 RANGE	O3 POINT
HIGH	395	250	240-275	n/a
MID	180	154	150-157	Mid
LOW	90	54	50-58	Low
EXTRA 1	n/a	340	300-370	High

NO/NOx CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (ppb)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	NO	NOx	NO2	NO	NOx	NO2	NO	NOx	NO2	NO	NOx	NO2	NO	NOx	NO2
5000		5000	0.0	0.0	0.0	0.2	-0.7	-0.9	0.0	0.0	0.0						
4960	40.20	5000	395.6	397.2	1.6	396.0	395.5	-0.6	395.3	398.2	2.9	0.999	1.002		1.001	0.997	
4982	18.30	5000	180.1	180.8	0.7	n/a	n/a	n/a	180.8	180.6	-0.2	n/a	n/a		0.996	1.001	
4991	9.20	5000	90.5	90.9	0.4	n/a	n/a	n/a	89.6	90.1	0.4	n/a	n/a		1.010	1.009	

GPT CALIBRATION:

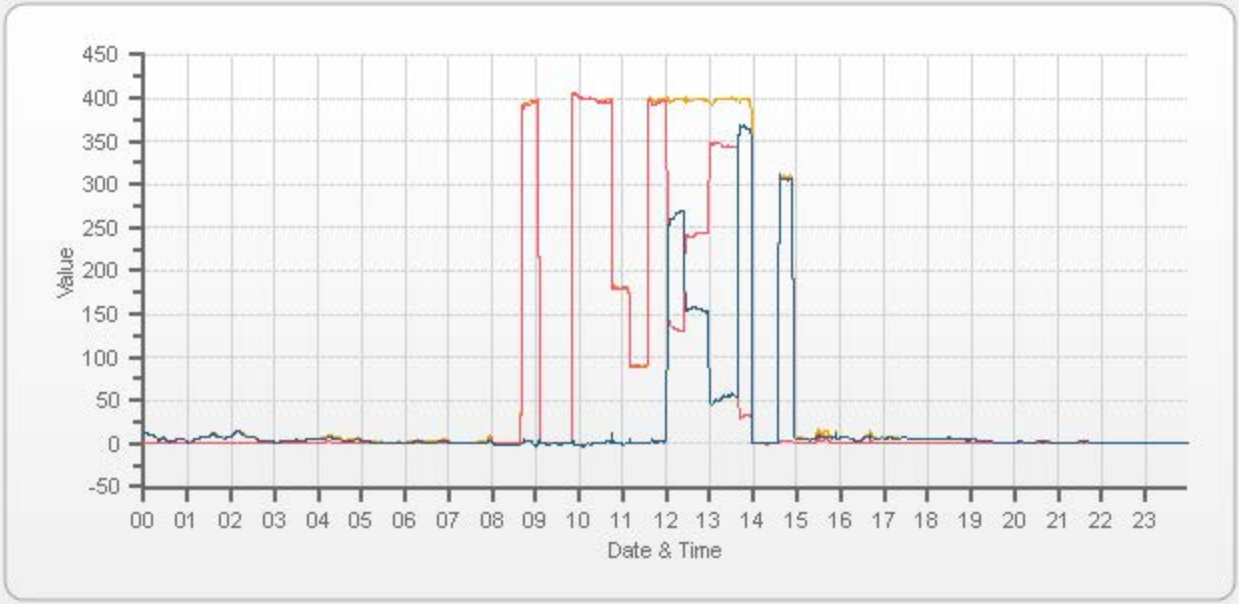
Point	CALIBRATOR			INDICATED (ppb)			NO DROP / O3 Conc (ppb)	NO2 GAIN (ppb)	NO2 Corr. FACTOR	CONV. EFFICIENCY
	GAS	TOTAL	O3 SETPOINT	NO	NOx	NO2				
REFERENCE	40.10	5000	0	395.8	399.1	3.3				
AS-FOUND HIGH	40.10	5000	260	131.1	398.9	267.7	264.7	264.4	1.001	99.89%
ADJUSTED HIGH	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**n/a**	**n/a**	n/a
MID	40.10	5000	150	244.5	397.7	153.3	151.3	150	1.009	99.14%
LOW	40.10	5000	55	343.3	400.1	56.8	52.5	53.5	0.981	101.90%
NO2 adjustment not required.									AVERAGE:	100.31%

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
NO	1.000	1.000	-0.03%
NOx	1.000	1.003	-0.11%
NO2	1.000	0.994	0.14%

COMMENTS:

Sample filter changed
Additional point for O3: Setpoint = 350, O3 conc = 362.3


Station: AQHI Grimshaw Daily: 12-12-2023 Type: AVG 1 Min. [1 Min.]
Value
450
400
350
300
250
200
150
100
50
0
-50
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
NOX [ppb]
NO [ppb]
NO2 [ppb]

Ozone Calibration by Direct GPT

DATE:	12-Dec-2023	PREVIOUS CALIBRATION DATE:	16-Nov-2023
PARAMETER:	O3	PREVIOUS CORRECTION FACTOR:	0.998
CLIENT:	PRAMP	TEMPERATURE (°C):	22.5
LOCATION:	Grimshaw	BAROMETRIC (mBar):	938
PURPOSE	Routine	START TIME (MST):	14:15
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	18:36

ANALYZER:

MAKE/MODEL	Teledyne T400	RANGE	500 ppb
SERIAL #	824	FLOW (mL/min)	758
INITIAL		FINAL	
BKG/OFFSET	-1.8	BKG/OFFSET	-2.1
COEF/SLOPE	0.987	COEF/SLOPE	0.988
Expected (reference) Value	262	Expected (reference) Value	268

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	26801218	ID:	4568
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	n/a
	CALIBRATION METHOD:	Direct GPT	
GPT DATE:	12-Dec-2023	GPT END TIME:	14:00

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
RANGE	300 - 400	150 - 200	50 - 100

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
DILUENT	GAS	TOTAL	ACTUAL	INDICATED Initial	INDICATED Final	Initial	Final
5000		5000	0.0	-1.4	0.0		
5000		5000	362.3	360.9	361.2	1.000	1.003
5000		5000	151.3	n/a	152.2	n/a	0.994
5000		5000	52.5	n/a	52.2	n/a	1.006

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.997	0.1%

COMMENTS:

Sample filter changed

O3[ppb] Station: AQHI Grimshaw Daily: 12-12-2023 Type: AVG 1 Min. [1 Min.]
400
350
300
250
200
150
100
50
0
-50
O3 [ppb]
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
O3 [ppb]

Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	12-Dec-2023	PREVIOUS CALIBRATION DATE:	15-Nov-2023
CLIENT:	PRAMP	TEMPERATURE (°C):	22.2
LOCATION:	Grimshaw	BAROMETRIC (mBar):	939
PURPOSE	Routine	START TIME (MST):	12:47
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	18:25

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1191032505	1071
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	1.001	1.001	1.001

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	LL68768		HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	CH_4/C_3H_8 (ppm):	897.0	301.0	HIGH EXPIRY:	n/a
ID:	75401122	ID:	4568	CYLINDER (psi):	1900		LOW ID:	n/a
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	Internal	EXPIRY DATE	08-Nov-2029		LOW EXPIRY:	n/a

CALIBRATION PARAMETERS:

POINT (CH4/NMHC)	HIGH	MID	LOW	CH4 EQUIVILANCE	
TARGET	14	7	3.5	C_3H_8 as CH_4	827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH_4	1724.8

EXPECTED (REFERENCE) VALUE:

INITIAL	CH4	NMHC	THC	FINAL	CH4	NMHC	THC
	9.10	10.57	19.68		9.59	11.16	20.75

CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC
3250		3250	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00						
3196	52.80	3249	14.58	13.45	28.03	14.83	13.77	28.61	14.58	13.45	28.03	0.983	0.977	0.980	1.000	1.000	1.000
3223	26.40	3249	7.29	6.73	14.01	n/a	n/a	n/a	7.28	6.75	14.03	n/a	n/a	n/a	1.001	0.996	0.999
3237	13.20	3250	3.64	3.36	7.01	n/a	n/a	n/a	3.67	3.40	7.07	n/a	n/a	n/a	0.993	0.989	0.991

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	0.999	0.0%
NMHC	1.000	0.999	0.1%
THC	1.000	0.999	0.1%

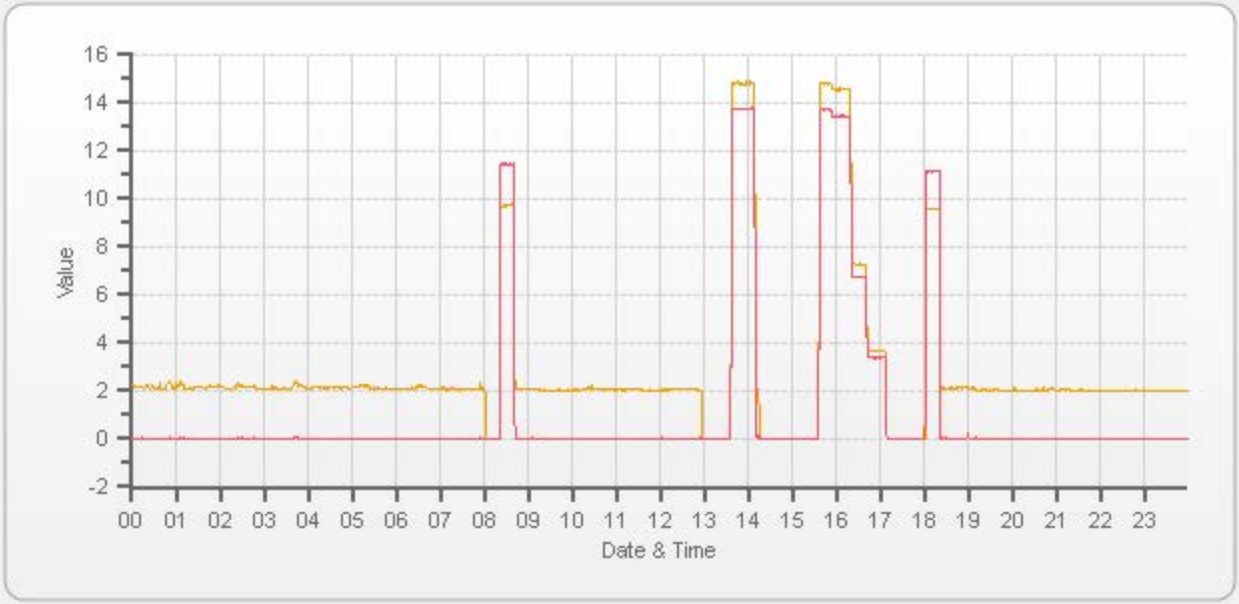
Comments:

H2 = AMA HG300 #190567059

Sample Filter Changed

Use Zero Chrom? **Yes**

Station: AQHI Grimshaw Daily: 12-12-2023 Type: AVG 1 Min. [1 Min.]



Teledyne T640 Audit/Calibration

Date/Previous Audit Date:	December 12, 2023	November 16, 2023	**Weather Conditions:**	Mix of sun and clouds	
Company:	PRAMP		**Start Time (mst):**	15:09	
Station:	Grimshaw		**End Time (mst):**	15:32	
Parameter:	PM 2.5		**Performed By/Reviewer:**	Kevin Sebastian	Limin Li
Instrument Data:					
Make/Model:	Teledyne T640		**Serial Number:**	318	
Owner:	PRAMP		**Alarms (detail in comments):**	Yes	
Reference Standards/I.D./Expiry Date:					

Flow Standard: DeltaCal DC1 #206578, expires Nov 27, 2024 **Temperature:** DeltaCal DC1 #206578, expires Nov 27, 2024

Digital Manometer: DeltaCal DC1 #206578, expires Nov 27, 2024 **Pressure:** DeltaCal DC1 #206578, expires Nov 27, 2024

DIAGNOSTICS:

Ambient Pressure (mmHg)	703.4	Ambient Temp (°C)	-2.3	ASC Heater Duty (%)	0.0
Box Temp (°C)	26.5	Current PMT HV (V)	1527	LED Temp (°C)	34.88
P3 Value	47	PMT Setting (V)	1532	Pump PWM (%)	66
Sample Flow (L/min)	4.91	Sample RH (%RH)	11.8	Sample Temp (°C)	24.3

Item:	As-found		As-left		Tolerance
	Reference	T640x	Reference	T640x	
Zero Test (Leak Check)	PM10	0.0	0	0.0	0.0 to 0.2
	PM2.5	0.0	0	0.0	
Ambient Pressure (mmHg)	702.0	708.4	n/a	n/a	+/- 10 mm Hg
Ambient Temperature (°C)	-2.30	-2.3	n/a		+/- 2°C
Sample Flow (L/min)	5.03	4.98	n/a	n/a	+/-5% of T640x (e.g., 4.75 – 5.25 lpm)
Additional Monthly Maintenance :					***Completed***
				Inlet cleaned?	Yes
				Sample tubing inspected (inner and outer)?	Yes

Quarterly Audit/Calibration:

SpanDust™ Standard	Peak at Channel	Lot No:	Expiry:
	10.9	100128-050-046	1-31-2025

Item:	Verification:		Calibration (if needed):		Tolerance
	Reference	T640x	Reference	T640x	
Peak Channel	10.9	11	10.9	n/a	± 0.5
PMT Setting (V)	n/a	1546	n/a	n/a	n/a
Peak Channel Counts:	n/a	1014	n/a	n/a	n/a

Comments:

Alert: 11/16/2023: System Reset
No issues

Meteorological System Checklist

Date:	December 12, 2023		
Technician:	Kevin Sebastian		
Station:	PRAMP Grimshaw		
Unit:	**Make:**	**Model:**	**Serial #:**
Temperature Sensor:	Vaisala	HMP155	N2910506
Barometric Pressure Sensor:	MetOne	92	A2397
Relative Humidity Sensor:	Vaisala	HMP155	N2910506
Anemometer:	RM Young	05305AQ	174801
AMBIENT TEMPERATURE SENSOR CHECK			
Previous check date:	November 15, 2023		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	F.S. 181341226 expires July 17, 2024		
Reference Temperature (^{o}C):	-2.5		
Station - Ambient Temperature (^{o}C):	-2.3		
Temperature Difference (^{o}C):	-0.2		
BAROMETRIC PRESSURE SENSOR CHECK			
Previous check date:	November 15, 2023		
Reference Barometer ID:	Brunton 05535 Expires July 17, 2024		
Reference Pressure - Units/Reading:	millibar	937.7	
Station Pressure - Units/Reading:	millibar	936	
Pressure Tolerance +/- 15% of error:	797 - 1078	0.18%	
RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK			
Previous check date:	November 15, 2023		
Reference Hygrometer ID:	F.S. 181341226 expires July 17, 2024		
Reference Hygrometer % RH- Reading:	66.70		
Station Hygrometer % RH- Reading:	64.80		
RH Tolerance +/- 15% of difference:	56.70 - 76.71	2.8%	

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK			
WIND SPEED		WIND DIRECTION	
Previous check date:	November 15, 2023	Previous check date:	November 15, 2023
Wind Speed Observed (kph):	5~10	Wind Direction Observed:	W
Wind speed on Data Logger (kph):	9.6	Wind Direction on Data Logger:	W
		Wind Direction Pass/Fail?:	Pass

Comments

No issues

Meteorological Sensor Audit/Calibration

Location Information

Company:	PRAMP	**Performed By:**	Chris Wesson
Audit Location:	Grimshaw	**Reviewed By:**	Limin Li
Audit Date:	August 2, 2023	**Start/End Time (mst):**	14:55 / 16:16
Calibration Purpose:	routine annual	**Weather Conditions:**	Mainly cloudy with sunny breaks

Wind Sensor Information

Sensor ID Data:		**Sensor Outputs:**	
Sensor Make:	RM Young	**Velocity Voltage Output Range:**	n/a
Sensor Model:	05305AQ	**Velocity Unit Output Range:**	0-200
Serial #:	174801	**Direction Voltage Output Range:**	n/a
Previous Cal/Audit Date:	July 12, 2022	**Direction Unit Output Range:**	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# R9133 expires Oct 18, 2024

Wind Speed Audit Data **+/- 2% of the average correction factor is the limit**

RPM	Wind Speed Generated kph	Clockwise Wind Speed kph	Counter Clockwise Wind Speed kph	Correction Factor
0	0	0.0	0.0	-
1000	18.4	18.3	18.3	1.007
2000	36.9	36.7	36.7	1.004
3000	55.3	55.1	55.1	1.003
4000	73.7	73.6	73.6	1.002
5000	92.2	92.0	92.0	1.002
6000	110.6	110.5	110.5	1.001
7000	129.0	128.9	128.9	1.001
8000	147.4	147.3	147.3	1.001
9000	165.9	165.8	165.8	1.000
10000	184.3	184.2	184.2	1.001
		The audit meets AMD requirements.	**Average Correction Factor=**	**1.002**

Wind Direction Audit Data **+/- 3° of the absolute average degrees difference for all points is the limit**

Generated Wind Direction 0-360 (Up)	Generated Wind Direction 360-0 (Down)	Indicated Wind Direction 0-360 (Up)	Indicated Wind Direction 360-0 (Down)	Degrees Difference 0-360 (Up)	Degrees Difference 360-0 (Down)	Average Absolute Degrees Difference
0	355	2	354	2.0	1.0	1.5
30	330	29	333	1.0	-3.0	2.0
60	300	58	300	2.0	0.0	1.0
90	270	88	271	2.0	-1.0	1.5
120	240	119	237	1.0	3.0	2.0
150	210	149	206	1.0	4.0	2.5
180	180	178	177	2.0	3.0	2.5
210	150	206	148	4.0	2.0	3.0
240	120	238	119	2.0	1.0	1.5
270	90	272	87	-2.0	3.0	2.5
300	60	304	57	-4.0	3.0	3.5
330	30	333	30	-3.0	0.0	1.5
355	0	354	1	1.0	1.0	1.0
The audit meets AMD requirements.			**Average Absolute Degrees Difference=**			**2.0**

Comments:

Declination = 15 deg East
Horizontal bearings replaced.
Potentiometer noisy. Replacement required.

END OF REPORT

Peace River Area Monitoring Program

DECEMBER 2023

Ambient Air Monitoring Calibration Report

- PEACE RIVER COMPLEX (PRC) STATION-

CAL-PRAMP-202312-01698

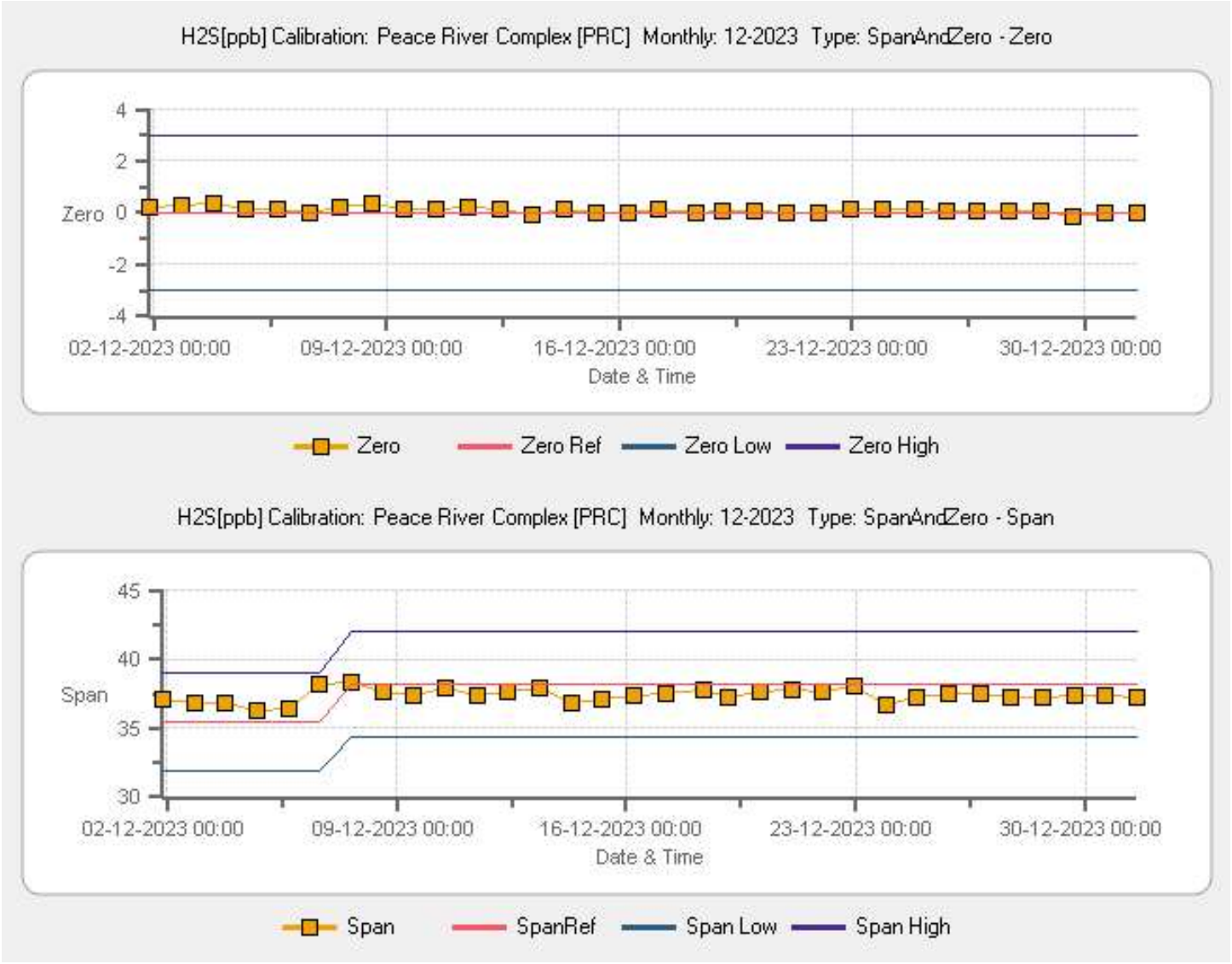
Operation and Maintenance:
Bureau Veritas Canada

Data Validation and Report:
Bureau Veritas Canada

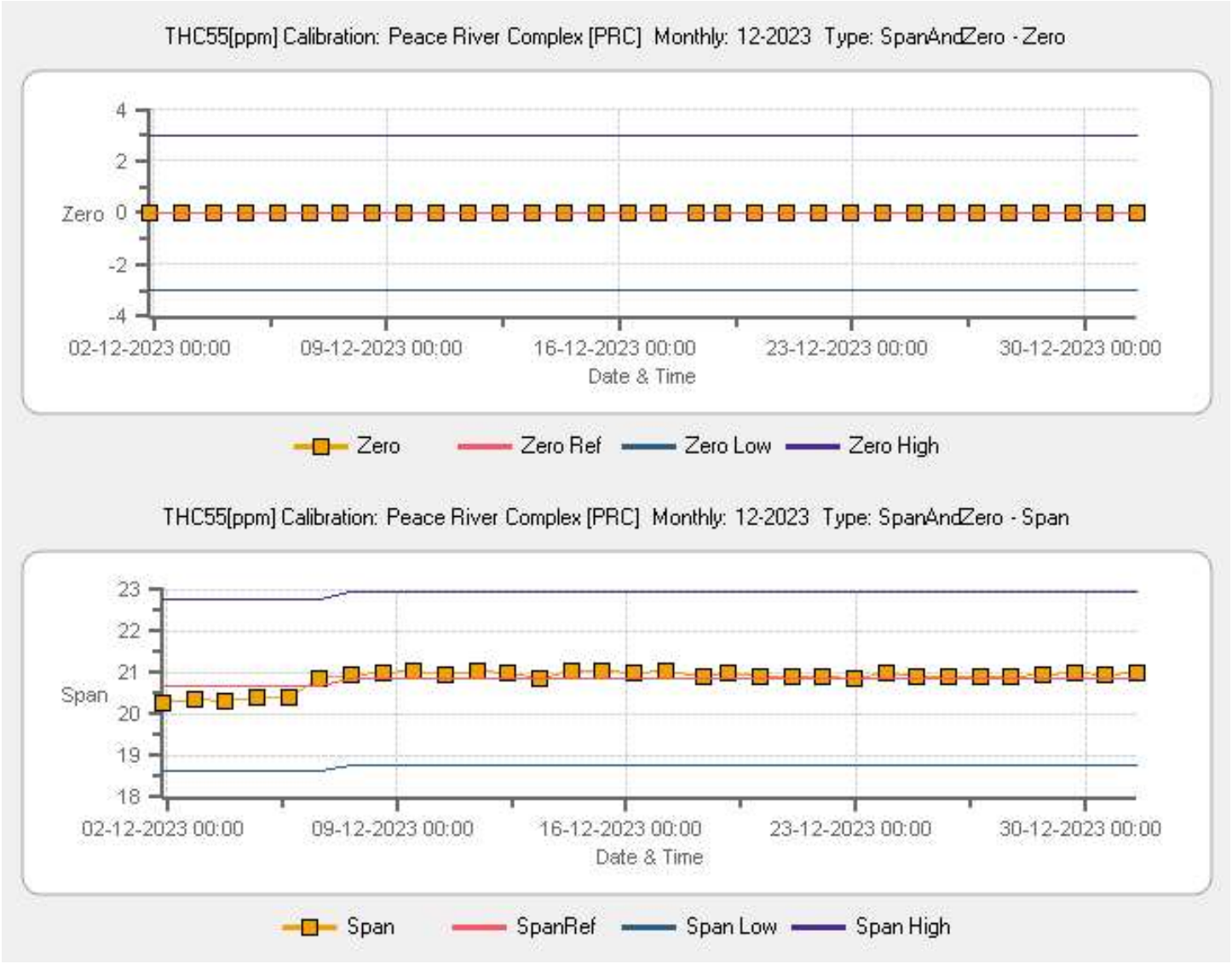
January 6, 2024

DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

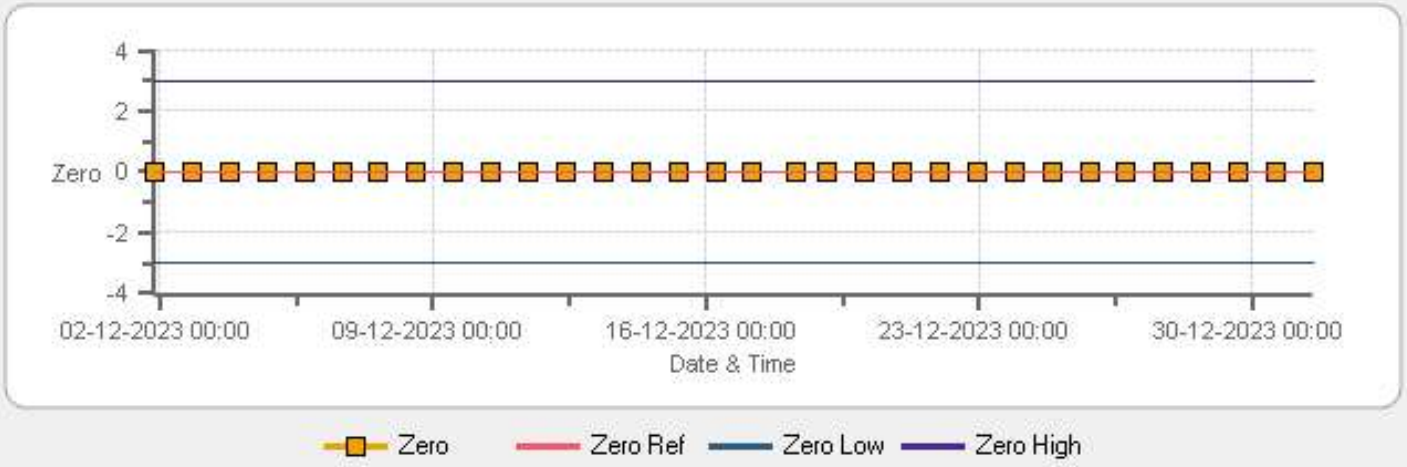
SO2[ppb] Calibration: Peace River Complex [PRC] Monthly: 12-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
SO2[ppb] Calibration: Peace River Complex [PRC] Monthly: 12-2023 Type: SpanAndZero - Span
300
290
280
Span 270
260
250
240
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High


H2S[ppb] Calibration: Peace River Complex [PRC] Monthly: 12-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
H2S[ppb] Calibration: Peace River Complex [PRC] Monthly: 12-2023 Type: SpanAndZero - Span
45
40
Span
35
30
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High

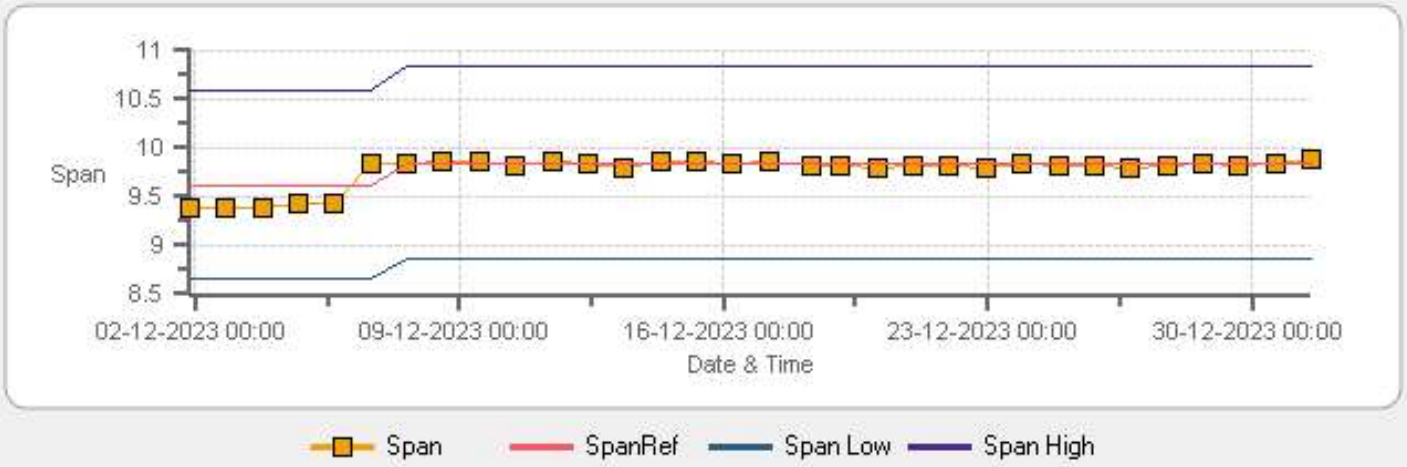
TRS[ppb] Calibration: Peace River Complex [PRC] Monthly: 12-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
TRS[ppb] Calibration: Peace River Complex [PRC] Monthly: 12-2023 Type: SpanAndZero - Span
65
60
Span 55
50
45
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High

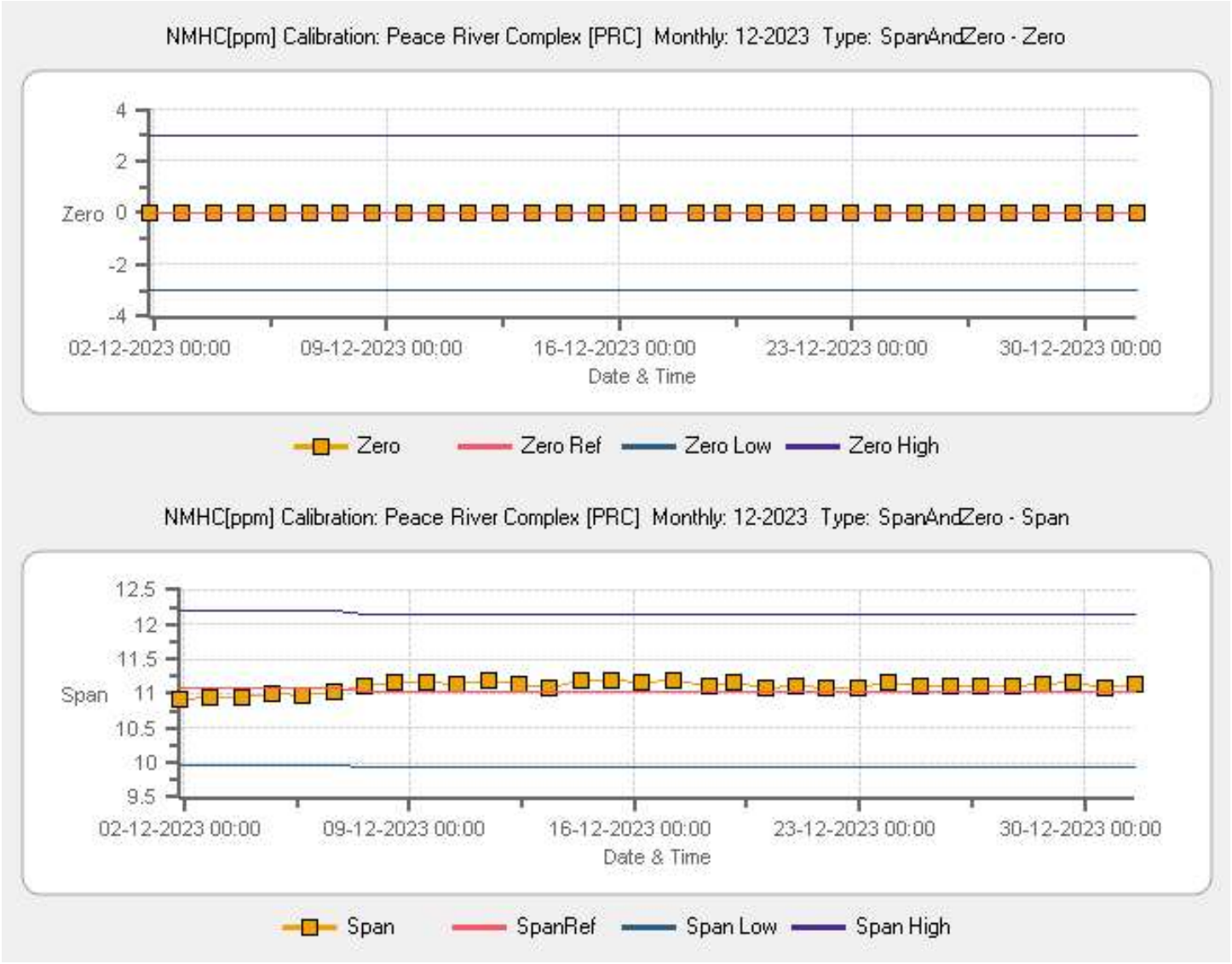

THC55[ppm] Calibration: Peace River Complex [PRC] Monthly: 12-2023 Type: SpanAndZero - Zero
Zero
4
2
0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
THC55[ppm] Calibration: Peace River Complex [PRC] Monthly: 12-2023 Type: SpanAndZero - Span
Span
23
22
21
20
19
18
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High

CH4[ppm] Calibration: Peace River Complex [PRC] Monthly: 12-2023 Type: SpanAndZero - Zero



CH4[ppm] Calibration: Peace River Complex [PRC] Monthly: 12-2023 Type: SpanAndZero - Span




NMHC[ppm] Calibration: Peace River Complex [PRC] Monthly: 12-2023 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
NMHC[ppm] Calibration: Peace River Complex [PRC] Monthly: 12-2023 Type: SpanAndZero - Span
12.5
12
11.5
Span 11
10.5
10
9.5
02-12-2023 00:00
09-12-2023 00:00
16-12-2023 00:00
23-12-2023 00:00
30-12-2023 00:00
Date & Time
Span
SpanRef
Span Low
Span High

MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution

DATE:	06-Dec-2023	PREVIOUS CALIBRATION DATE:	01-Nov-2023
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	0.999
CLIENT:	PRAMP	TEMPERATURE (°C):	21.4
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	932
PURPOSE	Routine	START TIME (MST):	10:36
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	15:44

ANALYZER:

MAKE/MODEL	Thermo 43i	RANGE	500 ppb
SERIAL #	1034746225	FLOW (mL/min)	436
INITIAL		FINAL	
BKG/OFFSET	19.9	BKG/OFFSET	20.2
COEF/SLOPE	1.147	COEF/SLOPE	1.151
Expected (reference) Value	269.6	Expected (reference) Value	272

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	5004
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL109693	HIGH ID	n/a
CONC (ppm):	25.00	EXPIRY DATE	n/a
CYLINDER (psi):	1600	LOW ID	n/a
EXPIRY DATE	02-Nov-2025	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	390	190	95
RANGE	300 - 400	150 - 200	50 - 100

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
3999		3999	0.00	0	0		
3939	60.80	4000	380.00	381.7	382.1	0.996	0.995
3970	28.80	3999	180.05	n/a	181.5	n/a	0.992
3985	14.40	3999	90.02	n/a	90.4	n/a	0.996

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.006	0.0%

COMMENTS:

Sample filter changed.

SO2[ppb] Station: Peace River Complex [PRC] Daily: 06-12-2023 Type: AVG 1 Min. [1 Min.]
400
350
300
250
200
150
100
50
0
SO2 [ppb]
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
SO2 [ppb]

H2S Analyzer Calibration by Dilution

DATE:	06-Dec-2023	PREVIOUS CALIBRATION DATE:	01-Nov-2023
PARAMETER:	H2S	PREVIOUS CORRECTION FACTOR:	0.999
CLIENT:	PRAMP	TEMPERATURE (°C):	21.4
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	932
PURPOSE	Routine	START TIME (MST):	10:36
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	15:44

ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	1308857354	FLOW (mL/min)	931
INITIAL		FINAL	
BKG/OFFSET	14.9	BKG/OFFSET	15.7
COEF/SLOPE	1.045	COEF/SLOPE	1.091
Expected (reference) Value	35.4	Expected (reference) Value	38.2

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL131374	HIGH ID	n/a
CONC (ppm):	10.09	EXPIRY DATE	n/a
CYLINDER (psi):	1800	LOW ID	n/a
EXPIRY DATE	03-Jan-2026	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

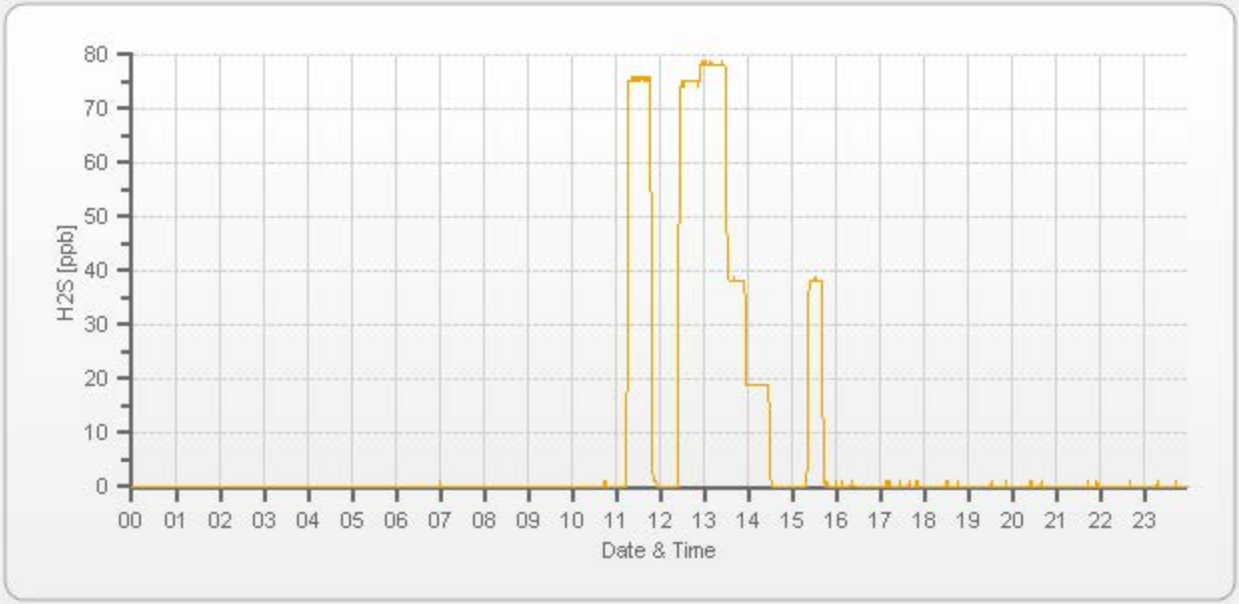
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
3999		3999	0.00	0.2	0		
3969	30.90	4000	77.95	75.7	78.1	1.032	0.998
3984	15.10	3999	38.10	n/a	38.1	n/a	1.000
3992	7.50	3999	18.92	n/a	19.1	n/a	0.991

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	0.0%

COMMENTS:

Sample filter changed


H2S[ppb] Station: Peace River Complex [PRC] Daily: 06-12-2023 Type: AVG 1 Min. [1 Min.]
H2S [ppb]
80
70
60
50
40
30
20
10
0
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
H2S [ppb]

TRS Analyzer Calibration by Dilution

DATE:	06-Dec-2023	PREVIOUS CALIBRATION DATE:	02-Nov-2023
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	0.996
CLIENT:	PRAMP	TEMPERATURE (°C):	21.4
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	932
PURPOSE	Routine	START TIME (MST):	10:36
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	15:44

ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	1034746224	FLOW (mL/min)	700
INITIAL		FINAL	
BKG/OFFSET	26.4	BKG/OFFSET	28.2
COEF/SLOPE	1.023	COEF/SLOPE	1.083
Expected (reference) Value	51.25	Expected (reference) Value	55.14

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Sabio	MAKE:	Teledyne
MODEL:	2010	MODEL:	M701
ID:	75401122	ID:	4568
MFC CALIBRATION DATE:	08-Sep-2023	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL131374	HIGH ID	n/a
CONC (ppm):	10.09	EXPIRY DATE	n/a
CYLINDER (psi):	1800	LOW ID	n/a
EXPIRY DATE	03-Jan-2026	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

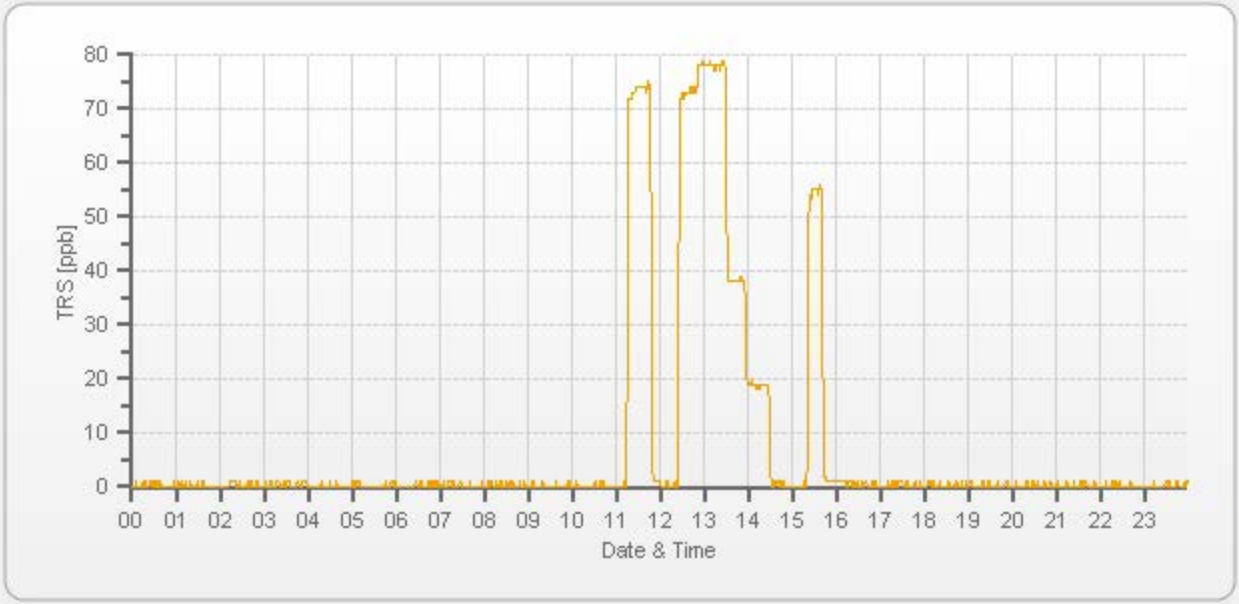
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
3999		3999	0.00	0.02	0		
3969	30.90	4000	77.95	74.06	77.97	1.053	1.000
3984	15.10	3999	38.10	n/a	38.1	n/a	1.000
3992	7.50	3999	18.92	n/a	18.82	n/a	1.005

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	0.0%

COMMENTS:

TRS Converter CDNOVA CDN-101 #516


TRS[ppb] Station: Peace River Complex [PRC] Daily: 06-12-2023 Type: AVG 1 Min. [1 Min.]
TRS [ppb]
80
70
60
50
40
30
20
10
0
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
TRS [ppb]

Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	06-Dec-2023	PREVIOUS CALIBRATION DATE:	01-Nov-2023
CLIENT:	PRAMP	TEMPERATURE (°C):	21.4
LOCATION:	Peace River Compliance	BAROMETRIC (mBar):	932
PURPOSE	Routine	START TIME (MST):	10:36
PERFORMED BY:	Kevin Sebastian	END TIME (MST):	15:44

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1034745845	1088
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	1.001	1.001	1.001

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	Teledyne	CYLINDER ID:	LL68768		HIGH ID:	n/a
MODEL:	2010	MODEL:	M701	CH_4/C_3H_8 (ppm):	897.0	301.0	HIGH EXPIRY:	n/a
ID:	26801218	ID:	4568	CYLINDER (psi):	1600		LOW ID:	n/a
MFC CALIBRATION DATE:	12-Sep-2023	OXIDIZER ID:	Internal	EXPIRY DATE	08-Nov-2029		LOW EXPIRY:	n/a

CALIBRATION PARAMETERS:

POINT (CH4/NMHC)	HIGH	MID	LOW	CH4 EQUIVILANCE	
TARGET	14	7	3.5	C_3H_8 as CH_4	827.8
RANGE	12 - 16	6 - 8	2 - 4	THC as CH_4	1724.8

EXPECTED (REFERENCE) VALUE:

INITIAL	CH4	NMHC	THC	FINAL	CH4	NMHC	THC
	9.62	11.08	20.70		9.85	11.03	20.88

CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC
3099		3099	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
3049	50.30	3099	14.56	13.44	27.99	14.27	13.44	27.72	14.61	13.47	28.08	1.020	1.000	1.010	0.997	0.997	0.997
3074	25.10	3099	7.27	6.70	13.97	n/a	n/a	n/a	7.31	6.74	14.05	n/a	n/a	n/a	0.994	0.995	0.994
3085	12.60	3098	3.65	3.37	7.01	n/a	n/a	n/a	3.67	3.39	7.06	n/a	n/a	n/a	0.994	0.993	0.994

LINEAR REGRESSION ANALYSIS:

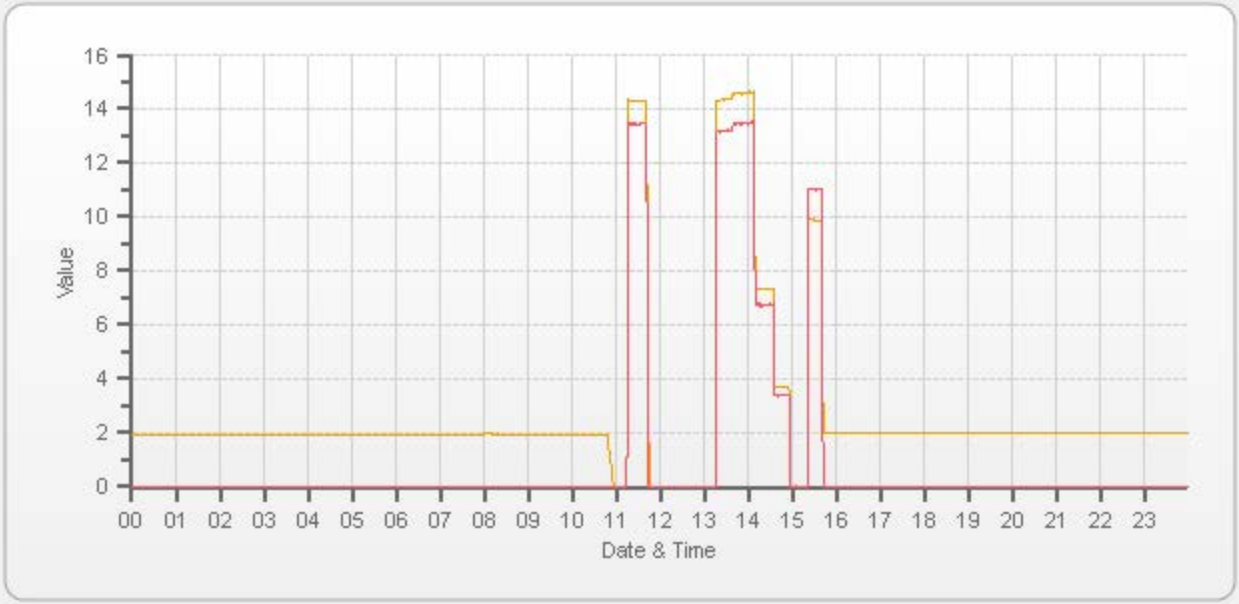
	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	1.003	0.0%
NMHC	1.000	1.002	0.0%
THC	1.000	1.003	0.0%

Comments:

H2 Dessicant changed after AF high.
H2 = AMA HG300 #211067076

Use Zero Chrom? **No**

Station: Peace River Complex [PRC] Daily: 06-12-2023 Type: AVG 1 Min. [1 Min.]



Meteorological System Checklist

Date:	December 6, 2023		
Technician:	Kevin Sebastian		
Station:	Peace River Compliance		
Unit:	**Make:**	**Model:**	**Serial #:**
Precipitation Sampler:	RM Young	52202	TB 16325
Temperature Sensor:	Rotronic	HC2-S3	20558318
Barometric Pressure Sensor:	MetOne	092	B19577
Relative Humidity Sensor:	Rotronic	HC2-S3	20558318
Anemometer:	RM Young	05305VK	129612
AMBIENT TEMPERATURE SENSOR CHECK			
Previous check date:	November 1, 2023		
Parameter:	Temperature @ 2 metres		
Reference Thermometer ID:	F.S. 181341226 expires July 17, 2024		
Reference Temperature (°C):	3.2		
Station - Ambient Temperature (°C):	3.0		
Temperature Difference (°C):	0.2		
BAROMETRIC PRESSURE SENSOR CHECK			
Previous check date:	November 1, 2023		
Reference Barometer ID:	Brunton 05535 Expires July 17, 2024		
Reference Pressure - Units/Reading:	millibar	928.3	
Station Pressure - Units/Reading:	millibar	931	
Pressure Tolerance +/- 15% of error:	789 - 1068	-0.29%	
RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK			
Previous check date:	November 1, 2023		
Reference Hygrometer ID:	F.S. 181341226 expires July 17, 2024		
Reference Hygrometer % RH- Reading:	60.70		
Station Hygrometer % RH- Reading:	65.70		
RH Tolerance +/- 15% of difference:	51.60 - 69.81	-8.2%	

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK			
WIND SPEED		WIND DIRECTION	
Previous check date:	November 1, 2023	Previous check date:	November 1, 2023
Wind Speed Observed (kph):	10~20	Wind Direction Observed:	W
Wind speed on Data Logger (kph):	12	Wind Direction on Data Logger:	W
		Wind Direction Pass/Fail?:	Pass

Comments

No issues.

Meteorological Sensor Audit/Calibration

Location Information

Company:	PRAMP	**Performed By:**	Chris Wesson
Audit Location:	PRC Compliance	**Reviewed By:**	Limin Li
Audit Date:	August 3, 2023	**Start/End Time (mst):**	10:40 / 11:32
Calibration Purpose:	routine annual	**Weather Conditions:**	Mainly cloudy with drizzle

Wind Sensor Information

Sensor ID Data:		**Sensor Outputs:**	
Sensor Make:	RM Young	**Velocity Voltage Output Range:**	0-1
Sensor Model:	05305VK	**Velocity Unit Output Range:**	0-200
Serial #:	129612	**Direction Voltage Output Range:**	0-1
Previous Cal/Audit Date:	August 17, 2022	**Direction Unit Output Range:**	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# R9133 expires Oct 18, 2024

Wind Speed Audit Data **+/- 2% of the average correction factor is the limit**

RPM	Wind Speed Generated kph	Clockwise Wind Speed kph	Counter Clockwise Wind Speed kph	Correction Factor
0	0	0.1	0.1	-
1000	18.4	18.6	18.5	0.994
2000	36.9	37.1	37.0	0.995
3000	55.3	55.5	55.4	0.997
4000	73.7	74.0	73.8	0.998
5000	92.2	92.5	92.4	0.997
6000	110.6	111.0	111.0	0.996
7000	129.0	129.6	129.6	0.995
8000	147.4	148.0	148.3	0.995
9000	165.9	166.7	166.6	0.995
10000	184.3	185.3	185.3	0.995
		The audit meets AMD requirements.	**Average Correction Factor=**	**0.996**

Wind Direction Audit Data **+/- 3° of the absolute average degrees difference for all points is the limit**

Generated Wind Direction 0-360 (Up)	Generated Wind Direction 360-0 (Down)	Indicated Wind Direction 0-360 (Up)	Indicated Wind Direction 360-0 (Down)	Degrees Difference 0-360 (Up)	Degrees Difference 360-0 (Down)	Average Absolute Degrees Difference
0	355	0	352	0.0	3.0	1.5
30	330	31	328	-1.0	2.0	1.5
60	300	59	298	1.0	2.0	1.5
90	270	90	270	0.0	0.0	0.0
120	240	120	240	0.0	0.0	0.0
150	210	151	210	-1.0	0.0	0.5
180	180	180	180	0.0	0.0	0.0
210	150	211	150	-1.0	0.0	0.5
240	120	241	120	-1.0	0.0	0.5
270	90	271	91	-1.0	-1.0	1.0
300	60	299	59	1.0	1.0	1.0
330	30	328	29	2.0	1.0	1.5
355	0	353	1	2.0	1.0	1.5
The audit meets AMD requirements.			**Average Absolute Degrees Difference=**			**0.8**

Comments:

Declination = 15 deg East
Physical inspection completed, bearings replaced

END OF REPORT

List of SOPs

MONITOR	SOP
SULPHUR DIOXIDE (SO_2)	Bureau Veritas EMS SOP-00209: Ambient Sulphur Monitoring
HYDROGEN SULPHIDE (H_2S)	Bureau Veritas EMS SOP-00209: Ambient Sulphur Monitoring
TOTAL REDUCED SULPHUR (TRS)	Bureau Veritas EMS SOP-00209: Ambient Sulphur Monitoring
TOTAL HYDROCARBONS (THC), METHANE (CH4), NON-METHANE(NMHC)	Bureau Veritas EMS SOP-00001: Methane, Non-Methane Hydrocarbon Analyzer Monitoring
OXIDES OF NITROGEN (NOx), NITRIC OXIDE (NO) & NITROGEN DIOXIDE (NO_2)	Bureau Veritas EMS SOP-00213: Ambient NO/NO_2/NOx Monitoring
OZONE (O3)	Bureau Veritas EMS SOP-00212: Ambient O3 Monitoring
PARTICULATE MATTER < 2.5 MICRONS ($PM_{2.5}$)	Bureau Veritas EMS SOP-00015: Teledyne API PM Monitor Model T640
WIND SPEED (WS) & WIND DIRECTION (WD)	Bureau Veritas EMS SOP-00013: RM Young Wind Monitor Calibration

Peace River Area Monitoring Program

DECEMBER 2023

Monthly Ambient Air Quality Monitoring Integrated Sampling Report

PRAMP-202312-INTEGRATED

January 12, 2024

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January 12, 2024

Alberta Environment and Protected Areas (EPA)
11th Floor, Oxbridge Place
9820 106 Street
Edmonton, AB, T5K 2J6

RE: PRAMP –December 2023 Monthly Ambient Air Quality Monitoring Integrated Sampling Report

Enclosed is the December 2023 Monthly Ambient Air Quality Monitoring Integrated Sampling Report for the Peace River Area Monitoring Program's (PRAMP) regional air quality monitoring network. This report summarizes monitoring data for samples collected using integrated methods, including volatile organic compounds (NMHC canister sampling program), hydrogen sulphide, and sulphur dioxide (passive sampling program).

The representative of the Person Responsible for this monitoring program is

PRAMP Airshed
Michael Bisaga / Lily Lin, Technical Program Managers
Suite 91, 305 – 4625 Varsity Drive NW
Calgary, AB, T3A 0Z9
Phone #: 780-226-7068 / 587-225-2248
E-mail: pramptech@prampairshed.ca

This report has been prepared, reviewed and submitted by Michael Bisaga & Lily Lin of the PRAMP Airshed. This report is also submitted on behalf of the industrial member companies to satisfy the requirements of the facility Operating Approvals.

NETWORK STATION SUMMARY

Listing of Integrated Sampling Stations

- 986-C Station
- 842-B Station
- Reno-B Station
- Peace River Complex (PRC) Station

Station Name	986-C	842-B	Reno-B	PRC
Station ID	1562	1561	1563	1698
Coordinates	56.36980, -116.92500	56.27406, -116.98129	55.86936, -117.05739	56.38257, -116.769283
NMHC Canister (VOCs)	√	√	√	
Passives: 2-Month exposure (PACs)	√			
Passives: 1-Month Exposure (H_2S, SO_2)				√

Listing of Passives: 1-Month Exposure Sampling Sites

Site ID	Latitude	Longitude
1	56.377841	-116.787142
2	56.378638	-116.780496
3	56.382958	-116.783813
4	56.377044	-116.794220
7	56.384796	-116.780488
8	56.388710	-116.771234
9	56.388943	-116.756205
10	56.388642	-116.797817
11	56.383771	-116.841165
12	56.388962	-116.885263
13	56.390972	-116.822083
14	56.424825	-116.853181

List of Contractors who performed the air monitoring activities

Sampling Program	Monitoring Activities Conducted By	Sample Analysis Conducted By	Data/Report Prepared By	Electronic Submission Conducted By
NMHC Canister (VOCs)	Bureau Veritas	InnoTech Alberta Inc	PRAMP	PRAMP
Passives: PACs	PRAMP	ECCC	AEP	AEP
Passives: H_2S, SO_2	PRAMP	Bureau Veritas	PRAMP	PRAMP

Monitoring Notes during the Month of December 2023

- **NMHC Canister Sampling Program - Volatile Organic Compounds (VOCs)**
  - The canister sampling program collects a 1-hour sample of air when the continuously measured non-methane hydrocarbon (NMHC) concentration reaches a specified trigger point. The current trigger point is 0.3 ppm for non-methane hydrocarbons. The trigger point is based on real-time monitoring data that are averaged over a 5-minute period.
  - There were no valid canister events recorded this month. The canister system was triggered at the 986-C station on December 26 at 03:35due to an analyzer issue. The event is not valid.

- **Passive Polycyclic Aromatic Compounds (PACs) Sampling Program**
  - The PAC sampling program began in December 2019, and is designed to collect a 2-month integrated sample.
  - The sample media for sampling period of November and December were installed on October 31. They were removed on December 31.
  - The sample media for sampling period of January and February 2024 were installed on December 31. They are scheduled to be removed by the end February.

- **Passives H_2S and SO_2 Sampling Program**
  - The passive sample filters were installed at the stations on December 1 and were removed on December 29.

Revisions to Alberta's Ambient Air Quality Data Warehouse

No revisions to historical data previously submitted to the Alberta's Ambient Air Quality Data Warehouse were made this month.

Deviations from Authorized Monitoring Methods

There were no deviations from authorized monitoring methods.

Certification

The report was prepared and submitted by Lily Lin in accordance with Chapter 9 of the Air Monitoring Directive (AMD 2016).

Lily Lin, Technical Program Manager, PRAMP Airshed

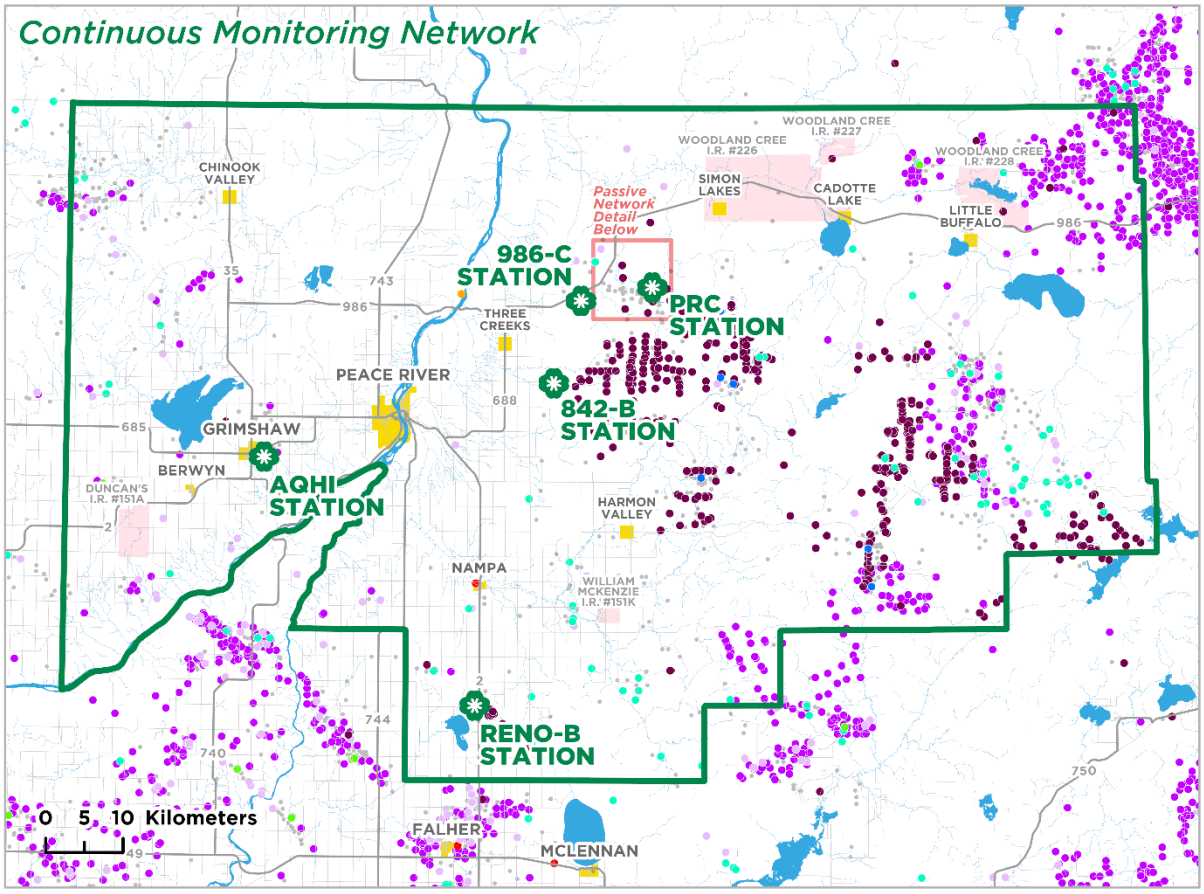
The report was reviewed by Mike Bisaga in accordance with Chapter 9 of the Air Monitoring Directive (AMD 2016).

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. I also certify that at the time of this report's submission, all air data have been electronically uploaded to Alberta ETS as required by the AMD.

Michael Bisaga, Technical Program Manager, PRAMP Airshed

January 12, 2024

Map of PRAMP Continuous Monitoring and Integrated Sampling Network

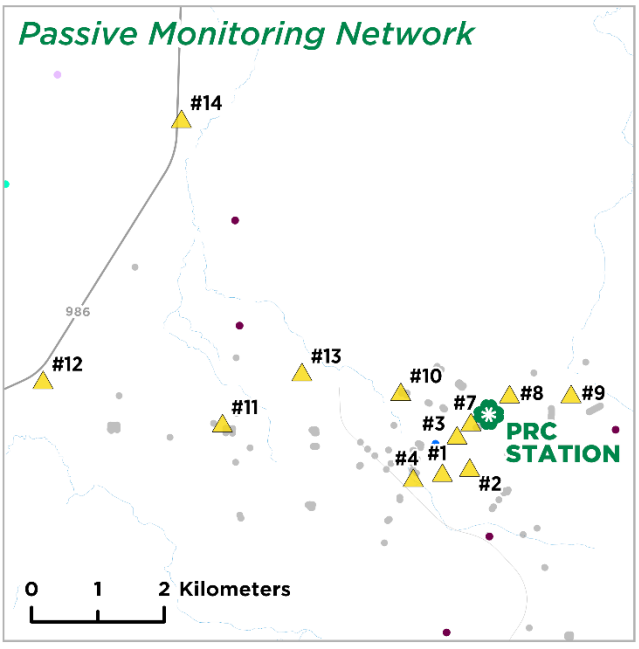


Legend

- PRAMP Boundary
- Populated Place
- First Nation
- Continuous Monitoring Station
- Passive Monitoring Station

Industrial Facilities

- In-Situ Oil Sands
- Heavy Oil/Bitumen Well or Battery
- Conventional Oil Well or Battery
- Natural Gas Well or Battery
- Gas Plant or Gas Processing
- Compressor Station or Pipeline
- Agricultural Storage and Transfer
- Pulp and Paper
- Well (Not Associated with Batteries)



Service Layer Credits: Esri, CGIAR, USGS, Esri, USGS

INTEGRATED SAMPLING RESULTS SUMMARY

- **NMHC analytical results**
  No analytical results are attached as there were canister events recorded this month**.**

- **Passive analytical results**

	H_2S		SO_2	
Minimum (ppb)	0.10	#1	0.2	#1
Maximum (ppb)	0.23	#14	0.5	#2
Average (ppb)	0.15	-	0.31	-

ANALYTICAL SAMPLING RESULTS

NMHC Canisters – VOCs

Passives

End of Report

Peace River Area Monitoring Program

DECEMBER 2023

Ambient Air Monitoring

Certified Laboratory Analysis Report

LAB-PRAMP-202312

Operation and Maintenance:
Bureau Veritas Canada

Data Validation and Report:
Peace River Area Monitoring Program

January 6, 2024

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NMHC Canister Analytical Results

Passive Sampling Analytical Results

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